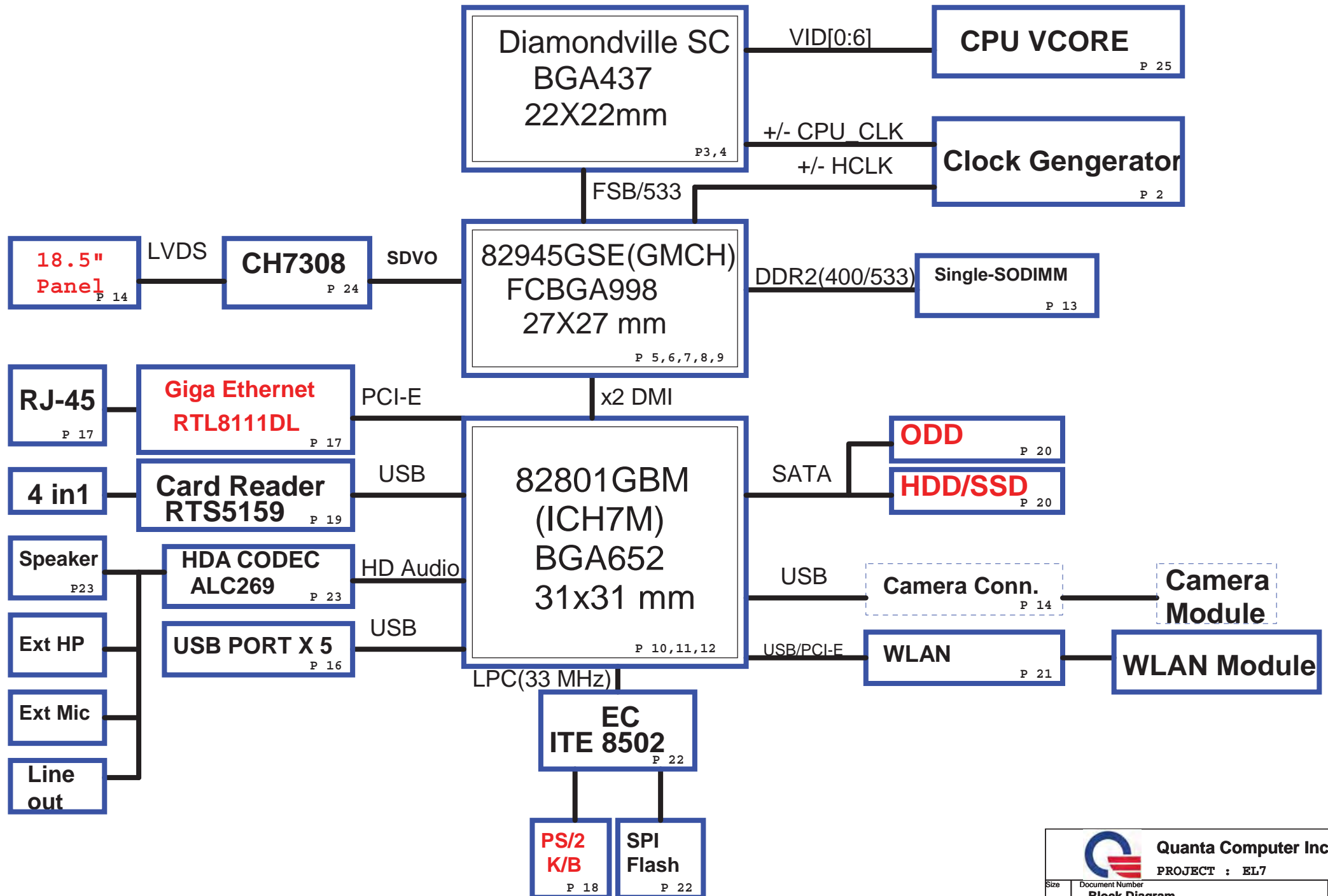
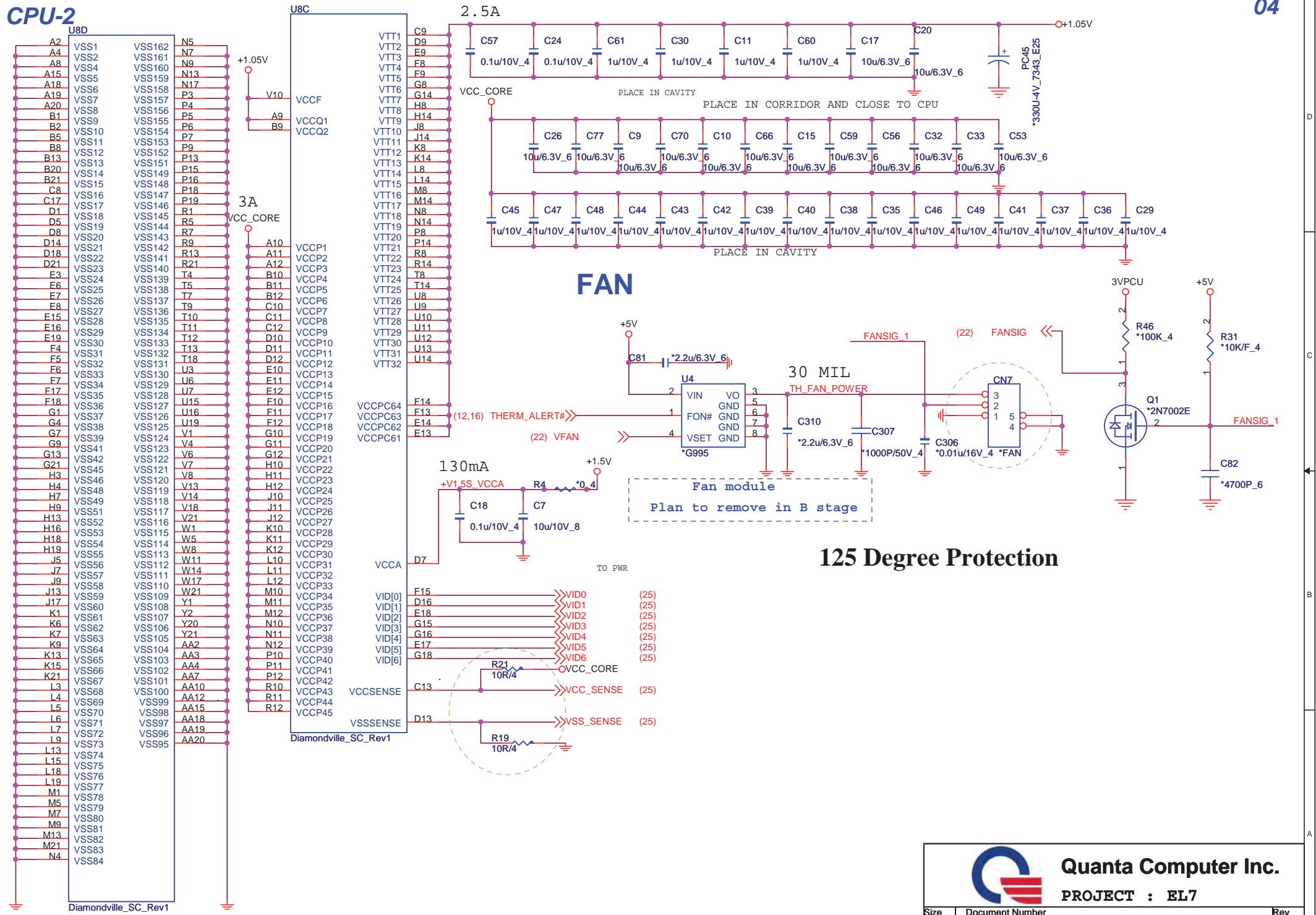
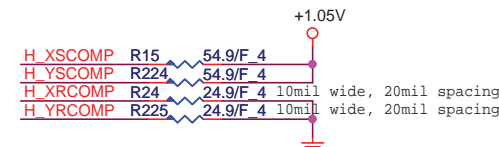
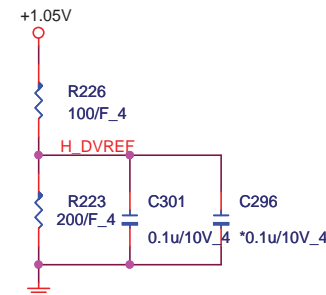
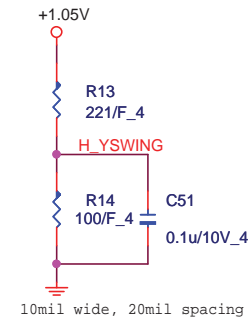
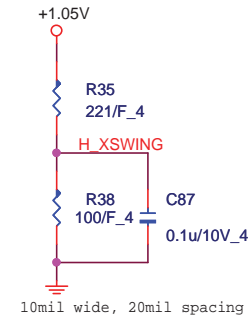
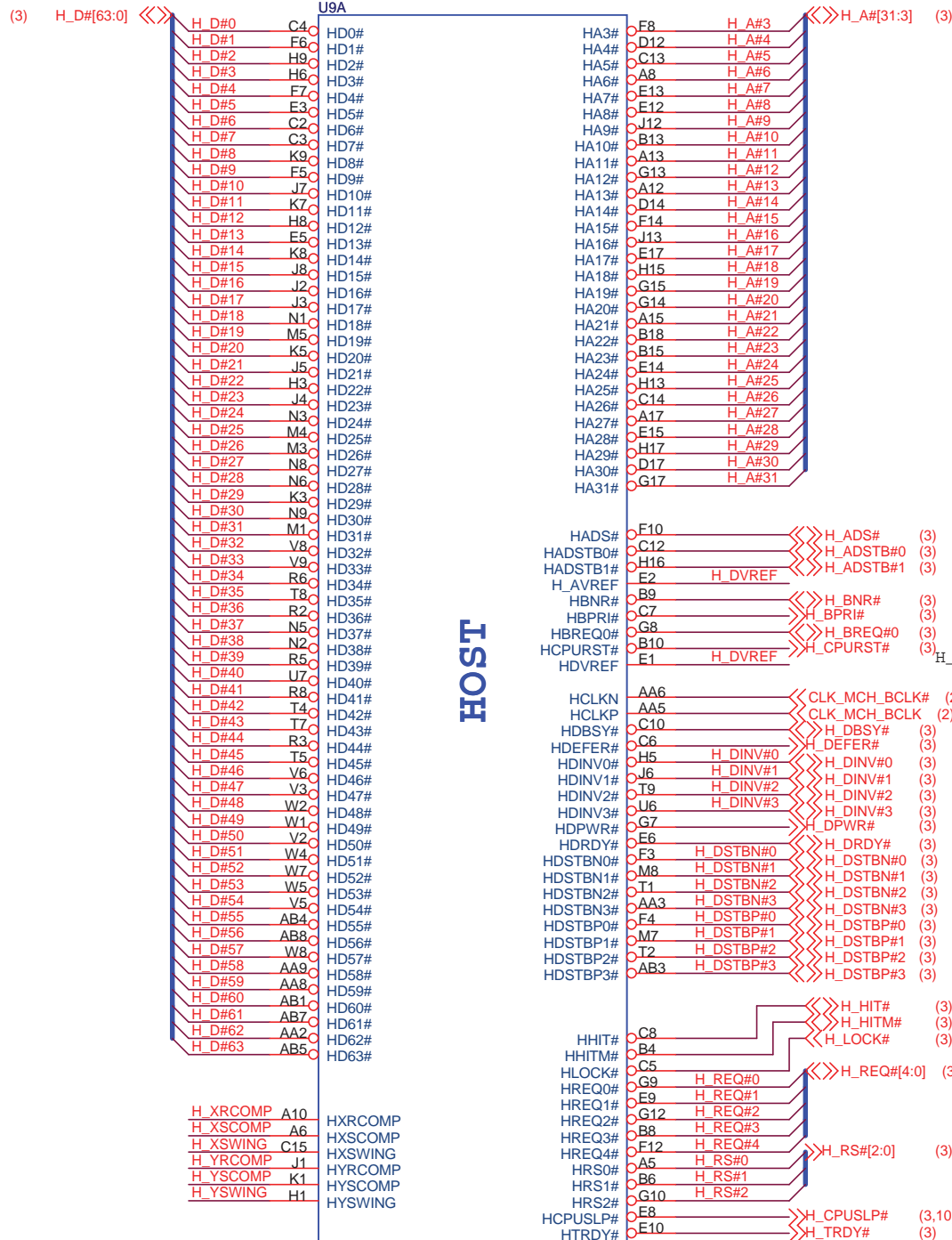


Clapton (EL7) AIO Block Diagram

