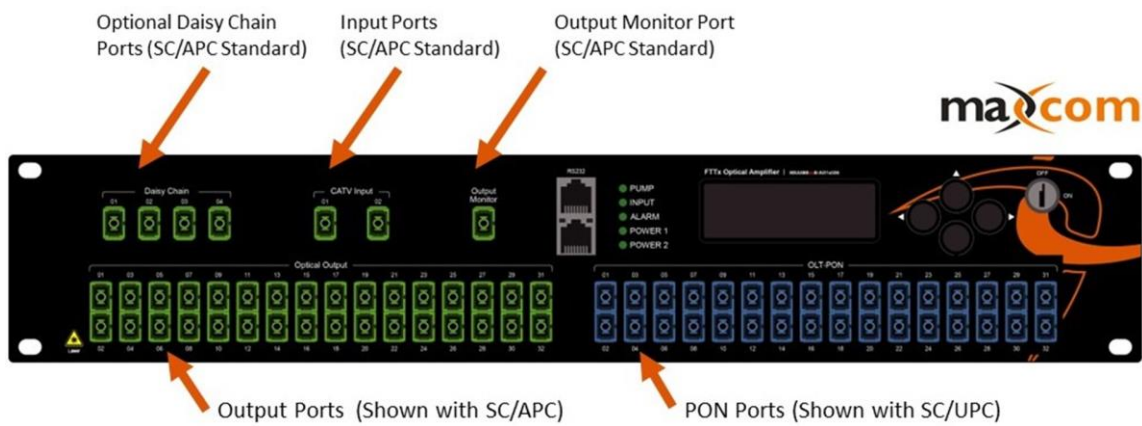


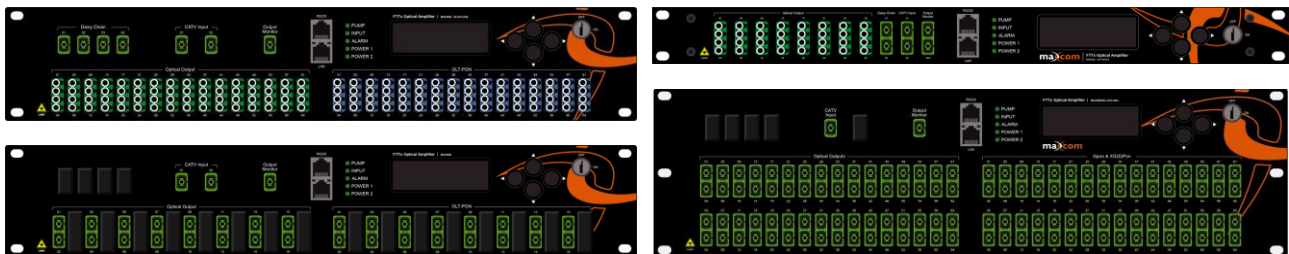


## 1550 NM CATV EDFA· MXA5 SERIES

Multiple configurations available with PON ports supporting 1270, 1310, 1490, 1577, 1610nm wavelengths



Example Illustrations of Multiple MXA5 EDFA Configurations:



\*Also available without PON ports



Legendary Reliability and Performance



## PRODUCT SUMMARY

The MXA5 series is a low noise, high performance, FTTx high power multi-port optical amplifier with a gain spectrum band within 1540~1563nm. Each output port for the optical amplifier has built-in high performance CWDM PON port to conveniently connect with an OLT. Each of the 1550nm (CATV)'s output optical ports will multiplex 1310/1490nm and 1270/1577nm wavelengths from an external OLT, reducing the quantity of the components and improving the performance and reliability of the system. Models are also available with an option to pass 1610nm RFoG wavelengths.

The MXA5 Series has an extremely low noise figure. The unit adopts twin-stage amplification, the pre-amplifier adopts a low noise EDFA, and the output cascade adopts high power EYDFA technology. When the input optical power PIN is 0dBm, the noise figure of the unit is: Typ  $\leq 4.5$ dB, Max  $\leq 5.0$ dB unlike other manufactures which need higher optical power input to maintain lower noise figures.

The MXA5 Series optical amplifier incorporates world class pump lasers and American made OFS erbium-doped optical fiber. Superb APC, ACC, and ATC control, coupled with excellent design in the ventilation and heat-dissipation ensure a long life and exceptionally reliable operation of the pump laser. RS232 and RJ45 offer serial communication and SNMP network management ports.

