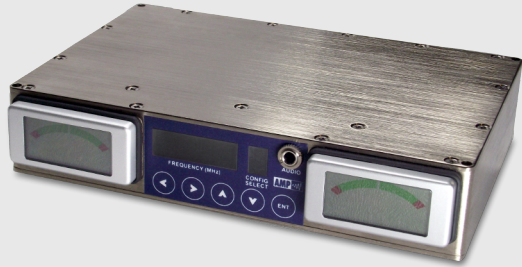


CNR1 Narrowband COFDM Video Receiver

Excellent Digital Video Receiver for Urban Multipath Environments!



CNR1 Series

AMP's CNR1 Series COFDM video receivers are designed for high quality COFDM video reception in high multipath and urban environments.

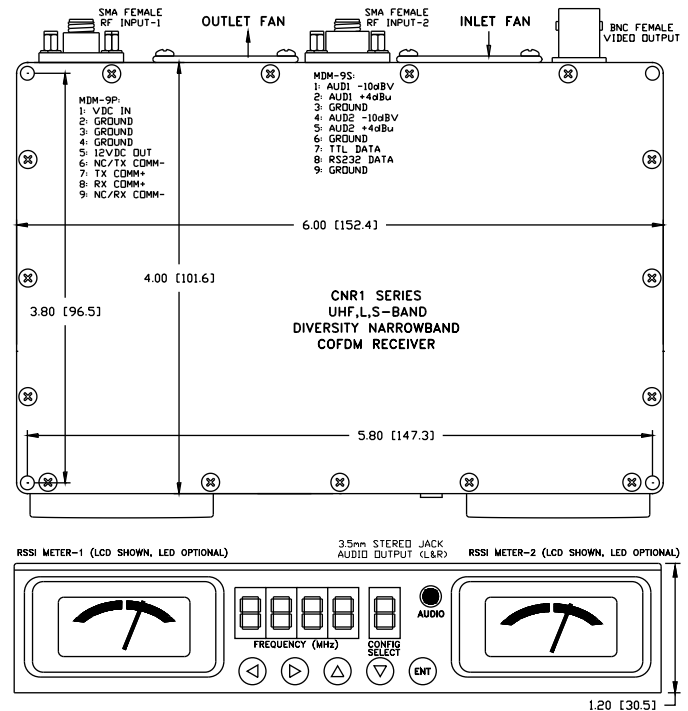
The CNR1 receivers offer excellent sensitivity with low power draw, full frequency band channelization, narrow 2.5 MHz occupied RF bandwidth, and JPEG2000 video compression. All models may be optionally configured with stereo audio channels with two output levels and are standard equipped with an auxiliary data channel with TTL and RS232 output levels and built-in 12V auxiliary supply. Many optimal combinations of COFDM signal parameters (modulation, FEC, guard) are provided through pre-set configurations.

Frequency and configuration may be selected locally with chassis-mounted buttons and remotely through the transmitter's serial interface.

The CNR1 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

- 29 Cubic Inch Package (4.0"x6.0"x1.2")
- Full Frequency Band Channelized
- Local & Remote Frequency and Configuration Selection
- JPEG2000 Video Compression
- Supports Composite Video (NTSC or PAL)
- 2.5 MHz Narrow Bandwidth
- QPSK/16QAM/64QAM Modulation
- AES 256 Bit Selectable Decryption
- Diversity Antenna Configuration
- Optional Stereo Audio (Dual Output Levels)
- Auxiliary Data Channel (TTL and RS232 Outputs)
- J-STD-001D Class 3 Assembly (Medical/Aerospace)



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RF Characteristics

Frequency Range (Specify):	UHF:	340.0-399.9 MHz	100 kHz Channels
(Other Ranges Available)	Lower L-Band:	1435-1535 MHz	1 MHz Channels
	Upper L-Band:	1700-1850 MHz	1 MHz Channels
	Lower S-Band:	2200-2399 MHz	1 MHz Channels
	Upper S-Band:	2400-2499 MHz	1 MHz Channels
	Full S-Band:	2200-2499 MHz	1 MHz Channels
Frequency Selection (Specify):	Full Band Channelized - Remote Control or Remote/Local Buttons		
Frequency Stability:	±5 ppm Over -20°C to +60°C		
Input Impedance:	50Ω Nominal, VSWR 2:1 Maximum		
Maximum RF Input:	-20 dBm Without Damage		
Noise Figure:	3 dB Maximum		
Image Rejection:	50 dB Minimum		
Signal Bandwidth:	2.5 MHz Narrow Bandwidth		
Signal Strength:	Local Displays and Remote Query		
Configuration:	Diversity Antenna, MRC		

COFDM Video/Audio Characteristics

Modulation Type:	QPSK, 16QAM or 64QAM - Configuration Dependent		
Output Impedance:	75Ω Nominal, Unbalanced		
Video Compression:	JPEG2000		
Video Format:	NTSC and PAL - Remotely Selectable		
Frame Rate:	15/30 FPS (NTSC) or 12.5/25 FPS (PAL) - Configuration Dependent		
Horizontal Resolution:	480 Pixel		
COFDM Carriers:	Approximately 200		
Guard Interval:	1/4		
Latency:	67 msec (NTSC) or 80 msec (PAL)		
Decryption:	AES 256-bit Programmable		
Audio Channels (Specify):	Zero or Two (Stereo)		
Audio Bandwidth:	3 kHz to 12.5 kHz - Bandwidth Dependent		
Audio Sampling:	6.25 kHz to 25 kHz, 16-bit - Configuration Dependent		
Audio Output Level:	-10 dBV and +4 dBu Line, into 10 kΩ Load		
Audio Output Impedance:	100Ω Nominal, Unbalanced		

COFDM Auxiliary Data Channel Characteristics

Interface Type:	One-Way UART		
Signaling Type (Specify):	RS232/3.3V TTL, RS485, or RS422		
Supported Data Rates:	9600/57600/115200 Baud - Configuration Dependent		

Configuration Interface Characteristics

Interface Type:	Two-Way UART		
Signalling Type (Specify):	RS232, RS485, RS422, or 3.3V TTL		
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:	1.1 A, Typical @ 12 Vdc		
Auxiliary Supply Output:	+12 Vdc, 0.5 A Current Limit		

Mechanical Characteristics

Material:	CNC Machined T6061-T6 Aluminum		
Finish (Specify):	Nickel Plated or Gold Iridite		
Dimensions:	4.00" W x 6.00" L x 1.2" H		
Weight:	<20 oz.		
RSSI Display (Specify):	LCD Analog Bar Meters or LED Light Bars		
Connectors:	RF Inputs:	SMA Female	
	Video Output:	BNC Female	
	DC Supply, 12V Out, Comms:	MDM-9P	
	Audio Output, Data Output	MDM-9S	
	Audio Output:	3.5mm Stereo Jack	

Environmental Characteristics

Temperature (Operating):	-20°C to +60°C		
Acceleration:	100 g, 3 Axes		
Altitude:	Unlimited		
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation		