



EMLT-1550-HP | EM Transmitter – High Power



The QAMnet EMLT-1550-HP series of laser transmitters are designed for use in HFC, deep fiber, and FTTH applications. EMLT-1550-HP series transmitters are a cost-effective and high-power transmission solution for HFC/deep fiber networks, regardless of architecture.

EMLT-1550-HP transmitters utilize a zero-chirp external modulator and pre-distortion circuit which allows the transmission range to be extended up to 65 km, while maintaining a high OMI level and excellent CSO and CTB performance. The SBS suppression level can be adjusted from +13 dBm to +16 dBm.

The EMLT-1550-HP also features a built-in EDFA which produces up to +24 dBm optical output for greater distribution and larger network coverage. Designed to be digitally ready, EMLT-1550-HP transmitters can be loaded with 60 additional QAM modulated signal channels.

QAMnet EMLT-1550-HP are available in these output power level versions: +15 dBm, +18 dBm, +20 dBm, +23 dBm and +24 dBm.

Features

- High power CW laser module
- Zero-chirp external modulator
- Built-in EDFA, with output up to +24dBm
- Up to 65 km transmission range
- Adjustable SBS suppression level range of +13 dBm to +16 dBm
- Supports 75 channel NTSC plus 60 digital channels loading plan
- Fully compatible with QAM256 modulated digital channels
- AGC (Automatic Gain Control) and MGC (Manual Gain Controls) RF input control
- -20 dB front panel RF test port
- 45-870 MHz modulation bandwidth

Ordering Information

- EMLT-1550-HP-xx
- xx: 15, 18, 20, 23, 24 (Output Power in dBm)



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Technical Specifications

Laser Wavelength Range	1550 nm \pm 15 nm, specific wavelength selection optional
Transmission Range	Up to 65 km in SMF-28 Fiber
Optical Output Power Level	15dBm, 18dBm, 20dBm, 23dBm, 24dBm
Number of Optical Outputs	1 port standard, or customer can specify 2, 4, 8 or 16 ports
Noise Bandwidth	4 MHz
Carrier to Noise Ratio (CNR)	51 dB Typical @ 0 dBm
Composite Second Order (CSO) Distortion	-63 dBc Maximum
Composite Triple Beat (CTB) Distortion	-63 dBc Maximum
Front Panel RF Gain / OMI Adjustment Range	+6 dB / -6 dB
SBS Suppression Level	Select from +13 dBm and +16 dBm
Input RF Power Level	13 - 25 dBmV per Channel
Frequency Range	Standard: 45 MHz to 870 MHz
Flatness in Frequency Range	\pm 1.0 dB
Input Impedance	75 Ω
Input RF Return Loss	16 dBm Minimum

Environment / Mechanical Specifications

Temperature Range	0°C to +50°C (operation) -40°C to +70°C (storage)
Power Supply	80 – 240 V, 43 – 63 Hz AC
Power Consumption	50 W Maximum
Housing Dimensions	2U Rack: 19"(W) x 14"(D) x 3.5"(H)
Control / Monitoring	DFB laser / pump laser temperature and current
Display	Output power level, TEC temperature
Alarm	Over Temperature, Over Current
Optical Connectors	SC/APC or customer specified

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