



Opto-Link
Corporation Ltd

Metro Erbium-Doped Fiber Amplifier

The METRO ERBIUM-DOPED FIBER AMPLIFIER (MEDFA) series EDFA is designed for single-channel or narrow band amplification. It is a low-cost optical gain module in a very robust and compact package providing amplification of optical signal for a variety of applications. It can be used as pre, in-line or power amplifier over a wide temperature range.

An electronic control circuit is integrated inside the module. The compact module can be operated either in Automatic Gain Control (AGC) or Automatic Power control (APC). Fast transient suppression and gain compensation are available on request.

The MEDFA series EDFA offers superior performance with high output power, low noise figure, small power consumption and excellent stable characteristics.



Applications

- Access Network
- Metro-Fiber Optic Transmission System

Features

- Low Cost and Compact Package (90mm x 70mm x 15mm)
- Low Power Consumption
- Automatic Gain Control
- Automatic Power Control
- High Reliability

Compliance

- Telcordia GR1312



株式会社オプトサイエンス

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SPECIFICATIONS

Single Channel Booster Amplifier

Parameter	Min	Typ	Max	Unit
Operating Wavelength	1530		1565	nm
Input Power	-10		+4	dBm
Output Power		+10		dBm
Noise Figure (@1550nm Pin= 0dBm Pout=10 dBm)			6	dB
Reverse ASE Leakage			-20	dBm
Output Pump Leakage			-30	dBm
Return Loss	Input	40		dB
	Output	40		dB
Polarization Dependent Gain (PDG)			0.5	dB
Polarization Mode Dispersion (PMD)			1	ps
Power Dissipation			2	W
Dimensions	90 x 70 x 15			mm

Environment and User Interface

Operating Temperature	-5 °C to 65 °C
Storage Temperature	-40 °C to 85 °C
Power Supply	5 V +/- 5%
Connector	FC/APC, others upon request
Pump	Uncooled
Operating Mode	APC (AGC optional)

ORDERING CODES

OLMEDFA - [] - [Output Power] - [] - []

Amplifier Type	Code
Boost Amplifier	B
Line Amplifier	L
Pre-amplifier	P

Pigtail Type	Code
900 μm	90
3.0 mm	3

Connector Type	Code
SC/UPC	SU
SC/APC	SA
FC/UPC	FU
FC/APC	FA
MU/UPC	MU
Others	XX

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Optical Connectors

PIN ASSIGNMENT

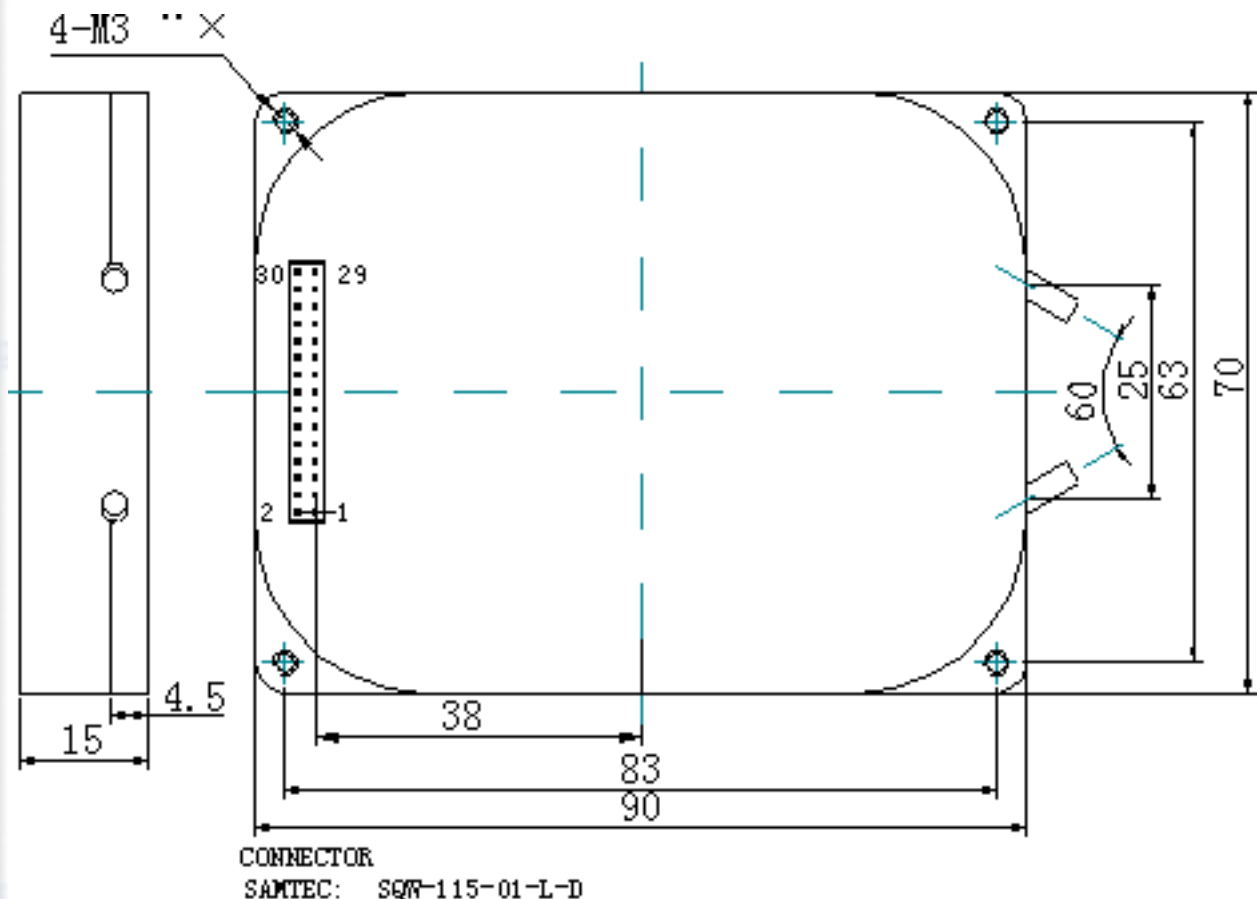
Electric connector to the device is made via a 30-way socket (female) connector (2x15, 2mm pitch). TYPE:SQW-115-01-L-D.

Detailed pin definition is listed below.

20-Pin Assignment

Pin	Functionality	Pin	Functionality
1	VCC	2	VCC
3	Ground	4	Ground
5	RS232 Input (RXD)	6	RS232 Output (TXD)
7	NC	8	Mode Select
9	Amplifier Disable	10	Output Power Mute (APR)
11	Ground	12	Common Alarm
13	EDFA Case Temperature Alarm	14	Pump Bias Alarm
15	Loss of Input Alarm	16	Loss of Output Alarm
17	Ground	18	Power/Gain Setting
19	Input Power Monitor	20	Output Power Monitor

MECHANICAL DRAWING



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Division Multiplexer