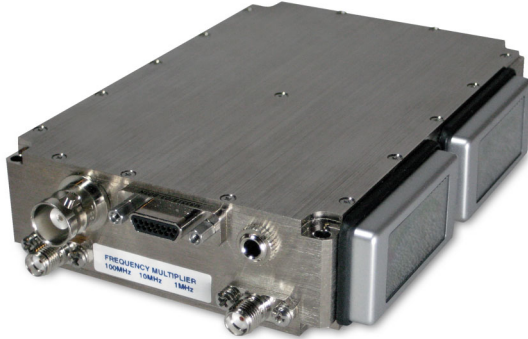


# ERD1 Encrypted Diversity Video/Audio Receiver

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

**Encrypted Diversity Video Receiver in a Small Package. Ideal for Covert Operations, UAVs, and UGVs!**



AMP's ERD1 Series 13.5 cubic inch encrypted diversity video receivers offer high quality reception with many advanced features and high quality packaging and connectors. ERD1 models feature Micro-ViewLockII, or Micro-View/AudioLockII when equipped with audio, for secure video communications. A secondary encryption key may be programmed for maximum security.

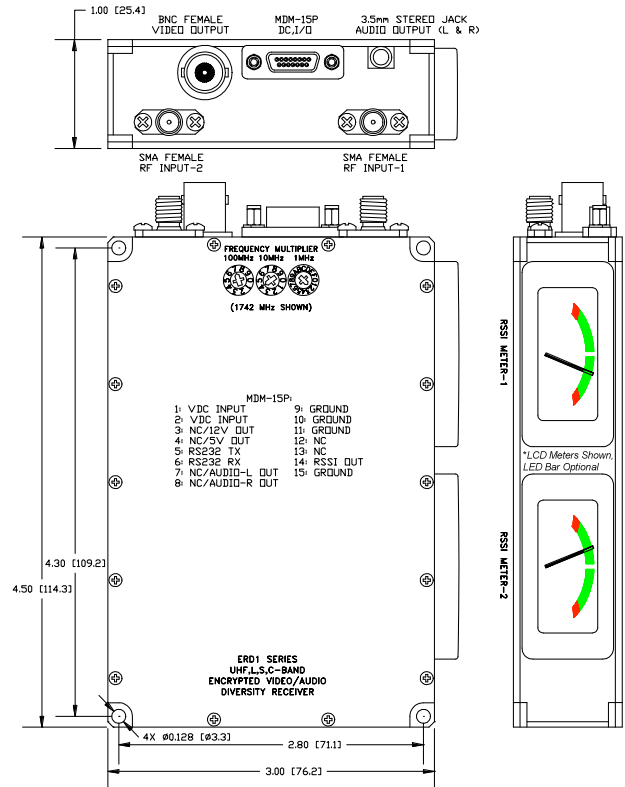
ERD1 Series receivers feature a proprietary diversity voting circuit that ensures reception of the strongest signal at all times. Innovative circuit designs are utilized to reduce power consumption for longer battery life and to reduce noise figure for better range and video quality.

Receiver carrier frequency may be selected locally BCD rotary switches, remotely with RS232 interface, and locally/remotely with a programmable binary switch. Received signal strength is indicated with dual local displays (LCD meter or LED bar) for antenna alignment and an output pin on the I/O connector. Dual audio outputs are provided for simultaneous monitoring and recording. ERD1 Series receivers are optionally configured with 5V and/or 12V auxiliary supplies.

ERD1 Series encrypted diversity video receivers are ideal for law enforcement, surveillance, UAV, UGV, Military, and other applications requiring high quality, secure video reception in a compact, rugged package.

