



AB-FC005I4-07912-XA2

Top View LED Light Strip - 5V DC, RGB+IC, IP65

Features:

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

Application:

- Conference/Meeting rooms
- Factories and Offices
- Commercial Purposes
- Residential/Institution Buildings
- Schools
- Hospitals
- Hotels

Product performance parameter:

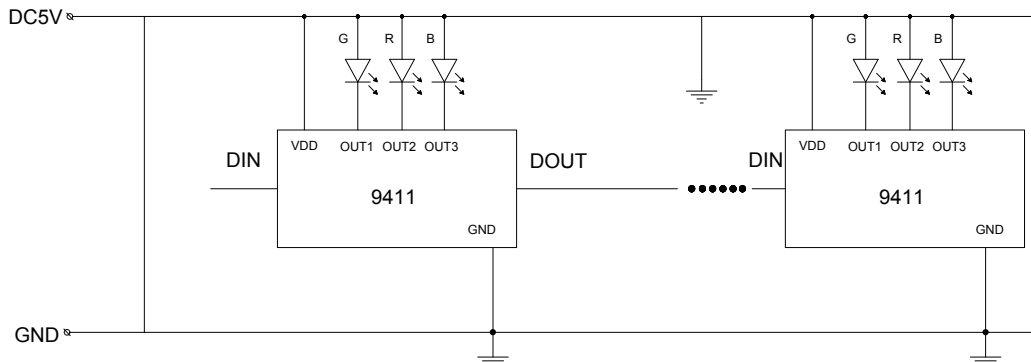
Serial number	Part Number	CCT/nm	nm	LED QTY/M	Luminous per pcs	lm/W	working voltage (5V)/IF(A)	Rated power (W/pcs)
1	AB-FC005I4-07912-XA2	Red	620-630nm	60LEDs	154lm	22/W	5V/1.4A	7
		Green	520-535nm		420lm	60/W	5V/1.4A	7
		Blue	465-475nm		98lm	14/W	5V/1.4A	7

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.

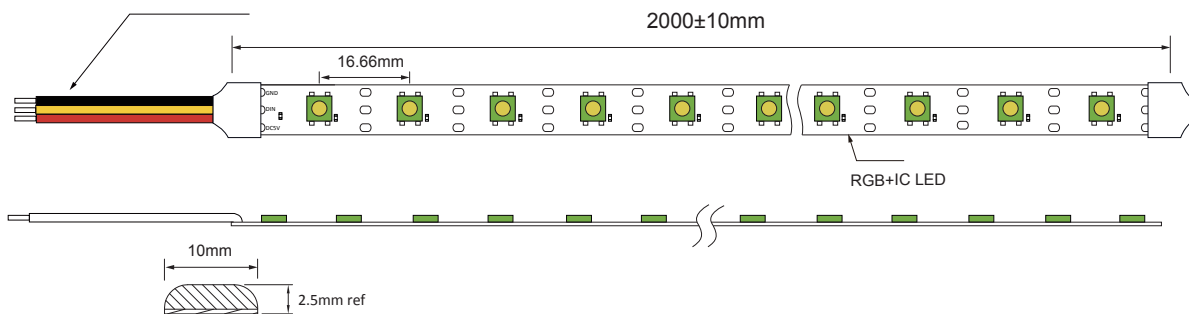


Schematic diagram:



Product size chart:

1007 AWG20 310mm(12in) Red(+) Yellow(DIN) Black(-)



1. UNIT:MM(IN)
2. COLOR:WHITE
3. 3M 9495 double-sided tape on the back

Technical Specs for the LED with built-in driver:

The P9411 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℃

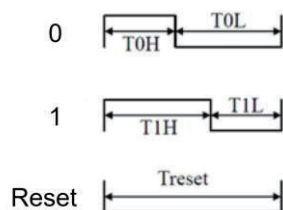
Parameter	Symbol	Value	Unit
Power Supply Voltage	VDD	3.5-7.5	V
LED Voltage	VLED	3.5-5.5	V
PWM frequency	PWM	1.6	KHZ
Max output current	Iomax	12	mA
Power dissipation	Pd	<350	mW
Reverse voltage	Vr	5	V
Operating temperature range	Top	-25~80	℃
Storage temperature range	Tstg	-40~100	℃

