Ver. 2.1sb

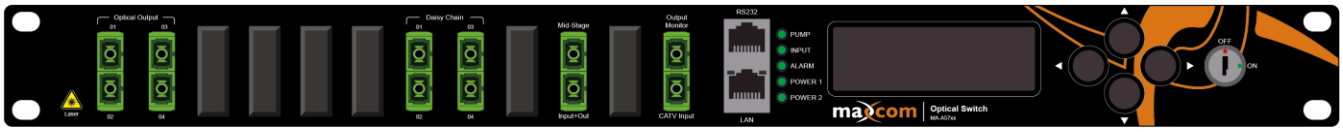
1550NM

ERBIUM DOPED FIBER AMPLIFIER

MXA-57 SERIES IN-LINE EDFA

WITH MID-STAGE ACCESS

TECHNICAL SPECIFICATION



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PRODUCT DESCRIPTION

The Maxcom MX-A57 Series Erbium Doped Fiber Amplifier (EDFA) has been designed for single wavelength applications in a Cable TV telecommunications network. The EDFA is suitable for long haul transmission networks. This EDFA is designed as an In-Line Amplifier and is typically placed mid-way along a fiber route. Its purpose is to extend the 1550nm Signal transmission distance.

This Maxcom optical amplifier is packaged in a 19", 1 RU rack mount housing. Units come standard with dual reliable hot swapable power supplies. AC or -48 VDC power are available. Built for networks where reliability matters.

The MX-A57 series is an In-Line EDFA with a gain spectrum band within 1540~1562nm. It is designed for the application of single channel wavelength. The MX-A57 amplifier is featured with low NF and high-saturated output power. The MX-A57 is widely compatible with other EDFA's and Transmitters in a telecommunication system.

The Maxcom MX-A57 is equipped with a Mid-Stage Access (MSA) feature and produced specially for Dispersion Compensation over long distance links. The EDFA is equipped with a lower noise per-amplifier (PA) and booster amplifier (BA). There are access connectors between these two amplifiers and thus the dispersion compensation module (DCM) can be added externally as desired by the user.

Optional Daisy Chain Ports are available (4 Daisy Chain Ports @ +8 dBm each)

The output power is adjustable. Users can adjust the output power with ±0.2dB stepping up to -6 dB attenuation using the front panel button.

The MX-A57 works using APC control. Designed for excellent ventilation and heat-dissipation to ensure long life and exceptionally reliable operation of the pump laser.

The LCD at the front panel offers equipment status and warning alarms. Maxcom EDFA's are also equipped with SNMP and Web access and come standard with monitoring ports. The laser will switch to a stand-by position automatically if optical power is lost, which offers protection for the laser.

Technique index

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	Wavelength range	(nm)	1540		1562	CATV
	Input power	(dBm)	-10	+2	+10	
	Mid-Stage Access loss range (MSA)	(dB)	0		15	
	Maximum output power(1)	(dBm)	+16		+28	Based on Model #
	Output power adjustable	(dBm)	-6		0	
	Number of output ports	Quan	1 standard output (additional available)			1 standard 4 or 8 optional
	Daisy Chain Ports (Optional)	(dBm)	4 ports @ +8 dBm each			Optional Feature
	Fiber ports	Type	SC/APC			(Or customer specified)
	Noise figure (Max output, Max gain)	(dB)	5	5.8	6.3	Based on gain between +17 and +26 dBm
	Polarization dependence loss	(dB)			0.3	
	Polarization dependence gain	(dB)			0.5	
	Polarization mode dispersion	(ps)			0.3	
	Input/output isolation	(dB)	30			
	Pump power leakage	(dBm)			-30	
	Echo loss	(dB)	55			APC
General feature	SNMP network		RJ45			
	Serial interface		RS232			
	Power supply (Dual Hot Swappable)	(V)	90		265	AC standard
			30		72	-48VDC optional
	Power consumption	(W)			100	
	Operating temp.	(°C)	0		65	
	Storage temp.	(°C)	-40		80	
	Oper. Relative Humidity	(%)	5		95	
	Size (W)×(D)×(H)	(")	19×14.5×1.75			1RU (19")

