



AB-FC Flexible Tape Light Series

12V/24V DC, IP65 flexible tape light, available in single color, RGB, and RGBW.



Features:

- UL listed (#E353753)
- IP65 waterproof rating
- Top emitting, wide viewing angle 120°
- Environment temperature :-40°C~45°C
- Operating temperature -40°C~85°C
- Storage temperature -40°C~85°C
- Environment humidity 40-70%RH

Application:

- Conference/meeting rooms
- Hospitals
- Commercial/ residential buildings
- Entertaining lighting
- Hotels





Part number naming system:

Part numbers for AB-FA Flexible Tape Light Series follow the convention below:

AB – FC V V V K K – L L L W L – X A 1

V V V-Voltage (volt) of the light strip (012=12V, 024=24V)

K K – Color/CCT (30 – 3000K, 40 – 4000K, 63 – 6300K CCT, RD – Red, GR – Green,
BL – Blue, AM – Amber, 06 – RGB, 08 – RGBW)

L L L – Light strip length (unit: inch);

For 12V, length selection starts from minimum 1 inches (25mm), with the increment of 1t inches (25mm),
maximum available length is 197 inches.

For 24V, length selection starts from minimum 1.97 inches (50 mm), with the increment of 1.97 inches (50mm),
maximum available length is 394 inches.

W L – Lead length (unit: inch); standard length is 12 inches.

X - CRI (8 – 80, 9 – 90, X – not applicable)

Ax - Version (Internal Code)

For example, the below part number of AB-FA Flexible Tape Light Series stands for 24V, IP20,
flexible tape light 197 inches length, and lead 12 inches length, 3000K CCT:

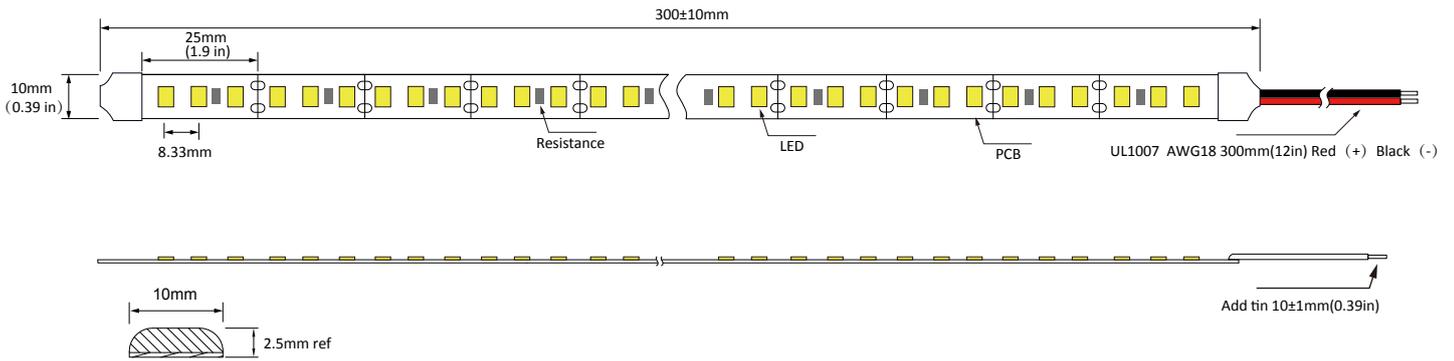
AB – FC 0 2 4 3 0 – 1 9 7 1 2 – X A 1



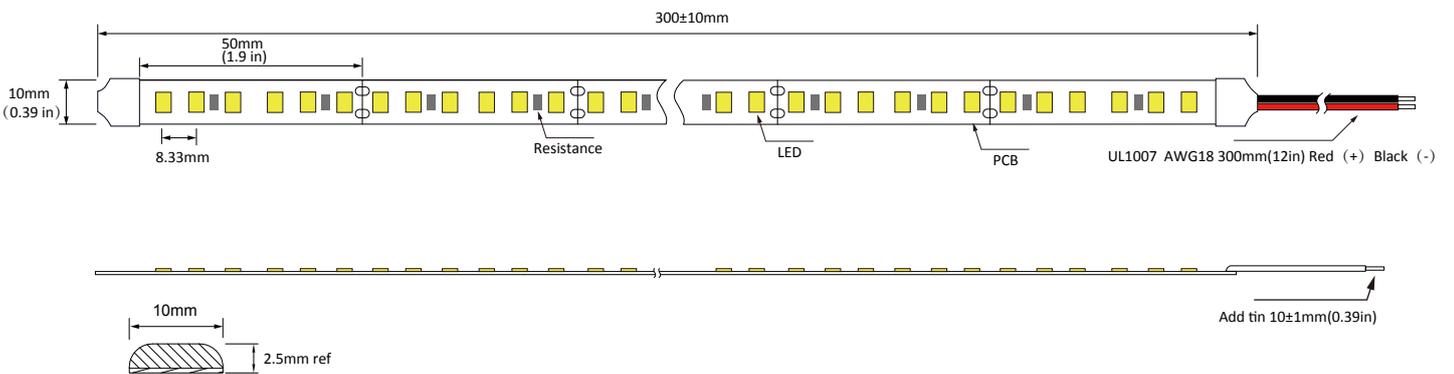
Outline Dimension:

