BV2.5 (M2.5-Note) SYSTEM BLOCK DIAGRAM

SIT-->SVT REV : 3B
2006-07-24

DC/DC (VCC1R5M/VCC1R05B) MAX1540ETJ+ P67
DC/DC (VCC1R8/VCC0R9B) MAX8632ETI+ P66
DC/DC (VCC2R5M) BD3508EKN-E2 P69
DC/DC (VCC3M & VCC5M) MAX1977EEI+ P63
CPU CORE (VCCCPUCORE) ADP3207JCPZ P64
CHARGER MAX8765ETI+ P58
TSURUMAI TB62506FG (VCC3B & VCC5B & VCC1R8A & VCC1R5B) P70

Intel Yonah Processor
VCC1R5B VCC1R05B VCCCPUCORE
478 uFCPGA P2~4

X'TAL 14.318M
CK-GEN CK410M ICS954309
VCC3B P14
CPU CLK_166MHz
GMCH CLK_166MHz
DREFCLK_96MHz
PCIE MCH CLK_100MHz
LAN CLK_100MHz
DOCK CLK_100MHz
PCIE ICH CLK_100MHz
SATA ICH CLK_100MHz
PCIE WLAN CLK_100MHz

FSB 533/667MHz

SDVO DVI Bridge CH7307 P56
PCI-EXPRESS

Calistoga GMCH 945GM 1466 PCBGA P5~11
VCC1R05B VCC2R5B VCC1R8A DDR2_VREF VCC1R5B
Dual Channel DDR2

DDR II SODIMM0
VCC1R8A DDR2_VREF VCC0R9B
DDR II SODIMM1
P12,13

PCI-EXPRESS
ATI (W-Note Only)

VBL20 VCC3P VCC3B LCD/INV CONN P21
VCC5B VCCCRT CRT P22
S-VIDEO CONN P30

Full Docking Mini Docking Port Replicator P45
PCI-E
KB/MS
SPDIF
LPC
RJ11 / RJ45
USB PORT3
HP / MIC
VGA
DVI

MINI PCI-E WWAN CARD
MINI PCI-E WLAN CARD
DOCKING
P40,43,45

X'TAL 32.768K
DMI Interface

ICH7-M 82801GHM
VCC1R5B VCC3B VCC2R5B VCC3M VCC1R05B RTCVCC
652 BGA P23~26

SATA
PATA
USB
PCI Express
PCI BUS
SPI
LPC
Azalia

HDD/SATA VCC5B VCC3B P28
Ultra Bay ODD VCC5MUBAY P29
Finger Print P48
MINI-PCIE WWAN P43
Camera on LCD P21
BT1.2 Module P21
USB Port 0 ~ 3 VCC5M P30
FLASH P44

X'TAL 24.576M
TI PCI8412 PCMCIA+1394a +SD
VCC3M VCC3B VCC1R8M
INTA/B/C REQ0 GNT0 AD16
P36,37

X'TAL 25M
BROADCOM BCM5752M/F BCM5753M/F (10/100M/1G)
VCC3B VCC1R2AUX VCC2R5AUX VCC3AUX
P40,41

Azalia Codec AD1981HD VCC3B MICVCC P31
MDC 1.5 VCC3AUX P35
SES/TATER AT8356908 VCC3M VCC3B RTCVCC P53
PMH7 MG73Q511-045TBZ03A VCC3M P49
X'TAL 10M
RENESAS H8S/2116F VCC3M VCC5M P46
TPM AT97SC3203 VCC3B RTCVCC P53
FWH 82802AC VCC3B P27
NS PC87382 VCC3B P50

Audio Amplifier MAX9750C VCC5MA P34
RJ11 P42
VISHAY FIR TFDU6102 VCC3B P51
1394a Conn. P36
SD/xD P37
PCMCIA SLOT TYPE I/II P37
PI3L500ZFE P39
Power Switch TPS2041B P37
Power Switch TPS2211A P37
RJ45 M/B P42
RJ45 Docking P45

I2C
Touch Pad VCC3B VCC5B P48
Acceserometer ADXL322 VCC3M P55
KB Matrix VCC3M VCC5B P47
Thermal Sensor MAX1989/LM75 VCC3B P52

Internal Stereo Speaker P34
Headphone Jack P33
Ext. MIC Jack P33
Stereo MIC on LCD P21

PROJECT : BV2A
Quanta Computer Inc.
Size: Custom | Document Number: Block Diagram | Rev: 3B
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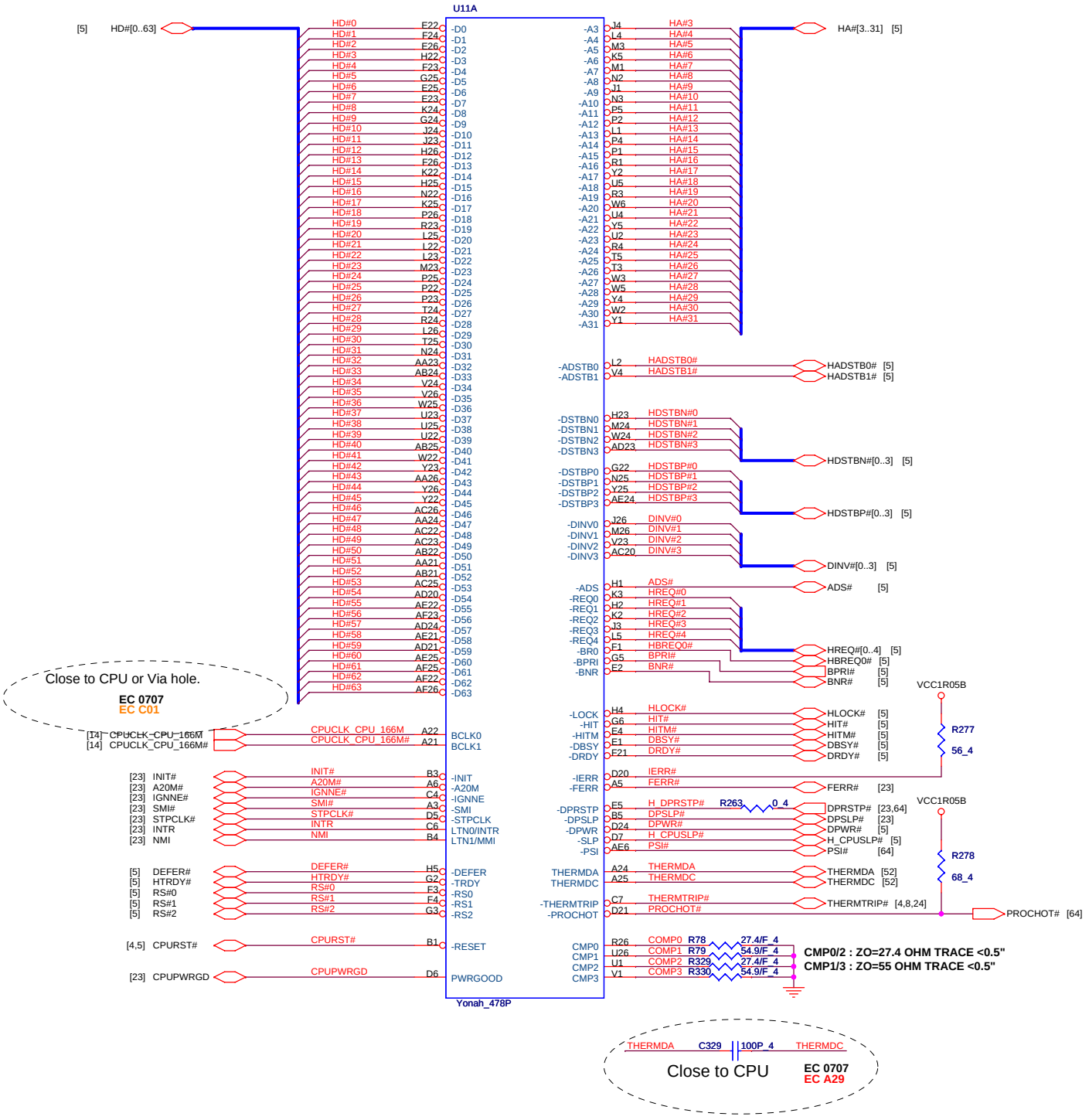
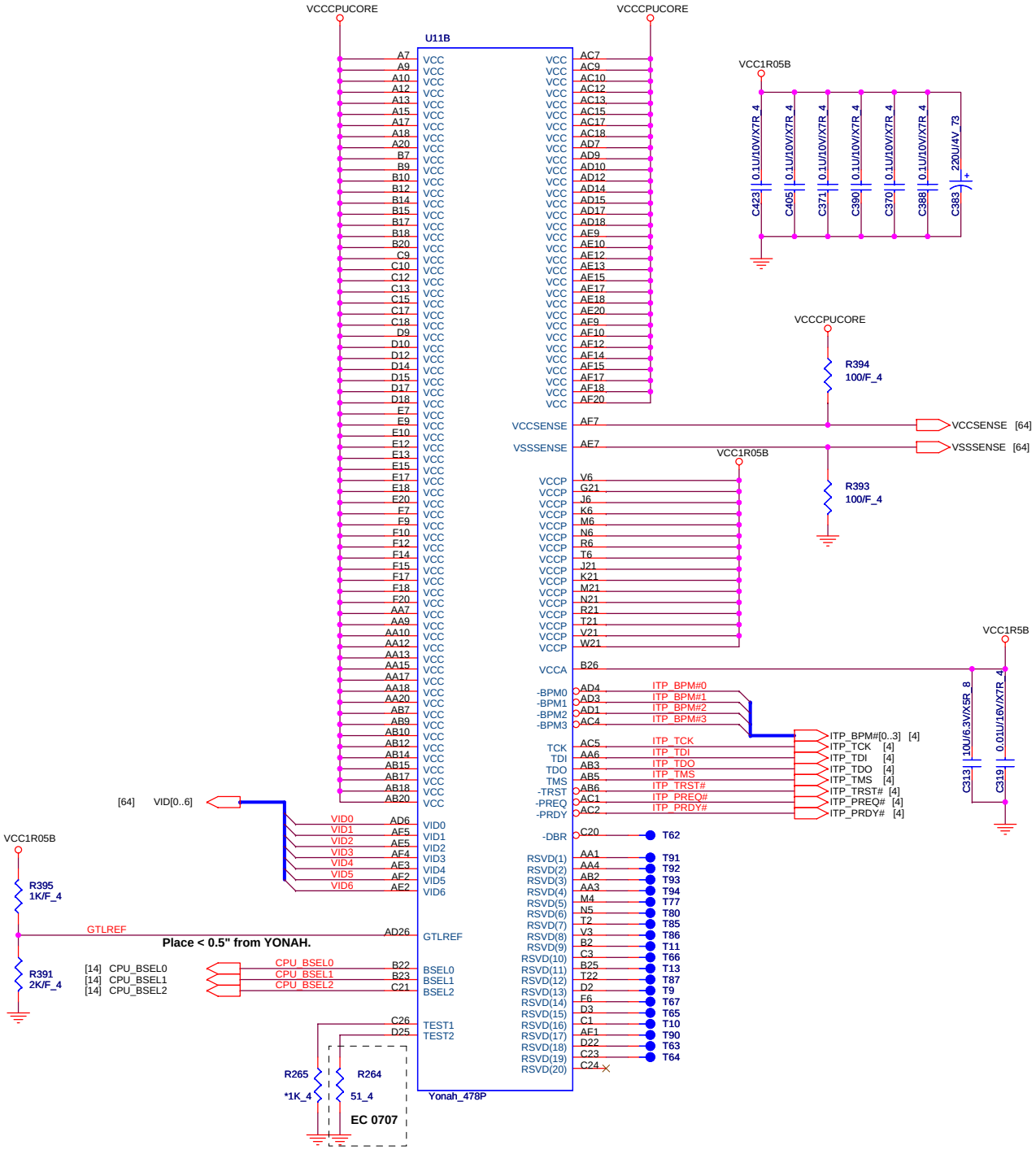
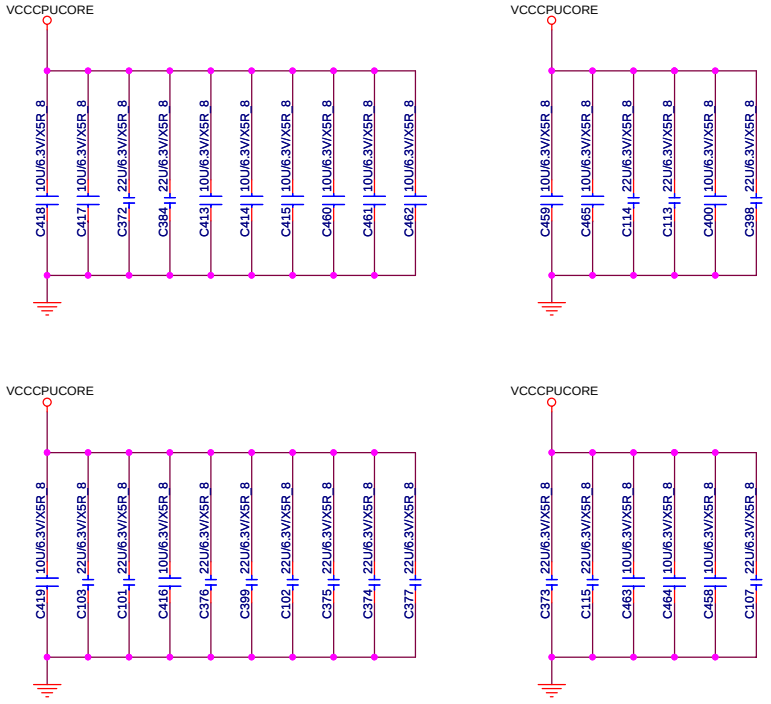


PROJECT : BV2A			
Quanta Computer Inc.			
Size: Custom	Document Number: Yonah CPU (1/3)		Rev: 3B
Date: Tuesday, July 25, 2006	Sheet 2 of 83		



VCCCPUCORE DECOUPLING

03



EC A-18 *22UF 6.3V X5R 2125(0805) 1/16W X16 PCS*

10UF 6.3V X5R 2125(0805) X16 PCS

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
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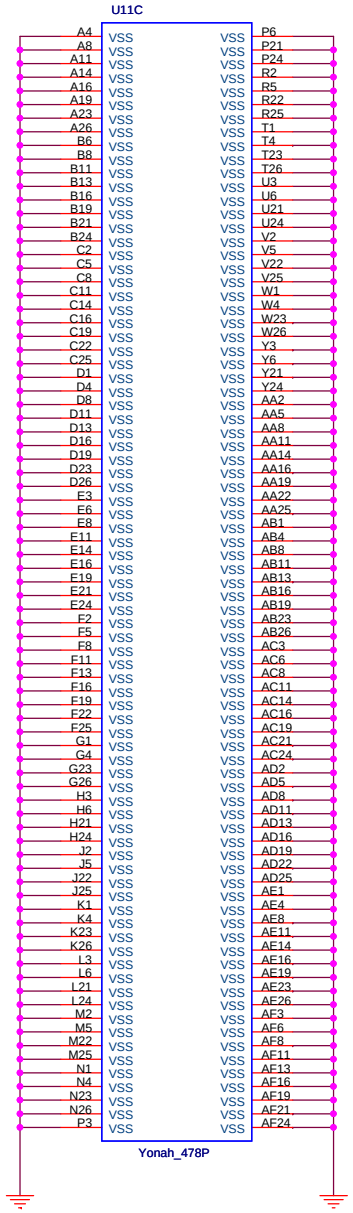
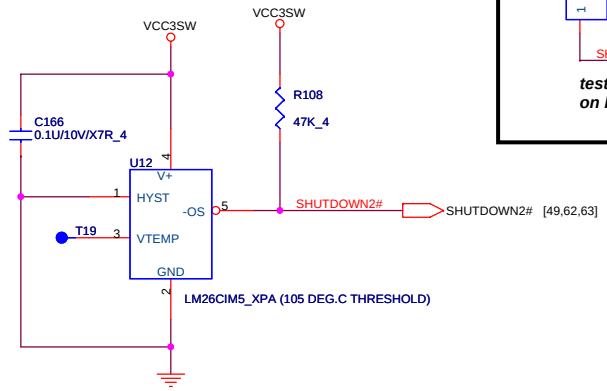
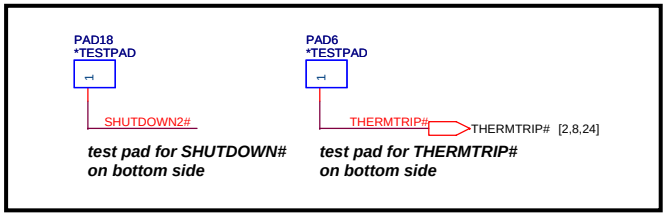
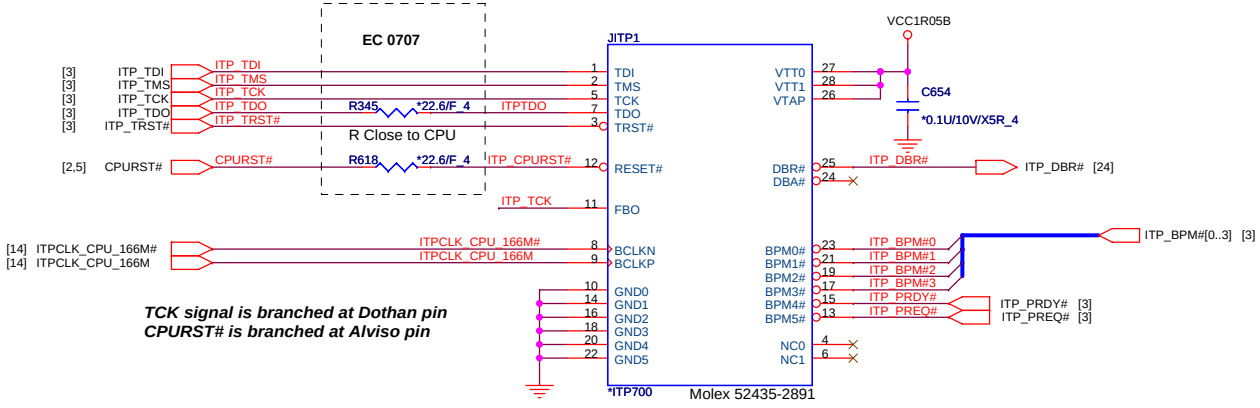
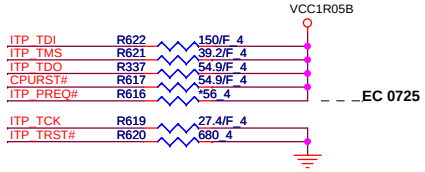








TCK signal is branched at Dothan pin
CPURST# is branched at Alviso pin



FOLLOW INTEL DEMO CIRCUIT. **EC 0721** **EC 0725**

PROJECT : BV2A Quanta Computer Inc.			
Size: Custom	Document Number: Yonah CPU (3/3)		Rev: 3B
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U9A

HOST

CALISTOGA

[2] HA#[3..31] HA#[3..31]

HA#3 H9 H_A#_3
HA#4 C9 H_A#_4
HA#5 E11 H_A#_5
HA#6 G11 H_A#_6
HA#7 F11 H_A#_7
HA#8 G12 H_A#_8
HA#9 F9 H_A#_9
HA#10 H11 H_A#_10
HA#11 J12 H_A#_11
HA#12 G14 H_A#_12
HA#13 D9 H_A#_13
HA#14 J14 H_A#_14
HA#15 H13 H_A#_15
HA#16 J15 H_A#_16
HA#17 F14 H_A#_17
HA#18 D12 H_A#_18
HA#19 A11 H_A#_19
HA#20 C11 H_A#_20
HA#21 A12 H_A#_21
HA#22 A13 H_A#_22
HA#23 E13 H_A#_23
HA#24 G13 H_A#_24
HA#25 F12 H_A#_25
HA#26 B12 H_A#_26
HA#27 B14 H_A#_27
HA#28 C12 H_A#_28
HA#29 A14 H_A#_29
HA#30 C14 H_A#_30
HA#31 D14 H_A#_31

[2] HADSTB0# HADSTB0# B9 H_ADSTB#_0
[2] HADSTB1# HADSTB1# C13 H_ADSTB#_1

[2] ADS# ADS# F8 H_ADS#

[2] HREQ#0 HREQ#0 D8 H_REQ#_0
[2] HREQ#1 HREQ#1 G8 H_REQ#_1
[2] HREQ#2 HREQ#2 B8 H_REQ#_2
[2] HREQ#3 HREQ#3 F8 H_REQ#_3
[2] HREQ#4 HREQ#4 A8 H_REQ#_4

[2] BNR# BNR# C6 H_BNR#
[2] HBREQ0# HBREQ0# C7 H_BREQ#0
[2] DBSY# DBSY# A7 H_DBSY#
[2] DRDY# DRDY# H8 H_DRDY#
[2] HLOCK# HLOCK# B3 H_LOCK#
[2] HIT# HIT# D3 H_HIT#
[2] HITM# HITM# D4 H_HITM#

[2] DEFER# DEFER# C3 H_DEFER#
[2] BPRI# BPRI# F6 H_BPRI#
[2] HTRDY# HTRDY# E7 H_TRDY#

[2] RS#0 RS#0 B4 H_RS#_0
[2] RS#1 RS#1 F6 H_RS#_1
[2] RS#2 RS#2 D6 H_RS#_2

[2] DPWR# DPWR# J9 H_DPWR#

[14] CPUCLK_MCH_166M CPUCLK_MCH_166M AG2 H_CLKIN
[14] CPUCLK_MCH_166M# CPUCLK_MCH_166M# AG1 H_CLKIN#

[2,4] CPURST# CPURST# B7 H_CPURST#

H_D#_0 F1 HD#0
H_D#_1 J1 HD#1
H_D#_2 H1 HD#2
H_D#_3 J6 HD#3
H_D#_4 H3 HD#4
H_D#_5 K2 HD#5
H_D#_6 G1 HD#6
H_D#_7 G2 HD#7
H_D#_8 K9 HD#8
H_D#_9 K1 HD#9
H_D#_10 K7 HD#10
H_D#_11 J8 HD#11
H_D#_12 H4 HD#12
H_D#_13 J3 HD#13
H_D#_14 K11 HD#14
H_D#_15 G4 HD#15
H_D#_16 T10 HD#16
H_D#_17 W11 HD#17
H_D#_18 T3 HD#18
H_D#_19 U7 HD#19
H_D#_20 U9 HD#20
H_D#_21 U11 HD#21
H_D#_22 T11 HD#22
H_D#_23 W9 HD#23
H_D#_24 T1 HD#24
H_D#_25 T8 HD#25
H_D#_26 T4 HD#26
H_D#_27 W7 HD#27
H_D#_28 U5 HD#28
H_D#_29 T9 HD#29
H_D#_30 W6 HD#30
H_D#_31 T5 HD#31
H_D#_32 AB7 HD#32
H_D#_33 AA9 HD#33
H_D#_34 W4 HD#34
H_D#_35 W3 HD#35
H_D#_36 Y3 HD#36
H_D#_37 Y7 HD#37
H_D#_38 W5 HD#38
H_D#_39 Y10 HD#39
H_D#_40 AB8 HD#40
H_D#_41 W2 HD#41
H_D#_42 AA4 HD#42
H_D#_43 AA7 HD#43
H_D#_44 AA2 HD#44
H_D#_45 AA6 HD#45
H_D#_46 AA10 HD#46
H_D#_47 Y8 HD#47
H_D#_48 AA1 HD#48
H_D#_49 AB4 HD#49
H_D#_50 AC9 HD#50
H_D#_51 AB11 HD#51
H_D#_52 AC11 HD#52
H_D#_53 AB3 HD#53
H_D#_54 AC2 HD#54
H_D#_55 AD1 HD#55
H_D#_56 AD9 HD#56
H_D#_57 AC1 HD#57
H_D#_58 AD7 HD#58
H_D#_59 AC6 HD#59
H_D#_60 AB5 HD#60
H_D#_61 AD10 HD#61
H_D#_62 AD4 HD#62
H_D#_63 AC8 HD#63

HD#[0..63] HD#[0..63] [2]

H_DSTBN#_0 K4 HDSTBN#0 HDSTBN#0 [2]
H_DSTBN#_1 T7 HDSTBN#1 HDSTBN#1 [2]
H_DSTBN#_2 Y5 HDSTBN#2 HDSTBN#2 [2]
H_DSTBN#_3 AC4 HDSTBN#3 HDSTBN#3 [2]

H_DSTBP#_0 K3 HDSTBP#0 HDSTBP#0 [2]
H_DSTBP#_1 T6 HDSTBP#1 HDSTBP#1 [2]
H_DSTBP#_2 AA5 HDSTBP#2 HDSTBP#2 [2]
H_DSTBP#_3 AC5 HDSTBP#3 HDSTBP#3 [2]

H_DINV#_0 J7 DINV#0 DINV#0 [2]
H_DINV#_1 W8 DINV#1 DINV#1 [2]
H_DINV#_2 U3 DINV#2 DINV#2 [2]
H_DINV#_3 AB10 DINV#3 DINV#3 [2]

H_SLPCPU# F3 HCPUSLP# R47 0_4 H_CPUSLP# [2]

H_VREF_0 J13 HVREF
H_VREF_1 K13

VCC1R05B

R55 24.9/F_4 HXRCOMP F1 H_XRCOMP
R57 54.9/F_4 HXSCOMP F2 H_XSCOMP
HXSWING F4 H_XSWING
R292 24.9/F_4 HYRCOMP Y1 H_YRCOMP
R70 54.9/F_4 HYSCOMP U1 H_YSCOMP
HYSWING W1 H_YSWING

R219 221/F_4
R218 100/F_4
C276 0.1U/10V/X7R_4
R77 221/F_4
R75 100/F_4
C85 0.1U/10V/X7R_4

VCC1R05B
R268 100/F_4
R252 200/F_4
C312 0.1U/10V/X7R_4

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CALISTORGA(1/7)	3B

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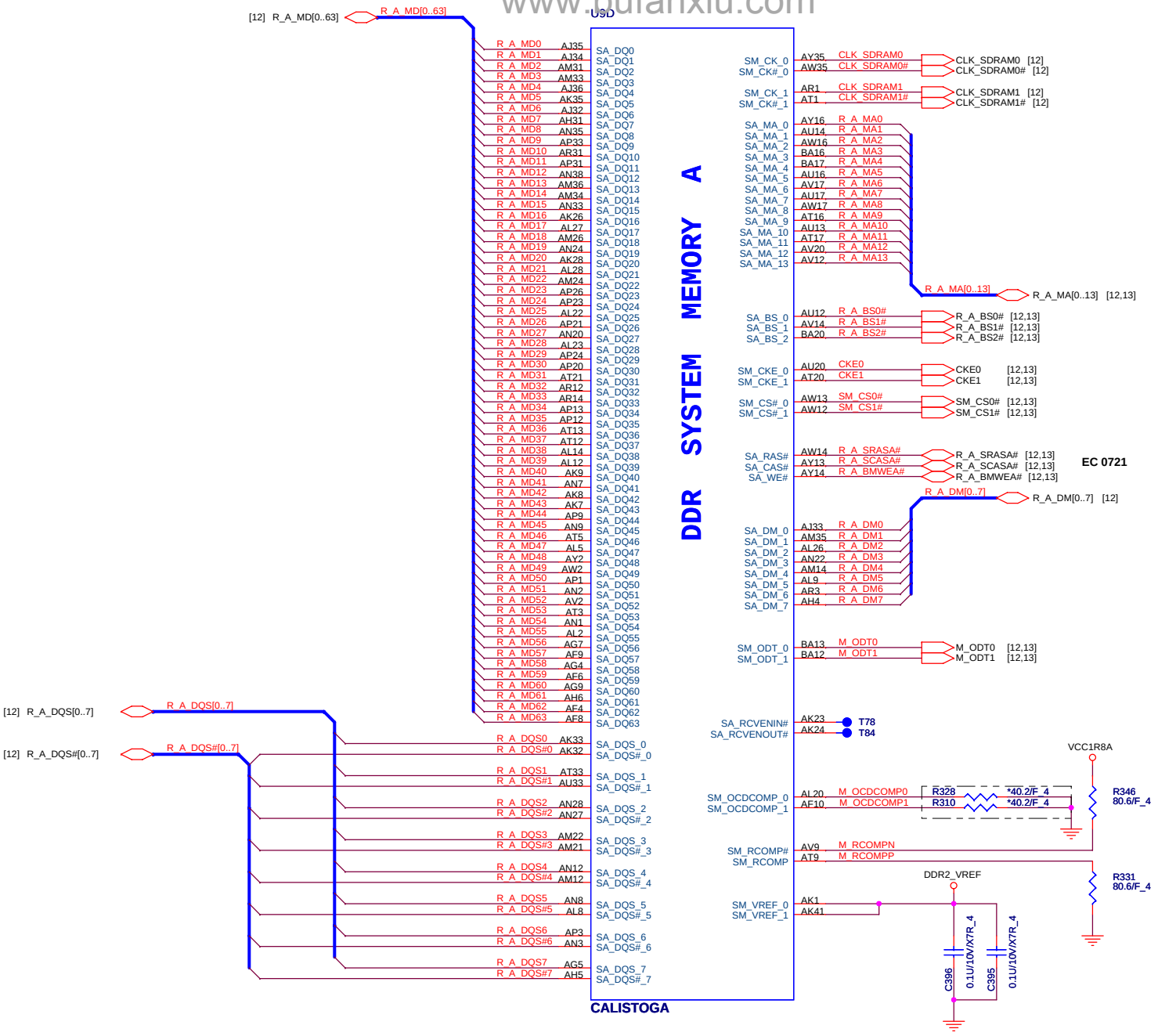
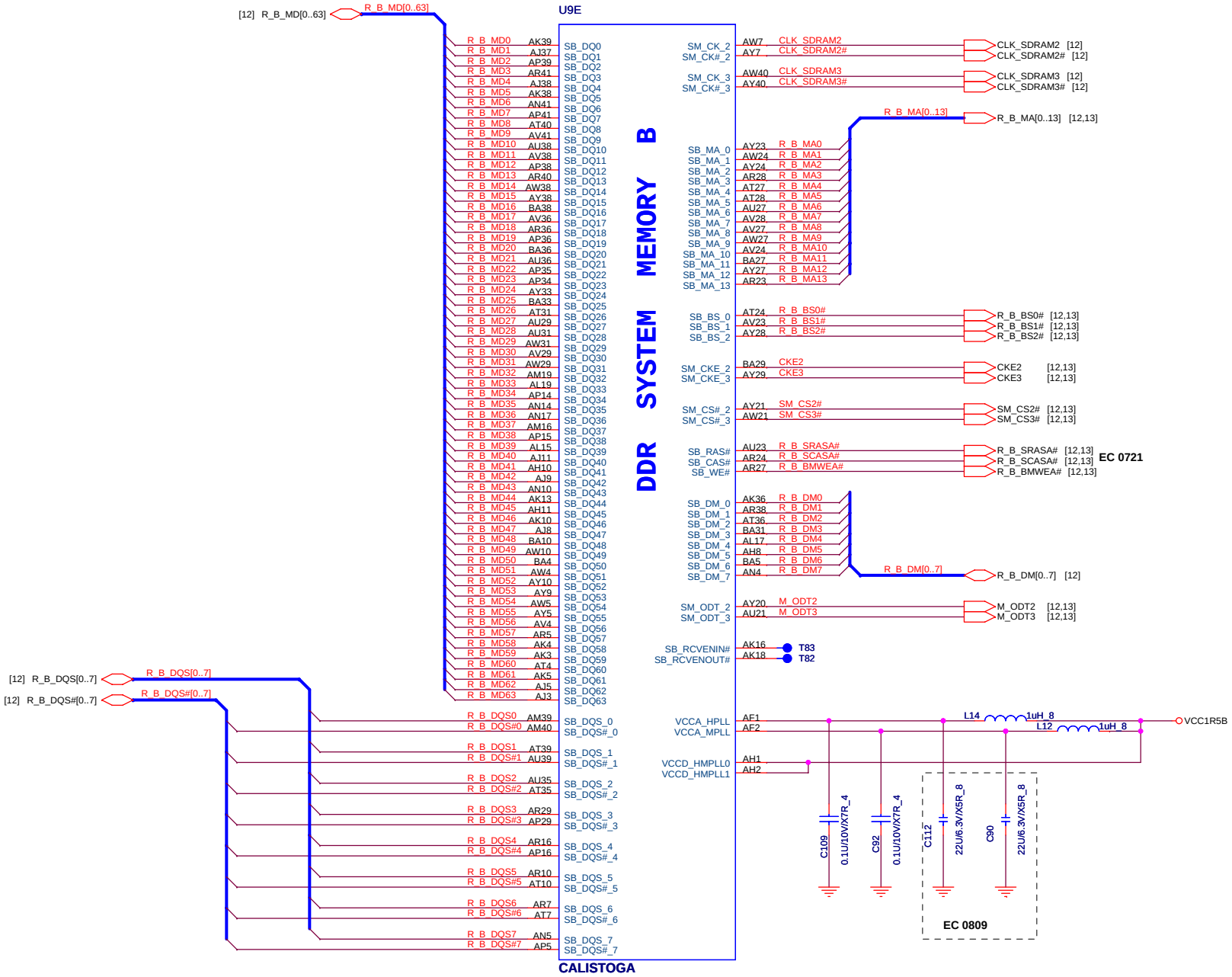


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CALISTORGA(2/7)	3B
Date: Tuesday, July 25, 2006	Sheet 6 of 83	



Size: Custom	Document Number: CALISTORGA(3/7)		Rev: 3B
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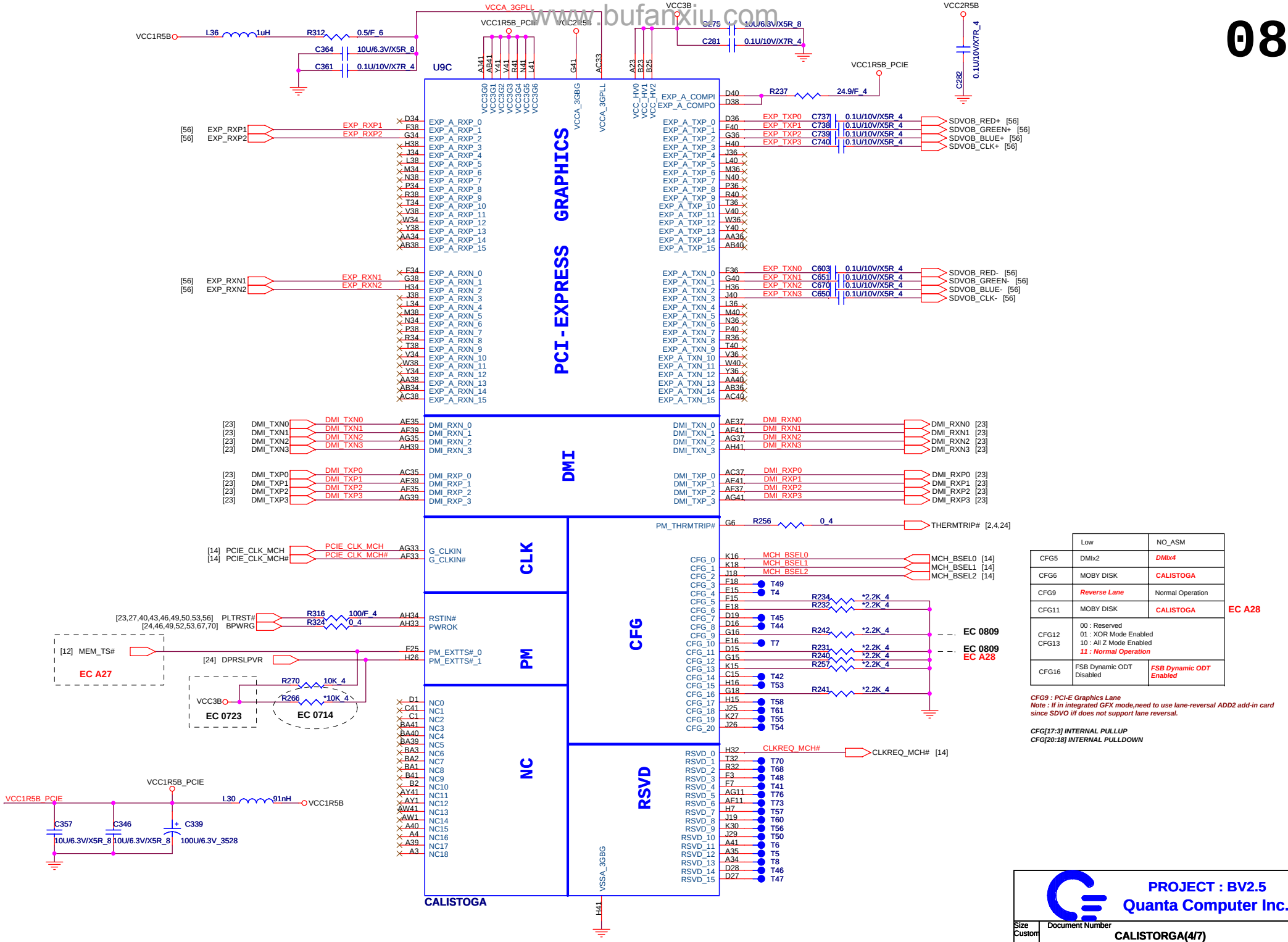
PROJECT : BV2A
Quanta Computer Inc.



