

# MHF<sup>®</sup> TI

Small, robust RF connector for automotive telematics antenna, and camera sensors

**Product Specifications:**

Mated Height	3.65 mm max.	
Rece. SMT Size	9.4 x 5.18 mm	
Applicable Frequency	DC ~ 6 GHz	
Characteristic Impedance	50 ohm	
VSWR (L = 100 mm)	DC ~ 6 GHz	1.5 max.
	6 ~ 9 GHz	-
	9 ~ 12 GHz	-
	12 ~ 15 GHz	-

**Applicable Cable Size:**

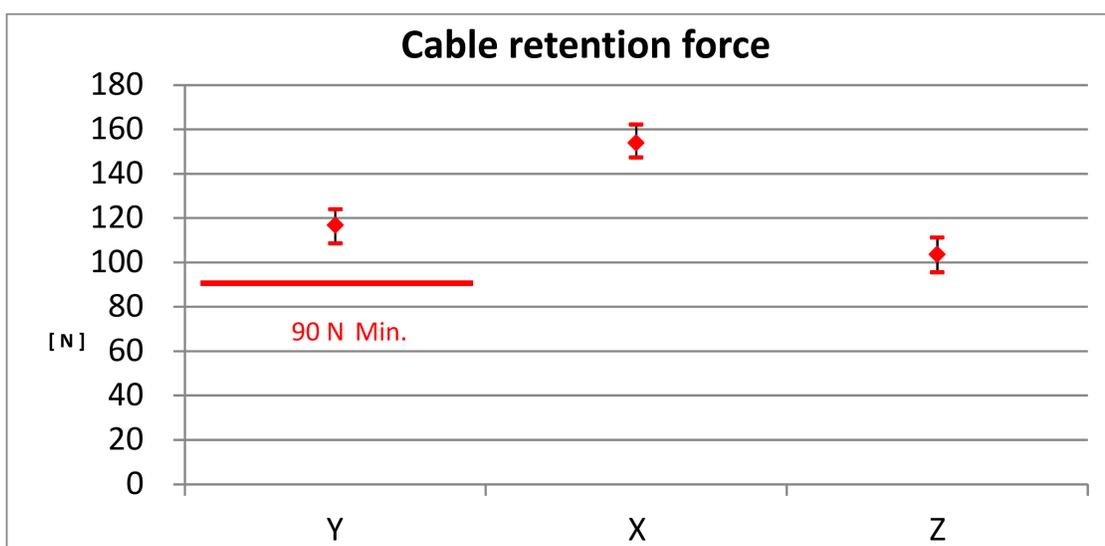
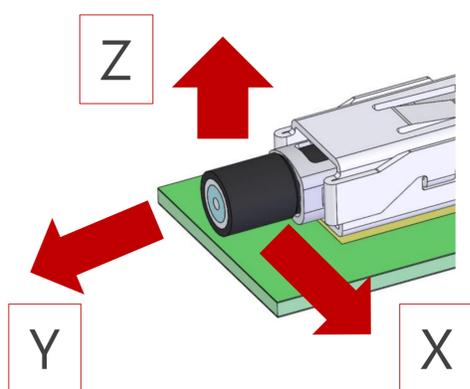
O.D. 2.8 mm/AWG 26
O.D. 3.0 mm/AWG 25

