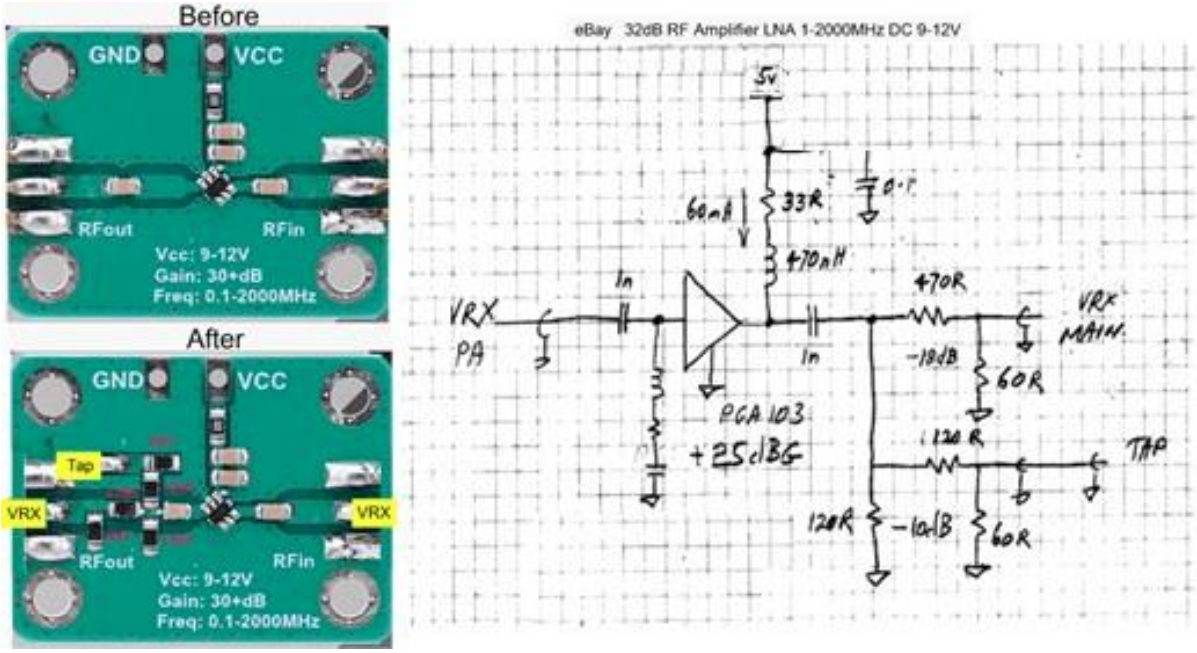
23cm RF Taps for IC9100 and IC910H

This project describes provision of RF taps, for an external SDR and waterfall / spectrum analyser programs, for the 23cm band of the Icom IC9100 and IC910H transceivers. Photos and schematics are for IC9100.

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 or risking exposing your SDR dongle to transmit power.

Most Icom transceiver provide a convenient location to apply the RF tap. For the IC9100 and IC910H UX modules, the tap is achieved by cutting a PCB track.



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 selected to power the LNA from 5V. Two simple attenuators split the amplifier output. One feeds the receiver preamp and one is fed to a rear panel SMA.

Cut PCB track between C271 and F1271. Connect LNA input to C271. Output of amplifier to F1271. +5V Rx connected at the junction of C274, C275, R271.

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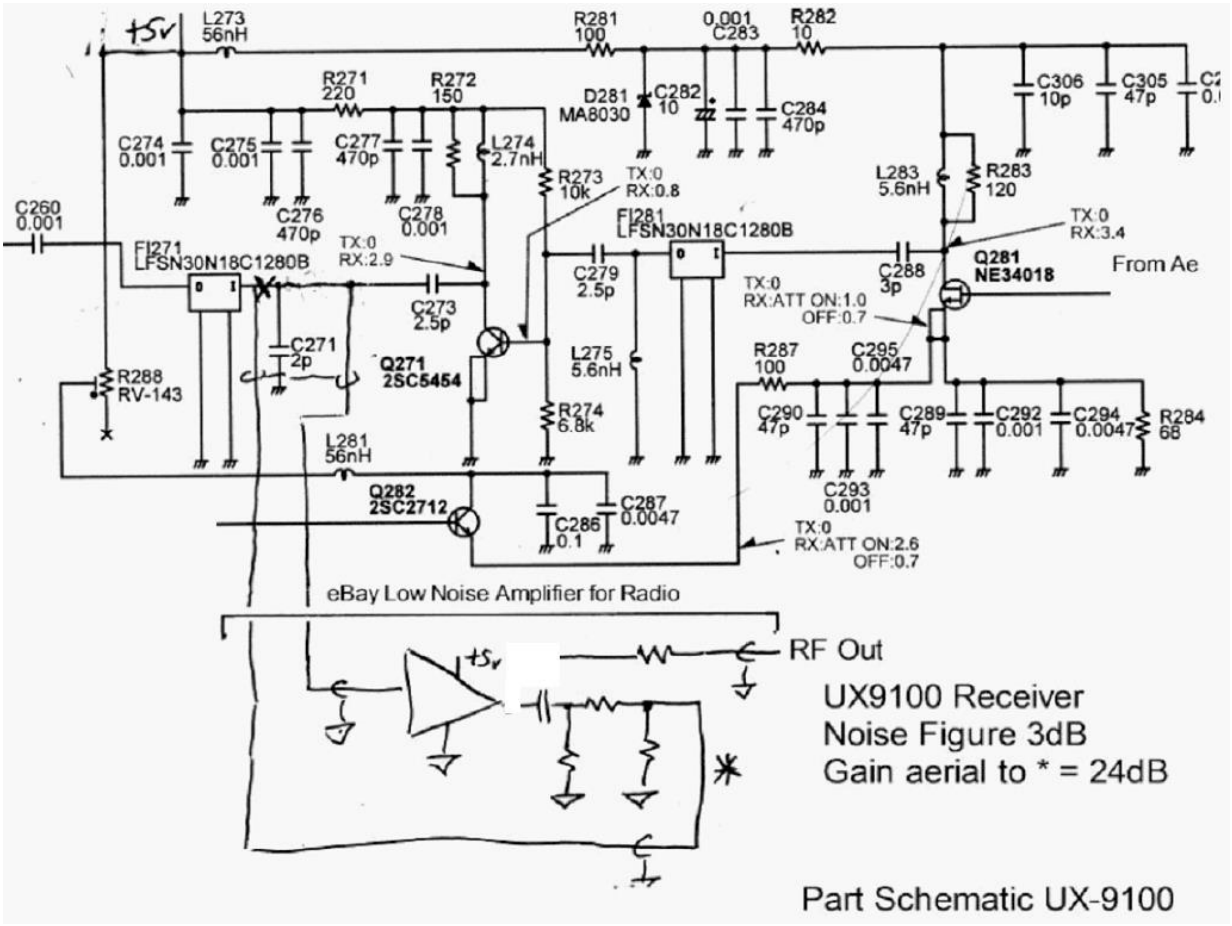

If IC910H modifications are not clear, email as per QRZ.com.