

The Power to Transform[®] through the EAR Series 1 RU Rack Mount Optical Amplifiers for RF Video Applications Most Powerful & Reliable Amplifiers Available

Main Features

- Total Output Power from 50 mW to 2 W
- Space Efficient 1 RU Rack Mount Package
- Up to 16 Output Ports
- Up to 200 mW per Port Output Power
- <4.5 dB RF Noise Figure
- Cooler-free Pump Operation
- High Performance-to-Cost Ratio
- Integrated CWDM Option for FTTx



The 1 RU EAR Series of low noise, high performance EDFAs provides the ideal building blocks for CATV network systems. These space efficient rack mount amplifiers are available in both single optical channel and DWDM configurations. IPG's EDFAs are available with up to 200 mW (23 dBm) per port output power. IPG rack mount amplifiers are constructed using our proprietary amplifier modules, providing the best reliability characteristics available in the market today.

IPG's amplifiers offer the widest range of power choices for cost-effective architecture flexibility. Optimized for low noise, IPG's EDFAs allow for clear transmission of video, voice and data signals. Carrier to noise (CNR) penalty is typically less than 1 dB. The 1 RU offers additional flexibility with up to 16 output ports available.

Optimized for CATV Applications & Free Space Communications

Cost-effective Power

IPG's proprietary multi-mode side-pump technology increases power scalability while reducing component count, increasing reliability and significantly decreasing overall amplifier cost. IPG combines these diodes in a high power, redundant design with intrinsic "soft-fail" characteristics, providing the multi-layered reliability required in a network building block.

Proven Reliability

IPG has over 20 years experience working with OEM customers, beginning with the introduction of the first 20 dBm amplifier in 1991. Our cooler-free pump technology and strict component qualification procedures result in a consistent, trouble-free and reliable product that you and your customers can trust.

Engineering Support

Our experienced team of engineers and scientists will work with you to customize configurations, electrical connections and optical characteristics. IPG's wide range of performance, packaging and output options enable the widest flexibility in system configurations and the shortest time to market.

EAR Series 1 RU continued

IPG amplifiers can be packaged in a module format for OEM applications (EAU version) or with driver and control electronics in a 19" horizontal rack-mount chassis (EAR version). Analog or microprocessor PCBs with AGC, APC, ACC and other functions are available, as well as a full range of options including optical connectors, extended temperature range, transient control, optical supervisory channel and other customized functionality.

Typical Specifications

Parameters	Condition	Unit	Value
Output Power per Port	Typical	dBm	Up to +23
Number of Ports			1, 2, 4, 8, 16
Port to Port Variation	Maximum	dB	±0.5
Operating Wavelength Range	Standard	nm	1550 - 1560
Noise Figure (Pin = +6 dBm)	Maximum	dB	4.5
Carrier to Noise Ratio (CNR) Degradation	Typical	dB	1
Composite Second Order (CSO)	Typical	dBc	-75
Composite Triple Beat (CTB)	Typical	dBc	-80
Power Consumption	Maximum	W	55
Residual Pump Power	Maximum	dBm/nm	-20

General Parameters

Chassis Dimensions	1 RU	mm	483 x 311 x 44
	2RU	mm	483 x 311 x 88
Ambient Operational Temperature Range	Standard	°C	-10 to +55
Ambient Operational Temperature Range	Extended	°C	-40 to +65
Storage Temperature Range		°C	-40 to +80

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