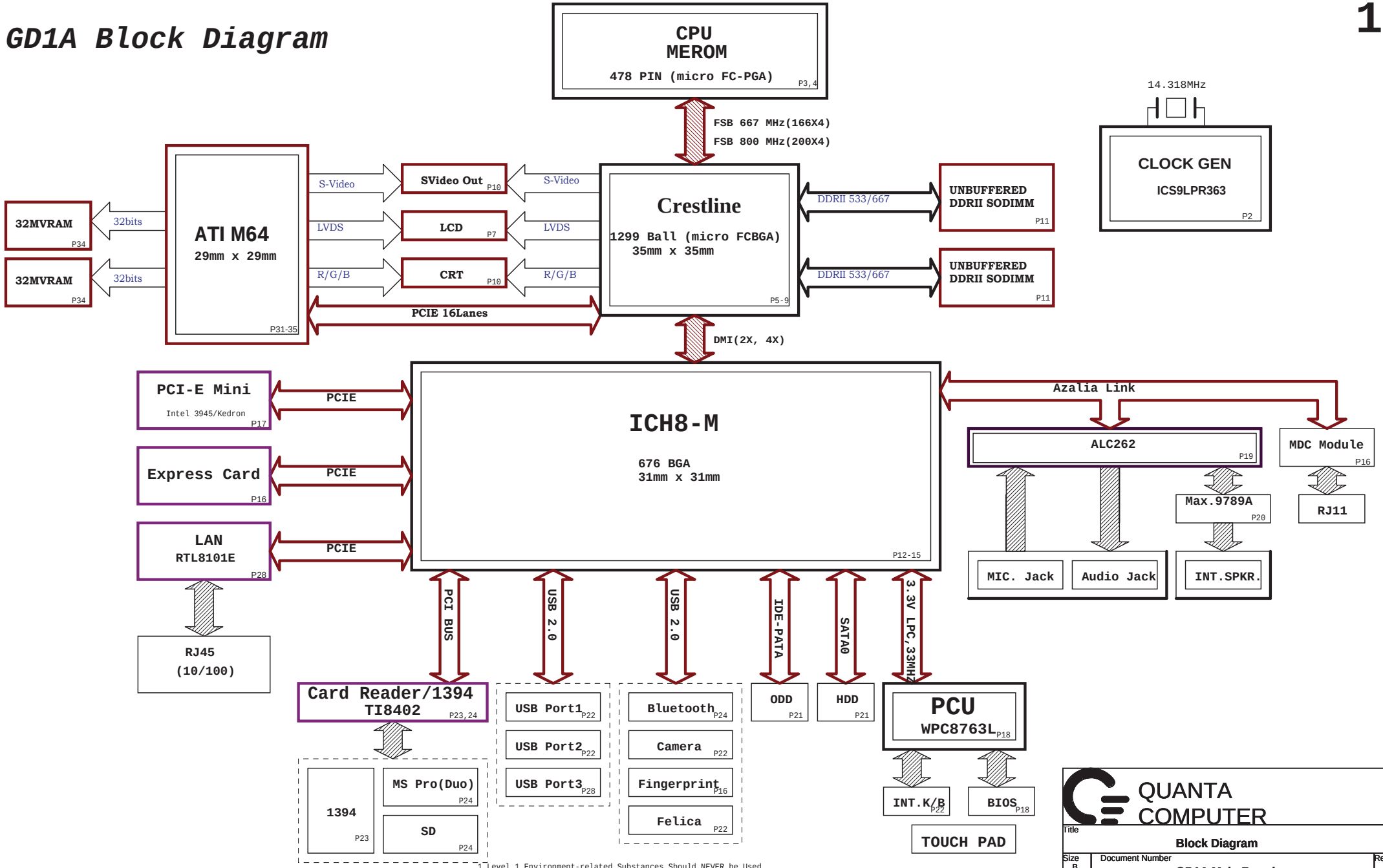
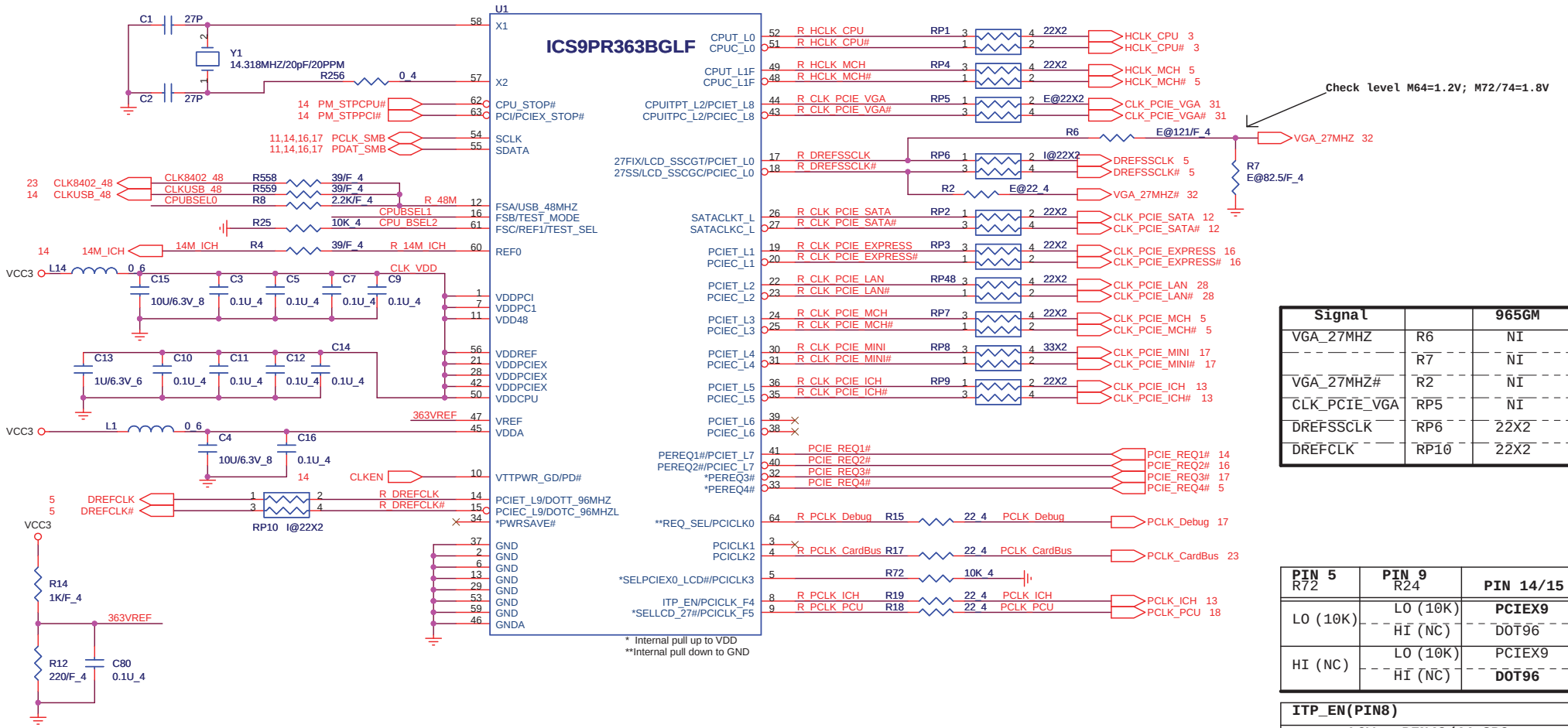
GD1A Block Diagram



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

Title: Block Diagram		
Size: B	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 1 of 35	



Signal		965GM	965PM
VGA_27MHZ	R6	NI	121
	R7	NI	71.5
VGA_27MHZ#	R2	NI	22
CLK_PCIE_VGA	RP5	NI	22X2
DREFSSCLK	RP6	22X2	NI
DREFCLK	RP10	22X2	NI

PIN 5 R72	PIN 9 R24	PIN 14/15	PIN 17/18
LO (10K)	LO (10K)	PCIEX9	27MHZ
	HI (NC)	DOT96	LCD
HI (NC)	LO (10K)	PCIEX9	PCIEX0
	HI (NC)	DOT96	PCIEX0

ITP_EN(PIN8)
LOW : PIN43/44 SRC
HIGH : PIN43,44 CPUITP

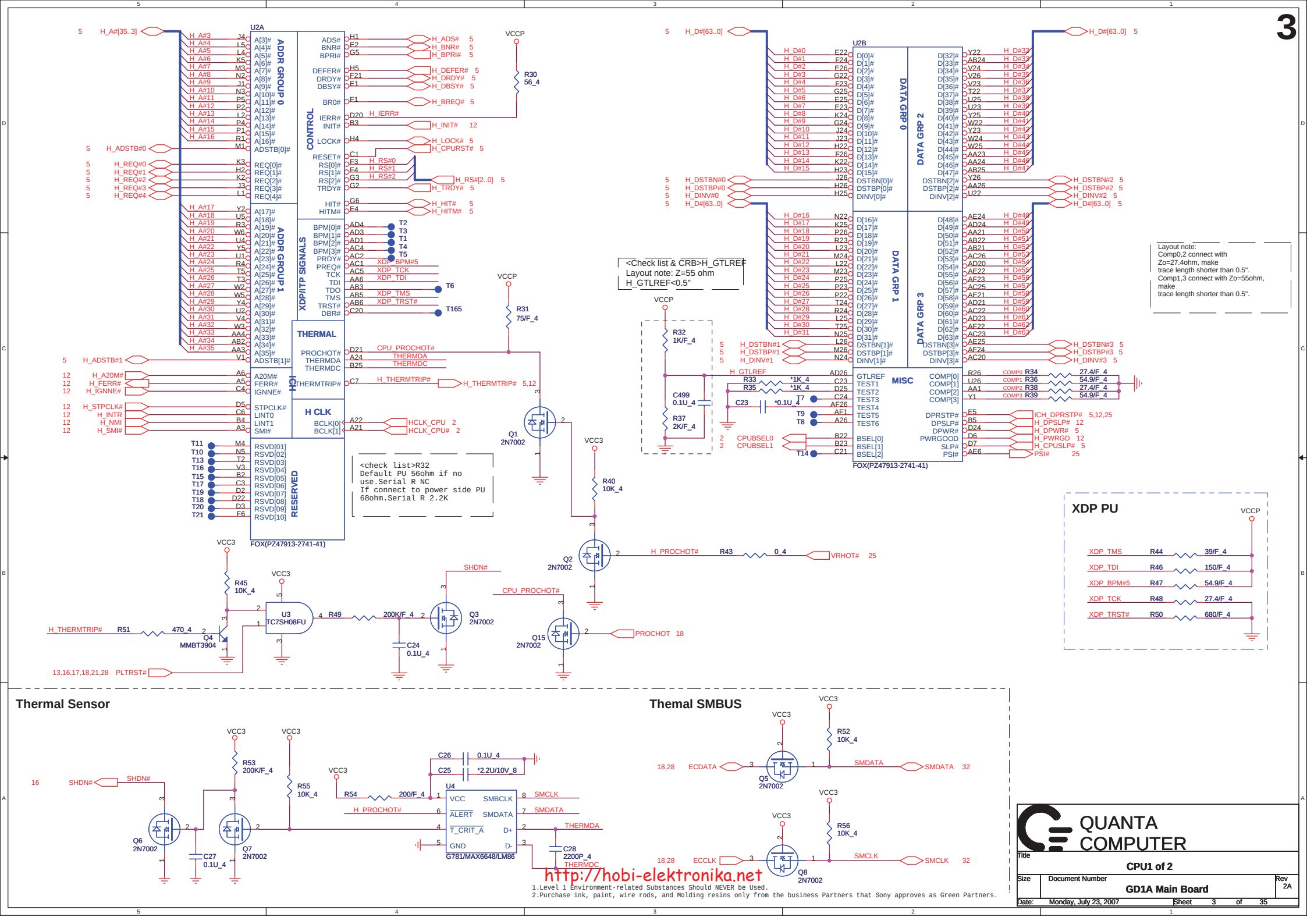
PCIE_REQ1#	PCIE_L0	PCIE_L6	
PCIE_REQ2#	PCIE_L1	PCIE_L8	
PCIE_REQ3#	PCIE_L2	PCIE_L4	
PCIE_REQ4#	PCIE_L3	PCIE_L5	PCIE_L7

FSC BSEL2	FSB BSEL1	FSA BSEL0	CPU	SRC	PCI	REF	USB	DOT	Spread %
	0	0	0	266.66	100	33.33	14.318	48	96	0.5 Down
	0	0	1	133.33	100	33.33	14.318	48	96	0.5 Down
*	0	1	0	**200.00**	100	33.33	14.318	48	96	0.5 Down
	0	1	1	166.66	100	33.33	14.318	48	96	0.5 Down
	1	0	0	333.33	100	33.33	14.318	48	96	0.5 Down
	1	0	1	100.00	100	33.33	14.318	48	96	0.5 Down
	1	1	0	400.00	100	33.33	14.318	48	96	0.5 Down
	1	1	1	200.00	100	33.33	14.318	48	96	0.5 Down

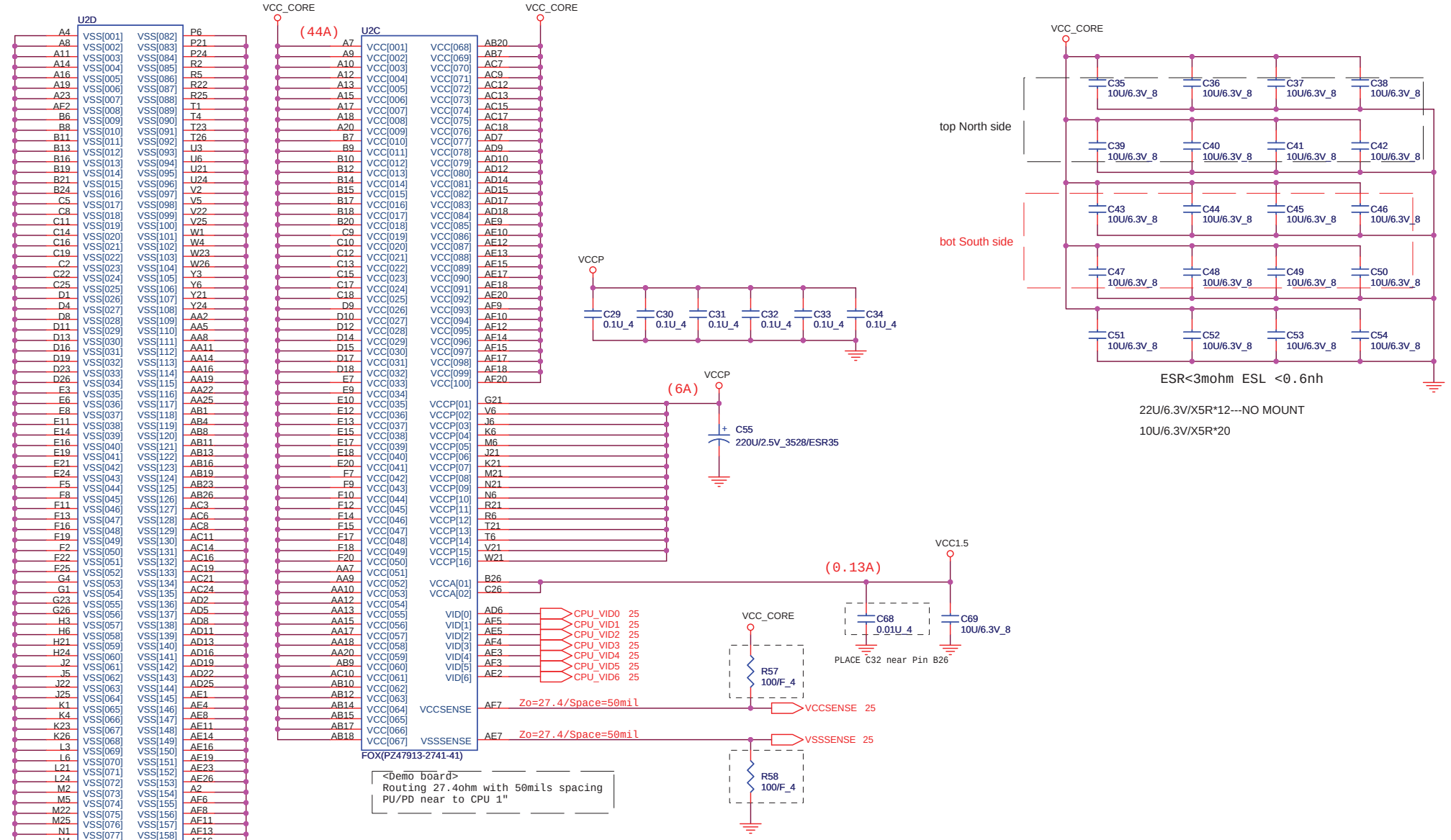
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	CLOCK GENERATOR	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 2 of 35	



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

Title	CPU 2 of 2	
Size B	Document Number GD1A Main Board	Rev 2A
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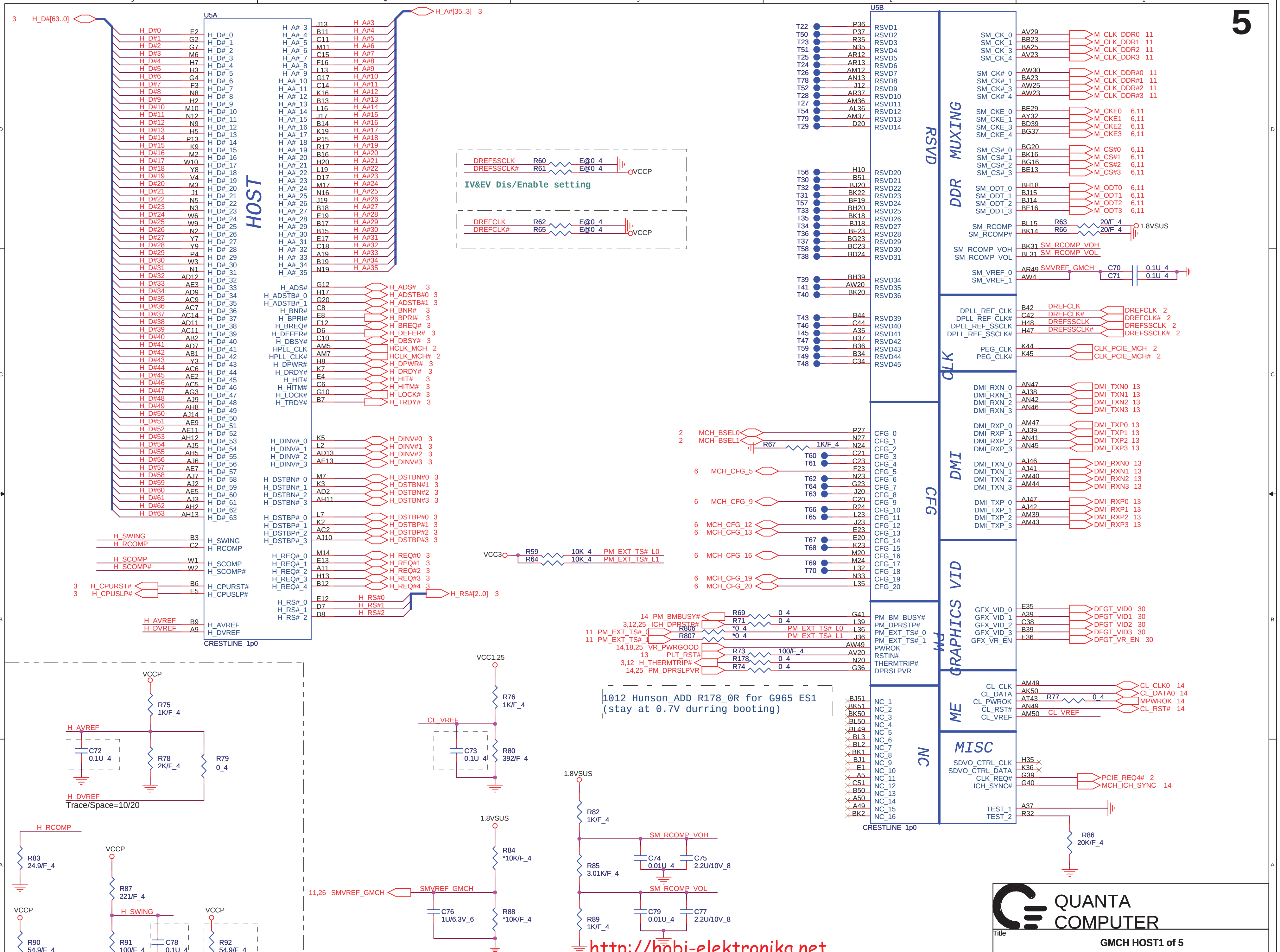

