

# 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
2.1	2022-04-24	Change U7 footprint due to the part availability

## GPIO



File: io.kicad\_sch

## Clock and SERDES



File: clk\_serdes.kicad\_sch

## Configuration and Control



File: cfg\_spi.kicad\_sch

## Power Converter



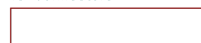
File: power.kicad\_sch

## FPGA Power



File: fpga\_pwr.kicad\_sch

## I/O Connectors



File: connectors.kicad\_sch

FID1 FID2

FID3

FID4 FID5

FID6



GitHub\_Link\_QR



Logo\_Open\_Hardware\_Small

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

Sheet: /  
File: gmm.kicad\_sch

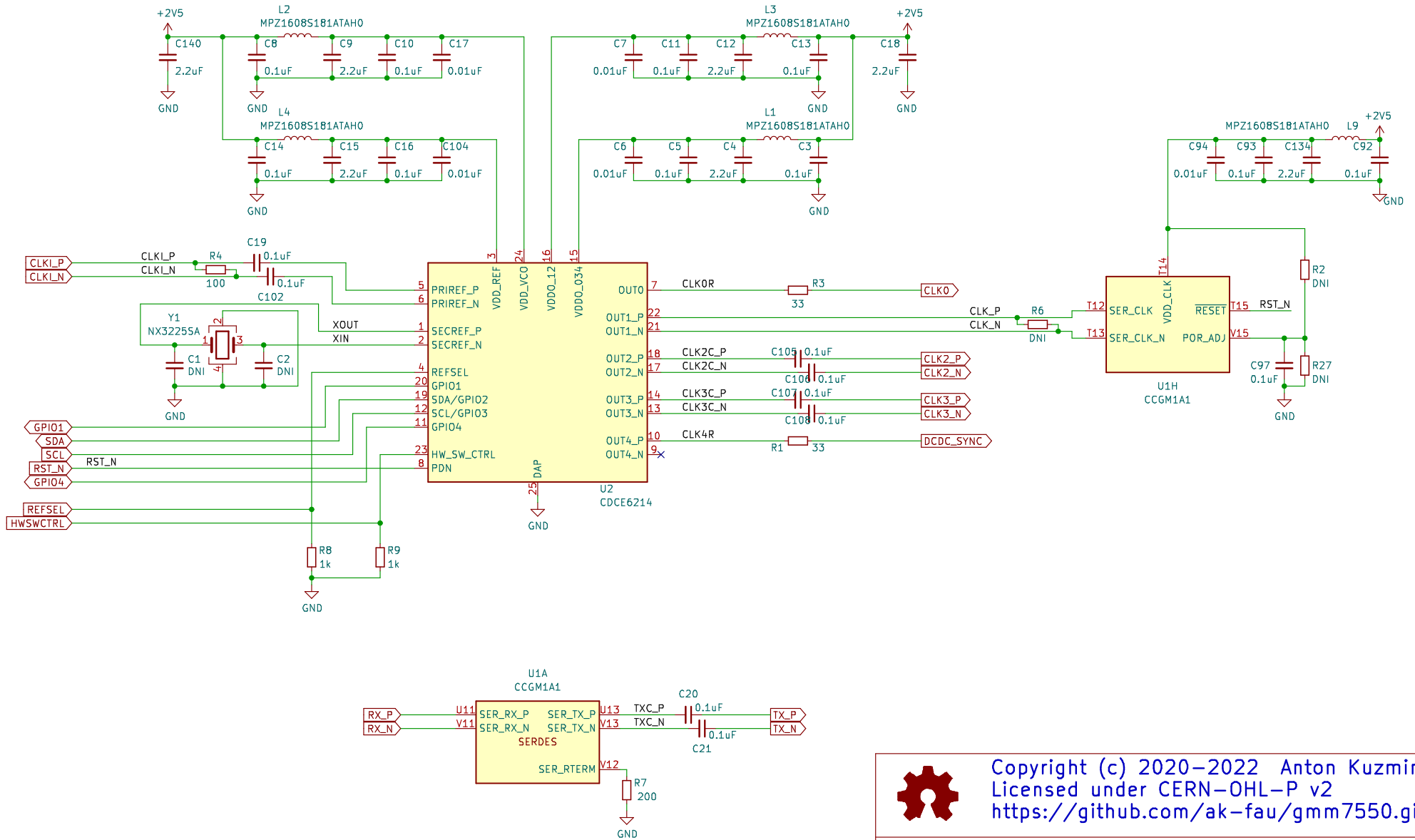
**Title: GateMate FPGA Module: GMM-7550**

