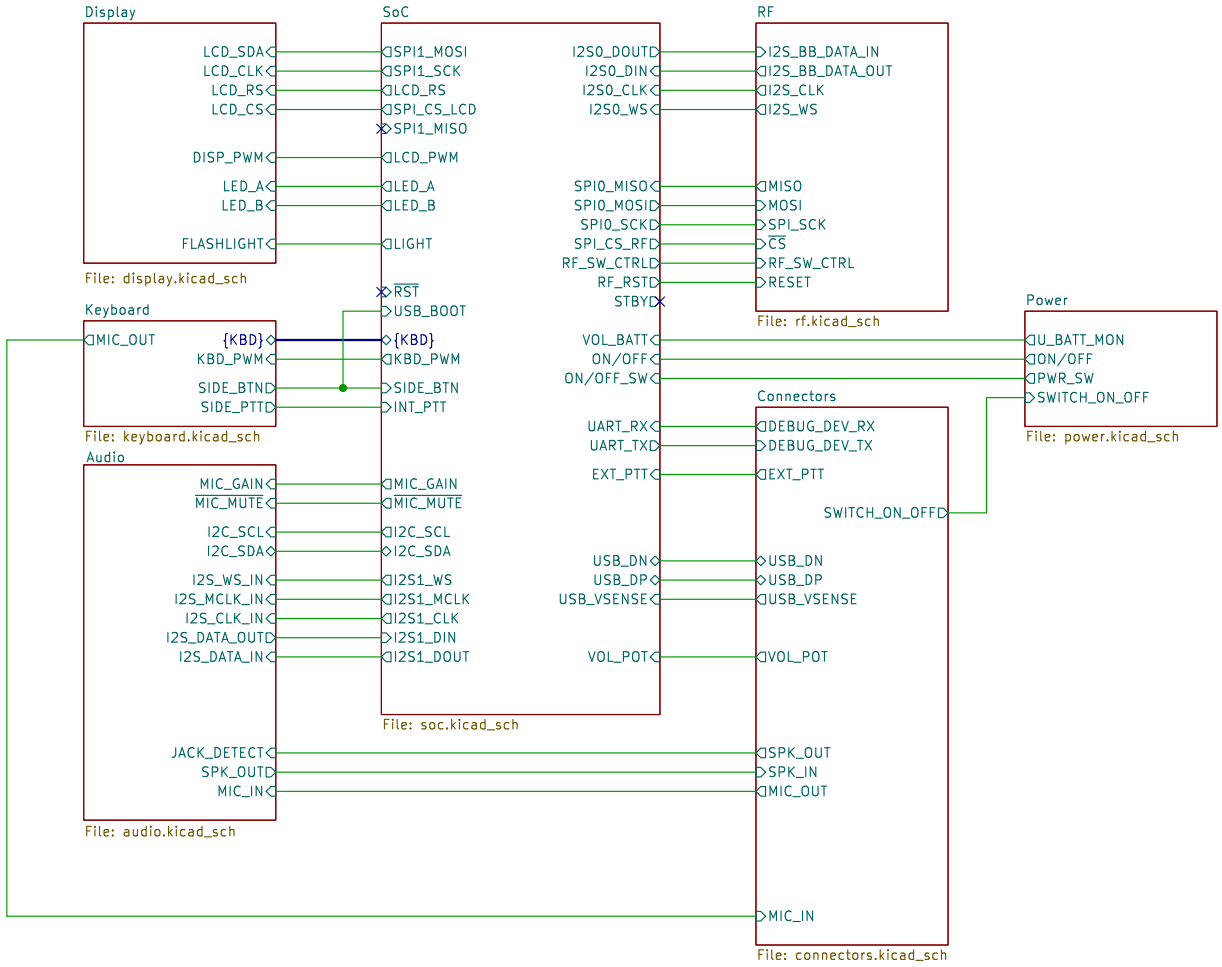


Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS

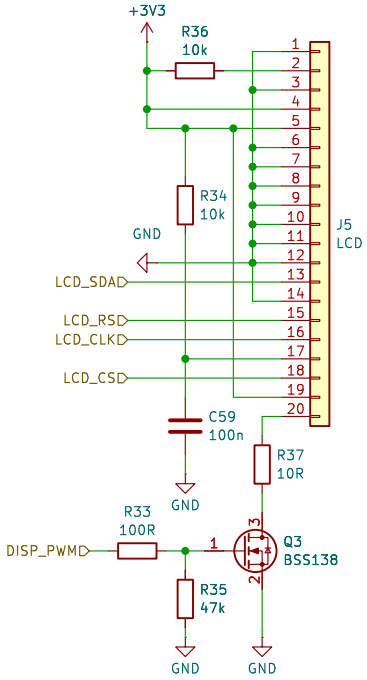
M17 Foundation

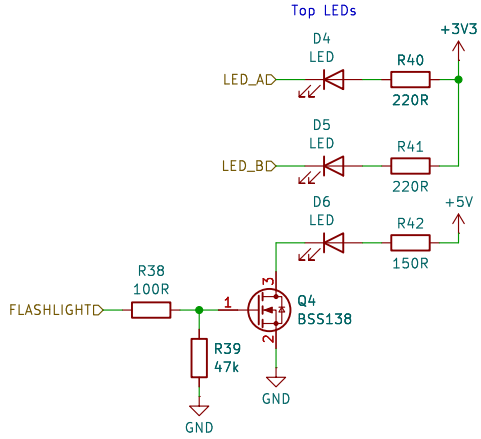
Sheet: /

