

L-Band Tunable Wavelength Laser

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.

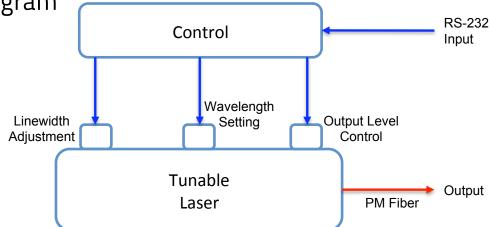
Features

- > Wide tuning range from 1570 to 1605 nm
- ➤ High optical output power of 30 mW
- > Narrow laser linewidth of 100 kHz
- ➤ Linewidth broadening to 750 MHz
- ➤ Excellent Side Mode Suppression Ratio of 55 dB
- > Polarization Maintaining (PM) Output
- > Intuitive and easy to use Labview interface

Applications

- > Laboratory Testing and Measurement
- Seed Lasers for modulators
- DWDM Networks
- Fiber Optics Componants
- ➤ Fiber Sensors

Functional Diagram



L-Band Tunable Wavelength Laser

OPTIONS TWL-L-R

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

WEB ORDER

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Optilab Advantage

- ➤ Innovation
- ➤ Performance
- ➤ Quality
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Product S	pecification
Optical 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	< 100 KHz w/o SBS, < 750 MHz w/ SBS
Relative Intensity Noise	-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
Control Functions	
Base Frequency Range	191.1 THz to 186.4 THz
Channel Spacing	25 GHz (0.2 nm)
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 inclues RS-232
Mechanical Specifications	
Operation Temperature Range	0° to +40° C
Storage Temperature Range	-40° 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	RS232, Labview software via laser linewidth
Alarm	Over Temperature, Over Current
Dimensions	1U Rackmount: 19"(W) x 14"(D) x 1.75"(H)



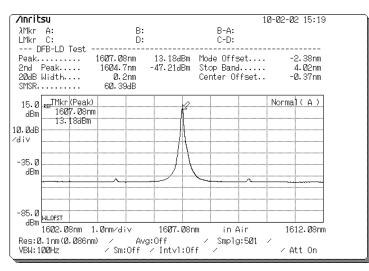
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Additional Information

TWL-L 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 tunable laser offers exceptional reliability.

TWL LabView Interface

Status Status Status(ON/OFF) Wavelength(nm) Frequency(THz) Power (dBm) SBSS(ON/OFF) C Band ON 1550.017 193.412 15.99 OFF	Case temp(C
	Case temp(C
C Band ON 1550.017 193.412 15.99 OFF	case temp(c)
	21.98
Settings	
COM Port: K COM1 V Update Set PWR 6.0 dBm	
Set Wavelength 1527.605 nm	



Channel on Extended L-Band (1607.08 nm)¹

*1 Wavelength measured by OSA



Product specifications and description are subject to change without notice. © 2016 Optilab, LLC. TWL-L-R Jun. 2016 Rev. 2