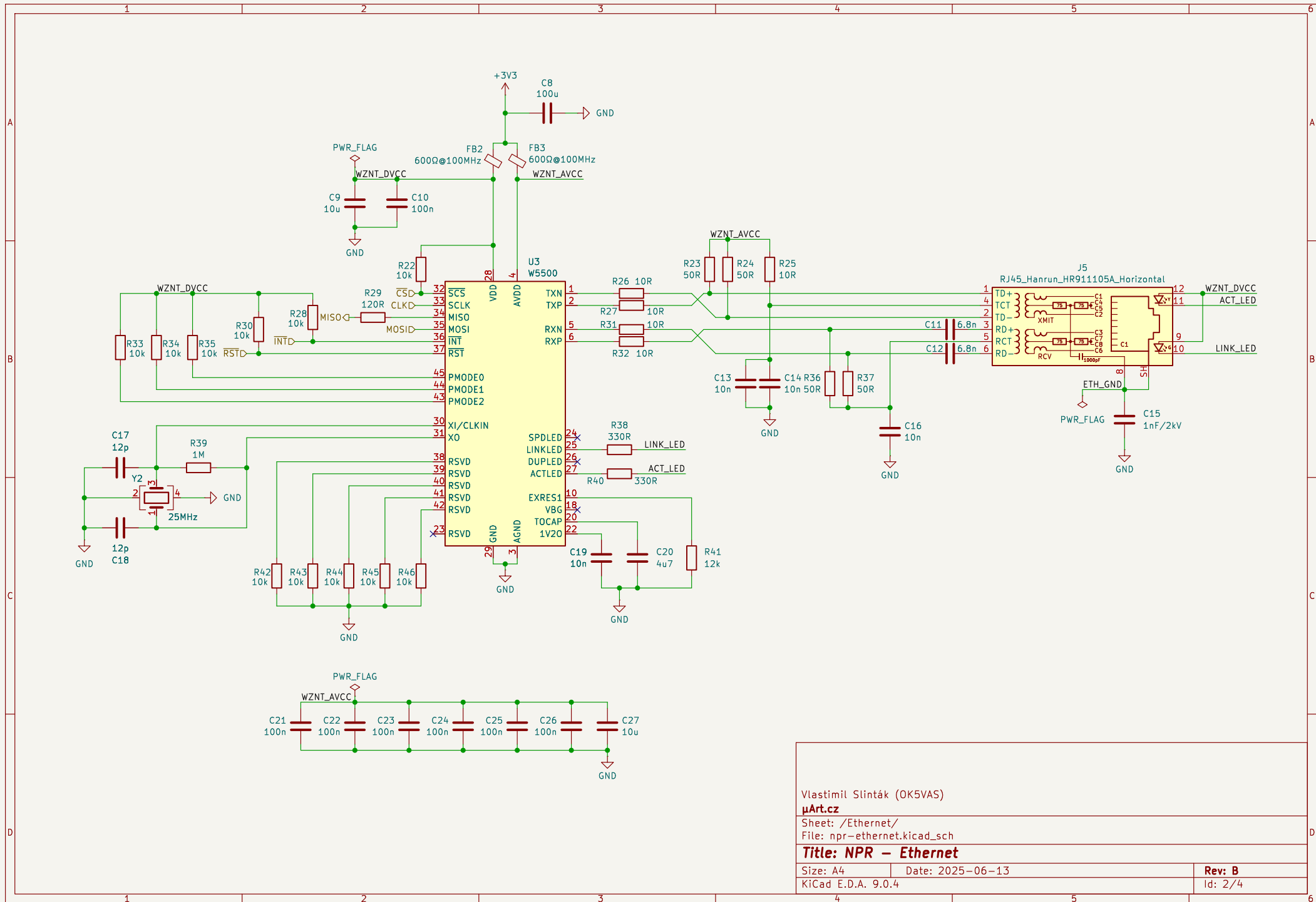




Vlastimil Slinták (OK5VAS)

μArt.cz

Sheet: /Ethernet/

File: npr-ethernet.kicad_sch

Title: NPR – Ethernet

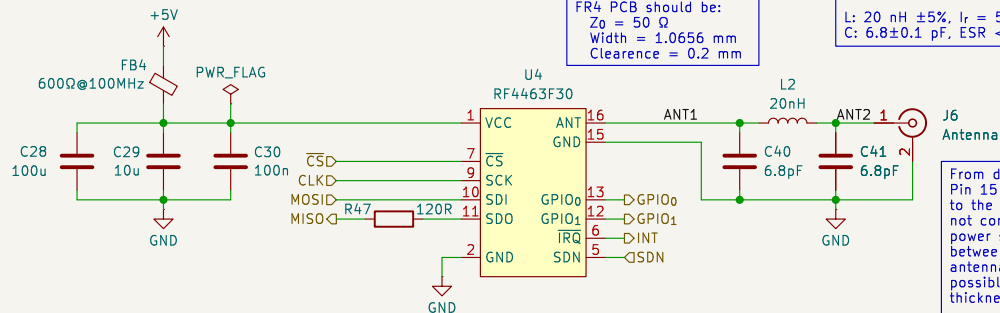
Size: A4

Date: 2025-06-13

KiCad E.D.A. 9.0.4

Rev: B

Id: 2/4



ANT trace for 1.6 mm
FR4 PCB should be:
 $Z_0 = 50 \Omega$
Width = 1.0656 mm
Clearance = 0.2 mm

