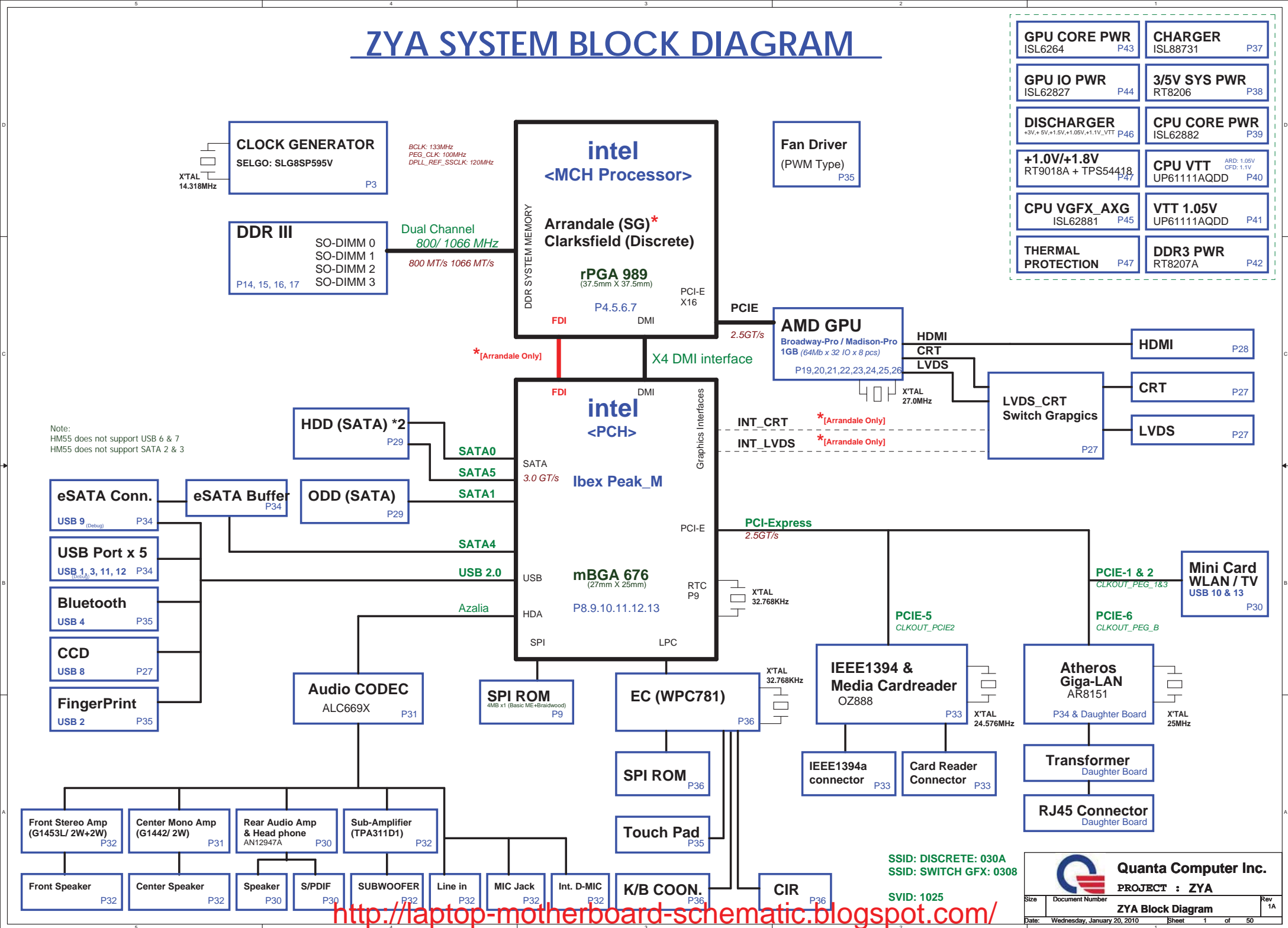
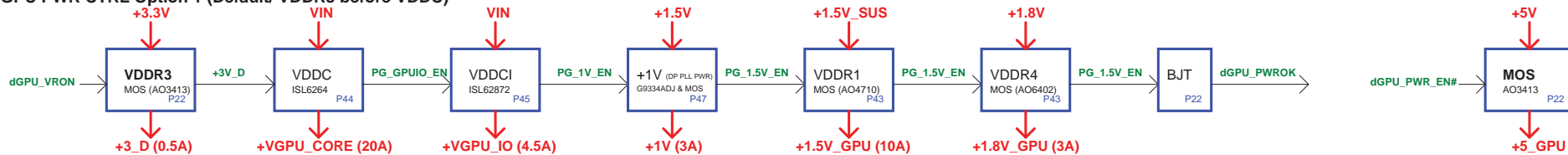


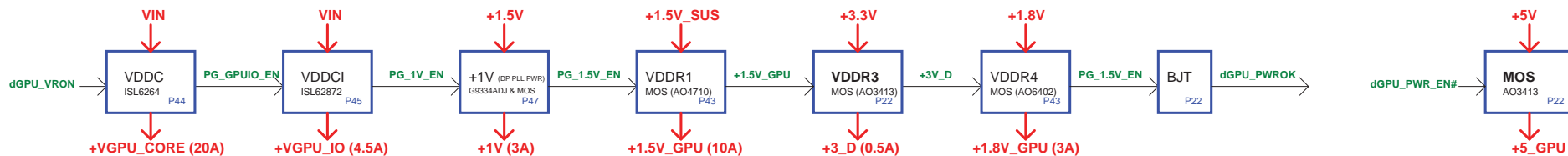
ZYA SYSTEM BLOCK DIAGRAM



GPU PWR CTRL Option 1 (Default/ VDDR3 before VDDC)



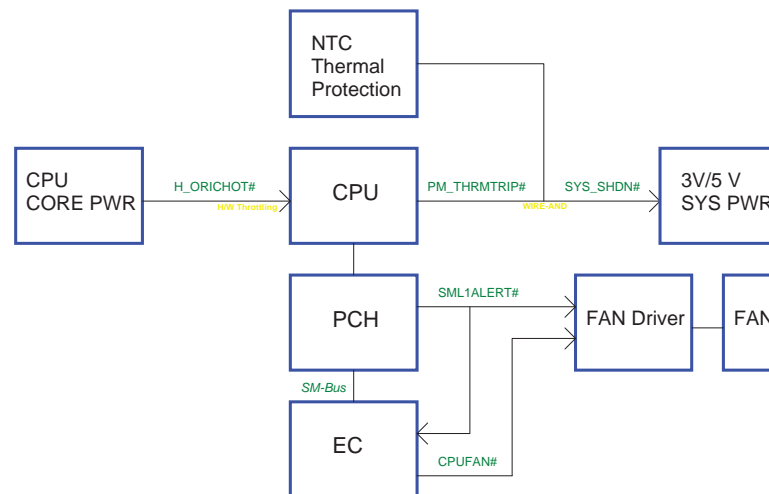
GPU PWR CTRL Option 2 (VDDR3 after VDDR1)



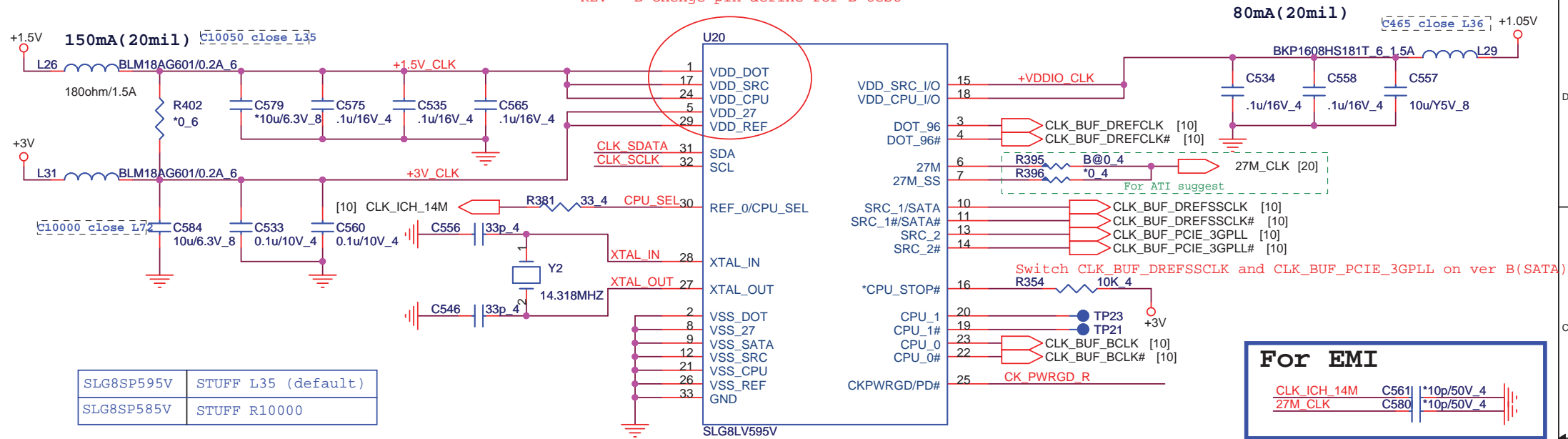
Power States

POWER PLANE	VOLTAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
VIN	+10V~+19V	MAIN POWER	ALWAYS	ALWAYS
+VCCRTC	+3V~+3.3V	RTC POWER	ALWAYS	ALWAYS
+3VPCU	+3.3V	EC POWER	ALWAYS	ALWAYS
+5VPCU	+5V	CHARGE POWER	ALWAYS	ALWAYS
+15V	+15V	CHARGE PUMP POWER	ALWAYS	ALWAYS
+3V_S5	+3.3V	LAN/BT/CIR POWER	S5_ON	S0-S5
+5V_S5	+5V	USB POWER	S5_ON	S0-S5
+5V	+5V	HDD/ODD/Codec/TP/CRT/HDMI POWER	MAINON	S0
+3V	+3.3V	PCH/GPU/Peripheral component POWER	MAINON	S0
+1.5VSUS	+1.5V	CPU/SODIMM CORE POWER	SUSON	S0-S3
+0.75V_DDR_VTT	+0.75V	SODIMM Termination POWER	MAINON	S0
+VGFX_AXG	variation	Internal GPU POWER	GFX_ON	S0
+1.8V	+1.8V	CPU/PCH/Braidwood POWER	MAINON	S0
+1.5V	+1.5V	MINI CARD/NEW CARD POWER	MAINON	S0
+1.1V_VTT	+1.05V or +1.1V	CPU VTT POWER	MAINON	S0
+1.05V	+1.05V	PCH CORE POWER	MAINON	S0
+VCC_CORE	variation	CPU CORE POWER	VRON	S0
LCDVCC	+3.3V	LCD POWER	LVDS_VDDEN	S0
+5V_GPU	+5V	SWITCHABLE PWM IC POWER	dGPU_PWR_EN#	Discrete enable
+GPU_CORE	+0.9V~+1.1V	GPU CORE POWER	+3V_D	Discrete enable
+GPU_IO	+0.9V~+1.1V	GPU I/O POWER	PG_GPUIO_EN	Discrete enable
+1.5V_GPU	+1.5V	VRAM CORE POWER	PG_1.5V_EN	Discrete enable
+1.8V_GPU	+1.8V	GPU_CRE/LVDS/PLL POWER	+1.5V_GPU	Discrete enable
+1V	+1V	DP/PEG POWER	PG_1V_EN	Discrete enable

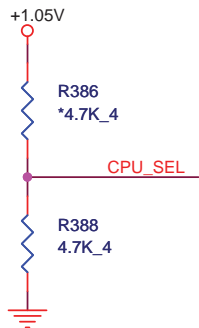
Thermal Follow Chart



REV : B change pin define for B-test

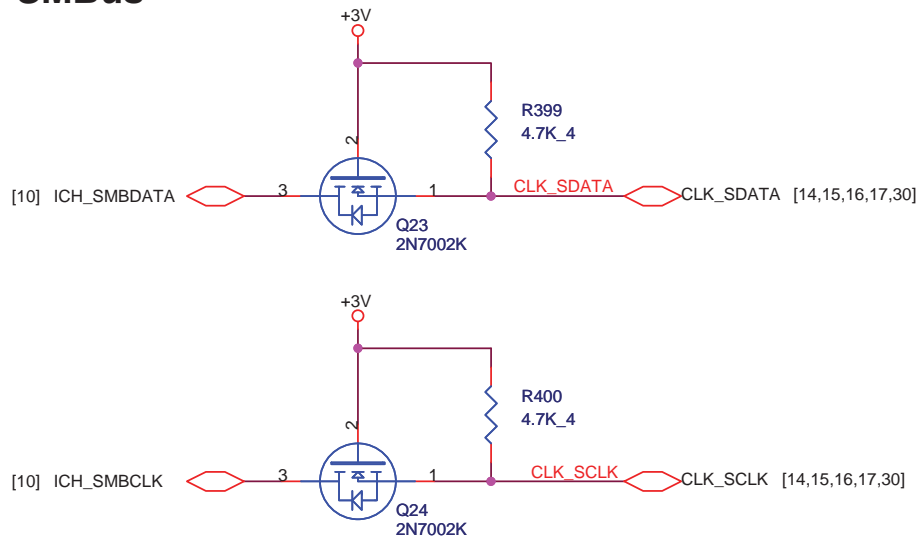


CPU_CLK select

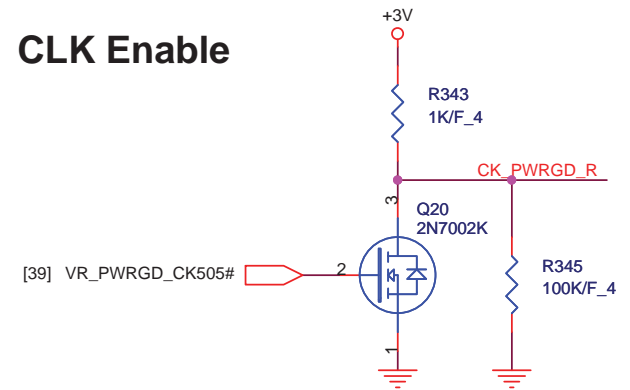


	0	1
CPU_SEL	CPU0/1=133MHz (default)	CPU0/1=100MHz

SMBus



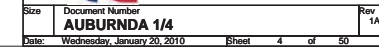
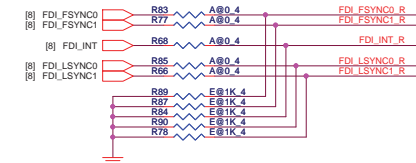
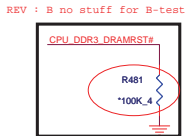
CLK Enable



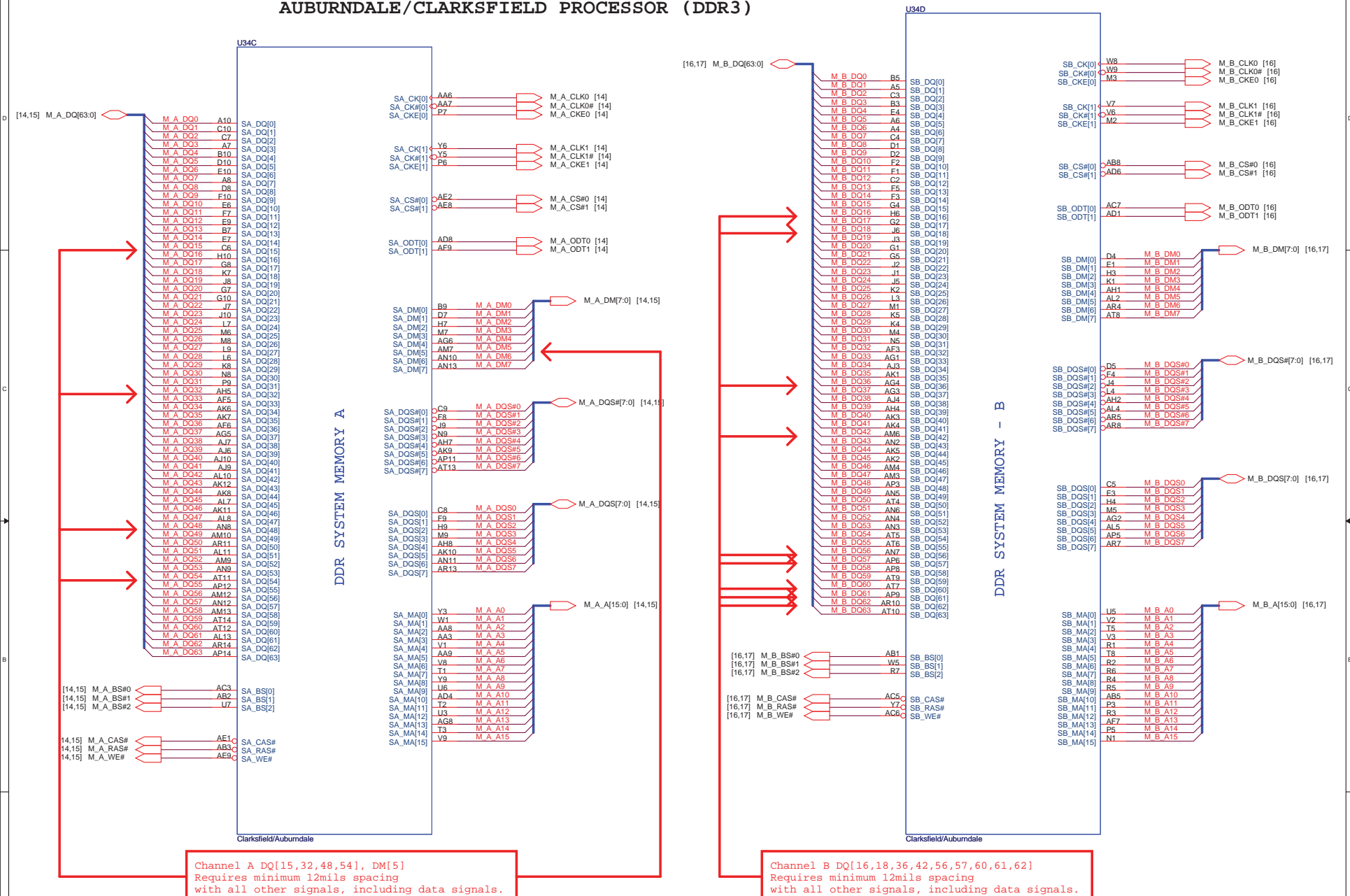
Quanta Computer Inc.

PROJECT : ZYA

Size	Document Number	Rev
	Clock Generator	1A
Date:	Wednesday, January 20, 2010	Sheet 3 of 50

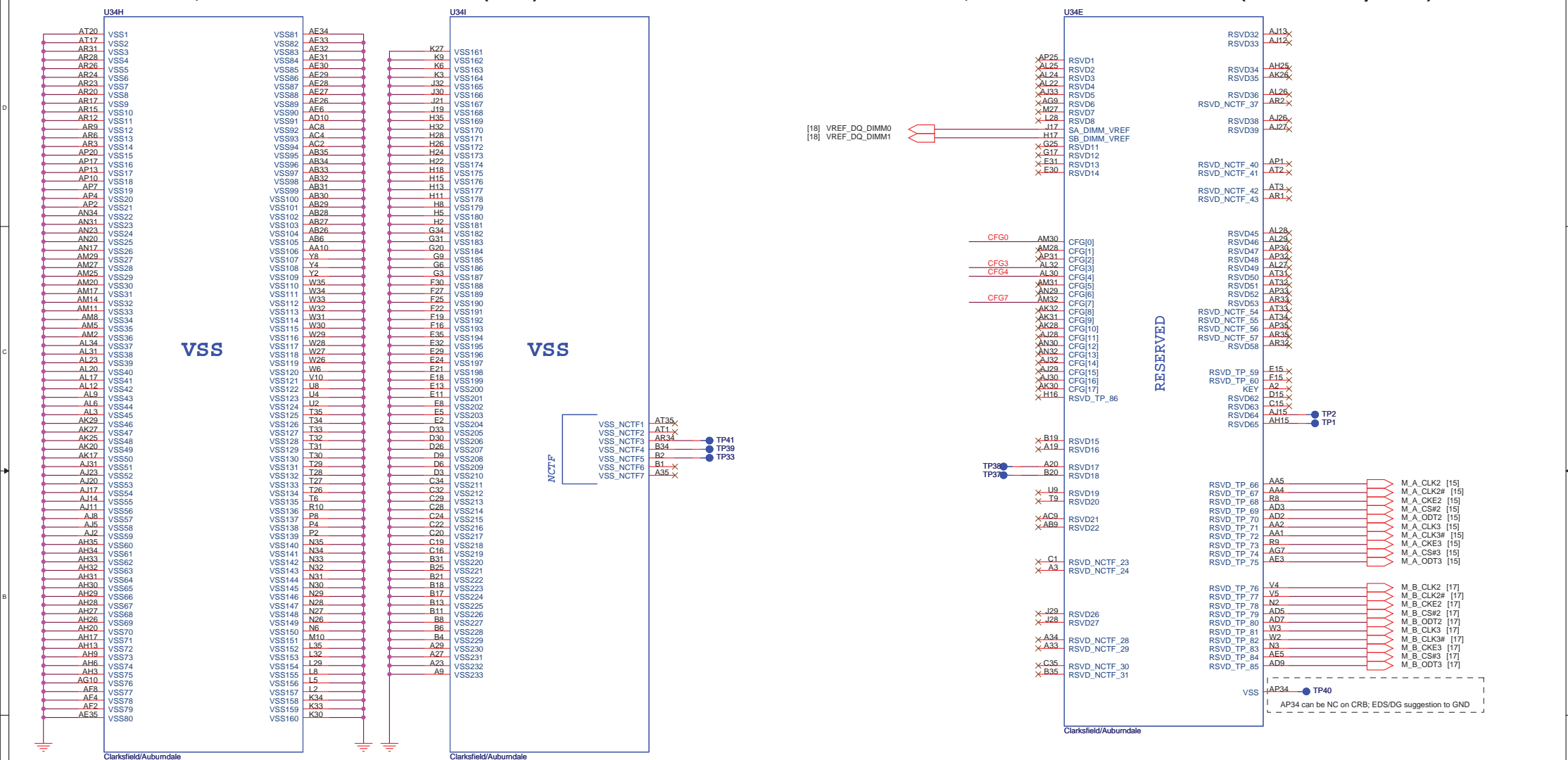


AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)



AUBURNDALE/CLARKSFIELD PROCESSOR (GND)

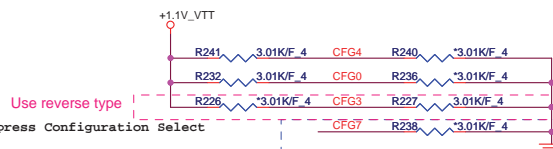
AUBURNDALE/CLARKSFIELD PROCESSOR (RESERVED, CFG)



Processor Strapping


	1	0
CFG4 (Display Port Presence)	Disabled; No Physical Display Port attached to Embedded Display Port	Enabled; An external Display port device is connected to the Embedded Display port
CFG0 (PCI-Epress Configuration Select)	Single PEG	Bifurcation enabled
CFG3 (PCI-Epress Static Lane Reversal)	Normal Operation	Lane Numbers Reversed

CFG[1:0] - PCI_Epress Configuration Select
* 11= 1 x 16 PEG
* 10= 2 x 8 PEG



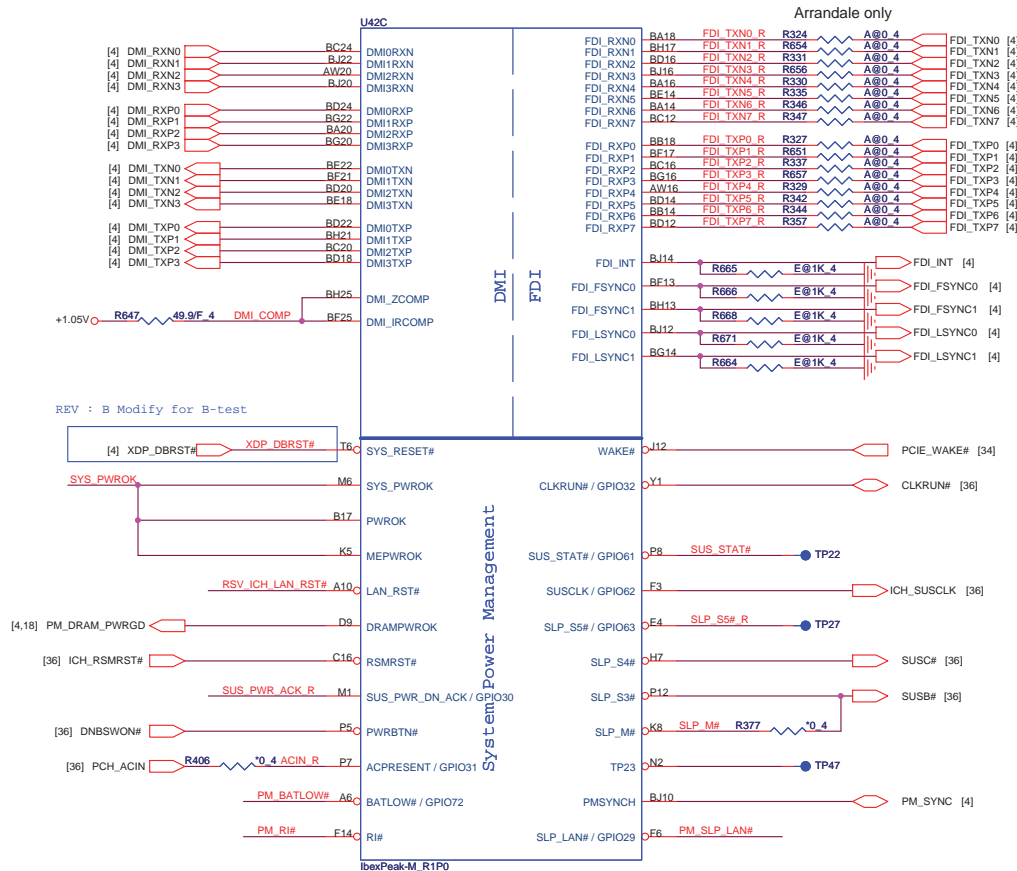
S: The CFG signals have a default value of '1' if not terminated on the board.

