



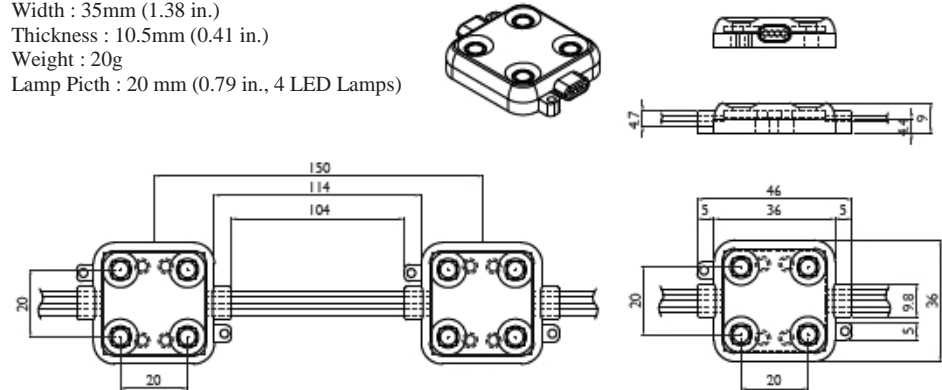
**16 MILLION COLOR LED LIGHTING SYSTEM**

The RAINBOW C04 is a full color RGB LED module which can produce 16 million colors with Samsung LED lamp. Single SMD type lamp has 3 light emitting diode chips, one for red, one for green, and one for blue. This 3 chips in 1 lamps provides smooth mixture of colors, which cannot be achieved with old-fashioned superflux LED lamp. With high speed controlling ability, plenty of applications are available such as façade lighting, interior lighting, and also channel lighting. One truly innovative aspect of the RAINBOW C04 is its 96% transparent body, which allows not to dim lighting output from the LED lamp. While maintaining its extreme energy efficiency, it also provides reliable assurance with Samsung LED technology that lighting output remains 70% level out of initial output after using 42,500 hours. Please, let us welcome you to our hassle free lighting system.

- 16 Million full color LED lighting system with sophisticated 3 chips in 1 SMD lamp
- Guaranteed life time up to 42,500 hours with 70% lighting output  
\*24 hour constant load may result less operating hours with lower lighting output. Estimated lifetime is based on normal usage of 10 hours per day.
- IP65 Weather-proof system
- Transparent polyurethane body for tough environment
- Reverse voltage protection to minimize hassles during installation
- Extremely small and light solution for low-profile channel letters, indoor
- 70% more energy efficiency compared to conventional sign lighting source

**PHYSICAL**

Length : 35mm (1.38 in.)  
 Width : 35mm (1.38 in.)  
 Thickness : 10.5mm (0.41 in.)  
 Weight : 20g  
 Lamp Pitch : 20 mm (0.79 in., 4 LED Lamps)



**OPTICAL CHARACTERISTICS**

| Color | Luminous Intensity (Cd) |         |     | Dominant Wave Length & Color Temperature |         |       | Spectral Half Width | Viewing Angle   |
|-------|-------------------------|---------|-----|--|---------|-------|---------------------|-----------------|
|       | Min                     | Typical | Max | Min                                      | Typical | Max   | $\lambda_{1/2}$     | $2\Theta_{1/2}$ |
| Red   | 11                      | 12      | 13  | 623nm                                    | 625nm   | 628nm | 20                  | 120             |
| Green | 19                      | 21      | 22  | 525nm                                    | 527nm   | 530nm | 35                  | 120             |
| Blue  | -                       | 3.6     | -   | 455nm                                    | 460nm   | 465nm | 25                  | 120             |

\*\*CRI (Color Rendering Index) for white product types is 70 / \*Spectral width at half of the peak intensity / \*Luminous Flux measuring equipment is CASI40B  
 \*Viewing angle is the off axis angle from lamp centerline where the luminous intensity is half of the peak value / \*CCT 5% tester tolerance  
 \*Dominant wavelength is derived from the CIE 1931 Chromaticity diagram and represents the perceived color

*Specifications subject to change without notice*

## ELECTRICAL CHARACTERISTICS

Current dissipation : 120 mA  
 Power consumption : 1.4 W  
 Operating power : DC 12V  
 Quantity for maximum connection in serial : 30 modules  
 Color controller supported: Voltage controlled color change system  
 Constant current drive  
 Reverse voltage protection

## THERMAL

Cooling : Ambient air  
 Maximum operating temperature : 60°C (140°F)  
 Minimum operating temperature : -25°C (-13°F)  
 Maximum storage temperature : 60°C (140°F)  
 Minimum storage temperature : -30 C (-22 F)

## SAFETY FEATURES

ESD Protection : Industry standard electro-static discharge protection  
 IP65 : Prevents water & dust penetration, operative under water  
 Reverse voltage protection : Device will prevent incoming power source on improper input connection

## CONSTRUCTION

LED Lamp : 3-in-1 RGB LED lamp, chip & packaging by Samsung  
 Protective cap for LED lamp : PVC  
 Body : Polyvinyl Chloride (PVC), 96% transparency  
 PCB : FR-4 fiber glass epoxy resin, quad layered  
 Lead wire : Copper solid wire, semi-rigid PVC, UL VW-1, CSA 80 celsius 300V

## ACCESSORY

Controller: Transmit color signals and control drivers up to 255pcs of drivers  
 Driver: Takes color signal from controller and transmit signals to 30 modules of Rainbow C04

## APPLICATIONS

Channel letters - open & closed cover  
 Reverse halo lighting  
 Border lighting  
 Point-Of-Purchasing signage  
 Art & sculpture and cove lightin  
 Façade lighting

## APPROVAL

EN 55015:2000+A1:2001+A2:2002 Class B  
 EN 61547:1995+A1:2000



## FEATURES



## INSTALLATION GUIDE

