

ELECTROLINE



EG1550TX Series Fiber Optic Transmitter

Description

The Electroline EG1550TX series is a family of high performance 1550 nm externally modulated transmitter for FTTx, RFoG, or HFC access network applications. Analog video, QAM digital video and data can be carried in the 45 to



1003 MHz frequency band. The EG1550TX series is in a convenient 1 RU 19" format and it provides a cost effective solution with outstanding performance. It delivers up to 9 dBm with narrow optical line-width. When it is linked with one or more EDFAs, EG1550TX offers high CNR for long distance transmission. With patented RF pre-distortion circuit, EG1550TX series offers excellent CSO and CTB performance. Additional feature of adjustable SBS suppression control is available. This family of transmitters is a part of the full complement of products offered by Electroline to support and enhance the deployment of traditional HFC, passive HFC, and fiber to the home (FTTH) Networks.

Applications

- High performance super-trunking links
- High power distribution networks
- Redundant ring architectures
- FTTx networks

Features

- 1 RU, 19" rack-mount format
- 45 to 1003 MHz forward bandwidth
- Patented RF predistortion circuit for excellent CNR and low distortion performance.
- Adjustable SBS threshold (13, 16, 18 dBm)
- Unique simultaneous SBS/SPM suppression for point-to-point and point-to-multiple application.
- Microprocessor control and monitoring.
- Automatic/Manual gain control mode.
- Front panel LCD display.
- SNMP on Ethernet and console on RS-232 management interface.
- 2 outputs at specified level

Specifications

Parameters	Units		Notes
Optical Specifications			
Laser Type		Cooled DFB LD with isolator	
Wavelength	nm	1550 +/- 10 or 100GHz ITU-T wavelengths between 1530 nm and 1565 nm	
Output Power per port	dBm	7 / 9	
Optical Output Port		2	
SBS Suppression level	dBm	13 / 16 / 18	
RF Specifications			
Bandwidth	MHz	45 to 1003	
Channel Loading		77 NTSC analog plus 75 256 QAM	2
RF Input Level	dBmV/ch	15-20 dBmV/ch with AGC control (OMI/ch = 3 ± 0.25 %) or nominal 20 dBmV/ch with MGC control	2
Flatness	dB	+/- 0.75	
Input Impedance	Ω	75	
Return Loss	dB	≥ 16	
Test point	dB	-20 +/- 1	
Link Performance Specifications			
Carrier to Noise (CNR)	dB	50	3
Composite Second Order (CSO)	dBc	≤ -63 @ port A ≤ -61 @ port B	3
Composite Triple Beat (CTB)	dBc	-63	3
XMOD	dBc	-65	3
General Specifications			
Management interface		SNMP on Ethernet and console on RS-232	
Monitoring Protocol		SNMP	
Operating Temperature	°C	0 to 50	
Storage Temperature	°C	-20 to 60	
Humidity	%	20 to 85	
Power Supply	VAC, 50/60 Hz VDC	90 to 260 -48	
Power Consumption	Watts	≤ 75	
Dimensions	mm	447D x 485W x 45H	
Notes:			
General: Specifications are subject to change without notice.			
1) Performance measured after a minimum of 30 minutes stabilization.			
2) QAM channels -6 dB relative to NTSC Analog Channels.			
3) Link budget is defined by output power to 0 dBm optical input at receiver under 65km fiber link + EDFA, SBS setting=16dBm test conditions.			

Ordering Information

1	-	2	-	3	-	4	-	5	-	6	-	7
EG1550TX series	-	Optical connector	-	Optical Wavelength	-	Optical Output level	-	SBS Suppression level	-	Control Interface	-	Power Supply
EG1550TX	-	SA	-	NN	-	07	-	AD	-	SN	-	DA
EG1550TX	-	SA=SC/APC FA=FC/APC	-	16 to 62 = 100 GHz ITU-T channel #, NN = 1550+/- 10nm	-	07 = ≥ 7 dBm 09 = ≥ 9 dBm	-	13 = 13 dBm, 16 = 16 dBm, 18 = 18 dBm, AD = Adjustable 13/16/18 dB,	-	SN = Ethernet	-	SA = Single AC DA = Dual AC SD = Single DC

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