**Applicable Standards (Reference Only):**

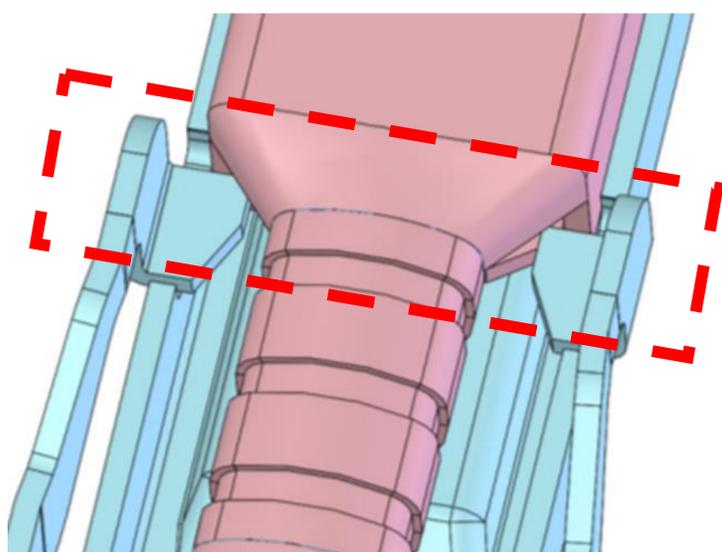
5G sub-6, Wi-Fi 6, LTE/LTE-Advanced, LPWA, Bluetooth, GPS, C-V2X, DSRC



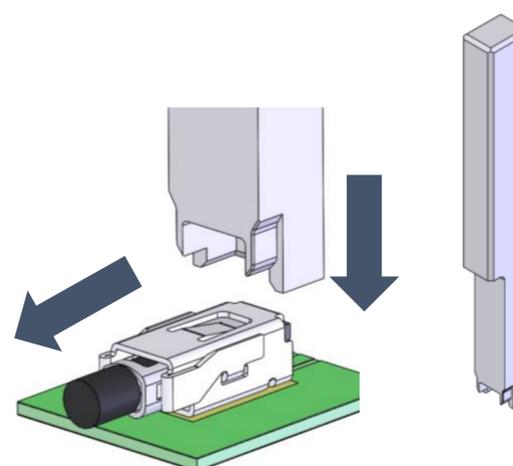
▶ **High retention force (90 N minimum)**



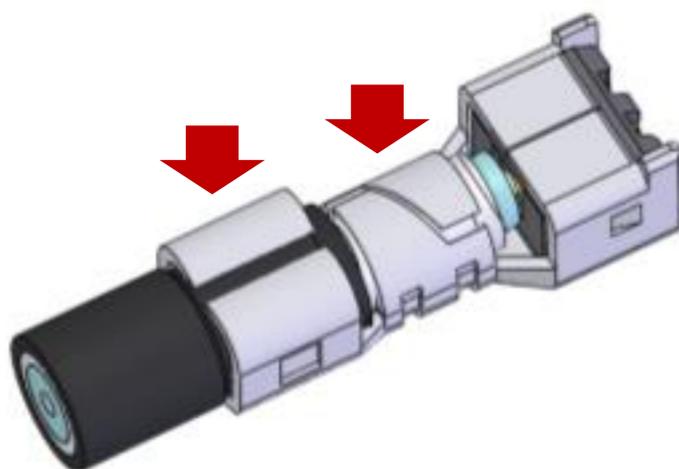
▶ **Permanent mechanical lock with tactile indication of secure contact/Un-mating tool available**



