ANKAA_BASE BOARD

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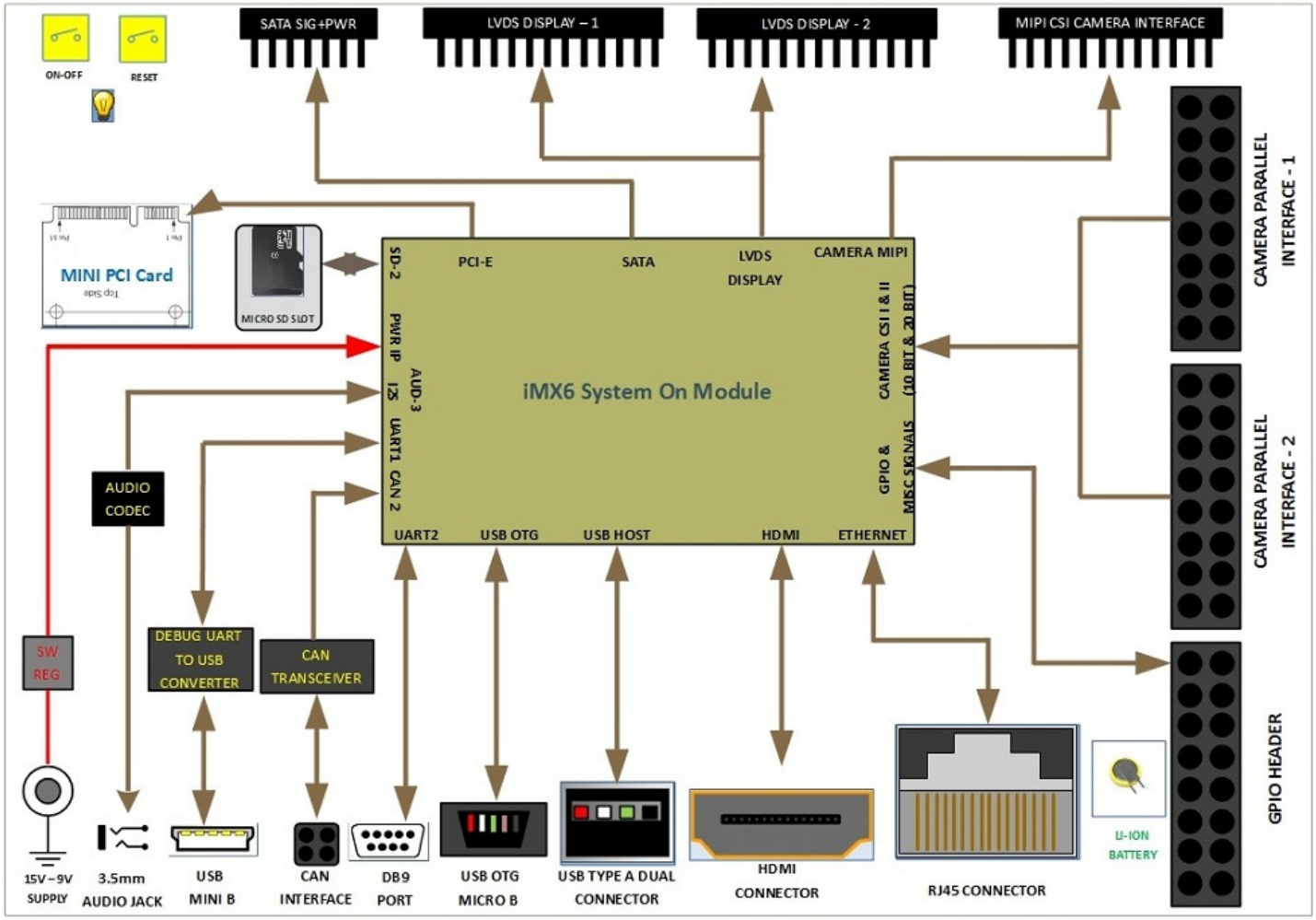
BLOCK DIAGRAM



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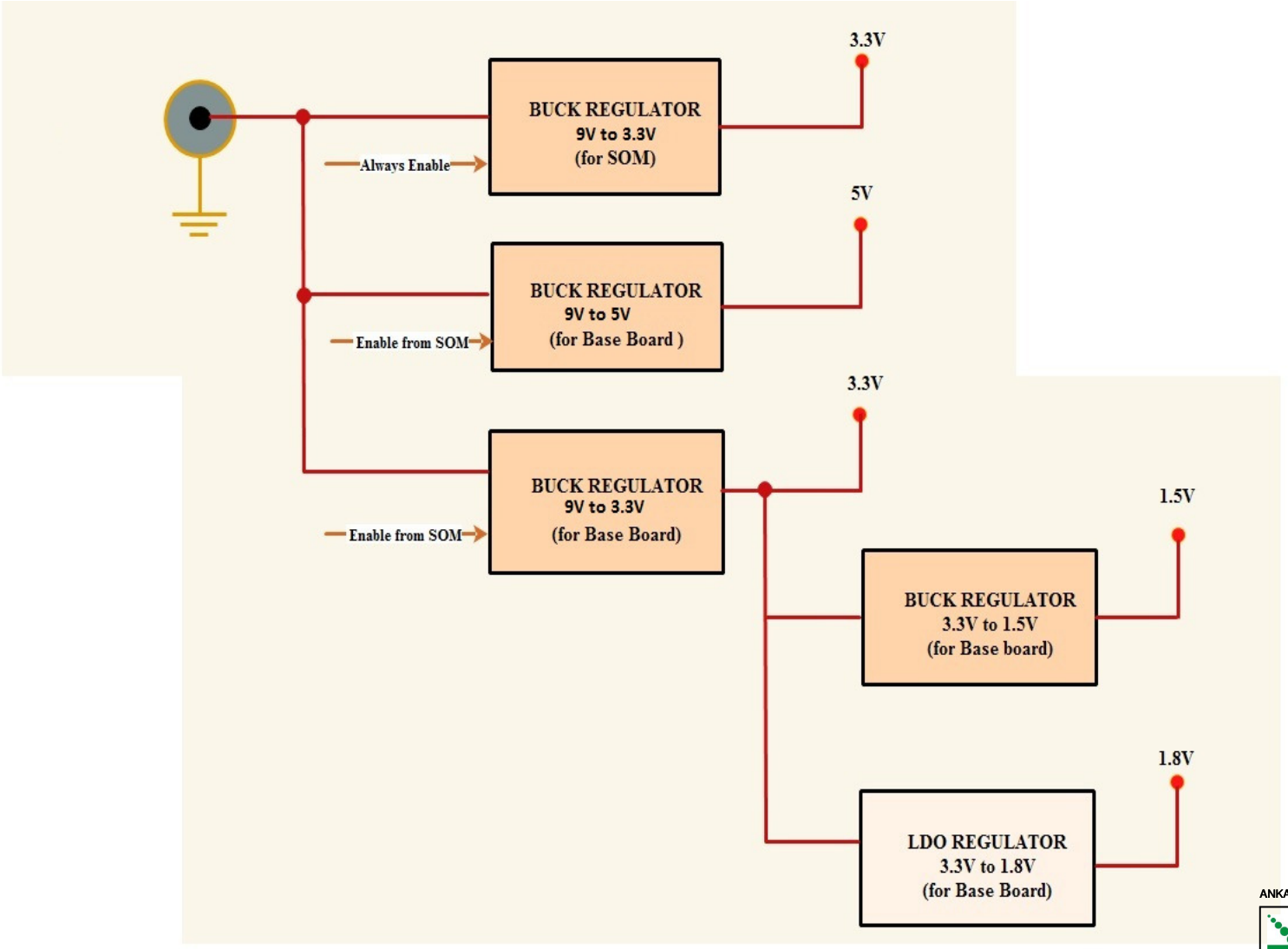
POWER FLOW DIAGRAM



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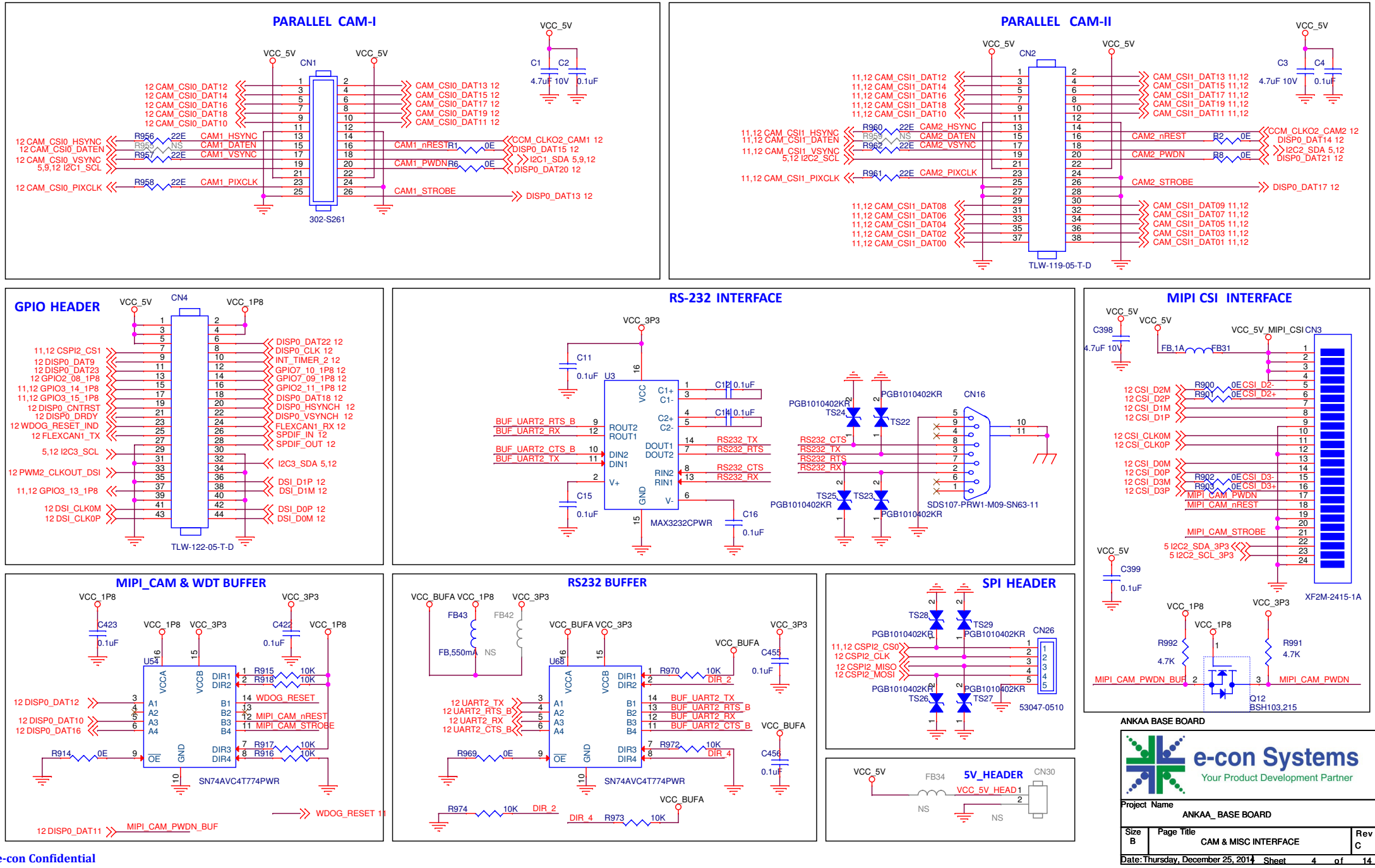
PARALLEL CAM-I
PARALLEL CAM-II
GPIO HEADER
RS-232 INTERFACE
MIPI CSI INTERFACE
MIPI_CAM & WDT BUFFER
RS232 BUFFER
SPI HEADER
5V_HEADER
CN1
CN2
CN4
CN16
CN26
CN30
CN3
302-S261
TLW-119-05-T-D
TLW-122-05-T-D
MAX3232CPWR
SDS107-PRW1-M09-SN63-11
SN74AVC4T774PWR
XF2M-2415-1A
53047-0510
VCC_5V
VCC_3P3
VCC_1P8
VCC_BUFA
MIPI_CAM_PWDN_BUF
WDOG_RESET
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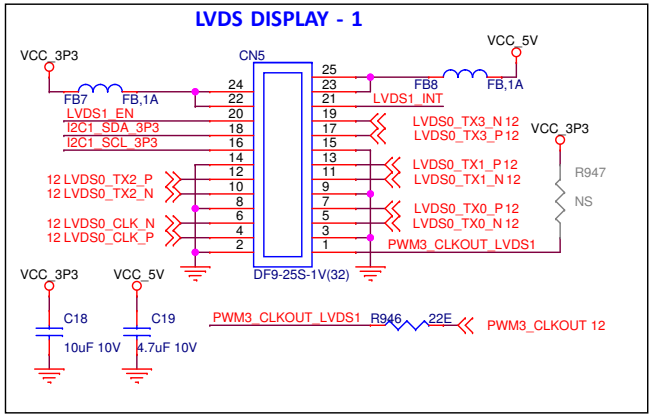

