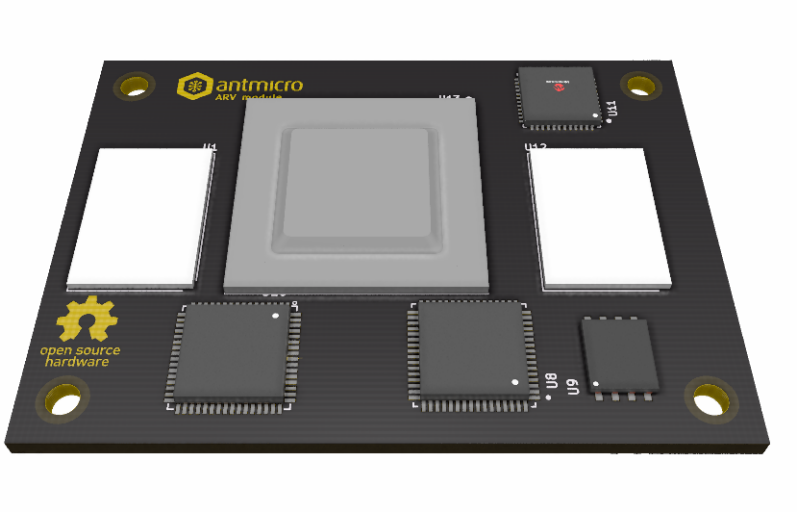

Sheet: PMIC
File: PMIC.sch

Sheet: Interfaces
File: interfaces.sch

Sheet: Ethernet
File: ethernet.sch

Sheet: LPDDR4
File: lpddr4.sch

Sheet: B2B connectors
File: B2B-connectors.sch

Sheet: VIC7100 power
File: VIC7100-power.sch

Sheet: VIC7100 config
File: VIC7100-config.sch

Sheet: VIC7100 interfaces
File: VIC7100-interfaces.sch

Sheet: VIC7100 DDR
File: VIC7100-DDR.sch

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Logo N1
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Logo N2
oshw_logo

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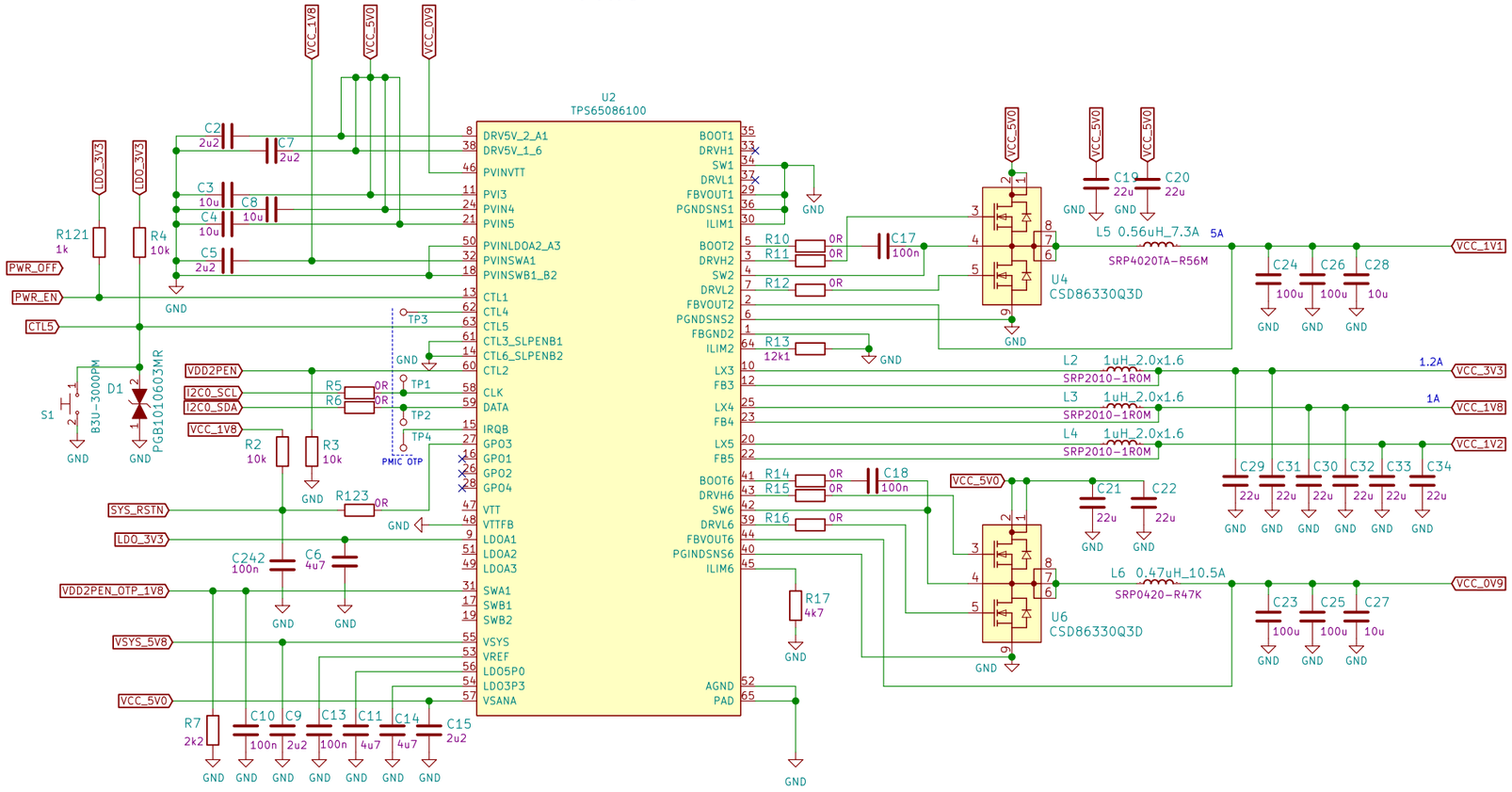
Sheet: /
File: arvsom.sch

