

**Features:**

- Thermal-electrically cooled all-in-one electronics design
- Low power consumption
- Compact mechanical package
- Amplified and calibrated monitor signals
- Input surge protection
- All circuits are integrated inside the EDFA package

BaySpec supplies **IntelliGain®** series metro erbium-doped fiber amplifiers (EDFAs) designed for OEM integration into applications that require a high gain and a low noise figure. The **IntelliGain®** Metro\_AE modules feature low power consumption, high efficiency and compact mechanical package. The driving and controlling electronics are fully integrated into the 120×95×13 mm<sup>3</sup> package. The amplifiers have a typical noise figure of <5.0 dB across the entire 1530-nm to 1562-nm wavelength range and meet Bellcore GR-1312-Core requirements.



Parameter	Unit	Metro-I_AD EDFA	Metro-II_AD EDFA	Metro-III_AD EDFA	Notes
Operating Temperature	°C	-5 to 70	-5 to 70	-5 to 70	Bellcore Qualified
Wavelength Range	nm	1530 -1562	1530 -1562	1530 -1562	
Saturated Output Power	dBm	+5	+10	+15	Pin = -3 dBm
Small Signal Gain	dB	15	20	25	Pin = -20 dBm
Noise Figure	dB	5.5	5.5	5.5	Pin = -10 dBm
Polarization Sensitivity	dB	< 0.3	< 0.3	< 0.3	-
Return Loss (Input & Output)	dB	> 35	> 35	> 35	Pin = -10 dBm @ Pump off
Pump Wavelength	nm	980	980	980	
Pump Current	mA	80	150	300	
Pump Forward Voltage	V	< 1.5	< 1.8	< 2.0	
Operating Current	A	< 0.8	< 1.2 A	< 1.5	
Operating Voltage	V DC	+ 5 V DC	+ 5 V DC	+ 5 V DC	
Total Power Consumption	W	□ 4.0 W	□ 6.0 W	□ 7.5 W	
Dimension	mm	120 × 95 × 13			

**Notes**

- Total power consumption depends upon environment operating temperature.
- Mechanical drawings of layout and electronics pin out are provided upon request.
- Custom design available.

