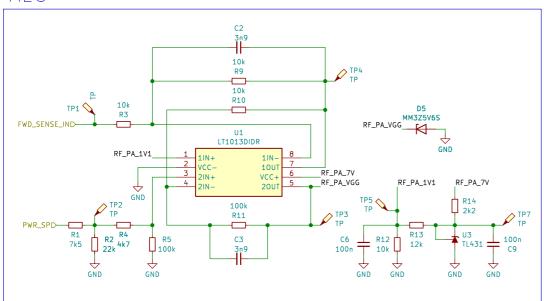
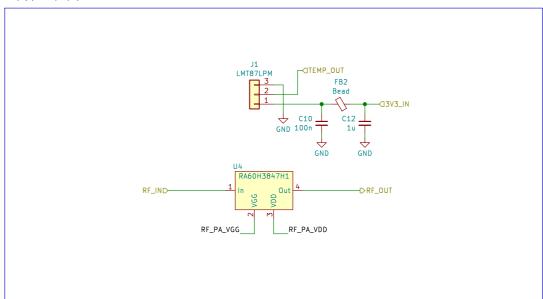
Low power RF tracks: coplanar waveguide Er=4.4, height=0.2104mm 0.25mm track width 0.052mm conductor gap High power RF tracks: coplanar waveguide RF PA RF coupler Exciter Circulator Er=4.5, height=1.4858mm 2mm track width RF\_OUT >RF\_IN RF\_OUT[ >RF\_IN RF IN RF\_OUTD 0.52mm conductor gap >PA\_EN\_A >PA\_EN\_B FWD\_SENSE\_IN< □40M\_0UT >PWR\_SP TEMP\_OUT OREF\_RF >13.8V\_IN >3.3V\_IN 3V3\_IN< DFWD\_RF File: rf\_pa.kicad\_sch File: rf\_cpl.kicad\_sch File: circ.kicad\_sch TX\_nCS RX\_nCS TX\_nCSD RX\_nCSD SPI\_SCK SPI\_MOSI SPI\_MISO SPI\_SCKD SPI\_MOSID RF detectors >REF\_RF\_IN TEMP\_SENSE< FWD\_RF\_IN PA\_ENG REF\_SENSE\_OUT REF\_SENSE REF\_SENSE< FWD\_SENSE OFWD\_SENSE\_OUT FWD\_SENSE FWD\_SENSE 3V3\_IN< >5V\_IN File: rf\_det.kicad\_sch MCU\_TXC MCU\_RXD File: interface.kicad\_sch MCU\_TXD-MCU\_RX< Power supply TEMP\_SENSE< PA\_ENG D5V\_OUT RF\_PWR\_SP[ 013.8V\_0UT 3V3\_IN REF\_SENSE REF\_SENSE< File: psu.kicad\_sch FWD\_SENSE FWD\_SENSE nRST nRST >40M\_IN 3.3V\_IN< ->SPI\_nCS ->SPI\_SCK -QSPI\_MISO ->SPI\_MOSI File: mcu.kicad\_sch File: rx.kicad\_sch File: rf\_in\_flt.kicad\_sch Mechanical Wojciech Kaczmarski, SP5WWP M17 Project Sheet: / File: m17-rru-rf.kicad\_sch Title: Remote Radio Unit - RF board Size: A3 Date: 10-11-2023 KiCad E.D.A. kicad 7.0.8 File: mech.kicad\_sch

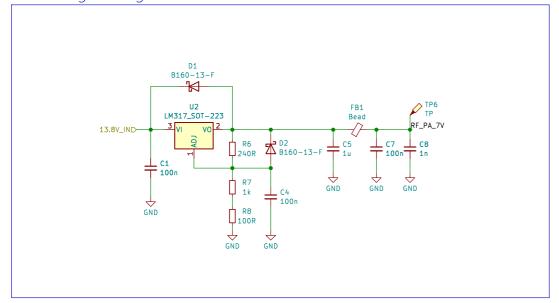
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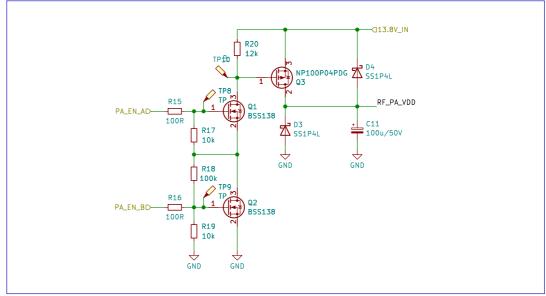
### RF PA



