



# ColorBright™ RGB Digital Pixel LED Strip Light

## Product Data Sheet



7 Year  
Warranty



### PRECAUTION:

Please read all instructions carefully before installation.

Our ColorBright™ RGB Digital Pixel LED Strip Light features integrated pixels—small circuit segments that offer individual control and interaction—with limitless color-changing capabilities and exceptional color saturation. Paired with a digital control system, it produces stunning dynamic effects and patterns ideal for cutting-edge commercial and entertainment environments, as well as state-of-the-art households. Additionally, it offers easily adjustable brightness, speed, and direction.

## Product Features

<b>Voltage</b>	24V DC Input
<b>Efficacy</b>	Up to 29 lm/W
<b>LEDs per Pixel</b>	6 LEDs per Pixel
<b>Pixels per Spool</b>	50 Pixels per Spool
<b>IC Protocol</b>	WS2811
<b>Beam Angle</b>	120° Beam Angle
<b>Strip Width</b>	3/8" (10 mm)
<b>LED Pitch</b>	7/16" (11 mm)
<b>Cutting Points</b>	4" (100 mm)
<b>Max Run Length in Series</b>	16 ft (5 m)
<b>PCB</b>	3 oz copper
<b>LED Size</b>	5050
<b>Adhesive Type</b>	3M VHB 4930 tape (IP20)
<b>Ambient Temperature</b>	-4°F to 113°F (-20°C to 45°C)
<b>Operating Temperature</b>	-4°F to 167°F (-20°C to 75°C)
<b>Dimmable</b>	Yes
<b>IP Rating</b>	IP20

Ordering Code

Brand

CB

ColorBright™

-

Series

PXL

Digital Pixel Series

-

CCT

RGB

-

Voltage

24V

-

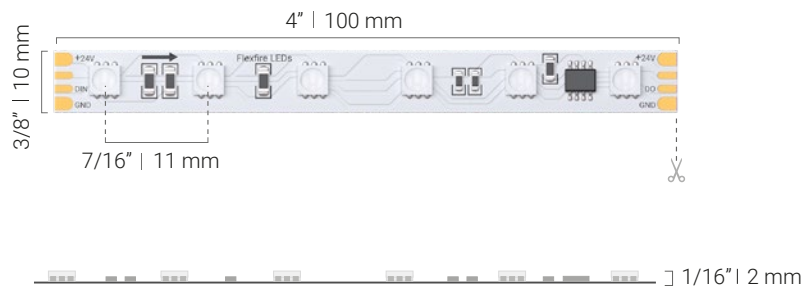
Length

16FT - 16 ft Reel

98FT - 98 ft Reel

Example: CB-PXL-RGB-24V-16FT

Dimensions



Product Specifications

Product SKU	Watts / Foot (Meter)	Lumens / Foot (Meter)	Luminous Efficacy (Lumens / Watt)	Segment Lengths	Max Run Length in Series
CB-PXL-RGB	3.65 W/ft (12 W/m)	107 lm/ft (350 lm/m)	29 lm/w	4" (100 mm)	32 ft (10 m)

Complete Your Setup

☒ Drivers



☒ Controllers & Dimmers



☒ Connectors



☒ Extrusions



## Compatible Drivers

Non-dimmable					
Power Supply	Diagram	LED Strip Length	Product SKU	Watts	Class 2
<b>Plug-In Power Supply</b> Plug-and-Play Power Supply		1 - 5 ft	24V-WMPS2-1	24 W	X
		6 - 21 ft	24V-DPS2-4	96 W	X
<b>Mean Well™ HLG</b> Hardwired Power Supply		1 - 14 ft	HLG-60H-24A	60 W	X
		15 - 23 ft	HLG-100H-24A	96 W	X
		24 - 45 ft	HLG-185H-24A	185 W	
		46 - 78 ft	HLG-320H-24A	320 W	
		79 - 147 ft	HLG-600H-24A	600 W	
<b>Mean Well™ LPV</b> Hardwired Power Supply		1 - 13 ft	LPV-60-24	60 W	X

[See Power Supplies Selector](#)

## Compatible Controllers & Dimmers

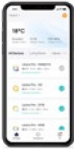
Handheld Remotes



DMX Controls



Smart Home Controllers



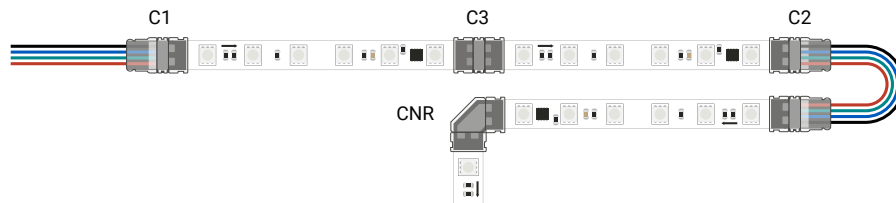
[See Controllers and Dimmers](#)

## Compatible Strip Light Connectors

Please note that while the following connectors are compatible with our ColorBright™ RGB Digital Pixel LED Strip Light, there is a discrepancy in the wire colors between the connectors and the wires soldered directly onto the strip light. To ensure proper polarity, please follow the markings on the PCB rather than relying on the colors of the wires from the connectors. This is crucial for preventing any potential damage to the strip light or connectors. Always prioritize the PCB markings when making connections.

