
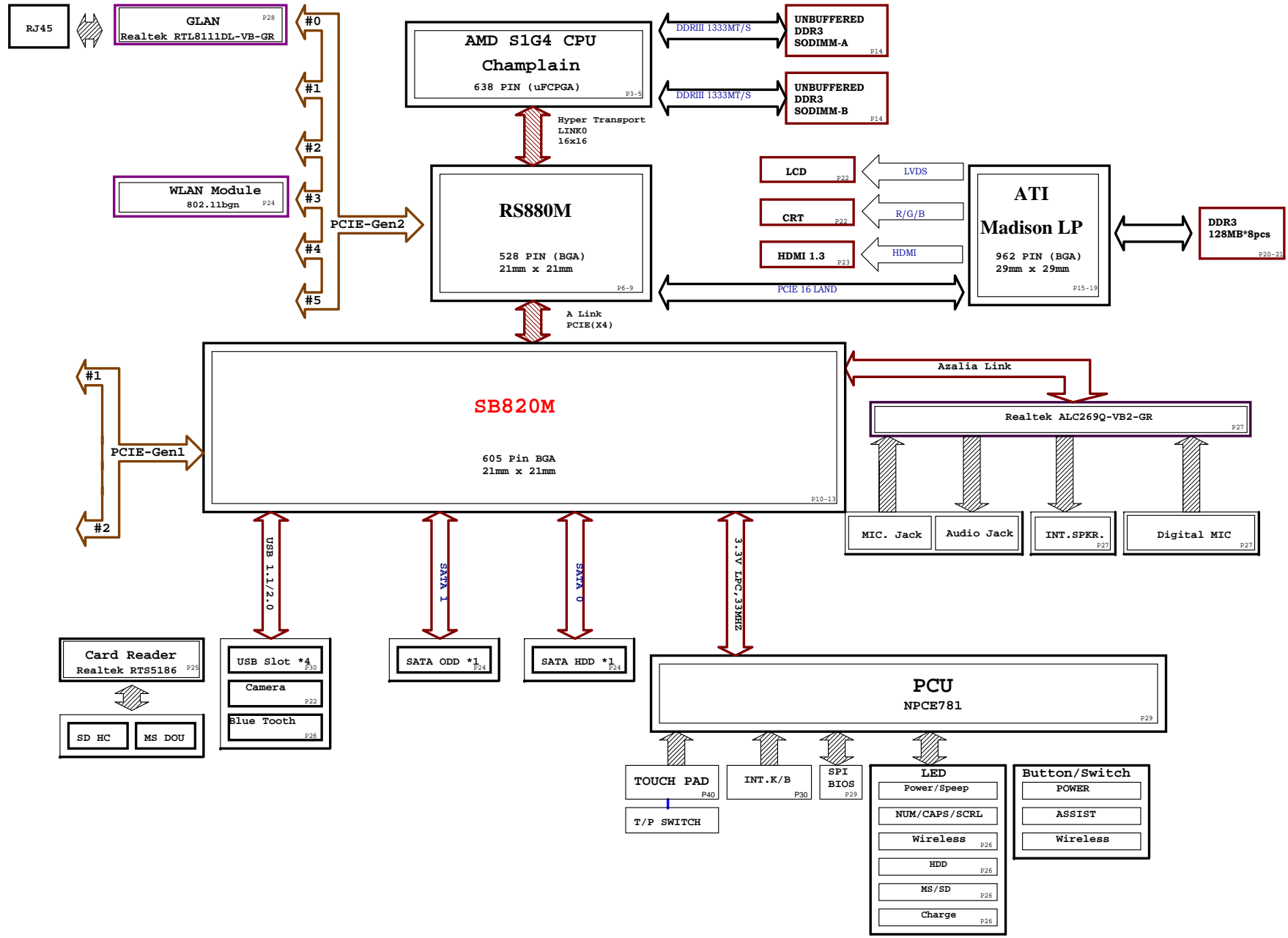


| Page | Title of schematic page | Rev. | Date |
|------|------------------------------------|------|-------|
| 01 | Page List | 2A | 12/24 |
| 02 | Block Diagram | 2A | 12/24 |
| 03 | CPU-Champlain HT/CONTROL (1/3) | 2A | 01/04 |
| 04 | CPU-Champlain MEMORY (2/3) | 1B | 12/16 |
| 05 | CPU-Champlain POWER/GND (3/3) | 1B | 12/08 |
| 06 | NB-RS880M HT/SP-MEM (1/4) | 1B | 12/08 |
| 07 | NB-RS880M GFX/PCIE (2/4) | 1A | 09/24 |
| 08 | NB-RS880M SYSTEM (3/4) | 1A | 09/24 |
| 09 | NB-RS880M POWER (4/4) | 1A | 09/24 |
| 10 | SB-SB820M PCI/CLK/LPC (1/4) | 1A | 09/24 |
| 11 | SB-SB820M AUDIO/USB (2/4) | 1A | 09/24 |
| 12 | SB-SB820M SATA (3/4) | 1B | 12/08 |
| 13 | SB-SB820M POWER (4/4) | 1A | 09/24 |
| 14 | DDR3 SODIMM* 2 (5.2mm+9.2mm) | 2A | 12/24 |
| 15 | ATI-Madison LP PCIE/LVDS (1/5) | 2A | 12/24 |
| 16 | ATI-Madison LP MAIN I/O (2/5) | 2A | 12/24 |
| 17 | ATI-Madison LP POWER/GND (3/5) | 2A | 12/24 |
| 18 | ATI-Madison LP Display POWER (4/5) | 2A | 12/24 |
| 19 | ATI-Madison LP MEM I/F (5/5) | 2A | 12/24 |
| 20 | ATI-Madison LP (DDR3 V-ram a) | 2A | 12/24 |
| 21 | ATI-Madison LP (DDR3 V-ram b) | 1B | 12/08 |
| 22 | CRT/LVDS | 2A | 12/24 |

| Page | Title of schematic page | Rev. | Date |
|------|----------------------------|------|-------|
| 23 | HDMI | 1B | 12/09 |
| 24 | WLAN/HDD/ODD | 1B | 12/08 |
| 25 | Card Reader RTS5186 | 1B | 12/08 |
| 26 | Express Card/BT/LED | 1B | 12/08 |
| 27 | Codec-ALC269Q VB5 GR | 1B | 12/08 |
| 28 | LAN RTL8111E | 1B | 12/08 |
| 29 | NPCE781 | 1B | 12/08 |
| 30 | KB/USB/FAN/PS | 1B | 12/09 |
| 31 | VCORE(ISL6265A) | 1A | 09/24 |
| 32 | 3VPCU&5VPCU(PM6686) | 1A | 09/24 |
| 33 | 1.5VSUS/VTT_MEM | 1A | 09/24 |
| 34 | DYN_VCC1.1(OZ8116LN) | 1A | 09/24 |
| 35 | VCC1.1(OZ8116LN)-7A | 1A | 09/24 |
| 36 | VGA_CORE(OZ8116)-16A | 1A | 09/24 |
| 37 | VCC1.8/0.9/2.5/1.0 | 1A | 09/24 |
| 38 | POWER(BAT IN / ADA IN/ UL) | 1A | 09/24 |
| 39 | CHARGER (ISL6252A) | 1A | 09/24 |
| 40 | Small board connector | 1A | 09/24 |
| 41 | Power Sequence | | |
| 42 | CHANGE LIST | | |
| | | | |
| | | | |

1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

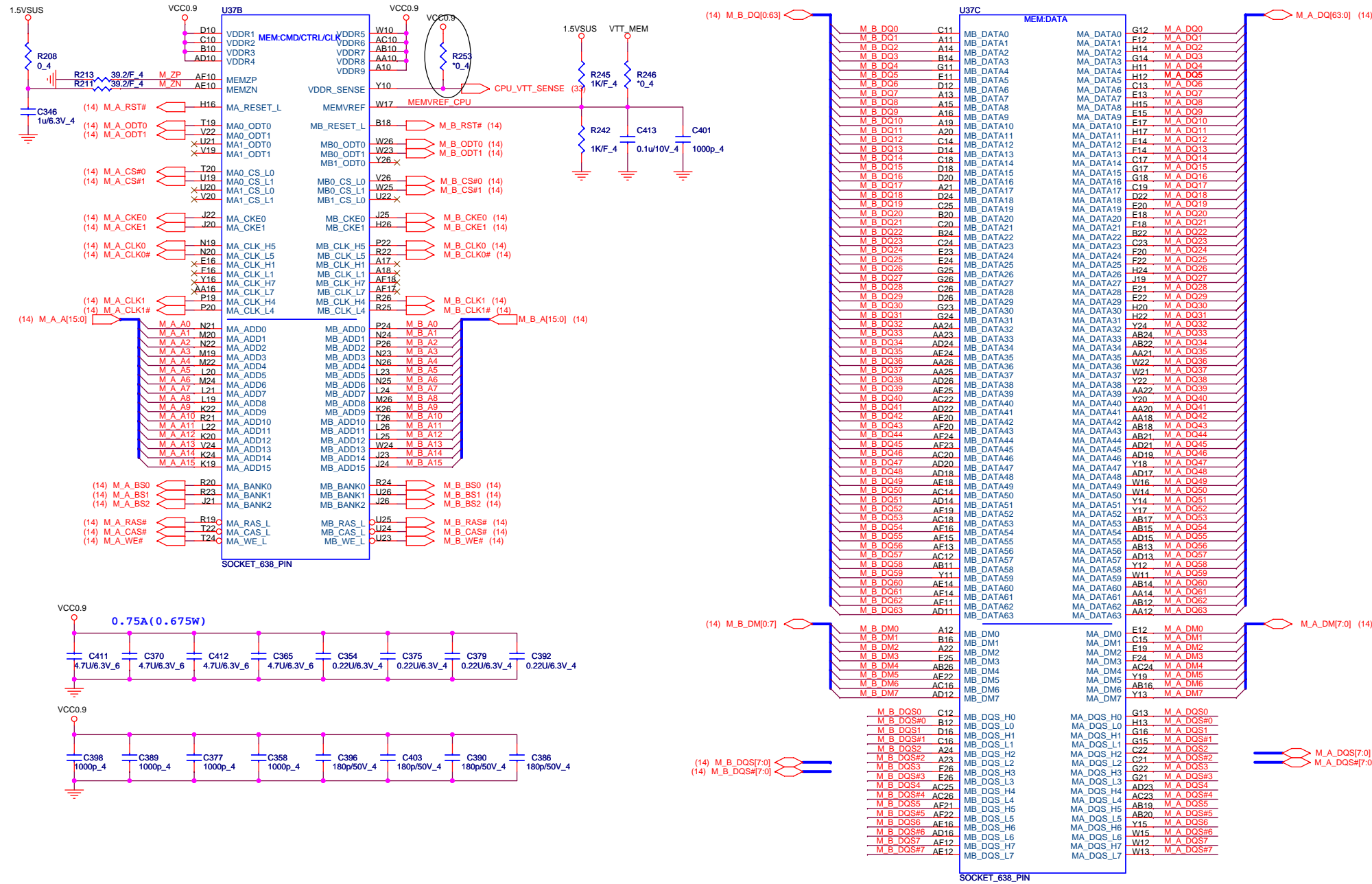
| | | |
|---|-----------------------------|---------------|
|  Quanta Computer Inc. PROJECT : NE8 | | Rev |
| | | 2A |
| Size | Document Number | |
| AMD Danube | | |
| Date: | Wednesday, January 27, 2010 | Sheet 1 of 42 |



1.Level 1 Environment-related Substances should NEVER be used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Processor Memory Interface

CPU_VDDR : 35W->0.9V
45W->1.05V

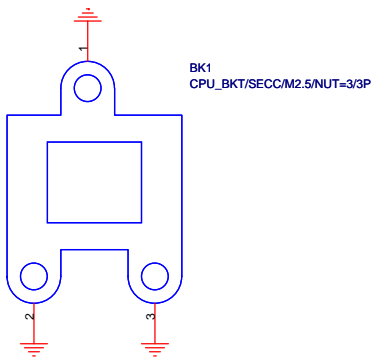
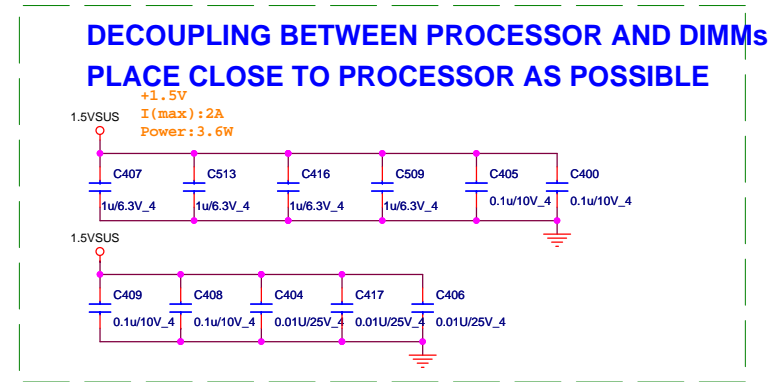
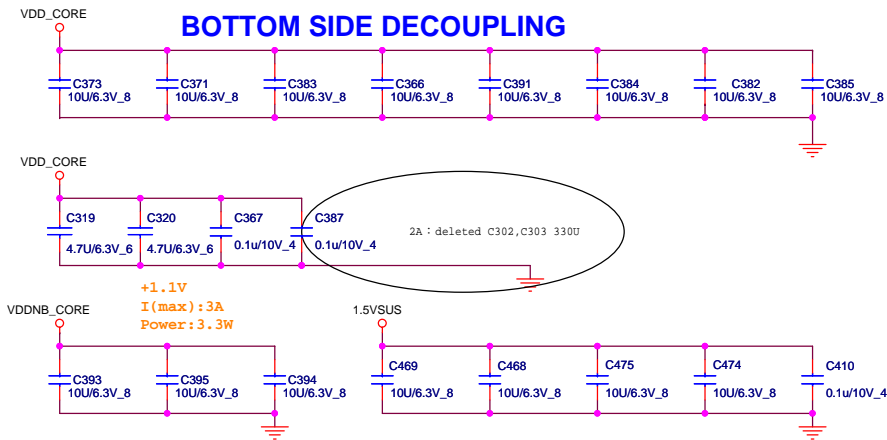
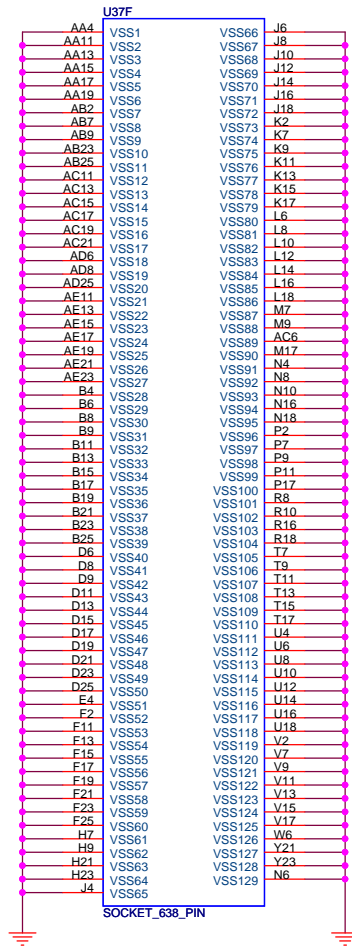
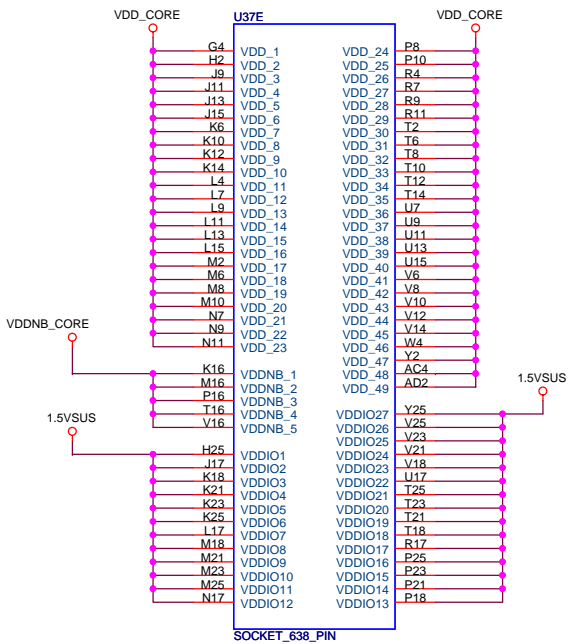


Quanta Computer Inc.
PROJECT : NE8
CPU MEMORY(2/3)

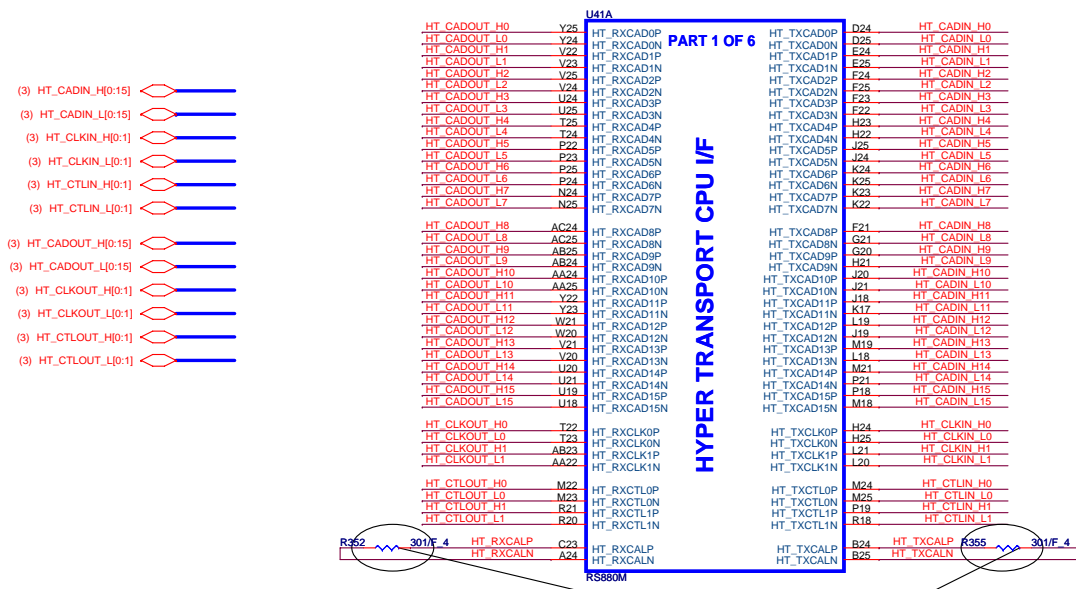
| | | |
|-----------------------------------|-----------------|--------|
| Size | Document Number | Rev 2A |
| Date: Wednesday, January 27, 2010 | Sheet 4 of 42 | |

1.Level 1 Environment-related Substances should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| Socket Type | QCI P/N |
|-------------|-------------|
| Normal | DG0^8000018 |
| 90 degree | DG0^8000023 |

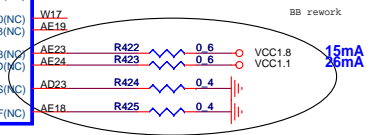
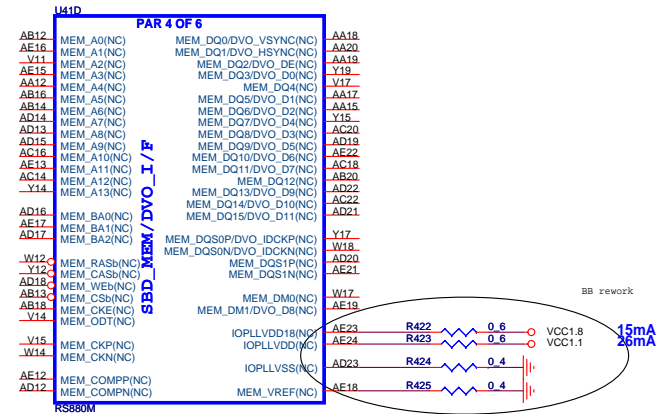


1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

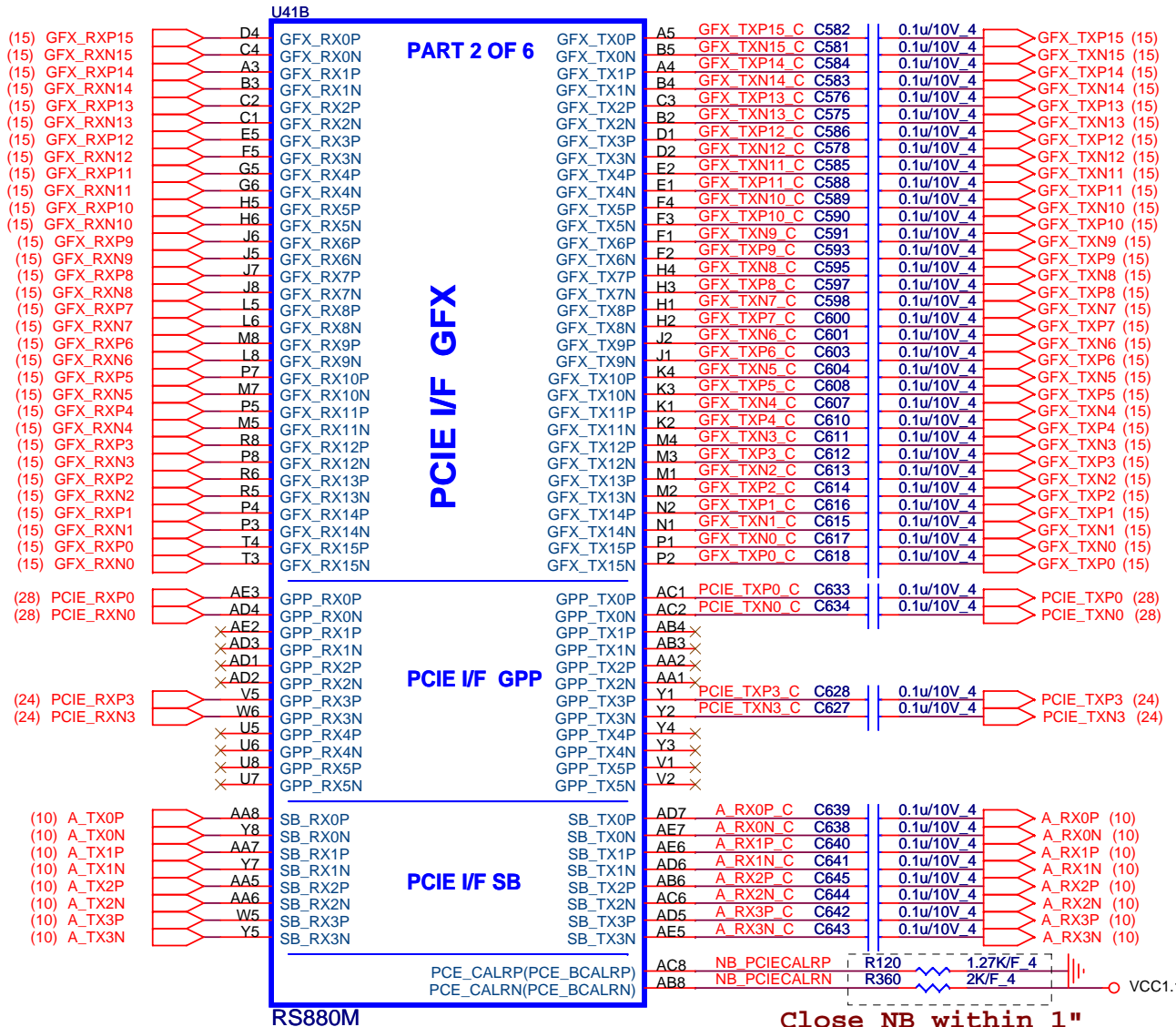


1A: Guam 301 ohm /NBDC 1.21K
CLK Gen or SB820 mount different.

