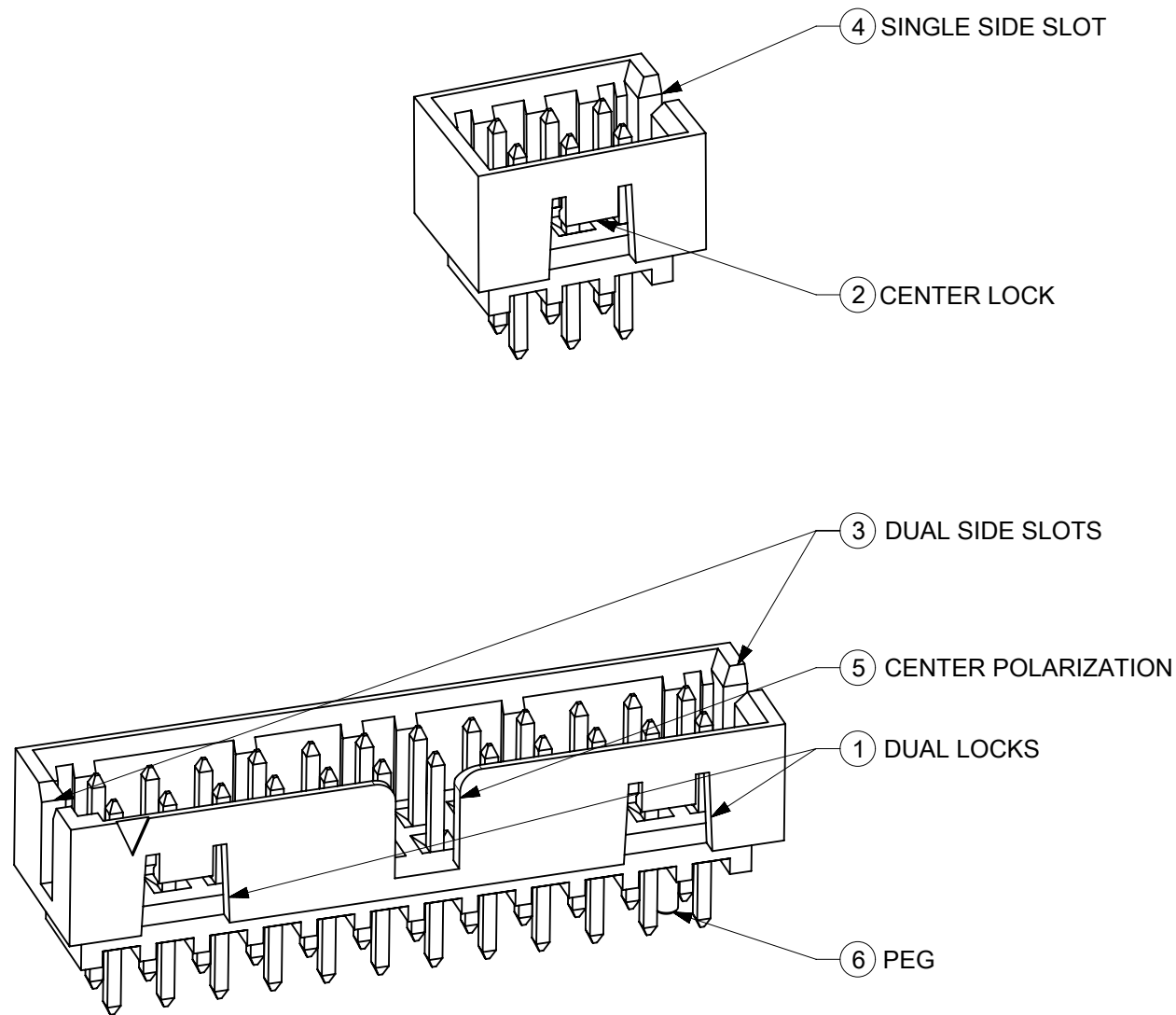


## FEATURES SELECTION GUIDE



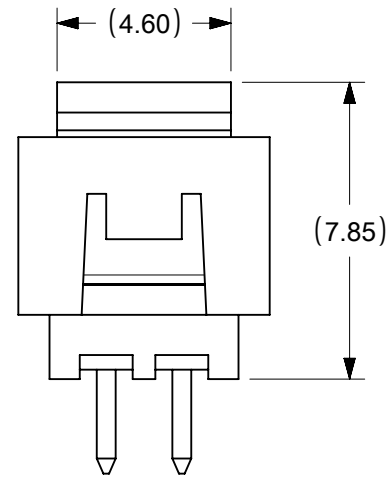
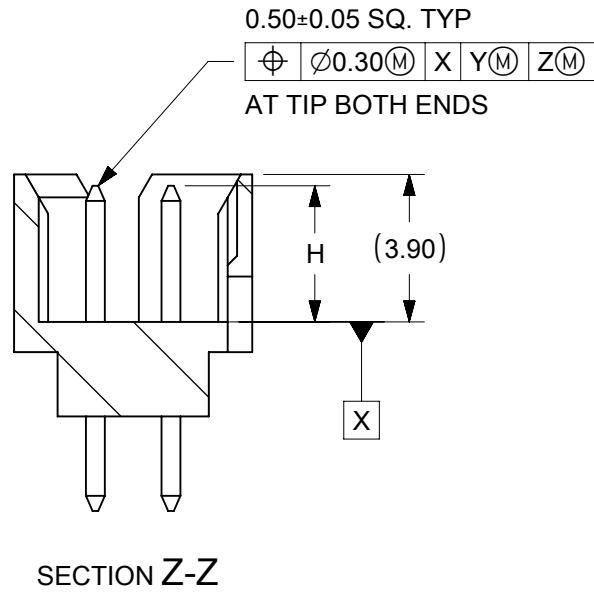
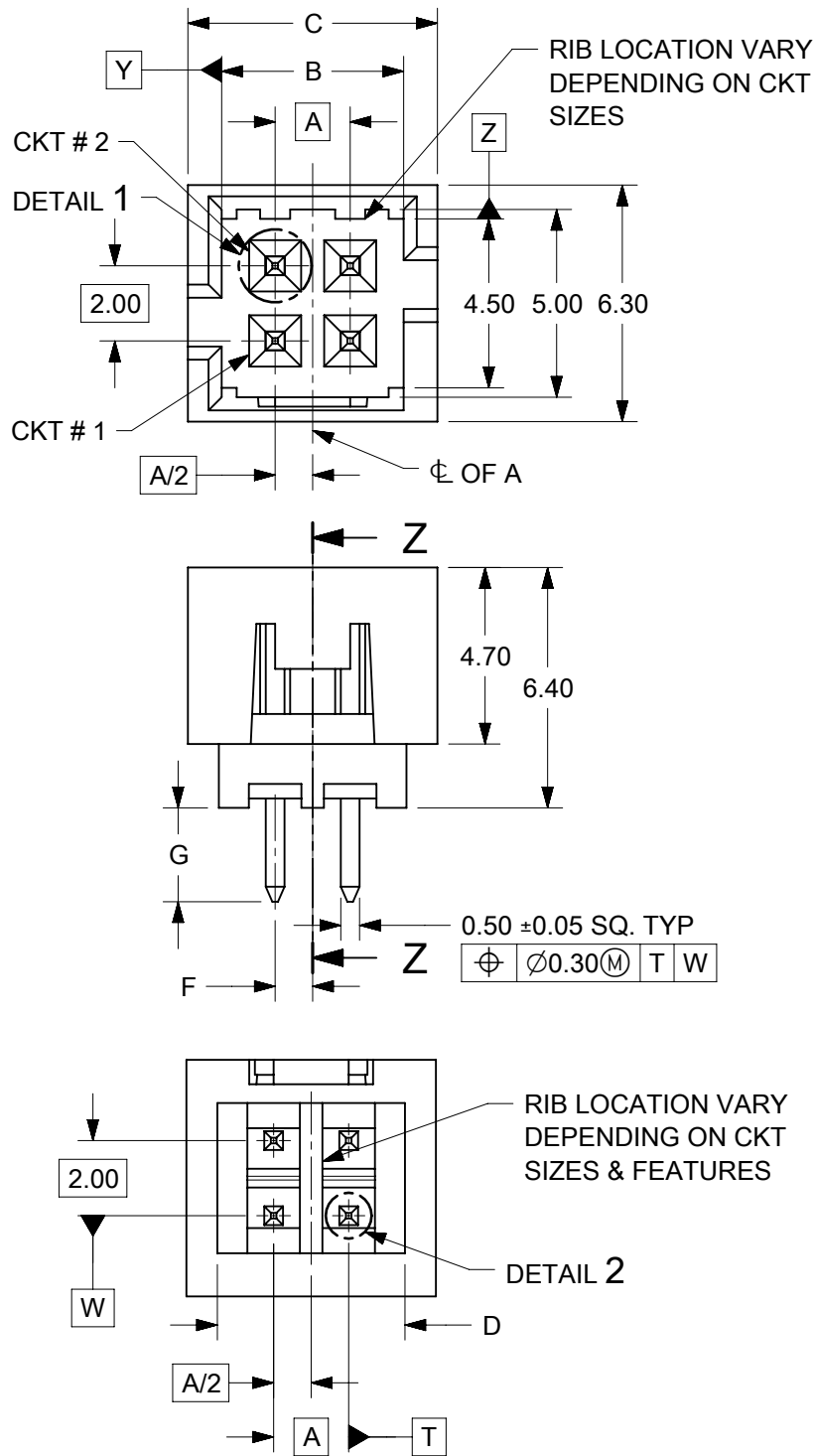
## PACKAGING SPECIFICATION TABLE

|                                                                                                                                                                                      |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| TAPE AND REEL PACKAGING                                                                                                                                                              | PK-87831-300 |
| TUBE STANDARD PACKAGING                                                                                                                                                              | PK-87831-001 |
| TUBE NON-STANDARD PACKAGING FOR:<br>87831-0419      87831-0645<br>87831-5141      87831-5119<br>87831-0443      87831-1011<br>87831-5241      87831-1420<br>87831-5242<br>87831-0643 | PK-87831-002 |