The Clarkfield processor's PCI Express interface may not meet PCI Express 2.0 jitter specifications. Intel recommends placing a 3.01K +/- 5% pull down resistor to VSS on CFG[7] pin for both rPGA and BGA components. This pull down resistor should be removed when this issue is fixed. (ES1 only)

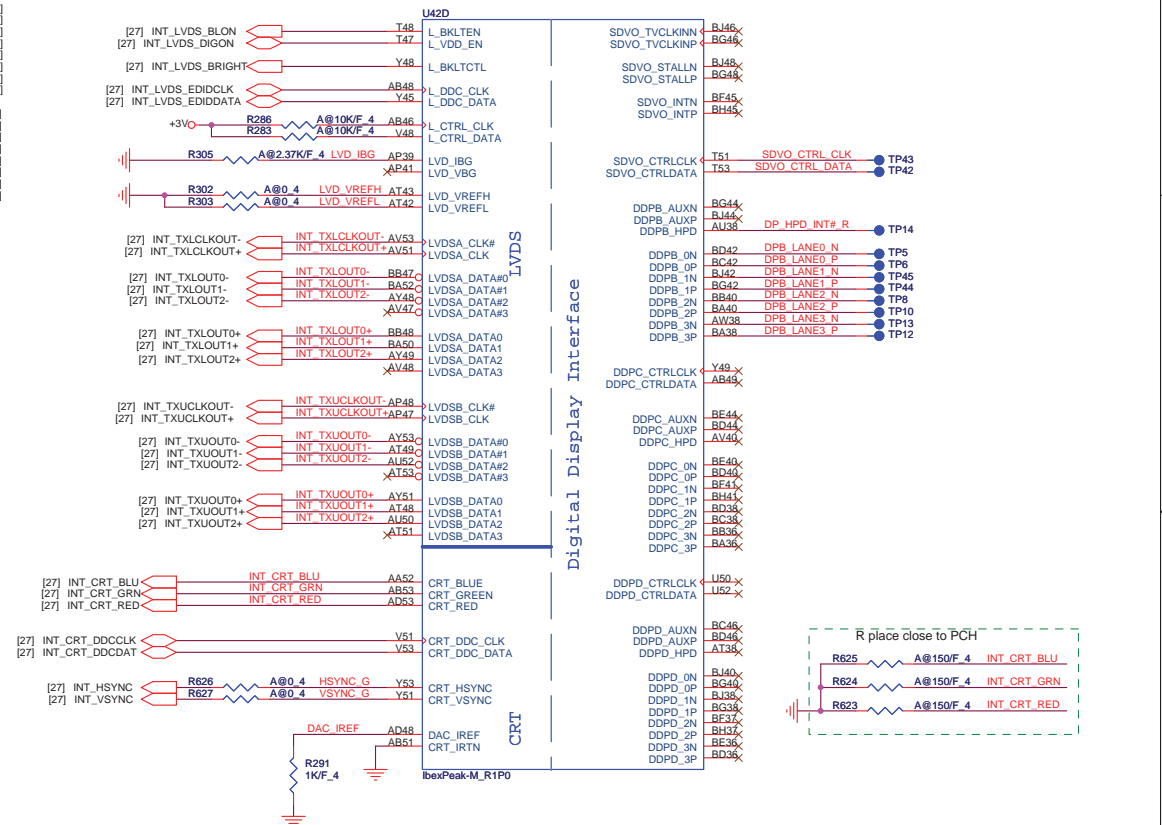
**Quanta Computer Inc.**
PROJECT : ZYA

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	AUBURNDA 4/4	1A
Date:	Wednesday, January 20, 2010	Sheet 7 of 50

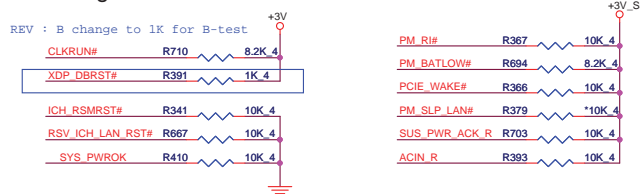
IBEX PEAK-M (DMI, FDI, GPIO)



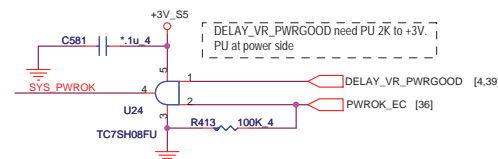
IBEX PEAK-M (LVDS, DDI)



PCH Pull-high/low

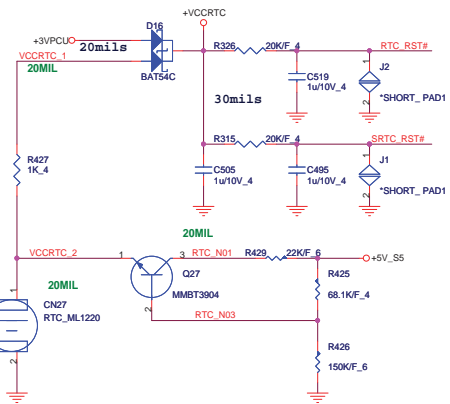


System PWR_OK

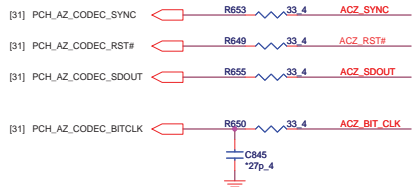


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	IBEX PEAK-M 1/6	1A
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RTC Circuitry

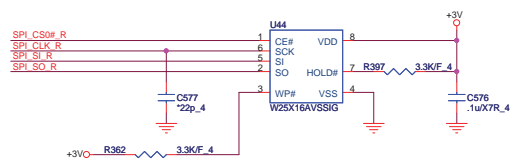


HDA Bus



Place all series terms close to PCH except for SDIN input lines, which should be close to source. Placement of R773, R775, R776 & R777 should equal distance to the T split trace point. Basically, keep the same distance from T for all series termination resistors.

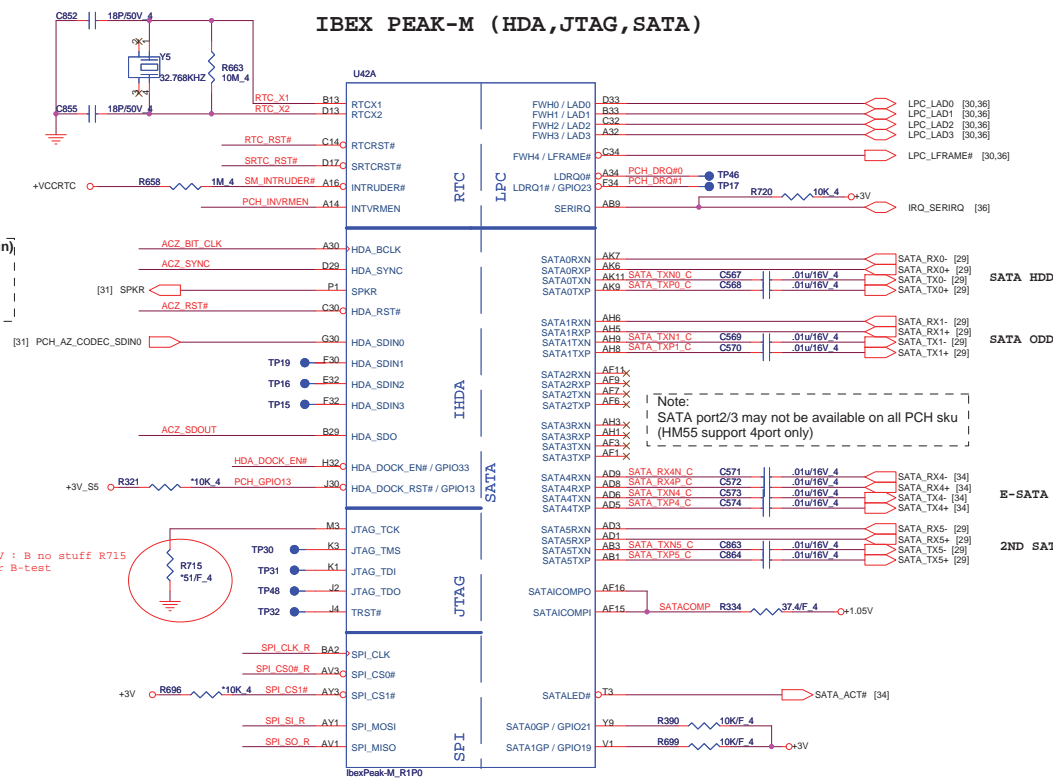
PCH SPI



At 11/24 add
Winbond W25X16AVSSIG
EON EN25F16-100HIP
AMIC A25L016

AKE382P0N01
AKE382A0Q00
AKE382N0800

IBEX PEAK-M (HDA, JTAG, SATA)



PCH Strap Table

Pin Name	Strap description	Sampled	Configuration	ZY9B note
SPKR	No reboot mode setting	PWROK	0 = Default (weak pull-down 20K) 1 = Setting to No-Reboot mode	+3V0 R725 *10K_4 SPCR
INIT3_3V	Reserved	PWROK	1 = Default (weak pull-up 20K) Should not be pull-down	
GNT3# / GPIO55	Top-Block Swap Override	PWROK	0 = "top-block swap" mode 1 = Default (weak pull-up 20K)	R274 *10K_4 PCL_GNT3# [10]
INTVRMEN	Integrated 1.05V VRM enable	ALWAYS	Should be always pull-up	+VCCRTC R660 330K_4 PCH_INVRMEN
GNT1# / GPIO51	Boot BIOS Selection 1 [bit-1]	PWROK	GNT1# GNT0# Boot Location 1 1 SPI 1 0 PCI 0 0 LPC	Default weak pull-up on GNT0/1# [Need external pull-down for LPC BIOS]
GNT0#	Boot BIOS Selection 0 [bit-0]	PWROK	Should not be pull-down (weak pull-up 20K)	+3V0 R288 *1K_4 R290 *1K_4 R287 *1K_4 R307 *1K_4 PCL_GNT0# [10] PCL_GNT1# [10]
GNT2# / GPIO53	ESI strap (Server only)	PWROK	Should not be pull-down (weak pull-up 20K)	USE GPIO PIN
NV_ALE	Intel Anti-Theft HDD protection	PWROK	0 = Disable (Internal pull-down 32ohm)	+1.8V R695 *1K_4 NV_ALE NV_ALE [10]
NV_CLE	DMI Termination voltage	PWROK	weak pull-down 32ohm	+1.8V R692 *1K_4 NV_CLE NV_CLE [10]
HDA_DOCK_EN#/GPIO33	Flash Descriptor Security	PWROK	0 = Override 1 = Default (weak pull-up 20K)	+3V0 R311 *1K_4 R309 *10K_4 HDA_DOCK_EN#
SPI_MOSI	iTPM function Disable	MEPWROK	0 = Default (weak pull-down 20K) 1 = Enable Should not be pull-up (weak pull-down 20K)	+3V0 R398 *1K_4 SPI_SI_R
HDA_SDO	Reserved	RSMRST#	Should not be pull-down (weak pull-up 20K)	
GPIO8	Reserved	RSMRST#	Should not be pull-down (weak pull-up 20K)	+3V_S5 R382 *10K_4 RSV_GPIO8 [11]
GPIO27	On-die PLL Voltage Regulator	RSMRST#	0 = Disable 1 = Enable (weak pull-up 20K)	
HDA_SYNC	On-die PLL PWR supply select	RSMRST#	0 = 1.8V supply (weak pull-down 20K) 1 = 1.5V supply	use default (0 = 1.8V supply)
GPIO15	Reserved	RSMRST#	0 = TLS no Confidentiality (weak pull-up 20K) 1 = TLS Confidentiality	+3V_S5 R392 *1K_4 TPM_ALE [11]

<http://laptop-motherboard-schematic.blogspot.com/>

A16 swap override Strap/Top-Block Swap Override jumper
Low = A16 swap override/Top-Block Swap Override enabled
High = Default

Boot BIOS Strap	GNT0#	GNT1#	Boot BIOS Location
	0	0	LPC
	0	1	Reserved (NAND)
	1	0	PCI
	1	1	SPI

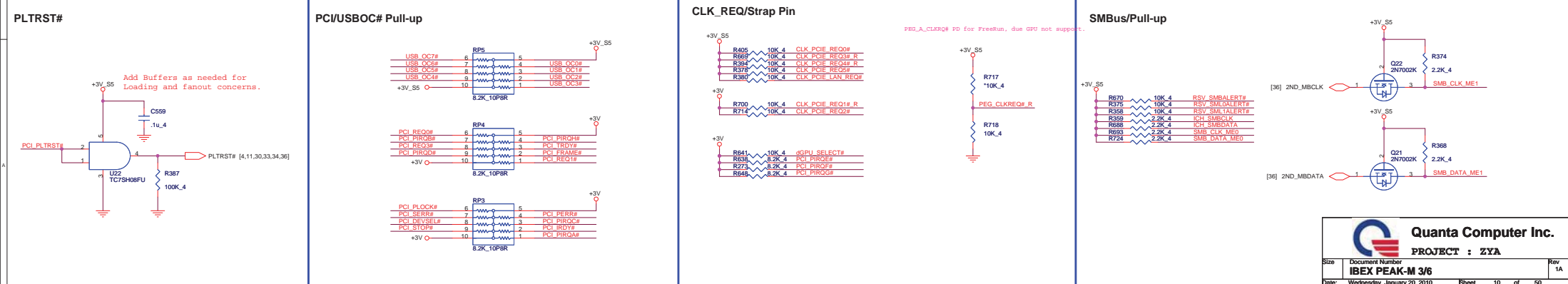
Denbury Technology Enabled
NV_ALE High = Enable
Low = Disable

DMI Termination Voltage
NV_CLE Set to Vcc when LOW
Set to Vcc/2 when HIGH

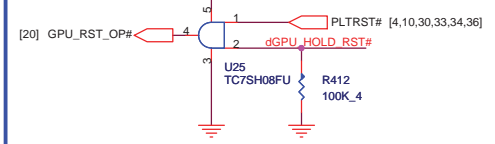
Quanta Computer Inc.
PROJECT : ZYA

Size Document Number
IBEX PEAK-M 2/6
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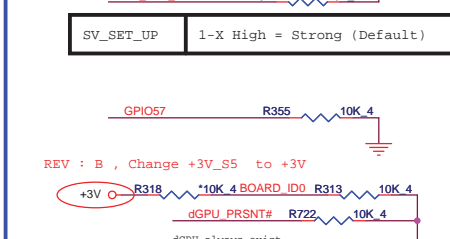
IBEX PEAK-M (PCI-E,SMBUS,CLK)




<http://laptop-motherboard-schematic.blogspot.com>

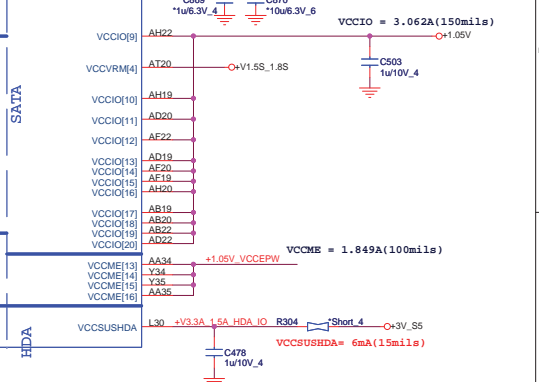
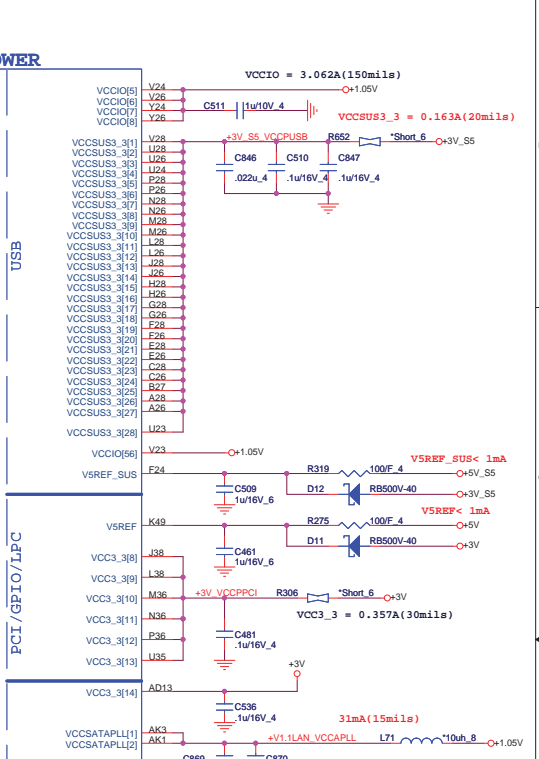
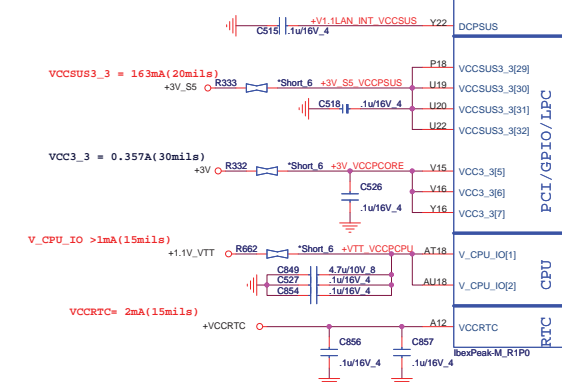
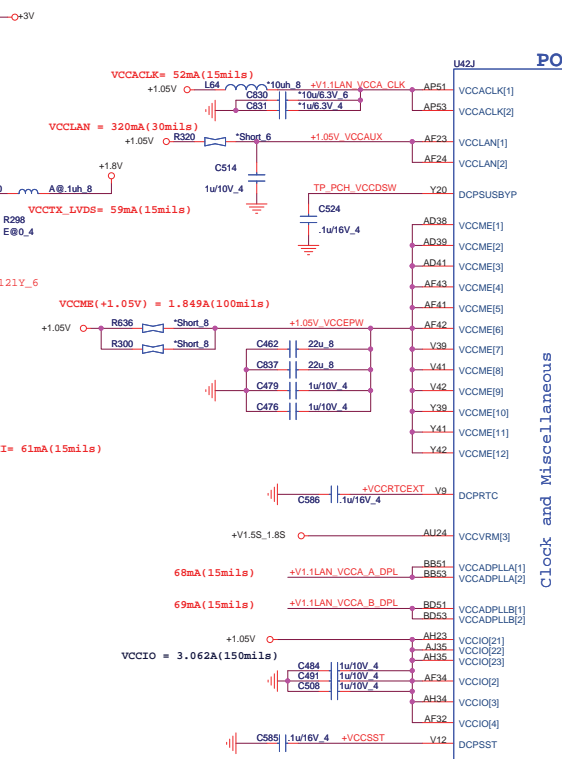
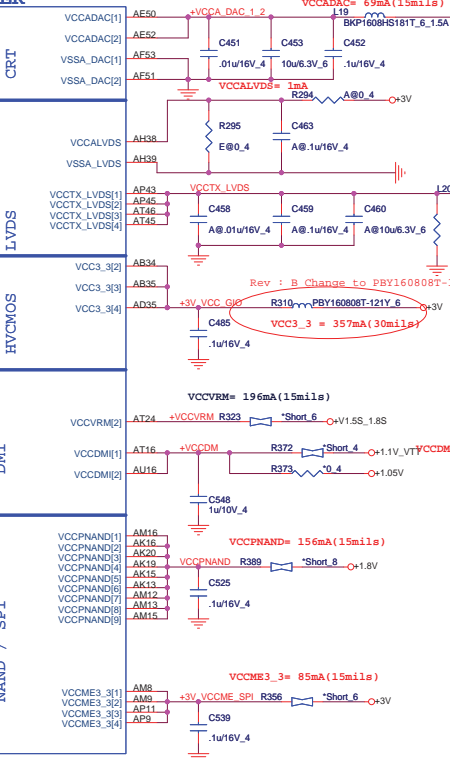
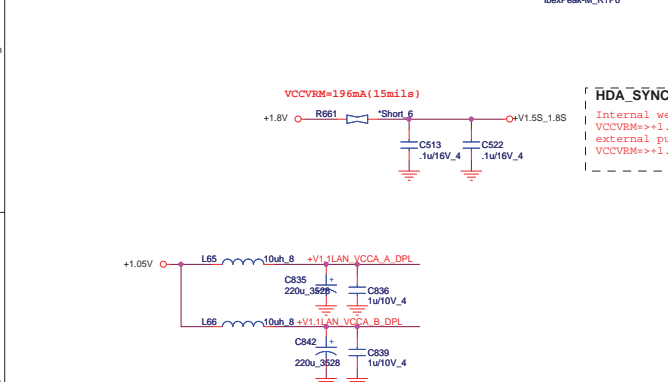
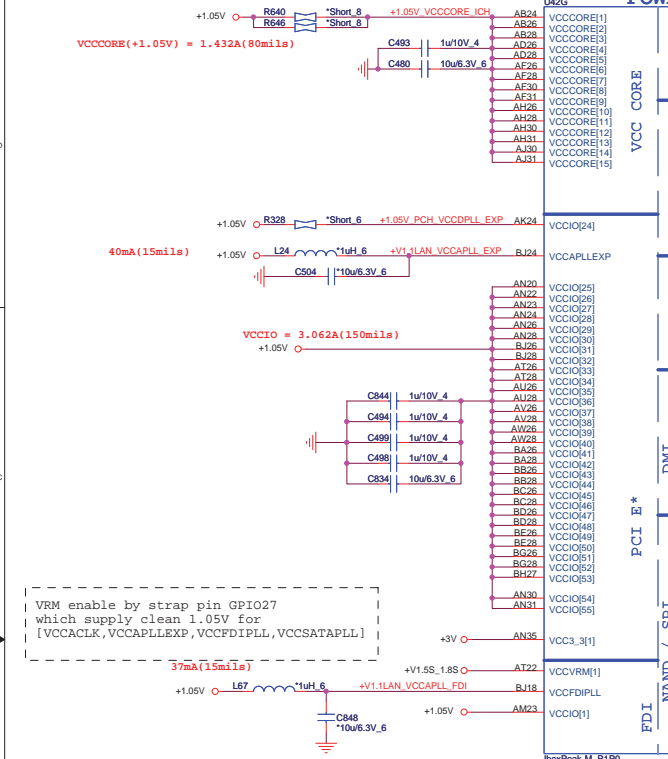


GPIO Pull-up/Pull-down

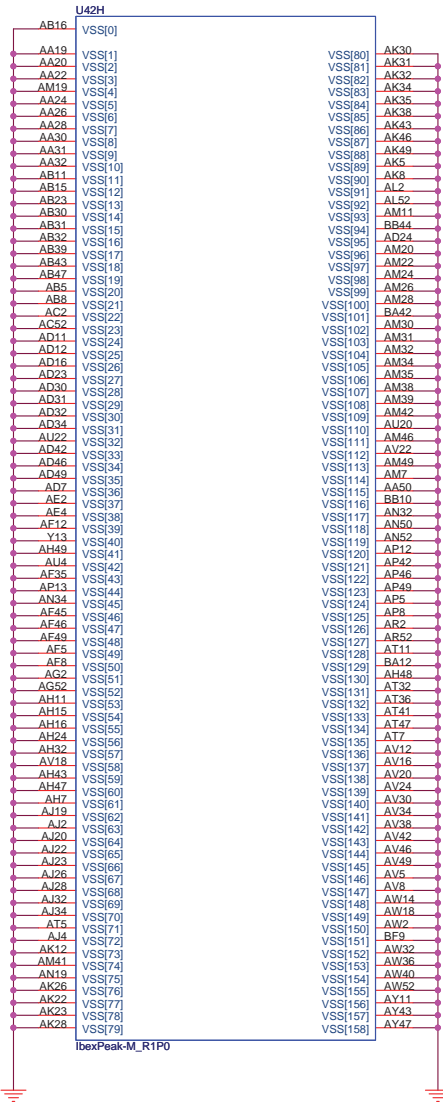


 Quanta Computer Inc. PROJECT : ZYA		
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m	IBEX PEAK-M 4/6	1A
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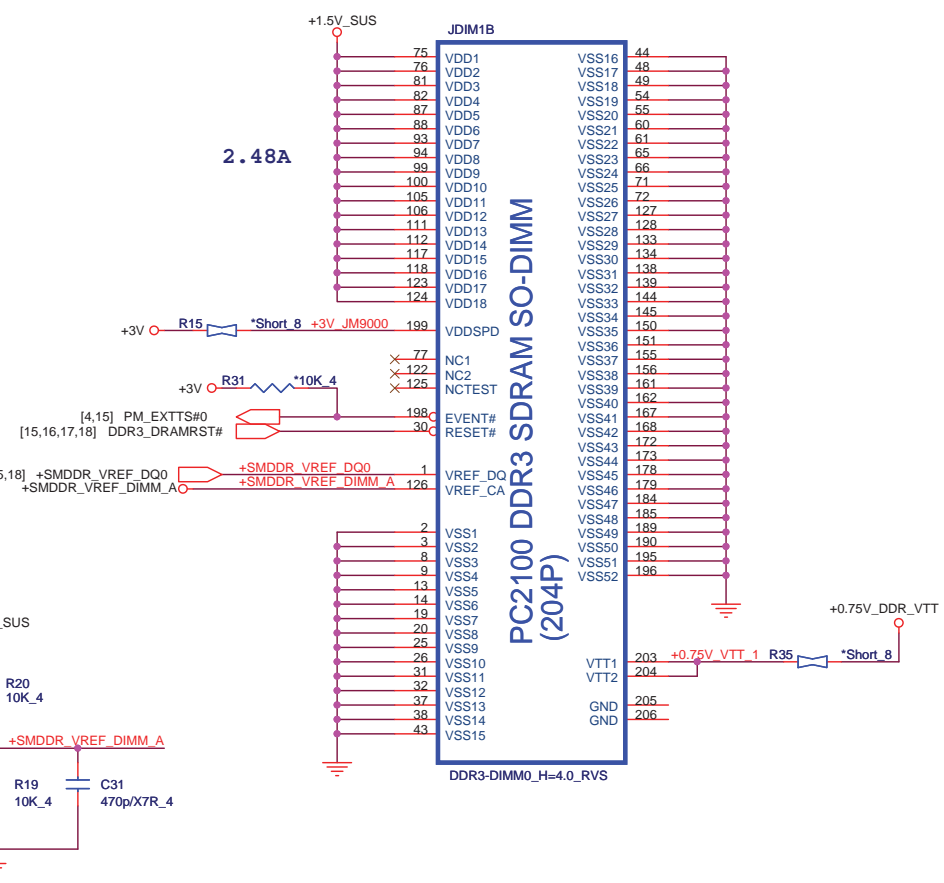
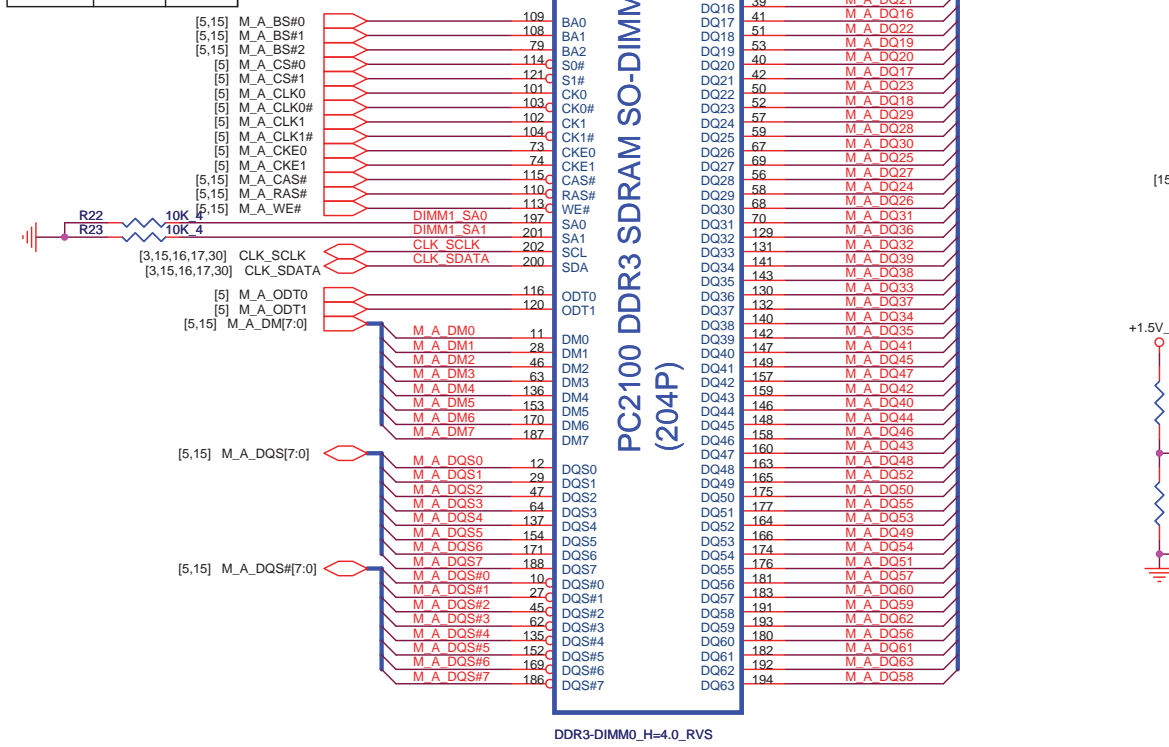
IBEX PEAK-M (POWER)