Size: A4 Date: 2022-04-24

KiCad E.D.A. kicad (6.0.4)

**Rev: 2.1**

Id: 1/7



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

Sheet: /Clock and SERDES/  
 File: clk\_serdes.kicad\_sch

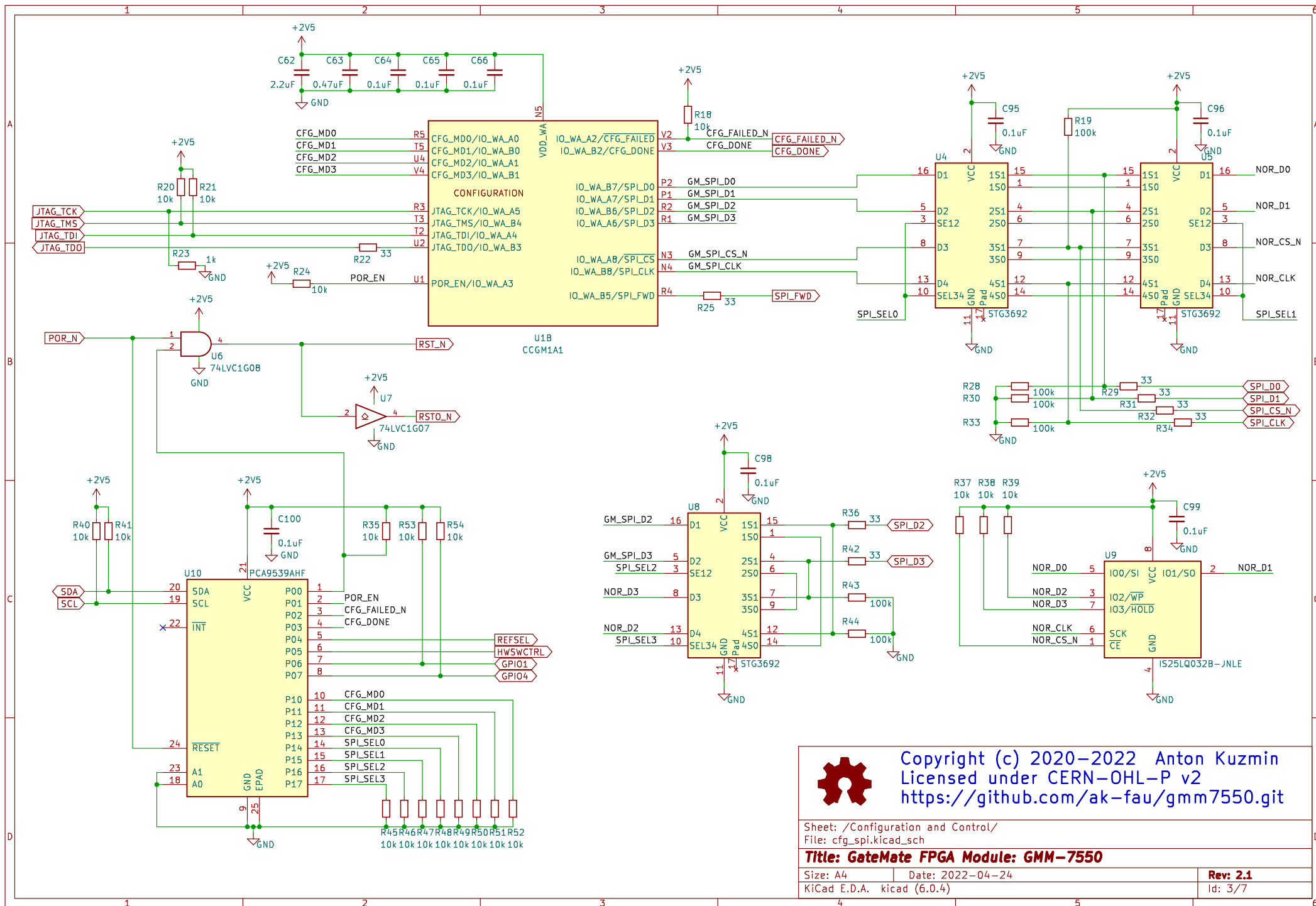
**Title: GateMate FPGA Module: GMM-7550**