This block is for Side Port only , others can remove some components



1.Level 1 Environment-related Substances should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



Layout Swap
 TX11, TX10, TX9,
 TX8, TX7, TX6, TX5,
 TX4, TX3, TX2, TX0

GLAN

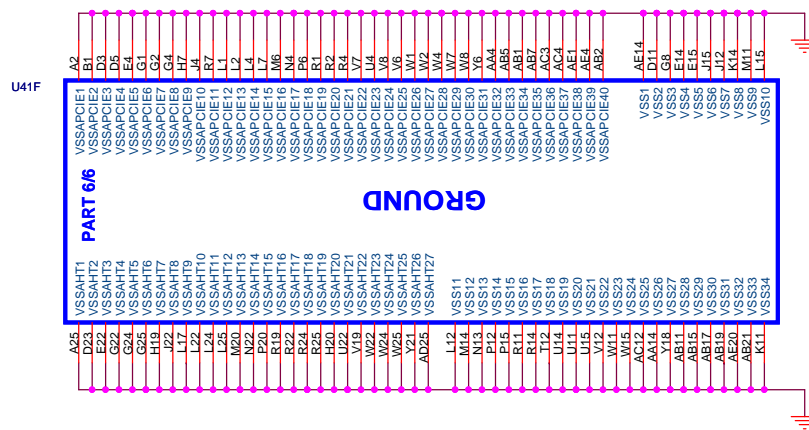
WLAN

Close NB within 1"

Quanta Computer Inc.
PROJECT : NE8

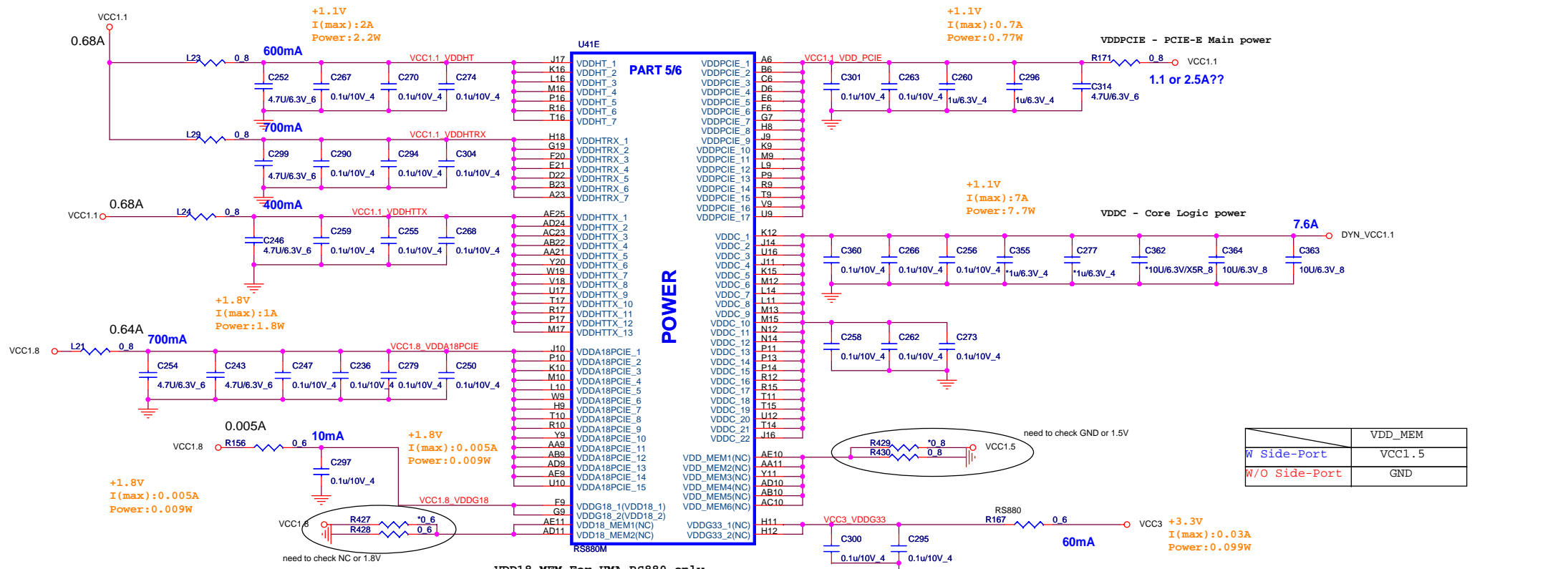
| | | |
|-------|-----------------------------|---------------|
| Size | Document Number | Rev |
| | RS880M GFX/PCIE(2/4) | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 7 of 42 |

1.Level 1 Environment-related Substances Should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



RS880M/RX881 POWER DIFFERENCE TABLE

| PIN NAME | RX881 | RS880M | PIN NAME | RX881 | RS880M |
|------------|-------|--------|---------------|-------|--------|
| VDDHT | +1.1V | +1.1V | IOPLLVD | NC | +1.1V |
| VDDHTRX | +1.1V | +1.1V | AVDD | NC | +3.3V |
| VDDHTTX | +1.1V | +1.1V | AVDDDI | NC | +1.8V |
| VDDA18PCIE | +1.8V | +1.8V | AVDDQ | NC | +1.8V |
| VDDG18 | +1.8V | +1.8V | PLLVD | NC | +1.1V |
| VDD18_MEM | NC | +1.8V | PLLVD18 | NC | +1.8V |
| VDDPCIE | +1.1V | +1.1V | VDDA18PCIEPLL | +1.8V | +1.8V |
| VDDC | +1.1V | +1.1V | VDDA18HTPLL | +1.8V | +1.8V |
| VDD_MEM | NC | +1.5V | VDDLTP18 | NC | +1.8V |
| VDDG33 | NC | +3.3V | VDDL18 | NC | +1.8V |
| IOPLLVD18 | NC | +1.8V | VDDL33 | NC | NC |



VDD18_MEM For UMA RS880 only
 Not applicable to RX881
 memory I/O transform

| | VDD_MEM |
|---------------|---------|
| W Side-Port | VCC1.5 |
| W/O Side-Port | GND |

| | VDD18_MEM |
|---------------|-----------|
| W Side-Port | VCC1.8 |
| W/O Side-Port | GND |

Quanta Computer Inc.
 PROJECT : NE8

Size Document Number Rev 2A

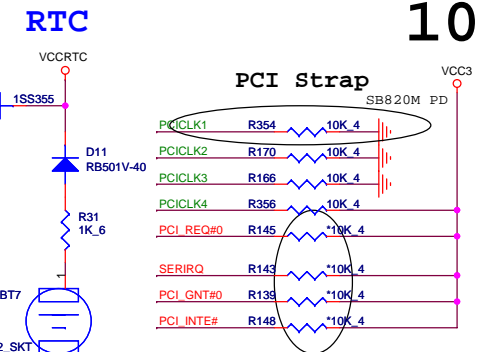
RS880M POWER(4/4)

Date: Wednesday, January 27, 2010 Sheet 9 of 42

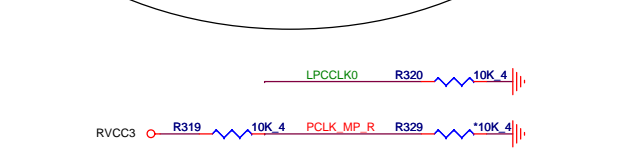
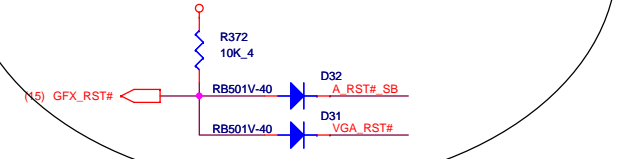
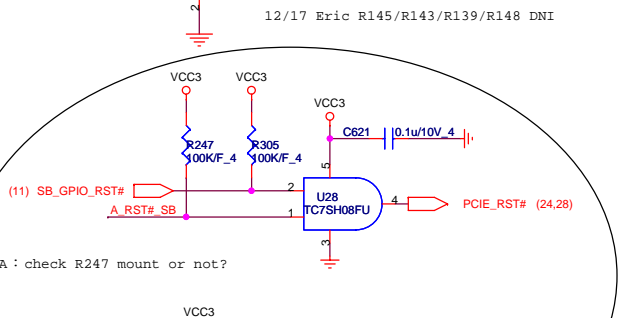
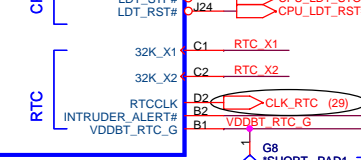
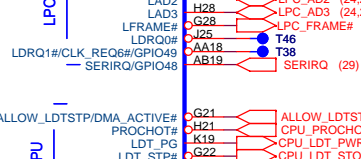
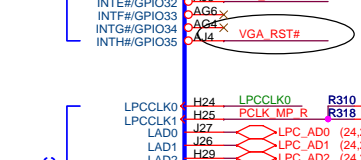
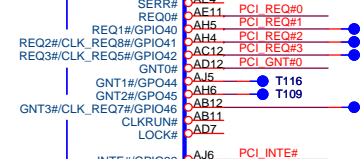
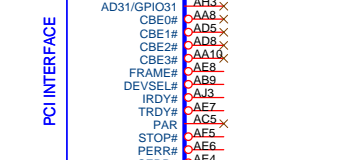
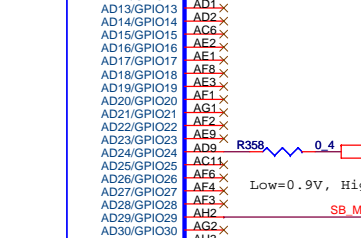
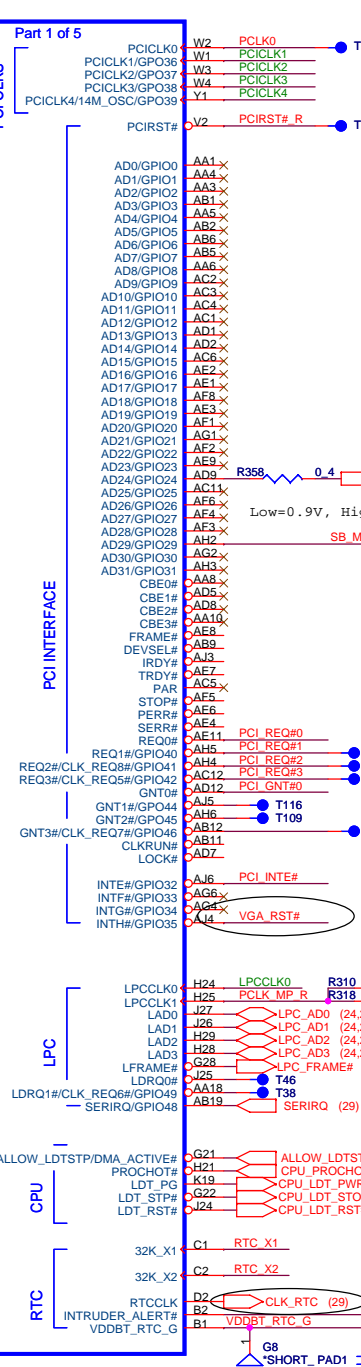
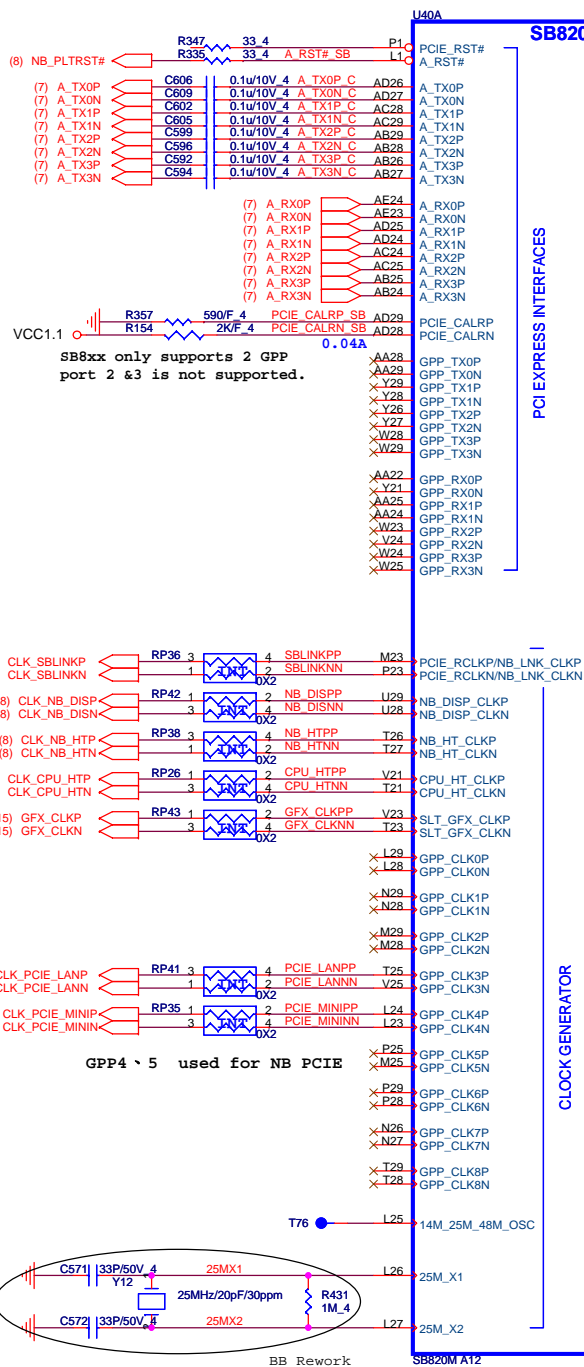
1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Strap Table

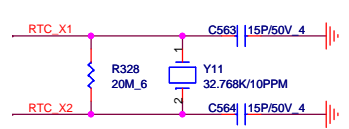
| PCI_CLK1 | PCI_CLK2 | PCI_CLK3 | PCI_CLK4 |
|--------------------|---------------------------|---------------------------|-------------------------------------|
| ALLOW PCIe Gen2 | Watchdog Timer Enable | USE DEBUG STRAPS | non_Fusion CLOCK MODE DEFAULT |
| FORCE PCIe Gen1 | Watchdog Timer Disable | IGNORE DEBUG STRAPS | Fusion CLOCK MODE |
| DEFAULT | DEFAULT | DEFAULT | |



10



| LPCLK0 | LPCLK1 |
|-----------------------|-----------------------------|
| H=Enable embedded EC | H=Enable Internal CLK Gen. |
| L=Disable embedded EC | L=Disable Internal CLK Gen. |

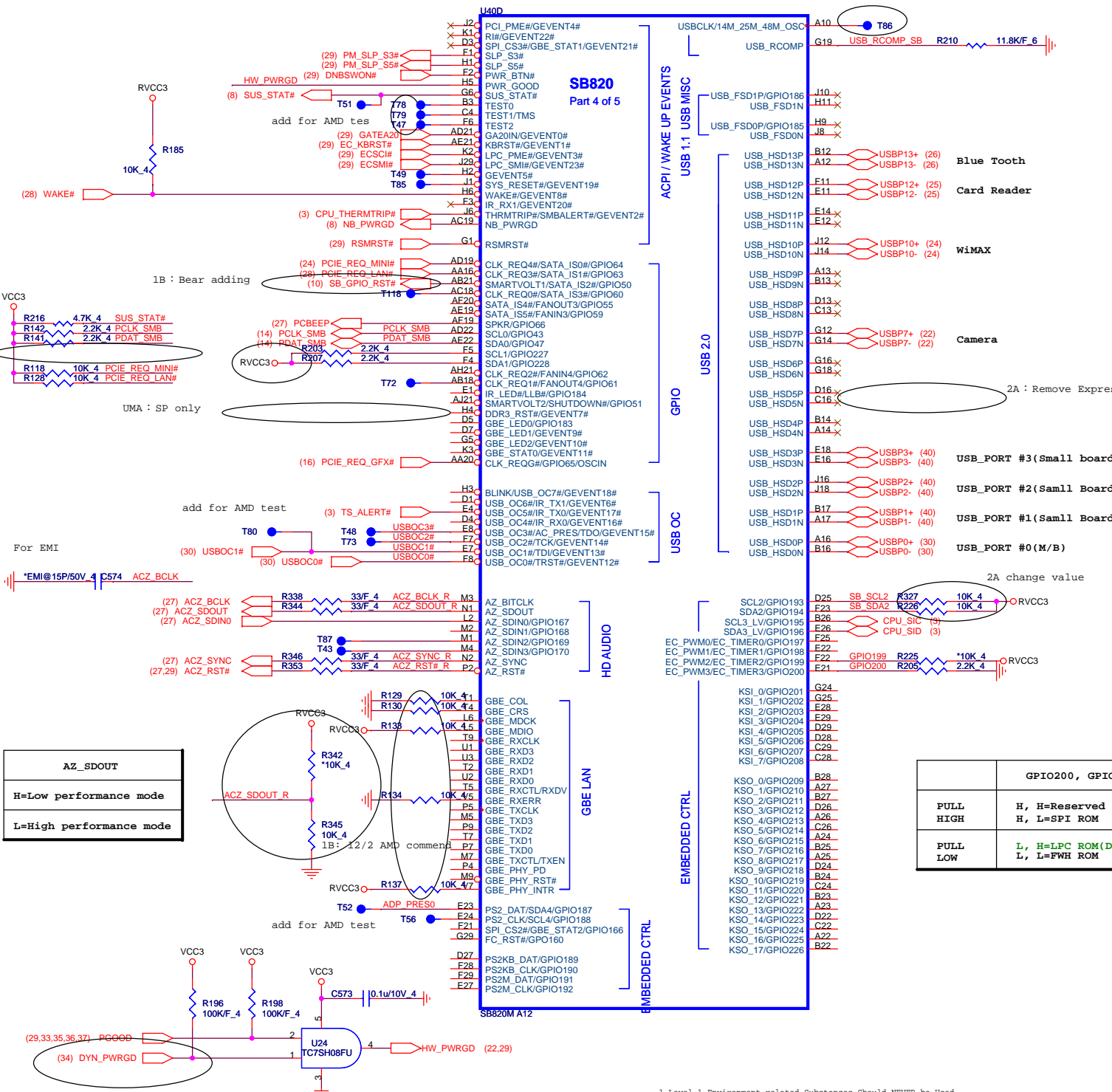


Quanta Computer Inc.
PROJECT : NE8

Size: Document Number **SB820 PCI/CLK/LPC(1/4)** Rev 2A

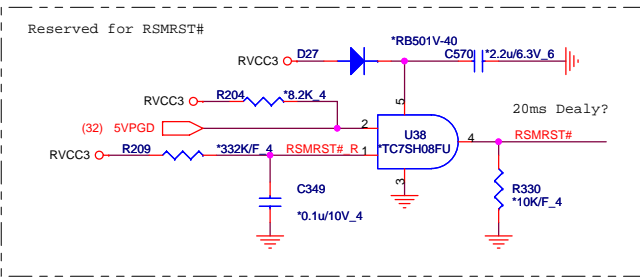
Date: Thursday, January 28, 2010 Sheet 10 of 42

