

TR55 Series COFDM Telemetry Receiver

420-450 MHz, 902-928 MHz

Never lose contact with your video transmit site again!



AMP's TR55 Series 5.5 cubic inch COFDM Telemetry Receivers are designed for successful data reception in severe multipath environments such as metropolitan areas.

Typical applications include remote control of PTZ camera, dynamic video link configuration (change channels, power settings, encryption keys etc), other transmit-site peripheral control, and audio reception.

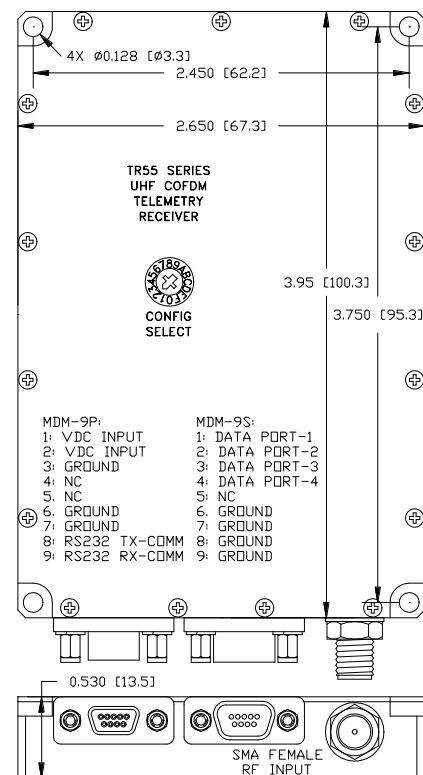
TR55 has low power draw and excellent sensitivity with 128-bit or 256-bit AES decryption. Viterbi and Reed Solomon decoding provide excellent data reconstruction in case of any loss due to the channel. The TR55 also features a dual CRC check to verify the authenticity of the received data. For bursty transmission, high power efficiency is achieved through the use of active and stand-by modes of operation.

15 programmable configurations may be set through the transmitter's RS232 serial interface and then locally selected with a rotary switch accessible through the chassis lid.

TR55 Series receivers are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, military and other applications requiring highly secure data reception in a compact, rugged package.

Design Features:

- **5.5 Cubic Inch Package (2.65"x3.95"x0.53")**
- **Low Power Consumption (2.1W Active, 1.8W Listening)**
- **15 Programmable Config Presets (Rotary Switch)**
- **QPSK/16QAM modulation with combined data rate range of 15 kbps to 1.5 Mbps**
- **AES 128-bit or 256-bit Encryption**
- **Efficient data reconstruction through Viterbi and Reed Solomon decoders**
- **Active and Standby modes of operation for reduced power consumption**
- **Dual CRC Check for packet authenticity**
- **Compatible with all AMP COFDM Video Transmitters**



** NOTES:

- 1) NC = No Connection
- 2) Unused Data Ports should be left disconnected (open)



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AMP TR55 Series COFDM Telemetry Receiver

RF Characteristics

Frequency Range (Specify):	420-450 MHz or 902-928 MHz
Channel Spacing:	Equal to Bandwidth Setting
Frequency Selection:	Channelized (Programmable Rotary Switch)
Frequency Stability:	±5ppm Over -20°C to +50°C
Input Impedance:	50 Ω Nominal, VSWR 2:1 Maximum
Maximum RF Input:	0 dBm Without Damage
Signal Bandwidths:	100 kHz, 250 kHz, 500 kHz, or 1 MHz - Selectable
Noise Figure:	3 dB Maximum
Image Rejection:	50 dB Minimum

COFDM Link Characteristics

Modulation Type:	QPSK or 16QAM - Selectable
Decryption (Specify):	None, AES 128-bit, or AES 256-bit
COFDM Carriers:	Approximately 40
FEC Ratio:	1/6 to 1/2 - Selectable
Guard Interval:	1/4 to 1/16 - Selectable
Latency:	<1 msec, End to End

COFDM Data Characteristics

Data Ports:	Up to 4 - User Configurable
Interface Type:	RS-232 or RS-485 Half Duplex Ports - User Configurable
Supported Data Rate Range:	15 kbps to 1.5 Mbps Combined, Configuration Dependent - User Configurable

Configuration Interface Characteristics

Interface Type:	RS-232
Interface Parameters:	9600/8/1/None/None (Baud/Data Bits/Stop Bits/Parity/Handshake)

Power Requirements

Input Voltage:	+11 to +16 Vdc, Reverse Polarity Protected
Current Draw:	175 mA, Typical @ 12 Vdc - Listening 200 mA, Typical @ 12 Vdc - Active

Mechanical

Material:	CNC Machined T6061-T6 Aluminum	
Finish (Specify):	Nickel Plated or Black Plated	
Dimensions:	2.65" W x 3.95" L x 0.53" H	
Weight:	5 oz. Maximum	
Connectors:	RF Input:	SMA Female
	DC Supply, RS-232 Comm:	MDM-9P
	Data Ports:	MDM-9S

Environmental

Temperature (Operating):	-20°C to +50°C
Acceleration:	100 g, 3 Axes
Altitude:	Unlimited
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation