

UMA (11.6")

## Intel Bay Trail-M Platform Block Diagram

+3VS5/+5VS5	PG.29
MOIC	PG.31
CPU Core	PG.32,33
DDR3L	PG.30
Charger	PG.28

DDR3L	1600MT/s Channel A
Memory down*4pcs	PG.14
DDR3L	1600MT/s Channel B
Memory down*4pcs	PG.15



eDP (2 lane)

EDP panel

PG.18

DP Port0

HDMI

PG.18

eMMC 4.51

eMMC  
32G/64G

USB 3.0

USB3.0 Ports

X1

PG.23

USB 2.0

USB 2.0

USB2.0 Ports

X1

PG.23

PCI-E x2

Card Reader  
RTS5239-GR

PG.17

WLAN  
BT COMBO  
NGFF M2

PG.24

USB 2.0

WLAN  
BT COMBO  
NGFF M2

PG.24

Webcam

PG.18

WWAN  
NGFF M2

PG.20

KBC  
IT8987

PG.25

LPC

Fast SPI

KB

PG. 21

TP

PG. 21

ROM

PG. 5

AUDIO  
CODEC  
ALC 3227

PG.19

Speaker

PG.19

Without amp for eMMC sku

Azalia

Hp

Headphone  
amplifier  
HPA022642RTJR  
Daughter board

MIC

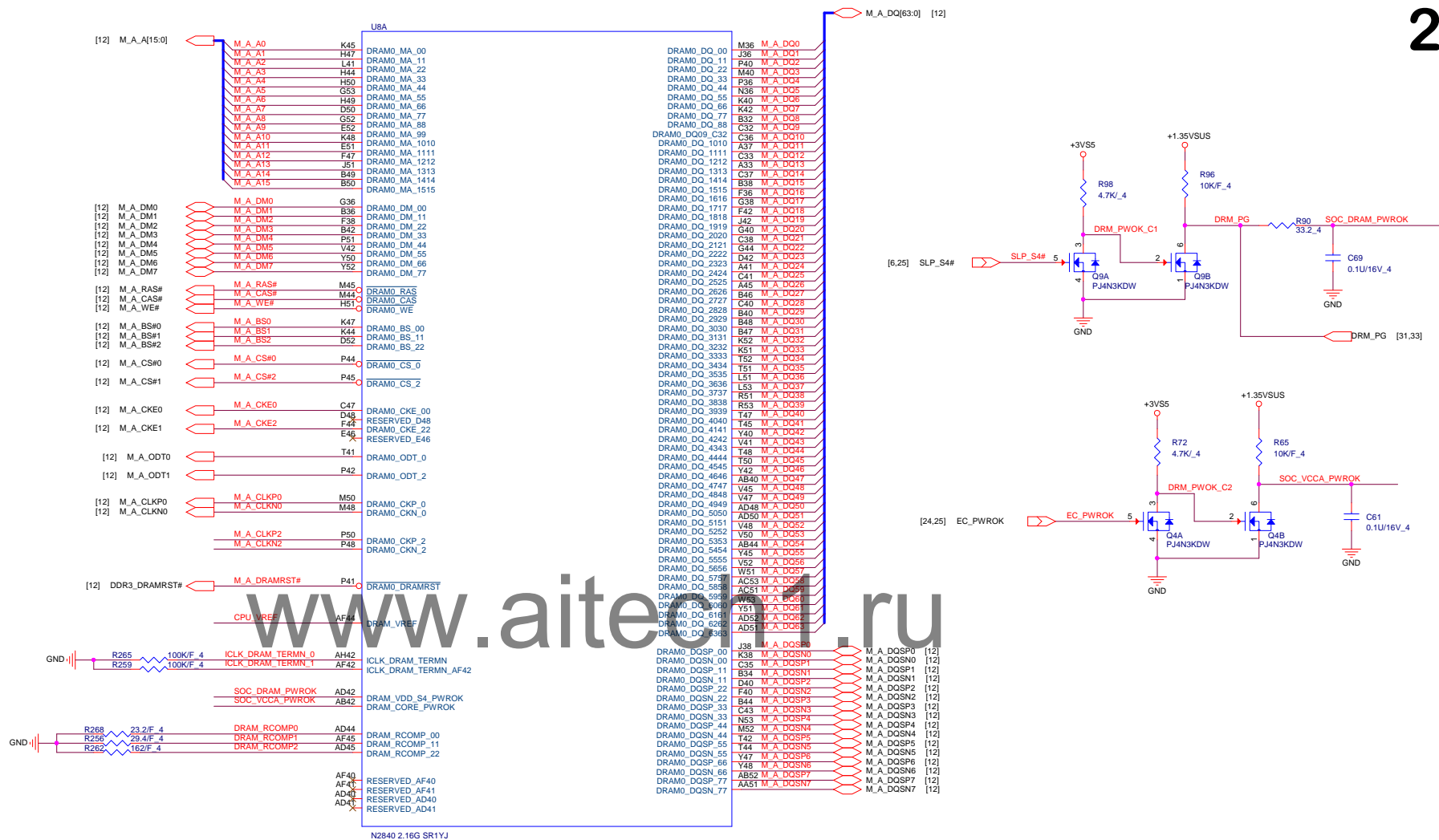
Combo Jack

Daughter board

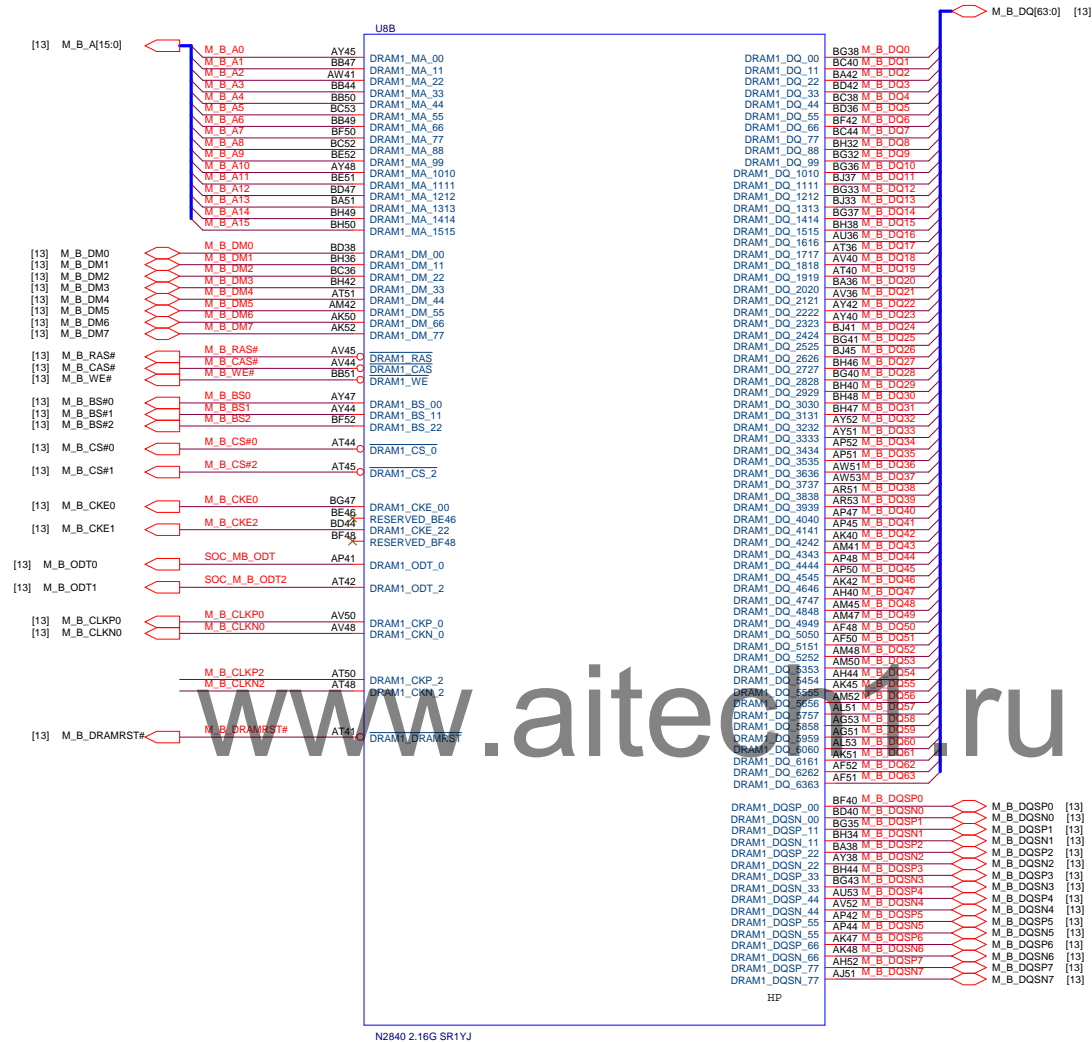
PROJECT : Y0HC  
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	1A
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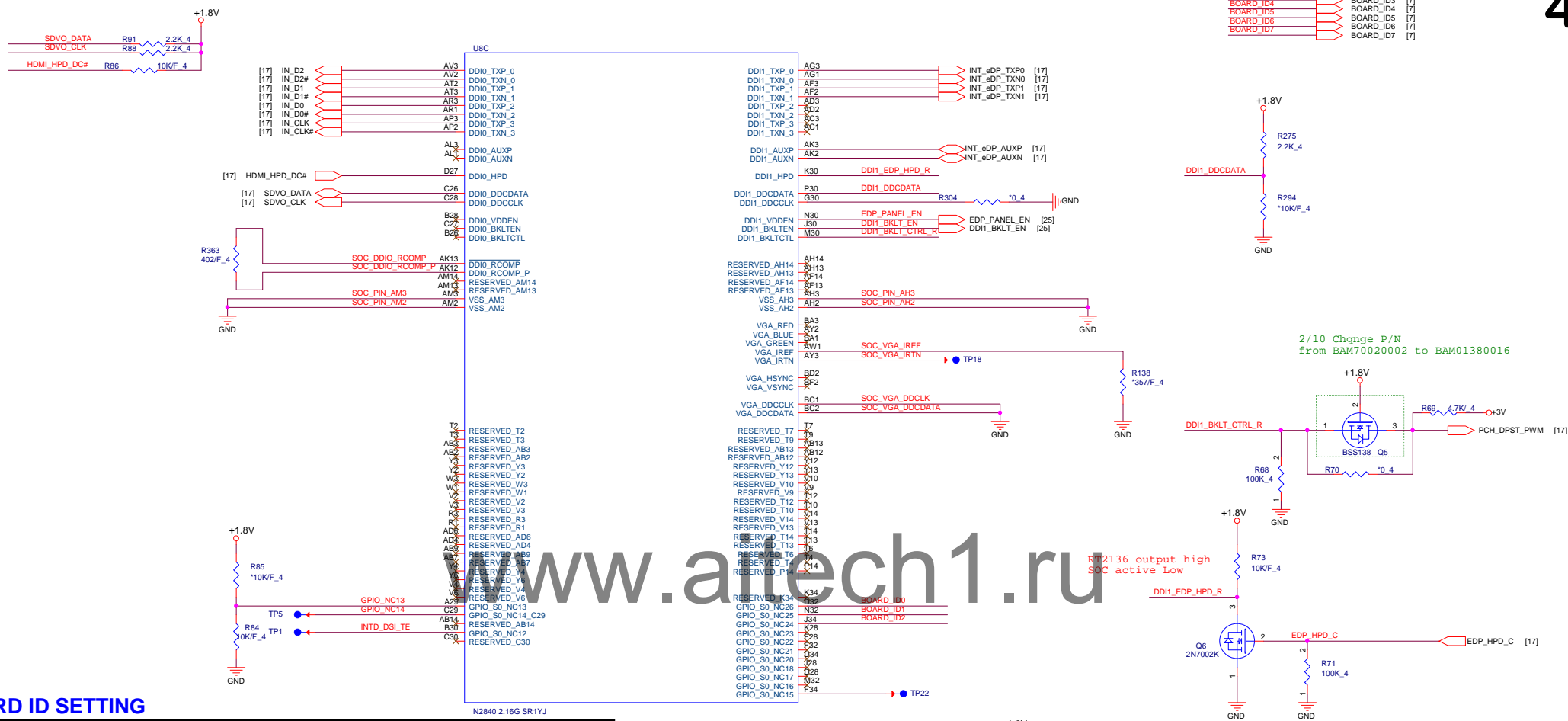




