Microcontroller

File: microcontroller.kicad_sch

Ethernet PHY

File: ethernet_phy.kicad_sch

RF Chain

File: rf_chain.kicad_sch

3V3 Power

File: power.kicad_sch

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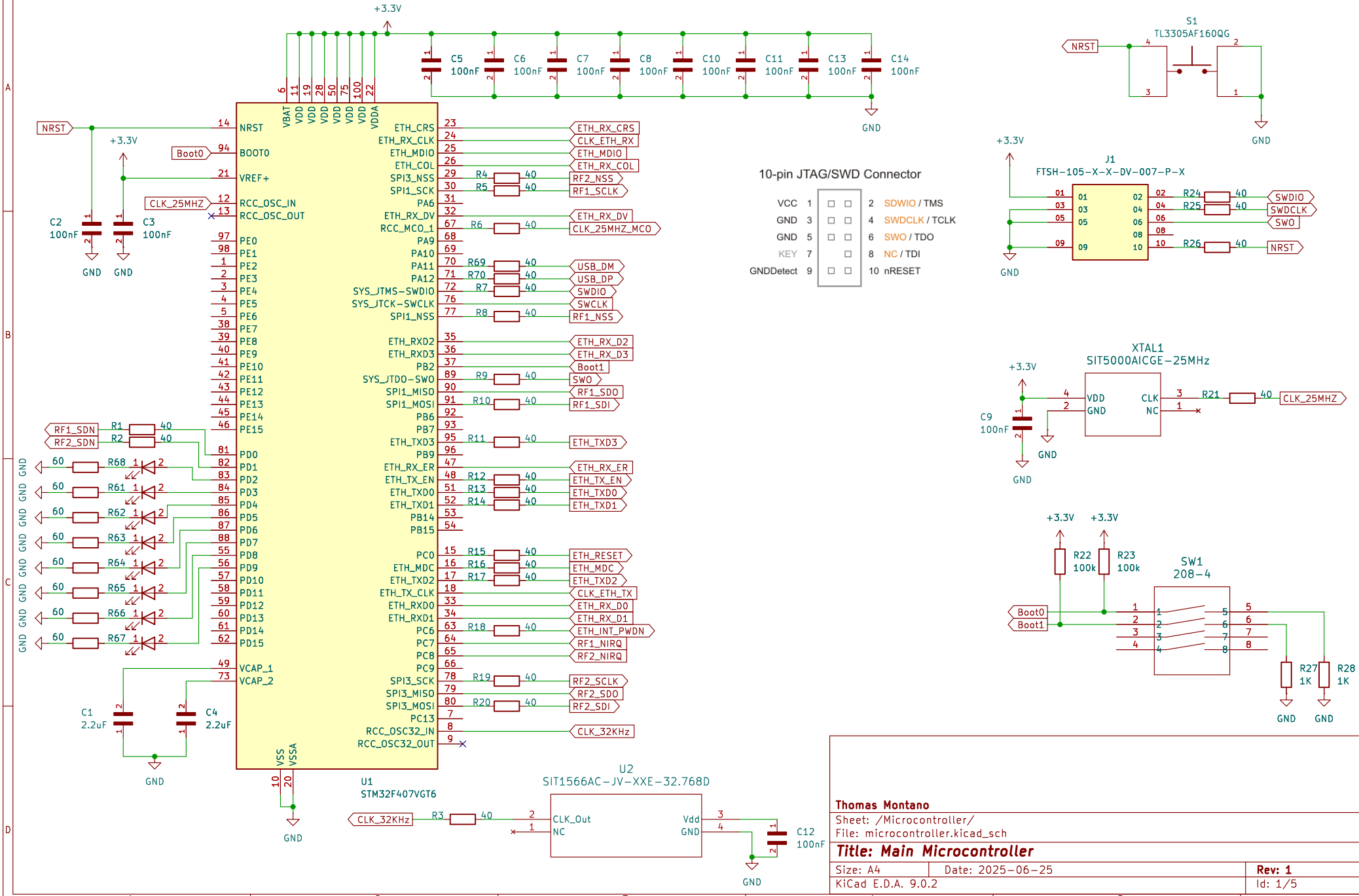
Sheet: /

