



# GE Interlogix Fiber Options

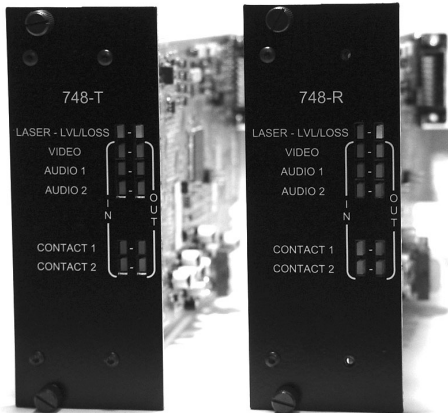
# B748AV



# B7748AV



## Two-Way Video and Two-Way, 2-Channel Audio *Digitally Processed*



## Product Specification

### Features

- ✓ Two-way video and audio transmission over one or two fibers
- ✓ 9-bit A/D video processing
- ✓ 24-bit A/D audio processing
- ✓ Audio SNR >90 dB, THD <0.006%
- ✓ 20 Hz to 20 kHz frequency response
- ✓ Balanced or unbalanced audio
- ✓ Standard 13 dB multimode optical budget, 18 dB single-mode optical budget
- ✓ Relay/contact closure - 2 duplex channels
- ✓ SMARTS™ Diagnostics including built-in video and audio test generators
- ✓ Forever Warranty™

### Description

The B748AV/B7748AV series high performance broadcast grade fiber transmission system supports two-way composite video, two-way, 2-channel line-level audio, and two-way, 2-channel relay/contact closure. The all-digital processing platform features 24-bit dual channel audio processing.

Digital processing of the video signal along with a video signal-to-noise ratio of >65 dB assures clean, noise-free video at the receiver.

Digital processing of the audio signal along with an audio signal-to-noise ratio of >90 dB allows the audio output to drive balanced or unbalanced loads and maintain constant audio levels.

Fiber Options' unique SMARTS™ diagnostic technology provides an extensive set of built-in diagnostic tools including a video test pattern generator that allows failures to be diagnosed from the monitor, and LED displays for monitoring video, audio, contact, and optical signals.

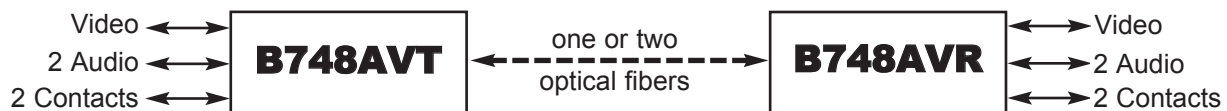
### Basic Multimode Models

- B748AV-1** 1-Fiber link, 850/1300 nm
- B748AV-2L** 2-Fiber link, 1300 nm

### Basic Single-Mode Models

- B7748AV-1** 1-Fiber link, 1310/1550 nm
- B7748AV-2** 2-Fiber link, 1310 nm
- B7748AV-2L** 2-Fiber link, 1550 nm

### SYSTEM DIAGRAM



## SERIES B748AV AND B7748AV

### VIDEO

Number of Channels:	1
Standards Supported:	NTSC, PAL
Video Input Signal:	1.0 V p-p composite
Input/Output Impedance:	75 $\Omega$
Video Input Signal:	1.0 V p-p composite, unity gain
Signal-to-Noise Ratio:	>65 dB
Video Bandwidth:	7.5 MHz
Video Resolution:	600 TV lines
Differential Phase:	0.7°
Differential Gain:	<1%

### AUDIO

Number of Channels:	2, bidirectional
Input Signal Level:	17.4 V p-p, +18 dBu
Input Impedance:	600 $\Omega$ or 100 k $\Omega$
Bandwidth:	20 Hz to 20 kHz
Audio Sampling Rate:	52 kHz
Output Signal Level:	17.4 V p-p, +18 dBu
Output Impedance:	60 $\Omega$ balanced 30 $\Omega$ unbalanced
Signal-to-Noise Ratio:	>90 dB
THD:	<0.006%

### RELAY/CONTACT

Channels:	2 duplex channels
Relay/Contact Rating:	1 A @ 30 VDC

### ELECTRICAL

Input Voltage:	13.5 VDC, regulated
Current Requirement:	500 mA
Rack Module	
Power Factor:	4
Power Consumption:	6.75 W
Protection:	Solid-state short-circuit protection (no fuse required)
Card Replacement:	Cards are hot swappable
Power Supply:	613P

### OPTICAL

Optical Mode:	
B748AV:	Multimode
B7748AV:	Single Mode
Optical Budget:	
B748AV-L:	13 dB*
B7748AV:	18 dB

\*Optical Budget based on 62.5/125  $\mu$ m fiber, for 50/125  $\mu$ m 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](http://www.fiberoptions.com).

Wavelength:	
B748AV-1:	850/1310 nm
B748AV-2L:	1310 nm
B7748AV-1:	1310/1550 nm
B7748AV-2:	1310 nm
B7748AV-2L:	1550 nm
Operating Distance**:	
B748AV-1:	3.2 mi (5.2 km)
B748AV-2L:	11 mi (18 km)
B7748AV-1, -2:	28 mi (45 km)
B7748AV-2L:	37 mi (60 km)
Emitter Type:	Laser
Fiber Type:	
Multimode:	62.5 $\mu$ m
Single Mode:	8.3 $\mu$ m
Modulation Type:	Digital
Gain Control:	Optical automatic (OAGC)

### 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 slot, 2.0 in. (51 mm)
Weight:	1.2 lbs (0.54 kg)
Construction:	Aluminum
Finish:	Black semigloss paint

### SMARTS™ INDICATORS

Level/Loss™, Laser, Video Input/Output, Audio Input/Output, Contact Input/Output

### 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
Laser Safety:	21CFR1040, EN60825-1, -2
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](http://www.fiberoptions.com).