

# Cologne Chip GateMate FPGA Module: GMM-7550 for CCGM1A1 (BGA324, 15x15 mm)

Revision	Date	Notes
0.5	2020-07-08	Initial release of the schematic
1.0	2020-10-01	Schematic freeze, preliminary placement is done. (I/O and BoM changes back ported from PCB)
1.1	2021-02-07	Final version (for manufacturing), remove non-essential parts.
2.0	2022-03-09	Switch to KiCad v6 GateMate pinout and package updated Power and Clock subsystems redesign

## GPIO



File: io.kicad\_sch

## Clock and SERDES



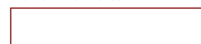
File: clk\_serdes.kicad\_sch

## Configuration and Control



File: cfg\_spi.kicad\_sch

## Power Converter



File: power.kicad\_sch

## FPGA Power



File: fpga\_pwr.kicad\_sch

## I/O Connectors



File: connectors.kicad\_sch

FID1 FID2

FID3

FID4 FID5

FID6

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<https://github.com/ak-fau/gmm7550.git>

Sheet: /  
File: gmm.kicad\_sch

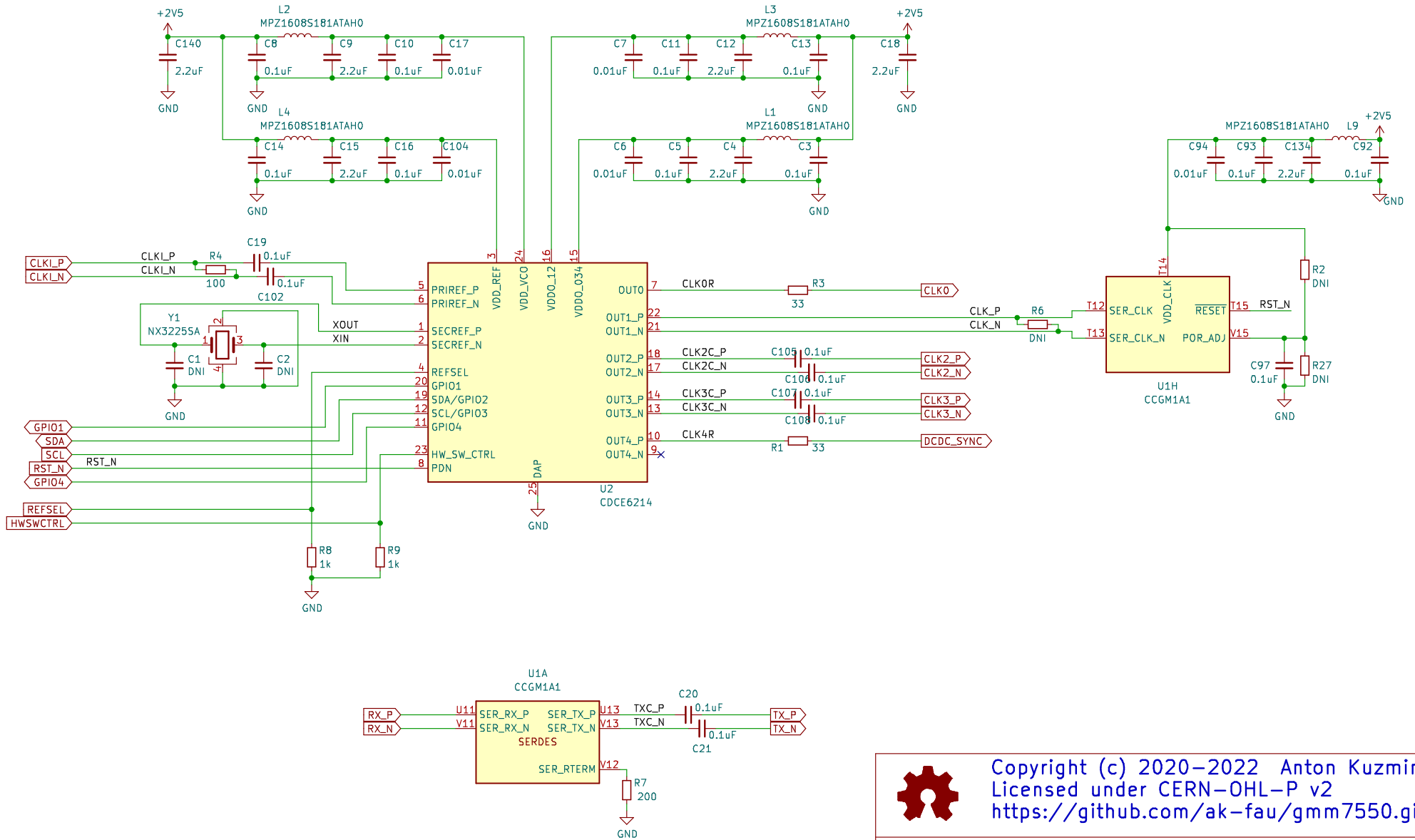
**Title: GateMate FPGA Module: GMM-7550**

