

# CR24 Series COFDM Video Receiver

UHF, L-Band, S-Band, C-Band

DIVERSITY

## Excellent Digital Video Receiver for Urban Multipath Environments!



AMP's CR24 Series COFDM video receivers are designed for high quality COFDM video reception in high multipath and urban environments.

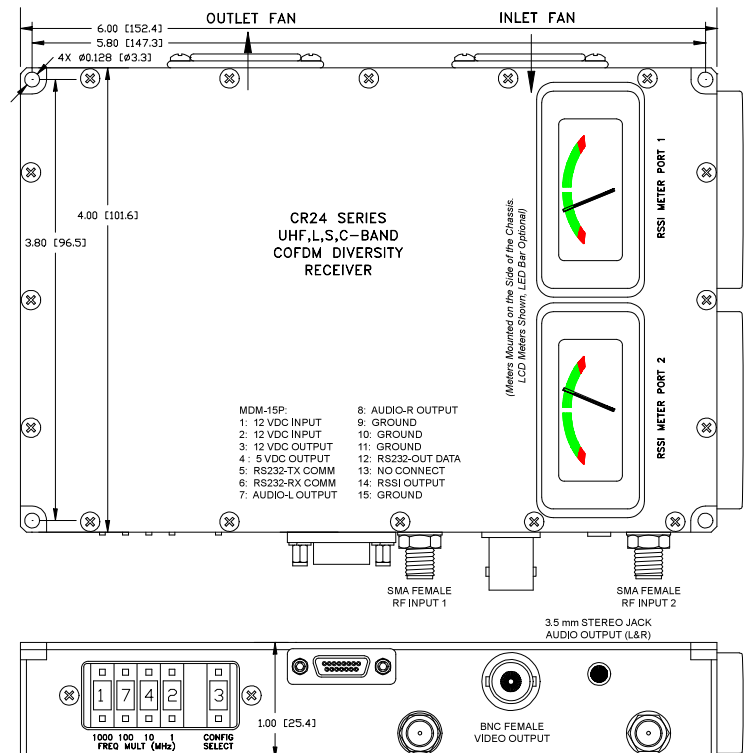
The CR24 Series receivers offer excellent sensitivity with very low power draw, full frequency band channelization, narrow 2.5 MHz RF bandwidth, and JPEG2000 video decoding. All models are standard equipped with stereo audio, an auxiliary data channel, and built-in 5V and 12V auxiliary supplies. Many COFDM parameters are user-selectable: modulation (QPSK, 16QAM, or 64QAM), FEC (1/6<sup>th</sup> to 2/3<sup>rd</sup>), guard interval (1/4 to 1/16), and encryption (AES 128 or 256-bit). CR24 receivers are optionally configured with selectable 1.25 MHz ultra-narrow RF bandwidth.

Frequency may be selected locally with chassis-mounted BCD switches, remotely through the transmitter's RS232 serial interface, and locally/remotely with configurable pre-sets.

The CR24 Series receivers are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, military, and other applications requiring high quality video receiver in a compact, rugged package.

## Design Features:

- 24 Cubic Inch Package (4"x6"x1")
- Low Power Draw
- Full Frequency Band Channelized
- Three Frequency Selection Modes (BCD Switches, RS232, Programmable Switch)
- 10 Configurable Pre-Sets
- JPEG2000 Video Decoder
- NTSC and PAL Video
- 2.5 MHz Occupied RF Bandwidth
- 1.25 MHz Bandwidth Optional
- QPSK / 16QAM / 64QAM Selectable Modulation
- AES 128 / 256 Bit Selectable Decryption
- Diversity Antenna Configuration
- Dual Chassis Mounted RSSI Displays
- Stereo Audio with Auxiliary Data Channel
- 5V and 12V Auxiliary Supplies Built-In
- J-STD-001D Class 3 Assembly (Medical/Aerospace)



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# CR24 COFDM Video/Audio/Data Diversity Receiver

## RF Characteristics

Frequency Range (Specify): (Other Ranges Available)	UHF: 340.0 – 399.9 MHz Lower L-Band: 1435 – 1535 MHz Upper L-Band: 1700 – 1850 MHz S-Band: 2200 – 2399 MHz ISM S-Band: 2400.00 – 2499.75 MHz C-Band: 4400 – 4999 MHz Public Safety C-Band: 4940 – 4990 MHz	Steps: 100 kHz Steps: 1 MHz BCD, 250 kHz Other Steps: 1 MHz BCD, 250 kHz Other Steps: 1 MHz BCD, 250 kHz Other Steps: 250 kHz Steps: 1 MHz BCD, 250 kHz Other Steps: 1 MHz BCD, 250 kHz Other
Frequency Selection (Specify):	Fixed or Channelized (Full Band - BCD Switches, RS232 Remote Control, and Programmable Switches)	
Frequency Stability:	±4 ppm Over -20°C to +70°C	
Input Impedance:	50 Ω Nominal, VSWR 2:1 Maximum	
Maximum RF Input:	0 dBm Without Damage	
Noise Figure:	3 dB Maximum	
Image Rejection:	50 dB Minimum	
Signal Bandwidth (Specify):	2.5 MHz Narrow or Selectable 2.5 MHz Narrow / 1.25 MHz Ultra-Narrow	
Signal Strength:	Dual Chassis Mounted RSSI Displays	
Configuration:	Diversity Antenna, MRC	

## COFDM Video/Audio Characteristics

Modulation Type:	QPSK, 16QAM or 64QAM - Selectable	
Input Impedance:	75 Ω Nominal, Unbalanced	
Video Encoding:	JPEG2000	
Video Format:	NTSC and PAL - Selectable	
Frame Rate:	30 FPS (NTSC) or 25 FPS (PAL)	
Horizontal Resolution:	704, 528, 480, or 352 Pixel - Selectable	
COFDM Carriers:	Approximately 200	
Guard Interval:	1/4, 1/8 or 1/16 - Selectable	
Latency:	<60 msec, End to End	
Audio Channels:	Two (Stereo)	
Audio Output Level:	-10 dBV Line	
Decryption:	AES 128-bit or 256-bit - Selectable	

## COFDM Auxiliary Data Channel Characteristics

Interface Type:	RS-232 One-Way
Supported Data Rates:	Up to 115.2 kbps Selectable
Connection:	RS232 OUT-DATA

## Configuration Interface Characteristics

Interface Type:	RS-232 Two-Way
Interface Parameters:	9600/8/1/None/None (Baud/Data Bits/Stop Bits/Parity/Handshake)
Connection:	RS232 RX/TX-Comm Ports

## Power Requirements

Input Voltage:	+11 to +16 Vdc, Reverse Polarity Protected
Current Draw:	900 mA, Typical @ 12 Vdc
Auxiliary Supply Output:	+5 Vdc and +12 Vdc, 1.5 A Current Limit

## Mechanical Characteristics

Material:	CNC Machined T6061-T6 Aluminum	
Finish (Specify):	Nickel Plated or Black Plated	
Dimensions:	4.00" W x 6.00" L x 1" H	
Weight:	20 oz. Maximum	
RSSI Display (Specify):	LCD Analog Bar Meter or LED Light Bar	
Connectors:	RF Inputs:	SMA Female
	Video Output:	BNC Female
	DC Supply, Audio Out, RS-232, RSSI:	MDM-15P
	Audio Output:	3.5mm Stereo Jack

## Environmental Characteristics

Temperature (Operating):	-20°C to +70°C
Acceleration:	100 g, 3 Axes
Altitude:	Unlimited
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation