

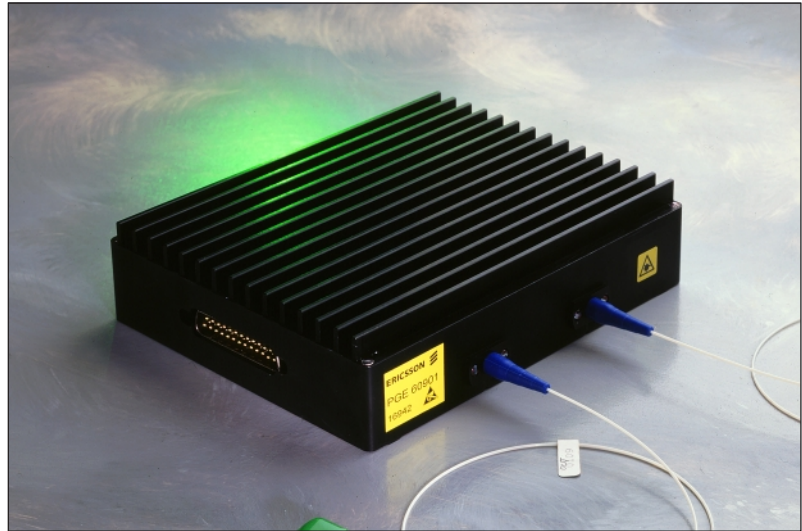
## Erbium-Doped Fiber Amplifier for Digital Applications

### Key Features

- Operating wavelength window:  
1530-1560 nm
- Saturation output power: +10 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 01 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.

