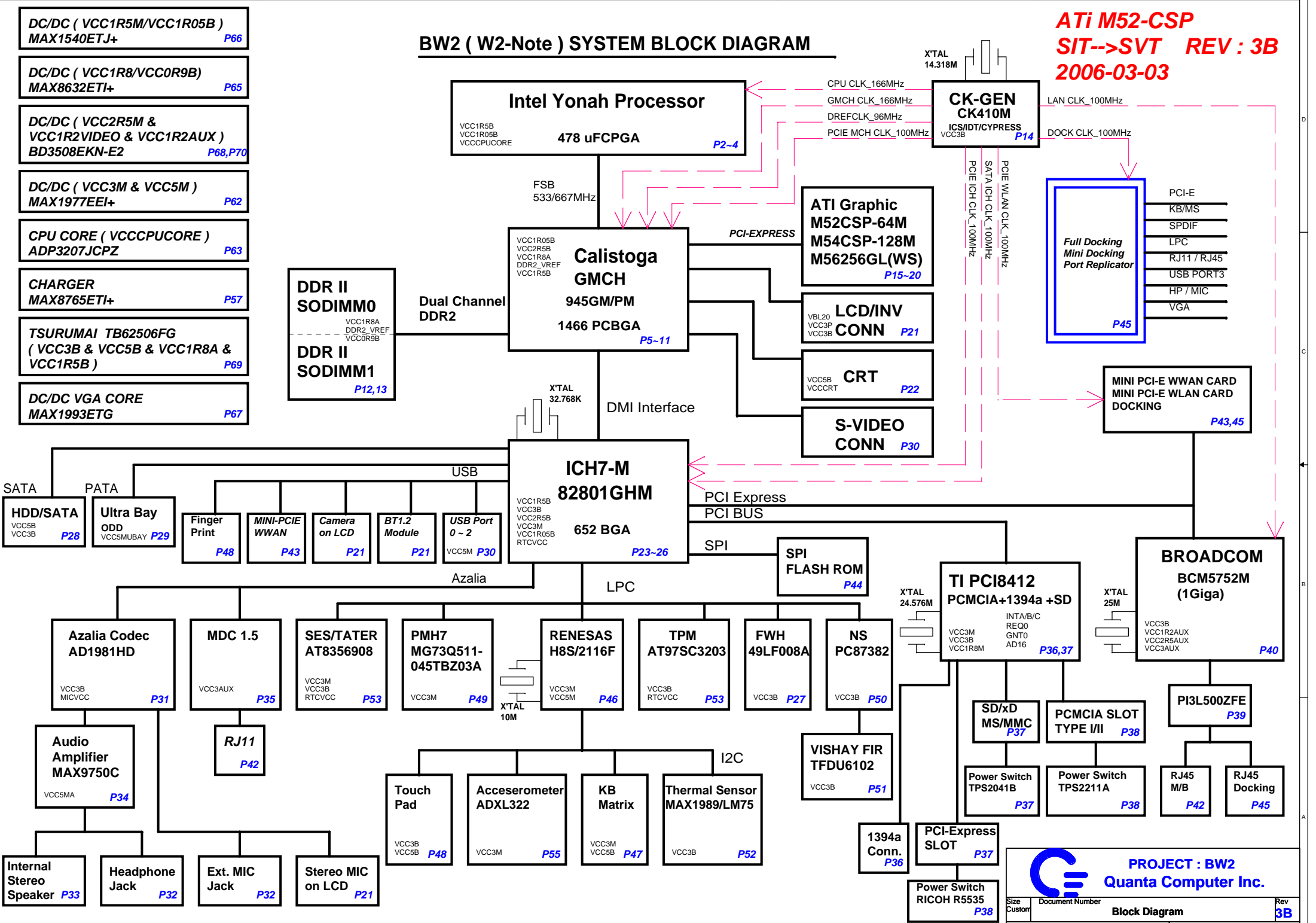
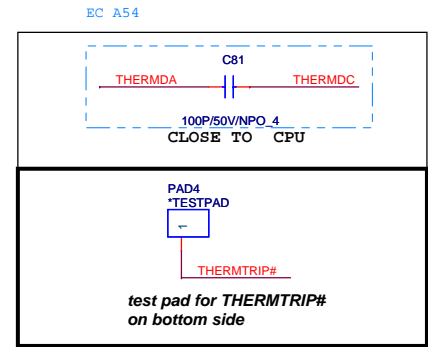
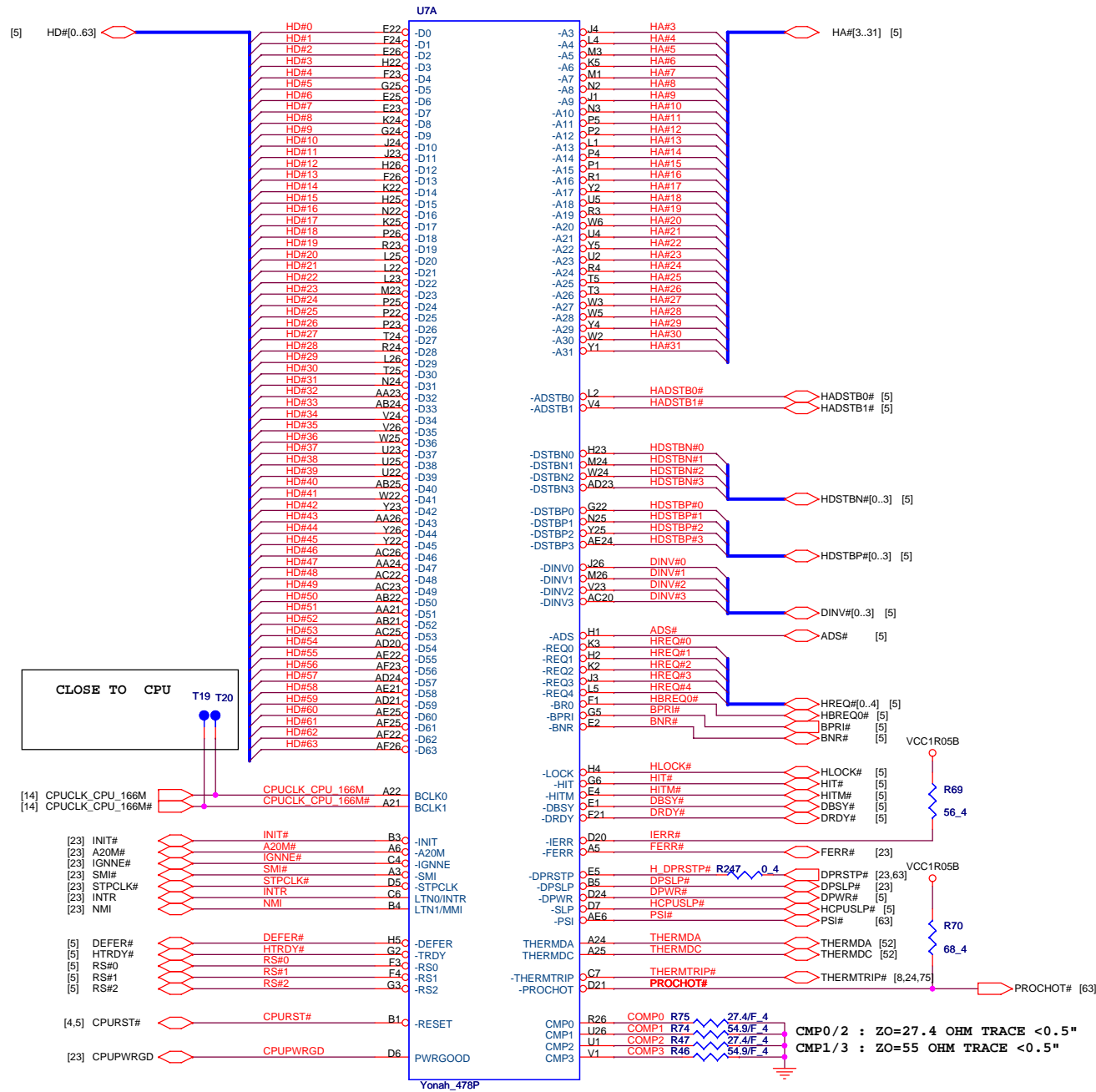
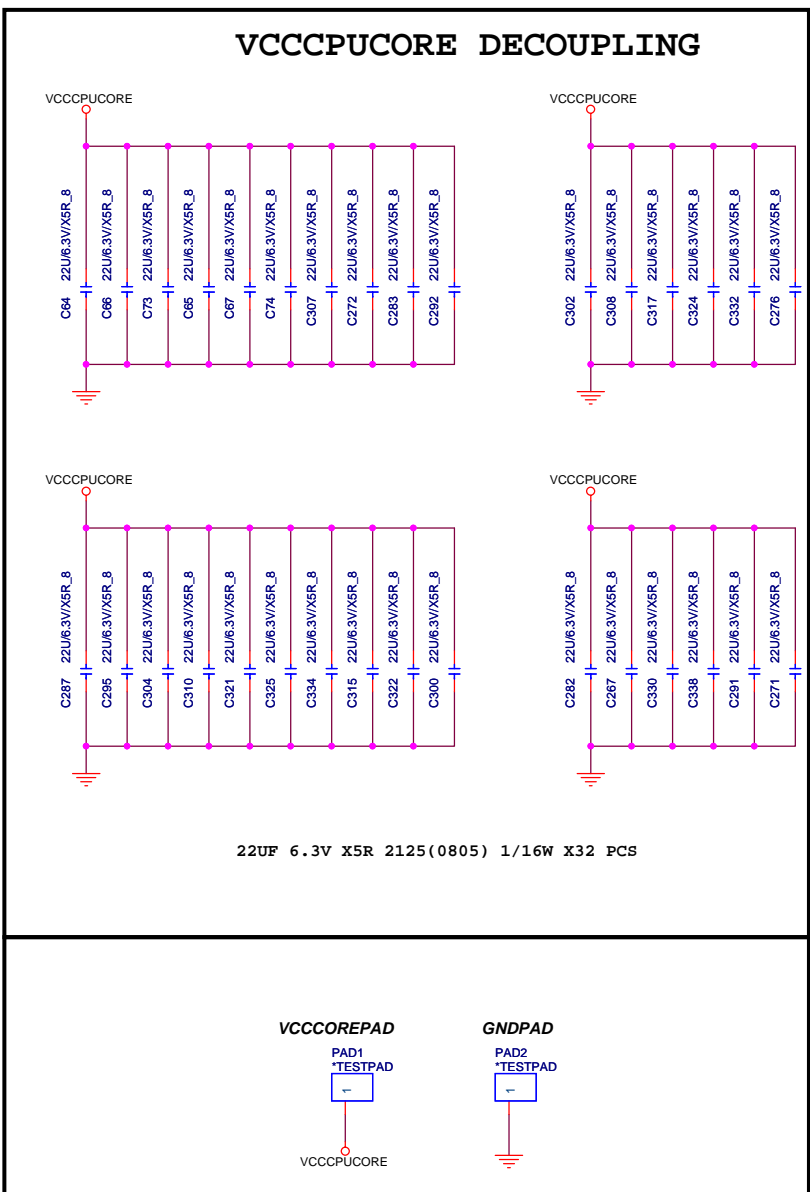
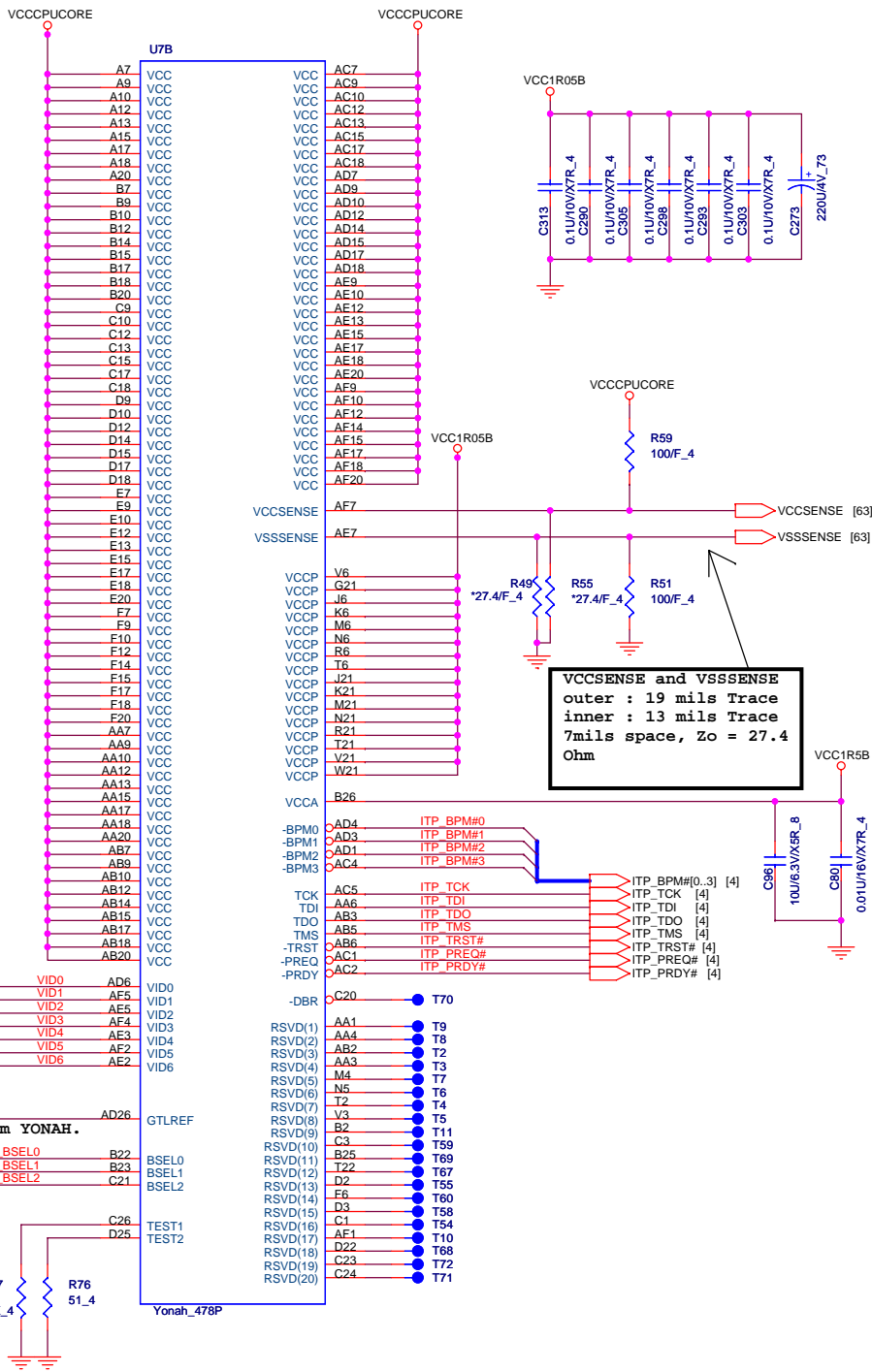


**BW2 ( W2-Note ) SYSTEM BLOCK DIAGRAM**

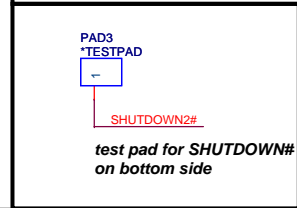
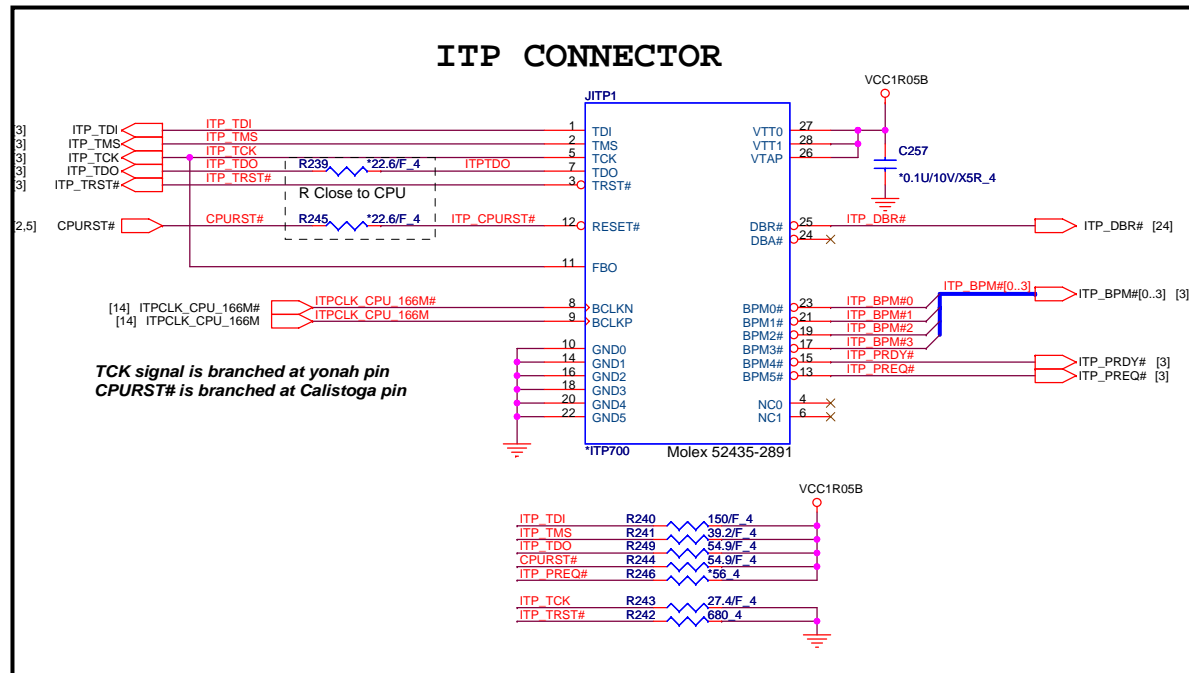
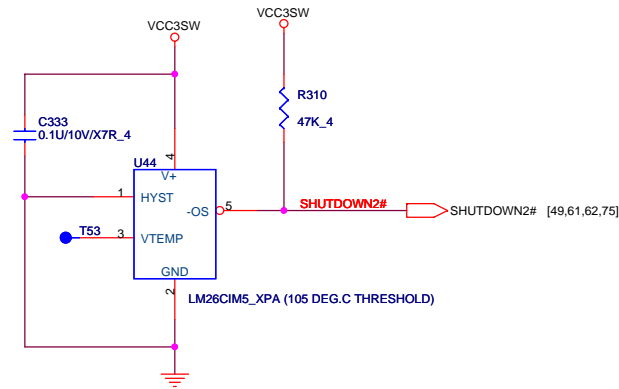
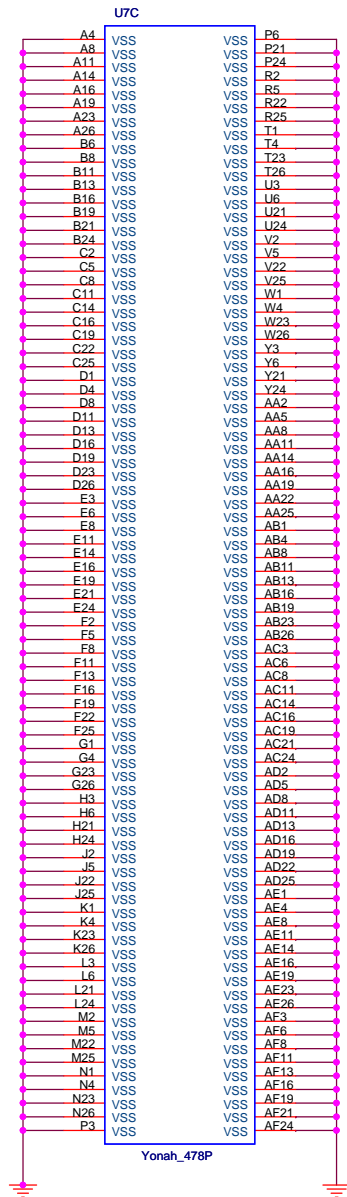


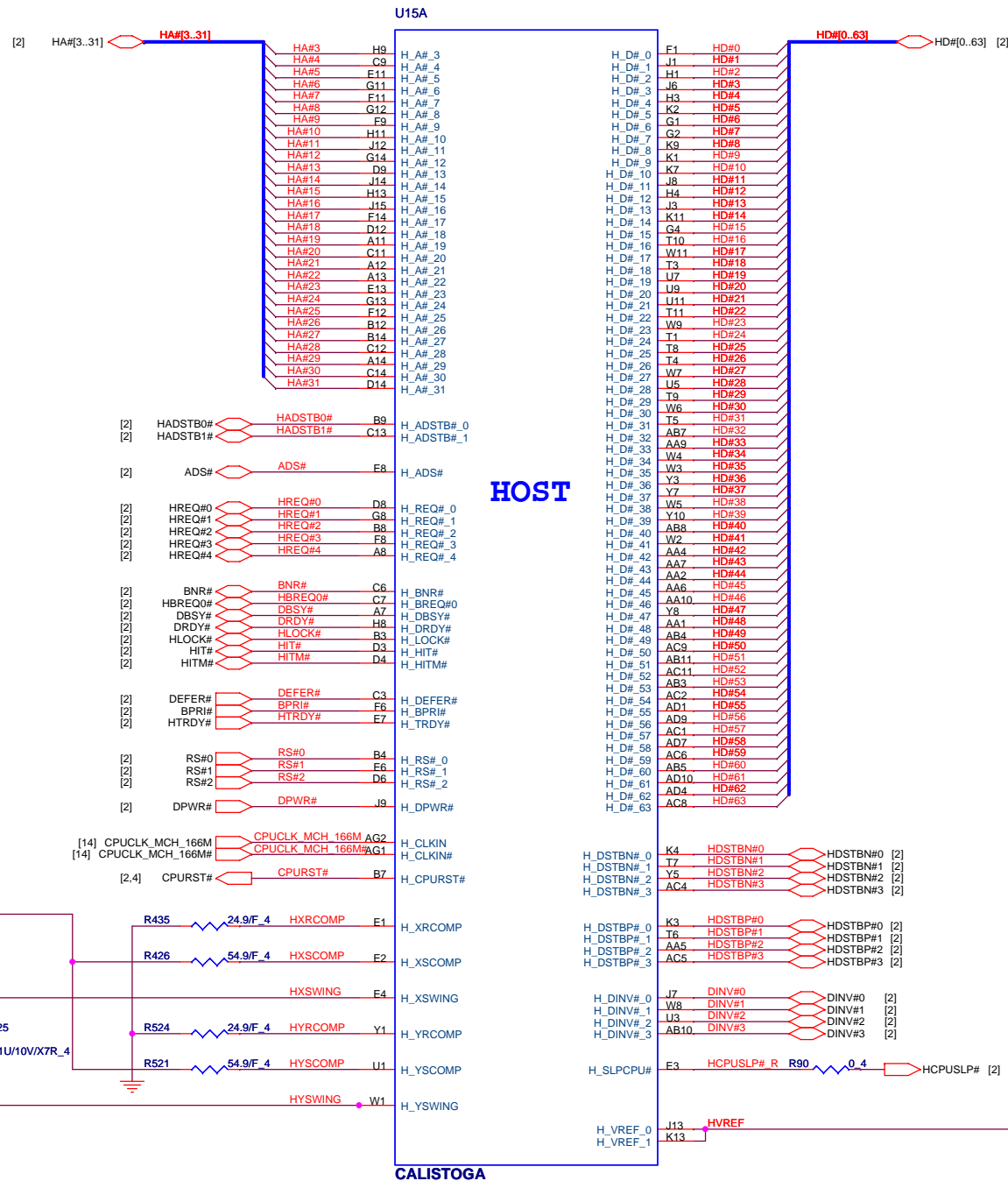




- [14] CPU\_BSEL0
- [14] CPU\_BSEL1
- [14] CPU\_BSEL2


Place < 0.5" from YONAH.





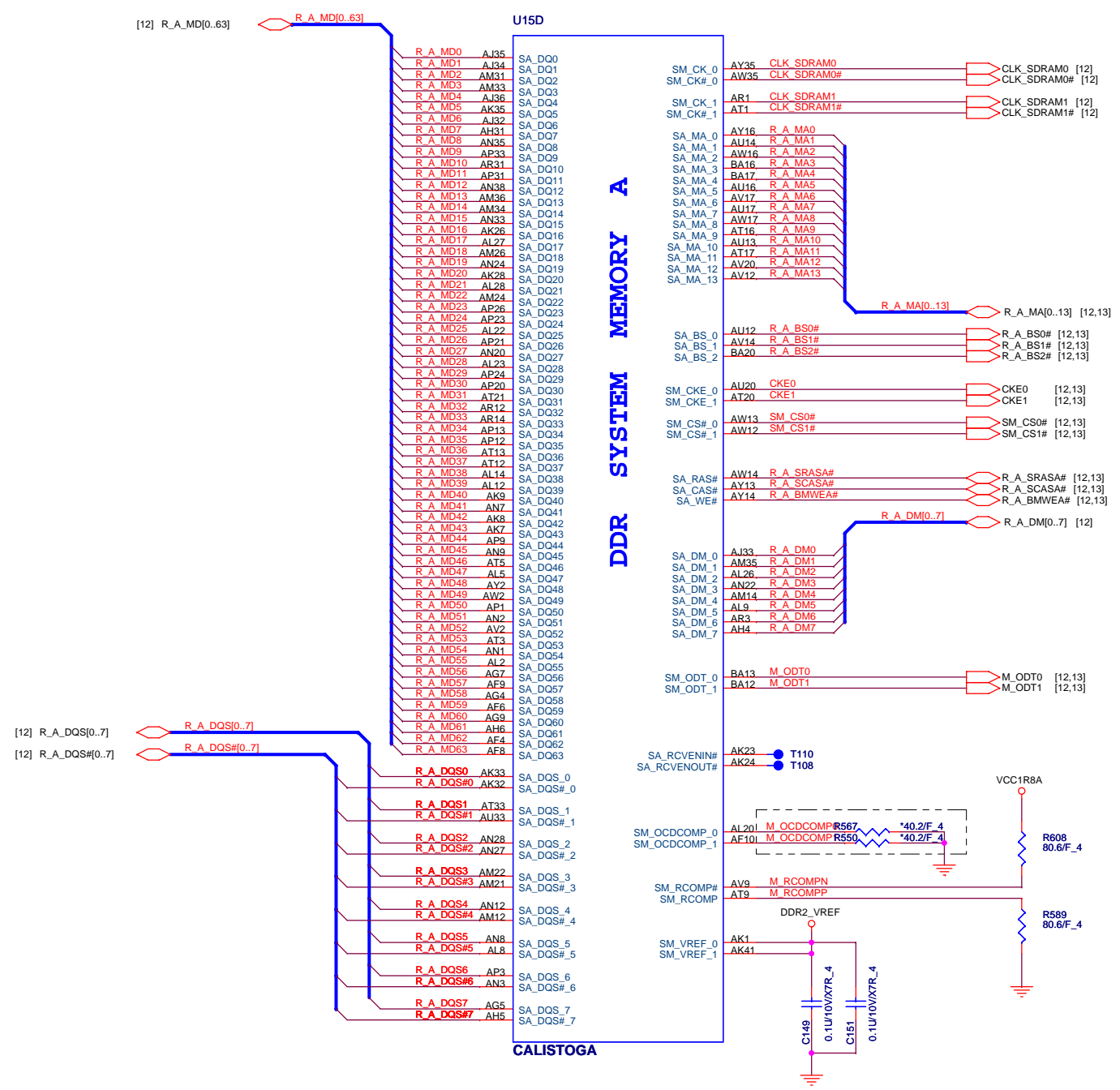
**HOST**

**CALISTOGA**



**PROJECT : BW2**  
**Quanta Computer Inc.**


Size	Document Number	Rev
Custom	<b>CALISTOGA (1/7) HOST I/F</b>	<b>3B</b>
Date:	Thursday, March 09, 2006	Sheet 5 of 79



**DDR SYSTEM MEMORY A**

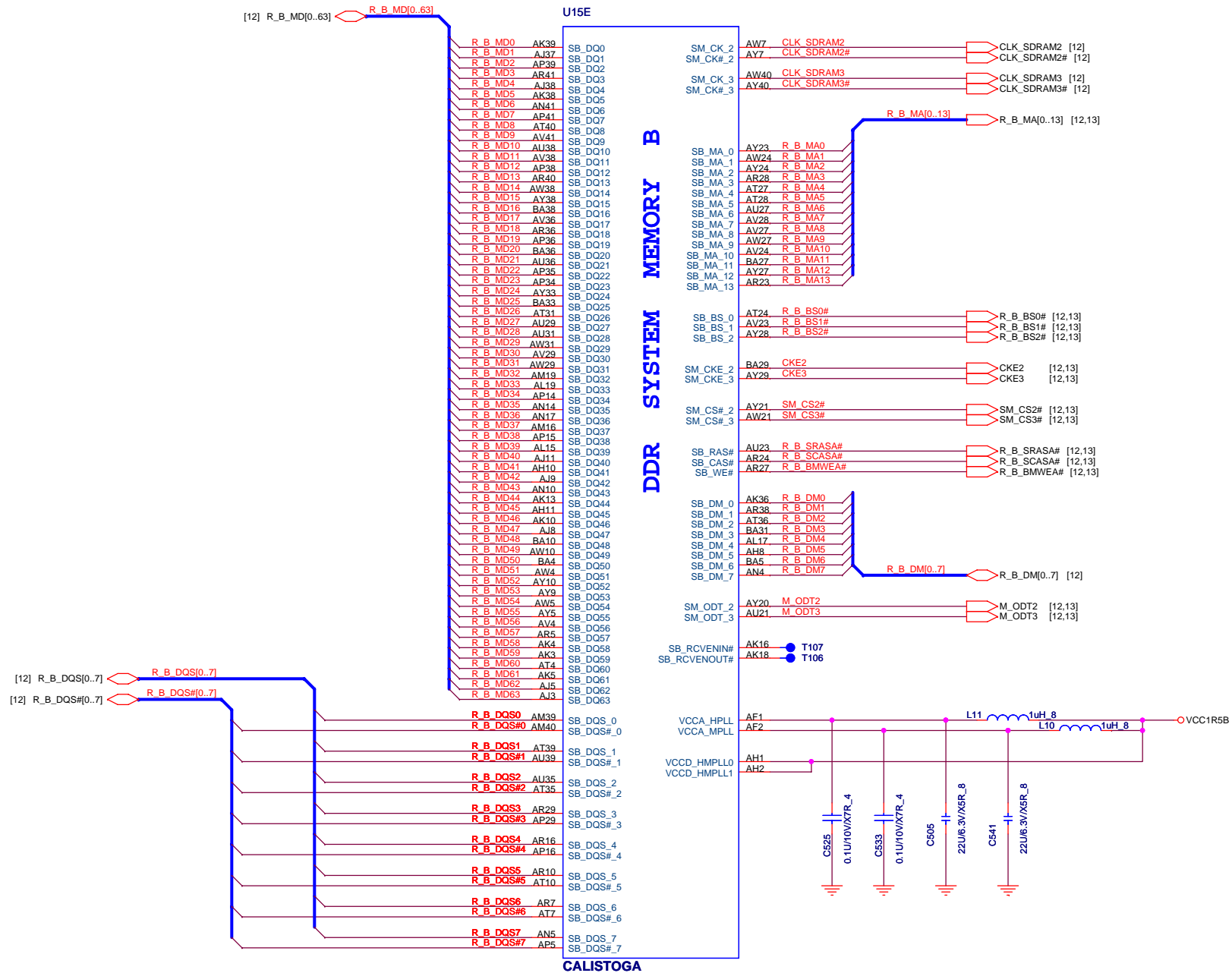
U15D

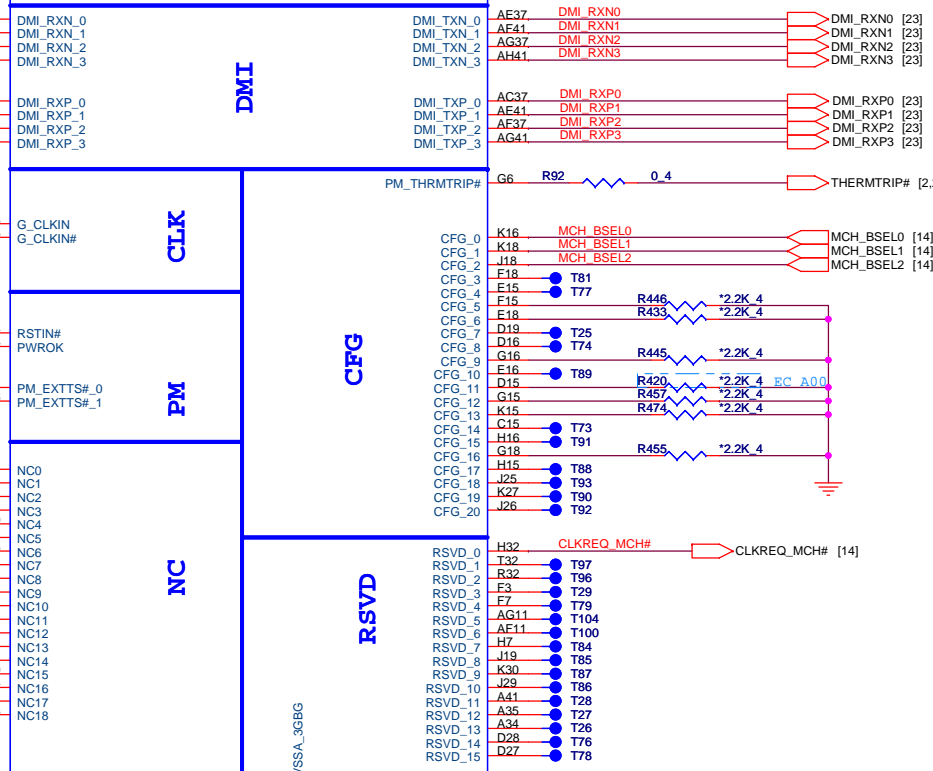
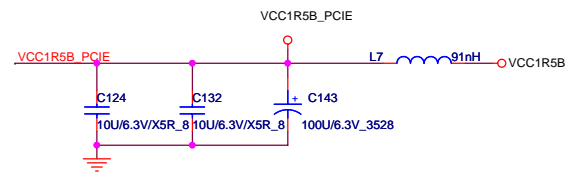
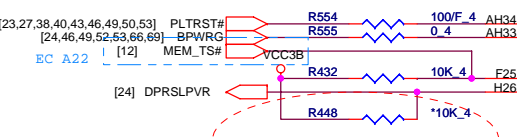
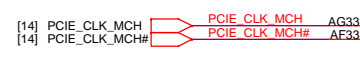
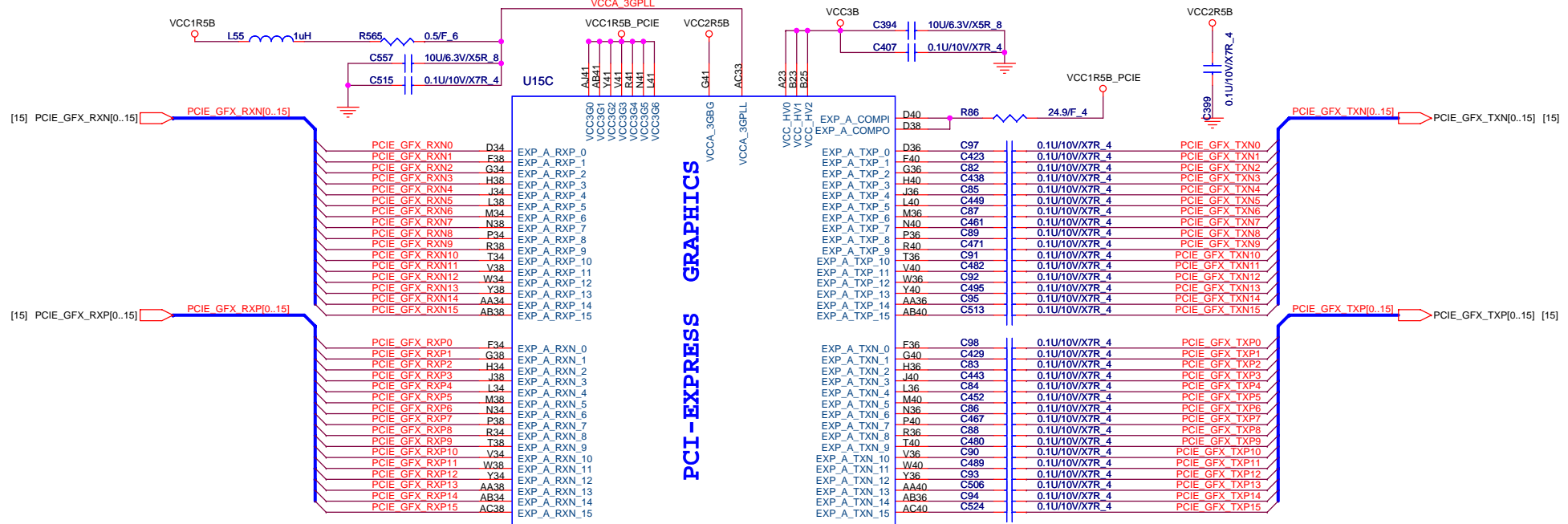
CALISTOGA



**PROJECT : BW2**  
**Quanta Computer Inc.**

Size	Document Number	Rev	
Custbm	CALISTOGA (2/7) DDR2-A	3B	
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EC A00

	ASM	NO_ASM
CFG5	DMix2	DMix4
CFG6	MOBY DISK	CALISTOGA
CFG9	Lane Reversal	Normal Operation
CFG11	Reserved	CALISTOGA
CFG12	00 : Reserved	
CFG13	01 : XOR Mode Enabled	
	10 : All Z Mode Enabled	
	11 : Normal Operation	
CFG16	FSB Dynamic ODT Disabled	FSB Dynamic ODT Enabled

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

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

**PROJECT : BW2**  
**Quanta Computer Inc.**

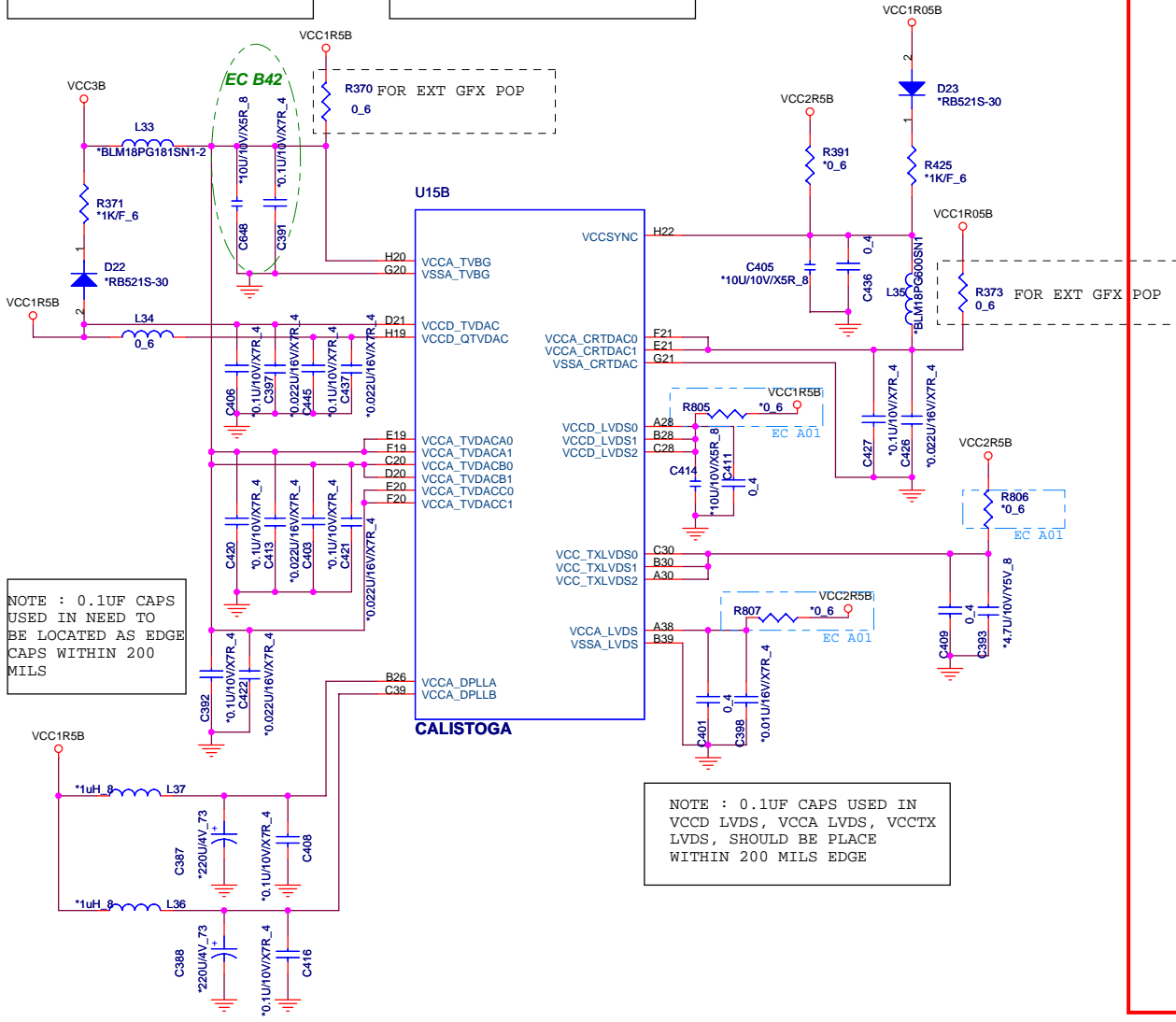
Size	Document Number	Rev
Custom	<b>CALISTOGA (4/7) PEG/DMI</b>	<b>3B</b>
Date:	Thursday, March 09, 2006	Sheet 8 of 79





NOTE : CAPS USED IN VCCA TVBG/VCCD TVDAC/VCCDQ TVDAC/VCCA TVDAC SHOULD BE PLACE WITHIN 250 MILS EDGE

NOTE : CAPS USED IN VCCA CRTDAC0/1 SHOULD BE PLACE WITHIN 250 MILS EDGE OF GMCH

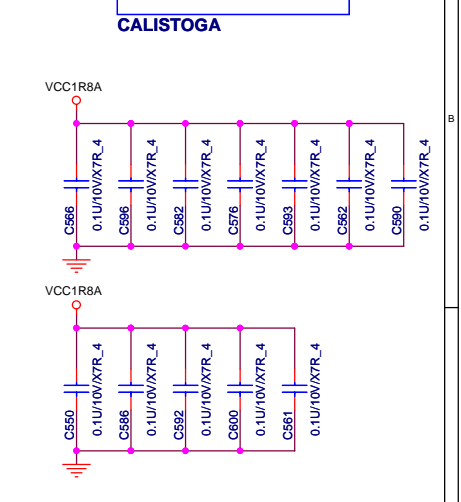
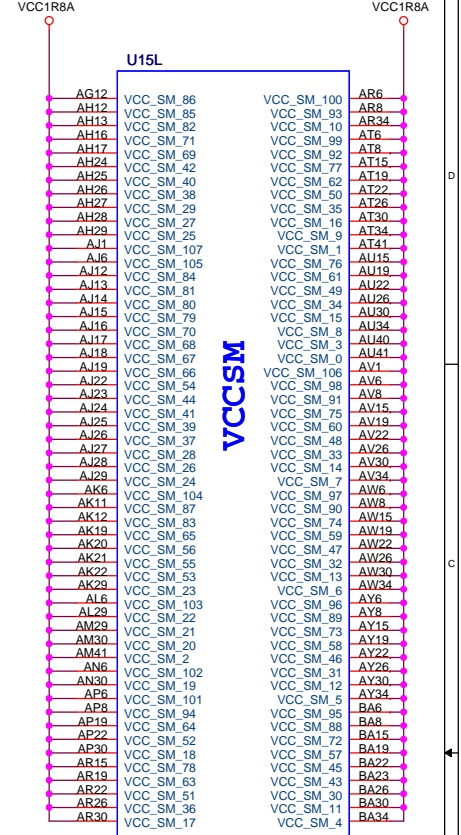


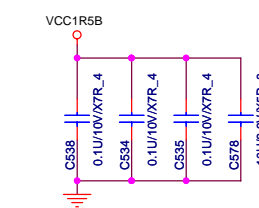
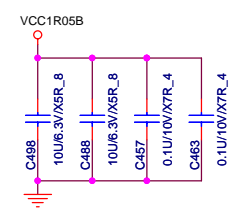
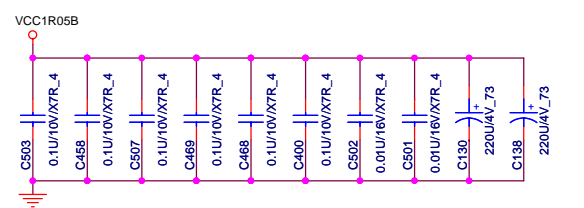
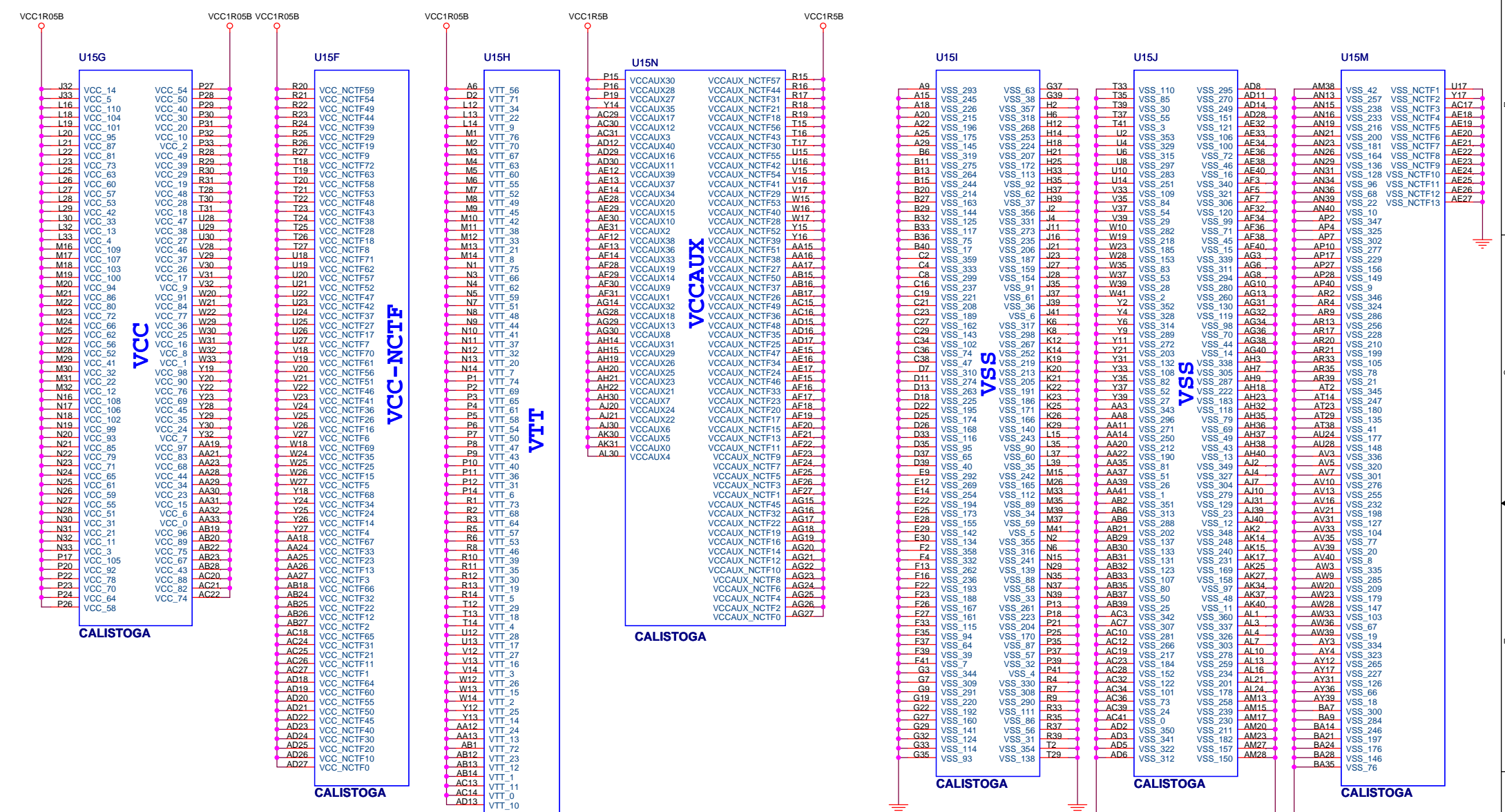
NOTE : 0.1UF CAPS USED IN NEED TO BE LOCATED AS EDGE CAPS WITHIN 200 MILS

NOTE : 0.1UF CAPS USED IN VCCD LVDS, VCCA LVDS, VCCTX LVDS, SHOULD BE PLACE WITHIN 200 MILS EDGE


For Entry Model

	945GM	945PM/955XM
L33	BLM18PG181SN1-2	DE-POP
C391	0.1uF	DE-POP
C648	10uF	DE-POP
R370	DE-POP	0 ohm
R371	1K/F ohm	DE-POP
D22	RB521S-30	DE-POP
L34	BLM18PG181SN1-2	0 ohm
C406	0.1uF	DE-POP
C445	0.1uF	DE-POP
C397	0.022uF	DE-POP
C437	0.022uF	DE-POP
C420	0.1uF	DE-POP
C403	0.1uF	DE-POP
C413	0.022uF	DE-POP
C421	0.022uF	DE-POP
C392	0.1uF	DE-POP
C422	0.022uF	DE-POP
L37	1uH	DE-POP
C387	220uF	DE-POP
C408	0.1uF	DE-POP
L36	1uH	DE-POP
C388	220uF	DE-POP
C416	0.1uF	DE-POP
D23	RB521S-30	DE-POP
R425	1K/F ohm	DE-POP
R391	0 ohm	DE-POP
C436	0.1uF	0 ohm
C405	10uF	DE-POP
L35	BLM18PG600SN1	DE-POP
R373	DE-POP	0 ohm
C427	0.1uF	DE-POP
C426	0.022uF	DE-POP
C411	0.1uF	0 ohm
C414	10uF	DE-POP
C409	0.1uF	0 ohm
C393	4.7uF	DE-POP
C401	0.1uF	0 ohm
C398	0.01uF	DE-POP
R805	0 ohm	DE-POP
R806	0 ohm	DE-POP
R807	0 ohm	DE-POP

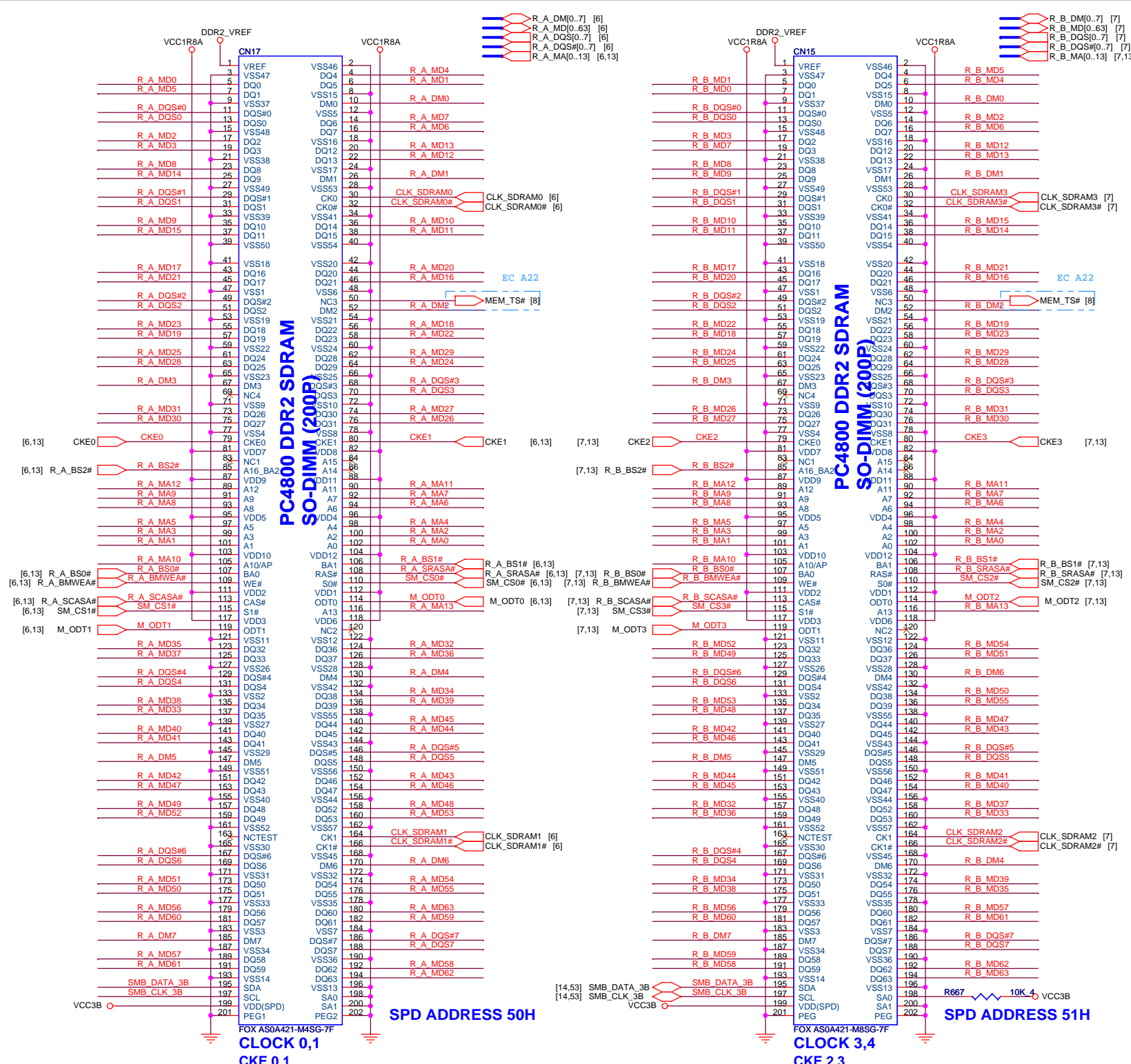




PLACE NEAR VCCGA AND VCCHA


**PROJECT : BW2**  
**Quanta Computer Inc.**  
**CALISTOGA (777) GND**

Size	Document Number	Rev	
Custom	AL16	3B	
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**Place these Caps near So-Dimm1.**

**Place these Caps near So-Dimm1.**

**Place these Caps near So-Dimm1. No Vias Between the Trace of PIN to CAP.**

**Place these Caps near So-Dimm2.**

**Place these Caps near So-Dimm2.**

**Place these Caps near So-Dimm2. No Vias Between the Trace of PIN to CAP.**

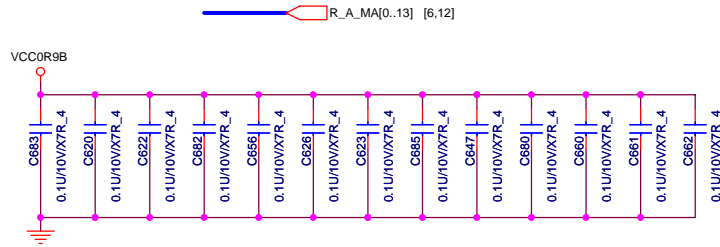
**PROJECT : BW2**  
**Quanta Computer Inc.**

Size: Custom Document Number: **DDR2 SO-DIMM(200P)** Rev: **3B**

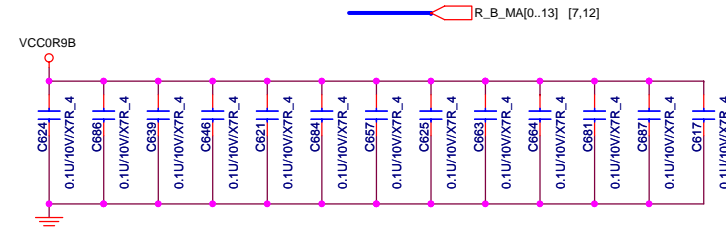
Date: Thursday, March 02, 2006 Sheet: 12 of 79

# DDRII DUAL CHANNEL A,B.

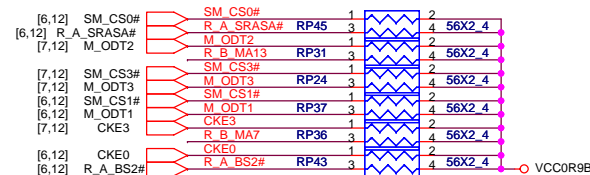
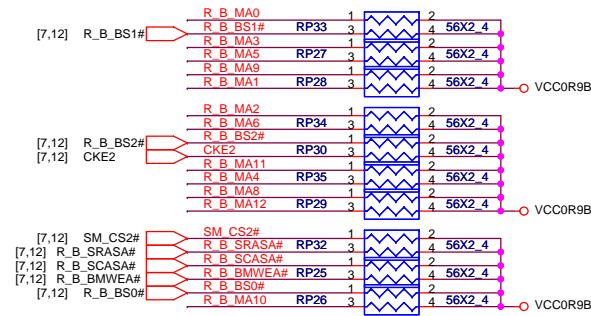
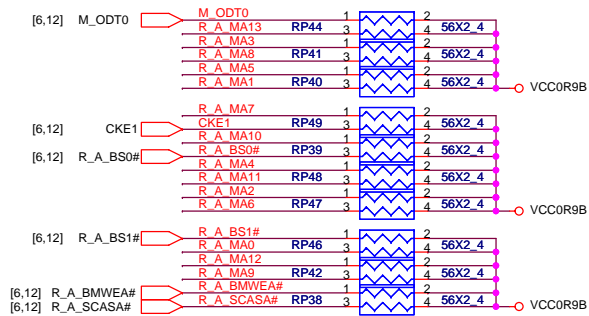
## DDRII A CHANNEL



## DDRII B CHANNEL

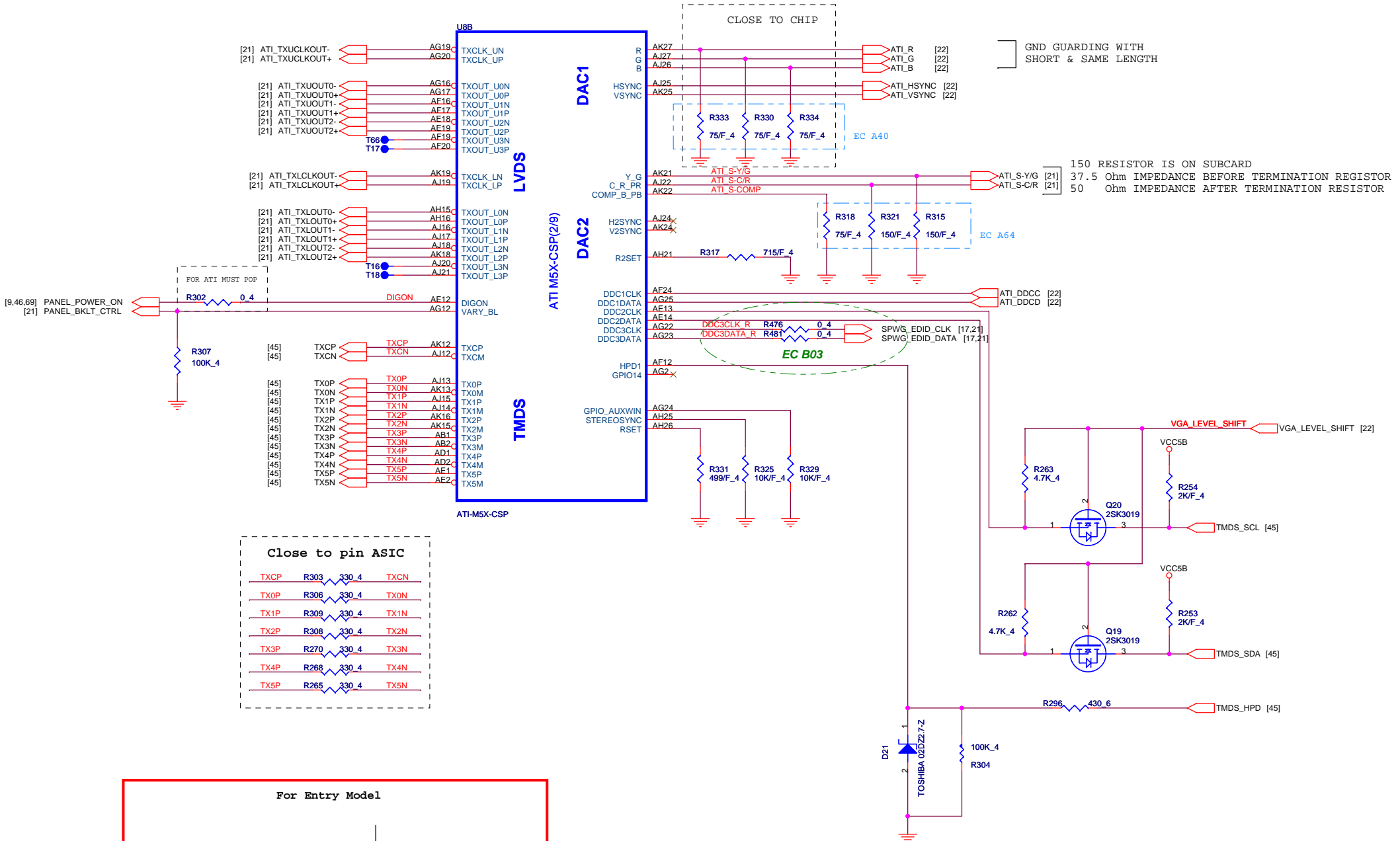


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDR\_VTERM









GND GUARDING WITH SHORT & SAME LENGTH

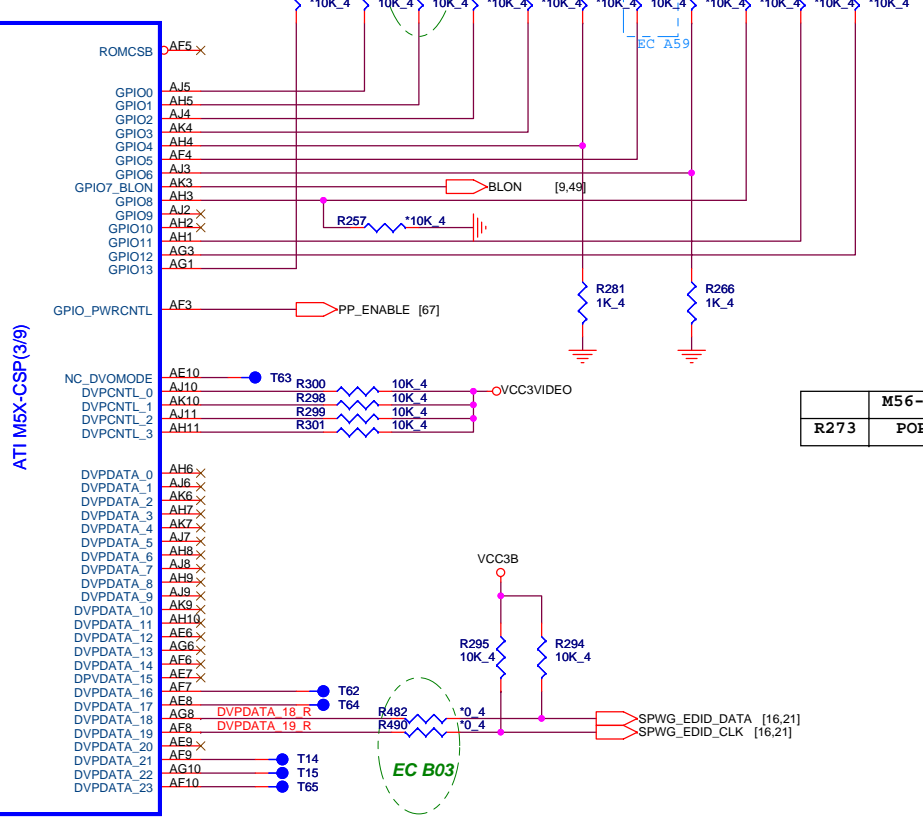
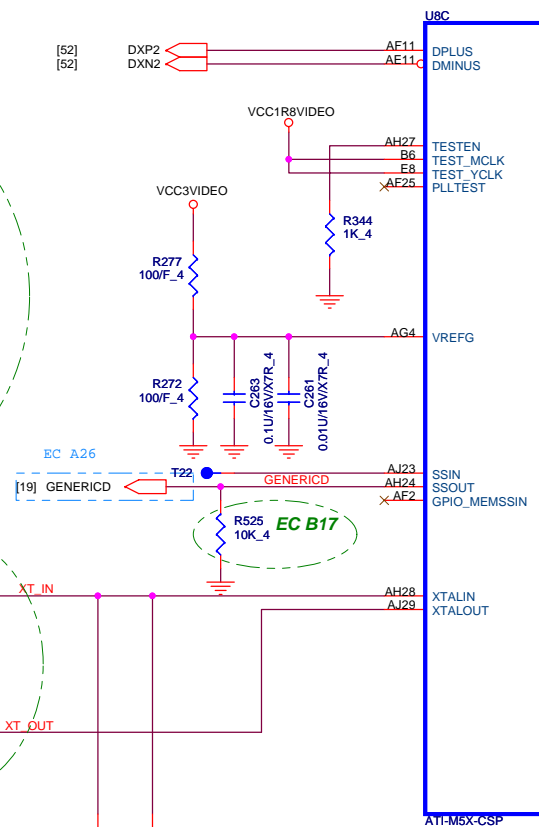
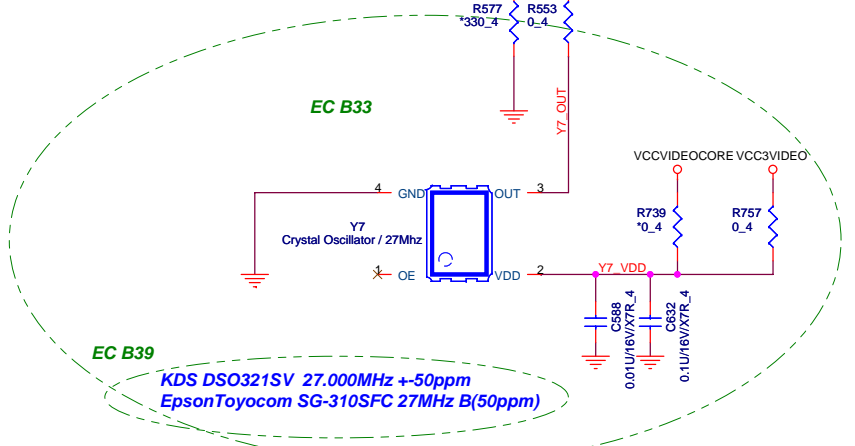
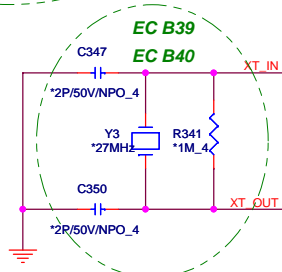
150 RESISTOR IS ON SUBCARD  
 37.5 Ohm IMPEDANCE BEFORE TERMINATION RESISTOR  
 50 Ohm IMPEDANCE AFTER TERMINATION RESISTOR



945GM/Entry Model	945PM/XM
ALL DE-POP	ALL POP ( Except C347,C350,Y3,R341,R577,R739, R259,R274,R282,R280,R276,R269, R264,R273,R257,R482,R490 )

**EC B33**

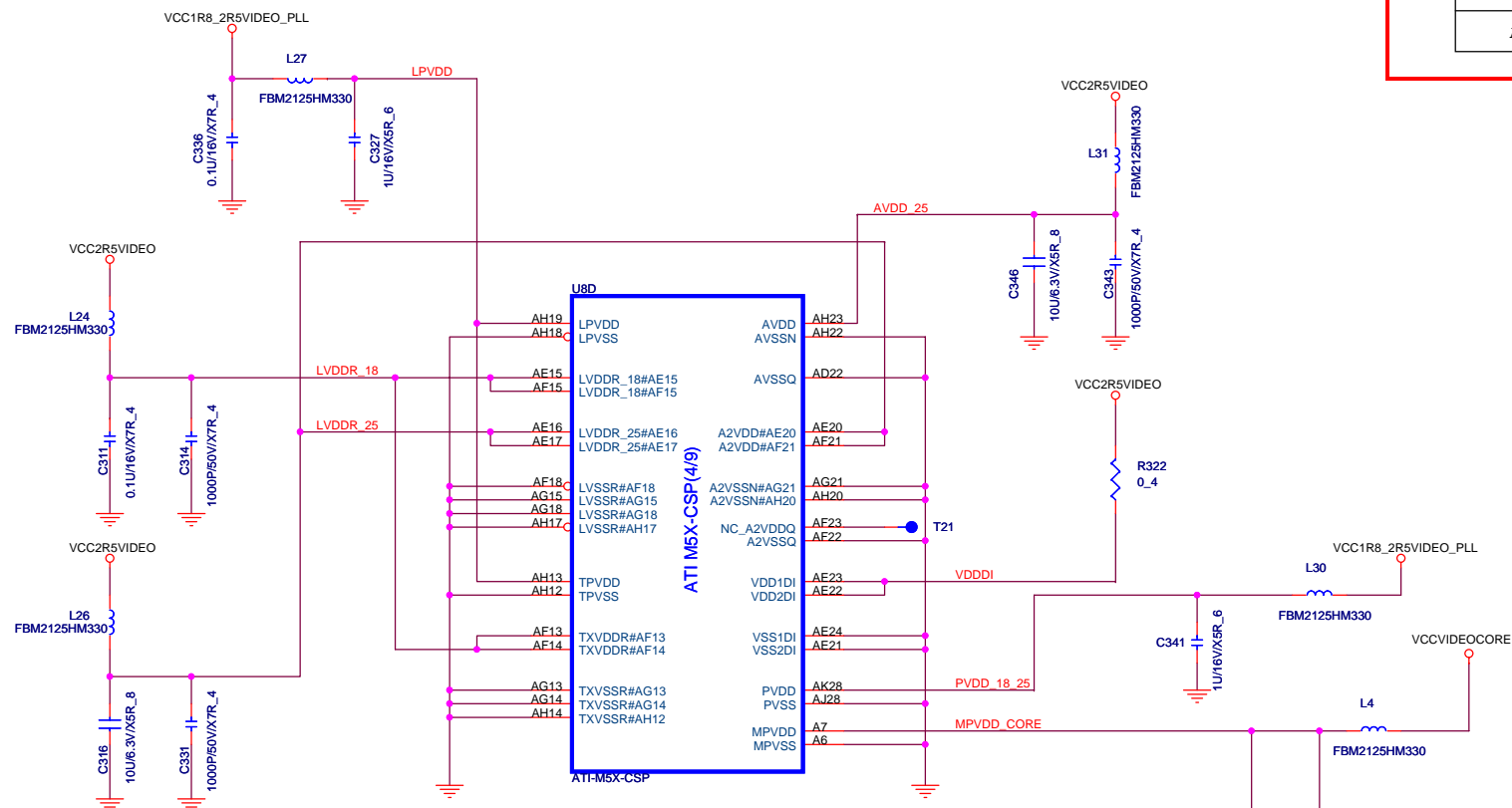
	SS DISABLE	SS ENABLE
Y7	DE-POP	POP
R577	DE-POP	DE-POP
R553	DE-POP	POP
R739	DE-POP	DE-POP
R757	DE-POP	POP
C588	DE-POP	POP
C632	DE-POP	POP
Y3	POP	DE-POP
R341	POP	DE-POP
C347	POP	DE-POP
C350	POP	DE-POP



