

# TWL-C-HP-M



## C Band Wavelength Tunable Laser Module, High Performance Version

The TWL-C-HP-M is a wavelength tunable laser module in C band based on integrable tunable laser assembly (ITLA). The TWL-C-HP-M alleviates inventory and costs in high-channel-count DWDM systems by allowing a single device to replace each of the single-channel devices. Full-band tunable assemblies also enable system functionality such as hot back-up and dynamic provisioning in addition to applications of optical regeneration and wavelength conversion, with the HP version also including a built-in sweep function for continuous scanning applications. The TWL-C-HP-M has a low Relative Intensity Noise (RIN), a high Side-Mode Suppression Ratio (SMSR), an ultra narrow linewidth, and excellent wavelength accuracy. Its RS232 control complies to OIF ITLA Multi Source Agreement (MSA) standard, with a provided GUI software for intuitive control of the wavelength and optical power. The TWL-C-HP-M can be used for Dense Wavelength Division Multiplexing (DWDM) optical transceivers and DWDM discrete line card designs.

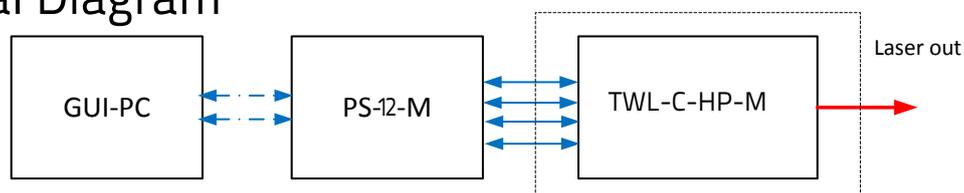
### Features

- Wide wavelength tuning range 1527.6-1567.13nm
- Precise Wavelength step resolution of 1 MHz
- High optical output power of 50 mW
- Ultra narrow laser line width < 10 kHz
- Continuous wavelength sweeping function
- Excellent Side Mode Suppression Ratio of 55 dB
- Polarization Maintaining (PM) output
- Intuitive and easy to use USB interface

### Applications

- Optical Add/Drop Multiplexers
- DWDM transmission systems
- Tunable DWDM transponders and transceivers
- Reconfigurable optical add/drop multiplexers
- Optical packet or burst-mode switching
- Test and measurement equipments
- Fiber sensing and interrogation
- Optical spectrum characterization

### Functional Diagram



# C Band Wavelength Tunable Laser Module | TWL-C-HP-M

## OPTIONS

**TWL-C-HP-M**

## TECHNICAL INFO

For technical info and support:

[sales@optilab.com](mailto:sales@optilab.com)

[www.optilab.com](http://www.optilab.com)

## WEB ORDER

To order, please click below.



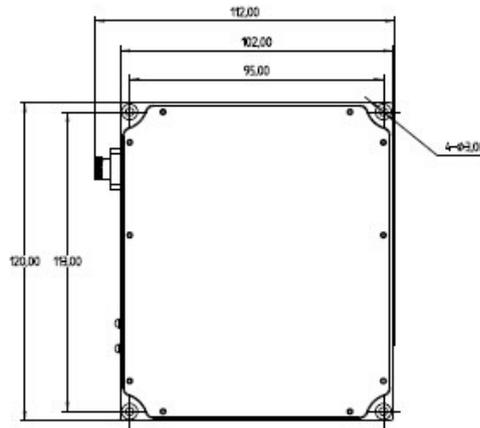
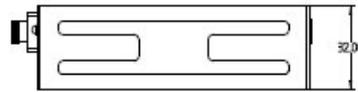
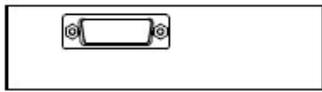
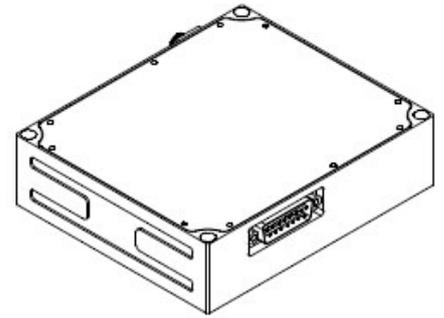
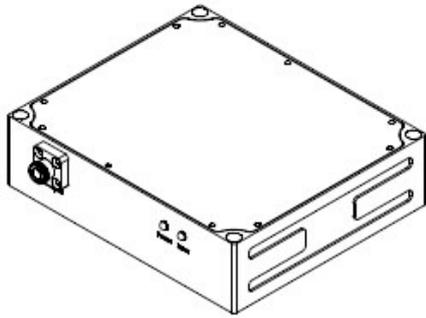
## Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

General Specifications	
Operating Wavelength	1527.60 to 1567.13nm
Wavelength Accuracy	± 1.5 GHz
Fine Tune Wavelength Resolution	1 MHz
Wavelength Stability	± 1pm over 24 hours
Wavelength Sweeping	Continuous over full C-band range
Output Power	50mW typ.
Output Stability	0.02 dB over 8 hours
Linewidth (FWHM)	< 10 kHz instantaneous w/o dither < 100 kHz with SBS disabled < 750 MHz w/ SBS enabled
Carrier to Noise Ratio (CNR)	50 dBc typ. @ -5 dBm
Side Mode Suppression Ratio	55 dB typ.
Relative Intensity Noise (RIN)	-157 dB/Hz @ 13 dBm
Polarization Extinction Ratio	20 dB min.
Optical Isolation	30 dB min.
Fiber Type	Panda 1550 PM Fiber
Mechanical Specifications	
Power Supply Requirements	100-240 VAC
Optical Connectors	PM Narrow Key FC/APC Standard, additional types available upon request
Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +70°C
Control	Output Power Level and Wavelength via GUI software
Communication Interface	RS232, via DB9 serial or USB 2.0
Accessory	PS-12-M, 12V power supply.
Local Alarm	Over Temperature, Current Overflow
Dimensions	120mm x 112mm x 32mm

# C Band Wavelength Tunable Laser Module | TWL-C-HP-M

## Mechanical Drawing



Unit: mm

## PIN OUT Diagram