1. Level 1 Environment-related Substances Should NEVER be Used.
2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

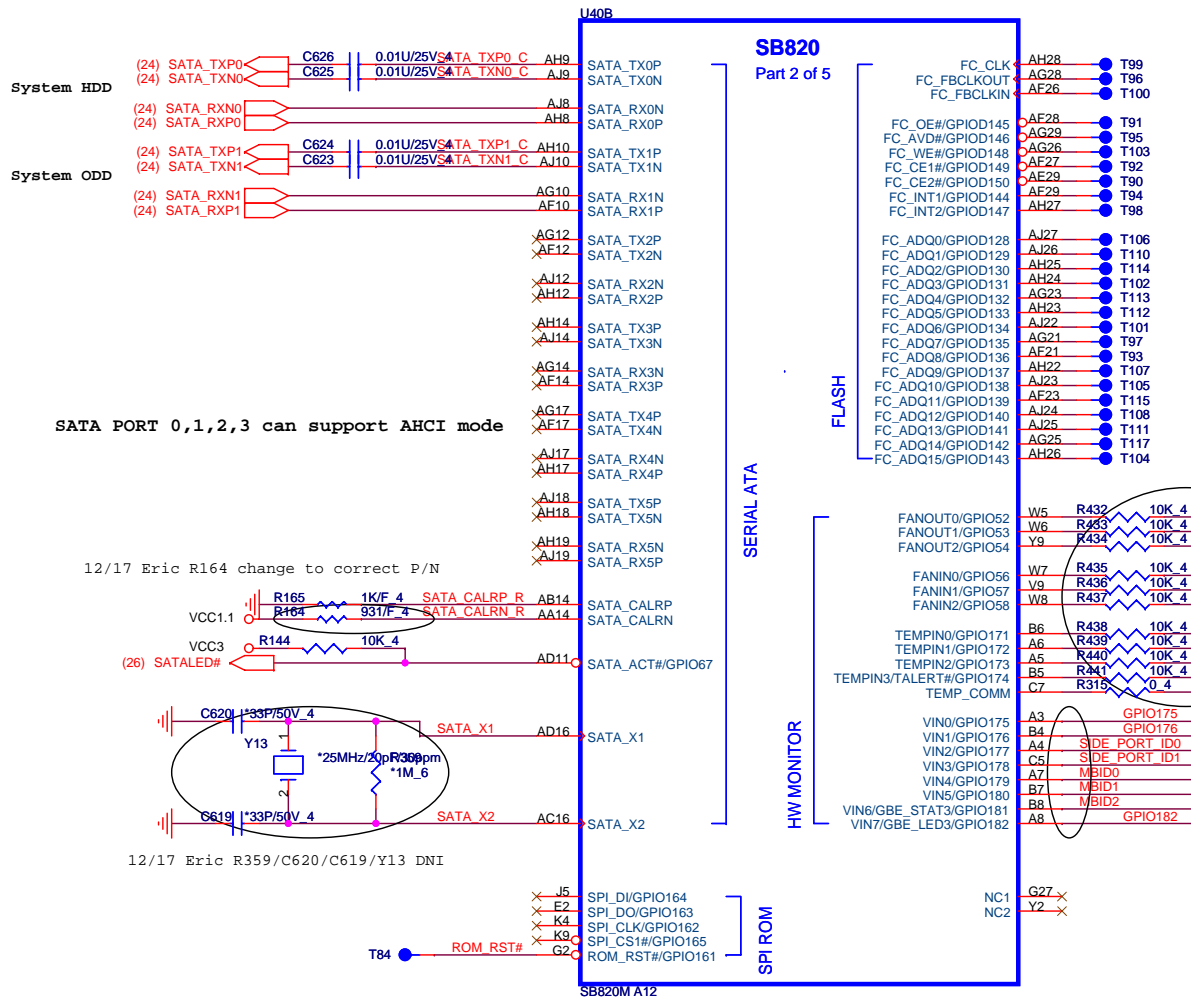


| AZ_SDOUT | |
|-------------------------|--|
| H=Low performance mode | |
| L=High performance mode | |

| | GPIO200, GPIO199 |
|-----------|---------------------------------------|
| PULL HIGH | H, H=Reserved H, L=SPI ROM |
| PULL LOW | L, H=LPC ROM(Default) L, L=FWH ROM |



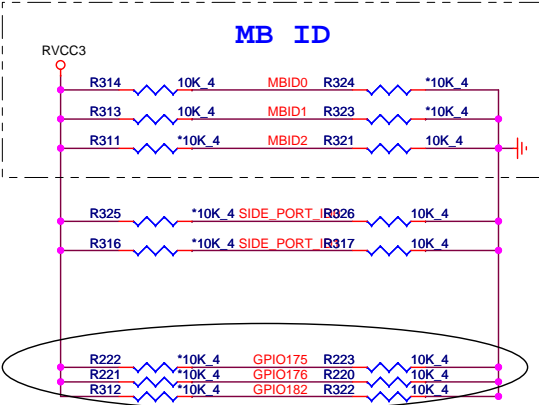
1.Level 1 Environment-related Substances should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



GPIOD[150:128] are open drain GPIO pins where as GPIOD160 is an open drain GPO pin. These pins are not programmed to GPIO mode by default.

| ID2 | ID1 | ID0 | |
|-----|-----|-----|----------------------|
| 0 | 0 | 0 | Danube UMA |
| 0 | 0 | 1 | Danube UMA+Side port |
| 0 | 1 | 0 | Danube+Park XT |
| 0 | 1 | 1 | Danube+Madison LP |
| 1 | 0 | 0 | Danube+M92 XTX |
| 1 | 0 | 1 | |
| 1 | 1 | 0 | |
| 1 | 1 | 1 | |

| | NON | SAMSUNG | HYNIX | |
|--------|-----|---------|-------|---|
| SP ID0 | 0 | 1 | 0 | 1 |
| SP ID1 | 0 | 0 | 1 | 1 |



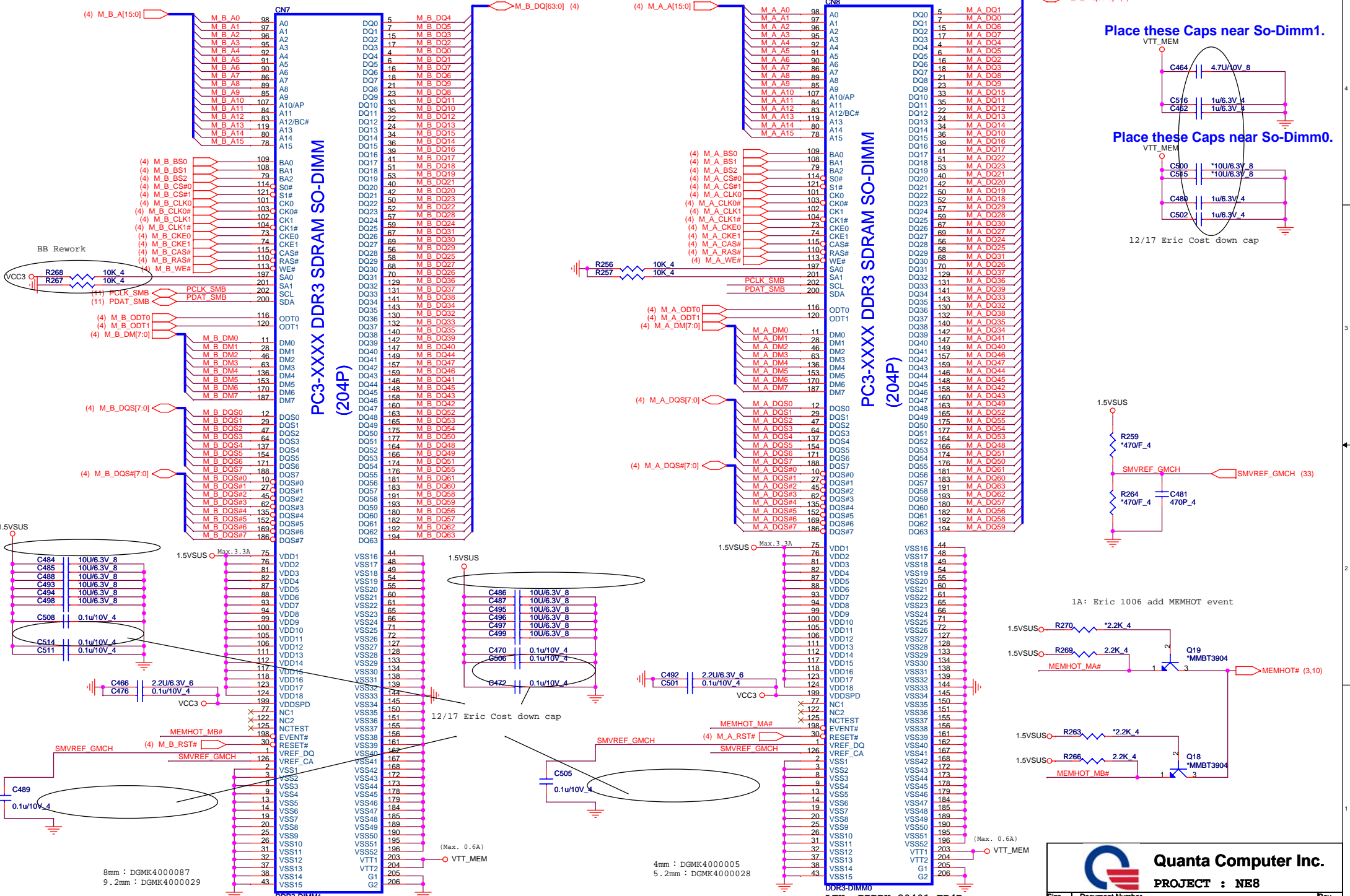
1. Level 1 Environment-related Substances should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Quanta Computer Inc.
 PROJECT : NE8

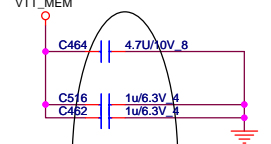
| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | SB820 SATA(2/4) | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 12 of 42 |

(H=9.2mm)

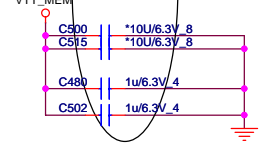
(H=5.2mm)



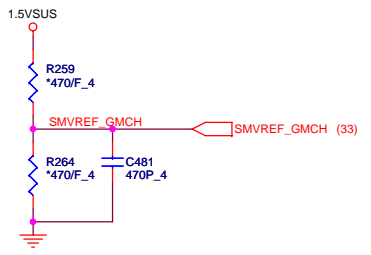
Place these Caps near So-Dimm1.



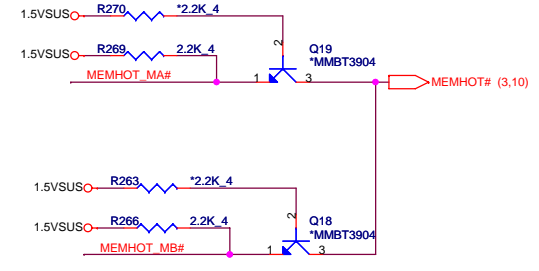
Place these Caps near So-Dimm0.



12/17 Eric Cost down cap



1A: Eric 1006 add MEMHOT event



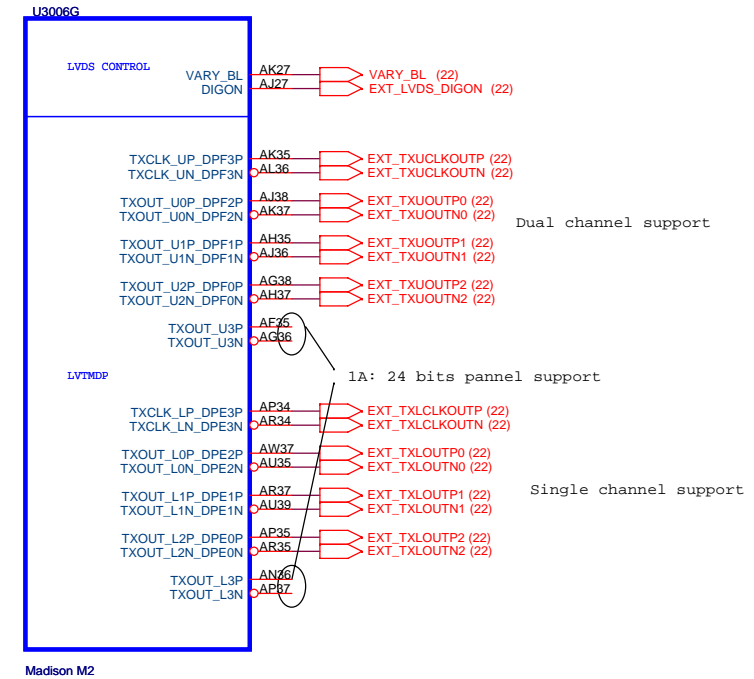
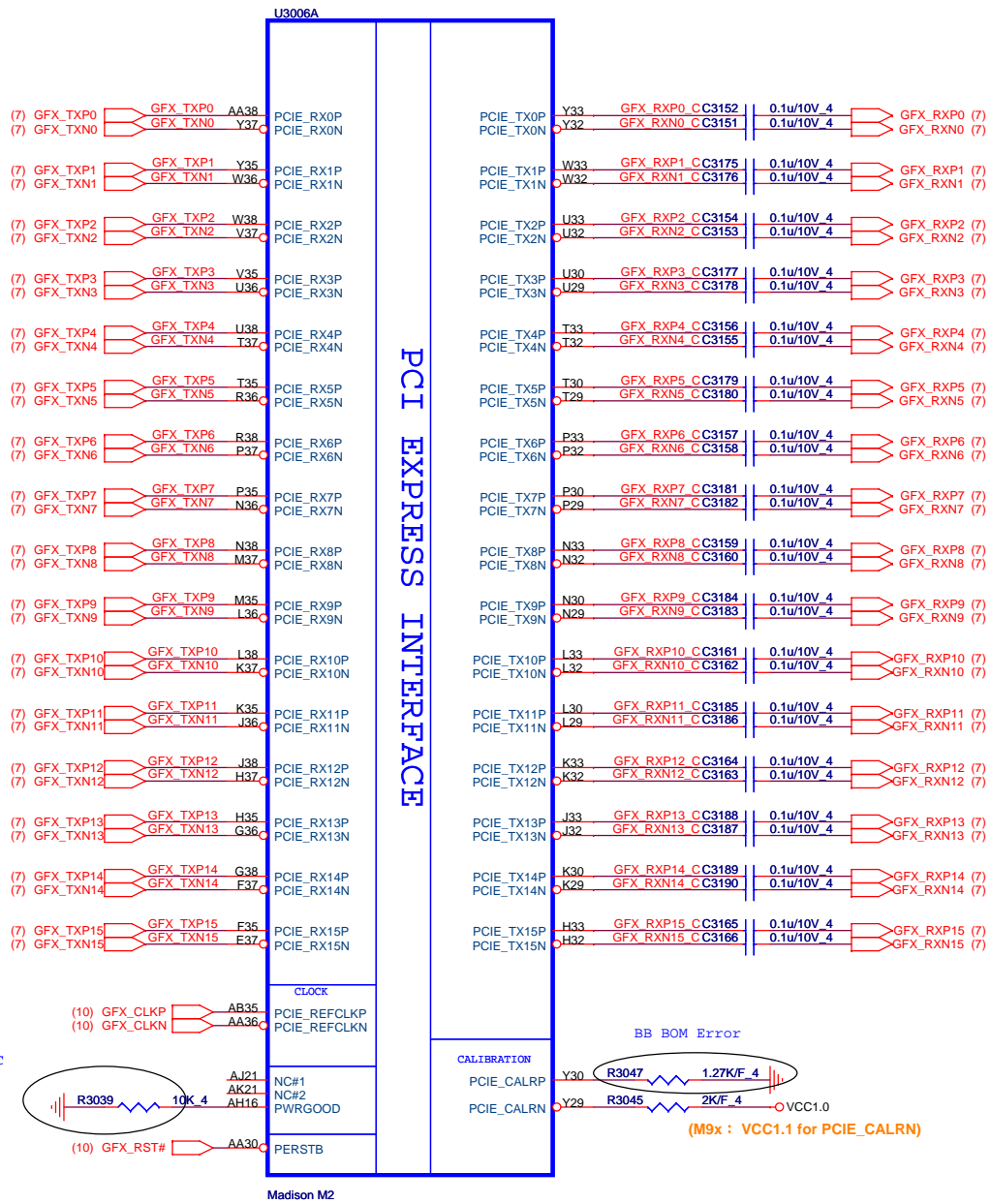
8mm : DGMK4000087
9.2mm : DGMK4000029

4mm : DGMK4000005
5.2mm : DGMK4000028

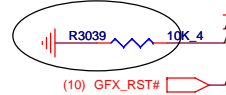
Quanta Computer Inc.
PROJECT : NE8
DDR3 SODIMMX2

| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 14 of 42 |

1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



M9x : R3039 -> NC



1.Level 1 Environment-related Substances Should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

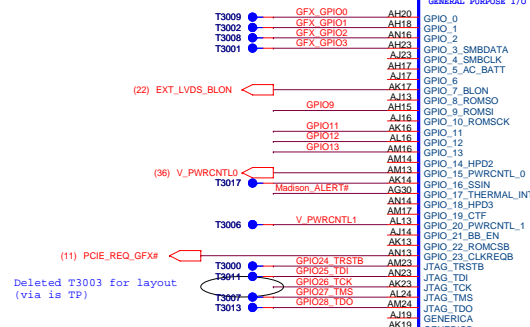
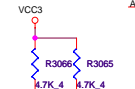
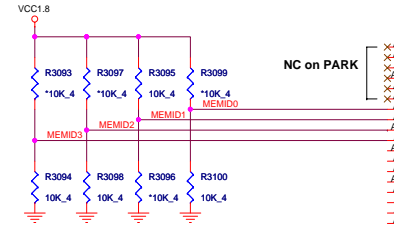
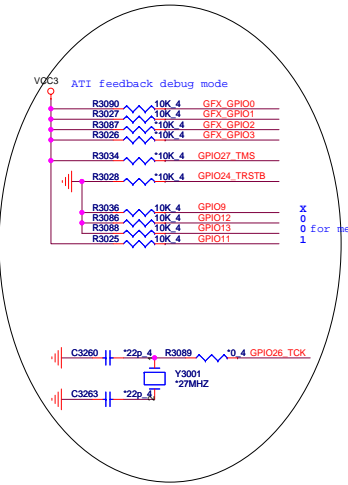
| | | | |
|--|------------------|--|---------------------------------------|
| | | Quanta Computer Inc. PROJECT : NE8 | |
| | | Size: ATI PCIe/LVDS | Document Number: ATI PCIe/LVDS |
| Date: Wednesday, January 27, 2010 | Sheet: 15 | of: 42 | Rev: 2A |

| MEMID[3:0] | Vendor | Type | Vendor P/N |
|------------|---------|--------------|-----------------|
| 0000 | | | |
| 0001 | | | |
| 0010 | Hynix | 64*16-800MHZ | H5TQ1G63BFR-12C |
| 0011 | Samsung | 64*16-800MHZ | K4W1G1646E-HC12 |
| 0100 | | | Reserved |
| 0101 | | | Reserved |
| 0110 | | | Reserved |
| 0111 | | | Reserved |
| 1000 | | | Reserved |
| 1010 | | | Reserved |
| 1011 | | | Reserved |
| 1100 | | | Reserved |
| 1101 | | | Reserved |
| 1110 | | | Reserved |
| 1111 | | | Reserved |