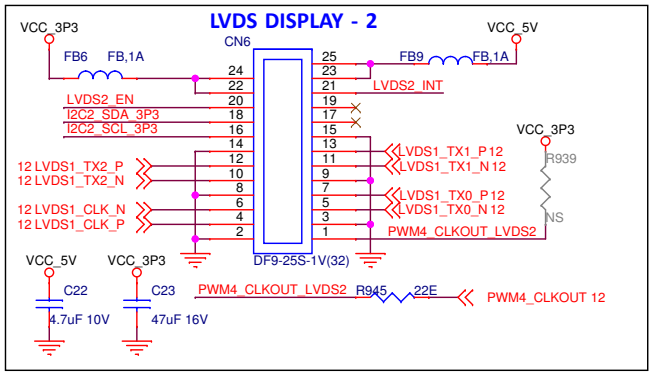

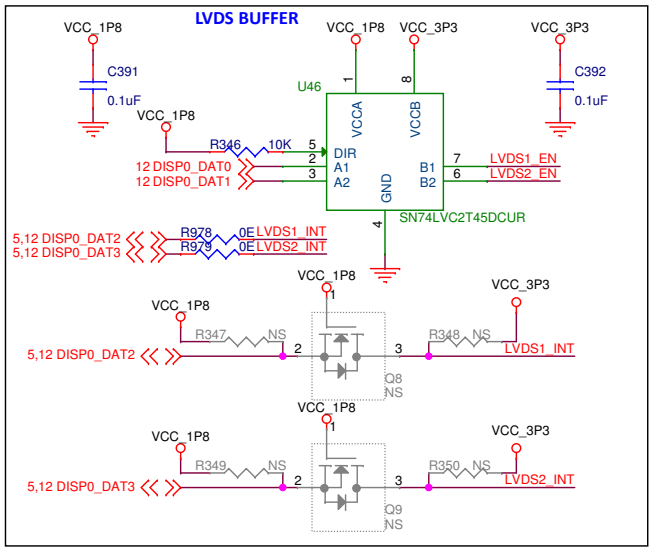

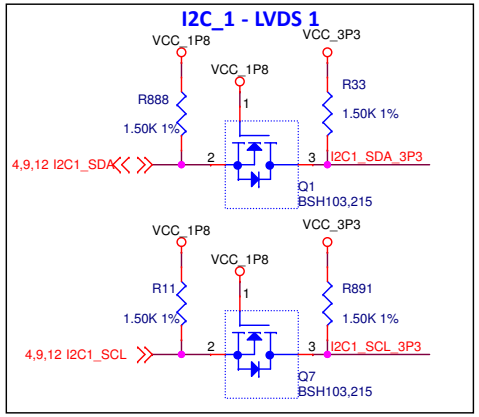

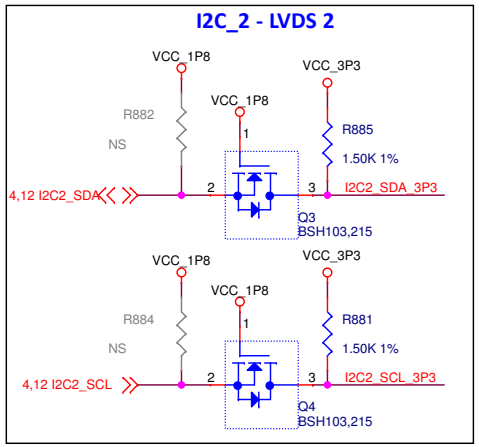

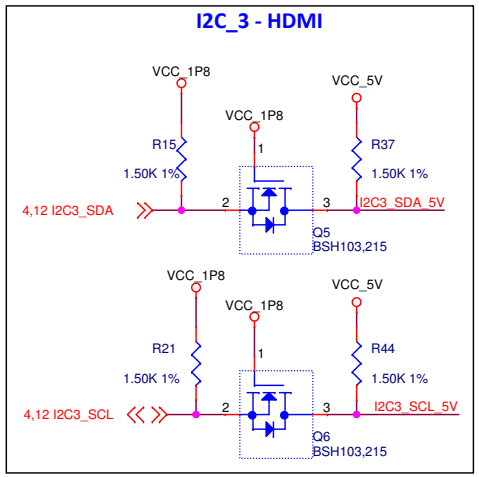

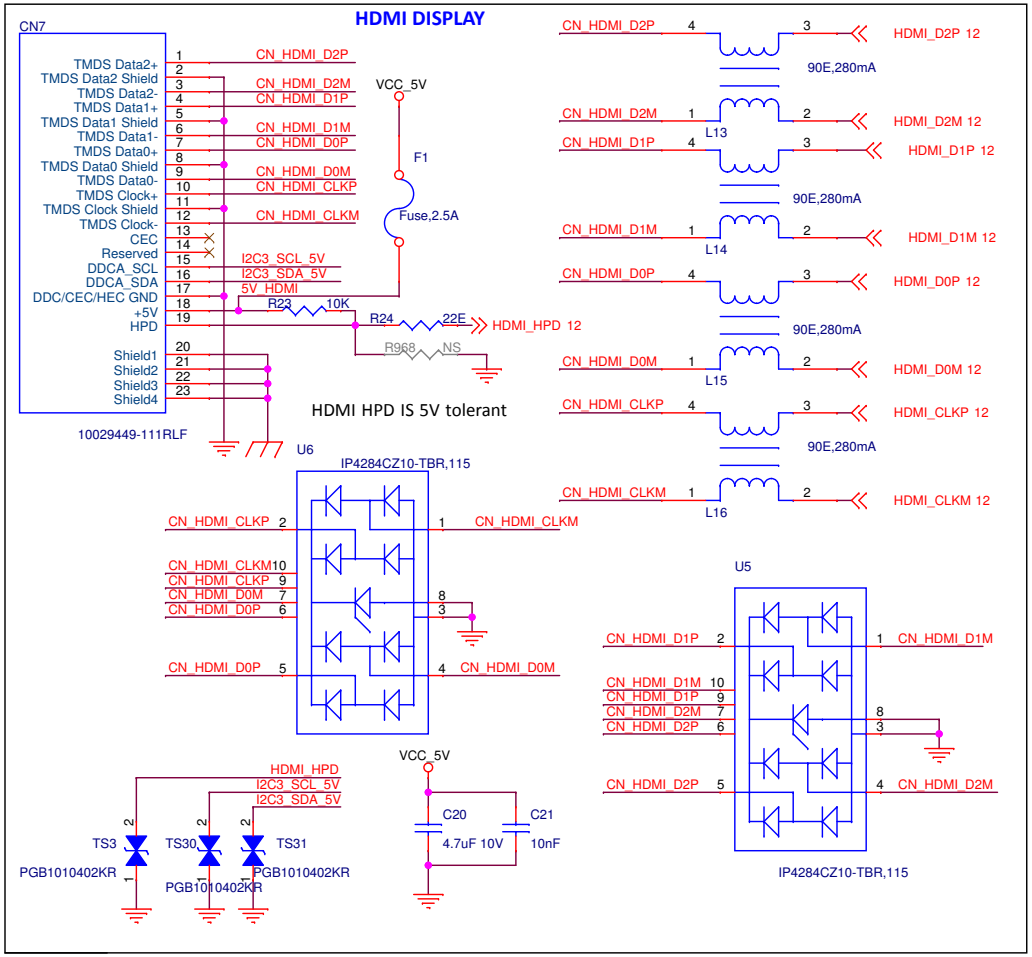

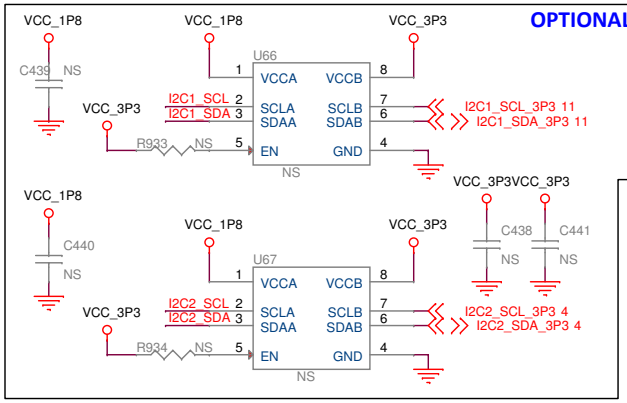

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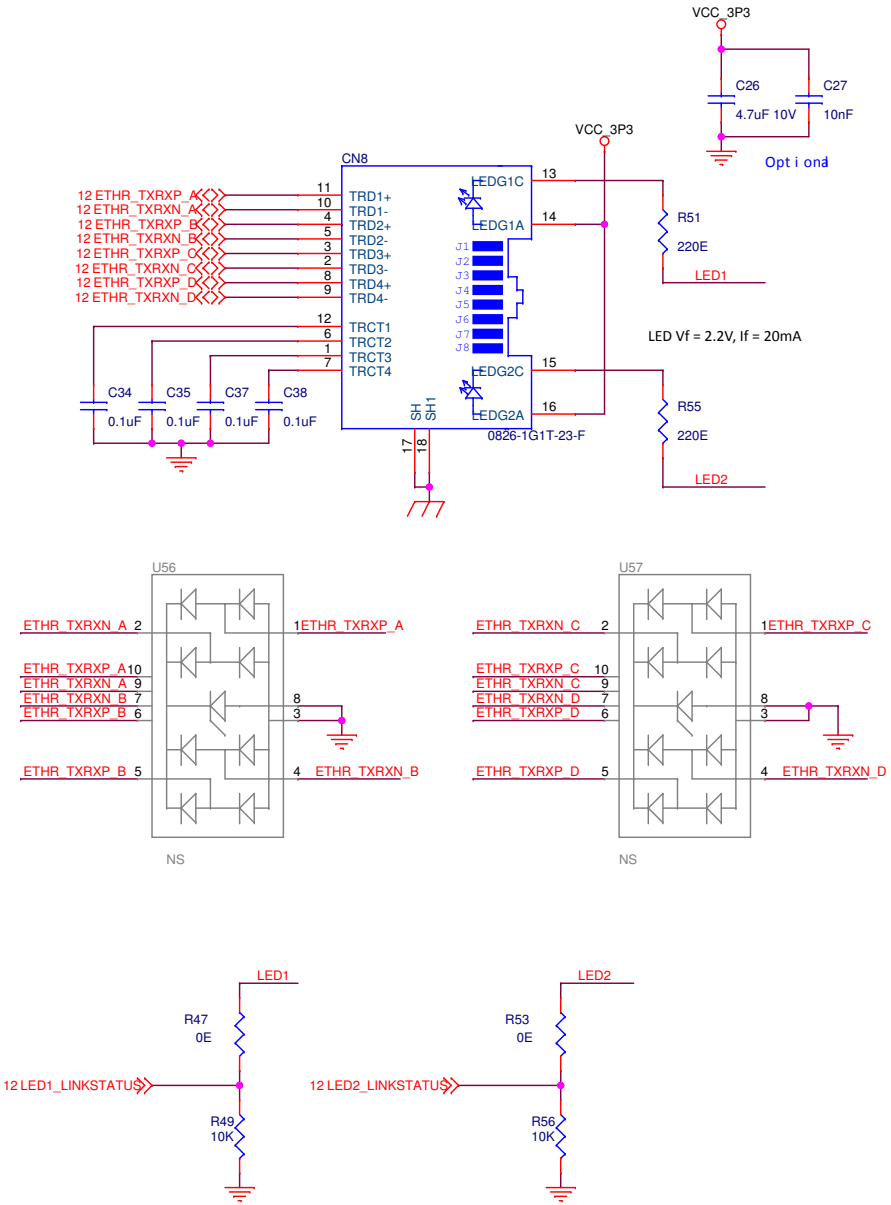
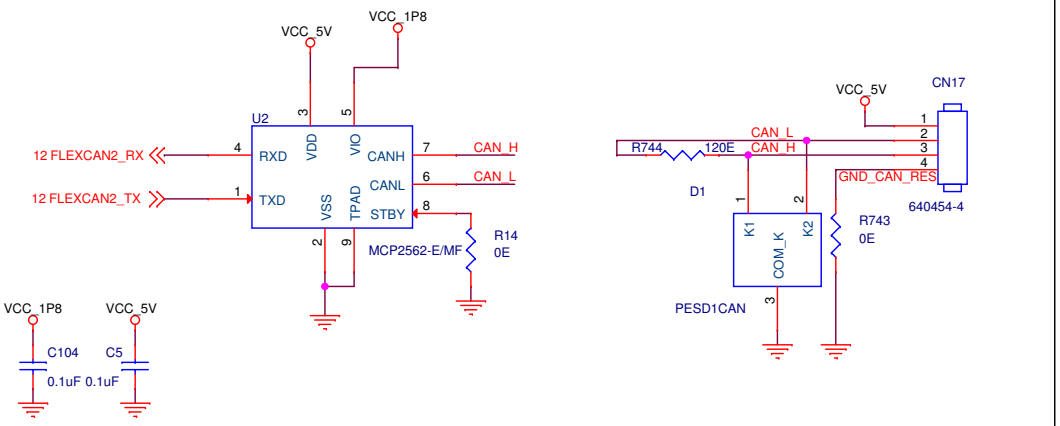
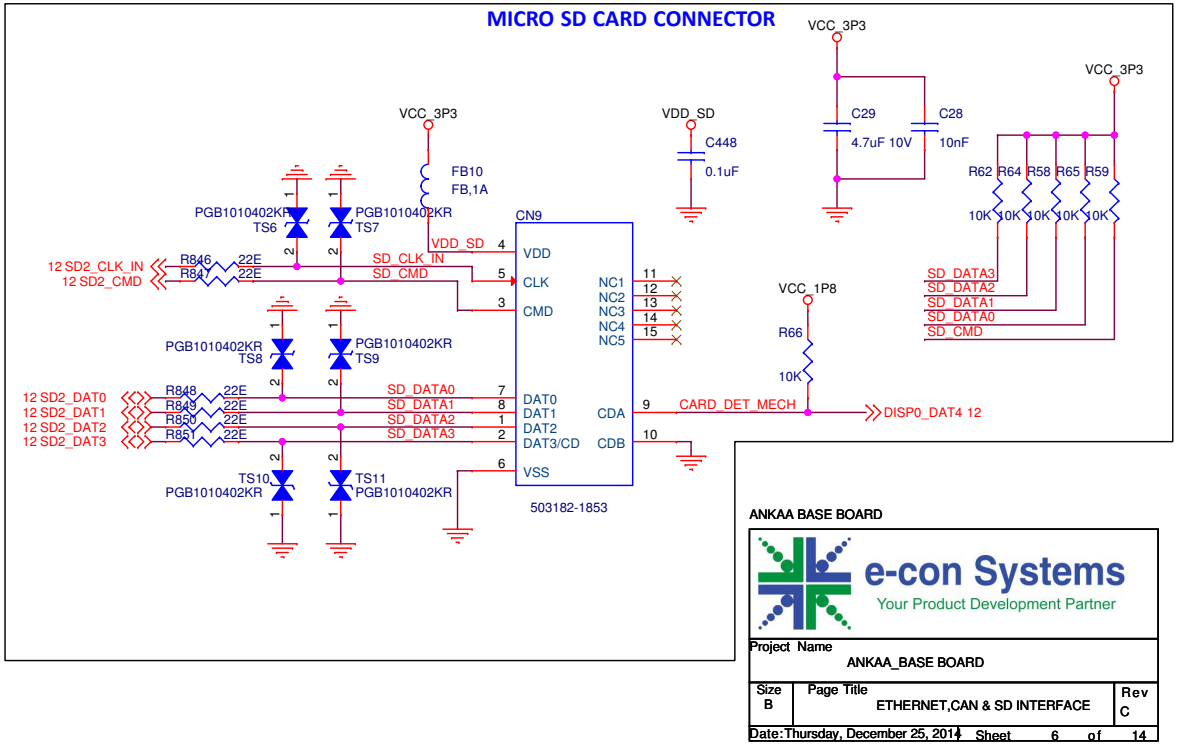
GIGABIT ETHERNET - RJ45 CONNECTOR