Size: A4 Date: 2022-03-09

KiCad E.D.A. kicad (6.0.2)

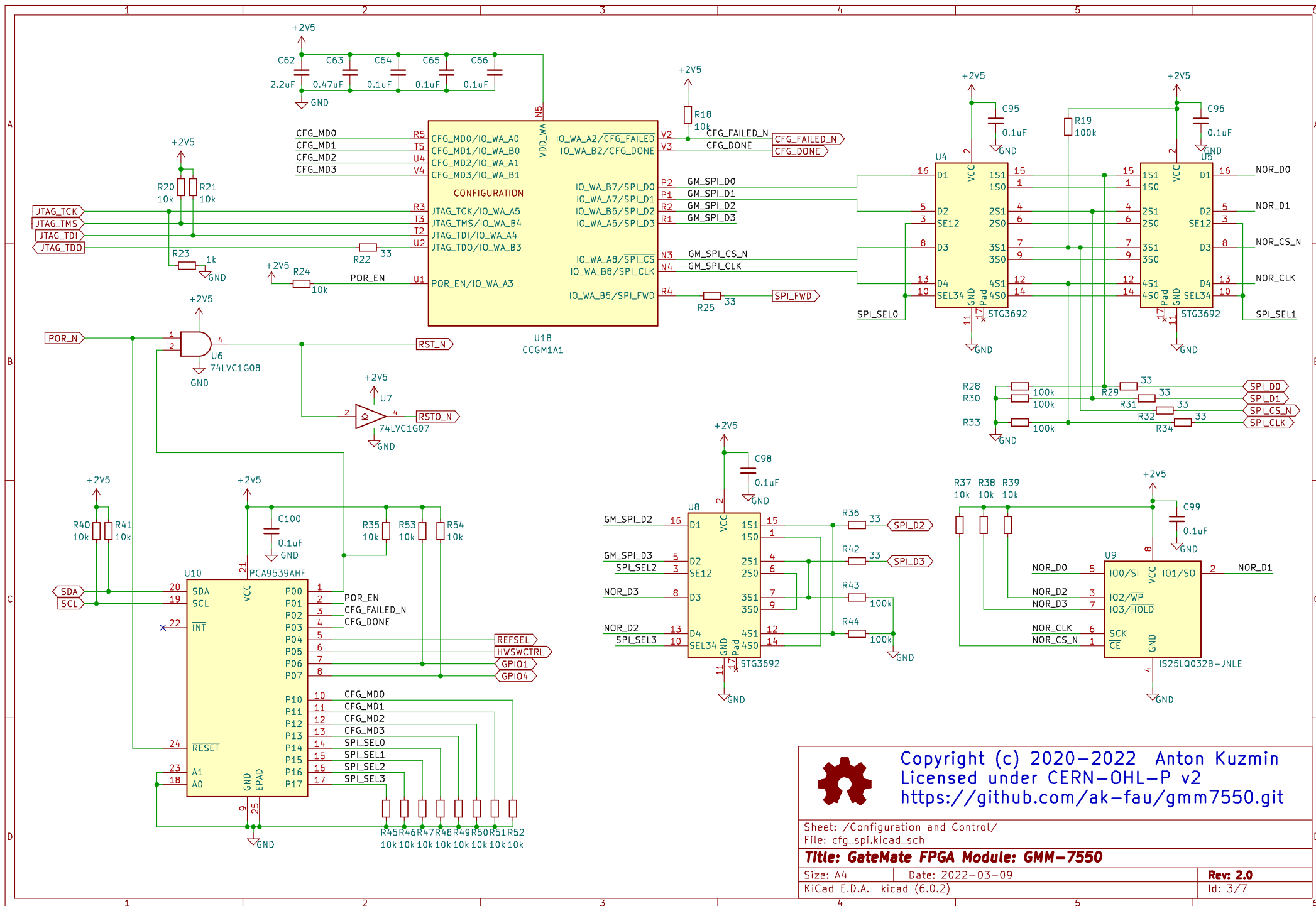
**Rev: 2.0**

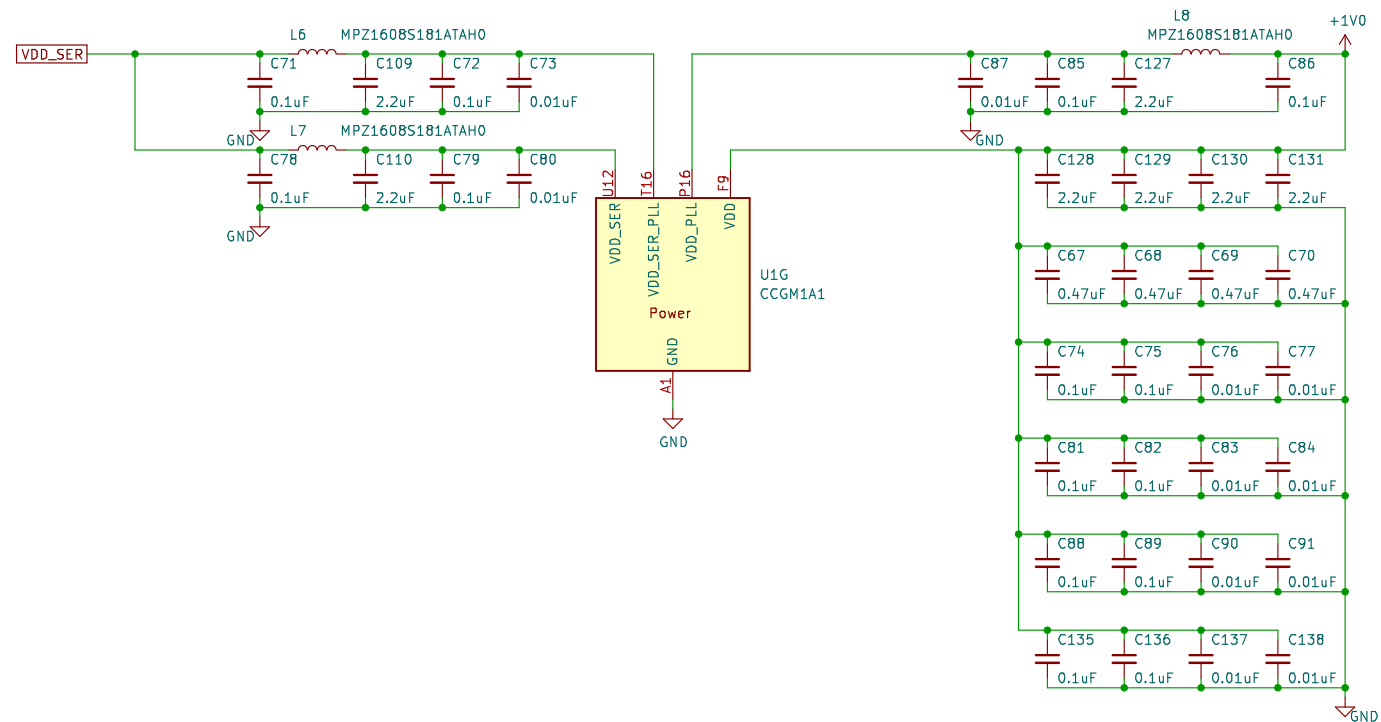
Id: 1/7



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<https://github.com/ak-fau/gmm7550.git>

Sheet: /Clock and SERDES/ File: clk_serdes.kicad_sch	
<b>Title: GateMate FPGA Module: GMM-7550</b>	
Size: A4	Date: 2022-03-09
KiCad E.D.A. kicad (6.0.2)	Rev: 2.0 Id: 2/7





