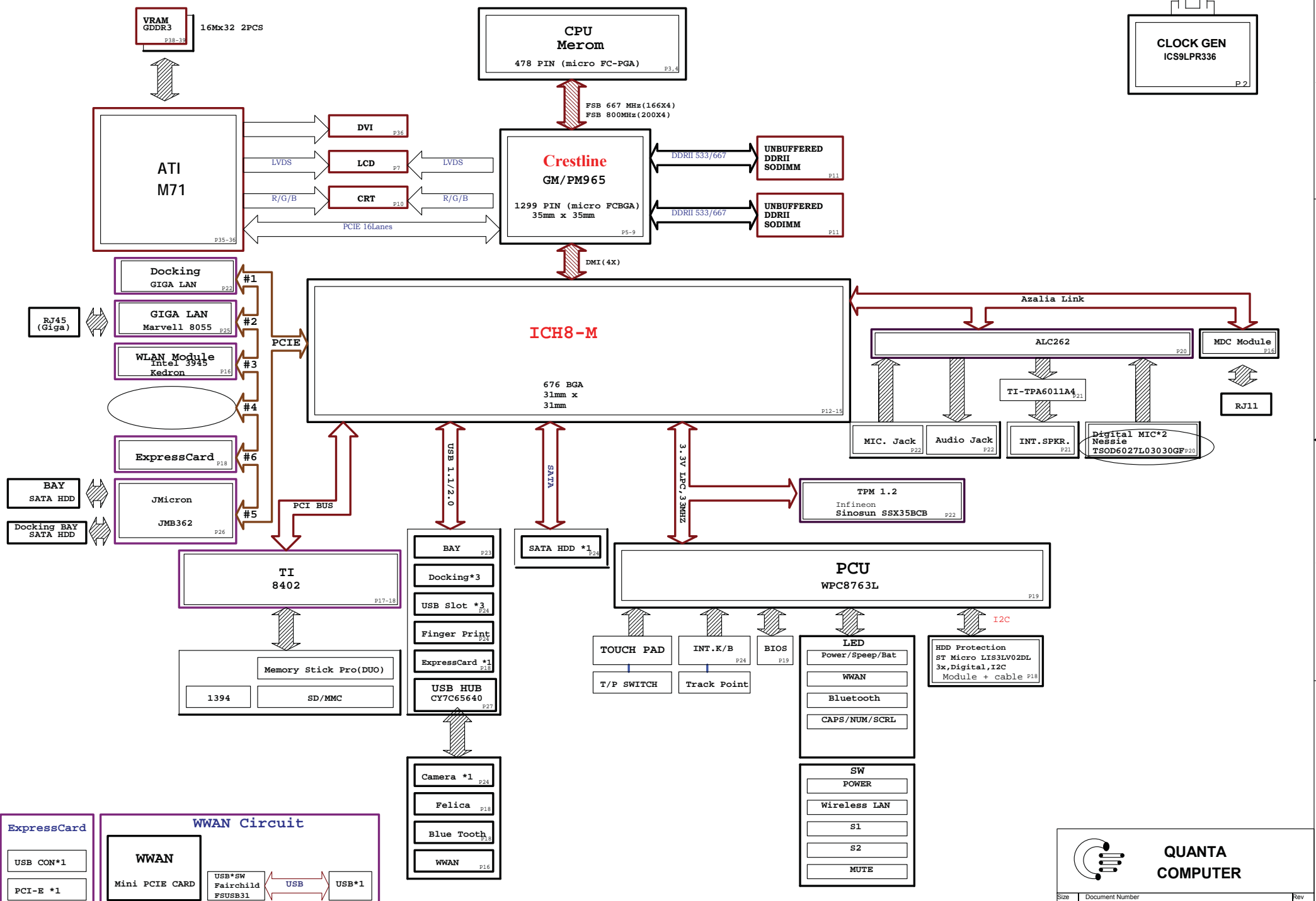


WK1 Block Diagram

14.318MHz



ExpressCard

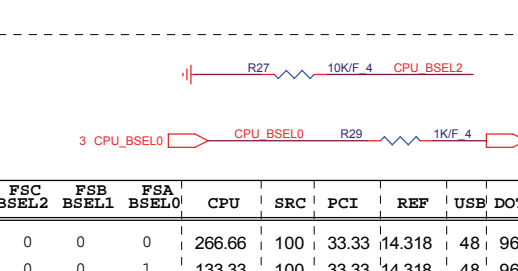
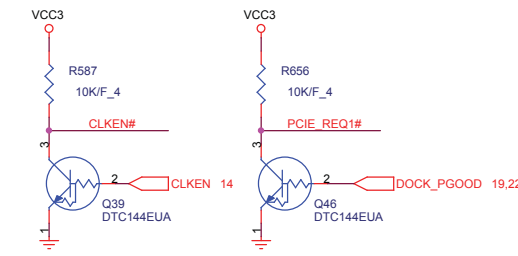
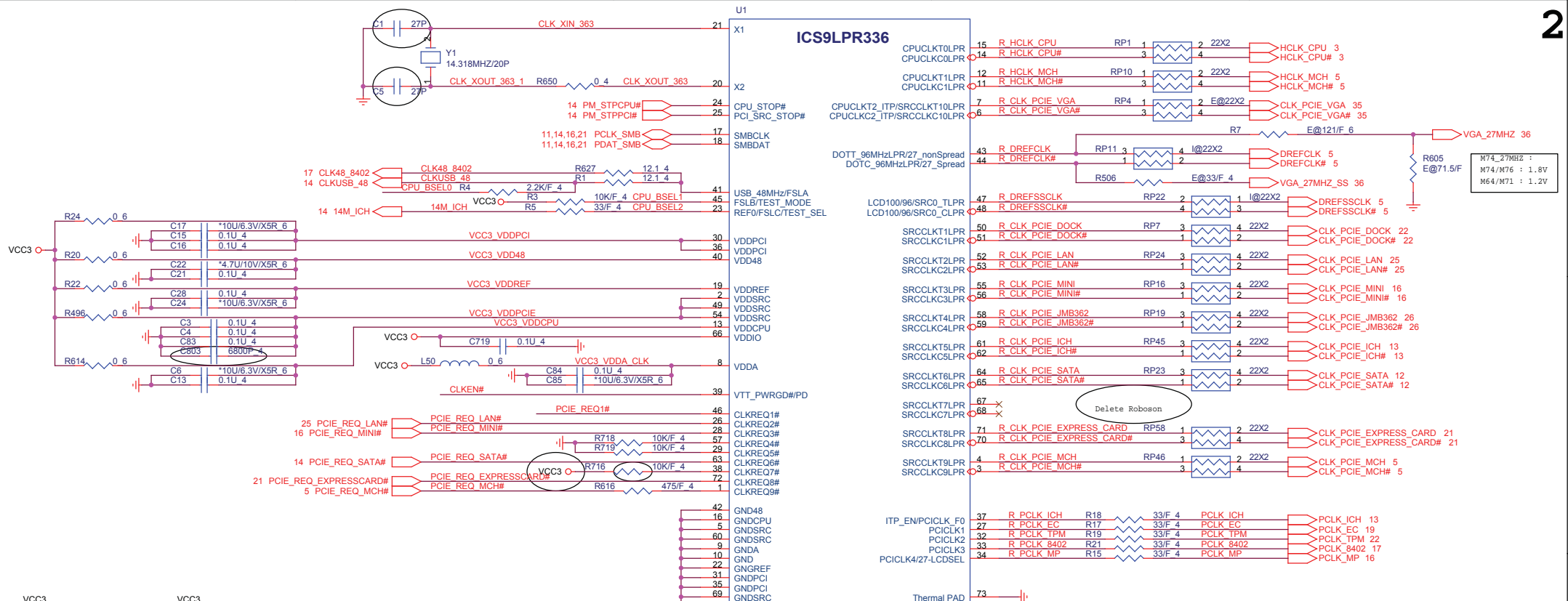
- USB CON*1
- PCI-E *1

WWAN Circuit

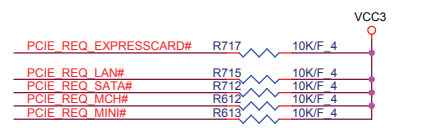
- WWAN Mini PCIE CARD
- USB*SW Fairchild FSUSB31
- USB*1

*Put o ohm_0805 in every power plane. 1. Lead-Free Environment-Related substances should NEVER be used. 2. For more information, please refer to the business Partners that Sony approves as Green Partners.

<http://hob1-elektronika.net>



FSC	FSB	FSA	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



ITP_EN (PIN37)
 * 0 : PIN6/7 SRC
 1 : PIN 6,7 CPUITP

LCDSEL (PIN34)

PIN 34	PIN 43	PIN 44	PIN 47	PIN 48
LO R26 10K	DOT96T	DOT96C	LCD 100/96T	LCD 100/96C
HI R498 10K	27MHz non-Spread	27MHz Spread	SRC0T	SRC0C

Signal	GM965	PM965
M74_27MHZ	RP11 22X2	NI
R7	NI	121.6/F
	R605	71.5/F
	R506	33
DREFCLK	RP22 33X2	NI
R_PCLK_541	R26 10K	NI
	R498	10K

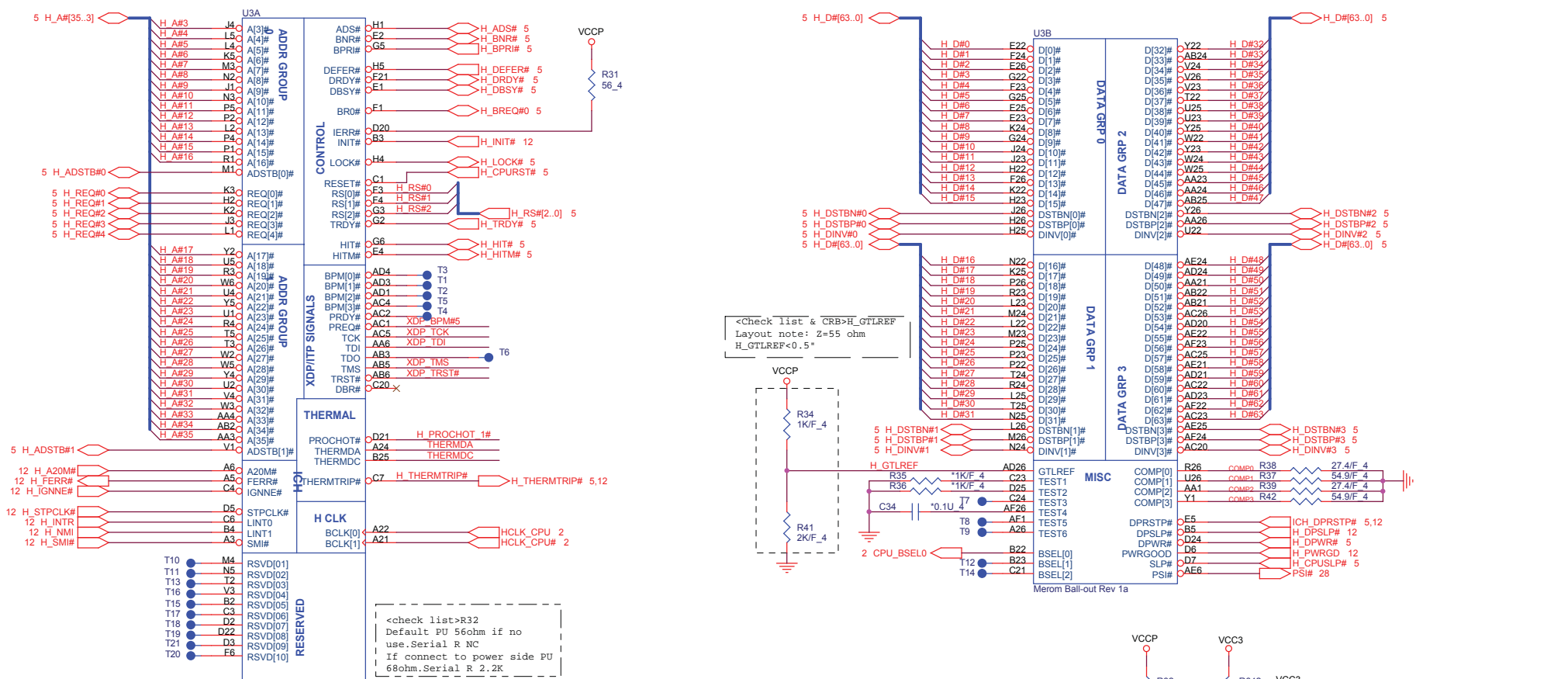
QUANTA COMPUTER

Title: **CLOCK GENERATOR**

Size: Document Number **WK1 Main Board** Rev 2A

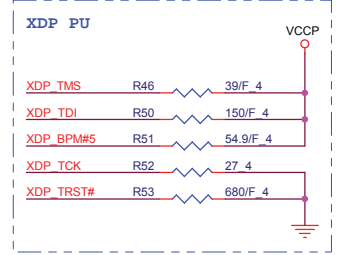
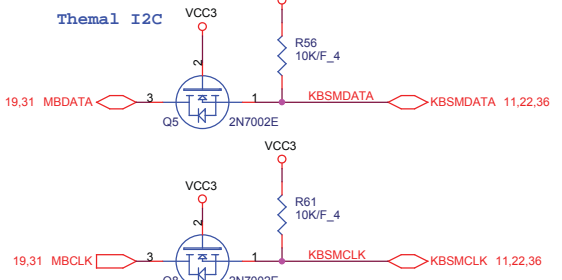
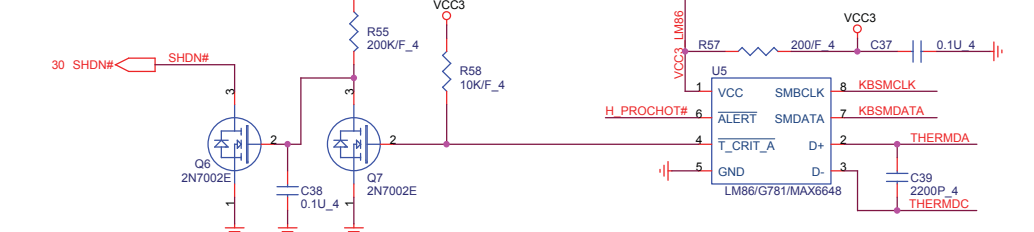
Date: Wednesday, December 27, 2006 Sheet 2 of 39

1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase in quantity to reduce the holding time. Ask for the business Partners that Sony approves as Green Partners.



<check list>R32
 Default PU 56ohm if no
 use.Serial R NC
 If connect to power side PU
 68ohm.Serial R 2.2K

Thermal Sensor



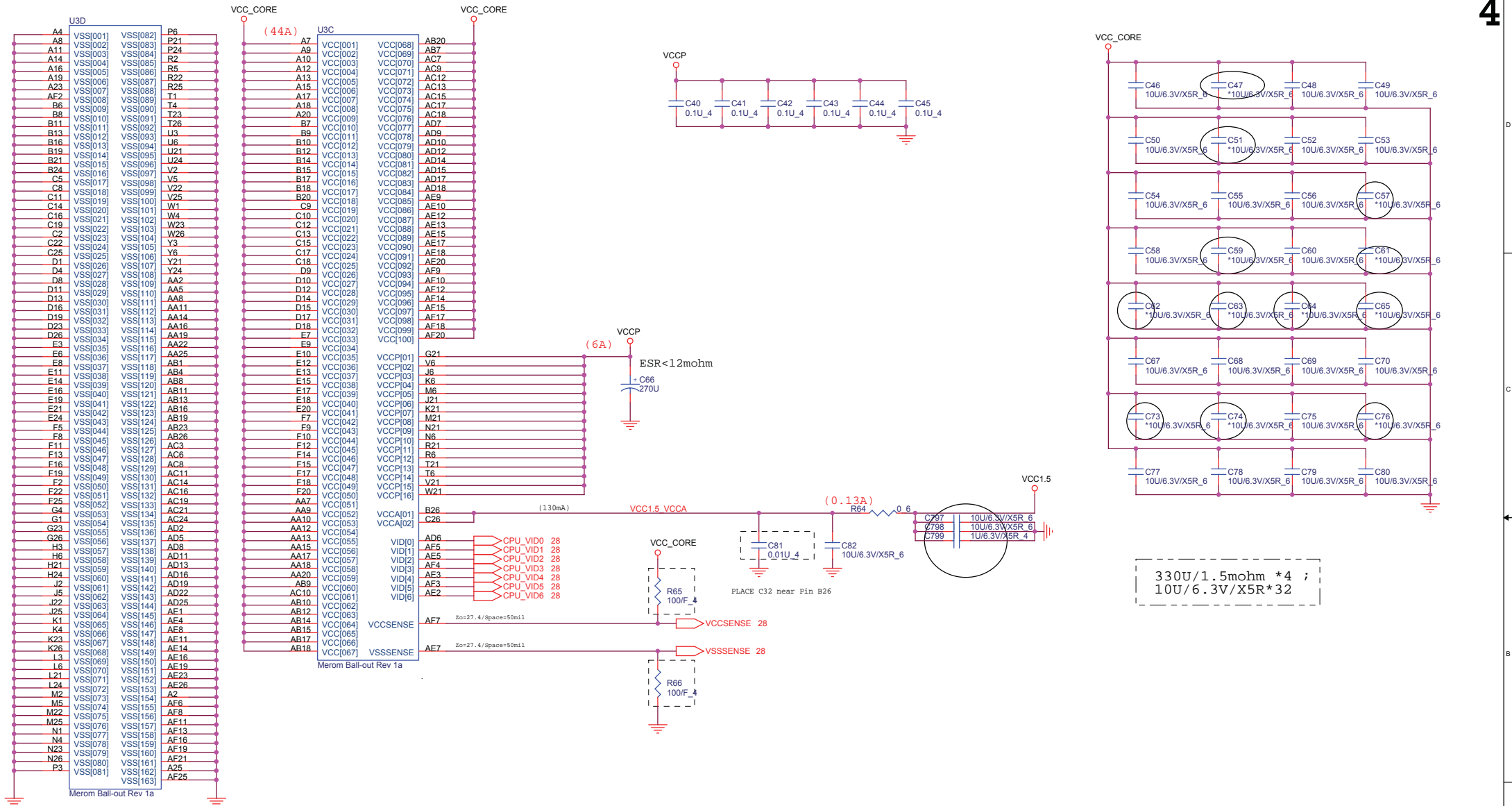
1.Level 1 Environment-related Substances Should NEVER be Used.
 2.Purchase ink, paint, wire rods, and welding reagents only from the business partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title: **CPU1 of 2**

Size	Document Number	Rev
		1B

Date: Wednesday, December 27, 2006 Sheet 3 of 39



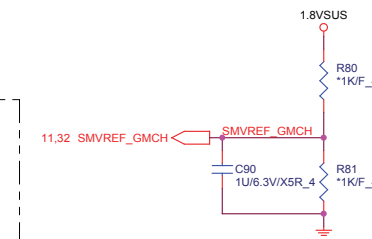
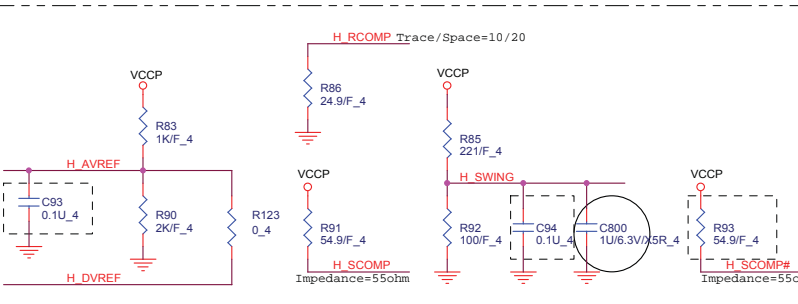
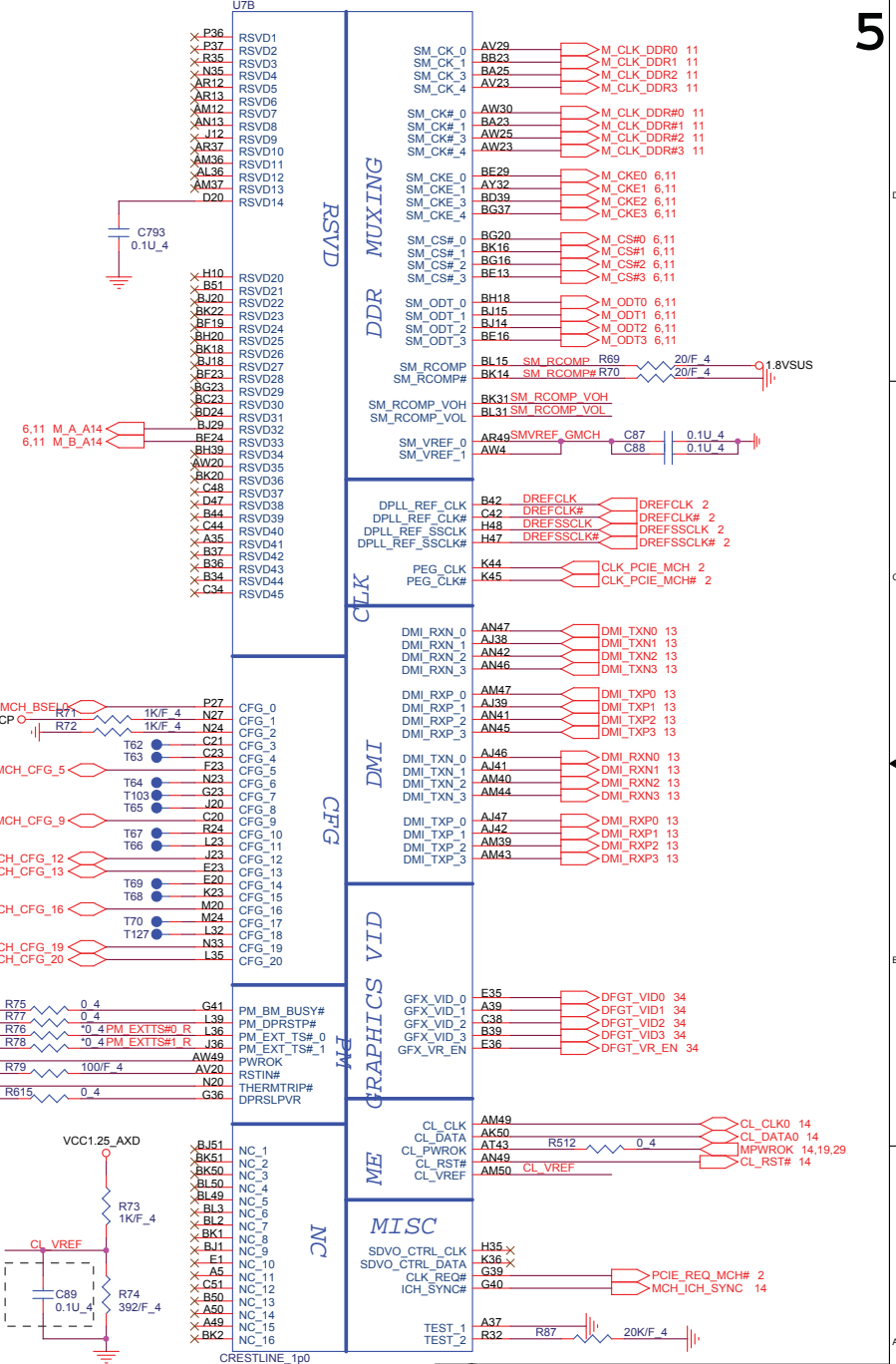
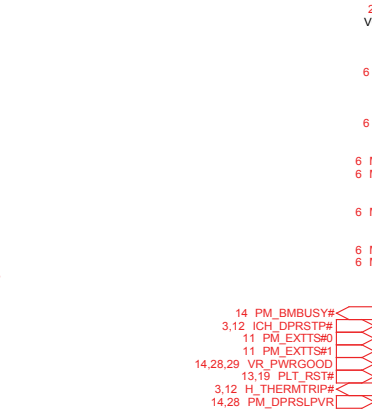
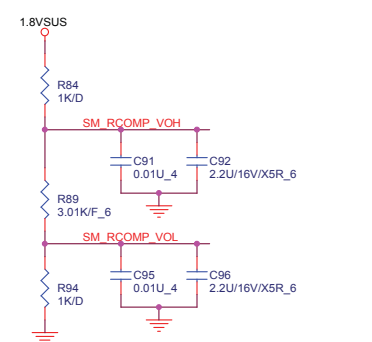
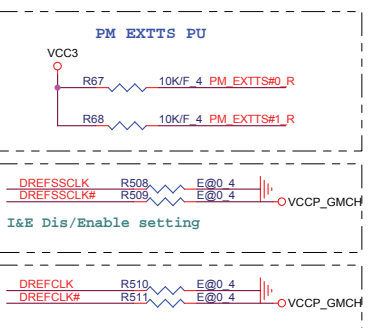
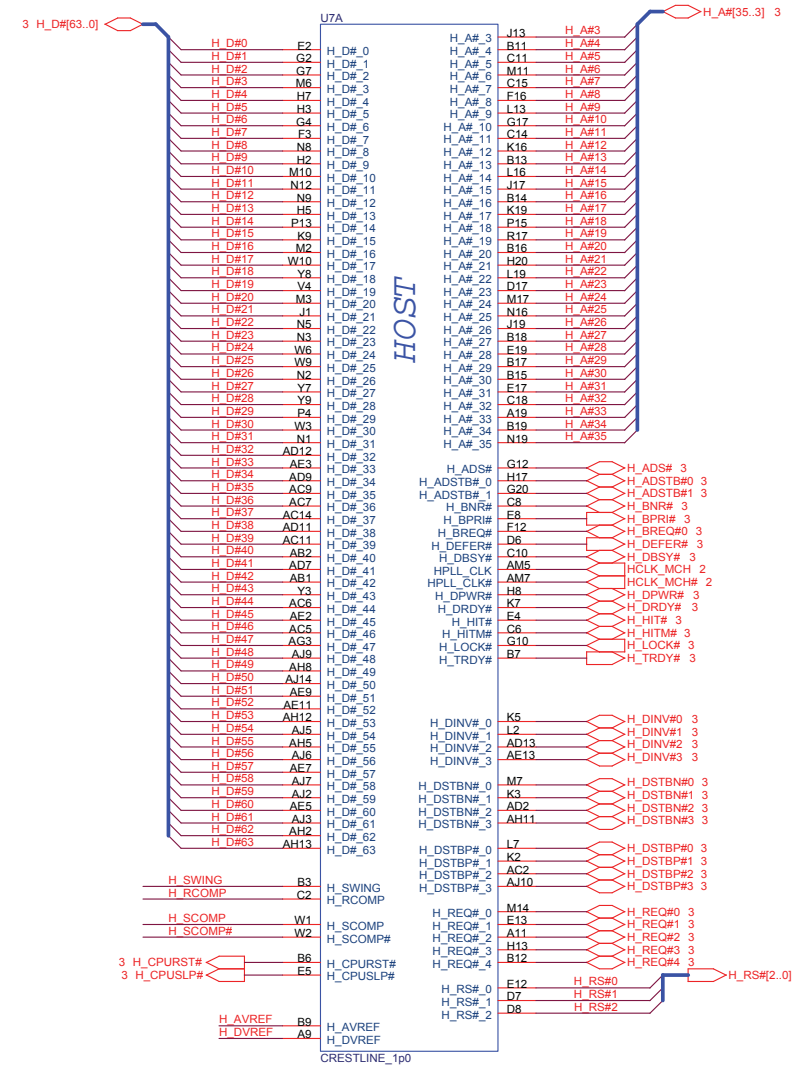
1.Level 1 Environment-related Substances should NEVER be Used.
 2.Purchase ink, paint, wire rods, and Molding resin only from the business partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title: **CPU 2 of 2**

Size: Document Number: **WK1 Main Board** Rev: 2A

Date: Wednesday, December 27, 2006 Sheet: 4 of 39



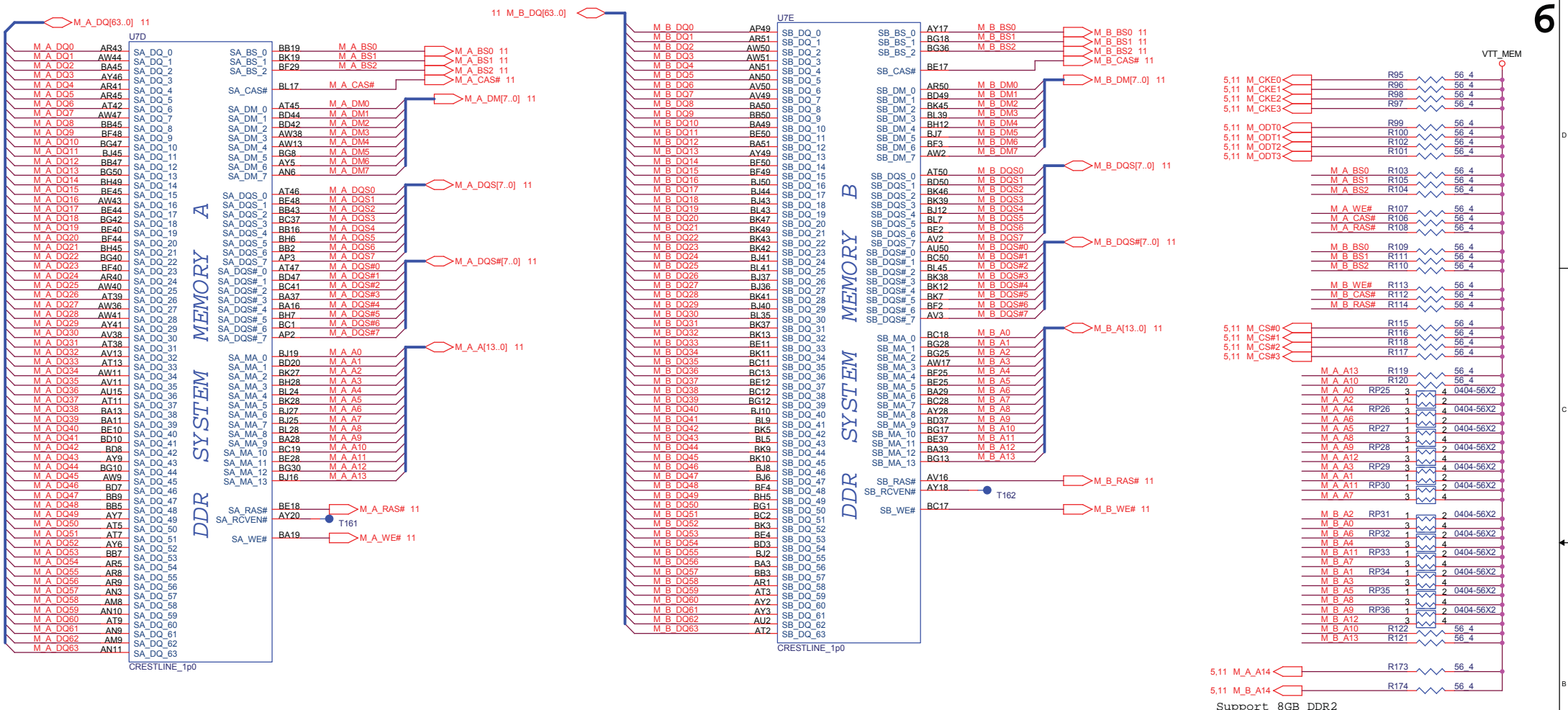
Signal	GM965	PM965
DREFSSCLK	NC	0_4
DREFSSCLK#	NC	0_4
DREFCLK	NC	0_4
DREFCLK#	NC	0_4

QUANTA COMPUTER

Title: **GMCH HOST1 of 5**

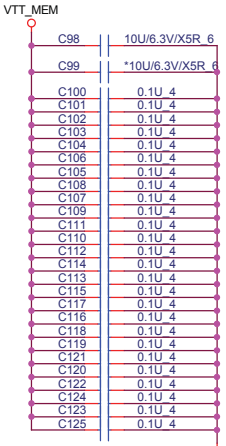
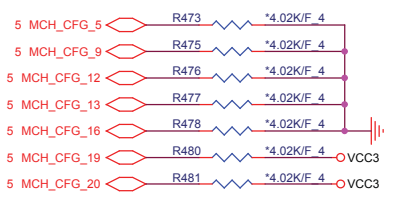
Size: Document Number **WK1 Main Board** Rev 2A

Date: Wednesday, December 27, 2006 Sheet 5 of 39

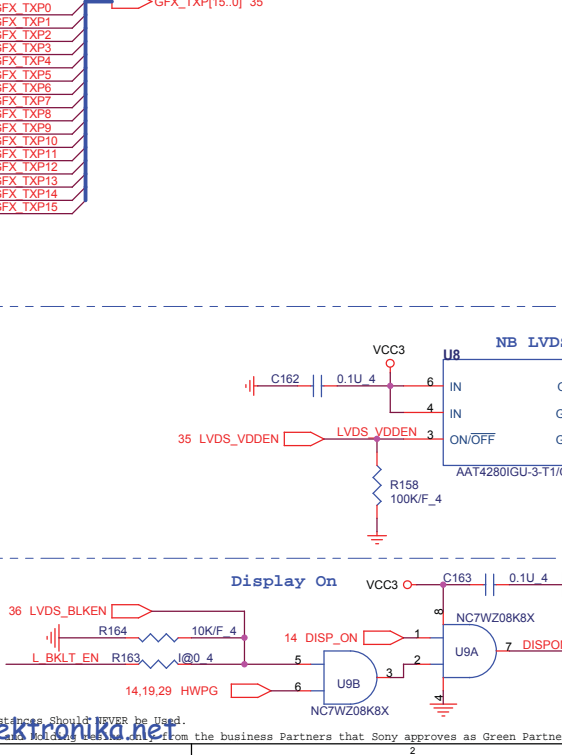
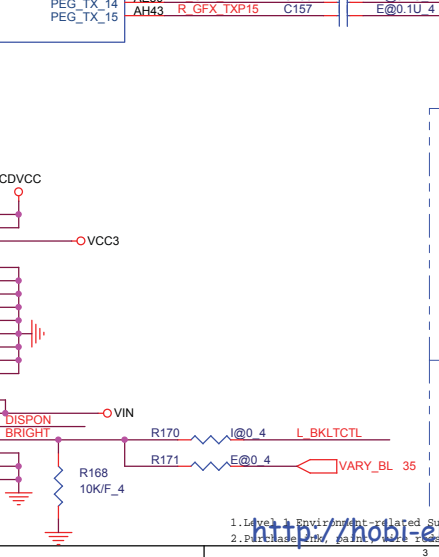
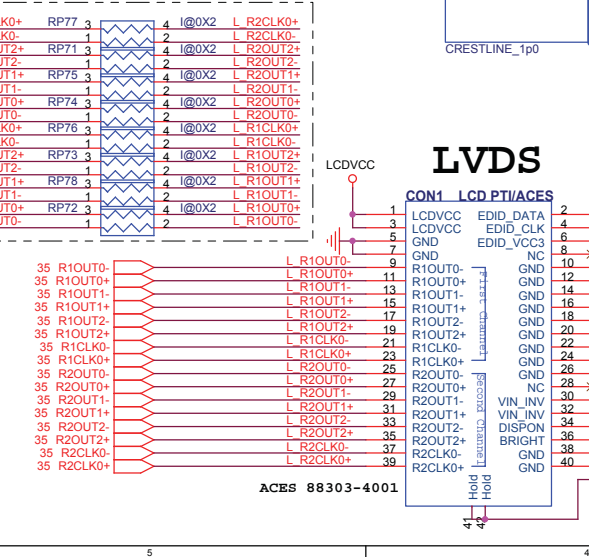
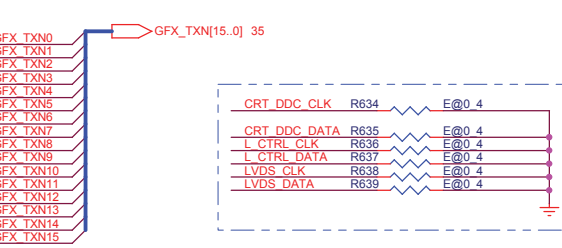
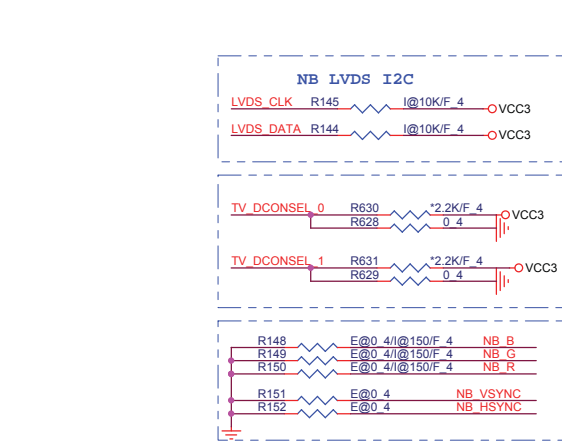
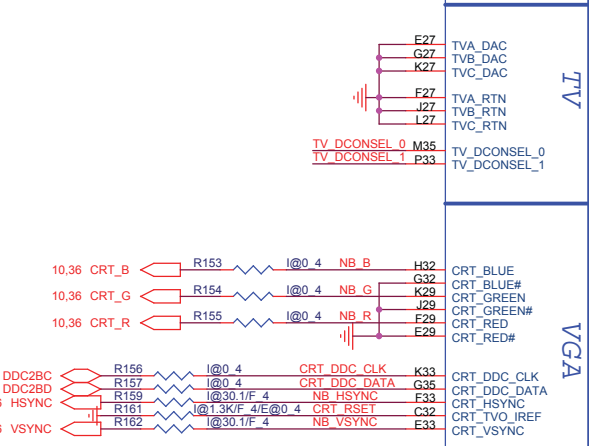
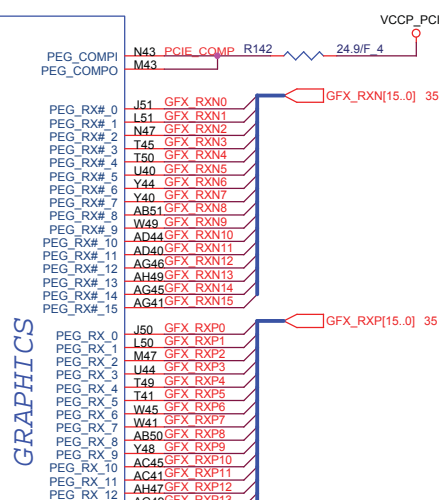
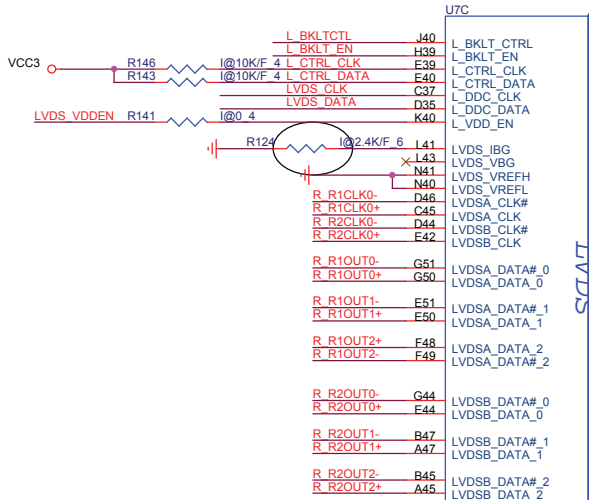


GMCH Strap pin description

	Low	High
CGF5	DMIX2	* DMIX4
CGF9	PCIe Graphics lan : Reverse Lane	* PCIe Graphics lan : Normal operation
CGF16	FSB Dynamic ODT Disabled	* FSB Dynamic ODT Enabled
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[12:13]:XOR /ALLZ / Clock Un-gating 00 = Clock Gating Disabled 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		



1. Level 1 Supportment-Related Substances Should NEVER be Used
 2. Purchasing Links: <http://www.qlc.com/qlc/qlc.htm>
 The business Partners that Sony approves as Green Partners.



E@: 965PM(EXT) should mount
I@: 965GM(INT) should mount

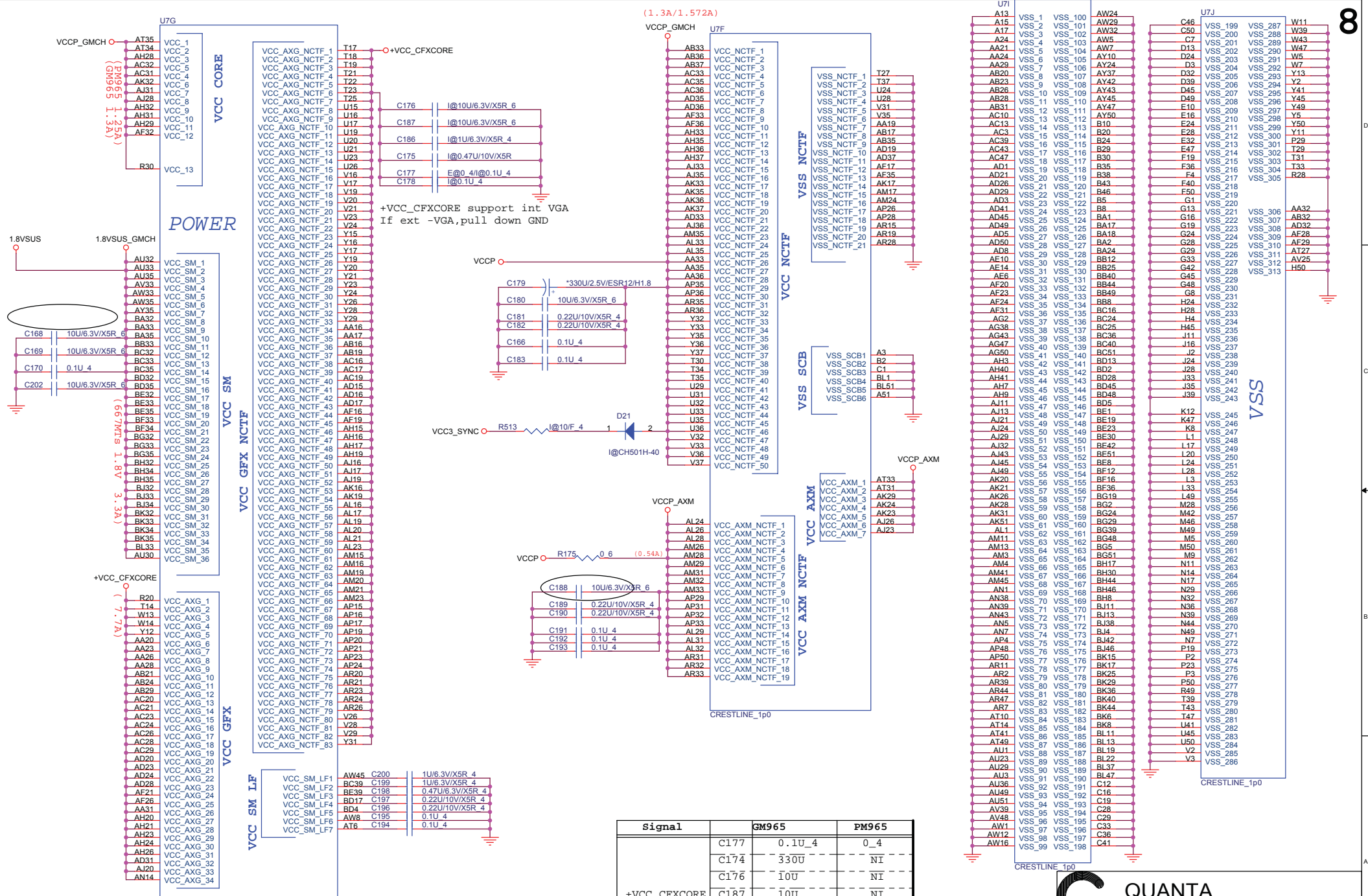
Signal	965GM	965PM
NB_B	R153 0_4	NI
	R148 150_4	0_4
NB_G	R154 0_4	NI
	R149 150_4	0_4
NB_R	R155 0_4	NI
	R150 150_4	0_4
NB_VSYNC	R151 NI	0_4
	R162 30.1/F_4	NI
NB_HSYNC	R152 NI	0_4
	R159 30.1/F_4	NI
LVDS_IBG	R124 2.4K/F_4	NI
LVDS	RP63	0X2
	RP70	NI
	RP71 RP78	NI 0X2
L_BKLT_EN	R163 0_4	NI
L_CTRL_CLK	R146 10K	NI
	R636 NI	0_4
L_CTRL_DATA	R143 10K	NI
	R637 NI	0_4
LVDS_VDDEN	R141 0_4	NI
DDC2BC	R156 0_4	NI
	R634 NI	0_4
DDC2BD	R157 0_4	NI
	R635 NI	0_4
CRT_REST	R161 1.3K/F	0_4
L_DDC_CLK	R491 0_4	NI
	R638 NI	0_4
L_DDC_DATA	R492 0_4	NI
	R639 NI	0_4
GFX	C126	NI
	C157	0.1UF_4
BRIGHT	R170 0_4	NI
	R171 NI	0_4

Title: **GMCH DMI VEDIO 3 of 5**

Size: Document Number **WK1 Main Board** Rev 2A

Date: Wednesday, December 27, 2006 Sheet 7 of 39

1. Lead-Free Environment-related Substances should NEVER be used.
2. For more information, please refer to the following URL: <http://www.sony.com/lead-free>

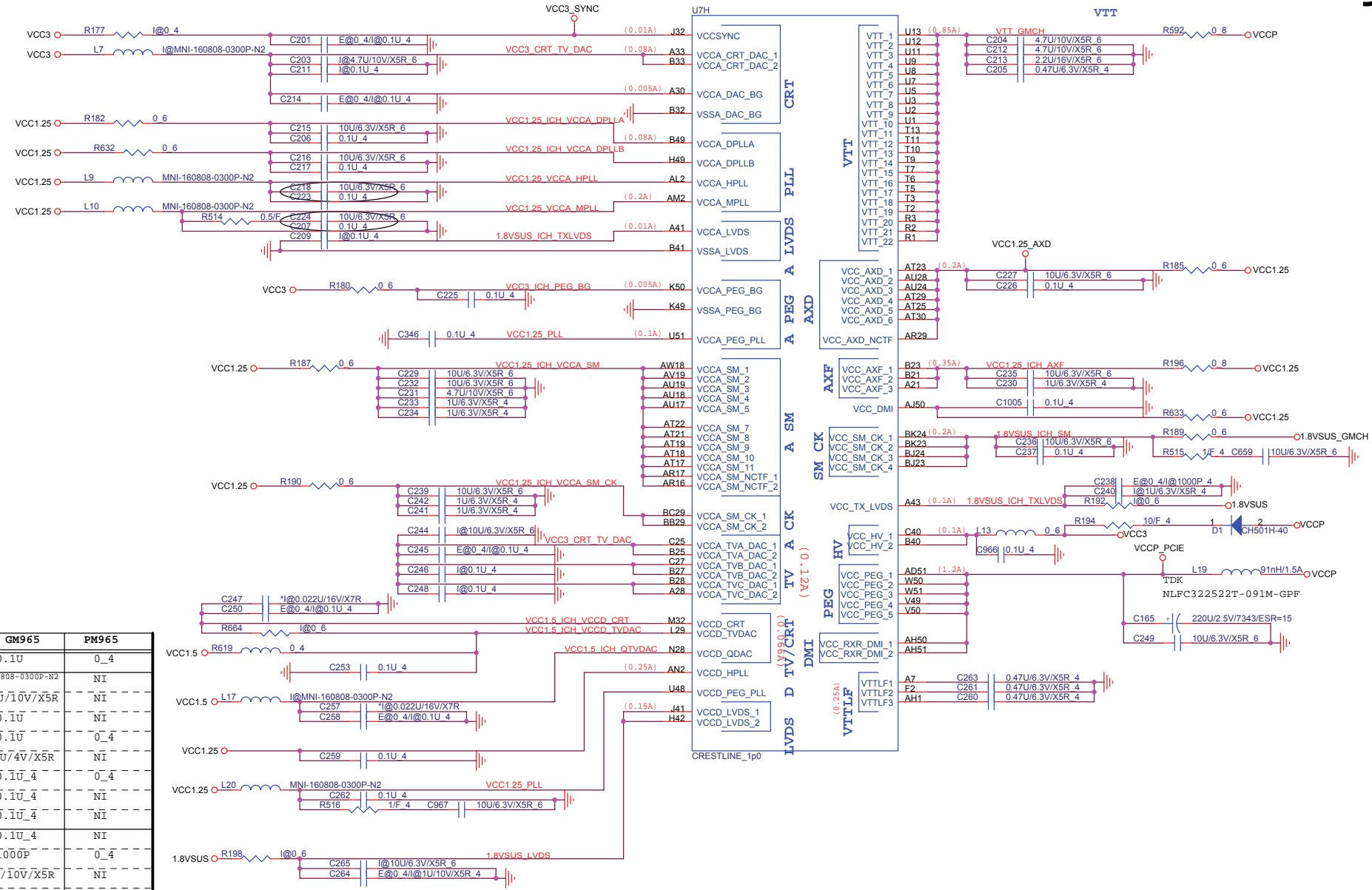


(1.3A/1.57A)

signal	GM965	PM965
+VCC_CFXCORE	C177 0.1U_4	0.4
	C174 330U	NI
	C176 10U	NI
	C187 10U	NI
	C186 1U	NI
	C175 0.47U	NI
	C178 0.1U_4	NI




GMCH Power 4 of 5
WK1 Main Board



Signal	GM965	PM965
VCC3_SYNC	C201 0.1uF	0_4
VCC3_CRT_TV_DAC	L7 MNI-160808-0300P-N2	NI
	C203 4.7u/10V/X5R 6	NI
	C211 0.1uF	NI
	C214 0.1uF	0_4
	C244 10u/4V/X5R 6	NI
1.8VSUS_ICH_TXLVDS	C238 1000pF	0_4
	C240 1u/10V/X5R 6	NI
	R192 0_6	NI
VCC1.5_ICH_VCCD_CRT	C247 0.022u/16V/X7R	NI
	C250 0.1uF	0_4
	R664 0_6	NI
VCC1.5_ICH_QTVDAC	L17 MNI-160808-0300P-N2	NI
	C257 0.022u/16V/X7R	NI
	C258 0.1uF	0_4
1.8VSUS_LVDS	R198 0_6	NI
	C265 10u/4V/X5R 6	NI
	C264 1u/10V/X5R 6	0_4

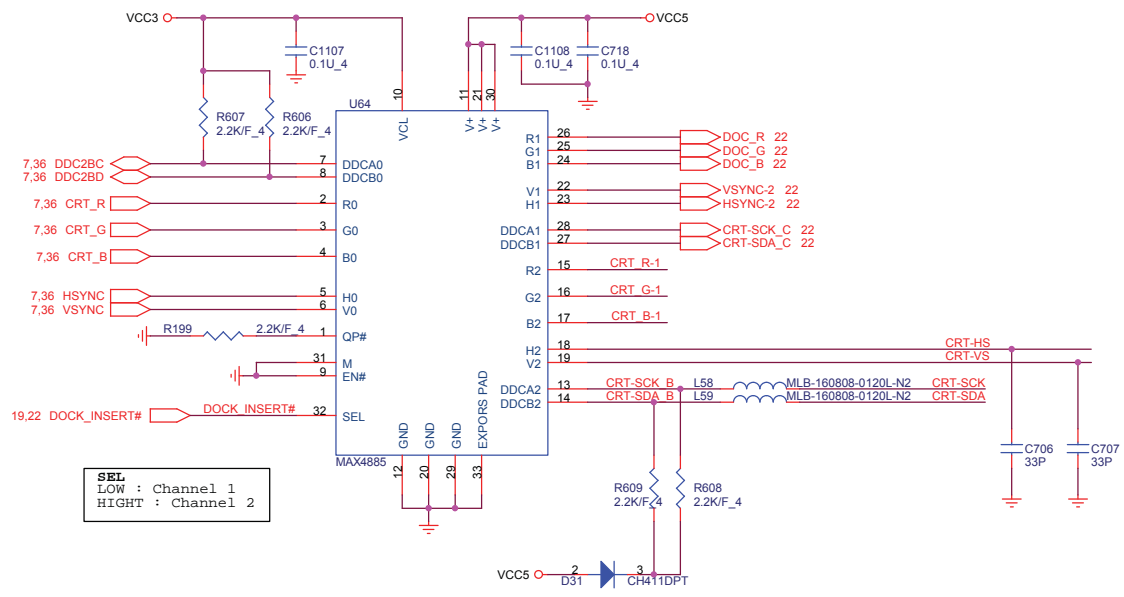
1. Lead-free Environment-related Substances should NEVER be used.
 2. Please refer to the link: <http://audi-elektronika.net> from the business Partners that Sony approves as Green Partners.