File: Radio Project.kicad_sch

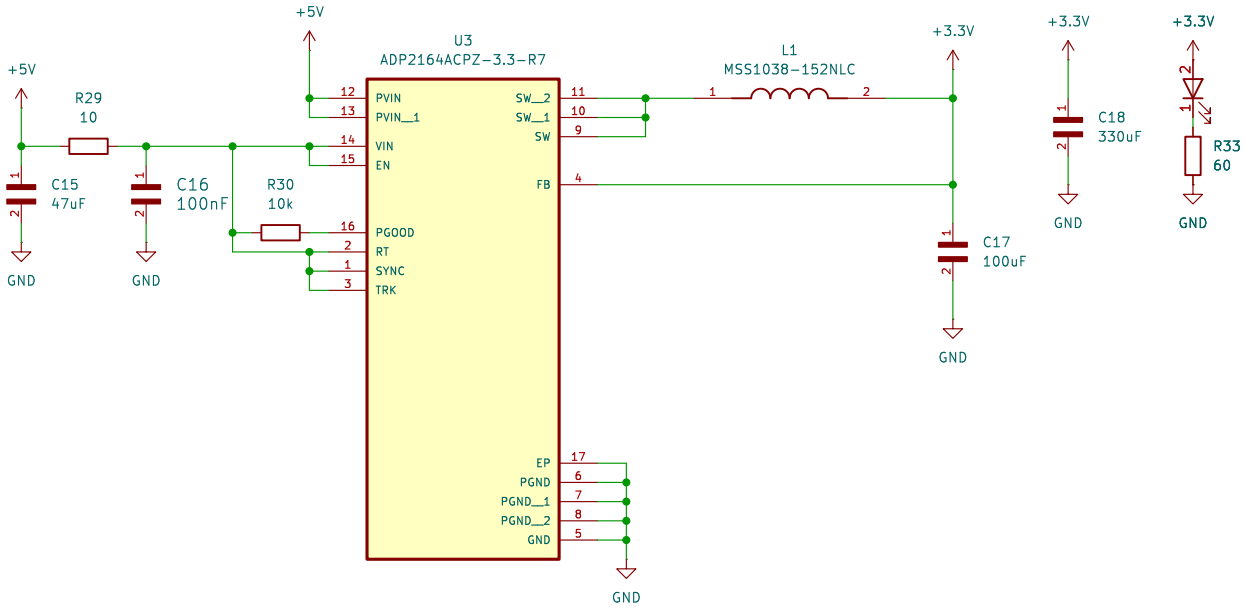
Title: RF Puck

Size: A4	Date: 2025-06-22	**Rev: 1**
KiCad E.D.A. 9.0.2		Id: 1/5



Thomas Montano	
Sheet: /Microcontroller/	
File: microcontroller.kicad_sch	
Title: Main Microcontroller	
Size: A4	Date: 2025-06-25
KiCad E.D.A. 9.0.2	Id: 1/5

Rev: 1



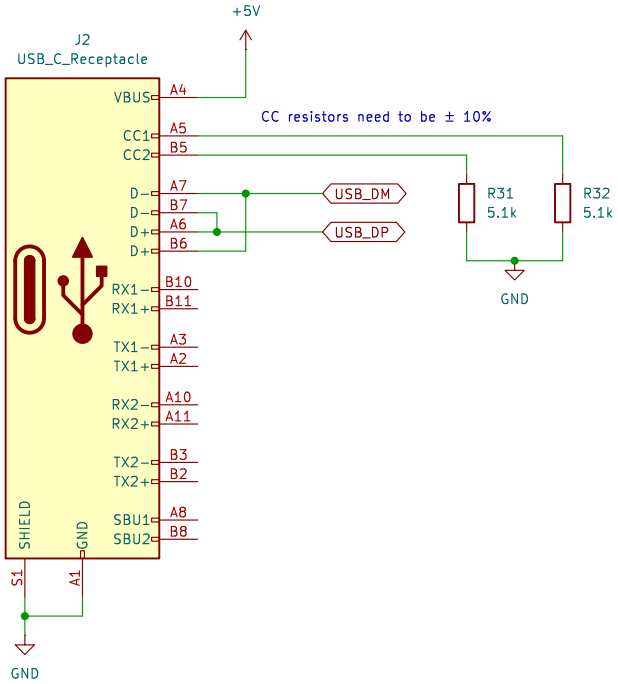
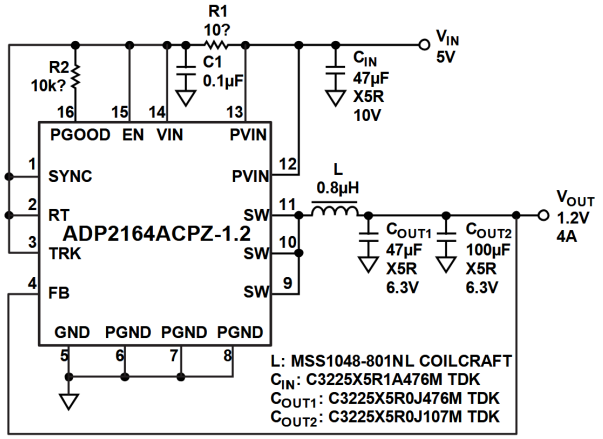