	Low	NO_ASM
CFG5	DMIx2	*DMIx4*
CFG6	MOBY DISK	**CALISTOGA**
CFG9	*Reverse Lane*	Normal Operation
CFG11	MOBY DISK	**CALISTOGA**
CFG12 CFG13	00 : Reserved 01 : XOR Mode Enabled 10 : All Z Mode Enabled *11 : Normal Operation*	
CFG16	FSB Dynamic ODT Disabled	*FSB Dynamic ODT Enabled*

EC A28

CFG9 : PCI-E Graphics Lane
Note : If in integrated GFX mode,need to use lane-reversal ADD2 add-in card since SDVO i/f does not support lane reversal.

CFG[17:3] INTERNAL PULLUP
CFG[20:18] INTERNAL PULLDOWN

PROJECT : BV2.5
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CALISTORGA(4/7)	3B
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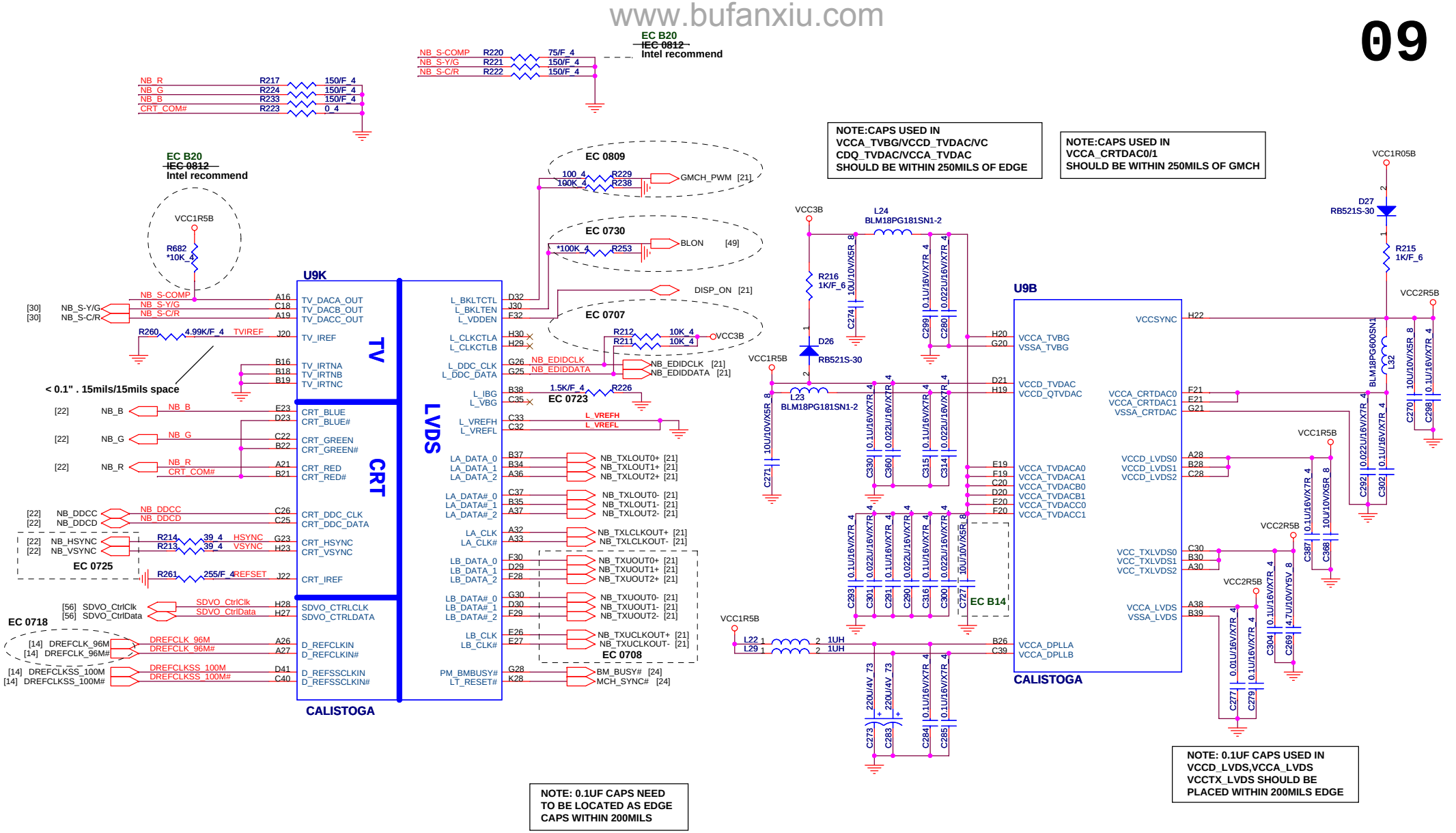
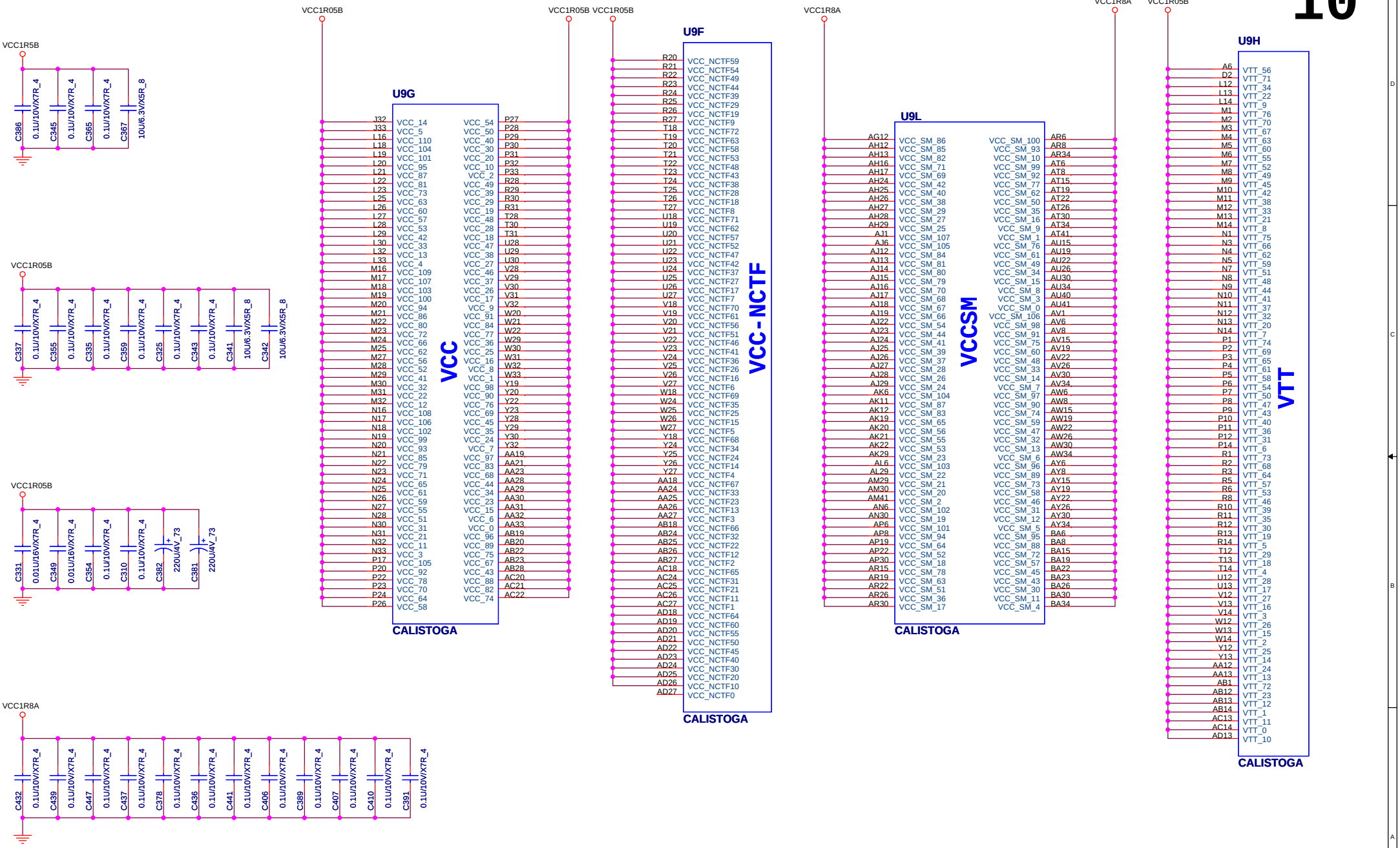
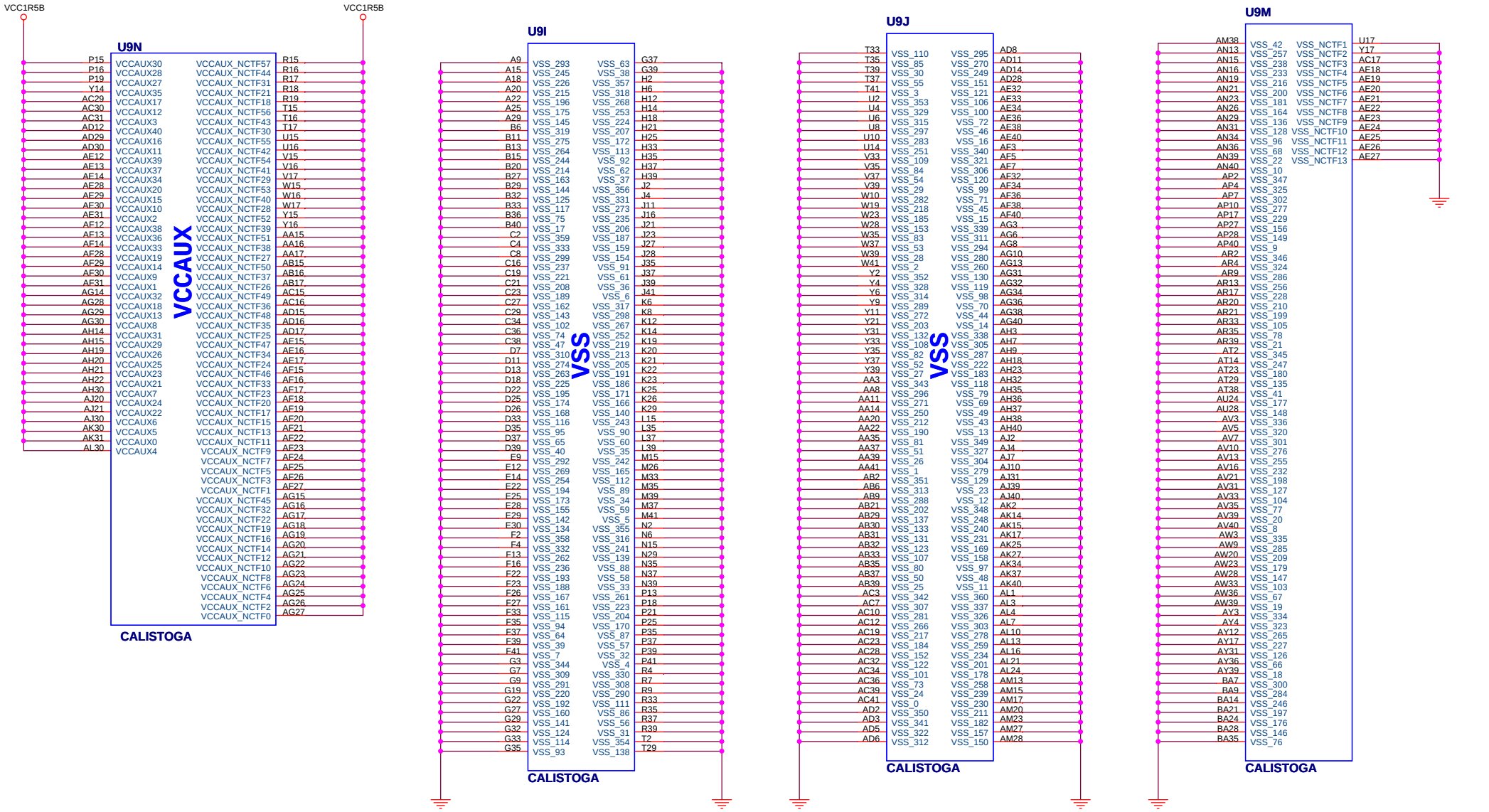


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CALISTORGA(5/7)	3B
Date: Tuesday, July 25, 2006	Sheet 9 of 83	

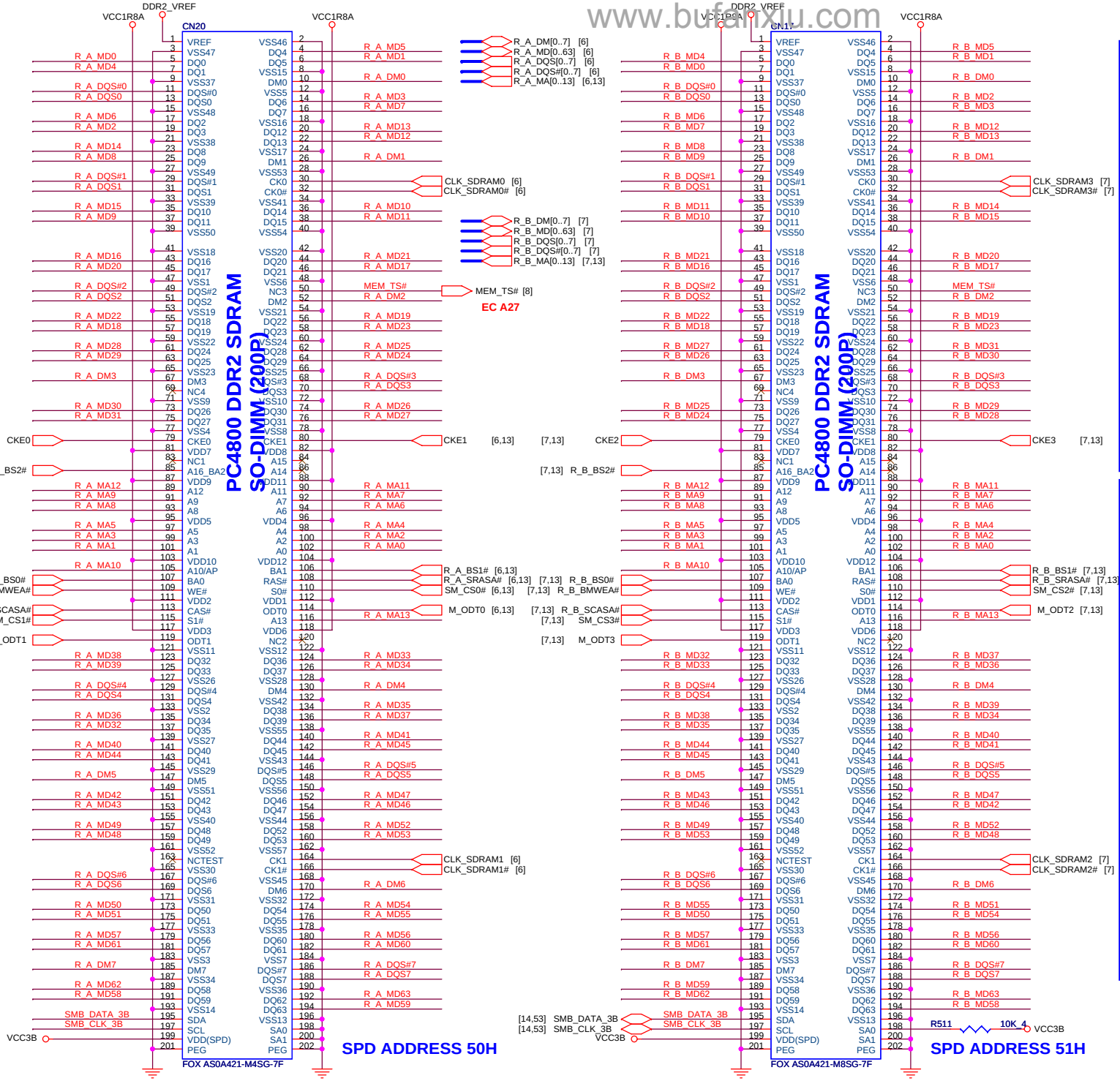


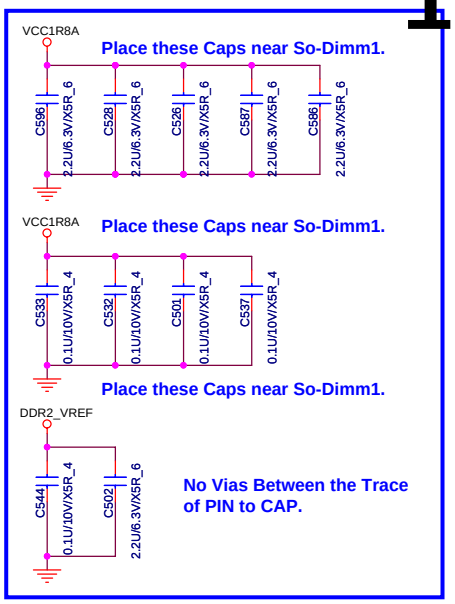
PROJECT : BV2A		
Quanta Computer Inc.		
Size: Custom	Document Number: CALISTORGA(6/7)	Rev: 3B
Date: Tuesday, July 25, 2006	Sheet 10 of 83	

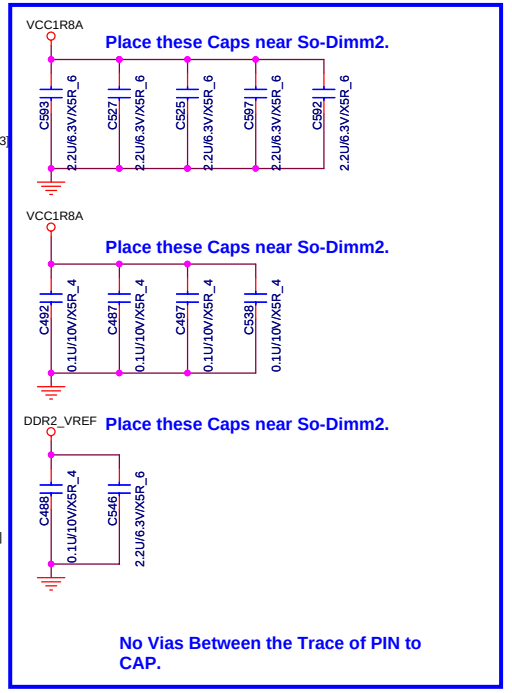


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CALISTORGA(7/7)	3B
Date: Tuesday, July 25, 2006	Sheet 11 of 83	







PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	System DRAM Expansion (200p-DDR_SODIMMX2)(1/2)	3B
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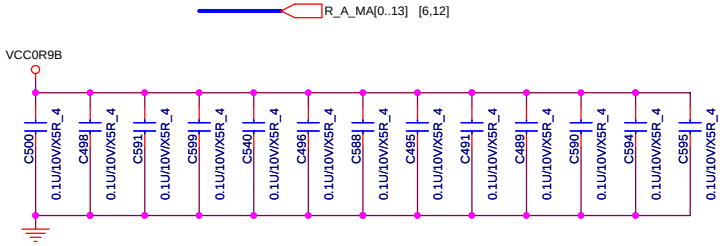
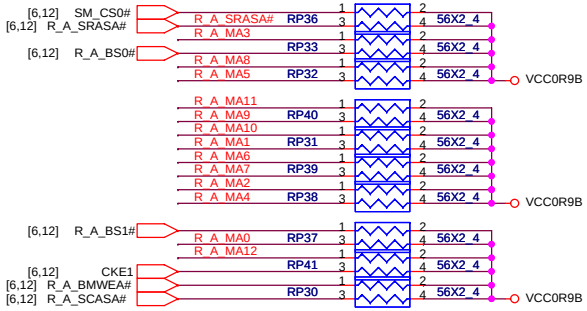
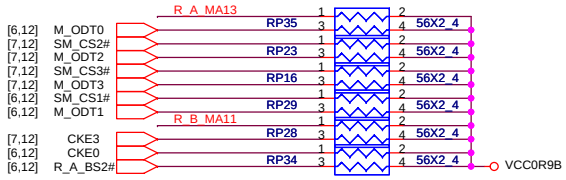
DDRII DUAL CHANNEL A,B.

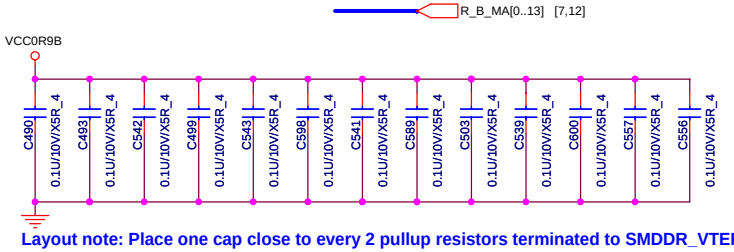
DDRII A CHANNEL



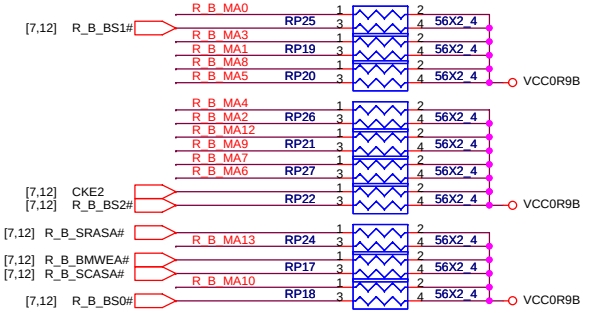


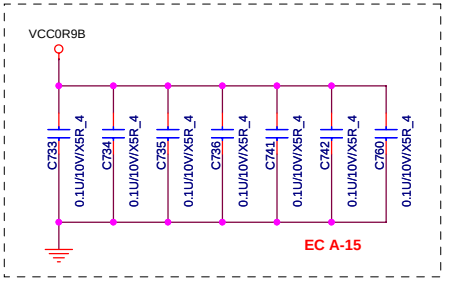


DDRII B CHANNEL



Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR_VTERM





PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	System DRAM Expansion (200p-DDR_SODIMMX2)(2/2)	3B
Date: Tuesday, July 25, 2006	Sheet 13 of 83	

EC A26 Supplier	Part number	R389, R390, R411, R413, R424, R425, R426, R427, R429, R432, R433, R435, R444, R445, R446, R447, R448, R449, R450, R451	R430
ICS IDT	954309B CV150	ASM	475 ohm
ICS Cypress IDT	9LPR309 CY28446 CV169NLG	NO ASM	0 ohm

BSEL2 FSC	BSEL1 FSB	BSEL0 FSA	CPU
1	0	1	100M
0	0	1	133M
0	1	0	166M
0	1	0	200M

OEA# can control SRC8, 9, 10
OEB# can control SRC2, 5, 7
OE# pins have internal pull-up resistors
Check R434 DE-POP for OE6# (S/W Disable)

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Clock GEN	3B
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BLANK

PROJECT : BV2A
Quanta Computer Inc.

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BLANK

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Quanta Computer Inc.

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BLANK

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Quanta Computer Inc.

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Quanta Computer Inc.

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Quanta Computer Inc.

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Custom	BLANK	3B
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BLANK

PROJECT : BV2A
Quanta Computer Inc.

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LCD CONNECTOR

EC A44
EC A61
F11 0467.500NR(0.5A_0603)
VCC5M_CAMERA 2 1 VCC5M

EC A01
FOR CAMERA
[24] USBP6-
[24] USBP6+
R176 0_4 LCDID_GND

CN3
IBM_LCD_CONN

1	NC		LCDCONN	2	LCD_PRESENCE# → LCD_PRESENCE# [50]
3	NC	LCD ID	NC	4	STEREO_MIC# → STEREO_MIC# [32]
5	GND		NC	6	VCC5M_CAMERA
7	GND		GPIO_BT	8	GPIO_BT → GPIO_BT [46]
9	VCC3P		BDC_ON	10	BDC_ON → BDC_ON [46]
11	VCC3P	LCD	COEXISTENCE_2	12	→ WIFI_BUSY [43]
13	VCC3P		-BDC_PRESENCE	14	BDC_PRESENCE# → BDC_PRESENCE# [24]
15	VCC3P		COEXISTENCE_1	16	→ BT_BUSY [43]
17	VCC3P		VCC3M	18	VCC3M_F
19	VCC3P	BDC	USBP4+	20	→ USBP4+ [24]
21	VCC3B		USBP4-	22	→ USBP4- [24]
23	EDID_CLK		GND	24	
25	EDID_DATA		-LED_PWR	26	LEDPWR# → LEDPWR# [49]
27	GND		-LED_ACDC	28	ACDC_LED#
29	TXOUT_L0N		-LED_SECURITY	30	SECURITY_LED#
31	TXOUT_L0P		-LED_CPSLOCK	32	LEDCPSLOCK#
33	GND		-LED_NUMLOCK	34	LEDNUMLOCK#
35	TXOUT_L1N		LID_SW	36	LID_SWITCH
37	TXOUT_L1P	LID	-LED_SUS	38	LEDSUS# → LEDSUS# [49]
39	GND		-LED_FUEL0	40	LEDFUEL0# → LEDFUEL0# [49]
41	TXOUT_L2N		-LED_FUEL1	42	LEDFUEL1# → LEDFUEL1# [49]
43	TXOUT_L2P		-LED_DRIVE	44	LEDDRIVE# → LEDDRIVE# [49]
45	GND		-LED_WWAN	46	→ LED_WWAN# [43]
47	TXCLK_LN		-LED_WLAN	48	LED_WLAN# → LED_WLAN# [43]
49	TXCLK_LP		GND	50	
51	GND		GND	52	
53	TXOUT_U0N	Inverter	GND	54	
55	TXOUT_U0P		VBL16	56	VBL20 EC 0721
57	GND		VBL16	58	
59	TXOUT_U1N		VBL16	60	
61	TXOUT_U1P		GND	62	
63	GND		VCC3P	64	VCC3P
65	TXOUT_U2N		PANEL_BKLT_CTRL	66	
67	TXOUT_U2P		BACKLIGHT_ON	68	BACKLIGHT_ON → GMCH_PWM [9]
69	GND		WIRELESS_GRNP	70	WIRELESS_GRNP → BACKLIGHT_ON [49]
71	TXCLK_UN		VCC3M	72	VCC3M_F → VCC3P
73	TXCLK_UP		RESERVED	74	R11 100_8
75	GND		RESERVED	76	INTMIC_L_1 → R7 0_4 → MICVCC
77	Q5_3pin		RESERVED	78	AGND_1 → R8 0_4 → AGND_2 [32]
79	VCC5M	Hotaru	RESERVED	80	INTMIC_R_1 → R9 0_4 → INTMIC_R_2 [32]
82	GND-SMT PAD		GND-SMT PAD	81	

EC 0716
FOR CAMERA

Thinklight R3 100_8 VCC5M

EC 0708

[9] NB_EDIDCLK
[9] NB_EDIDDATA
[9] NB_TXLOUT0-
[9] NB_TXLOUT0+
[9] NB_TXLOUT1-
[9] NB_TXLOUT1+
[9] NB_TXLOUT2-
[9] NB_TXLOUT2+
[9] NB_TXLCLKOUT-
[9] NB_TXLCLKOUT+
[9] NB_TXUOUT0-
[9] NB_TXUOUT0+
[9] NB_TXUOUT1-
[9] NB_TXUOUT1+
[9] NB_TXUOUT2-
[9] NB_TXUOUT2+
[9] NB_TXUCLKOUT-
[9] NB_TXUCLKOUT+

VCC3P
C22 0.01U/25V/X7R_4
C4 0.1U/16V/X7R_4
C1 1U/16V/X5R_6

VBL20 EC 0721
C241 0.01U/50V/Y5V_4
C242 0.1U/50V/X7R_6
C25 1U/50V/Y5V_8

VCC3M_F 2 F1 1 VCC3M
0467.500NR(0.5A_0603)
C13 0.01U/25V/X7R_4

[9] DISP_ON → DISP_ON R236 0_4 → PANEL_POWER_ON [46,70]

LEDCPSLOCK# Q3 DTC114EE → LEDCPSLOCK [46]
Thinklight Q15 DTC144EE → KBD_LIGHT_ON [46]
LEDNUMLOCK# Q4 DTC114EE → LEDNUMLOCK [46]
SECURITY_LED# Q13 DTC144EE → SECURITY_LED [46]
ACDC_LED# Q14 DTC144EE → ACDC_LED [46]

EC B01
STEREO_MIC# R698 47K_4 MICVCC

Cn35 Near CN3
CN35 *MIC_CONN_3P

CN35 JUMP WIRE CN36
STEREO MIC OPTION FOR PLANER BOARD WIRE OR JUMP WIRE. EC A42

VINT20
F4 466003.NR(3A_1206) EC 0721

VCC3M
F5 0467003.NR(3A_0603)
Q11 SI3424DV/FDC655AN
R186 47_4
D23 RB521S-30
[70] VCC3P_DRV
C232 0.1U/50V/X7R_6
R182 470K_4
R184 *0_4
[70] VBL_DRV

VCC3P
VBL20
EC 0721
R178 0_8
Q12 *SI4890DY
R181 *10K_4
D24 *RB521S-30
R183 *0_4
VBL_DRV_R
C236 *0.047U/50V/X7R_6
R185 *470K_4

EC 0720
WIRELESS_GRNP C24 1000P_4
LCD_PRESENCE# C239 1000P_4
GPIO_BT C233 1000P_4
BDC_ON C234 1000P_4
BDC_PRESENCE# C235 1000P_4
LEDPWR# C14 1000P_4
LEDCPSLOCK# C15 1000P_4
LEDNUMLOCK# C16 1000P_4
LID_SWITCH C17 *1000P_4
EC 0720
LEDSUS# C18 1000P_4
LEDFUEL0# C19 1000P_4
LEDFUEL1# C20 1000P_4
LEDDRIVE# C21 1000P_4
LED_WLAN# C240 1000P_4
NB_EDIDCLK C5 1000P_4
NB_EDIDDATA C6 1000P_4
BACKLIGHT_ON C23 *1000P_4
EC 0707

EC 0718
Delete BACKLIGHT_ON pull up.

EC 0708
NB_TXUCLKOUT- C2 *5P_4
NB_TXUCLKOUT+ C3 *5P_4
For EMI
NB_TXLCLKOUT- C7 *5P_4
NB_TXLCLKOUT+ C8 *5P_4
For EMI

MICVCC C729 1000P_4
INTMIC_L_1 C730 1000P_4
AGND_1 C731 1000P_4
INTMIC_R_1 C732 1000P_4
EC B24

PROJECT : BV2A
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CRT PORT

Zo(Trace impedance) of RED/GRN/BLU must meet Intel CRT DAC routing topology of design guide.

To port - replicator C.R.T

Zo(Trace impedance) of PR_RED#/PR_GRN#/PR_BLU# must meet Intel CRT DAC routing topology of design guide.

PROJECT : BV2A
Quanta Computer Inc.
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PCI Pullups

U10A

ICH7M

PCI
LPC
AC-97/AZALIA
LAN
SMB
SPI
CLK
RTC
CPU
Direct Media Interface

EC 0730
EC 0723
EC B21 EC A46
EC 0831
EC 0720
EC A58
EC A-14
EC A-11
EC 0721
EC B05

FWH : De-POP
SPT : POP

Place within 500mils of ICH7M ball

FOR THE STUFFING OPTION(ICH_SPI_ARB)
AMT ENABLE : 0 OHM SHOULD BE POP
AMT DISABLE : 0 OHM SHOULD BE DE-POP
(ICH7M has internal pull down resistor 20K)

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH7-M(1/4): DMI/PCI/LPC	3B
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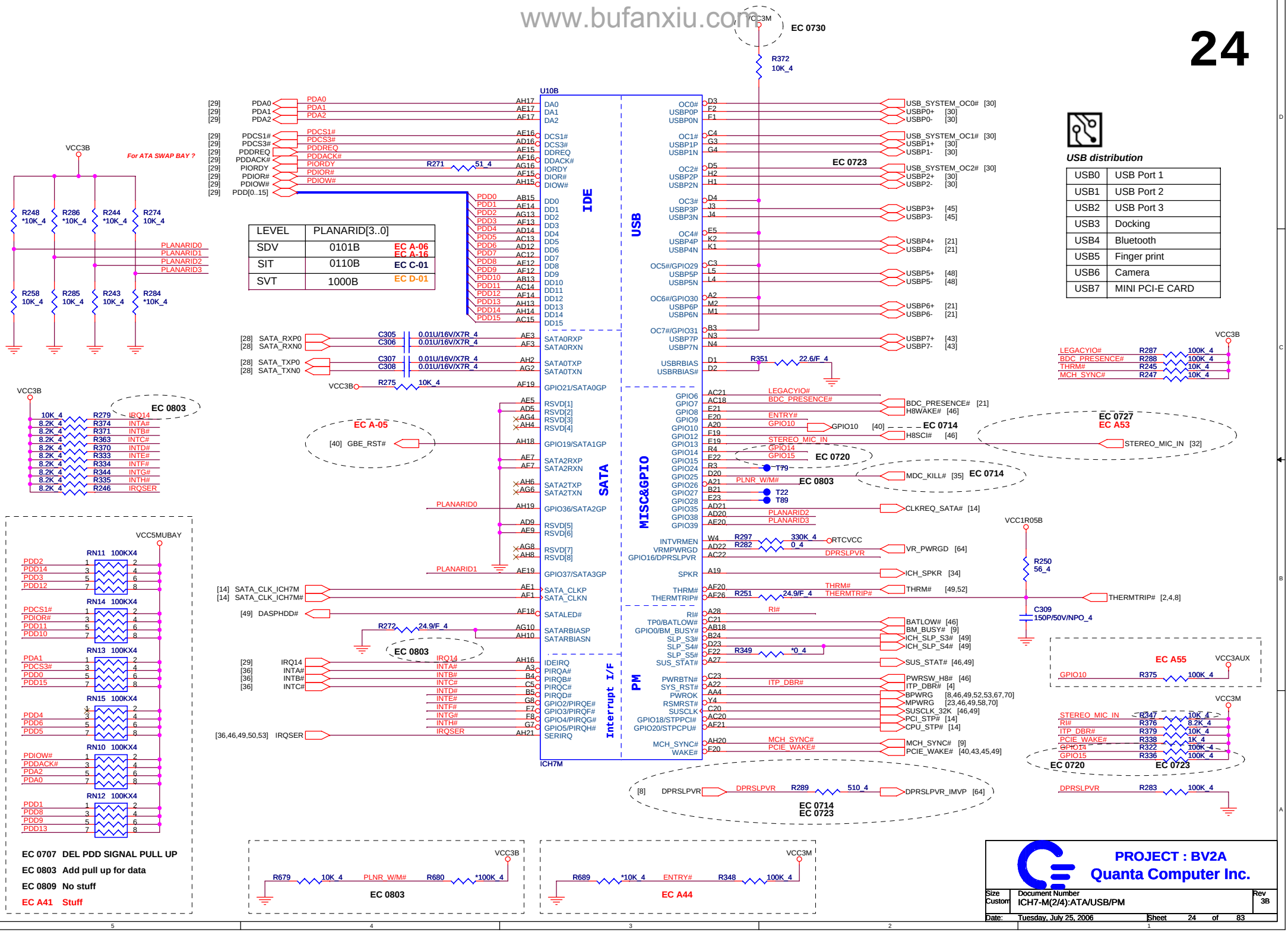

LEVEL	PLANARID[3..0]	
SDV	0101B	EC A-06 EC A-16
SIT	0110B	EC C-01
SVT	1000B	EC D-01

USB distribution

USB0	USB Port 1
USB1	USB Port 2
USB2	USB Port 3
USB3	Docking
USB4	Bluetooth
USB5	Finger print
USB6	Camera
USB7	MINI PCI-E CARD

EC 0707 DEL PDD SIGNAL PULL UP

EC 0803 Add pull up for data

EC 0809 No stuff

EC A41 Stuff

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH7-M(2/4):ATA/USB/PM	3B
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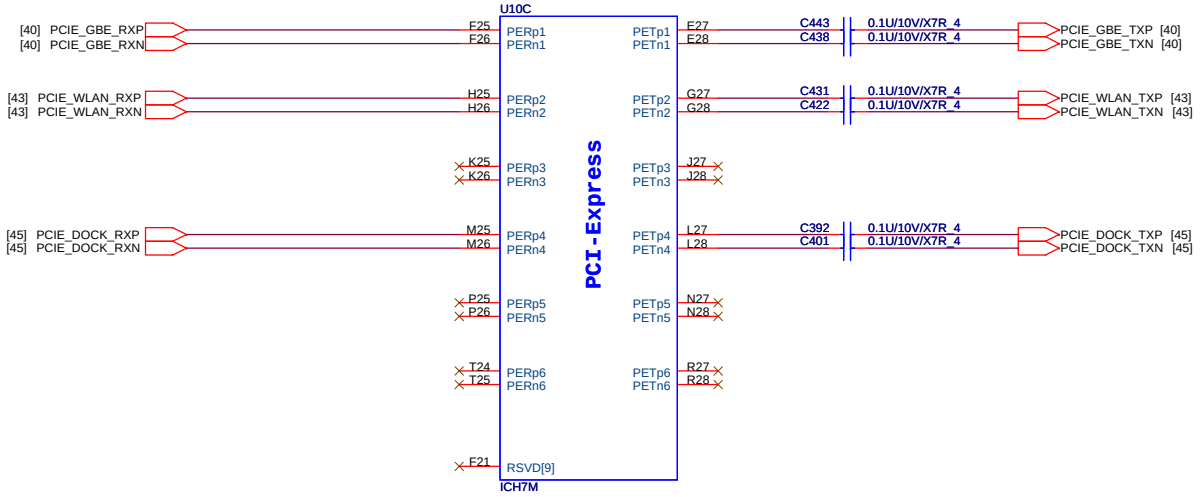
PCIE distribution

PCIE1	Enthernet Controller
PCIE2	PCIE WLAN
PCIE3	NC
PCIE4	Docking
PCIE5	NC
PCIE6	NC



PROJECT : BV2A
Quanta Computer Inc.

Size: Custom	Document Number: ICH7-M(3/4):PCI Express	Rev: 3B
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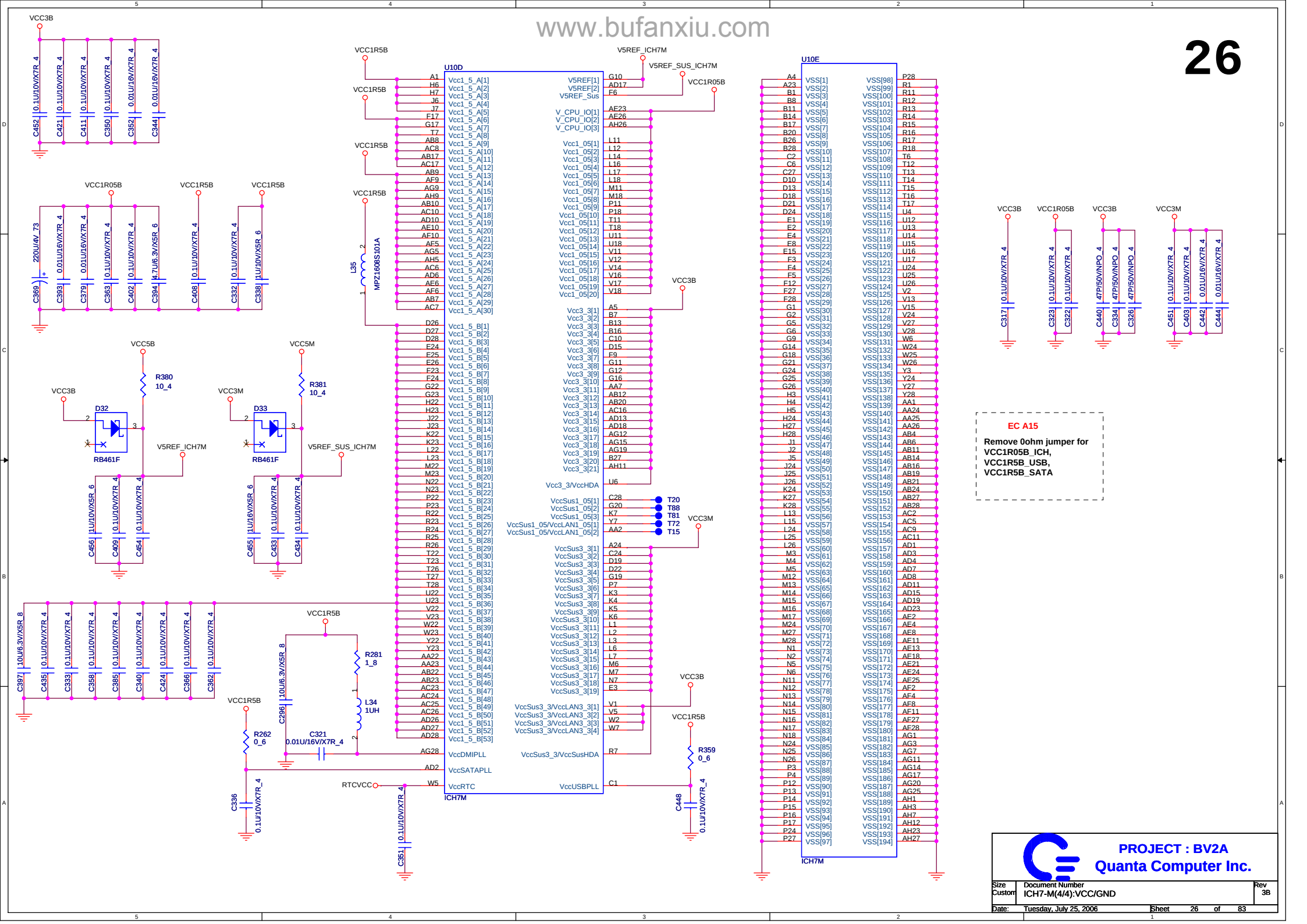

EC A15

Remove 0ohm jumper for VCC1R05B_ICH, VCC1R5B_USB, VCC1R5B_SATA

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH7-M(4/4):VCC/GND	3B
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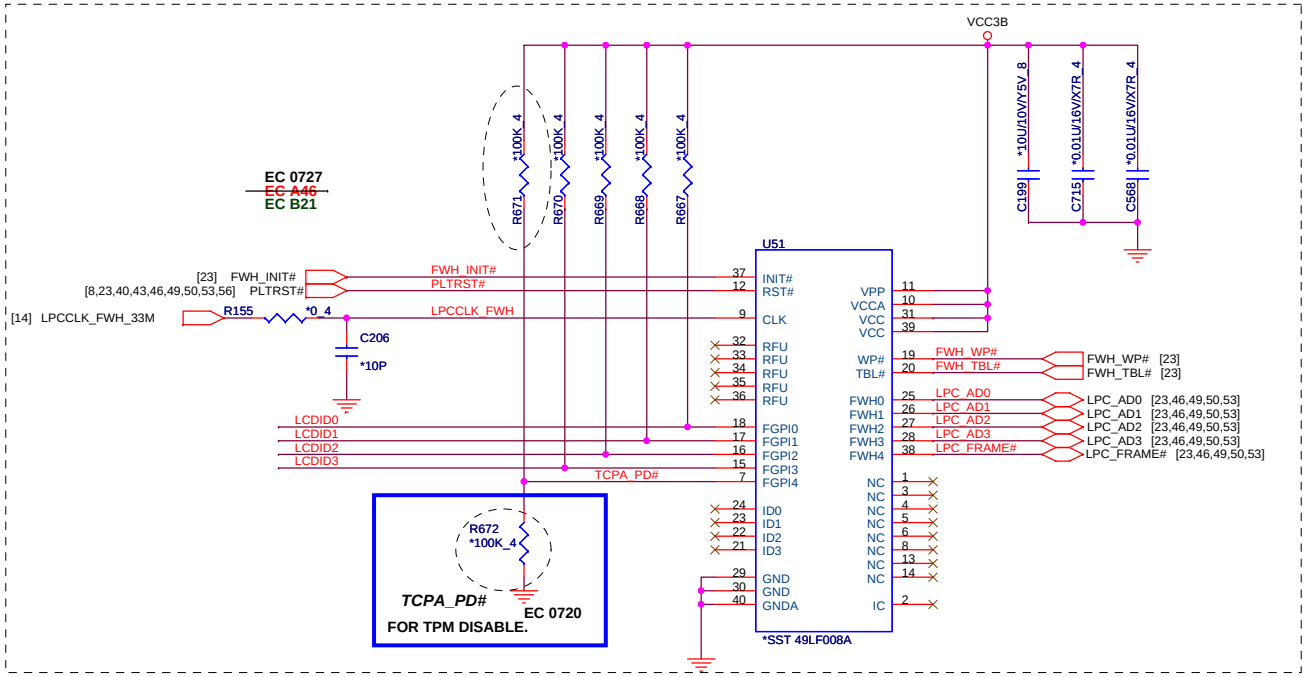
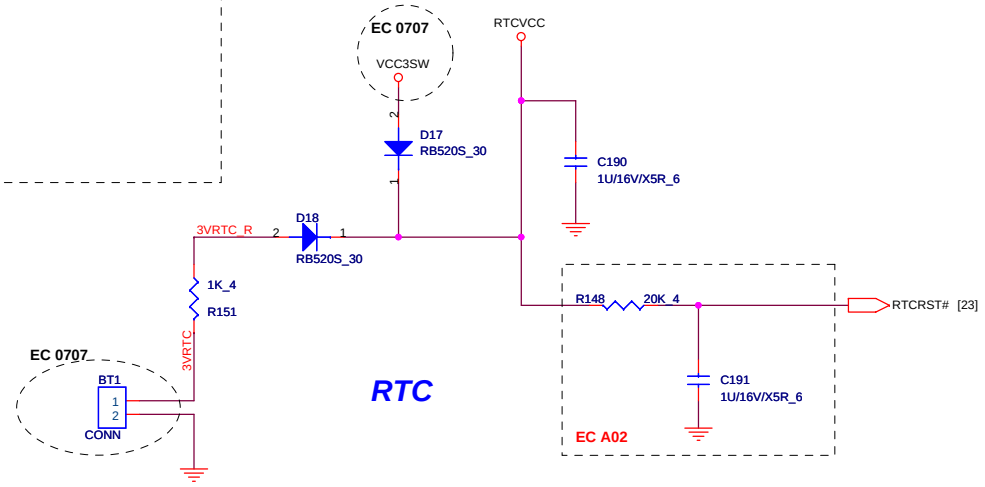


FWH change to co-layout TSSOP40 & PLCC32 type

EC 0720 JUST FOR DEBUG AND SMT 5PCS.

EC A43 Delete PLCC socket



PROJECT : BV2A Quanta Computer Inc.			
Size: Custom	Document Number: FWH, RTC BATTERY		Rev: 3B
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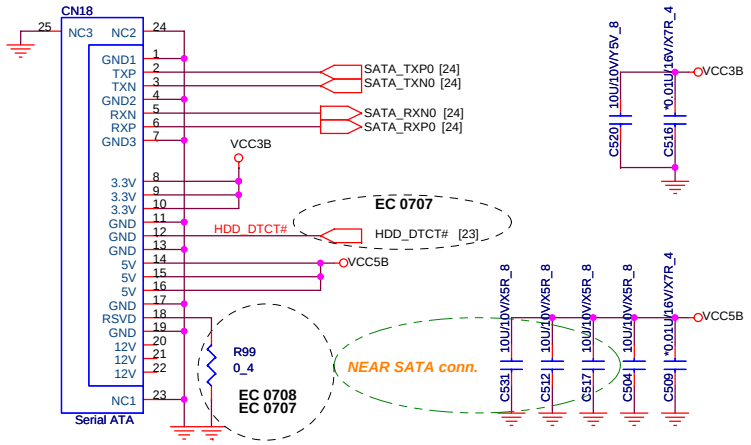
EC 0714 NO TEST PAD FOR SATA SIHNAL.



PROJECT : BV2A Quanta Computer Inc.		
Size: Custom	Document Number: SATA HDD CONN_TR	Rev: 3B
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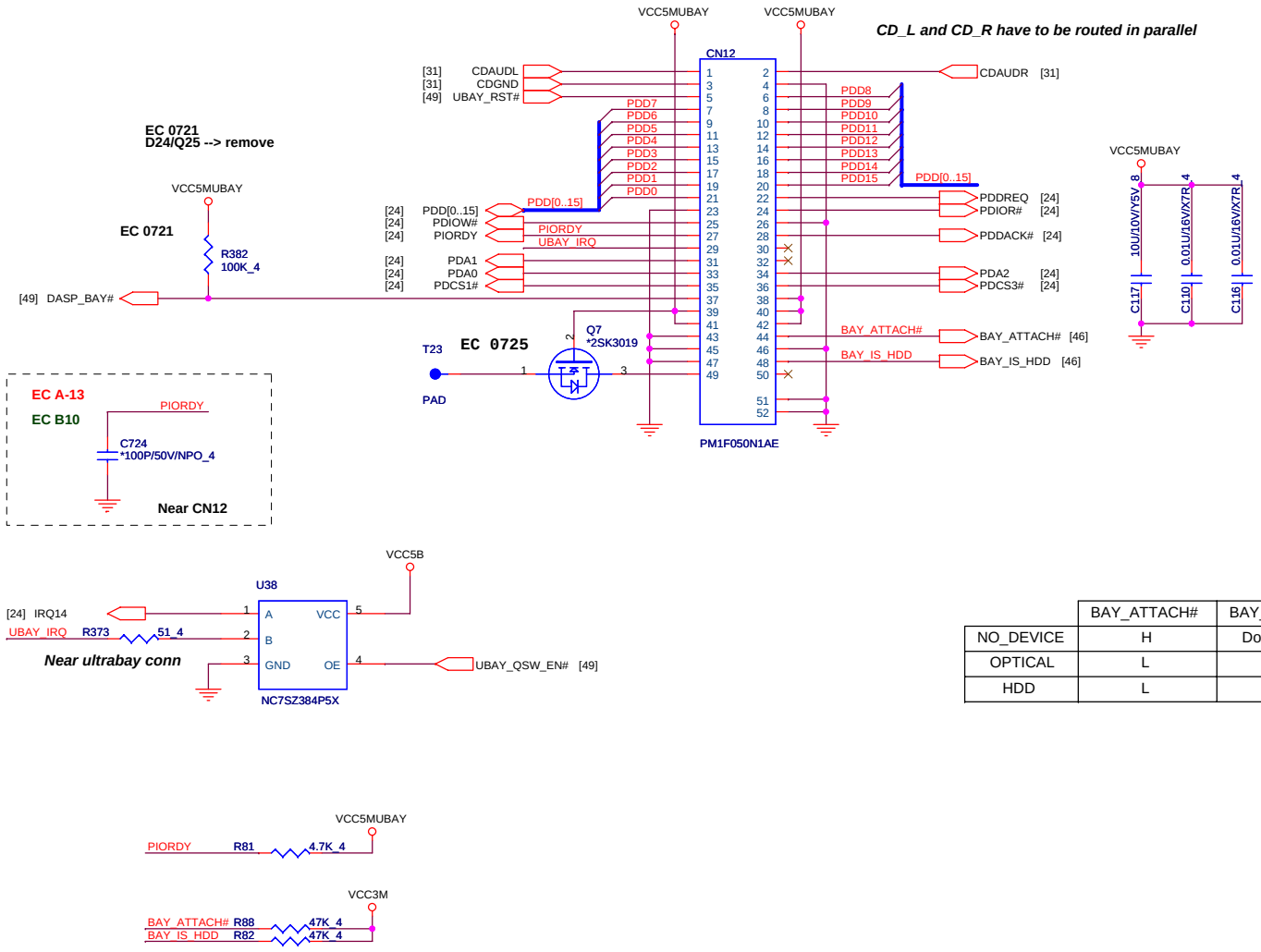
ODD CONNECTOR



	BAY_ATTACH#	BAY_IS_HDD
NO_DEVICE	H	Don't care
OPTICAL	L	L
HDD	L	H

PROJECT : BV2A
Quanta Computer Inc.

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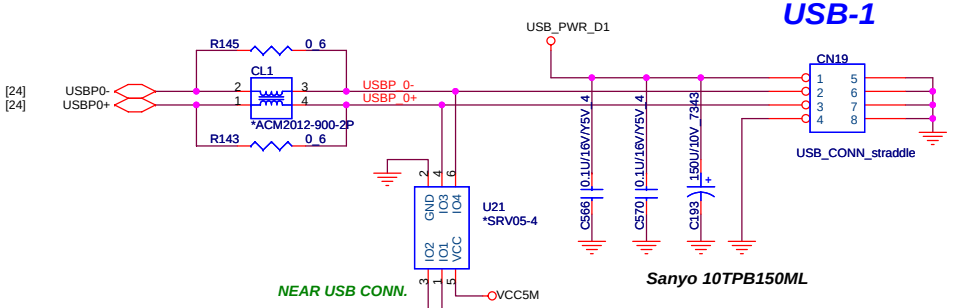
*USB port(straddle type) *2*

1. Common mode choke coil : TDK ACM2012-900 (reserved)

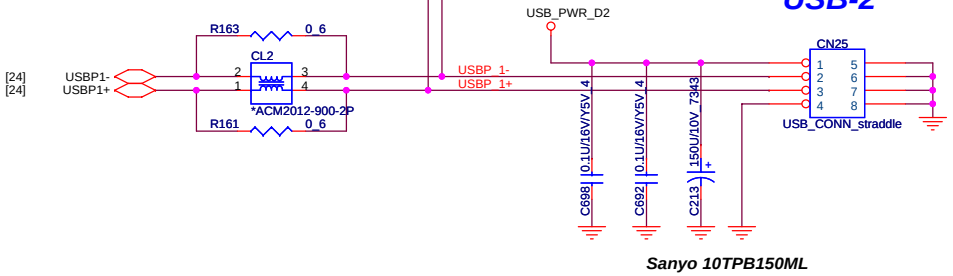
Place these resistors as the chole coil are also placed on the same pads of these two 0ohm resistors (0603size)

2. PGB0010603 ESD diode and 150U cap should close to USB conn

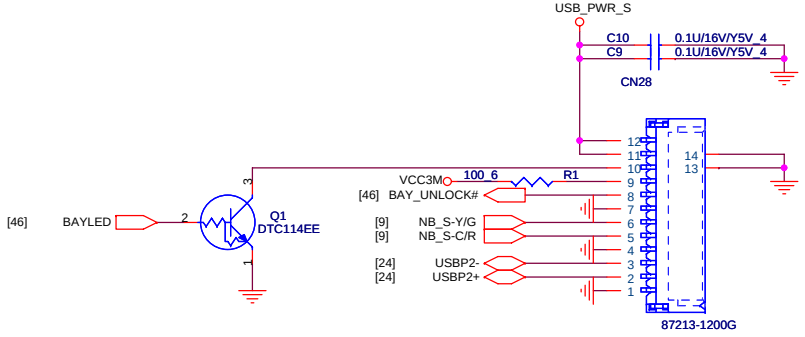
USB-1



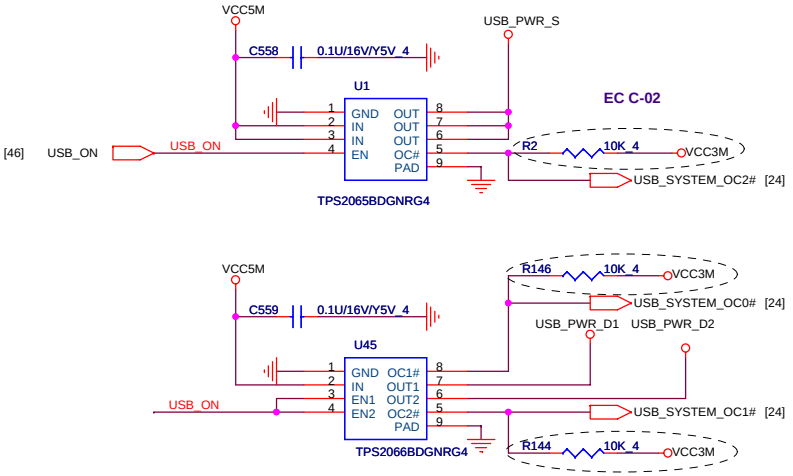
USB-2



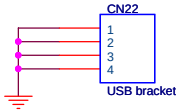
USB-3



Change to TI solution (TPS2051B + TPS2052B power switch)
2004/12/09
Change to TI solution (TPS2065 + TPS2066 power switch) EC A16
2005/09/14
Add Thermal pad EC B03
2005/09/14



USB Bracket



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Quanta Computer Inc.

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Custom	USB PORT * 3	3B
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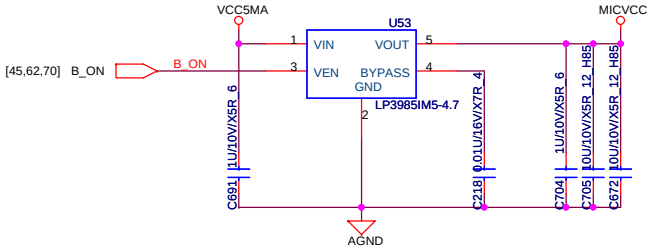

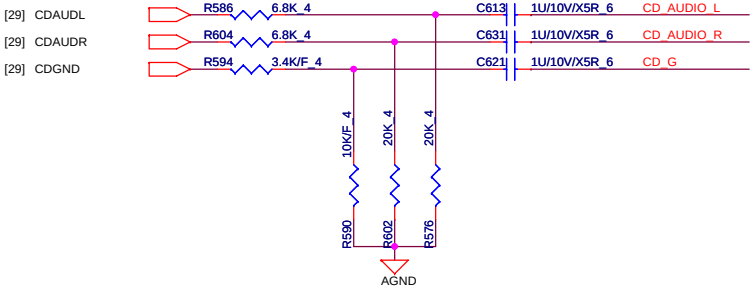

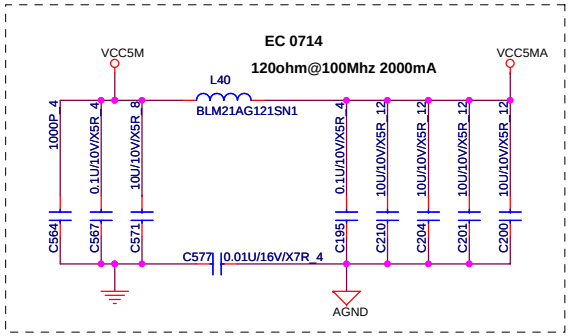

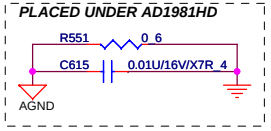

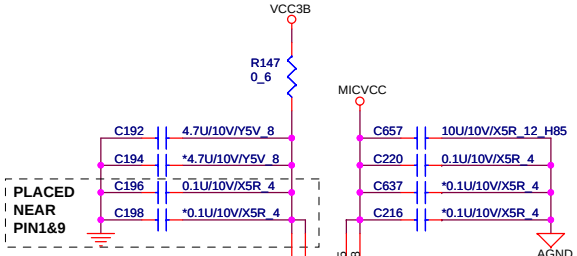

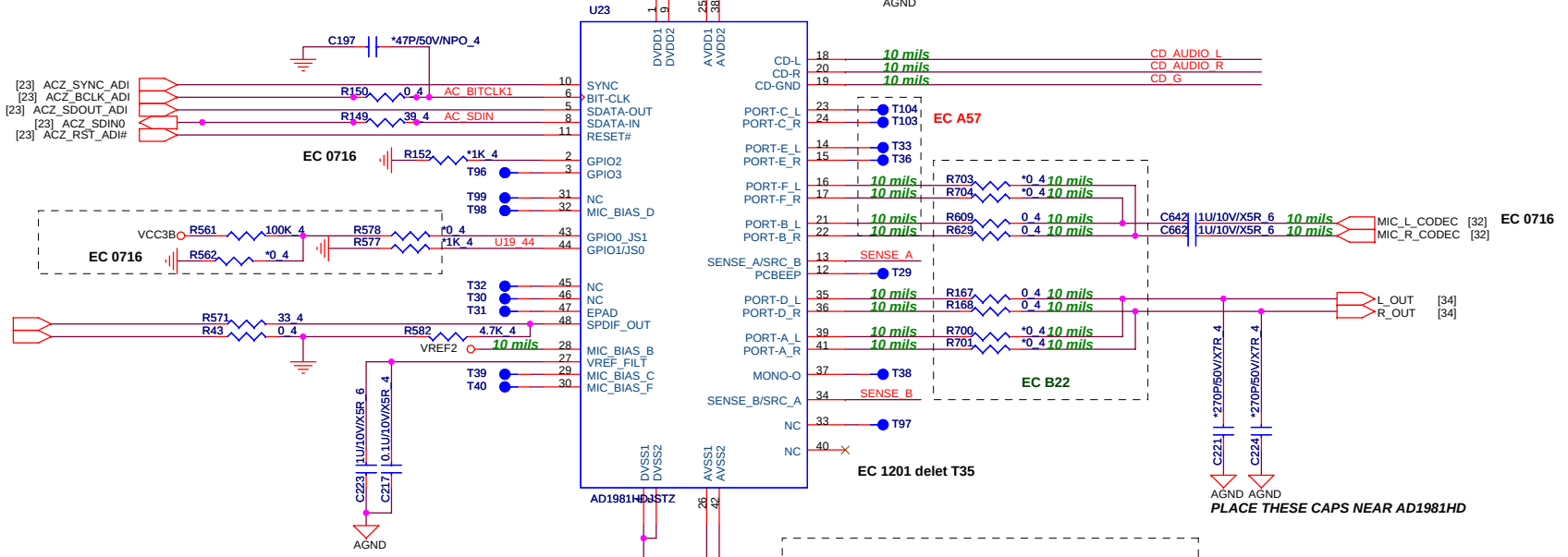

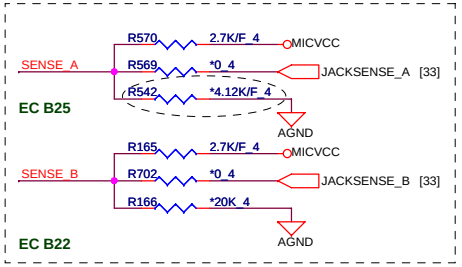

PLACE THESE CAPS NEAR AD1981HD

Resistor (1% tolerance)	SENSE_A Function	SENSE_A Port	SENSE_B Function	SENSE_B Port
5.1K	Line out	D	N/A	N/A
10.0K	Line in	C	N/A	N/A
20.0K	Front MIC	B	Rear MIC	F
39.2K	Headphone	A	Aux in	E

R584 R568 R592

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Internal Mono MIC

EC A44

[33] BVREF — R652 *100_4 (EC A03) — MICVCC — NEAR AUDIO AREA — R658 1.2K_4 — R632 2.2K/F_4 — C677 10U/10V/X5R_12_H85 — C688 1U/10V/X5R_6 — AGND

EC A42: *MIC_CONN_3P — INTMIC_L_3, AGND, INTMIC_R_3 — CN36

CN14 (WM_64PCT) — 10 mils — MIC_MONO_1 — C457 1000P_4 — C466 1000P_4 — C636 100P_4 — L43 MMZ1005Y152C — INTMIC_DIRECT [33]

Internal Stereo MIC

[21] INTMIC_L_2 — R631 0_4 — 10 mils — INTMIC_L_3 — L42 MMZ1005Y152C — C630 1000P_4

[21] AGND_2 — R630 0_4 — AGND — C663 1000P_4

[21] INTMIC_R_2 — R607 0_4 — INTMIC_R_3 — L41 MMZ1005Y152C

EC B23: BVREF_ST — C212 1U/10V/X5R_6 — R162 47K_4 — C205 1U/10V/X5R_6 — R156 47K_4

R588 100K_4 — NEAR C661 — EC A-13 — C661 0.47U/10V/X5R_6 — R625 47_4 — R633 56K_4 — C669 100P_4

R601 100K_4 — NEAR C641 — EC A-13 — C641 0.47U/10V/X5R_6 — R610 47_4 — R600 56K_4 — C640 100P_4

MICVCC — C667 0.1U/16V/X7R_4 — U25 MAX4400 — R626 *0_4 — R627 100_4 — MIC_L_SW

MICVCC — C638 0.1U/16V/X7R_4 — U24 MAX4400 — R611 *0_4 — R597 100_4 — MIC_R_SW

Mono MIC : DE-POP
Stereo MIC : POP

R628 27K_4 — C668 390P/50V/X7R_4 — R624 6.8K_4 — C660 0.47U/10V/X5R_6

R598 27K_4 — C639 390P/50V/X7R_4 — R599 6.8K_4 — C629 0.47U/10V/X5R_6

EC A03 (BVREF_ST): R650 *100_4 — MICVCC — NEAR AUDIO AREA — R656 1.2K_4 — R608 2.2K/F_4 — INTMIC_R_3 — C675 10U/10V/X5R_12_H85 — C686 1U/10V/X5R_6

EC A03 (BVREF_ST): R651 *100_4 — MICVCC — NEAR AUDIO AREA — R657 1.2K_4 — R612 2.2K/F_4 — INTMIC_L_3 — C676 10U/10V/X5R_12_H85 — C687 1U/10V/X5R_6

EC B23: MICVCC — R706 47K_4 — VREF2 — R705 *0_4 — BVREF_ST — R707 47K_4

EC 0803: C728 *1U/10V/X5R_6

VCC5MA — 0.1U/16V/X7R_4 — C602

U54 MAX4695ETC+: MIC_L_SW, MIC_R_SW, MIC_M_SW — NO1, NO2, NC1, NC2, COM1, COM2, NC, NC, IN1, IN2, V+, GND, PAD

MIC_L_CODEC [31] — MIC_R_CODEC [31]

VCC5MA — R581 47K_4 — STEREO/MONO#

[33] INTMIC_EN# — D40 1SS400

[21] STEREO_MIC# — D39 1SS400

R603 1M_4 — Q27 2SK3019

[24] STEREO_MIC_IN — Q30 2SK3019

Q26 DTC115EE — R580 20K_4 — MICVCC — EC B02

DOCK_MICIN_DTCT# [33,45]

MIC_M_SW — R696 *0_4 — MIC_L_CODEC
R697 *0_4 — MIC_R_CODEC

EC A44 Reserved for Entry model

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	AUDIO_HP_MIC	3B
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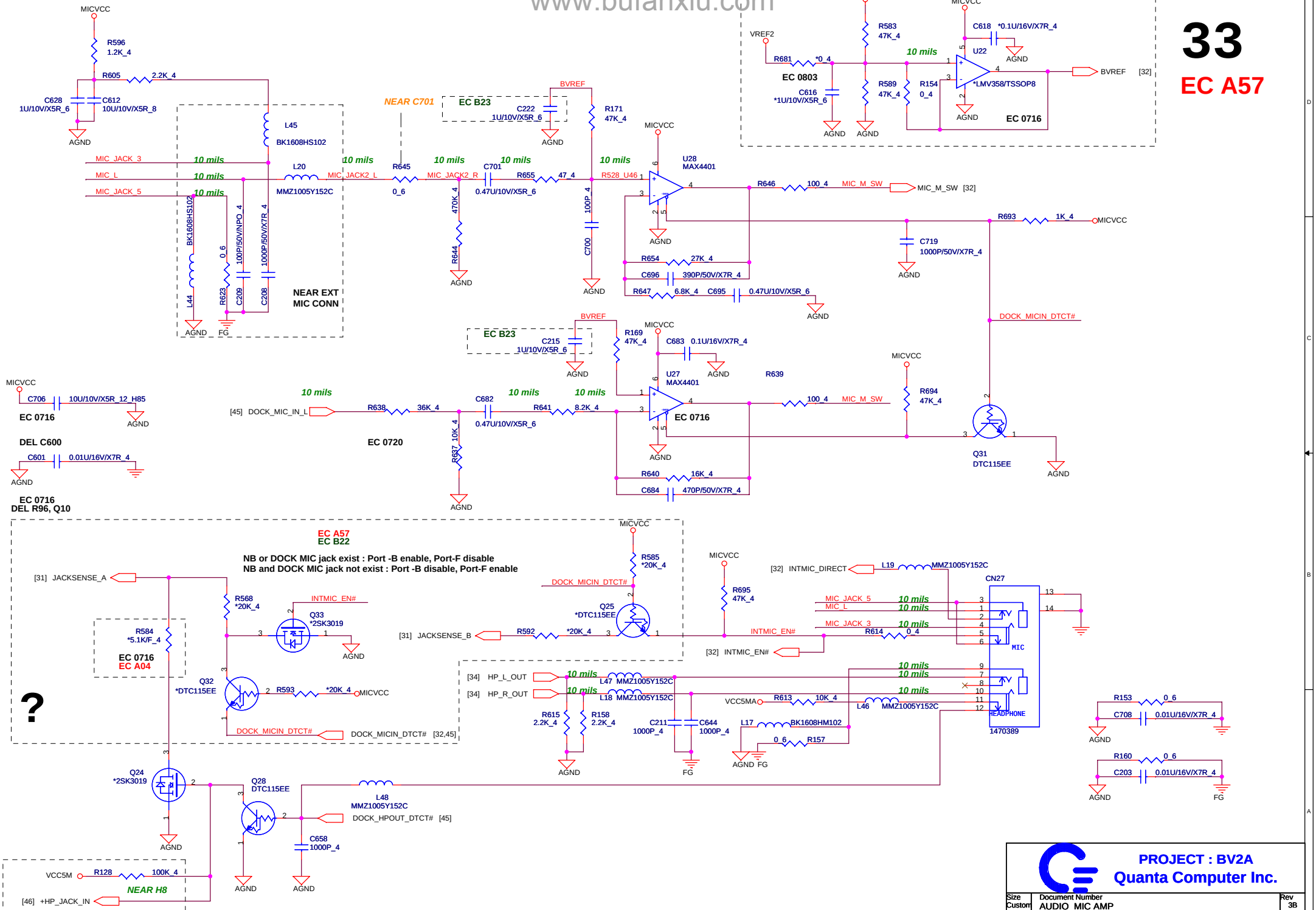

Quanta Computer Inc.	PROJECT : BV2A	
Size: Custom	Document Number: AUDIO_MIC AMP	Rev: 3B
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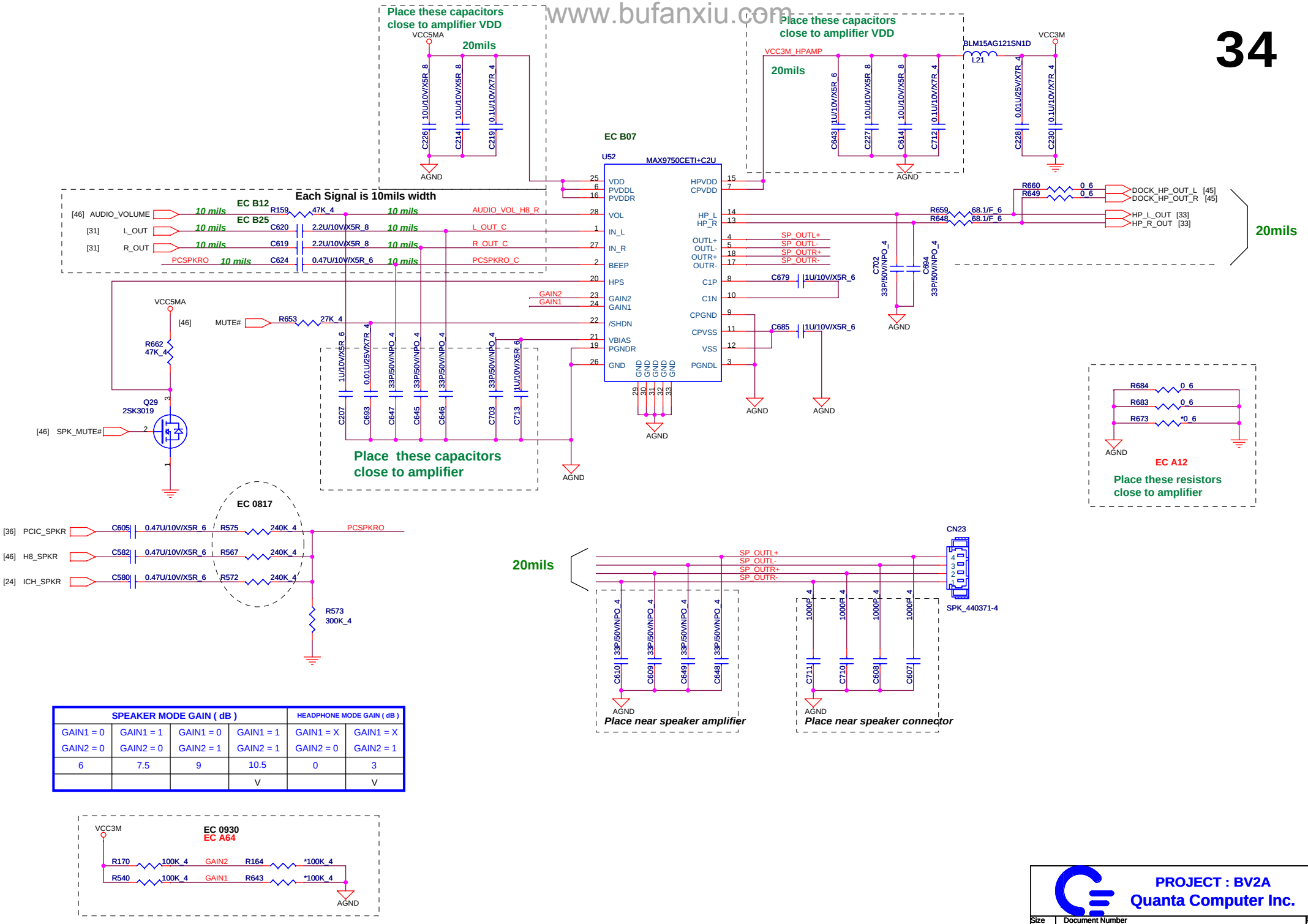

SPEAKER MODE GAIN (dB)				HEADPHONE MODE GAIN (dB)	
GAIN1 = 0	GAIN1 = 1	GAIN1 = 0	GAIN1 = 1	GAIN1 = X	GAIN1 = X
GAIN2 = 0	GAIN2 = 0	GAIN2 = 1	GAIN2 = 1	GAIN2 = 0	GAIN2 = 1
6	7.5	9	10.5	0	3
			V		V

PROJECT : BV2A
Quanta Computer Inc.

