Headend Optics Platform (CH3000)

FA3527M, FA3530M, FA3533M
High Performance, Multiport Optical Amplifiers

FEATURES

- High-power, multiport EDFAs for RFoG and RFPON applications
- Three models:
  - FA3527M: Up to 18 dBm output power to each of 8 ports
  - FA3530M: Up to 21 dBm output power to each of 8 ports
  - FA3533M: Up to 21 dBm output power to each of 16 ports
- Front panel laser On/Off interlock switch
- Hot plug-in/out
- Local and remote status monitoring and control

PRODUCT OVERVIEW

The ARRIS FA3527M, FA3530M, and FA3533M are high performance, multiport 1550 nm optical amplifiers. The high power output of these amplifiers is ideally suited for video distribution in RFoG and RFPON network architectures.

In RFoG applications, the 8-port FA3527M and 8-port FA3530M EDFA at the headend amplifies and distributes the 1550 nm broadcast video signal to over 250 residential customers, over 8 typical RFoG network segments, each with 32 connected endpoint devices. Comparably, the 16-port FA3533M amplifies and distributes the 1550 nm broadcast signal to over 500 customers over 16 typical RFoG network segments, each with 32 connected endpoint devices.

The compact multiport modules are installed and managed side by side in the same chassis as other required equipment. The FA3527M and FA3530M can connect directly to two of the ARRIS OR3144H RFoG Diplexer/Return Receiver modules (while the FA3533M can support up to four of the same modules) to complete your RFoG solution. These modules can also be used with the AR3044H Receiver and the appropriate RFoG filter optical passive. This greatly simplifies the management of headend and hub deployments for RFoG, RFPON, and FTTH networks.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions (without connectors) Three-slot wide versions of FA3530M and FA3533M Four-slot wide versions of FA3527M and FA3533M	 13.0" D x 4.3" H x 3.0" W (3RU) (33 cm x 11 cm x 7.5 cm) 13.0" D x 4.3" H x 4.0" W (4RU) (33 cm x 11 cm x 10.2 cm)
Weight	5.0 lbs (2.3 kg)
Environmental	
Operating temperature range	0° to +50°C (32° to 122°F)
Storage temperature range	−40° to +85°C (−40° to 185°F)
Humidity	5% to 95% non-condensing
General	
Hot plug-in/out	
Modes of operation	constant current
Output power alignment	manual
Optical Interface	
Optical connector Three-slot wide versions of FA3530M and FA3533M Four-slot wide versions of FA3527M and FA3533M	 LC/APC (at Back Plate BP-F14 for FA3530M or BP-F12 for FA3533M) SC/APC (at Back Plate BP-F11 for FA3527M or BP-F10 for FA3533M)
Optical	
Input signal wavelength	1540–1565 nm
Input power range	−10 to +10 dBm
Optical signal path isolation	> 30 dB
Output power stability	± 0.3 dB
Output power adjustment range	−3.0 dB (from nominal output power, min)
Performance Parameters	

Model Number	Output Power, nominal (dBm)	Power Consumption, max (Watts)	Noise Figure, max[1] (dB)
FA3527M	8 x 18	50	6.0
FA3530M	8 x 21	40	6.5
FA3533M	16 x 21	80	6.5

NOTE:
1. Measured optically at 0 dBm input, Λ= 1550 nm in vacuum, T_A = 25°C

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ORDERING INFORMATION

| F | A | 3 | 5 | 2 | 7 | M | – | 0 | 8 | – | 0 | 0 | | A | S |

Multiport Fiber Amplifier (EDFA)

8 Ports

Reserved Fields

AS = SC/APC Connectors

Required Module Back Plate

| B | P | – | F | 1 | 1 |

(Included with module)

| F | A | 3 | 5 | 3 | 0 | M | – | 0 | 8 | – | 0 | 0 | | A | L |

Multiport Fiber Amplifier (EDFA)

8 Ports

Reserved Fields

AL = LC/APC Connectors

Required Module Back Plate

| B | P | – | F | 1 | 4 |

(Included with module)

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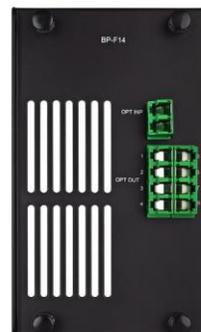
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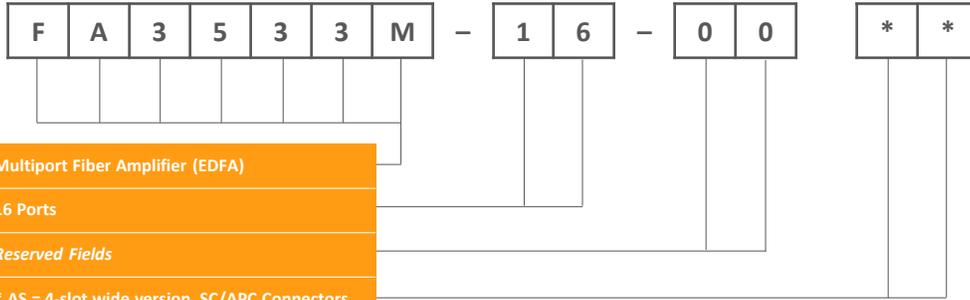
| F | A | 3 | 5 | 3 | 3 | M | – | 1 | 6 | – | 0 | 0 | | * | * |

- **Multiport Fiber Amplifier (EDFA)**
- **16 Ports**
- *Reserved Fields*
- * AS = 4-slot wide version, SC/APC Connectors,
- * AL= 3-slot wide version, LC/APC Connectors

Required Module Back Plates

| B | P | – | F | 1 | 0 |

(Included with FA3533M-16-00-AS module)

| B | P | – | F | 1 | 2 |

(Included with FA3533M-16-00-AL module)

RELATED PRODUCTS

CH3000 Chassis	Optical Patch Cords
Optical Transmitters	OR3144H
AR3044H	Installation Services

Note: Specifications are subject to change without notice.

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Customer Care

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