CAN INTERFACE



MICRO SD CARD CONNECTOR



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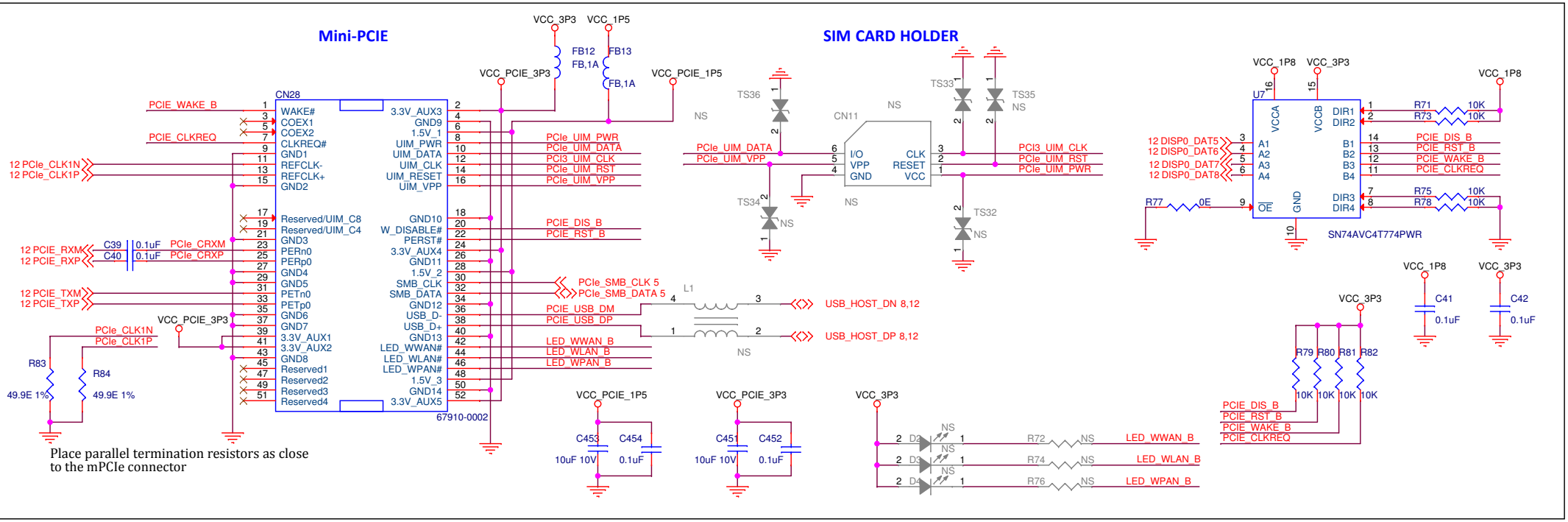
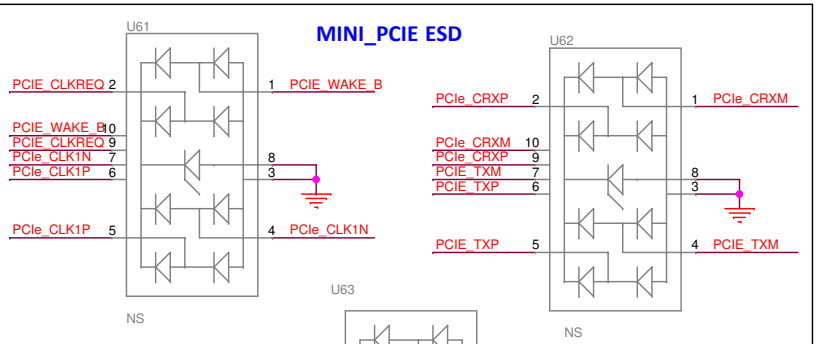
Mini-PCIE



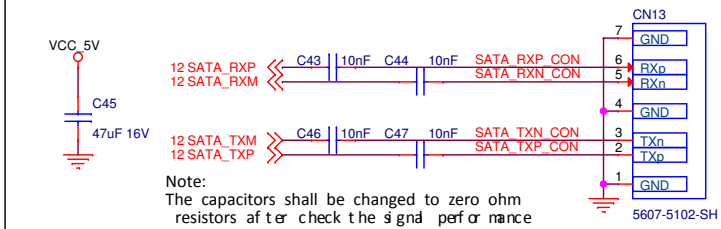
Place parallel termination resistors as close to the mPCIe connector

SIM CARD HOLDER

MINI_PCIE ESD

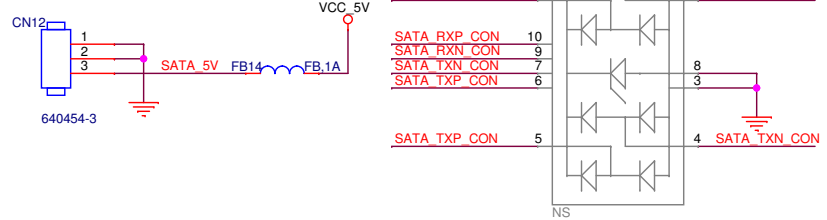


SATA SIGNAL

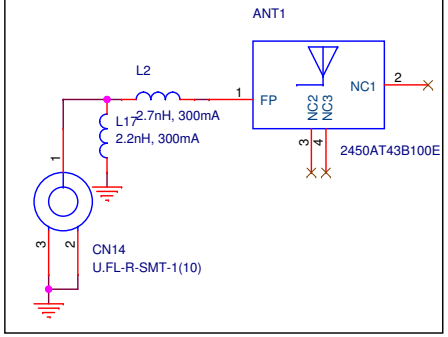


Note:
The capacitors shall be changed to zero ohm resistors after check the signal performance

