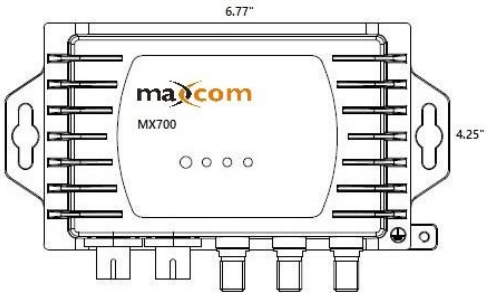
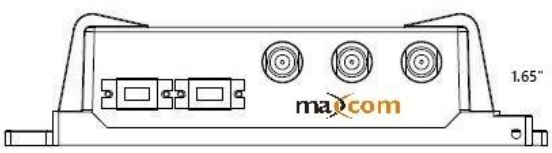
The Maxcom MX700-1 series receivers are ideal for use in fiber to the home and fiber to the business applications. A perfect platform for delivering downstream video service over FTTX applications. They are designed compliant to industry standards with PON transmission modes, they include an optical WDM MUX for pass through of the XPON downstream and upstream wavelengths between 1310 and 1490nm *PON pass through port may also be configured to pass XGS-PON wavelengths 1270 & 1577nm as an option. It can be used to overlay RF based services on to an existing PON network or expand an RF network with services delivered with GPON and XGS-PON transmission modes. The device uses a single fiber and receives downstream signals at 1550nm and offers a second port that is used to pass PON wavelengths to the GPON or XGS-PON ONU. Built with maximum toughness and the best warranty in its class.

Receiver Features

1. CATV single fiber port, w/ additional port for PON pass through
2. Internal WDM to pass PON wavelengths of 1310nm and 1490nm, *1270/1577nm XGS-PON wavelength option are also available (see modeling matrix last page).
3. Superior proven technologies for both the RF amplification and optical components
4. AGC for consistent RF level outputs (17, 20, 30, and 36 dBmV output versions available)
5. Low power consumption, compact in size, built tough, with Max reliability
6. Follows SCTE standards





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Specifications

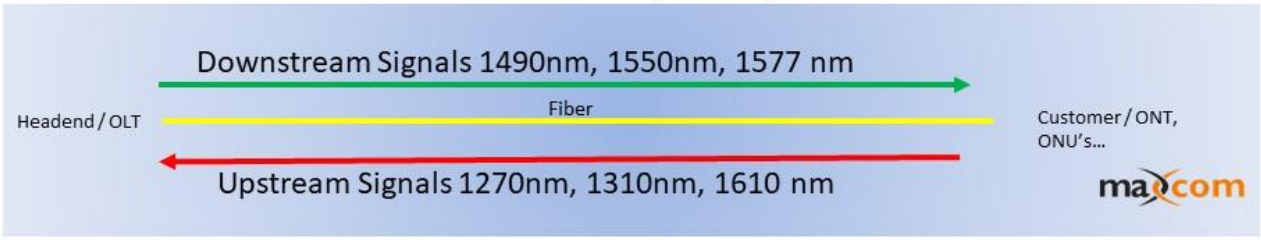
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
General Optical for Units ordered with PON pass through port					
Drop Wavelength Band- Forward	*Wavelength used for RF signal	1540	1550	1560	nm
Add Wavelength Band- Return		1600	1610	1620	nm
Pass Wavelength 1 - Forward	*GPON wavelength option	1475		1500	nm
Pass Wavelength 2 - Forward	*XGS-PON wavelength	1560		1600	nm
Pass Wavelength Band- Return	*For PON & XGS-PON wavelengths option	1260		1360	nm
Pass Band Insertion Loss				1	dB
Pass to Add-Drop Crosstalk	Both directions	35			dB
Forward to Return Crosstalk	Both directions	35			dB
Forward Receiver					
Optical Wavelength	*1270~1620 if no PON port	1540	1550	1560	nm
Monitor Voltage	λ=1550		1		V/mW
Optical Input Power	Optical AGC / Continuous	-6	-1	+2	dBm
Bandwidth	Optional 1.2 GHz	54		1002	MHz
Flatness of Frequency Response	f=54 to 1002MHz		±0.75	±1	dB
Output Return Loss		14	16		dB
Standard Reference Output Level w/AGC when optical input is between -6 and +2 dBm *(may be ordered w/ 20, 30 or 36dBmV output versions)	(Note 1) @ 3.5% OMI per Ch.		*20		dBmV
Standard Reference Output Level w/AGC when optical input is between -6 and +2 dBm *(may be ordered w/ 20, 30 or 36dBmV output versions)	(Note 1) @ 2.7% OMI per Ch.		*17		dBmV
Slope	Custom options available		5		dB
Optical Input Return Losses		45			dB
C/N	(-1dBm optical input, 3.5% OMI/ch, 79ch NTSC, Digital ch above 550MHz at -6dB offset)	50			dB
CTB				-65	dB
CSO				-60	dB
Equivalent Noise Input	f=55MHz			7	pA/Hz
General Parameters					
Total Current Consumption (DC)	*W/12VDC Power Adapter*		*260*		*mA*
Temperature Range in Fahrenheit degrees		*-*40*		*+149*	*₀F*

