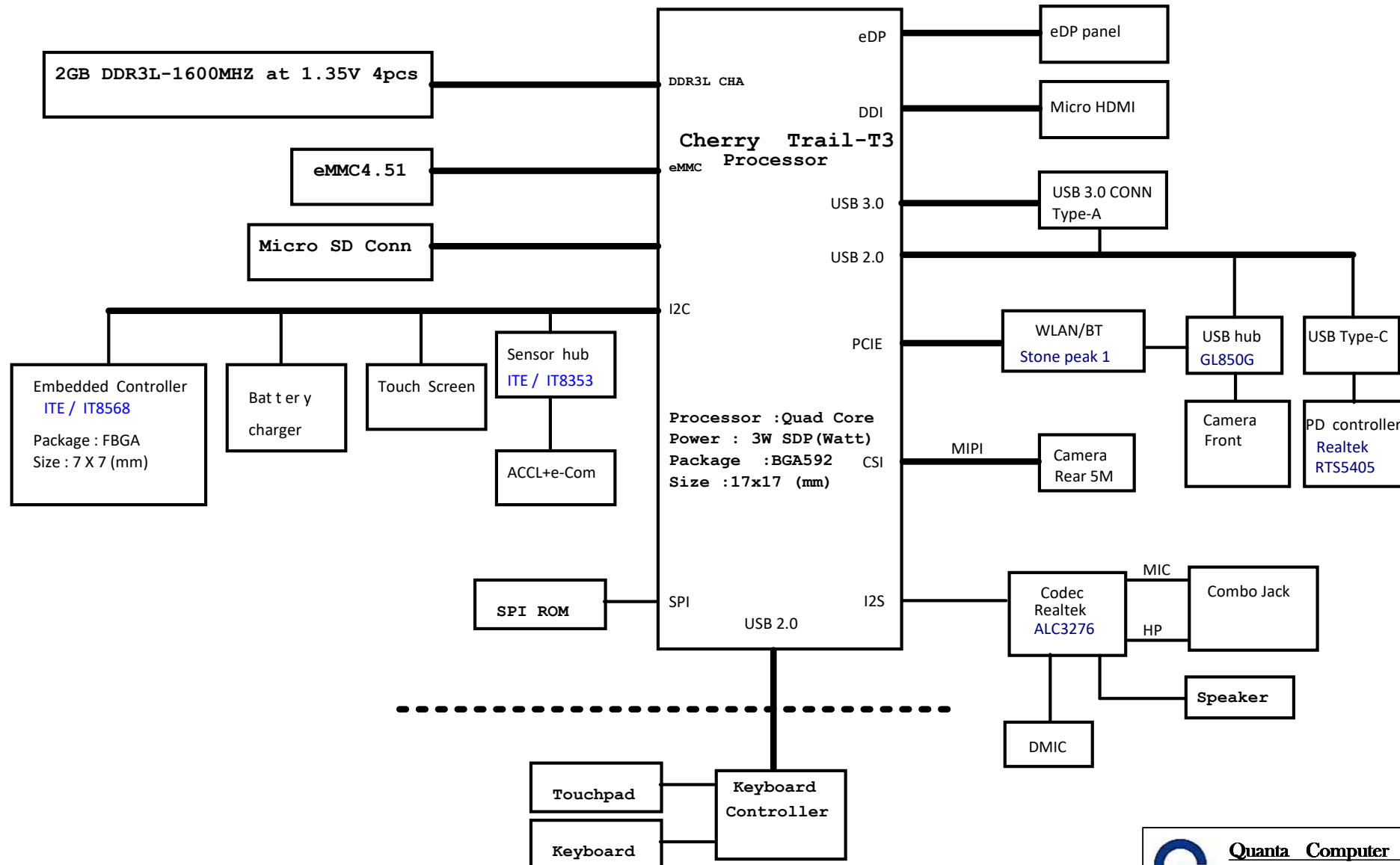


# Sweet Cherry Trail T3 Block Diagram

01



### 3.4 Cherry Trail Power Map

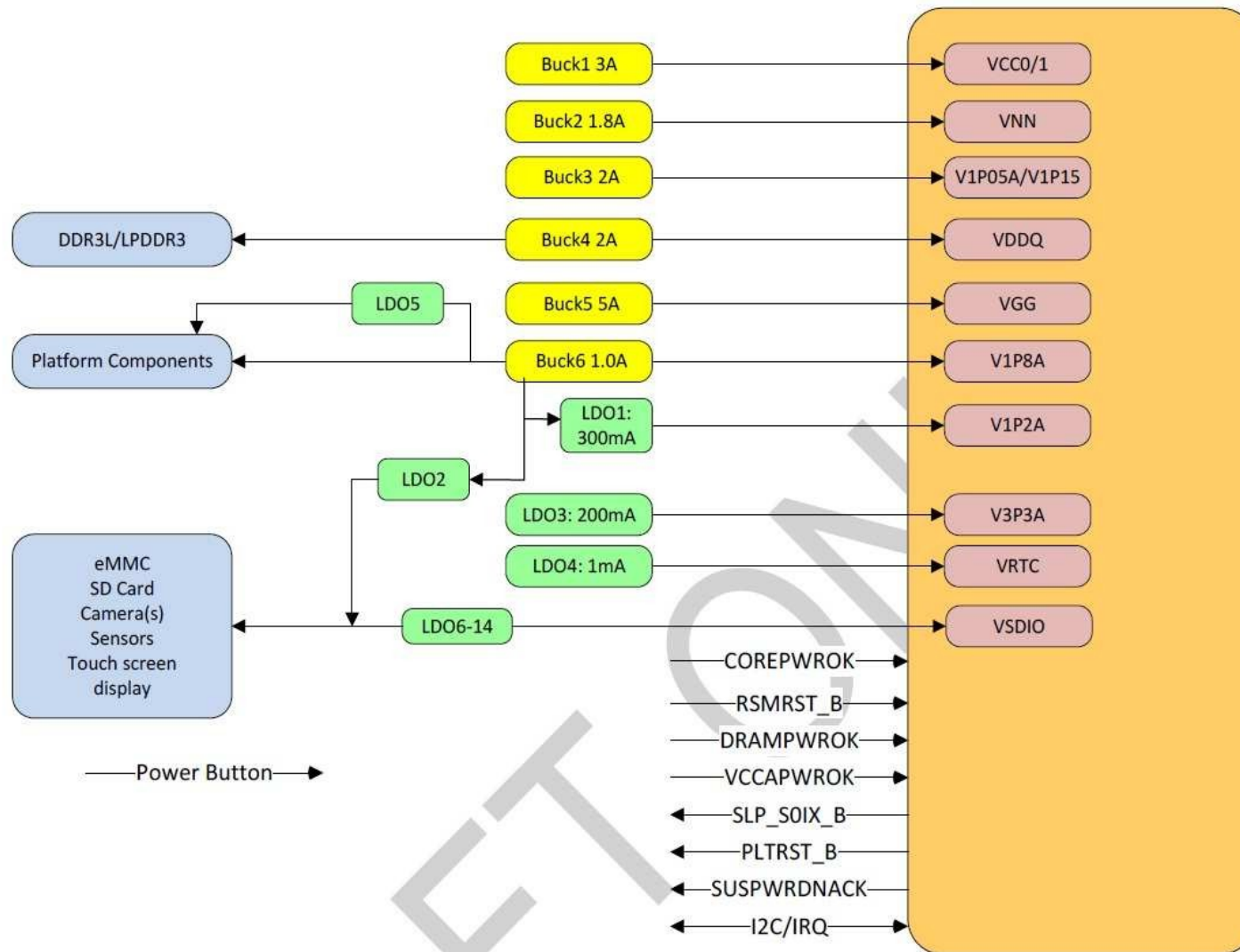

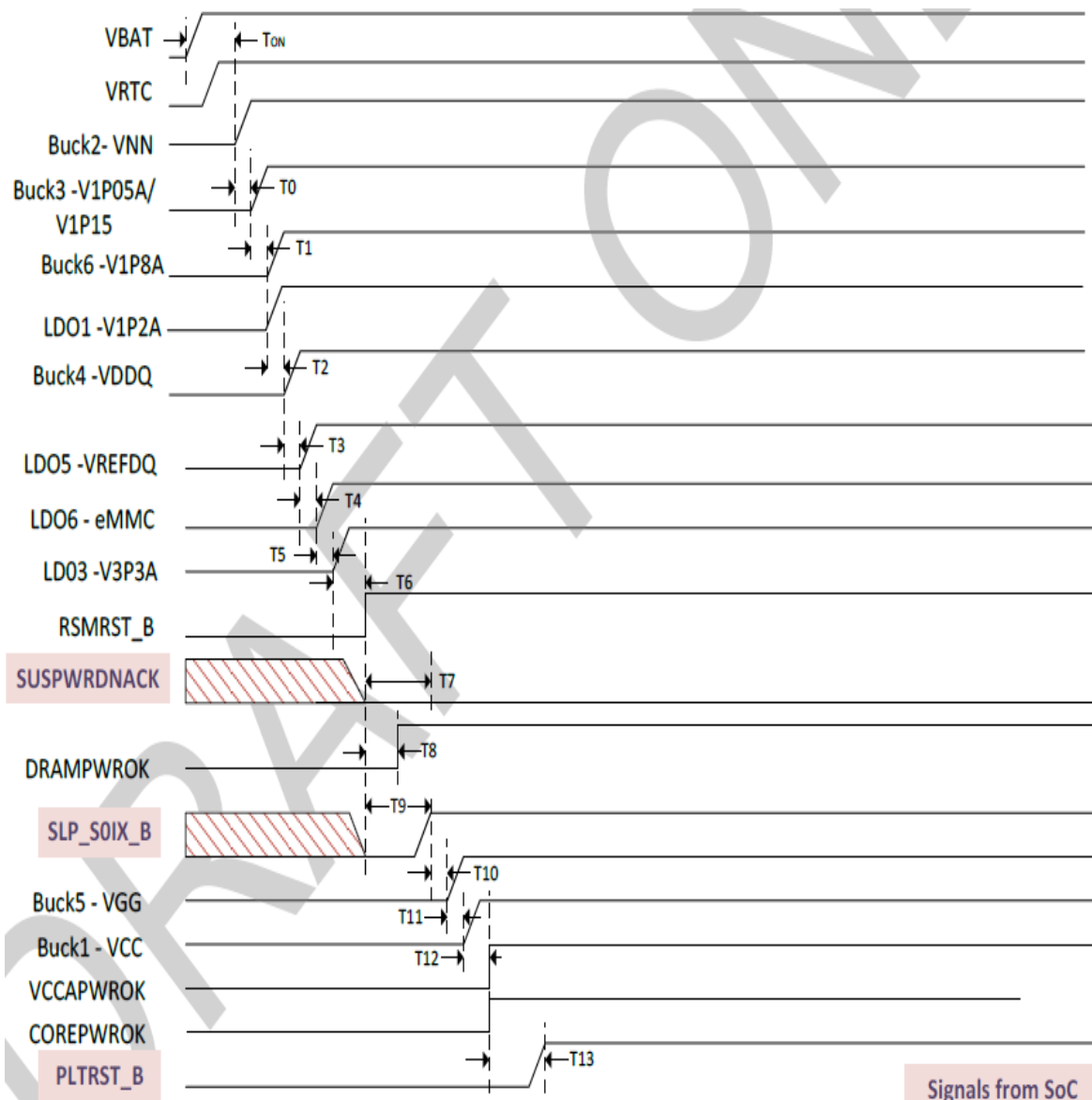


Figure 3-2: Cherry Trail Power Map

 <b>Quanta Computer Inc.</b>		
<b>PROJECT : D91B</b>		
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Parameter	Description	Min	Typ	Max	Units
T <sub>ON</sub>	VBAT_PUP to BUCK2 Turn-On Delay		110		ms
T0	BUCK2 to BUCK3 turn on delay (BUCK2 to BUCK3 turn on delay should follow the standard delay (T0), but have an option to support no delay (to be compliant with CHT A0))		300		us
T1	BUCK3 Rail to Subsequent BUCK6 and LDO1 Rail Turn-On Delay		2		ms
T2	BUCK6 and LDO1 Rail to Subsequent BUCK4 Rail Turn-On Delay		2		ms
T3	LDO1 Rail to Subsequent LDO5 Rail Turn-On Delay		2		ms
T4	LDO5 Rail to Subsequent LDO6 Rail Turn-On Delay		2		ms
T5	LDO6 Rail to Subsequent LDO3 Rail Turn-On Delay		2		ms
T6	LDO3 Turn-On Delay to RSMRSTB de-assertion		2		ms
T7	SUSPWRDNACK de-assertion (LOW) to RSMRSTB de-assertion	0			us
T8	RSMRSTB de-assertion to DRAMPWROK assertion	0		100	us
T9	RSMRSTB de-assertion to SLP_S0IXB de-assertion	20			us
T10	SLP_S0IXB de-assertion to first subsequent voltage rail (BUCK5) start to turn-on delay	0	24	100	us
T11	BUCK5 Rail to Subsequent BUCK1 Rail Turn-On Delay		2		ms
T12	BUCK1 Rail Turn-On Delay to VCCAPWROK and COREPWROK assertion		2		ms
T13	COREPWROK assertion to PLTRSTB de-assertion	60			ms



