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VOSTEK ELECTRONICS
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VOSTEK ELECTRONICS

**HIGH POWER AUDIO/VIDEO TRANSMITTER
LX 3000/MIL FOR ISM BAND 2.4 GHz**

FCC ID: OGR-LX3000



USER'S MANUAL

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OUR VIDEO TRANSMITTER LX-3000/MIL.....PAGE 11**

2.4 GHz AUDIO/ VIDEO TRANSMITTER LX 3000/MIL



LX 3000/MIL is an Audio/ Video transmitter for 2,4 GHz and measures only 6.5" X 3.5" X 2.0". It is fully synthesized 8 channels PLL unit, made for SECURITY applications, testing and experiments! This transmitter has built a preemphasis filter for the best picture quality! Power supply is 9 -12 V/ 1700 m A. It comes with a full 1-year warranty. The antenna connector is an SMA type. The range can be increased using the special high gain antennas. Recommended receiver is **VRX 24** (PART 15 FCC rules). Recommended antenna for the transmitter is a small dipole 0 dBi or less for a short range or directional high gain antenna up to 14 dBi. Two channels have been in use: 2452 MHz and 2481 MHz. LX-3000/MIL contain an FCC approved module MX-3000.

FEATURES:

- SIZE: 6.5" X 3.5" X 2.0"
- BATTERY POWERED 9 V – 12V
- CURRENT CONSUMPTION 1850 mA/12.6V
- MODULATION WFM (0-6 MHz)
- SOUND CARRIER 6 MHz 25 kHz deviation
- MICROPROCESSOR FREQUENCY 4 MHz
- HIGH STABILITY
- RF POWER 5W
- TWO CHANNELS IN 2.4 GHz RANGE
- TEMPERATURE RANGE -40 +75°C
- BUILT-IN PREEMPHASIS FILTER
- VIDEO INPUT 1V PEP/75 ohm
- AUDIO INPUT 8 mV (microphone input)
- OPTIONAL EXTERNAL ANTENNA (SMA connector)
- BROADCAST QUALITY PICTURE
- REVERSE POLARITY PROTECTED
- MATCHING RECEIVER VRX 24L
- FCC PART 90 APPROVED
- 1 Y WARRANTY

Model No: **LX 3000/MIL**

WARRANTY VOID IF MODIFIED!
MAX. VOLTAGE ALLOWED 14.6 V!

LX 3000/MIL TECHNICAL INFORMATION:

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

2300 MHz – 2500 MHz in 8 user selectable channels. Up to 8 systems may be used in the same area simultaneously with VRX 24L receiver. According to FCC rules only channels 7 and 8 can be used. Frequency 2452 MHz and 2481 MHz.

Transmission Type

FM, Crystal referenced, synthesized phase locked loop. Frequency controlled by microprocessor. Crystal reference 4 MHz.

Frequency stability (-40 to +75° C,	± 0.003%
Radiated power (US & Canadian version)	
Spurious & harmonic response	< 50dBc
Rf power	5 W
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:	0-14 dB gain. Flexible helical type (Rubber Duck), or PANEL (YAGI) SMA male connector
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Audio Modulation Type	FM
Maximum deviation	± 25 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)	ON REQUEST +9 VDC @ 1mA max.

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 frequency 6.0 MHz
 Audio Carrier level 25 dB bellow the carrier
Power 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		1,850 mA / 12.6V
Government & Export version	POWER AMP VERSION	

Mechanical

Size 6.5" X 3.5" X 2.0"

Weight 750 grams
 With antenna grams

Connectors

Power & Audio N/A
 Video IN RCA male 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%

INSTRUCTIONS:

1. CONNECT THE ANTENNA TO SMA CONNECTOR
2. CONNECT DC BATTERY POWER 12 V
3. SWITCH TO THE CHANNEL 7 or 8 BY FOLLOWING THE INSTRUCTION ABOVE
4. CONNECT RCA CABLE TO VIDEO SOURCE 1 V / 75 OHMS
5. SWITCH ON RECEIVER VRX 24L FOR DESIRED CHANNEL 7 OR 8
6. CONNECT THE RECEIVER TO VIDEO (AUDIO) MONITOR

