

EM Transmitter - High Power

The QAMnet EMLT-1550-HP series of laser transmitters are designed for use in HFC, deep fiber, and FTTH applications.

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Product Description

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

Features

- High power CW laser module
- Zero-chirp external modulator
- Built-in EDFA, with output up to +24 dBm
- 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
- AGC (Automatic Gain Control) and MGC (Manual Gain Controls) RF input control
- -20 dB front panel RF test port
- 45 to 870 MHz modulation bandwidth

Applications

✓ FTTH ✓ RFoG ✓ HFC ✓ Deep Fiber Applications



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PRODUCT SPECIFICATIONS

Optical Specifications

Laser Wavelength Range	1550 nm \pm 15 nm, Specific Wavelength on ITU Grid optional
Transmission Range	Up to 65 km in SMF-28 Fiber
Output Power Level	15 dBm, 18 dBm, 20 dBm, 23 dBm, 24 dBm
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 typ. @ 0 dBm
Composite Second Order (CSO) Distortion	-63 dBc max.
Composite Triple Beat (CTB) Distortion	-63 dBc max.
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 to 25 dBmV per channel
Frequency Range	45 MHz to 870 MHz
Flatness in Frequency Range	\pm 1.0 dB
Input Impedance	75 Ω
Input RF Return Loss	16 dB min.

Mechanical Specifications

Operation Temperature Range	0°C to +50°C
Storage Temperature Range	-40°C to +70°C
Power Supply	80 - 240 V, 43 - 63 Hz AC
Power Consumption	50 W max.
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

Ordering Information

EMLT-1550-HP-xx

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Output power level +15 to +24 dBm