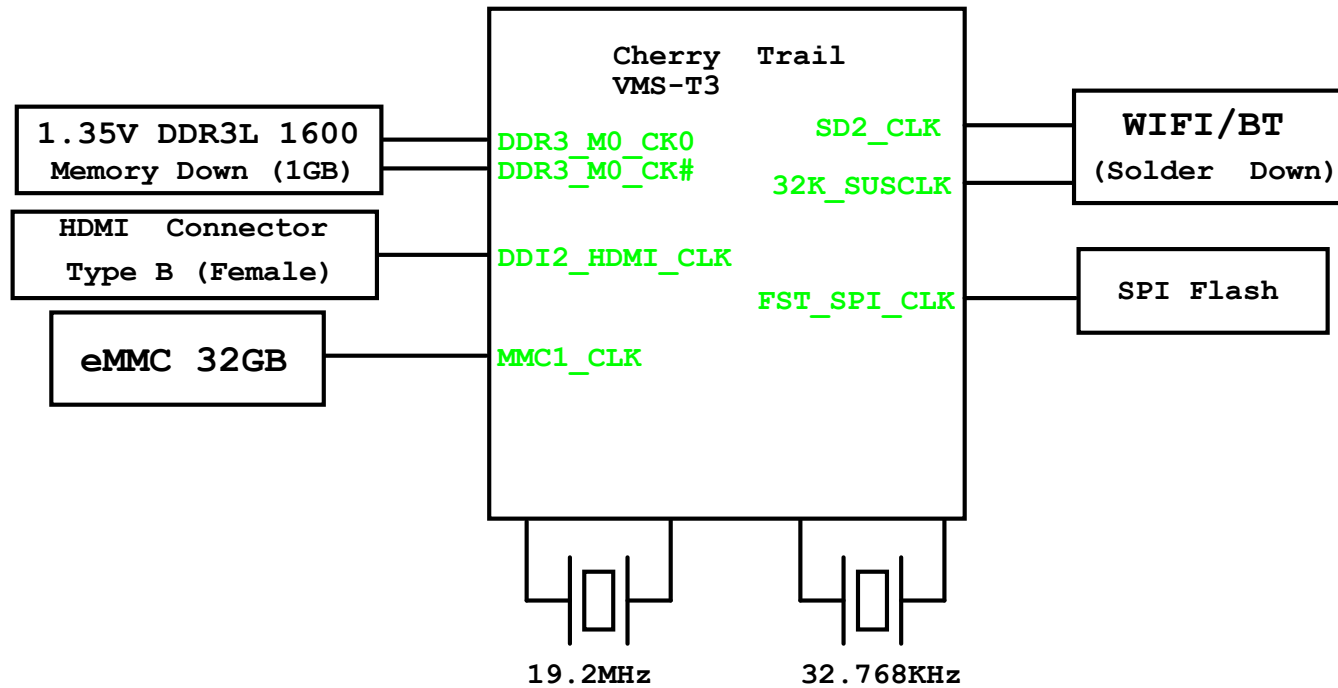
**Quanta Computer Inc.**

**PROJECT : D91B**

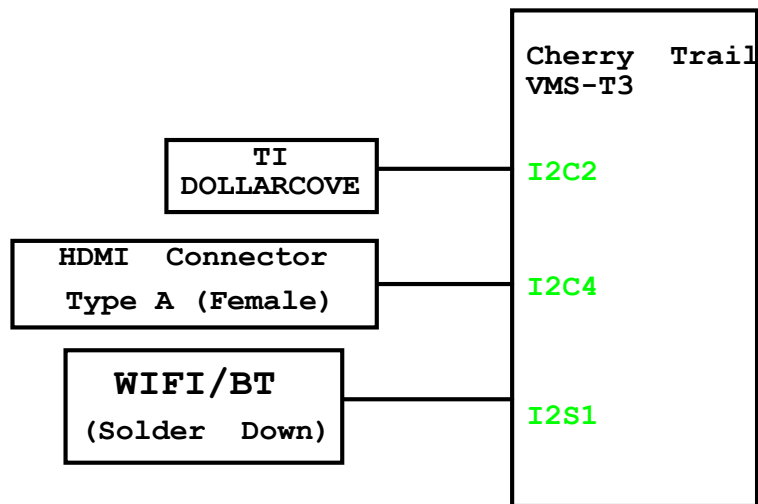
Size B	Document Number <b>POWER SEQUENCE</b>	Rev. 1A
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## CLOCK MAP

04



## I2C MAP

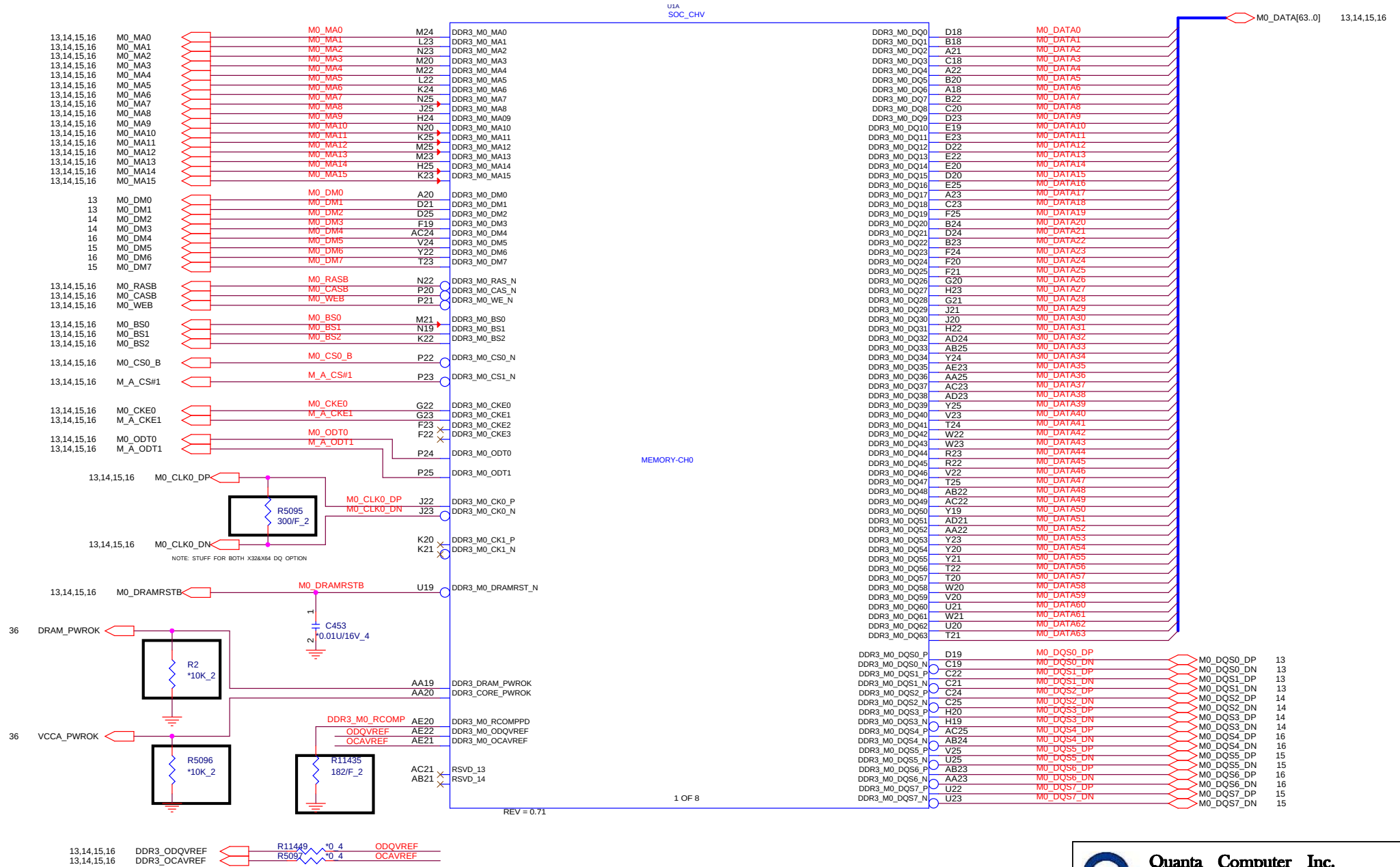


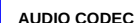
Quanta Computer Inc.

