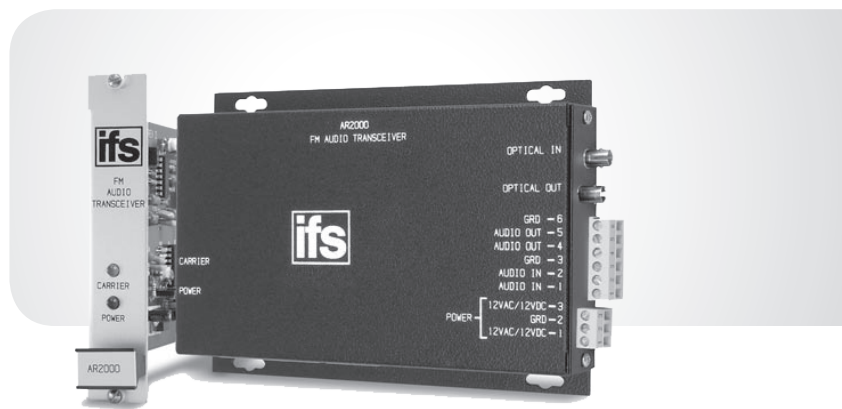


# AT/AR1000 & AR2000 Series

IFS Audio Transmitter/Receiver and Transceiver



## OVERVIEW

The IFS AT/AR1000 Series audio transmitter and receiver provide one-way transmission of an audio signal on one optical fiber. The IFS AR2000 Series audio transceiver provides bi-directional transmission of one audio signal on one or two optical fibers. The modules use frequency modulation (FM) for superior transmission of balanced or unbalanced line-level audio (2.2V peak-to-peak). Models within this series are available for use with multimode or single mode optical fiber. Plug-and-play design ensures ease of installation requiring 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.

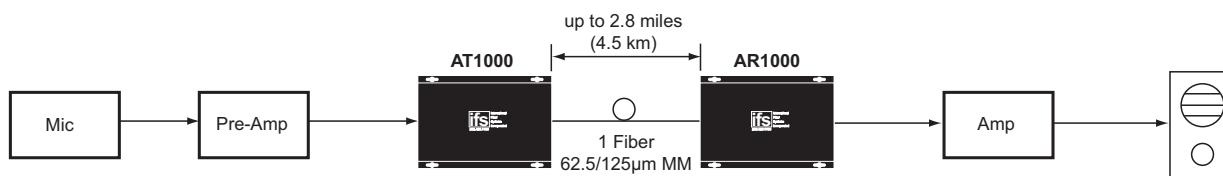
## STANDARD FEATURES

- FM Audio Transmission
- 20 Hz – 20 kHz Bandwidth
- 600 Ohms Audio Input Impedance
- Transmits Balanced or Unbalanced Line-Level Audio (2.2 Volts Peak-to-Peak)
- No In-field Electrical or Optical Adjustments Required
- Power and Carrier Detect Status Indicating LEDs to Monitor System Performance
- Hot-Swappable Rack Modules
- Automatic Resettable Fuses on all Power Lines
- Meets NEMA TS-1/TS-2 & Caltrans Specifications (Temperature/Humidity, Shock/Vibration, and Voltage Transient Protection)
- Distances up to 30 miles (49km) without Repeaters
- Comprehensive Lifetime Warranty

## APPLICATION EXAMPLES

- Transmission of Stage Mics from Pre-amp to Amplifier
- Recording Studios and Post-Production Facilities
- Transmission of Broadcast Audio Feeds
- Elimination of EMI/RFI Interference in Audio Cables
- Optical Isolation for Elimination of Ground Loop Noise

## SYSTEM DESIGN



# AT/AR1000 & AR2000 Series

North America  
T 855-286-8889

Latin America  
T 561-998-6114

IFS Audio Transmitter/Receiver and Transceiver

## Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	AT1000	Audio Transmitter (850 nm)	1	16 dB	2.8 miles (4.5 km)
	AR1000	Audio Receiver (850 nm)	1	16 dB	2.8 miles (4.5 km)
	AR2000	Audio Transceiver (850 nm)	2	16 dB	2.8 miles (4.5 km)
	AR2010WDMA↔	Audio Transceiver (850/1310 nm)	1	16 dB	2.8 miles (4.5 km)
	AR2010WDMB	Audio Transceiver (1310/850 nm)	1	16 dB	2.8 miles (4.5 km)
	AR1030	Audio Receiver (1310 nm)	1	16 dB	10 miles (16 km)
Single Mode 9/125µm	AT1025	Audio Transmitter (1310 nm)		17 dB	30 miles (49 km)
	AR1030	Audio Receiver (1310 nm)		17 dB	30 miles (49 km)
	AR2025	Audio Transceiver (1310 nm)		17 dB	30 miles (49 km)
Accessories ♦	PS12VDC1.5A-U	12VDC, 1.5A Plug-in Power supply (110/220VAC) with Universal power plug adapter kit (Included)			
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately)				

\*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.

♦ All accessories are third party manufactured. ↔WDMA must mate with a WDMB

## Specifications

### Video

Input/Output Signal:	2.2 volts pk-pk
Input/Output Impedance:	600 ohms (Single ended or differential)
Bandwidth:	20 Hz - 20 KHz
Total Harmonic Distortion:	<1.0%
Signal-to-Noise Ratio (SNR):	60 dB min.

### Wavelength

ATAR1000,2000: 850 nm, MM AR2010WDMA: 850/1310, MM  
All Others Models: 1310 nm

### Number Of Fibers

1 or 2

### Connectors

Optical:	ST
Power and Audio:	Terminal Block with Screw Clamps

### Electrical & Mechanical

Power:	
Surface Mount	12 VDC @ 200 mA
Rack:	From Rack
Number of Rack Slots:	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm
Rack Mount:	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)

## Agency Compliance

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



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Specifications subject to change without notice.

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AT/AR1000, AR2000 Series