Page	Title of schematic page	Rev.	Date
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02	Block Diagram	1A	
03	Change List	1A	
04	HSW MCP(DISPLAY/eDP)	1A	
05	HSW MCP(MEMORY)	1A	
06	HSW MCP(GND/DAISY/RSVD)	1A	
07	HSW MCP(CFG)	1A	
08	HSW MCP(SIDEBAND/XDP)	1A	
09	HSW MCP(POWER)	1A	
10	HSW PCH(RTC/HDA/SATA)	1A	
11	HSW PCH(PCIE/USB)	1A	
12	HSW PCH(CLK/LPC/SPI/SMB)	1A	
13	HSW PCH(GPIO/LPIO/MISC)	1A	
14	HSW PCH (POW MANAGEMENT)	1A	
15	HSW PCH(POWER)	1A	
16	DDR3L MEMORY_x16(CH-A)	1A	
17	DDR3L MEMORY_x16(CH-B)	1A	
18	DDR3L TERMINATION	1A	
19	USB3.0	1A	
20	HDMI	1A	
21	EDP/TS	1A	
22	EC(NPCE985L)	1A	
23	mSATA (SSD)	1A	
24	WIFI/BT NGFF	1A	
25	Thermal	1A	
26	Camera	1A	
27	Blank	1A	
28	Sensors Hub & Sensors	1A	
29	AUDIO(ALC233-CG)	1A	
30	Green Clork(SLG3NB3359)	1A	
31	USB2.0 Hub	1A	
32	CIR MCU(MAXQ610A-0000+)	1A	
33	USB TO UART(FT232RQ)	1A	
34	USB TO I2C(FT200XD-R)	1A	
35	Small Board	1A	
36	POWER +VCC_CORE (NCP81101)	1A	
37	POWER 3.3V/5V-NB671L/670L	1A	
38	POWER DDR3L(G5316)	1A	
39	POWER +1.05V /Thermal/+1.5V	1A	

Page	Title of schematic page	Rev.	Date
40	POWER(BAT IN / ADA IN/ UL)	1A	
41	POWER CHARGER (ISL88731C)	1A	
42	SMBUS	1A	

* : No mount

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 : KR1

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KR1 BLOCK DIAGRAM

Memory Down(Channel A/B)

X16 X16 X16 X16 — DDR3L-1600 CH-A Memory Down

X16 X16 X16 X16 — DDR3L-1600 CH-B Memory Down

m-SATA SSD — SATA0 6Gb/s

Intel Shark Bay

Haswell ULX + Lynx Point-LP

BGA1168 (40mm x 24mm)

eDP — 11"eDP (1920x1080)

HDMI

USB 3.0

USB3.0 PORT2

USB2-PORT0

PORT1

USB Charger TPS2540A

Front CAMERA PORT2

USB 2.0

LTE module — LTE PORT3

USB3.0 PORT4

Rear CAMERA PORT4

BT PORT5

I2C

Light Sensor CM3218

A+M Sensor LSM303DLHCTR

Gyro Sensor L3GD20TR

Sensor HUB STM32F103RC — Sensor HUB PORT6

I2C

USB HUB GL850G-OHG31 — USB HUB PORT7

RF receiver — RF_Receiver

IR Remote

USB to UART CP2104

IR Remote — MAXQ610A

IR Remote

UART

NFC — SMBUS / SPI

SPI ROM 8MB

SPI

SPI

LPC

PECI

EC NPCE985L

LEDs
- Power LED
- Charger LED

Buttons
- Power
- Assit
- Volume Up
- Volume Down
- Windows Home
- Battery Off

5GT/s — PCI-Express Gen2

PCIE3

PCIE4

WLAN

Card Reader RTS5229

Micro SD

HD-AUDIO

Audio CODEC ALC233-CG

Headset

SPK

DMIC

PCB STACK UP 8L

LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : SVCC
LAYER 6 : IN3
LAYER 7 : SGND
LAYER 8 : BOT

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Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	BLOCK DIAGRAM	1A

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2A-1:Change value from 1K to 10K for +1.05V can't boot up.

2A-2:Change value from 10K to 100K for +1.05V can't boot up.

2A-3:Remove TR11 for +3VPCU can't boot up.

2A-4:Remove RP15 for electricial leakage.

2A-5:Change MIC-VREFO from 30 pin to 29 pin of ALC 233.It is cover external MIC -in issue.

2A-6:Add PR37 (649K ohm) to prevent PU9 damage.

2A-7:Connecting TX signal for waking up MAX610A.

2A-8:Modifed power source to prevent TX leakage to +3V .

2A-9:Change SMI from GPIO9 to GPIO34 to meet intel's specification.

2A-10:Add 0.47uf capacitor for inrush current.(VCCDSW3_3)

2A-11:Combine rear camera board and motherboard together.

2A-12:Combine Panel and Touch Screen connectors together.

2A-13: Remove power source for HDD translate board .

2A-14: Remove +VCCIO_OUT pull high for PROCHOT.

2A-15: Prevent VCCST_PWRGD glitch during power up.

2A-16: Change clock source from crystal to clock generator

2A-17: Remove I2C interface for sensor Hub.

2A-18: Remove 0 ohm resistors for USB interface

2A-19: Change 12M from sensor hub to camera backend IC,because sensor hub doesn't prefer use clock generator.

2A-20: Add low pass filter for RF noise.

2A-21: Interchange right and left DMIC.

2A-22: For Vcore loadline fine-tune.

2A-23:For 5V_WAKE Acoustic Noise Issue.

2A-24:For KBU charger sequence issue

2A-25:For fine-tune +1.35V_SUS OCP.

2A-26:For PU9 pin11 absolute maximum ratings 6V

2A-27:For adapter OVP fine-tune.

2A-28:For +5V_WAKE and +3V_WAKE OVP fine-tune.

2A-29:Change BAT+ rating current value to 3.712A.

2A-30:Fine tune One-Shot 10ms PROCHOT# For ADP circuit.

2A-31:Because PCH_THRMTRIP# high level is only 0.7V,so we changed this circuits fto avoid H/W shutdown.

2A-32:Add connector pin for LTE voltage drop.

2A-33:Changed to 150PF for PECI error.

2A-34:Add MOSFET to prevent +3V_S5 leakage from LID# signal.

2A-35:Add WWAN PRST# Pin for BIOS detect WWAN module.

2A-36:Add capacitors for LTE RF noise.

2A-37:Add capacitors for WLAN RF noise.

2A-38:Remove UART interface for PCH

1.Level 1 Environment-related Substances Should Never be Used.
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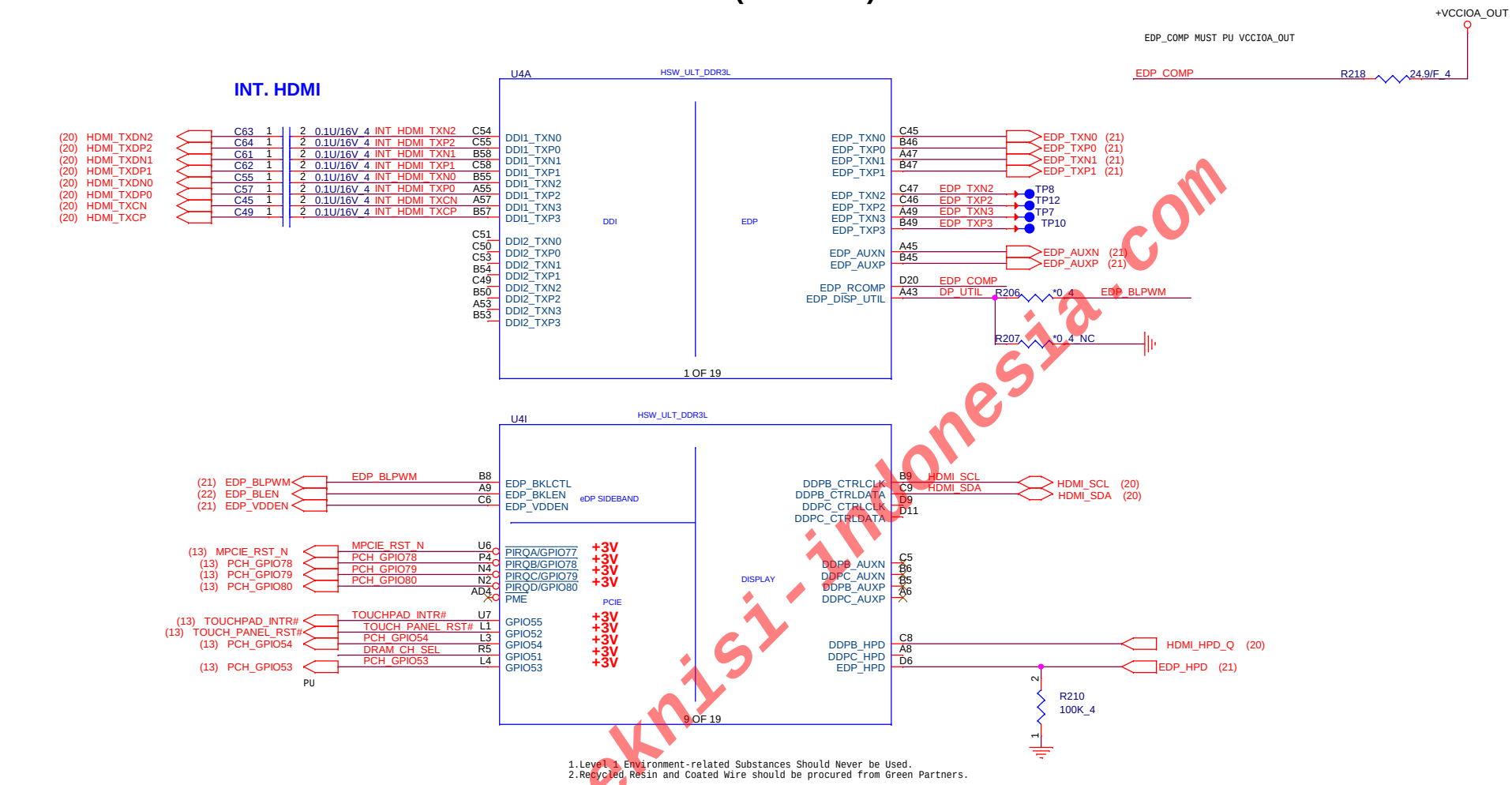
Haswell ULT (DISPLAY)



DDR3L Single /Dual Channel Strap		
	High	Low
DRAM_CH_SEL	Single	Dual

Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	HSW MCP(Display/eDP)	1A
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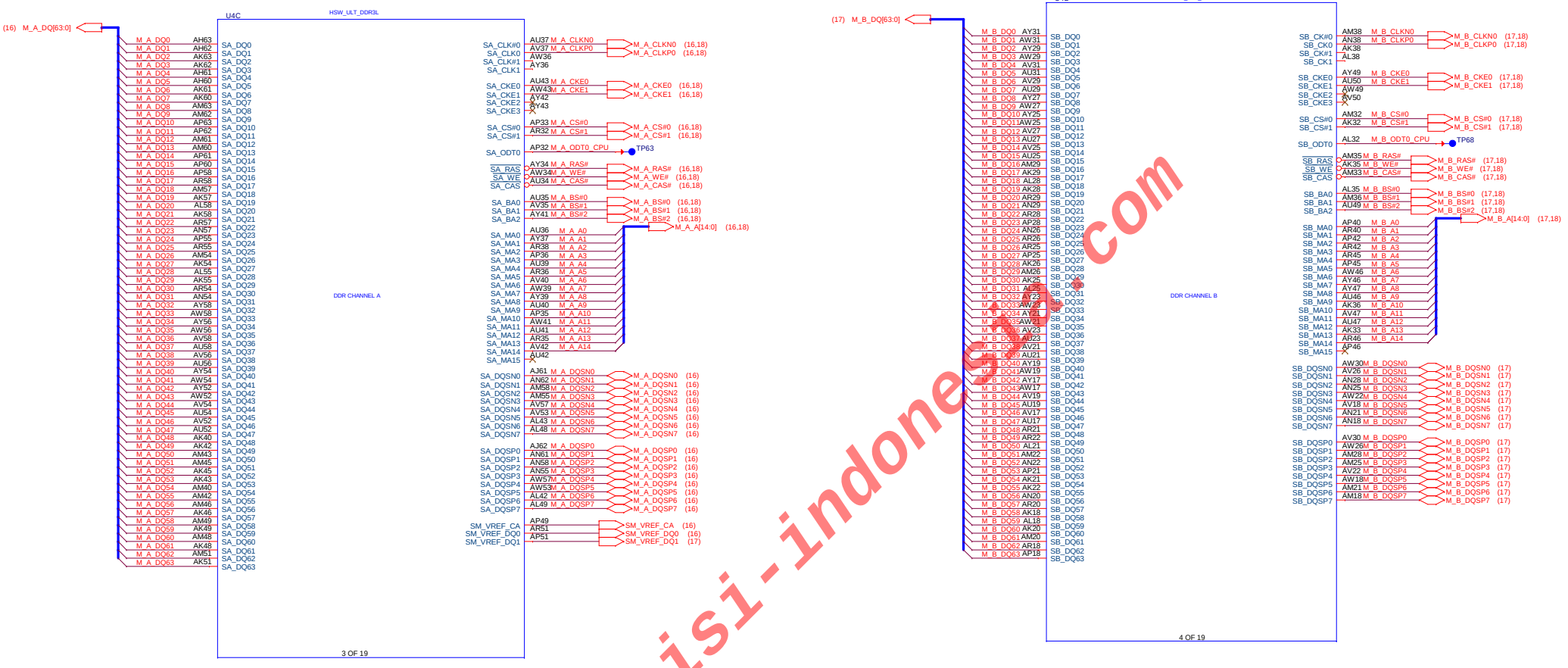
Haswell ULT (DDR3L)



1.Level 1 Environment-related Substances Should Never be Used.
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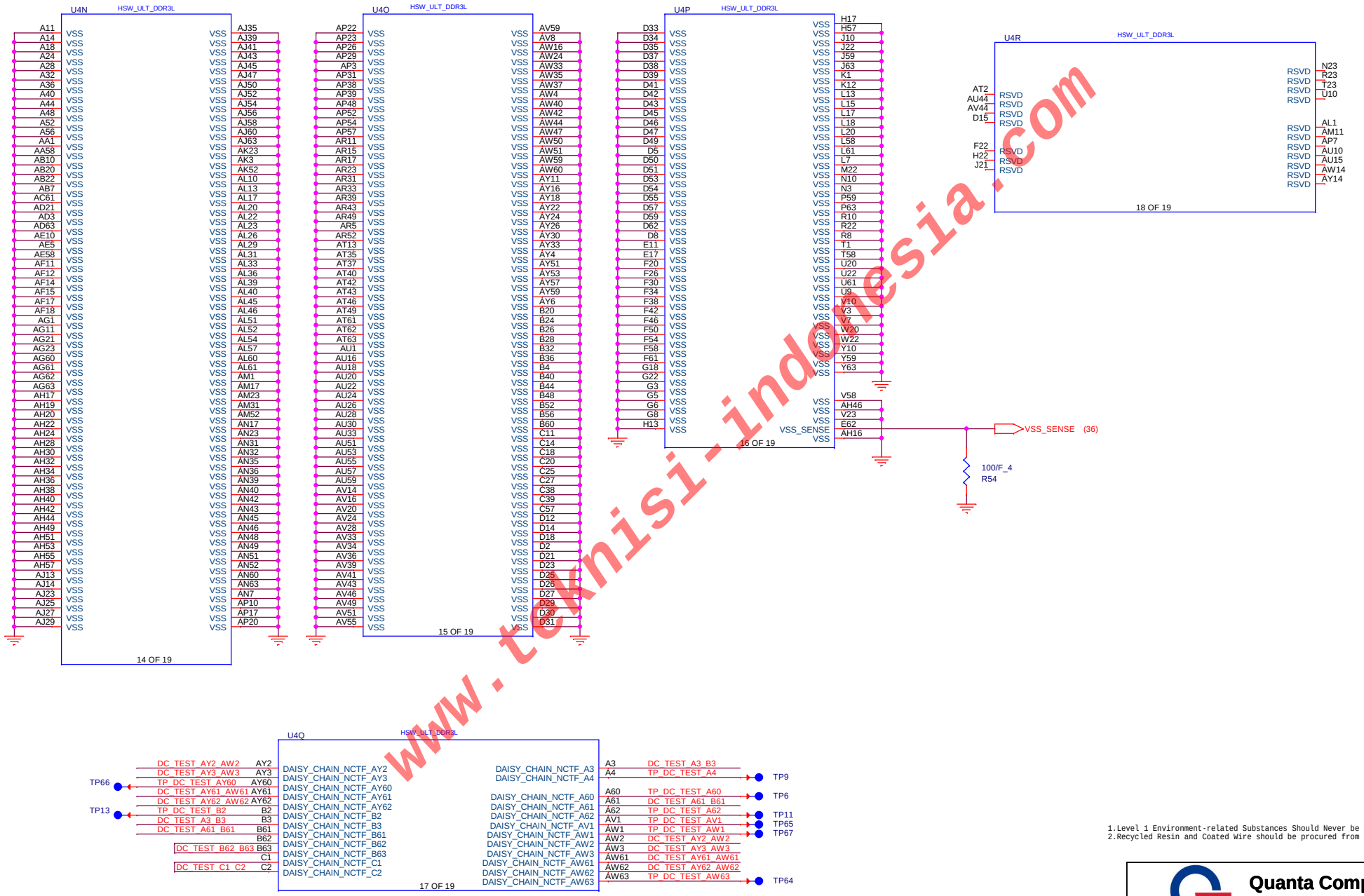
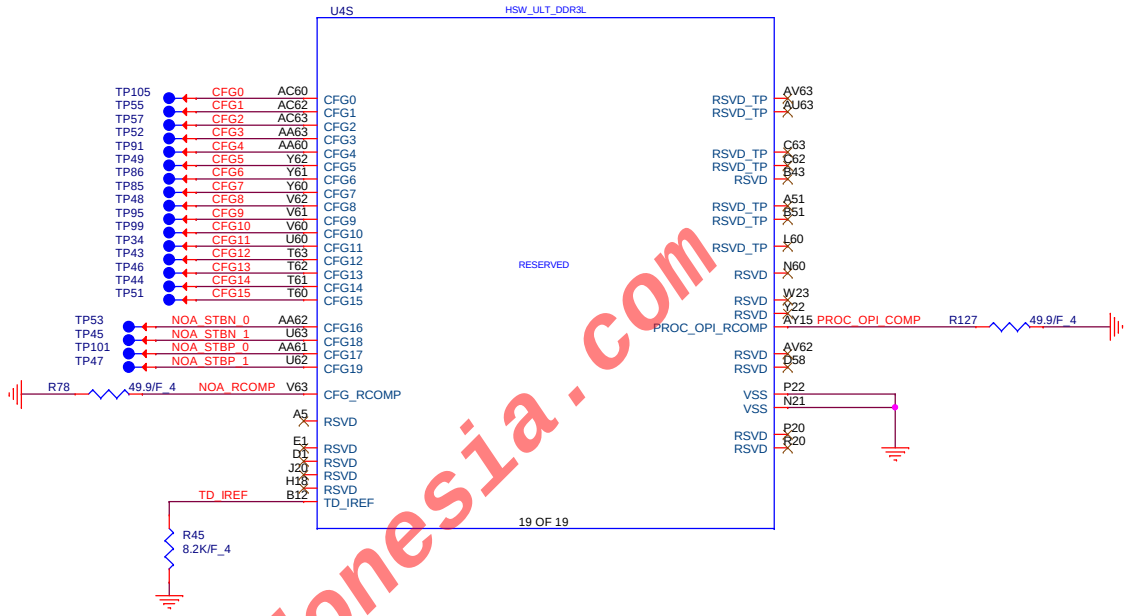
Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number	Rev
	HSW MCP(Memory)	1A
Date: Monday, May 13, 2013	Sheet 5 of 44	

Haswell ULT (GND)



