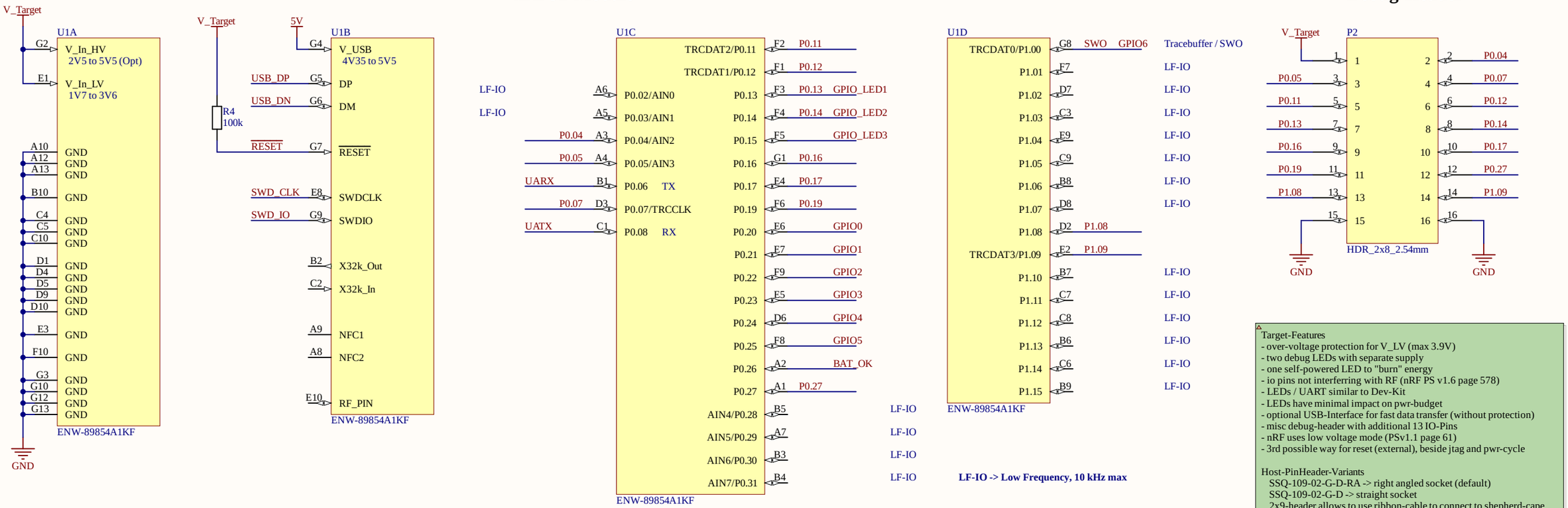
nRF52-Module



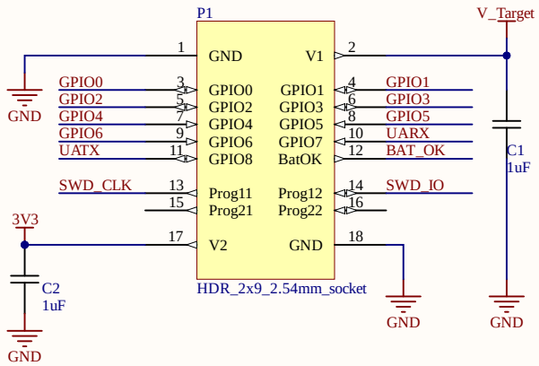
Debug-Header

Target-Features
- over-voltage protection for V_LV (max 3.9V)
- two debug LEDs with separate supply
- one self-powered LED to "burn" energy
- io pins not interferring with RF (nRF PS v1.6 page 578)
- LEDs / UART similar to Dev-Kit
- LEDs have minimal impact on pwr-budget
- optional USB-Interface for fast data transfer (without protection)
- misc debug-header with additional 13 IO-Pins
- nRF uses low voltage mode (PSv1.1 page 61)
- 3rd possible way for reset (external), beside jtag and pwr-cycle

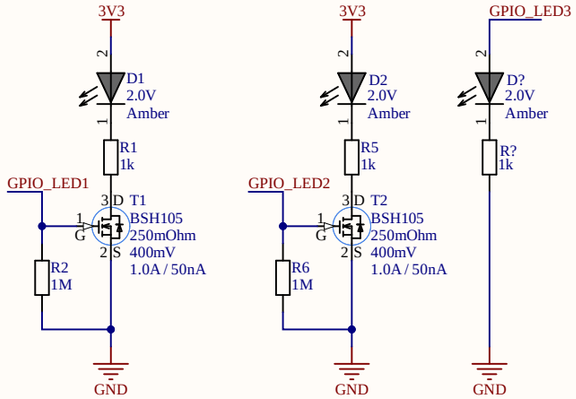
Host-PinHeader-Variants
SSQ-109-02-G-D-RA -> right angled socket (default)
SSQ-109-02-G-D -> straight socket
2x9-header allows to use ribbon-cable to connect to shepherd-cape

signal-direction is from Host point of view (Target is Guest)