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Custom	AUDIO SPK_AMP MAX9750CETI	3B
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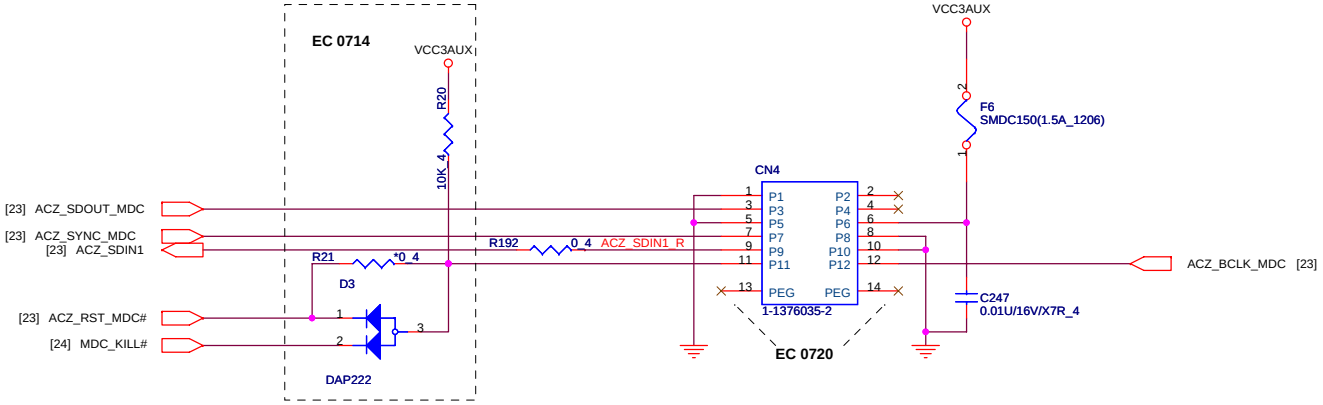
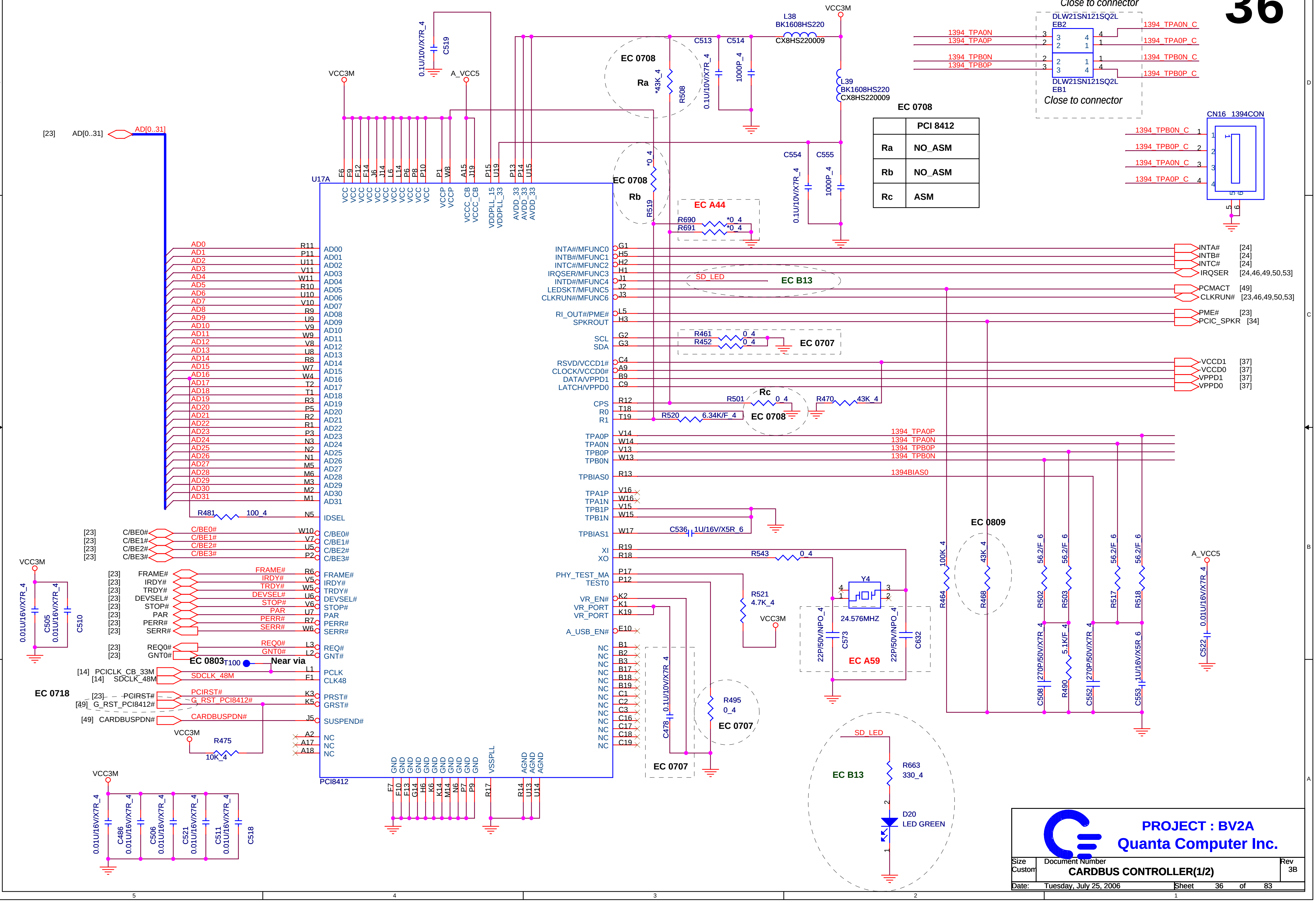
MDC1.5 CONNECTOR



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	MDC Conn.	3B
Date: Tuesday, July 25, 2006	Sheet 35 of 83	



Close to connector
DLW21SN121SQ2L EB2
DLW21SN121SQ2L EB1
1394_TPA0N
1394_TPA0P
1394_TPB0N
1394_TPB0P
1394_TPA0N_C
1394_TPA0P_C
1394_TPB0N_C
1394_TPB0P_C
CN16 1394CON
VCC3M
A_VCC5
L38 BK1608HS220 CX8HS220009
L39 BK1608HS220 CX8HS220009
C513
C514
C519
C554
C555
EC 0708
Ra
Rb
Rc
R508
R519
EC A44
R690 *0_4
R691 *0_4
PCI 8412
Ra NO_ASM
Rb NO_ASM
Rc ASM
[23] AD[0..31]
U17A
PCI8412
AD00 … AD31
IDSEL
C/BE0# C/BE1# C/BE2# C/BE3#
FRAME# IRDY# TRDY# DEVSEL# STOP# PAR PERR# SERR#
REQ# GNT#
PCLK CLK48
PRST# GRST#
SUSPEND#
EC 0803
Near via
EC 0718
PCICLK_CB_33M
SDCLK_48M
PCIRST#
G_RST_PCI8412#
CARDBUSPDN#
R481 100_4
R475 10K_4
INTA#/MFUNC0
INTB#/MFUNC1
INTC#/MFUNC2
IRQSER/MFUNC3
INTD#/MFUNC4
LEDSKT#/MFUNC5
CLKRUN#/MFUNC6
RI_OUT#/PME#
SPKROUT
SCL
SDA
RSVD/VCCD1#
CLOCK/VCCD0#
DATA/VPPD1
LATCH/VPPD0
CPS
TPA0P TPA0N TPB0P TPB0N
TPBIAS0
TPA1P TPA1N TPB1P TPB1N
TPBIAS1
XI XO
PHY_TEST_MA
TEST0
VR_EN#
VR_PORT
A_USB_EN#
SD_LED
EC B13
R461 0_4
R452 0_4
EC 0707
R501 0_4
R470 43K_4
R520 6.34K/F_4
INTA# [24]
INTB# [24]
INTC# [24]
IRQSER [24,46,49,50,53]
PCMACT [49]
CLKRUN# [23,46,49,50,53]
PME# [23]
PCIC_SPKR [34]
VCCD1 [37]
VCCD0 [37]
VPPD1 [37]
VPPD0 [37]
1394BIAS0
C536 1U/16V/X5R_6
R543 0_4
Y4 24.576MHZ
R521 4.7K_4
C573
C632
EC A59
EC 0809
R464 100K_4
R468 43K_4
R502 56.2/F_6
R503 56.2/F_6
R517 56.2/F_6
R518 56.2/F_6
C508 270P/50V/X7R_4
R490 5.1K/F_4
C552 270P/50V/X7R_4
C553 1U/16V/X5R_6
C522 0.01U/16V/X7R_4
C478 0.1U/10V/X7R_4
R495 0_4
R663 330_4
D20 LED GREEN
C505 C510 C486 C506 C521 C511 C518

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CARDBUS CONTROLLER(1/2)	3B

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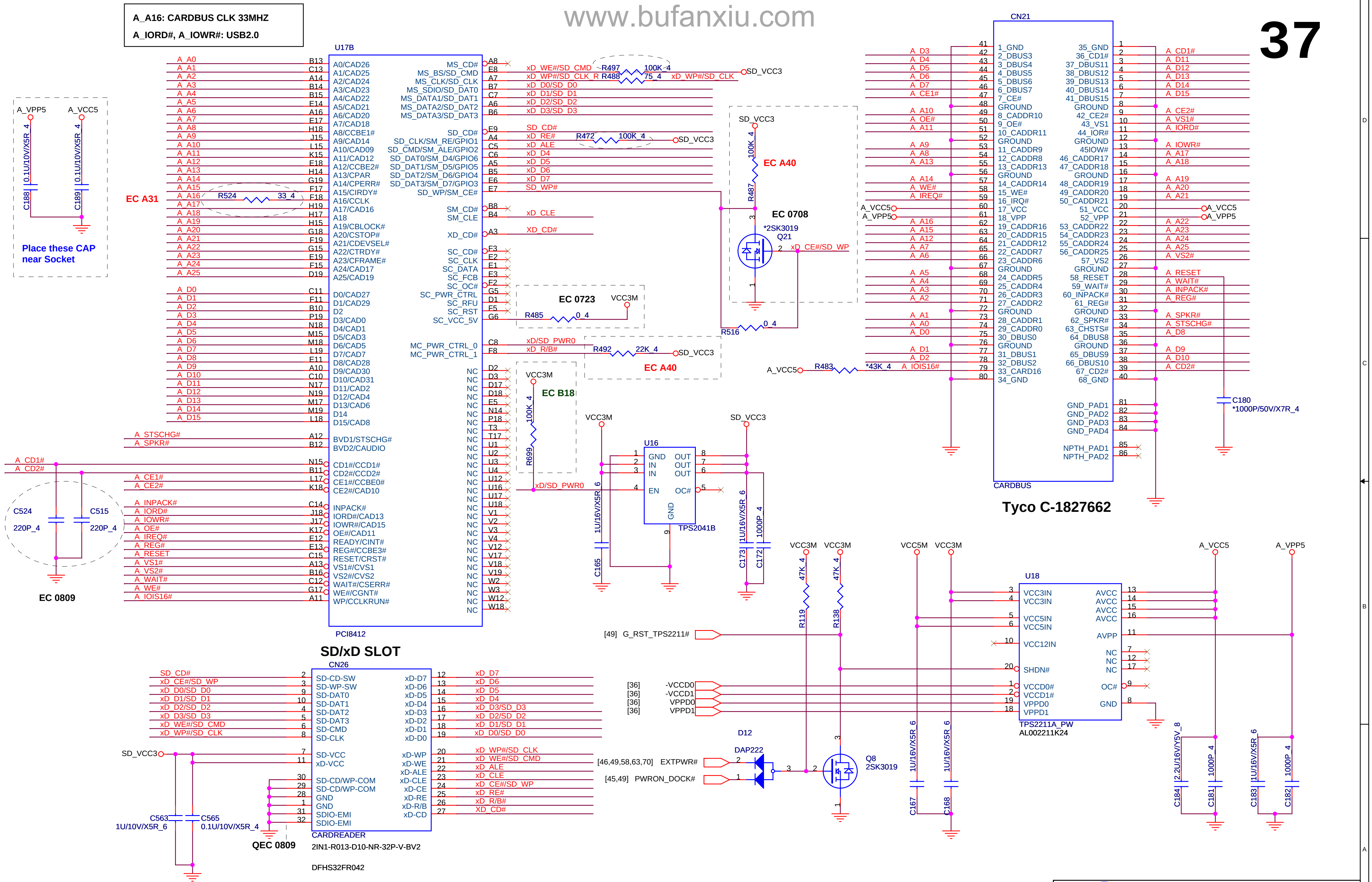

A_A16: CARDBUS CLK 33MHZ
A_IORD#, A_IOWR#: USB2.0
U17B
PCI8412
A0/CAD26
A1/CAD25
A2/CAD24
A3/CAD23
A4/CAD22
A5/CAD21
A6/CAD20
A7/CAD18
A8/CCBE1#
A9/CAD14
A10/CAD09
A11/CAD12
A12/CCBE2#
A13/CPAR
A14/CPERR#
A15/CIRDY#
A16/CCLK
A17/CAD16
A18
A19/CBLOCK#
A20/CSTOP#
A21/CDEVSEL#
A22/CTRDY#
A23/CFRAME#
A24/CAD17
A25/CAD19
D0/CAD27
D1/CAD29
D2
D3/CAD0
D4/CAD1
D5/CAD3
D6/CAD5
D7/CAD7
D8/CAD28
D9/CAD30
D10/CAD31
D11/CAD2
D12/CAD4
D13/CAD6
D14
D15/CAD8
BVD1/STSCHG#
BVD2/CAUDIO
CD1#/CCD1#
CD2#/CCD2#
CE1#/CCBE0#
CE2#/CAD10
INPACK#
IORD#/CAD13
IOWR#/CAD15
OE#/CAD11
READY/CINT#
REG#/CCBE3#
RESET/CRST#
VS1#/CVS1
VS2#/CVS2
WAIT#/CSERR#
WE#/CGNT#
WP/CCLKRUN#
MS_CD#
MS_BS/SD_CMD
MS_CLK/SD_CLK
MS_SDIO/SD_DAT0
MS_DATA1/SD_DAT1
MS_DATA2/SD_DAT2
MS_DATA3/SD_DAT3
SD_CD#
SD_CLK/SM_RE/GPIO1
SD_CMD/SM_ALE/GPIO2
SD_DAT0/SM_D4/GPIO6
SD_DAT1/SM_D5/GPIO5
SD_DAT2/SM_D6/GPIO4
SD_DAT3/SM_D7/GPIO3
SD_WP/SM_CE#
SM_CD#
SM_CLE
XD_CD#
SC_CD#
SC_CLK
SC_DATA
SC_FCB
SC_OC#
SC_PWR_CTRL
SC_RFU
SC_RST
SC_VCC_5V
MC_PWR_CTRL_0
MC_PWR_CTRL_1
NC
A_VPP5
A_VCC5
C188 0.1U/10V/X5R_4
C189 0.1U/10V/X5R_4
Place these CAP near Socket
EC A31
R524 33_4
A_CD1#
A_CD2#
C524 220P_4
C515 220P_4
EC 0809
xD_WE#/SD_CMD
xD_WP#/SD_CLK
R497 100K_4
R488 75_4
SD_VCC3
xD_D0/SD_D0
xD_D1/SD_D1
xD_D2/SD_D2
xD_D3/SD_D3
SD_CD#
xD_RE#
xD_ALE
R472 100K_4
xD_D4
xD_D5
xD_D6
xD_D7
SD_WP#
xD_CLE
XD_CD#
EC 0723
VCC3M
R485 0_4
xD/SD_PWR0
xD_R/B#
R492 22K_4
EC A40
R699 100K_4
EC B18
EC 0708
R487 100K_4
*2SK3019
Q21
xD_CE#/SD_WP
R516 0_4
U16
TPS2041B
GND
IN
EN
OUT
OC#
C165 1U/16V/X5R_6
C173 1U/16V/X5R_6
C172 1000P_4
CN21
CARDBUS
Tyco C-1827662
1_GND
2_DBUS3
3_DBUS4
4_DBUS5
5_DBUS6
6_DBUS7
7_CE#
GROUND
8_CADDR10
9_OE#
10_CADDR11
11_CADDR9
12_CADDR8
13_CADDR13
14_CADDR14
15_WE#
16_IRQ#
17_VCC
18_VPP
19_CADDR16
20_CADDR15
21_CADDR12
22_CADDR7
23_CADDR6
24_CADDR5
25_CADDR4
26_CADDR3
27_CADDR2
28_CADDR1
29_CADDR0
30_DBUS0
31_DBUS1
32_DBUS2
33_CARD16
34_GND
35_GND
36_CD1#
37_DBUS11
38_DBUS12
39_DBUS13
40_DBUS14
41_DBUS15
42_CE2#
43_VS1
44_IOR#
45IOW#
46_CADDR17
47_CADDR18
48_CADDR19
49_CADDR20
50_CADDR21
51_VCC
52_VPP
53_CADDR22
54_CADDR23
55_CADDR24
56_CADDR25
57_VS2
58_RESET
59_WAIT#
60_INPACK#
61_REG#
62_SPKR#
63_CHSTS#
64_DBUS8
65_DBUS9
66_DBUS10
67_CD2#
68_GND
GND_PAD1
GND_PAD2
GND_PAD3
GND_PAD4
NPTH_PAD1
NPTH_PAD2
R483 *43K_4
C180 *1000P/50V/X7R_4
SD/xD SLOT
CN26
CARDREADER
2IN1-R013-D10-NR-32P-V-BV2
DFHS32FR042
SD-CD-SW
SD-WP-SW
SD-DAT0
SD-DAT1
SD-DAT2
SD-DAT3
SD-CMD
SD-CLK
SD-VCC
xD-VCC
SD-CD/WP-COM
GND
SDIO-EMI
xD-D7
xD-D6
xD-D5
xD-D4
xD-D3
xD-D2
xD-D1
xD-D0
xD-WP
xD-WE
xD-ALE
xD-CLE
xD-CE
xD-RE
xD-R/B
xD-CD
C563 1U/10V/X5R_6
C565 0.1U/10V/X5R_4
QEC 0809
VCC3M
VCC5M
R119 47K_4
R138 47K_4
[49] G_RST_TPS2211#
[36] -VCCD0
[36] -VCCD1
[36] VPPD0
[36] VPPD1
D12
DAP222
[46,49,58,63,70] EXTPWR#
[45,49] PWRON_DOCK#
Q8
2SK3019
U18
TPS2211A_PW
AL002211K24
VCC3IN
VCC5IN
VCC12IN
SHDN#
VCCD0#
VCCD1#
VPPD0
VPPD1
AVCC
AVPP
NC
OC#
GND
C167 1U/16V/X5R_6
C168 1U/16V/X5R_6
C184 2.2U/16V/Y5V_8
C181 1000P_4
C183 1U/16V/X5R_6
C182 1000P_4

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CARDBUS CONTROLLER(2/2)	3B

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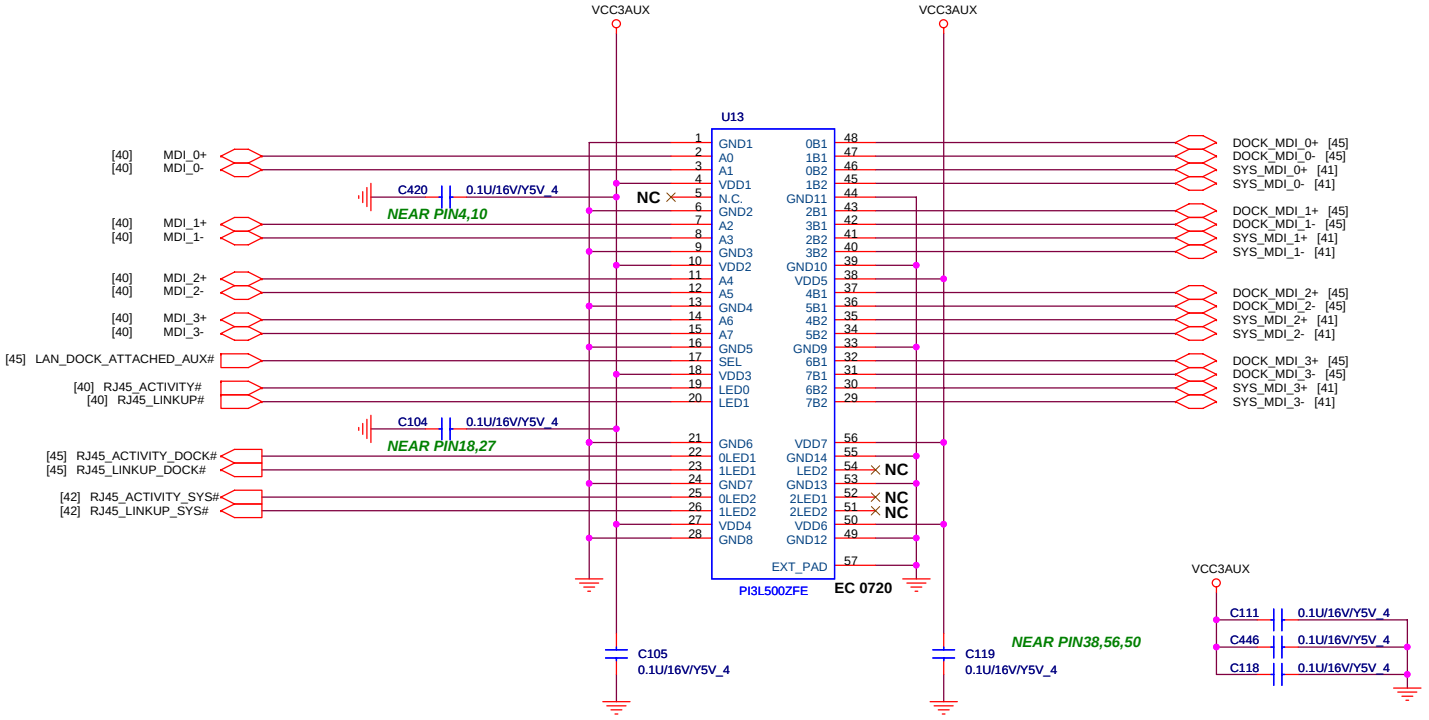
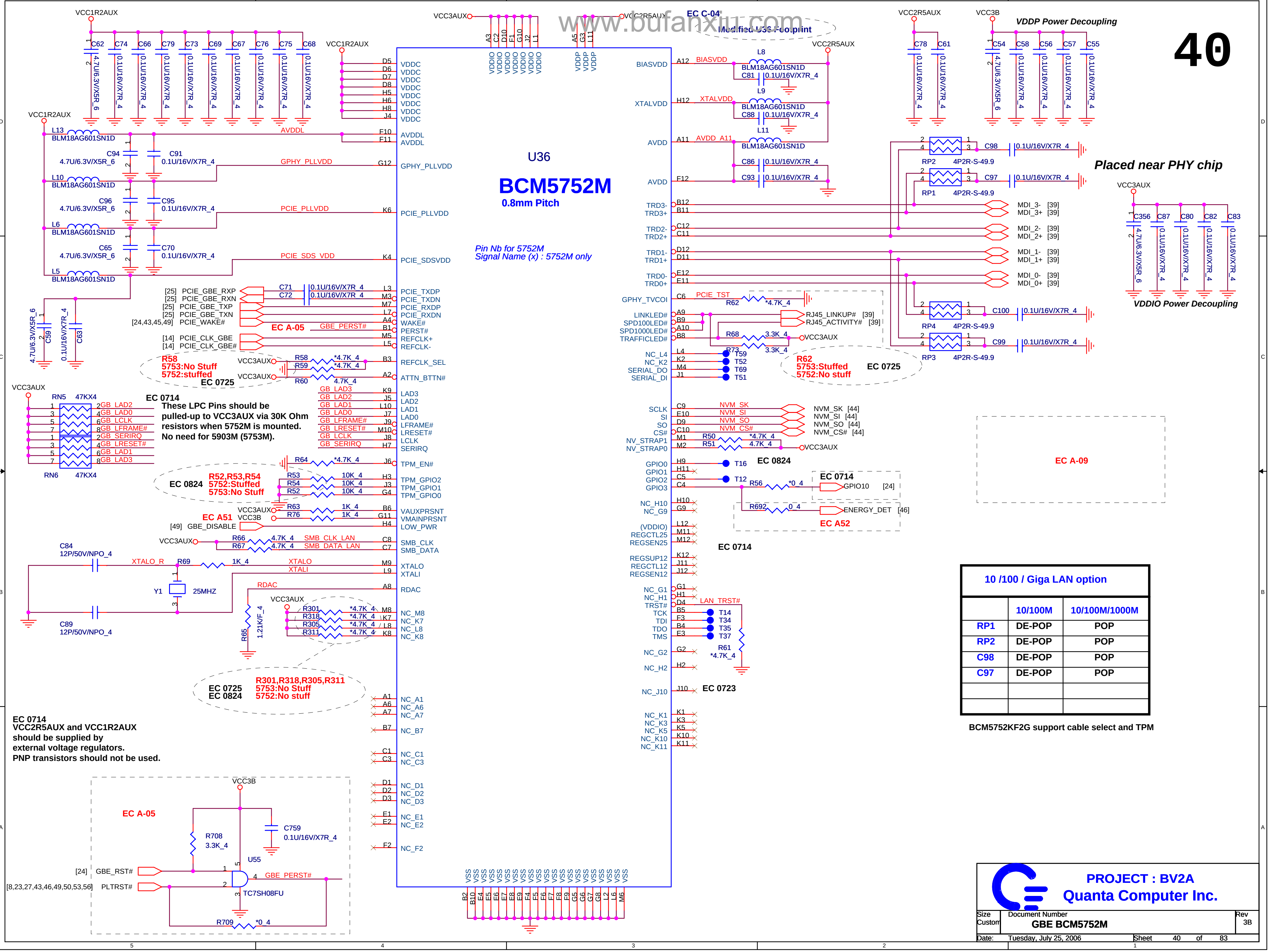


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	GBE LAN SW	3B
Date: Tuesday, July 25, 2006	Sheet 39 of 83	



www.bufanxiu.com
U36
BCM5752M
0.8mm Pitch
Pin Nb for 5752M
Signal Name (x) : 5752M only
EC C-04
Modified U36 Footprint
VDDP Power Decoupling
Placed near PHY chip
VDDIO Power Decoupling
VCC1R2AUX
VCC3AUX
VCC2R5AUX
VCC3B
BIASVDD
XTALVDD
AVDD
AVDDL
GPHY_PLLVDD
PCIE_PLLVDD
PCIE_SDSVDD
BLM18AG601SN1D
4.7U/6.3V/X5R_6
0.1U/16V/X7R_4
4P2R-S-49.9
MDI_3- [39]
MDI_3+ [39]
MDI_2- [39]
MDI_2+ [39]
MDI_1- [39]
MDI_1+ [39]
MDI_0- [39]
MDI_0+ [39]
RJ45_LINKUP# [39]
RJ45_ACTIVITY# [39]
[25] PCIE_GBE_RXP
[25] PCIE_GBE_RXN
[25] PCIE_GBE_TXP
[25] PCIE_GBE_TXN
[24,43,45,49] PCIE_WAKE#
[14] PCIE_CLK_GBE
[14] PCIE_CLK_GBE#
EC A-05
GBE_PERST#
R58
5753:No Stuff
5752:stuffed
EC 0725
R62
5753:Stuffed
5752:No stuff
EC 0725
EC 0714
These LPC Pins should be pulled-up to VCC3AUX via 30K Ohm resistors when 5752M is mounted.
No need for 5903M (5753M).
RN5 47KX4
RN6 47KX4
EC 0824
R52,R53,R54
5752:Stuffed
5753:No Stuff
NVM_SK [44]
NVM_SI [44]
NVM_SO [44]
NVM_CS# [44]
EC 0824
EC 0714
GPIO10 [24]
ENERGY_DET [46]
EC A52
EC A51
[49] GBE_DISABLE
SMB_CLK_LAN
SMB_DATA_LAN
C84
12P/50V/NPO_4
Y1 25MHZ
C89
12P/50V/NPO_4
XTALO
XTALI
RDAC
R65 1.21K/F_4
EC A-09
EC 0714
EC 0723
R301,R318,R305,R311
5753:No Stuff
5752:No stuff
EC 0725
EC 0824
EC 0714
VCC2R5AUX and VCC1R2AUX should be supplied by external voltage regulators.
PNP transistors should not be used.
EC A-05
R708 3.3K_4
C759 0.1U/16V/X7R_4
U55
TC7SH08FU
[24] GBE_RST#
[8,23,27,43,46,49,50,53,56] PLTRST#
R709 *0_4
BCM5752KF2G support cable select and TPM

10 /100 / Giga LAN option

	10/100M	10/100M/1000M
RP1	DE-POP	POP
RP2	DE-POP	POP
C98	DE-POP	POP
C97	DE-POP	POP

BCM5752KF2G support cable select and TPM

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
Custom	GBE BCM5752M	3B

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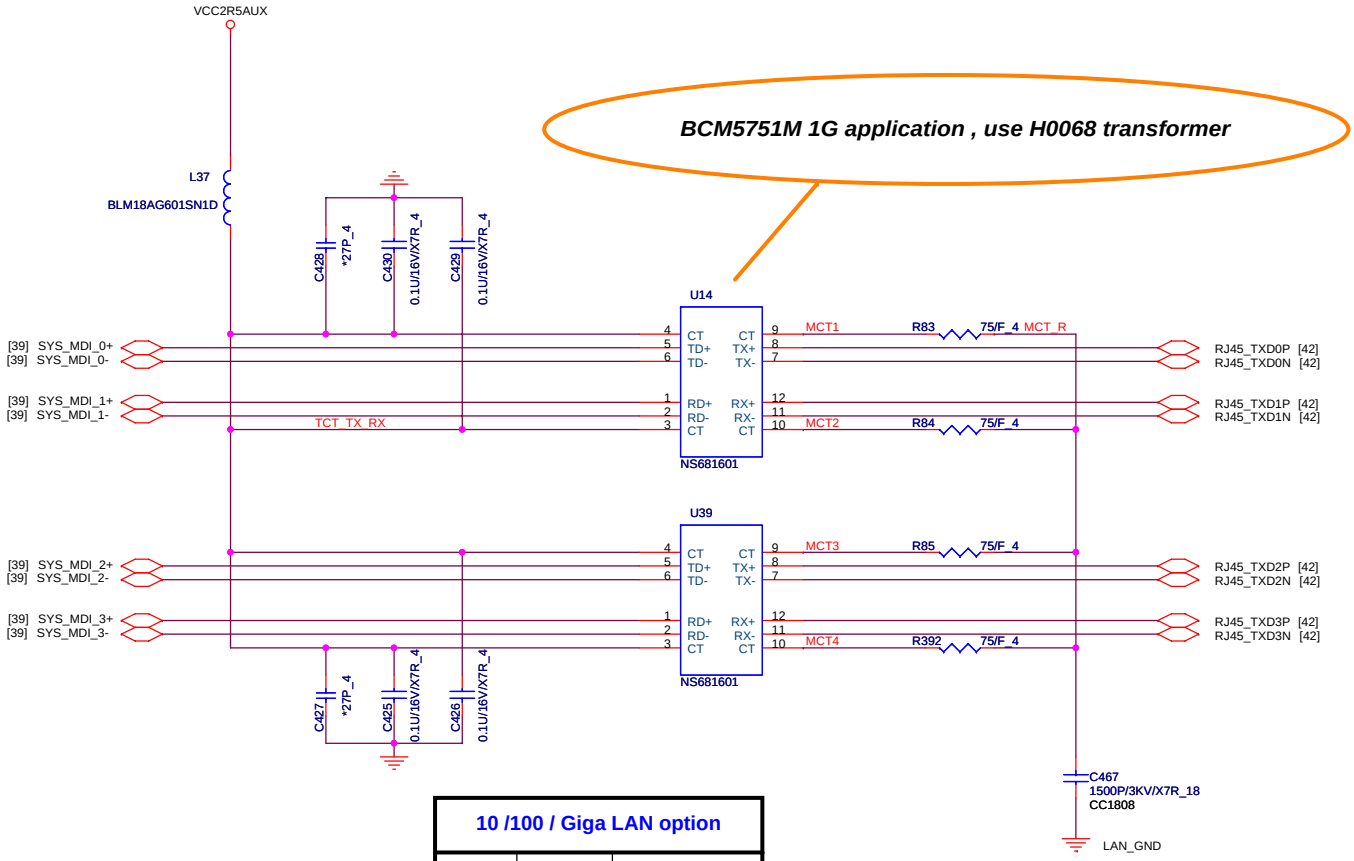

10 /100 / Giga LAN option		
	10/100M	10/100M/1000M
U39	DE-POP	POP
C425	DE-POP	POP
C426	DE-POP	POP
R85	DE-POP	POP
R392	DE-POP	POP

