



FBR-1V1A1DB Series

1 Channel Video/Bi-Directional Audio/Bi-Directional Data Fiber Optic Transmitter/Receivers

STANDARD FEATURES (Single-mode) STANDARD FEATURES (Multimode)

- 1-Channel Video, 1-Channel Bi-Directional Audio, 1-Channel Bi-directional Data over one single-mode fiber
 - 8-bit video processing
 - 2.4-bit audio processing
 - 23dB optical budget
 - Supports all major data formats
 - Meets or exceeds EIA/TIA-250C medium haul standard
 - Standalone or rack configurations
- 1-Channel Video, 1-Channel Bi-Directional Audio, 1-Channel Bi-directional Data over one multimode fiber
 - 8-bit video processing
 - 2.4-bit audio processing
 - 13 dB optical budget
 - Supports all major data formats
 - Meets or exceeds EIA/TIA-250C medium haul standard
 - Standalone or rack configurations

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SPECIFICATIONS

	Single-mode	Multimode
VIDEO		
Number of Forward Video Channels	1	
Type of Video Transmission Over Fiber	Digital	
Number of Sample Bits	8	
Gain Adjustment (Manual/Auto/None)	None	
Video Bandwidth	10Hz - 6.5MHz	
Video Signal-to-Noise Ratio (SNR)	60 dB	
DATA		
Number of Forward Data Channels	1	
Number of Reverse Data Channels	1	
Data Interface	RS-422/RS-485 (2 or 4-wire)	
Operation Mode	DIP-Switch Selectable	
Data Rate	DC-115kbps (NRZ)	
AUDIO		
Number of Forward Audio Channels	1	
Number of Reverse Audio Channels	1	
Number of Sampling Bits	2.4	
Sampling Rate	48KHz	
Audio Bandwidth	20Hz - 20kHz	
Signal-to-Noise Ratio (SNR)	> 92dB	
Total Harmonic Distortion (THD)	< 0.01%	
FIBER		
Number of Fibers Required	1	1
Type of Fiber	Single-mode	Multimode
Type of Optical Connector	FC	ST
Wavelengths Used (Fwd./Rvrs.)	1310/1550 nm	850/1310 nm
Optical Power Budget	23 dB	13 dB
Maximum Distance (miles (km))	60km / 37 miles	3.2km / 2 miles
ELECTRICAL		
Nominal Input Voltage	12 VDC	
Input Current @ Nominal Input Voltage	350 mA	
Hot-Swappable in Rack (Yes/No)	Yes	
INDICATORS		
Indicators	Power, Link, Video, Data	
MECHANICAL		
Overall Size	8.43" x 6.25" x 1"	
Number of Rack Slots	1	
Unit Weight	< 2.0 lb/1.0 kg	
ENVIRONMENTAL		
Operating Temperature	-40 deg. C to +75 deg. C	
Storage Temperature	-40 deg. C to +85 deg. C	
Relative Humidity	0% to 95% non-condensing	
MTBF (hours)	> 100,000 hours	
COMPLIANCE		

- 1 Channel of Video
- 1 Channel of Bi-Directional Audio
- 1 Channel of Bi-Directional Data
- Single-mode and Multimode

AVAILABLE MODELS

Part number	Description
FBR-1V1A1DBM-RX	1 Channel Video, 1 Channel Bi-Directional Audio, 1 Channel Bi-Directional Data over single fiber (multimode) (receiver)
FBR-1V1A1DBM-TX	1 Channel Video, 1 Channel Bi-Directional Audio, 1 Channel Bi-Directional Data over single fiber (multimode) (transmitter)
FBR-1V1A1DBS-RX	1 Channel Video, 1 Channel Bi-Directional Audio, 1 Channel Bi-Directional Data over single fiber (single-mode) (receiver)
FBR-1V1A1DBS-TX	1 Channel Video, 1 Channel Bi-Directional Audio, 1 Channel Bi-Directional Data over single fiber (single-mode) (transmitter)

Safety Standards Unit Complies With	UL/EN60950-1
EMC Standards Unit Complies With	FCC part 15, EN55022, EN55024, EN50130-4
Laser Standards Unit Complies With	FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J
CE Mark (Yes/No)	Yes
Warranty (Effective Jan 1, 2009)	
Limited Lifetime	