Un-Mating tool  
91097-0001



▶ **2.8 ~ 3.0 mm O.D. wire available with robust crimping structure**

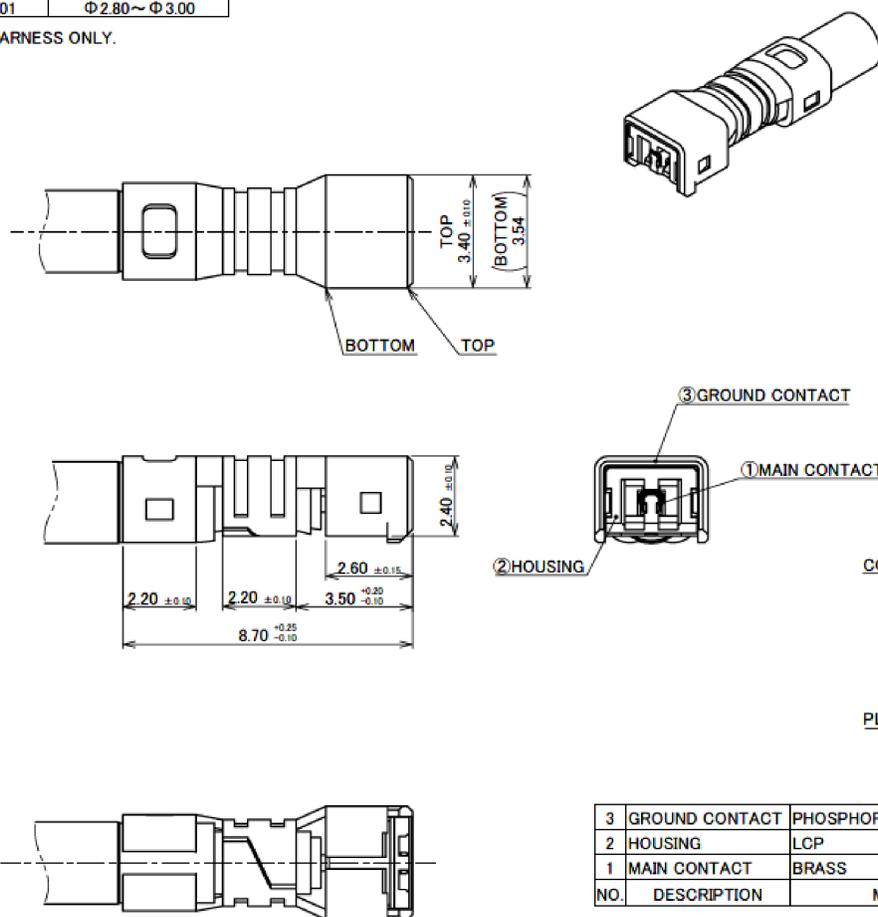


# Component Parts Details

## MHF® -TI Plug

Recommended P/N	20859-001R-01
PART NO.	APPLICABLE CABLE
20859-001R-01	Φ 2.80~Φ 3.00

OFFERED AS HARNESS ONLY.



- NOTES.
1. APPLICABLE CONNECTOR  
MHF-TI RECEPTACLE(P/N: 20860-001E-01)
  2. APPLICABLE CABLE  
AWG#25~26, Φ 2.80~Φ 3.00mm
  3. APPLICABLE FREQUENCY RANGE: DC TO 6 GHz
  4. RoHS COMPLIANT  
THIS PRODUCT IS COMPLIANT WITH RoHS DIRECTIVE.
  5. HALOGEN FREE  
THIS PRODUCT IS CONFORMED TO IEC 61249-2-21.

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	Sn PLATING
2	HOUSING	LCP	UL94V-0, BLACK
1	MAIN CONTACT	BRASS	Au PLATING

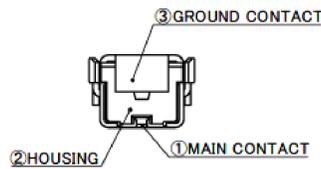
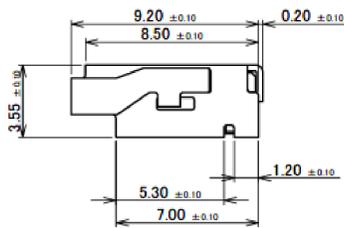
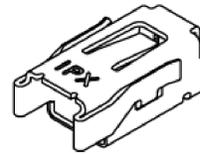
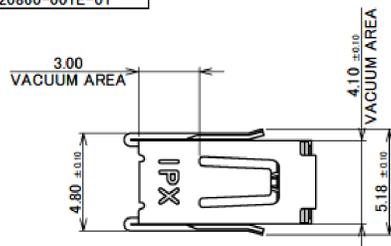
# MHF® -TI Plug

