

Version: A2.0

Features

- Adopt FPC material with good stability.
- Flexible and cuttable.
- Can achieve rich light changes via a controller.
- Long lifespan with great lumen maintenance.
- Adopt DMX512 (1990) signal protocol

Bending radius: $R_{min}=20mm$



Application

- Suitable for landscape lighting, decorative lighting, showcase lighting, etc.

Installation

- Fix by screws or 3M self adhesive tape



Specification

Model No.	Light Color	CCT/Wavelength (K/nm)	Beam Angle	Typical Luminous Flux value(lm/m)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/m)
DMXN-5050-30-12- RGB	R	615-630	120°	52	--	15.5	12	3.36
	G	515-530		76		22.5		3.36
	B	460-470		20		5.8		3.36
	R+G+B	100000		153		19.9		7.68
DMXN-5050-60-12- RGB	R	615-630	120°	104	--	15.5	12	6.72
	G	515-530		152		22.5		6.72
	B	460-470		39		5.8		6.72
	R+G+B	100000		306		19.9		15.36
DMXN-5050-60-24- RGB	R	615-630	120°	104	--	15.5	24	6.72
	G	515-530		152		22.5		6.72
	B	460-470		39		5.8		6.72
	R+G+B	100000		306		19.9		15.36

Model No.	Light Color	CCT/Wavelength (K/nm)	Beam Angle	Typical Luminous Flux value(lm/m)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/m)
DMXN-F5050-30 -12-RGBW	R	615-630	120°	52	--	15.5	12	3.36
	G	515-530		119	--	35.5		3.36
	B	460-470		29	--	8.6		3.36
	W	2700-6500		134-202	80+	40-60		3.36
	R+G+B+W	100000		295-443	--	30-45		9.84
DMXN-F5050-60 -12-RGBW	R	615-630	120°	105	--	15.5	12	6.72
	G	515-530		238	--	35.5		6.72
	B	460-470		58	--	8.6		6.72
	W	2700-6500		269-403	80+	40-60		6.72
	R+G+B+W	100000		590-885	--	30-45		19.68
DMXN-F5050-60 -24-RGBW	R	615-630	120°	105	--	15.5	24	6.72
	G	515-530		238	--	35.5		6.72
	B	460-470		58	--	8.6		6.72
	W	2700-6500		269-403	80+	40-60		6.72
	R+G+B+W	100000		590-885	--	30-45		19.68



Model No.	Light Color	CCT/Wavelength (K/nm)	Beam Angle	Typical Luminous Flux value(lm/m)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/m)
DMXN-F5050-60-24-RGBW-T	R	615-630	120°	105	--	15.5	24	6.72
	G	515-530		238	--	35.5		6.72
	B	460-470		58	--	8.6		6.72
	W	2700-6500		269-403	80+	40-60		6.72
	R+G+B+W	100000		590-885	--	30-45		19.68

Temperature-Related Parameters(Normal Working)

Model No.	Power(W/m)	No Brightness Difference MAX(m)	UL Max Run(m)	T _A (°C)	Operating Temp MAXTc(°C)
DMXN-5050-30-12-RGB	7.68	4.0	--	-20~+60°C	--
DMXN-F5050-30-12-RGBW	9.84	3.5			
DMXN-5050-60-12-RGB	15.36	2.5			
DMXN-F5050-60-12-RGBW	19.68	2.0			
DMXN-5050-60-24-RGB	15.36	3.5			
DMXN-F5050-60-24-RGBW	19.68	3.0			
DMXN-F5050-60-24-RGBW-T	19.68	3.5			

Other Parameters

Model No.	LED Quantity(pcs/m)	Min Cuttable Length(mm)	Storage Temperature(°C)
DMXN-5050-30-12-RGB	30	100	-20~+70°C
DMXN-F5050-30-12-RGBW	30	100	
DMXN-5050-60-12-RGB	60	50	
DMXN-F5050-60-12-RGBW	60	50	
DMXN-5050-60-24-RGB	60	100	
DMXN-F5050-60-24-RGBW	60	100	
DMXN-F5050-60-24-RGBW-T	60	100	

