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UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.
However, always check jumper positions on actual boards
since there is no guarantee that all jumpers are in default place.

Rev B-B1

Several small enhancements. Added battery charging.
Corrected D17, D23 and D24.

Rev A

Correct U5 pinning error. Added R139 (100K). Change C13.
Correct Q1 pinning. Change L17/L24 to UL.
Added SJ8 for uSD/MMC powering from COM board.
Added H3, J35, JP4/JP6, LED8, Q17/Q18/Q19, U16/U19,
U20, R139/ R145/R146/R141/R147/R148/R178/R179,
R180/R181/R143, SJ12, C113/C132/C133/C134/C109,
C139/C111/C112/C135/C136/C137/C138



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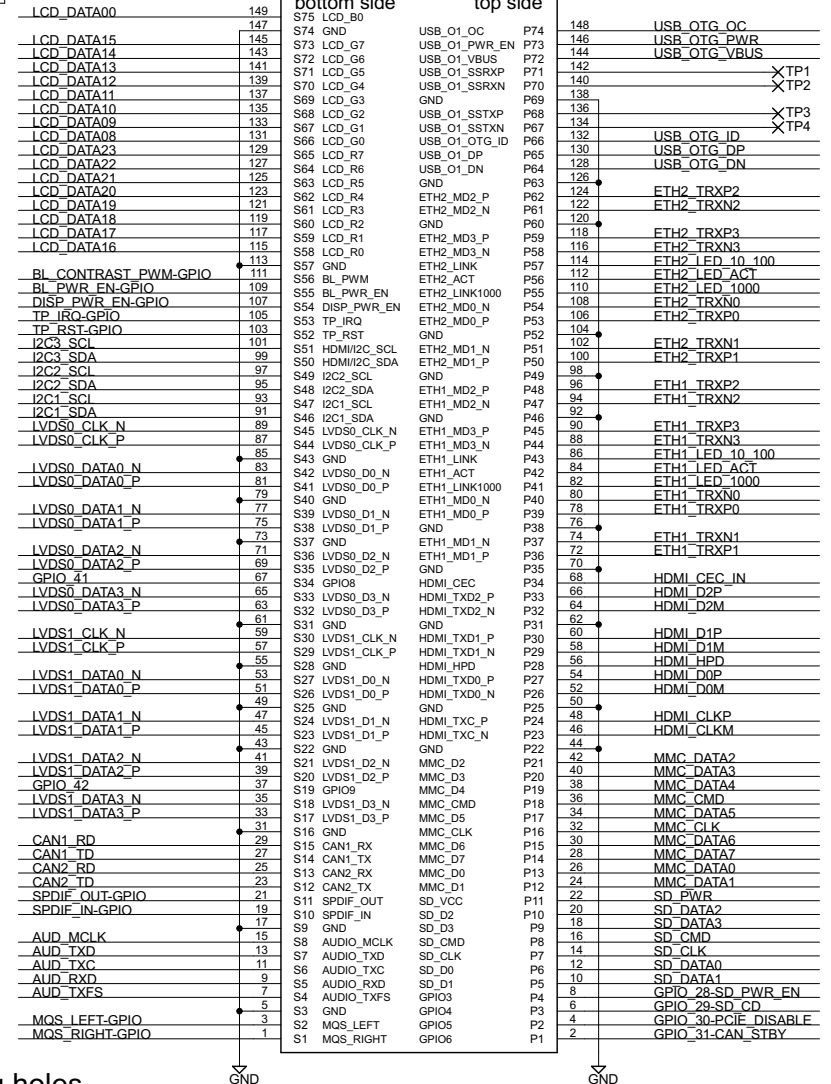
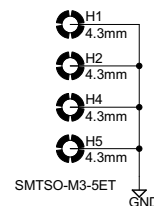
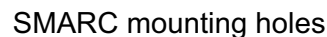
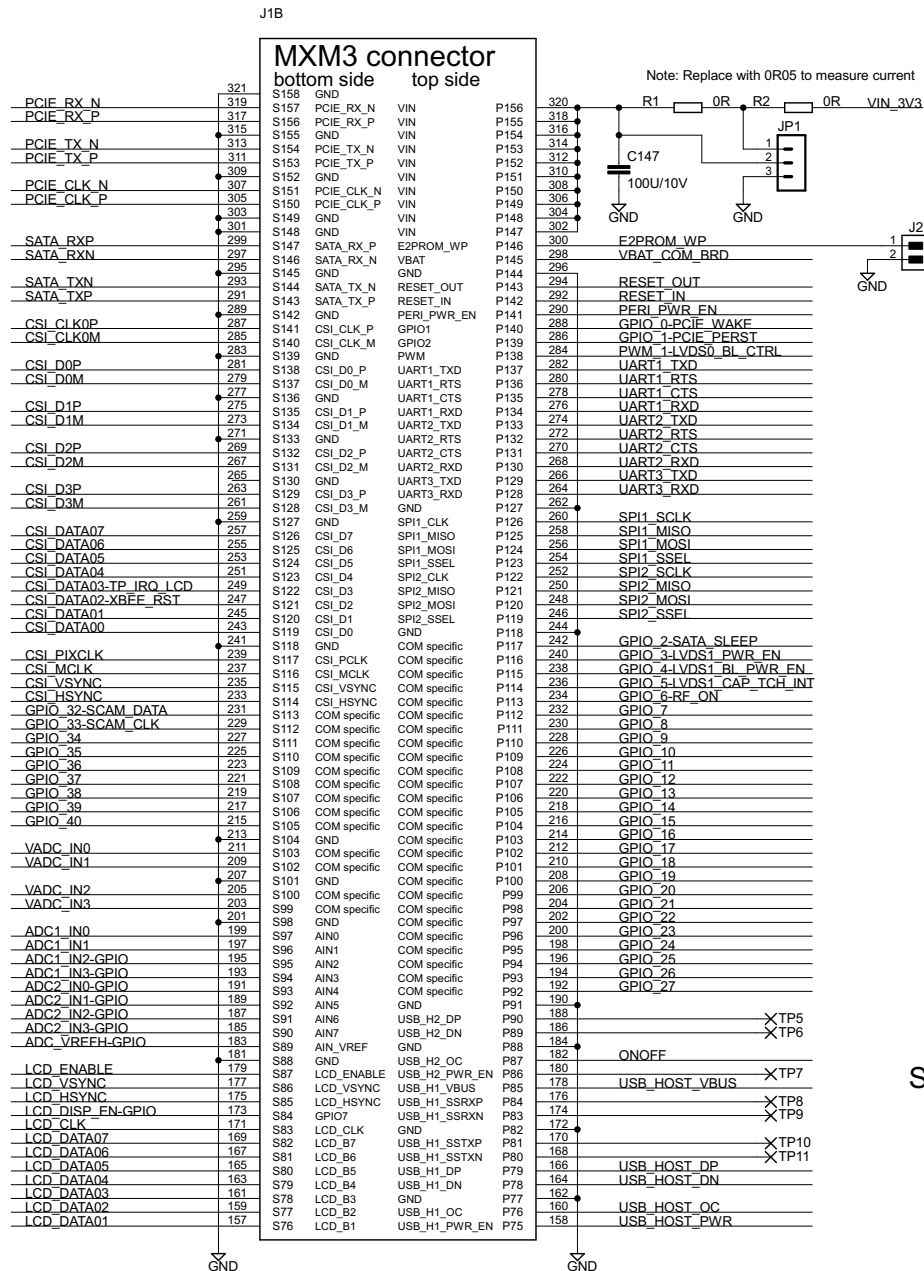
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COM Board connector (MXM3)



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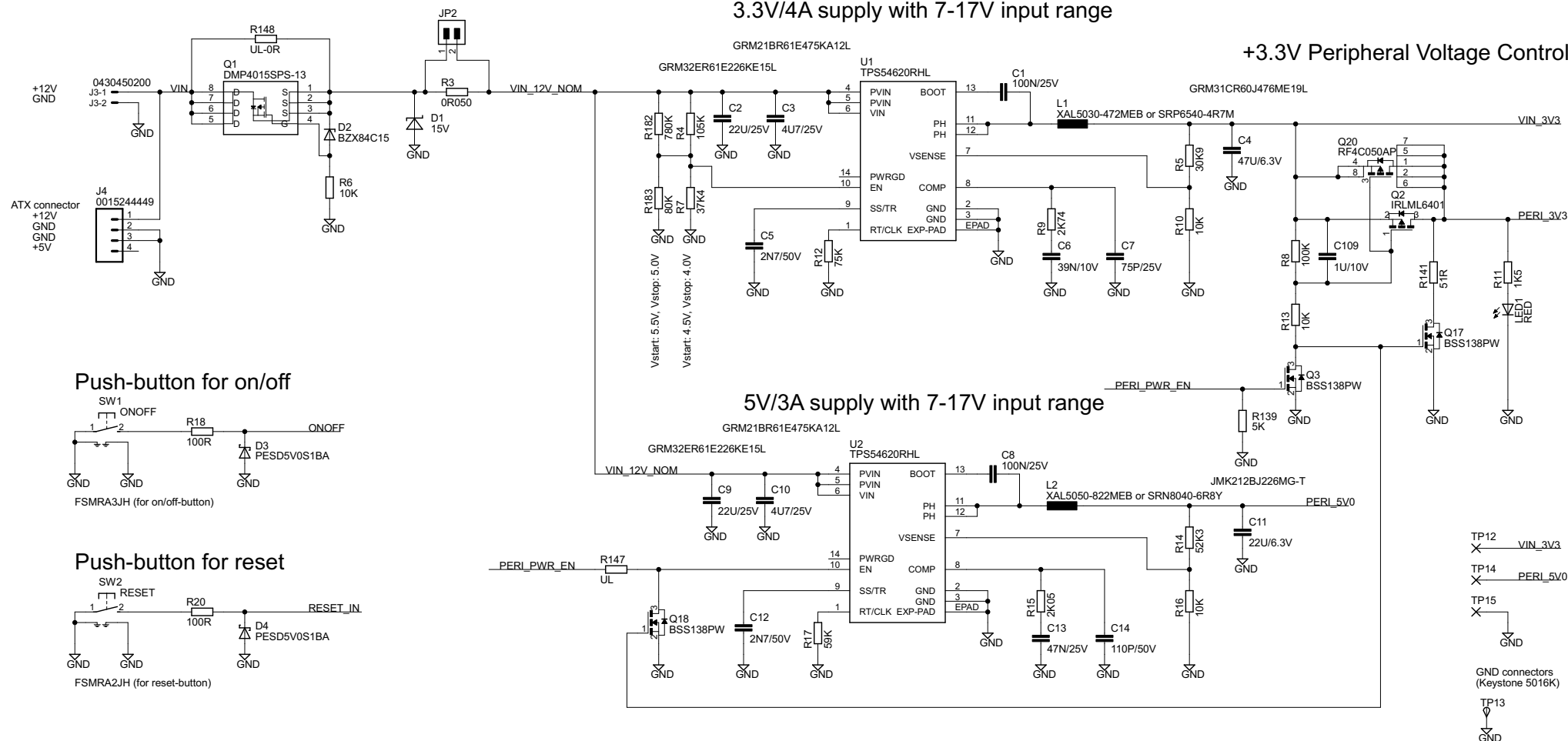
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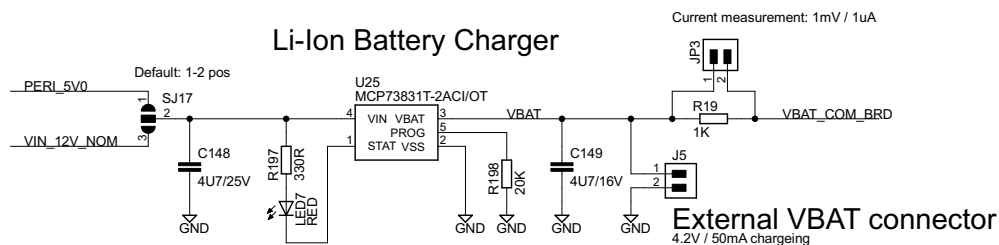
Power Supply Input

3.3V/4A supply with 7-17V input range

+3.3V Peripheral Voltage Control

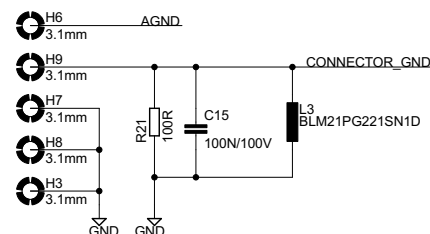


Li-Ion Battery Charger



Note: This design is not recommended for customer carrier boards since VBAT will be above maximum recommended voltage (3.6V). A 3.3V LDO is recommended to control the voltage below 3.6V.

Mounting Holes



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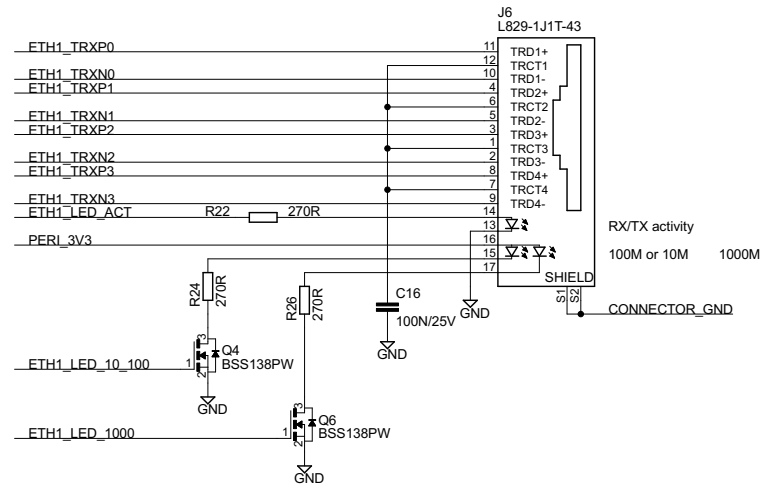
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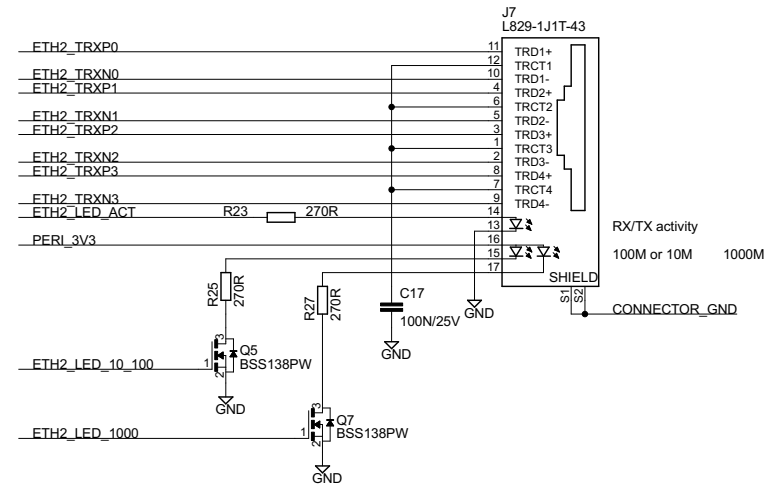
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Ethernet interfaces

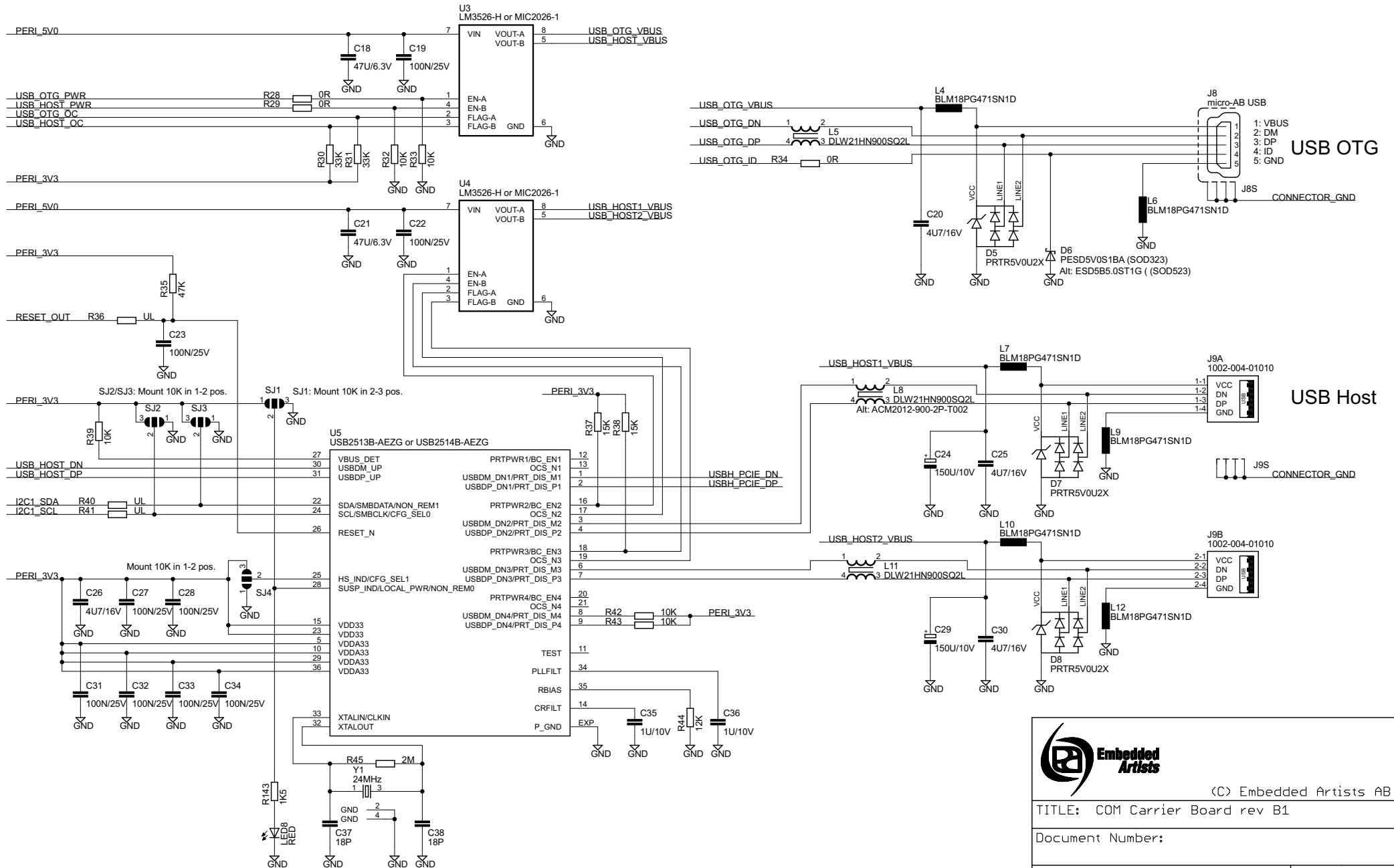
Ethernet Interface #1



Ethernet Interface #2



USB Interfaces



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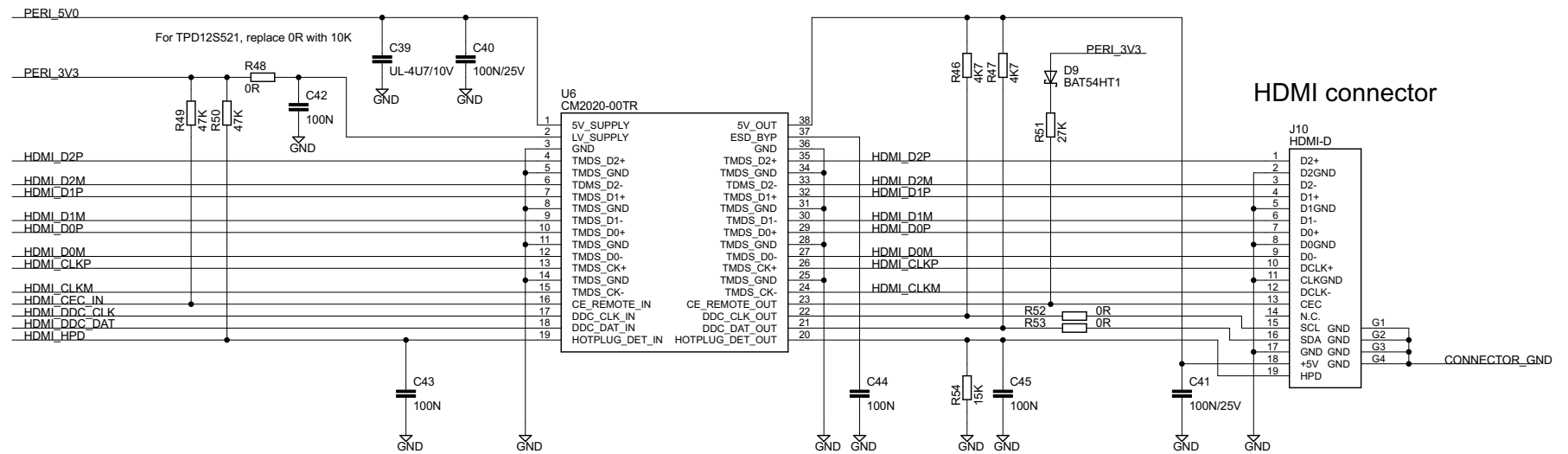
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HDMI Interface



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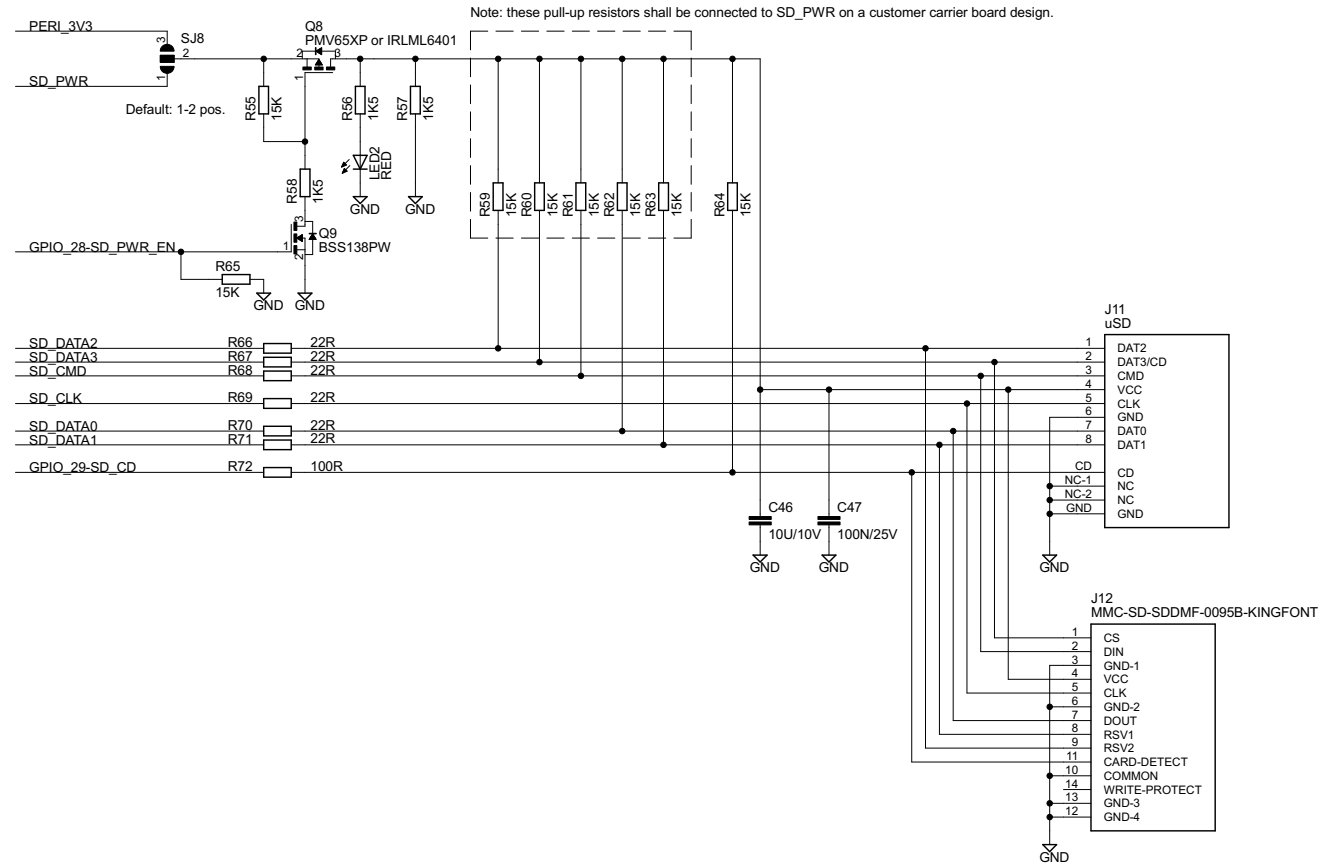
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uSD Memory Card Interface

Note: the board is shipped with position 1-2 shorted.
This is not correct for customer carrier boards.
The SD/MMC card shall be powered by PERI_3V3.



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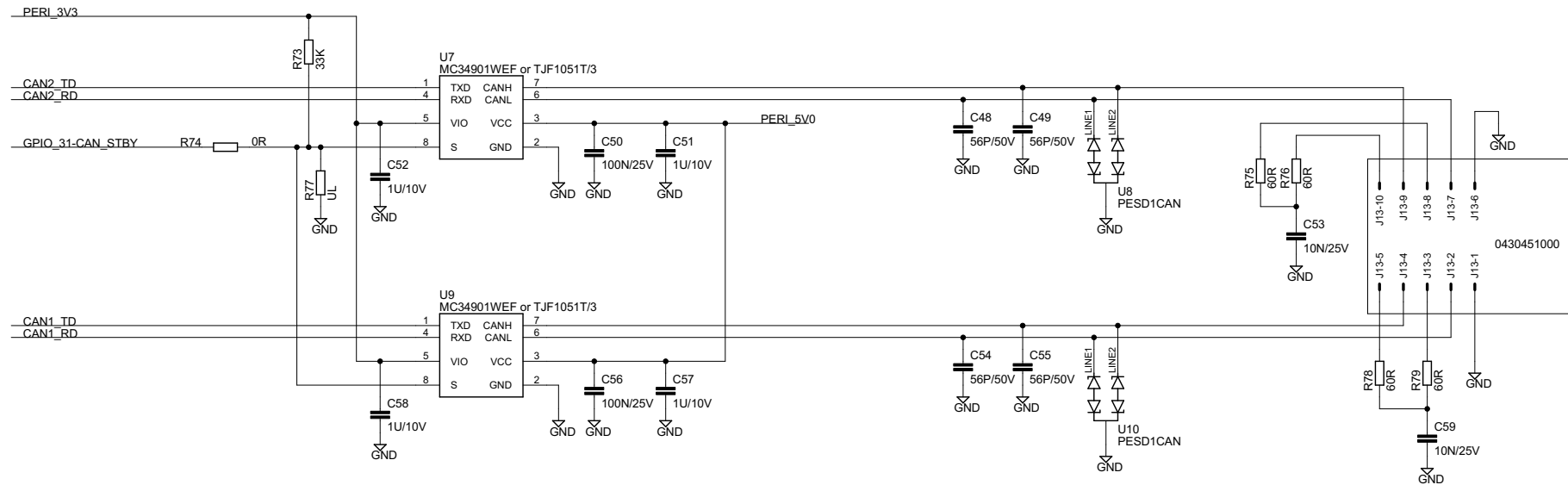
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CAN Interfaces

CAN transceivers



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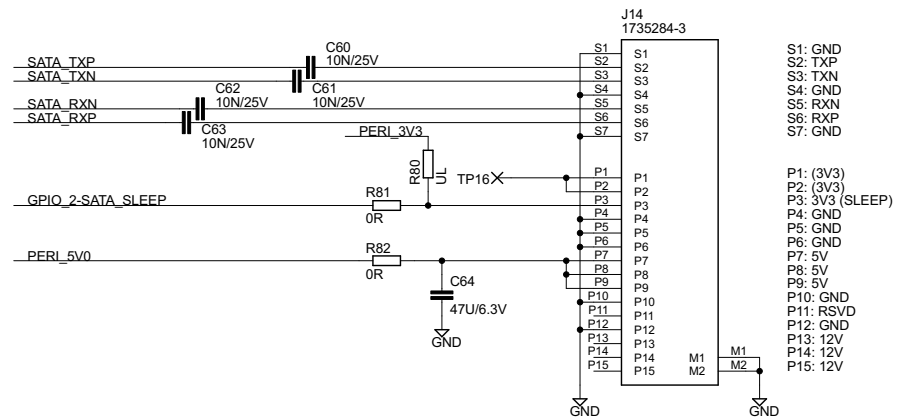
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SATA Interface

22 pos SATA Connector



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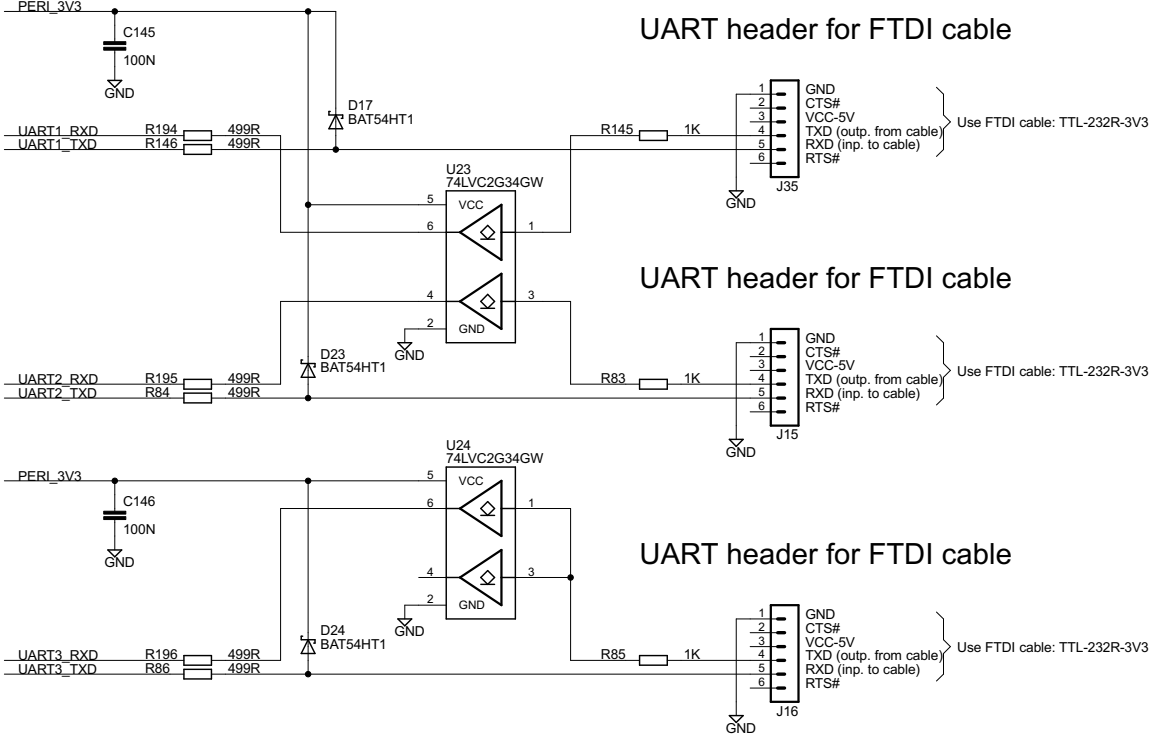
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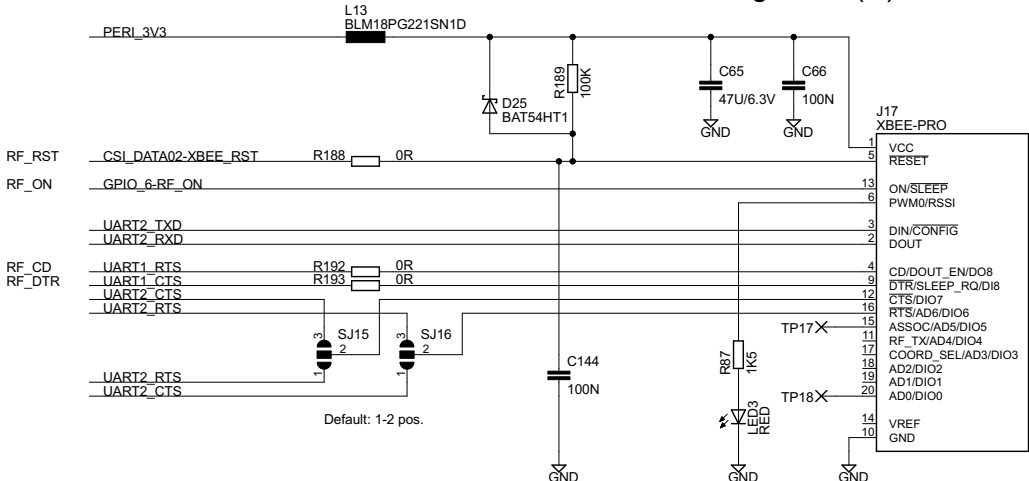
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UART Interfaces



Digi XBee(R) RF-module



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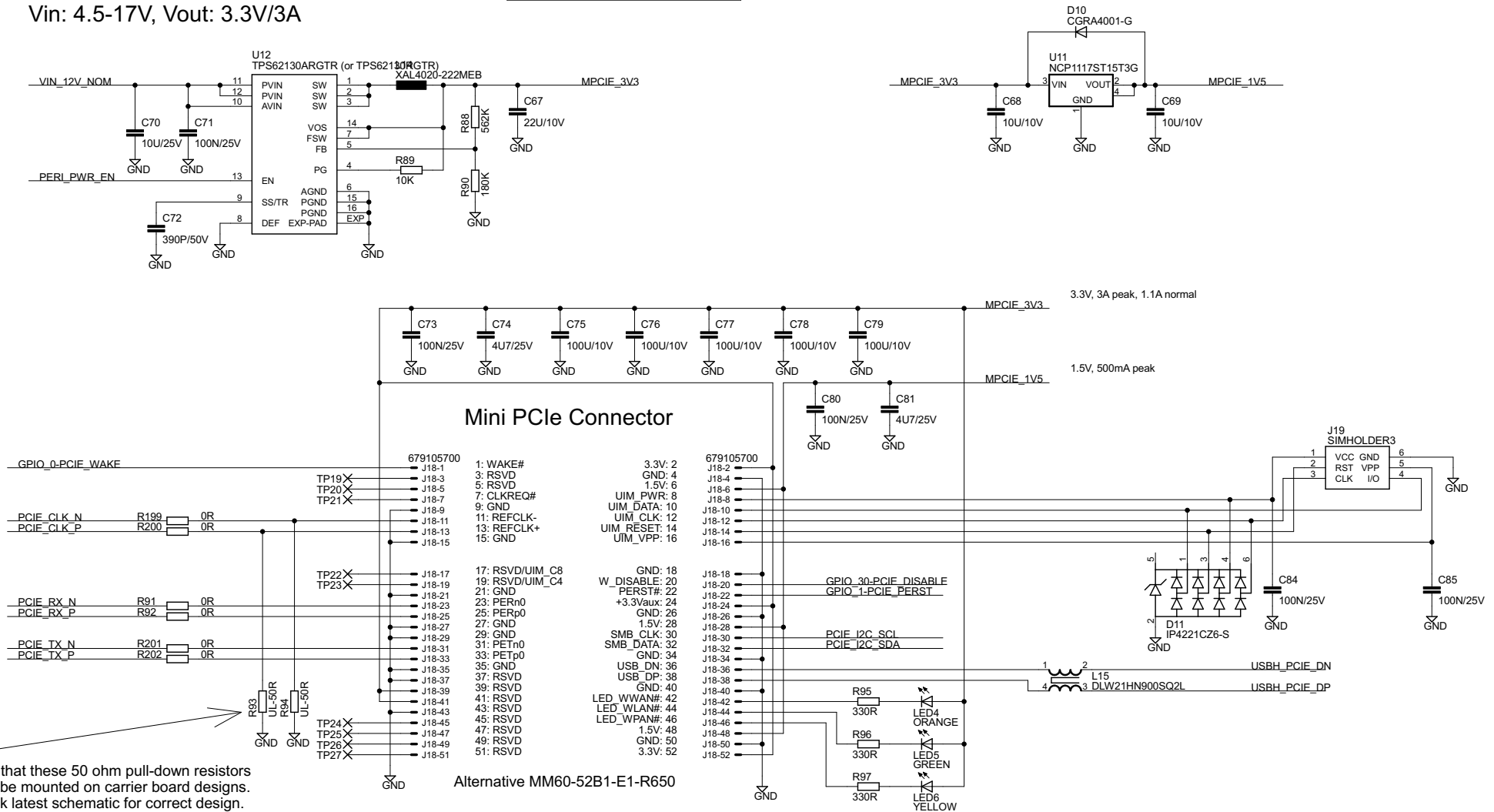
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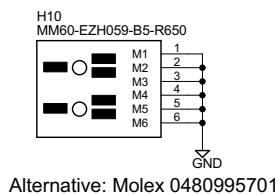
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PCIe Interface

Vin: 4.5-17V, Vout: 3.3V/3A



Mini PCIe board fastening



Embedded Artists

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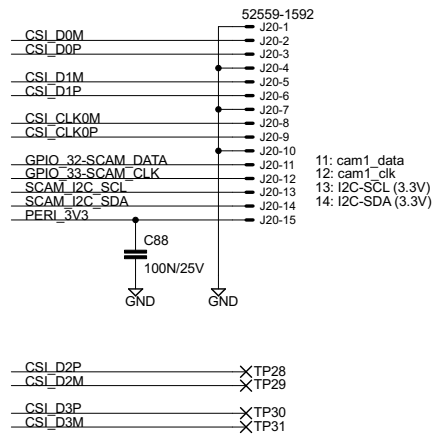
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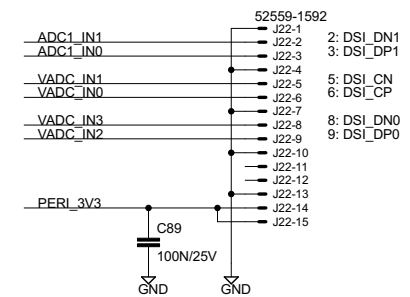
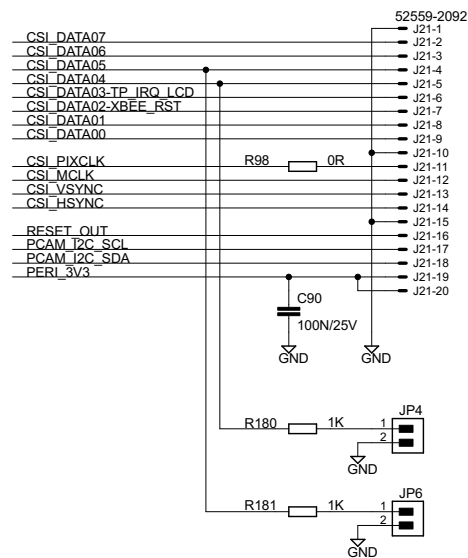
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Camera / Display Interfaces

RPI serial camera (MIPI)



Parallel camera interface (+3.3V logic levels) RPI serial display (MIPI) or VADC signals



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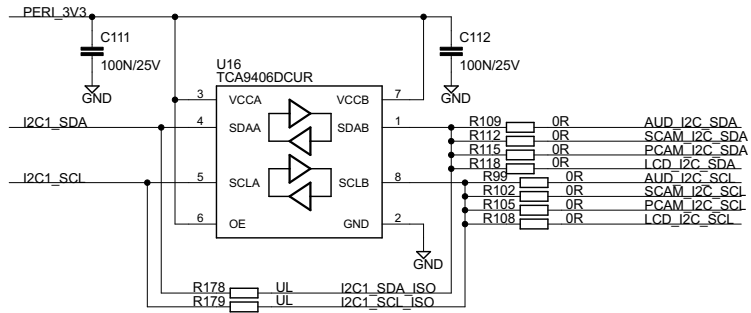
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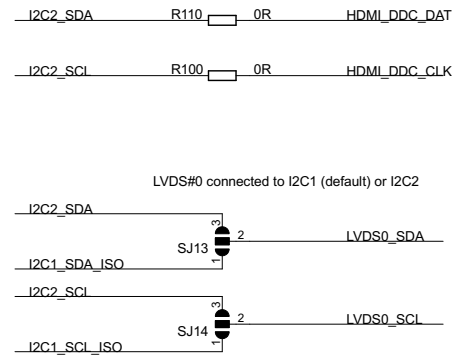
I2C Connections

I2C1

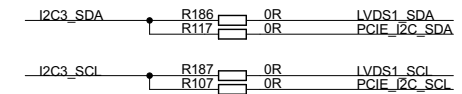


Audio codec: WM8731SEDS
8-bit I2C address (0x34/0x35): 0.0.1.1.0.1.0.RW
7-bit I2C address (0x1A): 0.0.1.1.0.1.0

I2C2



I2C3



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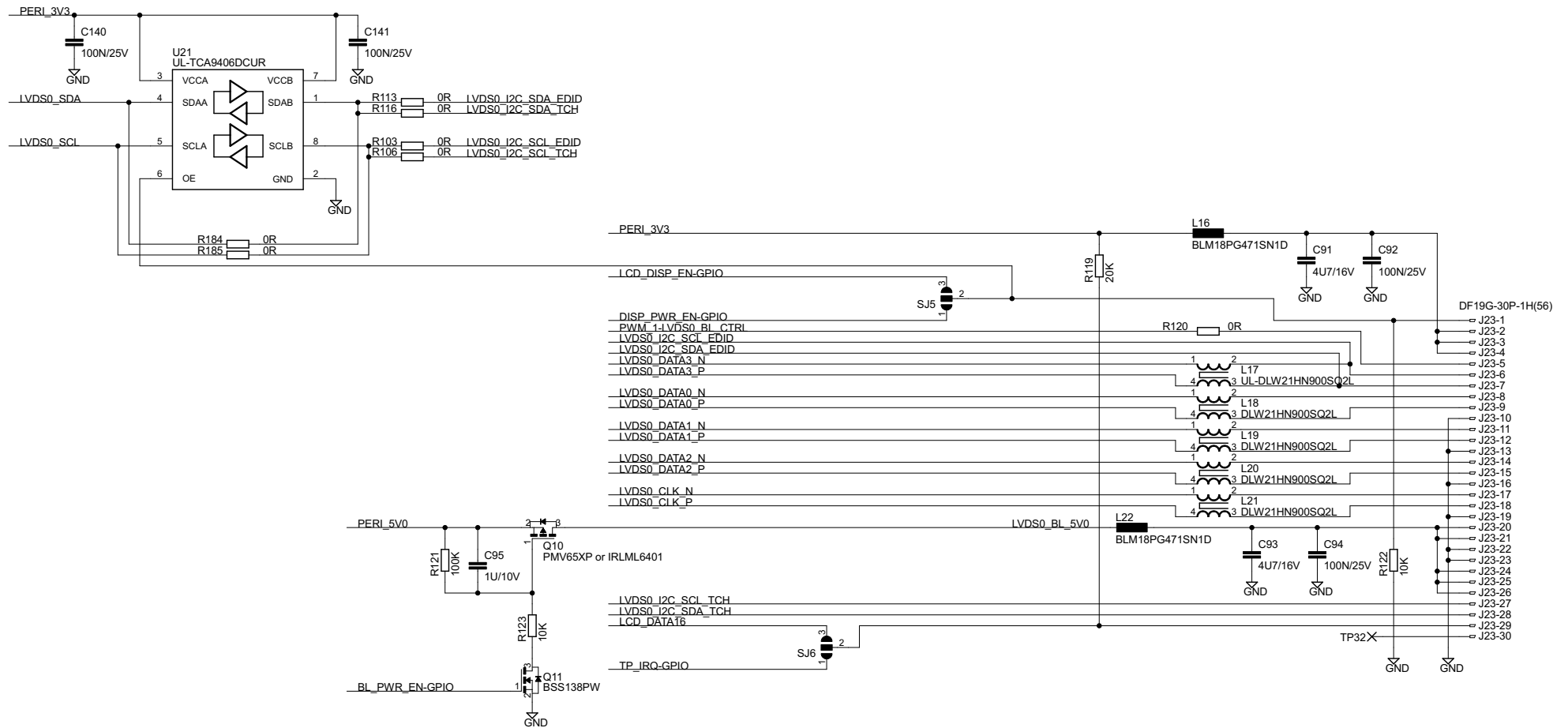
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LVDS Interface #0



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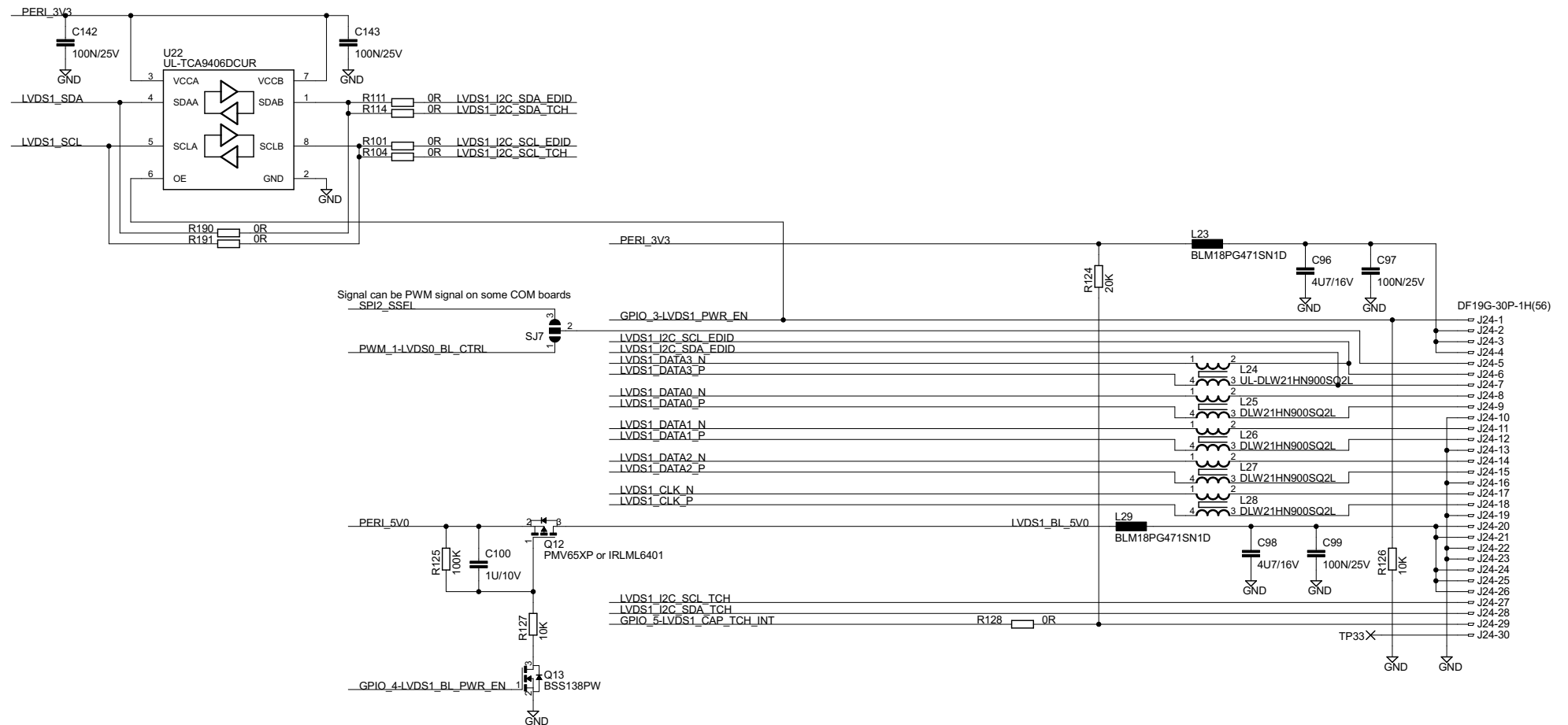
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LVDS Interface #1



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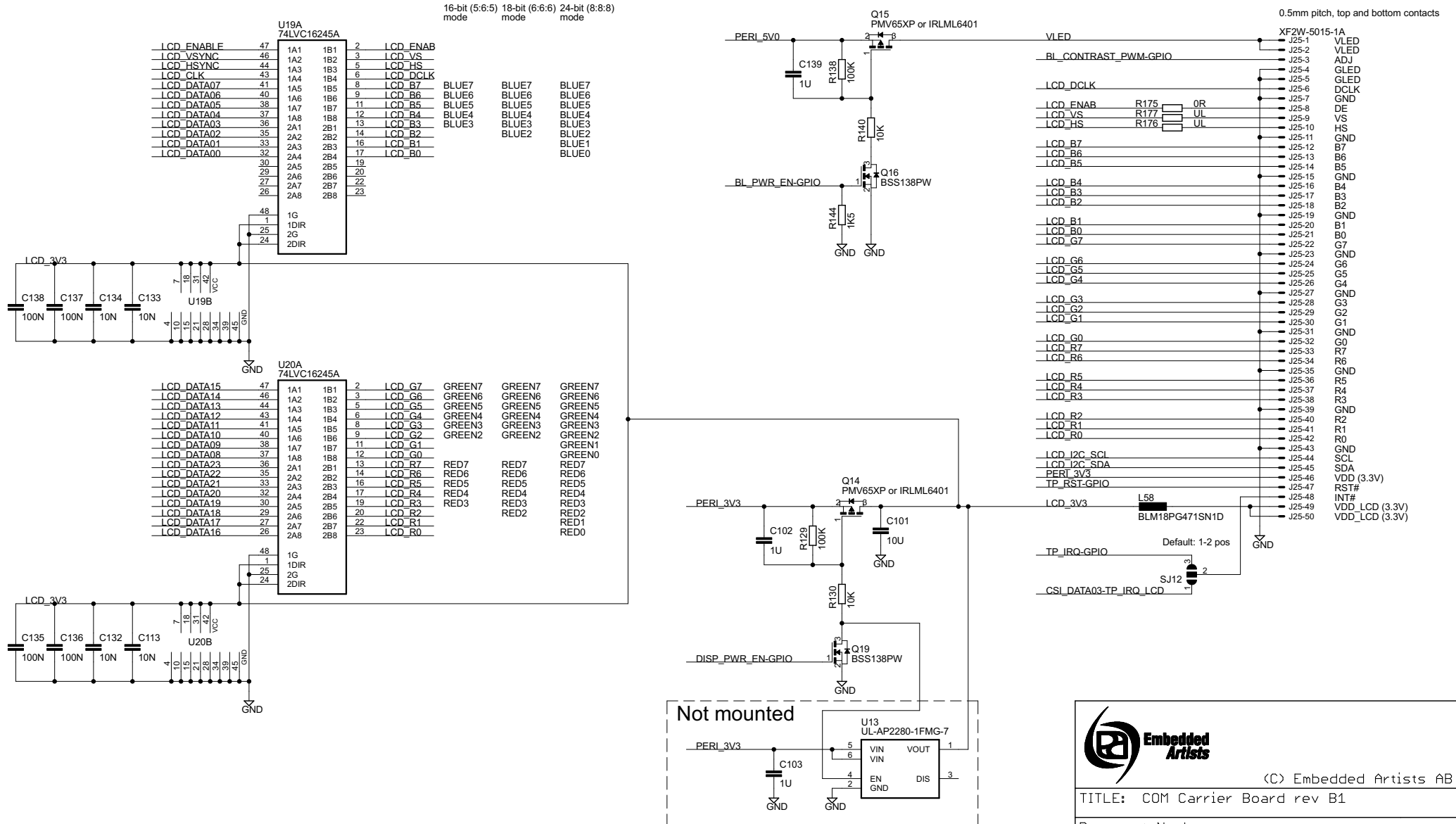
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Parallel LCD Interface



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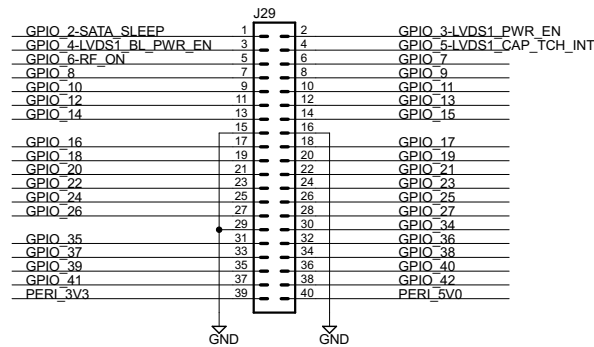
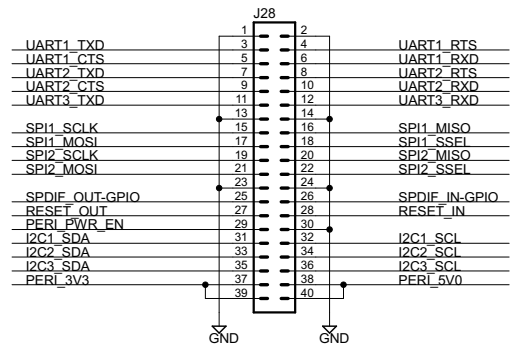
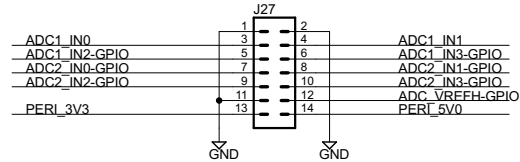
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Expansion Connectors

Expansion Connectors (50mil pitch)



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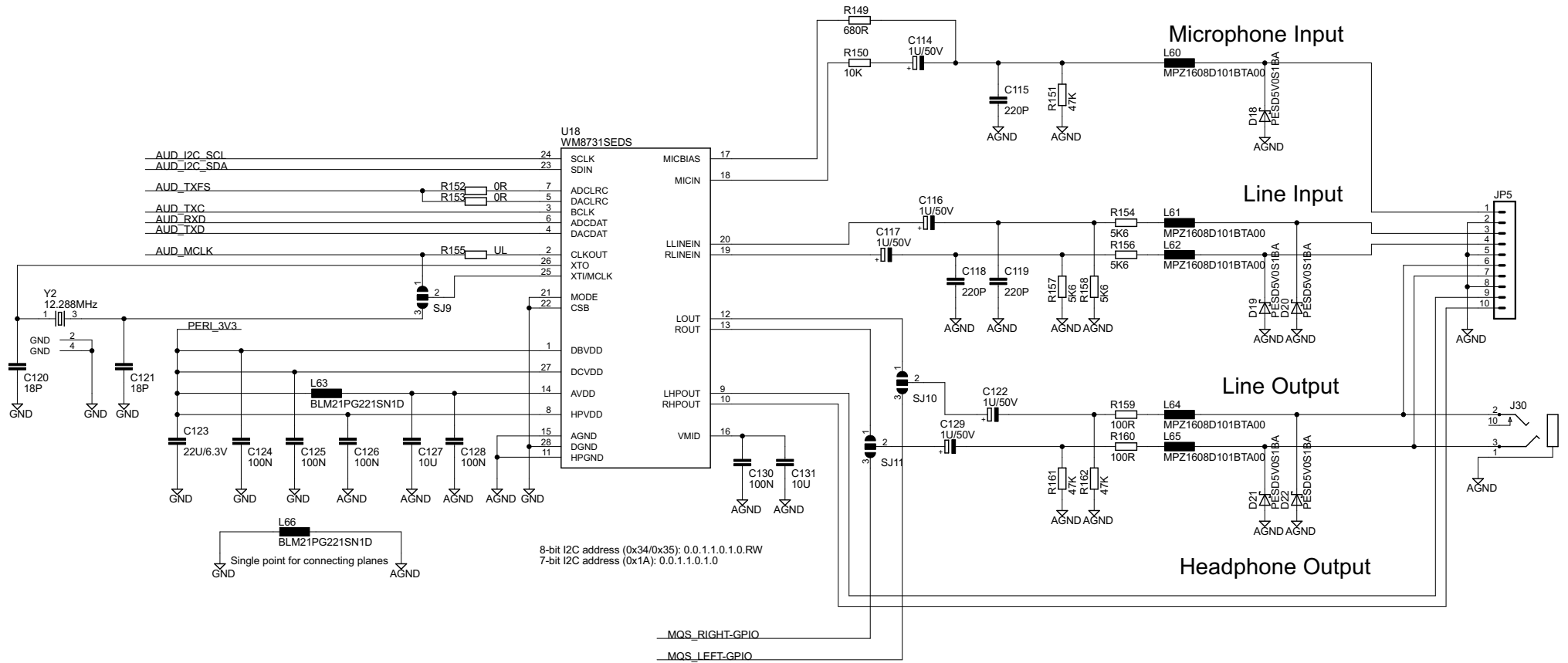
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Audio Interface



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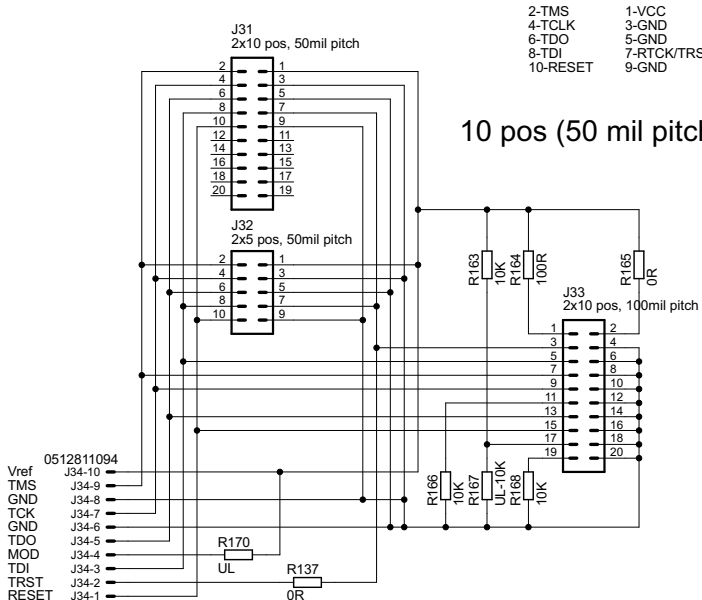
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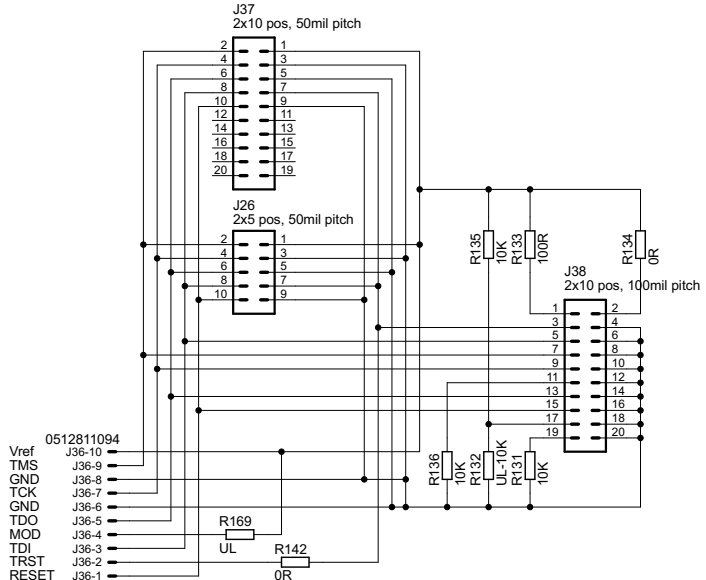
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Debug Interfaces

JTAG Debug Interfaces ARM 10-pin interface JTAG Mode



ARM 20-pin interface JTAG Mode



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