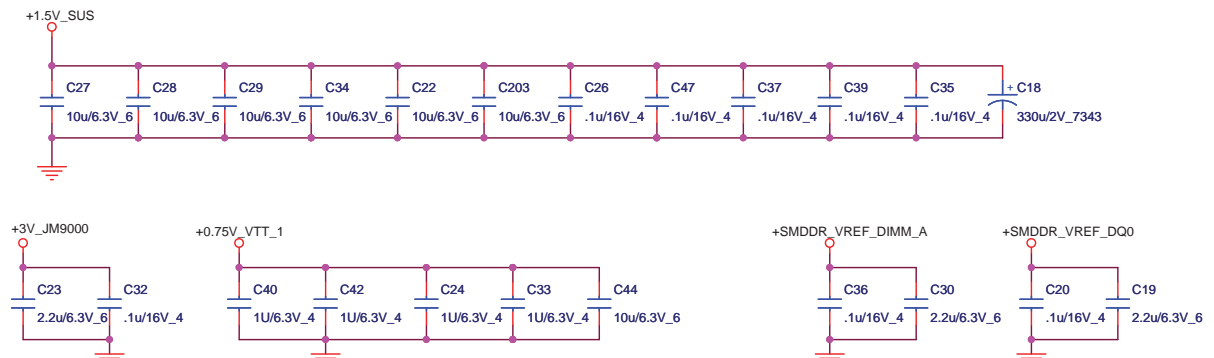
IBEX PEAK-M (GND)



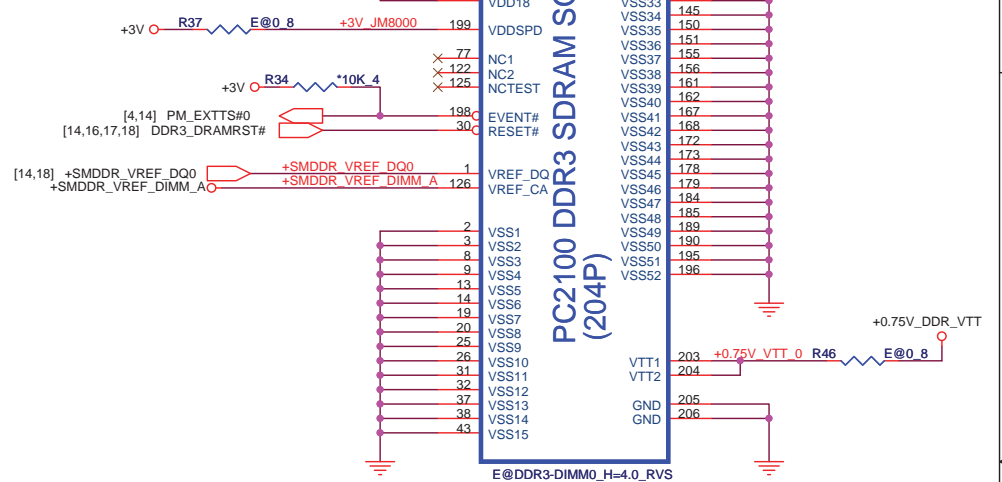
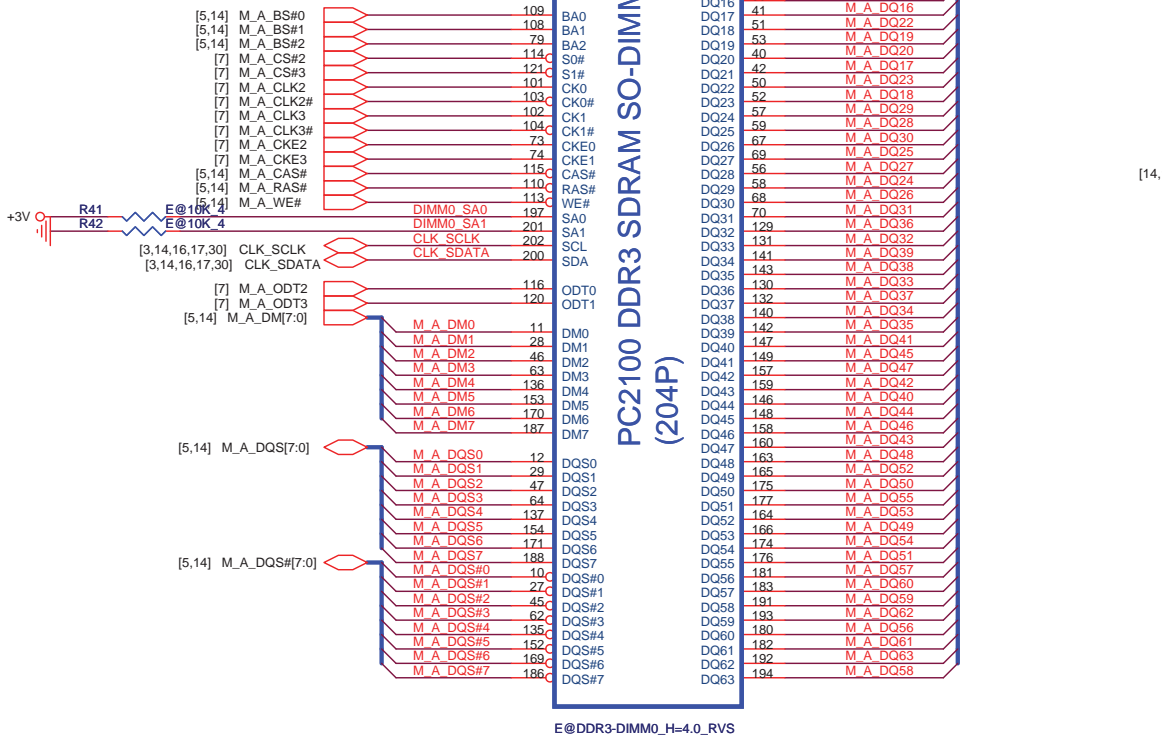
	SA1	SA0
CHA0	0	0
CHA1	0	1
CHB0	1	0
CHB1	1	1



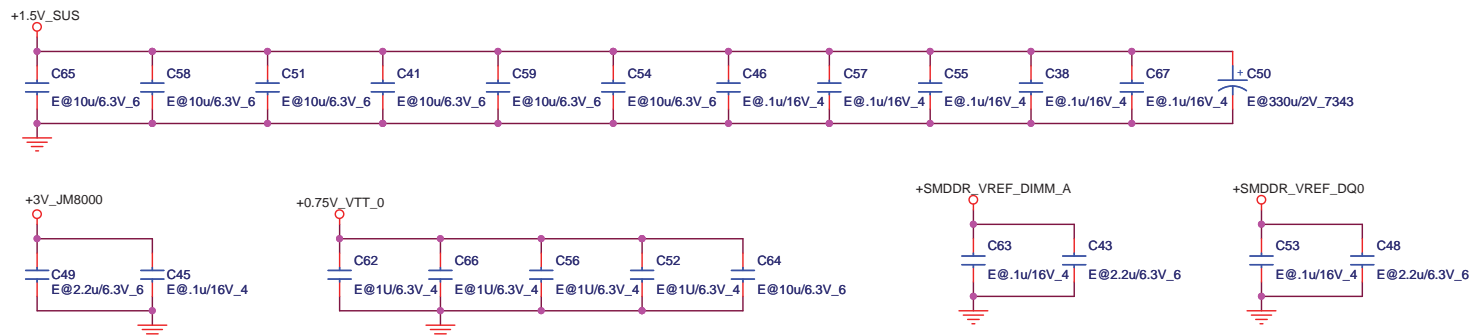
Place these Caps near So-Dimm0.

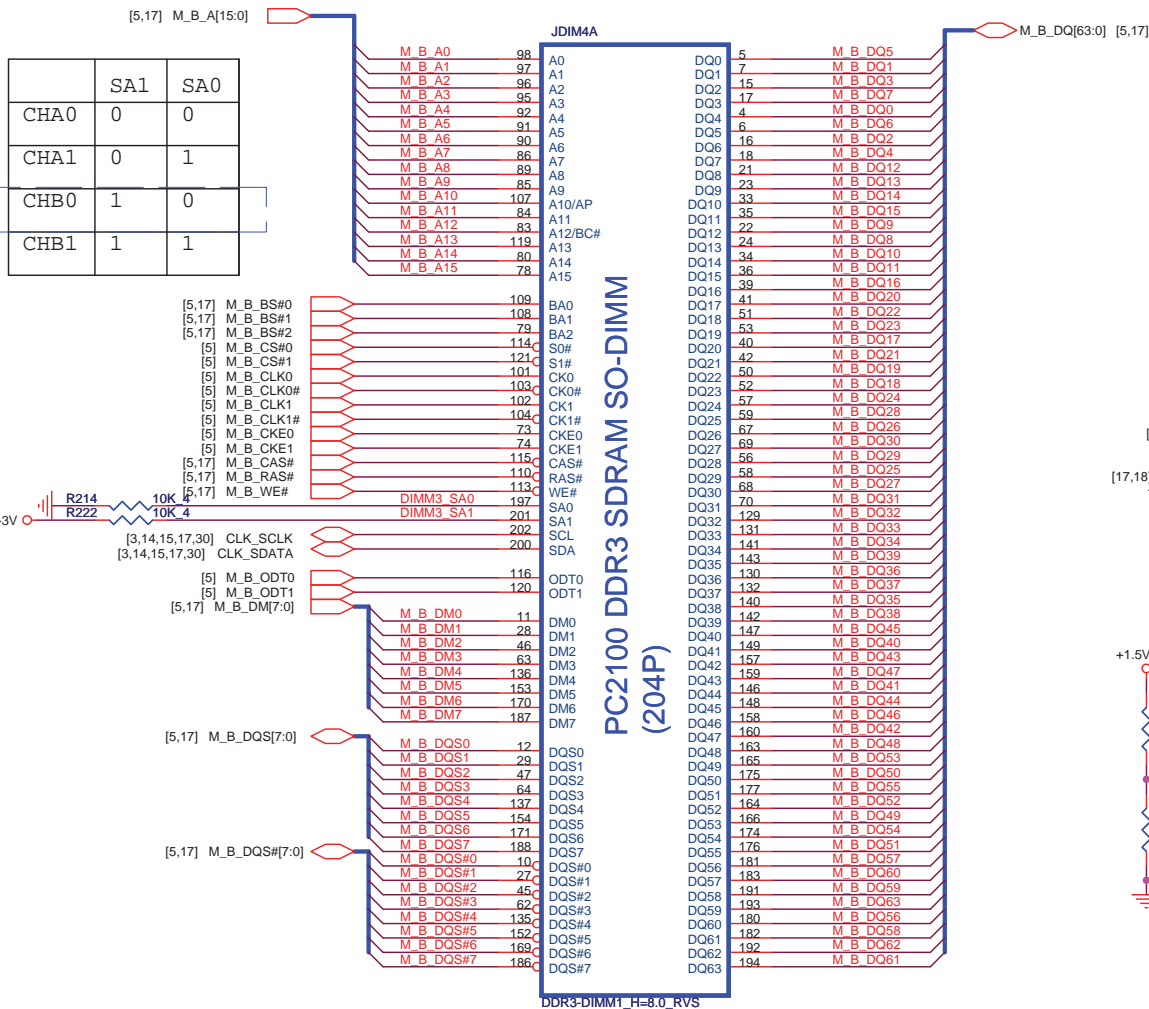


	SA1	SA0
CHA0	0	0
CHA1	0	1
CHB0	1	0
CHB1	1	1

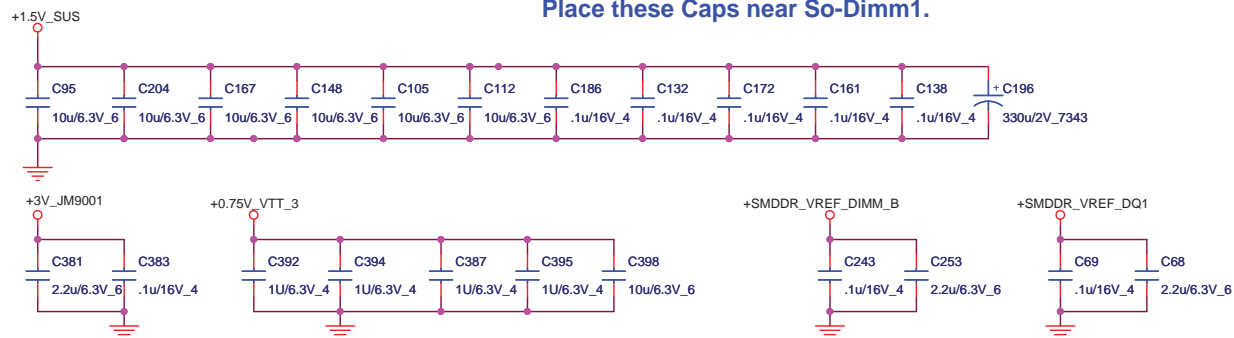


Place these Caps near So-Dimm0.





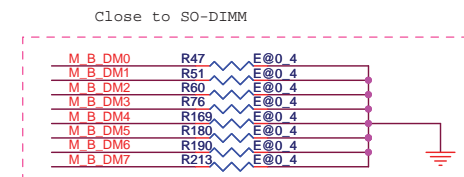
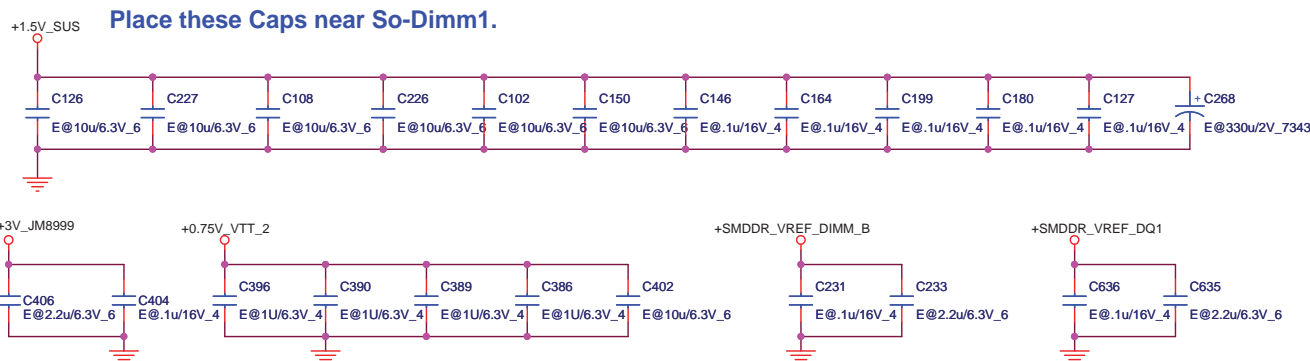
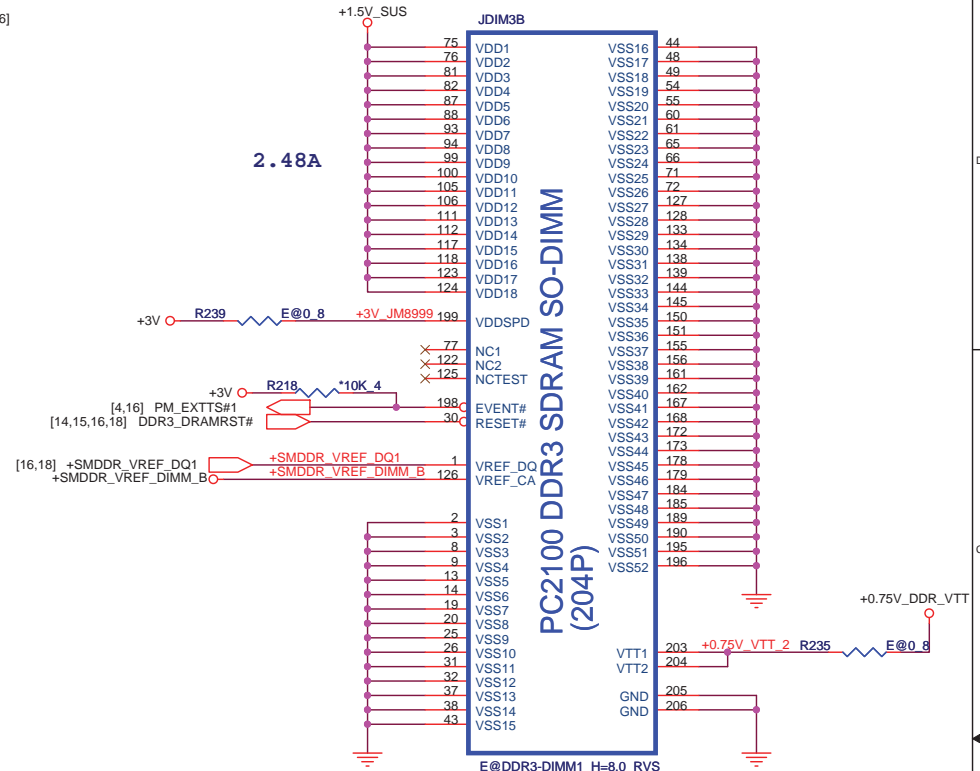
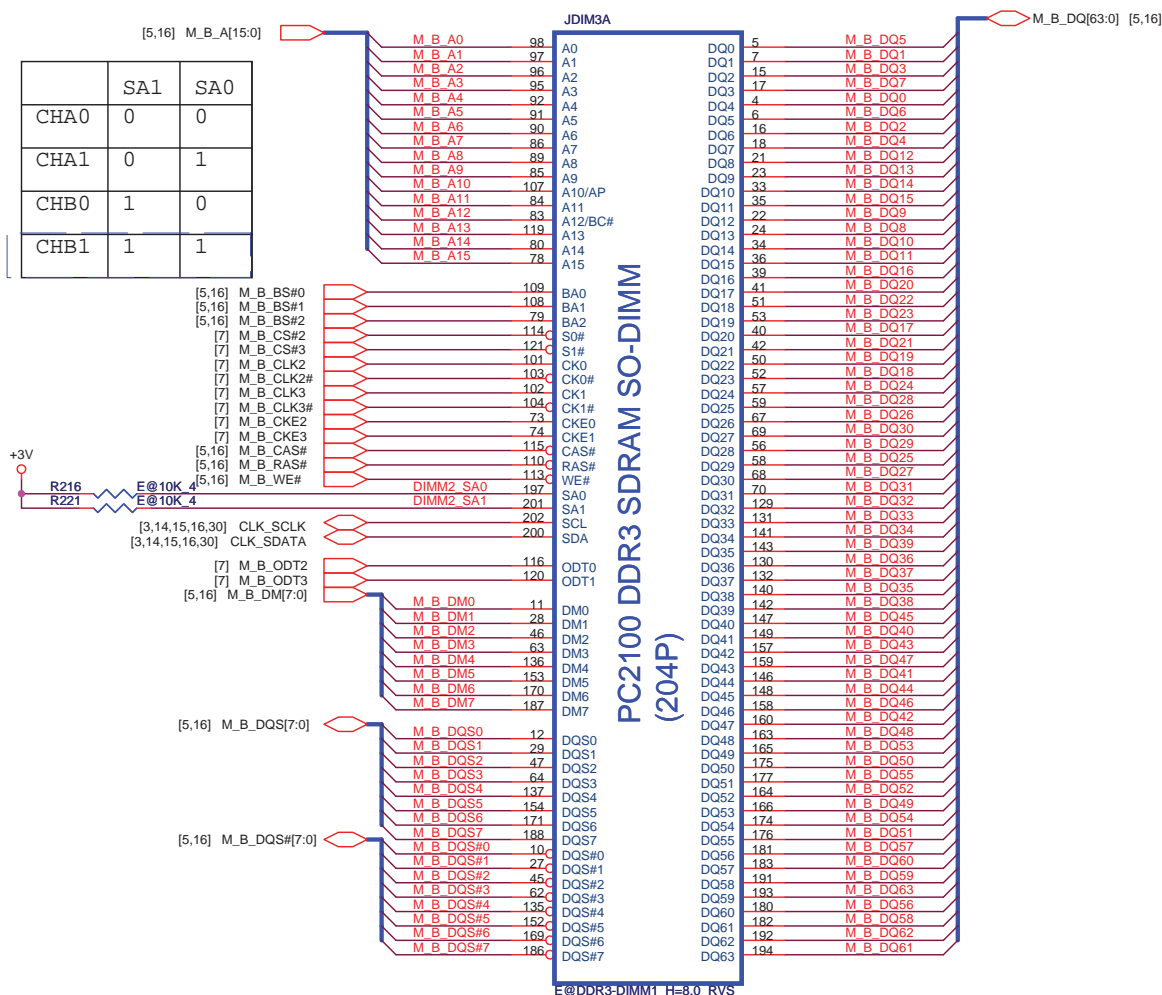
Place these Caps near So-Dimm1.

