PGE 608 02

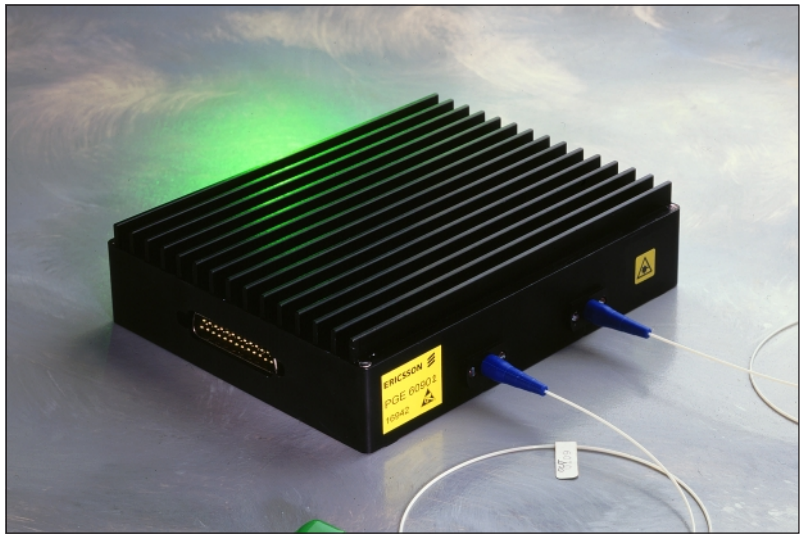
Erbium-Doped Fiber Amplifier for Digital Applications

Key Features

- Operating wavelength window: 1530-1560 nm
- Saturation output power: +13 dBm
- Noise figure, typ. <7.0 dB
- Serial (RS-232) interface with parallel alarms

Applications

- Single channel digital applications (SDH/SONET)



Description

The PGE 608 02 is an integrated, output power-locked amplifier. It has optically isolated input and output ports as well as input and output power monitoring. The serial and parallel interface is provided through a DB-25 electrical connector. The modules are based on industry standard platforms and are optimized for single channel SDH/SONET applications.

ERICSSON

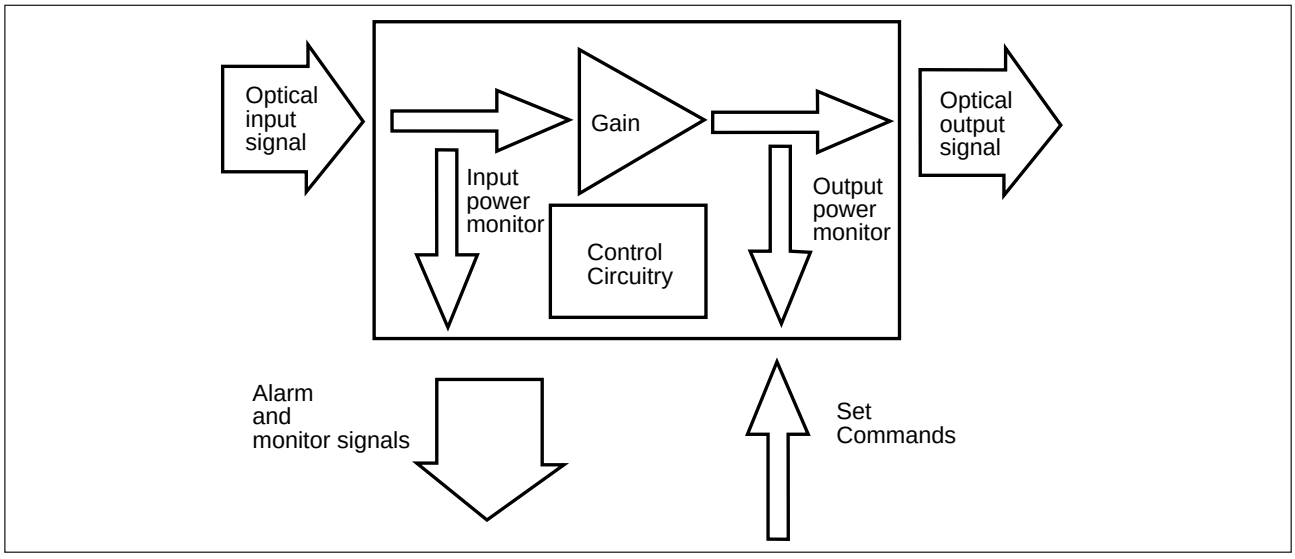
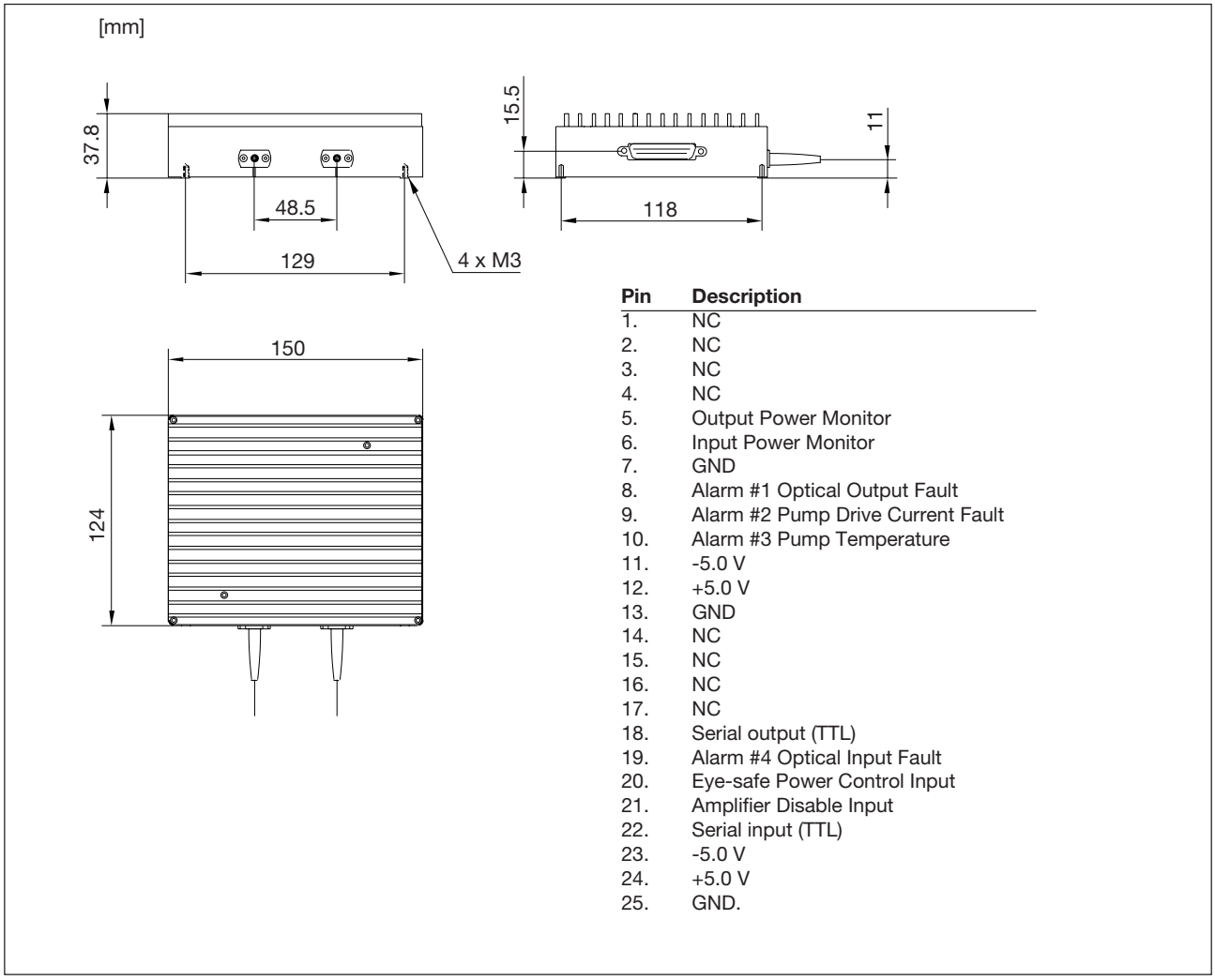


