

Fibox Digital Fiber-Optic Audio Transmission System

FIBOX SYSTEM

THE FIBER FUTURE MADE AFFORDABLE

The introduction of Fibox marks an extraordinary breakthrough in the transmission of audio signals. For the first time, all the advantages of 20-bit, full-bandwidth digital fiber-optic transmission are available at cost levels easily accessible to virtually any professional audio or broadcast application – from the network teleproduction facility down to the neighborhood church.

FIBOX SYSTEM: CLEAR ADVANTAGES

- No line loss
- No ground loops
- Inherent immunity to EMI and RFI
- High common mode rejection ratio (CMRR)
- 20-bit A/D and D/A conversion: 108dB dynamic range
- 48kHz sampling
- Transmission distances up to 4km (2.5 miles)
- Modular design: expandable from 2 to 12 channels on one fiber
- Analog or AES/EBU digital output
- Data interface for transmission of SMPTE, RS232/422/485, MIDI
- Easy installation and field set-up

A complete Fibox system comprises one or more Input modules, one or more Output modules (either analog or AES/EBU digital), plus fiber-optic cabling and any required power supplies, linking cables, and rack mounting hardware. This data sheet contains detailed information on Digital Output modules only.

FIBOX FBDO-M

TWO-CHANNEL DIGITAL MASTER OUTPUT MODULE

The FBDO-M accepts and demultiplexes optical signals from a FBAI-M transmitter, and converts two channels of the digital signal to AES/EBU format for output to compatible devices such as DAT recorders, CD-R recorders, digital mixers, and digital VTRs. Multiple rate converters provide output sampling frequencies selectable at 32kHz, 44.1kHz, 44.056kHz, or 48kHz by a front panel rotary switch. A fifth switch position allows sync to an external reference signal. Output is provided on both XLR (110 Ω) and BNC (75 Ω) connectors.

The FBDO-M master module also has the capability to accept and demultiplex digital optical signals for up to five additional slave modules, allowing reception capability of up to 12 full bandwidth audio channels on a single fiber-optic cable. The slaves may be either FBAO-SL or FBDO-M AES/EBU digital output modules in any combination. (See separate data sheet for information on Fibox analog output modules.) Master and slave modules are linked using the optional LKO-6 cable.



Actual size.

APPLICATIONS

Broadcast and Video Post-Production

- Links among multiple studios and mixing/editing suites
- Satellite uplinks/downlinks
- Remote broadcast for sports and special events

Recording Studios

- Replace long cable runs from studio to console
- Multichannel digital links among control rooms
- Direct-to-digital location recording

Concert Sound Reinforcement

- Sonically pure digital links from stage to FOH console, console to amp racks

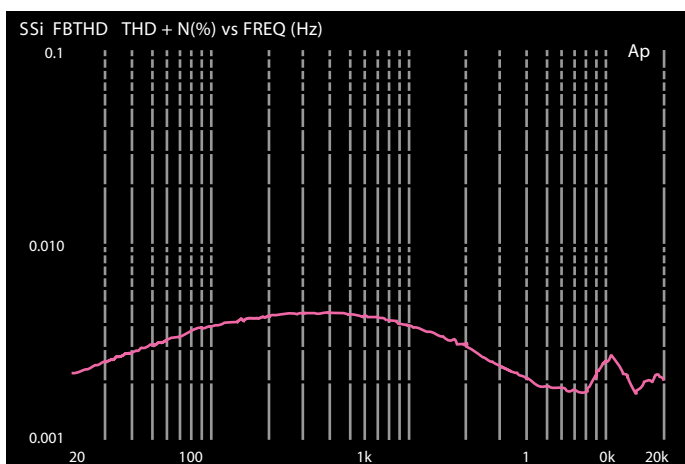
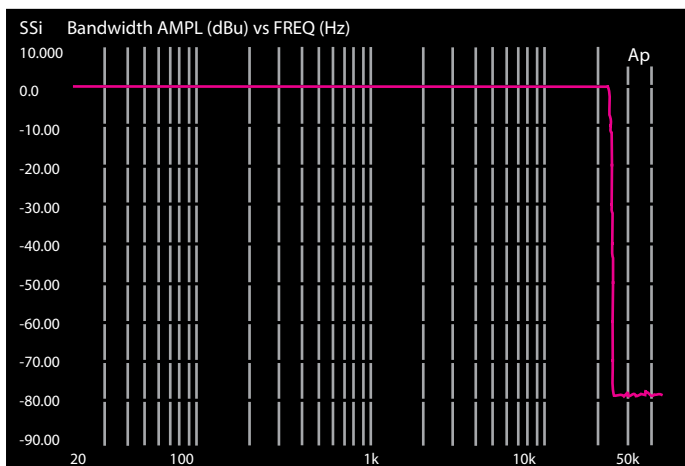
Commercial Sound Installations

- Schools and universities • Auditoriums
- Convention facilities • Houses of worship
- Stadiums and arenas • Communication in harsh environments with high RFI/EMI emissions

Film Production

- Sound stage and back lot recording
- Field location recording

Units may be installed as stand-alone boxes, or up to 3 units may be mounted in one 19-inch rack panel using optional RMK rack mount kit.



ELECTRICAL SPECIFICATIONS

Sampling Rate Converter

Selectable for 32kHz, 44.1kHz, 44.056kHz, or 48kHz, or external sync

Output Format

AES/EBU digital (2 channels)

Output Connectors

XLR (110Ω) BNC (75Ω)

Transmission Distance

4km

Bandwidth (-3dB)

0.1Hz - 21.5kHz

Dynamic Range

108dB typical (A weighted)

Channel Separation

98dB or greater

OPTICAL SPECIFICATIONS

Wavelength

1310nm (recommended fiber cable 62.5/125 μ)

Receiver Optical Input Sensitivity (Avg.)

-33.5dBm minimum
-14.0dBm maximum

Optical Power Budget

15.5dBm

Single Mode option available

PHYSICAL CHARACTERISTICS

Dimensions

(w x h x d) 6" x 1.75" x 8"
150mm x 44mm x 200mm

Weight

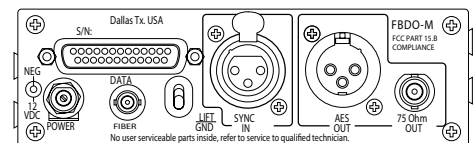
2 lbs. 7.5 oz/1.12kg

Master Unit

12 MIC/LINE INPUTS
20-BIT A/D
CONVERSION



CONTROL ROOM
20-BIT D/A
CONVERSION



Unit Back Panel

SSi

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