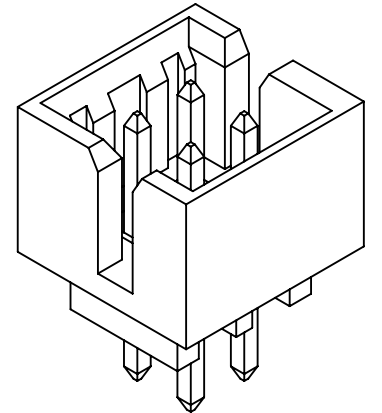
| FEATURES        |                |          |            |          |                          |       |             |
|-----------------|----------------|----------|------------|----------|--------------------------|-------|-------------|
| CIRCUIT<br>SIZE | FRICTION LOCKS |          | SIDE SLOTS |          | ⑤ CENTER<br>POLARIZATION | ⑥ PEG | SHEET<br>NO |
|                 | ① DUAL         | ② CENTER | ③ DUAL     | ④ SINGLE |                          |       |             |
| 4               | N.A            | N.A      | YES        | N.A      | N.A                      | N.A   | 2 - 3       |
|                 | N.A            | YES      | YES        | N.A      | N.A                      | N.A   |             |
|                 | N.A            | YES      | N.A        | YES      | N.A                      | N.A   |             |
| 6               | N.A            | N.A      | YES        | N.A      | N.A                      | N.A   | 4 - 5       |
|                 | N.A            | N.A      | YES        | N.A      | N.A                      | YES   |             |
|                 | N.A            | YES      | YES        | N.A      | N.A                      | N.A   |             |
|                 | N.A            | YES      | YES        | N.A      | N.A                      | YES   |             |
|                 | N.A            | YES      | N.A        | YES      | N.A                      | N.A   |             |
|                 | N.A            | YES      | N.A        | YES      | N.A                      | YES   |             |
|                 | N.A            | N.A      | YES        | N.A      | YES                      | N.A   |             |
| 8 TO 12         | N.A            | N.A      | YES        | N.A      | YES                      | N.A   | 6 - 8       |
|                 | N.A            | N.A      | YES        | N.A      | YES                      | YES   |             |
|                 | N.A            | YES      | YES        | N.A      | N.A                      | N.A   |             |
|                 | N.A            | YES      | YES        | N.A      | N.A                      | YES   |             |
|                 | N.A            | YES      | N.A        | YES      | N.A                      | N.A   |             |
|                 | N.A            | YES      | N.A        | YES      | N.A                      | YES   |             |
| 14 TO 50        | YES            | N.A      | YES        | N.A      | YES                      | N.A   | 9 - 13      |
|                 | YES            | N.A      | YES        | N.A      | YES                      | YES   |             |

|                                                                                                                                               |    |       |   |                                                                    |  |  |  |                                                               |  |          |  |
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| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |    |       |   |                                                                    |  |  |  |                                                               |  |          |  |
| DIMENSION UNITS                                                                                                                               |    | SCALE |   | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. |  |  |  | <div>molex</div>                                              |  |          |  |
| mm                                                                                                                                            |    | NTS   |   |                                                                    |  |  |  |                                                               |  |          |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |    |       |   |                                                                    |  |  |  | MILLIGRID<br>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |  |          |  |
|                                                                                                                                               | MM | INCH  |   |                                                                    |  |  |  |                                                               |  |          |  |
| 4 PLACES                                                                                                                                      | ±  |       | ± |                                                                    |  |  |  | PRODUCT CUSTOMER DRAWING                                      |  |          |  |
| 3 PLACES                                                                                                                                      | ±  |       | ± | DOCUMENT NUMBER<br>SD-87831-0001                                   |  |  |  |                                                               |  |          |  |
| 2 PLACES                                                                                                                                      | ±  | 0.2   | ± |                                                                    |  |  |  |                                                               |  |          |  |
| 1 PLACE                                                                                                                                       | ±  |       | ± | DOC PART<br>001                                                    |  |  |  |                                                               |  |          |  |
| 0 PLACES                                                                                                                                      | ±  |       | ± |                                                                    |  |  |  |                                                               |  |          |  |
| ANGULAR TOL ± 3.0 °                                                                                                                           |    |       |   | DOCUMENT NUMBER                                                    |  |  |  | DOC TYPE                                                      |  | DOC PART |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |    |       |   | INITIAL REVISION:                                                  |  |  |  | SD-87831-0001                                                 |  |          |  |
| THIRD ANGLE PROJECTION                                                                                                                        |    |       |   | DRWN: GMENARLY                                                     |  |  |  | DOC TYPE                                                      |  |          |  |
| DRAWING                                                                                                                                       |    |       |   | APPR: KHLIM                                                        |  |  |  | DOC PART                                                      |  |          |  |
| SERIES                                                                                                                                        |    |       |   | 2015/04/15                                                         |  |  |  | REVISION                                                      |  |          |  |
| MATERIAL NUMBER                                                                                                                               |    |       |   | 2015/06/29                                                         |  |  |  | SD-87831-0001                                                 |  |          |  |
| CUSTOMER                                                                                                                                      |    |       |   | A3-SIZE                                                            |  |  |  | PSD                                                           |  |          |  |
| SHEET NUMBER                                                                                                                                  |    |       |   | 87831                                                              |  |  |  | 001                                                           |  |          |  |
| SEE TABLE                                                                                                                                     |    |       |   | 2015/06/29                                                         |  |  |  | A24                                                           |  |          |  |
| GENERAL MARKET                                                                                                                                |    |       |   | DRAWING                                                            |  |  |  | SERIES                                                        |  |          |  |
| 1 OF 14                                                                                                                                       |    |       |   | A3-SIZE                                                            |  |  |  | MATERIAL NUMBER                                               |  |          |  |
|                                                                                                                                               |    |       |   | 87831                                                              |  |  |  | CUSTOMER                                                      |  |          |  |
|                                                                                                                                               |    |       |   |                                                                    |  |  |  | SHEET NUMBER                                                  |  |          |  |

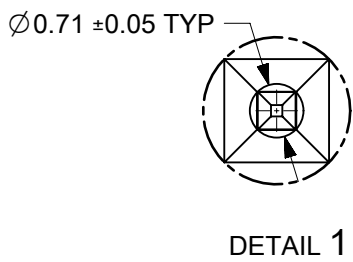
4 CIRCUITS



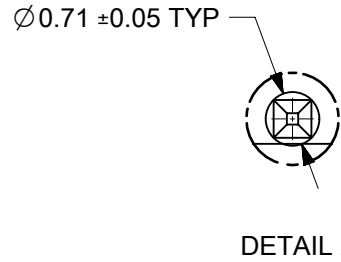
VIEW FOR  
HEADER WITH CAP



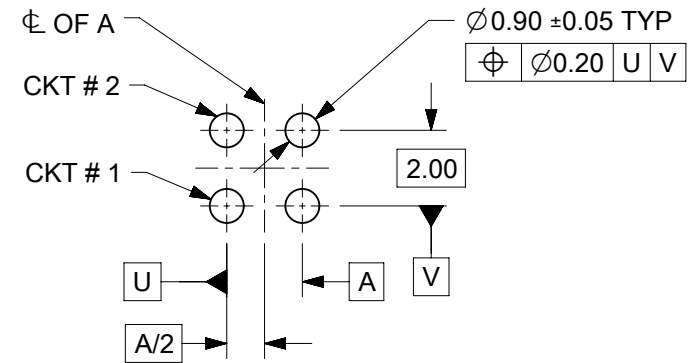
VIEW FOR HEADER  
WITH ONLY DUAL SLOTS



DETAIL 1



DETAIL 2



RECOMMENDED PCB LAYOUT

NOTES:

1. MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50mm SQ. PHOSPHOR BRONZE
2. FINISHES: REFER TO PLATING OPTIONS
3. PRODUCT SPECIFICATION: PS-87831-027
4. PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
5. MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES  
AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE:  
79107 (GOLD PLATED), 78787 (TIN PLATED)

| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |       |  |                                                                                                    |  |  |                                                                                            |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--|-------|--|----------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------|--|--|
| DIMENSION UNITS                                                                                                                               |  | SCALE |  | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.                                 |  |  | <div>molex</div> <div>MILLIGRID<br/>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER</div> |  |  |
| mm                                                                                                                                            |  | NTS   |  |                                                                                                    |  |  |                                                                                            |  |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |  |       |  | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA<br>2023/08/14<br>2023/09/11<br>2023/09/11 |  |  |                                                                                            |  |  |
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| DOCUMENT STATUS | P1 | RELEASE DATE | 2023/09/11 | 04:36:51 |
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| 10          | 9                                  | 8                               | 7                              | 6                  | 5              | 4      | 3          | 2      | 1                      |      |           |      |      |      |     |      |      |           |      |
| 4 CIRCUITS  |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
| CKT<br>SIZE | ASSY P/N<br>WITHOUT CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN T&R | PLATING<br>OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER<br>POLARIZATION | PEG  | DIMENSION |      |      |      |     |      |      |           |      |
|             |                                    |                                 |                                |                    | DUAL           | CENTER | DUAL       | SINGLE |                        |      | A         | B    | C    | D    | E   | F    | G    | H         |      |
| 4           | 87831-0419                         | N.A                             | N.A                            | 1                  | N.A            | N.A    | YES        | N.A    | N.A                    | N.A  | 2.00      | 4.85 | 6.65 | 5.00 | N.A | N.A  | 2.50 | 3.60±0.20 |      |
|             | 87831-0420                         | N.A                             | N.A                            | 2                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-0421                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-0436                         | N.A                             | N.A                            | 4                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-0441                         | 87831-0456                      | N.A                            | 2                  | N.A            | YES    | YES        | N.A    | N.A                    | N.A  |           |      |      |      |     | 1.00 | 2.50 |           |      |
|             | 87831-0442                         | N.A                             | 87831-5565                     | 3                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-5141                         | N.A                             | N.A                            | 2                  | N.A            | YES    | YES        | N.A    | N.A                    | 3.50 |           |      |      |      |     |      |      |           |      |
|             | 87831-5142                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-6141                         | N.A                             | N.A                            | 2                  | N.A            | YES    | YES        | N.A    | N.A                    |      |           |      |      |      |     |      | 2.80 |           |      |
|             | 87831-6142                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |
|             | 87831-0443                         | N.A                             | N.A                            | 2                  | N.A            | YES    | N.A        | YES    | N.A                    | N.A  |           |      |      |      |     |      |      |           | 2.50 |
|             | 87831-0444                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |      |      |           |      |

PLATING OPTIONS:  
1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND  
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER  
1.27µm/50µin MIN. NICKEL OVERALL.  
2 - 0.38µm/15µin GOLD IN CONTACT AREA AND  
1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER  
1.27µm/50µin MIN. NICKEL OVERALL.  
3 - 0.76µm/30µin GOLD IN CONTACT AREA AND  
1.88µm/75µin MIN. MATTETIN IN SOLDER TAIL AREA OVER  
1.27µm/50µin MIN. NICKEL OVERALL.  
4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.

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DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES (UNLESS SPECIFIED)

|             |         |      |
|-------------|---------|------|
|             | MM      | INCH |
| 4 PLACES    | ±       | ±    |
| 3 PLACES    | ±       | ±    |
| 2 PLACES    | ± 0.2   | ±    |
| 1 PLACE     | ±       | ±    |
| 0 PLACES    | ±       | ±    |
| ANGULAR TOL | ± 3.0 ° |      |

DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONS

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

DOCUMENT NUMBER

SD-87831-0001

CUSTOMER

GENERAL MARKET

SHEET NUMBER

3 OF 14

EC NO: 761863  
DRWN: SUAIFR  
CHK'D: GGA  
APPR: GGA

2023/08/14  
2023/09/11  
2023/09/11

INITIAL REVISION:  
DRWN: GMENARLY  
APPR: KHLIM

2015/04/15  
2015/06/29

PRODUCT CUSTOMER DRAWING

molex

MILLIGRID  
2MM PITCH, THROUGH HOLE VERTICAL SHROUDED  
HEADER

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

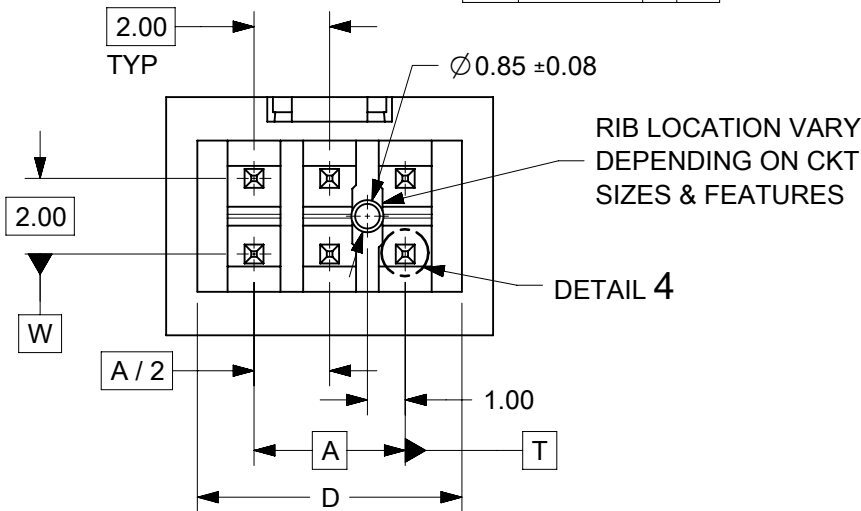
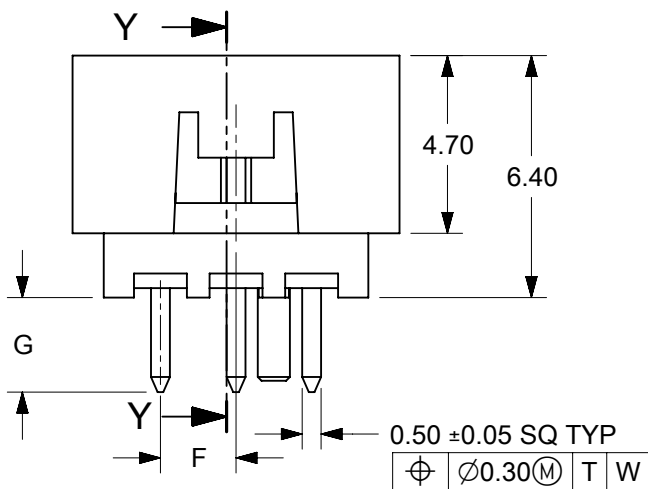
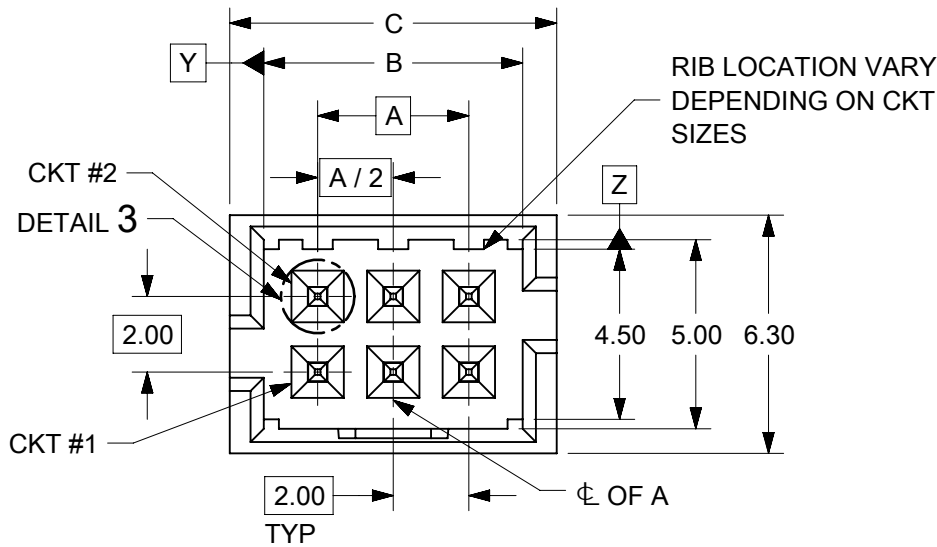
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REVISION

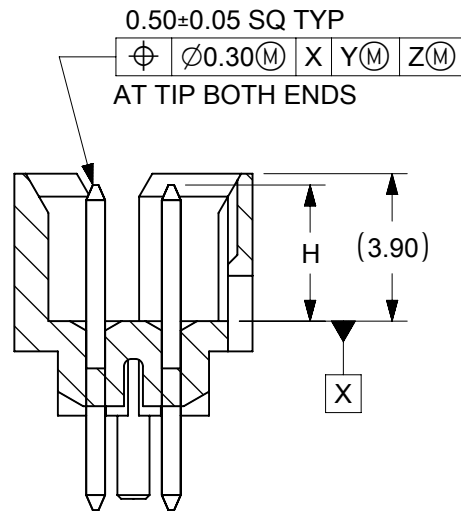
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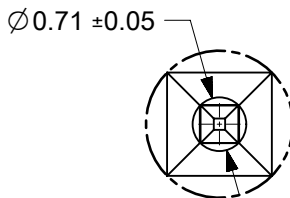
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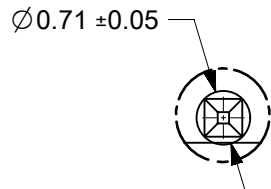
## 6 CIRCUITS



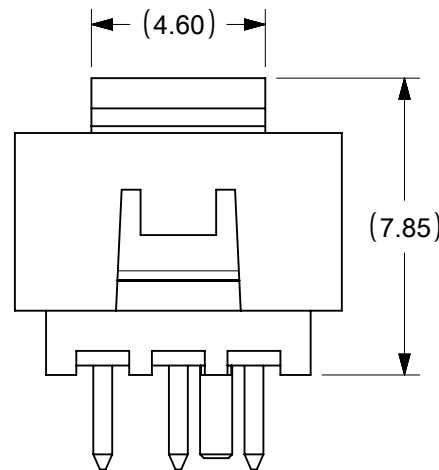
SECTION Y-Y



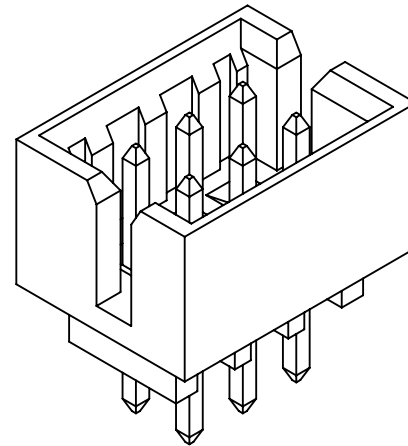
DETAIL 3



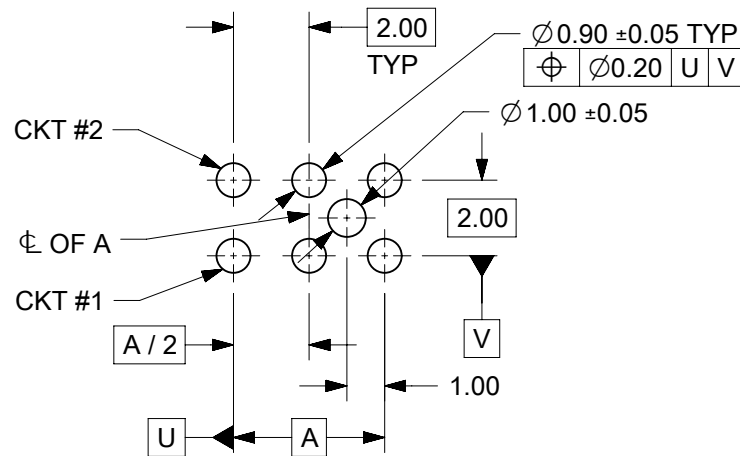
DETAIL 4



VIEW FOR  
HEADER WITH CAP



VIEW FOR HEADER WITH  
ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

### NOTES:

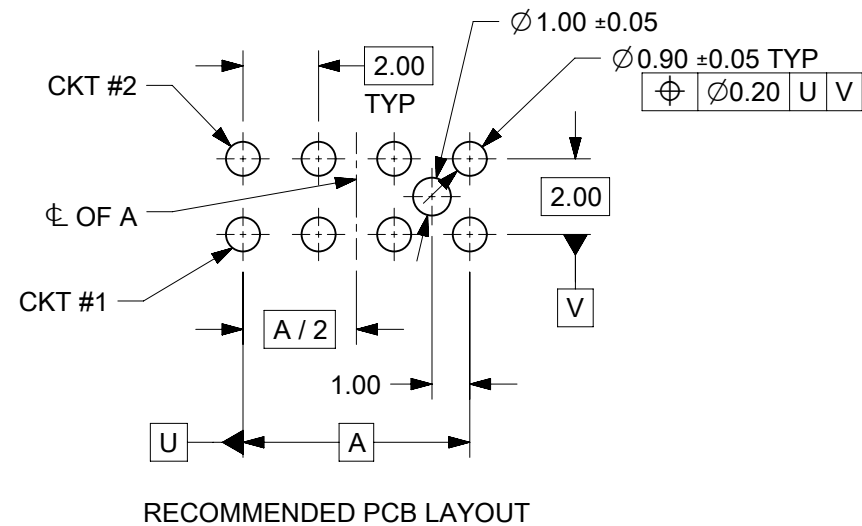
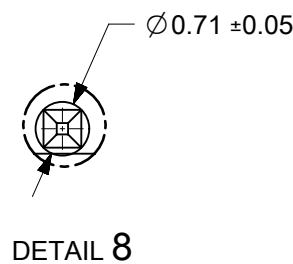
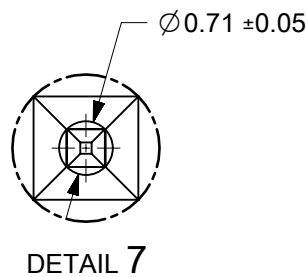
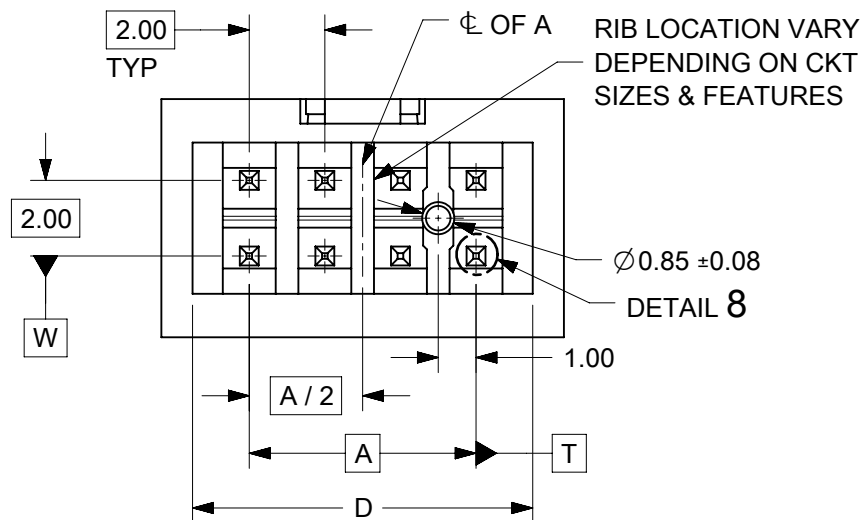
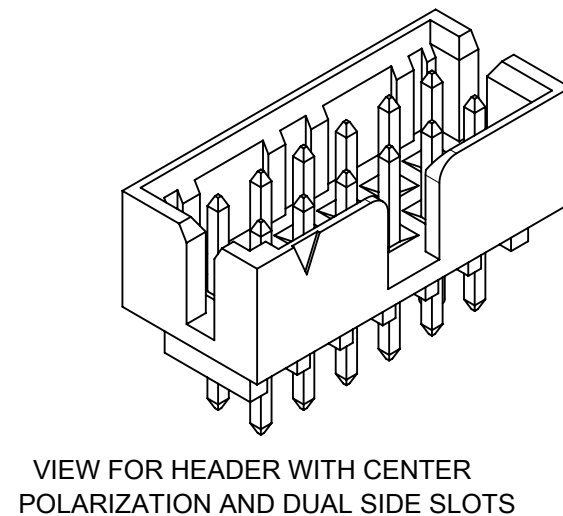
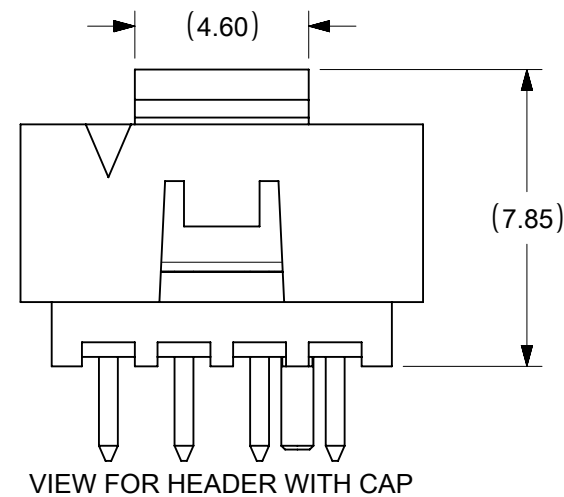
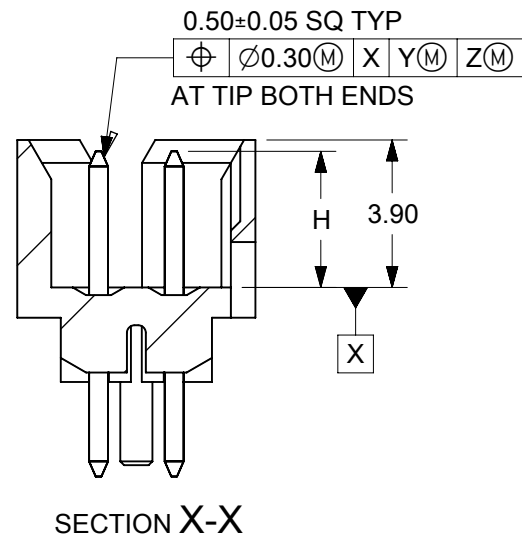
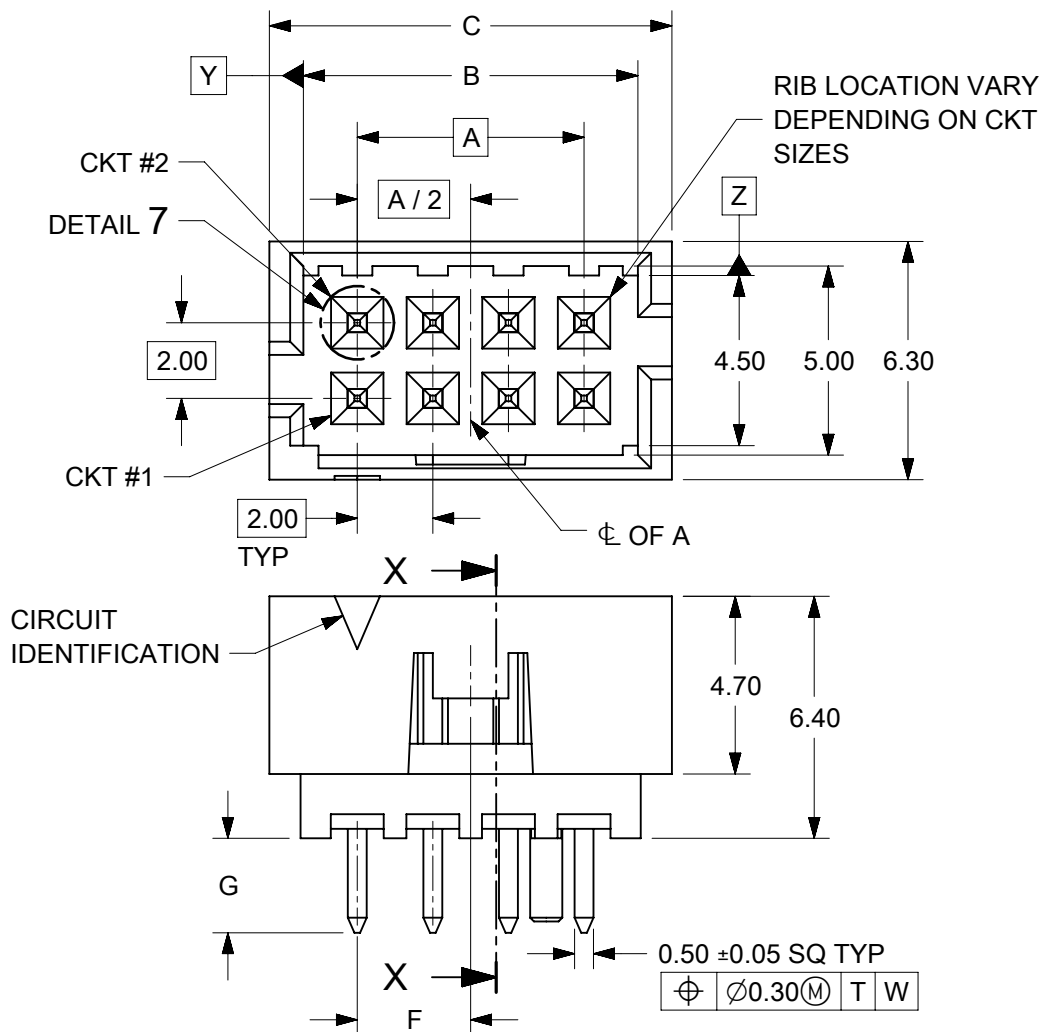
- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50mm SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES  
AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE:  
79107 (GOLD PLATED), 78787 (TIN PLATED)

