

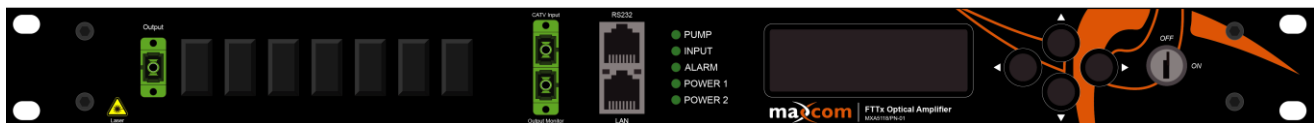


1550NM ERBIUM DOPED FIBER

AMPLIFIER · MX-A41 SERIES

DATA VERSION

EDFA TECHNICAL SPECIFICATION



PRODUCT DESCRIPTION

The Maxcom MX-A41 Data Series Erbium Doped Fiber Amplifier (EDFA) has been designed for single wavelength applications in a telecommunications network. The EDFA is suitable for long haul transmission networks. This EDFA is designed as a booster amplifier and is typically placed on the transmitter side of a network. Its purpose is to extend the transmission distance of the transmitter, system ranges of over 200 km are possible when using this EDFA.

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


The MX-A41 series is a booster EDFA with a gain spectrum band within 1529~1562nm. It is designed for the application of single channel wavelength. The MX-A41 booster amplifier is featured with low NF and high-saturated output power. The MX-A41 is commonly applied and is widely compatible with other EDFA's and Transmitters in a telecommunication system operating in the 1529~1562nm range.

The MX-A41 Data series EDFA's are high performance and designed for telecommunication data signals. Maxcom's 1550 optical amplifiers incorporate world class pump lasers and American OFS erbium-doped optical fiber components. Excellent APC, ACC and ATC control, superb design in the ventilation and heat-dissipation 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)	1529		1562	C-Band
	Input power	(dBm)	-21	-16	0	"D" Data version
	Maximum output power ¹⁾	(dBm)	0		+14	Pin= -18dBm (based on model#)
	Output power adjustable	(dBm)	-6		0	MXA4100/P
	Number of output ports	Quan	1 standard output (additional available)			1 standard 2,4,8,16,32 optional
	Fiber ports	Type	SC/APC			(Or customer specified)
	Noise figure	(dB)			6.3	Max output/gain
	Polarization dependence	(dB)			0.3	
	Polarization dependence	(dB)			0.3	
	Polarization mode	(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	120VAC standard
			30		72	-48VDC optional
	Power consumption	(W)			100	
	Operating temp.	(°C)	-5		55	-20 to +65C Extended Option Available
	Storage temp.	(°C)	-40		80	
	Oper. Relative Humidity	(%)	5		95	
Size (W)×(D)×(H)	(")	19×14.5×1.75			1RU (19")	

