NPL-1550-37-R

DEVICE

1550 nm Nanosecond Pulse Laser, MOPA, 37 dBm CW Output

OVERVIEW

The Optilab NPL-1550-37-R is a nanosecond pulsed, high power optical light source ideal for LIDAR system development and applications. Housed in a fully integrated unit in the MOPA configuration, which contains a pulsed narrow linewidth DFB laser as the Master Oscillator (MO), and a dual stage 37 dBm EDFA as the Power Amplifier (PA). The NPL-1550-37-R provides up to 37 dBm (5 W) CW optical power in the 1543 – 1570 nm wavelength region in a compact design, either for OEM integration or as a stand alone source with inclusive power supply. Laser output pulse width and repetition rate can be programmed with internal settings, or alternatively can be controlled via an external electrical trigger. The pulsed output can be transmitted via fiber pigtail or high power collimator, contact Optilab for more information.

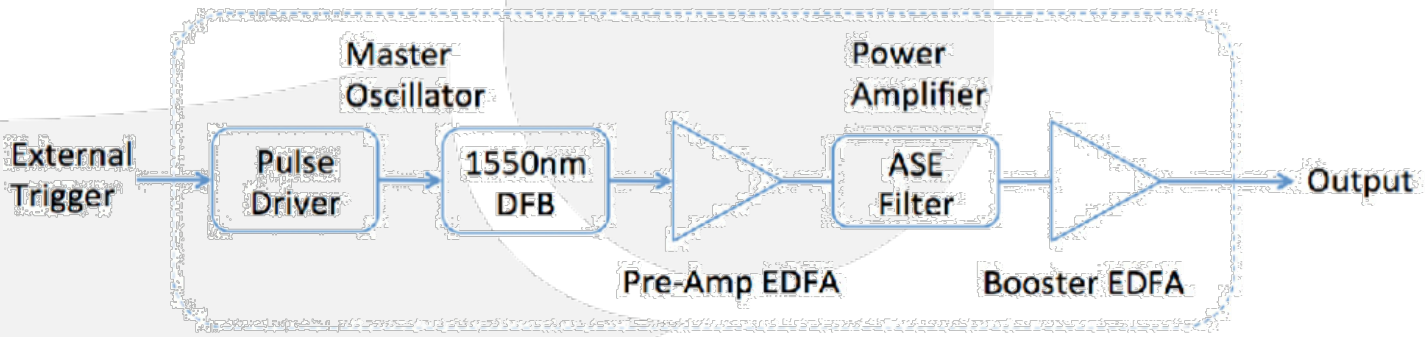
FEATURES

- Laser wavelength: 1543 nm to 1570 nm
- Pulse repetition rate: 100 Hz to 1 MHz
- LCD and RS-232 monitor & control interface
- 37 dBm Dual Stage Power Amplifier
- MOPA configuration
- Mid-Stage ASE Filtering
- Pulse energy: up to 100 uJ
- Pulse width: 2 ns to 1000 ns
- Collimator Output (optional)

USE IN

- Free space optical communication
- High power optical instrumentation
- Pulsed laser source for LiDar
- Research and development

FUNCTIONAL DIAGRAM



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SPECIFICATIONS

GENERAL

Center Wavelength	1543 nm to 1570 nm (selectable)
Optical Pulse Width	2 ns to 1000 ns (selectable)
Pulse Repetition Rate	100 Hz to 1 MHz (selectable)
Energy Per Pulse	Up to 100 uJ
Pulse Contrast	50 dB typical
CW Output Power	37 dBm typical
Peak Optical Output Power	Up to 2 KW
Wavelength Adjustment Resolution	0.05 nm (optional)
Output Waveform	Pulsed
Input Trigger Level TTL	> 3.5 V
Electrical Connector	SMA Female

MECHANICAL

Operating Temperature Range	0°C to +50 °C
Storage Temperature Range	-40°C to +70°C
Humidity	10% to 90%
Power Supply	110 V – 220 V AC, 50/60 Hz, < 1 A
Cooling	Forced Air
LCD Display	Temperature, Current, Output Power
Communication Interface	RS-232 interface cabling from PC to units
Output Fiber	SMF-28 fiber pigtail or collimator
Dimensions	12" (L) x 8" (W) x 4" (H)