Single Color:

DC12V

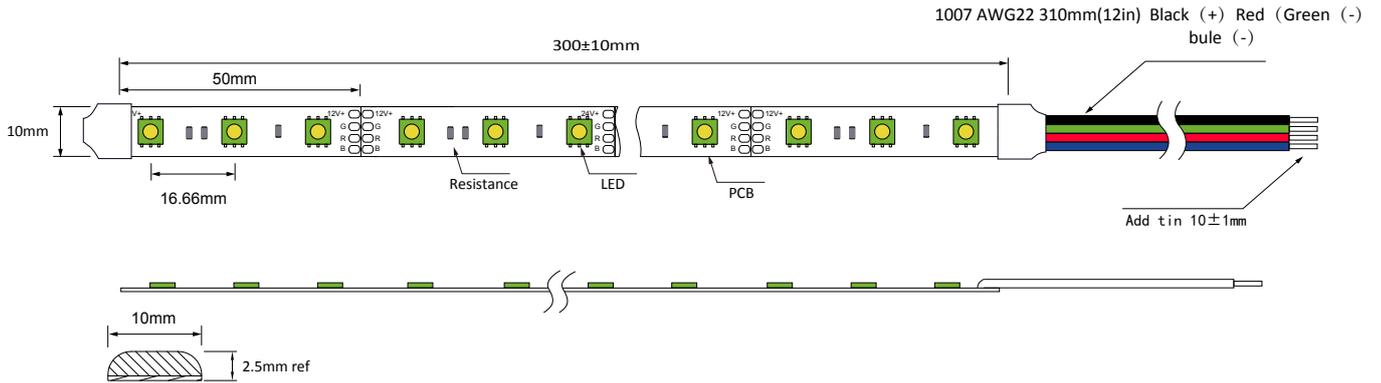


DC24V

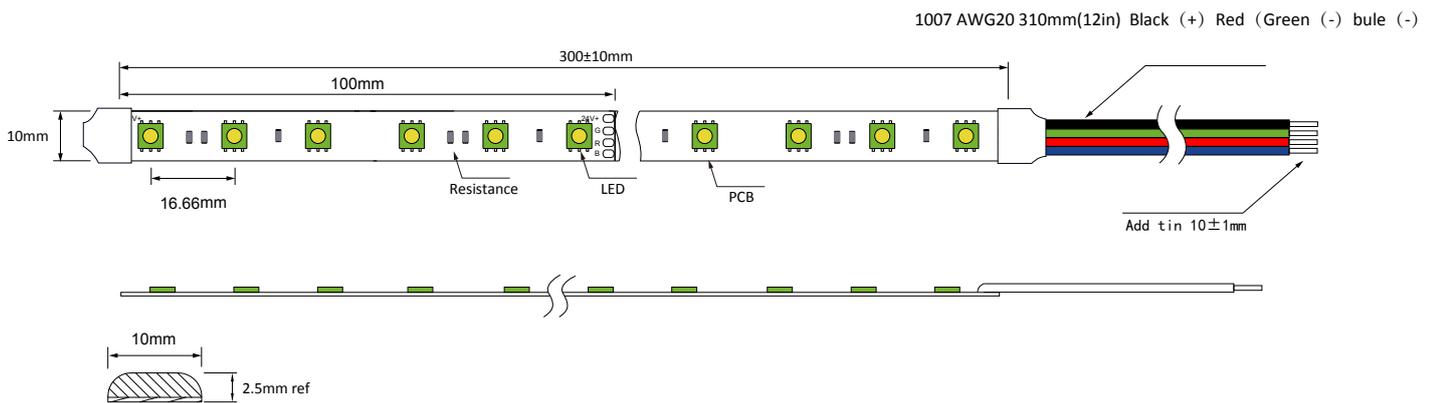


RGB Color:

