



## AB-FODVVVI8-19712-XA1

### Features:

- UL listed
- IP68 waterproof rating
- Top emitting, wide viewing angle 180°
- Operating temperature -40°C~85°C
- Storage temperature -40°C~100°C
- Environment humidity 40-70%RH

### Application:

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

### Product performance parameter:

Serial number	Part Number	Color	nm	QTY/M (39.3in)	Luminous per meter	lm/w	working voltage (12/24V)/IF(A)	Rated power (W/M)	Protection Grade
1	AB-FOD012I8-19712-XA1	Red	620-630nm	630LED	120lm	15/W	12V/0.66A	8	IP68
		Green	515-525nm		448lm	56/W	12V/0.66A	8	
		Blue	455-465nm		88lm	11/W	12V/0.66A	8	
2	AB-FOD024I8-19712-XA1	Red	620-630nm	630LED	120lm	15/W	24V/0.33A	8	IP68
		Green	515-525nm		448lm	56/W	24V/0.33A	8	
		Blue	455-465nm		88lm	11/W	24V/0.33A	8	

### Notes :

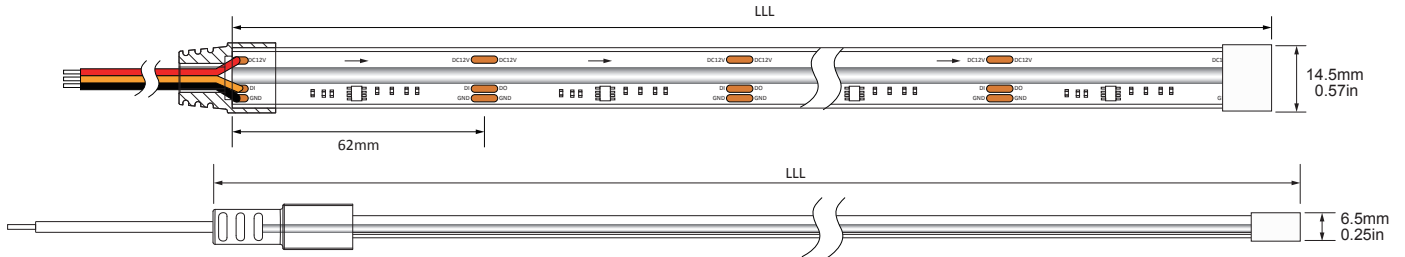
1. Luminous flux plus or minus 10% is allowed in the floating.
2. Maximum length current attenuation 15%.
3. Photometric standards are based on CIE eye sensitivity curve diagram test.



## Product size chart:

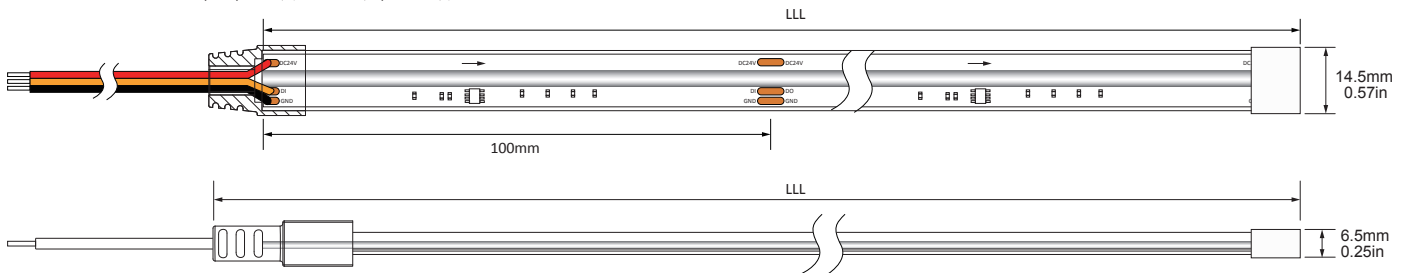
### DC12V

UL1007 AWG20 310mm(12in) Red (+) Yellow (DI) Black (-)



