Fiber Optic
Audio and Data with
Contact Closure

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

Specifications

Audio	S754DA (Multimode)	S7754DA (Single Mode)
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%	
Data		
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	
Optical		
Mode	Multimode	Single Mode
Optical Budget*	13 dB	18 dB
Emitter	Laser	
Operating Distance**	11 mi (18 km)	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)	
Electrical		
Input Power	13.5 VDC regulated	
Current Requirement	500 mA	
Power Consumption	6.75 W	
Power Factor	4	
Protection	Solid-state short circuit protection	
Environmental		
Operating Temperature	-40 to 167 °F (-40 to 75 °C)	
Maximum Humidity	95% relative, noncondensing	
Mechanical		
Dimensions, Rack Units	1 slot (1.0")	
Weight	Standalone 0.7 lbs (0.32 kg)	
Construction	Aluminum	

Related Diagram

2 Audio In/Out — Transmitter — Receiver — 2 Audio In/Out
2 Data In/Out — 2 Data In/Out
2 Contact In/Out — 2 Contact In/Out
Optical Fiber
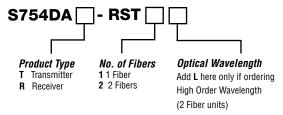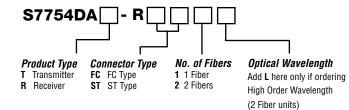
AGENCY COMPLIANCE   **MADE IN THE USA**

FCC PART 15 COMPLIANT CE c(UL)us

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	Add **L** 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	Add **L** 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

As a company of innovation, GE Security reserves the right to change product specifications without notice. For the latest product specifications, visit GESecurity online at www.GESecurity.com or contact your GE Security sales representative.
S754DA-2006-09-2

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