Figure 1. Block diagram



Pin	Description
1.	NC
2.	NC
3.	NC
4.	NC
5.	Output Power Monitor
6.	Input Power Monitor
7.	GND
8.	Alarm #1 Optical Output Fault
9.	Alarm #2 Pump Drive Current Fault
10.	Alarm #3 Pump Temperature
11.	-5.0 V
12.	+5.0 V
13.	GND
14.	NC
15.	NC
16.	NC
17.	NC
18.	Serial output (TTL)
19.	Alarm #4 Optical Input Fault
20.	Eye-safe Power Control Input
21.	Amplifier Disable Input
22.	Serial input (TTL)
23.	-5.0 V
24.	+5.0 V
25.	GND.

Figure 2. Mechanical outline and pin description

Optical Characteristics

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Operating Wavelength		λ_L	1530		1560	nm
Input Power		P_{in}		-6		dBm
Output Power	At 1550 nm, P_{in} = -6 dBm, at RT	P_{out}	12.5	13.0	13.5	dBm
Input/Output Return Loss	Over T_c and λ_L. EDFA turned on. P_{in} = -6dBm	IRL/ORL		≥ 28		dB
Noise Figure	< -6 dBm Input, at RT	NF		< 7.0		dB
Small Signal Gain				25		dB

Electrical Characteristics

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Operating Current	Positive Voltage				2	A
	Negative Voltage				1	A
Operating Voltage	Pins # 12 and 24		4.75	5.00	5.50	V
	Pins #11 and 23		–5.50	–5.00	–4.75	V
Ripple and Noise	On both Positive and Negative Voltage				2% PP	
Transients – Positive V	Max. Duration 75 ms		4.5		6.0	V
Transients – Negative	Max. Duration 75 ms		-6.0		-4.5	V
Power Dissipation	Over operating temperature and time				10	W

Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T_{Case}	0		65	°C

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature		-40	75	°C

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

Handling Precautions

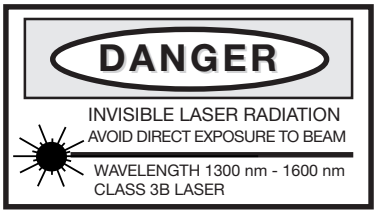
This device may be damaged as a result of electrostatic discharge (ESD). Take proper precautions during both handling and testing. This typically includes grounded wrist wraps, workbenches and floor mats in ESD controlled areas. Semiconductor devices may be damaged by current surges, use appropriate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

SC/SPC
SC/APC
(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

1522-PGE 608 02 Rev. E
© Ericsson Microelectronics AB, October 2000