

# TWL-L-B-M



## DEVICE

## L-Band Tunable Laser Module

## OVERVIEW

The TWL-L-B-M is a wavelength tunable laser module in L-band based on integrable tunable laser assembly (ITLA). The TWL-L-B-M alleviates inventory and sparing 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. The TWL-L-B-M has a low Relative Intensity Noise (RIN), a high Side-Mode Suppression Ratio (SMSR), a 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-L-B-M can be used for Dense Wavelength Division Multiplexing (DWDM) optical transceivers and DWDM discrete line card designs. Contact Optilab for more information.

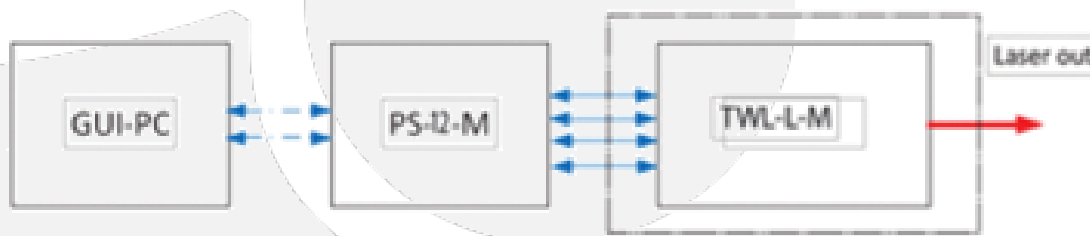
## FEATURES

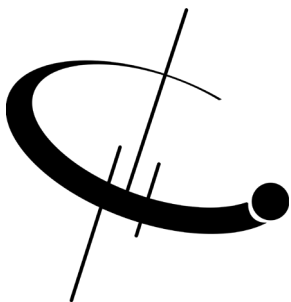
- Wavelength tuning range: 1570 – 1607 nm
- High optical output power of 20 mW
- Narrow laser linewidth < 100 kHz
- Linewidth broadening to 750 MHz
- Polarization Maintaining (PM) Output
- Excellent Side Mode Suppression Ratio of 55 dB
- Intuitive and easy to use USB interface

## USE IN

- Reconfigurable optical add/drop multiplexers
- DWDM transmission systems
- Tunable DWDM transponders and transceivers
- Optical packet or burst-mode switching
- Test and measurement equipment

## FUNCTIONAL DIAGRAM





# TWL-L-B-M

## SPECIFICATIONS

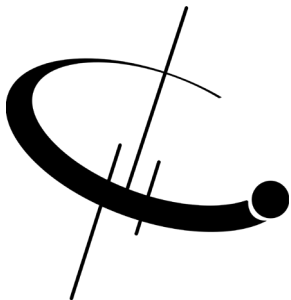
Operating Wavelength	1570 nm to 1607 nm
Wavelength Accuracy	± 1.5 GHz
Fine Tune Wavelength Resolution	1 MHz
Wavelength Stability	± 1 pm over 24 hours
Wavelength Sweeping	Continuous over full L-band range
Output Power	20 mW (+13 dBm) max.
Output Stability	0.02 dB over 8 hours
Linewidth (FWHM)	< 100 kHz with SBS enabled, < 750 MHz w/ SBS disabled
Carrier Noise Ratio	50 dBc typ. @ -5 dBm
Side Mode Suppression Ratio	55 dB typ.
Relative Intensity Noise (RIN)	-145 dB/Hz @ 13 dBm
Polarization Extinction Ratio	20 dB min.
Optical Isolation	30 dB min.
Fiber Type	Panda 1550 PM fiber

## TECHNICAL

## MECHANICAL

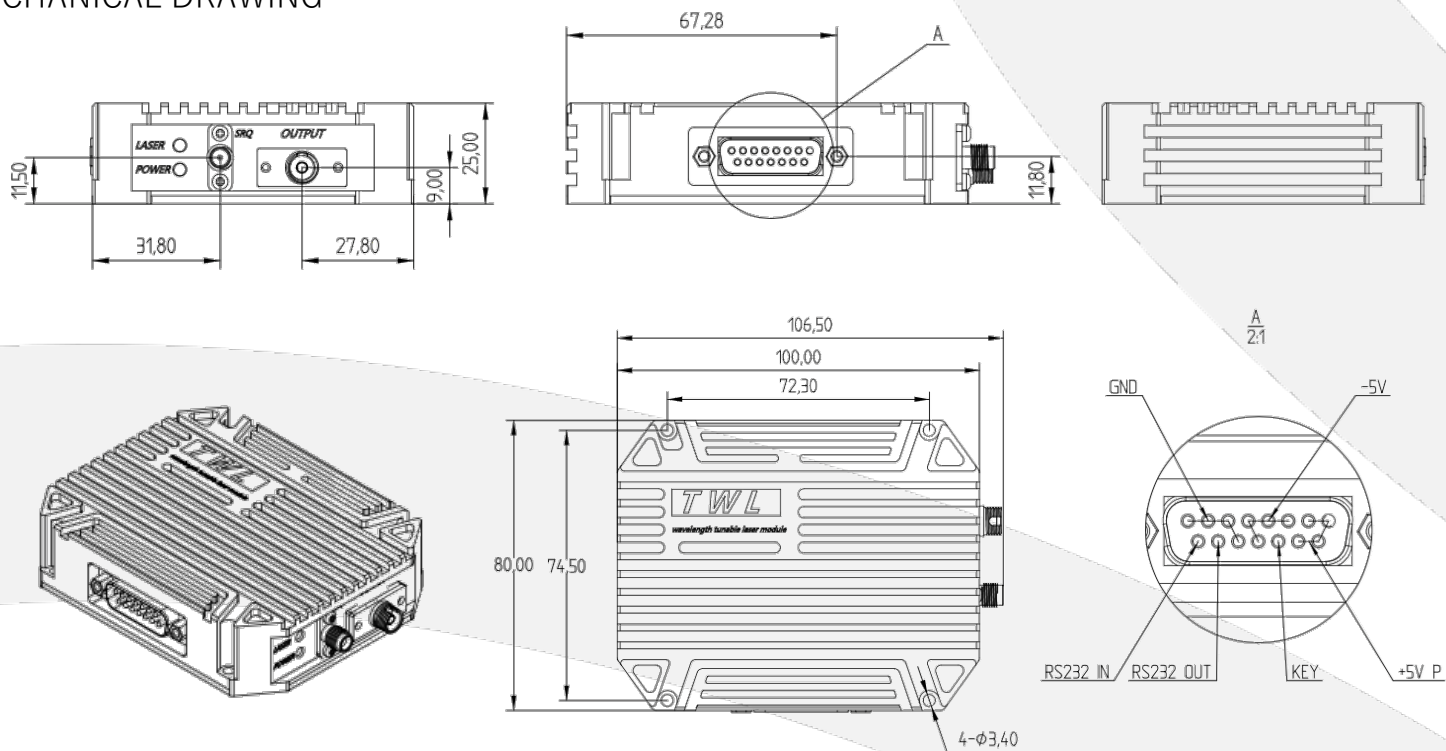
Power Supply Requirements	110 - 240 VAC
Optical Connectors	PM Narrow Key FC/APC standard, additional types available upon request
Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +70°C
Control/Monitoring	Output power level & wavelength via GUI software
Communication Interface	RS232, via DB9 serial or USB 2.0
Power Supply	PS-5-M, 5 V Power Supply
Local Alarms	Over Temperature, Current Overflow
Housing Dimensions	120 mm x 112 mm x 32 mm





# TWL-L-B-M

## MECHANICAL DRAWING



## PIN OUT DIAGRAM

