EM Transmitter - Narrowcasting

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

Product Description

The QAMnet EMLT-1550-NC series of laser transmitters are designed for multiple wavelength systems for HFC, deep fiber, and FTTH applications. The EMLT-1550-NC series transmitters can be incorporated into a forward path narrowcasting system specifically for targeted digital services (VOD, IP, cable telephony). Digital bandwidth can be incrementally added to existing fiber infrastructure by adding a new wavelength. The EMLT-1550-NC transmitters can be custom ordered with 41 different wavelengths. Using a DWDM combiner, multiple EMLT-1550-NC transmitters can be combined with a standard laser transmitter into a single fiber. Each transmitter can deliver various digital services to a targeted recipient, via a specific wavelength laser. The EMLT-1550-NC transmitters incorporate an external modulator and pre-distortion circuit which allow the transmission range to be extended up to 80 km, while maintaining a high OMI level and excellent CSO and CTB performance. The launch power level can be adjusted from +13 dBm to +16 dBm. Designed to be digitally ready, the transmitters can be loaded with 135 channels of QAM modulated signals.

Features

- Laser wavelength can be selected to from 41 channel
- 65 km standard transmission range, can be extended to 90km
- Adjustable SBS suppression level range of +13 dBm to +16 dBm
- Fully compatible with QAM256 modulated digital data and HDTV channels
- AGC (Automatic Gain Control) and MGC (Manual Gain Control) RF input control

Applications

✓ HFC ✓ FTTH ✓ Deep Fiber ✓ VOD ✓ IP ✓ Cable Telephony

PRODUCT SPECIFICATIONS

Optical Specifications

Laser Wavelength Range	Customer choice of laser wavelength, from channel #10 (1562.2 nm) to #50 (1530.1 nm)
Transmission Range	Standard 65 km, can be extended to 90km
Output Power Level	+5 dBm min. (5.3 dBm typ.); +6 dBm min. (6.3 dBm typ.); +7 dBm min. (7.3 dBm typ.)
Noise Bandwidth	4 MHz
Carrier to Noise Ration (CNR)	51.5 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 +13.5 dBm and +16.5 dBm
Input RF Power Level	13 to 25 dBmV per channel
Frequency Plan	60 NTSC analog channels + Digital QAM Channels
Frequency Range	45 MHz to 870 MHz
Flatness in Frequency Range	±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	75 W max.
Housing Dimensions	1RU 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

Ordering Information

EMLT-1550-NC-xx-yy

xx	Output power level +5 to +7 dBm
yy	ITU Channel #10 (1562 nm) to #50 (1530nm) See Table

QAMnet 5110 N 44th St, Ste 200L, Phoenix AZ 85018
optilab.com 877-303-3888 602-343-8217 sales@qamnet.com