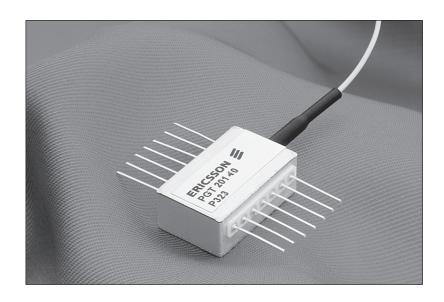
1620 nm DFB Laser for Supervisory Channel Applications

Key Features

- 1620 nm DFB laser source
- Operating temperature 0 °C to +70 °C
- Low threshold current
- Cooled-TEC
- Bitrates 1 622 Mb/s

Applications

Intended as a laser source for an optical supervisory channel in D-WDM systems



Description

The laser module is intended as a source for an optical supervisory channel for systems with in-line amplifiers as proposed by ITU-T in G.691 and G692. The module includes an InGaAs/InP DFB laser diode, an InGaAs PIN back facet monitor diode and a TEC.



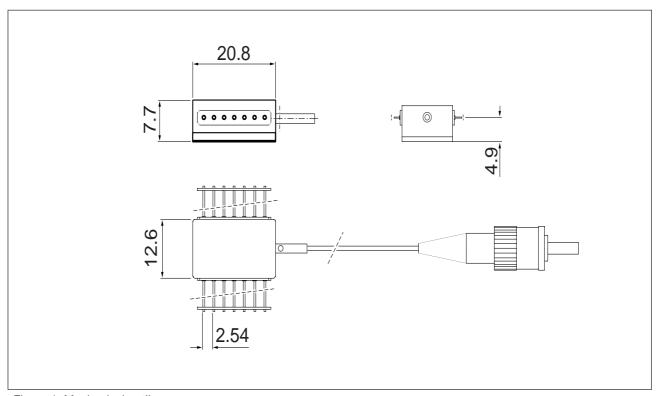


Figure 1. Mechanical outline

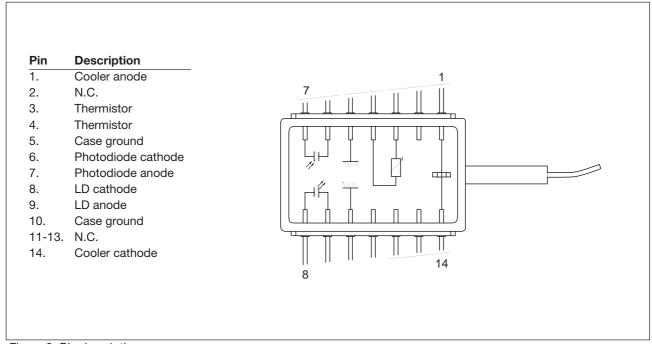


Figure 2. Pin description

Optical Characteristics

Electrical and optical characteristics at recommended operating conditions, unless otherwise noted.

Parameter	Conditions	Symbol	Min	Тур	Max	Unit
Peak wavelength		λ_{Peak}	1613	1620	1627	nm
Differential quantum efficiency	@ P _f = 1 mW	Q_{eff}	0.035			W/A
Side mode supression ratio		SMSR	30	35		dB

Electrical Characteristics

Parameter	Conditions	Symbol	Min	Тур	Max	Unit
Forward voltage		V_{f}			2	V
Threshold current		I _{Th}			30	mA
Monitor current	@ P _{fiber} = 1 mW	I _{Mon}	75		470	μΑ
Rise and fall time		t _r /t _f			1.0	ns
Bandwidth		f _c	400			MHz

Operating Conditions

Parameter	Symbol	Min	Тур	Max	Unit
Operating case temperature	T _C	0		70	°C

Absolute Maximum Ratings

Parameter	Symbol Min	Max	Unit
Laser reverse voltage	V_{REV_LD}	1.0	V
Laser diode forward current	I _F	150	mA
Photodiode reverse voltage	V_{REV_MON}	15	V

CAUTION: Stresses outside those listed in "Absolute Maximum Ratings" may cause permanent damage to the device.

Handling Precautions

This device may be damaged as a result of electrostatic discharge (ESD). Take proper precautions during both handling and testing. This typically includes grounded wrist wraps, workbenches and floor mats in ESD controlled areas. Semiconductor devices may be damaged by current surges, use appropriate transient protection.

Quality Assurance

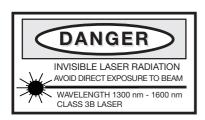
Ericsson Microelectronics commitment to quality has been proven through a decade of semiconductor device production and has been confirmed to ISO 9001. Opto product qualification is made according to the intention of applicable Telcordia standards.

Connector Options

FC/PC

SC

(Other connectors available on request)



Information given in this data sheet is believed to be accurate and reliable. However no responsibility is assumed for the consequences of its use nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Ericsson Microelectronics. These products are sold only according to Ericsson Microelectronics' general conditions of sale, unless otherwise confirmed in writing.

Product specifications subject to change without notice.

Ericsson Microelectronics AB SE-164 81 Kista, Sweden Telephone: +46 8 757 50 00 www.ericsson.com/microelectronics

For local sales contacts, please refer to our website or call: Int + 46 8 757 47 00, Fax: +46 8 757 47 76