



**MR-05B-PA  
SERIES  
MULTIMODE  
SINGLEMODE**

# Audio Fiber Optic Receiver & Power Amp

**FEATURES:**

- ◆ 70 Volt Output to Power Remote Speakers
- ◆ Diagnostics: Power and Optical Presence
- ◆ No user or installation adjustments
- ◆ ST Optical Connector
- ◆ Compatible with AFI Series 05B transmitters

**SPECIFICATIONS:**

**Audio:**

Output Power ..... 5 Watts @ 8 ohms  
 Output Voltage..... 70Vrms  
 Bandwidth ..... 20 Hz to 20 kHz  
 THD..... 1.0 %  
 Signal to Noise.....65 dB  
 Connector ..... Terminal Block

**Optical:**

**Multimode**

Wavelength ..... 850 nm  
 Loss Budget (62.5/125 μm fiber).....20dB  
 Connector ..... ST

**Singlemode**

Wavelength ..... 1310 nm  
 Loss Budget (9/125 μm fiber).....21dB  
 Connector ..... ST

**Environmental**

Operating Temp.....-40°C to +75°C  
 Storage Temp.....-40°C to +85°C  
 Humidity.....0% to 95% (non condensing)  
 MTBF.....>100,000 hours

**Power Supply:**

Included with modules  
 Module Receiver .....12 VDC/1.5A

**Size:**

Module:.....8 1/8" x 4 1/8" x 1 1/2"

**Ordering information:**

**Multimode**

MR-05B-PA      Module Receiver & Amp

**Singlemode**

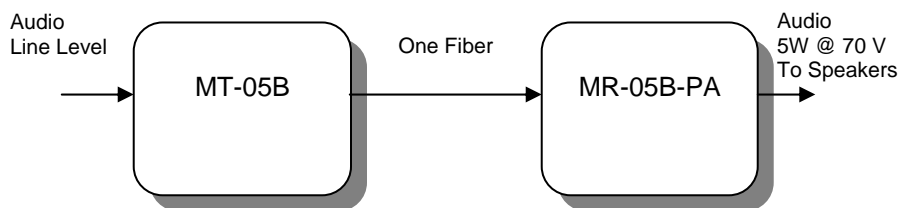
MR-05B-PA-SL      Module Receiver & Amp



The American Fibertek 05B-PA receiver operates in conjunction with the American Fibertek MT-05B Series transmitters. The link accepts single direction line level audio, 600 ohms balanced or unbalanced, transmits the audio over one multimode or singlemode fiber and provides a 5W @ 70V output to power remote speaker systems.

The audio is transmitted over the link using FM modulation which results in an improved signal to noise ratio and a constant audio output level over the full optical loss budget. Diagnostic indicators provide a quick visual check of system status.

Designed to be completely transparent, these links require no field adjustments at installation or additional maintenance thereafter.



**FEATURES:**

- ◆ 600 Ohm Balanced or Unbalanced Audio
- ◆ Diagnostics: Power and Optical Presence
- ◆ No user or installation adjustments
- ◆ ST Optical Connector

**SPECIFICATIONS:**

**Audio:**

I/O Level @ 600 Ω .....0 dBm (2.2 Vp-p)  
 I/O Level Max.....+12 dBm (8.8 Vp-p)  
 I/O Impedance ..... 600 Ω  
 Bandwidth ..... 20 Hz to 20 kHz  
 THD..... 1.0 %  
 Signal to Noise.....65 dB  
 Connector ..... Terminal Block

**Optical:**

**Multimode**

Wavelength ..... 850 nm  
 Loss Budget (62.5/125 μm fiber).....20dB  
 Connector ..... ST

**Singlemode**

Wavelength ..... 1310 nm  
 Loss Budget (9/125 μm fiber).....21dB  
 Connector ..... ST

**Environmental**

Operating Temp.....-40°C to +75°C  
 Storage Temp.....-40°C to +85°C  
 Humidity.....0% to 95% (non condensing)  
 MTBF.....>100,000 hours

**Power Supply:**

Included with modules  
 Module Transmitter.....12 VDC  
 Module Receiver .....12 VDC  
 Rack Card.....(See AFI Part #: SR20/2)

**Size:**

Rack Card.....5.0" x 6<sup>1</sup>/<sub>2</sub>" x 1.0"  
 Module.....2<sup>5</sup>/<sub>8</sub>" x 5<sup>3</sup>/<sub>4</sub>" x 1<sup>3</sup>/<sub>8</sub>"

**Ordering information:**

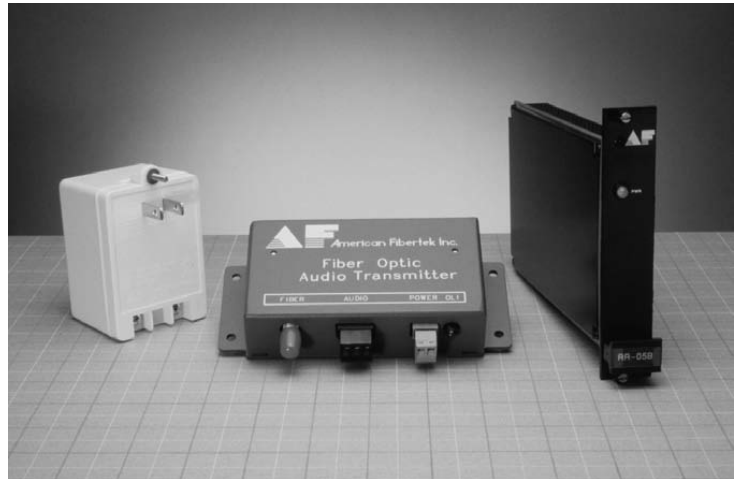
**Multimode**

MT-05B-12VDC    Module Transmitter  
 MR-05B-12VDC    Module Receiver  
 RT-05B            Rack Card Transmitter  
 RR-05B            Rack Card Receiver

