



The Pearl™ P14 series is optimized for Fiber Laser Pumping to meet the demanding requirements of high brightness pumping with minimal cladding light and embedded feedback protection.

Pearl pump lasers use a proprietary fiber coupling technology to eliminate light in the cladding. nLIGHT's proprietary single-emitter integration technology enables high power pumping without the need for fiber combiners, thus maximizing efficiency, cost-effectiveness and useful life.

Features

- Patented nXLT™ diode protection for extended life
- Low-current, fault-tolerant architecture
- Industry-leading wall-plug efficiency >50%
- PowerCore™ mode-stable fiber
- Plug and play compatibility with nLIGHT's DL system
- Electrically isolated housing

Applications

- Plastic Welding
- Soldering
- ACF Bonding
- PV Annealing
- FPD Annealing
- Marking

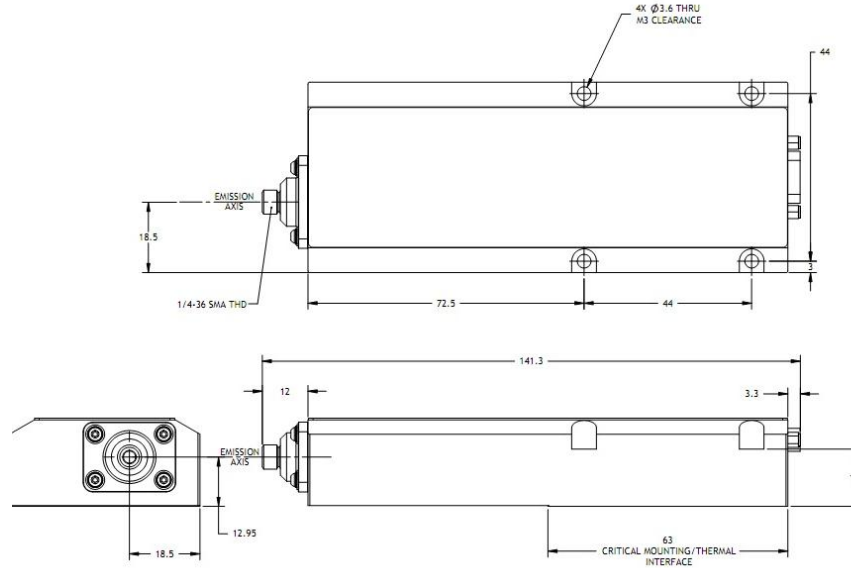
Typical Device Performance

| Package | | P14 | | |
|---|-----------------|------------|------|------|
| Optical | | | | |
| Wavelength | nm | 900-990 nm | | |
| Wavelength tolerance | nm | ± 10 | | |
| CW output power | W | 75 | 85 | 105 |
| Fiber core diameter | µm | 200 or 400 | | |
| Beam divergence | NA ¹ | 0.09 | | |
| Fiber length (standard) | m | 2.0 | | |
| Electrical | | | | |
| Power conversion efficiency (typical) | % | 47 | | |
| Operating current (typical) | A | 9.2 | | |
| Operating voltage (typical) | V | 17.0 | 20.4 | 23.8 |
| Mechanical | | | | |
| Storage temperature range ² | °C | -40 to +80 | | |
| Mass | gr | 220 | | |
| Thermal | | | | |
| Operating temperature ² | °C | +15 to +35 | | |
| Accessories | | | | |
| Line Generator Optic Modules | | | | |
| Collimator and Spot Generator Optic Modules | | | | |
| Monitor Photo Diode | | | | |
| PPS™ OEM Diode Controller | | | | |
| Turn-Key System | | | | |

¹ Numerical aperture (NA) is the sine of the half-angle encircling 90% of the optical energy from the fiber.

² A non-condensing environment is required for storage and operation.

Package Dimensions



CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and Radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.

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Notice

nLIGHT continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.