Page	Title of schematic page	Rev.	Date
01	Page List	1A	
02	Block Diagram	1A	
03	Change List	1A	
04	FP2 1/4(PEG&UMI)	1A	
05	FP2 2/4(DDR3 I/F)	1A	
06	FP2 3/4(DP/MISC)	1A	
07	FP2 4/4(POWER/GND)	1A	
08	FCH 1/6(GPIO/USB/AZ)	1A	
09	FCH 2/6(UMI/PCIE/PCI/CLK)	1A	
10	FCH 3/6(SATA/VGA/SPI)	1A	
11	FCH 4/6(POWER)	1A	
12	FCH 5/6(Strap)	1A	
13	FCH 6/6(GND)	1A	
14	DDR3 DIMM-0-STD	1A	
15	DDR3 DIMM-1-STD	1A	
16	WPCE985L & FLASH	1A	
17	LVDS\TS\NFC	1A	
18	CARD READER(RTS5209)	1A	
19	HDMI/THERMAL	1A	
20	USB	1A	
21	LAN (RTL8111GS)	1A	
22	WLAN/KB-BL	1A	
23	HDD/ODD/G-SENSOR/TP/FAN	1A	
24	Audio ALC233-CG	1A	
25	LED/PS/DMIC\Camera	1A	
26	POWER +VCC_CORE (ISL62771)	1A	
27	POWER 3VPCU&RVCC5(TPS51427)	1A	
28	POWER 1.35VSUS/VTT_MEM	1A	
29	POWER +1.1V(G5602R41U)-5A	1A	
30	POWER VCC1.2/VCC2.5/Thermal	1A	
31	POWER(BAT IN / ADA IN/ UL)	1A	
32	POWER CHARGER (ISL88731C)	1A	
33	HOLE/EMI/KB	1A	
34	eDP to LVDS	1A	
35	IO PORT LIST	1A	

* : No mount
I@ : For native eDP output
D@ : For eDP to LVDS output

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

HKA BLOCK DIAGRAM

02

DDR3L : 1.35V
DDR3 : 1.5V

Dual Channel

P14~P15

DDR SYSTEM MEMORY

AMD <CPU>
RICHLAND
BGA827
(31mm X 27mm)

P4~P7

eDP

eDP to LVDS
RTD2136R

LVDS

P34

P17

HDMI

P19

UMI

TOUCH SCREEN

P17

PORT5

Camera P25

PORT7

WiMax/BT P22

PORT6

USB I/O P20

PORT1

USB I/O P20

PORT0

USB I/O P20

PORT1

USB I/O P20

PORT0

PORT11

PORT10

USB 2.0

USB 3.0

P23 **HDD SATA0** 6Gb/s

P23 **ODD SATA1** 3Gb/s

AMD <FCH>
BOLTON-M3
BGA656
(24.5mm X 24.5mm)

SATA Gen3

SATA Gen2

USB

HDA

SPI

P8~P13

PCIE Interfaces

5GT/s

PCI-Express Gen2

PCIE2

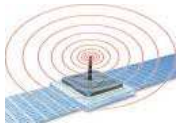
PCIE0

PCIE1

Giga-LAN
RTL8111GS
P21

RJ45

P21



WLAN/BT P22

Card Reader
RTS5227E
P18

SD-XC

P18

Thermal Sensor
- Beside CPU
- Beside HDD
- Beside Audio Jack

P19

Azalia

Audio CODEC
ALC233-CG
P24

HP Jack

MIC Jack

SPK

DMIC

P24

P24

P24

P24

SPI ROM
8MB P10

LPC

EC
NPCE985L
P16

G Sensor
LIS331DLHTR

SPI

P23

Touch Pad

PS2/SMBUS

P23

P22,P33

Back Light Keyboard

I2C

NFC
Foxconn
T77H446 P17

Lid Switch
P16

- Power LED
- Charge LED
- HDD Status LED
- Caps Lock LED
- Num Lock LED

Button
- ASSIST#
- Power SW

Change List

MB_SCH_DVT_001

P21 Reserve U30,LR12,LR13,LC21

Reason : For LAN S5 wake up won't be supported.
Possible Risk: No.

MB_SCH_DVT_002

P25 Chang R198 and R309 resistor

Reason : Modify circuit for LED Light
Possible Risk: No.

MB_SCH_DVT_003

P22 Delete R333 0ohm and add F9(0.35A) fuse

P22 Delete R468[100K],Q33[2N7002]

Reason : Modify circuit for KB BL protection.
Possible Risk: No.

MB_SCH_DVT_004

P9 Change part of Crystal Y1 32.768K.

Reason : Original part is EOD.
Possible Risk: No.

MB_SCH_DVT_005

P8 Modify circuit for NFC function.

Change R685,R686 to R681,R684.
change NFC_EN from GPIO166 to GEVENT22#.

Reason : To enable NFC function.
Possible Risk: No.

MB_SCH_DVT_006

P16 Reserve diode KD4 for EC_PWRBTN#.

P22 Reserve diode D12 for WLAN_RF_ON.

Reason :For cost down.
Possible Risk: No.

MB_SCH_DVT_007

P20 Add choke for USB ports.

P25 Add choke for Camera USB interface.

Reason :EMI issue.
Possible Risk: No.

MB_SCH_DVT_008

P7,P11 Change capacitors 22U X5R 0805 to 22U X5R 0603.

Reason :To enlarge the distance between Cap. and Keyboard.
Possible Risk: No.

MB_SCH_DVT_009

P33 Change FCH NUT shape.

Reason :To fit screw's size.
Possible Risk: No.

MB_SCH_DVT_010

P16 Add KR42 10K ohm.

Reason :To fit LVDS panel power sequence.
Possible Risk: No.

MB_SCH_DVT_011

P8 Add SMBUS path from FCH to RTD2136R.

Reason :Reserve the way to flash RTD2136R eFuse.
Possible Risk: No.

MB_SCH_DVT_012

P9,P21 Change Capacitors for XTAL Y2, LY1.

Reason :For more precisely frequency of XTAL.
Possible Risk: No.

MB_SCH_DVT_013

P19 Change Resistor of HDMI signals resistors.

Reason :For better HDMI signal quality.
Possible Risk: No.

POWER

2A-P1
Change PC580 and PC599 from 0.047u to 0.068 for fine tune IC response

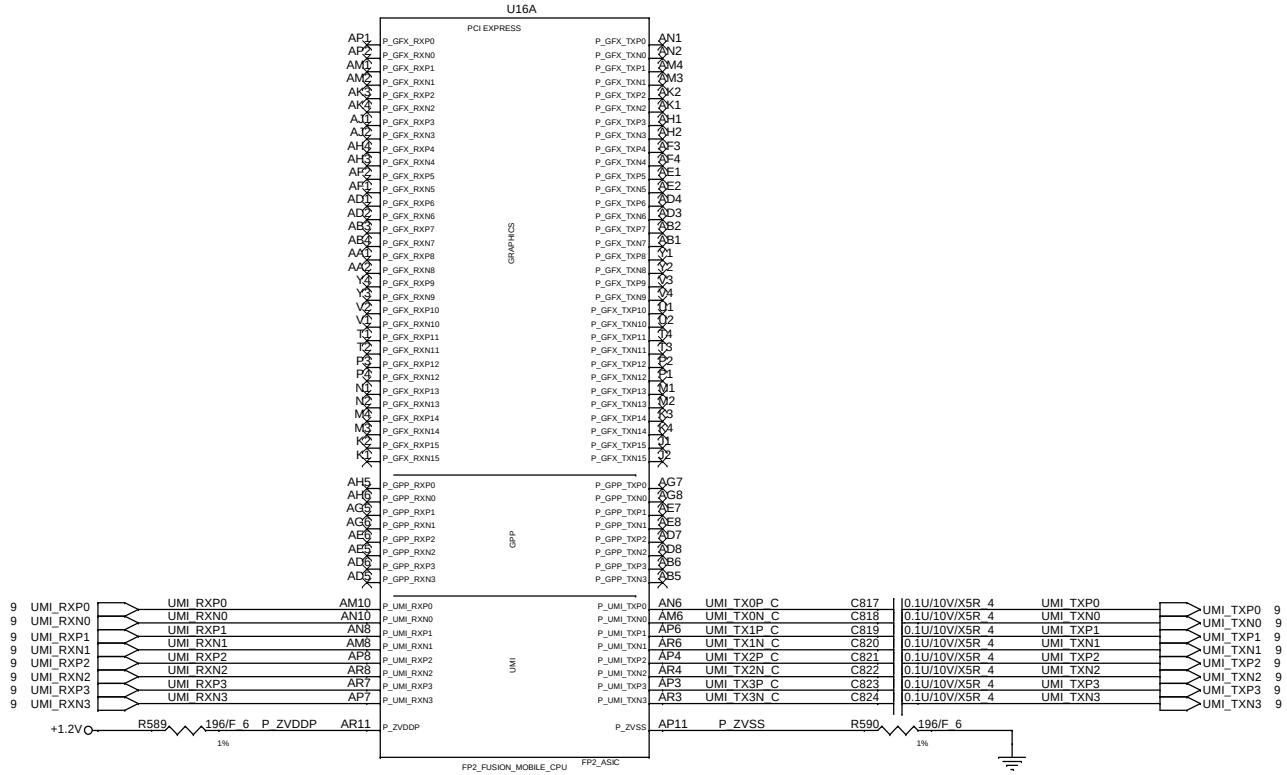
2A-P2
add PC617, PC618, PC619, PC620 for meet AMD SPEC of ripple

2A-P3
change PR58 from 255k to 196k for fine tune OCP

2A-P4
change from 3.75k to 3K for fine tune OCP

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA
Size | Document Number | Rev
Change List | 1A
Date: Friday, May 03, 2013 | Sheet 3 of 35



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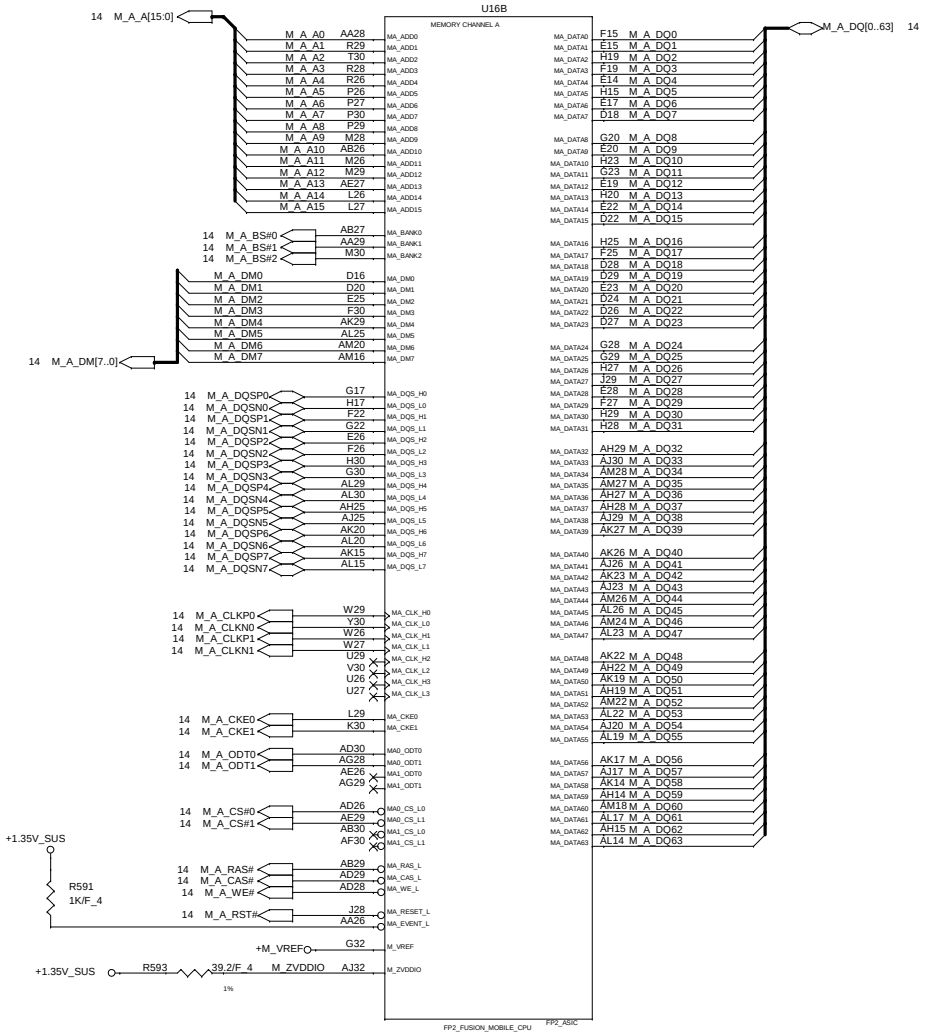
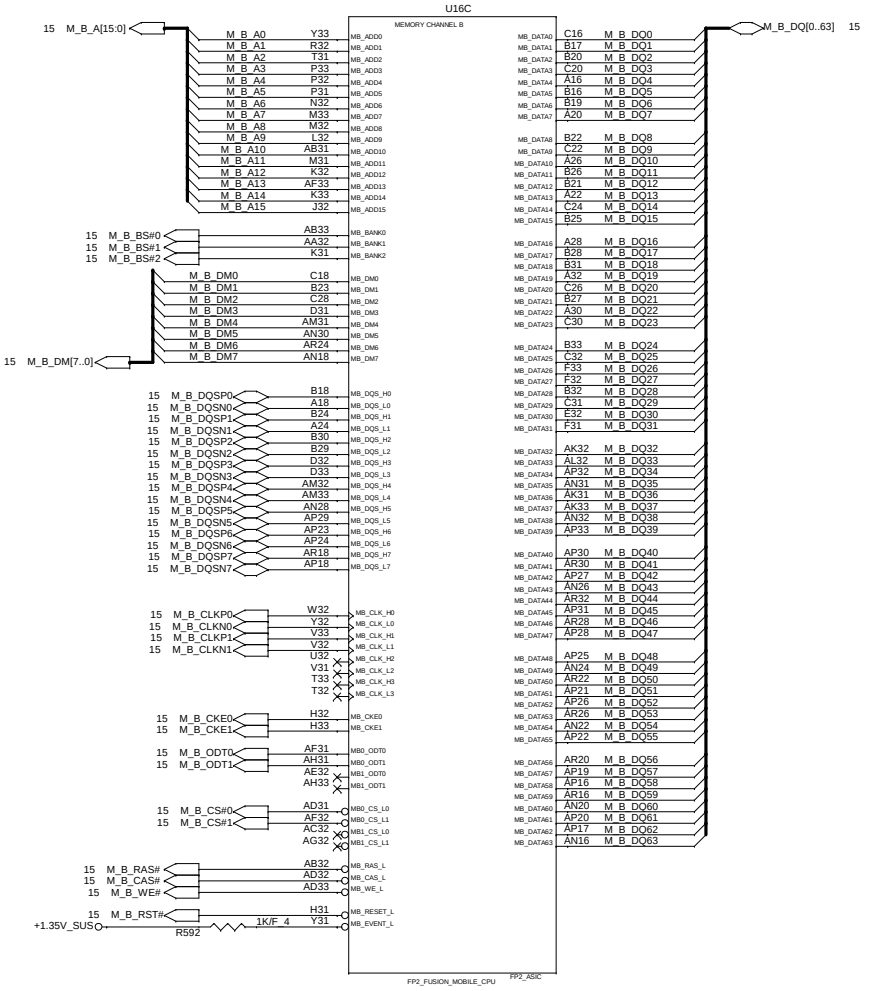
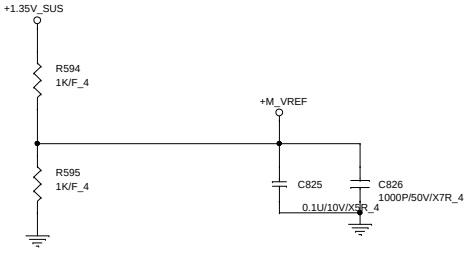
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number: FP2 1/4(PEG&UMI)	Rev: 1A
Date: Wednesday, April 24, 2013	Sheet 4 of 35	







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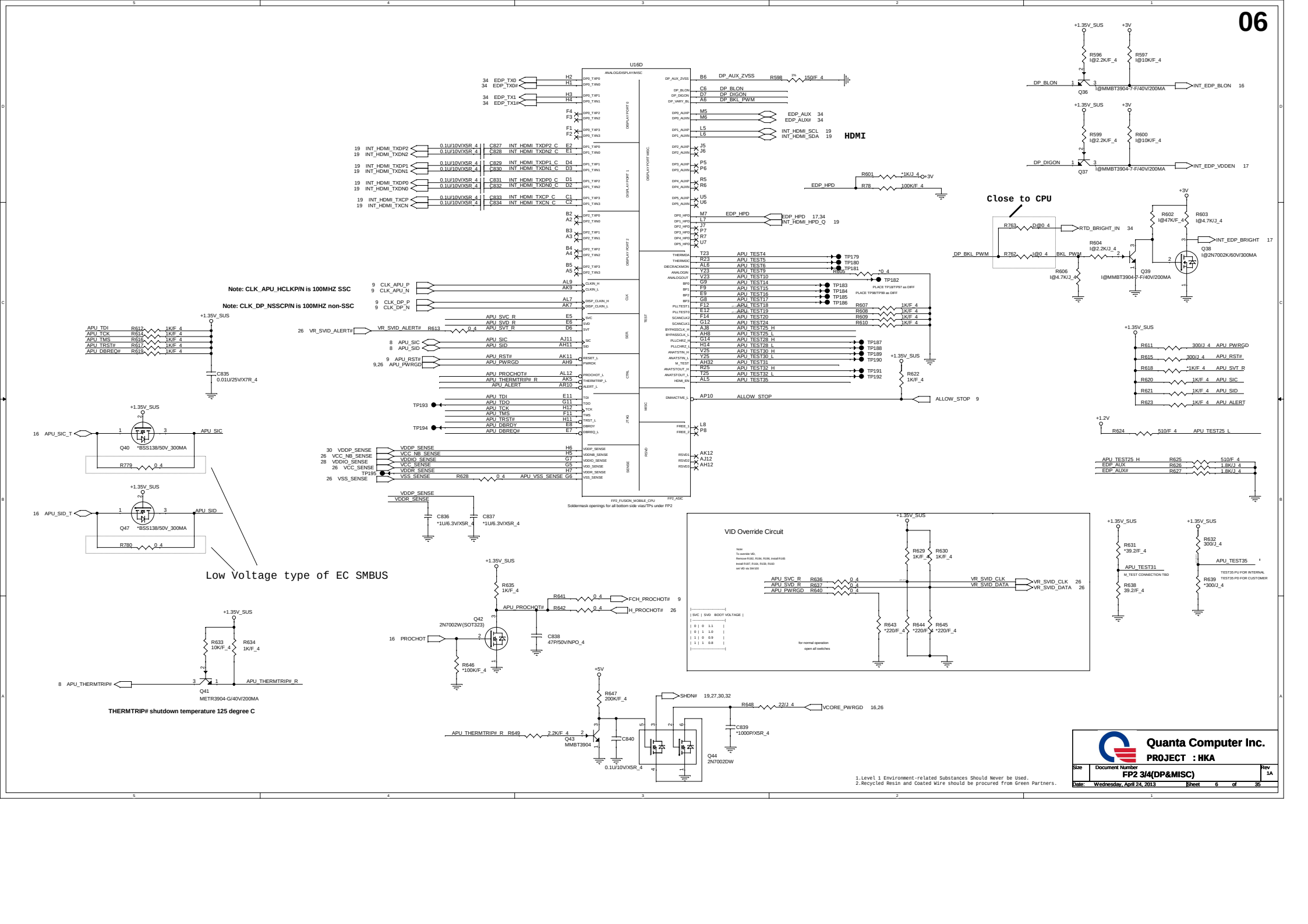
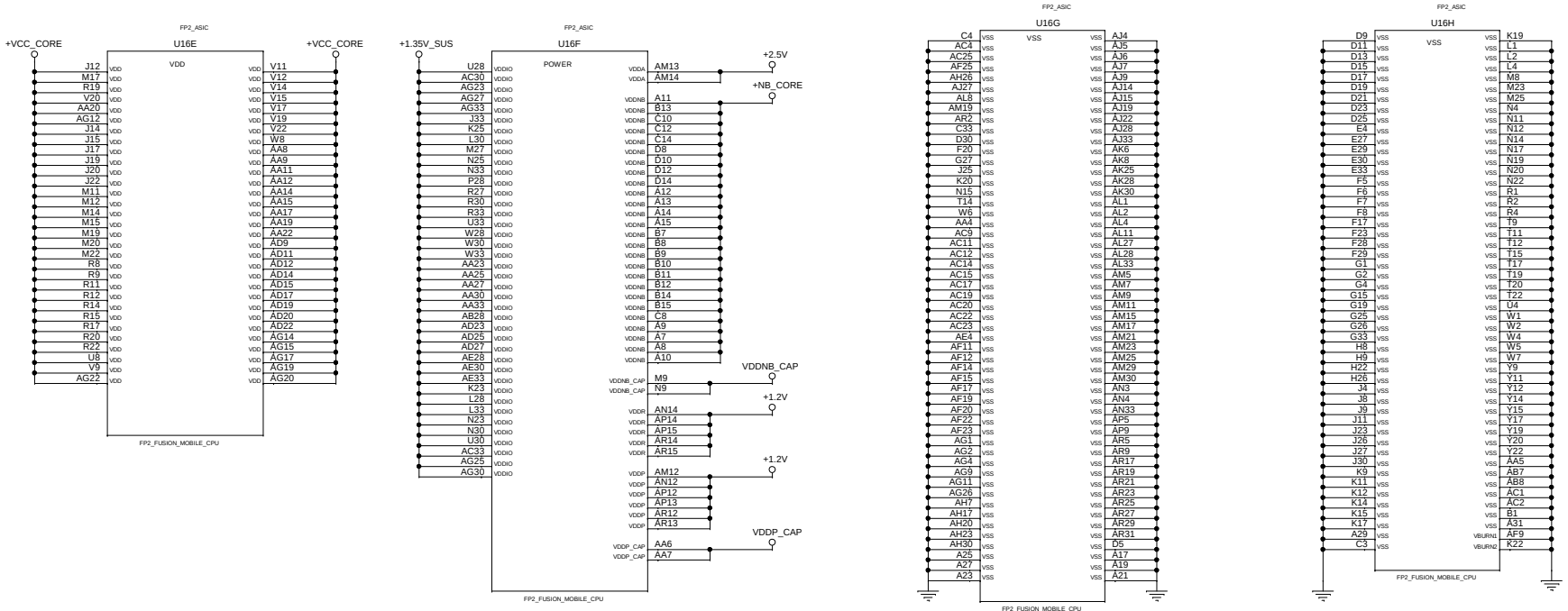
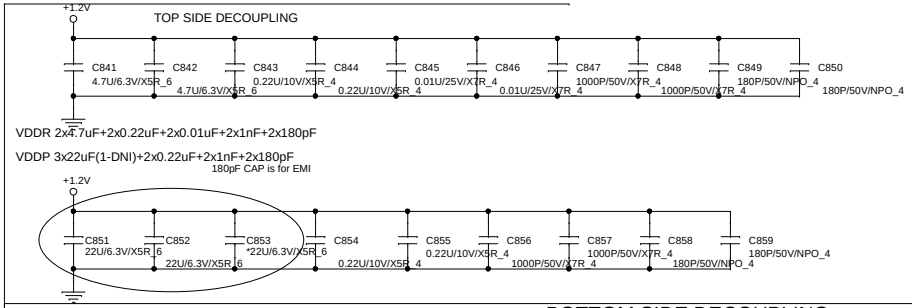
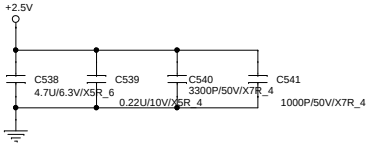
Quanta Computer Inc.
PROJECT : HKA

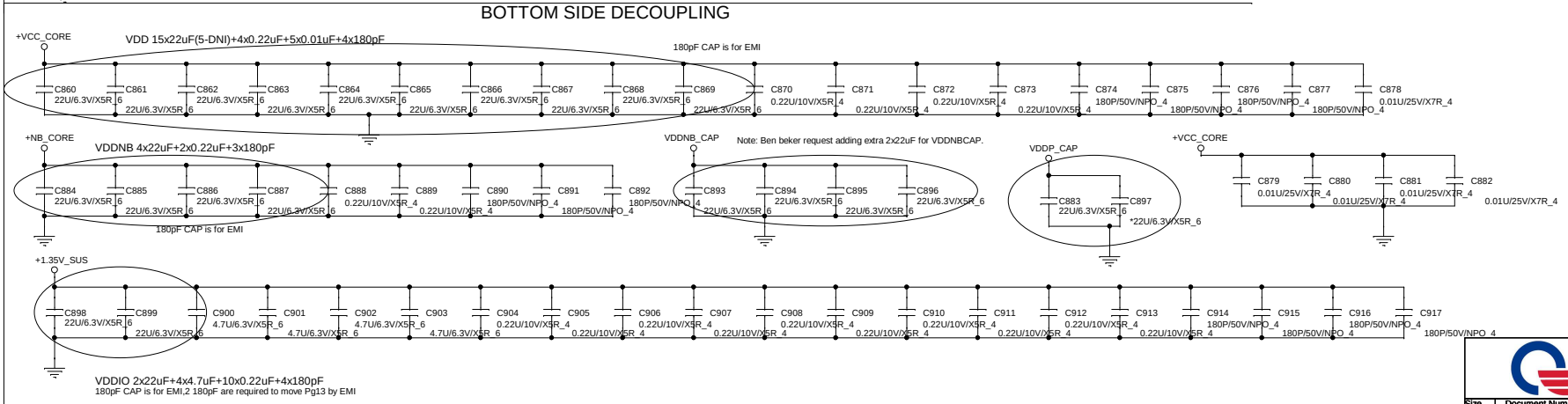
Size	Document Number	Rev
	FP2 2/4(DDR3 I/F)	1A
Date: Wednesday, April 24, 2013	Sheet 5 of 35	

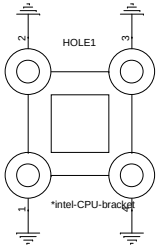

U16D
HDMI
Close to CPU
Note: CLK_APU_HCLKP/N is 100MHZ SSC
Note: CLK_DP_NSSCP/N is 100MHZ non-SSC
Low Voltage type of EC SMBUS
THERMTRIP# shutdown temperature 125 degree C
VID Override Circuit
Soldermask openings for all bottom side vias/TPs under FP2
Quanta Computer Inc.
PROJECT : HKA
FP2 3/4(DP&MISC)
Wednesday, April 24, 2013
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.











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2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKB

Size	Document Number	Rev
	FP2 4/4(POWER&GND)	1A
Date: Thursday, April 25, 2013	Sheet 7 of 35	

FCH 1/5(GPIO/USB/AZ)

U15A

Bolton-M3
Part 4 of 5

USB_RCOMP_SB:35 ohm,<1"

USBSS_CALP/N:35 ohm,<1"

USB3.0 Connector

USB3.0 Connector IPOD

Carama USB

WLAN Min-Card

Touch screen

USB2.0 Connector
USB port 0 for Debug port

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	FCH 1/6(GPIO/USB/AZ)	1A
Date: Wednesday, April 24, 2013	Sheet 8 of 35	

FCH 2/5(UMI/PCIE/PCI/CLK/LPC)

09

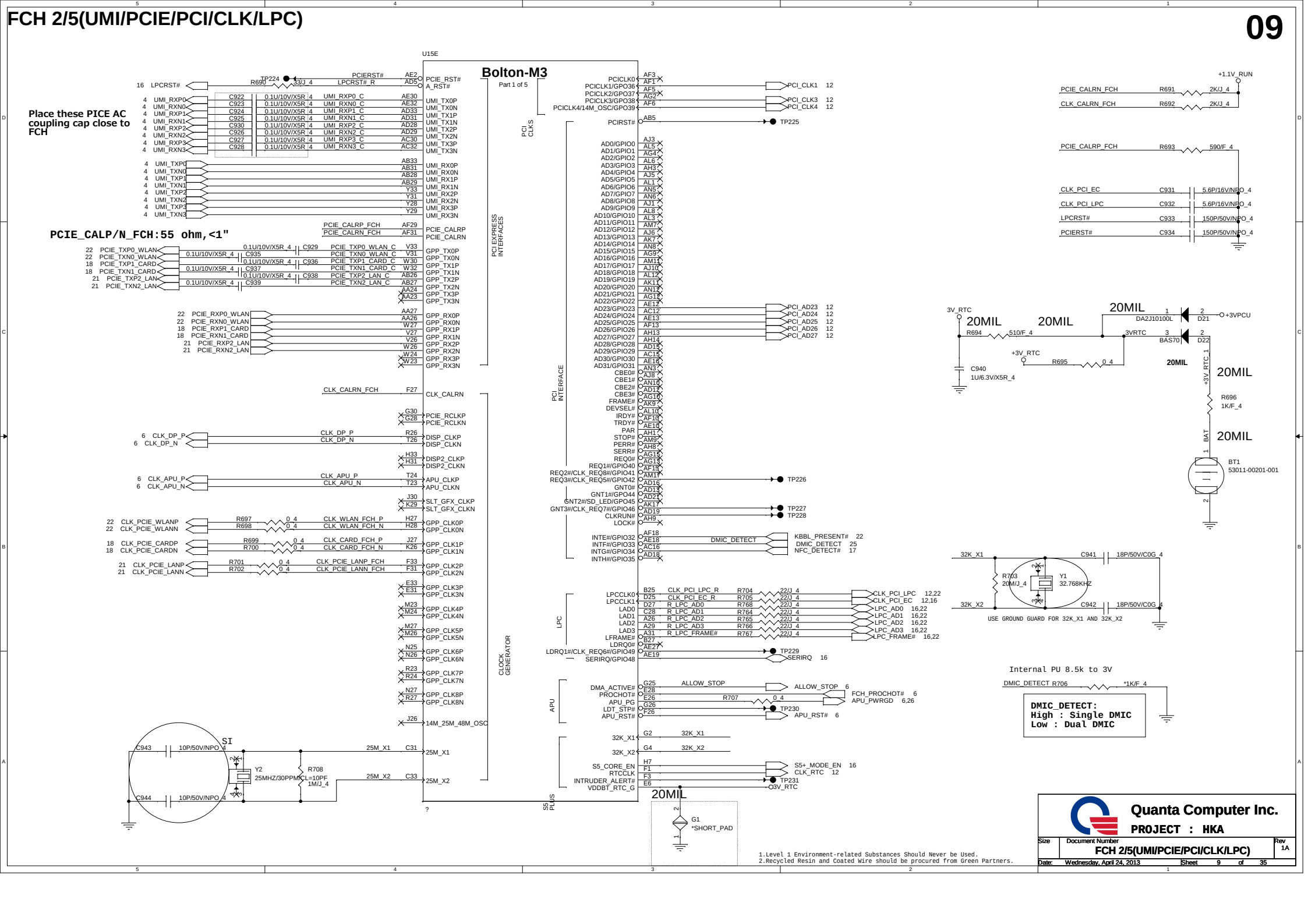
Place these PICE AC coupling cap close to FCH

PCIE_CALP/N_FCH:55 ohm,<1"

U15E

Bolton-M3

Part 1 of 5



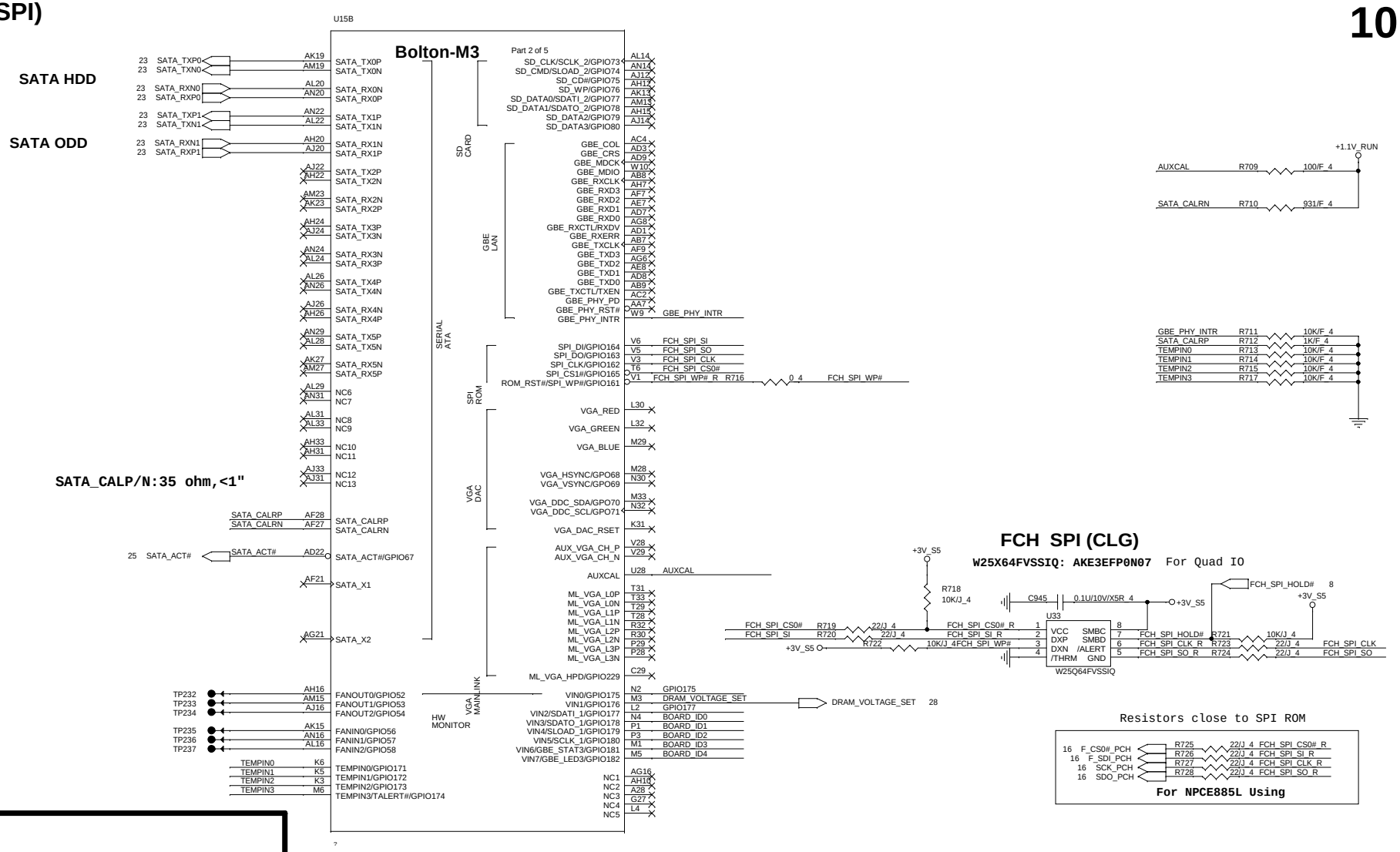
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.

PROJECT : HKA

Size	Document Number	Rev
	FCH 2/5(UMI/PCIE/PCI/CLK/LPC)	1A
Date: Wednesday, April 24, 2013	Sheet 9 of 35	

FCH 3/5(SATA/VGA/SPI)



SIZE	Board ID0
HKA 14"	0
HKB 15"	1

I/F	Board ID1
eDP	0
LVDS	1

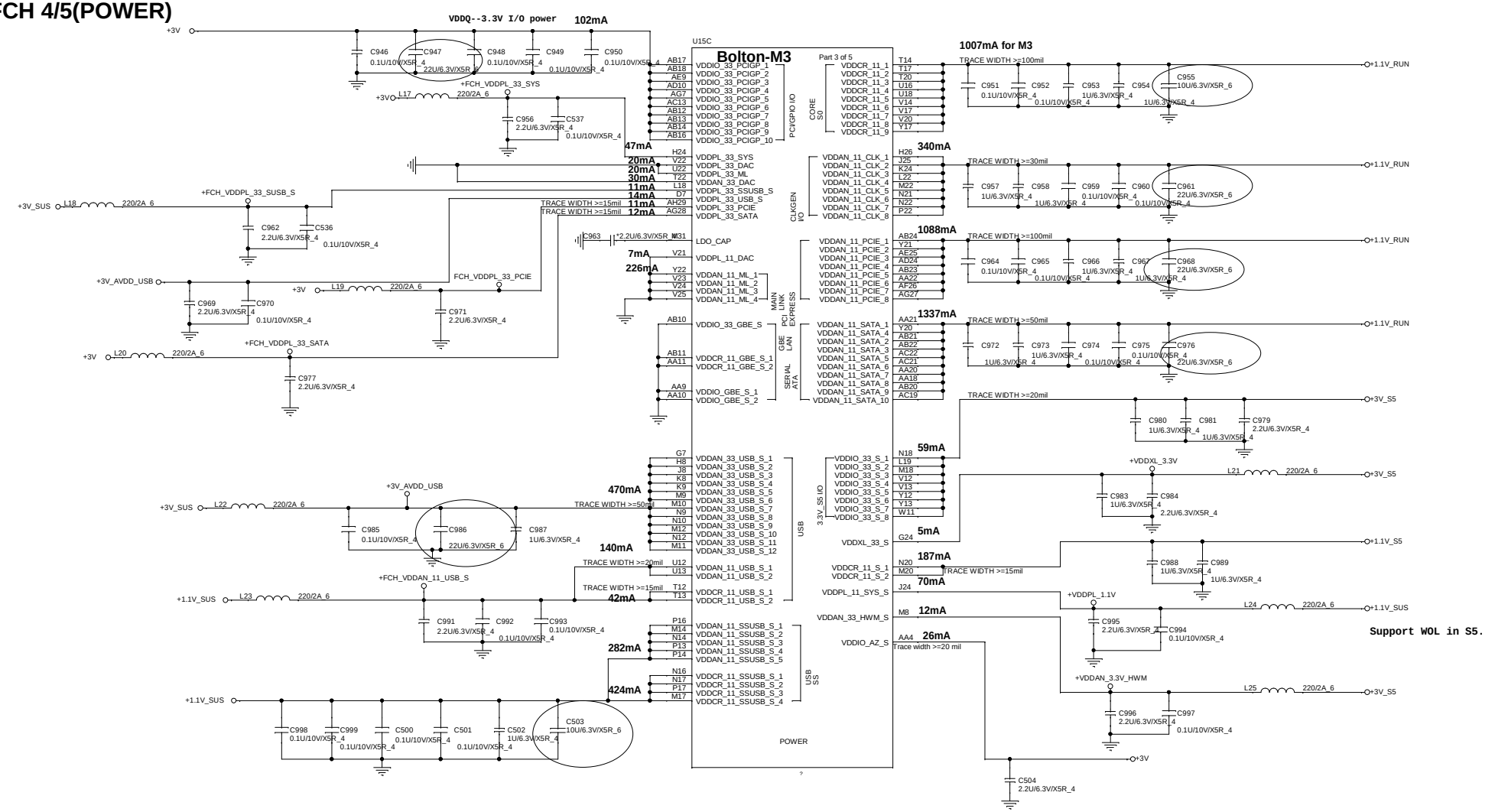
CPU	Board ID2	Board ID3
A4	0	0
A6	0	1
A8	1	0
A10	1	1

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	FCH 3/6(SATA/VGA/SPI)	1A
Date: Wednesday, April 24, 2013	Sheet 10 of 35	

FCH 4/5(POWER)



1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

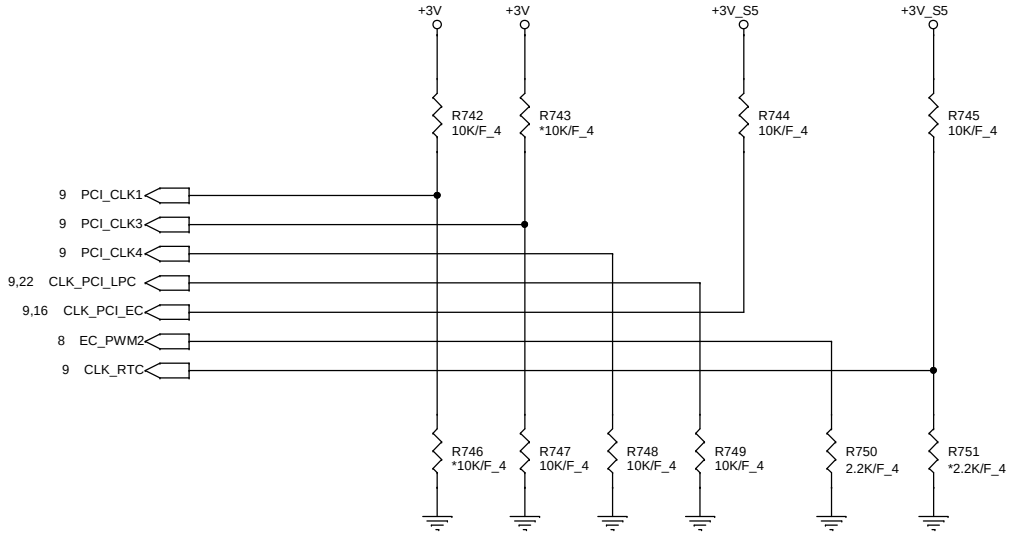
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	FCH 4/6(POWER)	1A

Date: Wednesday, April 24, 2013 Sheet 11 of 35

STRAPS PINS

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



REQUIRED STRAPS

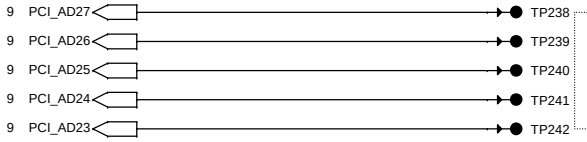
	--------	PCI_CLK1	--------	PCI_CLK3	PCI_CLK4	(LPCCLK0) CLK_PCI_LPC	(LPCCLK1) CLK_PCI_EC	EC_PWM2	CLK_RTC
PULL HIGH	--------	ALLOW PCIE Gen2 DEFAULT	--------	USE DEBUG STRAP	Reserved	AMD internal EC ENABLED	CLKGEN ENABLED DEFAULT	LPC ROM	S5 PLUS MODE DISABLED DEFAULT
PULL LOW	--------	FORCE PCIE Gen1	--------	IGNORE DEBUG STRAP DEFAULT	Required setting for integrated clock mode DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLED	SPI ROM DEFAULT	S5 PLUS MODE enble

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

DEBUG STRAPS

12

FCH has 15K Internal Pull Up for PCI_AD[27:23]



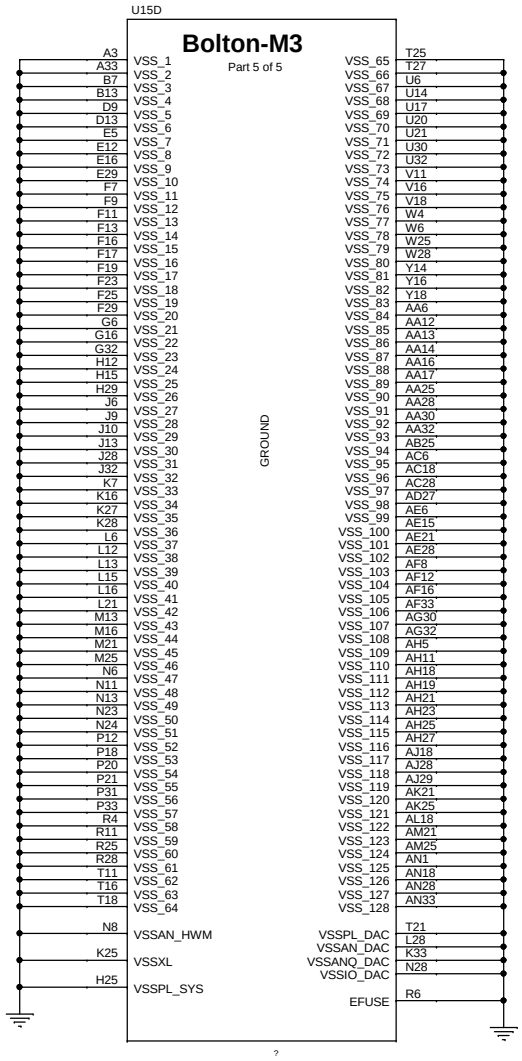
remove reserve pull low resistor
reserve test point only.

	PCI_AD27		PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT		normal REFCLK DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL		Inverted REFCLK	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	FCH 5/6(Strap)	1A

Date: Wednesday, April 24, 2013 Sheet 12 of 35

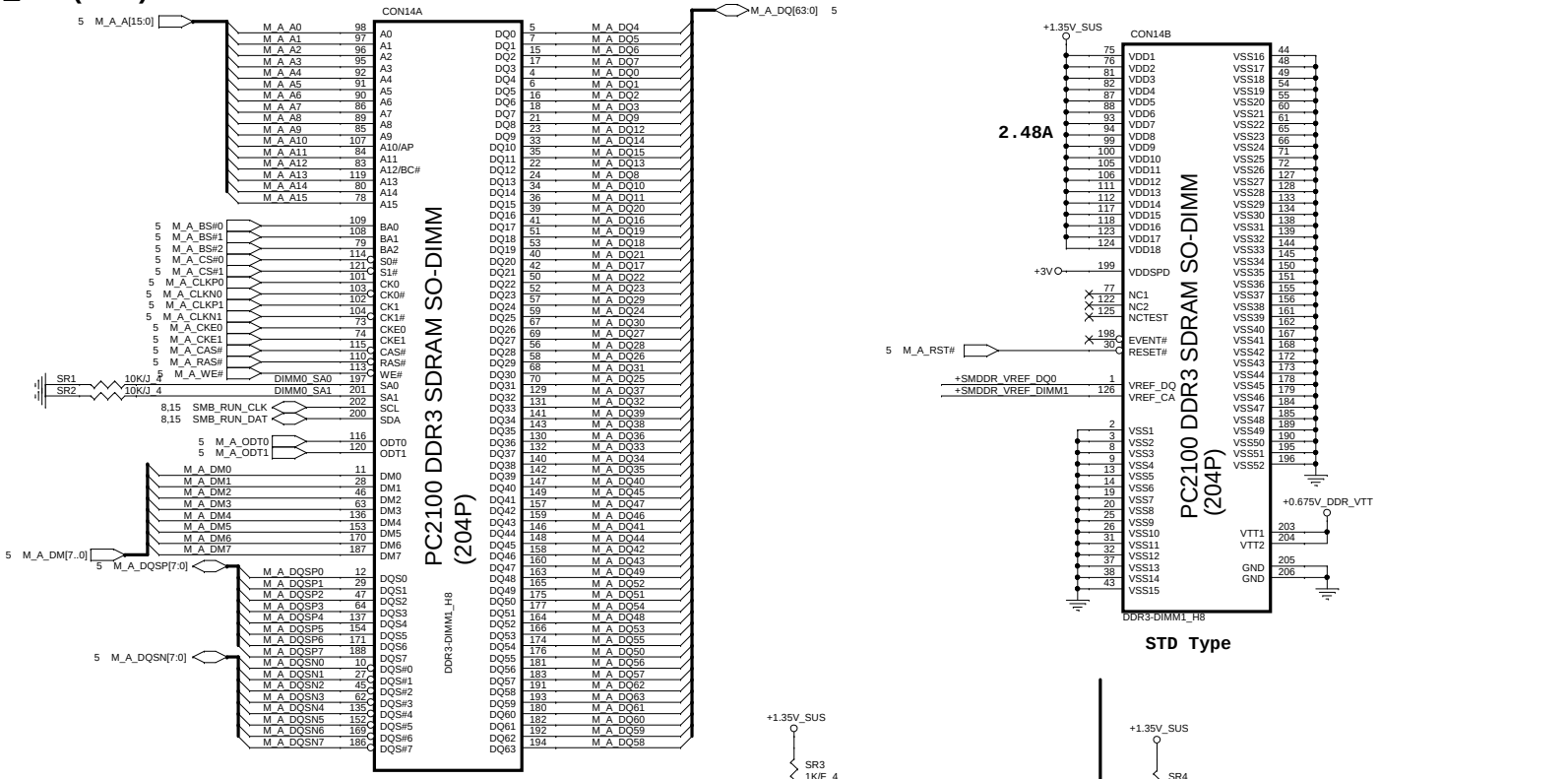


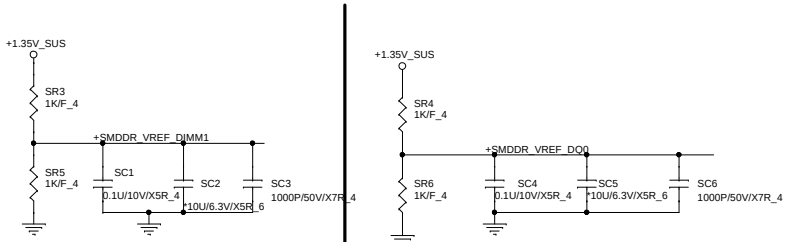
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

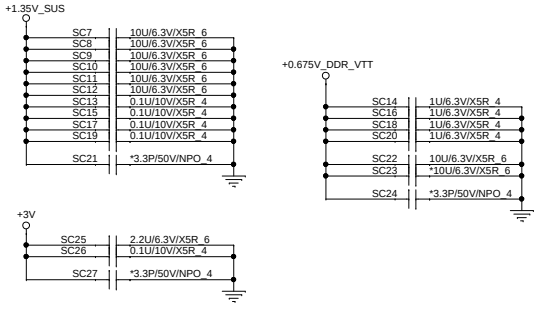
Size	Document Number	Rev
	FCH 6/6(GND)	1A
Date: Wednesday, April 24, 2013	Sheet 13 of 35	

DDR_RVS(DDR)





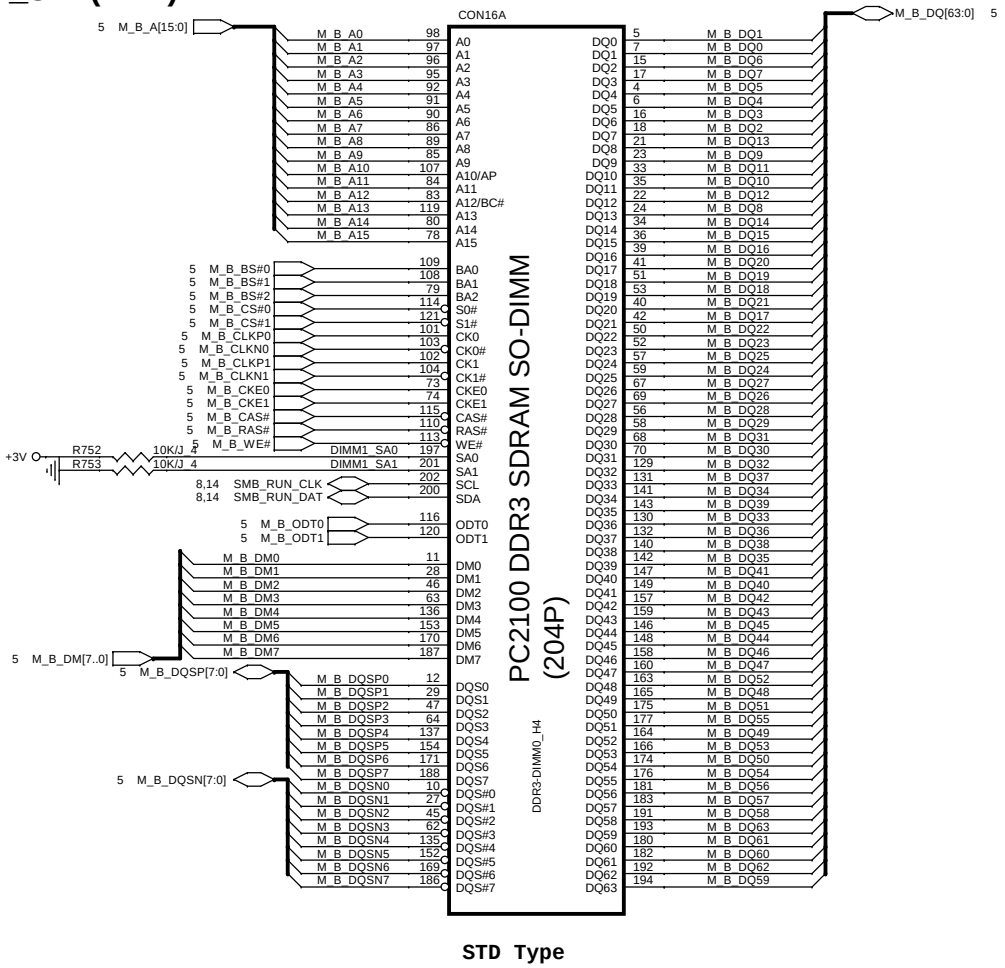
Place these Caps near So-Dimm1.



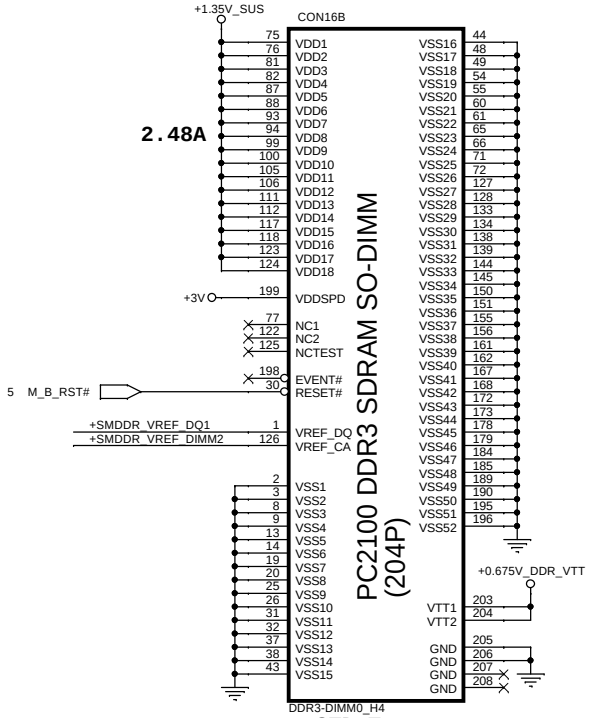
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number: DDRIII SO-DIMM-0	Rev: 1A
Date: Wednesday, April 24, 2013	Sheet 14 of 35	

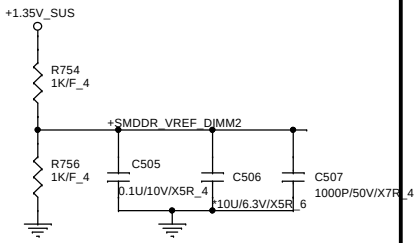
DDR_STD(DDR)

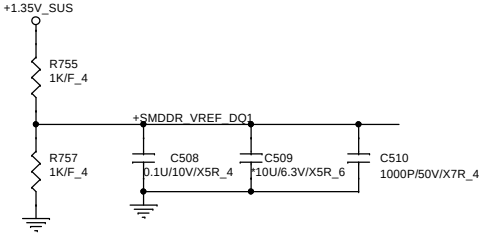


STD Type

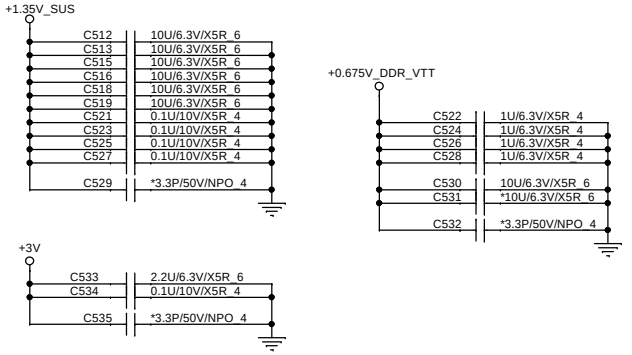


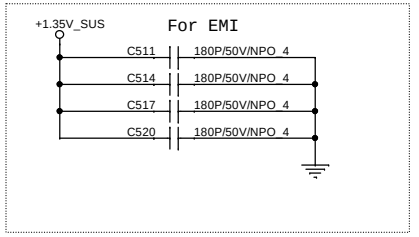
STD Type





Place these Caps near So-Dimm1.





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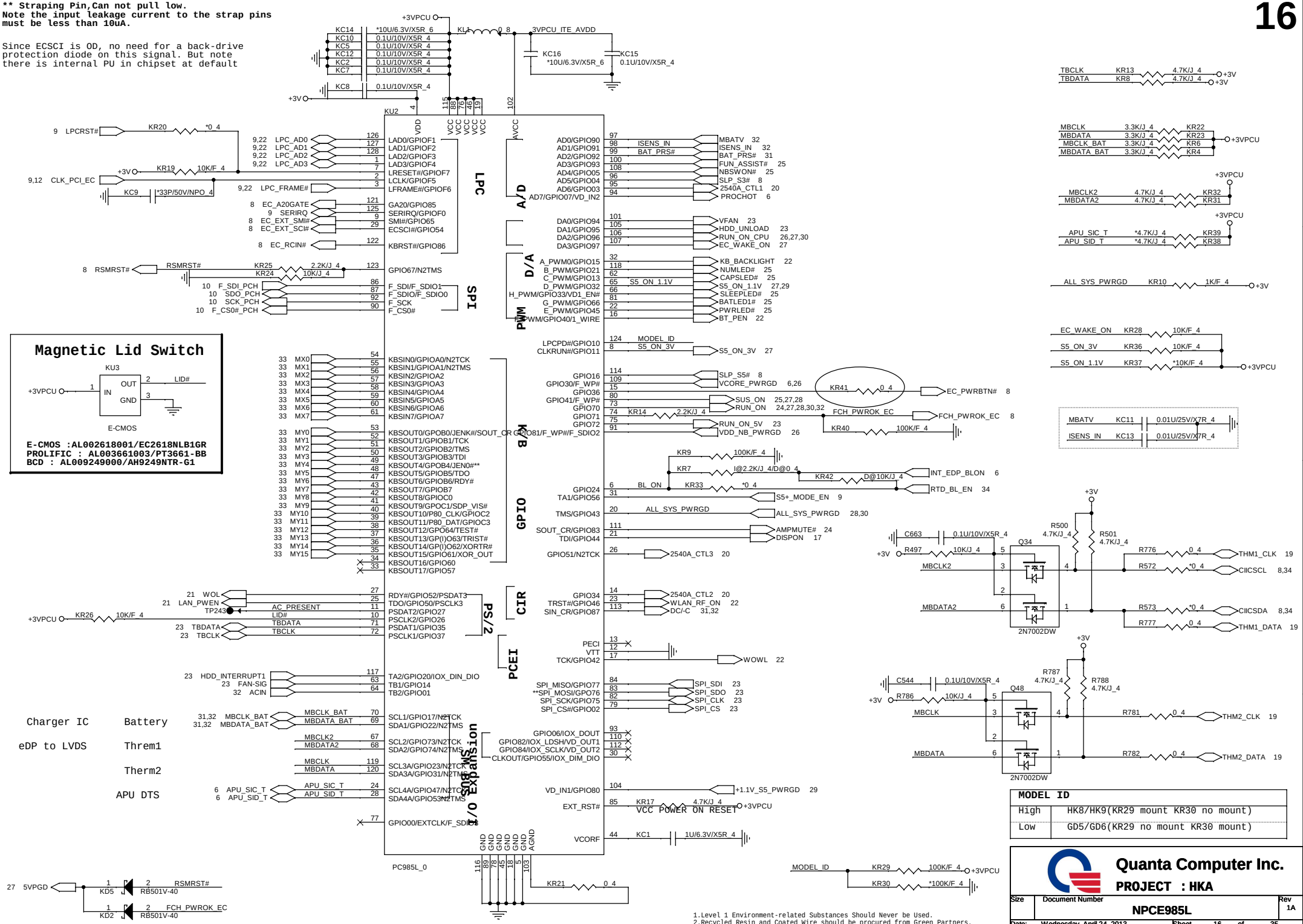
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	DDRIII SO-DIMM-1	1A
Date: Wednesday, April 24, 2013	Sheet 15 of 35	

**** Straping Pin,Can not pull low.**
Note the input leakage current to the strap pins must be less than 10uA.

Since ECSCI is OD, no need for a back-drive protection diode on this signal. But note there is internal PU in chipset at default



Magnetic Lid Switch

E-CMOS :AL002618001/EC2618NLB1GR
PROLIFIC : AL003661003/PT3661-BB
BCD : AL009249000/AH9249NTR-G1

MODEL ID	
High	HK8/HK9(KR29 mount KR30 no mount)
Low	GD5/GD6(KR29 no mount KR30 mount)

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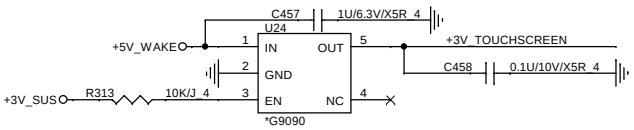
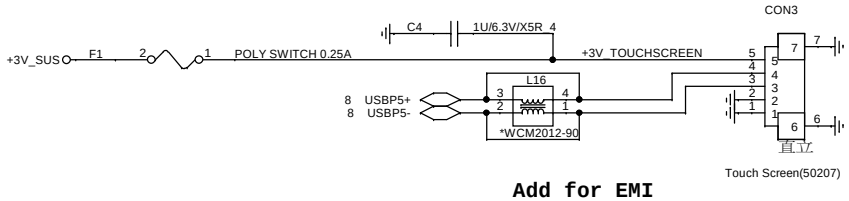
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	NPCE985L	1A
Date: Wednesday, April 24, 2013	Sheet 16 of 35	

Touch Screen



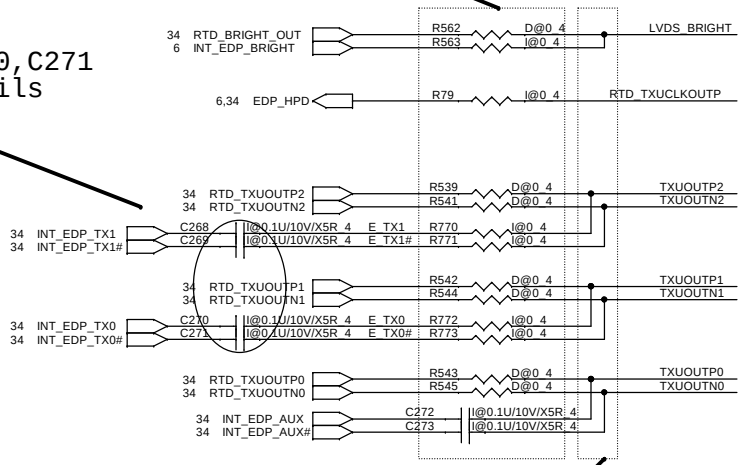


Add for EMI

Camera HD specification
Voltage: Max. 3.6V
Current : Max. 200mA
OCP: 200mA ~ 300mA

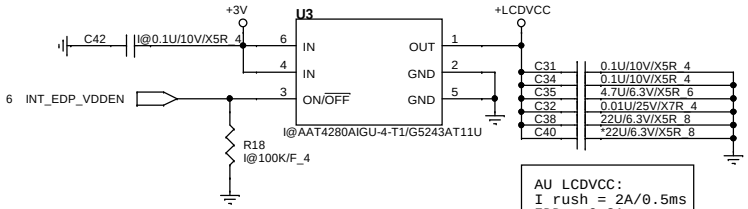
Distance between C268,C269,C270,C271 and CON5 must larger than 500 mils

Close to connector

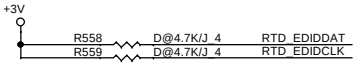


Branches are as short as possible!!