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

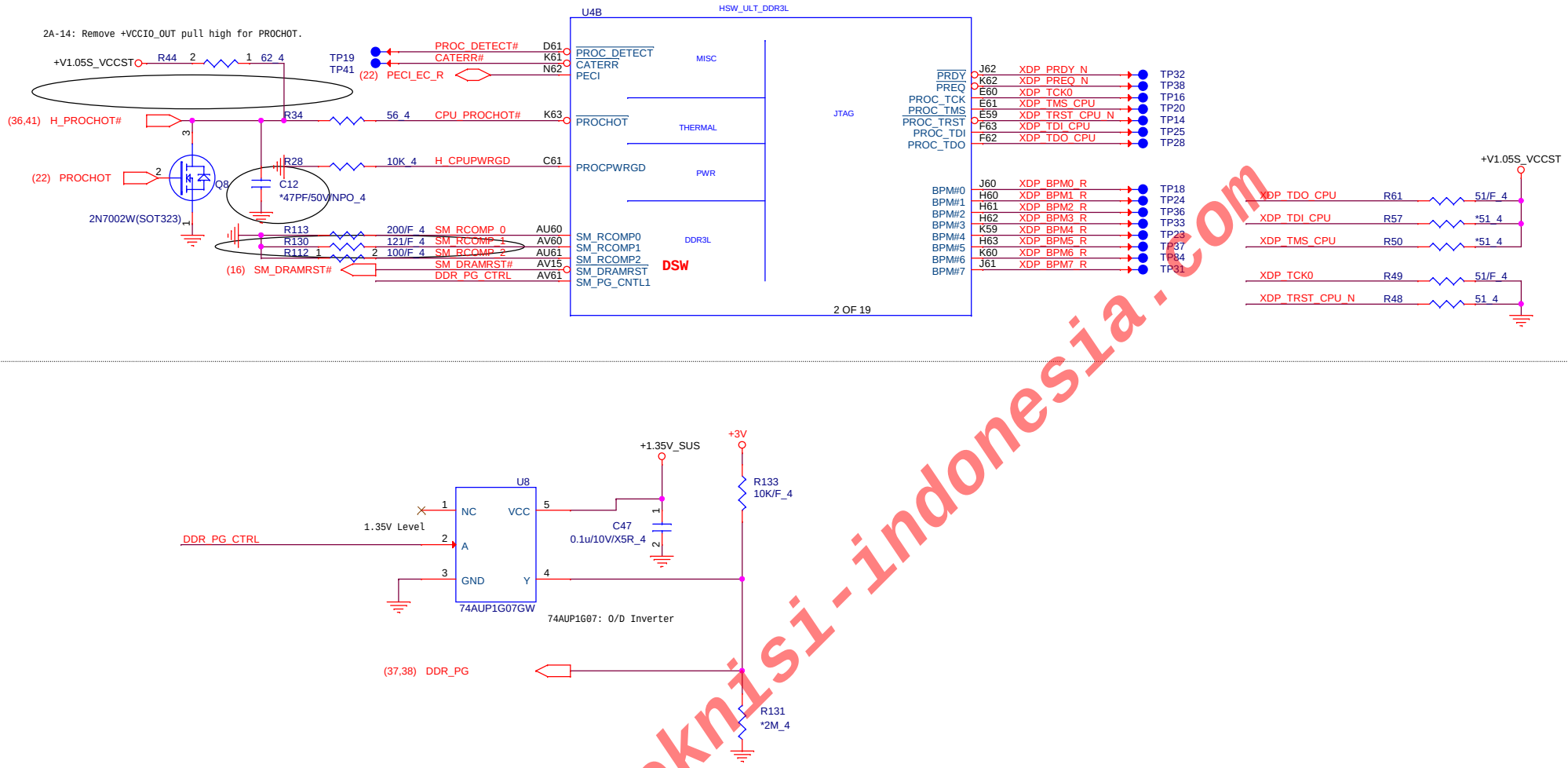
Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number: HSW MCP(GND/RSVD)	Rev: 1A
Date: Monday, May 13, 2013	Sheet 6 of 44	



Processor Strapping

	1	0	
CFG0 EAR-STALL/NOT STALL RESET SEQUENCE AFTER PCU PLL IS LOCKED	(DEFAULT) NORMAL OPERATION; NO STALL	STALL	CFG0 R232 *1K_4
CFG1 PCH/ PCH LESS MODE SELECTION	(DEFAULT) NORMAL OPERATION	PCH-LESS MODE	CFG1 R90 *1K_4
CFG3 PHYSICAL_DEBUG_ENABLED (DFX PRIVACY)	DISABLED	ENABLED SET DFX ENABLED BIT IN DEBUG INTERFACE MSR	CFG3 R86 *1K_4
CFG4 DISPLAY PORT PRESENCE STRAP	DISABLED NO PHYSICAL DISPLAY PORT ATTACHED TO EMBEDDED DISPLAY PORT	ENABLED AN EXTERNAL DISPLAY PORT DEVICE IS CONNECTED TO THE EMBEDDED DISPLAY PORT	CFG4 R230 1K_4
CFG 8 ALLOW THE USE OF NOA ON LOCKED UNITS	DISABLED(DEFAULT); IN THIS CASE, NOA WILL BE DISABLED IN LOCKED UNITS AND ENABLED IN UN-LOCKED UNITS	ENABLED; NOA WILL BE AVAILABLE REGARDLESS OF THE LOCKING OF THE UNIT	CFG8 R83 *1K_4
CFG9 NO SVID PROTOCOL CAPABLE VR CONNECTED	VRS SUPPORTING SVID PROTOCOL ARE PRESENT	NO VR SUPPORTING SVID IS PRESENT. THE CHIP WILL NOT GENERATE (OR RESPOND TO) SVID ACTIVITY	CFG9 R225 *1K_4
CFG10 SAFE MODE BOOT	POWER FEATURES ACTIVATED DURING RESET	POWER FEATURES (ESPECIALLY CLOCK GATINE ARE NOT ACTIVATED	CFG10 R227 *1K_4

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



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 : KR1		
Size	Document Number: HSW MCP(Sideband)	Rev 1A
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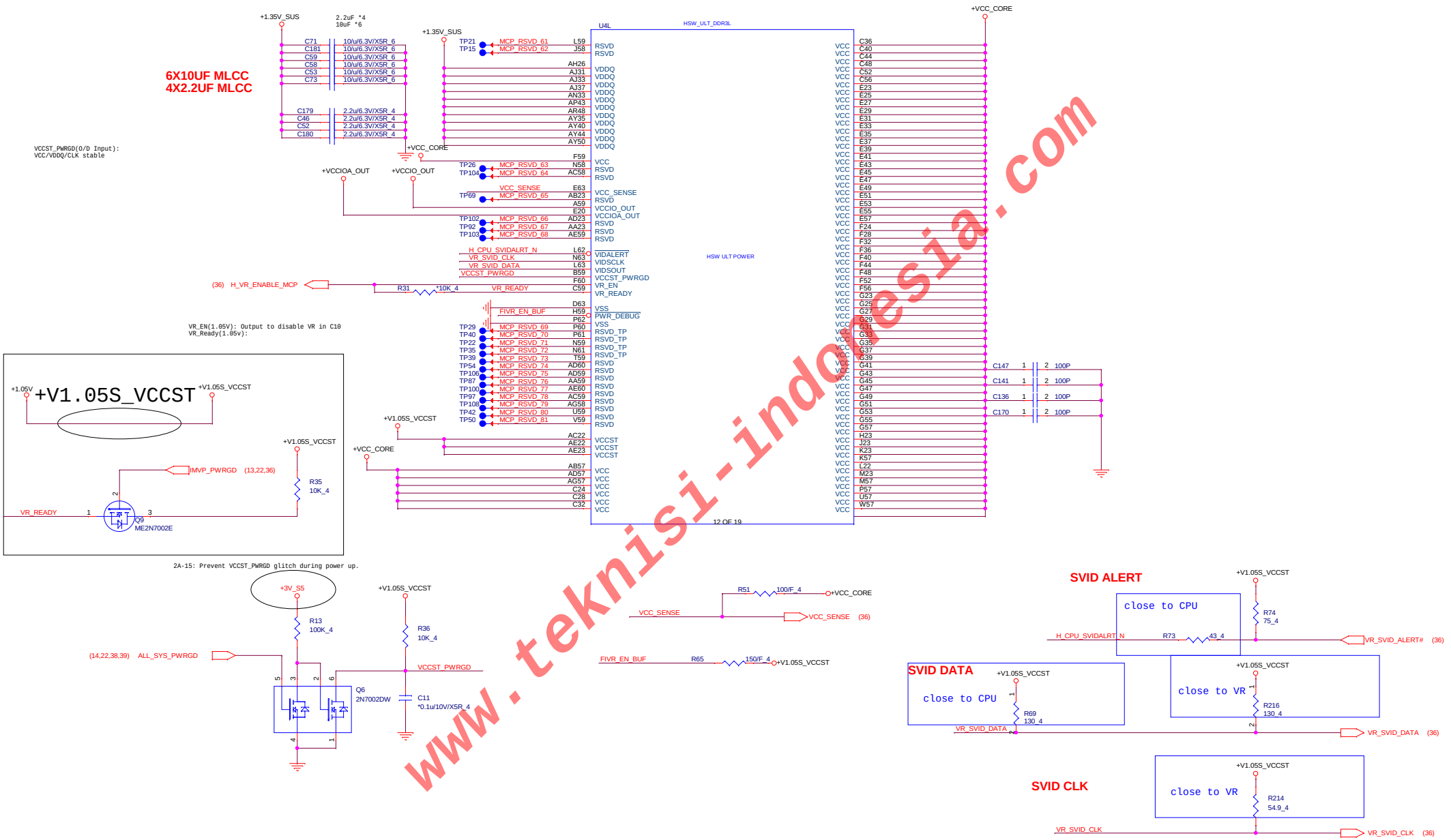
Haswell ULT MCP(POWER)

CPU VDDQ

Haswell ULT 15W : 4.2A

CPU VCC

Haswell ULT 15W : 32A

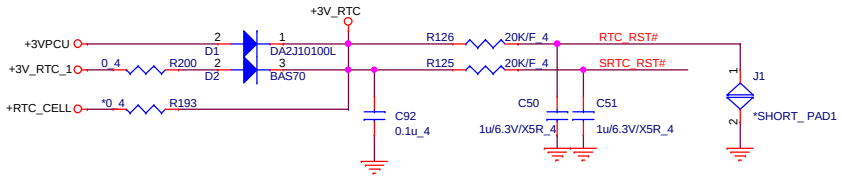


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

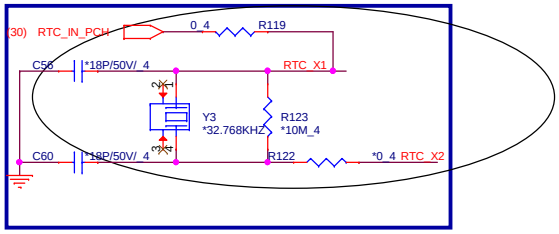
Quanta Computer Inc.	PROJECT : KR1	
Size	Document Number: HSW MCP(Power)	Rev: 1A
Date: Monday, May 13, 2013	Sheet 9 of 44	

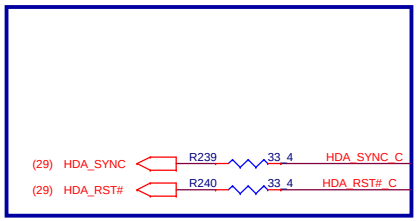
RTC Power trace width 20mils.

Haswell ULT (RTC, HDA, JTAG, SATA)



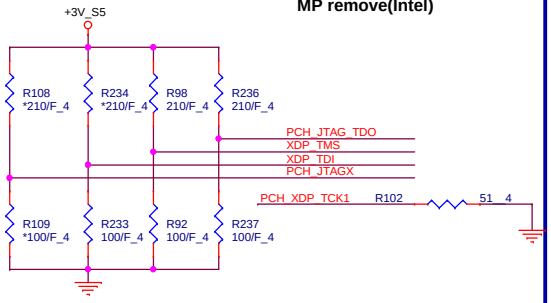
2A-16: Change clock source from crystal to clock generator





PCH JTAG Debug (CLG)

MP remove(Intel)



PCH Strap Table

Pin Name	Strap description	Sampled	Configuration	note
SPKR	No reboot mode setting	PWROK	0 = Default (weak pull-down 20K) 1 = Setting to No-Reboot mode	+3V — R79 *1K_4 — HDA_SPKR (13,29)
HDA_SDO	Flash Descriptor Security Override / Intel ME Debug Mode	PWROK	0 = Security Effect (Int PD) 1 = Can be Override	+3V_S5 — R120 *1K_4 — HDA_SDOUT_C
INTVRMEN	Integrated 1.05V VRM enable	ALWAYS	Should be always pull-up	+3V_RTC — R128 330K_4 — PCH_INTVRMEN — R116 *330K_4

1.Level 1 Environment-related Substances Should Never be Used.
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Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	HSW PCH(RTC/HDA/SATA)	1A
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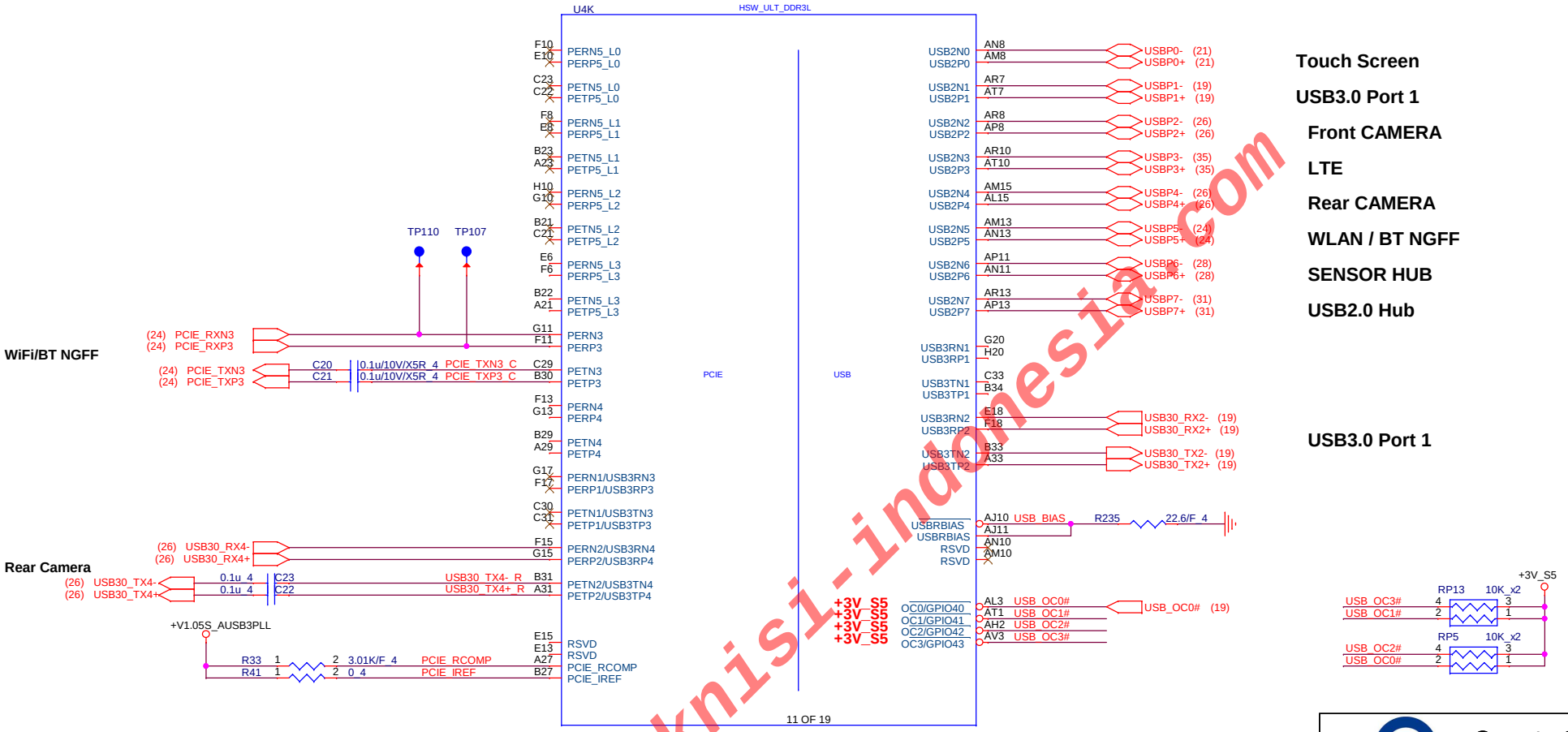
Haswell ULT (PCIE,USB)



Touch Screen

USB3.0 Port 1

Front CAMERA

LTE

Rear CAMERA

WLAN / BT NGFF

SENSOR HUB

USB2.0 Hub

USB3.0 Port 1

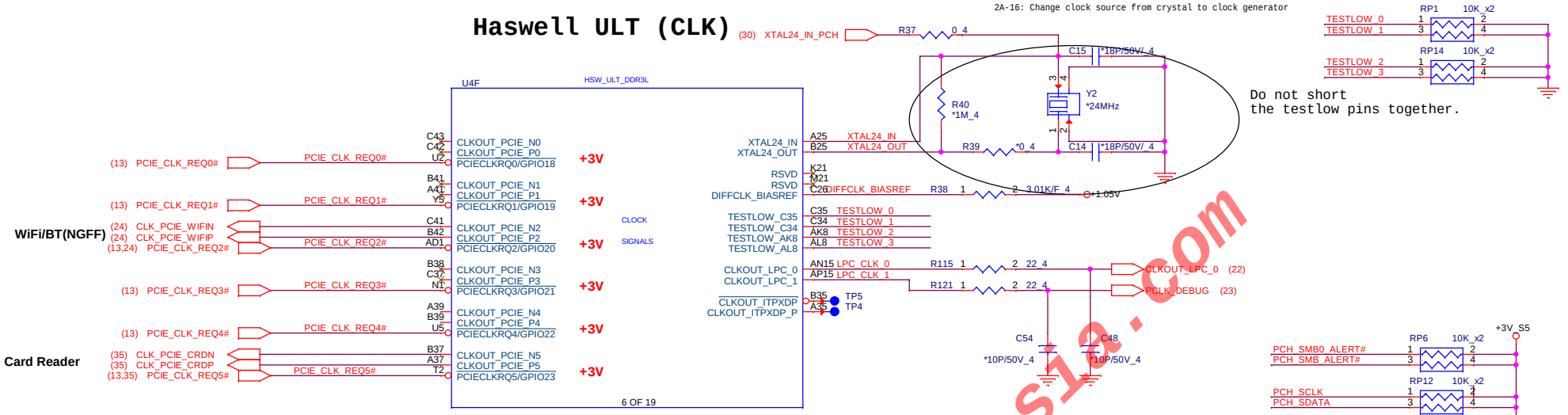
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.

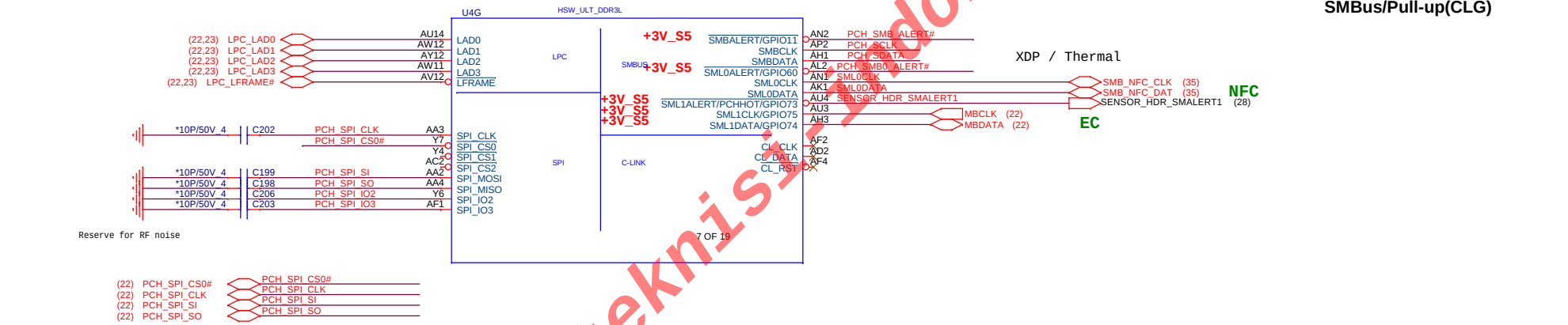
PROJECT : KR1

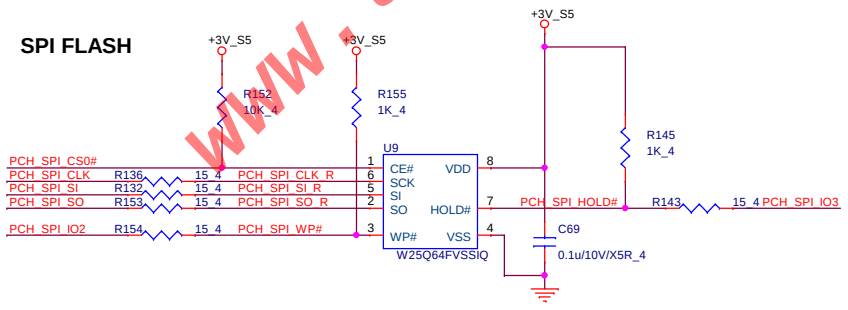
Size	Document Number	Rev
	HSW PCH(PCIE/USB)	1A
Date: Monday, May 13, 2013	Sheet 11 of 44	

Haswell ULT (CLK)



Haswell ULT (LPC/SPI/SMB/CLINK)





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 : KR1

Size	Document Number	Rev
	HSW PCH(CLK/LPC/SPI/SMB)	1A
Date: Monday, May 13, 2013	Sheet 12 of 44	

Hasswell ULT(GPIO,LPIO,MISC)

TLS CONFIDENTIALITY STRAP(GPIO15)	
NC	Default
PU	EN

GPIO27 Deep S3

With Intel LAN:
Connect to LANWAKE# pin on the LAN
Without Intel LAN:
Used to wake event from DSx

+3.3V_DSW

SIO_WAKE_GPIO27# R106 10K_4
USB2_P45_EN R298 10K_4
LAN_DISABLE_N R277 10K_4

GPIO Pull-up/Pull-down(CLG) +3V_S5

GPIO58	R296	10K_4
GPIO47	R271	10K_4
USB3_P0_EN	R273	10K_4
SIO_EXT_SCI#	R96	10K_4
BT_WAKE#	R275	10K_4
GPIO14	R88	10K_4
GPIO15	R295	10K_4
PCIE_SLOT3_WAKE_N	R290	10K_4
LCD_BK_OFF	R276	10K_4
GPIO45	R297	10K_4
GPIO9	R91	10K_4
SNR_HUB_EN	R289	10K_4
GPIO57	R238	10K_4
WLAN_ON/OFF#	R291	10K_4
SNSR_HUB_RST	R272	10K_4

+V1.05S_VCCST

2A-31:Because PCH_THRMTRIP# high level is only 0.7V,so we changed this circuits fto avoid H/W shutdown.

