ENFIS QUATTRO Mini Array RGBW

The latest in ultra bright, chip on board, LED lattice arrays.
Compact, colour-rich RGBW spot source, with full colour and colour temperature capability

Features

Mounted array for simple incorporation

- Array mounted on connectorized PCB
- Drop-in capability into existing luminaires
- Incorporating thermal measurement device
- Designed for passive or active cooling

Densely packed lattice CoB array

- 144 LEDs in 4cm^2
- Superior dynamic range
- Ultra bright output

High power useable light

- Drive to 200W
- Potential for pulsing together with analogue and PWM dimming

Rugged and proven

- Superior >20,000 hour lifetime
- Reliable and repeatable performance operated in the harshest of environments

Inbuilt monitoring / control

- Potential for active monitoring and closed loop feedback and control of light output using integrated and calibrated photodiodes
- Inbuilt capability for temperature monitoring control and protection via integrated temperature sensors

PCB Arrays

Enfis can reduce the time, cost and risk of integration by offering purpose mounted ultra-bright multi-channel/colour arrays. These can be readily driven by appropriate drivers.

Smart Array Technology

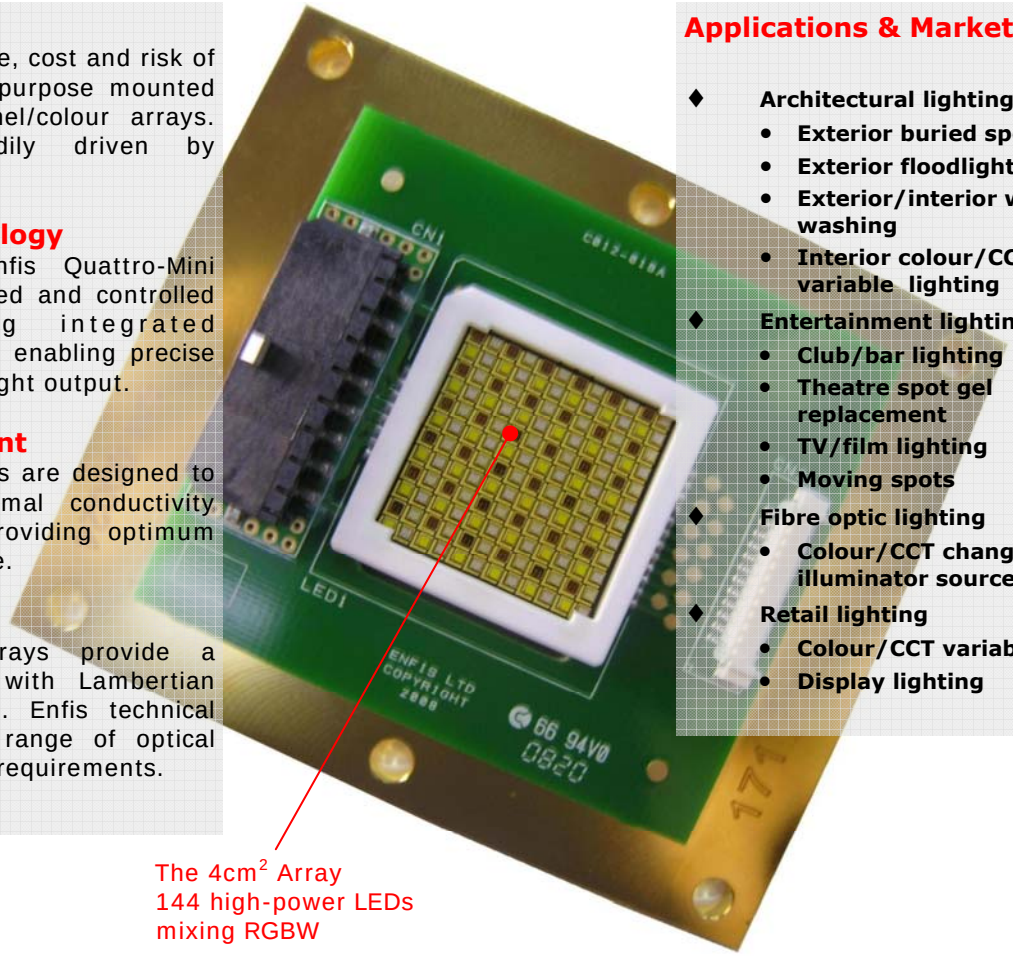
Light output from Enfis Quattro-Mini arrays may be monitored and controlled via patent-pending integrated photo-detection system, enabling precise control and repeatable light output.