File: linht-hw.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 1/8



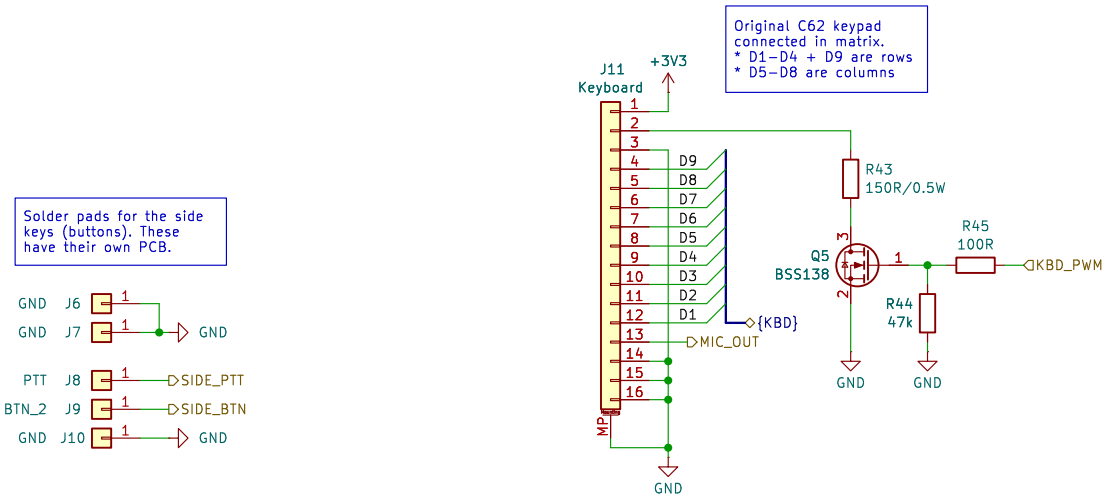


Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS
M17 Foundation

Sheet: /Display/
File: display.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 6/8