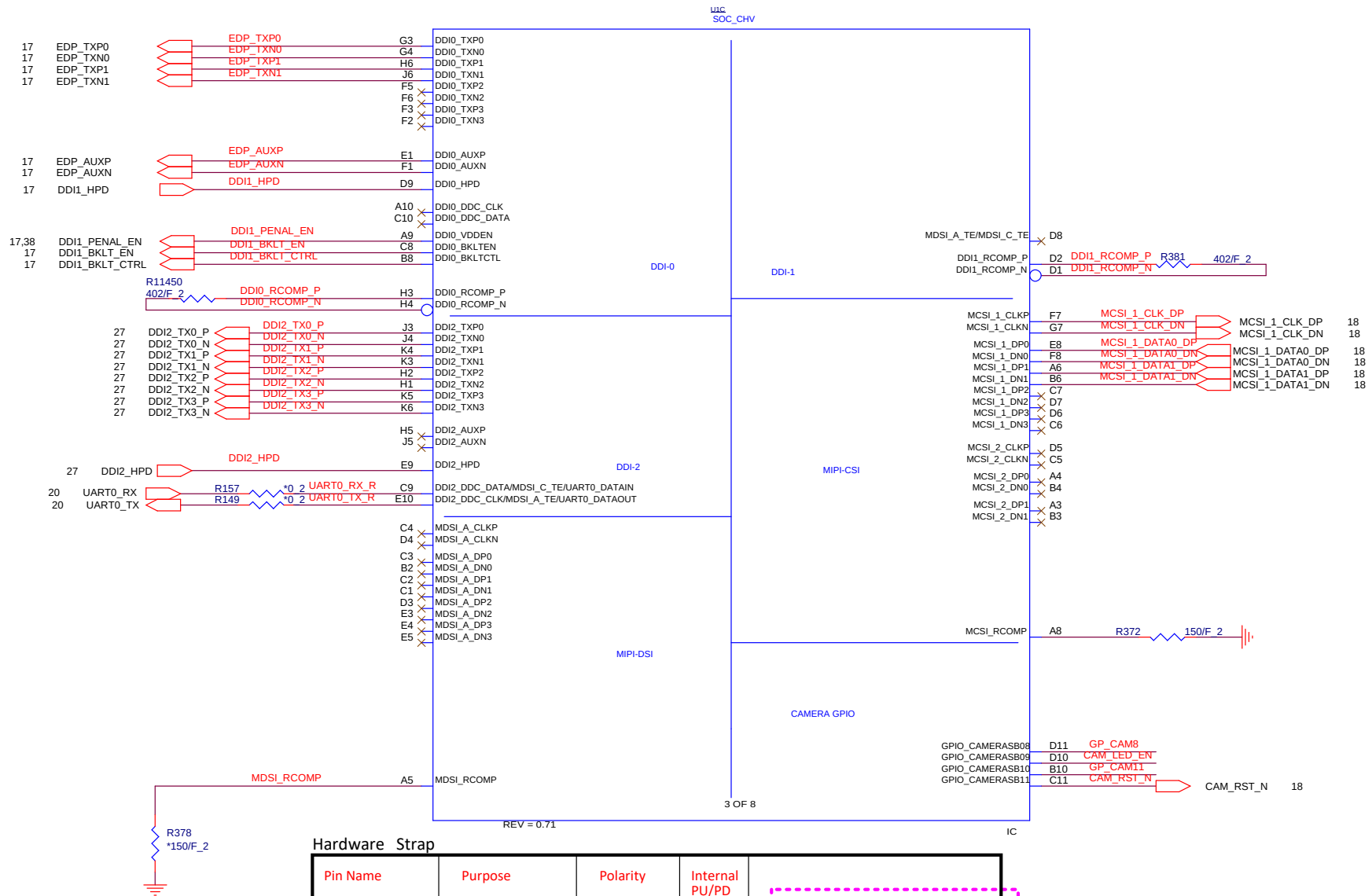
PROJECT : D91B

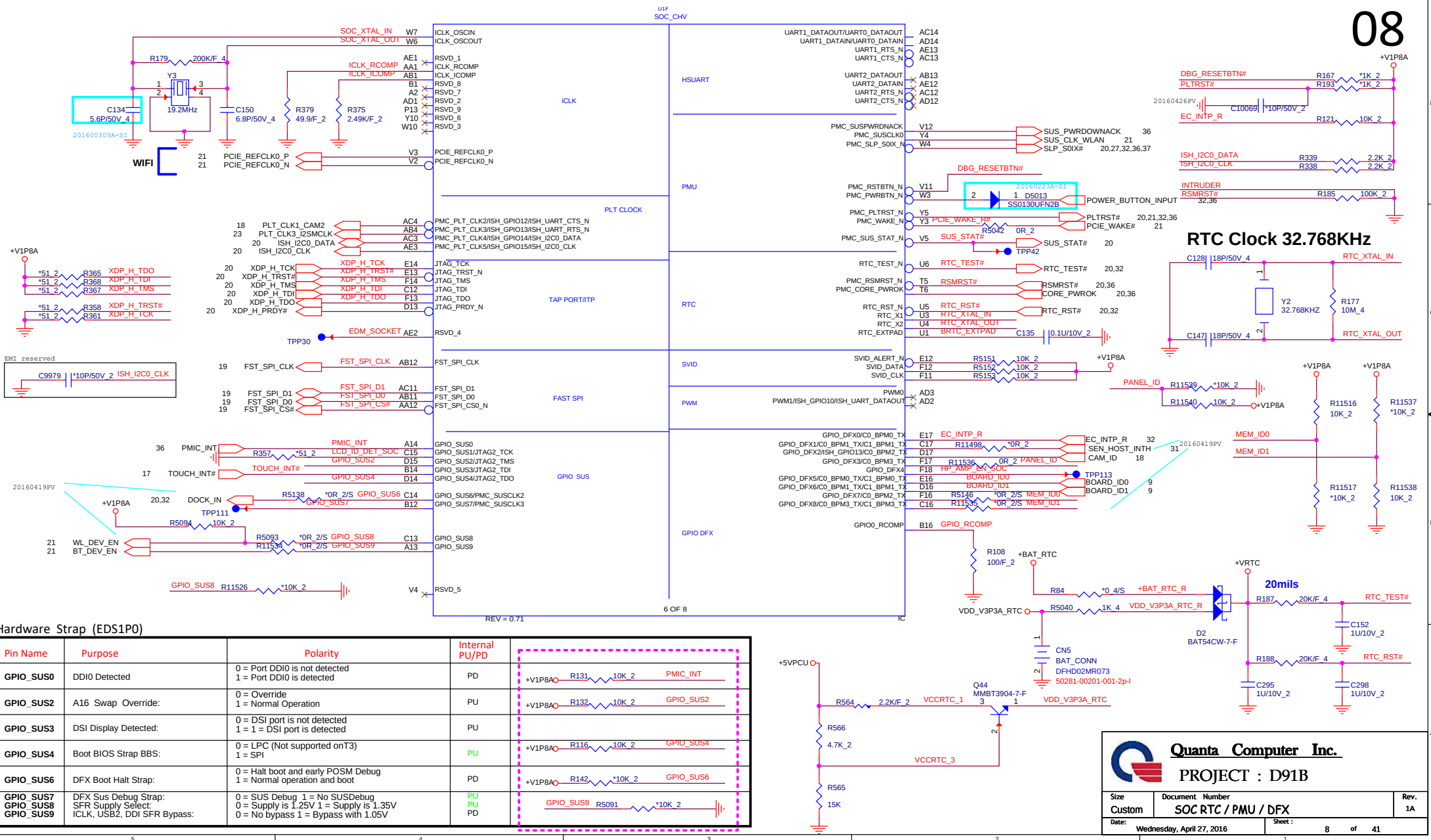
Size Custom	Document Number Clock Map	Rev. 1A
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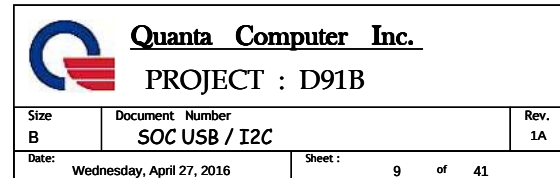
## S0C:MEMORY

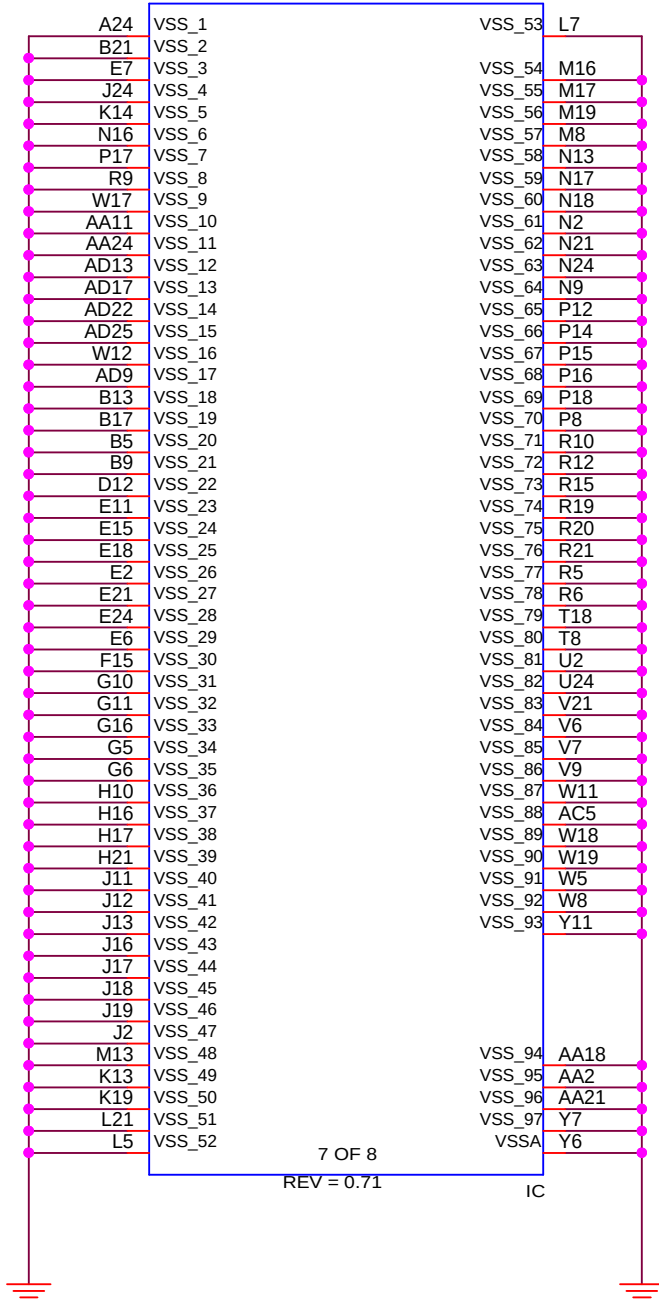










U1G  
SOC\_CHV

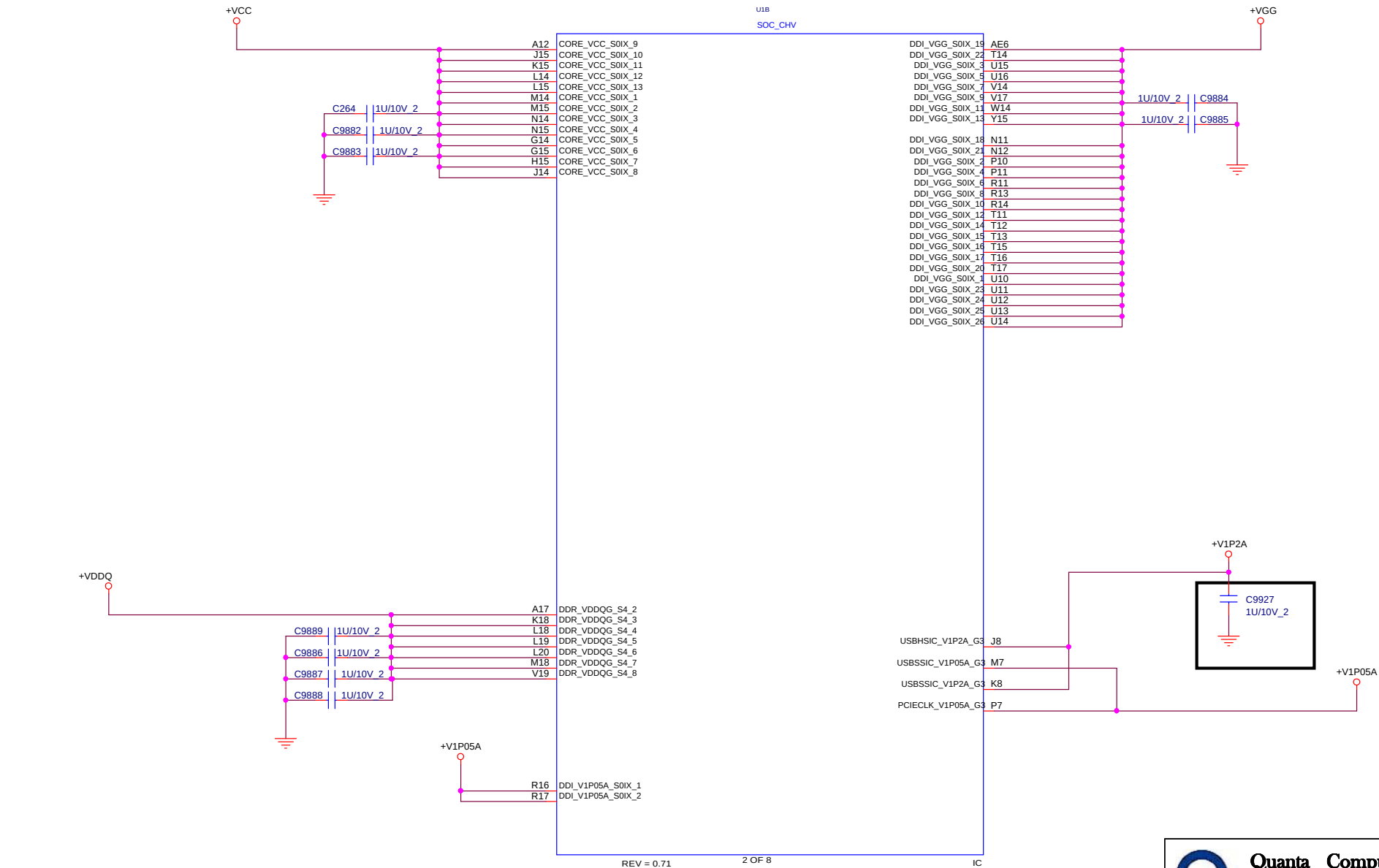
	BALL	C16	F16	AA13	D16	E16
	GPIO	N6	N2	SE79	N8	N4
	PU PD	R11537 R11538	R11516 R11517	R11503 R11504	R11500 R11502	R11499 R11501
	NET	MEM_ID1	MEM_ID0	BOARD_ID3	BOARD_ID1	BOARD_ID0
DDR3L-2GB	Samsung (TH) K4B4G1646E-BYK0	0	0	0	0	0
DDR3L-2GB	Hynix (TG) H5TC4G63CFR-PBA	0	0	0	0	1
DDR3L-4GB	Hynix (TG) H5TC8G63CMR-PBA	0	0	0	1	0
DDR3L-4GB	MT41K256M16TW-107:P	0	0	0	1	1
DDR3L-2GB	Micron (TF) MT41K256M16TW-107:P	0	0	1	0	0
reseve	reseve	0	0	1	0	1



Quanta Computer Inc.


