G-Note Montevina Block Diagram

01

PCB STACK UP
8L

- LAYER 1 : TOP
- LAYER 2 : SGND1
- LAYER 3 : IN1
- LAYER 4 : IN2
- LAYER 5 : VCC
- LAYER 6 : IN3
- LAYER 7 : SGND2
- LAYER 8 : BOT

CPU CORE(ISL6266A) pg 45

CPU Penryn
478P (uPGA)/35W
pg 4~5

CPU THERMAL SENSOR pg 5

FSB 667/800/1066

14.318MHz

CLK_CPU_BCLK, CLK_CPU_BCLK#
CLK_MCH_BCLK, CLK_MCH_BCLK#
DREFCLK, DREFCLK#
DREFSSCLK, DREFSSCLK#

CLOCK GEN
SLG8SP568/
ICS9LPRS393(QFN68)
pg 3

VCCP +1.5V AND GMCH 1.05V(RT8204) pg 43

DDR III (TPS51116REGR) 1.5VSUS/SMDDR_VTERM /SMDDR_VREF pg 42

DDRIII-SODIMM1 pg 11~12
DDRIII 800/1066 MT/s

DDRIII-SODIMM2 pg 11~12
DDRIII 800/1066 MT/s

NORTH BRIDGE
Cantiga
pg 6~10

27MHz

VGACORE(MAX8792ETD+T) pg 46

PCI-Express 16X

AMD M92-S2 XT
pg 13~19

HDMI pg 26

CRT pg 24

LCD CONN pg 25

DMI LINK

32.768KHz

SOUTH BRIDGE
ICH-9M
pg 20~23

USB2.0

USB2.0 Ports X3 pg 30

USB+eSATA Port X1 pg 30

BlueTooth CON. pg 32

Fingerprint CON. pg 32

Camera CON. pg 25

WWAN Socket pg 36

SIM Card Socket pg 36

SATA - HDD pg 30
SATA0 300MB

SATA - CD-ROM pg 30
SATA1 300MB

PCI-E

X3 **Mini PCI-E Card X 2**
(WLAN/ WiMAX) pg 36
(UWB) pg 37

X1 **LAN (10/100/1G) REALTEK RTL8111DL** pg 29

X1 **PCI Express Card Socket** pg 34

X1 **Card-Reader Controller JMB385** pg 27

Azalia

AUDIO CODEC (ALC269Q) pg 28

25MHz

RJ45 CON. pg 29

Memory CardReader 7-in-1 pg 27

SYSTEM POWER(ISL6237) pg 44

SYSTEM CHARGER(ISL88731A) pg 41

32.768KHz

LPC

EC (ITE) (IT8502E/JX) pg 39

Keyboard Touch Pad pg 31

G-SENSOR(LIS244ALTR) pg 33

Internal Speakers. pg 28

Internal Digital Array MIC. pg 28

External MIC. pg 28

HEADPHONE JACK pg 28

FAN pg 31

SPI EEPROM pg 39

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Block Diagram	2A

Date: Tuesday, March 03, 2009 Sheet 1 of 55

Will chang after circuit finished

02

Power States

POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
VIN	10V~+19V	25,40,41,42,43,44,45,46,47	MAIN POWER		S0~S5
+3VRTC	+3.0V~+3.3V	20,23,39	RTC		S0~S5
3VPCU	+3.3V	20,25,29,31,37,39,40,41,44	8051 POWER		S0~S5
5VPCU	+5V	27,30,37,40,41,42,43,44,45,46,47	LCD/CHARGE POWER		S0~S5
+15V	+15V	25,40,44,47	LARGE POWER	5VPCU	S0~S5
LANVCC	+3.3V	29,40	LAN POWER	LAN_ON	
5VSUS	+5V	25,30,37,40,43,45,46	SLP_S5# CTRLD POWER	SUSON	
3VSUS	+3.3V	21,22,34,35,36,39,40,45	SLP_S5# CTRLD POWER	SUSON	
1.8VSUS	+1.8V	40,43,47	SODIMM POWER	SUSON	
+0.9V_DDR_VTT	+0.9V		SODIMM POWER	MAINON	
+5V	+5V	23,24,25,26,28,30,31,39,40,41	SLP_S3# CTRLD POWER	MAINON	
+3V	+3.3V	3,5,7,10,11,12,14,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,47	SLP_S3# CTRLD POWER	MAINON	
+1.8V	+1.8V	14,15,16,17,18,19,47	VGA POWER	MAINON	
+1.5V	+1.5V	5,10,20,21,22,23,34,35,36,40,43	CALISTOGA/ICH8 POWER	MAINON	
+1.05V	+1.05V	3,4,5,6,7,9,10,20,23,40,43,45	CPU/CALISTOGA/ICH8 POWER	MAINON	
VCC_CORE	+0.7V~+1.77V	4,5,40,45	CPU CORE POWER	VRON	
LCDVCC	+3.3V	25	LCD Power	INT_DISP_ON & EXT_LVDS_DIGON	
+5VHDD	+5V	30	HDD Power	MAINON	
MBATV	+10V~+17V	39,41	MAIN BATTERY	D/C#	

G-Note Montevina
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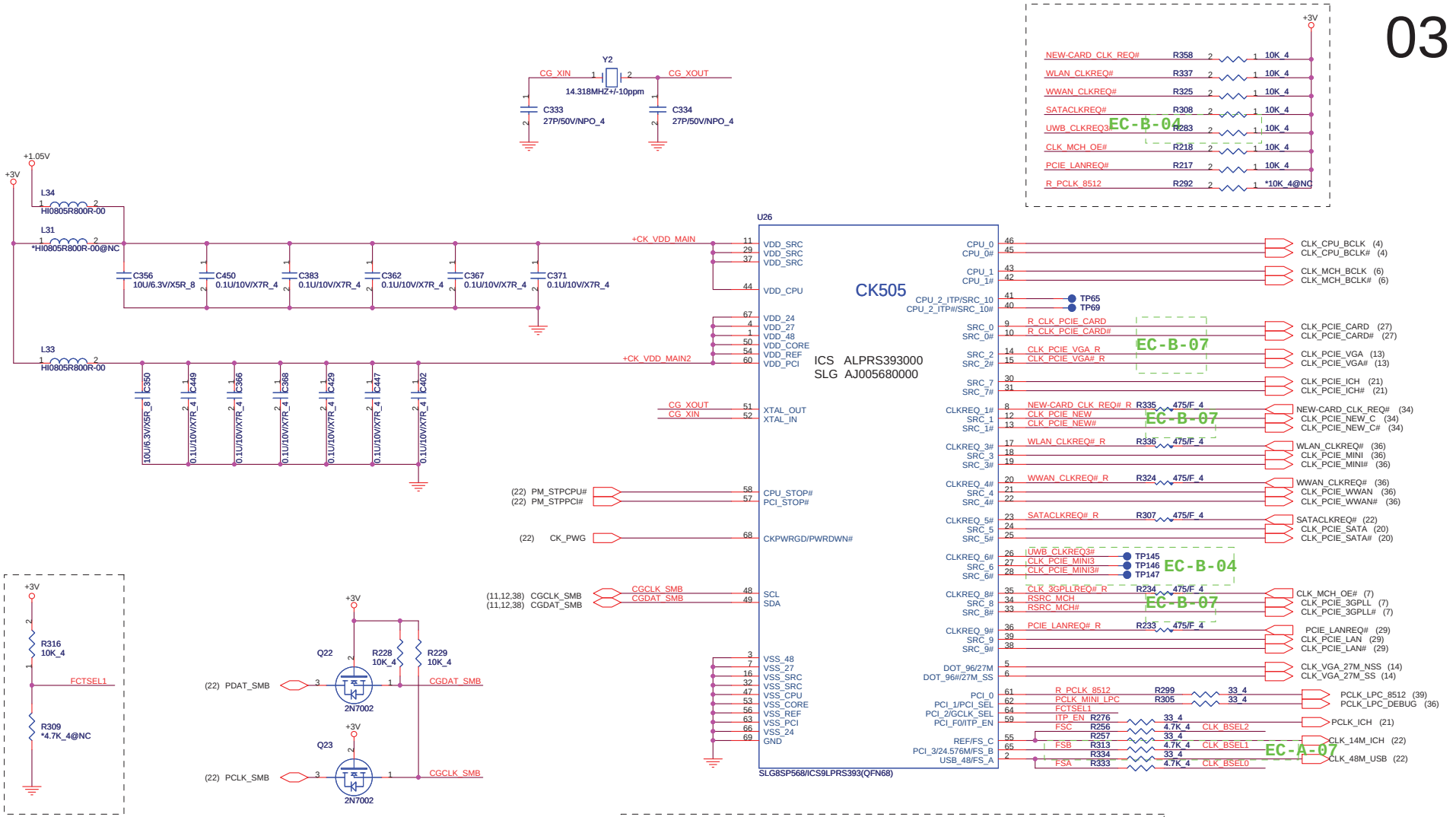
Size	Document Number	Rev
B	FRON TPAGE	2A

Date: Tuesday, March 03, 2009 Sheet 2 of 55



GCLK_SEL = FCTSEL1

FCTSEL1 (PIN64)	PIN5	PIN6
0	DOT96	DOT96#
1	27Mout-NSS	27Mout-SS

CPU Clock select

(4,7) CPU_BSEL0 — EC-B-07 — CLK_BSEL0 — EC-B-07 — MCH_BSEL0 (4,7)
EC-B-21

(4,7) CPU_BSEL1 — EC-B-07 — CLK_BSEL1 — EC-B-07 — MCH_BSEL1 (4,7)
EC-B-21

(4,7) CPU_BSEL2 — EC-B-07 — CLK_BSEL2 — EC-B-07 — MCH_BSEL2 (4,7)
EC-B-21

FSC	FSB	FSA	CPU	SRC	PCI
0	0	0	266.6	100	33
0	0	1	133.3	100	33
0	1	0	200.0	100	33
0	1	1	166.6	100	33
1	0	0	Reserved		
1	0	1	Reserved		
1	1	0	Reserved		
1	1	1	Reserved		

G-Note Montevina
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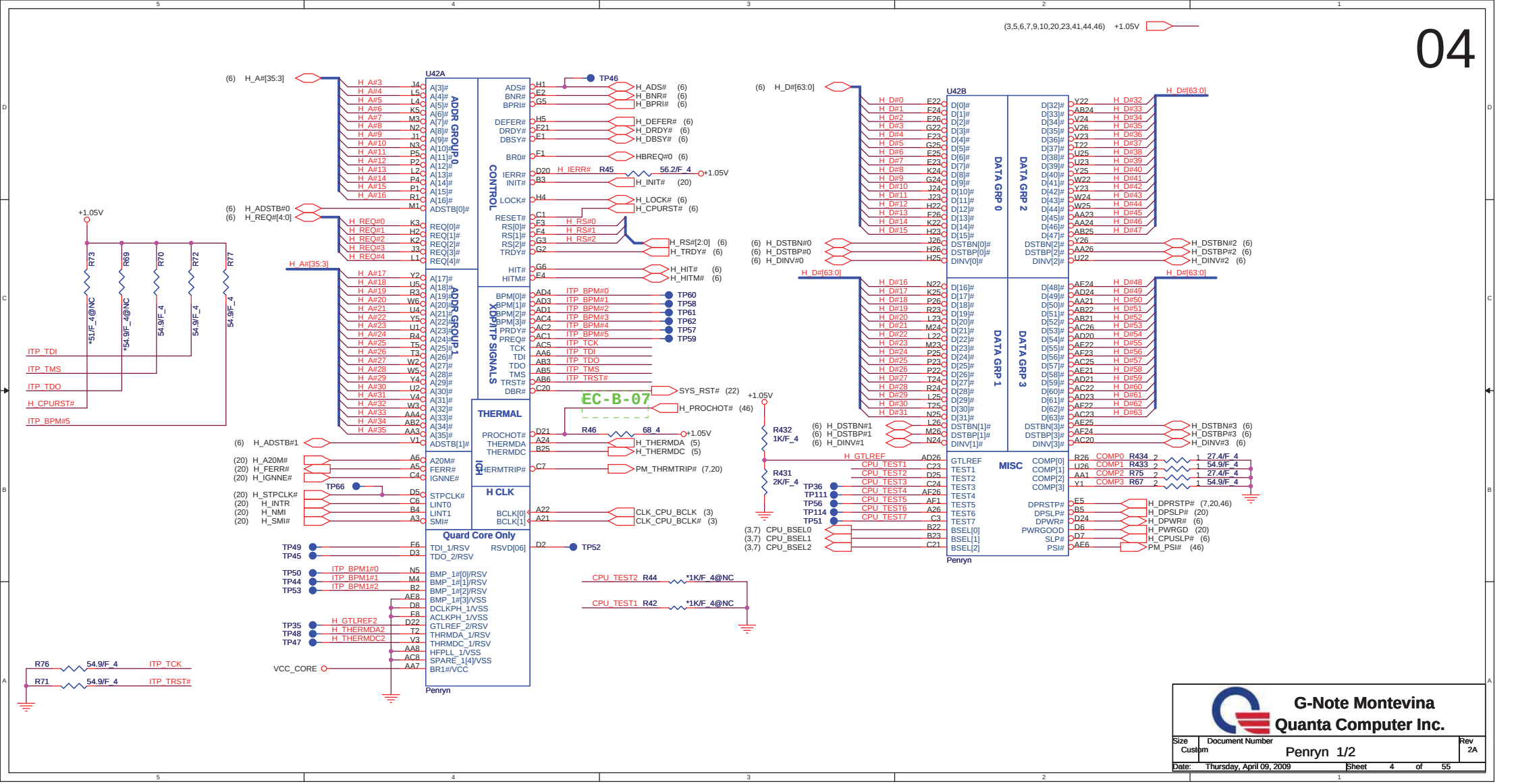
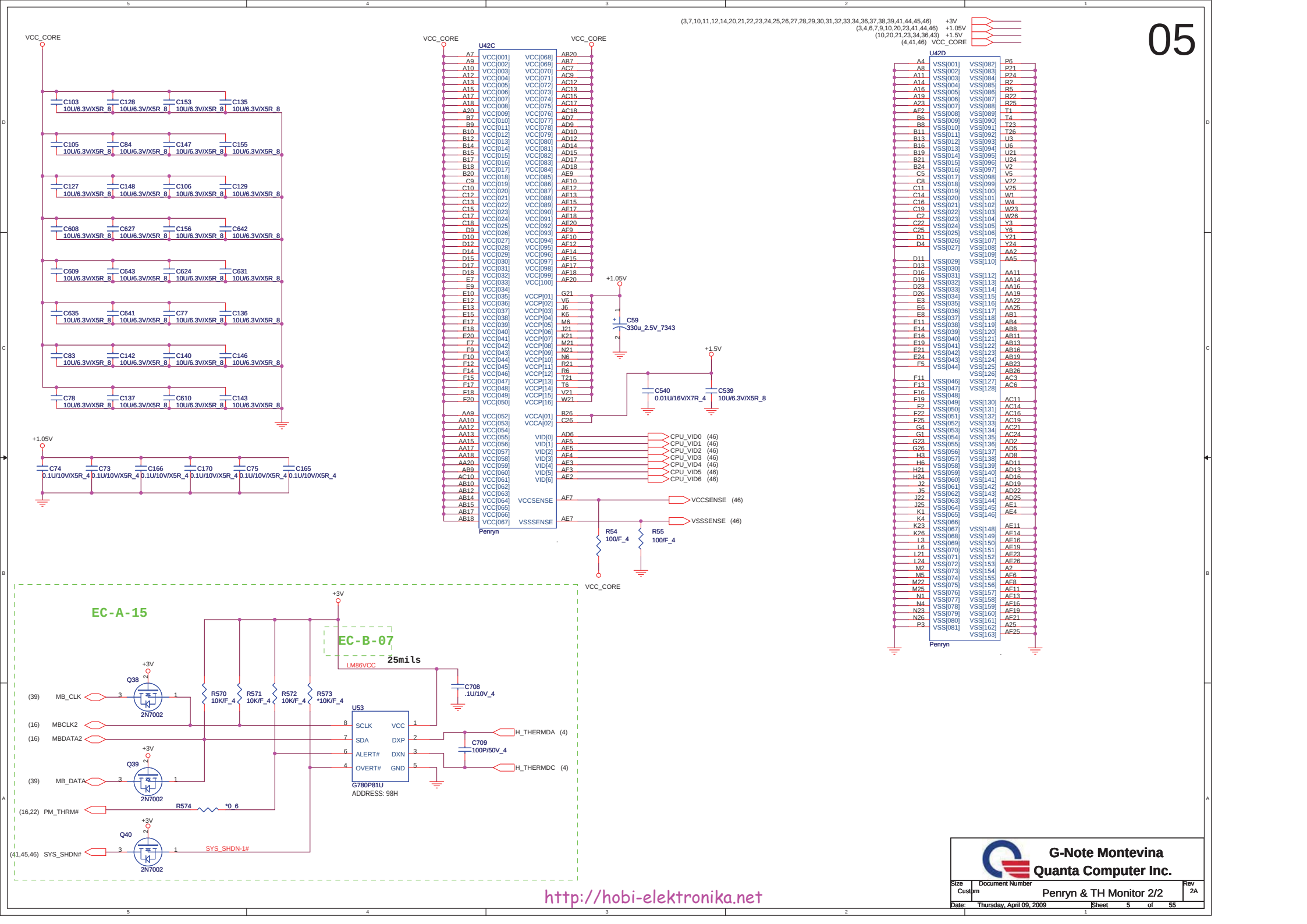
Size	Document Number	Rev
Custom	CLOCK_GEN(SLG8SP568)	2A
Date: Thursday, April 09, 2009	Sheet 3 of 55	

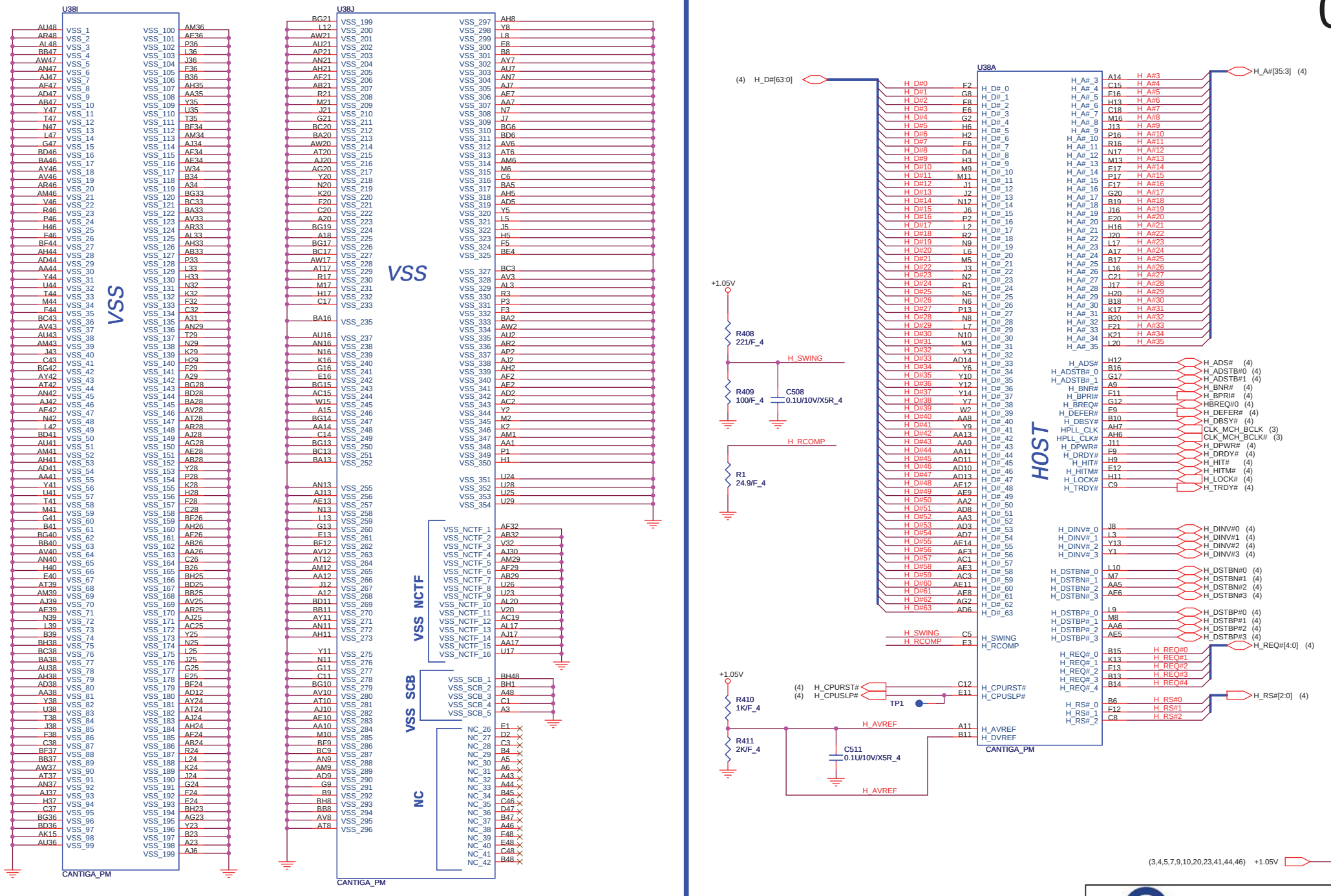




G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Penryn & TH Monitor 2/2	2A

Date: Thursday, April 09, 2009 Sheet 5 of 55



MCH_CFG_5 DMIx2 selection

Low: DMIx2
High: DMIx4 (Default)

MCH_CFG_16 FSB Dynamic ODT

Low: Dynamic ODT disabled
High: Dynamic ODT enabled (Default)

MCH_CFG_9 PCI Express Graphic Lane

Low: Reverse Lane
High: Normal operation(Default)

MCH_CFG_19 DMI Lane Reversal

Low: Normal (Default)
High: Lane Reversed

MCH_CFG_6 iTPM Host Interface

Low: iTPM Host Interface enabled
High: iTPM Host Interface disabled (Default)

MCH_CFG_7 Intel (R) Management Engine Crypto

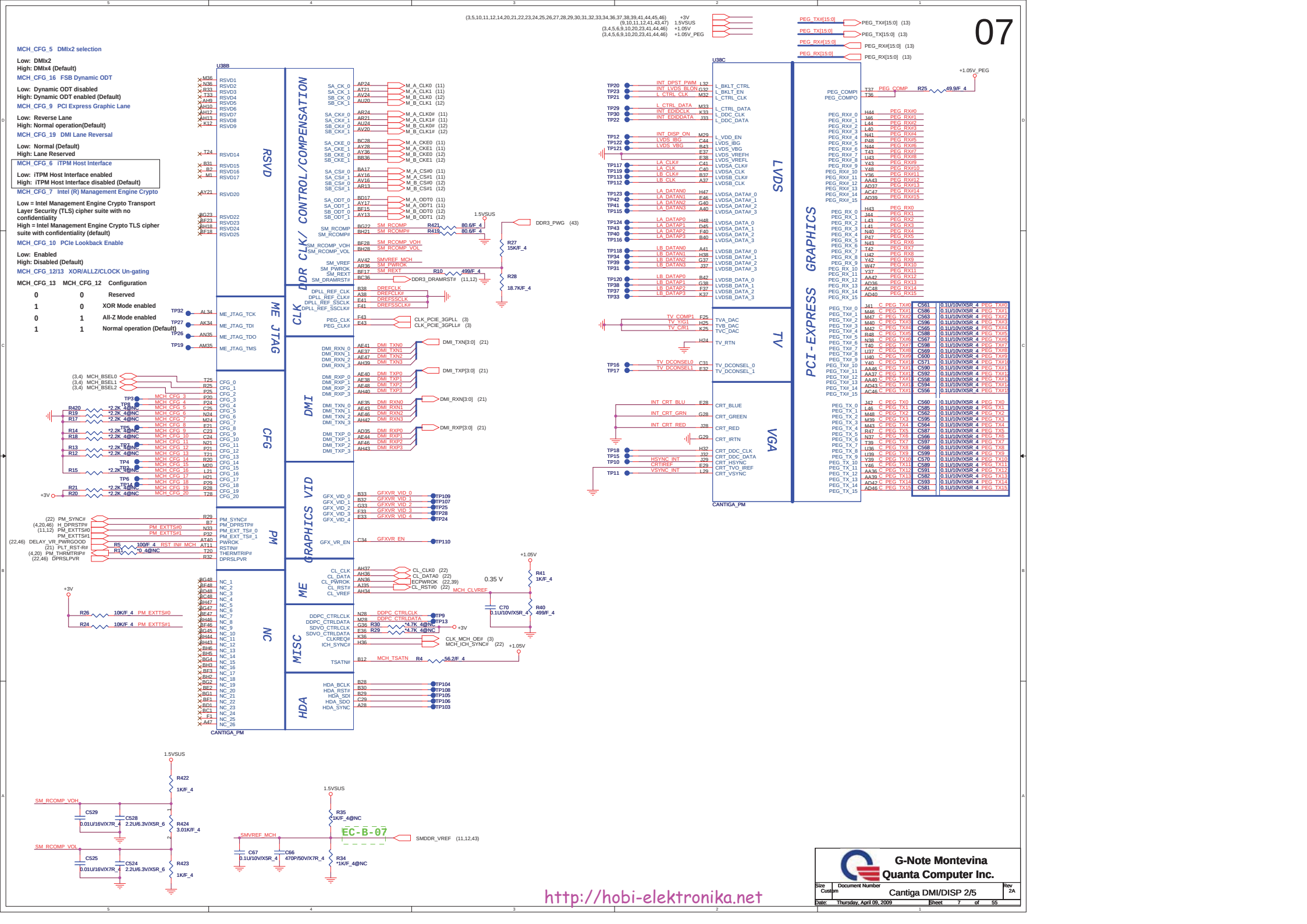
Low = Intel Management Engine Crypto Transport Layer Security (TLS) cipher suite with no confidentiality
High = Intel Management Engine Crypto TLS cipher suite with confidentiality (default)

MCH_CFG_10 PCIe Lookback Enable

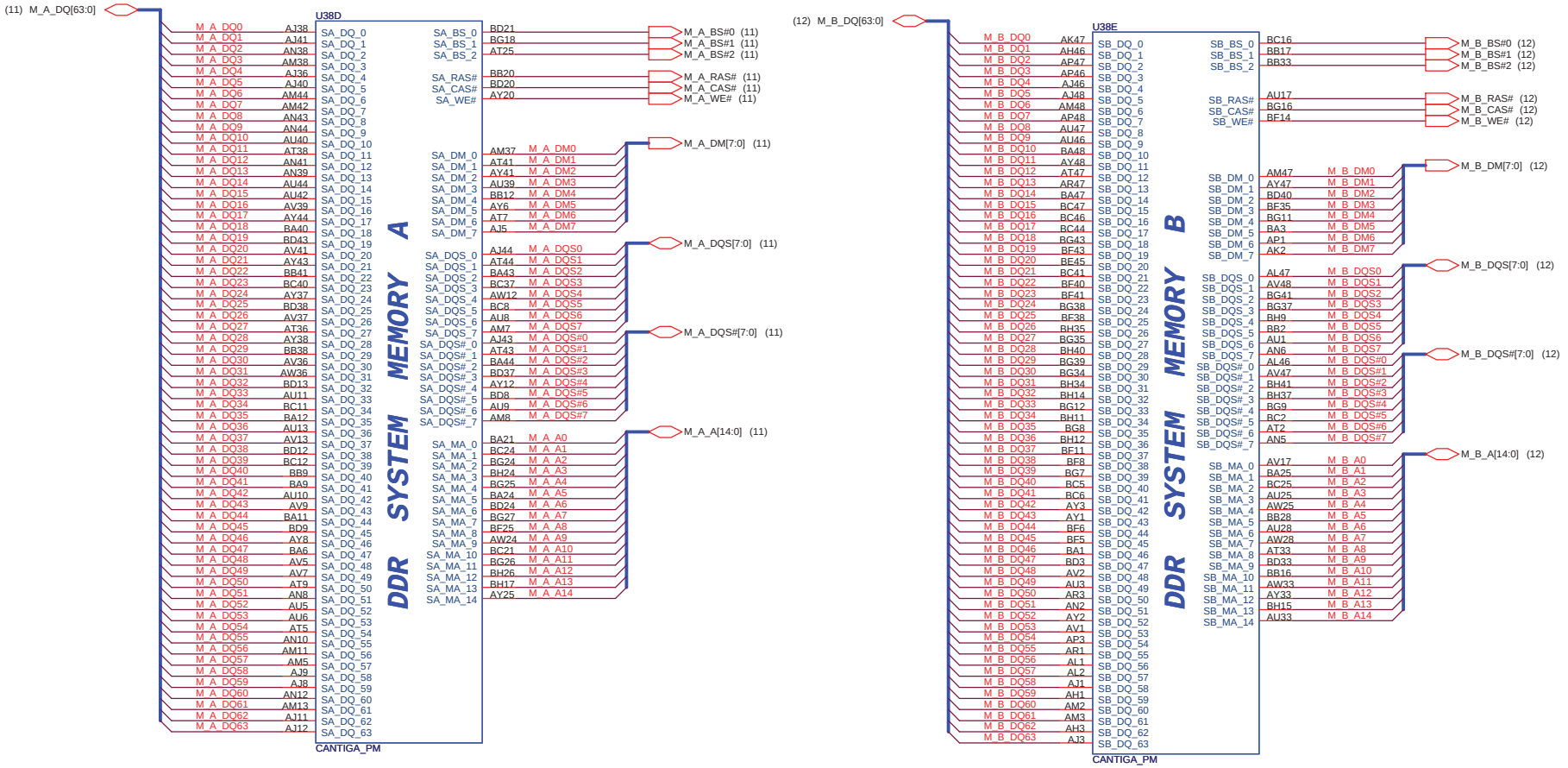
Low: Enabled
High: Disabled (Default)

