



ENFIS UNO Array 5x5 Infra-Red (NIR) 870nm

Smart, powerful, compact, efficient, reliable light

Features & Benefits

- Intense, high-power Infra-Red spot source
- Ultra-high power density
- Long-life and reliable, high-performance due to excellent thermal conductivity
- Simple connection via lead frame

Outline Specification

- 2140mW typical power
- 0.5cm² Aperture
- 4280mW/cm² power density
- Input power: 18W
- Typical thermal resistance <1°C/W

Light Engine Integration

Enfis can eliminate the time, cost and risk of integration by offering our arrays as part of a complete light engine solution

Thermal Management

Enfis arrays are designed to provide excellent thermal conductivity and to be integrated effectively with thermal hardware to ensure optimum performance and life.

Optics

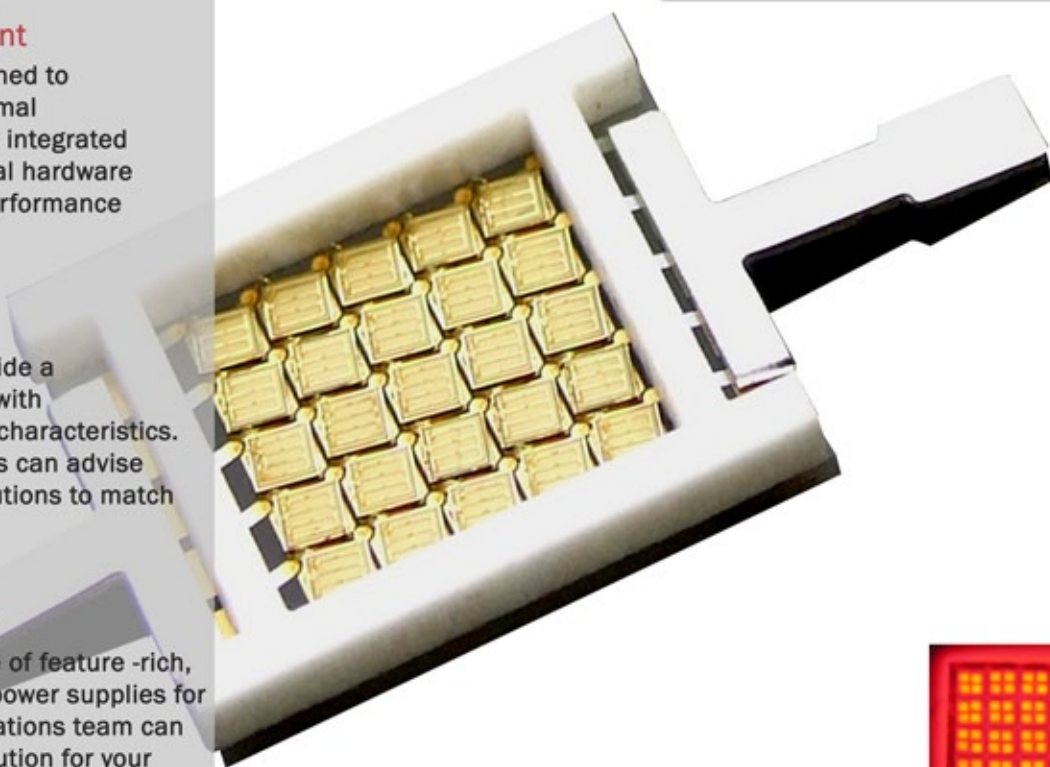
Enfis UNO arrays provide a compact spot source with Lambertian emission characteristics. Enfis technical experts can advise a range of optical solutions to match your requirements.

Power Management

Enfis provides a range of feature-rich, powerful drivers and power supplies for our arrays. Our applications team can provide you with a solution for your specific requirements.

