

DM Transmitter - Extended Range

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DMLT-1550-ER DM Transmitter - Extended Range



Product Description

The QAMnet DMLT-1550-ER series laser transmitters are reliable and cost-effective for HFC, RFoG, FTTH and deep fiber applications. Using a dispersion compensated analog 1550 nm DFB laser module and an advanced pre-distortion RF drive circuit, DMLT-1550 transmitters deliver 50 dB of CNR and yet maintain high levels of CSO and CTB distortion.

The transmission range of the DMLT-1550-ER series is 20 km. Since the wavelength is 1550 nm, the DMLT-1550-ER can be easily amplified by any EDFA. The DMLT-1550 can be used for transmitting up to 77 NTSC analog channels. Designed to be digitally ready, it can also be loaded with 60 additional QAM modulated signal channels. The laser output level can be selected from +6 dBm to +10 dBm.

Features

- Highly linear, analog modulated 1550 nm DFB laser source
- Transmission range up to 20 km
- Advanced pre-distortion circuit to minimize CSO and CTB distortion
- Output power level: +6 dBm to +10 dBm
- Automatic Gain Control (AGC) for optimal RF drive level (optional)
- 77 channel NTSC plus QAM modulated digital data or HDTV channels
- Front panel RF test port of -20 dB
- 45 MHz to 870 MHz modulation bandwidth

Applications

✓ HFC ✓ FTTH ✓ RFoG ✓ Deep Fiber Applications



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

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	+6, +8, and +10 dBm
Number of Outputs	1 output standard, multiple output can be ordered
Optical Return Loss	50 dB min.
Carrier to Noise Ratio (CNR)	52 dB typ. @ 0 dBm
Composite Second Order (CSO) Distortion	-60 dBc max.
Composite Triple Beat (CTB) Distortion	-62 dBc max.
RF Test Port Ratio	-20 dB
AGC Adjustment Range	6 dB (optional)
Input RF Power Level	13 to 18 dBmV per channel
Frequency Range	45 MHz to 870 MHz
Flatness in Frequency Range	\pm 0.75 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	30 W Maximum
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

DMLT-1550-ER-xx-y

xx Output power level +6 to +10 dBm
y a (Without AGC); b (With AGC)