ITEMS	SPECIFICATION
RECOMMENDED APPLICABLE CONNECTOR PART No.	20860-001E-0*
RATING AMPERAGE	100mA AC/DC
RATING FREQUENCY	DC~6 GHz
OPERATING TEMPERATURE	233~378K (-40°C~+105°C)
OPERATING HUMIDITY	85% MAX. (NON-CONDENSING)
VSWR	1.5 MAX. AT DC~6 GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: 30 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 15 mohm MAX. / AFTER TEST: 25 mohm MAX.
INSULATION RESISTANCE	INITIAL: 500 Mohm MIN. / AFTER TEST: 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC, 1 MINUTE
DURABILITY	30 CYCLES
MATING FORCE	45N MAX.
MATING LOCK STRENGTH	110 N MIN
CRIMP STRENGTH	90 N MIN.
PRODUCT SPECIFICATION	PRS-2573
TEST REPORT	TR-20007
INSTRUCTION MANUAL	HIM-20001
APPEARANCE CRITERIA No.	QLS-A***

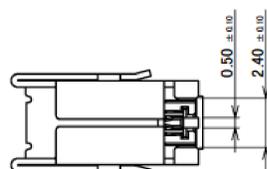
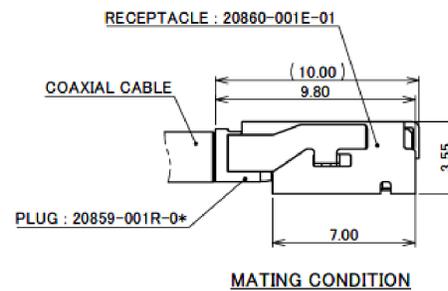
Rev.5

# MHF® -TI Receptacle

Recommended P/N	20860-001E-01
PART NO.	20860-001E-01



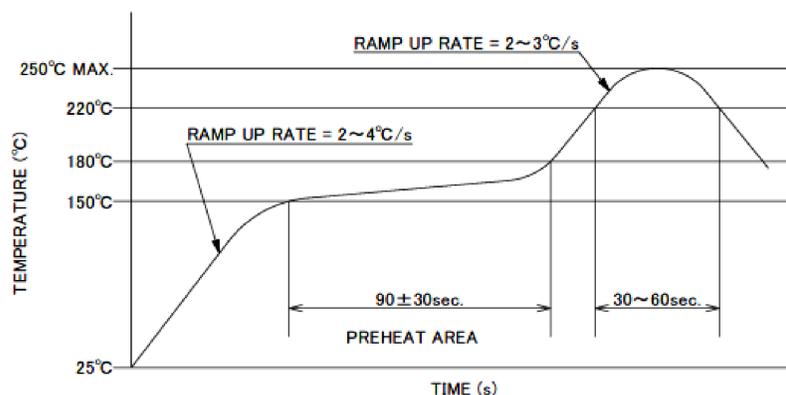
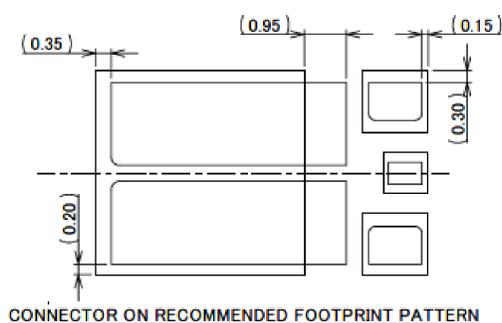
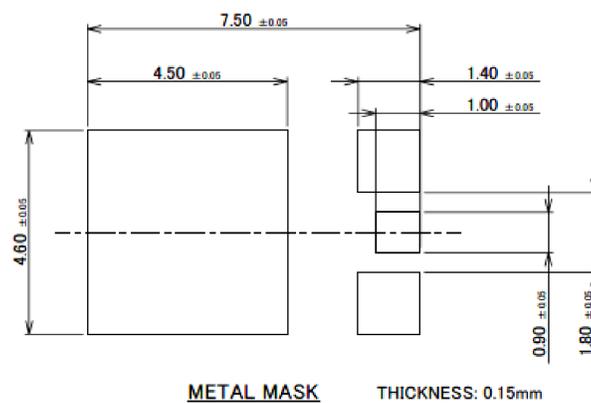
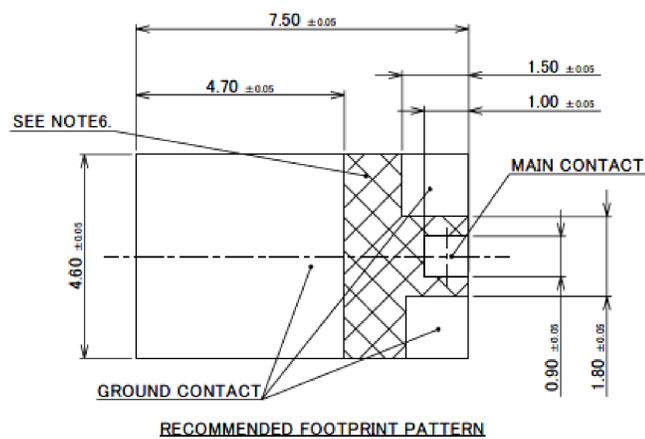
- NOTES.
1. APPLICABLE CONNECTOR  
MHF-TI PLUG(P/N: 20859-001R-0\*)
  2. APPLICABLE FREQUENCY RANGE: DC TO 6 GHz
  3. COPLANARITY : 0.1MAX.
  4. RoHS COMPLIANT  
THIS PRODUCT IS COMPLIANT WITH RoHS DIRECTIVE.
  5. HALOGEN FREE  
THIS PRODUCT IS CONFORMED TO IEC 61249-2-21.



NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	Sn PLATING
2	HOUSING	LCP	UL94V-0, BLACK
1	MAIN CONTACT	CORSON ALLOY	Au PLATING

Rev.7

# MHF® -TI Receptacle



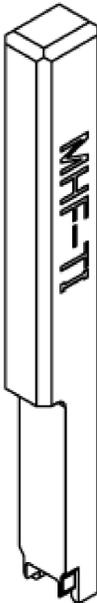
REFLOW TEMPERATURE PROFILE  
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

NOTES.  
6. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

Rev.7

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20859-001R-01
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OPERATING HUMIDITY	85% MAX. (NON-CONDENSING)
VSWR	1.5 MAX. AT DC~6 GHz
MAIN CONTACT RESISTANCE	INITIAL: 20 mohm MAX. / AFTER TEST: 30 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL: 15 mohm MAX. / AFTER TEST: 25 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC, 1 MINUTE
DURABILITY	30 CYCLES
MATING FORCE	45 N MAX.
MATING LOCK STRENGTH	110 N MIN
CRIMP STRENGTH	90 N MIN.
PRODUCT SPECIFICATION	PRS-2573
TEST REPORT	TR-20007
PACKING STANDARD	PST-18032
INSTRUCTION MANUAL	HIM-20001
APPEARANCE CRITERIA No.	QLS-A***

# Accessories for MHF® -TI Plug & Receptacle



MHF-TI UN-MATING JIG  
PART NO. 91097-0001

Rev.7

# Custom Connectors Available

## RF Connectors

MHF® series



CABLINE® series



## Micro-Coaxial/Twinaxial Connectors



## Wire-to-Board Connectors/Terminals

AP series



ISH® series



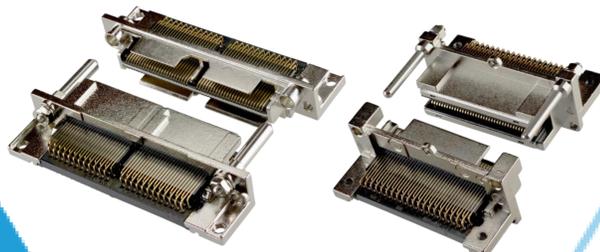
NOVASTACK® series



## Board-to-Board Connectors



## I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



## FPC/FFC Connectors



Inquiry



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