



AB-FZA012I4-19712-XA2

Features:

- UL listed
- IP20 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
- ReEntertaining lighting
- Hotels

Product performance parameter:

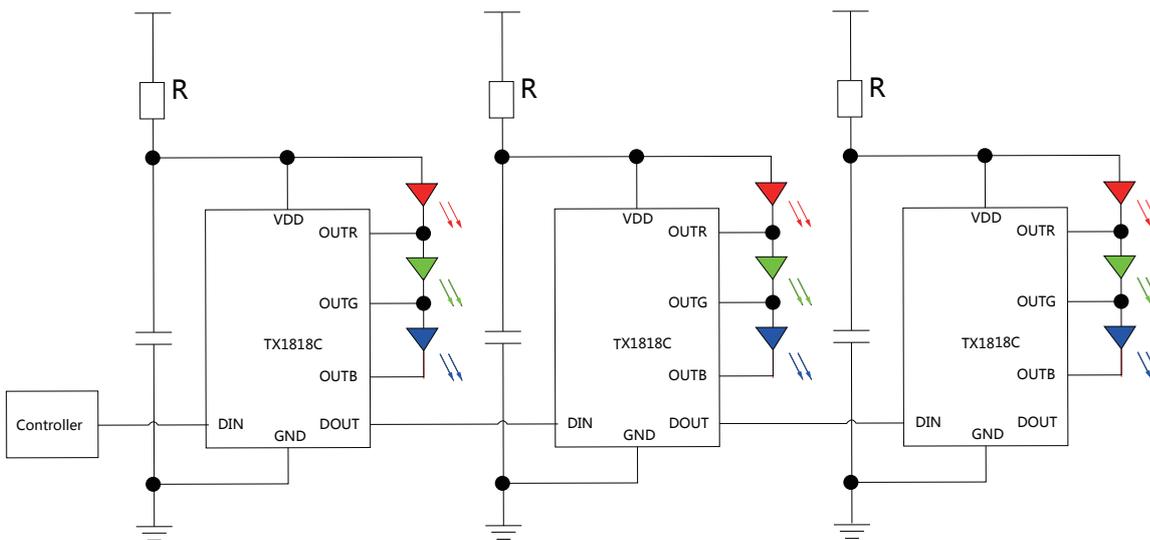
Serial number	Part Number	Color	CRI/nm	QTY/M (39.3in)	Luminous per meter	lm/w	working voltage (12V)/IF(A)	Rated power (W/M)
1	AB-FZA012I4-19712-XA2	Red	620-630nm	60LED	123lm	19/W	12V/0.54A	6.5
		Green	520-530nm		390lm	60/W	12V/0.54A	6.5
		Blue	465-470nm		97lm	15/W	12V/0.54A	6.5

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.

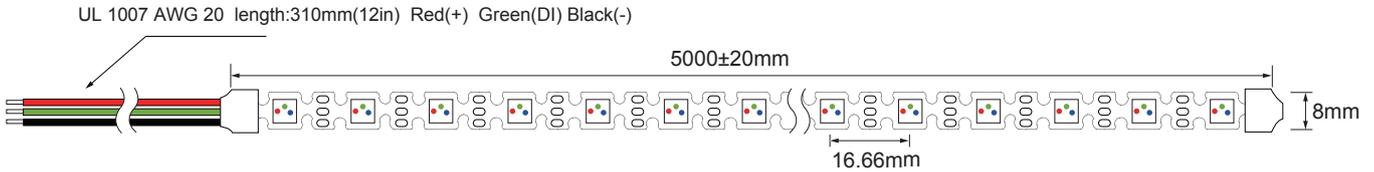
Schematic diagram:

(DC12V)





Product size chart:



1. UNIT:MM
2. COLOR:WHITE
3. PCB: Double-layered FPCB: 1 front + 1 back: 2-layer Cu (1oz + 1oz) --- $0.25 \pm 0.05\text{mm}$
4. 3M 9495 double-sided tape on the back

Technical Specs for the LED with built-in driver:

The TX1818C device is an easy-to-use, 3-channel LED driver. Each channel has an individually-adjustable, 8-bit (256-step), pulse-width modulation (PWM) grayscale (GS) brightness control. GS data are input through a serial single wire interface port. The single-wire, 800-kbps serial interface provides a solution for minimizing wiring cost.

Features:

- Control circuit and RGB chip in SMD 5050 packages
- Single-Wire Interface for line data transmission
- Grayscale (GS) Control With PWM: 8-Bit per channel (256 brightness steps)
- Data Transfer Maximum Rate: Bits per Second (bps): up to 800 kbps,when the refresh rate of 30 frames per second, a cascade of not less than 1024



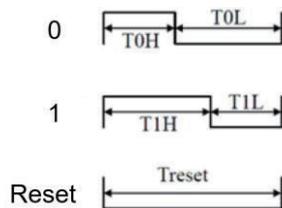
Absolute maximum ratings:

Table 3. Absolute Max Ratings at Ta=25 °C

Parameter	Symbol	Value	Unit
Power Supply Voltage	VDD	10.8-13.2	V
LED Voltage	VLED	9	V
PWM frequency	PWM	1.2	kHZ
Max output current	Iomax	9	mA
Power dissipation	Pd	2	mA
Reverse current	IR	5	A
Operating temperature range	Top	-40~85	°C
Storage temperature range	Tstg	-40~120	°C

Communication Protocol and Sequence:

Input Code:

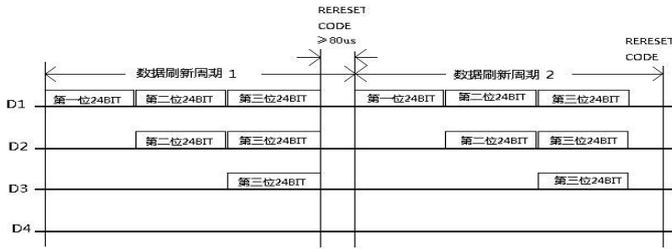


Data Transfer Time (TH+TL = 1.25 μs ± 300ns):

Symbol	Description	Typ	Tolerance
T0H	0 code, high level time	0.3μs	± 150ns
T1H	1 code, high level time	0.9μs	± 150ns
T0L	0 code, low level time	0.9μs	± 150ns
T1L	1 code, low level time	0.3μs	± 150ns
TRES	Reset code, low level time	≥80μs	



Data Transmission Mode:



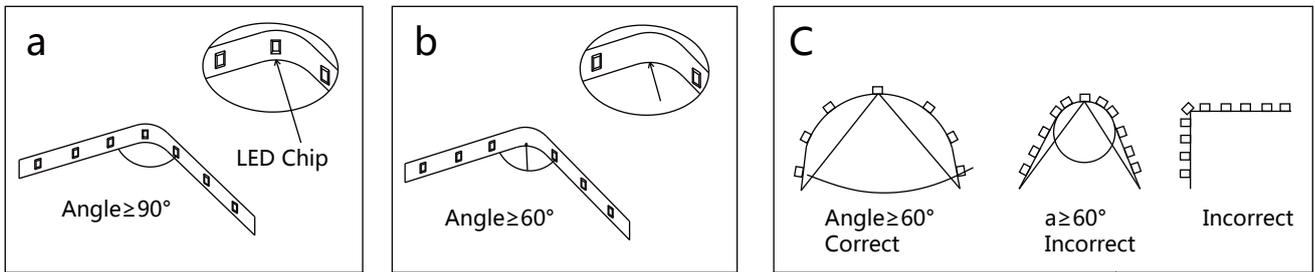
Note: D0 and D1 are the data sent by the MCU end, and the client can only send D0 signal. The chip at D1 port will consider the signal abnormal, which is not unusual. The signal transmission

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
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: Data transmission sequence RGB, higher bit is sent first.

LED Strip Installation



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 $\geq 90^\circ$)

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 (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 (Angle $\geq 60^\circ$) 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

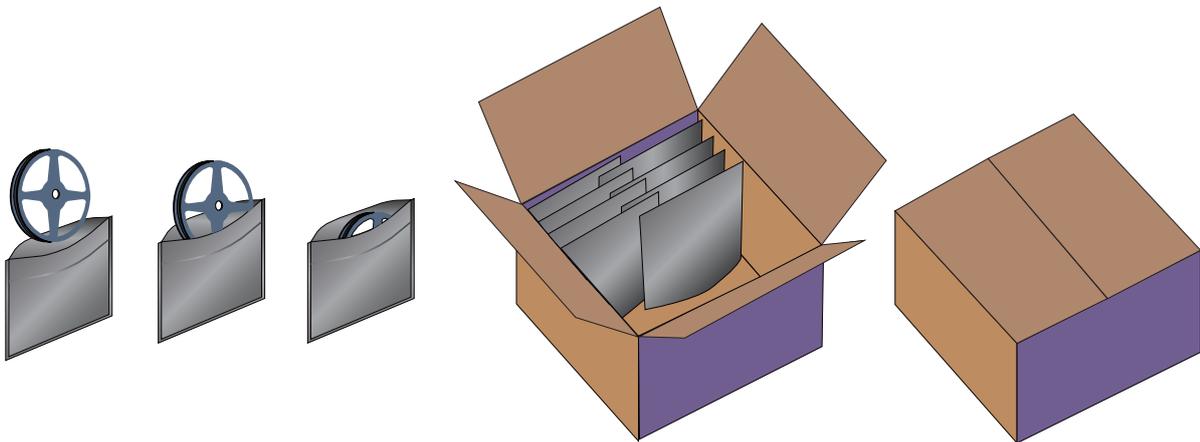
NOTE: SHARP BENDING ISN'T ALLOWABLE

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



Model	Part number	box(pcs)	Net Weight/box	Gross Weight/box
1	AB-FZA012I4-19712-XA2	20		