**PROJECT : YOHC**  
Quanta Computer Inc.

Size	Document Number	Rev
	Valley 2/9 (DDB)	1A
Date:	Tuesday, July 21, 2015	Sheet 8 of 33

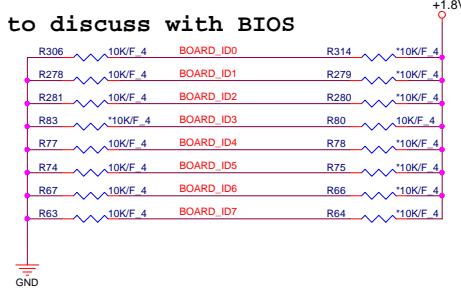





BOARD ID SETTING

		DDR RAM Setting ID543			eMMC Setting ID210				
		Reserve (Default = 00)			Default				
		000 = SAM 2G (256M *16* 4PCS)			000 = HYN 32G				
		001 = HYN 2G (256M *16* 4PCS)			001 = SDC 32G				
		010 = MTL 2G (256M *16* 4PCS)			010 = SAM 32G				
		101 = SAM 2G (256M *16* 4PCS) E Die							
		011 = SAM 4G (256M *16* 8PCS)			100 = HYN 64G				
		100 = HYN 4G (256M *16* 8PCS)			101 = SDC 64G				
		111 = MTL 4G (256M *16* 8PCS)			110 = SAM 64G				
Model	BOARD_ID7	BOARD_ID6	BOARD_ID5	BOARD_ID4	BOARD_ID3	BOARD_ID2	BOARD_ID1	BOARD_ID0	
	0	0	0	0	0	0	0	0	

Need to discuss with BIOS



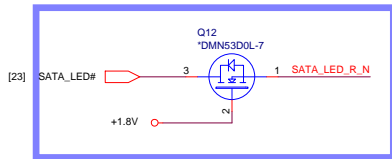


**PROJECT : YOHC**  
Quanta Computer Inc.

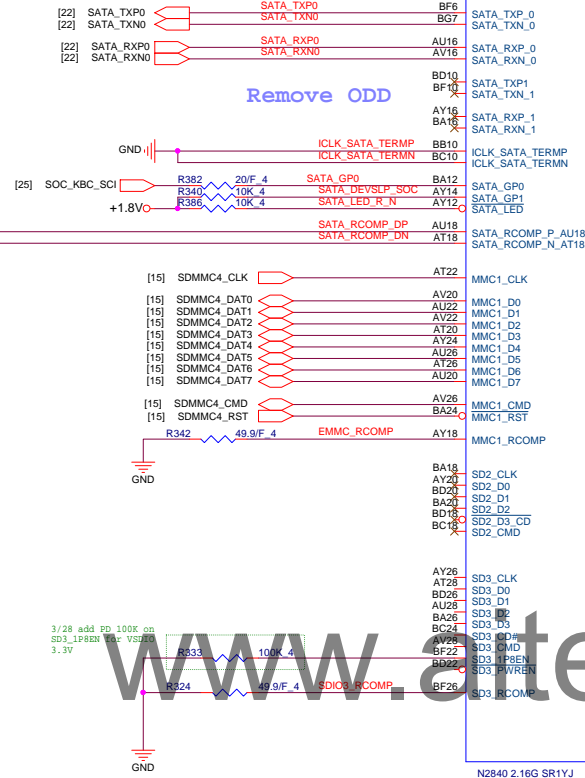
Size	Document Number	Rev
	Valley 3/9 (Display)	1A
Date:	Tuesday, July 21, 2015	Sheet# of 33



