

PGT 601 05

Optical Transmitter Module, 1510 nm Supervisory Channel

The transmitter module is intended for use at SDH and SONET bit rates.

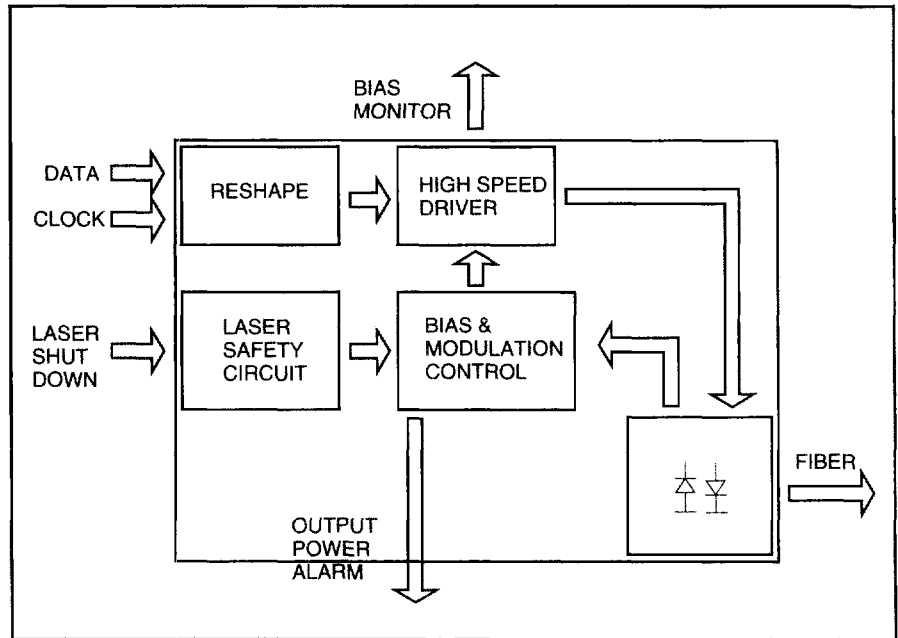
The device meet the intention of ITU-T (G.691) recommendations.

The single silicon IC is used as a laser-driver, modulator with data re-shape and automatic power control. To ensure a proper laser operation over the wide temperature range and life of operation both the peak and average optical output power are controlled. The laser bias is externally accessible for monitoring of the performance. A power alarm is activated when the average optical power or the extinction ratio cannot be maintained within specification.

A laser power down function is also provided according to SDH/SONET requirements.

Features

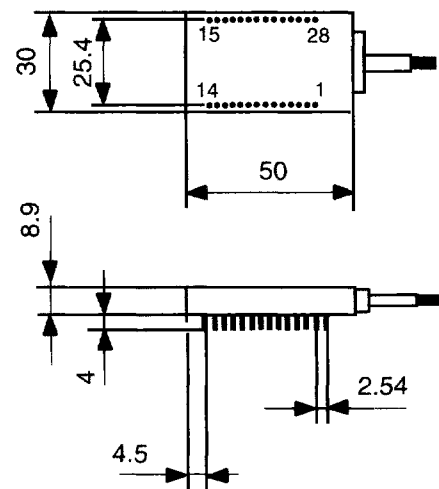
- Provides 1510 nm supervisory channel laser source for WDM applications according to ITU-T Draft G.691
- Low power consumption
- Peak and average power control
- Small size (30x50x9 mm)
- CMOS alarm output
- Clocked or non-clocked re-shape



Pin connection

1. NC	19. NC	24. Data
2. Laser shut down	20. Clock_N	25. VECL
3. VCC	21. Clock	26. NC
4. Laser bias current monitor	22. GND	27. VCC
	23. Data_N	28. GND

Bottom view



5. NC
6. NC
7. Laser control circ. out of range
8. NC
9. NC
10. NC
11. NC
12. NC
13. NC
14. NC
15. NC
16. NC
17. GND
18. GND

Optical and Electrical Specification

Item	PGT 601 05	Unit
Bit rate	51.84 to 155.52	Mbit/s
Average output power	-5 to 0	dBm
Peak wavelength	1500 - 1520	nm
Side mode suppr. ratio	min 30	dB
Extinction ratio	min 10	dB
Output signal jitter	max 0.01	UI rms
Eye diagram	G. 957	ITU-T
Power consumption	max. 0.8	W
Power supply	+5.0 ± 0.3	V
Operating case temperature	0 to +70	°C

Electrical Interface

Input signals	ECL or P-ECL (10 K or 100 K) AC coupled with 50 ohm termination.
Laser shut down	CMOS (max 100 ms delay/wake up time), active high.
Laser bias monitor	Analogue voltage between 0 and +5 V (40 mV/mA).
Laser control circuitry out of range	CMOS, active high when the laser control circuitry is out of range and no longer can maintain output power or extinction ratio within specification.

Quality Assurance

Ericsson Components commitment to quality has been proved through a decade of semiconductor device production and has been confirmed to ISO 9001. These products are qualified according to the intention of Bellcore (TR-NWT-000468) and supplied with final test data.

Connector Options

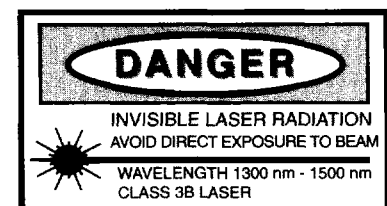
FC/PC

SC

(Other connectors available on request)

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