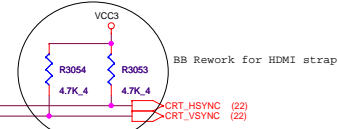
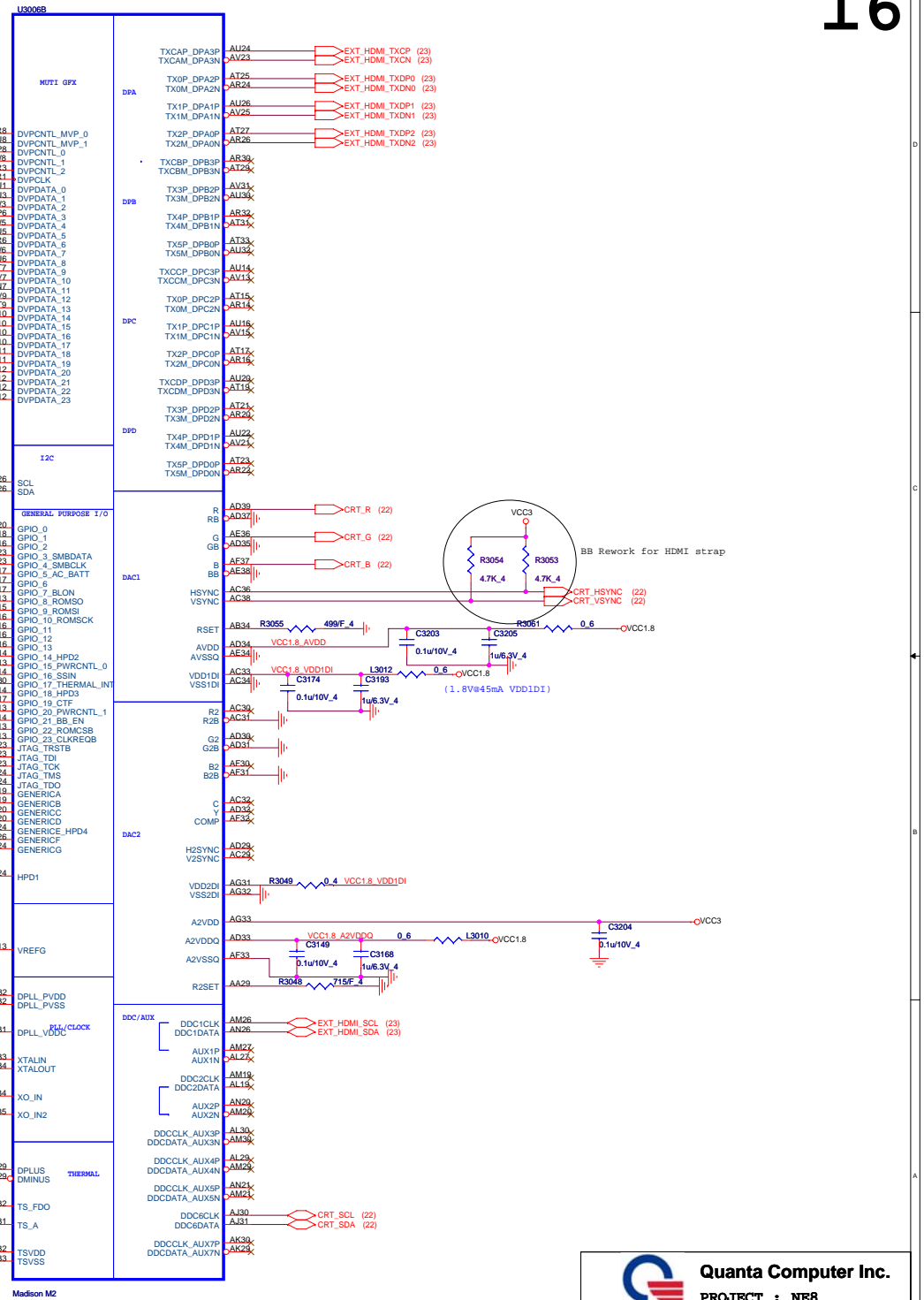
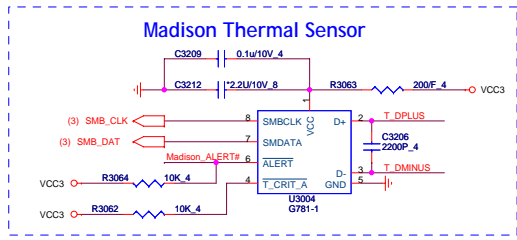
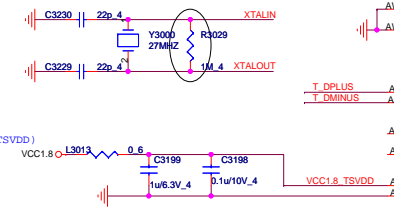
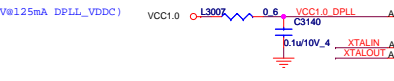
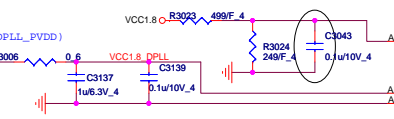
Samsung 64*16-900MHZ K4W1G1646E-HC11

AKD5LZGTW00
AKD5LZGT502
AKD5LGGT701

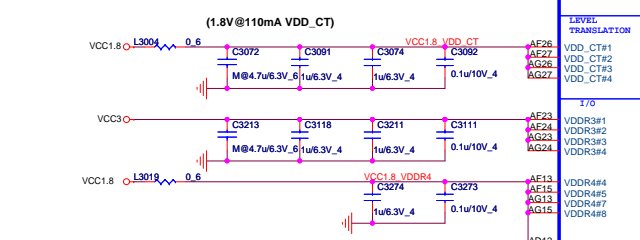
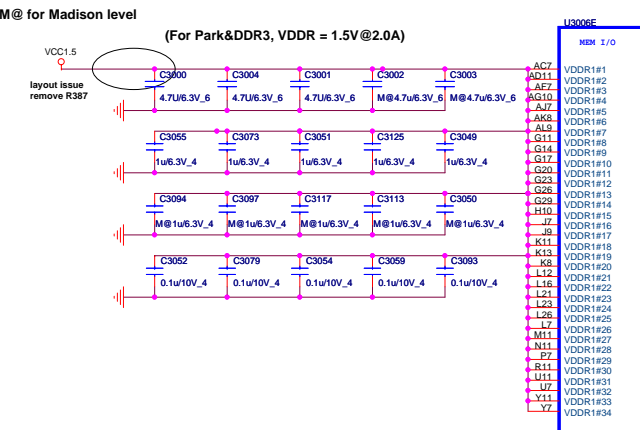
GP100 : PCIE FULL TX OUTPUT SWING
GP101 : PCIE TRANSMITTER DE-EMPHASIS ENABLED
GP102 : BIT GEN2_EN_A
GP108 : RESERVED
GP109 : VGA ENABLED
GP10[13:11] : SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT
V2SYNC : IGNORE VIP DEVICE STRAPS
V2SYNC : 0
GENERIC : 0
HSYNC : 1 (AUDIO FOR BOTH DP AND HDMI)
VSYNC : 1 (AUDIO FOR BOTH DP AND HDMI)



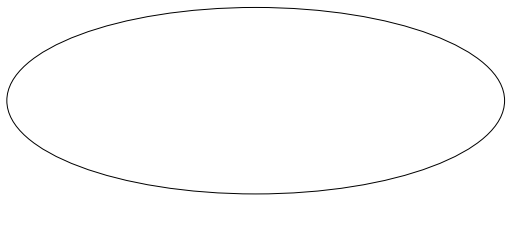
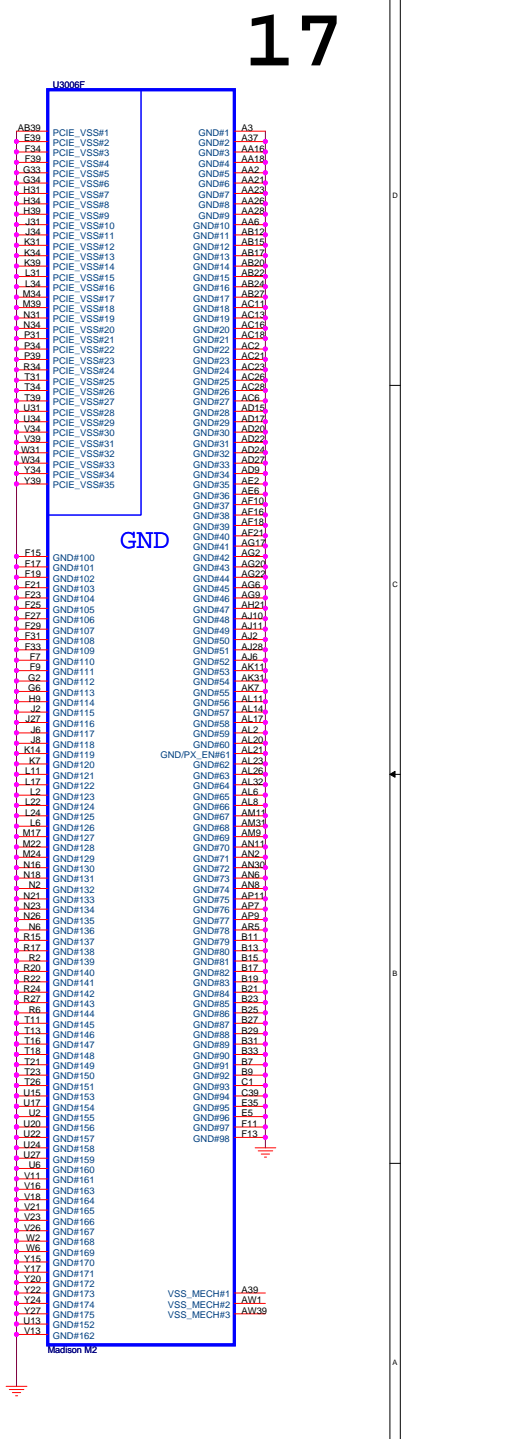
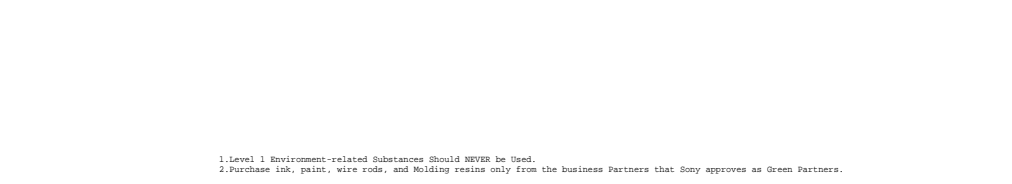
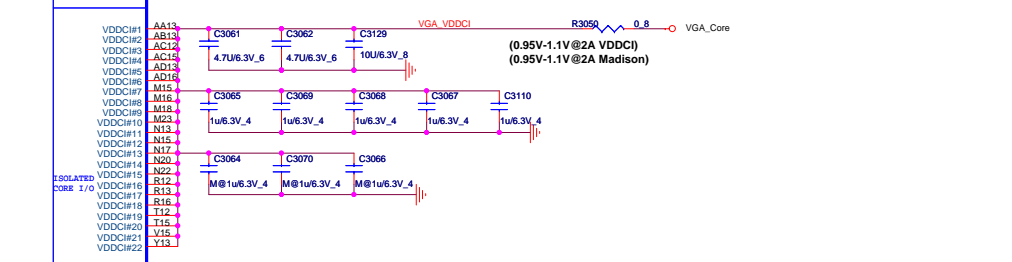
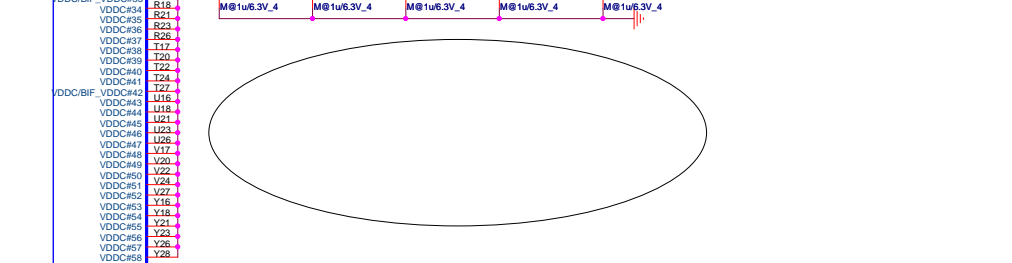
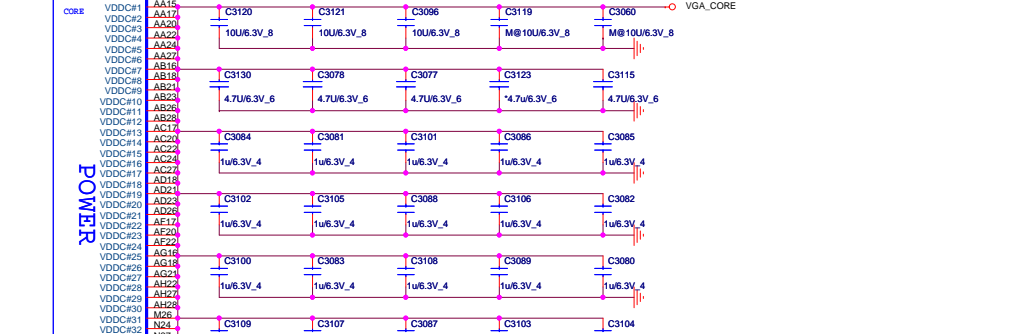
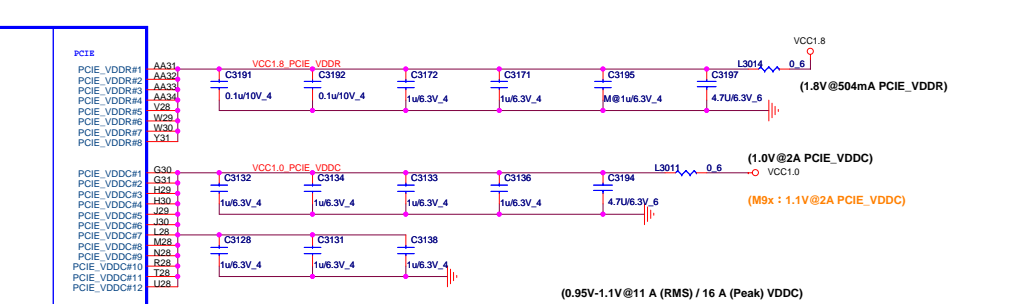
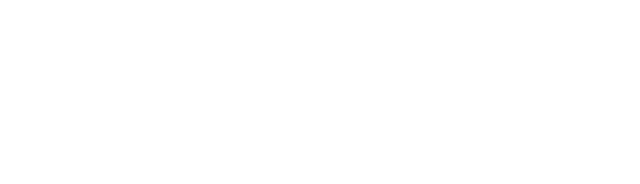
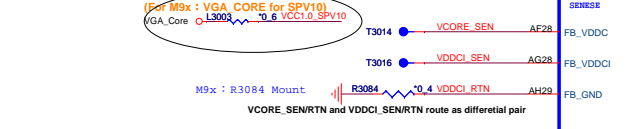
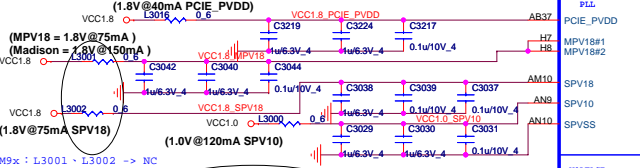
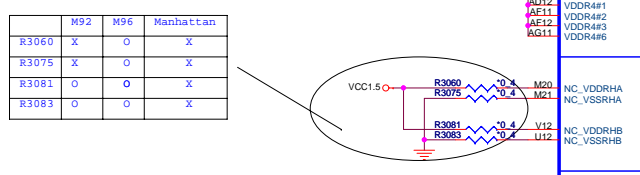
(23) EXT_HDMI_HPD



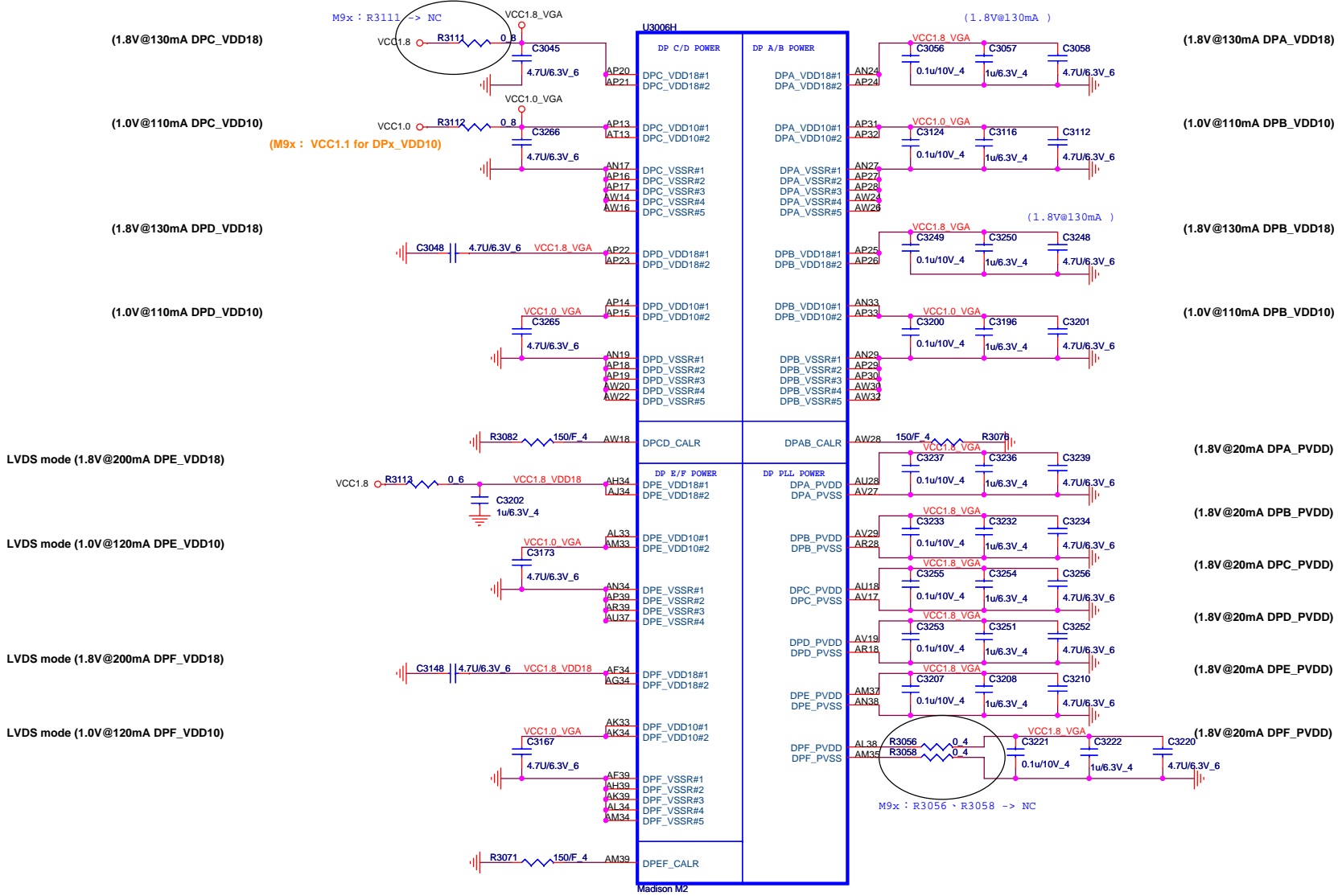
1. Level 1 environment-related Substances should NEVER be used.
2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



| | M92 | M96 | Manhattan |
|-------|-----|-----|-----------|
| R3060 | X | O | X |
| R3075 | X | O | X |
| R3081 | O | O | X |
| R3083 | O | O | X |



1. Level 1 Environment-related Substances should NEVER be Used.
2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



(1.8V@130mA DPC_VDD18)

(1.0V@110mA DPC_VDD10)

(1.8V@130mA DPD_VDD18)

(1.0V@110mA DPD_VDD10)

LVDS mode (1.8V@200mA DPE_VDD18)

LVDS mode (1.0V@120mA DPE_VDD10)

LVDS mode (1.8V@200mA DPF_VDD18)

LVDS mode (1.0V@120mA DPF_VDD10)

(1.8V@130mA DPA_VDD18)

(1.0V@110mA DPB_VDD10)

(1.8V@130mA DPB_VDD18)

(1.0V@110mA DPB_VDD10)

(1.8V@20mA DPA_PVDD)

(1.8V@20mA DPB_PVDD)


(1.8V@20mA DPC_PVDD)

(1.8V@20mA DPD_PVDD)

(1.8V@20mA DPE_PVDD)

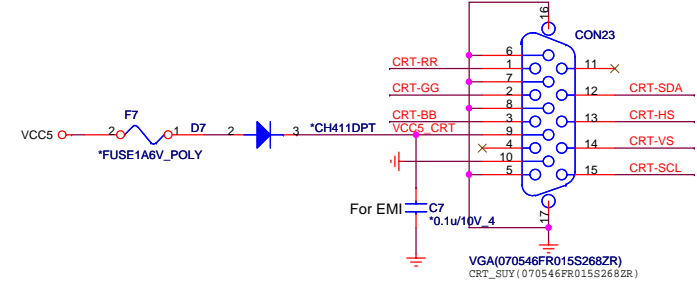
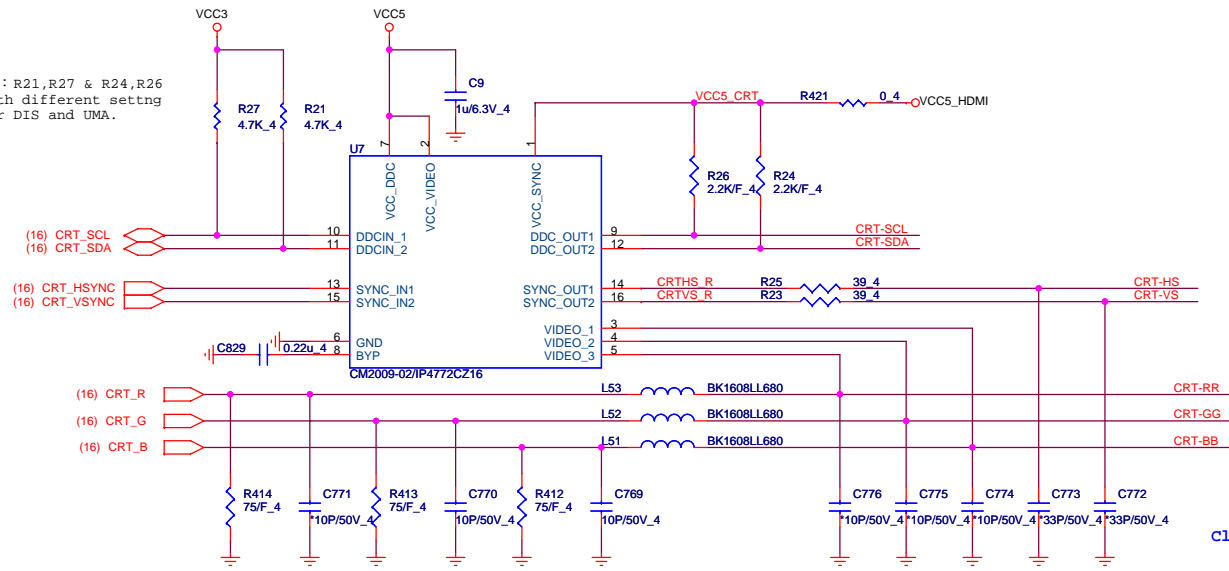
(1.8V@20mA DPF_PVDD)

