

IC746Pro / IC7400 RF Tap for 2m band

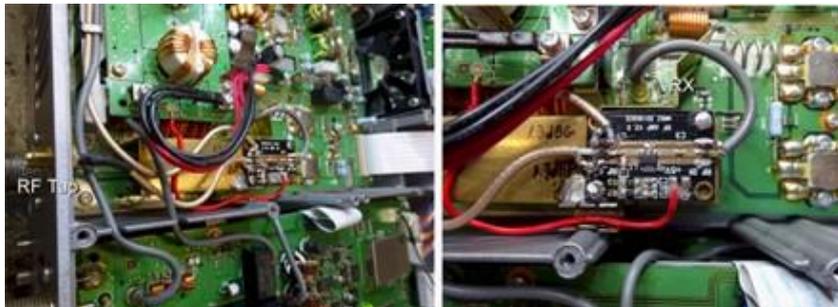
A SDR USB Dongle such as the Funcube Pro+ may be used with a SDR program such as HDSDR provide a wide waterfall for band monitoring for general operation, contests, and EME. For EME This allows an additional instance of WSJT as an alternative receiver / decoder.

An RF tap fitted internal to the transceiver provides a safe connection to extract the RF signal without degrading the receiver in the radio.

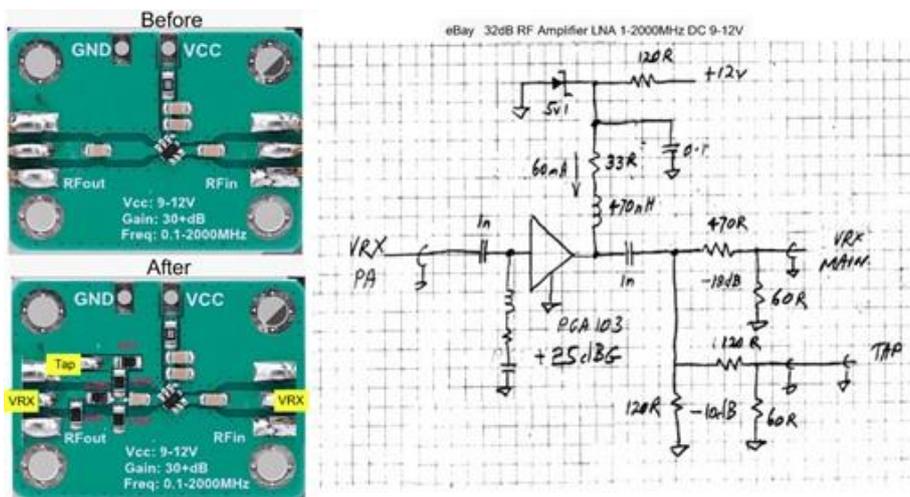
Most Icom transceiver provide a convenient location to apply the RF tap.

The PA PCB provides the antenna low pass filter and antenna changeover. The RF PCB provides the receiver input protection, receiver front end tuning to preamp / attenuator and the remaining receiver functions.

Coax cables designated HRX, VRX, URX etc interconnect the PA PCB and RF PCB. For the IC746Pro / IC7400 the photos show the connection.



A low cost eBay LNA 0.05-4G NF=0.6dB RF Amplifier Ultra-Low Noise High Linearity FM HF VHF/UHF, is modified to split the receiver RF into two paths. The Vcc series resistor is increased to allow operation of the LNA from 13.8V. A 5V Zener may be used for additional supply protection. Two simple attenuators split the amplifier output. One feeds the 2m receiver preamp (VRX) and one is fed to a rear panel SMA.



The amplifier provides 7dB gain ahead of the IC746Pro receiver and 15dB to the external SDR. This amplifier has around 1.7dB noise figure at 2m. Better NF is provided at 70cm and 23cm.