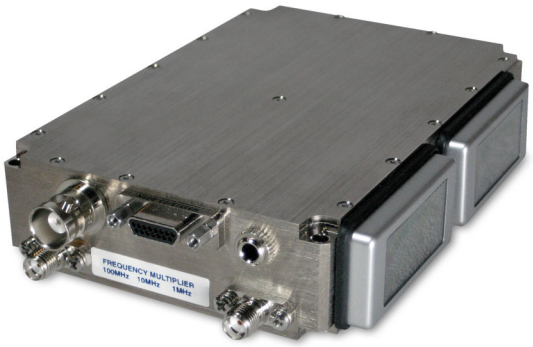
ERD1 Encrypted Diversity Video/Audio Receiver

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.

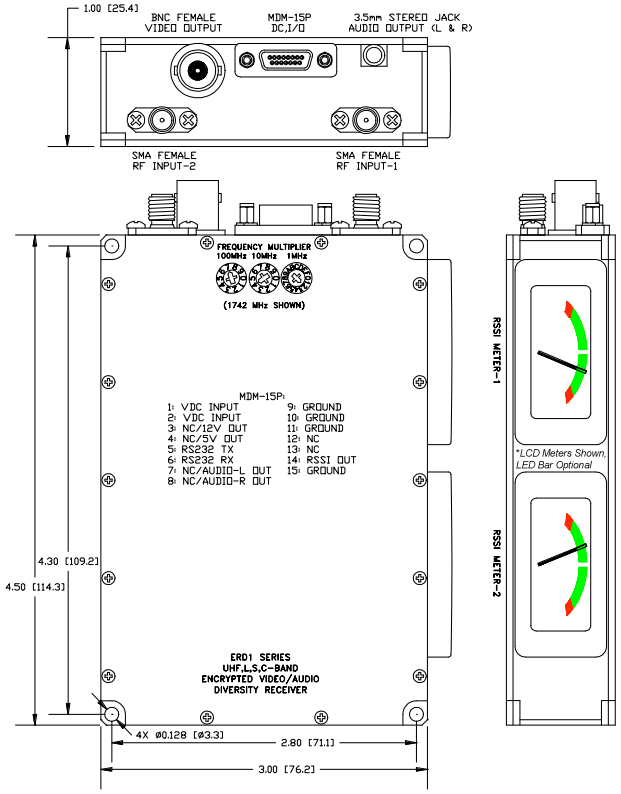
ERD1 Series receivers feature a proprietary diversity voting circuit that ensures reception of the strongest signal at all times. Innovative circuit designs are utilized to reduce power consumption for longer battery life and to reduce noise figure for better range and video quality.

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")**
- **Weighs <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):	UHF:	340.0 – 399.9 MHz	Steps: 100 kHz
(Other Ranges Available)	Lower L-Band:	1435 – 1535 MHz	Steps: 1 MHz BCD, 250 kHz Other
	Upper L-Band:	1700 – 1850 MHz	Steps: 1 MHz BCD, 250 kHz Other
	S-Band:	2200 – 2399 MHz	Steps: 1 MHz BCD, 250 kHz Other
	ISM S-Band:	2400.00 – 2499.75 MHz	Steps: 250 kHz
	Dual L/S-Band:	1700–1850/2200-2500 MHz	Steps: 1 MHz BCD, 250 kHz Other
	C-Band:	4400 – 4999 MHz	Steps: 1 MHz BCD, 250 kHz Other
	Public Safety C-Band:	4940 – 4990 MHz	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 Ω 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:	0.3 Vdc @ -90 dBm to 5.0 Vdc @ -20 dBm, Monotonic, Dual RSSI		
Voting Characteristics:	RSSI-based, >150 kHz Voting Rate		

LO/IF Characteristics

LO Stability:	±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), ±1.5 dB
De-Emphasis:	525-Line (NTSC) or 625-Line (PAL)
Output Level:	1 Vpk-pk / ±4 MHz @ Crossover Frequency, into 75 Ω Load
Output Impedance:	75 Ω 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 Ω Load
Output Impedance:	100 Ω 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