## Voltage reg.



# Supply switching



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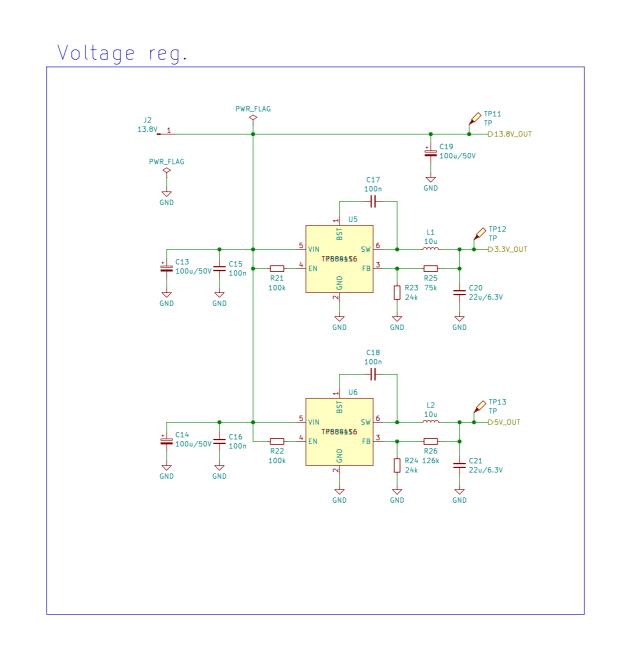
M17 Project

Sheet: /RF PA/
File: rf\_pa.kicad\_sch

Title: Remote Radio Unit — RF board

Size: A3 Date: 10-11-2023 Rev: A

KiCad E.D.A. kicad 7.0.8



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M17 Project

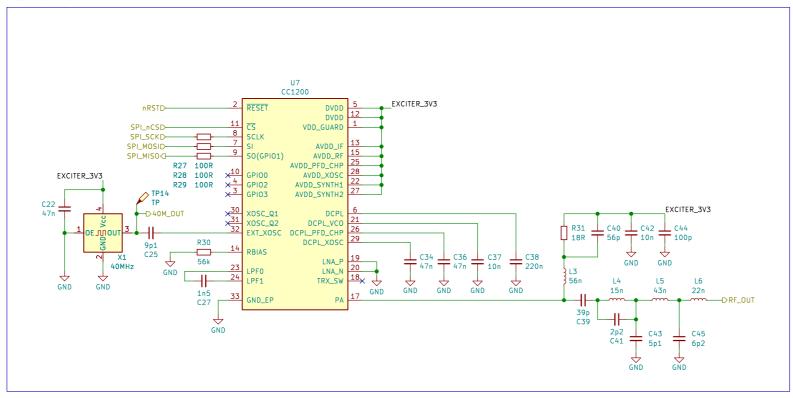
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File: psu.kicad\_sch