1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

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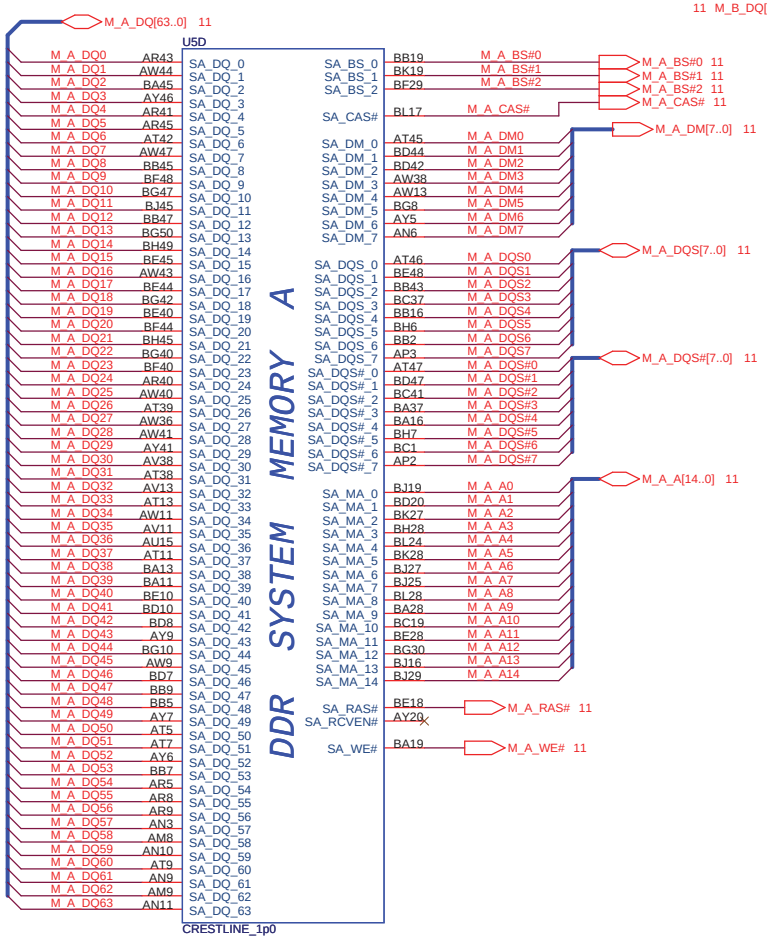
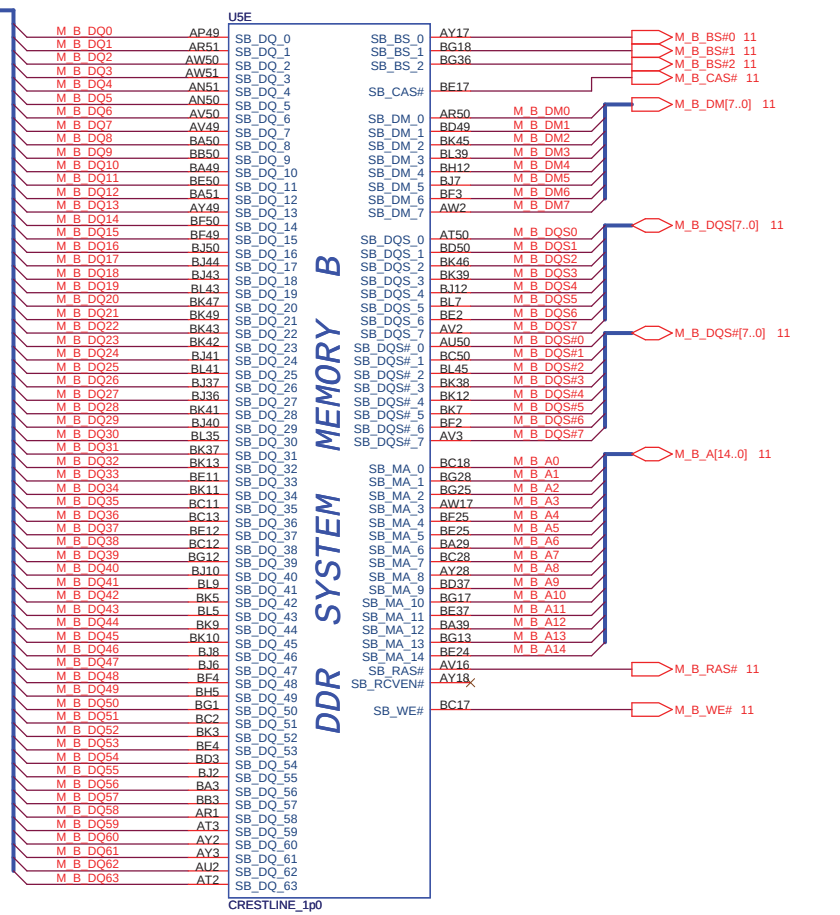
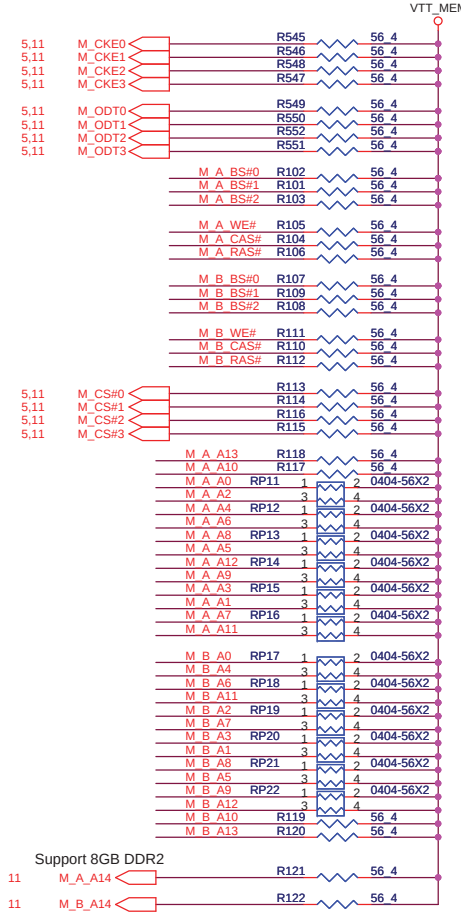
QUANTA COMPUTER

Title	GMCH HOST1 of 5	
Size	Document Number: GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 5 of 35	







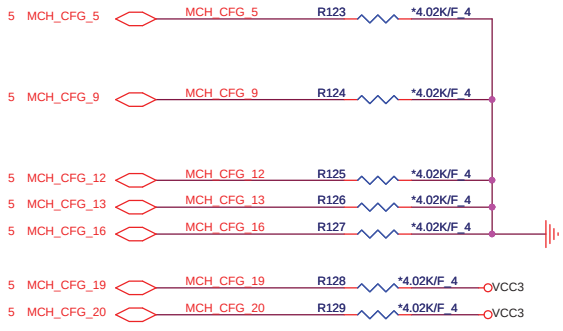
GMCH Strap pin description

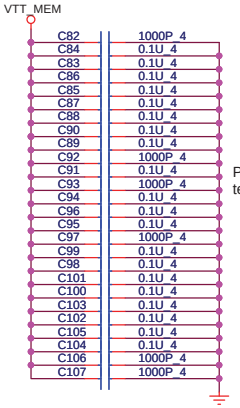
	Low	High
CGF5	DMIx2	* DMIx4
CGF6	RSVD for 945GMS	
CGF7	RSVD	* CPU type: Mobile CPU
CGF9	PCIE Graphics lan : Reverse Lane	* PCIE Graphics lan : Normal operation
CGF10	reserved	
CGF11	reserved	
CGF16	FSB Dynamic ODT Disabled	* FSB Dynamic ODT Enabled
CGF18 *	GMCH core: 1.05V	GMCH core: 1.5V
CGF19 *	DMI LANE Normal	DMI LANE Reversed
CGF20 *	only SDVO or PCIE x1 is operational	SDVO and PCIE x1 are operation simultaneously via the PEG port

CGF[13:12]

00 = Partial clock gating disable
01 = XOR mode enabled
10 = All-Z mode enabled
* 11 = Normal Operation(Default)

int.Pull-down : CFG 18,19,20
int.Pull-high : CFG CFG 3~17





Place one cap close to every 2 pull-up resistors terminated to VccSus0_9(Total 0.1u x 26)

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

Title	GMCH DDR II 2 of 5	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 6 of 35	

E@: PM965(EXT) should mount
I@: GM965(INT) should mount
@:please refer to form nearly

Signal		GM965	PM965
NB_VSYNC	R158	NI	0_4
	R168	30.1_4	NI
NB_HSYNC	R159	NI	0_4
	R166	30.1_4	NI
GFX	C112, C114~C129, C130~C145	NI	0.1UF_4

Signal		965GM	965PM
NB_B	R160	0_4	NI
	R155	150_4	0_4
NB_G	R161	0_4	NI
	R157	150_4	0_4
NB_R	R162	0_4	NI
	R156	150_4	0_4
L_IBG	R147	2.4K_4	NI
LVDS	RP38 RP41~RP43	0X2	NI
L_BKLT_EN	R170	0_4	NI
L_CTRL_CLK	R130	10K	NI
	RP46	NI	0X4
L_CTRL_DATA	R145	10K	NI
	RP46	NI	0X4
LVDS_VDDEN	R146	0_4	NI
DDC2BC	R163	0_4	NI
	R553	NI	0_4
DDC2BD	R164	0_4	NI
	R554	NI	0_4
CRT_TVO_IREF	R167	1.3K_4	0
L_DDC_CLK	RP46	NI	0X4
L_DDC_DATA	RP46	NI	0X4
BRIGHT	R173	0_4	NI
	R175	NI	0_4

SM Bus PD

CRT PU/PD

NB LVDS enable

0517 Hunson_change from 0.1u to 1u

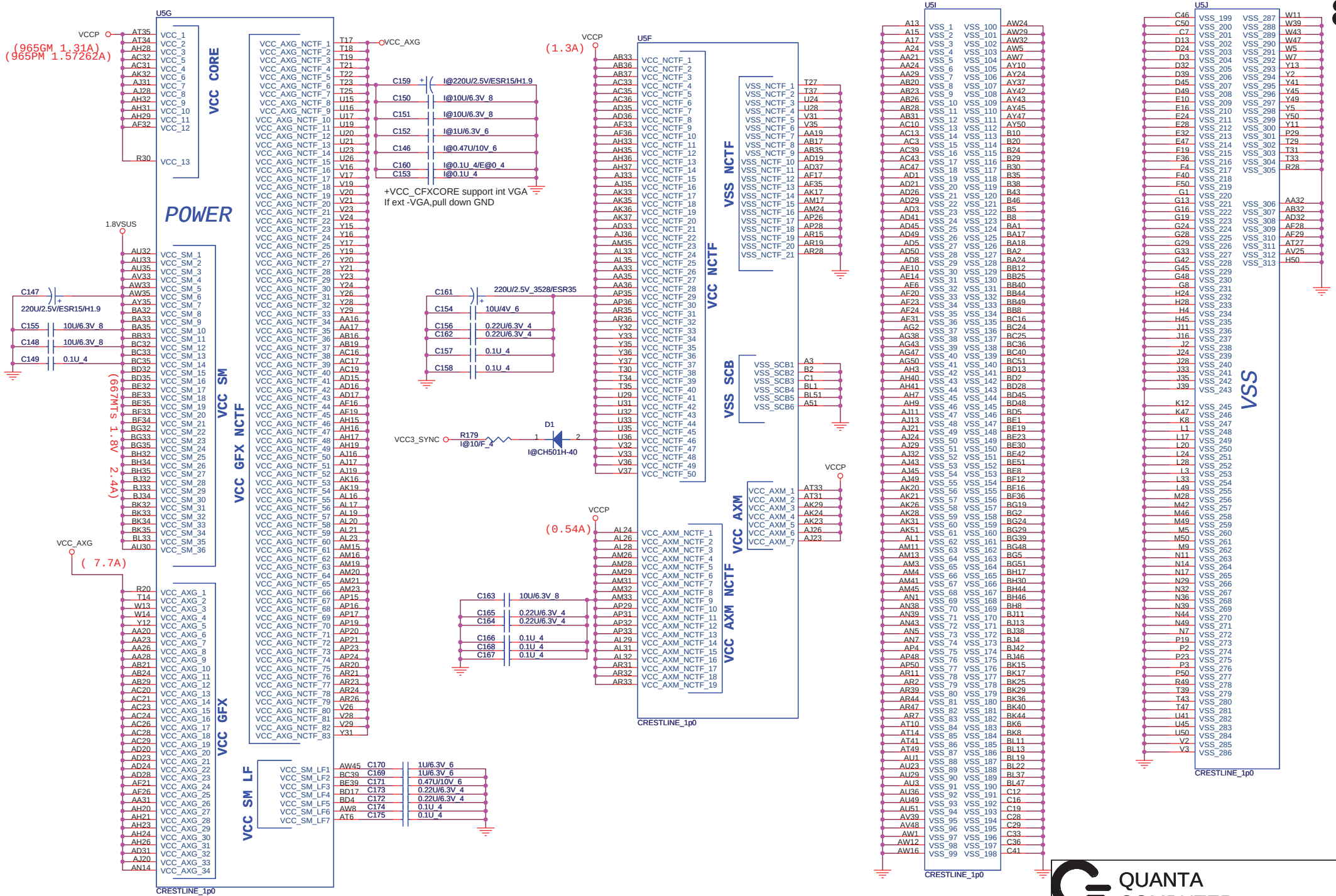
LVDS

Display On

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

Title	GMCH DMI VEDIO 3 of 5	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 7 of 35	



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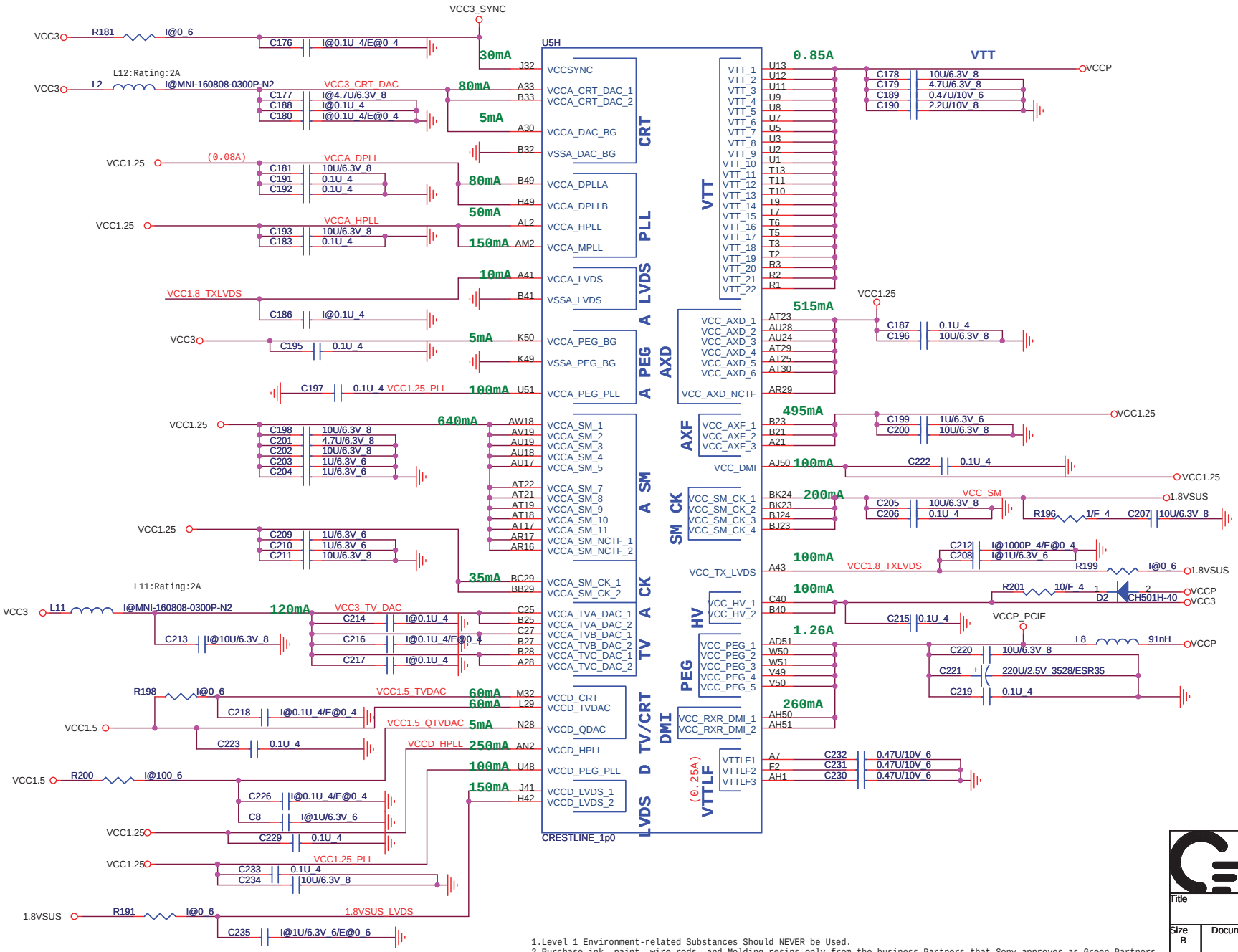
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	GMCH Power 4 of 5	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 8 of 35	



Signal		965GM	965PM
VCCA_TV_DAC	L12	V	X
	C244	V	X
	C245	V	X
	C246	V	X
	C248	V	X
	R193	X	V
VCC1.5_TVDAC	L14	V	X
	C250	V	X
	C247	V	X
	R195	X	V
VCC1.5_QTVDAC	L17	V	X
	C257	V	X
	C258	V	X
	R197	X	V

