



## EMLT-1550-DB | CATV + Satellite Laser Transmitter



The QAMnet EMLT-1550-DB series of laser transmitters is designed for use with dual-band transmission applications. Based on our proprietary design, the EMLT-1550-DB operate as two sets of laser transmitters with 1U rack mount chassis. There are two transmission bands: a CATV band and Satellite band.

The CATV band transmitter operates as a standard HFC laser transmitter with a frequency range from 45MHz to 860MHz. It is designed for electrical to optical conversion of CATV signals such as AM-VSB, FM and QAM signals. It can transmit up to 65km in distance, while providing excellent CNR, CSO and CTB performance.

The Satellite band transmitter can perform electrical to optical conversion from 950MHz to 3,000MHz, EMLT-1550-DB can also be used for transmitting DTH, Satellite, IF and other RF modulated signals over optical fiber.

QAMnet EMLT-1550-DB series is highly versatile, and is a cost-effective transmission solution for RF signals over optical fiber applications. They are available in two distinct output power versions: +6dBm / +8dBm single output.

### Features

- Slim 1U height rack mountable housing
- High power, narrow linewidth DFB laser module
- Broadband external modulator
- Dual-band transmission:
  - CATV: 45MHz to 860MHz for analog and QAM channels
  - Satellite: 950MHz to 3,000MHz for DTH and Sat/IF
- SBS suppression level: +13dBm to +16dBm (optional)
- Separate input port for CATV Band and Satellite Band
- 65km standard transmission range
- AGC (Automatic Gain Controls) Input Control for CATV band

### Ordering Information

- EMLT-1550-DB-xx
- xx (Output Power in dBm): 06, 08 for single output



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## EMLT-1550-DB CATV + Satellite Laser Transmitter

### Technical Specifications

Laser Wavelength Range	1550 nm $\pm$ 10 nm, Specific Wavelength on ITU Grid optional
Transmission Range	Up to 65 km in SMF-28 Fiber
Optical Output Power Level	6 dBm, 8dBm
Optical Output Power Stability	$\pm$ 0.1 dBm over 24 hours
SBS Suppression Level	+13.5 dBm, +16.5 dBm (Optional)
Relative Intensity Noise (RIN)	< -158 dB/Hz

### CATV Band Specifications AM-VSB, QAM

Frequency Range	45 - 870 MHz (77 Analog + Digital)
Input RF Power Level	15 - 25 dBmV with AGC
Flatness in Frequency Range	$\pm$ 0.75 dB
Carrier to Noise Ration (CNR)	> 53 dB (Direct out of transmitter) > 52 dB (w/ EDFA and 30km fiber)

Composite Second Order (CSO)	< -63 dBc
Composite Triple Beat (CTB)	< -63 dBc
RF Connector	F Type
Input Impedance	75 $\Omega$

### Satellite Band Specifications DTH, SAT/IF, RFoG

Frequency Range	950 – 3000 MHz
RF Connector	F Type
Input Impedance	75 $\Omega$

### 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	110 W Maximum
Housing Dimensions	1U Rack: 19"(W) x 18"(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



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