NB LVDS enable

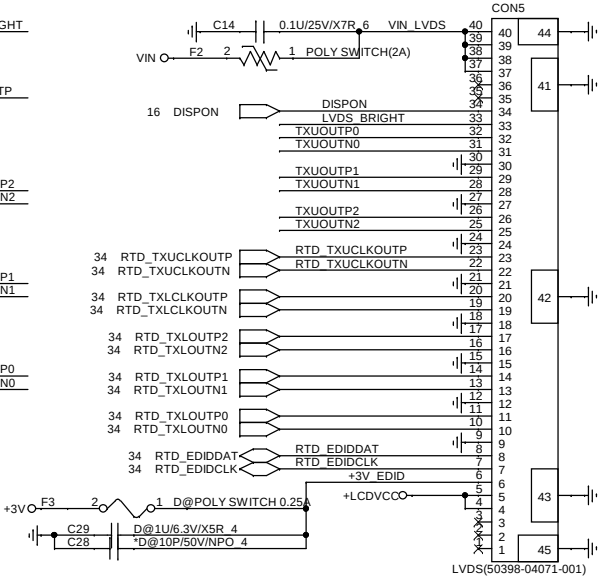


AU LCDVCC:
I rush = 2A/0.5ms
IDD = 0.3A

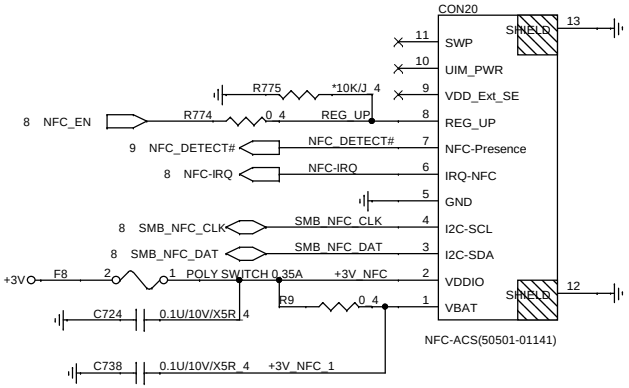


LVDS

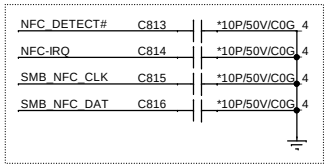
FAST,UL/CSA

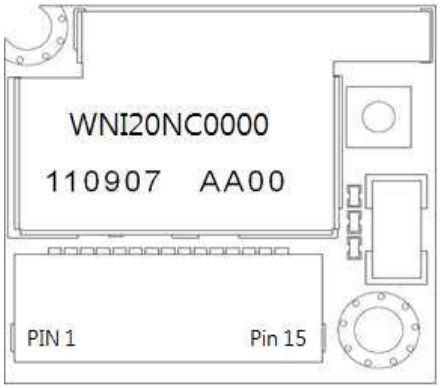


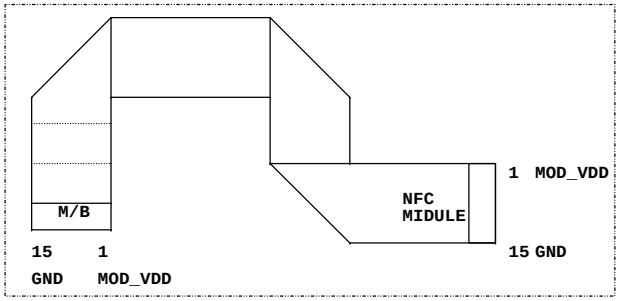
NFC



For EMI.
Close to CON20







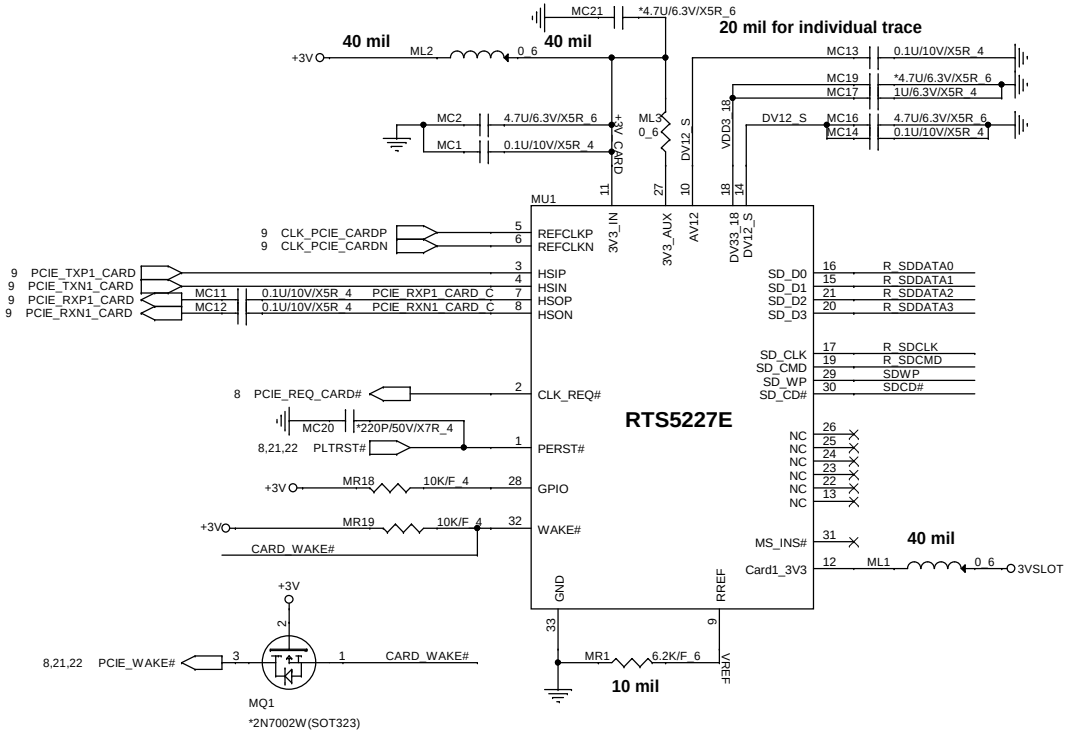
NFC module :
Vender : Samsung SNC-i20
Power consumption : Max. 160mW/48mA
Power Ripple +/- 50mV

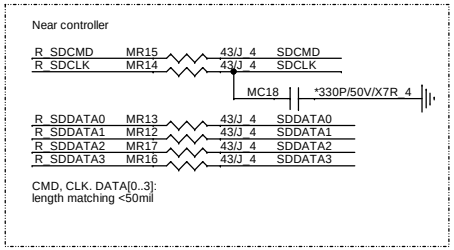
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

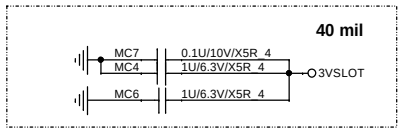
Size	Document Number	Rev
	LVDS\TS\NFC	1A

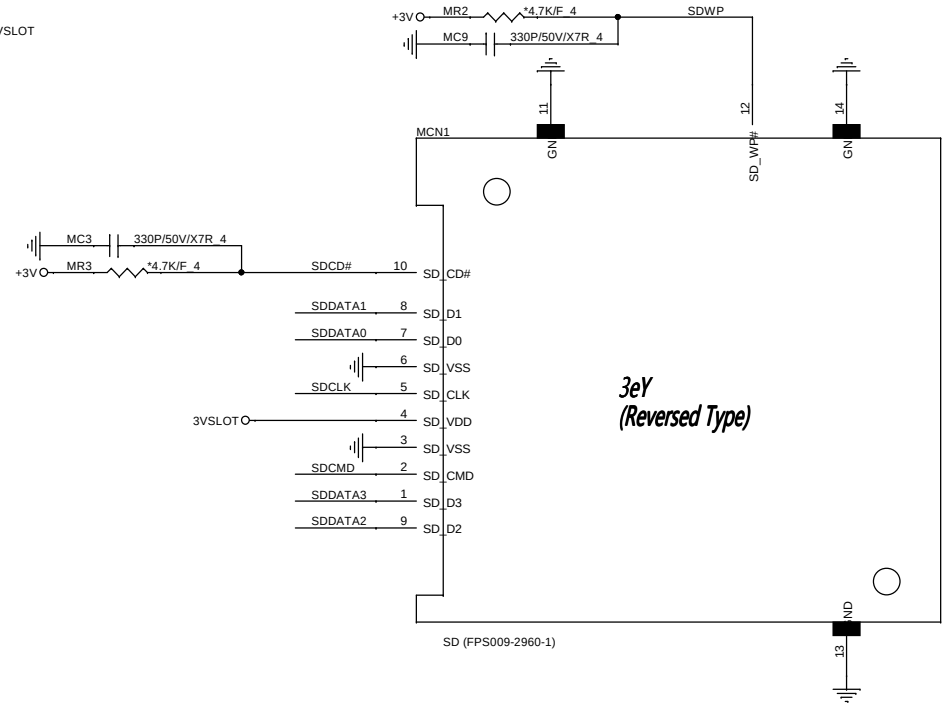
Date: Wednesday, April 24, 2013 Sheet 17 of 35





These component need to close to Slot





1.Level 1 Environment-related Substances Should Never be Used.
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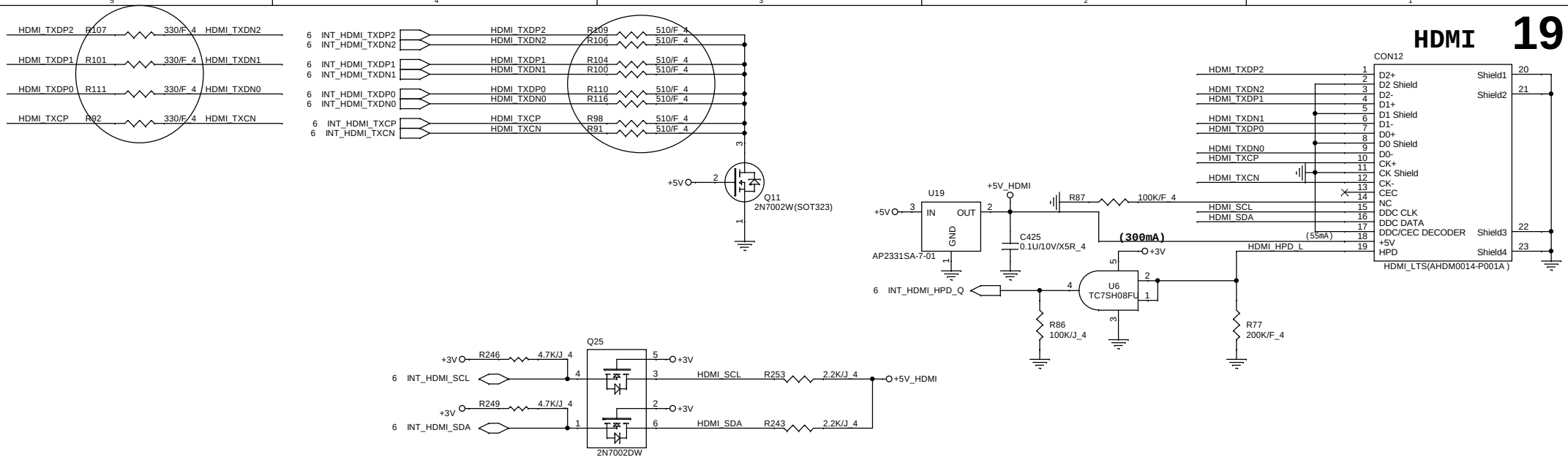
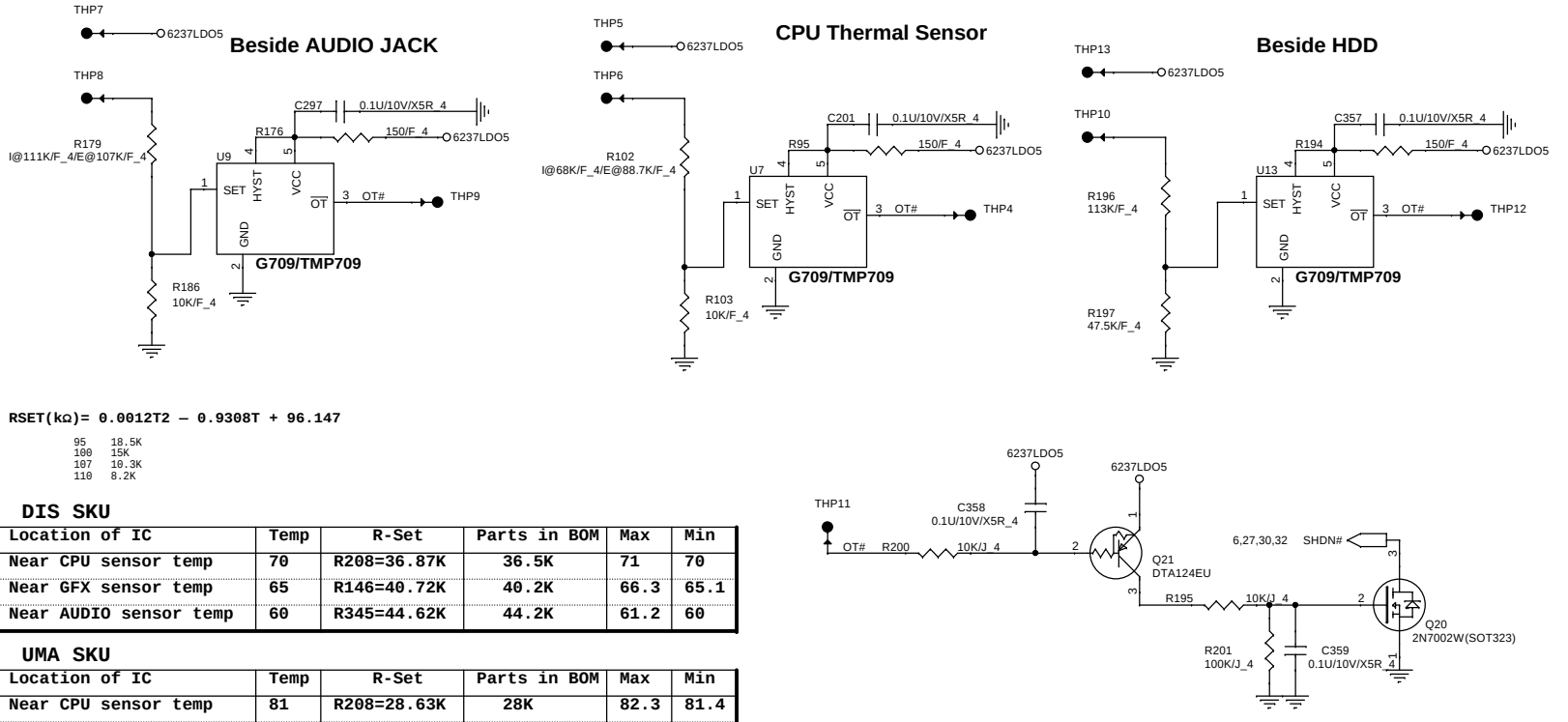
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	Card Reader(RTS5227E)	1A
Date: Wednesday, April 24, 2013	Sheet 18 of 35	



H/W Thermal Protect



RSET(kΩ)= 0.0012T2 – 0.9308T + 96.147

95	18.5K
100	15K
107	10.3K
110	8.2K

DIS SKU

Location of IC	Temp	R-Set	Parts in BOM	Max	Min
Near CPU sensor temp	70	R208=36.87K	36.5K	71	70
Near GFX sensor temp	65	R146=40.72K	40.2K	66.3	65.1
Near AUDIO sensor temp	60	R345=44.62K	44.2K	61.2	60

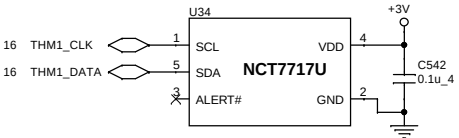
UMA SKU

Location of IC	Temp	R-Set	Parts in BOM	Max	Min
Near CPU sensor temp	81	R208=28.63K	28K	82.3	81.4
Near AUDIO sensor temp	58	R345=46.2K	46.4K	58.4	57.1

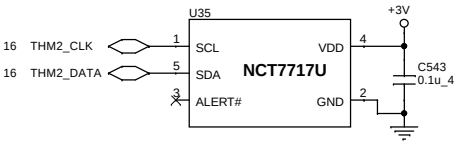
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Thermal Request

Close to FIN



Far away heat portion

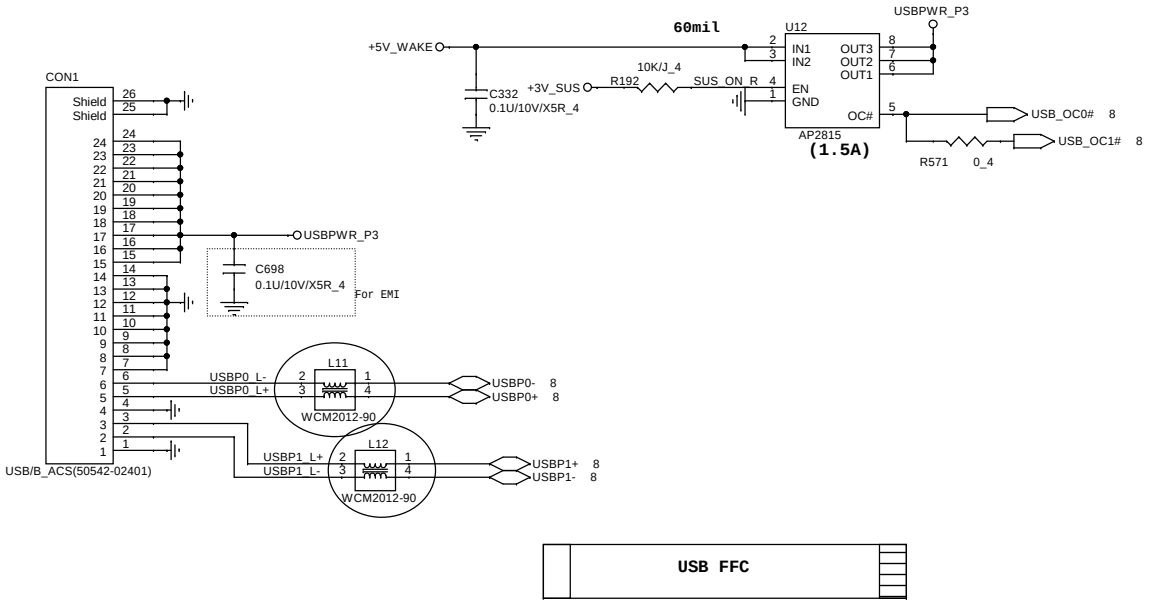


Quanta Computer Inc.
PROJECT : HKA

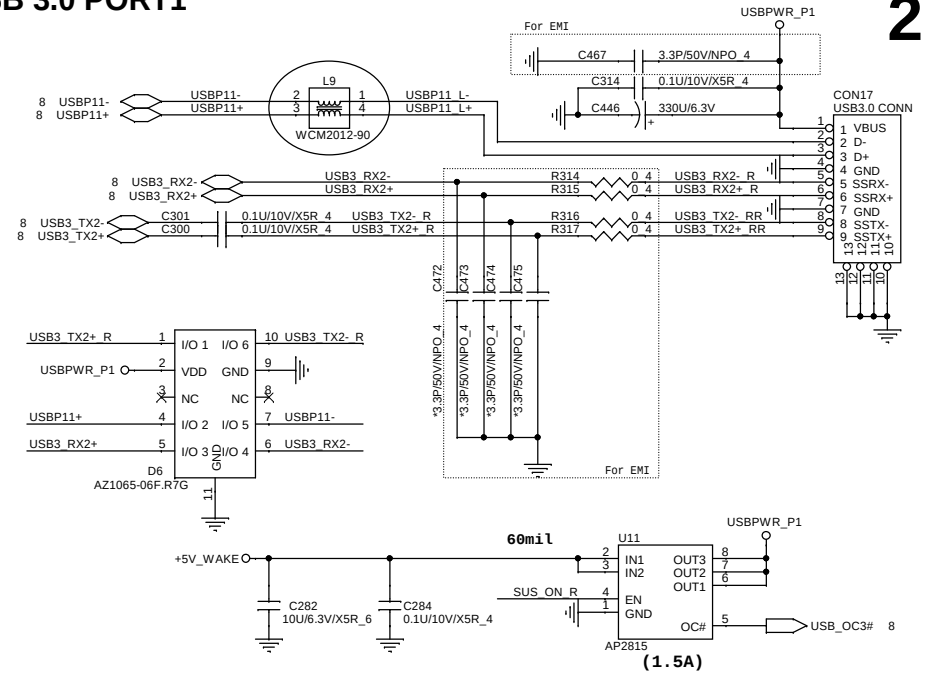
Size	Document Number	Rev
	HDMI/Thermal	1A