Size: A4 Date: 2022-04-24

KiCad E.D.A. kicad (6.0.4)

**Rev: 2.1**

Id: 2/7



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Sheet: /Configuration and Control/  
 File: cfg\_spi.kicad\_sch

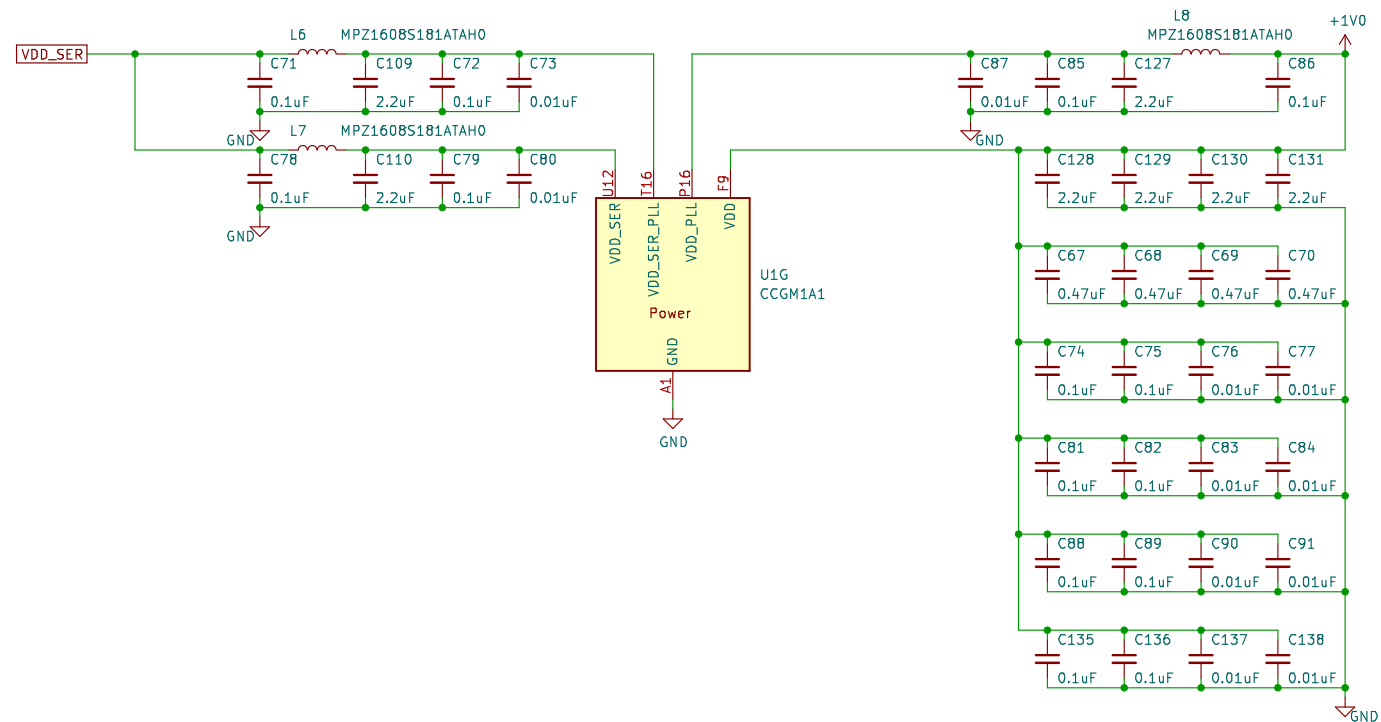
**Title: GateMate FPGA Module: GMM-7550**