SATA POWER



OPTIONAL SMT ANTENNA



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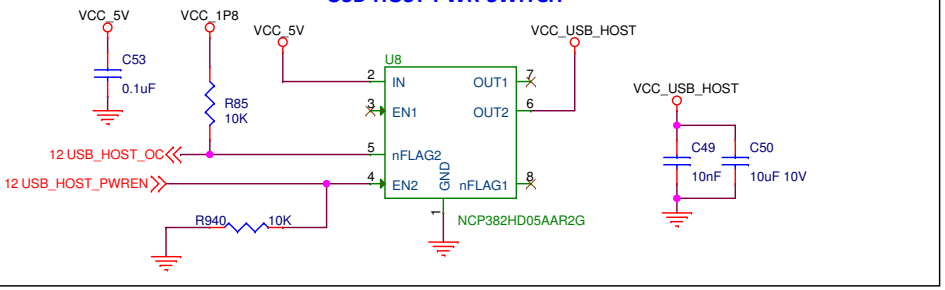
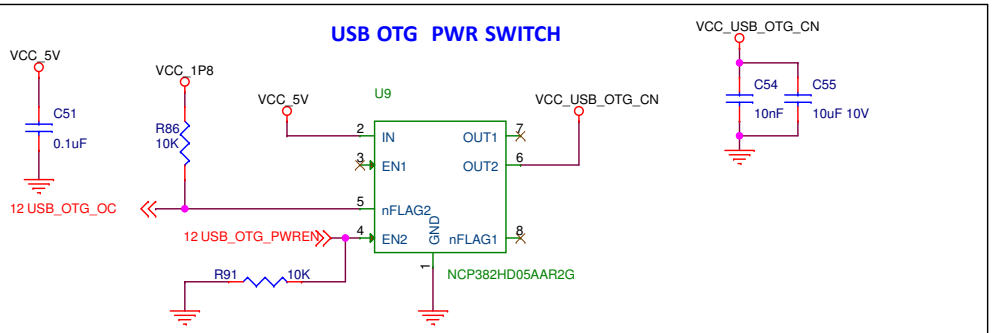
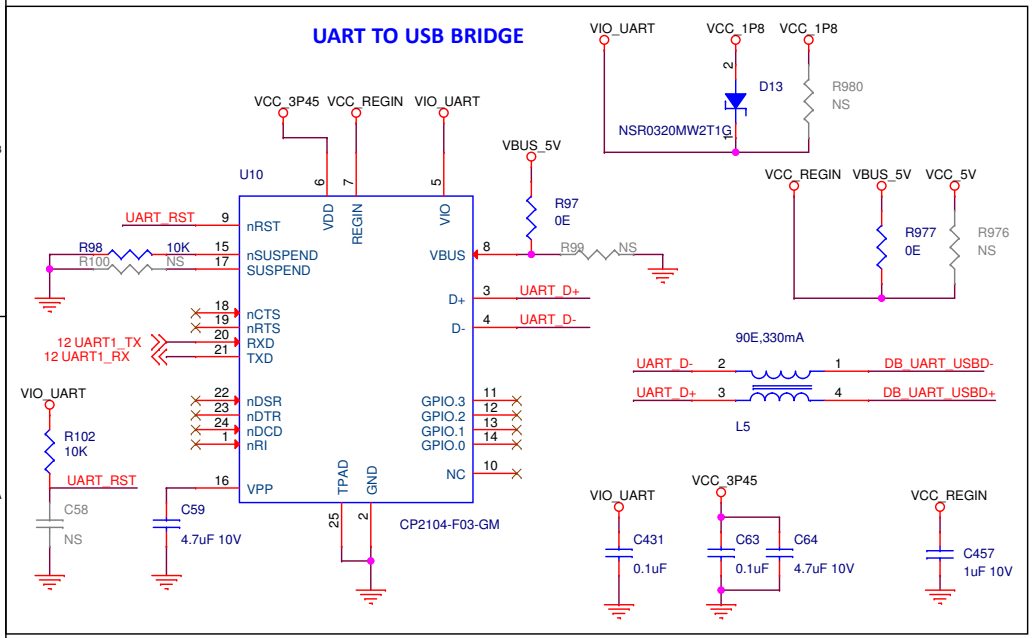
USB HOST PWR SWITCH