	M56-CSP	M52/M54
R273	POP	DE-POP

**For Entry Model**

945GM/Entry Model	945PM/XM
ALL DE-POP	ALL POP



EC A65  
EC B13

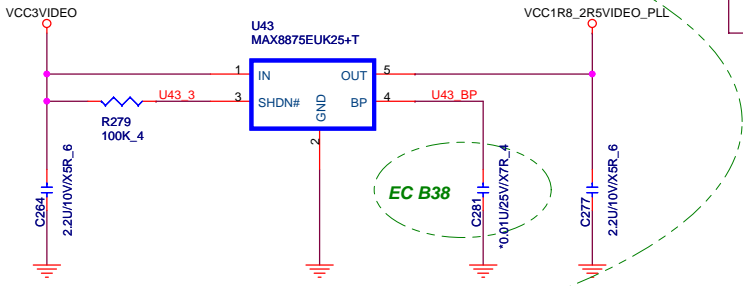
EC B38

EC B19

**Configuration Chart**

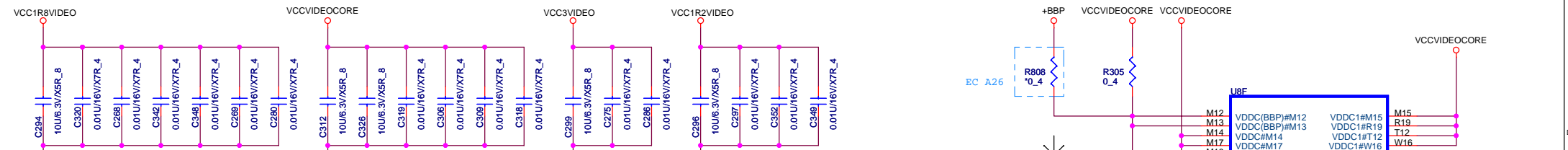
	VIDEO Chip	U43	C281
W-Note2 SIT	ATI M52/M54/M56	MAX887EZK25+T	ASM
Option	ATI M52/M54	MAX8875EUK25+T	NO ASM

*Option is for later development stage*

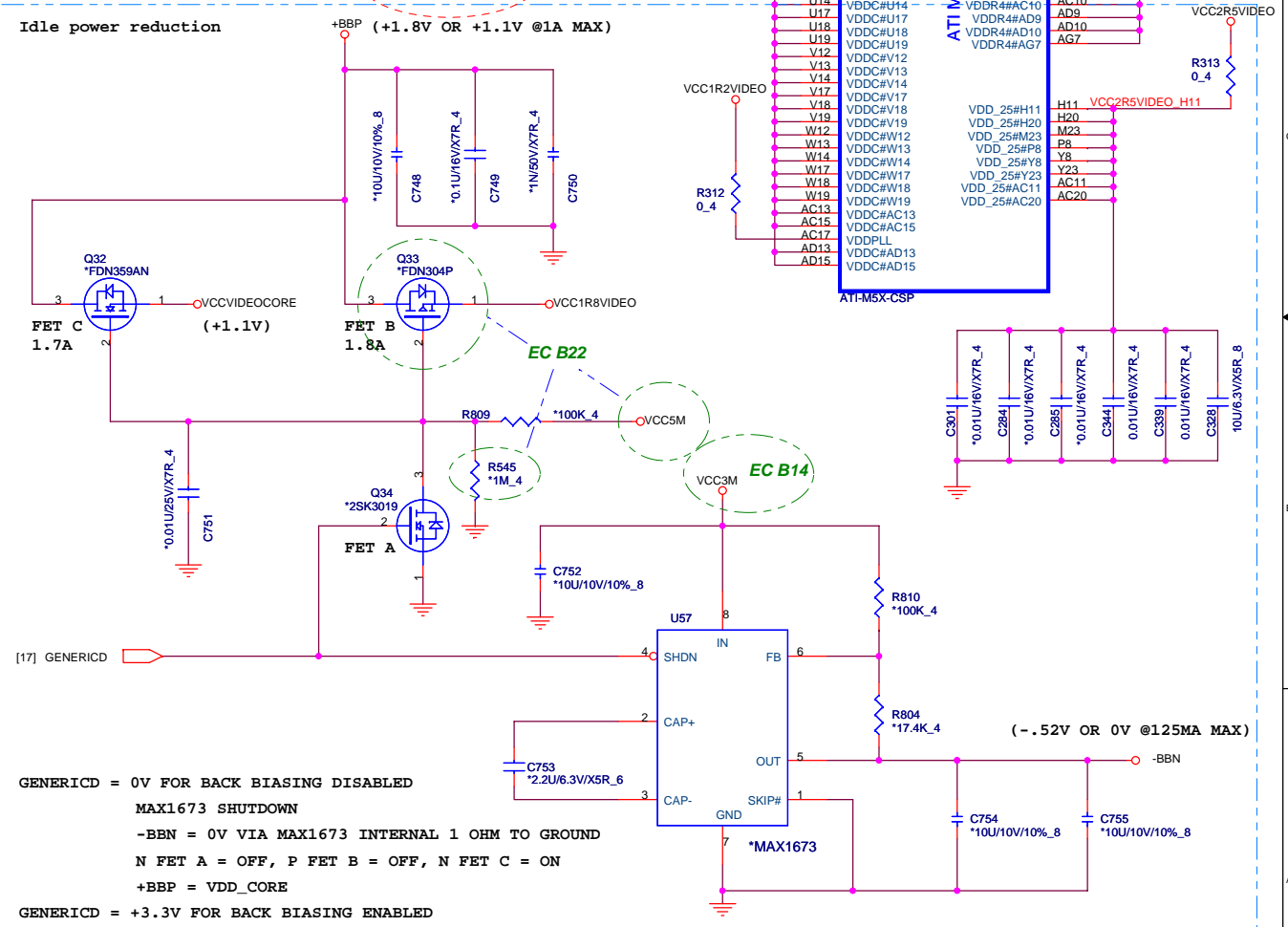
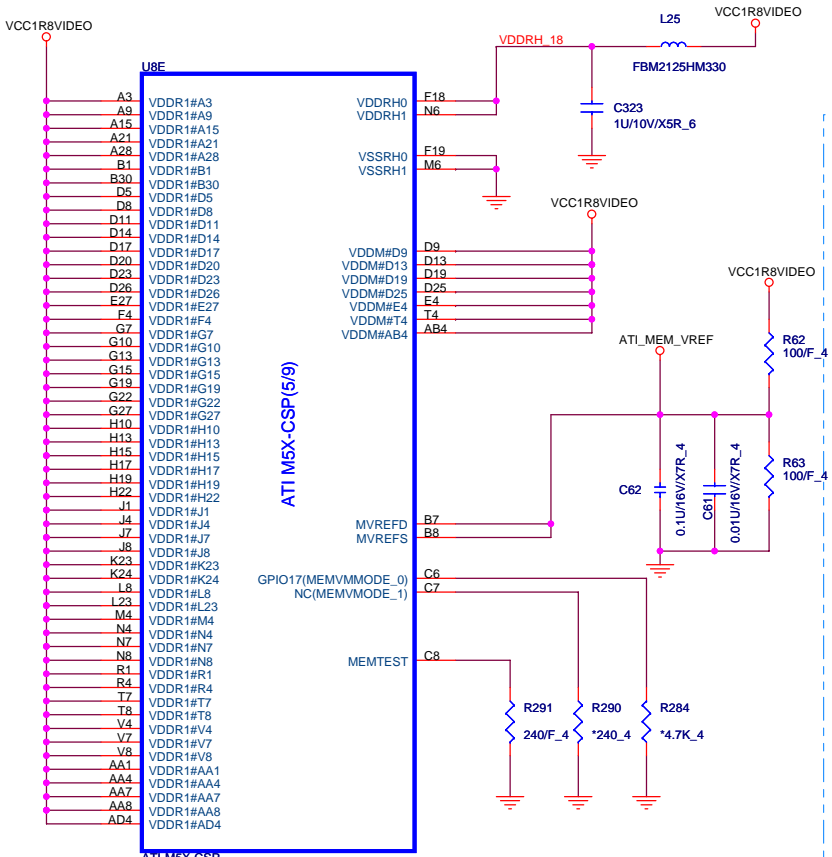


**PROJECT : BW2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>ATI M52/M54/M56CSP (4/6)</b>	<b>3B</b>
Date:	Friday, March 03, 2006	Sheet 18 of 79



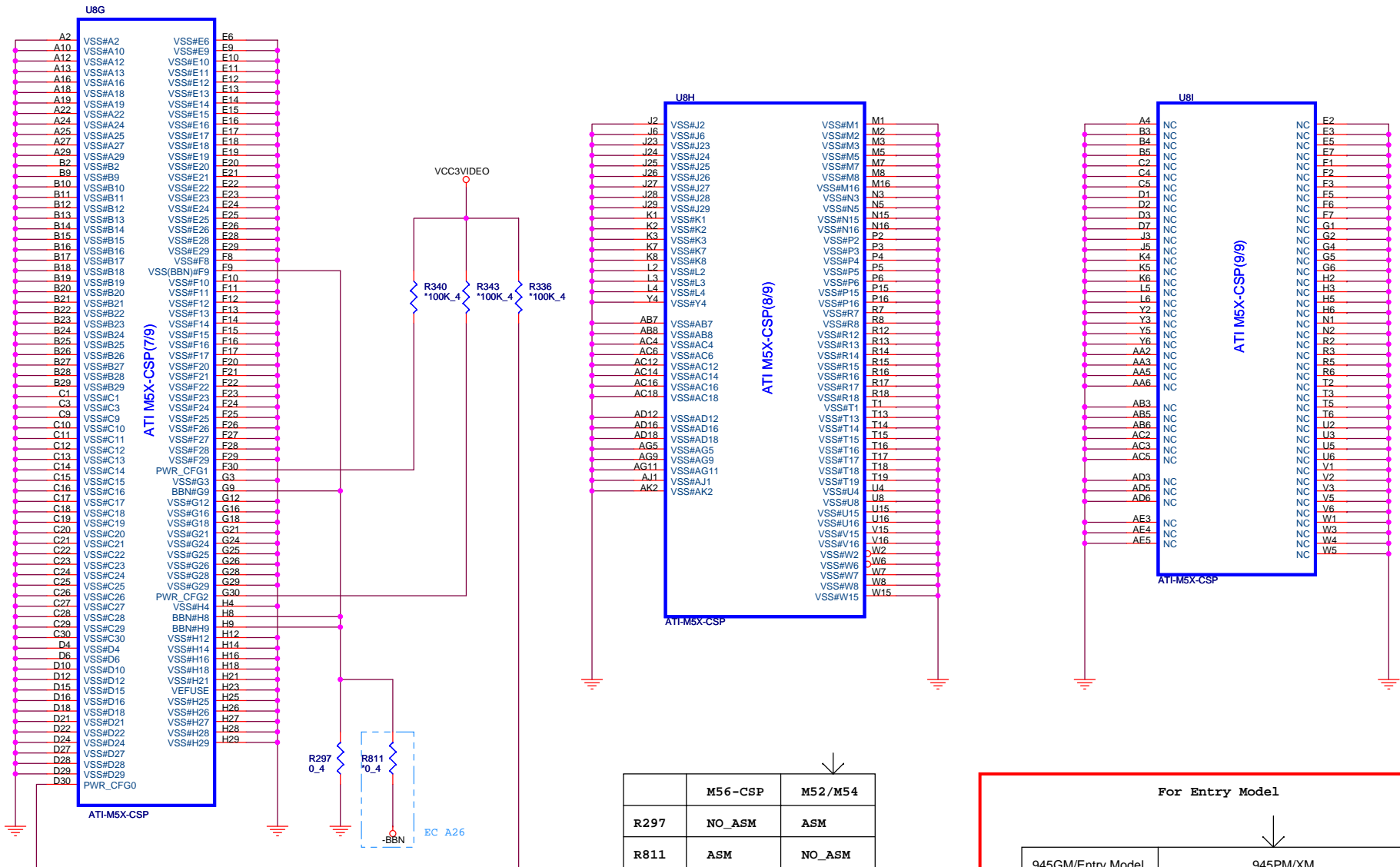
	M56-CSP	M52/M54
R305	NO_ASM	ASM
R808	ASM	NO_ASM
R62	EC C11	100/F
Idle power reduction	ASM except R545	NO_ASM



**GENERICD = 0V FOR BACK BIASING DISABLED**  
 MAX1673 SHUTDOWN  
 -BBN = 0V VIA MAX1673 INTERNAL 1 OHM TO GROUND  
 N FET A = OFF, P FET B = OFF, N FET C = ON  
 +BBP = VDD\_CORE  
**GENERICD = +3.3V FOR BACK BIASING ENABLED**  
 MAX1673 ENABLED  
 -BBN = -.5V  
 N FET A = ON, P FET B = ON, N FET C = OFF  
 +BBP = +1.8V

For Entry Model

945GM/Entry Model	945PM/XM
ALL DE-POP	ALL POP (EXCEPT R284, R290)

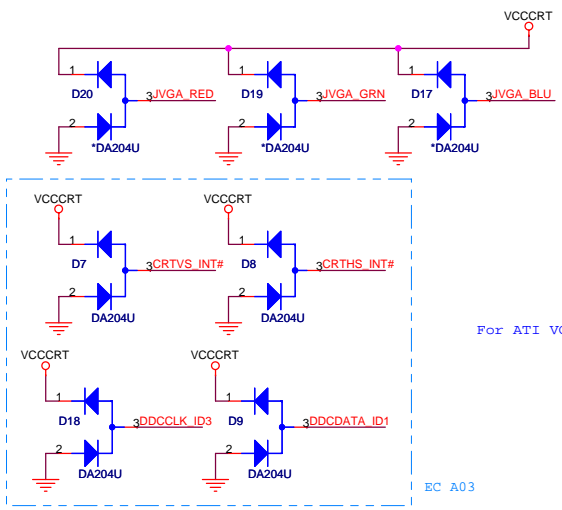


	M56 -CSP	M52/M54
R297	NO_ASM	ASM
R811	ASM	NO_ASM

For Entry Model	
945GM/Entry Model ALL DE-POP	945PM/XM ALL POP (EXCEPT R340, R343, R336)



# CRT PORT



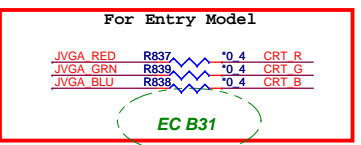
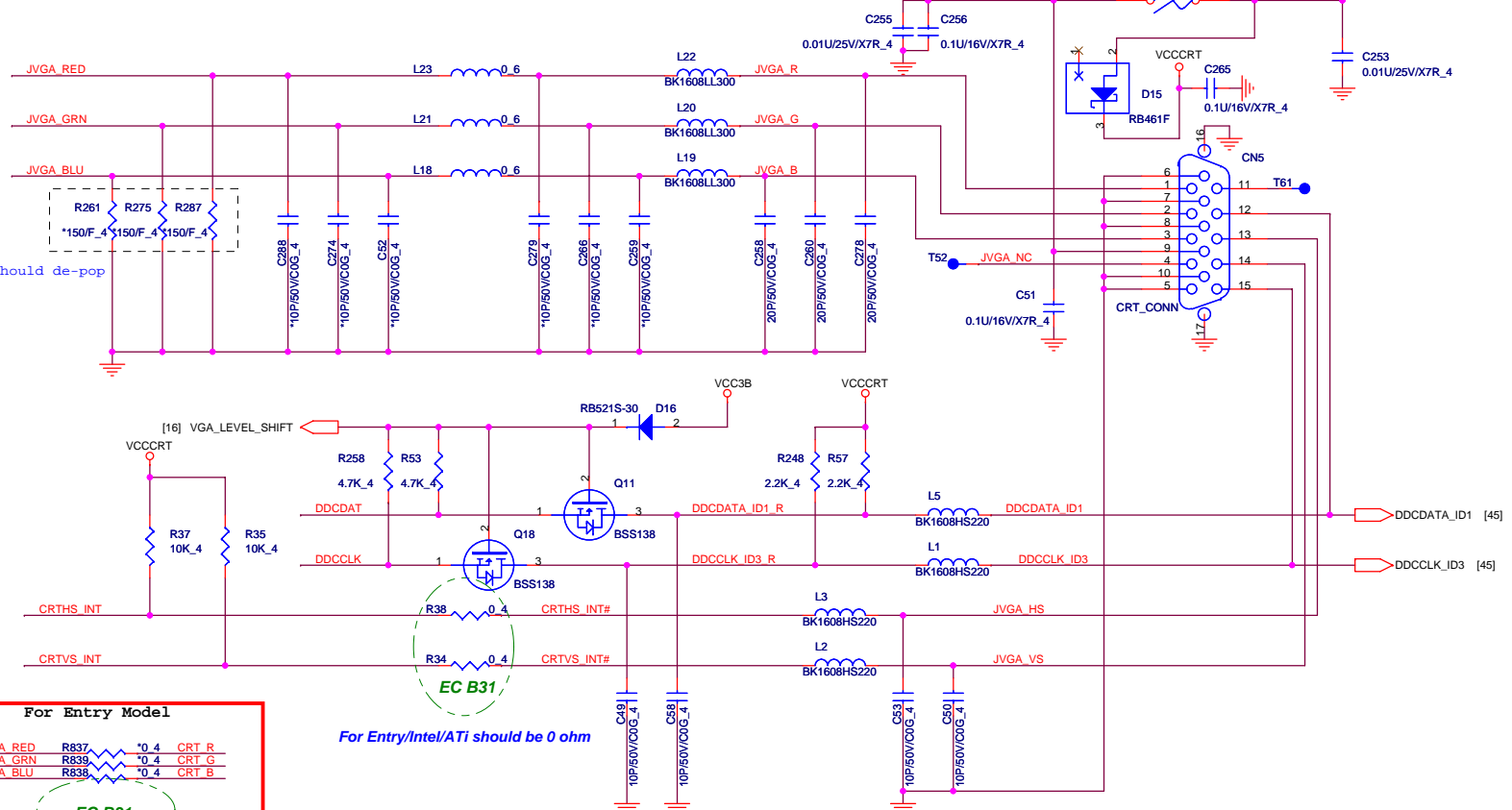
For ATI VGA should de-pop

EC A03

**For Entry Model**

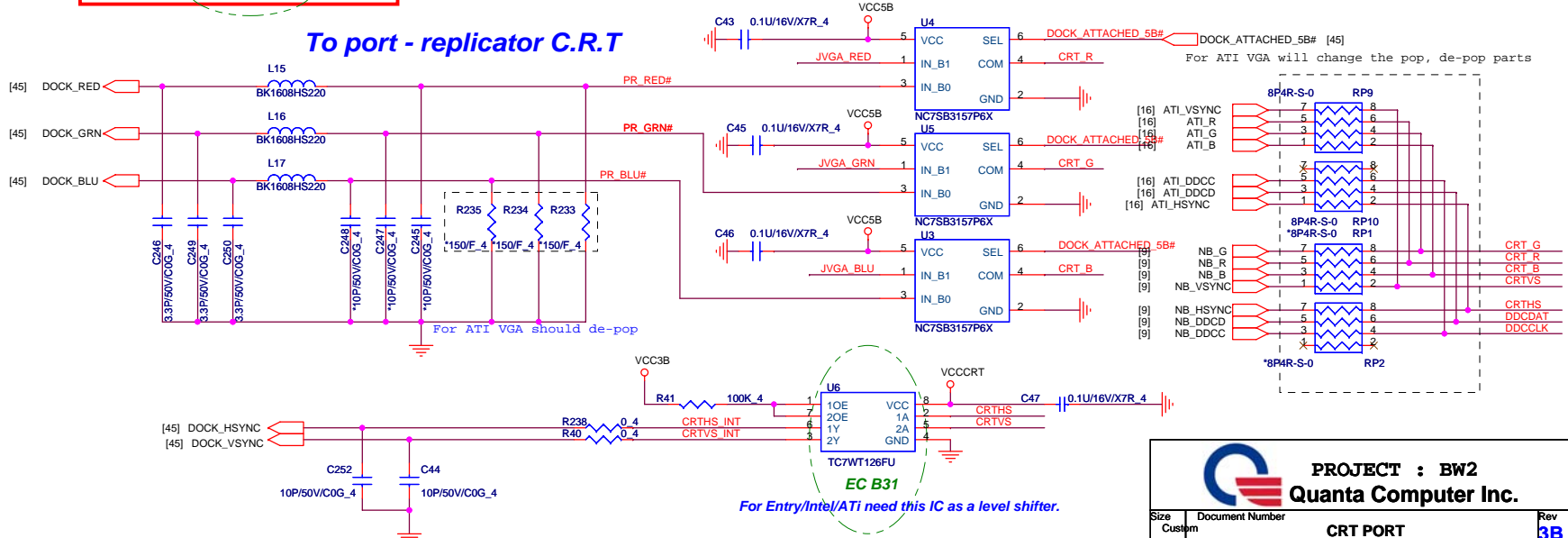
	Entry Model	945GM	945PM/955XM
R261	POP	POP	DE-POP
R275	POP	POP	DE-POP
R287	POP	POP	DE-POP
R233	POP	POP	DE-POP
R234	POP	POP	DE-POP
R235	POP	POP	DE-POP
RP1	POP	POP	DE-POP
RP2	POP	POP	DE-POP
RP9	DE-POP	DE-POP	POP
RP10	DE-POP	DE-POP	POP
L15	DE-POP	POP	POP
L16	DE-POP	POP	POP
L17	DE-POP	POP	POP
C246	DE-POP	POP	POP
C249	DE-POP	POP	POP
C250	DE-POP	POP	POP
C43	DE-POP	POP	POP
C45	DE-POP	POP	POP
C46	DE-POP	POP	POP
U3	DE-POP	POP	POP
U4	DE-POP	POP	POP
U5	DE-POP	POP	POP
U6	POP	POP	POP
C44	DE-POP	POP	POP
C252	DE-POP	POP	POP
R238	DE-POP	POP	POP
R40	DE-POP	POP	POP
R837	POP	DE-POP	DE-POP
R839	POP	DE-POP	DE-POP
R838	POP	DE-POP	DE-POP
R841	DE-POP	DE-POP	DE-POP
R840	DE-POP	DE-POP	DE-POP

**EC B31**



For Entry/Intel/ATI should be 0 ohm


## To port - replicator C.R.T



For ATI VGA should de-pop

For ATI VGA will change the pop, de-pop parts

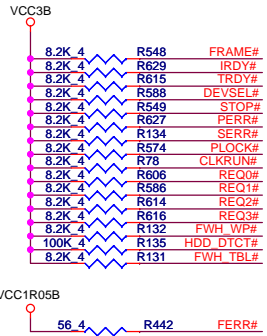
For Entry/Intel/ATI need this IC as a level shifter.



**PROJECT : BW2**  
**Quanta Computer Inc.**

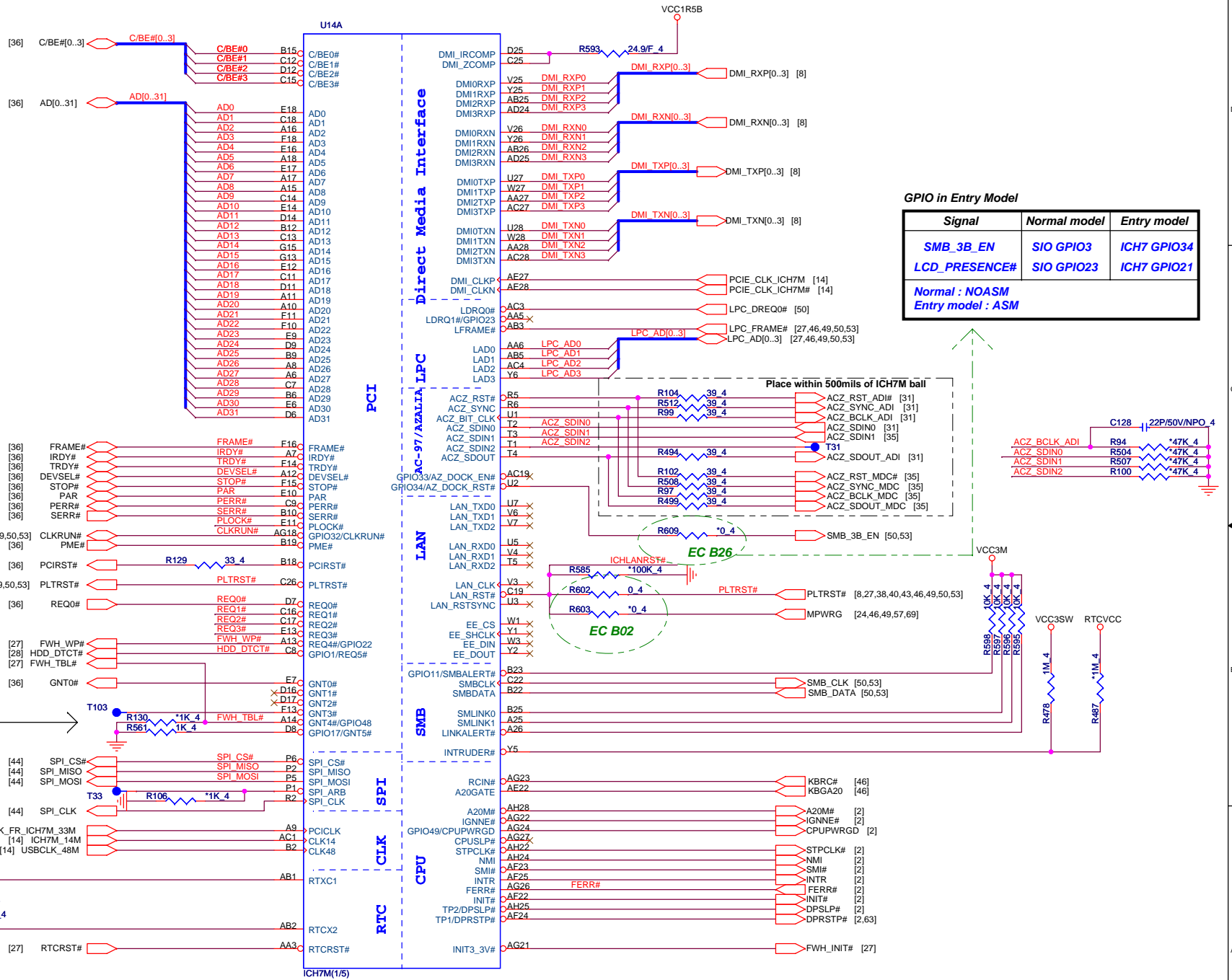
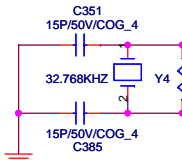
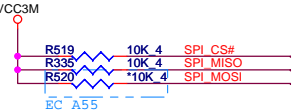
Size	Document Number	<b>CRT PORT</b>	Rev
Custom			<b>3B</b>
Date:	Sunday, April 09, 2006	Sheet	22 of 79

### PCI Pullups



### BIOS ROM SELEC

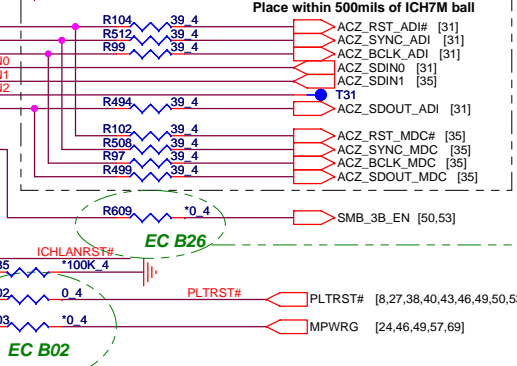
	FWH	PCI	SPI
R130	DE-POP	POP	DE-POP
R561	DE-POP	DE-POP	POP

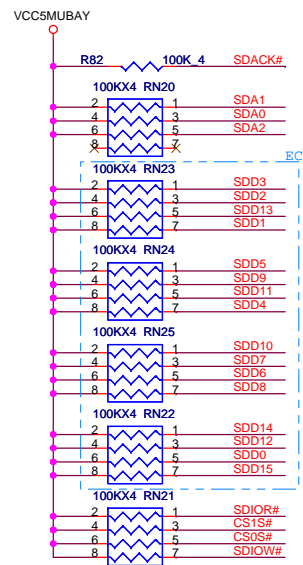


**GPIO in Entry Model**

Signal	Normal model	Entry model
SMB_3B_EN	SIO GPIO3	ICH7 GPIO34
LCD_PRESENCE#	SIO GPIO23	ICH7 GPIO21

Normal : NOASM  
Entry model : ASM

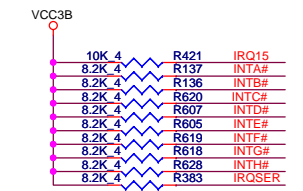




**GPIO in Entry Model**

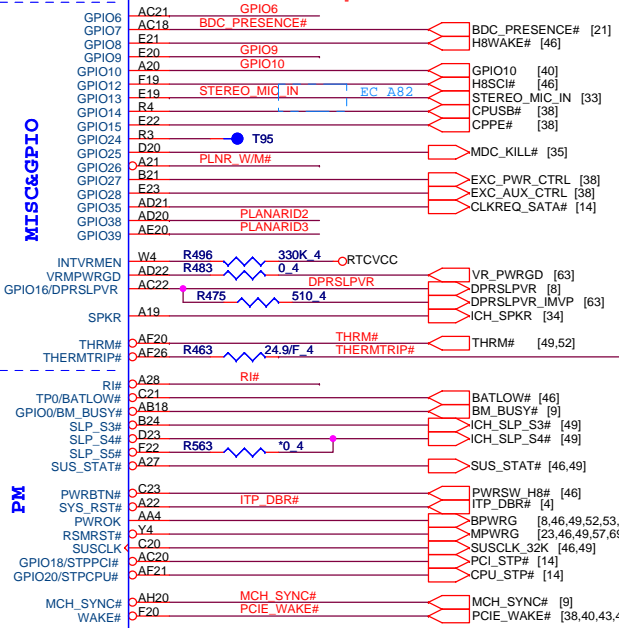
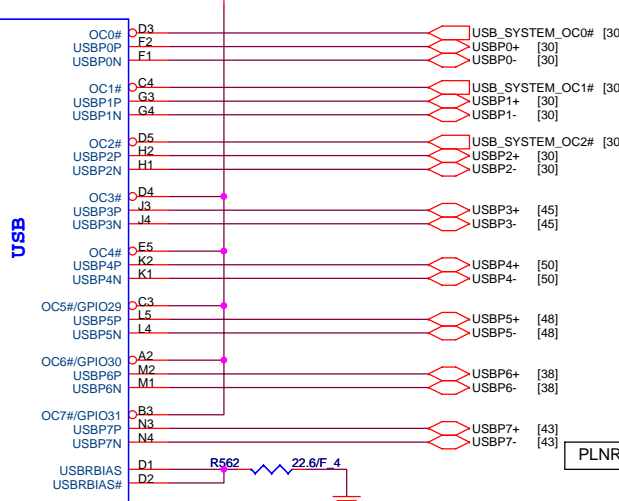
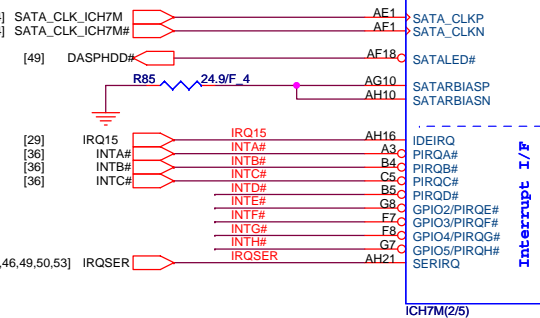
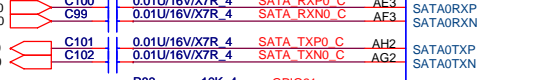
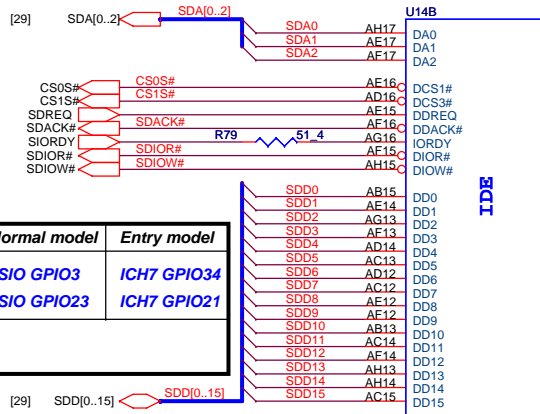
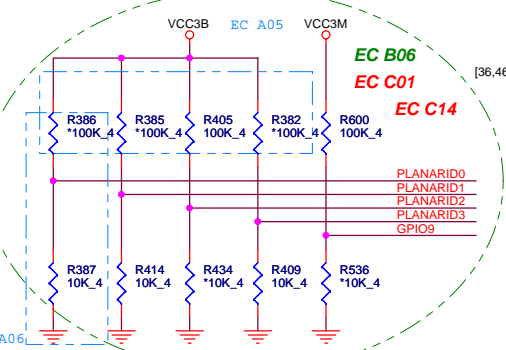
Signal	Normal model	Entry model
SMB_3B_EN	SIO GPIO3	ICH7 GPIO34
LCD_PRESENCE#	SIO GPIO23	ICH7 GPIO21

Normal : NOASM  
Entry model : ASM



**GPIO9 Normal Model Entry Model**

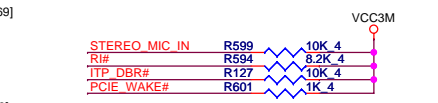
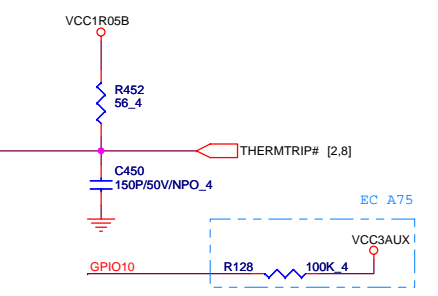
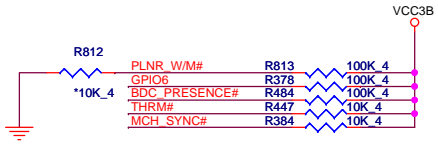
R600	ASM	NO ASM
R536	NO ASM	ASM



**USB distribution**

USB0	USB Port 1
USB1	USB Port 2
USB2	USB Port 3
USB3	Docking
USB4	USB HUB(BT/CAMERA)
USB5	Finger print
USB6	EXPRESS CARD
USB7	MINI PCI-E CARD

PLNR_W/M#	High (pull-up)	Low (pull-down)
		W-note



**W2-Note Planar board ID**

LEVEL / Planar ID [3 ..0]	1				0			
	R386	R385	R405	R382	R387	R414	R434	R409
SDV / 0000B	X	X	X	X	V	V	V	V
SIV / 0001B	V	X	X	X	X	V	V	V
SIT / 0010B	X	V	X	X	X	X	V	V
SVT / 0011B	V	V	X	X	X	X	V	V
* SVT / 0100B	X	X	V	X	V	V	X	V