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	GBE BCM5753M/F	3B
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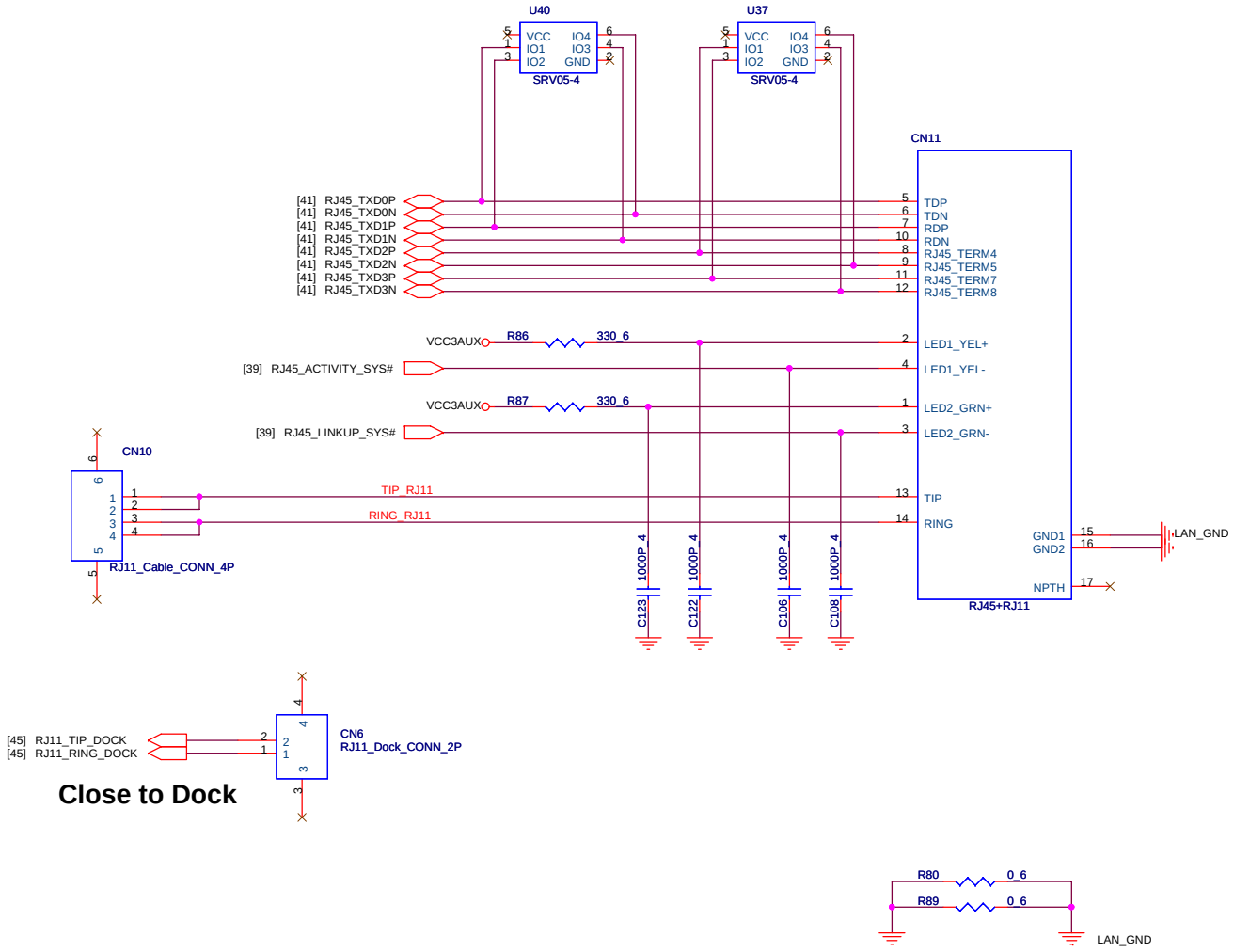

PROJECT : BV2A Quanta Computer Inc.		
Size: Custom	Document Number: RJ11 / RJ45 CONNECTOR	Rev: 3B
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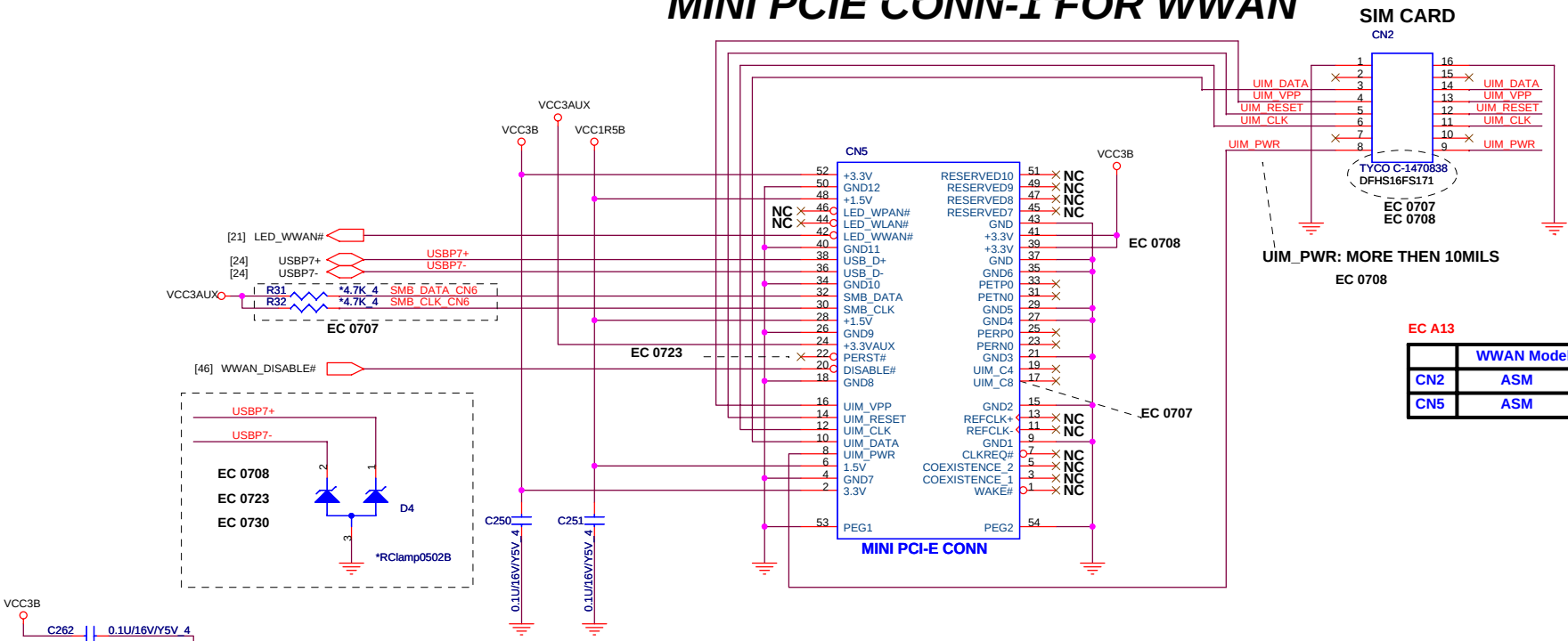
MINI PCIE CONN-1 FOR WWAN

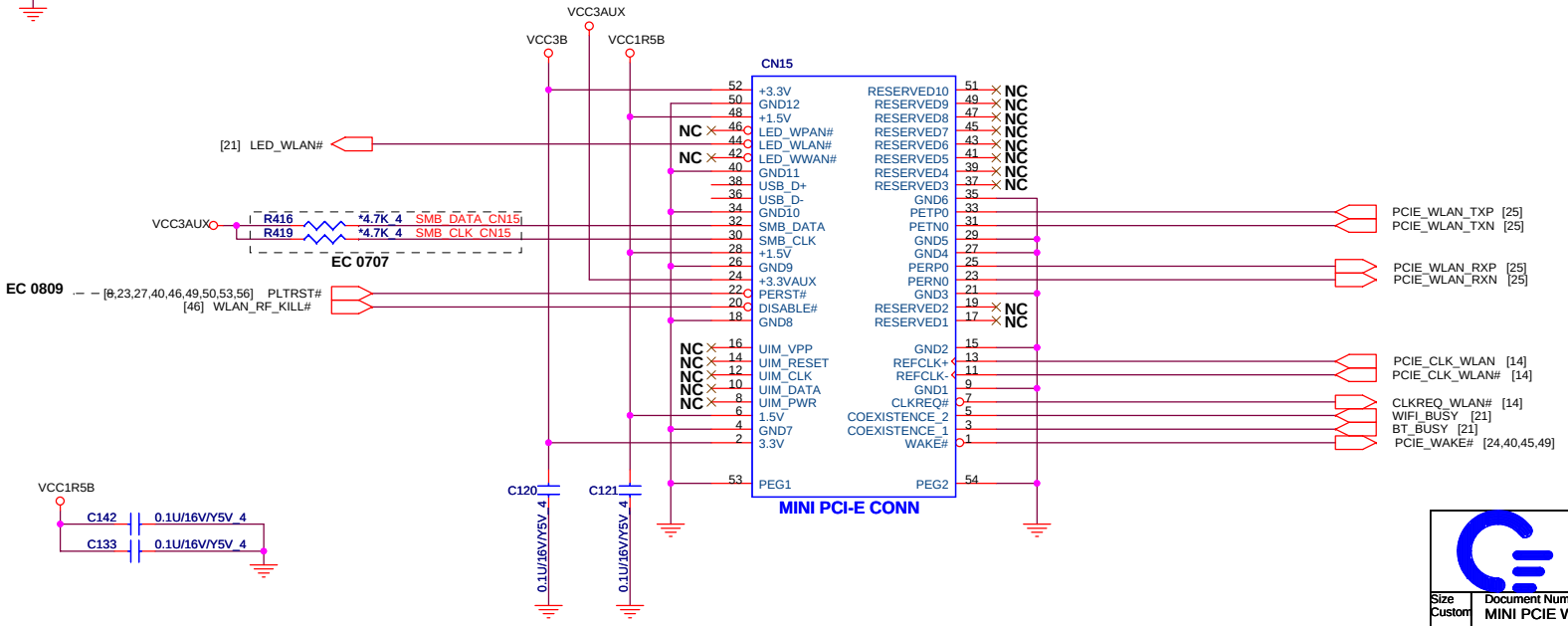


EC A13

	WWAN Model	Non WWAN Model
CN2	ASM	Not ASM
CN5	ASM	Not ASM

VCC3B C262 0.1U/16V/Y5V_4
VCC3AUX C39 0.1U/16V/Y5V_4
VCC1R5B C258 0.1U/16V/Y5V_4

MINI PCIE CONN-2 FOR WLAN



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	MINI PCIE WWAN/WLAN	3B
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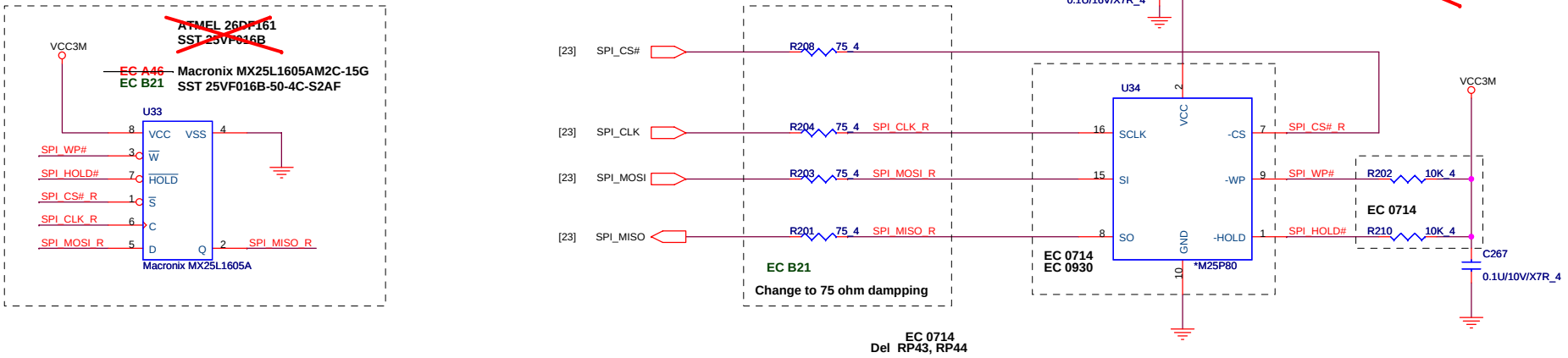
SYSTEM SPI FLASH (ICH7-M)

PLACE LESS THAN 2 INCH FROM THE ICH IF USING SHARED ARCHITECTURE.

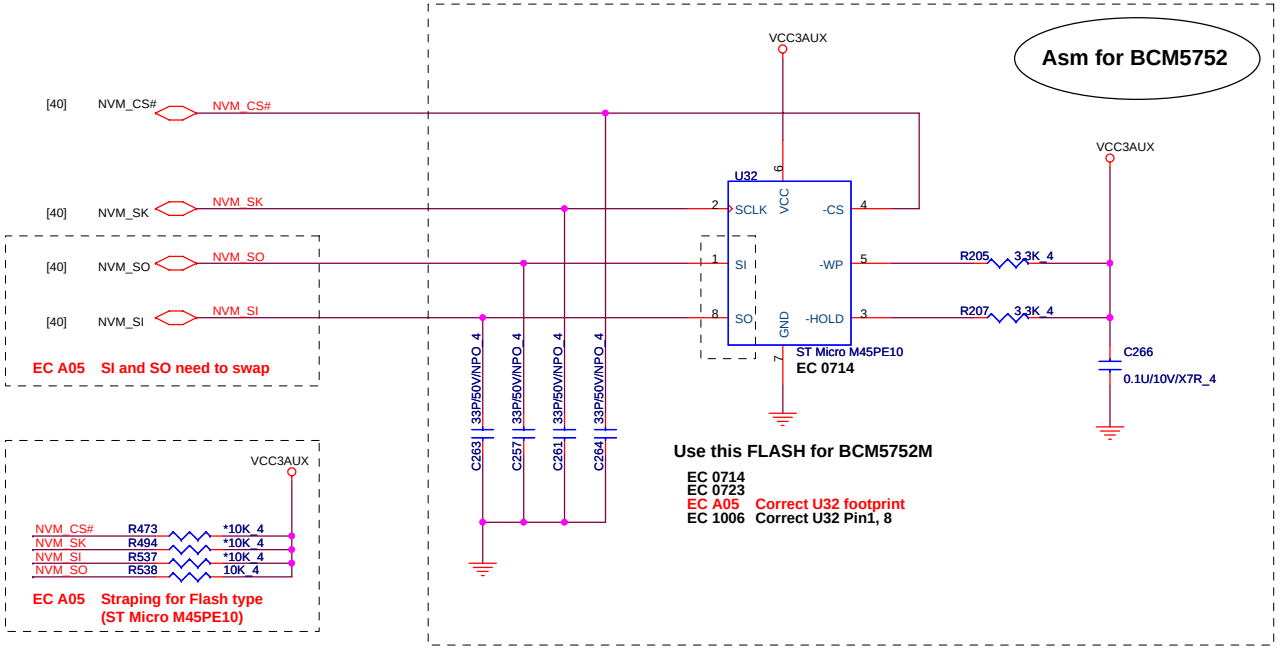
U34 SOIC16 and U33 SOIC8 co-layout

PLACE 16M SPI FLASH WHICH SHOULD BE ATMEL AT26DF161-SU OR THE AT26F016-SU OR ST MICRO'S ATMEL COMPATIBLE.



LAN SPI FLASH (BCM5752M/F)

BCM5752 / 5753 Stuff option		
	BCM5752M/F	BCM5753M/F
U32	POP	DE-POP
C266	POP	DE-POP
C263	POP	DE-POP
C257	POP	DE-POP
C261	POP	DE-POP
C264	POP	DE-POP
R205	POP	DE-POP
R207	POP	DE-POP
R473	DE-POP	DE-POP
R494	DE-POP	DE-POP
R537	DE-POP	DE-POP
R538	POP	DE-POP



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	EEPROM (MAGI3 P56)	3B
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Delete Debug CONN

EC A23

EC A24

MSCLK R688 *V9MLA0603NH
MSDATA R687 *V9MLA0603NH
XKBDCLK R686 *V9MLA0603NH
XKBDDATA R685 *V9MLA0603NH

SPDIF_OUT C623 33P/50V/NPO_4
SPDIF_RTN C45 33P/50V/NPO_4
DOCK_MICIN_DTCT# C622 33P/50V/NPO_4
DOCK_HPOUT_DTCT# C674 33P/50V/NPO_4
DOCK_HP_OUT_R C665 33P/50V/NPO_4
DOCK_HP_OUT_L C664 33P/50V/NPO_4
DOCK_MIC_IN_L C666 33P/50V/NPO_4

EC 0720

DOCKID0 C681 220P_4
DOCKID1 C690 220P_4
D_PERST# C581 220P_4
DOCK_LED_CTL0 C626 220P_4
DOCK_LED_CTL1 C625 220P_4
DOCK_SCL C255 33P/50V/NPO_4
PWRON_DOCK# C584 220P_4
EXTPWRG C671 220P_4
MSCLK C633 33P/50V/NPO_4
MSDATA C656 33P/50V/NPO_4

XKBDCLK C655 33P/50V/NPO_4
XKBDDATA C634 33P/50V/NPO_4
D_P_SERIRQ C699 *220P_4

EC 0720

DOCKID2 C659 220P_4
D_LPC_DREQ0# C678 *220P_4
D_CLKRUN# C697 220P_4
D_LPC_FRAME# C689 *220P_4
RJ45_LINKUP_DOCK# C259 220P_4
RJ45_ACTIVITY_DOCK# C260 220P_4

DOCK_EVENT# C583 220P_4
DDCCLK_ID3 C256 220P_4
DOCK_ATTACH# C673 220P_4

EC 0707
DOCK-PWR20-IN

CN29A

DOCKING CONNECTOR
(1/2)
4+168 pin

DOCK-PWR20-IN P1 DC19V
NC P2 R44 0_4

R42 0_4

[50] DOCKID0	DOCKID0	1	DOCK_ID0
[50] DOCKID1	DOCKID1	2	DOCK_ID1
[49] D_PERST#		3	PCIE_PERST#
		4	GND
[25] PCIE_DOCK_RXP		5	PCIE_RX0+
[25] PCIE_DOCK_RXN		7	PCIE_RX0-
		8	GND
		9	GND
		10	PCIE_RX1+
		12	PCIE_RX1-
		13	GND
[24,40,43,49] PCIE_WAKE#		14	PCIE_WAKE#
[49] D_CLKREQ_IN#		15	PCIE_CLKREQ#
[46] DOCK_LED_CTL0		16	STATUS_LED_0
[46] DOCK_LED_CTL1		17	STATUS_LED_1
[46] DOCK_SCL		18	I2C_CLK
[46] DOCK_SDA		19	I2C_DATA
		20	GND
		21	SATA_TX+
		23	SATA_TX-
		24	GND
[37,49] PWRON_DOCK#		25	PWRON
[62] B_ON_DOCK	B_ON_DOCK	26	B_ON
[49] EXTPWRG	EXTPWRG	27	PWRGOOD_DOCK
[49] DASP_DOCK#		28	DASP
[46,47] MSCLK		29	PS2_MS_CLK
[46,47] MSDATA		30	PS2_MS_DATA
[46,47] XKBDCLK		31	PS2_KB_CLK
[46,47] XKBDDATA		32	PS2_KB_DATA
		33	GND
[50] D_P_SERIRQ	D_P_SERIRQ	34	LPC_SERIRQ
	T3	35	NC
		36	NC
[50] DOCKID2	DOCKID2	37	DOCK_ID_2
	NOTE_ATTACH#!	38	NOTE_ATTACH#

R41 0_4

EC 0720
EC 0723

ADPT_CAPA		43	ACDC_ID_R
DOCK_CONSUMP		44	ACDC_ID [46,57]
PWR_SW#		45	DOCK_CONSUMP [58]
SPDIF_OUT		46	PWRSWITCH# [47,49]
SPDIF_RTN		47	SPDIF_OUT [31]
		48	SPDIF_RTN [31]
		49	GND
PCIE_TX0+		51	PCIE_TX0+
PCIE_TX0-		52	PCIE_DOCK_TXP [25]
		53	PCIE_DOCK_TXN [25]
		54	GND
PCIE_TX1+		56	PCIE_TX1+
PCIE_TX1-		57	PCIE_TX1-
		58	GND
PCIE_REFCLK+		60	PCIE_CLK_DOCK [14]
PCIE_REFCLK-		61	PCIE_CLK_DOCK# [14]
		62	GND
SATA_RX+		64	SATA_RX+
SATA_RX-		65	GND
DVI_DDCCLK	DVI_CLK1	66	DVI_CLK1 [56]
DVI_DDCDATA	DVI_DAT1	67	DVI_DAT1 [56]
LPC_DRQ#	D_LPC_DREQ0#	68	D_LPC_DREQ0# [50]
LPC_CLK14M#	D_SIO_14M	69	D_SIO_14M [50]
		70	GND
LPC_CLKRUN#	D_CLKRUN#	71	D_CLKRUN# [50]
LPC_LFRAME#	D_LPC_FRAME#	72	D_LPC_FRAME# [50] [56]
LPC_LCLK	D_LPCCLK_SIO_33M	73	D_LPCCLK_SIO_33M [50]
		74	GND
LAN_LED_EN	R29 10K_4	75	VCC3AUX
LAN_LED_G#		77	RJ45_LINKUP_DOCK# [39]
LAN_LED_Y#		79	RJ45_ACTIVITY_DOCK# [39]
LAN_MAG_CTAP	LAN_MAG_CTAP	80	
MODEM_RING		84	RJ11_RING_DOCK [42]

EC 0723

IBM_DOCKING_CONN_new

VCC5M
EC 0723
F2 FUSE SMD 0.5A,13.2V(POLY,NANOSMDC050F)LF P3

CN29B

DOCKING CONNECTOR
(2/2)
4+168 pin

VCC5M P4 GND

[32,33] DOCK_MICIN_DTCT#		85	MICIN_DTCT
[33] DOCK_HPOUT_DTCT#		86	HPOUT_DTCT
		87	GND
[24] USBP3+		88	USB_D+
[24] USBP3-		89	USB_D-
		90	GND
[46] DOCK_EVENT#		91	EVENT#
		92	GND
[56] TMDS_TX0-	TMDS_TX0-	93	DVI_D0-
[56] TMDS_TX0+	TMDS_TX0+	95	DVI_D0+
		96	GND
[56] TMDS_TX2-	TMDS_TX2-	97	DVI_D2-
[56] TMDS_TX2+	TMDS_TX2+	99	DVI_D2+
		100	GND
		101	DVI_D3-
		103	DVI_D3+
		104	GND
[56] TMDS_CLK+	TMDS_CLK+	105	DVI_CLK+
[56] TMDS_CLK-	TMDS_CLK-	107	DVI_CLK-
		108	GND
[22] DDCCLK_ID3		109	CRT_DDCCLK
[22] DDCDATA_ID1		110	CRT_DDCDATA
[50] D_LPC_AD0	D_LPC_AD0	111	LPC_LAD0
[50] D_LPC_AD1	D_LPC_AD1	112	LPC_LAD1
		113	GND
[50] D_LPC_AD2	D_LPC_AD2	114	LPC_LAD2
[50] D_LPC_AD3	D_LPC_AD3	115	LPC_LAD3
		116	GND
[39] DOCK_MDI_3+		119	LAN_D3+
[39] DOCK_MDI_3-		120	LAN_D3-
[39] DOCK_MDI_2+		121	LAN_D2+
[39] DOCK_MDI_2-		122	LAN_D2-
[42] RJ11_TIP_DOCK		126	MODEM_TP

DOCK_ATTACH#	DOCK_ATTACH#	127	
HPOUT_R	AGND	128	DOCK_HP_OUT_R [34]
AGND		129	
HPOUT_L	AGND	130	DOCK_HP_OUT_L [34]
MICIN_R		131	
AGND	AGND	132	EC 0720
MICIN_L		133	DOCK_MIC_IN_L [33]
DVI_DTCT	DVI_DET	135	DVI_DET [56]
GND		136	
DVI_D1-	TMDS_TX1-	137	TMDS_TX1- [56]
DVI_D1+	TMDS_TX1+	139	TMDS_TX1+ [56]
GND		140	
DVI_D4-		141	
DVI_D4+		143	
GND		144	
DVI_D5-		145	
DVI_D5+		147	
GND		148	
CRT_R		149	DOCK_RED [22]
GND		150	
CRT_G		151	DOCK_GRN [22]
GND		152	
CRT_B		153	DOCK_BLU [22]
GND		154	
CRT_HSYNC		155	DOCK_HSYNC [22]
CRT_VSYNC		156	DOCK_VSYNC [22]
LPC_LPCPD#	D_LPCPD#	157	D_LPCPD# [50]
LPC_LRESET#	PLTRST	158	D_PLTRST# [50]
	R28 0_4		DLRESET# [50]
	R27 *0_4		
LAN_D1+		161	DOCK_MDI_1+ [39]
LAN_D1-		162	DOCK_MDI_1- [39]
LAN_D0+		163	DOCK_MDI_0+ [39]
LAN_D0-		164	DOCK_MDI_0- [39]

GND1 169 GND2 170 GND3 171 GND4 172 GND5 173 GND6 174 GND7 175 GND8 176 GND9 177 GND10 178 GND11 179 GND12 180

IBM_DOCKING_CONN_new

EC 0730
R10 100K_4 VCC3M

EC 0720
DOCK-PWR20

EC 0707
DOCK-PWR20-IN

D2 RB521S-30 DOCK_ATTACHED_3M# [46]
D21 RB521S-30 R179 100K_4 R177 200K/F_4
D22 RB521S-30 DOCK_ATTACHED_5B# [22]
D31 RB521S-30 R180 47K_4 VCC5B
LAN_DOCK_ATTACHED_AUX# [39]
R325 4.7K_4 VCC3AUX

DOCK_ATTACH#

EC A62

Q2 SI4435BDY

DOCK-PWR20-IN

C238 0.1U/50V/X7R_6

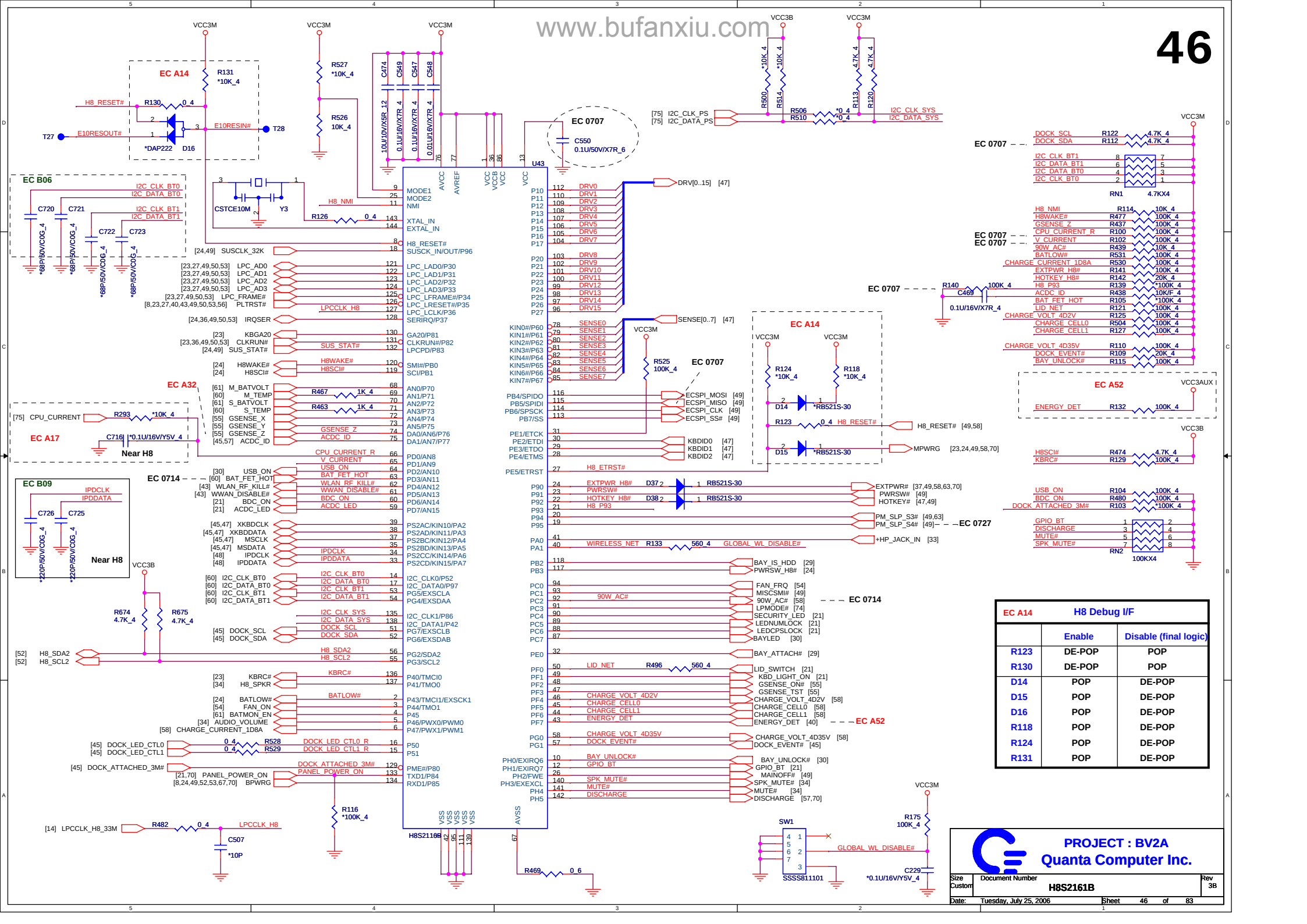
[31,62,70] B_ON R39 1K_4 R38 1K_4 B_ON_DOCK
C44 1000P_4

LAN_MAG_CTAP R40 0_6 F3 R32 1 2 VCC2R5AUX
F3 FUSE SMD 0.5A,13.2V(POLY,NANOSMDC050F)LF
C50 0.1U/50V/X7R_6
C49 4.7U/10V/Y5V_8

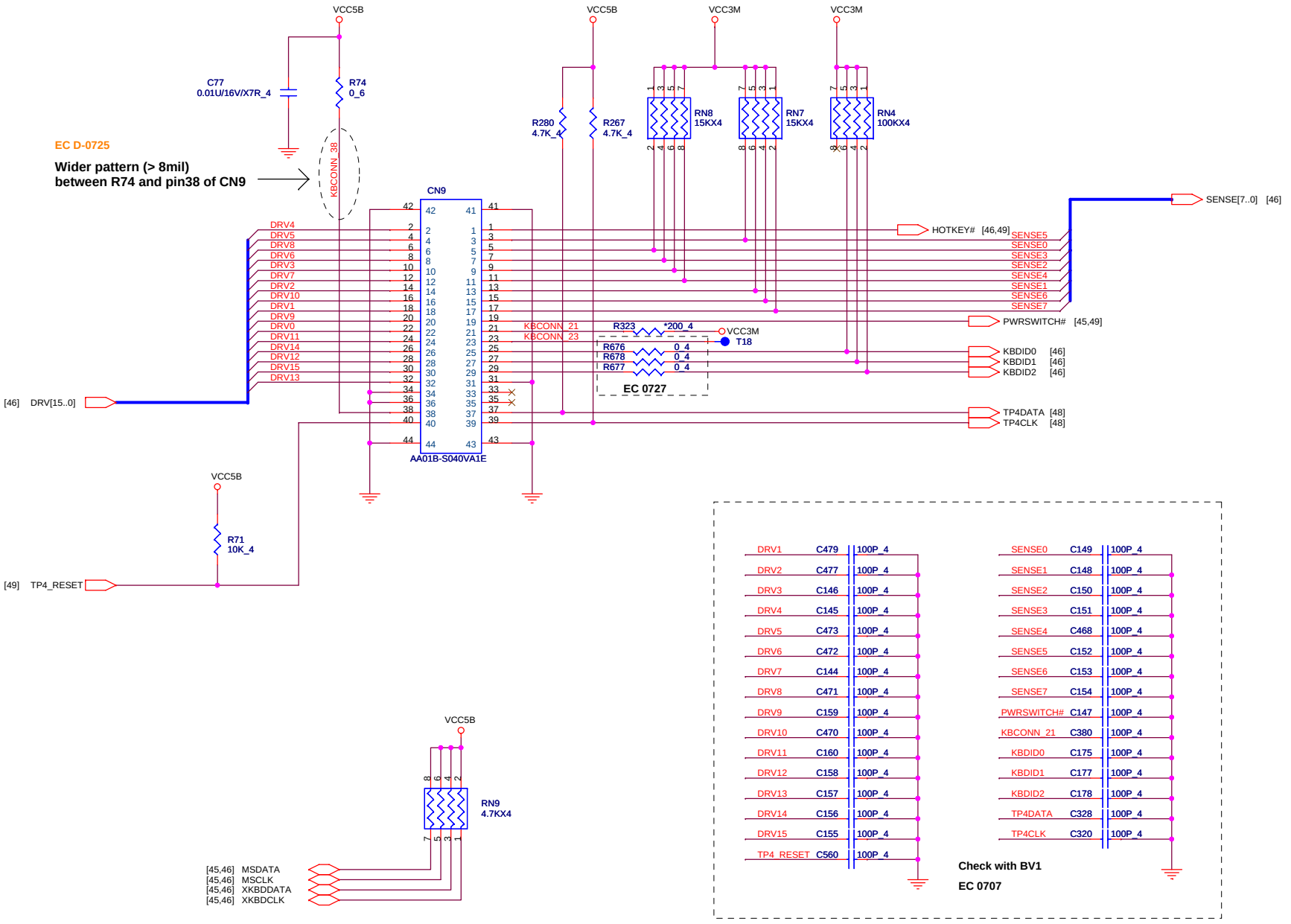
Trace 10:20 mils
EC 0707

PROJECT : BV2.5
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Docking_NEW	3B
Date:	Tuesday, July 25, 2006	Sheet 45 of 83

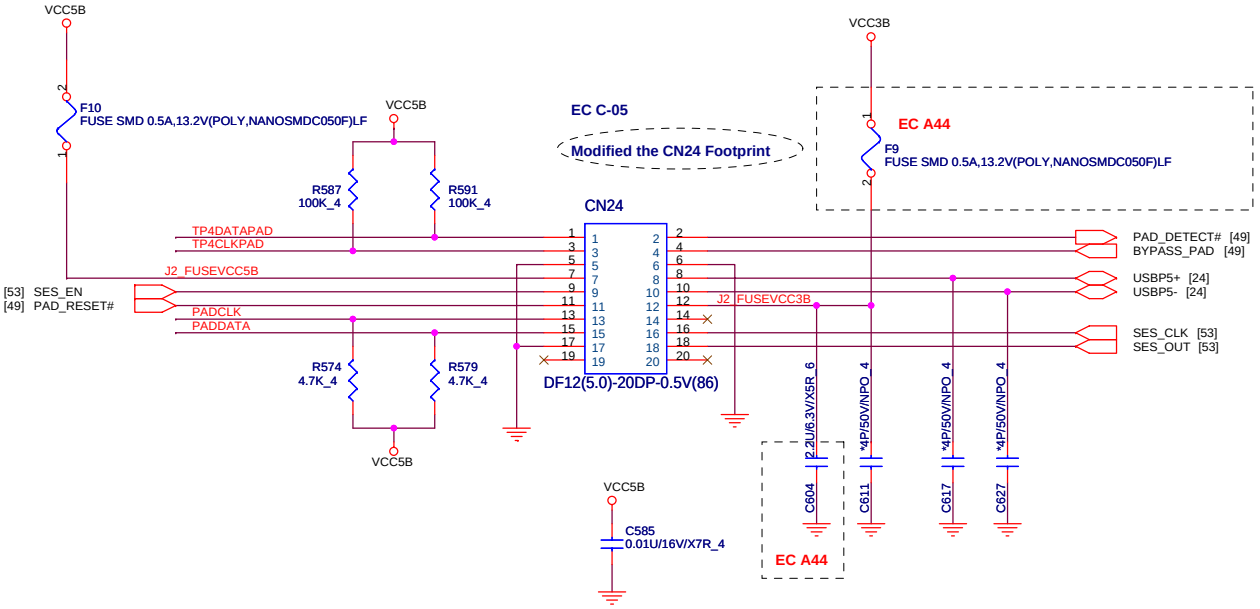


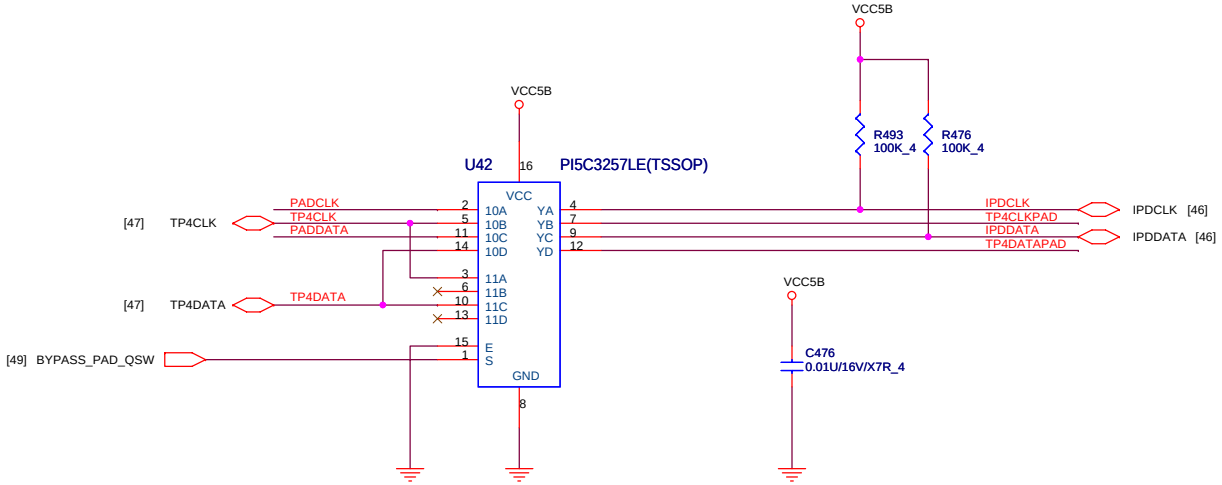
EC A14	H8 Debug I/F	
	Enable	Disable (final logic)
R123	DE-POP	POP
R130	DE-POP	POP
D14	POP	DE-POP
D15	POP	DE-POP
D16	POP	DE-POP
R118	POP	DE-POP
R124	POP	DE-POP
R131	POP	DE-POP



PROJECT : BV2A
Quanta Computer Inc.