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Sheet: /FPGA Power/  
 File: fpga\_pwr.kicad\_sch

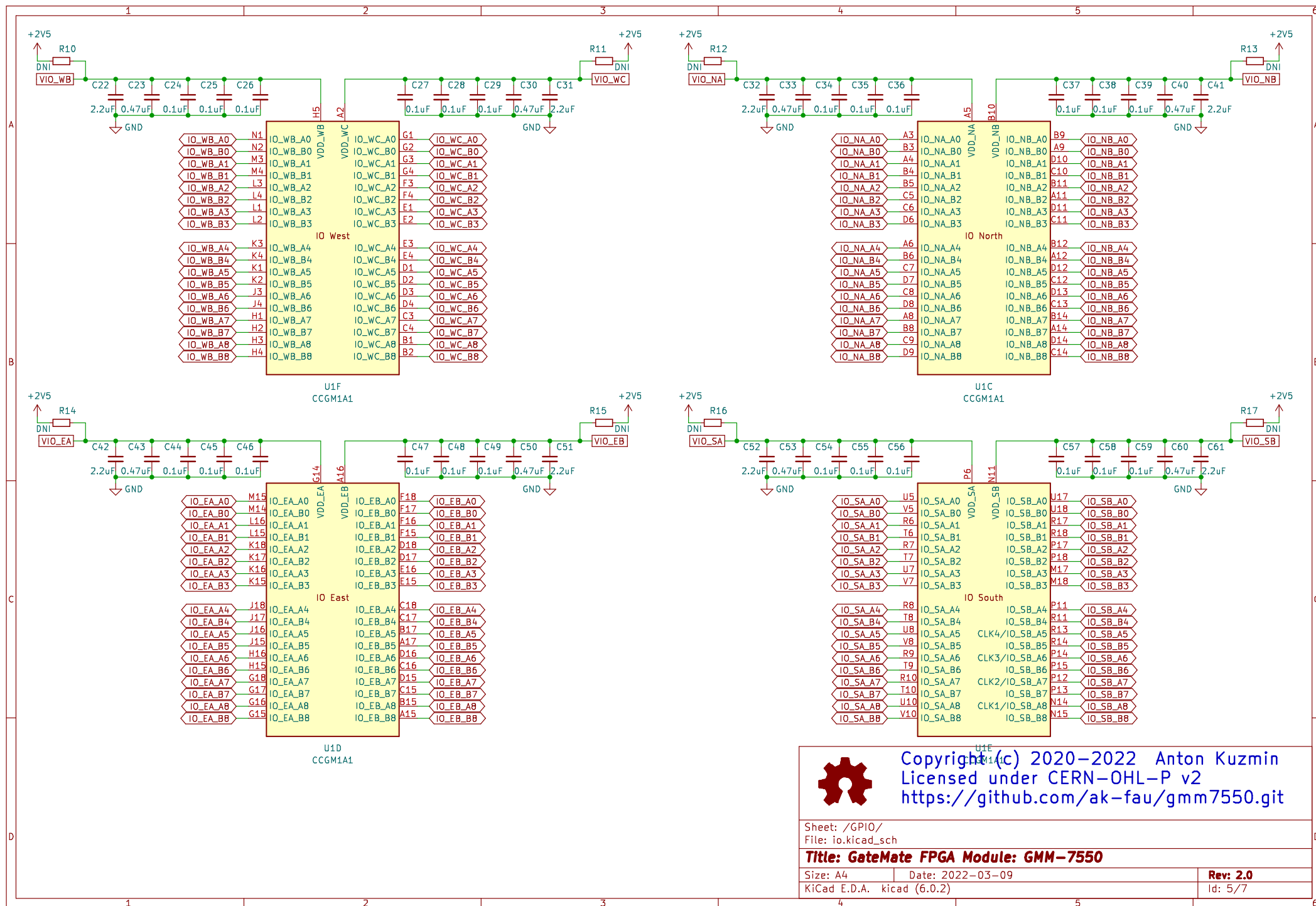
**Title: GateMate FPGA Module: GMM-7550**

