



## AB-FD Flexible Tape Light Series

IP68 flexible light in 12V/24V DC - Single color, RGB, and RGBW options.



### 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:**

**AB – FD 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 (27 – 2700K, 30 – 3000K, 40 – 4000K, 50 – 5000K, 63 – 6300K, 65 – 6500K CCT, RD – Red, GN – Green, BL – Blue, AM – Amber, 06 – RGB, 08 – RGBW)

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

Length selection of the strip:

	<u>12V</u>	<u>24V</u>
Single Color	Multiple of 25mm	Multiple of 50mm
RGB/RGBW	Multiple of 50mm	Multiple of 100mm

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, part number below calls out a flexible light with IP68 rating, 24V DC in 3000K CCT, CRI80, 197 inches long with 12 inches wire lead.

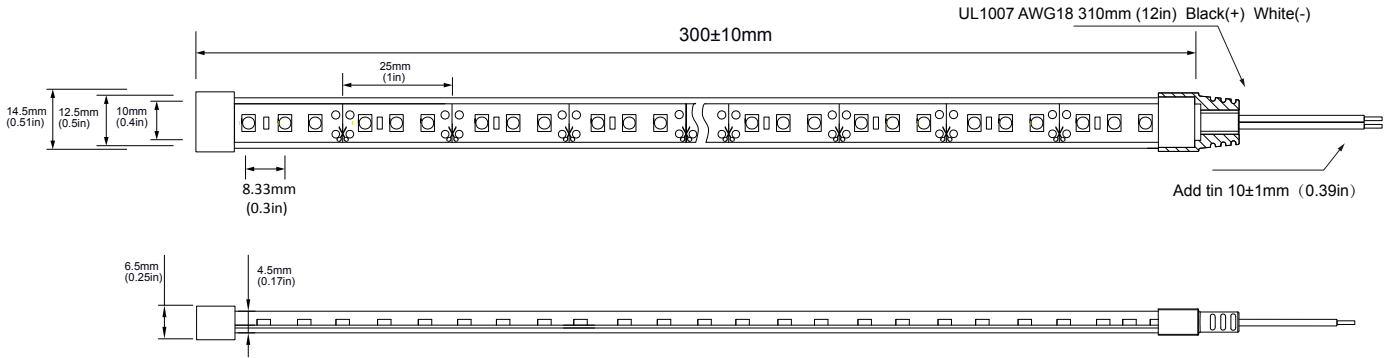
**AB – FD 0 2 4 3 0 – 1 9 7 1 2 – 8 A 1**



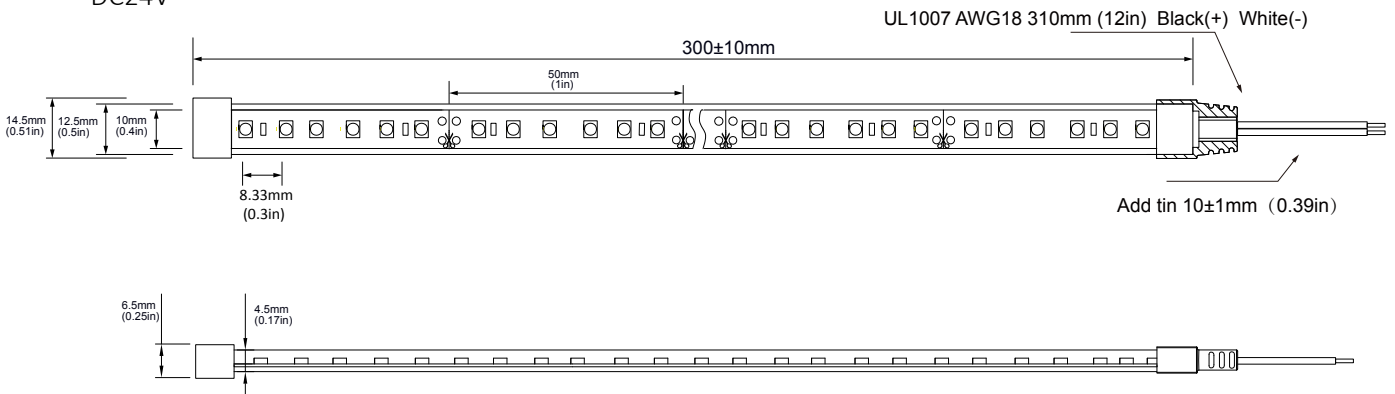
### Outline Dimension:

