

TWL-L-R



DEVICE

L-Band Tunable Wavelength Laser

OVERVIEW

The Optilab TWL-L-R is a high spectral purity and stable tunable wavelength laser source. The TWL-L-R features wide wavelength tuning range, narrow laser linewidth, high Side Mode Suppression Ratio (SMSR), excellent wavelength stability and optical output level exceeding 30mW. With the standard Polarization Maintaining (PM) fiber output, the TWL-L-R offers a linearly polarized output. These features make the cost-effective TWL-L-R well-suited for many different applications, including DWDM device testing, optical sensing, and laboratory measurement applications. The TWL-L-R tunable laser is available in a standard 1U 19" rack-mountable housing, and includes an easy-to-use LabVIEW control software and RS232 Interface for remote operation in laboratory environments. Contact Optilab for more information.

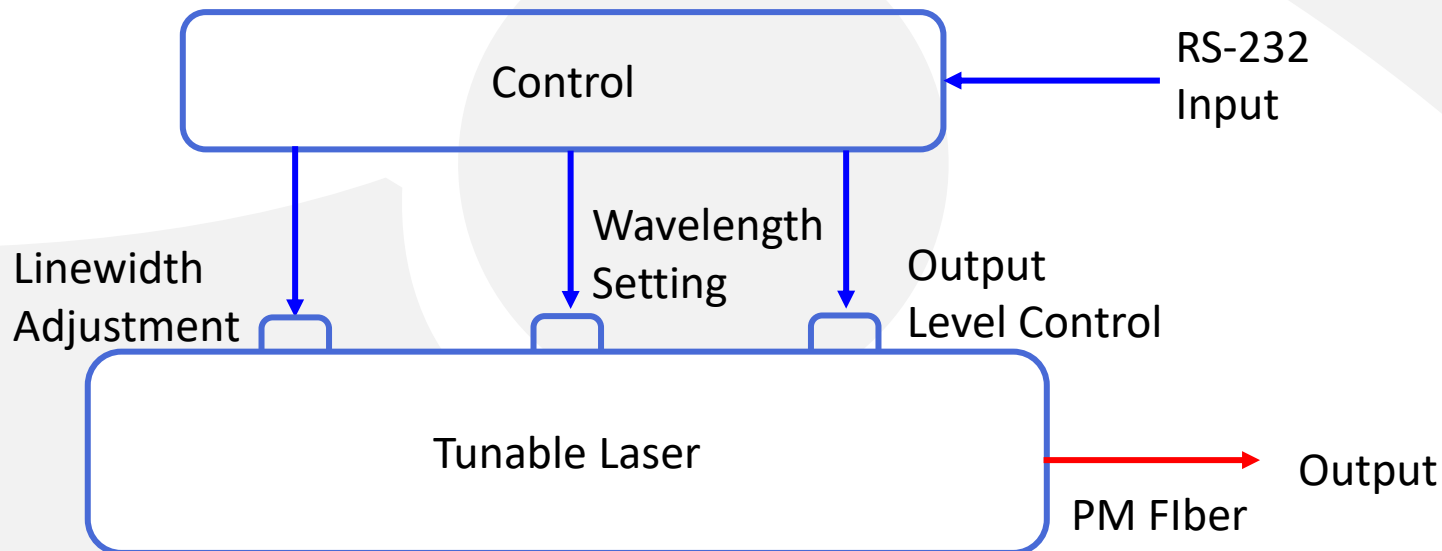
FEATURES

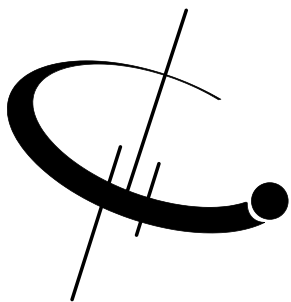
- Excellent Side Mode Suppression Ratio of 55 dB
- Wide tuning range from 15270 to 1605 nm
- Polarization Maintaining (PM) Output
- Intuitive and easy to use USB interface
- High optical output power of 50 mW
- Narrow laser line width 100 kHz

USE IN

- Laboratory testing and measurement
- Seed lasers for modulators
- DWDM Networks
- Fiber Sensors
- Fiber Optics Components

