

## Tokenblauser:

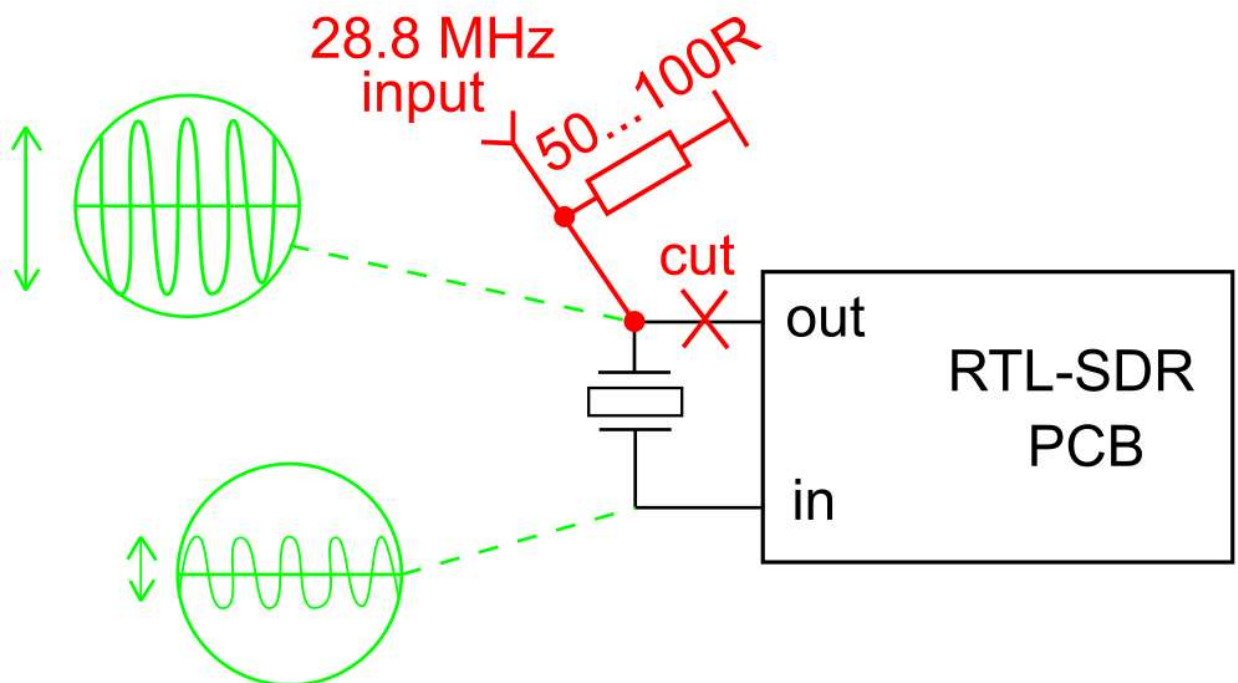
# A GSDO as an external 28.8 MHz reference clock for RTL-SDR

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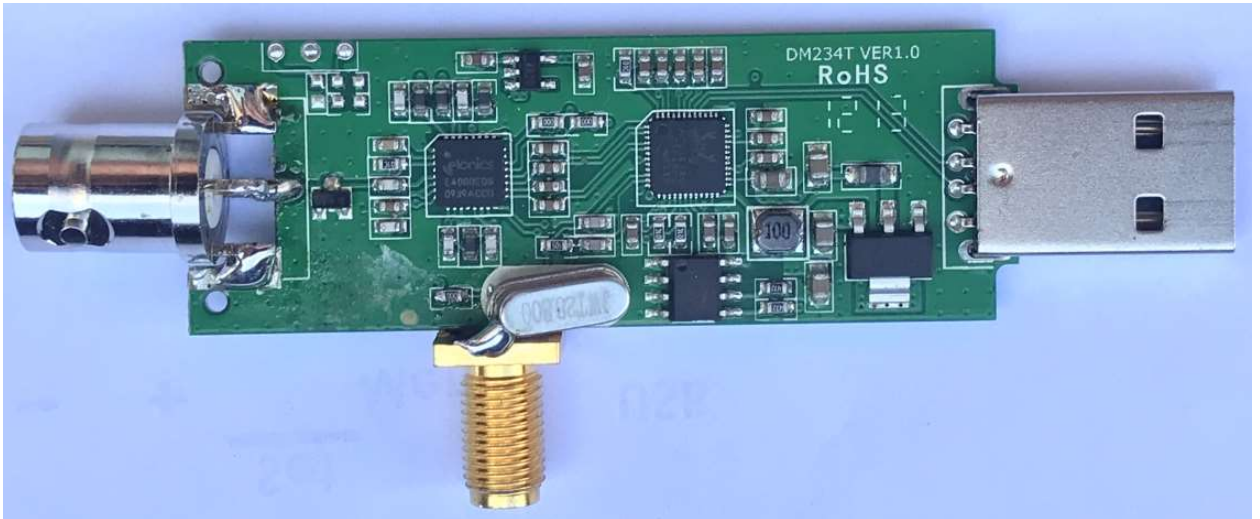
In this application note, we provide a step-by-step instruction to use the Tokenblauser as a reference clock for a popular RTL-SDR.

### RTL-SDR modification

- 1) Carefully disassemble the RTL-SDR case and locate a 28.8 MHz crystal on the PCB.
- 2) By using an oscilloscope, check the swing of the 28.8 MHz signal on both pads of the crystal.
- 3) The pad with a larger swing is an output of the oscillator. Unsolder this pad, or cut a trace on a PCB.
- 4) Wire the pad to an RF connector (SMA is fine). Add a 50...100-Ohm resistor to ground.
- 5) Optionally, replace the input connector with SMA or BNC.

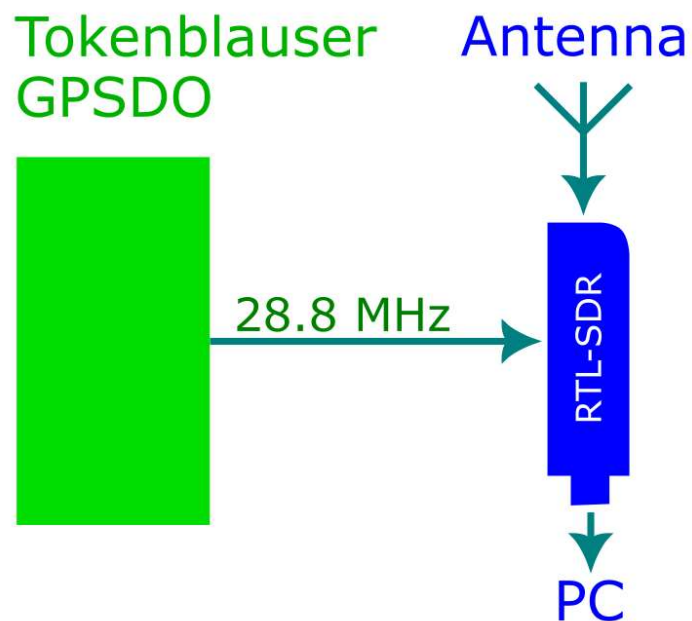


The modified RTL-SDR is now ready for use:



### Connecting all together

Now the modifier receiver can be connected to the Tokenblauser GPSDO:



Please notice that the RTL-SDR will not be detected by a computer until the 28.8 MHz clock is applied.

### Links:

- RTL-SDR: <https://www.rtl-sdr.com/>