Size: A4 Date: 2022-04-24

KiCad E.D.A. kicad (6.0.4)

**Rev: 2.1**

Id: 3/7



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

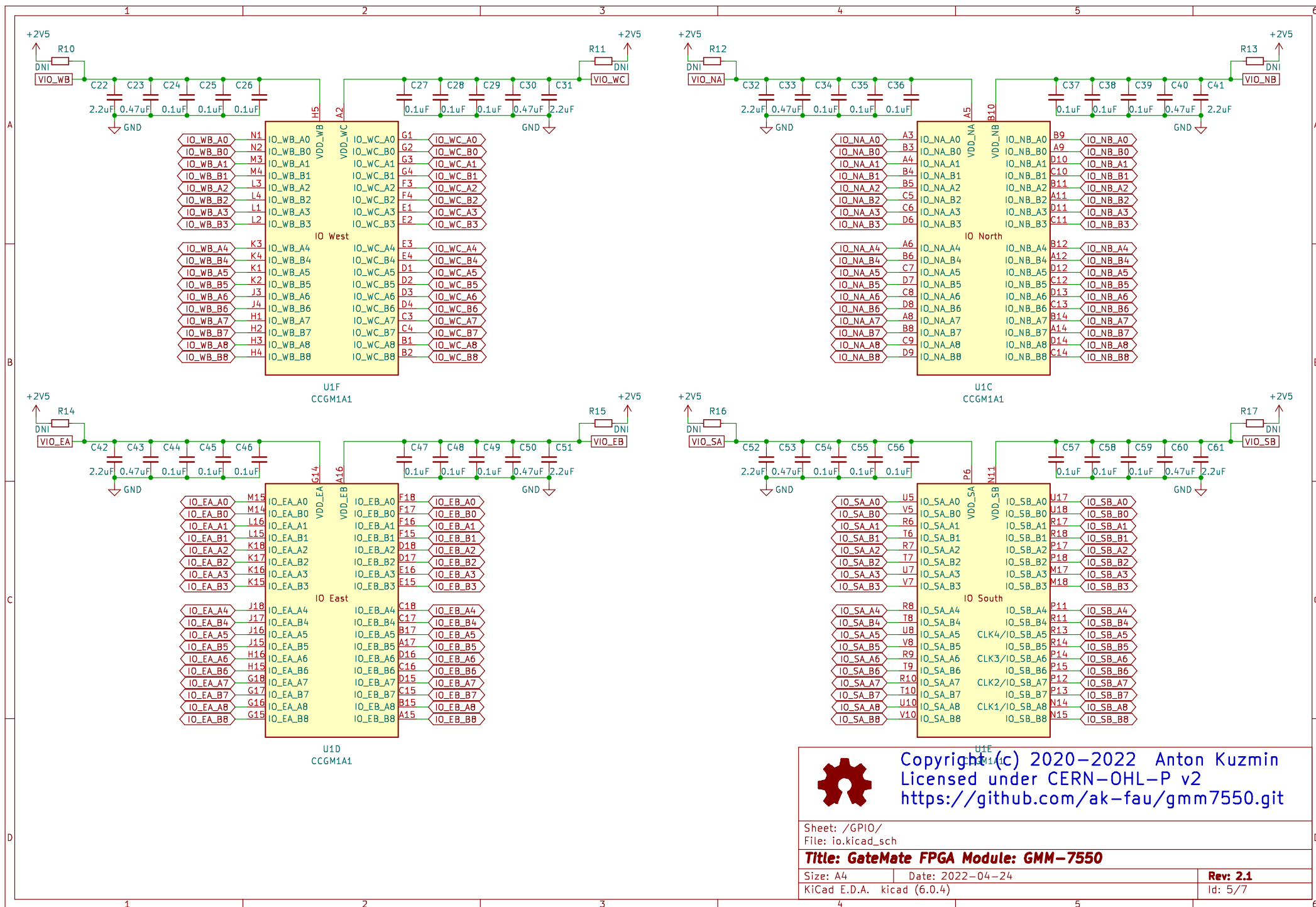
**Title: GateMate FPGA Module: GMM-7550**