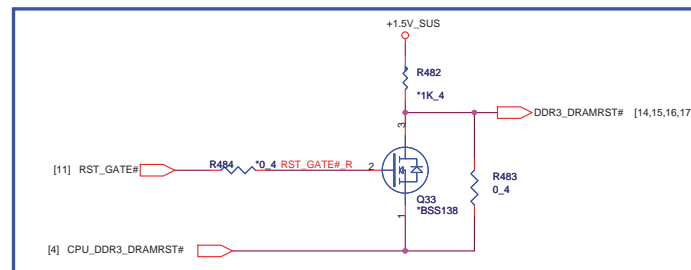
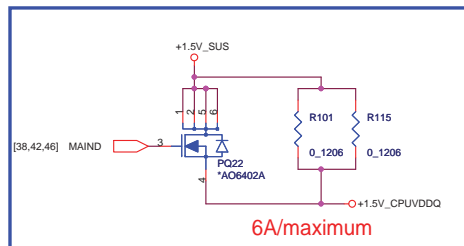
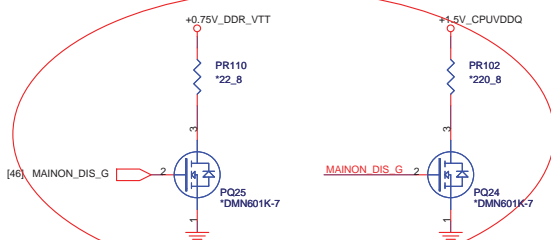
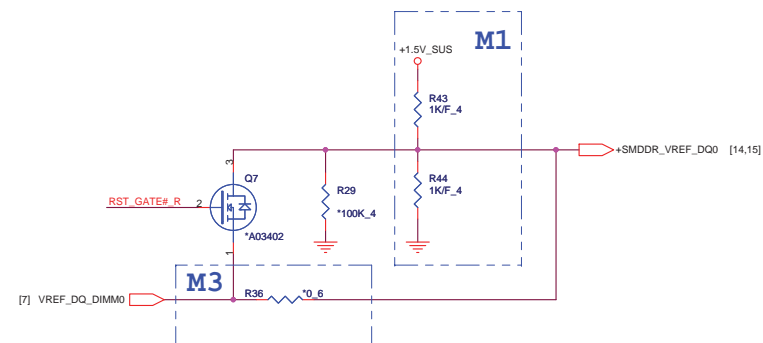
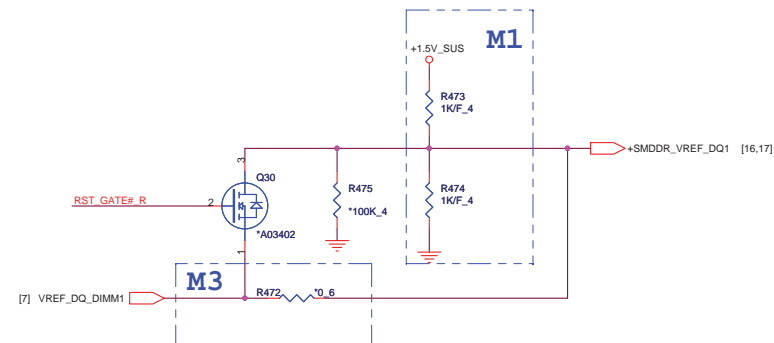
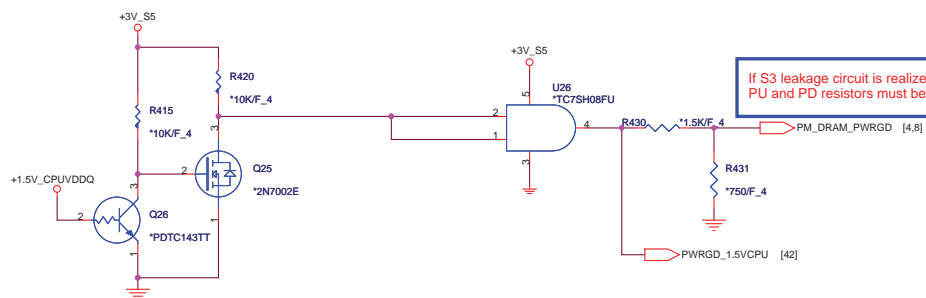


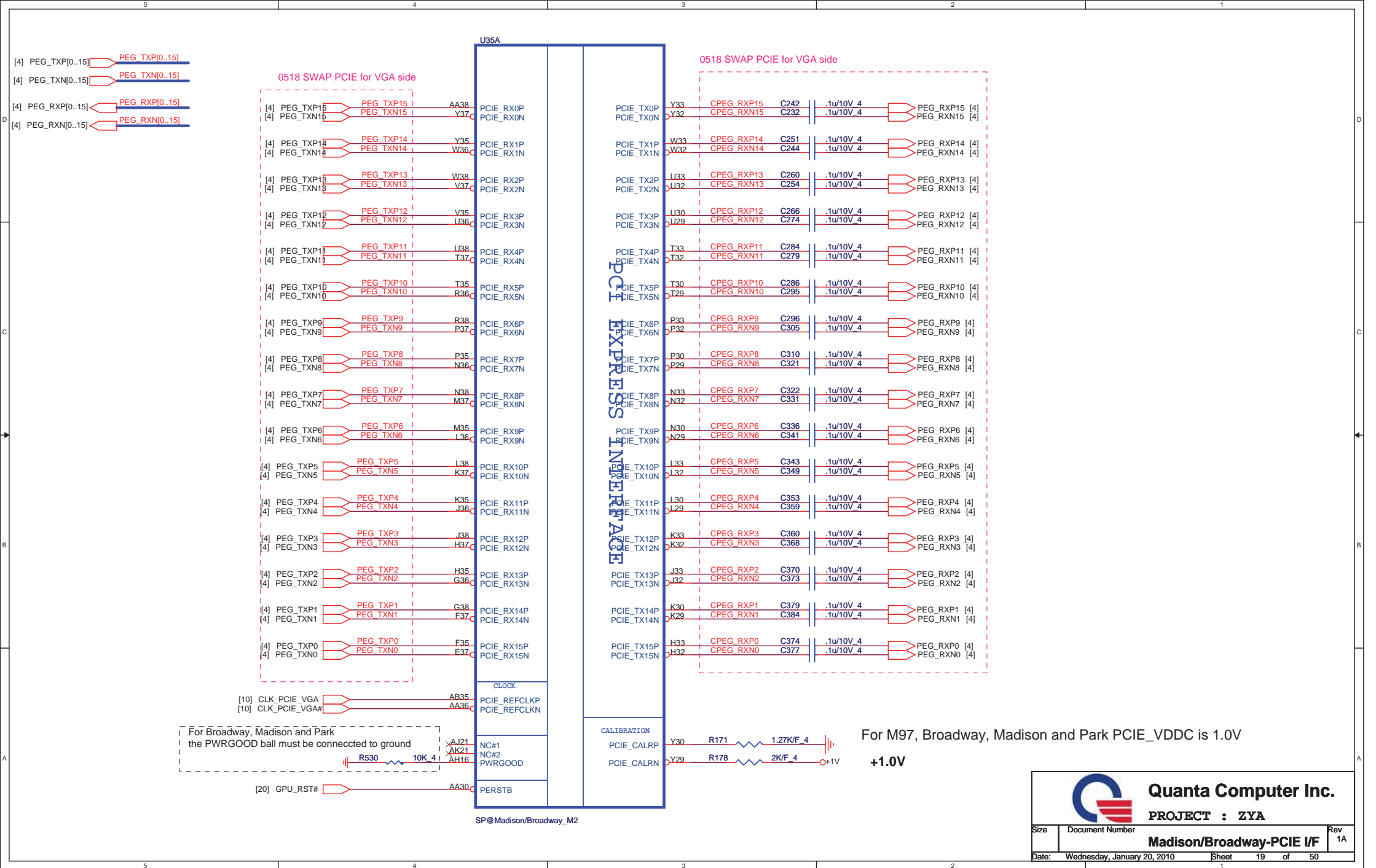
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	SA1	SA0
CHA0	0	0
CHA1	0	1
CHB0	1	0
CHB1	1	1







```
1 => +3V_D
2 => +VGPU_CORE
3 => +VGPU_IO
4 => +1V
5 => +1.5V_GPU
6 => +1.8V_GPU
7 => dGPU_PWROK
```

1.8V GPIO

3.3V GPIO

For EMI

HDMI

Display Port

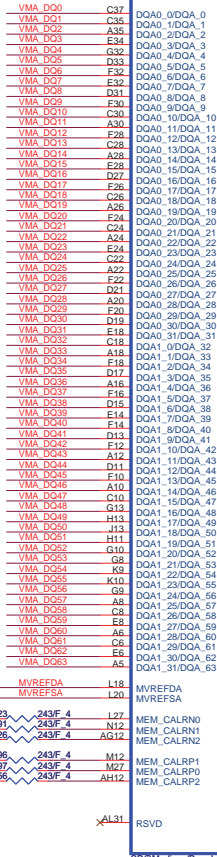
LVDS

CRT

[25] VMA_DQ[63..0]  VMA_DQ[63..0]
 [25] VMA_DM[7..0]  VMA_DM[7..0]
 [25] VMA_RDQS[7..0]  VMA_RDQS[7..0]
 [25] VMA_WDQS[7..0]  VMA_WDQS[7..0]

[25] VMA_MA[13..0]  VMA_MA[13..0]

[25] VMA_BA0  VMA_BA0
 [25] VMA_BA1  VMA_BA1
 [25] VMA_BA2  VMA_BA2



MEMORY INTERFACE A

QSA[7..0]

QSA#7..0]

SP@Madison/Broadway_M2

[26] VMB_DQ[63..0]  VMB_DQ[63..0]
 [26] VMB_DM[7..0]  VMB_DM[7..0]
 [26] VMB_RDQS[7..0]  VMB_RDQS[7..0]
 [26] VMB_WDQS[7..0]  VMB_WDQS[7..0]

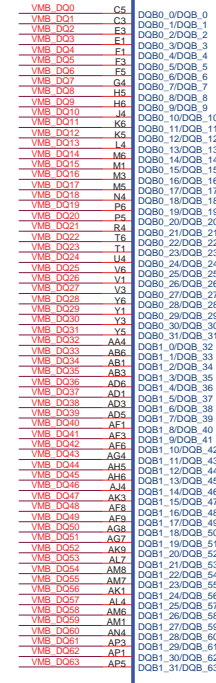
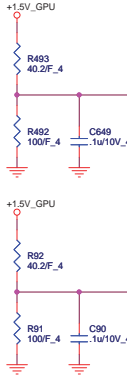
[26] VMB_MA[13..0]  VMB_MA[13..0]

[26] VMB_BA0  VMB_BA0
 [26] VMB_BA1  VMB_BA1
 [26] VMB_BA2  VMB_BA2

QSA[7..0]

QSA#7..0]

SP@Madison/Broadway_M2

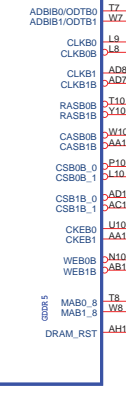


MEMORY INTERFACE B

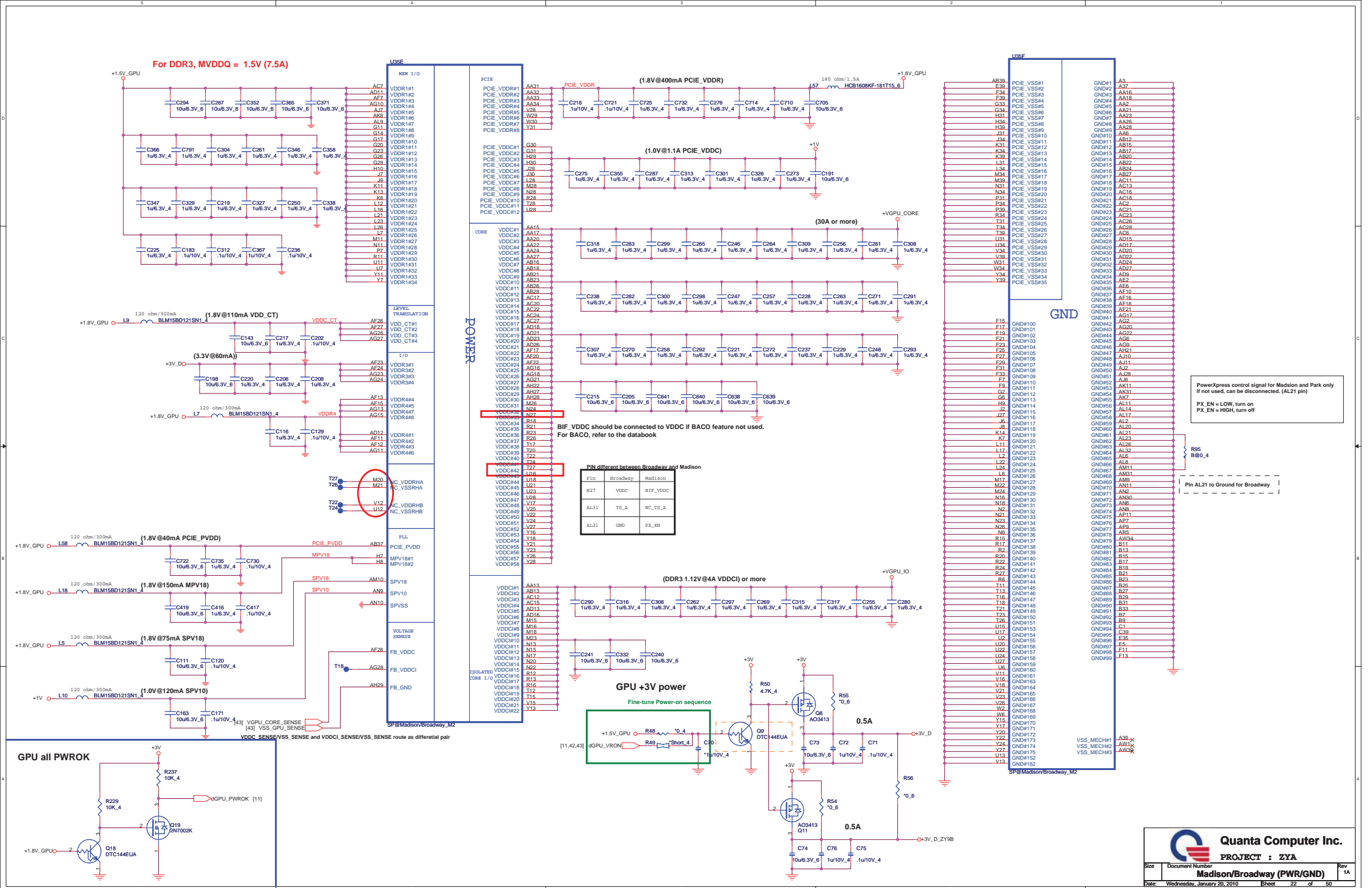
QSB[7..0]

QSB#7..0]

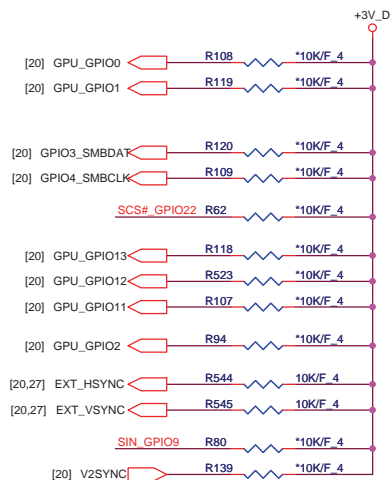
SP@Madison/Broadway_M2



Designator	For M97-M2	For Mannheim
Ra	10K	10K
Rb	0R/Short	51R
Rc	DNI	DNI
Ca	2.2nF	68pF



PIN STRAPS



Memory Aperture size

GPIO[13:11]	Size
000	128MB
001	256MB
010	64MB
011	32MB

Audio Table

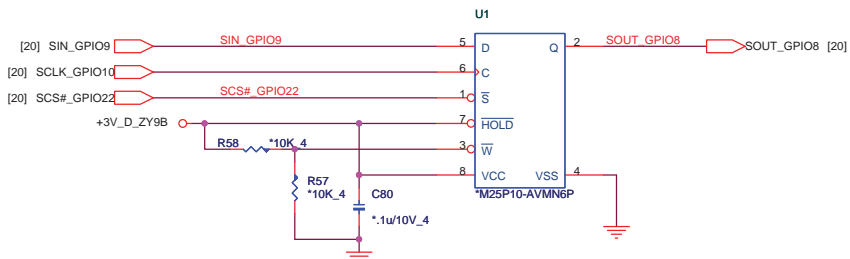
EXT_HSYNC	EXT_VSYNC	Discription
0	0	No Audio
0	1	Any one by detect
1	0	DP only
1	1	Both DP & HDMI

CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED, THEY MUST NOT CONFLICT DURING RESET

STRAPS	PIN	DESCRIPTION OF DEFAULT SETTINGS	DEFAULT	REMARK
TX_PWRS_ENB	GPIO0	0 = 50% TX OUTPUT SWING 1 = FULL TX OUTPUT SWING	0	
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLED 0 = TX DE-EMPHASIS DISABLED 1 = TX DE-EMPHASIS ENABLED	0	
BIOS_ROM_EN	GPIO_22_ROMCSB	ENABLE EXTERNAL BIOS ROM 0 = DISABLE 1 = ENABLE	0	
ROMIDCFG(2:0)	GPIO[13:11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	000	See Memory Aperture size
BIF_GEN2_EN_A	GPIO2	0 = PCIE DEVICE AS 2.5GT/S CAPABLE 1 = PCIE DEVICE AS 5GT/S CAPABLE	0	
GPIO_8_ROMSO H2SYNC GPIO_21_BB_EN	GPIO8 H2SYNC GPIO21	Reserved Only	0	
AUD[1] AUD[0]	HSYNC VSYNC	AUD[1:0] 00: NO AUDIO FUNCTION. 01: AUDIO FOR DISPLAYPORT AND HDMI IF ADAPTER IS DETECTED. 10: AUDIO FOR DISPLAYPORT ONLY. 11: AUDIO FOR BOTH DISPLAYPORT AND HDMI.	11	See Audio table
GPIO_9_ROMSI	GPIO9	0 = VGA controller capacity enable	0	
VIP_DEVICE_STRAP_ENA	V2SYNC	0 = DRIVER would ignore the value sample on VHAD_0 during RESET.	0	

EEPROM

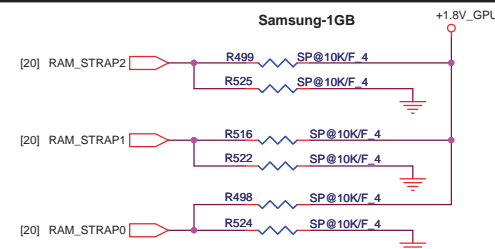


DDR3 VRAM SIZE Strap

DDR3 VRAM size

Vendor	Vendor P/N	STN B/S P/N	Size	RAM_STRAP2 DVPDATA_2	RAM_STRAP1 DVPDATA_1	RAM_STRAP0 DVPDATA_0
Hynix	H5TQ1G63BFR-12C	AKD5LZGTW04 (64M*16)	512MB	1	1	0
			1GB	1	0	0
			2GB	1	0	1
Samsung	K4W1G1646E-HC12	AKD5LGGT506 (64M*16)	1GB	0	0	0
	K4W2G1646B-HC12	AKD5MGGT500	2GB	0	0	1
AMD	23EY2387MA-12	AKD5LGGT700	1GB	0	1	0

Samsung-1GB



RAM_STRAP2 SET DDR3 Vendor
RAM_STRAP[1:0] SET SIZE.

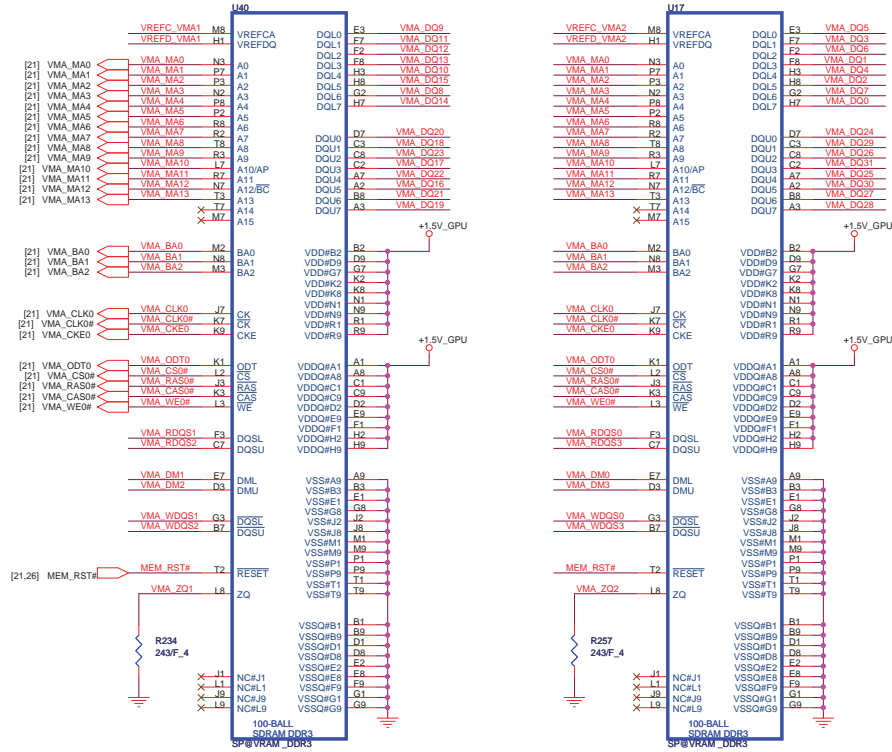
Quanta Computer Inc.
PROJECT : ZYA

Size	Document Number	Rev
	Strip/Thermal	1A
Date:	Wednesday, January 20, 2010	Sheet 24 of 50

CHANNEL A: 512MB DDR3 (64M*16*4pcs)

[21] VMA_DQ[63..0] VMA_DQ[63..0]
 [21] VMA_DM[7..0] VMA_DM[7..0]
 [21] VMA_RDQS[7..0] VMA_RDQS[7..0]
 [21] VMA_WDQS[7..0] VMA_WDQS[7..0]

QSA[7..0]
 QSA#[7..0]



CHANNEL B: 512MB DDR3 (64M*16*4pcs)

Legend:

- [21] VMB_DQ[63..0] → VMB_DQ[63..0]
- [21] VMB_DM[7..0] → VMB_DM[7..0]
- [21] VMB_RDO[7..0] → VMB_RDO[7..0]
- [21] VMB_WDO[7..0] → VMB_WDO[7..0]

QSA[7..0]

QSA# [7..0]

Group-B0 VREF

Group-B1 VREF

MEM_B0 CLK

MEM_B1 CLK

Group-B0 decoupling CAP

Group-B1 decoupling CAP

Bill of Materials (BOM):

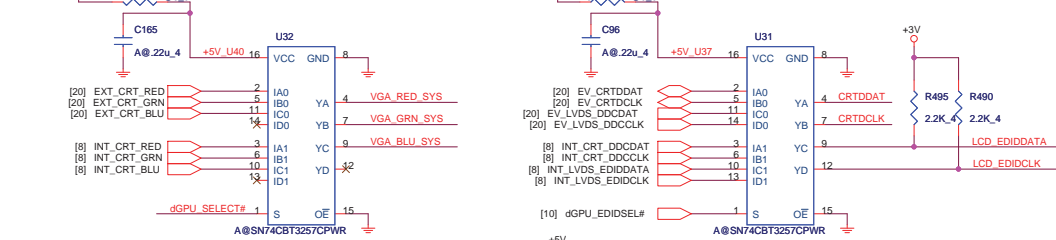
Ref	Value	Footprint	Manufacturer
R566	4.99K_F_4	0603	YAGEO
R567	4.99K_F_4	0603	YAGEO
C773	1u10V_4	0603	TAIYO YUDEN
R561	4.99K_F_4	0603	YAGEO
C766	1u10V_4	0603	TAIYO YUDEN
R208	4.99K_F_4	0603	YAGEO
R209	4.99K_F_4	0603	YAGEO
C361	1u10V_4	0603	TAIYO YUDEN
R571	4.99K_F_4	0603	YAGEO
R572	4.99K_F_4	0603	YAGEO
C780	1u10V_4	0603	TAIYO YUDEN
R546	4.99K_F_4	0603	YAGEO
R547	4.99K_F_4	0603	YAGEO
C731	1u10V_4	0603	TAIYO YUDEN
R538	4.99K_F_4	0603	YAGEO
R539	4.99K_F_4	0603	YAGEO
C696	1u10V_4	0603	TAIYO YUDEN
R163	4.99K_F_4	0603	YAGEO
R164	4.99K_F_4	0603	YAGEO
C239	1u10V_4	0603	TAIYO YUDEN
R142	4.99K_F_4	0603	YAGEO
R143	4.99K_F_4	0603	YAGEO
C179	1u10V_4	0603	TAIYO YUDEN
R193	56.2F_4	0603	YAGEO
R200	56.2F_4	0603	YAGEO
C340	0.1u16V_4	0603	TAIYO YUDEN
C796	1u6.3V_4	0603	TAIYO YUDEN
C747	1u6.3V_4	0603	TAIYO YUDEN
C769	1u6.3V_4	0603	TAIYO YUDEN
C779	1u6.3V_4	0603	TAIYO YUDEN
C793	1u6.3V_4	0603	TAIYO YUDEN
C285	1u6.3V_4	0603	TAIYO YUDEN
C800	1u6.3V_4	0603	TAIYO YUDEN
C393	1u6.3V_4	0603	TAIYO YUDEN
C278	1u6.3V_4	0603	TAIYO YUDEN
C757	1u6.3V_4	0603	TAIYO YUDEN
C106	1u6.3V_4	0603	TAIYO YUDEN
C762	1u6.3V_4	0603	TAIYO YUDEN
C385	1u6.3V_4	0603	TAIYO YUDEN
C351	1u6.3V_4	0603	TAIYO YUDEN
C399	1u6.3V_4	0603	TAIYO YUDEN
C380	10u6.3V_6	0603	TAIYO YUDEN
C375	10u6.3V_6	0603	TAIYO YUDEN
C277	10u6.3V_6	0603	TAIYO YUDEN
C787	10u6.3V_6	0603	TAIYO YUDEN
C752	10u6.3V_6	0603	TAIYO YUDEN
C660	10u6.3V_6	0603	TAIYO YUDEN
C107	10u6.3V_6	0603	TAIYO YUDEN
C213	10u6.3V_6	0603	TAIYO YUDEN
C715	10u6.3V_6	0603	TAIYO YUDEN
C785	10u6.3V_6	0603	TAIYO YUDEN
R155	56.2F_4	0603	YAGEO
R153	56.2F_4	0603	YAGEO
C192	0.1u16V_4	0603	TAIYO YUDEN

<http://laptop-motherboard-schematic.blogspot.com/>

Qanta Computer Inc.
PROJECT : ZYA
Date: Wednesday, January 20, 2010 Sheet 26 of 50

<http://laptop-motherboard-schematic.blogspot.com/>

CRT

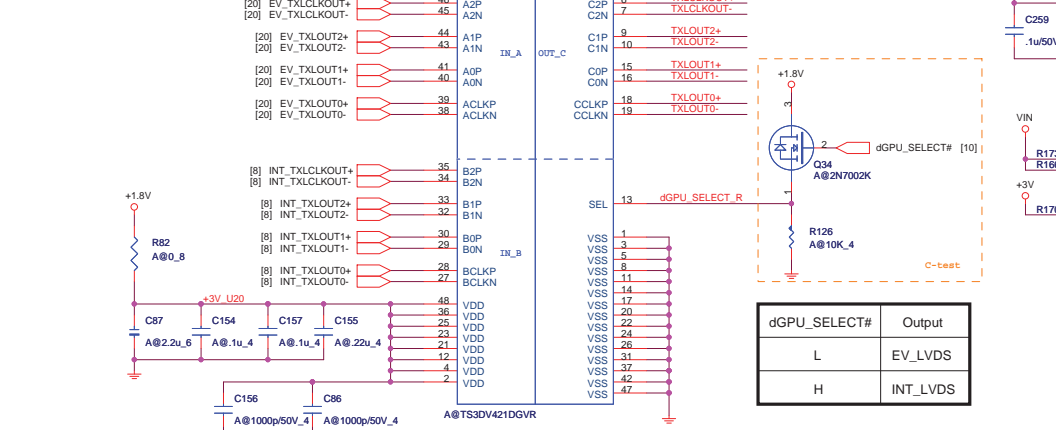


CRT E@ ONLY



S	Yn
0	EV
1	IV

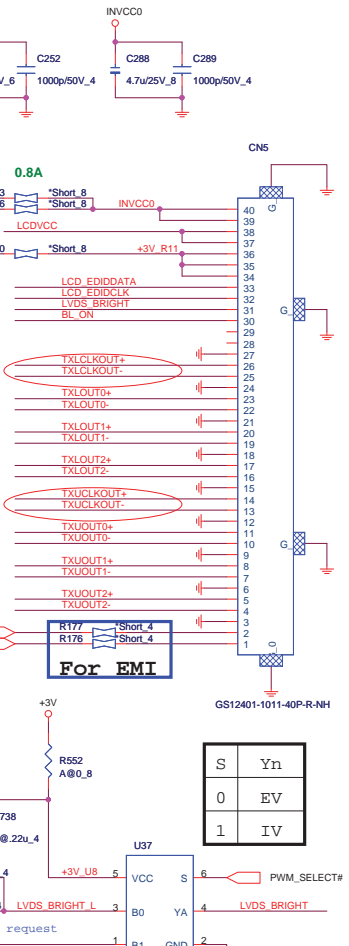
LVDS



PI3HDMI412PTBE	AL000412W00
TS3DV421DGVR	AL3DV421V00

dGPU_SELECT#	Output
L	EV_LVDS
H	INT_LVDS

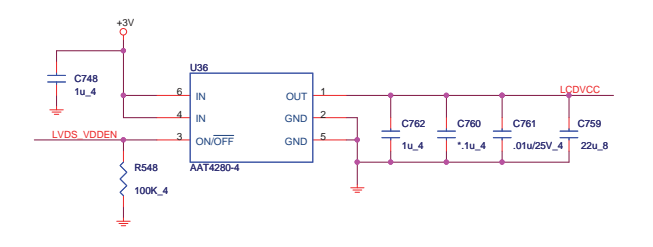
Rev: B reverse LVDS clock input of PIN define



