

GF6800-BA20PA12

GF-6800-BA20/G12+PA20/G15V / Gain support ±5dB adjustment

1. Product overview

GF-6800-BA20PA12 – C-Band EDFA Booster & Pre-Amplifier Module The GF-800-BA20PA12 is a high-performance dual-function C-band EDFA optical amplifier module for the HT6800 DCI DWDM Optical Transmission System. The module integrates a Booster Amplifier (BA) and Pre-Amplifier (PA) in a single card, providing optical amplification on both the transmit and receive sides of a DWDM link. It is designed to extend transmission distance and compensate for optical losses in metro, DCI, backbone and long-haul DWDM networks. The integrated EDFA architecture provides low-noise amplification, adjustable gain and multiple operating modes, including Automatic Gain Control (AGC), Automatic Power Control (APC) and Automatic Current Control (ACC). The module also provides OSC, OTDR and optical monitoring interfaces for managed optical networks.



2. Key features

Product type: Dual-function EDFA Optical Amplifier Module • Model: GF-6800-BA20PA12 • Platform: GF-6800 DCI DWDM Optical Transmission System

3. Applications

100G/200G/400G coherent DWDM transmission • Data Center Interconnect (DCI) • Metro DWDM networks • Long-haul DWDM links • Point-to-point optical transmission • Booster amplification after DWDM MUX • Pre-amplification before DWDM DEMUX/receiver • Compensation for high fiber-span attenuation • Links using passive DWDM MUX/DEMUX systems

4. Technical data

Product type: Dual-function EDFA Optical Amplifier Module	Designed to compensate for fiber, DWDM MUX and other passive optical losses
Model: GF-6800-BA20PA12	Typical BA input power specified by the platform: -10 dBm
Platform: GF-6800 DCI DWDM Optical Transmission System	Suitable for extending DWDM transmission distance
Amplifier configuration: 1 × Booster Amplifier (BA), 1 × Pre-Amplifier (PA)	Installed on the receive/line-input side
Optical amplifier technology: Erbium-Doped Fiber Amplifier (EDFA)	Amplifies low-level incoming optical signals before the receiver
Chassis occupancy: 2 slots	Designed to improve receiver-side optical power budget
Installed on the transmit/line-output side	Suitable for long-distance links with high span attenuation
Increases optical launch power into the transmission fiber	Low-noise EDFA architecture

5. Recommended operating conditions

Module dimensions: 216 × 254 × 42 mm (W × D × H)	Relative humidity: 5% to 95%, non-condensing
Operating temperature: -10°C to +60°C	Maximum power consumption: =30 W
Storage temperature: -40°C to +80°C	Compatible chassis: GF-6800 series
	Hot-swappable modular architecture

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6. Optical characteristics

Operating optical band: C-band	Adjustable input threshold: down to -34 dBm
Operating wavelength range: 1528–1565 nm	Polarization Dependent Loss (PDL): =0.3 dB
Maximum optical output power: up to +20 dBm*	Polarization Dependent Gain (PDG): =0.4 dB
Supported gain range: 8–33 dB*	Polarization Mode Dispersion (PMD): =0.5 ps
Typical noise figure: 5.0 dB	Pump leakage: =-29 dBm
Typical gain flatness: 1.0 dB	Return loss: =45 dB
	VOA gain adjustment: ±5 dB

7. Digital diagnostics and management

Automatic Gain Control (AGC)	VOA gain adjustment range: ±5 dB
Automatic Power Control (APC)	Optical power monitoring via MON port
Automatic Current Control (ACC)	OSC interface for remote network management
Adjustable AGC gain	OSC wavelength: 1510 nm
Adjustable APC output power	OTDR interface for fiber monitoring and fault detection
Adjustable pump control	OTDR wavelength: 1625 nm
Integrated Variable Optical Attenuator (VOA)	Supports remote monitoring through the HT6800 management platform

8. Safety and regulatory

The product page does not specify regulatory certifications or a laser safety class.

9. Ordering information

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10. General notes

These functions, including AGC/APC/ACC, OSC, OTDR and MON monitoring, are explicitly listed for the OA/OLA module. • The ordering number is GF6800-BA20PA12. Source text also uses GF-6800-BA20PA12 and GF-800-BA20PA12; the sales description names BA20/G12+PA20/G15V. All source identifiers are retained. • Equality signs (for example “=30 W”) and source asterisks are retained as published; no different limit is inferred. • Technical values and product image: GLOBALfiber product page, Technical Info. Unspecified parameters have not been inferred. Accessed 06.09.2026.

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