Date: Friday, May 03, 2013 Sheet 19 of 35

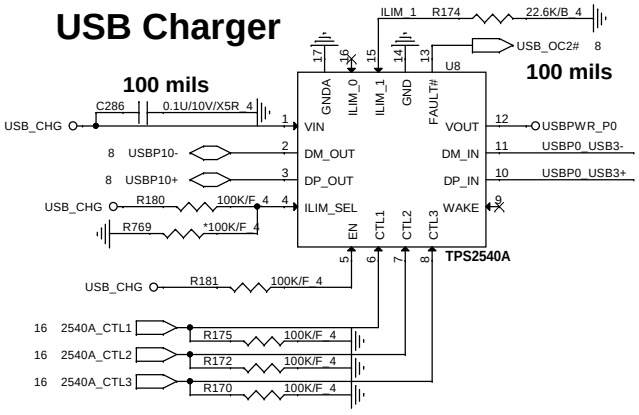
MB to USB board



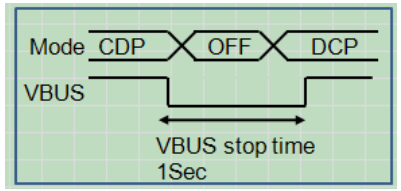
USB 3.0 PORT1



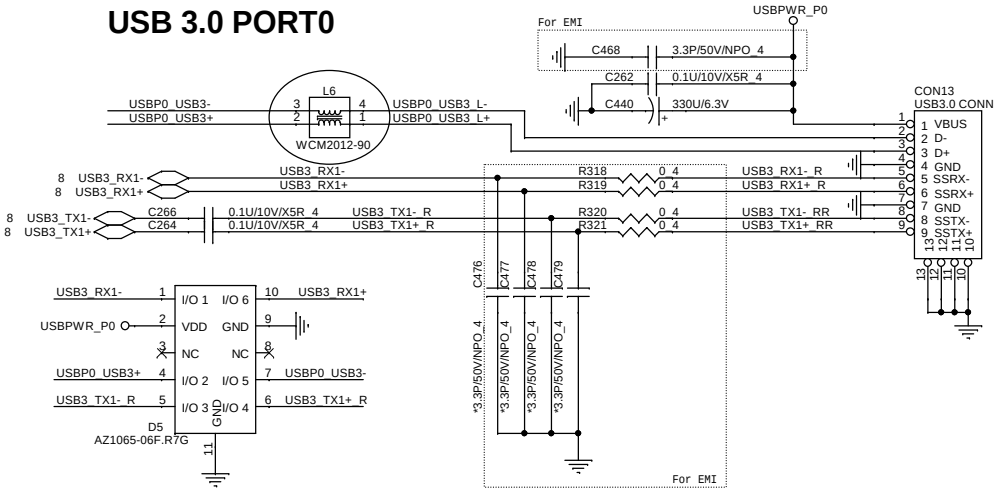
USB Charger



SDP : Standard Downstream Port
CDP : Charging downstream port
DCP : Dedicated Charging Port
Enable/Disable : setting by BIOS



USB 3.0 PORT0



CTL_1	CTL_2	CTL_3	TPS 2540A/2543 Truth Table
0	0	0	OUT discharge, power switch OFF
0	X	1	DCP,Auto-detect(S3/S4/S5, 1.5A)
X	1	0	SDP, USB2.0 mode(S0, 0.5A)
1	0	0	DCP, BC SPEC1.2 only(S3/Deep standby/S4/S5, 1.5A)
1	0	1	DCP, Divider mode only(S3/S4/S5, 1.5A)
1	1	1	CDP (S0, 1.5A)

System State	USB Battery Charging Setting			
	Disable	C(1 2 3)	Enable	C(1 2 3)
S0	SDP	(X 1 0)	CDP	(1 1 1)
S3	SDP	(X 1 0)	DCP BC	(1 0 0)
DS3	Charger OFF	(0 0 0)	DCP BC	(1 0 0)
S4	Charger OFF	(0 0 0)	DCP BC	(1 0 0)
S5	Charger OFF	(0 0 0)	DCP BC	(1 0 0)

ILIM_SEL	(I LIMIT(A)= 48000/R)	
HI	I_LIM_1	
LO	I_LIM_0	48000/22.6K=2.123A

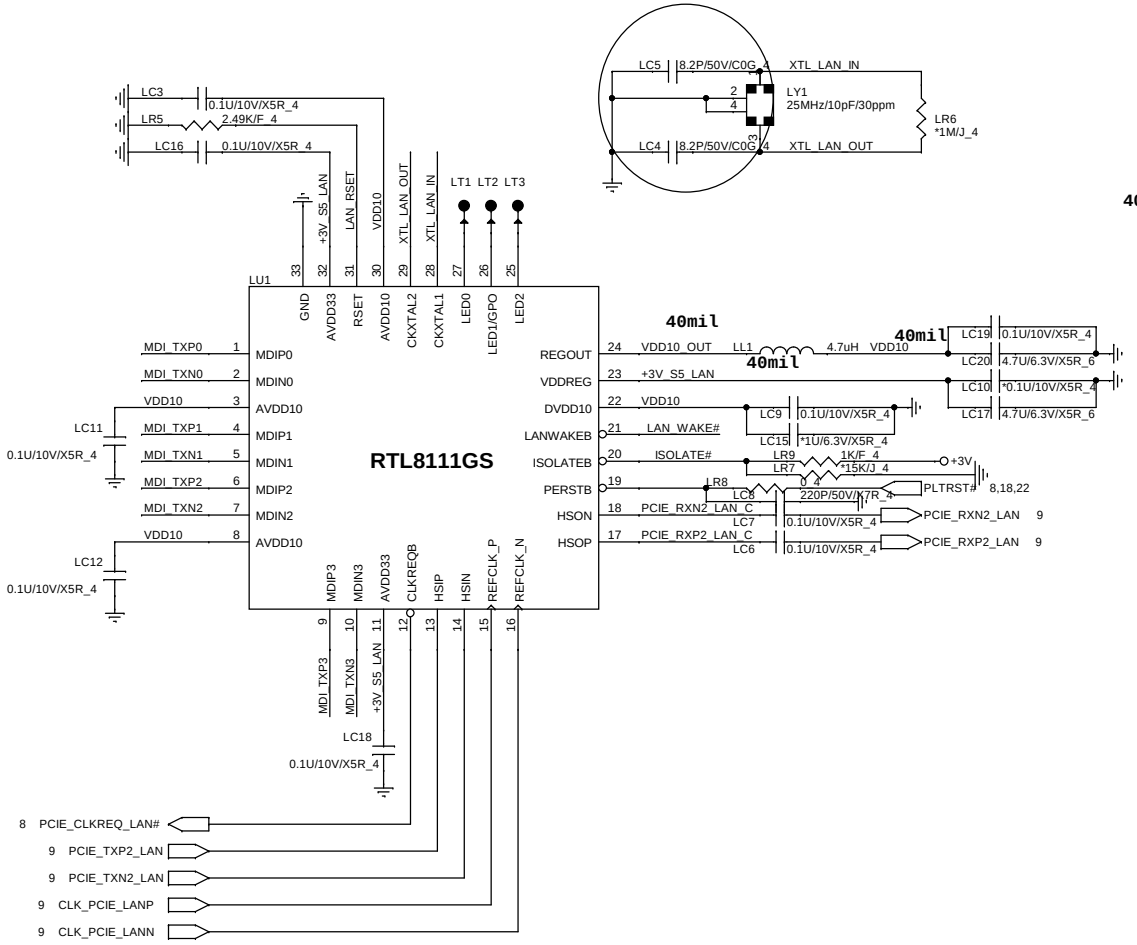
1.Level 1 Environment-Related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

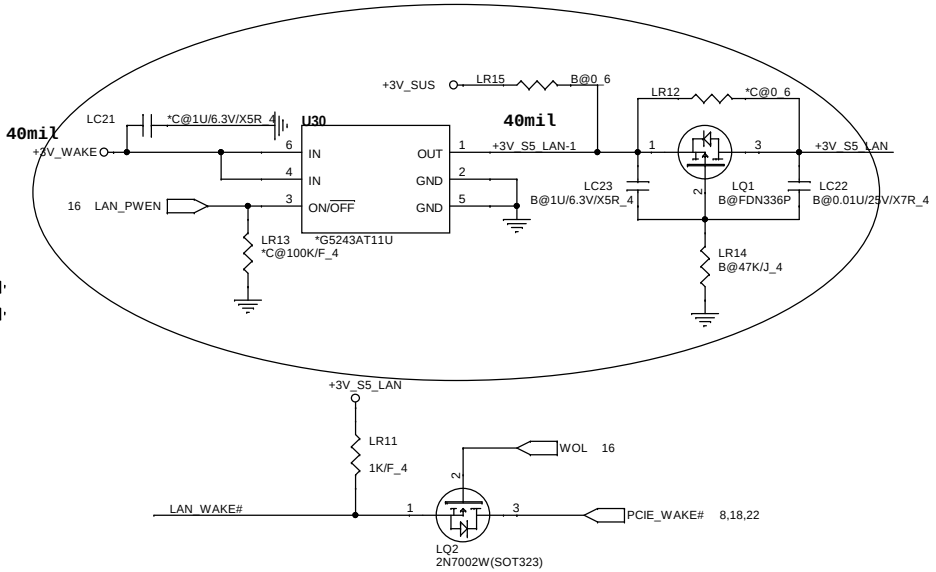
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	USB/USB Charger	1A

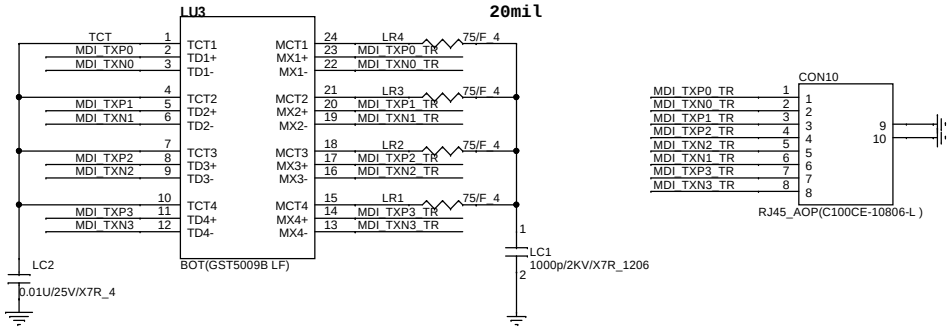
Date: Wednesday, April 24, 2013 Sheet 20 of 35

B@ : Support S3 WOL
C@ : Support S5 WOL





AC Mode : Support Wake on LAN
DC Mode : Don't support wake on LAN

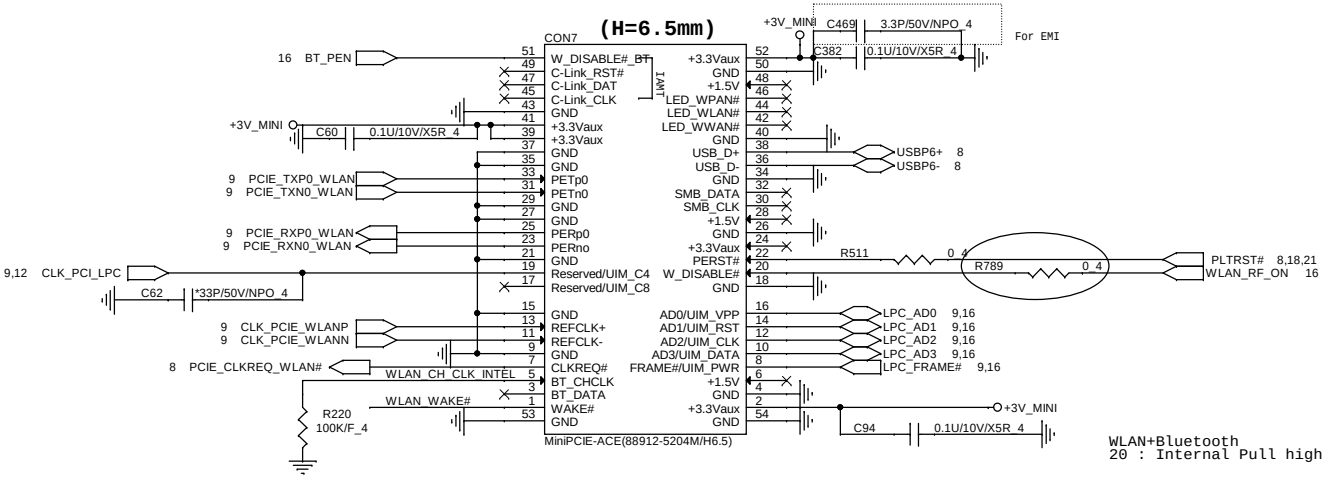


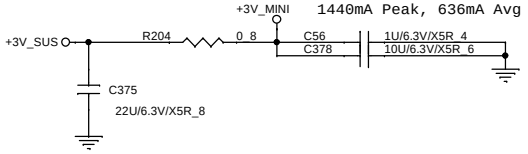
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

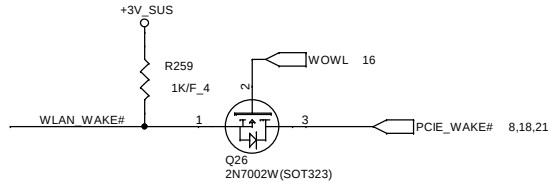
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	LAN RTL8111GS	1A
Date: Wednesday, April 24, 2013	Sheet 21 of 35	

WLAN/WIMAX/WIDI



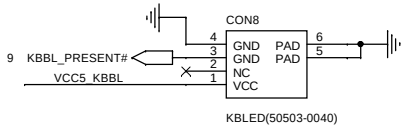


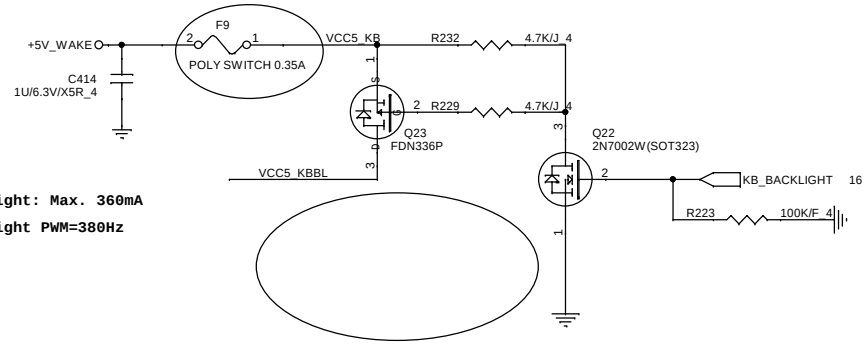


WLAN+Bluetooth
20 : Internal Pull high 25K ~ 58K

AC Mode : Support Wake on WLAN
DC Mode : Don't support wake on WLAN

KB BACKLIGHT





KB Backlight: Max. 360mA

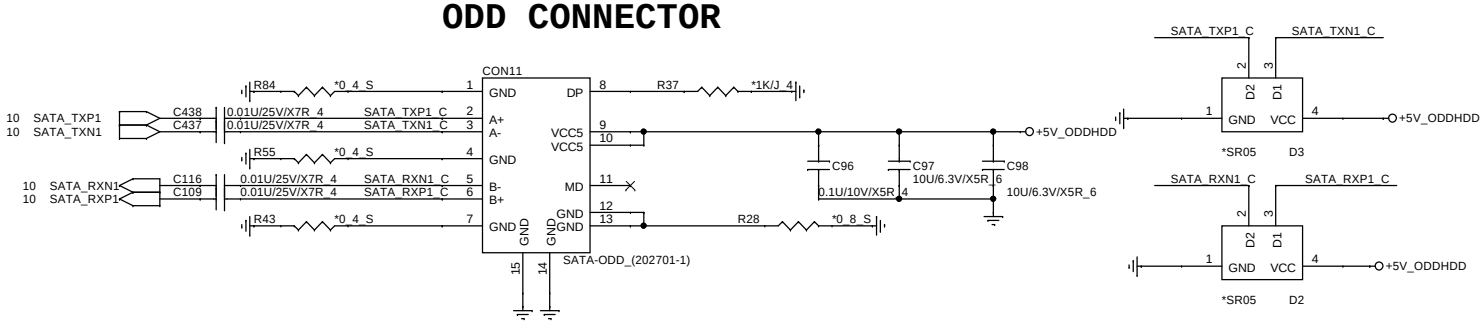
KB Backlight PWM=380Hz

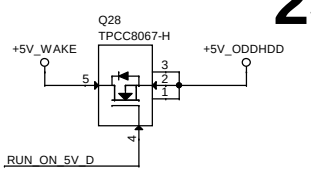
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

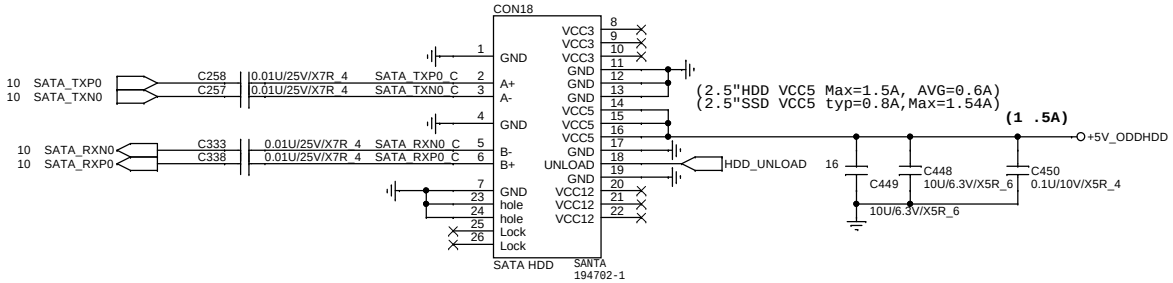
Size	Document Number	Rev
	WLAN/KB-BL	1A
Date: Wednesday, April 24, 2013	Sheet 22 of 35	