MCH_CFG_12/13 XOR/ALLZ/CLOCK Un-gating

MCH_CFG_13	MCH_CFG_12	Configuration
0	0	Reserved
1	0	XOR Mode enabled
0	1	All-Z Mode enabled
1	1	Normal operation (Default)

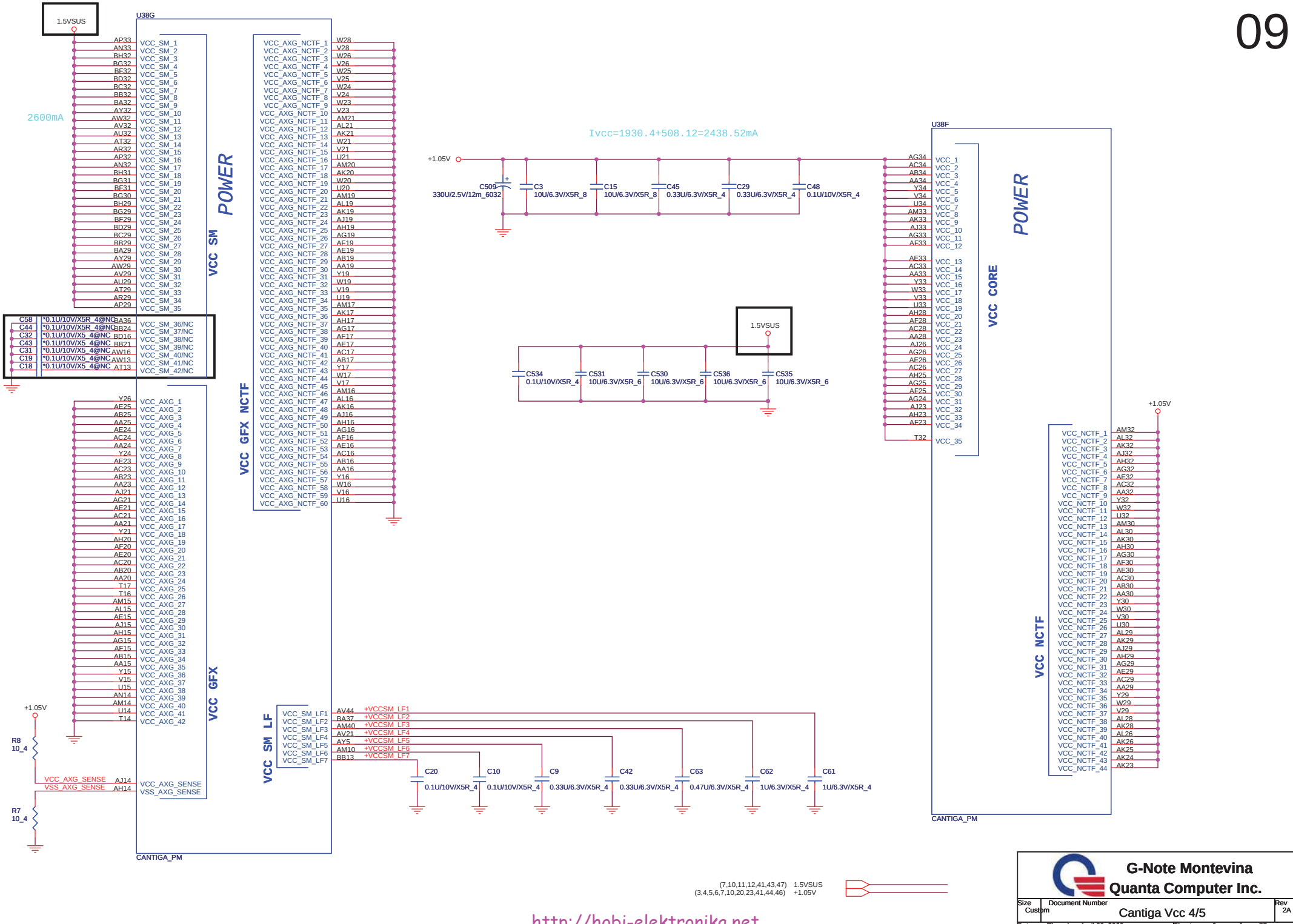


Company	G-Note Montevina Quanta Computer Inc.
Size	Custom
Document Number	Cantiga DMI/DISP 2/5
Rev	2A
Date:	Thursday, April 09, 2009
Sheet	7 of 55



G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Cantiga DDR3 3/5	2A
Date: Thursday, April 09, 2009	Sheet 8 of 55	



G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Cantiga Vcc 4/5	2A
Date: Thursday, April 09, 2009	Sheet 9 of 55	

+1.05V (3,4,5,6,7,9,20,23,41,44,46)
+3V (3,5,7,11,12,14,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,36,37,38,39,41,44,45,46)
+1.5V (5,20,21,23,34,36,43)
+1.05V_PEG (3,4,5,6,7,9,20,23,41,44,46)

U38H

POWER

CANTIGA_PM

CRT: VCCA_CRT_DAC_1 (B27), VCCA_CRT_DAC_2 (A26), VCCA_DAC_BG (A25), VSSA_DAC_BG (B25)

PLL: VCCA_DPLLA (F47, +1.05V_DPLLA), VCCA_DPLLB (L48, +1.05V_DPLLB), VCCA_HPLL (AD1, +1.05V_HPLL, 24mA), VCCA_MPLL (AE1, +1.05V_MPLL, 139.2mA)

LVDS: VCCA_LVDS (J48), VSSA_LVDS (J47)

A PEG: VCCA_PEG_BG (AD48, +1.5V_PEG_BG, 50mA), VCCA_PEG_PLL (AA48, +1.05V_PEGPLL)

A SM: VCCA_SM_1 (AR20), VCCA_SM_2 (AP20), VCCA_SM_3 (AN20), VCCA_SM_4 (AR17), VCCA_SM_5 (AP17), VCCA_SM_6 (AN17), VCCA_SM_7 (AT16), VCCA_SM_8 (AR16), VCCA_SM_9 (AP16), +1.05V_A_SM, 747.5mA

A CK: VCCA_SM_CK_1 (AP28), VCCA_SM_CK_2 (AN28), VCCA_SM_CK_3 (AP25), VCCA_SM_CK_4 (AN25), VCCA_SM_CK_5 (AN24), VCCA_SM_CK_NCTF_1 (AM28), VCCA_SM_CK_NCTF_2 (AM26), VCCA_SM_CK_NCTF_3 (AM25), VCCA_SM_CK_NCTF_4 (AL25), VCCA_SM_CK_NCTF_5 (AM24), VCCA_SM_CK_NCTF_6 (AL24), VCCA_SM_CK_NCTF_7 (AM23), VCCA_SM_CK_NCTF_8 (AL23), +1.05V_A_SM_CK, 37.95mA

TV: VCCA_TV_DAC_1 (B24), VCCA_TV_DAC_2 (A24)

HDA: VCC_HDA (A32), 35mA

D TV/CRT: VCCD_TVDAC (M25), 120uA; VCCD_QDAC (L28, +1.5V_QDAC), 157.2mA; VCCD_HPLL (AF1, +1.05V_MPLL), 50mA; VCCD_PEG_PLL (AA47, +1.05V_PEGPLL), 60.31mA

LVDS: VCCD_LVDS_1 (M38), VCCD_LVDS_2 (L37)

VTT: VTT_1 (U13) … VTT_25 (U1), 852mA

AXF: VCC_AXF_1 (B22), VCC_AXF_2 (B21), VCC_AXF_3 (A21), 150mA

SM CK: VCC_SM_CK_1 (BF21), VCC_SM_CK_2 (BH20), VCC_SM_CK_3 (BG20), VCC_SM_CK_4 (BF20)

HV: VCC_TX_LVDS (K47), 118.8mA; VCC_HV_1 (C35), VCC_HV_2 (B35), VCC_HV_3 (A35), +3V_HV, 105.3mA

PEG: VCC_PEG_1 (V48), VCC_PEG_2 (U48), VCC_PEG_3 (V47), VCC_PEG_4 (U47), VCC_PEG_5 (U46), 1782mA

DMI: VCC_DMI_1 (AH48), VCC_DMI_2 (AF48), VCC_DMI_3 (AH47), VCC_DMI_4 (AG47), +1.05V_RXR_DMI, 456mA

VTTLF: VTTLF1 (A8), VTTLF2 (L1), VTTLF3 (AB2), +VTTLF_CAP1, +VTTLF_CAP2, +VTTLF_CAP3

C21 0.47U/6.3V/X5R_4; C17 2.2U/6.3V/X5R_6; C46 4.7U/6.3V/X5R_6; C13 4.7U/6.3V/X5R_6

+1.05V_AXF: C515 1U/6.3V/X5R_4; C514 10U/6.3V/X5R_8

+1.5VSUS_SM_CK: C519 10U/6.3V/X5R_6; C522 0.1U/10V/X5R_4; R416 1/F_6; +1.5VSUS_SM_CK_L; C520 10U/6.3V/X5R_6; L54 1uH/230mA_6; 1.5VSUS

+1.05V_HV_MCH: D13 RB501V-40; R412 10_4; C538 0.1U/10V/X5R_4

+1.05V_HPLL: C4 4.7U/6.3V/X5R_6; C1 0.1U/10V/X5R_4

+1.05V_MPLL: L1 HCB1608KF-181T15_6; +1.05V_MCH_PLL; R2 0.5/F_6; C11 10U/6.3V/X5R_8; C8 0.1U/10V/X5R_4

+1.5V_PEG_BG: C572 0.1U/10V/X5R_4

+1.05V_PEGPLL: C55 0.1U/10V/X5R_4

+1.05V_A_SM: C23 10U/6.3V/X5R_8; C37 10U/6.3V/X5R_8; C5 *220U/2.5V_3528@NC; C36 10U/6.3V/X5R_8; C41 4.7U/6.3V/X5R_6; C30 1U/6.3V/X5R_4

+1.05V_A_SM_CK: C50 2.2U/6.3V/X5R_6; C52 10U/6.3V/X5R_8; C53 0.1U/10V/X5R_4

+1.5V_QDAC: C47 0.1U/10V/X5R_4; C49 0.01U/16V/X7R_4

+1.05V_MPLL: C7 0.1U/10V/X5R_4

+1.05V_PEGPLL: L3 HCB1608KF-181T15_6; R23 1/F_6; C51 10U/6.3V/X5R_8

+VTTLF_CAP1/2/3: C2 0.47U/6.3V/X5R_4; C6 0.47U/6.3V/X5R_4; C510 0.47U/6.3V/X5R_4

+1.05V_RXR_DMI: C54 4.7U/6.3V/X5R_6; C60 *330u/2.5V_7343@NC; C56 10U/6.3V/X5R_8; C557 0.1U/10V/X5R_4

+1.05V_PEG: C57 0.1U/10V/X5R_4

EC-B-07 ×8

G-Note Montevina
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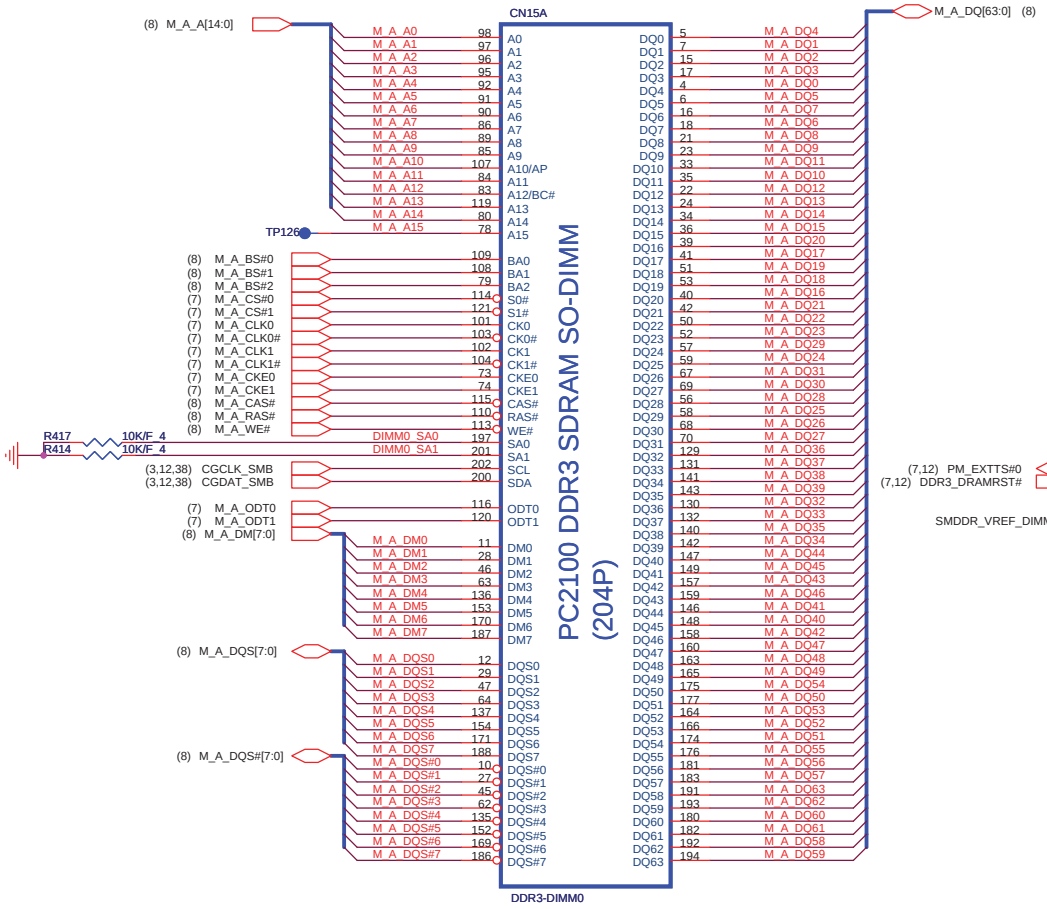
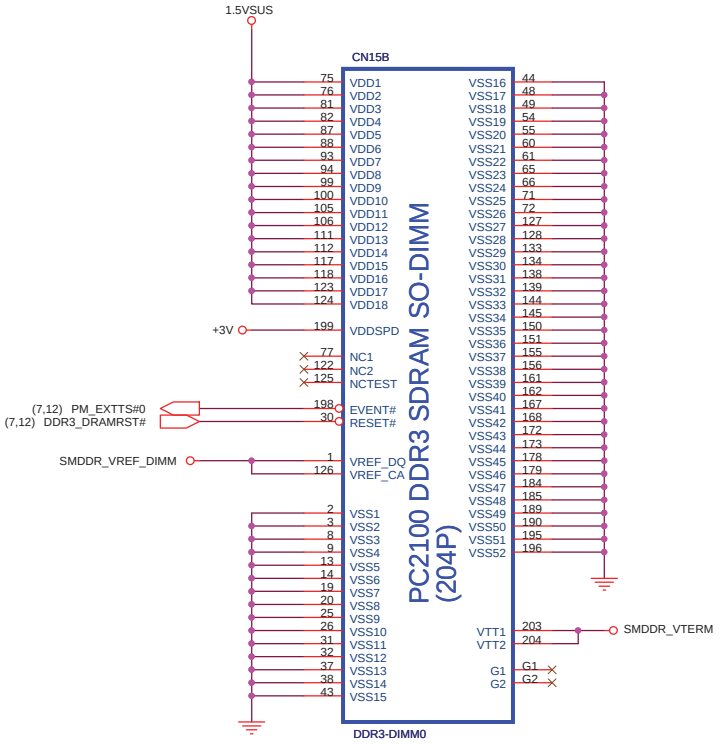
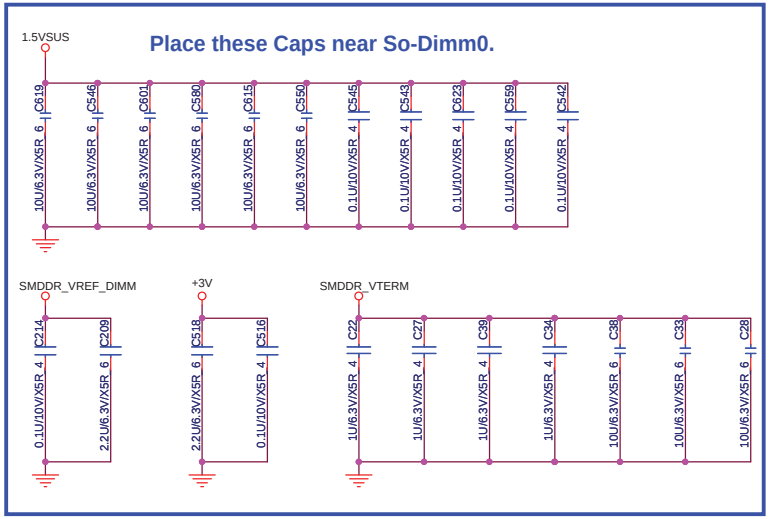
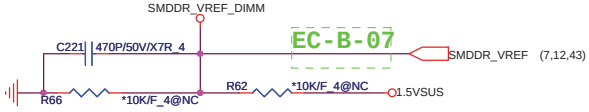
Size	Document Number	Rev
Custom	Cantiga Power 5/5	2A
Date: Thursday, April 09, 2009	Sheet 10 of 55	

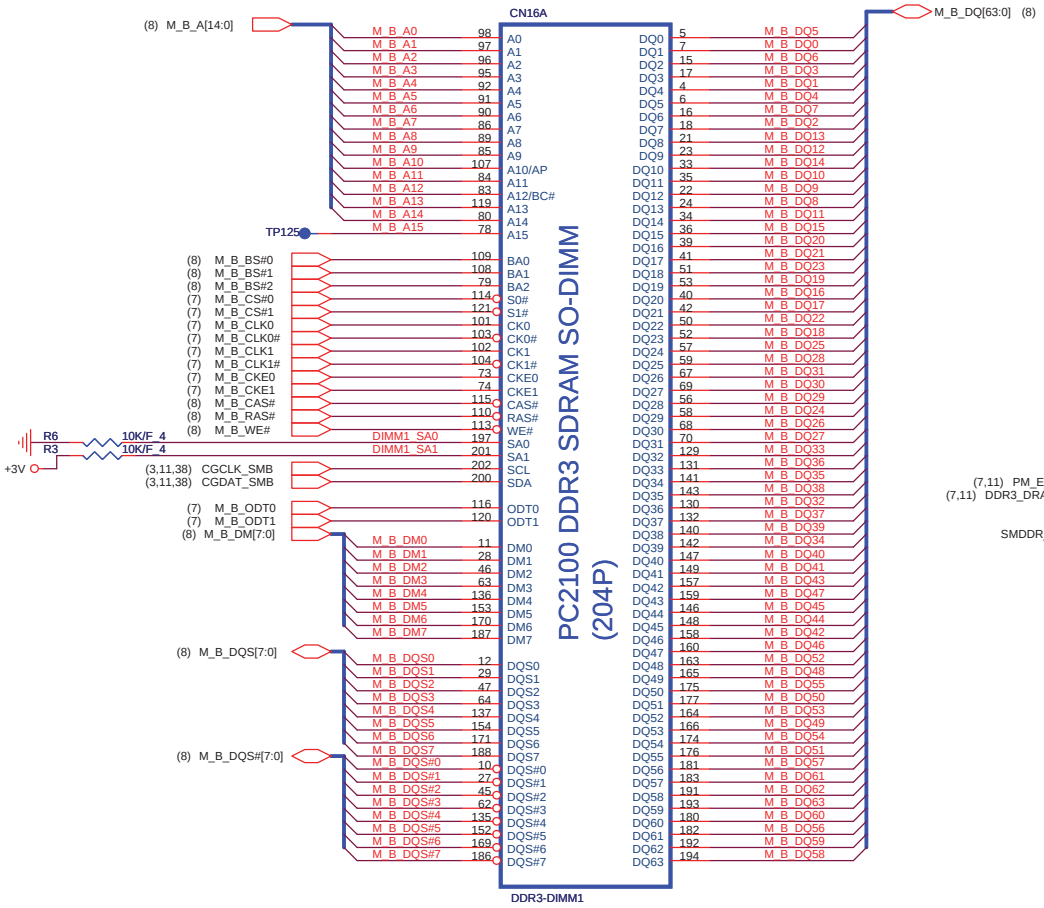


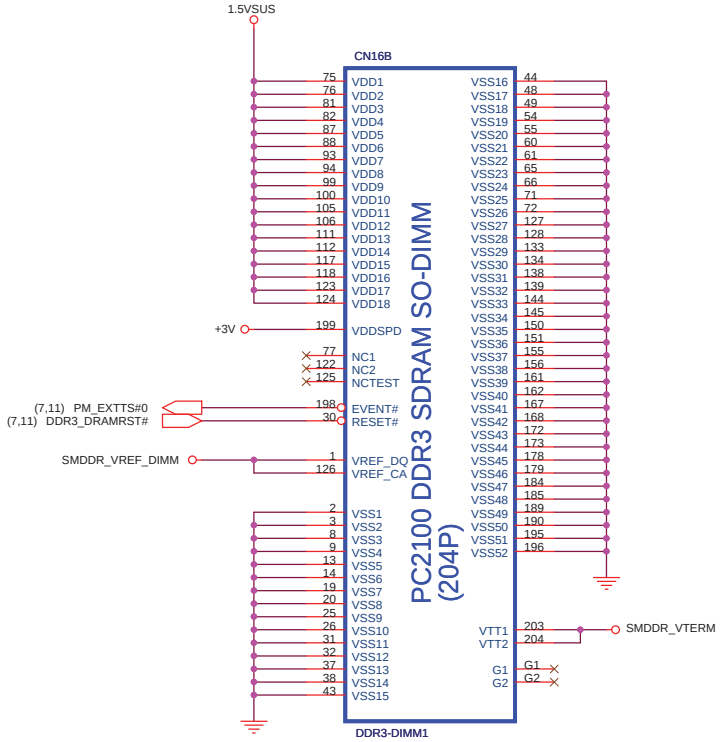


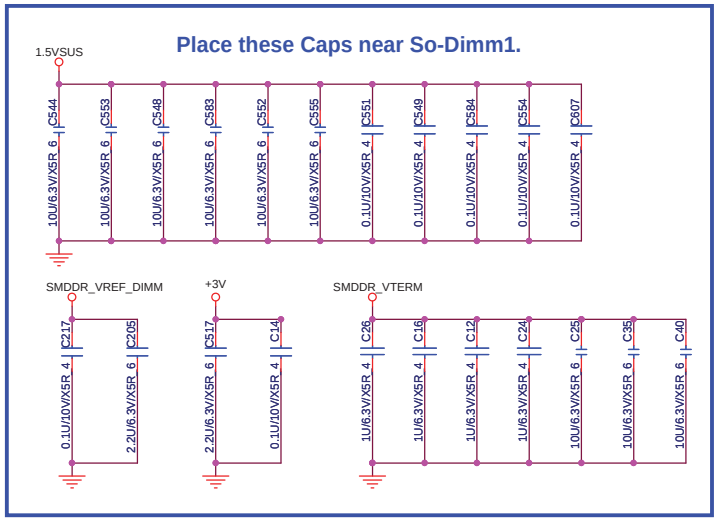




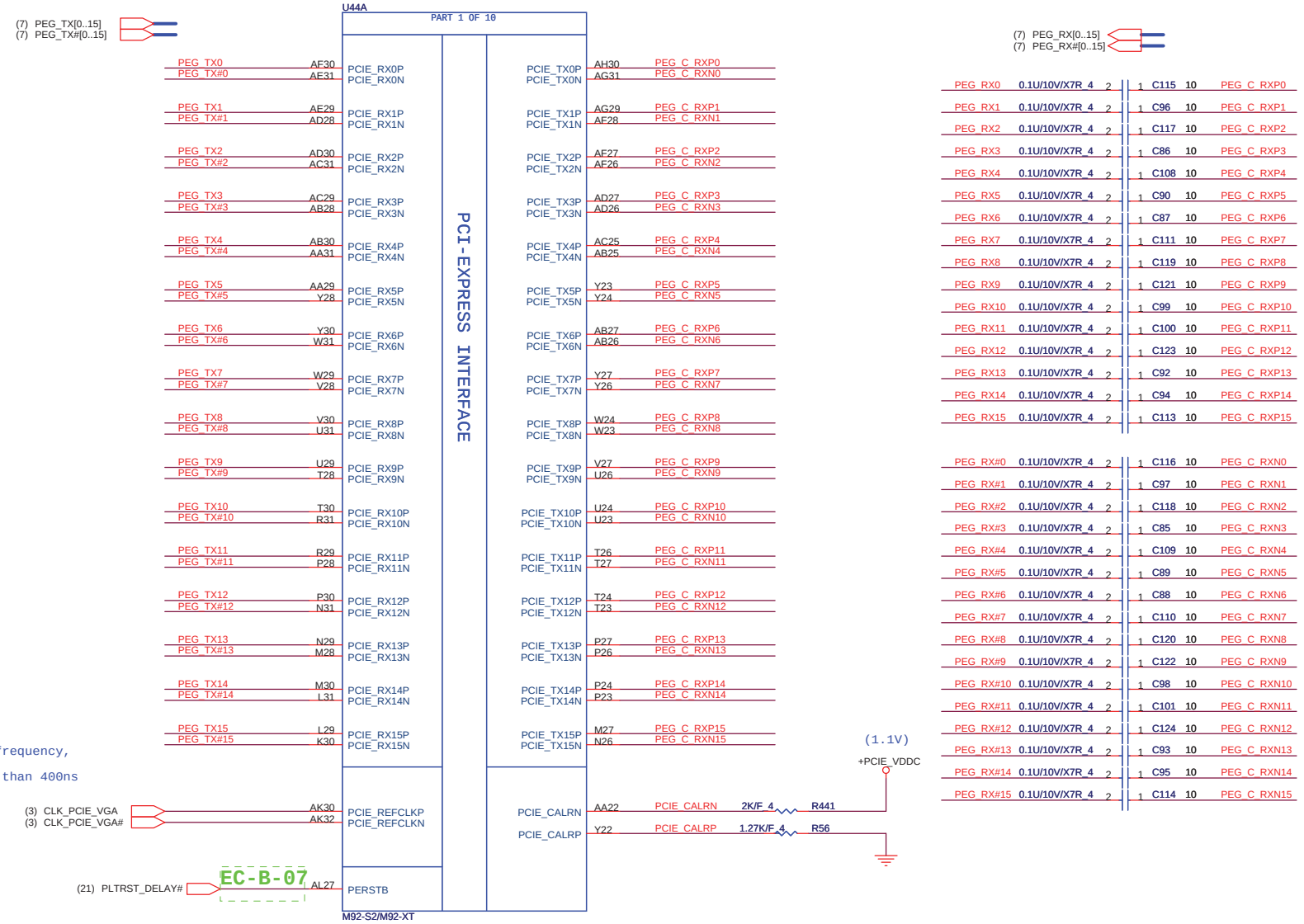
G-Note Montevina Quanta Computer Inc.			
Size: Custom	Document Number: DDR3 DIMM-0(H=5.2)		Rev: 2A
Date: Thursday, April 09, 2009	Sheet 11 of 55		







G-Note Montevina Quanta Computer Inc.		
Size: Custom	Document Number: DDR3 DIMM-1(H=9.2)	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 12 of 55	

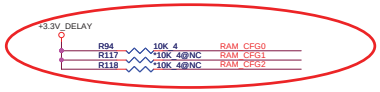


G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
A3	M92-XT_PCIE	2A
Date: Thursday, April 09, 2009	Sheet 13 of 55	

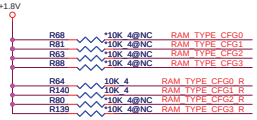
MEMORY APERTURE SIZE SELECT			
MEMORY SIZE	CFG2 GPIO13	CFG1 GPIO12	CFG0 GPIO11
128MB	0	0	0
256MB	0	0	1
64MB	0	1	0