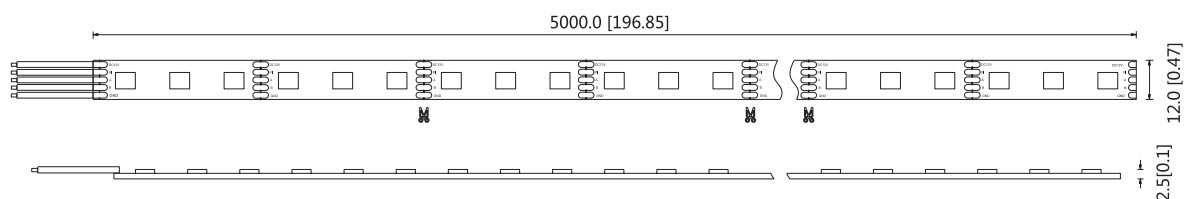
Notes:

- Test environment temperature : 25±2°C.
- Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
- The luminous lux is tested with corresponding color light on.
- Different color temperature will make luminous lux different.
- The light efficacy is measured value.
- The luminous lux and power tolerance within ±10%.
- The power of RGB/RGBW is tested when LEDs are all illuminated.
- If the product power is greater than 15W, auxiliary heat dissipation appliances must be added

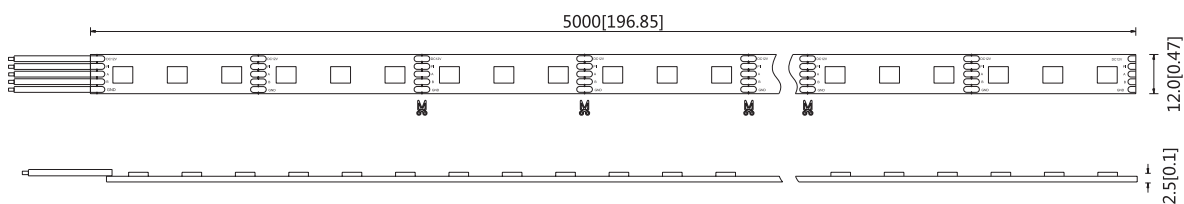
Profile Drawings

Unit:mm[inch]

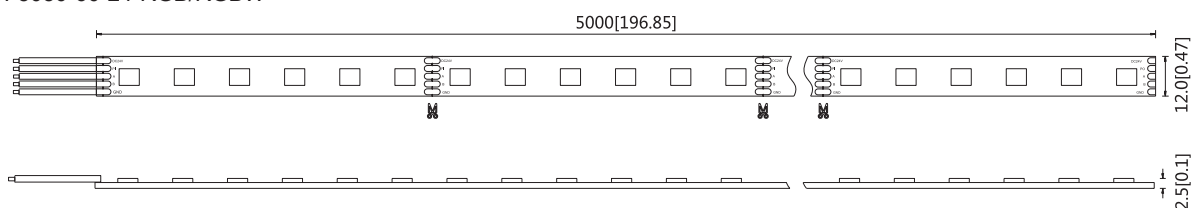
DMXN-5050/F5050-30-12-RGB/RGBW



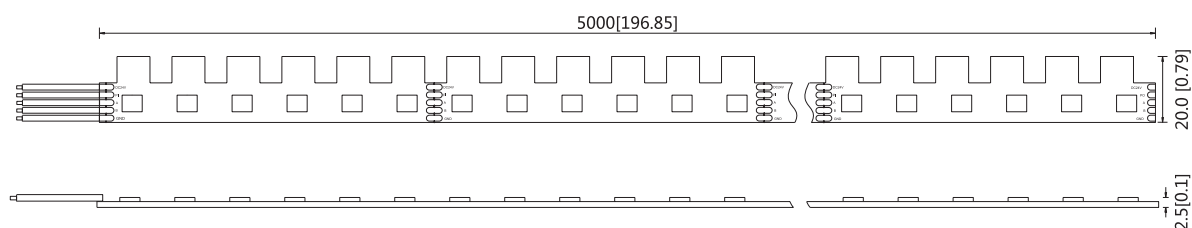
DMXN-5050/F5050-60-12-RGB/RGBW



DMXN-5050/F5050-60-24-RGB/RGBW



DMXN-F5050-60-24-RGBW-T



Note:

Dimension tolerance: length $\pm 6\text{mm}$ [0.24inch]; width $\pm 0.2\text{mm}$ [0.008inch]; thickness $\pm 0.2\text{mm}$ [0.008inch]

For detail drawing, please consult sales rep.