Signal		965GM	965PM
VCCA_DAC_BG	L8	V	X
	C214	V	X
	R181	X	V
VCCSYNC	R177	V	X
	C201	V	X
	C202	V	X
	R178	X	V
VCC3_CRT_DAC	L7	V	X
	C203	V	X
	C211	V	X
	R179	X	V
VCCD_LVDS	R198	V	X
	C265	V	X
	C264	V	X
	R199	X	V
VCCA_LVDS	R183	0_4	NC
	C208	0.01u_4	NC
	C209	0.1u_4	NC
	R184	NC	0_4
VCC_TX_LVDS	R192	V	X
	C240	V	X
	C238	V	X
	R191	X	V

1.Level 1 Environment-related Substances Should NEVER be Used.
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QUANTA COMPUTER

Title	GMCH Power 2 5 of 5	
Size B	Document Number GD1A Main Board	Rev 2A
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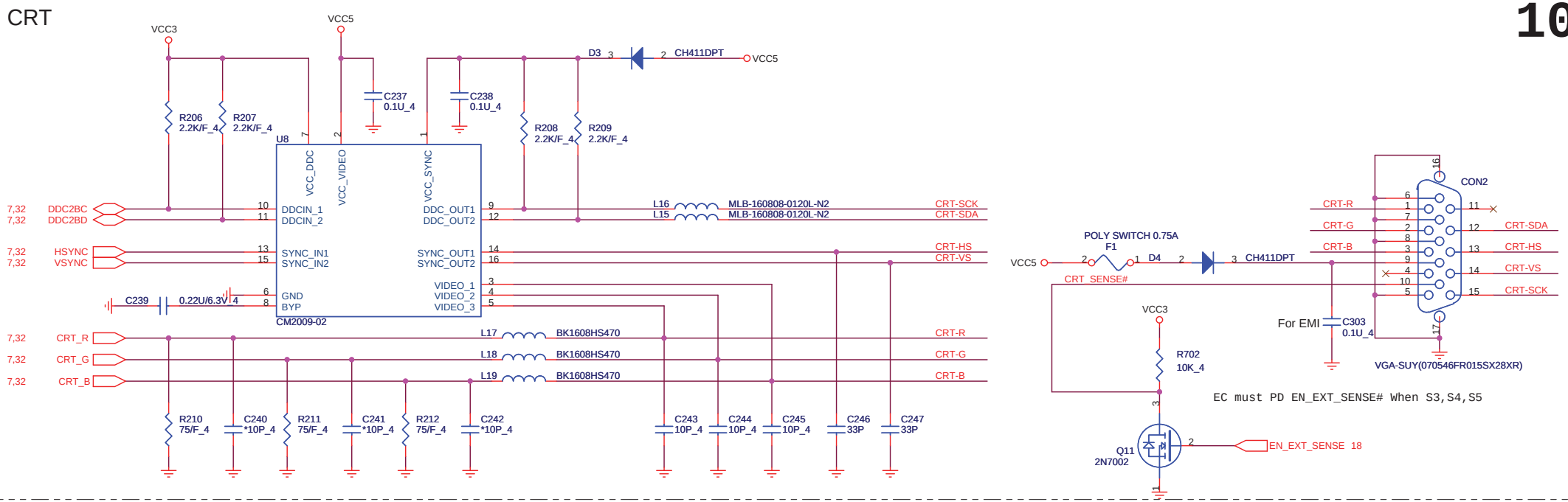
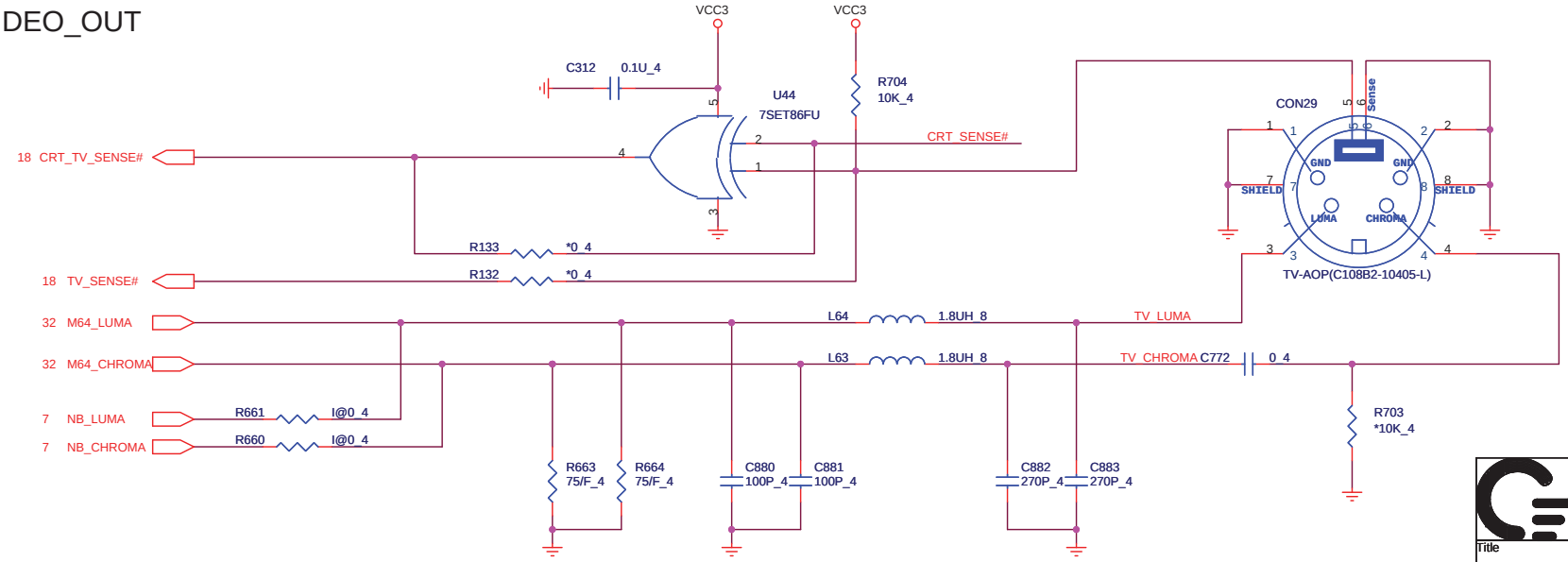
CRT



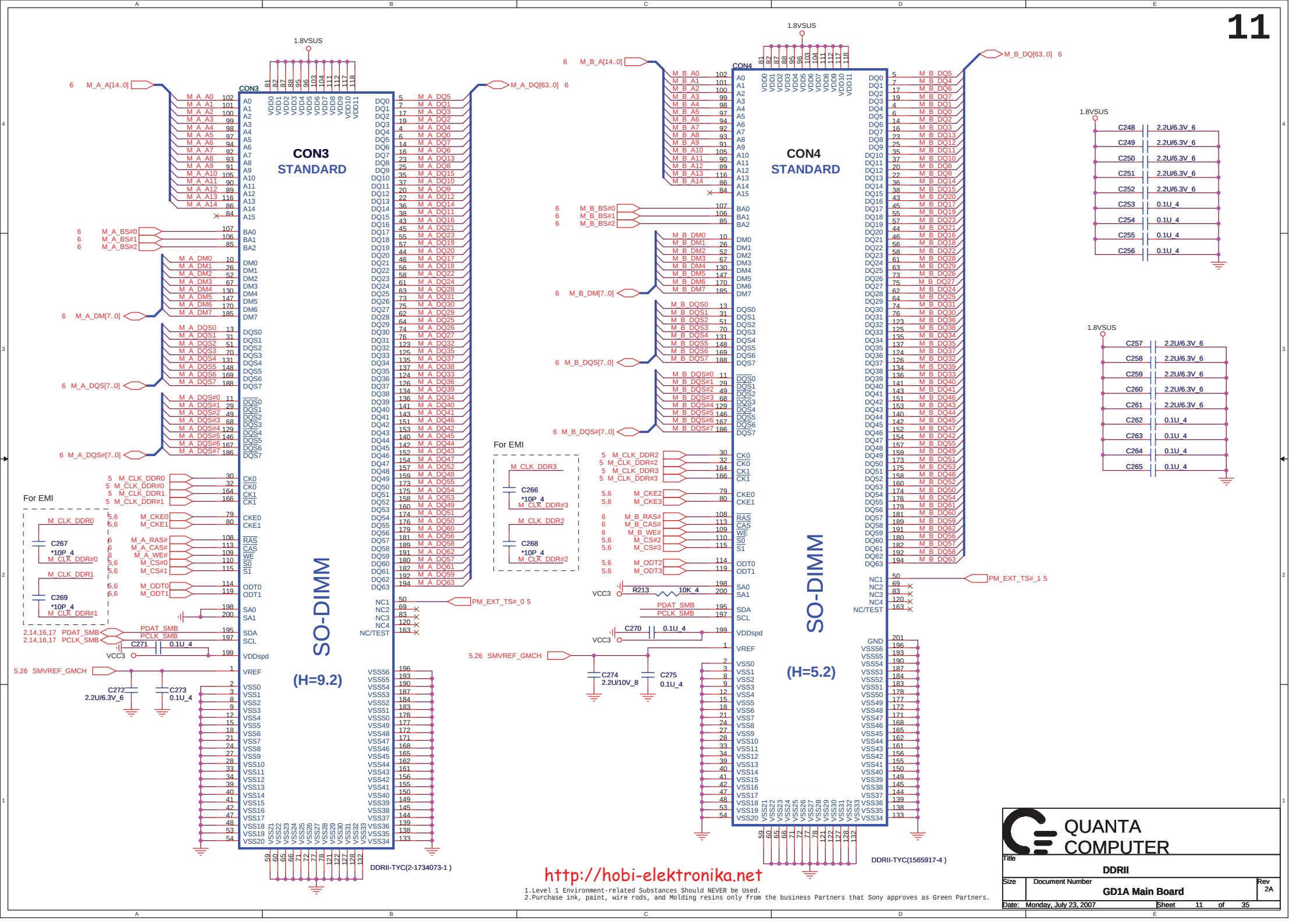
S-VIDEO_OUT



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

Title	CRT & S-VIDEO	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 10 of 35	



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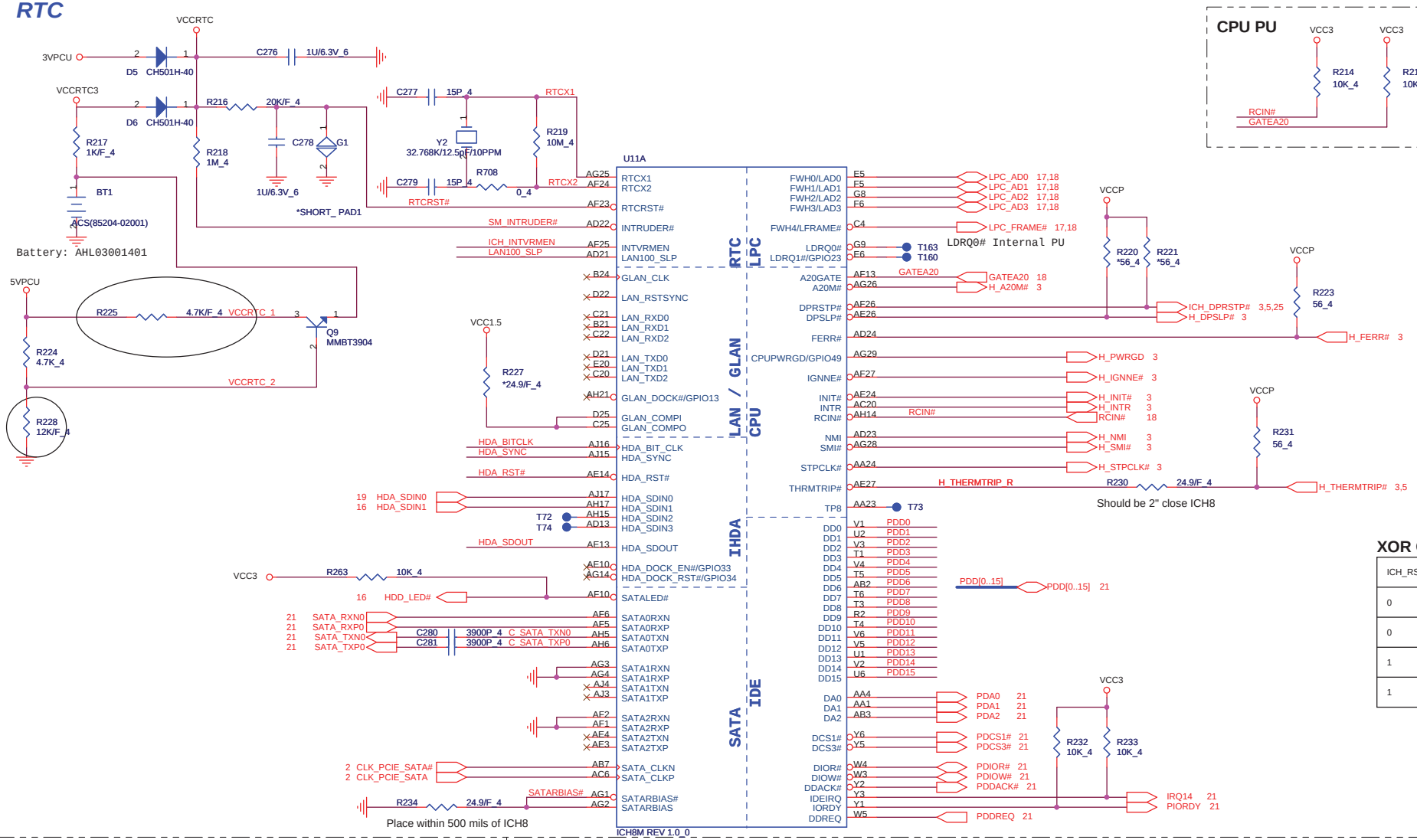
QUANTA COMPUTER

Title	DDRII	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 11 of 35	

RTC



CPU PU

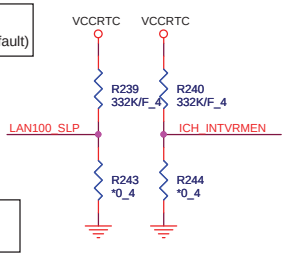
XOR Chain Entrance Strap

ICH_RSV0	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal opration(Default)
1	1	Set PCIE port config bit 1

ICH8 strap

ICH8-M LAN100_SLP Strap
(Internal VR for VccLAN1_05 and VccCL1.05)

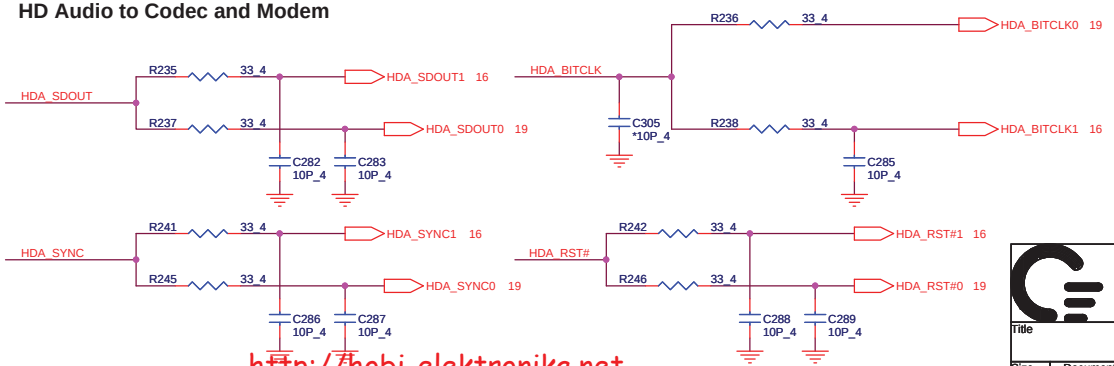
LAN100_SLP	Low = Internal VR disable High = Internal VR enable(Default)



ICH_INTVRMEN	Low = Disable High = Enable(Default)

ICH8-M Internal VR Enable strap
(Internal VR for Vccsus1_05,VccSus1_5 and VccCL1_5)

HD Audio to Codec and Modem



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

Title	ICH8-M HOST 1 of 4	
Size	Document Number: GD1A Main Board	Rev: 3A
Date: Monday, July 23, 2007	Sheet 12 of 35	

WireLess Lan

Express card

10/100 Lan

U11D

PCI-Express Direct Media Interface

SPI

USB

ICH8M REV 1.0_0

USB_PORT
USB_PORT
USB_PORT
Express Card
Finger Print
Blue Tooth
Felica
CAMERA

VCC1.5
R247 24.9/F_4
Within 500 mils
DMI_COMP

R250 22.6/F_4
<CRB>
USB_RBIAS_PN<500mils

PCI bus info.

PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
TI8402	AD23	REQ0# / GNT0#	PIRQ E/F/G

A16 SWAP Override strap

PCI_GNT#3	Low = A16 swap override enabled High = Default

PCI_GNT3# R248 *1K_4

ICH8 Boot BIOS select

PCI_GNT#0	SPI_CS#1	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC(Default)

PCI_GNT0# R251 *1K_4
SPI_CS1# R249 *1K_4

U11B

PCI

Interrupt I/F

ICH8M REV 1.0_0

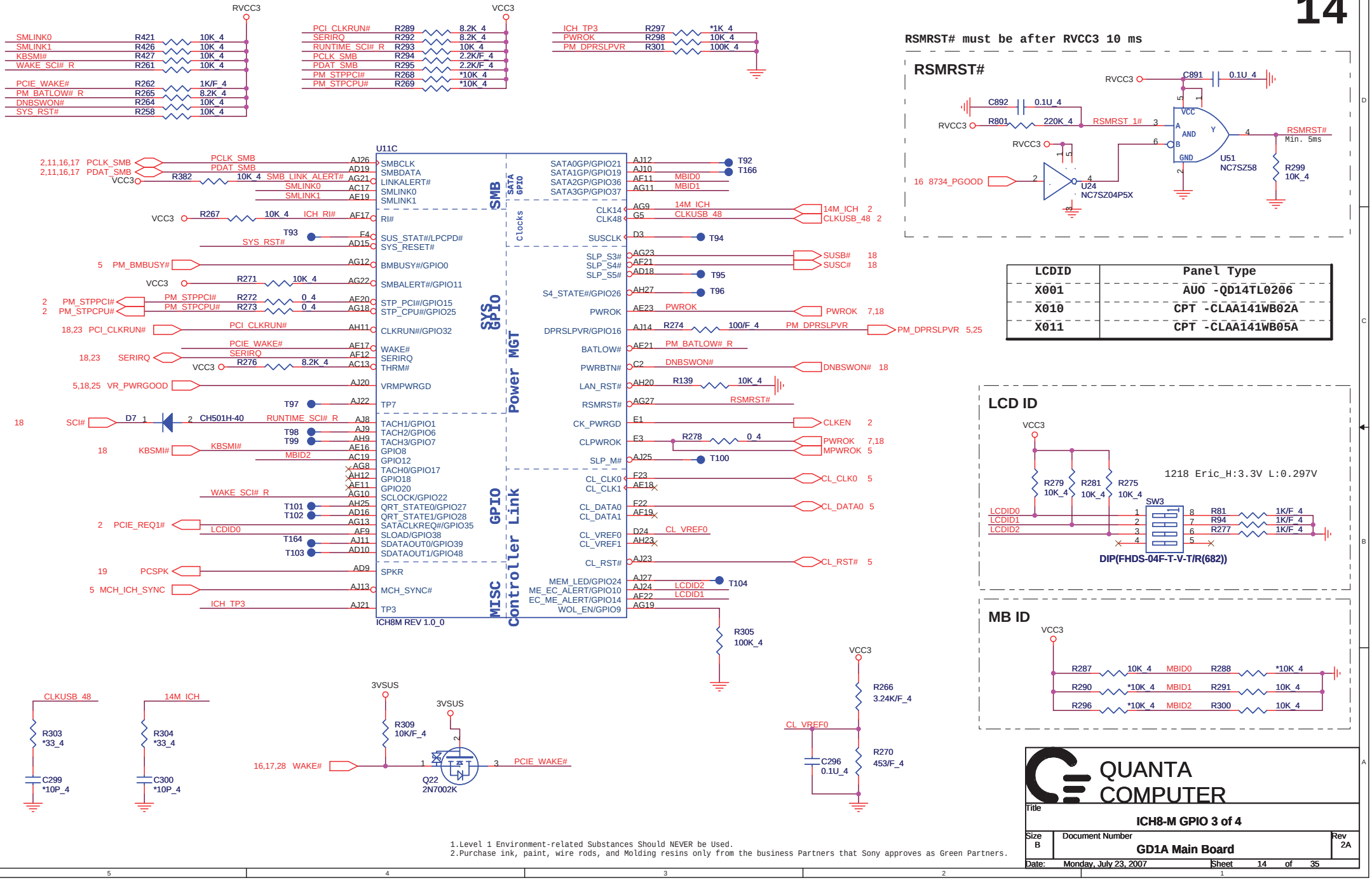
ICH8 internal PU PME# 3Vsus

U12 TC7SH08FU
U13 *E@TC7SH08FU
R255 E@0_4
R182 100K/F
C294 0.1U_4
C295 *E@0.1U_4

1.This part should not contain any substances which are specified in SS-00259-1
2.Purchase ink, paint, wire rods and molding resins only from the business partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	ICH8-M PCIE 2 of 4	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 13 of 35	

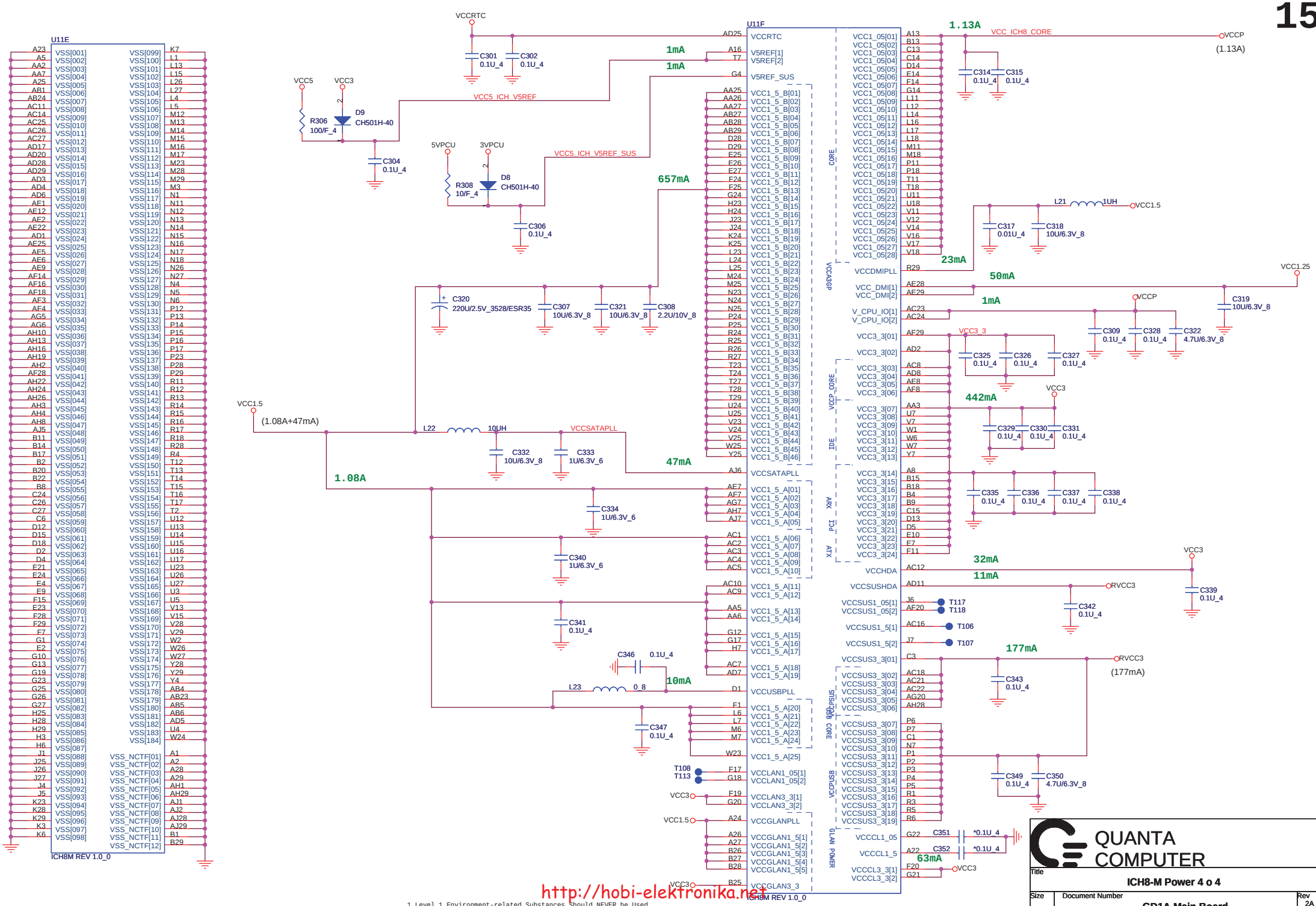


LCDID	Panel Type
X001	AUO -QD14TL0206
X010	CPT -CLAA141WB02A
X011	CPT -CLAA141WB05A

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

Title	ICH8-M GPIO 3 of 4	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 14 of 35	



1.Level 1 Environment-related Substances Should NEVER be Used.
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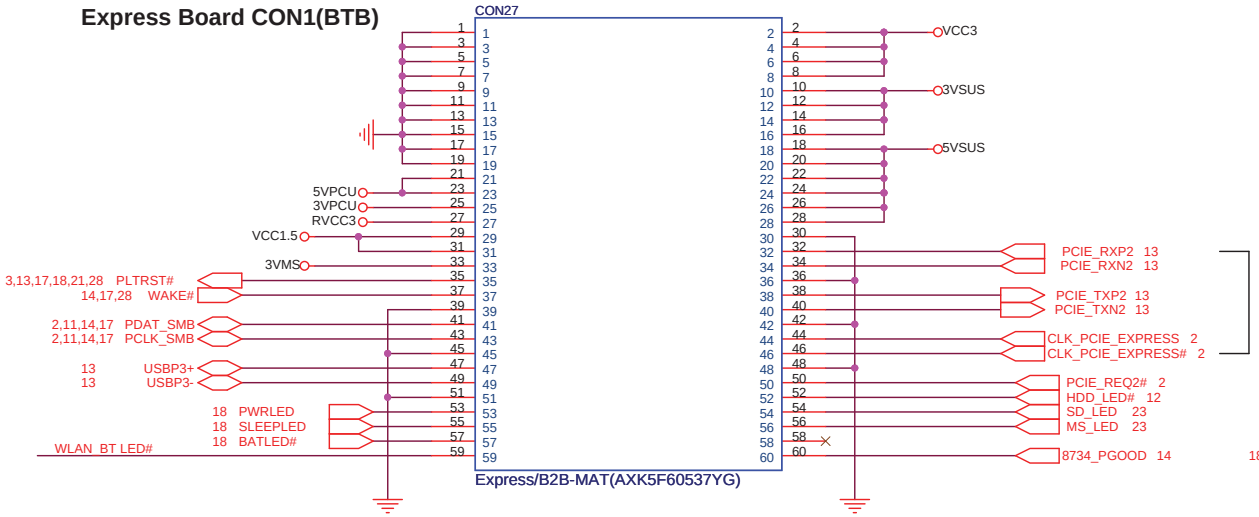
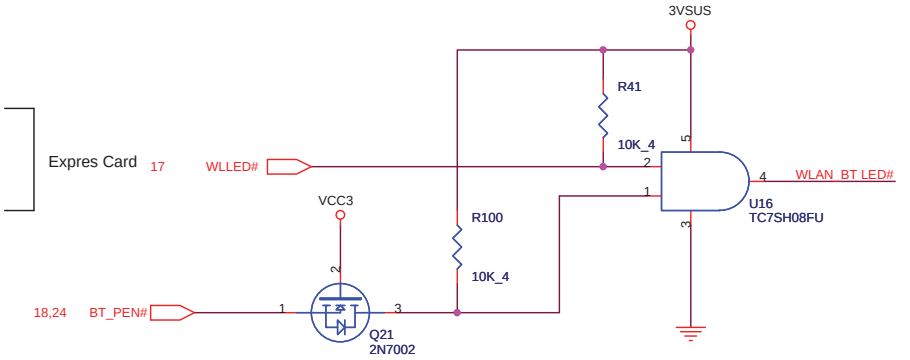
QUANTA COMPUTER

Title	ICH8-M Power 4 o 4	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 15 of 35	

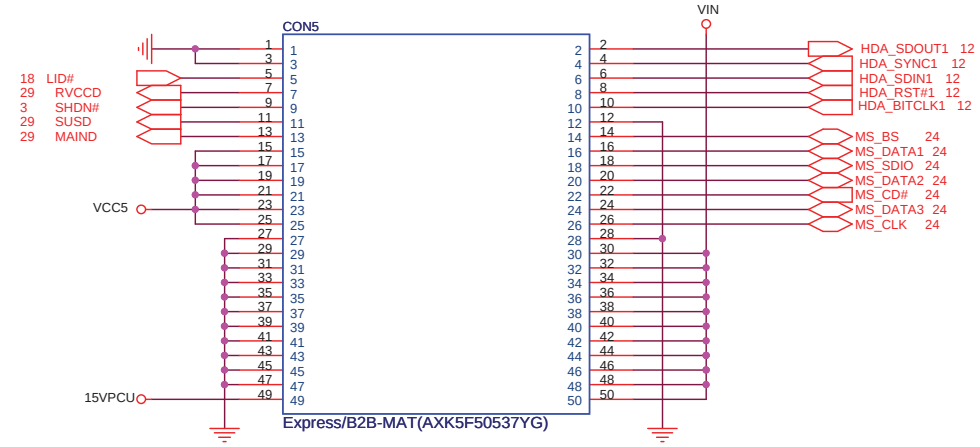
Express Board CON1(BTB)



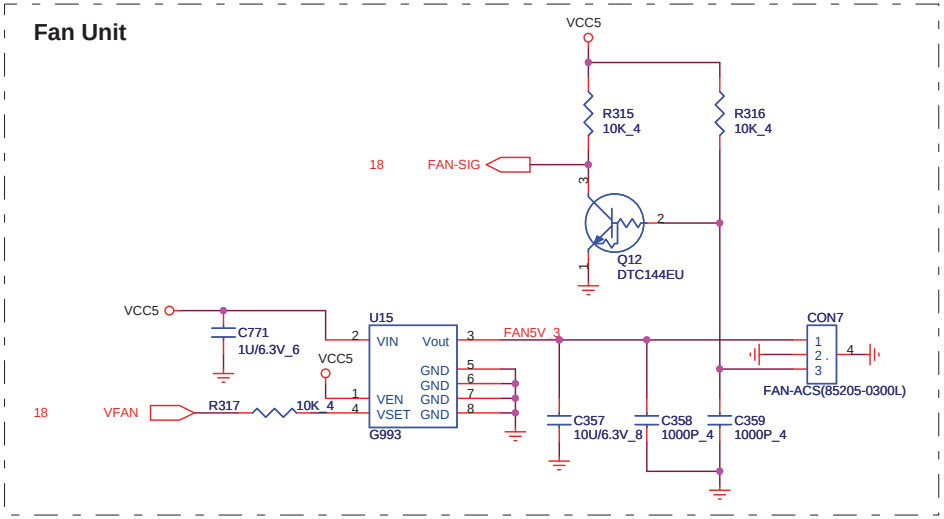
Expres Card



Express Board CON2(BTB)



Fan Unit



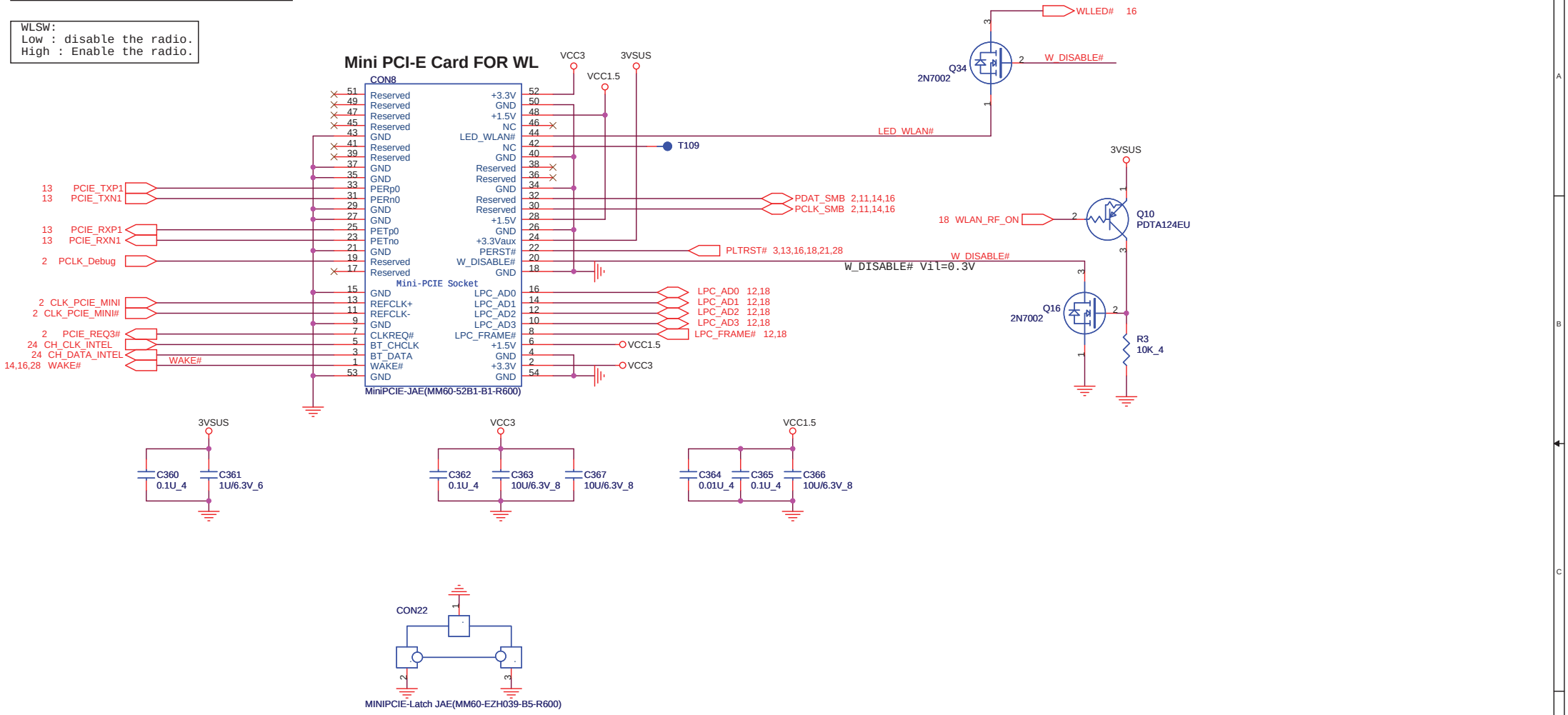
1.This part should not contain any substances which are specified in SS-00259-1
2.Purchase ink, paint, wire rods and molding resins only from the business partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	Express Card	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 16 of 35	

LED_GP :LED WLEN LINK
Output Current : 7mA
Blink rate : 1 flash per every 3 sec.

WLSW:
Low : disable the radio.
High : Enable the radio.



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

Title	MINIPCIE / MDC	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 17 of 35	

SPI Flash

U19 WND(W25X80VSSIG)

I/O Address

BADDR1:0	Index	Data
1 0	2E	2F
1 1	4E	4F
0 0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
0 1	XOR-TREE TEST	

DOCK_RST# : BADDR0
DK_BAY_PWEN: BADDR1

BT_PEN# : SHBM(If = 0 Enable share host BIOS memory)

PWROK must be after HWPG at least 10ms
VRON must be after PGOOD at least 99ms

MAINON <-- 3ms --> MAION1
MAINON <-- 3.5ms --> MAION2

MAINON
MAINON1 3ms
MAINON2 3.5ms

WPC8763L

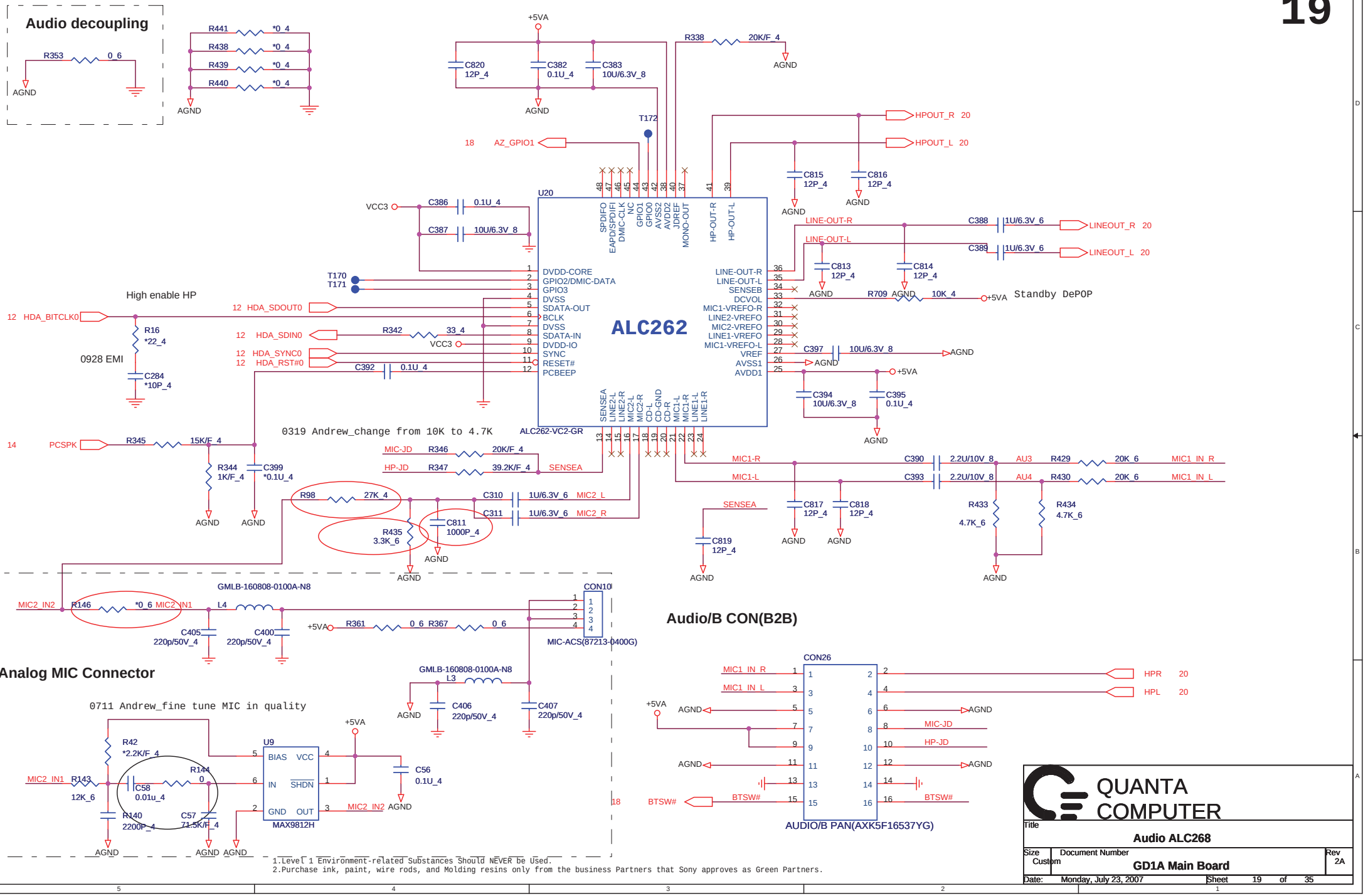
JTAG SELECT CONFIGURATION

JEN0(PIN24)	JENK(PIN53)	Functionality of PINs (17,20,21,23,25,27)	Functionality of PINs (47,48,50,51,52)
NC	NC	GPIO	KEYBOARD OUTPUT
10K PD	NC	JTAG Signal	KEYBOARD OUTPUT
NC	10K PD	GPIO	JTAG Signal
10K PD	10K PD	Illegal Strap combination	