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28,35 +VCC  
12,13,14,15,16,28,35,37 +VDDQ  
35 +VGG

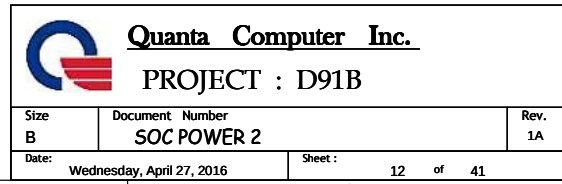
REV = 0.71 2 OF 8 IC

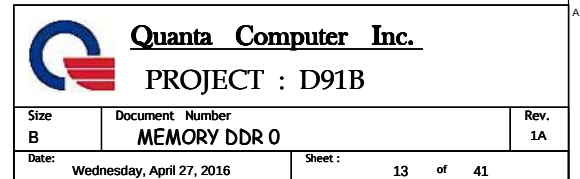


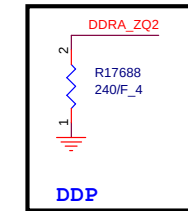
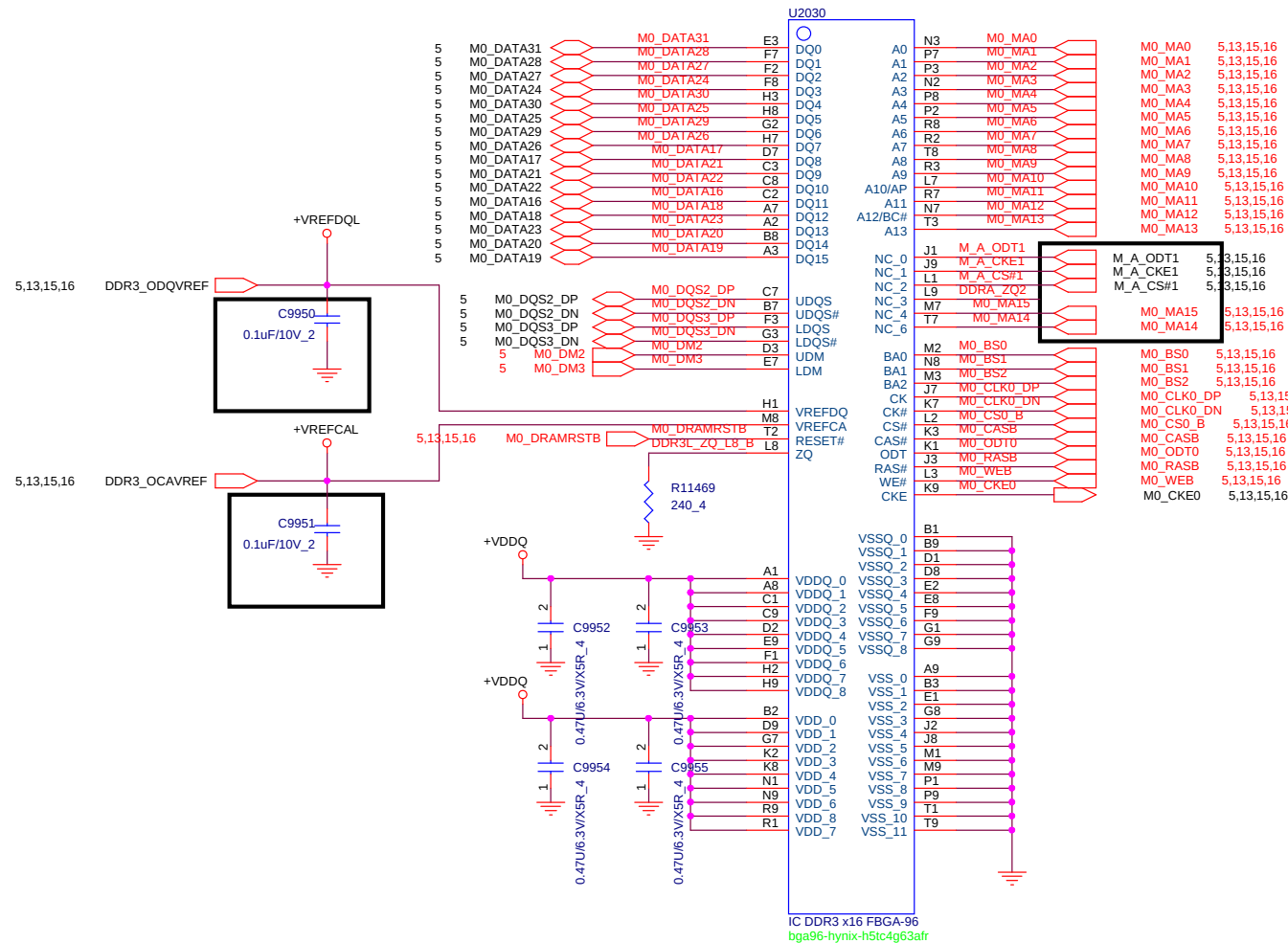
**Quanta Computer Inc.**

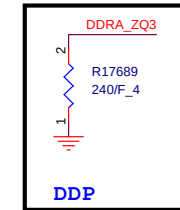
**PROJECT : D91B**

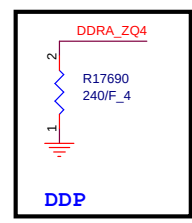
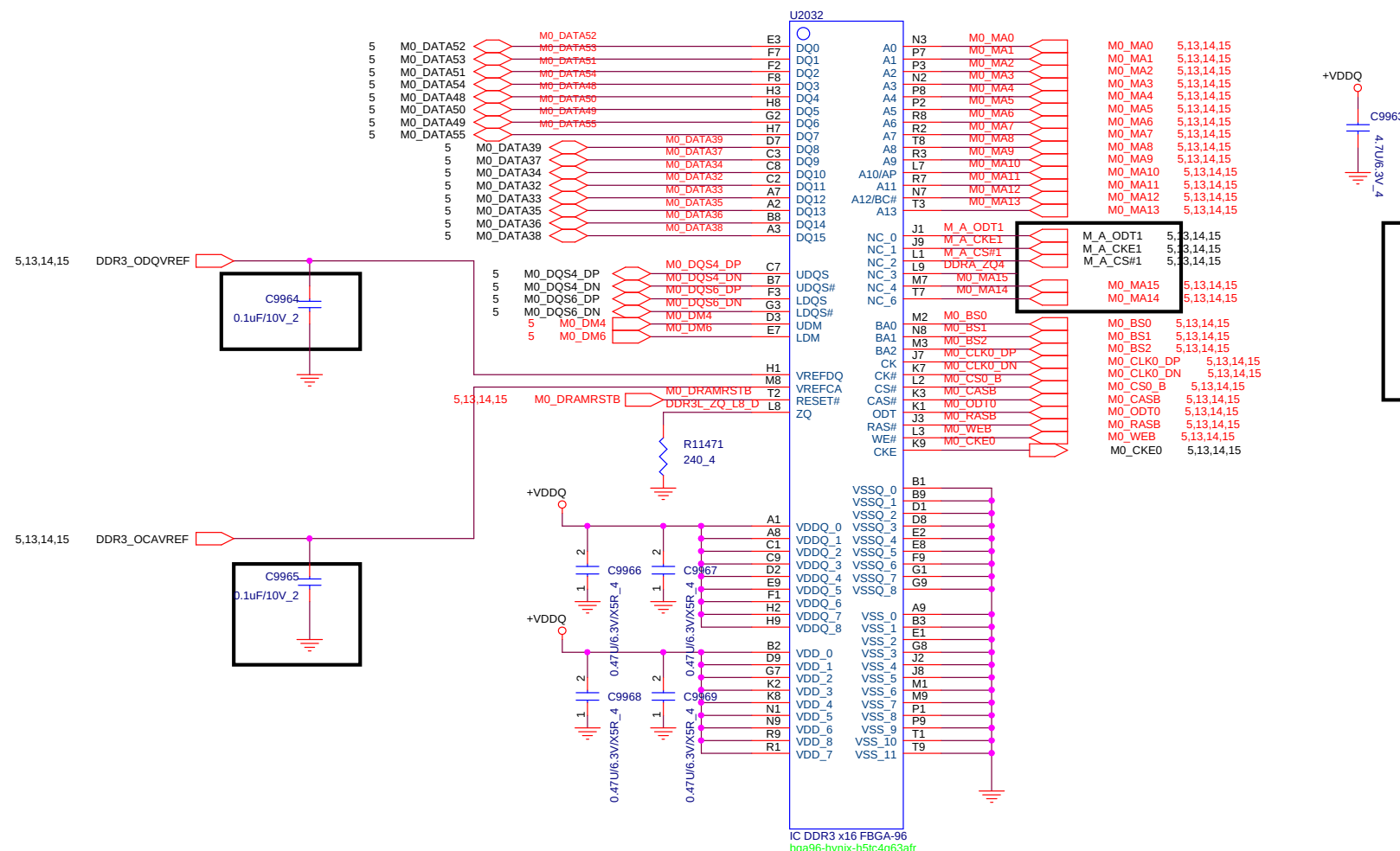
Size B	Document Number	Rev. 1A
SOC POWER 1		
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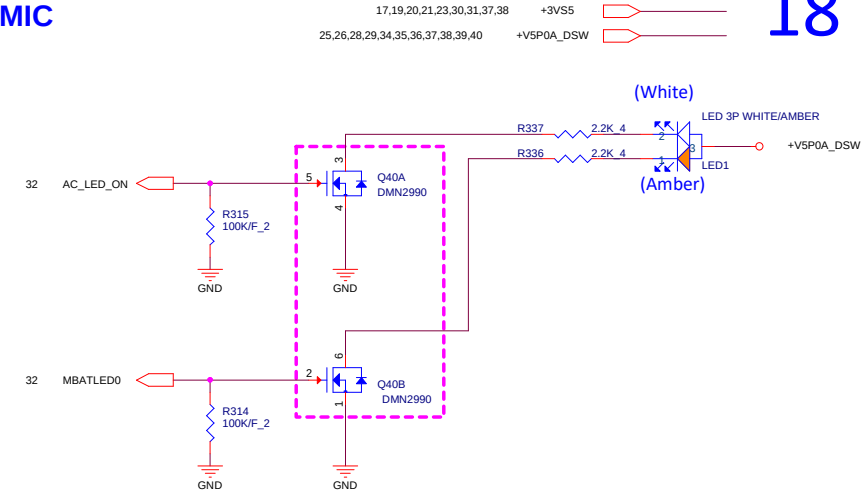
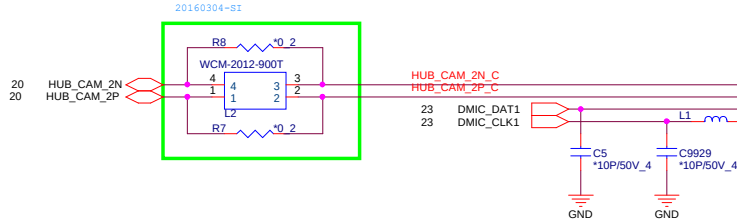






# Suyin 2.0M Webcam / DMIC

18

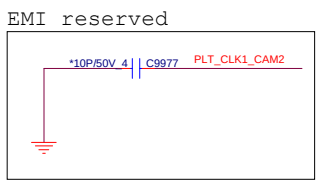
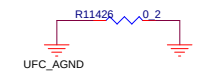
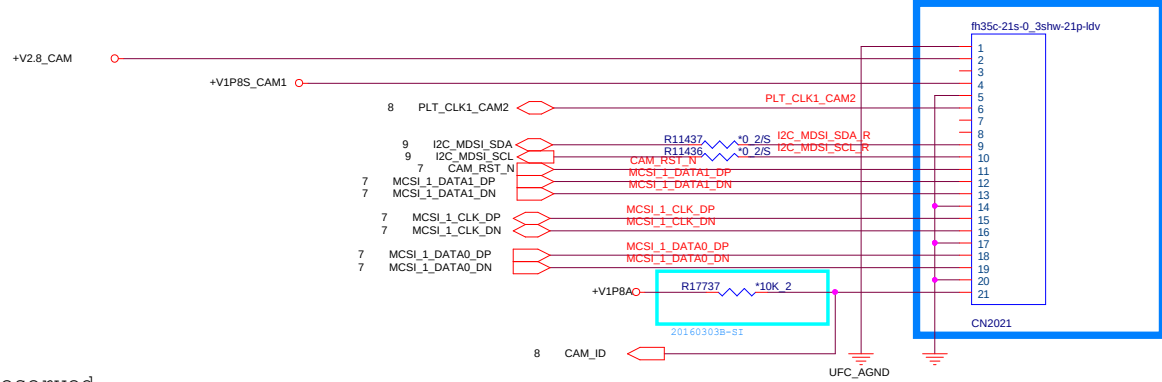


Front USB HD RGBIR camera only for 12".