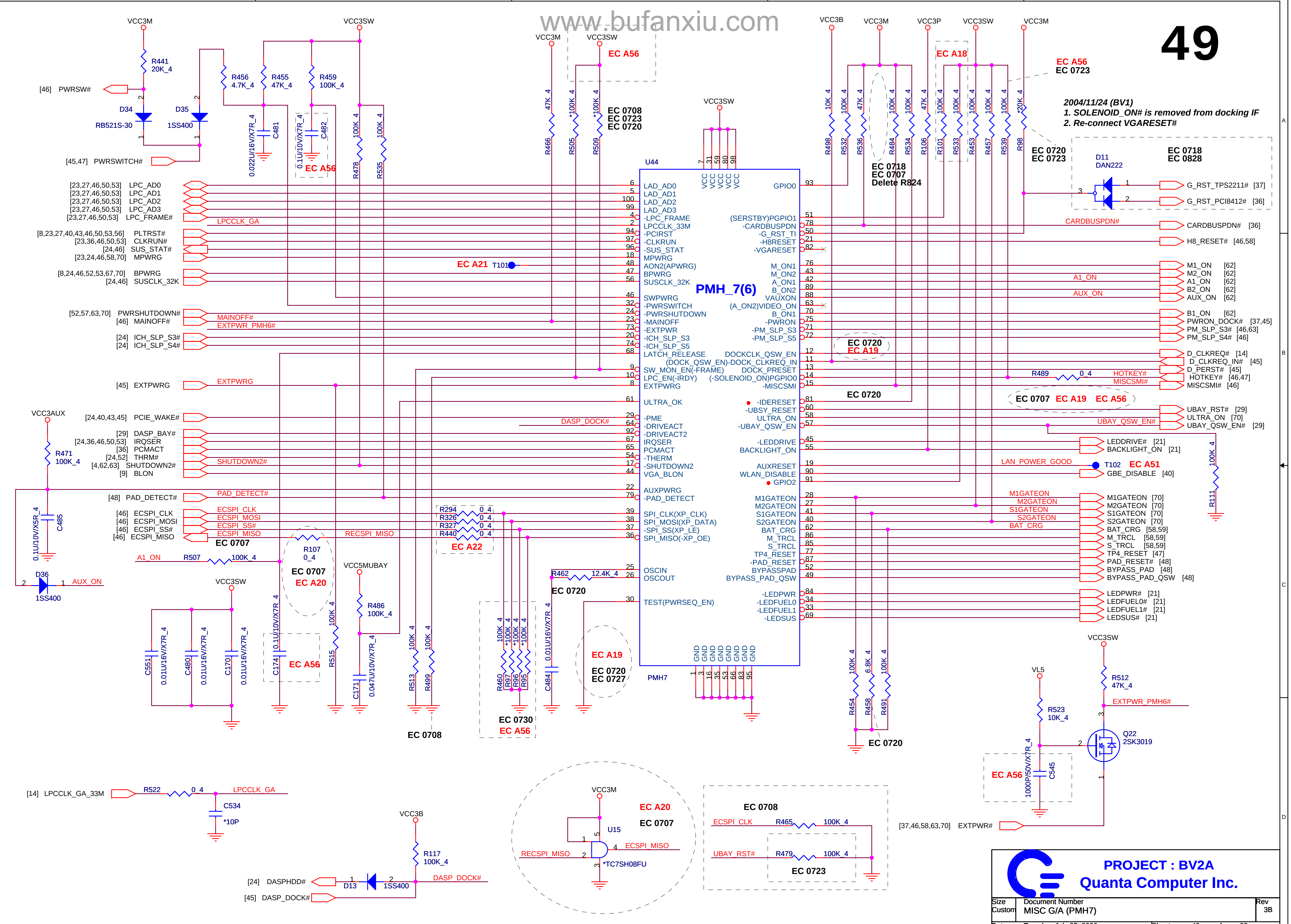
Size	Document Number	Rev
Custom	KEYBOARD CONNECTOR	3B
Date: Tuesday, July 25, 2006	Sheet 47 of 83	





PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	TOUCH PAD CONNECTOR	3B
Date: Tuesday, July 25, 2006	Sheet 48 of 83	



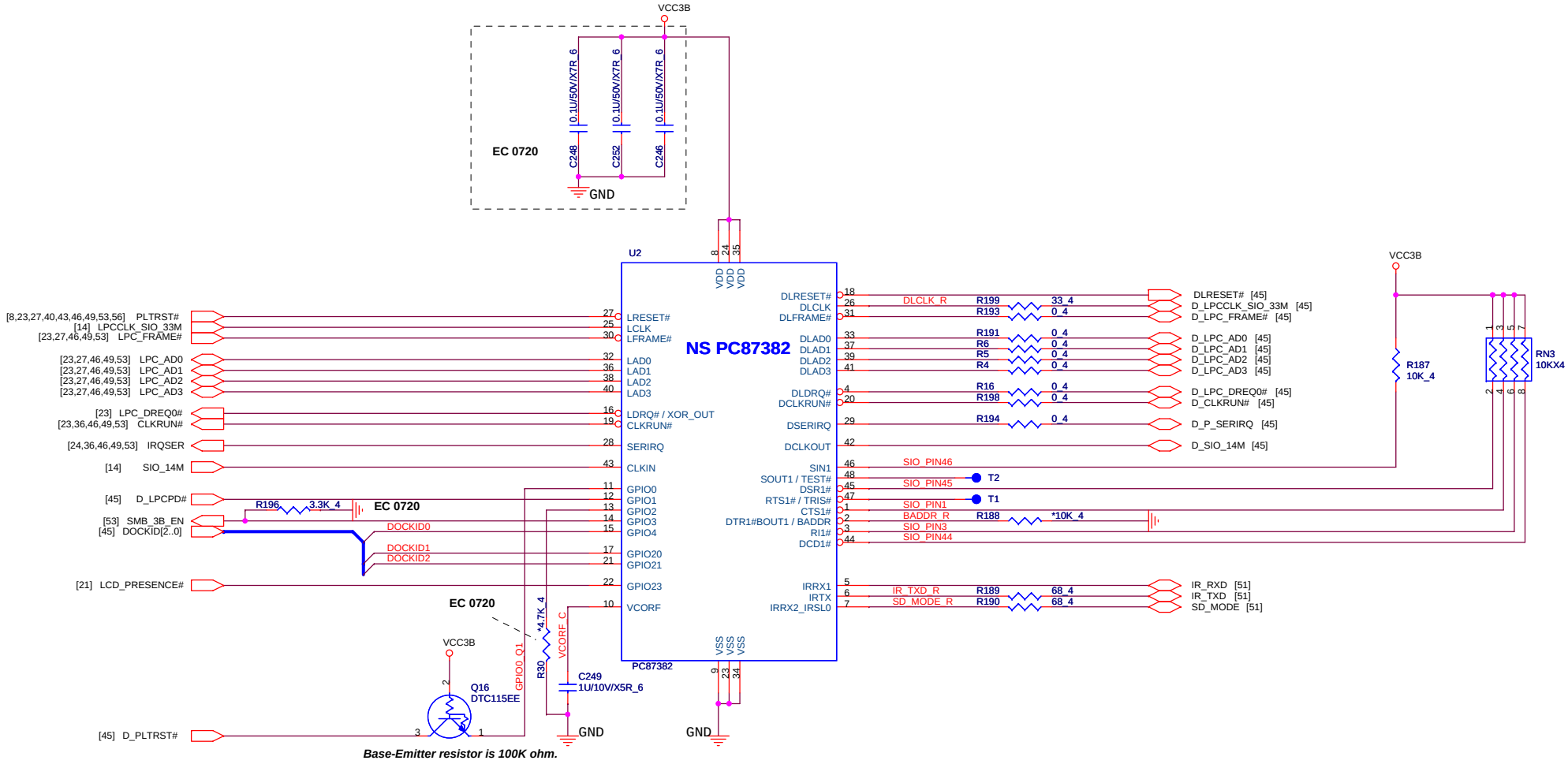
VCC3M
VCC3SW
VCC3B
VCC3P
VCC3AUX
VCC5MUBAY
VL5
R441 20K_4
[46] PWRSW#
D34 RB521S-30
D35 1SS400
[45,47] PWRSWITCH#
R456 4.7K_4
R455 47K_4
R459 100K_4
C481 0.022U/16V/X7R_4
C482 0.1U/10V/X7R_4
EC A56
EC A18
EC A21 T101
EC A19
EC A20
EC A22
EC A51 T102
EC 0708 EC 0723 EC 0720
EC 0718 EC 0707 Delete R824
EC A56 EC 0723
2004/11/24 (BV1)
1. SOLENOID_ON# is removed from docking IF
2. Re-connect VGARESET#
D11 DAN222
EC 0718 EC 0828
G_RST_TPS2211# [37]
G_RST_PCI8412# [36]
U44
PMH_7(6)
PMH7
[23,27,46,50,53] LPC_AD0
[23,27,46,50,53] LPC_AD1
[23,27,46,50,53] LPC_AD2
[23,27,46,50,53] LPC_AD3
[23,27,46,50,53] LPC_FRAME#
LPCCLK_GA
[8,23,27,40,43,46,50,53,56] PLTRST#
[23,36,46,50,53] CLKRUN#
[24,46] SUS_STAT#
[23,24,46,58,70] MPWRG
[8,24,46,52,53,67,70] BPWRG
[24,46] SUSCLK_32K
[52,57,63,70] PWRSHUTDOWN#
[46] MAINOFF#
EXTPWR_PMH6#
[24] ICH_SLP_S3#
[24] ICH_SLP_S4#
[45] EXTPWRG
[24,40,43,45] PCIE_WAKE#
[29] DASP_BAY#
[24,36,46,50,53] IRQSER
[36] PCMACT
[24,52] THRM#
[4,62,63] SHUTDOWN2#
[9] BLON
[48] PAD_DETECT#
[46] ECSPI_CLK
[46] ECSPI_MOSI
[46] ECSPI_SS#
[46] ECSPI_MISO
RECSPI_MISO
R107 0_4
R507 100K_4
A1_ON
D36 1SS400
AUX_ON
R471 100K_4
C485 0.1U/10V/X5R_4
R294 0_4
R326 0_4
R327 0_4
R440 0_4
R462 12.4K_4
LAD_AD0 LAD_AD1 LAD_AD2 LAD_AD3 -LPC_FRAME LPCCLK_33M -PCIRST -CLKRUN -SUS_STAT MPWRG AON2(APWRG) BPWRG SUSCLK_32K SWPWRG -PWRSWITCH -PWRSHUTDOWN -MAINOFF -EXTPWR -ICH_SLP_S3 -ICH_SLP_S5 LATCH_RELEASE SW_MON_EN(-FRAME) LPC_EN(-IRDY) EXTPWRG ULTRA_OK -PME -DRIVEACT -DRIVEACT2 IRQSER PCMACT -THERM -SHUTDOWN2 VGA_BLON AUXPWRG -PAD_DETECT SPI_CLK(XP_CLK) SPI_MOSI(XP_DATA) -SPI_SS(XP_LE) SPI_MISO(-XP_OE) OSCIN OSCOUT TEST(PWRSEQ_EN)
GPIO0 (SERSTBY)PGPIO1 -CARDBUSPDN -G_RST_TI -H8RESET -VGARESET M_ON1 M_ON2 A_ON1 B_ON2 VAUXON (A_ON2)VIDEO_ON B_ON1 -PWRON -PM_SLP_S3 -PM_SLP_S5 DOCKCLK_QSW_EN (DOCK_QSW_EN)-DOCK_CLKREQ_IN DOCK_PRESET (-SOLENOID_ON)PGPIO0 -MISCSMI -IDERESET -UBSY_RESET ULTRA_ON -UBAY_QSW_EN -LEDDRIVE BACKLIGHT_ON AUXRESET WLAN_DISABLE GPIO2 M1GATEON M2GATEON S1GATEON S2GATEON BAT_CRG M_TRCL S_TRCL TP4_RESET -PAD_RESET BYPASSPAD BYPASS_PAD_QSW -LEDPWR -LEDFUEL0 -LEDFUEL1 -LEDSUS
CARDBUSPDN# [36]
H8_RESET# [46,58]
M1_ON [62]
M2_ON [62]
A1_ON [62]
B2_ON [62]
AUX_ON [62]
B1_ON [62]
PWRON_DOCK# [37,45]
PM_SLP_S3# [46,63]
PM_SLP_S4# [46]
D_CLKREQ# [14]
D_CLKREQ_IN# [45]
D_PERST# [45]
HOTKEY# [46,47]
MISCSMI# [46]
R489 0_4
UBAY_RST# [29]
ULTRA_ON [70]
UBAY_QSW_EN# [29]
LEDDRIVE# [21]
BACKLIGHT_ON [21]
LAN_POWER_GOOD
GBE_DISABLE [40]
R111 100K_4
M1GATEON [70]
M2GATEON [70]
S1GATEON [70]
S2GATEON [70]
BAT_CRG [58,59]
M_TRCL [58,59]
S_TRCL [58,59]
TP4_RESET [47]
PAD_RESET# [48]
BYPASS_PAD [48]
BYPASS_PAD_QSW [48]
LEDPWR# [21]
LEDFUEL0# [21]
LEDFUEL1# [21]
LEDSUS# [21]
EC 0707 EC A19 EC A56
EC 0720 EC A19
EC 0730 EC A56
EC 0720 EC 0727
R454 100K_4
R458 6.8K_4
R491 100K_4
R512 47K_4
R523 10K_4
Q22 2SK3019
C545 1000P/50V/X7R_4
[37,46,58,63,70] EXTPWR#
[14] LPCCLK_GA_33M
R522 0_4
C534 *10P
U15 *TC7SH08FU
RECSPI_MISO
ECSPI_MISO
R465 100K_4
R479 100K_4
ECSPI_CLK
UBAY_RST#
EC 0708
EC 0723
R117 100K_4
[24] DASPHDD#
[45] DASP_DOCK#
D13 1SS400
DASP_DOCK#
C551 0.01U/16V/X7R_4
C480 0.01U/16V/X7R_4
C170 0.01U/16V/X7R_4
C174 0.1U/10V/X7R_4
C171 0.047U/10V/X7R_4
C484 0.01U/16V/X7R_4
R486 100K_4
R515 100K_4
R513 100K_4
R499 100K_4
R460 R97 R96 R95

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
Custom	MISC G/A (PMH7)	3B

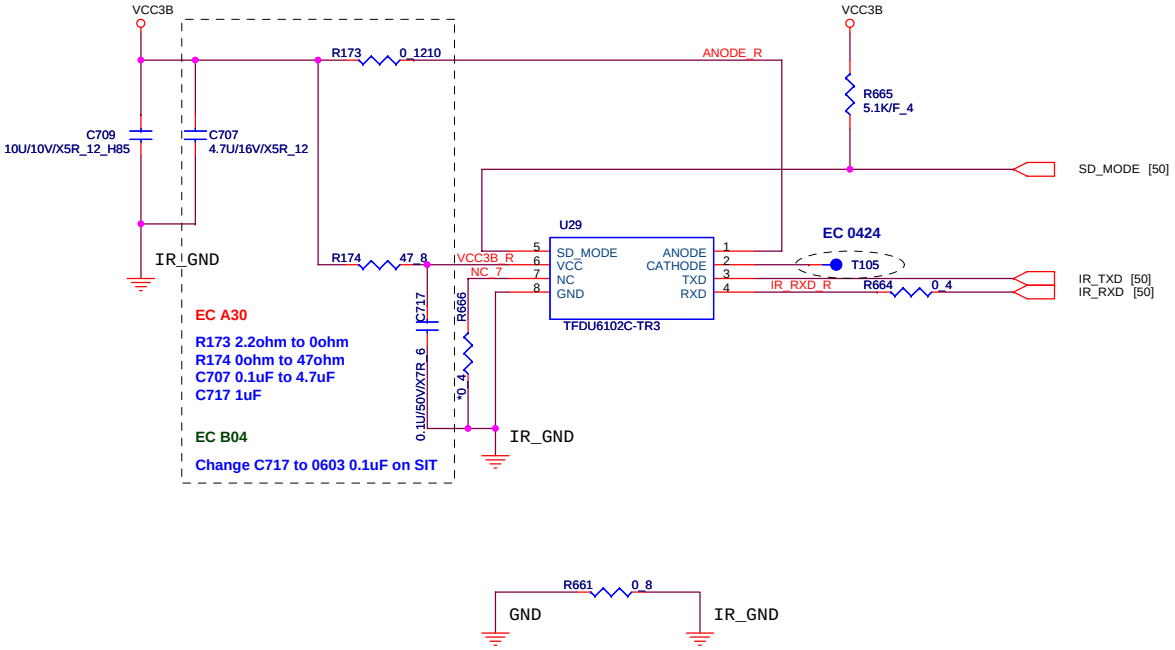
Date: Tuesday, July 25, 2006 Sheet 49 of 83



PROJECT : BV2A
Quanta Computer Inc.

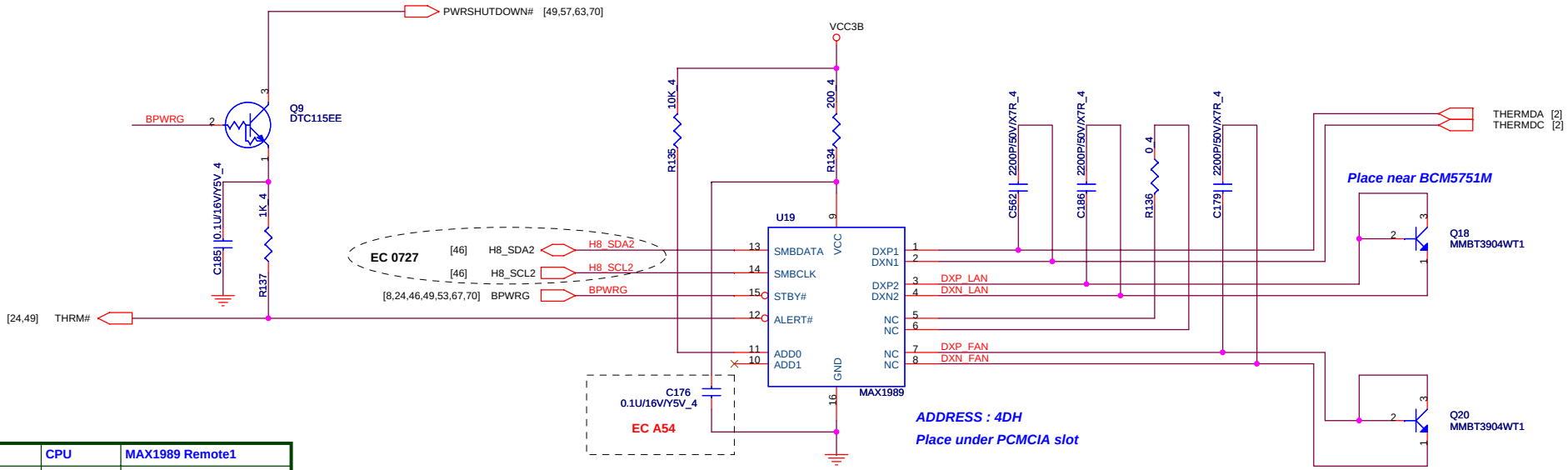
Size	Document Number	Rev
Custom	SUPER I/O	3B
Date:	Tuesday, July 25, 2006	Sheet 50 of 83

Entry Model	Normal Model
All DE-POP	All POP (Except R666)

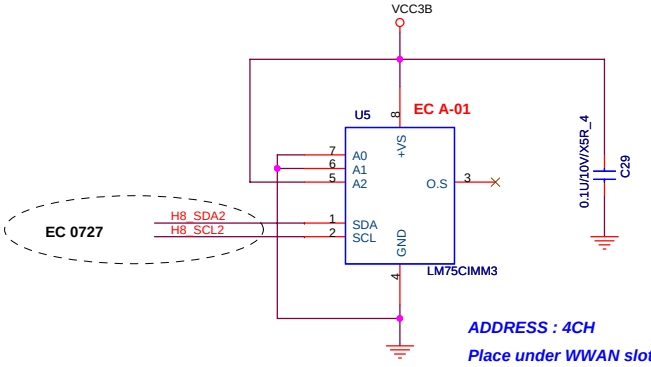


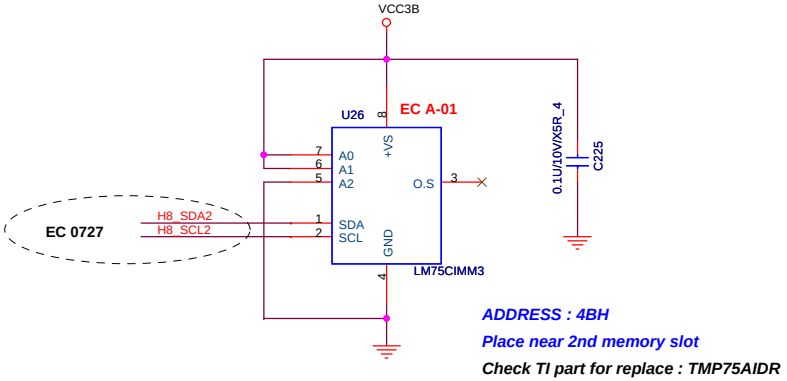
PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	IR MODULE	3B
Date: Tuesday, July 25, 2006	Sheet 51 of 83	



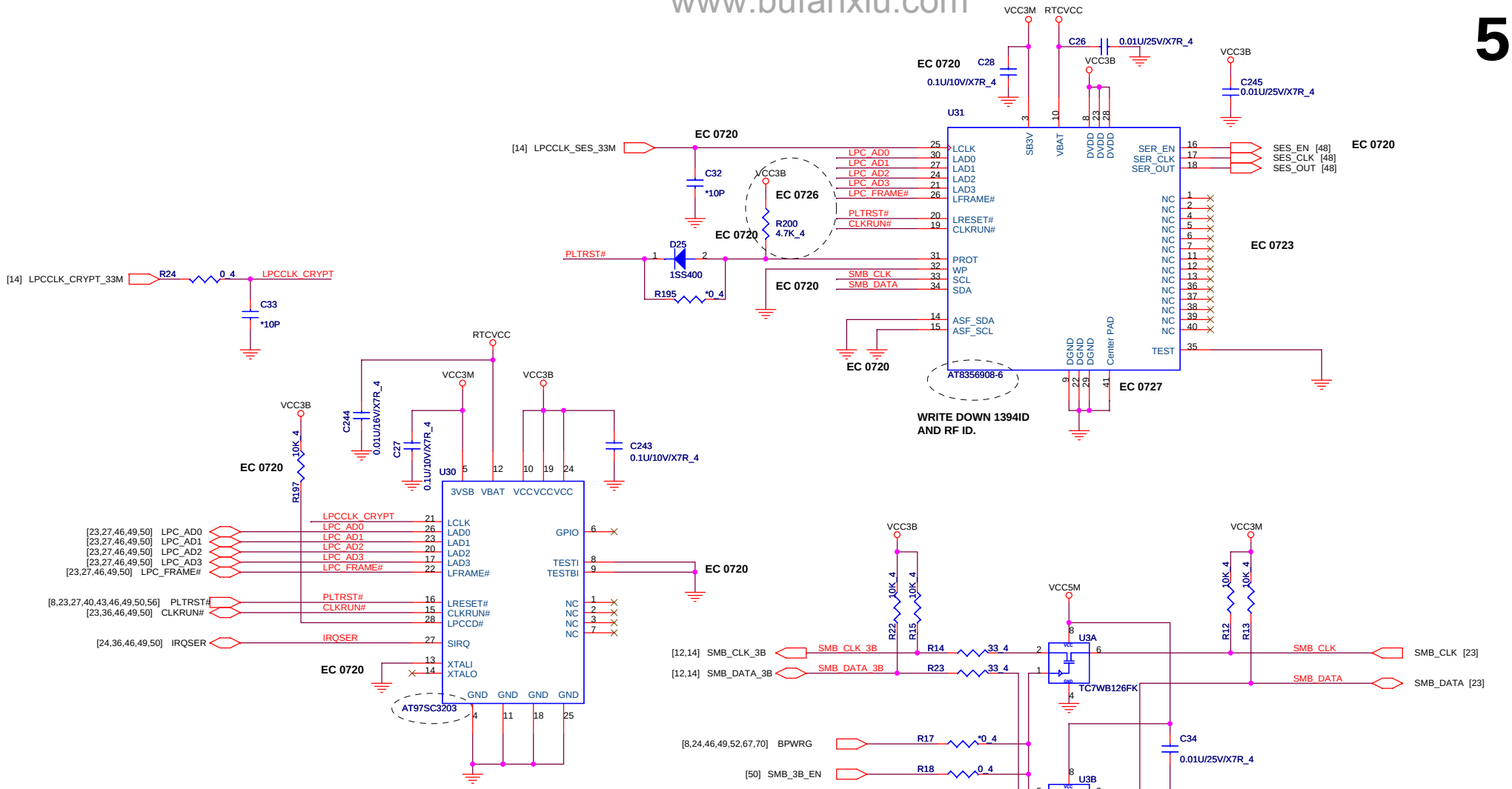
S0	CPU	MAX1989 Remote1
S1	ICH7M	MAX1989 Remote4 : Q20
S2	WWAN	LM75 : U5
S3	----	----
S4~S7	----	Battery pack : FET, Cell
S8	DDR	LM75 : U26
S9	PCMCIA	MAX1989 Local : U19
S10	GBE	MAX1989 Remote2 : Q18





PROJECT : BV2A
Quanta Computer Inc.

Size: Custom	Document Number: THERMAL SENSOR	Rev: 3B
Date: Tuesday, July 25, 2006	Sheet 52 of 83	



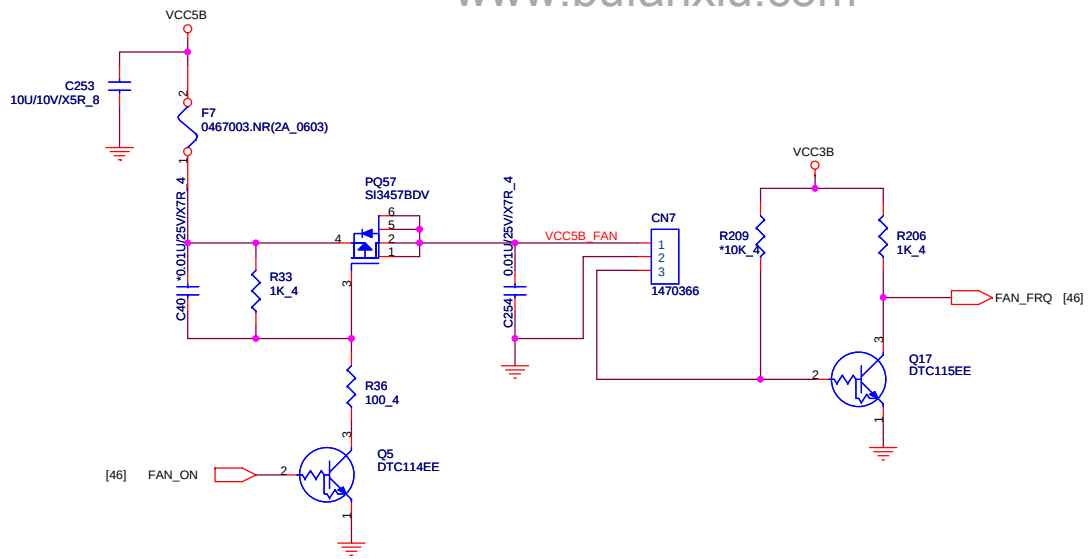
TCPA TABLE

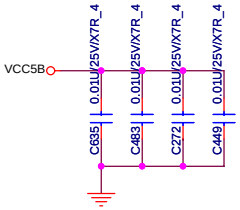
	YES	NO
U30	ASM	NO_ASM
C266	ASM	NO_ASM
C267	ASM	NO_ASM
R683	ASM	NO_ASM
R671	NO_ASM	ASM

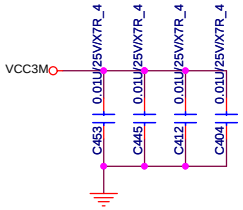
Check IBM R988

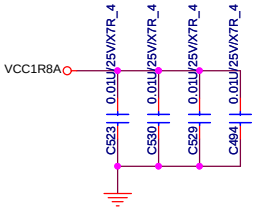
PROJECT : BV2A
Quanta Computer Inc.

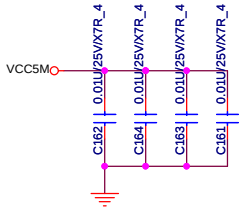
Size	Document Number	Rev
Custom	TPM/I2CBUS/SMBUS	3B
Date: Tuesday, July 25, 2006	Sheet 53 of 83	

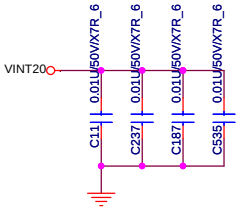


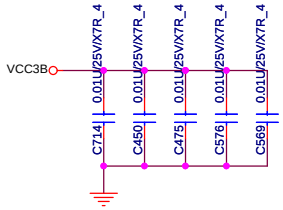


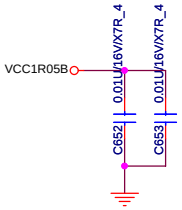


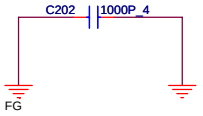


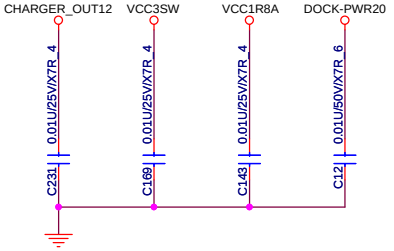






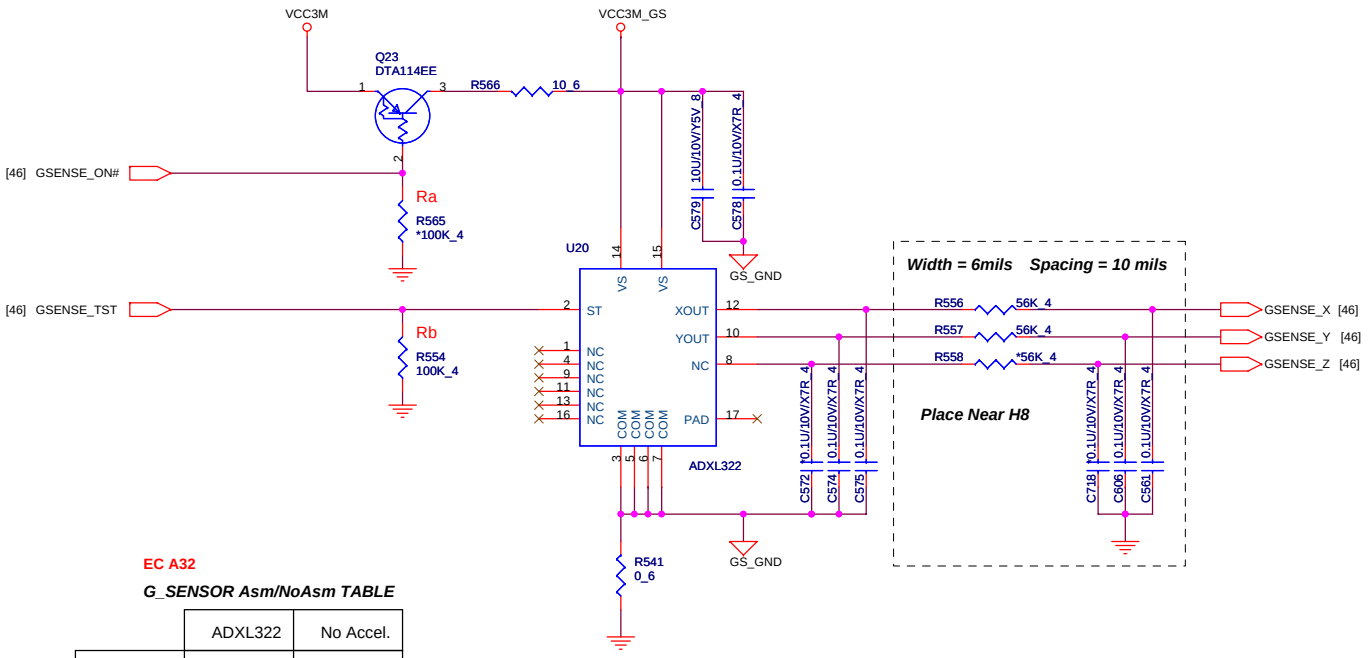






PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	FAN CONTROL & EMC	3B
Date:	Tuesday, July 25, 2006	Sheet 54 of 83



EC A32

G_SENSOR Asm/NoAsm TABLE

	ADXL322	No Accel.
Ra	NO_ASM	ASM
Rb	ASM	ASM
all others	ASM	NO_ASM

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	G_SENSOR	3B
Date: Tuesday, July 25, 2006	Sheet 55 of 83	

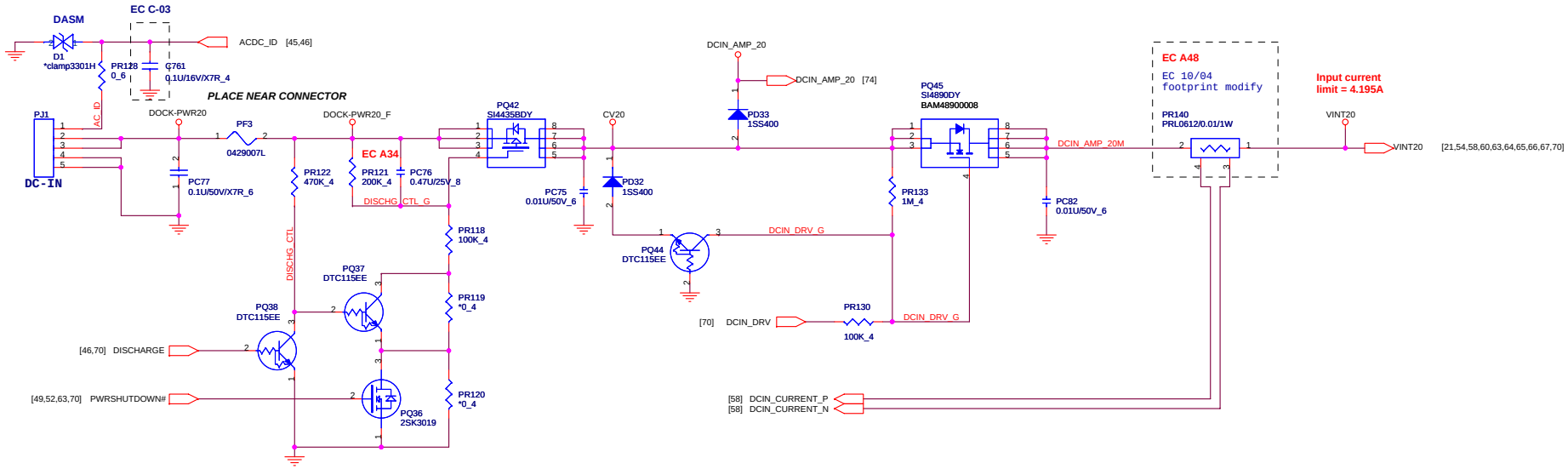
GMCH SDVO Signal to DVI Signal Bridge

Intel has released the sighting to change R742, R743 value (2.2K~5.6K as appropriate) for SDVO I2C bus.