Title: Remote Radio Unit - RF board

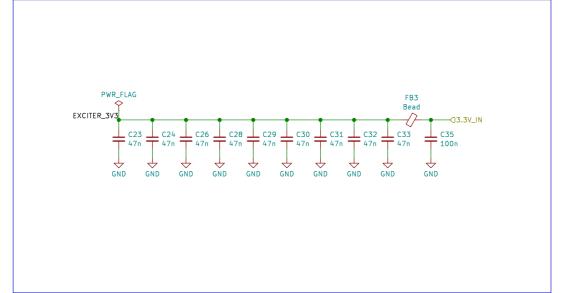
Size: A3 Date: 10-11-2023 Rev: A

KiCad E.D.A. kicad 7.0.8

### Exciter



# Decoupling



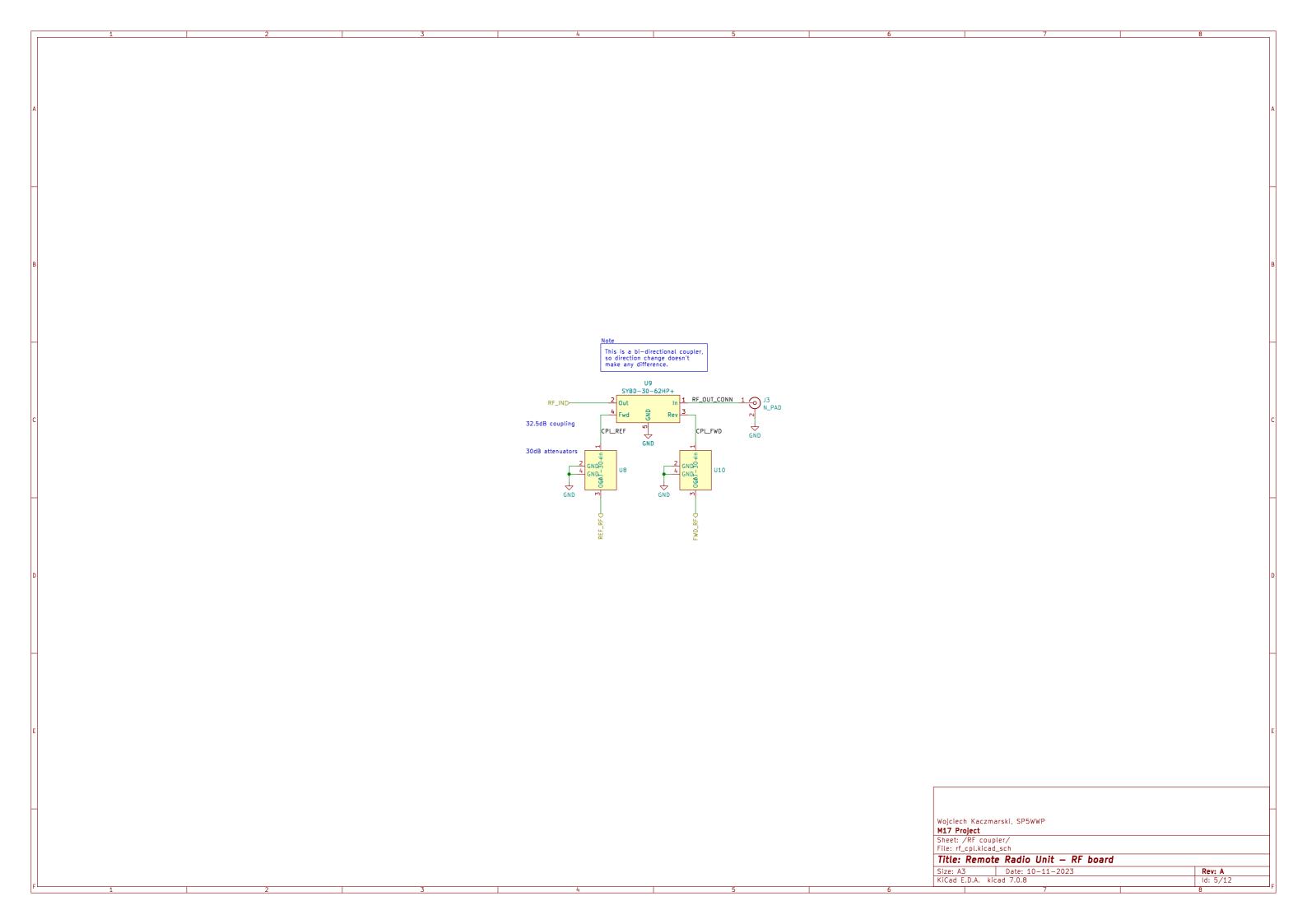
Wojciech Kaczmarski, SP5WWP

M17 Project
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File: exciter.kicad\_sch