The MXA5 Series LCD located on the front panel offers access to all equipment indexes and warning alarms. A WEB GUI interface is also available for operators preferring remote access and visibility.

Maxcom EDFA's offer a flexible wide range optical input between -5 to +10 dBm.

For safety and protection of the laser components, the laser will automatically switch off if input optical power is interrupted.

The MXA5 Series offers carrier-class reliability and network security management, high quality, superb reliability, and excellent cost performance are ideal for system integrators and system operators.

The MXA5 Series optical amplifiers are available with output power of +15 to +23 dBm per output port. Standard units come in 4, 8, 16, 32, and 64 port configurations. Units come with xPON ports to match the number of output ports. Optional daisy chain ports are also available providing for simple scalability as your network grows.

The MXA5 Series is also available with a built in 2x1 optical switch with auto detection and switching when two optical inputs are used in cases where fiber route redundancy is critical.

Fiber connector types may be customized for operator requirements using SC/APC, SC/UPC, LC/APC, and LC/UPC

All MXA5 Series EDFA's come equipped with Dual Hot Swapable AC or DC power supplies.





Performance Specifications

		Index			Supplemental	
		Min.	Typ.	Max.		
Optical features	CATV operation wavelength	(nm)	1540		1563	CATV
	OLT pass wavelength	(nm)		1310/1490 1270/1577	1610nm	GPON XGSPON
	CATV pass wavelength loss	(dB)			0.8	1550nm
	OLT pass wavelength loss	(dB)			0.8	1310/1490nm 1270/1577nm
	CATV & OLT isolation	(dB)	40			
	Number of uplink optical ports (for OLT)	(pcs)	4		64	Based on Model
	CATV input power	(dBm)	-5		+10	
	Output power per port	(dBm)	15		23	Based on Model
	Number of output ports	(pcs)	4	32	64	Based on Model
	Difference of each output power	(dB)	-0.5		+0.5	
	Output optical power monitoring	(dB)		-20		
	Output power adjustable range	(dBm)	-6		0	
	Daisy Chain Output Power (per port)	(dBm)	+11	+12	+12.5	Fixed Value, Optional
	Number of Daisy Chain port		1		4	Optional
	Noise figure	(dB)	4.0	4.5/5	6.0	
	Switch time (with auto optical input switch)	(ms)			8.0	
General features	Network management interface		WEB			RJ45, SNMP Optional
	Serial interface		RS232			Optional
	Power supply	(V)	90		265	110VAC
			36		72	-48VDC
	Power consumption	(W)			84	
	Operation temp.	(°C)	-5		65	
	Storage temp.	(°C)	-40		80	
	Relative humidity	(%)	5		95	
Size (W)×(D)×(H)	(") mm	19×14.7×3.5 482.6x300x88mm				Standard 2 RU Model

# EDFA Model Number Ordering Matrix-North American Market

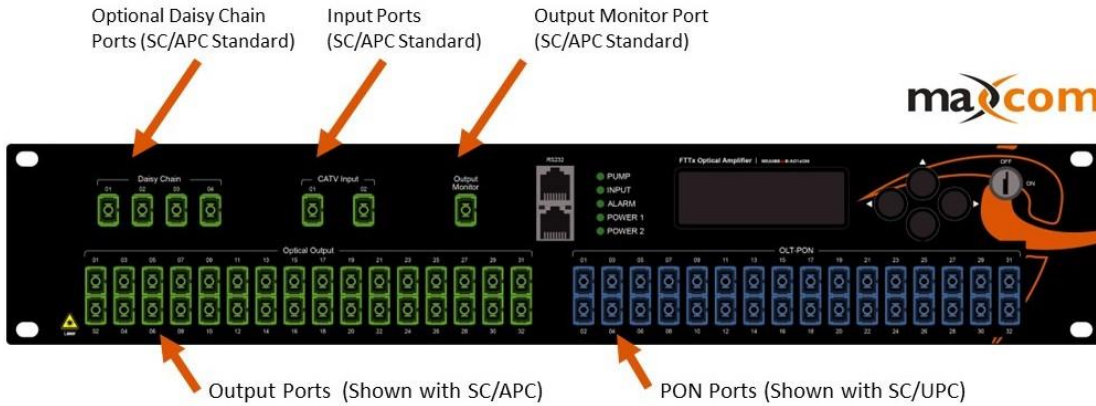
Fill in the  boxes with the preferred options from

