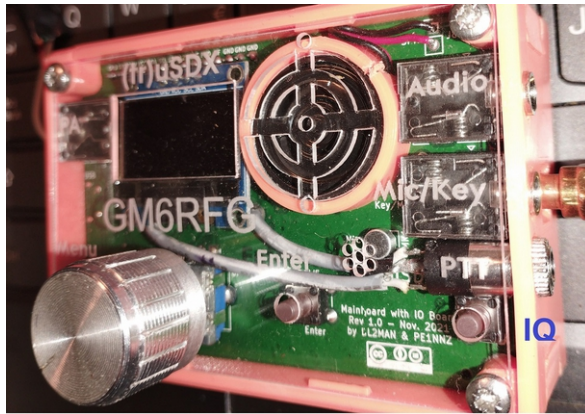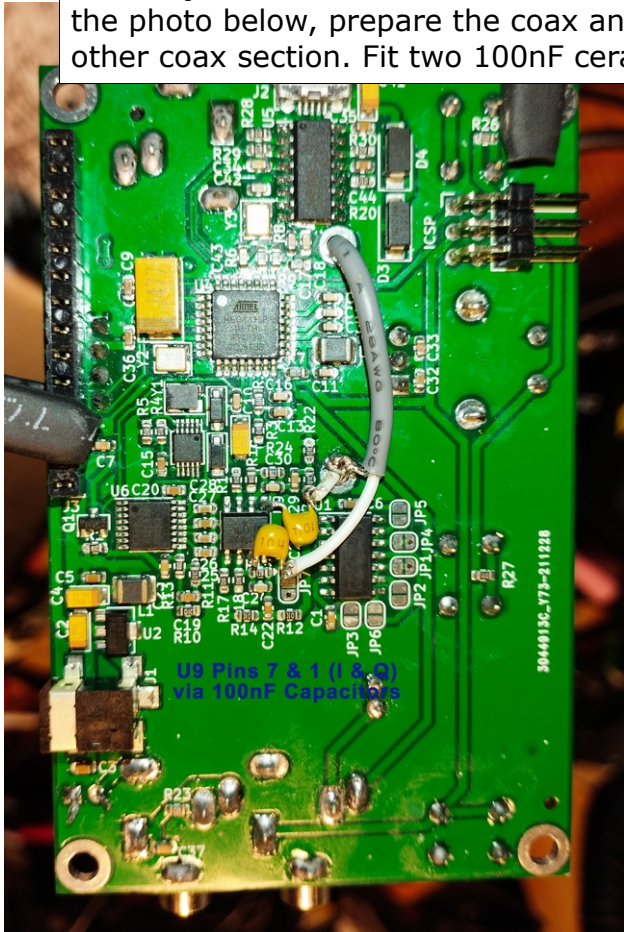# (tr)uSDX & uSDX/uSDR
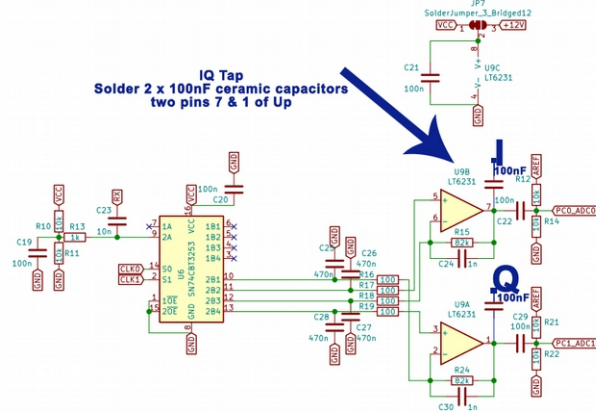# IQ Tap & (tr)usdx TTL RS232 Port

Both uSDX/uSDR and (tr)usdx have identical circuits.
For uSDX mods, just locate the 8-pin mixer op-amp. Email us if in doubt!
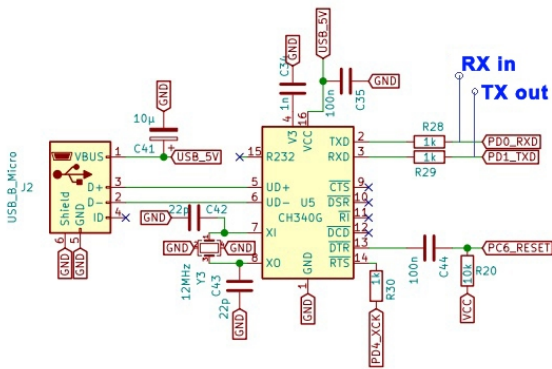

Instructions: Prepare two sections of miniature coax with no more than a 2mm diameter. For (tr)usdx these will pass through holes in the PCB to connect to a 3.5mm jack socket fitted to the case by the two existing PCB jacks. As shown in the photo below, prepare the coax and solder the braid to the ground and to the other coax section. Fit two 100nF ceramic capacitors two pins 7 & 1 of U9 as shown.

U9 Pins 7 & 1 (I & Q)
via 100nF Capacitors

IQ port Jack connections:

Solder the I wire to the tip connection of the jack socket, and Q to the middle ring connection, with ground connected to the base.

IQ Tap
Solder 2 x 100nF ceramic capacitors
two pins 7 & 1 of Up

2mm dia coax pass through

This modification supports both the USB and TTL RS232 com ports for direct connections to the Spectrum DSP module. This allows the USB com port on the Spectrum DSP to bypass CAT data to a connected PC or tablet.

RS232 Jack connection:

Solder 2 wires to R28 and R29 resistors at the furthest side from U5, and use pin 1 of U5 as the ground connection. Connect the 3 wires to an external 3.5mm jack socket, with the tip connected to R28 (RX white), and the middle ring to R29 (TX orange), and ground to the base, green wire.

Note: When the USB port is disconnected, pins 2 & 3 of U5 are high impedance, and R28 & 29 isolate the external TTL signals.

Note:

uSDX with UART jack port do not need this modification.

RS232 TTL
White RX-in Tip
Orange TX-out Mid-ring
Green base

R28 & R29

U9 pins 7 & 1 (I & Q)
Connected via 100 nF Ceramic capacitors