

EST1 Encrypted Video/Audio Transmitter

Rugged, Reliable, Efficient, Feature Rich in a Small Package. Ideal for Covert Operations, UAVs, & UGVs!



Design Features

- 4.5 Cubic Inch Package (1.85"x3.5"x0.70")
- Up to 2 Watts RF Output Power
- Up to 4 Power Modes (Remote Control)
- Integrated Micro-View/AudioLock II Encryption
- Encryption Key Programming
- Full Frequency Band Channelization
- 3 Configuration Modes
- Supports Composite Video (NTSC or PAL)
- 12V Auxiliary Supply
- Mic or Line Audio Input Levels
- J-STD-001D Class 3 Assembly (Medical/Aerospace)

EST1 Series

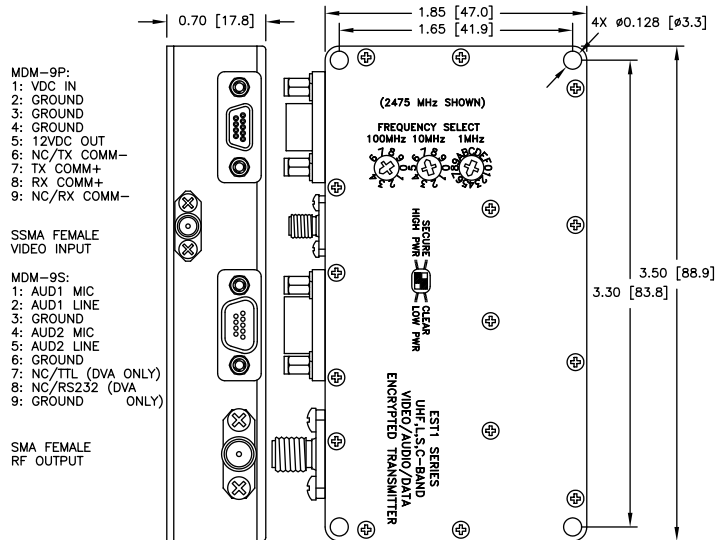
AMP's EST1 Series 4.5 cubic inch encrypted video/audio transmitters offer innovative features and high quality packaging and connectors. Like all E-Series products, EST1 models feature Micro-View/AudioLock II, for secure video communications. Encryption keys may be programmed for maximum security.

EST1 transmitters may be configured with fixed RF output powers of 250 mW, 500 mW, 1 Watt, or 2 Watts. Transmitters may be optionally configured with remotely selectable power levels utilizing any of these four power levels. AMP's proprietary power-leveling circuit ensures level output power over the entire frequency band.

Locally configurable features include carrier frequency, high/low output power, and video encrypted/clear. These features and PA on/off, all power modes, and temperature fold-back characteristics may be configured remotely and assigned to programmable switch presets. EST1 transmitters are configured with internally regulated 12V camera supply.

With military telemetry heritage, EST1 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.

EST1 transmitters can be mated to AMP's HHA1 High Power Amplifier for applications that require higher RF output power.



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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
	Lower C-Band:	4400-4900 MHz	1 MHz Channels
	Upper C-Band:	4900-4999 MHz	1 MHz Channels
	Full C-Band:	4400-4999 MHz	1 MHz Channels
Frequency Selection (Specify):	Full Band Channelized - Remote Control Only or Remote/Programmable Switch/Local BCD		
Frequency Stability:	±5 ppm Over -20°C to +60°C		
Output Power (Specify):	250 mW, 500 mW, 1 Watt, or 2 Watts, Nominal (Selectable)		
Output Power, PA Disabled:	< 0 dBm		
Power Modes (Specify):	One (Fixed), Two (Specify), Three (Specify), or Four (Specify)		
Power Leveling:	Within ±0.5 dB Over 6 Equal Width Sub-Bands, Typical		
Output Impedance:	50 Ω Nominal, VSWR 2:1 Maximum		
Output Protection:	Internal Isolator (Most Bands) - Open/Short Indefinitely		
Spurious Output:	-13 dBm Maximum		

Video Characteristics

Encryption:	Micro-View/AudioLock II, Locally and Remotely Bypassable		
Encryption Key:	256 bits, Remotely 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		
Channels (Specify):	0 or 2 (stereo), Local and Remote On/Off Control		
Frequency Response:	7 kHz, +1/-3 dB		
Input Impedance:	>4 kΩ, Unbalanced		
Input Level:	-55 dBV Mic/-10 dBV Line (Selectable)		
Mic DC Supply (Audio Input(s)):	2.0 Vdc Thru 4.7 kΩ Pull-Up		

Configuration Interface Characteristics

Interface Type:	Two-Way UART		
Signaling Type (Specify):	RS232, 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 (Typical at 12V):	300mA for 250mW, 400mA for 500mW, 550mA for 1W, or 750mA for 2W		
Current Draw, PA Disabled:	120mA Typical		
Camera Supply Output:	+12 Vdc, 250mA Current Limit		

Mechanical

Material:	CNC Machined T6061-T6 Aluminum		
Finish (Specify):	Nickel Plated or Gold Iridite		
Dimensions:	1.85" W x 3.50" L x 0.70" H		
Weight:	<3.8 oz.		
Connectors:	RF Output:	SMA Female	
	Video Input:	SSMA Female	
	DC Supply, Comms, Cam Supply:	MDM-9P	
	Audio Inputs:	MDM-9S	

Environmental

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