

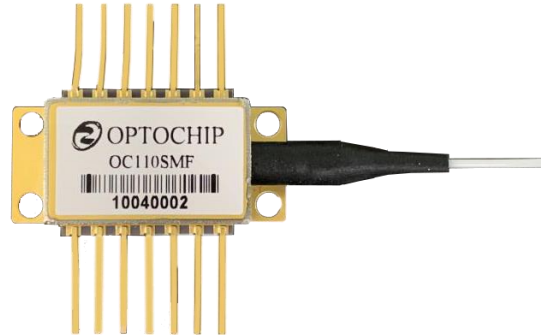


40nm Tunable Laser Module

Model: OC3XX Series

Features

- 14 PIN Butterfly Package
- Optical output power 10 mW
- High side-mode suppression ratio > 40 dB
- S or C Band tuning range 35- 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 a SOA. Its wavelength can be tuned continuously and flexibly, and can be tuned to ITU channel grids. The device which has 2 Grating Section (Front and Rear) is an electronically tuned device that can address any wavelength in the S or C-band. Since no mechanical or thermal adjustments are necessary, channel switching is very fast. The SOA facilitates flexible control of the output power.

Applications

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



Absolute Maximum Ratings

Stresses 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			150	mA
SOA Current	IS			150	mA
Grating (Front/Rear)Current	Ir			90	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°C)

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	Ith		30		mA
Operating Voltage	Vop			3	V
Laser Gain Current	Ig		120	150	mA
SOA Current	IS		80	100	mA
Grating (Front/Rear) Current	Ir			80	mA
Phase Current	Ip			5	mA
Output Optical Power	Po		10	13	mW
Monitor Operating Current	Im	10		200	μA/mW
Wavelength Tuning Range			36	40	nm

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



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OptoChip Optoelectronics Ltd

Lowest/Highest emission wavelength	λ min	1470	1490	1510	nm
		1490	1510	1530	
	λ max	1510	1530	1550	
		1530	1550	1570	
Channel spacing (ITU grid)			50 /100		GHz
Number of channels			96/48		
Side-Mode Suppression Ratio	SMSR	40			dB
Linewidth	LW	2		5	MHz
Relative Intensity Noise	RIN			-140	dB/Hz
Optical Isolation		35			dB
Thermistor Resistance	Rth	9.5	10	10.5	kOhm
Thermistor Sensitivity Index	β		3892		K



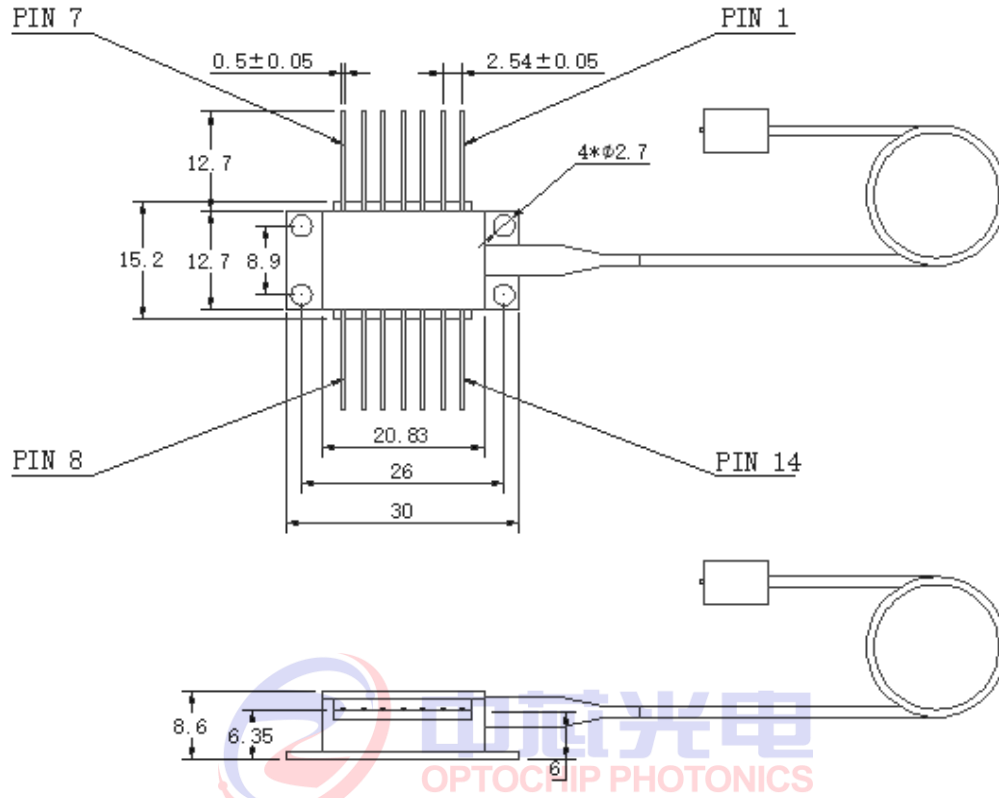
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Outline Drawing



- 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 (-)

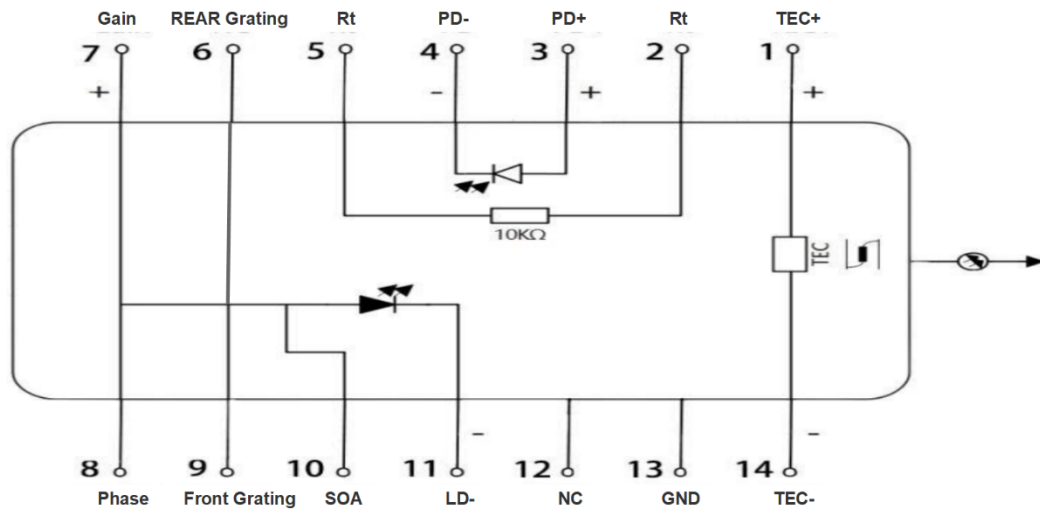
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Ordering information

e.g.: OC35010SMF

Connector Type: F--FC/APC

Fiber Type: SM--SMF

PM--PMF

Output Power: 10--10mW

05--5mW

02--2mW

Wavelength: 90 --1490nm

10 --1510nm

30 --1530nm

50 --1550nm

Laser Type: 1--8nm DBR Laser

2--8nm DBR Laser with
SOA

3-- DBR (Full C Type.)

Company: OPTOCHIP

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