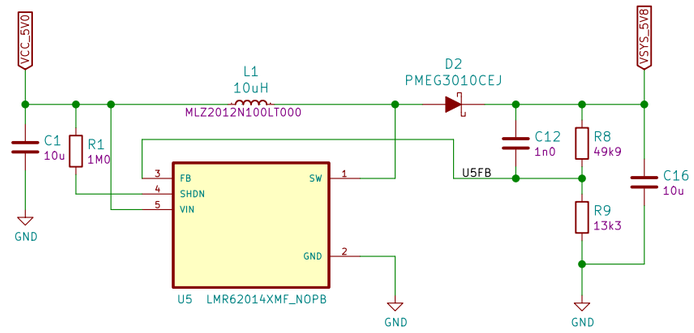
Title: ARVSOM

Size: A4	Date:	**Rev: 1.0.0**
KiCad E.D.A. kicad 5.1.5+dfsg1-2bpo10+1		Id: 1/10

PMIC



5V8 boost regulator



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ARV SoM – Power Mangement

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Sheet: /PMIC/

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Title: Power management

Size: A3	Date:	**Rev: 1.0.0**
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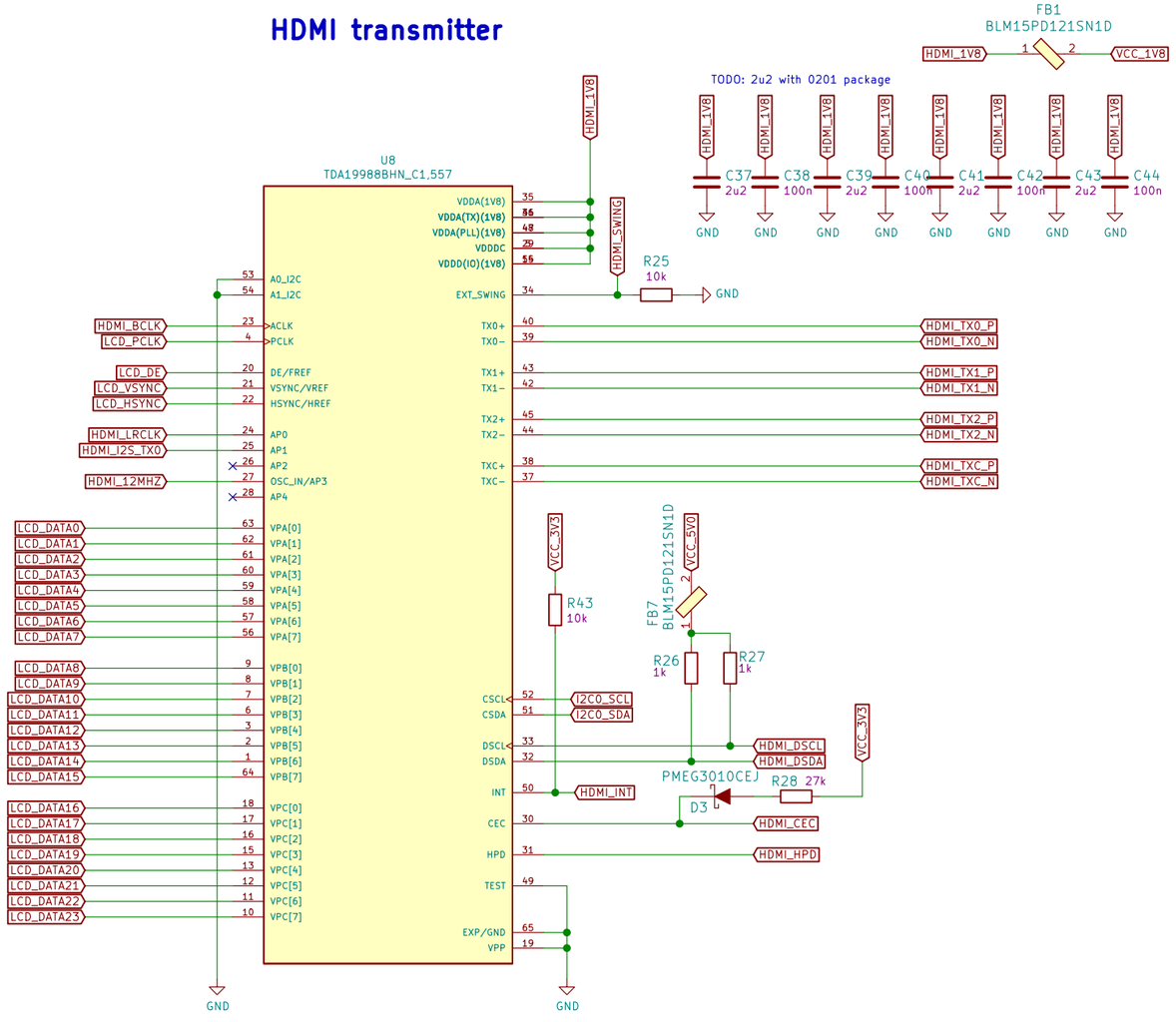
HDMI transmitter