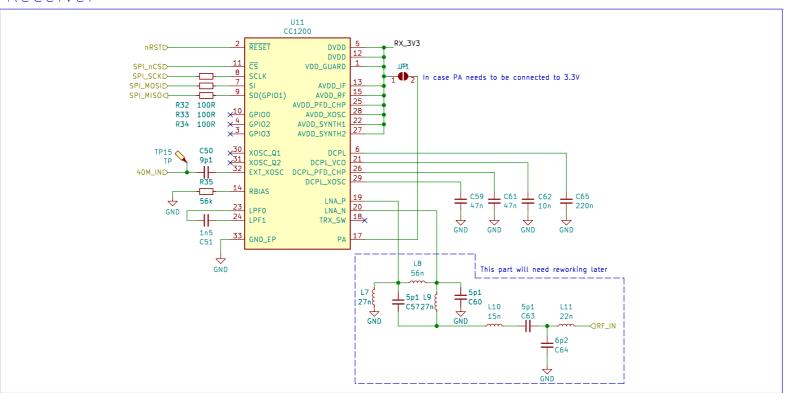
Title: Remote Radio Unit — RF board

Size: A3 Date: 10-11-2023

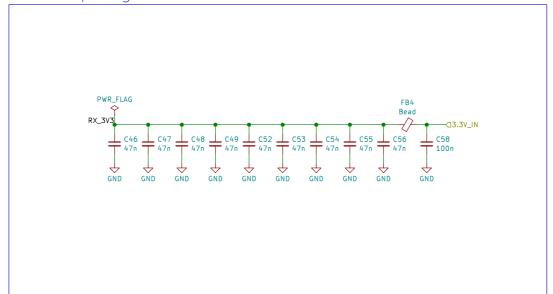
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### Receiver



## Decoupling



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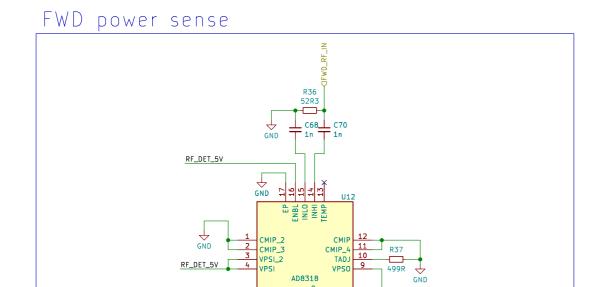
M17 Project

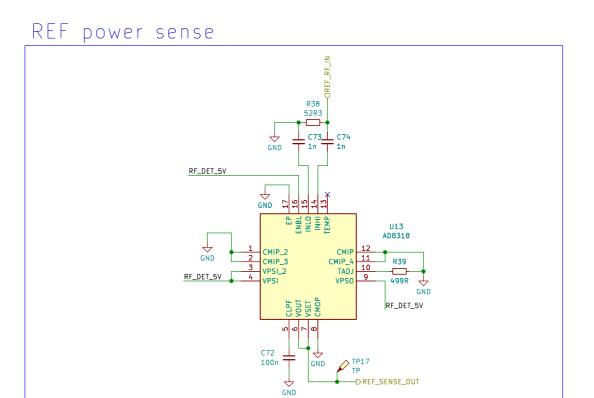
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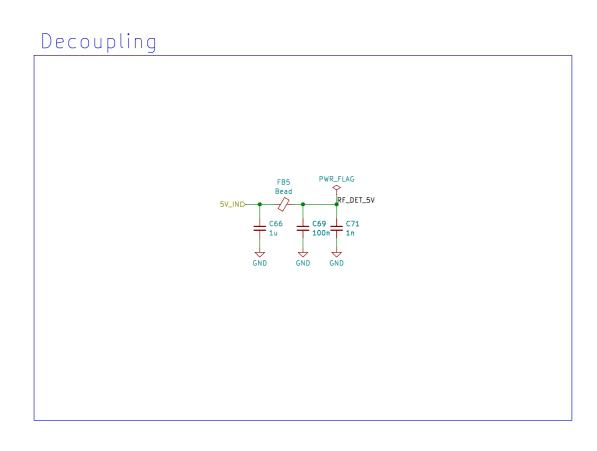
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Size: A3 Date: 10-11-2023 Rev: A