## Design Features:

- **13.5 Cubic Inch Package (3.0" x 4.5" x 1.0")**
- **Weights <14 oz.**
- **Integrated Micro-View/AudioLock II Decryption**
- **Secondary Encryption Key Programming**
- **Low Current Draw (Longer Battery Life)**
- **Low Noise Figure (More Range)**
- **Full Frequency Band Channelized**
- **Three Frequency Selection Modes (BCD Switches, RS232, Programmable Switch)**
- **Dual L/S-Band (1.7-1.85 GHz / 2.2-2.5 GHz)**
- **NTSC or PAL Video (Bandwidth & De-Emphasis)**
- **Dual Audio Outputs (Monitor & Record)**
- **Received Signal Strength Indication (Dual Local Displays and Connector Output Pin)**
- **Internal 5V / 12V Auxiliary Supplies (Optional)**
- **J-STD-001D Class 3 Assembly (Medical/Aerospace)**



## \*\* NOTES:

- 1) NC = No Connection
- 2) Models with no audio have 3.5mm Stereo Jack omitted



**Manufactured by:**  
Advanced Microwave Products  
7025 Longley Lane, Suite 20  
Reno, NV 89511  
www.advmw.com



**Distributed in North America By:**  
Dyplex Communications LTD.  
107 Woodbine Down Blvd, Unit 7&8  
Toronto, ON M9W 6Y1  
Ph 1- 416-675-2002, ext. 2  
Email: info2@dyplex.com

# AMP ERD1 Series Diversity Encrypted Video/Audio 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 Dual L/S-Band: 1700–1850/2200–2500 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 Steps: 1 MHz BCD, 250 kHz Other
Frequency Selection (Specify):	Fixed or Channelized (Full Band - BCD Rotary Switches, RS232 Remote Control, and Programmable Binary Switch)	
Maximum RF Input:	+10 dBm Without Damage	
Input Impedance:	50 $\Omega$ Nominal, VSWR 1.5:1 Maximum	
Noise Figure:	UHF, Dual L/S: 4.5 dB Typical L/S/C-Band: 4.0 dB Typical ISM S-Band: 2.5 dB Typical	
Image Rejection:	UHF/L/S/Dual: 60 dB Minimum C-Band: 50 dB Minimum	
Signal Strength Output: Voting Characteristics:	0.3 Vdc @ -90 dBm to 5.0 Vdc @ -20 dBm, Monotonic, Dual RSSI RSSI-based, >150 kHz Voting Rate	

## LO/IF Characteristics

LO Stability:	$\pm 4$ ppm Over -20°C to +60°C	
IF Frequency:	UHF: 140 MHz	L/S/C-Band, Dual: 480 MHz
IF Bandwidth:	UHF: 18 MHz	L/S/C-Band, Dual: 20 MHz
Harmonic and Spurious Level:	-50 dB Maximum	

## Video Characteristics

Decryption:	Micro-ViewLock II, Line Cut and Rotate, 256 Points	
Secondary Key (Optional):	256 bits, RS232 Programmable	
Modulation Type:	Analog FM, Positive Sense	
Frequency Response (Specify):	10 Hz to 4.2 MHz (NTSC) or 5.0 MHz (PAL), $\pm 1.5$ dB	
De-Emphasis:	525-Line (NTSC) or 625-Line (PAL)	
Output Level:	1 Vpk-pk / $\pm 4$ MHz @ Crossover Frequency, into 75 $\Omega$ Load	
Output Impedance:	75 $\Omega$ Nominal, Unbalanced	

## Audio Characteristics

Decryption:	Micro-View/AudioLock II, Digital Audio Over Video, ADPCM X4 Compression	
Channels (Specify):	0, 1 (mono), or 2 (stereo)	
Frequency Response:	30 Hz to 7 kHz (stereo), 14 kHz (mono), +1/-3 dB	
Output Level:	-10 dBV (Line) into 600 $\Omega$ Load	
Output Impedance:	100 $\Omega$ Maximum, Unbalanced	

## Power Requirements

Input Voltage:	+9 to +16 Vdc, Reverse Polarity Protected	
Current Draw:	400 mA Maximum	
Auxiliary Supply Output (Specify):	None, +5 Vdc, +12 Vdc, or Both, 1.6A Current Limit	

## Mechanical

Material:	CNC Machined T6061-T6 Aluminum	
Finish (Specify):	Nickel Plated or Black Plated	
Dimensions:	3.00" W x 4.50" L x 1.0" H	
Weight:	14 oz. Maximum	
RSSI Display (Specify):	LCD Analog Bar Meter or LED Light Bar	
Connectors:	RF Inputs: SMA Female, Dual Video Output: BNC Female Audio Output: 3.5mm Stereo Jack (If Applicable)	
	DC Supply, Audio/Data, RSSI, RS232, Aux Supply: MDM-15P	

## Environmental

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