

PGT 201 03

Optical Transmitter Submodule

for 2.5 Gbps

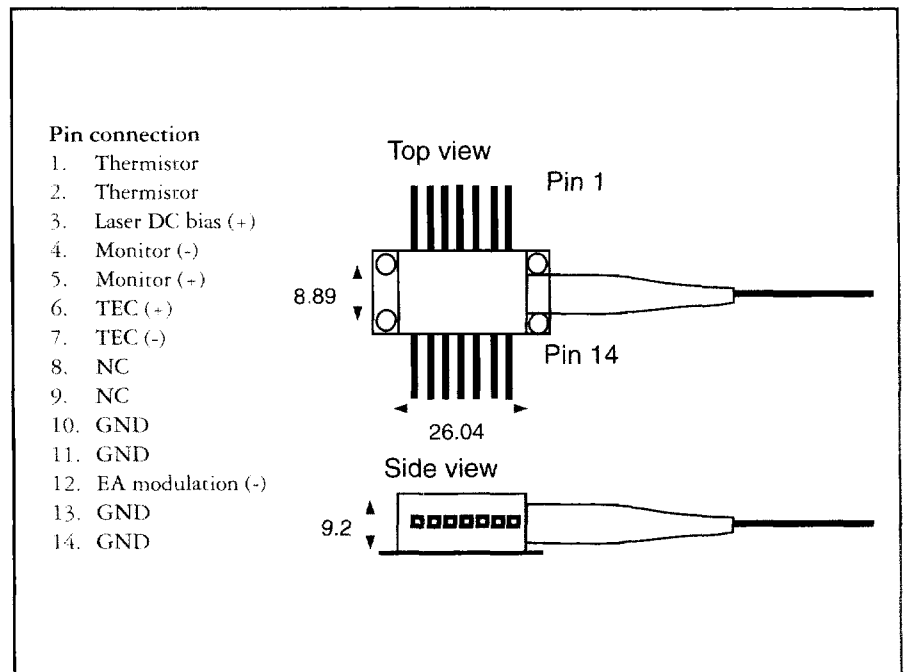
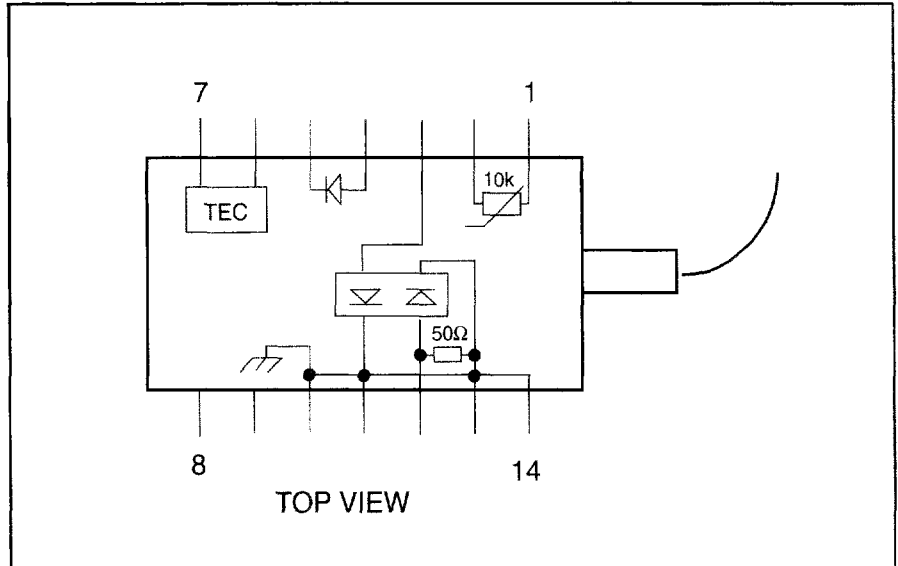
The transmitter module, intended for dispersion limited applications at OC-48/STM-16, consists of a DFB laser with integrated absorption modulator mounted in a high-speed package including isolator.

Features

- 1.55 μm DFB CW source monolithically integrated with an ElectroAbsorption-modulator (EA)
- Hermetic, 14 pin butterfly
- Single-mode fiber pigtail package
- FC/PC, SC or ST connector
- 4 GHz typical bandwidth
- 0 dBm typical output power

Applications

- SDH STM-16 LH
- SONET OC-48 LR



Optical and Electrical Specification

Characteristics	Item	Min	Max	Unit	Condition
Limits	Laser forward current		150	mA	
	Laser reverse voltage		2	V	
	Modulator voltage	-5	1	V	
	Monitor voltage	-10	1	V	
	Storage temperature	-40	75	°C	
	Operating case temp.	0	70	°C	
CW electrical	Operating temp. chip, I _{op}	20°	30°	°C	EA-voltage=0
	Operating current	25	75	mA	
	Threshold current, I _{th}	2	25	mA	
CW optical	Forward voltage, V _f		2	V	
	Output power, P _{out}	2	5	mW	
	Side mode suppr. ratio	30		dB	
	Wavelength, λ	1540	1560	nm	
HF electrical	Reflection, S ₁₁		-10	dB	0-2 GHz -3 dB bandwidth 10/90% 0/-2V mod. at 2500 ps/nm disp.
	Transmission E/O, S ₂₁	3		GHz	
HF optical	Rise/Fall time, tr/ta		125	ps	
	Extinction ratio, ER	10		dB	
	Dispersion penalty		1	dB	
Monitor	Monitor current	0.05	1.0	mA	-5 V
	Monitor dark current		100	nA	
Isolator	Optical isolation	30		dB	
Termistor	Termistor resistance	9.5	10.5	kΩ	
Peltier	Voltage	-3	+3	V	
	Current	-1	+1	A	
	Power		3	W	

Quality Assurance

Ericsson Components commitment to quality has been proved through a decade of semiconductor laser diode production and has been confirmed to ISO 9001. These products are qualified according to the intention of Bellcore (TA-TSY-000983) and supplied with final test data.

Connector Options

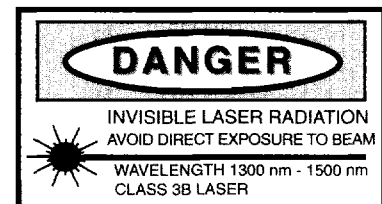
FC/PC

SC

(Other connectors available on request)

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 1522-PGT 201 03 Uen Rev. B
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