

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 |

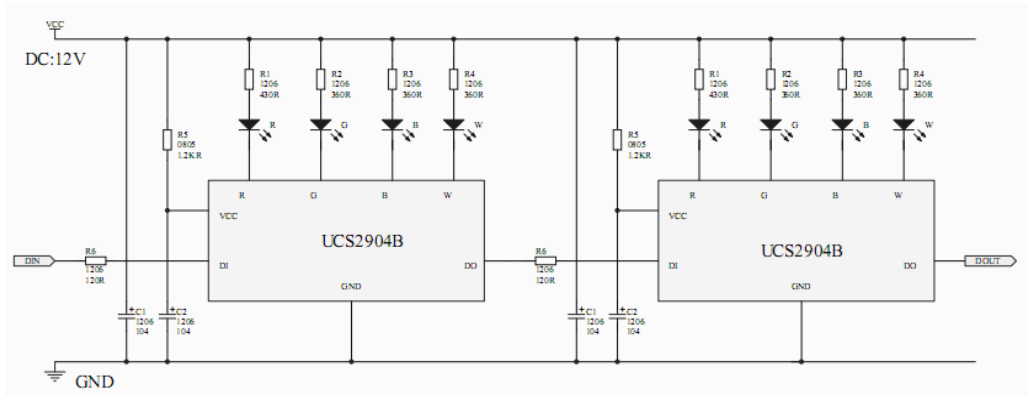
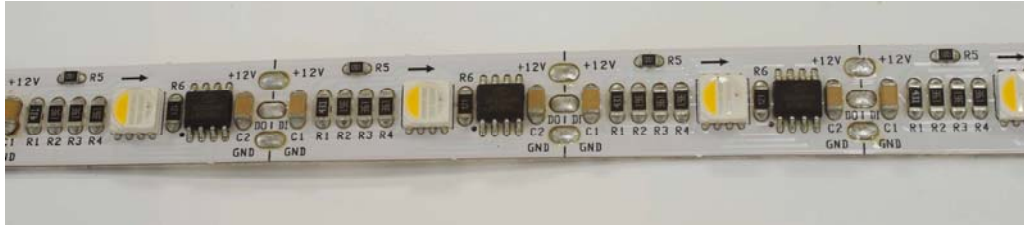
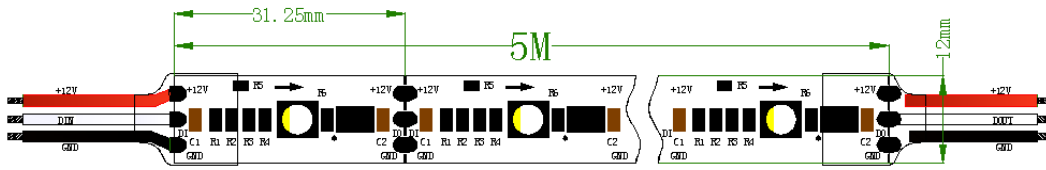
* SPI Controller dependent

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