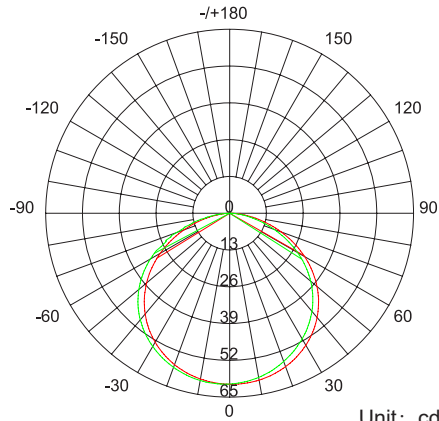
Operating Length VS. Electrical Parameters

DMXN-5050-60-12-RGB	Operating Length(m)					
Parameters	1	2	2.5	3	4	5
Operating Voltage (DC V)	12.0	12.0	12.0	12.0	12.0	12.0
Total Current(A)	1.29	2.49	3.06	3.49	3.95	4.16
Total Power(W)	15.44	29.92	36.72	41.93	47.40	49.92
Head voltage(V)	11.87	11.84	11.82	11.80	11.78	11.76
Tail voltage(V)	11.61	10.70	10.07	9.49	8.84	8.21
Head Current(mA)	64.00	64.00	64.00	64.00	64.00	64.00
Tail Current(mA)	64.00	64.00	64.00	54.00	40.00	29.80
Head-to-tail Voltage Drop Rate(%)	2.19	9.63	14.81	19.58	24.96	30.19
Head-to-tail Current Drop Rate(%)	0	0	0	15.63	37.5	53.44
Single/Double feed	Single Feed	Single Feed	Single Feed	Double feed	Double feed	Double feed

DMXN-F5050-60-12-RGBW	Operating Length(m)				
Parameters	1	2	3	4	5
Operating Voltage (DC V)	12.0	12.0	12.0	12.0	12.0
Total Current(A)	1.65	3.24	3.942	4.46	4.77
Total Power(W)	19.82	38.88	47.30	53.52	57.24
Head voltage(V)	11.85	11.82	11.80	11.77	11.72
Tail voltage(V)	11.55	10.30	8.92	8.24	7.85
Head Current(mA)	82.00	82.00	82.00	82.00	82.00
Tail Current(mA)	82.00	82.00	66.00	47.00	31.00
Head-to-tail Voltage Drop Rate(%)	2.53	12.86	24.41	30.00	33.02
Head-to-tail Current Drop Rate(%)	0	0	19.51	42.68	62.2
Single/Double feed	Single Feed	Single Feed	Double feed	Double feed	Double feed



Luminous Intensity Distribution Diagram



AVERAGE BEAM ANGLE(50%): 119.1°

C90/270, 119.5°

Note: test sample DMXN-5050-30-12-RGB, for other data, please consult sales rep

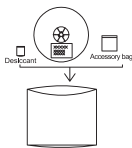
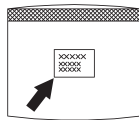
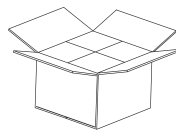
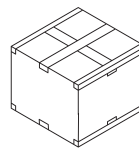
Average Illumination

Flux Out: 143.7lm		RGB	
DMXN-5050-30-12-RGB			
0.02m	38113,151125lx		6.74cm
0.04m	9528,37781lx		13.48cm
0.06m	4235,16792lx		20.22cm
0.08m	2382,9445lx		26.96cm
0.1m	1525,6045lx		33.70cm
0.12m	1059,4198lx		40.44cm
0.14m	777.8,3084lx		47.17cm
0.16m	595.5,2361lx		53.91cm
0.18m	470.5,1866lx		60.65cm
0.2m	381.1,1511lx		67.39cm
Height	Eavg, Emax	Beam Angle: 118.62°	Diameter

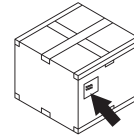
packing



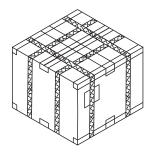
Label the reel;

Put reel, accessory bag
and desiccant together
into static shielding bag;Seal and label the
static shielding bag;Put the packed
static shielding bag
into carton box;

Seal the carton box;



Label the box;

Use packing belt
to pack. Add edge
protectors if necessary.