FRONT PANEL

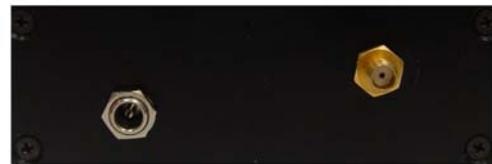


CHANNEL
SELECTOR

VIDEO
INPUT

AUDIO
INPUT

BACK PANEL



+12 V
CENTER POSITIVE

ANTENNA

1. Warning to Users @ FCC 15.21 & 15.105

Warning: Changes or modifications not expressly approved by Vostek electronics could void the user's authority to operate the equipment

2. FCC Label @ FCC 15.19

- ***For Class B - Unintentional Radiators***

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC ID: OGR-LX 3000

RF EXPOSURE REQUIREMENTS @ 1.1310 & 2.1091



WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of **89cm** or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter

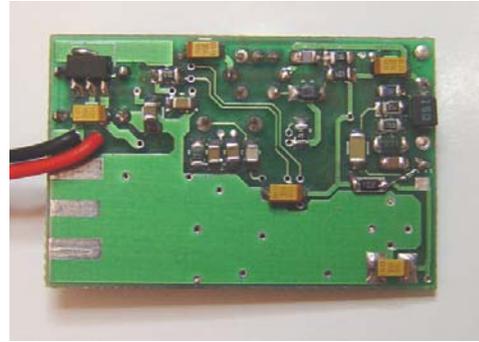
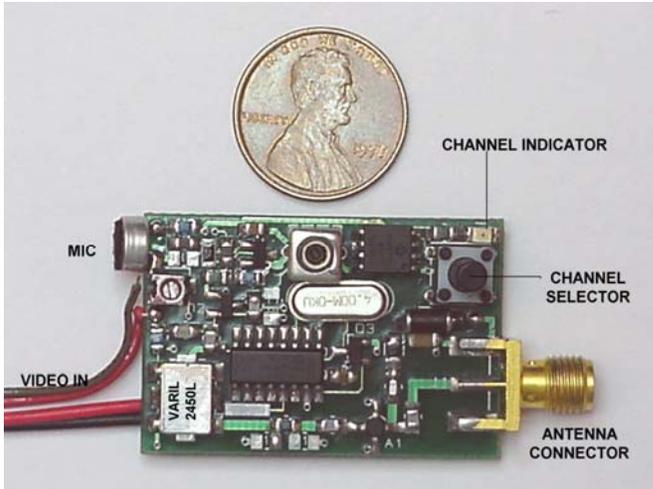
FCC INFO:

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC ID: OGR-LX3000
MODEL: LX 3000/MIL
VOSTEK ELECTRONICS**

FCC LABEL



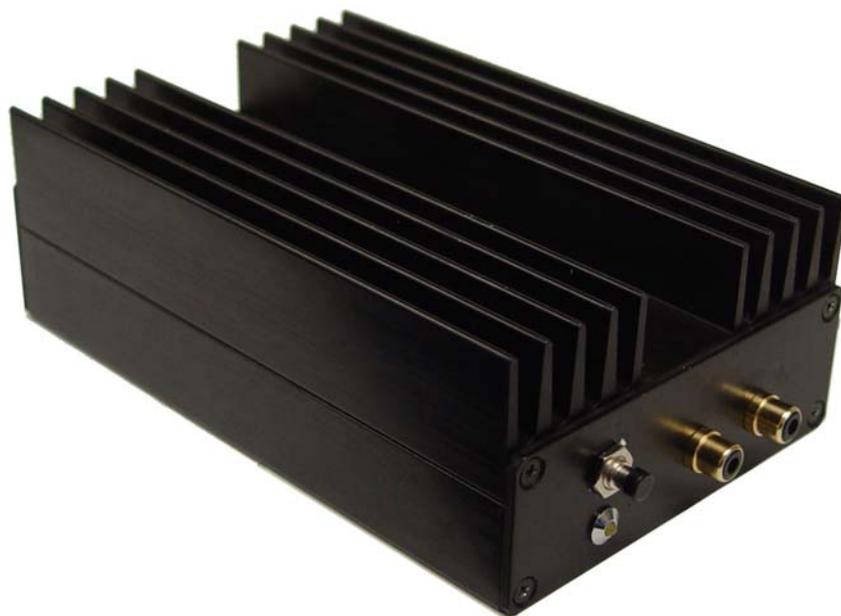
ONE LOOK INSIDE THE BOX

CONTACT INFO:

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**THIS DEVICE CONTAINS VOSTEK ELECTRONIC'S
RADIO MODULE FCC ID: OGR LX-3000**



FCC LABEL:

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MODEL: LX 3000/MIL
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