### DC24V

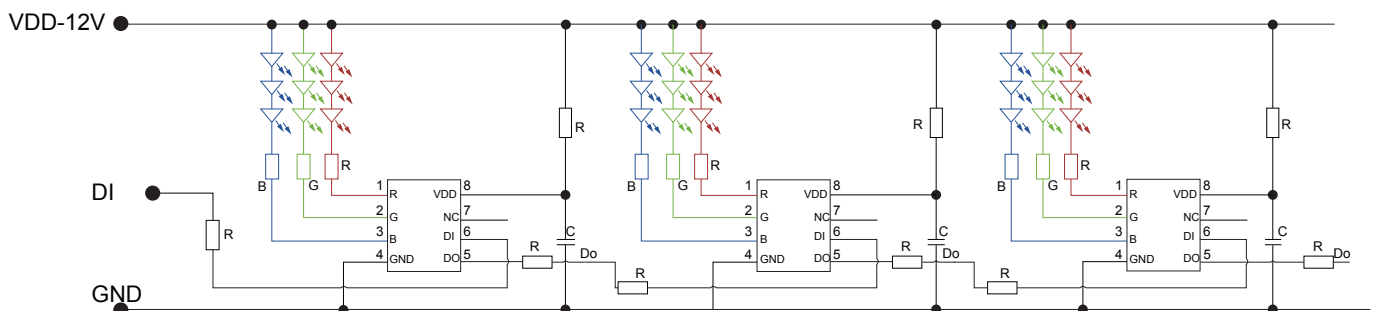
UL1007 AWG20 310mm(12in) Red (+) Yellow (DI) Black (-)

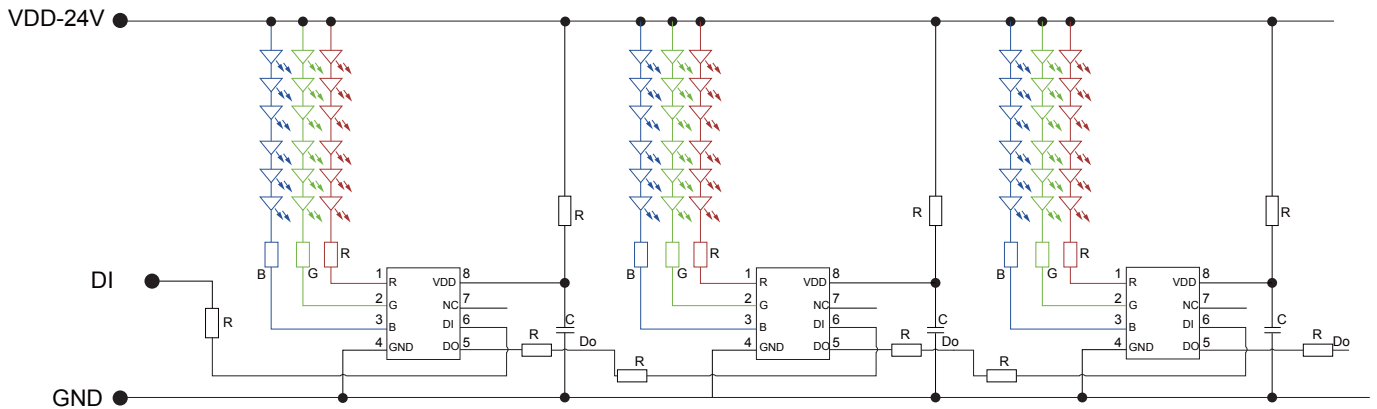


1. UNIT:MM(IN)
2. COLOR:WHITE

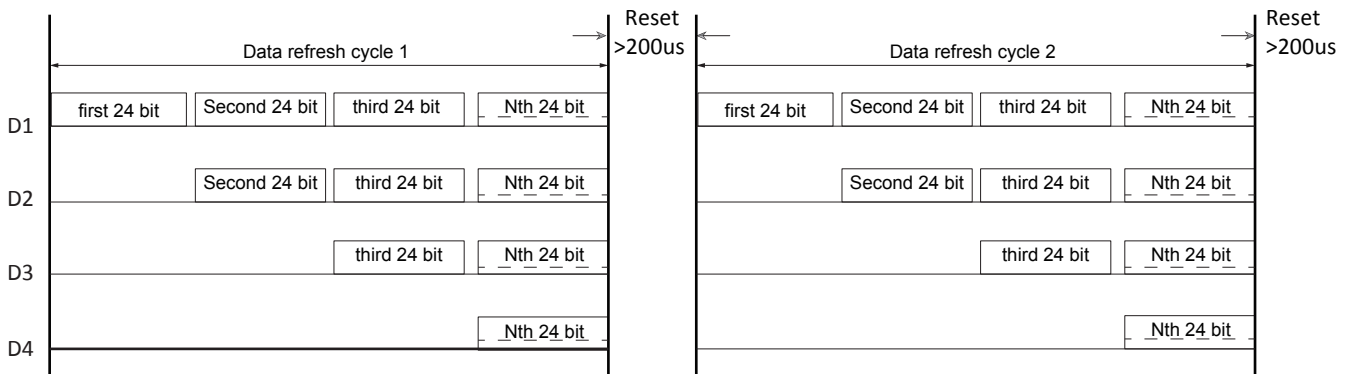
## Schematic diagram:

### Schematic:





## Data transmission mode



Note: Where D1 is the data sent by the MCU, D2, D3 and D4 are the data automatically shaped and forwarded by the cascade circuit.