Remove 512MB

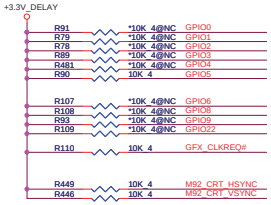


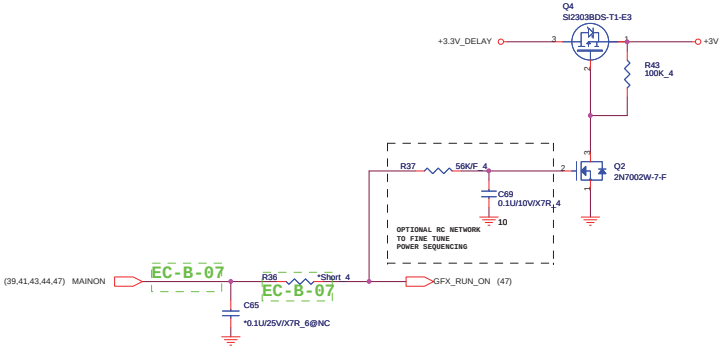
Change to 256MB

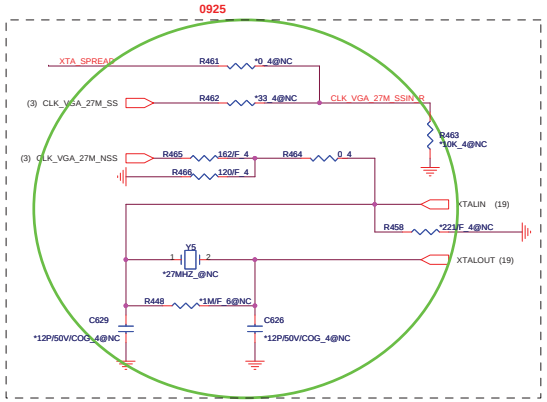
Memory Straps	RAM_TYPE_CFG3_R	RAM_TYPE_CFG2_R	RAM_TYPE_CFG1_R	RAM_TYPE_CFG0_R
900MHz 128MB(32M*32) Hynix H5RS1H23MFR-11C	0	0	0	0
900MHz 128MB(32M*32) Qimonda HYB18H1G321AF-11	0	0	0	1
900MHz 128MB(32M*32) Qimonda HYB18H1G321A2F-11	0	0	1	1
800MHz 128MB(32M*32) Samsung K4J10324QD-HC12	0	1	0	0

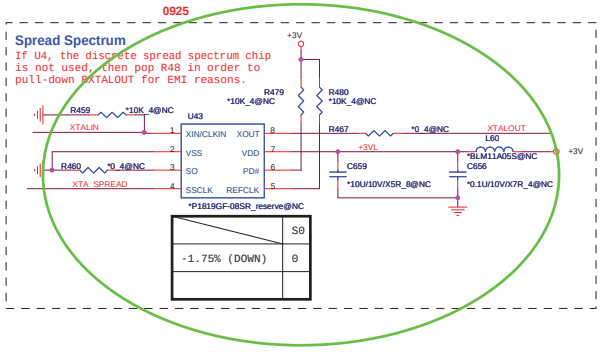


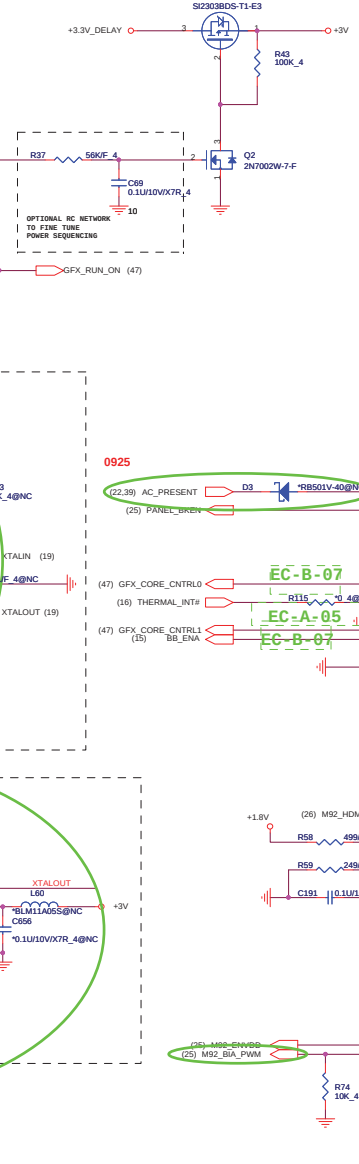
GPIO Straps table	DESCRIPTION OF DEFAULT SETTINGS	G NOTE Setting
GPIO0	GPIO(0) - TX_PWRS_ENB (Transmitter Power Savings Enable) 0: 50% Tx output swing for mobile mode 1: full Tx output swing (Default setting for Desktop)	0
GPIO1	GPIO(1) - TX_DEEMPH_EN (Transmitter De-emphasis Enable) 0: Tx de-emphasis disabled for mobile mode 1: Tx de-emphasis enabled (Default setting for Desktop)	0
GPIO2	GPIO(2) - BIF_GEN2_EN (5.0 GT/s Enable) 0 : Default. (Driver Controlled Gen2) 1 : Strap Controlled Gen2	0
GPIO3	ATI reserved configuration straps.	0
GPIO4	ATI reserved configuration straps.	0
GPIO5	GPIO_5_AC_BATT 0 : Battery saving mode = 0.0 V 1 : AC (Performance mode) = 3.3 V	1
GPIO6	ATI Internal use only	0
GPIO8	ATI reserved configuration straps.	0
GPIO9	VGA Disable 0 - VGA Controller capacity enabled 1 - The device will not recognized as the system's VGA controller	0
GPIO22	Enable external BIOS ROM device 0 - Disable external BIOS ROM device 1 - Enable external BIOS ROM device	0
HSYNC VSYNC	AUD[1:0] 00 - No audio function 01 - Audio for DisplayPort and HDMI if adapter is detectd 10 - Audio for DisplayPort only 11 - Audio for both DisplayPort and HDMI	1 1





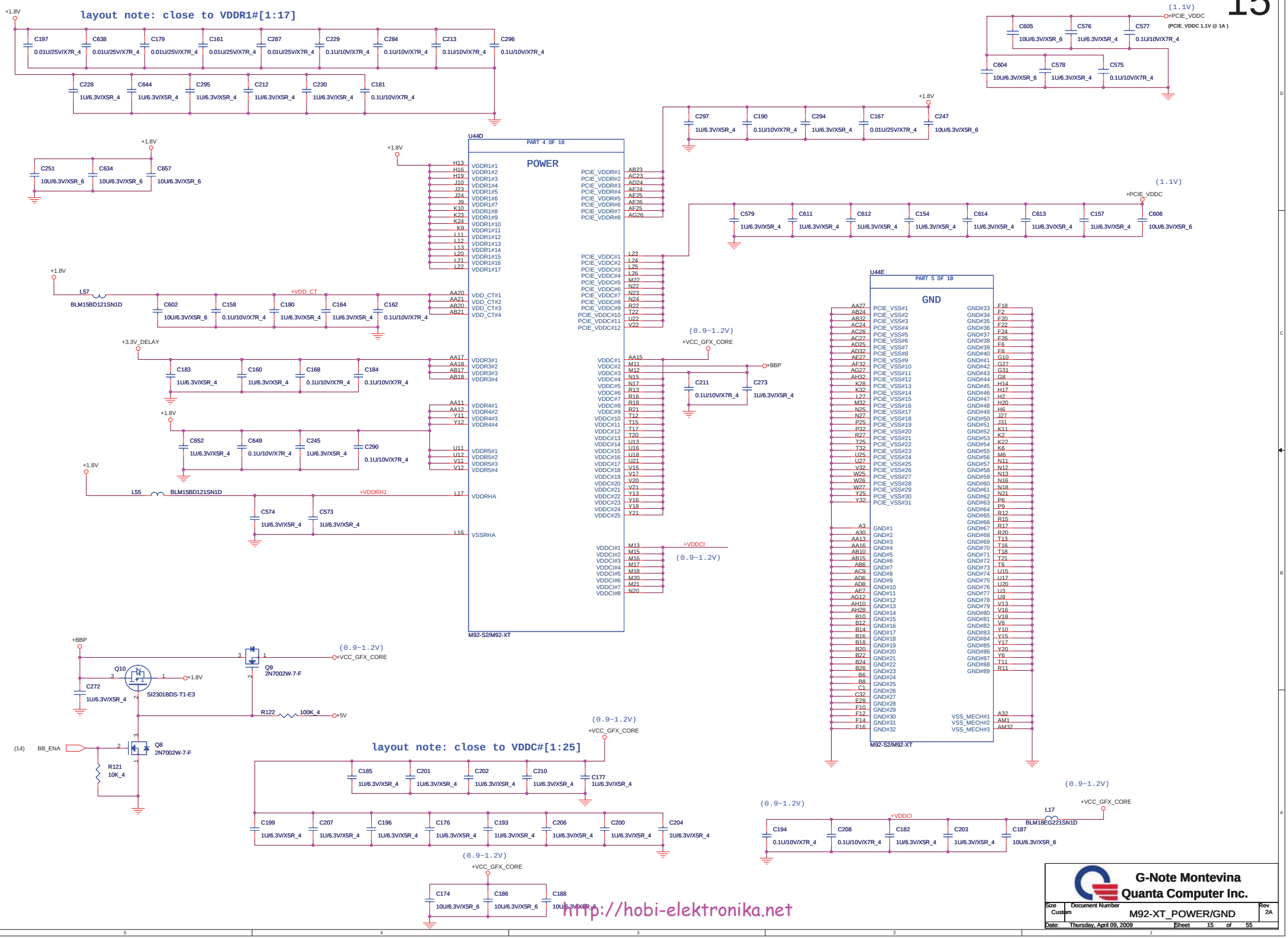




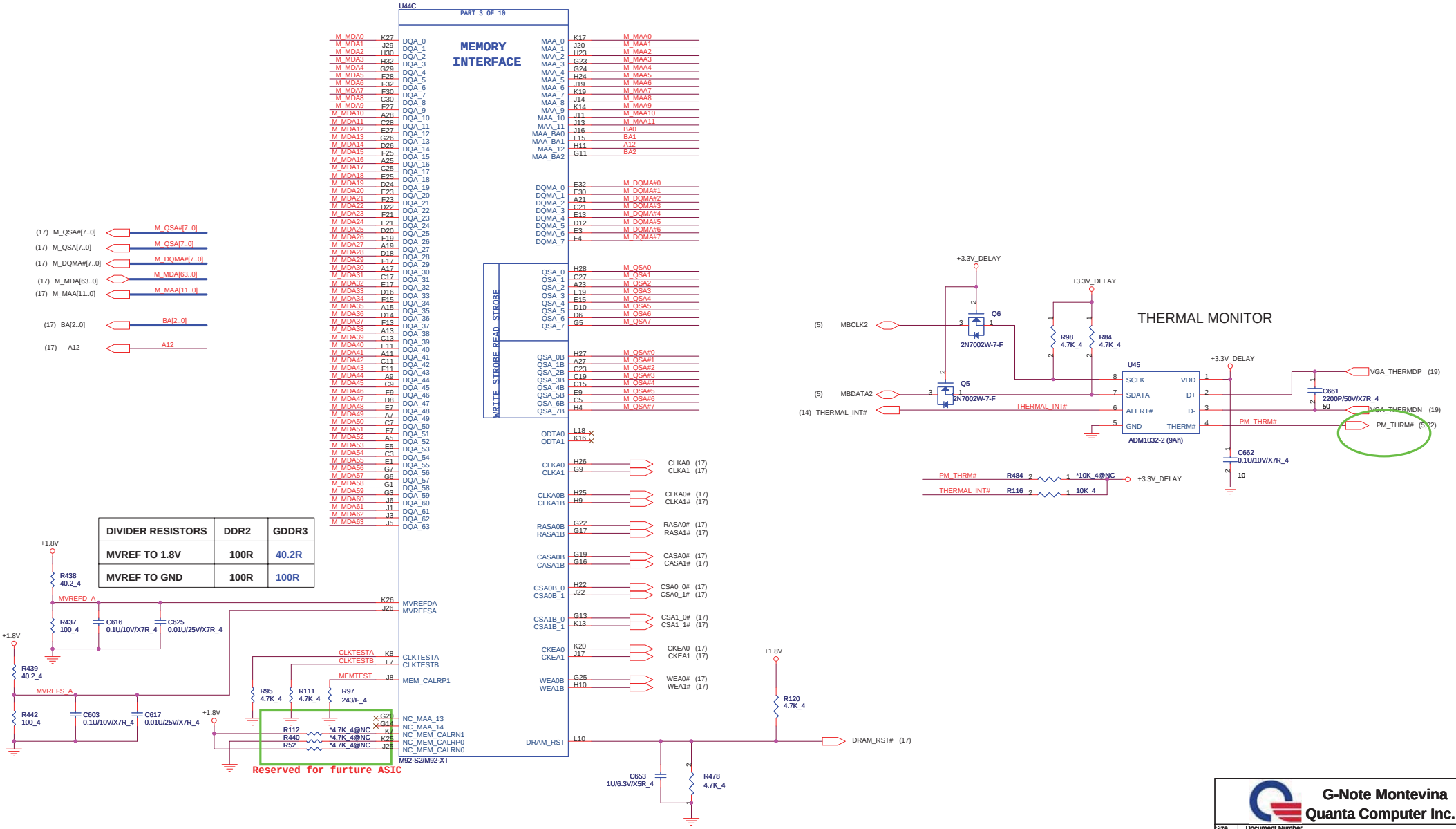


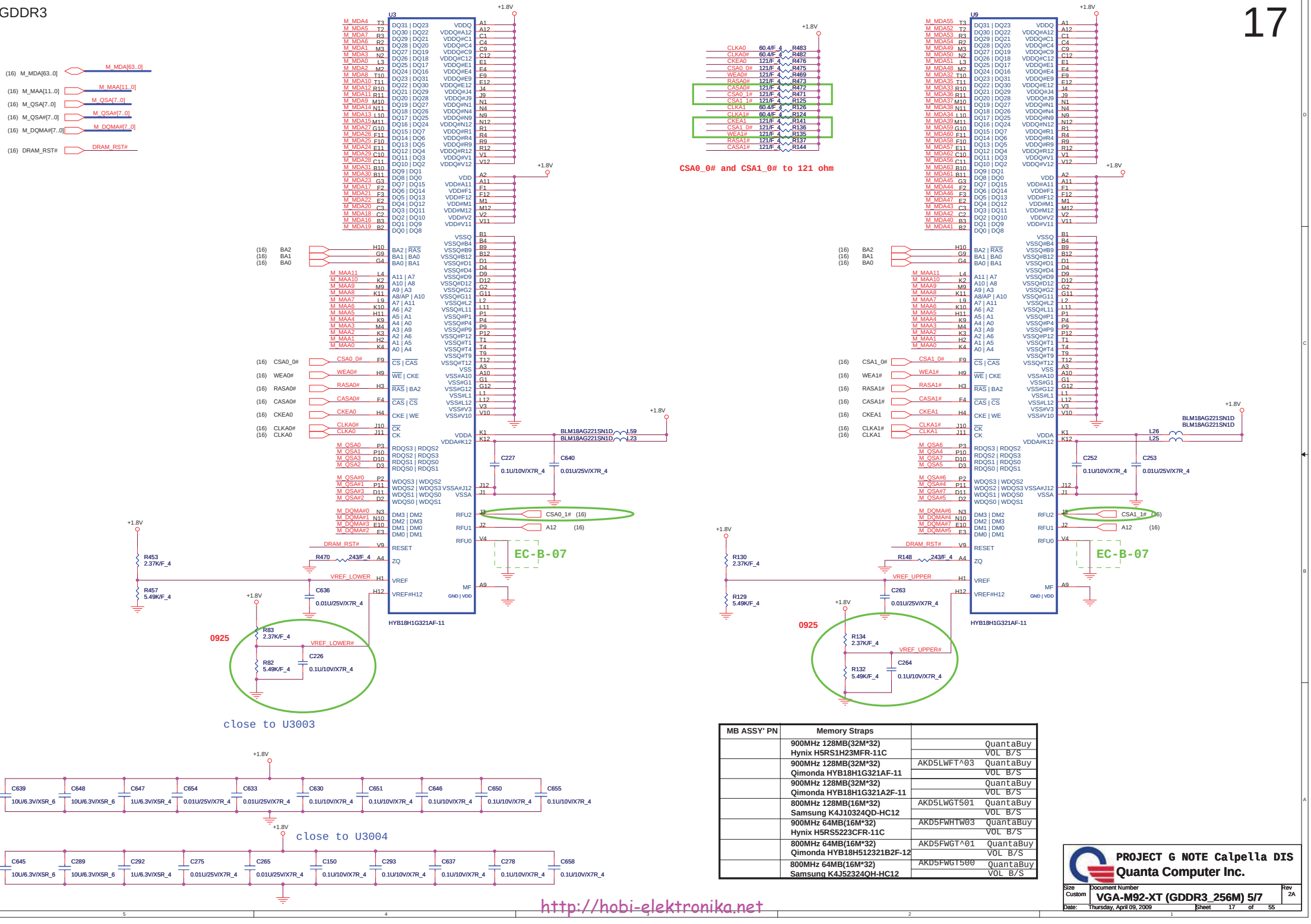
G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	M92-XT_IO	2A
Date: Thursday, April 09, 2009	Sheet 14 of 55	


layout note: close to VDDR1#[1:17]
U44D
PART 4 OF 10
POWER
M92-S2/M92-XT
U44E
PART 5 OF 10
GND
M92-S2/M92-XT
layout note: close to VDDC#[1:25]
+1.8V
+3.3V_DELAY
+VDD_CT
+VDDRH1
+VCC_GFX_CORE
+PCIE_VDDC
+VDDCI
+BBP
+5V
(1.1V)
(0.9~1.2V)
BLM15BD121SN1D
BLM18EG221SN1D
SI2301BDS-T1-E3
2N7002W-7-F
BB_ENA
G-Note Montevina
Quanta Computer Inc.
M92-XT_POWER/GND
Thursday, April 09, 2009
http://hobi-elektronika.net

MEMORY INTERFACE





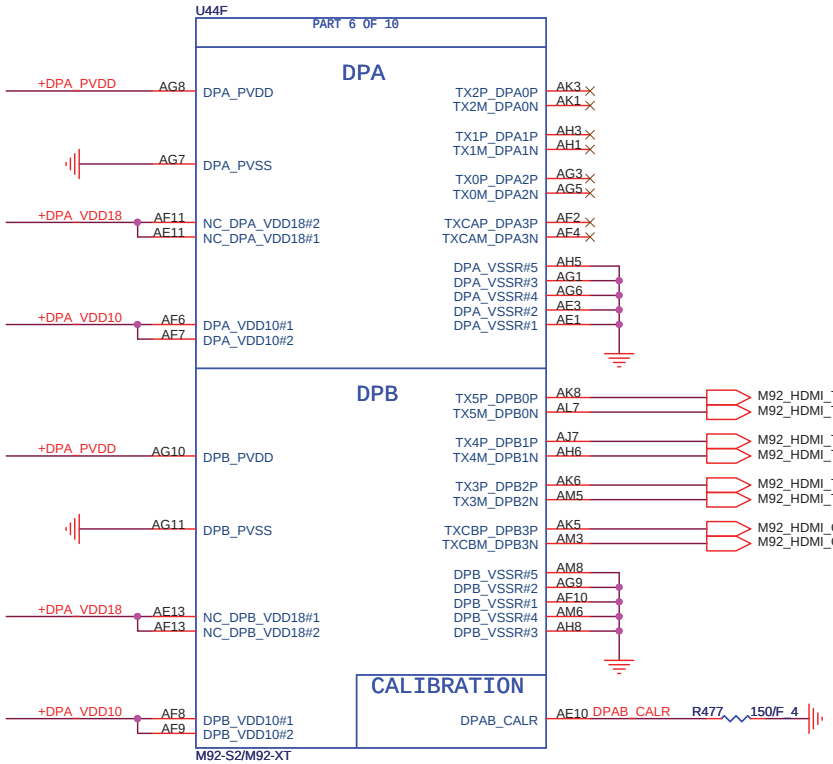
MB ASSY' PN	Memory Straps	
	900MHz 128MB(32M*32) Hynix H5RS1H23MFR-11C	QuantaBuy VOL B/S
	900MHz 128MB(32M*32) Qimonda HYB18H1G321AF-11	AKD5LWFT^03 QuantaBuy VOL B/S
	900MHz 128MB(32M*32) Qimonda HYB18H1G321A2F-11	QuantaBuy VOL B/S
	800MHz 128MB(16M*32) Samsung K4J10324QD-HC12	AKD5LWGT501 QuantaBuy VOL B/S
	900MHz 64MB(16M*32) Hynix H5RS5223CFR-11C	AKD5FWHTW03 QuantaBuy VOL B/S
	800MHz 64MB(16M*32) Qimonda HYB18H512321B2F-12	AKD5FWGT^01 QuantaBuy VOL B/S
	800MHz 64MB(16M*32) Samsung K4J52324QH-HC12	AKD5FWGT500 QuantaBuy VOL B/S

PROJECT G NOTE Calpella DIS
Quanta Computer Inc.

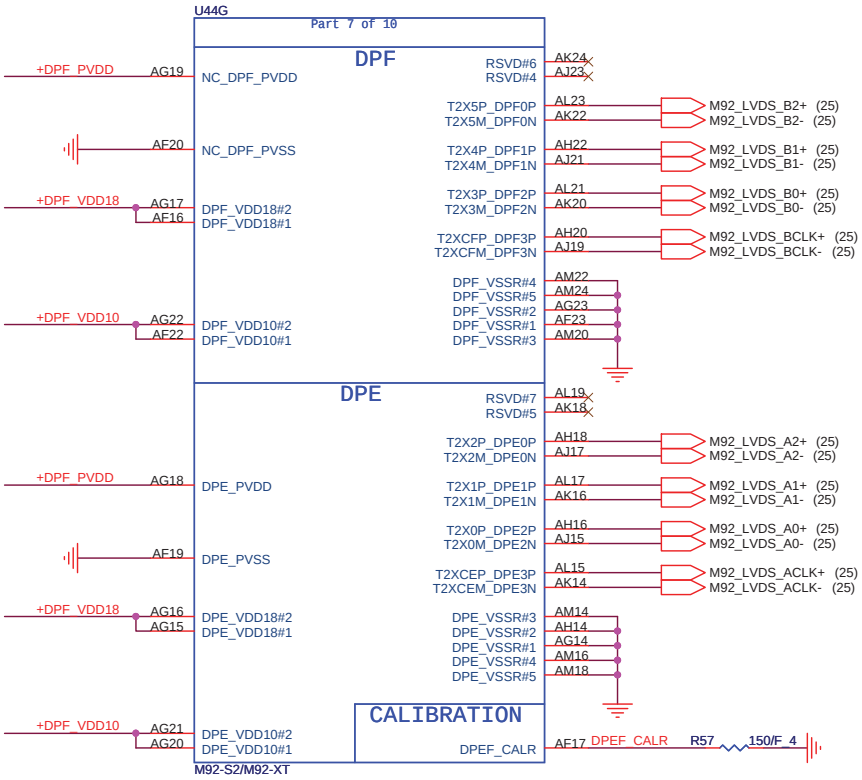
Size	Document Number	Rev
Custom	VGA-M92-XT (GDDR3_256M) 5/7	2A

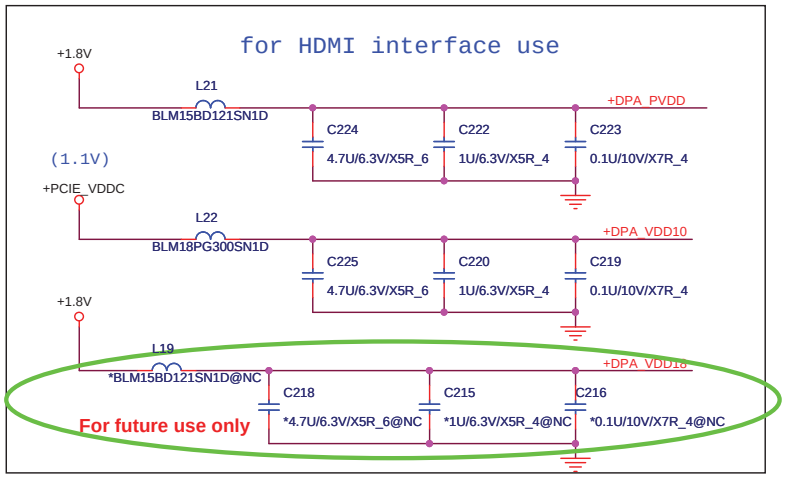
Date: Thursday, April 09, 2009 Sheet 17 of 55

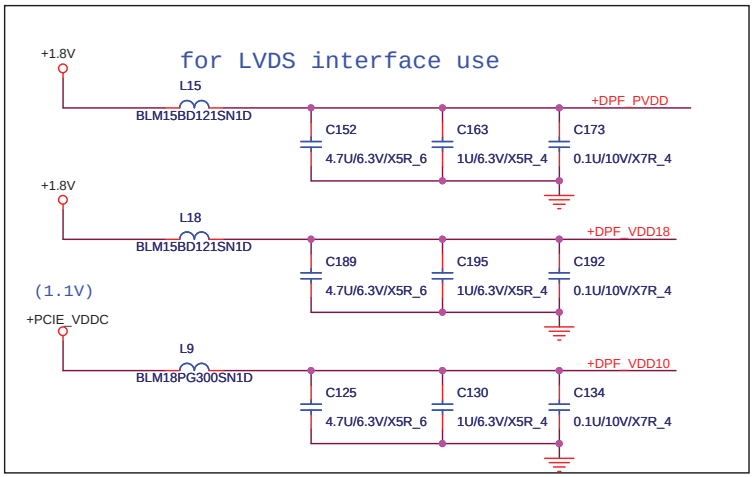
TMDP(HDMI) INTERFACE



LVDS INTERFACE



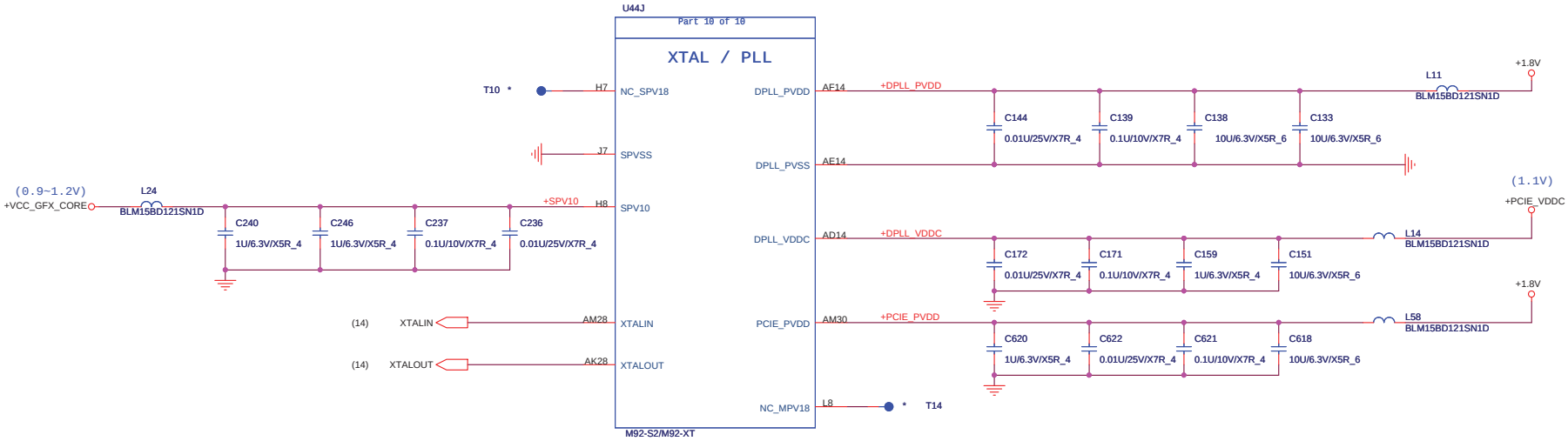


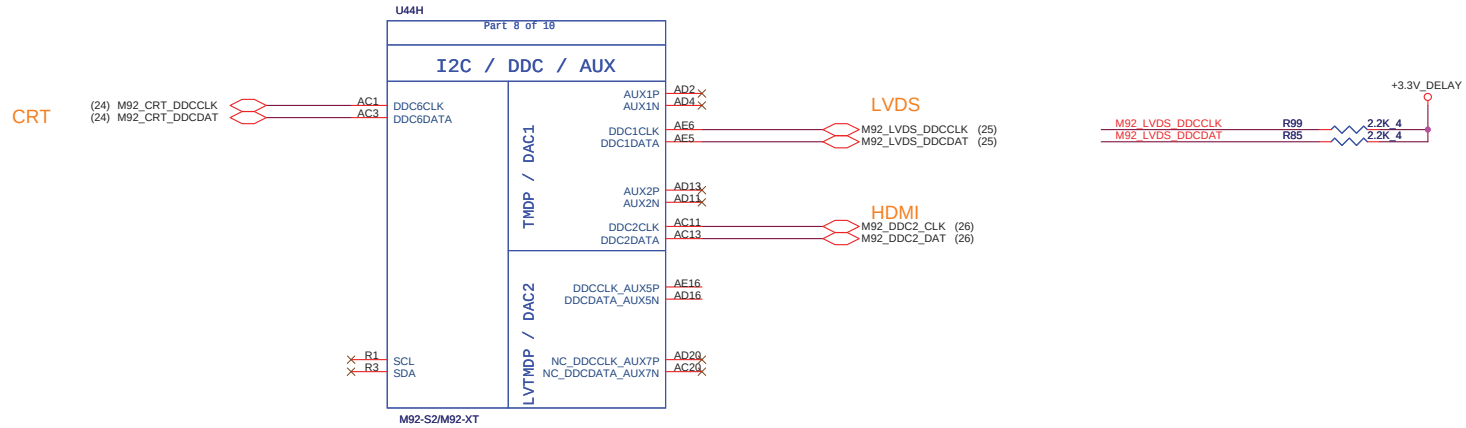


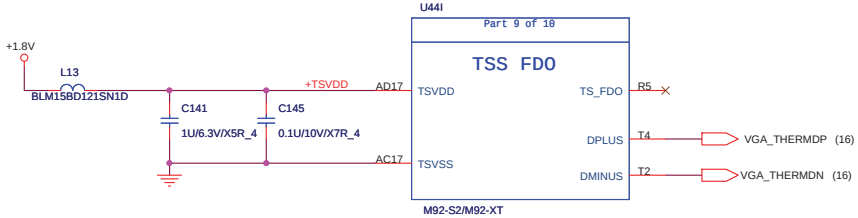
G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
B	M92-XT_TMDP I/F	2A

Date: Thursday, April 09, 2009 Sheet 18 of 55







G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	M92-XT_XTAL/PLL/I2C	2A
Date: Thursday, April 09, 2009	Sheet 19 of 55	

(25,27,29,31,37,39,41,42,45) 3VPCU
(23,39) +3VRTC
(3,5,7,10,11,12,14,21,22,23,24,25,26,27,28,29,30,31,32,33,34,36,37,38,39,41,44,45,46) +3V
(5,10,21,23,34,36,43) +1.5V
(3,4,5,6,7,9,10,23,41,44,46) +1.05V

MODEL ID

STRAP	MODEL_ID1	MODEL_ID0
13''	0	0
14''	0	1
15''	1	0

E-SATA CONNECTOR

SATA HDD

SATA ODD

SB Strap

ICH9-M Internal VR Enable strap (Internal VR for Vccsus1_05,VccSus1_5 and VccCL1_5)

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

ICH9-M LAN100_SLP Strap (Internal VR for VccLAN1_05 and VccCL1.05)

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

XOR Chain Entrance Strap

ICH_TP3	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal opration(Default)
1	1	Set PCIE port config bit 1

ICH9 Boot BIOS select

STRAP	PCI_GNT0#	SPI_CS#1	
SPI	0	1	
PCI	1	0	
LPC	1	1	(default)

No Reboot Strap	
ACZ_SPKR	Low: Default Hi: No reboot

A16 swap override strap	
PCI_GNT#3	Low = A16 swap override enabled Hi = Default

TPM physical presence	
ICH_GPIO57	Low: Default

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH9-M Host 1/4	2A
Date: Thursday, April 09, 2009	Sheet 20 of 55	

(5,10,20,23,34,36,43) +1.5V
(3,5,7,10,11,12,14,20,22,23,24,25,26,27,28,29,30,31,32,33,34,36,37,38,39,41,44,45,46) +3V
(22,27,34,39,41,43,46,47) 3VSUS

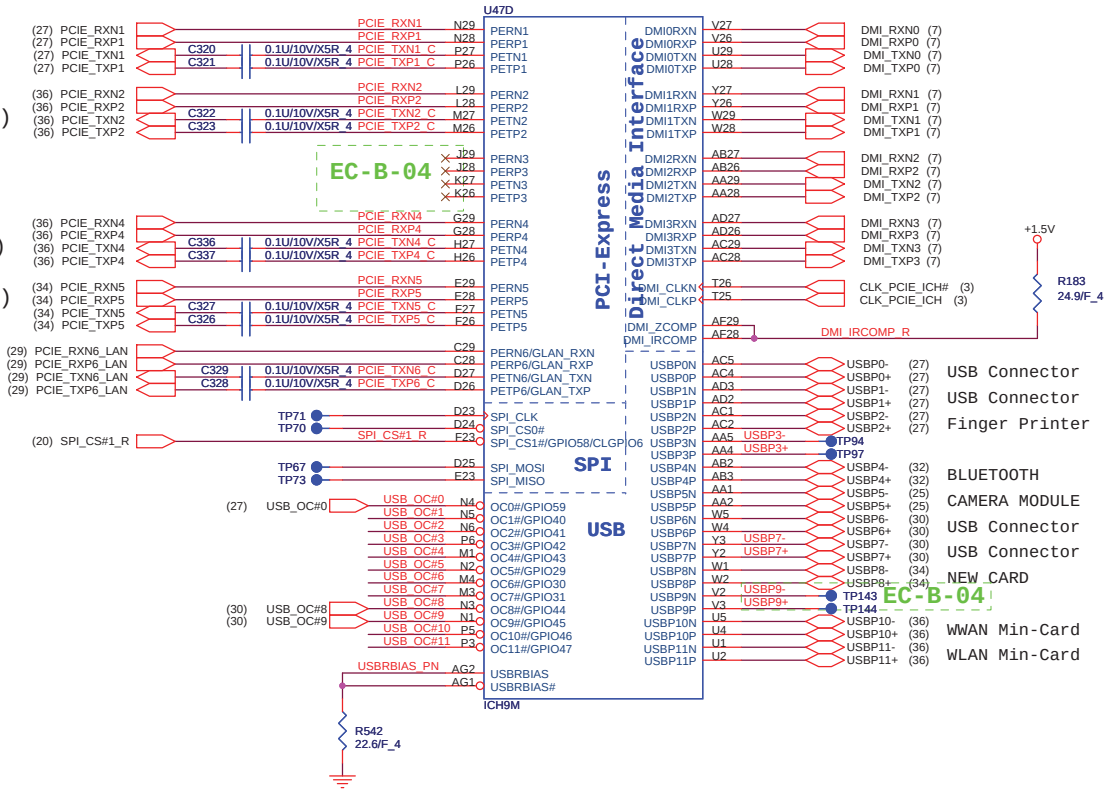
CARD-READER

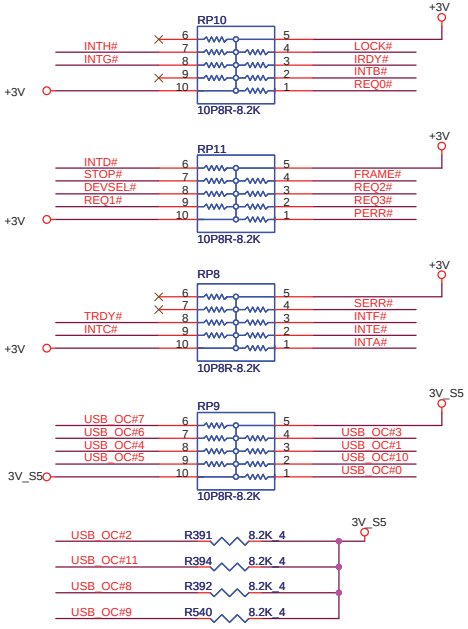
MINI CARD PCI-E(WWAN)

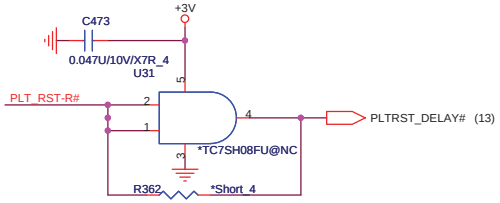
MINI CARD PCI-E(WLAN)

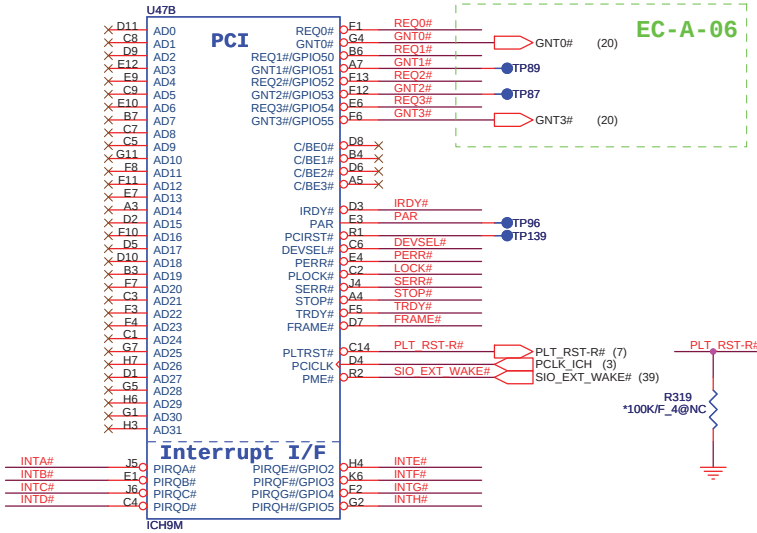
EXPRESS CARD (NEW CARD)

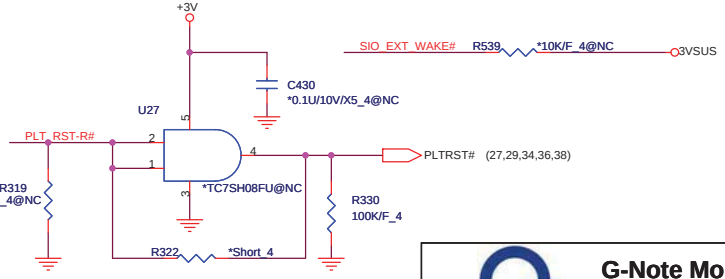
PCIE-LAN











PCI ROUTING TABLE	IDSEL	INTERUPT	DEVICE
REQ0# / GNT0#	AD21	INTE#, F#, G#	RICOH R5C847

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH9-M PCIE 2/4	2A
Date: Thursday, April 09, 2009	Sheet 21 of 55	

(5,10,20,21,23,34,36,43) +1.5V
(3,5,7,10,11,12,14,20,21,23,24,25,26,27,28,29,30,31,32,33,34,36,37,38,39,41,44,45,46) +3V
(20,21,23,41) 3V_S5
(21,27,34,39,41,43,46,47) 3VSUS

U47C

(3) PCLK_SMB
(3) PDAT_SMB
SMB_LINK_ALERT#
SMB_CLK_ME
SMB_DATA_ME
SMBCLK
SMBDATA
LINKALERT#/GPIO60/CLGPIO4
SMLINK0
SMLINK1
SMB

TP78 PM_RI#
RI#
(36) LPC_PD#
(4) SYS_RST#
LPC_PD#
SUS_STAT#/LPCPD#
SYS_RESET#
(7) PM_SYNC#
PMSYNC#/GPIO0
SMB_ALERT#
SMBALERT#/GPIO11
(3) PM_STPPCI#
(3) PM_STPCPU#
STP_PCI#
STP_CPU#
(36,39) CLKRUN#
CLKRUN#
(29,34,36) PCIE_WAKE#
(36,39) SERIRQ
(5,16) PM_THRM#
WAKE#
SERIRQ
THRM#
VR_PWRGO_CLKEN
VRMPWRGD
TP11

SYS GPIO

SATA0GP/GPIO21 AH23 BOARD_ID0
SATA1GP/GPIO19 AF19 PANEL_DET2#
SATA4GP/GPIO36 AE21 BOARD_ID2
SATA5GP/GPIO37 AD20 BOARD_ID3
SATA GPIO

Clocks
CLK14 H1 CLK_14M_ICH (3)
CLK48 AF3 CLK_48M_USB (3)
SUSCLK P1 SUSCLK TP140
SLP_S3# C16 SUSB# (39)
SLP_S4# E16 SUSC# (39)
SLP_S5# G17 SLP_S5# TP79
S4_STATE#/GPIO26 C10 S4_STATE# TP88
PWROK G20 PM_ICH_PWROK
DPRSLPVR/GPIO16 M2 DPRSLPVR (7,46)
BATLOW# B13 PM_BATLOW#
PWRBTN# R3 DNBSWON# (39)
LAN_RST# D20 ICH_LAN_RST#
RSMRST# D22 RSMRST# (39)
CK_PWRGD R5 CK_PWG (3)
CLPWROK R6 ECPWROK
SLP_M# B16

Power MGT

EC-B-07

Notice: GPIO20 signal should not be pulled high for functional strap(internal pull down 20k).

(27) JCD385_INT
(39) KBSMI#
(39) SCI#
ICH_GPIO1
SWI#
TP131 LAN_PHYPC
T38 ENERGY_DEC
TP75 PANEL_DET1#
(25) FPBACK
BOARD_ID1
(36) WAN_OFF#
(36) WLAN_OFF#
(3) SATACLKREQ#
(32) BT_DET#
TP74 ICH_GPIO39
TP142 ICH_GPIO49
(20) ICH_GPIO57
(20,28) ACZ_SPKR
(7) MCH_ICH_SYNC#
(20) ICH_TP3
TP130 ICH_TP8
TP134 ICH_TP9
TP129 ICH_TP10

GPIO1
GPIO6
GPIO7
GPIO8
GPIO12
GPIO13
GPIO17
GPIO18
GPIO20
SCLOCK/GPIO22
GPIO27
GPIO28
SATACLKREQ#/GPIO35
SLOAD/GPIO38
SDATAOUT0/GPIO39
SDATAOUT1/GPIO48
GPIO49
GPIO57/CLGPIO5
SPKR
MCH_SYNC#
TP3
TP8
TP9
TP10

GPIO Controller Link

EC-A-06 EC-B-26
EC-B-04

Notice: GPIO49 is also a strap pin(internal pull up 20k). Don't pull-down.

MISC

ICH9M

CL_CLK0 F24 CL_CLK0 (7)
CL_CLK1 B19 TP133
CL_DATA0 F22 CL_DATA0 (7)
CL_DATA1 C19 TP77
CL_VREF0 C25 CL_VREF0_ICH
CL_VREF1 A19 CL_VREF1_ICH
CL_RST0# F21 CL_RST0# (7)
CL_RST1# D18 TP76
MEM_LED/GPIO24 A16 BT_ON (32)
GPIO10/SUS_PWR_ACK C18 SUS_PWR_ACK
GPIO14/AC_PRESENT C11 *0_4@NC R533 AC_PRESENT (14,39)
WOL_EN/GPIO9 C20 ICH_WOL_EN R249 100K/F_4

3V_S5
R508 *3.24K/F_4@NC
+3V
R222 3.24K/F_4
0.405V
C680 *0.1U/10V/X5R_4@NC
R507 *453/F_4@NC
C348 0.1U/10V/X5R_4
R209 453/F_4

3V_S5
SWI# R501 10K/F_4
PM_RI# R271 10K/F_4
SMB_CLK_ME R285 10K/F_4
SMB_DATA_ME R513 10K/F_4
DNBSWON# R538 10K/F_4
PCLK_SMB R306 2.2K_4
PDAT_SMB R516 2.2K_4
SMB_ALERT# R512 10K/F_4
PCIE_WAKE# R264 10K/F_4
PM_BATLOW# R520 8.2K_4
SMB_LINK_ALERT# R296 10K/F_4
SYS_RST# R263 10K/F_4
BT_ON R517 10K/F_4
SUS_PWR_ACK R289 10K/F_4

+3V
R345 1K/F_4
VR_PWRGO_CLKEN
Q25
(46) VR_PWRGD_CK410#
2N7002
R254 100K/F_4

+3V 3VSUS
R302 *2K/F_4@NC
C381 0.1U/10V/X5R_4
U24
(7,46) DELAY_VR_PWRGOOD
(7,39) ECPWROK
TC7SH08FU
PM_ICH_PWROK
R262 10K/F_4
R270 *0_4@NC

Board ID For Function	ID3 GPIO37	ID2 GPIO36	ID1 GPIO22	ID0 GPIO21
SDV	0	0	0	0
SIV	0	0	0	1
SIT	0	0	1	0
SVT	0	0	1	1
SOVP	0	1	0	0
	0	1	0	1
	0	1	1	0
	0	1	1	1
	1	0	0	0
	1	0	0	1
	1	0	1	0
	1	0	1	1
	1	1	0	0
	1	1	0	1
	1	1	1	0
	1	1	1	1

+3V
EC-B-15
R223 *10K/F_4@NC BOARD_ID0 R224 10K/F_4
R239 10K/F_4 BOARD_ID1 R250 *10K/F_4@NC
R230 *10K/F_4@NC BOARD_ID2 R231 10K/F_4
R212 *10K/F_4@NC BOARD_ID3 R213 10K/F_4

+3V
R241 10K/F_4
(25) PANEL_DET1
R242 10K/F_4 PANEL_DET1#
+3V
R258 10K/F_4
(25) PANEL_DET2
R259 10K/F_4 PANEL_DET2#

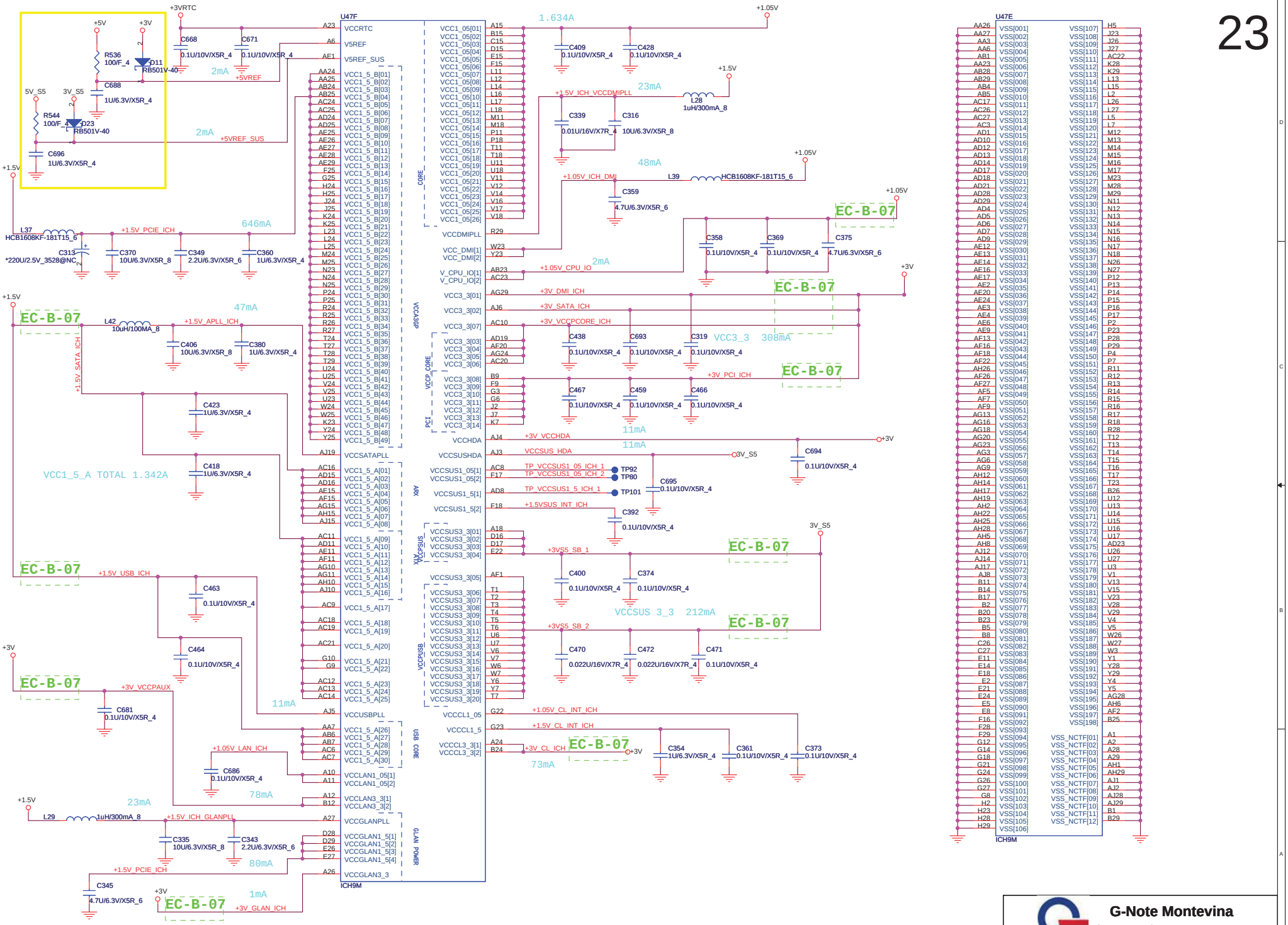
Model ID	PANEL_DET2	PANEL_DET1
13"	0	0
14"	0	1
15"	1	0
Default	1	1

+3V
EC-A-06 EC-B-26
BT_DET# R266 10K/F_4
ICH_TP3 R504 *10K/F_4@NC
PM_THRM# R220 8.2K_4
SERIRQ R342 10K/F_4
CLKRUN# R344 8.2K_4
KBSMI# R253 10K/F_4
SCI# R251 10K/F_4

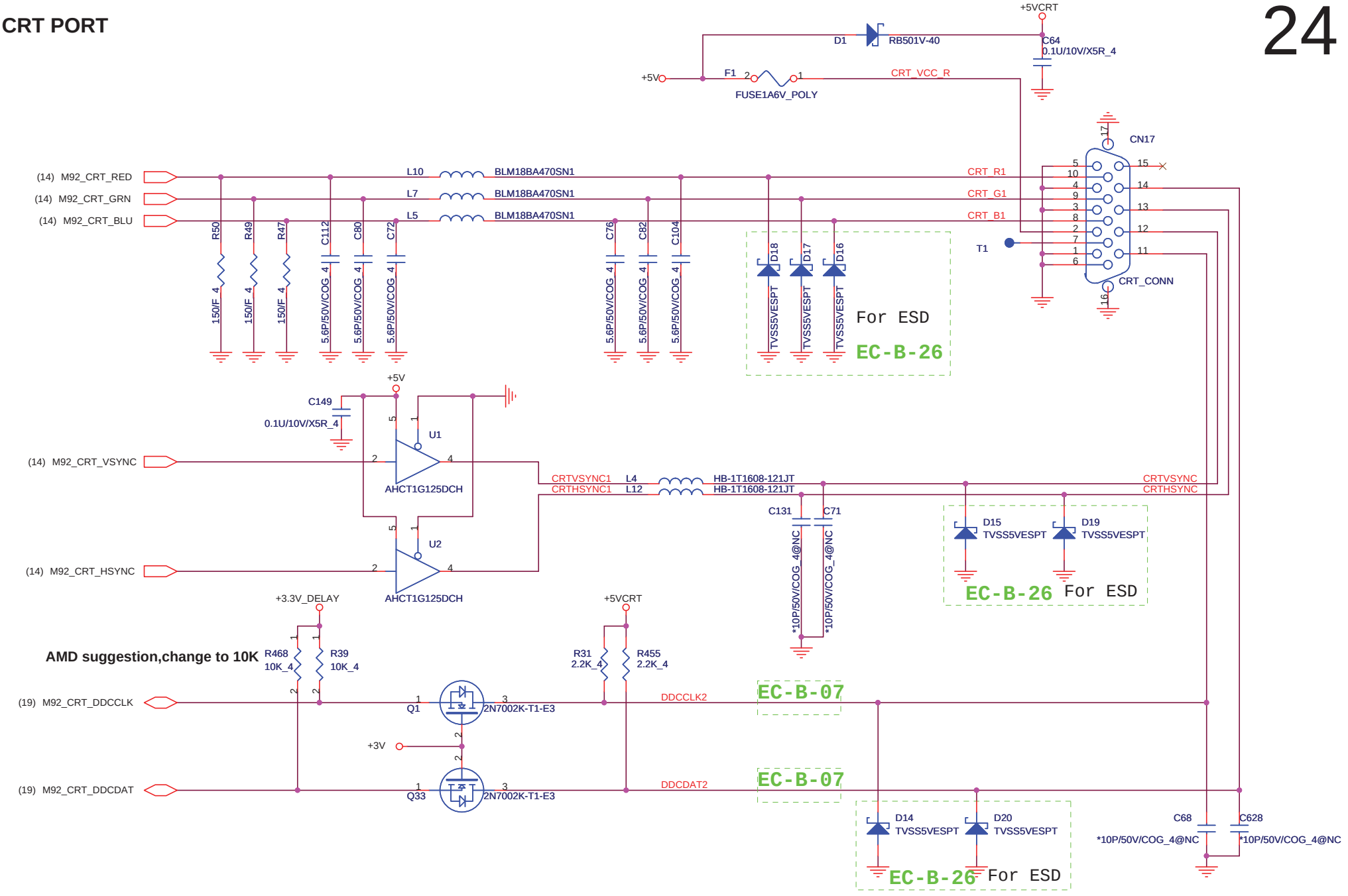
RSMRST# R246 10K/F_4
JCD385_INT R281 10K/F_4

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH9-M GPIO 3/4	2A
Date: Thursday, April 09, 2009	Sheet 22 of 55	

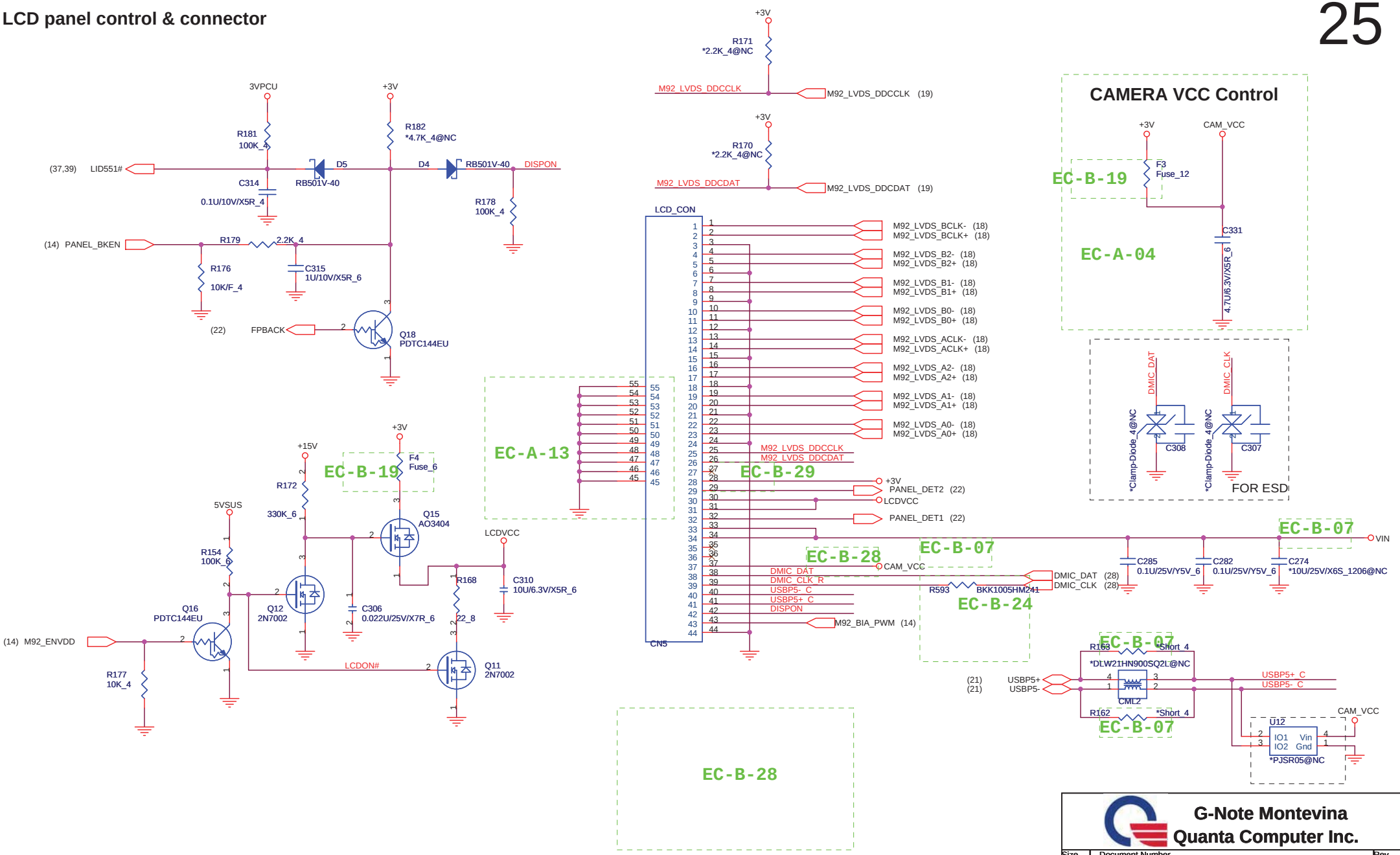

U47F
ICH9M
U47E
ICH9M
+3VRTC
+5V
+3V
R536 100/F_4
D11 RB501V-40
C668 0.1U/10V/X5R_4
C671 0.1U/10V/X5R_4
2mA
+5VREF
C688 1U/6.3V/X5R_4
5V_S5
3V_S5
R544 100/F_4
D23 RB501V-40
2mA
+5VREF_SUS
C696 1U/6.3V/X5R_4
+1.5V
L37 HCB1608KF-181T15_6
+1.5V_PCIE_ICH
646mA
C313 *220U/2.5V_3528@NC
C370 10U/6.3V/X5R_8
C349 2.2U/6.3V/X5R_6
C360 1U/6.3V/X5R_4
EC-B-07
47mA
L42 10uH/100MA_8
+1.5V_APLL_ICH
C406 10U/6.3V/X5R_8
C380 1U/6.3V/X5R_4
+1.5V_SATA_ICH
C423 1U/6.3V/X5R_4
C418 1U/6.3V/X5R_4
VCC1_5_A TOTAL 1.342A
EC-B-07
+1.5V_USB_ICH
C463 0.1U/10V/X5R_4
C464 0.1U/10V/X5R_4
+3V
EC-B-07
+3V_VCCPAUX
C681 0.1U/10V/X5R_4
11mA
+1.05V_LAN_ICH
C686 0.1U/10V/X5R_4
78mA
+1.5V
23mA
L29 1uH/300mA_8
+1.5V_ICH_GLANPLL
C335 10U/6.3V/X5R_8
C343 2.2U/6.3V/X5R_6
80mA
+1.5V_PCIE_ICH
C345 4.7U/6.3V/X5R_6
+3V
EC-B-07
1mA
+3V_GLAN_ICH
1.634A
+1.05V
C409 0.1U/10V/X5R_4
C428 0.1U/10V/X5R_4
23mA
+1.5V
L28 1uH/300mA_8
+1.5V_ICH_VCCDMIPLL
C339 0.01U/16V/X7R_4
C316 10U/6.3V/X5R_8
48mA
+1.05V
+1.05V_ICH_DMI
L39 HCB1608KF-181T15_6
C359 4.7U/6.3V/X5R_6
+1.05V
EC-B-07
C358 0.1U/10V/X5R_4
C369 0.1U/10V/X5R_4
C375 4.7U/6.3V/X5R_6
+1.05V_CPU_IO
2mA
+3V
EC-B-07
+3V_DMI_ICH
+3V_SATA_ICH
+3V_VCCPCORE_ICH
C438 0.1U/10V/X5R_4
C693 0.1U/10V/X5R_4
C319 0.1U/10V/X5R_4
VCC3_3 308mA
EC-B-07
+3V_PCI_ICH
C467 0.1U/10V/X5R_4
C459 0.1U/10V/X5R_4
C466 0.1U/10V/X5R_4
11mA
11mA
+3V_VCCHDA
+3V
3V_S5
VCCSUS_HDA
C694 0.1U/10V/X5R_4
TP_VCCSUS1_05_ICH_1
TP_VCCSUS1_05_ICH_2
TP92
TP80
C695 0.1U/10V/X5R_4
TP_VCCSUS1_5_ICH_1
TP101
+1.5VSUS_INT_ICH
C392 0.1U/10V/X5R_4
3V_S5
EC-B-07
+3VS5_SB_1
C400 0.1U/10V/X5R_4
C374 0.1U/10V/X5R_4
VCCSUS 3_3 212mA
EC-B-07
+3VS5_SB_2
C470 0.022U/16V/X7R_4
C472 0.022U/16V/X7R_4
C471 0.1U/10V/X5R_4
+1.05V_CL_INT_ICH
+1.5V_CL_INT_ICH
+3V_CL_ICH
EC-B-07
+3V
73mA
C354 1U/6.3V/X5R_4
C361 0.1U/10V/X5R_4
C373 0.1U/10V/X5R_4
http://hobi-elektronika.net
G-Note Montevina
Quanta Computer Inc.
Size Custom
Document Number
ICH9-M Power 4/4
Rev 2A
Date: Friday, March 06, 2009
Sheet 23 of 55

CRT PORT



G-Note Montevina Quanta Computer Inc.		
Size: Custom	Document Number: CRT CON	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 24 of 55	

LCD panel control & connector



G-Note Montevina Quanta Computer Inc.		
Size B	Document Number LCD/LID/CAM CON	Rev 2A
Date: Thursday, April 09, 2009	Sheet 25 of 55	

HDMI PORT

(18) M92_HDMI_TX2+ — C332 0.1U/10V/X7R_4 — M92_HDMI_TX2+_R
(18) M92_HDMI_TX2- — C330 0.1U/10V/X7R_4 — M92_HDMI_TX2-_R
(18) M92_HDMI_TX1+ — C344 0.1U/10V/X7R_4 — M92_HDMI_TX1+_R
(18) M92_HDMI_TX1- — C340 0.1U/10V/X7R_4 — M92_HDMI_TX1-_R
(18) M92_HDMI_TX0+ — C355 0.1U/10V/X7R_4 — M92_HDMI_TX0+_R
(18) M92_HDMI_TX0- — C352 0.1U/10V/X7R_4 — M92_HDMI_TX0-_R
(18) M92_HDMI_CLK+ — C364 0.1U/10V/X7R_4 — M92_HDMI_CLK+_R
(18) M92_HDMI_CLK- — C372 0.1U/10V/X7R_4 — M92_HDMI_CLK-_R

R191 499/F_4 M92_HDMI_TX2+_C
R188 499/F_4 M92_HDMI_TX2-_C
R205 499/F_4 M92_HDMI_TX1+_C
R199 499/F_4 M92_HDMI_TX1-_C
R226 499/F_4 M92_HDMI_TX0+_C
R215 499/F_4 M92_HDMI_TX0-_C
R236 499/F_4 M92_HDMI_CLK+_C
R243 499/F_4 M92_HDMI_CLK-_C

+3V — Q24 2N7002W-7-F

L30: M92_HDMI_TX2+_R / M92_HDMI_TX2-_R → M92_HDMI_TX2+_C / M92_HDMI_TX2-_C
*EXC24CG240U@NC
R192 *Short_4
R189 *Short_4
EC-B-07

L32: M92_HDMI_TX1+_R / M92_HDMI_TX1-_R → M92_HDMI_TX1+_C / M92_HDMI_TX1-_C
*EXC24CG240U@NC
R206 *Short_4
R200 *Short_4
EC-B-07

L35: M92_HDMI_TX0+_R / M92_HDMI_TX0-_R → M92_HDMI_TX0+_C / M92_HDMI_TX0-_C
*EXC24CG240U@NC
R227 *Short_4
R216 *Short_4
EC-B-07

L38: M92_HDMI_CLK+_R / M92_HDMI_CLK-_R → M92_HDMI_CLK+_C / M92_HDMI_CLK-_C
*EXC24CG240U@NC
R237 *Short_4
R244 *Short_4
EC-B-07

+3.3V_DELAY
R184 10K_4
R185 10K_4
(19) M92_DDC2_CLK
(19) M92_DDC2_DAT
Q20 FDV301N — HDMI_CLK
Q21 FDV301N — HDMI_DAT
+3.3V_DELAY

U18 *RClamp0514M_AG@NC
M92_HDMI_TX2+_C / M92_HDMI_TX2-_C
M92_HDMI_TX1+_C / M92_HDMI_TX1-_C
VCC GND

U21 *RClamp0514M_AG@NC
M92_HDMI_TX0+_C / M92_HDMI_TX0-_C
M92_HDMI_CLK+_C / M92_HDMI_CLK-_C
VCC GND

U22 *RClamp0514M_AG@NC
HDMI_DAT
HDMI_CLK
HDMIC_5V
HP_DET
VCC GND

For ESD
Layout note:Place close to HDMI Conn

EC-B-18
+5V
R247 2.2K_4
R248 2.2K_4

CN21
M92_HDMI_TX2+_C
M92_HDMI_TX2-_C
M92_HDMI_TX1+_C
M92_HDMI_TX1-_C
M92_HDMI_TX0+_C
M92_HDMI_TX0-_C
M92_HDMI_CLK+_C
M92_HDMI_CLK-_C
SHELL1 SHELL2 GND
D2+ D2 Shield D2- D1+ D1 Shield D1- D0+ D0 Shield D0- CK+ CK Shield CK-
CE Remote NC DDC CLK DDC DATA GND +5V HP DET
ABA-HDM-018-K01

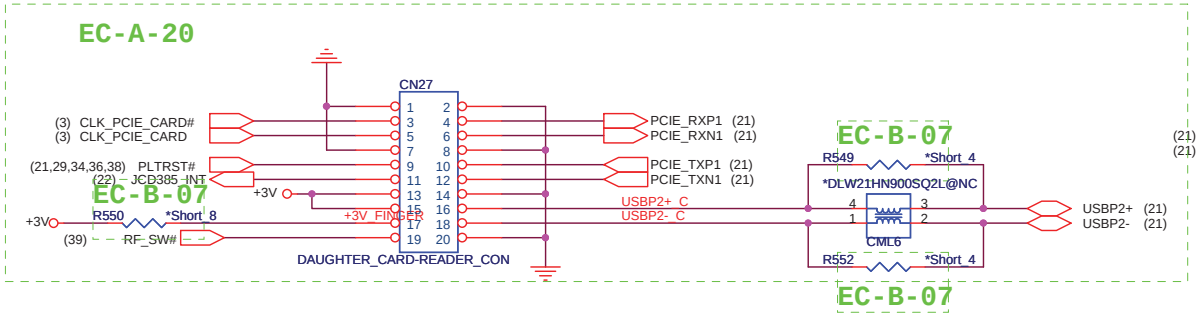
+5V — F2 — HDMIC_5V — FUSE1A6V_POLY

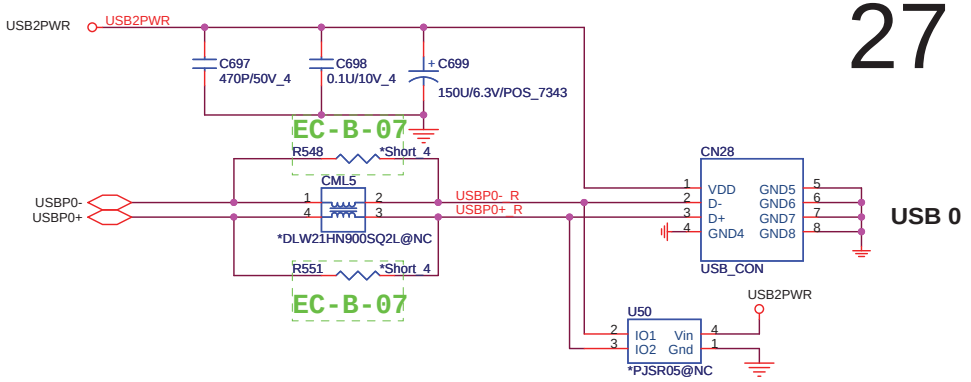
EC-A-17
+3.3V_DELAY
(14) M92_HDMI_HPD
R581 10K_4
R582 10K_4
Q41 MMST3904-7-F
Q42 DTC114TUAT106
HP_DET
R583 100K_4

G-Note Montevina
Quanta Computer Inc.

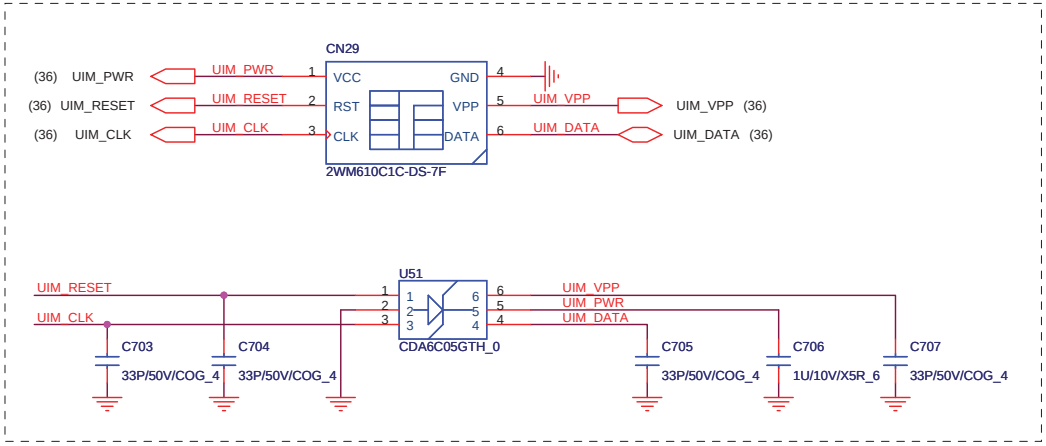
Size	Document Number	Rev
Custom	HDMI PORT	2A
Date: Thursday, April 09, 2009	Sheet 26 of 55	

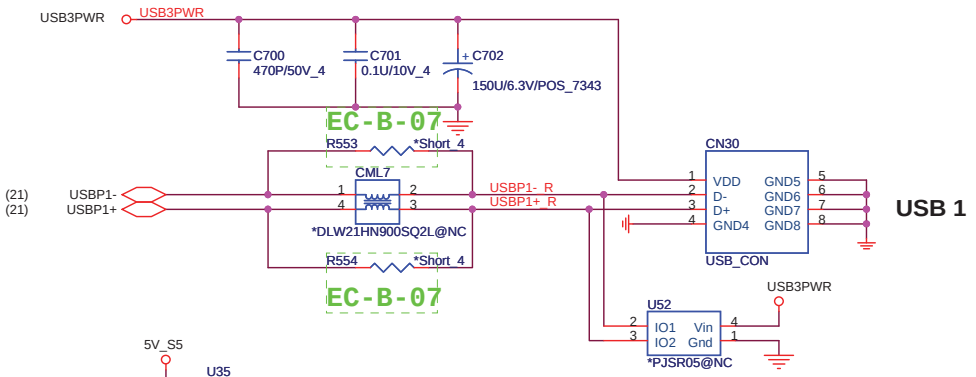
WIRE TO BOARD CONN CARD READER & FINGERPRINT



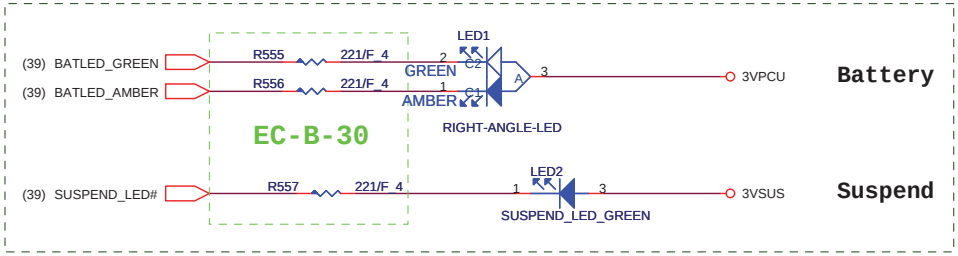


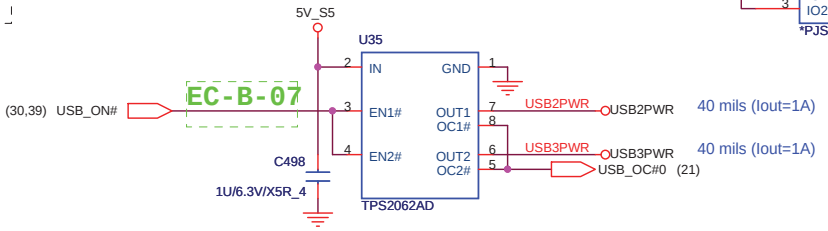
SIM Card CONN





FRONT LEDs

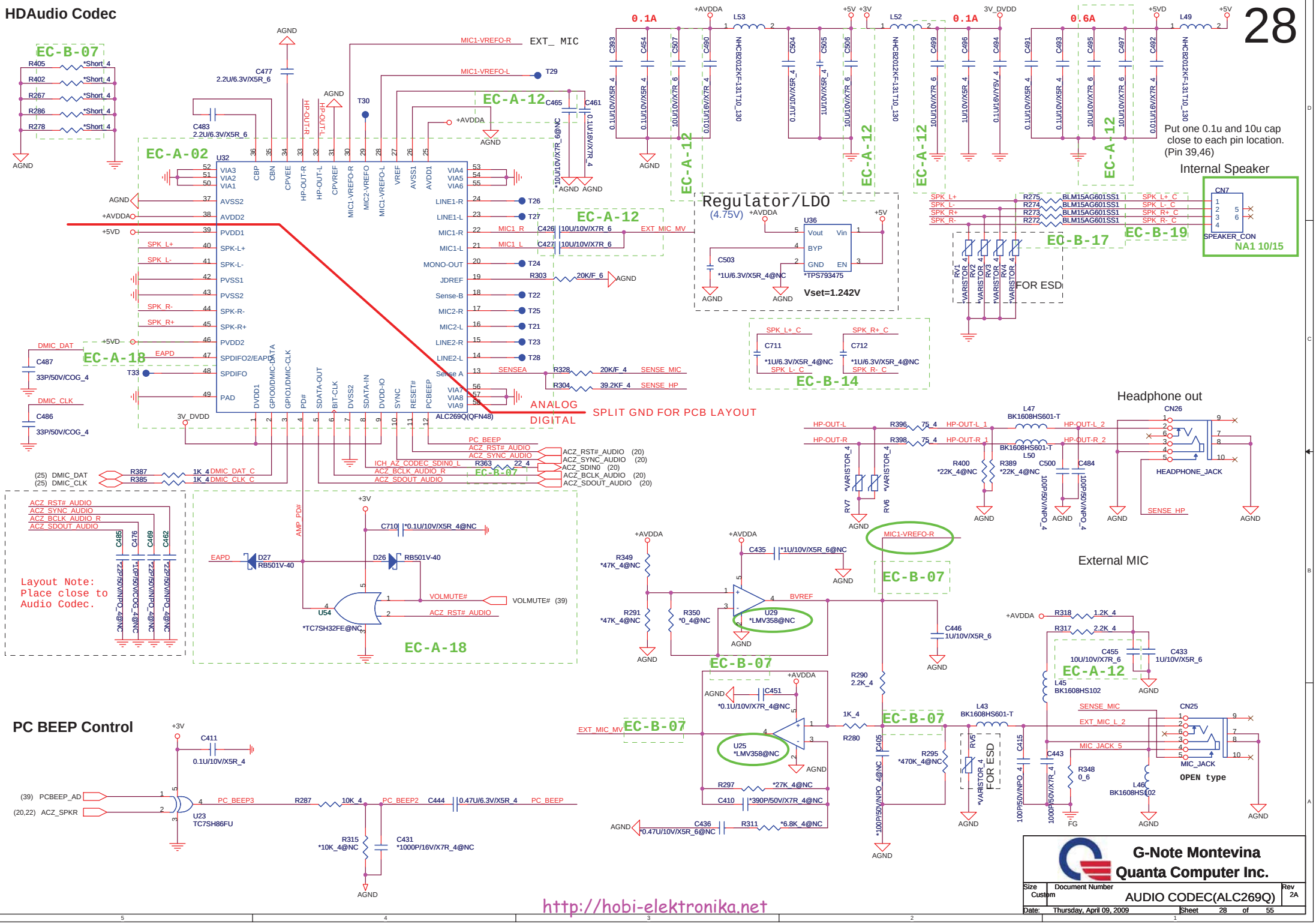




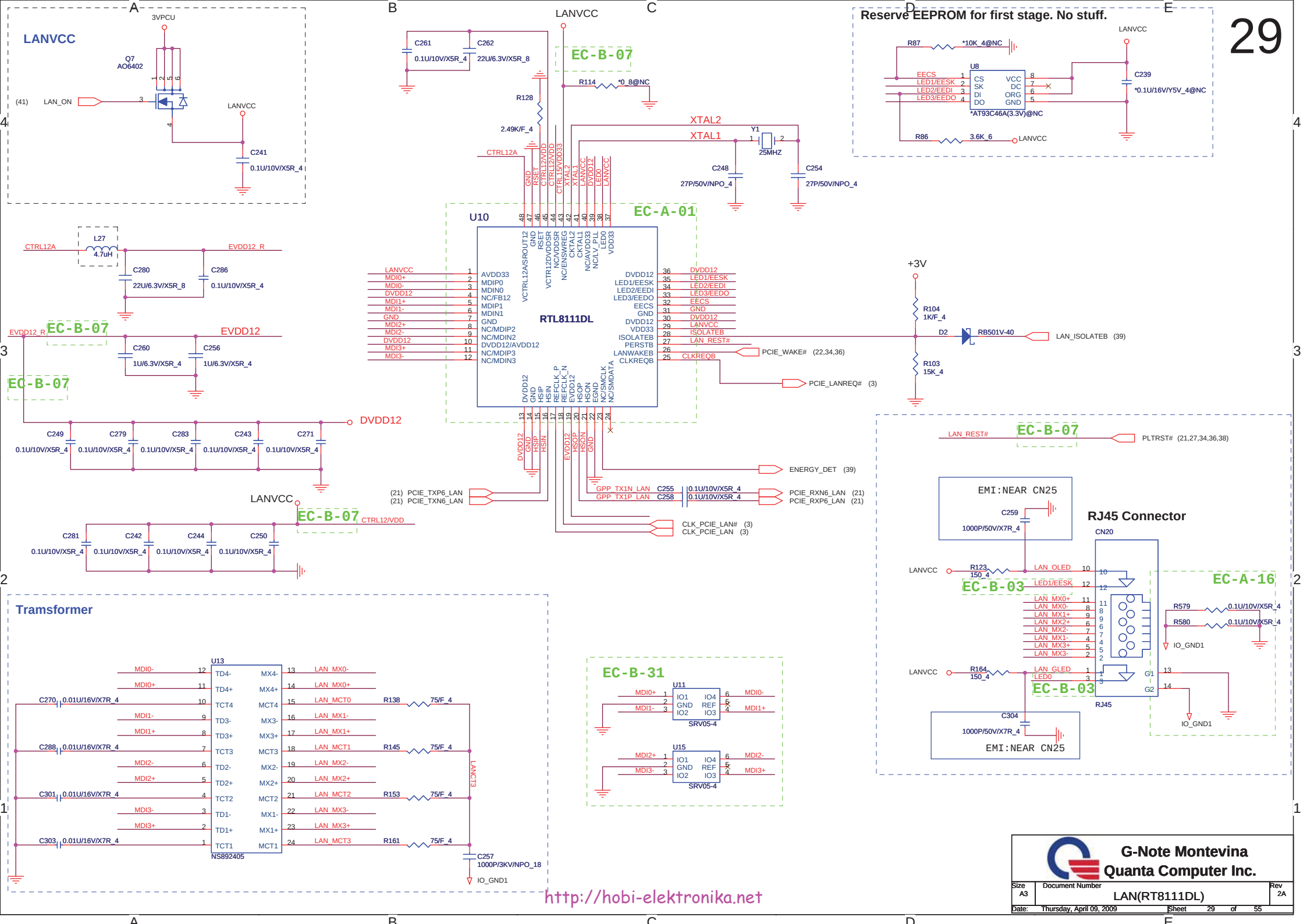
PROJECT :G NOTE
Quanta Computer Inc.

Size	Document Number	Rev
Custom	USB X2/SIM_CARD/LEDs/RF	2A
Date: Thursday, April 09, 2009	Sheet 27 of 55	

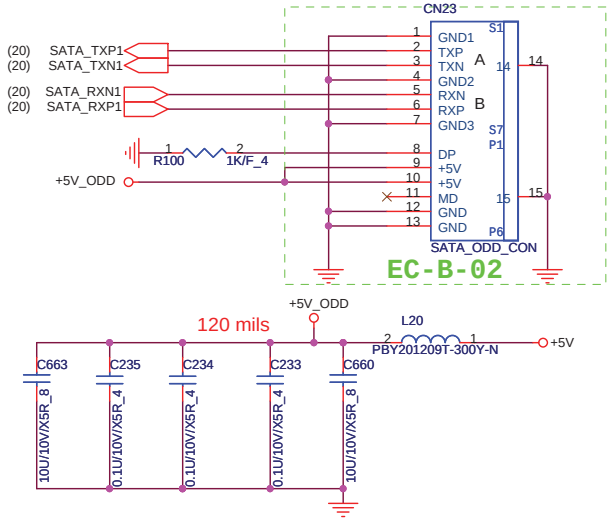
HDAudio Codec



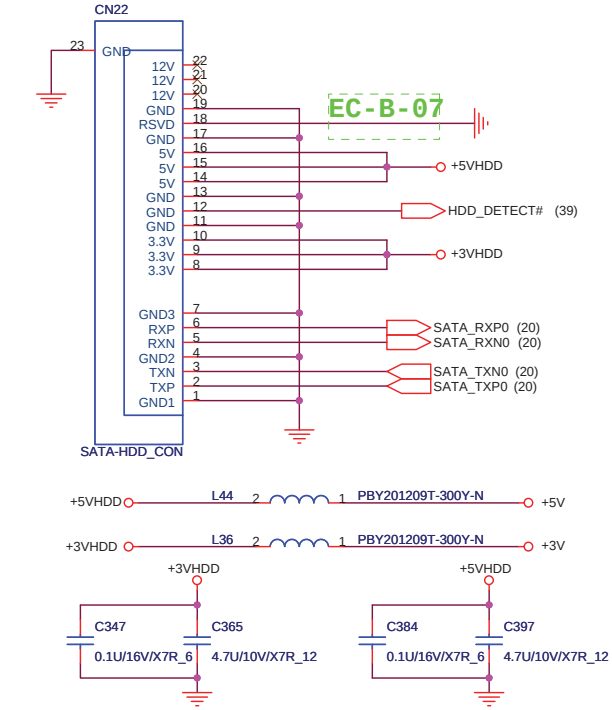
G-Note Montevina Quanta Computer Inc.			
Size: Custom	Document Number: AUDIO CODEC(ALC269Q)		Rev: 2A
Date: Thursday, April 09, 2009		Sheet 28 of 55	


LANVCC
3VPCU
Q7
AO6402
(41) LAN_ON
C241
0.1U/10V/X5R_4
Reserve EEPROM for first stage. No stuff.
R87
*10K_4@NC
U8
EECS
LED1/EESK
LED2/EEDI
LED3/EEDO
CS
SK
DI
DO
VCC
DC
ORG
GND
*AT93C46A(3.3V)@NC
C239
*0.1U/16V/Y5V_4@NC
R86
3.6K_6
C261
0.1U/10V/X5R_4
C262
22U/6.3V/X5R_8
EC-B-07
R114
*0_8@NC
R128
2.49K/F_4
XTAL2
XTAL1
Y1
25MHZ
C248
27P/50V/NPO_4
C254
27P/50V/NPO_4
CTRL12A
EC-A-01
U10
RTL8111DL
AVDD33
MDIP0
MDIN0
NC/FB12
MDIP1
MDIN1
GND
NC/MDIP2
NC/MDIN2
DVDD12/AVDD12
NC/MDIP3
NC/MDIN3
DVDD12
LED1/EESK
LED2/EEDI
LED3/EEDO
EECS
GND
DVDD12
VDD33
ISOLATEB
PERSTB
LANWAKEB
CLKREQB
LANVCC
LAN_REST#
PCIE_WAKE# (22,34,36)
CLKREQB
PCIE_LANREQ# (3)
ENERGY_DET (39)
+3V
R104
1K/F_4
D2
RB501V-40
LAN_ISOLATEB (39)
R103
15K_4
L27
4.7uH
EVDD12_R
C280
22U/6.3V/X5R_8
C286
0.1U/10V/X5R_4
C260
1U/6.3V/X5R_4
C256
1U/6.3V/X5R_4
DVDD12
C249
C279
C283
C243
C271
0.1U/10V/X5R_4
LANVCC
EC-B-07
CTRL12/VDD
C281
C242
C244
C250
(21) PCIE_TXP6_LAN
(21) PCIE_TXN6_LAN
GPP_TX1N_LAN
GPP_TX1P_LAN
C255
C258
0.1U/10V/X5R_4
PCIE_RXN6_LAN (21)
PCIE_RXP6_LAN (21)
CLK_PCIE_LAN# (3)
CLK_PCIE_LAN (3)
LAN_REST#
PLTRST# (21,27,34,36,38)
EMI:NEAR CN25
C259
1000P/50V/X7R_4
RJ45 Connector
CN20
LAN_OLED
LED1/EESK
LAN_MX0+
LAN_MX0-
LAN_MX1+
LAN_MX2+
LAN_MX2-
LAN_MX1-
LAN_MX3+
LAN_MX3-
LAN_GLED
LED0
R123
150_4
R164
150_4
R579
R580
0.1U/10V/X5R_4
IO_GND1
RJ45
C304
1000P/50V/X7R_4
EMI:NEAR CN25
EC-A-16
EC-B-03
Tramsformer
U13
NS892405
TD4-
TD4+
TCT4
TD3-
TD3+
TCT3
TD2-
TD2+
TCT2
TD1-
TD1+
TCT1
MX4-
MX4+
MCT4
MX3-
MX3+
MCT3
MX2-
MX2+
MCT2
MX1-
MX1+
MCT1
LAN_MCT0
LAN_MCT1
LAN_MCT2
LAN_MCT3
R138
R145
R153
R161
75/F_4
C270
C288
C301
C303
0.01U/16V/X7R_4
LANCT3
C257
1000P/3KV/NPO_18
EC-B-31
U11
U15
SRV05-4
MDI0+
MDI0-
MDI1+
MDI1-
MDI2+
MDI2-
MDI3+
MDI3-
IO1
IO2
IO3
IO4
GND
REF
http://hobi-elektronika.net
G-Note Montevina
Quanta Computer Inc.
Size
A3
Document Number
LAN(RT8111DL)
Rev
2A
Date:
Thursday, April 09, 2009
Sheet
29
of
55

