

CW Narrow Band Tunable Laser Module

Model: OCN1-Seris



The OCN1-Seris tunable laser is a DBR laser without a semiconductor optical amplifier (SOA). Its wavelength can be tuned continuously and flexibly, and can be tuned to ITU channel grids.

Features

- 14 PIN Butterfly Package
- High output power, up to 15 dBm
- High side-mode suppression ratio > 40 dB
- Wavelength adjust flexibly, tuning range 8-10nm
- Qualified as per intent of Telcordia GR-468

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	T _s	-40		85	°C
Relative humidity	RH	0		85	%
Laser diode reverse voltage (all sections)	V _r			3	V
Laser gain current	I _g			250	mA
Grating current	I _r			100	mA
Phase current	I _p			10	mA
TEC current	I _{TEC}			1.2	A
TEC voltage	V _{TEC}			3.5	V

Electrical Characteristics (T_c=25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	V _{op}			2	V
Operating temperature	T _{op}	-5		75	°C
Laser gain current	I _g			200	mA
Grating current	I _r			80	mA
Phase current	I _p			5	mA
Thermistor Resistance	R _{th}	9.5	10	10.5	kOhm
Thermistor sensitivity index	β		3892		K

Optical Characteristics (TOP = -5 to 75°C)

Parameter	Symbol	Min	Typ	Max	Unit
Output power	P _{max}			15	dBm
Wavelength Tuning Range			8	10	nm
Wavelength Range		1530		1580	nm
Channel spacing (ITU grid)			50 /100		GHz
Number of channels			24/12		
Side-mode suppression ratio	SMSR	45			dB
Linewidth	LW	2		5	MHz
Relative intensity noise	RIN			-135	dB/Hz
Optical isolation		30			dB

Note:

Describe which standard ITU.T grid channel can be tuning. Wavelength can be tuned continuously.