

# ET80 Encrypted Video/Audio Transmitter

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

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



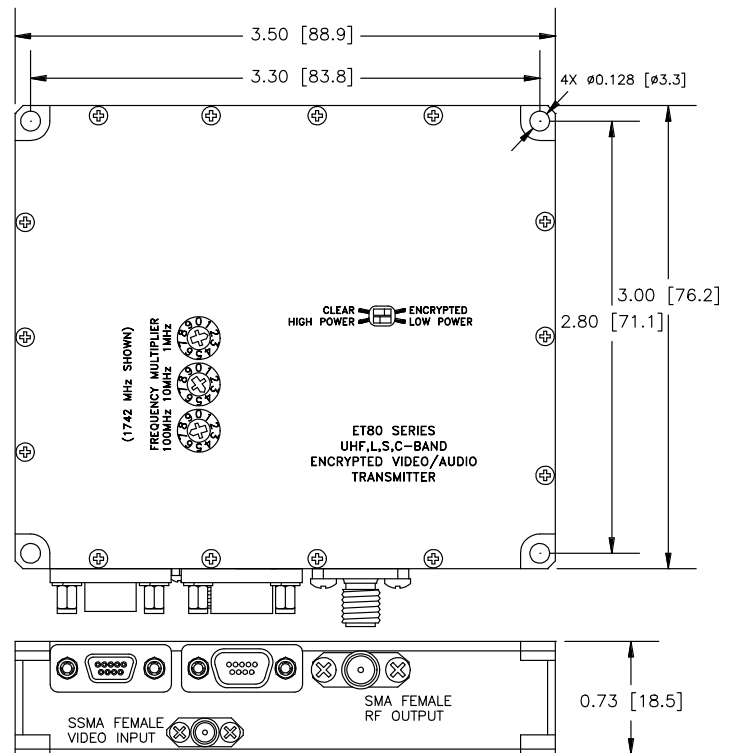
AMP's ET80 Series 7.7 cubic inch encrypted video/audio transmitters offer innovative features and high quality packaging and connectors. Like all E-Series products, ET80 models feature Micro-ViewLockII, or Micro-View/AudioLockII when equipped with audio, for secure video communications. A secondary encryption key may be programmed for maximum security.

ET80 Series transmitters feature 5 Watts RF output power (up to 10 Watts, UHF) and may be optionally configured for dual power operation. Transmitter carrier frequency may be selected locally with BCD rotary switches, remotely with RS232 interface, or locally/remotely with a programmable binary switch. A set of slide switches allows control of dual power modes and selection between encrypted and clear video transmission. ET80 Series transmitters are optionally configured with internally regulated 5V and/or 12V camera supplies.

With military telemetry heritage, ET80 Series transmitters are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, Military, and other applications requiring efficient, high quality, secure video/audio transmission in a compact, rugged package.

## Design Features:

- 7.7 Cubic Inch Package (3.0" x 3.5" x 0.73")
- Weighs < 10.5 oz.
- 5 Watts (up to 10 Watts, UHF) RF Output Power
- Integrated Micro-View/AudioLock II Encryption
- Secondary Encryption Key Programming
- Dual Power Modes (Slide Switch Control)
- Full Band Channelized (BCD Rotary Switches, RS232 Remote Control, or Programmable Binary Switch)
- NTSC or PAL Video (Bandwidth & Pre-Emphasis)
- Internal 5V / 12V Camera Supplies (Optional)
- Mic or Line Audio Input Levels
- J-STD-001D Class 3 Assembly (Medical/Aerospace)



MDM-9P:	5: NC/RS232 RX	MDM-9S:	5: NC/AUDIO-R IN
1: VDC INPUT	6: GROUND	1: NC	6: GROUND
2: VDC INPUT	7: GROUND	2: NC/AUDIO-L IN	7: NC/12V CAM SUPPLY
3: GROUND	8: NC	3: GROUND	8: NC/5V CAM SUPPLY
4: NC/RS232 TX	9: NC	4: GROUND	9: GROUND

### \*\* NOTES:

- 1) NC = No Connection
- 2) Models with no audio or cam supply have MDM-9S connector omitted
- 3) Programmable binary switch models utilize a single 16-position binary switch in place of the shown 1 MHz switch



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# AMP ET80 Series Encrypted Video/Audio Transmitter

## 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 Rotary Switches, RS232 Remote Control, or Programmable Binary Switch)	
Frequency Stability:	±4 ppm Over -20°C to +60°C	
Output Power (Specify):	UHF: 5 W, 10 W, or 5/10 W Selectable (Slide Switch) L/S/C: 5 W, or 2/5 W Selectable (Slide Switch)	
Output Impedance:	50 Ω Nominal, VSWR 1.5:1 Maximum	
Output Protection:	UHF: None – 10:1 VSWR Indefinitely L/S/C: Internal Isolator - Open/Short Indefinitely	
Spurious Output:	-13 dBm Maximum	

## Video Characteristics

Encryption:	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):	4.2 MHz (NTSC) or 5.0 MHz (PAL), ±1.5 dB
Pre-Emphasis:	525-Line (NTSC) or 625-Line (PAL)
Modulation Sensitivity:	±4 MHz / 1 Vpk-pk @ Crossover Frequency
Input Impedance:	75 Ω Nominal, Unbalanced, Shunted by 30 pF Maximum
Distortion:	2% Maximum
Incidental FM:	10 kHz RMS Maximum

## Audio Characteristics

Encryption:	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
Input Impedance:	4.7 kΩ Minimum, Unbalanced
Input Level (Specify):	Microphone (-55 dBV typical w/ ALC), or Line (-10 dBV)
Mic DC Supply (Audio Input(s)):	2.0 Vdc Thru 4.7 kΩ Pull-Up

## Power Requirements

Input Voltage Range:	UHF: +11 to +14 Vdc, Reverse Polarity Protected L/S/C-Band: +11 to +16 Vdc, Reverse Polarity Protected
DC Input Current (Maximum):	UHF: 1.55 A (5 W RF), 2.5 A (10 W RF) L/S-Band: 1.55 A (5 W RF) C-Band: 2.10 A (5 W RF)

## Mechanical

Material:	CNC Machined T6061-T6 Aluminum
Finish (Specify):	Nickel Plated or Black Plated
Dimensions:	3.0" W x 3.50" L x 0.73" H
Weight:	10.5 oz. Maximum
Connectors:	RF Output: SMA Female Video Input: SSMA Female (Others Available) Audio Input, Mic/Cam Supplies: MDM-9S (If Applicable) DC Supply, RS232 (If Applicable): MDM-9P

## 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