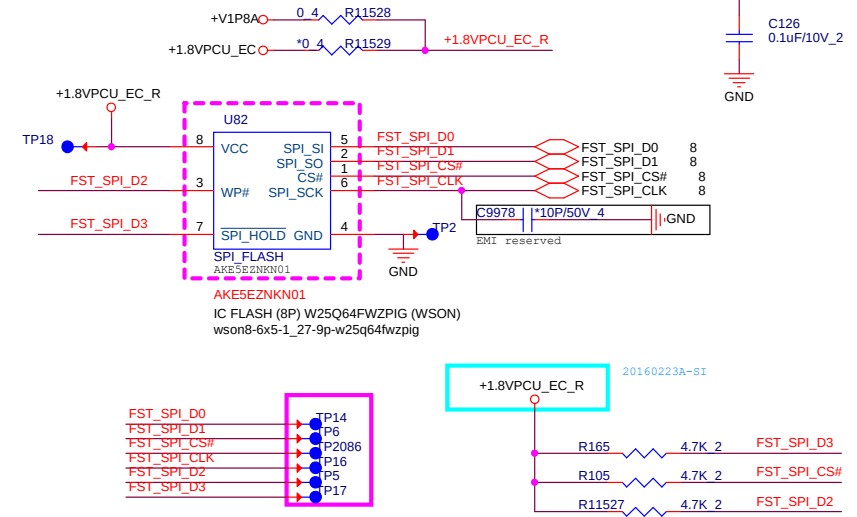
20 HUB\_CAM\_3N TP2110  
20 HUB\_CAM\_3P TP2111

4/20: PN&FP-->OK pin define need check

## Chicony Camera (Rear 5M)



<b>Quanta Computer Inc.</b> PROJECT : D91B		
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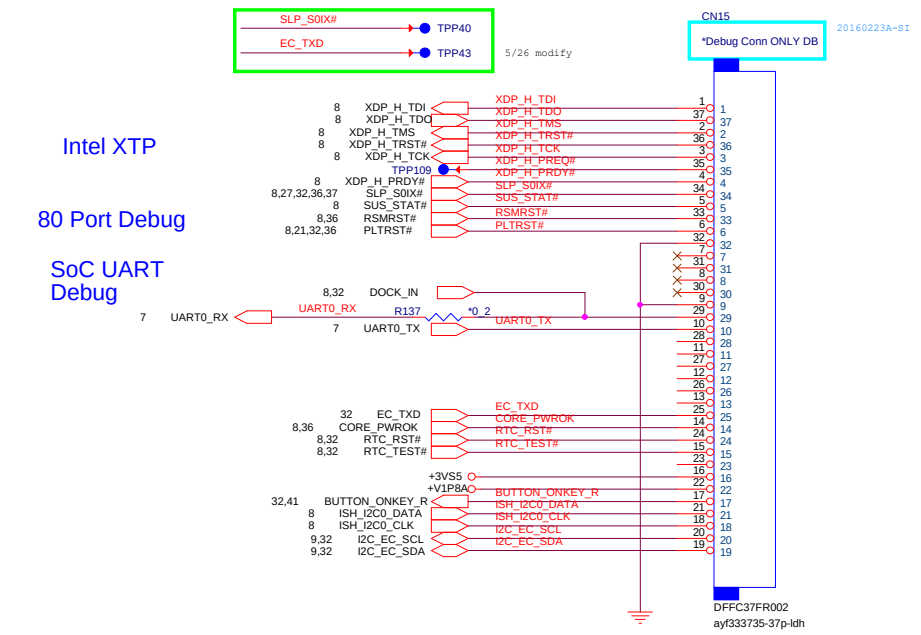
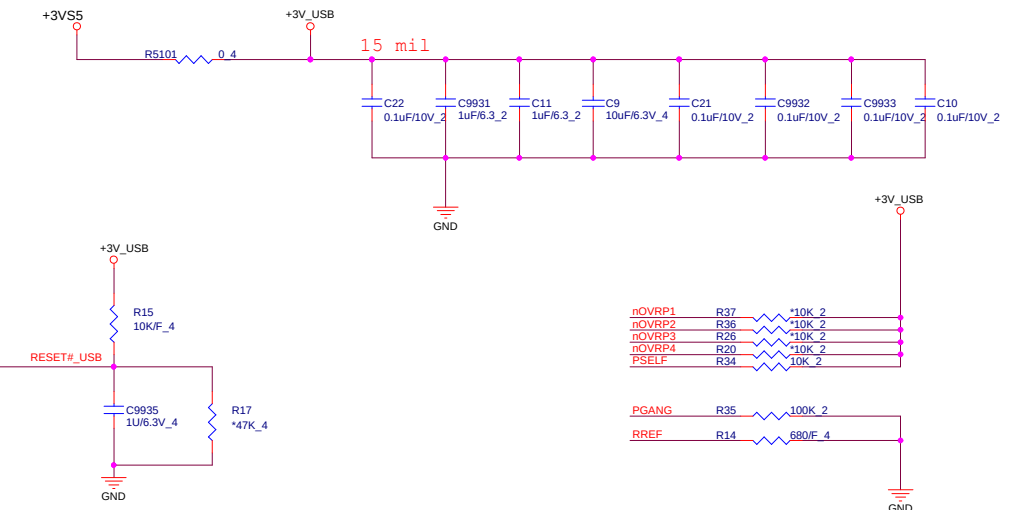
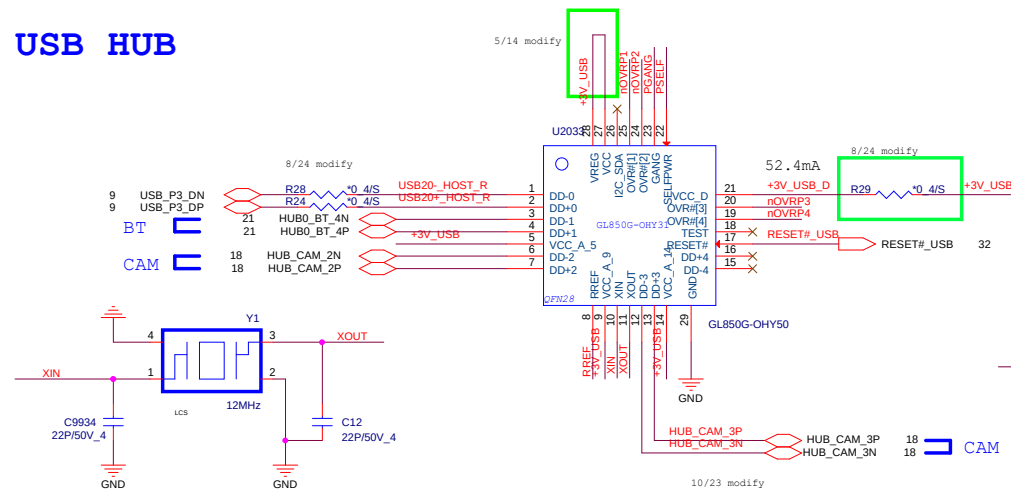


QBCON	TOPB/S	Vender PN	SIZE	
AKE5SZ0T507	AKE5SZ0T506	KLMBG4GEAC-B031	32G	Samsung
AKE3TZPT516	AKE3TZPT515	KLMCG8GEAC-B031	64G	Samsung
AKE3SZ-TW02	AKE3SZ-TW01	H26M64103EMR	32G	Hynix
AKE3TG-TW02	AKE3TG-TW01	H26M78103CCR	64G	Hynix
AKE3UFPT103	AKE3UFPT102	SDIN8CE4-128G	128G	Sandisk
AKE3SFUT001	AKE3SFUT000	SDIN9DW4-32G	32G	Sandisk
AKE3TFUT102	AKE3TFUT101	SDIN9DW4-64G	64G	Sandisk


footprint: BGA 169, BGA 153 co-lay  
BGA 169 PIN:14 mmX18 mm  
BGA 169 PIN:12 mmX16 mm  
BGA 153 PIN:11.5 mmX13 mm

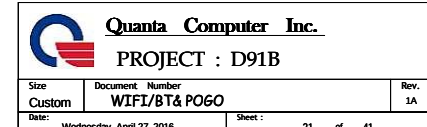
## USB HUB

20



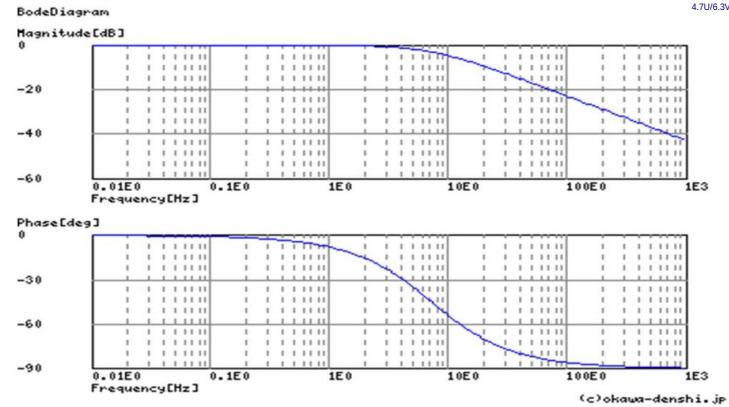
17,18,19,21,23,30,31,37,38 +3VS5  
6,8,9,12,17,18,19,21,23,27,31,32,35,36,38,42 +V1P8A

	<u><b>Quanta Computer Inc.</b></u>	
	<b>PROJECT : D91B</b>	
<b>Size</b> Custom	<b>Document Number</b> DEBUG/HUB	<b>Rev.</b> 1A
<b>Date:</b> Wednesday, April 27, 2016	<b>Sheet :</b> 20 of 41	

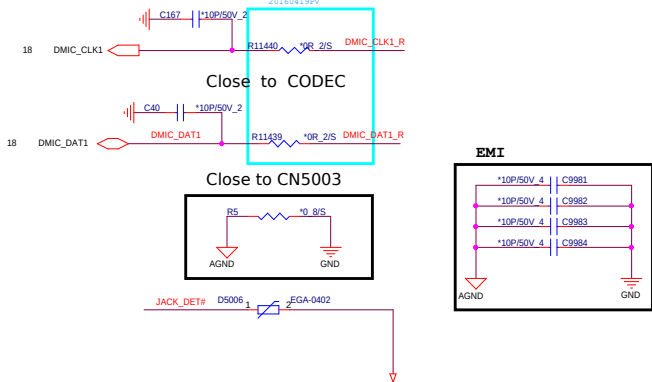


Quanta confidential

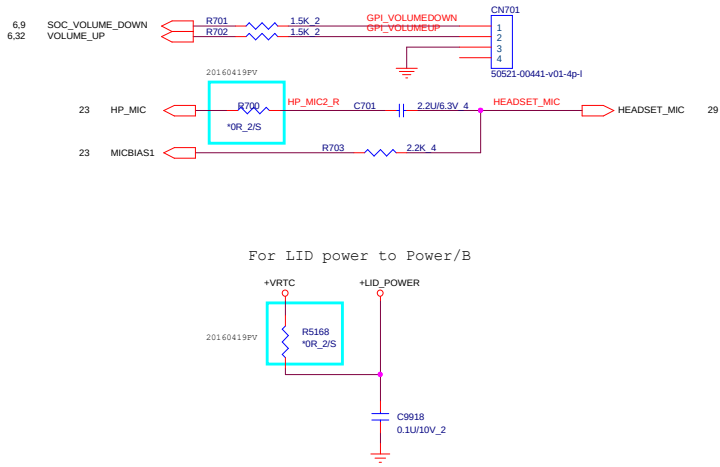
L3021 BLM18PG181SN1D(180,1.5A) 6



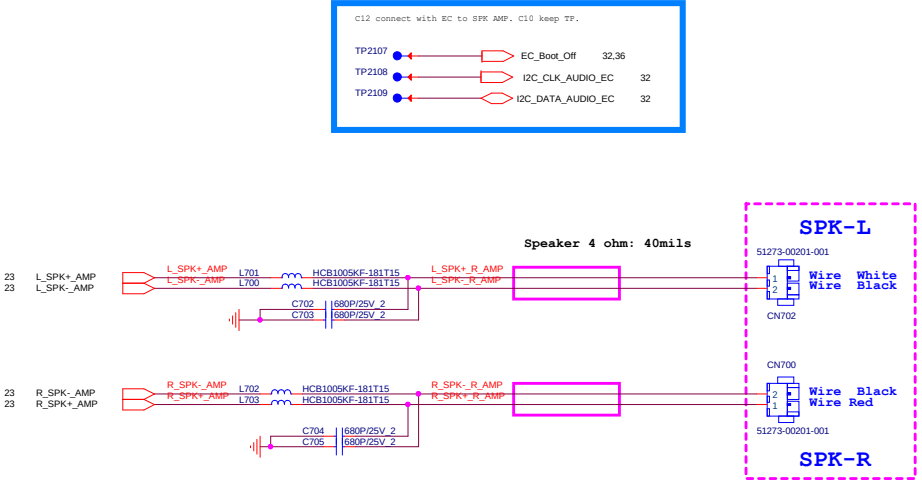
ADCDAT is always in output mode. If pin sharing on ADCDAT is needed for BT/ 3G modem or any other device, a buffer switch will be needed for data path switch.

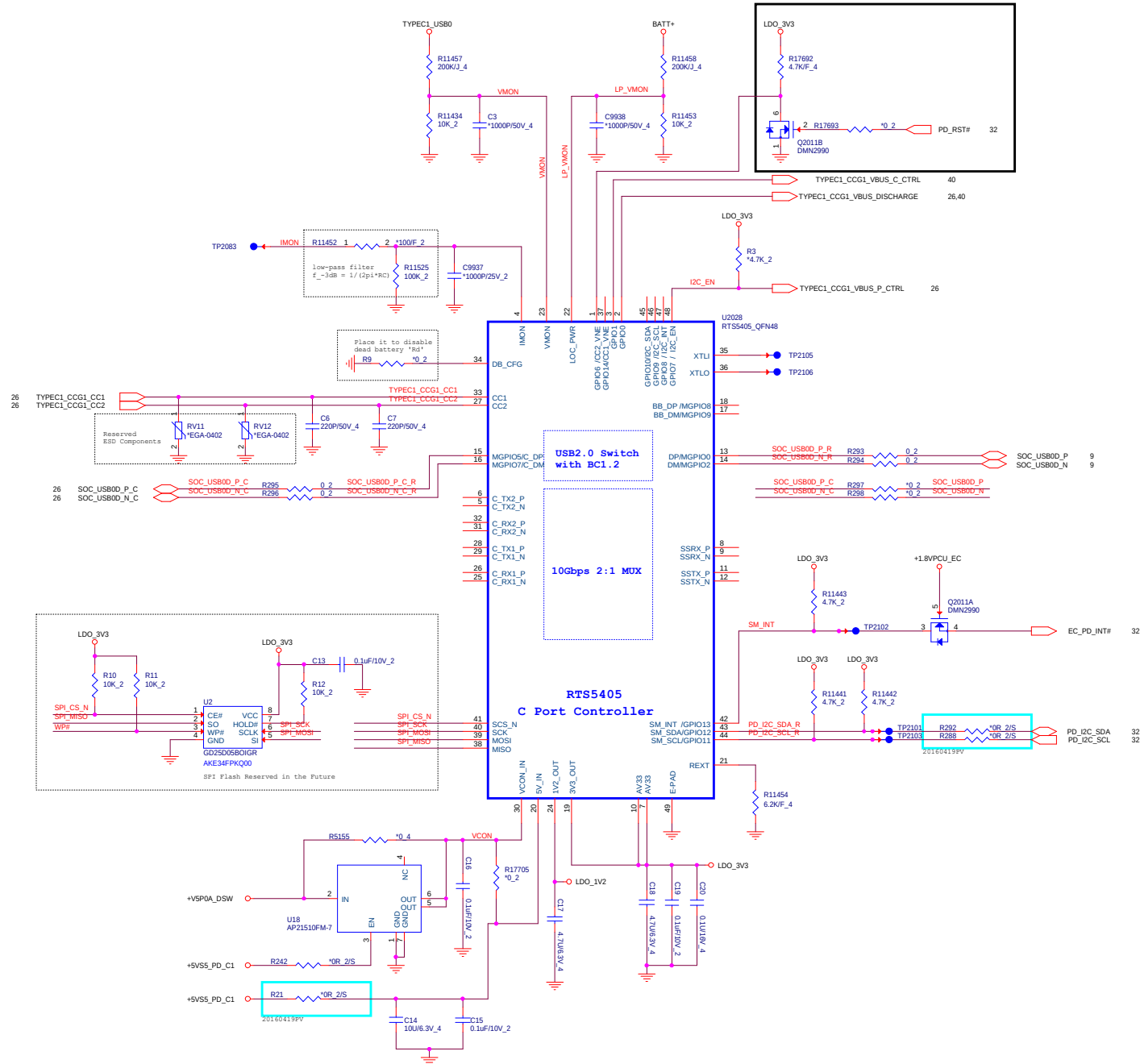


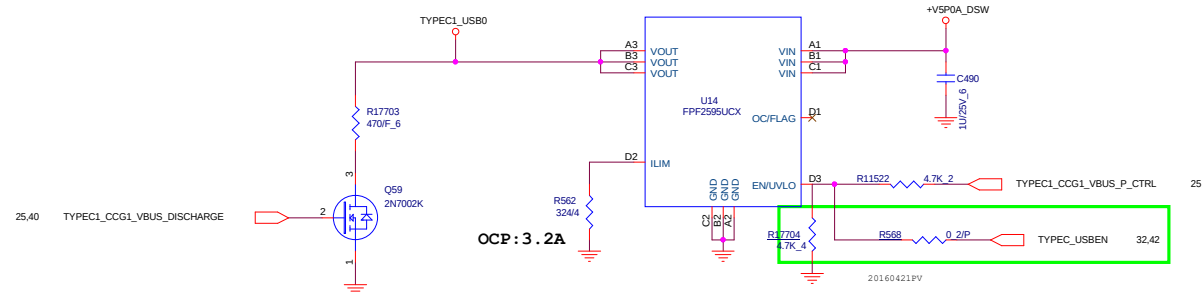
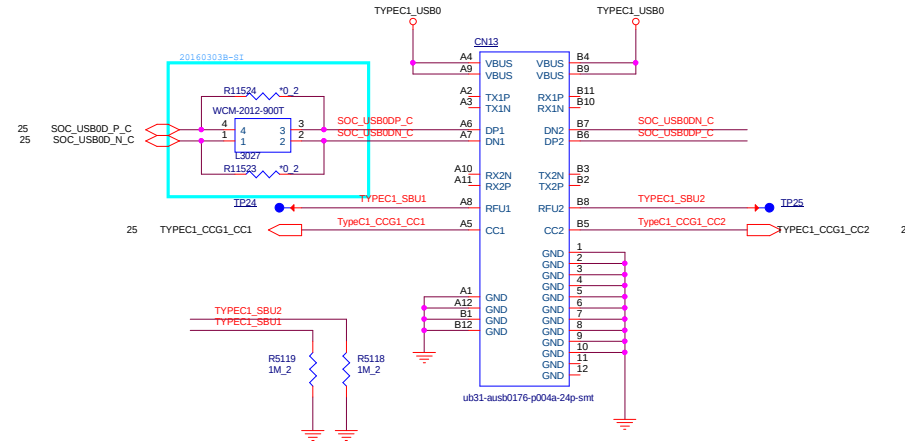
Head Phone out AMPLIFIER



SPEAKER AUDIO AMPLIFIER







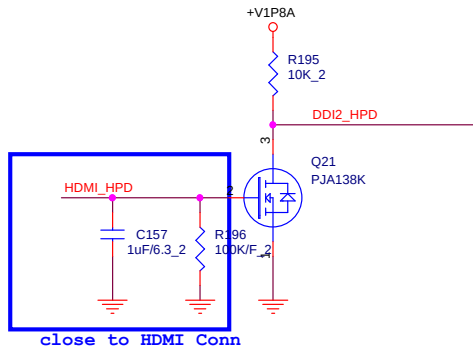
25,40 TYPEC1\_USB0

## HDMI HOT PLUG

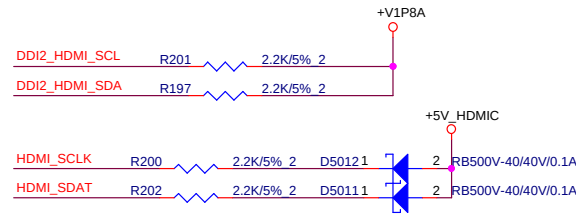
7	DDI2_TX2_N	DDI2_TX2_N	C315	0.1uF/10V 2C_TX0_HDMI-
7	DDI2_TX2_P	DDI2_TX2_P	C313	0.1uF/10V 2C_TX0_HDMI+
7	DDI2_TX1_N	DDI2_TX1_N	C312	0.1uF/10V 2C_TX1_HDMI-
7	DDI2_TX1_P	DDI2_TX1_P	C311	0.1uF/10V 2C_TX1_HDMI+
7	DDI2_TX0_N	DDI2_TX0_N	C310	0.1uF/10V 2C_TX2_HDMI-
7	DDI2_TX0_P	DDI2_TX0_P	C309	0.1uF/10V 2C_TX2_HDMI+
7	DDI2_TX3_N	DDI2_TX3_N	C317	0.1uF/10V 2C_TXC_HDMI-
7	DDI2_TX3_P	DDI2_TX3_P	C316	0.1uF/10V 2C_TXC_HDMI+

9	DDI2_HDMI_SCL	DDI2_HDMI_SCL	
9	DDI2_HDMI_SDA	DDI2_HDMI_SDA	
7	DDI2_HPD	DDI2_HPD	

## HDMI HOT PLUG



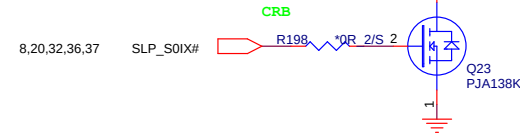
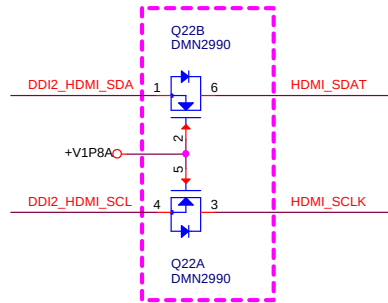
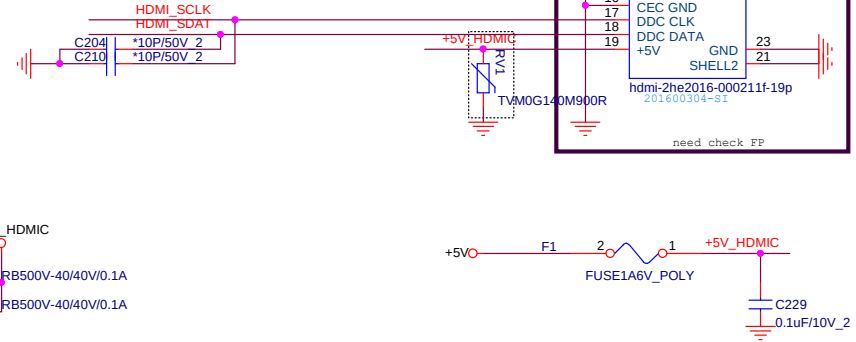
## I2C Pull up



