

PM Fiber C-Band Integrated Tunable Laser Module (PMTLM)

Features

- High output power
- High Side-Mode Suppression Ratio (SMSR)
- Low power consumption
- Standard ITU C-Band Switching via USB interface
- High stability, compact planar mechanical design
- Very narrow linewidth($\leq 50\text{KHz}$) and low RIN

Applications

- Interferometric fiber optic sensing
- Brillouin Distributed Temperature and Strain Sensors
- LIDAR
- Optical Test and Instrumentation

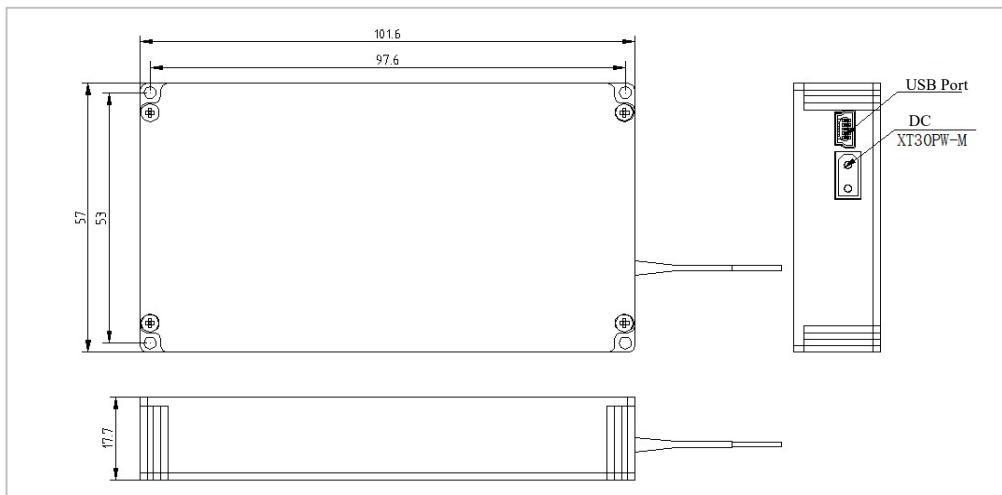
Optical Characteristics (at 25 °C laser temperature)

Parameters	Unit	Values
Wavelength Tunable Range λ_c	nm	1529.16~1567.13
Default Output Wavelength λ_o	nm	1549.92~1550.32
Peak Optical Output Power Tunable Range P_{TR}	dBm	6~14.5
Default Output Power P_o	dBm	13
Spectral Linewidth LW	kHz	≤ 50
Side-mode Suppression Ratio SMSR	dB	≥ 40
Channel Spacing	GHz	50
Number of Channels	CH	96
Fine Tune Frequency Range	GHz	-30~+30
Fine Tune Frequency Resolution	GHz	≤ 0.1
Wavelength Sweep Range WSR	GHz	± 75
Wavelength Sweep Speed WSS	GHz/s	20
Optical Isolation	dB	≥ 30
Relative Intensity Noise RIN	dB/Hz	-140
Polarization Extinction Ratio PER	dB	≥ 20
Voltage Supply VCC	V	4.75~5.25
Power Short-term Stability P_{ss}	dB@15min.	≤ 0.01
Power Long-term Stability P_{sL}	dB@8h.	≤ 0.03
Wavelength Short-term Stability λ_{ss}	pm@15min.	≤ 5
Wavelength Long-term Stability λ_{sL}	pm@8h.	≤ 10
First Order Temperature Stability S_{FOT}	°C	$\pm 5 \times 10^{-3}$
Second Order Temperature Stability S_{SOT}	°C	$\pm 2.5 \times 10^{-4}$
Dimension LxWxH	mm	101.6x57x17.7
Operating Voltage V_{DC}	V	4.75~5.25
Power Consumption P	W	6
Max Power Consumption P_{max}	W	10
Operating Temperature T_{op}	°C	-20 ~ +65
Storage Temperature T_s	°C	-40 ~ +85

Interface Connector

No.	Type
1	Power supply: +5V/3A
2	USB

Package Dimensions (mm)



Ordering Information

PMTLM- ①①①①①①①①①①①①①①①①-②-③③③-④-⑤-⑥⑥

①	Wavelength	1529.16~1567.13;
②	Optical Power	6=6dBm; 10=10dBm; XX=Customization;
③	Pigtail Type	250=250μm Bare Fiber; 900=900μm Loose Tube;
④	Fiber Type	5=PM1550;
⑤	Fiber Length	1=1m;
⑥	Connector	NE=None; FA=FC/APC; FC=FC/UPC; SA=SC/APC; SC=SC/UPC; LC=LC/UPC; XX=Others;