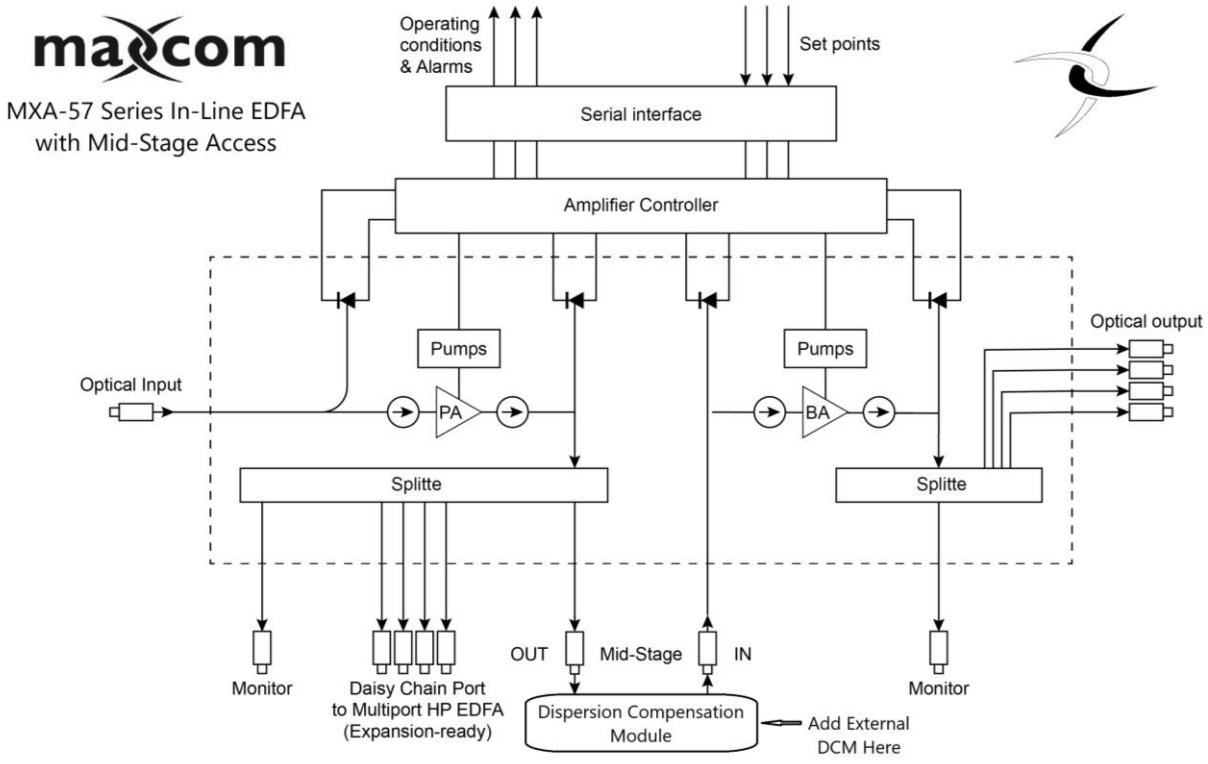
Remark 1: User may customize output power

Software Functions, Monitors and Alarms

Monitors	Total input power
	Total output power
	Pump status
	Chassis temperature
Alarms	Loss-of-signal alarm
	Chassis temperature alarm
	Pump temperature alarm
	Pump bias alarm

INTERNAL DESIGN EXAMPLE

Example diagram below shows (4) Daisy Chain Ports, (4) Output Ports, Mid-Stage Access Ports



DISPERSION COMPENSATION

As shown in the example diagram above, an External Dispersion Compensation Module can be added using the Mid-Stage Connectors. Maxcom offers Dispersion Compensation Modules ranging from 20 to 120 km in increments of 20. Information on Maxcom Dispersion Compensation Modules (DCM) can be found by clicking the following link: Maxcom DCM

Model Number Ordering Matrix

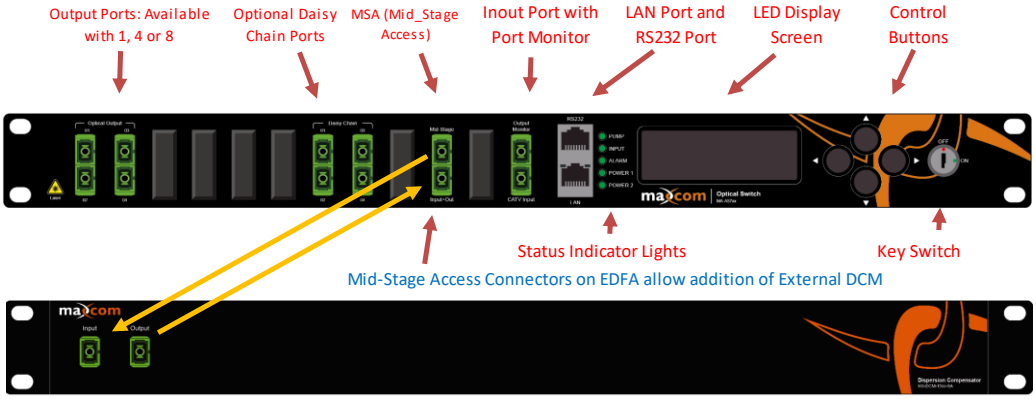
MXA	5	7	□□-	□ -	□□ -	□□ -	□□
Product Series	Operating Wavelength	Production Type	Total Output Power (dBm)	Number of output ports	Daisy Chain Ports	Optical Connector type	Dual Hot Swappable Power Supplies
Model Series	**5** 1540-1563nm	**7** MSA Line-Amp	**16** 16 dBm	**1** 1 ports	**D0** No Daisy Chain Ports	**LA** LC/APC	**11** 110VAC
			17 17 dBm	**4** 4 ports	**D4** (4) Daisy Chain Ports	**SA** SC/APC	**22** 220/240 VAC
			18 18 dBm	**8** 8 ports			**48** -48VDC
			19 19 dBm				**41** (1) AC PS & (1)-48VDC
			20 20 dBm				
			21 21 dBm				
			22 22 dBm				
			23 23 dBm				
			24 24 dBm				
			25 25 dBm				
			26 26 dBm				
			27 27 dBm				
			28 28 dBm				

Standard Features:

- SC/APC Connectors
- Output Monitor port - Included
- Adjustable Output feature - Included
- Dual Hot Swappable Power Supplies
- SNMP - Web GUI access- Included
- Mid-Stage Access Connectors
- Unit Size - 1RU standard

Optional Features:

- (4) Daisy Chain ports @ +8 dBm each



Example of External DCM (Dispersion Compensation Module)

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