

PFA5000x12-160RGB-12v
SPI Addressable Flexible RGB LED Strip

Features

- Full colour Flexible LED light source
- Each pixel addressable with SPI control
- High performance 5050 LED emitters
- Easy to cut at 31.25mm intervals
- Wide 120° angle of emission
- Low power, low heat, long life
- 3M Adhesive backing tape



Applications: POS Display equipment & effect lighting

Configuration

Parameter	Rating	Unit
LED emitters PLCC 5050	160 pcs 5.0x5.0mm	TOTAL / reel
LED pitch	31.25	mm
Dimensions	5000x12mm cuttable at 31.25mm intervals	
Termination	3x Flying wire leads 200mm long	
Connection	3 wire SPI: Red +ve, Black -ve, Green Data	
Onboard SPI Driver IC	UCS1903	

Absolute Maximum Ratings (T_A=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Current Consumption/reel (White "all on") *	IF	4.8	A
Current Consumption/metre (White "all on") *		960	mA
Power Dissipation/reel (White "all on") *	PD	58.0 ±5%	W
Power Dissipation/metre (White "all on") *		11.6	
Electrostatic discharge	ESD	800	V
Operating Temperature	Topr	-25~+60°C	°C
Storage Temperature	Tstg	-40~+80°C	°C

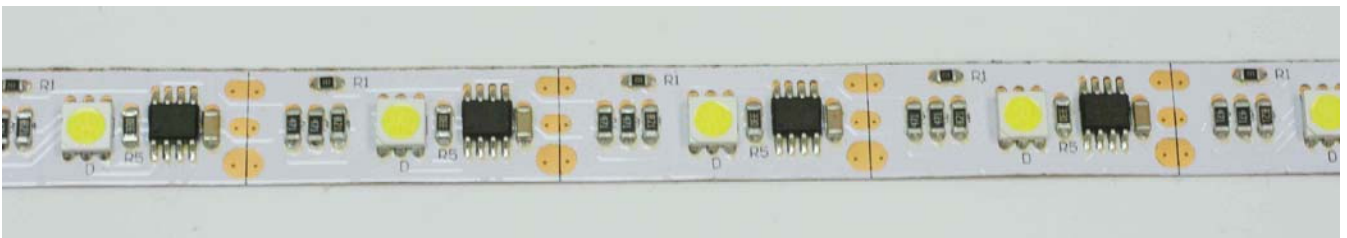
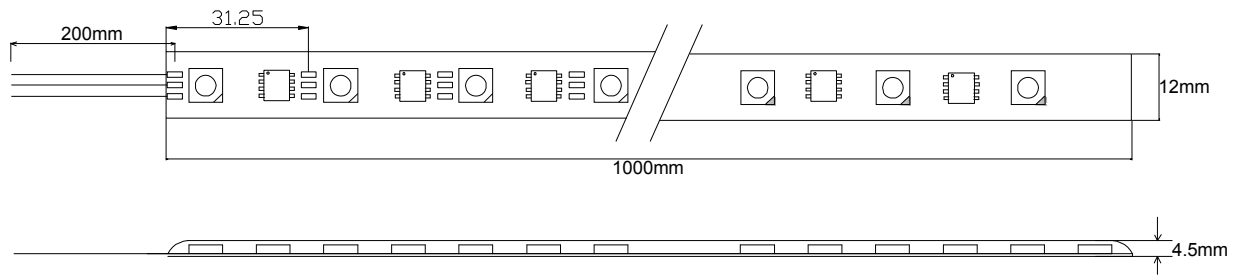
* SPI Controller dependent

Electro-optical characteristics (T_J=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage DC	V _F		-	12	-	V
Forward Voltage DC	V _F		-	12	-	V
Dominant Wavelength	λ _D (R)	IF = 1920mA	620	-	650	nm
	λ _D (G)	IF = 1920mA	500	-	530	nm
	λ _D (B)	IF = 1920mA	450	-	480	nm
Luminous flux	φ _V	IF = 1920mA	--	RGB	-	lm

Add suffix IP65 for waterproof crystal epoxy coating

Dimensions



Notes:

It is recommended that where LEDs are run at >11W/metre that strips are mounted on a suitable heatsink i.e. aluminium to allow cooling and maintain LED life.

The rated life of LED products depends to a large extent on the temperature. If the permissible temperature limits are exceeded, LED lifetimes will be greatly reduced and may lead to catastrophic failure of the LEDs.

Handling notes:

Ensure that the correct low voltage dc power supply is matched to the flexible strip specification

Avoid repeated bending of the strip as this will damage the circuit and components and please observe the maximum bend radius of 30mm

Avoid handling of the surface components, in particular the LED emitters as any pressure may result in damage and latent failures.

When cutting IP65 the ingress protection will be compromised please ensure that the assembly is re-sealed accordingly in order to maintain the IP rating

Installation notes:

To achieve a consistent luminous effect, each 5 metre should be connected to the power source.

To ensure long life we recommend that the strip is kept as cool as possible and environments where the temperature exceeds 40°C should be avoided

Drive & Control:

For control solutions please refer to our range of controllers and drive options which include DMX, RF Wireless, WiFi. More information may be found at <http://www.plusopto.co.uk/led-controllers.html>

Specifications may be subject to change without notice