Product SKU	Diagram	Description	Wire Gauge	Amperage Limit*
GRIP-RGB-C1-12-0		Connector with no wire to attach the strip to power.	-	5 Amps
GRIP-RGB-C1-12-12 GRIP-RGB-C1-12-36		Connector with 12" or 36" of wire to attach the strip to power.	20 AWG	
GRIP-RGB-C2-12-06		Jumper connector with 6" of wire to attach two sections of strip together or go around tight corners.		
GRIP-RGB-C3-12-0		Jumper connector with no wire to attach sections of strip together in a continuous run.	-	
GRIP-RGB-CNR-10-5		Corner connector for 90 degree turns.		

\*Be sure no more than 5 amps is drawn after any solderless connector. Calculate max length of LED strip to follow the solderless connector based on an amperage draw of 0.15 A/ft (0.5 A/m) at 24 volts.

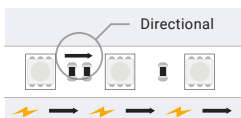


## Strip Light Connectors Installation




**WARNING:** When working with our ColorBright™ RGB Digital Pixel LED Strip Light please make all necessary connections before applying power to the LED strip. Do not cut the strips or make/remove connections while power is applied.

- Remove 1/4" of 3M adhesive tape on the back from the end of the strip that you want to connect. It must be removed to allow it to fit properly with the solderless connector.
- Check the polarity of the strip to match the positive (+) markings together and negative (-) markings together. If you accidentally close the connector before you're ready, use a small flathead screwdriver to pry the top back open.
- Open the top of the grip connector and insert the LED strip inside. Make sure the LED strip is facing up towards the translucent top and the solder pads are directly above the small hooks on the connector.
- Once everything is in order, use pliers to close and lock the connector. You'll hear a "click" sound when it is properly closed.



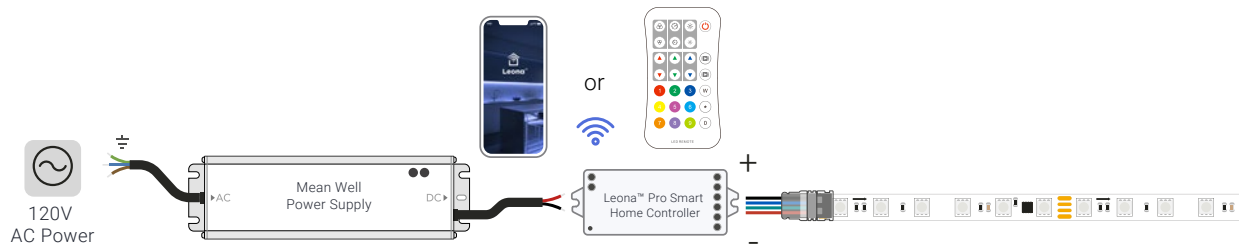
After making all connections, you will be ready to apply power. Please keep in mind that this LED strip light is directional, so the data can only flow from one direction. There are arrows printed on the PCB indicating the correct direction.