R19 1K_4

IMVP_PWRGD (9,22,36)

Q1 2N7002W(SOT323)

R2105 1K_4 +1.05V

Q2 MMBT3904

SHDN# (25,37,39)

U4J HSW_ULT_DDR3L

AUDIO_+3.3V_EN	P1	
PCIE_SLOT3_WAKE_N	AU2	+3V_S5
LAN_DISABLE_N	AM7	
GPIO15	AD6	+3V_S5
(35) NFC_DETECT#	NFC_DETECT# Y1	+3V
GPIO17	T3	+3V
BT_WAKE#	AD5	+3V_S5
(22,24) SIO_WAKE_GPIO27#	SIO_WAKE_GPIO27# AN5	DSW
GPIO27	AD7	+3V_S5
(35) NFC_RST#	GPIO28	+3V_S5
(35) NFC_IRQ	NFC_IRQ AN3	
GPIO26		
LCD_BK_OFF	AG6	+3V_S5
GPIO56	AP1	+3V_S5
GPIO57	AL4	+3V_S5
GPIO58	AT5	+3V_S5
WLAN_ON/OFF#	AK4	+3V_S5
SNSR_HUB_RST	AB6	+3V_S5
GPIO59	U4	+3V
GPIO44	Y3	+3V
GPIO47	P3	+3V
GPIO48	Y2	+3V
BOARD_ID0	AT3	+3V
BOARD_ID1	AH4	+3V_S5
BOARD_ID2	AM4	DSW
MODPHY_EN	AG5	+3V_S5
GPIO49	AG3	+3V_S5
GPIO50	AG4	
TP89 HSIOPC/GPIO71		+3V
(26) R_CAM_ON GPIO13		+3V_S5
TP143 GPIO14		+3V_S5
GPIO25		DSW
GPIO45		+3V_S5
GPIO46		+3V_S5
GPIO9	AM3	+3V_S5
(22) SIO_EXT_SCI#	SIO_EXT_SCI# AM2	+3V_S5
(23) DEVSLP0 GPIO33	P2	+3V
SENSOR_HUB_I2C_WAKE	C4	+3V
DEVSLP1	L2	+3V
DEVSLP2	N5	+3V
(10,29) HDA_SPKR	V2	

SDIO_POWER_EN/GPIO70 +3V

SPKR/GPIO81

C34 *100P

10 OF 19

CPU/MISC

+3V	THRMTRIP	D60 PCH_THRMTRIP#
	RCIN/GPIO82	V4 SIO_RCIN#
	SERIRQ	T4 IRQ_SERIRQ
	PCH_OPI_RCOMP	AW15 PCH_OPIRCOMP
	RSVD	AF20
	RSVD	2B21

SIO_RCIN# (22)
IRQ_SERIRQ (22)

2A-35:Add WWAN PRST# Pin for BIOS detect WWAN module.

+3V	GSPI0_CS/GPIO83	R6 NGFF_WLAN_PWR_EN
+3V	GSPI0_CLK/GPIO84	L6 GPIO84
+3V	GSPI0_MISO/GPIO85	N6 GPIO85
+3V	GSPI0_MOSI/GPIO86	L8 BBS
+3V	GSPI1_CS/GPIO87	R7 BT_RADIO_DIS#
+3V	GSPI1_CLK/GPIO88	L5 GPIO88
+3V	GSPI1_MISO/GPIO89	N7 TOUCHPANEL_EN
+3V	GSPI_MOSI/GPIO90	K2 SATA1_PWR_EN
+3V	UART0_RXD/GPIO91	J1 GPIO91
+3V	UART0_TXD/GPIO92	K3 GPIO92
+3V	UART0_RTS/GPIO93	J2 GPIO93
+3V	UART0_CTS/GPIO94	G1 GPIO94
+3V	UART1_RXD/GPIO0	K4 GPIO0
+3V	UART1_TXD/GPIO1	G2 GPIO1
+3V	UART1_RST/GPIO2	J3 GPIO2
+3V	UART1_CTS/GPIO3	J4 GPIO3
+3V	I2C0_SDA/GPIO4	F2 I2C0_SDA
+3V	I2C0_SCL/GPIO5	F3 I2C0_SCL
+3V	I2C1_SDA/GPIO6	G4 DAT_TS_SIO_L
+3V	I2C1_SCL/GPIO7	F1 CLK_TS_SIO_L
+3V	SDIO_CLK/GPIO64	E3 GPIO64
+3V	SDIO_CMD/GPIO65	F4 GPIO65
+3V	SDIO_D0/GPIO66	D3 GPIO66
+3V	SDIO_D1/GPIO67	E4 GPIO67
+3V	SDIO_D2/GPIO68	C3 GPIO68
+3V	SDIO_D3/GPIO69	E2 GPIO69

TP30 WWAN_PRST# (35)

TP27 TP83 UART0_RXD UART0_TXD

GPIO86	
PU	LPC
PD	SPI (Default IPD)

+V3.3S_1.8S_LPSS_SDIO R208 *1K_4 GPIO66 R213 *1K_4

GPIO66	
R1547	ENABLE
R1547_NC	DISABLE(Default)

2A-9:Change SMI from GPIO9 to GPIO34 to meet intel's specification.

No Reboot Strap(GPIO81)	
NC	Default
PU	EN

2A-17: Remove I2C interface for sensor Hub.

RP2 2.2K_x2 I2C0_SCL I2C0_SDA

RP8 10K_x8: GPIO64 GPIO65 GPIO67 GPIO69 — GPIO68 GPIO1 GPIO94 GPIO93

RP9 10K_x8: GPIO2 GPIO91 GPIO3 GPIO0 — GPIO92 GPIO17 SATA1_PWR_EN

RP4 10K_x2: (12) PCIE_CLK_REQ4# (12,35) PCIE_CLK_REQ5#

RP3 10K_x2: DAT_TS_SIO_L CLK_TS_SIO_L

RP11 10K_x8: (12) PCIE_CLK_REQ0# (12) PCIE_CLK_REQ1# (12,24) PCIE_CLK_REQ2# (12) PCIE_CLK_REQ3# — MPCIE_RST_N (4) TOUCHPAD_INTR# (4) TOUCH_PANEL_RST# (4)

RP10 10K_x8: (4) PCH_GPIO54 (4) PCH_GPIO53 (4) PCH_GPIO80 GPIO33 — GPIO85 BT_RADIO_DIS# PCH_GPIO79 (4) PCH_GPIO78 (4)

Vendor	Vendor Part Number	BOARD_ID0	BOARD_ID1	BOARD_ID2
Samsung(4G)	K4B4G1646B-HYK0	0	0	0
Hynix(4G)	H5TC4G63AFR-PBA	0	0	1
Elpida(4G)	EDJ4216EFBG-GN-F	0	1	0
Samsung(8G)		0	1	1
Hynix(8G)		1	0	0
Elpida(8G)		1	0	1
		1	1	0
		1	1	1

+3V

R75 *10K_4 BOARD_ID0 R76 *10K_4
R81 *10K_4 BOARD_ID1 R84 *10K_4
R66 *10K_4 BOARD_ID2 R63 *10K_4

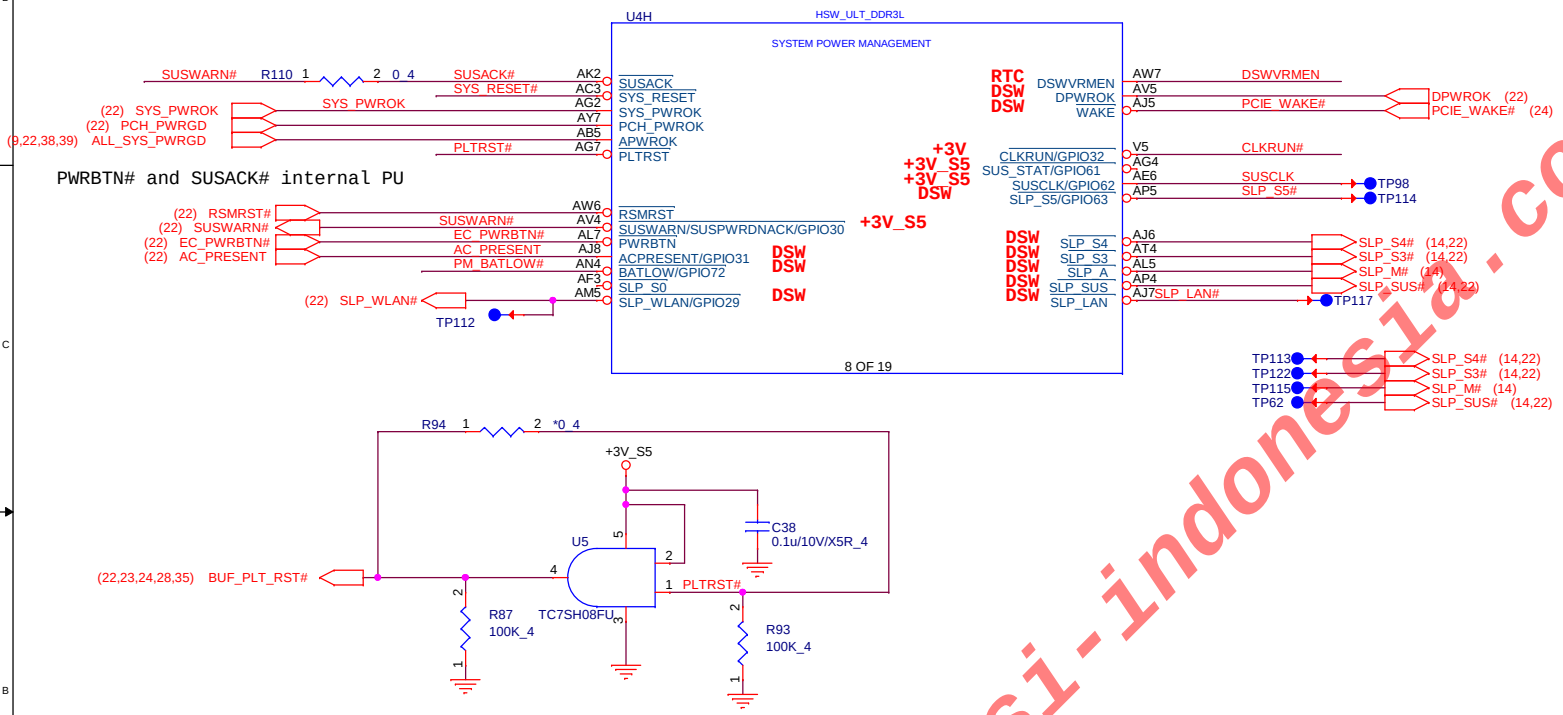
2A-31:Because PCH_THRMTRIP# high level is only 0.7V,so we changed this circuits fto avoid H/W shutdown.

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

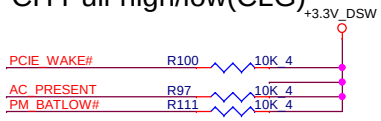
Quanta Computer Inc.
PROJECT : KR1

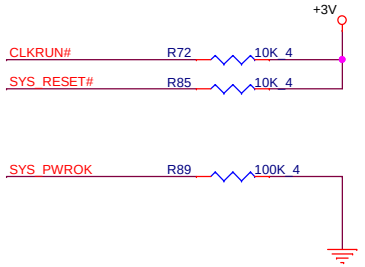
Size	Document Number	Rev
	HSW PCH(GPIO/MISC)	1A
Date: Monday, May 13, 2013	Sheet 13 of 44	

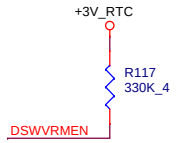
Haswell ULT (SYSTEM POWER MANAGEMENT)



PCH Pull-high/low(CLG)







On Die DSW VR Enable
High = Enable (Default)
Low = Disable

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Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number	Rev
	HSW PCH(Power Management)	1A
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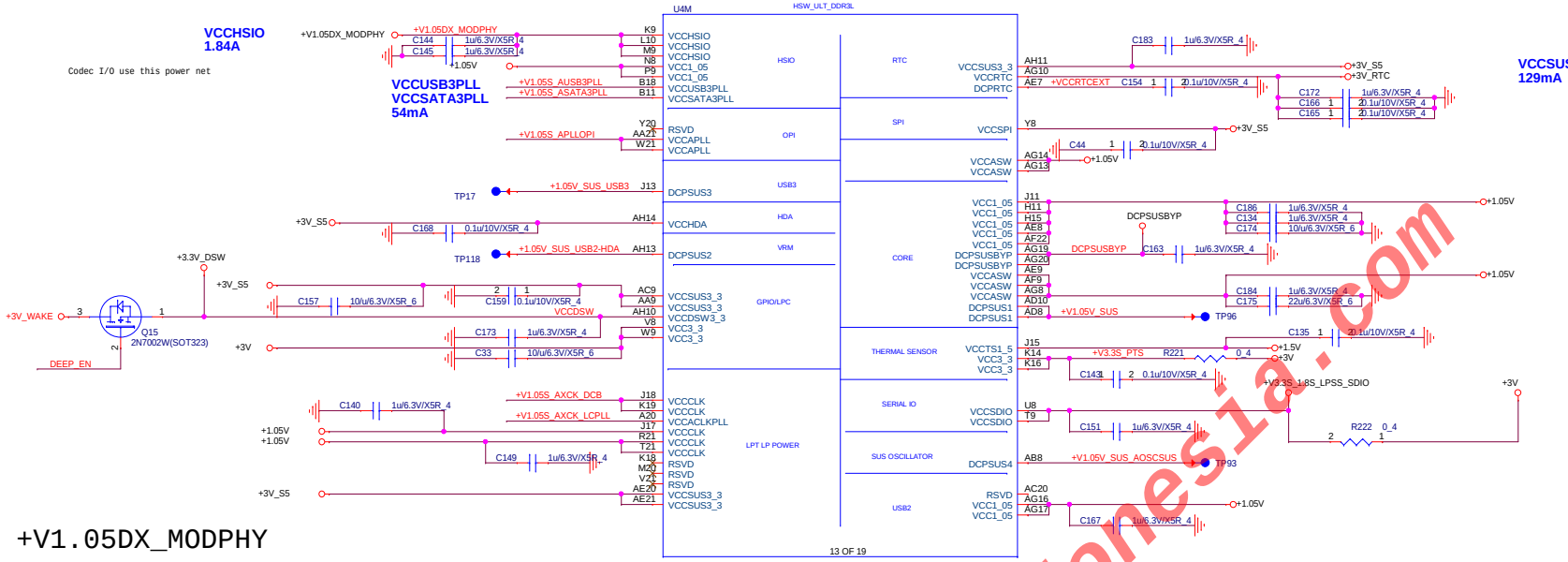
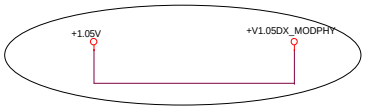
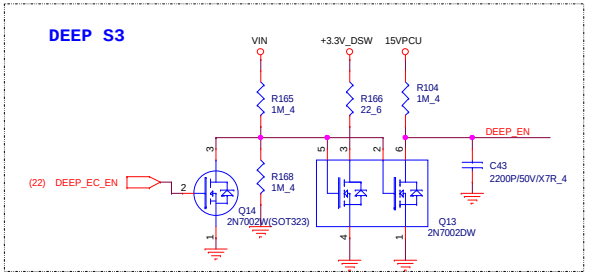
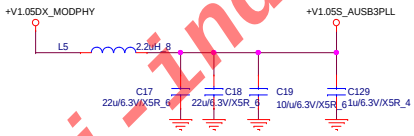
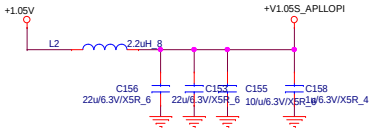
Haswell ULT PCH(POWER)

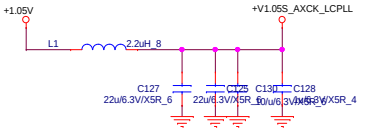


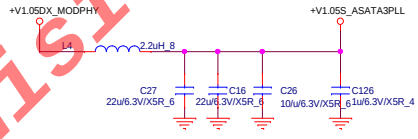


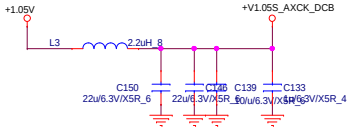


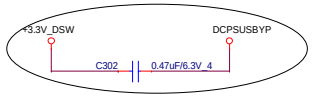












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Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number	Rev
	HSW PCH(Power)	1A
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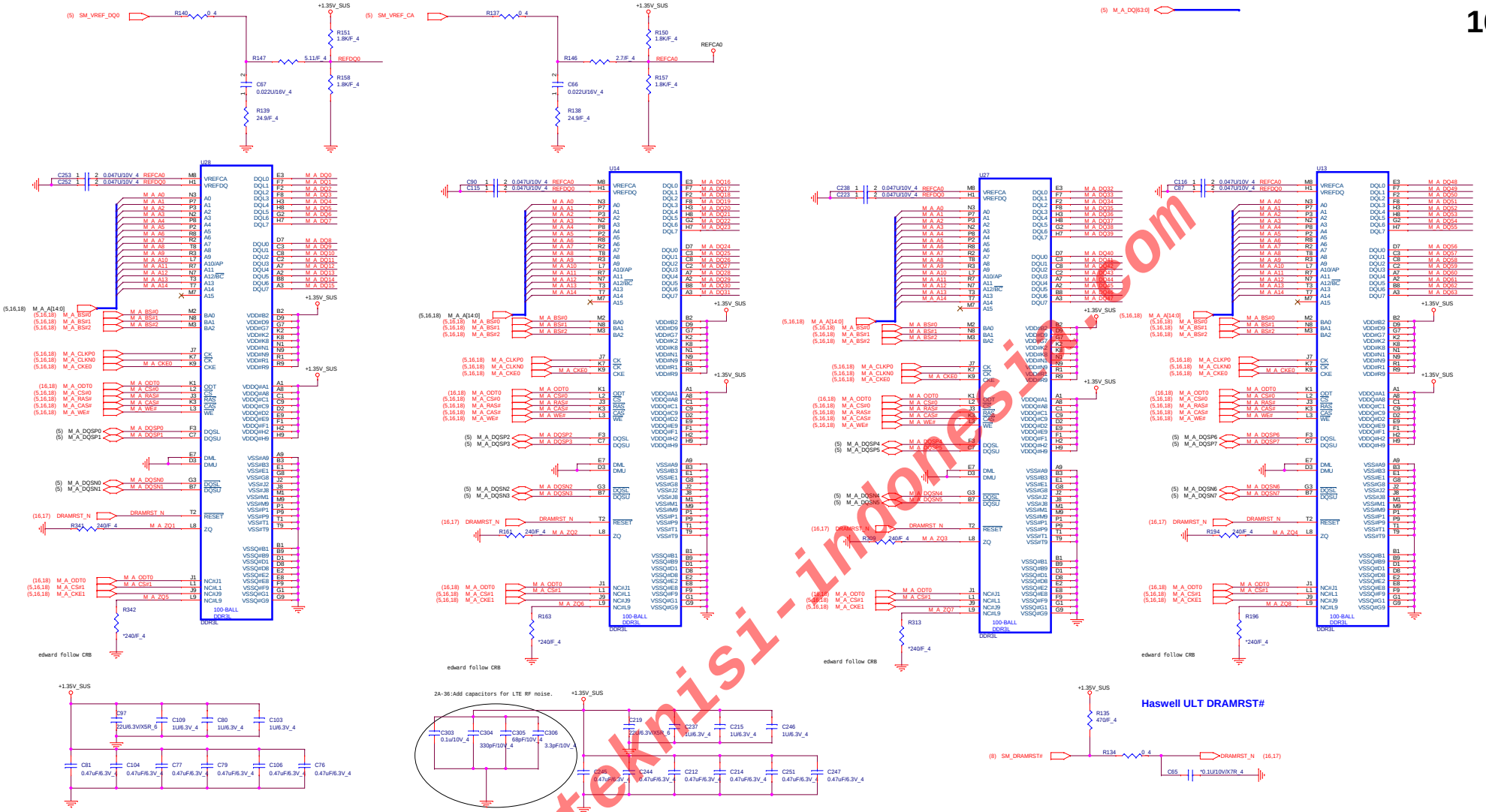

Vendor	Vendor P/N	Quanta Buy P/N	NEO Buy P/N
Elpida	EDJ4216EFBG-GN-F	AKD5JGST403	
Samsung	K4B4G1646B-HYK0	AKD5PGET500	
Hynix	H5TC4G63AFR-PBA	AKD5JGETW00	

