

Compact Low Cost Pre-Amplifier EDFA (Gain Block)



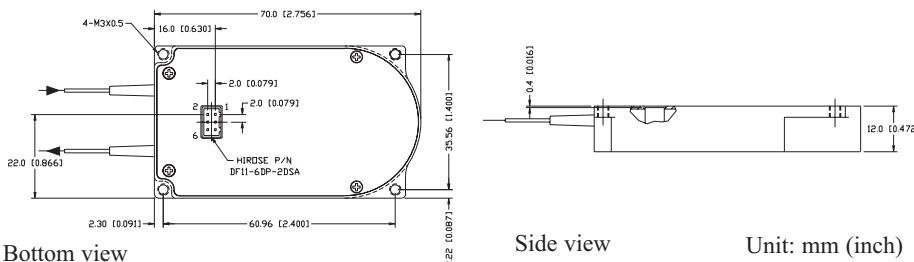
Optical Specifications

Parameters	Unit	Min.	Typ.	Max.
Operating Wavelength Range	nm	1528	-	1562
Input Optical Power (Pin)	dBm	-30	-	-10
Signal Gain @ Pin= -30dBm	dB	20	-	-
		25	-	-
Noise Figure @Pin= -30dBm	dB	-	5	6
Polarization Dependent Gain	dB	-	-	0.5
Polarization Mode Dispersion	ps	-	-	0.5
Return Loss (Pump LD off)	dB	35	-	-
Operating Temperature Range	°C	-5	-	70
Fiber Type	-	SMF-28, 900µm loose tube		
Dimensions	mm	40 x 70 x 12		

Electrical and Mechanical Specifications

Parameters	Unit	Min.	Typ.	Max.
Pump Laser Threshold Current	mA	-	-	150
Pump Laser Forward Current (BOL)	mA	-	210	300
Pump Laser Forward Voltage	V	-	1.66	1.95
Pump Laser Reverse Voltage	V	-	-	2.0
Output Monitor PD Responsivity	$\mu\text{A} / \text{mW}$	20	-	-
Output Monitor PD Reverse Voltage	V	-	5	20
Output Monitor PD Forward Current	mA	-	-	10
Dark Current (- 5V, 25°C)	nA	-	-	1

Dimensions



Ordering Information

The diagram shows a series of 14 light blue rectangular boxes representing pins or connection points. The first five boxes are labeled with letters: N, O, A, P, and G. The next four boxes are empty. The following five boxes are labeled with numbers: 0, 0, 0, 0, and 1. The final box is empty. Blue lines connect the letter labels to their respective boxes. Below the boxes, there is descriptive text:

- Signal Gain @Pin= -30dBm**
- 20= 20dB**
- 25= 25dB**
- Fiber Length**
 $1=1.0\pm0.1\text{m}$
- Connector**
 - 0= None
 - 1= FC/UPC
 - 2= FC/APC
 - 3= SC/UPC
 - 4= SC/APC
 - 5= LC/UPC
- Pigtai Type**
 - 1= 900 μm loose tube
 - 6= MU/UPC

Features/Benefits

- Low cost
 - Low power consumption
 - Wide operating temperature range
 - Small footprint
 - Output power monitor

Applications

- Metropolitan and access networks
 - Digital CATV
 - Amplet for long-haul network
 - Single-channel or DWDM sub-systems
 - Optical add/drop modules

Gain Block Pin Assignment

Pin	Description
1	Pump laser diode anode (+)
2	Pump laser diode cathode (-)
3	Pump laser PD anode (+)
4	GND
5	Output monitor PD anode (+)
6	Output monitor PD cathode (-)

Pump laser diode anode shares the same pin with pump laser PD cathode

Safety Information

ESD Protection

The laser diodes and photodiodes in the module can be easily destroyed by electrostatic discharge. Use wrist straps, grounded work surfaces, and anti-static techniques when operating this module. When not in use, the module shall be kept in a static-free environment.