The Maxcom MX700-3 series ONU's are ideal for use in fiber to the home and fiber to the business applications. A perfect platform for delivering upstream and downstream DOCSIS, voice, video, and high-speed data service over FTTX applications. They are designed compliant to industry standards to terminate an RF over Glass (RFoG) communications network. The standard model uses a single fiber and receives downstream signals at 1550nm and uses a 1610nm isolated DFB return transmitter. Built with maximum toughness and the best warranty in its class.

The MX700 series may be ordered with various features and options. Single and Dual fiber models are available, and PON pass through ports are optional. Various optical wavelengths may be ordered for the forward and return optics. Contact Maxcom to learn about these and other options.

ONU Features

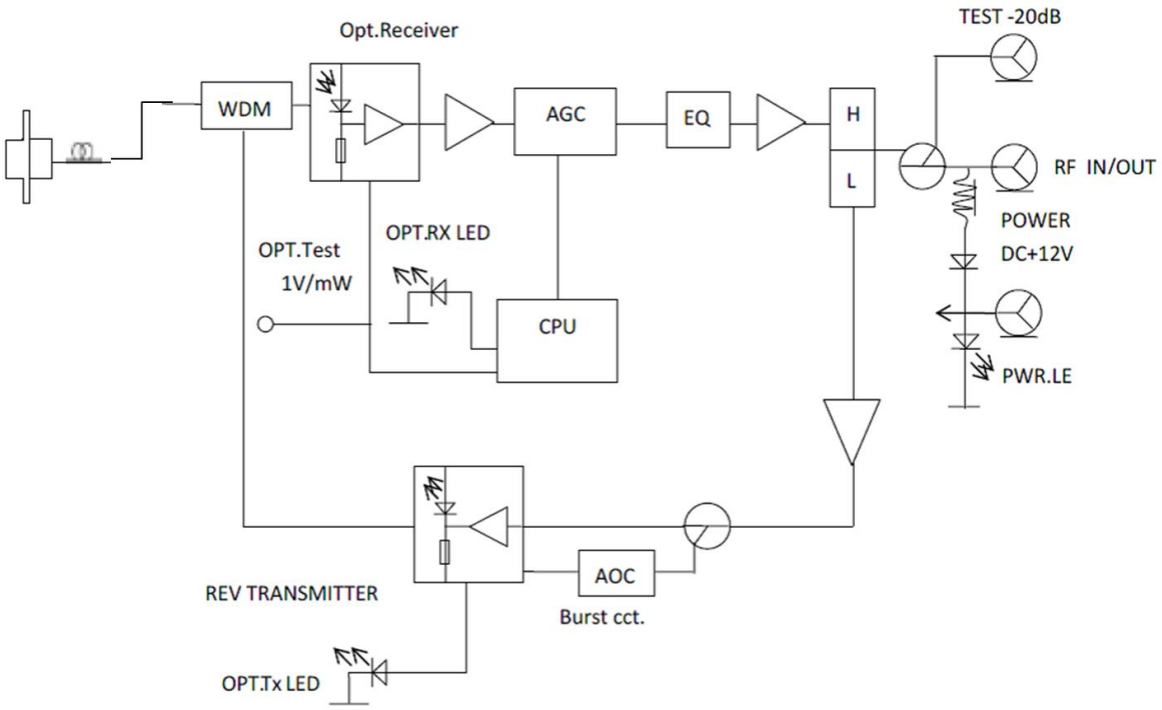
1. CATV Bi-directional single fiber port
2. Burst mode operation – Isolated DFB Lasers for improved stability to reduce OBI
3. Superior proven technologies for both the RF amplification and optical components
4. AGC for consistent RF level outputs (20 dBm standard) with 36 dBmV output versions available
5. Automatic Optical Control is designed to reduce return noise effectively.
6. Low power consumption, compact in size, built tough, with Max reliability
7. Follows SCTE 174 standards