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Sheet: /Interfaces/	
File: interfaces.sch	
Title: HDMI transmitter	
Size: A3	Date: **Rev: 1.0.0**
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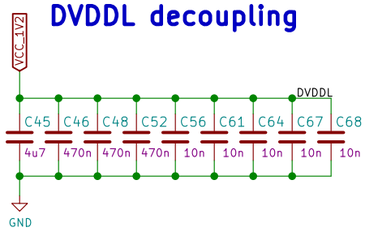
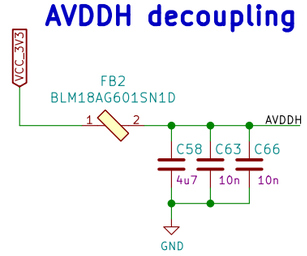
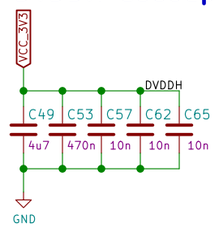
DVDDL decoupling



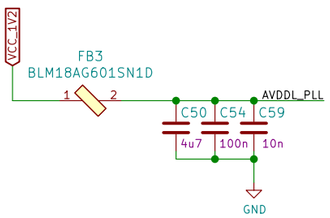
AVDDH decoupling



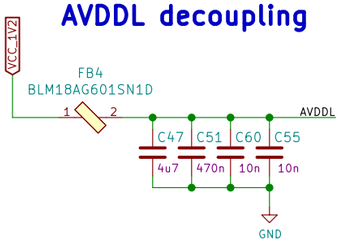
DVDDH decoupling



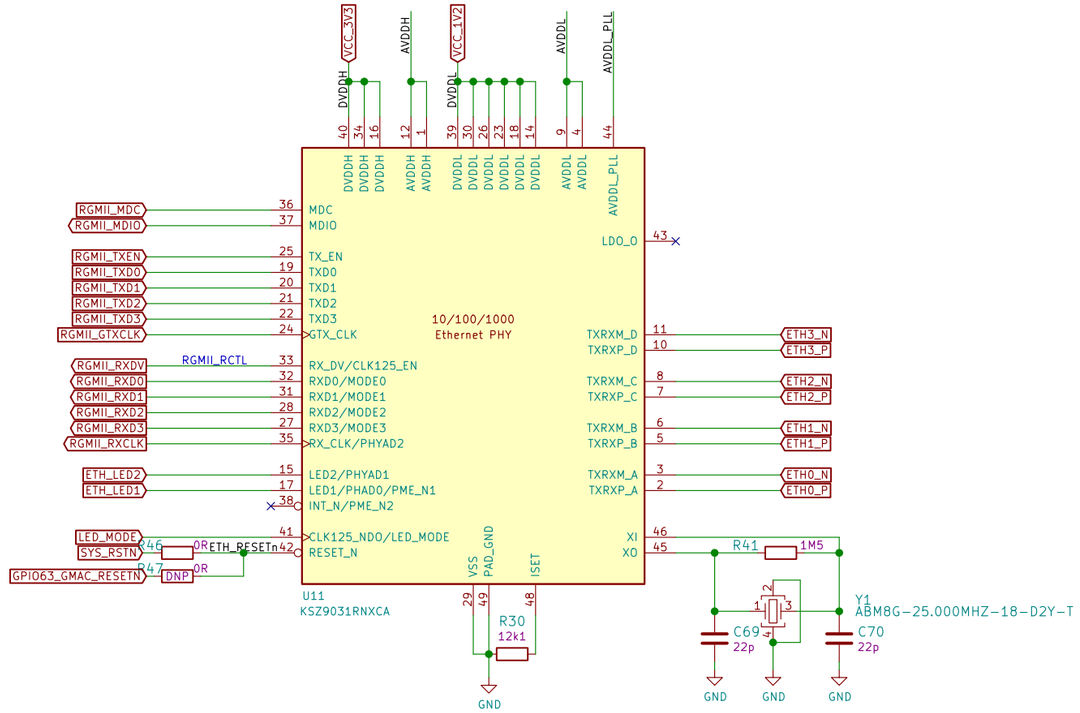
AVDDL_PLL decoupling



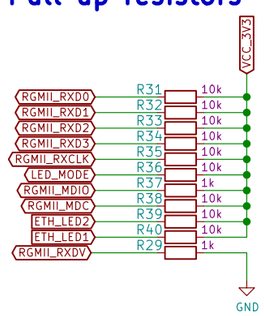
AVDDL decoupling



PHY



Pull up resistors



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File: ethernet.sch

Title: Ethernet

Size: A3	Date:	**Rev: 1.0.0**
KiCad E.D.A. kicad 5.1.5+dfsg1-2bpo10+1		Id: 4/10

TODO: compare with BeagleV LPDDR4 schematic
TODO: find suitable LPDDR4 (32bit, 2ch, 4die, 1Gb)

LPDDR4

MT53D1024M32D4DT-053 WT:D
U1A

MT53D1024M32D4DT-053 WT:D
U1B

MT53D1024M32D4DT-053 WT:D
U3A

MT53D1024M32D4DT-053 WT:D
U3B

TBD: number of the capacitors varies between BeagleV reference
and our previous LPDDR4 designs — some of them can be probably skipped

TBD: number of the capacitors varies between BeagleV reference
and our previous LPDDR4 designs — some of them can be probably skipped

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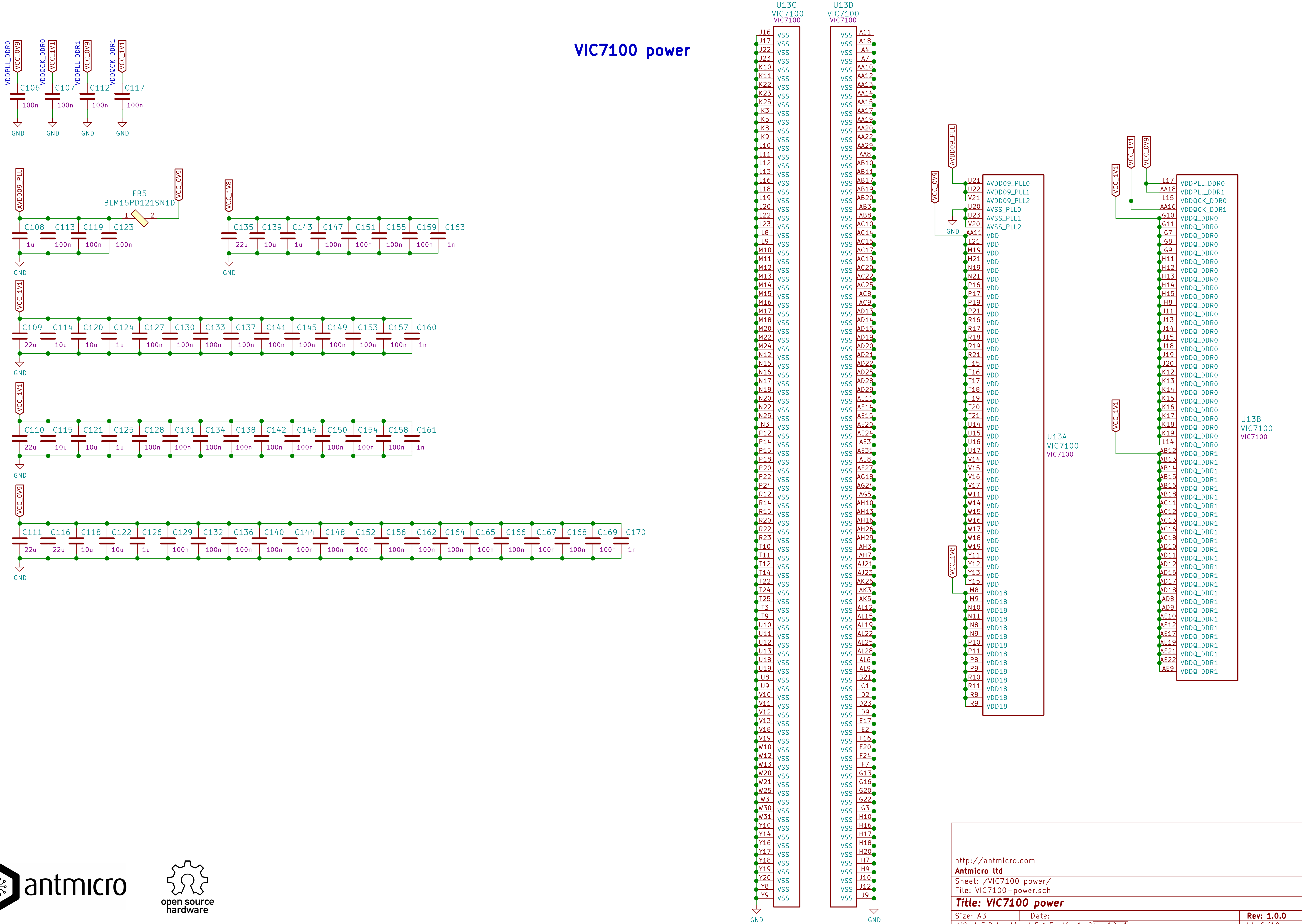
Sheet: /LPDDR4/	
File: lpddr4.sch	
Title: LPDDR4	
Size: A3	Date:
KiCad E.D.A. kicad 5.1.5+dfsg1-2bpo10+1	**Rev: 1.0.0**
	Id: 5/10

VIC7100 power



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Sheet: /VIC7100 power/
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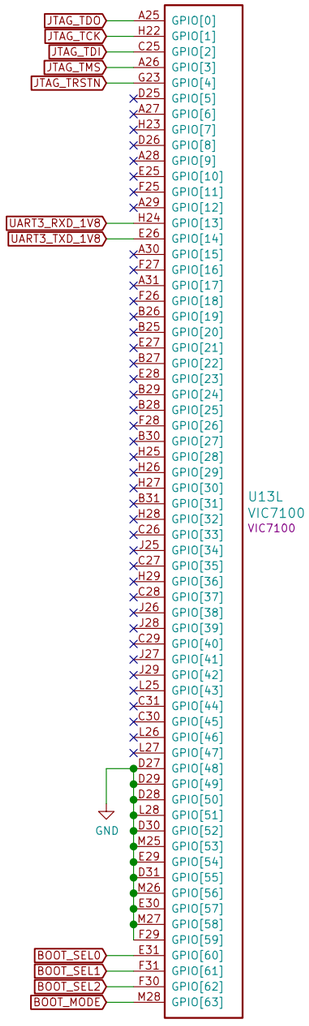
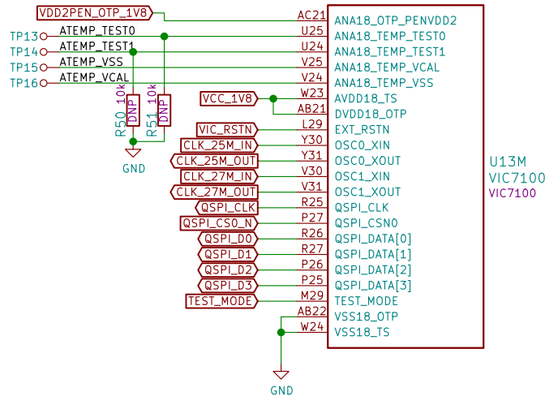
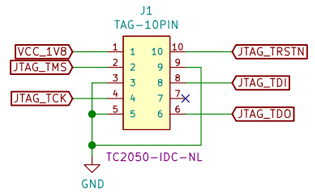
Title: VIC7100 power
Size: A3 Date: **Rev: 1.0.0**
KiCad E.D.A. kicad 5.1.5+dfsg1-2bpo10+1 Id: 6/10

VIC7100 configuration

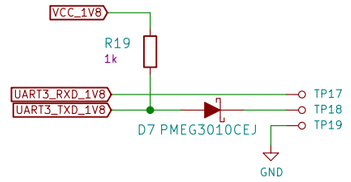




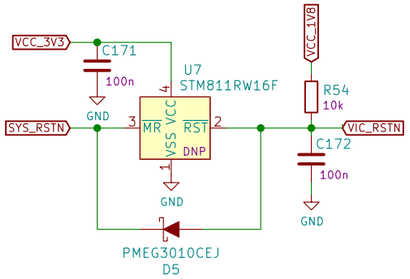
JTAG connector (1V8)



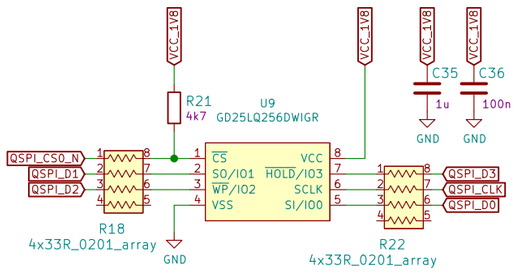
UART3 (1V8)



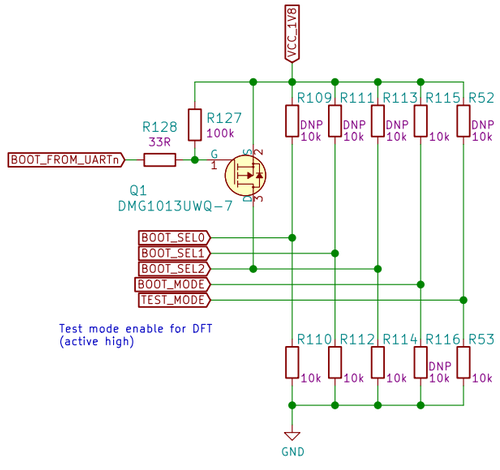
VIC reset



NOR Flash



Boot config



Clock crystals

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Sheet: /VIC7100 config/

File: VIC7100-config.sch

Title: VIC7100 configuration

Size: A3	Date:	**Rev: 1.0.0**
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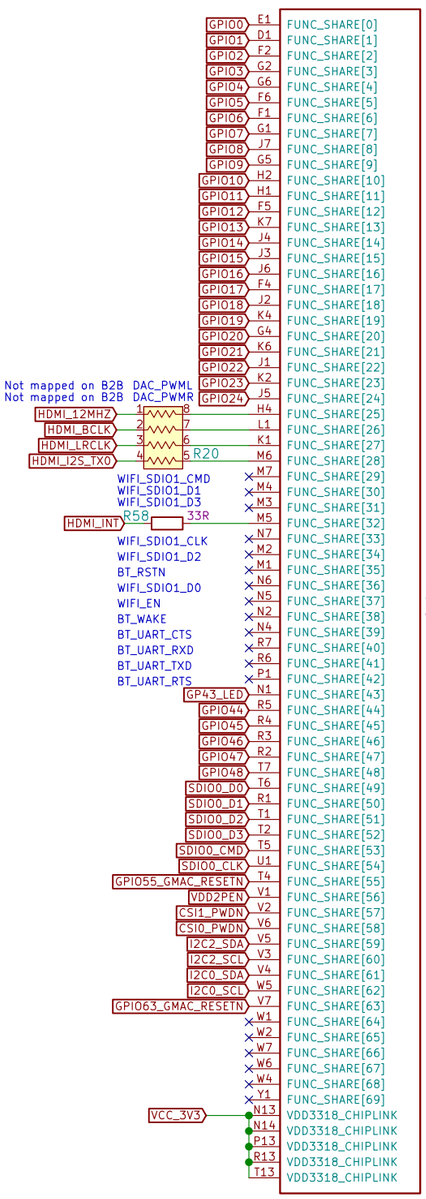
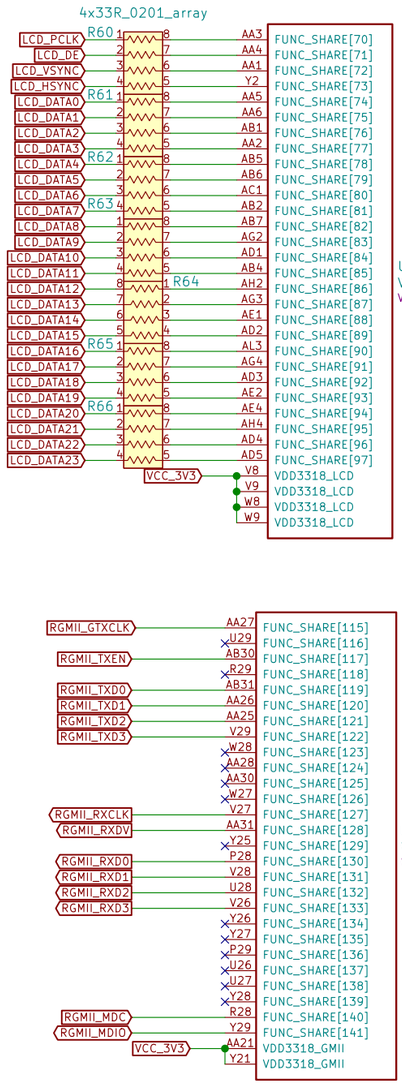
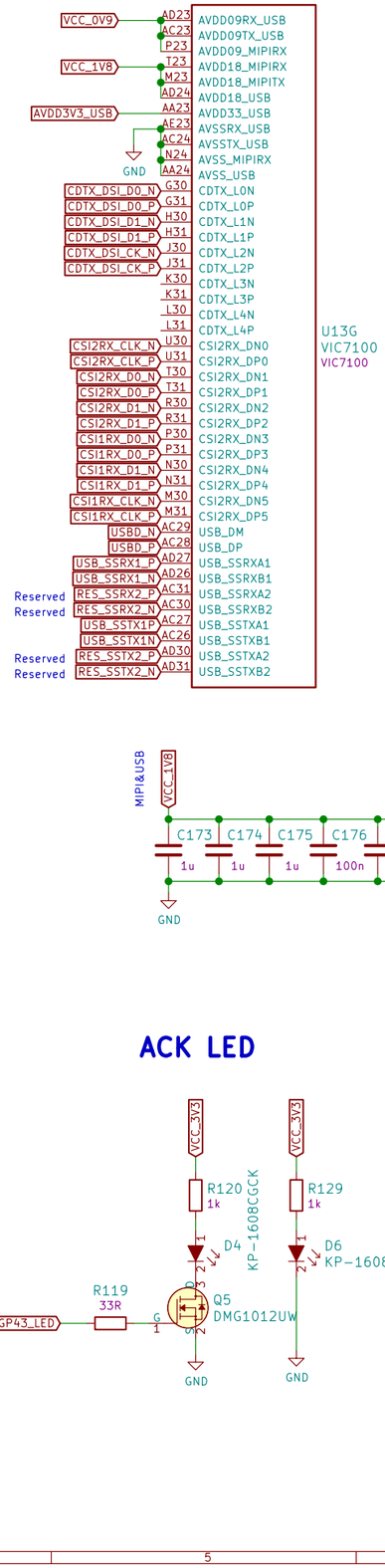
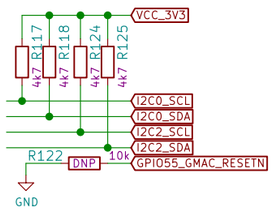
VIC7100 interfaces

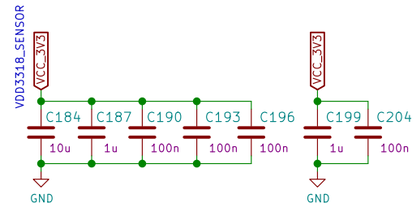




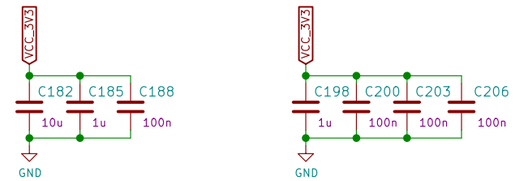




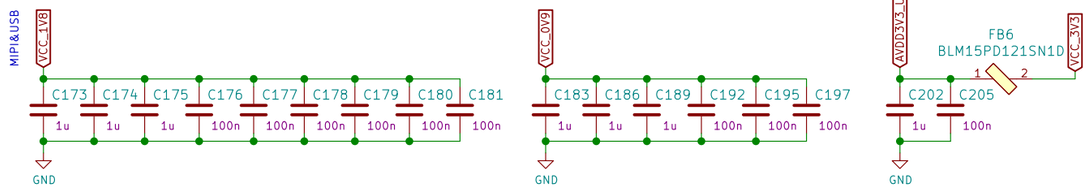
VIC 3V3 GPIO



VIC LCD&RGMII



VIC MIPI&USB



ACK LED

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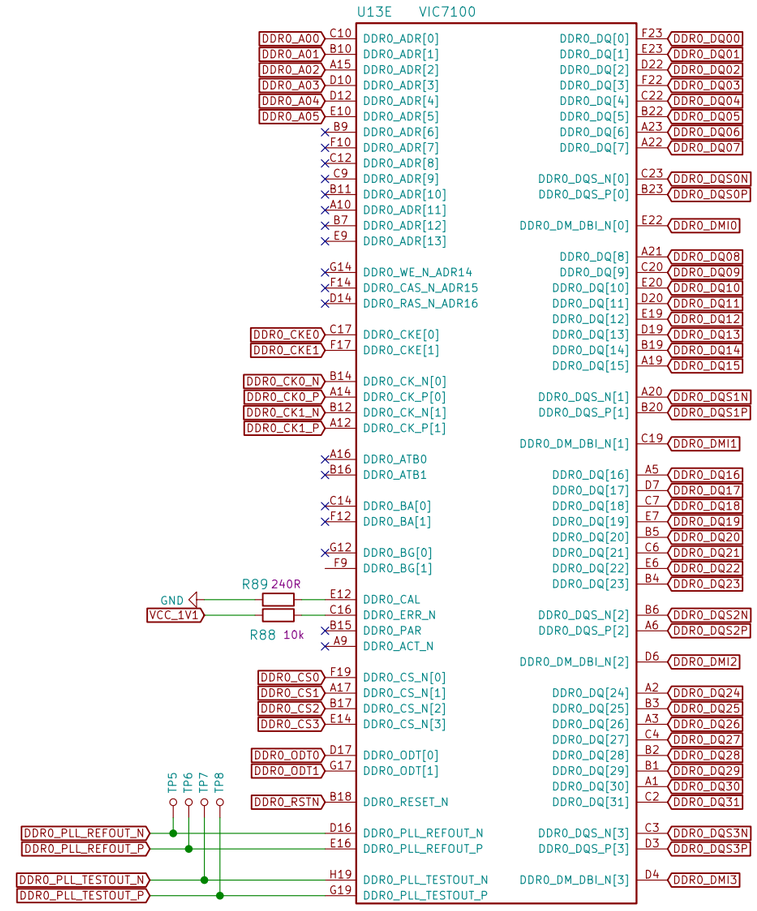
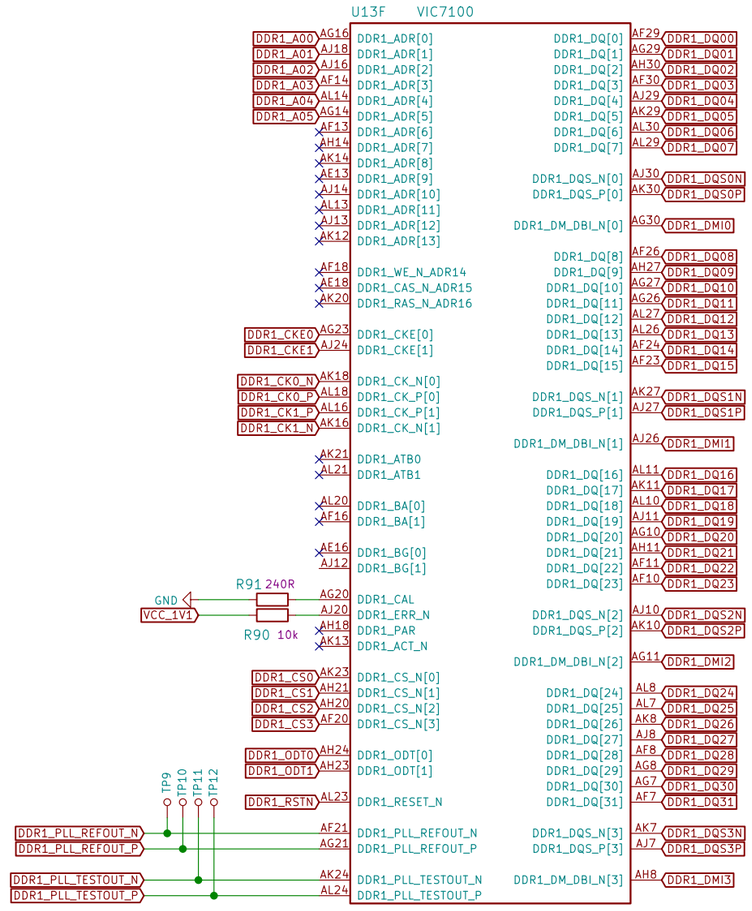
Title: VIC7100 interfaces

Size: A3	Date:	**Rev: 1.0.0**
KiCad E.D.A. kicad 5.1.5+dfsg1-2bpo10+1		Id: 8/10

VIC7100 DDR





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Sheet: /VIC7100 DDR/

File: VIC7100-DDR.sch

Title: VIC7100 DDR

Size: A3	Date:	**Rev: 1.0.0**
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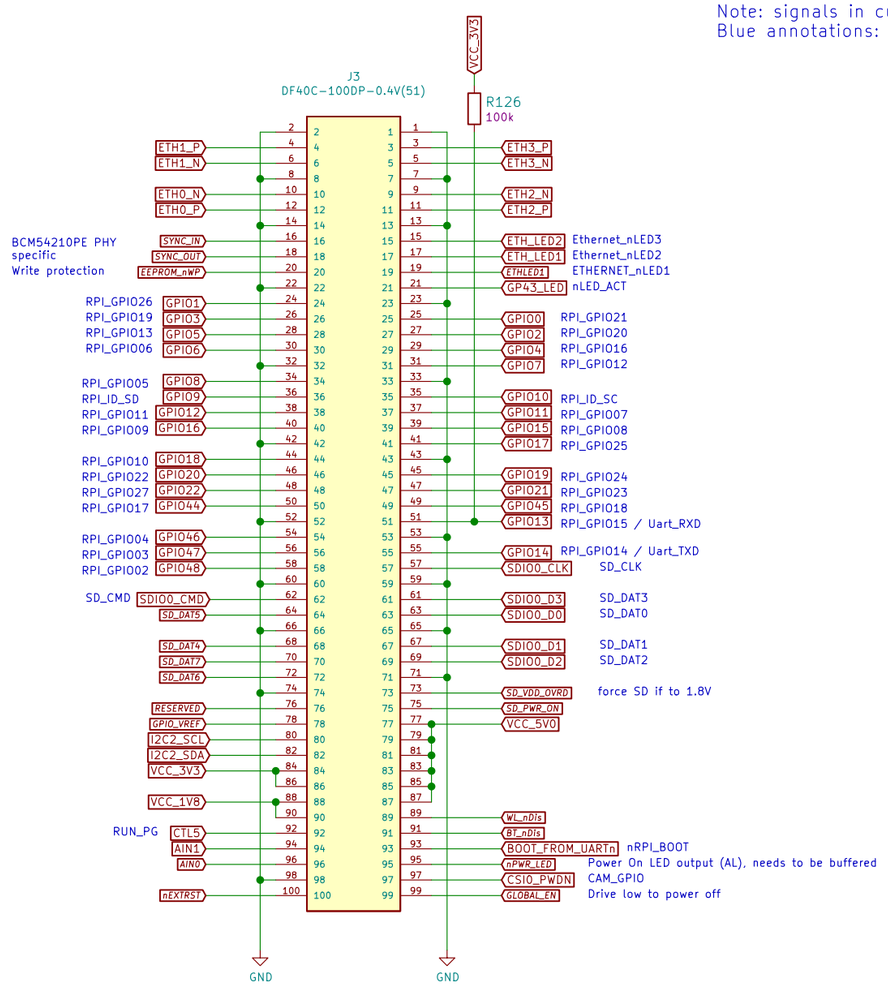
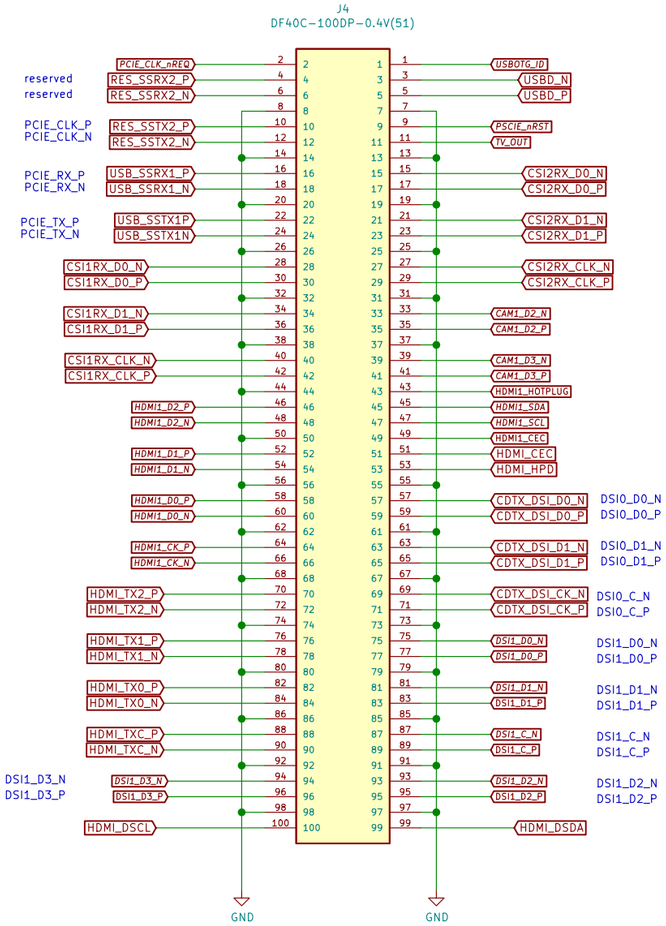
B2B connectors

Note: signals in cursive are NOT mapped on the SoM
Blue annotations: CM pin reference





MP1 PCB_Mount_Hole_2.5
MP2 PCB_Mount_Hole_2.5
MP3 PCB_Mount_Hole_2.5
MP4 PCB_Mount_Hole_2.5

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Sheet: /B2B connectors/
File: B2B-connectors.sch

Title: SoM board-to-board connectors

Size: A3	Date:	**Rev: 1.0.0**
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