

### + Features

- High density 1 RU platform with 4 to 20 output ports
- Output power options from 16 to 22 dBm
- Low Noise Figures
- Integrated WDM express ports for return receivers and PON OLTs
- Dual load sharing AC or DC powering
- Temperature hardened option -40 to +65° C

### ⚙ Applications

- RFOG centralized and remote cabinet topologies
- PON RF Overlay Networks
- Node Segmentation
- Fiber Deep Networks with Minimal Fibers



### Key Benefits

The PON-EDFA series from InnoTrans Communications, Inc. is a family of optical amplifiers, optimized for RFOG and RF overlay for Passive Optical Networks. When combined with the Chromadigm series high OMI transmitter best in class CNR, BER & MER performance is achieved with lower RONU / ONT optical input levels which in turn lowers the cost of deployment while ensuring customer satisfaction.

Integrated passive splitters and WDMs eliminate external space requirements and multiple optical connections increasing network reliability for a very cost effective high density and high power amplifiers ranging from 16 to 22 dBm.

The built-in microprocessor controls the output power very precisely to minimize output power variations caused by input power changes.

The chassis is equipped to support two modular power supply modules working in a load share configuration with the option of a universal AC or -48 VDC powering for high network reliability.

Status monitoring is provided through a local craft interface, CLI and SNMP based Element Management Systems



### Specifications

#### EDFA Performance

EDFA Noise Figure <sup>1</sup>	<5 dB
Output Power Variation over temp	±0.2 dB

#### Optical Outputs

Number of Outputs	See Available Configurations
Amplification Range	1545 to 1562nm

#### Express Ports

Pass Band	1545 to 1562nm
Reflect Band	
Single Express	1300 to 1620nm
Dual Express PON	1300 to 1590nm
Dual Express RFoG	1600 to 1620nm
Insertion Loss	
Single Express or Dual Express RFoG	<0.6 dB
Dual Express PON	<1.2 dB

#### Optical Input

Optical Input Power Level <sup>2</sup>	-3 to +10 dBm
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#### Network Management

SNMP V2c

#### Power

<b>Power Consumption</b>	
< 30 dBm Optical Output	50 W
> 30 dBm Optical Output	90 W
AC Voltage Supply Range	90 to 240 VAC
DC Voltage Supply Ranger	36 to 60 VDC

#### Environmental

<b>Operating Temperature Range</b>	
Standard:	0 to 50 C
Hardened	-20 to + 65 C
<b>Storage Temperature Range</b>	
	-40 to +85 C
Relative Humidity	Maximum 85% non-condensing

#### Notes

- 1) Measured at +3 dBm input power
- 2) The Amplifier will show slight CNR and Output power variations over this range of optical input power. For minimal CNR impact, an input power of +4 dBm is recommended. Model Dependent

### Available Configurations

**Example model number: POA-1616-AC-2EC** - 16 Outputs @ +16 dBm total O/P per Port, Non Redundant AC Powering, SC/APC Input & Output Connectors, with Dual Express Ports for RFoG and xPON on each output.

POA	-	Ports	dBm	-	Power	-	Express Ports / Connector
		04	21		AC		C = SC/APC
		08	16,18,21,22		DC		1EC = 1 express port; SC/APC
		16	16,18,21				2EC = 2 express port; SC/APC
		20	18,20				
Optional 2 <sup>nd</sup> Power Supply Module:							
CIR-PS-AC: 90 to 240 VAC power supply module							
CIR-PS-DC: -36 to -48 VDC power supply module							

