



## 1550nm DFB Laser Module

### Model: OC455XX Series

#### Features

- 14 PIN Butterfly Package
- Output optical power up to 20 mW
- SMSR > 35 dB
- Qualified as per intent of Telcordia GR-468
- RoHS



#### Description

Optochip's OC455XX Series laser is 1550nm DFB Laser Module. The module has built-in components such as TEC, thermistor, MPD and optical isolator. With the advantages of high output power and stable wavelength, it is suitable to be used as a light source or in the field of optical fiber sensing.

#### Applications

- Test and measurement
- Laser source
- Optical Fiber Sensing



## Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device.

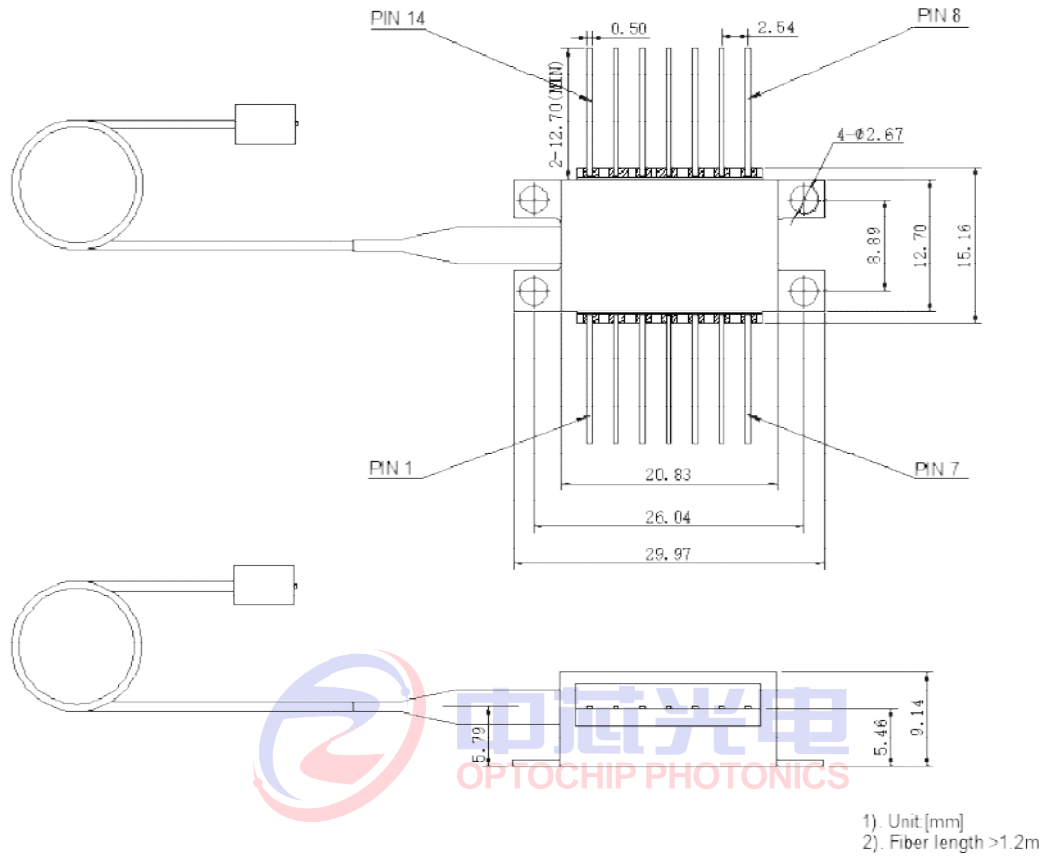
Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	Ts	-40		95	°C
Relative Humidity	RH	0		85	%
LD Forward Voltage	V			2	V
LD Reverse Voltage	Vr			2	V
LD Forward Current	If			150	mA
MPD Reverse Voltage	VMPDR			10	V
TEC Current	ITEC			1.2	A
TEC Voltage	VTEC			3.5	V
ESD(HBM)	ESD		500		V

## Optical/Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current	Ith		10	15	mA
Operating Voltage	Vop		1.2	1.5	V
Operating Current	Iop		70	100	mA
Output Optical Power	Po		10		mW
Monitor Operating Current	Im	10		200	μA/mW
Center Wavelength	λ	1545	1550	1555	nm
Side-Mode Suppression Ratio	SMSR	35	40		dB
BandWidth (@-3dB)	BW		0.1		nm
Relative Intensity Noise	RIN		-140		dB/Hz
Thermistor Resistance	Rth	9.5	10	10.5	kOhm
Thermistor Sensitivity Index	β		3892		K



## Outline Drawing



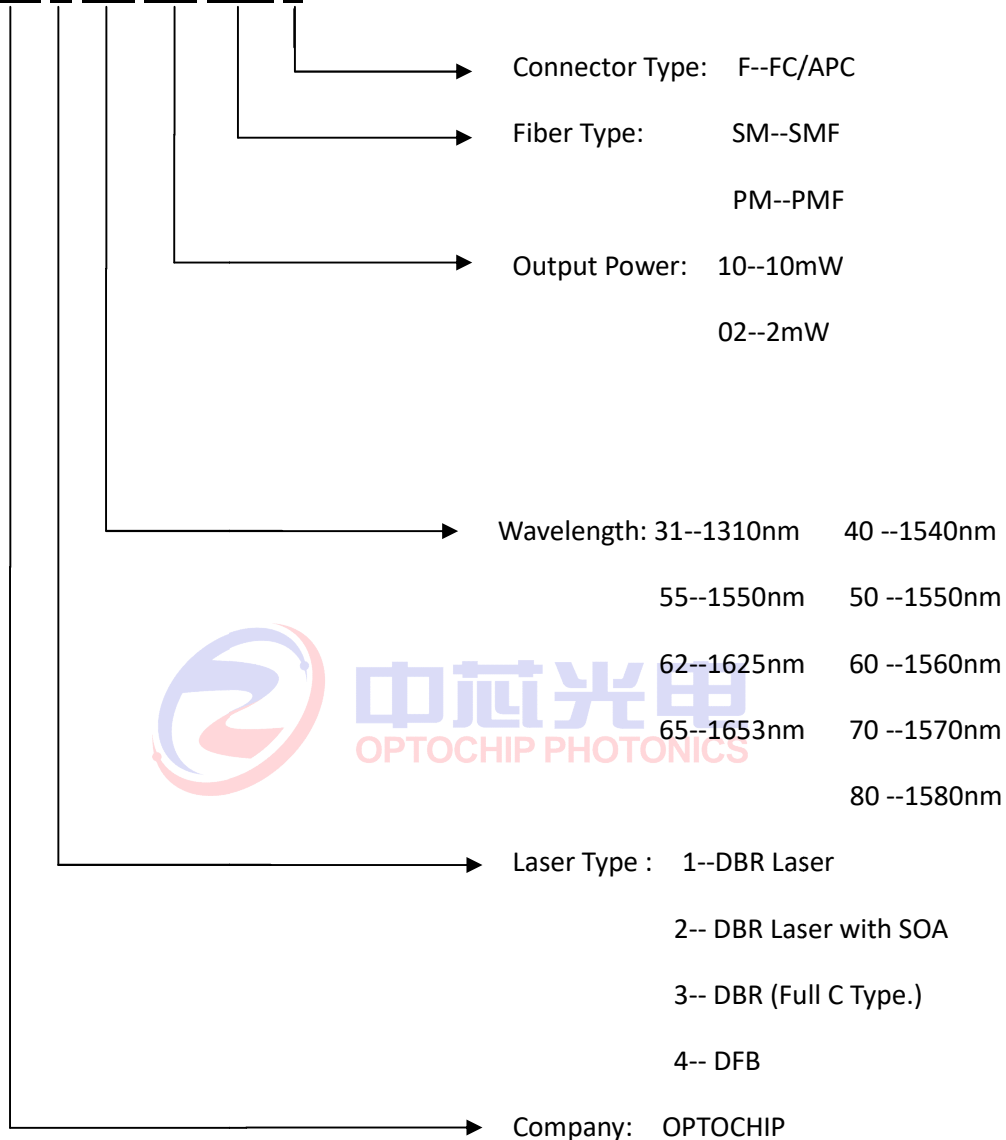
## Connection

Pin Assignments			
Pin	Function	Pin	Function
1	Thermistor	8	Case Ground
2	Thermistor	9	Case Ground
3	LD (-)	10	NC
4	MPD ANODE	11	LD Common (+)
5	MPD CATHODE	12	LD (-)
6	TEC (+)	13	LD Common (+)
7	TEC (-)	14	NC



## Ordering information

e.g.: O C 4 5 5 1 0 S M F



## Contact us

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