



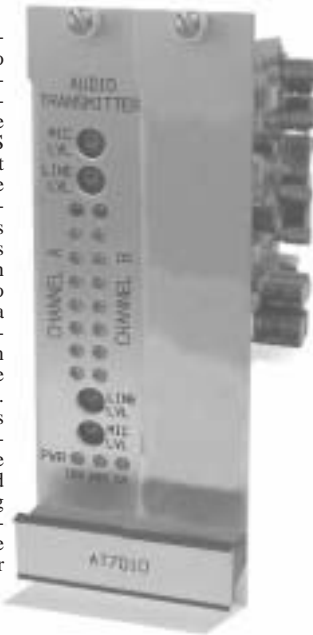
PRODUCT SPECIFICATION

AT/AR7000 SERIES

20-BIT DIGITAL 2 CHANNEL AUDIO LINK

DESCRIPTION

The IFS AT/AR7000 Series digital audio transmitter and audio receiver provide one way transmission of two channels of microphone or line level audio over one multimode optical fiber. The IFS AT/AR7000 series uses 20 bit digital audio encoding to ensure the highest quality audio transmission. The transmitter features microphone pre-mp stage bypass and a compressor/limiter with LED indicators to display audio limiting. The receiver features a 3-band graphic equalizer and distribution amplifier. Models within this series are available for use with multimode optical fiber only. Plug-and-play design ensures ease of installation with no electrical or optical adjustments. The modules incorporate power and carrier detect status indicating LED's for monitoring proper system operation. The modules are available in either stand-alone or rack mount versions.



FEATURES

- 2 Channels of 20-Bit Digital Audio over one Fiber
- 20-Bit Delta-Sigma A/D with 48 KHz Sampling Rate
- Internal Microphone Pre-Amps and Phantom Power
- Individual Input and Output Gain Controls for each Channel
- Built-in Output Distribution Amplifier with 3 Outputs per Channel
- Front Panel Testpoints for Measurements or Headphone Listening
- Built-in Audio Level Bar Graphs
- Line or Microphone Level Inputs
- Balanced or Unbalanced 600-ohm Inputs and Outputs
- Diagnostic Indicators - Power, Peak Limit, Audio Level, 12 v or 48 v Power, Optical Loss, Line or Microphone
- Automatic Resettable Fuses on all Power Lines
- Distances up to 6 miles (10 km) Without Repeaters
- Digital Optical - No AGC Required
- Phantom Power to all Microphones Simultaneously
- Built-in Compressor/Limiter
- Built-in 3-Band Equalizer
- Lifetime Warranty



Available at: www.ifs.com

APPLICATION EXAMPLES

- Distance Learning Installations
- Broadcast Quality Contributions
- Remote News and Sports Gathering
- High Security Prison Systems

- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

ORDERING INFORMATION

	PART NUMBER	DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
MULTIMODE 62.5/125µm**	AT7010-R3	2 Channel Audio Link Transmitter (850 nm)	2	10 dB	1.5 miles (2.5 km)
	AR7010-R3	2 Channel Audio Link Receiver (850 nm)			
	AT7020-R3	2 Channel Audio Link Transmitter (1310 nm)	2	10 dB	6 miles (10 km)
	AR7020-R3	2 Channel Audio Link Receiver (1310 nm)			
OPTIONS	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory)				

* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. ** For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

International Fiber Systems, Incorporated ■ DESIGN CENTER (888)999-9IFS or (203)426-1180
 FAX (203)426-3326 ■ sales@ifs.com
 Europe, Middle East, Africa TEL +44(0)1732-522777 ■ Asia Pacific TEL (852)291-41491
 Australia TEL (612)998-01544 ■ Latin America TEL (512)477-8787



TECHNICAL SPECIFICATION

AT/AR 7000 SERIES

20-BIT DIGITAL 2 CHANNEL AUDIO LINK

SPECIFICATIONS

AUDIO

Audio: Balanced or Unbalanced
 Audio Bandwidth: 20 Hz - 20 kHz
 Input/Output: -88 dBu to +24 dBu
 Impedance: 600 ohms
 Signal-to-Noise Ratio (SNR): 108 dB

WAVELENGTH

850 or 1310 nm, Multimode

NUMBER OF FIBERS

2

CONNECTORS

Power and Audio: Terminal block with screw terminals
 Optical: ST

ELECTRICAL & MECHANICAL

Power: 550 mA
 Rack: From Rack
 Number of Rack Slots: 2
 Current Protection: Automatic Resettable Solid-State Current Limiters
 Circuit Board: Meets IPC Standard
 Size (in./cm.) (LxWxH)
 Rack: 7.7 x 5.0 x 1.0 in., 19.6 x 12.7 x 2.5 cm
 Shipping Weight: < 2 lbs./0.9 kg

ENVIRONMENTAL

MTBF: > 100,000 hours
 Operating Temp: -40° C to +74° C
 Storage Temp: -40° C to +85° C
 Relative Humidity: 0% to 95% (non-condensing)†

† May be extended to condensation conditions by adding suffix '-C' to model number for conformal coating.

AGENCY COMPLIANCE

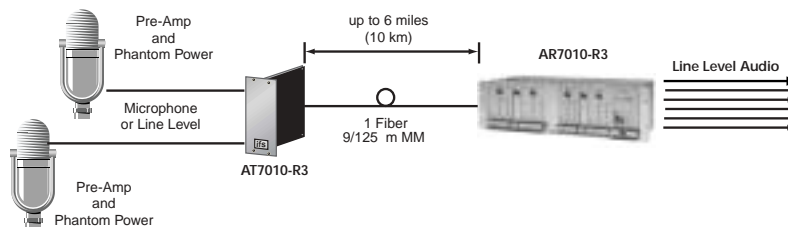
FCC PART 15 COMPLIANT **GSA**
 Emissions: FCC Part 15, ICES-003, AS/NZS 3548, EN55022
 Immunity: ENVS0204, EN61000-4-2,3,4,5,6,11
 Safety: UL1950, CAN/CSA 22.2, NO.950-95 **MADE IN THE USA**

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSMITTER		RECEIVER		OPTICAL PWR BUDGET	MAX. DISTANCE*
		MODEL	OUTPUT	MODEL	SENSITIVITY		
Multimode 62.5/125µm**	850 nm	AT7010-R3	20µw (-17 dBm)	AR7010-R3	2.0 µw (-27 dBm)	10 dB	1.5 miles (2.5 km)
	1310 nm	AT7020-R3		AR7020-R3			6 miles (10 km)

* Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. ** For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

SYSTEM DESIGN



International
 Fiber
 Systems
 Incorporated

TEL (203)426-1180 ■ FAX (203)426-3326 ■ www.ifs.com ■ sales@ifs.com
 16 Commerce Road ■ Newtown, CT 06470

Due to our continued effort to advance technology, product specifications are subject to change without notice.

11/05/02