#### Single Color:

##### DC12V

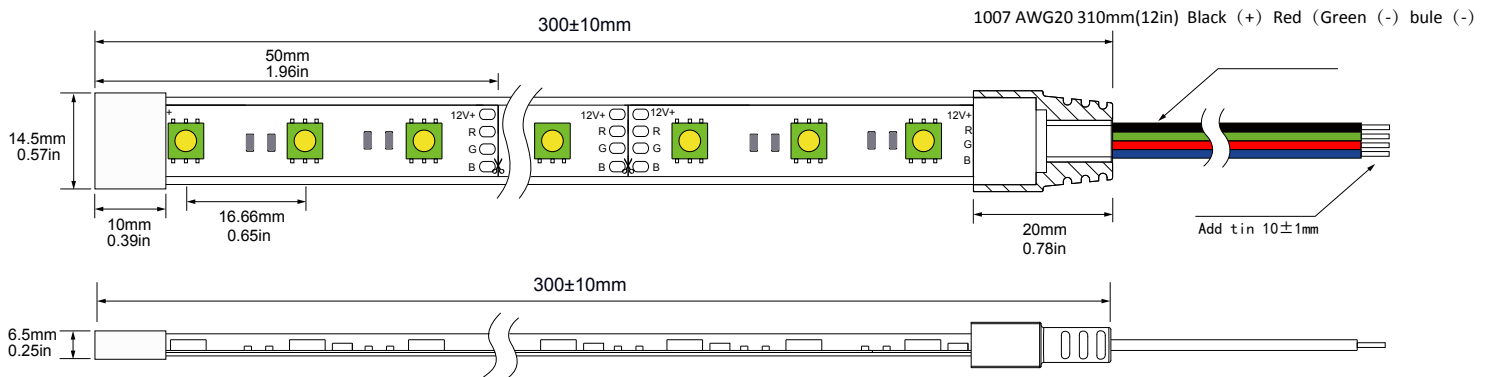


##### DC24V

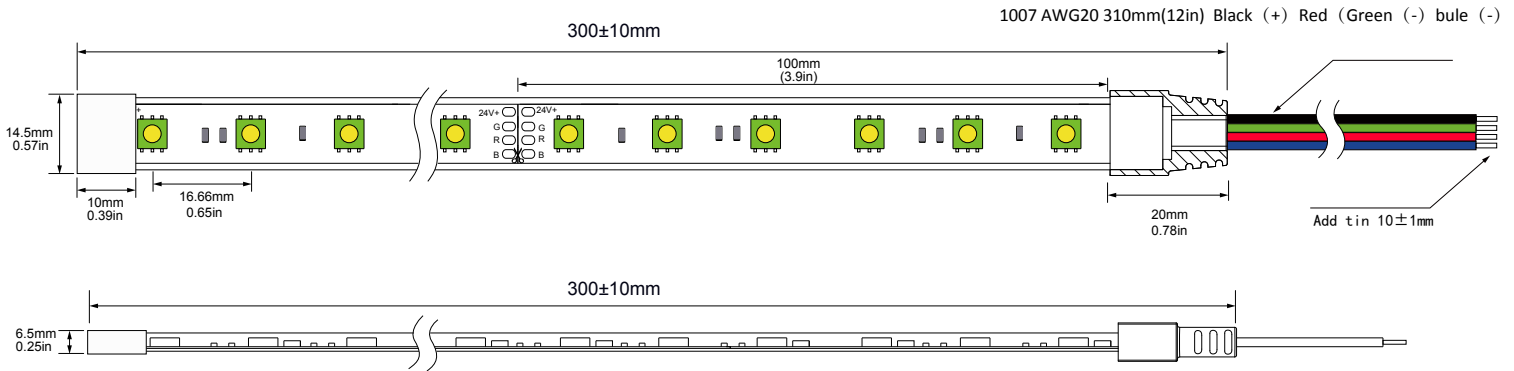