Table 6. Recommended L and C_{OUT} Values at f_S = 600 kHz

V_{IN} (V)	V_{OUT} (V)	L (µH)	C_{OUT} (µF)
3.3	1.0	1	100 + 100
3.3	1.2	1	100 + 100
3.3	1.5	1	100 + 47
3.3	1.8	1	100 + 47
3.3	2.5	1	100
5	1.0	1	100 + 100
5	1.2	1.5	100 + 100
5	1.5	1.5	100 + 47
5	1.8	1.5	100 + 47
5	2.5	1.5	100
5	3.3	1.5	100



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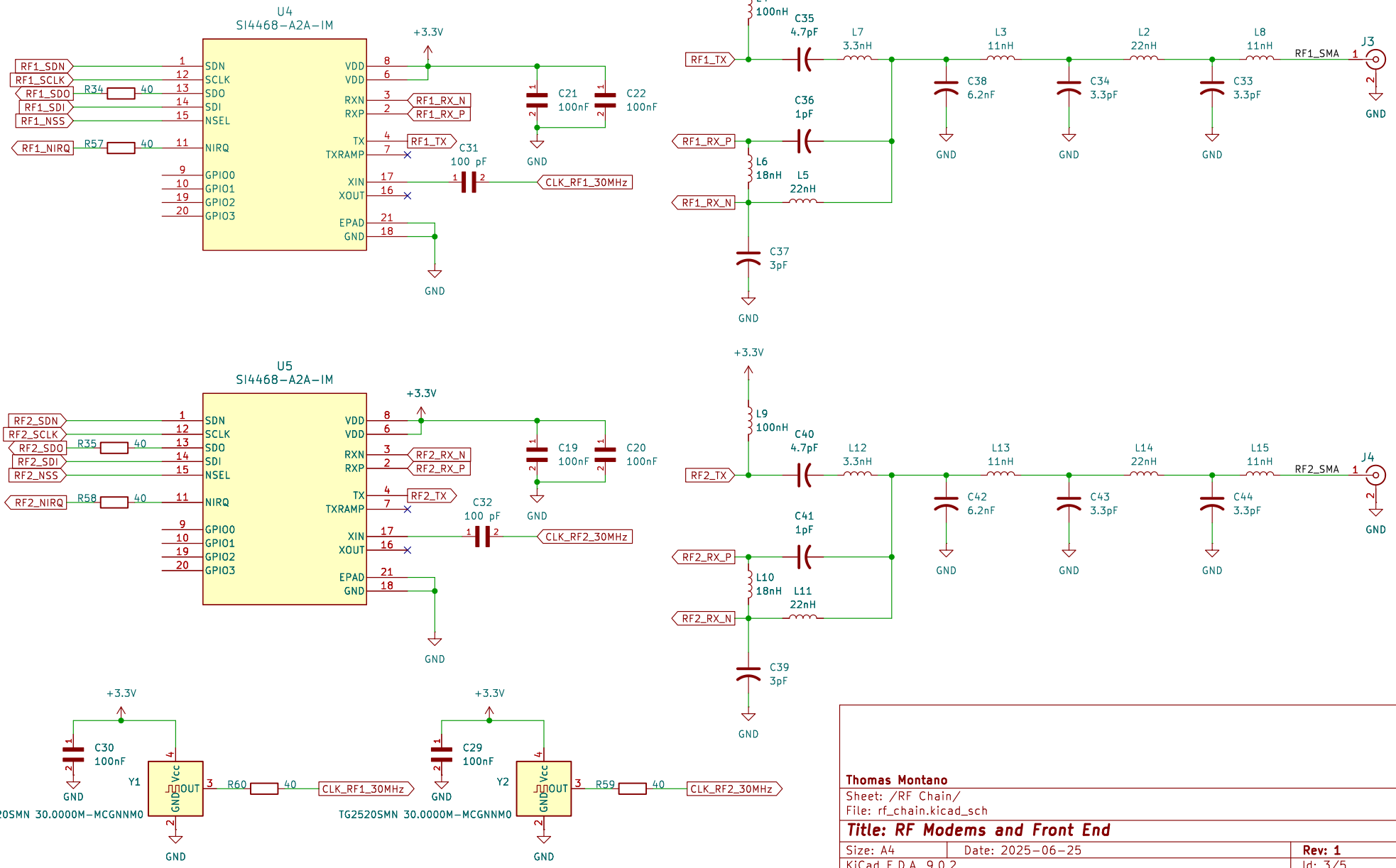
Sheet: /3V3 Power/
File: power.kicad_sch

Title: 3.3V Power Block

Size: A4	Date: 2025-06-22	Rev: 1
KiCad E.D.A. 9.0.2		Id: 2/5

Matching network designed for 915 MHz

https://www.silabs.com/documents/public/application-notes/AN648.pdf



Thomas Montano		
Sheet: /RF Chain/		
File: rf_chain.kicad_sch		
Title: RF Modems and Front End		
Size: A4	Date: 2025-06-25	**Rev: 1**
KiCad E.D.A. 9.0.2		Id: 3/5

Bias Resistor Connection: A 4.87−kΩ ±1% resistor must be connected from RBIAS to GND.

