

# DM Transmitter - High Power

The QAMnet DMLT-1550-HP series high power laser transmitters are cost effective, space saving solutions designed for HFC, FTTH and deep fiber applications.

DMLT-1550-SR DM Transmitter - High Power



## Product Description

The QAMnet DMLT-1550-HP series high power laser transmitters are cost effective, space saving solutions designed for HFC, FTTH and deep fiber applications. The DMLT-1550-HP uses a highly linear, low chirp DFB laser module and an advanced pre-distortion RF circuit to deliver 50 dB of CNR, while maintaining optimal CSO and CTB distortion specifications. The output power level is amplified by an internal EDFA of up to +23 dBm.

The DMLT-1550-HP has transmission range up to 20 km. DMLT-1550 transmitters support up to 75 NTSC analog channels since it is designed to be digitally ready, the DMLT-1550-HP can be loaded with 60 additional QAM modulated signal channels. The DMLT-1550-HP is available at these output power levels: +15 dBm, +18 dBm, +20 dBm and +23 dBm.

## Features

- Built-in EDFA to boost output level
- Highly linear, low chirp 1550 nm DFB laser source
- Pre-distortion circuit minimizes CSO and CTB distortion
- Automatic Gain Control (AGC) for optimal RF drive level (optional)
- 75 channel NTSC plus 60 digital channels loading plan
- -20 dB front panel RF test port
- Transmission range up to 20km
- 45-870 MHz modulation bandwidth

## Applications

✓ HFC    ✓ FTTH    ✓ RFoG    ✓ 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 20 km in SMF-28 fiber
Output Power Level	+15 dBm, +18 dBm, +20 dBm, +23 dBm
Number of Outputs	1 output standard, up to 4 output can be customized
Optical Return Loss	50 dB min.
Carrier to Noise Ration (CNR)	51 dB typ. @ 0 dBm
Composite Second Order (CSO) Distortion	-60 dBc max.
Composite Triple Beat (CTB) Distortion	-63 dBc max.
SBS Suppression Level	+18 dBm min.
RF Test Port Ratio	-20 dB
AGC Adjustment Range	6 dB (optional)
Input RF Power Level	17 to 23 dBmV per channel
Frequency Range	45 MHz to 870 MHz
Flatness in Frequency Range	$\pm$ 0.75 dB
Input Impedance	75 $\Omega$
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	80 W max.
Housing Dimensions	1RU 19"(W) x 14"(D) x 1.75"(H)
Control / Monitoring	Laser Temperature and Current
Display	Output Power Level, TEC temperature
Alarm	Over Temperature , Over Current
Optical Connectors	SC/APC or Customer Specified

### Ordering Information

#### DMLT-1550-HP-xx-y

xx	Output power level +6 to +10 dBm
y	a (Without AGC); b (With AGC)
z	Number of Outputs 1 to 4