#### RGB Color:

##### DC12V

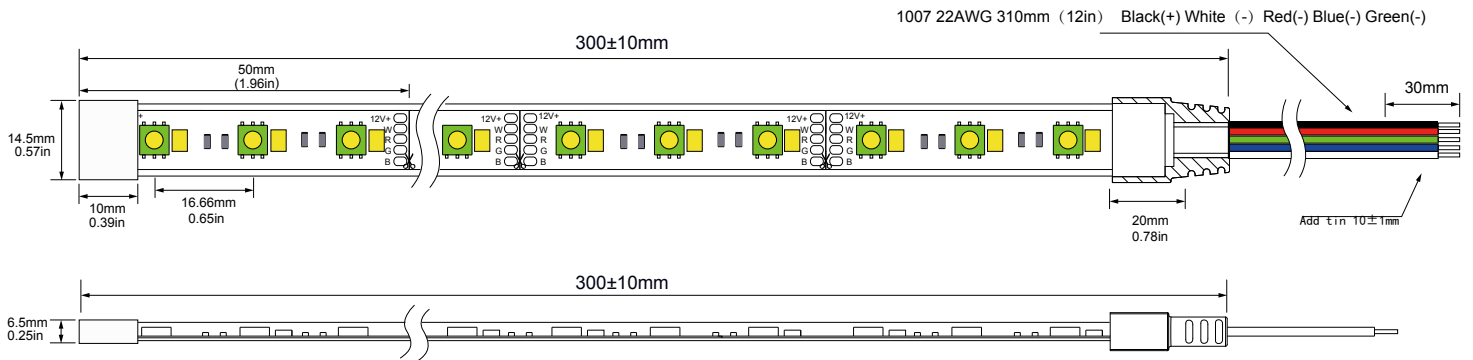


**DC24V**

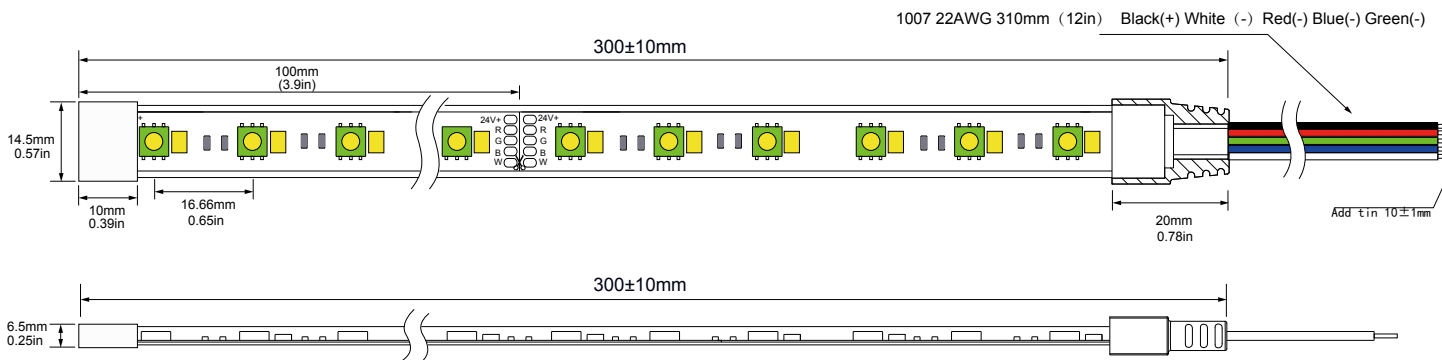


RGBW Color:

**DC12V**



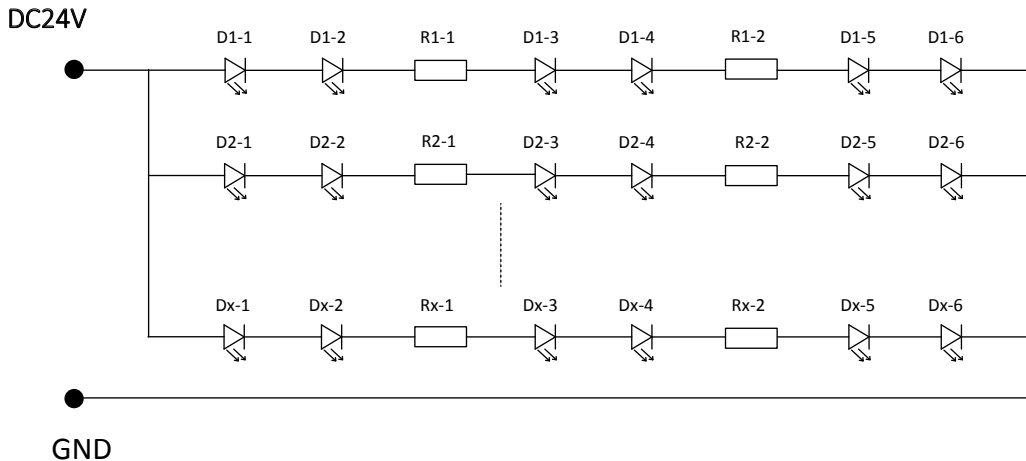
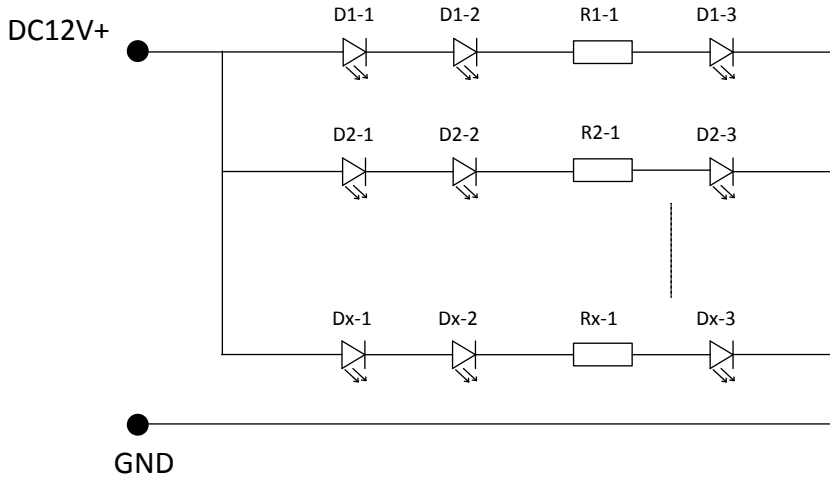
**DC24V**