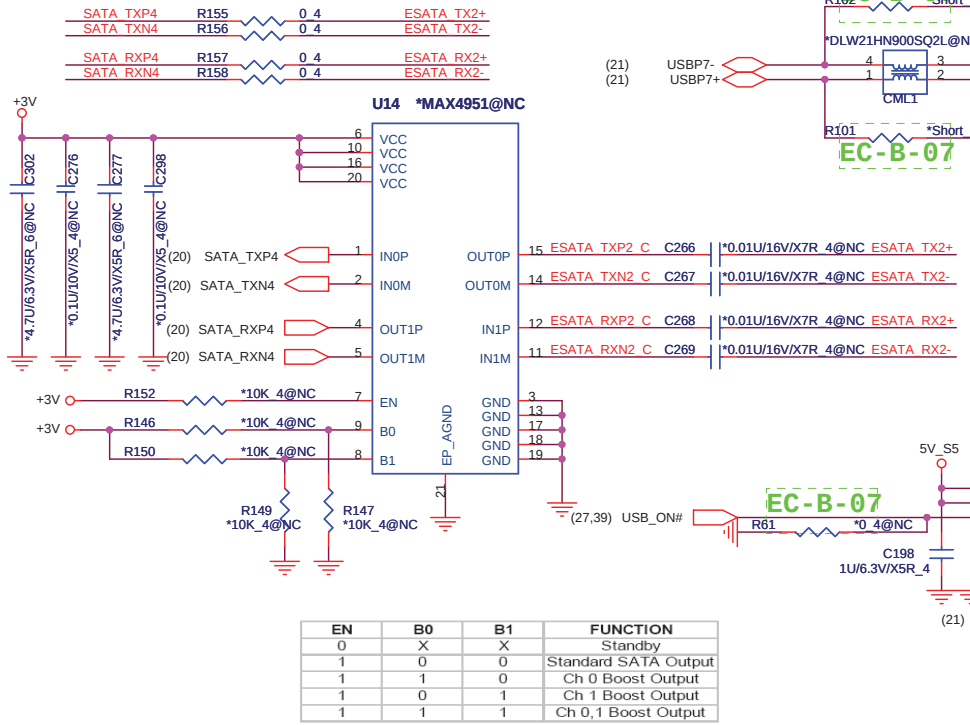
SATA CD-ROM



SATA-HDD

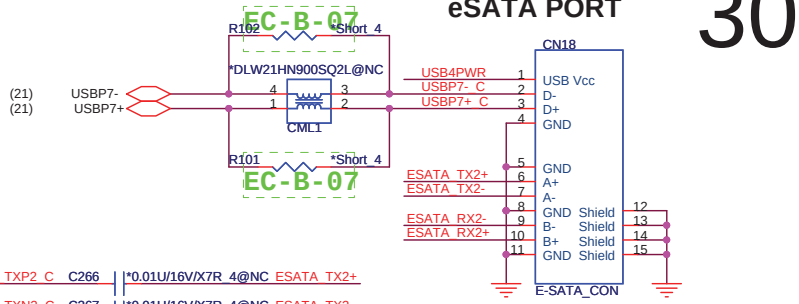


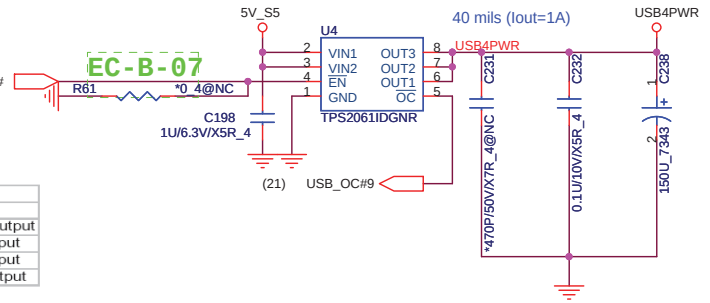
E-SATA RE-DRIVER

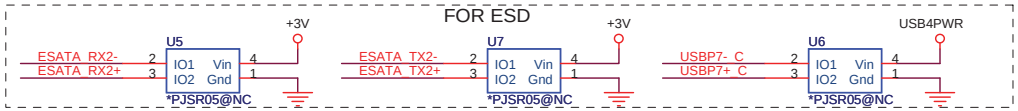


EN	B0	B1	FUNCTION
0	X	X	Standby
1	0	0	Standard SATA Output
1	1	0	Ch 0 Boost Output
1	0	1	Ch 1 Boost Output
1	1	1	Ch 0,1 Boost Output

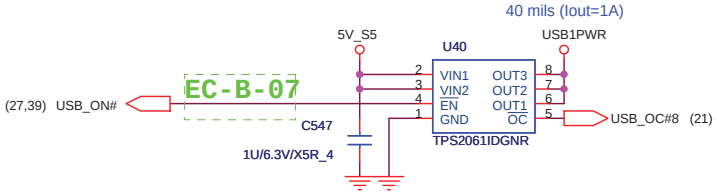
eSATA PORT



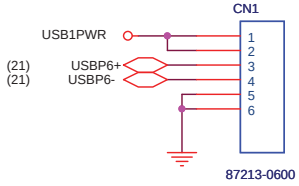




USB x1(on board)



REAR_USB/B connector



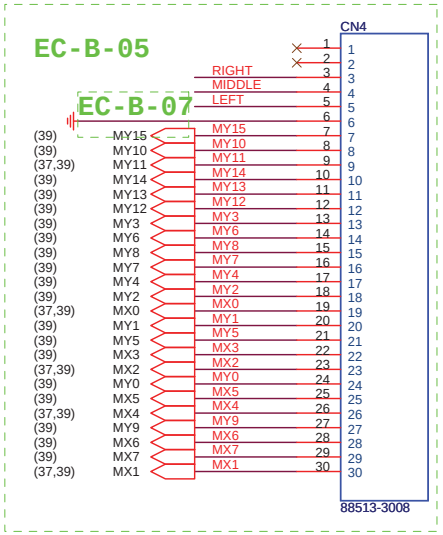
G-Note Montevina
Quanta Computer Inc.

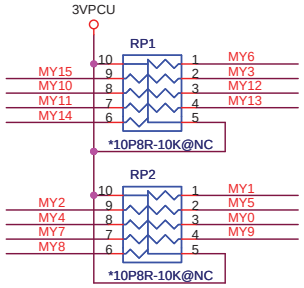
Size	Document Number	Rev
B	SATA HDD/ ODD/ eSATA/USB	2A

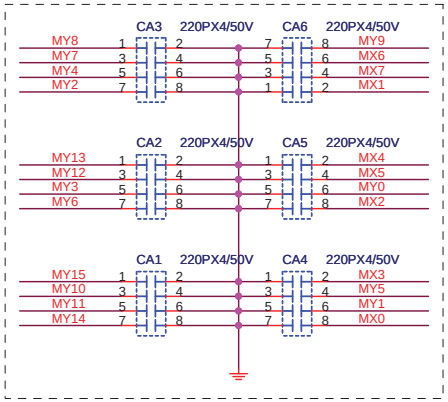
Date: Thursday, April 09, 2009 Sheet 30 of 55

FAN, K/B, T/P & Track Point

KEYBOARD connector

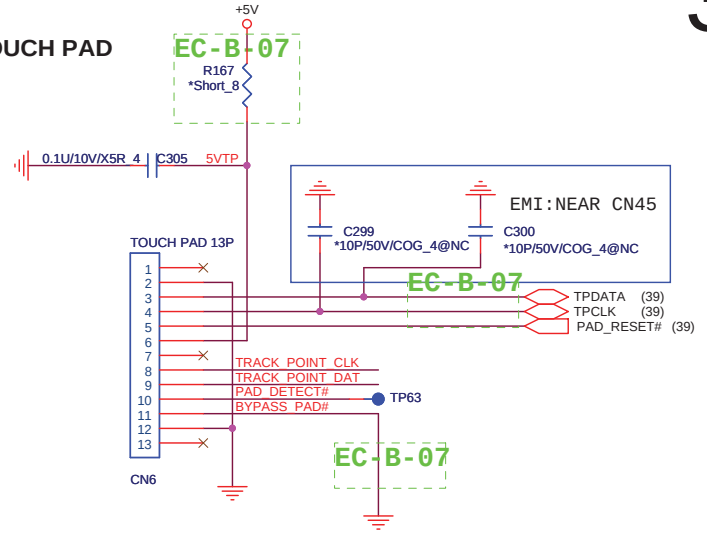




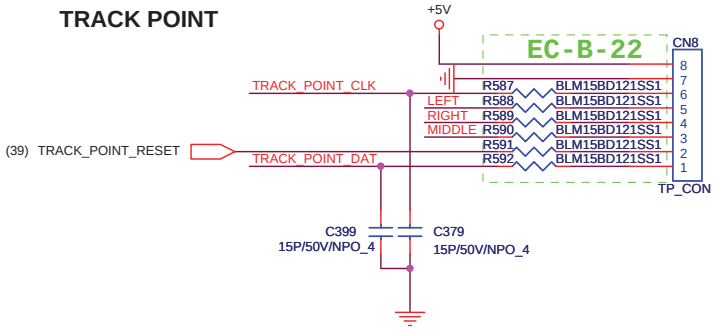


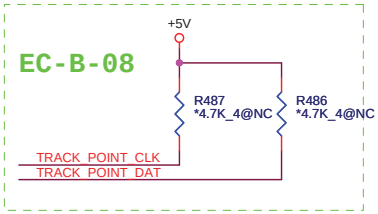
For EMI request

TOUCH PAD

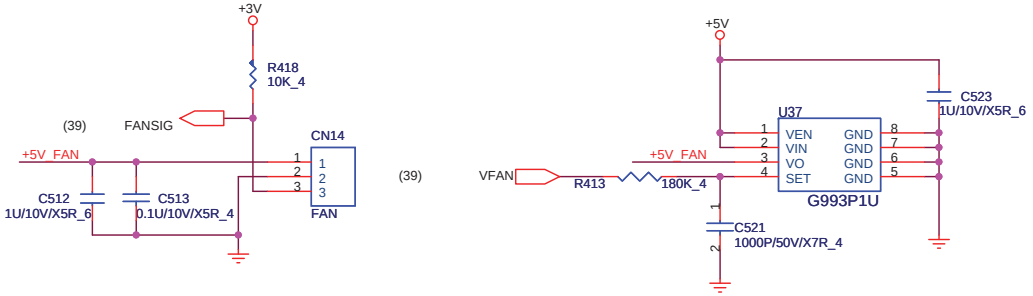


TRACK POINT



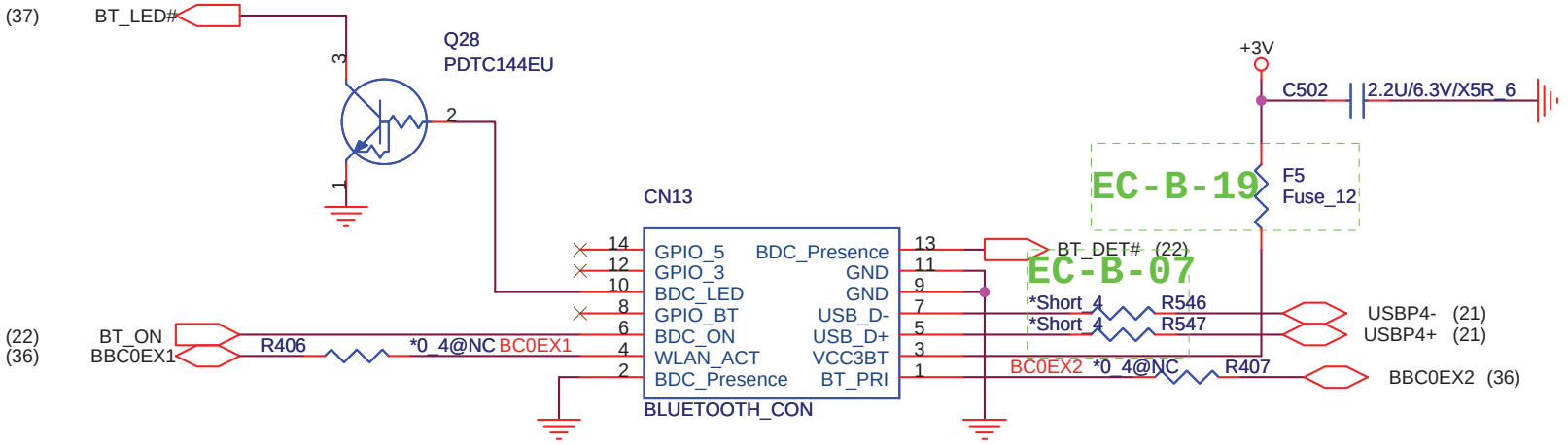


FAN Controller



G-Note Montevina Quanta Computer Inc.		
Size B	Document Number KB/ TP/ FAN Control	Rev 2A
Date: Thursday, April 09, 2009	Sheet 31 of 55	

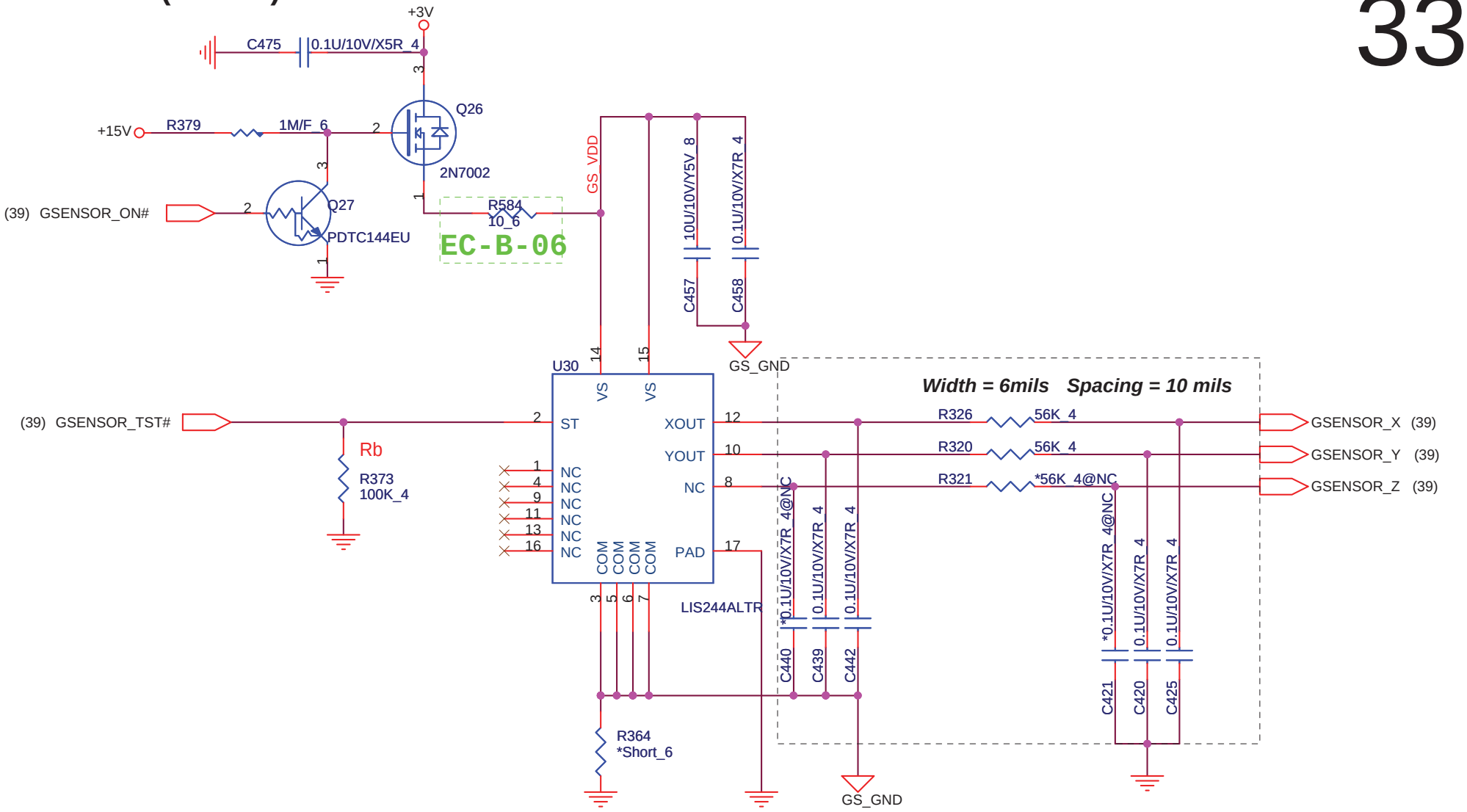
BLUETOOTH



G-Note Montevina Quanta Computer Inc.		
Size: A	Document Number: B/T	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 32 of 55	

G-SENSOR (2-Axial)

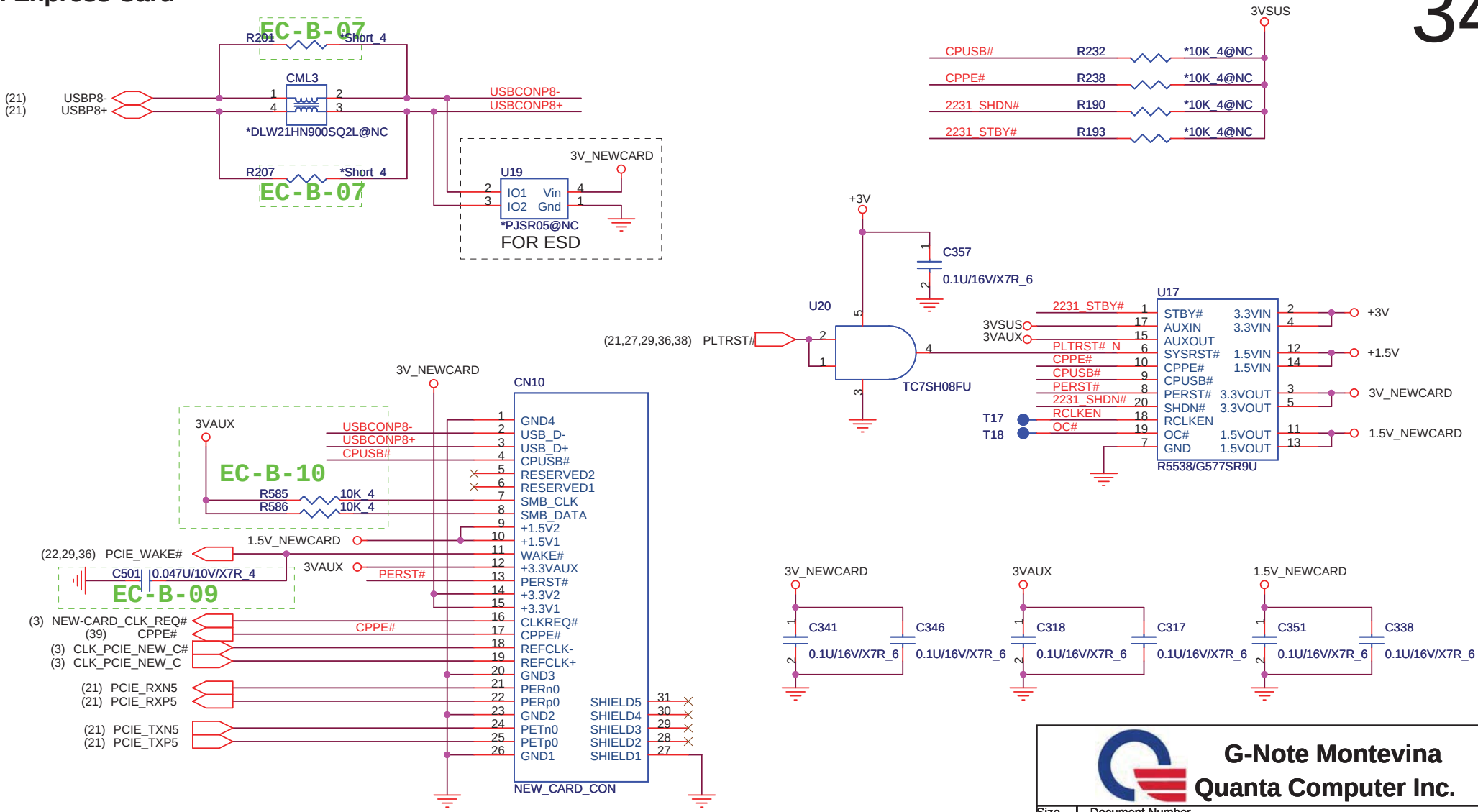
33



G-Note Montevina Quanta Computer Inc.		
Size A	Document Number G-SENSOR	Rev 2A
Date: Thursday, April 09, 2009	Sheet 33 of 55	

PCI Express Card

34



G-Note Montevina Quanta Computer Inc.		
Size: Custom	Document Number: PCI Express Card	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 34 of 55	

Mini PCI-E Card

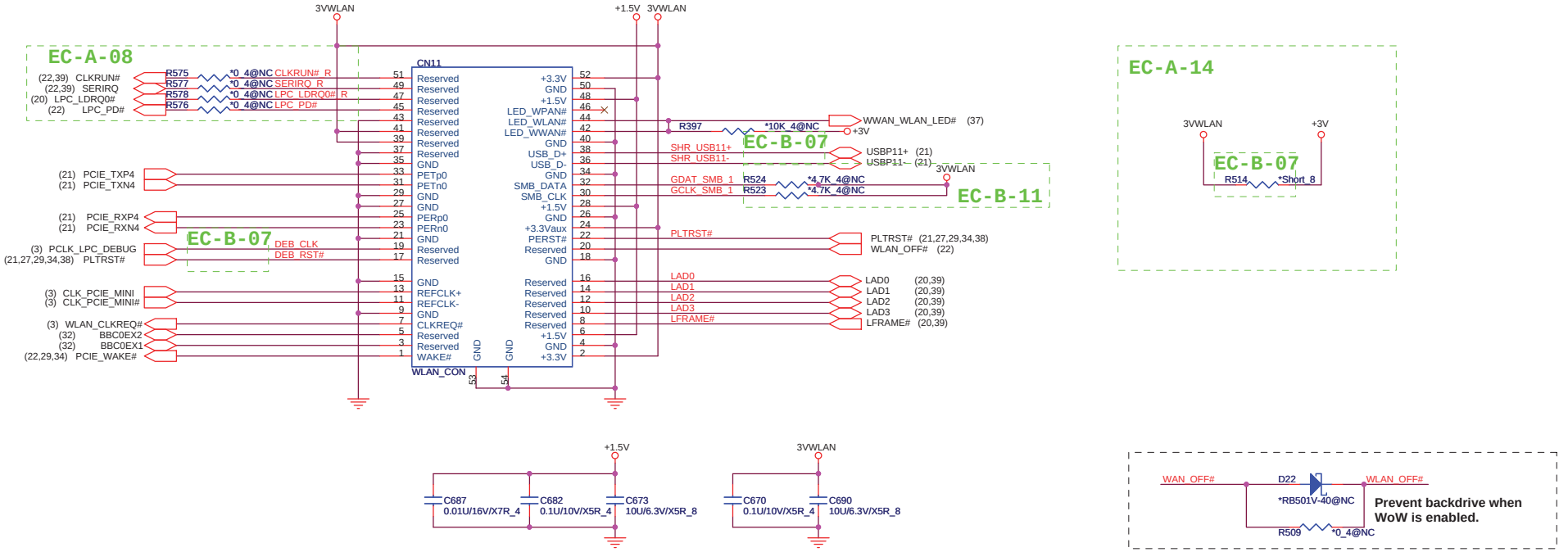
EC-B-04

35

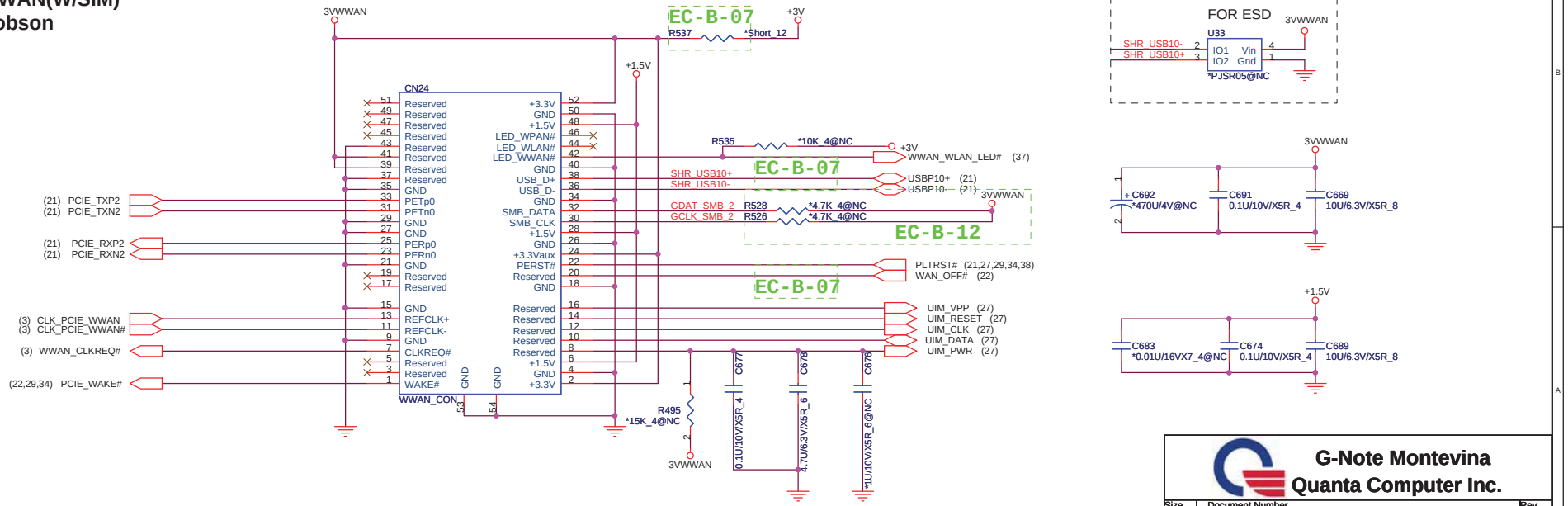
G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
A	Mini PCI-E Card	2A
Date: Friday, March 06, 2009	Sheet 35 of 55	

Mini PCI-E Card (F2)
(WLAN/ WiMAX)



Mini PCI-E Card (F1)
WWAN(W/SIM)
Robson

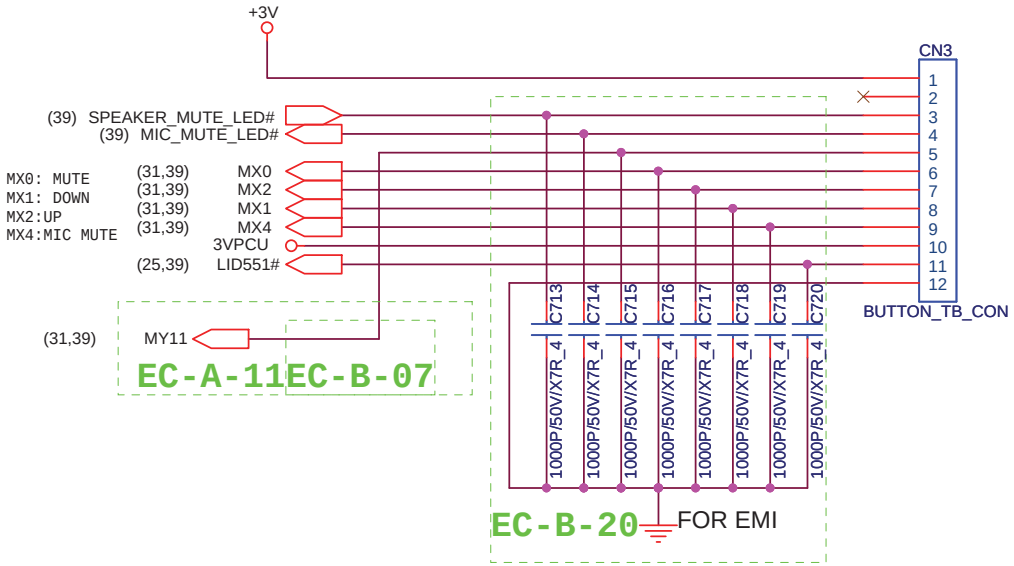


G-Note Montevina
Quanta Computer Inc.

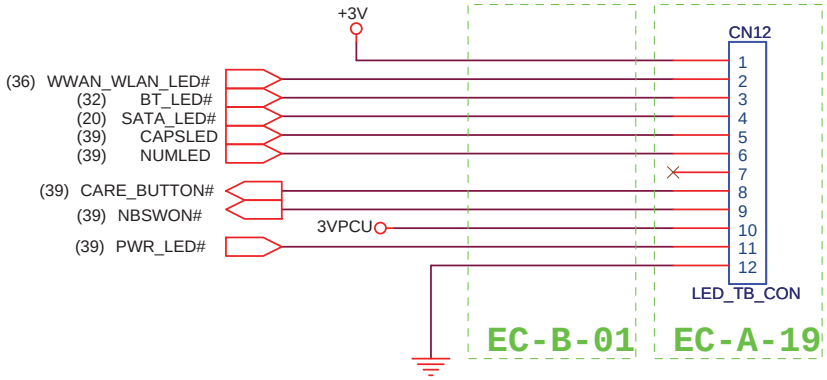
Size	Document Number	Rev
Custom	WLAN & WWAN Slot	2A
Date: Thursday, April 09, 2009	Sheet 36 of 55	

Daughter Boards for LEDs & Ports

FFC TO KBD LEFT SIDE CONNECTOR



FFC TO LED RIGHT SIDE CONNECTOR

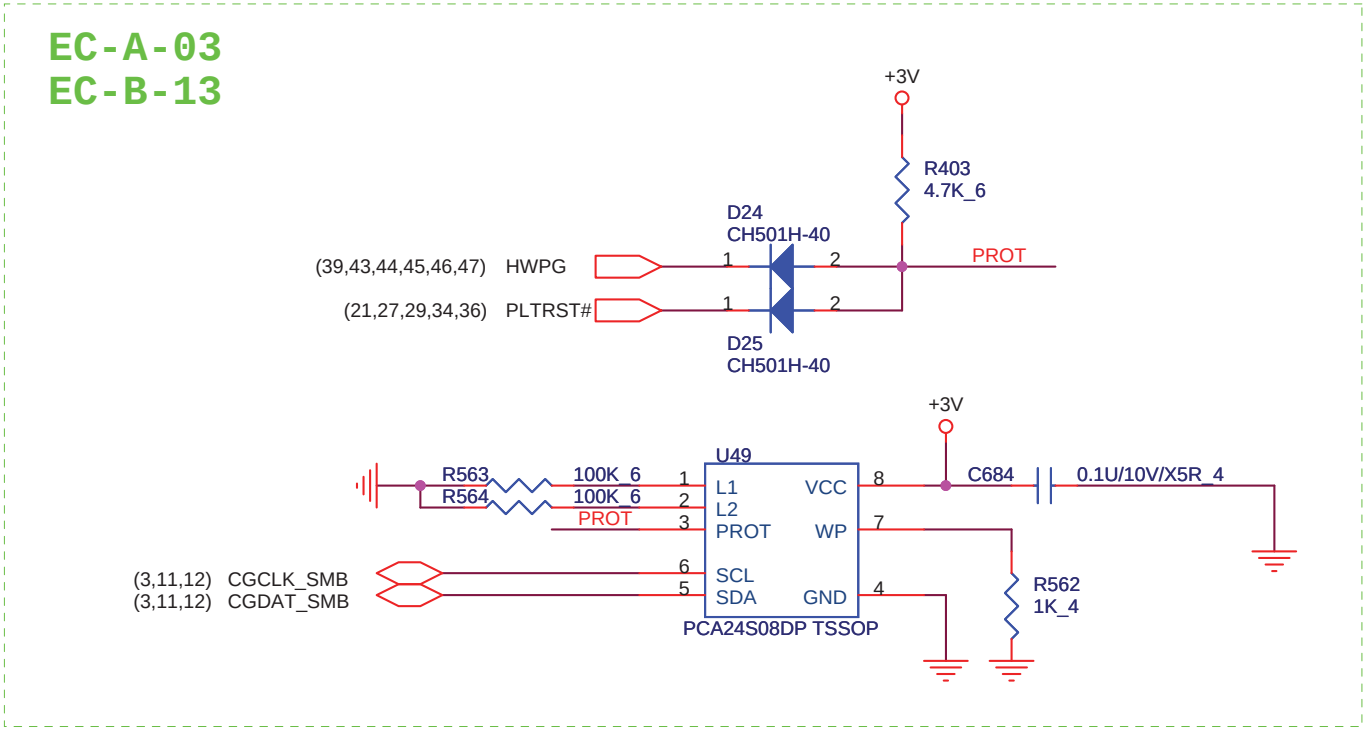


LOGO LED

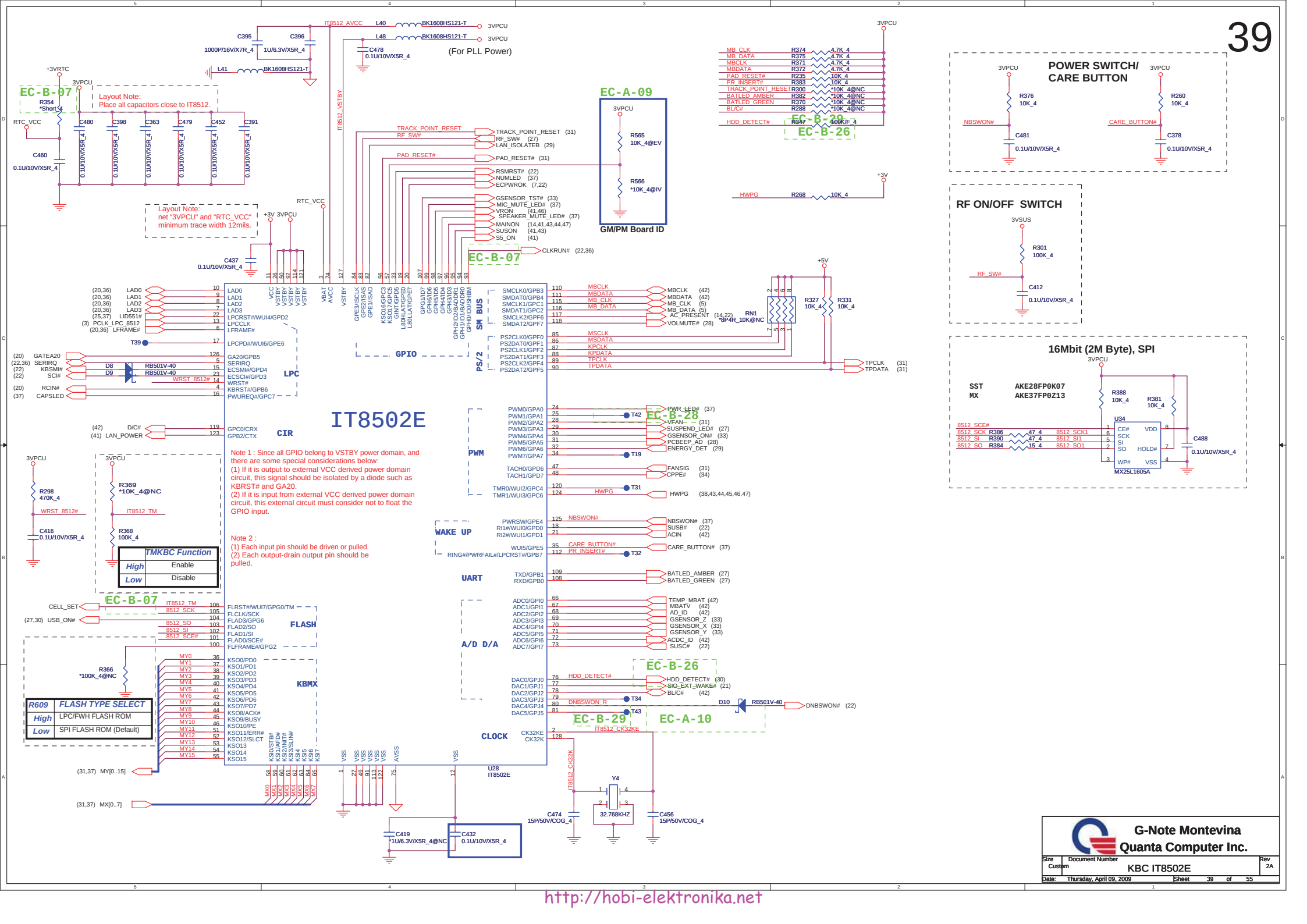
EC-B-28

G-Note Montevina Quanta Computer Inc.		
Size: Custom	Document Number: Daughter Boards	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 37 of 55	

EC-A-03
EC-B-13



G-Note Montevina Quanta Computer Inc.		
Size: A	Document Number: RFID EEPROM	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 38 of 55	



3mm minicard nut

HOLE10 H-TC197BC142D102P2

HOLE12 H-TC197BC142D102P2

7mm minicard nut

HOLE26 H-TC236BC102D63P2

HOLE27 H-TC236BC102D63P2

PAD

GP1 *Spad-spe1np

GP2 *spad-c181np

GP3 *Spad-re197x216np

GP4 *H-TSHBC276I2_7D91P2-1

GND1

GP5 *SPAD-SPE3NP

Hole for CPU support

HOLE20 *H-C142D142N

HOLE21 *H-C142D142N

HOLE23 *H-C142D142N

HOLE24 *H-C142D142N

VGA nut

HOLE22 H-TC197BC158D122P2

THER_GND

HOLE25 H-TC197BC158D122P2

THER1_GND

Bluetooth nut

HOLE14 H-TC217BC154D118P2

Card reader board nut

HOLE28 h-tc189bc157d122p2

HOLE29 h-c189d122pt

HOLE2 *H-C276D91P2

HOLE5 *H-C276D91P2

HOLE6 *H-C276D91P2

HOLE9 *H-C276D91P2

HOLE15 *H-C276D91P2

HOLE16 *H-C276I107D91P2

GND1

HOLE17 *H-C276D91P2

HOLE18 *H-C276D91P2

HOLE31 *H-C276D91P2

HOLE8 *h-tshapebc276d91p2

HOLE1 *H-TC276BC216D91P2

HOLE4 *H-C91D91N

HOLE7 *H-C298D298N

HOLE3 *H-C79D79N

HOLE19 *H-C79D79N

HOLE30 *H-C98D98N

HOLE32 *h-tc236bc217d87p2

HOLE33 *h-tc236bc217d87p2

HOLE34 *spad-c323np

HOLE37 *spad-c276np

HOLE38 *H-C276D87P2

HOLE39 *H-C276D87P2

HOLE40 *spad-c276np

HOLE41 *spad-c276np

HOLE35 *H-C87D87N

HOLE43 *O-GC3-1

HOLE44 *O-GC3-2

HOLE45 *O-GC3-3

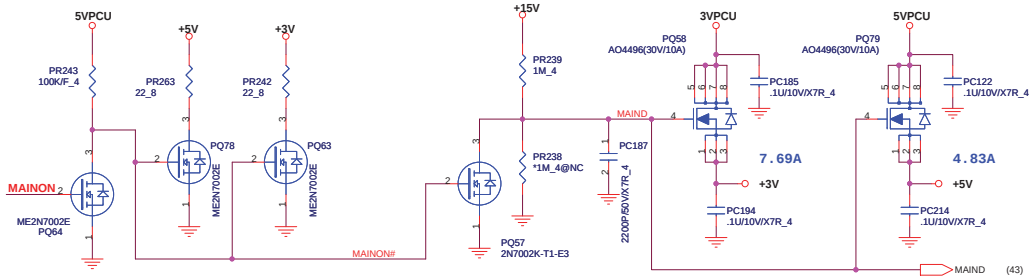
HOLE46 *O-GC3-4

G-Note Montevina
Quanta Computer Inc.

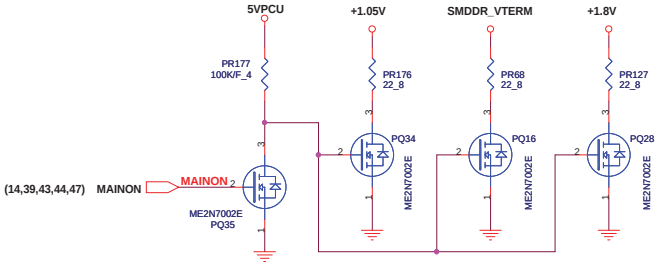
Size	Document Number	Rev
A	SCREW HOLE	2A
Date: Friday, April 03, 2009	Sheet 40 of 55	

DISCHARGE

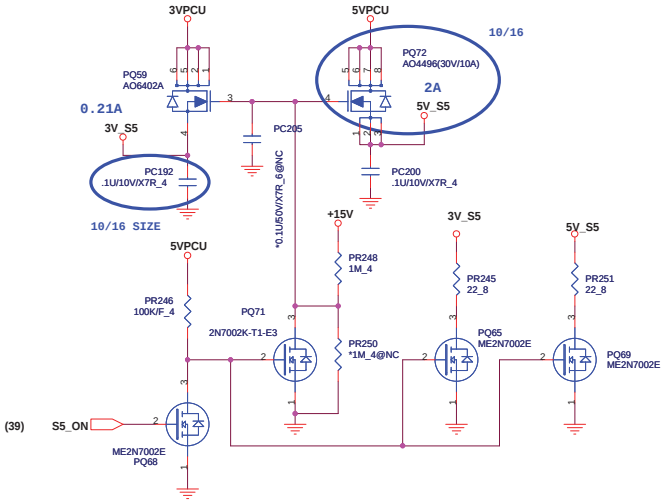
+3V, +5V



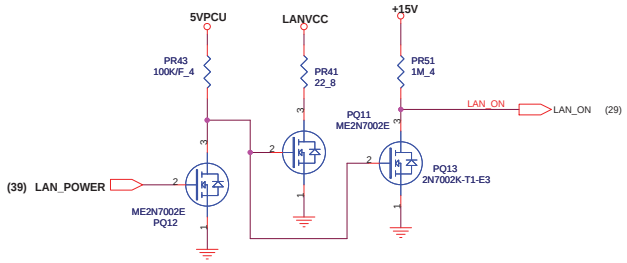
+1.8V, +1.05V, SMDDR_VTERM



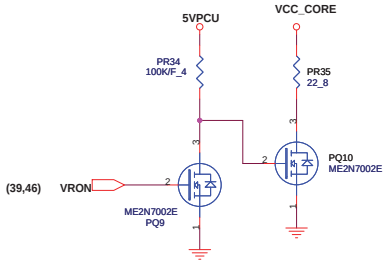
3V_S5, 5V_S5

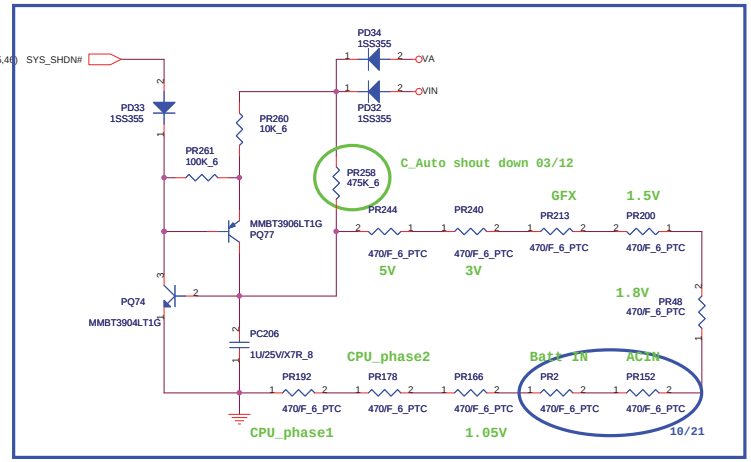


LANVCC

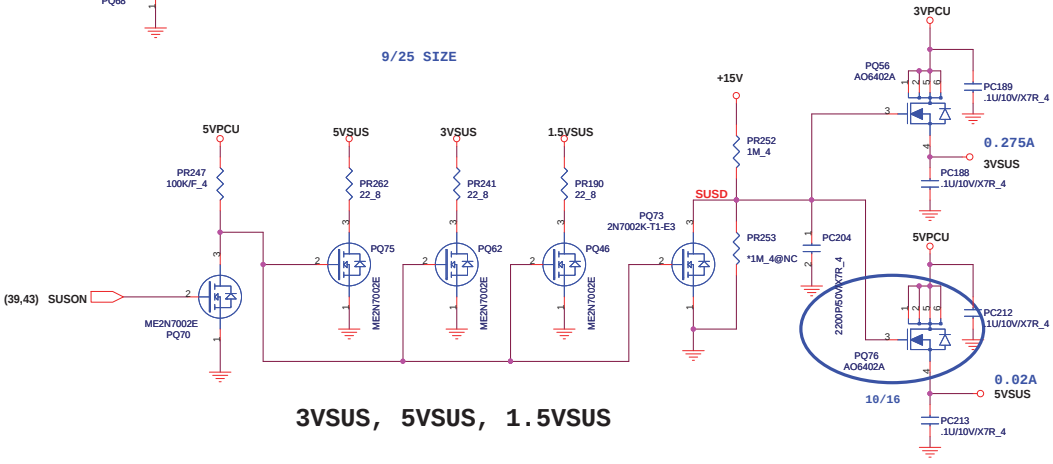


VCC_CORE



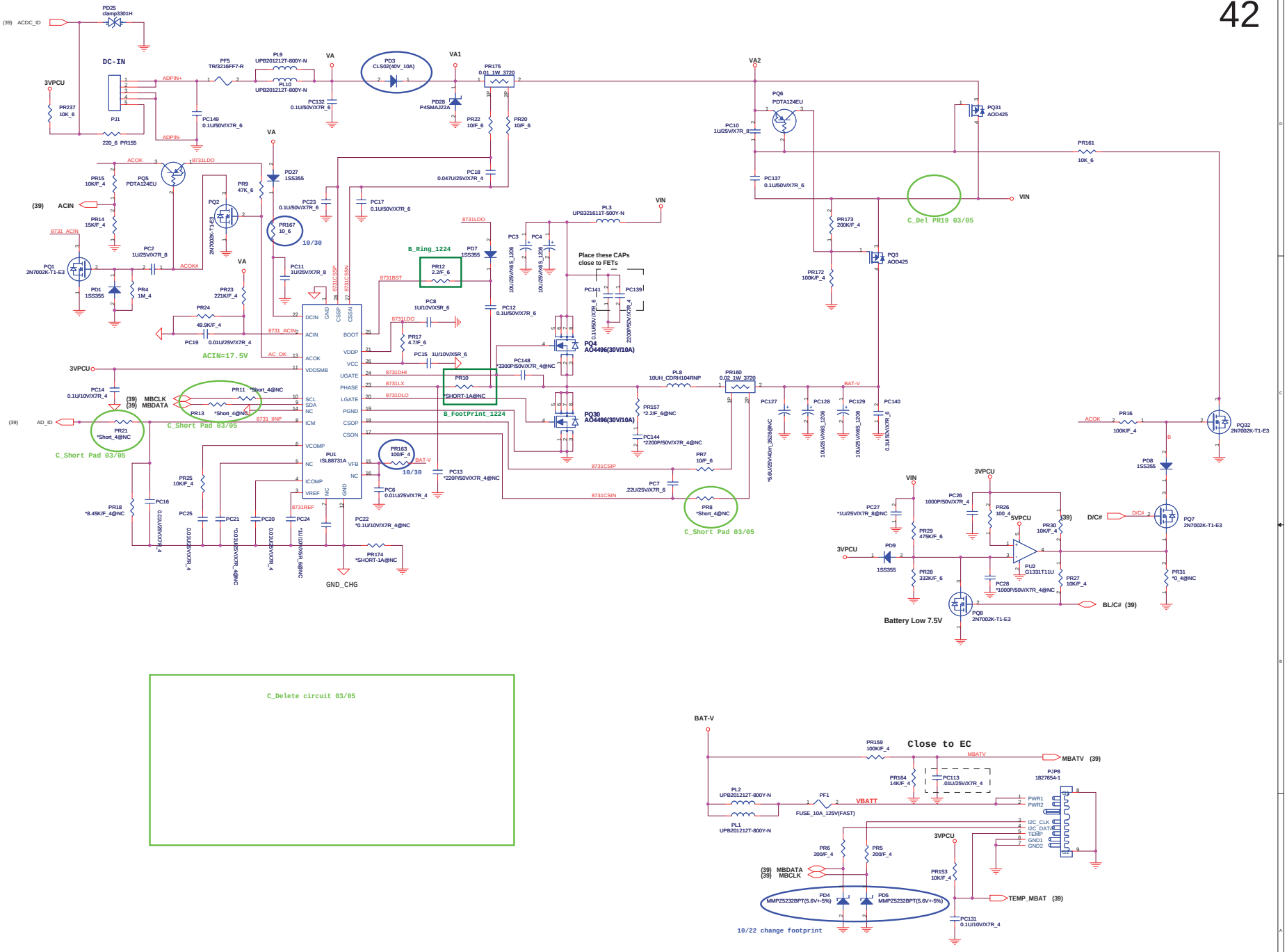


3VSUS, 5VSUS, 1.5VSUS



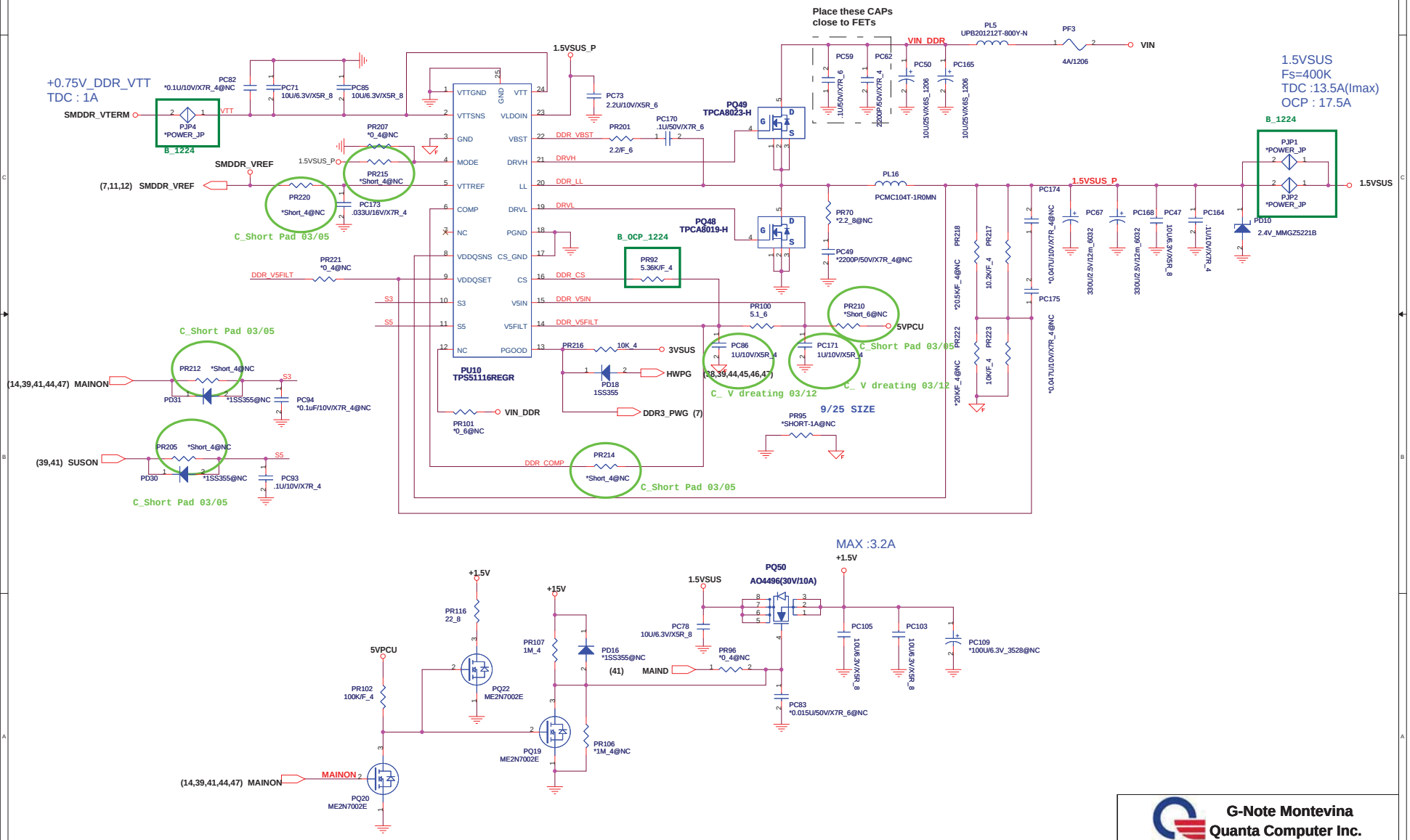
G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Discharge	2A
Date: Thursday, April 09, 2009	Sheet 41 of 55	



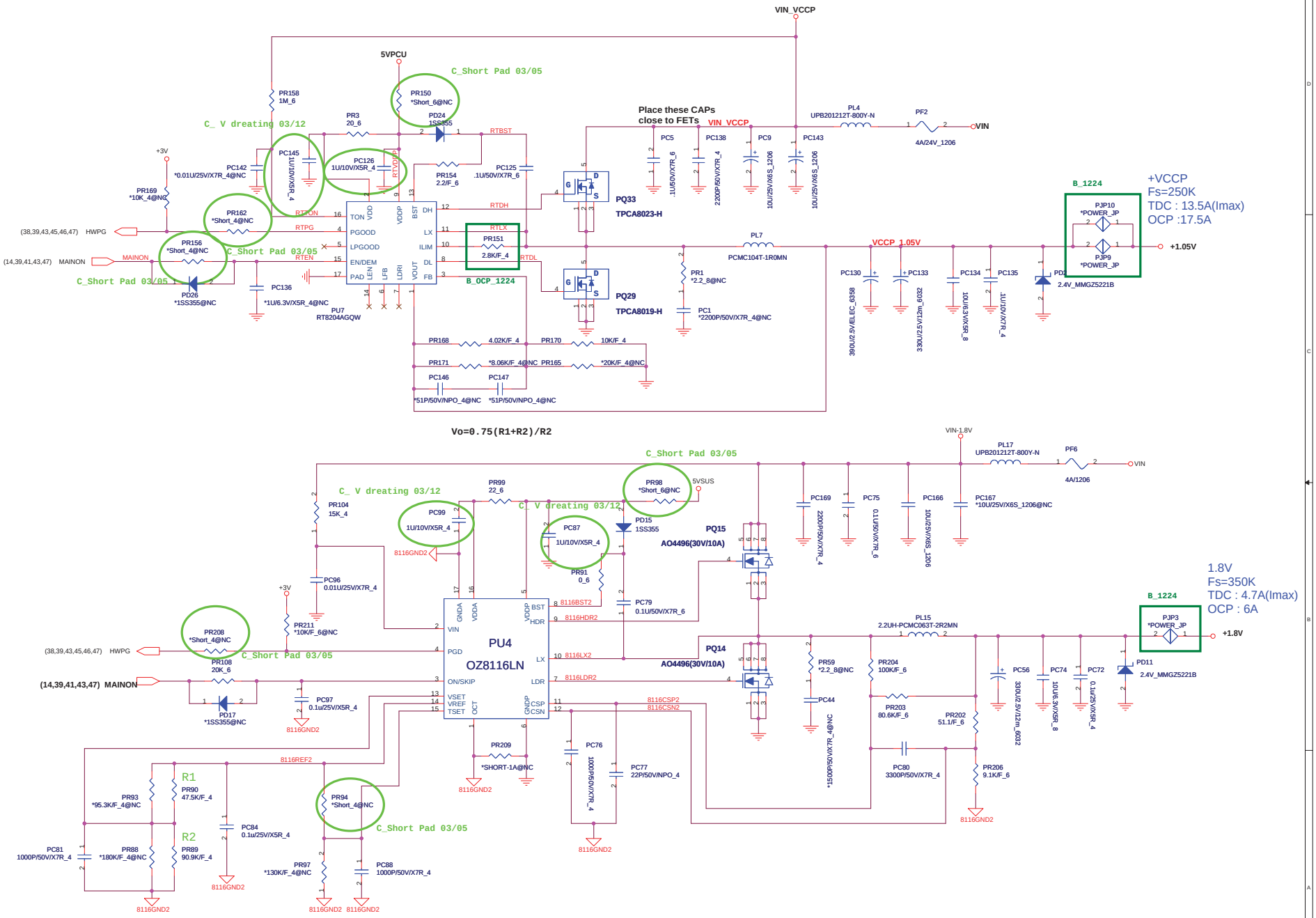
G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Charger (ISL88731A)	2A
Date: Thursday, April 09, 2009	Sheet 42 of 55	

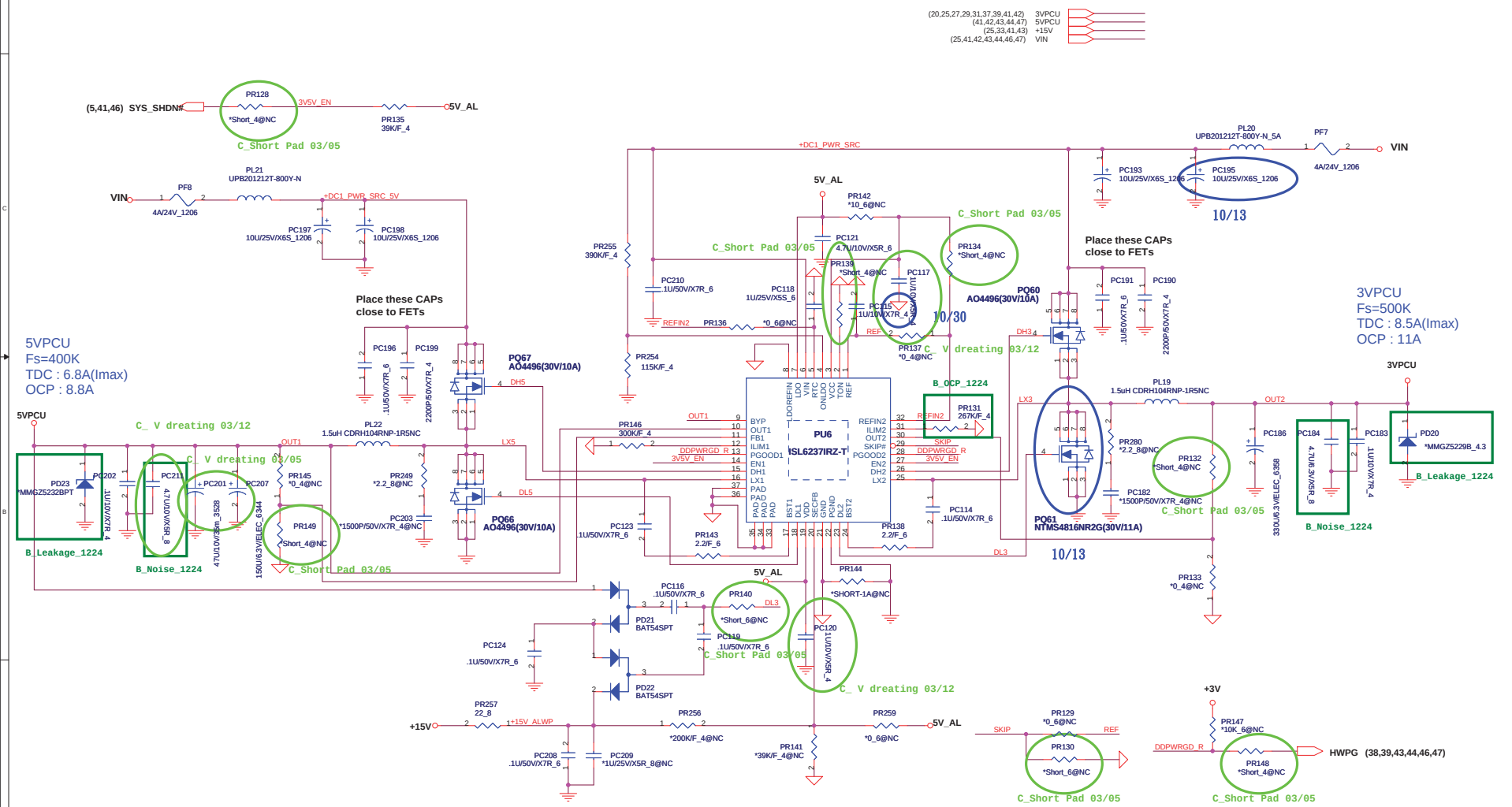


G-Note Montevina
Quanta Computer Inc.