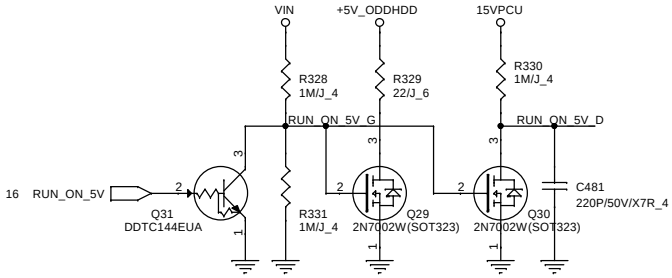
ODD CONNECTOR

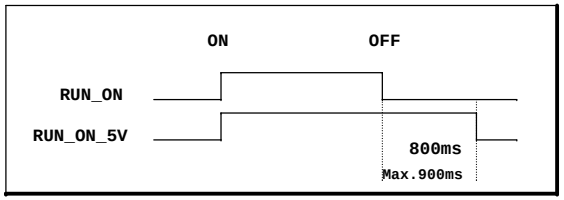




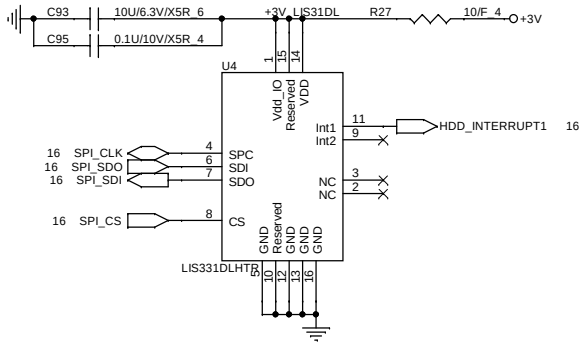
HDD CONNECTOR

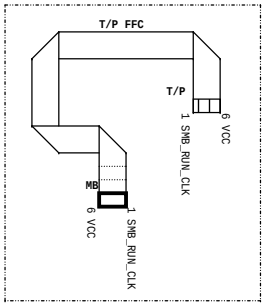




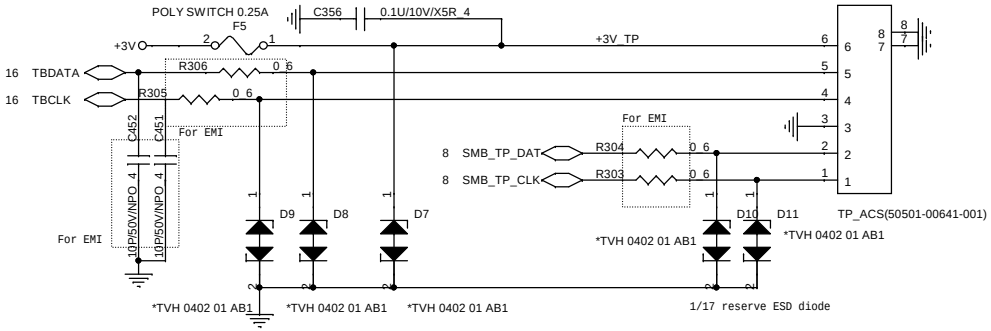


HDD PROTECT SPI INTERFACE

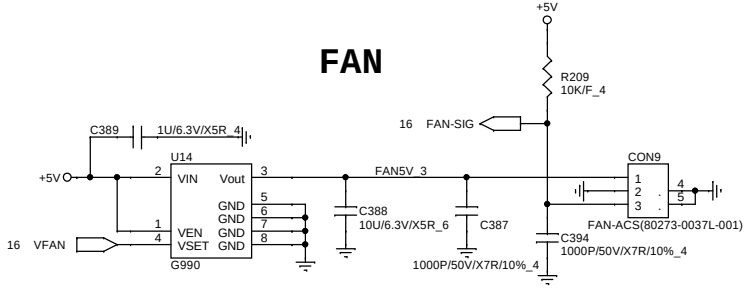




T/P Board to T/P



FAN



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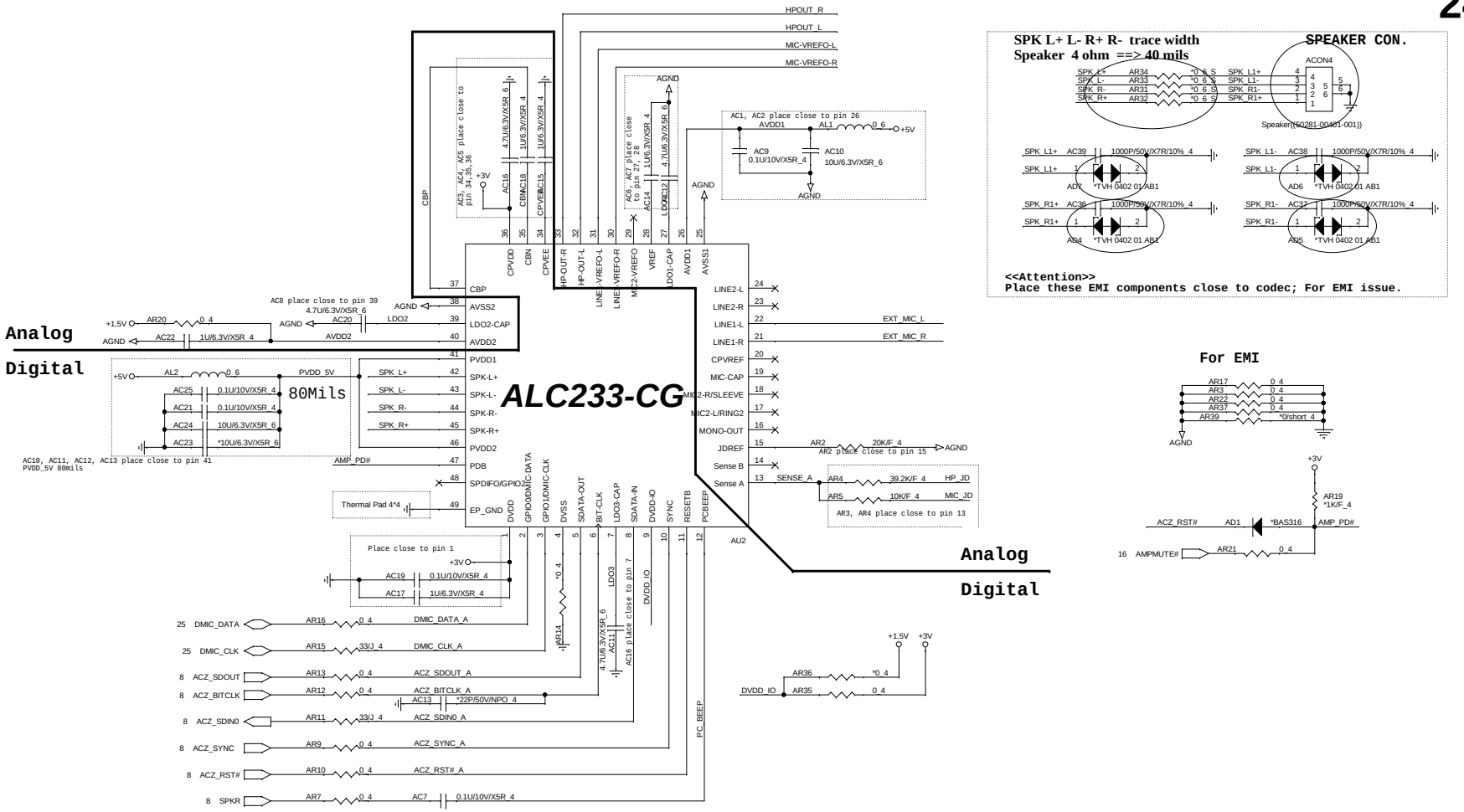
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	HDD/ODD/Gsensor/TP/FAN	1A

Date: Wednesday, April 24, 2013 Sheet 23 of 35

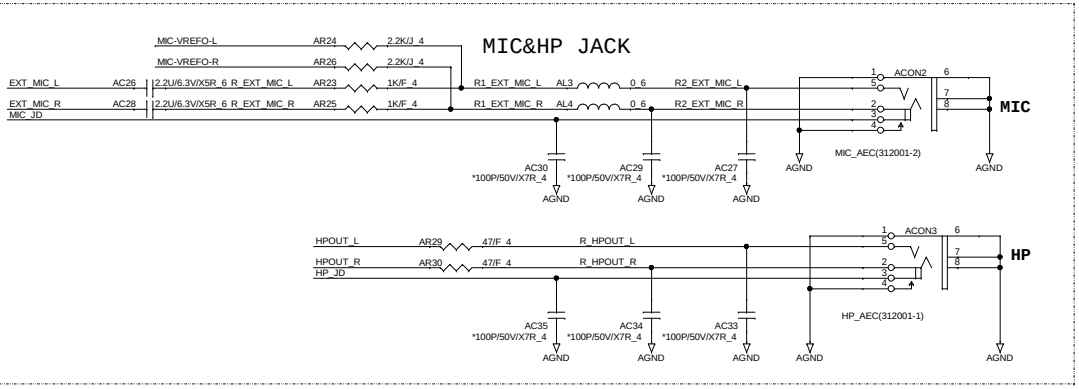


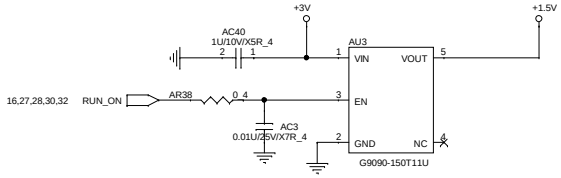
SPK L+ L- R+ R- trace width
Speaker 4 ohm ==> 40 mils

SPEAKER CON.

<<Attention>>
Place these EMI components close to codec; For EMI issue.

For EMI



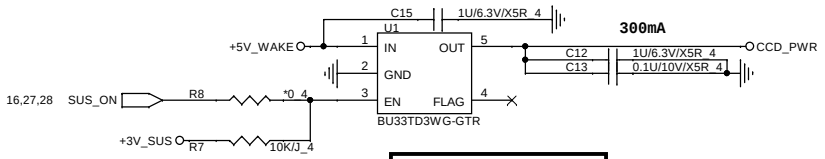


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number	Rev
	AUDIO(ALC233-CG)HP&MIC	1A
Date: Wednesday, April 24, 2013	Sheet 24 of 35	

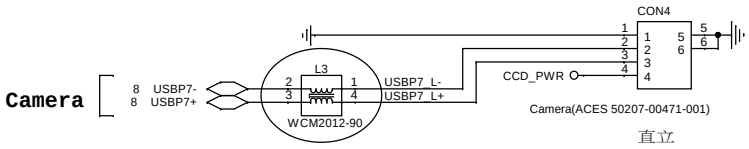
Camera

USB Camera Power

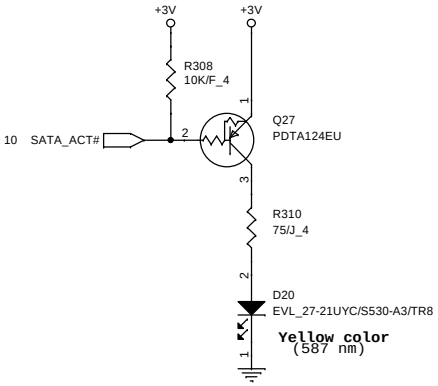


Camera HD specification
Voltage: Max. 3.6V
Current : Max. 200mA
OCP: 200mA ~ 300mA

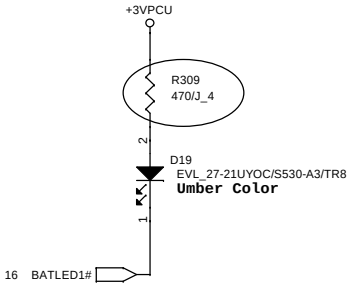
Camera



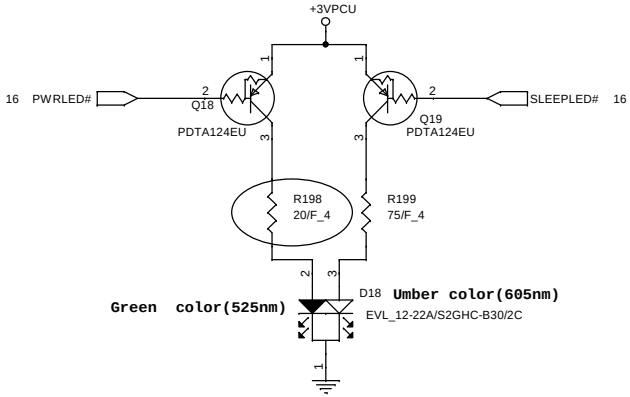
SATA LED



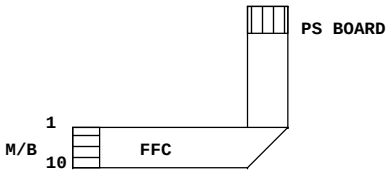
BATTERY LED



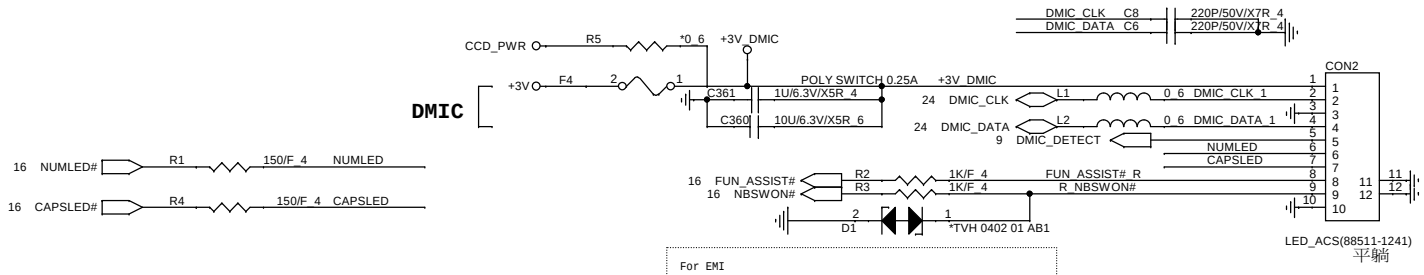
Power/Sleep LED



PS BOARD



Power SW Board Connector

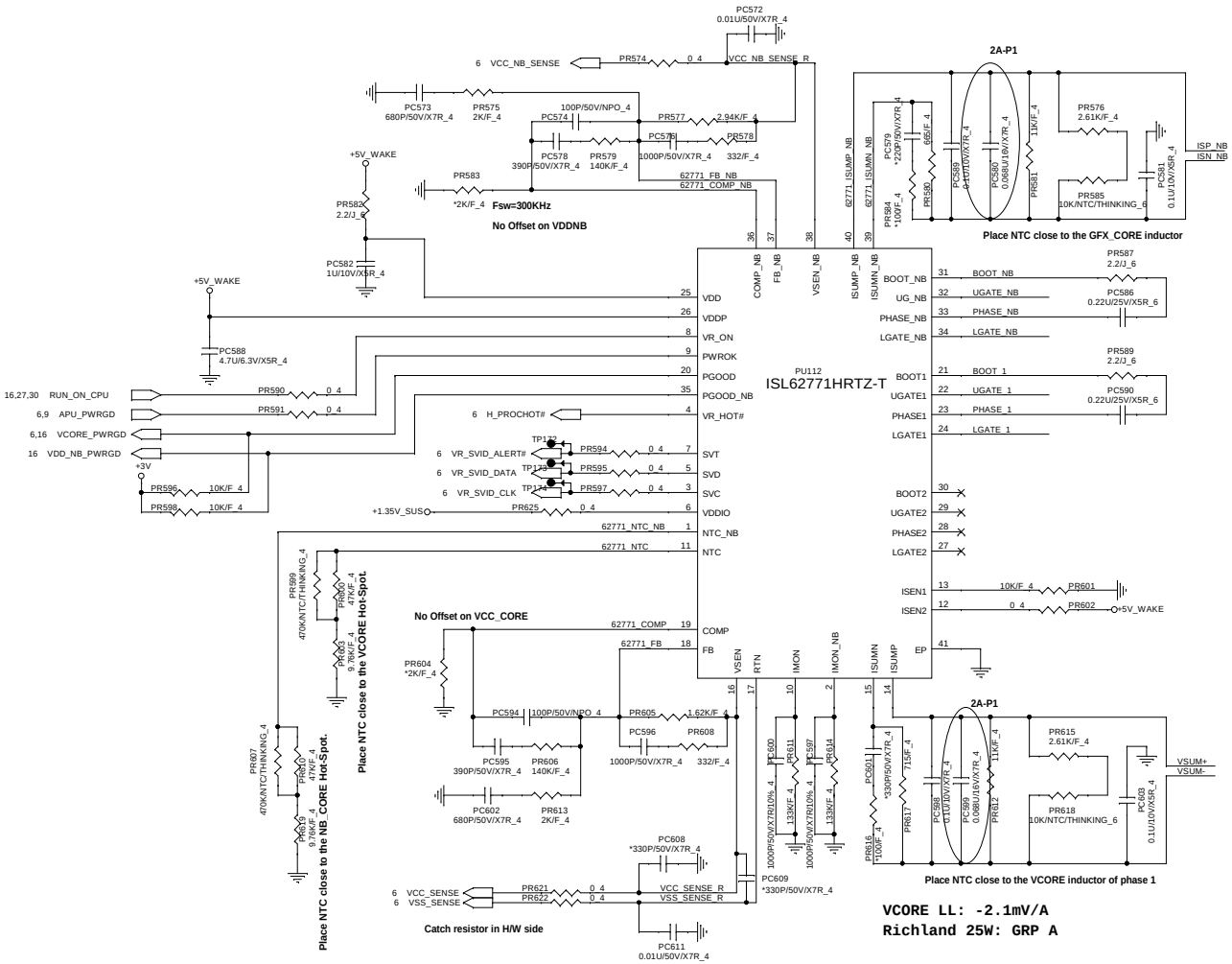


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

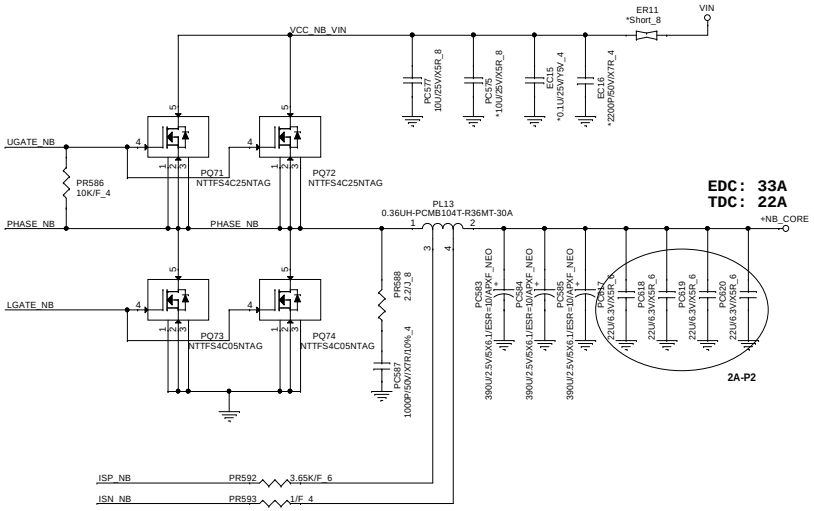
Quanta Computer Inc.
PROJECT : HKA

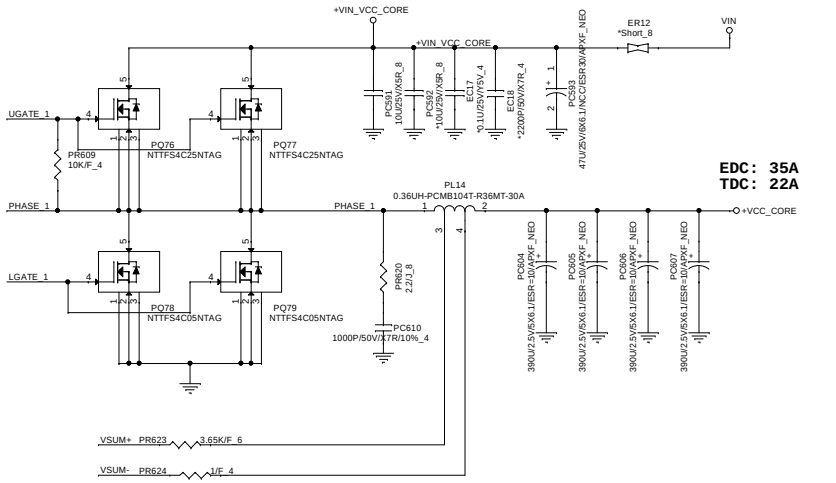
Size	Document Number	Rev
	LED/PS/DMIC\Camera	1A
Date: Wednesday, April 24, 2013	Sheet 25 of 35	

Richland 25W: GRP A
VDD_NB LL: -4.0mV/A



VCORE LL: -2.1mV/A
Richland 25W: GRP A





1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number: +VCC_CORE (ISL62771)	Rev: 1A
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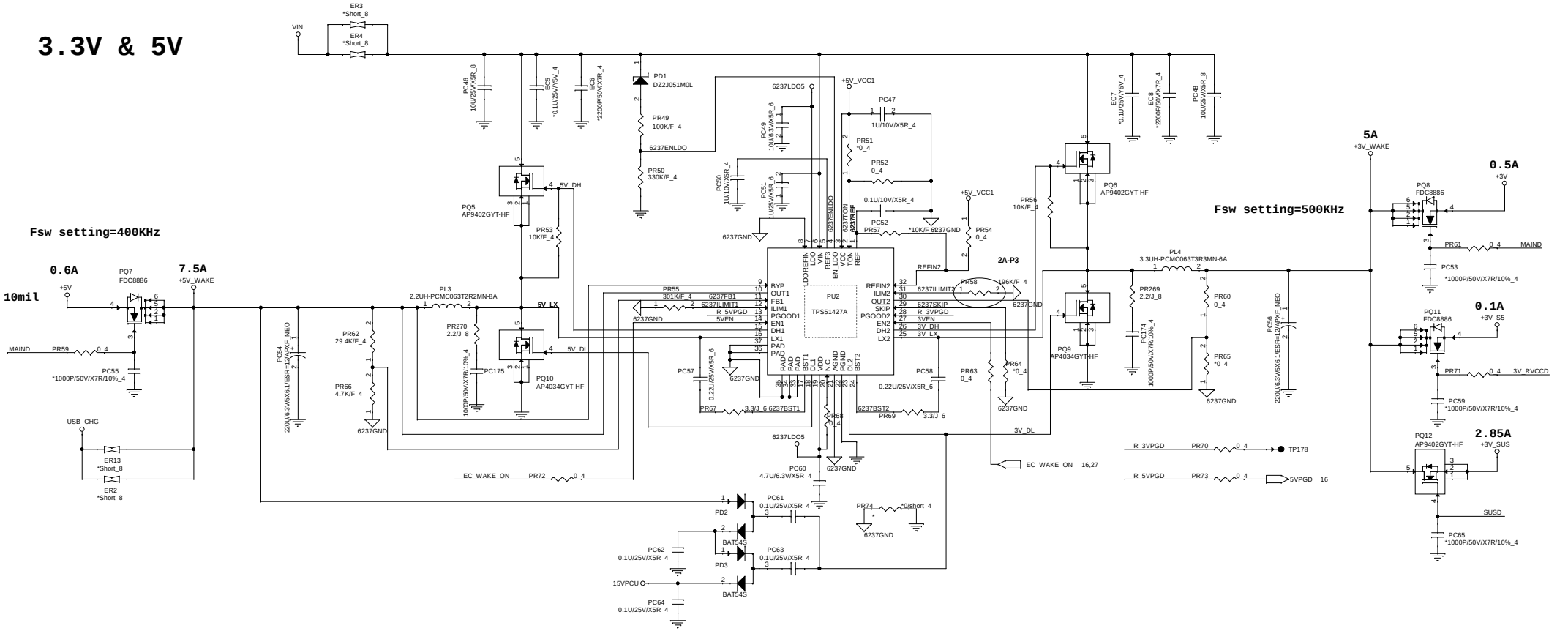
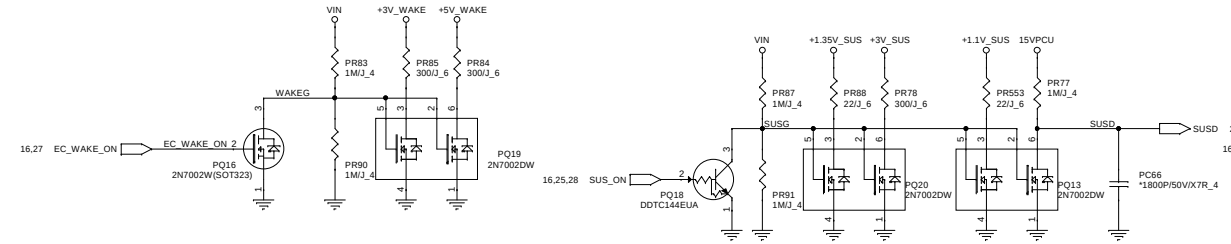
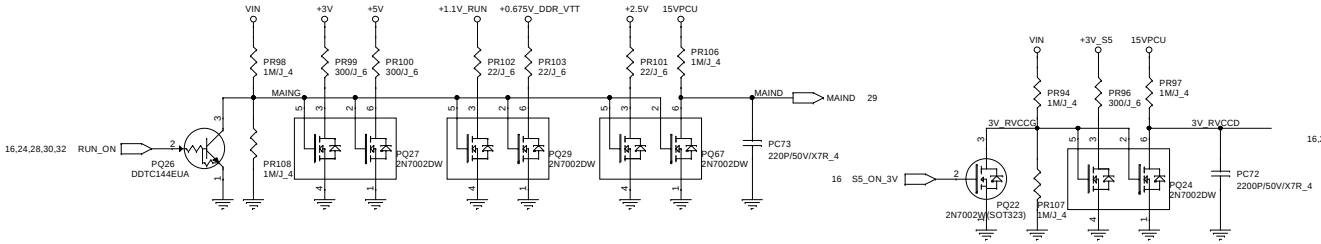
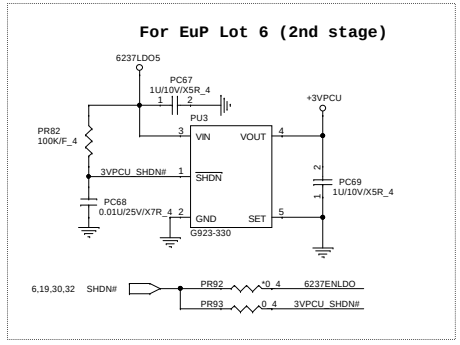
3.3V & 5V