Thermal Management

Enfis Quattro-Mini arrays are designed to provide excellent thermal conductivity and integrate simply providing optimum performance and lifetime.

Optics

Enfis Quattro-Mini arrays provide a compact spot source with Lambertian emission characteristics. Enfis technical experts can advise a range of optical solutions to match your requirements.



The 4cm^2 Array
144 high-power LEDs
mixing RGBW

Applications & Markets

- **Architectural lighting**
  - Exterior buried spotlights
  - Exterior floodlights
  - Exterior/interior wall-washing
  - Interior colour/CCT variable lighting
- **Entertainment lighting**
  - Club/bar lighting
  - Theatre spot gel replacement
  - TV/film lighting
  - Moving spots
- **Fibre optic lighting**
  - Colour/CCT changing illuminator sources
- **Retail lighting**
  - Colour/CCT variable spot
  - Display lighting

ENFIS LIMITED
Technium 2, Kings Road,
Swansea Waterfront,
Swansea, SA18PJ, UK
Tel +44 (0)1792 485660
Fax +44 (0)1792 485537
www.enfis.com
info@enfis.com

ENFIS

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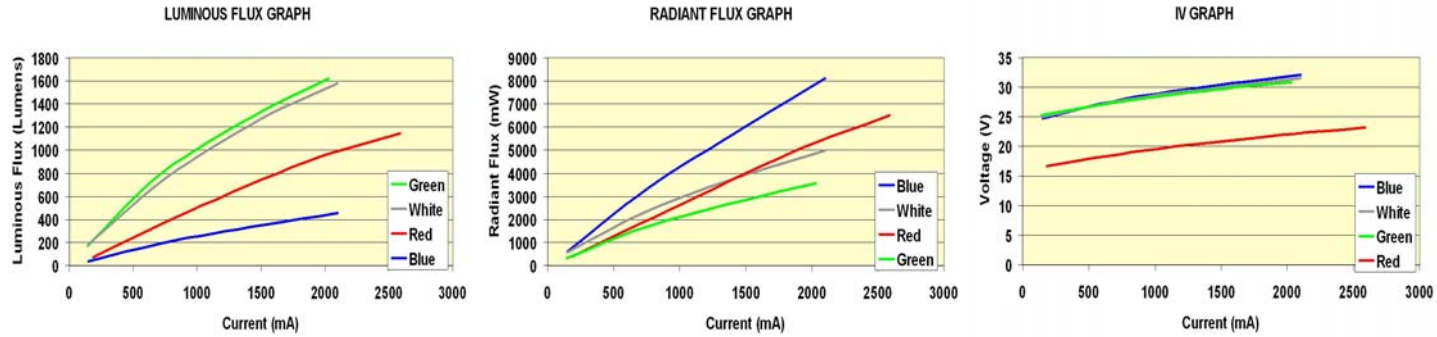
Technical Specification

Electro-Optical Characteristics

Channel	Red			Green			Blue			White		
Item	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
Rated Current If (mA)		2000			1760			1550			1600	
Forward Voltage Vf (Volts)	20	25	30	24	28	32	28	32	36	27	31	35
Peak Wavelength λp (nm)	620	630	640	510	520	530	450	465	470			
Dominant Wavelength λd (nm)	610	620	630	518	528	538	455	470	475			
Spectral Width Δλ (nm)	12	16	20	32	37	42	15	23	30			
Colour Temperature CCT (K)										3900	4250	4600
Total Radiant Flux ΦR (mW)	4600	5500		2350	2800		5500	6900				
Radiant Flux Density ΦR/A (mW/cm^2)	950	1136		486	579		1136	1426				
Total Luminous Flux ΦL (Lumens)	700	850		1000	1250		350	420		1170	1400	
Luminous Flux Density ΦL/A (lm/cm^2)	145	176		207	258		72	87		242	289	
Total Electrical Power P (W)		50			50			50			50	

All measurements performed at a heatsink temperature of 25°C and each Channel is capable of up to 80W for increased light output



Storage Regime

Storage Temperature -20ºC to +85ºC

Weight

Array 0.2kg

Heat Generation

Proper thermal design of the end product is of paramount importance. The operational junction temperature of each LED chip should be kept below 125°C.

Please contact Enfis for further support in this matter.

Connector Types (not supplied)

Drive Molex 0436500812

Thermistor / Feedback Molex 532611271

Cleaning

Avoid touching the LED array surface.

To clean—BLOW surface with either dry air or nitrogen gas

Eye Safety Precautions

The light output of the products may cause injuries to human eyes in circumstances where the products are viewed directly with unshielded eyes for more than a few seconds.

Please refer to IEC 60825-1:2001 for further information

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