KiCad E.D.A. kicad 7.0.8 Id: 6/12







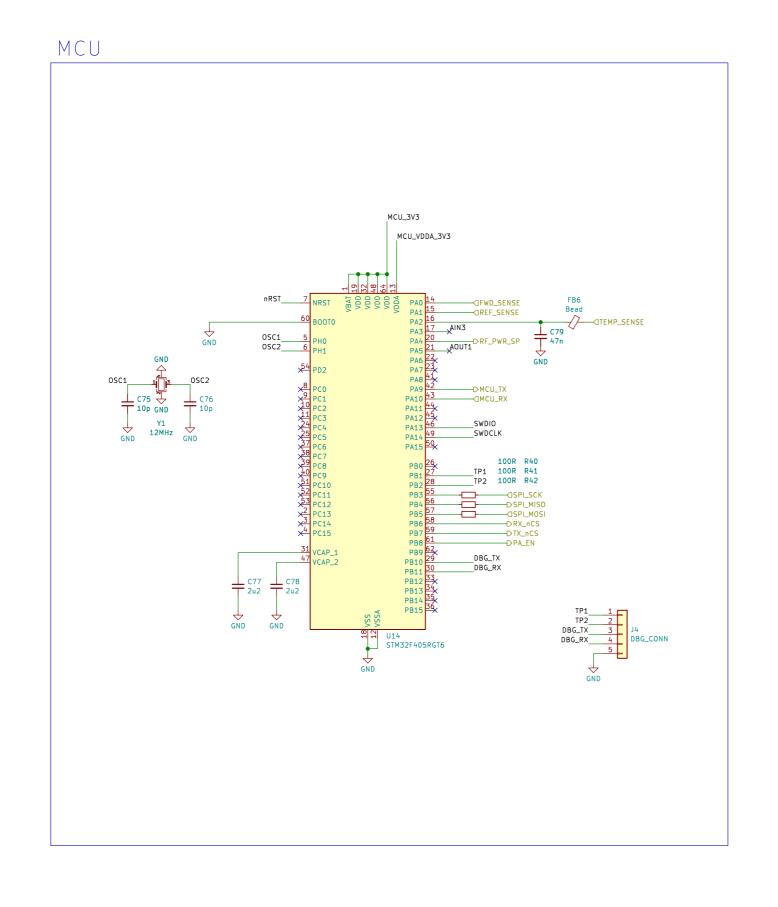
Wojciech Kaczmarski, SP5WWP

M17 Project
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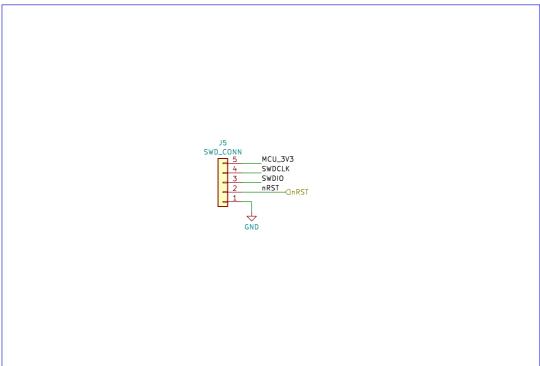
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Size: A3 Date: 10-11-2023 Rev: A

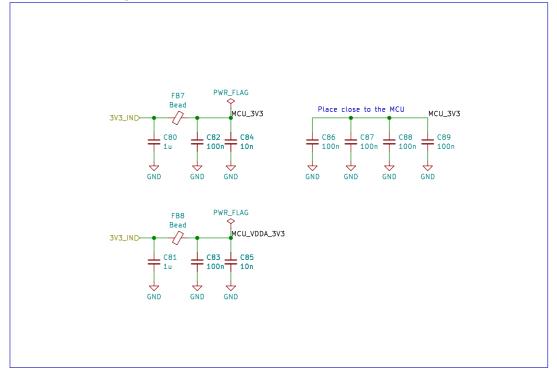
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Decoupling



