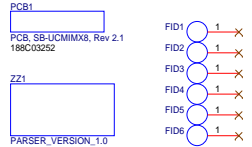
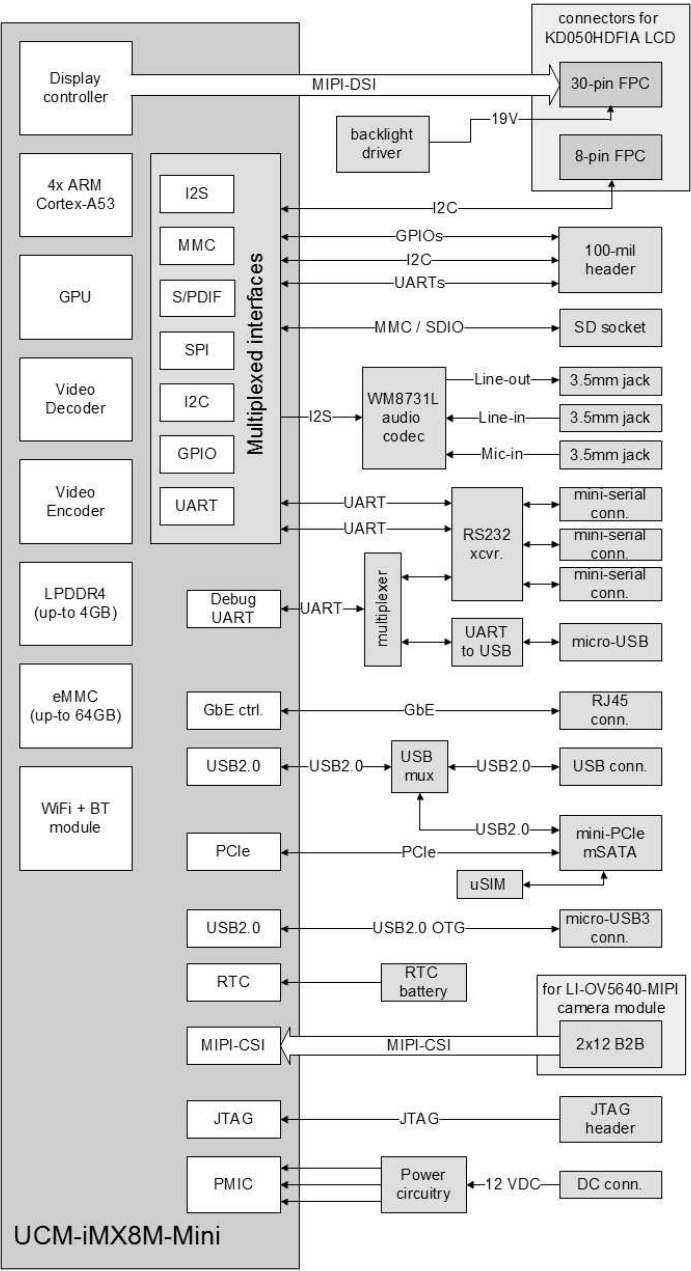


SB-UCM-MX8M

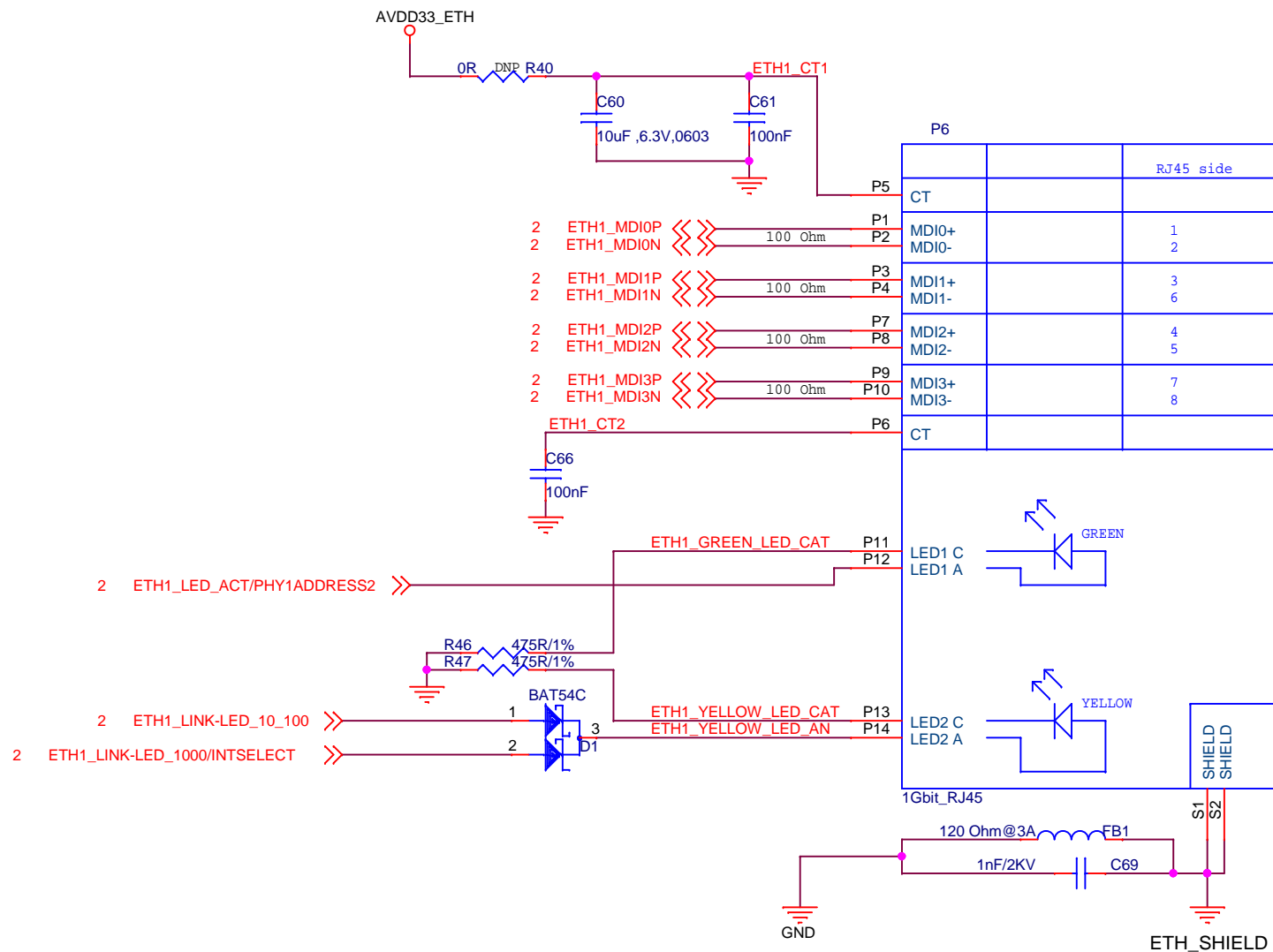
BOARD REVISION: 2.0

PAGE	DESCRIPTION
01	Index
02	Carrier-board interface
03	Gigabit Ethernet
04	USB
05	Audio
06	JTAG, CSI, GPIO expander
07	MIPI LCD
08	PCIe
09	Power
10	UART, RS232, SD, EEPROM
11	Mechanical
12	ALT Boot

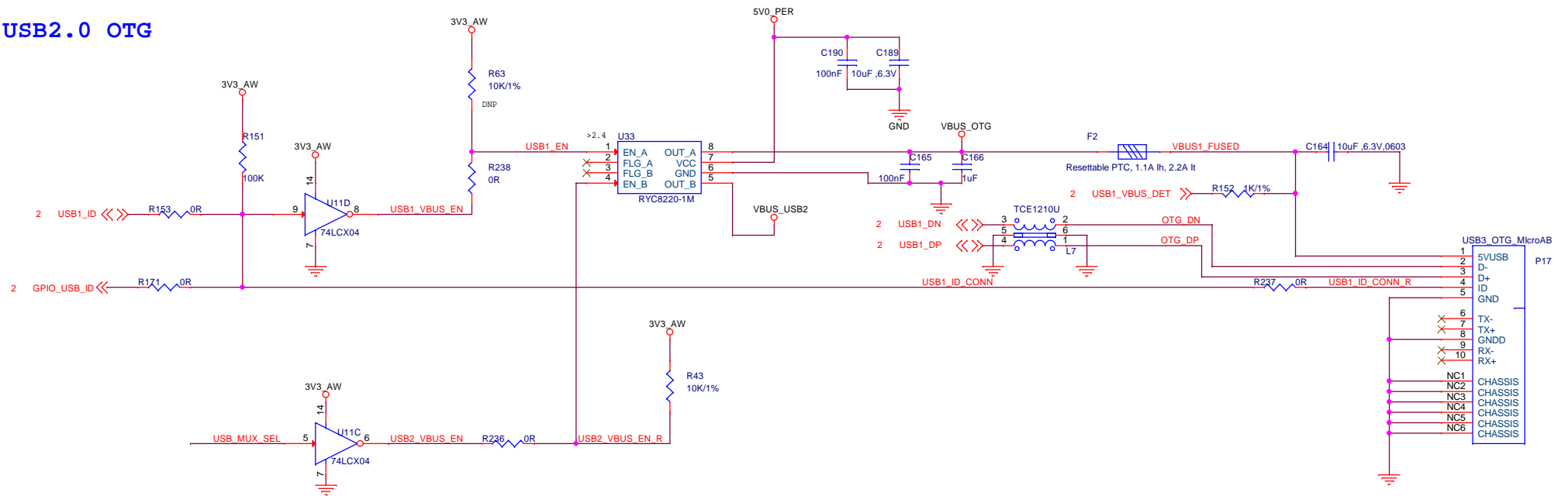




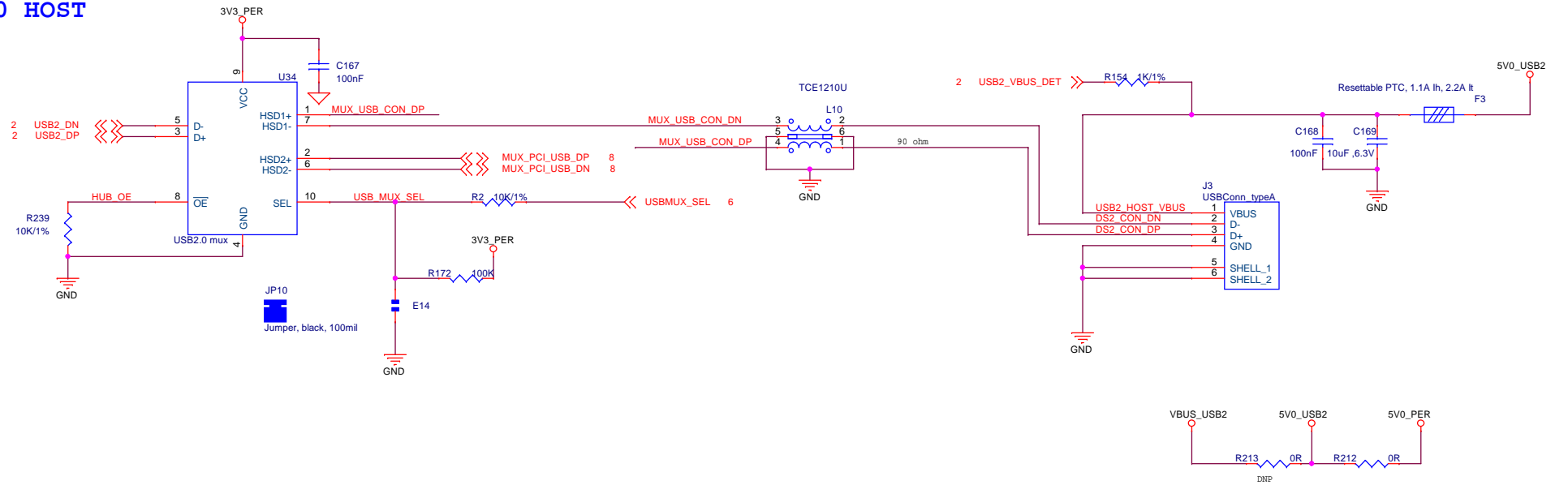
## Ethernet connector



## USB2.0 OTG

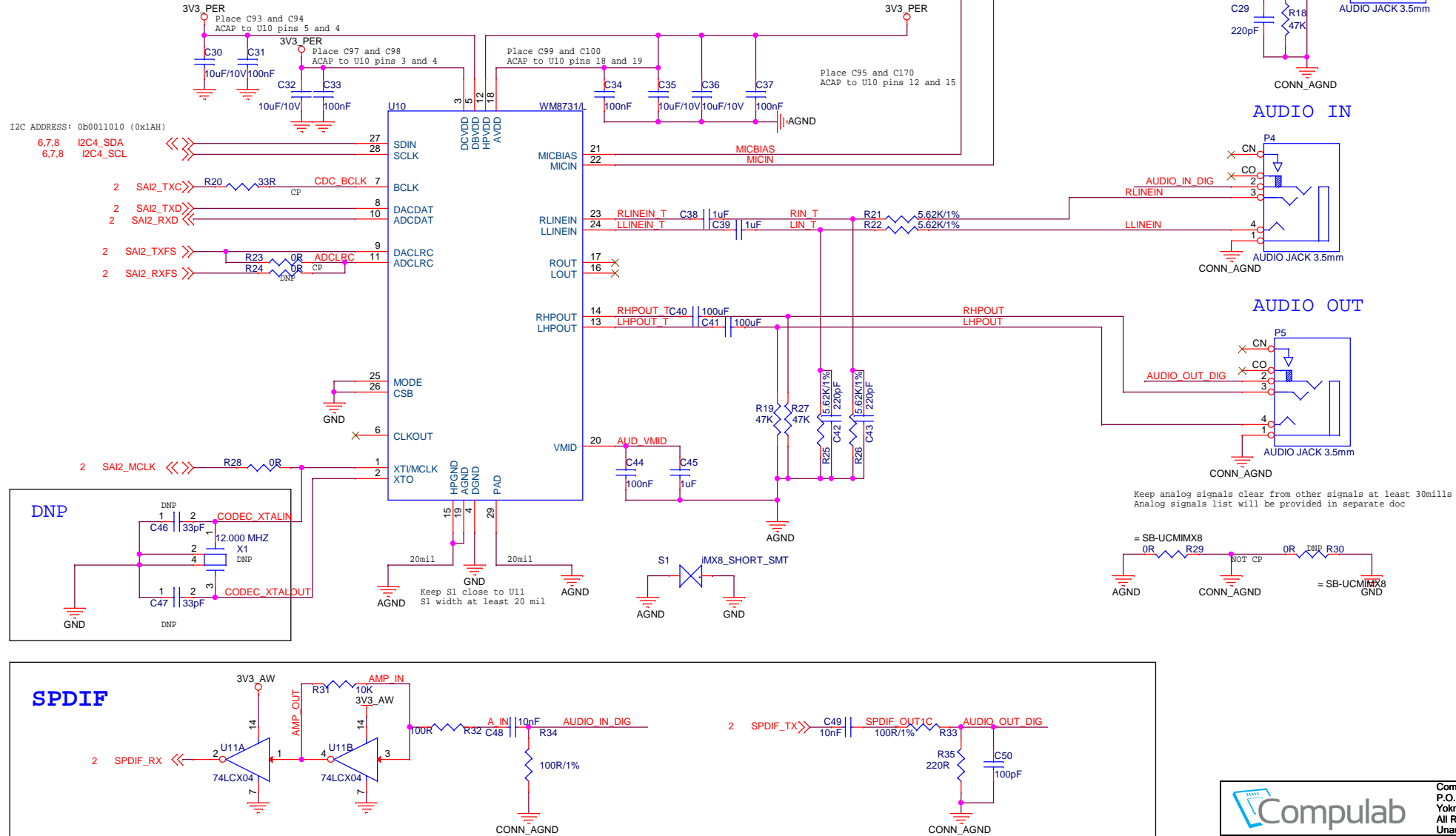


## USB2.0 HOST

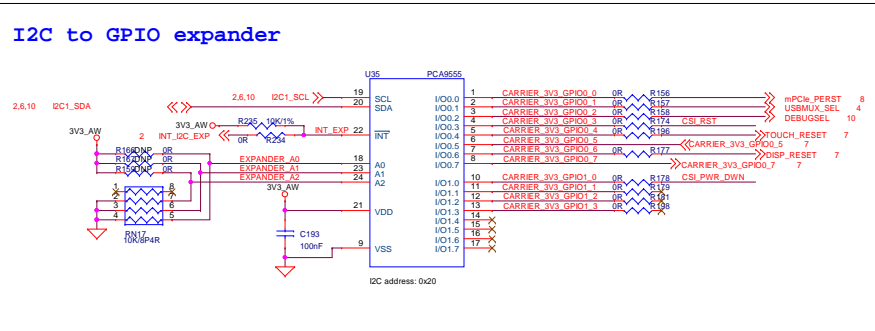


# Audio Codec

POWER CONSUMPTION:  
 DVDD = 1.5mA @ 3.3V (typ)  
 DCVDD = 3.2mA @ 1.5V (typ) ==> assuming same current @ 3.3V  
 HPVDD = 1.7mA @ 3.3V (typ)  
 AVDD = 13.1mA @ 3.3V (typ)  
 1.5+3.2+1.7+13.1=19.5mA @ 3.3V (typ):  
 Assuming worst case is 50mA @ 3.3V



## JTAG



## I2C connection provision

The diagram illustrates the I2C connection provision for the QCA4030. It shows the connection of the QCA4030's I2C pins (SCL, SDA, CM) to the system's 3V3 power and ground rails. The diagram includes pull-up resistors (R200, R201, R202, R203, R204) and termination resistors (R190, R188, R189, R187) with their respective values and tolerances. The QCA4030 is represented by a block with pins labeled QCA4\_SCL, QCA4\_SDA, QCA4\_CM, QCA4\_SCL\_CM, and QCA4\_SDA\_CM.

Component	Value	Tolerance
R190	4.75K	1%
R188	4.75K	1%
R189	4.75K	1%
R187	4.75K	1%
R200	2.610	-
R201	2.610	-
R202	5.67.8	-
R203	5.67.8	-
R204	5.67.8	-

LI-OV5640 camera module connector

Camera module: LI-OV5640-M01-AF  
Default I2C address (SCCB slave ID): 0x78

3V3\_PER

100nF C72

VSB\_1V8

2.2k R54

2.2k R56

5.6.7.8 DC4\_SDA

5.6.7.8 DC4\_SCL

CAM\_SCGB\_EN 6

VSB\_1V8

R58 10k/1%

C77 1uF

TXS0102 U14

VCCB VCCA

B1 A1

B2 A2

OE GND

U14

GND

CARRIER DC\_SDA\_1V8

CARRIER DC\_SCL\_1V8

CSL\_RST

VSB\_1V8

R69 10k/1%

VSB\_2V8

R62 10k/1%

1uF C79

ND5333N Q1

PWDRN\_CAM\_DLY\_1

VSB\_1V8

VSB\_2V8

R61 100nF

C78

MPICAM\_DVDD1V5

CSL\_P1\_P0

CSL\_P1\_P1

CSL\_P1\_P2

CSL\_P1\_P3

CSL\_P1\_P4

CSL\_P1\_P5

CSL\_P1\_P6

CSL\_P1\_P7

CSL\_P1\_P8

CSL\_P1\_P9

CSL\_P1\_P10

CSL\_P1\_P11

CSL\_P1\_P12

CSL\_P1\_P13

CSL\_P1\_P14

CSL\_P1\_P15

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CSL\_P1\_P19

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CSL\_P1\_P251

CSL\_P1\_P252

CSL\_P1\_P253

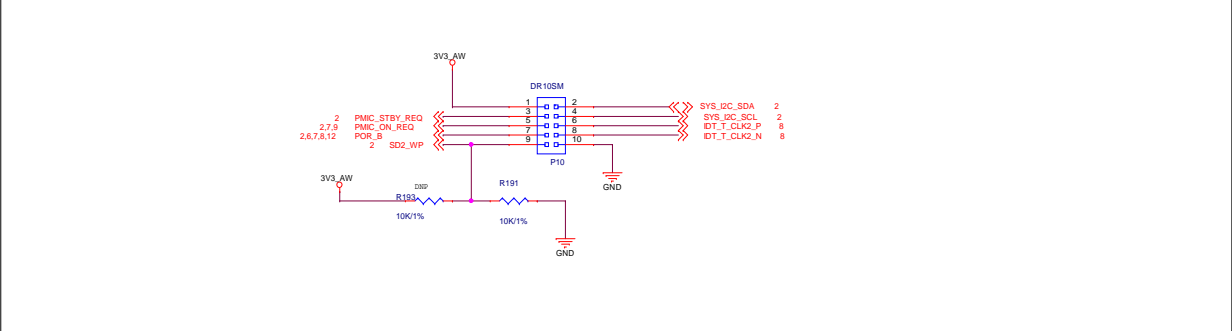
CSL\_P1\_P254

CSL\_P1\_P255

**MISC connectors**

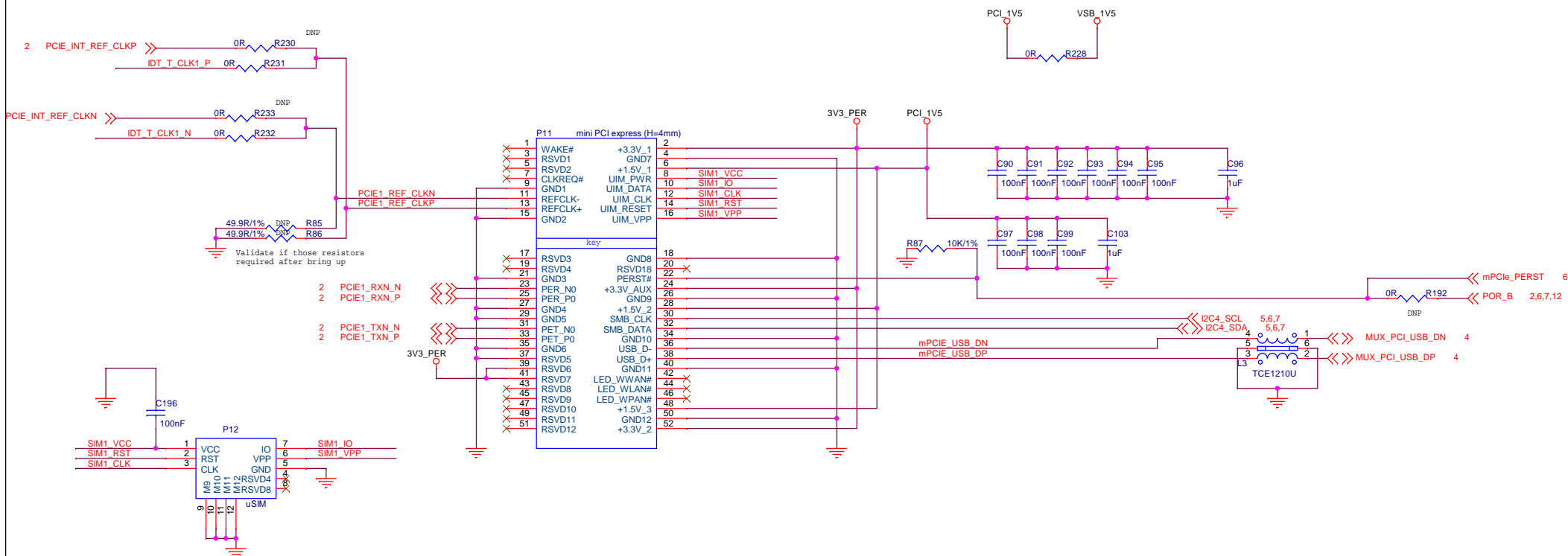
Pin-to-pin connections for the MISC connectors of the DR345M module:

- 2 UART2\_TXD/ECSPB\_S80 ↔ 1 ↔ 2 UART4\_TXD 2,10
- 2 UART2\_RXD/ECSPB\_M80 ↔ 3 ↔ 4 UART4\_RXD 2,10
- 2 SPDIF\_EXT\_CLK ↔ 5 ↔ 6 OSV0\_PER ↔ 7 ↔ 8
- 2,10 UART1\_TXD/ECSPB\_M01 ↔ 9 ↔ 10 SAI1\_TXFS 2
- 2,10 UART1\_RXD/ECSPB\_SCLK ↔ 11 ↔ 12 OSPIA\_DATA2 2
- ↔ 13 ↔ 14 SAI1\_TXC 2
- ↔ 15 ↔ 16 SAI1\_RXFS 2
- 2 SAI1\_RXD0 ↔ 17 ↔ 18 SAI1\_TXD0 2
- 2 SAI1\_RXD1 ↔ 19 ↔ 20 OSPIA\_SCLCK 2
- 2 SAI1\_RXD2 ↔ 21 ↔ 22 SAI1\_TXD1 2
- 2 OSPIA\_DATA1 ↔ 23 ↔ 24 OSPIA\_DATA0 2
- 2 OSPIA\_DATA2 ↔ 25 ↔ 26 SAI1\_TXD2 2
- 2 SAI1\_RXD3 ↔ 27 ↔ 28 OSPIA\_CS0 2
- 2 SAI1\_MCLK ↔ 29 ↔ 30 SAI1\_TXFS 2
- 2,7 LCDOUT\_GPIO1\_IO1 ↔ 31 ↔ 32 SAI1\_RXC 2
- ↔ 33 ↔ 34 GND
- ↔ 35 ↔ 36 DR345M P20
- ↔ 37 ↔ 38 I2C3\_SCL 2
- ↔ 39 ↔ 40 I2C3\_SDA 2
- 2 CSI\_P1\_DN2 ↔ 1 ↔ 2 I2C4\_SCL\_CM 2
- 2 CSI\_P1\_DP2 ↔ 3 ↔ 4 I2C4\_SDA\_CM 2
- 2 CSI\_P1\_DM2 ↔ 5 ↔ 6 ↔ 7 ↔ 8 ↔ 9 ↔ 10 ↔ 11 ↔ 12 ↔ 13 ↔ 14 ↔ 15 ↔ 16 ↔ 17 ↔ 18 ↔ 19 ↔ 20 ↔ 21 ↔ 22 ↔ 23 ↔ 24 ↔ 25 ↔ 26 ↔ 27 ↔ 28 ↔ 29 ↔ 30 ↔ 31 ↔ 32 ↔ 33 ↔ 34 ↔ 35 ↔ 36 ↔ 37 ↔ 38 ↔ 39 ↔ 40 ↔ GND
- 2 SAI2\_TXD ↔ 11 ↔ 12 SAI2\_RXD3 2
- 2 SAI2\_TXC ↔ 13 ↔ 14 SAI2\_RXD1 2
- 2 SAI2\_MCLK ↔ 15 ↔ 16 SAI2\_RXD0 2
- 2 SAI2\_RXC ↔ 17 ↔ 18 SAI2\_MCLK 2
- 2 SAI2\_RXC ↔ 19 ↔ 20 SAI2\_RXFS 2
- 2 SAI2\_TXFS ↔ 21 ↔ 22 ECSPB2\_M80/UART4\_CTS\_B\_CM 2
- 2 SAI2\_RXFS ↔ 23 ↔ 24 ECSPB2\_S80/UART4\_RTS\_B\_CM 2
- 2 GPIO1\_K08 ↔ 25 ↔ 26 ECSPB2\_SCL/UART4\_RX\_CM 2
- 9 V\_S01\_EN ↔ 27 ↔ 28 ECSPB2\_M80/UART4\_TX\_CM 2
- 2 SDA\_HBST ↔ 29 ↔ 30 ECSPB1\_S80 2
- 2 SAI2\_RXC ↔ 31 ↔ 32 ECSPB1\_M80 2
- 2 SAI2\_RXC ↔ 33 ↔ 34 ECSPB1\_M80 2

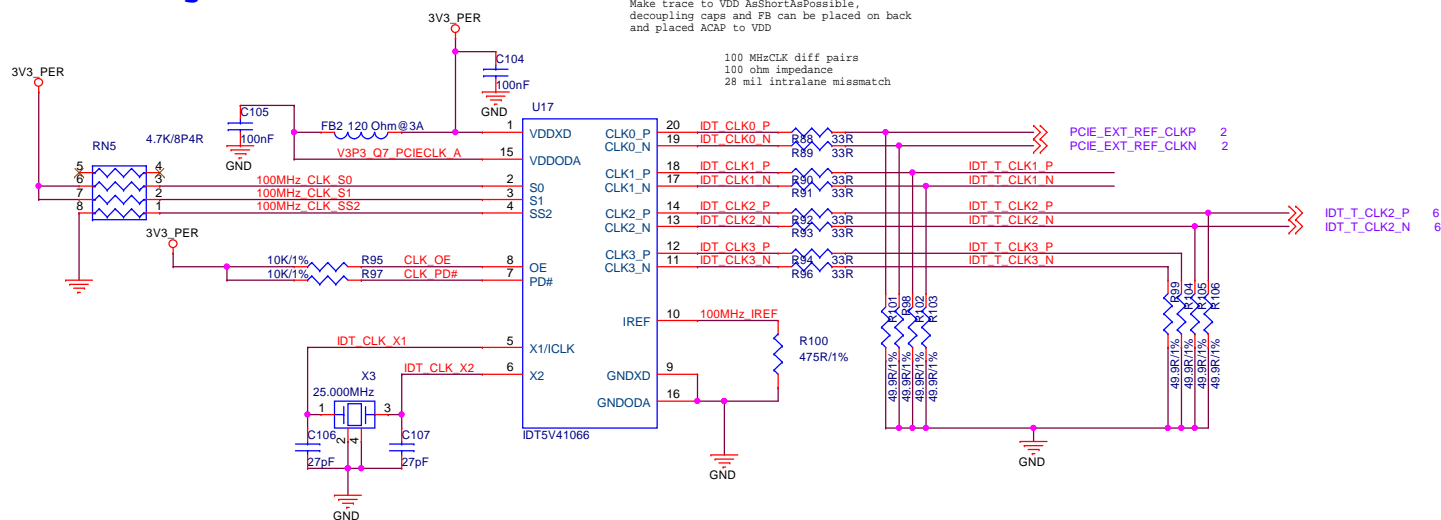




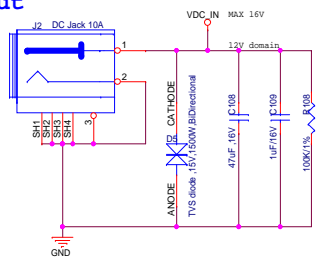
mini PCIe socket & SIM socket



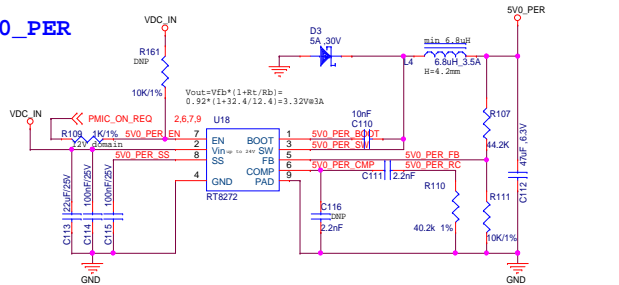
## PCIe clock generator



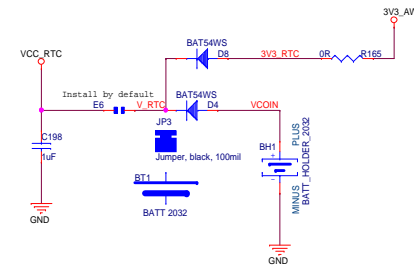
## DC input



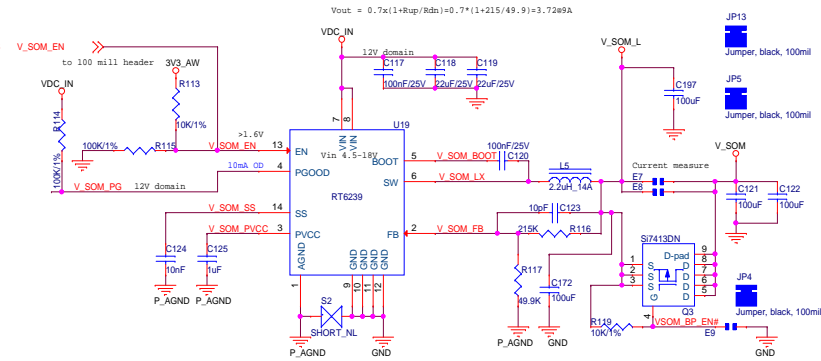
## 5V0\_PER



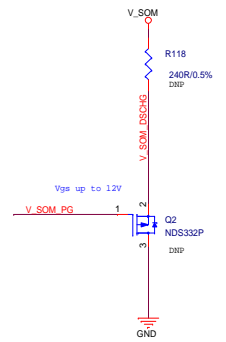
## RTC battery



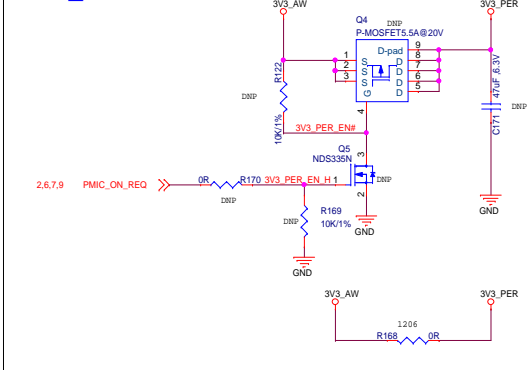
## V\_SOM



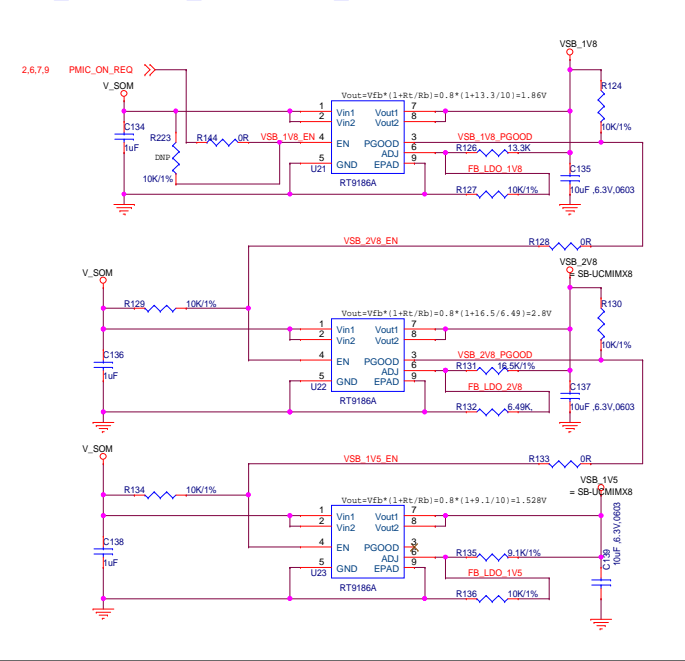
## V\_SOM discharge



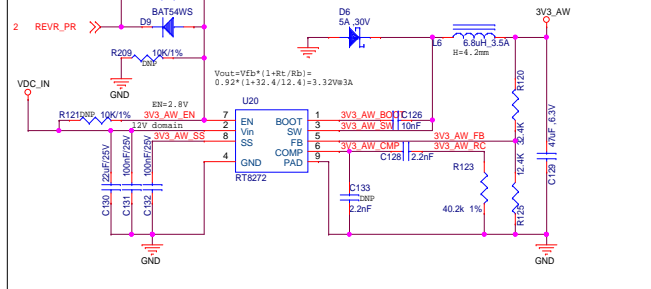
## 3V3\_PER



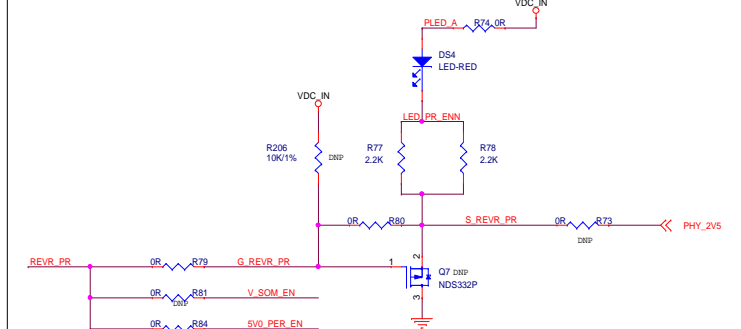
## VS8\_1V5, VS8\_1V8 & VCC\_2V8 CSI sources



## 3V3\_AW

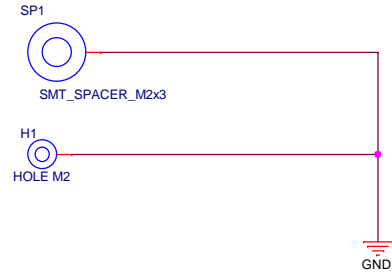


## LED-Reverse Position

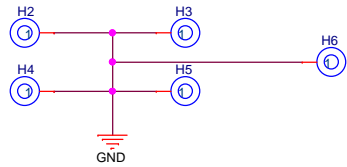




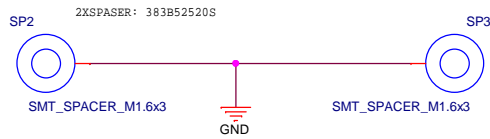
## For PCIe module



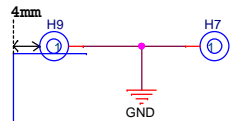
## For carrier-board stand-offs



## UCM-iMX8M-Mini spacers



## Heatsink provision



## Stitching capacitors