**PROJECT : BW2**  
**Quanta Computer Inc.**

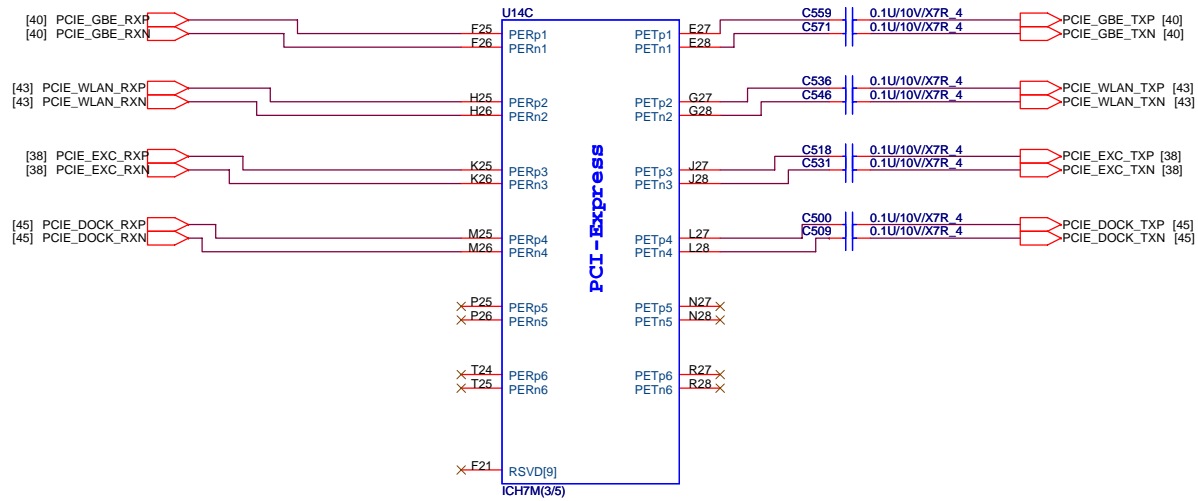
Size: Custom Document Number: ICH7M (2/4) Rev: 3B

Date: Thursday, March 02, 2006 Sheet: 24 of 80



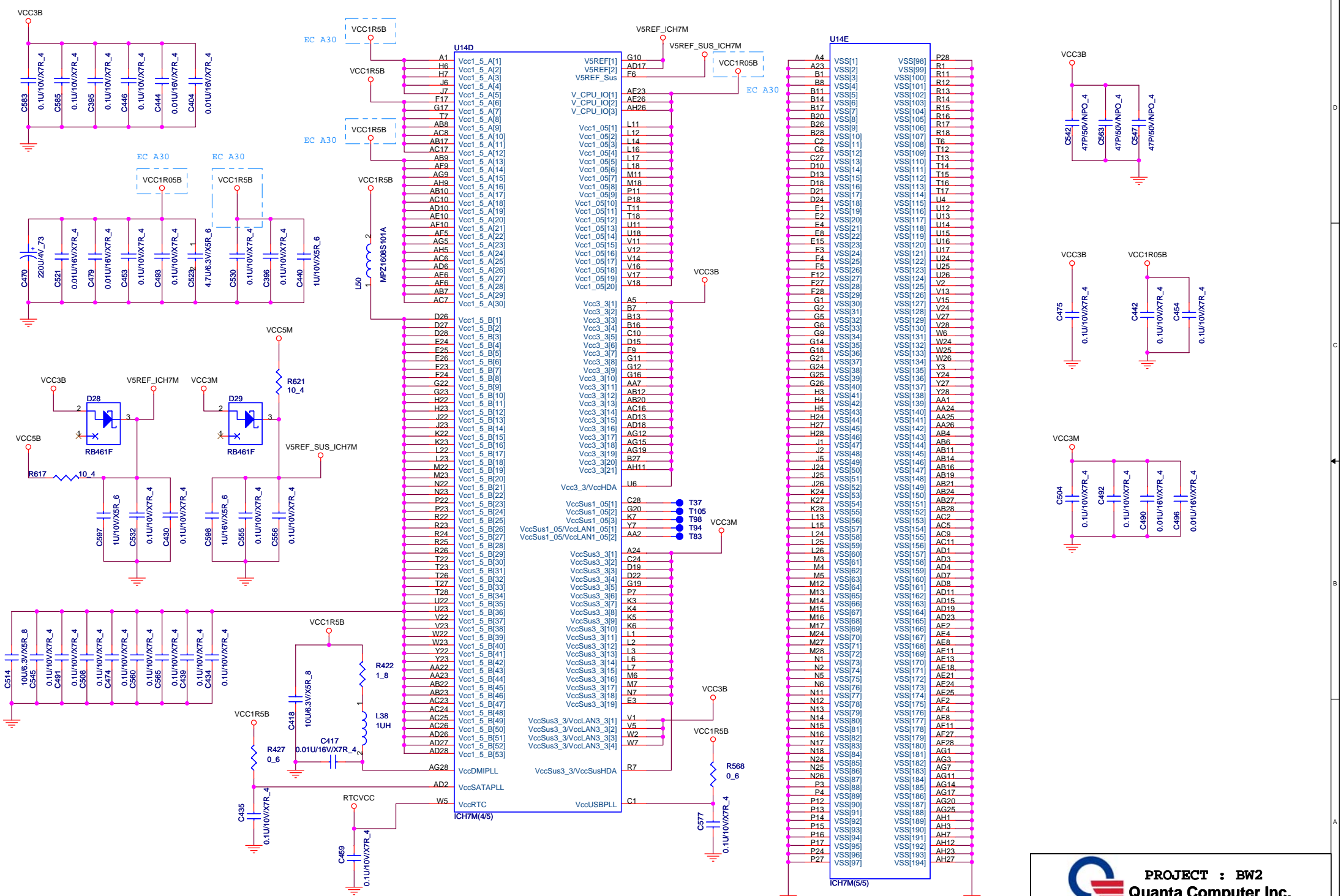
**PCIE distribution**


PCIE0	Ethernet Controller
PCIE1	PCIE WLAN
PCIE2	EXPRESS CARD
PCIE3	Docking



EC A30



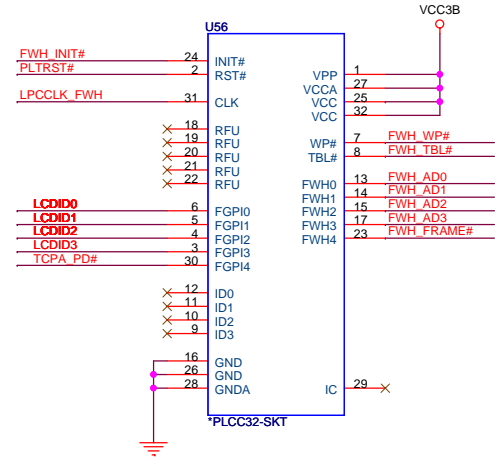
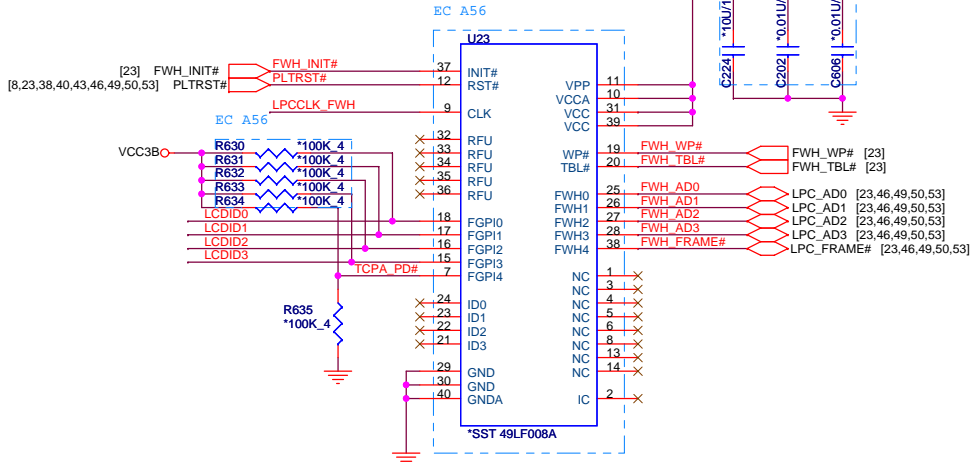
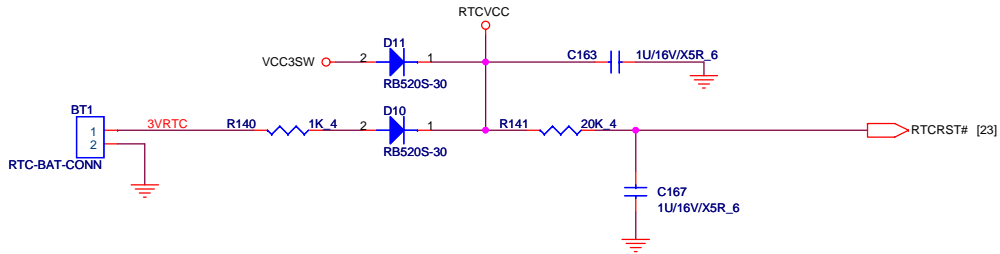


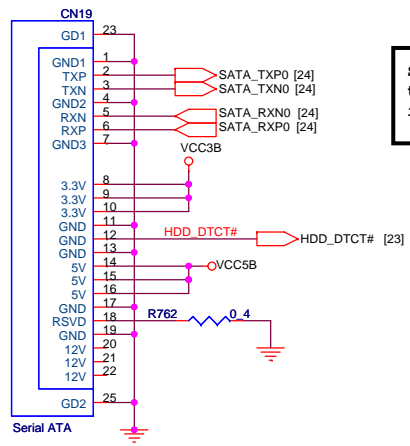


**PROJECT : BW2**  
**Quanta Computer Inc.**

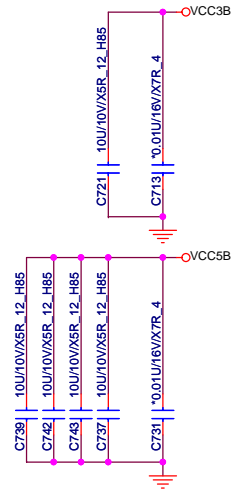
Size	Document Number	Rev
Custom	<b>ICH7M (4/4)</b>	<b>3B</b>
Date:	Thursday, March 02, 2006	Sheet 26 of 79

# RTC

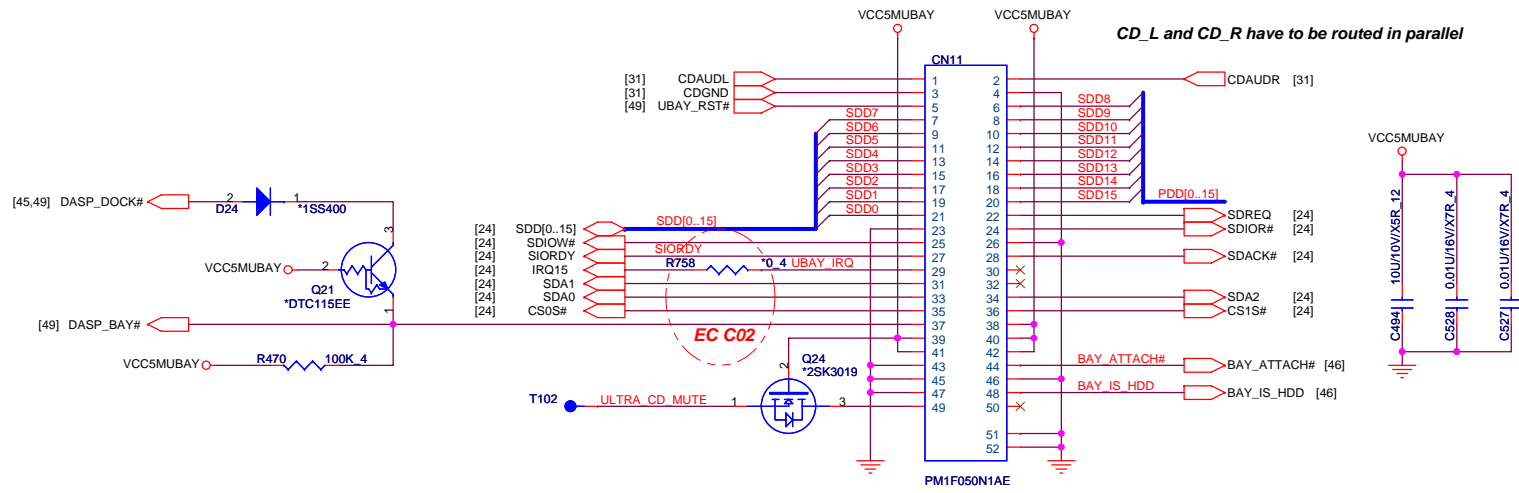




SATA Signal can't put the Test PAD for impedance

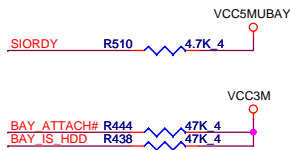
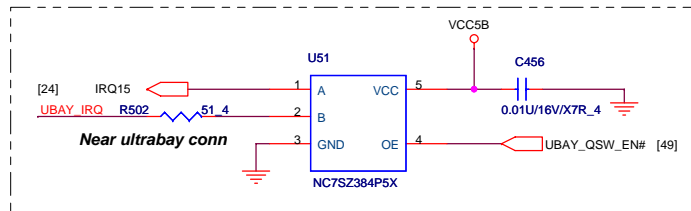
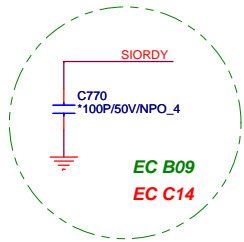


# ODD CONNECTOR

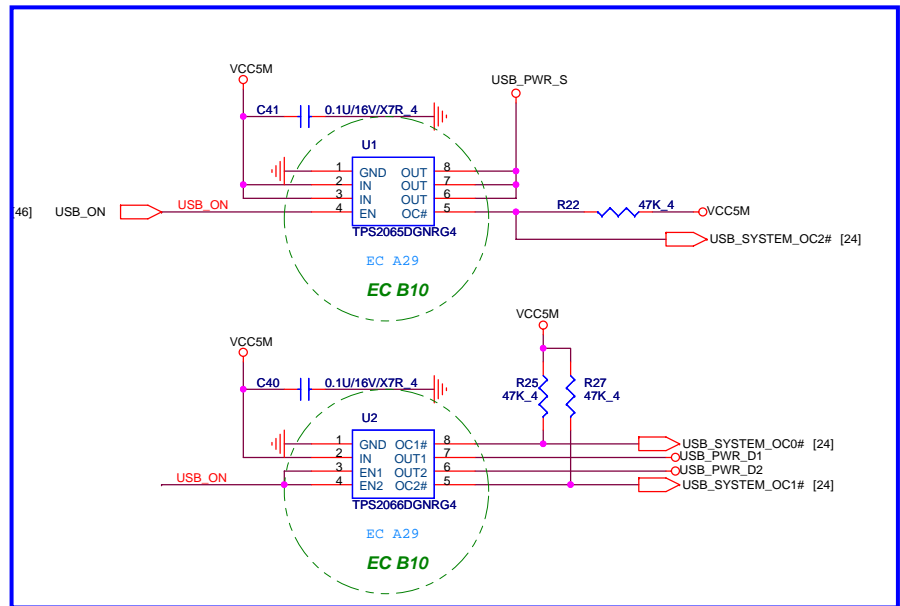
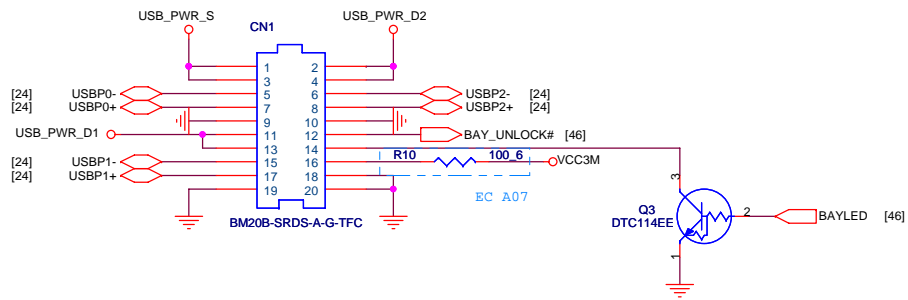


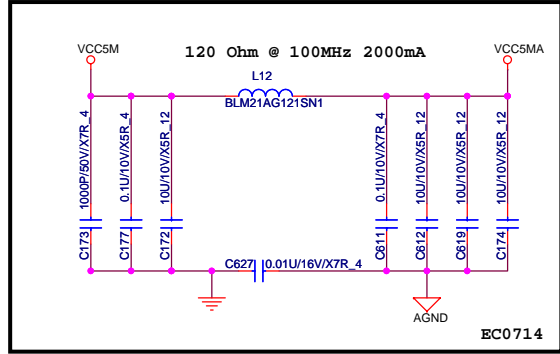
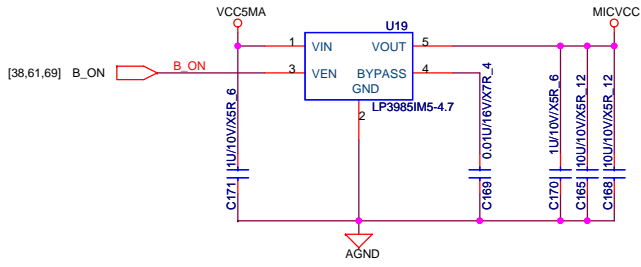
CD\_L and CD\_R have to be routed in parallel

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

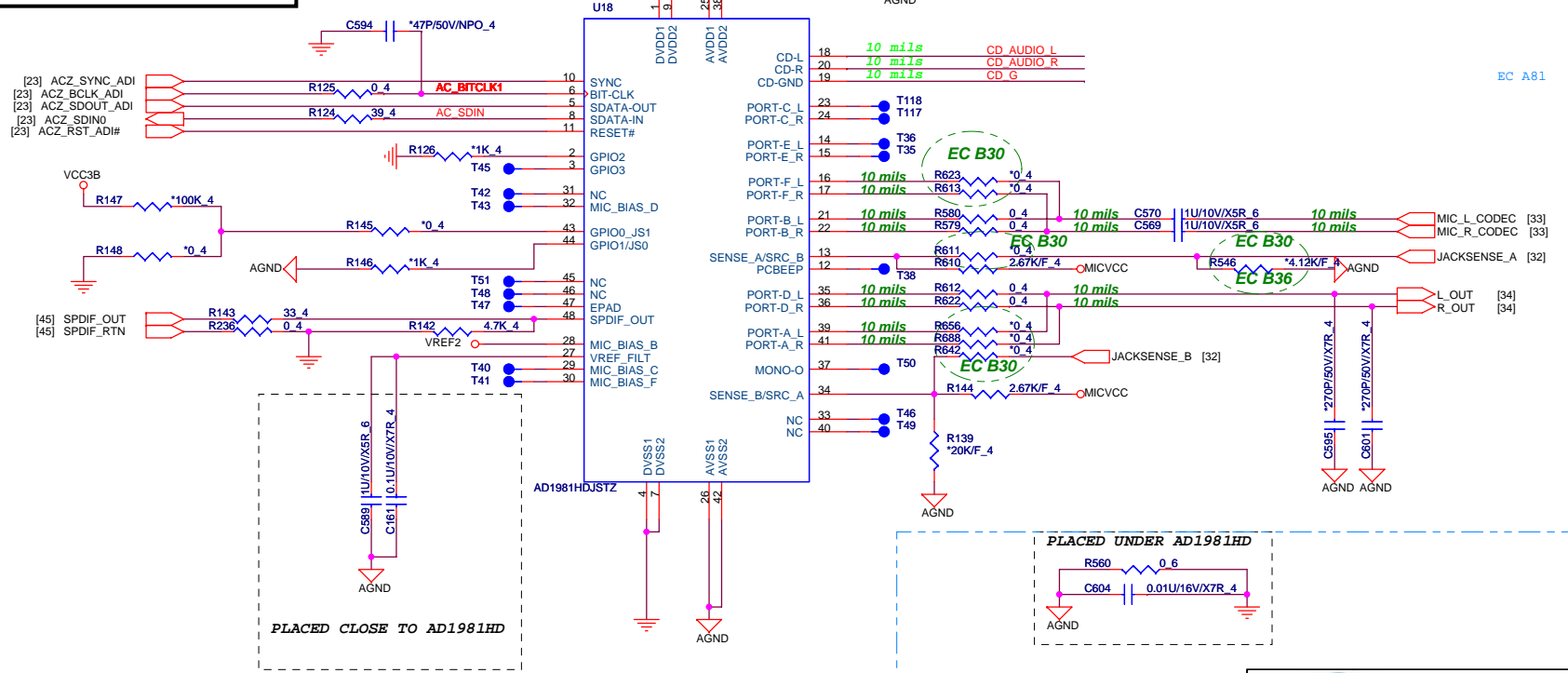
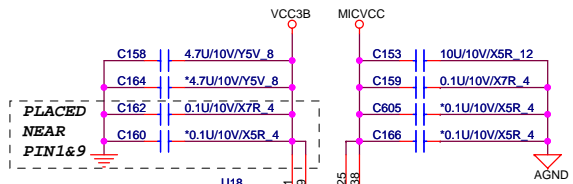
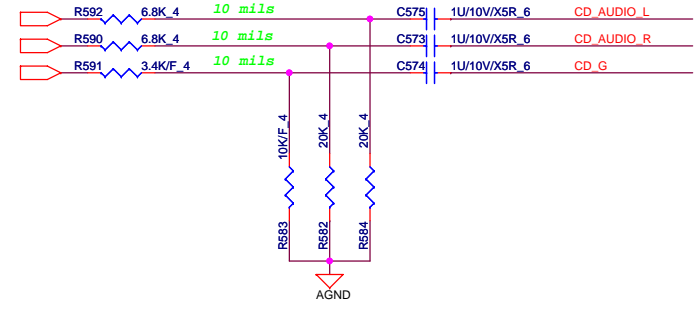


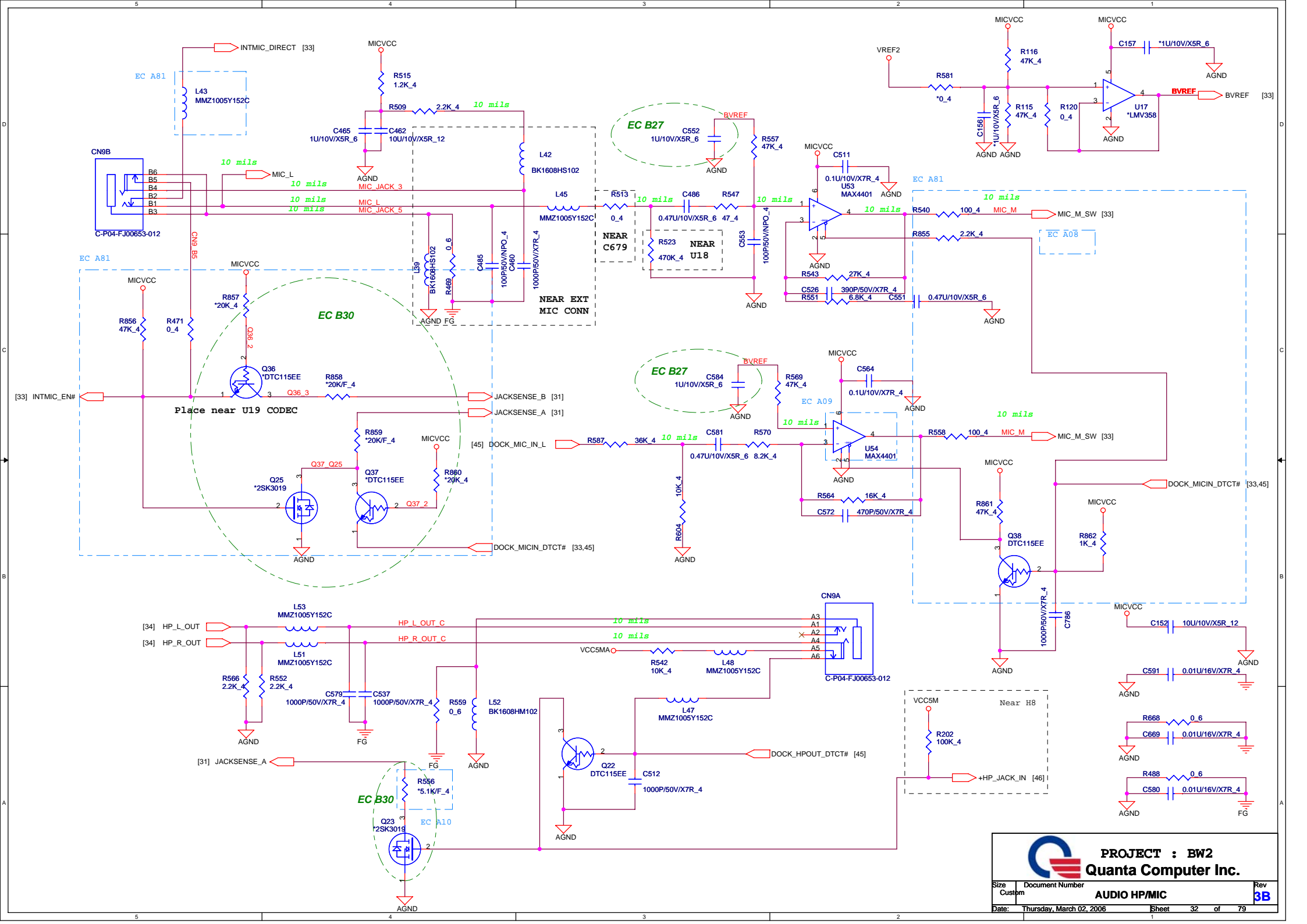
	Entry Model	Normal Model
R758	POP	DE-POP
U51	DE-POP	POP
C456	DE-POP	POP
R502	DE-POP	POP





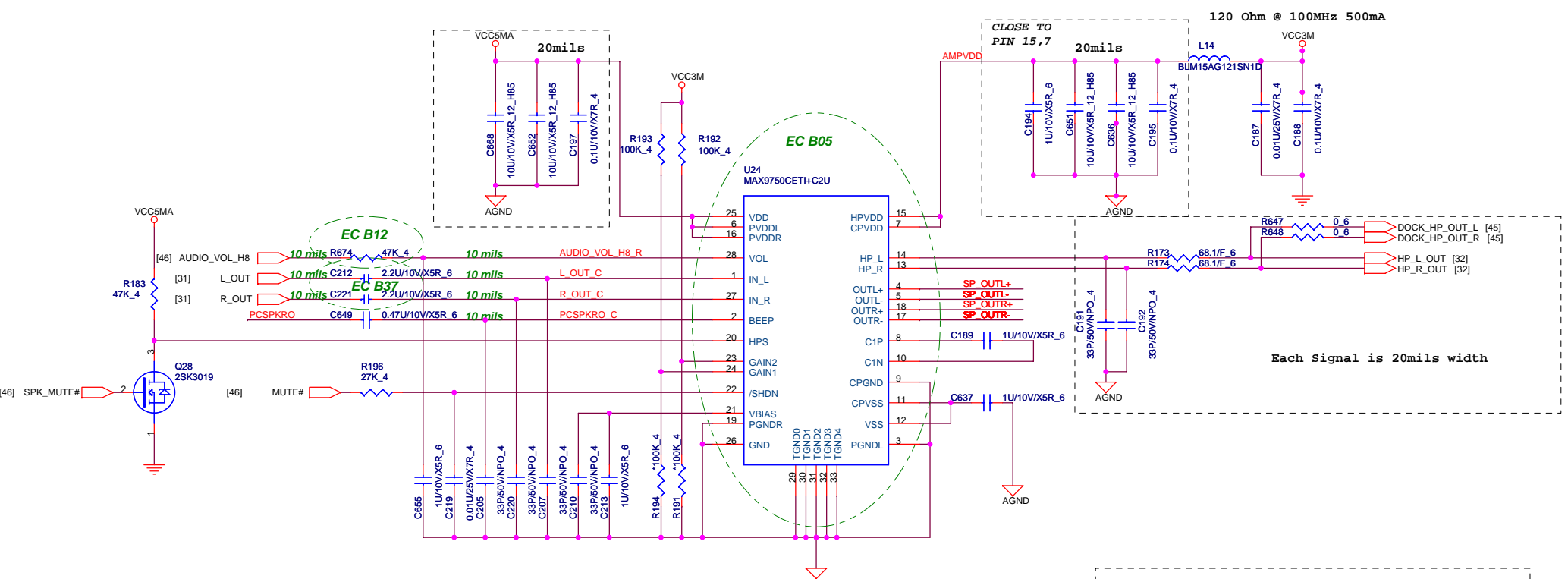
- [29] CDAUDL
- [29] CDAUDR
- [29] CDGND



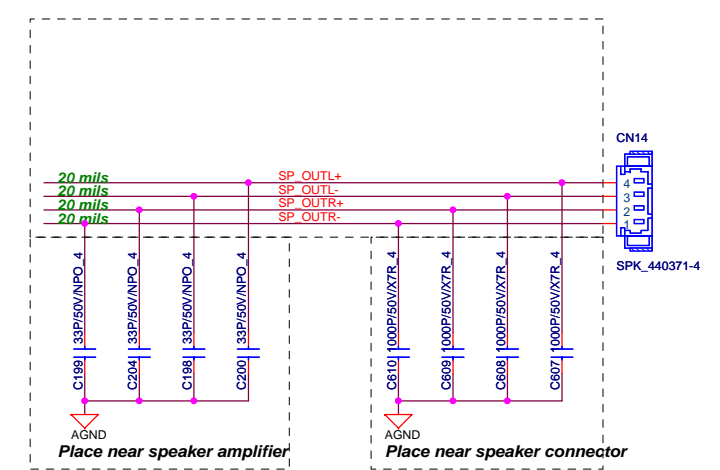
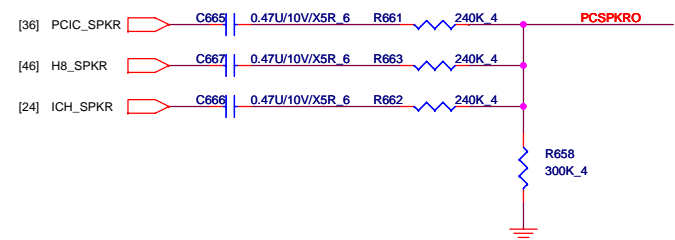
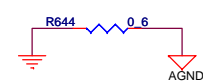




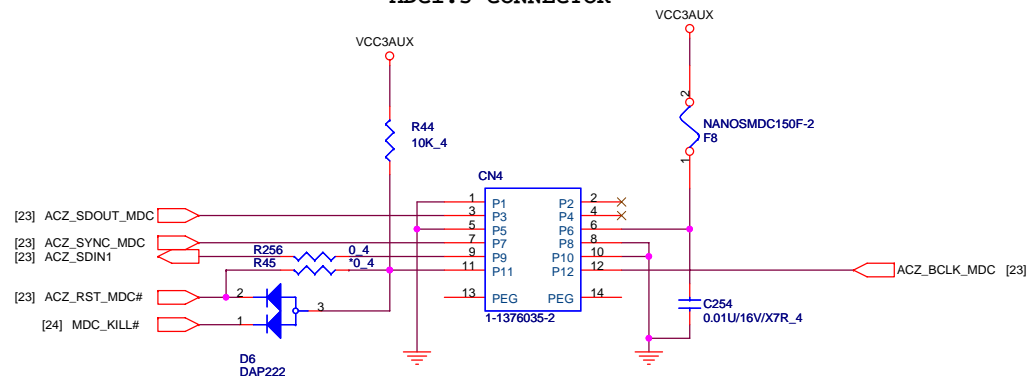


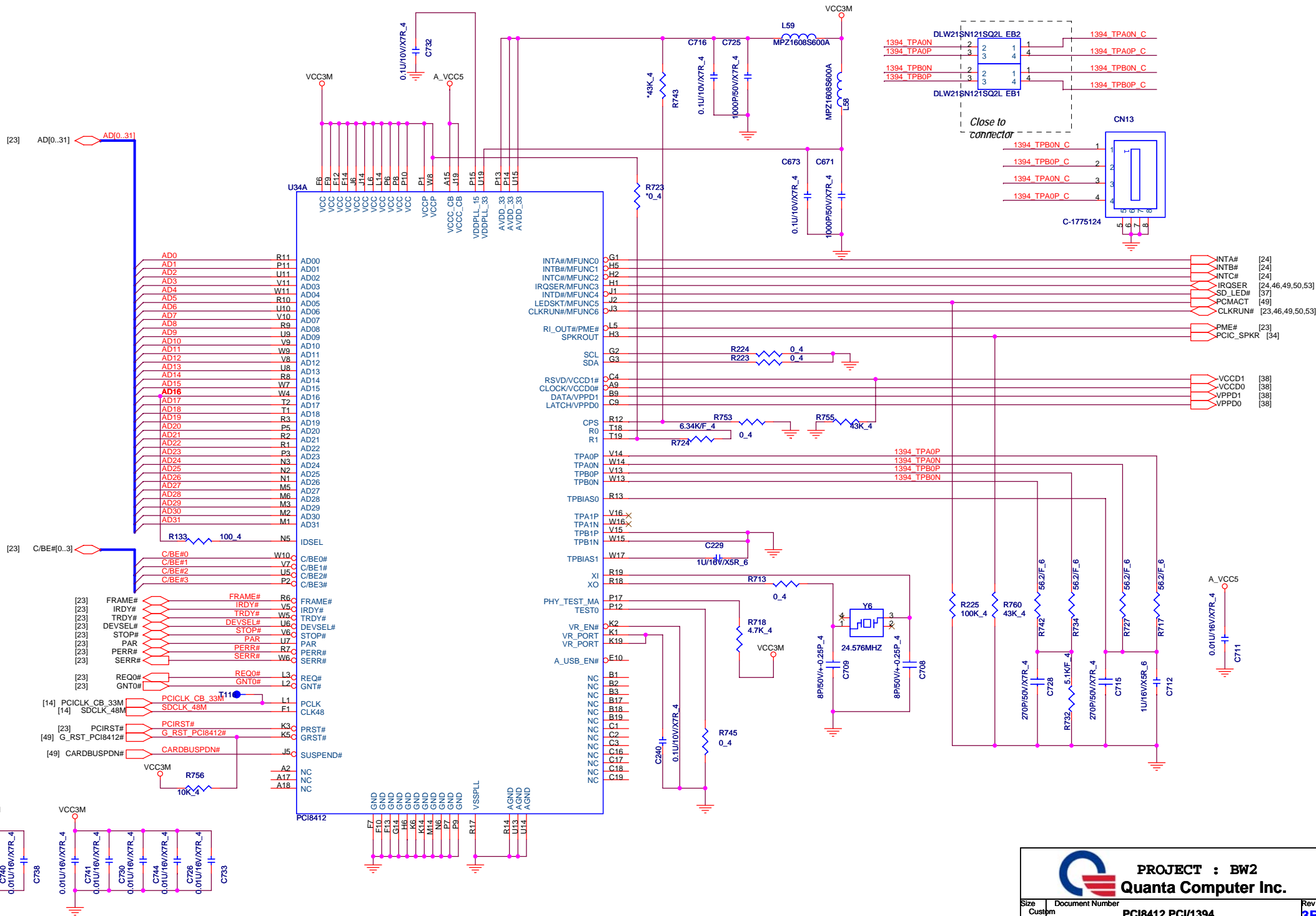


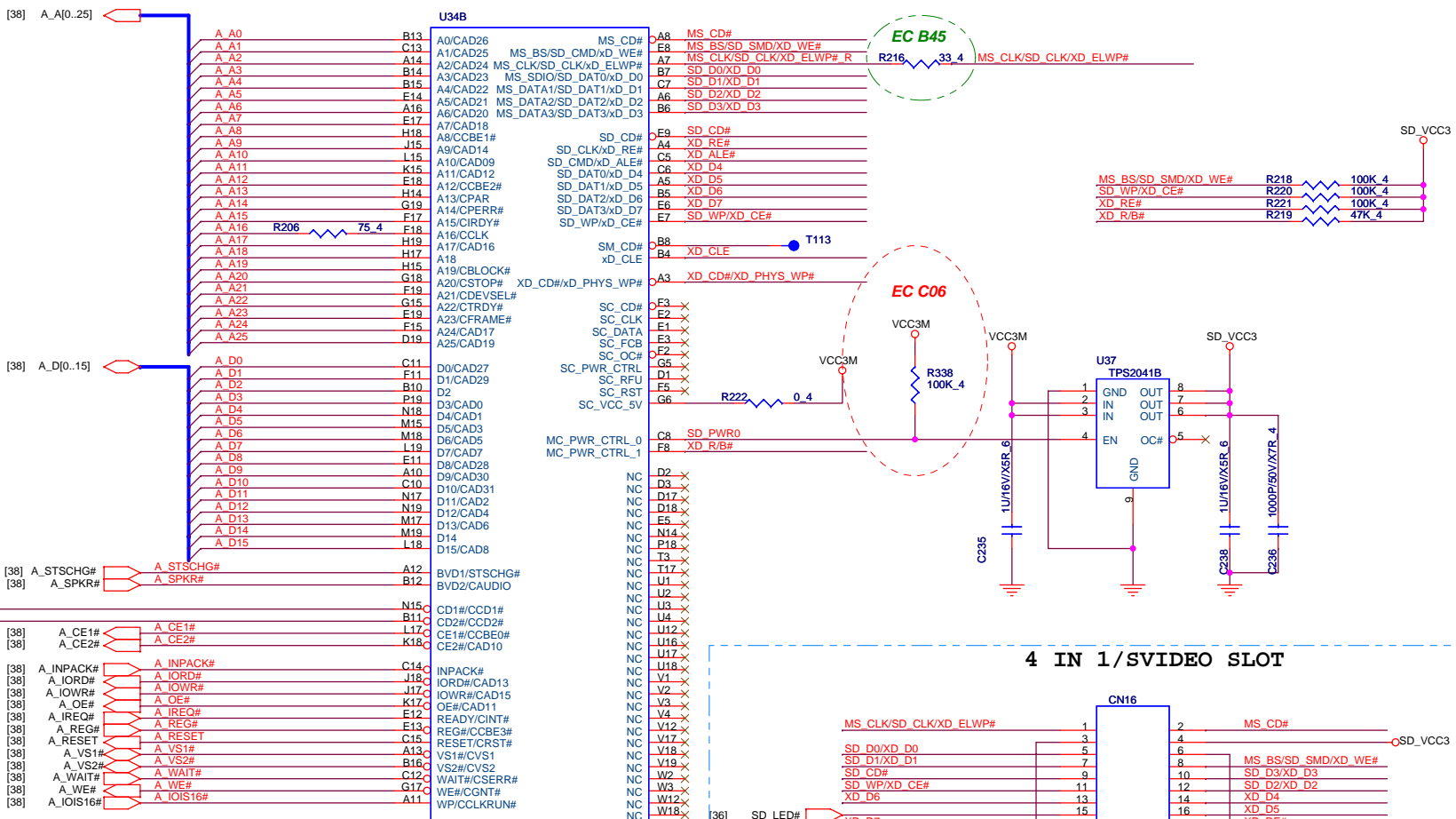
GAIN2	GAIN1	SPKR MODE	HP MODE
0	0	6	0
0	1	7.5	
1	0	9	3
1	1	10.5	



