+5V

C30 1u
C31 100p
GND

L4 68nH

GND

GND

FL1 LFCN-490
OUT IN

J1 TX_SMA
GND

100p C28

RF-out

TQP3M9036 U3

100p C11

27p C12
GND

L2 39n

L1 82n
GND

GND

FL2 LFCN-490
OUT IN

J2 RX_SMA
GND

C13 100n
GND

+3V3

GND

H1 H3
H2 H4

for KDS osc.
DSA321SDN (VC-TCXO) > R12 deattached, RV1-R13-R14 attached
DSB321SDN (TCXO) > R12 attached, RV1-R13-R14 deattached

+3V3

15K R14

Vcont. TP4

C3 100n
GND

RV1 5K

1.4V ±0.5V

C19 100n

R12 0R

8K2 R13

Clipped SW 0.5-1.5ppm
36.864MHz / 38.40MHz

OCS TP3
TCXO

R11 10K

C16 10p

Y1

GND

GND

+3V3

C1 10n
C2 10n
C4 10n
C5 100n
C6 100n
C8 100n

GND GND GND GND GND GND

SX1255 IC1

33 GND_6
32 VBAT3
31 GND_5
30 RFO_P
29 RFO_N
28 GND_4
27 RFI
26 GND_3
25 VR_ANA2

24 DIO3
23 DIO2
22 DIO1
21 DIO0
20 NSS
19 MOSI
18 MISO
17 SCK

+3V3

1 VR_PA
2 VBATI
3 VR_ANAI
4 GND_1
5 VR_DIG
6 XTA
7 GND_2
8 XTB

GND

C7 100n
C9 100n
C10 100n
GND GND GND

TCXO

9 RESET
10 CK_OUT
11 CK_IN
12 Q_IN
13 I_IN
14 Q_OUT
15 I_OUT
16 VBAT2

R1 100R
R2 100R
R3 100R

RST
CK_OUT
I_IN
I_OUT

R4 100R DIO2

NSS
MOSI
MISO
SCK

R5 100R
R6 100R
R7 100R

+3V3

J3 RPi

+5V

1 2
3 4
5 6
7 8
9 10
11 12 CK_OUT
13 14
15 16
17 18
MOSI 19 20
MISO 21 22 RST
SCK 23 24 NSS
25 26
27 28
29 30
31 32
33 34
DIO2 35 36
37 38 I_OUT
39 40 I_IN

GND

+5V TP1
MCP1703Ax-330xxMB U1
VI VO
GND

+3V3 TP2 +3V3

C14 1u
GND

C15 1u
GND

GND

D1-PWR1 LED
GND

R8 470R

+3V3

Original by Wojciech SP5WWP
Modified by Z32IT
Sheet: /
File: SX1255 RPI4-5 HAT.kicad_sch
Title: SX1255 RPi 4-5 Shield
Size: A4   Date: 2026-02-19   Rev: V2.2
KiCad E.D.A. 9.0.7   Id: 1/1