**Singlemode**

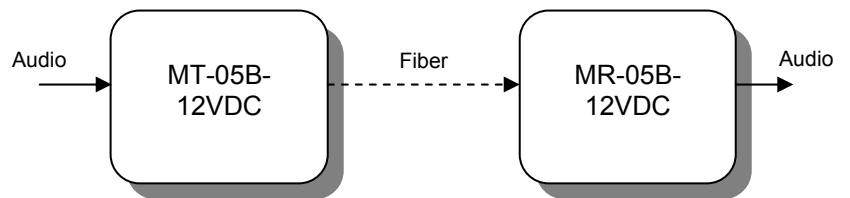
MT-05B-S-12VDC    Module Transmitter  
 MR-05B-S-12VDC    Module Receiver  
 RT-05B-S            Rack Card Transmitter  
 RR-05B-S            Rack Card Receiver

3/13/14 JPK



The American Fibertek 05B Series transmits single direction line level audio, 600 ohms balanced or unbalanced, on one multimode or singlemode fiber. The audio is transmitted over the link using FM modulation which results in an improved signal to noise ratio and a constant audio output level over the full optical loss budget. Diagnostic indicators provide a quick visual check of system status.

Designed to be completely transparent, these links require no field adjustments at installation or additional maintenance thereafter. Equipment may be ordered as stand alone modules or rack cards that are mounted in the American Fibertek Card Cage: SR20/2 or SR-20H-2 (redundant power supplies).



# Audio Systems



**FEATURES:**

- 600 Ohm Balanced or Unbalanced Audio
- Low Cost 850 nm Optics
- Diagnostic: Power and Optical Presence
- No User or Internal Adjustments
- 24 VAC Standard or 12 VDC Option
- ST Optical Connector

**SPECIFICATIONS:**

**Audio:**

I/O Level @ 600 Ohms .....0 dBm  
 Bandwidth.....20 Hz to 20 KHz  
 THD.....2 %  
 SNR.....50 dB  
 Connector.....3 pin screw terminal

**Optical:**

Wavelength .....850 nm  
 Loss Budget (62.5/125µ).....20 dB  
 Connector.....ST

**Temperature (Operating):**

-20°C to +70°C, non-condensing

**Power Supply:**

Module - 24 VAC (AFI Part #: PS-24)  
 Rack Card - (See AFI Part #: SR-20/2)

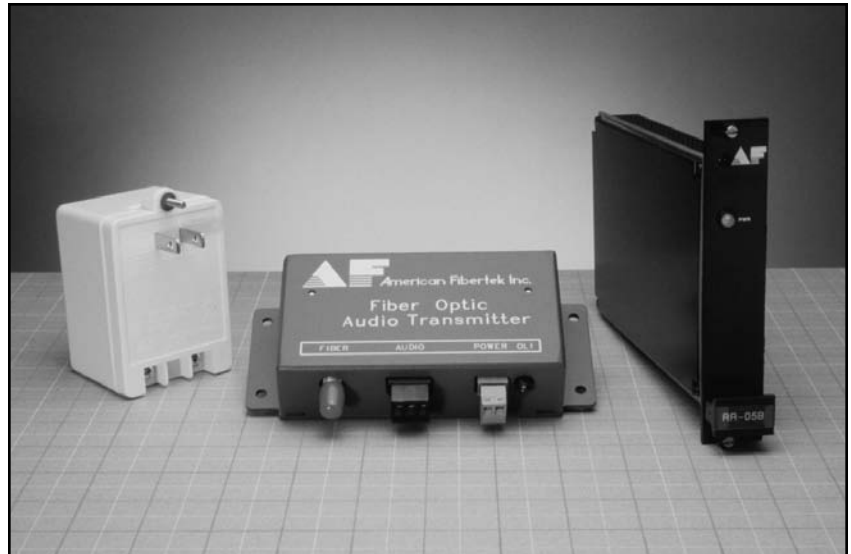
**Size:**

Module - 2 5/8" x 5 3/4" x 1 5/16"  
 Rack Card requires one rack slot - 6 1/2" x 1" x 5"

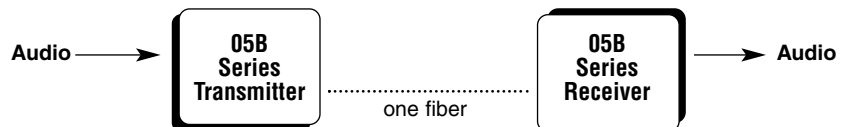
**ORDERING INFORMATION:**

MT = Module Transmitter - Audio Input  
 MR = Module Receiver - Audio Output  
 RT = Rack Card Transmitter - Audio Input  
 RR = Rack Card Receiver - Audio Output

**Example: MT-05B to RR-05B**



The American Fibertek 05B Series transmits single direction audio on one multimode optical fiber at 850 nm. This product line has the option for 1300 nm multimode or singlemode optics. This system requires no field adjustments at installation or additional maintenance thereafter. Diagnostic indicators provide a quick visual indication of system status. Equipment may be ordered as stand alone modules or rack cards that are mounted in the American Fibertek Card Cages: SR-20/2 or SR-20R/1.



**PRODUCT ENHANCEMENTS:**

- 05B-13 Series** - 1300 nm multimode optics with a loss budget of 18 dB @ 1300 nm wavelength.
- 05B-S Series** - 1300 nm singlemode optics with a loss budget of 18 dB @ 1300 nm wavelength.