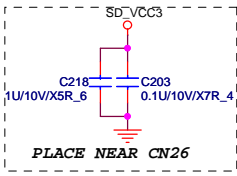
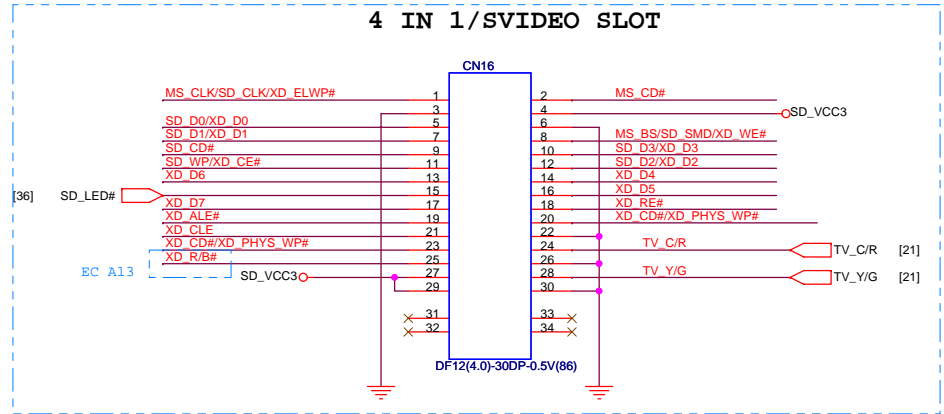
### MDC1.5 CONNECTOR



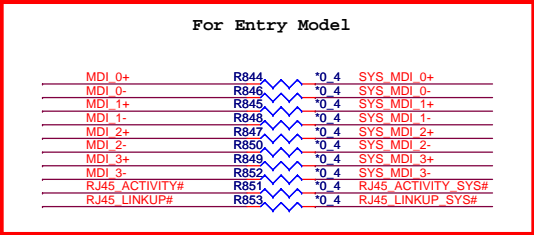




A\_A16: CARDBUS CLK 33MHZ  
 A\_IORD#, A\_IOWR#: USB2.0

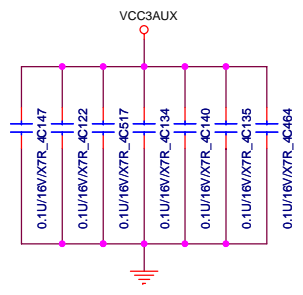
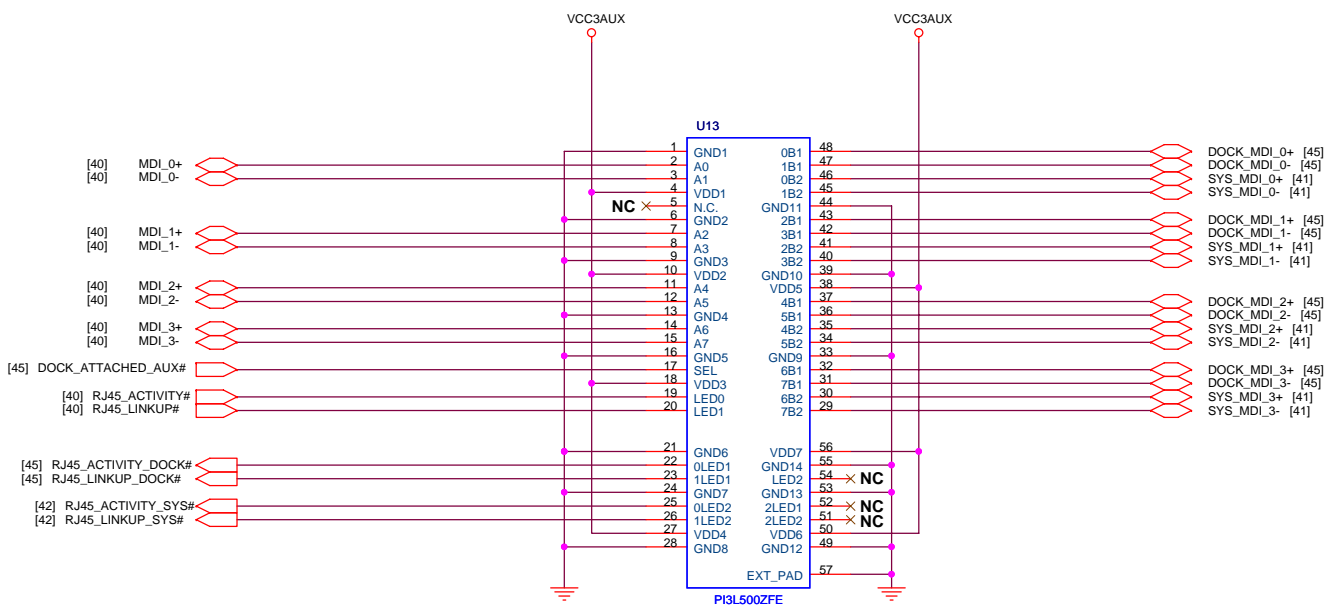


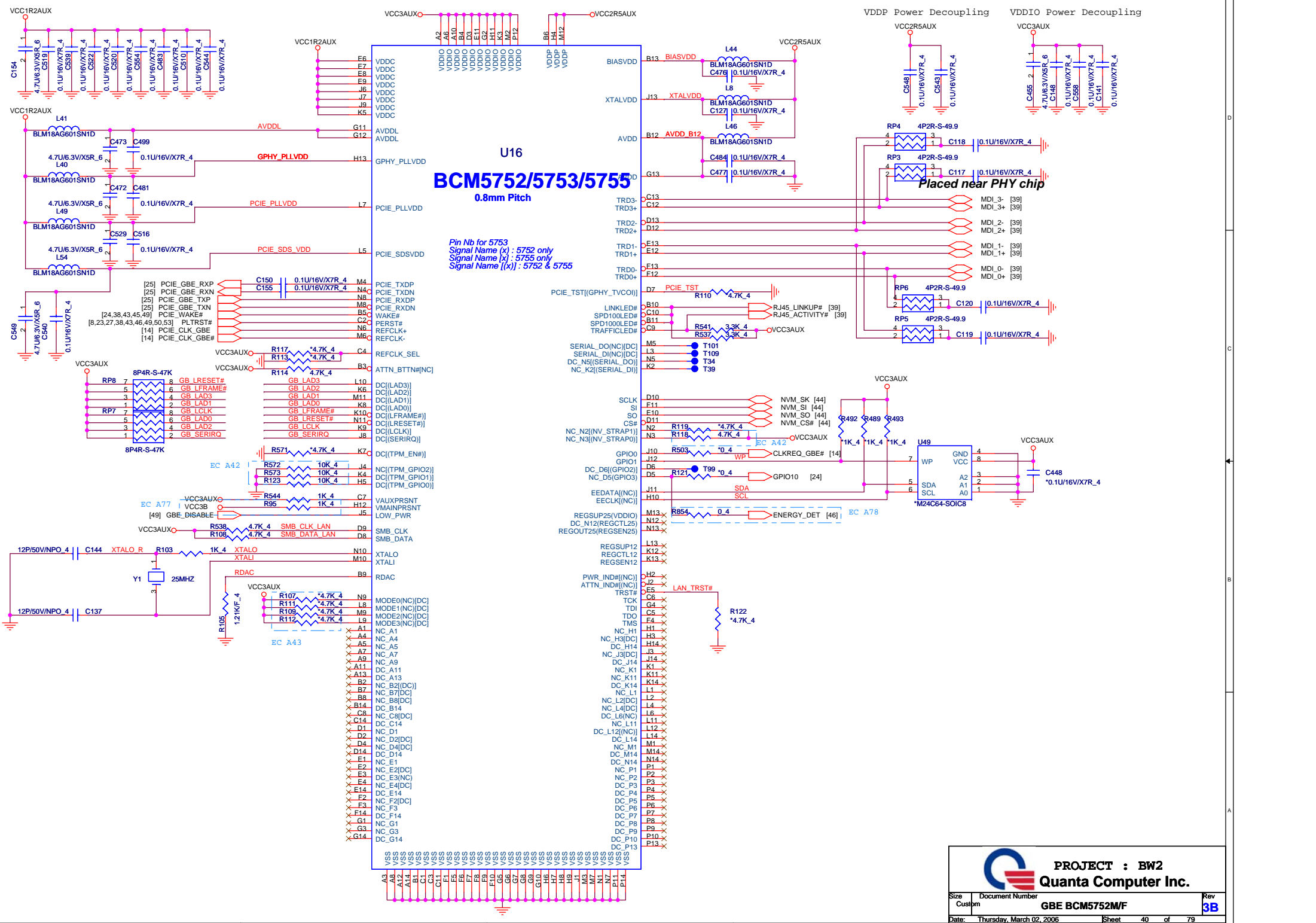




**For Entry Model**


	Entry Model	Normal Model
U13	DE-POP	POP
C147	DE-POP	POP
C122	DE-POP	POP
C517	DE-POP	POP
C134	DE-POP	POP
C140	DE-POP	POP
C135	DE-POP	POP
C464	DE-POP	POP
R844	POP	DE-POP
R846	POP	DE-POP
R845	POP	DE-POP
R848	POP	DE-POP
R847	POP	DE-POP
R850	POP	DE-POP
R849	POP	DE-POP
R852	POP	DE-POP
R851	POP	DE-POP
R853	POP	DE-POP





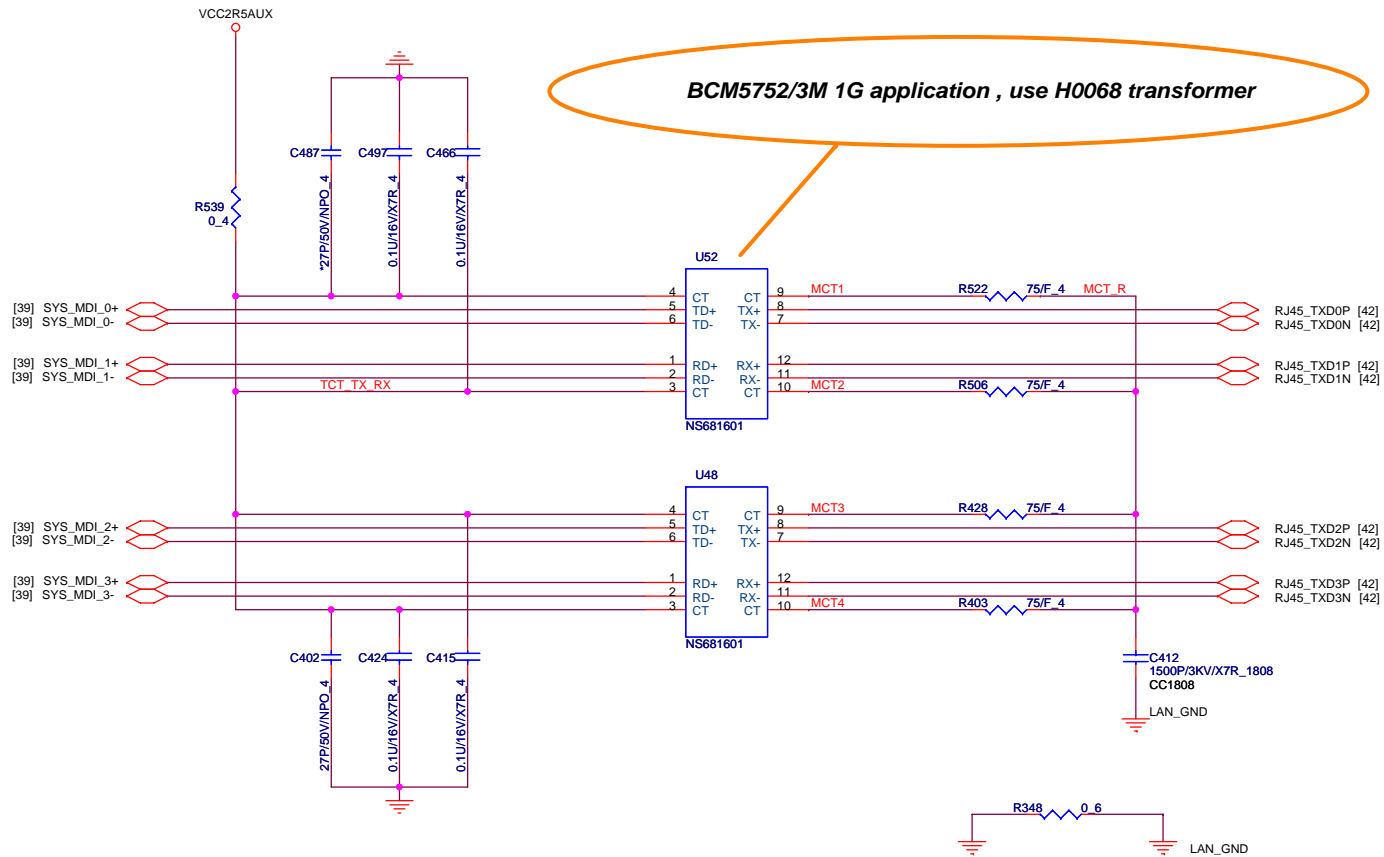
**U16**  
**BCM5752/5753/5755**  
 0.8mm Pitch

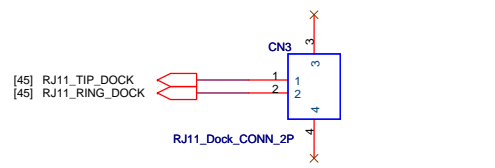
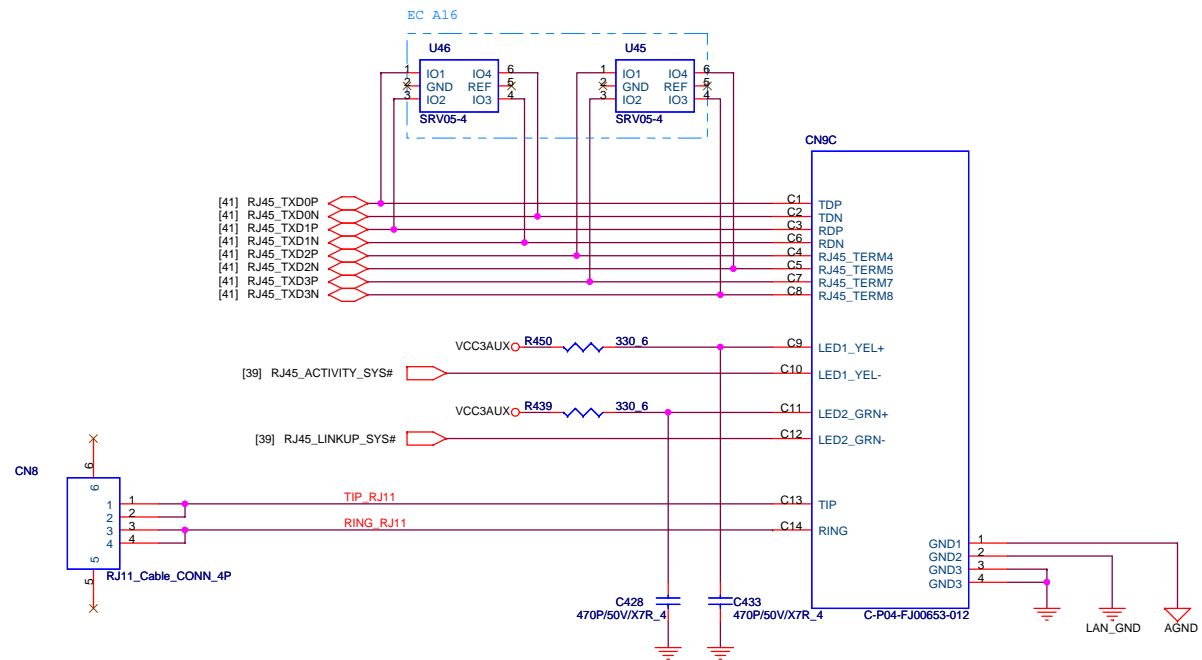
*Pin Nb for 5753*  
*Signal Name (x) : 5752 only*  
*Signal Name (x) : 5755 only*  
*Signal Name [(x)] : 5752 & 5755*


**PROJECT : BW2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>GBE BCM5752/MF</b>	<b>3B</b>
Date:	Thursday, March 02, 2006	Sheet 40 of 79





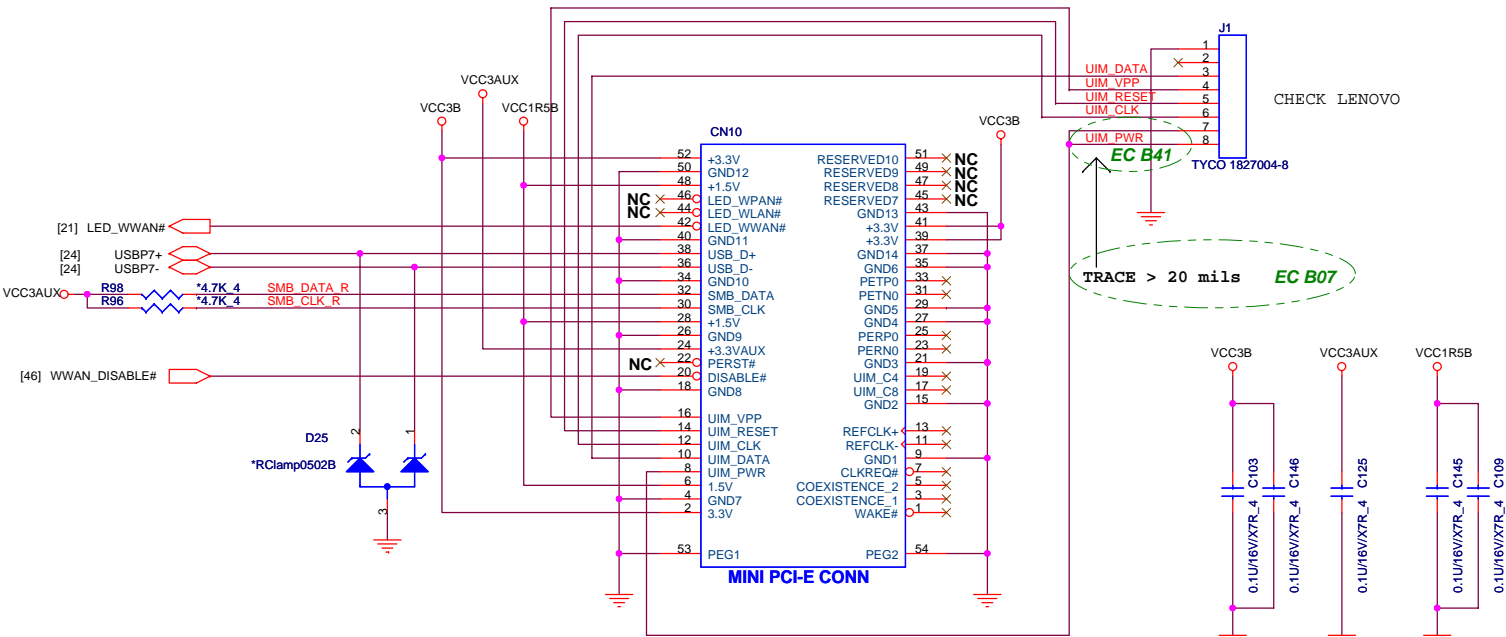


Close to Dock

For Entry Model

	Entry Model	Normal Model
CN3	DE-POP	POP

# MINI PCIE CONN-1 FOR WWAN

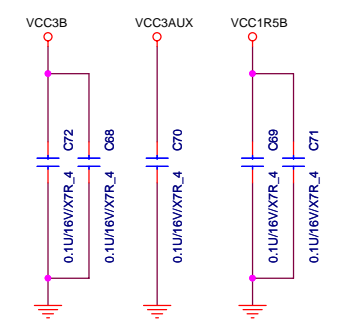
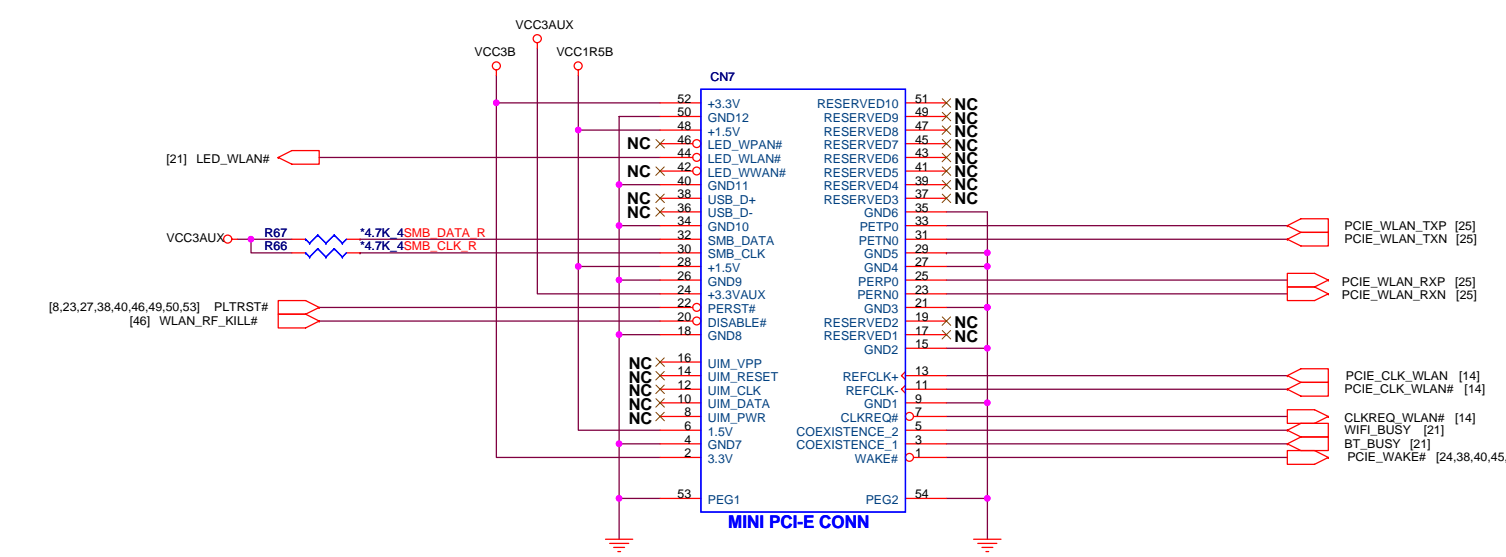


For Entry Model

EC A32

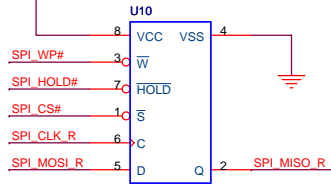
	Entry Model	Normal Model
J1	DE-POP	POP
CN10	DE-POP	POP
C103	DE-POP	POP
C146	DE-POP	POP
C125	DE-POP	POP
C145	DE-POP	POP
C109	DE-POP	POP

# MINI PCIE CONN-2 FOR WLAN



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

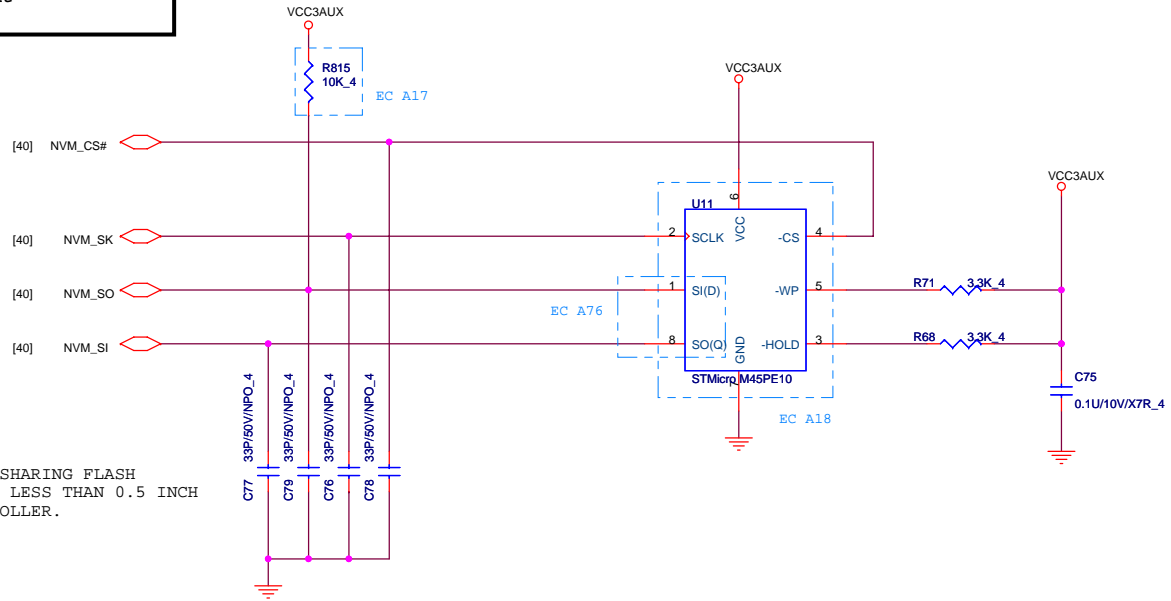
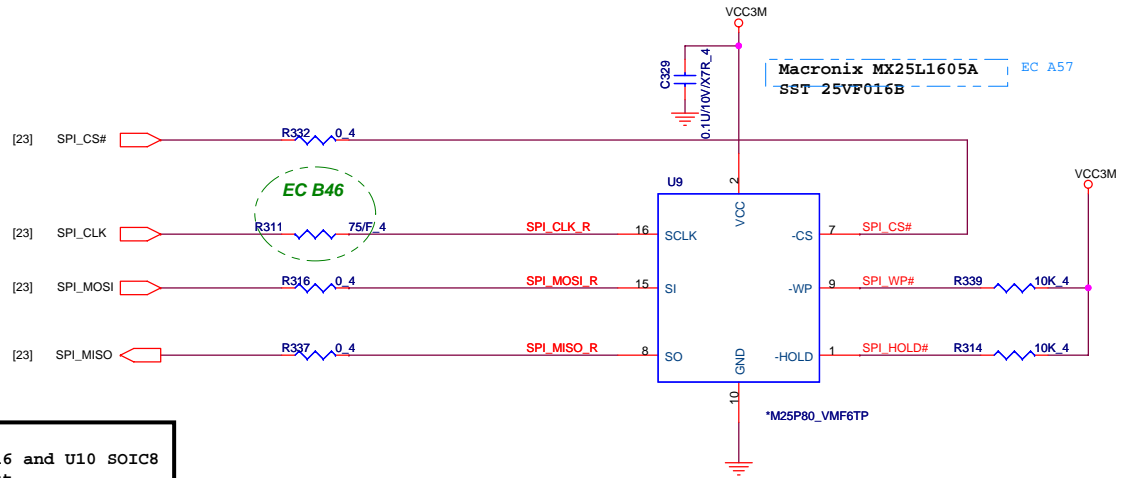
8Mbit (1M Byte), SPI



Macronix MX25L1605A

EC A89

U9 SOIC16 and U10 SOIC8 co-layout



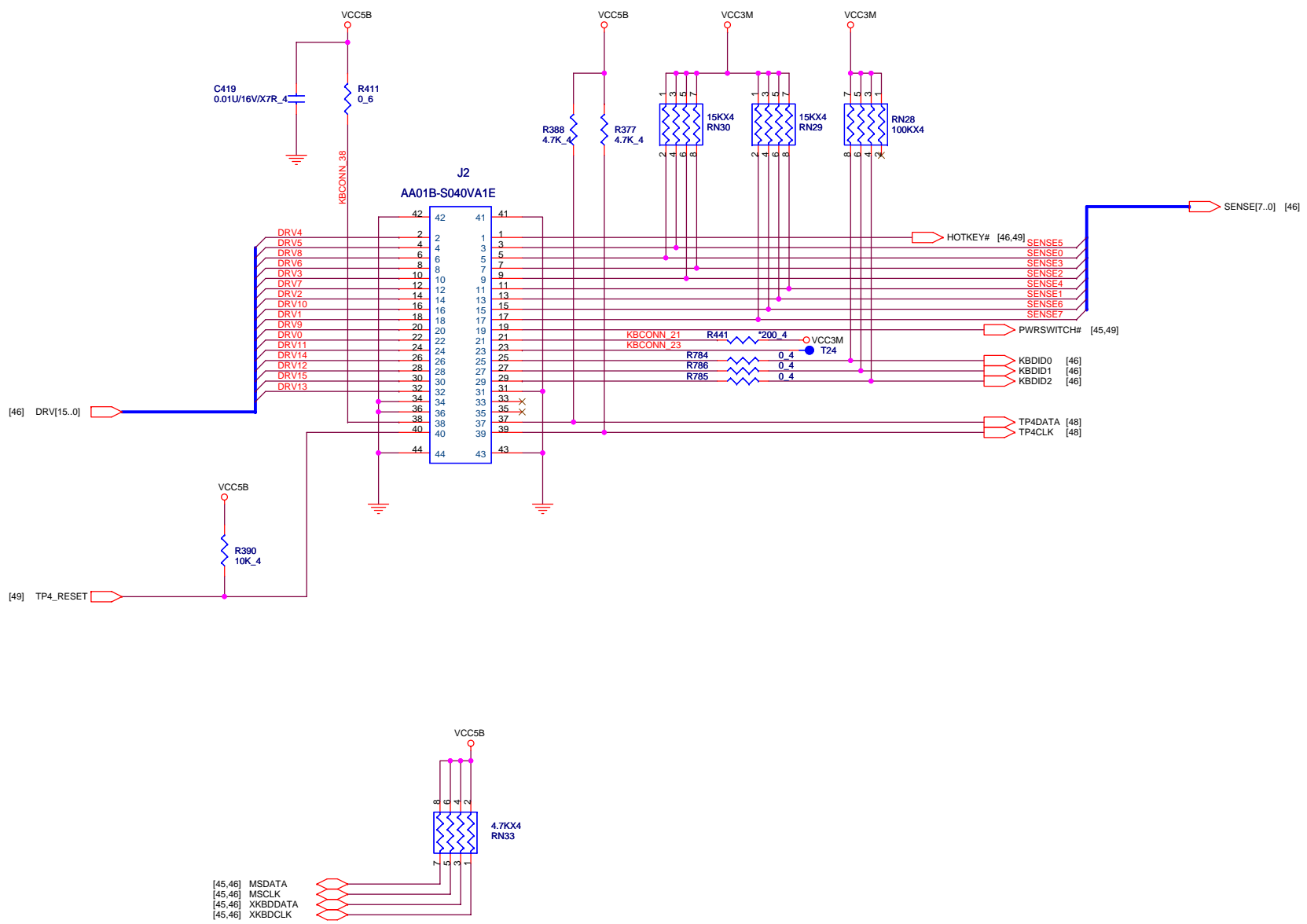
INSTALL ONLY WHEN SHARING FLASH WITH THE ICH. PLACE LESS THAN 0.5 INCH FROM THE LAN CONTROLLER.