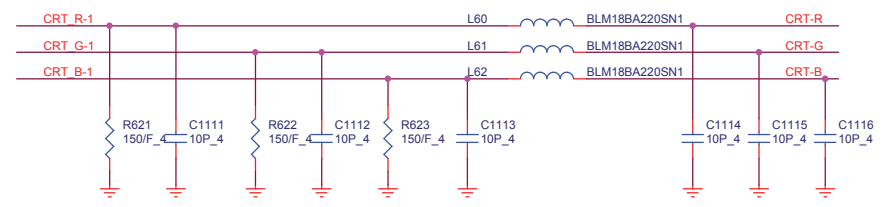
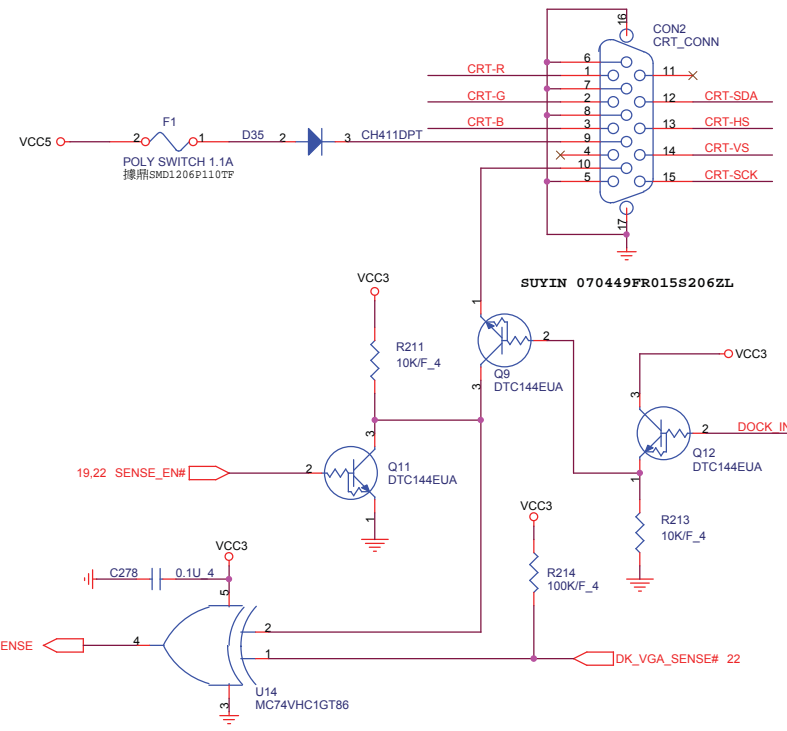
**QUANTA
COMPUTER**

Title: **GMCH Power 2 5 of 5**

Size	Document Number	Rev
Date: Wednesday, December 27, 2006	Sheet 9 of 39	1B



SEL
LOW : Channel 1
HIGHT : Channel 2



MAX4885

EN#	M	SEL	
L	L	L	1:2 Mode buffers Enabled H0 to H1 , V0 to V1
L	L	H	1:2 Mode buffers Enabled H0 to H2 , V0 to V2
L	H	L	2:1Mode buffers Disabled H0 to H1 , V0 to V1
L	H	H	2:1Mode buffers Disabled H0 to H1 , V0 to V1

	SENSE_EN#	MB CRT	DOCK CRT	DOCK DVI	CRT_SENSE
All no Plug	L	H	H	L	L
MB CRT Plug	L	L	H	L	H
DOCK CRT Plug	L	H	L	L	H
DOCK DVI Plug	L	H	H	H	H
SENSE EN	H	X	X	X	L
DOCK CRT/DVI Plug	L	H	L	H	L
DOCK CRT/MB CRT Plug	L	L	L	L	L

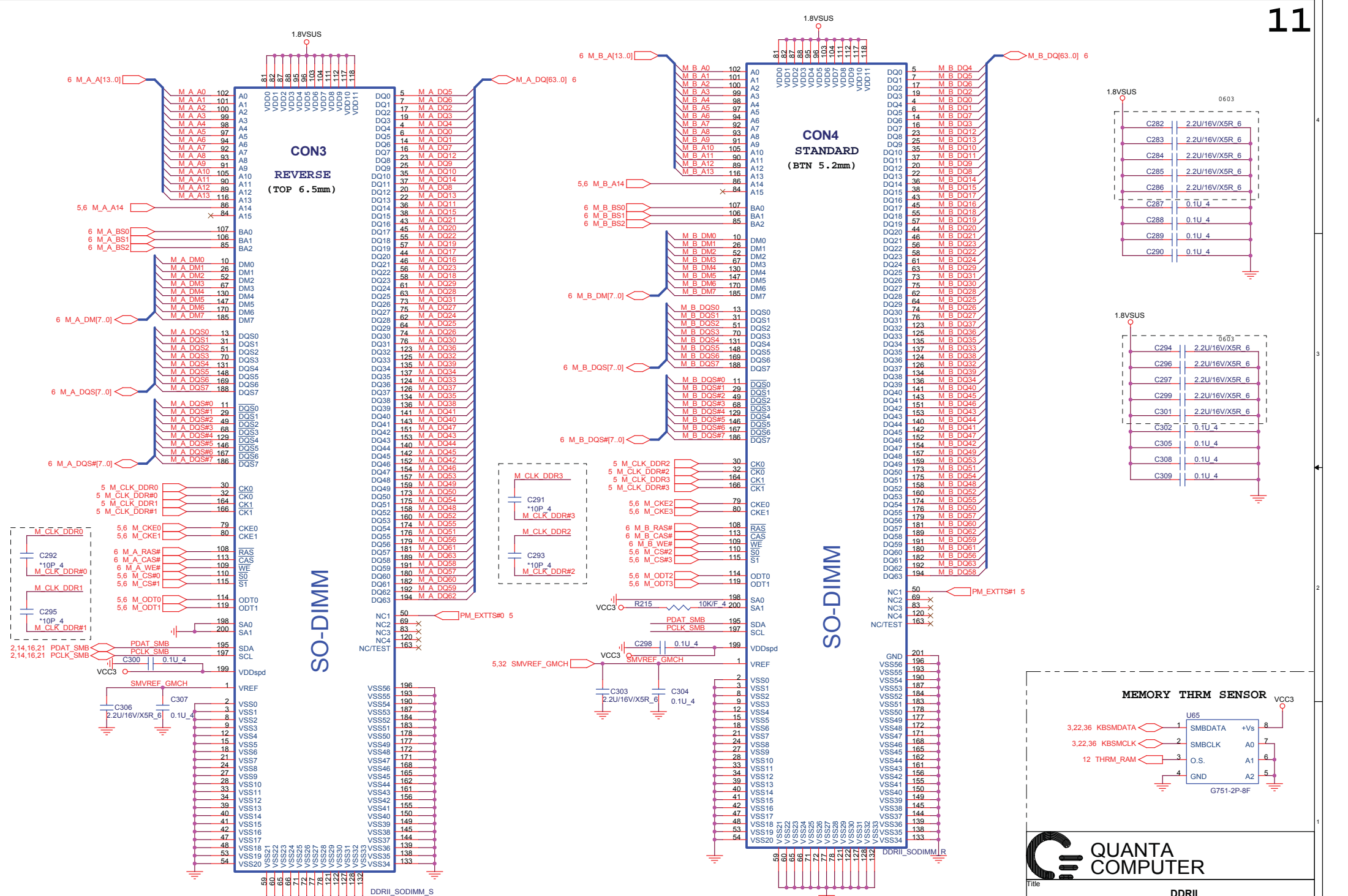
1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase Ink, paper, wire and Soldering Equipment only from the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title: CRT

Size: Document Number WK1 Main Board Rev 2A

Date: Wednesday, December 27, 2006 Sheet 10 of 39



1.Level 1 Environment-related Substances should NEVER be Used.
 2.Purchase ink, paint and other consumables from our Green Partners that Sony approves as Green Partners.
<http://nobi-elektronika.net>

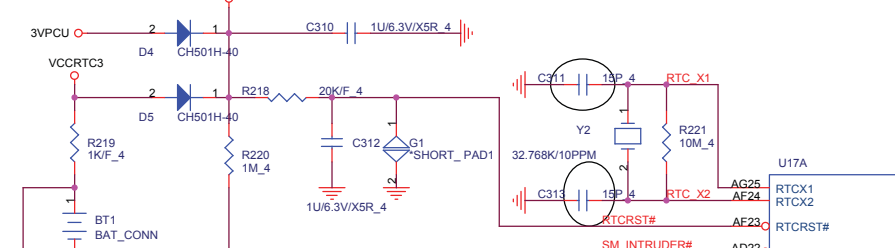
QUANTA COMPUTER

DDR II

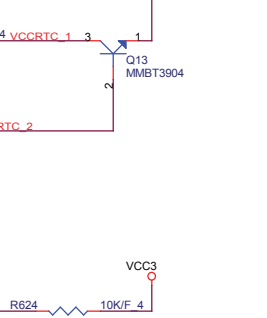
Size: Document Number: **WK1 Main Board** Rev: 1A

Date: Wednesday, December 27, 2006 Sheet: 11 of 39

RTC



DFHD02MS776
532610271



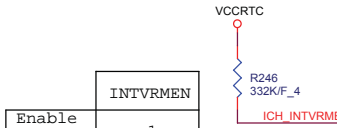
Delete R679

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

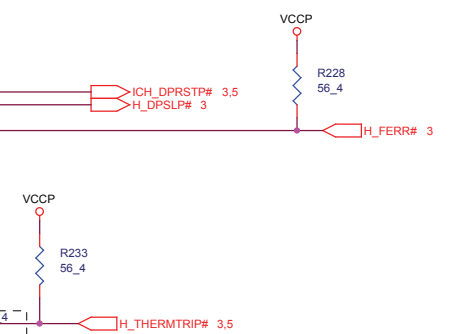
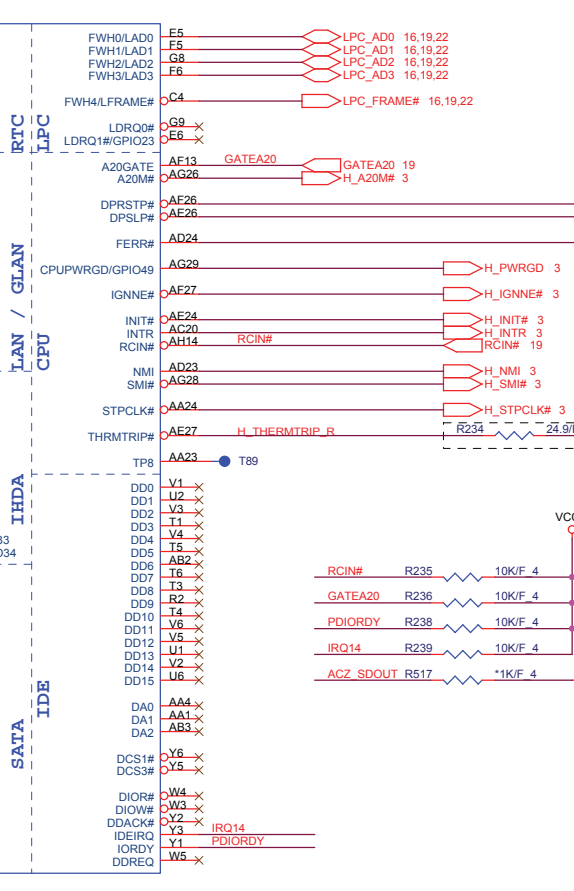
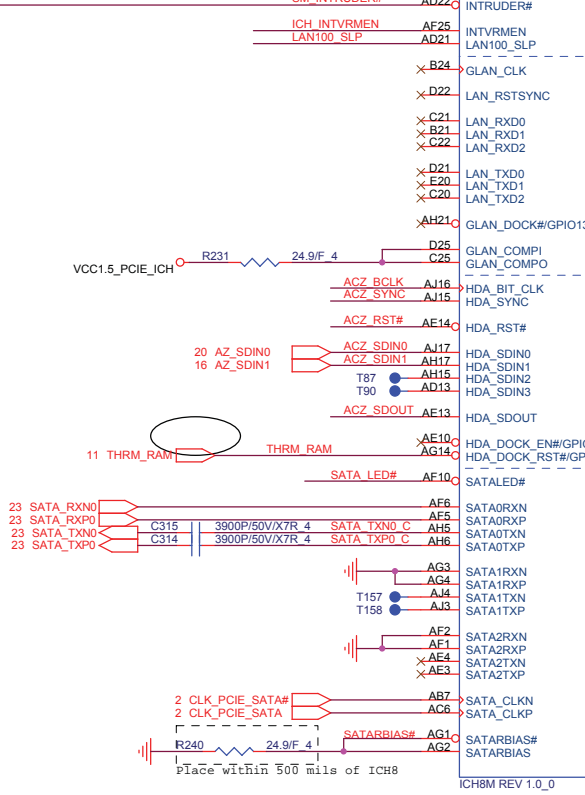
ICH8-M LAN100_SLP Strap
(Internal VR for VccLAN1_05 and VccCL1.05)



ICH8 internal VR enable strap
ICH8-M Internal VR Enable strap
(Internal VR for Vccsus1_05, Vccsus1_5 and VccCL1_5)

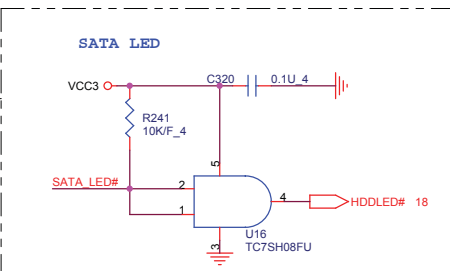


	INTVRMEN
Enable (default)	1
Disable	0

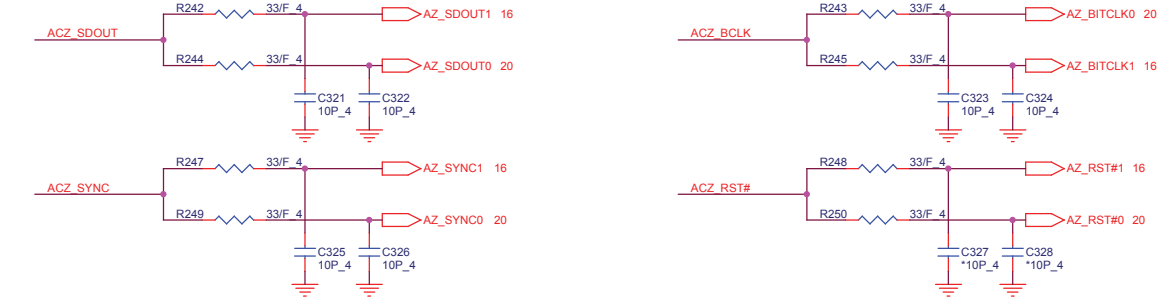


XOR Chain Entrance Strap

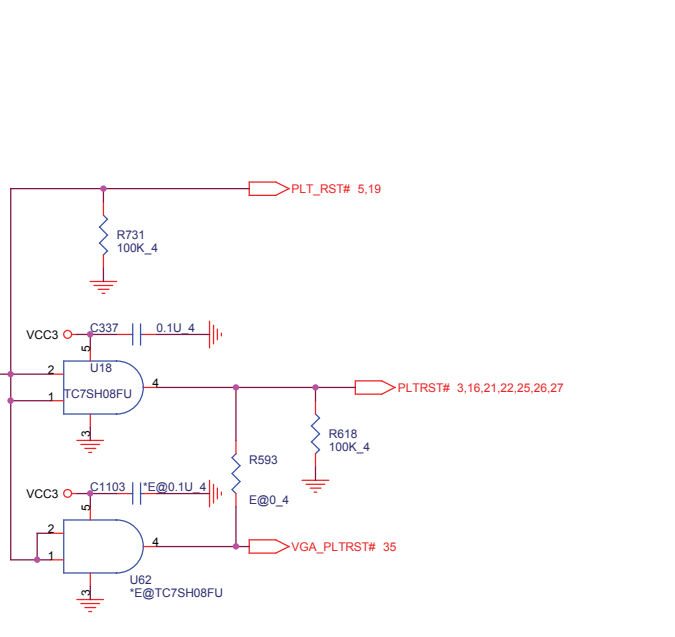
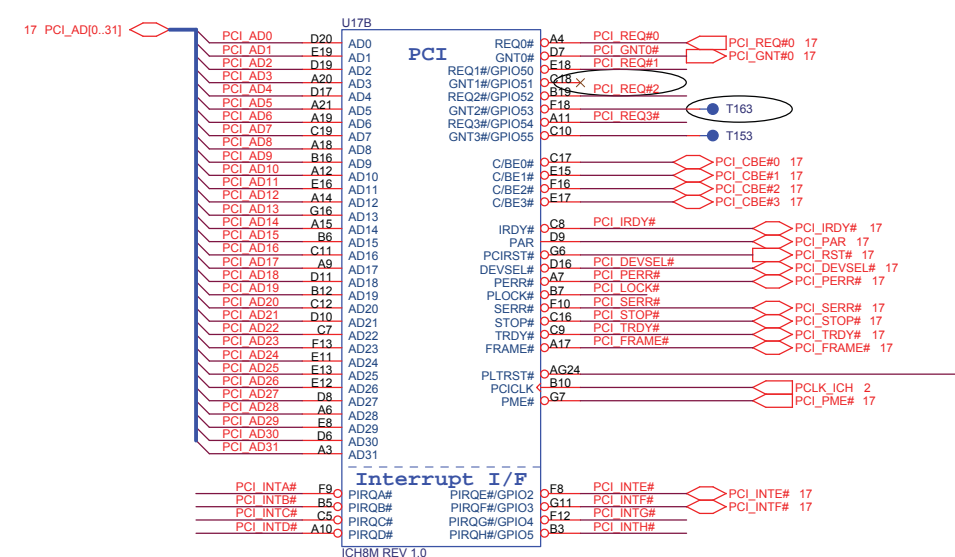
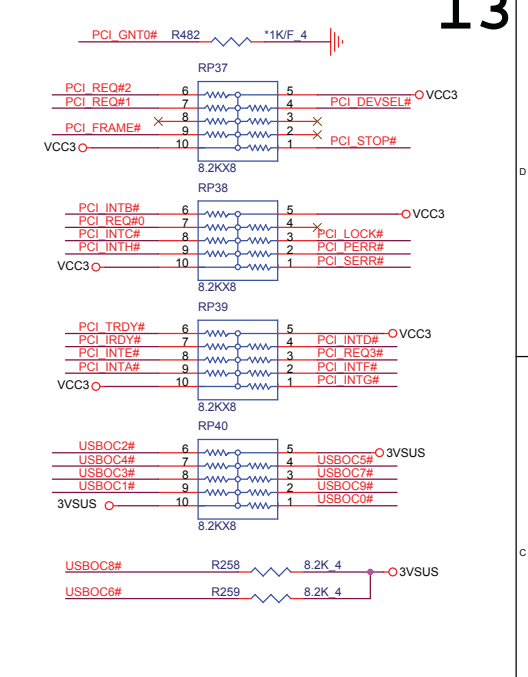
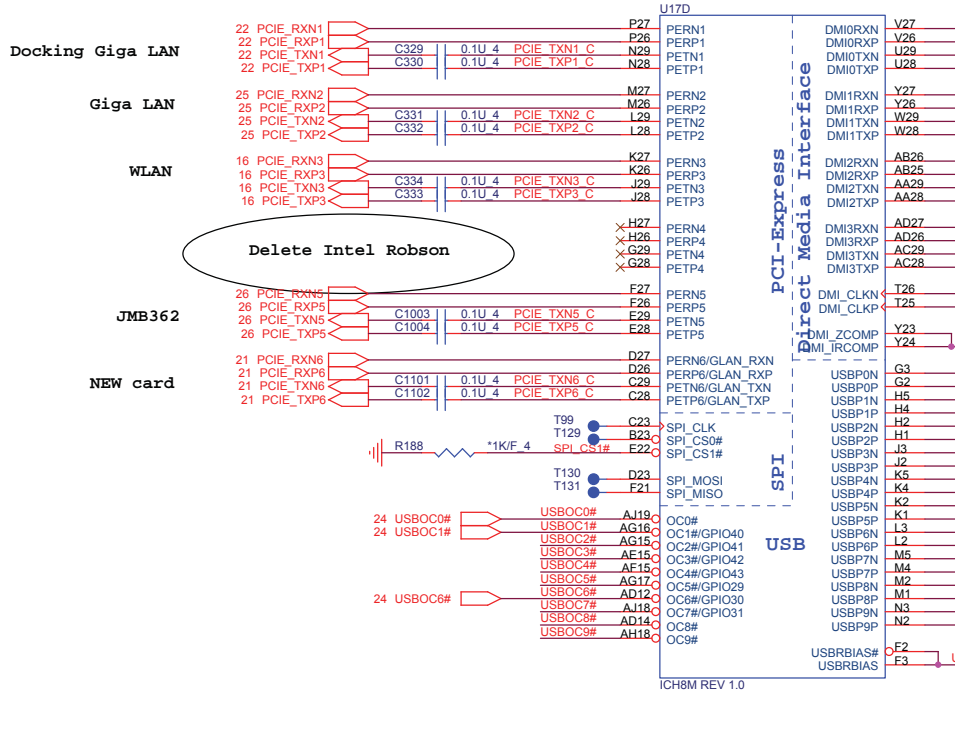
ICH_RSVO	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal operation(Default)
1	1	Set PCIE port config bit 1



HD Audio to Codec and Modem



Title ICH8-M HOST1 of 4		
Size	Document Number	Rev 2A
WK1 Main Board		
Date	Wednesday, December 27, 2006	Sheet 12 of 39



A16 SWAP Override strap

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

ICH8 Boot BIOS select

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

PCI bus info.

PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
Ti8402	AD25	REQ0# / GNT0#	PIRQ E/F/G

IRQ	Description
PIRQA	USB UHCI Controller #1, USB UHCI Controller #4
PIRQB	Audio; Modem; SMBus
PIRQC	USB UHCI Controller #3, SATA/IDE Native Mode
PIRQD	USB UHCI Controller #2
PIRQE	INT LAN; option for SCI, TCO, HPET #0,1,2; Ti8412
PIRQF	option for SCI, TCO, HPET #0,1,2; Ti8412
PIRQG	option for SCI, TCO, HPET #0,1,2; Ti8412
PIRQH	USB EHCI Controller; option for SCI, TCO, HPET #0,1,2

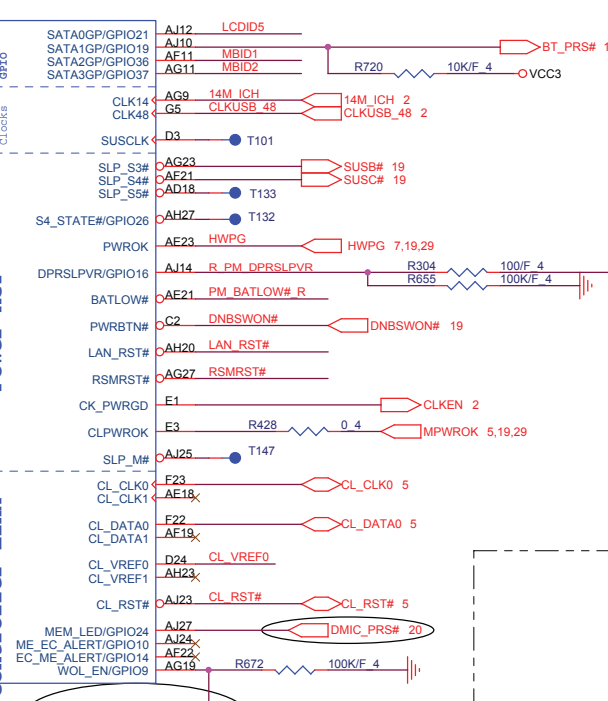
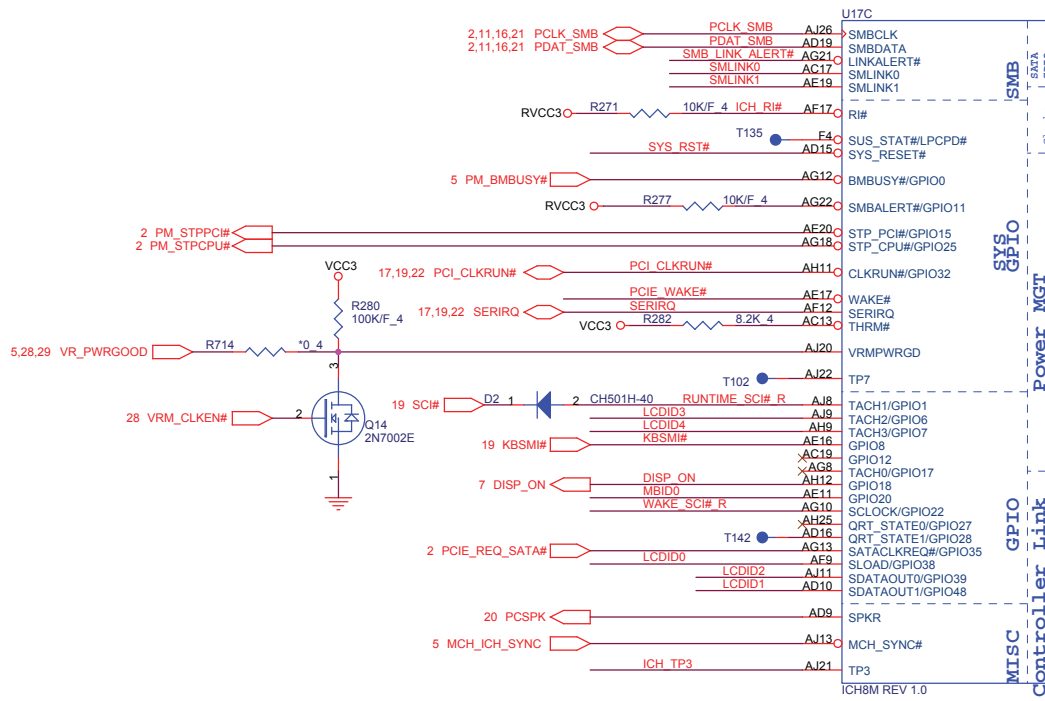
QUANTA COMPUTER

Title: **ICH8-M PCIE 2 of 4**

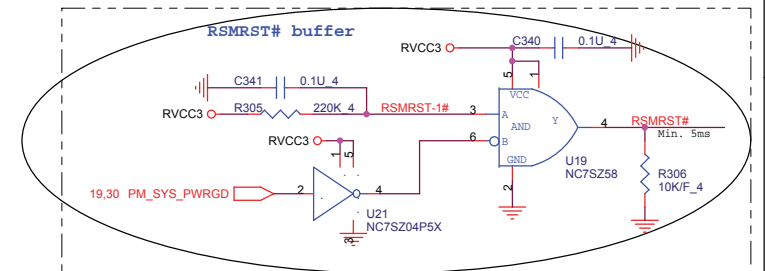
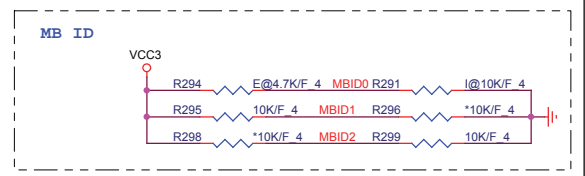
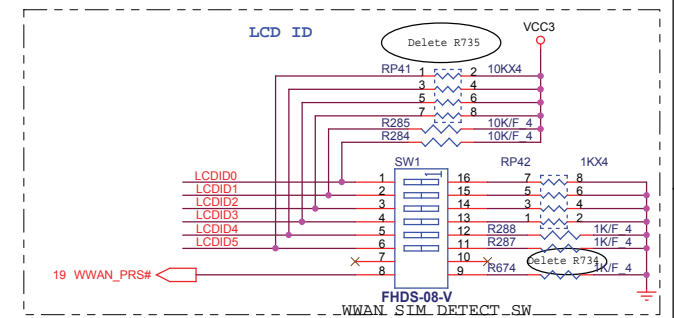
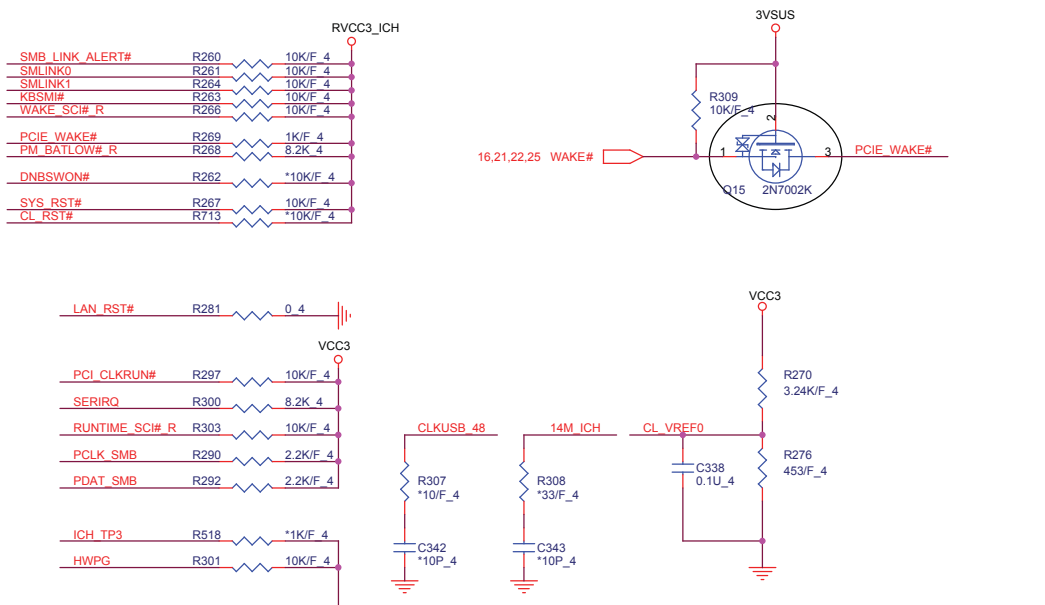
Size	Document Number	Rev
	WK1 Main Board	2A

Date: Wednesday, December 27, 2006 Sheet 13 of 39

1. This part should not contain any substances which are specified in SS-00259-1
 2. Purchase this item from the designated sales company or the business partners that Sony approves as Green Partners.



