EMLT-1550-ER

Externally Modulated Laser Transmitter, Extended

The Optilab EMLT-1550-ER are high performance, dual output laser transmitters for headend applications with HFC/RFOG/PON networks. The EMLT-1550-ER transmitters incorporate a broadband modulator and pre-distortion circuit which allows a standard transmission range of up to 120 km, while maintaining a high OMI level and excellent CSO and CTB performance. With an internal phase modulator that broadens the laser linewidth, the launch power level can be adjusted up to +18.5 dBm for extended range transmission, after EDFA amplification. The EMLT-1550-ER has two optical output ports and can support up to 77 NTSC analog channels. Since it is designed to be digitally ready, the transmitters can also be loaded with QAM modulated data and HDTV channels, making it the best cost/performance ratio in the industry. Contact Optilab for more information.

Features

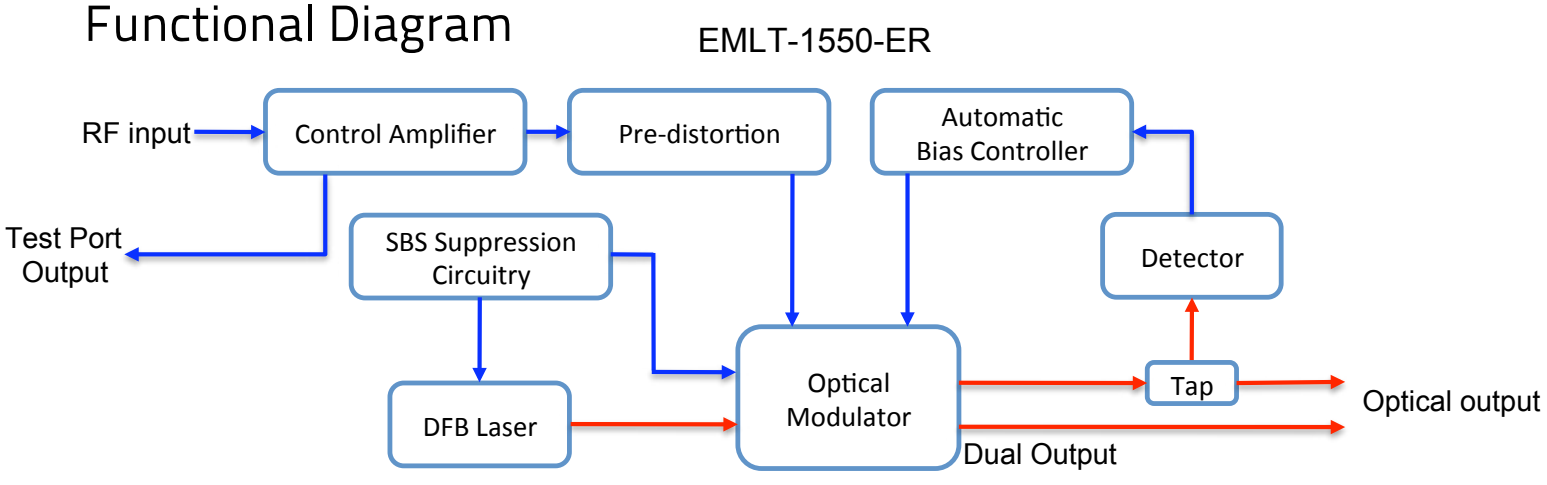
- High power DFB with narrow linewidth
- Dual-output, broadband optical modulator
- Up to 120 km transmission range
- Adjustable SBS suppression up to +18.5 dBm
- 77 channel NTSC plus QAM digital
- Automatic Gain and Manual Gain Control
- Best cost over performance solution
- **3 year warranty standard**

Applications

- HFC
- PON
- RFoG
- For RUS/USDA projects

This Optilab product meets Buy American and is RUS accepted

Functional Diagram



EM Laser Transmitter, Extended Range | EMLT-1550-ER

OPTIONS

EMLT-1550-ER-xx

xx Output power

TECHNICAL INFO

For technical info and support:

sales@optilab.com

www.optilab.com

WEB ORDER

To order, please visit OEQuest.com.

OEQuest.com

Optilab Advantage

- Innovation
- Performance
- Quality
- Customization
- Warranty

Optical Specifications	
Laser Wavelength Range	1550 nm ± 15 nm, Specific Wavelength on ITU Grid optional
Transmission Range	Up to 120km
Output Power Level	+6 to +8 dBm
Noise Bandwidth	4 MHz
Carrier to Noise Ration (CNR)	53 dB typ. @ 0 dBm
Composite Second Order (CSO) Distortion	-63 dBc max.
Composite Triple Beat (CTB) Distortion	-63 dBc max.
Front Panel RF Gain / OMI Adjustment Range	+6 dB / -6 dB
SBS Suppression Level	Adjustable +13.5 dBm, +16.5 dBm, +18.5 dBm
Input RF Power Level	8 to 20 dBmV per channel
AGC Adjustment Range	6 db (optional)
Frequency Plan	77 NTSC analog channels + Digital QAM
Frequency Range	45 MHz to 870 MHz, 1 GHz available
Flatness in Frequency Range	±0.75 dB
RF Impedance	75 Ω
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	75 W max.
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