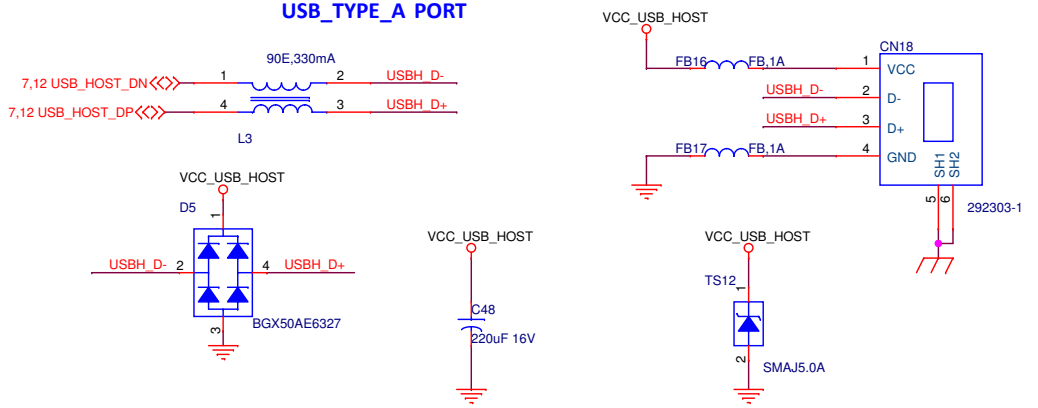
USB OTG PWR SWITCH



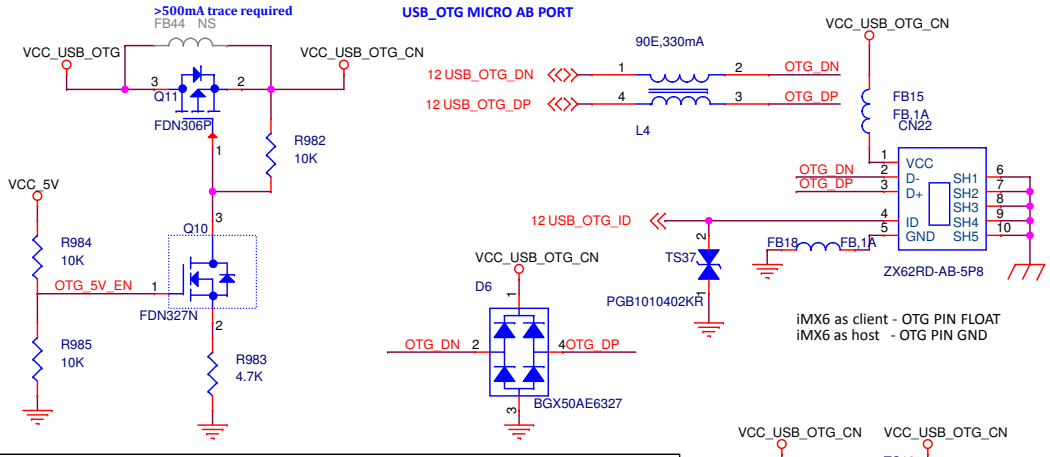
UART TO USB BRIDGE



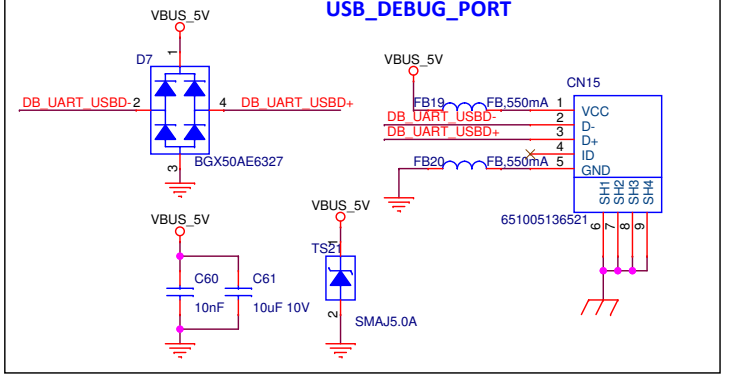
USB_TYPE_A PORT

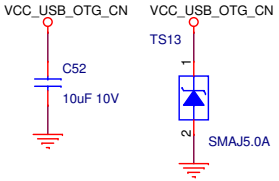


USB_OTG MICRO AB PORT



USB_DEBUG_PORT





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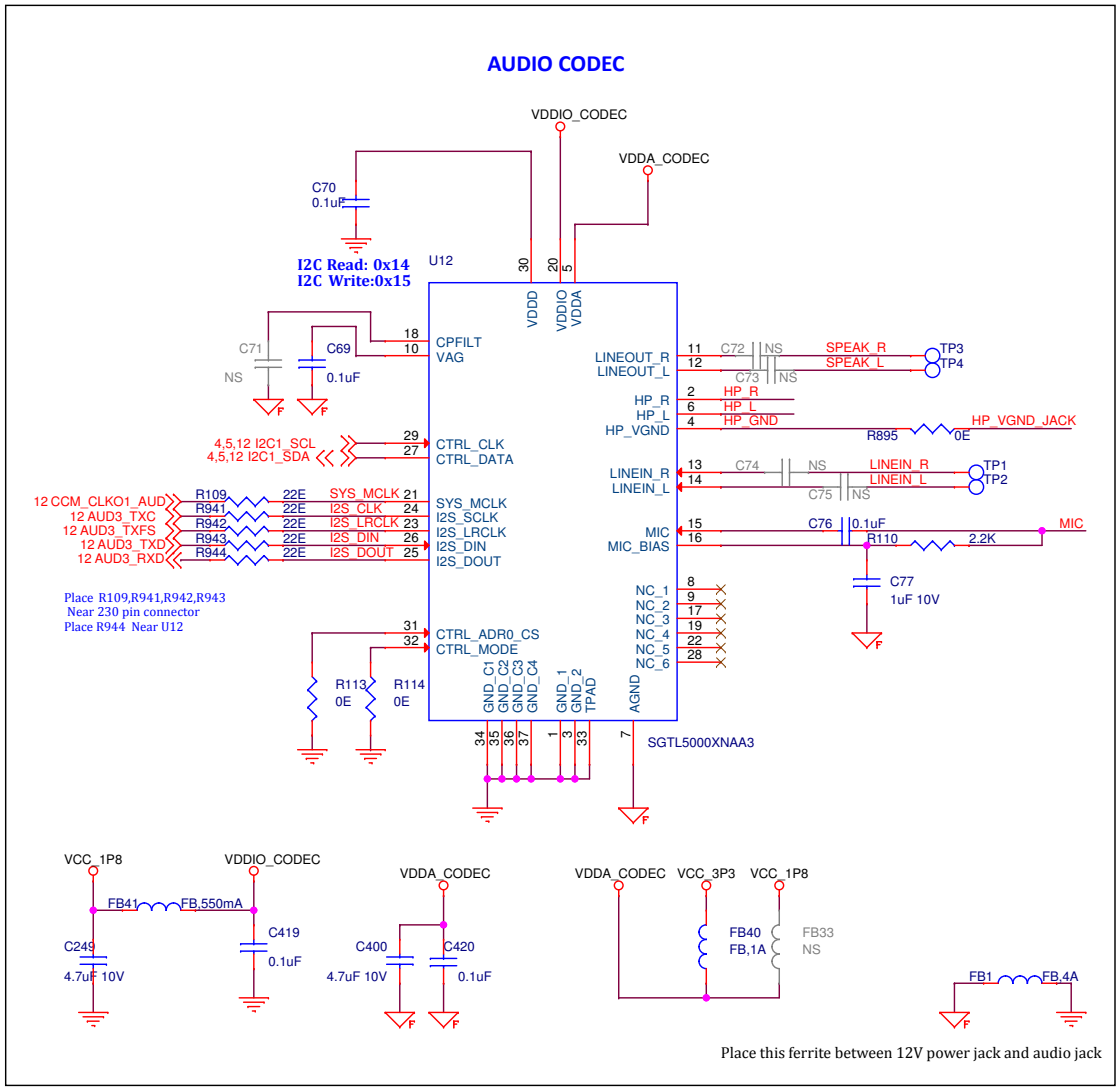

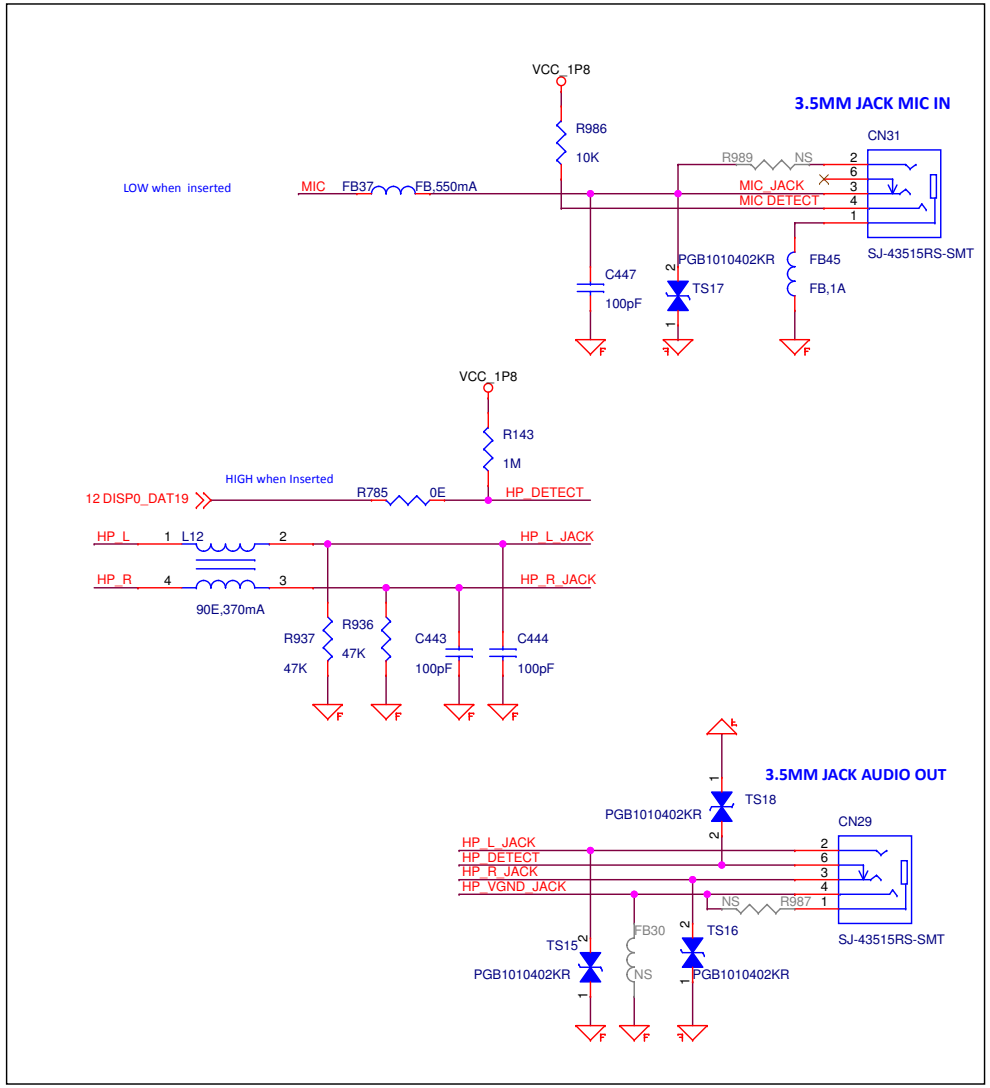

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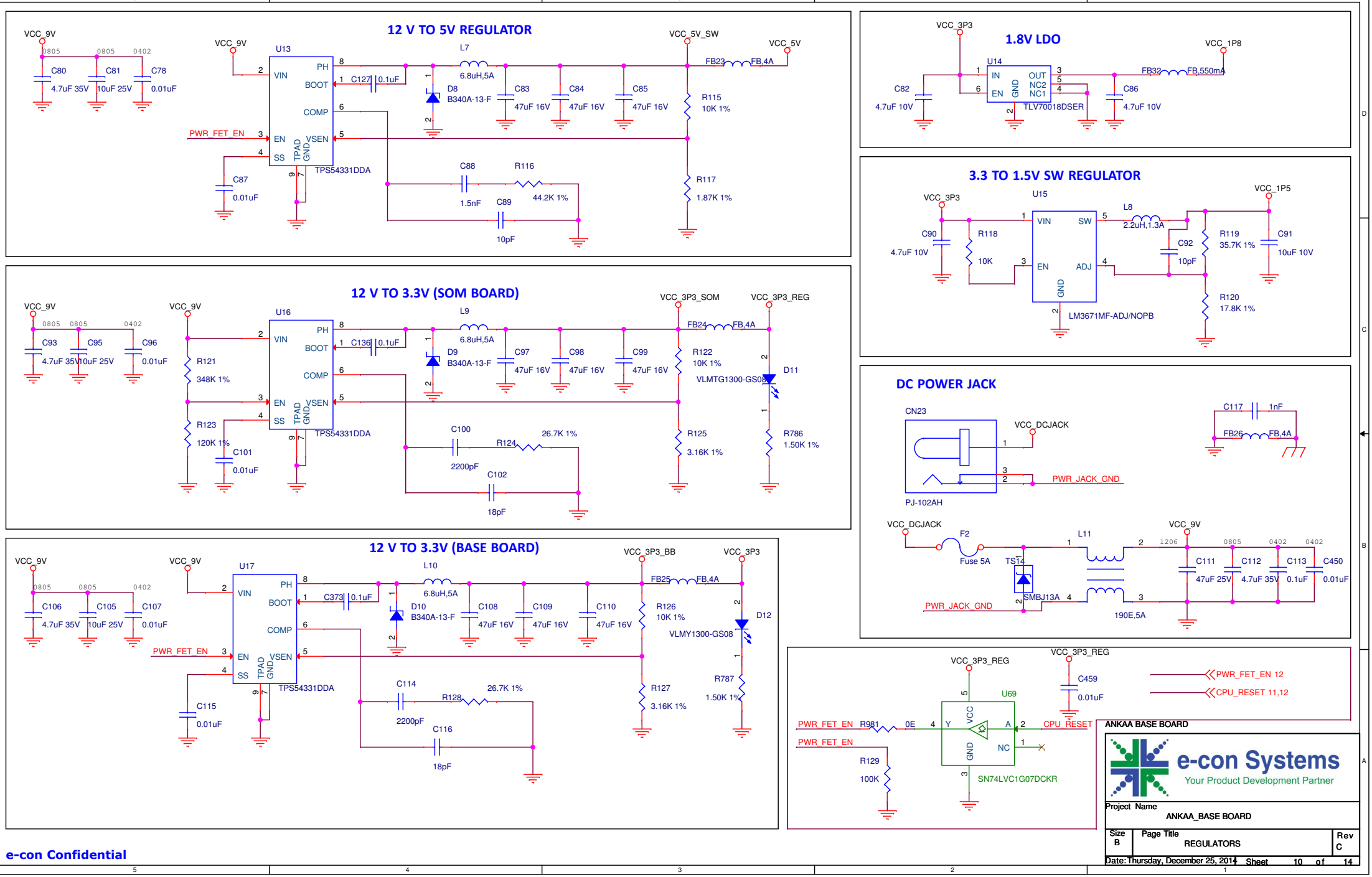
12 V TO 5V REGULATOR
VCC_9V
VCC_5V_SW
VCC_5V
U13
PH
BOOT
COMP
VIN
EN
SS
VSEN
TPAD
GND
TPS54331DDA
PWR_FET_EN
L7
6.8uH,5A
D8
B340A-13-F
C127
0.1uF
C80
4.7uF 35V
C81
10uF 25V
C78
0.01uF
C83
47uF 16V
C84
47uF 16V
C85
47uF 16V
C87
0.01uF
C88
1.5nF
C89
10pF
R115
10K 1%
R116
44.2K 1%
R117
1.87K 1%
FB23
FB,4A
1.8V LDO
VCC_3P3
VCC_1P8
U14
IN
OUT
GND
NC2
NC1
EN
TLV70018DSER
C82
4.7uF 10V
C86
4.7uF 10V
FB32
FB,550mA
3.3 TO 1.5V SW REGULATOR
U15
VIN
SW
EN
ADJ
GND
LM3671MF-ADJ/NOPB
L8
2.2uH,1.3A
C90
4.7uF 10V
R118
10K
C92
10pF
R119
35.7K 1%
R120
17.8K 1%
C91
10uF 10V
VCC_1P5
12 V TO 3.3V (SOM BOARD)
VCC_3P3_SOM
VCC_3P3_REG
U16
L9
6.8uH,5A
D9
B340A-13-F
D11
VLMTG1300-GS08
C93
4.7uF 35V
C95
10uF 25V
C96
0.01uF
R121
348K 1%
R123
120K 1%
C101
0.01uF
C136
0.1uF
C97
47uF 16V
C98
47uF 16V
C99
47uF 16V
C100
2200pF
C102
18pF
R124
26.7K 1%
R122
10K 1%
R125
3.16K 1%
R786
1.50K 1%
FB24
FB,4A
DC POWER JACK
CN23
VCC_DCJACK
PWR_JACK_GND
PJ-102AH
C117
1nF
FB26
FB,4A
F2
Fuse 5A
TS14
SMBJ13A
L11
190E,5A
C111
47uF 25V
C112
4.7uF 35V
C113
0.1uF
C450
0.01uF
12 V TO 3.3V (BASE BOARD)
VCC_3P3_BB
VCC_3P3
U17
L10
6.8uH,5A
D10
B340A-13-F
D12
VLMY1300-GS08
C106
4.7uF 35V
C105
10uF 25V
C107
0.01uF
C373
0.1uF
C108
47uF 16V
C109
47uF 16V
C110
47uF 16V
C115
0.01uF
C114
2200pF
C116
18pF
R128
26.7K 1%
R126
10K 1%
R127
3.16K 1%
R787
1.50K 1%
FB25
FB,4A
U69
SN74LVC1G07DCKR
R981
0E
R129
100K
C459
0.01uF
PWR_FET_EN 12
CPU_RESET 11,12
CPU_RESET
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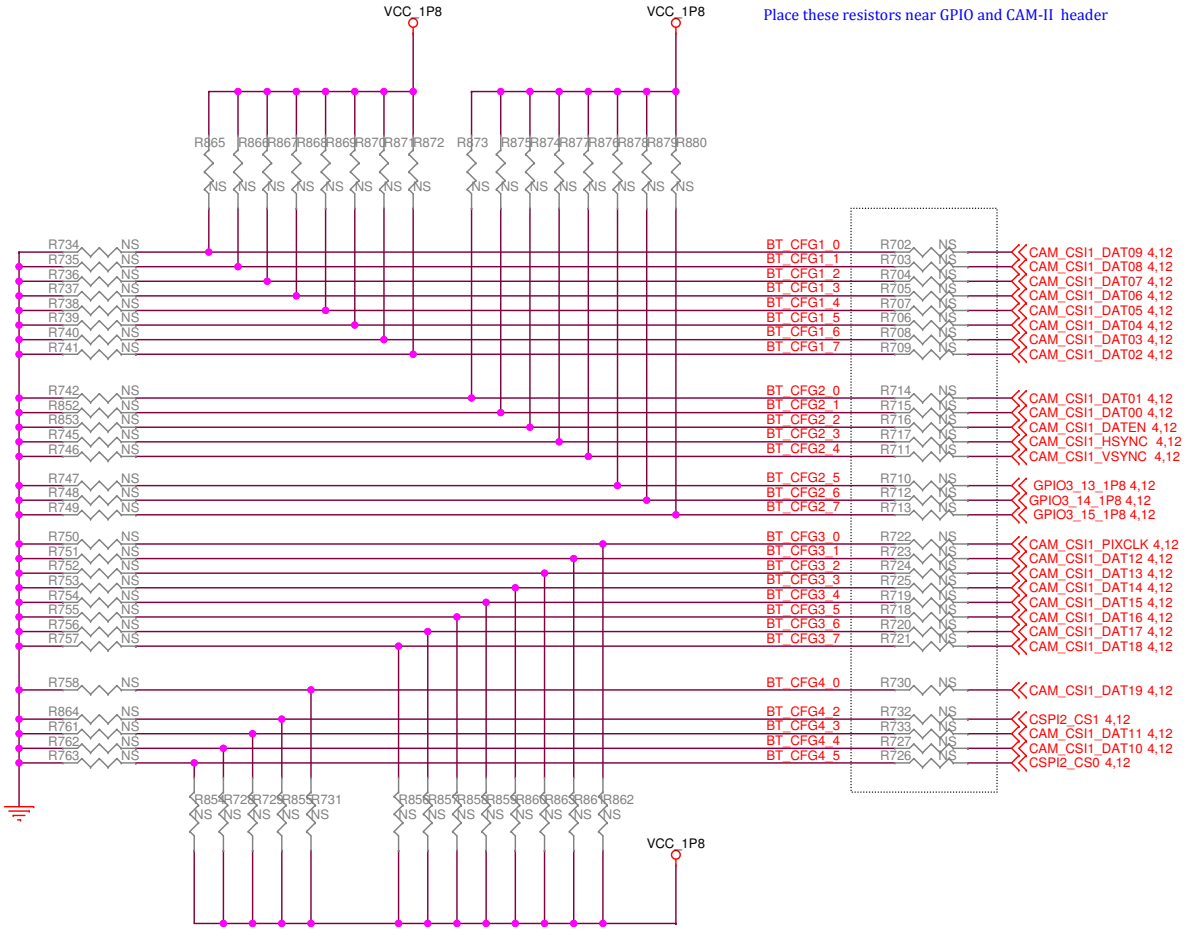
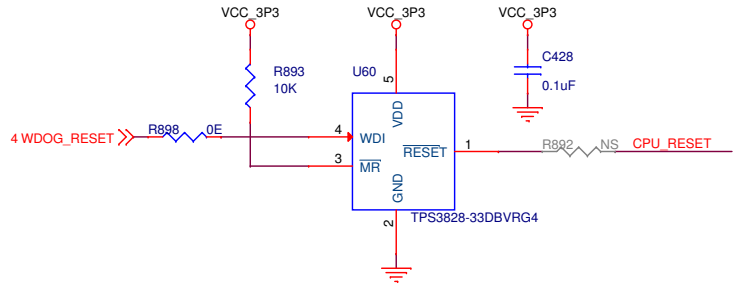
Boot Configuration Select