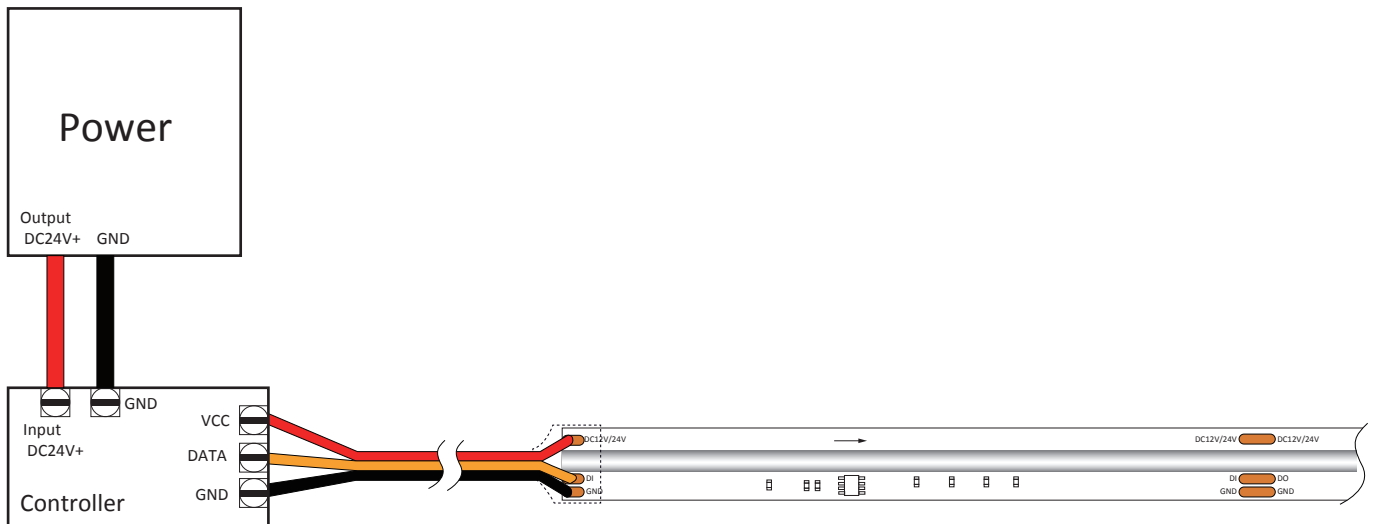
### 24 bit Data Structure:

R7	R6	R5	R4	R3	R2	R1	R0	G7	G6	G5	G4	G3	G2	G1	G0	B7	B6	B5	B4	B3	B2	B1	B0
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Note: Data transmission sequence RGB, higher bit is sent first.