AS (Address Select)
Default is PH, PD for differnt application such as dual transmitter.

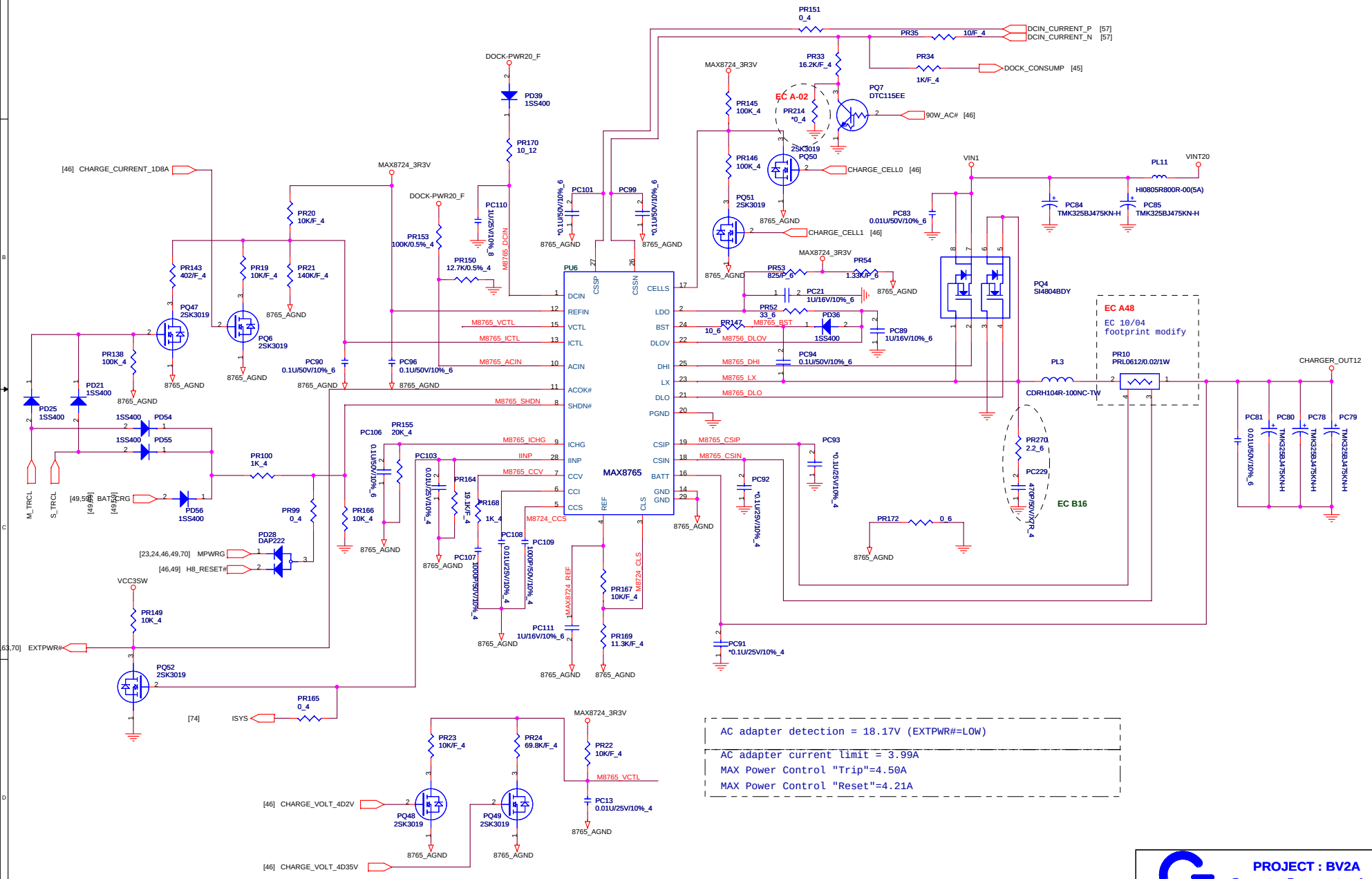
Don't need to PH due to DDCCCLK2 and DDCDAT2 already pull up to 5V.

DVI DETECT

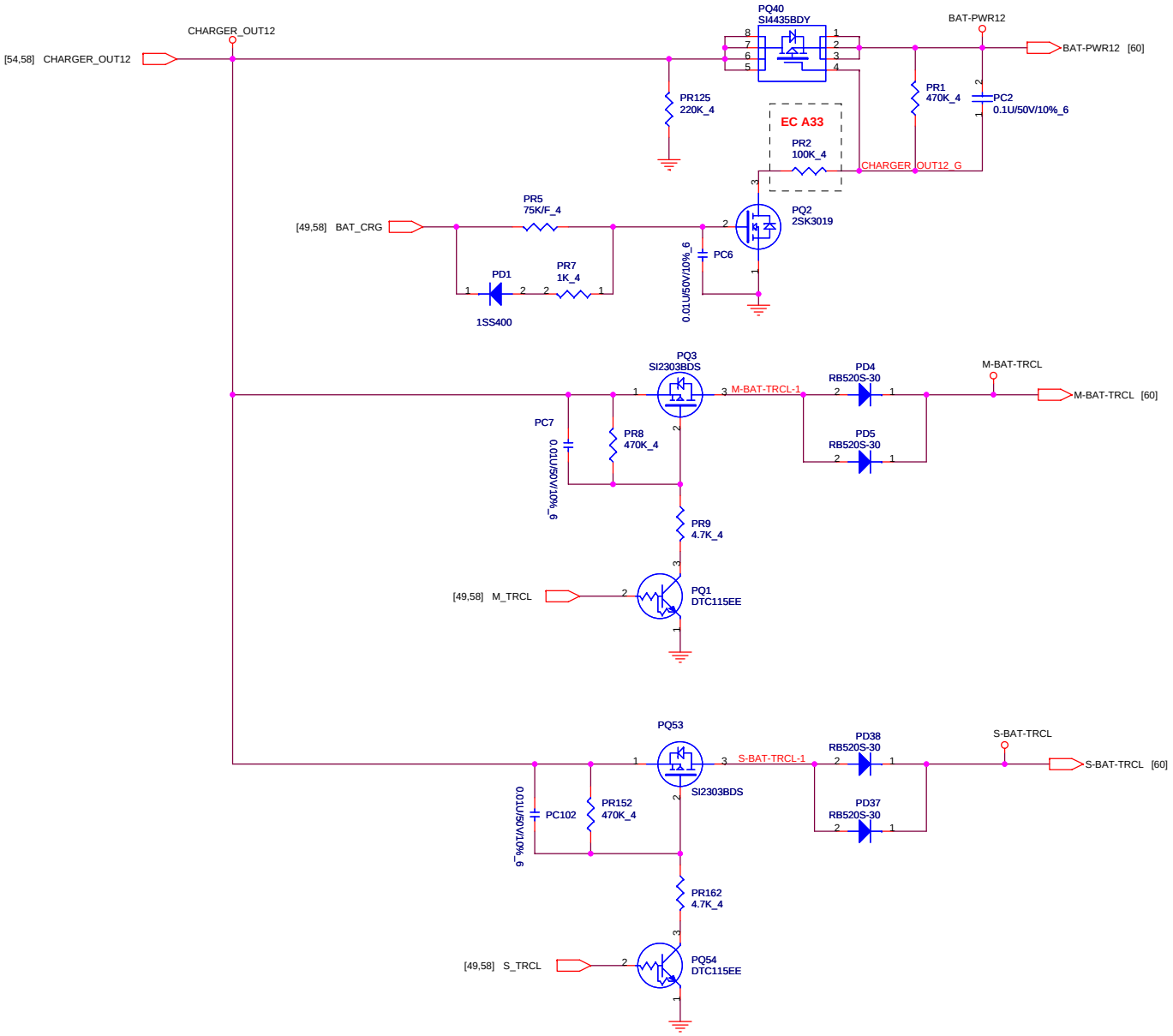


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DC-IN	3B
Date: Tuesday, July 25, 2006	Sheet 57 of 83	

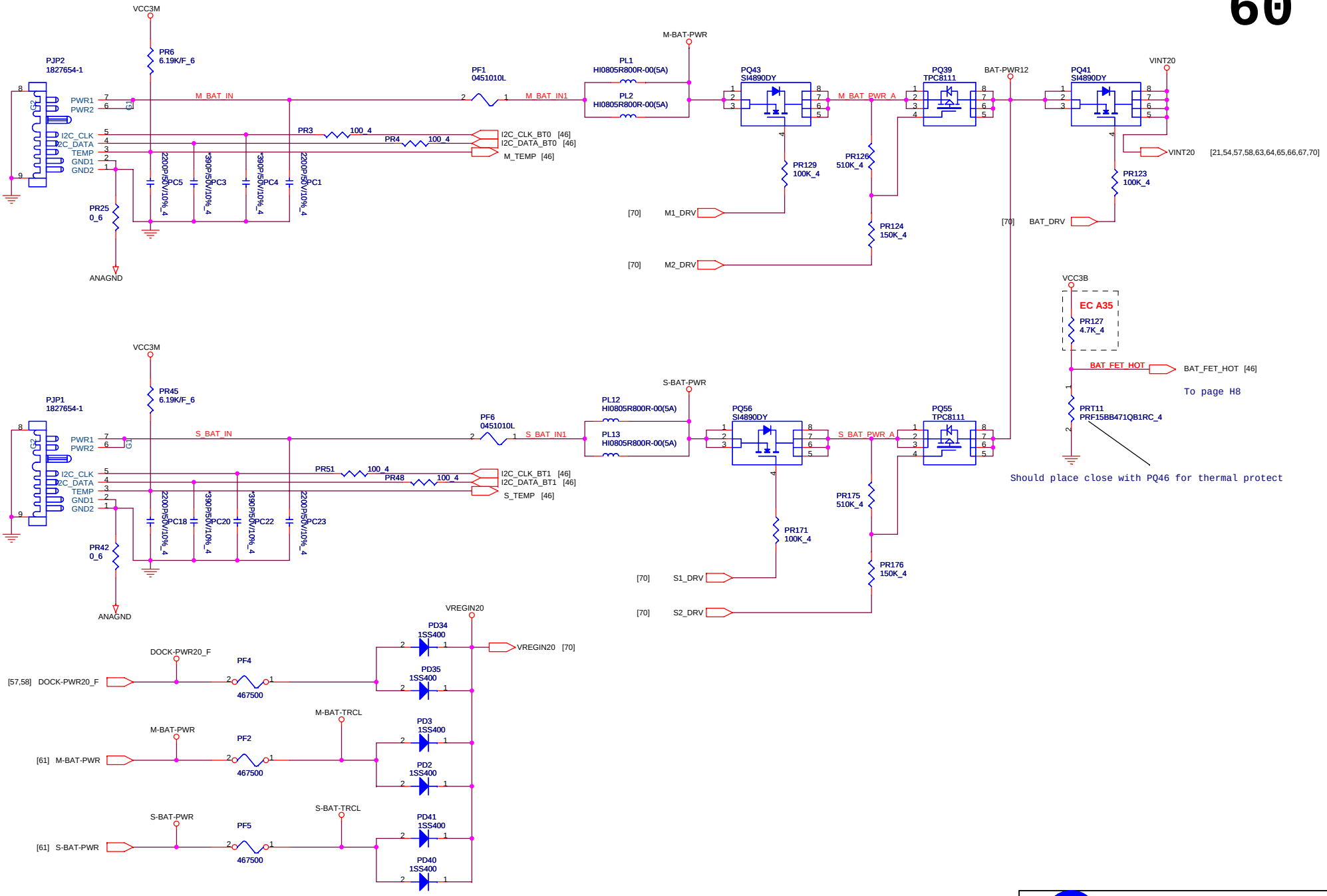


Quanta Computer Inc.	PROJECT : BV2A	
Size: Custom	Document Number: BATTERY CHARGER (MAX8765)	Rev: 3B
Date: Tuesday, July 25, 2006	Sheet 58 of 83	



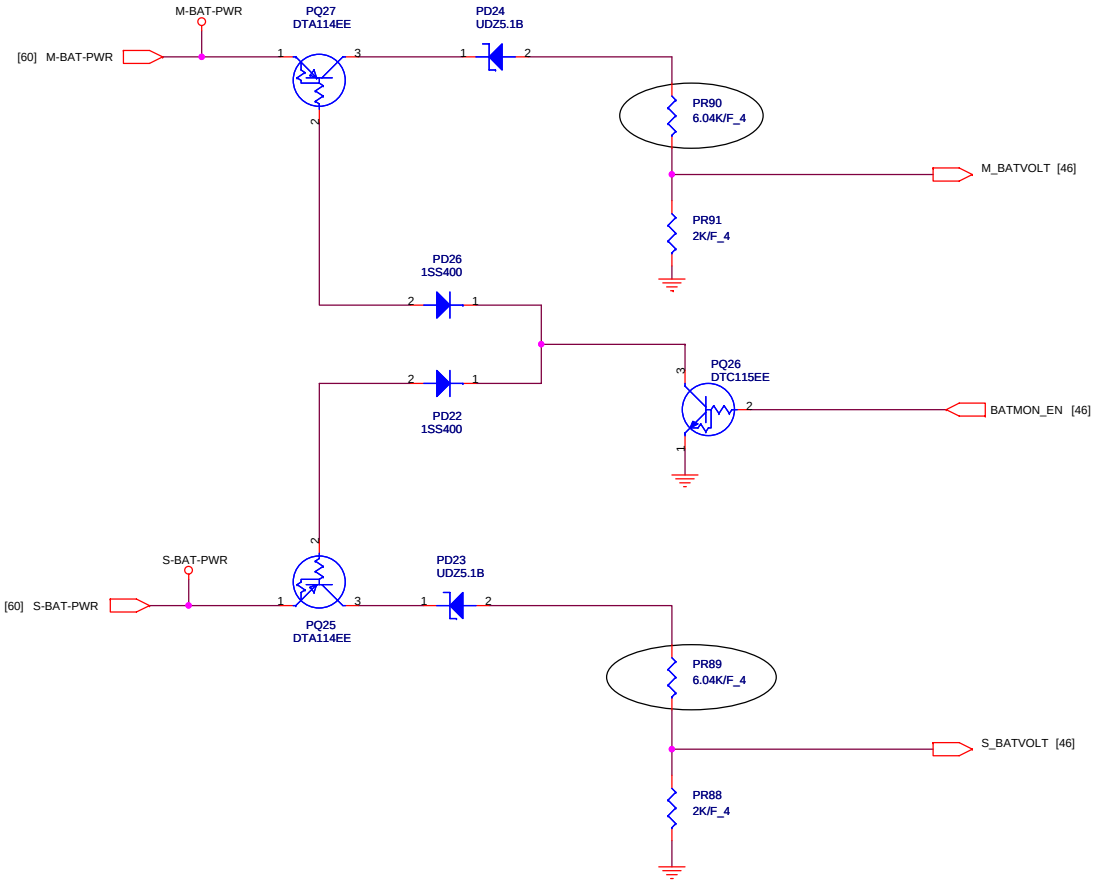
PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CHARGE SELECTOR	3B
Date: Tuesday, July 25, 2006	Sheet 59 of 83	

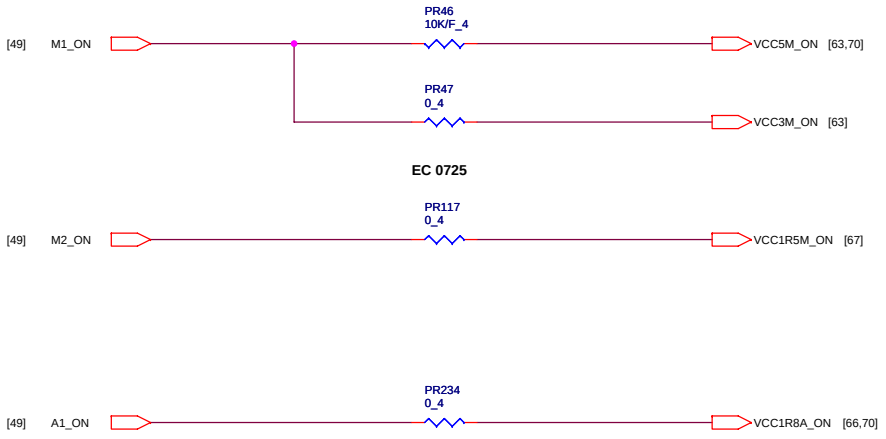


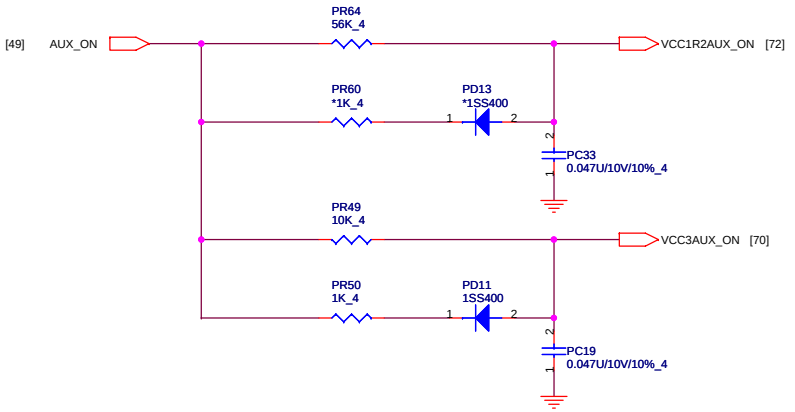
PROJECT : BV2A
Quanta Computer Inc.

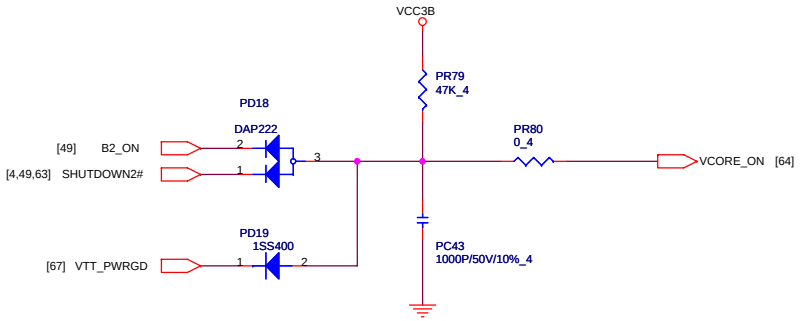
Size	Document Number	Rev
Custom	CHARGE SELECTOR	3B
Date: Tuesday, July 25, 2006	Sheet 60 of 83	

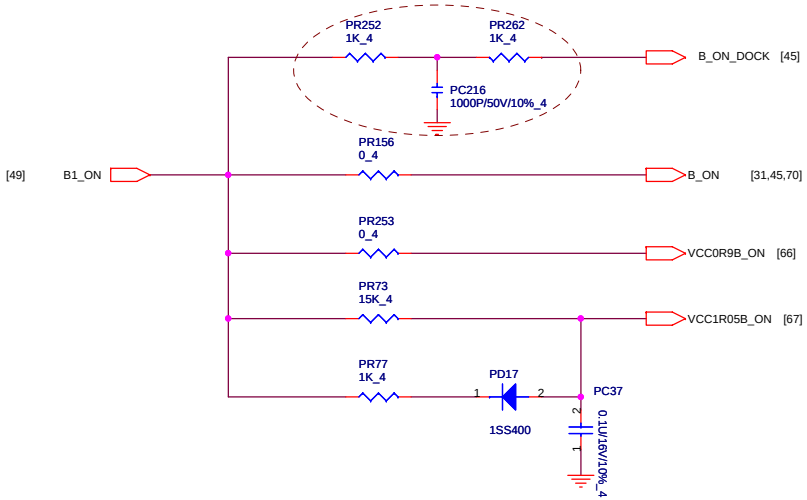


PROJECT : BV2A Quanta Computer Inc.		
Size: Custom	Document Number: BATTERY MONITOR	Rev: 3B
Date: Tuesday, July 25, 2006	Sheet 61 of 83	



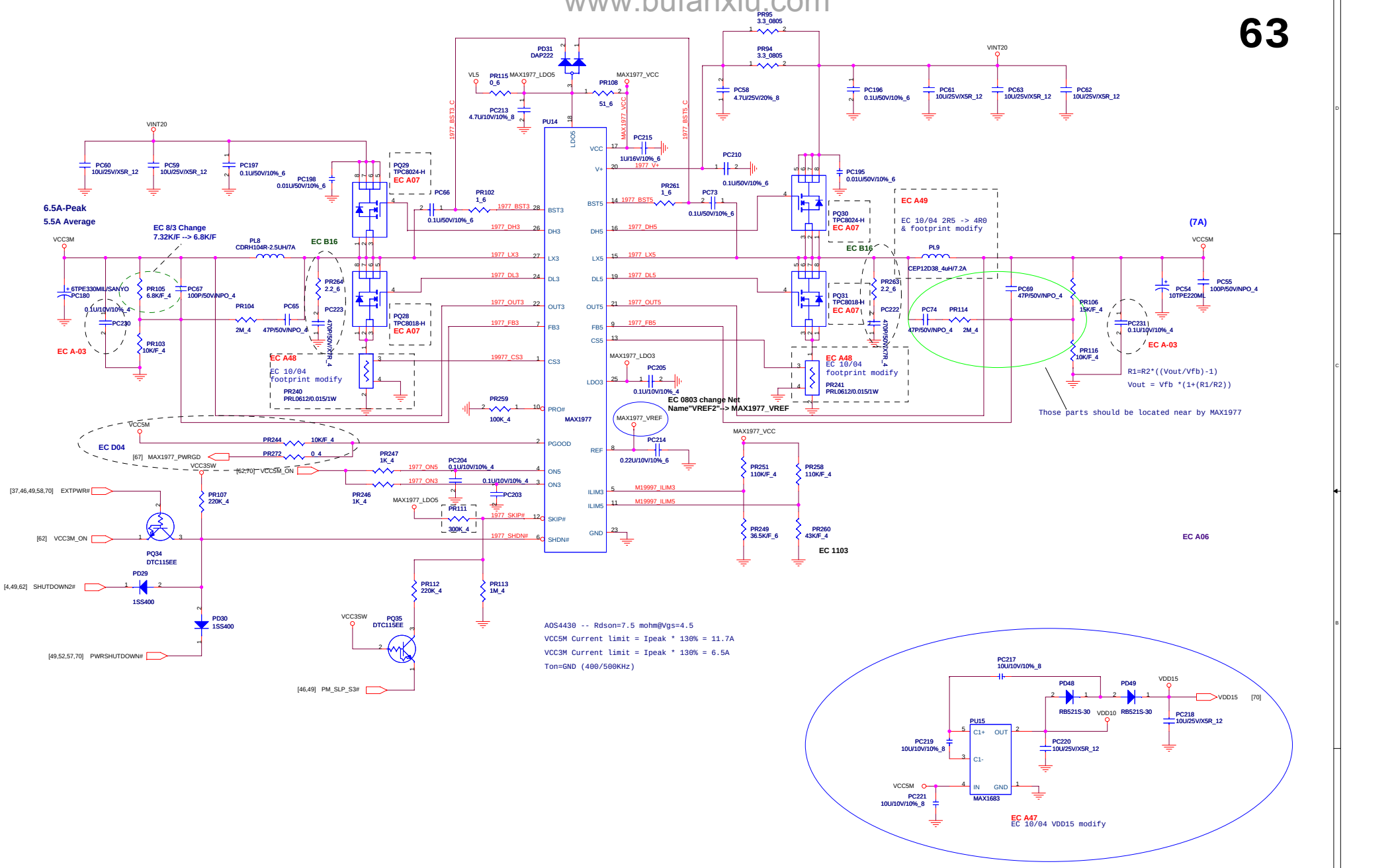




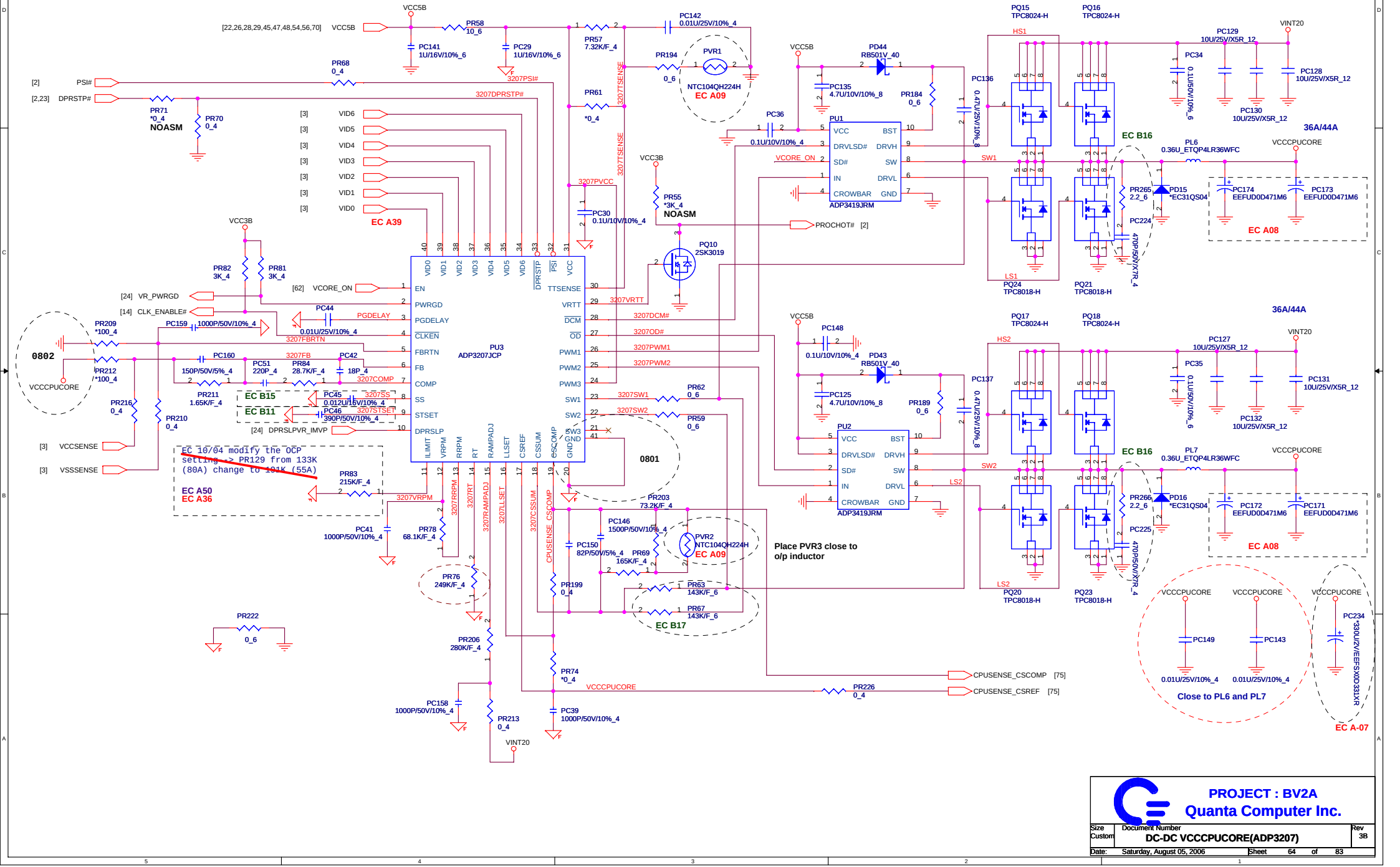


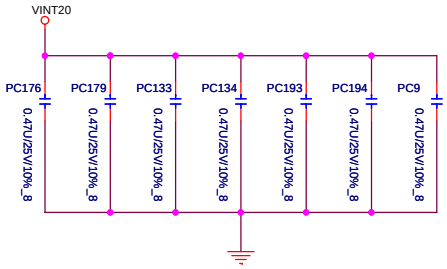
PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	POWER SEQUENCE	3B
Date: Tuesday, July 25, 2006	Sheet 62 of 83	



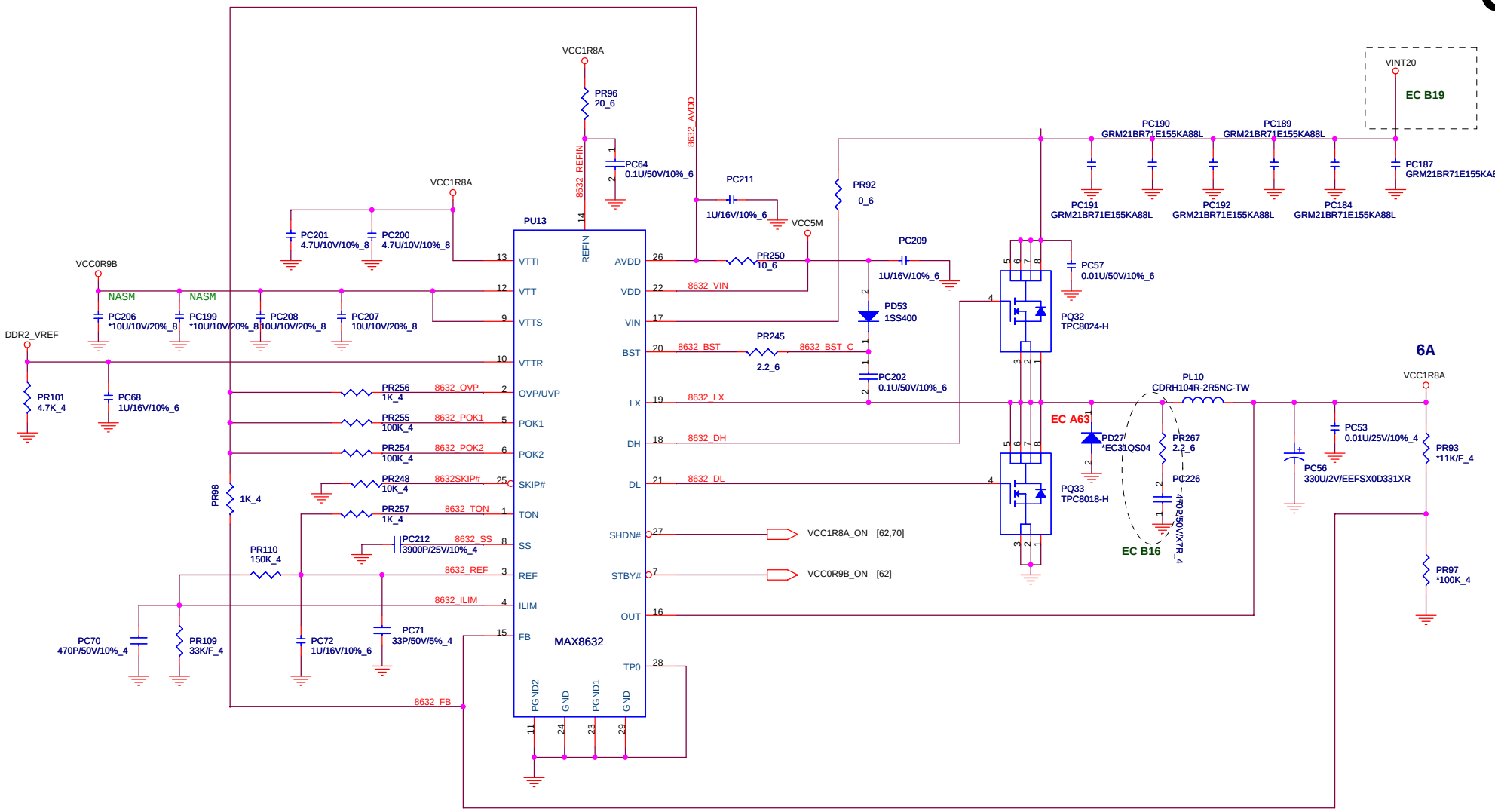
PROJECT : BV2A			
Quanta Computer Inc.			
Size: C	Document Number: DC-DC VCC3M/VCC5M		Rev: 3B
Date: Tuesday, July 25, 2006		Sheet 63 of 83	





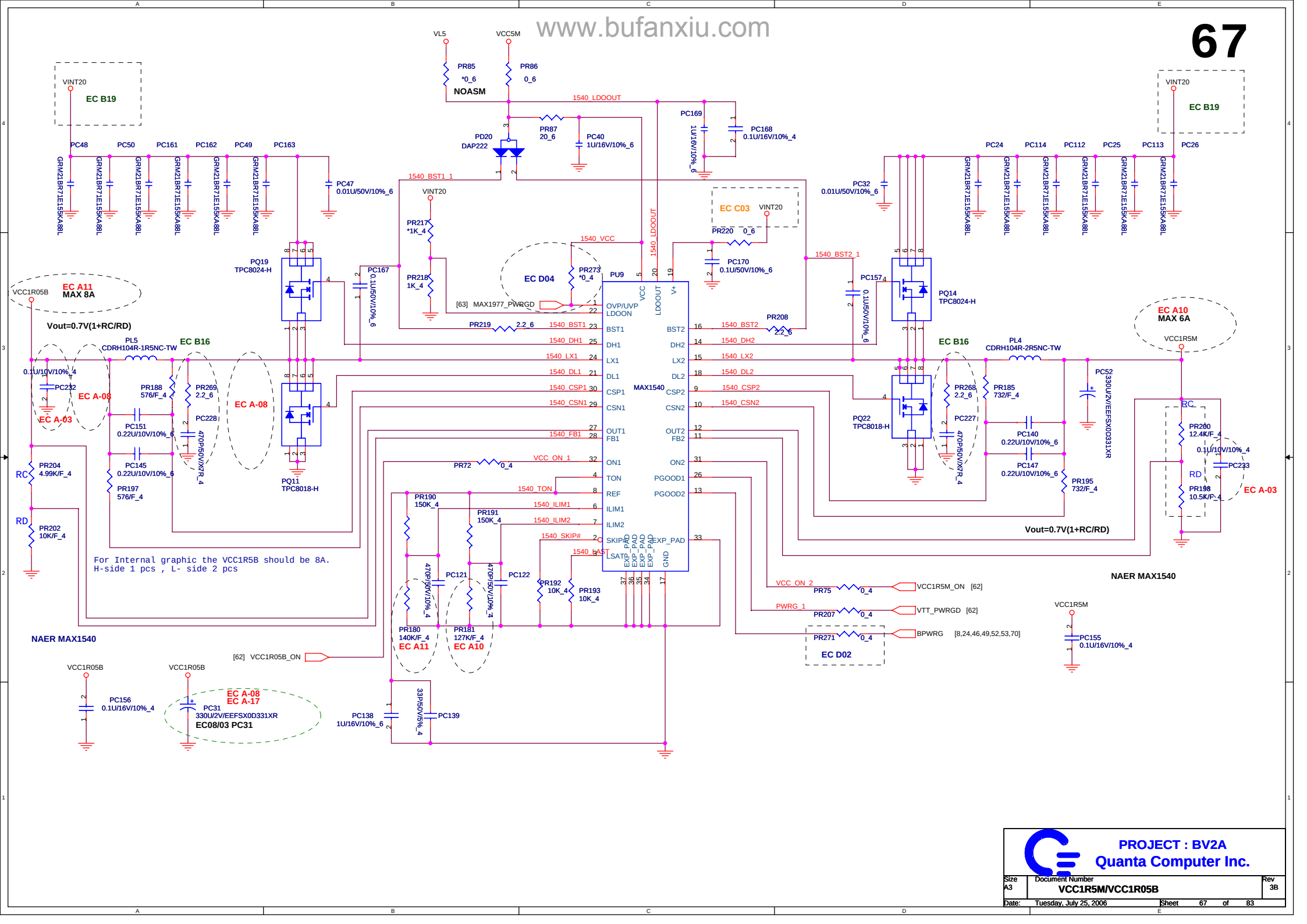
PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DC-DC VCORE INPUT CAP	3B
Date: Tuesday, July 25, 2006	Sheet 65 of 83	



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
A3	DC-DC VCC1R8/VCC0R9B	3B
Date: Tuesday, July 25, 2006	Sheet 66 of 83	