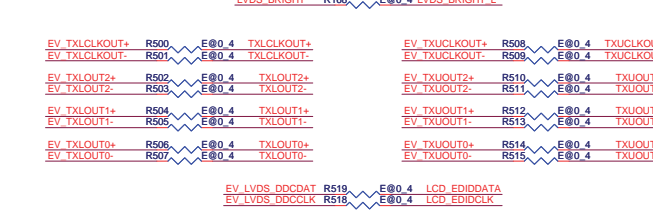
For EMI

S	Yn
0	EV
1	IV

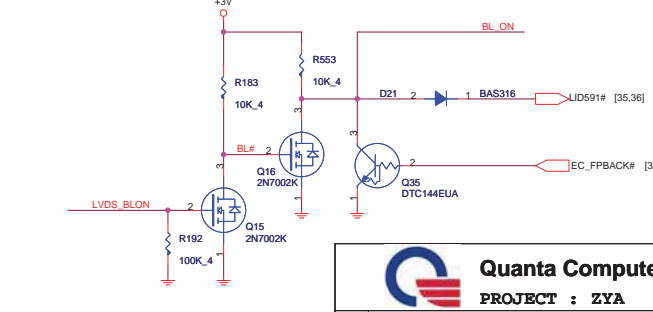
LCD Power




LVDS E@ ONLY



Backlight Control

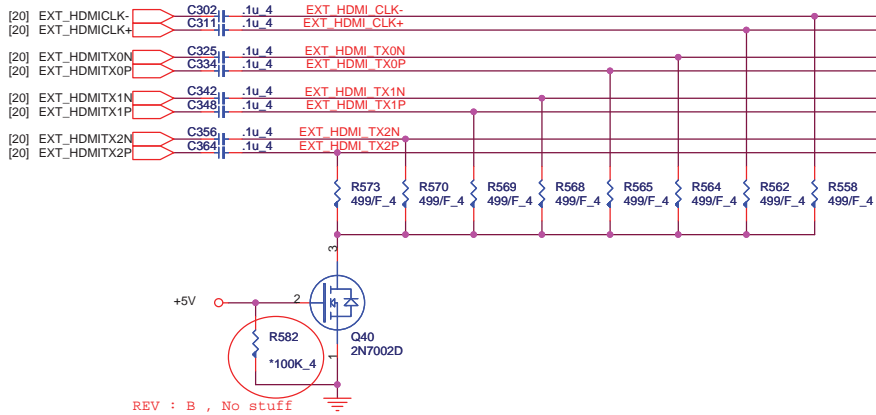




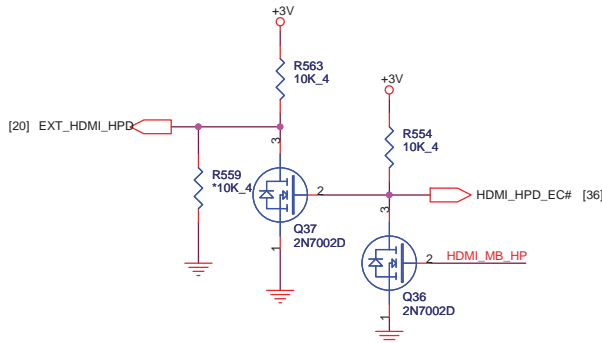
Quanta Computer Inc.
PROJECT : ZYA
CRT/LVDS/LID

Size	Document Number	Rev 1A
Date: Thursday, January 21, 2010	Sheet 27 of 50	

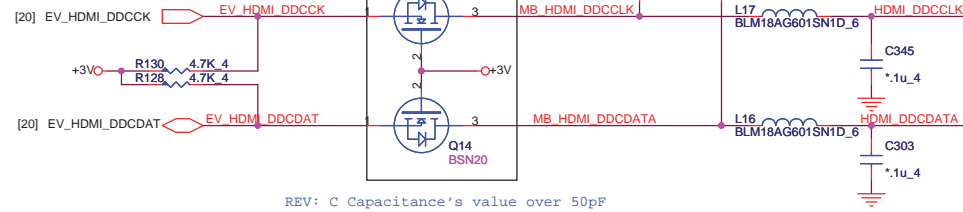
HDMI



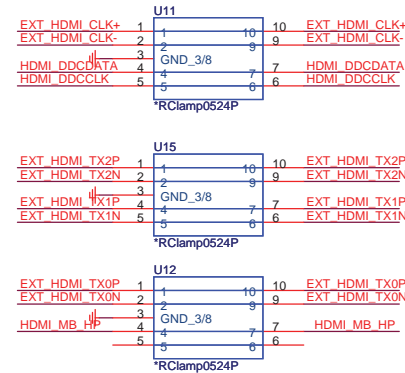
HDMI Hot-PLUG to EC and GPU



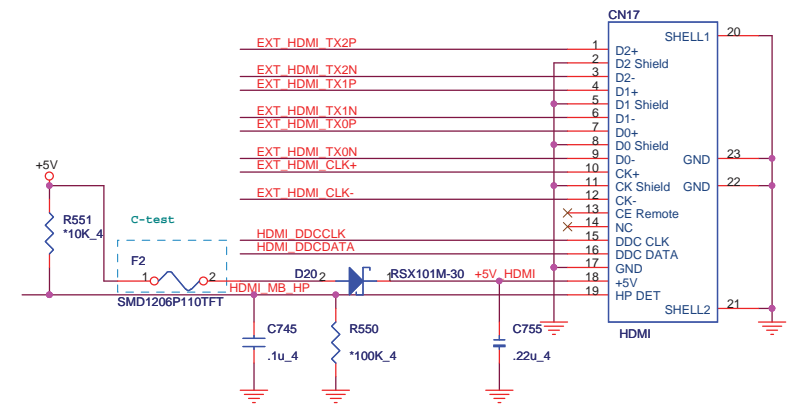
SDVO I2C Control



ESD Protect

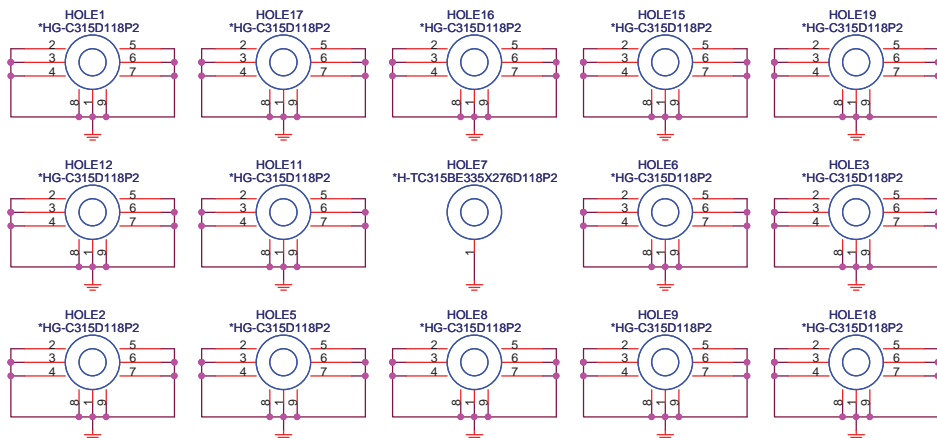


HDMI connector

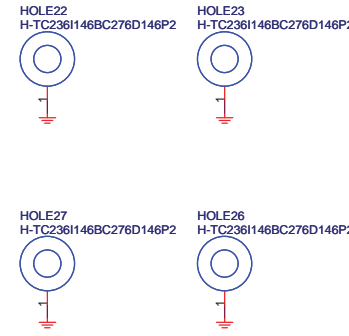


EXT_HDMI_CLK- R1008 *100_4 EXT_HDMI_CLK+
EXT_HDMI_TX2N R1007 *100_4 EXT_HDMI_TX2P
EXT_HDMI_TX1N R1008 *100_4 EXT_HDMI_TX1P
EXT_HDMI_TX0N R1008 *100_4 EXT_HDMI_TX0P
REV : B HDMI reserve 100 ohm parallel
resistor for EMI

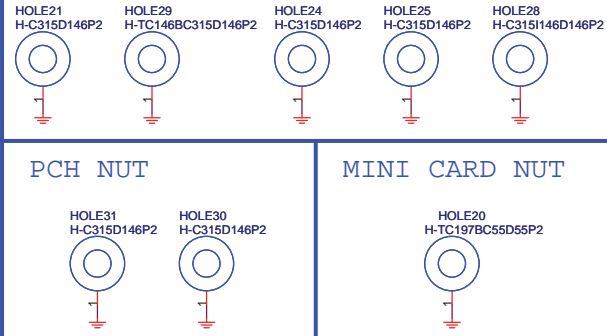
SCREW HOLE



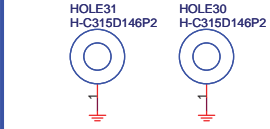
CPU NUT



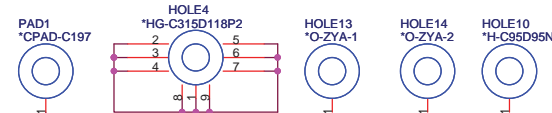
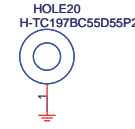
PCH & GPU NUT



PCH NUT



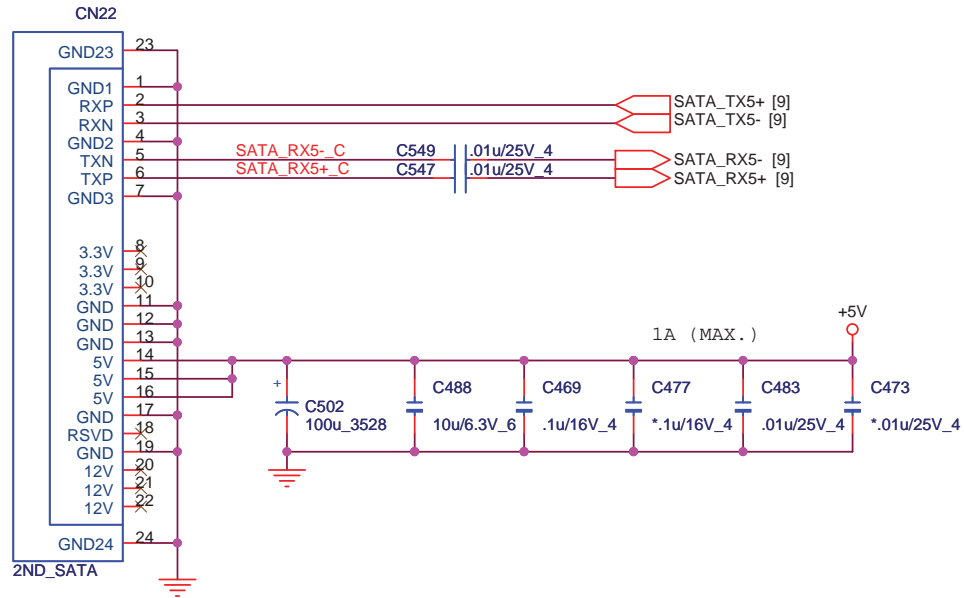
MINI CARD NUT



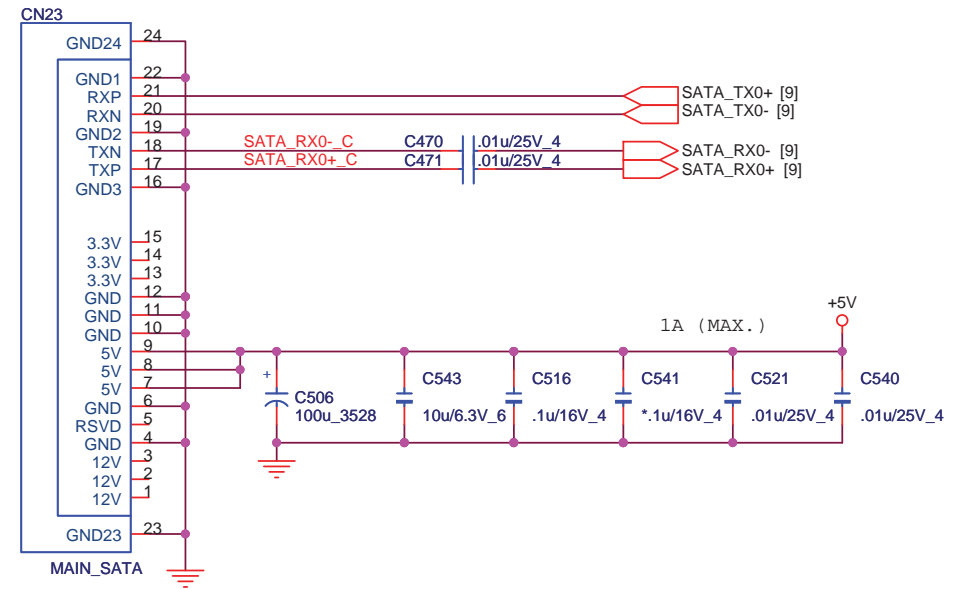
Quanta Computer Inc.
PROJECT : ZYA

Size	Document Number	HDMI/DP	Rev 1A
Date:	Thursday, January 21, 2010	Sheet 28 of 50	

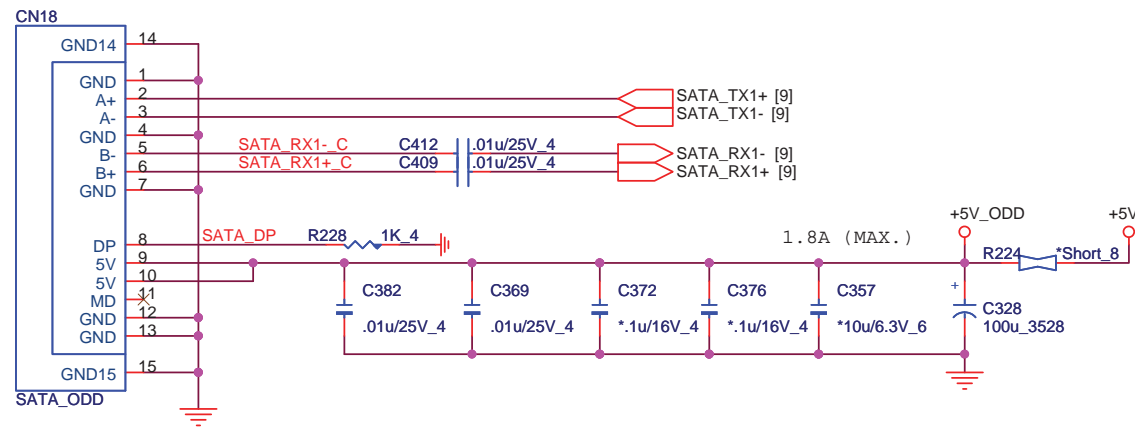
2nd SATA HDD (edge of board)



MAIN SATA HDD



ODD (SATA)



Quanta Computer Inc.

PROJECT : ZYA

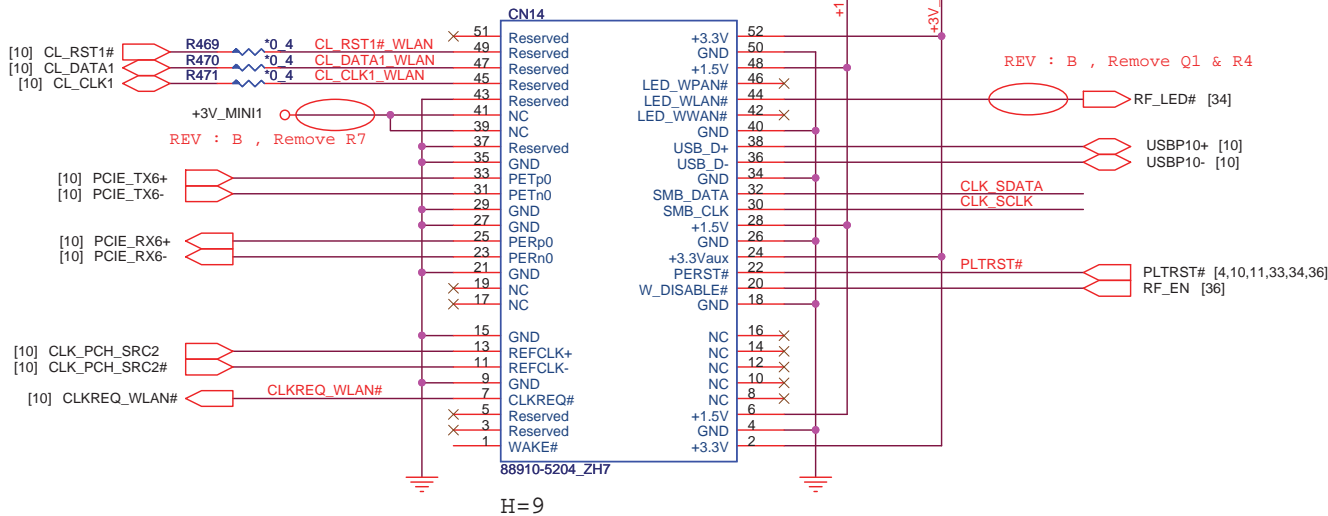
SATA-HDD/ODD

Size	Document Number	Rev 1A
Date: Wednesday, January 20, 2010	Sheet 29 of 50	

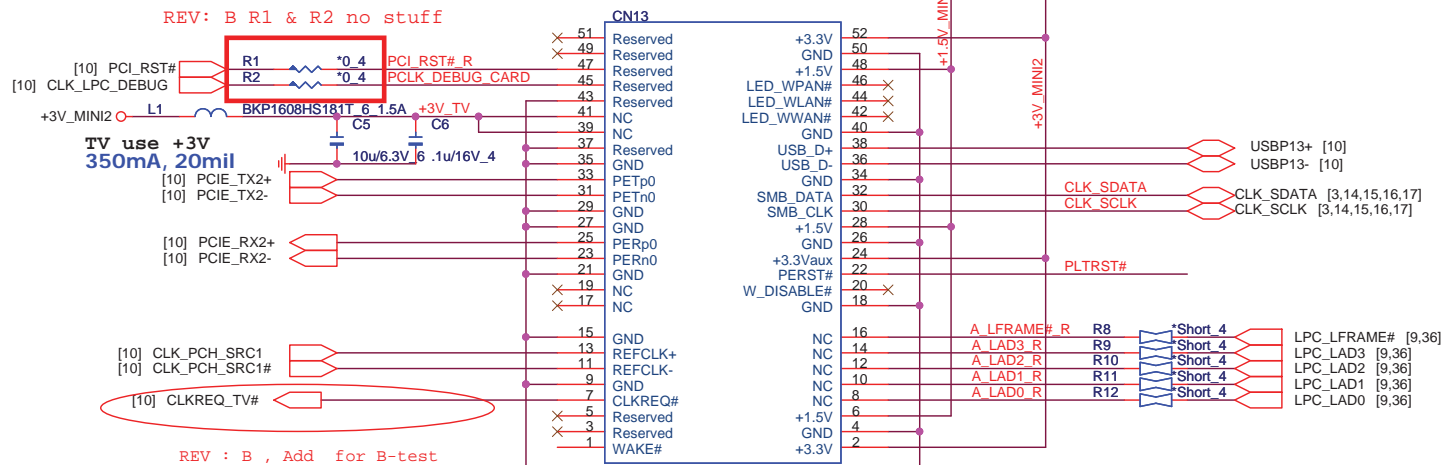
Wireless

+3.3V: 2700mA
+1.5V: 500mA

Fotprint : MIPCI-800055FB052GX-52P-LDV-NB4



TV and Debug

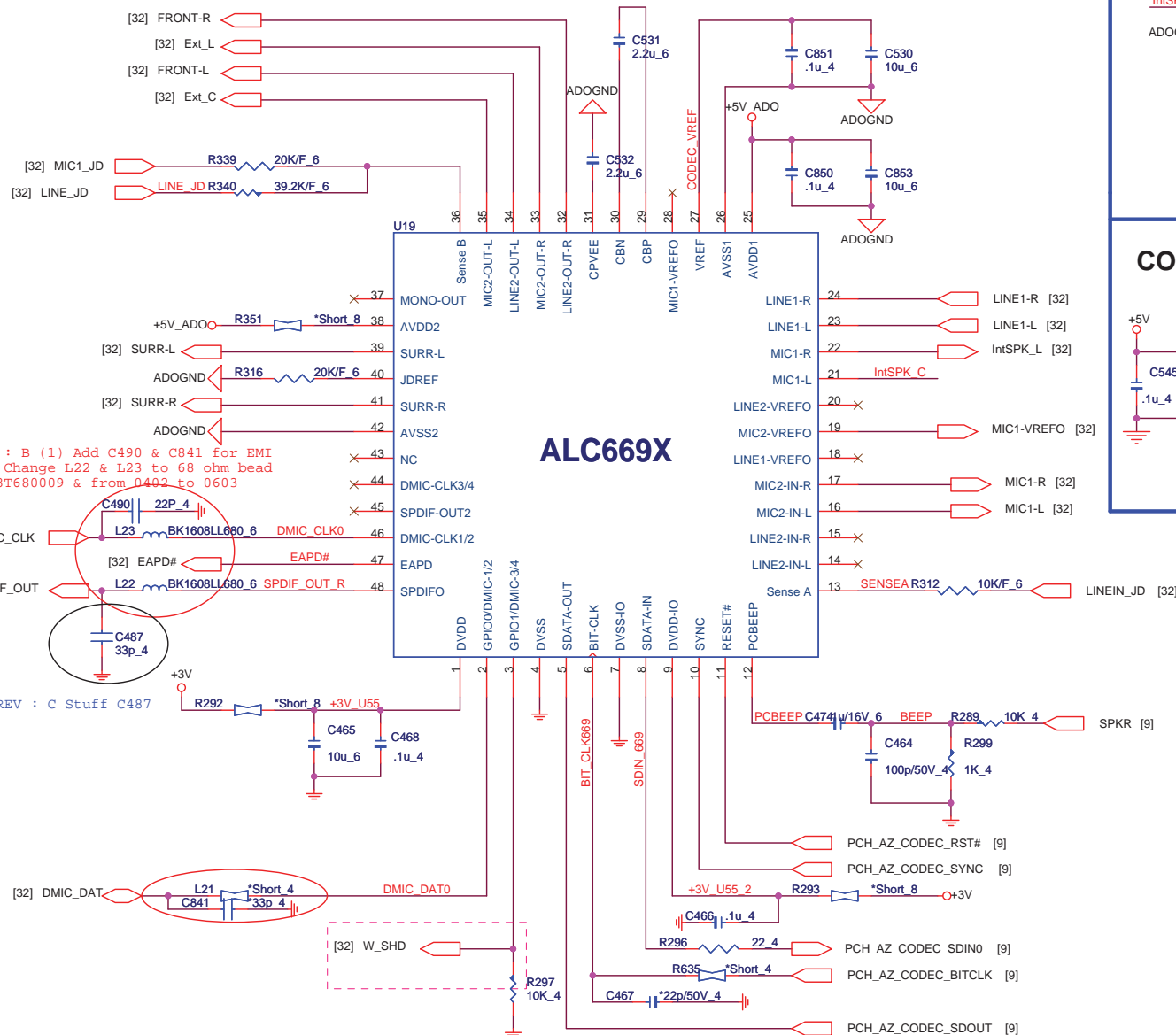


Quanta Computer Inc.
PROJECT : ZYA
MINI PCI-E card/TV

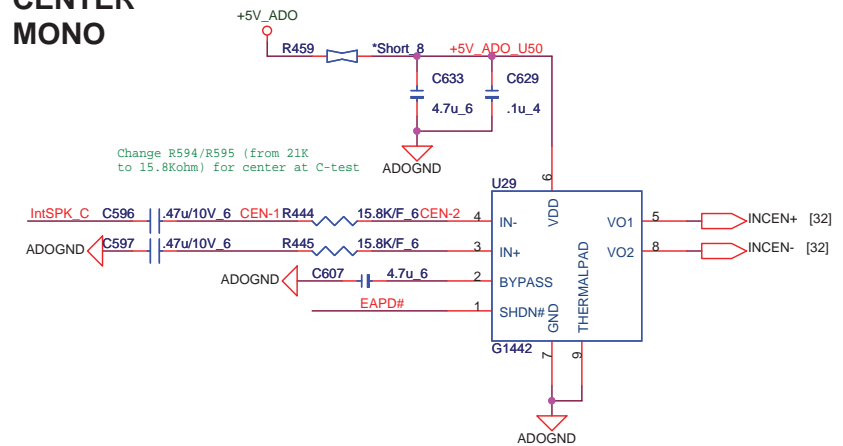
Size: Document Number: Wednesday, January 20, 2010 Sheet 30 of 50

Rev 1A

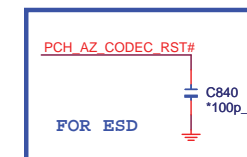
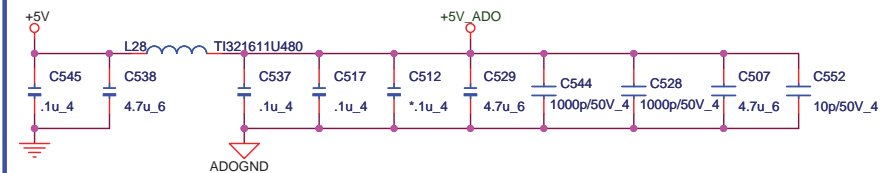
CODEC(ALC669X)



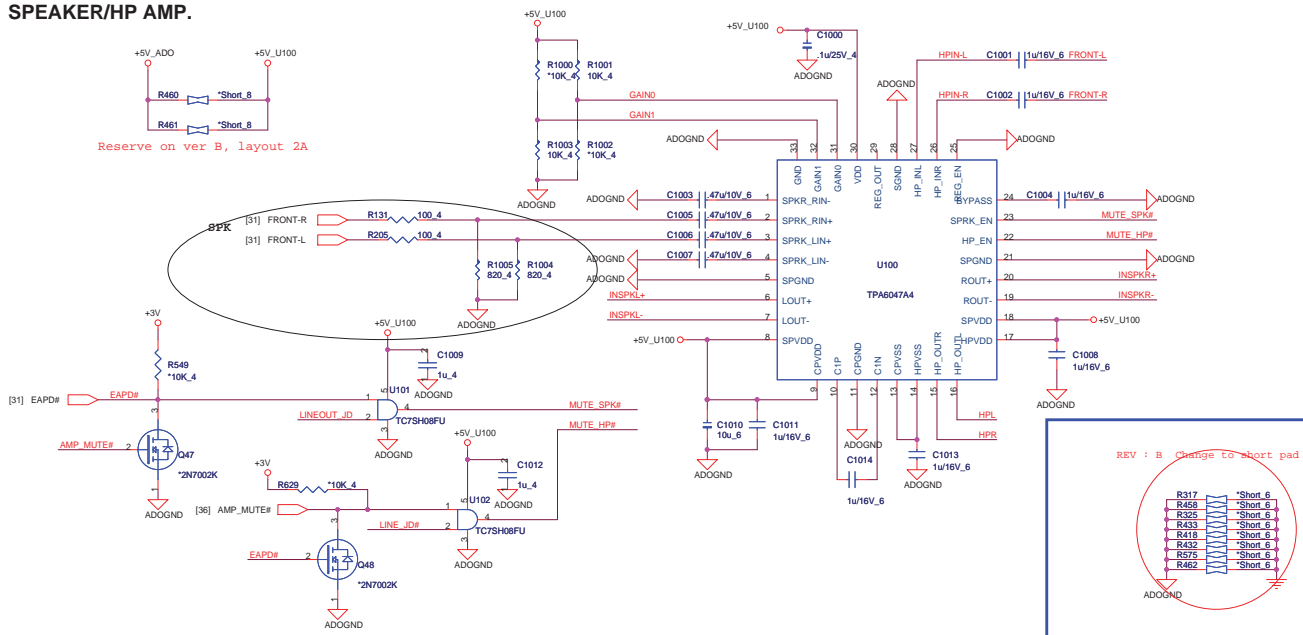
**CENTER
MONO**



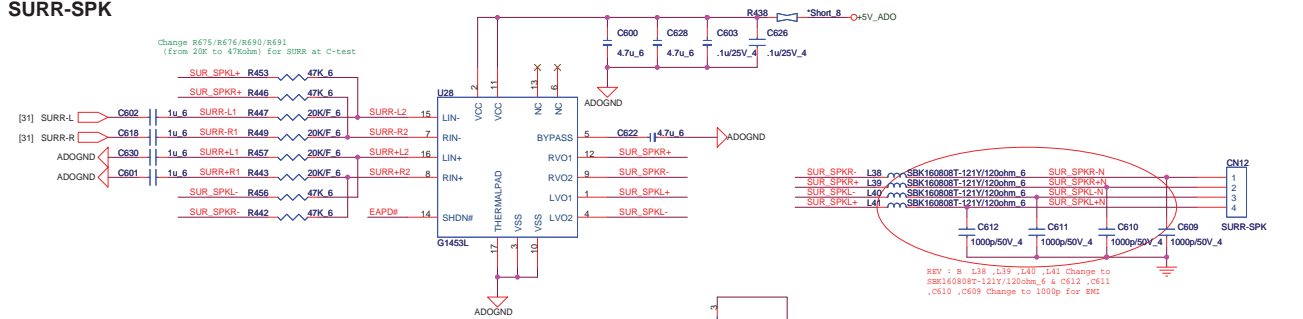
CODEC/AMP Power



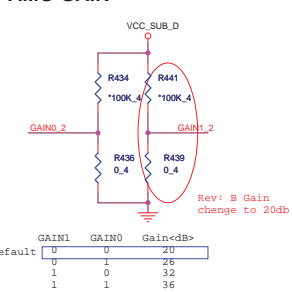
SPEAKER/HP AMP.



