DM Transmitter - 1310 nm

The QAMnet DMLT-1310 series laser transmitters are reliable and cost-effective for HFC, FTTH and deep fiber applications.

Product Description

The QAMnet DMLT-1310 series laser transmitters are reliable and cost-effective for HFC, FTTH and deep fiber applications. The DMLT-1310 uses a highly linear 1310 nm DFB laser module and an advanced pre-distortion RF drive circuit to deliver 50 dB of CNR, while maintaining optimal CSO and CTB distortion specifications.

The DMLT-1310 has a standard transmission range up to 20 km. The DMLT-1310 transmitters support up to 75 NTSC analog channels and since it is designed to be digitally ready, these transmitters can be loaded with 60 additional QAM modulated signal channels.

The DMLT-1310 is available at five output power levels: +6 dBm, +8 dBm, +10 dBm, +11 dBm and +13 dBm.

Features

- Highly linear, analog-modulated 1310 nm DFB laser source
- Advanced pre-distortion circuit minimizes CSO and CTB distortion
- Automatic Gain Control (AGC) for optimal RF drive level
- 75 channel NTSC plus 60 digital channels loading plan
- -20 dB front panel RF test port
- LED front panel digital display and status indicators
- 45 MHz to 870 MHz modulation bandwidth

Applications

✓ HFC ✓ FTTH ✓ RFoG ✓ Deep Fiber Applications

PRODUCT SPECIFICATIONS

Optical Specifications

Laser Wavelength Range	1310 nm ± 15 nm
Transmission Range	Up to 20 km in SMF-28 fiber
Output Power Level	6 dBm, 8 dBm, 10 dBm, 11 dBm, 13 dBm
Number of Outputs	1 output standard, multiple output can be ordered
Optical Return Loss	50 dB min.
Carrier to Noise Ration (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 (Optional)	6 dB
Input RF Power Level	13 - 18 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 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 max.
Housing Dimensions	1U Rack: 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-1310-xx-y
xx	Output power level +6 to +13 dBm
y	a (Without AGC); b (With AGC)

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