

# OREGON AMATEUR TELEVISION

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## *Amateur Radio with VISION*

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What you need to receive ATV in your area?

In Portland-

Since the the output of the repeater is at 1253.25 FM, you will need some kind of a directional antenna for that band. Many of us are using a 26 element loop yagi from Directive systems. Others are using coffee can homebrew dishes . This must be mounted for vertical polarization and pointed at the Ackerly (KGON) Tower just above Downtown Portland. The repeater is sending out a FM TV signal so we are all using old satellite receivers that cover 950 to 1450. On Sat receivers it is near Channel 10 KU BAnd. Audio carrier is at 6.2mhz and the receiver is set for inverted video.

We have been finding them for \$25 to \$65.

146.43 Simplex is used for coordination with a 100hz tone.

In Salem-

The output of the Salem repeater is at 910.00 FM. Same antennas as above. For FM, the receiver is a downconverter which brings 910.00 down to TV channel 7 or 8 . So you connect the downconverter to your TV or VCR tuner. One of the best downconverters are made by PC Electronics for \$109.

You will only see a repeater signal when some one has triggered the repeater with a video signal. Check with your local group for activity times. Also in Portland 146.43 is used as a coordination frequency.

Oregon Groups

There are two ATV organizations in Oregon at this time. The purpose of both are to advance the mode of Amateur Television, act as a support group for new interested hams and to maintain an ATV repeater.

Here is how you can contact them-

### **Oregon Amateur Television Association (OATVA)**

3210 SW Dosch Road

Portland Oregon 97239

Ed Mellnik - President, (503) 241-8663 days

Dues \$50 includes 4 newsletters per year

Meets every two months

ATV repeater 426.25 AM input - 1253.25 FM output

146.43 Simplex is used for coordination with a 100hz tone.

Repeater is open for all to use

<http://www.oregonatv.org>

### **Salem Amateur Television Association (SATVA)**

No annual dues, Voluntary Donations accepted

Meets 3<sup>rd</sup> Thursday every other month

ATV repeater 426.25 AM input – 910.00 FM output

<http://www.qsl.net/k7atv/>

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### The Portland <> Salem ATV Network