## Add SATA LED CTL

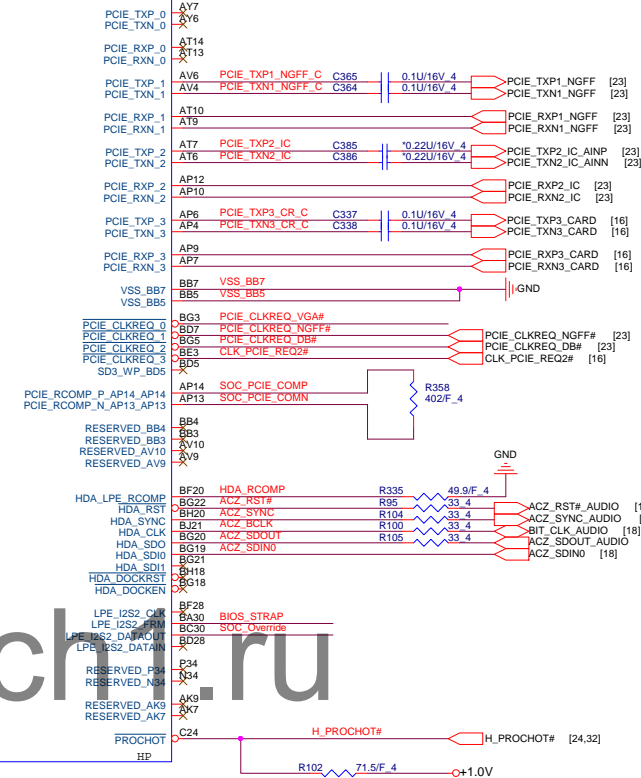


## HDD



## Remove ODD

## U2D

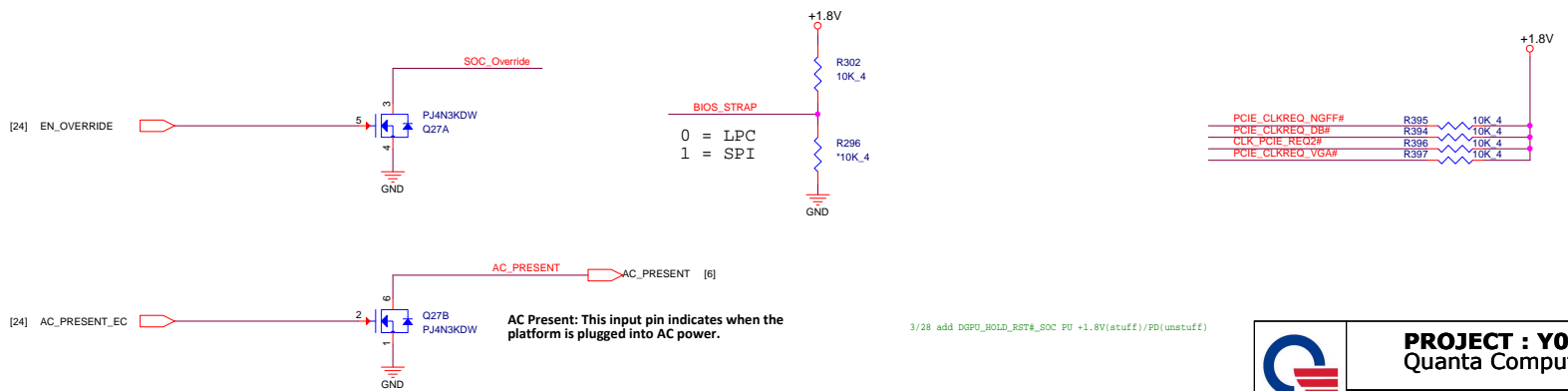


## NGFF

## PCIE Re-Driver IC

## Card reader

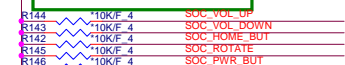
www.tech.ru









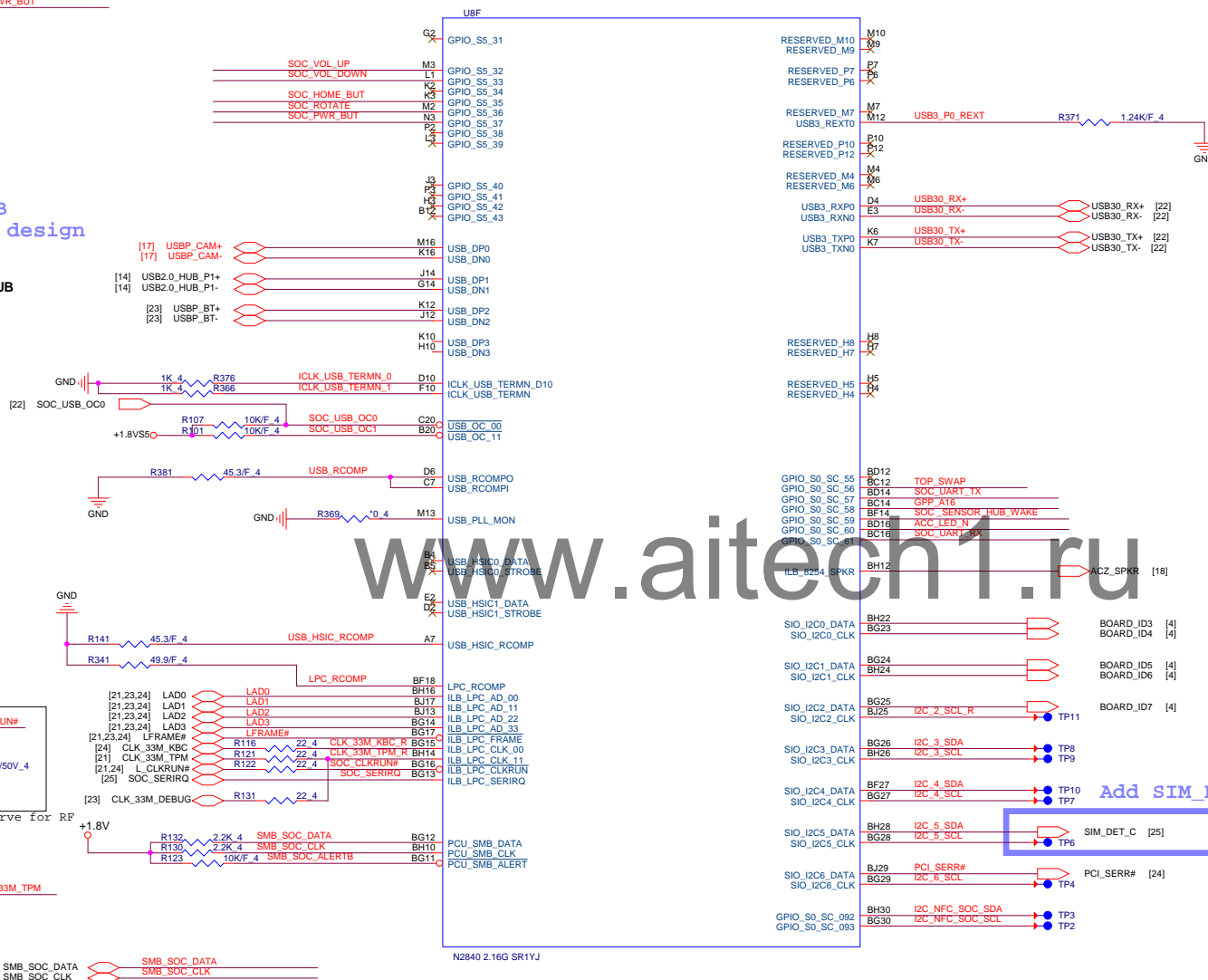


Check  
Add USB\_BT\_DB  
All USB port design

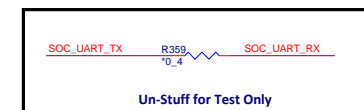
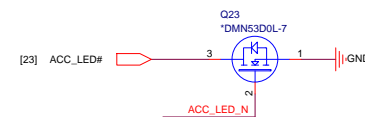
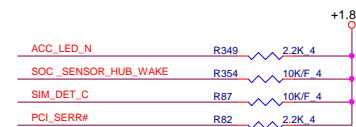
## Camera

## USB 2.0 HUB

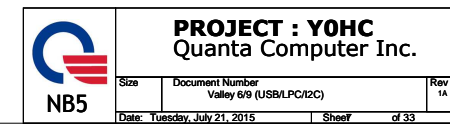
WWAN



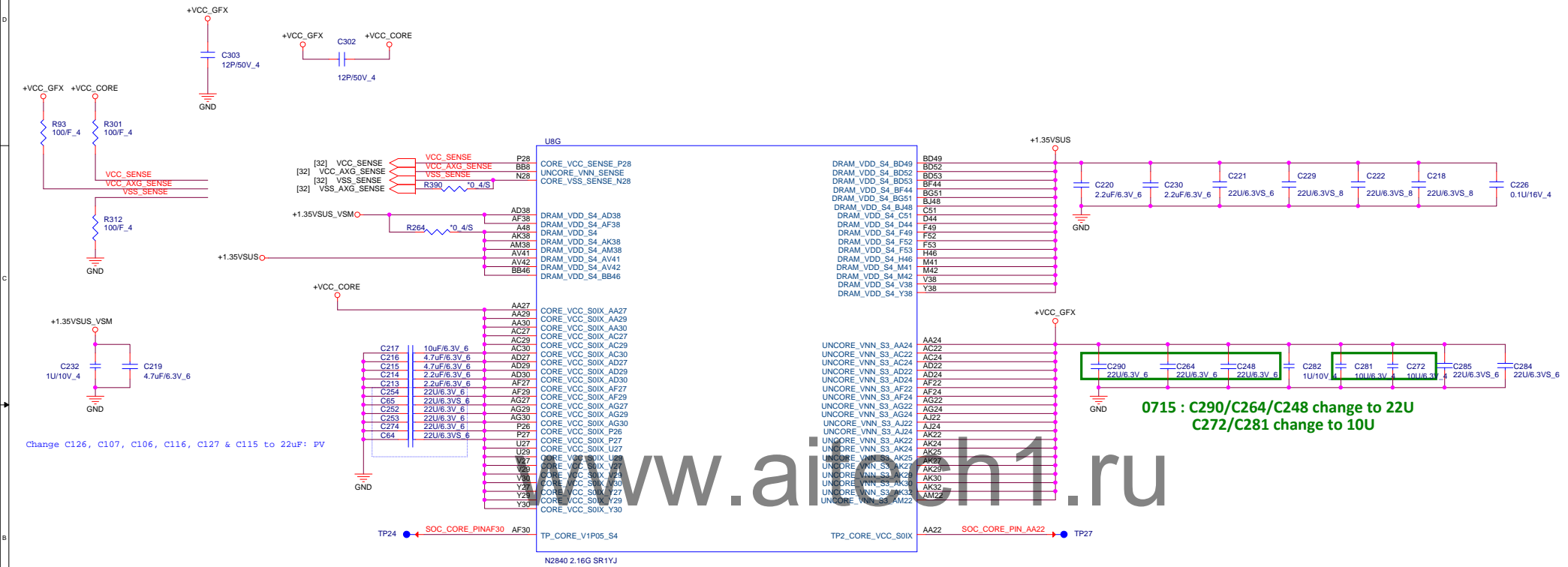
**USB 3.0/2.0 HUB**



Add SIM\_DET\_C



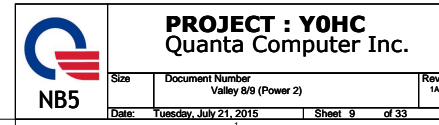




**PROJECT : YOHC**  
Quanta Computer Inc.

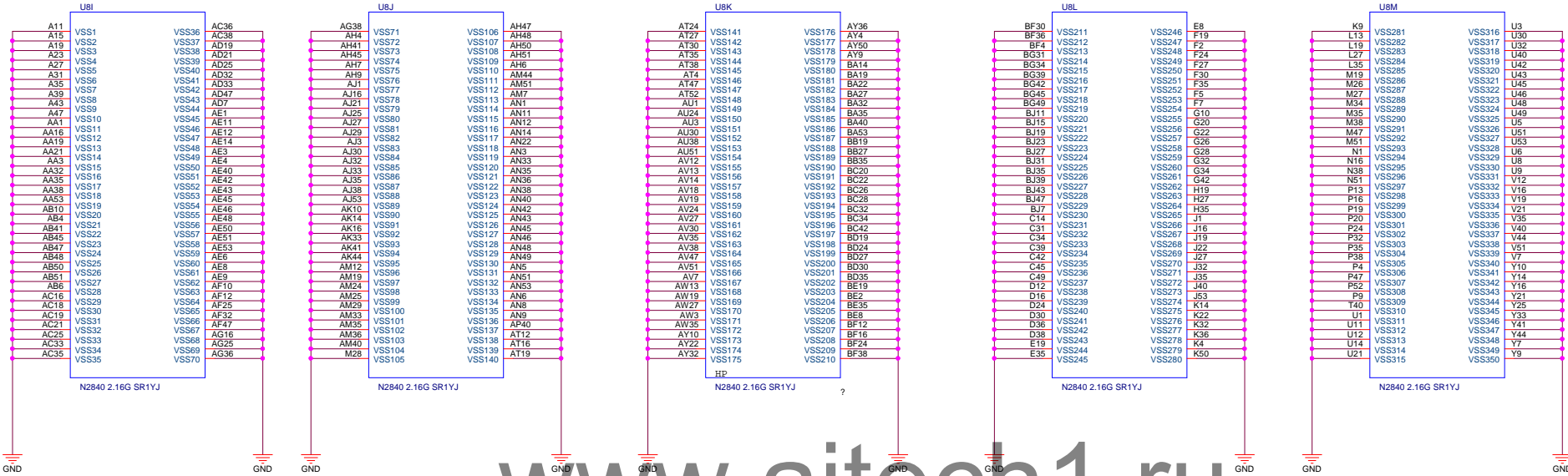
Size	Document Number	Rev
	Valley 7/9 (Power 1)	1A
Date: Tuesday, July 21, 2015	Sheet 8	of 33







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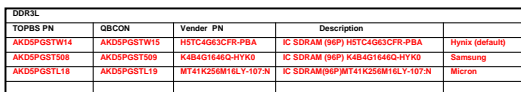