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 : KR1

Size	Document Number	Rev
	DDR3L MEMORY_x16(CH-A)	1A
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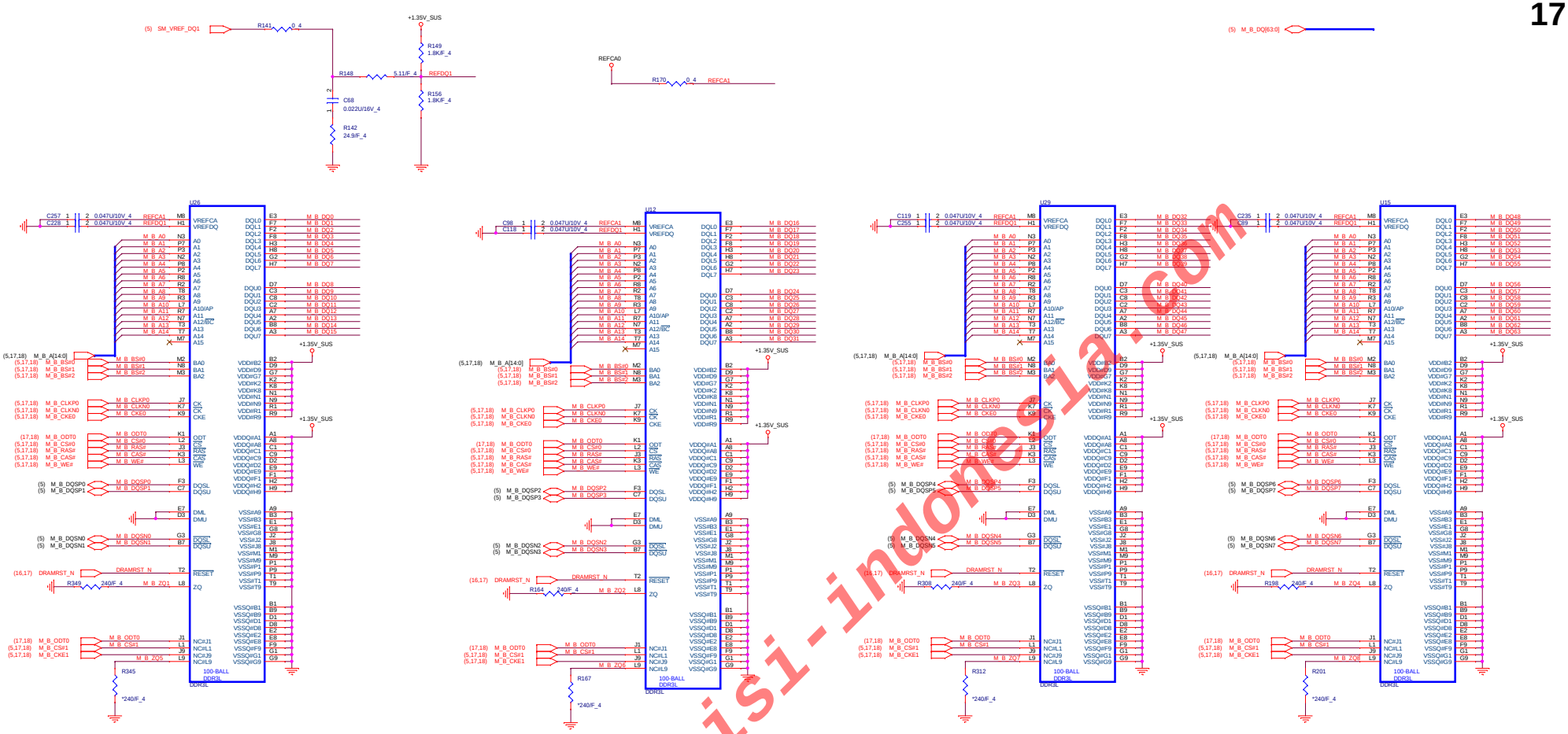

Vendor	Vendor P/N	Quanta Buy P/N	NEO Buy P/N
Elpida	EDJ4216EFBG-GN-F	AKD5JGST403	
Samsung	K4B4G1646B-HYK0	AKD5RGET500	
Hynix	H5TC4G63AFR-PBA	AKD5JGETW00	

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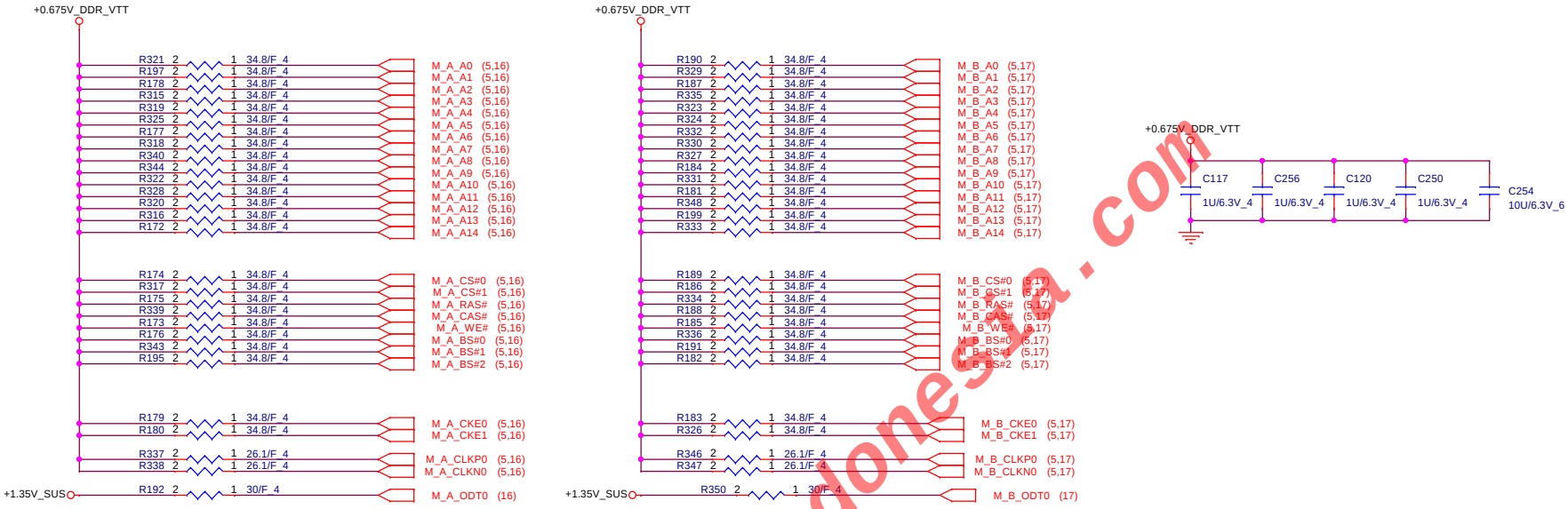
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : KR1
Size: Document Number: DDR3L MEMORY_x16(CH-B) Rev: 1A
Date: Monday, May 13, 2013 Sheet 17 of 44



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 : KR1

Size	Document Number	Rev
	DDR3L TERMINATION	1A
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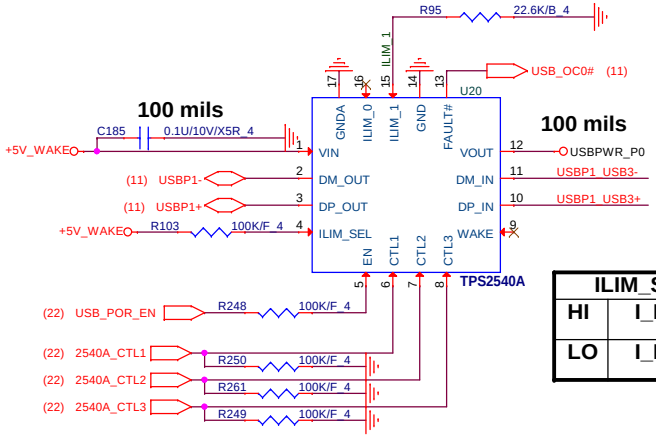
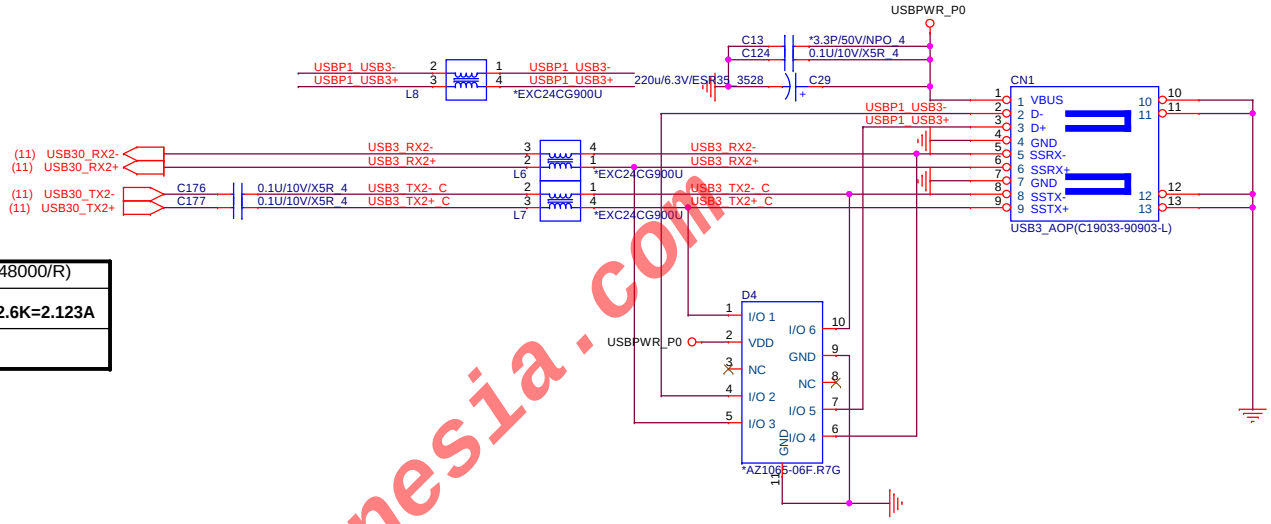
USB Charger



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

USB 3.0 PORT0



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 : KR1

Size	Document Number	Rev
	USB3.0	1A
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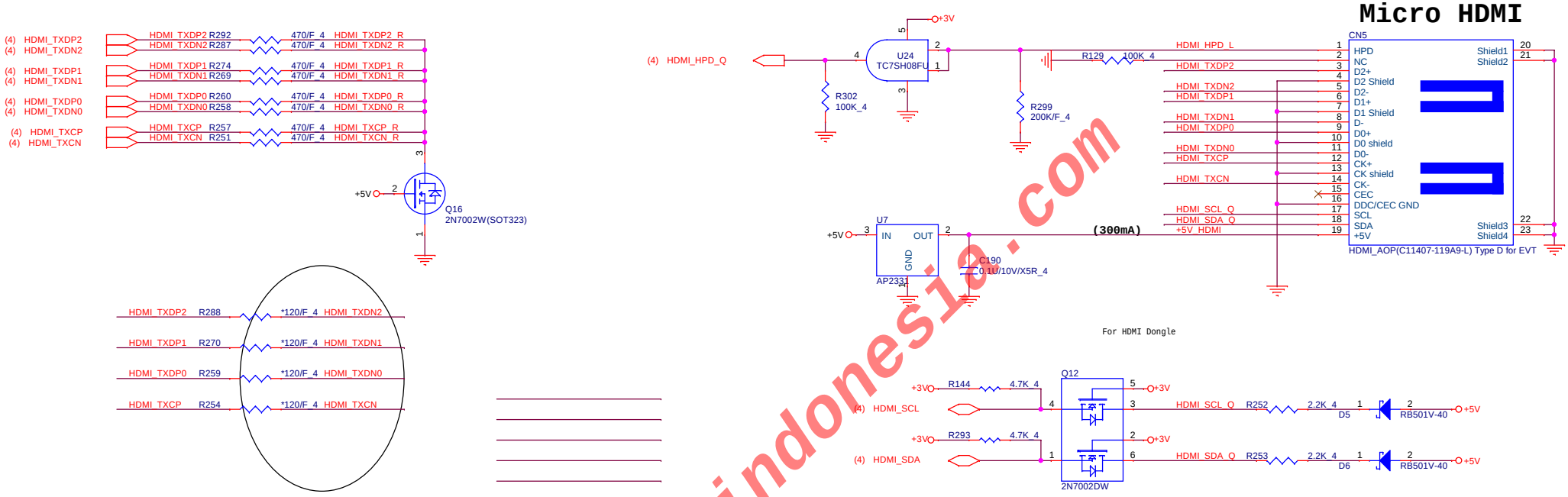
Micro HDMI



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 : KR1		
Size	Document Number: HDMI	Rev: 1A
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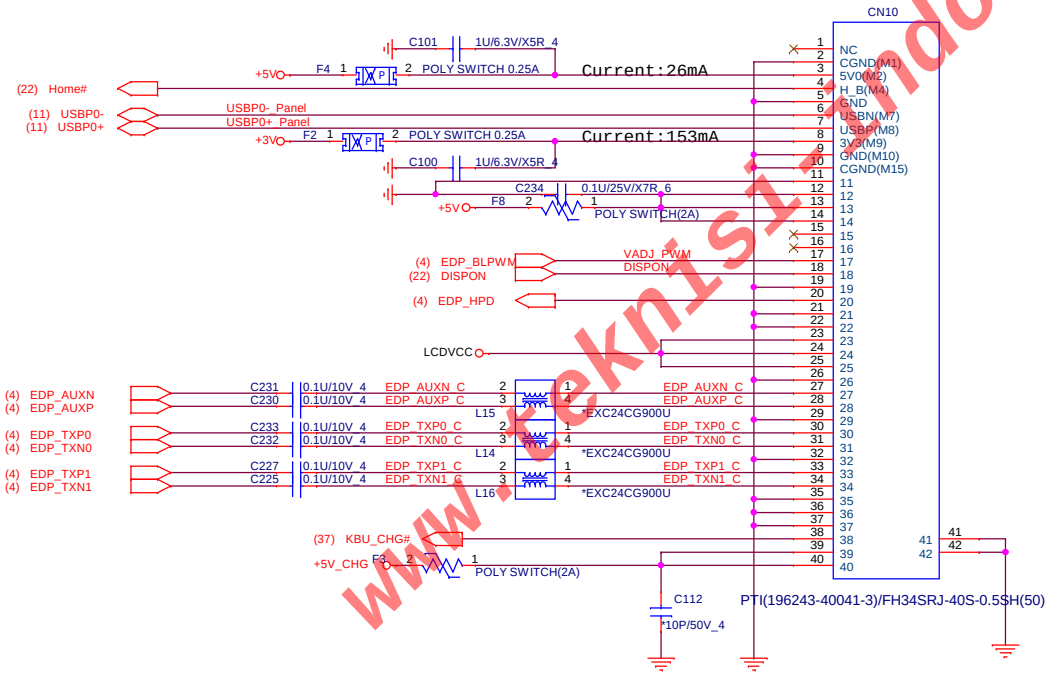
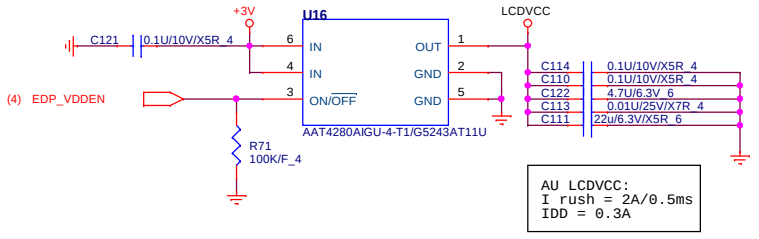
2A-12:Combine Panel and Touch Screen connectors together.

Panel & Touch Screen



NB LVDS enable



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

Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	EDP/TS	1A
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EC(NPCE985L)

**** 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

KC16, KC17 can't mount(ME high limitation)

+3VPCU
KC7 *10U/6.3V/X5R_6
KC12 0.1U/10V/X5R_4
KC16 0.1U/10V/X5R_4
KC8 0.1U/10V/X5R_4
KC10 0.1U/10V/X5R_4
KC9 0.1U/10V/X5R_4
KC14 0.1U/10V/X5R_4
+3V
KL2 0_8
3VPCU_ITE_AVDD
KC6 *10U/6.3V/X5R_6
KC5 0.1U/10V/X5R_4
KU1
115 88 76 46 19 102 4

MBATV KC2 0.01u/25V/X7R_4
ISENS_IN KC3 0.01u/25V/X7R_4
DSWPWR_SEN KC17 0.01u/25V/X7R_4

NPCE985L_0

LPC
(12,23) LPC_LAD0 → 126 LAD0/GPIOF1
(12,23) LPC_LAD1 → 127 LAD1/GPIOF2
(12,23) LPC_LAD2 → 128 LAD2/GPIOF3
(12,23) LPC_LAD3 → 1 LAD3/GPIOF4
7 LRESET#/GPIOF7
2 LCLK/GPIOF5
3 LFRAME#/GPIOF6
(12,23) LPC_LFRAME#
(14,23,24,28,35) BUF_PLT_RST# KR24 0_4 (12) CLKOUT_LPC_0
KC15 *33P/50V/NPO_4
KTP1
121 GA20/GPIO85
125 SERIRQ/GPIOF0
(13) IRQ_SERIRQ
9 SMI#/GPIO65
(10) EC_EXT_SMI#
29 ECSCI#/GPIO54
(13) SIO_EXT_SCI#
122 KBRST#/GPIO86
(13) SIO_RCIN#

SPI
(14) RSMRST# KR6 200/F_4 KR7 10K_4
123 GPIO67/N2TMS
86 F_SDI/F_SDIO1
87 F_SDIO/F_SDIO0
92 F_SCK
90 F_CS0#
(12) PCH_SPI_SO
(12) PCH_SPI_SI
(12) PCH_SPI_CLK
(12) PCH_SPI_CS0#

A/D
97 AD0/GPIO90 → MBATV (41)
98 AD1/GPIO91 → ISENS_IN (41)
99 AD2/GPIO92 → BAT_PRS# (40)
100 AD3/GPIO93 → FUN_ASSIST# (35)
108 AD4/GPIO05 → NBSWON# (35)
96 AD5/GPIO04 → SLP_S3# (14)
95 AD6/GPIO03 → SKIN_DET (25)
94 AD7/GPIO07/VD_IN2 → SLP_SUS# (14)
KC4 0.1U/10V/X5R_4

D/A
101 DA0/GPIO94 → VFAN (25)
105 DA1/GPIO95
106 DA2/GPIO96
107 DA3/GPIO97 → EC_WAKE_ON (37)

PWM
32 A_PWM0/GPIO15
118 B_PWM/GPIO21 → SW_VOL+# (35)
62 C_PWM/GPIO13 → SW_VOL-# (35)
65 D_PWM/GPIO32
66 H_PWM/GPIO33/VD1_EN#
81 G_PWM/GPIO66 → BATLED# (35)
22 E_PWM/GPIO45 → PWRLED# (35)
16 F_PWM/GPIO40/1_WIRE → BT_RF_ON (24)

2A-1:Change value from 1K to 10K for +1.05V can't boot up.

124 LPCPD#/GPIO10 → CAM_ON (26)
8 CLKRUN#/GPIO11 → S5_ON (37)
S5_ON
ALL_SYS_PWRGD KR16 10K/F_4 +3V

KBC
(35) WWAN__RF_DIS# → 54 KBSIN0/GPIOA0/N2TCK
WWAN_PWRON → 55 KBSIN1/GPIOA1/N2TMS
(35) SAR_PWR_DN# → 56 KBSIN2/GPIOA2
(22,37) 5VPGD → 57 KBSIN3/GPIOA3
58 KBSIN4/GPIOA4
59 KBSIN5/GPIOA5
60 KBSIN6/GPIOA6
61 KBSIN7/GPIOA7

(35) MY0 → 53 KBSOUT0/GPOB0/JENK#/SOUT_CR GPIO81/F_WP#/F_SDIO2
(35) MY1 → 52 KBSOUT1/GPIOB1/TCK
(35) MY2 → 51 KBSOUT2/GPIOB2/TMS
(35) MY3 → 50 KBSOUT3/GPIOB3/TDI
49 KBSOUT4/GPOB4/JEN0#**
(35) MY5 → 48 KBSOUT5/GPIOB5/TDO
(35) MY6 → 47 KBSOUT6/GPIOB6/RDY#
43 KBSOUT7/GPIOB7
42 KBSOUT8/GPIOC0
41 KBSOUT9/GPOC1/SDP_VIS#
40 KBSOUT10/P80_CLK/GPIOC2
39 KBSOUT11/P80_DAT/GPIOC3
38 KBSOUT12/GPO64/TEST#
37 KBSOUT13/GP(I)O63/TRIST#
36 KBSOUT14/GP(I)O62/XORTR#
35 KBSOUT15/GPIO61/XOR_OUT
34 KBSOUT16/GPIO60
33 KBSOUT17/GPIO57

GPIO
GPIO16 → 114 SLP_S4# (14)
GPIO30/F_WP# → 109 DEEP_EC_EN → DEEP_EC_EN (15)
GPIO36 → 15 EC_PWRBTN# (14)
GPIO41/F_WP# → 80 SUS_ON (37,38)
GPIO70 → 73 RUN_ON (37,38,39,41)
GPIO71 → 74 KR15 200/F_4 PCH_PWRGD → PCH_PWRGD (14)
GPIO72 → 75 EDP_BLEN (4) Home# (21) KR14 10K/F_4

EC_WAKE_ON KR2 100K_4
S5_ON KR22 100K_4 +3VPCU

GPIO24 → 6 IMVP_PWRGD (9,13,36)
TA1/GPIO56 → 31 SUSWARN# (14)
TMS/GPIO43 → 20 KR17 200/F_4 ALL_SYS_PWRGD
KR13 100K_4 ALL_SYS_PWRGD (9,14,38,39)
SOUT_CR/GPIO83 → 111 AMPMUTE# (29)
TDI/GPIO44 → 21 DISPON (21)
GPIO51/N2TCK → 26 2540A_CTL3 (19)

2A-2:Change value from 10K to 100K for +1.05V can't boot up.

+3V_S5 KR4 3.3K_4 MBCLK
KR5 3.3K_4 MBDATA

CIR
GPIO34 → 14 2540A_CTL2 (19)
TRST#/GPIO46 → 23 WLAN_RF_ON (24)
SIN_CR/GPIO87 → 113 DCI-C (40,41)

2A-33:Changed to 150PF for PECI error.