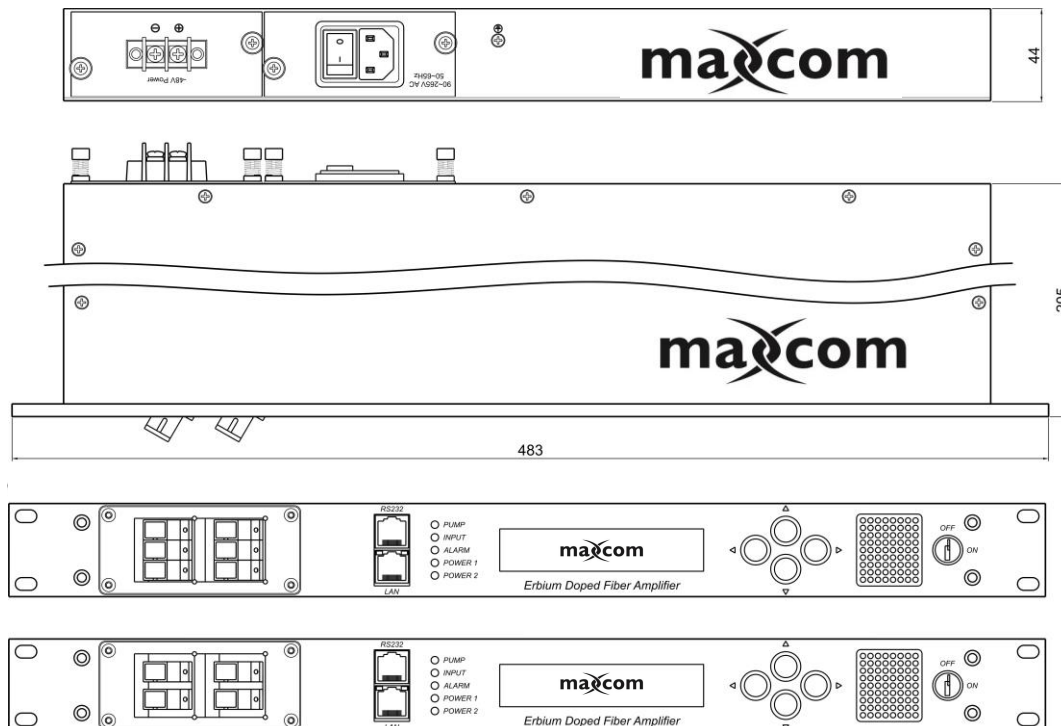
Remark: User may customize output power

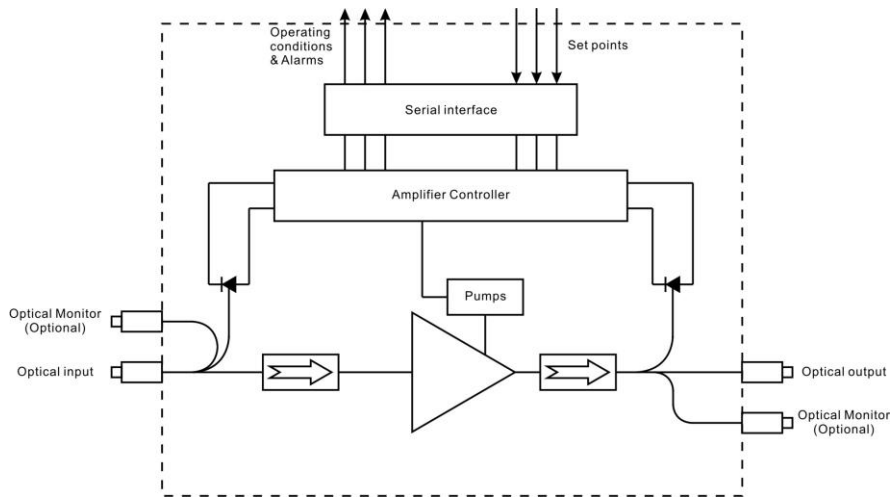



Software Functions, Monitors and Alarms

Functions	In service firmware upgrades
	Auto shut down when loss of input
	Fixed Gain Control mode and Power limiting (FGA)
	Output power control mode (APC)
	Pump current control mode (ACC)
	Pump Maximum Working Current Limit Protection
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

TYPICAL DESIGN EXAMPLE





EDFA Model Number Ordering Matrix

MXA-	4	1	□□	□□ -	□□	-□	-□							
Product Series	Operating Wavelength	Production Type		Saturation Output Power (dBm)		Output Port Connector type		Power Supply		Operating Temperature (Celsius)		Number of output ports		
Model Series	4	1529-1562nm (C-Band)	1	Booster Amp	00	0 dBm	SA	SC/APC	11	110VAC	A	Standard -5 to +55	1	Single Output
					05	5 dBm	LA	LC/APC	22	220VAC	E	Extended -20 to +65	2	Dual Output
					10	10 dBm	FA	FC/APC	48	-48VDC			*	Custom number of outputs
					14	14 dBm			42	-48VDC & AC				



Please consult with your Maxcom Rep for ordering options

Output Monitor port - Included
 Adjustable Output feature - Included
 Dual Hot Swappable Power Supplies - Included
 SNMP - Web GUI access- Included

All units come **standard** with SC/APC connectors for **input, output, and monitor ports**. Specify alternative connector types
 Standard Dual AC powering, or specify as needed.

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