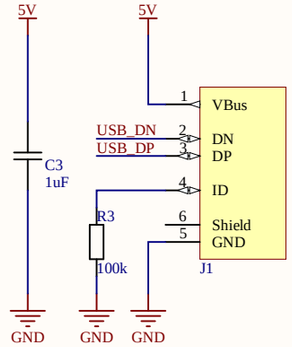
Cape-Port



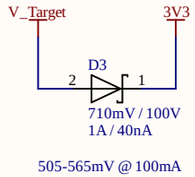
Debug-LEDs



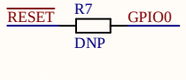
USB-Data



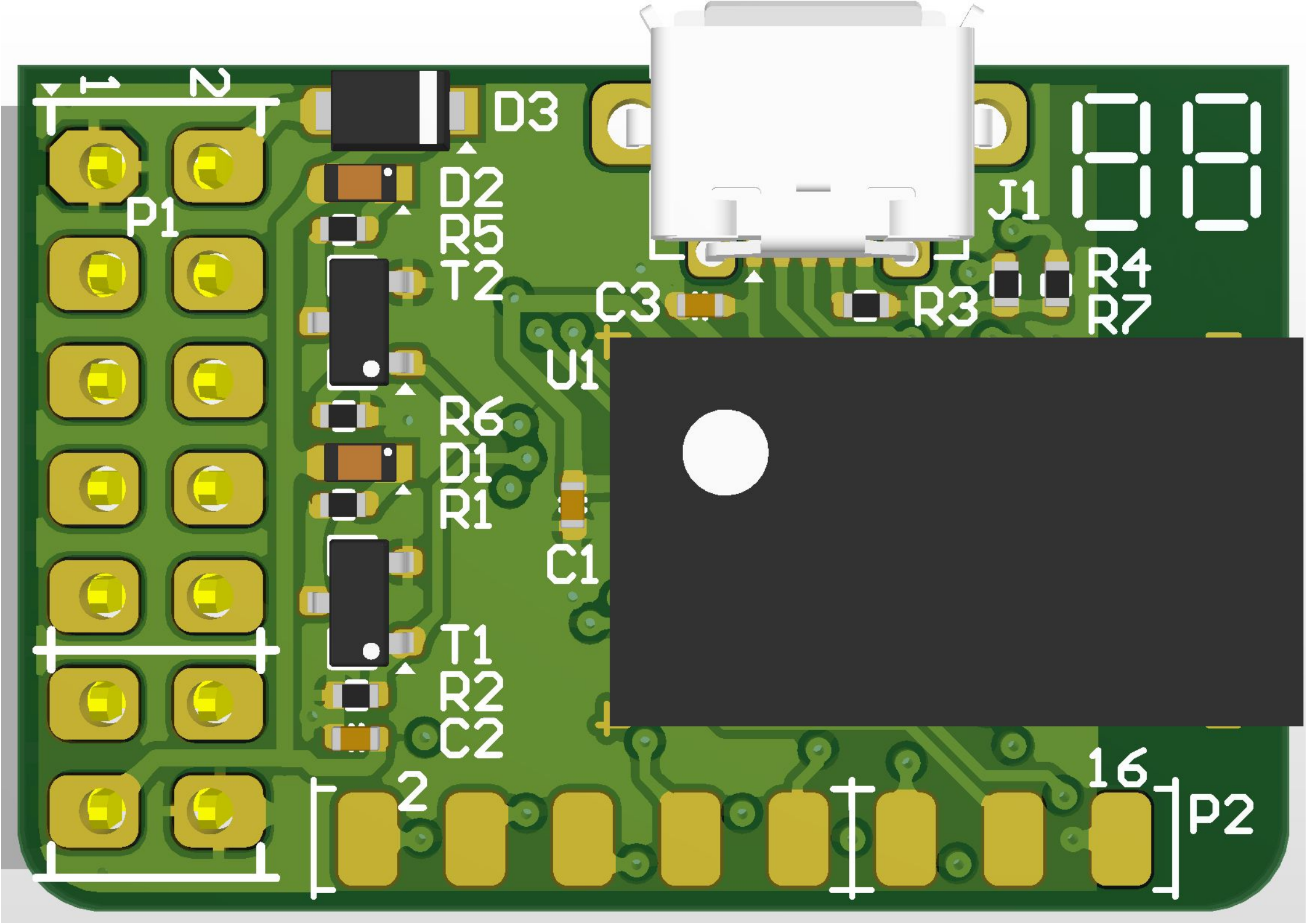
OVP

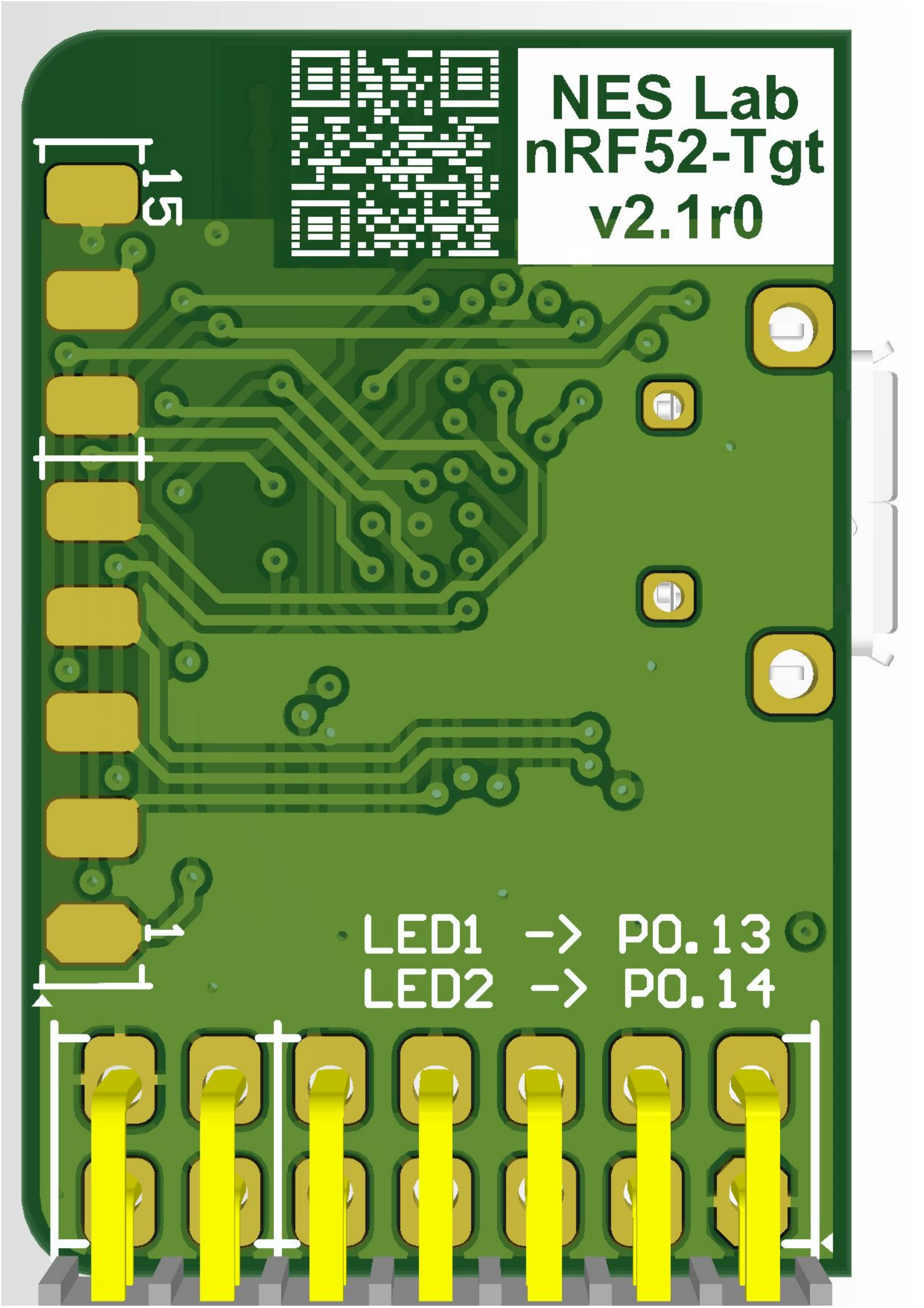


external reset



Title	Shepherd - Target nRF52840 NES Lab / TU Dresden	
Size: A3	Number	Revision
Date: 11.30.2021	Sheet of	shepherd_v2_nRF_Target.PrjPc
File: C:\Users\..\shepherd_target_nRF.SchDoc	Drawn By:	Ingmar


1
2
P1
D3
D2
R5
T2
R6
D1
R1
T1
R2
C2
C3
U1
C1
J1
R3
R4
R7
2
16
P2


NES Lab
nRF52-Tgt
v2.1r0
15
1
LED1 -> P0.13
LED2 -> P0.14