Table 4. Electrical-optical characteristics at Ta = 25℃

Parameter	Test condition	Symbol	Value	Unit
Forward Voltage	If = 20mA	Vf	R	1.8-2.4
			G	2.8-3.4
			B	2.8-3.4
Luminous Intensity	If = 20mA	Vr	R	700-900
			G	1300-1600
			B	250-450
Wavelength	If = 20mA	Top	R	620 – 630
			G	520 – 530
			B	465 – 475

Communication Protocol and Sequence

Input Code:

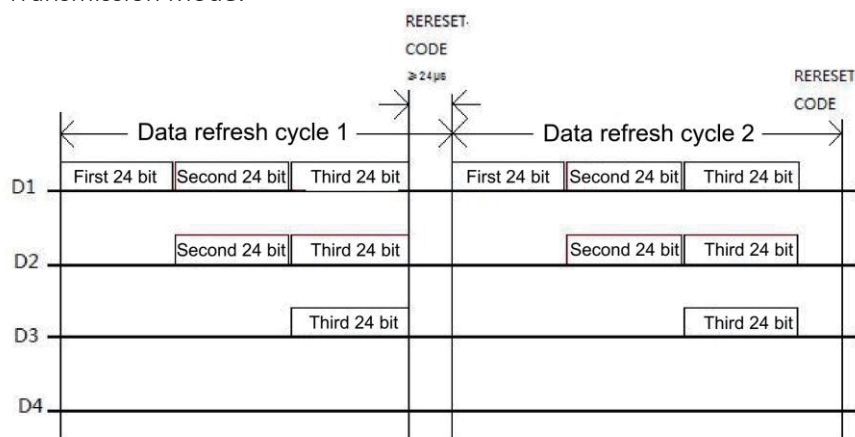




Data Transfer Time ($T_H + T_L = 1.25 \mu s \pm 300ns$):

Symbol	Description	Typ	Tolerance
T0H	0 code, high level time	0.25 μs	$\pm 75ns$
T1H	1 code, high level time	1 μs	$\pm 75ns$
T0L	0 code, low level time	1 μs	$\pm 75ns$
T1L	1 code, low level time	0.25 μs	$\pm 75ns$
TRES	Reset code, low level time	50 μs	

Data Transmission Mode:



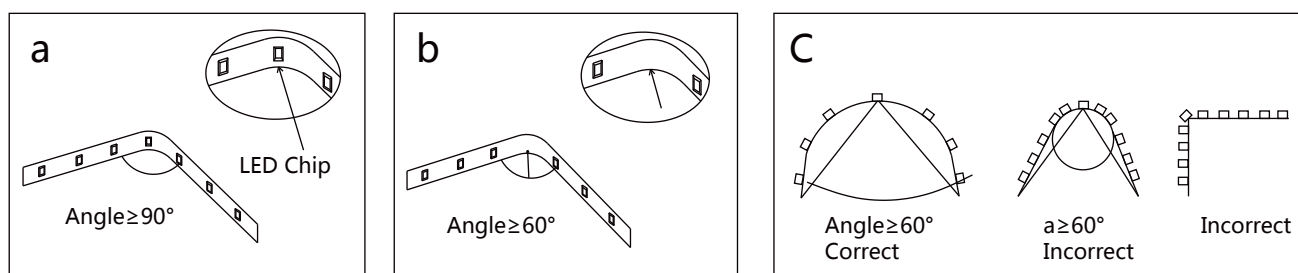
Note: the D1 data is from MCU, and D2, D3, D4 is forwarded through automatic shaping cascade circuit.

24 bit Data Structure:

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

Installation Instructions:

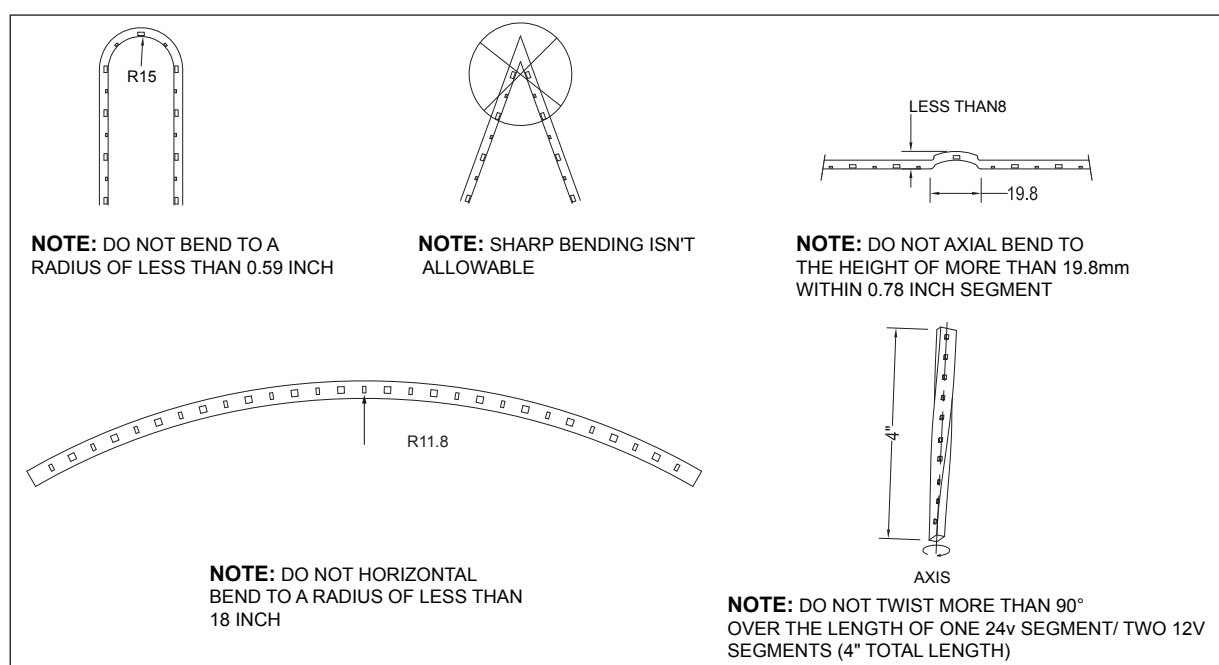


a: use an angle greater or equal to 90 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle $\geq$ 90degree)

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 ($\text{Angle} \geq 60^\circ$)

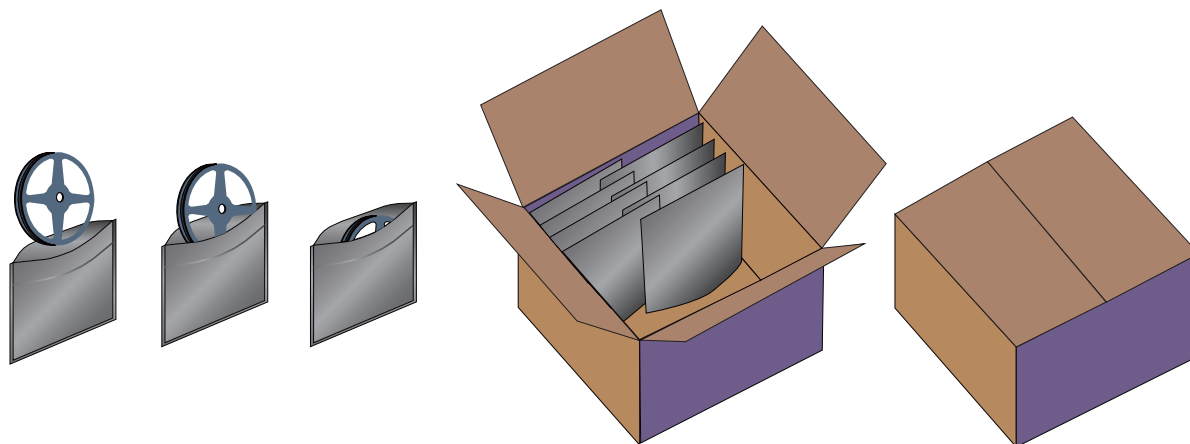
c:use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position ($\text{Angle} \geq 60^\circ$) In the convex position the angle should not reach 90 degrees .See above diagram.

Maximum Flexibility Precaution





Product packaging



Model	Part number	box(pcs)	Net Weight/box	Gross Weight/box
1	AB-FC005I4-07912-XA2	60pcs		