

MX-3000 VIDEO TRANSMITTER

2.4 GHz

The new 2.4 GHz Audio/Video transmitter is a special design for Military applications capable to work in extremely low or high temperature range. This special audio/video sender has been designed for Aeronautic or Space experiments. It is fully synthesized unit with 4 easy to change channels. The power output is 50 mW/ 9 V or 80 mW /12 V. Lower channels are available only for special agencies. FCC Approved.



FEATURES:

- 4 Selectable channels
- 2.4 GHz Band
- Excellent for covert operations
- 9 V -12 V battery operated
- RCA video input
- Broadcast picture quality
- Range 3 miles from the AIR
- Recommended receiver VRX series

| Technical Specifications | MX-3000 |
|---------------------------|---------------------|
| Operating Frequencies: | 2400 MHz- 2500 MHz |
| Channels: | On board selectable |
| DC Voltage: | 12 V |
| RF power: | 50 mW/ 9 V |
| Minimum required voltage: | 9 V |
| Battery power: | 12 V |
| Video distortion: | 3% |
| Maximum range: | N/A |
| Video Format: | PAL, NTSC |
| Current Consumption: | 160 mA / 12 V |
| Antenna: | N/A |
| Antenna Connector: | SMA |
| Impedance: | 50 ohms |
| Video Connector: | RCA F or open wire |
| Video Impedance: | 75 ohms |
| Video level: | 1 V |
| Temperature Range: | -40 +75* C |
| Dimensions: | 1.5" X 1" X 0.3" |
| Weight: | 7.5 grams |
| Modulation: | WFM |



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MX-3000B VIDEO TRANSMITTER

2.4 GHz

MX 3000B MORE INFO:

Operating Distance

3000 ft line of sight (US / Canadian version), more or less depending on conditions, antennas used, elevation, etc. Government & Export version will have considerably more range.

Operating Frequency

2400 MHz – 2500 MHz in 4 user selectable channels. Up to 4 systems may be used in the same area simultaneously with VRX 24L receiver.

Transmission Type

FM, Crystal referenced, synthesized phase locked loop. Frequency controlled by microprocessor.

| | |
|--|------------------------|
| Frequency stability (-40 to +75°`C, | ± 0.003% |
| Radiated power (US & Canadian version) | 50mW- 80 mW (9V – 12V) |
| Spurious & harmonic response | < 50dBc |

Video System

| | |
|-------------------------------------|--|
| | NTSC or PAL |
| Video level (internally adjustable) | 1.0 Volt p-p into 75 Ohms |
| Impedance | 75 Ohms |
| Video deviation | ± 6 MHz (adjustable from ± 1 to ± 5 MHz) |

| | |
|---------------------------|--|
| Antenna US/Canada: | 3 dBi gain. Flexible helical type (Rubber Duck), reverse polarity SMA female connector |
|---------------------------|--|

Audio Modulation Type

| | |
|---|------------|
| | FM |
| Maximum deviation | ± 75 kHz |
| System signal to noise ratio at 50kHz deviation | 65 dBA |
| Pre & deemphasis | 75µ Second |

Audio Input & Outputs

| | |
|--|--|
| | All dB figures referenced to 0 dB = 0.774Vrms |
| Microphone input level (full gain to minimum gain) | -37 dB to -6 dB for ± 50 kHz deviation (5 mV) |
| Microphone input impedance | 2k Ohms |
| Power for Electret microphones (switchable) | +9 VDC @ 1mA max. |
| Line input (full gain to minimum gain) | -4 dB to +22 dB for ± 75 kHz deviation |
| Line input impedance | 10k Ohms |
| Frequency response at 20 dB below full deviation | 40 Hz to 15 kHz +1, -3 dB, 60 Hz to 10 kHz ± 1 dB (Option: may be extended to -3 @ 30kHz.) |
| Total harmonic distortion (before limiting) | 0.5% at 400 Hz (0.25% typical) |

| | |
|--|---------|
| Audio Carrier Offset from Video | 6.0 MHz |
|--|---------|

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|--------------|--|
| Power | 9 V-12 VDC Nominal. See below for details. |
|--------------|--|

Transmitted power levels, current consumption and maximum voltage

| Type of Transmitter: CVT-1000 | Transmitted Power Levels | Current Consumption / Maximum Voltage |
|-------------------------------|--------------------------|---------------------------------------|
| US & Canada version | 80mW | 135 mA / 14.4V Max |
| Government & Export version | | |
| | POWER AMP VERSION | |
| | | |

Mechanical

Size 1.7" X 1" X 0.3"

Weight 10 grams
with antenna & bracket 12.8 grams

Connectors

Power & Audio N/A
Video IN BNC 75 Ohm
Antenna SMA

Environmental

Operating temperature -40°C to +60°C
Storage temperature -40°C to +70°C (-40°F to + 158°F)
Humidity (non-condensing) 90%

Powerup

At powerup, the unit will retrieve the last used channel, program the PLL with this channel, and display the channel by blinking the LED the same number as the channel number.