MXA-	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>										
Product Series	Operating Wavelength	Production Type	WDM PON Port Configuration		Output Power (dBm) per port		Exterior		Number of Input Ports		Number of output ports		Output Port Connector type		PON Port Connector type		Power Supply		Daisy Chain Ports +12 dBm ea.			
Model Series	5	1540-1563nm	8	FTTx PON EDFA	B	Combo GPON & XGSPON 1270/1310/1490/1577 Pass	17	17	A	1RU	1	Single Input (without switch)	004	4 ports	LA	LC/APC	LP	LC/UPC	11	110VAC	D	4 Daisy Chain ports
			4	NO WDM PON ports	C	Separate GPON & XGSPON Ports. Port 1 = 1310/1490 Pass Port 2 = 1270/1577 Pass	21	21	B	2RU	2	Dual Input (With Switch)	008	08 ports	SA	SC/APC	SP	SC/UPC	22	220VAC	Blank	No Daisy Chain ports
						**	Custom dBm		C	3RU			016	66 ports			LA	LC/APC	48	-48VDC		
							Available Output Power Range: +15 to +23 dBm						032	32 ports			SA	SC/APC	42	-48VDC &		
													064	64 ports								

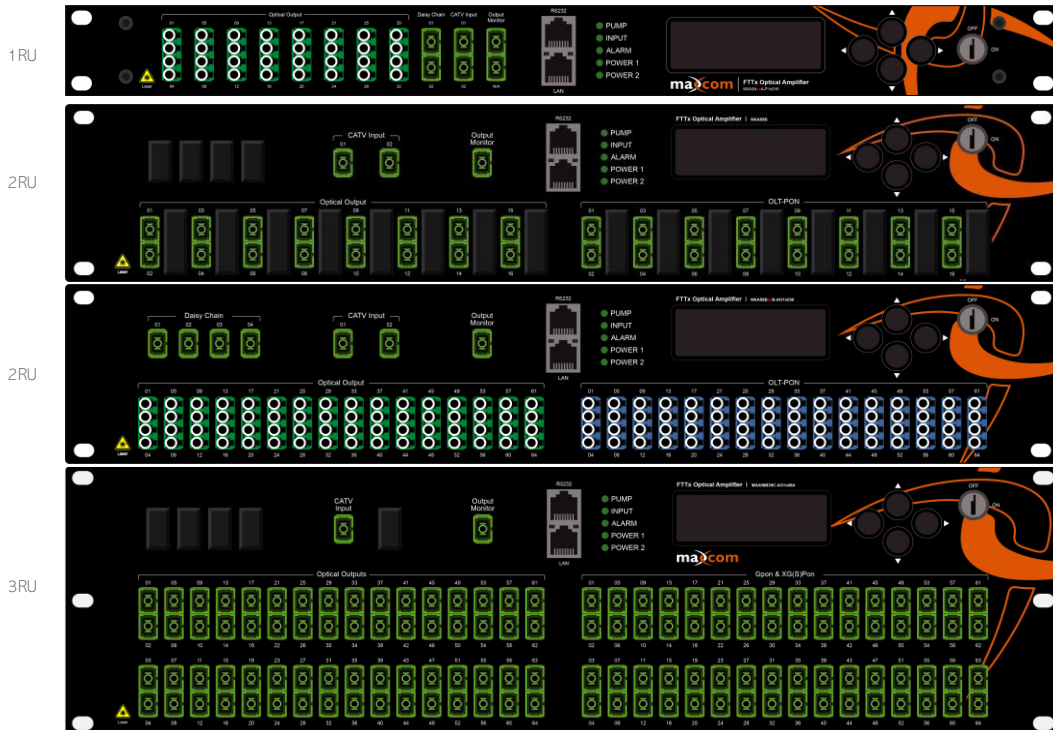
Please consult with your Maxcom Rep for ordering options, \*Note - Some options only available of certain chassis or models