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|-----------------------------------------------------------------------------------------------------------------------------------------------|----|-------|---|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------|-----------------|----------------|--------------|
| DIMENSION UNITS                                                                                                                               |    | SCALE |   | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.                                 |                                                                                |         | <div>molex</div> <div>MILLIGRID<br/>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER</div> |                 |                |              |
| mm                                                                                                                                            |    | NTS   |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |    |       |   | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA<br>2023/08/14<br>2023/09/11<br>2023/09/11 |                                                                                |         |                                                                                            |                 |                |              |
|                                                                                                                                               |    |       |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
|                                                                                                                                               | MM | INCH  |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| 4 PLACES                                                                                                                                      | ±  | ±     |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| 3 PLACES                                                                                                                                      | ±  | ±     |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| 2 PLACES                                                                                                                                      | ±  | 0.2   |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| 1 PLACE                                                                                                                                       | ±  | ±     |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| 0 PLACES                                                                                                                                      | ±  | ±     |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| ANGULAR TOL                                                                                                                                   |    |       | ± | 3.0 °                                                                                              | INITIAL REVISION:<br>DRWN: GMENARLY<br>APPR: KHLIM<br>2015/04/15<br>2015/06/29 |         |                                                                                            |                 |                |              |
|                                                                                                                                               |    |       |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                                                                          |    |       |   | THIRD ANGLE PROJECTION                                                                             |                                                                                | DRAWING | SERIES                                                                                     | MATERIAL NUMBER | CUSTOMER       | SHEET NUMBER |
|                                                                                                                                               |    |       |   |                                                                                                    |                                                                                | A3-SIZE | 87831                                                                                      | SEE TABLE       | GENERAL MARKET | 4 OF 14      |
|                                                                                                                                               |    |       |   |                                                                                                    |                                                                                |         |                                                                                            |                 |                |              |

| DOCUMENT STATUS | P1 | RELEASE DATE | 2023/09/11 | 04:36:51 |
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|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|------------|-------------|------------------------------------|---------------------------------|--------------------------------|--------------------|----------------|--------|------------|--------|------------------------|------|-----------|------|------|------|-----|--------------------------------|------|-----------|------|------|
| 10         | 9           | 8                                  | 7                               | 6                              | 5                  | 4              | 3      | 2          | 1      |                        |      |           |      |      |      |     |                                |      |           |      |      |
| 6 CIRCUITS |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| F          | CKT<br>SIZE | ASSY P/N<br>WITHOUT CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN T&R | PLATING<br>OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER<br>POLARIZATION | PEG  | DIMENSION |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    | DUAL           | CENTER | DUAL       | SINGLE |                        |      | A         | B    | C    | D    | E   | F                              | G    | H         |      |      |
| E          | 6           | 87831-0619                         | N.A                             | N.A                            | 1                  | N.A            | N.A    | YES        | N.A    | N.A                    | N.A  | 4.00      | 6.85 | 8.65 | 7.00 | N.A | N.A                            | 2.50 | 3.60±0.20 |      |      |
|            |             | 87831-0620                         | N.A                             | N.A                            | 2                  |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             | 87831-0621                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             | 87831-0636                         | N.A                             | N.A                            | 4                  |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| D          | 87831-0628  | N.A                                | N.A                             | 2                              | N.A                | N.A            | YES    | N.A        | N.A    | YES                    | N.A  |           |      |      |      |     | N.A                            | 2.50 |           | 2.00 | 2.50 |
|            | 87831-0629  | N.A                                | N.A                             | 3                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            | 87831-0641  | N.A                                | 87831-0647                      | 2                              | N.A                | YES            | YES    | N.A        | N.A    | N.A                    | 2.50 |           |      |      |      |     |                                |      |           |      |      |
|            | 87831-0642  | N.A                                | 87831-5552                      | 3                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            | 87831-5241  | N.A                                | N.A                             | 2                              | N.A                | YES            | YES    | N.A        | N.A    | N.A                    |      |           |      |      |      |     | 3.50                           |      |           |      |      |
|            | 87831-5242  | N.A                                | N.A                             | 3                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            | 87831-6241  | N.A                                | N.A                             | 2                              | N.A                | YES            | YES    | N.A        | N.A    | N.A                    | 2.80 |           |      |      |      |     |                                |      |           |      |      |
|            | 87831-6242  | N.A                                | N.A                             | 3                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            | C           | 87831-0643                         | N.A                             | N.A                            | 2                  | N.A            | YES    | N.A        | YES    | N.A                    |      |           |      |      |      |     | N.A                            | 2.50 |           |      |      |
|            |             | 87831-0644                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             | 87831-0645                         | N.A                             | N.A                            | 2                  | N.A            | YES    | N.A        | YES    | N.A                    | YES  |           |      |      |      |     | 3.60 <sup>+0.15</sup><br>-0.10 |      |           |      |      |
|            |             | 87831-0646                         | N.A                             | N.A                            | 3                  |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| 87831-0632 |             | N.A                                | N.A                             | 2                              | N.A                | YES            | YES    | N.A        | N.A    | YES                    | 2.50 |           |      |      |      |     |                                |      |           |      |      |
| 87831-5119 |             | N.A                                | N.A                             | 1                              | N.A                | N.A            | YES    | N.A        | YES    | N.A                    |      |           |      |      |      |     |                                |      |           |      |      |
| 87831-5121 |             | N.A                                | N.A                             | 3                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| 87831-5136 |             | N.A                                | N.A                             | 4                              |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| B          |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
| A          |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
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|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |
|            |             |                                    |                                 |                                |                    |                |        |            |        |                        |      |           |      |      |      |     |                                |      |           |      |      |

8 TO 12 CIRCUITS



- NOTES:
- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50mm SQ PHOSPHOR BRONZE
  - FINISHES: REFER TO PLATING OPTIONS
  - PRODUCT SPECIFICATION: PS-87831-027
  - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
  - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

