

Vision

Take your machine vision
application to the next level



The PNF series **line generation laser** is a high stability, configurable, premium quality laser for **machine vision applications**. The PNF features wavelengths between 405-980nm with up to 150mW output power and optional ultra fast digital modulation.

The PNF Series includes Unique Variable Focus™ Technology that allows the user to calibrate the focus of the module and then re-tune the line generator for optimal performance at close or long range.





Features

- Drop-in replacement for existing lasers
- Line generator with even intensity power distribution
- Optional collimated output
- Choice of Fan Angles: 5°, 10°, 20°, 30°, 45°, 60°, 70°, 90°
- ESD protection
- Over voltage protection

Applications

- 3D Machine Vision
- Dimensional Scanning
- Road & Rail Inspection
- Fluorescence
- Illumination

Standard Configurations

Wavelength + Power

| | |
|-------|-----------------------------------|
| 405nm | 10, 20, 30, 50, 100mW |
| 450nm | 3, 5, 10, 15, 20, 30, 50mW |
| 520nm | 1, 3, 5, 10, 15, 20, 30, 50mW |
| 635nm | 1, 3, 5, 10, 15, 35mW |
| 637nm | 150mW |
| 650nm | 1, 5, 10mW |
| 658nm | 20mW |
| 660nm | 5, 10, 20, 30, 35, 50, 100, 130mW |
| 670nm | 1, 5, 10mW |
| 685nm | 20, 35, 50, 100mW |
| 690nm | 35mW |
| 705nm | 35mW |
| 780nm | 5, 20, 35, 50, 75, 100, 150mW |
| 808nm | 50, 100, 150mW |
| 830nm | 30, 50, 100, 150mW |
| 850nm | 25, 50, 150mW |
| 980nm | 20, 50, 100mW |

The PNF™ Series laser modules are designed expressly for Machine Vision applications including 3D Profiling & Mapping, Dimensional Scanning, High-Speed Road & Rail Inspection, Web Inspection and Fluorescence.

They can deliver from 0.1mW to 150mW of output power with a wavelength range between 405nm and 980nm.

Additional design features include uniform intensity (non-gaussian) line generators, unique Variable Focus™ Technology, high wavelength stability, high optical power stability, CW or optional digital modulation >500kHz.

The PNF™ Series offers the highest

output power and fastest modulation speeds of any similar laser module.

The PNF™ Series of Machine Vision Lasers can be configured for optimal performance at close or long range.

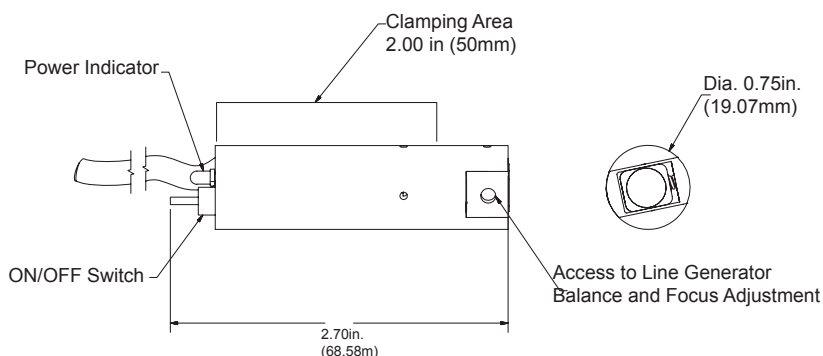
Unique Variable Focus™ Technology allows the user to calibrate the focus of the module and then re-tune the line generator for optimal performance.

In addition, Power Technology, Inc. provides custom design and manufacturing services that include high and low volume production, custom engineering, and customized connectors. Find out more - call Power Technology today.

| Specifications | PNF Series |
|--------------------------------|--|
| Wavelength (nm) | 405nm - 980nm |
| Output Power (mW) | 1mW - 150mW |
| Beam Shape | Even Intensity Line Free Space Collimated |
| Available Fan Angles | 5°, 10°, 20°, 30°, 45°, 60°, 70°, 90° |
| Output Parameter | CW or Digital Modulation |
| Digital Modulation Rate (Max) | >500kHz |
| Digital Rise Time | 1µs |
| Operating Voltage (VDC) | 5V (600-1550nm), 9V (350-600nm) |
| Maximum Operating Current (mA) | 250 |
| Temperature Range (°C) | -10 to +48* with Heatsink Option** |
| Beam Pointing Stability | <10µRad/°C |
| Dimensions, Ø x L, in. / mm | 0.75" x 2.7" 19.07mm x 68.58mm |

* Non-condensing 90% R.H.

** Depends on Laser Diode



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