

## Overview

The S754DA and S7754DA fiber links provide two-way transmission of two audio channels, two multiprotocol data channels, and contact closure channels over one or two single mode or multimode fibers.

## Digital Processing

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

## Data Translation

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. Data formats are selected during installation and can be easily changed in the field via rotary switch.

## Superior Diagnostics

The SMARTS™ diagnostic technology provides an extensive set of diagnostic tools including an audio test generator to verify audio channel operation. LEDs provide a visual indication of the operating status of the audio, data, and contact channels as well as the optical signal strength.

# Two-Way, 2-Channel Audio, Multiprotocol Data and Contact Closure

S754DA and S7754DA

## Standard Features

- Two-way transmission of two audio, data and contact closure channels over one or two single mode or multimode fibers
- 24-bit audio processing
- Unique data translation function
- Local or remote user-selectable data format, 2 independent data channels
- Supports multiprotocol data formats
- Relay/contact closure - 2 duplex channel
- Built-in audio test generator
- Diagnostic LEDs



U.S.  
T (561) 998-6100  
T 888-GE-SECURITY  
888-(437-3287)  
F 561 998 6224

Canada  
T 519 376 2430  
F 519 376 7258

Asia  
T 852-2907-8108  
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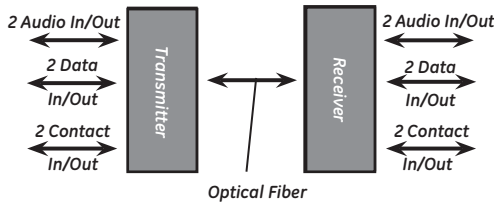
[www.gesecurity.com](http://www.gesecurity.com)

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## Specifications

	S754DA (Multimode)	S7754DA (Single Mode)
<b>Audio</b>		
Channels	2 duplex	
Input Signal	17.4 V pk - pk, +18 dBu max.	
Input Impedance	600 ohms or 100k ohms	
Output Signal Level	17.4 V pk - pk, +18 dBu max.	
Output Impedance	30 ohms unbalanced or 60 ohms balanced	
Bandwidth	20 Hz to 20 kHz	
Audio Sampling Rate	52 kHz	
Signal-to-Noise Ratio	>90 dB	
Total Harmonic Distortion	<0.006%	
<b>Data</b>		
Channels	2 duplex, format independent	
Formats	RS-232 (3-wire/5-wire), TTL, RS-422, RS-485 (2-wire/4-wire), Manchester, Biphase, SensorNet	
Baud Rate	250 kbps to 512 kbps (depending on data format)	
Bit Error Rate	<1.0E-9	
Relay/Contact Closure	2 duplex channels	
Relay Contact Rating	1 A at 30 VDC	
<b>Optical</b>		
Mode	Multimode	Single Mode
Optical Budget*	13 dB	18 dB
Emitter	Laser	
Operating Distance**	11 mi (18 km) (depending on model)	37 mi (60 km) (depending on model)
Wavelength	850 nm and/or 1300 nm	1310 nm and/or 1550 nm (depending on model)
Gain Control	Optical Automatic Gain Control (OAGC)	
<b>Electrical</b>		
Input Power	13.5 VDC regulated	
Current Requirement	500 mA	
Power Consumption	6.75 W	
Power Factor	4	
Protection	Solid-state short circuit protection	
<b>Environmental</b>		
Operating Temperature	-40 to 167 °F (-40 to 75 °C)	
Maximum Humidity	95% relative, noncondensing	
<b>Mechanical</b>		
Dimensions, Rack Units	1 slot (1.0")	
Weight	Standalone 0.7 lbs (0.32 kg)	
Construction	Aluminum	

## Related Diagram



AGENCY COMPLIANCE **MADE IN THE USA**



Complies with FDA Performance Standard for Laser Products,  
Title 21, Code of Federal Regulations, Subchapter J

## Ordering Information

Use the Configurator below to select the options available for this product.

S754DA  - RST

Product Type	No. of Fibers	Optical Wavelength
T Transmitter	1 1 Fiber	AddL here only if ordering
R Receiver	2 2 Fibers	High Order Wavelength (2 Fiber units)

S7754DA  - R

Product Type	Connector Type	No. of Fibers	Optical Wavelength
T Transmitter	FC FC Type	1 1 Fiber	AddL here only if ordering
R Receiver	ST ST Type	2 2 Fibers	High Order Wavelength (2 Fiber units)

\* Optical Budget based on 62.5 μm fiber, for 50/125 μm 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.gesecurity.com](http://www.gesecurity.com)

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