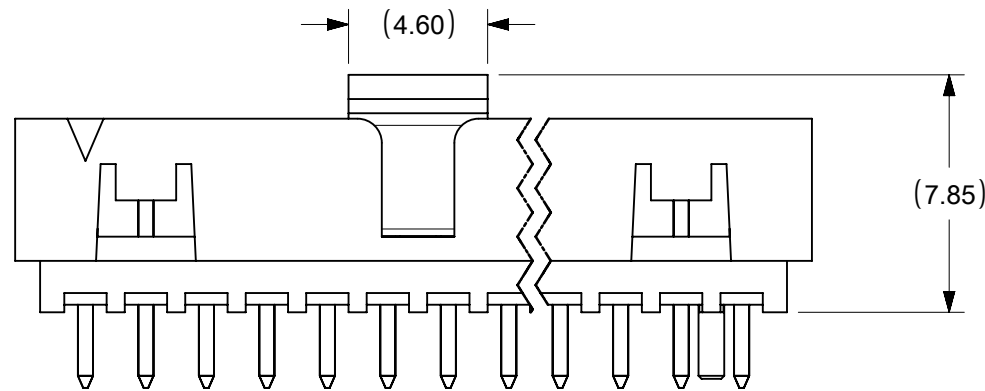
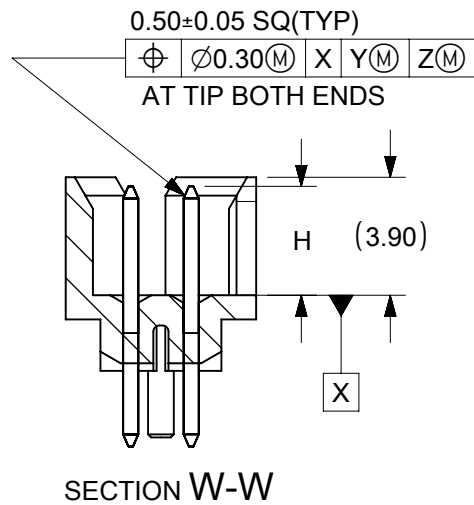
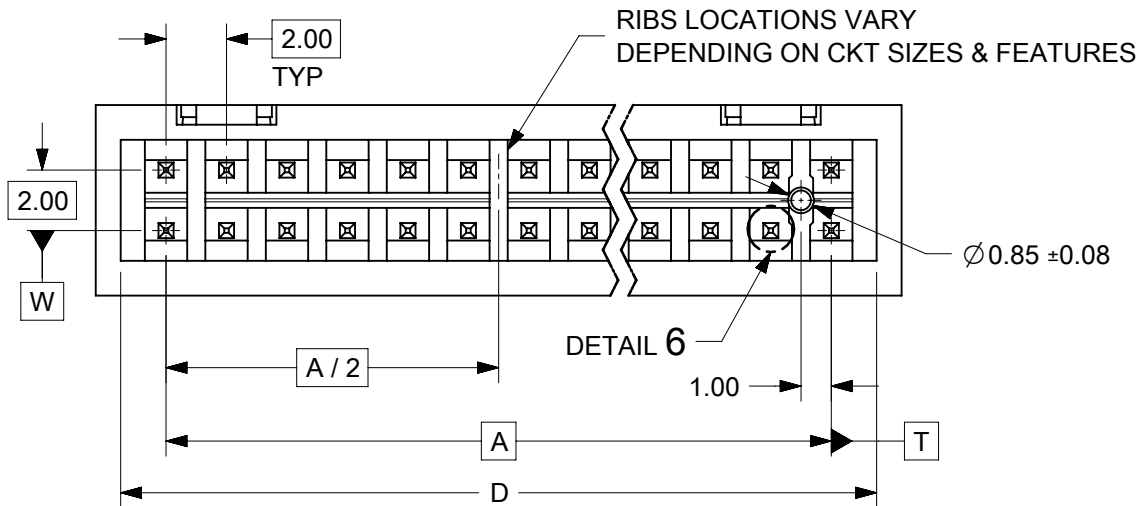
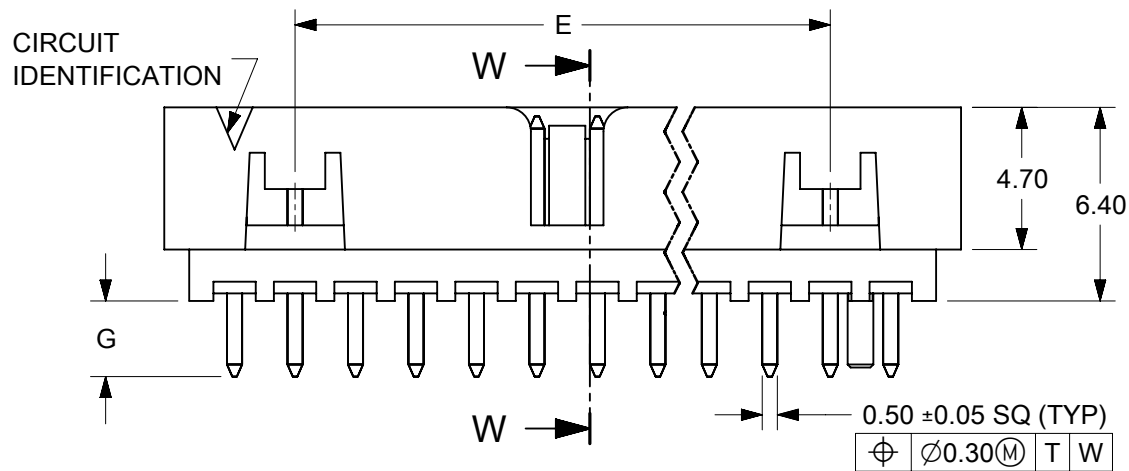
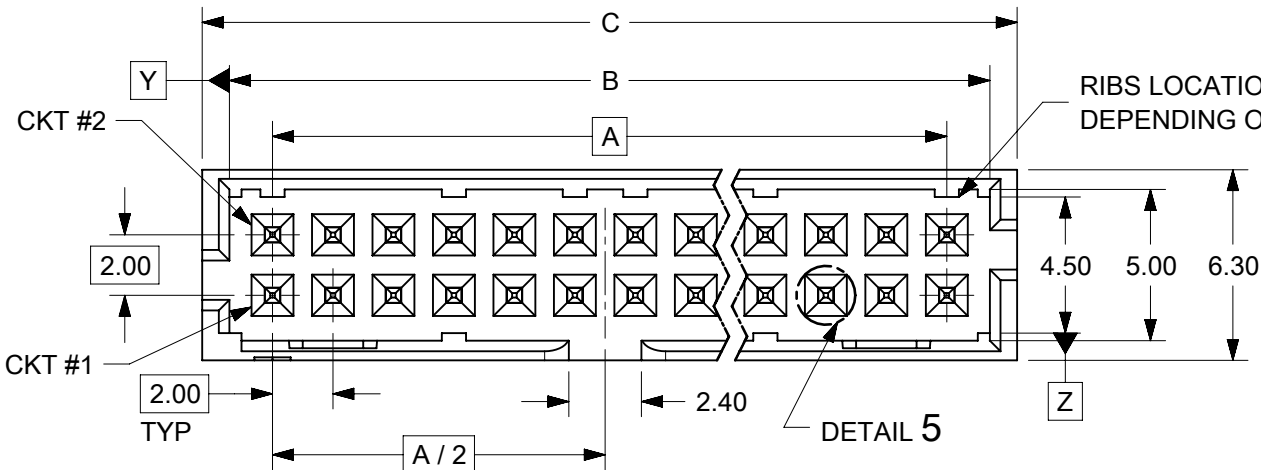
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |       |                        |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------|----------------|----------|--------------|
| DIMENSION UNITS                                                                                                                               |       | SCALE                  |                                                                                                    | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. |                          | <div>molex</div> <div>MILLIGRID<br/>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER</div> |                |          |              |
| mm                                                                                                                                            |       | NTS                    |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |       |                        |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
|                                                                                                                                               | MM    | INCH                   | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA<br>2023/08/14<br>2023/09/11<br>2023/09/11 |                                                                    | PRODUCT CUSTOMER DRAWING |                                                                                            |                |          |              |
| 4 PLACES                                                                                                                                      | ±     | ±                      |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| 3 PLACES                                                                                                                                      | ±     | ±                      |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| 2 PLACES                                                                                                                                      | ± 0.2 | ±                      |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| 1 PLACE                                                                                                                                       | ±     | ±                      |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| 0 PLACES                                                                                                                                      | ±     | ±                      |                                                                                                    |                                                                    |                          |                                                                                            |                |          |              |
| ANGULAR TOL                                                                                                                                   |       | ± 3.0 °                |                                                                                                    | DOCUMENT NUMBER                                                    |                          | DOC TYPE                                                                                   | DOC PART       | REVISION |              |
|                                                                                                                                               |       |                        |                                                                                                    | SD-87831-0001                                                      |                          | PSD                                                                                        | 001            | A24      |              |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |       | THIRD ANGLE PROJECTION |                                                                                                    | DRAWING                                                            | SERIES                   | MATERIAL NUMBER                                                                            | CUSTOMER       |          | SHEET NUMBER |
|                                                                                                                                               |       |                        |                                                                                                    | A3-SIZE                                                            | 87831                    | SEE TABLE                                                                                  | GENERAL MARKET |          | 6 OF 14      |