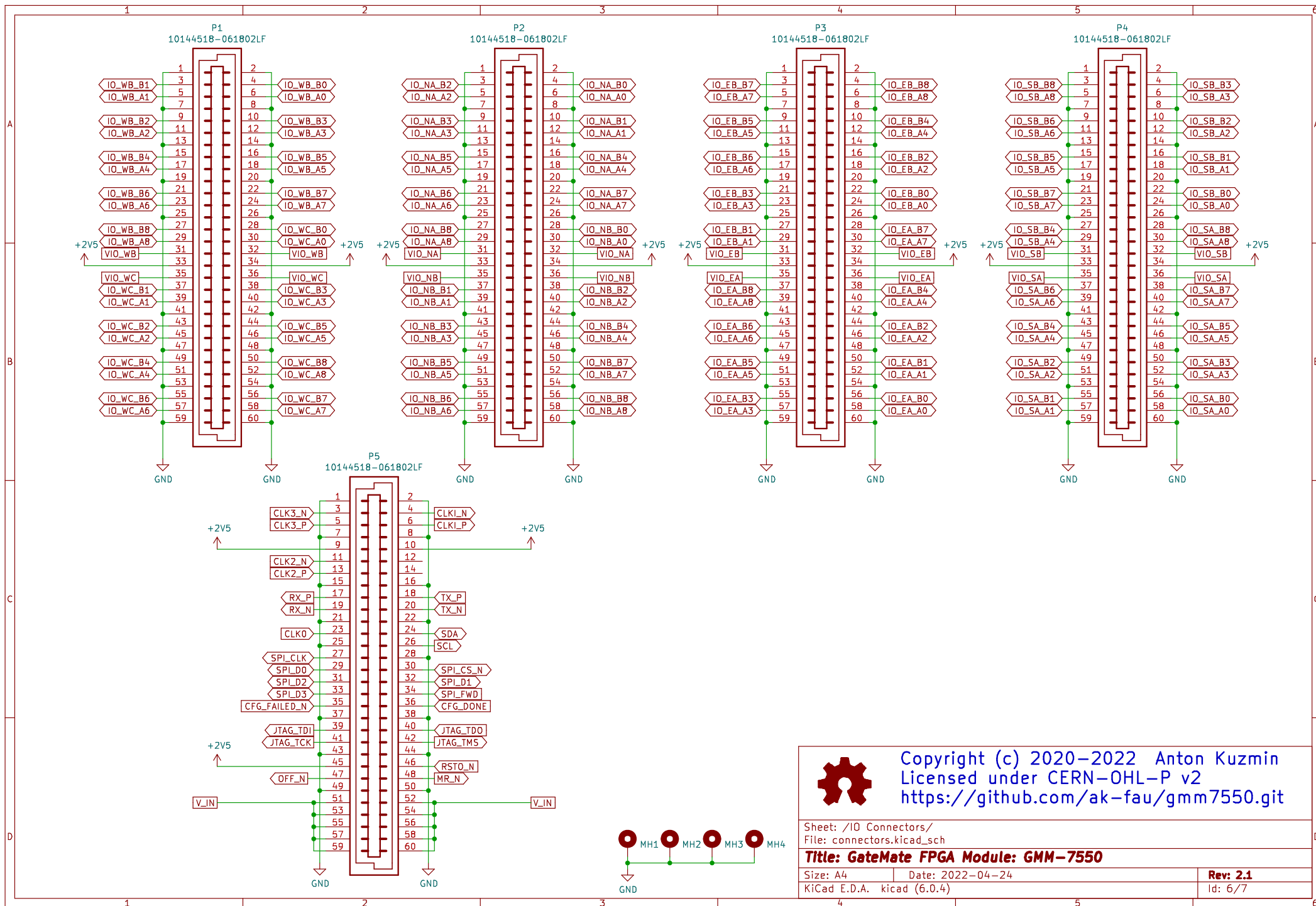
Size: A4 Date: 2022-04-24

KiCad E.D.A. kicad (6.0.4)

Rev: 2.1

Id: 4/7





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

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

Size: A4 Date: 2022-04-24

KiCad E.D.A. kicad (6.0.4)

**Rev: 2.1**

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