## Compatible Aluminum Channel Kits

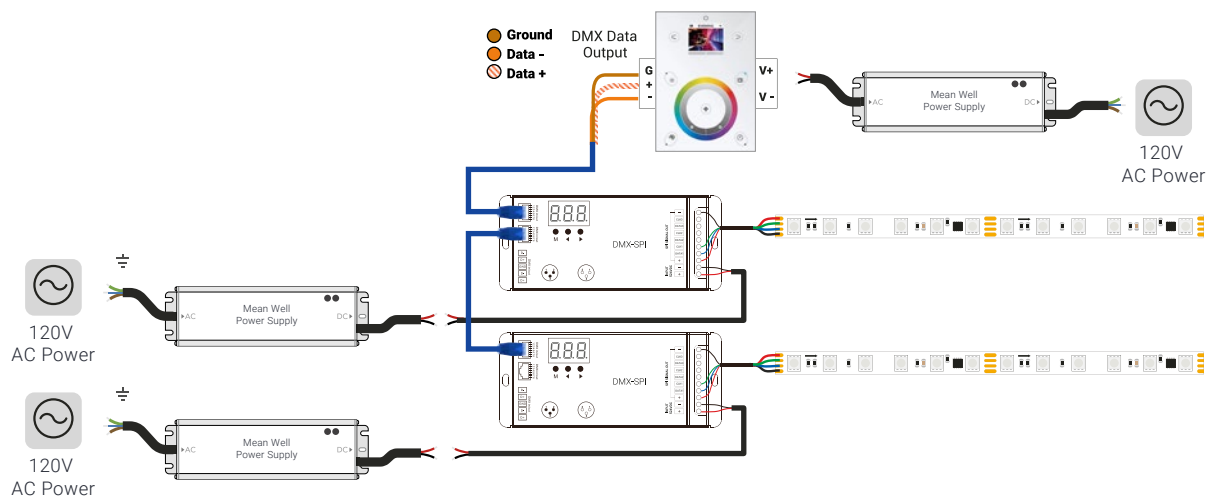
Diagram	Name	Type	Channel Kit Description		Kit SKU	Included Accessories			
	Ion™	 Surface Mount	1 Meter Ion Channel		ION-CH-A-1M				
	Gemini™	 Surface Mount	1 Meter Channel + Clear Cover Kit		GEM-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			2 Meter Channel + Clear Cover Kit		GEM-CH-A-CVR-C-2M				
			1 Meter Channel + Frosted Cover Kit		GEM-CH-A-CVR-F-1M				
			2 Meter Channel + Frosted Cover Kit		GEM-CH-A-CVR-F-2M				
			1 Meter Channel + Matte Cover Kit		GEM-CH-A-CVR-M-1M				
			2 Meter Channel + Matte Cover Kit		GEM-CH-A-CVR-M-2M				
	Kepler™	 Surface Mount	1 Meter Channel + Clear Cover Kit		KEP-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			1 Meter Channel + Frosted Cover Kit		KEP-CH-A-CVR-F-1M				
			1 Meter Channel + Matte Cover Kit		KEP-CH-A-CVR-M-1M				
			Note: This extrusion only fits the RGB Digital Pixel Series LED strip without connectors.						
	Laika™	 Surface Mount	1 Meter Channel + Clear Cover Kit		LAI-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			1 Meter Channel + Frosted Cover Kit		LAI-CH-A-CVR-F-1M				
			2 Meter Channel + Frosted Cover Kit		LAI-CH-A-CVR-F-2M				
			Note: This extrusion only fits the RGB Digital Pixel Series LED strip without connectors.						
	Titan™	 Surface Mount	1 Meter Channel + Clear Cover Kit		TTN-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			1 Meter Channel + Frosted Cover Kit		TTN-CH-A-CVR-F-1M				
			2 Meter Channel + Frosted Cover Kit		TTN-CH-A-CVR-F-2M				
			1 Meter Channel + Matte Cover Kit		TTN-CH-A-CVR-M-1M				
			2 Meter Channel + Matte Cover Kit		TTN-CH-A-CVR-M-2M	6 Channel Connectors			
			1 Meter Channel + 10 Meter Frosted Cover Kit		TTN-CH-A-CVR-F-10MR				
			1 Meter Channel + 10 Meter Matte Cover Kit		TTN-CH-A-CVR-M-10MR				
			1 Pendant Kit		TTN-PND-KIT	2 Pendant Mounts with Screws			
				Atlas™	 Angled Surface Mount	1 Meter Channel + Clear Cover Kit		ATL-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips
						1 Meter Channel + Frosted Cover Kit		ATL-CH-A-CVR-F-1M	
2 Meter Channel + Frosted Cover Kit		ATL-CH-A-CVR-F-2M							
1 Meter Channel + Matte Cover Kit		ATL-CH-A-CVR-M-1M							
2 Meter Channel + Matte Cover Kit		ATL-CH-A-CVR-M-2M							
	Calypso™	 Recessed	1 Meter Channel + Frosted Cover Kit		CAL-CH-A-CVR-F-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			2 Meter Channel + Frosted Cover Kit		CAL-CH-A-CVR-F-2M				
			1 Meter Channel + Matte Cover Kit		CAL-CH-A-CVR-M-1M				
			2 Meter Channel + Matte Cover Kit		CAL-CH-A-CVR-M-2M				
			1 Meter Channel + 10 Meter Frosted Cover Kit		CAL-CH-A-CVR-F-10MR	10 Open End Caps 10 Closed End Caps 20 Mounting Clips 30 Channel Connectors			
			1 Meter Channel + 10 Meter Matte Cover Kit		CAL-CH-A-CVR-M-10MR				
	Cassini™	 Recessed	1 Meter Channel + Clear Cover Kit		CAS-CH-A-CVR-C-1M	2 Open End Caps 2 Closed End Caps 4 Mounting Clips			
			1 Meter Channel + Frosted Cover Kit		CAS-CH-A-CVR-F-1M				
			2 Meter Channel + Frosted Cover Kit		CAS-CH-A-CVR-F-2M				
			1 Meter Channel + Matte Cover Kit		CAS-CH-A-CVR-M-1M				
			2 Meter Channel + Matte Cover Kit		CAS-CH-A-CVR-M-2M				