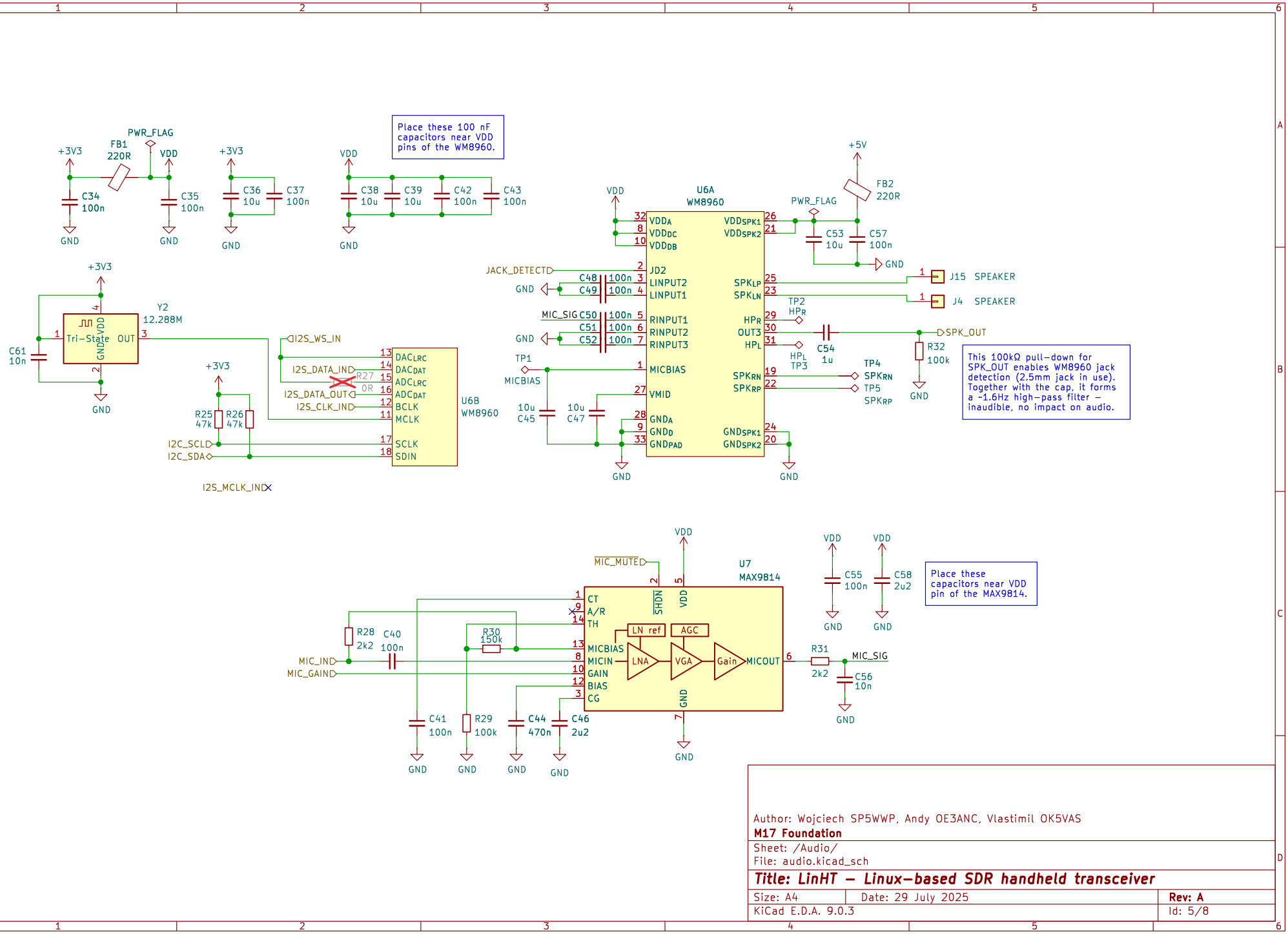


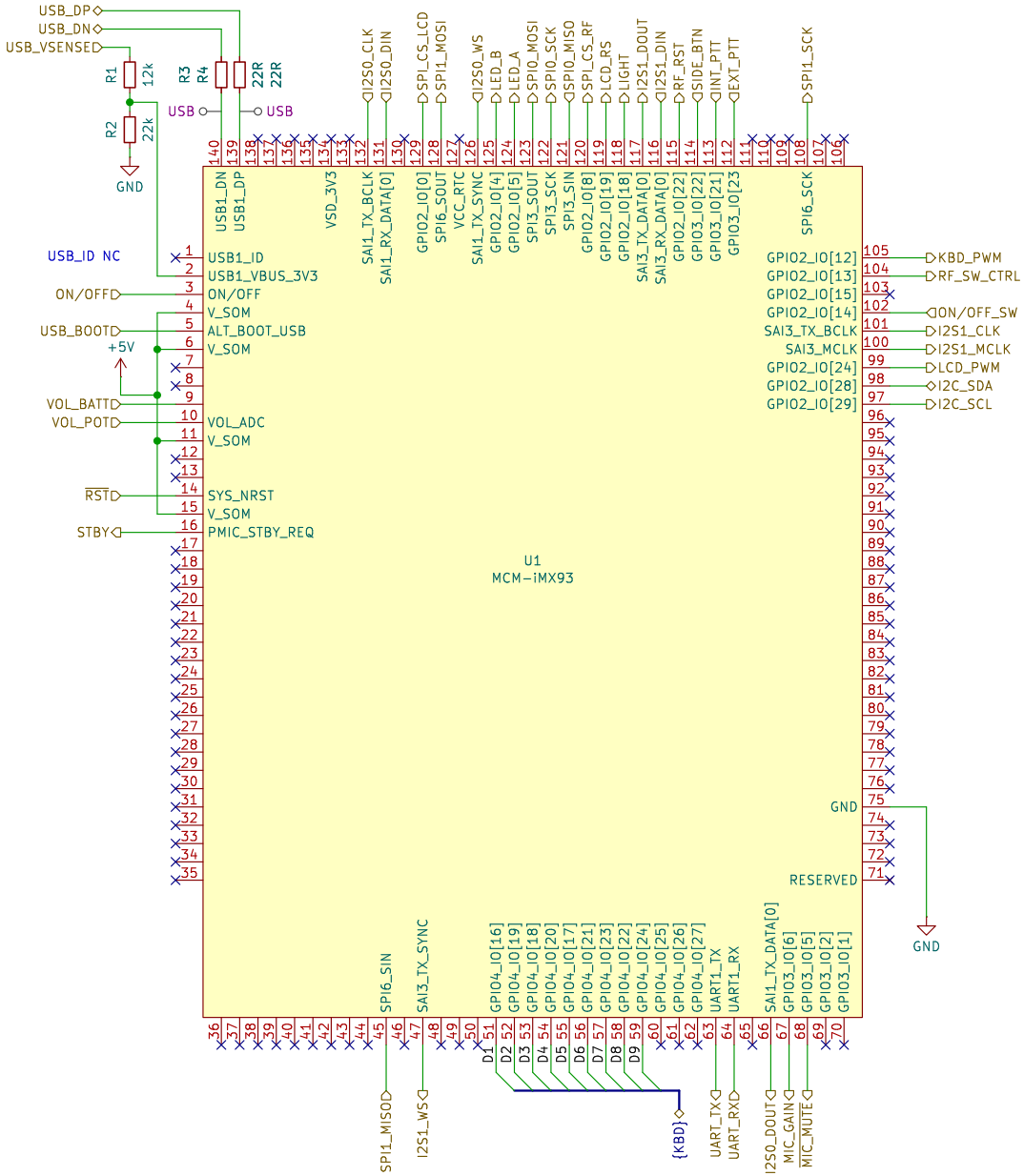
Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS
M17 Foundation

Sheet: /Keyboard/
File: keyboard.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 7/8