Packaging information

Model No.	Product Size L*W(mm)	Carton Size(mm)	Meter/Reel	Reel/Carton	Net Weight(kg)	Gross Weight(kg)
DMXN-5050-30-12-RGB	5000*12	550X400X340	5	80	10.8(1±10%)	15.5(1±10%)
DMXN-F5050-30-12-RGBW					10.8(1±10%)	15.5(1±10%)
DMXN-5050-60-12-RGB					11.6(1±10%)	16.3(1±10%)
DMXN-F5050-60-12-RGBW					11.6(1±10%)	16.3(1±10%)
DMXN-5050-60-24-RGB					12.2(1±10%)	16.9(1±10%)
DMXN-F5050-60-24-RGBW					12.2(1±10%)	16.9(1±10%)
DMXN-F5050-60-24-RGBW-T	5000*20	550X400X340	5	40	10.2(1±10%)	14.9(1±10%)

Note:

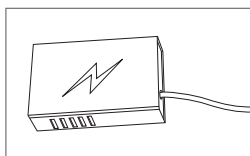
Every 5m for a reel, one reel for a static shielding bag.

The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

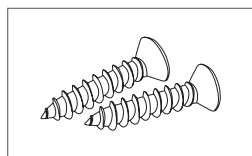


Installation

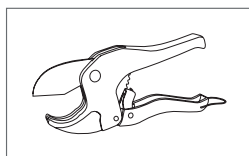
Products and Tools



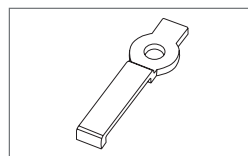
LED power supply



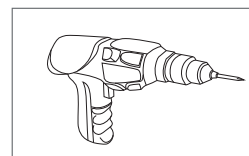
Self-tapping screw



Cutting tool



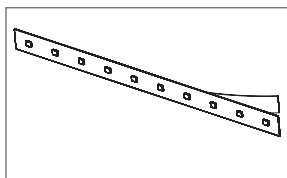
Clips



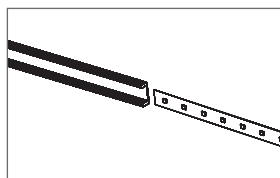
Electric drill

Installation Methods and Steps

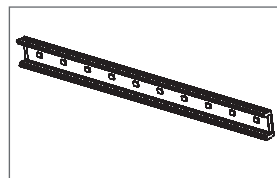
Aluminum channel installation



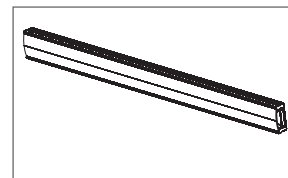
Peel away the self adhesive tape on the back of strip.



Cut off the excess part based on the installation position.

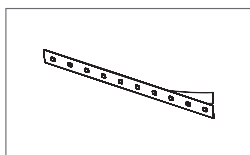


Evenly arrange the strips with appropriate space in the track.

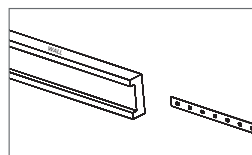


Install the cover and end cap.

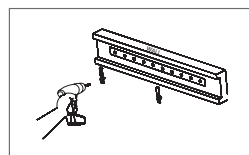
Covered channel installation



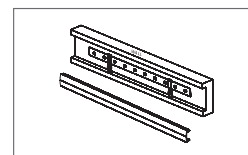
Peel away the self adhesive tape on the back of strip.