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

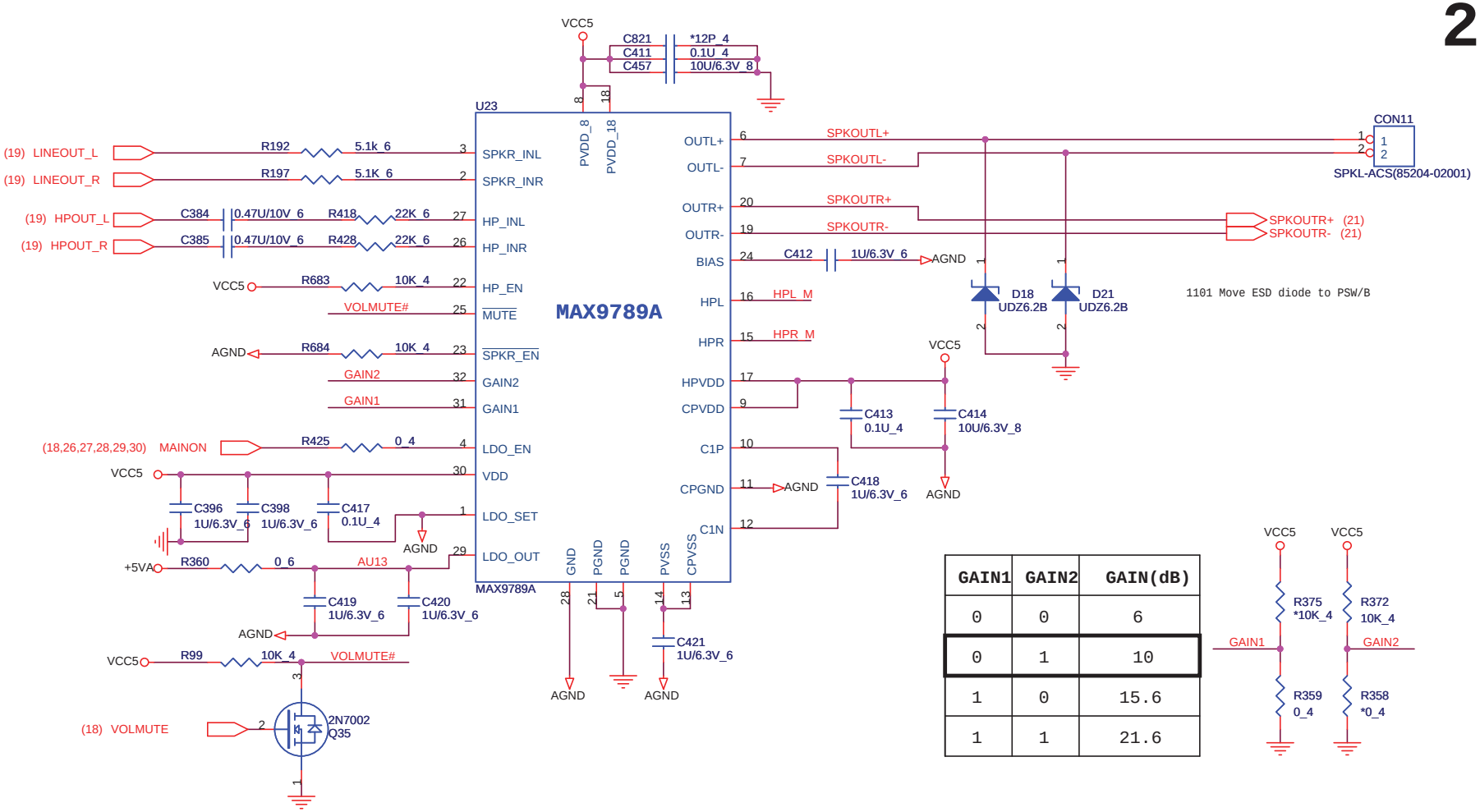
Title: WPC8763L & SPI FLASH
Size: Document Number: GD1A Main Board
Rev: 2A
Date: Monday, July 23, 2007
Sheet 18 of 35



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.

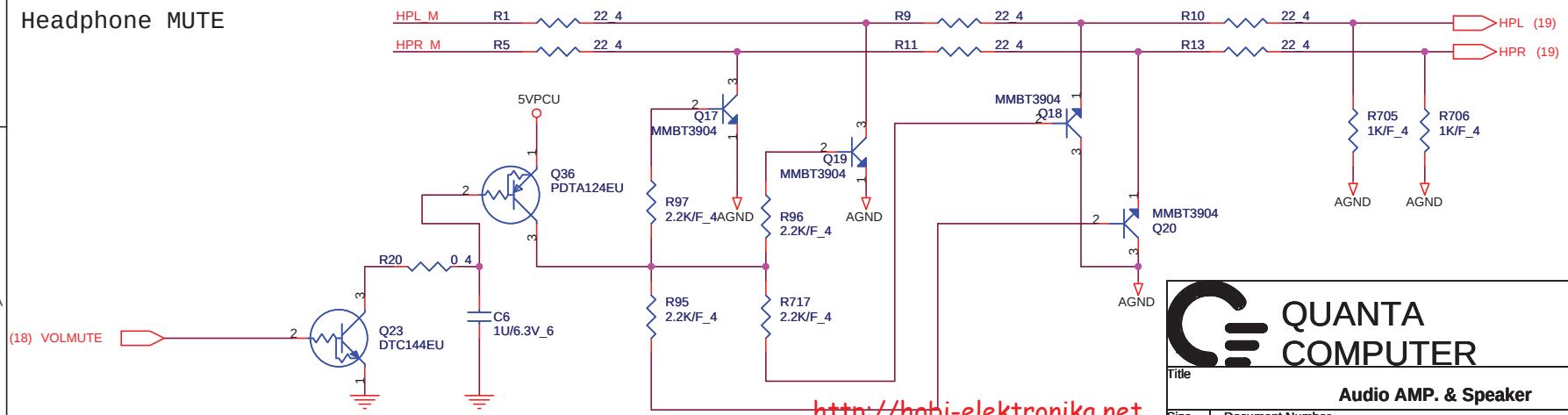
QUANTA COMPUTER

Title	Audio ALC268	
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 19 of 35	



GAIN1	GAIN2	GAIN(dB)
0	0	6
0	1	10
1	0	15.6
1	1	21.6

Headphone MUTE

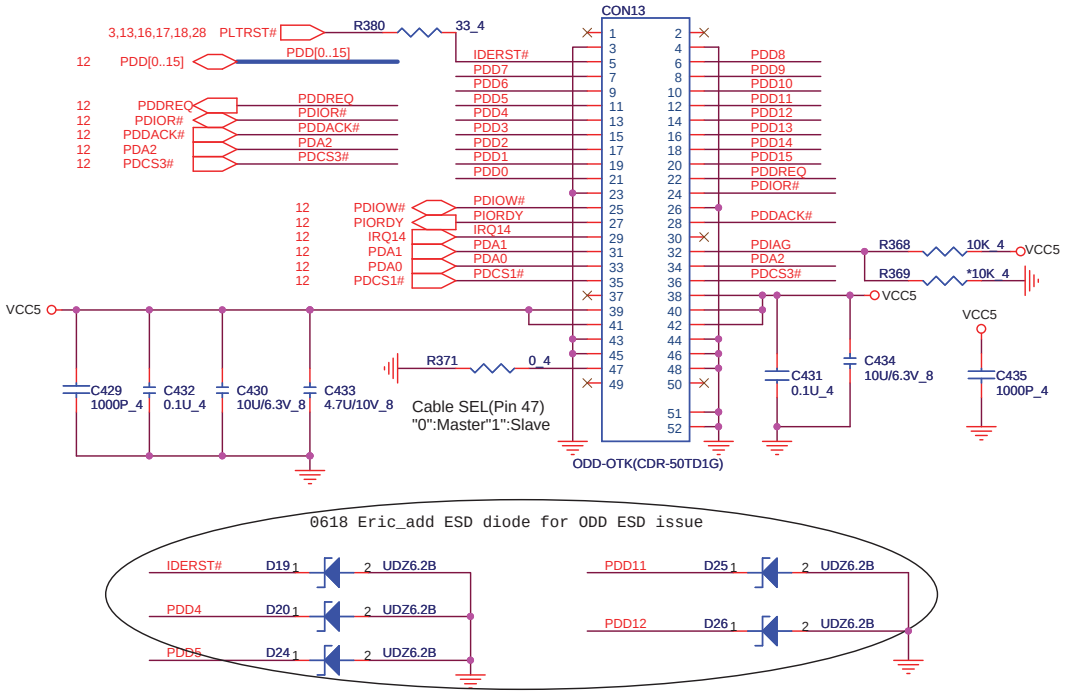


1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

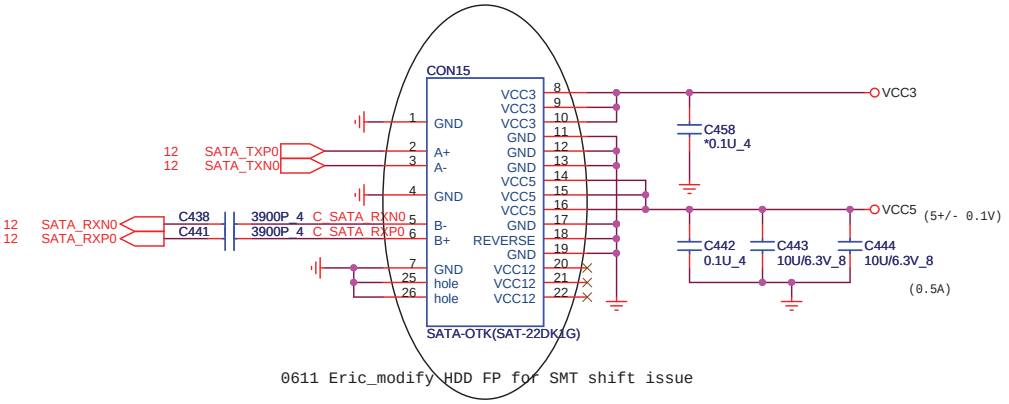
Title	Audio AMP. & Speaker	
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 20 of 35	

ODD CONNECTOR



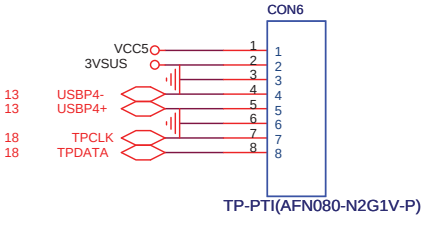
0618 Eric_add ESD diode for ODD ESD issue

HDD CONNECTOR

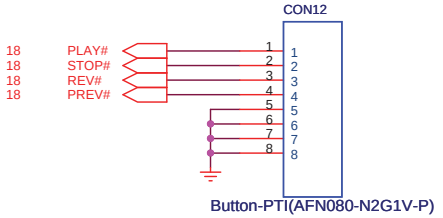


0611 Eric_modify HDD FP for SMT shift issue

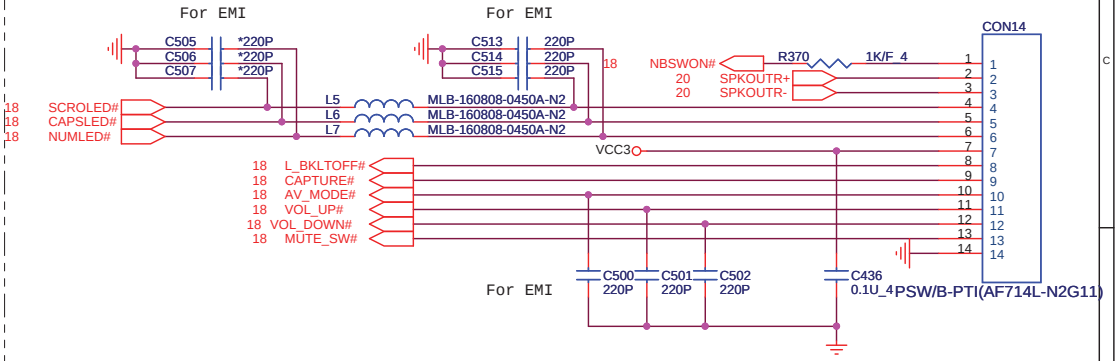
TouchPAD Board CON(FPC)



Button CON(FFC)



PSW Board CON(Inverse FFC)

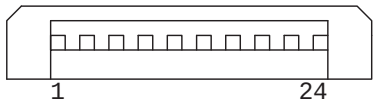


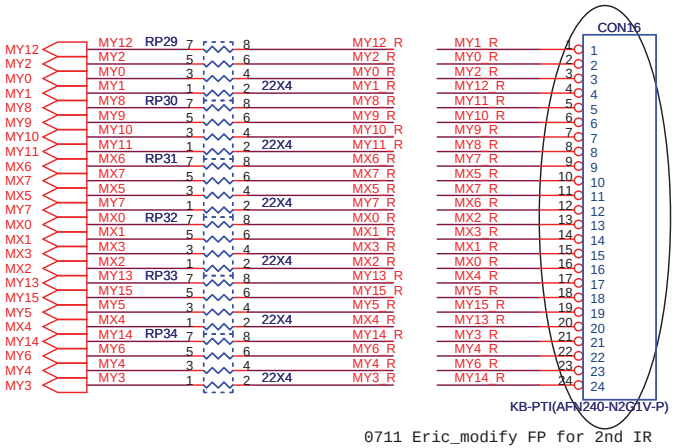
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

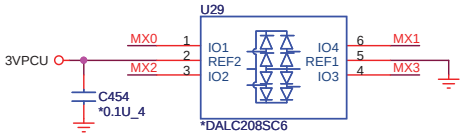
Title	HDD/ODD/PSW/BUT/TP	
Size B	Document Number GD1A Main Board	Rev 3A
Date: Monday, July 23, 2007	Sheet 21 of 35	