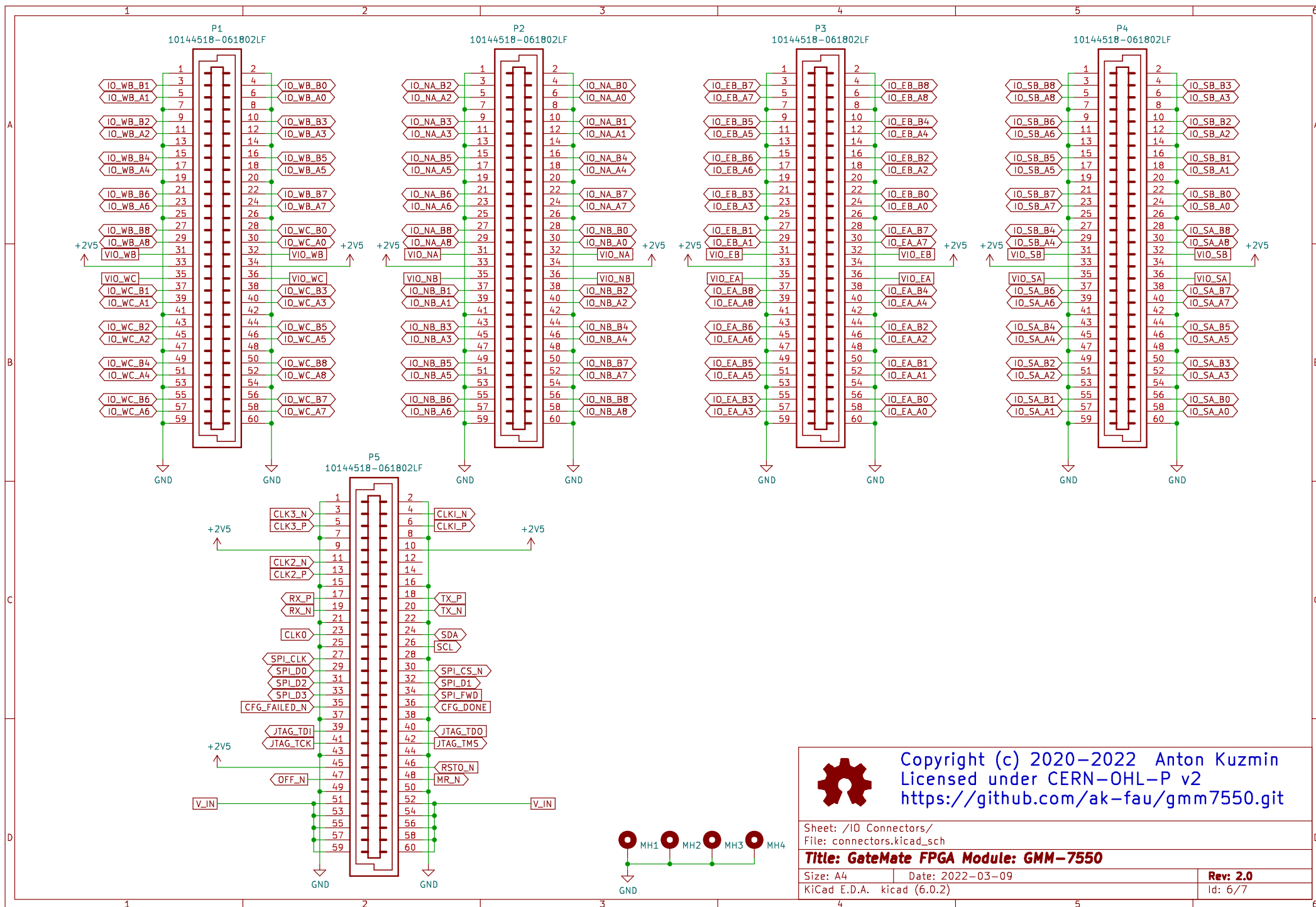
Size: A4 Date: 2022-03-09

KiCad E.D.A. kicad (6.0.2)

**Rev: 2.0**

Id: 4/7





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Sheet: /IO Connectors/  
 File: connectors.kicad\_sch