PS/2
(35) HP_MUTE → 27 RDY#/GPIO52/PSDAT3
(10) HDA_SDOUT_C → 25 TDO/GPIO50/PSCLK3
(14) AC_PRESENT → 11 PSDAT2/GPIO27
10 PSCLK2/GPIO26
71 PSDAT1/GPIO35
72 PSCLK1/GPIO37
KR1 0_4
LID#
+3VPCU KR23 10K/F_4
+3.3V_DSW 10K/F_4 KR25 DSWPWR_SEN
(13,24) SIO_WAKE_GPIO27#

+3VPCU KR12 4.7K_4 MBCLK_BAT
KR11 4.7K_4 MBDATA_BAT

PCEI
GPIO34 → 14 2540A_CTL2 (19)
TRST#/GPIO46 → 23 WLAN_RF_ON (24)
SIN_CR/GPIO87 → 113 DCI-C (40,41)
KC11 150PF_4
PECI → 13 PECI_EC KR21 43_4 PECI_EC_R (8) KC13 1U/6.3V/X5R_4
VTT → 12 +1.05V
TCK/GPIO42 → 17 USB_POR_EN (19)

+3V
KR9 4.7K_4 MBCLK_SAR
KR10 4.7K_4 MBDATA_SAR
KR8 4.7K_4 SAR_ALERT#
(35) SAR_ALERT# → SAR_ALERT# → 117 TA2/GPIO20/IOX_DIN_DIO
(25) FAN-SIG → 63 TB1/GPIO14
(41) ACIN → 64 TB2/GPIO01

SPI_MISO/GPIO77 → 84
**SPI_MOSI/GPO76 → 83
SPI_SCK/GPIO75 → 82
SPI_CS#/GPIO02 → 79

DEEP_EC_EN KR3 100K/F_4 +3VPCU

Charging &BAT& EC Debug
(35,40,41) MBCLK_BAT → MBCLK_BAT → 70 SCL1/GPIO17/N2TCK
(35,40,41) MBDATA_BAT → MBDATA_BAT → 69 SDA1/GPIO22/N2TMS

LTE SAR & Skin &ambient sensor &LVDS translate Board
(25,35) MBCLK_SAR → MBCLK_SAR → 67 SCL2/GPIO73/N2TCK
(25,35) MBDATA_SAR → MBDATA_SAR → 68 SDA2/GPIO74/N2TMS

PCH
(12) MBCLK → MBCLK → 119 SCL3A/GPIO23/N2TCK
(12) MBDATA → MBDATA → 120 SDA3A/GPIO31/N2TMS

(19) 2540A_CTL1 → 24 SCL4A/GPIO47/N2TCK
(8) PROCHOT → 28 SDA4A/GPIO53/N2TMS

I/O Expansion
GPIO06/IOX_DOUT → 93 KBU_EC_CHG# (37)
GPIO82/IOX_LDSH/VD_OUT1 → 110 KBU_CHG_ON (37)
GPIO84/IOX_SCLK/VD_OUT2 → 112 WLAN_PWRON (24)
CLKOUT/GPIO55/IOX_DIM_DIO → 30 SLP_WLAN# (14)

VD_IN1/GPIO80 → 104 SYS_PWROK → SYS_PWROK (14)
EXT_RST# → 85 KR20 4.7K_4 +3VPCU
VCC POWER ON RESET

GPIO00/EXTCLK/F_SDIO3 → 477 DPWROK → DPWROK KR19 200/F_4 (14) DPWROK
KR18 10K_4

VCORF → 44 EC_VCORF KC1 1U/6.3V/X5R_4

GND 116 GND 89 GND 78 GND 45 GND 18 GND 5 AGND 103

KD2
6 5 4 BAS16TW 1 2 3
RSMRST#
DPWROK
PCH_PWRGD
(22,37) 5VPGD
KD1 RB501V-40 ALL_SYS_PWRGD

Magnetic Lid Switch

KU2
+3VPCU 1 IN
OUT 2 LID# → LID# (35)
GND 3
E-CMOS

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

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 : KR1

Size	Document Number	Rev
	EC(NPCE985L)	1A
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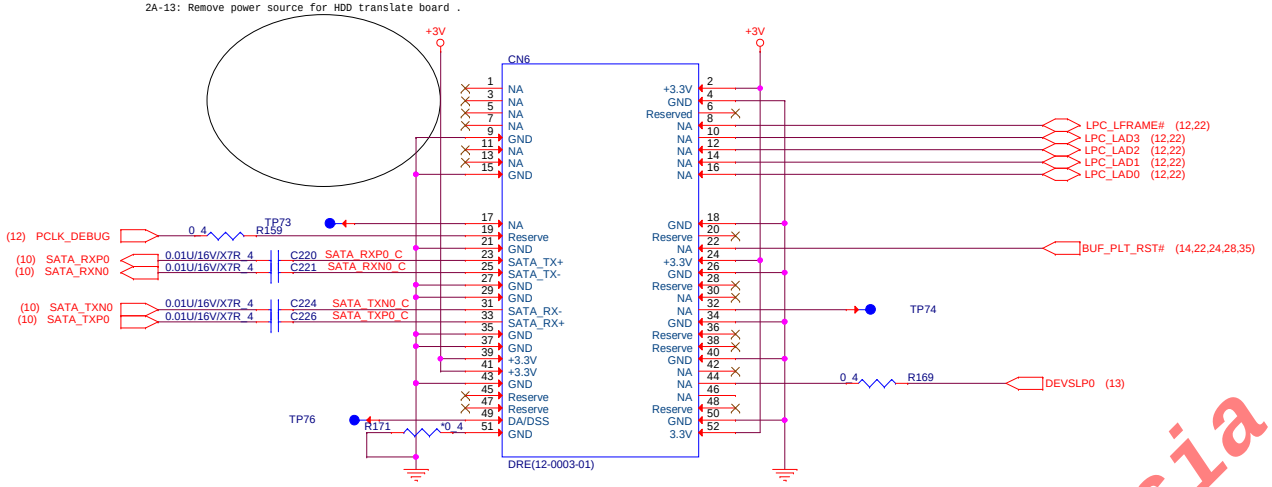
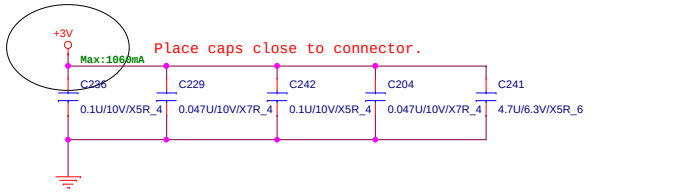
2A-13: Remove power source for HDD translate board .





2A-13: Remove power source for HDD translate board .

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Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	mSATA (SSD)/TPM	1A

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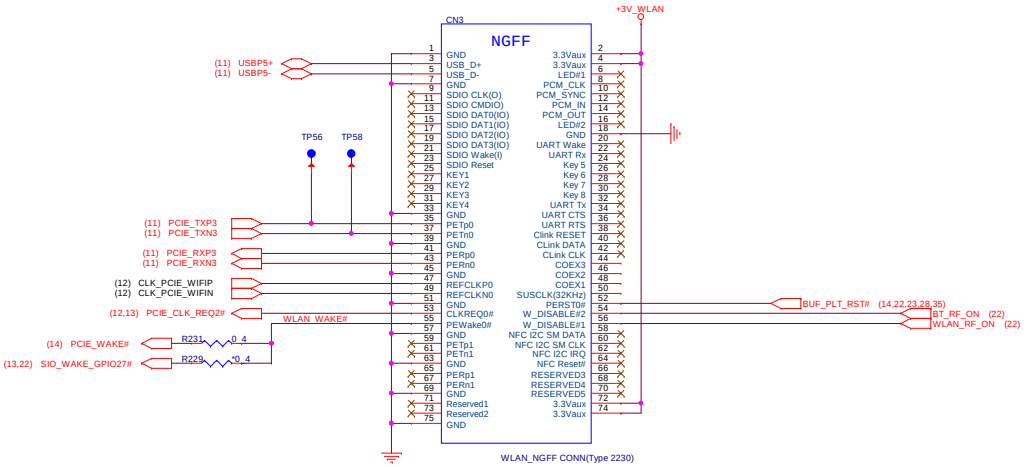
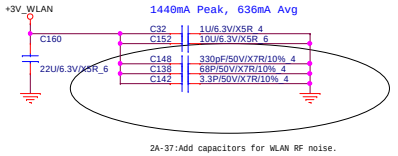
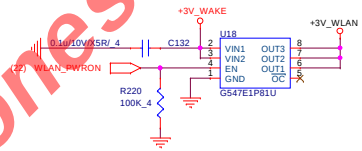
NGFF Wifi/BT connector





add



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

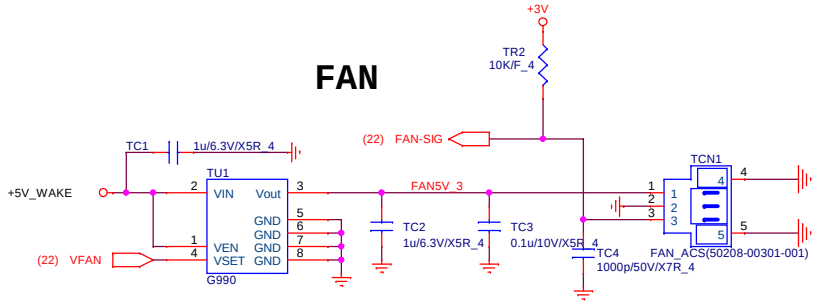
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : KR1

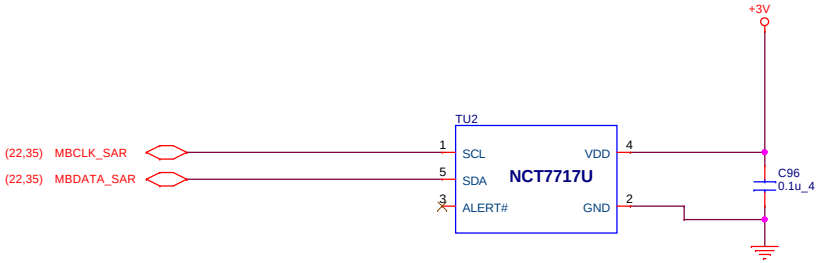
Size	Document Number	Rev
	WIFI/BT NGFF	1A

Date: Monday, May 13, 2013 Sheet 24 of 44

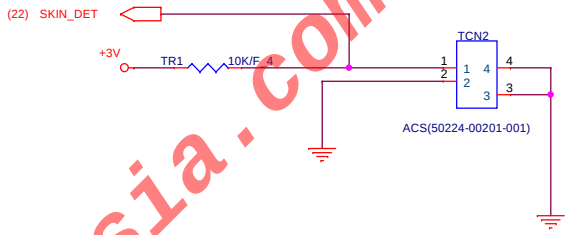
FAN



For Motherboard ambient temperture



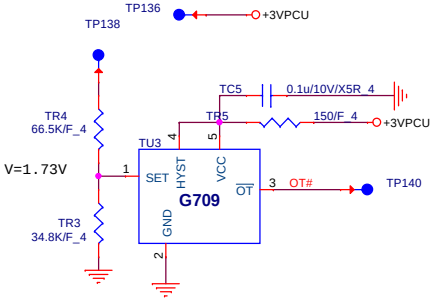
Add Thermal sensor for Skin tempertuature



H/W Thermal Protect

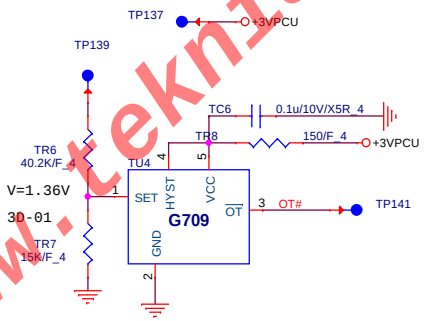
2A-3:Remove TR11 for +3VPCU can't boot up.

Ambient Sensor



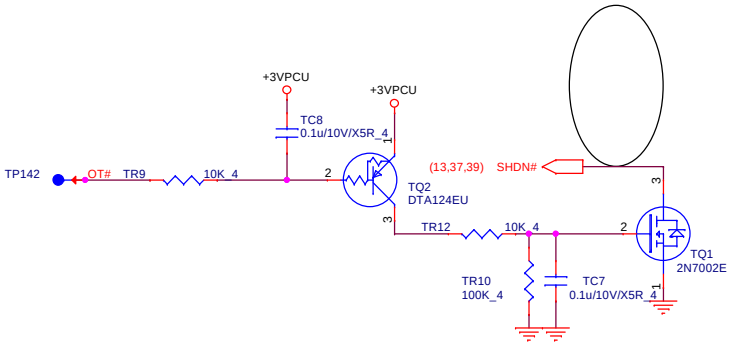
RSET(kΩ)= 0.0012T2 – 0.9308T + 96.147

CPU Thermal Sensor



75	33.0K
95	18.5K
100	15K
107	10.3K
110	8.2K

TP Szie: TP3075(Request from Production Line)



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 : KR1

Size	Document Number	Rev
	HSW MCP(MEMORY)	1A
Date: Monday, May 13, 2013	Sheet 25 of 44	

2A-11:Combine rear camera board and motherboard together.

2

Realtek PC Camera
RTS5825

Add test point near connect and controller on controller.

RTS5825 QFN46 (Parallel & MIPI)

Rear Camera LED

Green color(525nm)

To Front/Rear Camera(1M/8M)

USB Rear Camera Power

USB Front Camera Power

3.3V Power Switch:
I limited (min)= 750mA
I limited (Type)= 1000mA
I limited (min)= 1250mA

5V to 3.3V LDO:
I limited (min)= 220mA
I limited (Type)= 400mA
I limited (Max)= 700mA

Pull High

SPI Interface

1.05V LDO for sensor core power

Modify based on LDO part

2.8V LDO for sensor ACTVDD

Modify based on LDO part

2.7V LDO for sensor IO/analog power

Modify based on LDO part

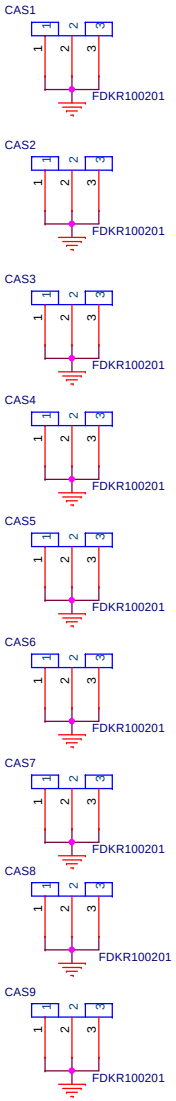
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.
PROJECT : KR1

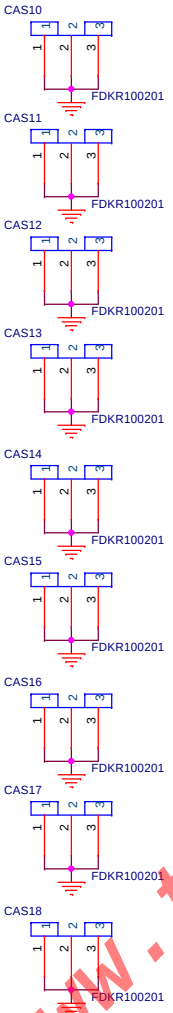
Size	Document Number	Rev
	Camera	1A
Date: Monday, May 13, 2013	Sheet 26 of 44	

Shielding Case

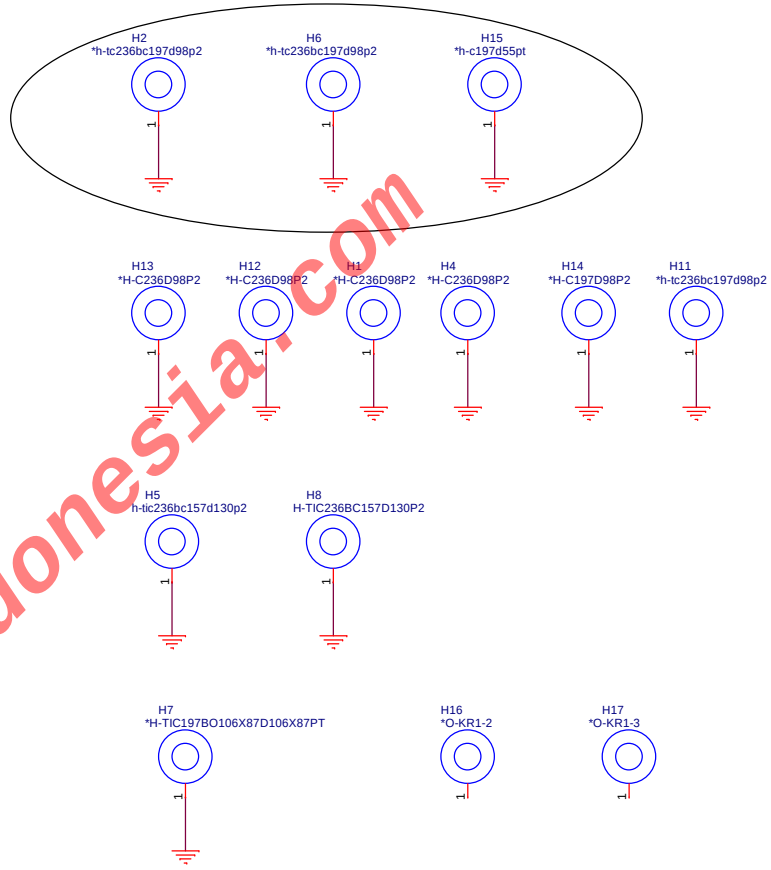
TOP Side



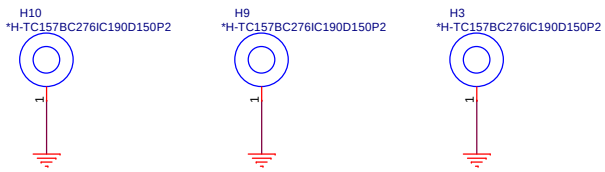
Bottom Side



Screw Hole



CPU Breaket Screw Hole



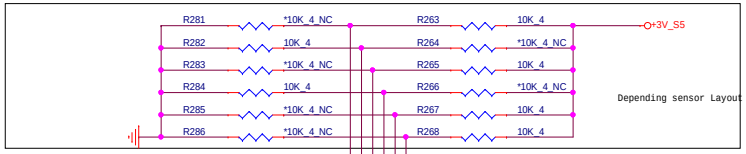
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number: Button/LED	Rev: 1A
Date: Monday, May 13, 2013	Sheet 27 of 44	

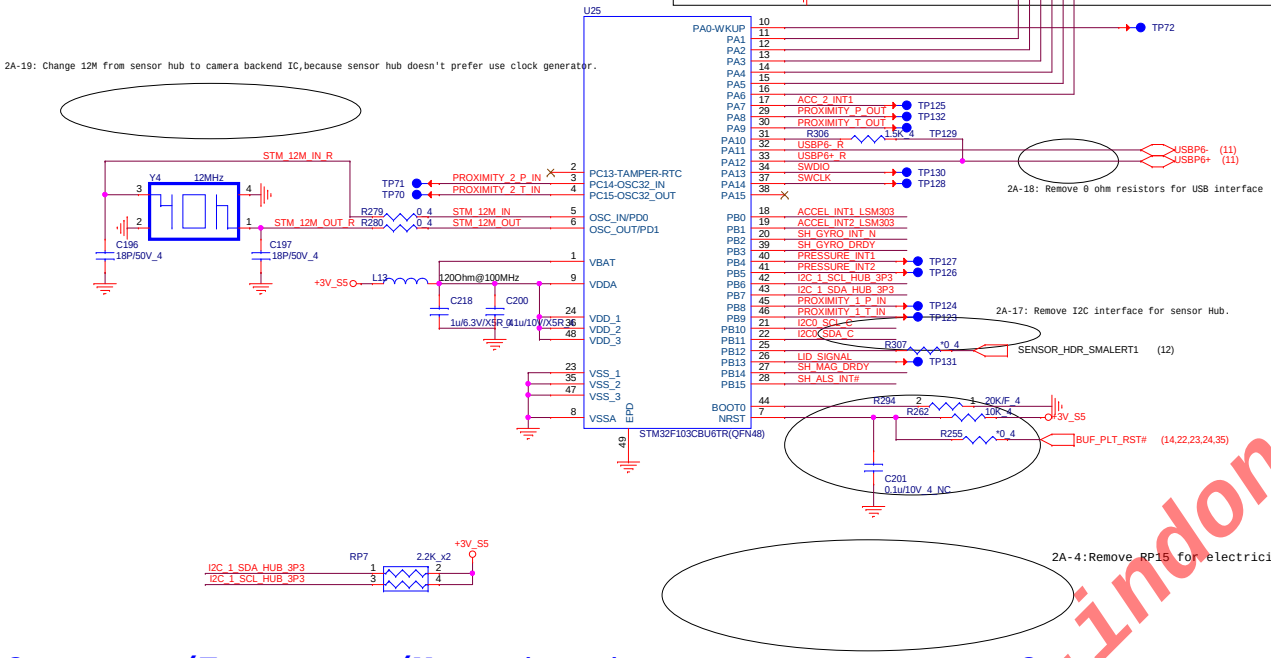
Sensor HUB

EVT Placement Strap pins setting

Devices	LSM303DLHC			L3GD20TR		
Strap Pins	PA1	PA2	PA3	PA4	PA5	PA6
	1	0	1	0	1	1

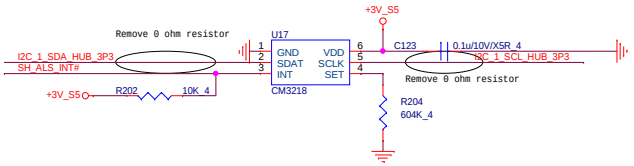


2A-19: Change 12M from sensor hub to camera backend IC,because sensor hub doesn't prefer use clock generator.