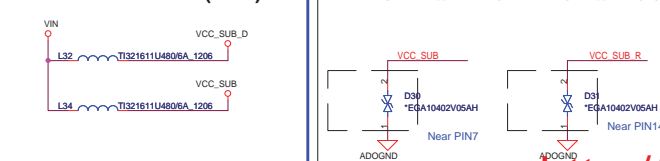
SURR-SPK



AMO GAIN



SUBWOOFER Power(AMP)

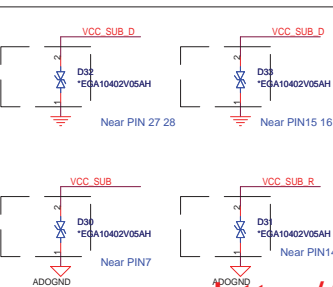


SUBWOOFER

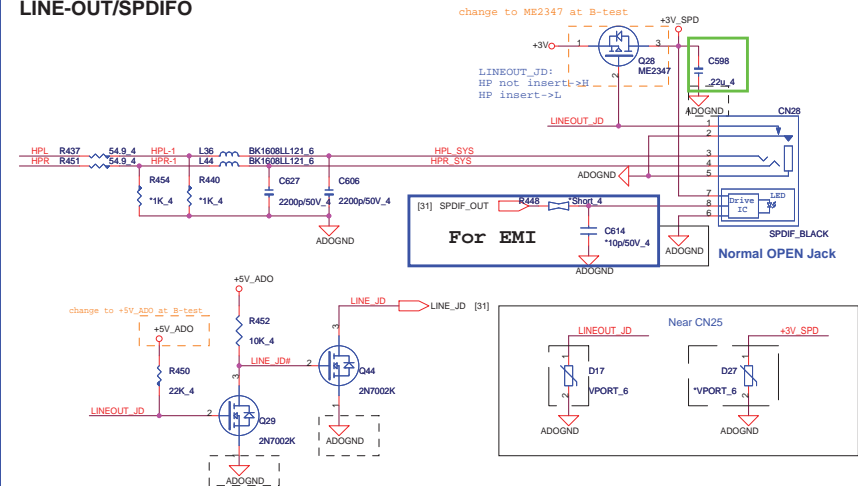
LFP for $f_c(-3dB)=500Hz$

SDZ : shutdown signal for IC<LOW=disable, HIGH=enable>

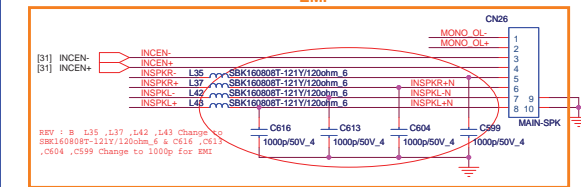
SHUTDOWN	TPA3110D1
L (0V-0.8V)	SHUTDOWN
H (2V - VDD)	ACTIVE



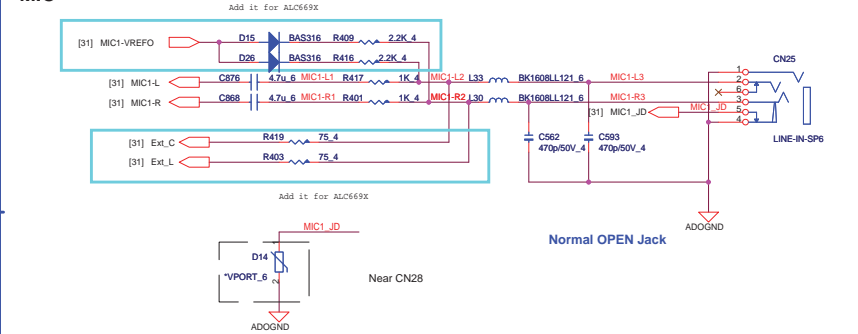
LINE-OUT/SPDIFO



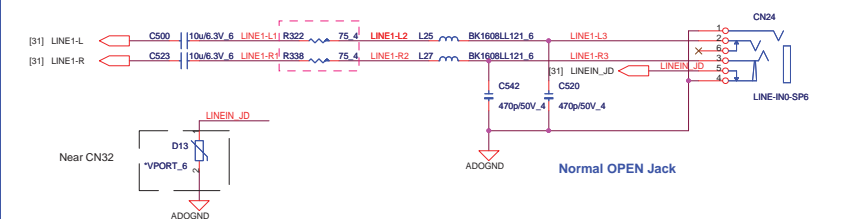
Main SPK/Center/Subwoofer EMI



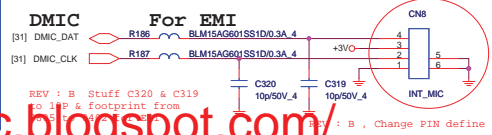
MIC



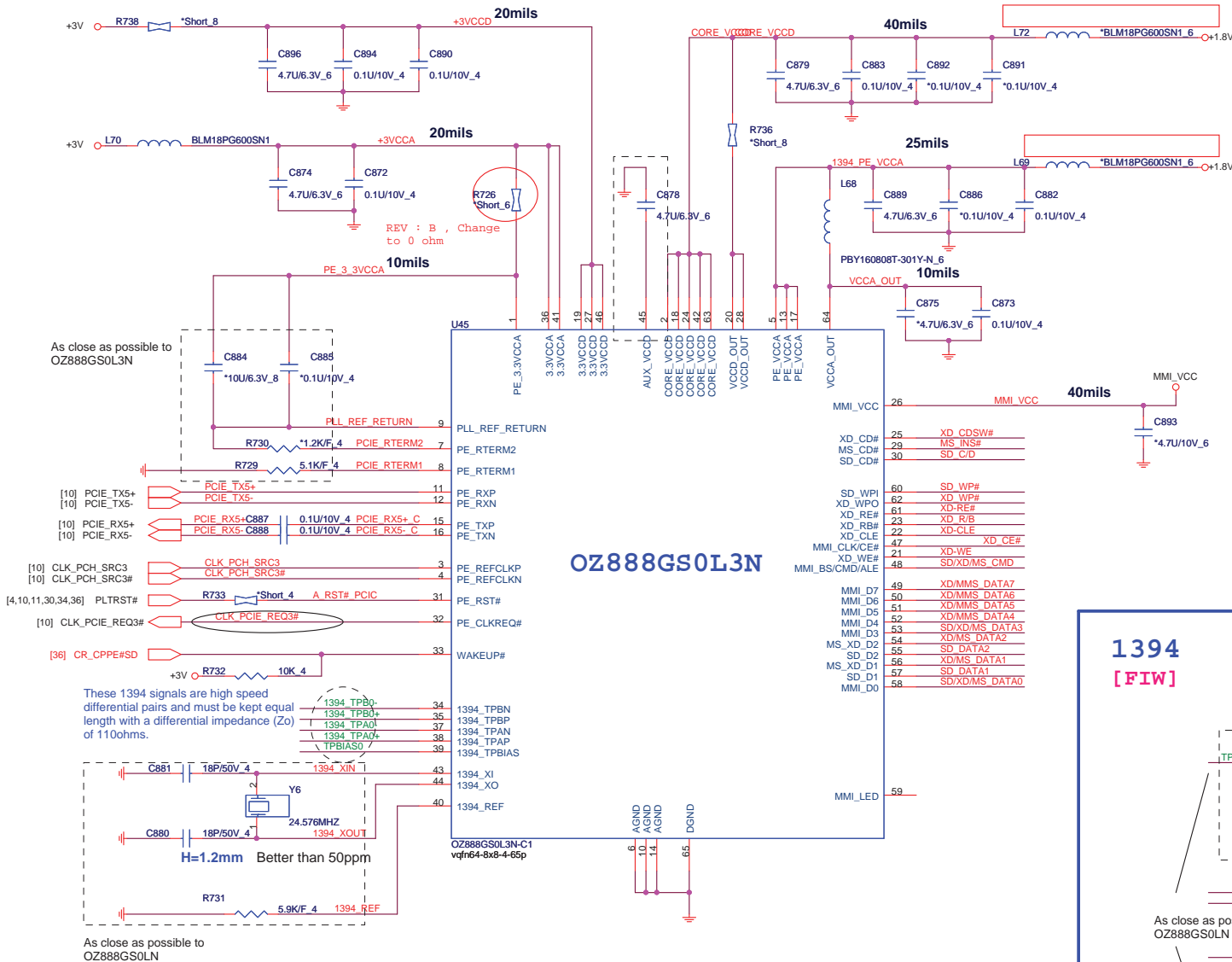
LINE IN



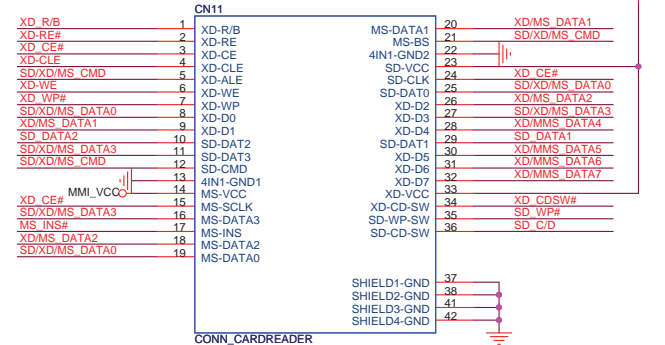
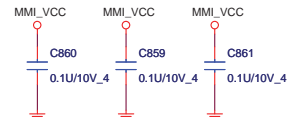
DMIC



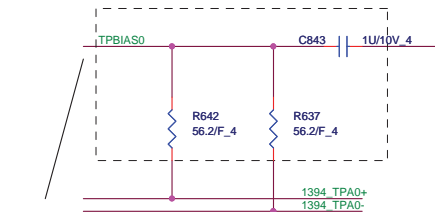
Each power pin is 100mA



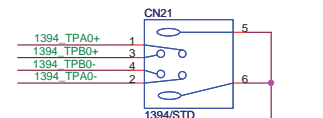
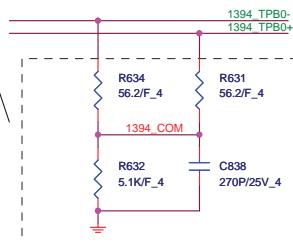
27



As close as possible to CN35 Pin12

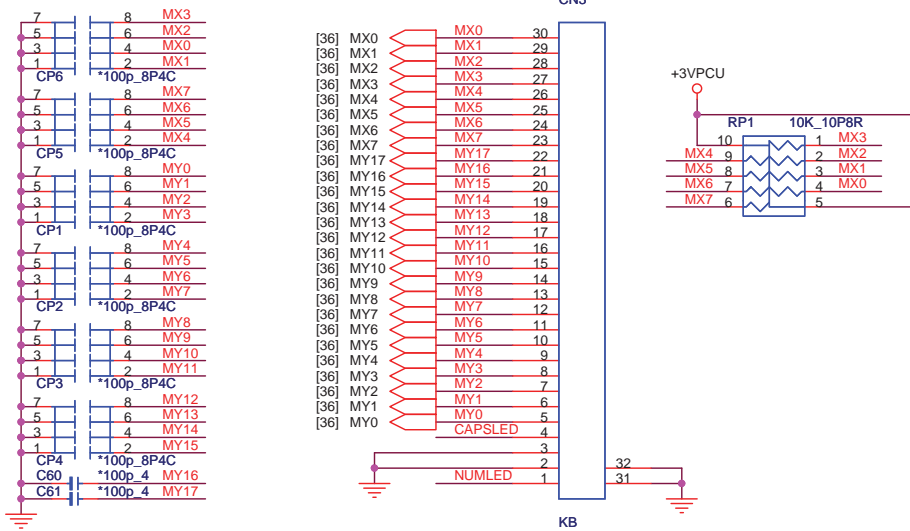
1394
[FIW]

As close as possible to OZ888GS0L3N

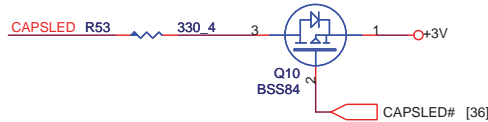


These 1394 signals are high speed differential pairs and must be kept equal length with a differential impedance (Zo) of 110ohms.

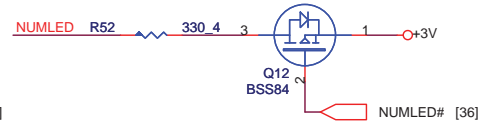
INT K/B



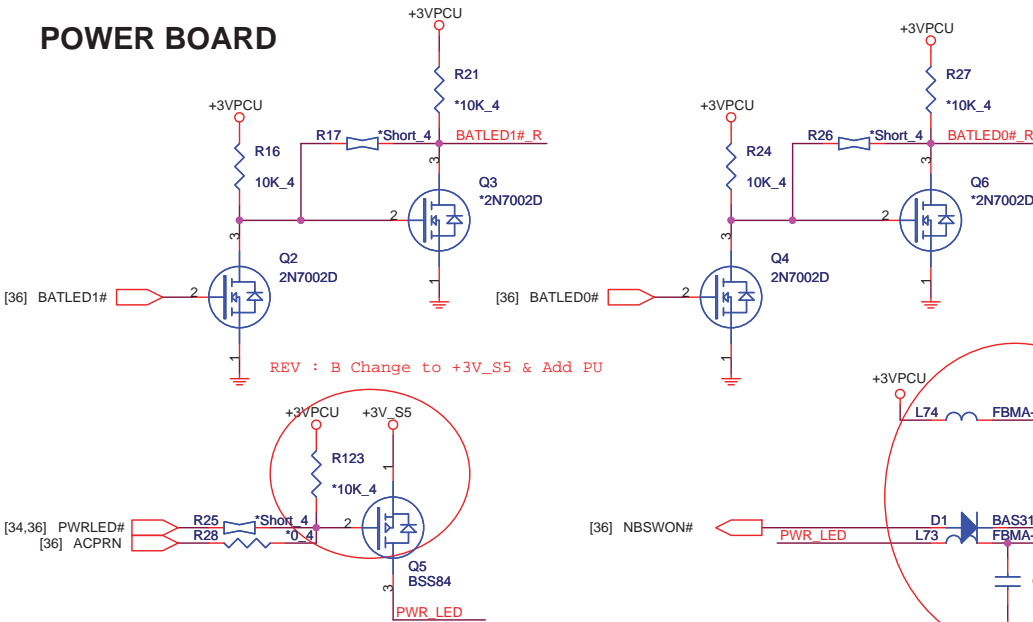
AMBER LED (HKC)



AMBER LED (HKC)

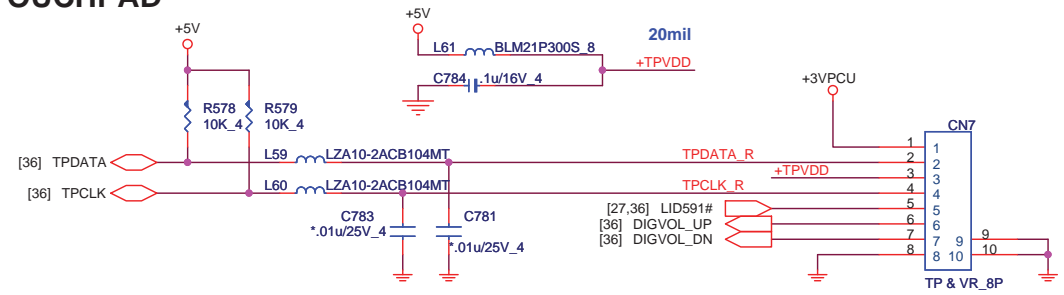


POWER BOARD

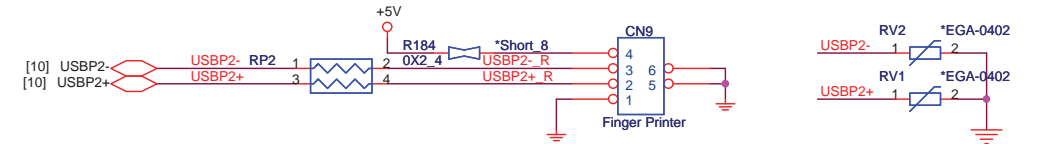


<http://laptop-motherboard-schematic.blogspot.com/>

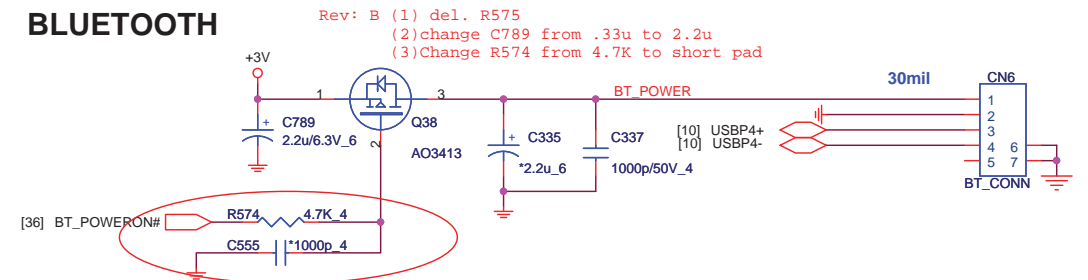
TOUCHPAD



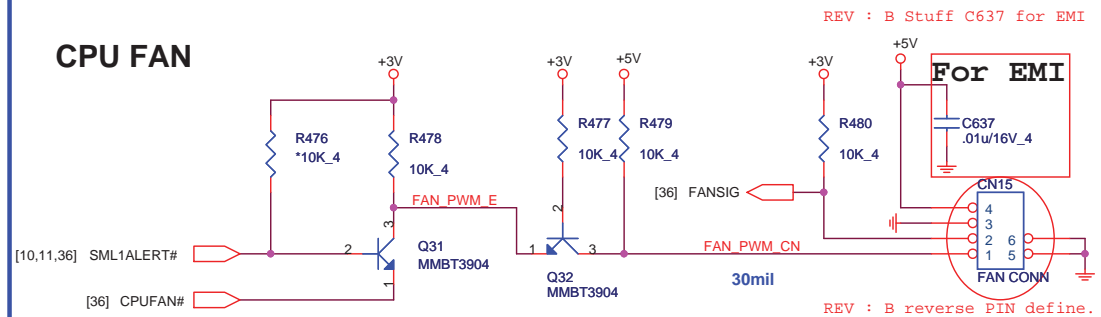
Finger-Printer



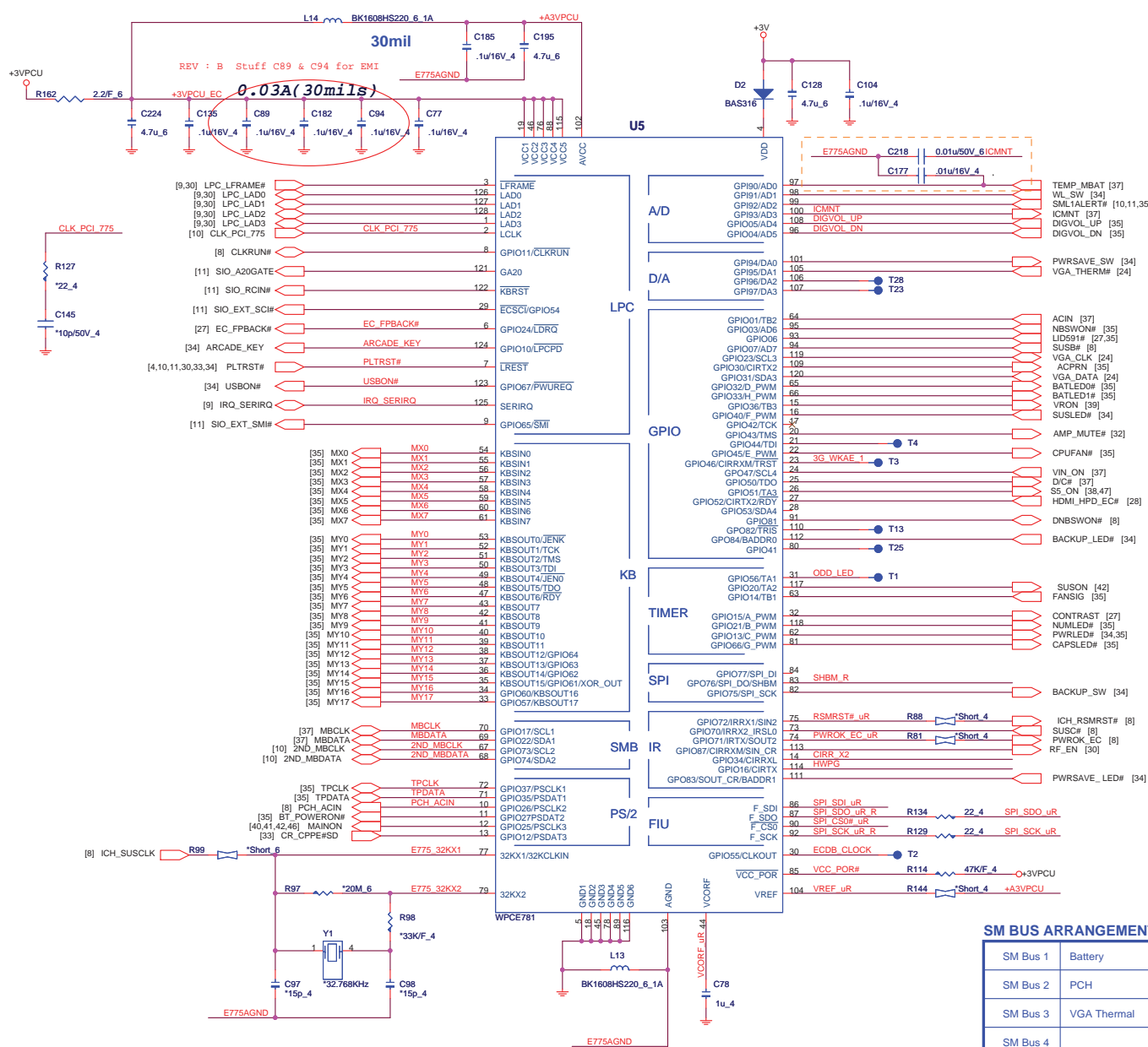
BLUETOOTH



CPU FAN



Quanta Computer Inc.
PROJECT : ZYA



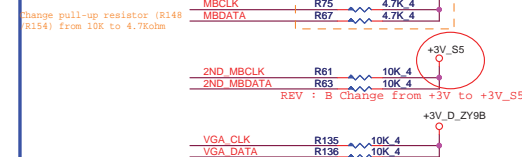
I/O ADDRESS SETTING

I/O Address	
BADDR1-0	Index Data
0 0	XOR TREE TEST MODE
0 1	CORE DEFINED
1 0	2Eh 2Fh
1 1	164Eh 164Fh

SHBM=0: Enable shared memory with host BIOS



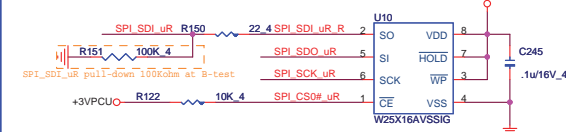
SM BUS PU



INTERNAL KEYBOARD STRIP SET



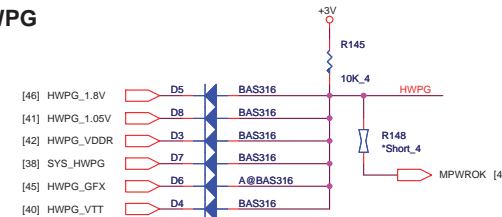
SPI FLASH



1/13 Confirm by vendor mail :
If the Southbridge enables 'Long Wait Abort' by default, the flash device should be 50MHz (or faster)

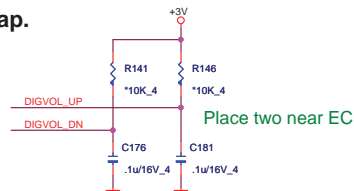
At 11/24 add
Winbond W25X16AVSSIG AKE38ZP0N01
EON EN25F16-100HIP AKE38ZA0Q00
AMIC A25J 016 AKE387N0800

HWPG

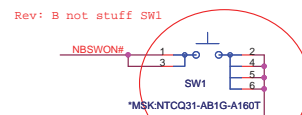


SM BUS ARRANGEMENT TABLE

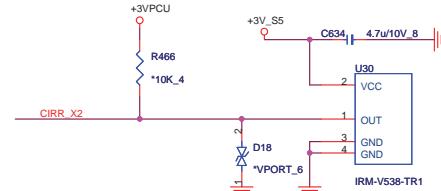
SM Bus 1	Battery
SM Bus 2	PCH
SM Bus 3	VGA Thermal
SM Bus 4	

VR Cap.