3/21 deleted XDP CH6

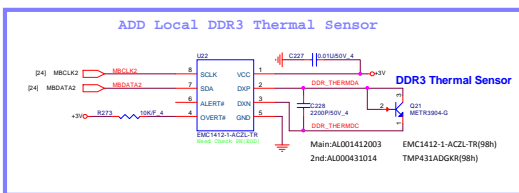
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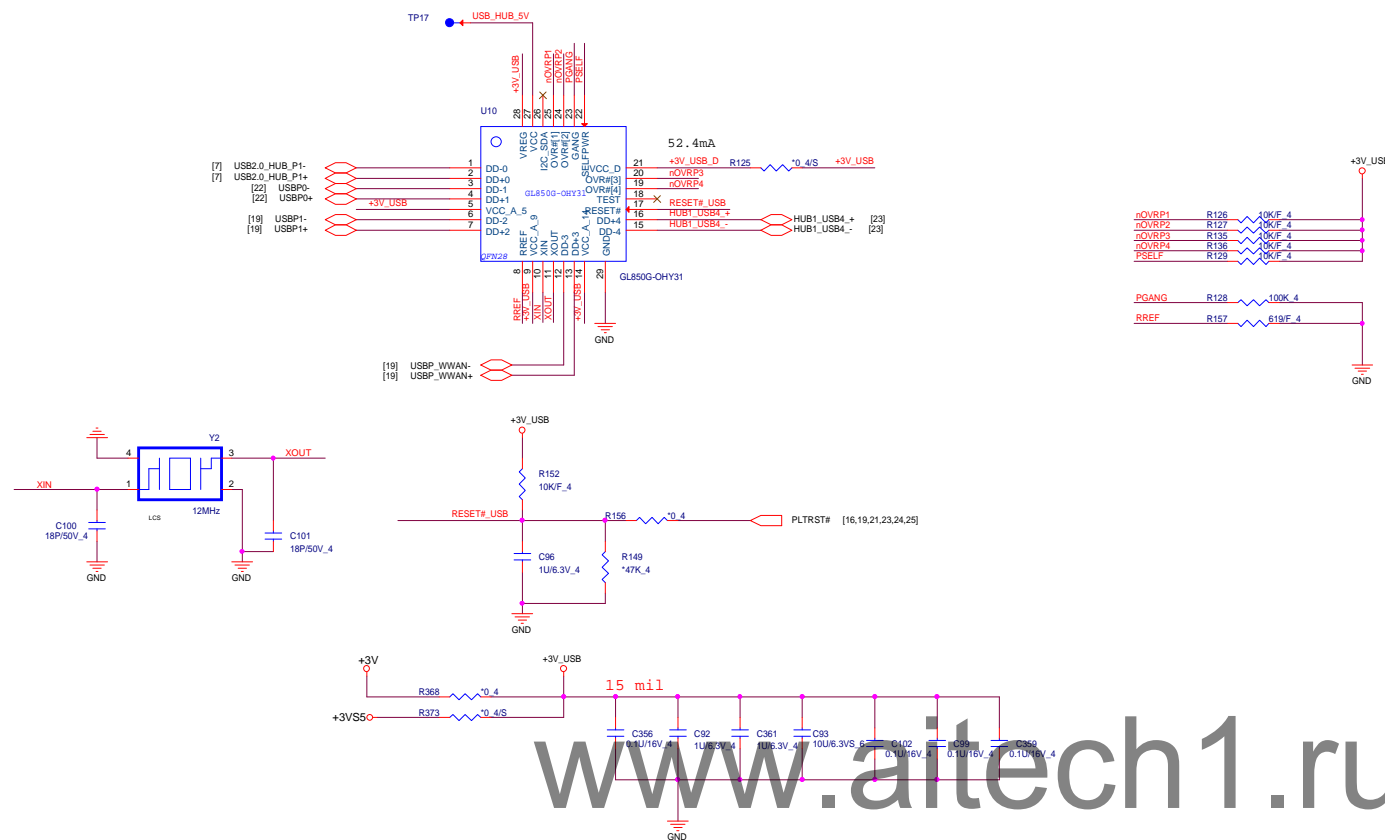


DDR3L				
TOPBS PN	QBCON	Vender PN	Description	
AKD5PGSTW14	AKD5PGSTW15	H5TC4G63CFR-PBA	IC SDRAM (96P) H5TC4G63CFR-PBA	Hynix (default)
AKD5PGST508	AKD5PGST509	K4B4G164EQ-HYK0	IC SDRAM (96P) K4B4G164EQ-HYK0	Samsung
AKD5PGSTL18	AKD5PGSTL19	MT41K256M16LY-107N	IC SDRAM(96P)MT41K256M16LY-107N	Micron

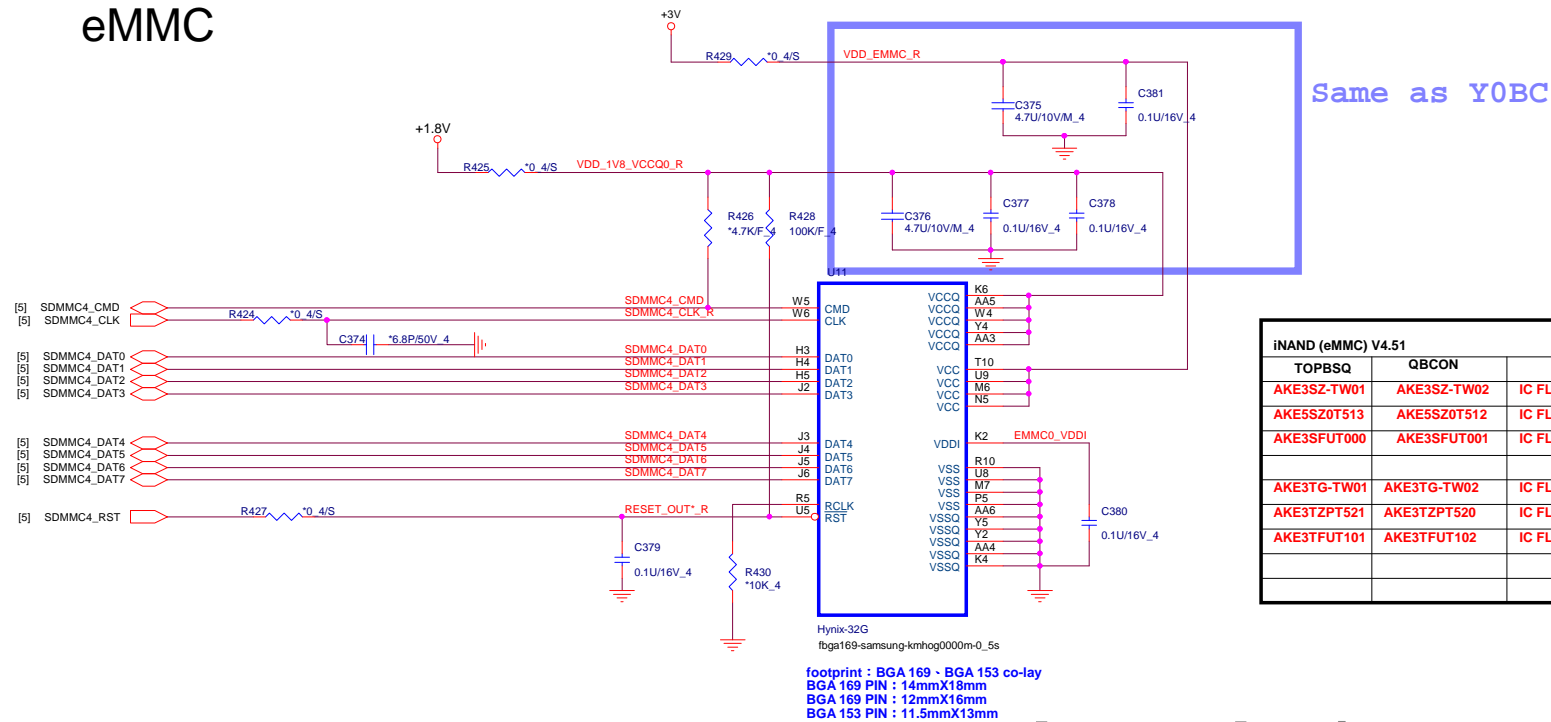








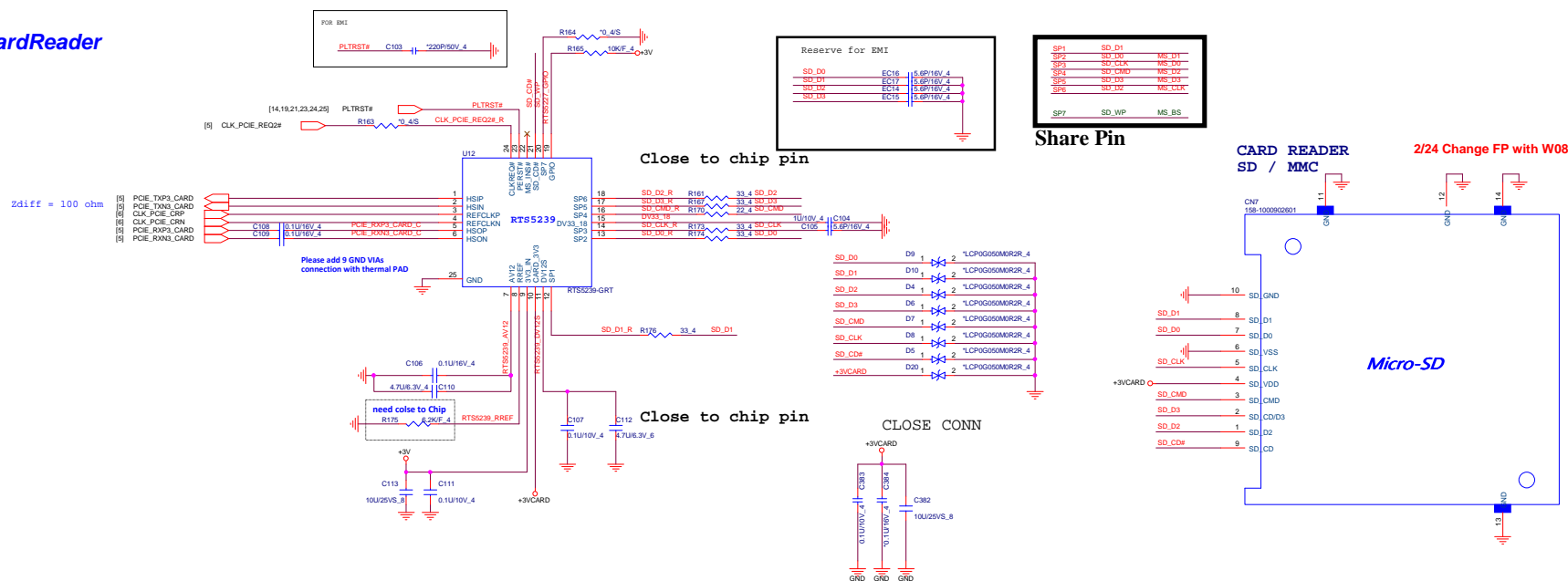




iNAND (eMMC) V4.51				
TOPBSQ	QBCON	Description	SIZE	Vender
AKE3SZ-TW01	AKE3SZ-TW02	IC FLASH(153P)H26M64103EMR(FBGA)	32G	Hynix (Default)
AKE5SZ0T513	AKE5SZ0T512	IC FLASH(153)KLMBG4GEND-B031(FBGA)	32G	samaung
AKE3SFUT000	AKE3SFUT001	IC FLASH(153P)SDIN9DW4-32G(FBGA)	32G	SanDisk
AKE3TG-TW01	AKE3TG-TW02	IC FLASH(153P)H26M78103CCR(FBGA)	64G	Hynix
AKE3TZPT521	AKE3TZPT520	IC FLASH(153)KLMCG8GEND-B031(FBGA)	64G	samaung
AKE3TFUT101	AKE3TFUT102	IC FLASH(153P)SDIN9DW4-64G(FBGA)	64G	SanDisk