	GM965 PC87541	PM+M64 PC87541	GM965 WPC8763L	PM+M71 WPC8763L
MBID0	0	1	0	1
MBID1	1	1	1	1
MBID2	1	1	0	0



QUANTA COMPUTER

Title: ICH8-M GPIO 3 of 4

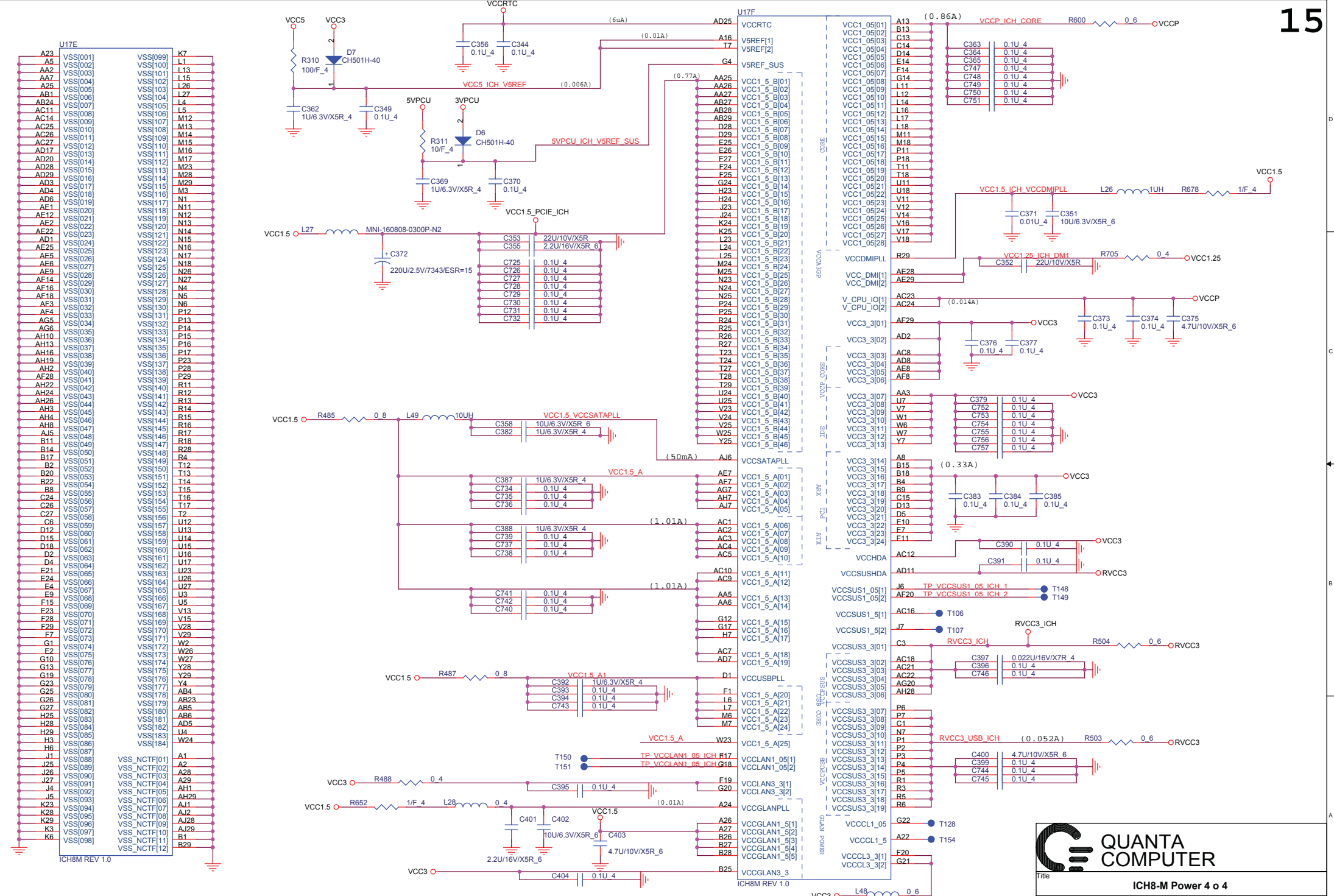
Size: Document Number: WK1 Main Board

Date: Wednesday, December 27, 2006

Sheet: 14 of 39

Rev: 2A

1. Level 1 Environment-related Substances should NEVER be used.
 2. Purchase of certain products from the following manufacturers is required from the business Partners that Sony approves as Green Partners.



Title: ICH8-M Power 4 o 4

Size: Document Number: WK1 Main Board

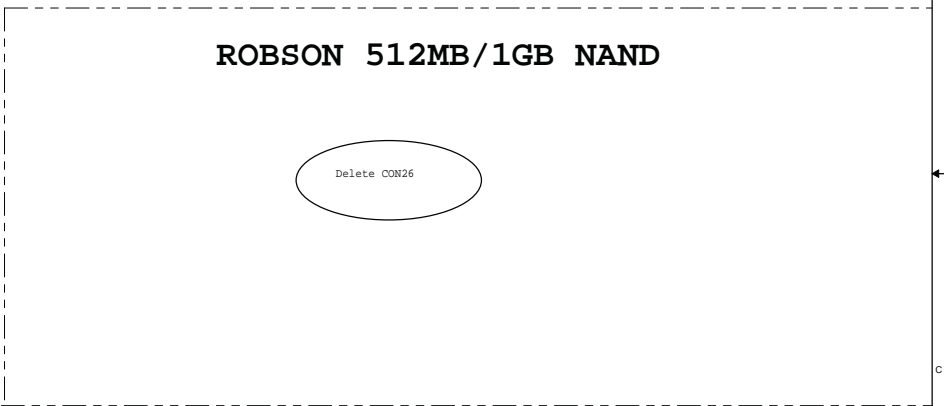
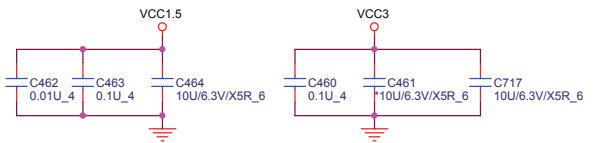
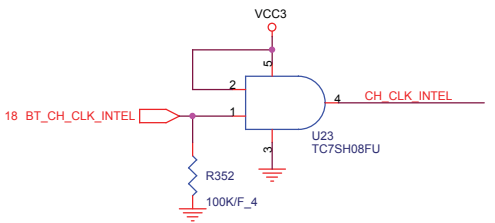
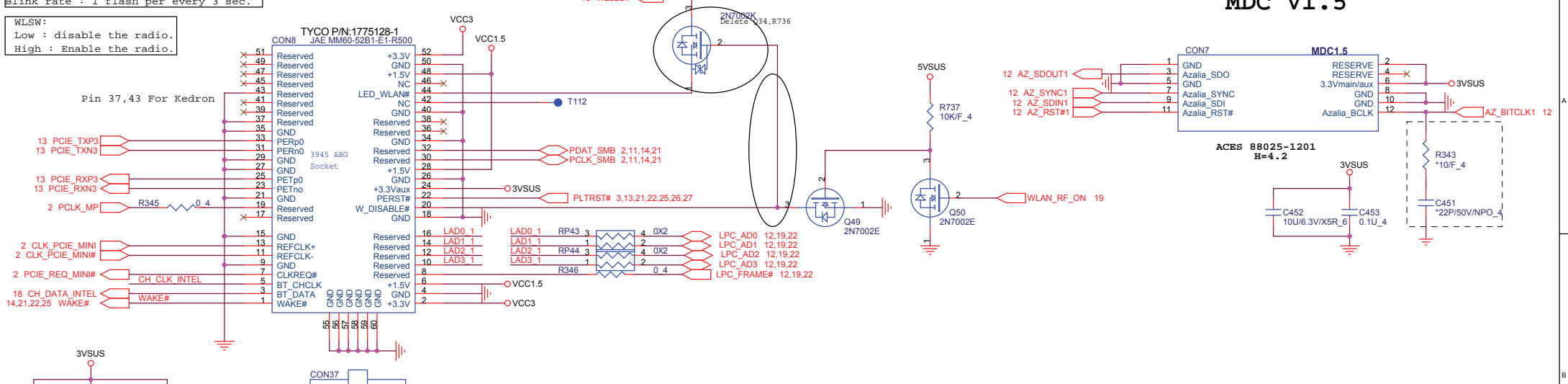
Date: Wednesday, December 27, 2006 Sheet 15 of 39

1. Lead-Free Environment-related Substances should NEVER be used.
 2. For more information, please refer to the business Partners that Sony approves as Green Partners.

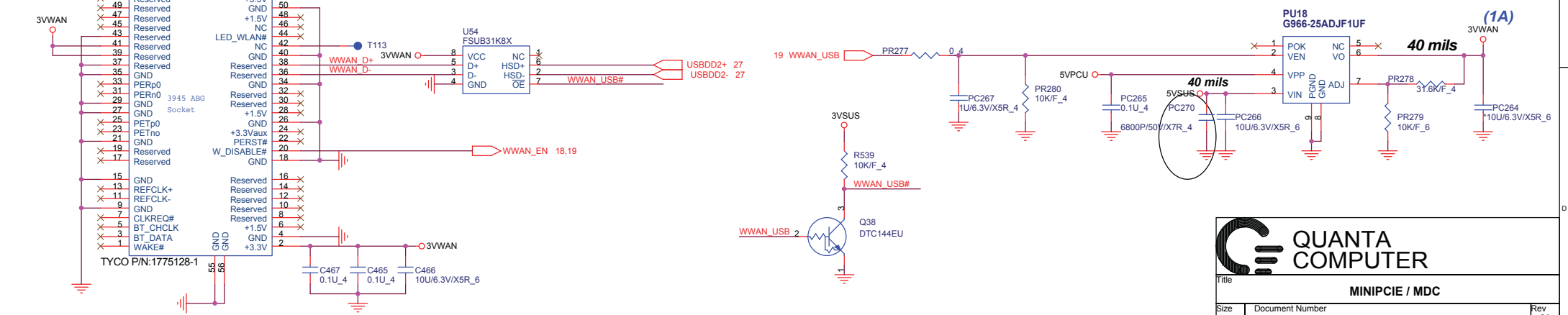
LED_GP : LED WLEN LINK
Output Current : 7mA
Blink rate : 1 flash per every 3 sec.

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

Mini PCI-E Card FOR WL

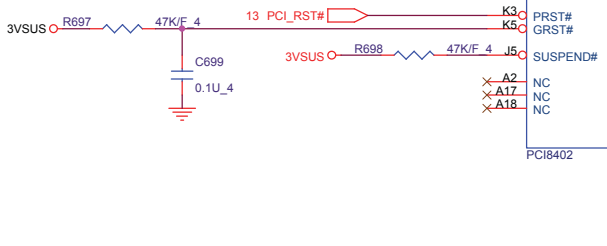
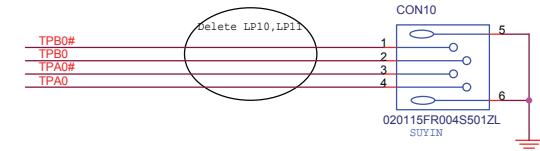
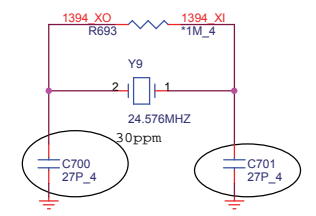
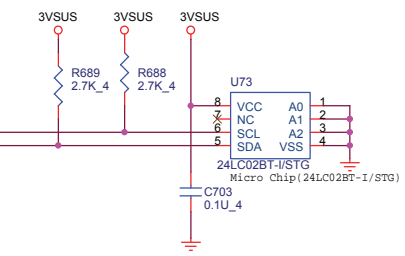
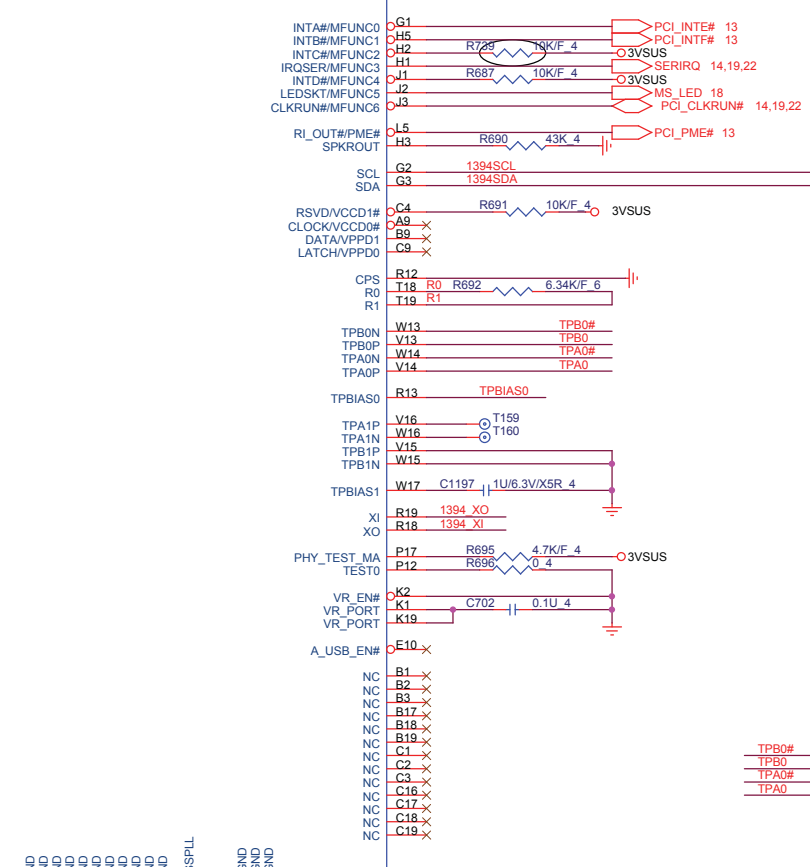
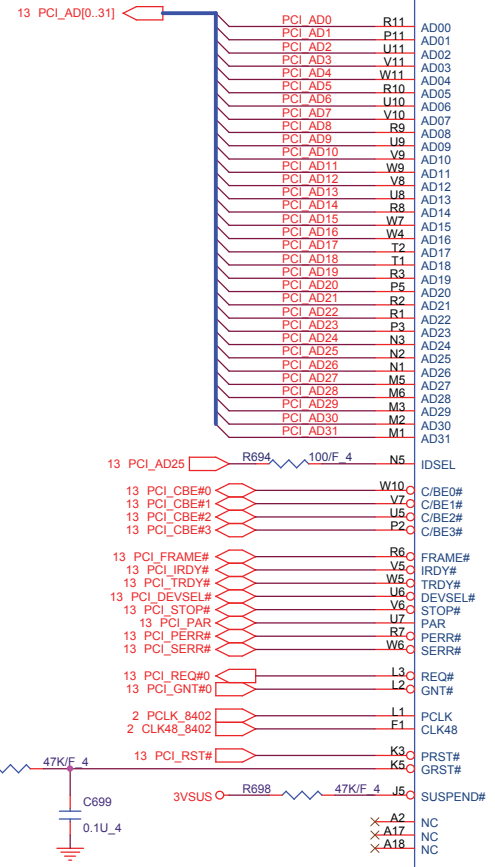
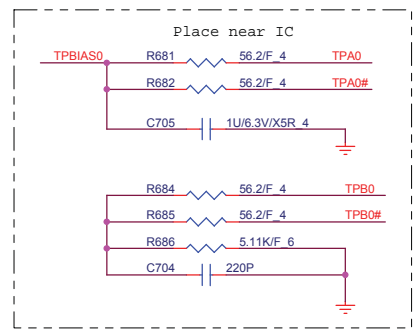
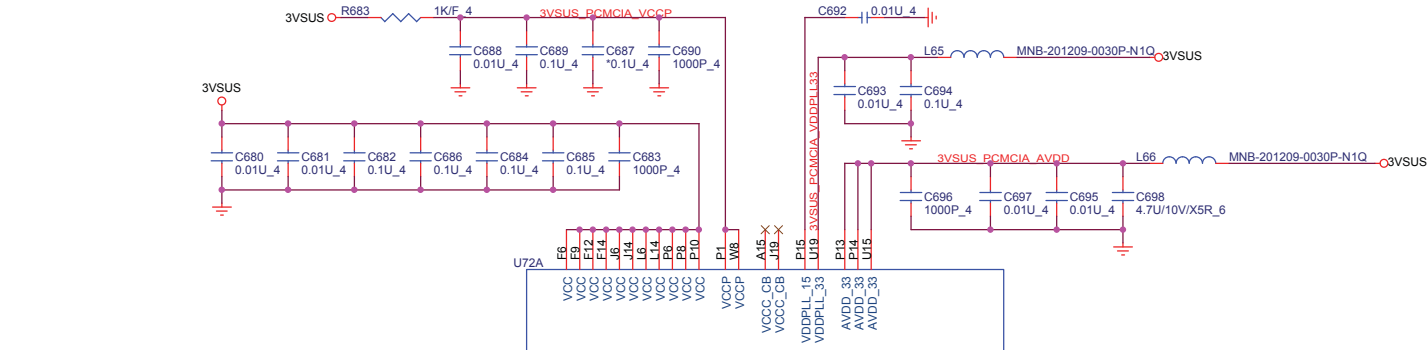


Mini PCI-E Card FOR WWAN

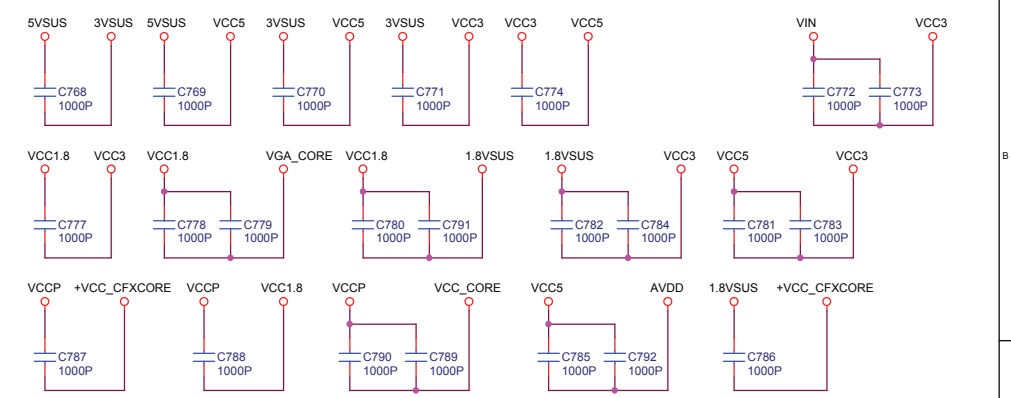
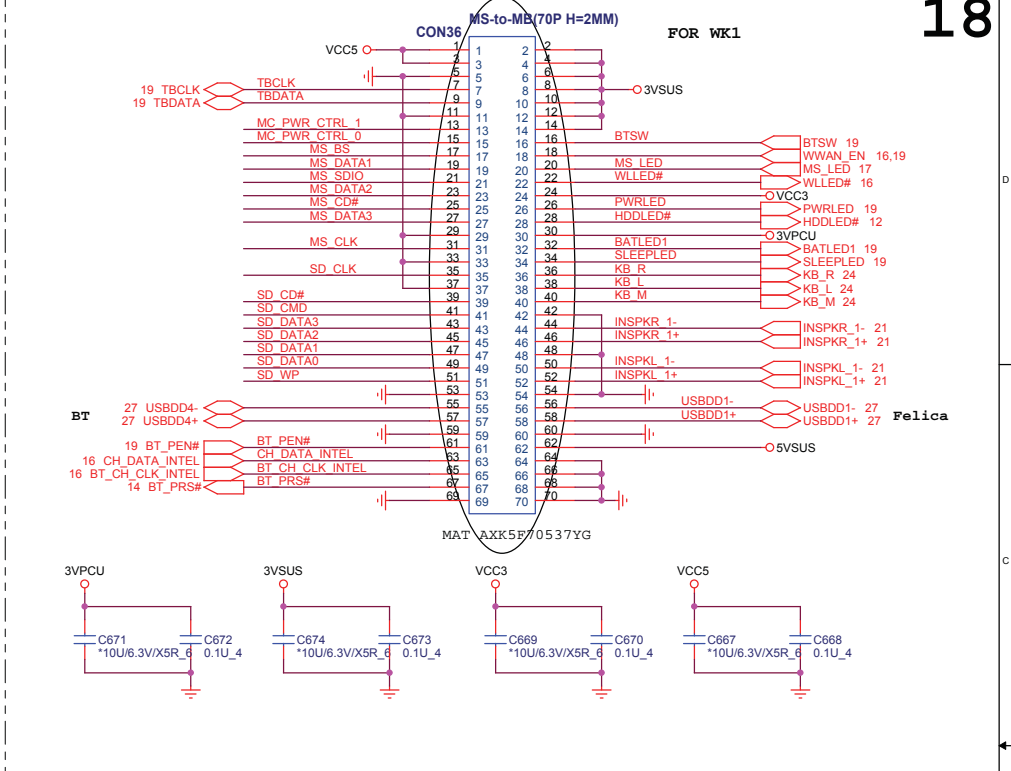
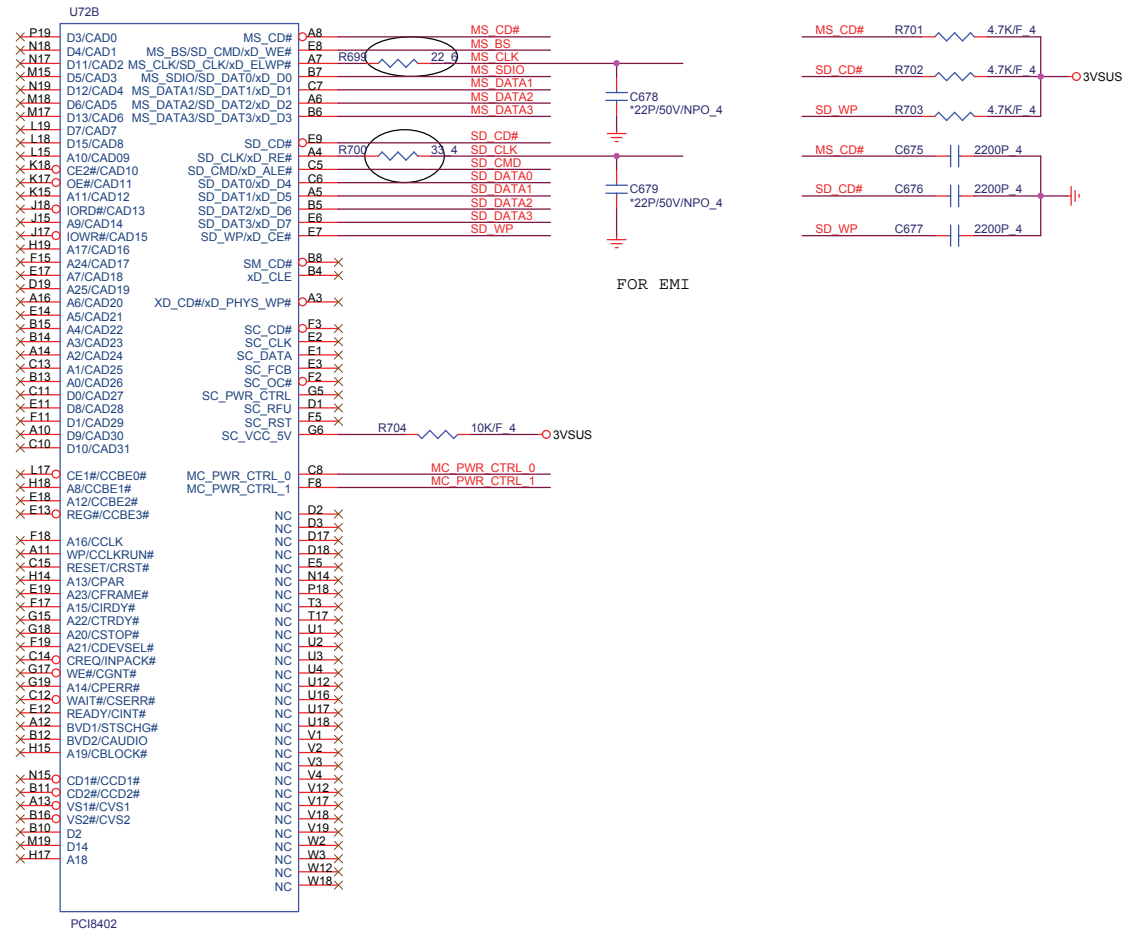


Title			MINIPCIE / MDC		
Size	Document Number	Rev			2A
WK1 Main Board					
Date:	Wednesday, December 27, 2006	Sheet	16	of	39

1. Lead-Free Environment-related Substances should NEVER be used.
2. Purchased from authorized distributors and suppliers from the business partners that Sony approves as Green Partners.