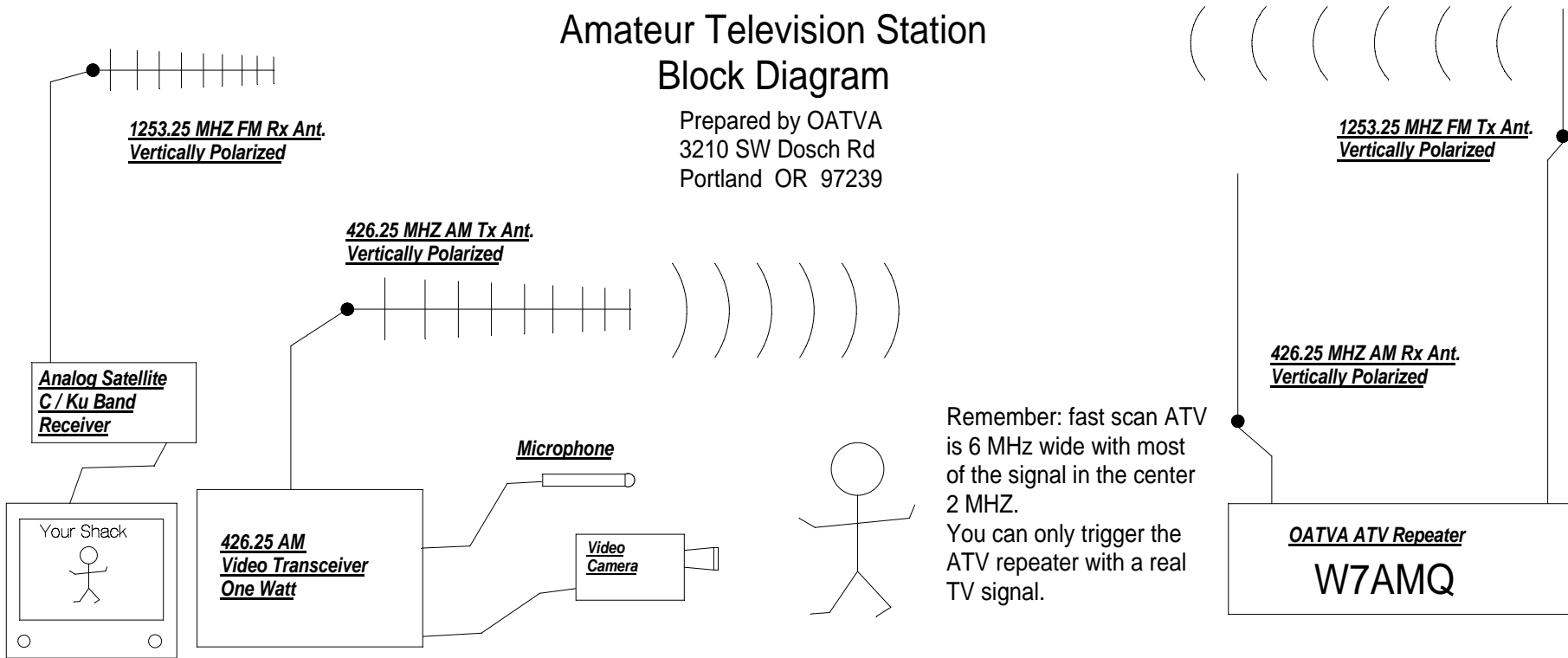
The SATVA and OATVA Amateur Television groups have built a 2 way link for fast scan ATV between Oregons Capital City and Oregons largest city. The two way transfer has already been installed and with some additional enhancements will provide ATV'ers in the two cities greater opportunities. The link relies on 1.2 GHZ and 2.4 GHZ ATV transmitters to pass the signals between the two cities. Signals are received at each ATV repeater and retransmitted on the local ATV repeater.

### Portlands Tower Camera -

The Portland ATV repeater has a camera attached to one of its' input ports. The camera is located 375 feet above ground adjacent to the ATV repeater. The camera provides a non repeated source for checking the output of the repeater, along with the color bars generated at the repeater. When checking your receiving equipment you can view the image from the tower camera and evaluate the picture received.

# Amateur Television Station Block Diagram

Prepared by OATVA  
3210 SW Dosch Rd  
Portland OR 97239



The above diagram is a standard ATV equipment set up for Portland Oregon using 426.25 AM as the input frequency and 1253.25 FM as the output of the repeater. The 2m frequency of 146.43 (S) is also used for audio when conditions are less than optimal. Any TV set may be used. Yagi antennas with a fair amount of gain are desirable for both 426 MHz and 1253 MHz. Antennas should be as high as possible and all feed lines should be low loss coax (Belden 9913 or better). In Portland we are vertically polarized. This means some special considerations when mounting the antennas. Unless the yagi is end fed or mounted on a cross beam a non conductive mast is needed.

Almost any camera will work. Anything from a modern camcorder to an old black and white surveillance camera. A poorly lit scene can look as bad as a poor RF signal. In RF line of sight is everything..... in the ATV studio proper lighting is just as important.

PC Electronics sells several choices in 426 MHz ATV transmitters. Satellite receivers that work in the 950 MHz to 1450 MHz range can usually be found for \$40 or less. Make sure not to get a digital Satellite receiver. That will not work for Portland ATV.

In Salem the input will also be 426.25 AM. However the repeater output will be 910.00 MHz FM.

For more info on how to get on ATV in Portland, contact Ed Mellnik, WB2QHS or Dennis Belles, WA7DRO Visit our web site at [www.oregonatv.org](http://www.oregonatv.org)