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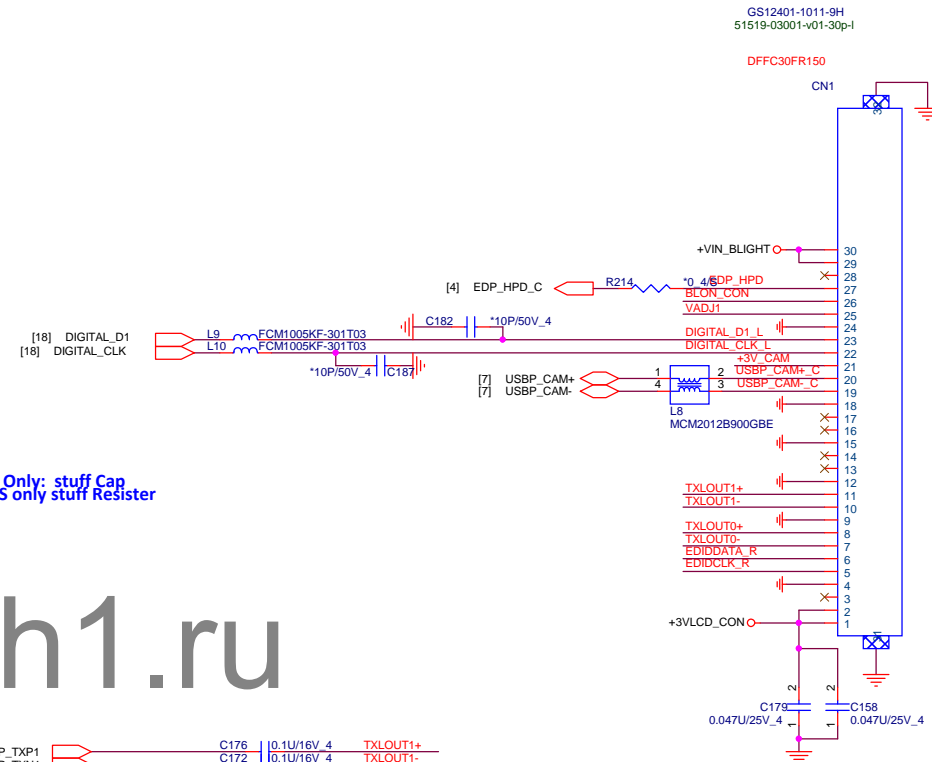




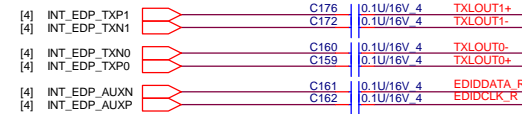
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## LVDS Conn. 18



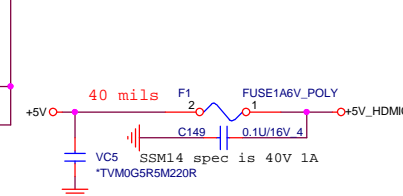
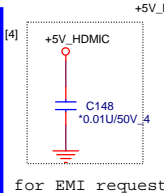
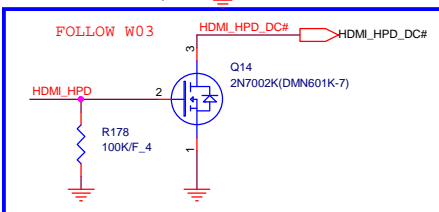
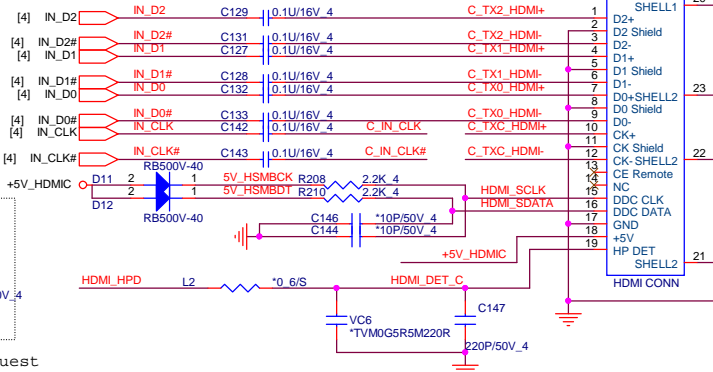
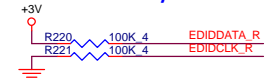
## HDMI SMBus Isolation



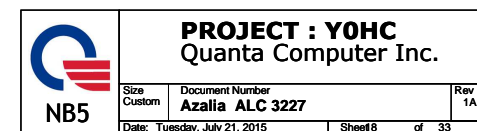
For EDP Only,close CN6100



## For EDP Only: Reserve



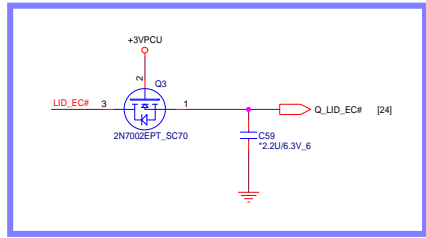
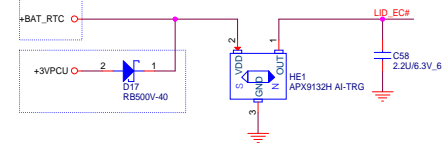






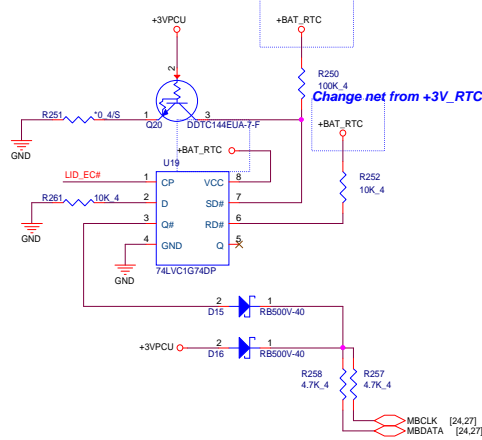
**LID**

Change net from +3V\_RTC to +BAT\_RTC



check with Y0BC?

Change net from +3V\_RTC to +BAT\_RTC



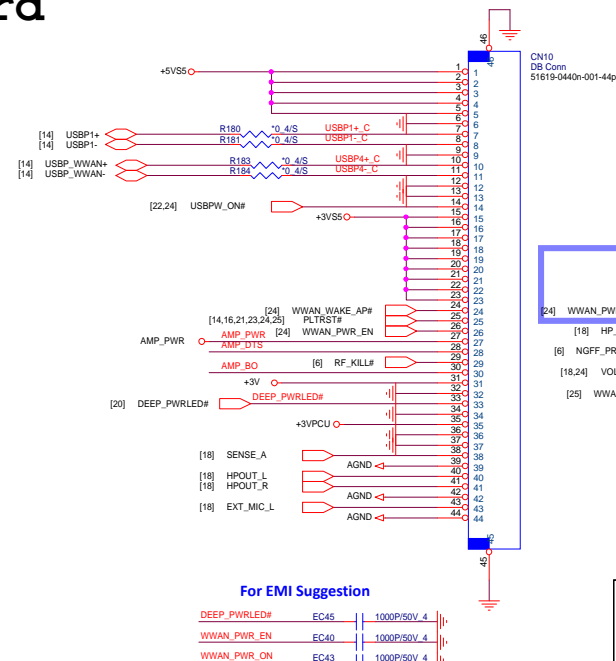
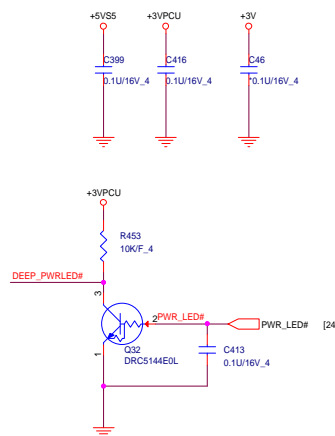
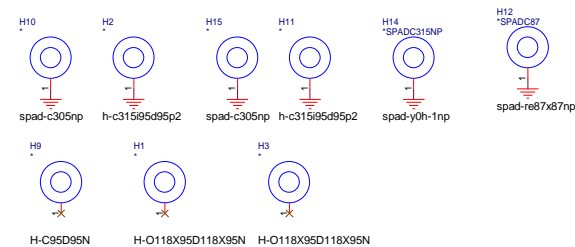
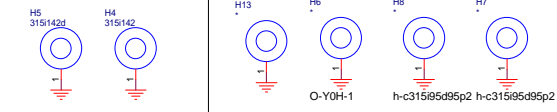
Input	Output
SD	Q
L	H
H	L
L	H

[1] H = HIGH voltage level;  
L = LOW voltage level;  
X = don't care.

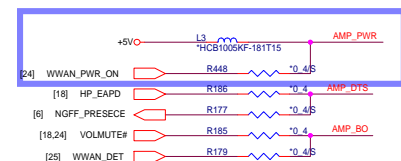
Input	Output
SD	Q <sub>n+1</sub>
H	H
H	L

[1] H = HIGH voltage level;  
L = LOW voltage level;  
↑ = LOW-to-HIGH CP transition;  
Q<sub>n+1</sub> = state after the next LOW-to-HIGH CP transition.