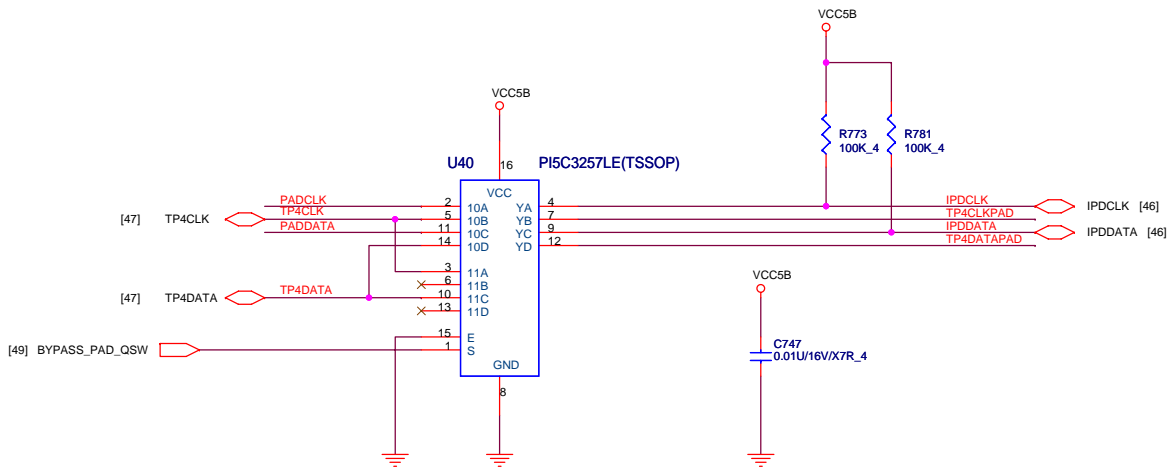
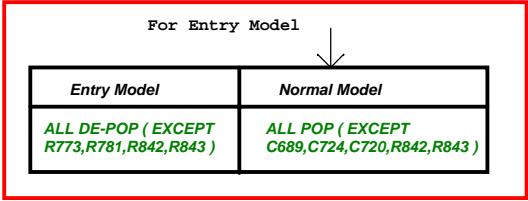
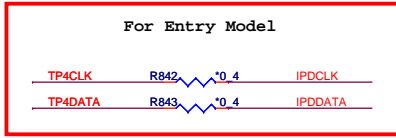
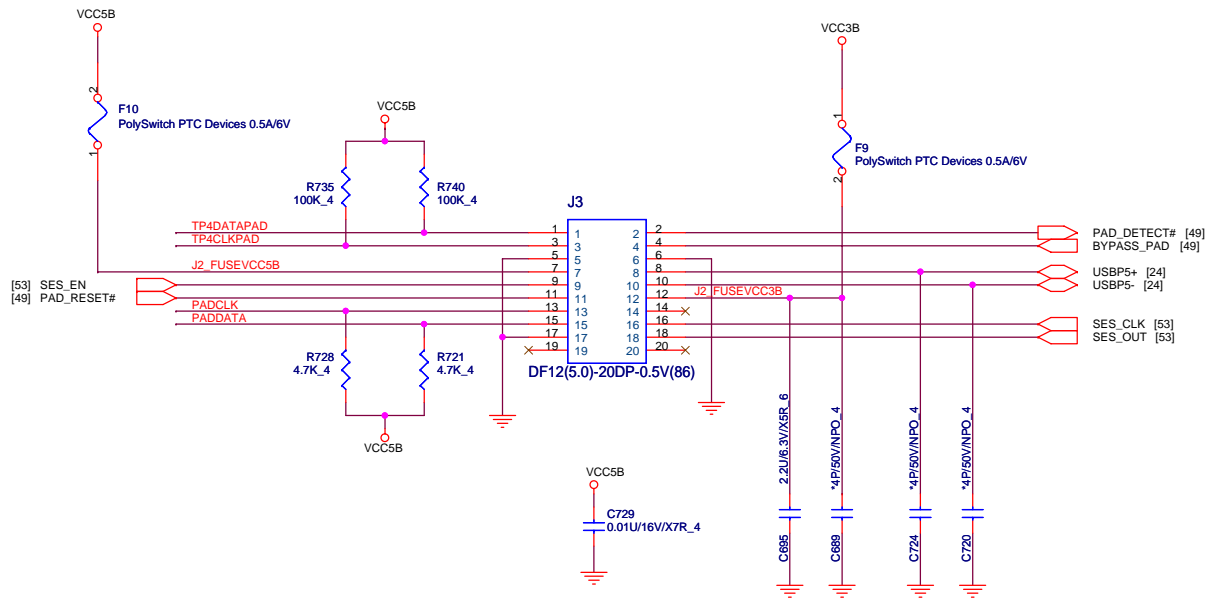


PROJECT : BW2  
Quanta Computer Inc.







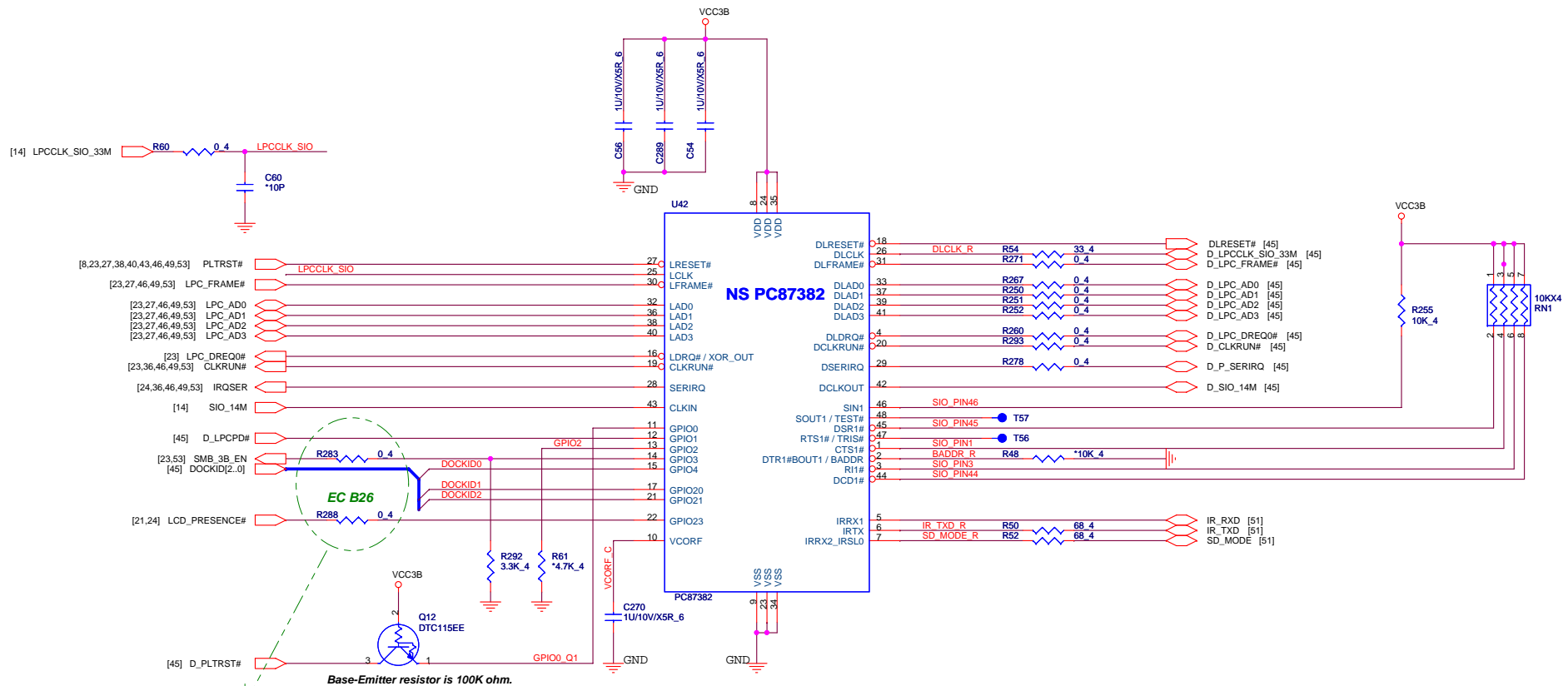
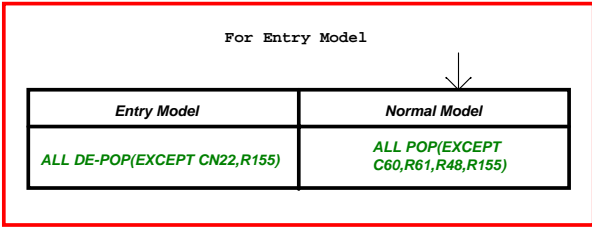
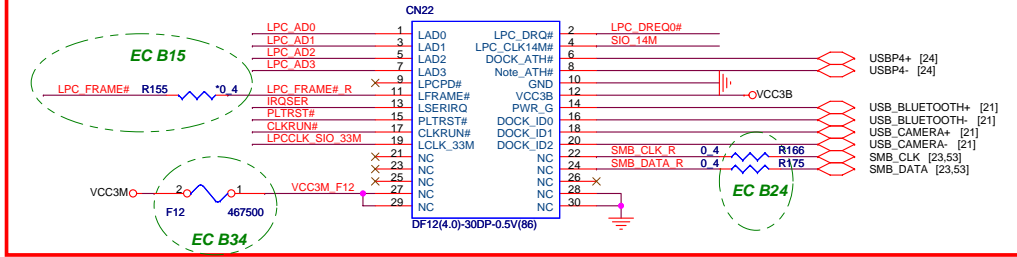


S	YA	YB	YC	YD	FUNCTION
L	10A	10B	10C	10D	S=0
H	11A	11B	11C	11D	S=1





USB HUB SUB CARD & Debug connector for Entry Model



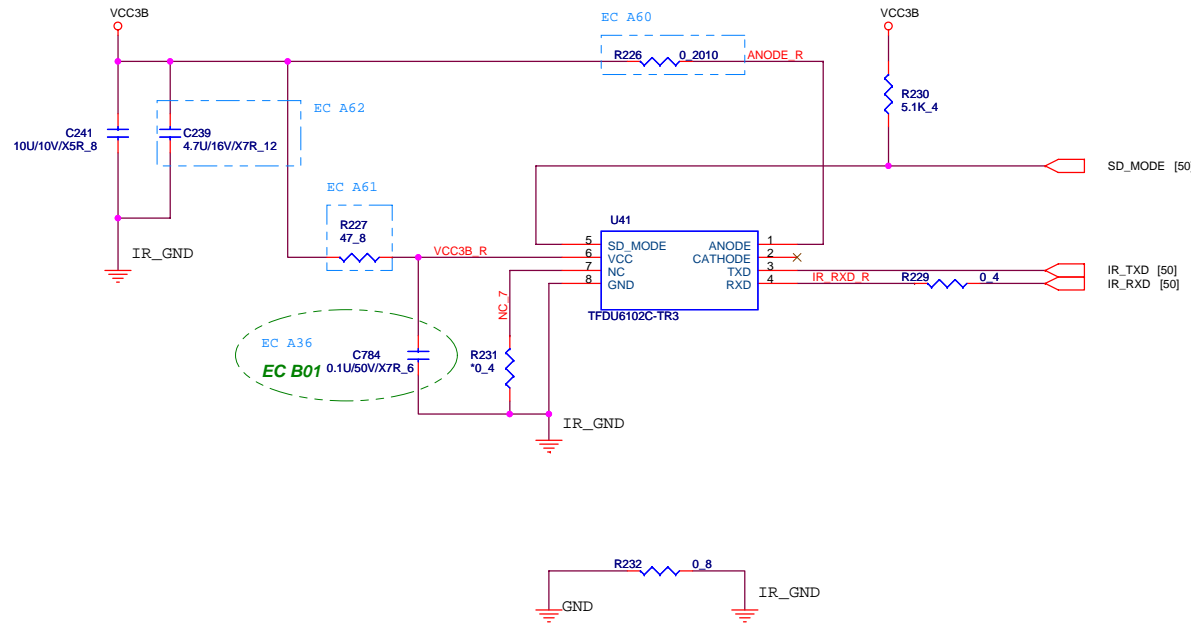
GPIO in Entry Model

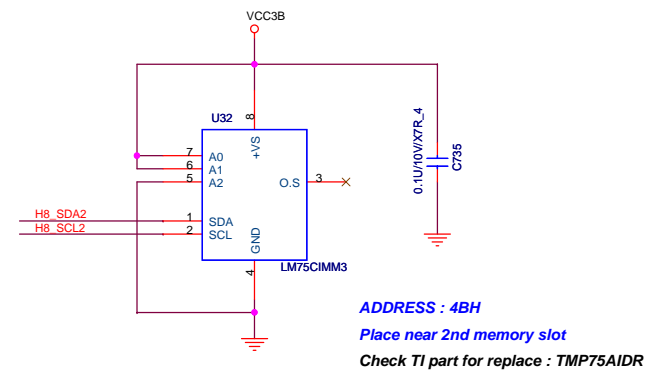
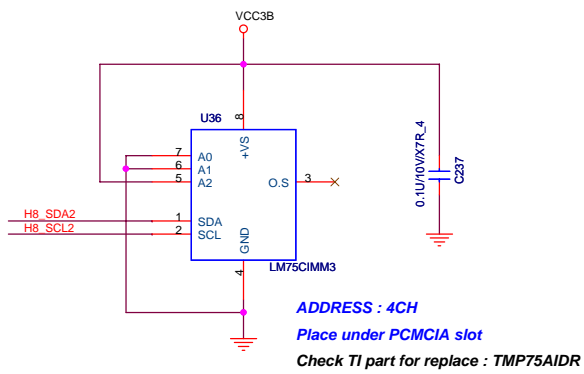
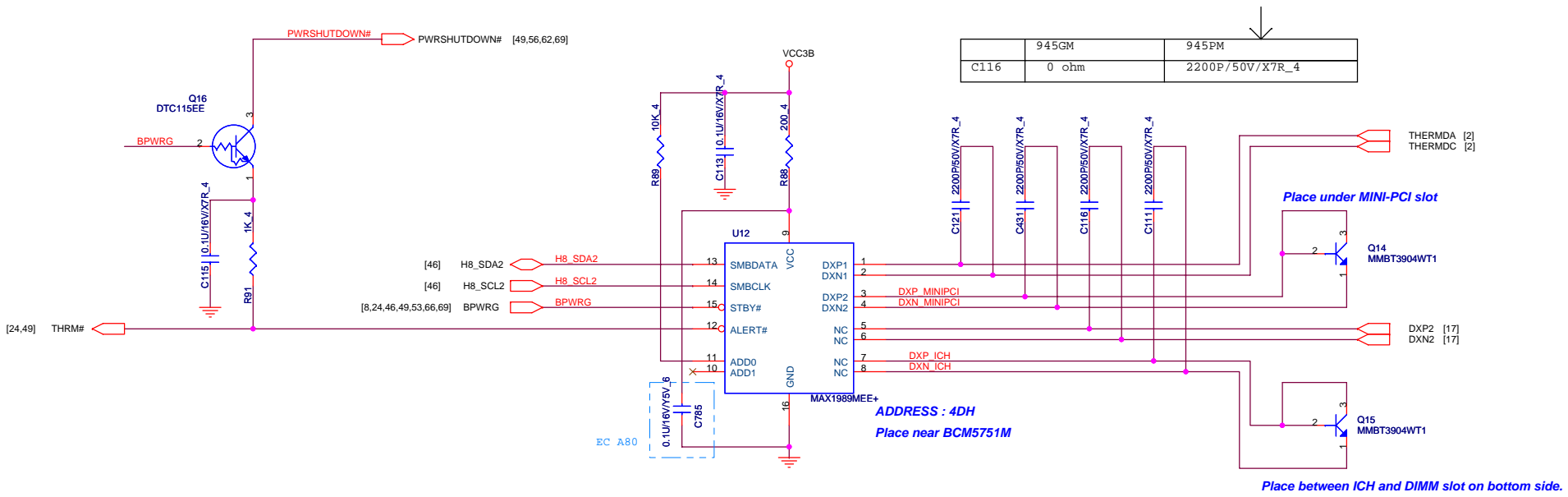
Signal	Normal model	Entry model
SMB_3B_EN	SIO GPIO3	ICH7 GPIO34
LCD_PRESENCE#	SIO GPIO23	ICH7 GPIO21

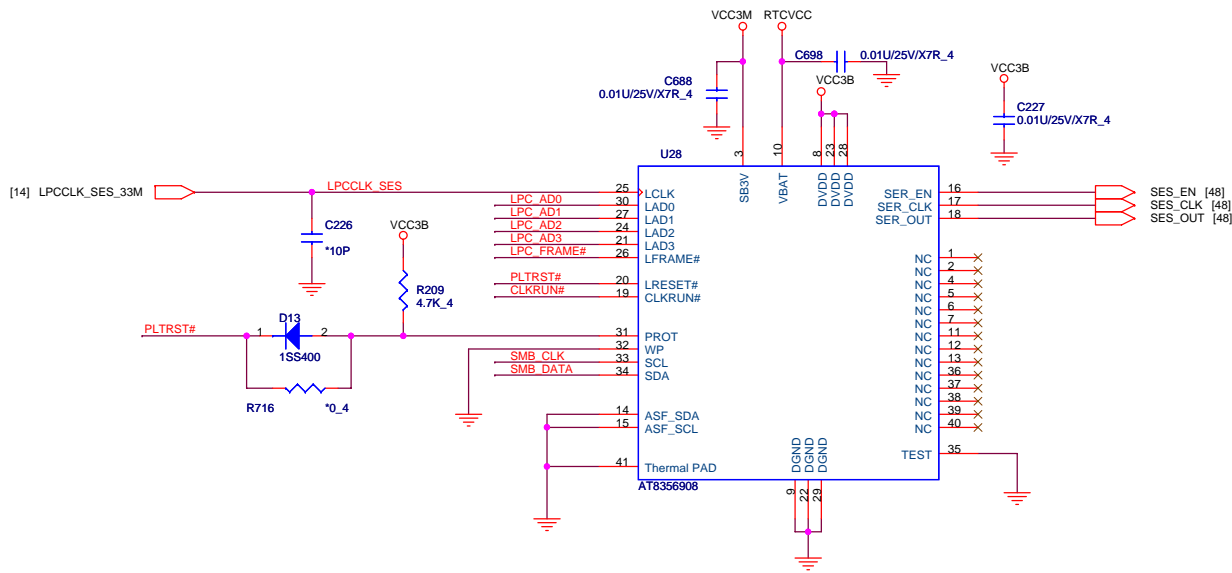
Normal : ASM  
Entry model : NOASM

For Entry Model ↓

Entry Model	Normal Model
ALL DE-POP	ALL POP (EXCEPT R231)



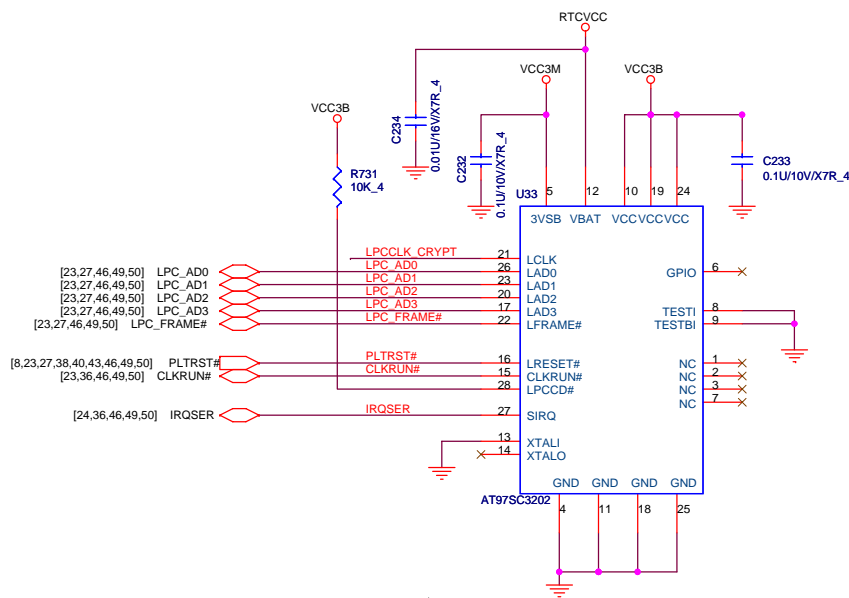




**For Entry Model**

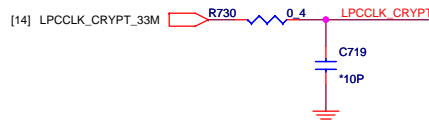
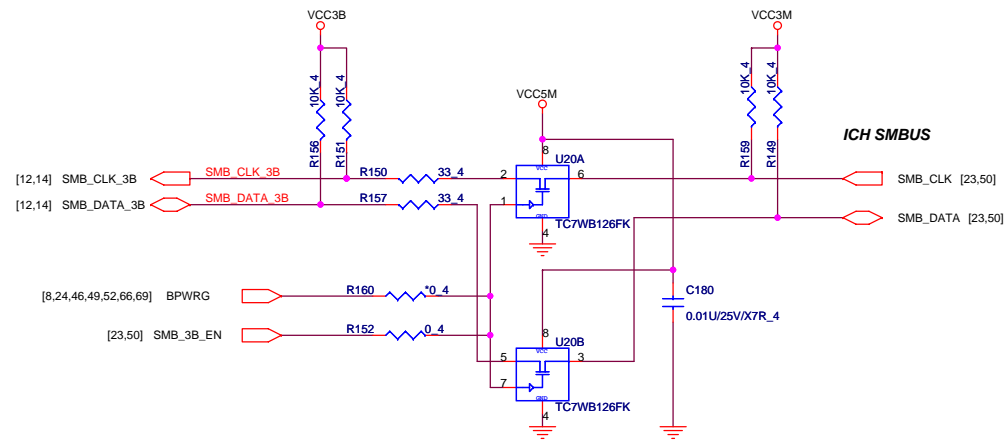
↓

	Entry Model	Normal Model
U33	DE-POP	POP
C233	DE-POP	POP
C232	DE-POP	POP
C234	DE-POP	POP
R731	DE-POP	POP
R160	POP	DE-POP
R152	DE-POP	POP



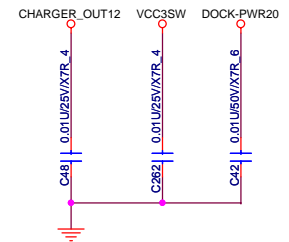
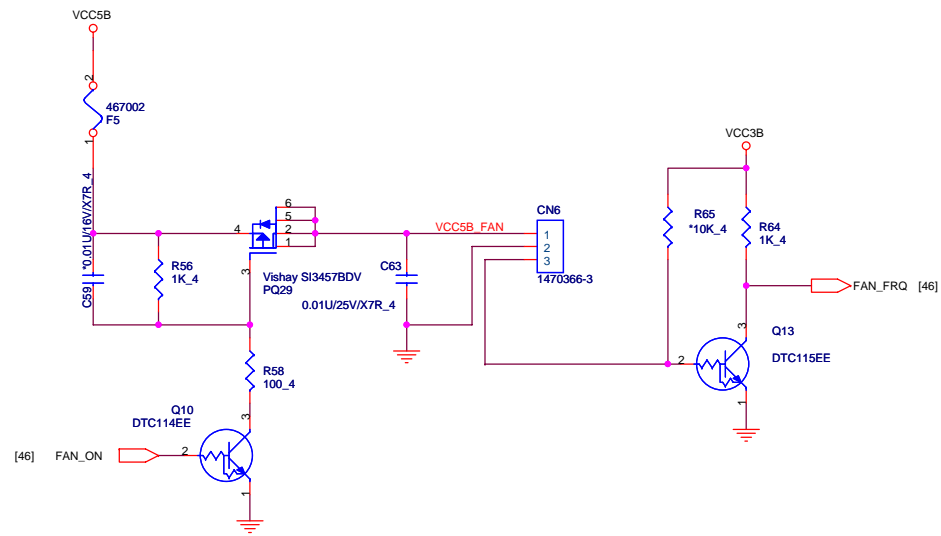
**TCPA TABLE**

	YES	NO
U33	ASM	NO_ASM
C233	ASM	NO_ASM
C232	ASM	NO_ASM
C234	ASM	NO_ASM
R731	ASM	NO_ASM

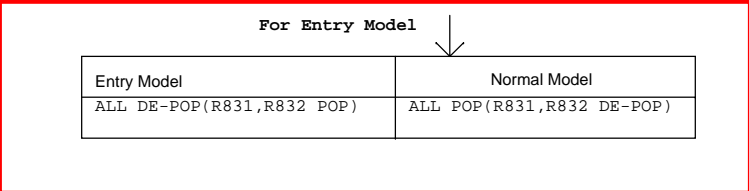


**PROJECT : BW2**  
**Quanta Computer Inc.**

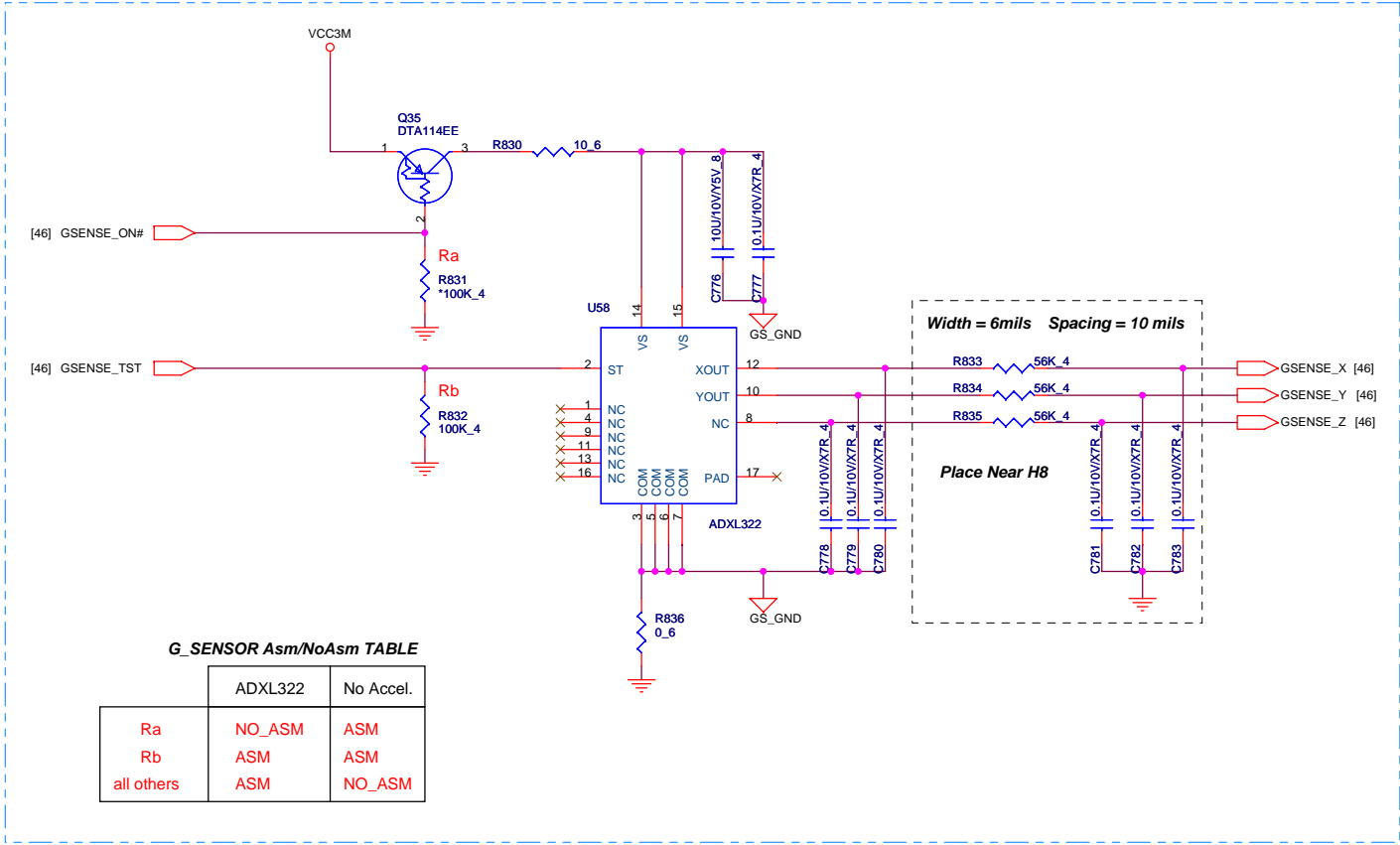
Size	Document Number	Rev
Custom	<b>TPM/I2C/SMBUS</b>	<b>3B</b>
Date: Thursday, March 02, 2006		Sheet 53 of 79

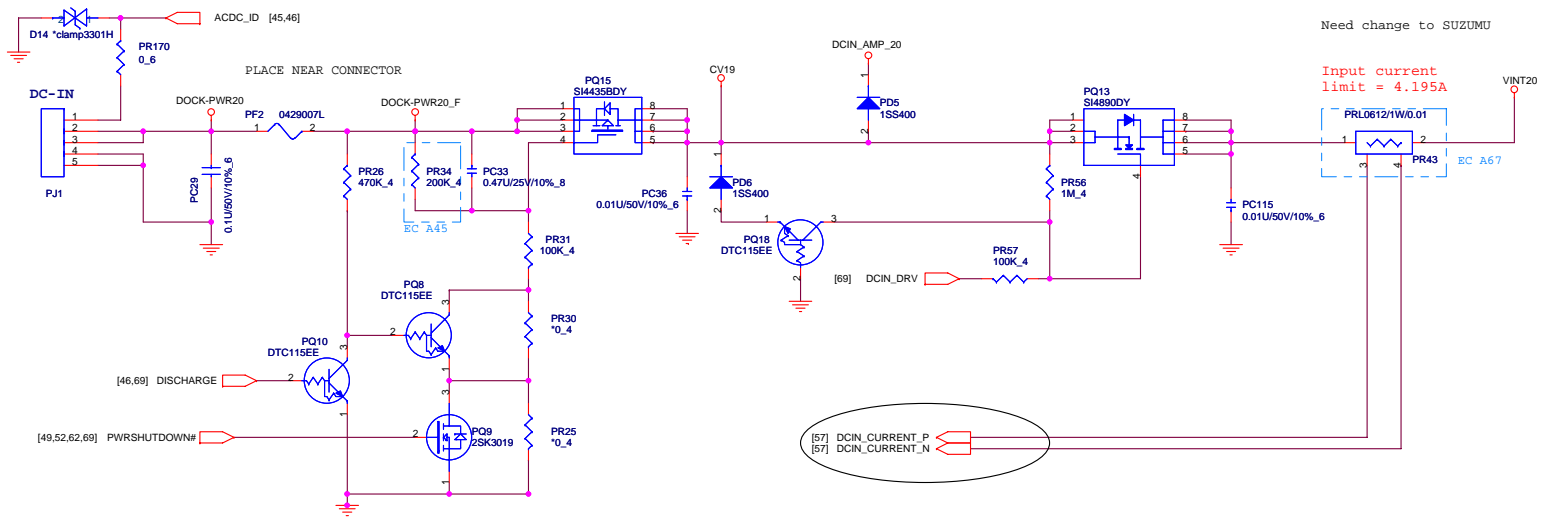


**PROJECT : BW2**  
**Quanta Computer Inc.**



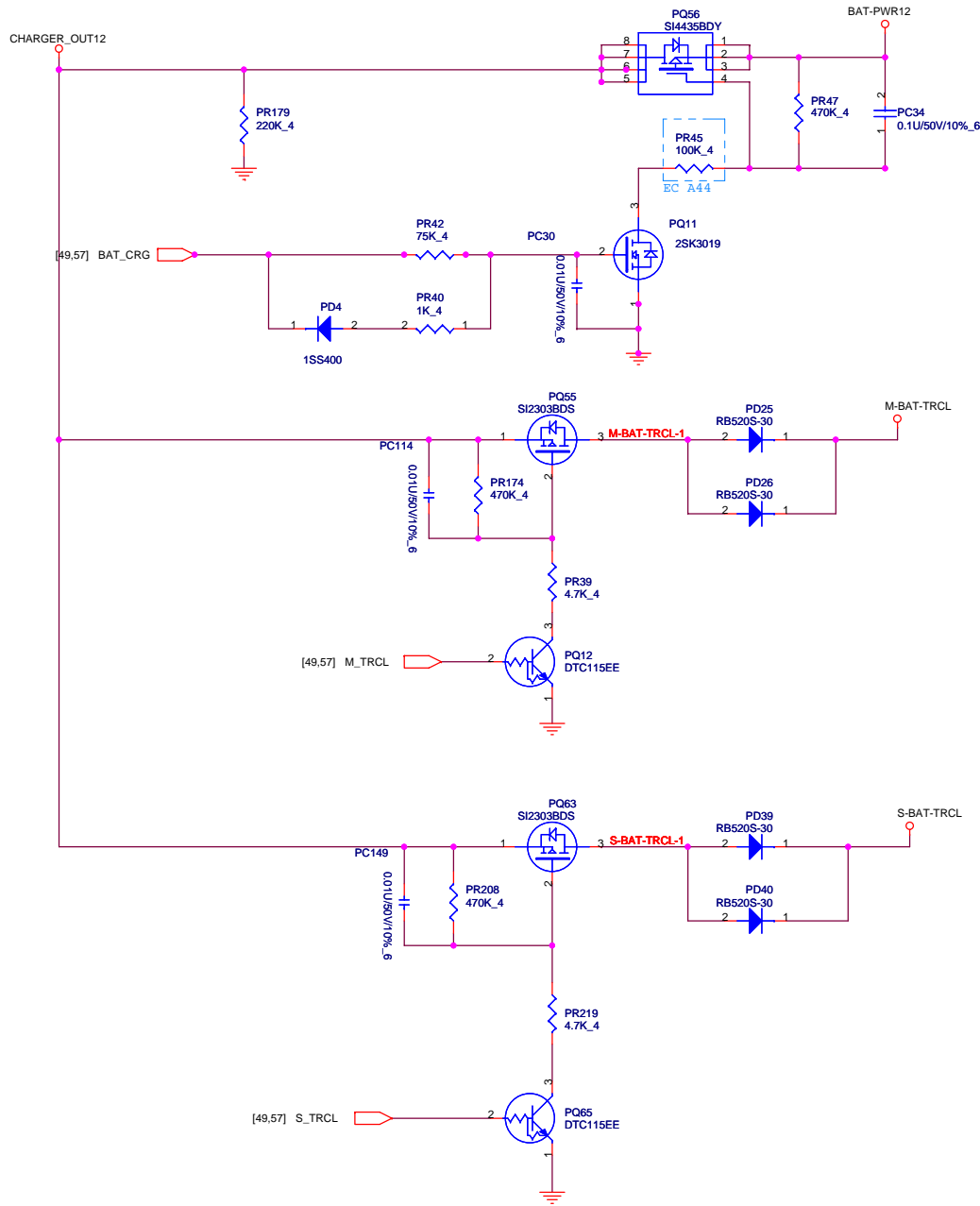
EC A35





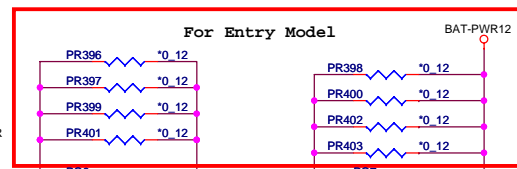
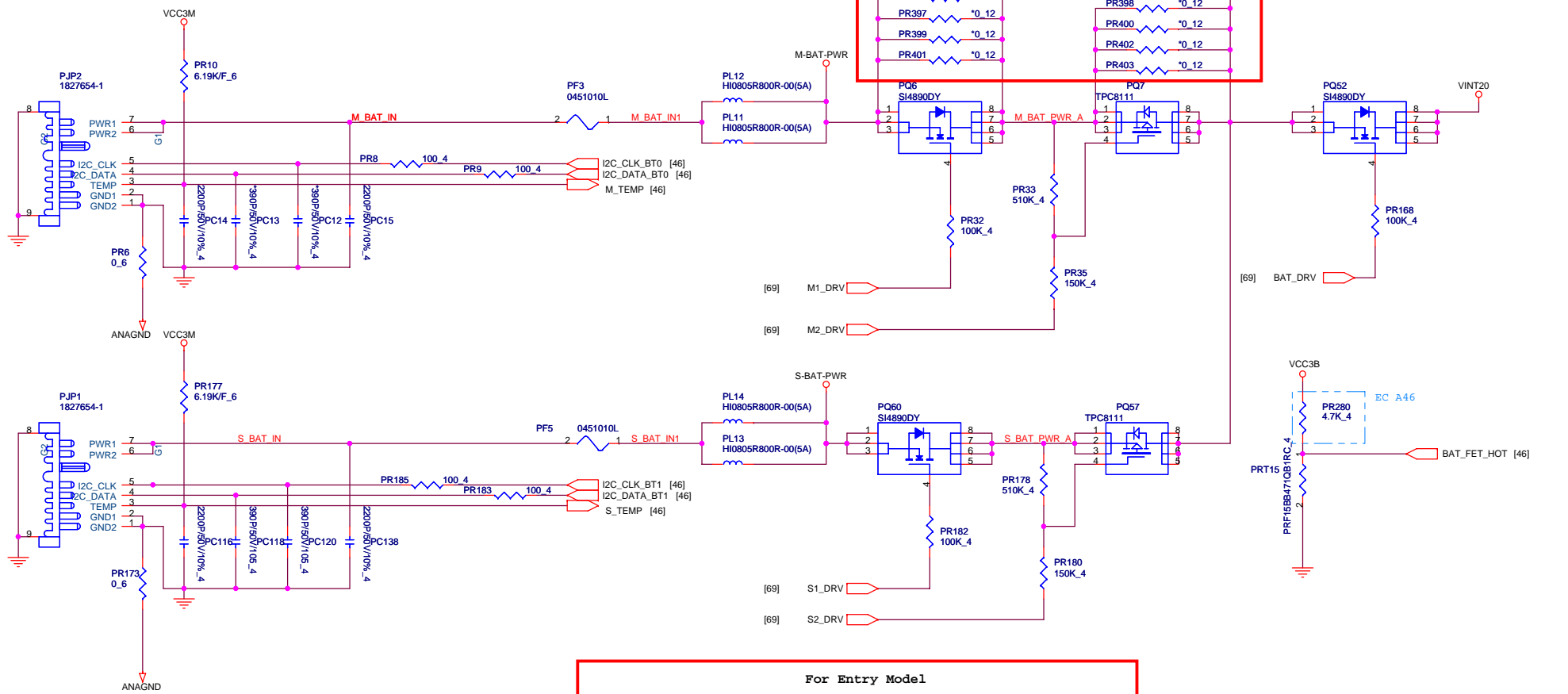






