

Conversion of 9003 Receiver to 70cm Preamp.

The board is a FM digital receiver board. Reset pin for the detector was omitted and these boards became scrap. It has a 7.7 MHz wide RFM filter centered @ 433.92 MHz, P/N SF2136E,

http://www.rfm.com/products/spec_sheet.php?record=SF2136E

A 15dB gain LNA follows it. The filter makes it perfect for receiving satellites in a metropolitan areas, where there is a considerable number of strong signals in the commercial 450 to 470 MHz band. The filter offers 40 dB or greater rejection for the commercial signals.

Conversion is simple

- 1. Remove cutoff coax cable and install a PCB mount SMA connector.**
- 2. Remove and discard HC49S Crystal.**
- 3. Cut power to receiver section, and remove R2. See Photo.**
- 4. Remove L2 and install coax center conductor to the junction of L2 and C9**
- 5. Ground coax shield to the ground tab for the crystal removed in step 2**
- 6. Connect power and ground to J3. Pin 2 is (+) and pin 3 is (-)**

This completes the conversion. Power is 5 to 10 VDC, I used a 9V transistor battery. Power consumption is ~20 mA.

Any questions, contact Art kc6ugh@amsat.org

PHOTO:

crystal

L2

R2

**Install
SMA
here**

**Cut
trace**

**J3 Pin 2
+5 to 10V**