1.Level 1 Environment-related Substances Should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| | | | | | |
|--|-----------------------------|-------|-----------------|-----|----|
|  Quanta Computer Inc. PROJECT : NE8 | | Size | Document Number | Rev | |
| | | | ATI MEMIF/DP | 2A | |
| Date: | Wednesday, January 27, 2010 | Sheet | 18 | of | 42 |

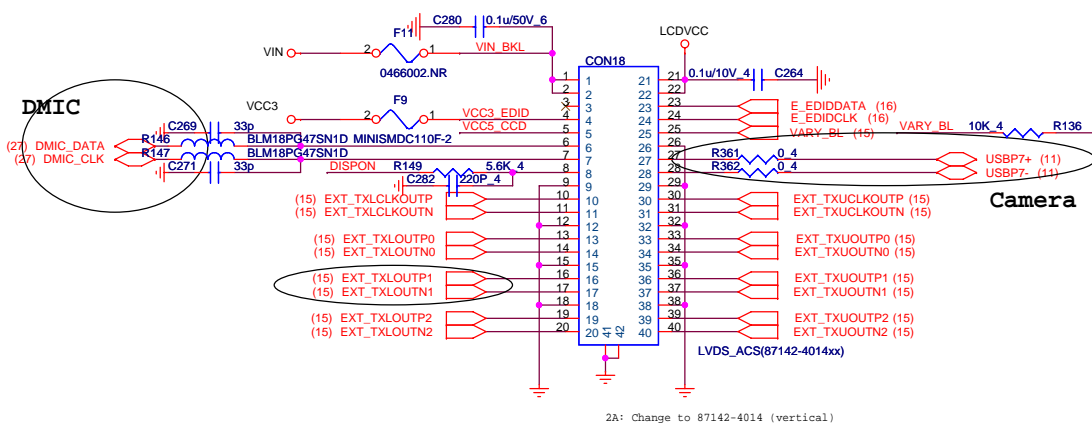
Use this option ONLY
 for Park-S3

2A: R21, R27 & R24, R26 with different setting for DIS and UMA.

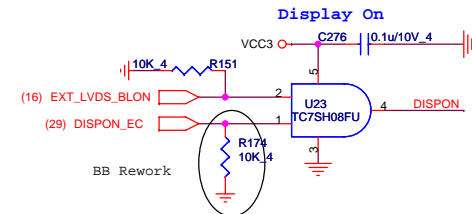
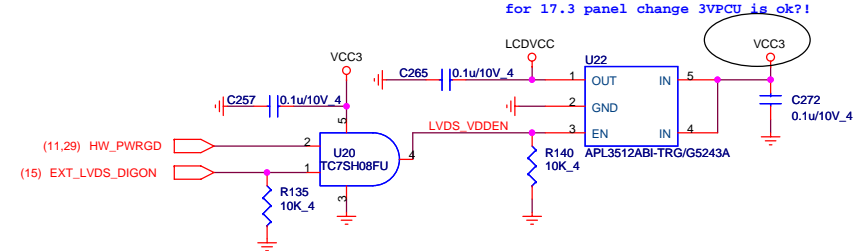
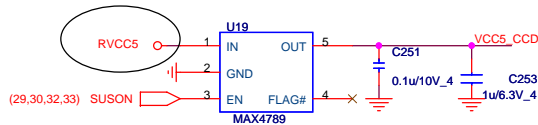


Close to Con3

LVDS

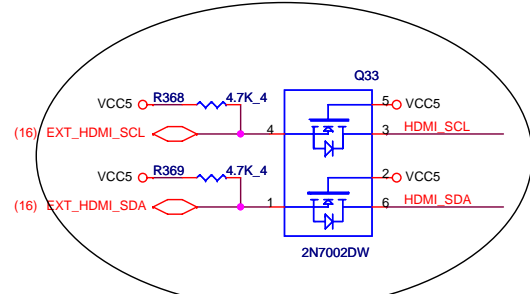


1C: 12/17 add RVCC5 for optional power source

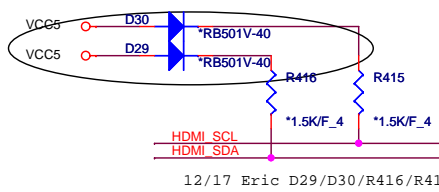


1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

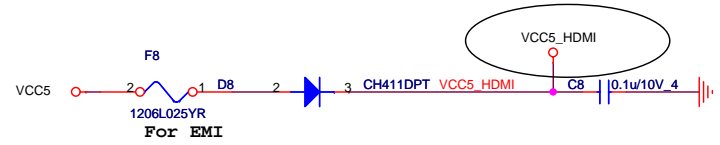
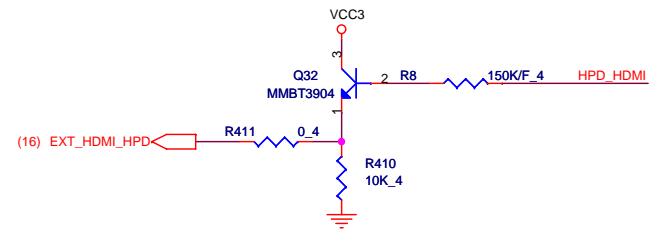
1B: share power with CRT port



1B: add diode for HDMI test



12/17 Eric D29/D30/R416/R415 DNI

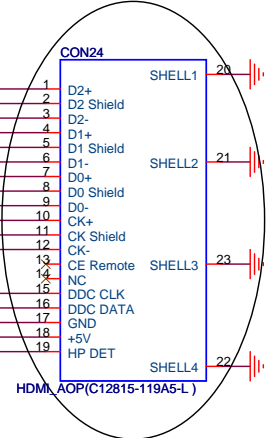


- EXT_HDMI_TXDP0 R420 *100/F_4 EXT_HDMI_TXDN0
- EXT_HDMI_TXDP1 R418 *100/F_4 EXT_HDMI_TXDN1
- EXT_HDMI_TXDP2 R419 *100/F_4 EXT_HDMI_TXDN2
- HDMI_TXCP R417 *100/F_4 HDMI_TXCN

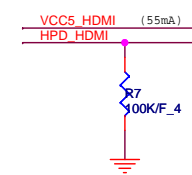


ATI Suggestion close to Con24

- EXT_HDMI_TXDP2 C675 0.1u/10V_4 EXT_HDMI_TXDP2 C
- EXT_HDMI_TXDN2 C676 0.1u/10V_4 EXT_HDMI_TXDN2 C
- EXT_HDMI_TXDP1 C677 0.1u/10V_4 EXT_HDMI_TXDP1 C
- EXT_HDMI_TXDN1 C678 0.1u/10V_4 EXT_HDMI_TXDN1 C
- EXT_HDMI_TXDP0 C679 0.1u/10V_4 EXT_HDMI_TXDP0 C
- EXT_HDMI_TXDN0 C680 0.1u/10V_4 EXT_HDMI_TXDN0 C
- HDMI_TXCP C681 0.1u/10V_4 EXT_HDMI_TXCP C
- HDMI_TXCN C688 0.1u/10V_4 EXT_HDMI_TXCN C

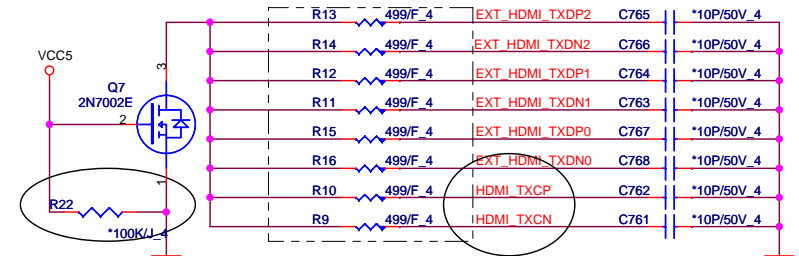


0115 change connector, need update P/N



ATI Suggestion close to Con24

For ESD

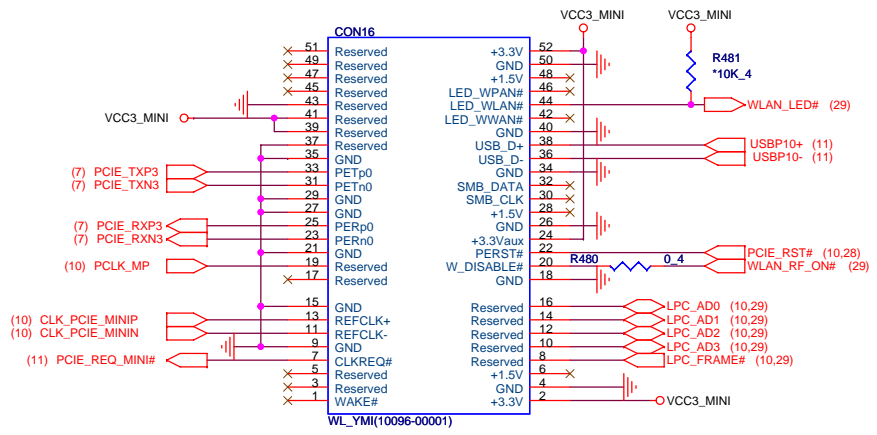


BB BOM Error 100K ohm 12/17 Eric R22 DNI

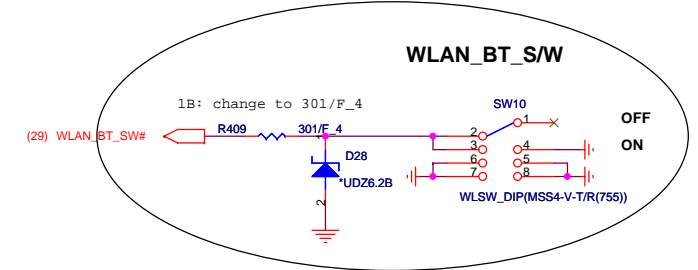
1.Level 1 Environment-related Substances should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Quanta Computer Inc.
PROJECT : NE8

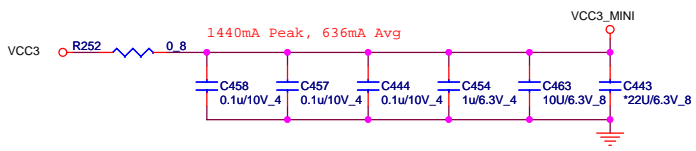
| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | HDMI | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 23 of 42 |



2A need check TOP or BOT again

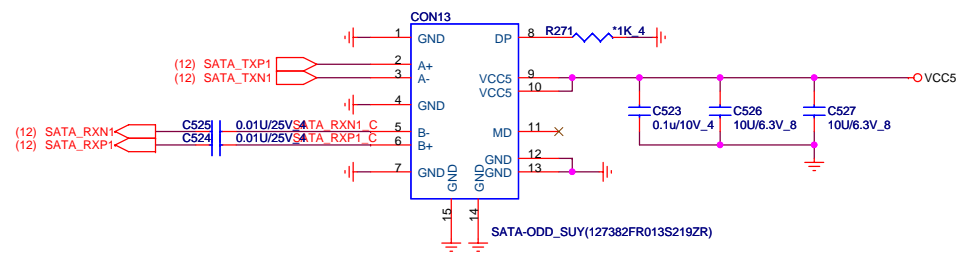


BTM Side , Right==>ON

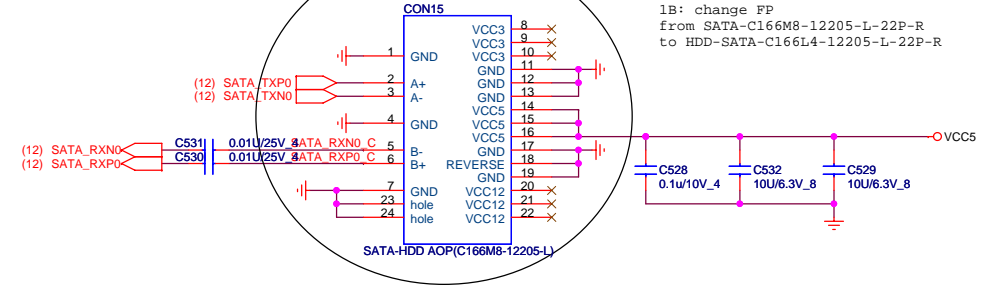


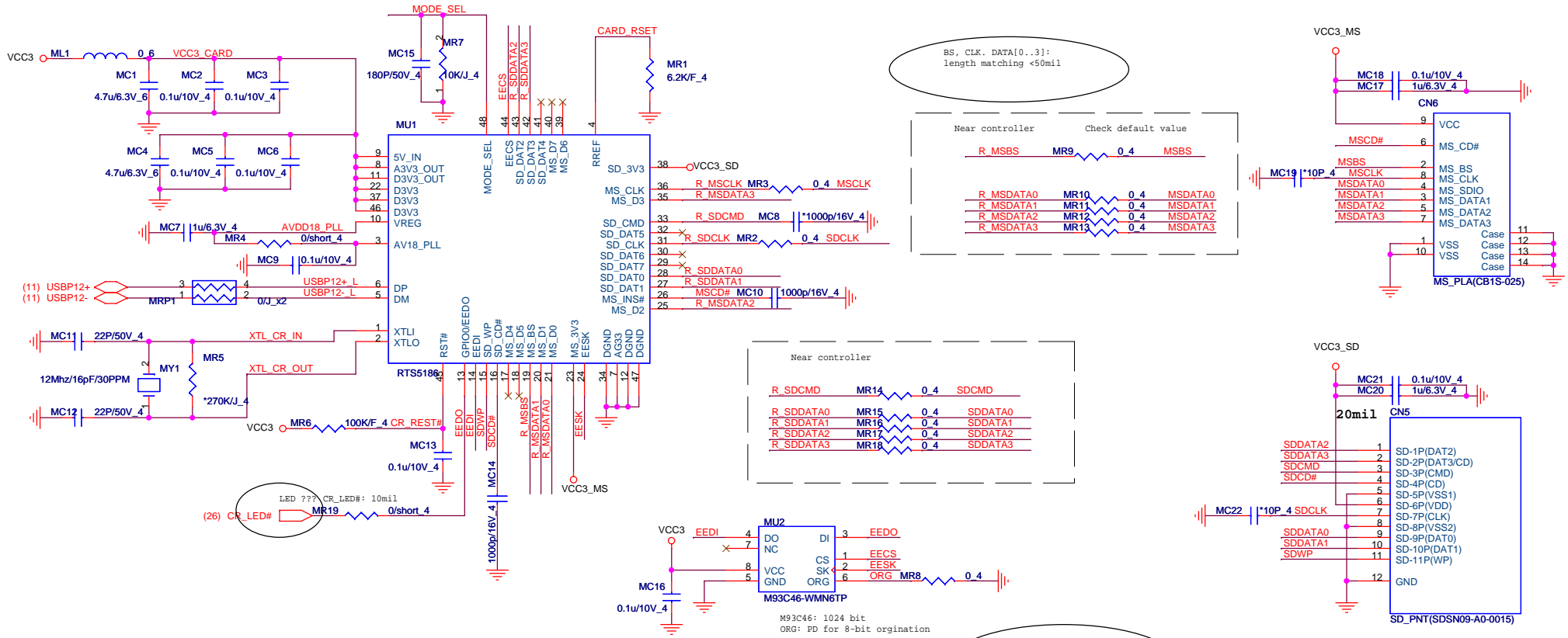
2A : deleted VCC1.5_MINI

SATA ODD



2.5 inch SATA HDD



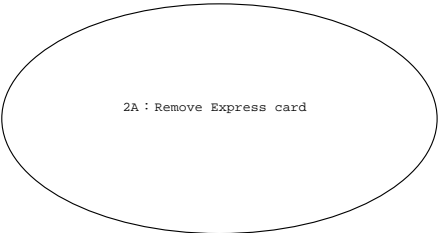


- Level 1 Environment-related Substances Should NEVER be Used.
- Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

CMD, CLK, DATA[0..3]:
length matching <50mil

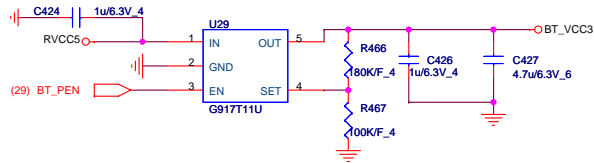
Quanta Computer Inc.
PROJECT : NE8

| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | CARD Reader | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 25 of 42 |

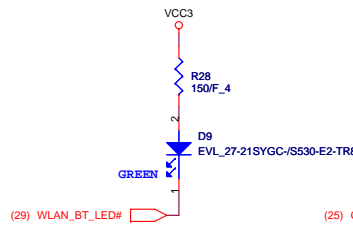


2A: Remove Express card

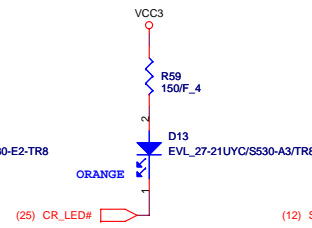
Bluetooth



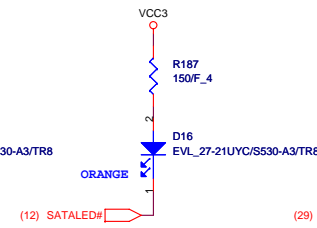
RF LED



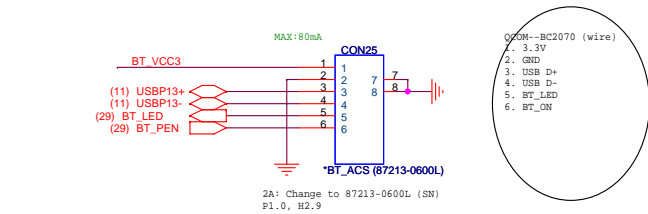
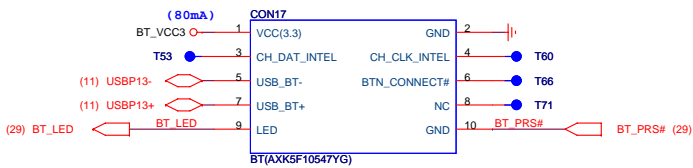
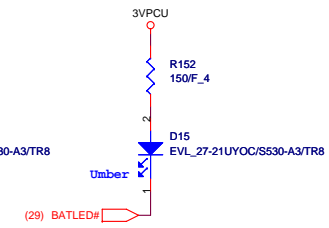
Card LED