Title			T18402/1394		
Size	Document Number	WK1 PCMCIA Board			Rev
Date: Wednesday, December 27, 2006	Sheet	17	of	39	2A



QUANTA COMPUTER

Title: **T18412/USB**

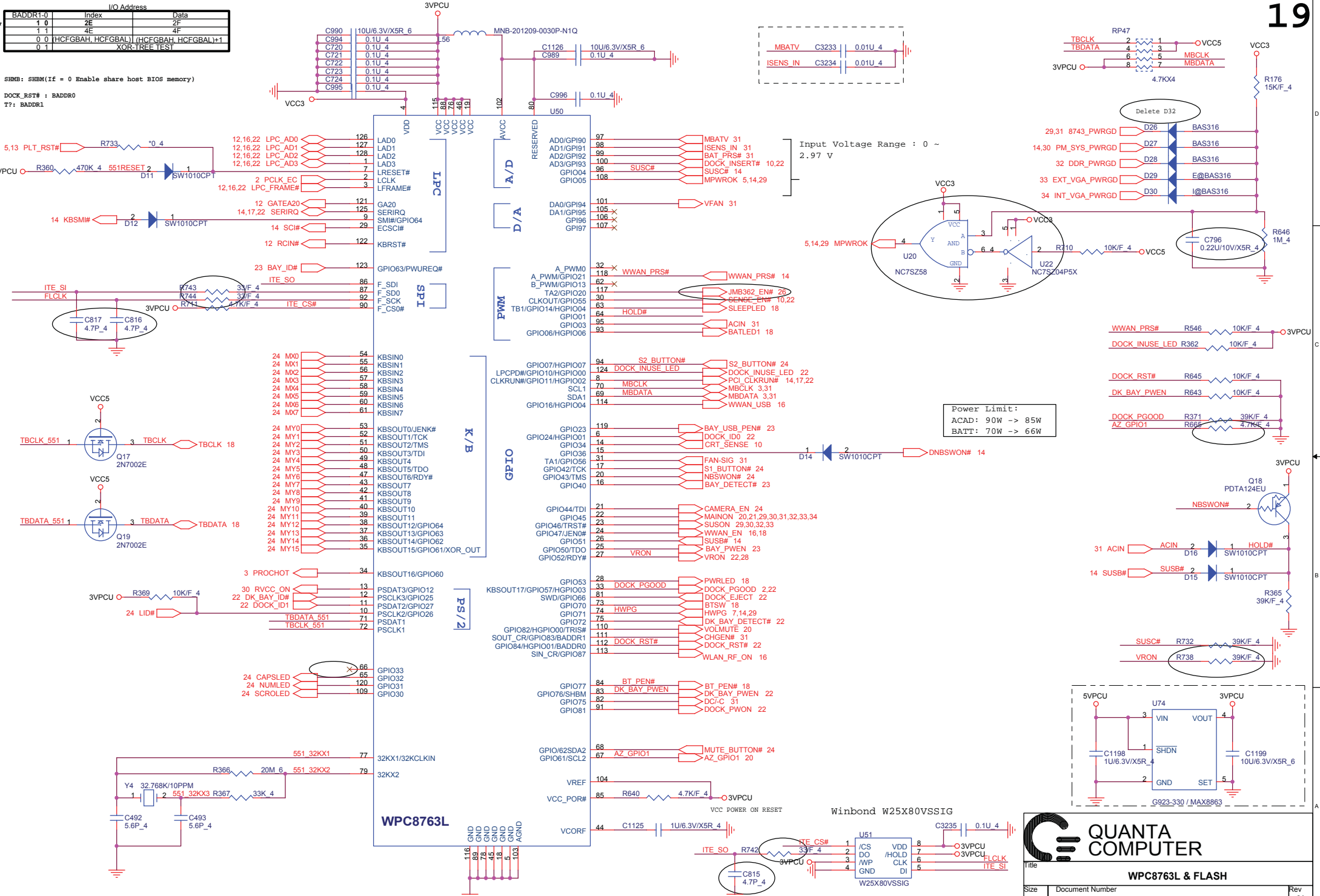
Size: Document Number **WK1 PCMCIA Board** Rev 2A

Date: Wednesday, December 27, 2006 Sheet 18 of 39

1. This part should not contain any substances which are specified in SS-00259-1
 2. Please refer to the following URL for more information on the business partners that Sony approves as Green Partners.
<http://hobi-elektronika.net>

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	

SHMB: SHMB(If = 0 Enable share host BIOS memory)
 DOCK_RST# : BADDR0
 T?: BADDR1



1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molting Agents carefully.
 3. the business Partners that Sony approves as Green Partners.

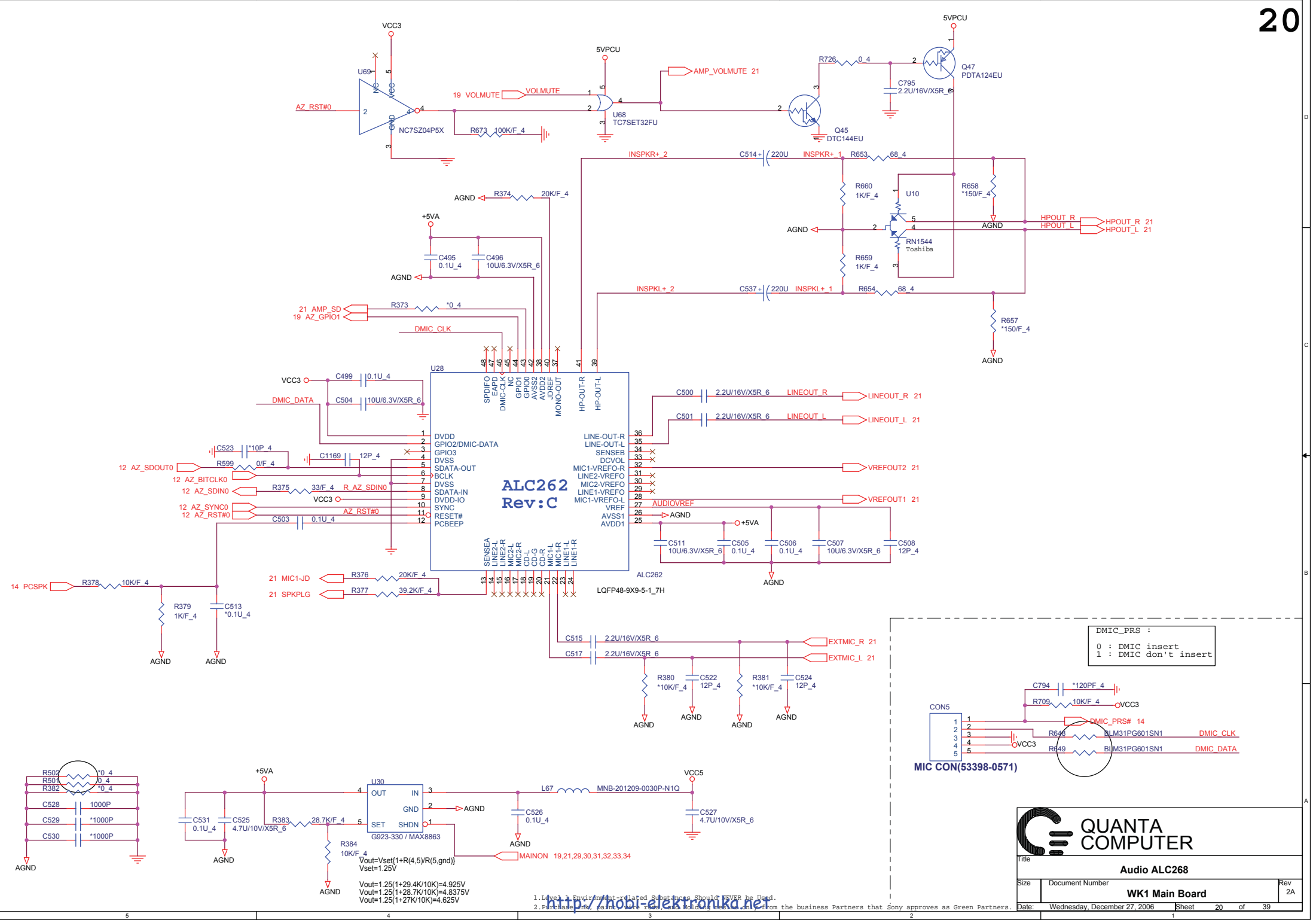
<http://nobi-elektronika.net>

QUANTA COMPUTER

Title: **WPC8763L & FLASH**

Size: Document Number **WK1 Main Board** Rev 2A

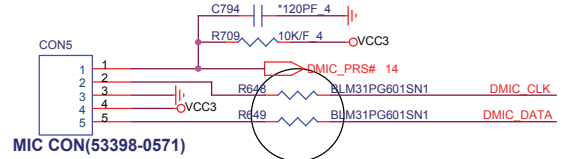
Date: Wednesday, December 27, 2006 Sheet 19 of 39



DMIC_PRS :

0 : DMIC insert

1 : DMIC don't insert



U30 G923-330 / MAX8863

$V_{out} = V_{set} \cdot (1 + R(4,5)/R(5, gnd))$

$V_{set} = 1.25V$

$V_{out} = 1.25 \cdot (1 + 29.4K/10K) = 4.925V$

$V_{out} = 1.25 \cdot (1 + 28.7K/10K) = 4.8375V$

$V_{out} = 1.25 \cdot (1 + 27K/10K) = 4.625V$

1. Lead-free Environment-related Substances should NEVER be used.
 2. For more information, please refer to the following URL: <http://aol-elektronika.net> from the business Partners that Sony approves as Green Partners.

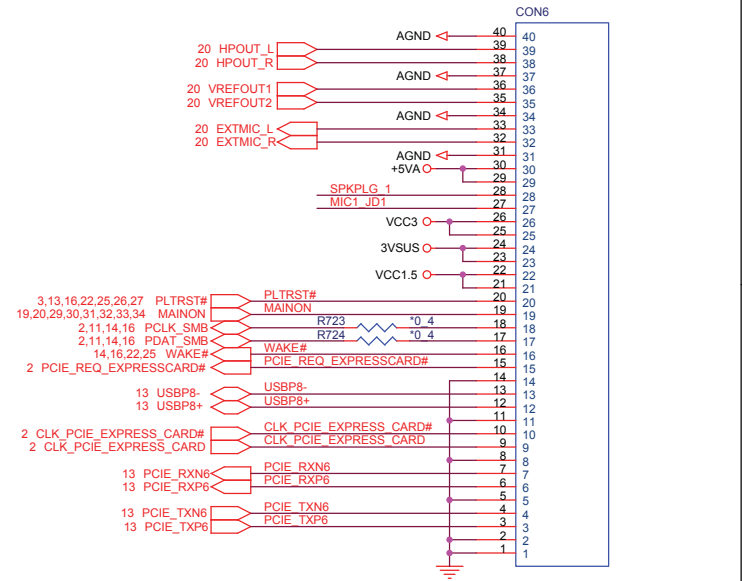
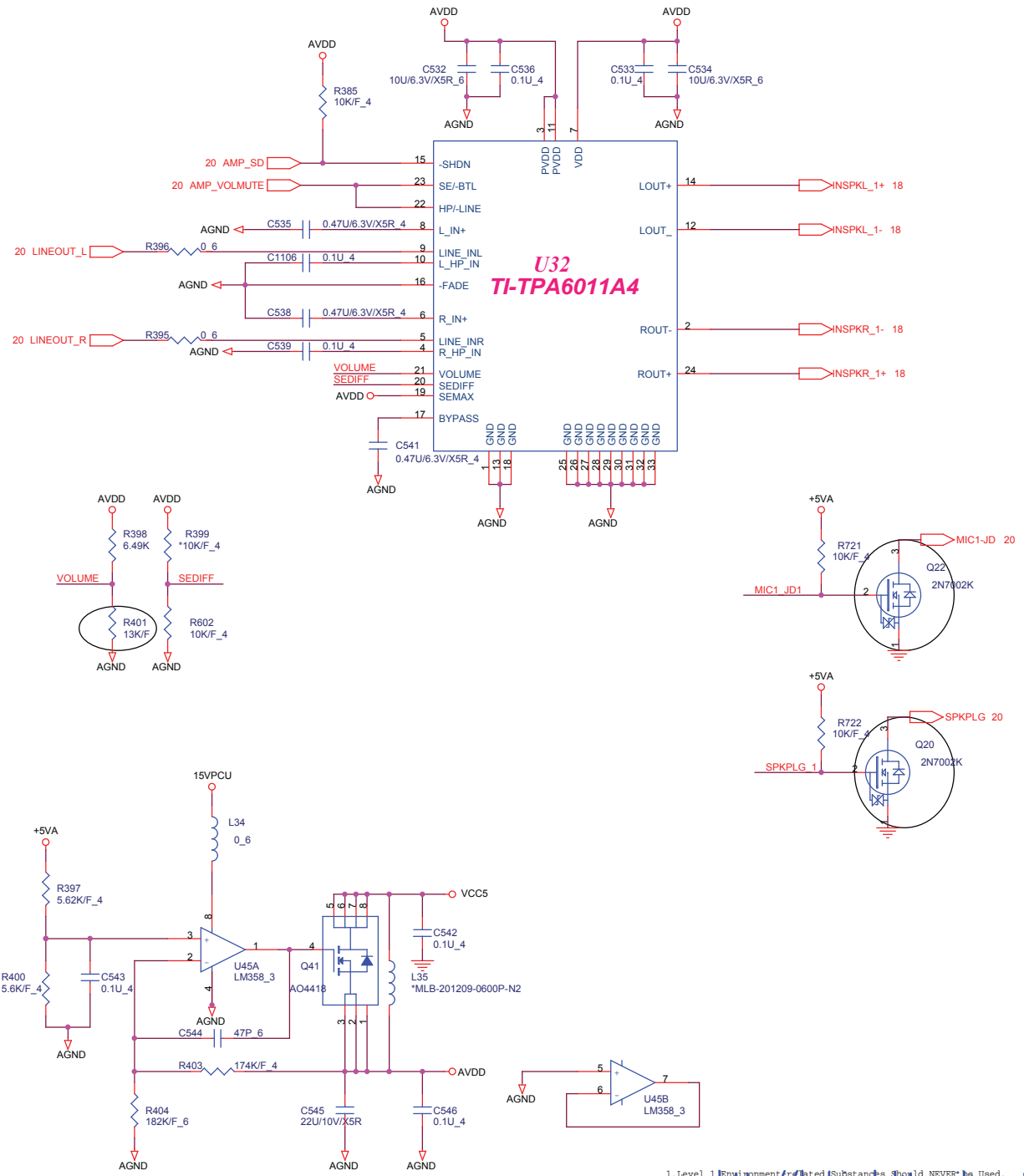
QUANTA COMPUTER

Title: **Audio ALC262**

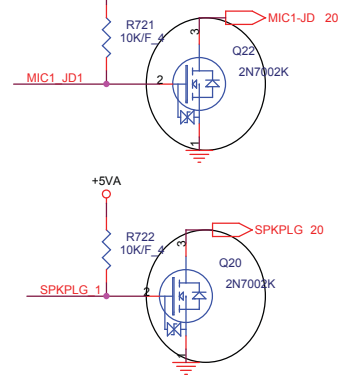
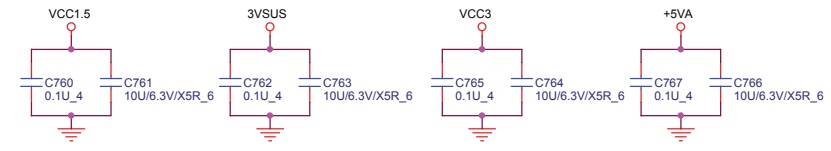
Size: Document Number: **WK1 Main Board** Rev: 2A

Date: Wednesday, December 27, 2006 Sheet 20 of 39

Audio amplifier



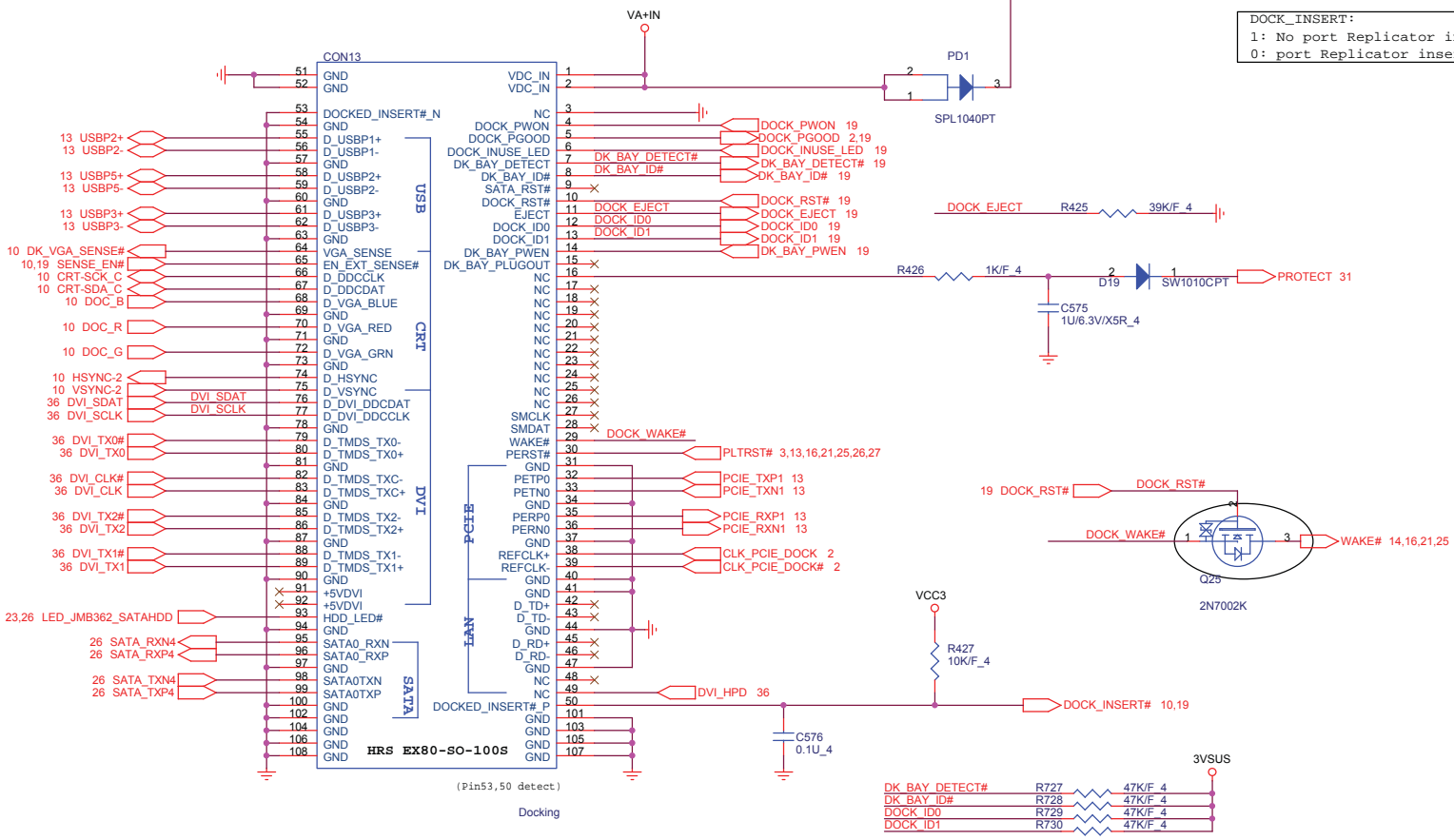
Express Card FPC
Molex 51296-40XX
H=1.3mm



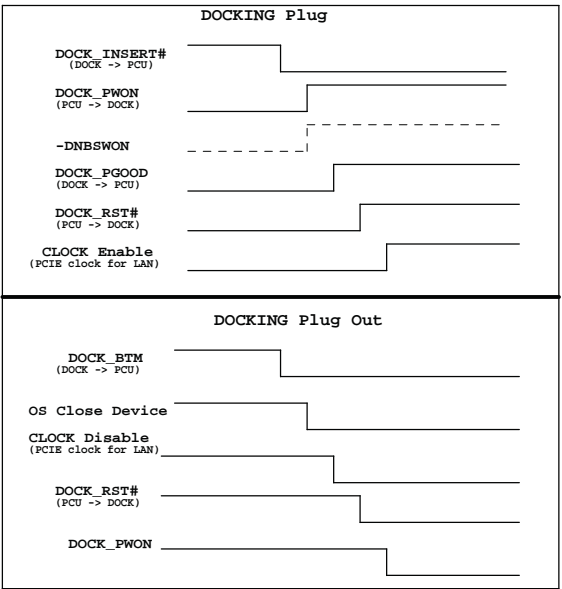
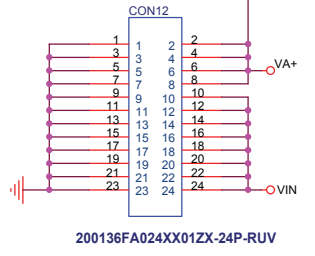
Title			Audio AMP & Int. Speaker		
Size			Document Number		Rev
			WK1 Main Board		2A
Date:			Wednesday, December 27, 2006		Sheet 21 of 39

1. Level 1 Environment-related Substances should NEVER be Used.
2. Purchase Link: <http://A051-elektronika.net> and business Partners that Sony approves as Green Partners.

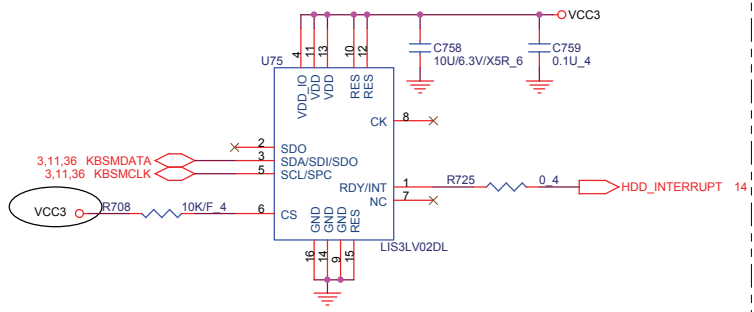
Docking



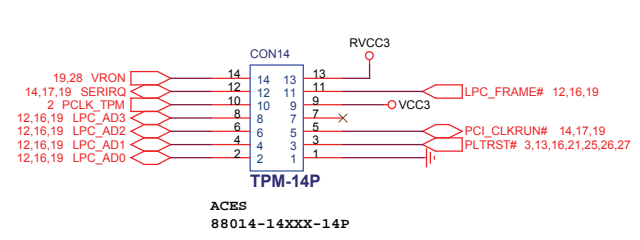
DOCK_INSERT:
1: No port Replicator insert
0: port Replicator insert



HDD PROTECT



TPM



1. Level 1 Environment-Related Substances Should NEVER be Used.
2. Purchase from authorized distributors, including the business Partners that Sony approves as Green Partners.

QUANTA COMPUTER

Title: **Docking/TPM**

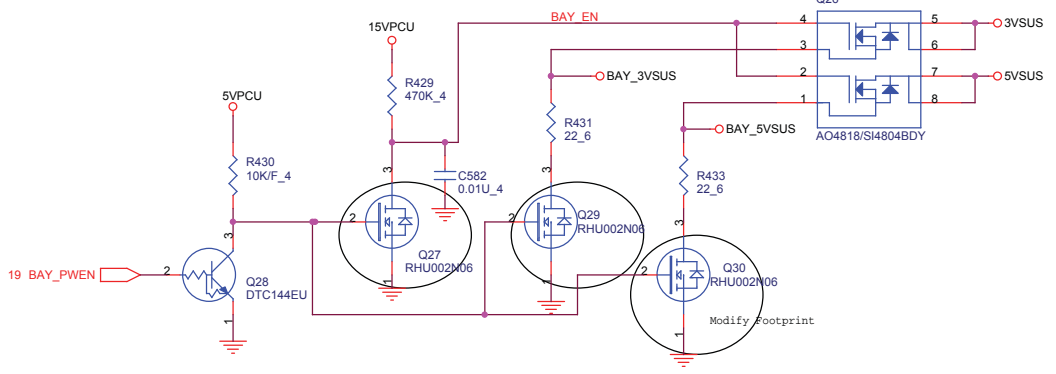
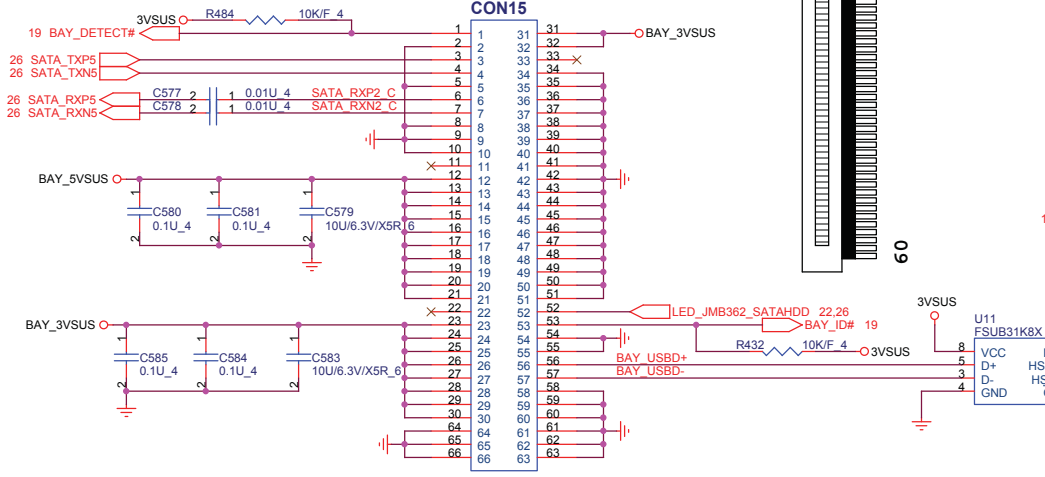
Size: Document Number

Rev: **2A**

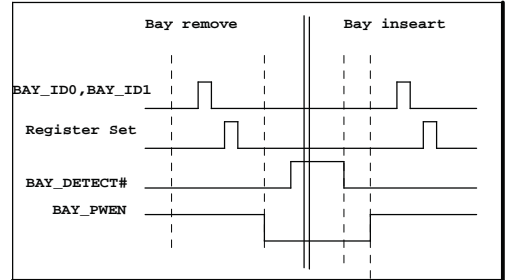
Date: Wednesday, December 27, 2006 Sheet 22 of 39

BAY to ODD/HDD

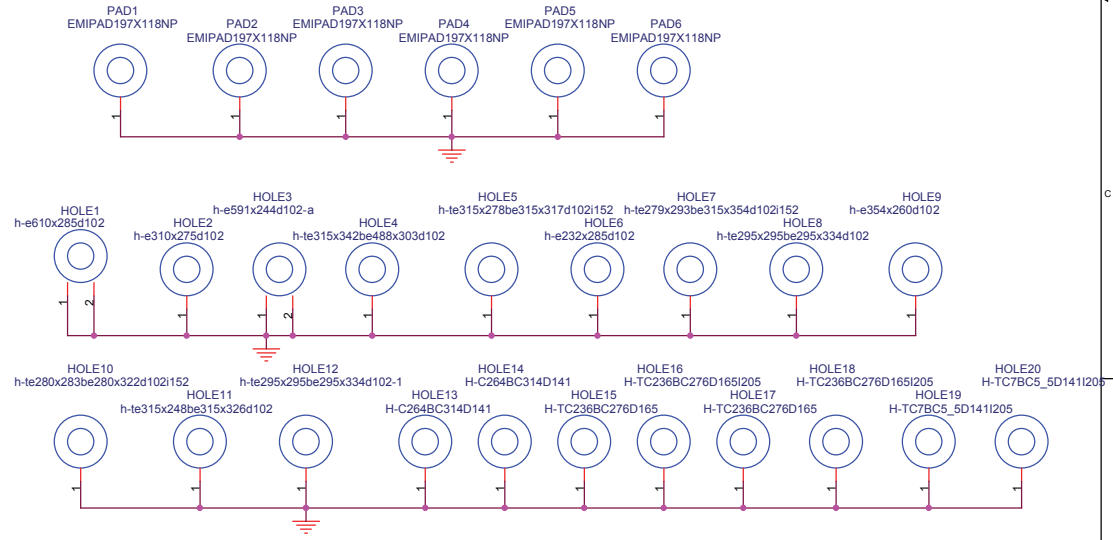
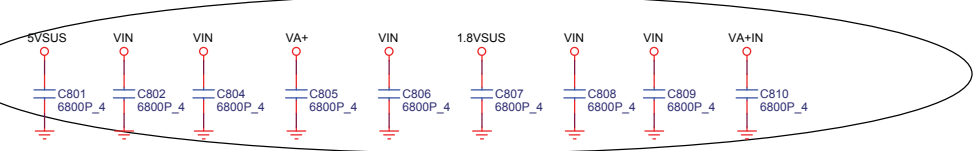
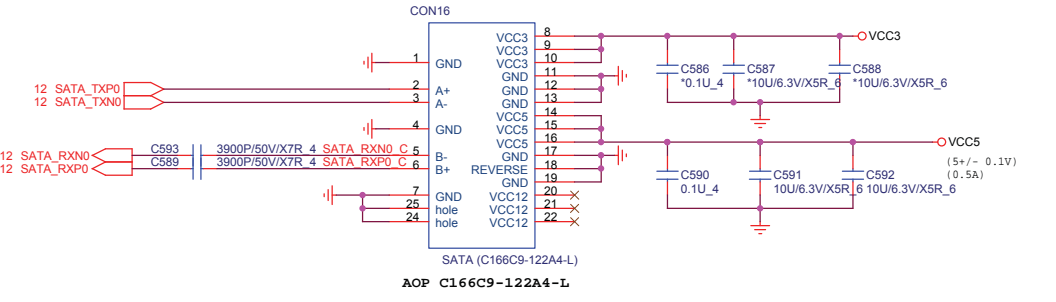
BAY_CONNECTOR(500152FB060SX002X) CON15