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
A3	VCC1R5M/VCC1R05B	3B

Date: Tuesday, July 25, 2006 Sheet 67 of 83

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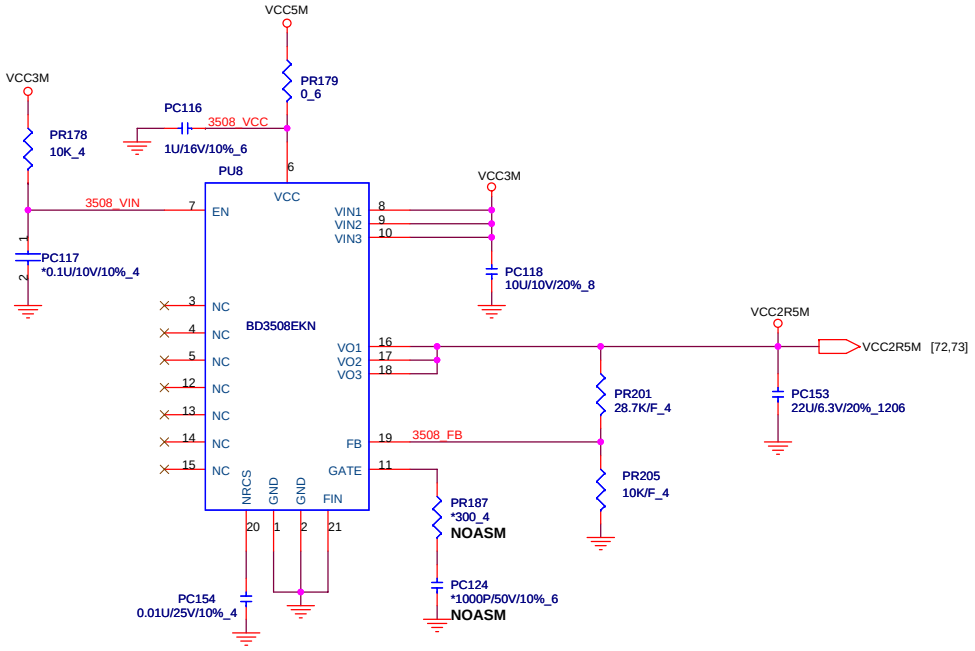
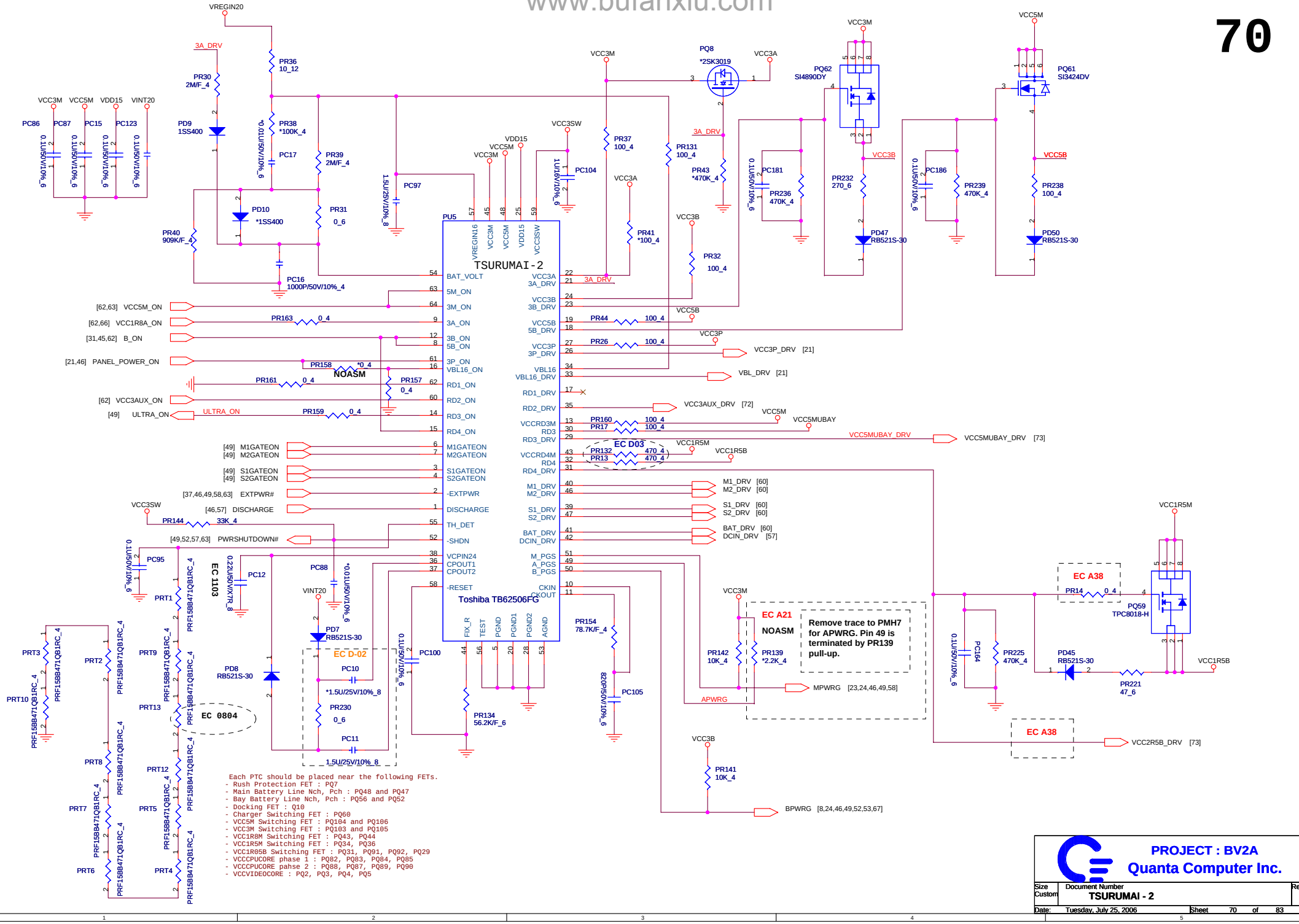


PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	VCC2R5M	3B
Date: Tuesday, July 25, 2006	Sheet 69 of 83	



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	TSURUMAI - 2	3B

Date: Tuesday, July 25, 2006 Sheet 70 of 83

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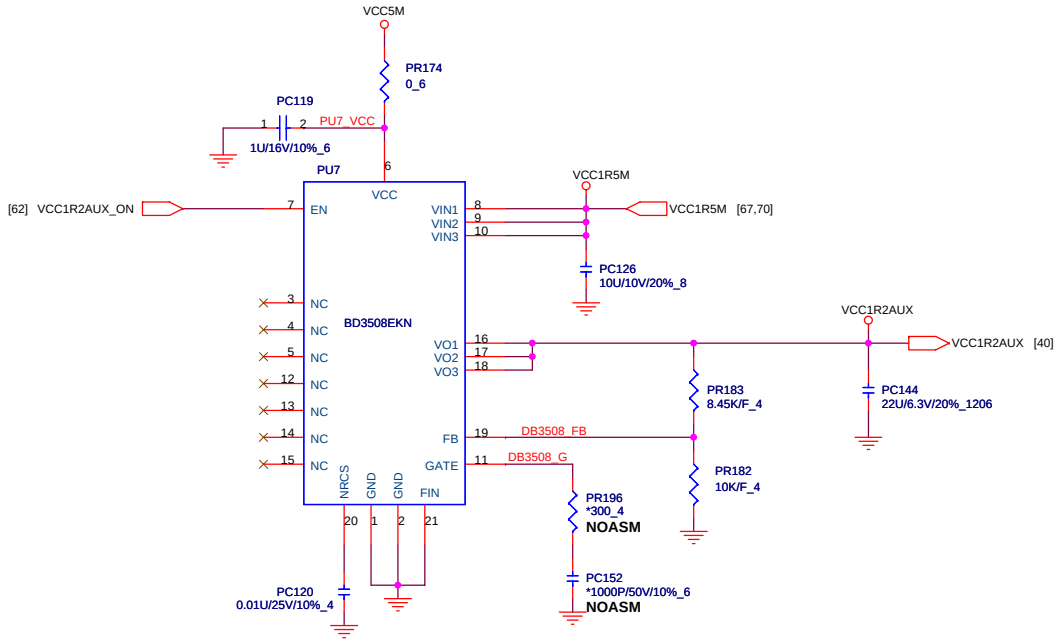
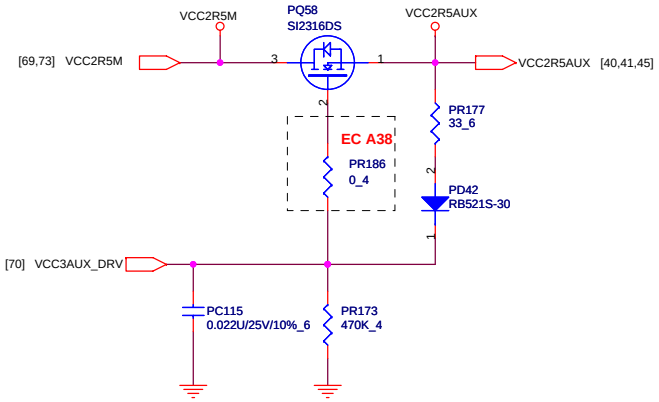
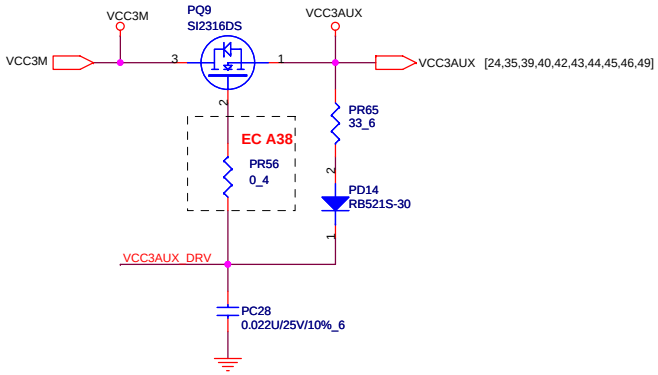




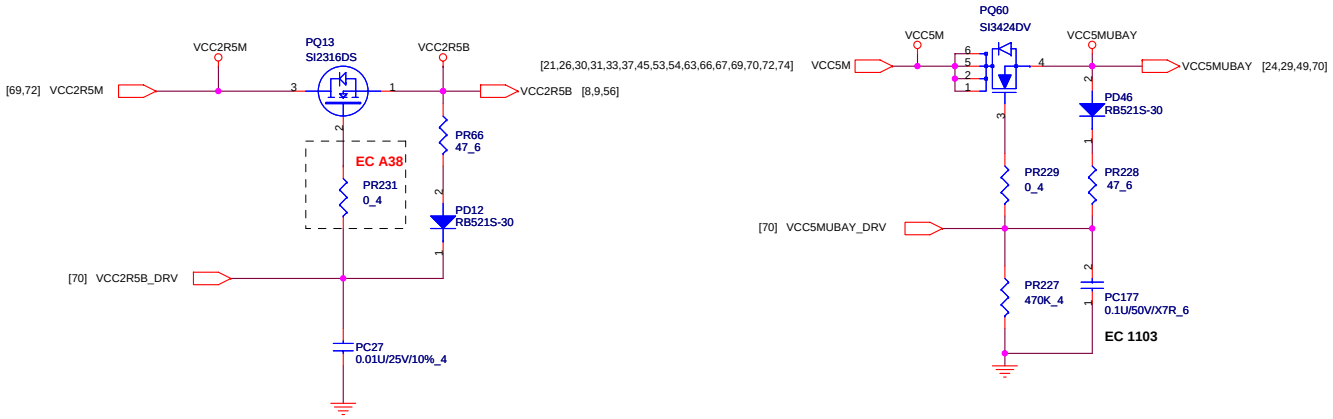
[21,23,24,26,29,30,34,36,37,44,45,46,47,49,53,54,55,60,63,69,70,74]



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	LOAD SW 2 (AUX)	3B

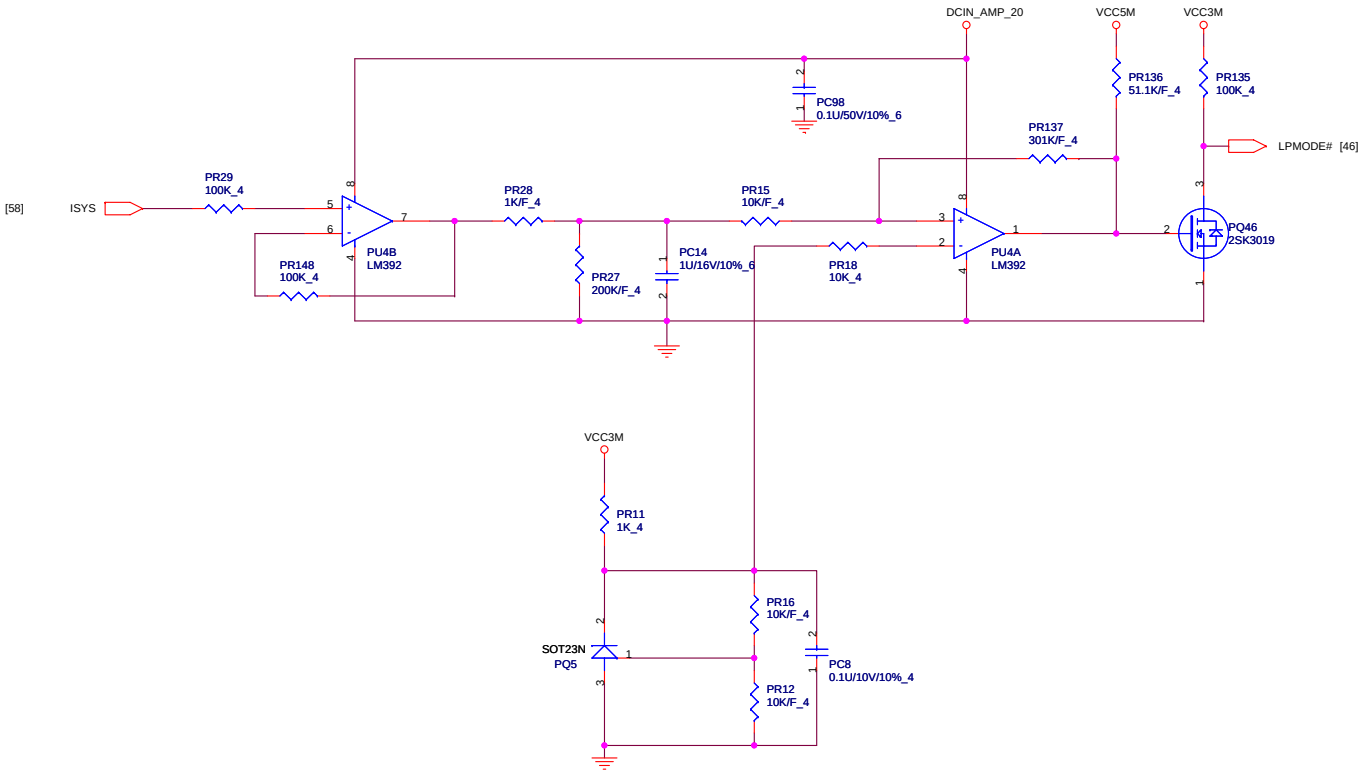
Date: Tuesday, July 25, 2006 Sheet 72 of 83



PROJECT : BV2A
Quanta Computer Inc.

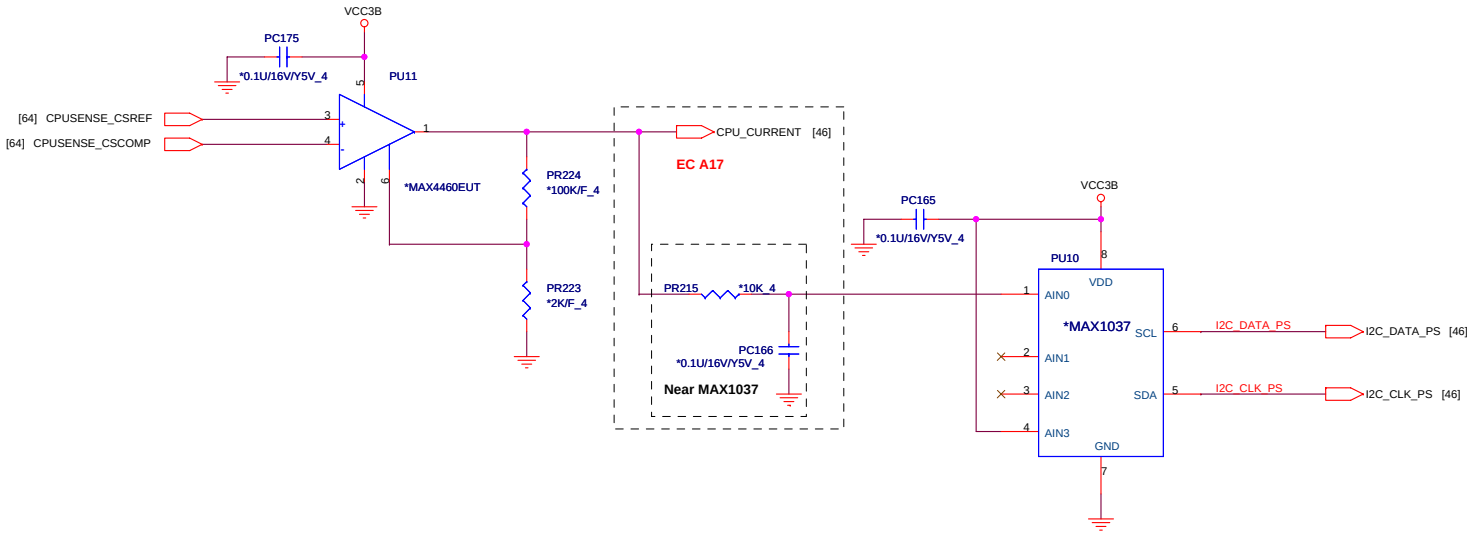
Size	Document Number	Rev
Custom	LOAD SW 3 (B,UBAY)	3B

Date: Tuesday, July 25, 2006 Sheet 73 of 83



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	MAX POWER CTRL	3B
Date: Tuesday, July 25, 2006	Sheet 74 of 83	



PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	POWER MOMITOR	3B
Date: Tuesday, July 25, 2006	Sheet 75 of 83	

SCREW HOLE

MDC SCREW HOLE

HOLE9 H-C236D134I210P2
HOLE5 H-C236D134I210P2

LCD SCREW HOLE

HOLE3 *H-C260D102P2
HOLE2 *H-C260D102P2

CPU SCREW HOLE

HOLE16 H-TC252BS276D134P2
HOLE12 H-TC252BS276D134P2
HOLE11 H-TC252BS276D134P2
HOLE14 H-TC252BS276D134P2

PCMCIA SCREW HOLE

HOLE20 H-C236D134I174P2

M/B SCREW HOLE

HOLE22 *h-tc236br354x295d102p2
HOLE10 *h-tc236br335x295d102p2
HOLE13 *H-T236B276X354D102P2
HOLE18 *h-tc236br354x295d102p2
HOLE1 *h-tc276br295x315d102p2
HOLE7 *H-C236D102P2
HOLE21 *h-tc236br354x295d102p2
HOLE4 *H-C236D102P2
HOLE17 *H-TC196BR354X285D102I142P2
LAN_GND

MINI PCI-E LATCH SCREW HOLE

HOLE15 H-C236D134I174P2
HOLE19 H-C236D134I174P2
HOLE6 H-C236D134I174P2
HOLE8 h-tc236br315x295d134I174p2

EMI SPRINGS

PAD19 *EMIPAD118X177
PAD2 *EMIPAD118X177
PAD3 *EMIPAD118X177
PAD4 *EMIPAD118X177
PAD5 *EMIPAD118X177
PAD7 *EMIPAD118X177
PAD8 *EMIPAD118X177
PAD9 *EMIPAD118X177
PAD11 *EMIPAD118X177
PAD13 *EMIPAD118X177

PAD23 *EMIPAD118X177
PAD24 *EMIPAD118X177
PAD25 *EMIPAD118X177
PAD27 *EMIPAD118X177
PAD28 *EMIPAD118X177
PAD29 *EMIPAD118X177
PAD26 *EMIPAD118X177

EC A-10

PAD12 EMIPAD118X177
PAD14 EMIPAD118X177
PAD15 EMIPAD118X177
PAD16 EMIPAD118X177
PAD17 EMIPAD118X177
PAD20 EMIPAD118X177

PAD21 EMIPAD118X177
PAD22 EMIPAD118X177
PAD1 *EMIPAD118X177

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Screw hole	3B
Date:	Tuesday, July 25, 2006	Sheet 76 of 83

Revision History

Revision	Date	Phase	Change List	Release Schematic Date	Release Gerber File Date
1A	07/08 2005	DV	Initial release	08/04 2005	08/04 2005
2A	08/31 2005	SIV	Change list as Page79, 80	10/13 2005	10/12 2005
3A	11/28 2005	SIT	Change list as Page81	12/19 2005	12/05 2005
3A	01/26 2006	SIT2	Change list as Page81 (Planar ID only)	01/26 2006	01/26 2006
1A	02/22 2006	SDV	Change list as Page83 (M2.5)	02/22 2006	03/13 2006
3A	04/21 2006	SIT	Change list as Page83 (M2.5)	04/21 2006	

Schematic Value Explanation Description :

RESISTOR

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

CAPACITOR

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

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Revision	3B
Date: Tuesday, July 25, 2006	Sheet 77 of 83	

EC A44

M2-NOTE SKU TABLE

When setup the BOM, please make sure every item are finalized or not !

Function	Standard	Entry	Page
GPIO9 (ICH7)	pull-up	pull-down	
R348	ASM	NoASM	24
R689	NoASM	ASM	
WWAN (MIMI-PCIe)	Y	N	
CN2	ASM	NoASM	
CN5	ASM	NoASM	
C250	ASM	NoASM	43
C251	ASM	NoASM	
D4	NoASM	NoASM	
Camera	Y	N	
F11	ASM	NoASM	21
FingerPrint	Y	N	
F9	ASM	NoASM	48
C604	ASM	NoASM	
TPM	Y	N	
R396	ASM	NoASM	
R397	2.2 ohm	33 ohm	
R671	ASM	NoASM	
R672	NoASM	NoASM	14, 27, 53
R24	ASM	NoASM	
U30	ASM	NoASM	
C27	ASM	NoASM	
C244	ASM	NoASM	
R197	ASM	NoASM	
1394	Y	N	
U17	PCI8412ZHK	PCI8412ZHK	
EB1	ASM	NoASM	
EB2	ASM	NoASM	
CN16	ASM	NoASM	
C573	ASM	NoASM	
C632	ASM	NoASM	
R543	ASM	NoASM	
Y4	ASM	NoASM	
R502	ASM	NoASM	36
R503	ASM	NoASM	
R517	ASM	NoASM	
R518	ASM	NoASM	
R490	ASM	NoASM	
C508	ASM	NoASM	
C552	ASM	NoASM	
C553	ASM	NoASM	
R690	NoASM	ASM	
R691	NoASM	ASM	
R501	ASM	ASM	
R520	ASM	NoASM	
FIR	Y	N	
R189	ASM	NoASM	
R190	ASM	NoASM	
U29	ASM	NoASM	
R173	ASM	NoASM	
R174	ASM	NoASM	
R664	ASM	NoASM	50, 51
R665	ASM	NoASM	
R666	NoASM	NoASM	
R661	ASM	NoASM	
C707	ASM	NoASM	
C709	ASM	NoASM	
C717	ASM	NoASM	

TI recommend

Function	Standard	Entry	Page
MIC (Stereo/Mono)	Stereo	Mono	
Stereo MIC	ASM	NoASM	
Mono MIC	ASM	ASM	32
R696	NoASM	ASM	
R697	NoASM	ASM	
R7	ASM	NoASM	
R8	ASM	NoASM	
R9	ASM	NoASM	

PROJECT : BV2A

Quanta Computer Inc.

Size	Document Number	Rev
C	Entry Model	3B

Date: Tuesday, July 25, 2006 Sheet 78 of 83

EC A01/21/ USB +/- signal for camera should be swapped for FPC lauout concern
EC A02/27/ R148 value need to change to 20K_4 and C191 change 1U/16V/X5R_6 to follow Intel design guide
EC A03/32/ R650, R651, R652 change to not ASM
EC A04/33/ R584 change value to 5.1K_4/F
EC A05/44/ Change FLASH for BCM5752, SI and SO need to swap (SIV-Lenovo-037)
~~EC A06/63/ Change PD48, PD49, PD51, PD52 from 1SS400 to RB521S-30 (power portion)~~
EC A07/63/ Change PQ29,PQ30 from FDS6680AS to TPC8024-H, change PQ28,PQ31 from SI4892DY to TPC8018-H (power portion)
EC A08/64/ Change PC171, PC172, PC173, PC174 from EEFSD0D331R to EEFUD0D471M6 (power portion)
EC A09/64/ Change PVR1, PVR2 from TH05-3L104FR to NTC104QH224H, footprint 0603 (power portion)
EC A10/67/ Change PR181 from 69.8K to 127K/F (power portion)
EC A11/67/ Change PR180 from 48.7K/F to 140K/F (power portion)
EC A12/34/ Add R673, R683, R684 to connect GND and AGND
EC A13/43/ Non-WWAN model information (SIV-Lenovo-014)
EC A14/46/ Disable H8 debug I/F (SIV-Lenovo-013) (SIV-Lenovo-031)
EC A15/26/ Remove 0ohm jumper for Cost reduction (SIV-Lenovo-012)
EC A16/30/ USB Power Distribution Switch TPS2051B->TPS2065, TPS2052B->TPS2066 (SIV-Lenovo-011)
EC A17/46/74/ Power Monitor modify, CPU_CURRENT (SIV-Lenovo-010)
EC A18/49/ R101, R533 change to pull-up by VCC3SW (SIV-Lenovo-009)
EC A19/49/ Delete R440, R473, R494 for cost reduction (SIV-Lenovo-009)
EC A20/49/ Depop U15, pop R107 for cost reduction (SIV-Lenovo-009)
EC A21/49/70/ R460 is not needed. Remove trace between PMH7 and Tsurumai for APWRG (SIV-Lenovo-019)
EC A22/49/ Add dumper resistors between H8 and PMH7 (SIV-Lenovo-004)
EC A23/45/ Delete debug port
EC A24/45/ Add R685, R686, R687, R688 but NoASM (SIV-Lenovo-007)
EC A25/24/ Planar ID change to 0001B for SIV stage (SIV-Lenovo-001)
EC A26/14/ CLKGen parts change to LOW Power parts (SIV-Lenovo-002)
EC A27/08/12/ Add thermal sensor signals between Calistoga and DIMMs (SIV-Lenovo-003)
EC A28/08/ Config 11 of Alviso (confirmation) (SIV-Lenovo-006)
EC A29/02/ C329 ASM 100pF (SIV-Lenovo-016)
EC A30/51/ IR capacitor add but not ASM (SIV-Lenovo-022) (SIV-Lenovo-033)
EC A31/37/ Change R524 from 75ohm to 33ohm
EC A32/46/55/ G-sensor Parts change and single source (SIV-Lenovo-020)
EC A33/59/ PR2 change to 100K from 10K (SIV-Lenovo-023)
EC A34/57/ ~~PR121 change to 100K from 220K~~ to 200K from 100K (SIV-Lenovo-024)
EC A35/60/ PR127 change to 4.7K from 100K (SIV-Lenovo-025)
EC A36/64/ PR83 change to 215K/F from 250K/F (SIV-Lenovo-026)
EC A37/67/ PQ2 change to NOASM (SIV-Lenovo-027)
EC A38/70/72/73/ EC for Load SW FETs (SIV-Lenovo-028)
~~EC A39/64/ Reserve 0ohm for VID selection~~
EC A40/37/ R487, R497, R472 change to 10Kohm, R492 change to 22Kohm, TI SPEC
EC A41/24/ PN10~RN15 ASM for PDD Pull-up
EC A42/21/32/ Reserve Jump wire/cable for stereo MIC
EC A43/27/ Delete PLCC Socket for FWH
EC A44/24/36/78/ Entry model (SIV-Lenovo-015)
EC A45/67/ PR200 change to 12.4K/F from 11.5K/F, PR198 change to 10.5K/F from 10K/F (SIV-Lenovo-034)
~~EC A46/14/23/27/44/ FWH change SPI FLASH (SIV-Lenovo-030)~~
EC A47/63/ VDD15 modify (power portion)
EC A48/57/58/63/ Change current sense resistor footprint (power portion)
EC A49/63/ PL9 change from 2R5 to 4R0, and footprint modify (power portion)
~~EC A50/64/ PR83 change to 191K/F from 133K/F (power portion)~~

Page 24 Check LEGACYIO# connect to?
Page 75 Check PU10 ASM or not?

PROJECT : BV2A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	BV2 EC Record A-1	3B
Date:	Wednesday, July 26, 2006	Sheet 79 of 83

EC A51/40/49/ BCM5752 VMAINPRSNT change to connect VCC3B	(SIV-Lenovo-038)
EC A52/40/46/ Energy detect EC, GPIO connect to H8	(SIV-Lenovo-038)
EC A53/24/ GPIO13 change from STEREO_MIC# to STEREO_MIC_IN	(SIV-Lenovo-036) (SIV-Lenovo-041)
EC A54/52/ Thermal chip capacitor	(SIV-Lenovo-039)
EC A55/24/ GPIO10 change to pull up to VCC3AUX instead of VCC3B	(SIV-Lenovo-035)
EC A57/49/ PMH7 EC	(SIV-Lenovo-042)
EC A58/31/32/33/ Stereo MIC EC	(SIV-Lenovo-040)
EC A59/23/ C347 and C348 change to 15pF for RTC accuracy	
EC A60/36/ C573 and C632 change to 22pF (TXC recommend)	
EC A61/14/ C132 change to 15pF (KDS recommend)	
EC A62/21/ Reserve F11 for Camera	
EC A63/45/ PR177 change from 470K to 200K	(SIV-Lenovo-043)
EC A64/66/ DEPOP PD27 (Power portion)	
EC A65/34/ Audio AMP gain change from 9 to 10.5dB	

BV2 / M2-Note Schematic EC Tracking Record B (for SIV --> SIT) Nov. 29, 2005
EC #/Page/Description/Part Affected/CMVC #

EC B01/21/ Add R698 47k pull-up to MICVCC for STEREO_MIC#
EC B02/32/ Q26 base change to pull to MICVCC
EC B03/30/ U1 and U45 add thermal pad (SIT-Lenovo-011)
EC B04/51/ C717 footprint change from 0402 to 0603, 1u change 0.1u (SIT-Lenovo-001)
EC B05/23/ R364 change to ASM, R365 change to NOASM (SIT-Lenovo-002)
EC B06/46/ Reserve 68pF Cap for I2C_BT and NOASM (SIT-Lenovo-004)
EC B07/34/ U52 MAX9750CETI should using +C2U Ver. (SIT-Lenovo-005)
EC B08/24/ Planar ID change to 0010B for SIT stage (SIT-Lenovo-006)
EC B09/46/ Reserve 220pF Cap for PS2/C and NOASM (SIT-Lenovo-008)
EC B10/29/ Add 100pF capacitor on PIORDY signal near ODD connector (SIT-Lenovo-010)
EC B11/64/ PC46 change to 390pF 10% from 690pF 10% (power portion) (SIT-Lenovo-012)
EC B12/34/ R159 change from 4.7K to 47K (SIT-Lenovo-013)
EC B13/36/ Card reader LED indicator should be high active (SIT-Lenovo-017)
EC B14/09/ Add Cap to prevent S-video ripple
EC B15/64/ PC45 change from 0.047u to 0.012u (power portion)
EC B16/58/63/64/66/67/ Reserve snubber circuit for all switching power and ASM (power portion)
EC B17/64/ PR63, PR67 change to 0603 footprint (power portion)
EC B18/37/ Add R699 pull-up on xD/SD_PWR0
EC B19/66/67/ Delete PL14, PL15, PL16 (power portion)
EC B20/09/ R220 change to ASM 75ohm, R682 change to NoASM
EC B21/14/23/27/44/ FWH change SPI FLASH
EC B22/31/33/ Audio Jack sense circuit modify (SIT-Lenovo-032)
EC A44/24/ GPIO9 for Entry model (SIT-Lenovo-029)
EC B23/32/33/ Audio noise reduction (SIT-Lenovo-031)
EC B24/21/ Add ESD cap for stereo MIC signals (SIT-Lenovo-037)
EC B25/34/ C619, C620 change to 2.2U/X5R from 4.7U/Y5V (SIT-Lenovo-039)

BV2 / M2-Note Schematic EC Tracking Record C (for SIT --> SIT2) Jan. 26, 2006
EC #/Page/Description/Part Affected/CMVC #

EC C01/02/ Change the test pad to bottom side
EC C02/24/ Planar ID change to 0011B for SIT2 stage
EC C03/67/ Connect VIN8 to VINT20 (SVT-Lenovo-003)

EC D01/24/ Update plannar ID to 0100b for SVT (SVT-Lenovo-001)
EC D02/67/ Connect BPWRG signal to PGOOD2 pin of MAX1540 thru 0ohm (SVT-Lenovo-007)
EC D03/70/ PR13, PR132 change to 470ohm from 0ohm (SVT-Lenovo-008)
EC D04/63/67/ connect MAX1977_PWRGD to MAX1540 (SVT-Lenovo-012)

BV2A / M2.5-Note Schematic EC Tracking Record A (for SDV) Feb. 22, 2006
EC #/Page/Description/Part Affected/CMVC #

EC A-01 /52/ LM75CIMM -- >> DS75U+T&R (SDV-Lenovo-001)
EC A-02 /58/ Pull down pad (no asm) for 65W only support / Add PR214 (SDV-Lenovo-002)
EC A-03 /63/67/ Added PC230,PC231,PC232,PC233 (SDV-Lenovo-003)
EC A-04 /56/ DVI chip implementation (SDV-Lenovo-005)
EC A-05 /24/40/ Add AND gate for PLTRST# for Gigabit ethernet (SDV-Lenovo-006)
EC A-06 /24/ Planar ID set to "0101" (SDV-Lenovo-007)
EC A-07 /64/ Added PC234,no ASM (SDV-QCI Power)
EC A-08 /67/ Delete PC38,PQ12 and PC31 ASM (SDV-QCI Power)
EC A-09 /40/ Delete I2C I/F EEPROM (SDV-QCI EE)
EC A-10 /76/ Delete PAD10 (SDV-QCI EE)
EC A-11 /23/ detection for DVI function capability at ICH7 GPIO23 (SDV-Lenovo-008)
EC A-12 /56/ DVI parts change (SDV-Lenovo-009)
EC A-14 /23/ C347,C348 change from 15p to 18P (SDV-Lenovo-***)
EC A-15 /13/ Place capacitors on top size (SDV-Lenovo-012)
EC A-13 /29/32/ C724 NoASM, Internal Stereo MIC parts change (SDV-Lenovo-014)
EC A-16 /24/ correct Planar ID "0101b" <- Schematics indicates "1010b" (SDV-Lenovo-018)
EC A-17 /67/ Delete description "NOASM" to avoid confusion (SDV-Lenovo-019)
EC A-18 /03/ Change 16pcs of capacitors at CPU DC/DC : 22uF -> 10uF (SDV-Lenovo-020)

BV2A / M2.5-Note Schematic EC Tracking Record C (for SDV-->SIT) Apr. 21, 2006
EC #/Page/Description/Part Affected/CMVC #

EC C-01 /24/ Change planar ID to 0110B (SIT-Lenovo-001)
EC C-02 /30/ USB OC signals, change pull-up Vcc from VCC5M to VCC3M and pull-up R from 47k to 10k (SIT-Lenovo-002)
EC C-03 /57/ Added C761 for EMI (SIT-QCI EE)
EC C-04 /40/ Modified the U36 (Broadcom5752M) footprint (SIT-QCI EE)
EC C-05 /48/ Modified the CN24 (Touch PAD Connector) footprint (SIT-QCI EE)

BV2A / M2.5-Note Schematic EC Tracking Record D (for SIT-->SVT) July. 03, 2006
EC #/Page/Description/Part Affected/CMVC #

EC D-01 /24/ Change planar ID to 1000B (SVT-Lenovo-001)
EC D-02 /70/ Del PD6, add R230 0 ohm and PC10 No-ASM (SVT-Lenovo-002)
EC D-03 /56/ Change R742/R743 from 2.2K to 4.7K ohm for DVI device detect issue (SVT-Lenovo-003)