## Wiring Diagrams

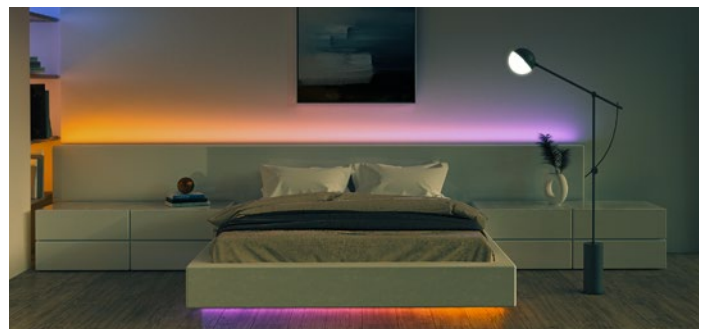
### SPI Control



### DMX



## Application Examples





## Safety And Disclosures

01.Installation must be in accordance with local and national electrical code regulations. To ensure safety and correct installation, our strips are intended to be installed by a qualified, licensed electrician.

02.Only install with a Class 2 DC Constant Voltage LED driver to meet UL requirements.

03.Do not install in an environment where excessive heat may exist.

04.LED strip lights must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.

05.Do not secure this product with any kind of staples, nails, or materials that could potentially damage the product in any way. Keep these instructions for future reference.

06.Do not cover this product with any kind of combustible material such as paper, fabrics, etc.

07.Do not install product with the majority of the product unsupported. Allowing the product to be suspended or dangling while installing may cause damage to the PCB due to the weight of the strip and/or spool.

08.Do not install indoor LED tape light products in outdoor/wet location environments. Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.

09.Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.

10.Make sure the appropriate gauge wire is installed between the driver, LEDs, and any dimmers. When choosing wire, calculate voltage drop, maximum amperage rating, and the location ratings on the wire. Improper wire selection and installation could overheat wires, and cause fire.

11.Do not modify the product beyond instructions or warranty will be void.

12.We reserve the right to modify and improve the design of our fixtures without prior notice. Although we try our best to order the same colors every time, due to changes in technology and phosphors over time, we cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.

## Warranty Information

### Limited Warranty

This product has a 7 year limited warranty from the date of shipment. This warranty only includes the main product outlined in this specification sheet and does not include the additional accessories that are used as a reference. Complete warranty details for fixtures and additional accessories are available at <https://www.flexfireleds.com/warranties/> within the Policies section. For warranty related questions please contact the product support team at ([support@flexfireleds.com](mailto:support@flexfireleds.com)).

### Consumer's Acknowledgment

Flexfire LEDs, Inc. stands behind its products when they are used properly and according to our specifications. When you purchase our products, you are agreeing to the terms and conditions outlined in our warranty section. We try our best to make recommendations, but the burden of proper installation, design, and maintenance relies on the purchaser. This limited warranty does not include product failures that are the result of: Not using a voltage regulated power supply to connect the LED product or controls; Connecting LED products to the wrong output voltage; Improper connection of power supplies, LED products, or controls; Connecting LED products or controls directly to any AC power source if they are stated for DC only input; Connecting power supplies backwards to an AC power source; Products used in an inappropriate location or in environmental conditions (temperature, humidity, moisture, etc.) outside the normal specified range; Water damage to products not specifically sold as waterproof products; Electrical power surges and spikes; Damage from hail, flooding, tornado, fire, wind, earthquake, lightning, electrical storm, or any other natural disasters or "force majeure" incidences; Damage caused by a vehicle or other accident; Damage caused when transporting the item; Damage to any products that were modified by the user, used for purposes other than as intended or directed, or connected to LED systems or components not purchased from Flexfire LEDs; Products that have been subjected to misuse, mishandling, misapplication or accident. Products used in connection with any components, devices or systems other than those explicitly approved as compatible with Company's products and listed on Company's website. Excessive wear and tear and/or physical or accidental abuse, loss, or theft. Improper repairs or warranty services performed by someone other than Flexfire LEDs will void this warranty.



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**FLEXFIRELEDs**

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