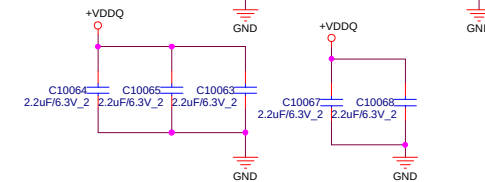
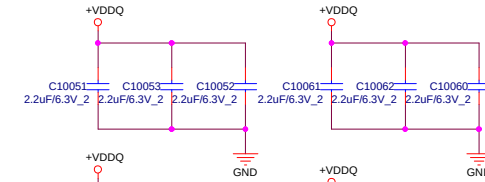
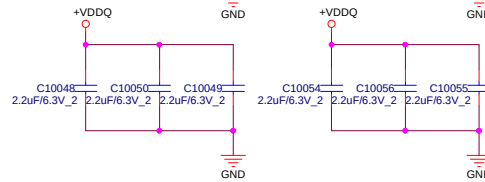
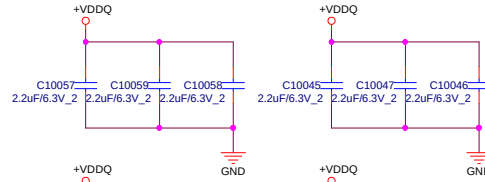
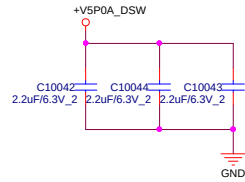
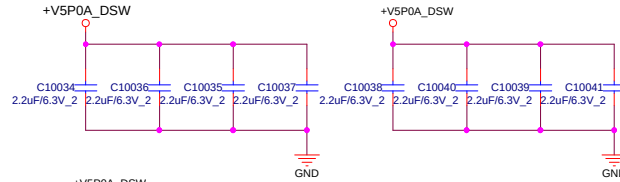
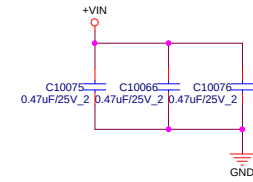
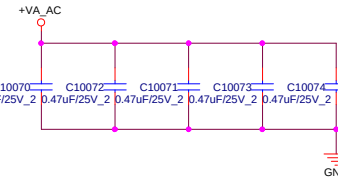
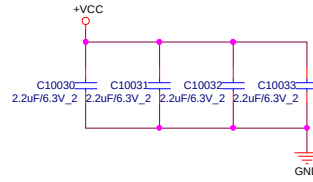
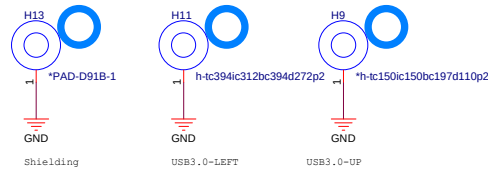
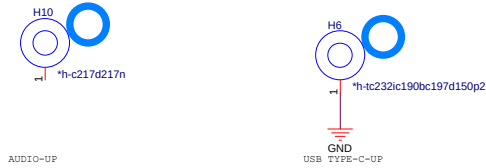
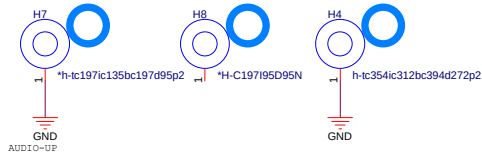
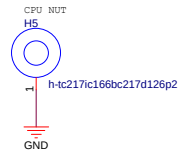
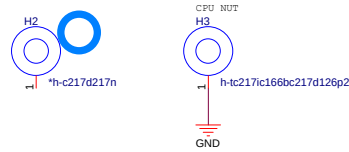
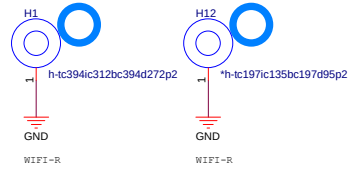
## EMI Solut i on

C_TX2_HDMI+	R395	120/F 2	C_TX2_HDMI-
C_TX1_HDMI+	R400	120/F 2	C_TX1_HDMI-
C_TX0_HDMI+	R403	120/F 2	C_TX0_HDMI-
C_TXC_HDMI+	R409	120/F 2	C_TXC_HDMI-

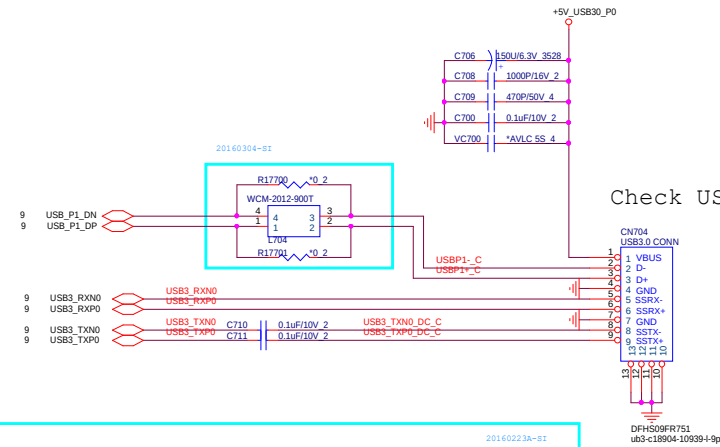
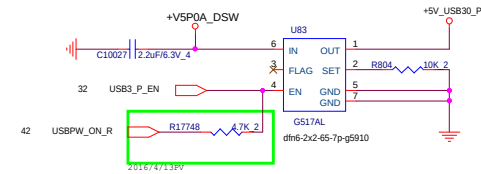
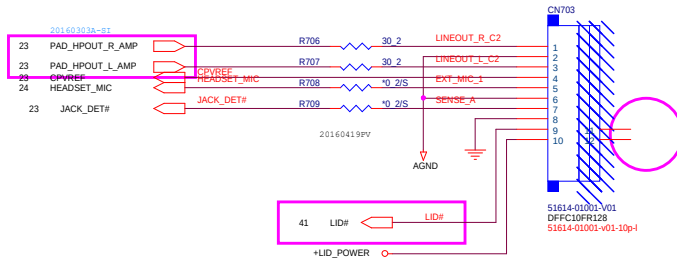
10/21 modify



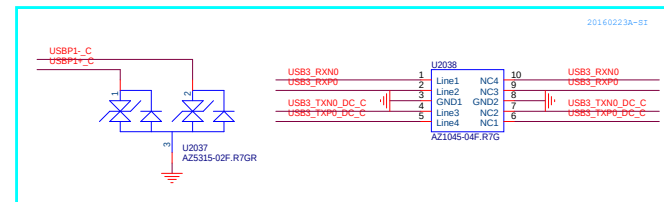
<b>Quanta Computer Inc.</b> <b>PROJECT : D91B</b>		
Size B	Document Number Micro HDMI	Rev. 1A
Date: Wednesday, April 27, 2016	Sheet : 27 of 41	



## Check Audio/B CN



## Check USB3.0 Type-A CN



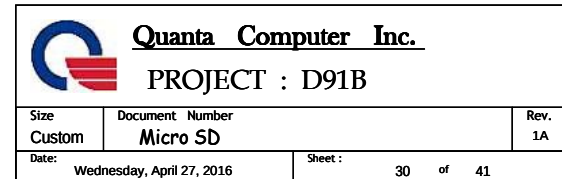
CHECK  
DFHS09FR659  
ub3-c190j8-90909-1-9p

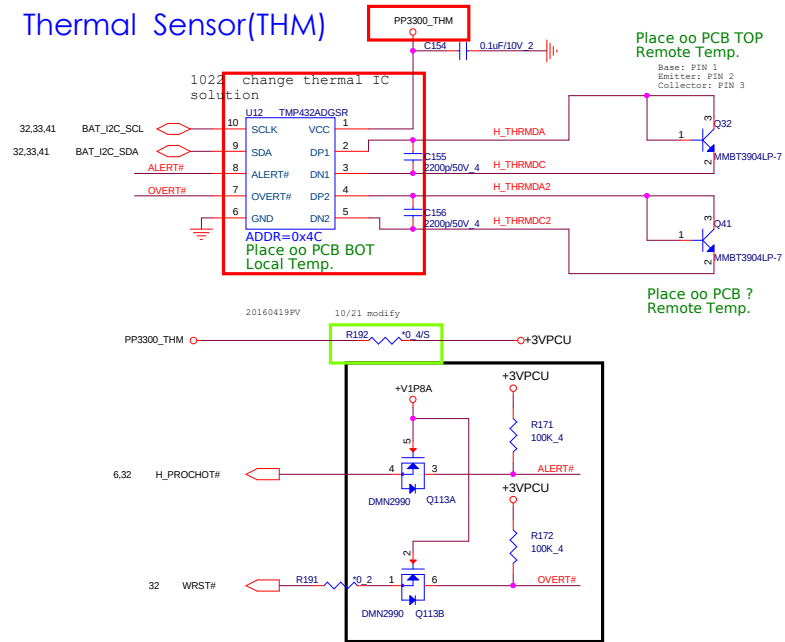
Table 4. C1 pin controls long/medium/short traces

State	Channel type	Pin C1 state	Channel B	Channel A	
			EQ <sup>[1]</sup>	DE <sup>[2]</sup>	OS <sup>[3]</sup>
H	Long	H	9 dB	-5.3 dB	1.1 V
high-Z	Medium	high-Z	6 dB	-3.1 dB	1.0 V
L	Short	L	3 dB	0 dB	0.9 V

Table 5. C2 pin controls long/medium/short traces

State	Channel type	Pin C2 state	Channel A	Channel B	
			EQ <sup>[1]</sup>	DE <sup>[2]</sup>	OS <sup>[3]</sup>
H	Long	H	9 dB	-5.3 dB	1.1 V
high-Z	Medium	high-Z	6 dB	-3.1 dB	1.0 V
L	Short	L	3 dB	0 dB	0.9 V





## Accelerometer +e-Compass+Gyro Sensor

Keepout area is around 10mm

```

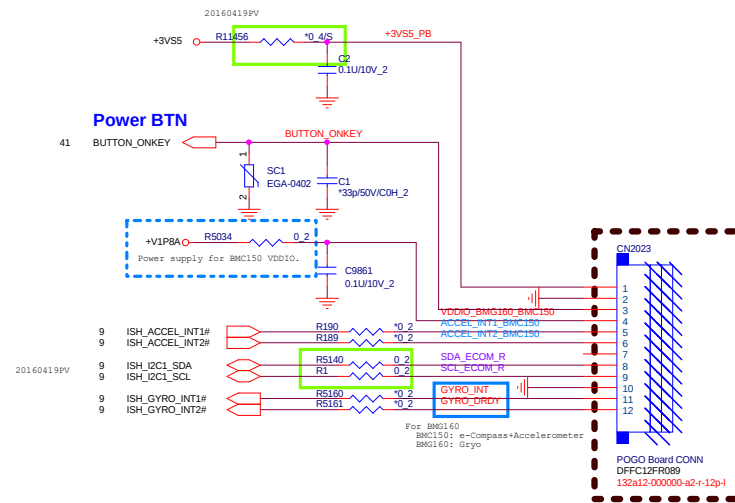
WR Address : 0x3C
RD Address : 0x3D

