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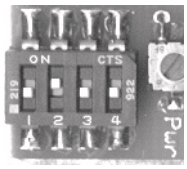
# Videolynx VM-70X Transmitter Quick Start

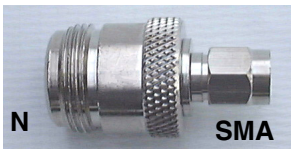
Your transmitter comes set for around 1/2 Watt pep output which allows you to connect up DC power and RF Out to almost immediately put a signal out on the air. Connect a red insulated #18-22 wire (Radio Shack 278-567) to the 12V solder pad and a black one to the adjacent Gnd solder pad. Always double check that red is connected to the positive output of the 11 to 13.8Vdc power source, you can damage the module if reversed.



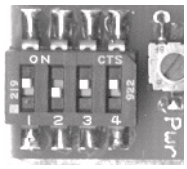
427.25 MHz Test
0 1 0 0

You can use batteries, but a regulated 13.8 Vdc power supply works best. Connect a 50 Ohm dummy load to the RF Out SMA jack or 70cm whip antenna that has a SMA plug on it. Set the frequency digiswitch to 427.25 MHz and internal video: 2 is ON (1) all others OFF (0). Connect an external 70cm antenna to a TV set to *cabl*e channel 58 or downconverter to 427.25 MHz.

We stock a F male to N jack adapter to connect your TV directly to low loss 1/2" size 50 Ohm coax with N plugs - 50/75 Ohm miss match is negligible. We also stock a SMA male to N jack adapter to connect the 50 Ohm 70cm antenna coax to the VM-70X.

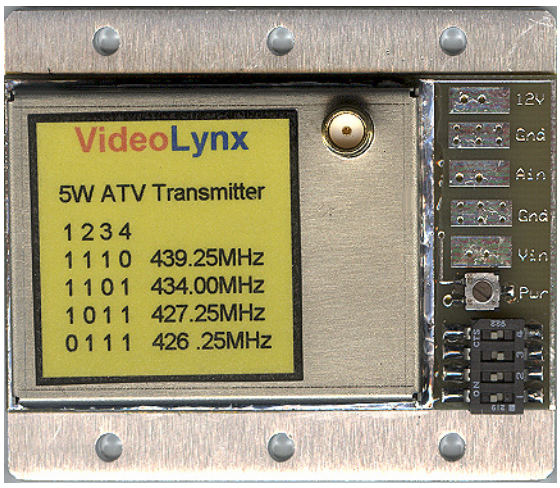

In order to connect up your camera and line audio, you can get BNC and RCA jacks from Radio Shack or Mouser and run a shielded cable from each to the Vin video and Ain audio input solder pads on the VM-70X. It is easiest is to just cut off one end of a existing BNC and/or RCA shielded cable that mates with your camera jacks. Strip the cut end about a half inch and solder the centers and Gnd shields to the solder pads. To transmit the video from the camera instead of the internal test video pattern, reverse the 4 digiswitch settings with 2 off and the others on.



427.25 MHz Cam
1 0 1 1

Turn on the DC power and look for the two white vertical bar test pattern and tone on the TV for no more than 5 minutes unless you have mounted a sufficient heat sink to the bottom plate - see the other application note pages. A one to two second delay for the RF to come up is normal. With inside antennas, you may also note some picture instability in the picture due to TV overload and/or multipath. If you are receiving the test pattern and audio, turn off the DC power and reset the frequency digiswitches for transmitting video from your camera. Cameras and mics can be RF susceptable so experiment with keeping the camera far enough away from the transmitting antenna.

Before connecting to a good outside 70cm antenna with a SWR of no more than 2:1, find out on your local two meter ATV talk back frequency what ATV antenna polarity is being used and which of the 4 ATV frequencies is used in your area - 144.34 and 146.430 MHz simplex are common. Only two 70cm ATV frequencies are useable at any given time and must be separated by at least 6 MHz to prevent interference. Also if FM voice repeaters use a frequency below 444 MHz for input or output, they can interfere with reception on 439.25 MHz ATV.




Establish contact with a local ATVer on 2 meter voice that has a strong simplex signal to you. This is an indication that they can receive your 70cm video. Rotate your directional antennas for best received picture coordinating on 2 meters. Don't forget to ID either by speaking into the camera mic or with a call letter card in view every 10 minutes for long transmissions and at the end of the transmissions. Once everything seems to be working well with your set up, you can consider packaging the module and heatsinking so you can crank up the power - check our Plug and Play ATV and app note web pages.