Specifications

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Receiver					
Optical Wavelength	* 1525~1565nm When ordered w/ E53 option	1540	1550	1565	nm
Monitor Voltage	λ=1550		1		V/mW
Optical Input Power	Optical AGC / Continuous	-6	-1	+2	dBm
Bandwidth	Alternate Options avail. 54/85/102/258 MHz to 1218 MHz	54		1218	MHz
Flatness of Frequency Response	f=54 to 1218MHz		±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.		*20		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
Return Transmitter					
Optical Wavelength	1610nm Standard. Available with 1310nm	1600	1610	1620	nm
Optical Output Power	w/ 2mW Isolated DFB laser	2	3	4	dBm
Dynamic Input Range	NPR ≥38		20		
RF Input Level	Typical 20-40	20	30	40	dBmV
Bandwidth	Expanded options available 5 MHz to 42/65/85/204 MHz	5		42	MHz
Flatness of Frequency Response	f=5 to 42MHz		±0.75	±1	dB
Input Return Loss	f=5 to 42MHz	14	16		dB
Optical Output Return Loss		45			dB
Optical Laser turn ON Level	Follows SCTE 174 (Note 2)	13	15		dBmV
Optical Laser turn OFF	Follows SCTE 174 (Note 2)		-5		dBmV
Laser Rise Time to 90% optical ON				1.3	μs
Laser Fall Time for optical to 10%				*1.6*	*μs*
General Parameters					
Total Current Consumption (DC)	*W/12VDC Power Adapter*		*4.2*		*W*
Temperature Range in Fahrenheit degrees		*-40*		*+149*	*°F*
Dimensions (includes connectors)	*Width x Height x Depth*	*6.77”*	*4.25”*	*1.65”*	*Inch*

Note 1: Power output is measured at 1218MHz.

Note 2: Burst mode parameter may be adjustable according to customer's request



Functional Diagram of MX700-3 series ONU

Maxcom Mini Optical Node Modeling Matrix

Maxcom Mini Optical Node Series	
MX700-XXX (A=AGC on forward path, C=Burst mode return laser)	
MX700-2	Dual fiber I/O
MX700-3	Single fiber I/O
MX700-4	One fiber I/O, a 2nd fiber for PON port
MX700-2C	Dual fiber I/O, burst mode on the return path
MX700-3C	Single fiber I/O, burst on the return path
MX700-4C	Single fiber I/O, a 2nd fiber for PON port, burst on the return path
MX700-2AC	Dual fiber I/O, burst mode on the return ,AGC on the forward path
MX700-3AC	Single fiber I/O, burst on the return, AGC on the forward path
MX700-4AC	One fiber I/O, a 2nd fiber for PON port, burst on the return, AGC on the forward path
MX700-X10AC	One fiber I/O, a 2nd fiber port for GPON & XG(S)PON, burst on the return, AGC on the forward path

Forward Output Level		Return Input Level	
XX①		XX②	
17	17dBmV	20	20dBmV
20	20dBmV	25	25dBmV
25	25dBmV	28	28dBmV
36	36dBmV	30	30dBmV
		35	35dBmV

Laser Type	
X	
F	FP
D	DFB
I	Isolated DFB

Tx. Optical Power	
X	
1	1mW
2	2mW
3	3mW

Optical Connector	
XX	
SA	SC/APC

Transmitter wavelength	
XXXX	
1310	1310nm
1470	1470nm
1490	1490nm
1510	1510nm
1530	1530nm
1550	1550nm
1570	1570nm
1590	1590nm
1610	1610nm

