



1700

Fiber Optic Digital Video/Audio Transport Systems



“Time Multiplexed SDI/Audio Transport System”



“High performance and affordable solutions for your high-end video/audio/data transmission.”

Applications

- Remote Multimedia Studio
- Broadcast Audio/Video Facility Links
- Audio/Video/Data Conferencing
- Media Retrieval and Distribution

Features

- Meets SMPTE-259M and AES3 Specifications
- Independent Video/Audio Streams with no Cross-linking
- Video Pathological Test Code Compliant
- Standalone and Card-cage Packaging
- 1 Fiber Solution also Available (WDM)**
- CWDM Optics Available**
- DVB-ASI Option Available**

*Option with 2 stereo analog audio channels

The 1700 system provides simultaneous transmission of digital audio, digital video and/or data over one or one pair of fibers. The 1700 unidirectional system transmits two (2) AES audios and one (1) SDI video channel in one direction. The 1700 bi-directional system transmits and receives two (2) AES audios and one (1) SDI video channel in both directions. The video quality in the 1700 system meets SMPTE-259M specifications and its audio specifications exceed AES3 standards. In addition, the 2 AES audio channels can be optionally replaced by 2 stereo analog audio channels. Many versions of optical transmitter and receiver combinations are available to address different distance requirements.

The 1700 features a digital time-multiplexing fiber optic transmission technology, capable of providing sharp video and crisp audio, with little or no maintenance, high functionality reliability, and low operating cost. In addition, the audio and video streams are totally independent. Thus the break of one stream (video or audio) will not cause the break of the other stream (audio or video). The quality of video, audio and data transmission in BCI's digital designs is much superior to the embedded video/audio transmission designs used by other manufacturers. No user adjustments are required in the 1700 system, enabling quick setup and trouble-free operation.

The 1700 comes with two packaging options: a rugged, standalone, and compact unit, or a plug-in card for a card cage system. Panel connectors are provided for video (BNC), audio (terminal block), and fiber connection (FC-type for singlemode fiber or ST-type for multimode fiber). They are also easily monitored by separate LED indicators for power, optical link, and channel activity.

Due to its digital transmission design, the 1700 is capable of addressing a variety of non-standard configurations. Contact us to discuss your custom, OEM/private brand and high volume requirements.



1700

Fiber Optic Digital Video/Audio/Data Transport Systems

Broadcast Transmission System



Video

Signal Format	SMPTE-259M Serial Digital Video
Signal Resolution	10 bits
Data Rate	up to 270 Mb/s
Signal Level	800mVp-p +/- 10%
Return Loss	> 15dB
Connector	75 Ohm BNC
Number of Input Video Loop-Through	1
Number of Video Output	2

Digital Audio

Signal Format	AES/EBU under AES3-1992 (ANSI S4.40-1992, IEC 958)
Channel Capacity	2
Signal Resolution	24 bits per channel
Audio Sampling Rate	32 KHz, 44.1 KHz, 48 KHz
Input/Output Impedance	110 Ohms or 75 Ohms
Jitter	< 20 ns
Signal Level	2.3 Vp-p (110 Ohms) 0.9-1.1 Vp-p (75 Ohms)
Connector	Terminal Block

Analog Audio

Channel Capacity	2 Stereo Analog Audio
Operating Mode	Balanced/Unbalanced
Input/Output Impedance	600/600 Ohms (Balanced)
Max. Input/Output Level	+10dBm @ 600 Ohms (Balanced)
Magnitude Freq. Response	20Hz to 20kHz @ -3dB
SNR (Weighted)	80dB @ 1kHz, 0dBm Input Level (Balanced)
Connector	Terminal Block

Physical

Dimension: (H x W x D)	
Standalone/internal power	1.72" x 17.03" x 12.00"
Standalone/external power	1.72" x 4.36" x 8.75"
Card-cage plug-in card	5.24" x 0.94" x 11.6"

Power

Standalone/external power	12 VDC @ 1.2A
Standalone/internal power	95-240 VAC @ 0.6A
Operating Temperature	0 to +50°C
Humidity	0 to 95% RH, non-condensing
Status Indicators	Power, Optical Link, Video/Audio/Data Activity

Optical

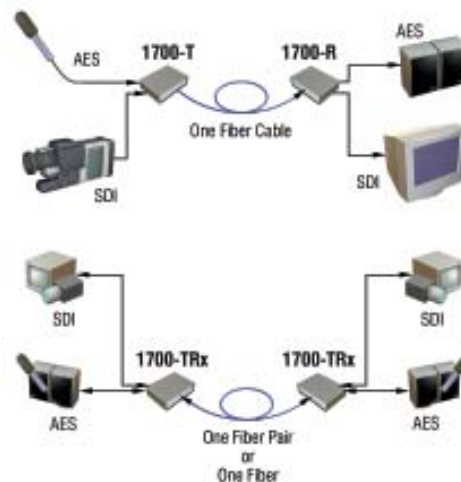
Fiber Type	Multimode and Singlemode
Number of Fibers	2 or 1
Wavelength	1310 and/or 1550 nm
Fiber Optic Connector	ST (Multimode) FC (Singlemode)

Typical Power Budget and Transmission Distance

Application	Power Budget (1)	Typical Distance KM (2)	Typical Distance Miles (2)
Multimode Fiber	14	2	1.3
Singlemode Fiber	14	30	19
Singlemode Long Distance	20	60	38

- (1) These are typical values for the 1700 Series. The actual values may vary.
 (2) These are typical distance coverage figures. The maximum distance coverage may be greater than these typical numbers, depending on fiber type, fiber bandwidth, connector splicing losses, chromatic dispersion, environmental factors, etc.

Application



DOING MORE WITH ONE FIBER *plus*

Subject to continued product enhancement, we reserve the right to change the above specifications and description without notice.