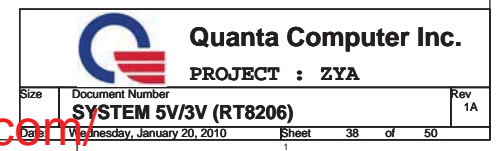
POWER-ON Switch



CIR

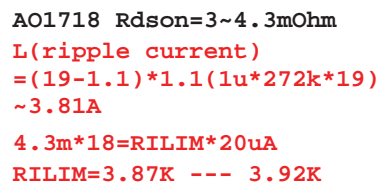







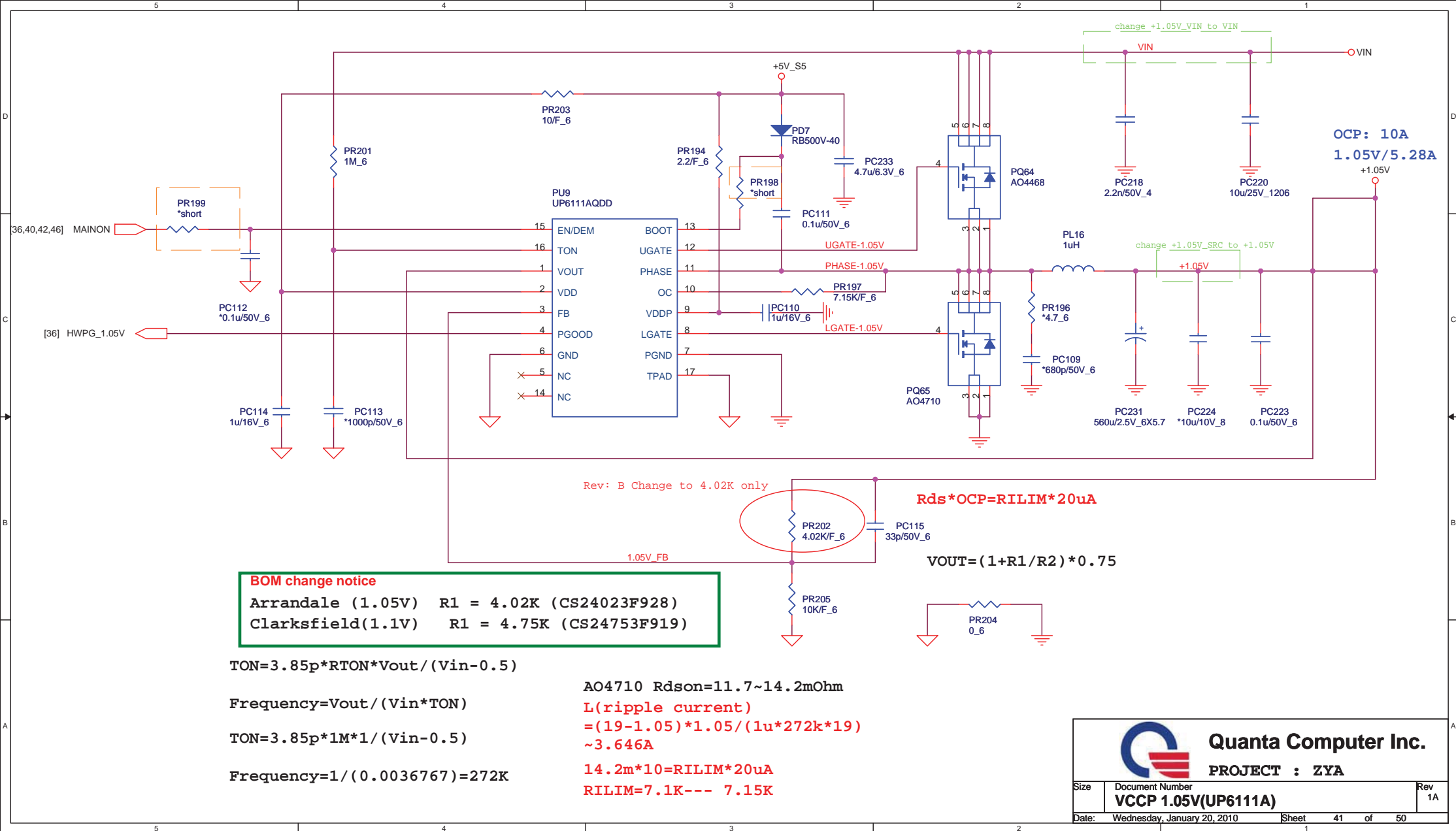


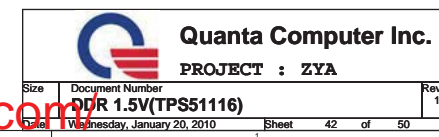
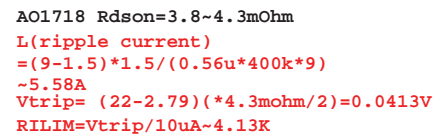
[36] HWPG_VTT



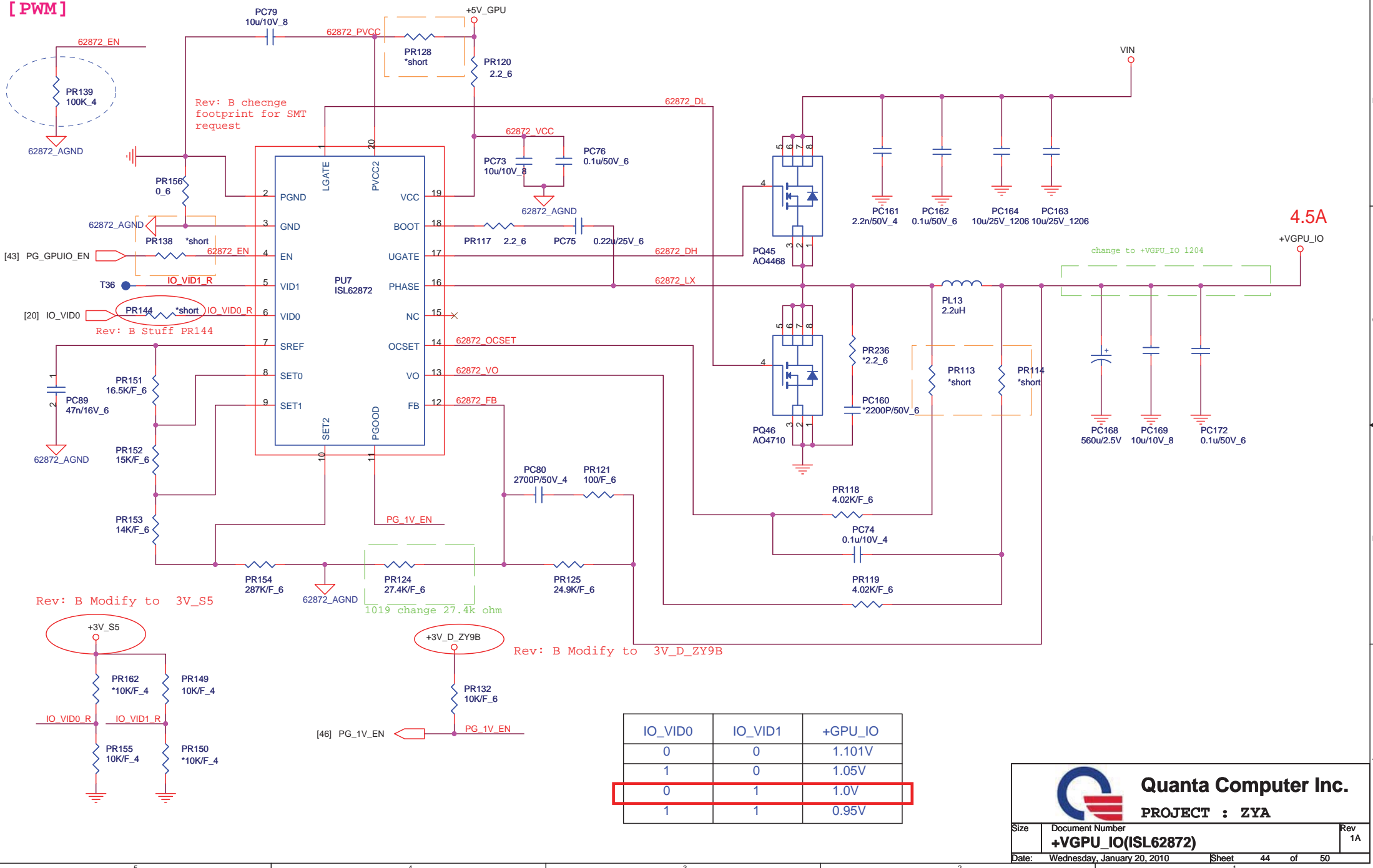
A circuit diagram showing a resistor labeled PR227 0_6 connected in a loop with a voltage source. The voltage source is represented by a red triangle pointing downwards on the left and a red line on the right. The resistor is represented by a blue zigzag line in the top wire.

 Quanta Computer Inc. PROJECT : ZYA		
Size	Document Number +VTT (UP6111A)	Rev 1A
Date:	Wednesday, January 20, 2010	Sheet 40 of 50

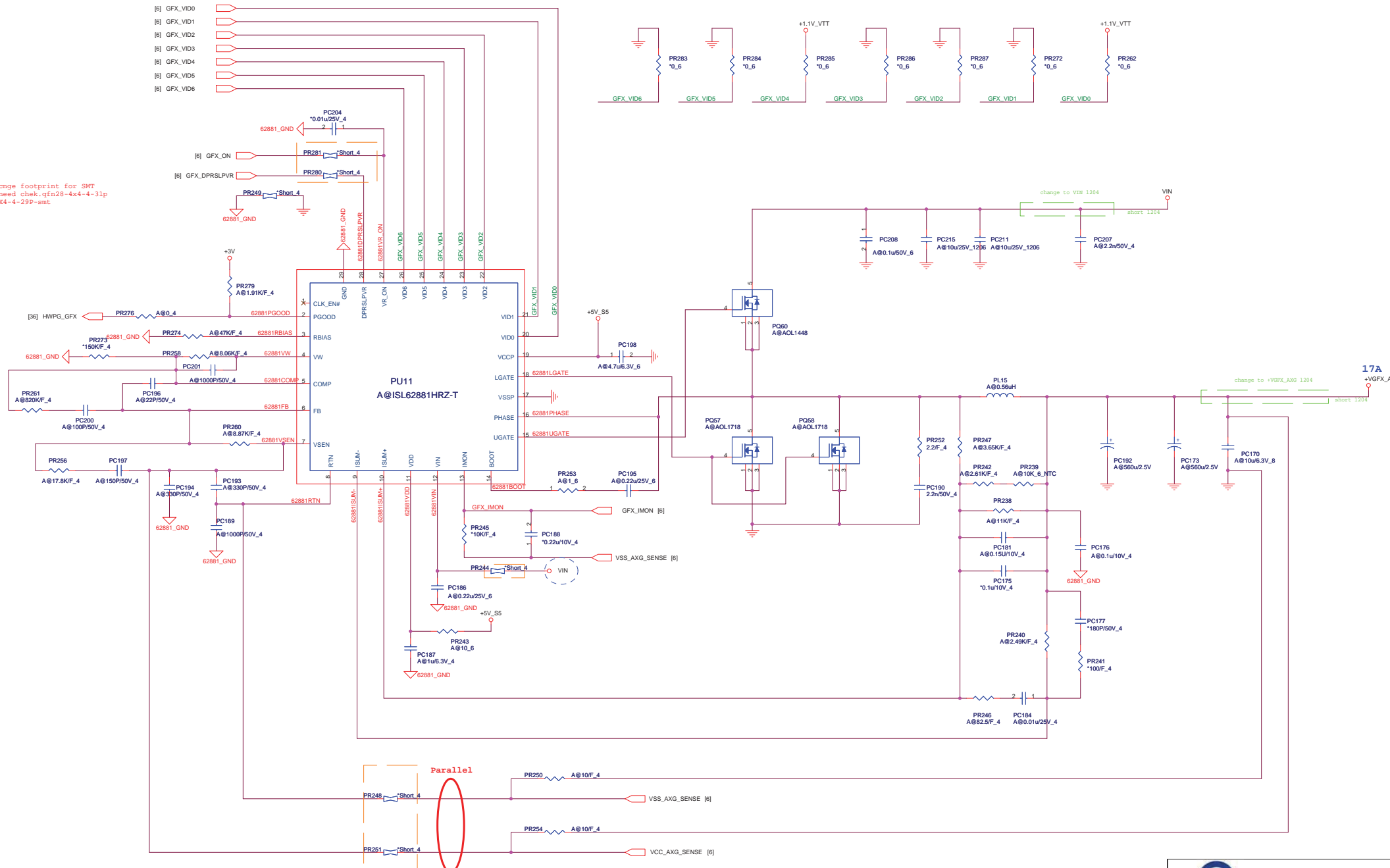




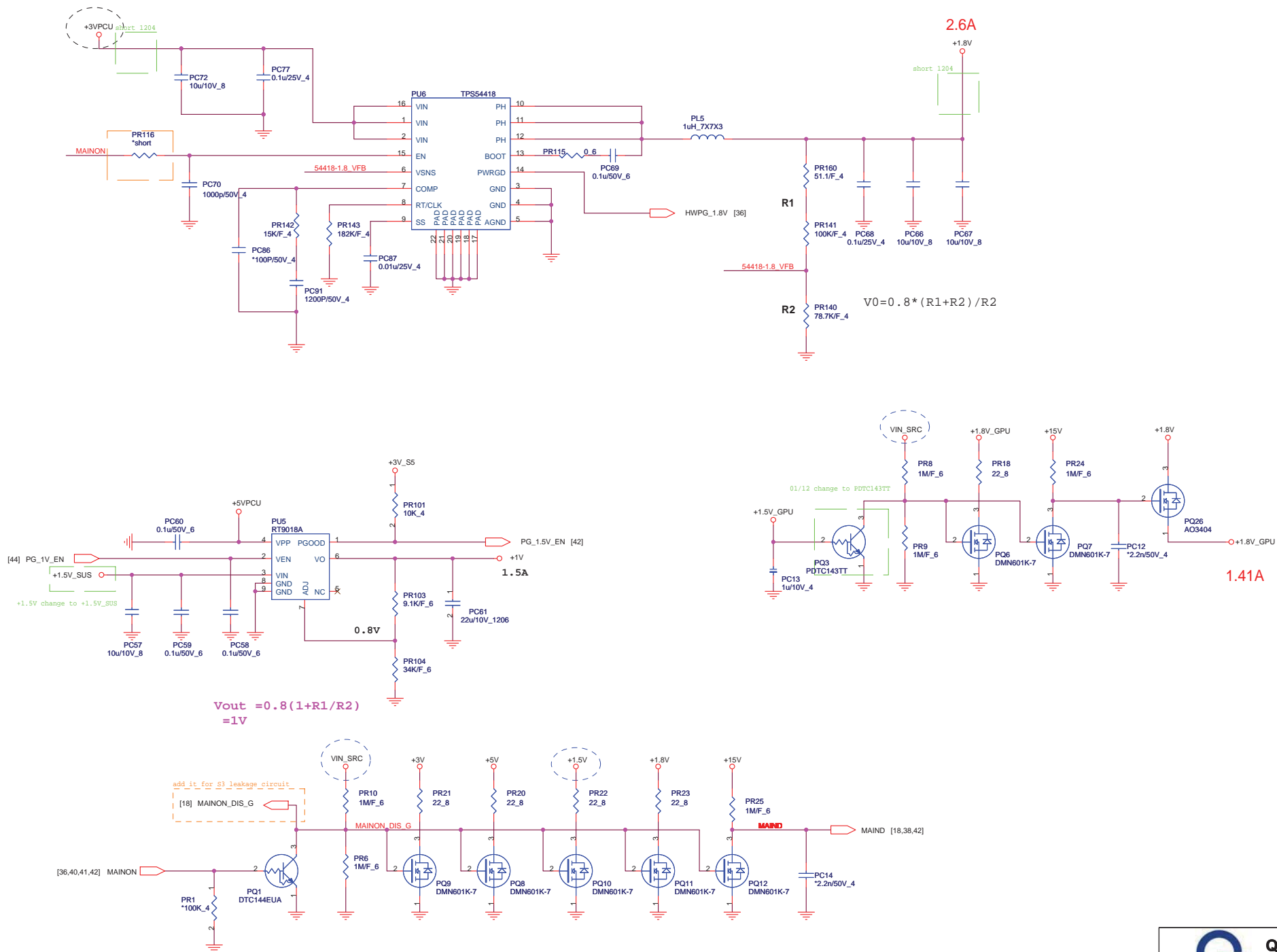
[PWM]

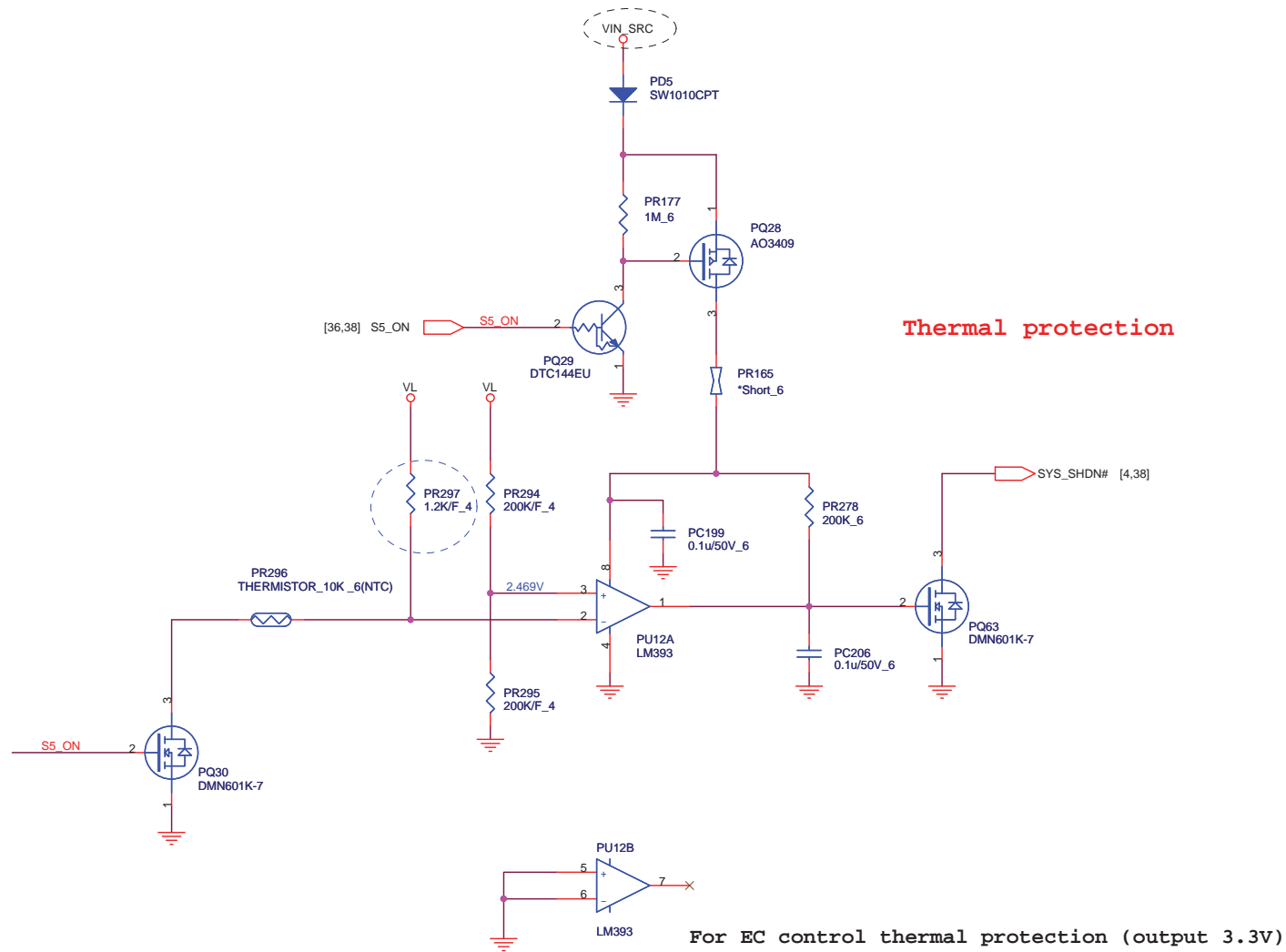


Rev: B checnge footprint for SMT request , need chek.qfn28-4x4-4-31p to QFN28-4X4-4-29P-smt

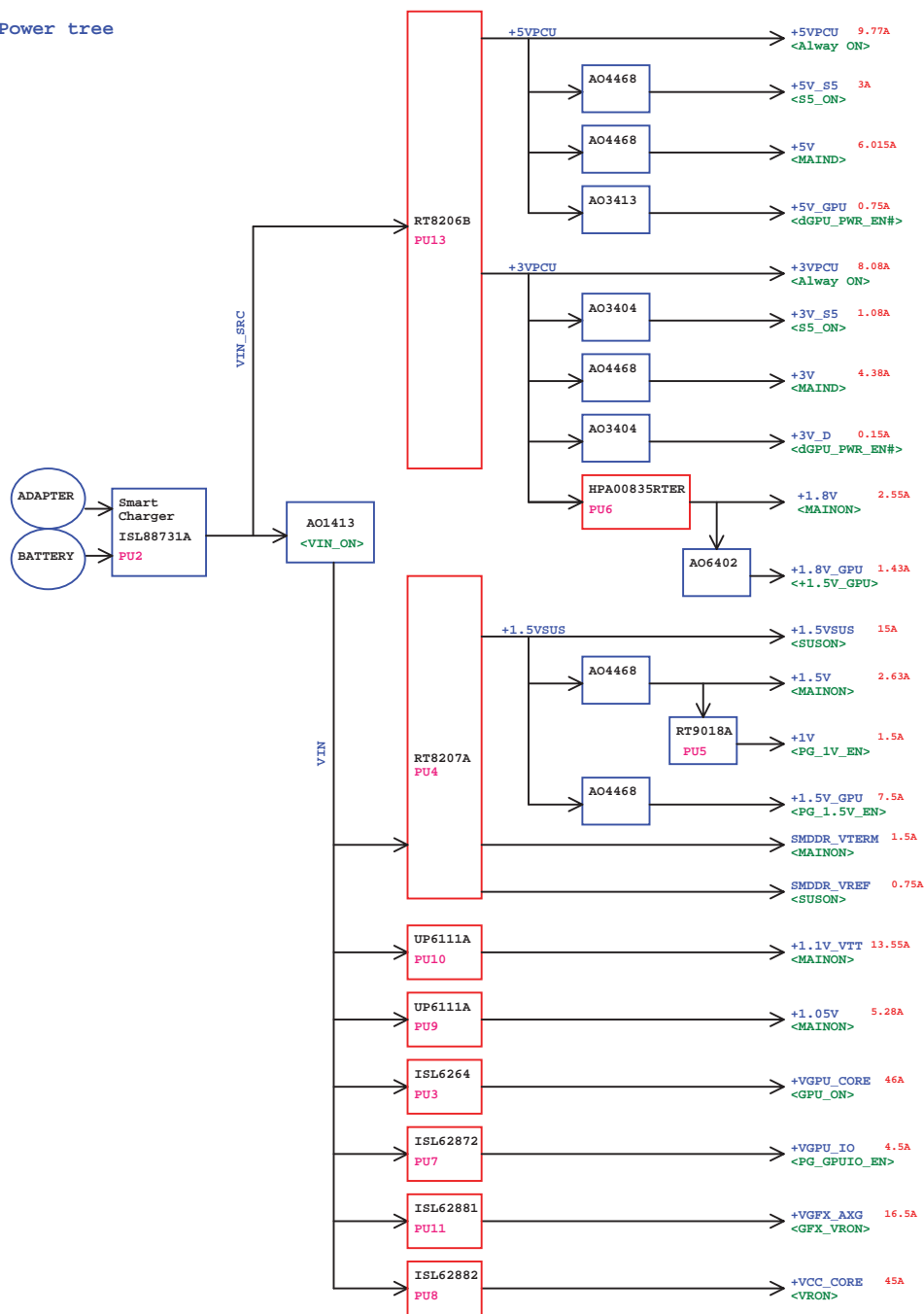


1.Level 1 Environment-related Substances Should NEVER be Used.
2.Purchase ink, paint, wire rods, and Welding resins only from the business Partners that Sony approves as Green Partners.





