



# 1550nm Externally Modulated Optical Transmitter

## Key Features

- » Two high linearity, optically isolated, distributed AM feedback DFB lasers capable of transmitting 7, 8, 9 and 10 dBm each
- » Transmits NTSC, PAL, ATSC, and related digital information for CATV and/or telephony applications
- » 47-1003 MHz RF input bandwidth
- » Front panel RF test point
- » 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 Multicom MUL-1550TXEM-V-2 Externally Modulated Optical Transmitter is a state-of-the-art high-performance fiber optic transmitter specially developed for CATV signal distribution in HFC networks, and the long-distance transmission of cable phone and cable data. Optimized for a variety network applications, it is packaged in a convenient 1 RU housing. This two-laser transmitter couples the optical output powers of 7, 8, 9 and 10dBm each, with low optical linewidth resulting in unmatched performance.

The optical modulator, combined with proprietary predistortion circuitry, provides advanced features such as built-in field adjustable SBS control and electronic dispersion compensation allowing these transmitters to be quickly optimized in the field for any link or application without the need to procure specifically tuned transmitters. This affords the system designer a level of flexibility previously unknown in the CATV market place.

Part#	Output Power	Part#	Output Power
MUL-1550TXEM-V-2-7	7dBm	MUL-1550TXEM-V-2-9	9dBm
MUL-1550TXEM-V-2-8	8dBm	MUL-1550TXEM-V-2-10	10dBm

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## Product Specifications

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### Technical Specifications

Item	Unit	Technical Parameters
Optical wavelength	nm	1545 ~ 1560
Side-mode suppression ratio	dB	> 30
Relative intensity noise	dB/Hz	< -160
Wavelength adjustment range	GHz	± 50
Optical power	dBm	2*7, 2*8, 2*9, 2*10
SBS threshold value	dBm	+13 ~ +19 (continuously adjustable)
Laser linewidth	MHz	0.3
Optical connector		SC/APC
RF range	MHz	47 ~ 1003
RF flatness	dB	± 0.75
RF return loss	dB	> 16
RF input impedance	Ω	75
RF input connector type		F type
Rated input level	dBμV	80 (+20dBmV)
Input level range	dBμV	78 ~ 96 (+18 to +36dBmV) (AGC mode, modulating signal)
AGC control range	dB	-3 ~ +3
MGC adjustable range	dB	0 ~ 15
Power source specification	V	110V ~ 240VAC (redundant power)
Consumption	W	≤ 60
Operating temperature	°C	-5 - +45 (+20 - +113°F)
Storage temperature	°C	-30 - +70 (-20 - +150°F)
Relative humidity	%	Max 95% no condensation
Dimensions	mm	483 (W) x 455 (D) x 44 (H); (19in W x 18in D x 1.75in H)
Total weight	Kg	5.5 (12lbs.)

Part#	Out	Part#	Out	Part#	Out	Part#	Out
MUL-1550TXEM-V-2-7	7dBm	MUL-1550TXEM-V-2-8	8dBm	MUL-1550TXEM-V-2-9	9dBm	MUL-1550TXEM-V-2-10	10dBm

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