DC12V

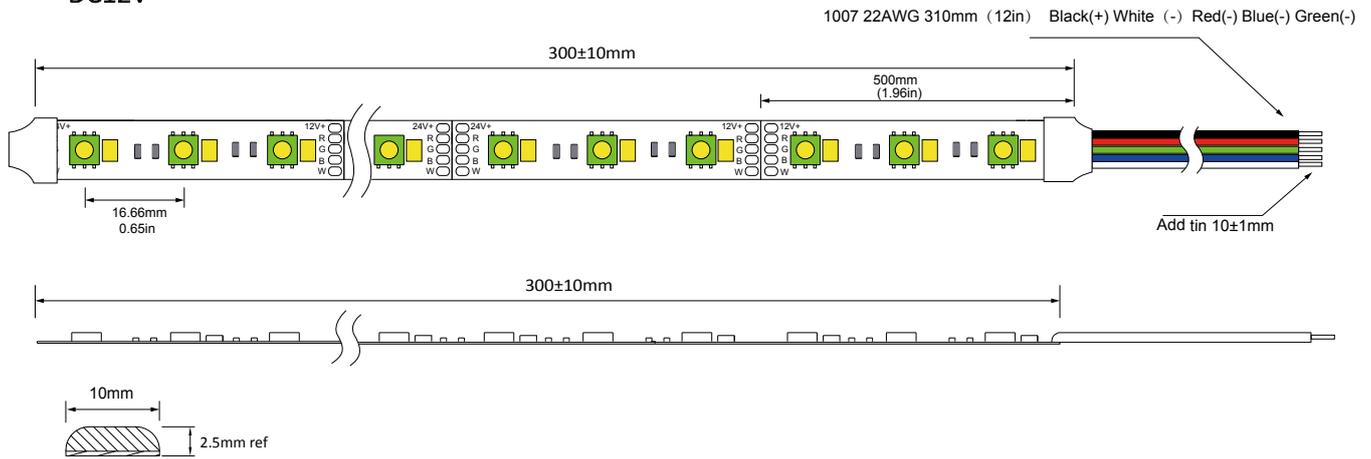


DC24V

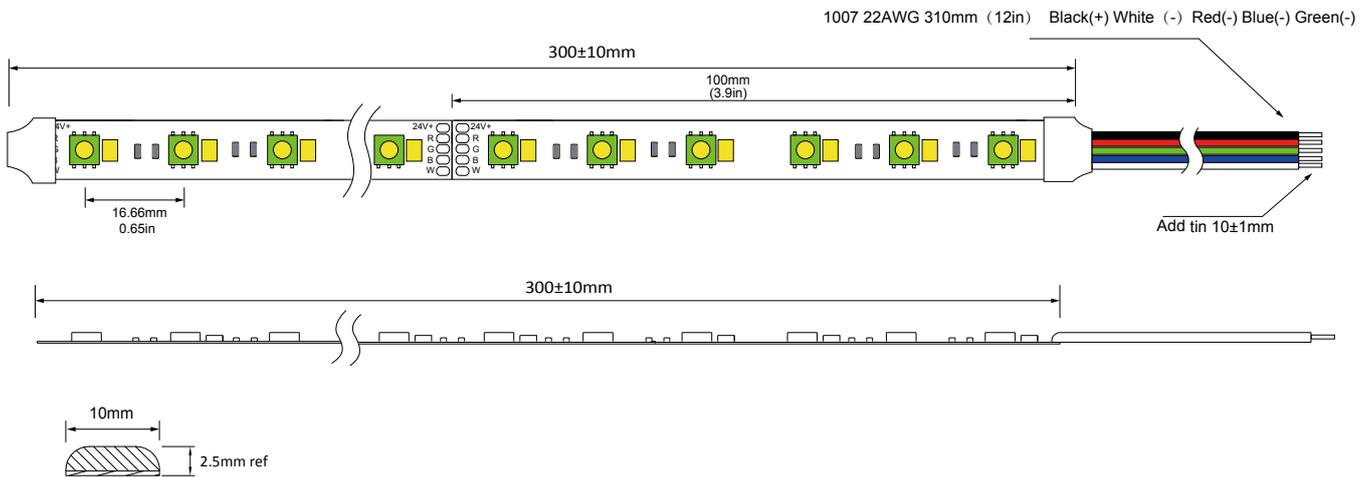


RGBW Color:

DC12V



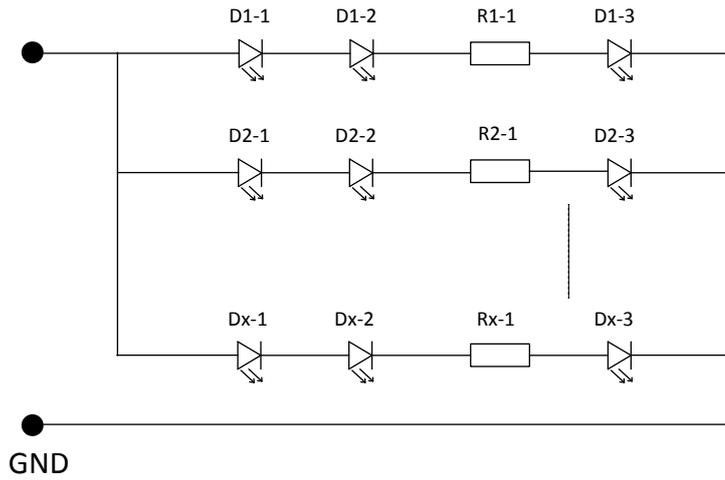
DC24V



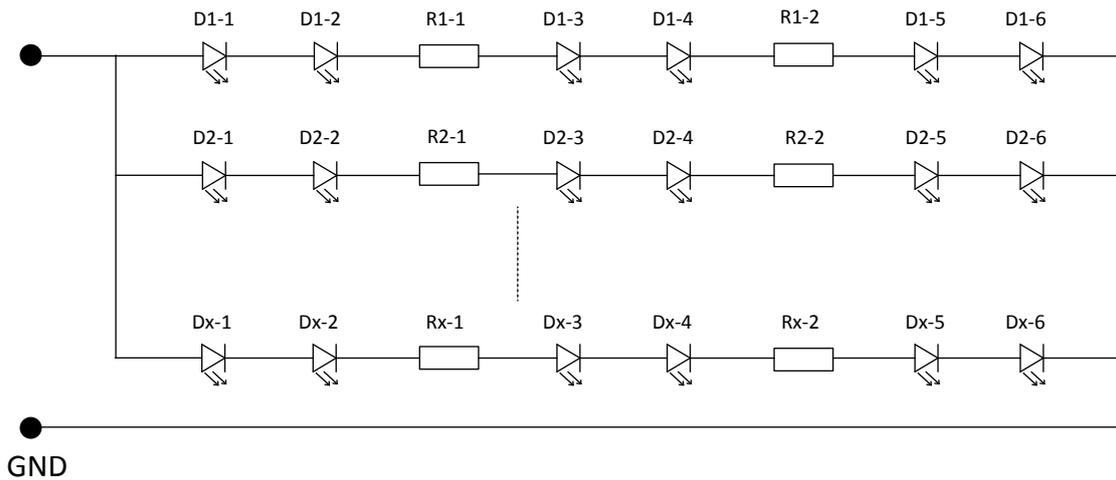
Schematic Diagram :

Single Color:

DC12V+

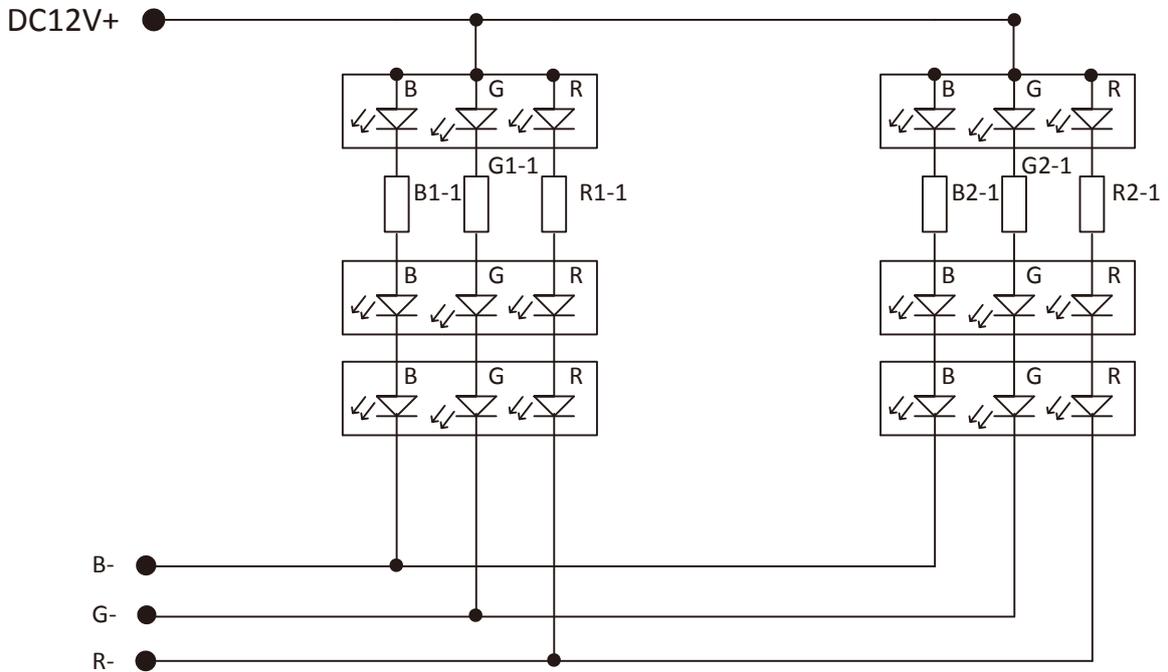


DC24V

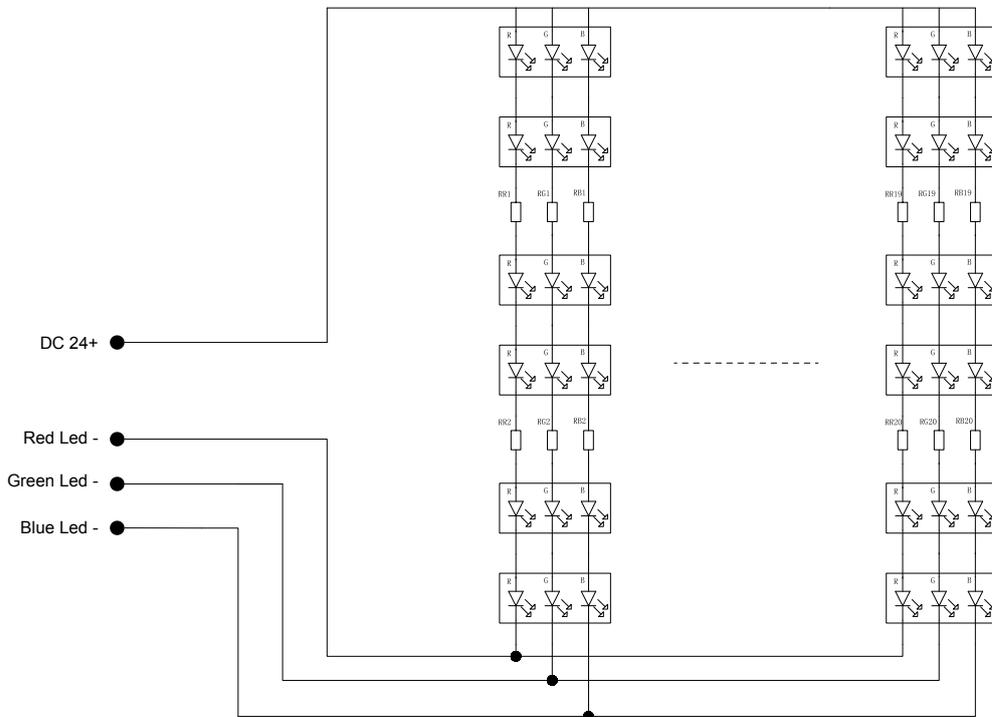




RGB Color:

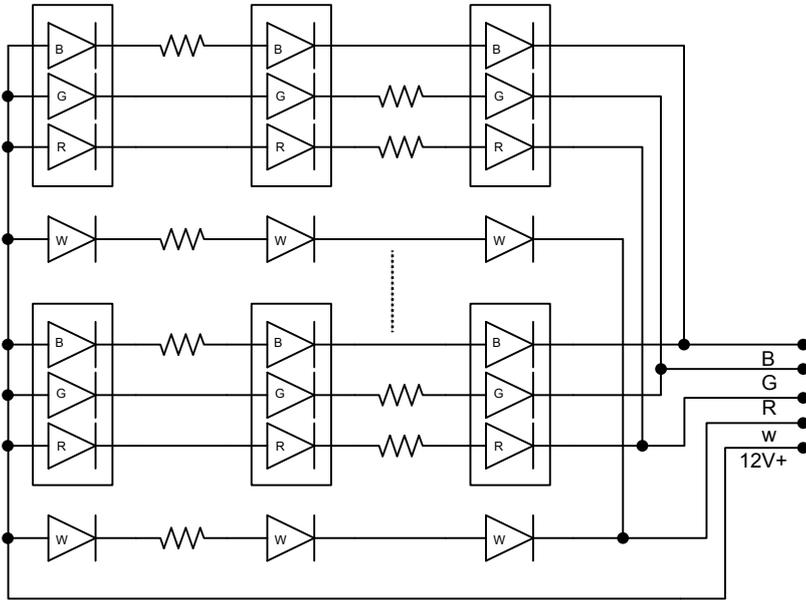


DC24V

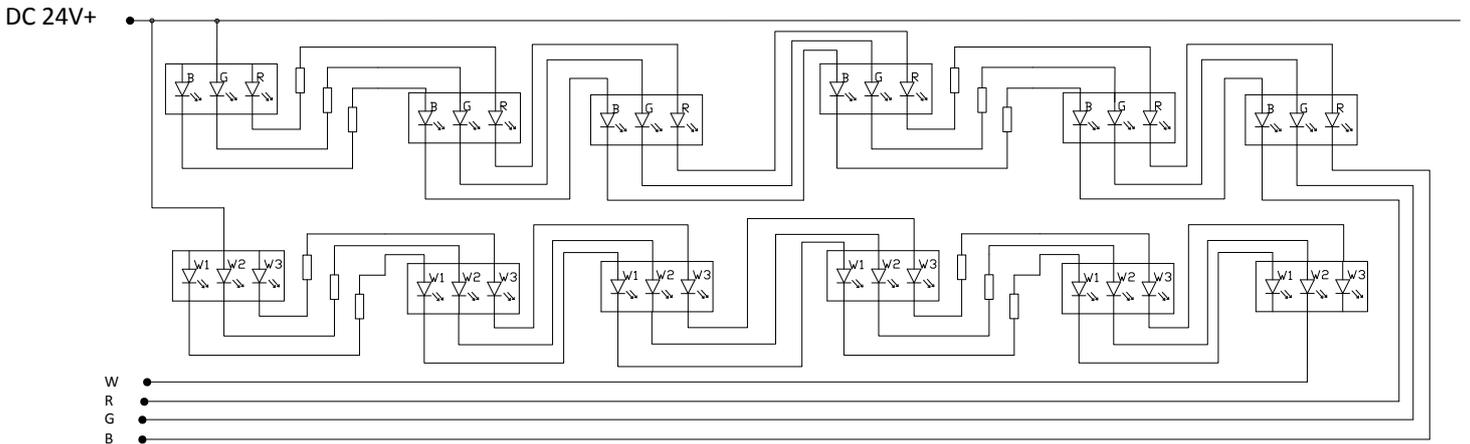


RGBW Color:

DC12V+



DC24V



Characteristics:

Table 1. Configurations for AB-FC Flexible Tape Light Series.

OPERATING VOLTAGE(V)	CURRENT(A/12in)	POWER (W/12in)	LENGTH (inch)	LEDCOUNT/in
12	White/Green/Blue:0.25	3	12	36/12in
	Red/Amber:0.25	3		
	RGB:0.25	3	12	18/12in
	RGBW:0.37	4.5		
24	White/Green/Blue:0.13	3	12	36/12in
	Red/Amber:0.13	3		
	RGB:0.13	3	12	18/12in
	RGBW:0.19	4.5		

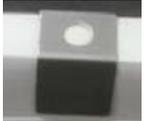
Table 2. Product performance of AB-FC Flexible Tape Light Series at T=25 degree C.