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**Daughter Board****HOLE****Thermal Nut**

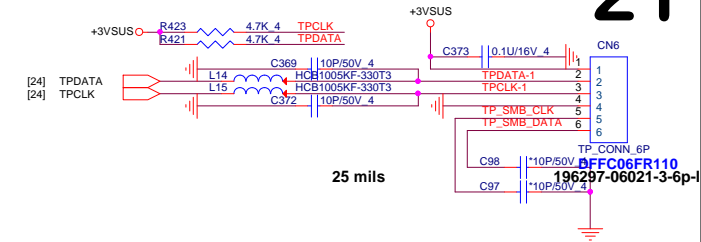
Check with EC&amp;BIOS



For EMI Suggestion







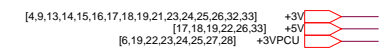
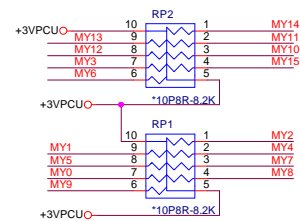
The schematic diagram shows the LED driver circuit for the MX10-MX19 LEDs. The circuit includes a 3V3V supply, a 100F\_6 capacitor, a 100F\_4 capacitor, and a 100F\_4 capacitor. The LEDs are connected in a series-parallel configuration. The circuit is labeled with component values and pin numbers.

Component values and pin numbers:

- 3V3V
- 100F\_6
- 100F\_4
- 100F\_4
- LED#
- MUTE\_LED\_CNTL\_R1
- R331 2
- R344 2
- 200F\_6
- 1MUTE\_LED\_CNTL\_R
- EC29 0.1uF\_4
- KB1
- KB\_CONN1\_28P
- MY0[.15]
- MY0[.7]
- MY10
- MY11
- MY14
- MY13
- MY12
- MY3
- MY6
- MY8
- MY7
- MY4
- MY2
- MX7
- MX1
- MX5
- MX0
- MX2
- MX3
- MY9
- MX1
- MX0
- MX6
- 25
- 26
- 27
- 28
- 29
- 30

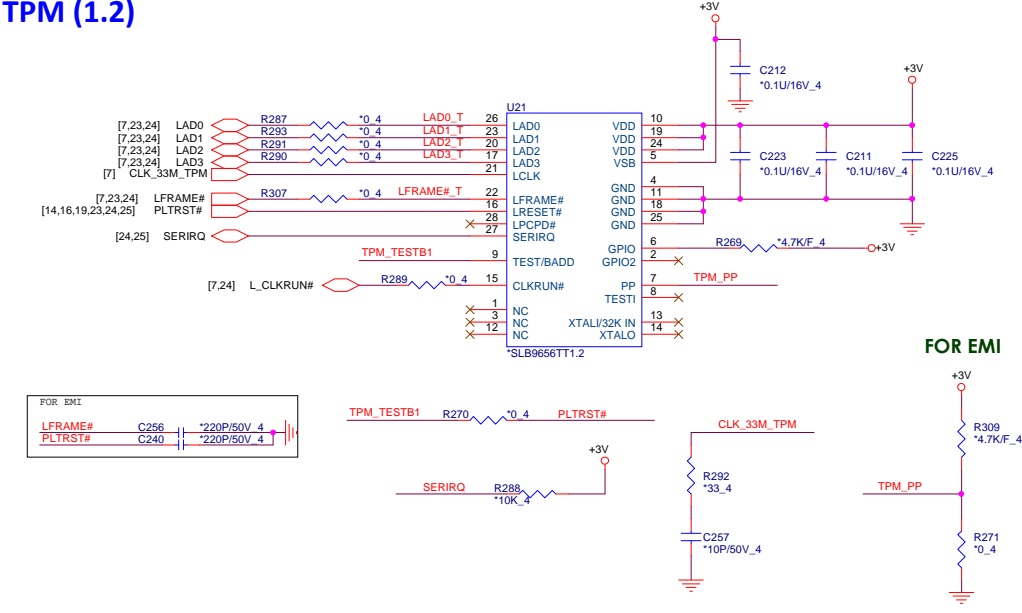
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MY6	MY5	C322	220P/50V 4
MY3		C336	220P/50V 4
		C334	220P/50V 4
	MY7	C81	220P/50V 4
	MY8	C83	220P/50V 4
MY10	MY9	C328	220P/50V 4
		C346	220P/50V 4
MY11		C351	220P/50V 4
	MY1	C80	220P/50V 4
	MY2	C79	220P/50V 4
	MY4	C78	220P/50V 4
	MY0	C324	220P/50V 4
	MX4	C330	220P/50V 4
	MX6	C318	220P/50V 4
	MX3	C325	220P/50V 4
	MX2	C333	220P/50V 4
	MX7	C75	220P/50V 4
	MX0	C319	220P/50V 4
	MX5	C332	220P/50V 4
	MX1	C309	220P/50V 4
	MY12	C345	220P/50V 4
MY13		C352	220P/50V 4
MY14		C357	220P/50V 4
MY15		C344	220P/50V 4

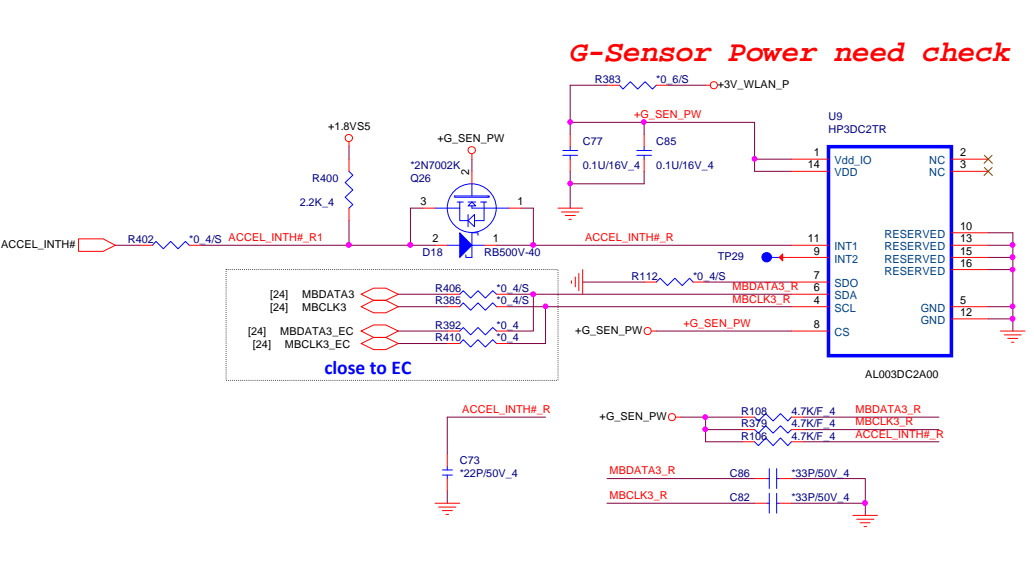




TPM (1.2)



Accelerometer Sensor



Touch screen



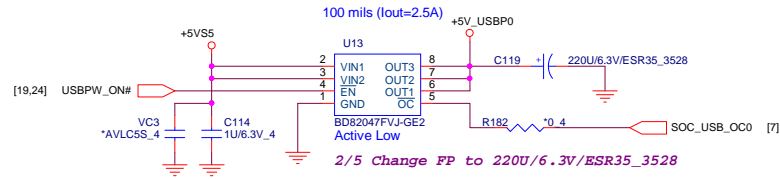
Green CLK Circuitry



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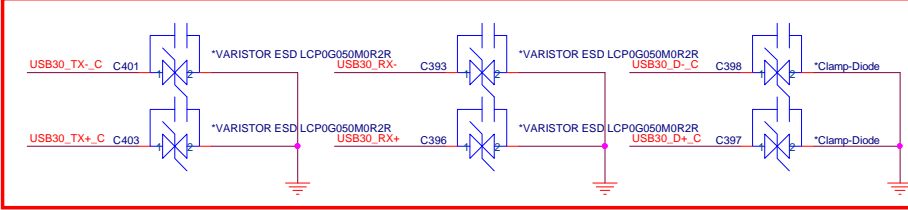
## USB 2.0/3.0 Combo



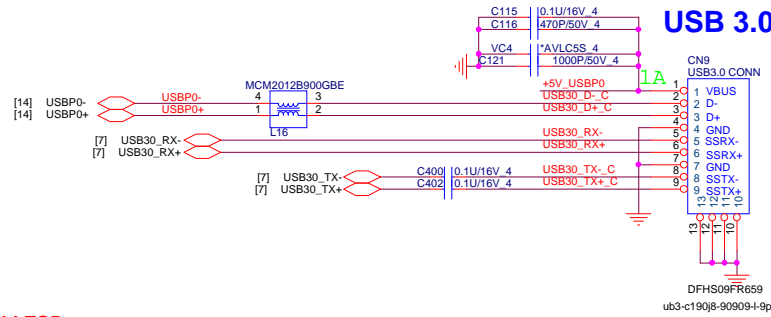
## Del UART debug



## 2/25 Add ESD part

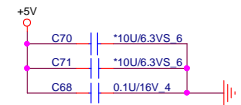
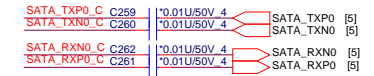
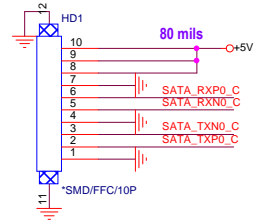


## USB 3.0

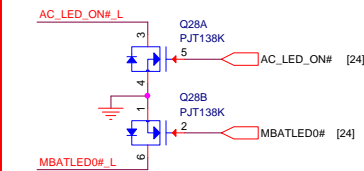


## HDD

## 3/24 Change pin define as Napa

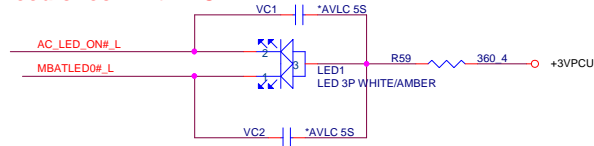


## 2/26 add LED MOS



## PWR LED

## 2/10 need check with EC

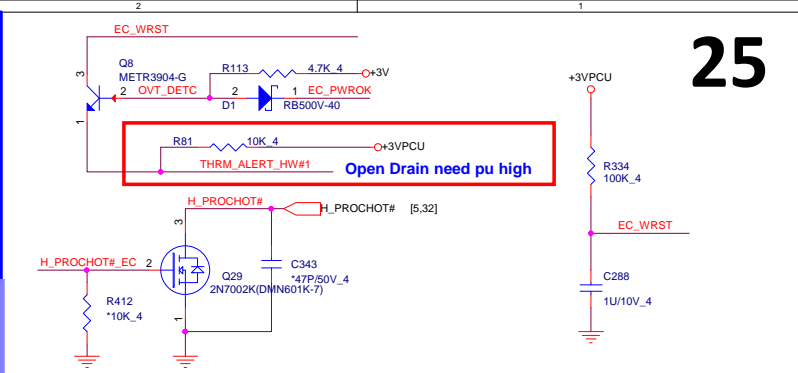


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Chip power down. 3.3V tolerant. Internally pulled down at ~150K.  
 PWD ==  
 L: Normal operation (default)






