AcuVibrant™ CV Series
AcuVibrant-XXCV-XX16 Datasheet

Customer Name	Project Name	Part Number

Flexible RGB LED Strip

Description

RGB LED strip lights let you create millions of colors by just mixing red, green, and blue colors. Our new AcuVibrant™ series of CV RGB strips include a 4oz density PCB for better heat dissipation and 3M VHB adhesive tape for a more secure installation.
AcuVibrant™ RGB LED strips are offered in many variations such as 12V and 24V and varying IP ratings such as IP40 (indoor, dry locations) or IP68 (damp, wet locations). These strips are free of UV radiation, fully dimmable, and DMX addressable.

Product Specifications

Input Voltage	12 V DC / 24 V DC[2]	Cuttable Segments	2 in / 50 mm (12V) 4 in / 100 mm (24V)
Limiting Control Method	CV - Constant Voltage	Reel Length	16.4 ft / 5 m
Power Consumption	4.66 W/ft[3]	Max Run Length	5 meters, 10% luminous flux loss
LED Chip Type	High Quality SMD 5050 3-Diode	Segment Width	0.39 in / 10 mm (IP40) 0.50 in / 12.7 mm (IP68)
LED Density	18 LEDs/ft / 60 LEDs/m	Luminous Flux Maintenance	75,000 hrs[4]
Board Type/Color	4 oz Density Copper, White PCB	Dimming	DMX PWM, RF PWM, 0-10V, MLV, Incandescent
Beam Angle	120°	Environmental	IP 40 - Indoor, Dry / IP 68 - Damp, Wet
Operating Temperature	-20°F to 120°F	Warranty	5 Years Limited
Mounting	Non-Porous: 3M VHB Adhesive Mounting Tape	Certifications	c UL us UL Listed, E479339

Product Photometrics - Red, Green and Blue Diodes

Color Diode	Peak Wavelength (nm)	Dominant Wavelength (nm)	CIE (x,y)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)
Red	628.6	621.6	(0.6940, 0.3052)	45	30.2
Green	517.3	523.6	(0.1528, 0.7224)	161	97.6
Blue	464.7	469.0	(0.1327, 0.0609)	35	23.3

Product Photometrics - All Three Colors at Full Intensity

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv_1	CRI	TM-30-15 Fidelity (Rf)	TM-30-15 Gamut (Rg)
22000 K	231	49.5	(0.2196, 0.2549)	+0.0250	64.0	NA	NA

1 - Duv Chromaticity Consistency is throughout the run length. Typically below 1-step MacAdam Ellipse.
2 - AcuVibrant™ 24V RGB LED Strips are Special Order only.
3 - Measured with all colors ON at full intensity.
4 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-15