PART NUMBER	CCT/ WAVELENGTH	LUMINOUS FLUX** (lm/m)	LUMINOUS EFFICACY (lm/W)	CRI
AB-FC012KK-19712-8A1S AB-FC024KK-19712-8A1S	30:3000K	270	90	>80
	40:4000K	270	90	
	63:6300K	270	90	
	RD: Red 620-625nm	75	25	X
	GR: Green 520-525nm	210	70	X
AB-FC01206-19712-XA2S AB-FC02406-19712-XA2S	BL: Blue 440-450nm	63	21	X
	AM: Amber 558-592nm	57	19	X
	RD: Red 620-635nm	--	25	X
	GR: Green 520-525nm	--	70	X
AB-FC01208-19712-8AXS AB-FC02408-19712-8AXS	BL: Blue 440-450nm	--	21	X
	RD: Red 620-630nm	--	25	X
	GR: Green 520-525nm	--	70	X
	BL: Blue 460-475nm	--	21	X
AB-FC01208-19712-8AXS AB-FC02408-19712-8AXS	27:2700K	--	90	>80
	30:3000K			
	40:4000K			
	50:5000K			
	65:6500K			

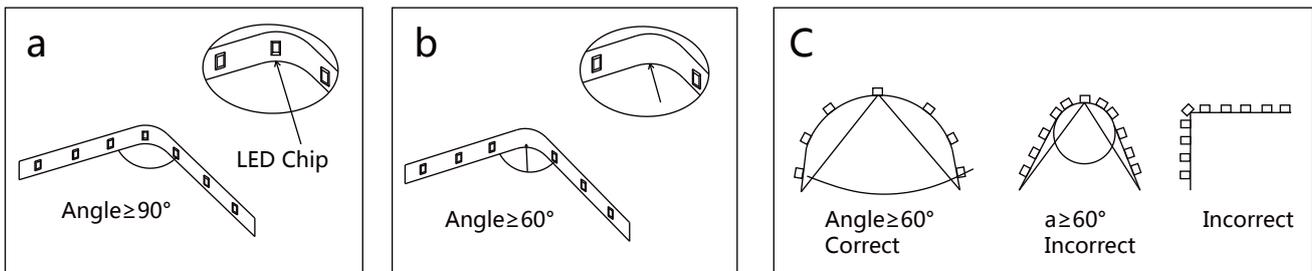
Note:

- Standard unit length: 5m or 10m/roll, for custom length, please contact aboc@americanbrightled.com
- KK – Color/CCT (27 – 2700K, 30 – 3000K, 40 – 4000K, 50 – 5000K, 65 – 6500K CCT, 06 – RGB)
- Luminous flux ±10% is allowed.

Table 3. Accessory list

Item	Size (mm)	Description	Compatible to	Image
AB-M-SS-10-12-L20	20x10x13	Silicon mounting bracket	AB-FF series	
AB-M-SI-RBLL-06	18.3x6x6	Silicon mounting bracket	AB-FA series AB-FC series AB-FD series	
AB-M-AL-20-09-1000	5000x15x10	Aluminum groove	AB-FB series	
AB-M-SS-18-08-L20	20x18x10	Stainless mounting bracket	AB-FB series	
AB-M-S-7-9-L7	7x6x12	Stainless mounting bracket	AB-FH series	

Installation Instructions:



a: use an angle greater or equal to 90 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle \geq 90degree)

b: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle \geq 60degree)

c: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle \geq 60degree) In the convex position the angle should not reach 90 degrees. See above diagram.



Maximum Flexibility Precaution

NOTE: DO NOT BEND TO A RADIUS OF LESS THAN 0.59 INCH

NOTE: SHARP BENDING ISN'T ALLOWABLE

NOTE: DO NOT AXIAL BEND TO THE HEIGHT OF MORE THAN 19.8mm WITHIN 0.78 INCH SEGMENT

NOTE: DO NOT HORIZONTAL BEND TO A RADIUS OF LESS THAN 18 INCH

NOTE: DO NOT TWIST MORE THAN 90° OVER THE LENGTH OF ONE 24V SEGMENT/ TWO 12V SEGMENTS (4" TOTAL LENGTH)

Product Packaging

Table 4. Packaging information

Model	QTY	Image
AB-FA series AB-FC series AB-FD series	1 roll/per ESD bag 10bags/carton	
AB-FB series AB-FF series AB-FH series	1 roll/per tray 10 tray/carton	

Note:

- 1.10 bags or tray/carton; QTY/bag varies per different unit lengths.
- 1.Standard unit length: 5m or 10m/roll, 1 roll/bag.

AB-FC Flexible Light Series