

FEATURES

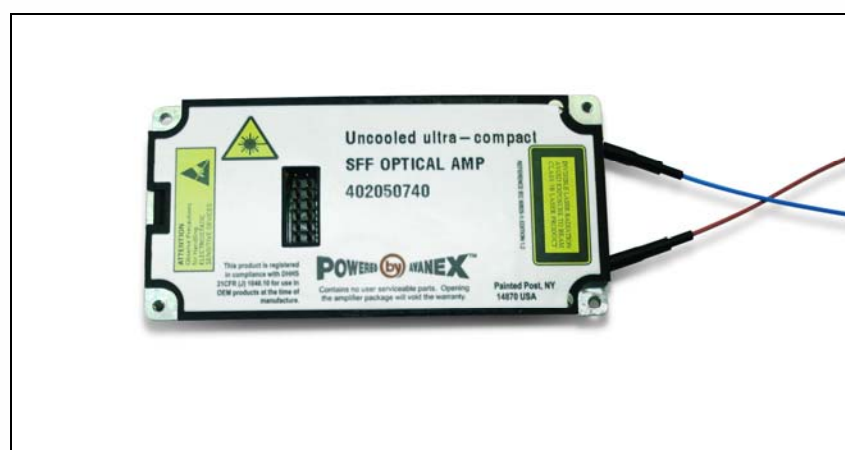
- Small form factor package (40×80×7.5 mm)
- Output Power up to +15 dBm
- Standard Versions for Single-Channel and Narrowband
- Telcordia Qualified

APPLICATIONS

- Metro Regional, Long-Haul and Ultra Long-Haul Networks
- Single-Channel Networks
- Optical Add/Drop and Cross Connects
- Transmitter and Receiver Amplification

DESCRIPTION

The PureGain™ 400 Optical Amplifier is a next-generation small form factor gain block platform that combines state-of-the-art package and superior optical performance to create the most flexible low-cost amplifier on the market. The customizable architecture and extremely small form factor make the PureGain™ 400 well suited for a wide variety of network applications, especially for applications requiring 40Gb/s transmission speeds.



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KEY OPTICAL SPECIFICATIONS

		Min	Typ	Max	Units
Wavelength Range		1530	-	1565	nm
Input Power Range		-20	-	0	dBm
Total Output Power	Pin=-20dBm	9	-	12	dB
	Pin=0dBm	12	-	15	dBm
Noise Figure	Pin=-20dBm, Pout=9dBm	-	5.5	6.5	dB
	Pin=0dBm, Pout=12dBm	-	6.0	7.0	dB
Polarization Dependent Gain		-	-	0.5	dB
Polarization Mode Dispersion		-	-	0.5	ps

KEY ENVIRONMENTAL SPECIFICATIONS

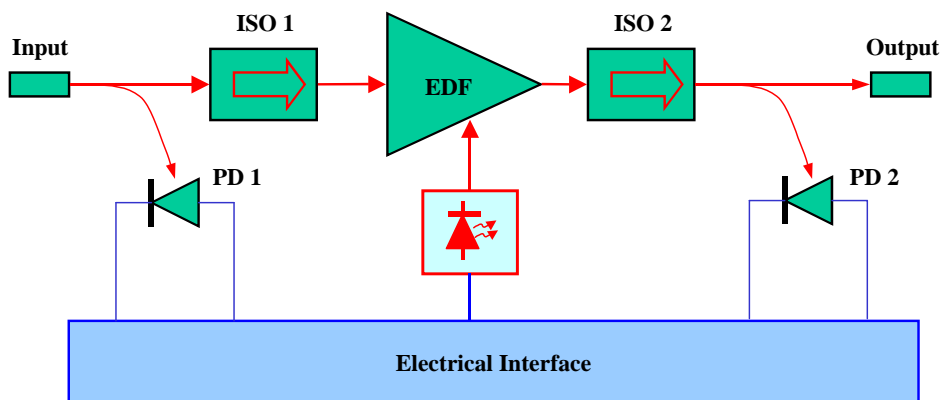
	Min	Typ	Max	Unit
Operating Case Temperature Range	0		+65	°C
Storage Temperature Range	-40		+85	°C
Operating Humidity (non-condensing)	+5		+85	% RH

KEY ELECTRICAL SPECIFICATIONS

	Min	Typ	Max	Units
Power Consumption, Un-cooled Pump Laser	-	-	1.2	W

Note: Worst case, end-of-life operating conditions.