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

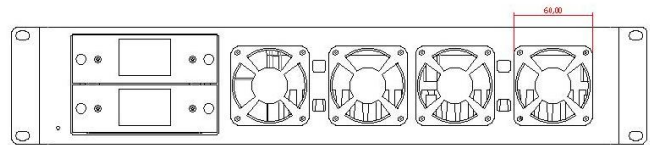
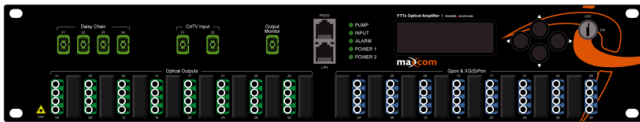
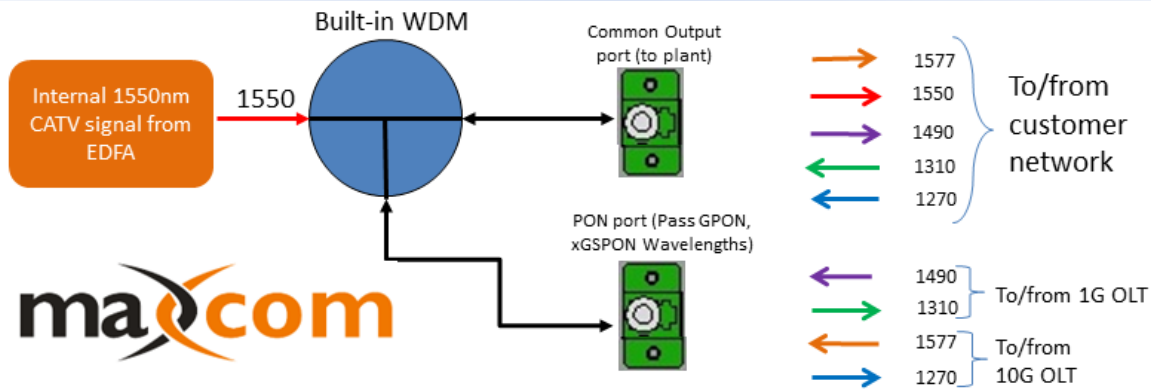
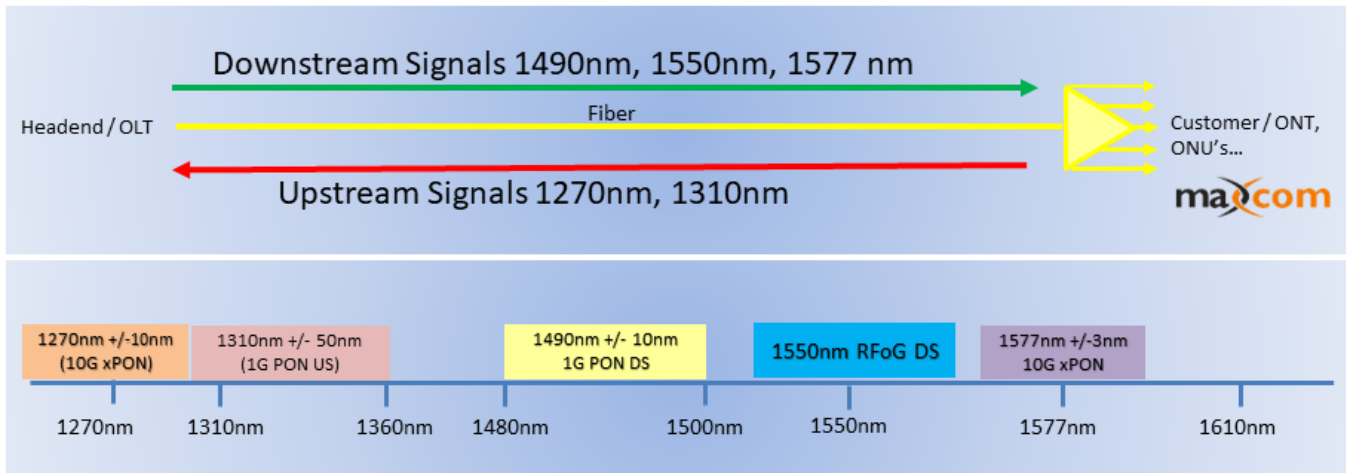
All units come standard with SC/APC connectors for input, monitor, and daisy chain ports. Output ports come standard with SC/APC PON ports come standard with SC/APC



Example Illustrations of various configurations of EDFA's available



## WAVELENGTH DETAIL for GPON, xGPON, and RF Overlay:



**Warranty** Maxcom provides a 2-year warranty on the MXA5 series EDFA. Warranty is from date of purchase. Additional warranty details are available from Maxcom or your Sales Partner.

All products mentioned in this data sheet are the property of Maxcom Corp and their respective companies.

\*All product, product specifications and data are subject to change without notice to improve reliability, function, design or otherwise.

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