HDD LED

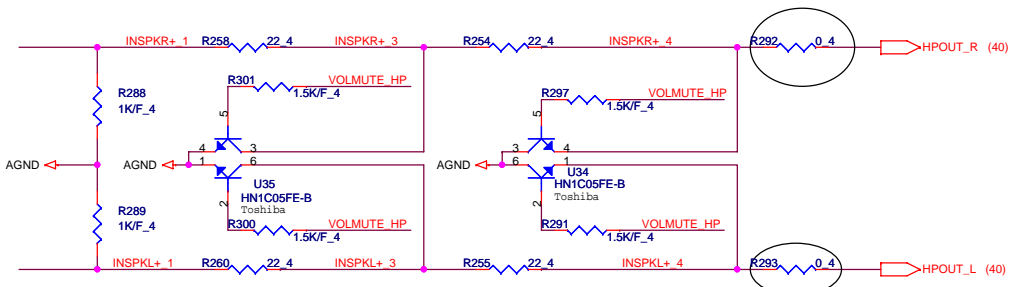
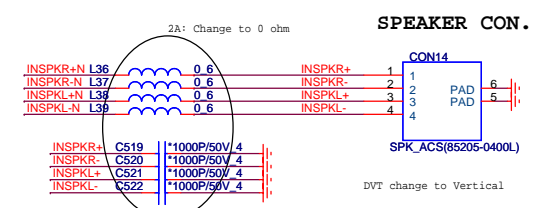
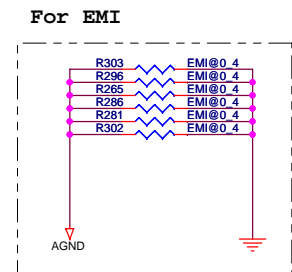
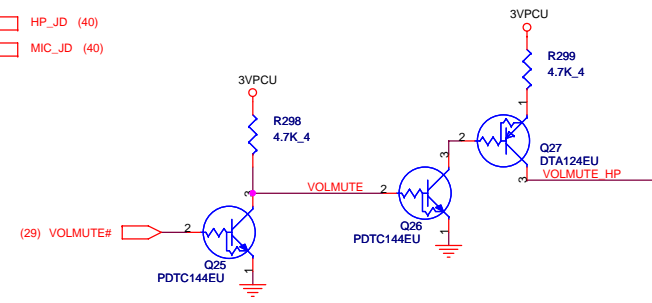
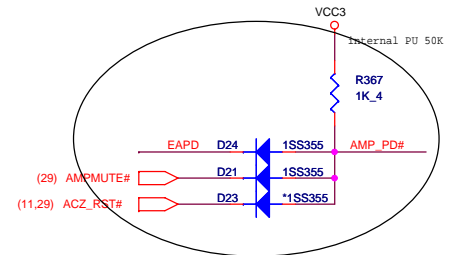
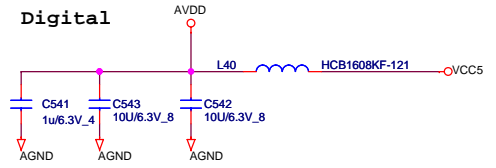
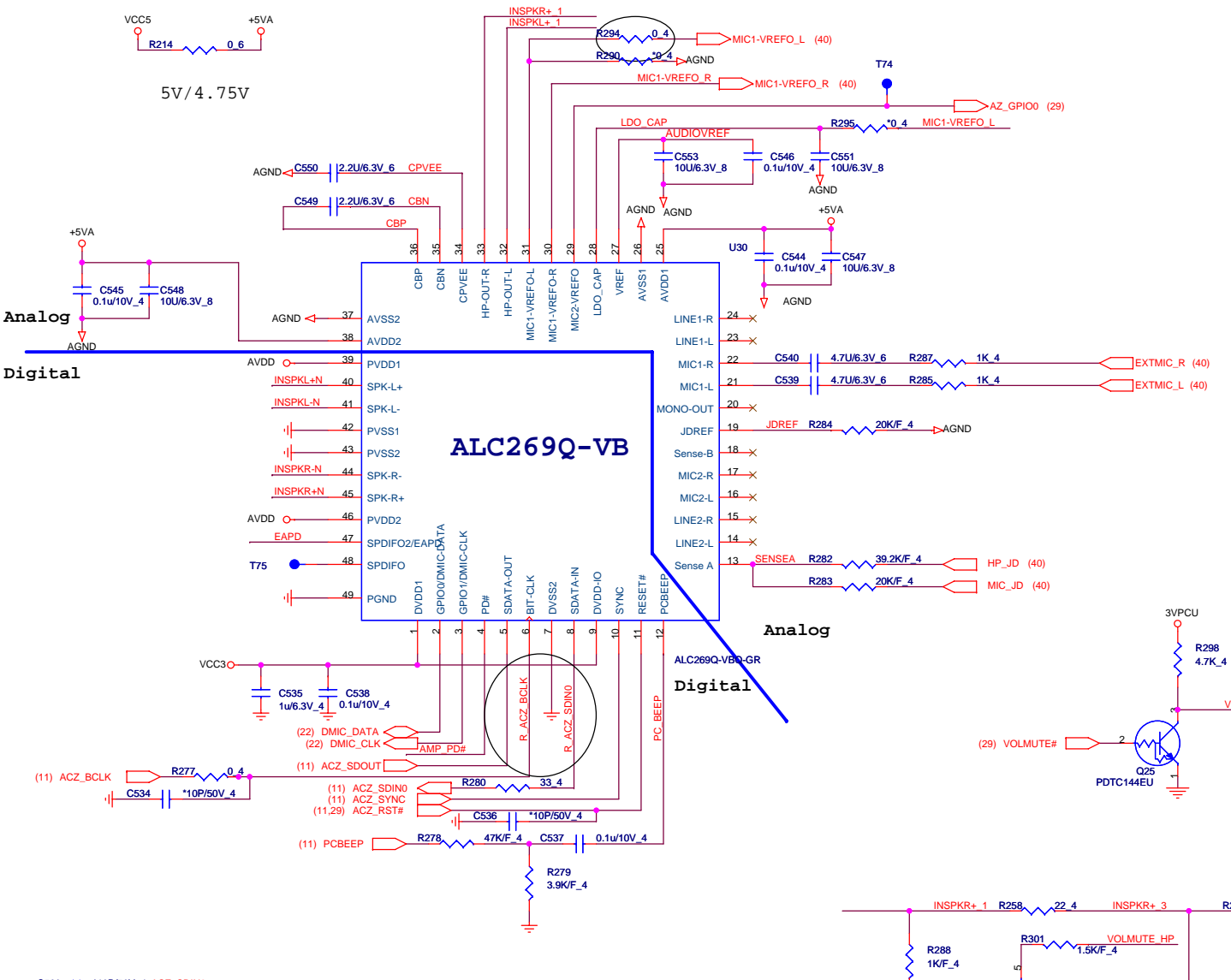


Battery LED



1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| | | |
|--|-----------------------------|----------------|
| <p>Quanta Computer Inc. PROJECT : NE8</p> | | Rev |
| | | 2A |
| <p>Express Card/LED/TP</p> | | |
| Date: | Wednesday, January 27, 2010 | Sheet 26 of 42 |



Quanta Computer Inc.

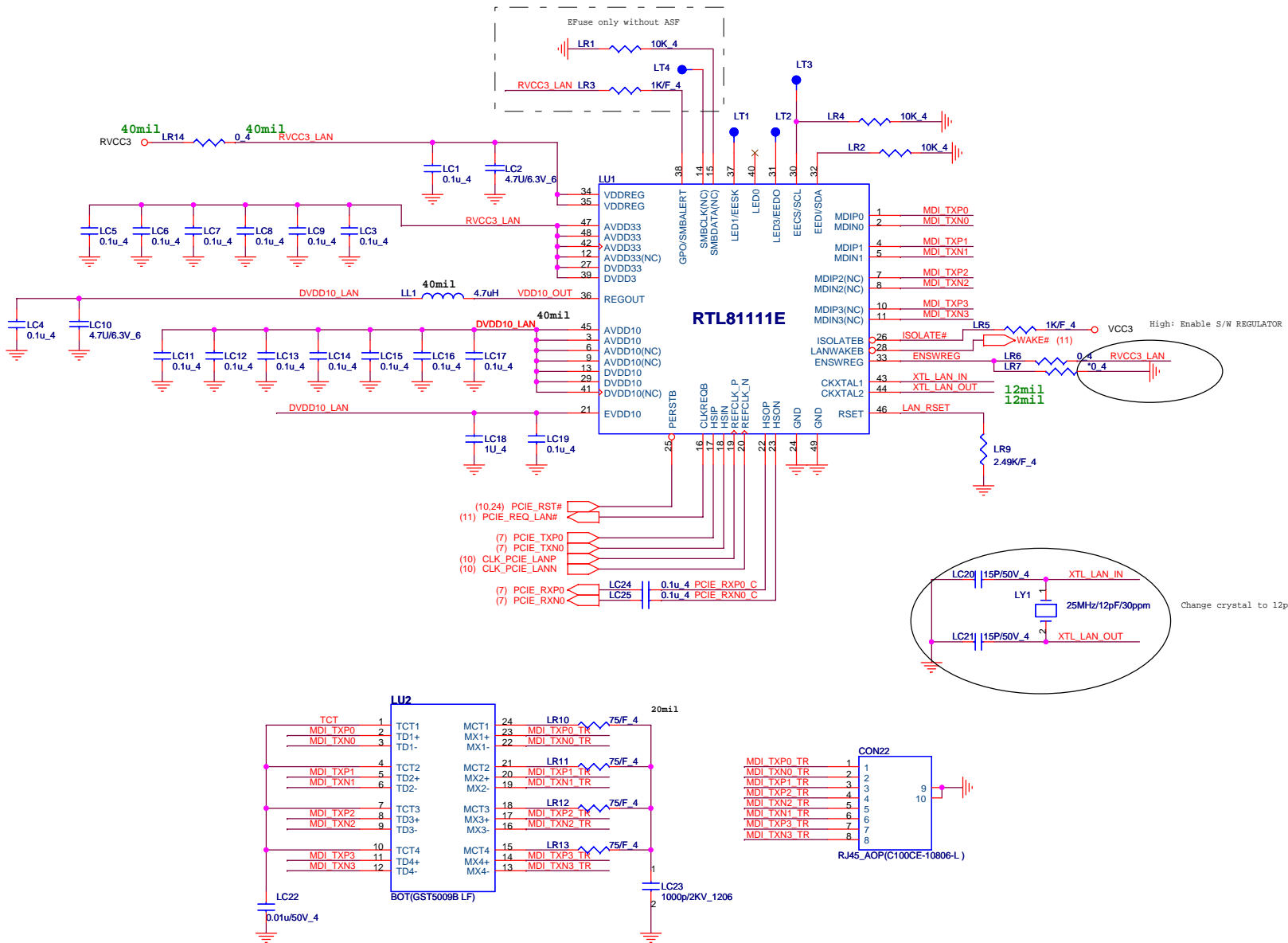
PROJECT : NE8

Codec ALC269Q


| | | |
|------|-----------------|-----|
| Size | Document Number | Rev |
| | | 2A |

Date: Thursday, January 28, 2010 Sheet 27 of 42

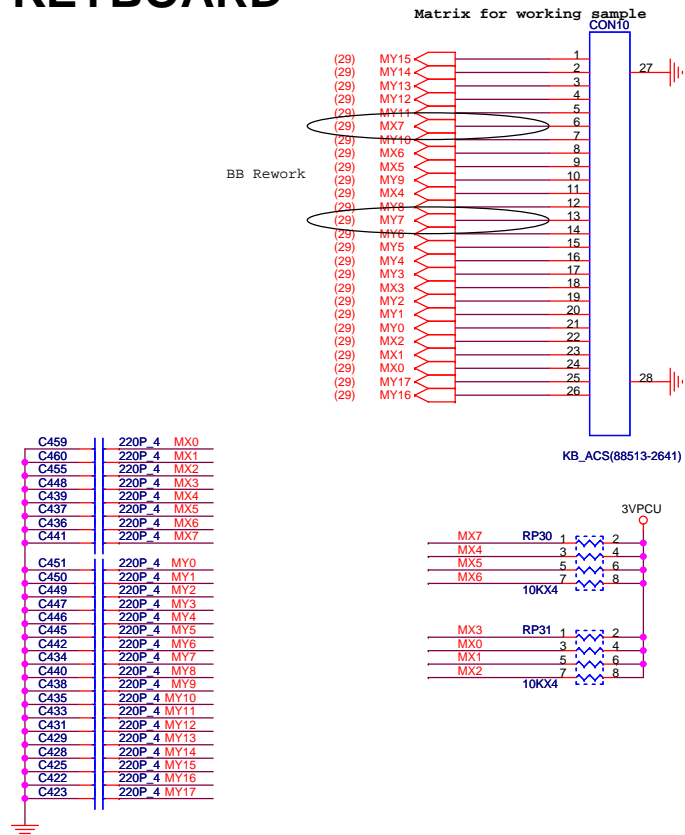
1.Level 1 Environment-related Substances Should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



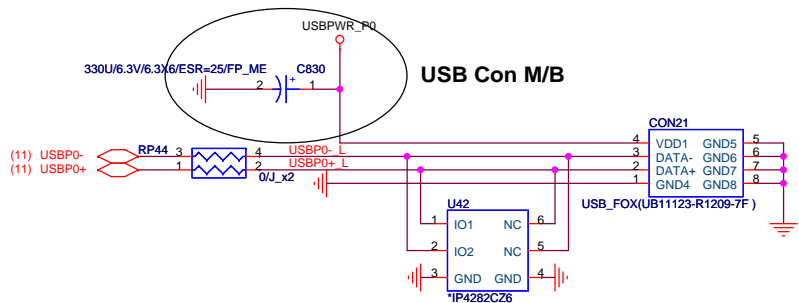
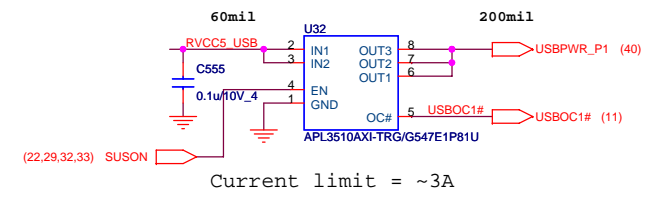
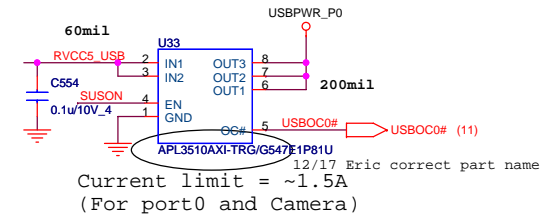
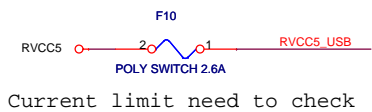
1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| | | |
|--|-----------------------------|----------------|
|  Quanta Computer Inc. PROJECT : NB8 | | |
| Size | Document Number | Rev |
| | LAN RTL8111E | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 28 of 42 |

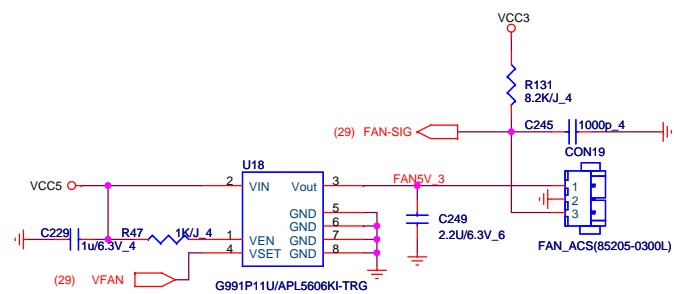
KEYBOARD



USB Port + e-SATA(USB)



FAN



1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

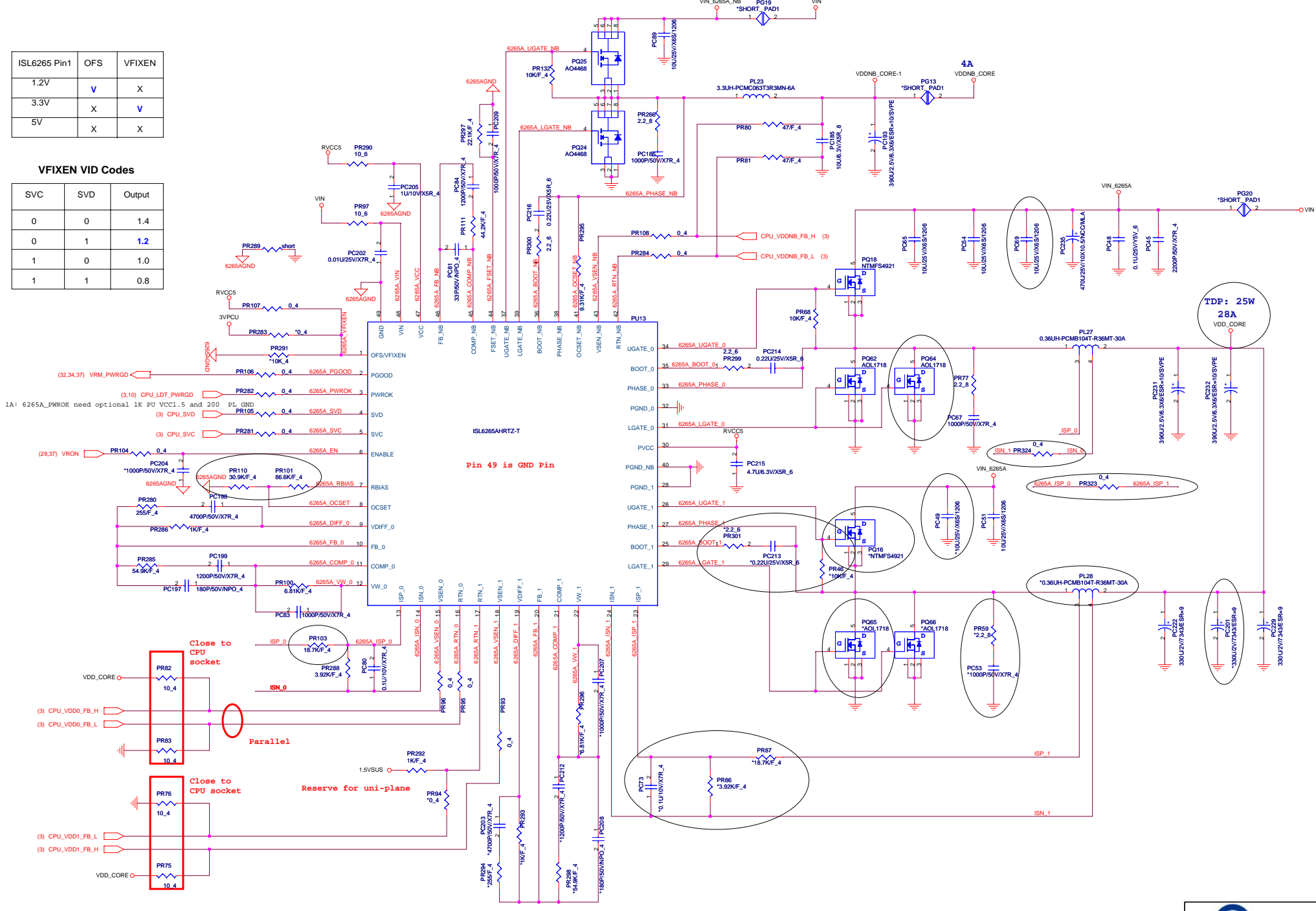
Quanta Computer Inc.
PROJECT : NE8

| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | KB/USB/FAN/PS | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 30 of 42 |

| ISL6265 Pin1 | OFS | VFIXEN |
|--------------|-----|--------|
| 1.2V | V | X |
| 3.3V | X | V |
| 5V | X | X |

VFIXEN VID Codes

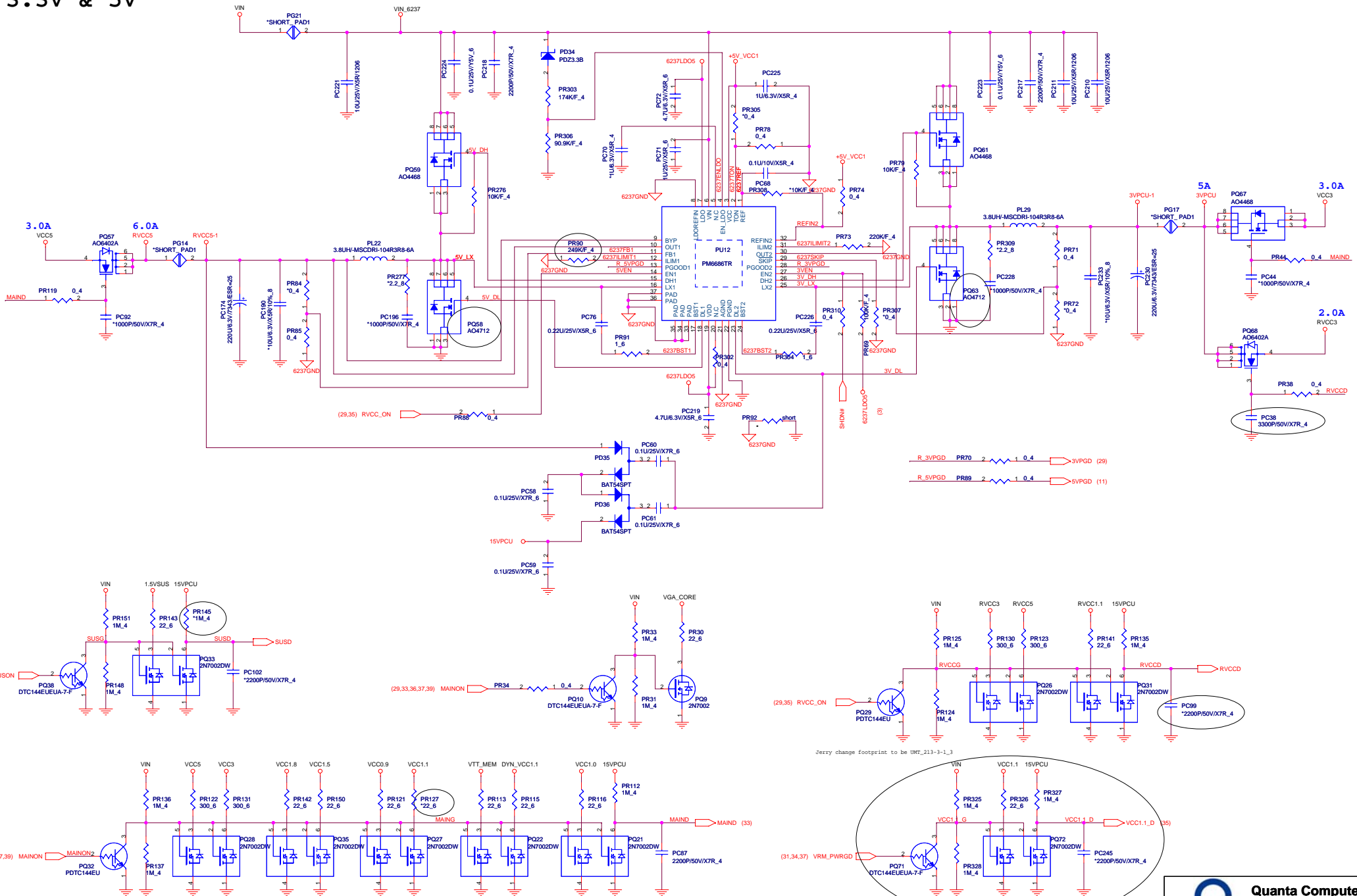
| SVC | SVD | Output |
|-----|-----|--------|
| 0 | 0 | 1.4 |
| 0 | 1 | 1.2 |
| 1 | 0 | 1.0 |
| 1 | 1 | 0.8 |



