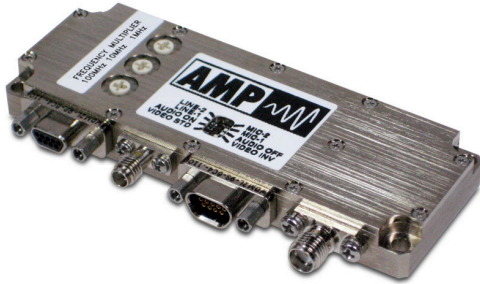


VT15 Video/Audio/Data Transmitter

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

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



FCC ID: U8KVT15SC

AMP's VT15 Series 1.7 cubic inch video transmitters are the smallest on the market to offer any of the following features: up to 2 Watts RF output power, dual RF power modes, full frequency band channelization, and video inversion. Standard fixed RF power levels range from 250 mWatts to 2 Watts. Transmitters may be optionally configured for dual power operation utilizing any two power levels.

Transmitter carrier frequency may be selected locally with BCD rotary switches, remotely selected with RS232 interface, or locally/remotely with a programmable binary switch. Slide switches allow control of dual power modes and video inversion.

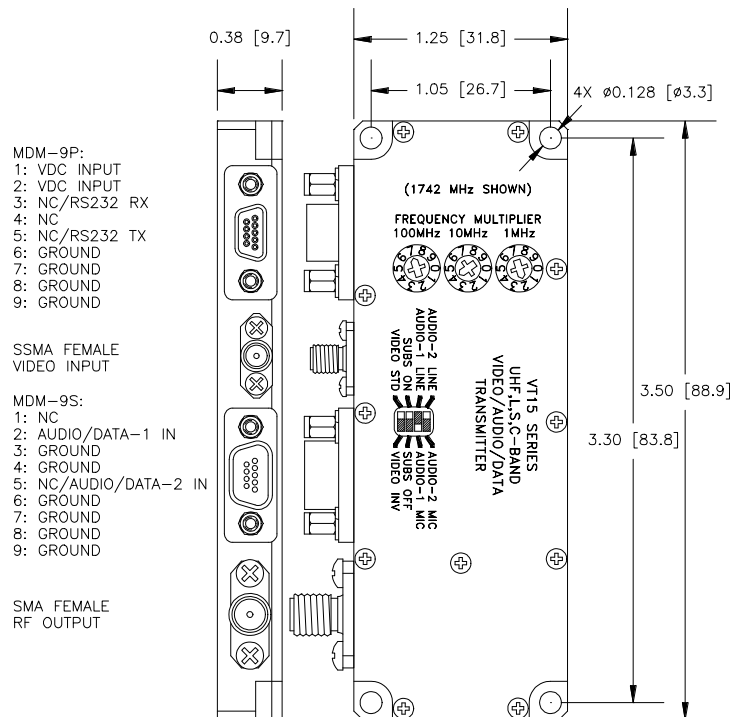
Low power VT15 Series transmitters (250 mW and 500 mW) may be configured with up to two audio or data subcarriers. When equipped with subcarriers, additional slide switches allow control of subcarrier on/off and input level selection (line/mic, audio only).

With military telemetry heritage, VT15 Series transmitters are designed to withstand harsh environments and are ideal for law enforcement, surveillance, UAV, UGV, military, and other applications requiring high quality video transmission in a compact, rugged package.

If your application requires more range, please review AMP's VT30 and VT50 Series video transmitters.

Design Features:

- 1.7 Cubic Inch Package (1.25"x3.5"x0.38")
- Weighs < 1.7 oz.
- Up to 2 Watts RF Output Power
- Dual Power Modes (Slide Switch Control)
- Full Band Channelized (BCD Rotary Switches, RS232 Remote Control, or Programmable Binary Switch)
- Video Inversion (Slide Switch Control)
- NTSC or PAL Video Formats (Bandwidth & Pre-Emphasis)
- Optional Dual Audio or Data Subcarriers (250 mW and 500 mW Models Only)
- Line/Mic Audio Level Selection (Slide Switch Control)
- J-STD-001D Class 3 Assembly (Medical/Aerospace)



** NOTES:

- 1) NC = No Connection
- 2) No subcarrier models have SMA connector relocated to omitted MDM-9S position and utilize a 2-position slide switch with High/Low Power and Standard/Inverted Video selection
- 3) Data subcarrier models utilize a 2-position slide switch (no Line/Mic)
- 4) Programmable binary switch models utilize a single 16-position binary switch in place of the shown 1 MHz switch



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AMP VT15 Series Video/Audio/Data Transmitter

FCC ID: U8KVT15SC

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):	250 mW, 500 mW, 1 W, 2 W, or Dual Power (Any 2 Levels, Slide Switch Selectable)	
Output Impedance:	50 Ω Nominal, VSWR 1.5:1 Maximum	
Output Protection:	UHF: None – 20:1 VSWR Indefinitely L/S/C: Internal Isolator - Open/Short Indefinitely	
Spurious Output:	-13 dBm Maximum	

Video Characteristics

Modulation Type:	Analog FM
Modulation Sense:	Standard (Positive) or Inverted (Negative), Slide Switch Selectable
Frequency Response (Specify):	10 Hz to 3.5 MHz (Monochrome), 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/Data Subcarrier Characteristics (250 mW and 500 mW Models Only)

Subcarriers (Specify):	None, One, or Two
Subcarrier Type (Specify):	Audio or Data
Subcarrier Frequency (Specify):	4.83, 5.8, 6.0, 6.2, 6.5, 6.8, 7.2, 7.5, 8.3, 8.5, or 8.59 MHz, or Custom
Subcarrier Separation (Two):	1 MHz Minimum
Frequency Stability:	±0.5% Over -20°C to +60°C
Subcarrier Insertion Level:	-26 dBc Nominal (Audio) or -22 dBc Nominal (Data)
Subcarrier On/Off Control:	Slide Switch Selectable
Modulation Type:	Analog FM, Positive Sense
Frequency Response:	100 Hz to 10 kHz ±1.5 dB (Audio) or 100 bps to 48 kbps (Data)
Pre-Emphasis:	75 μsec NTSC or 50 μsec PAL (Audio) or None (Data)
Modulation Sensitivity:	100 kHz pk-pk @ 1 kHz rate (Audio) or 150 kHz pk-pk (Data)
Input Level:	-55 dBV Mic or -10 dBV Line (Slide Switch Selectable, Audio) or RS232 (Data)
Input Impedance:	4.7 kΩ Minimum Unbalanced (Audio) or 10 kΩ to Gnd (Data)
Mic DC Supply (Audio Input(s)):	2.0 Vdc Thru 4.7 kΩ Pull-Up

Power Requirements

Input Voltage:	+9 to +16 Vdc, Reverse Polarity Protected
Current Draw: (Maximum)	UHF/L/S-Band: 250 mA, 400 mA, 600 mA, 800 mA (for 250 mW, 500 mW, 1 W, 2 W) C-Band: 275 mA, 425 mA, 650 mA, 850 mA (for 250 mW, 500 mW, 1 W, 2 W)

Mechanical

Material:	CNC Machined T6061-T6 Aluminum
Finish (Specify):	Nickel Plated or Black Plated
Dimensions:	1.25" W x 3.50" L x 0.38" H
Weight:	1.7 oz. Maximum
Connectors:	RF Output: SMA Female Video Input: SSMA Female (Others Available) Audio/Data Input, Mic Supply: 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