Place these resistors near GPIO and CAM-II header



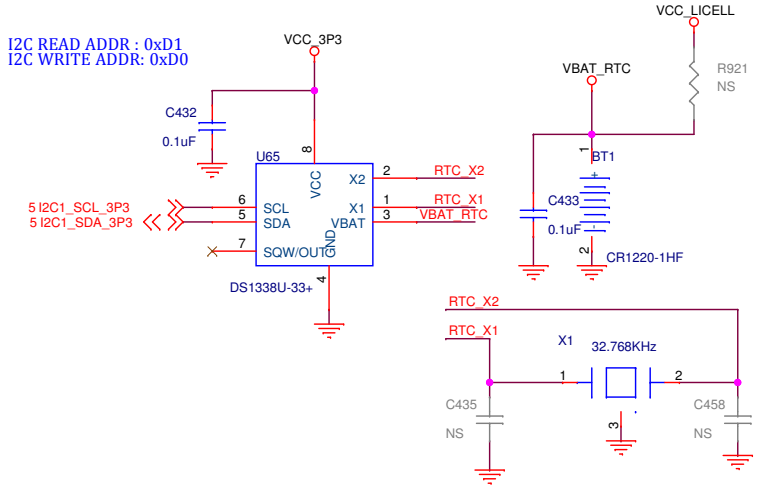
WATCH DOG RESET



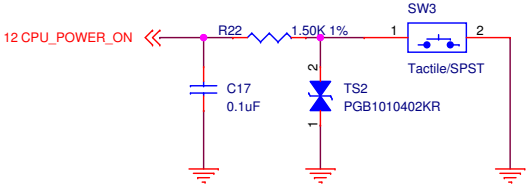
REAL TIME CLOCK

I2C READ ADDR : 0xD1
I2C WRITE ADDR: 0xD0

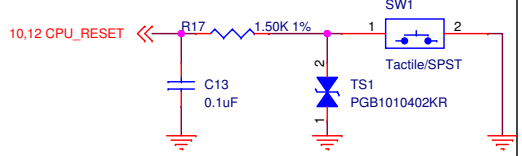
RTC BATTERY



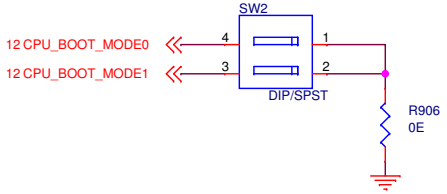
CPU ON/OFF SW



RESET INPUT



CPU BOOT MODE CONFIG



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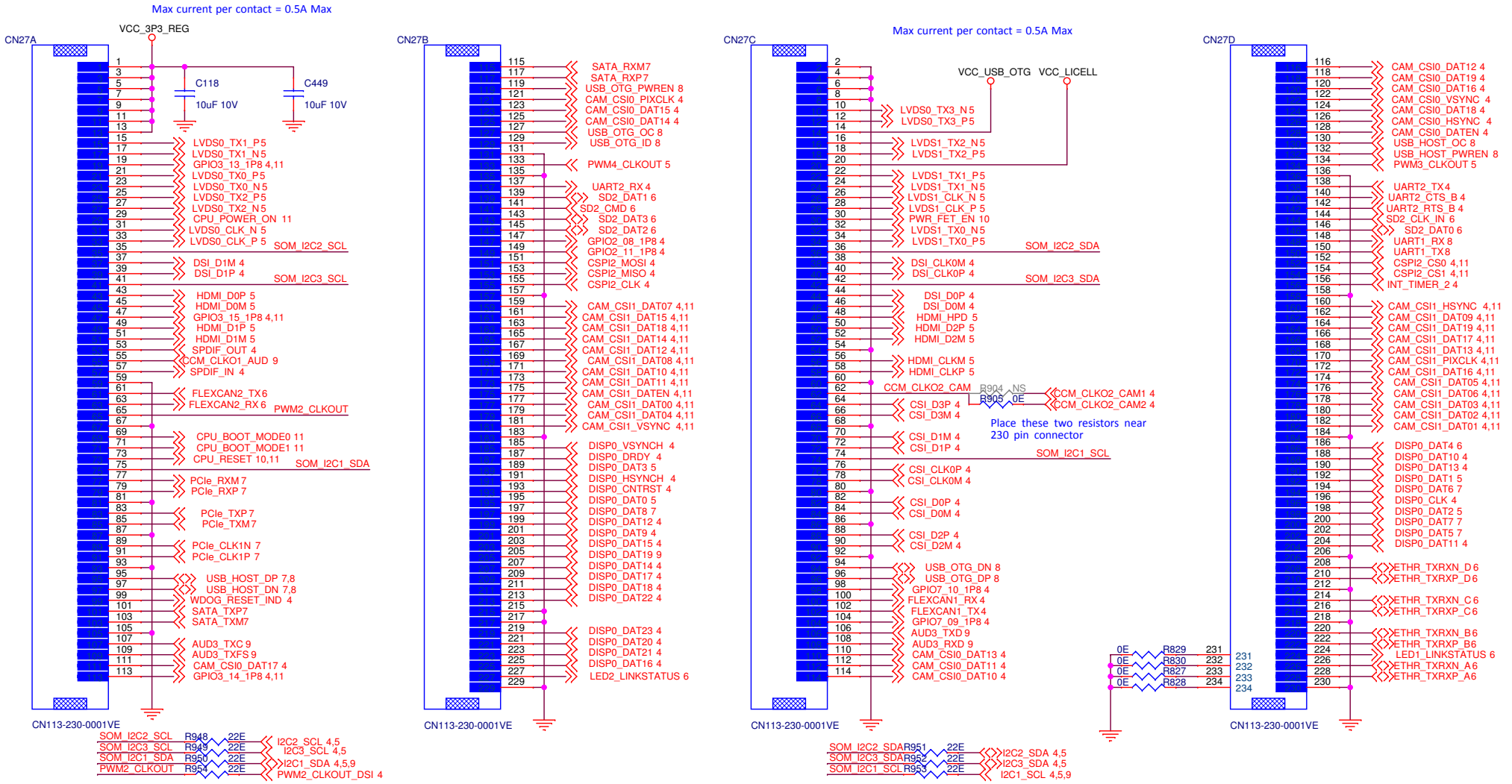

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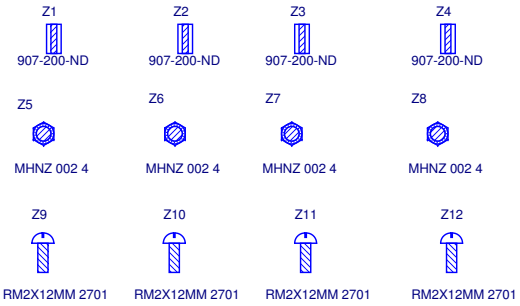
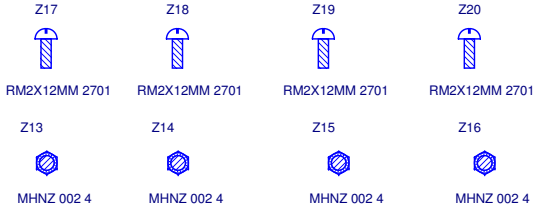
eSOMiMX6 MOUNTING ACCESSORIES



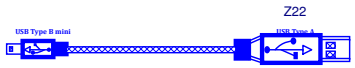
ACC-iMX6-10LCD MOUNTING ACCESSORIES



POWER ADAPTER

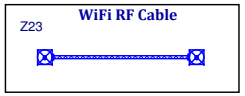
WSU090-2500

USB TYPE A to USB MINI B CABLE



88732-8602

WiFi RF Cable



ANKAA BASE BOARD

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REVISION HISTORY

Rev No	Date	Descript i on	Remarks
A	12 SEP 2014	Initial Release	
B	16 OCT 2014	Page NO: 4 U68 , Level translator added for UART2 interface to provide option for 1.8V and 3.3V I/O FB43,FB42 ,C455,C456, R970,R972,R969,R974,R975,R971,R973 are added	
C	09 DEC 2014	Page NO: 5 LVDS1_INT and LVDS2_INT signals are changed to bidirectional. U46 changed from 4 bit to 2 bit buffer C18 changed from 47uF to 10uF R347,R348,R349,R350,R978,R979,Q8,Q7 are added Page NO: 8 UART Bridge changed from Self Powered to USB Bus powered D13, R980 added Page NO: 10 U69 , Open drain single bit buffer added to reset the audio codec when RESET switch is pressed R981 added	

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