



# 1310nm Intelligent Direct Modulated Optical Transmitter

## Key Features

- » High linearity, optically isolated, distributed AM feedback DFB laser
- » Transmits NTSC, PAL, ATSC, and related digital information for CATV and/or telephony applications
- » Available in 6, 8, 10, 12.5, 14.5 and 15dBm output power
- » 47-1003MHz RF input bandwidth
- » Front panel RF test point (-20dB)
- » Microprocessor-controlled diagnostics, front panel LCD display and controls
- » Automatic Gain Control (AGC) and Manual Gain Control (MGC) override
- » Integrated SNMP network interface
- » Dual hot-pluggable redundant power supplies



## Description

The MUL-1310TX-V-1-X intelligent directly modulated optical transmitter is mainly used in 1310nm optical fiber transmission systems. It uses a DFB laser with an optical output power from 6 to 15dBm, and advanced intelligent electronic predistortion compensation technology.

This intelligent directly modulated optical transmitter is one of the most important components to build a CATV-HFC network. It is mainly used to transmit analog video, digital television signal, telephone voice signal and data (or compressed data) signal. This Multicom product provides a high quality low cost transmitter solution for a 1310nm optical fiber CATV system.

P/N	Output Power	P/N	Output Power
MUL-1310TX-V-1-06	6 dBm	MUL-1310TX-V-1-12.5	12.5 dBm
MUL-1310TX-V-1-08	8 dBm	MUL-1310TX-V-1-14.5	14.5 dBm
MUL-1310TX-V-1-10	10 dBm	MUL-1310TX-V-1-15	15 dBm

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## Product Specifications

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### Technical Specifications

Item	Unit	Technical Parameters													
Optical output power	mW	4	6	8	10	12	14	16	18	20	22	24	26	28	31
Optical link loss	dB	7	9	10	11	11.8	12.5	13	13.6	14	14.4	14.8	15.1	15.4	15.9
Optical wavelength	nm	1310 ± 20													
Laser type		ORTEL DFB laser													
Optical modulation mode		Direct optical intensity modulation													
Optical connector type		SC/APC													
Frequency range	MHz	47-750 / 862 / 1003 (depending on selected channel load)													
RF input level	dBμV	72 - 88 (+12 to +28dBmV)													
Flatness in band	dB	± 0.75													
RF input impedance	Ω	75													
Input return loss	dB	≥ 16 (47 - 55MHz); ≥ 14 (550 - 1003MHz)													
C/CSO	dB	≥ 60													
C/CTB	dB	≥ 65													
C/N	dB	≥ 51													
AGC control range	dB	± 5													
MGC control range	dB	0 - 20													
Power supply voltage	V	AC 110V - 250V (50/60Hz)													
Consumption	W	30													
Operating temperature	°C	0 - +45 (+32 - +113°F)													
Storage temperature	°C	-20 - +65 (-4 - +150°F)													
Relative humidity	%	Max 95% no condensation													
Dimensions	mm	483 (W) x 380 (D) x 44 (H); (19in W x 15in D x 1.75in H)													

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