Quanta Computer Inc.
PROJECT : NE8
 Size Document Number **VCORE(ISL6265A)** Rev 2A
 Date: Wednesday, January 27, 2010 Sheet 31 of 42

1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

3.3V & 5V



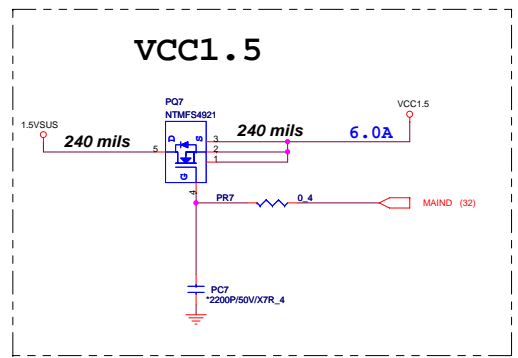
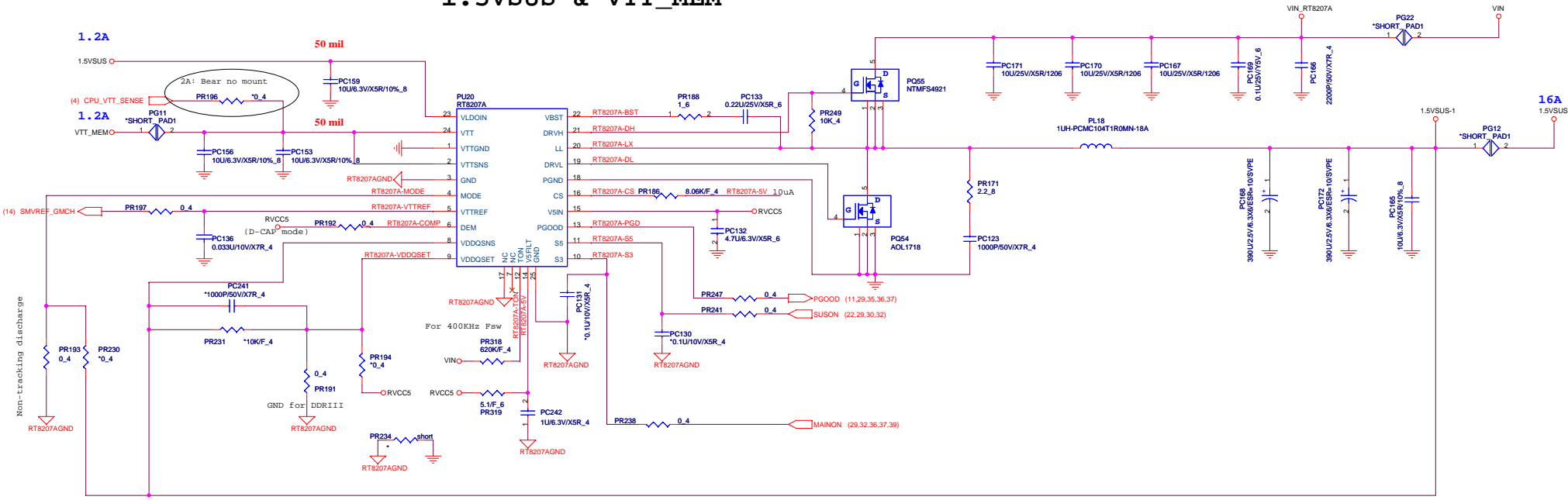
1.Level 1 Environment-related Substances should NEVER be used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Quanta Computer Inc.
PROJECT : NE8

Size Document Number Rev 2A
3VPCU&5VPCU(PM6686)

Date: Wednesday, January 27, 2010 Sheet 32 of 42

1.5VSUS & VTT_MEM



| MODE | DISCHARGE MODE |
|-------|------------------------|
| +5V | No discharge |
| +1.8V | Tracking discharge |
| GND | Non-tracking discharge |

| VDDQSET | VDDQ(V) | VTTREF & VTT | NOTE |
|-------------|------------|--------------|--------------|
| GND | 1.5 fixed | VDDQSNS/2 | DDR3 |
| 5V | 1.8 fixed | VDDQSNS/2 | DDR2 |
| FB-Resistor | Adjustable | VDDQSNS/2 | 1.5V<VDDQ<3V |

$VTT = VTTREF = VDDQSNS/2 = 0.75V$

| STATE | S3 | S5 | 1.5VSUS | VTTREF | VTT |
|-------|----|----|---------|--------|-----|
| S0 | 1 | 1 | on | on | on |
| S3 | 0 | 1 | on | on | off |
| S4/S5 | 0 | 0 | off | off | off |

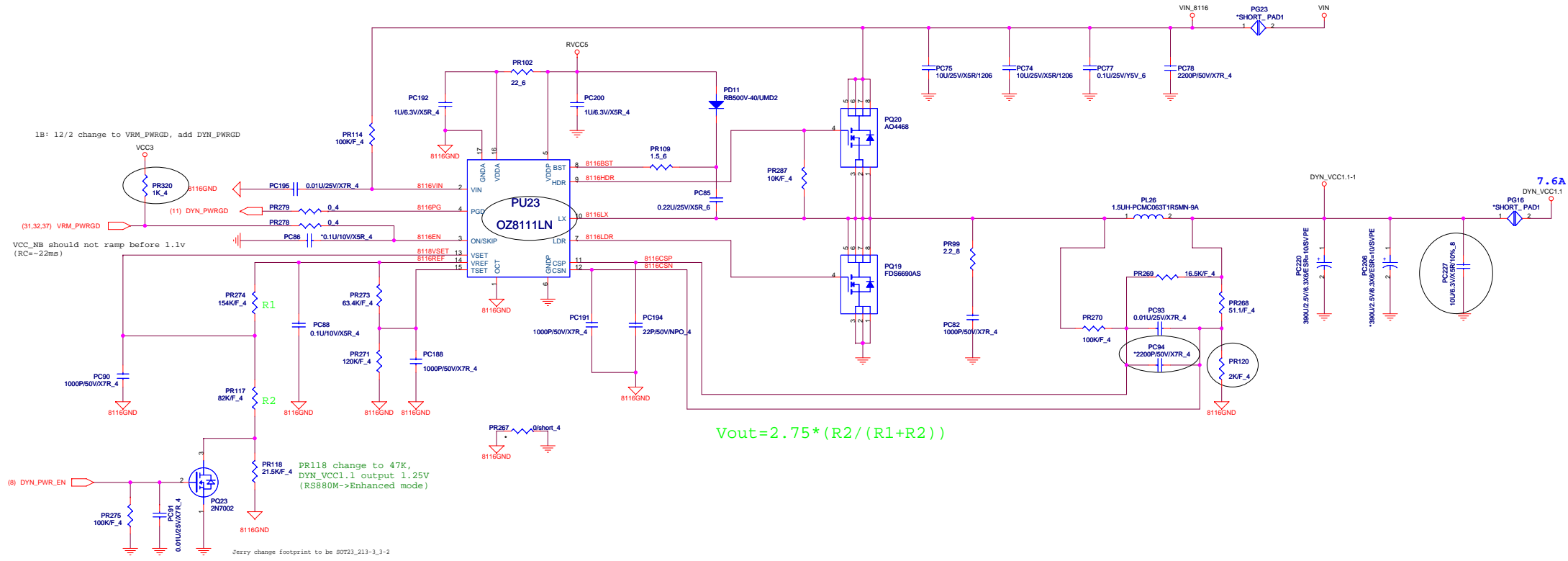
1. Level 1 Environment-related Substances should NEVER be used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Quanta Computer Inc.

PROJECT : NE8

1.5VSUS/VTT_MEM

| | | |
|-------|-----------------------------|-----|
| Size | Document Number | Rev |
| Date | Wednesday, January 27, 2010 | 2A |
| Sheet | 33 of 42 | |

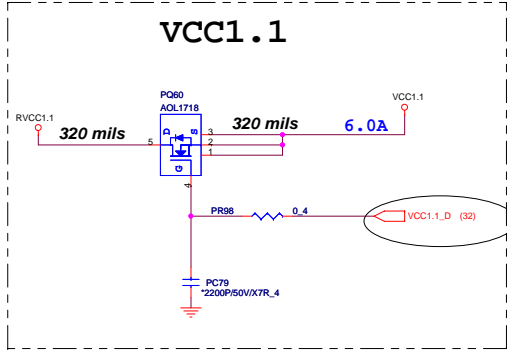
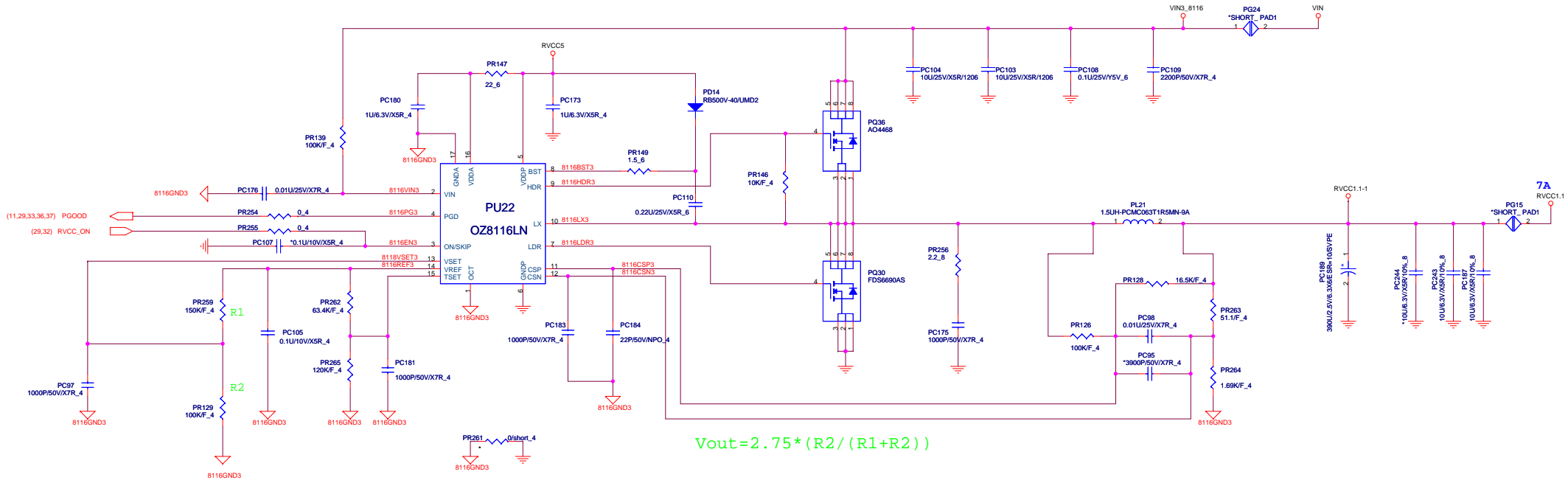


$V_{out} = 2.75 * (R2 / (R1 + R2))$

| | | |
|------------|-------|------|
| DYN_PWR_EN | High | Low |
| DYN_VCC1.1 | 0.95V | 1.1V |

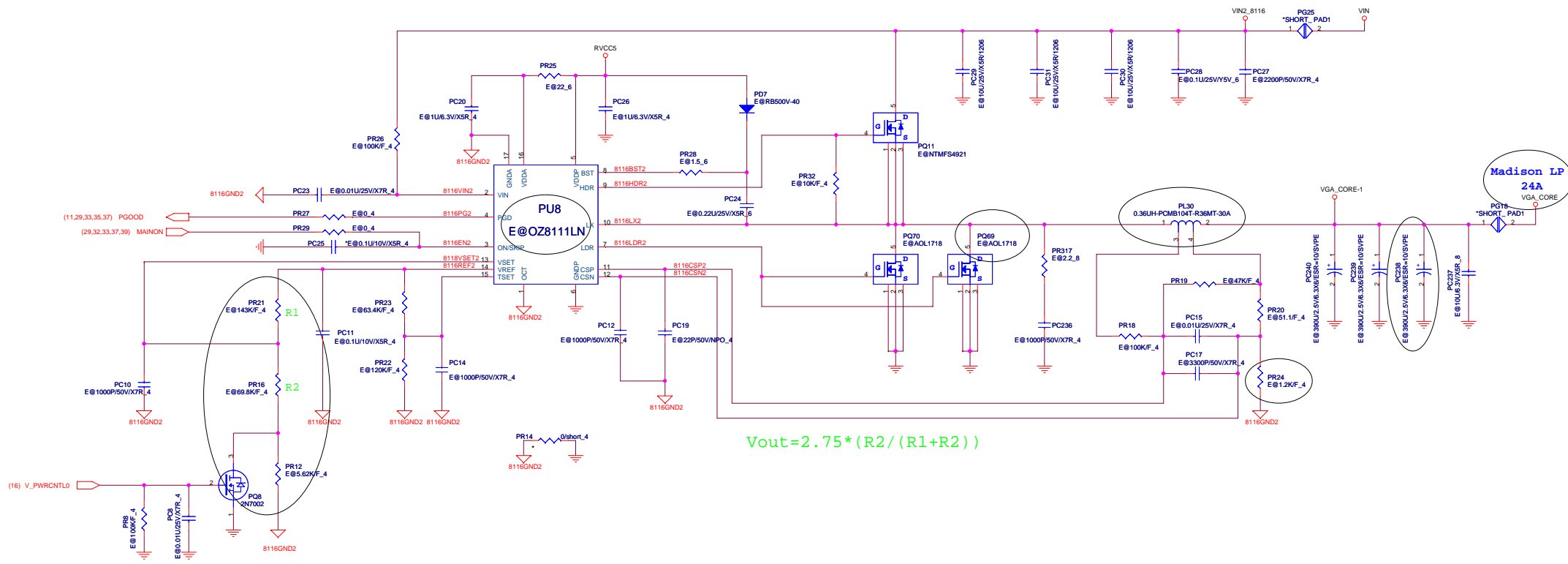
Quanta Computer Inc.
 PROJECT : NE8
 DYN_VCC1.1(OZ8116LN)
 Date: Wednesday, January 27, 2010 Sheet 34 of 42

1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



| | | | |
|---------------------|-----------------|-----------------------------|-----|
| | | Quanta Computer Inc. | |
| PROJECT : NE8 | | PROJECT : NE8 | |
| VCC1.1(OZ8116LN)-7A | | VCC1.1(OZ8116LN)-7A | |
| Size | Document Number | Date | Rev |
| | | Wednesday, January 27, 2010 | 2A |
| | | Sheet 35 of 42 | |

1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



Madison LP
External VGA_CORE Voltage Setting:

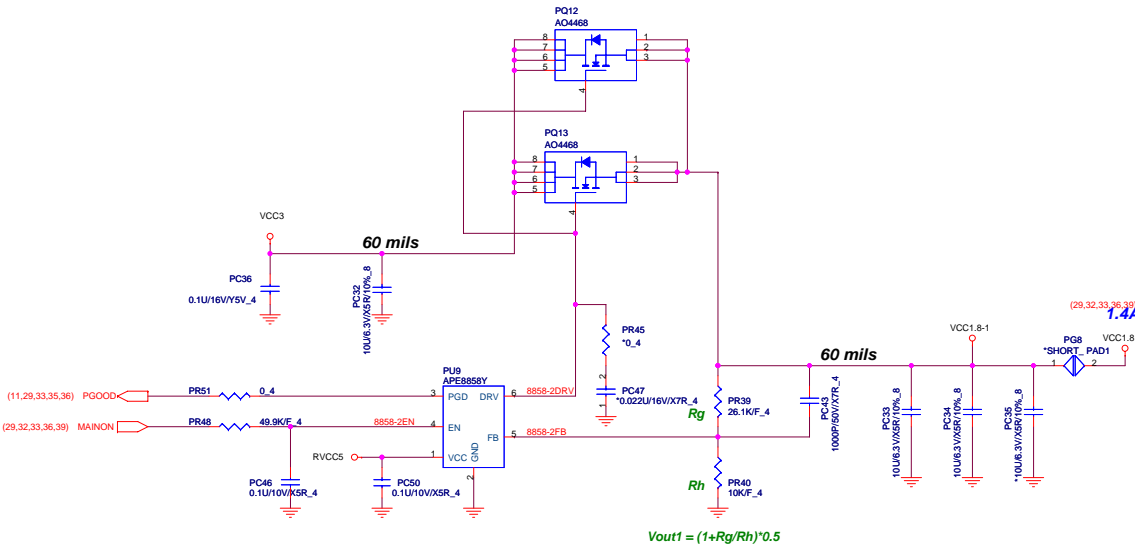
| V_PWRCNTL0 | VGA_CORE |
|------------|----------|
| 0 | 0.95V |
| 1 | 0.90V |

Quanta Computer Inc.
PROJECT : NE8

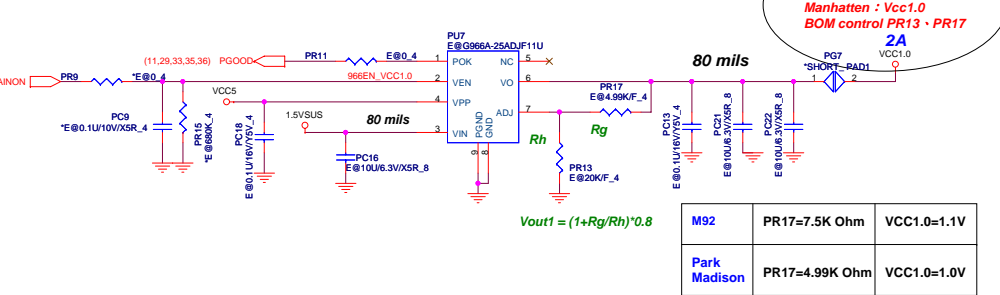
| | | |
|-------|-----------------------------|----------------|
| Size | Document Number | Rev |
| | VGA_CORE(OZ8116)-16A | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 36 of 42 |

1. Level 1 Environment-related Substances Should NEVER be Used.
2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

VCC1.8



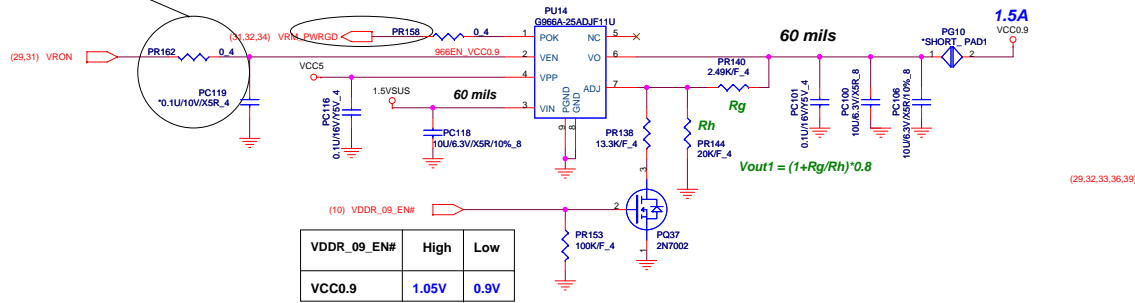
VCC1.0



NO change Vcc1.0 NET name
 M9x : Vcc1.1
 Manhatten : Vcc1.0
 BOM control PR13 · PR17

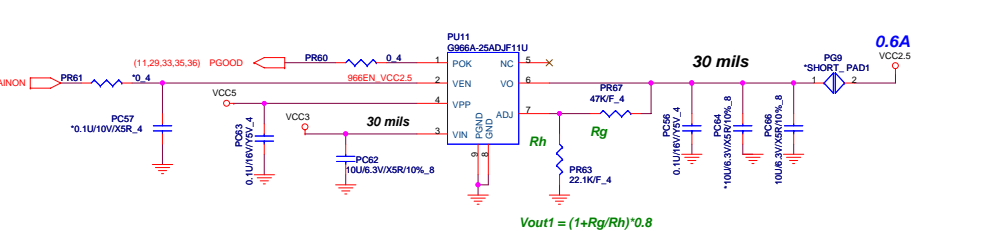
| | | |
|--------------|----------------|-------------|
| M92 | PR17=7.5K Ohm | VCC1.0=1.1V |
| Park Madison | PR17=4.99K Ohm | VCC1.0=1.0V |