OPTICAL/ELECTRICAL SCHEMATIC



OPTICAL PIGTAILS

	Standard	Optional
Fiber Type	Corning SMF-28™	
Pigtail Material	900 μm	Others available
Pigtail Length	1.1 ± 0.1 m	Other lengths available
Pigtail Colors	Blue (input), Red (output)	Others available
Connector Type	LC	FC, SC, MU, E2000, others
Connector Polish	UPC	APC

ELECTRICAL PIN ASSIGNMENTS

The standard electrical connector is a 12-Pin male connector (Samtec p/n: MTMM-106-03-G-D-193)

Pin	Description	Pin	Description
1	Ground, Optical Power Monitor Photodiode	12	Input Monitor Photodiode Cathode (-)
2	Input Monitor Photodiode Anode (+)	11	Output Monitor Photodiode Cathode (-)
3	Output Monitor Photodiode Anode (+)	10	No Connection or Thermistor
4	Pump Laser Diode Anode (+)	9	Pump Laser Diode Anode (+)
5	No Connection or Thermistor	8	Pump Laser Diode Cathode (-)
6	Pump Laser Diode Case	7	Pump Laser Diode Cathode (-)

STANDARD PRODUCTION TESTS¹

Total Output Power

Noise Figure

Pump Current

Input/Output Monitor Responsivity

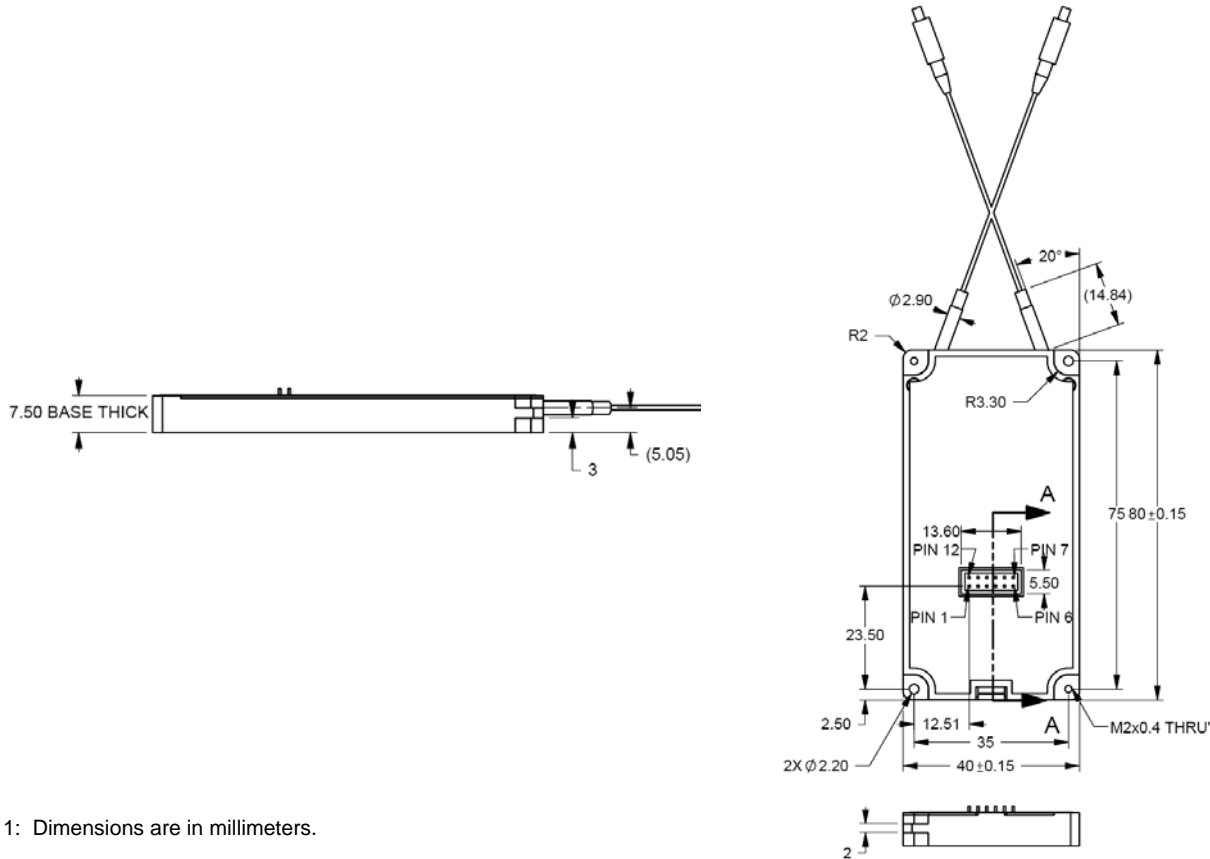
Note 1: All measurements are performed outside the connectors, and are measured as radiated power.

PureGain™ 400

Small Form Factor EDFA Gain Block



MECHANICAL FOOTPRINT ¹



Note 1: Dimensions are in millimeters.

COMPLEMENTARY AMPLIFIER PRODUCTS

- PureGain™ 1000 Fixed Gain, Compact EDFA Booster Amplifier
- PureGain™ 1000 Compact EDFA Pre-Amplifier

Performance figures contained in this document must be specifically confirmed in writing by Avanex before they become applicable to any particular order or contract. Avanex reserves the right to make changes to the products or information contained herein without notice.

For additional information, contact your Avanex Account Manager or request information through our website at:

<http://www.avanex.com/contactus/requestinfo.htm>

