

# FIBT/MIBT S3A

Fiber Optic VSB/AM Transmitter

Trailblazer



FIBT

## ○ Features & Benefits

- 45-860 MHz Bandwidth
- 1310 nm, Single Mode With FC/APC Connector Standard, (SC/APC Optional)
- Available in 5 Optical Output Powers (6,8,10,12 & 14 dBm) To Handle A Variety of Applications
- LED's for Quick Assessment of RF Input, Laser and Cooler Status
- Status/Alarm Jack on Rear Panel for Monitoring 5 Key Parameters

The FIBT-S3A and MIBT-S3A Series of transmitters provides a robust system for transferring broadband CATV signals over single mode optical fibers. Both series have a frequency bandwidth of 45- 860 MHz that accommodates a variety of different modulation formats such as AM/VSB, 8VSB, QAM, QPSK, etc. FIBT/MIBT-S3A series transmitters use high-power, low noise 1310 nm distributed feedback (DFB) laser diodes. An optical isolator protects the laser from optical reflections in the transmission path. This ensures high CNR, excellent linearity and consistent link performance. The FIBT transmitters are EIA 19" wide rack mountable with a height of 1.75". The MIBT transmitters utilize the MIRC-12V rack chassis and MIPS-12C power supply for mounting. Each MIBT-S3A occupies 2 slots within the MIRC chassis, therefore up to six (6) MIBT-S3A transmitters can be installed in 2 RU's. Both the FIBT and the MIBT's use efficient switching power supplies that accept utility power from 90 to 260 VAC and 50 to 60 Hz.

## ○ Specifications

Operating Wavelength: 1310 nm  
Required Fiber Bandwidth: 1,000 Min. MHz  
Input Return Loss:  $\geq$ 16 dB @ 75 Ohm  
Back Reflection: -50 min. dB  
Optical Output Power  
+6 dBm  
+8 dBm  
+10 dBm  
+12 dBm  
+14 dBm  
Bandwidth: 45 to 860 MHz  
RF Input Level (110 Ch. Load): + 18 dBmV/Ch  
Physical Dimensions:  
FIBT: 19 W. x 1.75 H. x 8.25 D. in  
482.6 x 44.5 x 209.55 mm  
MIBT: 2.19 W. x 3.5 H. x 8.25 D. in  
55.6 x 88.9 x 209.55 mm  
Operating Temperature Range: 0 to +45 °C  
CNR (-1 dBm Input, 77 Ch. Load + QAM 550-860 MHz @ -6dB Ref. Analog):  $\geq$ 52 dB  
CTB:  $\geq$  69 dB  
CSO:  $\geq$  -63 dB  
Side Mode Suppression Ratio (SMSR): 30 dB

## Mechanical

Weight:  
FIBT: 6 lbs, 2.72 kg  
MIBT: 1.21 lbs, 0.54 kg

## Power

Power Supply Voltage: 110/220 VAC  
Power Supply Frequency: 50/60 Hz  
Power Dissipation: 25 W  
MIBT: Requires MIPS-12C Power Supply

## Connectors

RF Input: "F"  
Optical Output: FC/APC

Notes:  
Link Gain Specifications Valid When Used  
With FRDA Receiver Module.

## ○ Ordering Information

Model	Description
FIBT-S3A-816A	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +6 dBm Output, FC/APC Connector
FIBT-S3A-818A	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +8 dBm Output, FC/APC Connector
FIBT-S3A-810A	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +10 dBm Output, FC/APC Connector
FIBT-S3A-812A	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +12 dBm Output, FC/APC Connector
FIBT-S3A-814A	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +14 dBm Output, FC/APC Connector
MIBT-S3A-816	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +6 dBm Output, FC/APC Connector
MIBT-S3A-818	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +8 dBm Output, FC/APC Connector
MIBT-S3A-810	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +10 dBm Output, FC/APC Connector
MIBT-S3A-812	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +12 dBm Output, FC/APC Connector
MIBT-S3A-814	Fiber Optic Transmitter, Single-mode, DFB laser 110 Ch., 45-860 MHz, 1310 nm, +14 dBm Output, FC/APC Connector