



The Pearl™ P10 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



The Pearl™ P16 series is optimized for Fiber Laser Pumping to meet the demanding requirements of high brightness pumping with minimal cladding light and embedded feedback protection.

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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

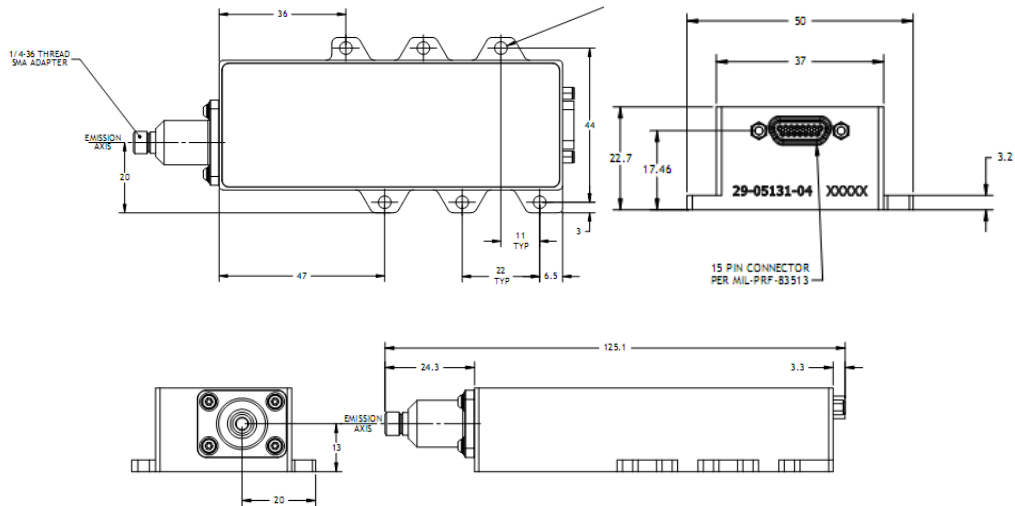
Typical Device Performance

Package		P16		
Optical				
Wavelength	nm	900-990 nm		
Wavelength tolerance	nm	± 3		
CW output power	W	95	110	130
Fiber core diameter	µm	200 or 400		
Beam divergence	NA ¹	0.17		
Fiber length (standard)	m	2.0		
Electrical				
Power conversion efficiency (typical)	%	52		
Operating current (typical)	A	9.0		
Operating voltage (typical)	V	20.4	23.8	27.2
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.

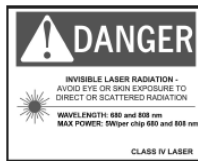
² A non-condensing environment is required for storage and operation.

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.



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.

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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.

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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

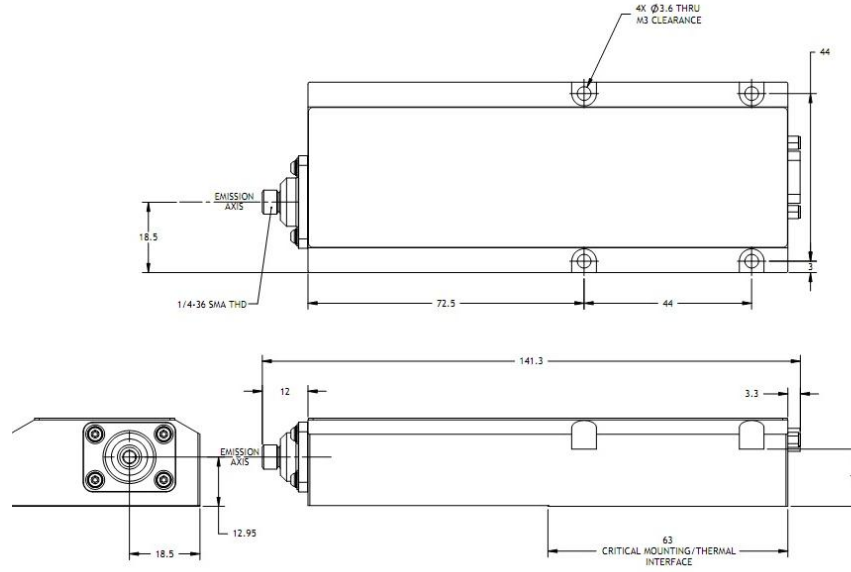
Typical Device Performance

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



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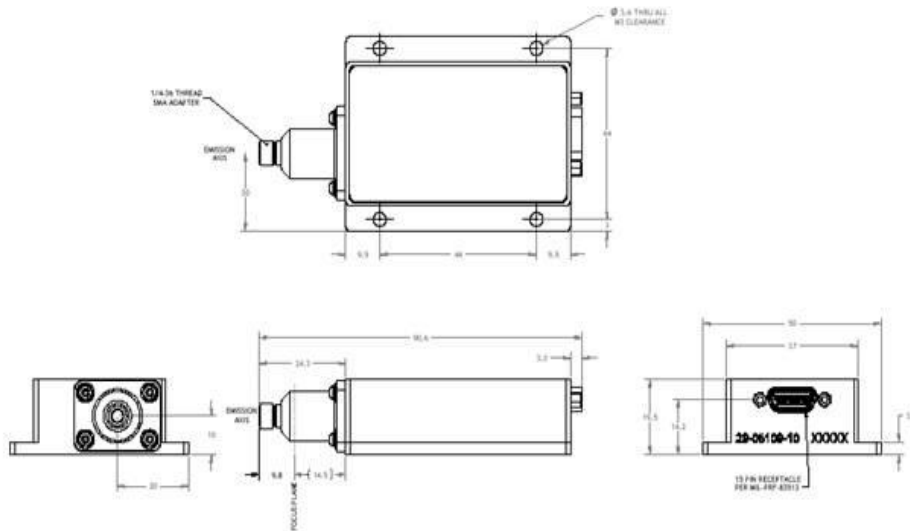
Typical Device Performance

Package		P10			
Optical					
Wavelength	nm	900-990 nm			
Wavelength tolerance	nm	± 3			
CW output power	W	30	50	65	80
Fiber core diameter	µm	200 or 400			
Beam divergence	NA ¹	0.17			
Fiber length (standard)	m	2.0			
Electrical					
Power conversion efficiency (typical)	%	52			
Operating current (typical)	A	9.0			
Operating voltage (typical)	V	6.8	10.2	13.6	17.0
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					

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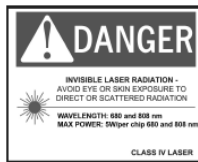
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