

Ultra compact amplifier



Applications

- Long haul and Metro networks
- Single-channel networks
- C-band
- Transceiver and Receiver

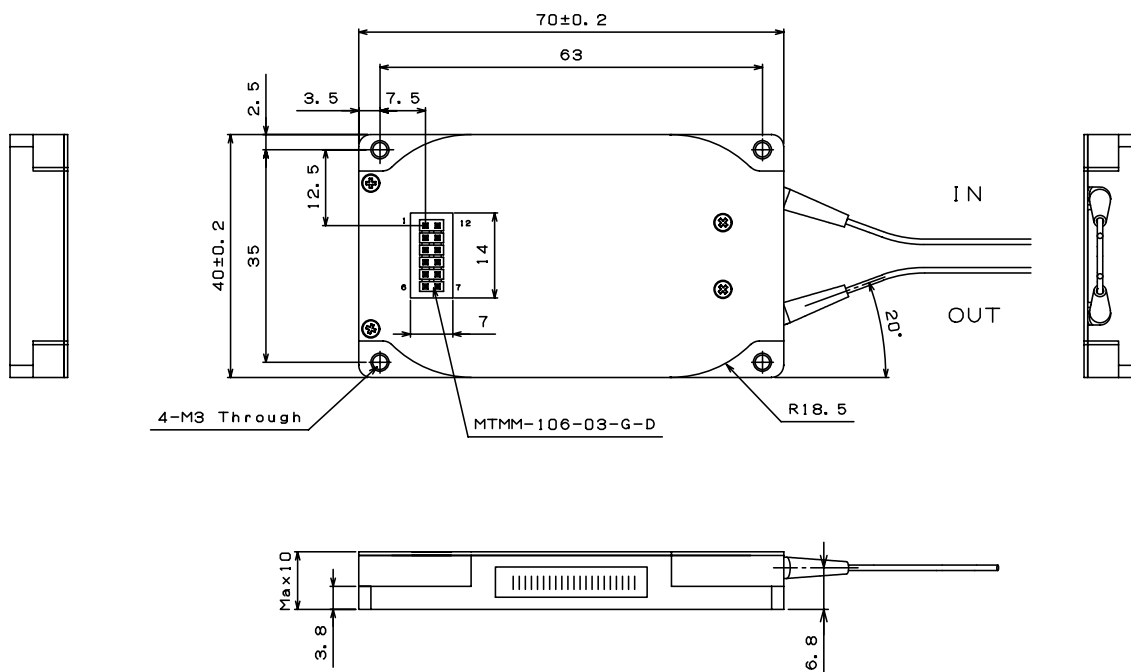
Descriptions

- ErFA22000 series are designed for a wide variety of single channel.
- Ultra compact size (70mm x 40mm x 10mm)

Features

- High saturated output power (more than +15dBm)
- Low power consumption owing to the un-cooled pumping (Max 1.3W)
- Low noise figure

Outline drawing



- Fiber for optical interfaces : SMF
- Fiber length : 1000 ± 100 mm

Environmental conditions

Items	Symbol	Specification		Unit	Note
		min.	max.		
Operating case temperature	Top	0	65	deg.C	-
Operating humidity	RHop	-	85	%RH	No dew condensation
Storage temperature	Tstg	-40	85	deg.C	-
Storage humidity	RHstg	-	85	%RH	No dew condensation

Specifications

Items	Symbol	Specification		Unit	Note
		min.	max.		
Wavelength range	λ	1530	1565	nm	-
Input power	Pin	-18	0	dBm	-
Output power	Pout	9	12	dBm	Input power -18dBm
		12	15	dBm	Input power 0dBm
Noise figure	NF	-	5.5	dB	Input power -18dBm Output power 9dBm
		-	7	dB	Input power 0dBm Output power 12dBm
Polarization dependence of output power	PDG	-	0.5	dB	-
Polarization mode dispersion	PMD	-	0.5	ps	-
Operating laser forward current (*1)	If,BOL	-	600	mA	-
Power consumption		-	1.3	W	-
Optical return loss	ORL	40	-	dB	Input and output port

*1: $I_f(EOL) = 1.1 \times I_f(BOL)$

Electrical pin configuration

Pin No.	Description	Pin No.	Description
1	NC or EDFA case GND	12	Input monitor cathode
2	Input monitor anode	11	Output monitor cathode
3	Output monitor anode	10	Backfacet PD cathode or Thermistor
4	Pump laser anode	9	Pump laser anode
5	Backfacet PD anode or Thermistor	8	Pump laser cathode
6	Case ground of pump laser	7	Pump laser cathode

The electrical connector is male 12pin Samtec MTMM-106-03-G-D-XX.

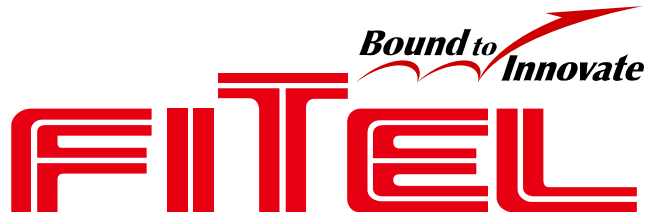
Monitor characteristics

Items	Symbol	Specification		Unit	Note
		min.	max.		
Input power monitor PD Responsivity	PDRin	27	87	uA/mW	-5V bias
Output power monitor PD Responsivity	PDRout	11	33	uA/mW	-5V bias

Data Sheet

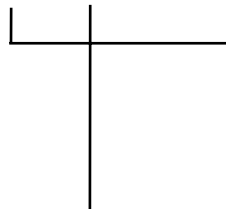
ErFA 22000

Mar. 2010



Ordering information

ErFA22000 - X Y



Optical connector

- S SC super PC
- M MU super PC
- L LC super PC

Electrical interfaces

- T thermistor
- B backfacet PD

Safety information



Furukawa Electric reserves the right to improve, enhance and modify the features and specifications of FITEL products without prior notifications.



FURUKAWA ELECTRIC CO., LTD.

Japan

Head Office

2-2-3, Marunouchi
Chiyoda-ku
Tokyo 100-8322, JAPAN
Tel: +81-3-3286-3253
Fax: +81-3-3286-3978
<http://www.furukawa.co.jp>
Email: comsales@ho.furukawa.co.jp

North America

OFS Fitel, LLC

Specialty Photonics Division
25 Schoolhouse Road
Somerset, NJ 08873 USA
Tel: +1-732-748-7402
Fax: +1-732-748-7436
<http://www.SpecialtyPhotonics.com>
E-mail: info@SpecialtyPhotonics.com

Europe

Furukawa Electric Europe Ltd.

3rd Floor, Newcombe House
43-45 Notting Hill Gate
London W11 3FE, UK
Tel: +44-20-7221-6000
Fax: +44-20-7313-5310
<http://www.furukawa-fitel.co.uk>
E-mail: sales@furukawa-fitel.co.uk

ASIA

Furukawa Electric Hong Kong Ltd.

Suite 2606, Shell Tower,
Times Square, 1 Matheson Street,
Causeway Bay, Hong Kong
Tel: 852-2512-8938
Fax: 852-2512-9717
<http://www.fehk.com.hk/>
E-mail: guest@fehkc.com