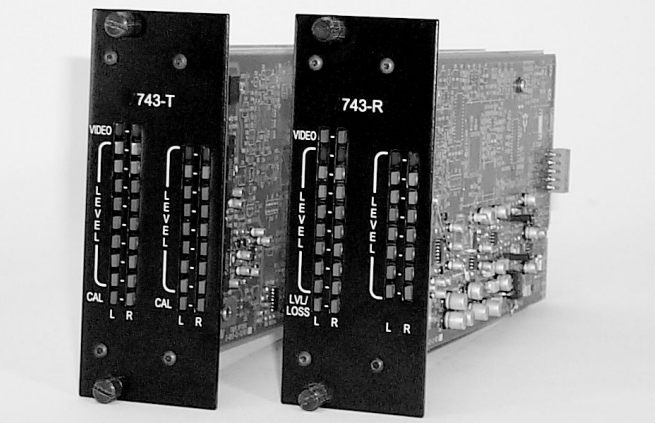
GE Interlogix
Fiber Options

B743AV
B7743AV

Video and Four-Channel Audio
Digitally Processed



Product Specification

Features

- **One-way video and audio transmission over one fiber**
- **10-bit A/D video processing**
- **24-bit A/D audio processing**
- **Audio SNR >90 dB, THD <0.003%**
- **20 Hz to 20 kHz frequency response**
- **Balanced or unbalanced audio**
- **Standard 13 dB MM, 18 dB SM optical budget**
- **Built-in 1.0 kHz test generator**
- **Built-in optical power meter**
- ***SMARTS™* Diagnostics**
- **Forever Warranty™**

Description

The B743AV/B7743AV series high performance broadcast grade fiber transmission system supports composite video and four channels of line-level audio. The all-digital processing platform features 24-bit audio processing and a 48 kHz audio sampling rate.

For added flexibility dual range audio levels for the four audio channels can be configured for -10 dB to +8 db or 0 dB to +18 dB operation.

Four multi-segment LED displays provide for complete monitoring of input video, output video, audio input and audio output levels and the received optical signal. When switched to the test mode on the receiver, the front panel LEDs have the capability to display the received optical level. This built-in test feature aids in the installation process as it easily measures the actual optical loss in the fiber run from the transmitter.

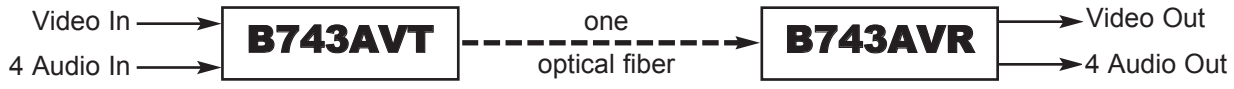
Basic Multimode Models

B743AV-L 1-Fiber link, 1300 nm

Basic Single-Mode Models

B7743AV 1-Fiber link, 1310 nm
B7743AV-L 1-Fiber link, 1550 nm

SYSTEM DIAGRAM



VIDEO

Number of Channels:	1
Standards Supported:	NTSC, PAL
Video Input Signal:	1.0 V p-p composite
Input/Output Impedance:	75 Ω
Video Input Signal:	1.0 V p-p composite, unity gain
Signal-to-Noise Ratio:	>67 dB
Video Bandwidth:	7.5 MHz
Differential Phase:	0.7º
Differential Gain:	1%

AUDIO

Number of Channels:	4, simplex
Input Signal Level:	-10 dBm to +8 dBm or 0 dBm to +18 dBm
Input Impedance:	600 Ω (balanced or unbalanced) 30 kΩ (balanced or unbalanced)
Frequency Response:	20 Hz to 20 kHz
Sampling Rate:	48 kHz
Output Signal Level:	18 dBu max. 8 dBu max.
Output Impedance:	<30 Ω unbalanced <60 Ω balanced
Signal-to-Noise Ratio:	90 dB
THD:	<0.003%
Built-in Test Signal:	1 kHz @ 5 dBu

ELECTRICAL

Input Voltage:	13.5 VDC, regulated
Current Requirement:	1 A
Rack Module	
Power Factor:	8
Power Consumption:	13.5 W @ 14 V
Protection:	Solid-state short-circuit protection (no fuse required)
Card Replacement:	Cards are hot swappable

OPTICAL

Optical Mode:	
B743AV:	Multimode
B7743AV:	Single Mode
Wavelength:	
B743AV-L:	1300 nm
B7743AV:	1310 nm
B7743AV-L:	1550 nm
Optical Budget:	
B743AV-L:	13 dB*
B7743AV:	18 dB
B7743AV-L:	18 dB
Operating Distance**:	
B743AV-L:	3.7 mi (6 km)
B7743AV:	28 mi (45 km)
B7743AV-L:	37 mi (60 km)
Emitter Type:	Laser
Fiber Type:	
Multimode:	50 µm, 62.5 µm
Single Mode:	8.3 µm
Modulation Type:	Digital
Gain Control:	Optical automatic (OAGC)

*Optical Budget based on 62.5/125 um fiber, for 50/125 um fiber subtract 3 dB.
**Operating distance is approximate and assumes best fiber. It will be affected by the type and number of splices in the fiber. Refer to update no. TB00-005, which can be found at www.fiberoptions.com.

ENVIRONMENTAL

Temperature Range
in Operation: -40° to +167° F (-40° to +75° C)
in Storage: -40° to +185° F (-40° to +85° C)
Humidity Range in Operation and Storage:
0 to 95% relative, noncondensing

MECHANICAL

Rack Modules

Module Width:	2 slots, 2.0 in. (51 mm)
Weight:	1.2 lb (0.54 kg)
Construction:	Aluminum
Finish:	Black semigloss paint

SMARTS™ INDICATORS

Level/Loss™, Audio Level, Video Status

AGENCY COMPLIANCE AND MTBF

Emissions:	FCC Part 15, ICES-003, AS/NZS 3548, EN55022
Immunity:	ENV50204, EN61000-4-2,3,4,5,6,11
Safety:	UL1950, CAN/CSA 22.2, NO.950-95
MTBF:	>100,000 hours

FCC PART 15 COMPLIANT

For additional information about this product, refer to the Fiber Options Web site at www.fiberoptions.com.