



1310nm Direct Modulation Optical Transmitter · MX1000T Series

Technical Specification



PRODUCT DESCRIPTION

The Maxcom MX1000T is a 1310nm 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 provide an improved performance index. It may be used for cable television applications for transmitting Digital QAM CATV and DOCSIS RF signals over fiber. LED panel display and front panel control.

- The MX1000T series is available in three power versions (+6, +10.5, +14 dBm)



PRODUCT FEATURES

- Low chirp, high linearity DFB laser, chirp compensation.
- Dual module RF driver, highly efficient laser pre-distortion adjustment.
- Full-automatic OMI control, AGC & MGC.
- LED Modulation status display. LED display status screen and front panel adjustments.
- Standard optical output is +6 dBm (+10.5 & +14 dBm optional)
- Auto temperature control to ensure long laser life.
- Commonly used in Cable TV RF over Fiber applications



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Technical Index

Performance		Index	Supplement	
Optic Feature	Wavelength	(nm)	1310±10	MX1000T
	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)	6	Optional models: MX1000T-4MW = +6 dBm MX1000T-12MW = +10.5 dBm MX1000T-26MW = +14 dBm
	Return loss	(dB)	≥55	
	optical fiber connector		SC/APC	
RF feature	Operational bandwidth	(MHz)	47~1000	
	Input level	(dBmV)	20±4	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)	≥52	-1dBm receive
	CTB	(dB)	≤-70	
	CSO	(dB)	≤-63	
General feature	Network Mgmt. interface		RJ45, RS232	Supports I.E., & SNMP
	Power supply	(V)	90~265AC power	-48VDC optional
	Power Consumption	(W)	≤50	Single power supply
	Operating temp.	(°C)	-5~65	Auto temp. control
	Storage temp.	(°C)	-40~85	
	Relative humidity	(%)	5~95	
	Size	(")	19×14.25×1.75	(W)x(D)x(H)