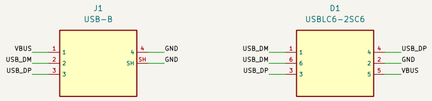
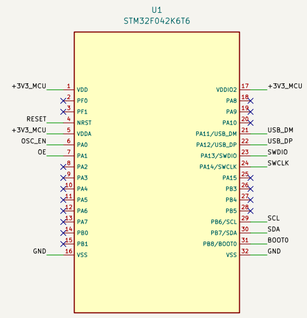
R1 prototype design | USB-B, 200mA configured | Si598 598PAC000141DG or Si570 570CAC000141DG only

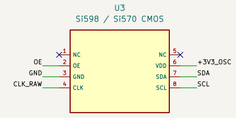
1 USB / ESD / POWER INPUT

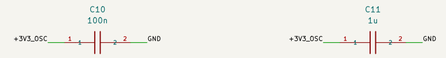


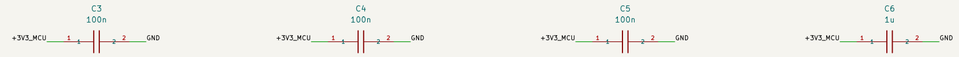
2 NATIVE USB CONTROLLER / DECOUPLING



3 OSCILLATOR / I2C









4 AC-COUPLED SX1255 LEVEL ADAPTATION

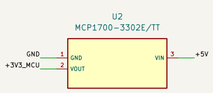


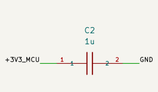


1.03 Vpp ideal divider output; validate at XTB. Disconnect original TCXO. Use short coax + common GND. No 50 ohm load.

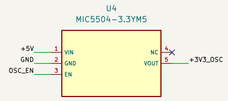
No direct 3.3V clock connection to SX1255. Factory oscillator profile: 56.320 MHz, CMOS 3.3V, active-high OE on pin2.

6 MCU SUPPLY



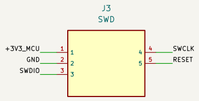


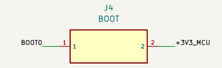
7 SWITCHED OSCILLATOR SUPPLY



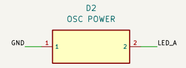


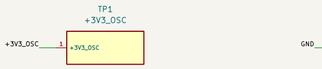
8 DEBUG / BOOT / INDICATION

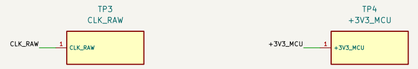




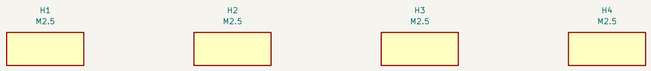


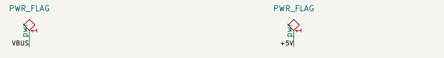






Firmware must keep OSC_EN/OE low before USB configuration and on suspend. ROM DFU: bridge BOOT before reset; then remove.





Native USB firmware / assigned USB VID-PID required before product distribution. Physical prototype validation pending.

Si598 / Si570 with 38.4MHz output and SX1255 level adaptation

DL7OLG

Sheet: /

File: dl7olg-usb-clock.kicad_sch

Title: DL7OLG USB Reference Clock

Size: A2	Date: 2026-11-16	**Rev: R1**
KiCad E.D.A. 10.0.8		Id: 1/1