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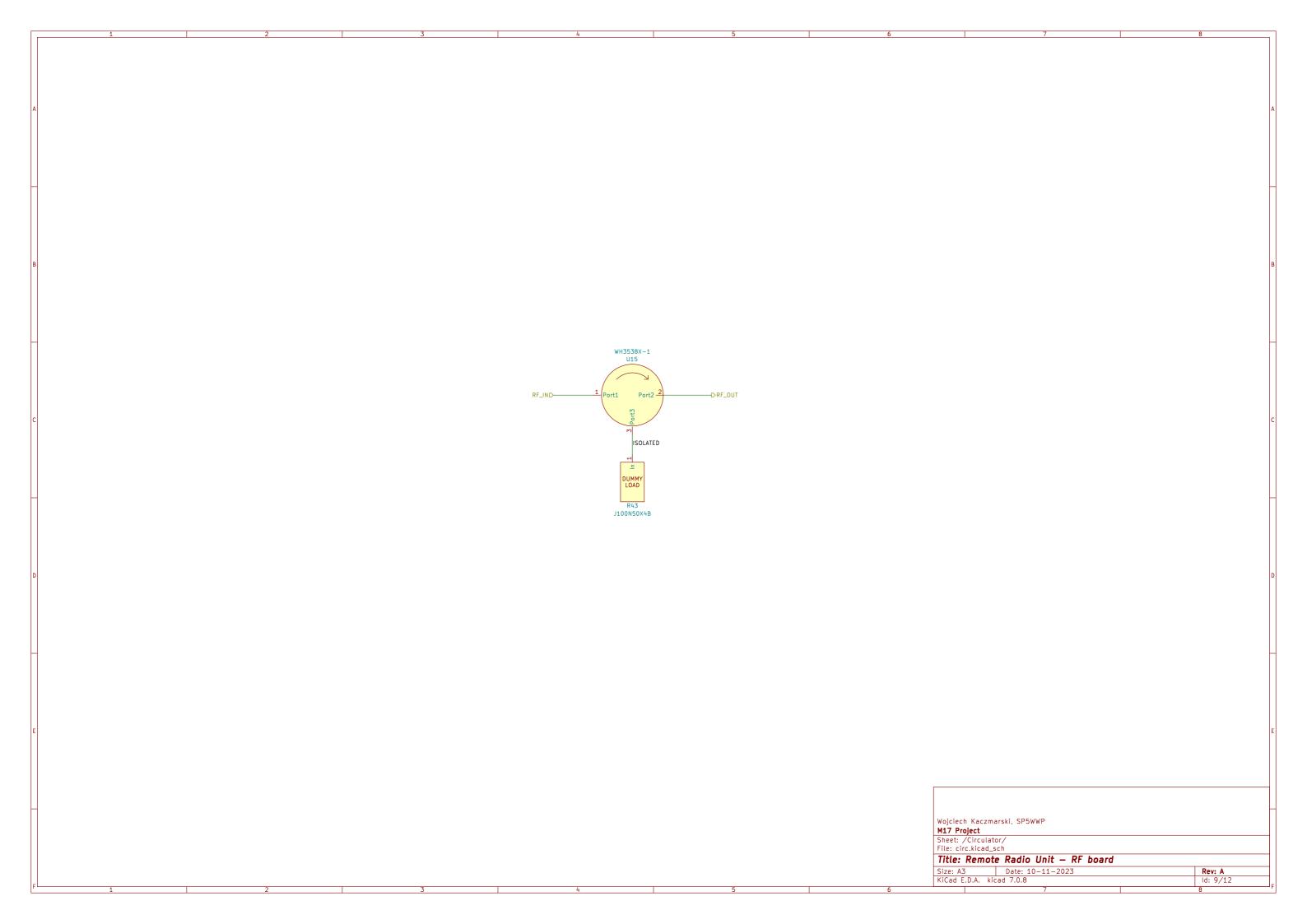
M17 Project

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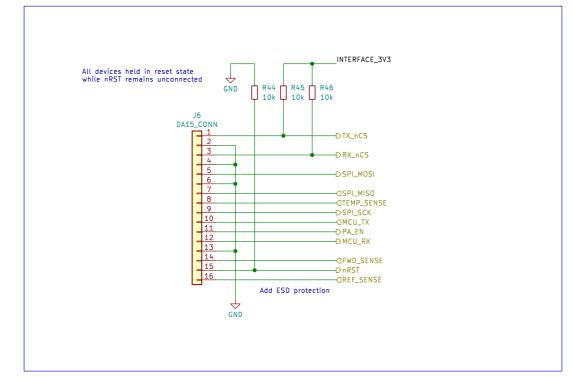
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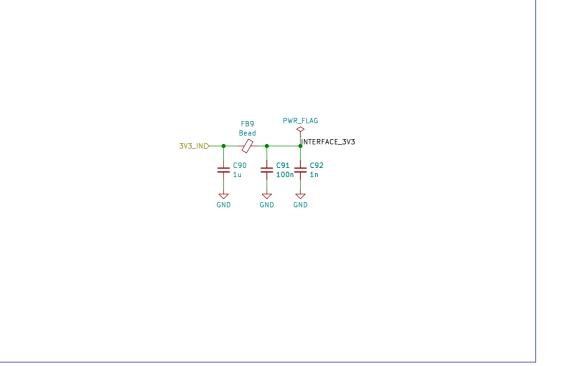
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### External connector



## Decoupling



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M17 Project
Sheet: /Interface/
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Title: Remote Radio Unit - RF board
Size: A3 Date: 10-11-2023
KiCad E.D.A. kicad 7.0.8