FUNCTIONAL DIAGRAM





TWL-L-R

SPECIFICATIONS

Laser Wavelength Range	1570 nm to 1605 nm
Wavelength Accuracy	± 1.5 GHz
Wavelength Stability	± 1 pm Over 24 Hours
Output Power Level	30 mW min., 40 mW typ.
Output Stability	0.02 dB over 8 hours
Laser Linewidth	N/A, (<100 KHz option available)
Relative Intensity Noise (RIN)	-145 dB/Hz
Side Mode Suppression Ratio	55 dB typ.
Polarization Extinction Ratio	20 dB typ.
Optical Isolation	30 dB min.
Fiber Type	Panda 1550 PM Fiber
Optical Connectors	PM Narrow Key, FC/APC or customer specified

GENERAL

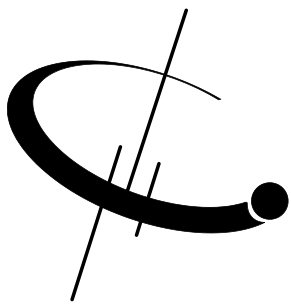
CONTROL FUNCTIONS

Base Frequency Range	191.1 THz to 186.4 THz
Channel Spacing	25 GHz (0.2)
Channel Grid	1 to 192
Channel Setting Time	10 sec. typ.
Output Power Adjustment	5 dB from max.
Dithering Frequency	0 to 375 MHz
Remote Control Interface	LabView includes RS-232

MECHANICAL

Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +70°C
Power Supply	80-240 V, 43-63 Hz AC, 1.5 A max.
Power Consumption	80 W max.
Display	Output Power Level, Wavelength
Controls	Output Power Level, Laser Wavelength, Dithering Freq.
Communication Interface	RS-232, Labview software via laser linewidth
Alarm	Over Temperature, Over Current
Dimensions	3 RU 19"(W) x 17.5"(D) x 3.5"(H)



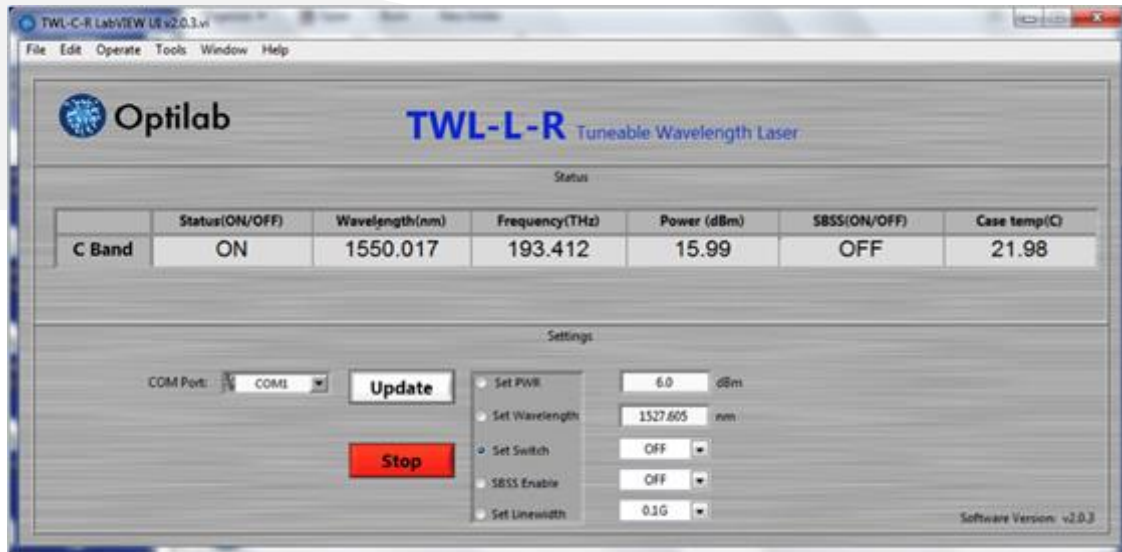


TWL-L-R

ADDITIONAL INFORMATION

TWL-L-R has built-in wavelength locker also ensures precise wavelength setting of 10 pm over life time of the device, which is over 15 years. The laser linewidth can be broadened up to 750 MHz to address a variety of applications. Utilizing Telcordia qualified components, TWL-L-R tunable laser offers exceptional reliability.

TWL LABVIEW INTERFACE



CHANNEL ON EXTENDED L-BAND (1607.08 NM)