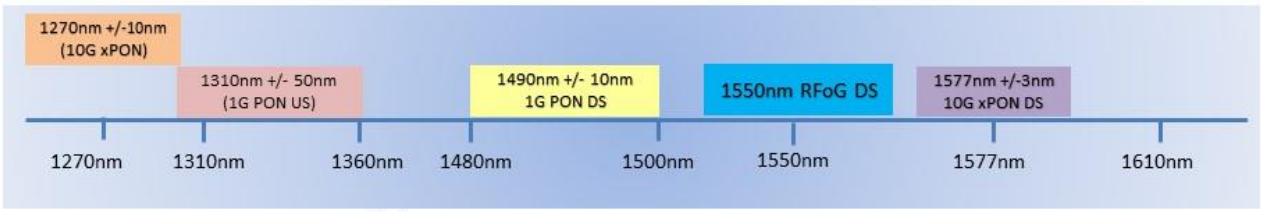
Note 1: Power output is measured at 1002MHz.

With PON Port

Receiver only

WAVELENGTH DETAIL for GPON, xGPON, and RFoG:





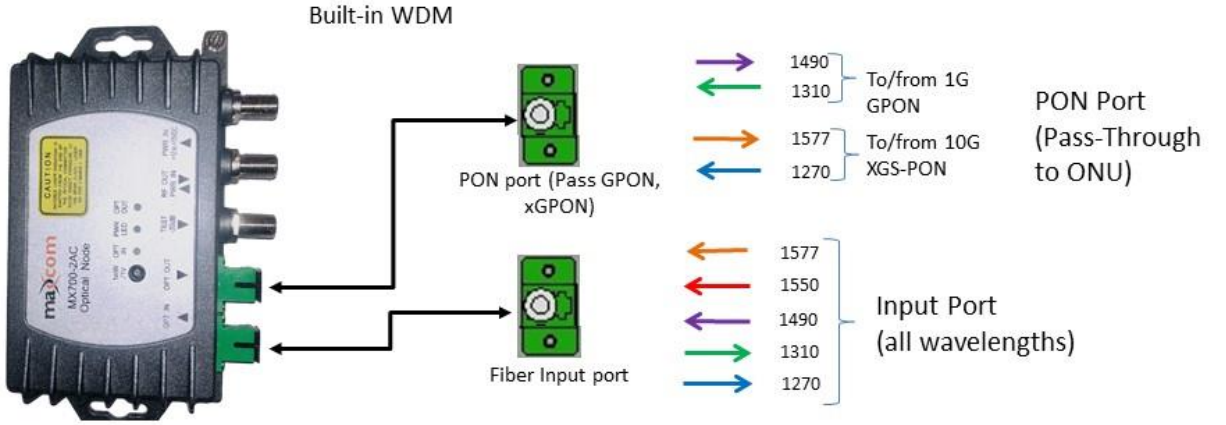
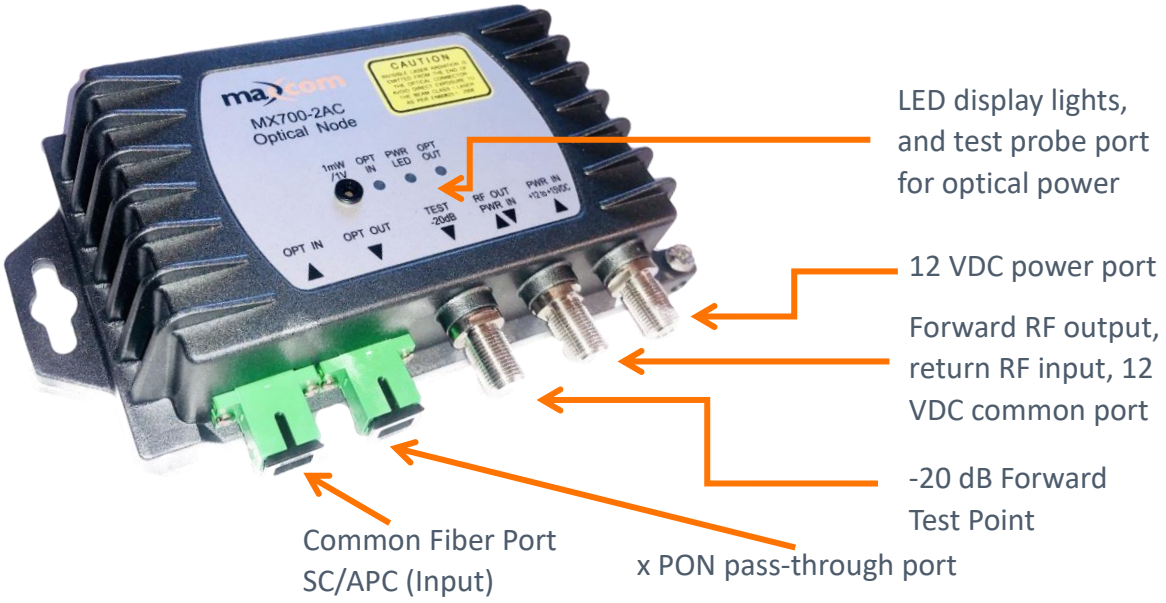


Diagram of MX700-1series

Power Supply included



Maxcom Mini Optical Receiver Modeling Matrix

Maxcom Mini Optical Receiver Series		Forward Output Level		Optical Connector		Power Adaptor		Forward Frequency	
MX700-1 (A=AGC on forward path, GP and XGSP=PON port configuration)		- XX①		- XX		- XX		- XX	
MX700-1	Single fiber input	**20**	20dBmV	**SA**	SC/APC	**00**	None	None	1000MHz
		36	36dBmV			**01**	North America	1.2G	1220MHz
MX700-1A	Single fiber input with AGC							2.6G	2600MHz
								3.0G	3000MHz
MX700-1-GP	One fiber input, a 2nd fiber for GPON port (pass 1310 & 1490nm wavelengths)								
MX700-1A-GP	One fiber input with AGC, a 2nd fiber for GPON port (pass 1310 & 1490nm wavelengths)								
MX700-1-XGSP	One fiber input, a 2nd fiber for GPON & XGSPON port (pass 1310 & 1490nm GPON wavelengths and 1270 & 1577nm wavelengths)								
MX700-1A-XGSP	One fiber input with AGC, a 2nd fiber for GPON & XGSPON port (pass 1310 & 1490nm GPON wavelengths and 1270 & 1577nm wavelengths)								

Note: the series (XGSPON) model is equipped with xPON fiber port with internal optical filter that is configured for wavelengths supporting 1550 forward path RX, and PON port supporting both 10G XGSPON wavelengths of 1270nm and 1577nm, in addition to GPON 1310 and 1490nm wavelengths. The node is compatible with both 1G EPON and 10G EPON

All versions standard with SC/APC optical connectors, North American Power Adapter

Note:① Please specify RF output levels

Contact a Maxcom Sales Representative for customer requested custom orders 209-339-2333

Maxcom carries a full line of Optical Products and CATV Products supporting RFoG. Transmitters, Receivers, Optical Jumpers and Passives. Contact us at 877-330-5333 or visit our website at www.maxcomcorp.com and let us assist with answering any questions or providing technical support.

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