Place these 100 nF capacitors near VDD pins of the WM8960.
PWR_FLAG
FB1
220R
+3V3
VDD
C34
100n
C35
100n
C36
10u
C37
100n
C38
10u
C39
10u
C42
100n
C43
100n
GND
Y2
12.288M
Tri-State
OUT
C61
10n
I2S_WS_IN
I2S_DATA_IN
I2S_DATA_OUT
I2S_CLK_IN
R27
0R
R25
47k
R26
47k
I2C_SCL
I2C_SDA
I2S_MCLK_IN
U6B
WM8960
DACLRC
DACDAT
ADCLRC
ADCDAT
BCLK
MCLK
SCLK
SDIN
U6A
WM8960
VDDA
VDDDC
VDDDB
VDDSPK1
VDDSPK2
JD2
LINPUT2
LINPUT1
RINPUT1
RINPUT2
RINPUT3
MICBIAS
VMID
GNDA
GNDD
GNDPAD
GNDSPK1
GNDSPK2
SPKLP
SPKLN
HPR
OUT3
HPL
SPKRN
SPKRP
JACK_DETECT
MIC_SIG
C48
100n
C49
100n
C50
100n
C51
100n
C52
100n
TP1
MICBIAS
10u
C45
10u
C47
+5V
FB2
220R
C53
10u
C57
100n
J15 SPEAKER
J4 SPEAKER
TP2
HPR
C54
1u
HPL
TP3
TP4
SPKRN
TP5
SPKRP
SPK_OUT
R32
100k
This 100kΩ pull-down for SPK_OUT enables WM8960 jack detection (2.5mm jack in use). Together with the cap, it forms a ~1.6Hz high-pass filter – inaudible, no impact on audio.
MIC_MUTE
U7
MAX9814
CT
A/R
TH
MICBIAS
MICIN
GAIN
BIAS
CG
SHDN
VDD
GND
LN ref
AGC
LNA
VGA
Gain
MICOUT
R28
2k2
C40
100n
R30
150k
MIC_IN
MIC_GAIN
C41
100n
R29
100k
C44
470n
C46
2u2
R31
2k2
C56
10n
MIC_SIG
C55
100n
C58
2u2
Place these capacitors near VDD pin of the MAX9814.
Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS
M17 Foundation
Sheet: /Audio/
File: audio.kicad_sch
Title: LinHT – Linux-based SDR handheld transceiver
Size: A4
Date: 29 July 2025
Rev: A
KiCad E.D.A. 9.0.3
Id: 5/8



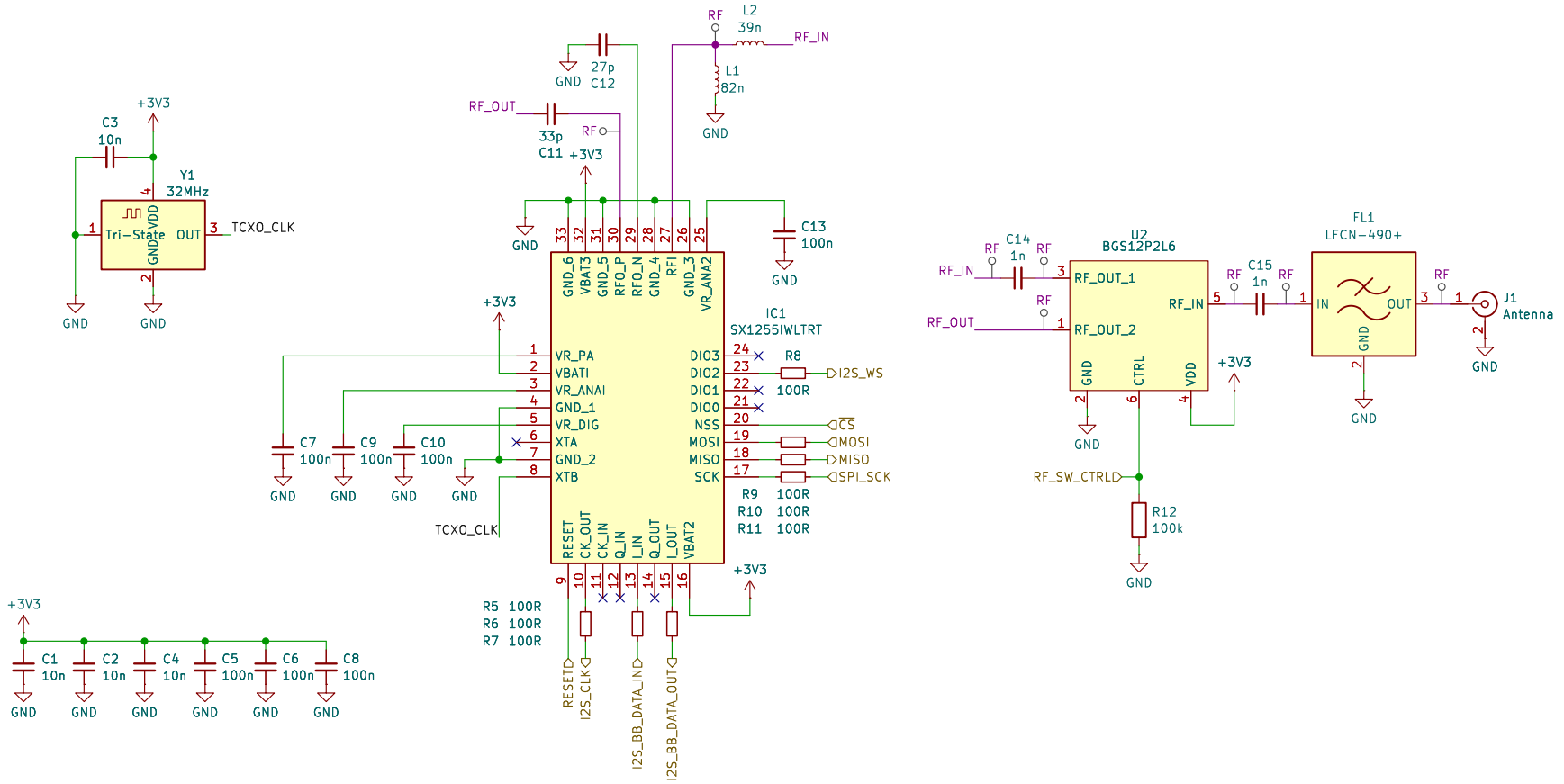
I2S0	RF baseband
I2S1	TAC5111 audio
SPI0	SX1255 RF front-end
SPI1	ST7735R display

Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS
M17 Foundation

Sheet: /SoC/
File: soc.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 2/8



Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS

M17 Foundation

Sheet: /RF/

File: rf.kicad_sch

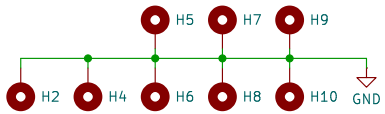
Title: LinHT – Linux-based SDR handheld transceiver

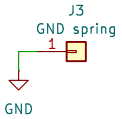
Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 3/8

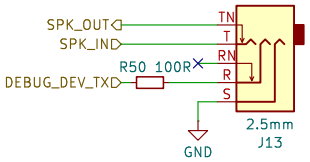
Original Retevis C62 PCB
has these mounting holes:
  8× M2
  2× M2.5

Our new PCB will have:
  8× M2

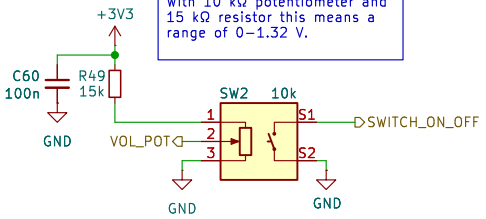
Two M2.5 were removed
due to conflict with the
SoM.

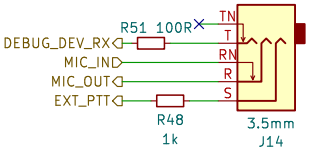


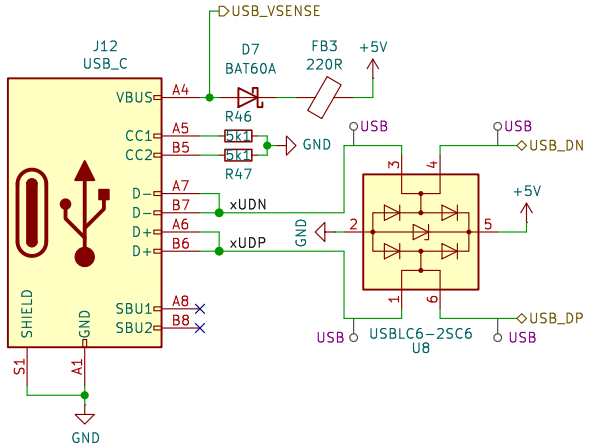




ADC V_{ref} = 1.8 V
With 10 kΩ potentiometer and
15 kΩ resistor this means a
range of 0–1.32 V.