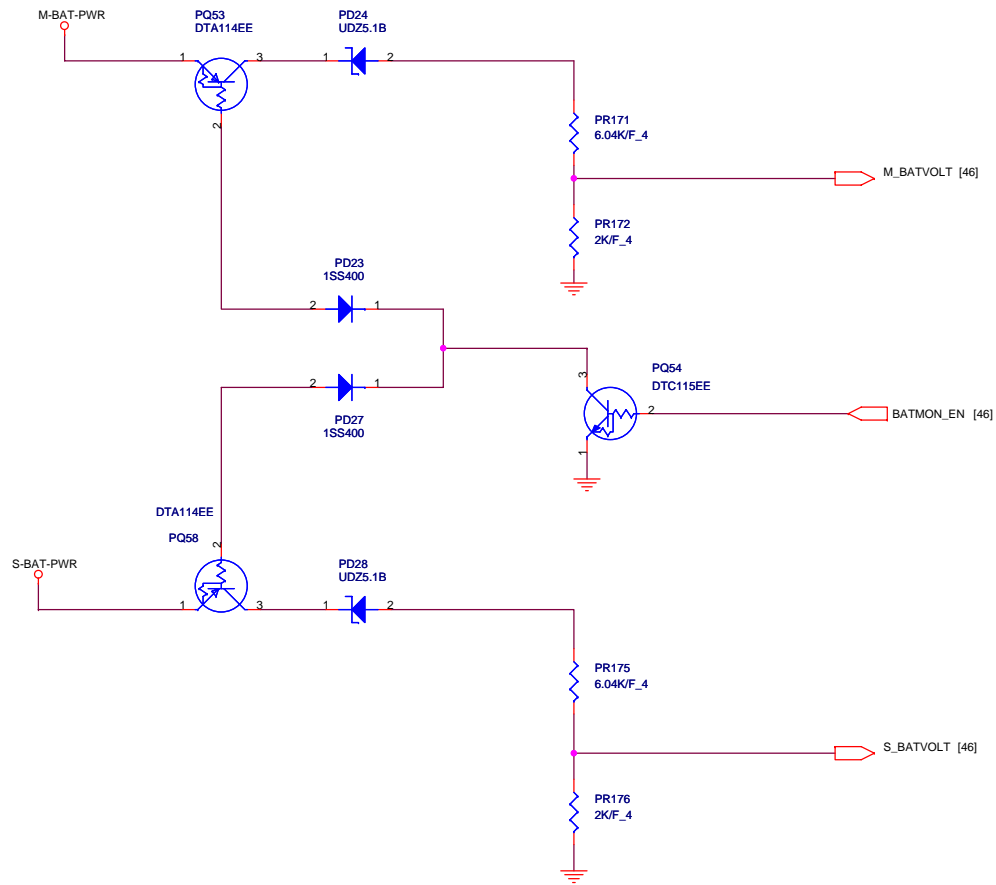
For Entry Model

	Entry Model	Normal Model
PQ63	DE-POP	POP
PQ65	DE-POP	POP
PD39	DE-POP	POP
PD40	DE-POP	POP
PR208	DE-POP	POP
PR219	DE-POP	POP
PC149	DE-POP	POP



**For Entry Model**

	Entry Model	Normal Model		Entry Model	Normal Model
PQ7	DE-POP	POP	PL13	DE-POP	POP
PQ6	DE-POP	POP	PL14	DE-POP	POP
PR33	DE-POP	POP	PQ57	DE-POP	POP
PR35	DE-POP	POP	PQ60	DE-POP	POP
PR32	DE-POP	POP	PR182	DE-POP	POP
PJP1	DE-POP	POP	PR178	DE-POP	POP
PR173	DE-POP	POP	PR180	DE-POP	POP
PR177	DE-POP	POP	PF6	DE-POP	POP
PC116	DE-POP	POP	PD37	DE-POP	POP
PC118	DE-POP	POP	PD38	DE-POP	POP
PC120	DE-POP	POP	PR396	POP	DE-POP
PC138	DE-POP	POP	PR397	POP	DE-POP
PR185	DE-POP	POP	PR399	POP	DE-POP
PR183	DE-POP	POP	PR401	POP	DE-POP
PF5	DE-POP	POP	PR401	POP	DE-POP
			PR398	POP	DE-POP
			PR400	POP	DE-POP
			PR402	POP	DE-POP
			PR403	POP	DE-POP

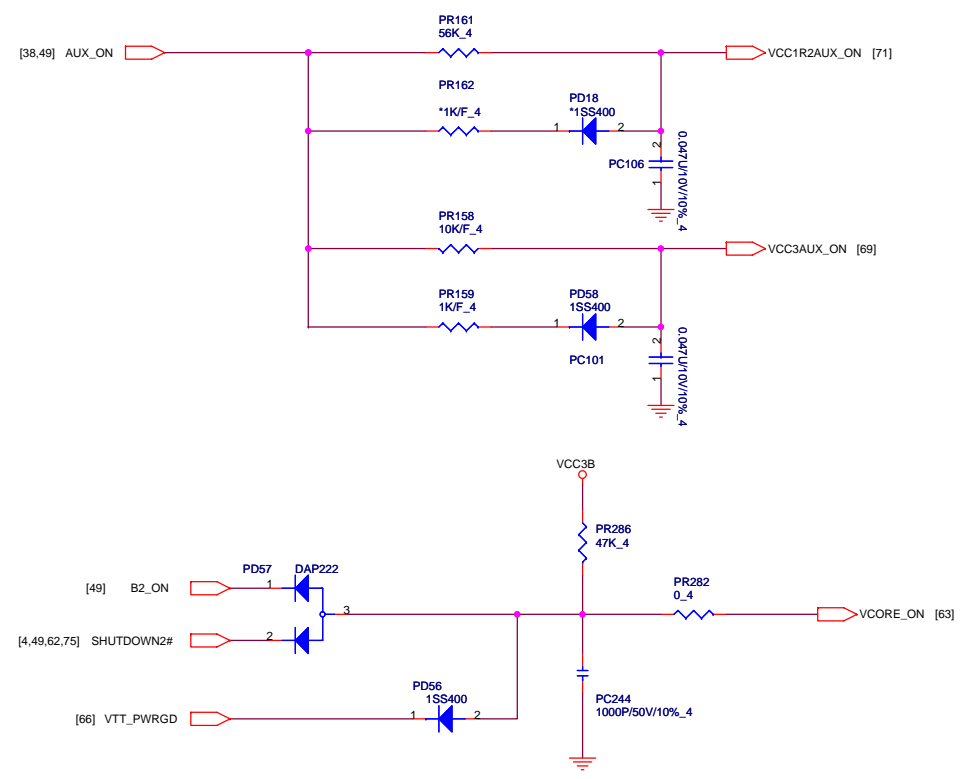
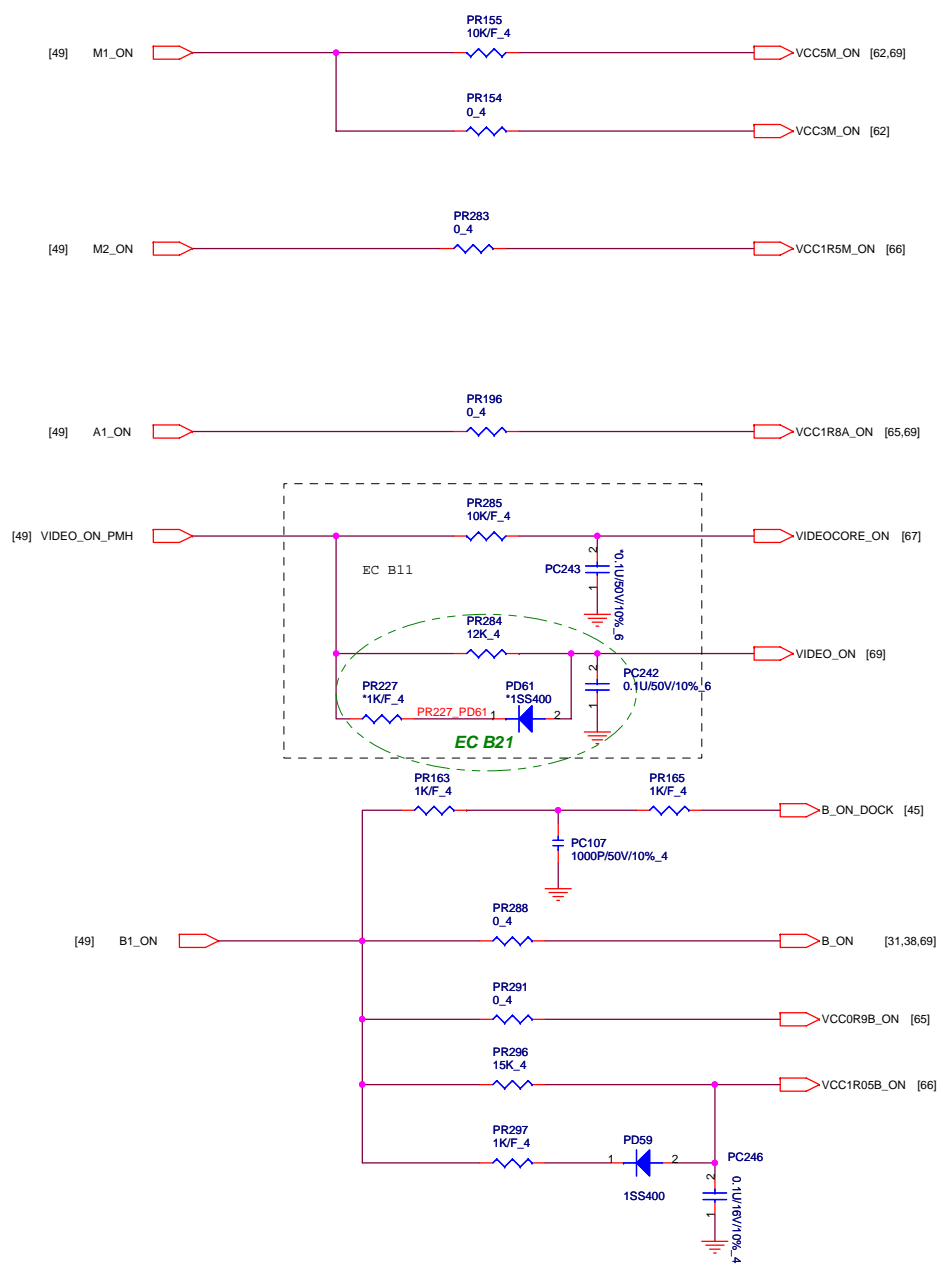


For Entry Model

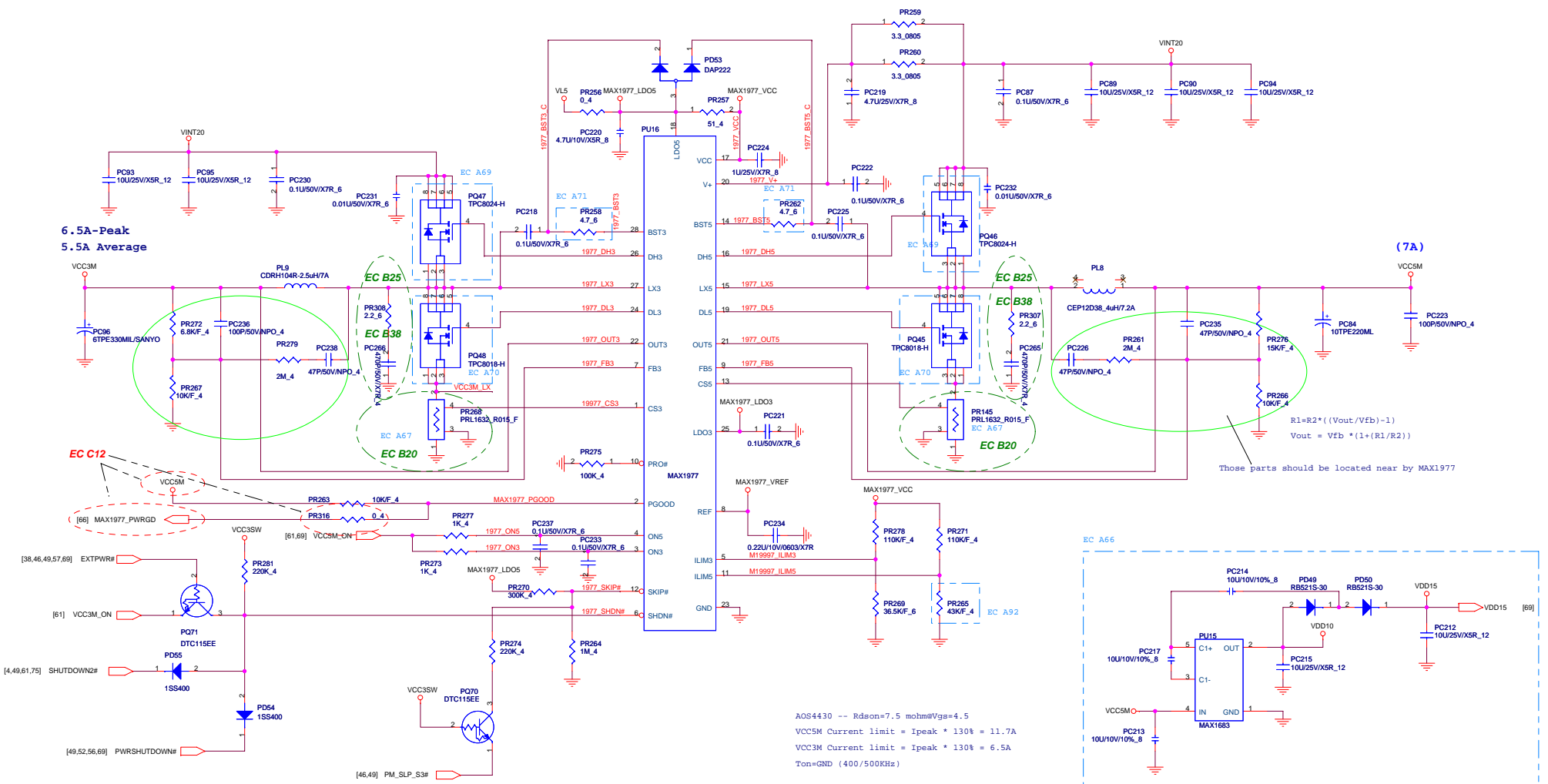
↓

	Entry Model	Normal Model
PQ58	DE-POP	POP
PD27	DE-POP	POP
PD28	DE-POP	POP
PR175	DE-POP	POP
PR176	POP	POP

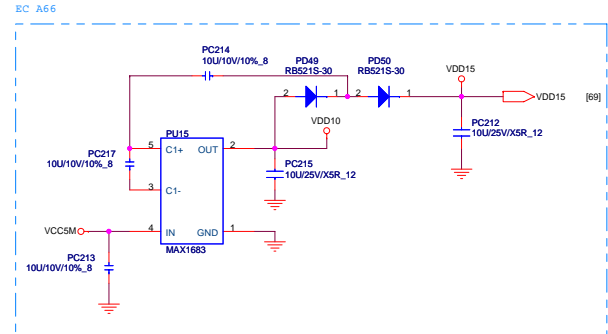
EC A87



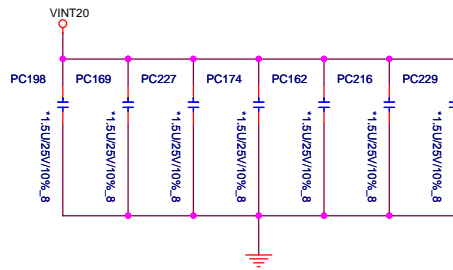
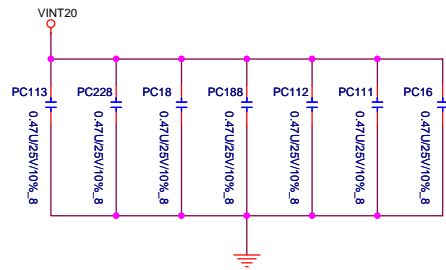
	945GM	945PM
PR285	DE-POP	POP
PC243	DE-POP	DE-POP
PR284	DE-POP	POP
PR227	DE-POP	DE-POP
PD61	DE-POP	DE-POP
PC242	DE-POP	POP
PR166	DE-POP	POP
PD19	DE-POP	POP
PR167	DE-POP	POP
PC109	DE-POP	POP



AOS4430 -- Rds(on)=7.5 mohm@Vgs=4.5  
 VCC5M Current limit = Ipeak \* 130% = 11.7A  
 VCC3M Current limit = Ipeak \* 130% = 6.5A  
 Ton=GND (400/500kHz)

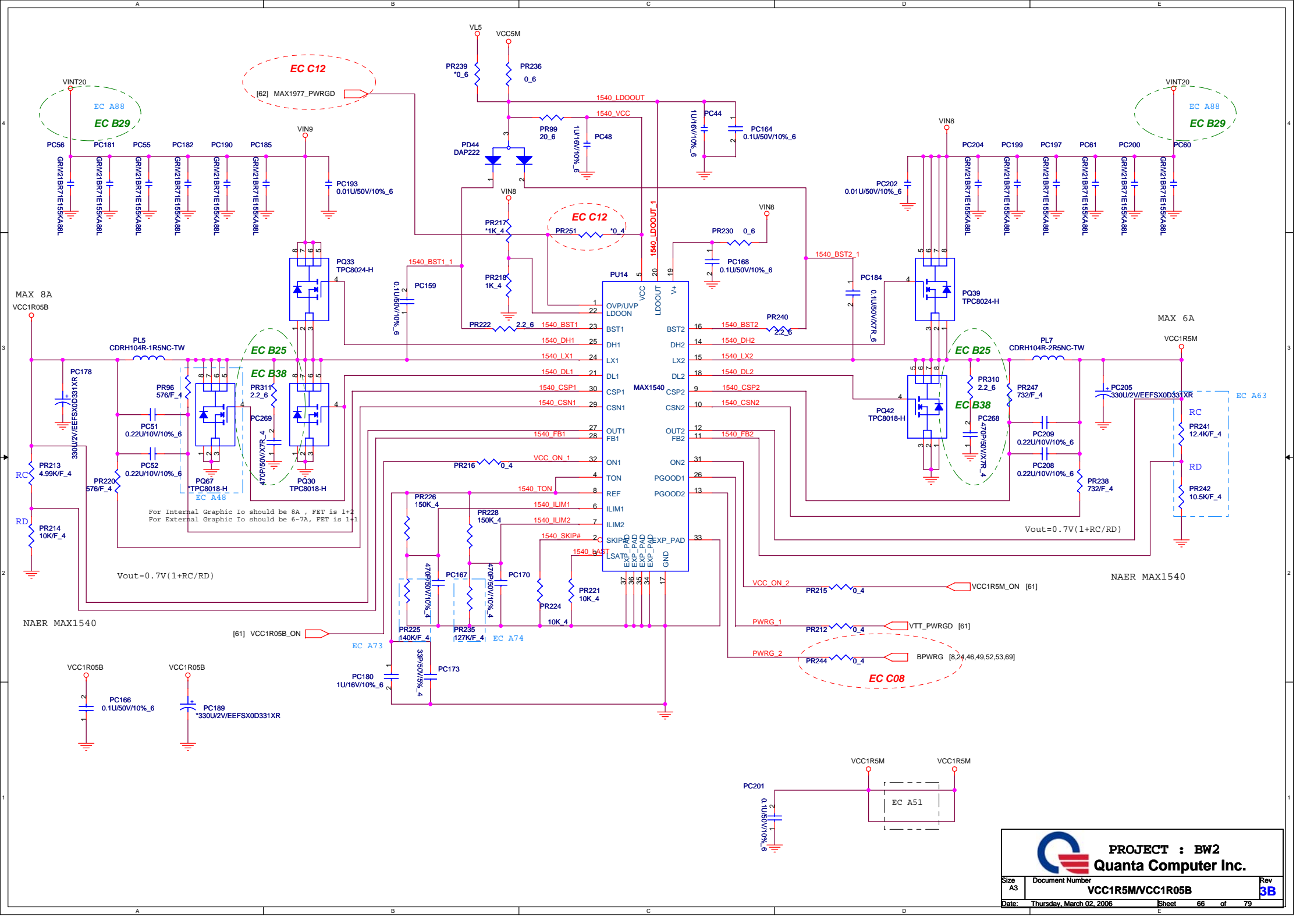




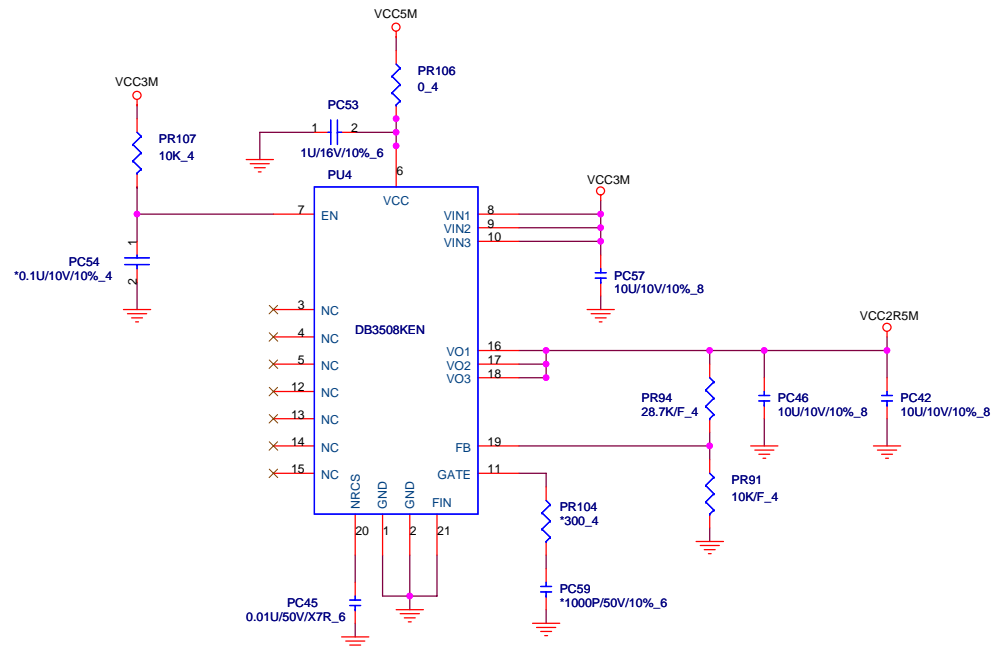


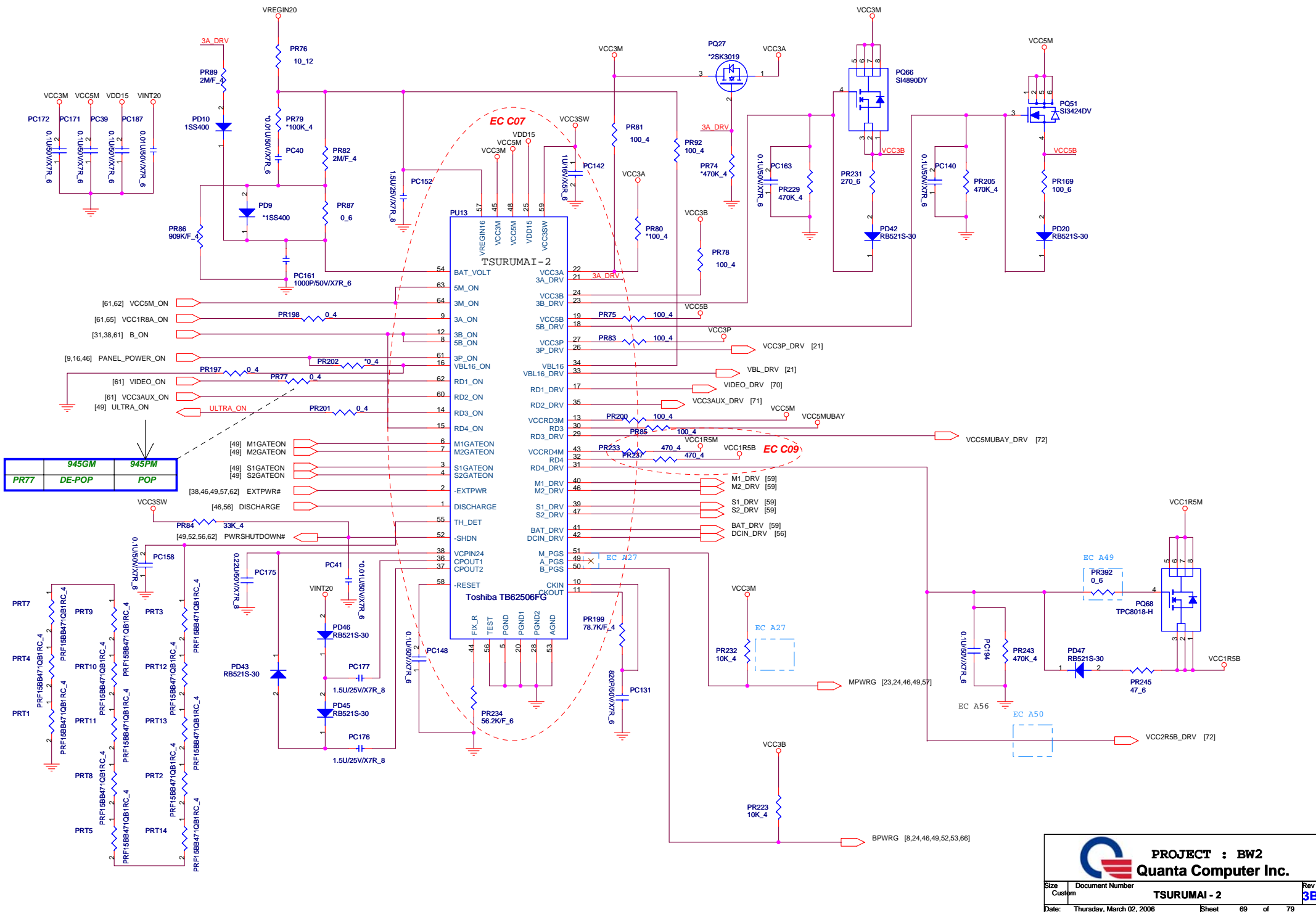








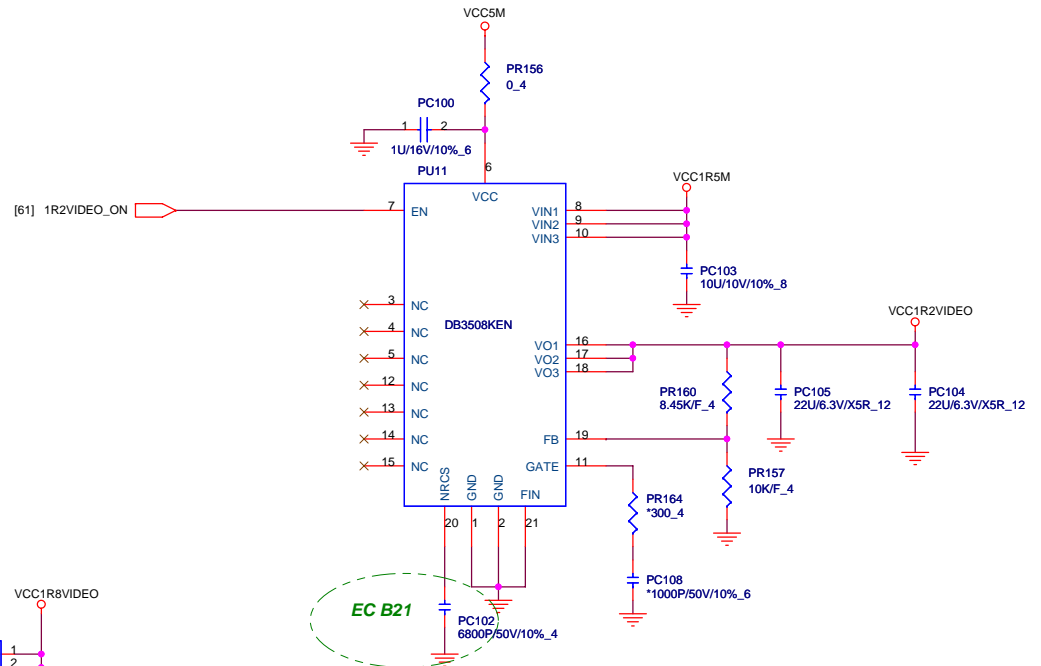
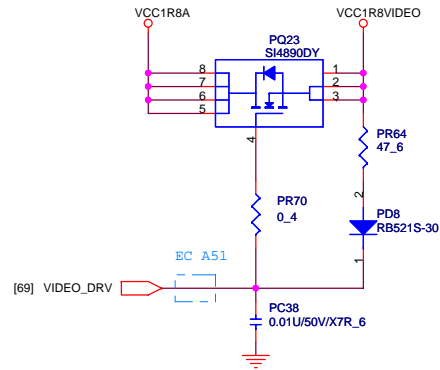
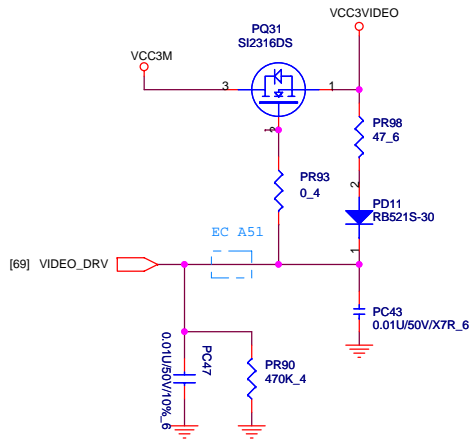
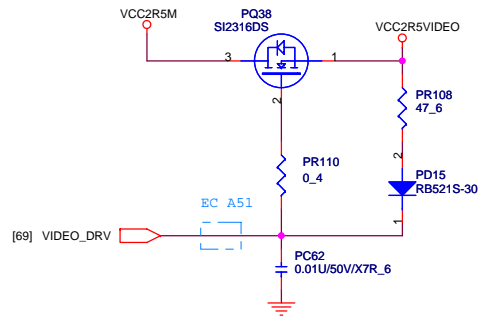




	945GM	945PM
PR77	DE-POP	POP

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**Quanta Computer Inc.**

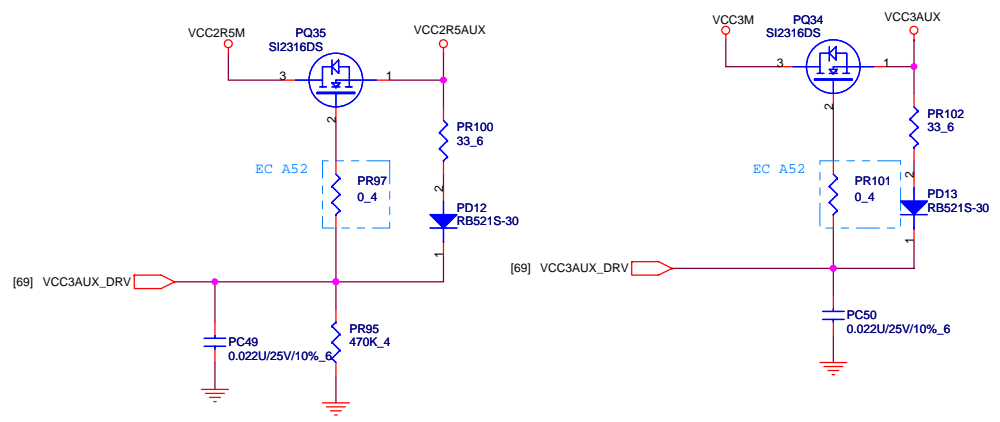
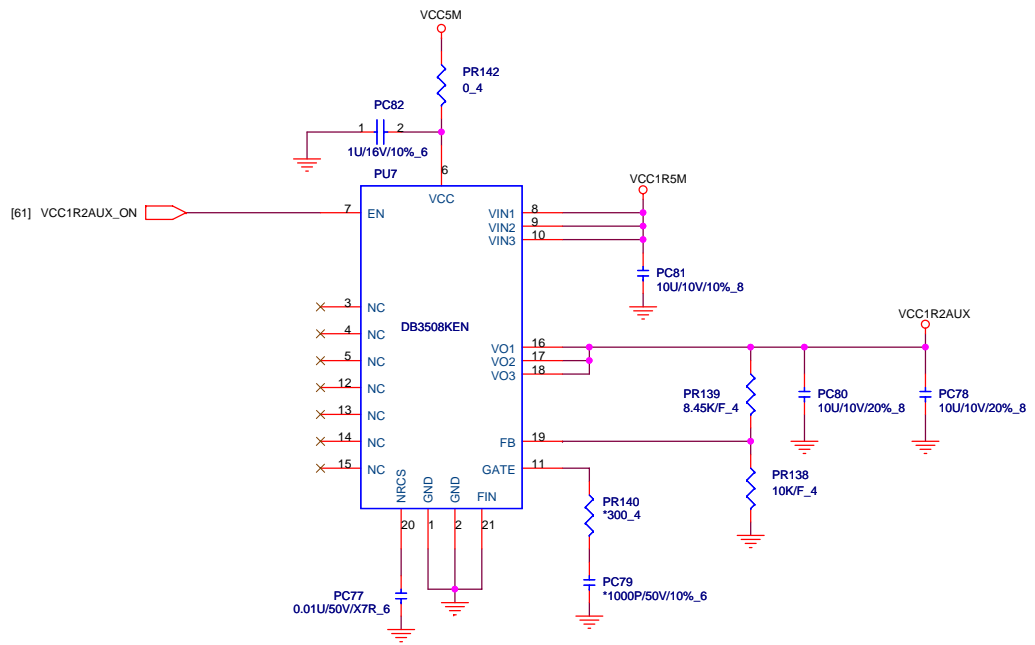
Size Custom	Document Number <b>TSURUMAI - 2</b>	Rev <b>3B</b>
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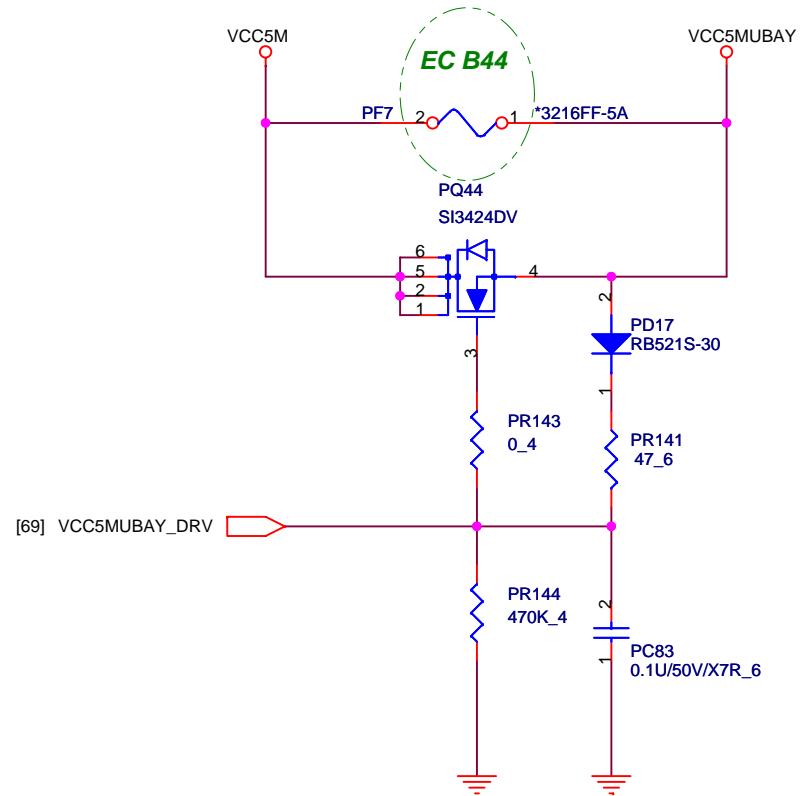
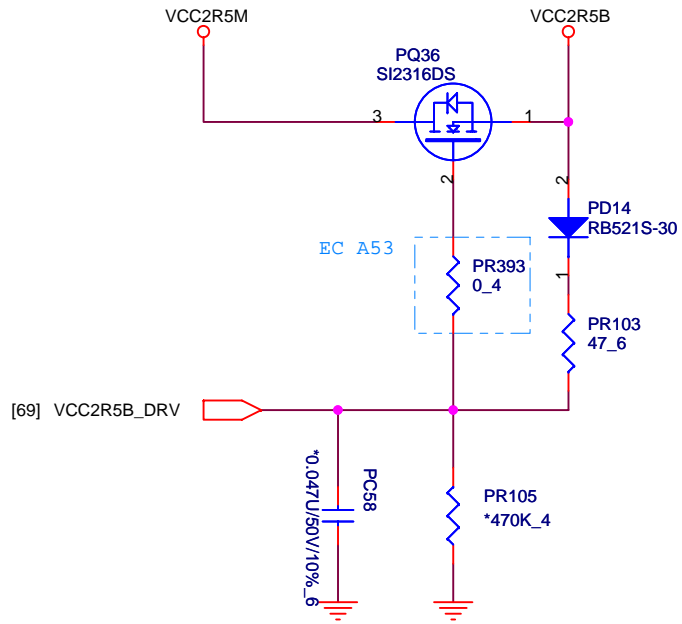