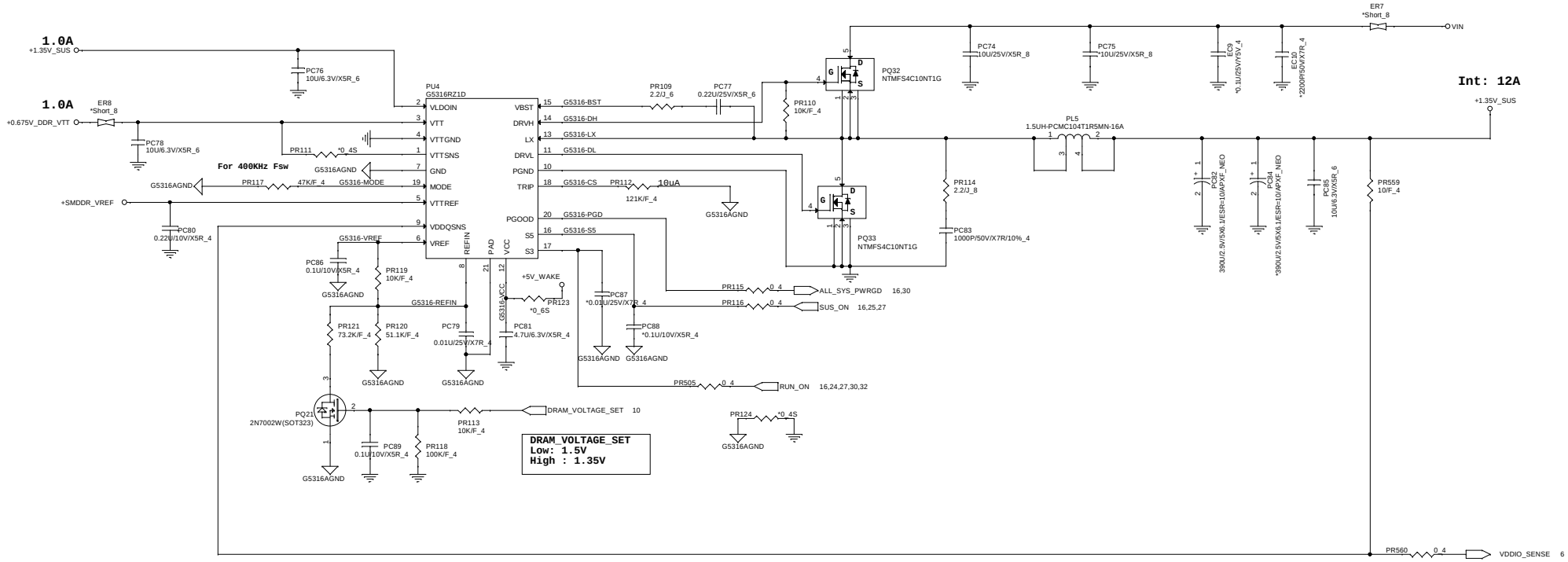




1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number: 3VPCU&5VPCU(TPS51427A)	Rev: 1A
Date: Friday, May 03, 2013	Sheet 27 of 35	

1.35VSUS & VTT_MEM



MODE	Resistor on Mode	Fsw	Discharge Mode
3	200Kohm	400KHz	Tracking discharge
2	100Kohm	300KHz	
1	68Kohm	300KHz	**Non-tracking discharge**
0	**47Kohm**	**400KHz**	

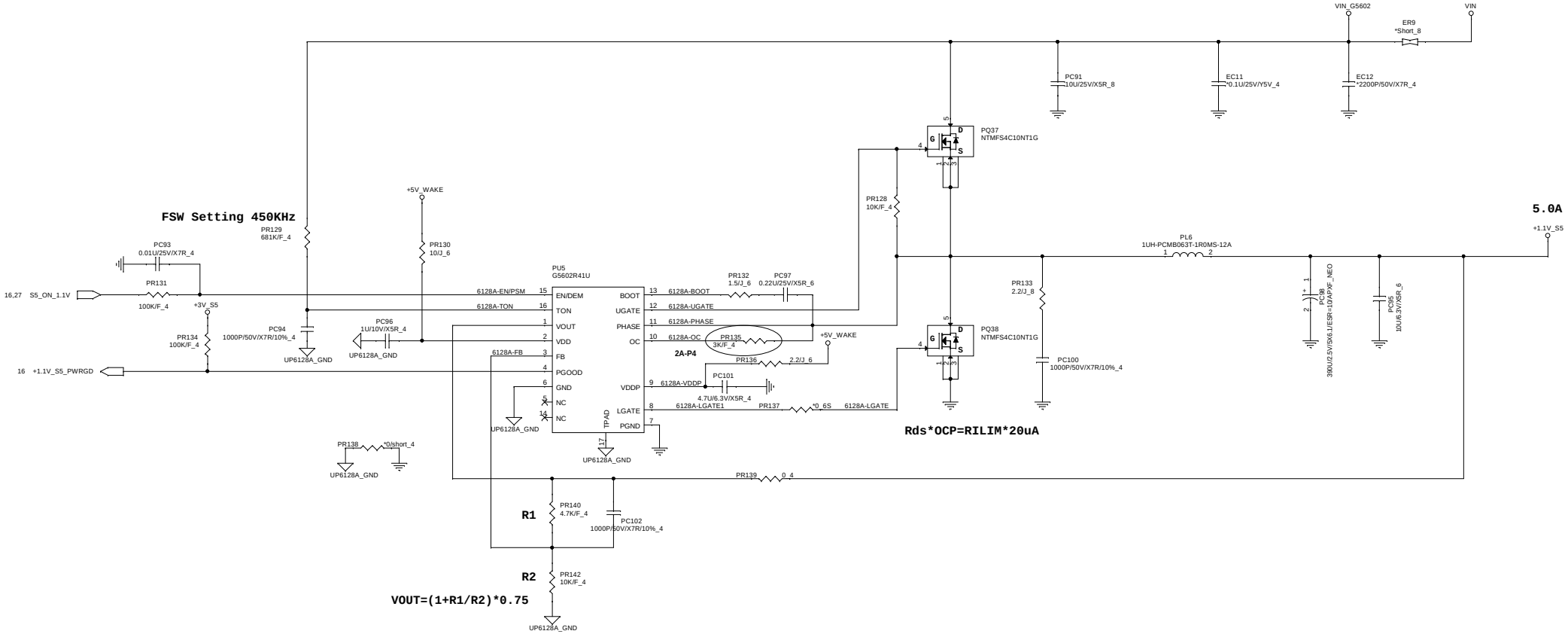
STATE	S3	S5	1.5VSUS	VTTREF	VTT
S0	1	1	On	On	On
S3	0	1	On	On	Off/High Z
S4/S5	0	0	Off	Off	Off

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

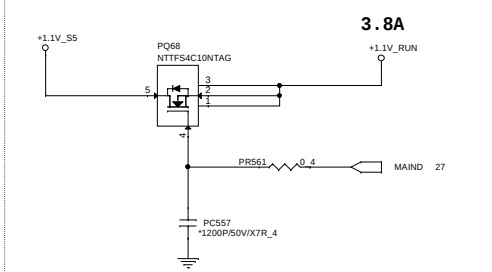
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	1.35VSUS/VTT_MEM	1A

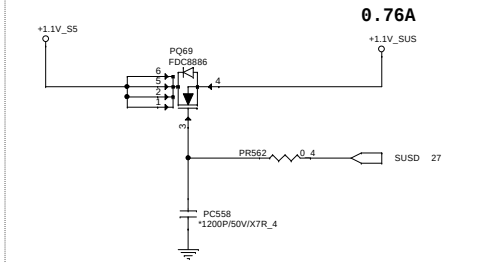
Date: Wednesday, April 24, 2013 Sheet 28 of 35



+1.1V



+1.1V_SUS



1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	+1.1V (UP1522RQDD)	1A
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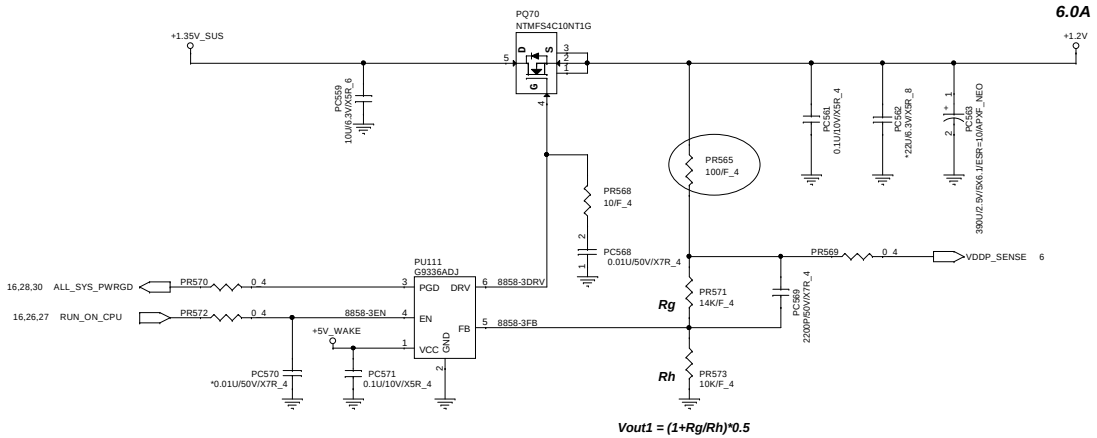
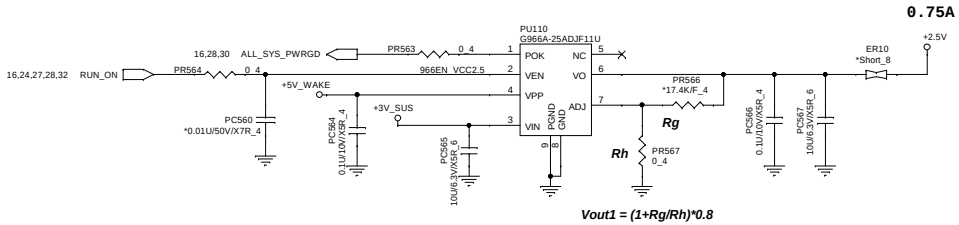
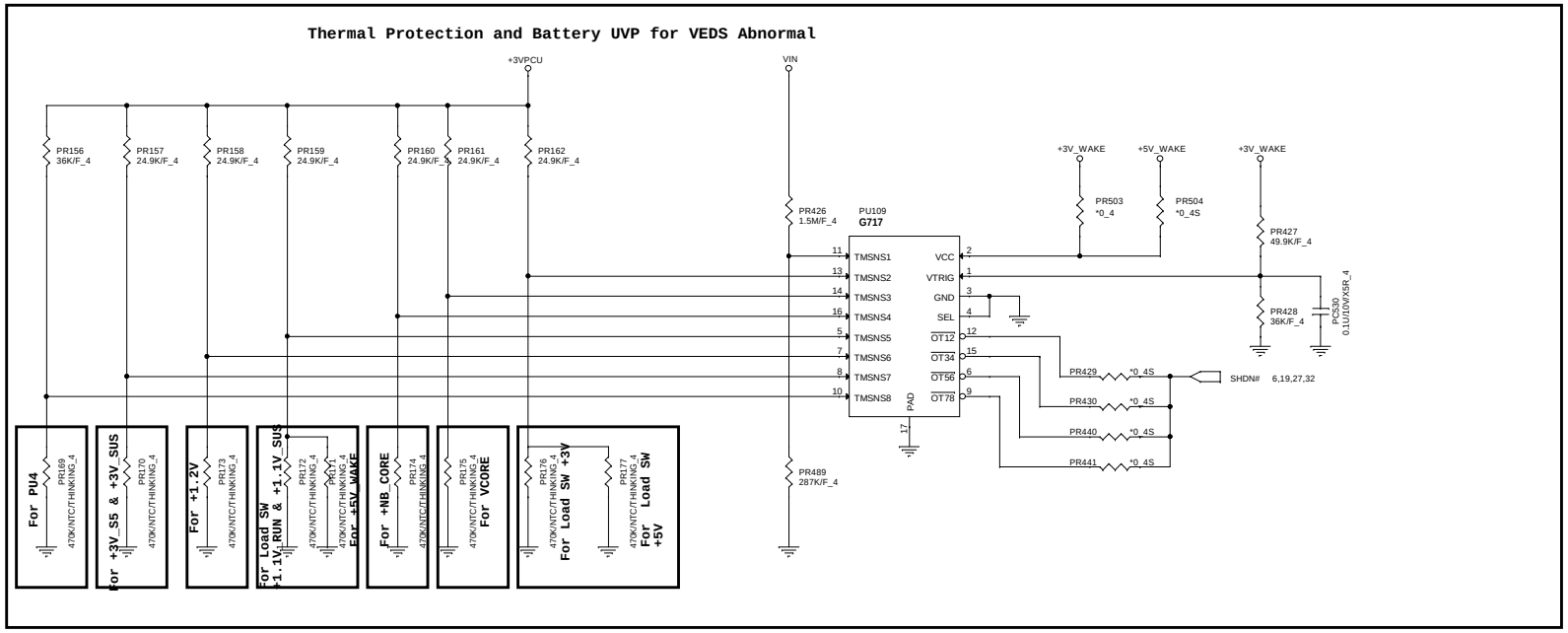
VCC1.2



VCC2.5





1.Level 1 Environment-related Substances Should Never be Used.
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Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	VCC1.2/VCC2.5/Thermal	1A

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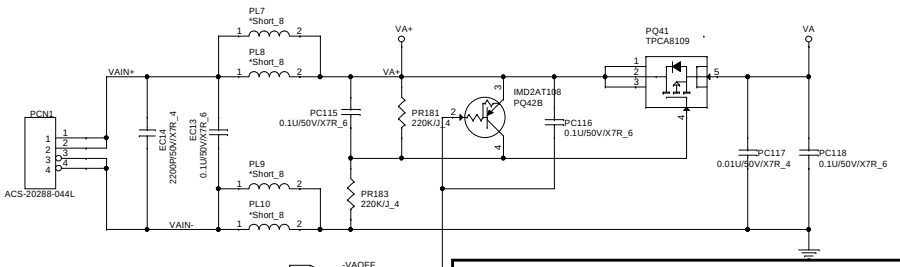
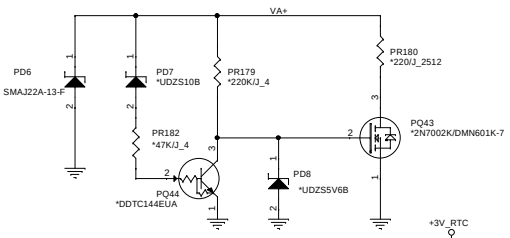
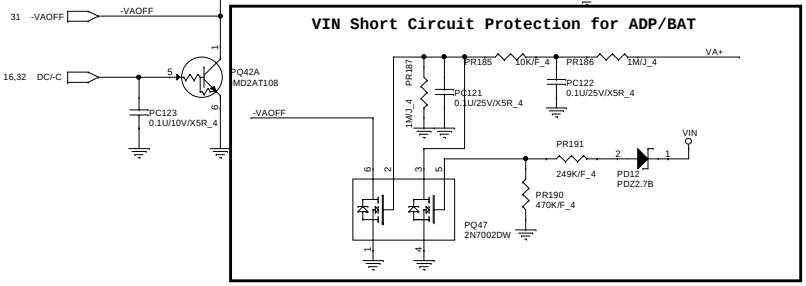
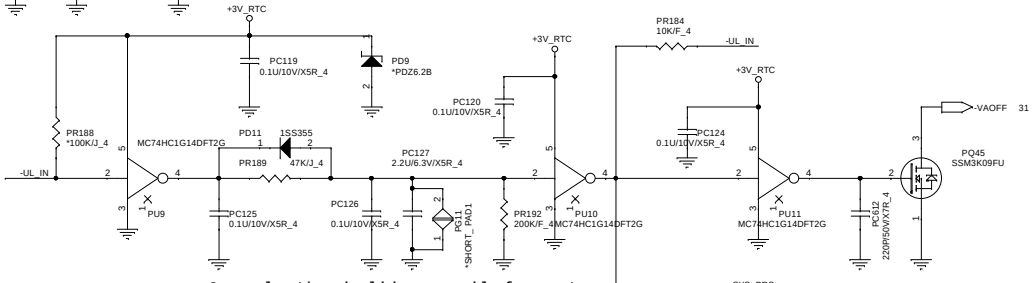




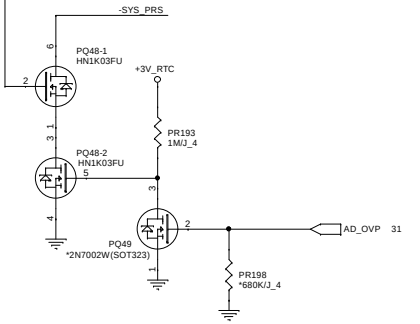
VIN Short Circuit Protection for ADP/BAT



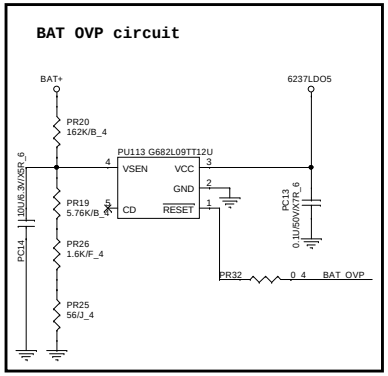
UL Latch Circuit



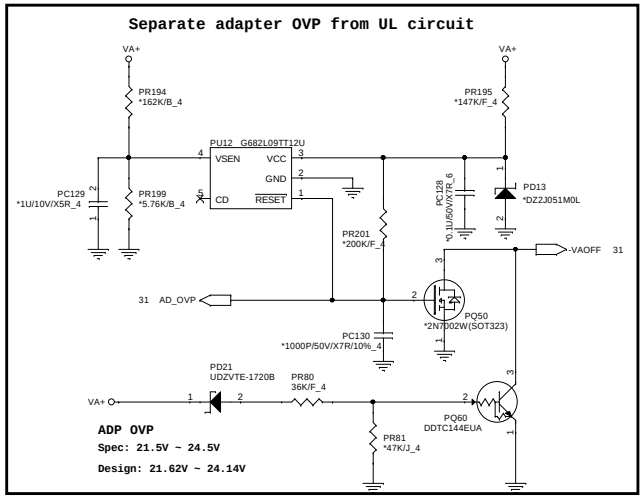
Jumper location should be accessable for reset



