

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

Features

- Full colour Flexible LED light source
- Each pixel addressable with SPI control
- High performance 5050 4-in-1 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 4-in-1	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	UCS2904	

Absolute Maximum Ratings (T_A=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Current Consumption/reel (White "all on") *	IF	11.5	A
Current Consumption/metre (White "all on") *		2.3	A
Power Dissipation/reel (White "all on") *	PD	138 ±5%	W
Power Dissipation/metre (White "all on") *		27.6	
Electrostatic discharge	ESD	800	V
Operating Temperature	Topr	-25~+60°C	°C
Storage Temperature	Tstg	-40~+80°C	°C

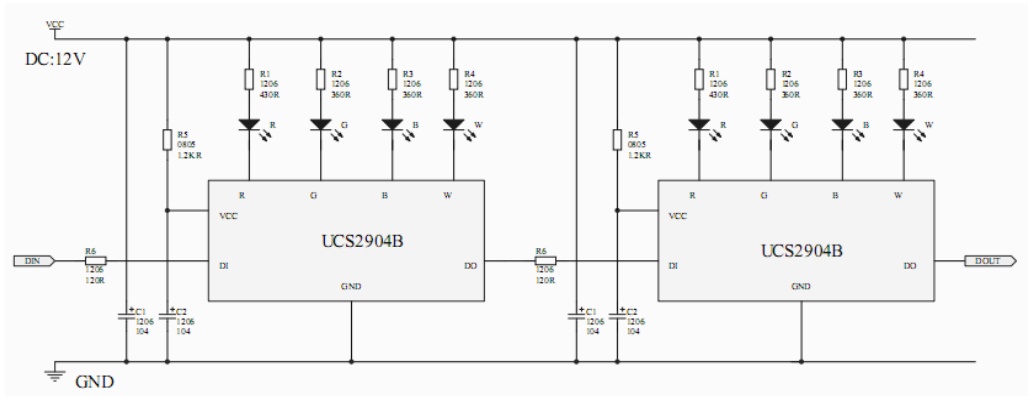
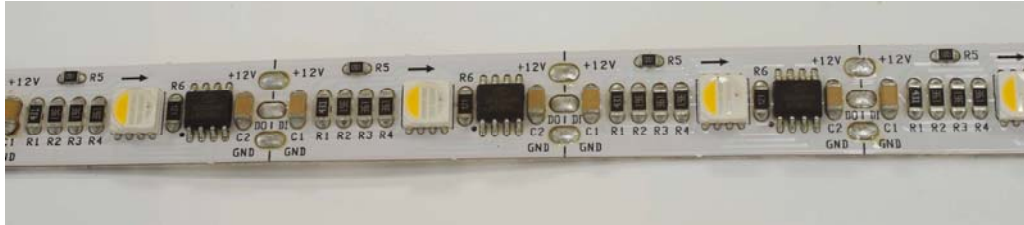
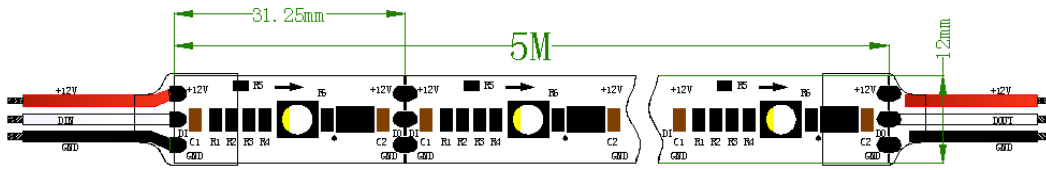
* SPI Controller dependent

Electro-optical characteristics (T_J=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage DC	VF		-	12	-	V
Dominant Wavelength	λD(R)	IF = 2720mA	620	-	625	nm
	λD(G)		500		525	nm
	λD(B)		450		465	nm
Colour temperature (White)	WW			3000		K
Luminous flux	R				217.35	
	G			630.28		
	B			225.86		
	W			963.50		

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 to avoid damage to the circuit and components & 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 & 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