ZYB Power tree



Model	REV	CHANGE LIST	MODEL	ZY9B	
ZY9B MB	1A	FIRST RELEASED		FROM	To
		Page 3 : U20 Change pin define Page 4 : Not stuff R461 Page 5 : Add ZVP DMRSTH contact CPU to PCM Page 6 : Short Remove R110 f R126 Page 7 : No stuff R715 Page 8 : Add V4(25 Mhz) for TV function Page 10 : Add V4(25 Mhz) for internal VGA & C812=27pF,C833=22pF Page 11 : R318 Change PU from +3V_S5 to +3V for leakage Page 12 : For ZVA no support M1, No stuff R472 & R36 , stuff R473 ,R474 ,R43 & R44 Page 13 : No stuff R582 for leakage Page 14 : Remove R111 & R123 for leakage Page 15 : Modify DRAM RST for AMD request Page 16 : Reverse IVD3 clock input of PIN define for design error Page 17 : No stuff R582 for leakage Page 18 : HDMI reserve 100 ohm parallel resister for EMI Page 19 : Modify CN23 of symbol Page 20 : Short , Remove R7 Page 21 : Remove Q1 , R4 ,R31 & R2 Page 22 : Add C490 & C487 for EMI Page 23 : Change L22 & L23 to 68 ohm bead CX08T680009 & from 0402 to 0603 for EMI Page 24 : Change AMP for buyer request Page 25 : No stuff R428 and PU to +3V Page 26 : Change Audio conn. (CN24 & CN25) to normal open Page 27 : Change PIN define of IMIC(CN8) Page 28 : Stuff C320 & C319 to 10P & footprint from 0805 to 0402 for EMI Page 29 : L35 ,L37 ,L42 ,L43 Change to SRK1608087-121V/120ohm_6 & C616 ,C613 ,C604 ,C599 Change to 1000p for EMI Page 30 : L38 ,L39 ,L40 ,L41 Change to SRK1608087-121V/120ohm_6 & C612 ,C611 ,C610 ,C609 Change to 1000p for EMI Page 31 : Change R746 to 0 ohm for card reader function Page 32 : Remove the U46 circuit (LDO) Page 33 : Short 0 ohm for cost down Page 34 : Add R349 (Change to BC control) & reserve R350 Page 35 : Add C514 & C515 for EMI Page 36 : Add L75 ,L76 & L77 for EMI Page 37 : Stuff L63 & R2 & not stuff R620 ,R621 ,R608 & R609 for EMI Page 38 : (1) Reserve R123 & R0 to +3VPCU (2)Change Q5.3 PU from +3VPCU to +3V_S5 Page 39 : Change design for bluetooth Page 40 : CN15 change pin define Page 41 : Add L73 ,L74 , C551 & C550 for EMI Page 42 : Stuff C537 for EMI Page 43 : Change to short pad Page 44 : US_80 Change to WLAN LED Page 45 : R61 & R63 Change PU from +3V to +3V_S5 for leakage Page 46 : Stuff C89 & C94 for EMI Page 47 : H08 change footprint for SWF request Page 48 : PR225 (+1.1V VTF) chage to SP8(Aurbundle (1.05V) ,Clarksfield (1.1V)) Page 49 : PR202 Change to 4.02k ohm Page 50 : PR68 Change PU from +3V_D to +3V_D_ZY9B for VGA Sequenc Page 51 : PU7 change footprint for EMI request Page 52 : Stuff PR144 Page 53 : PR149 Change PU from +3V_D to +3V_S5 Page 54 : PR132 Change PU from +3V_D to +3V_D_ZY9B Page 55 : PU11 change footprint for EMI request		X	1A
	2A	Page 3 : U20 Change pin define Page 4 : Not stuff R461 Page 5 : Add ZVP DMRSTH contact CPU to PCM Page 6 : Short Remove R110 f R126 Page 7 : No stuff R715 Page 8 : Add V4(25 Mhz) for TV function Page 10 : Add V4(25 Mhz) for internal VGA & C812=27pF,C833=22pF Page 11 : R318 Change PU from +3V_S5 to +3V for leakage Page 12 : For ZVA no support M1, No stuff R472 & R36 , stuff R473 ,R474 ,R43 & R44 Page 13 : No stuff R582 for leakage Page 14 : Remove R111 & R123 for leakage Page 15 : Modify DRAM RST for AMD request Page 16 : Reverse IVD3 clock input of PIN define for design error Page 17 : No stuff R582 for leakage Page 18 : HDMI reserve 100 ohm parallel resister for EMI Page 19 : Modify CN23 of symbol Page 20 : Short , Remove R7 Page 21 : Remove Q1 , R4 ,R31 & R2 Page 22 : Add C490 & C487 for EMI Page 23 : Change L22 & L23 to 68 ohm bead CX08T680009 & from 0402 to 0603 for EMI Page 24 : Change AMP for buyer request Page 25 : No stuff R428 and PU to +3V Page 26 : Change Audio conn. (CN24 & CN25) to normal open Page 27 : Change PIN define of IMIC(CN8) Page 28 : Stuff C320 & C319 to 10P & footprint from 0805 to 0402 for EMI Page 29 : L35 ,L37 ,L42 ,L43 Change to SRK1608087-121V/120ohm_6 & C616 ,C613 ,C604 ,C599 Change to 1000p for EMI Page 30 : L38 ,L39 ,L40 ,L41 Change to SRK1608087-121V/120ohm_6 & C612 ,C611 ,C610 ,C609 Change to 1000p for EMI Page 31 : Change R746 to 0 ohm for card reader function Page 32 : Remove the U46 circuit (LDO) Page 33 : Short 0 ohm for cost down Page 34 : Add R349 (Change to BC control) & reserve R350 Page 35 : Add C514 & C515 for EMI Page 36 : Add L75 ,L76 & L77 for EMI Page 37 : Stuff L63 & R2 & not stuff R620 ,R621 ,R608 & R609 for EMI Page 38 : (1) Reserve R123 & R0 to +3VPCU (2)Change Q5.3 PU from +3VPCU to +3V_S5 Page 39 : Change design for bluetooth Page 40 : CN15 change pin define Page 41 : Add L73 ,L74 , C551 & C550 for EMI Page 42 : Stuff C537 for EMI Page 43 : Change to short pad Page 44 : US_80 Change to WLAN LED Page 45 : R61 & R63 Change PU from +3V to +3V_S5 for leakage Page 46 : Stuff C89 & C94 for EMI Page 47 : H08 change footprint for SWF request Page 48 : PR225 (+1.1V VTF) chage to SP8(Aurbundle (1.05V) ,Clarksfield (1.1V)) Page 49 : PR202 Change to 4.02k ohm Page 50 : PR68 Change PU from +3V_D to +3V_D_ZY9B for VGA Sequenc Page 51 : PU7 change footprint for EMI request Page 52 : Stuff PR144 Page 53 : PR149 Change PU from +3V_D to +3V_S5 Page 54 : PR132 Change PU from +3V_D to +3V_D_ZY9B Page 55 : PU11 change footprint for EMI request		X	1A
	3A	All Page :Change Location: R395 ,R734 ,R201 ,R702 ,R689 ,R708 ,R640 ,R646 ,R328 ,R661 ,R323 ,R372 ,R389 ,R456 ,R320 ,R636 ,R300 ,R333 ,R332 ,R662 ,R652 ,R306 ,R104 ,R15 ,R35 ,R220 ,R231 ,R106 ,R49 ,L4 ,L48 ,L49 ,L45 ,R69 ,R70 ,R73 ,R166 ,R170 ,R177 ,R176 ,R557 ,R224 ,R5 ,R6 ,R8 ,R9 ,R10 ,R11 ,R12 ,R351 ,R292 ,L21 ,R635 ,R738 ,R726 ,R736 ,R733 ,R293 ,R459 ,R460 ,R461 ,R438 ,R435 ,R455 ,R448 ,R186 ,R187 ,R246 ,R258 ,R263 ,R260 ,R350 ,R17 ,R26 ,R25 ,R184 ,R99 ,R128 ,R88 ,R81 ,R144 ,R148 ,R204 ,R203 to short pad Page 27 : Add fuse Location : F1 for safety requirement Page 27 : circuitry update Location : Q34 & R126 for leakage current Page 28 : Add fuse Location : F2 for safety requirement Page 28 : circuitry update Location : Q14 & Q1 , Add R128 & R130 for capacitance's value over 50pF Page 29 : Remove 0 ohm location , R314 ,R336 for cost down. Page 30 : Remove Q100 ,Q101 ,R1014 ,R1005 Page 30 : C622 change from 1u.0402 to 4.7u _0603 Page 30 : Add D27 for SPD Page 31 : Remove 0 ohm location : R644 ,R639 ,R633 ,R630 f, R349 for cost down. Page 34 : Add D28 & D29 for ESD		X	1A
	3C			X	1A

<http://laptop-motherboard-schematic.blogspot.com/>

EC GPIO Setting

Pin Name	Net Name	Setting	Description
GPIO1	ACIN	GPI	EC Detect AC Adapter State
GPIO3	NBSWON#	GPI	Pwr switch in
GPIO4/AD5	DIGVOL_DN	GPI	Digital Volume wheel.
GPIO5/AD4	DIGVOL_UP	GPI	Digital Volume wheel.
GPIO6	LIDSW#	GPI	Reserved for Lid function
GPIO7	SUSB#	GPI	S.B sleep S3 pin
GPIO10/LPCPD#	ARCADE_KEY	GPI	Arcade Button switch
GPIO11/CLKRUN#	CLKRUN#	O	Clock Run
GPIO12/PSDA13	CR_CPPE#SD	GPI	OZ888 Wake indicator
GPIO13/C_PWM	PWRLED#	O	Power on LED drive
GPIO14/TB1	FANSIG	GPI	To detect FAN speed
GPIO15/A_PWM	CONTRAST	O	EC PWM for Panel Brightness
GPIO16/CIRTX	HWPG	GPI	
GPIO17/SC11	MBCLK	O	SMBus Clock for M/B
GPIO20/T_A3	SUSON	GPO	S3 Power Panel
GPIO21/B_PWM	NUMLED#	O	Number Lock LED drive
GPIO22/SDA1	MBDATA	I/O	SMBus Data for M/B
GPIO23/SC13	VGA_CLK	O	SMBus Clock for acer ID flash
GPIO24/LDR0#	EC_FPBACK#	GPO	Panel back light control
GPIO25/PSCLK3	MAINON	GPO	Turn On/Off main power
GPIO26/PSCLK2	PCH_ACIN	GPI	PCH Power
GPIO27/PSDA12	BT_POWERON#	GPO	Turn On/Off bluetooth power
GPIO30/CIRTX2	ACPRN	GPI	
GPIO31/SDA3	VGA_DATA	I/O	SMBus Data for acer ID flash
GPIO32/D_PWM	BATLED#	GPO	Battery status LED drive
GPIO33/H_PWM	BATLED#	GPO	Battery status LED drive
GPIO34/CIRTX1	CIR_X2	GPI	CIR signal
GPIO35/PSDA1	TPDATA	O	PS/2 data for touch pad
GPIO36/TB3	VRON	GPO	Turn On/Off CPU Power
GPIO37/PSCLK1	TPCLK	O	PS/2 clock for touch pad
GPIO40/F_PWM	SUSLED	GPO	S3 state LED drive
GPIO42/CLK		GPI	No used
GPIO43/TMS	AMP_MUTE#	GPO	Turn On/Off Audio Amplifier
GPIO44/TD1		GPI	No used
GPIO45/E_PWM	CPUFAN#	O	EC PWM for Fan Module
GPIO46/cirrxm/trst#		GPI	No used
GPIO47/SC14	VIN_ON	GPI	Turn On/Off VIN_SRC Power plane
GPIO50/TDO	D/C#	GPO	Battery charge / discharge control
GPIO51/TA3	SS_ON	GPO	Turn On/Off S5 Power plane
GPIO52/cirx2/trd#	HDMI_HPD_EC#	GPI	EC Detect HDMI State
GPIO53/SDA4		O	No used
GPIO54/E_CSC#	SIO_EXT_SC1#	GPI	EC SCI
GPIO55/CLKOUT	ECDB_CLOCK	GPI	EC core clock
GPIO56/TA1		GPI	No used
GPIO57/KBSOUT17	MY17	O	Keyboard scan output
GPIO60/KBSOUT16	MY16	O	Keyboard scan output
GPIO61/KBSOUT15	MY15	O	Keyboard scan output
GPIO62/KBSOUT14	MY14	O	Keyboard scan output
GPIO63/KBSOUT13	MY13	O	Keyboard scan output
GPIO64/KBSOUT12	MY12	O	Keyboard scan output
GPIO65/SM1#	SIO_EXT_SMI#	O	EC SMI
GPIO66/G_PWM	CAPSLED#	O	Caps Lock LED drive
GPIO67/PWUREQ	USBNB#	GPO	USB power enable/disable
GPIO70/IRRX2_IRSL0	SUSC#	GPI	S.B sleep S4 pin
GPIO71/IRTXS/OUT2	PWR0K_EC	GPO	System Power Good for PCI Reset
GPIO72/IRRX1/SIN2	ICH_RSMRST#	GPO	S.B Resume Power Reset
GPIO73/SC12	2ND_MBCLK	O	SMBus Clock for CPU thermal
GPIO74/SDA2	2ND_MBDATA	I/O	SMBus Data for CPU thermal
GPIO75/SP1_SCK	BACKUP_SW	GPO	Backup Switch
GPIO76/SP1_DOSHBM	SIBM_R	GPI	Using SPI flash for BIOS and EC firmware
GPIO77/SP1_D1		GPI	No used
GPIO81	DNBSWON#	GPO	S.B Power button Event
GPIO82/TRIS		GPI	No used
GPIO83/SOUT_CR/BADDR1	PWRSVAVE_LED#	GPI	Power Save LED
GPIO84/BADDR0	BACKUP_LED#	GPI	Backup LED
GPIO87/CIRRRXM/SIN_CR	RF_EN	GPO	Mini card 1 (WLAN) enable/disable
GPIO90/AD0	TEMP_MBAT	I	EC detect battery state
GPIO91/AD1	WL_SW	GPI	Wireless Switch
GPIO92/AD2	SMLIALERT#	GPI	Touchpad temperature / PCH thermal Hot
GPIO93/AD3	ICMNT	I	EC detect system current in AC mode
GPIO94/DA0	PWRSVAVE_SW	GPI	Power Save (Battery) Button Switch
GPIO95/DA1		GPI	No used
GPIO96/DA2		GPI	No used
GPIO97/DA3		GPI	No used

PCH GPIO Setting

Pin Name	Power	PCH Default	Net Name	Description	Setting	Internal PU/PD	External PU/PD
GPIO0 / BMBUSY#	Core	GPI	BMBUSY#	No used	GPO		PU 8.2KΩ to +3V
GPIO1 / TACH1	Core	GPI	SIO_EXT_SMI#	EC SMI	GPI		PU 10KΩ to +3V
GPIO2 / PIR0E#	Core	GPI	PCI_PIR0E#	No used	GPO		PU 8.2KΩ to +3V
GPIO3 / PIR0F#	Core	GPI	PCI_PIR0F#	No used	GPO		PU 8.2KΩ to +3V
GPIO4 / PIR0G#	Core	GPI	PCI_PIR0G#	No used	GPO		PU 8.2KΩ to +3V
GPIO5 / PIR0H#	Core	GPI	PCI_PIR0H#	No used	GPO		PU 8.2KΩ to +3V
GPIO6 / TACH2	Core	GPI	SIO_EXT_SC1#	EC SCI Interrupt	GPI		PU 10KΩ to +3V
GPIO7 / TACH3	Core	GPI	BOARD_ID0	M/B ID Setting	GPI		PD 10k to GND & PU to +3V
GPIO8	SS	GPO	RSV_GPIO8	No used	GPO		PU 10KΩ to +3V SS
GPIO9 / OC5#	SS	Native	USB_OC5#	No used	Native		PU 8.2KΩ to +3V SS
GPIO10 / OC6#	SS	Native	USB_OC6#	No used	Native		PU 8.2KΩ to +3V SS
GPIO11 / SMBALERT#	SS	Native	RSV_SMBALERT#	No used	GPO		PU 10KΩ to +3V SS
GPIO12 / LAN_PHY_PWR_CTRL	SS	Native	LAN_DISABLE#	No used	GPI		PU 10KΩ to +3V SS
GPIO13 / HDA_DOCK_RST#	SS	GPI	PCH_GPIO13	No used	GPI		RV PU 10KΩ to +3V SS
GPIO14 / OC7#	SS	Native	USB_OC7#	No used	Native		PU 8.2KΩ to +3V SS
GPIO15	SS	GPO	CR_WAKE#	No used	GPO	PU 20KΩ	PU 1KΩ to +3V SS
GPIO16 / SATA4GP	Core	GPI	dGPU_HOLD_RST#	GPU Reset	GPO		PD 100k to G RV PU 10k to +3V
GPIO17 / TACH0	Core	GPI	dGPU_PWROK	GPU Power OK	GPI		PU 10KΩ to +3V
GPIO18 / PCIECLKRQ1#	Core	Native	CLK_PCIE_REQ1#_R	No used	GPO		PU 10KΩ to +3V
GPIO19 / SATA1GP	Core	GPI		No used	GPO		PU 10KΩ to +3V
GPIO20 / PCIECLKRQ2#	Core	Native	CLK_PCIE_REQ2#	Clock Request for PCIE Clocks	GPO		PU 10KΩ to +3V
GPIO21 / SATA0GP	Core	GPI		No used	GPO		PU 10KΩ to +3V
GPIO22 / S1CLOCK	Core	GPI	GPIO22	No used	GPO		PU 10KΩ to +3V
GPIO23 / LDRQ1#	Core	Native		No used	GPO		
GPIO24	SS	GPO		No used	GPO		
GPIO25 / PCIECLKRQ3#	SS	Native	CLK_PCIE_REQ3#_R	Clock Request for PCIE Clocks	Native		PU 10KΩ to +3V SS
GPIO26 / PCIECLKRQ4#	SS	Native	CLK_PCIE_REQ4#_R	Clock Request for PCIE Clocks	Native		PU 10KΩ to +3V SS
GPIO27	SS	GPO		No used	GPO		
GPIO28	SS	GPI	TP_PCH_GPIO28	No used	GPO		PU 10KΩ to +3V SS
GPIO29 / SLP_LAN#	SS	GPI	PM_SLP_LAN#	No used	GPO		RV PU 10KΩ to +3V SS
GPIO30 / SUS_PWR_DN_ACK	SS	GPI	SUS_PWR_ACK_R	No used	GPO		PU 10KΩ to +3V SS
GPIO31 / AC_PRESENT	SS	GPI	ACIN_R	No used	GPO		PU 10KΩ to +3V SS
GPIO32 / CLKRUN#	Core	GPO - Native	CLKRUN#	PCI Clock Run	Native		PU 8.2KΩ to +3V
GPIO33 / HDA_DOCK_EN#	Core	GPO	HDA_DOCK_EN#	No used	GPO	PU 20KΩ	RV PU 10k to +3V & 1k to GND
GPIO34 / STP_PCI#	Core	GPI	STP_PCI#	No used	GPO		PU 10KΩ to +3V
GPIO35 / SATA1CKREQ#	Core	GPO	dGPU_VRON	GPU Voltage Regulator Enable	GPO		
GPIO36 / SATA2GP	Core	GPI	dGPU_PWR_EN#	GPU Power Enable	GPO		PU 10KΩ to +3V
GPIO37 / SATA3GP	Core	GPI	dGPU_PRSNT#	No used	GPI		PD 10KΩ to GND
GPIO38 / S1LOAD	Core	GPI	GPIO38	No used	GPO		PU 10KΩ to +3V
GPIO39 / SDATAOUT0	Core	GPI	SAVE_LED#	No used	GPO		PU 10KΩ to +3V
GPIO40/OC1#	SS	Native	USB_OC1#	No used	Native		PU 8.2KΩ to +3V SS
GPIO41/OC2#	SS	Native	USB_OC2#	No used	Native		PU 8.2KΩ to +3V SS
GPIO42/OC3#	SS	Native	USB_OC3#	No used	Native		PU 8.2KΩ to +3V SS
GPIO43/OC4#	SS	Native	USB_OC4#	No used	Native		PU 8.2KΩ to +3V SS
GPIO44 / PCIECLKRQ5#	SS	Native	CLK_PCIE_REQ5#	No used	Native		PU 10KΩ to +3V SS
GPIO45	SS	Native	GPIO45	No used	GPI		PU 10KΩ to +3V SS
GPIO46 / PCIECLKRQ6#	SS	Native	RST_GATE#	S3 Power Reduction	GPO		PU 10KΩ to +3V SS
GPIO47 / PEG_A_CLKRQ#	SS	Native	PEG_CLKRQ#_R	Clock Request Signals for PEG	Native		PD 10KΩ to GND
GPIO48 / SDATAOUT1	Core	GPI	SV_SET_UP	No used	GPO		PU 10KΩ to +3V
GPIO49 / SATA5GP	Core	GPI	SATA5GP	CPU alert for EC	GPO		PU 10KΩ to +3V
GPIO50 / REQ1#	Core	Native	PCI_REQ1#	No used	GPO		PU 8.2KΩ to +3V
GPIO51 / GNT1#	Core	Native	PCI_GNT1#	Boot BIOS Selection	Native		PD 1K to GND RV PU 1k to +3V
GPIO52 / REQ2#	Core	Native	dGPU_SELECT#	GPU Output Select	GPO		PU 10KΩ to +3V
GPIO53 / GNT2#	Core	Native	PWM_SELECT#	LVDS_BRIGHT Select	Native		
GPIO54 / REQ3#	Core	Native	PCI_REQ3#	No used	GPO		PU 8.2KΩ to +3V
GPIO55 / GNT3#	Core	Native	PCI_GNT3#	No used	Native		PU 8.2KΩ to +3V
GPIO56 / PEG_B_CLKRQ#	SS	Native	CLK_PCIE_LAN_REQ#	Clock Request Signals for PEG	Native		PU 10KΩ to +3V SS
GPIO57	SS	GPI	GPIO57	No used	GPI		PD 10KΩ to GND
GPIO58 / SML1CLK	SS	Native	SMB_CLK_ME1	SMBus Clock for EC	Native		PU 2.2KΩ to +3V SS
GPIO59 / OC0#	SS	Native	USB_OC0#	No used	Native		PU 8.2KΩ to +3V SS
GPIO60 / SML0ALERT#	SS	Native	RSV_SML0ALERT#	No used	Native		PU 10KΩ to +3V SS
GPIO61 / SUS_STAT#	SS	Native	SUS_STAT#	No used	GPO		
GPIO62 / SUSCLK	SS	Native	ICH_SUSCLK	Suspend Clock	Native		
GPIO63 / SLP_S#	SS	Native	SLP_S#_R	No used	GPO		
GPIO64 / CLKOUTFLEX0	Core	Native	CLK_FLEX0	No used	GPO		
GPIO65 / CLKOUTFLEX1	Core	Native	CLK_FLEX1	No used	GPO		
GPIO66 / CLKOUTFLEX2	Core	Native	CLK_FLEX2	No used	GPO		
GPIO67 / CLKOUTFLEX3	Core	Native	dGPU_EDIDSEL#	GPU EDID Select	GPO		PU 10KΩ to +3V
GPIO72 / BATLOW#	SS	Native	PM_BATLOW#	No used	GPO		PU 8.2KΩ to +3V SS
GPIO73 / PCIECLKRQ0#	SS	Native	CLK_PCIE_REQ0#	No used	GPO		PU 10KΩ to +3V SS
GPIO74 / SML1ALERT#	SS	Native	RSV_SML1ALERT#	No used	GPO		PU 10KΩ to +3V SS
GPIO75 / SMLIDATA	SS	Native	SMB_DATA_ME1	SMBus Data for EC	Native		PU 2.2KΩ to +3V SS

CK595 Clock Setting Table

Pin Name	Pin	Net Name	Description
CPU_0	23	CLK_BUF_BCLK	
CPU_0#	22	CLK_BUF_BCLK#	Differential CPU clock

CK595 PCI Express Clock

Pin Name	Pin	Net Name	Description
DOT96	3	CLK_BUF_DREFCLK	
DOT96#	4	CLK_BUF_DREFCLK#	96MHz DOT clock for PCH
SRC_2	13	CLK_BUF_DREFNSCLK	
SRC_2#	14	CLK_BUF_DREFNSCLK#	Clock output for PCH graphic controller
SRC_USATA	10	CLK_BUF_PCIE_3GPLL	
SRC_1#SATA#	11	CLK_BUF_PCIE_3GPLL#	Differential Serial Reference Clock for PCH

PCH PCI Express Clock

Pin Name	Pin	Net Name	Description
CLKOUT_BCLK0_P	AM3	CLK_CPU_BCLK	
CLKOUT_BCLK0_N	AM1	CLK_CPU_BCLK#	Differential Serial Reference Clock for CPU
CLKOUT_DP_P	AT1	DPLL_REF_SSCLK	
CLKOUT_DP_N	AT3	DPLL_REF_SSCLK#	Differential Serial Reference Clock for CPU
CLKOUT_DMI_P	AN2	CLK_PCIE_3GPLL#	Differential Serial Reference Clock for CPU
CLKOUT_DMI_N	AN4	CLK_PCIE_3GPLL#	Differential Serial Reference Clock for CPU
CLKOUT_PEG_A_P	AD43	CLK_PCIE_VGA	Differential Serial Reference Clock for PCI-Express
CLKOUT_PEG_A_N	AD45	CLK_PCIE_VGA#	Graphics device
CLKOUT_PCIE0P	AK47		
CLKOUT_PCIE0N	AK48		No use
CLKOUT_PCIE1P	AM45	CLK_PCH_SRC1	
CLKOUT_PCIE1N	AM43	CLK_PCH_SRC1#	Differential Serial Reference Clock for MINI CARD 2
CLKOUT_PCIE2P	AM48	CLK_PCH_SRC2	
CLKOUT_PCIE2N	AM47	CLK_PCH_SRC2#	Differential Serial Reference Clock for MINI CARD 1
CLKOUT_PCIE3P	AH41	CLK_PCH_SRC3	
CLKOUT_PCIE3N	AH42	CLK_PCH_SRC3#	Differential Serial Reference Clock for OZ888
CLKOUT_PCIE4P	AM53	CLK_PCH_SRC4	
CLKOUT_PCIE4N	AM51		No use
CLKOUT_PCIE5P	AJ52		
CLKOUT_PCIE5N	AJ50		No use
CLKOUT_PEG_B_P	AK51	CLK_PCIE_LOM	
CLKOUT_PEG_B_N	AK53	CLK_PCIE_LOM#	Differential Serial Reference Clock for on board LAN

Other Clock

Pin Name	Pin	Net Name	Description
27M	6	27M_CLK	27MHz for GPU
27M_SS	7		
REF	30	CLK_1CH_14M	14.318MHz for PCH

Clock Request Table

CLKREQ#	Control
PEG_A_CLKRQ#	GPU
PCIECLKRQ0#	N/A
PCIECLKRQ1#	MINI2
PCIECLKRQ2#	MINI1
PCIECLKRQ3#	OZ888
PCIECLKRQ4#	N/A
PCIECLKRQ5#	N/A
PEG_B_CLKRQ#	LAN



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