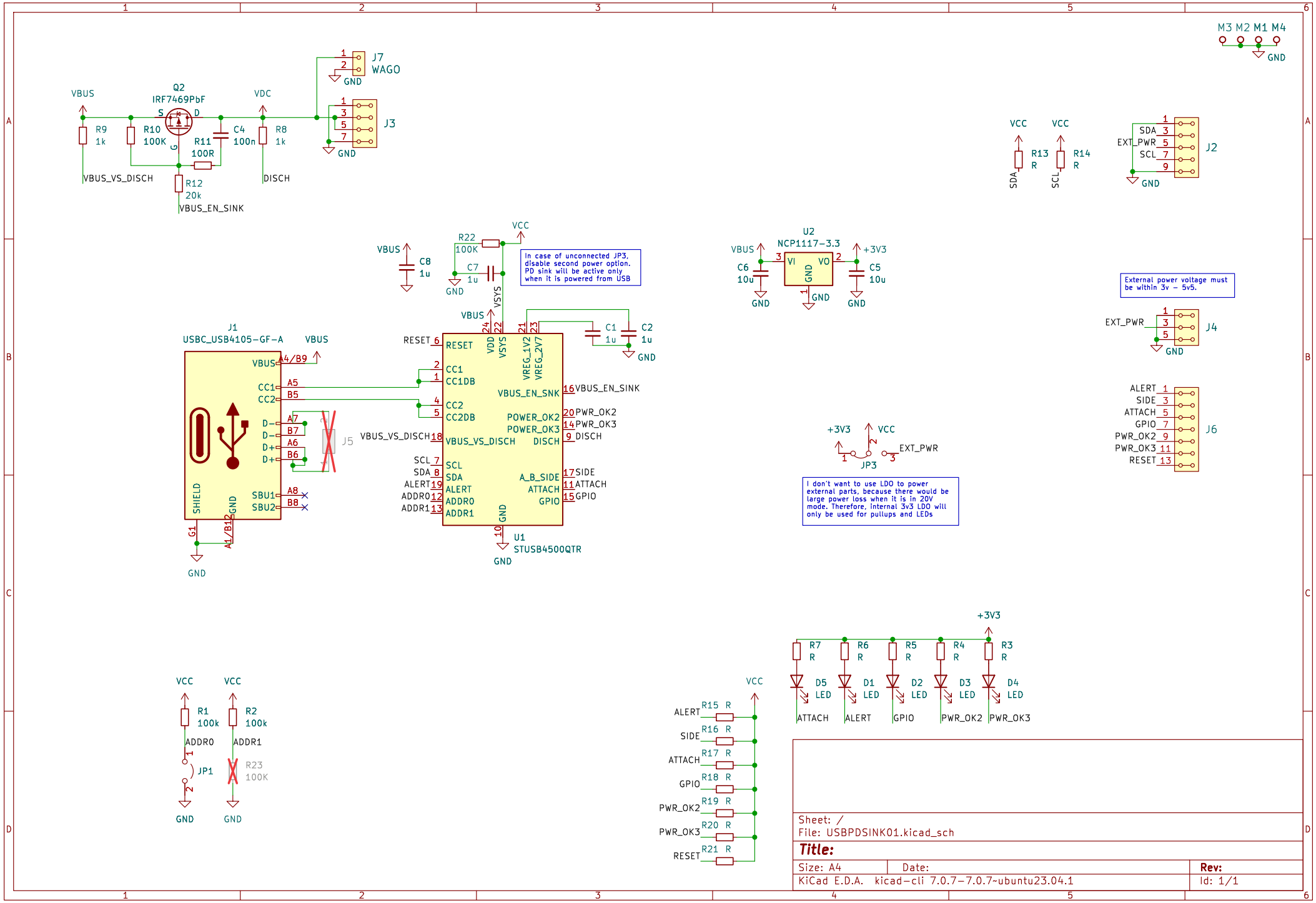
M3 M2 M1 M4
GND
J7
WAGO
VBUS
Q2
IRF7469PbF
VDC
R9
1k
R10
100K
R11
100R
C4
100n
R8
1k
J3
VBUS_VS_DISCH
R12
20k
VBUS_EN_SINK
DISCH
VCC
R13
R
R14
R
SDA
SCL
J2
EXT_PWR
External power voltage must be within 3v – 5v5.
J4
J1
USBC_USB4105-GF-A
J5
R22
100K
C7
1u
C8
1u
VSYS
In case of unconnected JP3, disable second power option. PD sink will be active only when it is powered from USB
C1
1u
C2
1u
U1
STUSB4500QTR
U2
NCP1117-3.3
C6
10u
C5
10u
+3V3
JP3
I don't want to use LDO to power external parts, because there would be large power loss when it is in 20V mode. Therefore, internal 3v3 LDO will only be used for pullups and LEDs
J6
ALERT
SIDE
ATTACH
GPIO
PWR_OK2
PWR_OK3
RESET
R1
100k
R2
100k
ADDR0
ADDR1
JP1
R23
100K
R7
R
R6
R
R5
R
R4
R
R3
R
D5
LED
D1
LED
D2
LED
D3
LED
D4
LED
R15
R16
R17
R18
R19
R20
R21
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Date:
Rev:
KiCad E.D.A. kicad-cli 7.0.7-7.0.7~ubuntu23.04.1
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