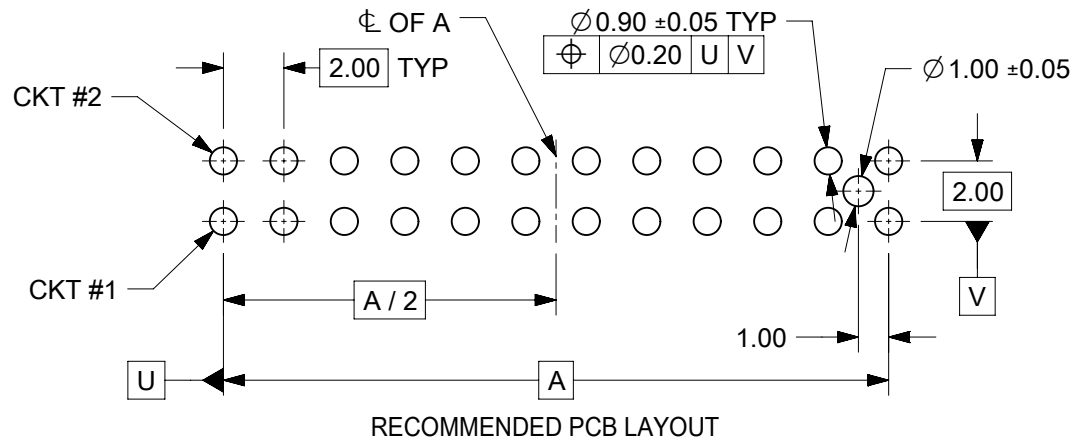
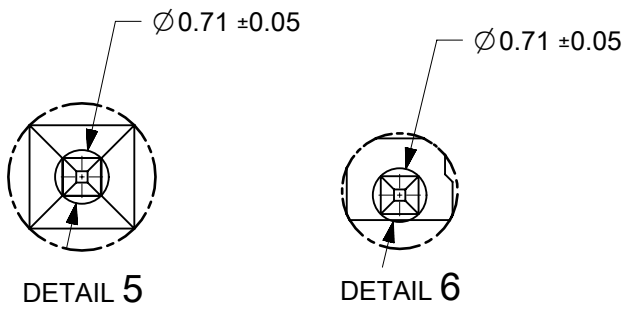
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 |                                |                                   |                    |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------|---------------------------------|--------------------------------|-----------------------------------|--------------------|----------------|--------|------------|--------|--------------------------------|-----|-----------|-------|-------|-------|-------|-------|------|-----------|--------------------------------|-------|-------|-----|------|------|--------------------------------|------|-----------|
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             | 9                                  |                                 | 8                              |                                   | 7                  |                | 6      |            | 5      |                                | 4   |           | 3     |       | 2     |       | 1     |      |           |                                |       |       |     |      |      |                                |      |           |
| 10 TO 12 CIRCUITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                                    |                                 |                                |                                   |                    |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
| F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CKT<br>SIZE | ASSY P/N<br>WITHOUT CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN T&R | ASSY P/N<br>WITHOUT CAP<br>IN T&R | PLATING<br>OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTE<br>R<br>POLARI<br>ZATION | PEG | DIMENSION |       |       |       |       |       |      | F         |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 |                                |                                   |                    | DUAL           | CENTER | DUAL       | SINGLE |                                |     | A         | B     | C     | D     | E     | F     | G    |           | H                              |       |       |     |      |      |                                |      |           |
| E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10          | 87831-1019                         | N.A                             | N.A                            |                                   | 1                  | N.A            | N.A    | YES        | N.A    | YES                            | N.A | 8.00      | 10.85 | 12.65 | 11.00 | N.A   | N.A   | 2.50 | 3.60±0.20 |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1020                         | N.A                             | 87831-1070                     |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1021                         | N.A                             | 87831-5562                     |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1036                         | N.A                             | N.A                            |                                   | 4                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1010                         | N.A                             | 87831-5561                     |                                   | 2                  | N.A            | N.A    | YES        | N.A    | YES                            | N.A |           |       |       |       |       |       | N.A  |           | 3.50                           |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1011                         | N.A                             | N.A                            |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1028                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1029                         | N.A                             | 87831-5557                     |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1035                         | N.A                             | N.A                            |                                   | 3                  | N.A            | N.A    | YES        | N.A    | YES                            | YES |           |       |       |       |       | N.A   | 3.50 |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1041                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1042                         | N.A                             | 87831-5553                     |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1032                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | D                                  |                                 | 87831-1043                     | N.A                               | N.A                |                | 2      | N.A        | YES    | N.A                            | YES |           |       |       |       |       | N.A   | N.A  | 10.00     | 12.85                          | 14.65 | 13.00 | N.A | 4.00 | 2.50 | 3.60 <sup>+0.15</sup><br>-0.10 |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1044                     | N.A                               | N.A                |                | 3      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1045                     | N.A                               | N.A                |                | 2      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
| 87831-1046                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | N.A         |                                    |                                 | N.A                            |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
| C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12          |                                    |                                 | 87831-1219                     | N.A                               | N.A                |                | 1      | N.A        | N.A    | YES                            | N.A | YES       | N.A   | 10.00 | 12.85 | 14.65 | 13.00 | N.A  |           |                                |       |       |     |      | N.A  |                                | 2.50 | 3.60±0.20 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1220                     | N.A                               | 87831-5556         |                | 2      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1221                     | N.A                               | N.A                |                | 3      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1236                         | N.A                             | N.A                            |                                   | 4                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1228                         | N.A                             | N.A                            |                                   | 2                  | N.A            | N.A    | YES        | N.A    | YES                            | YES | N.A       | 3.50  |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1229                         | N.A                             | 87831-5558                     |                                   | 3                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1258                         | N.A                             | 87831-5567                     |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1241                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1242                         | N.A                             | N.A                            |                                   | 3                  | N.A            | YES    | YES        | N.A    | N.A                            | N.A | N.A       | 5.00  |       |       |       |       |      | 2.50      | 3.60 <sup>+0.15</sup><br>-0.10 |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1255                         | 87831-1256                      | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1232                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 87831-1243                         | N.A                             | N.A                            |                                   | 2                  |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | A                                  |                                 | 87831-1244                     | N.A                               | N.A                |                | 3      | N.A        | YES    | N.A                            | YES | N.A       | N.A   |       |       |       |       |      | 10.00     | 12.85                          | 14.65 | 13.00 | N.A | 5.00 | 2.50 | 3.60 <sup>+0.15</sup><br>-0.10 |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1245                     | N.A                               | N.A                |                | 2      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                    |                                 | 87831-1246                     | N.A                               | N.A                |                | 3      |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
| <p><u>PLATING OPTIONS:</u></p> <p>1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND<br/>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br/>1.27µm/50µin MIN. NICKEL OVERALL.</p> <p>2 - 0.38µm/15µin GOLD IN CONTACT AREA AND<br/>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br/>1.27µm/50µin MIN. NICKEL OVERALL.</p> <p>3 - 0.76µm/30µin GOLD IN CONTACT AREA AND<br/>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br/>1.27µm/50µin MIN. NICKEL OVERALL.</p> <p>4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.</p> |             |                                    |                                 |                                |                                   |                    |                |        |            |        |                                |     |           |       |       |       |       |       |      |           |                                |       |       |     |      |      |                                |      |           |
| DOCUMENT STATUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | P1                                 | RELEASE DATE                    | 2023/09/11                     | 04:36:51                          | 7                  |                | 6      |            | 5      |                                | 4   |           | 3     |       | 2     |       | 1     |      |           |                                |       |       |     |      |      |                                |      |           |
| FORMAT: Met-lega-master-ib-prod-A3<br>REVISION: E1<br>DATE: 2021/05/01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             | 9                                  |                                 | 8                              |                                   | 7                  |                | 6      |            | 5      |                                | 4   |           | 3     |       | 2     |       | 1     |      |           |                                |       |       |     |      |      |                                |      |           |

|                                                                                                                                               |    |       |   |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----|-------|---|--------------------------------------------------------------------|--|---------|--|----------------------------------------|--|-----------------|--|---------------------------------------------------------------|----------|--------------|-----|-----|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |    |       |   |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| DIMENSION UNITS                                                                                                                               |    | SCALE |   | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. |  |         |  | <div>molex</div>                       |  |                 |  |                                                               |          |              |     |     |
| mm                                                                                                                                            |    | NTS   |   |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |    |       |   |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
|                                                                                                                                               | MM | INCH  |   |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| 4 PLACES                                                                                                                                      | ±  |       | ± | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA           |  |         |  | 2023/08/14<br>2023/09/11<br>2023/09/11 |  |                 |  | MILLIGRID<br>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |          |              |     |     |
| 3 PLACES                                                                                                                                      | ±  |       | ± |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| 2 PLACES                                                                                                                                      | ±  | 0.2   | ± |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| 1 PLACE                                                                                                                                       | ±  |       | ± |                                                                    |  |         |  |                                        |  |                 |  |                                                               |          |              |     |     |
| 0 PLACES                                                                                                                                      | ±  |       | ± | INITIAL REVISION:                                                  |  |         |  | DOCUMENT NUMBER                        |  |                 |  | DOC TYPE                                                      | DOC PART | REVISION     |     |     |
| ANGULAR TOL ± 3.0 °                                                                                                                           |    |       |   | DRWN: GMENARLY<br>APPR: KHLIM                                      |  |         |  | 2015/04/15<br>2015/06/29               |  |                 |  | SD-87831-0001                                                 |          | PSD          | 001 | A24 |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |    |       |   | THIRD ANGLE PROJECTION                                             |  | DRAWING |  | SERIES                                 |  | MATERIAL NUMBER |  | CUSTOMER                                                      |          | SHEET NUMBER |     |     |
|                                                                                                                                               |    |       |   |                                                                    |  | A3-SIZE |  | 87831                                  |  | SEE TABLE       |  | GENERAL MARKET                                                |          | 8 OF 14      |     |     |

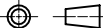
14 TO 50 CIRCUITS



VIEW FOR HEADER WITH CAP



- NOTES:
- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50mm SQ PHOSPHOR BRONZE
  - FINISHES: REFER TO PLATING OPTIONS
  - PRODUCT SPECIFICATION: PS-87831-027
  - PACKAGING SPECIFICATION: SEE PACKAGING SPECS TABLE ON SHEET 1
  - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2mm MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2mm MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |    |       |      |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----|-------|------|-------------------------------------------------------------------------------------------|--|---------|---------------------------------------------------------------|--------|--|-----------------|--|----------------|----------|----------|
| DIMENSION UNITS                                                                                                                               |    | SCALE |      | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.                        |  |         | <div>molex</div>                                              |        |  |                 |  |                |          |          |
| mm                                                                                                                                            |    | NTS   |      |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                         |    |       |      |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
|                                                                                                                                               | MM |       | INCH |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| 4 PLACES                                                                                                                                      | ±  |       | ±    | EC NO: 761863<br>DRWN: SUAIFR 2023/08/14<br>CHK'D: GGA 2023/09/11<br>APPR: GGA 2023/09/11 |  |         | MILLIGRID<br>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |        |  |                 |  |                |          |          |
| 3 PLACES                                                                                                                                      | ±  |       | ±    |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| 2 PLACES                                                                                                                                      | ±  | 0.2   | ±    |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| 1 PLACE                                                                                                                                       | ±  |       | ±    | INITIAL REVISION:<br>DRWN: GMENARLY 2015/04/15<br>APPR: KHLIM 2015/06/29                  |  |         | PRODUCT CUSTOMER DRAWING                                      |        |  |                 |  |                |          |          |
| 0 PLACES                                                                                                                                      | ±  |       | ±    |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| ANGULAR TOL ± 3.0 °                                                                                                                           |    |       |      |                                                                                           |  |         |                                                               |        |  |                 |  |                |          |          |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                    |    |       |      | THIRD ANGLE PROJECTION                                                                    |  | DRAWING |                                                               | SERIES |  | DOCUMENT NUMBER |  | DOC TYPE       | DOC PART | REVISION |
|                                                                                                                                               |    |       |      |      |  | A3-SIZE |                                                               | 87831  |  | SD-87831-0001   |  | PSD            | 001      | A24      |
|                                                                                                                                               |    |       |      |                                                                                           |  |         |                                                               |        |  | SEE TABLE       |  | GENERAL MARKET |          | 9 OF 14  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                    | 9                                                                                         |                                | 8                                 |                    | 7              |              | 6          |        | 5                      |     | 4         |       | 3     |       | 2     |     | 1    |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 22 TO 30 CIRCUITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| CKT<br>SIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ASSY P/N<br>WITHOUT CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN TUBE                                                           | ASSY P/N<br>WITH CAP<br>IN T&R | ASSY P/N<br>WITHOUT CAP<br>IN T&R | PLATING<br>OPTIONS | FRICTION LOCKS |              | SIDE SLOTS |        | CENTER<br>POLARIZATION | PEG | DIMENSION |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |                                                                                           |                                |                                   |                    | DUAL           | CENTER       | DUAL       | SINGLE |                        |     | A         | B     | C     | D     | E     | F   | G    | H         |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87831-2219                         | N.A                                                                                       | N.A                            | N.A                               | 1                  | YES            | N.A          | YES        | N.A    | YES                    | N.A | 20.00     | 22.85 | 24.65 | 23.00 | 16.00 | N.A | 2.50 | 3.60±0.20 |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2220                         | N.A                                                                                       | N.A                            | N.A                               | 2                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2221                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2236                         | N.A                                                                                       | N.A                            | N.A                               | 4                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2228                         | N.A                                                                                       | N.A                            | N.A                               | 2                  | YES            | N.A          | YES        | N.A    | YES                    | YES |           |       |       |       |       |     | 2.50 |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2229                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87831-2419                         | N.A                                                                                       | N.A                            | N.A                               | 1                  | YES            | N.A          | YES        | N.A    | YES                    | N.A | 22.00     | 24.85 | 26.65 | 25.00 | 18.00 | N.A | 2.50 | 3.60±0.20 |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2420                         | N.A                                                                                       | N.A                            | 87831-7420                        | 2                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2421                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2436                         | N.A                                                                                       | N.A                            | N.A                               | 4                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2428                         | N.A                                                                                       | N.A                            | N.A                               | 2                  | YES            | N.A          | YES        | N.A    | YES                    | YES |           |       |       |       |       |     | 2.50 |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2429                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2435                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2445                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2410                         | N.A                                                                                       | N.A                            | N.A                               | 2                  |                |              |            |        |                        |     |           |       |       |       |       |     | YES  |           | N.A | YES | N.A  | YES      | N.A | 3.50 |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87831-2619                         | N.A                                                                                       | N.A                            | N.A                               | 1                  | YES            | N.A          | YES        | N.A    | YES                    | N.A | 24.00     | 26.85 | 28.65 | 27.00 | 20.00 | N.A | 2.50 | 3.60±0.20 |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2628                         | N.A                                                                                       | N.A                            | N.A                               | 2                  | YES            | N.A          | YES        | N.A    | YES                    | YES |           |       |       |       |       |     | 2.50 |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87831-2819                         | N.A                                                                                       | N.A                            | N.A                               | 1                  | YES            | N.A          | YES        | N.A    | YES                    | N.A | 26.00     | 28.85 | 30.65 | 29.00 | 22.00 | N.A | 2.50 | 3.60±0.20 |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2820                         | N.A                                                                                       | N.A                            | N.A                               | 2                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2836                         | N.A                                                                                       | N.A                            | N.A                               | 4                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2828                         | N.A                                                                                       | N.A                            | N.A                               | 2                  | YES            | N.A          | YES        | N.A    | YES                    | YES |           |       |       |       |       |     | 2.50 |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-2829                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 87831-3019                         | N.A                                                                                       | N.A                            | N.A                               | 1                  | YES            | N.A          | YES        | N.A    | YES                    | N.A | 28.00     | 30.85 | 32.65 | 31.00 | 24.00 | N.A | 2.50 | 3.60±0.20 |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-3021                         | N.A                                                                                       | N.A                            | N.A                               | 3                  |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 87831-3010                         | 87831-3030                                                                                | 87831-3050                     | N.A                               | 2                  |                |              |            |        |                        |     |           |       |       |       |       |     | YES  |           | N.A | YES | N.A  | YES      | N.A | 3.50 |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| PLATING OPTIONS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| DOCUMENT STATUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    | P1                                                                                        | RELEASE DATE                   | 2023/09/11                        | 04:36:51           | 7              |              | 6          |        | 5                      |     | 4         |       | 3     |       | 2     |     | 1    |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| FORMAT: Mol-lega-master-db-prod-A3<br>REVISION: E1<br>DATE: 2021/05/01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    | 9                                                                                         |                                | 8                                 |                    | 7              |              | 6          |        | 5                      |     | 4         |       | 3     |       | 2     |     | 1    |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| <div><div><div><div><div>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</div><div><div><div><div>DIMENSION UNITS</div><div>mm</div></div><div><div>SCALE</div><div>NTS</div></div></div><div><div>GENERAL TOLERANCES<br/>(UNLESS SPECIFIED)</div><table><tr><td></td><td>MM</td><td>INCH</td></tr><tr><td>4 PLACES</td><td>±</td><td>±</td></tr><tr><td>3 PLACES</td><td>±</td><td>±</td></tr><tr><td>2 PLACES</td><td>± 0.2</td><td>±</td></tr><tr><td>1 PLACE</td><td>±</td><td>±</td></tr><tr><td>0 PLACES</td><td>±</td><td>±</td></tr><tr><td colspan="2">ANGULAR TOL</td><td>± 3.0 °</td></tr><tr><td colspan="2">DRAFT WHERE APPLICABLE<br/>MUST REMAIN<br/>WITHIN DIMENSIONS</td><td><div>THIRD ANGLE PROJECTION</div><div><div><div><div></div><div></div></div></div></div></td><td>DRAWING</td><td>SERIES</td><td>MATERIAL NUMBER</td><td>CUSTOMER</td><td>SHEET NUMBER</td></tr></table></div><div><div>EC NO: 761863<br/>DRWN: SUAIFR<br/>CHK'D: GGA<br/>APPR: GGA</div><div>2023/08/14<br/>2023/09/11<br/>2023/09/11</div><div>INITIAL REVISION:<br/>DRWN: GMENARLY<br/>APPR: KHLIM</div><div>2015/04/15<br/>2015/06/29</div><div>DOCUMENT NUMBER</div><div>DOC TYPE</div><div>DOC PART</div><div>REVISION</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div></div><div><div>SD-87831-0001</div><div>SEE TABLE</div></div><div><div>GENERAL MARKET</div><div>11 OF 14</div></div></div></div></div></div></div></div> |                                    |                                                                                           |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     | MM  | INCH | 4 PLACES | ±   | ±    | 3 PLACES | ± | ± | 2 PLACES | ± 0.2 | ± | 1 PLACE | ± | ± | 0 PLACES | ± | ± | ANGULAR TOL |  | ± 3.0 ° | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |  | <div>THIRD ANGLE PROJECTION</div> <div><div><div><div></div><div></div></div></div></div> | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MM                                 | INCH                                                                                      |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 4 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±                                  | ±                                                                                         |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 3 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±                                  | ±                                                                                         |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 2 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ± 0.2                              | ±                                                                                         |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 1 PLACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±                                  | ±                                                                                         |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| 0 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ±                                  | ±                                                                                         |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| ANGULAR TOL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    | ± 3.0 °                                                                                   |                                |                                   |                    |                |              |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                    | <div>THIRD ANGLE PROJECTION</div> <div><div><div><div></div><div></div></div></div></div> | DRAWING                        | SERIES                            | MATERIAL NUMBER    | CUSTOMER       | SHEET NUMBER |            |        |                        |     |           |       |       |       |       |     |      |           |     |     |      |          |     |      |          |   |   |          |       |   |         |   |   |          |   |   |             |  |         |                                                            |  |                                                                                           |         |        |                 |          |              |

