



EMLT-1550-FH | EM Laser Transmitter – for FTTH



The QAMnet EMLT-1550-FH series of digital laser transmitters are designed for carrying analog and QAM modulated digital channels for SCTE next generation Fiber To The Home (FTTH) requirements. EMLT-1550-FH series transmitters are a cost-effective and versatile transmission solution for RFoG/FTTH networks regardless of architecture.

EMLT-1550-FH transmitters incorporate a zero-chirp external modulator and pre-distortion circuit which allow 65 km transmission range, while maintaining a high OMI level and excellent CSO and CTB performance. The SBS launch power level is set to +13 dBm.

EMLT-1550-FH transmitters can support up to 77 NTSC analog channels. Designed to be digitally ready, the transmitters can also be loaded with additional QAM modulated QAM and HDTV channels.

QAMnet EMLT-1550-FH transmitters are available in four output power level versions: +6 dBm, +7 dBm, +8 dBm and +9 dBm.

Features

- High power CW DFB laser module
- Zero-chirp lithium niobate external modulator
- 65 km standard transmission range
- SBS suppression level range of +13.5 dBm
- Supports 77 analog NTSC plus QAM digital channels
- Fully compatible with QAM256 modulated digital channels
- AGC (Automatic Gain Control) and MGC (Manual Gain Control) RF Input Control
- -20 dB front panel RF test port
- 45-870 MHz modulation bandwidth

Ordering Information

- EMLT-1550-FH-xx
- xx: 06, 07, 08, 09 (Output Power in dBm)



5110 N. 44th Street
Suite 200L
Phoenix, AZ 85018

1.877.303.3888 toll free
sales@qamnet.com email
www.qamnet.com website

Technical 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
Optical Output Power Level	
<i>EMLT-1550-FH-09</i>	9.0 dBm Minimum, 9.3 dBm Typical
<i>EMLT-1550-FH-08</i>	8.0 dBm Minimum, 8.3 dBm Typical
<i>EMLT-1550-FH-07</i>	7.0 dBm Minimum, 7.3 dBm Typical
<i>EMLT-1550-FH-06</i>	6.0 dBm Minimum, 6.3 dBm Typical
Noise Bandwidth	4 MHz
Carrier to Noise Ration (CNR)	53 dBc 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	Up to +13.0 dBm
Input RF Power Level	8 - 20 dBmV per channel
Frequency Plan	77 NTSC analog channels + Digital QAM Channels
Frequency Range	Standard: 45 MHz to 870 MHz
Flatness in Frequency Range	± 0.75 dB
Input Impedance	75 Ω
Input RF Return Loss	16 dB 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	75 W Maximum
Housing Dimensions	1U Rack: 19"(W) x 14"(D) x 1.75"(H)
Control / Monitoring	DFB Laser Temperature and Current
Display	Output Power Level, Tec Temperature
Alarm	Over Temperature , Over Current
Optical Connectors	SC/APC or Customer Specified



EMLT-1550-FH | EM Laser Transmitter – for FTTH

QAMnet

5110 N. 44th Street
Suite 200L
Phoenix, AZ 85018

1.877.303.3888 toll free
sales@qamnet.com email
www.qamnet.com website