Annika 1.1 Block Diagram

01

PCB STACK UP

6L

LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : VCC
LAYER 6 : BOT

SYSTEM POWER +3VPCU/+5VPCU(RT8206)	PAGE 24
DDR 3 SMDDR_VTERM +0.75VSMVREF/+1.5VSUS(RT8207)	PAGE 25
CPU CORE RT8152D	PAGE 26
SYSTEM CHARGER ISL6251AHAZ-T	PAGE 27
GFX CORE(RT9025)	PAGE 28
+1.2V(RT9025)	PAGE 29
+1.5V(RT9025)	PAGE 30
VCCP 1.05V(RT8209A)	PAGE 29

10.1" LCD Panel — Page 16 — LVDS

CRT — Page 12

Intel Pineview-M
Micro-FCBGA8
22 x 22 mm
TDP~5.5W
Page 3~5

DDR3 667MT/s
Single Channel
DDR3 SO-DIMM
2GB Max.
Page 11

XDP — Page 31 — ITP_CLK,ITP_CLK#

32.768KHz

DMI x2

HCLK_CPU,HCLK_CPU#; HCLK_MCH,HCLK_MCH#
DREFSSCLK,DREFSSCLK#; DREFCLK,DREFCLK#
CLK_PCIE_ICH,CLK_PCIE_ICH#

CLOCK GEN
9LRS3165
Page 2
14.318MHz

SATA

2.5"HDD/SSD — Page 19

Intel Tigerpoint
17 x 17 mm
MMAP 360 Balls
TDP~1.5W
Page 6~10

USB 2.0

0,1,2	4	5	6	7	8
USB2.0 Port x3 — Page 21	Card Reader — Page 13 (12MHz)	Bluetooth /WLAN — Page 20	Touch Screen — Page 22	WWAN — Page 20	Webcam — Page 16
	Card Reader Socket — Page 13			SIM Card Socket — Page 20	

PCI-Express

X1	X1	X1	X1
WWAN — Page 20	LAN Realtek RTL8103EL-VB 10/100 — Page 15 (25MHz)	WLAN — Page 20	HD Decoder — Page 18 (27MHz)
SIM Card — Page 20	RJ 45 — Page 15		DDRII 64MByte — Page 18

32.768KHz

LPC

HDA

Touch Pad Keyboard — Page 22
Power SW — Page 14

ENC KBC
KB3926D2
Page 23

AUDIO CODEC
92HD80BX
Page 17

BIOS SPI Flash — Page 23	FAN G991 — Page 22	Int SPK — Page 17	Digital MIC — Page 17	HP/MIC COMBO JACK — Page 17

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	BLOCK DIAGRAM	1A

Date: Thursday, January 21, 2010 Sheet 1 of 32

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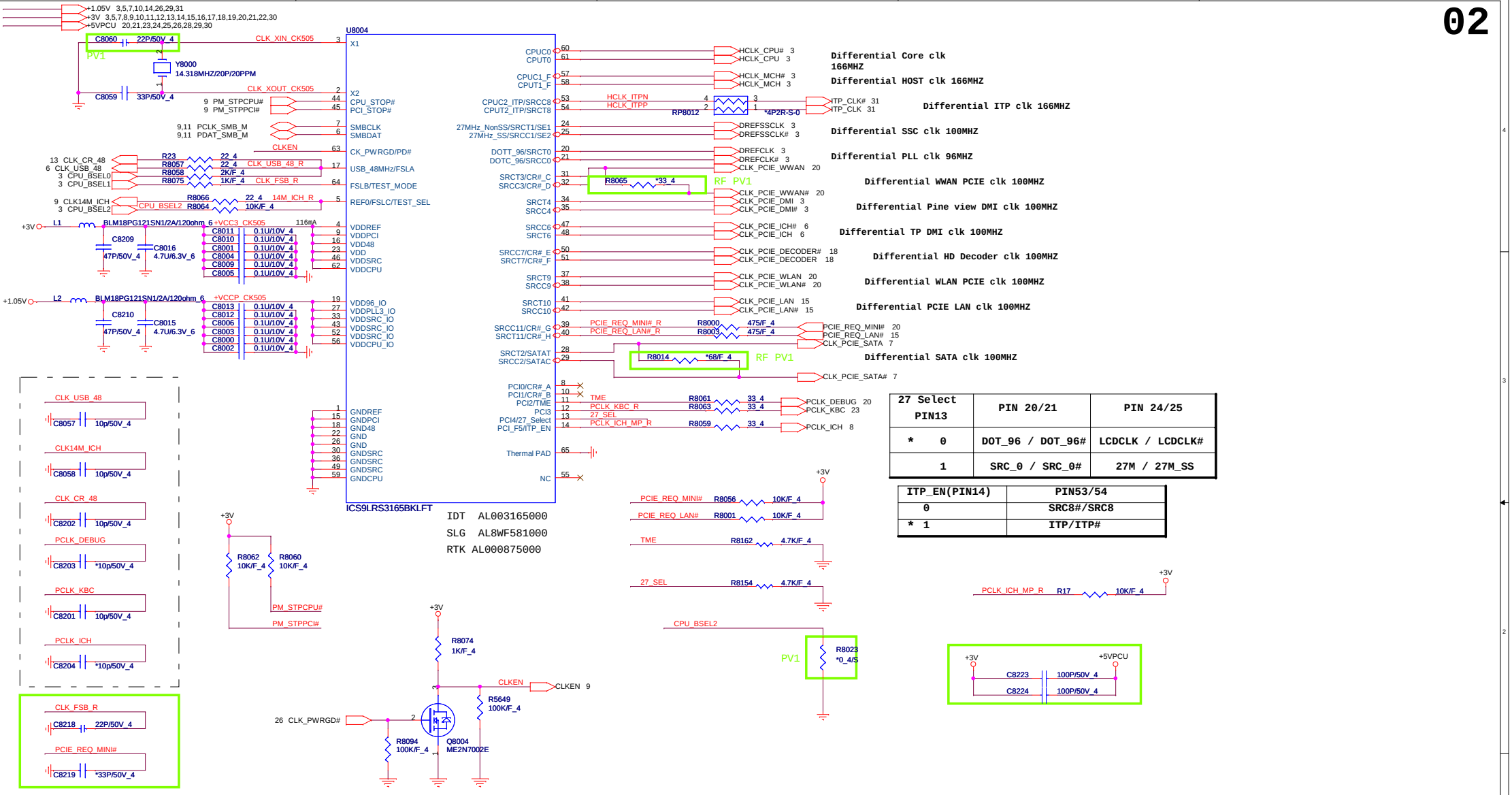


27 Select PIN13	PIN 20/21	PIN 24/25
* 0	DOT_96 / DOT_96#	LCDCLK / LCDCLK#
1	SRC_0 / SRC_0#	27M / 27M_SS

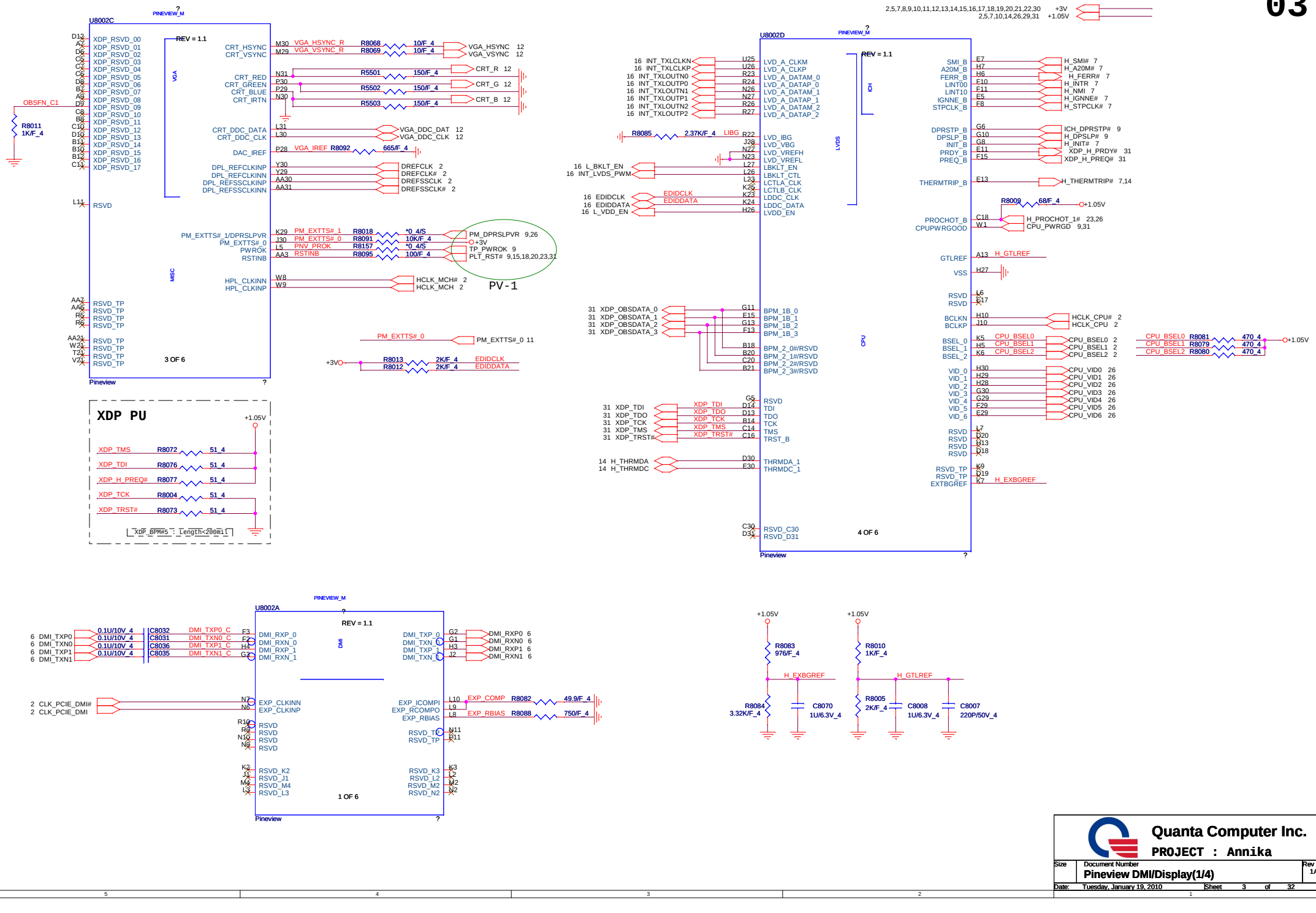
ITP_EN(PIN14)	PIN53/54
0	SRC8#/SRC8
* 1	ITP/ITP#

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

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	Clock Gen	1A

Date: Tuesday, January 19, 2010 Sheet 2 of 32



Quanta Computer Inc.			
PROJECT : Annika			
Size	Document Number		Rev
	Pineview DMI/Display(1/4)		1A
Date: Tuesday, January 19, 2010		Sheet 3 of 32	

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+1.5VSUS 5,11,25,28,29,30

+0.75VSMVREF 11,25

PINEVIEW_M

U8002B

REV = 1.1

11 M_A_A[14..0]

M_A_A0 AH19 DDR_A_MA_0
M_A_A1 AJ18 DDR_A_MA_1
M_A_A2 AK18 DDR_A_MA_2
M_A_A3 AK16 DDR_A_MA_3
M_A_A4 AJ14 DDR_A_MA_4
M_A_A5 AH14 DDR_A_MA_5
M_A_A6 AK14 DDR_A_MA_6
M_A_A7 AJ12 DDR_A_MA_7
M_A_A8 AH13 DDR_A_MA_8
M_A_A9 AK12 DDR_A_MA_9
M_A_A10 AK20 DDR_A_MA_10
M_A_A11 AH12 DDR_A_MA_11
M_A_A12 AJ11 DDR_A_MA_12
M_A_A13 AJ24 DDR_A_MA_13
M_A_A14 AJ10 DDR_A_MA_14

11 M_A_WE#
11 M_A_CAS#
11 M_A_RAS#

M_A_WE# AK22 DDR_A_WEB
M_A_CAS# AJ22 DDR_A_CASB
M_A_RAS# AK21 DDR_A_RASB

11 M_A_BS0
11 M_A_BS1
11 M_A_BS2

M_A_BS0 AJ20 DDR_A_BS_0
M_A_BS1 AH20 DDR_A_BS_1
M_A_BS2 AK11 DDR_A_BS_2

11 M_CS#0
11 M_CS#1

M_CS#0 AH22 DDR_A_CSB_0
M_CS#1 AK25 DDR_A_CSB_1
AJ21 DDR_A_CSB_2
AJ25 DDR_A_CSB_3

11 M_CKE0
11 M_CKE1

M_CKE0 AH10 DDR_A_CKE_0
M_CKE1 AH9 DDR_A_CKE_1
AK10 DDR_A_CKE_2
AJ8 DDR_A_CKE_3

11 M_ODT0
11 M_ODT1

M_ODT0 AK24 DDR_A_ODT_0
M_ODT1 AH26 DDR_A_ODT_1
AH24 DDR_A_ODT_2
AK23 DDR_A_ODT_3

11 M_CLK0
11 M_CLK#0
11 M_CLK1
11 M_CLK#1

M_CLK0 AG15 DDR_A_CK_0
M_CLK#0 AF15 DDR_A_CKB_0
M_CLK1 AD13 DDR_A_CK_1
M_CLK#1 AC13 DDR_A_CKB_1

AC15 DDR_A_CK_3
AD15 DDR_A_CKB_3
AF13 DDR_A_CK_4
AG13 DDR_A_CKB_4

AD17 RSVD_AD17
AC17 RSVD_AC17
AB15 RSVD_AB15
AB17 RSVD_AB17

+1.5VSUS
R8110 10K/F_4
11 DDR3_DRAM_RST_N
DDR3_DRAM_RST_N AK8 DDR3_DRAMRSTB
DDR3_DRAM_PWROK AB4 DDR3_DRAM_PWROK

AB11 RSVD_TP
AB13 RSVD_TP

C8033 0.01U/25V_4
+DDR_VREF
R8036 80.6/F_4 SM_RCOMP
R8040 80.6/F_4 SM_RCOMP#
+1.5VSUS
C8034 0.01U/25V_4

AL28 DDR_VREF
AK28 DDR_RPD
AJ26 DDR_RPU
AK29 RSVD

DDR_A

DDR_A_DQS_0 AD3 M_A_DQS0
DDR_A_DQSB_0 AD2 M_A_DQS#0
DDR_A_DM_0 AD4 M_A_DM0

DDR_A_DQ_0 AC4 M_A_DQ0
DDR_A_DQ_1 AC1 M_A_DQ1
DDR_A_DQ_2 AF4 M_A_DQ2
DDR_A_DQ_3 AG2 M_A_DQ3
DDR_A_DQ_4 AB2 M_A_DQ4
DDR_A_DQ_5 AB3 M_A_DQ5
DDR_A_DQ_6 AE2 M_A_DQ6
DDR_A_DQ_7 AE3 M_A_DQ7

DDR_A_DQS_1 AB8 M_A_DQS1
DDR_A_DQSB_1 AD7 M_A_DQS#1
DDR_A_DM_1 AA9 M_A_DM1

DDR_A_DQ_8 AB6 M_A_DQ8
DDR_A_DQ_9 AB7 M_A_DQ9
DDR_A_DQ_10 AE5 M_A_DQ10
DDR_A_DQ_11 AG5 M_A_DQ11
DDR_A_DQ_12 AA5 M_A_DQ12
DDR_A_DQ_13 AB5 M_A_DQ13
DDR_A_DQ_14 AB9 M_A_DQ14
DDR_A_DQ_15 AD6 M_A_DQ15

DDR_A_DQS_2 AD8 M_A_DQS2
DDR_A_DQSB_2 AD10 M_A_DQS#2
DDR_A_DM_2 AE8 M_A_DM2

DDR_A_DQ_16 AG8 M_A_DQ16
DDR_A_DQ_17 AG7 M_A_DQ17
DDR_A_DQ_18 AF10 M_A_DQ18
DDR_A_DQ_19 AG11 M_A_DQ19
DDR_A_DQ_20 AF7 M_A_DQ20
DDR_A_DQ_21 AF8 M_A_DQ21
DDR_A_DQ_22 AD11 M_A_DQ22
DDR_A_DQ_23 AE10 M_A_DQ23

DDR_A_DQS_3 AK5 M_A_DQS3
DDR_A_DQSB_3 AK3 M_A_DQS#3
DDR_A_DM_3 AJ3 M_A_DM3

DDR_A_DQ_24 AH1 M_A_DQ24
DDR_A_DQ_25 AJ2 M_A_DQ25
DDR_A_DQ_26 AK6 M_A_DQ26
DDR_A_DQ_27 AJ7 M_A_DQ27
DDR_A_DQ_28 AF3 M_A_DQ28
DDR_A_DQ_29 AH2 M_A_DQ29
DDR_A_DQ_30 AL5 M_A_DQ30
DDR_A_DQ_31 AJ6 M_A_DQ31

DDR_A_DQS_4 AG22 M_A_DQS4
DDR_A_DQSB_4 AG21 M_A_DQS#4
DDR_A_DM_4 AD19 M_A_DM4

DDR_A_DQ_32 AE19 M_A_DQ32
DDR_A_DQ_33 AG19 M_A_DQ33
DDR_A_DQ_34 AF22 M_A_DQ34
DDR_A_DQ_35 AD22 M_A_DQ35
DDR_A_DQ_36 AG17 M_A_DQ36
DDR_A_DQ_37 AE19 M_A_DQ37
DDR_A_DQ_38 AE21 M_A_DQ38
DDR_A_DQ_39 AD21 M_A_DQ39

DDR_A_DQS_5 AE26 M_A_DQS5
DDR_A_DQSB_5 AG27 M_A_DQS#5
DDR_A_DM_5 AJ27 M_A_DM5

DDR_A_DQ_40 AE24 M_A_DQ40
DDR_A_DQ_41 AG25 M_A_DQ41
DDR_A_DQ_42 AD25 M_A_DQ42
DDR_A_DQ_43 AD24 M_A_DQ43
DDR_A_DQ_44 AC22 M_A_DQ44
DDR_A_DQ_45 AG24 M_A_DQ45
DDR_A_DQ_46 AD27 M_A_DQ46
DDR_A_DQ_47 AE27 M_A_DQ47

DDR_A_DQS_6 AE30 M_A_DQS6
DDR_A_DQSB_6 AF29 M_A_DQS#6
DDR_A_DM_6 AF30 M_A_DM6

DDR_A_DQ_48 AG31 M_A_DQ48
DDR_A_DQ_49 AG30 M_A_DQ49
DDR_A_DQ_50 AD30 M_A_DQ50
DDR_A_DQ_51 AD29 M_A_DQ51
DDR_A_DQ_52 AJ30 M_A_DQ52
DDR_A_DQ_53 AJ29 M_A_DQ53
DDR_A_DQ_54 AE29 M_A_DQ54
DDR_A_DQ_55 AD28 M_A_DQ55

DDR_A_DQS_7 AB27 M_A_DQS7
DDR_A_DQSB_7 AA27 M_A_DQS#7
DDR_A_DM_7 AB26 M_A_DM7

DDR_A_DQ_56 AA24 M_A_DQ56
DDR_A_DQ_57 AB25 M_A_DQ57
DDR_A_DQ_58 W24 M_A_DQ58
DDR_A_DQ_59 W22 M_A_DQ59
DDR_A_DQ_60 AB24 M_A_DQ60
DDR_A_DQ_61 AB23 M_A_DQ61
DDR_A_DQ_62 AA23 M_A_DQ62
DDR_A_DQ_63 W27 M_A_DQ63

2 OF 6

Pineview

M_A_DQ[63..0] 11
M_A_DM[7..0] 11
M_A_DQS[7..0] 11
M_A_DQS#[7..0] 11

+1.5VSUS
R8039 1K/F_4
+0.75VSMVREF R8100 *0_4 +DDR_VREF
R8037 1K/F_4

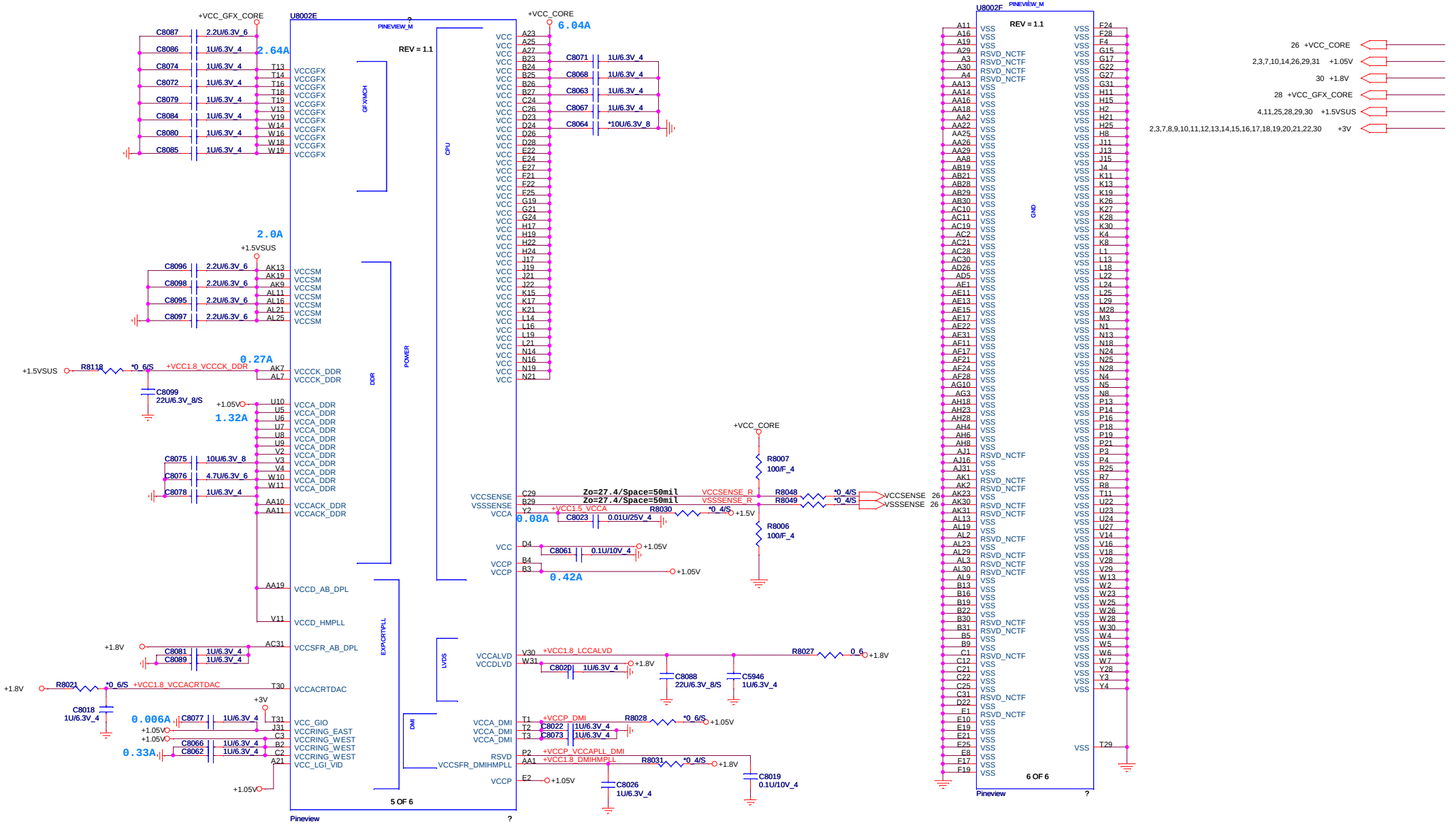
+5V_S5
+1.5VSUS
C8069 *0.1U/10V_4
R8052 *1K/F_4
R8050 *1K/F_4
DDR3_DRAM_PWROK
*MMBT3904 Q8008
C436 *1U/6.3V_4
R8051 0_4
9,23 SUSC#
SUSC# R8053 *1K/F_4
*MMBT3904 Q8009
HWPG
HWPG 16,23,24,25,28,29,30
DDR3_DRAM_PWROK
R8038 *0_4

Intel CRB

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	Pineview DDR(2/4)	1A

Date: Tuesday, January 19, 2010 Sheet 4 of 32



Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: Pineview Power(3/4)	Rev: 1A
Date: Tuesday, January 19, 2010	Sheet 5 of 32	

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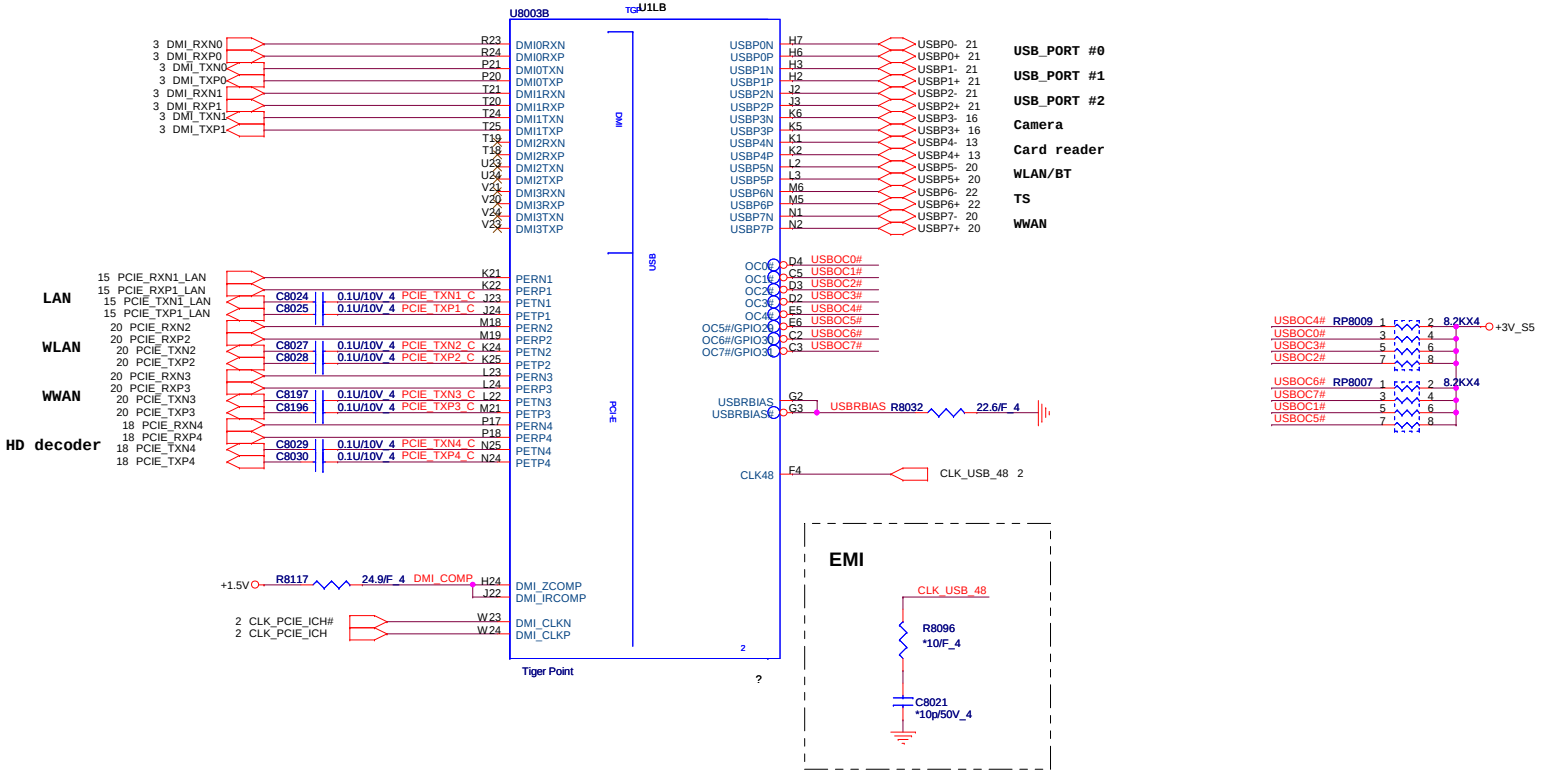
5,10,18,20,30 +1.5V

9,10,30 +3V_S5



Quanta Computer Inc.

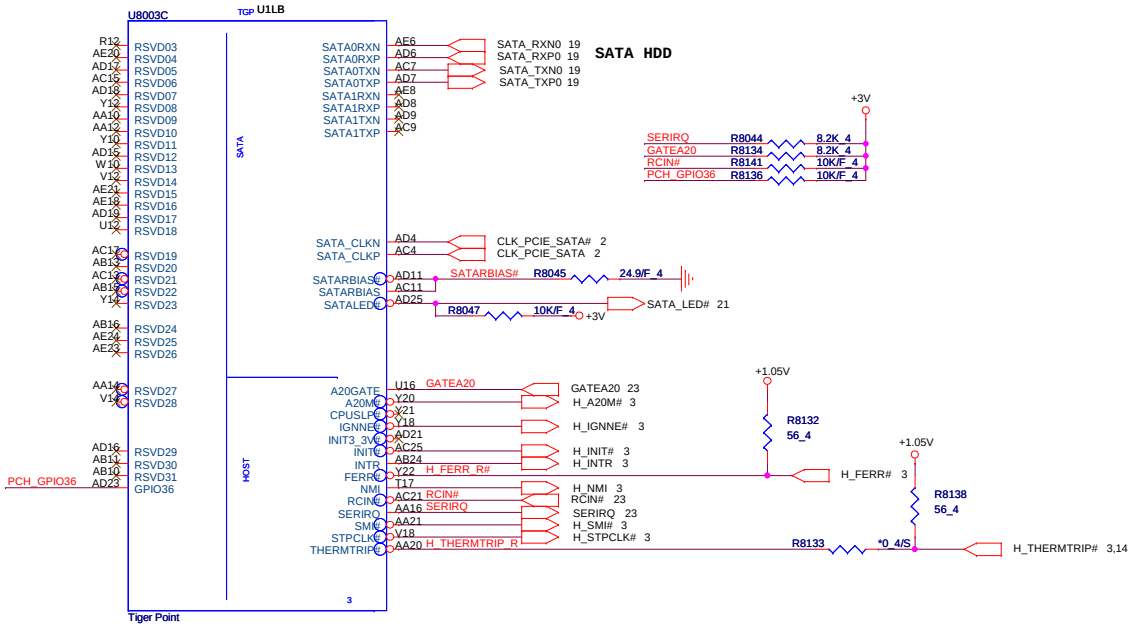
PROJECT : Annika

Size	Document Number	Rev
	TigerPoint DMI/PCIE(1/6)	1A

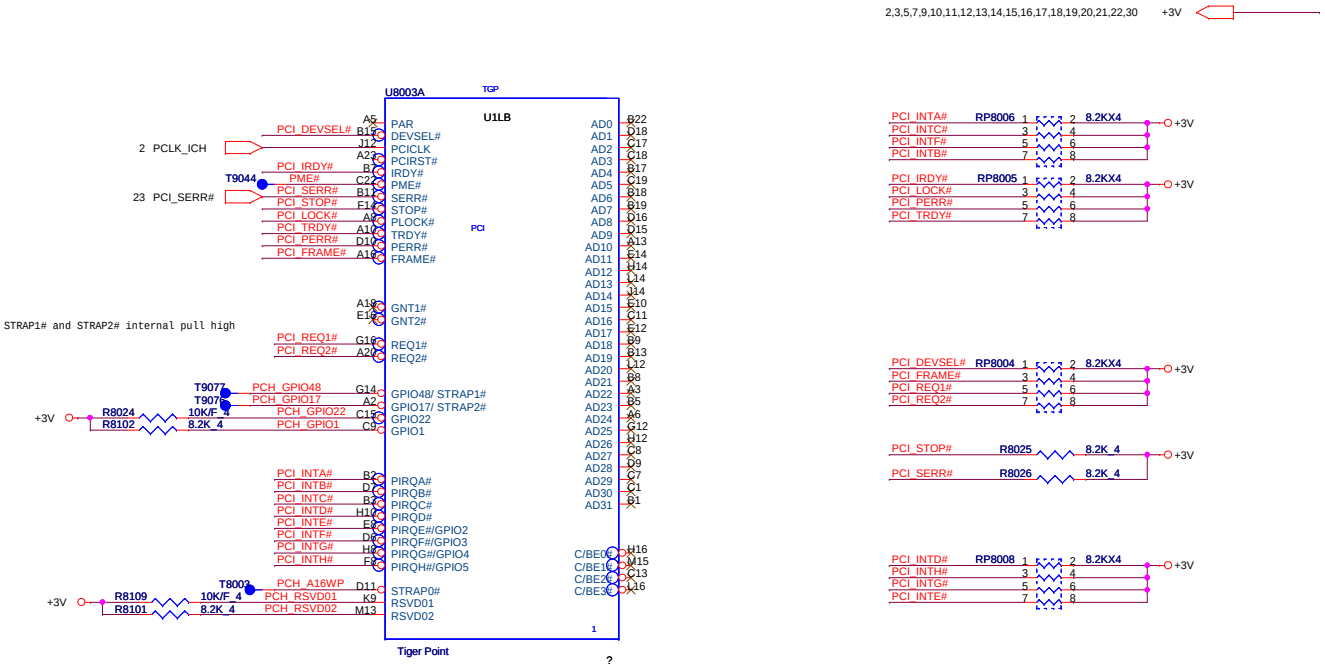
Date: Tuesday, January 19, 2010 Sheet 6 of 32

+3V 2,3,5,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,30

+1.05V 2,3,5,10,14,26,29,31



Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: TigerPoint Sata/Host(2/6)	Rev: 1A
Date: Tuesday, January 19, 2010	Sheet 7 of 32	



?

ICH Boot BIOS select

PCH_GPIO17 (INT PU)	PCH_GPIO48 (INT PU)	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC (Default)

A16 SWAP Override strap

PCH_A16WP (INT PU)	**Low = A16 swap override enabled** **High = Default**

IRQ	Description
PIRQA	USB UHCI Controller #1, #4
PIRQB	AC'97 Codec; option for SMBUS
PIRQC	USB UH Controller #3; SATA/IDE Native Mode
PIRQD	USB UHCI Controller #2
PIRQE	Internal LAN; Option for SCI, TCO, HPET#0,1,2
PIRQF	Option for SCI, TCO, HPET#0,1,2
PIRQG	Option for SCI, TCO, HPET#0,1,2
PIRQH	USB EHCI Controller; Option for SCI, TCO, HPET#0,1,2

PCI_GNT#2	Internal PU Should not be PD

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	TigerPoint PCI(3/6)	1A

Date: Tuesday, January 19, 2010 Sheet 8 of 32

14,16,20,21,22,23,24,26,27,30 +3VPCU
2,3,5,7,8,10,11,12,13,14,15,16,17,18,19,20,21,22,30 +3V
6,10,30 +3V_S5

EMI

CLK14M_ICH R8041 22_4 EMI-14M C8037 10P/50V_4

ACZ_SDOUT
ACZ_BITCLK
C8206 *10p/50V_4
C8205 10p/50V_4
ACZ_RST#
ACZ_SYNC
C8212 *10p/50V_4
C8213 *10p/50V_4

RTC

C8118 15p/50V_4
C8113 15p/50V_4
Y8999 32.768KHZ
R8129 10M_4
+VCCRTC
+3VPCU
D8999 RB500V-40
C8130 1U/6.3V_4
D8004 RB500V-40
R8151 20K/F_4
R8142 1K/F_4
R8150 1M_4
C8129 1U/6.3V_4
J8999 *SHORTPAD
SM_INTRUDER#
+VCCRTC_3
BT8999 BAT_CONN

U8003D Tiger Point (TGP U1LB)

T8999 LDRQ1#	LDRQ1#/GPIO23	LPC	
20,23 LAD0	LAD0/FWH0		
20,23 LAD1	LAD1/FWH1		
20,23 LAD2	LAD2/FWH2		
20,23 LAD3	LAD3/FWH3		
T8017 LDRQ0#	LDRQ0#		
20,23 LFRAME#	LFRAME#		
17 ACZ_BITCLK R8125 33_4 ACZ_BITCLK_R	HDA_BIT_CLK	AUDIO	
17 ACZ_RST# R8033 33_4 ACZ_RST#_R	HDA_RST#		
17 ACZ_SDIN0	HDA_SDI0		
	HDA_SDIN1		
	HDA_SDIN2		
17 ACZ_SDOUT R8035 33_4 ACZ_SDOUT_R	HDA_SDOUT		
17 ACZ_SYNC R8034 33_4 ACZ_SYNC_R	HDA_SYNC		
2 CLK14M_ICH CLK14M_ICH	CLK14		
	EE_CS	EEPROM	
	EE_DIN		
	EE_DOUT		
	EE_SHCLK		
LAN_RST#	LAN_CLK	LAN	
	LANR_STSYNC		
	LAN_RST#		
	LAN_RXD0		
	LAN_RXD1		
	LAN_RXD2		
	LAN_TXD0		
	LAN_TXD1		
	LAN_TXD2		
RTC_X1	RTCX1	RTC	
RTC_X2	RTCX2		
RTC_RST#	RTCRST#		
SMBALERT#	SMBALERT#/GPIO11	SMB	
SMB0_CLK	SMBCLK		
SMB0_DATA	SMBDATA		
SMB_LINK_ALERT#	SMLALERT#		
SMLINK0	SMLINK0		
SMLINK1	SMLINK1		
T8009 SPI_MISO	SPI_MISO	SPI	
T8008 SPI_MISI	SPI_MOSI		
T8013 SPI_CS#	SPI_CS#		
T8014 SPI_CLK	SPI_CLK		
T8015 SPI_ARB	SPI_ARB		

	GPIO23 3.3V GPIO0 3.3V GPI		
	BM_BUSY#/GPIO0		T15 BM_BUSY#
	GPIO6 3.3V GPI GPIO6		W16 BOARD ID0
	GPIO7 3.3V GPI GPIO8		W14 BOARD ID1
	GPIO8 3.3VSUS GPI GPIO7		K18
	GPIO9 3.3VSUS GPI GPIO9		H19 KBSMI# 23
	GPIO10 3.3VSUS GPI GPIO10		M17 WWAN_OFF# SCI# 23 WWAN_OFF# 20
	GPIO12 3.3VSUS GPI GPIO12		A24 PCH_GPIO12
	GPIO13 3.3VSUS GPI GPIO13		C23 PCH_GPIO13
	GPIO14 3.3VSUS GPI GPIO14		P5 PCH_GPIO14
	GPIO15 3.3VSUS GPI GPIO15		E24 PCH_GPIO15
	DPRSLPVR		AB20 PM_DPRSLPVR PM_DPRSLPVR 3,26
	STP_PCI#		Y16 PM_STPPCI# PM_STPPCI# 2
	STP_CPU#		AB19 PM_STPCPU# PM_STPCPU# 2
	GPIO24 3.3VSUS GPO GPIO24		R3
	GPIO25 3.3VSUS GPO GPIO25		C24 DMI_AC_ENABLE
	GPIO26 3.3VSUS GPO GPIO26		D19
	GPIO27 3.3VSUS GPO GPIO27		U20
	GPIO28 3.3VSUS GPO GPIO28		E22
	CLKRUN#		AC19 CLKRUN# CLKRUN# 23
	GPIO33 3.3V GPO GPIO33		U14 BOARD ID2
	GPIO34 3.3V GPO GPIO34		AC1 RF_OFF# RF_OFF# 20
	GPIO38 3.3V GPI GPIO38		AC23 PCIE_WWAN_DET# 20
	GPIO39 3.3V GPI GPIO39		AC24 1K/F_4 R9020 BT_COMBO_EN# 20
	CPUPWRGD/GPIO49		AB22 CPU_PWRGD CPU_PWRGD 3,31
	THRMC	MISC	AB17 TP_THRM# R8214 *0_4/S R8218 *0_4/S PM_THRM# 14
	VRMPWRGD		V16 VRMPWRGD CLKEN 2
	MCH_SYNC#		AC18 MCH_SYNC#
	PWRBTN#		F21 DNBSWON# DNBSWON# 23
	RI#		H23 ICH_RI#
	SUS_STAT#/LPCPD#		G22 SUS_STAT#
	SUSCLK		D22 SYSCLK T8011 T8016
	SYS_RESET#		G18 SYS_RST# SYS_RST# 31
	PLTRST#		G23 PLTRSTB# PLT_RST# 3,15,18,20,23,31
	WAKE#		C25 PCIE_LAN_WAKE# PCIE_LAN_WAKE# 15,20
	INTRUDER#		T8 SM_INTRUDER#
	PWROK		U10 TP_PWROK
	RSMRST#		AC3 RSMRST# 23
	INTVRMEN		AD3 ICH_INTVRMEN
	SPKR		J16 SPKR_L SPKR 17
	SLP_S3#		H20 SUSB# SUSB# 23
	SLP_S4#		E25 SUSC# SUSC# 4,23
	SLP_S5#		F21
	BATLOW#		B25 PM_BATLOW#
	DPRSTP#		AB23 ICH_DPRSTP# ICH_DPRSTP# 3
	DPSLP#		AA18 H_DPSLP# H_DPSLP# 3
	RSVD31		F20

Tiger Point

+3V R8223 8.2K_4 BOARD ID0 R8224 *8.2K_4
R8225 *8.2K_4 BOARD ID1 R8226 8.2K_4
R8227 *8.2K_4 BOARD ID2 R8228 *8.2K_4

Board ID	ID0	ID1	ID2
Annika 1.0 WO SIM	0	0	0
Annika 1.0 W/ SIM	1	0	0
Annika 1.1 WO SIM	0	1	0
Annika 1.1 W/ SIM	1	1	0

INTVRMEN	
Enable (default)	1
Disable	0

ICH_INTVRMEN R8042 332K/F_4 +VCCRTC

integrated pull-up of 18 k - 42 k .check list 0.7

+3V_S5

DNBSWON#	R8111	*10K/F_4
KBSMI#	R8123	8.2K_4
SYS_RST#	R8112	10K/F_4
SMBALERT#	R8122	10K/F_4
SMB_LINK_ALERT#	R127	10K/F_4
PM_BATLOW#	R8158	8.2K_4
PCIE_LAN_WAKE#	R8159	10K/F_4
SMLINK1	R8043	10K/F_4
SMLINK0	R8098	10K/F_4
SMB0_CLK	R8106	2K/F_4
SMB0_DATA	R8105	2K/F_4
WWAN_OFF#	R8119	10K/F_4
PCH_GPIO12	R9028	8.2K_4
PCH_GPIO13	R8160	8.2K_4
PCH_GPIO14	R8126	10K/F_4
PCH_GPIO15	R8161	8.2K_4
ICH_RI#	R8135	10K/F_4
SCI#	R9027	8.2K_4

+3V

CLKRUN#	R8163	8.2K_4
TP_THRM#	R8181	10K/F_4
MCH_SYNC#	R8046	1K/F_4
BM_BUSY#	R8182	10K/F_4

PLTRSTB#	R8029	100K/F_4
LAN_RST#	R8165	8.2K_4
TP_PWROK	R8211	10K/F_4
RSMRST#	R8212	10K/F_4

10-k pull-down to GND check list 0.7

Q8005 ME2N7002E
SMB0_CLK R8099 10K/F_4 +3V PCLK_SMB_M 2,11
Q9000 ME2N7002E
SMB0_DATA R8097 10K/F_4 +3V PDAT_SMB_M 2,11

23 IMVP_PWRGD_EC R9037 *0_4
23,26 IMVP_PWRGD
14,16,23 ECPWROK
U8013 TC7SH08FU
TP_PWROK TP_PWROK 3

PV-1

GPIO25 This signal has a weak internal pull-up.

If the signal is sampled high, the DMI interface is strapped to operate in DC coupled mode (No coupling capacitors are required on DMI differential pairs).
If the signal is sampled low, the DMI interface is strapped to operate in AC coupled mode (Coupling capacitors are required on DMI differential pairs).
NOTE: Board designer must ensure that DMI implementation matches the strap selection.

DMI_AC_ENABLE R8108 1K/F_4

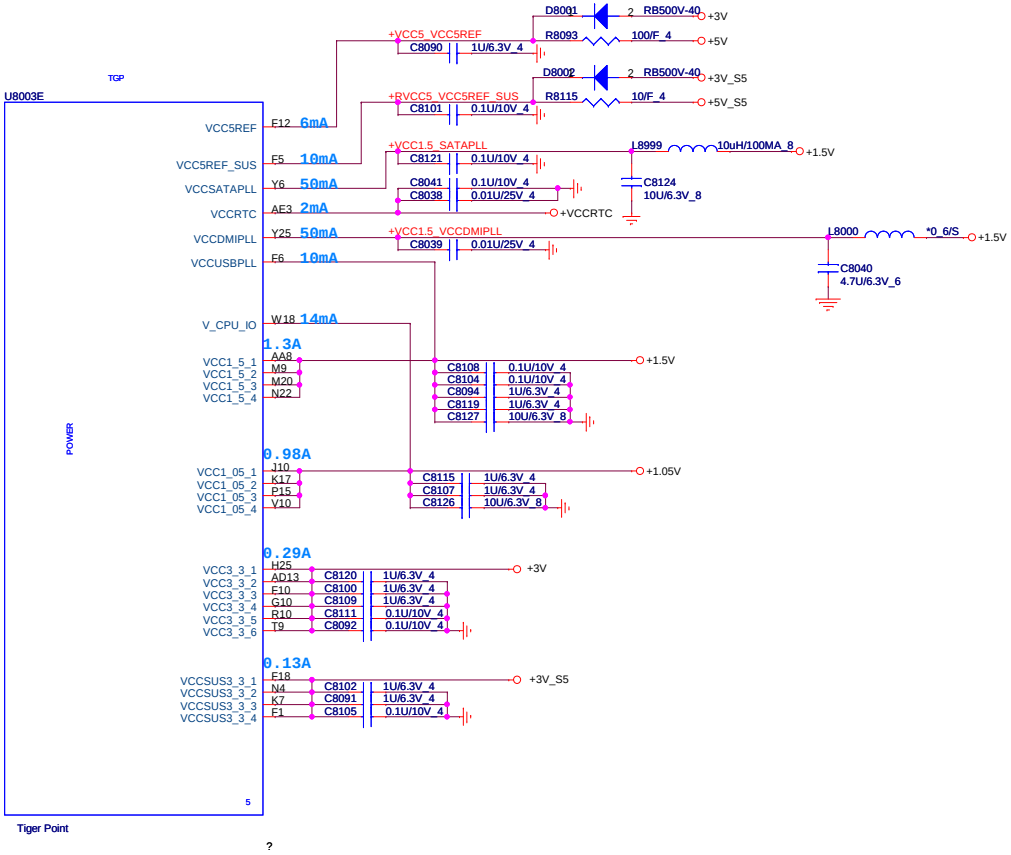
ACZ_SDOUT (INT PD)	ACZ_SYNC (INT PD)	Description
0	0	* 4 x 1s
1	0	Reserved
0	1	Reserved
1	1	1 x 4s(1 port/4 lanes)

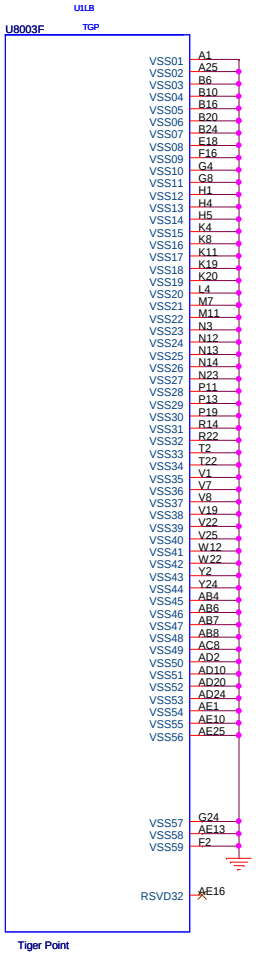
Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	TigerPoint GPIO(4/6)	1A

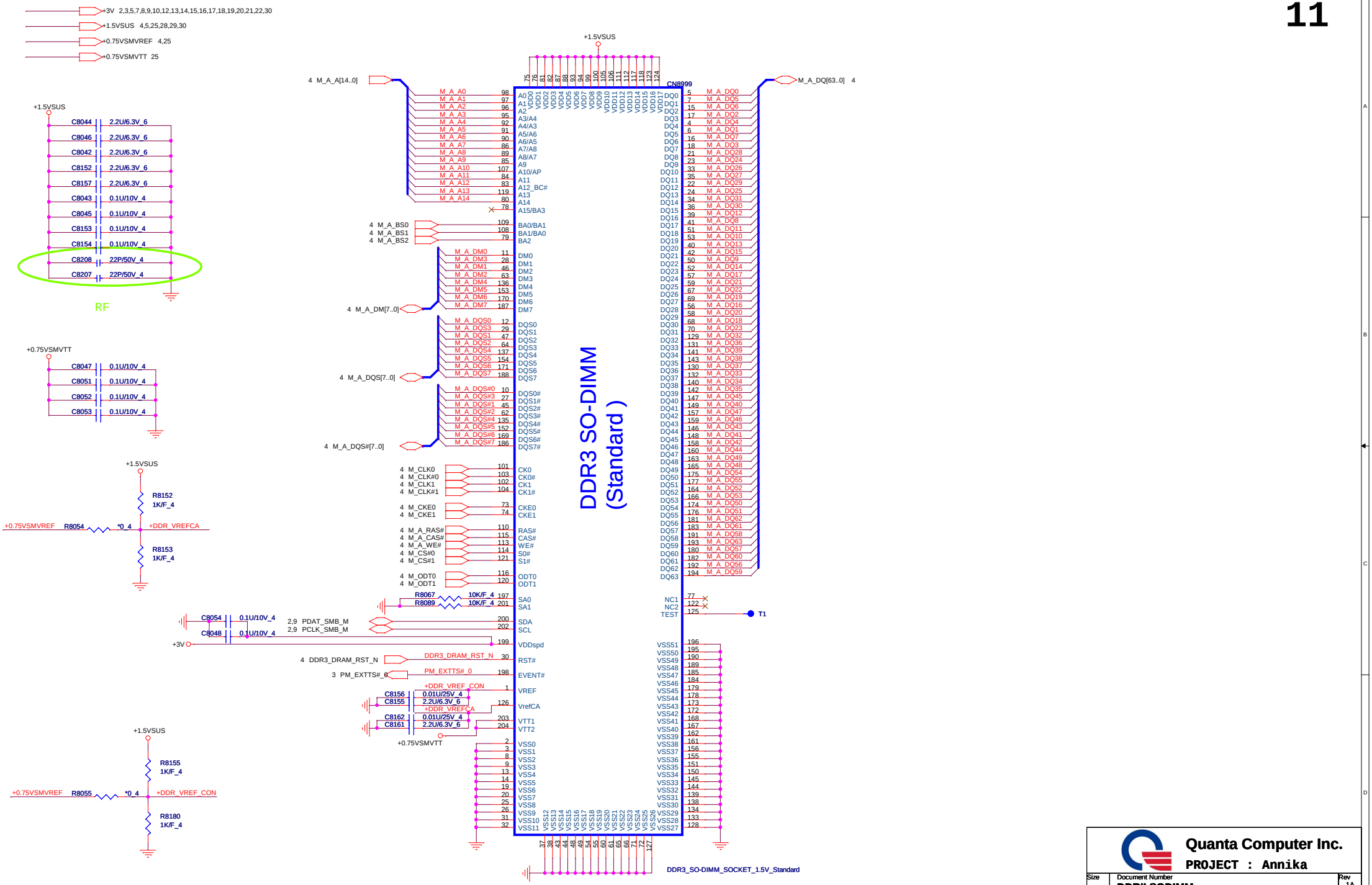
Date: Tuesday, January 19, 2010 Sheet 9 of 32

2,3,5,7,8,9,11,12,13,14,15,16,17,18,19,20,21,22,30 +3V
12,16,17,19,20,22,30 +5V
5,6,18,20,30 +1.5V
2,3,5,7,14,26,29,31 +1.05V
6,9,30 +3V_S5
4,30 +5V_S5





Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: TigerPoint Power(5/6)	Rev: 1A
Date: Tuesday, January 19, 2010	Sheet 10 of 32	



Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	DDRII SODIMM	1A

Date: Thursday, January 21, 2010 Sheet 11 of 32

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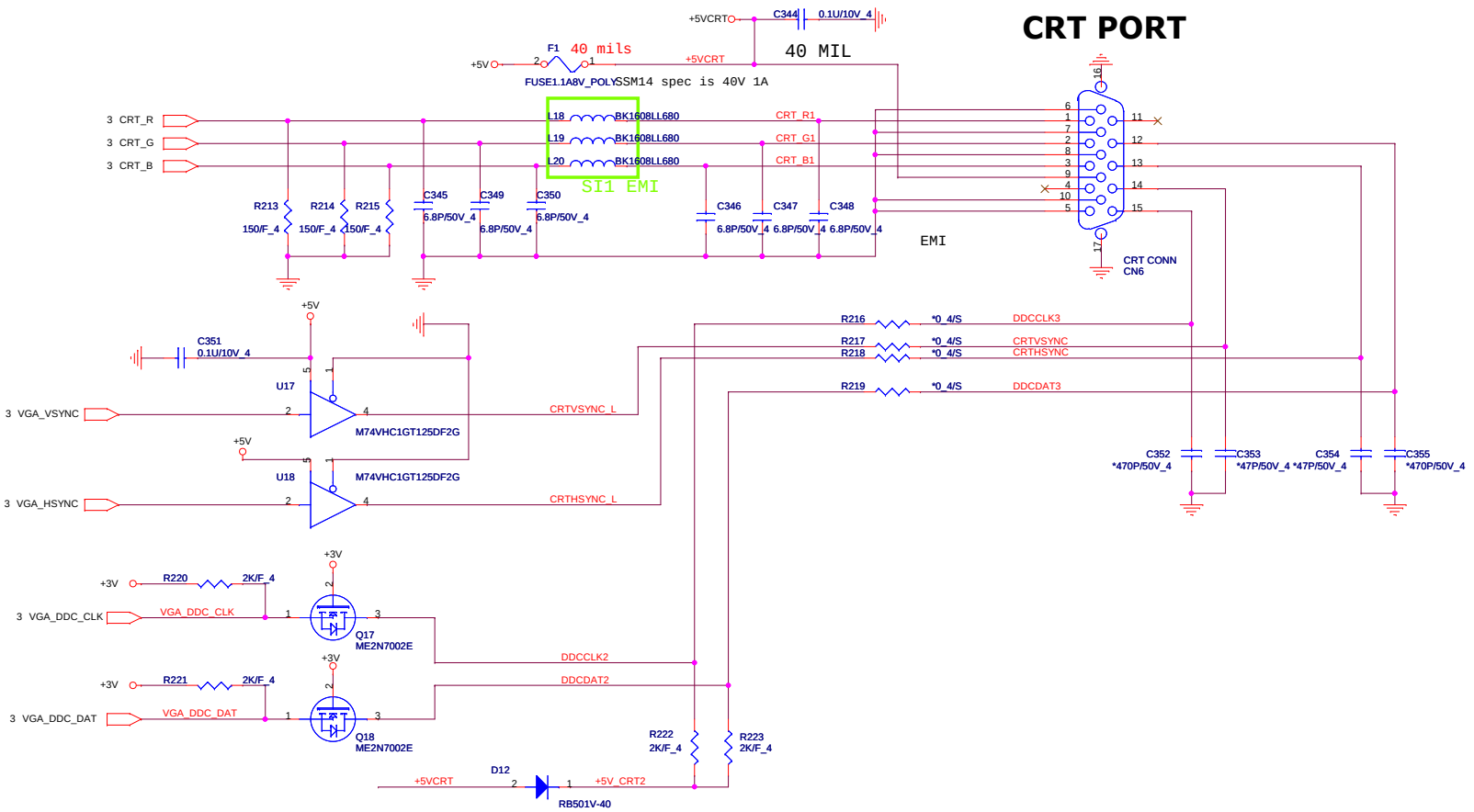
2,3,5,7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,30 +3V

2,3,5,7,10,14,26,29,31 +1.05V

CRT PORT



Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: CRT	Rev: 1A
Date: Tuesday, January 19, 2010	Sheet 12 of 32	

+3V 2,3,5,7,8,9,10,11,12,14,15,16,17,18,19,20,21,22,30

PU for internal CLK input
Unstuff for external XTAL(12MHZ)

+3V R261 10K/F_4 XTAL_CTR

U21

XTAL_CTR GPIO0 EEDO EECS EESK EEDI XD_CD# SD_WP SD_CD# MS_D4 SD_DAT1/XD_D4 MS_D5

XD_CD# SD_WP SD_CD# SP4

R263 6.19K/F_4 RREF

RREF

6 USBP4-
6 USBP4+

DM DP

2 CLK_CR_48

R266 *0_4/S XTLO

C398 10p/50V_4

SI1 EMI

R268 *270K_4

Y4 12MHz

C399 *18P/50V/COG_4

XTLO 12MHZ_XTLO

XTLI 12MHZ_XTLI

MODE_SEL

R9031 *0_4/S

+3V R271 *100K/F_4 5158_RST#

Internal have pull Hi 200K

C406 1U/6.3V_4

RST#

Realtek RTS5159

XD_CLE XD_CE# XD_ALE SD_DAT2/XD_RE# SD_DAT3/XD_WE# XD_RDY SD_DAT4/XD_WP#/MS_D7 SD_CMD SD_DAT5/XD_D0/MS_D6 SD_CLK/XD_D1/MS_CLK SD_DAT6/XD_D7/MS_D3 NC MS_INS# SD_DAT7/XD_D2/MS_D2 SD_DAT0/XD_D6/MS_D0 XD_D3/MS_D1 XD_D5/MS_BS

SP19 SP18 SP17 SP16 SP15 SP14 SP13 SD_CMD_R SP12 SP11 MS_CD# SP8 SP7 SP6 SP5

AV_PLL_IN

C396 0.1U/10V_4

C397 1U/6.3V_4

VREG_OUT VREG

5V_IN

NC

D3V3_IN

C400 0.1U/10V_4

C401 0.1U/10V_4

C402 4.7U/6.3V_6

+3V

Without memory card 43mA
suspend current 350uA

D3V3_IN

C403 0.1U/10V_4

C404 4.7U/6.3V_6

+3V

NC

CARD_3V3_OUT

+3VCARD

C405 1U/6.3V_4

AG33 AG_PLL DGND2 DGND1

RTS5159 max output current for ..
XD card 250mA
SD/MMC 250mA
MS/MSPRO 250mA

+3VCARD

C407 0.1U/10V_4

C408 0.1U/10V_4

C409 0.1U/10V_4

SD_CLK_MS_CLK R262 *0_4/S SP11

Close to Chipset

SD_CLK_MS_CLK

C395 10p/50V_4

SI1 EMI

Note:

	SD/MMC	MS	XD
SP0			
SP1			XD_CD#
SP2	SD_WP		
SP3	SD_CD#		
SP4	SD_DAT1		XD_D4
SP5		MS_BS	XD_D5
SP6		MS_D1	XD_D3
SP7	SD_DAT0	MS_D0	XD_D6
SP8	SD_DAT7	MS_D2	XD_D2
SP9		MS_INS#	
SP10	SD_DAT6	MS_D3	XD_D7
SP11	SD_CLK	MS_SCLK	XD_D1
SP12	SD_DAT5		XD_D0
SP13	SD_DAT4		XD_WP#
SP14			XD_R/B#
SP15	SD_DAT3		XD_WE#
SP16	SD_DAT2		XD_RE#
SP17			XD_ALE
SP18			XD_CE#
SP19			XD_CLE

+3VCARD +3VCARD +3VCARD

R272 *10K/F_4

C410 *270P/25V_4

SP14

CN8001

XD-R/B XD-RE XD-CE XD-CLE XD-ALE XD-WE XD-WP XD-D0 XD-D1 SD-DAT2 SD-DAT3 SD-CMD 4IN1-GND1 MS-VCC MS-SCLK MS-DATA3 MS-INS MS-DATA2 MS-DATA0

SP16 SP18 SP19 SP17 SP15 SP13 SP12 SP11 SP16 SP15 SD_CMD_R SD_CLK_MS_CLK SP10 MS_CD# SP8 SP7

MS-DATA1 MS-BS 4IN1-GND2 SD-VCC SD-CLK SD-DAT0 XD-D2 XD-D3 XD-D4 SD-DAT1 XD-D5 XD-D6 XD-D7 XD-VCC XD-CD-SW SD-WP-SW SD-CD-SW SHIELD1-GND SHIELD2-GND BOS BOS

SP6 SP5 SD_CLK_MS_CLK SP7 SP8 SP6 SP4 SP4 SP5 SP7 SP10 XD_CD# SD_WP SD_CD#

CARD READER SOCKET

XTLO

R8103 *10/F_4

C8049 *10p/50V_4

5 IN1 CARD-READER (PUSH-PUSH)

Support SD/SD PRO/MMC/MS/MS PRO/xD Cards

CLOSE to CONN

+3VCARD +3VCARD

C411 4.7U/6.3V_6

R274 150K/F_4

C412 0.1U/10V_4

C413 0.1U/10V_4

C414 0.1U/10V_4

To Cardreader Connector

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	Realtek RTS5159 & Card Reader	1A

Date: Tuesday, January 19, 2010 Sheet 13 of 32

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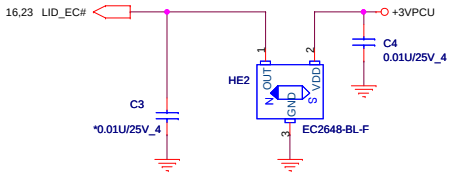
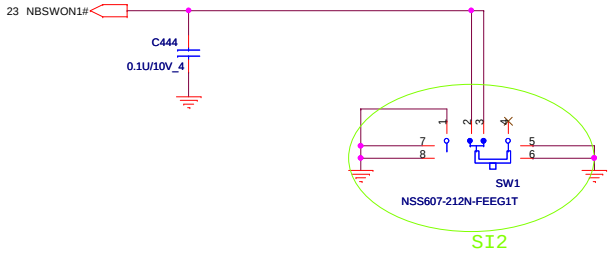
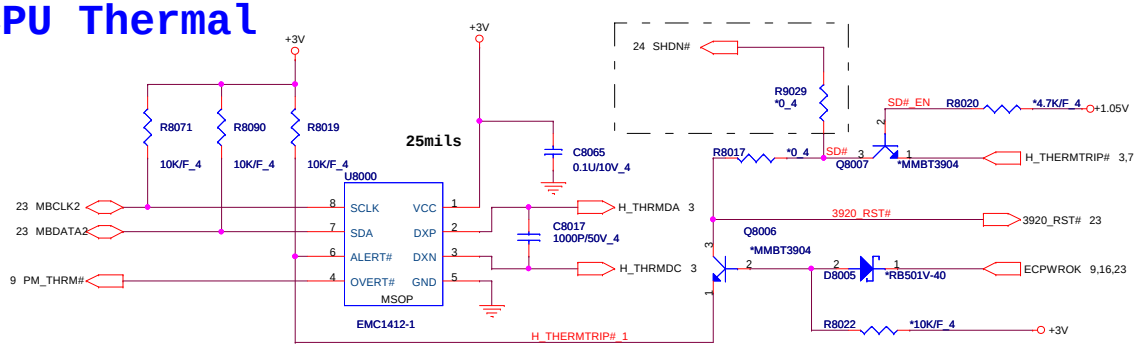
LID Switch

+3VPCU 9,16,20,21,22,23,24,26,27,30
+3V 2,3,5,7,8,9,10,11,12,13,15,16,17,18,19,20,21,22,30
+1.05V 2,3,5,7,10,26,29,31





CPU Thermal



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

Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: Power Botton	Rev: 1A
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RF PV2

RF PV1

Close to RTL8103E pins-- 10, 13, 30, 36, 39.

Close to RTL8103E pins-- 19

Power trace Layout 寬度> 200mil

RF VT2.0

Close to PIN 1

Close to PIN 29,37

RF VT2.0

close Pin 45

RTL8103EL-VB-GR

if ISOLATEB pin pull-low,the LAN chip will not drive it's PCI-E outputs (excluding PCIE_WAKE# pin)

PV1 RF

Symbol	Type	Pin No (64-Pin)	Pin No (48-Pin)	Description
LED0	O	57	38	
LED1	O	56	35	
LED2	O	55	34	
LED3	O	54	33	

LEDS1-0	00	01	10	11
LED0	Tx/Rx	Tx/Rx	Tx	Tx
LED1	LINK100	LINK	LINK	LINK100
LED2	LINK10	FULL	Rx	LINK10
LED3	NA	NA	NA	NA

VT 2.0

VT 2.0

VT 2.0

VT 2.0

RJ45

Link

NS681684:10/100 DB0LE6LAN20

Quanta Computer Inc.

PROJECT : Annika

Size	Document Number	Rev
	RTL111DL/8103E RJ45	1A

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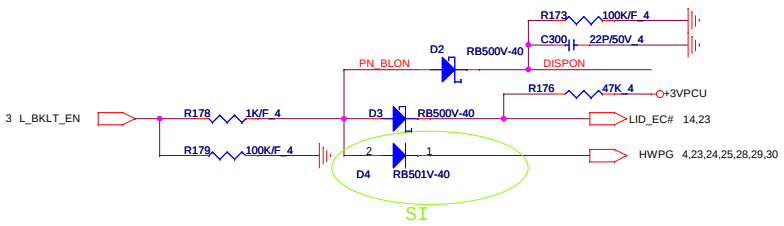
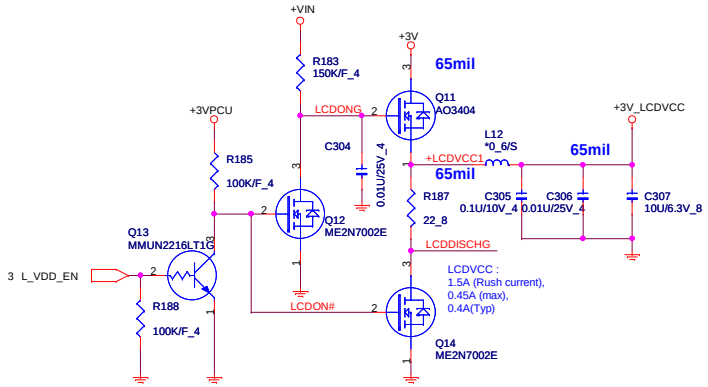
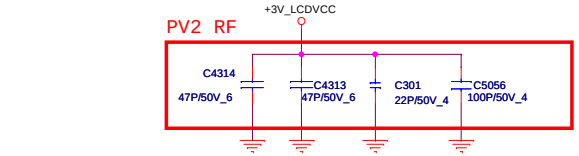
Backlight Control(LDS)

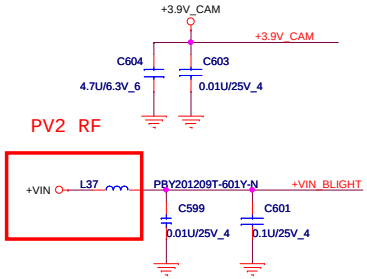


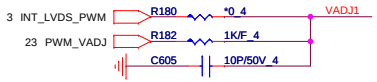
LCD POWER SWITCH



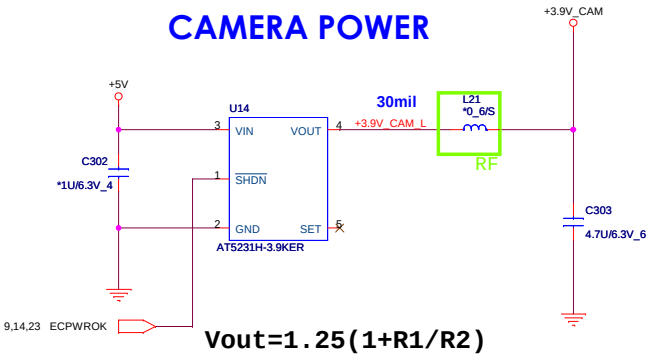
Request by HP RF(47Px2)





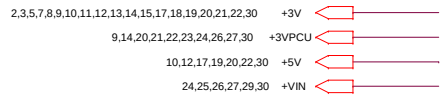


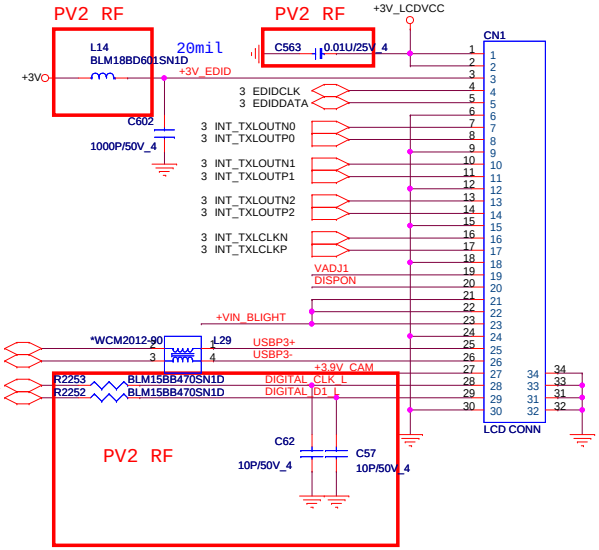
CAMERA POWER



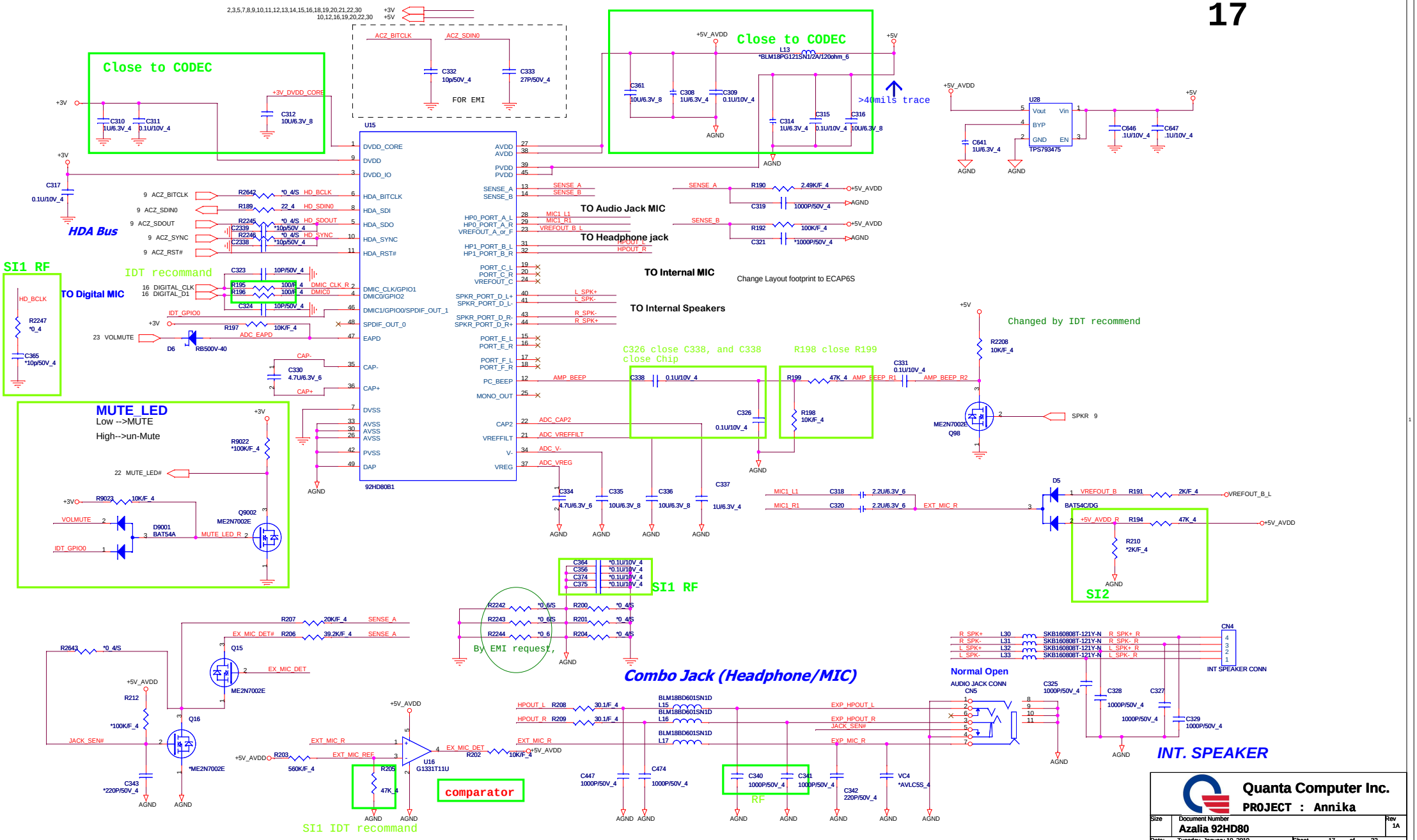
Vout=1.25(1+R1/R2)

LED Panel(LDS)





Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: LCD PANEL/CCD MODULE	Rev: 1A
Date: Wednesday, January 20, 2010	Sheet 16 of 32	



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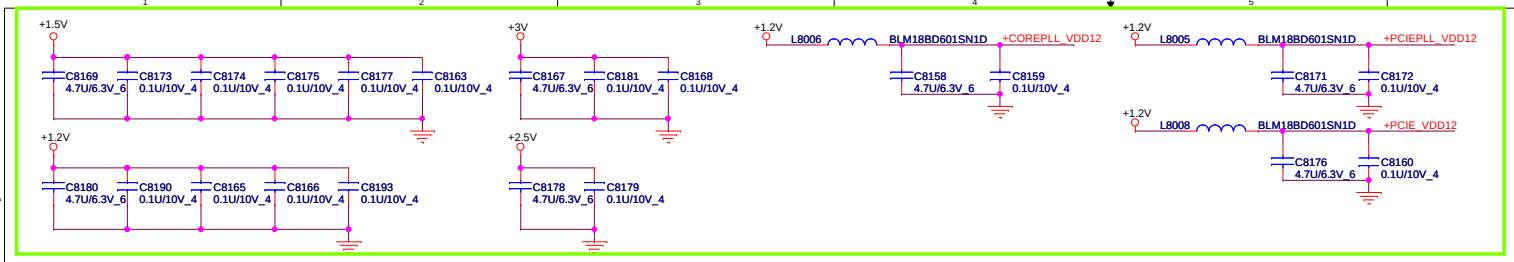

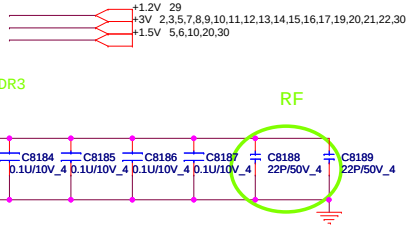

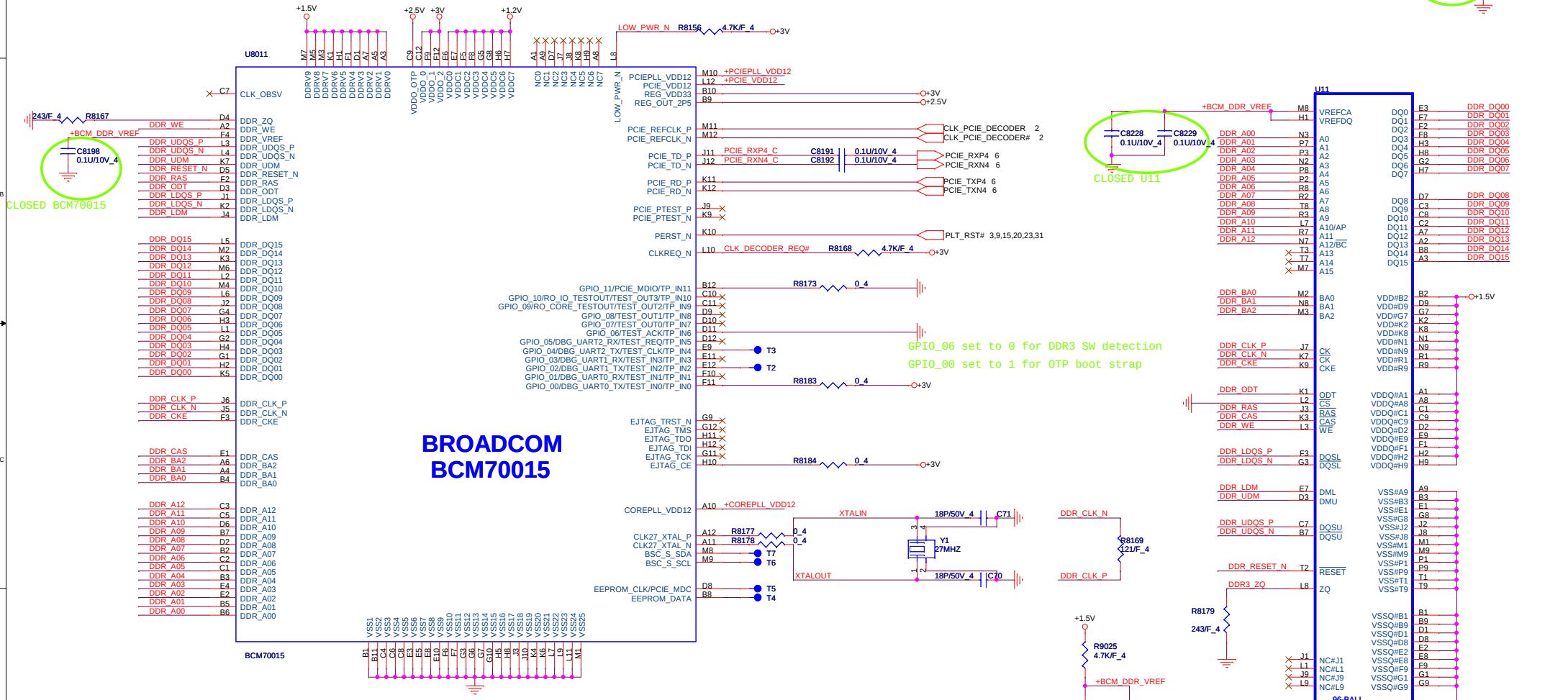

DDR3 RAM Configuration Table

DESCRIPTION		Vendor	Vendor P/N	QCI P/N
DDR3 64Mx16, 128bit	800MHZ	HYNIX	H5TQ1G63BFR-12C	AKD5LZGTW00
DDR3 64Mx16, 128bit	800MHZ	SAMSUNG	K4W1G1646E-HC12	AKD5LGGT502

Quanta Computer Inc.
PROJECT : Annika

Size	Document Number	Rev
	BROADCOM BCM70015	1A

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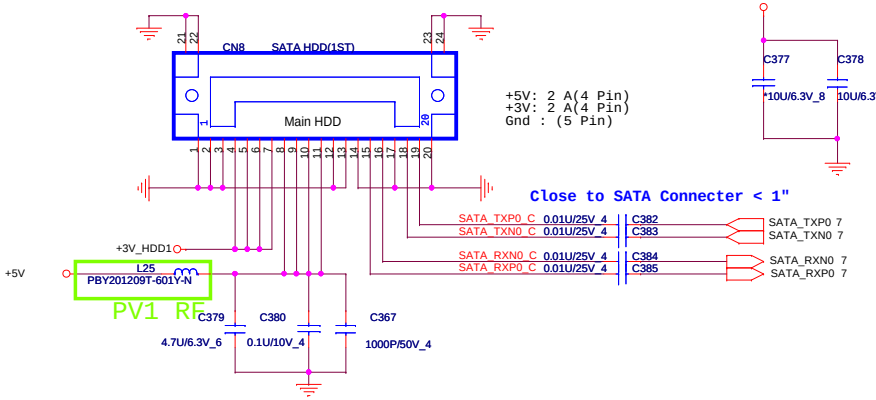
+5V 10,12,16,17,20,22,30
+3V 2,3,5,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22,30

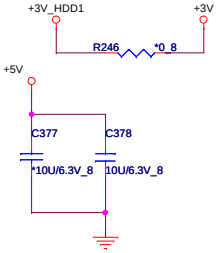
2.5" SATA HDD OR SSD(TOSHIBA)

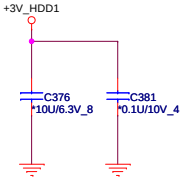
DFHD20MR008

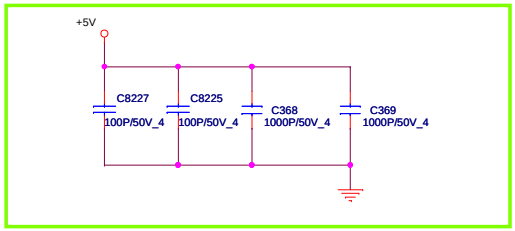
DC Current rating: 0.5 A



PV1 RF

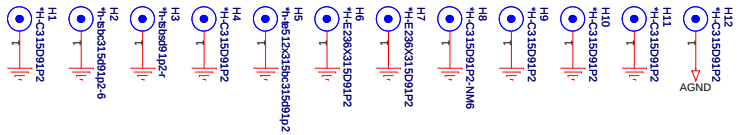


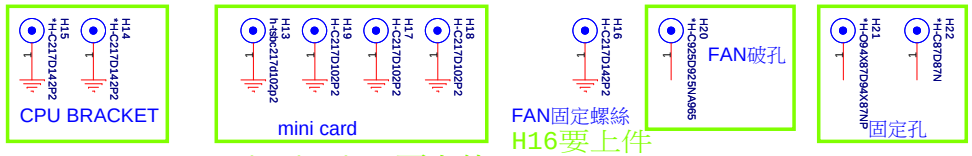




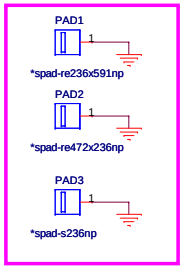
PV1 RF

M/B Screw Hole





EMI spring



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PROJECT : Annika

Size	Document Number	Rev
	SATA HDD/SCREW HOLE	1A

Date: Wednesday, January 20, 2010 Sheet 19 of 32

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+3VPCU 9,14,16,21,22,23,24,26,27,30
+1.5V 5,6,10,18,30
+3V 2,3,5,7,8,9,10,11,12,13,14,15,16,17,18,19,21,22,30
+5V 10,12,16,17,19,22,30

Request by HP RF

+1.5V_WLAN
C4319 *47P/50V_6
+3V_WLAN
C4320 *47P/50V_6

+1.5V_WLAN
C415 0.01U/25V_4
C416 0.1U/10V_4
C417 *4.7U/6.3V_6
+3V_WLAN
C418 *0.1U/10V_4
C419 *0.1U/10V_4
C420 0.1U/10V_4
C421 *4.7U/6.3V_6

SI2 RF
+5VPCU
C425 0.1U/10V_4

Mini PCI-E Card 1
Half Mini PCI-E WLAN

The value of the capacitor is suggest by Siemens HQ expert.
For against 900MHz RF interference. The value of capacitor is 27pF.
For against 1800MHz RF interference. The value of capacitor is 10pF.
1nF/10nF value capacitor use for against ESD purpose.

CN12
MINI PCIE H4

23 EC_DEBUG1
FOR KBC DEBUG
+3V_WLAN

6 PCIE_TXP2
6 PCIE_TXN2
6 PCIE_RXP2
6 PCIE_RXN2
2 PCLK_DEBUG
3,9,15,18,23,31 PLT_RST#
2 CLK_PCIE_WLAN
2 CLK_PCIE_WLAN#
2 PCIE_REQ_MINI#
9 BT_COMBO_EN#
9,15 PCIE_LAN_WAKE#

R9040 *0_4
R9021 *0_4/S BT_COMBO_EN_R#
short0402
R9019 *0_4/S
short0402

PV2
MINI_BLED# R276 *10K/F_4 +3V_WLAN
R9030 *0_4
R9033 *0_4
WLANED# R9039 *0_4 RF_LINK_1#
R275 *10K/F_4 +3V_WLAN
USBP5+ 6
USBP5- 6
BLUELED#

WLAN_RST#
R278 10K/F_4 RF_OFF# 9
PLT_RST# 3,9,15,18,23,31
R277 *10K/F_4 +3V
SI2
LAD0 9,23
LAD1 9,23
LAD2 9,23
LAD3 9,23
LFRAME# 9,23

PV1
+3V_WLAN +3V
R9034 *0_6
R9035 *0_6
+1.5V +1.5V_WLAN
R407 *0_8
Q32 AO3413
R408 47K_4
PCIE_REQ_MINI#

+3V_WLAN
Q26 AO6401
R399 47K_4
+3V
R400 *4.7K_4 PCIE_REQ_MINI#
D28 RB500V-40
R401 100K/F_4
C559 .022U/16V_4
WLAN_RST#
Q27 ME2N7002E
Q28 ME2N7002E
WLAN_MOS
+5V
R398 10K/F_4
Q29 ME2N7002E
WLAN_PWON# 23
R397 1.2K/F_4

WLAN_MOS
Q30 ME2N7002E
MINI_BLED#
R279 10K/F_4
BLUELED# 23
WLANED#
Q31 ME2N7002E
RF_LINK_1#
D29 RB500V-40
R280 10K/F_4
RF_LINK# 23
MV1

Full mini PCIE for WWAN
Mini PCI-E Card 2

MV1
+3V_WWAN
R9026 10K/F_4
RF_LINK_2# D30 *RB500V-40 RF_LINK#
R9032 0_4
Q33 ME2N7002E
WW_LINK#
R9006 10K/F_4
R9038 *1K/F_4
R9041 *0_4 WW_LINK_R# 23
+UIM_VPP
UIM_DATA_R
USBP7+ 6
USBP7- 6
R9002 *0_4/S PCIE_WWAN_DET# 9
R9007 *0_4
PLT_RST#
+3V_WWAN
WWAN_OFF#_R

CN13
MINI PCIE H4

6 PCIE_TXP3
6 PCIE_TXN3
6 PCIE_RXP3
6 PCIE_RXN3
2 CLK_PCIE_WWAN
2 CLK_PCIE_WWAN#
CLK_PCIE_WWAN
CLK_PCIE_WWAN#

+UIM_VPP
UIM_RST
UIM_CLK
UIM_DATA
+UIM_PWR
R9036 *0_4/S UIM_DATA_R
C422 0.1U/10V_4
C423 4.7U/6.3V_6
C5912 0.1U/10V_4
C5913 0.1U/10V_4
+UIM_VPP

C5912 close to CN17
C5913 close to CN3

SIM CARD SIGNALS
ROUTE PARALLEL

U13 ESD
CH1 CH3
VN VP
CH2 CH4
*CM1213_04ST

D9000 *BAV99W

CN2
GND VCC
VPP RST
I_O CLK
N/A GND
N/A GND
CT GND
DET GND
SIM CARD SOCKET

+UIM_PWR
UIM_RST
UIM_CLK
C360 0.1U/10V_4
C362 0.1U/10V_4
C513 close to CN3

RF
UIM_CLK C8211 *10p/50V_4
UIM_DATA C359 *10p/50V_4
UIM_RST C357 27P/50V_4
C358 *0.001u/50V_4
Closed CN2

SIM CARD

SI2 RF
+5VPCU
C426 0.1U/10V_4

+1.5V_WWAN
C5903 0.01U/25V_4
C5905 0.1U/10V_4
C5906 10U/6.3V_6/S
+3V_WWAN
C5907 0.1U/10V_4
C5908 0.1U/10V_4
C5909 0.1U/10V_4
C5910 10U/6.3V_6/S

+1.5V_WWAN
R9009 *0_6/S
C5904 47P/50V_4
C5911 47P/50V_4
+1.5V
C5914 47P/50V_4
+3V_WWAN
R9004 *0_6
C5915 47P/50V_4
+3V
R9012 *10K/F_4
WWAN_OFF#_R
D7 RB500V-40
WWAN_OFF# 9
C424 0.1U/10V_4

+3VPCU
R9013 10K/F_4
23 WWAN_PWON#
R9003 200K/F_4
+3VPCU
C363 *0.1U/10V_4
AO6401
Q9001
+3VPCU +3V_WWAN

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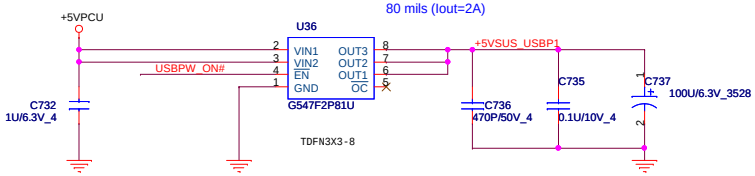
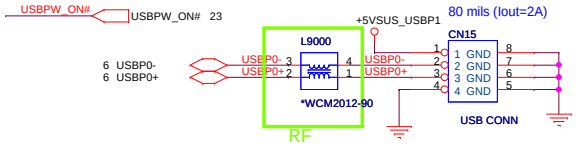
Size	Document Number	Rev
	MINI PCIE(WLAN/WWAN)	1A
Date: Wednesday, January 20, 2010	Sheet 20 of 32	

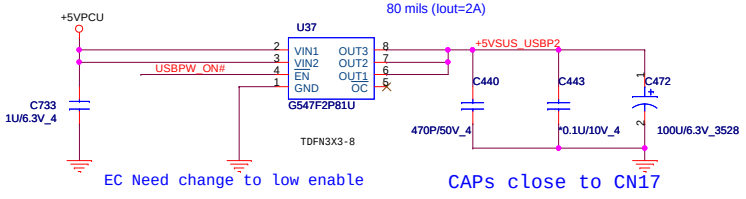
2,20,23,24,25,26,28,29,30 +5VPCU
9,14,16,20,22,23,24,26,27,30 +3VPCU
2,3,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,22,30 +3V

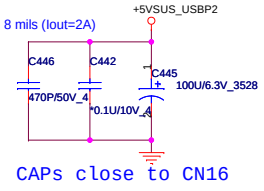
1x Left side USB port supports Keyed USB.

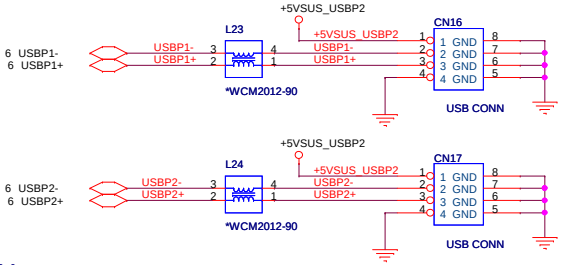




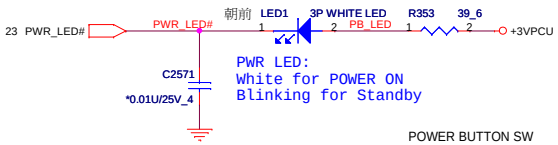
For Right 2xUSB Ports PWR



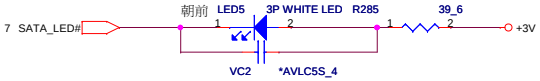




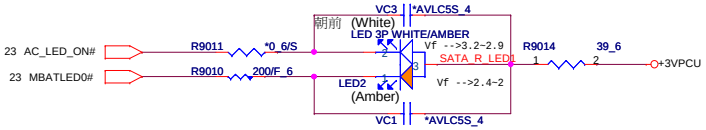
PWR Button/LED



SATA/LED



Charging & Discharging/LED



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Size	Document Number	Rev
	USB Conn/LED/PWR BT	1A

Date: Wednesday, January 20, 2010 Sheet 21 of 32

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Keyboard(KBC)

MY5 C448 220P/50V_4
MY6 C451 220P/50V_4
MY3 C454 220P/50V_4
MY7 C457 220P/50V_4
MY8 C460 220P/50V_4
MY9 C463 220P/50V_4
MY10 C466 220P/50V_4
MY11 C469 220P/50V_4

MY1 C449 220P/50V_4
MY2 C452 220P/50V_4
MY4 C455 220P/50V_4
MY0 C458 220P/50V_4
MX4 C461 220P/50V_4
MX6 C464 220P/50V_4
MX3 C467 220P/50V_4
MX2 C470 220P/50V_4

MX7 C450 220P/50V_4
MX0 C453 220P/50V_4
MX5 C456 220P/50V_4
MX1 C459 220P/50V_4
MY12 C462 220P/50V_4
MY13 C465 220P/50V_4
MY14 C468 220P/50V_4
MY15 C471 220P/50V_4

Modify CN2 footprint from bl137-32rl-tand-32p-l to 196033-32041-32p-l

Caps Lock LED 2 Pins 30mA
Wireless LED 3 pins
MUTE LED 2 Pins

KEYBOARD PULL-UP

RP3
MY1 MY5 MY0 MY9 — MY2 MY4 MY7 MY8
+3VPCU
10P8R-8.2K

RP4
MY13 MY12 MY3 MY6 — MY14 MY11 MY10 MY15
10P8R-8.2K

23 MY[0..15] MY[0..15]
23 MX[0..7] MX[0..7]

CN20
MX1 MX7 MX6 MY9 MX4 MX5 MY0 MX2 MX3 MY5 MY1 MX0 MY2 MY4 MY7 MY8 MY6 MY3 MY12 MY13 MY14 MY11 MY10 MY15
KB CONN

PV2
23 CAPSLED# +3V R9016 680/F_6 +3V_CAPS_LED
+3V R9017 100/F_6 +3V_WLS_LED
WIRE_OFF#
WIRE_ON#
17 MUTE_LED# +3V R9015 100/F_6 +3V_MUTE_LED

PV2

VT 2.0
+3V +5V R8130 *1K/F_4 R8127 1K/F_4 WIRE_ON#
23 WIRE_ON PQ25 DDTC144EU
R2668 *0_4 WIRE_OFF#

VT 2.0
+3V +5V R8131 *1K/F_4 R8128 1K/F_4 WIRE_OFF#
23 WIRE_OFF PQ26 DDTC144EU
R2669 *0_4 WIRE_ON#

+3VPCU 9,14,16,20,21,23,24,26,27,30
+5V 10,12,16,17,19,20,30
+3V 2,3,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,30
+3VSUS 30

22

TOUCH PAD CONNECTOR

25 mils
+3VSUS C572 0.1U/10V_4
23 TPDATA TPDATA L36 BLM18BD601SN1D TPDATA-1
23 TPCLK TPCLK L35 BLM18BD601SN1D TPCLK-1
C574 *10p/50V_4
C575 *10p/50V_4
By EMI request,
AF706L-A2G1T-6P-L TOUCH PAD CONN
CN25

close conn
+3VSUS R288 4.7K/F_4 TPCLK
R289 4.7K/F_4 TPDATA

TOUCH SCREEN

CN23
USBP6- USBP6+ *WCM2012-90 L9001
USBP6- 6
USBP6+ 6
+3V
Touch screen Conn

CPU FAN

+3V R292 4.7K/F_4
23 FAN1SIG
+5V_FAN
CN22
FAN CONN
C478 2.2U/6.3V_6
C1479 *0.1U/10V_4
DFHD03MR008

FANPWR = 1.6*VSET
30 MIL
U25
+5V R293 10K/F_4 FAN_FON#
23 VFAN R2667 *0_4/S FAN_VSET
VIN VO /FON GND VSET GND
+5V_FAN
G991PV11
C2482 *0.1U/10V_4
Request RC by HP RF

8 7 6 5
Gnd shape

Charge LED 3 pins

Pin 32 Pin 1

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Size	Document Number	Rev
	KB/TP/BT/CPU FAN/TP SCREEN	1A
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+3VPCU 9,14,16,20,21,22,24,26,27,30

U26

KB3926QF D2

SERIRQ LFRAME LAD0 LAD1 LAD2 LAD3 PCICLK PCIRST/GPIO5 CLKRUN SCI/GPIOE GA20/GPIO0 KBRST/GPIO1 ECRST

KSI0/GPIO30 KSI1/GPIO31 KSI2/GPIO32 KSI3/GPIO33 KSI4/GPIO34 KSI5/GPIO35 KSI6/GPIO36 KSI7/GPIO37

KSO0/GPIO20 KSO1/GPIO21 KSO2/GPIO22 KSO3/GPIO23 KSO4/GPIO24 KSO5/GPIO25 KSO6/GPIO26 KSO7/GPIO27 KSO8/GPIO28 KSO9/GPIO29 KSO10/GPIO2A KSO11/GPIO2B KSO12/GPIO2C KSO13/GPIO2D KSO14/GPIO2E KSO15/GPIO2F KSO16/GPIO48 KSO17/GPIO49

PSCLK1/GPIO4A PSDAT1/GPIO4B PSCLK2/GPIO4C PSDAT2/GPIO4D PSCLK3/GPIO4E PSDAT3/GPIO4F

RD WR SELMEM/SPICS SELIO/GPIO50 SELIO2/GPIO43 D0/GPXD0 D1/GPXD1 D2/GPXD2 D3/GPXD3 D4/GPXD4 D5/GPXD5 D6/GPXD6 D7/GPXD7

A0/GPXA0 A1/GPXA1 A2/GPXA2 A3/GPXA3 A4/GPXA4 A5/GPXA5 A6/GPXA6 A7/GPXA7 A8/GPXA8 A9/GPXA9 A10/GPXA10 A11/GPXA11

VCC1 VCC2 VCC3 VCC4 VCC5 VCC6 AVCC

AD0/GPI38 AD1/GPI39 AD2/GPI3A AD3/GPI3B

DA0/GPO3C DA1/GPO3D DA2/GPO3E DA3/GPO3F

PWM1/GPIOE PWM2/GPIO10

FANPWM1/GPIO12 FANPWM2/GPIO13 FANFB1/GPIO14 FANFB2/GPIO15

SCL1/GPIO44 SDA1/GPIO45 SCL2/GPIO46 SDA2/GPIO47

GPIO4 GPIO7 GPIO8 GPIOA GPIOB GPIOC GPIOD GPIO11 GPIO16 GPIO17 GPIO18 GPIO19 GPIO1A

CIR_RX/GPIO40 GPIO41 GPIO42 GPIO52 GPIO53 GPIO54 GPIO55 GPIO56 GPIO57 GPIO58 GPIO59

XCLKO XCLKI

GND1 GND2 GND3 GND4 GND5 AGND V18R

C484 *0.1U/10V_4
C488 0.1U/10V_4
C489 0.1U/10V_4
C485 0.1U/10V_4
C490 0.1U/10V_4
C491 *0.1U/10V_4
C492 *10U/6.3V_8
C486 0.1U/10V_4

7 SERIRQ
9,20 LFRAME#
9,20 LAD0
9,20 LAD1
9,20 LAD2
9,20 LAD3
2 PCLK_KBC
3,9,15,18,20,31 PLT_RST#
9 CLKRUN#
14 3920_RST#
+3VPCU
R295 47K_4
C487 0.1U/10V_4
SCI1#
7 GATEA20
7 RCIN#
3920_RST#

22 MX0 22 MX1 22 MX2 22 MX3 22 MX4 22 MX5 22 MX6 22 MX7

22 MY0 22 MY1 22 MY2 22 MY3 22 MY4 22 MY5 22 MY6 22 MY7 22 MY8 22 MY9 22 MY10 22 MY11 22 MY12 22 MY13 22 MY14 22 MY15

SLPBTN#
27 ACIN
22 TPCLK
22 TPDATA
R305 *100K/F_4 BLUELED#
BIOS_RD#
BIOS_WR#
BIOS_CS#
8 PCI_SERR#
T9079
9,26 IMVP_PWRGD
R9038 *0_4
20 RF_LINK#
20 BLUELED#
20 WW_LINK_R#
VT 2.0
21 USBPW_ON#
25,30 SUSON
25,27,28,29,30 MAINON
30 LAN_POWER
30 S5_ON
20 WLAN_PWON#
15 LAN_DISABLE#
20 WWAN_PWON#
21 MBATLED0#
21 AC_LED_ON#
22 WIRE_OFF
22 WIRE_ON
For KB3926 B, C version

EC_V18R
C497 0.1U/10V_4
C498 4.7U/6.3V_6

SUSB# R R303 *0_4/S SUSB# 9
H_PROCHOT_1# L R9008 *0_4/S HWPG 4,16,24,25,28,29,30 H_PROCHOT_1# 3,26
SUSC# R R304 *0_4/S SUSC# 4,9
NBSWON1# 14
EC_DEBUG1 20
IMVP_PWRGD_EC 9
KBSMI#1
VRON 26

CIR_IN
T34
R307 100K/F_4
R306 *10K/F_4
R308 10K/F_4
EC_GPIO41
EC_GPIO42
DNBSWON#1
CAPSLED# 22
PWR_LED# 21
ECPWROK 9,14,16
RSMRST# 9
VOLMUTE 17
BIOS_SPI_CLK
LID_EC# 14,16

CRY2 CRY1
C495 18P/50V_4
Y6 *32.768KHZ
Y5 32.768KHZ
C496 18P/50V_4

TEMP_MBAT 27
AD_AIR 27
SYS_I 27
CC-SET 27
CELL_SLT 27
VFAN 22
D/C# 27
PWM_VADJ 16
CV-SET 27
EC_ACLIM 27
FAN1SIG 22
EC_GPIO15 T32
MBCLK 27
MBDATA 27
MBCLK2 14
MBDATA2 14

+3VPCU
C8215 *47P/50V_4
C8216 *47P/50V_4
C8217 *47P/50V_4

SI2_RF

for Battery charge/charge and cap board
for VGA/CPU thermal

+3VPCU
R296 10K/F_4 NBSWON1#
R298 *10K/F_4 CIR_IN
R300 *10K/F_4 SLPBTN#
R301 4.7K/F_4 MBCLK
R302 4.7K/F_4 MBDATA

To Battery
To CPU thermal sensor IC

+3VPCU_EC +3VPCU
*BLM18BA470SN1D L28
U19 TPS73133
VOUT VIN SHDN NR/FB GND
C322 4.7U/6.3V_6
C339 0.01U/25V_4
C313 *1U/6.3V_4
+5VPCU

SI1

To avoid glitch during bootup
RSMRST# C525 *0.1U/10V_4

ROM Socket: DG008000031
MXIC AKE38FP0Z00
WINBOND AKE38ZP0N01
WINBOND AKE38FP0N01
2M byte SPI BIOS

RF VT 2.0
BIOS_CS# BIOS_SPI_CLK BIOS_WR# BIOS_RD#
R309 BLM15BB121SN1D BIOS_SPI_CLK_R
R311 10K/F_4 SPI_3P
+3VPCU
U27
CE# SCK SI SO WP# VDD HOLD# VSS
C494 *0.1U/10V_4
R310 10K/F_4
SPI_7P

BIOS_SPI_CLK_R
C8214 22P/50V_4
RF

Change to RB500 as Current loss
SCI1# D16 RB501V-40 SCI# 9
DNBSWON#1 D17 RB500V-40 DNBSWON# 9
KBSMI#1 D18 RB500V-40 KBSMI# 9

PCLK_KBC
R8104 *10/F_4
C8050 *10p/50V_4

Add Pin 117,103 for DSM,116 for Bluetooth,Pin 23 for Key Beep to Amplifier
Delete T10 and tie pin 117 from Lan for DSM

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Size	Document Number	Rev
	KBC3926/ROM	1A
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DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+15V_ALW

SI2_RF

PC1032 47P/50V_4, PC1033 47P/50V_4, PC1034 47P/50V_4

PV1_RF

C370 1000P/50V_4, C371 1000P/50V_4, C372 1000P/50V_4

+5VPCU Volt +/- 5%
Countinue current:4A
Peak current:5.5A
OCP minimum 6A

SI2_RF

PC1027 47P/50V_4, PC1029 47P/50V_4, PC1030 47P/50V_4

PV1_RF

C387 1000P/50V_4, C373 1000P/50V_4, C386 1000P/50V_4

+3VPCU Volt +/- 5%
Countinue current:4A
Peak current:5.5A
OCP minimum 6A

SI2_RF

PC1031 47P/50V_4, PC1036 47P/50V_4

Place these CAPs close to FETs

PC1002 4.7U/25V_8, PC1026 4.7U/25V_8, PC1003 2200P/50V_4, PC1004 0.1U/25V_4, PC1008 0.1U/25V_4

PD1002 UDZ5V6B-7-F, PR1002 1K/F_4, PR1003 150K/F_4

820ON LDO

+5V_VCC1: PC1009 1U/6.3V_4

PC1010 *0.1U/10V_4, PC1011 4.7U/6.3V_6, PC1012 0.1U/10V_4

PR1008 *0_4/S, PR1009 205K/F_4

PU1001 RT8206B

LDOREFIN, LDO, IN, N.C, ONLDO, VCC, TON, REF

BYP, OUT1, FB1, ILIM1, PGOOD1, ON1, DH1, LX1, PAD, PAD, PAD, PAD, PAD, PAD, BST1, DL1, VDD, N.C, AGND, PGND, DL2, BST2, PAD, PAD

REFIN2, ILIM2, OUT2, SKIP, PGOOD2, ON2, DH2, LX2

5V_FB1, 5V_DH, 5V_LX, 5V_BST1, 5V_DL

3V_FB2, 3V_DH, 3V_LX, 3V_BST2, 3V_DL

PR1006 182K/F_4, PC1019 0.1U/25V_4, PC1020 0.1U/25V_4, PR1015 2_6, PR1016 2_6

+5VPCU

+5V_ALWP

PL1003 2.5uH/7.5A

PQ1002 AO4496, PQ1005 AO4712

PC1013 220U/6.3V_7343ESR25, PC1014 0.1U/10V_4, PR1007 *0_4, PR1013 *0_4/S

PR1011 2.2_8, PC1018 1500P/50V_4

SI2_RF

Rds(on) 20m ohm

PL1002 2.5uH_7.5A

+3.3V_ALWP

PQ1003 AO4496, PQ1004 AO4712

PR1010 2.2_8, PC1015 1500P/50V_4

SI2_RF

PR1012 *0_4/S, PR1014 *0_4

+3VPCU

PC1016 0.1U/10V_4, PC1017 220U/6.3V_7343ESR25

Rds(on) 20m ohm

SI2_RF

+5VPCU

PC1035 47P/50V_4

+10VALW, +15VALW

PR1017 *0_4/S, PR1018 *0_4

PD1003 BAV99, PC1021 0.01U/25V_4

PD1004 BAV99, PC1024 0.01U/25V_4

PC1023 0.1U/25V_4

PD1009 1SS355, PR1021 100K/F_4

PC1263 2.2U/6.3V_6

PC1025 1U/25V_6

+15VALW

+5VALW: PC1022 1U/6.3V_4, PR1019 *0_4/S

R8070 *0_4, R8078 *0_4, R8086 *0_4

SI1 RF

PGOOD2, PGOOD1

PR1020 *0_4/S, PR3256 10K/F_4

HWPG 4,16,23,25,28,29,30

14 SHDN#

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Size	Document Number	Rev
	3VPCU/5VPCU(RT8206)	1A

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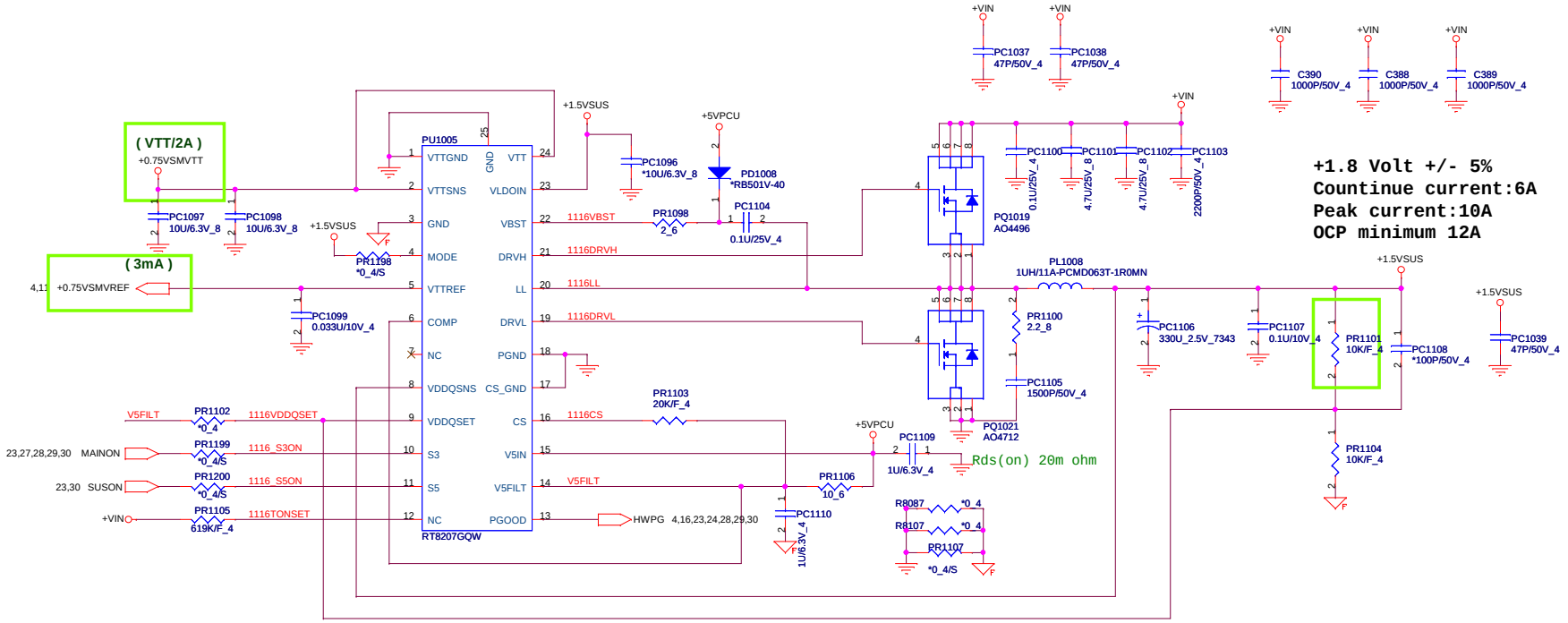

Quanta Computer Inc.		
PROJECT : Annika		
Size	Document Number: DDR2 +1.8VSUS/+0.89V	Rev: 1A
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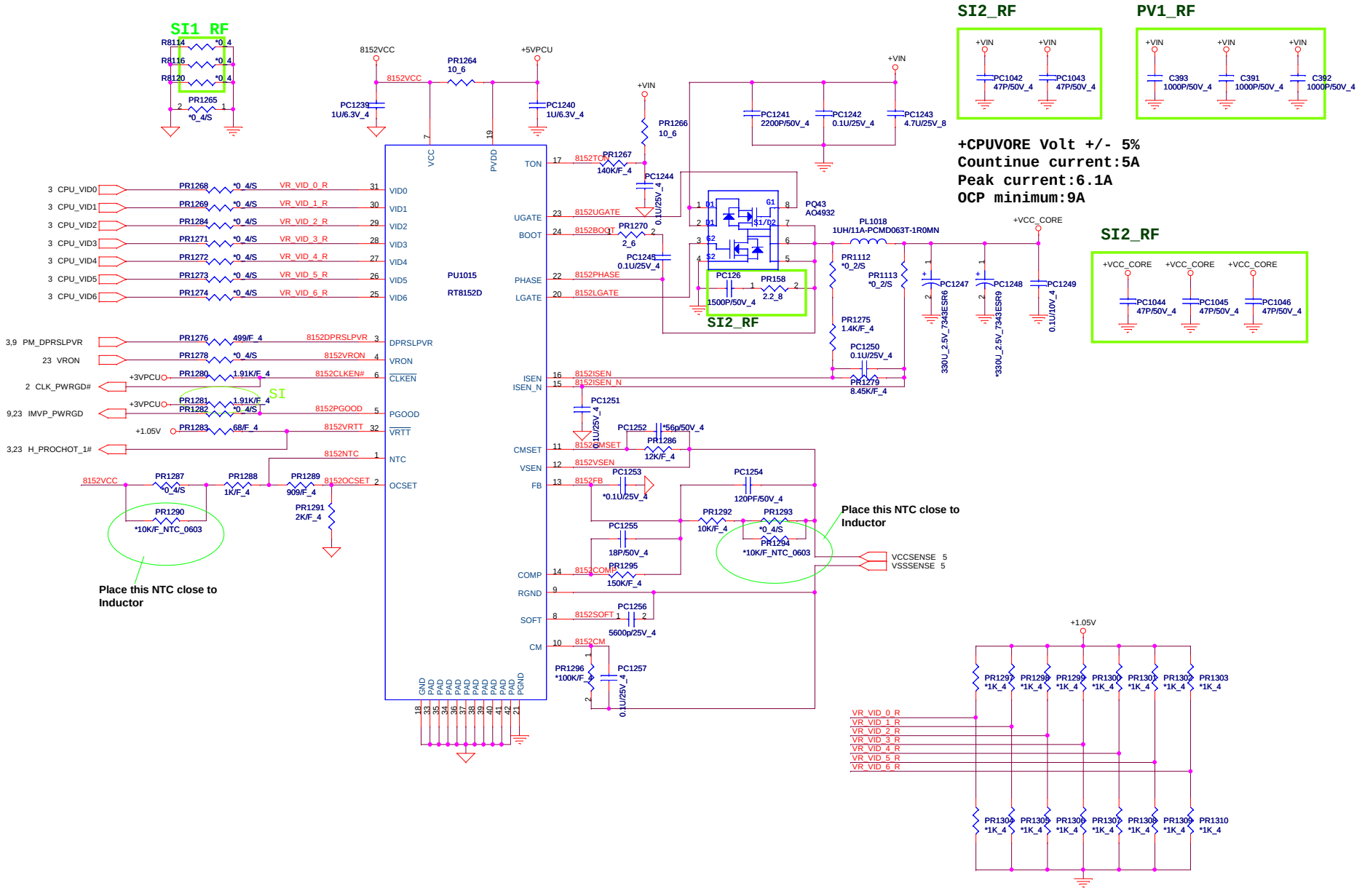
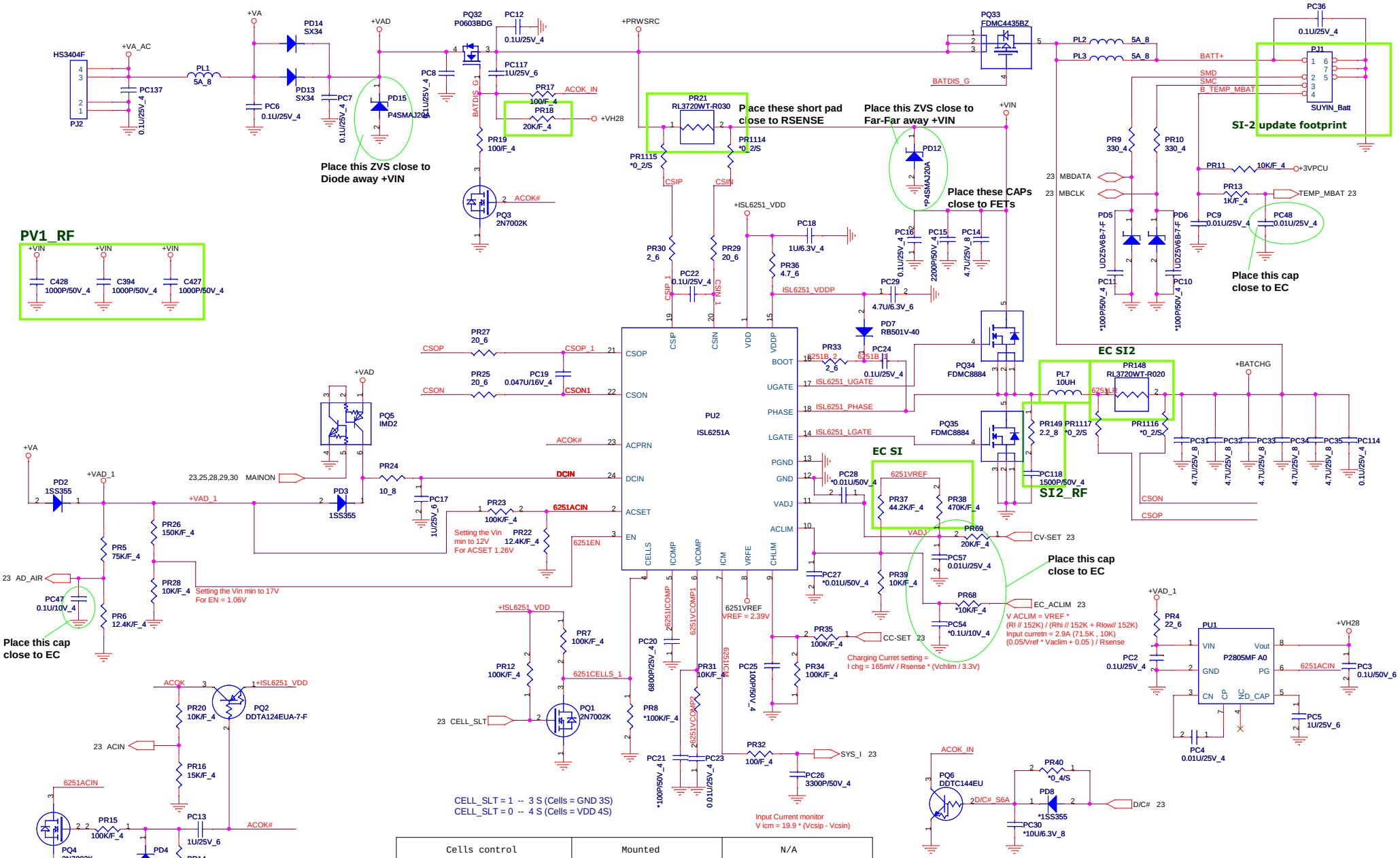


Quanta Computer Inc.
PROJECT : Annika
Size | Document Number: Vcore(RT8152B) | Rev: 1A
Date: Tuesday, January 19, 2010 | Sheet 26 of 32



Cells control	Mounted	N/A
3cells only	PR8	PR7, PR12, PQ1
option for 3cells/4cells	PR7, PR12, PQ1	PR8

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Size	Document Number	Rev
	CHARGER (ISL6251A)	1A

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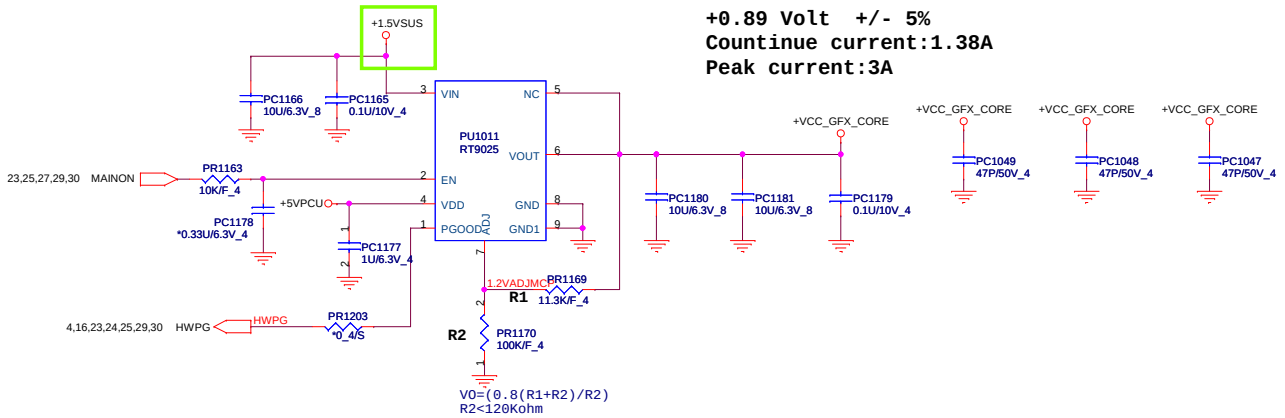
hexainf@hotmail.com

+VCC_GFX_CORE



+0.89 Volt +/- 5%
Countinue current:1.38A
Peak current:3A

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PROJECT : Annika		
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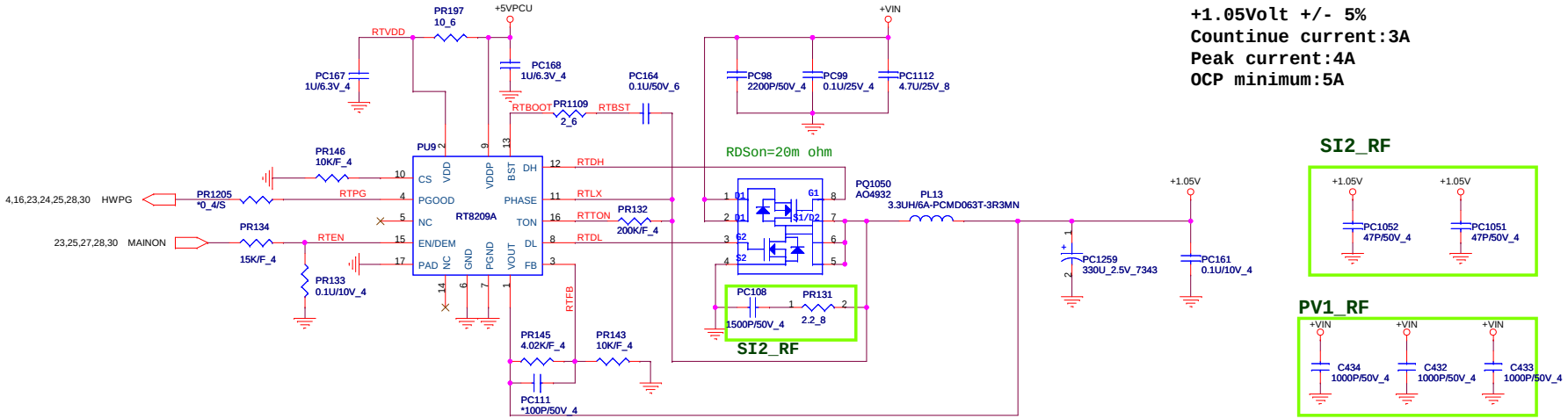
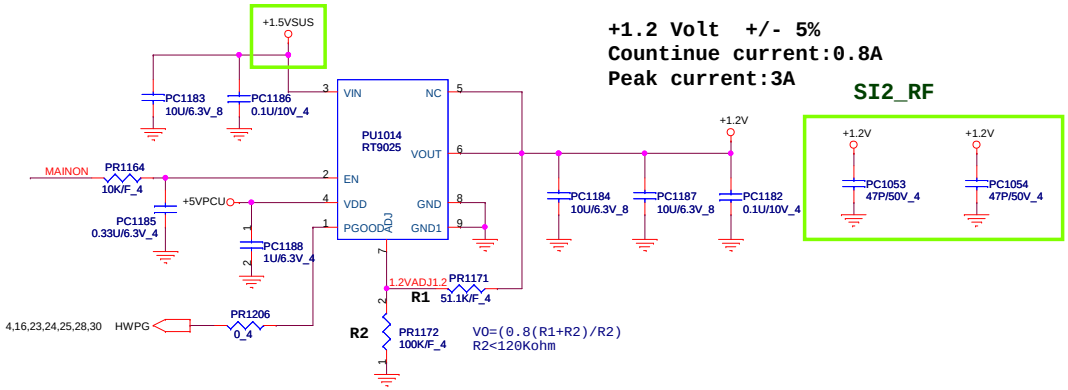
VCCP1.05V





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Size	Document Number: +1.05V (RT8209A)	Rev: 1A
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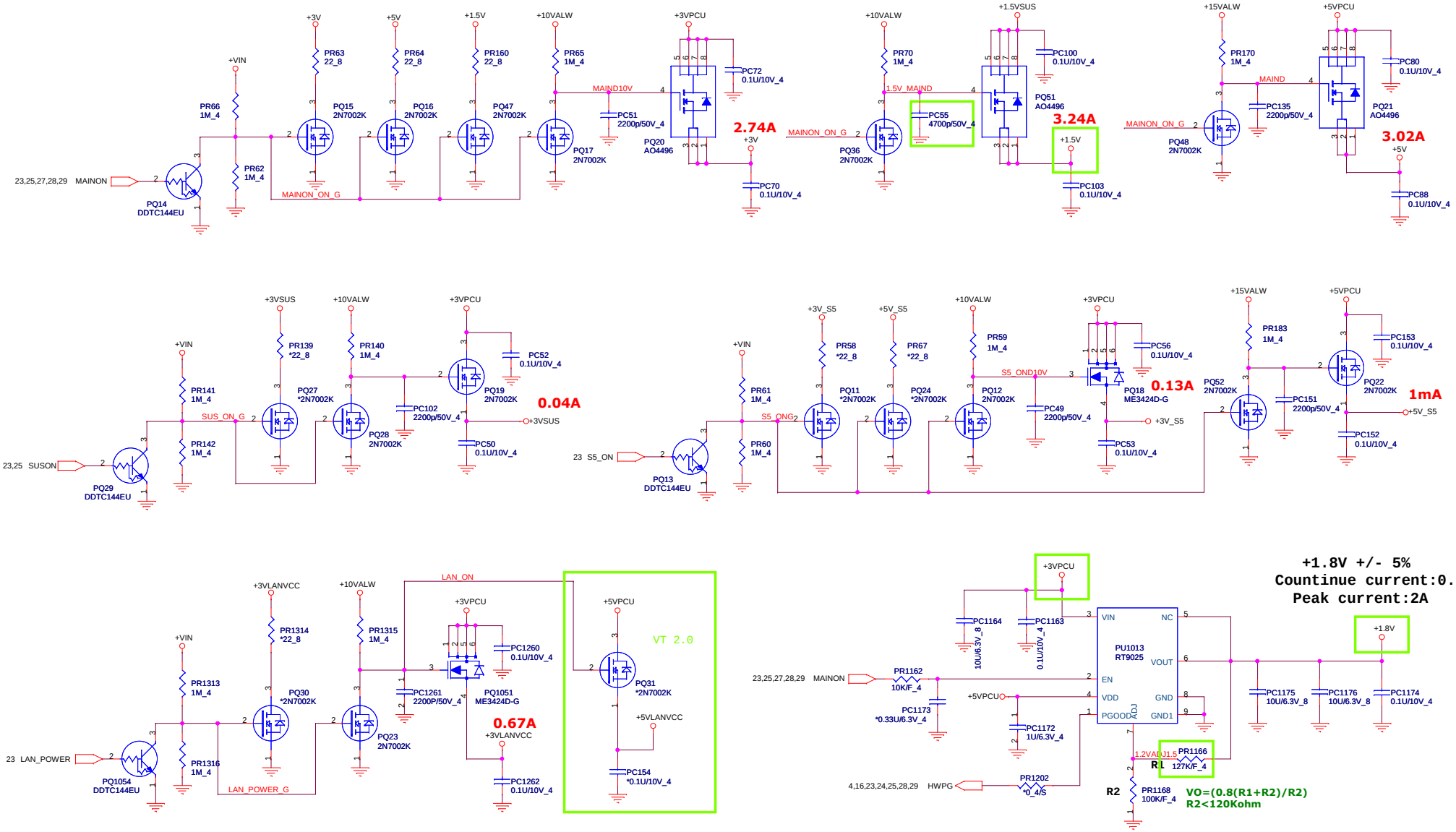
hexainf@hotmail.com



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PROJECT : Annika

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	Discharge/LANVCC/+1.5V	1A

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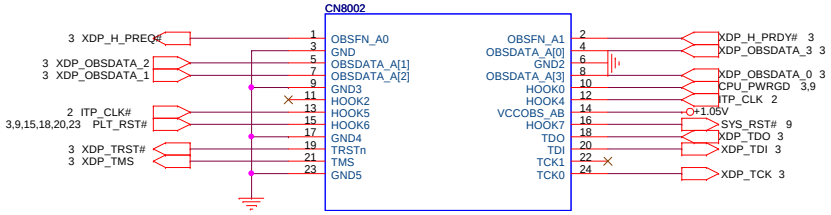
CPU XDP

2,3,5,7,10,14,26,29 +1.05V



*196013-24011

CLOSE CN8002

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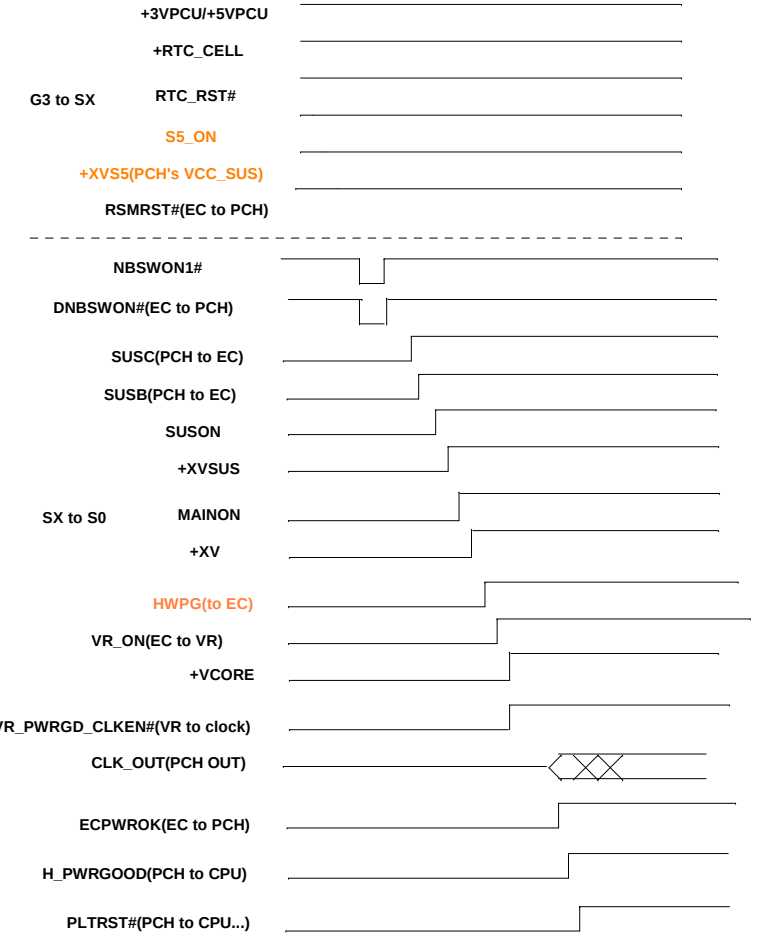
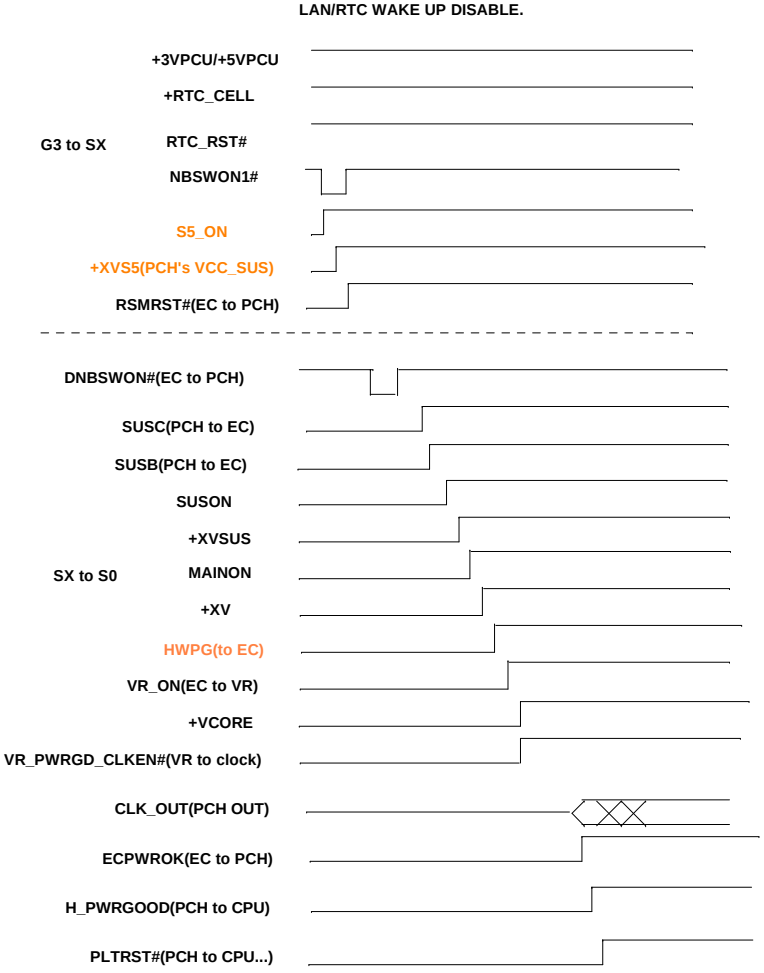
Power up sequence

LAN/RTC WAKE UP ENABLE.



LAN/RTC WAKE UP DISABLE.



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PROJECT : Annika		
Size	Document Number: Power Sequence	Rev: 1A
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