

VCSEL Based Pulsed Seed Laser

Key Features

- VCSEL Technology
- Output peak power 10W
- Very low sensitivity to reflected light- stable with 100% light back into it
- Center wavelength range 1030 - 1070 nm
- Wavelength stability < 0.1 nm
- Wavelength accuracy < ± 0.1 nm
- Narrow line width < 0.1nm
- Pulse width 12 – 50 nsec.
- Pulse repetition rate up to 100kHz
- PM fiber coupled



Picture of the seed laser.
Package size- 89 x 38 x 15 mm

Applications

- Pulsed fiber laser
- Pulsed DPSS
- Sensing
- Test & Measurement

Product Specifications

(Temperature: 25°C)

Parameter	Value
Wavelength range (nm)	1030 - 1070
Wavelength stability (nm)	< 0.1
Wavelength accuracy (nm)	< ± 0.1
Line width ¹ FWHM (nm)	0.1
Peak output power (W)	10
Peak power stability (%)	± 0.5
Power stability with reflected light ² (%)	100
Polarization	Linear ³
Polarization ER (dB)	> 20
Pulse width (nsec.)	12 – 50
Pulse repetition rate (kHz)	≤ 100
Laser input power (W)	< 6
TEC current (A)	< 2.0
TEC voltage (V)	< 15
Operating case temperature (°C)	-20 - + 70
Thermister value (kΩ)	10.0
Fiber pigtail	PMF ⁴ , 1-meter long
Fiber termination	FC/APC
Package dimensions (mm)	89 x 38 x 15
Operating temperature (°C)	10 - 30
Storage temperature (°C)	0 - 70

Notes

1. Line width is the spectral envelope containing several wavelengths
2. The laser remains stable with 100% light reflected back into it
3. Laser polarization orientation is aligned to the slow axis of the fiber to within ±3°
4. Fiber type is Corning PANDA PM 980, or similar, with 900-micron jacket or 250-micron coating