```

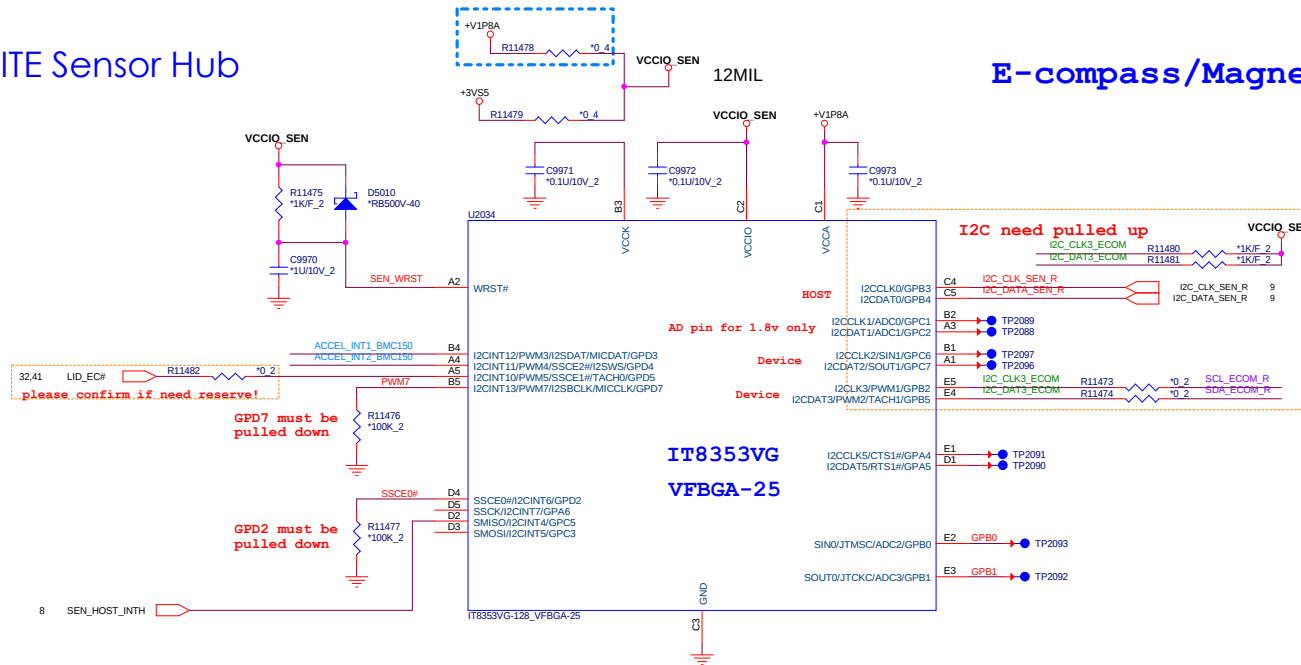
## ALS

SDO_AG	AG Address
VDDIO	0x6B
GND	0x6A

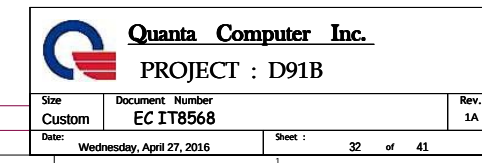
SDO_M	M Address
VDDIO	0x1E
GND	0x1C



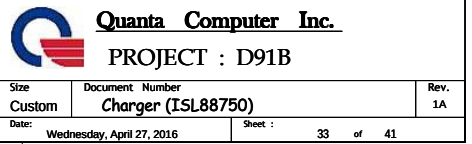
## ITE Sensor Hub

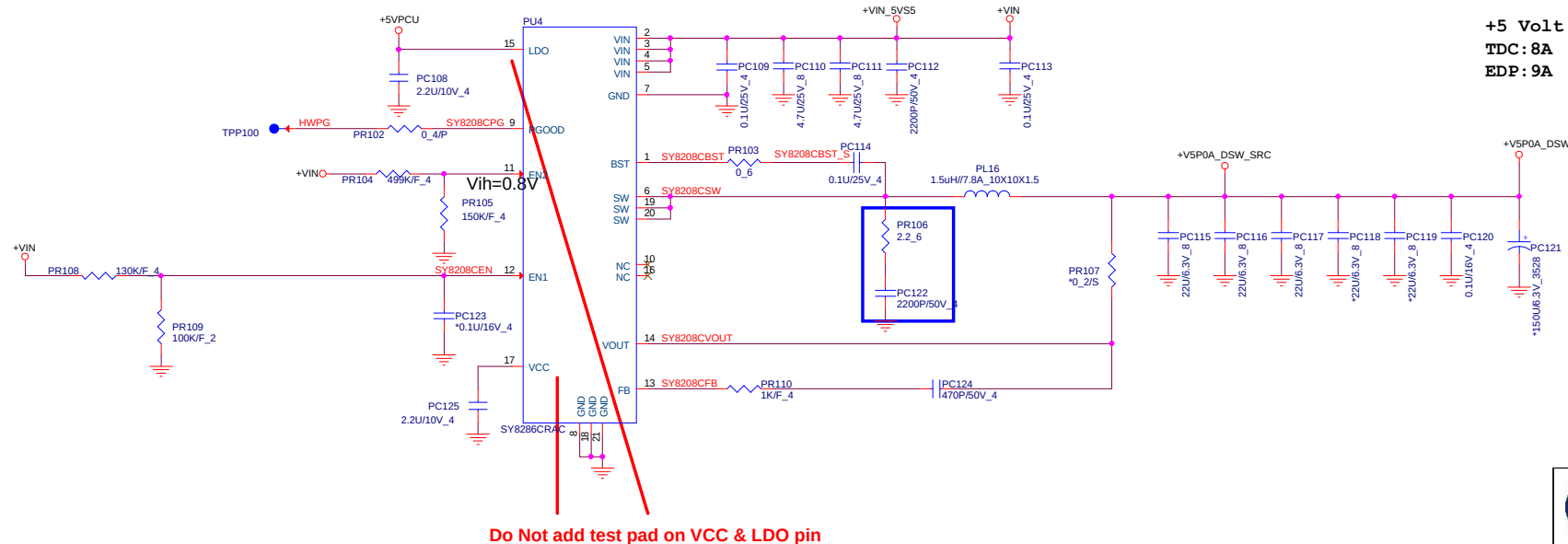
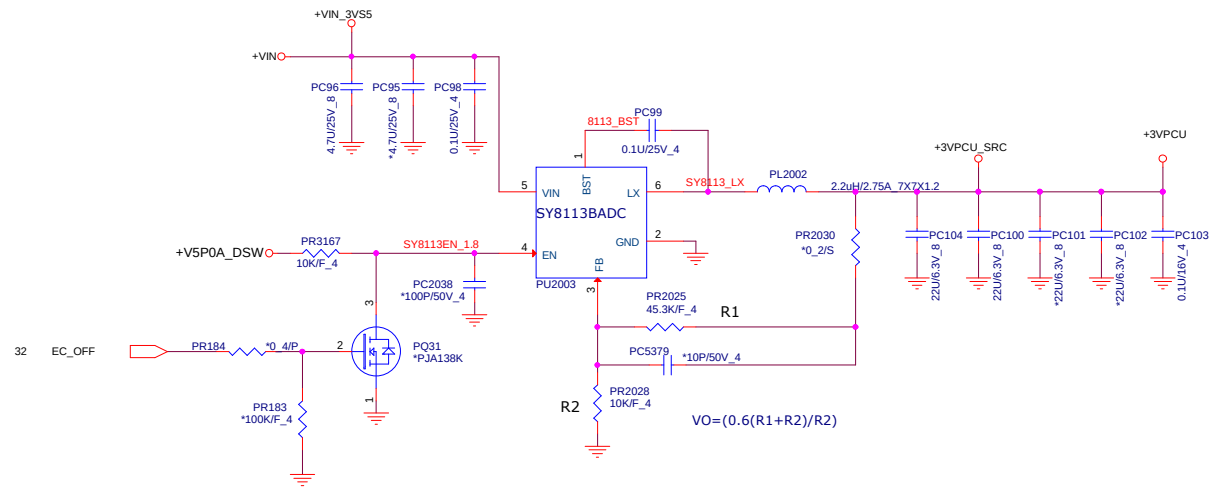


### E-compass/Magnetometer/Accelerometer (BMC150)

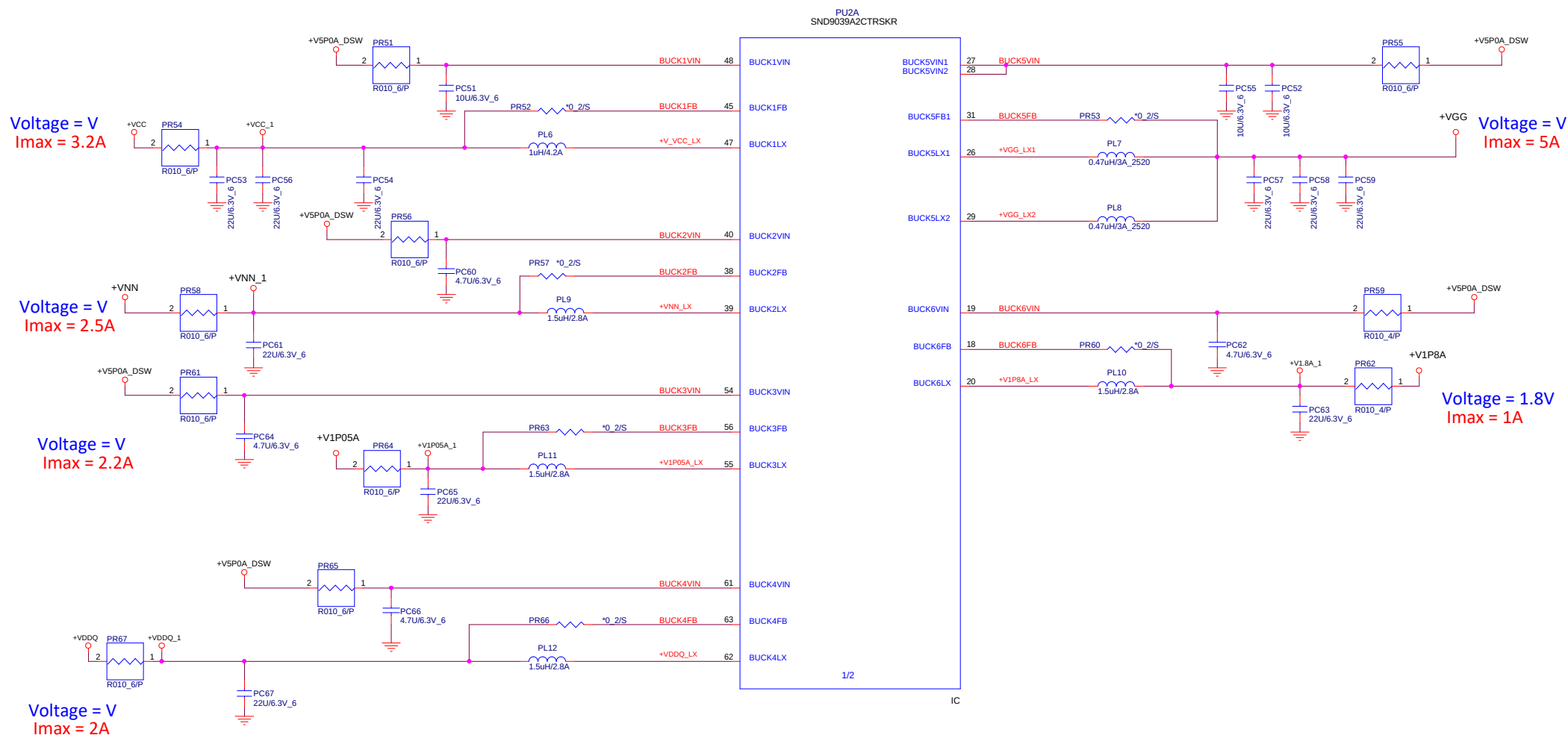


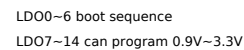
	z
+BAT RTC	



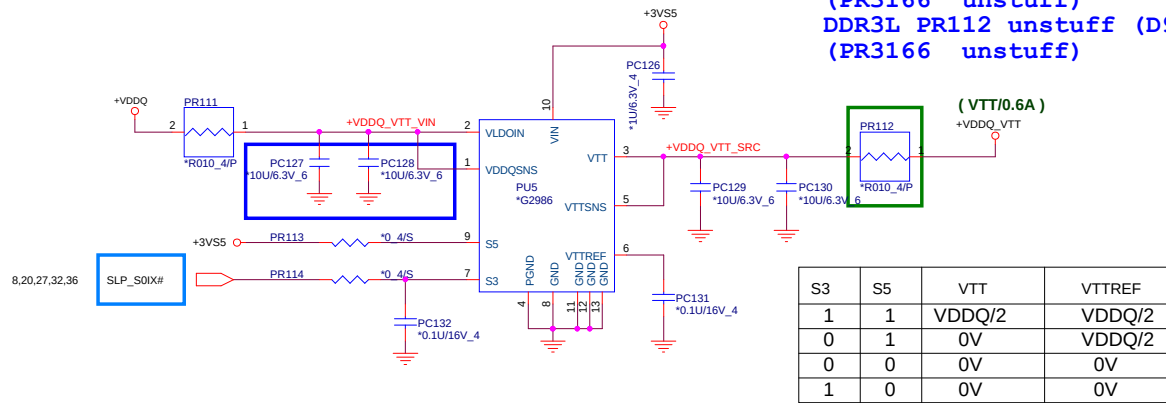


Cherry trail T3 :SND9039A2CTRSKR -> AL009039004  
Bay trail TCR : SND9039A2BT -> AL009039001





LPDDR3 PR112 stuff (D91A)  
(PR3166 unstuff)  
DDR3L PR112 unstuff (D91B)  
(PR3166 unstuff)



10mA