**For Entry Model**

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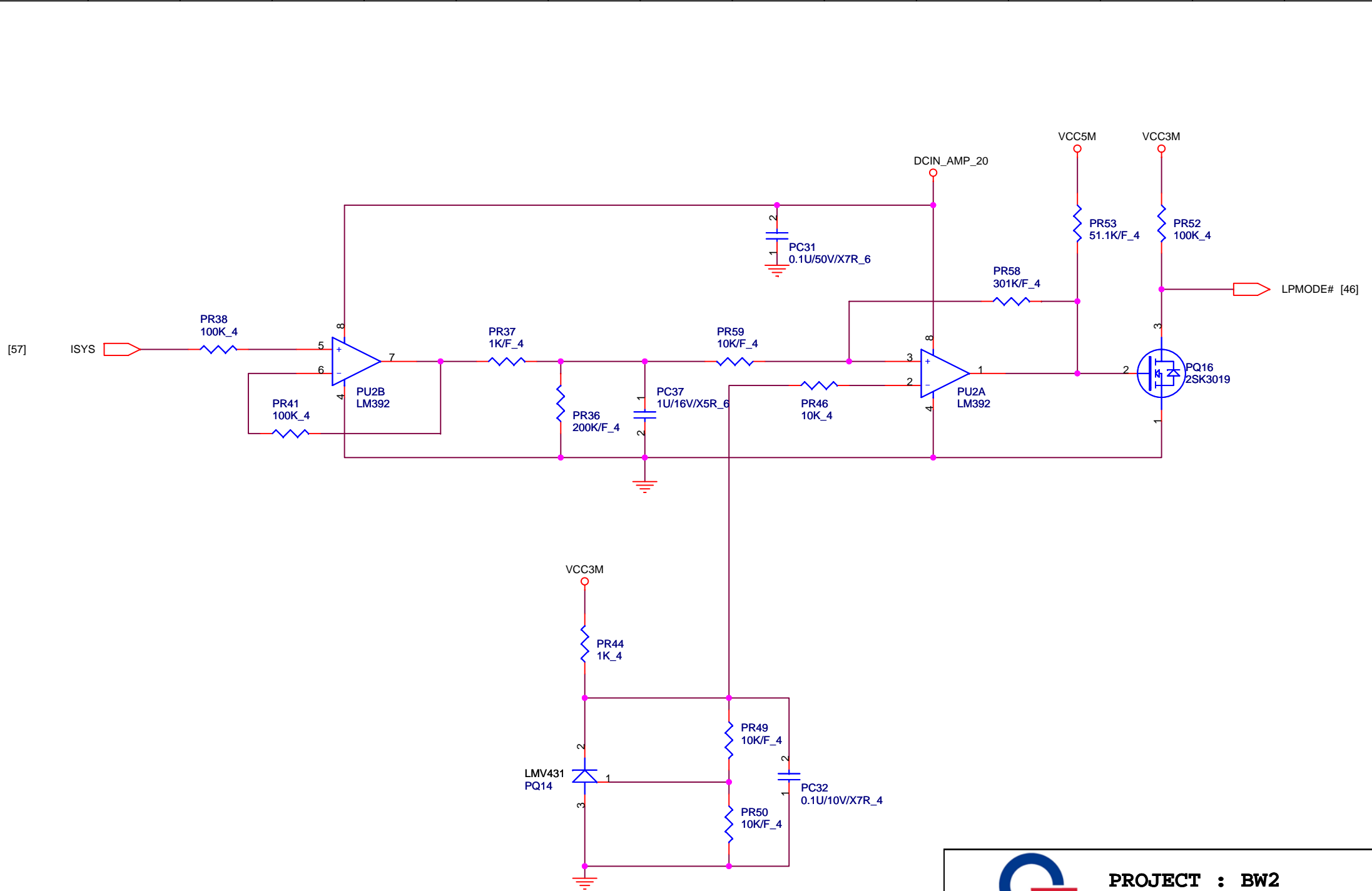
945GM/Entry Model	945PM/XM
ALL DE-POP	ALL POP ( Except PR164,PC108 )




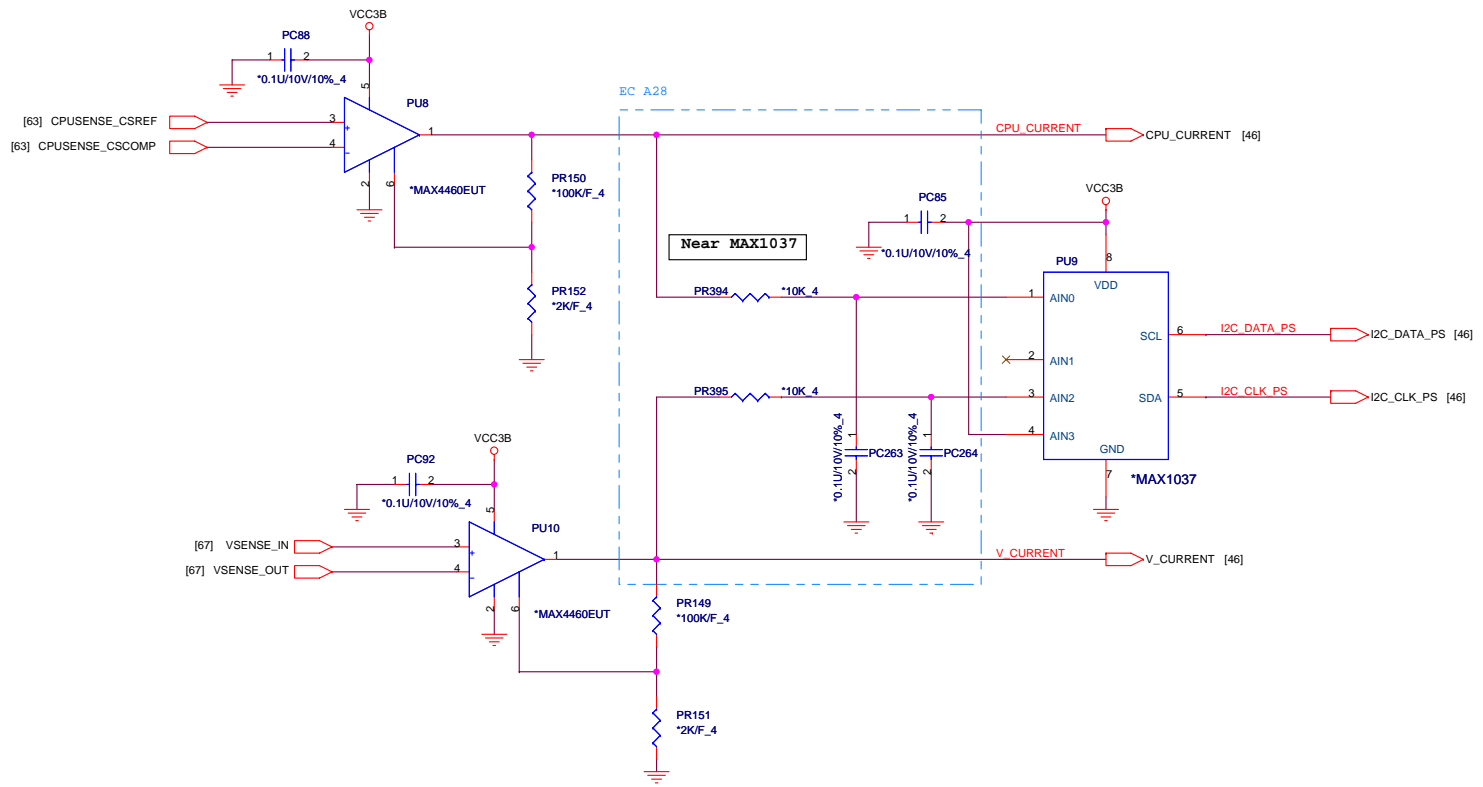


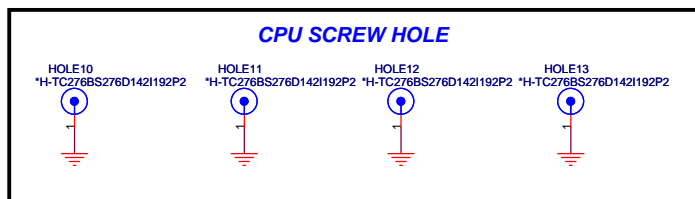
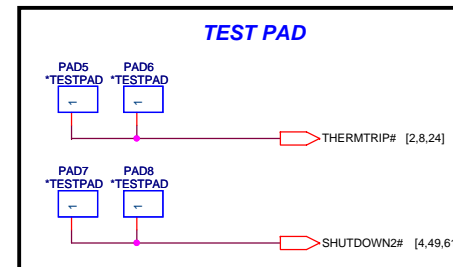
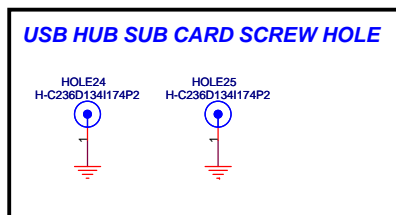
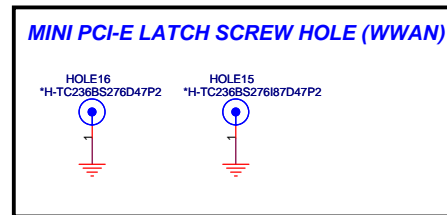
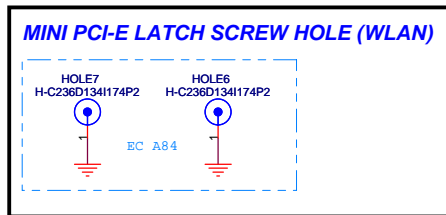
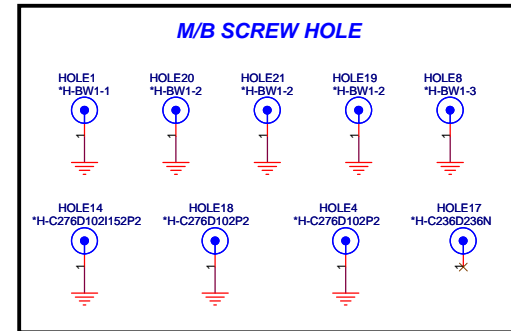
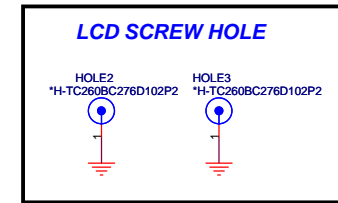
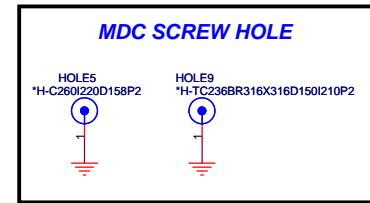
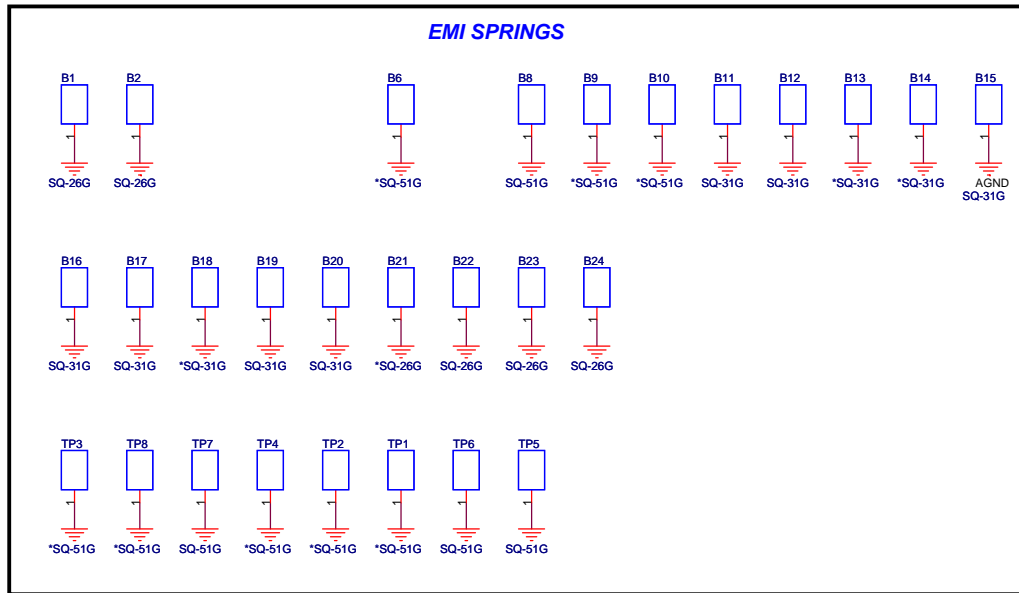
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		Size A4	Document Number
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## Revision History

Revision	Date	Phase	Change List	Release Schematic Date	Release Gerber File Date
1A	07/08 2005	DV	Initial release		
2A	08/31 2005	SIV	See page 77 Record A-1 ( EC A00 - EC A50 ) See page 78 Record A-2 ( EC A51 - EC A92 )		
3A	11/22 2005	SIT	See page 79 Record B-1 ( EC B01 - EC B44 )	2005/12/15	2005/12/15
3B	02/14 2006	SVT	See page 80 Record C-1 ( EC C01 - EC C12 )	2006/02/17	2006/02/23

## 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


EC #/Page/Description/Part Affected/CMVC #

- EC A00/08/R420 2.2K ohm change to NO\_ASM for Calistoga CFG11 from SIV-Lenovo-006.
- EC A01/10/Add R805, R806, R807 for 945GM by VCC1R5B, VCC2R5B and 0 ohm change to ASM.
- EC A02/21/R5 0 ohm change to ASM for pull-down by Ground.
- EC A03/22/D7, D8, D9 ,D18 DA204U change to ASM for CRT ESD .
- EC A04/24/RN23, RN24, RN25, RN22 100Kx4 change to ASM for pull-up by VCC5MUBAY.
- EC A05/24/R386, R385, R405, R382 from 10K ohm change to 100K ohm for PLANARID0-3.
- EC A06/24/R386 100K ohm change to ASM and R387 10K ohm change to NO\_ASM for Planar ID change from SIV-Lenovo-001.
- EC A07/30/Correct R10 footprint from RC0402 to RC0603.
- ~~EC A08/32/Add R814 for pull-up by MICVCC and 100K ohm change to ASM.~~
- ~~EC A09/32/Correct U54 footprint from SOT23-5-2\_8-95 to SC70-2\_1-65-5P.~~
- EC A10/32/R556 from 39.2K/F ohm change to 5.1K/F ohm for Q23 Pin3.
- EC A11/33/Correct U22, U25 footprint from SOT23-5-2\_8-95 to SC70-2\_1-65-5P.
- EC A12/37/C723, C231 from 270pF change to 220pF for U34 Net A\_CD1#, A\_CD2#.
- EC A13/37/Add Net XD\_R/B# for CN16 Pin25 between PCI8412(U34) and 4 IN 1/SVIDEO SLOT(CN16).
- EC A14/38/R153 100K ohm change to NO\_ASM for pull-up by VCC3B.
- EC A15/38/Correct U27 footprint from TSSOP20-6\_4-65-21P to SSOP20-6\_4-65 for CardBus power switch.
- EC A16/42/U45, U46 SRV05-4 change to ASM for LAN ESD.
- EC A17/44/Add R815 for pull-up by VCC3AUX and 10K ohm change to ASM.
- EC A18/44/Correct U11 M45PE10 Pin definition for LAN BCM5752M/F EEPROM(U11).
- EC A19/45/R665 from 47K ohm change to 100K ohm for pull-up by VCC3M.
- EC A20/46/R707 from 10K ohm change to 100K ohm for pull-up by VCC3M.
- EC A21/14/R501 475/F ohm change to ASM for CLKGen parts and R501 0 ohm change to ASM for CLKGen low-power parts from SIV-Lenovo-002.
- EC A22/08,12/Add Net MEM\_TS# for thermal sensor signals between Calistoga(U15) and DIMMs(CN15 & CN17) from SIV-Lenovo-003.
- EC A23/49/Add R818, R819, R821, R820 and 0 ohm change to ASM for dumper resistors between H8(U26) and PMH-7(U30) from SIV-Lenovo-004.
- EC A24/17/R349, R352 10K ohm change to NO\_ASM for M52/M54/M56-CSP SS parameter change from SIV-Lenovo-005.
- EC A25/45,46/Add C756, C757, C758, C759, C760, C763, C761, C762 and 470pF change to ASM for MW-1 ESD EC(470pF) feed back from SIV-Lenovo-007.
- EC A26/17,19,20/Idle power reduction for M56 from SIV-Lenovo-008.**
- EC A27/49,69/PMH-7 cost reduction from SIV-Lenovo-009.**
- EC A28/46,74/Power monitor from SIV-Lenovo-010.**
- EC A29/30/Correct U1, U2 footprint from MSOP8-4\_9-65 to MSOP8-4\_9-65-9P from SIV-Lenovo-011.
- EC A30/25,26/Delete R481, R482, R545, R546, R476, R490 and 0 ohm change to NO\_ASM for removing 0 ohm jumper from SIV-Lenovo-012.
- EC A31/46/R675, R697 change to ASM and R677, D32, R704, D39, D38 change to NO\_ASM for disable H8(U26) debug I/F from SIV-Lenovo-013.
- EC A32/43/J1, CN10 change to NO\_ASM for Non-WWAN model from SIV-Lenovo-014.
- ~~EC A33/67/PR21 from 100K/F ohm change to 82.5K/F ohm and PR24 from 49.9K/F ohm change to 17.8K/F ohm for M52 from SIV-Lenovo-017.~~
- ~~EC A34/67/PR21 from 100K/F ohm change to 82.5K/F ohm and PR24 from 49.9K/F ohm change to 40.2K/F ohm for M54/M56 from SIV-Lenovo-018.~~
- EC A35/46,55/G-sensor parts change and single source from SIV-Lenovo-020.**
- EC A36/51/Add C784 and 1uF change to ASM for IR capacitor from SIV-Lenovo-022.
- EC A37/63/Add PR386, PR385, PR388, PR389, PR387, PR390, PR391 and 0 ohm change to ASM for Thermal measurement to adjust VID.
- EC A38/37/Swap CN16 Net for 3 IN 1/SVIDEO SLOT co-layout with 4 IN 1/SVIDEO SLOT.
- EC A39/14/R381 10K ohm change to NO\_ASM for pull-up by VCC3B and R401 1K ohm change to ASM for pull-down by Ground.
- EC A40/16/R333, R330, R334 75/F ohm change to ASM for pull-down by Ground and fix impedance match with CRT terminal.
- EC A41/21/Delete J4 and Swap Net INTMICL\_T, INTMICR\_T for improving LCD FPC layout.
- EC A42/40/R572, R573, R123 10K ohm change to ASM for pull-down by Ground and R118 4.7K ohm change to ASM for pull-up by VCC3AUX from Broadcom suggestion for BCM5752.
- EC A43/40/R107, R111, R109, R112 4.7K ohm change to NO\_ASM for pull-up by VCC3AUX from Broadcom suggestion for BCM5752 and BCM5753.
- EC A44/58/PR45 from 10K ohm change to 100K ohm from SIV-Lenovo-023.
- EC A45/56/PR34 from 220K ohm change to 200K ohm from SIV-Lenovo-024.
- EC A46/59/PR280 from 100K ohm change to 4.7K ohm from SIV-Lenovo-025.
- EC A47/63/PR129 from 133K ohm change to 215K/F ohm from SIV-Lenovo-026.
- EC A48/66/PQ67 TPC8018-H change to NO\_ASM for Internal VGA from SIV-Lenovo-027.
- EC A49/69/Add PR392 for PQ68 Pin4 and 0 ohm change to ASM from SIV-Lenovo-028.
- EC A50/69/Delete PR244 for PU13 Pin31 and 0 ohm change to NO\_ASM from SIV-Lenovo-028.

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- EC A51/70/Delete PR384, PR88, PR72 and 0 ohm change to NO\_ASM from SIV-Lenovo-028.
- EC A52/71/Correct PR97, PR101 footprint from RC0603 to RC0402 and 0 ohm change to ASM from SIV-Lenovo-028.
- EC A53/72/Add PR393 for PQ36 Pin2 and 0 ohm change to ASM from SIV-Lenovo-028.
- EC A54/02/C81 100pF change to ASM from SIV-Lenovo-016.
- EC A55/23/R520 10K ohm change to NO\_ASM from SIV-Lenovo-030.
- EC A56/27/R630, R631, R632, R633, R634, C224, C202, C606, U23 change to NO\_ASM from SIV-Lenovo-030.
- EC A57/44/U9 from ATMEL26DF161 change to Macronix MX25L1605A from SIV-Lenovo-030.
- EC A58/46/R710 10K ohm change to NO\_ASM for disable H8 debug interface from SIV-Lenovo-031.
- EC A59/17/R286 10K ohm change to ASM for ATI M52/M54/M56 from SIV-Lenovo-032.
- EC A60/51/Correct R226 footprint from RC1210 to RC2010 and R226 from 2.2 ohm change to 0 ohm from SIV-Lenovo-033.
- EC A61/51/Correct R227 footprint from RC1206 to RC0805 and R227 from 0 ohm change to 47 ohm from SIV-Lenovo-033.
- EC A62/51/Correct C239 footprint from CC0402 to CC1206 and C239 from 0.1uF change to 4.7uF from SIV-Lenovo-033.
- EC A63/66/PR241 from 11.5K/F ohm change to 12.4K/F ohm and PR242 from 10K/F ohm change to 10.5K/F ohm from SIV-Lenovo-034.
- EC A64/16/R318 75/F ohm change to ASM and R321, R315 150/F ohm change to ASM for TV function.
- EC A65/18/Modify VCC1R8\_2R5VIDEO\_PLL LDO circuit for ATI M52/M54/M56.
- EC A66/62/Modify VDD15 circuit to fix voltage drop.
- EC A67/56,57,62/Correct PR43, PR71, PR268, PR145 footprint from RC3720-4P to CC0612-4P.
- EC A68/63/Correct PD48, PD36 footprint from SC79 to DSM.
- EC A69/62/PQ47, PQ46 from FDS6680A change to TPC8024-H.
- EC A70/62/PQ48, PQ45 from SI4892DY change to TPC8018-H.
- EC A71/62/PR258, PR262 from 1 ohm change to 4.7 ohm.
- EC A72/63/PR248, PR249 from 143K/F ohm change to 154K/F ohm.
- EC A73/66/PR225 from 48.7K/F ohm change to 140K/F ohm.
- EC A74/66/PR235 from 69.8K/F ohm change to 127K/F ohm.
- EC A75/24/R128 100K ohm for pull-up by VCC3M change to pull-up by VCC3AUX from SIV-Lenovo-035.
- EC A76/44/Swap library pin name for U11 Pin1 and Pin8 from SIV-Lenovo-037.
- EC A77/40,49/Delete Net LAN\_POWER\_GOOD between BCM5752(U16) and PMH\_7(U30), R95 pull-up to VCC3B from SIV-Lenovo-038.
- EC A78/40,46/Add R854 and 0 ohm change to ASM, Add Net ENERGY\_DET between BCM5752(U16) and H8(U26) from SIV-Lenovo-038.
- EC A79/46/R683 100K ohm for pull-up by VCC3M change to pull-up by VCC3AUX from SIV-Lenovo-038.
- EC A80/52/Add C785 and 0.1uF change to ASM from SIV-Lenovo-039.
- EC A81/31,32,33/Modify stereo Mic. circuit from SIV-Lenovo-040.
- EC A82/24/Delete D27 RB521S-30 from SIV-Lenovo-041.
- EC A83/49/R737, R748 100K ohm for pull-up by VCC3M change to pull-up by VCC3SW from SIV-Lenovo-042.
- EC A84/75/Correct HOLE6, HOLE7 footprint from H-C276D102P2 to H-C236D134I174P2.
- EC A85/21/Add F11 and Fuse change to ASM.
- EC A86/45/R23 from 470K ohm change to 200K ohm from SIV-Lenovo-043.
- EC A87/60/PR176 2K/F ohm change to ASM for Entry Model from SIV-Lenovo-044.
- EC A88/65,66,67/PL2, PL16, PL17, PL18 from Bead change to 0 ohm.
- EC A89/44/U10 from ST M25P80 change to Mocrnix MX25L1605A.
- EC A90/09/R465 from 100K ohm NO\_ASM change to 10K ohm NO\_ASM.
- ~~EC A91/67/PR21 from 82.5K/F ohm change to 100K/F ohm, PR24 from 17.8K/F ohm change to 0 ohm for M52 and from 40.2K/F ohm change to 22.1K/F ohm for M54/M56.~~
- EC A92/62/PR265 from 36.5K/F ohm change to 43K/F ohm.
- EC A93/67/PR21 from 100K/F ohm change to 90.9K/F ohm for M52/M54/M56, PR24 from 0 ohm change to 9.09K/F ohm for M52 and from 22.1K/F ohm change to 31.6K/F ohm for M54/M56.

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**BW2 / W2-NOTE Schematic EC Tracking Record B ( For SIV --> SIT ) Nov.22 , 2005**  
**EC #/ Page / Description / Part Affected /CMVC #**

- EC B01/51/ Change C784 from 1U/10V/X5R\_6 to 0.1U/10V/X5R\_6. ( SIT-LENOVO-001 )
- EC B02/23/ Change R602 to ASM and R603 to NO ASM. ( SIT-LENOVO-002 )
- EC B03/16/17/19/ Change SPWG\_EDID\_CLK/DATA path and power reduction for M52/M54/M56. ( SIT-LENOVO-003 )
- EC B04/46/ Reserve 68pF cap for H8 I2C bus , the reason is reduce noise. ( SIT-LENOVO-004 )
- EC B05/34/ Change amplifier IC from MAX9750CET1 to MAX9750CET1+C2U version. ( SIT-LENOVO-005 )
- EC B06/24/ Change planar ID to SIT "0010B" and add Entry model ID used on ICH7 GPIO9. ( SIT-LENOVO-006 )
- EC B07/43/ Change net "UIM\_PWR" layout trace width from 5 mils to 20 mils. ( SIT-LENOVO-007 )
- EC B08/46/ Reserve 220pF cap near H8 , the reason is noise reduce. ( SIT-LENOVO-008 )
- EC B09/29/ Add 100pF cap on SIORDY signal near ODD connector , the reason is for CPI test ( Cellular Phone Immunity ). ( SIT-LENOVO-010 )
- EC B10/30/ Change U1,U2 footprint to add thermal pad. ( SIT-LENOVO-011 )
- EC B11/63/ Change PC71 from 680pF to 390pF. ( SIT-LENOVO-012 )
- EC B12/34/ ChangeR674 from 4.7k to 47k. ( SIT-LENOVO-013 )
- EC B13/18/ Change LDO to MAX8875EUK25-T for ATi M52/M54. ( SIT-LENOVO-014 )
- EC B14/19/ Change U57 power source from VCC3VIDEO to VCC3M. ( SIT-LENOVO-015 )
- EC B15/45/50 Reserve 0ohm resistor on FRAME# on .debug connector for security concern. ( SIT-LENOVO-016 )
- EC B16/17 Change R289 to ASM. ( SIT-LENOVO-019 )
- EC B17/17 Add pull-down 10k at "GENERICD" signal. ( SIT-LENOVO-020 )
- EC B18/33 Change U59 to MAX4695ETC+ Pb free part. ( SIT-LENOVO-021 )
- EC B19/18 Correction U43 RoHS part number. ( SIT-LENOVO-022 )
- EC B20/62 Change PR268,PR145 value from "RL3720WT-R015-GN" to "PRL1632\_R015\_F. ( SIT-LENOVO-023 )
- EC B21/61/70 Change PR284 to 12k , PC242 to ASM 0.1uF/10% , Add NOASM 1k ohm , Add NOASM 1SS400 , PC102 to 6800pF. ( SIT-LENOVO-027 )
- EC B22/19 Correct back bias power circuit. ( SIT-LENOVO-028 )
- EC B23/21 Modify LCD connector pin assign for USB HUB use.
- EC B24/50 Reserve 0 ohm resistor for SMBUS CLK/DATA and swap USB HUB signals.
- EC B25/57/62/63/65/66/67/ Add Snubber circuit for all Switching DC/DC converters (Add NOASM 2.2ohm,1/10W,1608size and NOASM 470pF,10%,50V,1005size).
- EC B26/23/24/50/ Add GPIO control for no Super I/O in W2 entry model. ( SIT-LENOVO-030 )
- EC B27/32/33/ Audio noise reduction. ( SIT-LENOVO-031 )
- EC B28/14/ Swap PCI clock for PMH7/SIO , the reason is for rising / falling time fail issue.
- EC B29/65,66,67/ Delete PL18,PL16,PL17,PL2 bead.
- EC B30/31/32 Modify audio jack sense circuit.
- EC B31/22 Modify CRT circuit for Entry/Intel/ATI model. ( SIT-LENOVO-033 )
- EC B32/21 Add ESD cap for stereo Mic signals. ( SIT-LENOVO-037 )
- EC B33/17 Add crystal oscillator circuit. ( SIT-LENOVO-036 )
- EC B34/50 Add FUSE for USB hub sub card. ( SIT-LENOVO-035 )
- EC B35/67 Change VCCVIDEOCORE voltage. ( SIT-LENOVO-034 )
- EC B36/31 Change R546 from 20k to 4.12k 1%. ( SIT-LENOVO-039 )
- EC B37/34 Change C212,C221 from 4.7UF/10V/Y5V to 2.2UF/10V/X5R , the reason is can reduce the delay time between MUTE# assertion and VOL settings in resuming from the suspend. ( SIT-LENOVO-039 )
- EC B38/57/62/63/65/66/67/ ASM R,C Snubber circuit for all Switching DC/DC converters.
- EC B39/17/ Correct ATi crystal vendor part number. ( SIT-LENOVO-041 )
- EC B40/17/ Change C347,C350 from 22pF to 2pF.
- EC B41/43/ Add one power pin for UIM\_PWR net of connector.
- EC B42/10/ Add one cap 10/10V/X7R for VCCA\_TVBG "H20" pin , the reason is while output to TV have ripple screen for Intel model.
- EC B43/33/ Change C185,C634 to ASM.
- EC B44/72/ Reserve fuse (3216FF-5A) between VCC5M and VCC5MUBAY power line.
- EC B45/37/ Change R216 from 75 ohm to 33 ohm for TI recommend.
- EC B46/44/ Change R311 from 0 ohm to 75 ohm for signal quality.

BW2 SIT planar board ICT coverage 95.56%

		<b>PROJECT : BW2</b>	
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**BW2 / W2-NOTE Schematic EC Tracking Record C ( For SIT --> SVT ) Feb.14 , 2006**  
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- EC C01/24/ Change M/B planar ID from SIT to SVT. ( SVT-LENOVO-001 )
- EC C02/29/ Reserve 0 ohm resistor for entry model use.
- EC C03/33/ Change R189 to NOASM, the reason is for MIC noise.
- ~~EC C04/72/ Change ODD power source from VCC5M or VCC5B for entry model use.~~
- EC C05/46 Change Wireless Global switch to DIP type. ( SIV-LENOVO-021 )
- EC C06/37 Add 100k pull-up to VCC3M on SD\_PWR0 (TPS2041B pin#4). ( SVT-LENOVO-002 )
- EC C07/69 Change Tsurumai-2 P/N from 77P2225 -> 41A124. ( SVT-LENOVO-006 )
- EC C08/66 Connect BPWRG signal to PGOOD2 pin of MAX1540 thru 0ohm , the reason is for CMOS corruption. ( SVT-LENOVO-007 )
- EC C09/69 Change PR233, PR237 to 470 ohm. ( SVT-LENOVO-008 )
- EC C10/08 Change R448 to NOASM ( SVT-LENOVO-010 )
- EC C11/19 Modify AT1 configuration table , R545 is NOASM even though in case of M56 configuration. ( SVT-LENOVO-011 )
- EC C12/62,66 Connect MAX1977\_PWRGD to MAX1540 , the reason is minus voltage issue. ( SVT-LENOVO-012 )
- EC C13/14 Drop Cypress clock generator sourcing , the reason is SATA signal spec off. ( SVT-LENOVO-018 )
- EC C14/29 NOASM 100pF at SIORDY signal , the reason is Signal quality spec off. ( SVT-LENOVO-019 )
- EC C15/24 Change W2 SVT Planar ID to 0100b as same as M2 (skip 0011b) ( SVT-LENOVO-020 )
- EC C16/33 Update pre-amp resistor value , the reason is for stereo MIC noise issue.

**BW2 SVT planar board ICT coverage 91.7 %**



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