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Ordering Guide

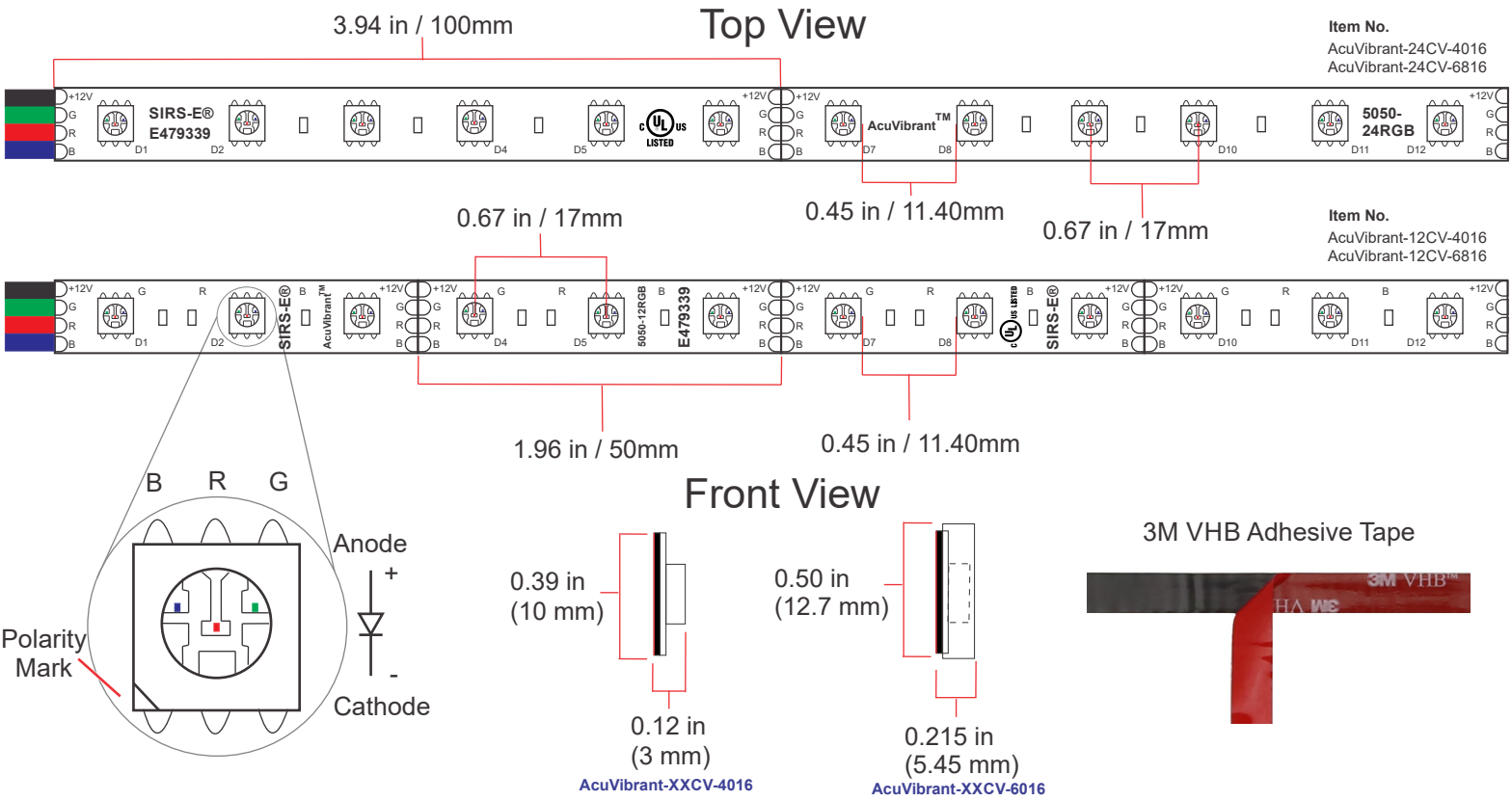
Series	Voltage	Control	CCT[2] / λ[3] *	IP	Run Length
AcuVibrant™	XX	CV	XX	XX	16
	12	CV		40	
	24[1]	CC		68	

[1] Voltage - AcuVibrant™ 24V RGB LED Strips are Special Order only.
[2] CCT - Correlated Color Temperature, represented by the first 2 digits of the nominal CCT.
[3] λ - Peak Wavelength, represented by the 3 digits of the color wavelength.
* CCT / λ - applicable on AcuVivid and AcuHue series only.

Product Country of Origin

Product Engineering & Design	USA
Assembled	China Preassembled / USA Final Assembly
QC Quality Control	USA
Product Customization	USA
Technical Support	USA

Mechanical Dimensions



Weight

Product Weight: 4.4 oz,16.4 ft Reel
IP40, Without Packaging.

13.3 oz,16.4 ft Reel
IP68, Without Packaging.

Notes

- A good technique to minimize brightness loss and increase lumen output on CV LED Strips is to power the strip on both sides.
- LED electrical and photometric characteristics change with the manufacturing batch/bin date. Approximately 3-Step MacAdam Ellipses between batches.
- We reserve the right to change any data without prior notice.

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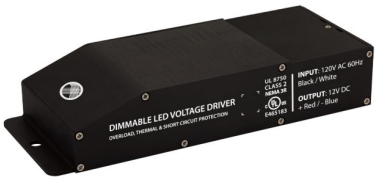
Accessories Compatible

This list shows some of our most sellable accessories compatible for this product. For a complete list, please visit our website.

Meanwell 12V & 24V PSUs
LED-PS12V-60W-UL
LED-PS24V-90W-UL



Magnitude Dimmable PSUs
PS12V60W-DIM
PS24V96W-DIM

SIRS-E RF Controllers
RF-MZRX-RGB

SIRS-E DMX Controllers
DMX-CON3-C2

SIRS-E Waterproof Accessories

SIRS-E RGB Wire Leads

About Us

LED LIGHTING AND DMX CONTROL

SIRS-E /**s**emiconductor • **i**llumination • **r**esearch • **s**olutions /

In 2004, SIRS-E began research into the use of high powered LED components to be applied in direct lighting fixtures and LED strips.
In 2005, SIRS-E developed the RGB HPL01 – 12 watt (60 lumens per watt efficiency) RGB lighting fixture controlled via DMX using LumiLEDS, one of the first high powered LEDs eventually acquired by Phillips.
Included in early research solutions, was the development and testing of many different LED strips intended to be used for direct RGB lighting and effects applications.
This was the beginning of what we now know as SIRS – Electronics.

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