NPL-1064-200W-B

DEVICE

1064 nm Nanosecond Pulsed Laser Benchtop, 200 W Peak Power

OVERVIEW

The Optilab NPL-1064-200W-B is a versatile high power pulsed laser that is designed for research and development of LIDAR, DTS, OTDR or other pulse systems. This fully integrated unit consists of electrical pulse generator, DFB laser 1064nm, pre-amplifier, ASE filter and power amplifier. The Optilab NPL-1064-200W-B can generate pulse up to 200W peak power. The pulse width can be set from 5 ns to 1000 ns and the repetition rate is selectable from 5 kHz to 1 MHz. This universal design creates thousands combinations of pulse width and repetition. With 100 ns pulse width, it provides a pulse energy of 20 μJ @ 100 kHz repetition rate. Pulse generation can alternatively be controlled via an external electrical trigger. Designed with maximum flexibility, NPL-1064-200W-B is either for a stand alone pulsed laser source or can be integrated with other products. Contact Optilab for more information.

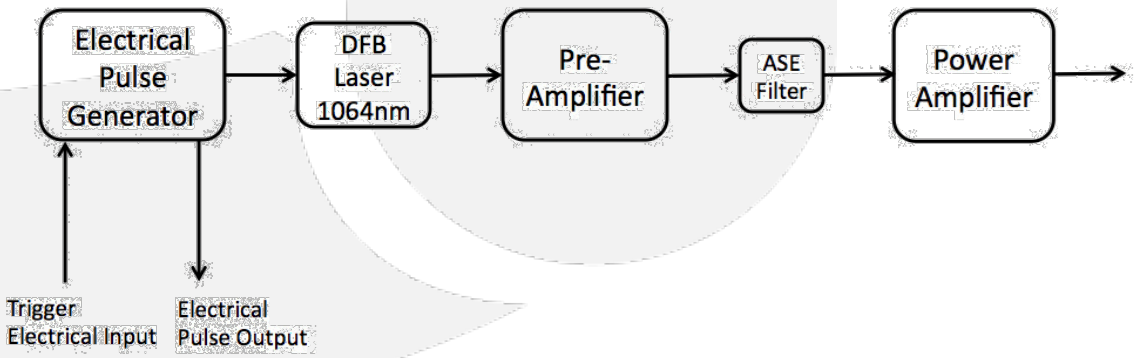
FEATURES

- MOPA design with 1064 nm seed laser
- Built in electrical pulse generation circuit
- Programmable pulse width: 5 ns – 1000 ns
- Adjustable repetition rate: 5 kHz – 1 MHz
- 20 uJ pulse energy @ 100 ns pulse width
- 200 W peak pulsed power
- 36 dBm CW output
- Easy to use LCD display control
- Electrical pulse output for triggering

USE IN

- Pulsed light source for LIDAR
- Laser source for Distributed Sensor
- Pulse based optical instrumentation
- Raman distributed sensing
- Research and development
- Test and measurement

FUNCTIONAL DIAGRAM



NPL-1064-200W-B

SPECIFICATIONS

GENERAL

Seed Laser Wavelength	1064 ± 5 nm
Laser Type	DFB 14 pin butterfly
Laser Linewidth	< 5 MHz
Optical Pulse Width	5 ns to 1000 ns (programmable)
Pulse Repetition Rate	5 kHz to 1 MHz (adjustable)
Input Trigger Level TTL	> 3.5 V
Amplifier Design	3 stages
Optical Gain	Up to 50 dB
ASE Filtering	Internal
Output Stability (short term)	± 0.25 dB
Polarization Design	Single Mode Output
Output Isolation	> 30 dB
Pulse Contrast Ratio	50 dB typ.
Peak Power (100 ns p.w.)	200 W @ 100 KHz rep. rate
Pulse Energy (100 ns p.w.)	20 uJ dBm typ.
CW Output Power	26 dBm typ.
Output Fiber Type	HI-1060

MECHANICAL

Optical Output	FC/APC, Armored SM fiber, or collimated output optional
Operating Temperature	-10°C to +60°C
Storage Temperature	-40°C to +70°C
Humidity	10% to 90%
Power Supply	110/220 V AC, 2 A max.
Cooling	Fan ventilation
Communication Interface	USB
Mechanical Dimensions	382 mm x 123 mm x 370 mm

ORDERING OPTIONS

NPL-1064-200W-B-XX

XX CO: collimator, LN: lensed fiber, None: bare, FA: FC/APC