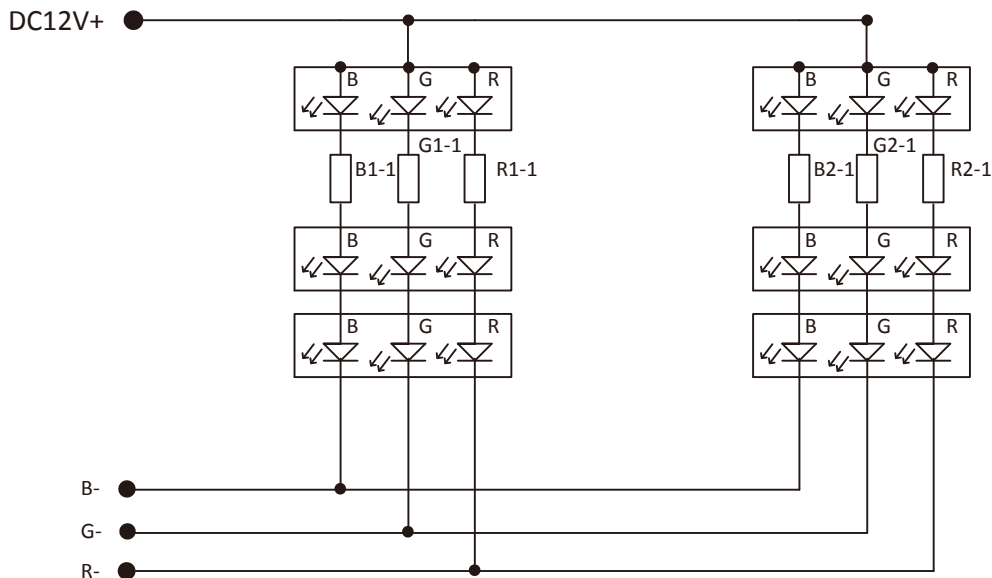


**Schematic Diagram :**

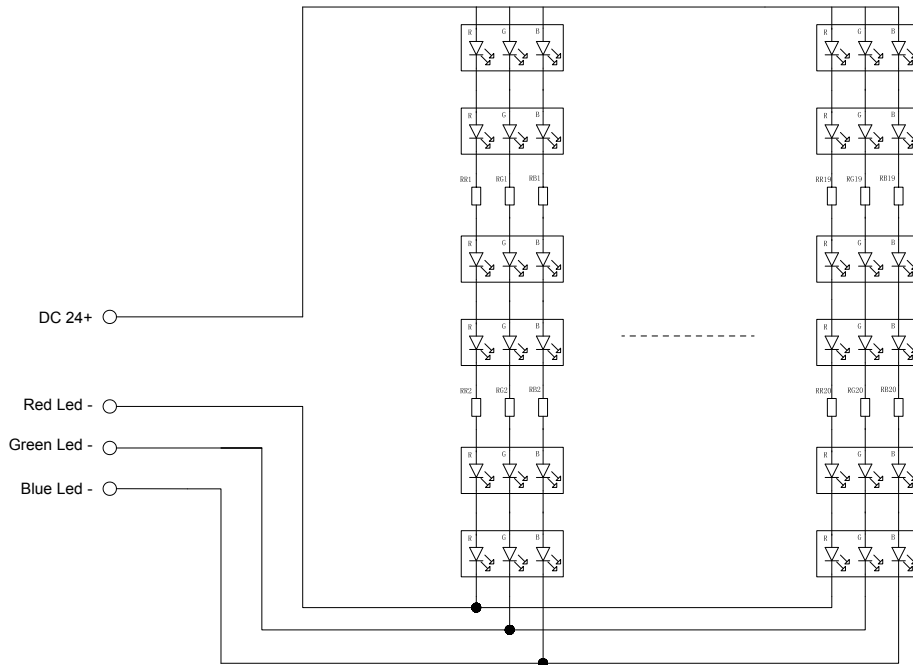
Single Color:



RGB Color:

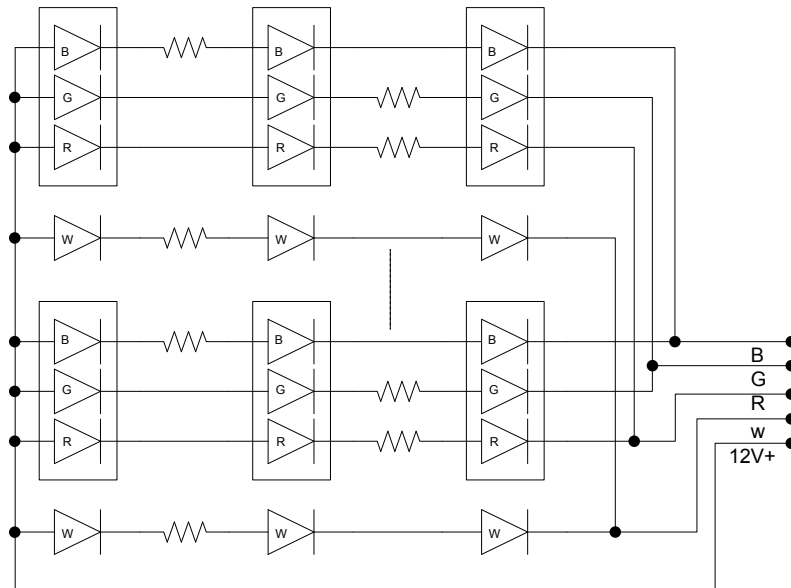


DC24V



RGBW Color:

