GE Interlogix
Fiber Options

S768DAV
S7768DAV

VIDEO

AUDIO 2

DATA 2

CONTACT CLOSURE

Two-Way Video, Audio, Multi-protocol Data and Contact Closure

Product Specification

Features

✔ **Two-way transmission over one or two fibers**

✔ **9-bit A/D video processing**

✔ **24-bit A/D audio processing**

✔ **Multi-protocol data: RS-232, RS-422, RS-485, Manchester, Biphase, TTL, and SensorNet**

✔ **Unique data translation function**

✔ **Local or remote user-configurable data format**

✔ **Relay/contact closure - 2 duplex channels**

✔ **SMARTS™ Diagnostics, including on-screen monitor dispays**

✔ **Built-in video and audio test pattern generators**

✔ **Forever Warranty™**

Description

The S768DAV/S7768DAV fiber link provides two-way video transmission combined with two-way 2-channel audio, 2-channel multi-protocol data, and 2-channel contact closure

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.

The data functions include the unique data translation feature, which allows one data format to be input and a different data format to be output.

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, data, contact, and optical signals.
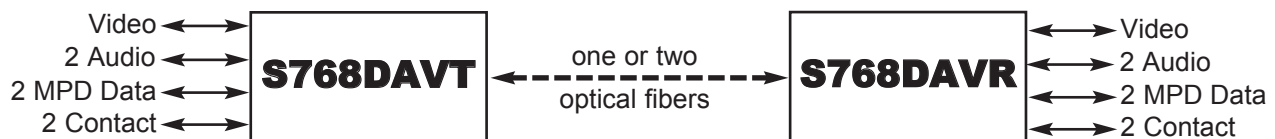
Basic Multimode Models

S768DAV-1	1-Fiber link, 850/1300 nm
S768DAV-2L	2-Fiber link, 1300 nm

Basic Single-Mode Models

S7768DAV-1	1-Fiber link, 1310/1550 nm
S7768DAV-2	2-Fiber link, 1310 nm
S7768DAV-2L	2-Fiber link, 1550 nm

SYSTEM DIAGRAM

Video
2 Audio
2 MPD Data
2 Contact

S768DAVT

one or two optical fibers

S768DAVR

Video
2 Audio
2 MPD Data
2 Contact

VIDEO

Number of Channels:	1, bidiretional
Standards Supported:	All major formats
Video Input/Output Signal:	1.0 V p-p composite
Input/Output Impedance:	75 Ω
Signal-to-Noise Ratio:	>65 dB
Video Bandwidth:	8 MHz
Video Resolution:	640 TV lines
Differential Phase:	0.7°
Differential Gain:	<1%

DATA

Number of Channels:	2, bi-directional, format independant
I/O Data Formats:	RS-232 (3-wire and 5-wire), TTL, RS-422, Manchester, Biphase, Sensornet™, RS-485 (2-wire and 4-wire) with 200 mV, 1 V and 2 V offsets and forward/reverse relay/contact closure
Baud Rate:	
RS-232:	250 kbps
Manchester, Biphase:	250 kbps
RS-422, RS-485, TTL:	512 kbps
Relay/Contact Closures:	2 duplex channels
Relay/Contact Rating:	1 A @ 30 VDC
Bit Error Rate:	$<10^{-9}$

Maximum Distance: The maximum distance from the CCTV control system components to the fiber units is governed by the control system.

AUDIO

Channels:	2, bi-directional
Input Signal:	17.4 V p-p, +18 dBu max.
Input Impedance:	600 Ω or 100 kΩ
Output Signal Level:	17.4 V p-p, +18 dBu max.
Output Impedance:	30 Ω single-ended or 60 Ω balanced
Bandwidth:	20 Hz to 20 kHz
Sampling Rate:	52 kHz
Signal-to-Noise Ratio:	> 90 dB
Total Harmonic Distortion:	<0.006%

ELECTRICAL

Input Voltage:	13.5 VDC, regulated
Current Requirement:	600 mA
Rack Module Power Factor:	5
Power Consumption:	8.1 W

*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.

Protection:	Solid-state short circuit protection (no fuse required)
Card Replacement:	Cards are hot swappable
Power Supply:	613P

OPTICAL

Optical Mode:	
S768DAV:	Multimode
S7768DAV:	Single Mode
Wavelength:	
S768DAV-1:	850/1300 nm
S768DAV-2L:	1300 nm
S7768DAV-1:	1310/1550 nm
S7768DAV-2:	1310 nm
S7768DAV-2L:	1550 nm
Optical Budget:	
S768DAV:	13 dB*
S7768DAV:	18 dB
Operating Distance**:	
S768DAV-1:	2.5 mi (4.0 km)
S768DAV-2L:	11 mi (18 km)
S7768DAV-1, -2:	20 mi (32 km)
S7768DAV-2L	27 mi (43 km)
Emitter Type:	Laser
Fiber Type:	Multimode: 62.5 µm Single Mode: 8.3 µm
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

Module Width:	2 slots, 2.0 in. (51 mm)
Weight:	0.8 lb (0.36 kg)
Construction:	Aluminum
Finish:	Black semigloss paint

SMARTS™ INDICATORS

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

AGENCY COMPLIANCE AND MTBF

Emissions:	FCC Part 15, ICES-003, AS/NZS 3548, EN55022
Immunity:	EN50130-4
Safety:	UL1950, CAN/CSA 22.2, NO.950-95
Laser Safety:	21CFR1040; EN 60825-1, 2
MTBF:	>100,000 hours

FCC PART 15 COMPLIANT CE c UL us

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