



## PRODUCT OVERVIEW

With up to 40dBm 1550nm total output power, these Er-Yb Doped Fiber Amplifiers are important 1550nm relay transmission equipment for high performance supertrunking links, high power distribution networks, Fiber Deep architectures and FTTx networks. The Fiber Amplifier is designed to meet the most demanding noise performance requirements of CATV and FTTx applications. It provides optical isolation on the input and output of the gain block for stable, low noise operation. The input and output optical signal power levels are detected for monitoring and control. The optical amplifier also provides monitoring functions and associated alarms for all vital characteristics. The optical output of these optical amplifiers can be split into up to 64 ports (see ordering information for appropriate model number).

## FEATURES

- High adjustable total output power: maximum 40dBm
- Fiber output supporting multi-ports: 19dBm×N or 17dBm×N
- Low NF: Typically < 5.5 dB @ +5 dBm Input
- Extremely low CSO distortion: < -70 dBc
- Dual CPU dealing with amplifier local controller and remote communication
- High stability and reliability: MTBF ≥ 150,000 hours
- Dual Hot-swappable 220 Vac / 110 Vac / -48 Vdc Power supplies as options
- Ethernet, RS-232 network interfaces
- Supporting SNMP network management
- Intelligent temperature control system: Employing special temperature control chip, radiation and power consumption can be reduced 30 %
- Small depth, fits in shallow multi-purpose cabinets for active equipment
- Built-in 1310 nm, 1490 nm, 1550 nm WDM (Optionally)
- XG(S)-PON/XGS-PON/XGSPON/XGPON 1577nm/1270nm WDM available in addition (Optionally)
- RoHS Compliant
- Bellcore GR-1312-CORE Compliant
- WDM Option for GPON/EPON OLT

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SPECIFICATIONS								
MODEL NUMBER	without WDM	FA-17/4S-*	FA-17/8S-*	FA-19/4S-*	FA-19/8S-*	FA-19/16S-*	FA-19/32S-*	FA-19/64L-*
	with WDM	FA-17/4S/P°-*	FA-17/8S/P°-*	FA-19/4S/P°-*	FA-19/8S/P°-*	FA-19/16S/P°-*	FA-19/32S/P°-*	FA-19/64L/P°-*
Wavelengths	without WDM	1550 nm (Typ.) [Min. - Max. = 1545 - 1570 nm]						
	with WDM °	1550 nm (Typ.) [Min. - Max. = 1545 - 1570 nm]						
		1310 nm (Typ.) [Min. - Max. = 1260 - 1360 nm]						
		1490 nm (Typ.) [Min. - Max. = 1480 - 1500 nm]						
Input Ports	without WDM	1× SC/APC						
	with WDM	1× SC/APC						
		4× SC/UPC	8× SC/UPC	4× SC/UPC	8× SC/UPC	16× SC/UPC	32× SC/UPC	64× LC/UPC
Output Ports		4× SC/APC	8× SC/APC	4× SC/APC	8× SC/APC	16× SC/APC	32× SC/APC	64× LC/APC
Input Power		-3 ... +10 dBm						
Output Power (per Port)		17 dBm		19 dBm				
Output Power (Total)		24 dBm	28 dBm	26 dBm	30 dBm	33 dBm	36 dBm	40 dBm
Noise Figure		< 5.5 dB @ +5 dBm Input (Typ.) [Max. = 6 dB]						
Output Power Stability		± 0.2 dB (Typ.) [Max. = ± 0.5 dB]						
Input / Output Isolation		≥ 30 dB						
Input / Output Pump Leakage		≤ -30 dB						
Return Loss		≥ 50 dB						
Polariz. Dependent Gain (PDG)		≤ 0.5 dB						
Polariz. Mode Dispersion (PMD)		≤ 0.5 ps						
PHYSICAL & ENVIRONMENTAL								
Power Supply *	AC ; DC	90 - 265 Vac, 50 / 60 Hz ; -48 Vdc						
Power Consumption		≤ 80 W						
RU form factor		1 RU (19")				2 RU (19")		
Dimensions		483 × 240 × 44 mm				483 × 240 × 88 mm		
Weight		≤ 15 kg						
Operating Temperature		-5 ... +45 °C						
Storage Temperature		-40 ... +80 °C						
Humidity		10 - 85 %						
* = Power Supply option: * = A2 (AC Dual Power Supply); * = D2 (DC Dual Power Supply); * = AD (AC & DC Power Supply)								
° = XGPON WDM option: ° = No character (No XGPON WDM); ° = X (XGPON WDM 1577nm/1270nm in addition to 1490nm/1310nm WDM)								

\* = Power Supply option: \* = A2 (AC Dual Power Supply); \* = D2 (DC Dual Power Supply); \* = AD (AC & DC Power Supply)

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ORDERING INFORMATION	
MODEL NUMBER	DESCRIPTION
FA-17/4S-*	EYDFA 1RU, 1× SC/APC IN, 4× SC/APC OUT, each 17dBm, **
FA-17/4S/P°-*	EYDFA 1RU, 1× SC/APC IN, 4× SC/UPC OLT IN, 4× SC/APC COM OUT, each 17dBm (1550nm), **
FA-17/8S-*	EYDFA 1RU, 1× SC/APC IN, 8× SC/APC OUT, each 17dBm, **
FA-17/8S/P°-*	EYDFA 1RU, 1× SC/APC IN, 8× SC/UPC OLT IN, 8× SC/APC COM OUT, each 17dBm (1550nm), **
FA-19/4S-*	EYDFA 1RU, 1× SC/APC IN, 4× SC/APC OUT, each 19dBm, **
FA-19/4S/P°-*	EYDFA 1RU, 1× SC/APC IN, 4× SC/UPC OLT IN, 4× SC/APC COM OUT, each 19dBm (1550nm), **
FA-19/8S-*	EYDFA 1RU, 1× SC/APC IN, 8× SC/APC OUT, each 19dBm, **
FA-19/8S/P°-*	EYDFA 1RU, 1× SC/APC IN, 8× SC/UPC OLT IN, 8× SC/APC COM OUT, each 19dBm (1550nm), **
FA-19/16S-*	EYDFA 2RU, 1× SC/APC IN, 16× SC/APC OUT, each 19dBm, **
FA-19/16S/P°-*	EYDFA 2RU, 1× SC/APC IN, 16× SC/UPC OLT IN, 16× SC/APC COM OUT, each 19dBm (1550nm), **
FA-19/32S-*	EYDFA 2RU, 1× SC/APC IN, 32× SC/APC OUT, each 19dBm, **
FA-19/32S/P°-*	EYDFA 2RU, 1× SC/APC IN, 32× SC/UPC OLT IN, 32× SC/APC COM OUT, each 19dBm (1550nm), **
FA-19/64L-*	EYDFA 2RU, 1× SC/APC IN, 64× LC/APC OUT, each 19dBm, **
FA-19/64L/P°-*	EYDFA 2RU, 1× SC/APC IN, 64× LC/UPC OLT IN, 64× LC/APC COM OUT, each 19dBm (1550nm), **

\*(\*\*) = Power Supply option: \* = A2 (\*\* = AC Dual Power Supply); \* = D2 (\*\* = DC Dual Power Supply); \* = AD (\*\* = AC & DC Power Supply)

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