

MOTr Multiwavelength Optical Transport

Gain-Flattened Optical Amplifier Series

FEATURES

- Extends network reach to enable new subscribers and services
- Three gain ranges available to accommodate custom design criteria
- Gain-flattened across the DWDM C-Band to optimize performance
- Constant Gain Mode for multiwavelength applications
- Hot-Swappable modules simplify installation and maintenance



PRODUCT OVERVIEW

The MOTr-OA EDFA series of gain-flattened, high-power Erbium-Doped Fiber Amplifiers allow operators to use 1550 nm Dense Wave Division Multiplex (DWDM) transmitters to cover greater distances and link budgets. MOTr-OA EDFAs are gain-flattened across the entire C-Band, which allows optimum performance in full band, broadcast, narrowcast, and return band applications. Operators can use ARRIS MOTr solutions to eliminate physical hubs, simplify operations over Broadcast/Narrowcast, and extend network reach to new subscribers, thereby saving OPEX and CAPEX and increasing revenues.

Three MOTr-OA EDFA models, featuring 21 dBm total output power, are available:

- MOTr-OA506N21, with a nominal gain of 6 dB
- MOTr-OA509N21, with a nominal gain of 9 dB
- MOTr-OA512N21, with a nominal gain of 12 dB

With intuitive user interfaces, the MOTr EDFAs simplify installation and maintenance within the MOTr field hardened hub enclosure or SG4000 optical node. Up to six optical amplifiers can be configured within the MOTr field-hardened enclosure. The module can also be utilized in an SG4000 HFC node in an overlay or fiber pass through design.

The MOTr EDFAs features LED status indicators, gain control push buttons and output level test point. The module can be accessed remotely utilizing the DOCSIS status monitor transponder.

SPECIFICATIONS

Characteristics	MOTr-506N21	MOTr-509N21	MOTr-512N21
Operating Wavelength Range	1530.25 nm to 1561.50 nm	1530.25 nm to 1561.50 nm	1530.25 nm to 1561.50 nm
Nominal Total Optical Input Power	15 dBm	12 dBm	9 dBm
Maximum Optical Output Power	21.0 ± 0.4 dBm	21.0 ± 0.4 dBm	21.0 ± 0.4 dBm
Output Power Stability Over Time	± 0.10 dB max	± 0.10 dB max	± 0.10 dB max
Default Optical Gain	6.0 ± 0.5 dB	9.0 ± 0.5 dB	12.0 ± 0.5 dB
Gain Adjustment Range	5.0 dB to 8.0 dB	8.0 dB to 11.0 dB	11.0 dB to 14.0 dB
Gain Set Point Accuracy	± 0.5 dB max	± 0.5 dB max	± 0.5 dB max
Gain Stability Over Temperature	± 0.5 dB max	± 0.5 dB max	± 0.5 dB max
Optical Power Test Point Accuracy	± 1.2 dB max	± 1.2 dB max	± 1.2 dB max
Optical Return Loss (Input and Output)	40 dB min	40 dB min	40 dB min
Optical Noise Figure	7.0 dB typical	6.5 dB typical	6.0 dB typical
Multi Tone Gain Flatness			
From 1549.28 nm to 1561.46 nm (Red Band) @ Default Optical Gain	± 0.30 dB typical	± 0.35 dB typical	± 0.50 dB typical
Full Wavelength Range (Red/Blue Band) @ Default Optical Gain	± 1.0 dB typical	± 0.80 dB typical	± 1.0 dB typical
MOTr Enclosure Operating Temperature Range	-40° to +60°C	-40° to +60°C	-40° to +60°C
Supply Current			
+24 V Supply	600 mA max	600 mA max	600 mA max
+5 V Supply	10 mA max	10 mA max	10 mA max

ORDERING INFORMATION

Part Number	Model Name	Description
588337-001-00	MOTr-OA509N21	9 dB Gain, 21 dBm single output EDFA
588337-002-00	MOTr-OA506N21	6 dB Gain, 21 dBm single output EDFA
588337-003-00	MOTr-OA512N21	12 dB Gain, 21 dBm single output EDFA

RELATED PRODUCTS

Optical Transmitters	Optical Passives
DOCSIS Transponder	Installation Services
Optical Patch Cords	

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

Note: Specifications are subject to change without notice.

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Optical Hub-MOTr