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| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             | 9                                                                  |                                                                                                    | 8                              |                                                               | 7                            |                 | 6                          |                 | 5                        |     | 4         |       | 3     |       | 2     |       | 1    |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 32 TO 40 CIRCUITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CKT<br>SIZE | ASSY P/N<br>WITHOUT CAP<br>IN TUBE                                 | ASSY P/N<br>WITH CAP<br>IN TUBE                                                                    | ASSY P/N<br>WITH CAP<br>IN T&R | PLATING<br>OPTIONS                                            | FRICTION LOCKS               |                 | SIDE SLOTS                 |                 | CENTER<br>POLARIZATION   | PEG | DIMENSION |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |                                                                    |                                                                                                    |                                |                                                               | DUAL                         | CENTER          | DUAL                       | SINGLE          |                          |     | A         | B     | C     | D     | E     | F     | G    | H         |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 32          | 87831-3219                                                         | N.A                                                                                                | N.A                            | 1                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | N.A | 30.00     | 32.85 | 34.65 | 33.00 | 26.00 | N.A   | 2.50 | 3.60±0.20 |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3221                                                         | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3236                                                         | N.A                                                                                                | N.A                            | 4                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3228                                                         | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES |           |       |       |       |       |       | 2.50 |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3229                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N.A         | N.A                                                                | 3                                                                                                  |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 34          | 87831-3419                                                         | N.A                                                                                                | N.A                            | 1                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | N.A | 32.00     | 34.85 | 36.65 | 35.00 | 28.00 | N.A   | 2.50 | 3.60±0.20 |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3420                                                         | N.A                                                                                                | N.A                            | 2                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3421                                                         | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3436                                                         | N.A                                                                                                | N.A                            | 4                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3428                                                         | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES |           |       |       |       |       |       | 2.50 |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3429                                                         | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3435                                                         | N.A                                                                                                | N.A                            | 3                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES |           |       |       |       |       |       | 3.50 |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 36          | 87831-3619                                                         | N.A                                                                                                | N.A                            | 1                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | N.A | 34.00     | 36.85 | 38.65 | 37.00 | 30.00 | N.A   | 2.50 | 3.60±0.20 |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3620                                                         | N.A                                                                                                | 87831-5564                     | 2                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3621                                                         | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3636                                                         | N.A                                                                                                | N.A                            | 4                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3628                                                         | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES |           |       |       |       |       |       | 2.50 |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | 87831-3629                                                         | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | C           | 38                                                                 | 87831-3819                                                                                         | N.A                            | N.A                                                           | 1                            | YES             | N.A                        | YES             | N.A                      | YES | N.A       | 36.00 | 38.85 | 40.65 | 39.00 | 32.00 | N.A  | 2.50      | 3.60±0.20                                                                                                                                     |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3820                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                                    | N.A                                                                                                | N.A                            | 2                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3821                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                                    | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3836                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                                    | N.A                                                                                                | N.A                            | 4                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3828                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                                    | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES | 2.50      |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 87831-3829                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |                                                                    | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             | 40                                                                 | 87831-4019                                                                                         | N.A                            | N.A                                                           | 1                            | YES             | N.A                        | YES             | N.A                      | YES | N.A       | 38.00 | 40.85 | 42.65 | 41.00 | 34.00 | N.A  | 2.50      | 3.60±0.20                                                                                                                                     |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4020  |                                                                    | N.A                                                                                                | N.A                            | 2                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4021  |                                                                    | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4036  |                                                                    | N.A                                                                                                | N.A                            | 4                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4028  |                                                                    | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | YES | 2.50      |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4029  |                                                                    | N.A                                                                                                | N.A                            | 3                                                             |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 87831-4010  |                                                                    | N.A                                                                                                | N.A                            | 2                                                             | YES                          | N.A             | YES                        | N.A             | YES                      | N.A | 3.50      |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| PLATING OPTIONS:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| DOCUMENT STATUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             | P1                                                                 | RELEASE DATE                                                                                       | 2023/09/11                     | 04:36:51                                                      | 7                            |                 | 6                          |                 | 5                        |     | 4         |       | 3     |       | 2     |       | 1    |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| FORMAT: Met-lega-master-ib-prod-A3<br>REVISION: E1<br>DATE: 2021/05/01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 9                                                                  |                                                                                                    | 8                              |                                                               | 7                            |                 | 6                          |                 | 5                        |     | 4         |       | 3     |       | 2     |       | 1    |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| <table><tr><td colspan="2">THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</td></tr><tr><td>DIMENSION UNITS</td><td>SCALE</td><td colspan="2" rowspan="3">CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.</td><td colspan="2" rowspan="3"><div>molex</div></td></tr><tr><td>mm</td><td>NTS</td></tr><tr><td colspan="2">GENERAL TOLERANCES (UNLESS SPECIFIED)</td></tr><tr><td></td><td>MM</td><td>INCH</td><td colspan="2" rowspan="5">EC NO: 761863<br/>DRWN: SUAIFR<br/>CHK'D: GGA<br/>APPR: GGA<br/>2023/08/14<br/>2023/09/11<br/>2023/09/11</td><td colspan="2" rowspan="5">MILLIGRID<br/>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER</td></tr><tr><td>4 PLACES</td><td>±</td><td>±</td></tr><tr><td>3 PLACES</td><td>±</td><td>±</td></tr><tr><td>2 PLACES</td><td>± 0.2</td><td>±</td></tr><tr><td>1 PLACE</td><td>±</td><td>±</td></tr><tr><td>0 PLACES</td><td>±</td><td>±</td><td colspan="2" rowspan="2">INITIAL REVISION:<br/>DRWN: GMENARLY<br/>APPR: KHLIM<br/>2015/04/15<br/>2015/06/29</td><td colspan="2" rowspan="2">DOCUMENT NUMBER<br/>SD-87831-0001</td><td rowspan="2">DOC TYPE<br/>PSD</td><td rowspan="2">DOC PART<br/>001</td><td rowspan="2">REVISION<br/>A24</td></tr><tr><td colspan="2">ANGULAR TOL ± 3.0 °</td></tr><tr><td colspan="2">DRAFT WHERE APPLICABLE<br/>MUST REMAIN<br/>WITHIN DIMENSIONS</td><td colspan="2">THIRD ANGLE PROJECTION</td><td>DRAWING<br/>A3-SIZE</td><td>SERIES<br/>87831</td><td colspan="2">MATERIAL NUMBER<br/>SEE TABLE</td><td colspan="2">CUSTOMER<br/>GENERAL MARKET</td><td colspan="2">SHEET NUMBER<br/>12 OF 14</td></tr></table> |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  | DIMENSION UNITS | SCALE | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. |  | <div>molex</div> |  | mm | NTS | GENERAL TOLERANCES (UNLESS SPECIFIED) |  |  | MM | INCH | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA<br>2023/08/14<br>2023/09/11<br>2023/09/11 |  | MILLIGRID<br>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |  | 4 PLACES | ± | ± | 3 PLACES | ± | ± | 2 PLACES | ± 0.2 | ± | 1 PLACE | ± | ± | 0 PLACES | ± | ± | INITIAL REVISION:<br>DRWN: GMENARLY<br>APPR: KHLIM<br>2015/04/15<br>2015/06/29 |  | DOCUMENT NUMBER<br>SD-87831-0001 |  | DOC TYPE<br>PSD | DOC PART<br>001 | REVISION<br>A24 | ANGULAR TOL ± 3.0 ° |  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |  | THIRD ANGLE PROJECTION |  | DRAWING<br>A3-SIZE | SERIES<br>87831 | MATERIAL NUMBER<br>SEE TABLE |  | CUSTOMER<br>GENERAL MARKET |  | SHEET NUMBER<br>12 OF 14 |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| DIMENSION UNITS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SCALE       | CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581. |                                                                                                    | <div>molex</div>               |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | NTS         |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MM          | INCH                                                               | EC NO: 761863<br>DRWN: SUAIFR<br>CHK'D: GGA<br>APPR: GGA<br>2023/08/14<br>2023/09/11<br>2023/09/11 |                                | MILLIGRID<br>2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 4 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±           | ±                                                                  |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 3 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±           | ±                                                                  |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 2 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ± 0.2       | ±                                                                  |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 1 PLACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ±           | ±                                                                  |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| 0 PLACES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±           | ±                                                                  | INITIAL REVISION:<br>DRWN: GMENARLY<br>APPR: KHLIM<br>2015/04/15<br>2015/06/29                     |                                | DOCUMENT NUMBER<br>SD-87831-0001                              |                              | DOC TYPE<br>PSD | DOC PART<br>001            | REVISION<br>A24 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| ANGULAR TOL ± 3.0 °                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |                                                                    |                                                                                                    |                                |                                                               |                              |                 |                            |                 |                          |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             | THIRD ANGLE PROJECTION                                             |                                                                                                    | DRAWING<br>A3-SIZE             | SERIES<br>87831                                               | MATERIAL NUMBER<br>SEE TABLE |                 | CUSTOMER<br>GENERAL MARKET |                 | SHEET NUMBER<br>12 OF 14 |     |           |       |       |       |       |       |      |           |                                                                                                                                               |  |                 |       |                                                                    |  |                  |  |    |     |                                       |  |  |    |      |                                                                                                    |  |                                                               |  |          |   |   |          |   |   |          |       |   |         |   |   |          |   |   |                                                                                |  |                                  |  |                 |                 |                 |                     |  |                                                            |  |                        |  |                    |                 |                              |  |                            |  |                          |  |