Lowpass filter:
3rd order Chebyshev Lowpass filter.
Cutoff frequency: 480 MHz
S21 @ 868 MHz ~ -10.00 dB
S21 @ 920 MHz ~ -11.80 dB
L: 20 nH $\pm 5\%$, $I_r = 550$ mA, $R_{pc} = 150$ m Ω , SRF = 4.5 GHz
C: 6.8 ± 0.1 pF, ESR < 90 m Ω , Q ~ 550

From datasheet:
Pin 15 (ANT GND) is connected
to the ground of antenna, do
not connect to the ground of
power supply. The routing
between antenna pad and
antenna shall be as short as
possible, and
thickness larger than 1mm.

Vlastimil Slinták (OK5VAS)
µArt.cz

Sheet: /Radio/
File: npr-radio.kicad_sch

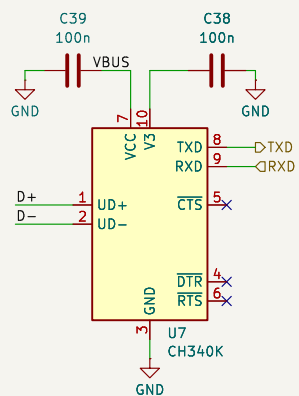
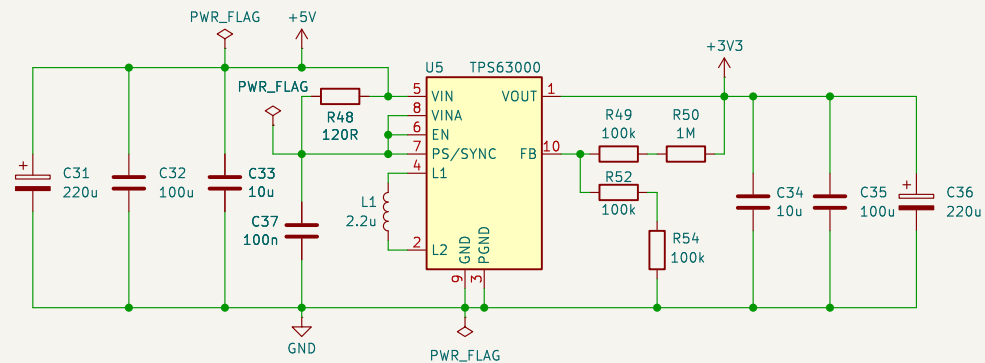
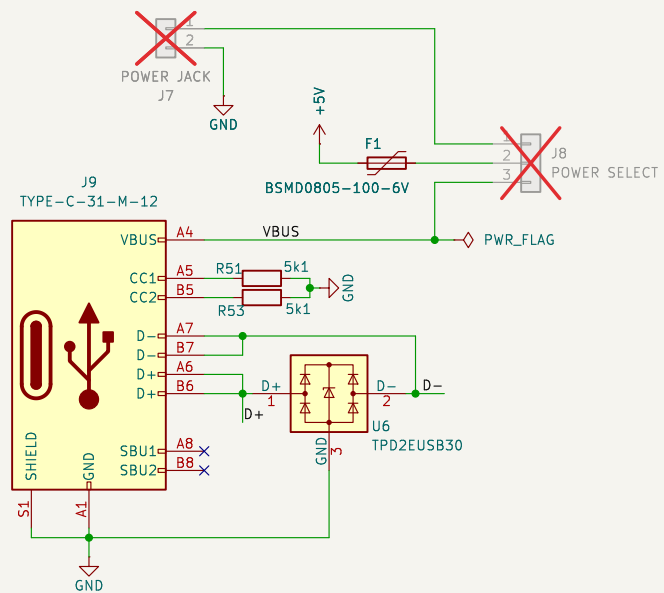
Title: NPR - Radio

Size: A4
KiCad E.D.A. 9.0.4

Date: 2025-06-13

Rev: B

Id: 3/4



Vlastimil Slinták (OK5VAS)

μArt.cz

Sheet: /Power/

File: npr-power.kicad_sch

Title: NPR - Power

Size: A4 Date: 2025-06-13

KiCad E.D.A. 9.0.4

Rev: B

Id: 4/4