QO-100 Linux SDR Transceiver

PTT

A PTT output is needed to switch the quiescent current of a PA.

There are different possibilities, which are described in the following:

Relay via GPO0 and GPO1

Prerequisite: the Pluto must run with the firmware of F5OEO (min. version 2021 !). Without this firmware (minimum version 2021) it will not work.

A detailed description with schematic can be found at our radio friends from the BATC: Custom_DATV_Firmware_for_the_Pluto (go to ***ptt output***)

GPO0 ... this switches, via a transistor, the PTT relay
GPO1 ... prevents the PTT from energizing during power on and has no function during normal operation. Can also be omitted.

Background: The Pluto firmware of F5OEO (V.2021) uses the output power setting as switching criterion. In receive mode this is set to -40dBm which turns off the PTT. In transmit mode, the output power is higher, causing the PTT relay to switch on.

The QO100 transceiver supports this function with version 1.68 or later.

Relay via data line 0

This switching suggestion is independent of the used software and always works. A good description can be found e.g. here: ptt-output-for-the-adalm-pluto

You can use the original Analog Devices firmware or also the F5OEO firmware.

The disadvantage of this method is that soldering work on fine traces in the middle of the Pluto is required. Concerning the installation the method with GPO0 and GPO1 is easier to realize. Advantage is the independence from the software and firmware.

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