

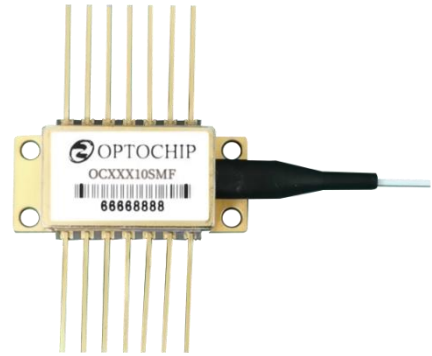


C Band 40nm Tunable Laser Module

Model: OC3XX Series

Features

- 14 PIN Butterfly Package
- Optical output power 5-10 mW
- High side-mode suppression ratio > 35 dB
- C Band tuning range 40 nm
- Qualified as per intent of Telcordia GR-468
- RoHS



Description

Optochip's OC3XX Series tunable laser module is a SSG-DBR (Super-Structure Grating Distributed Bragg Reflector) laser with an integrated SOA (Semiconductor optical amplifier). Its wavelength can be tuned continuously and flexibly over C-band, and can be tuned to C band ITU channel grid. The module contains two grating sections (front and rear) and one phase section, which can be electrically tuned accurately at nanosecond level with a stable optical power output. The integrated SOA facilitates the flexible control of the output power. This 40nm tunable laser module can be widely implemented for optical communication and fiber optical sensing applications.

Applications

- DWDM transmission systems
- Tunable DWDM transponders and transceivers
- Dynamic provisioning and wavelength routing in DWDM systems
- Optical Test and Measurement
- Fiber Optical Sensing



Absolute Maximum Ratings

Warning: Values in excess of the absolute maximum ratings can cause permanent damage to the device.

Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	Ts	-40		85	° C
Relative Humidity	RH	0		85	%
LD Forward Voltage	V			3	V
LD Reverse Voltage	Vr			2	V
Laser Gain Current	Ig			250	mA
SOA Current	Is			250	mA
Grating (Front/Rear)Current	Ir			150	mA
Phase Current	Ip			10	mA
MPD Rear Voltage	VMPDR			10	V
TEC Current	ITEC			1.2	A
TEC Voltage	VTEC			3.5	V
ESD(HBM)	ESD		500		V

Optical/Electrical Characteristics(Tc=25℃)

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	Ith		35		mA
Operating Voltage	Vop		1.5	2.5	V
Laser Gain Current	Ig		150		mA
SOA Current	Is		100		mA
Grating (Front/Rear) Current	Ir		80		mA
Phase Current	Ip		5		mA
Output Optical Power	Po	5	10		mW

地址：中国山东省济南市高新区舜华路 1 号齐鲁软件园 C 座 1 层 B120 邮编：250000

Add: B120, C Block, Qilu Soft Park, 1 Shunhua Road, High-tech District, Jinan 250000, Shandong, China

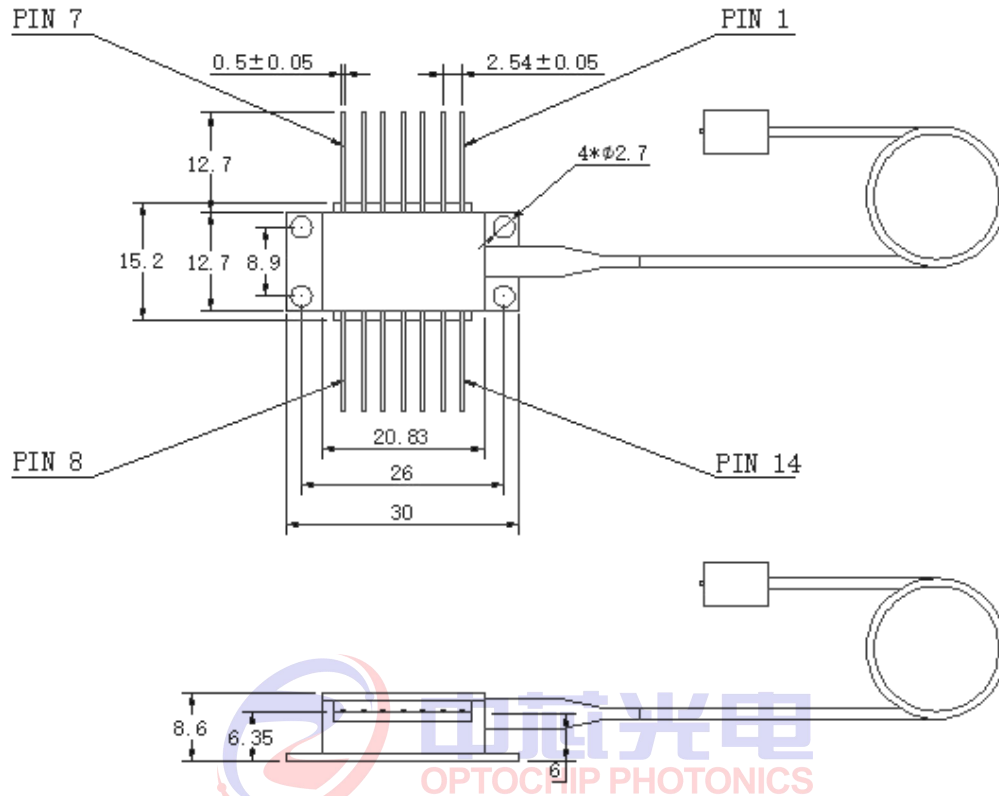


Monitor Operating Current	I_m	10		200	$\mu A/mW$
Wavelength Tuning Range			40		nm
wavelength	λ	1528		1568	nm
Channel spacing (ITU grid)			50 /100		GHz
Number of channels			96/48		
Side-Mode Suppression Ratio	SMSR	35			dB
Linewidth	LW	2		5	MHz
Relative Intensity Noise	RIN			-140	dB/Hz
Optical Isolation		35			dB
Thermistor Resistance	R_{th}	9.5	10	10.5	kOhm
Thermistor Sensitivity Index	β		3892		K





Outline Drawing



- 1). Unit:[mm]
- 2). Fiber length >1.2m

Connection

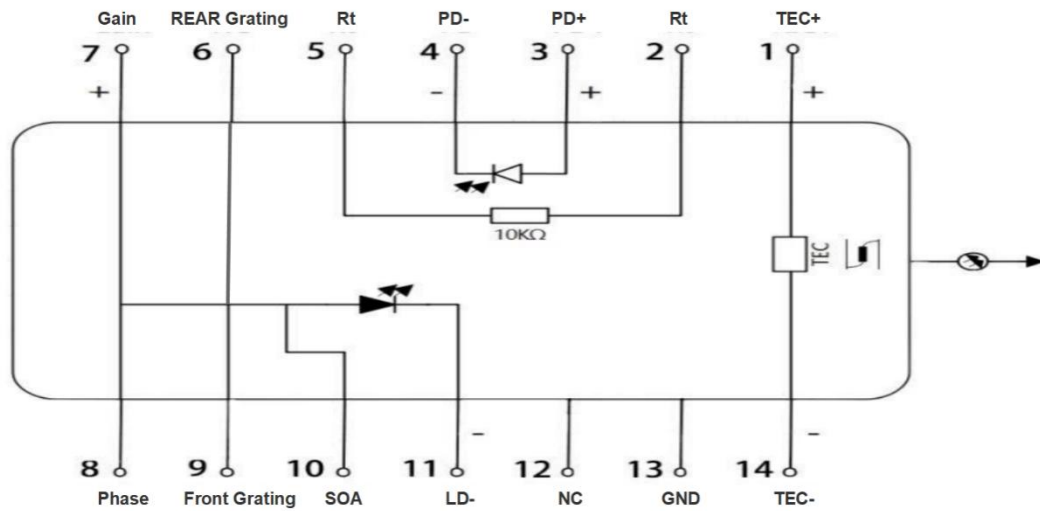
Pin Assignments			
Pin	Function	Pin	Function
1	TEC (+)	8	Phase
2	Thermistor	9	Front Grating
3	MPD ANODE	10	SOA
4	MPD CATHODE	11	LD Cathode (-)
5	Thermistor	12	NC
6	Rear Grating	13	Case Ground
7	Gain	14	TEC (-)

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山东中芯光电科技有限公司
OptoChip Optoelectronics Ltd



Or

dering information

e.g.: O C 3 5 5 1 0 S M F

Connector Type: F--FC/APC

Fiber Type: SM--SMF

PM--PMF

Output Power: 10--10mW

Wavelength: 55 --1550nm

Laser Type: 3-- DBR (Full C Type.)

Company: OPTOCHIP

Contact us

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