

1550 nm Erbium-doped Fiber Amplifier Module



Applications

- Seed laser amplification
- C-band channel pre- or boost amplification
- Narrow band amplification in access or CATV networks
- DWDM metro network
- LIDAR/3D sensing amplifier
- Short pulse amplification

Features

- Saturated output power 15 to 23 dBm
- Input power range from -25 to 10 dBm
- Wavelength range 1530 to 1565 nm
- Low noise figure
- Robust all-fiber architecture
- Fiber pigtail connections
- Exceptional long term stability

The Coronado amplifier module (AMP-M) is a very compact optical fiber amplifier based upon erbium-doped fiber that provides broadband gain over the C-band (1530 to 1565 nm). The system has been optimized for amplification of short optical pulses (such as those provided from Calmar's Mendocino series) and offers high gain and low noise with long term dependable performance. It features convenient pigtail fiber connections with either polarization-maintaining (PM) or non-PM options. The former ensures the amplified output is linearly polarized and eliminates unwanted polarization effects. The compact design provides output power levels from 15 up to 23 dBm and a noise figure as low as 5 dB.

The module (AMP-M) series features a robust architecture that is insensitive to shock and vibration. It requires a user-supplied 5 VDC power supply and is the perfect amplifier module for either stand-alone use or for integration into demanding OEM applications. An advanced engineering design and consistent manufacturing process ensure the highest quality standards for volume production.

If the performance parameters do not quite fit your application requirements or you have interest in an L-band module, please contact us at sales@calmarlaser.com to discuss a customized solution.

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Technical Specifications¹

Model Number	AMP-PM15M	AMP-PM18M	AMP-PM20M	AMP-PM23M
OPTICAL (Polarization Maintaining EDFA Module)				
Center Wavelength ² (nm)	1530 ~ 1565			
Output Power ³ (dBm)	15	18	20	23
Small Signal Gain	25	30	35	35
Input Power Range (dBm)	-25 ~ +10			
Noise Figure (dB)	< 5.0	< 5.5	< 6.5	< 6.5
Polarization Extinction Ratio (dB)	> 20			
Input/Output/Termination	Fiber pigtail with FC/APC connector			
Model Number	AMP-ST15M	AMP-ST18M	AMP-ST20M	AMP-ST23M
OPTICAL (Non-Polarization Maintaining EDFA Module)				
Center Wavelength ² (nm)	1530 ~ 1565			
Output Power ³ (dBm)	15	18	20	23
Small Signal Gain	25	30	35	35
Input Power Range (dBm)	-25 ~ +10			
Noise Figure (dB)	< 4.5	< 5.0	< 6.0	< 6.0
Polarization State	Arbitrary			
Input/Output/Termination	Fiber pigtail with FC/APC connector			
ELECTRICAL				
Operating Voltage (VDC)	~ 5			
Electrical Interface	9-pin D-sub connector			
Computer Control	No			
MECHANICAL				
Operating Temperature (°C)	0 - 50			
Dimension (cm)	9.5(W) x 12.7(D) x 2.5(H)		20.3(W) x 12.7(D) x 4.3(H)	
Weight (kg)	0.3		1.5	
Mounting	Heat sink for steady state heat load of up to 7 W (up to 10 W at turn-on)		Heat sink for steady state heat load of up to 15 W (up to 20 W at turn-on)	
Warm-up Time (min)	< 10			

1. Due to our continuous improvement philosophy, all product specifications are subject to change without prior notice. Please contact sales@calmarlaser.com for customized specifications.

2. For other wavelengths, such as the L-band, please contact sales@calmarlaser.com

3. For other output powers, please contact sales@calmarlaser.com.