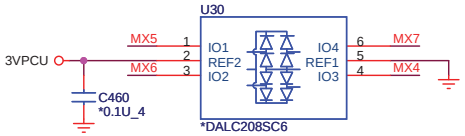
Keyboard

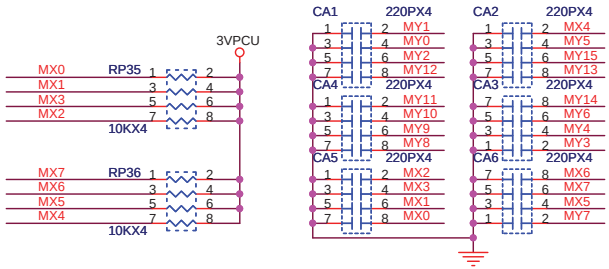




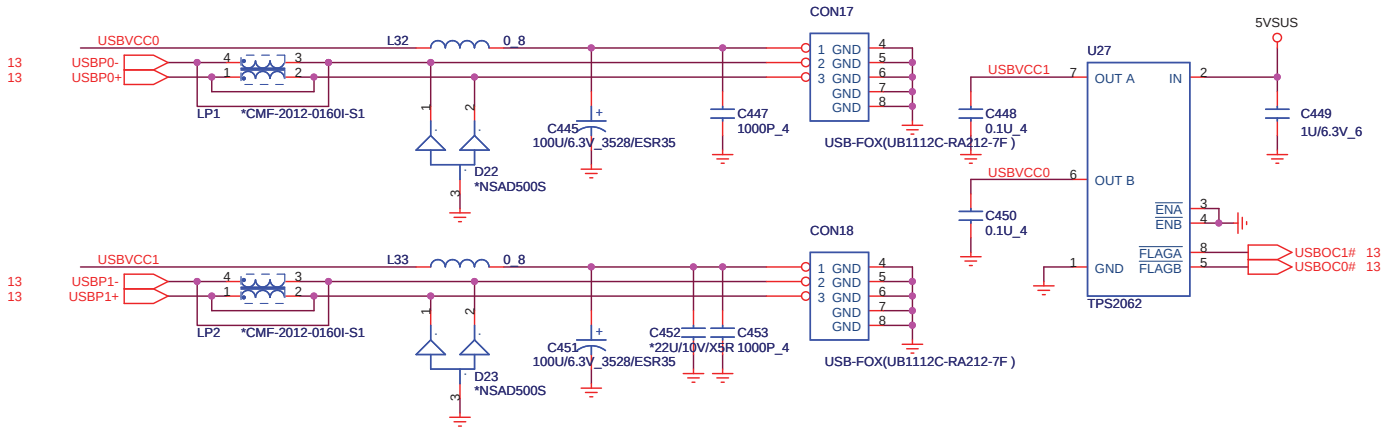
0711 Eric_modify FP for 2nd IR



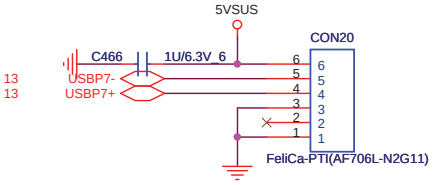




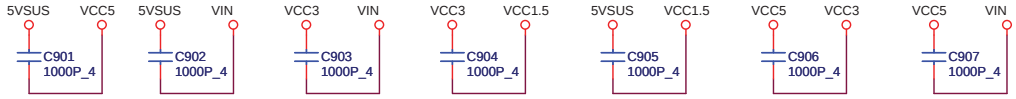
USB Port x 2



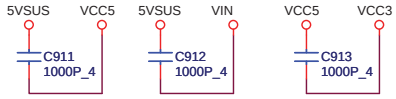
Felica



ODD



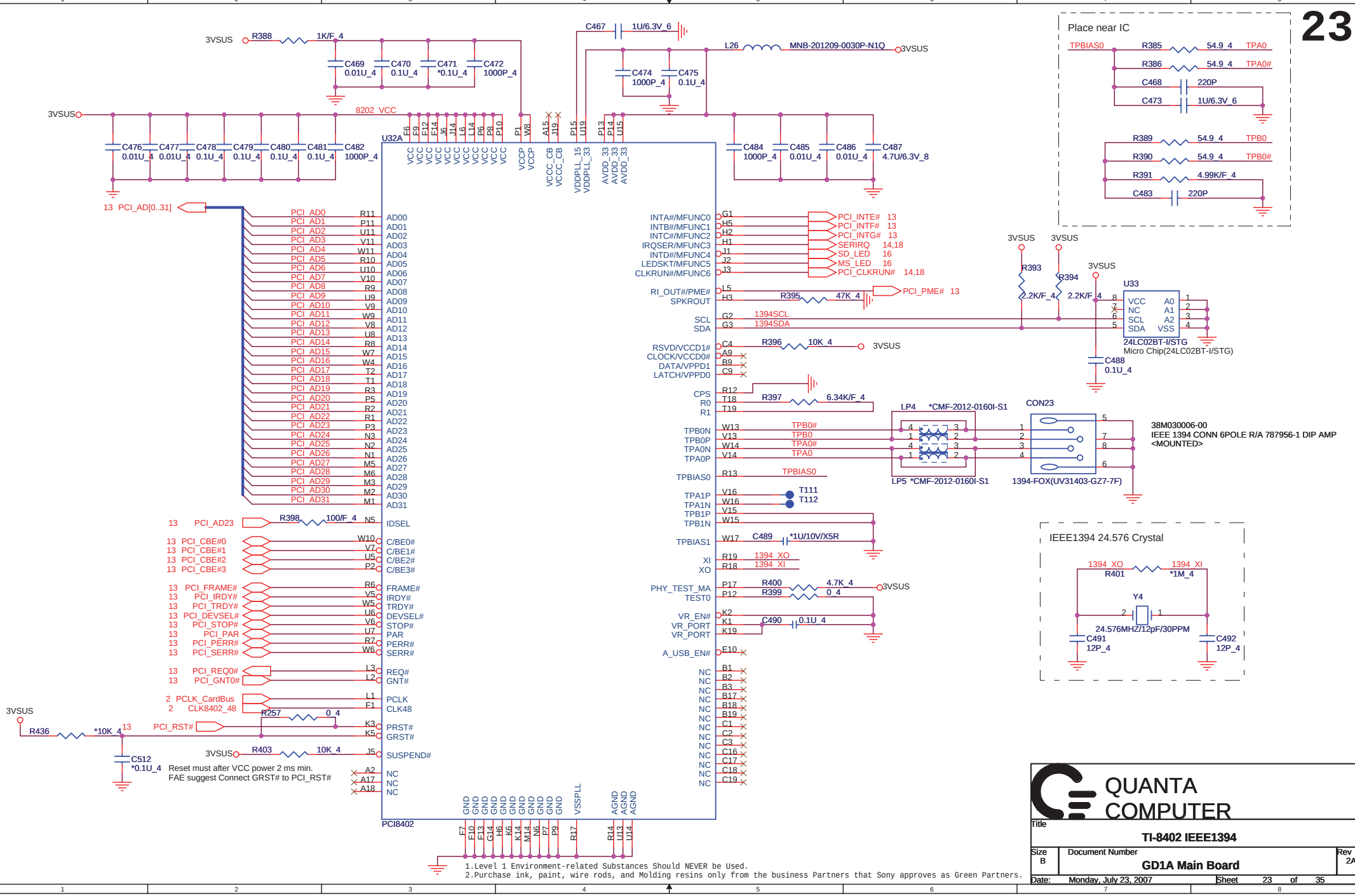
PCI Bus

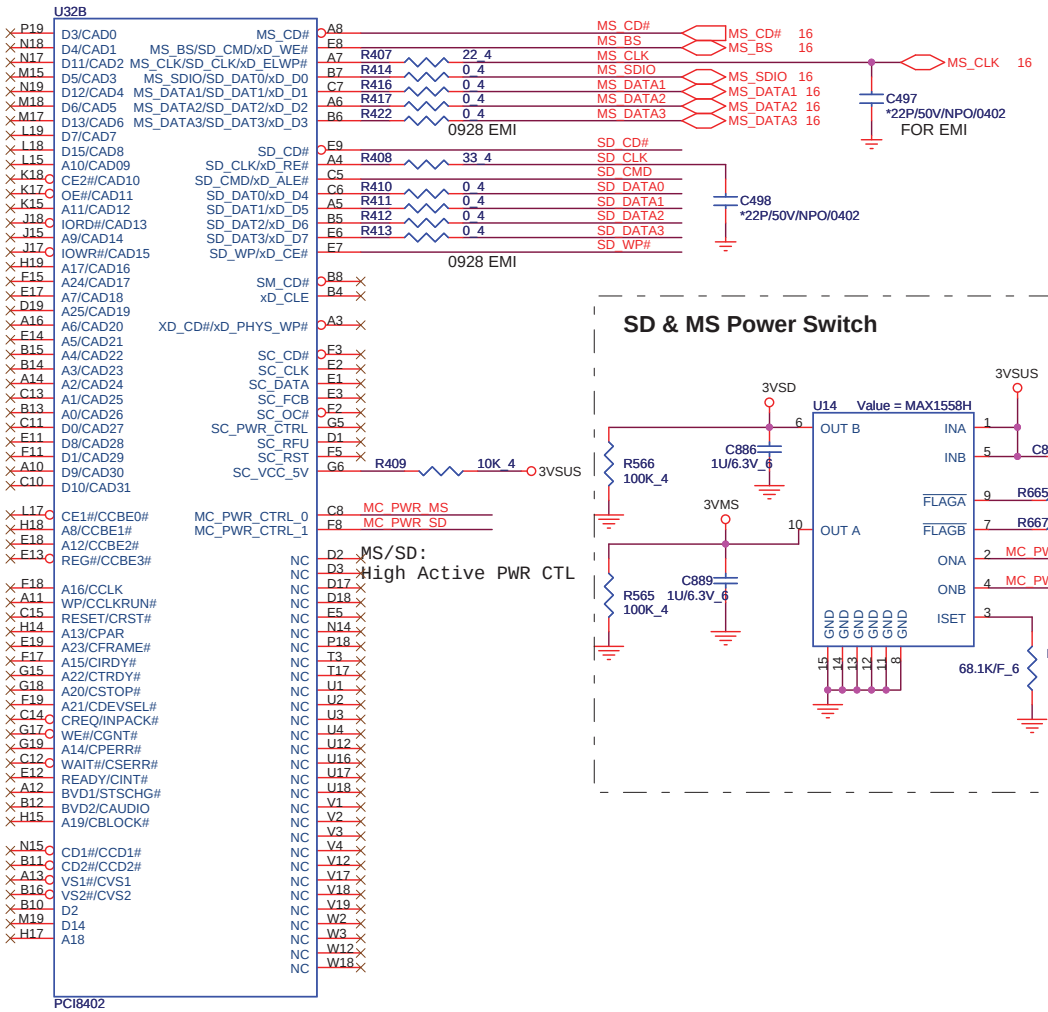


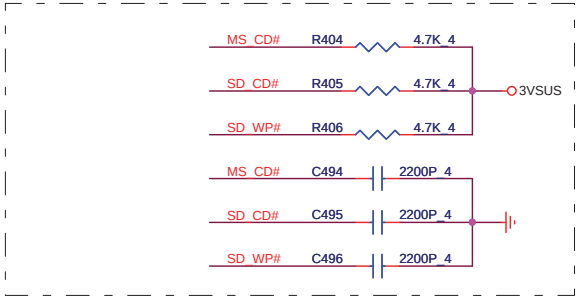
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	K/B ,USB Device	
Size B	Document Number GD1A Main Board	Rev 3A
Date: Monday, July 23, 2007	Sheet 22 of 35	

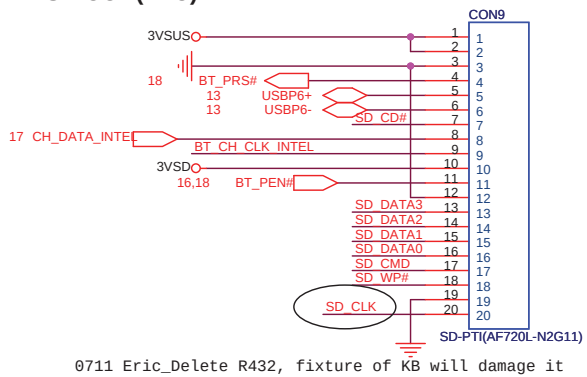




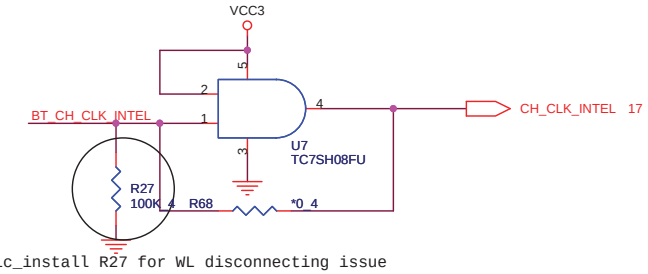


SD & MS Power Switch

SD CON(FPC)



0711 Eric_Delete R432, fixture of KB will damage it

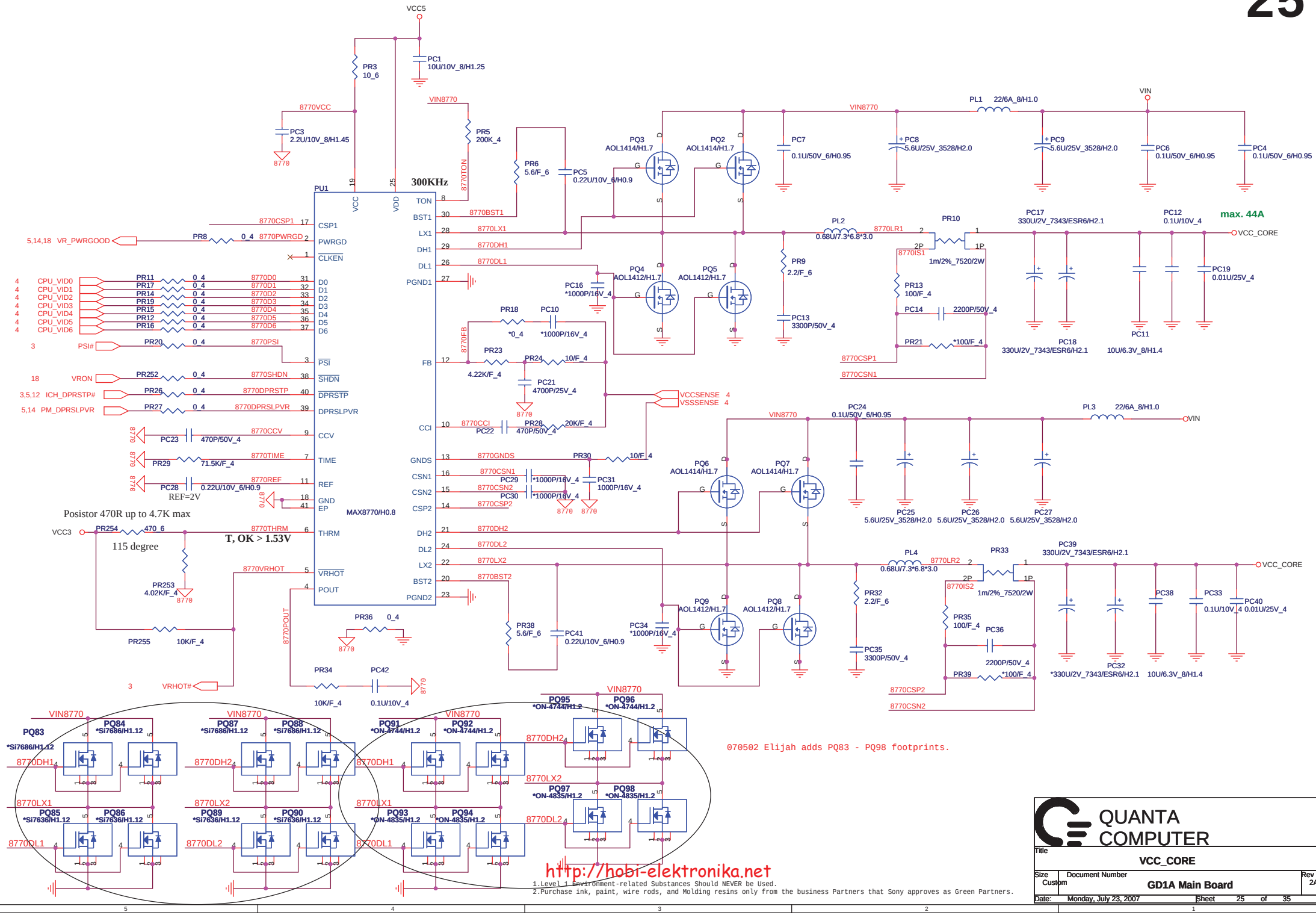


0611 Eric_install R27 for WL disconnecting issue

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

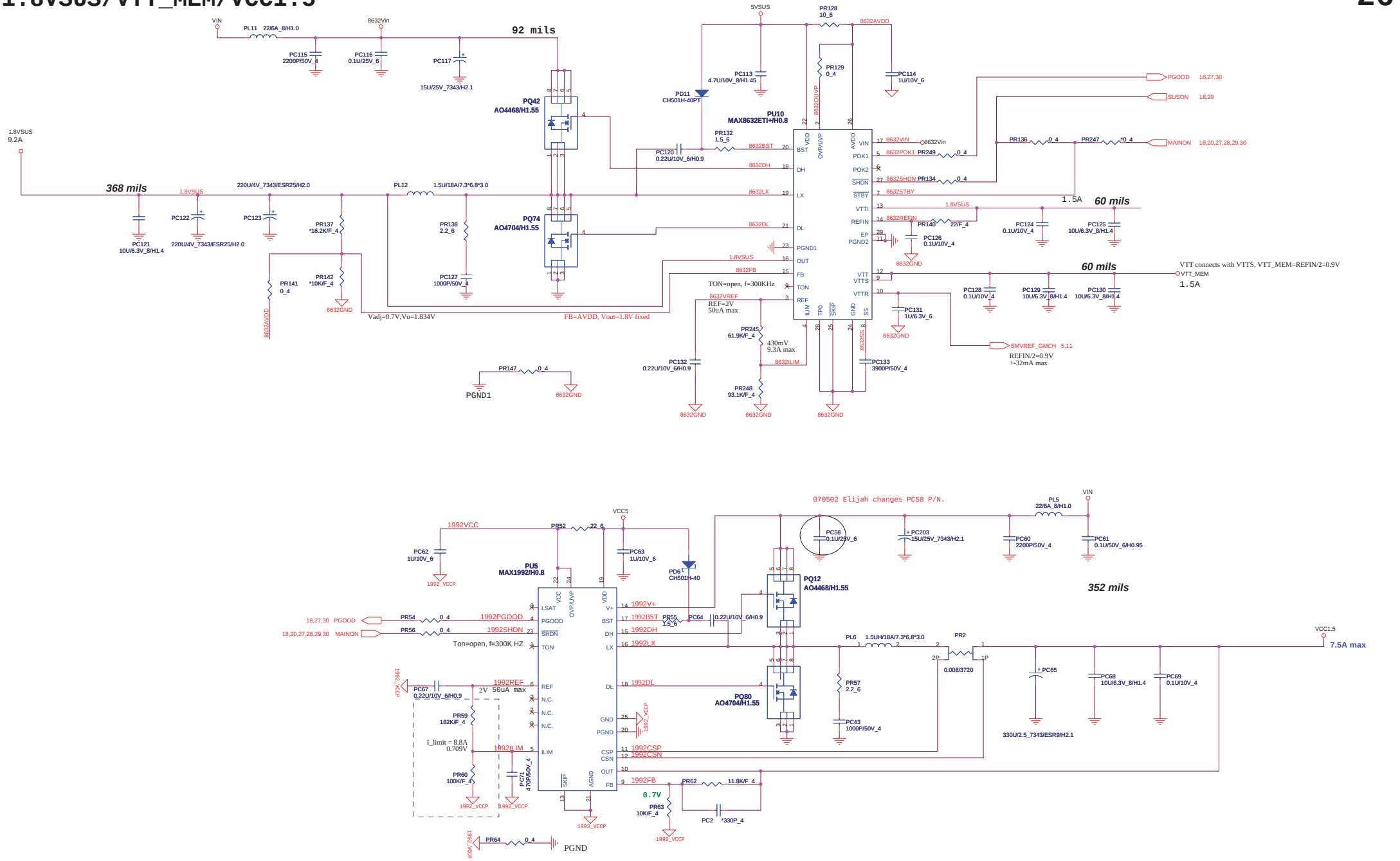
Title	TI-8402 MS & SD	
Size B	Document Number GD1A Main Board	Rev 3A
Date: Monday, July 23, 2007	Sheet 24 of 35	



QUANTA COMPUTER

Title	VCC_CORE	
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 25 of 35	

1.8VSUS/VTT_MEM/VCC1.5

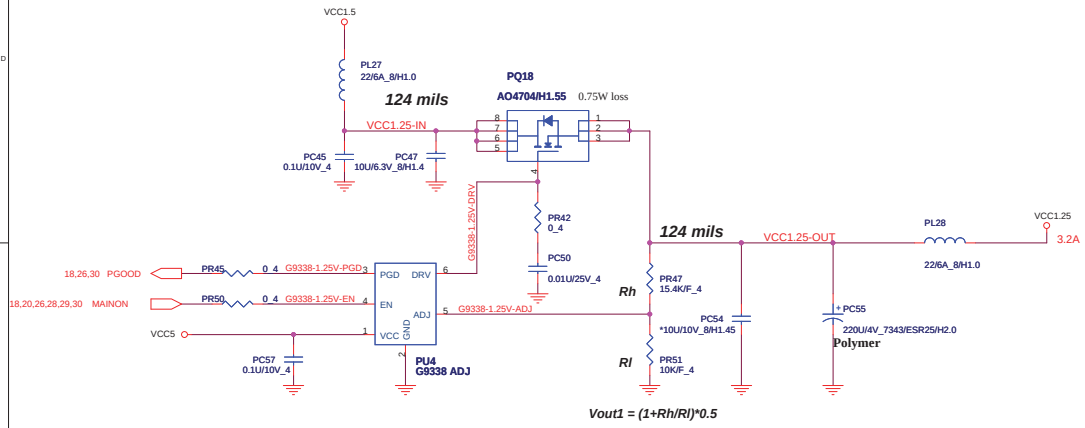


1.Level 1 Environment-related Substances Should NEVER be Used.
Only purchase paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