Displaying Current Channel

Push button is located on the top of the unit. To display the current channel, press the pushbutton once and release. The current channel will blink. After approx. 5 seconds, the current channel will again blink.

Changing to a New Channel

To change to a new channel, press the pushbutton once and release. The current channel will blink. Press and release the pushbutton again **before** 5 seconds has elapsed and the channel will increment by 1 and the LED will blink the new channel. Repeat this step until the desired channel is reached, waiting for the blinking to stop each time before pressing the button again.

Once your desired channel is reached, wait 5 seconds until the LED again blinks your desired channel. Your new channel is now saved in memory.

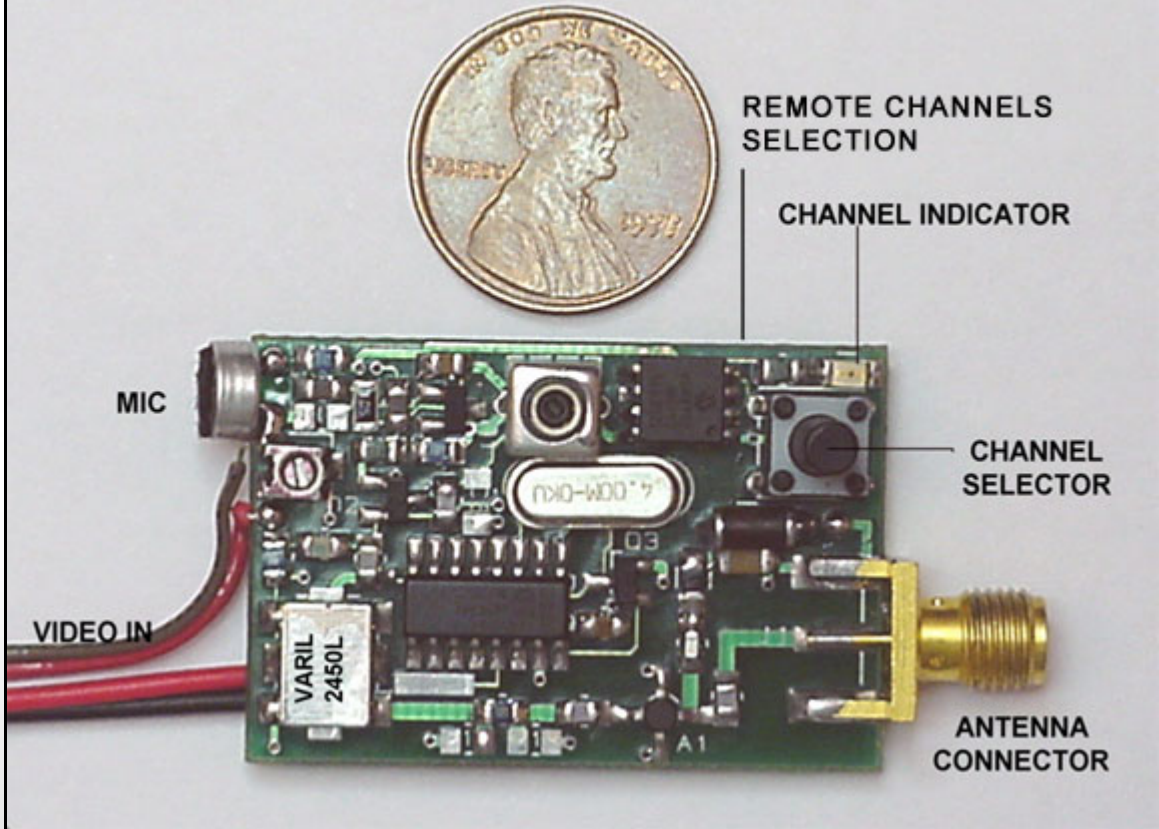
4 CHANNELS ARE AVAILABLE IN 2.4 GHz RANGE:

CH5 2410 MHz CH6 2433 MHz CH7 2452 MHz CH8 2481 MHz



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MARS-1 2.4 GHz AUDIO/VIDEO TRANSMITTER



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