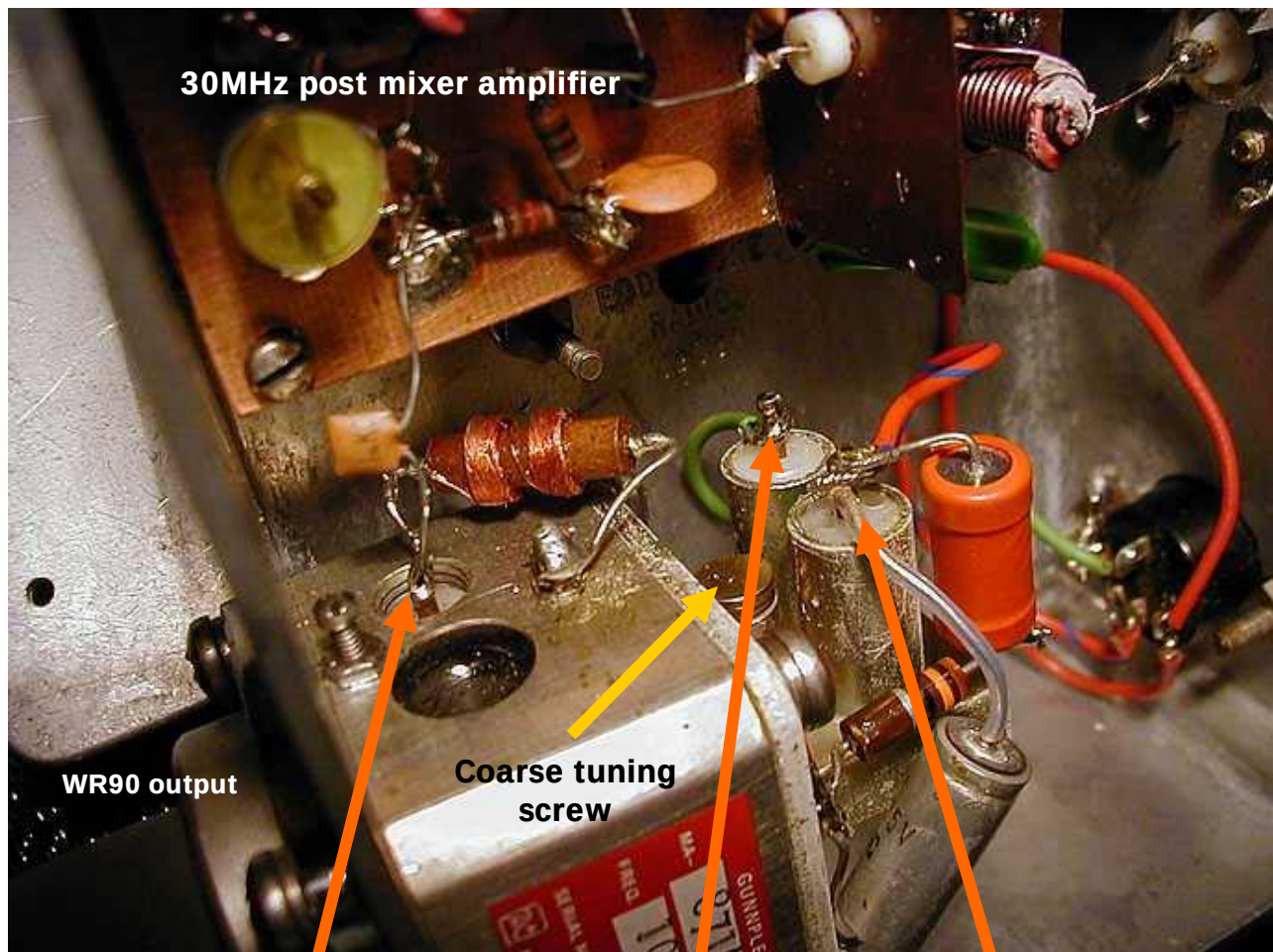


Microwave Associates 10GHz Gunnplexer Type MA-87127

The photo below shows the power supply and IF connections. Note that all power supplies are +DC voltages.

The IF is best chosen at 30MHz for wide coverage of the 10GHz band. A small post mixer amplifier at IF is advisable to get good matching between the mixer diode and the IF input. The impedance at 30MHz is approx 200 ohms.

You will get around 60 to 80MHz of tuning by varying the voltage on the varactor. Set the middle of the tuning range by adjusting the tuning screw. The frequency goes up as you increase this voltage. You should get a noise figure of around 9dB.



Connect RX IF here ... use a 0.001 to 0.1uF ceramic capacitor to the post mixer amp / IF preamplifier.

+10V DC applied here to Gunn diode. Add capacitor and resistor in series (transient suppressor) across supply. Fix this voltage at +10v. Do not apply modulation to this diode unless there is no varactor tuning diode fitted. Then you will need to reduce the voltage to around +8V for best mod.

Apply +0 to +20V DV variable to this varactor tuning diode (if fitted). You can also apply about 100mV of audio or video here to get wideband FM modulation