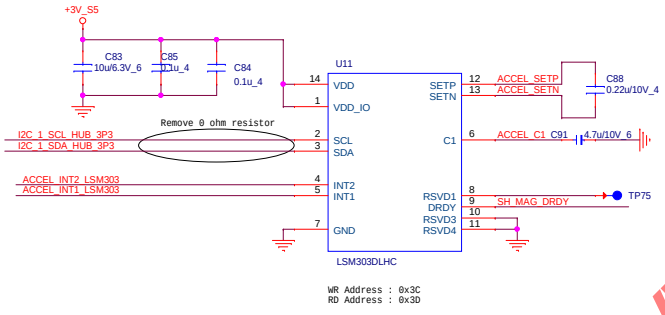
2A-4:Remove RP15 for electricial leakage.

Ambient Light Sensor



Remove R256

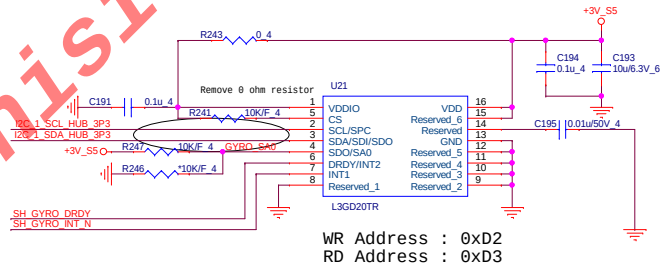
G-sensor/E-compass/Magnetometer



WR Address : 0x3C
RD Address : 0x3D

all layer delete

Gyroscope



WR Address : 0xD2
RD Address : 0xD3

All surface layer delete

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 : KR1

Size	Document Number	Rev
	Sensors Hub & Sensors	1A
Date: Monday, May 13, 2013	Sheet 28 of 44	

2A-5:Change MIC-VREFO from 30 pin to 29 pin of ALC 233.It is cover external MIC -in issue.

SPK L+ L- R+ R- trace width
Speaker 4 ohm ==> 30 mils

SPEAKER CON.

ACN1 JST(SM04B-SURS-TF(LF)(SN))

SPK_L+ AR18 0_6 SPK_L1+
SPK_L- AR19 0_6 SPK_L1-
SPK_R- AR20 0_6 SPK_R1-
SPK_R+ AR21 0_6 SPK_R1+

SPK_L+ AC19 1000P/50V/X7R/10%_4 SPK_L- AC20 1000P/50V/X7R/10%_4
SPK_L1+ AD2 *TVH 0402 01 AB1 SPK_L1- AD3 *TVH 0402 01 AB1
SPK_R+ AC22 1000P/50V/X7R/10%_4 SPK_R- AC21 1000P/50V/X7R/10%_4
SPK_R1+ AD5 *TVH 0402 01 AB1 SPK_R1- AD4 *TVH 0402 01 AB1

HPOUT_R
HPOUT_L
MIC-VREFO

AU3 ALC233-CG

CBP AC3, AC4, AC5 place close to pin 34,35,36 4.7U/6.3V_6 1U/6.3V/X5R_4 AC4 CBN AC26 CPVEE AC27
AC6, AC7 place close to pin 27, 28 VREF AC25 LDO1 AC28
AC1, AC2 place close to pin 26 AVDD1 AL2 HCB1608KF-601T20 +5V AC24 0.1U/10V/X5R_4 AC30 1U/6.3V/X5R_4 AGND

CPVDD CBN CPVEE HP-OUT-R HP-OUT-L LINE1-VREFO-L LINE1-VREFO-R MIC2-VREFO VREF LDO1-CAP AVDD1 AVSS1

CBP
AVSS2
LDO2-CAP
AVDD2
PVDD1
SPK-L+
SPK-L-
SPK-R-
SPK-R+
PVDD2
PDB
SPDIFO/GPIO2
EP_GND

LINE2-L
LINE2-R
LINE1-L
LINE1-R
CPVREF
MIC-CAP
MIC2-R/SLEEVE
MIC2-L/RING2
MONO-OUT
JDREF
Sense B
Sense A

DVDD GPIO0/DMIC-DATA GPIO1/DMIC-CLK DC-DET SDATA-OUT BIT-CLK LDO3-CAP SDATA-IN DVDD-IO SYNC RESETB PCBEEP

Analog

Digital

+1.5V AR14 0_4 AGND AC23 1U/6.3V/X5R_4 AC8 place close to pin 39 4.7U/6.3V_6 AGND AC29 LDO2 AVDD2

+5V_SPKO AL1 HCB1608KF-601T20 PVDD_5V AC18 0.1U/10V/X5R_4 AC15 0.1U/10V/X5R_4 AC14 10U/6.3V/X5R_6 AC17 *10U/6.3V/X5R_6
AC10, AC12, place close to pin 41,and AC11,AC13 place close to pin46.

80Mils

SPK_L+ SPK_L- SPK_R- SPK_R+

AMP_PD#
Combo-GPI
Thermal Pad 4*4

EXT_MIC
JDREF AR11 20K/F_4 AGND AR4 place close to pin 15
SENSEA AR10 39.2K/F_4 HP_JD AR3 place close to pin 13

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

AR5 0_4 AR22 0_4 AR9 0_4 AGND
+3V AR3 *10K/F_4 HDA_RST# AD1 *BAS316 AMP_PD#
(22) AMPMUTE# AR2 0_4

Analog

Digital

+5V +5V_SPK
0.1u/10V/X5R/_4 AC3 AU2 G547G2P81U DC_DET AR1 100K_4

Place close to pin 1 +3V AC9 0.1U/10V/X5R_4 AC12 1U/6.3V/X5R_4

2A-20: Add low pass filter for RF noise.

(35) DMIC_DATA DMIC_DATA_A
(35) DMIC_CLK DMIC_CLK_A
100P/50V_4 100P/50V_4 AC7 AC10
AR23 AR7 39_4 39_4
AC16 place close to pin 7 AC1 0.1U/10V/X5R_4 4.7U/6.3V_6 AC21 LDO3

DC_DET
(10) HDA_SDOUT
(10) HDA_BITCLK ACZ_BITCLK_A AC8 *22P/50V/NPO_4
(10) HDA_SDIN0 AR8 33_4 ACZ_SDIN0_A
(10) HDA_SYNC
(10) HDA_RST# HDA_RST#
(10,13) HDA_SPKR AC11 0.1U/10V/X5R_4
PC BEEP

Array Microphone L

2A-21: Interchange right and left DMIC.

AU1 DMIC_SPM3437HM4H
GND VDD L/R DATA GND CLK
L: PD
DMIC_DATA DMIC_CLK AC6 22P/50V/NPO_4
+3V AR6 120/F_4 AC5 0.1u/10V/X5R_4

Combo Jack

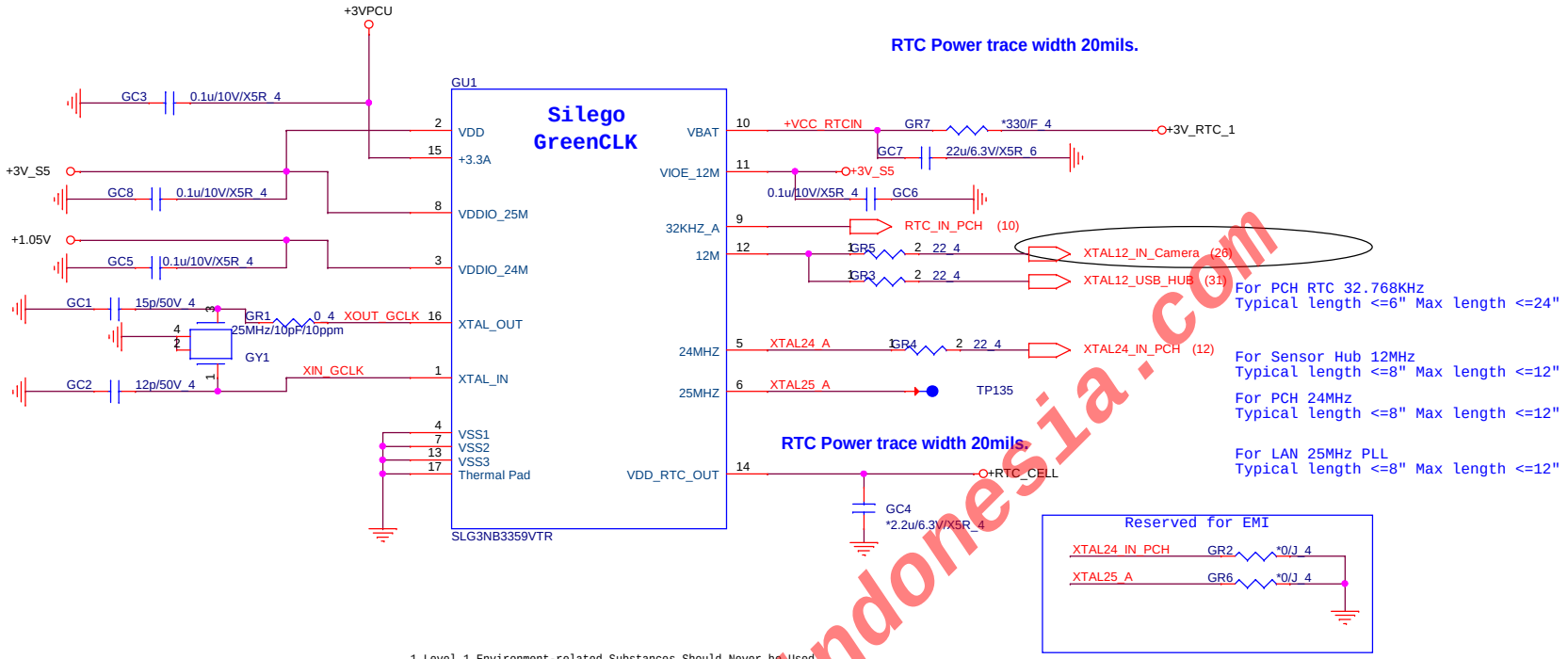
MIC-VREFO AR16 2.2K_4
EXT_MIC AC16 2.2U/6.3V/X5R_6 AR12 1K/F_4 MIC_IN_L AL3 0_6
AGND AR13 22K/F_4
AGND AC13 10U/6.3V/X5R_6
Combo-GPI AR4 22K/F_4 MIC_IN (35)
HPOUT_L AR17 47/F_4 CNN_HPOUT_L (35)
HPOUT_R AR15 47/F_4 CNN_HPOUT_R (35)
HP_JD HP_JD (35)

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 : KR1

Size	Document Number	Rev
	AUDIO(ALC233-CG)	1A

Date: Monday, May 13, 2013 Sheet 29 of 44

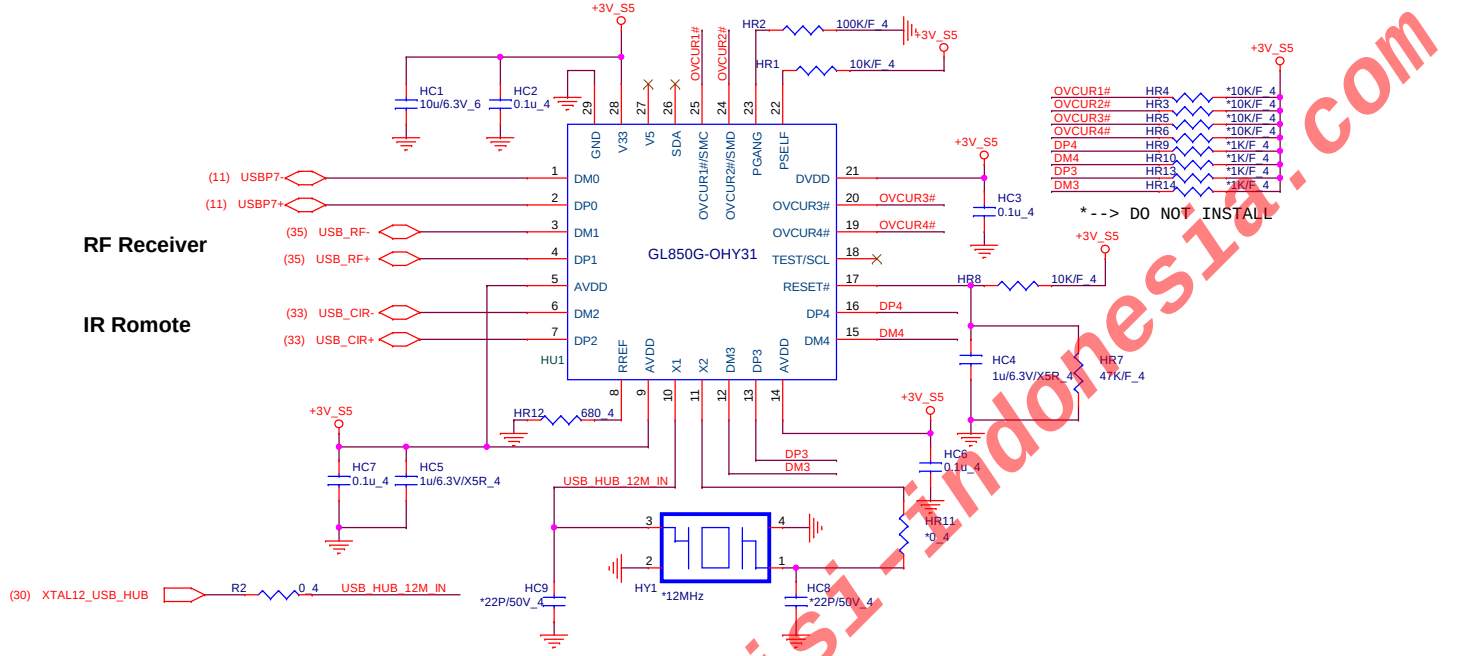


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc. PROJECT : KR1		
Size	Document Number: Green Clork(SLG3NB3359)	Rev 1A
Date: Monday, May 13, 2013	Sheet 30 of 44	

RF Receiver

IR Romote



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

Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number: USB2.0 Hub	Rev: 1A
Date: Monday, May 13, 2013	Sheet 31 of 44	

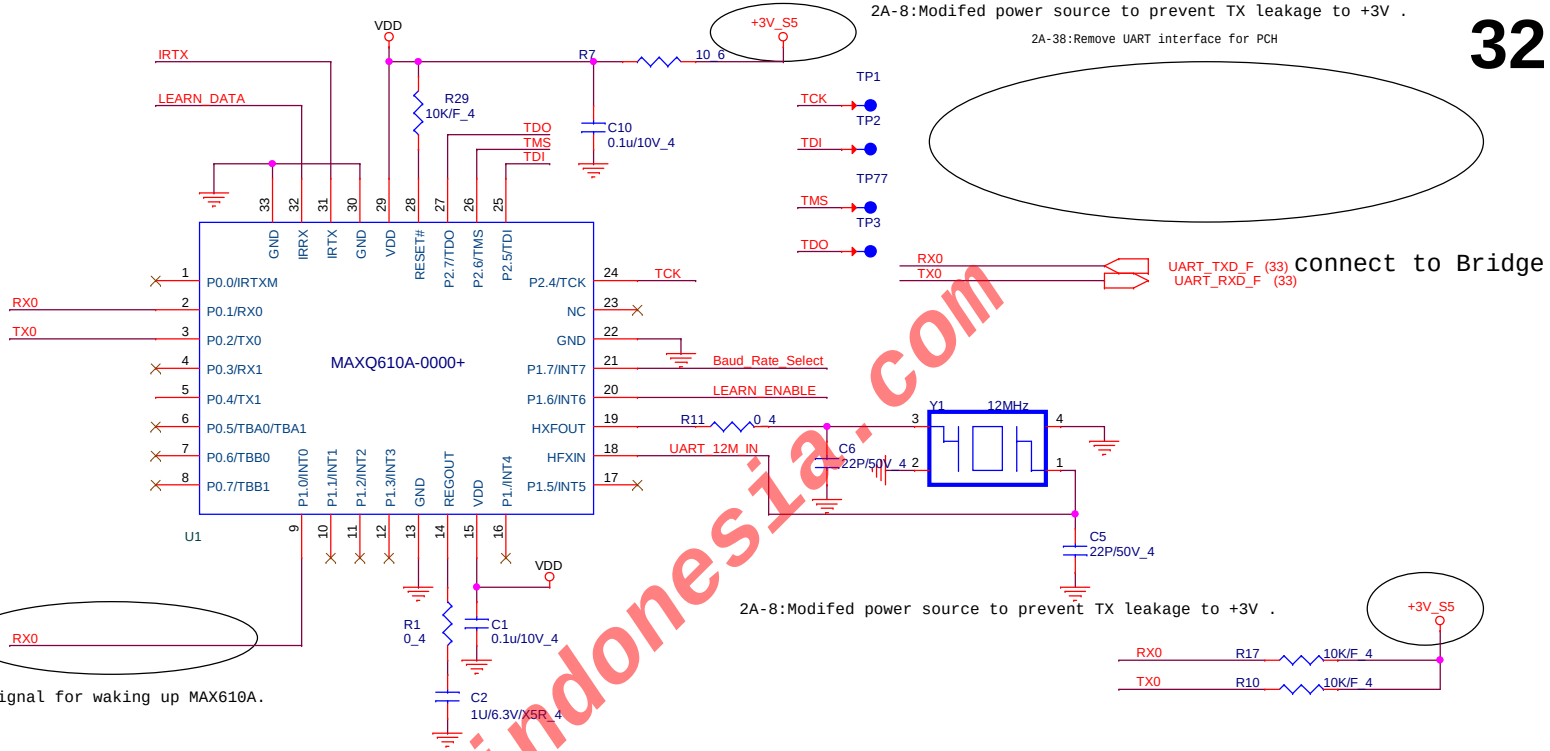
CIR MCU(MAXQ610A-0000+)

2A-8:Modifed power source to prevent TX leakage to +3V .

2A-38:Remove UART interface for PCH

baud_rate_select

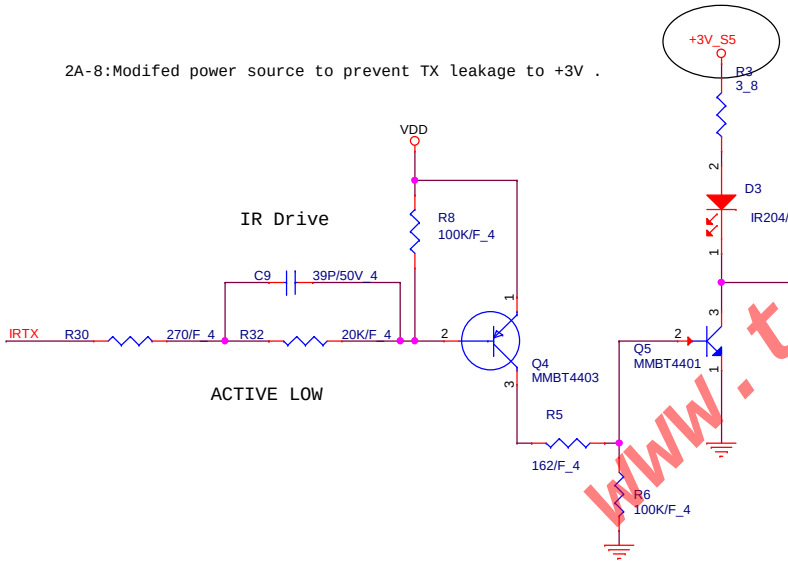
Active Low -->19200bps
Active High -->9600bps



2A-7:Connecting TX signal for waking up MAX610A.

2A-8:Modifed power source to prevent TX leakage to +3V .

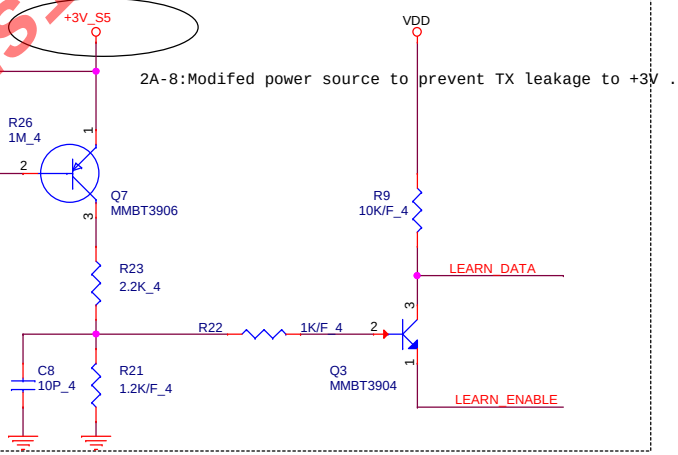
2A-8:Modifed power source to prevent TX leakage to +3V .