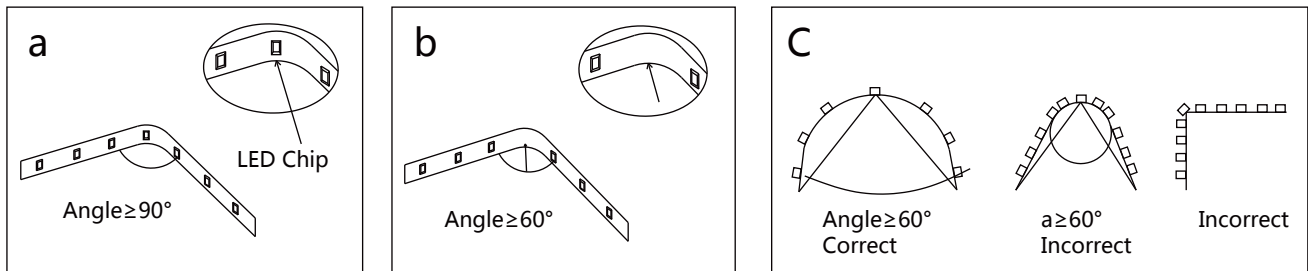


## Connection diagram



## LED Strip Installation

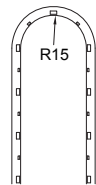
1. Please choose correct power supply for led strips. The total power of the led strip is about 80% of the power supply, and it cannot be fully Loaded to ensure that the power supply works at the correct and stable voltage.
2. We suggest 5 meters/roll for the led strip.If it is over 5 meters length, the brightness of LED will vary greatly.If the customer can accept the case, length can be made over 5 meters/roll
3. Adhesive tape on the back side of the strip,with its superior adhesive and weather resistance, and can be connected to any transparent glass, metal and plastic surface. But on some certain surfaces, such as cloth, wood, willaffect its function and durability.Please test the adhesion of the led strip before installation.
4. Please pay special attention to the minimum bending diameter of the led strip is 60mm, so as to avoid direct or indirect damage to FPC and components on FPC, which may lead to damages of the strip.
5. In order to ensure waterproof and anti-corrosive function , after the power line is screwed into the connector, it is recommended to inject the connector with a single component of silica gel (or neutral glass glue, or waterproof grease) and cover the exposed copper wire of the power line for protection.
6. The non-waterproof led strip shall not be completely exposed for outdoor use. Do not touch or install the strip when it is charged.
7. It is recommended to use switch power supply that has passed relevant safety regulations (with short circuit protection, over voltage protection and over current protection).



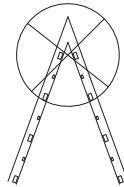
- a: use an angle greater or equal to 90 degrees when there is an LED chip on the corner while placing the strip in a concave position ( $\text{Angle} \geq 90^\circ$ )
- b: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position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

## Installation requirement

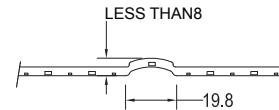
1. Pay attention to handling with care
2. Don't install the product in corrosion, flammable and explosive places;
3. It is strictly prohibited to use any acidic or alkaline adhesives to fix the product. Neutral adhesives are required;
4. In order to avoid the danger of electric shock, please cut off the power supply during process of installation, debugging and moving;
5. Ensure correct and reliable connection of all joints;
6. The product need anti-corrosion environment, such as, avoiding damp, water drop or other adverse elements.
7. The LED strip and accessories can't be squeezed or folded;
8. PCB conductive parts can't be damaged when installation;
9. Installation must conform to electrical safety standard. The LED strip can only be installed by Professionals;
10. Ensure power supply transform operating load with transformer;
11. When install on metal or conductor surface, insulation protection need to be provided to the contact area;
12. Observe positive and negative polarity, ensure correct connection to avoid damaging LED strip;
13. When installation, please prevent static electricity;
14. If you have any questions about this product, please consult our salesman.



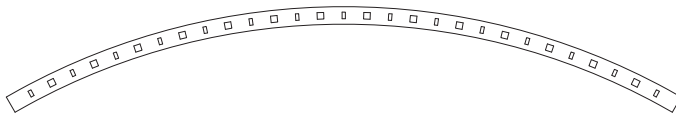
**NOTE:** DO NOT BEND TO A RADIUS OF LESS THAN 0.59 INCH



**NOTE:** SHARP BENDING ISN'T ALLOWABLE



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



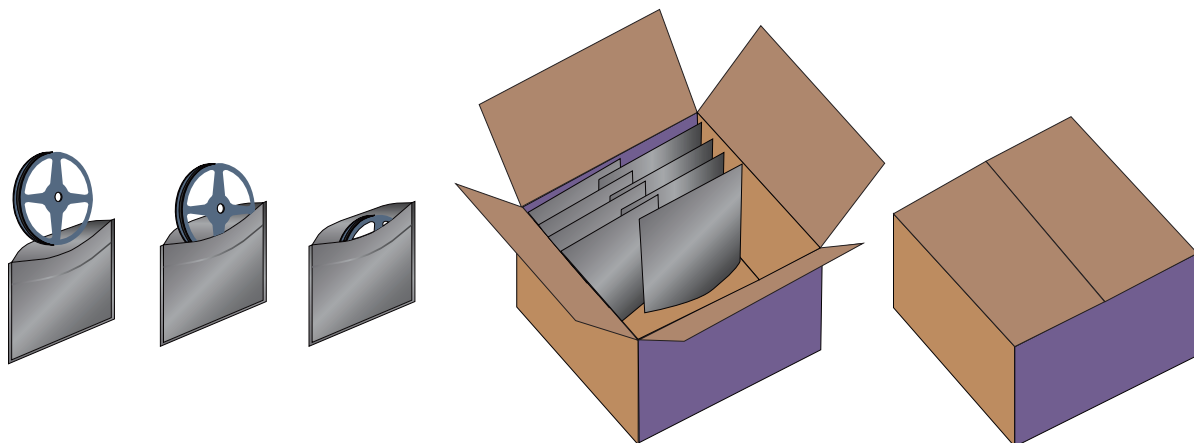
**NOTE:** DO NOT HORIZONTAL BEND TO A RADIUS OF LESS THAN 18 INCH



AXIS

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

## Product packaging



Model	Part number	box(pcs)	Ret Weight/box	Gross Weight/box
1	AB-FODVVV18-19712-XA1	20	3.1KG	3.5KG