



NPL-CWDM-XXXX-M



DEVICE

Nanosecond Pulsed CWDM Laser Module

OVERVIEW

The Optilab NPL-CWDM-M is a variable pulsed CWDM DFB laser source, a building block ideal for MOPA, LIDAR, OTDR laser systems development and applications. This fully integrated compact module contains a Distributed Feedback (DFB) laser and variable nanosecond pulse generation circuits. The NPL-CWDM-M provides 10 mW optical peak power in 1550 nm wavelength region, with a programmable pulse width from 10 ns to 1000 ns, and a selectable pulse repetition rate from 100 Hz to 1 MHz. The optical pulse generation can alternatively be controlled via an external electrical trigger. In a compact design, NPL-CWDM-M is applicable for OEM integration or as a stand alone pulsed laser source. The NPL-CWDM-XXXX-M requires a single ± 5 Volt DC power supply for operation. Contact Optilab for more information.

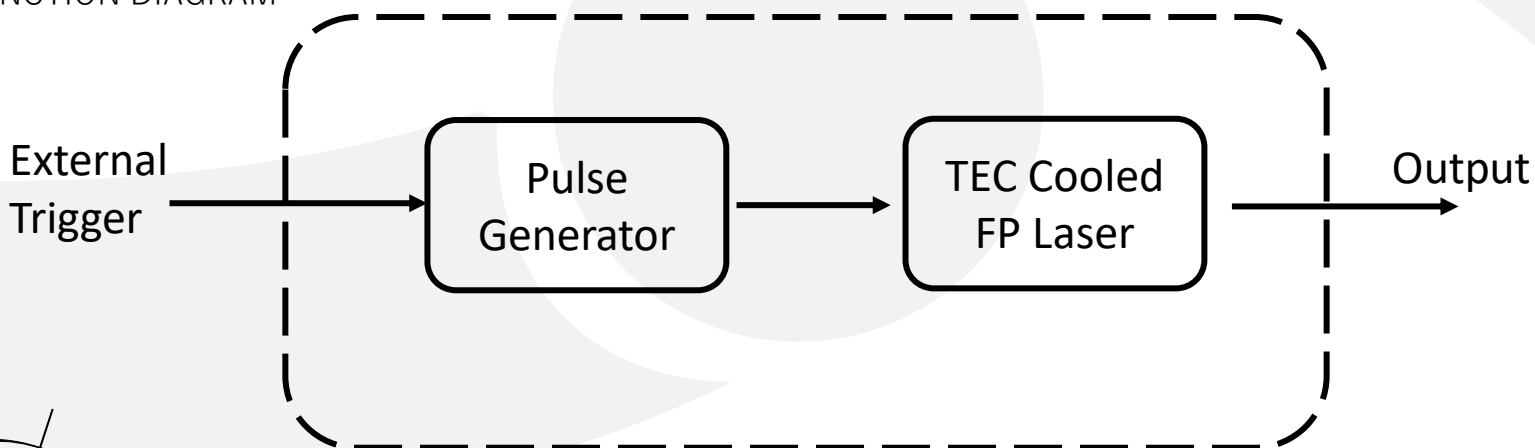
FEATURES

- 18 CWDM Wavelengths
- RS-232 via USB control interface
- Selectable repetition rate: 100 Hz to 1 MHz
- 1270 nm – 1610 nm
- Requires no external pulse generator
- Pulse width: 10ns to 1000ns, programmable
- Up to 10 mW peak power

USE IN

- Master Oscillator (MO) for MOPA
- Pulsed light source for LiDAR
- Laser source for OTDR
- Pulse based optical instrumentation
- Raman distributed sensing

FUNCTION DIAGRAM





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SPECIFICATIONS

Center Wavelength	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610 (nm)
Laser Type	DFB, FP available
Laser Linewidth	< 3 MHz
Optical Pulse Width	10 ns to 1000 ns (selectable)
Pulse Repetition Rate	100 Hz to 1 MHz (selectable)
Pulse Contrast Ratio	50 dB typ.
Peak Optical Output Power	10 mW typ.
Input Trigger Level TTL	> 3.5 V
Trigger Connector	SMA female 50 Ω
Optical Connector	FC/APC, other available

GENERAL

Operating Temperature	-10 °C to +60 °C
Storage Temperature	-40 °C to +70 °C
Humidity	10% to 90%
Power Supply	± 5 V, 1A max.
Accessories	PS-5-M Power supply and cable
Cooling	Passive
Communication Interface	RS-232 via USB 2.0
Output Fiber	SMF-28 or Panda (PM)
Electrical DC Control	4-pin molex
Mechanical Dimensions	115 x 106 x 24.5 (mm)

MECHANICAL

OPTIONS

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XXXX

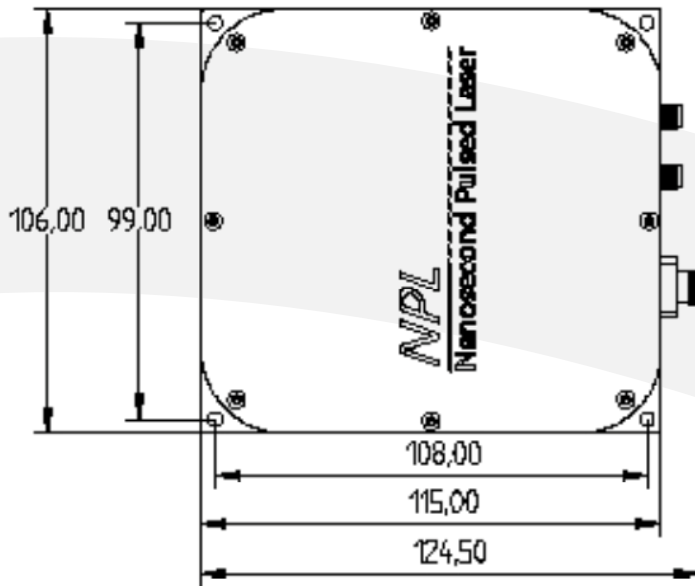
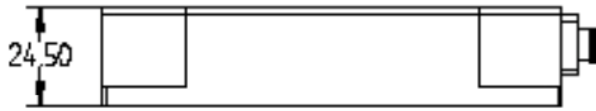
Wavelength: 1270 nm to 1610 nm





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MECHANICAL DRAWING



Unit: mm