Applications & Markets

- Medical applications
- Security and surveillance



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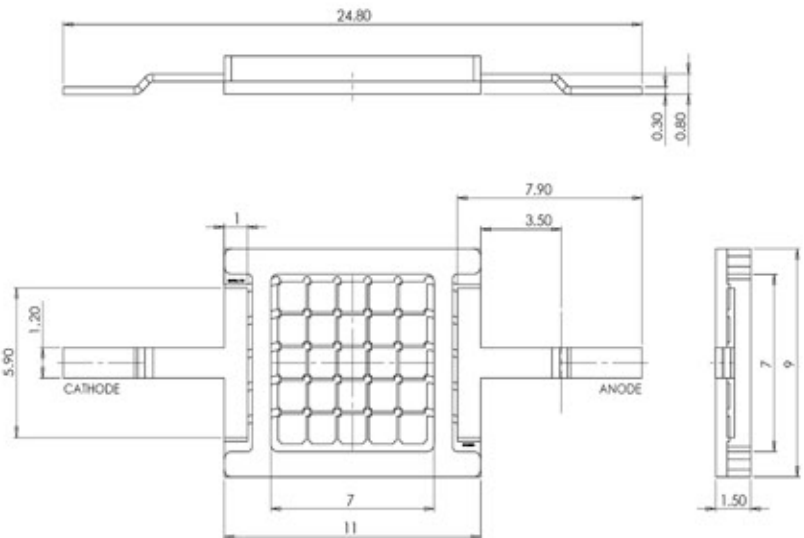
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Enfis UNO Array 5x5 Infra-Red (NIR) 870nm Technical Specification

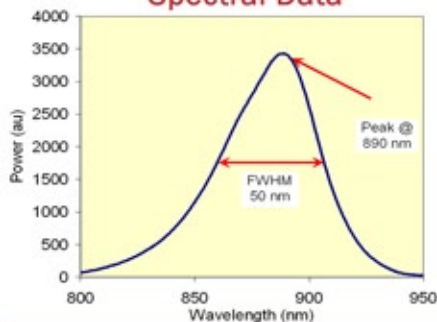
Electro-Optical Characteristics

| Item | Min | Typ | Max |
|--|------|------|-----|
| Rated Current I_f (mA) | | 2230 | |
| Forward Voltage V_f (Volts) | 7 | 8 | 10 |
| Peak Wavelength λ_p (nm) | 850 | 870 | 890 |
| Spectral Width $\Delta\lambda$ (nm) | 40 | 50 | 60 |
| Total Radiant Flux Φ_R (mW) | 2000 | 2140 | |
| Radiant Flux Density Φ_R/A (mW/cm ²) | 4000 | 4280 | |
| Total Electrical Power P (W) | | 38 | |

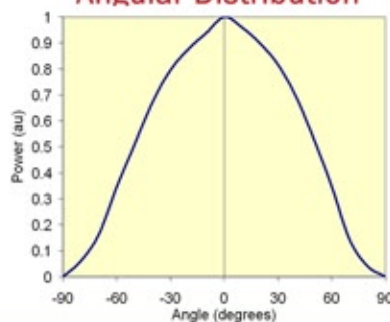


All measurements performed at heatsink temperature of 25°C

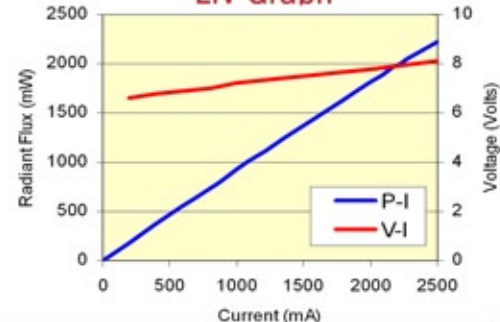
Spectral Data



Angular Distribution



LIV Graph



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.

Handling LED Array

Contact with the encapsulant on the surface of the LED array must be avoided to prevent damage. Do not apply pressure to the encapsulant or allow it to come into contact with the sharp objects. During operation the encapsulant will be hot and contact should be avoided.

Static Electricity

Care must be taken when handling, these products are sensitive to static electricity. Observe static handling precautions



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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