IR LEARNER

Layout Notes:

1. Place Learner circuit as close as D2 as possible.
2. Place Learn data trace well away from the RED LED trace and the +3V trace



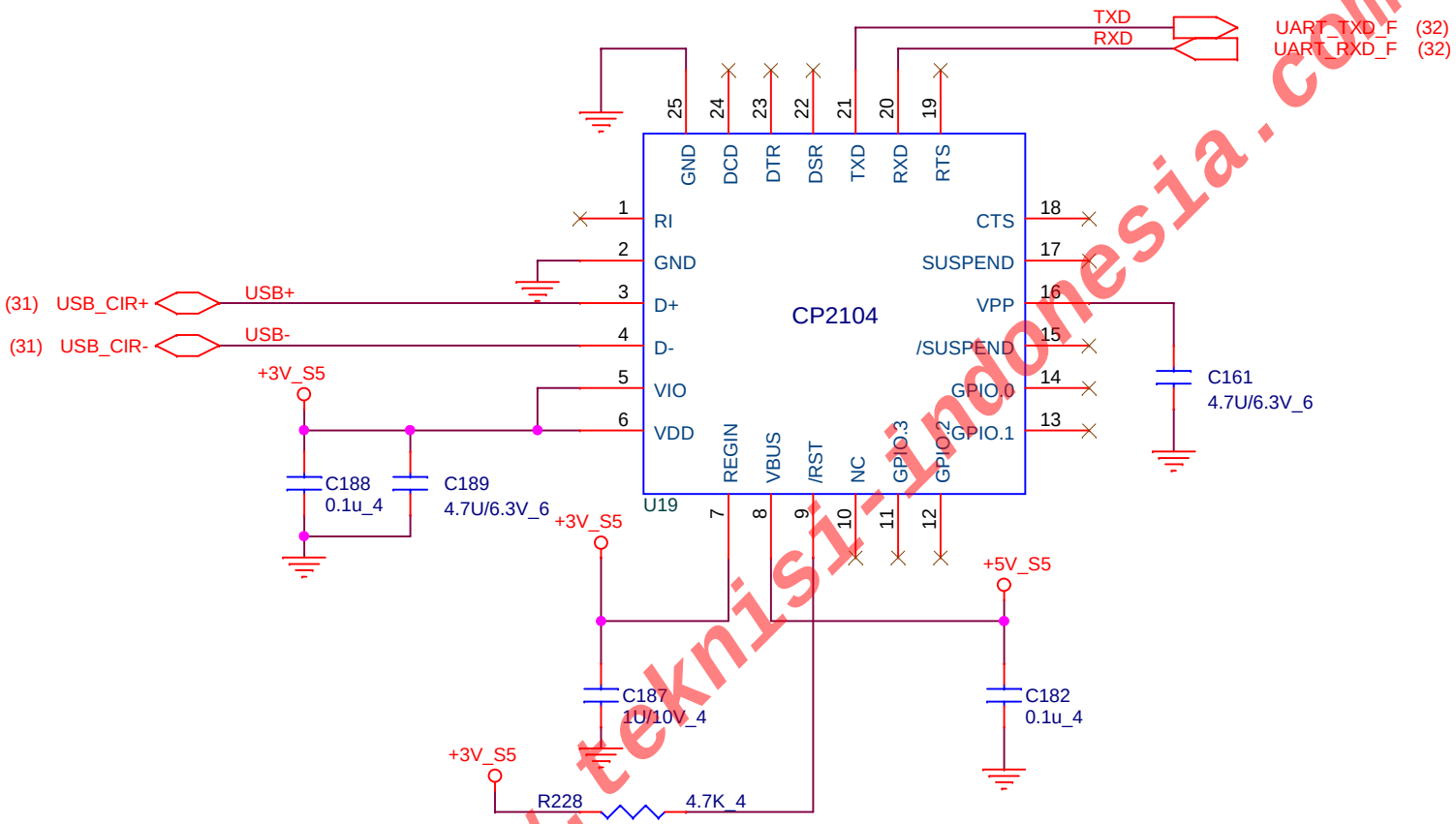
2A-8:Modifed power source to prevent TX leakage to +3V .

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 : KR1

Size	Document Number	Rev
	CIR MCU(MAXQ610A-0000+)	1A
Date: Monday, May 13, 2013	Sheet 32 of 44	

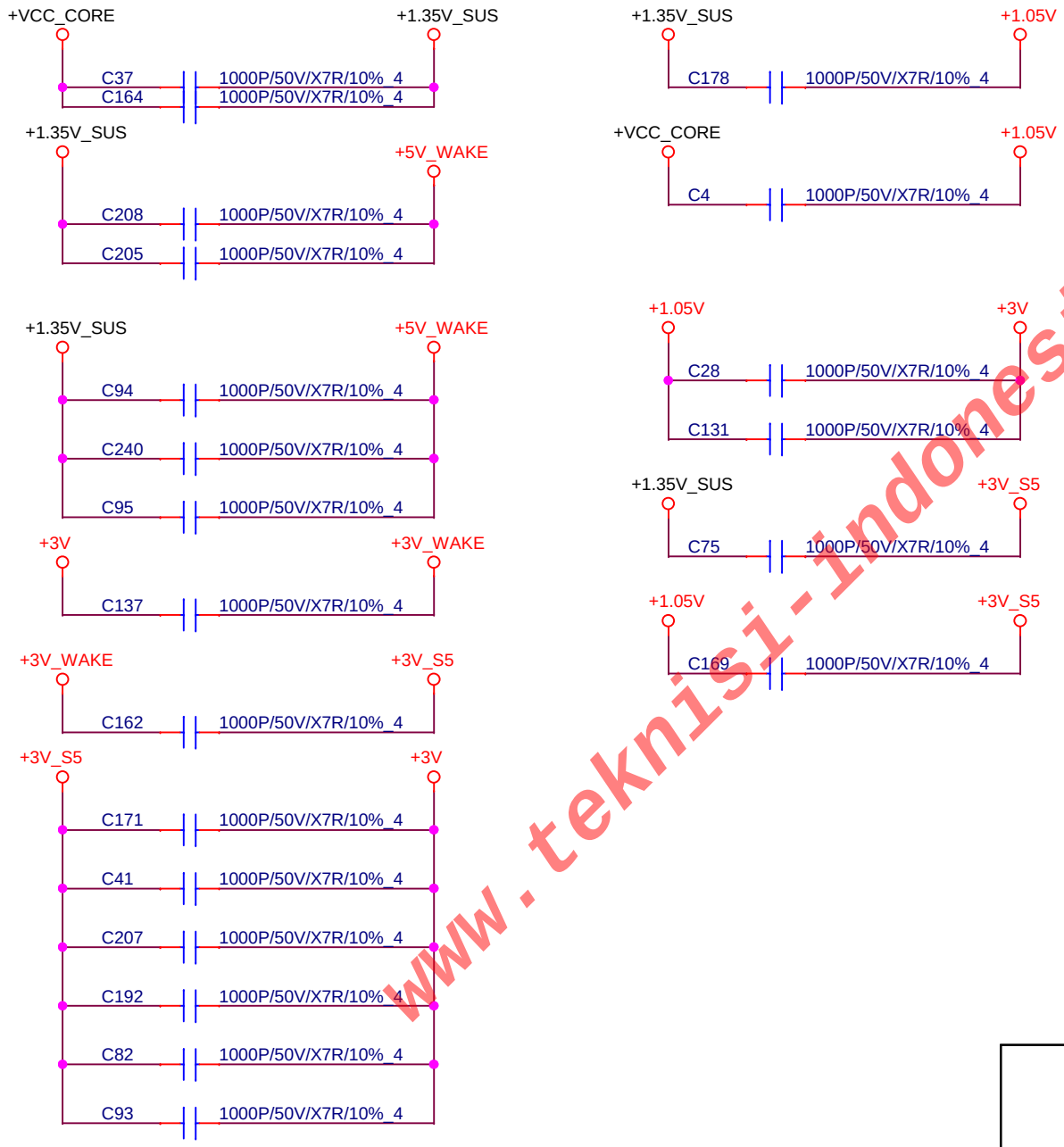
USB TO UART(CP2104-F03-GM)



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 : KR1

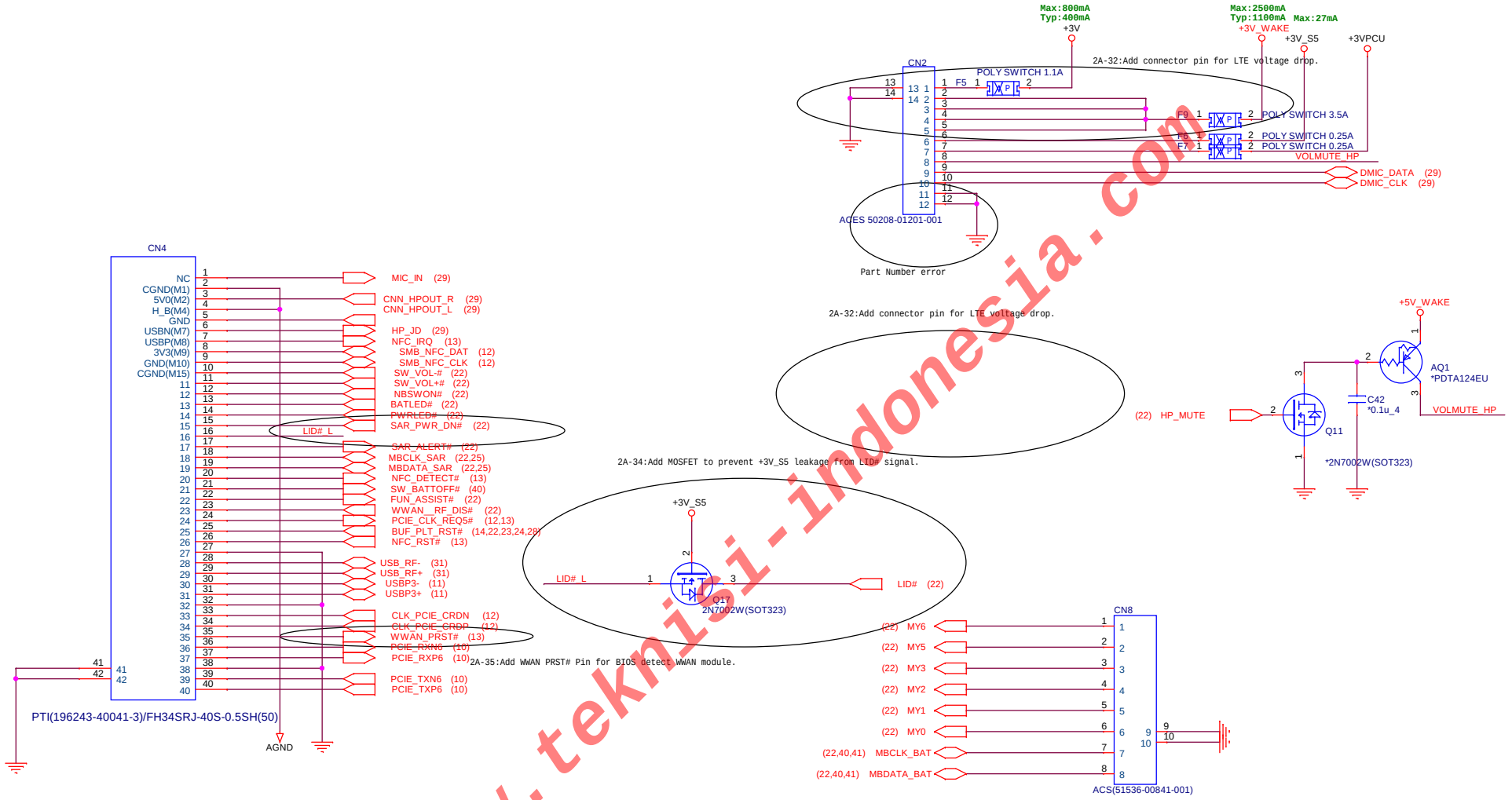
Size	Document Number	Rev
	USB TO UART(CP2104-F03-G)	1A
Date: Monday, May 13, 2013	Sheet 33 of 44	



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

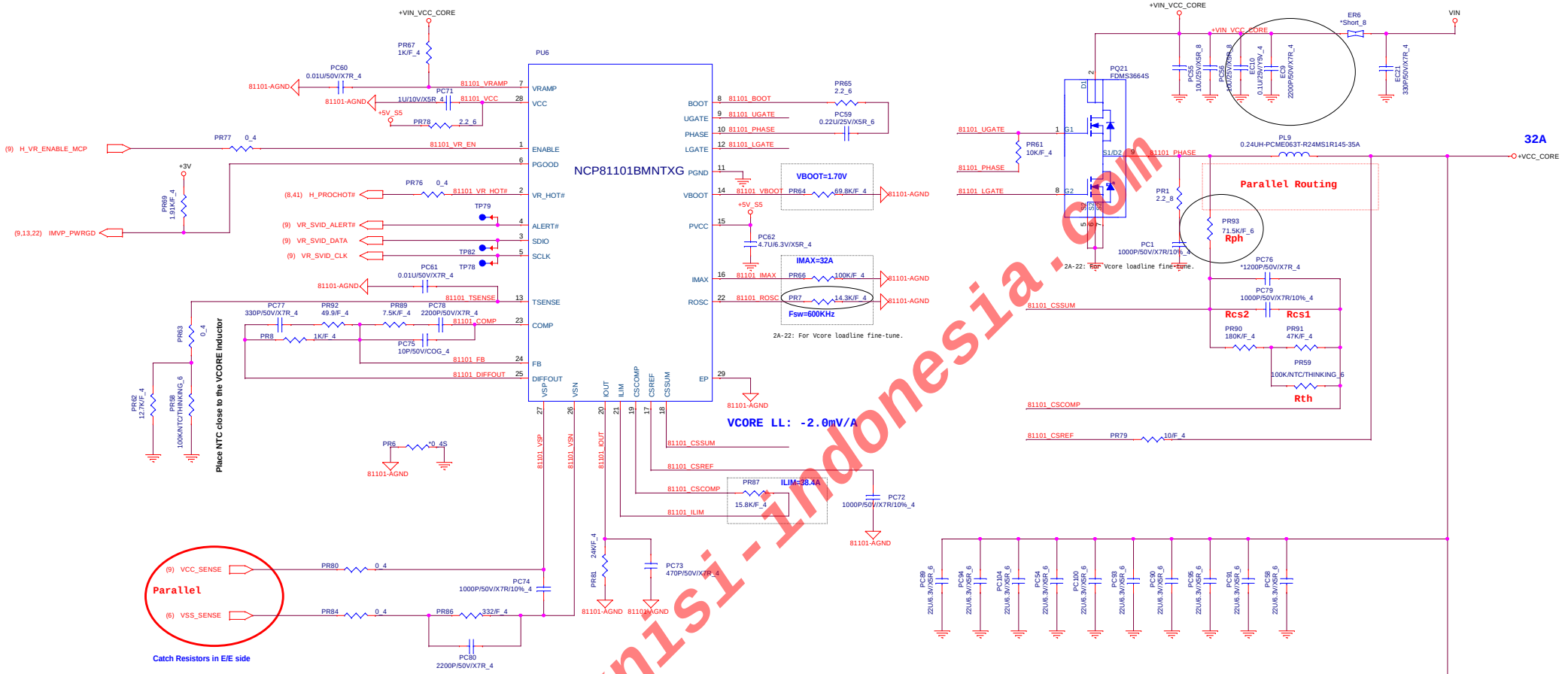
Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	USB TO I2C(FT200XD-R)	1A
Date: Monday, May 13, 2013	Sheet 34 of 44	



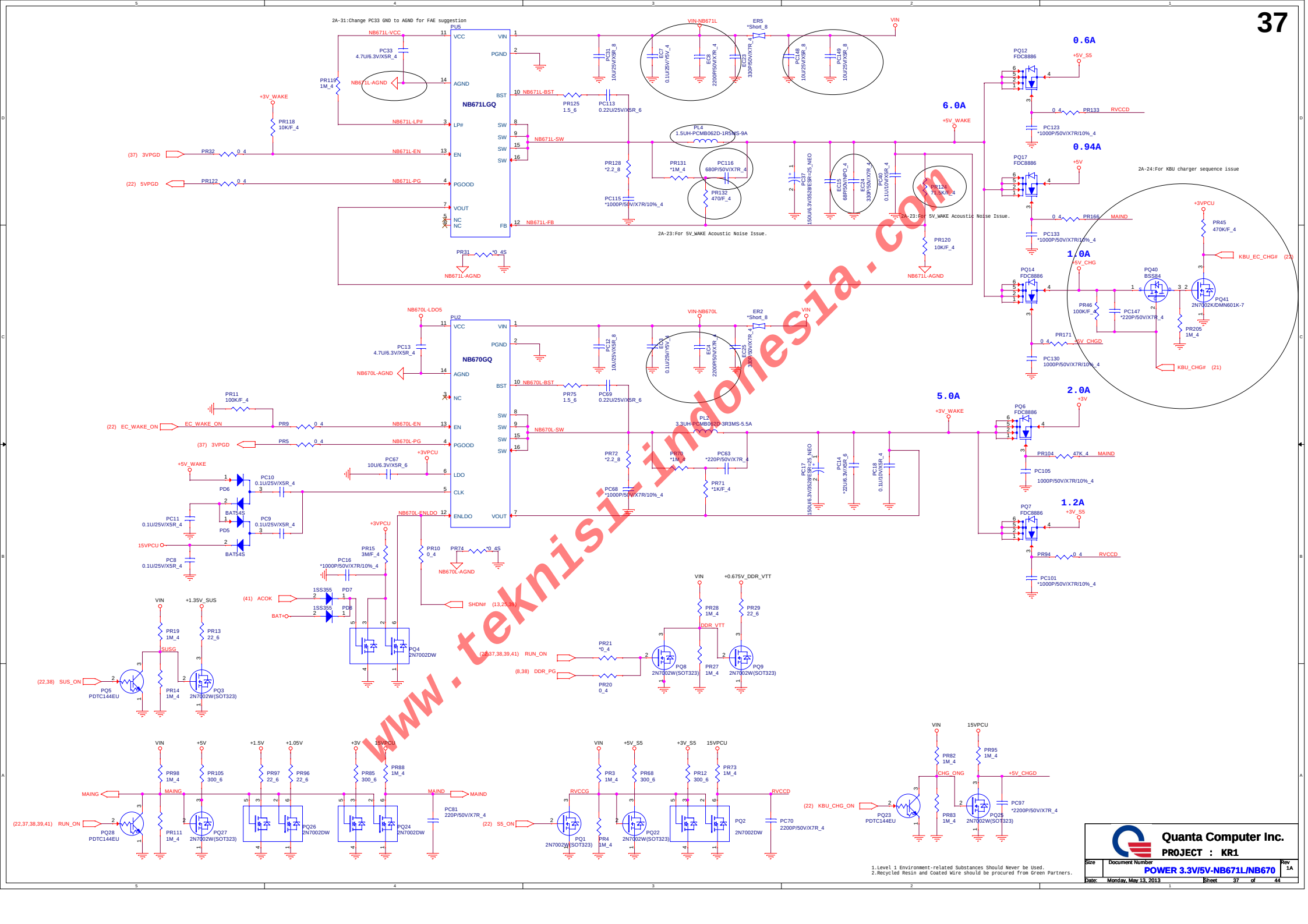
1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number: Small Board	Rev: 1A
Date: Monday, May 13, 2013	Sheet 35 of 42	

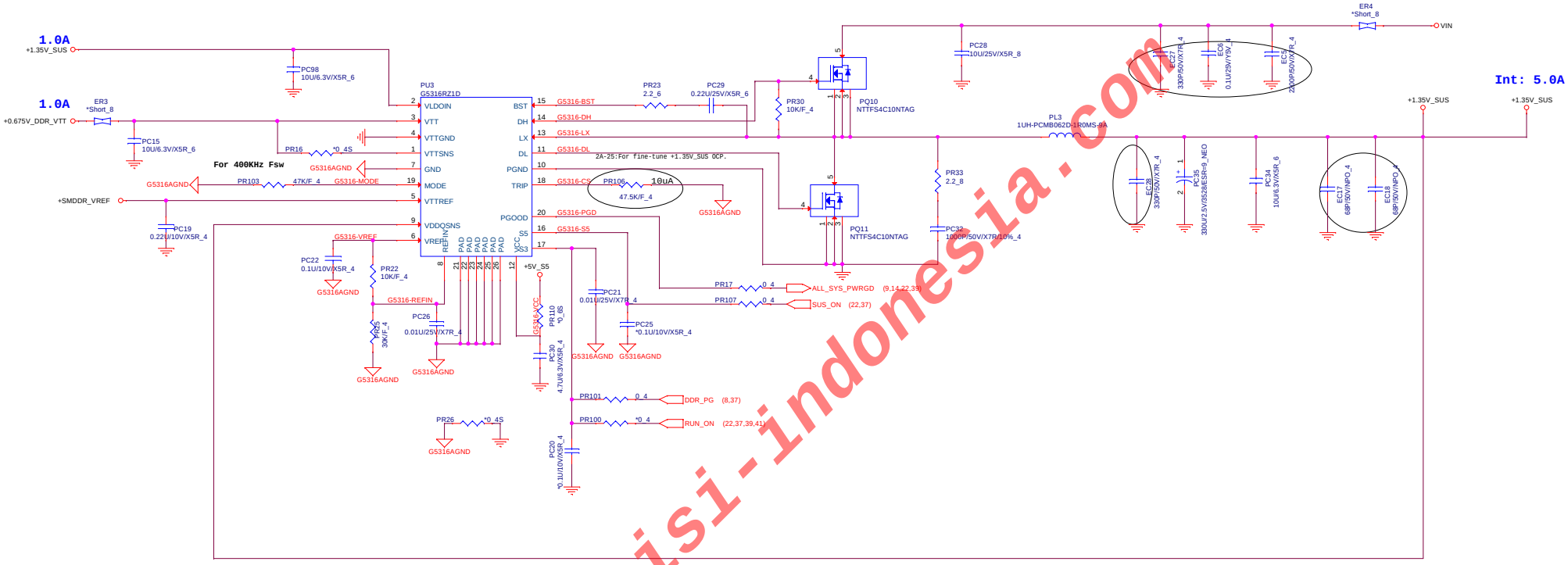


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

Quanta Computer Inc. PROJECT : KR1		
Size	Document Number +VCC_CORE (NCP81101)	Rev ES1
Date: Monday, May 13, 2013	Sheet 36 of 44	



1.35VSUS & VTT_MEM

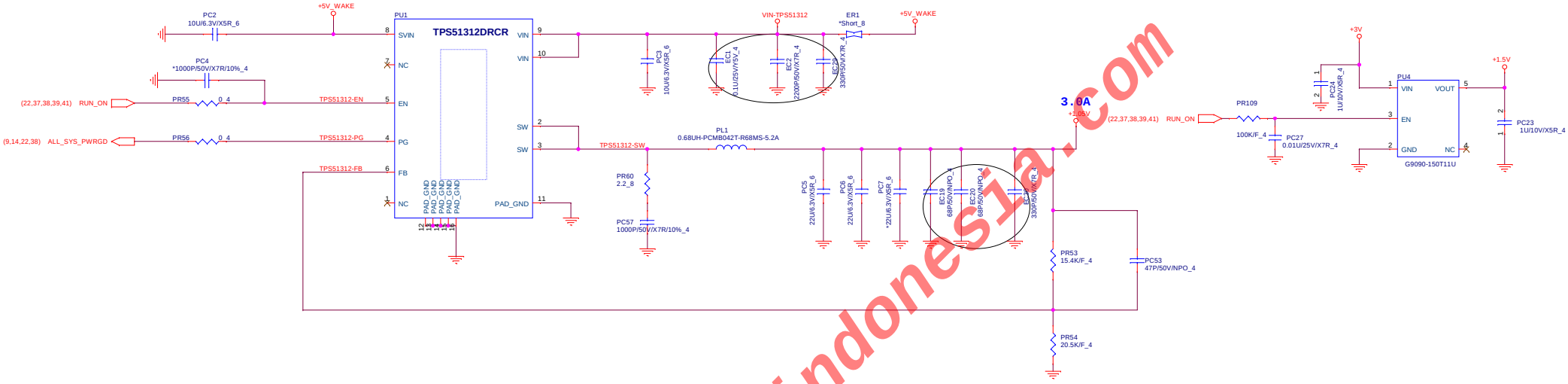


1.Level 1 Environment-related Substances Should Never be Used.
2.Recycled Resin and Coated Wire should be procured from Green Partners.