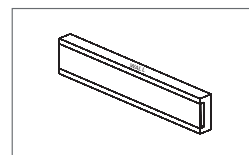
Cut off the excess part based on the installation position.



Evenly arrange the strips with appropriate space in the track and fix them with clips.



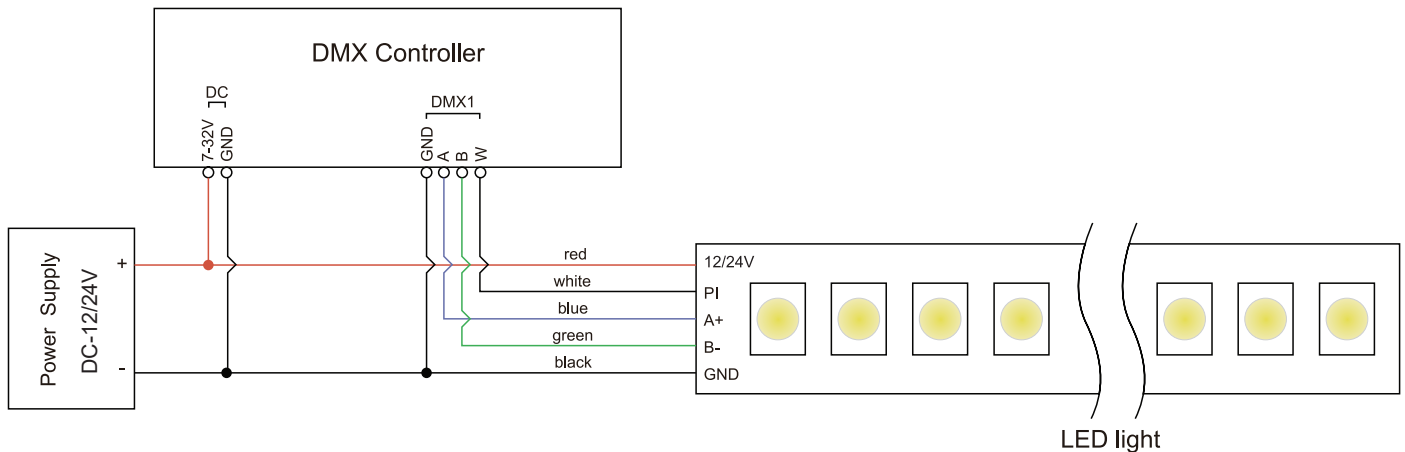
Install the cover and end cap.



Finished



Controller Wiring Diagram



No.	Controller port	Definition	Wire color	LED product port
1	GND	Negative (-)	Black	GND
2	A	Data A	Blue	A+
3	B	Data B	Green	B-
4	W	Address wire	White	PI
5	7-32V	Positive (+)	Red	+12/24V

- Note
1. Refer to the figure above for wiring;
 2. If the controller has AB bus coding support, then it is possible to disconnect the white wire (PI);
 3. If the controller port is different from the sample, please consult the engineer for details;
 4. This kind of product has two working voltage options;

This product supports DMX512 (1990) protocol, IC: TM512AC

Attentions before installation

- Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels)
- Load voltage, current, power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.
- Make sure the power cord firmly screwed into the terminal and it should not be pulled out by hands.
- The terminal should have insulation, waterproof and anti-corrosive treatment.
- **If the working length exceeded the max run length, make sure to have extra power supply.**
- **If it needs higher current of a LED, make sure having extra cooling.**



Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Fix the short circuit problem.
	Automatic power protection from the open or short circuit in output of the power supply.	
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Correctly connection.
	Power supply line error.	
	Mistaken wire connection of some of products	
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power.
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within $\pm 5\%$ of standard voltage, or keep balance by circuit power consumption.
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement.
LED flicker.	Connection point fault.	Remove bad connection point.
	Switching power supply failure.	Replace a new power supply.
	Wrong Installation or use of products	Please follow the instructions

Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation, especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 24 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Statements and Recycling

Statements:

- Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.
- The parameters given in this manual are typical values and for reference only.
- All illustrations and drawings in this manual are for reference.
- This product is subject to change without notice.

Recycling:

- LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.