TWL-C-B-M

DEVICE

C-Band Tunable Laser Module, Narrow Linewidth

OVERVIEW

The TWL-C-B-M is a wavelength tunable laser module in C-band based on integrable tunable laser assembly (ITLA). The TWL-C-B-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-B-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-B-M can be used for Dense Wavelength Division Multiplexing (DWDM) optical Transceivers and DWDM discrete line card design. Contact Optilab for more information.

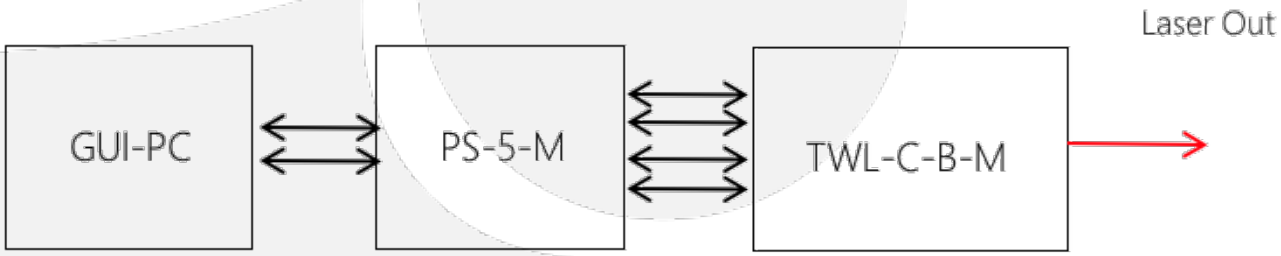
FEATURES

- Wavelength tuning range: 1527.6 – 1567.13 nm
- 1 MHz precise wavelength step resolution
- Tunable DWDM transponders and transceivers
- 50 mW high optical output power
- < 10 kHz narrow laser linewidth
- Optical add/drop multiplexers
- DWDM transmission systems

USE IN

- Continuous wavelength sweeping function
- Optical packet or burst-mode switching
- 55 dB side mode suppression ratio
- Polarization maintaining (PM) output
- Intuitive & easy to use USB interface
- Test & measurement equipment
- Fiber sensing & interrogation
- Optical spectrum characterization

FUNCTIONAL DIAGRAM



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SPECIFICATIONS

TECHNICAL

Operating Wavelength	1527.60 to 1567.13 nm
Wavelength Accuracy	± 1.5 GHz
Fine Tune Wavelength Resolution	1 MHz
Wavelength Stability	± 1 pm over 24 hours
Wavelength Sweeping	Continuous over full C-band range
Output Power	50 mW typ.
Output Stability	0.02 dB over 8 hours
Linewidth (FWHM)	< 10 kHz instantaneous w/o dither
Carrier Noise Ratio	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

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

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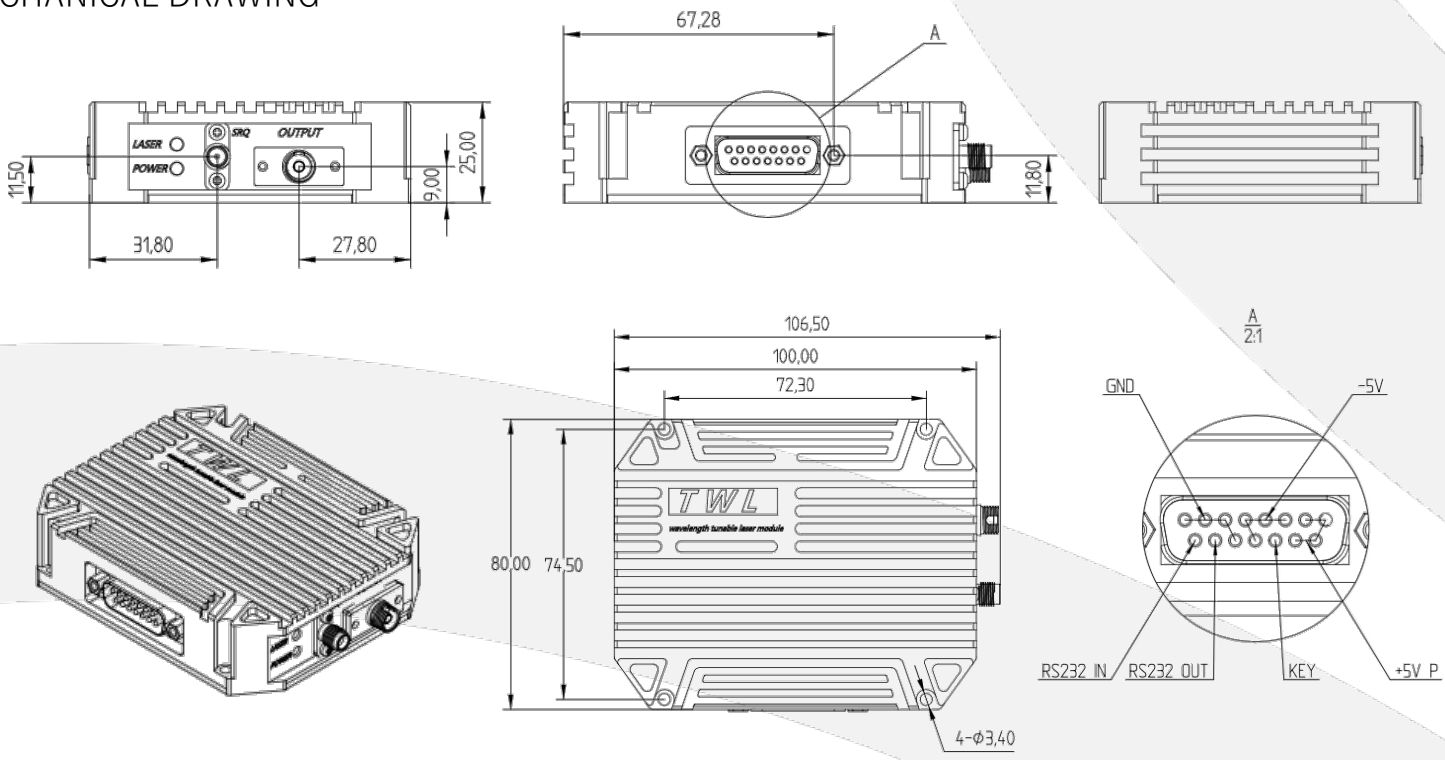
MECHANICAL DRAWING



PIN OUT DIAGRAM