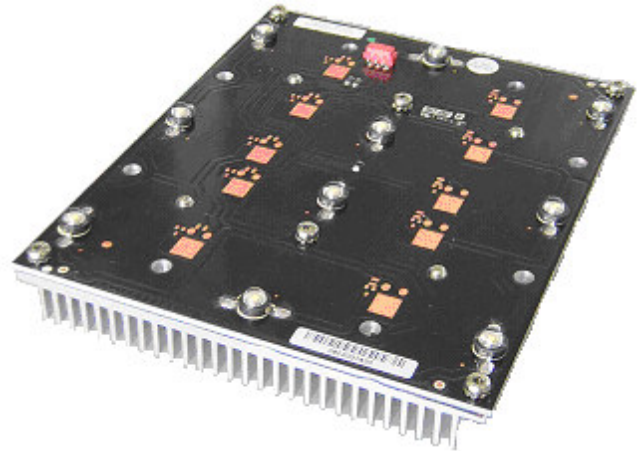


Features

- Independent White LEDs arrays for white light control (external driver required)
- Selected LUXEON High Brightness LEDs
- Luxeon Optics Compatible
- High Luminous Output
- High Lumen Maintenance
- No UV
- Aluminium-Core PCB
- Over Temperature sensor
- Optimised thermal management
- Energy efficient
- Compact low profile design
- LED bypass circuitry for continuous operation
- RoHS 6 compliant (Directive 2002/95/EC)



Optical & Electrical Characteristics

ROAL's planar LED arrays are designed to operate under constant current operating conditions, and controlled operating temperatures. The parameters listed below are designed to detail limitations of the device. These limitations are specific to the LEDs deployed on the board. For more detail we recommend you consult the LED manufacturer's datasheets. All parameters assume a junction temperature of 25°C.

Parameter	Channel	White 1	White 2
Qty LEDs		5	5
Series Qty		5	5
Number of strings in parallel		1	1
LEDs Part Number		LXHL-PW09	LXHL-PW09
Design Forward Current (mA)		500	500
Typical Luminous Flux per LED (lm) *		64	64
Typical Luminous Flux per Array (lm) *		320	320
Minimum Correlated Colour Temperature (K)		4500	4500
Maximum Correlated Colour temperature (K)		10000	10000
Radiation Pattern		Lambertian	Lambertian
Secondary Optics		Available	Available
Maximum Input Voltage per LED (VDC)		4.47	4.47
Maximum Input Voltage per Array (VDC)		22.35	22.35
Maximum Input Current per LED (mA) **		1000	1000
Maximum Input Current per Array (mA) **		1000	1000

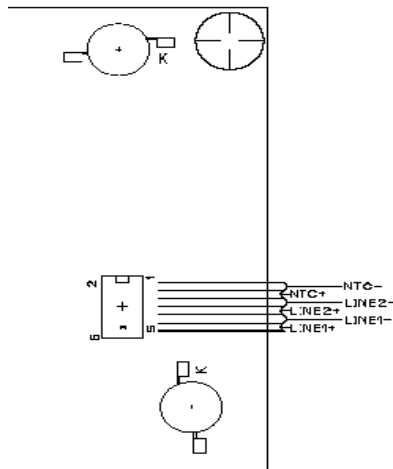
Notes:

* Typical Flux is per LED manufacturer's data sheets at the design forward current listed.

** This is an absolute maximum rating based on LED limitations only. It does not factor in thermal design.



Components and Circuit Configuration



Substrate	Aluminium Clad Single Layer PCB
LEDs	10 Luxeon III, LXHL-PW09 from Lumiled; two 5 LEDs strings channels
I/O Connector	TYCO-AMP 7-188275-6
Thermal Sensor	10 kΩ Epcos B57621C103J62

Environmental and Application Note

Maximum Operating Temperature	55 °C at the baseplate (thermally controlled)
Over Temperature Protection	By on board thermal sensor, providing feedback to the LED Driver module.
Absolute Maximum PCB Temperature	105 °C
Humidity	10% to 95% (operating), RH, non-condensing
Cooling	Natural Convection

Eu and RoW

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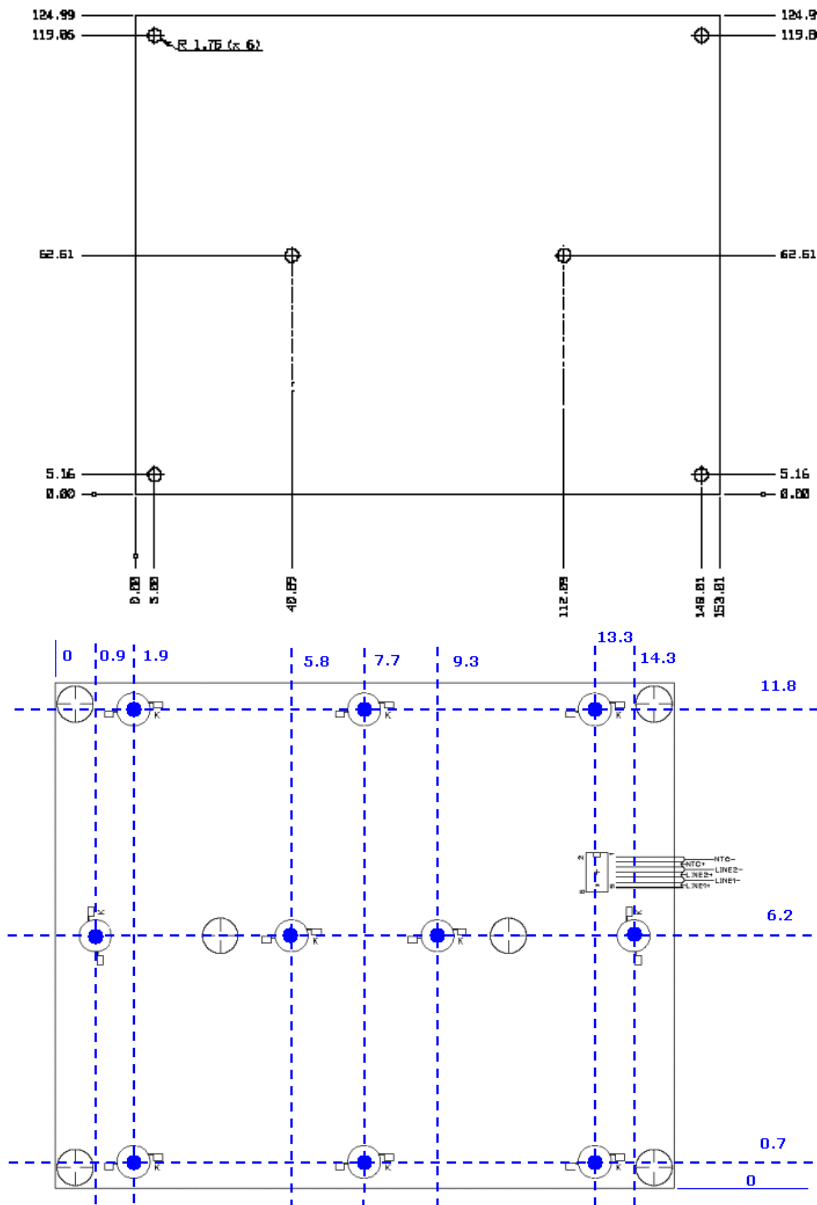
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Physical Specifications

Unit dimensions (WxLxH) 124.9 mm x 152 mm x 25 mm = 4.9 in x 6.0 in x 1.0 in
Unit weight (including heat sink) 0.42 kg = 0.93 lb

Outline Drawing and LEDs matrix pattern



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