



# ENFIS QUATTRO Mini Array Green 520nm

The latest in ultra bright, chip on board, LED lattice arrays.  
Compact, single colour spot source.

## 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<sup>2</sup>
- 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

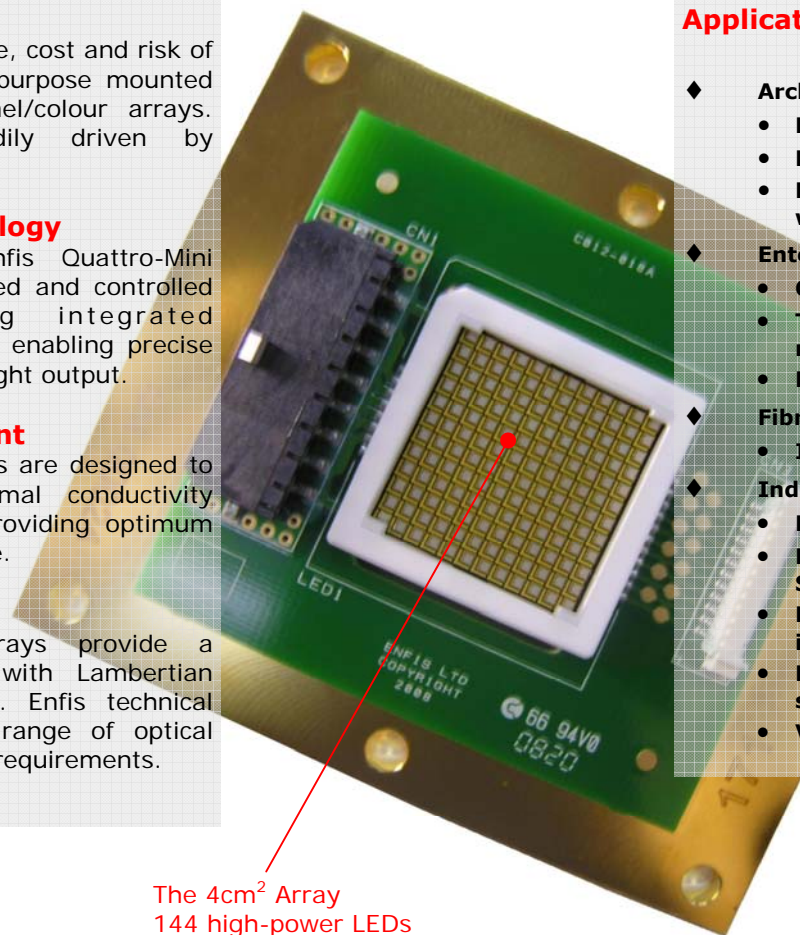
Enfis Quattro-Mini arrays are designed to provide excellent thermal conductivity and integrate simply providing optimum performance and lifetime.

## 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.

## Applications & Markets

- ◆ **Architectural lighting**
  - Exterior buried spotlights
  - Exterior floodlights
  - Exterior/interior wall-washing
- ◆ **Entertainment lighting**
  - Club/bar lighting
  - Theatre spot gel replacement
  - Moving spots
- ◆ **Fibre optic lighting**
  - Illuminator light sources
- ◆ **Industrial/Scientific lighting**
  - Forensic investigation
  - Fluorescence and Spectroscopy
  - Machine Vision and inspection
  - Projection & backlighting systems
  - Vehicle lighting



The 4cm<sup>2</sup> Array  
144 high-power LEDs

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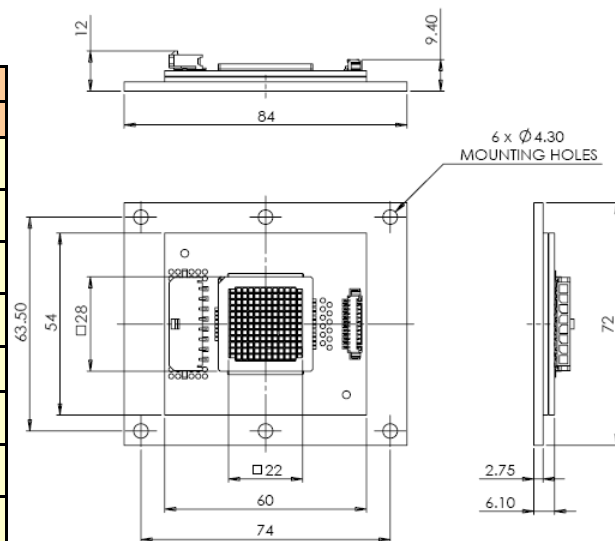


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## Technical Specification

### Electro-Optical Characteristics

| Channel   | Single Channel |      |     | All Channels |      |     |
|---|----------------|------|-----|--------------|------|-----|
| Item  | Min            | Typ  | Max | Min          | Typ  | Max |
| Rated Current<br>If (mA)                            |                | 1760 |     |              | 7040 |     |
| Forward Voltage<br>Vf (Volts)                       | 24             | 28   | 32  | 24           | 28   | 32  |
| Peak Wavelength<br>λp (nm)                          | 510            | 520  | 530 | 510          | 520  | 530 |
| Dominant Wavelength<br>λd (nm)                      | 518            | 528  | 538 | 518          | 528  | 538 |
| Spectral Width<br>Δλ (nm)                           | 32             | 37   | 42  | 32           | 37   | 42  |
| Total Radiant Flux<br>ΦR (mW)                       | 2350           | 2800 |     | 7500         | 9000 |     |
| Radiant Flux Density<br>ΦR/A (mW/cm <sup>2</sup> )  | 486            | 579  |     | 1550         | 1860 |     |
| Total Luminous Flux<br>ΦL (Lumens)                  | 1000           | 1250 |     | 3300         | 4000 |     |
| Luminous Flux Density<br>ΦL/A (lm/cm <sup>2</sup> ) | 207            | 258  |     | 682          | 826  |     |
| Total Electrical Power<br>P (W)                     |                | 50   |     |              | 200  |     |

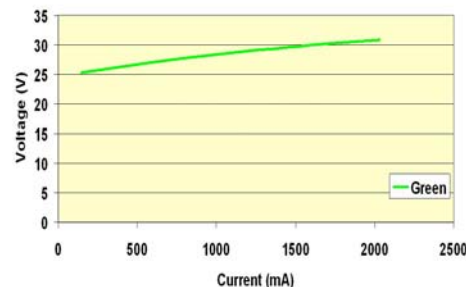
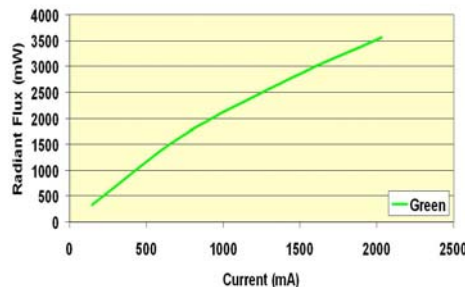
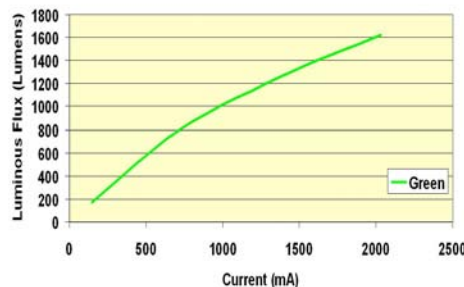


All measurements performed at a heatsink temperature of 25°C

LUMINOUS FLUX GRAPH

RADIANT FLUX GRAPH

IV GRAPH



Single Channel Data

#### Storage Regime

Storage Temperature -20°C to +85°C

#### 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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