

# **VTRAN-2500 OWNER'S MANUAL**

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## **SAFETY NOTICES:**

- I. THIS DEVICE COMPLIES WITH FCC RULES PART 15. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITONS:**
  - (1) This device may not cause harmful interference, and
  - (2) This device must accept any interference received, including that causing undesired operation.
  
- II. This is NOT an intrinsically safe device. Do not take into area where intrinsic safety is required. Bodily harm may result if ignored.**
  
- III. DO NOT OPERATE TRANSMITTER WITHOUT ANTENNA CONNECTED TO ANTENNA PORT. Failure to do so will result in damage to the unit.**

## **PRODUCT DESCRIPTION**

The VTRAN-2500 digital, video transmission system uses state-of-the-art Direct-Sequence Spread-Spectrum (DS-SS) technology. Operating in the 2.4 GHz ISM band, it provides long range transmission and superior performance as compared to the available analog (FM) video transmitters that comply with FCC Part 15 regulations. The ISM band is an unlicensed band allocated by the FCC, therefore no license is required to operate the system. In addition to the enhanced performance, the DS-SS technology provides a secure, low-probability-of-intercept (LPI), which significantly reduces the ability of unwanted parties from receiving and re-broadcasting the transmitted signal.

### **VTRAN-2500 Transmitter**

The VTRAN-2500 transmitter has two ports. The first is the antenna port. Each transmitter sold by the manufacturer is supplied with a dipole antenna. This antenna has a non-standard connector to comply with FCC regulations and is not interchangeable. Any attempt to operate the system without an antenna or an antenna that is not manufacturer approved will result in damage to the system and will nullify any existing warranties.

The second port on the transmitter is the video port. A cable that is supplied by the camera manufacturer may be used. The video connection is from the video-output port of the camera to the video-input port of the transmitter. Note that the transmitter unit will not operate if video is not applied.

### **VTRAN-2500 Receiver**

The VTRAN-2500 is a four-channel ready receiver. The receiver has three ports. The first is the video-output port. This port is used to display the image on a monitor or television set. Any monitor that can accept NTSC (standard) video will display the image generated by the transmitter.

The second port on the receiver is the antenna port. This port is used to connect the antenna to the receiver. The connector that is supplied with the receiver is a standard SMA connector. This port can also be used to connect a high-gain antenna to the receiver to increase performance of the system. Any high gain antenna that has an SMA connector or whose connector can be adapted to SMA can be used. To optimize performance, the manufacturer of the VTRAN-2500 has a number of optional high-gain antennas that are available for purchase.

The third port is the power port. The manufacturer of the VTRAN-2500 supplies a cigarette lighter adapter for use with the receiver unit. An optional wall transformer is made available through the manufacturer of the VTRAN-2500. Manufacturer supplied wall transformers and cigarette lighter adapters have been tested to comply with the receiver. Any attempt to use power supplies that are not manufacturer approved will result in nullification of the warranty.

The receiver also includes a channel selector switch with an indicator. Each receiver can accommodate up to four different transmitters operating at four different channels. By scrolling through the channels, the images transmitted by the individual transmitters can be displayed.

## **TURN-ON PROCEDURES**

### **TRANSMITTER**

1. Connect dipole antenna to transmitter antenna port
2. Connect video-output from camera to video-input port on the transmitter
3. Connect power (or battery) to the transmitter

### **RECEIVER**

4. Connect antenna to receiver antenna port
5. Connect video-output port to video-input on a monitor
6. Turn monitor on
7. Connect cigarette lighter adapter to cigarette lighter                      OR
8. Connect power port to wall adapter

Once the procedures are complete and the camera is on, "CHANNEL 1" will appear on the bottom of the screen. This is an indication that the receiver is functional. If the transmitter is functioning, there will be a live picture on the screen. If the Channel indicator is on a gray screen, check for proper channel selector by scrolling through all four channel. If the gray screen is still present, this is an indication that the transmitter may not be functioning properly.

# TROUBLESHOOTING