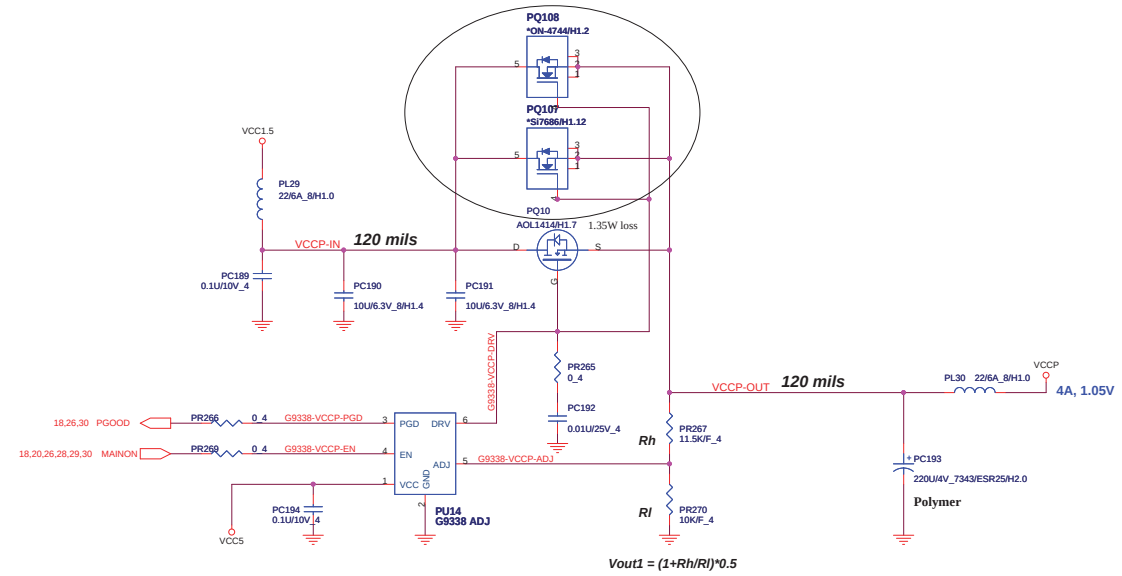
QUANTA COMPUTER

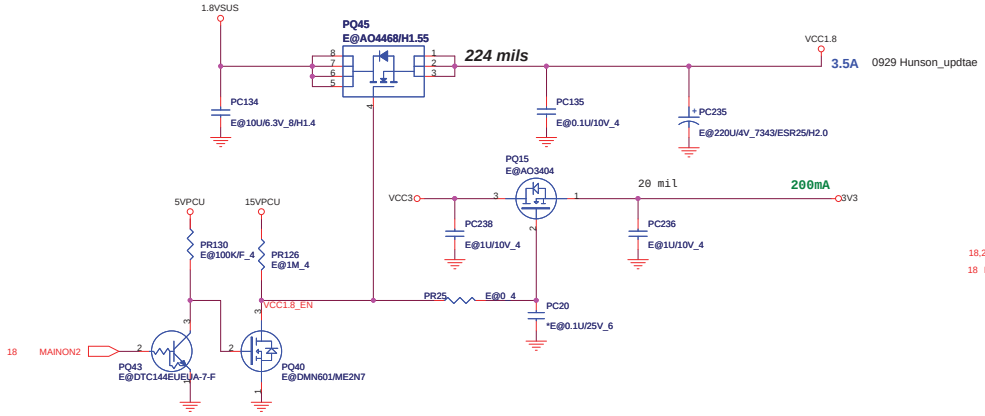
Title	1.8VSUS, VTT_MEM, VCC1.5	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 26 of 35	

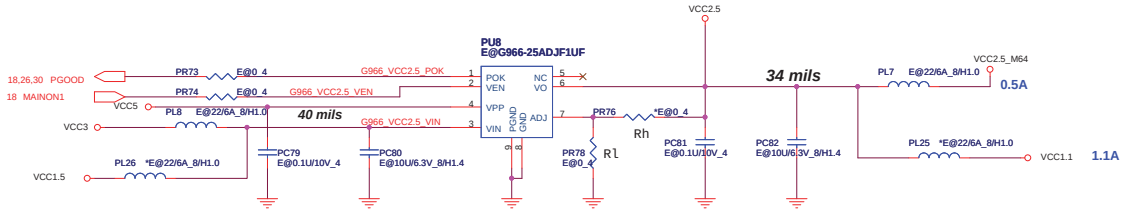
VCC2.5/VCC1.25/VCC1.8/VCCP



070502 Elijah adds two footprints.







Vo=(0.8*(Rh+Rl))/Rl
ADJ=GND, Vo= Fix 2.5V

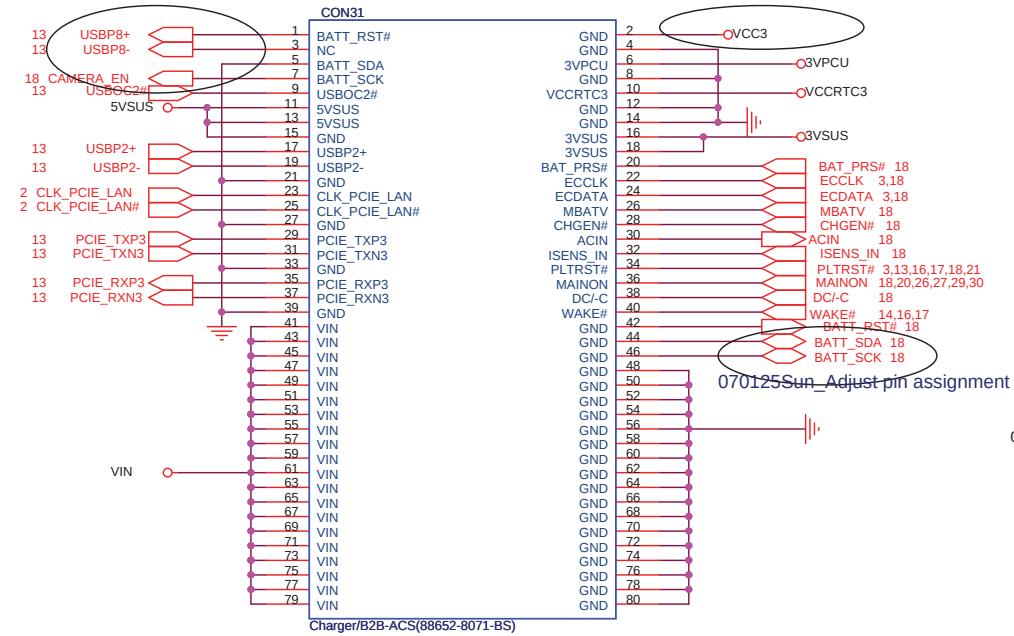
1.Level 1 Environment-related Substances Should NEVER be Used.
Only chemicals, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title	VCC1.25, VCCP, VCC2.5, VCC1.8 & 3V3	
Size	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 27 of 35	

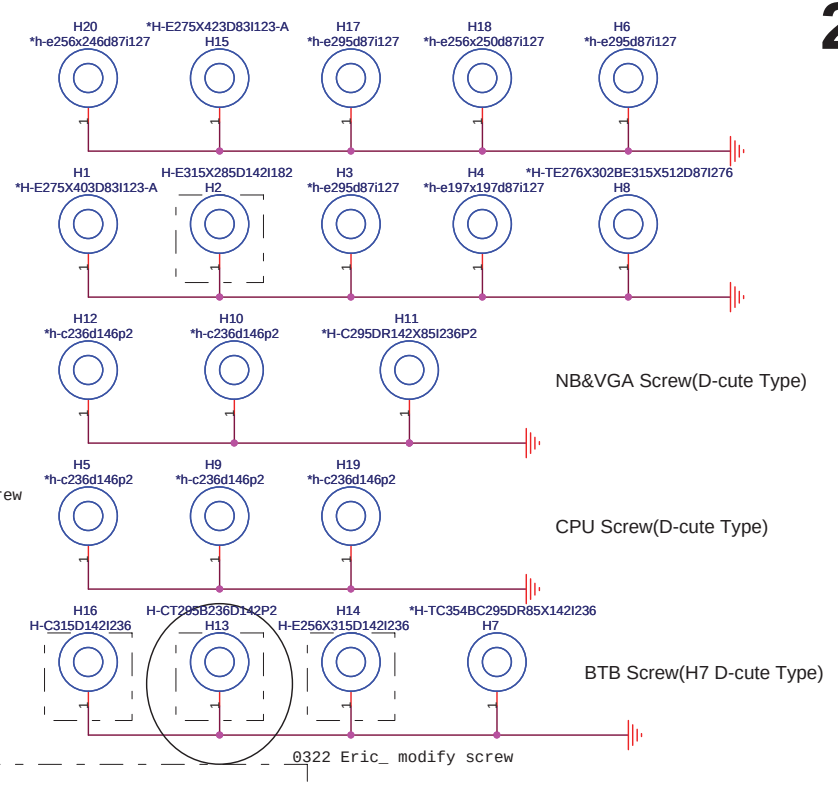
070125Sun_Adjust pin assignment

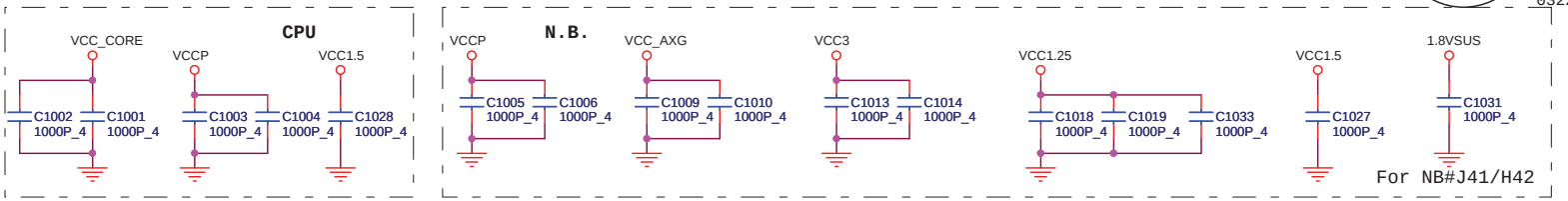
070125Sun_Adjust pin assignment

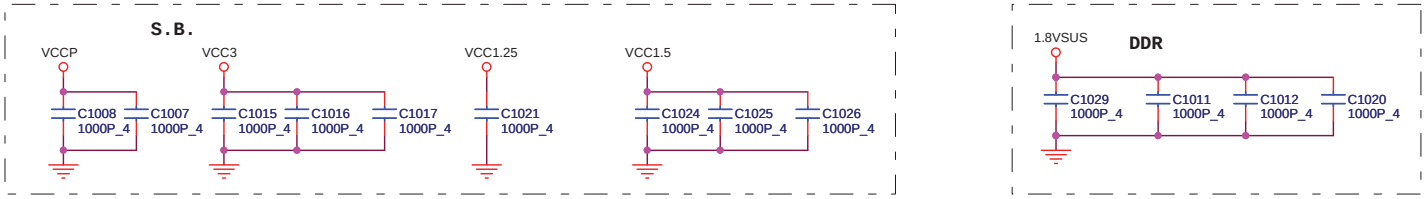


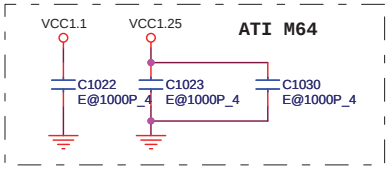
070125Sun_Adjust pin assignment

0109 Eric_modify Screw





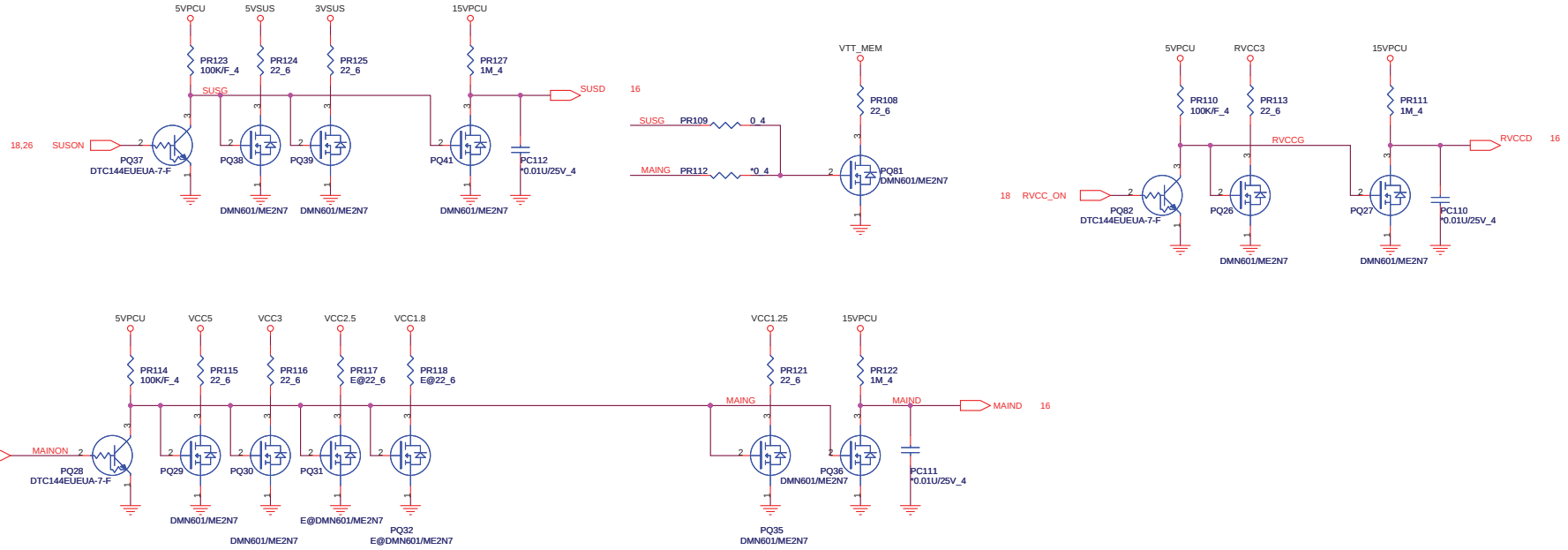




1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

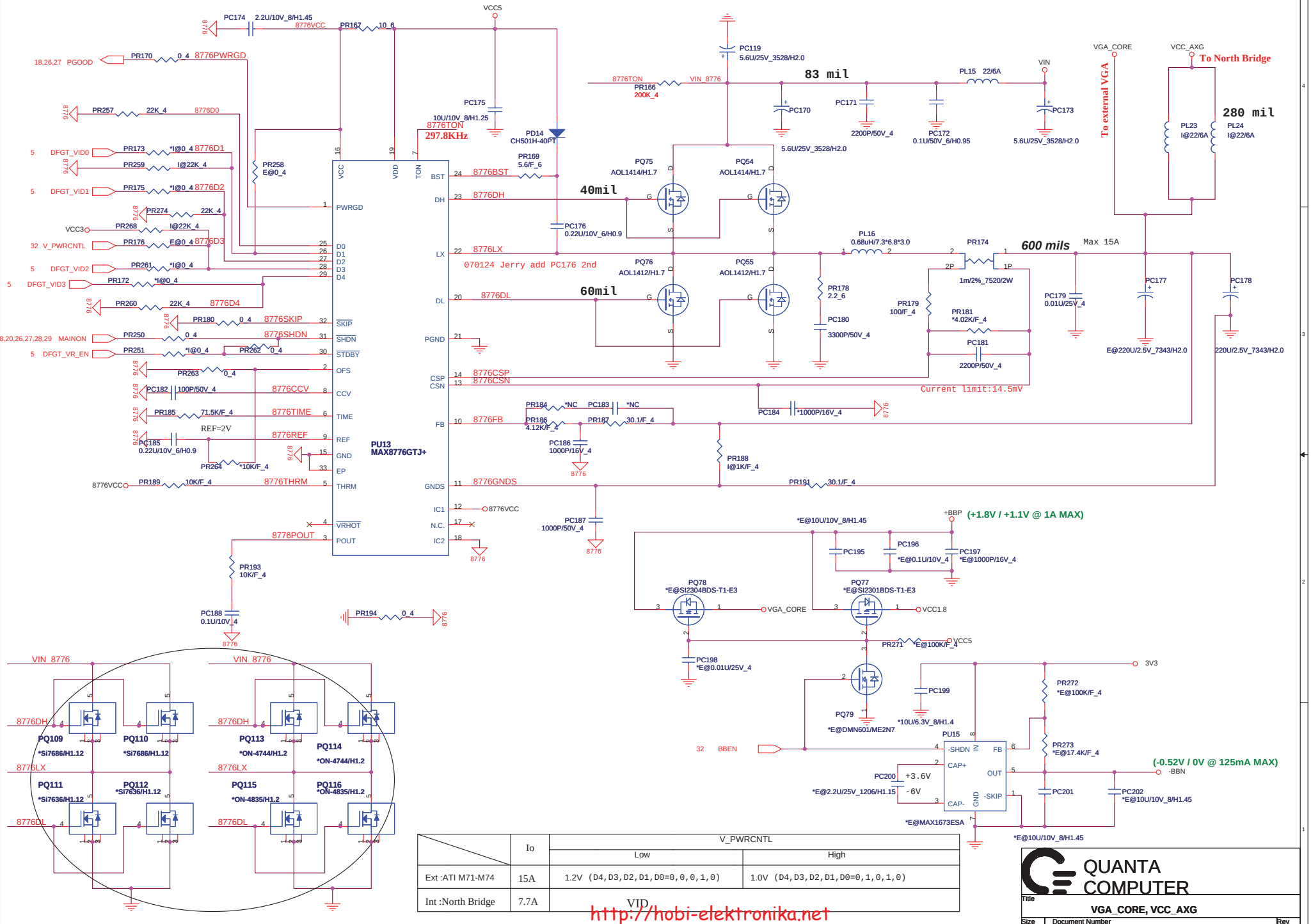
Title	Power Charger & LAN CON	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 28 of 35	



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

Title: Discharge, SUSD, RVCCD, MAIND		
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 29 of 35	



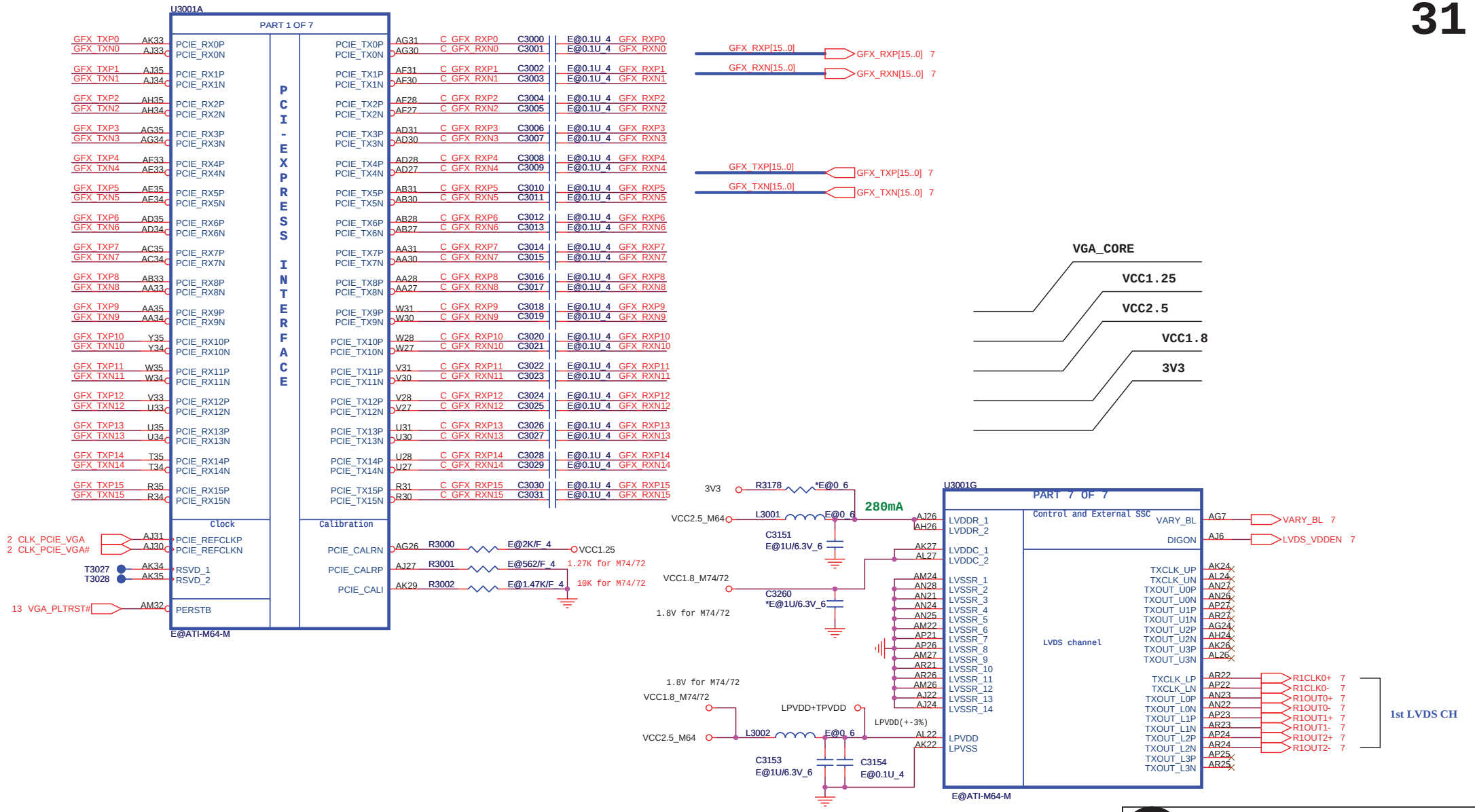
	Io	V_PWRCNTL	
		Low	High
Ext :ATI M71-M74	15A	1.2V (D4,D3,D2,D1,D0=0,0,0,1,0)	1.0V (D4,D3,D2,D1,D0=0,1,0,1,0)
Int :North Bridge	7.7A	VID	

