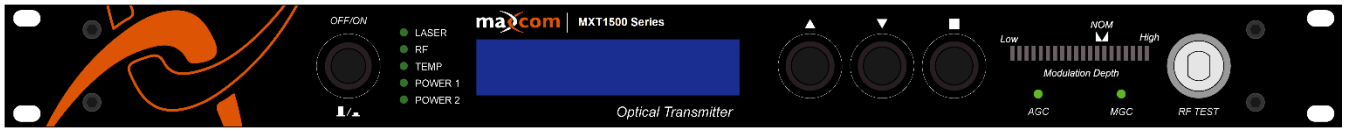

1550nm Direct Modulation

Optical Transmitter · MX-T1500A Series

Technical Specification

PRODUCT DESCRIPTION

The Maxcom MX-T1500A is a 1550nm direct modulation optical transmitter with high index and AGC function. Maxcom incorporates a high linearity and a low chirp DFB laser, built-in pre-distortion compensation and AGC, APC, ATC closed loop control, which improve the performance index. It may be used in a FTTx application for transmitting Digital QAM CATV and DOCSIS RF signals over fiber. Optimized for networks under 30km using an EDFA. This transmitter may also be ordered with Optional WDM narrow-band laser (standard ITU wavelengths available).

- Part Numbers:
- MX-T1510AC-AC (Transmitter with +10 dBm output and Dual AC Power Supplies)
- MX-T1510AC-DC48 (Transmitter with +10 dBm output and Dual -48VDC Power Supplies)
- MX-T1510AU-AC (ITU Transmitter DWDM wavelength with +10 dBm output and Dual AC Power Supplies)
- MX-T1510AU-DC48 (ITU Transmitter DWDM wavelength with +10 dBm output and Dual -48VDC Power Supplies)

PRODUCT FEATURES

- Low chirp, high linearity DFB laser, chirp compensation.
- Dual module RF driver, highly efficient laser pre-distortion adjustment.
- Dual Power Supplies (AC or -48VDC)
- Full-automatic OMI control, AGC & MGC.
- Modulation status display.
- Standard optical output is +10 dBm
- Auto temperature control to ensure long laser life.
- Commonly used in RFoG or RF Overlay networks 30km or less, while maintaining good MER
- Designed for All Digital (QAM) RF Signal Transmission

Technical Index

Performance			Index	Supplement
Optic feature	Wavelength	(nm)	1548~1563	MX-T1510AC: CATV wavelength
			1530~1563	MX-T1510AU: ITU wavelength
	Linewidth	(MHz)	≤1	FWHM(Δλ)
	Side mode suppression ratio	(dB)	≥45	SMSR
	Extinction ratio	(dB)	≥20	Xp
	Equivalent noise intensity	(dB/Hz)	≤-160	RIN (20~1000MHz)
	Output power	(dBm)	+10	May be ordered with custom output power
	Return loss	(dB)	≥55	
	optical fiber connector		SC/APC	
RF feature	Work bandwidth	(MHz)	47~1000	
	Input level	(dBmV)	20±2	MGC
	Flatness	(dB)	≤±0.75	47~1000 MHz
	Return loss	(dB)	>16	
	Input impedance	(Ω)	75	RF/INPUT
	RF test	(dB)	0±1	
Link feature	Transmit channel		PAL-D/60CH	NTSC/80CH
	CNR	(dB)	≥50	-1dBm receive
	CTB	(dB)	≤-63	
	CSO	(dB)	≤-57	
	SBS restrain	(dBm)	≥17	Optimized for good MER performance up to 30km in RFoG or RF Overlay
General feature	Network Mgmt. interface		RJ45, RS232	Support I.E., & SNMP
	Power supply	(V)	90~265AC power	-48VDC optional
	Power Consumption	(W)	≤50	Dual power supplies
	Operating temp.	(°C)	-5~65	Auto temp. control
	Storage temp.	(°C)	-40~85	
	Relative humidity	(%)	5~95	
	Size	(")	19×10×1.75	(W)x(D)x(H)