VCC0.9

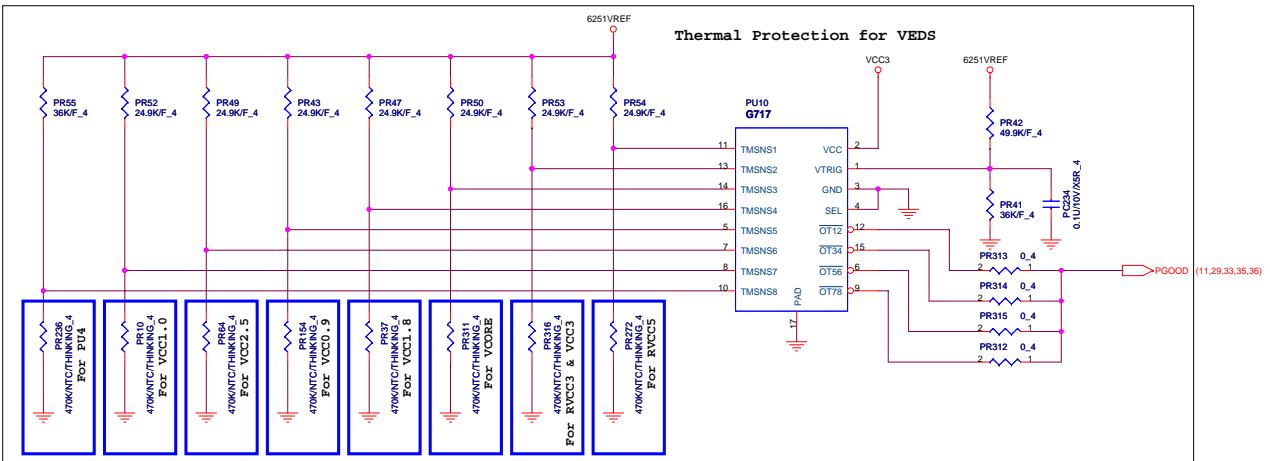


| | | |
|-------------|-------|------|
| VDDR_09_EN# | High | Low |
| VCC0.9 | 1.05V | 0.9V |

VCC2.5

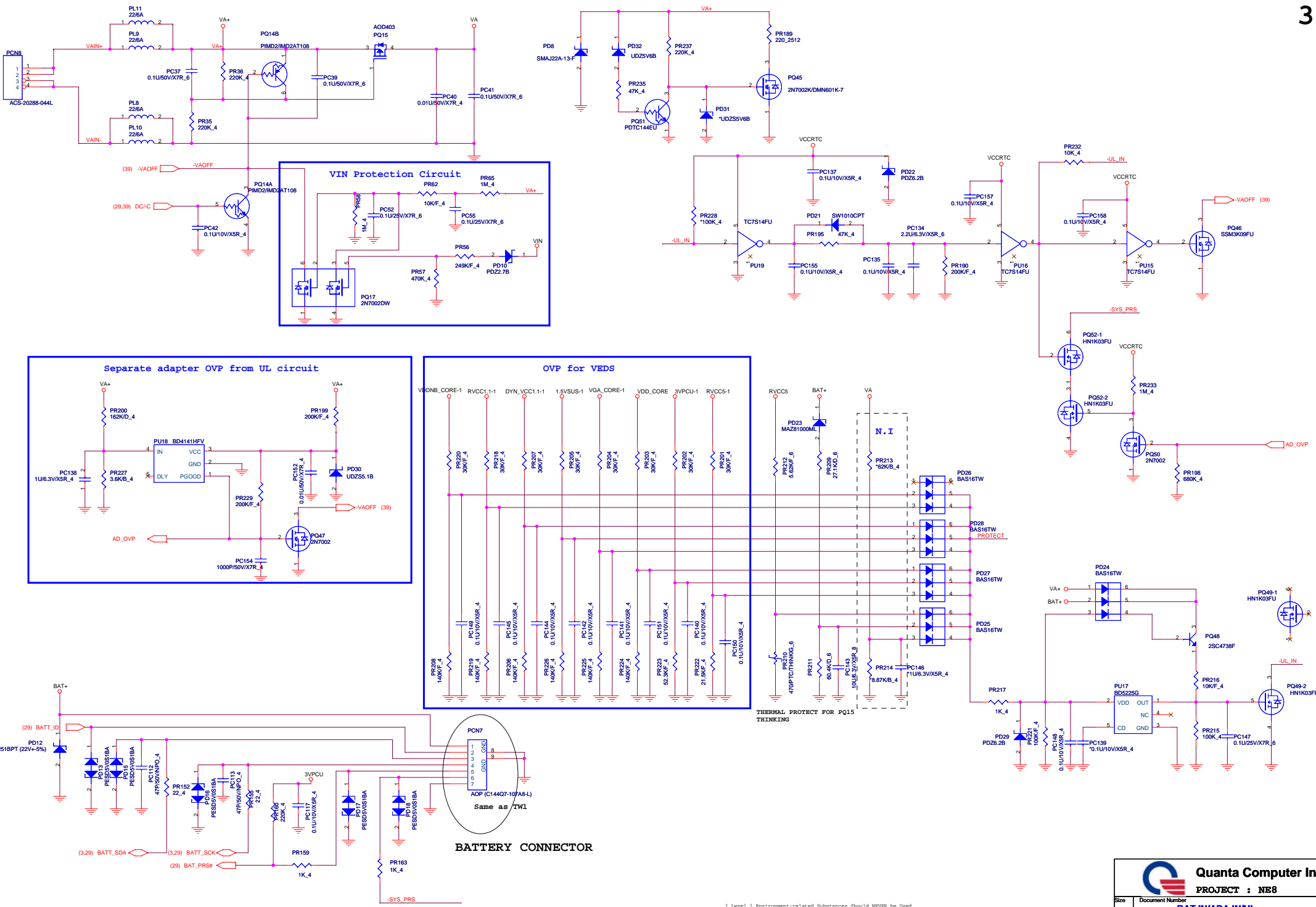


Thermal Protection for VEDS



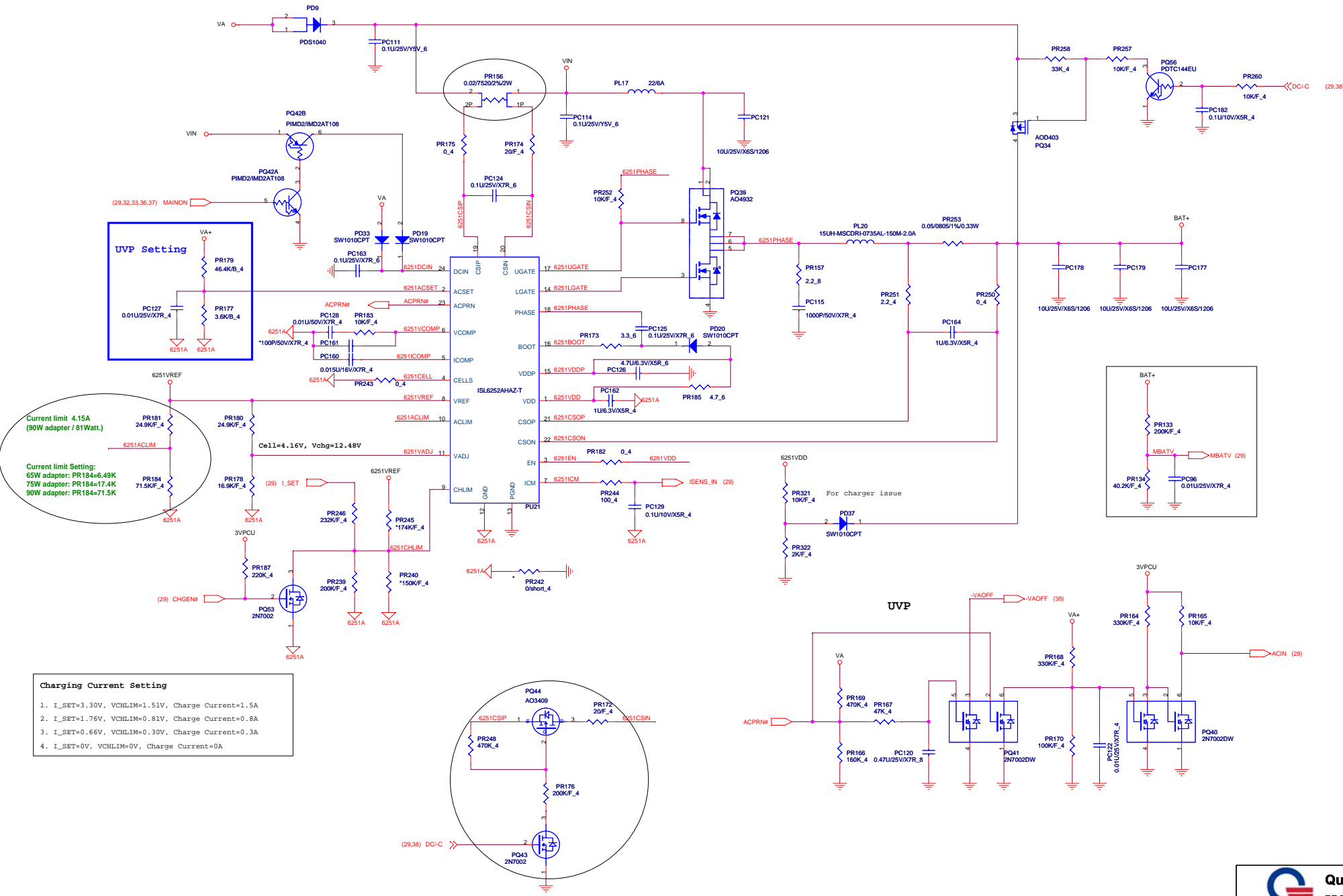
1.Level 1 Environment-related Substances should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

Quanta Computer Inc.
 PROJECT : NE8
 CUCI.80.92.51.0
 Date: Wednesday, January 27, 2010 Sheet 37 of 42



1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| | | |
|-----------------------------------|-------------------------|-----|
| | | |
| Quanta Computer Inc. | | |
| PROJECT : NE8 | | |
| Size | Document Number | Rev |
| | BAT IN/ADA IN/UL | 2A |
| Date: Wednesday, January 27, 2010 | | |
| Sheet | | 42 |



UVP Setting

VA+
 PR179 46.4K/B_4
 PR177 3.8K/B_4
 PC127 0.01U/25V/X7R_4
 6251A 6251A

Current limit 4.15A (90W adapter / 81Watt.)

PR181 24.9K/F_4
 PR184 71.5K/F_4
 6251A 6251A

Charging Current Setting

1. I_SET=3.30V, VCHLIM=1.51V, Charge Current=1.5A
2. I_SET=1.76V, VCHLIM=0.81V, Charge Current=0.8A
3. I_SET=0.66V, VCHLIM=0.30V, Charge Current=0.3A
4. I_SET=0V, VCHLIM=0V, Charge Current=0A

DC-C

PQ43 2N7002
 PR176 200K/F_4
 PR248 470K_4
 PC44 AO3409
 PR172 20F_4
 6251CSP1 6251CSP1

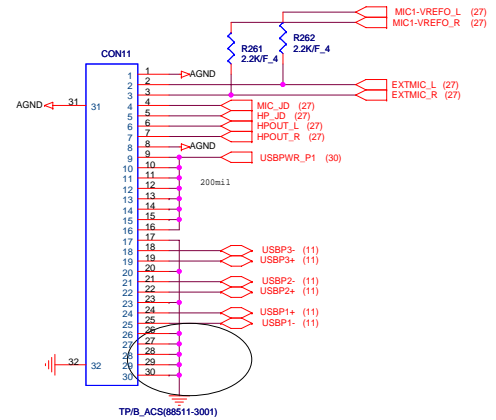
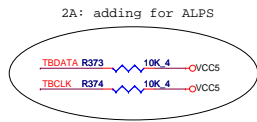
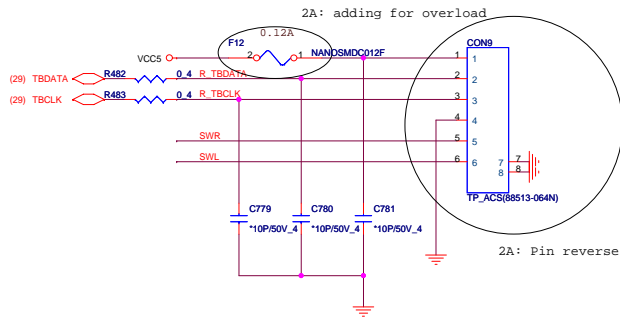
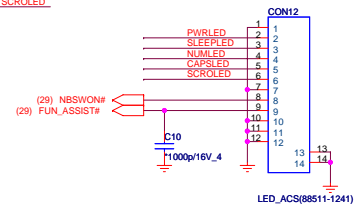
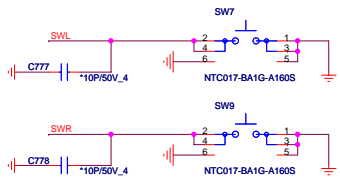
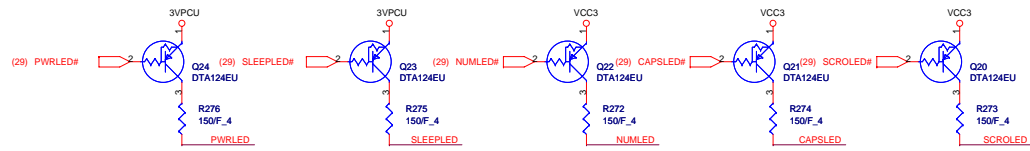
BAT+

PR133 200K/F_4
 MBATV
 PR134 40.2K/F_4
 PC96 0.01U/25V/X7R_4

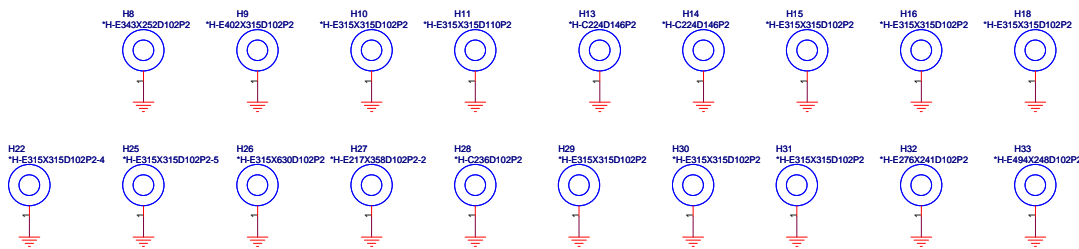
UVP

VAOFF
 -VAOFF (38)
 VA+
 PR168 330K/F_4
 PR165 10K/F_4
 PR164 330K/F_4
 PR170 100K/F_4
 PC122 0.01U/25V/X7R_4
 PQ41 2N7002D/W
 PQ40 2N7002D/W
 ACIN (29)

1.Level 1 Environment-related Substances should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

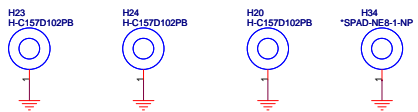


2A: change CON11 form 26pin to 30pin.



WLAN

BT



Power on Sequence required:

- SB800:**
- +3.3VDUAL ramp before +1.1VDUAL
 - +3.3V ramp before +1.8v
 - +1.8V ramp before +1.1v
 - +3.3v ramp before +1.1v
 - +3.3VALW_R ramping down time > 300us
 - 50uS <= All power rails except +3.3VALW_R <= 40mS
 - 100uS <= +3.3VALW_R <= 40mS

- RS880:**
- 0 <(+3.3V) - (+1.8v) < 2.1
 - +1.8V ramp before +1.1v
 - +1.1V ramp before VCC_NB

SB OUTPUT --- NB_PWRGD
 SB INPUT --- SB_PWRGD

GROUP B

PGOOD(DYN)
 DYN_VCC1.1
 VLDT(VCC1.1)
 VCC1.1
 VRM_PWRGD
 VCC0.9
 VDD_CORE (VRON)
 VDDNB_CORE

GROUP A

PGOOD(2.5)
 VCC2.5 (CPU_VDDA_2.5_RUN)
 VCC1.5
 PGOOD(1.8)
 VCC1.8
 VCC3, VCC5
 MAINON
 SUSON
 PM_SLP_S3#

CPU MEM CTL & DDR3 SODIMM PWRS

PGOOD(1.5)
 MEM_VTT

1.5VSUS

CPU_THM/SB/SB_SCL1/2
 SB_XB/SPI/LPC ROM PWRS

EC_DNBSWON#
 RSMRST#

RVCC5, RVCC3, RVCC1.1

VDD_DUAL_EN

RVCC_ON

KBC is ready

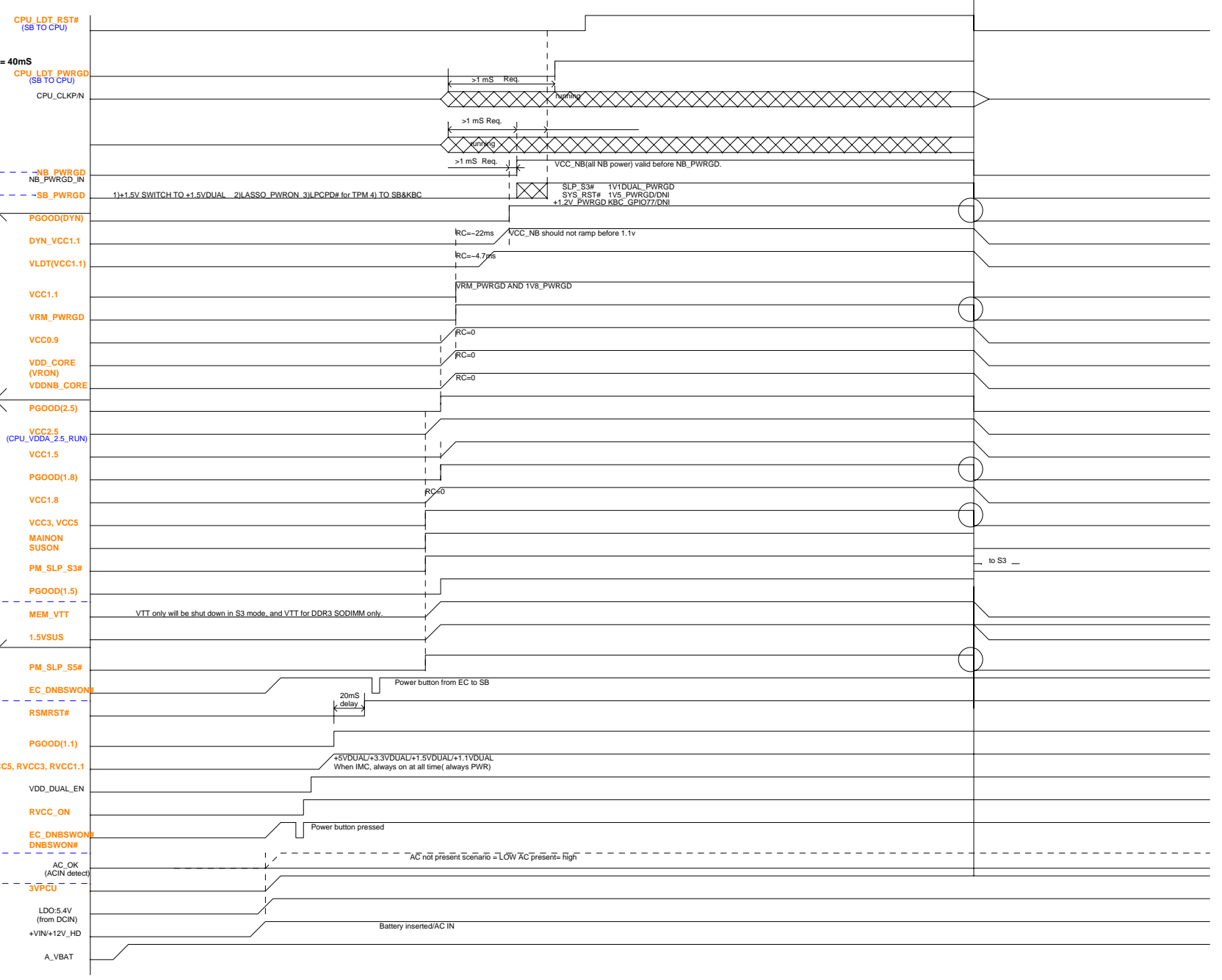
EC_DNBSWON#
 DNBSWON#

KBC is powered by A_VBAT & +3.3VALW

AC_OK (ACIN detect)
 3VPCU

LDO:5.4V (from DCIN)
 +VIN/+12V_HD

A_VBAT



1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Welding resins only from the business Partners that Sony approves as Green Partners.

2A Adding R159 (10K) for shut down issue.

D

D

C

C


B

B

A

A

- 1.Level 1 Environment-related Substances Should NEVER be Used.
- 2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

| | | |
|---|-----------------------------|-----------------------------|
|  | | Quanta Computer Inc. |
| | | PROJECT : NE8 |
| Size | Document Number | Rev |
| | Change History | 2A |
| Date: | Wednesday, January 27, 2010 | Sheet 42 of 42 |