



DMLT-1550-HP | 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. The DMLT-1550-HP uses a highly linear, low chirp DFB laser module and 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 to 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. Designed to be digitally ready, they 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
- Compact 1U housing

Ordering Information

- DMLT-1550-HP-xx-y
- xx: 15, 18, 20, 23 (Output Power in dBm)
- y: Number of Output, from 1 to 4



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Technical 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	15dBm, 18dBm, 20dBm, 23dBm
Number of Outputs	1 output standard, up to 4 output can be customized
Optical Return Loss	50 dB Minimum
Carrier to Noise Ration (CNR)	51 dB Typical @ 0dBm
Composite Second Order (CSO) Distortion	-60 dBc Maximum
Composite Triple Beat (CTB) Distortion	-63 dBc Maximum
SBS Suppression Level	+18 dBm Minimum
RF Test Port Ratio	-20 dB
AGC Adjustment Range	6 dB (optional)
Input RF Power Level	17 - 23 dBmV per Channel
Frequency Range	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	80 W Maximum
Housing Dimensions	1U Rack: 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

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