|                                                                                                                                              |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------|--------------------------------|-----------------------------------|--------------------|----------------|--------|------------|--------|----------------------------|--------------|-----------|------------|----------|-------|-------|-----|------|-----------|---|--|---|--|---|--|
| 10                                                                                                                                           | 9                                  | 8                               | 7                              | 6                                 | 5                  | 4              | 3      | 2          | 1      |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 42 TO 50 CIRCUITS                                                                                                                            |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| CKT<br>SIZE                                                                                                                                  | ASSY P/N<br>WITHOUT CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN TUBE | ASSY P/N<br>WITH CAP<br>IN T&R | ASSY P/N<br>WITHOUT CAP<br>IN T&R | PLATING<br>OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER<br>POLARIZATI<br>ON | PEG          | DIMENSION |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              |                                    |                                 |                                |                                   |                    | DUAL           | CENTER | DUAL       | SINGLE |                            |              | A         | B          | C        | D     | E     | F   | G    | H         |   |  |   |  |   |  |
| 42                                                                                                                                           | 87831-4219                         | N.A                             | N.A                            | N.A                               | 1                  | YES            | N.A    | YES        | N.A    | YES                        | N.A          | 40.00     | 42.85      | 44.65    | 43.00 | 36.00 | N.A | 2.50 | 3.60±0.20 |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4220                         | N.A                             | N.A                            | 87831-4230                        | 2                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4221                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4236                         | N.A                             | N.A                            | N.A                               | 4                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4228                         | N.A                             | N.A                            | N.A                               | 2                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 2.50 |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4229                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 44                                                                                                                                           | 87831-4419                         | N.A                             | N.A                            | N.A                               | 1                  | YES            | N.A    | YES        | N.A    | YES                        | N.A          | 42.00     | 44.85      | 46.65    | 45.00 | 38.00 | N.A | 2.50 | 3.60±0.20 |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4420                         | N.A                             | N.A                            | N.A                               | 2                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4421                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4436                         | N.A                             | N.A                            | N.A                               | 4                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4428                         | N.A                             | N.A                            | N.A                               | 2                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 2.50 |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4429                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4435                         | N.A                             | N.A                            | N.A                               | 3                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 3.50 |           |   |  |   |  |   |  |
| 46                                                                                                                                           | 87831-4619                         | N.A                             | N.A                            | N.A                               | 1                  | YES            | N.A    | YES        | N.A    | YES                        | N.A          | 44.00     | 46.85      | 48.65    | 47.00 | 40.00 | N.A | 2.50 | 3.60±0.20 |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4620                         | N.A                             | N.A                            | N.A                               | 2                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4621                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4636                         | N.A                             | N.A                            | N.A                               | 4                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4628                         | N.A                             | N.A                            | N.A                               | 2                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 2.50 |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4629                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 48                                                                                                                                           | 87831-4819                         | N.A                             | N.A                            | N.A                               | 1                  | YES            | N.A    | YES        | N.A    | YES                        | N.A          | 46.00     | 48.85      | 50.65    | 49.00 | 42.00 | N.A | 2.50 | 3.60±0.20 |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4820                         | N.A                             | N.A                            | N.A                               | 2                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4821                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4836                         | N.A                             | N.A                            | N.A                               | 4                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4828                         | N.A                             | N.A                            | N.A                               | 2                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 2.50 |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-4829                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 50                                                                                                                                           | 87831-5019                         | N.A                             | N.A                            | N.A                               | 1                  | YES            | N.A    | YES        | N.A    | YES                        | N.A          | 48.00     | 50.85      | 52.65    | 51.00 | 44.00 | N.A | 2.50 | 3.60±0.20 |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5020                         | N.A                             | N.A                            | N.A                               | 2                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5021                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5036                         | N.A                             | N.A                            | N.A                               | 4                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5028                         | N.A                             | N.A                            | N.A                               | 2                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 2.50 |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5029                         | N.A                             | N.A                            | N.A                               | 3                  |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
|                                                                                                                                              | 87831-5035                         | N.A                             | N.A                            | N.A                               | 3                  | YES            | N.A    | YES        | N.A    | YES                        | YES          |           |            |          |       |       |     | 3.50 |           |   |  |   |  |   |  |
| PLATING OPTIONS:                                                                                                                             |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 1 - 0.05-0.13µm/2-5µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL. |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 2 - 0.38µm/15µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.       |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 3 - 0.76µm/30µin GOLD IN CONTACT AREA AND<br>1.88µm/75µin MIN. MATTE TIN IN SOLDER TAIL AREA OVER<br>1.27µm/50µin MIN. NICKEL OVERALL.       |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| 4 - 2.50µm/100µin MIN. MATTE TIN OVER 1.25µm/50µin MIN. NICKEL OVERALL.                                                                      |                                    |                                 |                                |                                   |                    |                |        |            |        |                            |              |           |            |          |       |       |     |      |           |   |  |   |  |   |  |
| DOCUMENT STATUS                                                                                                                              |                                    |                                 |                                |                                   |                    |                |        |            |        | P1                         | RELEASE DATE |           | 2023/09/11 | 04:36:51 |       |       |     |      |           |   |  |   |  |   |  |
| 9                                                                                                                                            |                                    |                                 |                                |                                   |                    |                |        |            |        | 8                          |              | 7         |            | 6        |       | 5     |     | 4    |           | 3 |  | 2 |  | 1 |  |

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

DIMENSION UNITS

mm

SCALE

NTS

GENERAL TOLERANCES  
(UNLESS SPECIFIED)

|                                                            |       |      |
|------------------------------------------------------------|-------|------|
|                                                            | MM    | INCH |
| 4 PLACES                                                   | ±     | ±    |
| 3 PLACES                                                   | ±     | ±    |
| 2 PLACES                                                   | ± 0.2 | ±    |
| 1 PLACE                                                    | ±     | ±    |
| 0 PLACES                                                   | ±     | ±    |
| ANGULAR TOL ± 3.0 °                                        |       |      |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |       |      |

EC NO: 761863  
DRWN: SUAIFR  
CHK'D: GGA  
APPR: GGA

2023/08/14  
2023/09/11  
2023/09/11

INITIAL REVISION:

DRWN: GMENARLY  
APPR: KHLIM

2015/04/15  
2015/06/29

SD-87831-0001

PSD

001

A24

DOCUMENT NUMBER

SHEET NUMBER

DOC TYPE

DOC PART

REVISION

PRODUCT CUSTOMER DRAWING

MATERIAL NUMBER

CUSTOMER

SHEET NUMBER

13 OF 14

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⏏

THIRD ANGLE PROJECTION

DRAWING

A3-SIZE

SERIES

87831

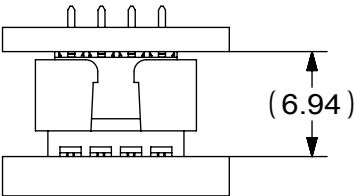
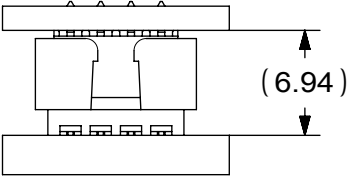
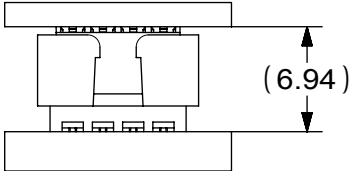
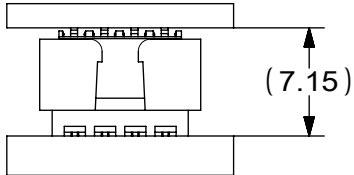
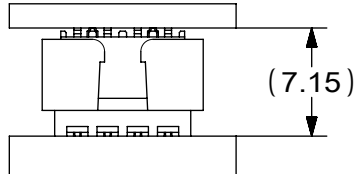
MATERIAL NUMBER

SEE TABLE

CUSTOMER

GENERAL MARKET

BOARD TO BOARD (BTB) DISTANCE

| HEADER | MATES WITH<br>(RECEPTACLE) | BTB DIST. | PICTORIAL VIEW                                                                        |
|--------|----------------------------|-----------|---------------------------------------------------------------------------------------|
| 87831  | 79107                      | 6.94      |    |
|        | 78787                      | 6.94      |    |
|        | 79108                      | 6.94      |   |
|        | 79109                      | 7.15      |  |
|        | 78788                      | 7.15      |  |

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|                                                      |       |                        |  |
|------------------------------------------------------|-------|------------------------|--|
| DIMENSION UNITS                                      |       | SCALE                  |  |
| mm                                                   |       | NTS                    |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |       |                        |  |
|                                                      | MM    | INCH                   |  |
| 4 PLACES                                             | ±     | ±                      |  |
| 3 PLACES                                             | ±     | ±                      |  |
| 2 PLACES                                             | ± 0.2 | ±                      |  |
| 1 PLACE                                              | ±     | ±                      |  |
| 0 PLACES                                             | ±     | ±                      |  |
| ANGULAR TOL                                          |       | ± 3.0 °                |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |       | THIRD ANGLE PROJECTION |  |

CURRENT REV DESC: REMOVED OBSOLETE PART NUMBERS AS PER PCN#512581.

EC NO: 761863  
DRWN: SUAIFR  
CHK'D: GGA  
APPR: GGA

INITIAL REVISION:  
DRWN: DRWN BY  
APPR: APPR BY

2023/08/14  
2023/09/11  
2023/09/11

XXXX/XX/XX  
XXXX/XX/XX

2023/08/14  
2023/09/11  
2023/09/11

mo

lex

MILLIGRID  
2MM PITCH, THROUGH HOLE VERTICAL SHROUDED  
HEADER

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER

SD-87831-0001

DOC TYPE

PSD

DOC PART

001

REVISION

A24

MATERIAL NUMBER

CUSTOMER

SHEET NUMBER

A3-SIZE

87831

GENERAL MARKET

14 OF 14