BAY_ID#	BAY_USB_PEN#
0	SATA Device
1	USB Device



HDD CONNECTOR-1



1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase ink, paint, wire leads, and other materials only from the business Partners that Sony approves as Green Partners.
<http://hobi-elektronika.net>

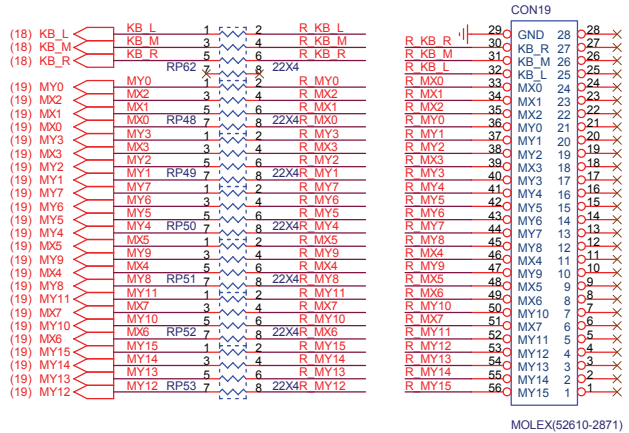
QUANTA COMPUTER

Title: **HDD/BAY**

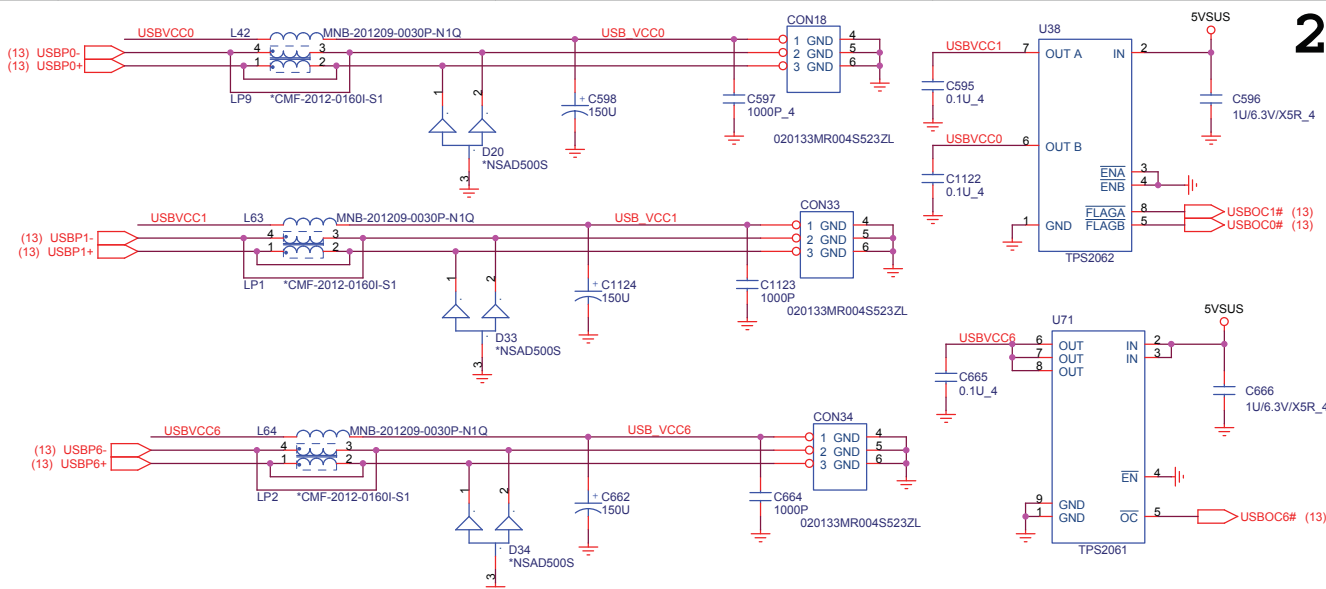
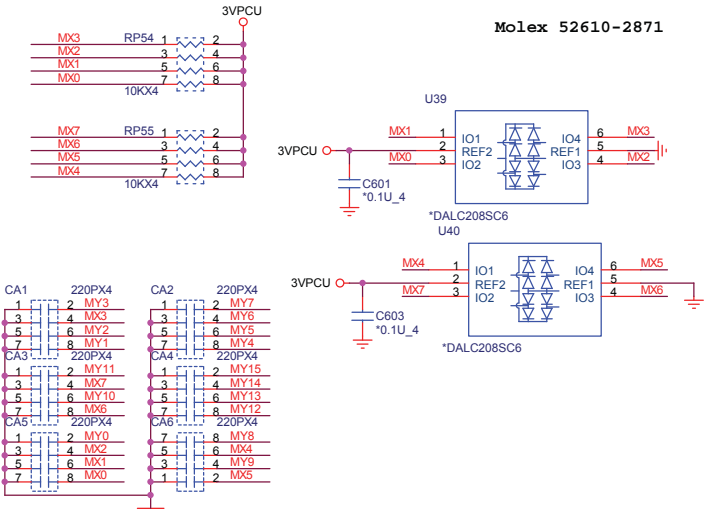
Size: _____ Document Number: **WK1 Main Board** Rev: **2A**

Date: **Wednesday, December 27, 2006** Sheet: **23** of **39**

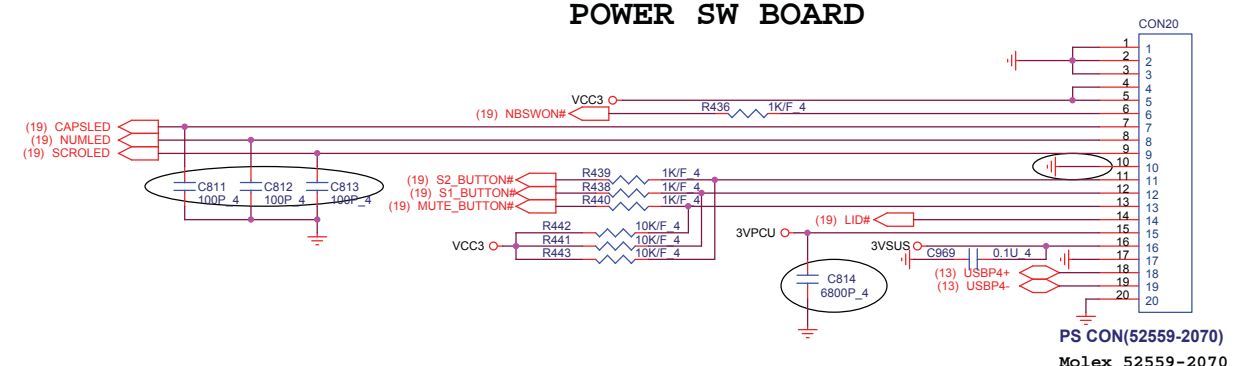
KEYBOARD



Molex 52610-2871

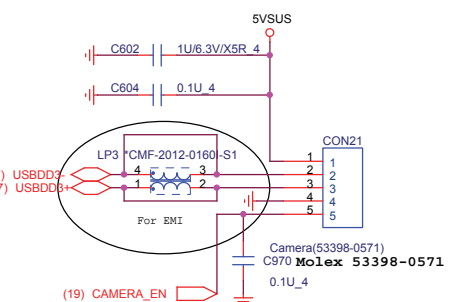


POWER SW BOARD



PS CON(52559-2070)
Molex_52559-2070

USB Camera

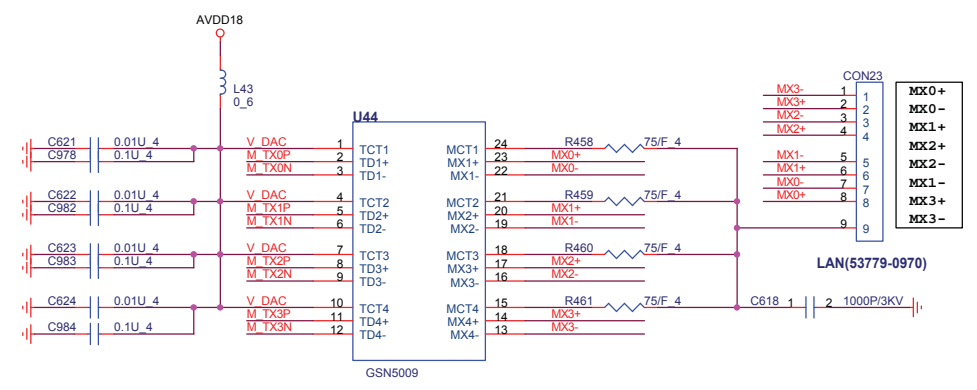
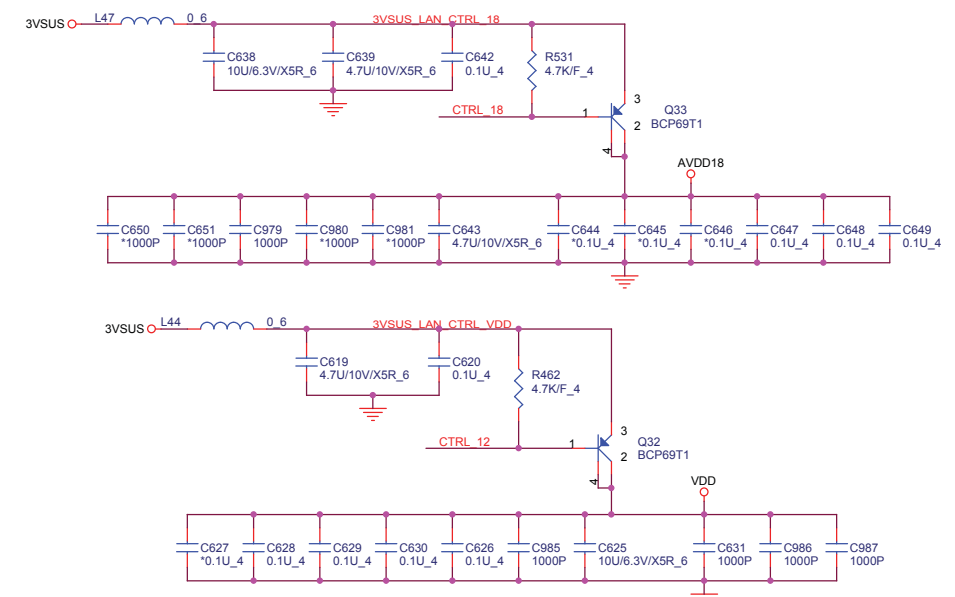
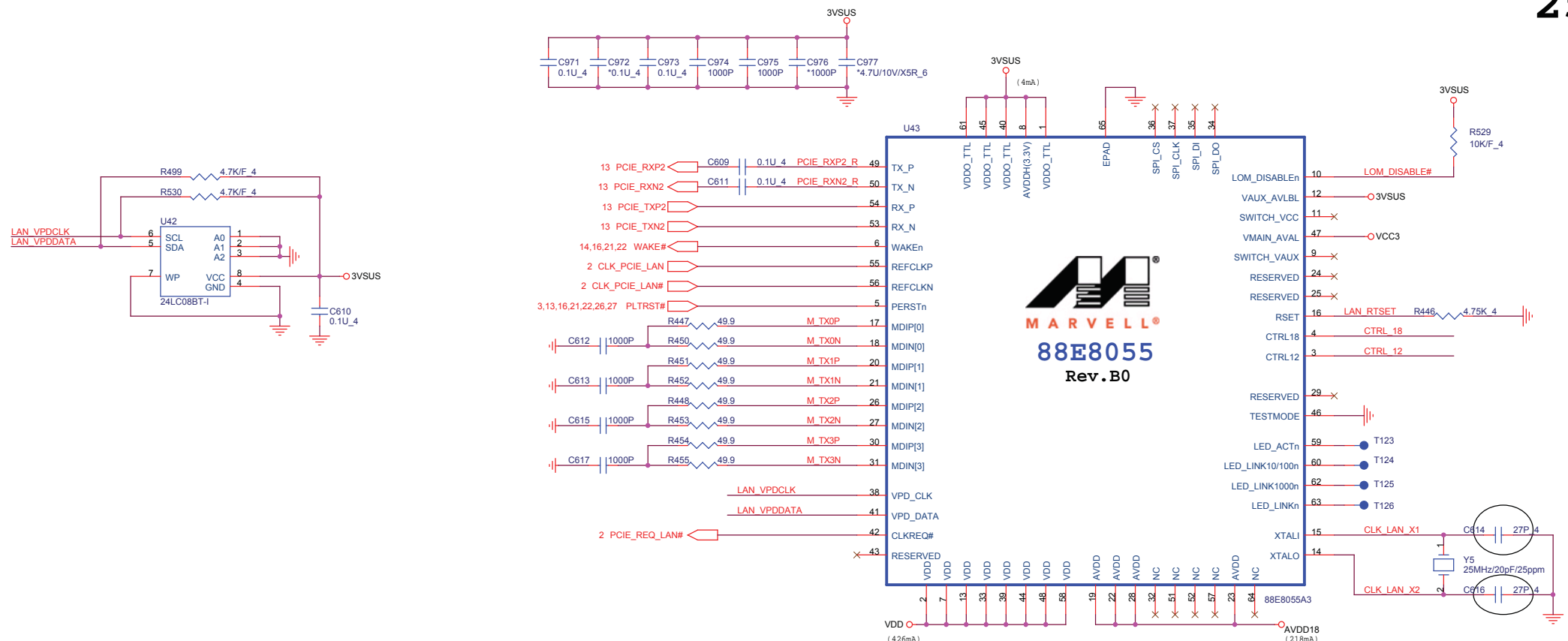


1.Level 1 Environment-related Substances should NEVER be Used.
2.Purchase ink, paint, wire rods, and other materials from the companies that are Green Partners.

**QUANTA
COMPUTER**

Title: **K/B ,USB**

Size	Document Number	Rev
	WK1 Main Board	1B
Date: Wednesday, December 27, 2006		Sheet 24 of 39



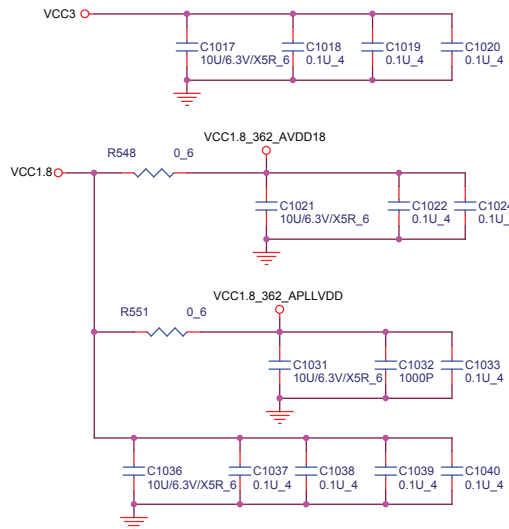
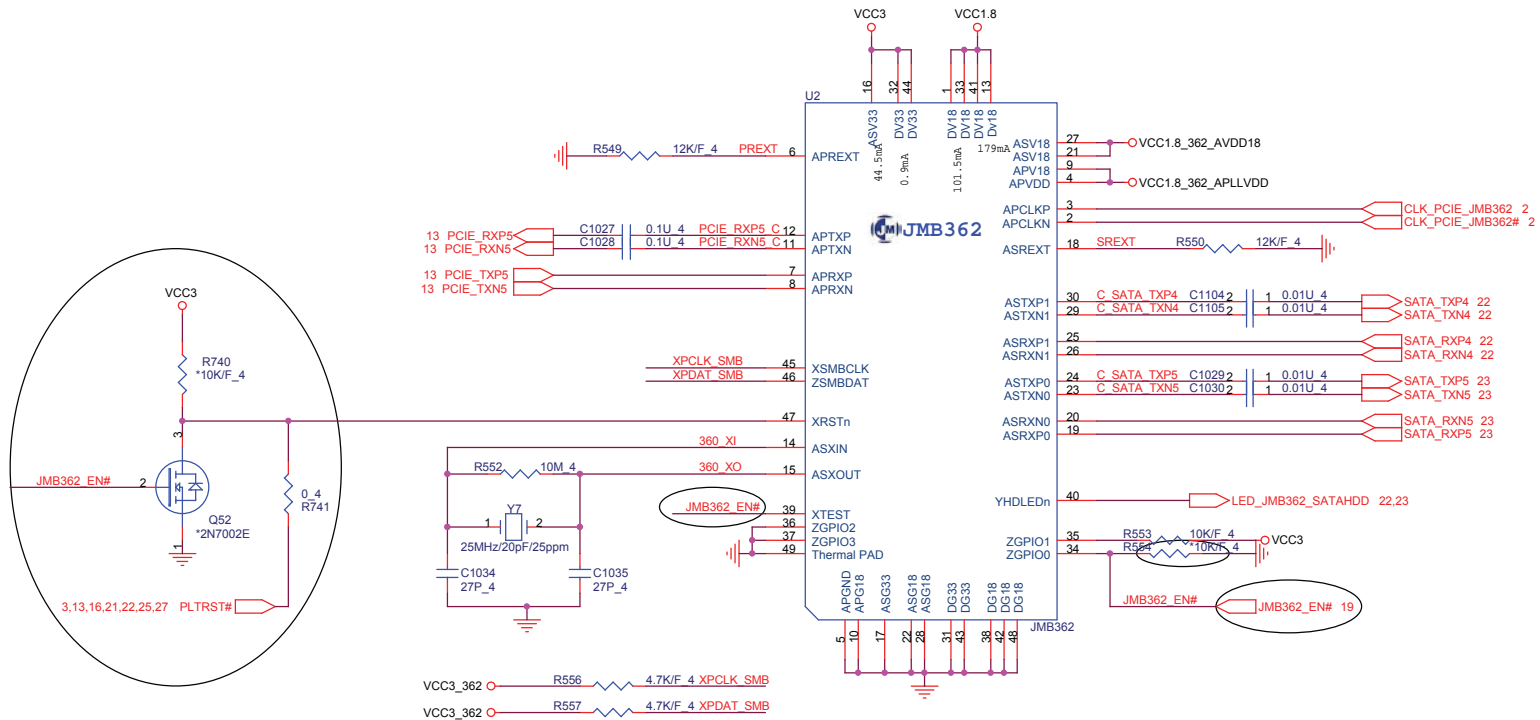
QUANTA COMPUTER

Title: **LAN 88E8055 Giga Bit**

Size: Document Number **WK1 Main Board** Rev 2A

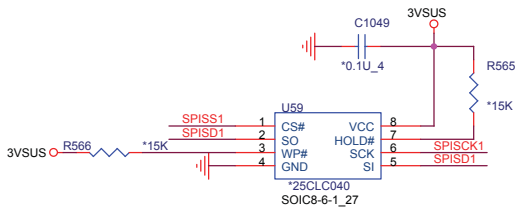
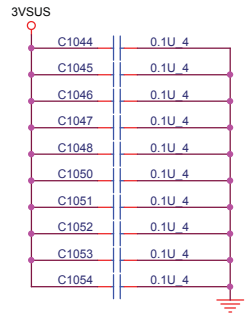
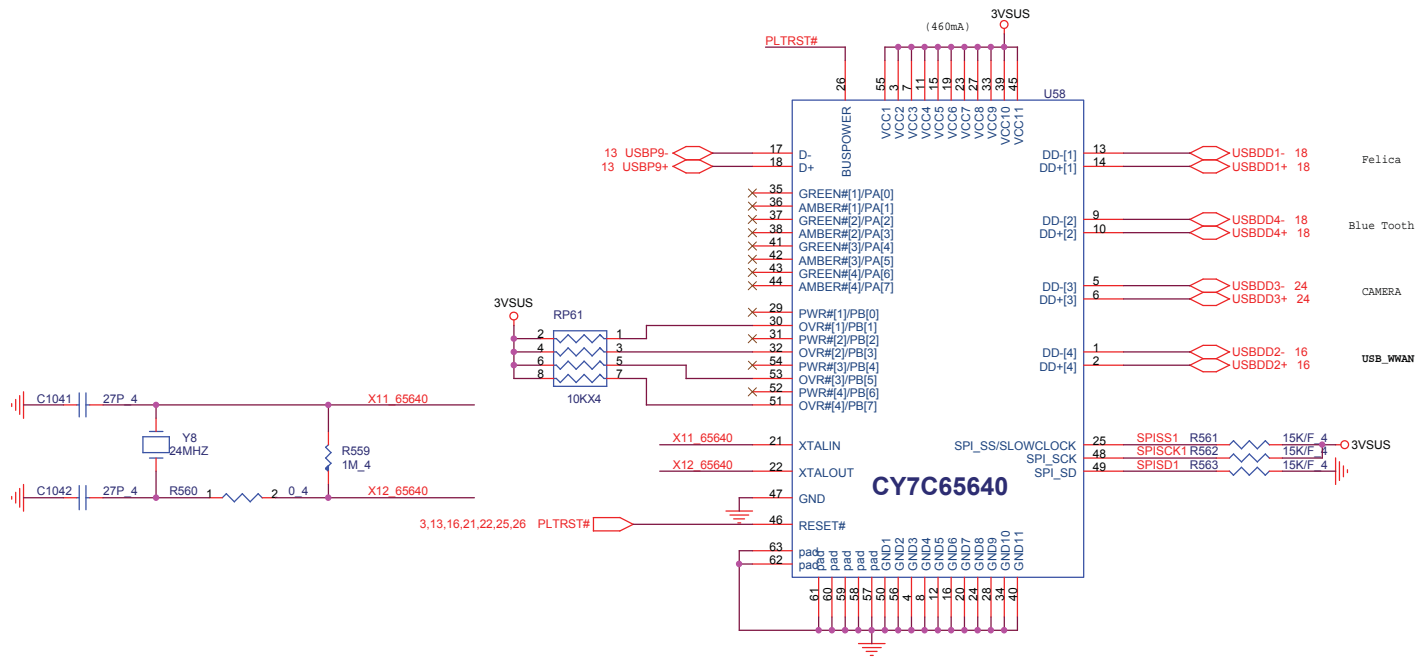
Date: Wednesday, December 27, 2006 Sheet 25 of 39

1. Lead-free Environment-related Substances should NEVER be used.
 2. Purchased components should be obtained from the business partners that Sony approves as Green Partners.




Title PCIE-SATA JMB362		
Size Custom	Document Number WK1 Main Board	Rev 2A
Date: Wednesday, December 27, 2006	Sheet 26 of 39	

1. Level 1 Environment-related Substances Should NEVER be Used.
 2. Purchase from authorized local distributors from the business partners that Sony approves as Green Partners.

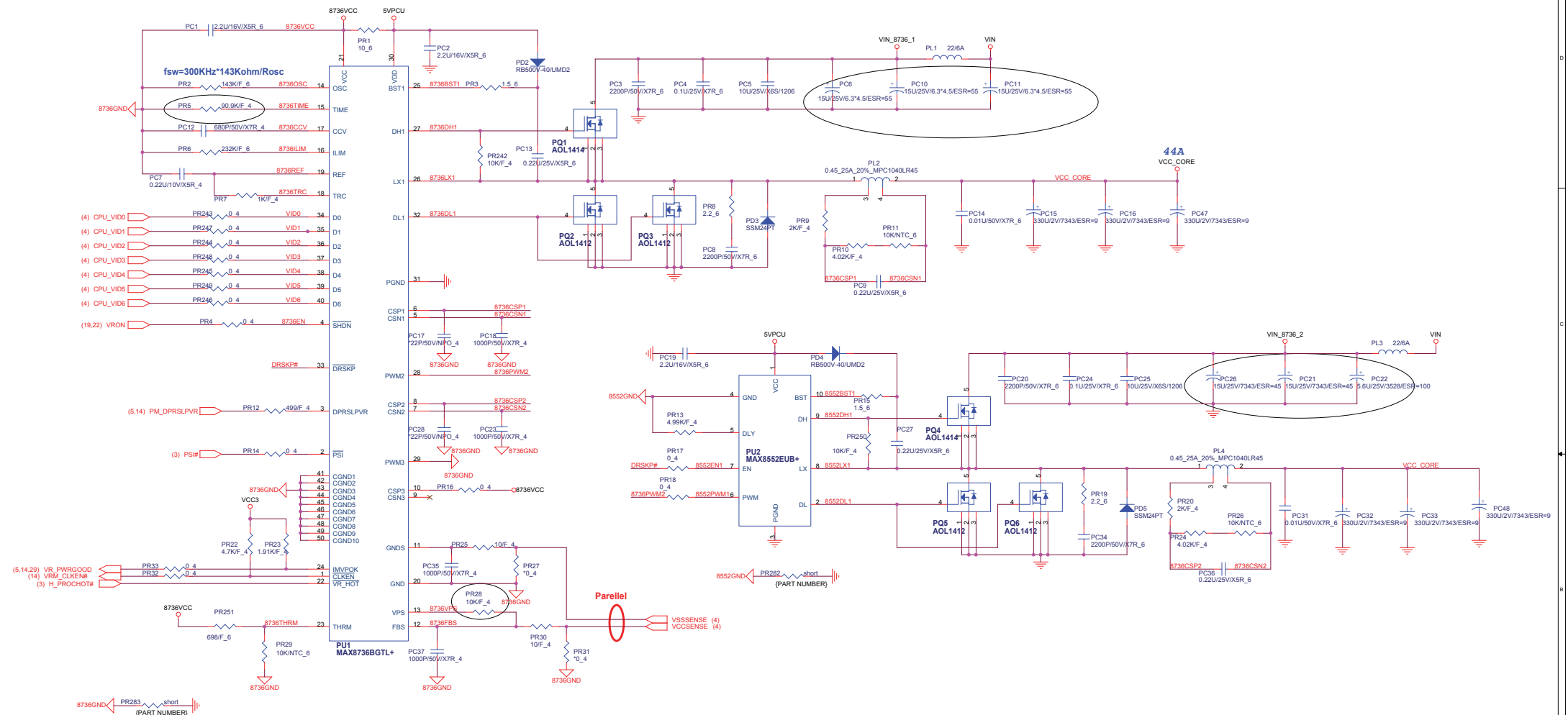


1. This part should not contain any substances which are specified in JS-00259-1.
 2. Purchase ink, paint, varnish and molding resin from the suppliers that Sony approves as Green Partners.