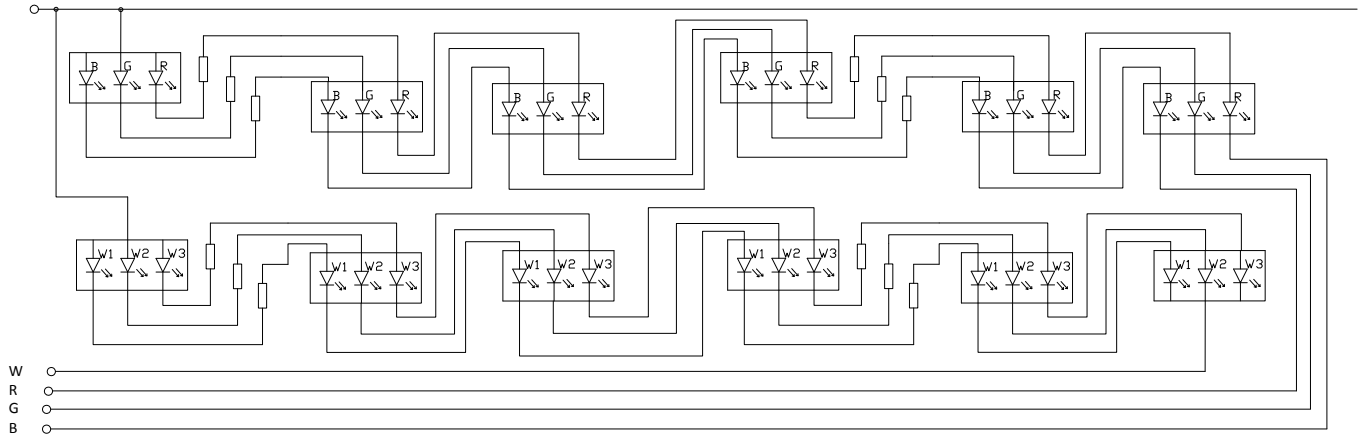
DC12V+



**AB-FD Flexible Light Series**



DC24V



## Characteristics:

Table 1. Configurations for AB-FD 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		

<sup>2</sup> Standard unit length: 5m or 10m/roll, for custom length, please contact [aboc@americanbrightled.com](mailto:aboc@americanbrightled.com).

## AB-FD Flexible Light Series



Table 2. Product performance of AB-FD Ultra Slim Rope Light Series at T=25 °C

PART NUMBER	CCT/ WAVELENGTH	LUMINOUS FLUX** (lm/m)	LUMINOUS EFFICACY (lm/W)	CRI
AB-FD012KK-19712-8A1S AB-FD024KK-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-FD01206-19712-XA2S AB-FD02406-19712-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-FD01208-19712-8AXS AB-FD02408-19712-8AXS	BL: Blue 440-450nm	--	21	X
	RD: Red 620-630nm	--	25	X
	GR: Green 520-525nm	--	70	X
	BL: Blue 460-475nm	--	21	X
	27:2700K 30:3000K 40:4000K 50:5000K 65:6500K	--	90	>80

<sup>3</sup> Luminous flux ±10% is allowed.


<sup>4</sup> KK - Color/CCT (30 – 3000K, 40 – 4000K, 63 – 6300K CCT, 06 – RGB, 08 – RGBW)

<sup>5</sup> x – 1- 3000K CCT, 2 - 4000K CCT, for other color temperature, please contact [aboc@americanbrightled.com](mailto:aboc@americanbrightled.com).

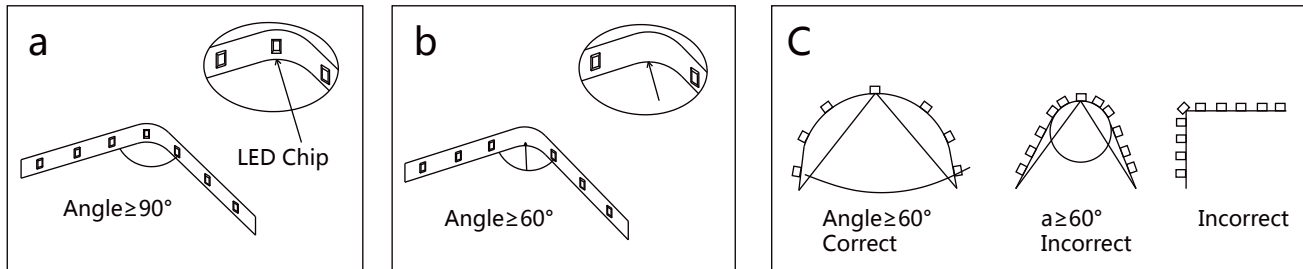
**AB-FD Flexible Light Series**



**Table 3. Accessory list**

Item	Size (mm)	Description	Compatible to	Image
M-SS-10-12-L20	20x10x13	Silicon mounting bracket	RSSL series	
M-SI-RBLL-06	18.3x6x6	Silicon mounting bracket	TPN series TPB series RBLL series	
M-AL-20-09-1000	5000x15x10	Aluminum groove	RNLL series	
M-SS-18-08-L20	20x18x10	Stainless mounting bracket	RNLL series	
M-S-7-9-L7	7x6x12	Stainless mounting bracket	RSSL 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.

### AB-FD Flexible Light Series



### 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	
RBLL series RSLL series	1 roll/per tray 10 tray/carton	

Note:

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

### AB-FD Flexible Light Series

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