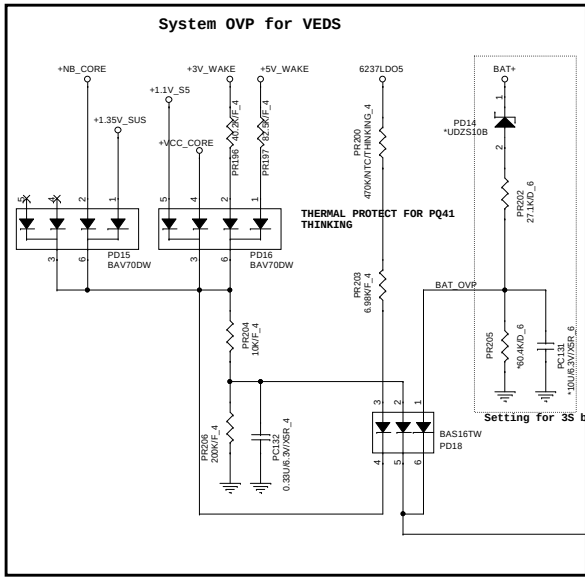
BAT OVP circuit

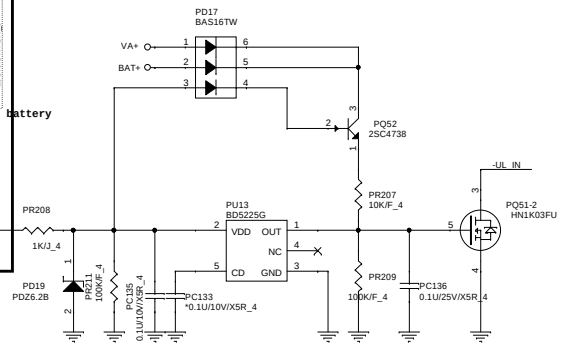


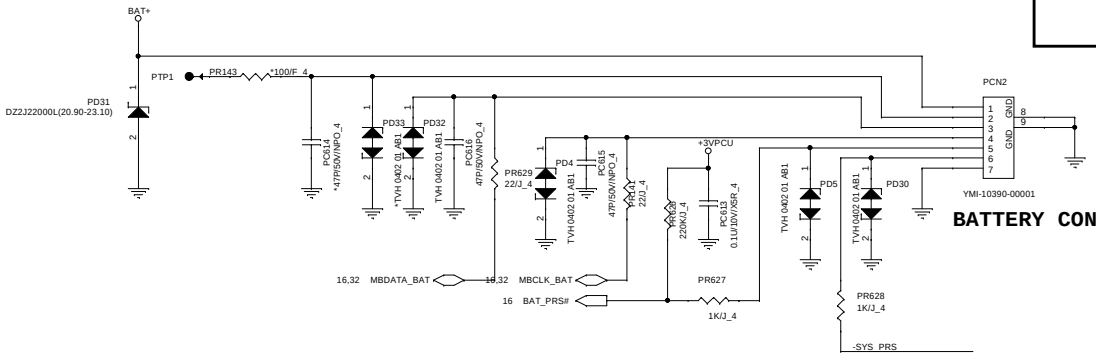
Separate adapter OVP from UL circuit



System OVP for VEDS



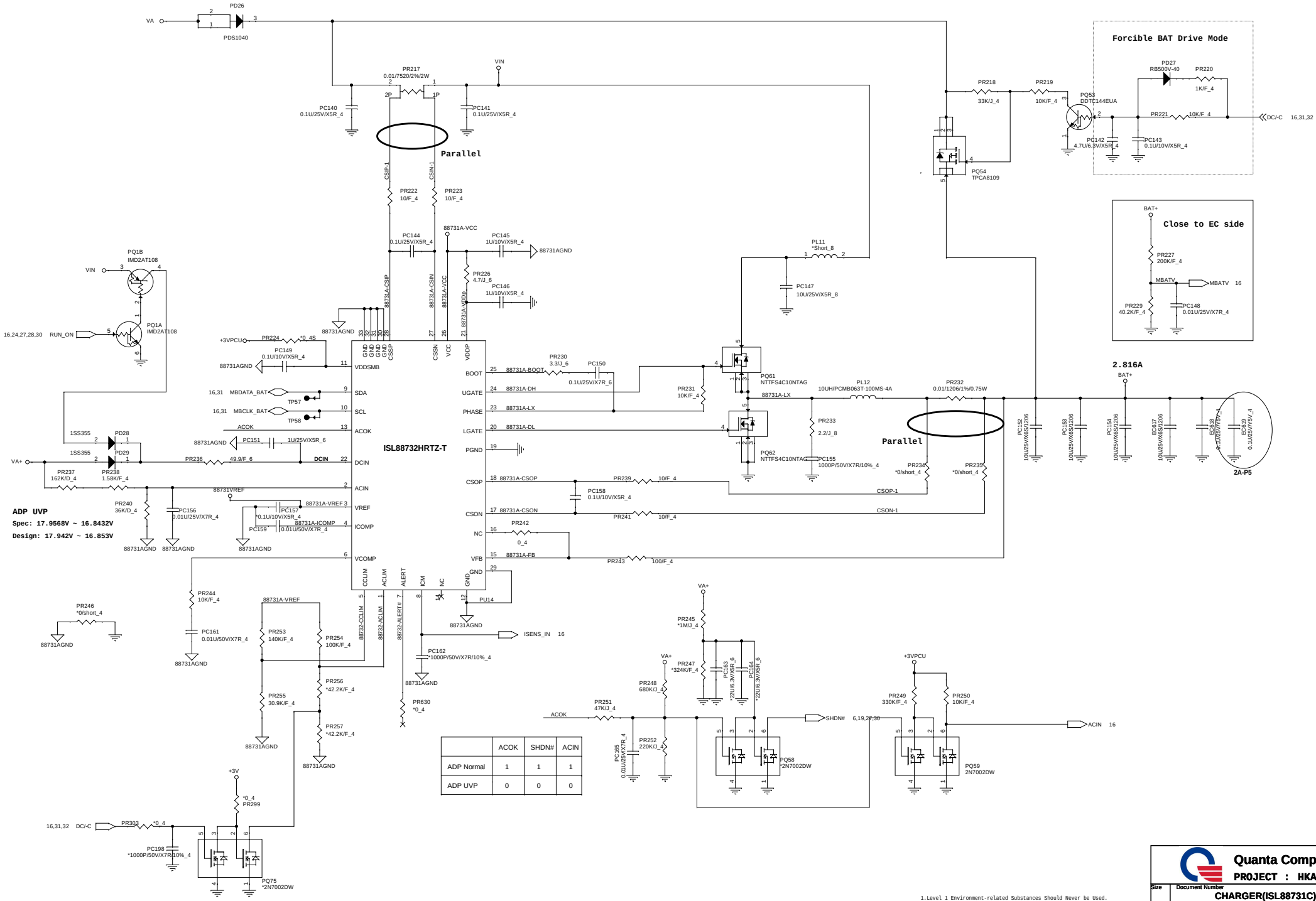




BATTERY CONNECTOR

1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : HKA		
Size	Document Number: BAT IN/ADA IN/UL	Rev: 1A
Date: Wednesday, April 24, 2013	Sheet 31 of 35	



	ACOK	SHDN#	ACIN
ADP Normal	1	1	1
ADP UVP	0	0	0

1.Level 1 Environment-related Substances Should Never be Used.
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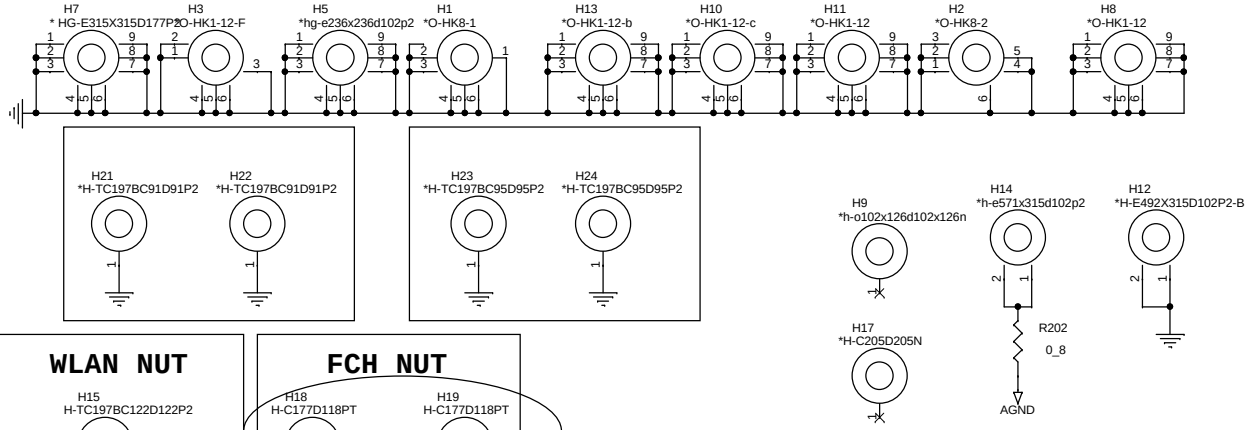
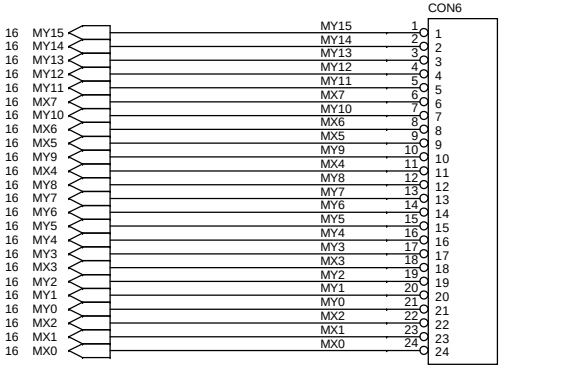
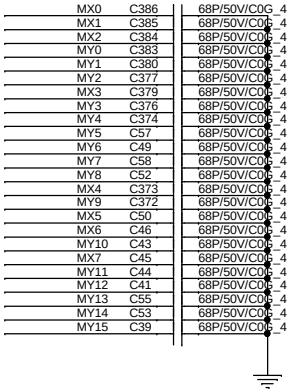
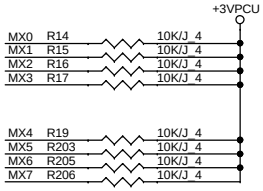
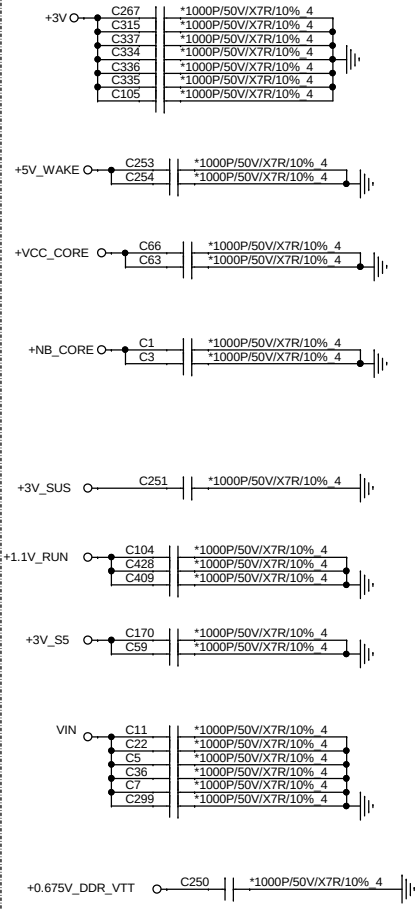


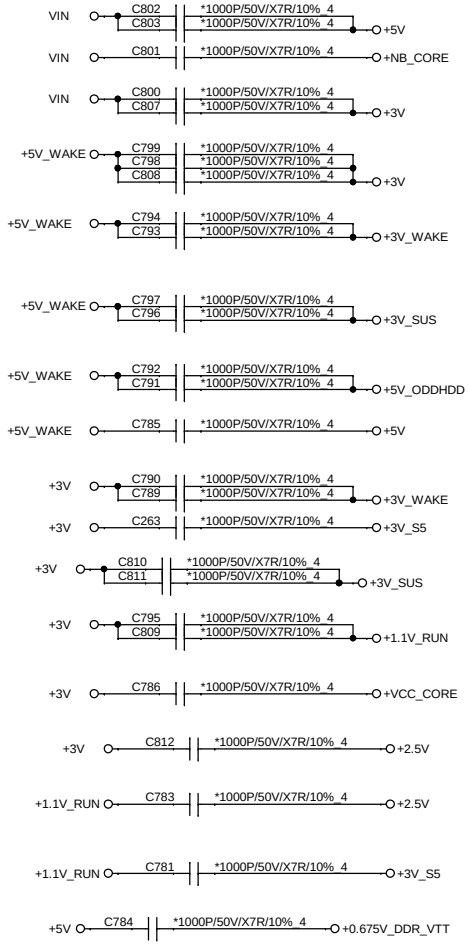
KEY BOARD Connector











1.Level 1 Environment-related Substances Should Never be Used.
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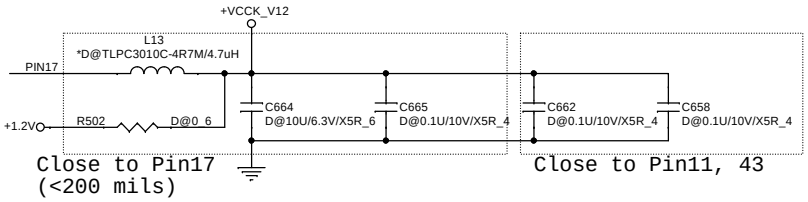
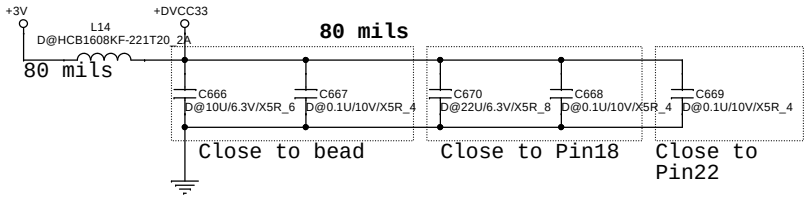
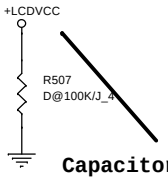
Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	HOLE/EMI/KB	1A
Date: Wednesday, April 24, 2013	Sheet 33 of 35	

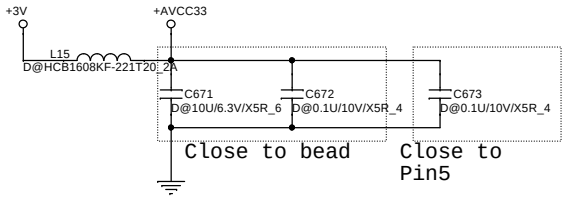


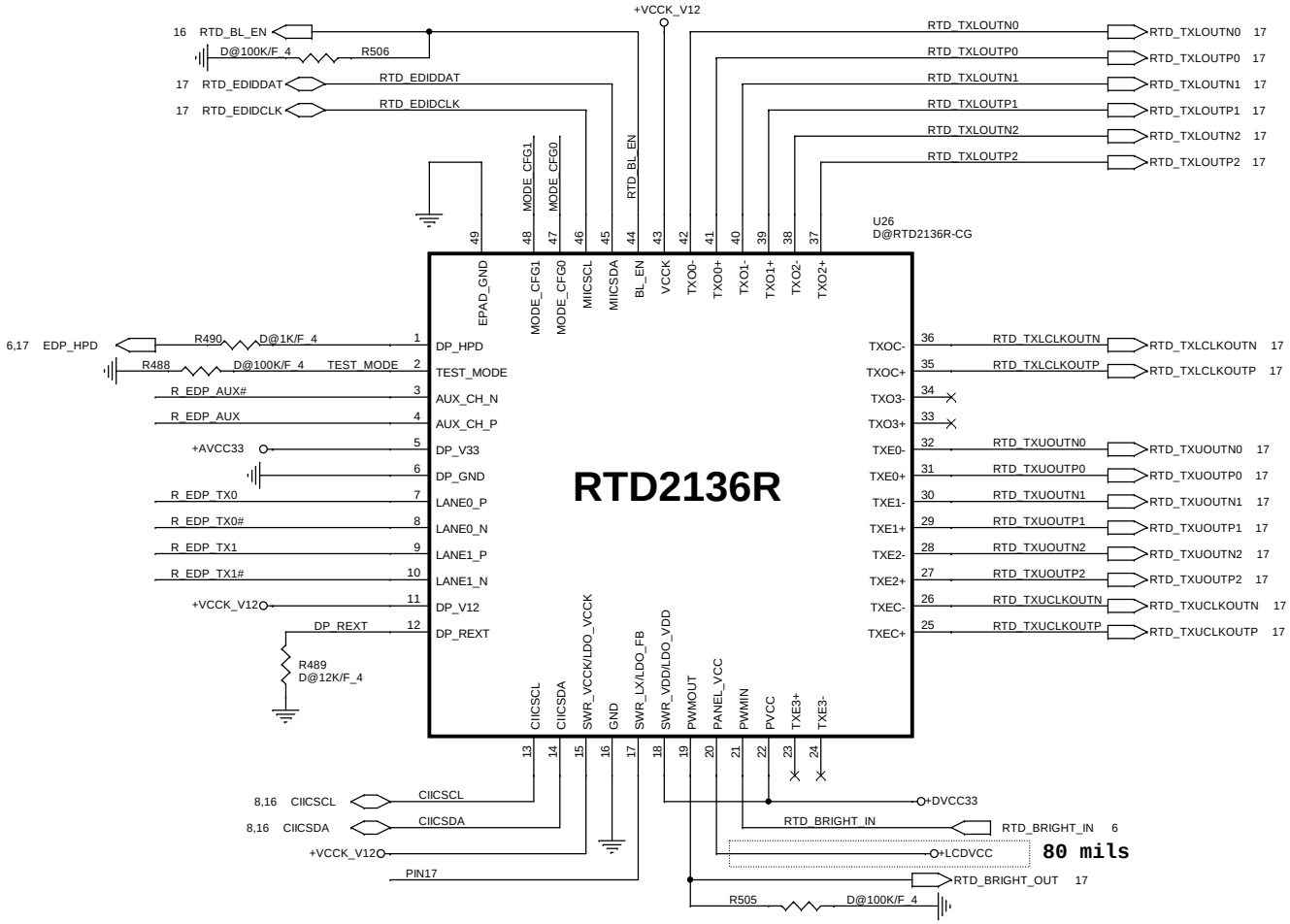


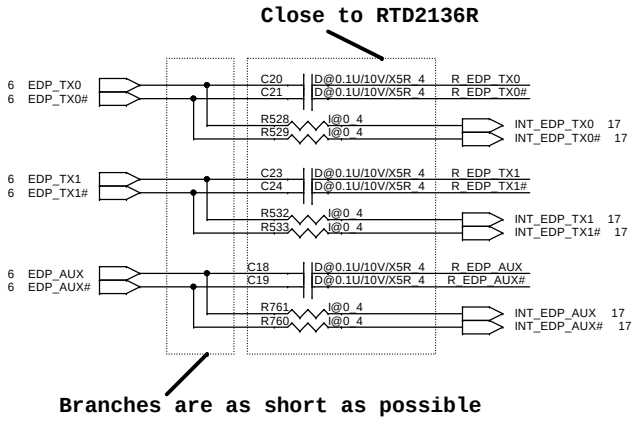


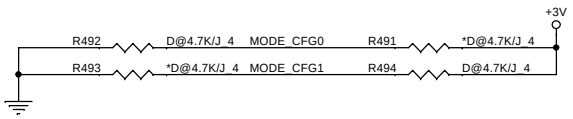
Capacitors are on Page 17.

If using system's 1.2V,
C670 can be reserved.

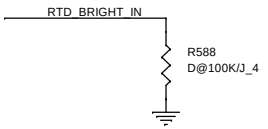








		MODE_CFG0(PIN47)	
		0	1
MODE_CFG1(PIN48)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE



1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : HKA

Size	Document Number	Rev
	eDP to LVDS	1A
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I/O PORT LIST

USB PORT Architecture	
PORT 0	USB2.0
PORT 1	USB2.0
PORT 2	N/A
PORT 3	N/A
PORT 4	N/A
PORT 5	Touch Screen
PORT 6	WiMAX/BT
PORT 7	Camera
PORT 8	N/A
PORT 9	N/A
PORT 10	USB3.0
PORT 11	USB3.0
PORT 12	N/A
PORT 13	N/A

PCIE BUS	
PORT 0	WLAN Port
PORT 1	CARD READER
PORT 2	GLAN(RTL8111GS)
PORT 3	N/A

SATA BUS	
PORT 0	HDD
PORT 1	ODD
PORT 2	N/A
PORT 3	N/A
PORT 4	N/A
PORT 5	N/A

M/B ID LIST

SIZE	Board ID0
HKA 14"	0
HKB 15"	1

I/F	Board ID1
eDP	0
LVDS	1

CPU	Board ID2	Board ID3
A4	0	0
A6	0	1
A8	1	0
A10	1	1

SM BUS LIST

SM BUS	MBCLK/MBDATA	WRITE	READ	Function
ISL88732HRTZ-T	0001 001X	0001 0010	0001 0011	Charger

SM BUS	MBCLK_BAT/MBDATA_BAT	WRITE	READ	Function
VGP-BPS35A	0001 011X	0001 0110	0001 0111	Battery

SM BUS	SMB0_RUN_CLK/SMB0_RUN_DAT	WRITE	READ	Function
DIMM Module 0	1010 000X	1010 0000	1010 0001	DDRIII
DIMM Module 1	1010 001X	1010 0010	1010 0011	DDRIII

SM BUS	SMB1_RUN_CLK/SMB1_RUN_DAT	WRITE	READ	Function
Synaptics	0010 110X	0010 1100	0010 1101	Click PAD

POWER MAP

	S0	S3	S4	S5 (Charger Enable)	S5 (Charger Disable)
RUN_ON_CPU	H	L	L	L	L
+NB_CORE	H	L	L	L	L
+VCC_CORE	H	L	L	L	L
+1.2V	H	L	L	L	L
RUN_ON	H	L	L	L	L
+5V	H	L	L	L	L
+3V	H	L	L	L	L
+2.5V	H	L	L	L	L
+1.1V_RUN	H	L	L	L	L
+0.75V_DDR_VTT	H	L	L	L	L
SUS_ON	H	H	L	L	L
+1.35V_SUS	H	H	L	L	L
+3V_SUS	H	H	L	L	L
+1.1V_SUS	H	H	L	L	L
S5_ON_1.1V	H	H	*H/L	L	L
+1.1V_S5	H	H	*H/L	L	L
S5_ON_3V	H	H	*H/L	L	L
+3V_S5	H	H	*H/L	L	L
EC_WAKE_ON	H	H	*H/L	H	L
+3V_WAKE	H	H	*H/L	H	L
+5V_WAKE	H	H	*H/L	H	L
RUN_ON_5V	H	L	L	L	L
+5V_ODDHDD	H	L	L	L	L

* H: If wake up event exists.