 QUANTA COMPUTER		
Title USB HUB		
Size	Document Number WK1 M/B BOARD	Rev 2A
Date: Wednesday, December 27, 2006	Sheet 27	of 39

CPU CORE

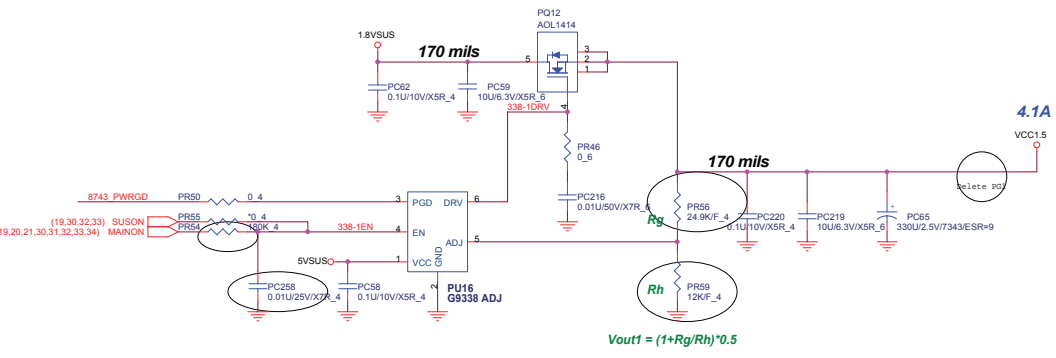
dV_Target/dt=12.5mV/us*71.5kohm/R_TIME
 R_ILIM(PK)=8V*R_TRC/(PK)LIMIT*Rsense



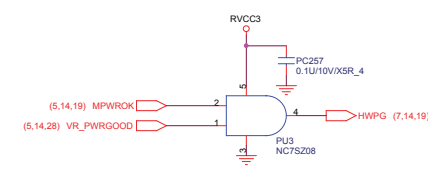
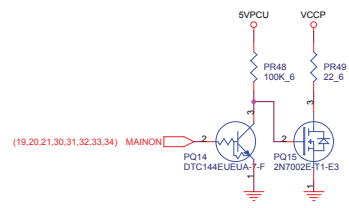
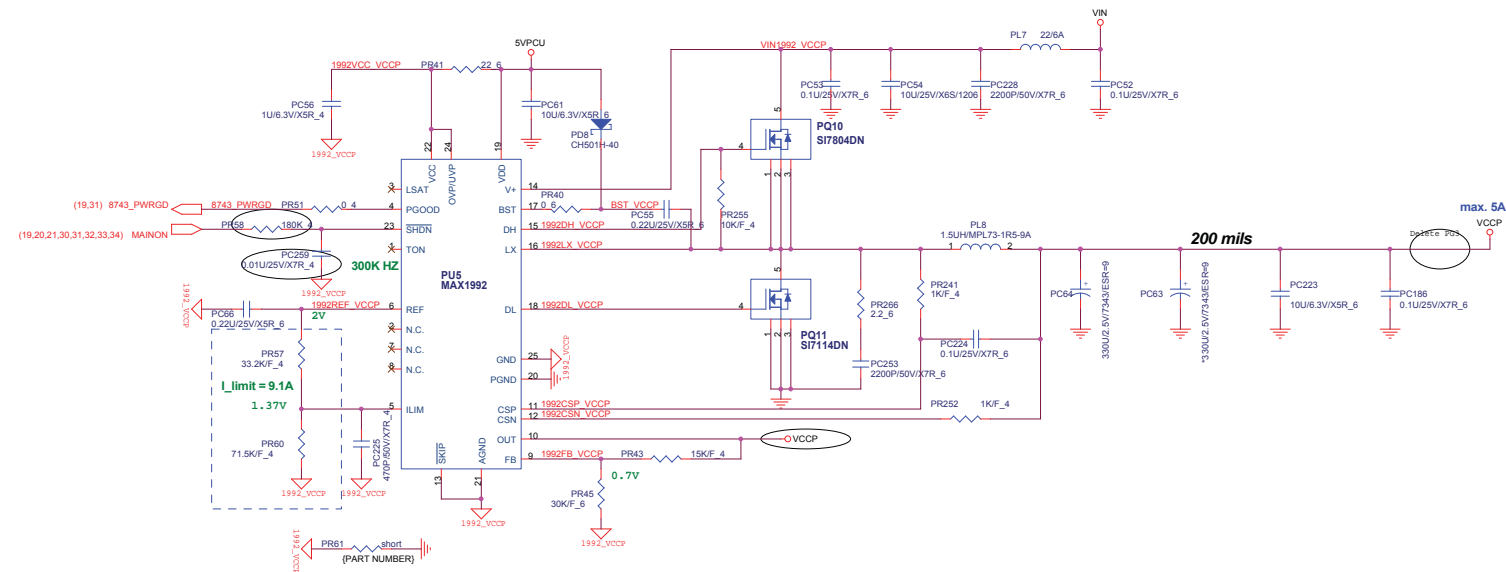
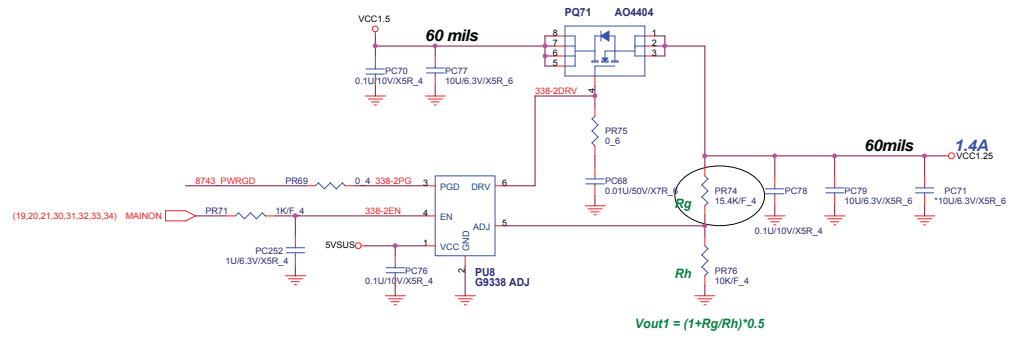
CPU CORE (MAX8736)		
Title	Document Number	
Size	WK1 Main Board	
Customer	Date: Wednesday, December 27, 2006	Rev 1A
	Sheet 28	of 39

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. Date: Wednesday, December 27, 2006

VCC1.5

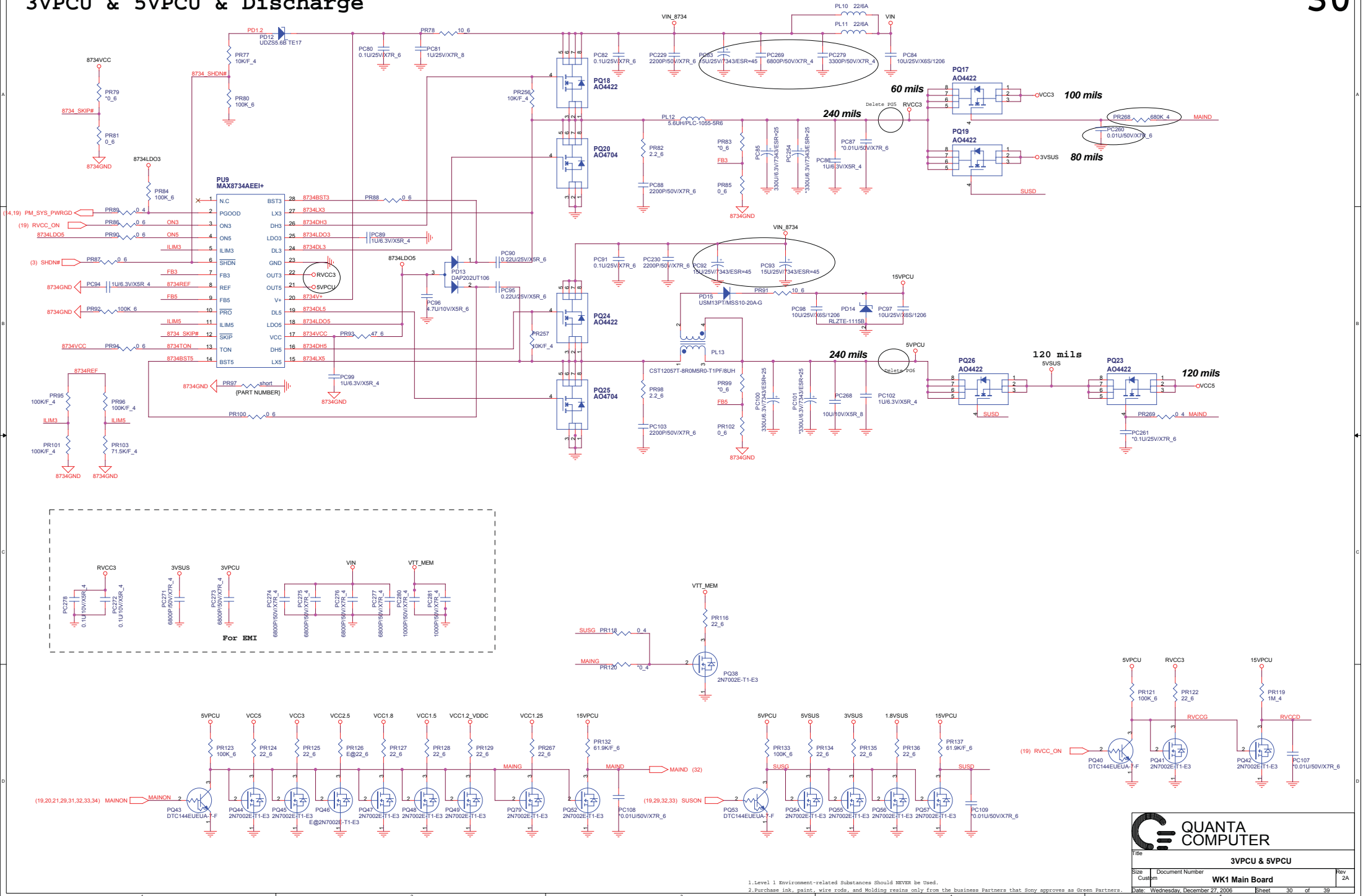


VCC1.25



QUANTA COMPUTER		
Title: VCCP & RVCC1.5		
Size: Document Number	Rev: 2A	
WK1 Main Board		
Date: Wednesday, December 27, 2006		
Sheet: 29 of 39		

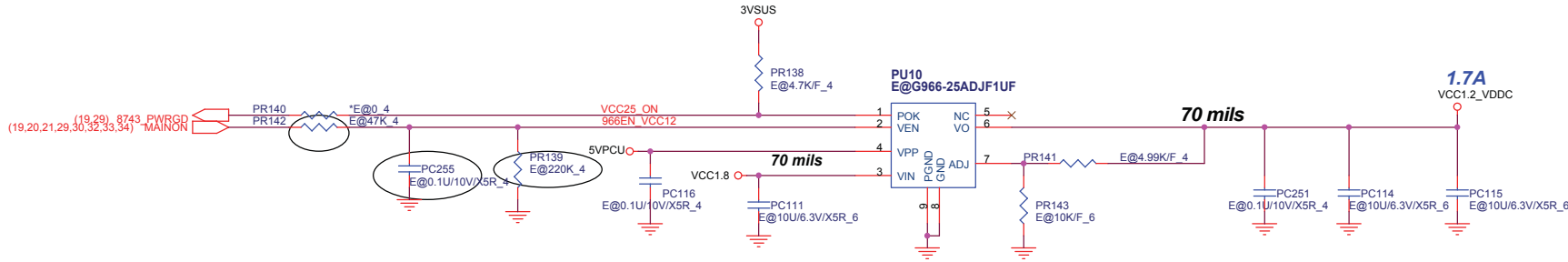
1. Level 1 Environment-related Substances Should NEVER be Used.
2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



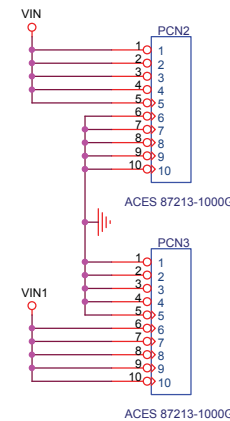
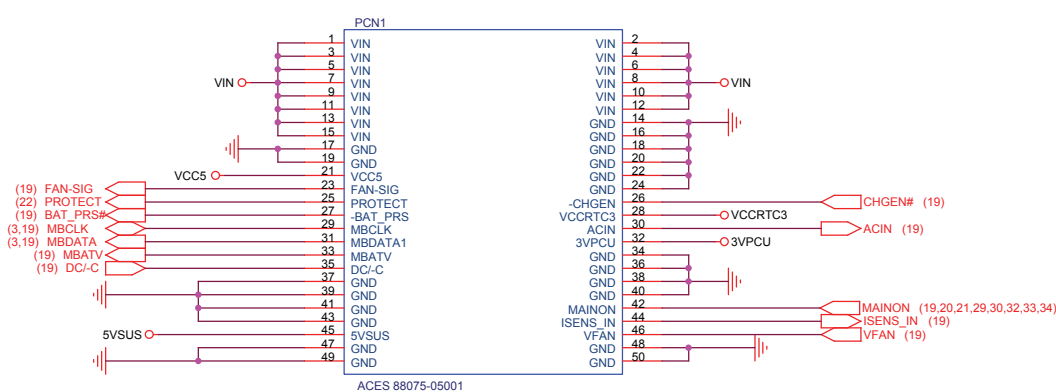
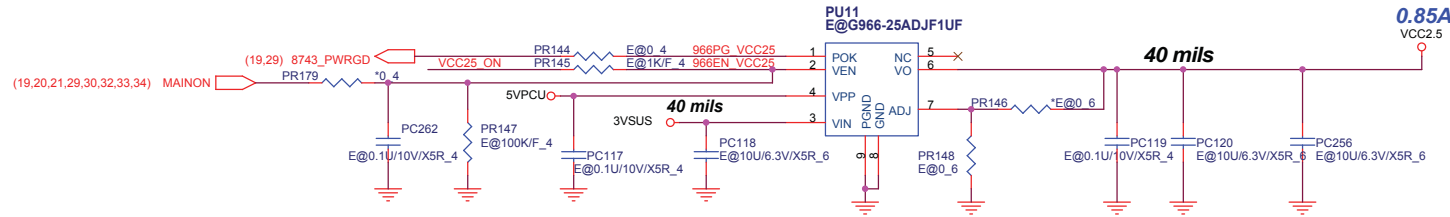
QUANTA COMPUTER		
3VPCU & 5VPCU		
Title	Document Number	Rev
	WK1 Main Board	2A
Size	Date	Sheet
Custom	Wednesday, December 27, 2006	30 of 39


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.

VCC1.2_VDDC



VCC2.5



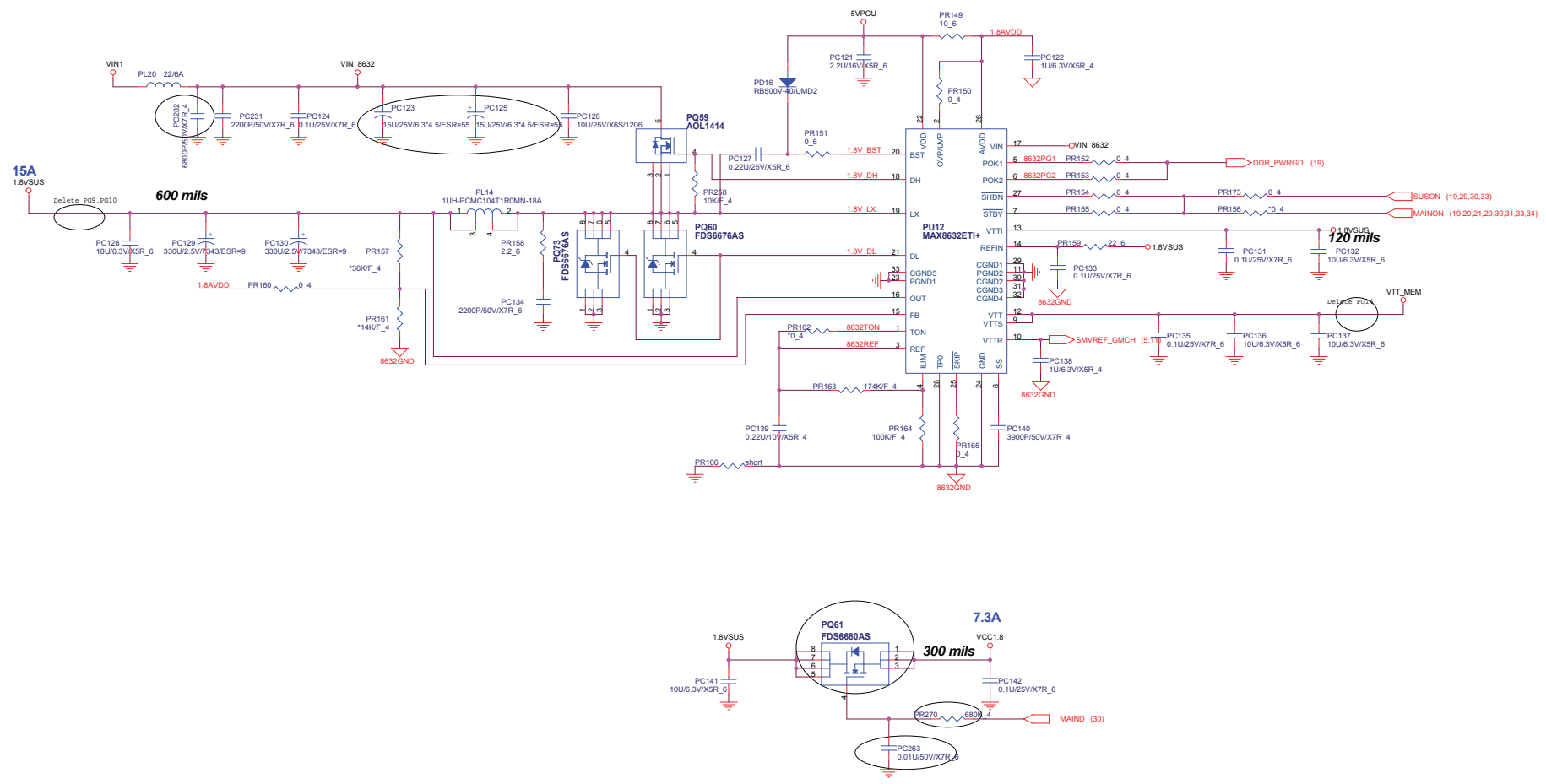


**QUANTA
COMPUTER**

Size	Document Number	Rev
	WK1 Main Board	2A
Date: Wednesday, December 27, 2006		Sheet 31 of 39

1. Use of Environment-related Substances should NEVER be used.
 2. Purchased from the business Partners that Sony approves as Green Partners.

1.8VSUS & VTT_MEM



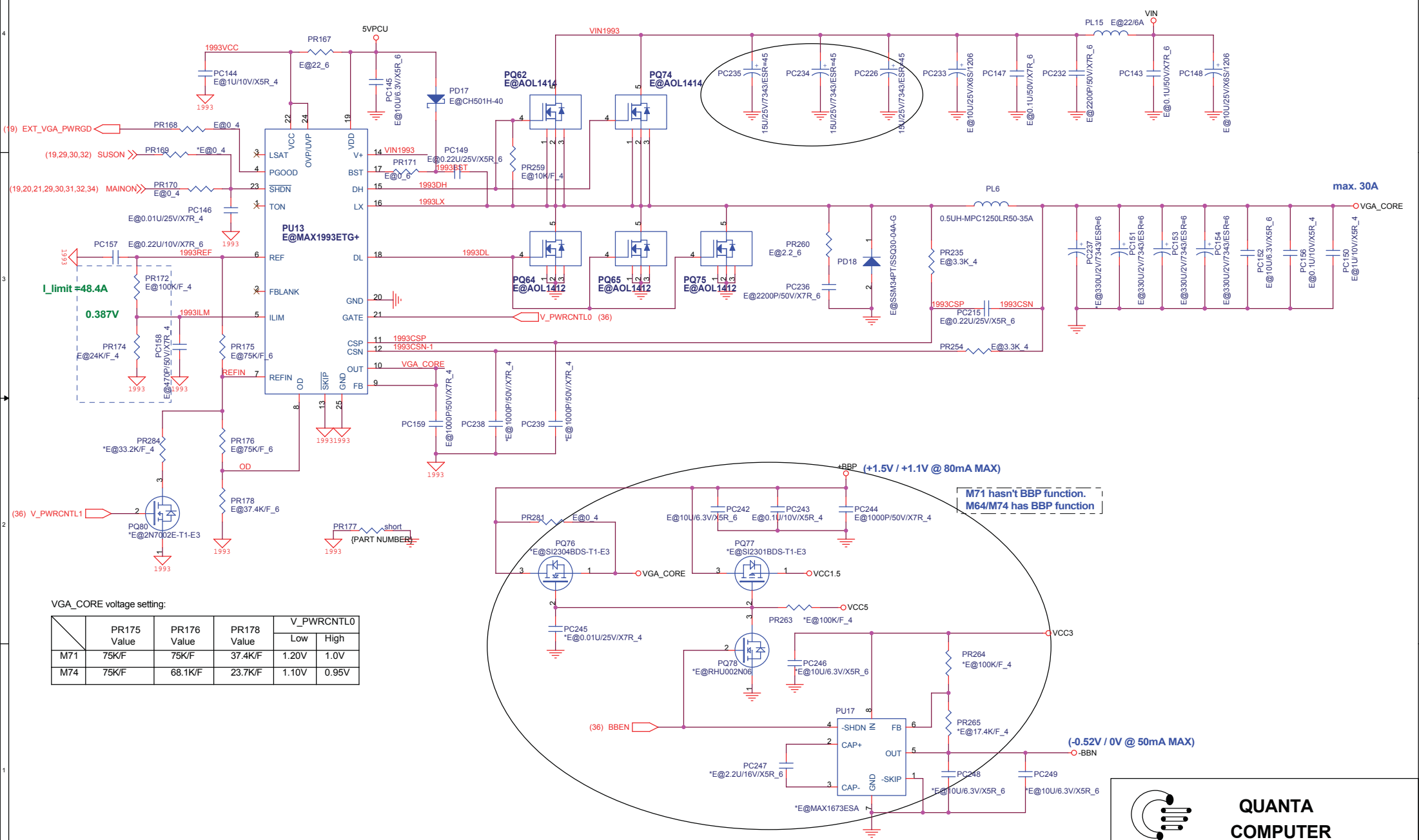
QUANTA COMPUTER

Title: 1.8VSUS & VTT_MEM

Size: Custom Document Number: WK1 Main Board Rev: 2A

Date: Wednesday, December 27, 2006 Sheet: 32 of 39

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.



$I_{limit} = 48.4A$

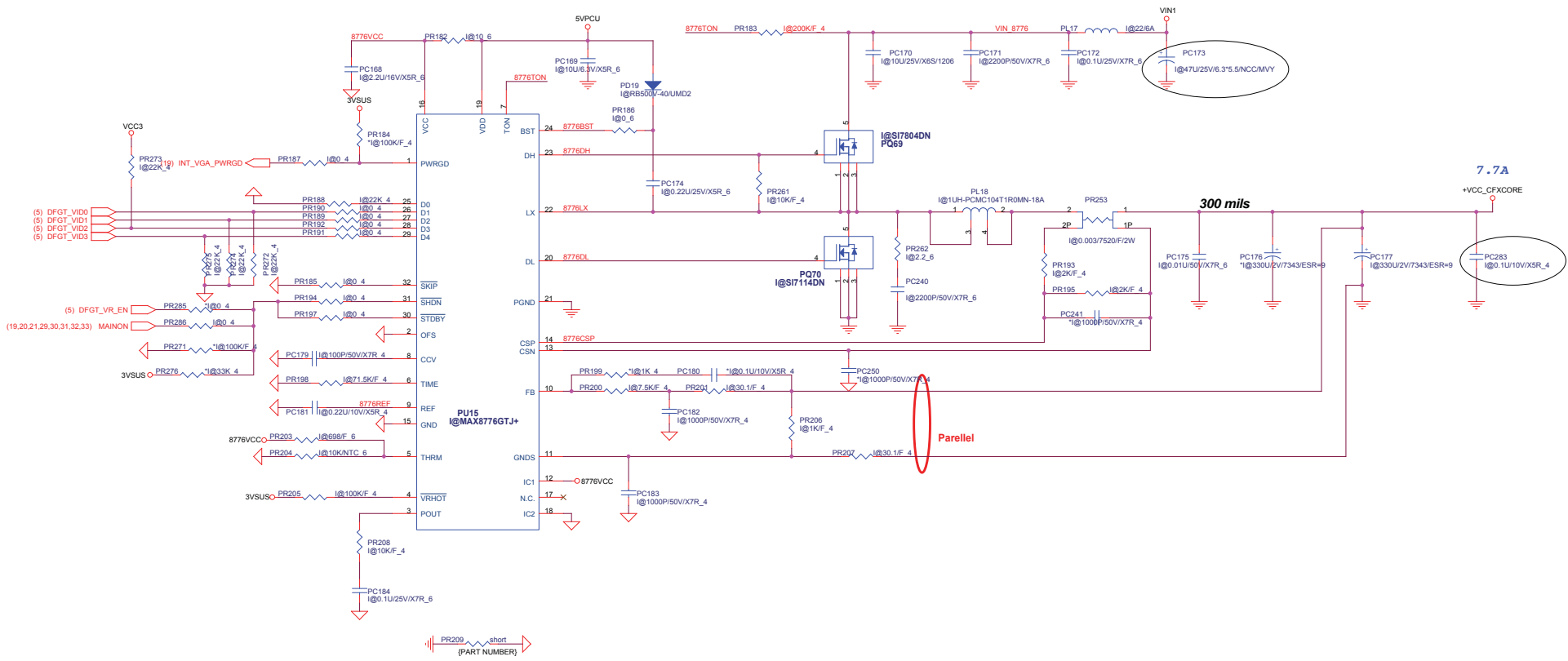
VGA_CORE voltage setting:

	PR175 Value	PR176 Value	PR178 Value	V_PWRCNTL0	
				Low	High
M71	75K/F	75K/F	37.4K/F	1.20V	1.0V
M74	75K/F	68.1K/F	23.7K/F	1.10V	0.95V

M71 hasn't BBP function.
M64/M74 has BBP function



**QUANTA
COMPUTER**

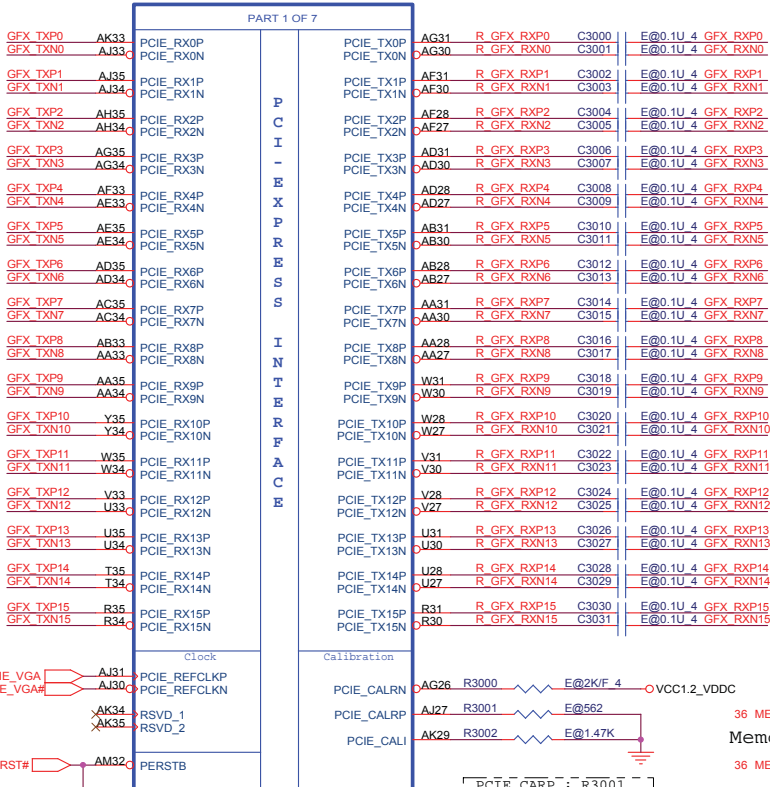


QUANTA COMPUTER		
Title NB-GFX CORE (MAX8776)		
Size	Document Number	Rev
Custom	WK1 Main Board	2A
Date:	Wednesday, December 27, 2006	Sheet 34 of 39

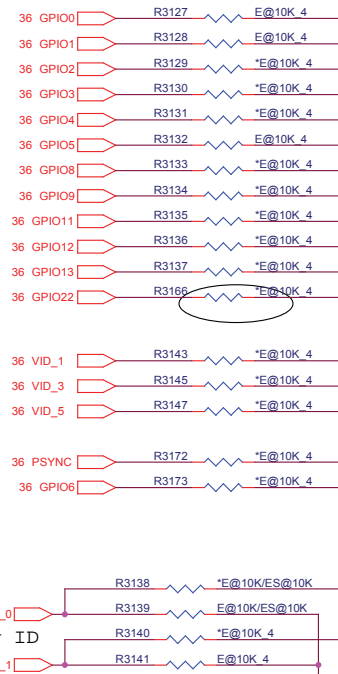
1. Level 1 Environment-related Substances should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business Partners that Sony approves as Green Partners.