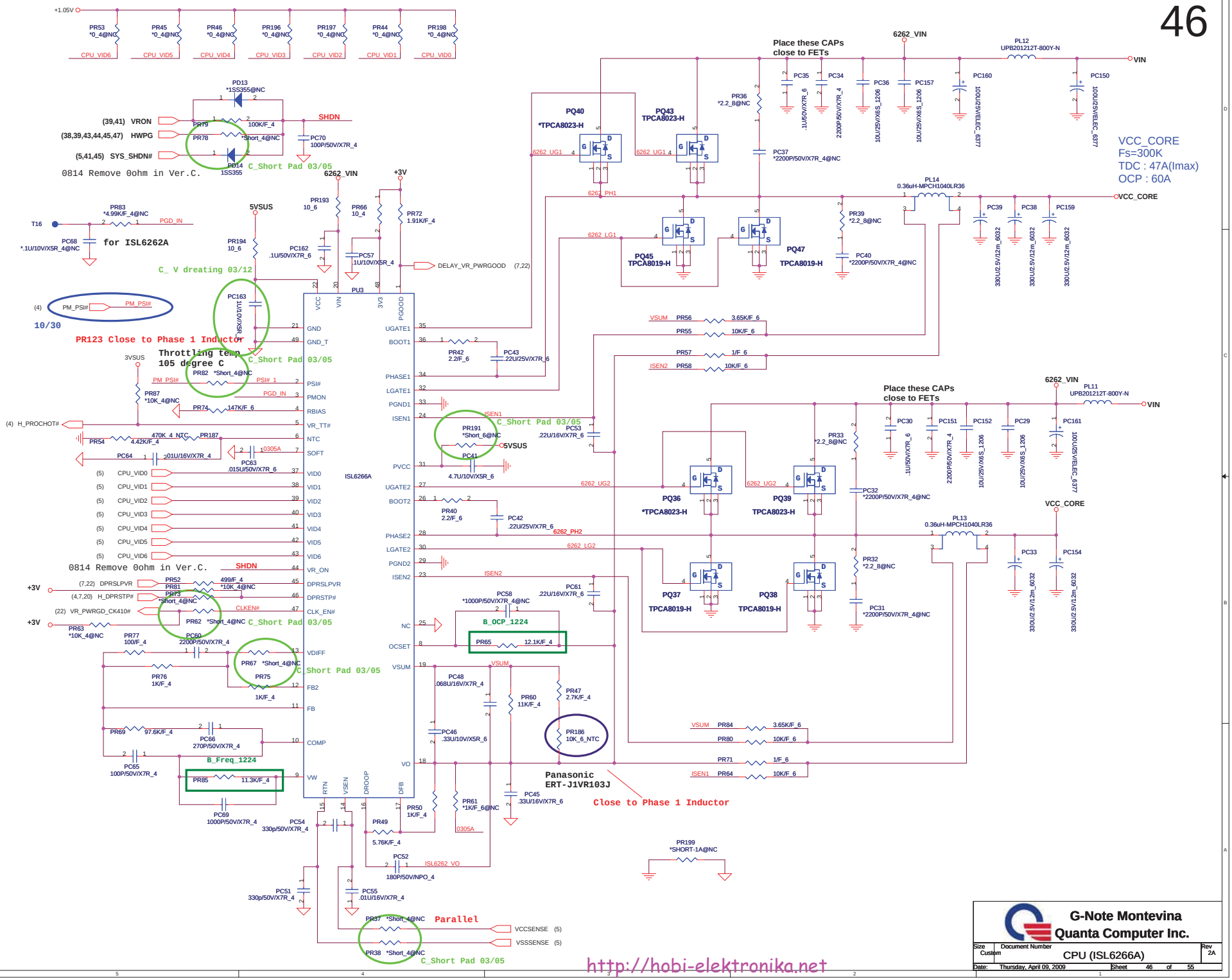
Size	Document Number	Rev
Custom	DDR3 (TPS51116REGR)	2A
Date: Thursday, April 09, 2009	Sheet 43 of 55	



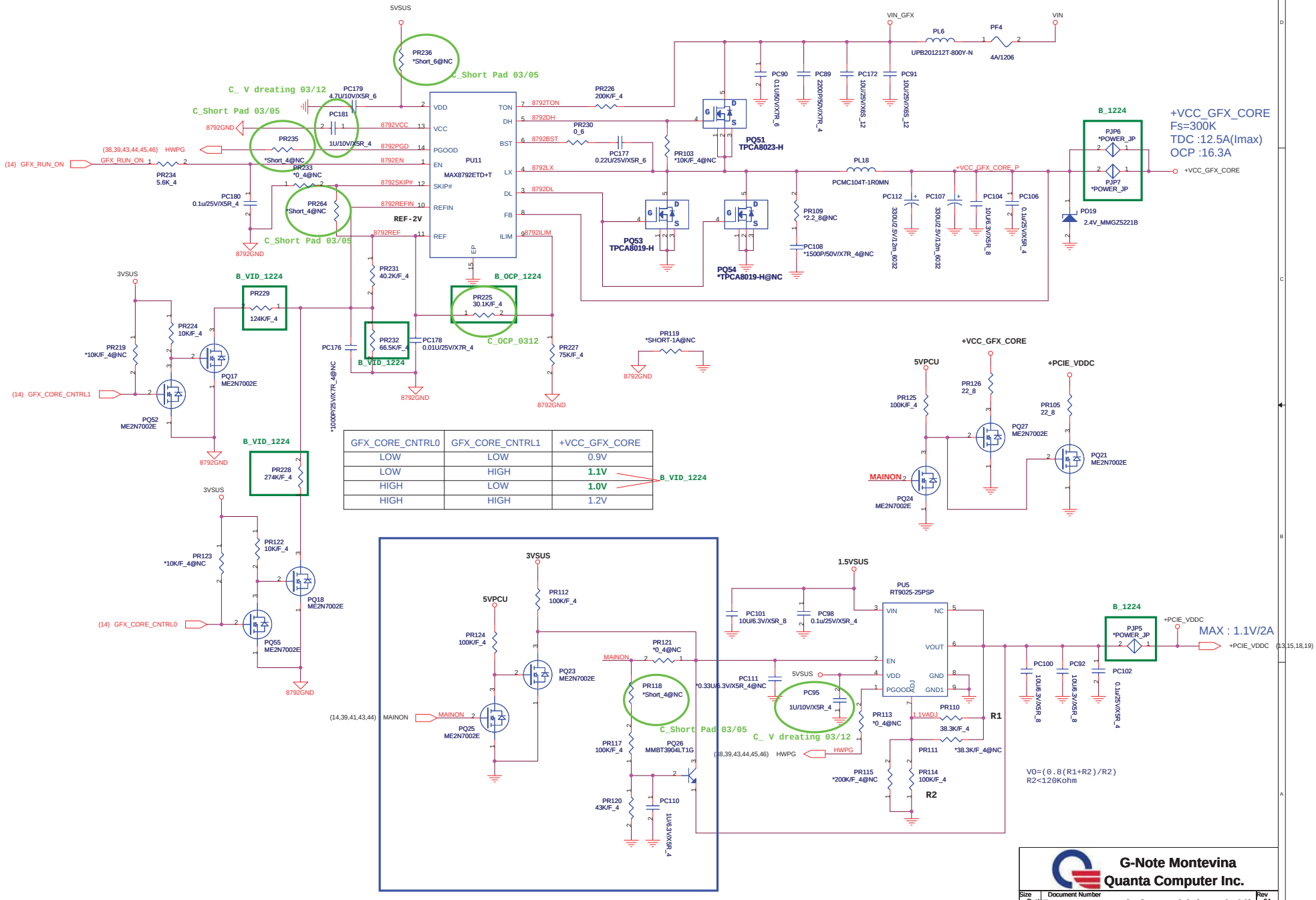
G-Note Montevina Quanta Computer Inc.		
Size: Custom	Document Number: 1.0V / 1.8V (RT8204)	Rev: 2A
Date: Thursday, April 09, 2009	Sheet 44 of 55	



G-Note Montevina Quanta Computer Inc.			
Size: Custom	Document Number: 3V/5V (ISL6237)		Rev: 2A
Date: Thursday, April 09, 2009		Sheet 45 of 55	



Company	G-Note Montevina Quanta Computer Inc.
Size	Custom
Document Number	CPU (ISL6266A)
Rev	2A
Date:	Thursday, April 09, 2009
Sheet	46 of 55



G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DIS_GFX_VCC (MAX8792)	2A
Date: Thursday, April 09, 2009	Sheet 47 of 55	

Revision History

Revision	Date	Phase	Change List	Release Schematic Date	Release Gerber File Date
1A		DV	Initial release		

Schematic Value Explanation Description :

RESISTOR

Value	F	4	6	8	12	1210	*	Description
*1K/F_4	1%	0402 (1005)					DE POP	1K ohm 1% SMD 0402 package and DE POP
1K_6	5%		0603 (1608)				POP	1K ohm 5% SMD 0603 package and POP
1K_8	5%			0805 (2125)			POP	1K ohm 5% SMD 0805 package and POP
1K_12	5%				1206 (3216)		POP	1K ohm 5% SMD 1206 package and POP
1K_1210	5%					1210 (3225)	POP	1K ohm 5% SMD 1210 package and POP

CAPACITOR

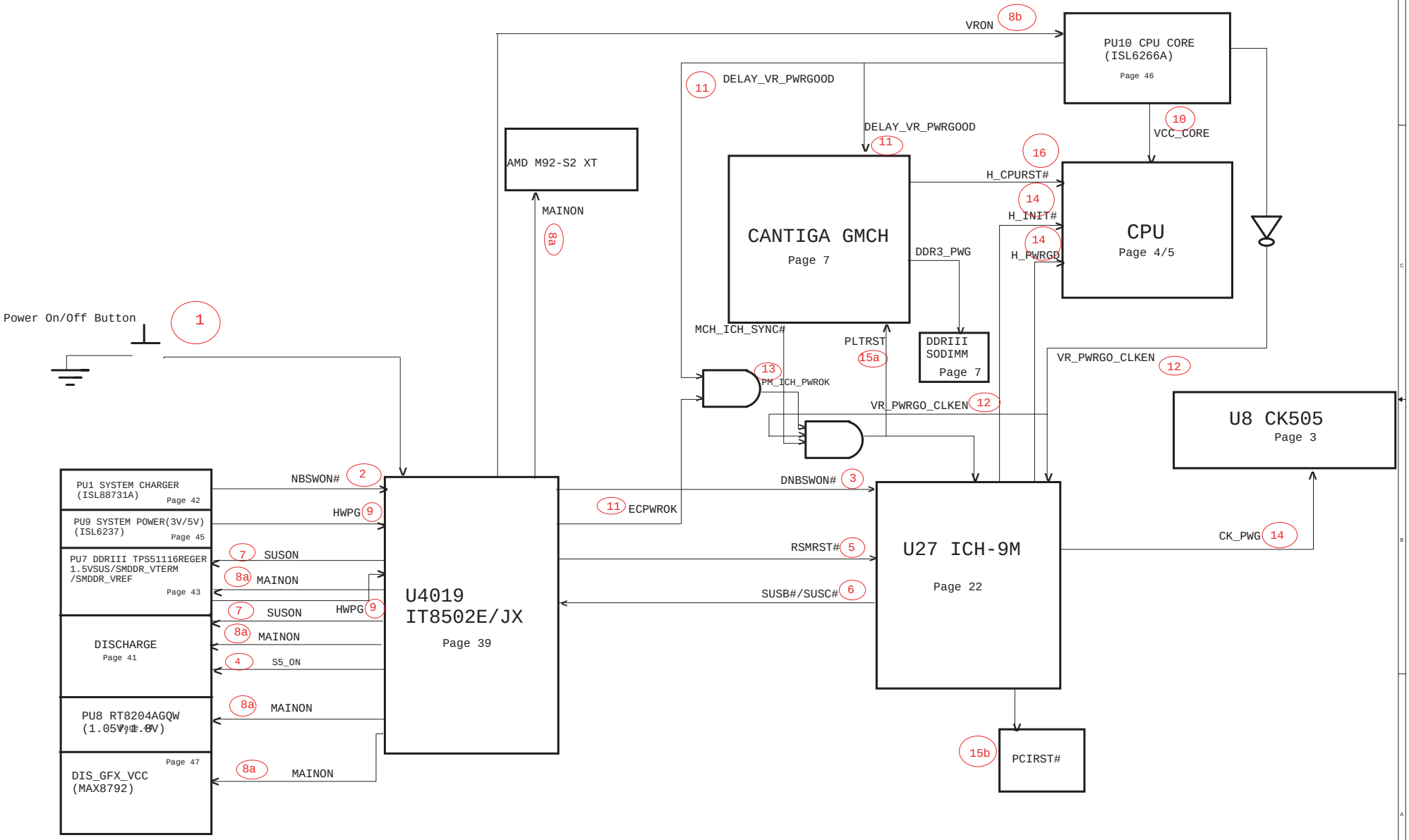
Value	Voltage	Material	6				*	Description
*0.1U/10V/X5R_4	10V	X5R	0402 (1005)				DE POP	0.1UF 10V X5R SMD 0402 package DE POP
1U/25V/X7R_6	25V	X7R	0603 (1608)				POP	0.1UF 25V X7R SMD 0603 package POP

G NOTE SKU TABLE

Location					

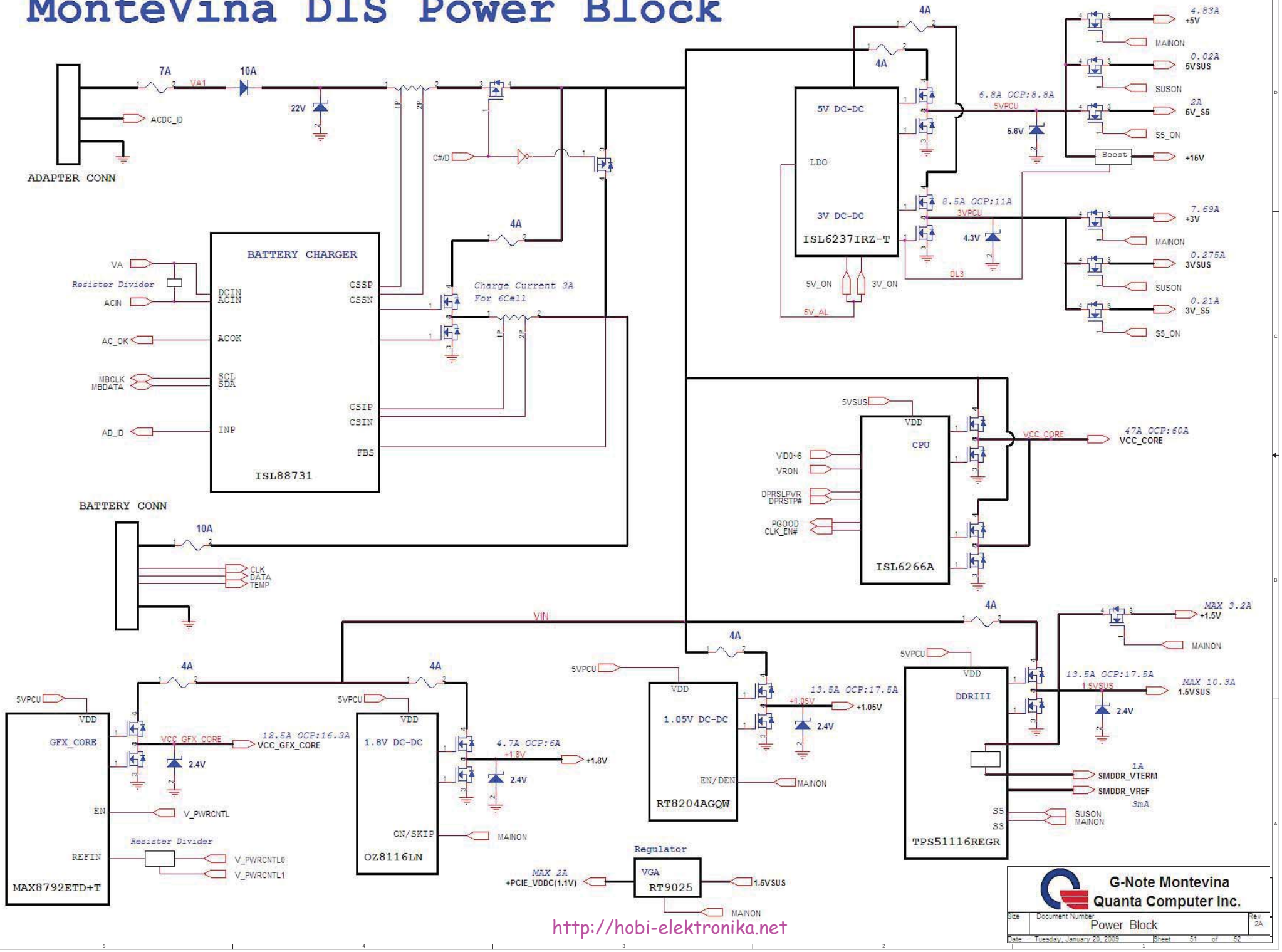
G NOTE SKU TABLE

Location					Page



G-Note Montevina Quanta Computer Inc.		
Size	Document Number Power Sequence Block	Rev 2A
Date: Tuesday, March 03, 2009	Sheet 50 of 55	

MonteVina DIS Power Block



EC NO.	PG.	DATE	PART REFERENCE	DESCRIPTION
EC-A-01	42	12/24	PR10	Change Footprint
EC-A-02	42	12/24	PR12	Change to 2.2 ohm reduce phase ring
EC-A-03	42	12/24	PD6	Delete Footprint
EC-A-04	43	12/24	PJP1,PJP2,PJP4	Change Footprint
EC-A-05	43	12/24	PR92	Change to 5.36K for OCP
EC-A-06	44	12/24	PR151	Change to 2.8K for OCP
EC-A-07	44	12/24	PJP3,PJP9,PJP10	Change Footprint
EC-A-08	45	12/24	PR131	Change to 267K for OCP
EC-A-09	45	12/24	PC134,PC211	Change to 4.7u reduce H.F. noise reduce
EC-A-10	45	12/24	PD20,PD23	NA to reduce leakage current
EC-A-11	46	12/24	PR65	Change to 12.1K for OCP
EC-A-12	46	12/24	PR85	Change to 11.3K for frequency 300KHz
EC-A-13	47	12/24	PJP5,PJP6,PJP7	Change Footprint
EC-A-14	47	12/24	PR225	Change to 80.6K for OCP
EC-A-15	47	12/24	PR228,PR229,PR232	Change for VID point setting

	EC NO.	PG.	DATE	PART REFERENCE	DESCRIPTION
2008	EC-A-01	29	12/08	U10	Change LAN IC footprint from (LQFP48-9X9-4)0.4 to (LQFP48-9X9-5)0.5 pitch
	EC-A-02	28	12/08	U32	Change Codec IC footprint to qfn48-7x7-5-58p-0_9h.(Add 9 via at the center PAD of original IC footprint)
	EC-A-03	38	12/08	U49	Change U49 schematic by adding R562,R563,R564 and D24 to solve F4 error code issue.
	EC-A-04	25	12/08	R196	Delete CCD_ON which was use to control CAM_VCC by change R196 from depop to pop and delete U16,C353,R204,R211,R219,R221.
	EC-A-05	14	12/08	R399	Add R399 to pull low CPIO_19_CTF according to AMD FAE suggestion.
	EC-A-06	22	12/08	R347	Replace CCD_ON with HDD_DETECT#, original HDD_DETECT# will cause FF error code while attached HDD.
	EC-A-07	03	12/08	R313	Change to 4.7Kohm To solve N.B. cannot get correct FSB frequency selection (error coed 02)
	EC-A-08	36	12/08	CN11	Add CLKRUN#,SERIRQ,LPC_LDRQ0#,LPC_PD#
	EC-A-09	39	12/08	R565,R566	Add adapter selection board ID by adding R565 an R566.
	EC-A-10	25	12/08	Q13	Change Q13 connection.
	EC-A-11	37	12/08	R567,R568	Add optional resistor between MY11 and MY13
	EC-A-12	28	12/11	C465,C426,C427, C506,C507,C499, C495,C497,C455	Change footprint from 0805 to 0603 per mechanical request.
	EC-A-13	25	12/19	CN5	Connect LCD connector shielding to GND for better EMI performance.
	EC-A-14	36	12/23	C679,Q35,Q36A, Q36B,R506,R510, R511,R519,R521	Delete redundunt schematic to save space for layout.
	EC-A-15	05	12/23	C708,C709,Q38, Q39,Q40,R569, R570,R571,R572, R573,R574,U53	Change thermal sensor.
	EC-A-16	29	12/23	R579,R580	Add IO_GND1 for LAN connector per EMI request.
	EC-A-17	26	12/24	R581,R582,R583, Q41,Q42	Change HP_DET schematic for better ESD protection and prevent floating
	EC-A-18	28	12/30	U54,D26,D27, C710	Add new schematic to prevent "POP' sound.
	EC-A-19	37	12/30	CN12	Add CN12 for 14" PCB due to mechanical design limit.
2009	EC-A-20	27	01/07	CN27	Change pin define of CN27 by intercept GND pin between differential pair per EMI request.

A stage

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
B	EC list	2A

Date: Tuesday, March 03, 2009 Sheet 53 of 55

2009

B stage

EC NO.	PG.	DATE	PART REFERENCE	DESCRIPTION
EC-B-01	37	02/24	CN2	Delete CN2(extra right button/b connector)
EC-B-02	30	02/24	CN19	Delete CN23 (extra ODD connector)
EC-B-03	29	02/24	CN20	Swap PIN3 and PIN14 to correct the LED behavior.
EC-B-04	3 21 35	02/26	C664,C665,C667, C672,C685,CN9, R488,R489,R491, R492,R494,R496, R515,U46,C324, C325,RP4,R293	Delete one minicard slot per customer request.
EC-B-05	30	02/26	CN4	Reverse the pin define of KB connector for the conveninece of assembly.
EC-B-06	33	02/26	R584	Insert 10 ohm resister(10_6) between FET and VDD(G-sensor) for Analog noise reduction.
EC-B-07	03 10 13 14 17 22 23 24 25 27 28 29 30 31 32 36 39	02/27	C403,L2,L56,R322, R105,R113,R127,R131, R133,R142,R143,R151, R159,R16,R160,R167, R180,R186,R579,R261, R269,R329,R339,R355, R356,R214,R22,R252, R255,R267,R550,R278, R282,R284,R286,R294, R312,R314,R33,R332, R338,R340,R547,R351, R353,R354,R367,R377, R401,R402,R405,R415, R429,R435,R436,R454, R493,R502,R505,R514, R518,R522,R567,R568 R525,R529,R531,R534, R537,R580,R543,R545, R546,R9,R38,R65,RP3, RP4,RP5,RP6,RP7, R569,R48,R362,R92, R119,R32,R36,R444, R447,R485R162,R163, R189,R192,R200,R206, R216,R227,R237,R244, R548,R549,R551,R552, R553,R554,R60,R101, R102,R364,R201,R207	Delete redundant 0 ohm or change it to short pad in the circuit.

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
B	EC list	2A

Date: Friday, March 13, 2009 Sheet 54 of 55

B stage

	EC NO.	PG.	DATE	PART REFERENCE	DESCRIPTION
2009	EC-B-08	31	03/03	R486,R487	Add but no assembly
	EC-B-09	34	03/03	C501	Add
	EC-B-10	34	03/03	R585,R586	Disconnect SMB and change it to pull high 10K to 3VAUX
	EC-B-11	36	03/03	R523,R524	Change to 4.7K and pull high to 3VWLAN
	EC-B-12	36	03/03	R526,R528	Change to 4.7K and pull high to 3VWWAN
	EC-B-13	38	03/03	C684,D24,D25, R403,R562,R563, R564,U49	Change RFID IC package to TSSOP.
	EC-B-14	28	03/04	C711,C712	Reserve 1u capacitor between L+,L- and R+,R- for EMI
	EC-B-15	22	03/04	R223,R224, R239,R250	Change board ID for SIT stage.
	EC-B-17	28	03/06	R272,R273,R274, R275	Add R272,R273,R274,R275 for EMI
	EC-B-18	26	03/06	D21	
	EC-B-19	25 32	03/12	F3,F4,F5	
	EC-B-20	37	03/09	C713,C714,C715, C716,C717,C718, C719,C720	Add capacitor for EMI
	EC-B-21	03	03/09	R357,R323,R279	Due cpu clock already fix,so delete redundant parts.
	EC-B-22	31	03/10	R587,R588,R589, R590,R591,R592	Add EMI filter for RF
	EC-B-23	44	03/16	PD17	Assembly PD17 to correct VGA graphic power off sequence.
	EC-B-24	25	03/12	R593,C311,C312	Add bead for EMI
	EC-B-26	24	03/17	D14,D15,D16, D17,D18,D19, D20	Change CRT ESD protection from Switching Diode to Transient Voltage Suppressors.
	EC-B-27	22,39	03/30	R347	Change HDD_DETECT# connection from ICH9 to KBC
	EC-B-28	25,37 39	04/07	Q17,Q19,R169, R174,R175	Delete LOGO Led for cost down
	EC-B-29	25 39	04/07	R541,C309,Q13, Q14,R165,R166	Delete THINK light for cost down
	EC-B-30	27	04/08	R555,R556,R557	Fine tune battery and suspend LED brightness
	EC-B-31	29	04/10	U11,U15	Replace TVS between transformer and LAN IC for Hi-pot test

G-Note Montevina
Quanta Computer Inc.

Size	Document Number	Rev
B	EC list	2A

Date: Thursday, April 09, 2009 Sheet 55 of 55