



## FIBT-1310 SERIES

1310nm FIBER OPTIC TRANSMITTERS



### KEY FEATURES

- » 47 to 1218 MHz RF bandwidth for DOCSIS 3.1 compatibility
- » High performance and low power consumption GaAs technology
- » 1310 nm DFB laser in 4 output power levels (6, 10, 13.5, and 15 dBm)
- » RF AGC for optimum laser performance
- » LCD front panel status display with built-in microprocessor
- » SNMP network management for remote monitoring
- » ETL certified

### PRODUCT OVERVIEW

The **FIBT-1310** (Fiber Optic Transmitter) is an ideal solution to seamlessly transport high-speed digital data over single-mode optical fiber. It is designed to transport data streams that adhere to DOCSIS 3.1 standards and/or were generated utilizing high order quantization techniques, such as QAM 1024, 8PSK, and COFDM.

The **FIBT-1310** is built with a directly modulated DFB laser, providing low noise and high linearity performance. The RF AGC and pre-distortion circuit ensures the optimum laser drive level for the best overall CNR, CSO, and CTB operation. The transmitter is available in power output levels ranging from +6 dBm (4 mW) to +15 dBm (31 mW) to satisfy various system topologies and supports an increased band-edge to 1218 MHz for DOCSIS 3.1 applications.

Laser output power, unit temperature, and RF input level are accurately monitored by a built-in microprocessor and shown on the front panel LCD display, in addition to the unit function messages. Remote status monitoring is provided through SNMP network management.

### ORDERING INFORMATION

MODEL	STOCK#	DESCRIPTION
FIBT-1310-06	<b>7603 06</b>	Fiber Optic Transmitter, Single-mode, DFB Laser; 1310 nm, +6 dBm Output
FIBT-1310-10	<b>7603 10</b>	Fiber Optic Transmitter, Single-mode, DFB Laser; 1310 nm, +10 dBm Output
FIBT-1310-13.5	<b>7603 135</b>	Fiber Optic Transmitter, Single-mode, DFB Laser; 1310 nm, +13.5 dBm Output
FIBT-1310-15	<b>7603 15</b>	Fiber Optic Transmitter, Single-mode, DFB Laser; 1310 nm, +15 dBm Output

# FIBT-1310 SERIES

## SPECIFICATIONS



OPTICAL	
Operating Wavelength	1310 nm ± 20 nm
Optical Power Output	3 dBm (2 mW), 6 dBm (4 mW), 10 dBm (10 mW), 12 dBm (16 mW) & 15 dBm (31 mW)
Laser Type	Class 1 DFB (directly modulated; Hazard Level 1). The 3 dBm model is built with an uncooled laser. The 6 & 10 dBm models are available with either a cooled or uncooled laser. The 12 & 15 dBm models employ only cooled lasers.
Beam Divergence Angle:	8° max
Connector	SC/APC <small>(FC/APC connection adapter is sold separately for applications requiring it. See below under "Accessories")</small>

LINK PERFORMANCE*	
CNR	≥ 51 dB (see Optical Link C/N Table)
CSO	< -62 dBc
Operating Humidity	< -65 dBc

\* 77 CW carriers (50-550 MHz) and digital channels (550 - 1218 MHz, RF level 10 dB lower) at -1 dBm optical input into a Blonder Tongue FTTB receiver.

RF	
Connector	"F" Female
Frequency Range	47-1218 MHz
Input Level	15-25 dBmV
Flatness	±1.0 dB
Impedance	75 Ω
Return Loss	≥ 16 dB
AGC Range	0-15 dB
MGC Range	0-15 dB

GENERAL	
Dimensions (W x H x D)	19.0 x 1.75 x 15.31 in (483 x 44 x 369 mm)
Weight	7.0 lbs (3.18 kg)

### POWER

Power Supply	100-240 VAC 50/60 Hz
Power Consumption	15 W

### ENVIRONMENTAL

Operating Temperature Range	32 to 113 °F (0 to 45 °C)
Relative Humidity	0 to 95%, non-condensing

### ALARMS & MONITORING

Local Monitoring	1x Status Tri-Color LED (Red, Green, Amber)
Local Control	<b>Display:</b> LCD <b>Navigation:</b> 3 Buttons for LCD (Up/Down/Enter)
Remote Monitor/Control	<b>SNMP:</b> RJ45 Connector @ 100/1G

## ACCESSORIES

STOCK#	STOCK#	DESCRIPTION
FC/APC Adapter	7607	SC/APC Male to FC/APC Female Connector Adapter

# FIBT-1310 SERIES

1310nm FIBER OPTIC TRANSMITTERS

## OPTICAL LINK C/N TABLE

OPTICAL LOSS (dB)	6	7	8	9	10	11	12	13	14	15	16	17
FIBT-1310-06	52.0	51.0	50.1	49.1	48.1							
FIBT-1310-10					51.9	51.0	50.1	49.1	48.2			
FIBT-1310-13.5								52.3	51.3	50.4	49.5	
FIBT-1310-15										51.9	50.9	49.9

## FUNCTION BLOCK DIAGRAM