### adapter Type check

+3VPCU  
1 Change to 1SS355 as Current loss

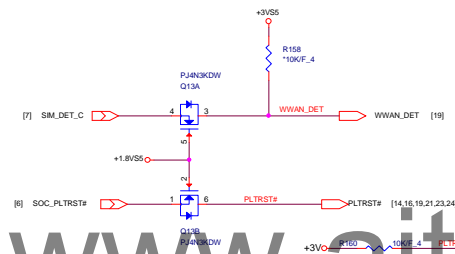
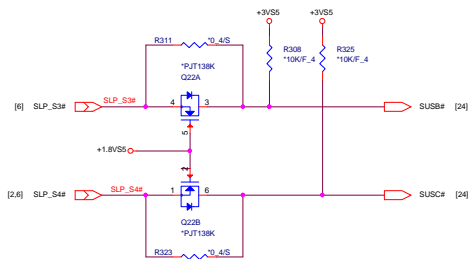
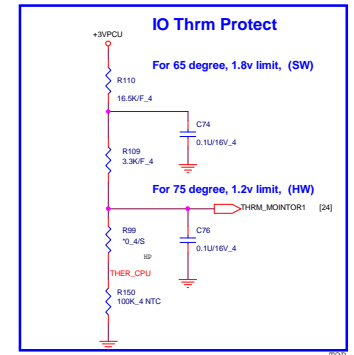
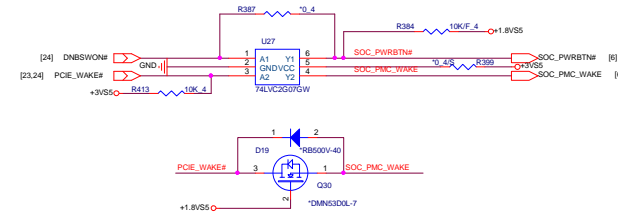
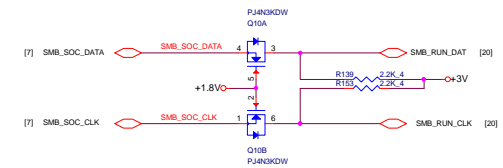
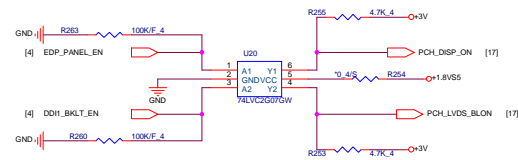
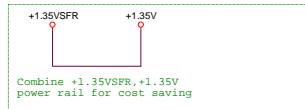
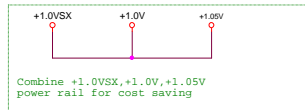
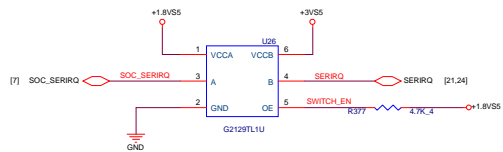
[illegible]

BIOS to SOC			
BIOS_WR#	R405	15/F 4	SOC_SPI_MOSI [6]
BIOS_RD#	R403	15/F 4	SOC_SPI_MISO [6]
BIOS_CS#	R393	15/F 4	SOC_SPI_CS# [6]
BIOS_SPI_CLK	R408	15/F 4	SOC_SPI_CLK [6]

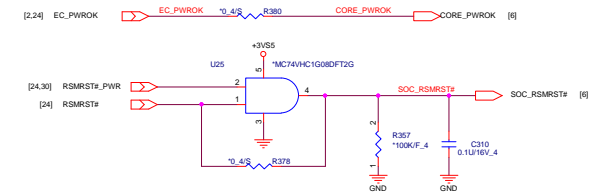
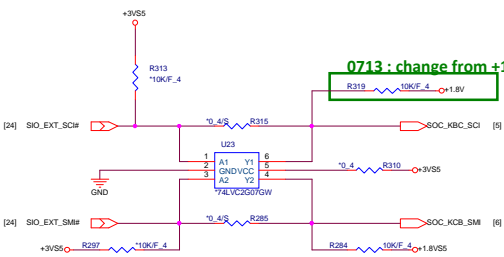
change EC SPI R to 15/F\_4 ohm

 <b>NB5</b>	<b>PROJECT : Y0HC</b> Quanta Computer Inc.		
	Size Custom	Document Number <b>WLAN/G-Sensor/G-CLK/TS</b>	Rev 1A
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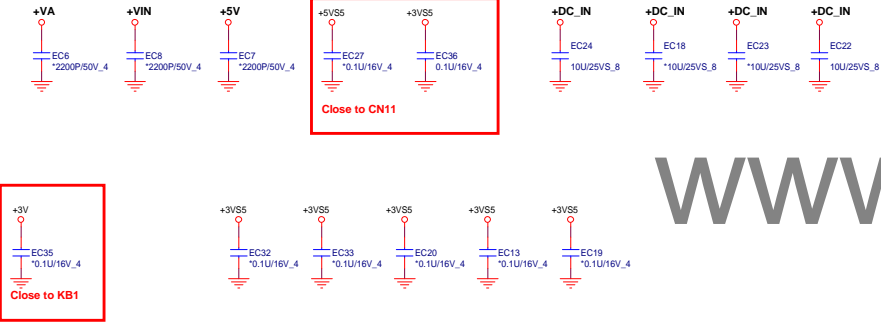




I/O port definition

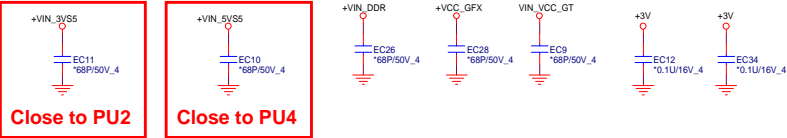
	Brasswell-M	Note
SATA Port0	HDD	
SATA Port1	ODD	
PCIE Port0	Card reader	
PCIE Port1		
PCIE Port2		
PCIE Port3	WIFI	
USB3.0 Port0	USB 2.0/3.0 Combo	
USB3.0 Port1		
USB3.0 Port2		
USB3.0 Port3		
USB2.0 Port0	USB 2.0/3.0 Combo	
USB2.0 Port1	USB 2.0	
USB2.0 Port2	Webcam	
USB2.0 Port3	BT	
USB2.0 Port4	WWAN	

EMI Reserve



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RF Reserve

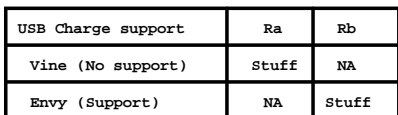






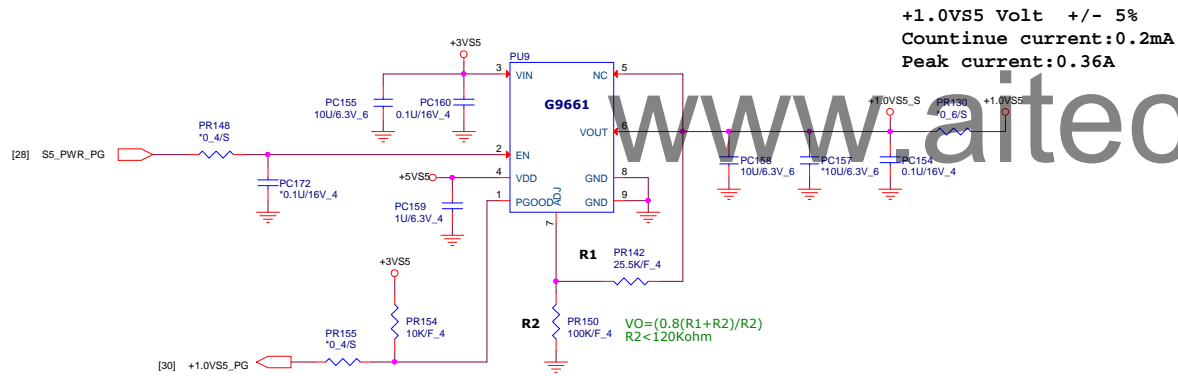
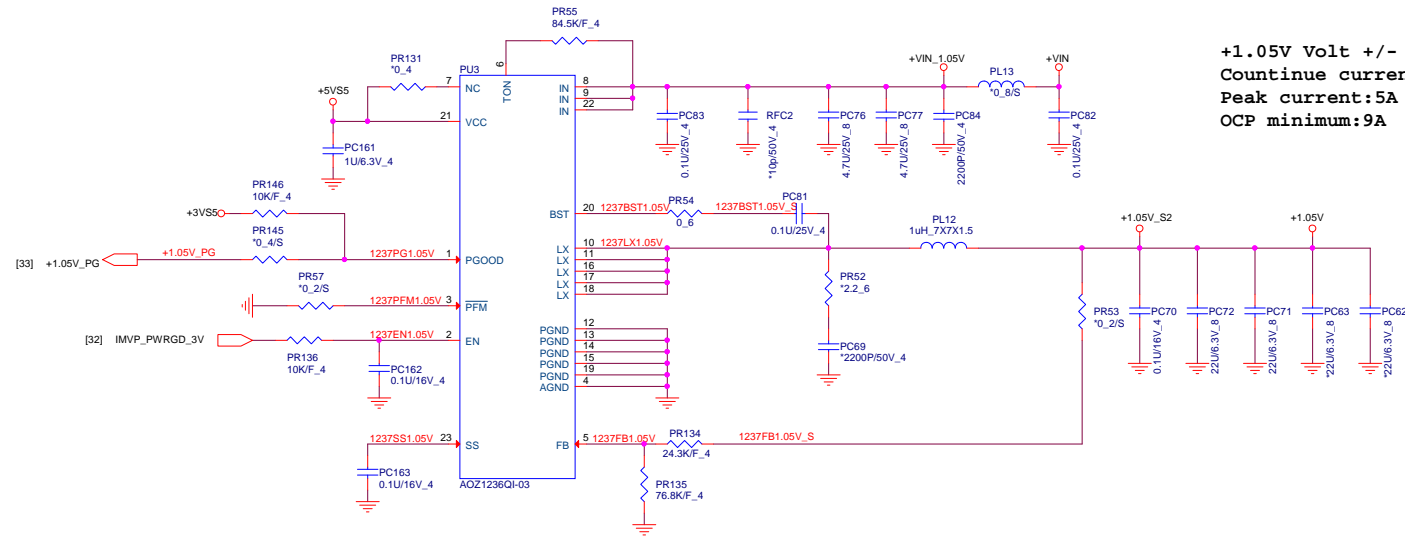
	2-cell	3-cell
PR26	un-stuff	stuff