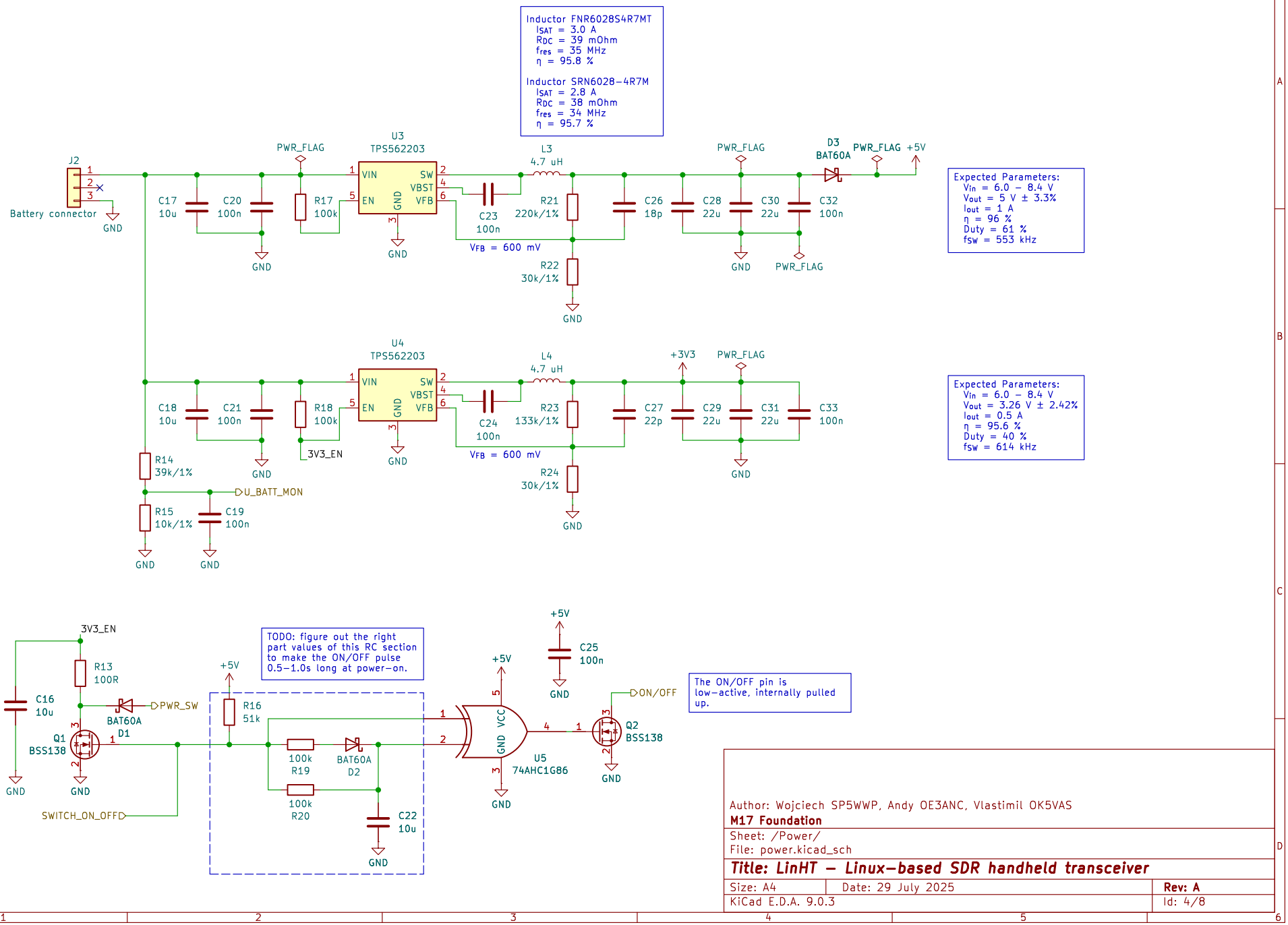


Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS
M17 Foundation

Sheet: /Connectors/
File: connectors.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 8/8



Author: Wojciech SP5WWP, Andy OE3ANC, Vlastimil OK5VAS

M17 Foundation

Sheet: /Power/

File: power.kicad_sch

Title: LinHT – Linux-based SDR handheld transceiver

Size: A4	Date: 29 July 2025	**Rev: A**
KiCad E.D.A. 9.0.3		Id: 4/8