070502 Elijah adds PQ109 - PQ116 footprints.

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

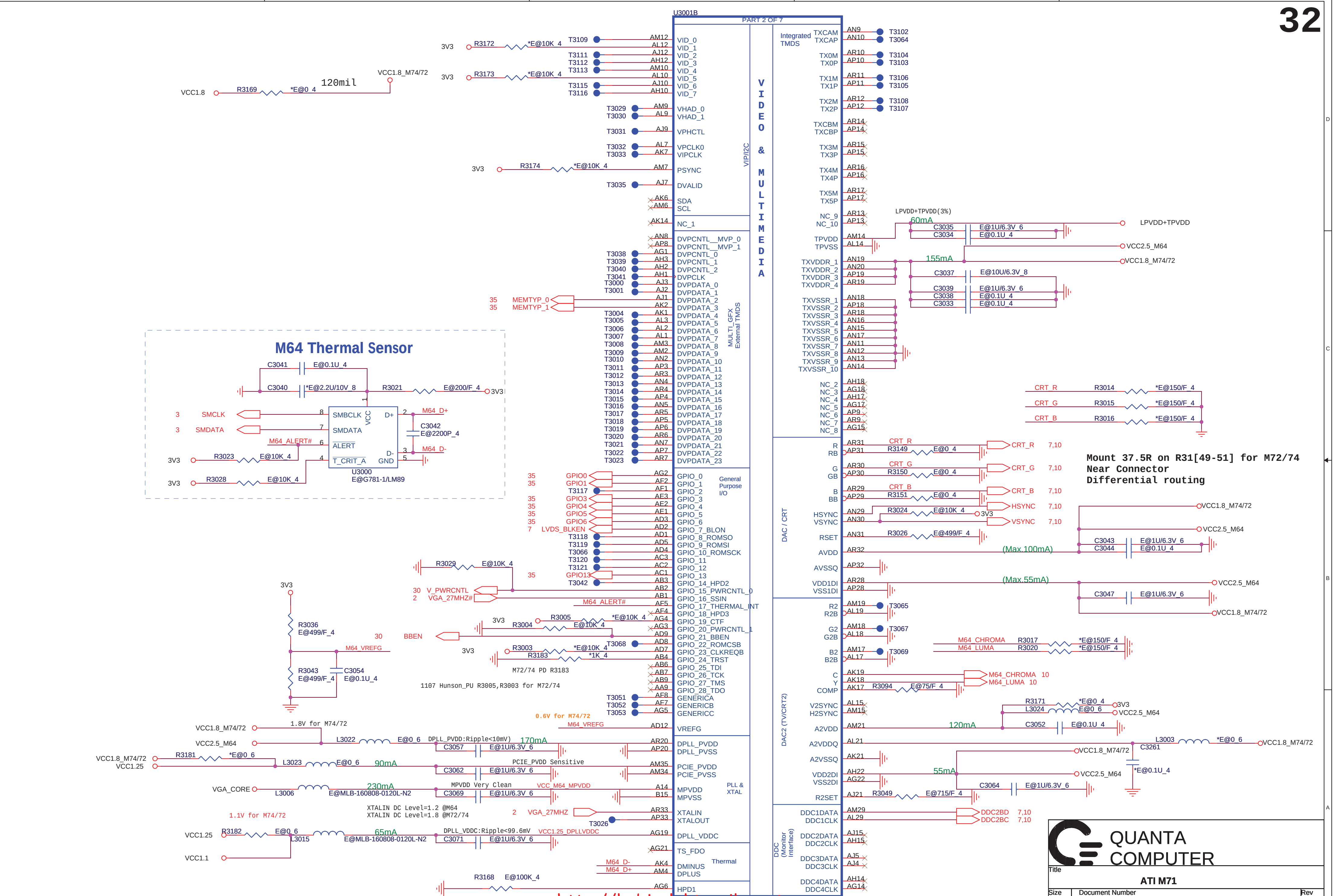
Title	VGA_CORE, VCC_AXG	
Size	Document Number: GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 30 of 35	



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

Title	ATI M64M PCIE	
Size B	Document Number GD1A Main Board	Rev 2A
Date: Monday, July 23, 2007	Sheet 31 of 35	



http://hobi-elektronika.net

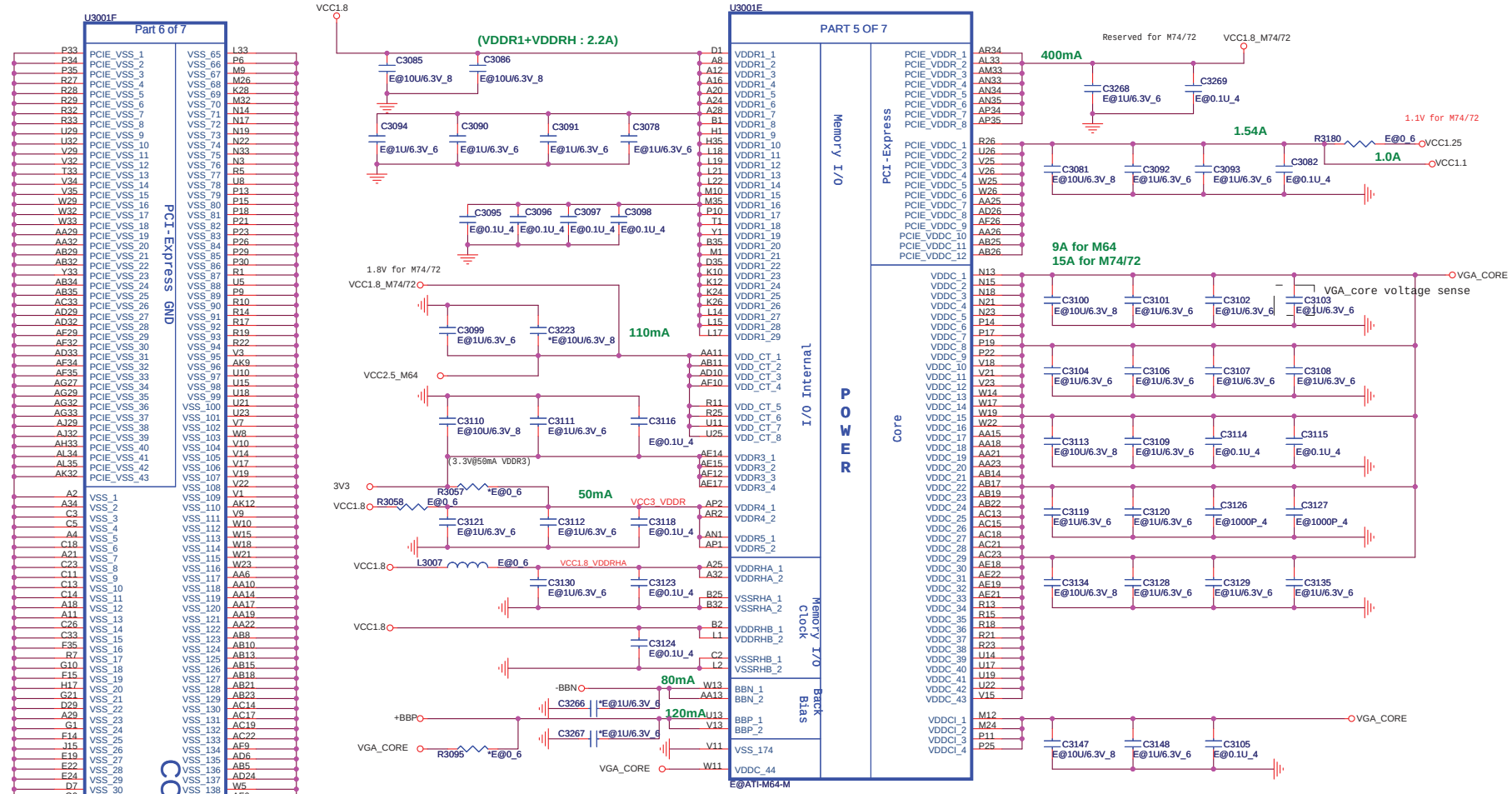
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title: ATI M71

Size: Custom | Document Number: GD1A Main Board | Rev: 2A

Date: Monday, July 23, 2007 | Sheet 32 of 35



POWER Regulator	M64/M71	Rail	M72/M74	Rail
VDDC+VDDCI	1.0~1.2V	VGA_CORE	0.95~1.1V	VGA_CORE
PCIE_PVDD	1.25	VCC1.25	1.8	VCC1.8_M74/72
PCIE_VDDR	NC	x	1.8	VCC1.8_M74/72
PCIE_VDDC	1.25	VCC1.25	1.1	VCC1.1
MPVDD	VDDC	VGA_CORE	VDDC	VGA_CORE
DPLL_PVDD	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
DPLL_VDDC	1.25	VCC1.25	1.1	VCC1.1
VDDR1+VDDRH	1.8	VCC1.8	1.8	VCC1.8
VDDR4+VDDR5	1.8	VCC1.8	1.8	VCC1.8
VDDR3	3.3	3V3	3.3	3V3
VDD_CT	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
LPVDD+TPVDD	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
LVDDR	2.5	VCC2.5_M64	3.3	3V3_M74/72
LVDDC	NC	x	1.8	VCC1.8_M74/72
TXVDDR	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
AVDD	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
VDD1DI+VDD2DI	2.5	VCC2.5_M64	1.8	VCC1.8_M74/72
A2VDD	2.5	VCC2.5_M64	3.3	3V3_M74/72
A2VDDQ	NC	x	1.8	VCC1.8_M74/72

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

Title	ATI M64M POWER	
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
Date: Monday, July 23, 2007	Sheet 33 of 35	

Channel A

U3001C — Part 3 of 7 — MEMORY INTERFACE A — E@ATI-M64-M

U3002 — E@VRAM_256Mb

U3003 — E@VRAM_256Mb

Signal		DDR1,2	DDR3
MVREF to 1.8V		100R	40.2R
MVREF to GND		100R	100R

SAM PN#AKD5JWFT508
SNI PN#AKD5JW-T^05

close to M64

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.

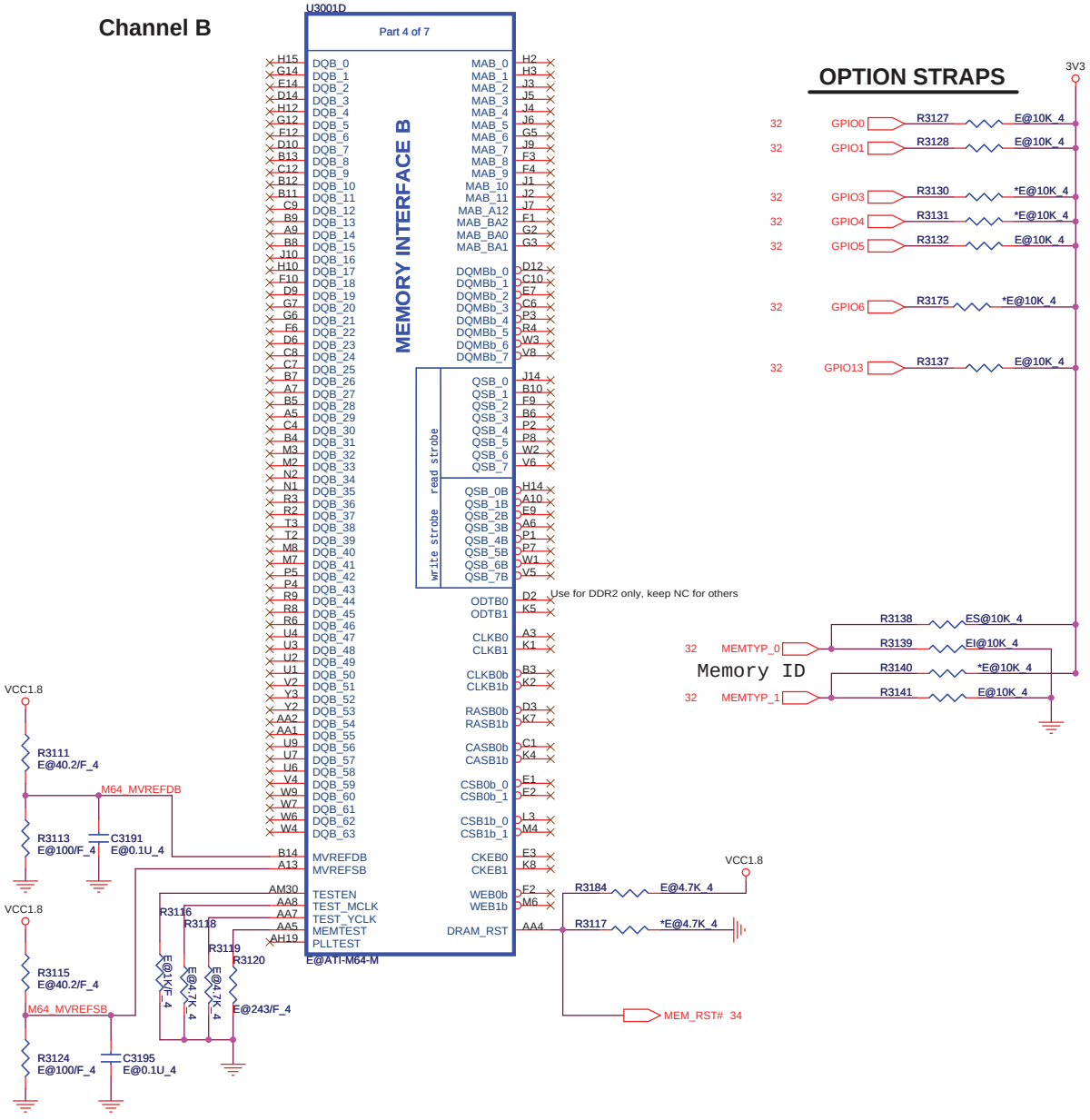
QUANTA COMPUTER

Title: ATI M64M VRAM

Size: Custom | Document Number: GD1A Main Board | Rev: 2A

Date: Monday, July 23, 2007 | Sheet 34 of 35

Channel B



OPTION STRAPS

M64-M Strap

STRAPS	PIN	DESCRIPTION	ASIC DEFAULT
TX_PWRS_ENB	GPIO0	Transmitter Power Savings Enable 0: 50% Tx output swing 1: full Tx output swing (recommended)	0 (internal pull-down)
TX_DEEMPH_EN	GPIO1	Transmitter De-emphasis Enable 0: Tx de-emphasis disabled 1: Tx de-emphasis enabled (recommended)	0 (internal pull-down)
Reserved	GPIO(3:2)	ATI internal use only. Other logic must not affect this signal during RESET.(GPIO2=VDD_VCL)	00
DEBUG_ACCESS	GPIO4	Strap to set the debug muxes to bring out DEBUG signals even if registers are inaccessible	0 (internal pull-down)
PLL_IBIAS_RD	GPIO[6:5]	Bias Current for the PCI Express PHY PLL	01
Reserved	GPIO8	ATI internal use only. Other logic must not affect this signal during RESET.(Serial ROM Output from ROM)	0
ROMIDCFG(3:0)	GPIO(9,13:11)	If no ROM attached, comtrols chip IDis. If rom attached identifies ROM type 000x - No ROM, MEM_AP_SIZE=00 128MB 001x - No ROM,MEM_AP_SIZE=01 256MB 010x - No ROM, MEM_AP_SIZE=10 64MB(Default) 011x - No ROM,MEM_AP_SIZE=11 Reserved 1000 - Parallel ROM, chip IDis from ROM 1001 - Serial AT25F1024 ROM (Atmel), chip IDis from ROM 1010 - Serial AT45DB011 ROM (Atmel), chip IDis from ROM 1011 - Serial M25P10 ROM (ST), chip IDis from ROM 1100 - Serial M25P05 ROM (ST), chip IDis from ROM 1100 - Serial NX25F011B ROM (ISSI), chip IDis from ROM	GPIO[9,13,12,11] 0000 (internal pull-down)
VIP_DEVICE	VSYNC	Indicates if any slave VIP host devices drove this pin low during reset. 0- Slave VIP host port deviced present. 1-No slave VIP port devices reporting presence during reset	0 (internal pull-down)
Reserved	PCIE_TEST	ATI internal use only. Other logic must not affect this signal during RESET.(Serial ROM Output from ROM)	0
Reserved	HSYNC	ATI internal use only. Other logic must not affect this signal during RESET.(Serial ROM Output from ROM)	0

VRAM Straps REV. 0.1

STRAPS	PIN	DESCRIPTION	VALUE
MEMTYPE[1:0]	GPIO 27,26	Memory identification for BIOS 00 - Infineon GDDR3 : 2M x 32 bits x 4 banks(Default) 01 - SAMSUNG GDDR3 : 2M x 32 bits x 4 banks 10 - RESERVED 11 - RESERVED	00

MEMTYPE1	MEMTYPE0	R3140	R3141	R3138	R3139	
0	0	NC	10K	NC	10K	00 - Infineon GDDR3 : 2M x 32 bits x 4 banks
0	1	NC	10K	10K	NC	01 - SAMSUNG GDDR3(G) : 2M x 32 bits x 4 banks
1	0	10K	NC	NC	10K	10 - Hynix GDDR3: 2M x 32 bits x 4 banks
1	1	10K	NC	10K	NC	11 - SAMSUNG GDDR3(I) : 2M x 32 bits x 4 banks

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

Title	ATI M64-M STRAP	
Size: Custom	Document Number: GD1A Main Board	Rev: 2A
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