U3001A

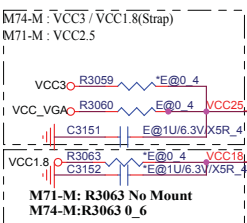
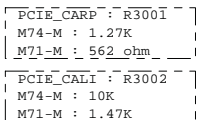


OPTION STRAPS

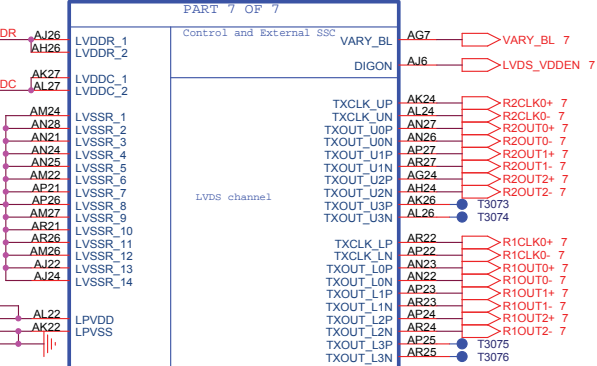


M71/74-M Strap

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(32)	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, controls chip IDs. If rom attached identifies ROM type 000x - No ROM, MEM_AP_SIZE=00 128MB(Default) 001x - No ROM, MEM_AP_SIZE=01 256MB 010x - No ROM, MEM_AP_SIZE=10 64MB 011x - No ROM, MEM_AP_SIZE=11 Reserved 1000 - Parallel ROM, chip IDs from ROM 1001 - Serial AT25F1024 ROM (Atmel), chip IDs from ROM 1010 - Serial AT45DB011 ROM (Atmel), chip IDs from ROM 1011 - Serial M25P10 ROM (ST), chip IDs from ROM 1100 - Serial M25P05 ROM (ST), chip IDs from ROM 1100 - Serial NX25F011B ROM (ISSI), chip IDs from ROM	GPIO[9,13,12,11] 0000 (internal pull-down)
HDCP ROM Chip Select	GPIO22	A 10K external pull-up (3.3V) is required if a ROM is used.	0 (internal pull-down)
VIP_DEVICE	PSYNC	Indicates if any slave VIP host devices drove the pin low during reset. 0- Slave VIP host port device 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



U3001G



TXCLK_U is for dual-channel LVDS mode

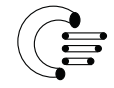
TXCLK_L is for single-channel LVDS mode

VRAM Straps

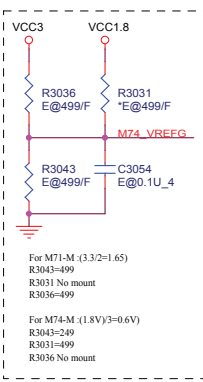
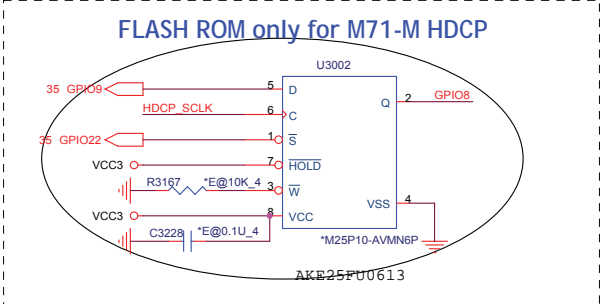
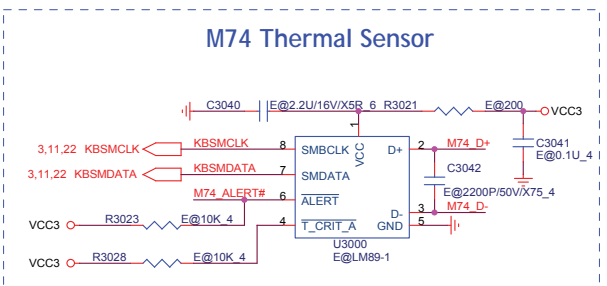
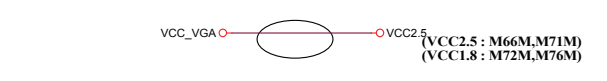
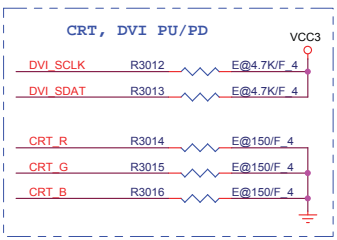
REV. 0.1

STRAPS	PIN	DESCRIPTION	VALUE
MEMTYPE[1:0]	(DVPDATA_3 - 2)	Memory identification for BIOS 00 - Infineon GDDR3 : 2M x 32 bits x 4 banks 01 - SAMSUNG GDDR3 : 2M x 32 bits x 4 banks 10 - Infineon 16M*32 - 2pcs(channelA) 11 - Samsung 16M*32- 2pcs(channelA)	(Default = 10)

MEMTYPE1	MEMTYPE0	R3124	R3125	R3122	R3123	
0	0	NC	10K	NC	10K	00 - Infineon GDDR3 : 8M x 32(AB - CD channel)
0	1	NC	10K	10K	NC	01 - SAMSUNG GDDR3 : 8M x 32(AB - CD channel)
1	0	10K	NC	NC	10K	10 - Infineon 16M*32- 2pcs(AB channel)
1	1	10K	NC	10K	NC	11 - Samsung 16M*32- 2pcs(AB channel)

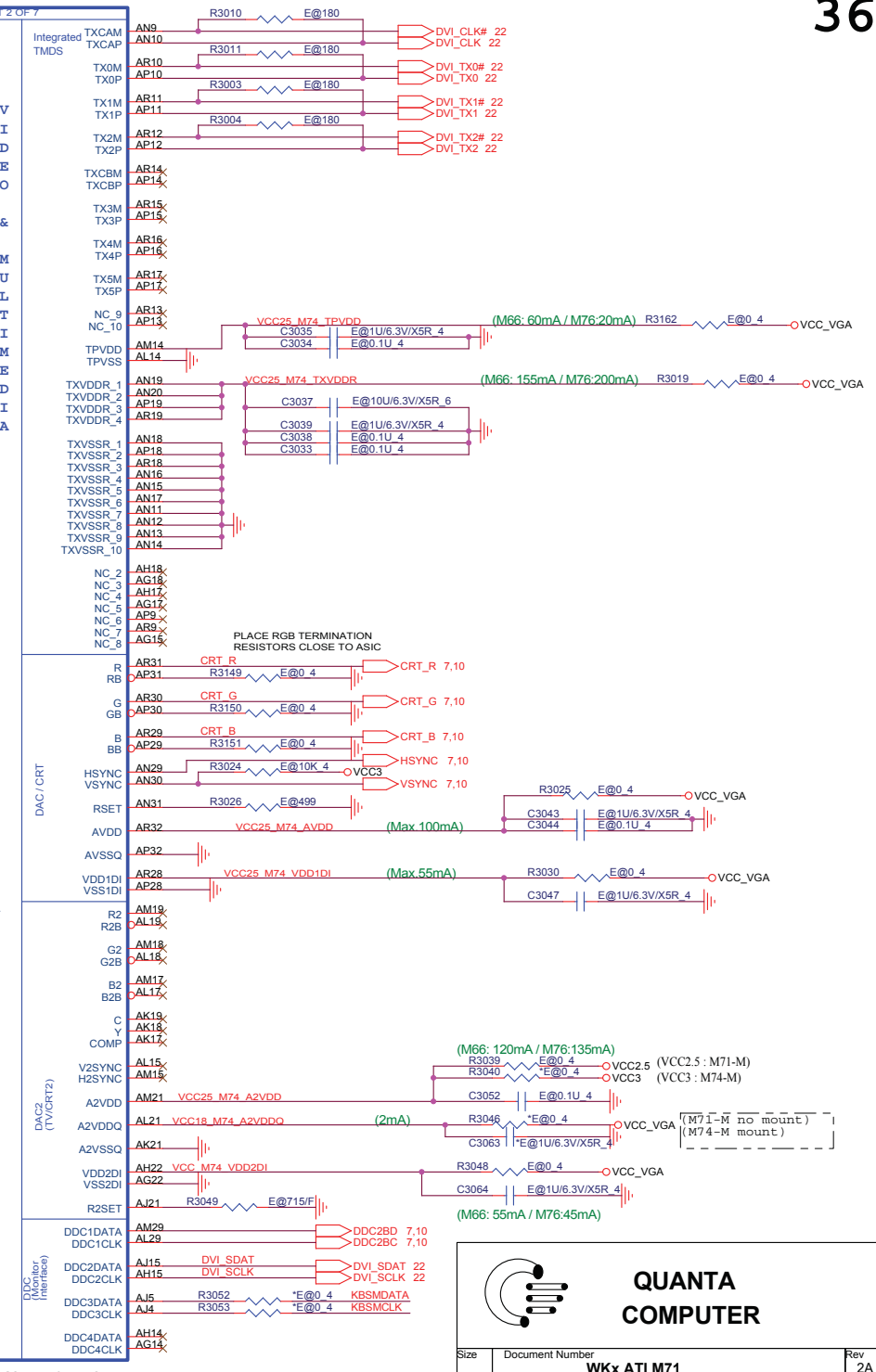
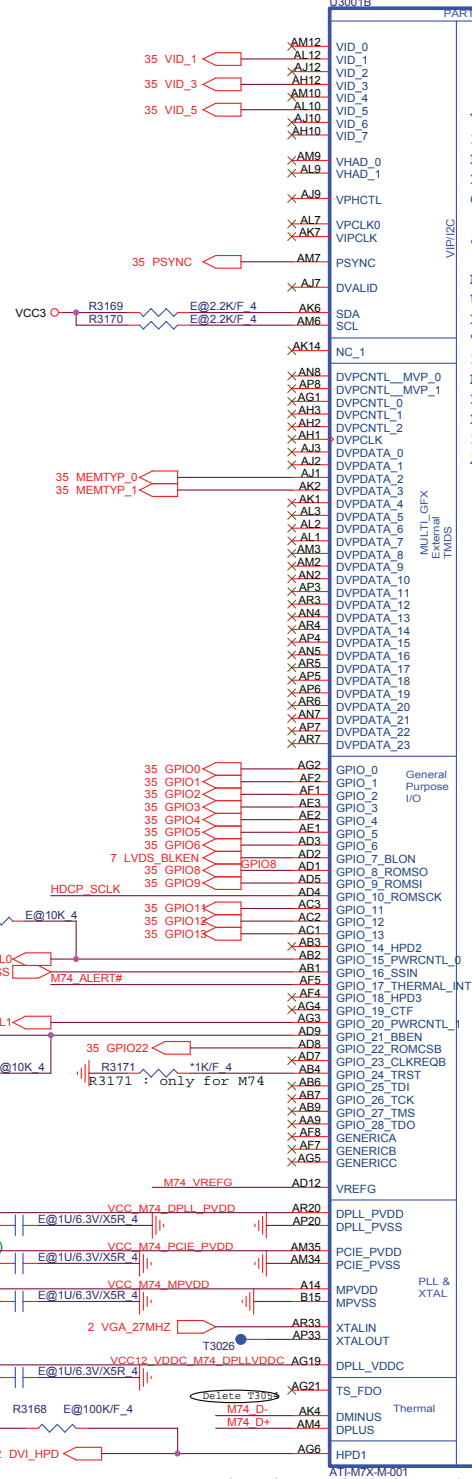


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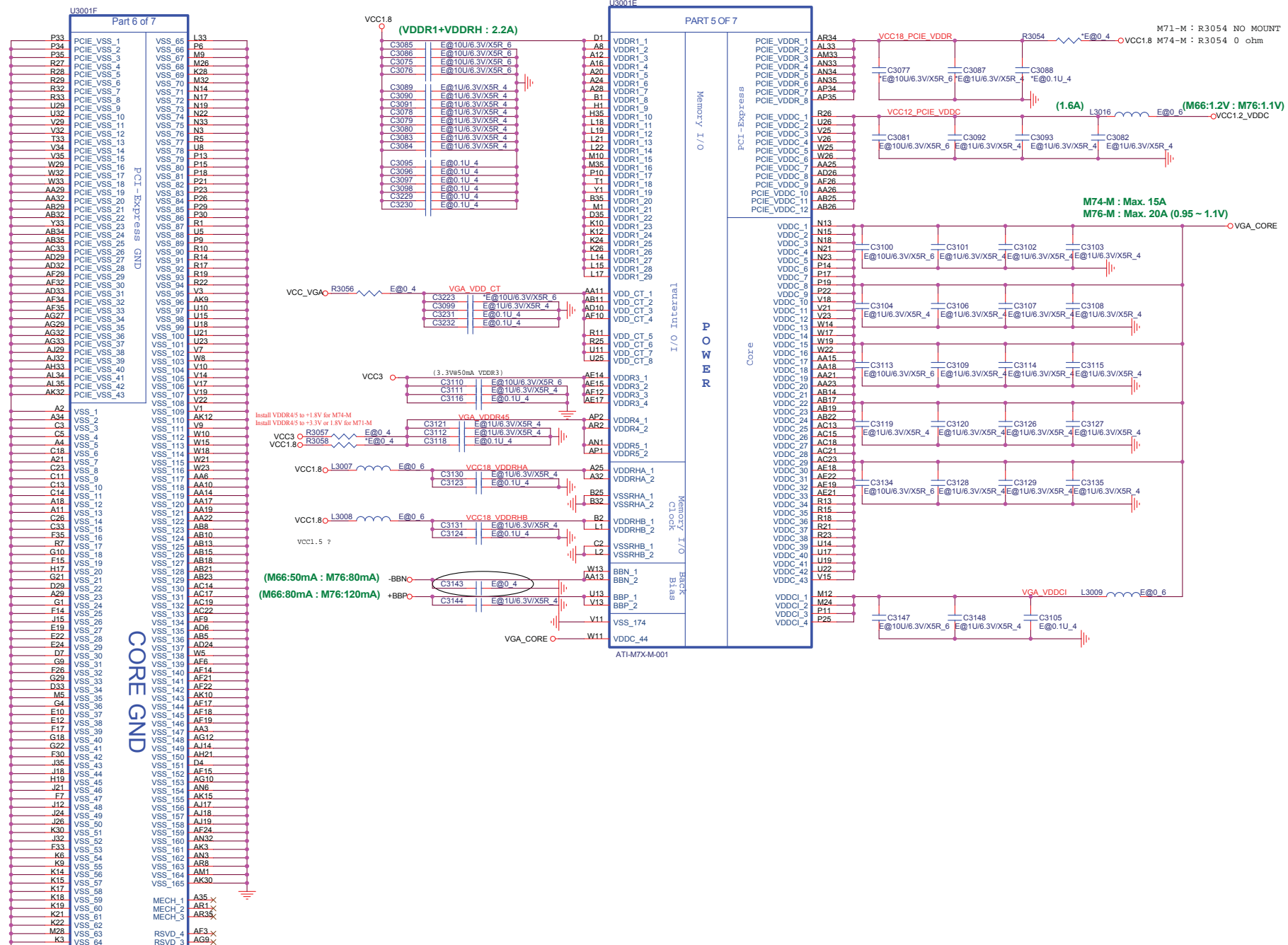
For M71-M (3.3±1.65)
R3043=499
R3031 No mount
R3036=499

For M74-M (1.8V±0.6V)
R3043=249
R3031=499
R3036 No mount




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Size: Document Number: **WKx ATI M71** Rev: 2A



CORE GND

1. Level 1 Environment-related Substances should NEVER be Used.
 2. Purchase ink, paint, wire rods, and Molding resins only from the business partner.



QUANTA COMPUTER

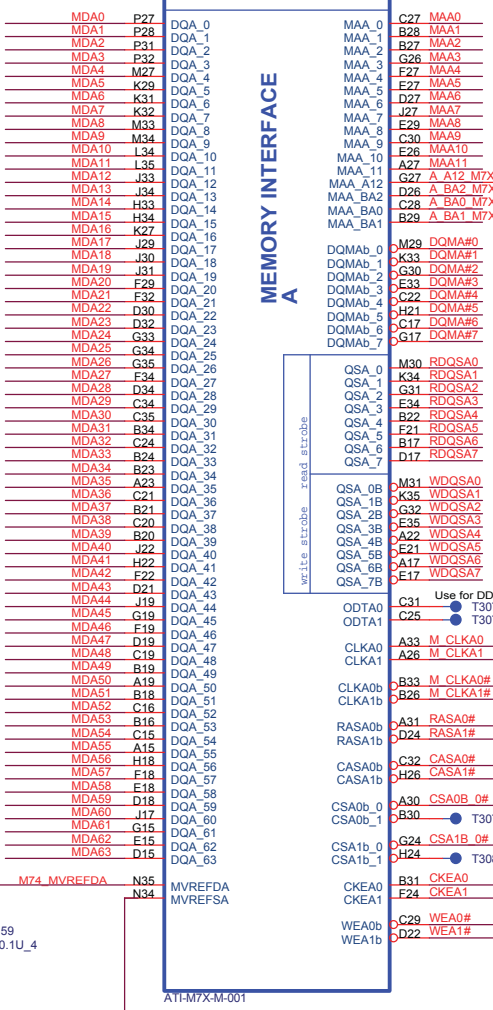
Size	Document Number	Rev
	WKX ATI M71 POWER	1A
Date: Wednesday, December 27, 2006		Sheet 37 of 39

Channel A

U3001C

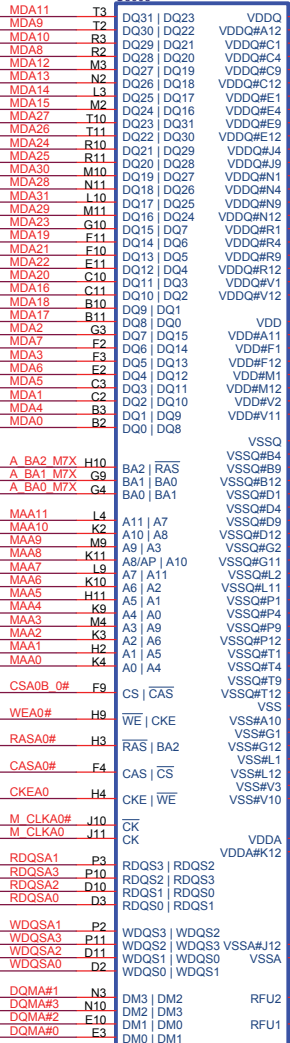
Part 3 of 7

MEMORY INTERFACE



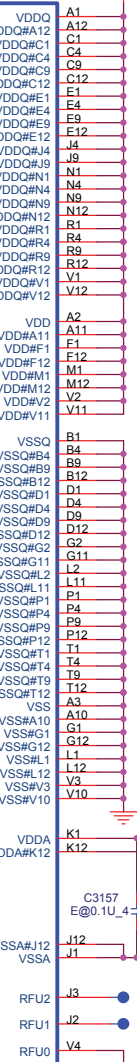
ATI-M7X-M-001

U3003

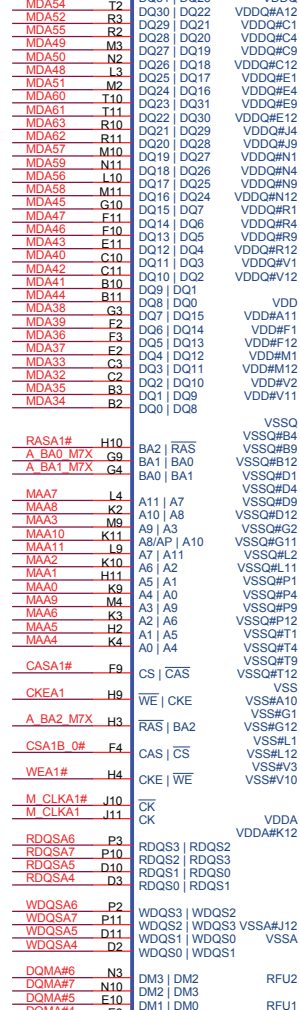


E@VRAM_256Mb

VCC1.8



U3004



E@VRAM_256Mb

VCC1.8

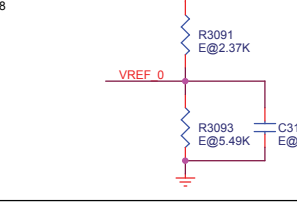
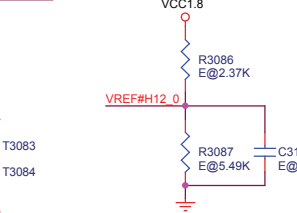
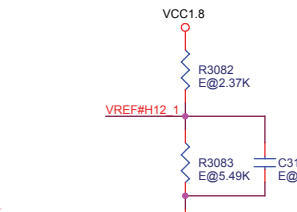
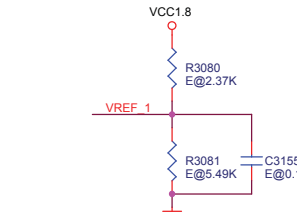
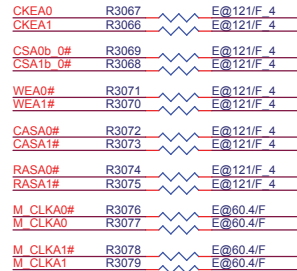
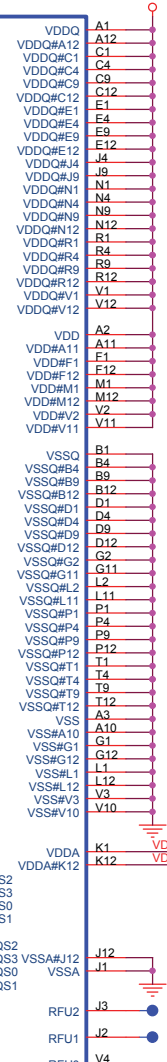
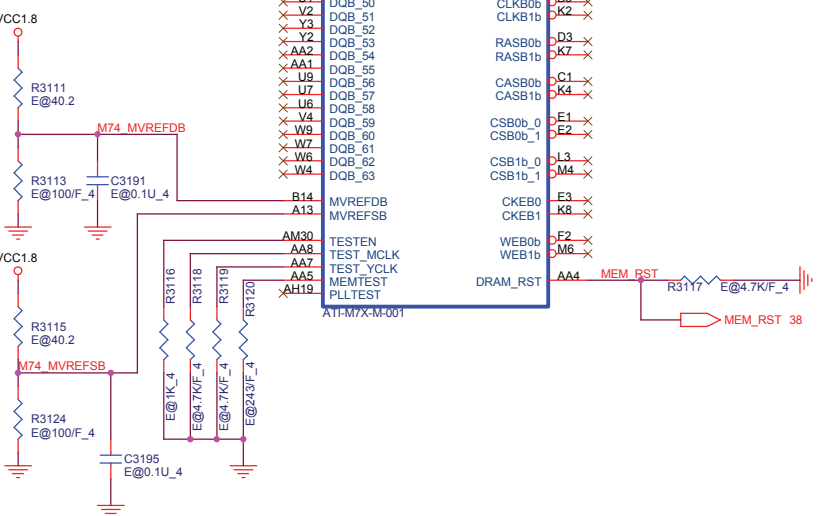
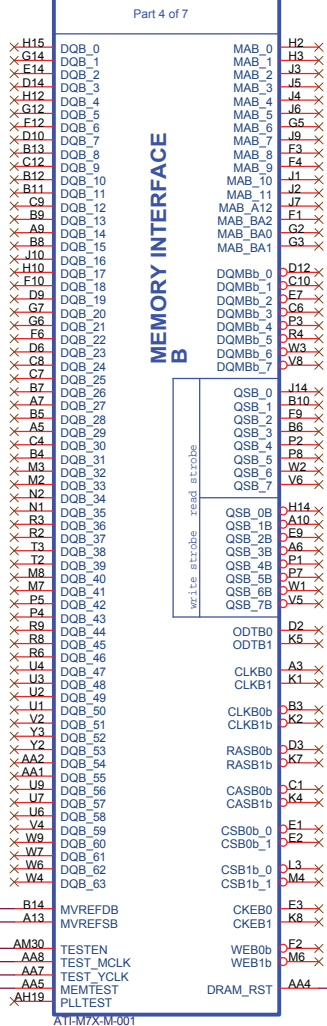


Table with 3 columns: signal, DDR1_2, DDR3. Rows include MVREF to 1.8V and MVREF to GND.

1. Level 1 Environment-related Substances Should NEVER be Used. 2. Purchased from authorized distributors.

QUANTA COMPUTER logo and header information including Date, Sheet, Rev, and Document Number.

Channel B



Signal		DDR1,2	GDDR3
MVREF to 1.8V		100R	40.2R
MVREF to GND		100R	100R

**QUANTA
COMPUTER**

Size Document Number Rev
WKx ATI M71 VRAM 1A

Date: Wednesday, December 27, 2006 Sheet 39 of 39