

# MX-1700B VIDEO TRANSMITTER

1.7 GHz

The new 1.7 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. This transmitter has 8 selectable channels with indication.



## **FEATURES:**

- 8 Selectable channels
- 1.7 GHz Band
- Excellent for covert operations
- 12 V battery operated
- RCA F or open wire for video input
- Broadcast picture quality
- Range 2 miles from the AIR
- Recommended receiver VRX series

Technical Specifications		MX-3000B
Operating Frequencies:	1700 MHz- 1850 MHz	
Channels selection:	On board selectable	
DC Voltage:	12 V	
RF power:	100 mW/ 12 V	
Minimum required voltage:	10 V	
Battery power:	12 V	
Video distortion:	2%	
Maximum range:	2 miles from the AIR	
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	
Audio level:	2 mV	
Temperature Range:	-40 +75° C	
Dimensions:	1.7" X 1" X 0.3"	
Weight:	18 grams	
Modulation:	WFM	

**MX 1700B 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**

1700 MHz – 1850 MHz in 8 user selectable channels. Up to 8 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,       $\pm 0.003\%$

Radiated power (US & Canadian  
version)                                    80mW- 100 mW (9V – 12V)

Spurious & harmonic response            < 50dBc

**Video System**

Video level (internally adjustable)      NTSC or PAL

Impedance                                    1.0 Volt p-p into 75 Ohms

Video deviation                            75 Ohms

$\pm 6$  MHz (adjustable from  $\pm 1$  to  $\pm 5$  MHz)

**Antenna US/Canada:**

3 dBi gain. Flexible helical type (Rubber Duck), SMA female connector

**Audio Modulation Type**

Maximum deviation                        FM

$\pm 75$  kHz

System signal to noise ratio at 50kHz  
deviation                                    65 dBA

Pre & deemphasis                        75 $\mu$  Second

**Audio Input & Outputs**

Microphone input level (full gain to  
minimum gain)                            All dB figures referenced to 0 dB = 0.774Vrms  
-37 dB to -6 dB for  $\pm 50$  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  $\pm 75$  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  $\pm 1$  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

**Power**

10 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	100mW	135 mA / 14.4V Max
Government & Export version	POWER AMP VERSION	AVAILABLE

**Mechanical****Size**

1.7" X 1" X 0.3"

**Weight**

with antenna &amp; bracket

10 grams

12.8 grams

**Connectors**

Power &amp; 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.

**8 CHANNELS ARE AVAILABLE IN 1.7-1.85 GHz RANGE:**[www.rf-video.com](http://www.rf-video.com),Email to: [info@rf-video.com](mailto:info@rf-video.com).

Copyright. ® 2002-2012