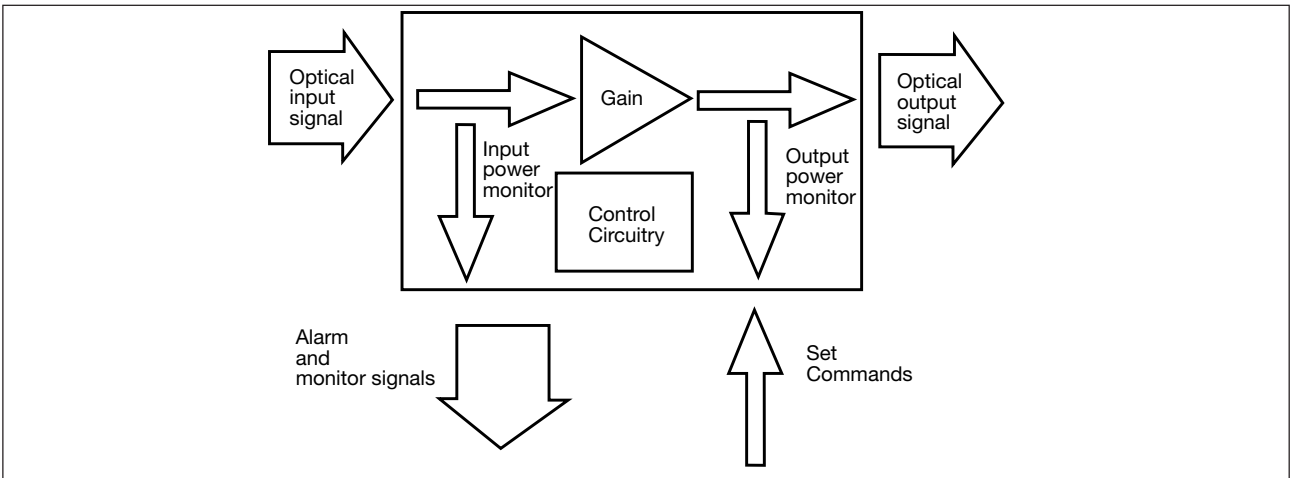


Figure 1. Block diagram

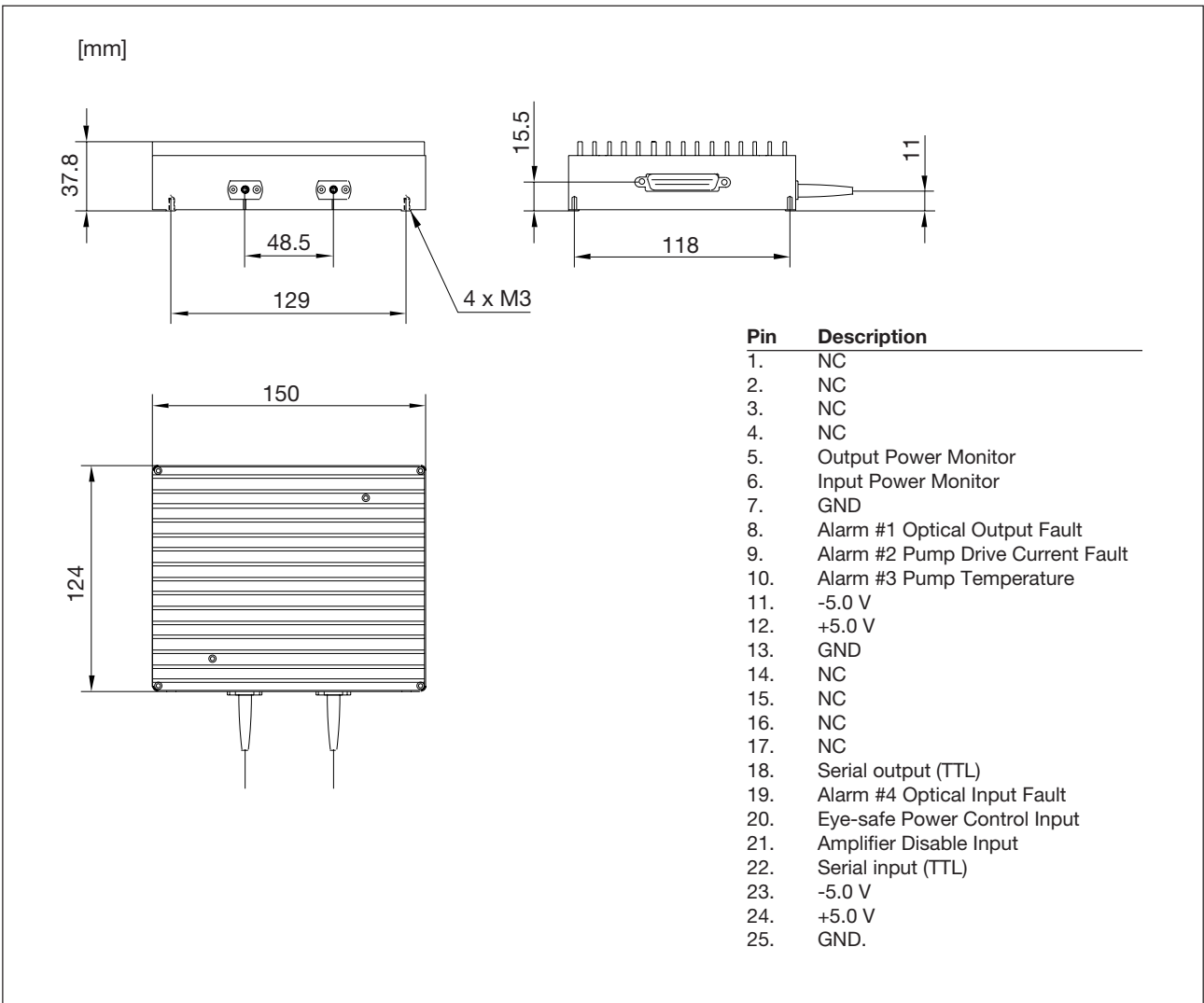


Figure 2. Mechanical outline and pin description

## Optical Characteristics

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Operating wavelength		$\lambda_L$	1530		1560	nm
Input power		$P_{in}$		-6		dBm
Output power	At 1550 nm, $P_{in} = -6$ dBm, at RT	$P_{out}$	9.5	10.0	10.5	dBm
Input/output return loss	Over $T_c$ and $\lambda_L$ . EDFA turned on. $P_{in} = -6$ dBm	IRL/ORL		$\geq 28$		dB
Noise figure	< -6 dBm Input, at RT	NF		< 7.0		dB
Small signal gain				20		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)



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