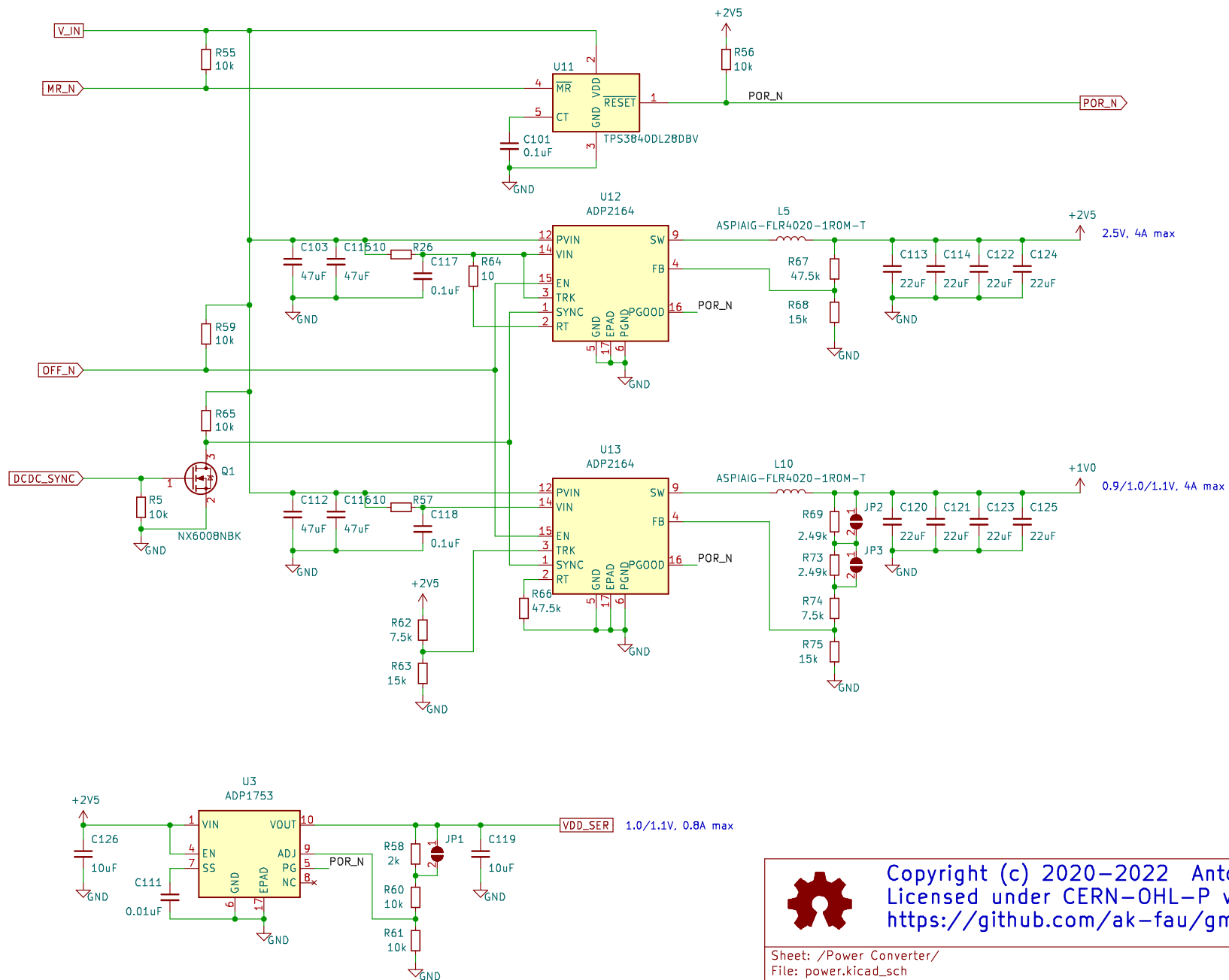
**Title: GateMate FPGA Module: GMM-7550**

Size: A4 Date: 2022-03-09

KiCad E.D.A. kicad (6.0.2)

**Rev: 2.0**

Id: 6/7



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Sheet: /Power Converter/  
 File: power.kicad\_sch

**Title: GateMate FPGA Module: GMM–7550**

Size: A4 Date: 2022–03–09  
 KiCad E.D.A. kicad (6.0.2)

**Rev: 2.0**  
 Id: 7/7