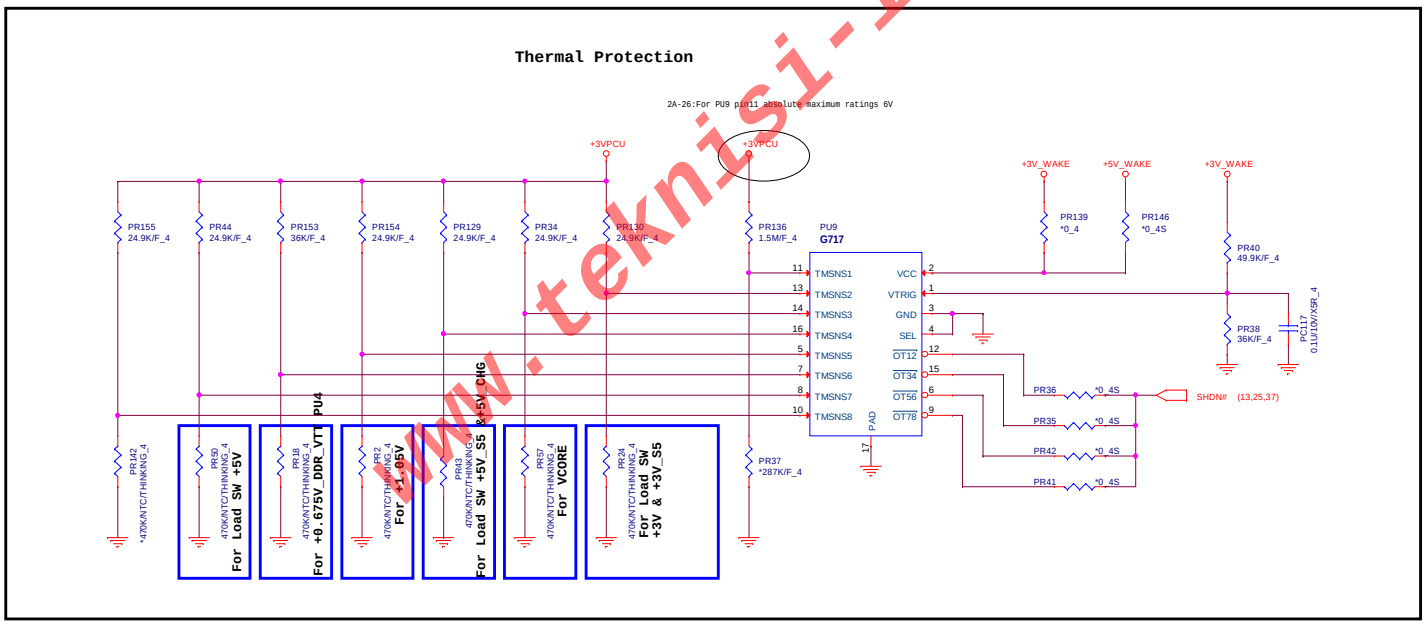
Quanta Computer Inc.
PROJECT : KR1

Size	Document Number	Rev
	POWER DDR3L(G5316)	1A
Date: Monday, May 13, 2013	Sheet 38 of 44	

+1.05V / 3.0A

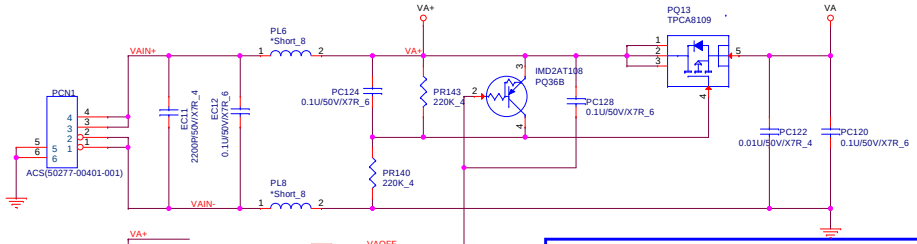


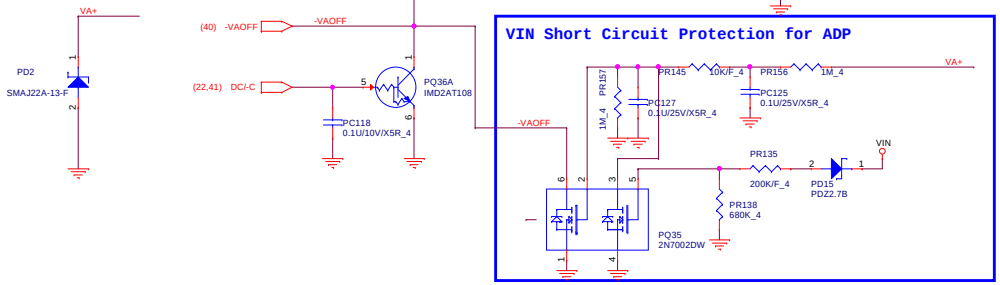
Thermal Protection



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

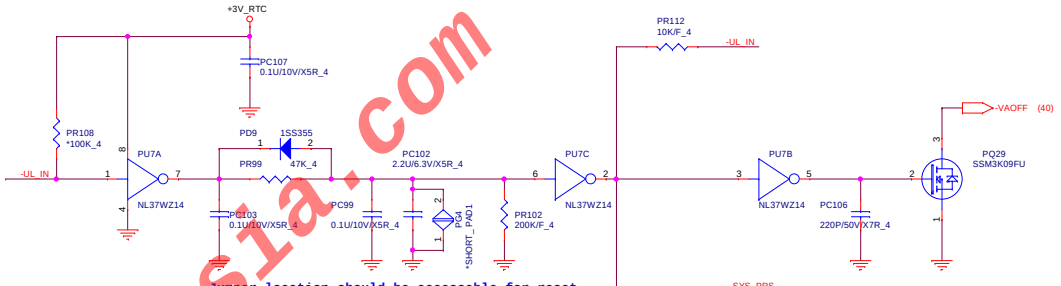
Quanta Computer Inc.		
PROJECT : KR1		
Size	Document Number	Rev
	POWER +1.05V /Thermal/+1.5V	1A
Date: Monday, May 13, 2013	Sheet 39 of 44	



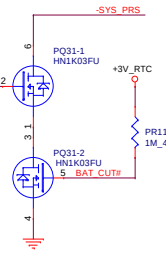


VIN Short Circuit Protection for ADP

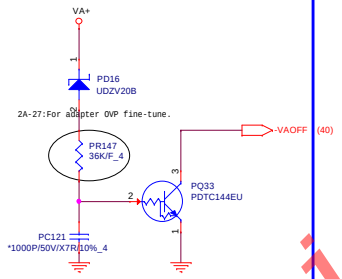
UL Latch Circuit



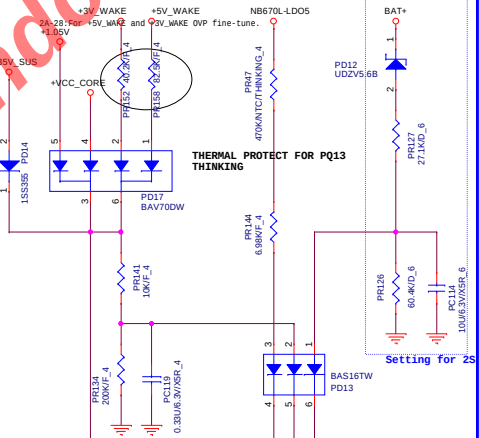
Jumper location should be accessable for reset

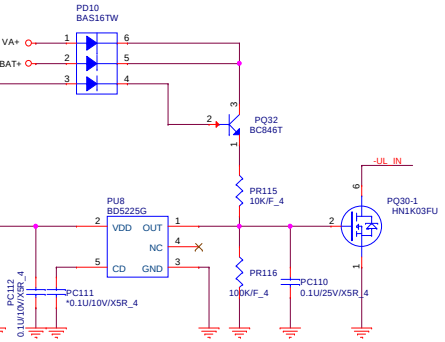


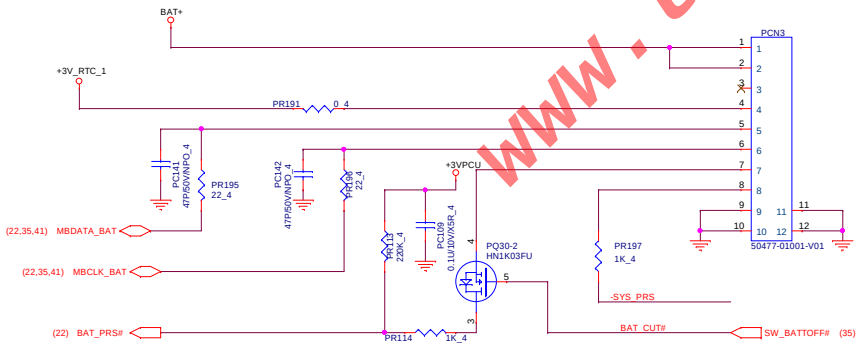
Adapter OVP



System OVP for VEDS







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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	POWER(BAT IN / ADA IN/ UL)	1A
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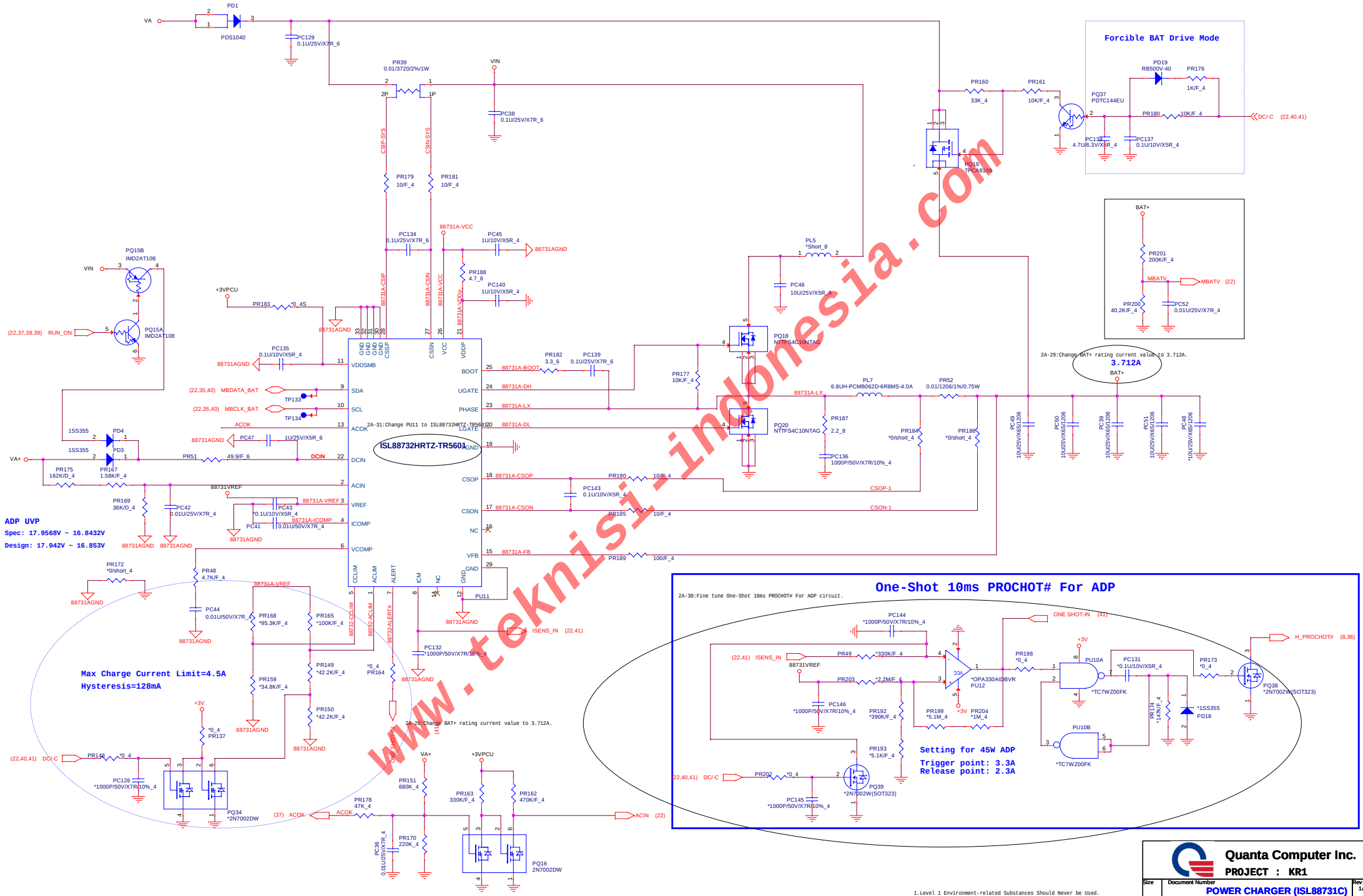

1.Level 1 Environment-related Substances Should Never be Used.
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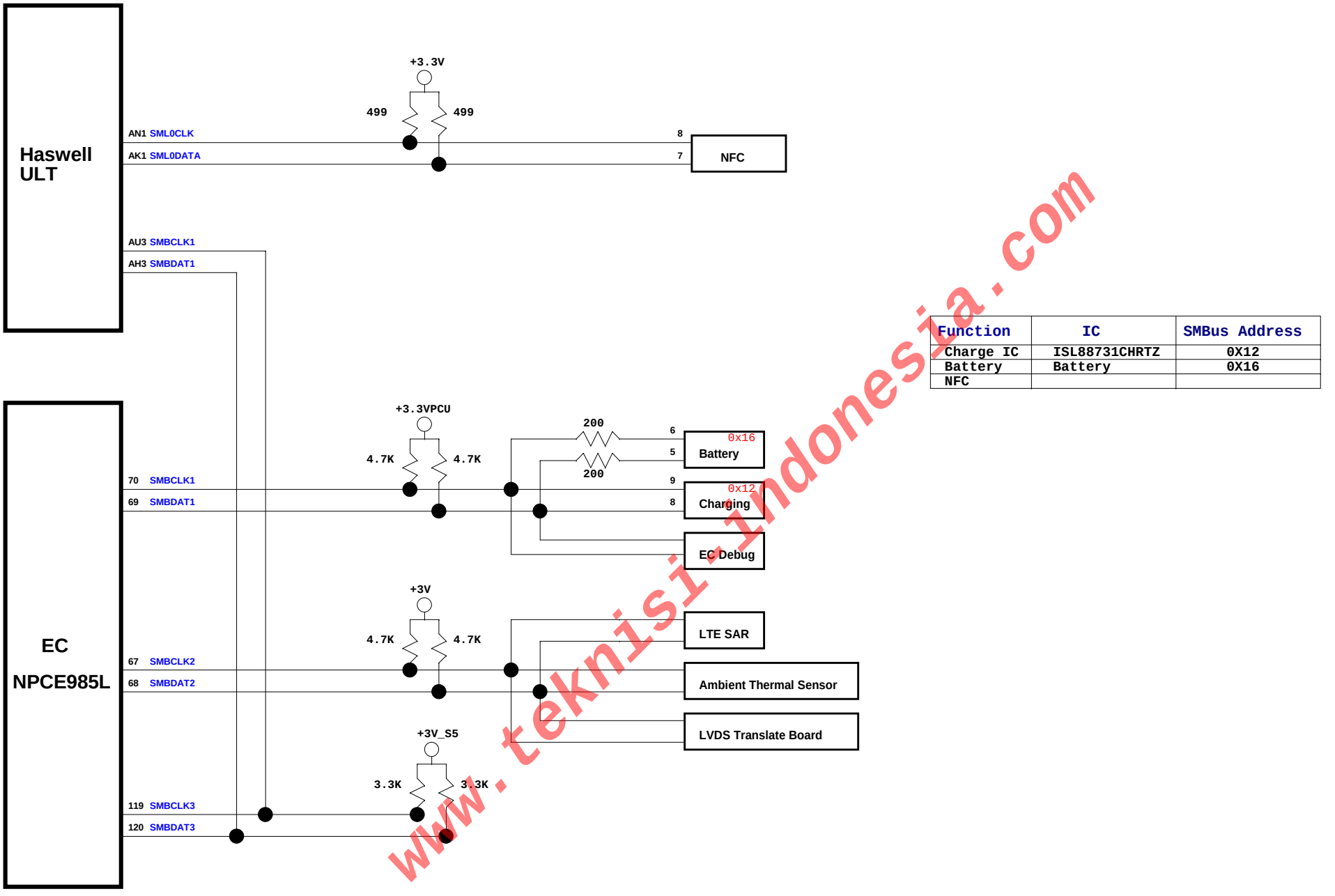

Function	IC	SMBus Address
Charge IC	ISL88731CHRTZ	0X12
Battery	Battery	0X16
NFC		

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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	Camera	1A

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Power	Voltage	S0	S3	DS3	S4 (/W RTC Wake up)	S4 (/WO RTC Wake up)	S4 (/WO CHANGE)	S4 (/W CHANGE)	S5 (/WO CHANGE)	S5 (/W CHANGE)	Ctl Signal
+3VPCU	3.3V	V	V	V	V	V	V	V	V	V	Adapter/BAT in
+3.3V_DSW	3.3V	V	V	V	V	V	V	V	V	V	DEEP_EC_EN
+3V_WAKE	3.3V	V	V	V	V			V		V	**EC_WAKE_ON**
+5V_WAKE	5V	V	V	V	V			V		V	**EC_WAKE_ON**
+5V_S5	5V	V	V		V						**S5_ON**
+3V_S5	3.3V	V	V		V						**S5_ON**
+1.35V_SUS	1.35V	V	V	V							**SUS_ON**
+3V	3.3V	V									**RUN_ON**
+5V	5V	V									**RUN_ON**
+0.675V_DDR_VTT	0.675V	V									**RUN_ON**
+1.05V	**1.05V**	V									**RUN_ON**
+1.5V	**1.5V**	V									**RUN_ON**
+VCC_CORE	**By VID**	V									**RUN_ON**

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	Power Table	1A

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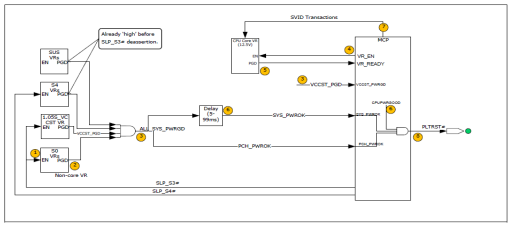
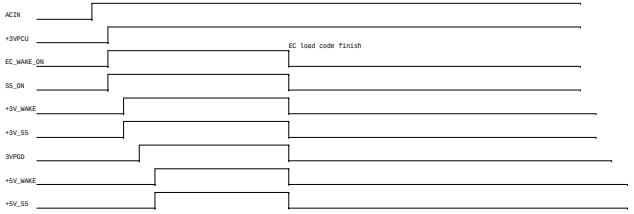
Figure 2-4. Flow Diagram for SYS_PWROK Generation – ULT Platform



AC IN --> EC LOAD CODE



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PROJECT : KR1		
Size	Document Number: Power Sequence	Rev: 1A
Date: Monday, May 13, 2013	Sheet 44 of 44	