USB Charge support	Ra	Rb
Vine (No support)	Stuff	NA
Envy (Support)	NA	Stuff



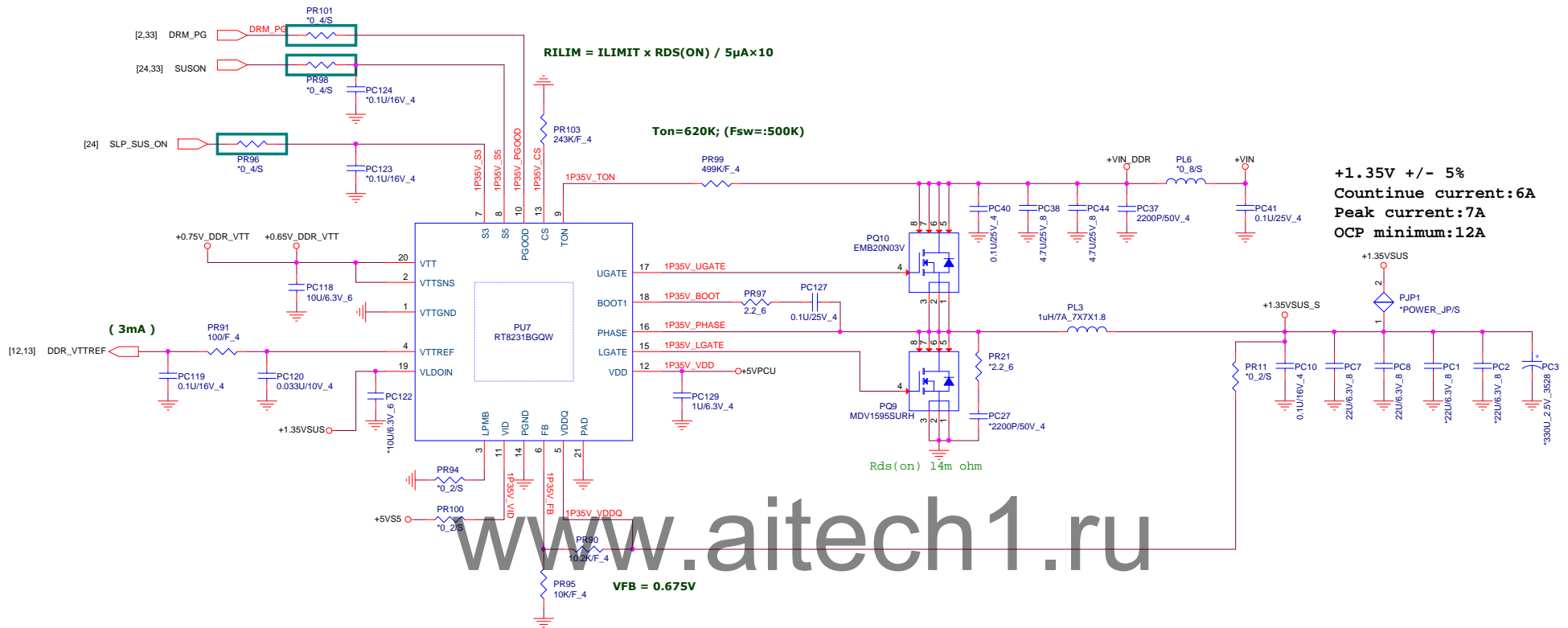


- +VIN [17,26,27,28,31,32,33]
- +3VS5 [2,9,14,19,23,24,25,26,28,30,32,33]
- +5VS5 [19,22,26,28,30,31,32,33]
- +1.0VS5 [9]
- +1.05V [5,6,9,32]










+1.35VSUS [2,8,12,13,33]

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- +VIN [17,26,27,28,29,31,33]
- +3VSS [2,9,14,19,23,24,25,26,28,29,30,33]
- +5VSS [19,22,26,28,29,30,31,33]
- +1.0VSS [9,29]
- +VCC\_GFX [8,9,26]
- +VCC\_CORE [8]
- +3V [4,9,13,14,15,16,17,18,19,20,21,23,24,25,26,33]
- +1.05V [5,6,9,28]

Parallel  
[8] VCC\_AXG\_SENSE  
[8] VSS\_AXG\_SENSE

+VCC\_GFX  
PEAK : 14A  
OCP : 18A  
Width : 600mil  
GFX\_CORE Load Line :  
-5.9mV/A for SDP=4.5W

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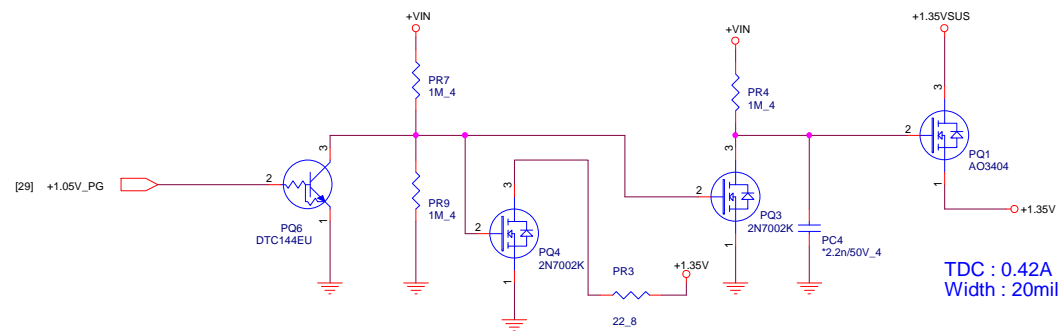
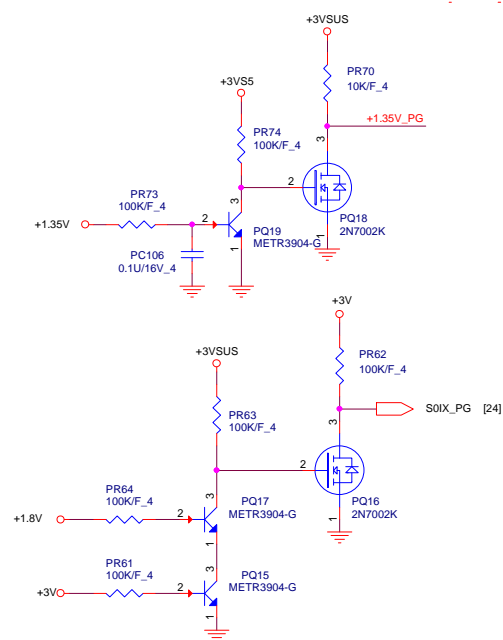
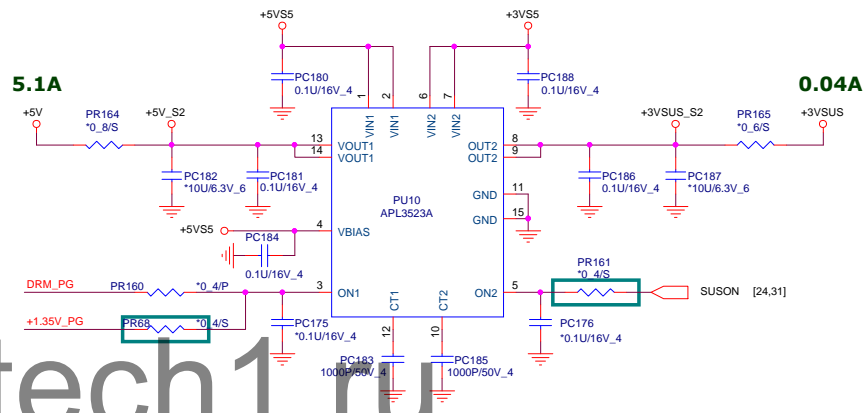
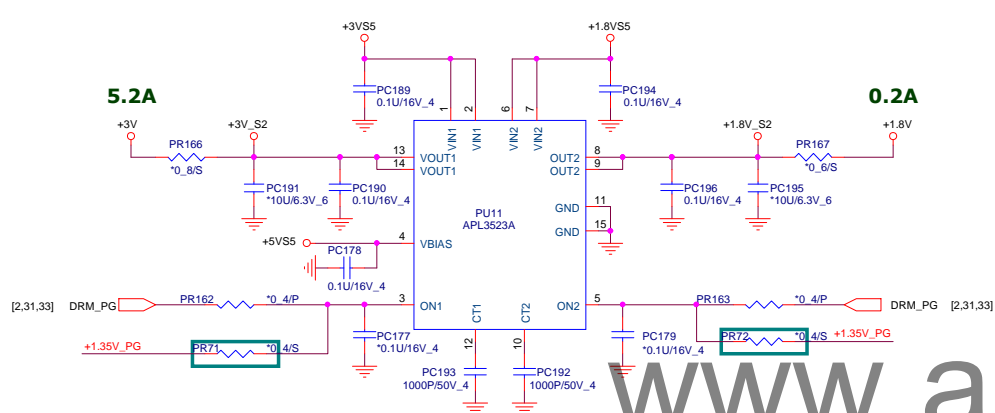
+VCC\_CORE  
PEAK : 12A  
OCP : 18A  
Width : 500mil  
VCORE Load Line :  
-5.9mV/A for SDP=4.5W



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[4,9,13,14,15,16,17,18,19,20,21,23,24,25,26,32] +3V  
[17,18,19,22,26] +5V  
[2,9,14,19,23,24,25,26,28,29,30,32] +3VS5  
[19,22,26,28,29,30,31,32] +5VS5  
[20] +3VSUS