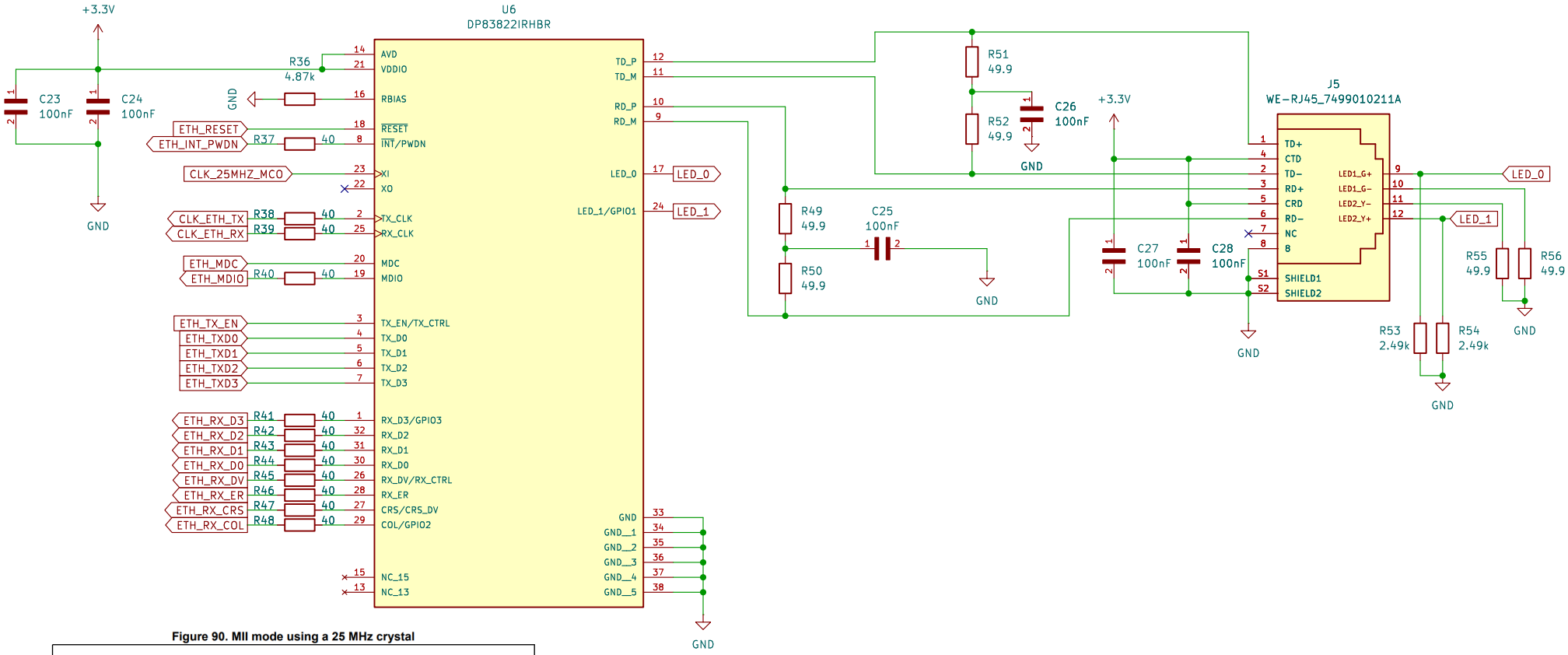
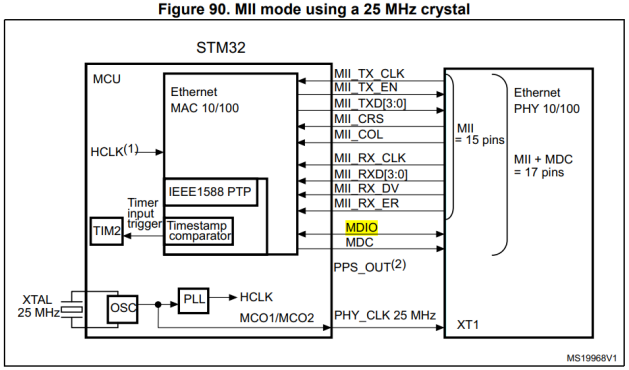


Figure 90. MII mode using a 25 MHz crystal



1. f_{HCLK} must be greater than 25 MHz.
2. Pulse per second when using IEEE1588 PTP optional signal.

Thomas Montano
Sheet: /Ethernet PHY/
File: ethernet_phy.kicad_sch

Title: Ethernet PHY Interface

Size: A4	Date: 2025−06−25	**Rev: 1**
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