Sub Split	
XX③	
34	30/47
45	42/54
57	55/70
68	65/85
81	85/102
22	204/258

Power Adaptor	
XX	
00	None
01	North America

PS Included

Forward Frequency	
XX	
None	1000MHz
1.2G	1220MHz
2.6G	2600MHz
3.0G	3000MHz

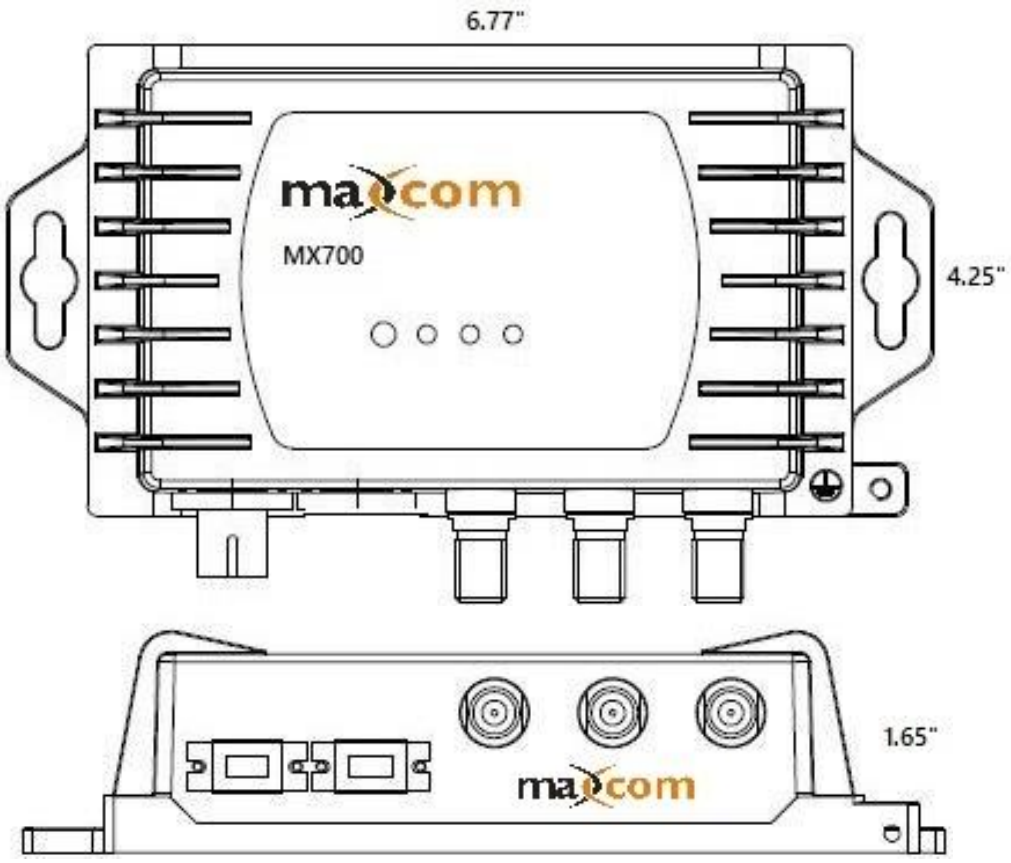
Options	
XXX	
00	None
E53	Extended input RX wavelength 1525~1565nm

* Note: the series (4) model is equipped with PON fiber port with internal optical filter that is configured for default standard wavelengths supporting 1550 forward path RX, 1610 return TX, and PON port supporting 1310 and 1490nm wavelengths

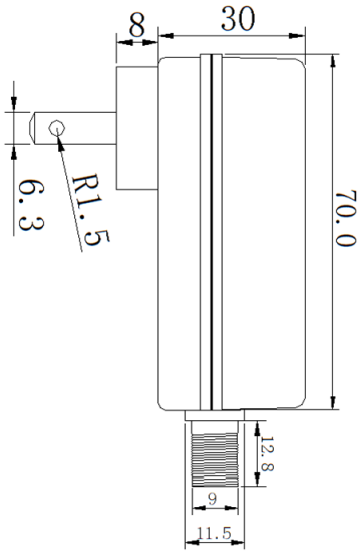
* Note: the series (X10) model is equipped with xPON fiber port with internal optical filter that is configured for default standard wavelengths supporting 1550 forward path RX, 1610 return TX, and PON port supporting both 1 G and 10G PON wavelengths of 1270nm and 1577nm, and 1310 and 1490nm wavelengths. The node is compatible with both 1G GPON and 10G XG(S)PON

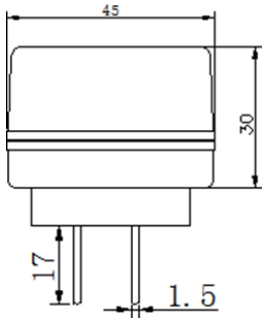
All versions standard with SC/APC optical connectors, North American Power Adapter

Note:①② Please specify levels not included in the Matrix. Note ③ sub split may be customized to customer requirement



Power supply included





Maxcom carries a full line of Optical Products and CATV Products supporting RFoG. Transmitters, Receivers, Optical Jumpers, and Passives.