01



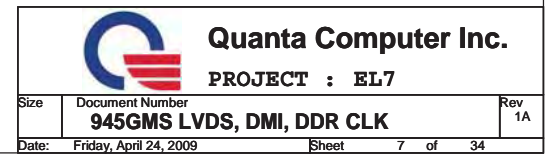


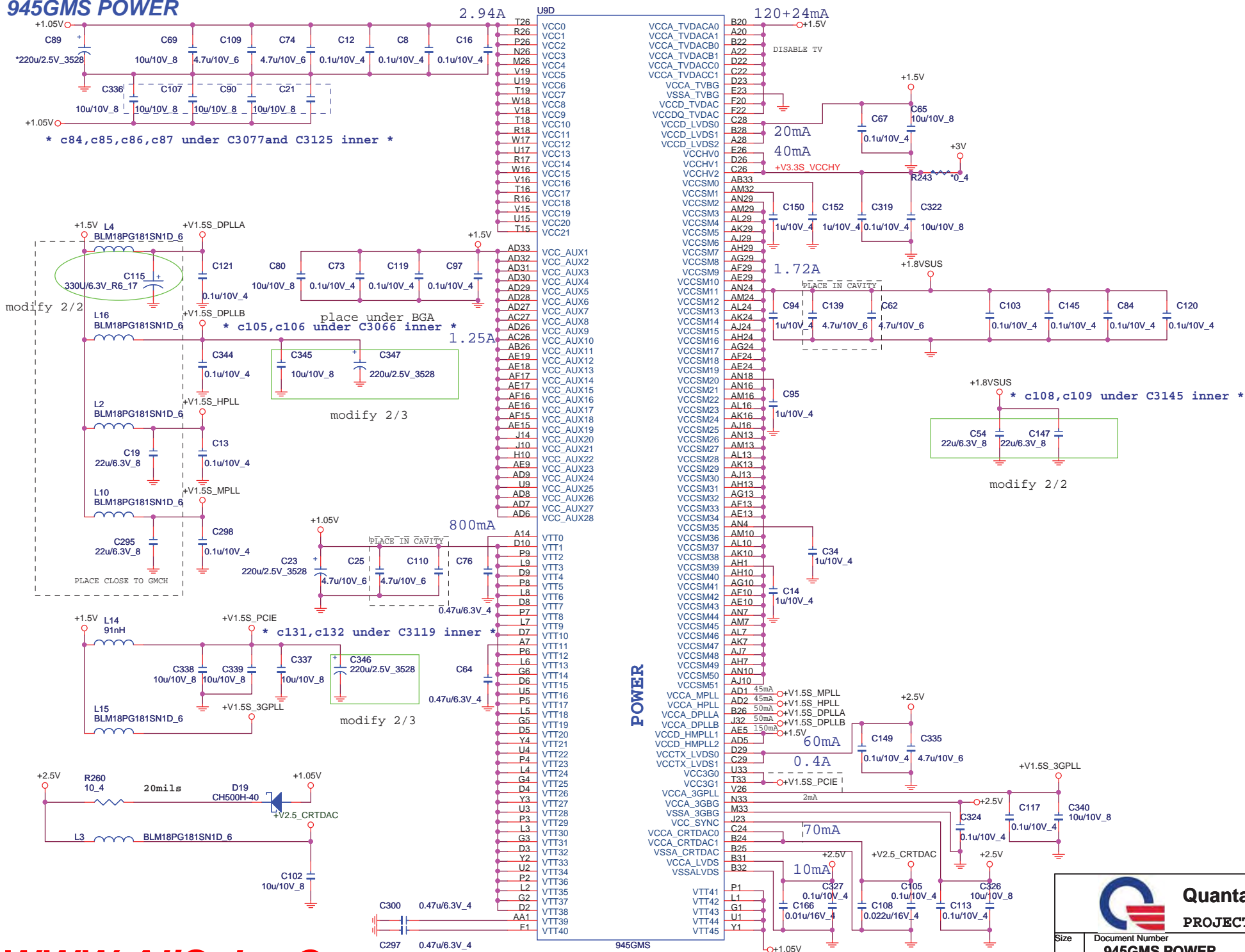


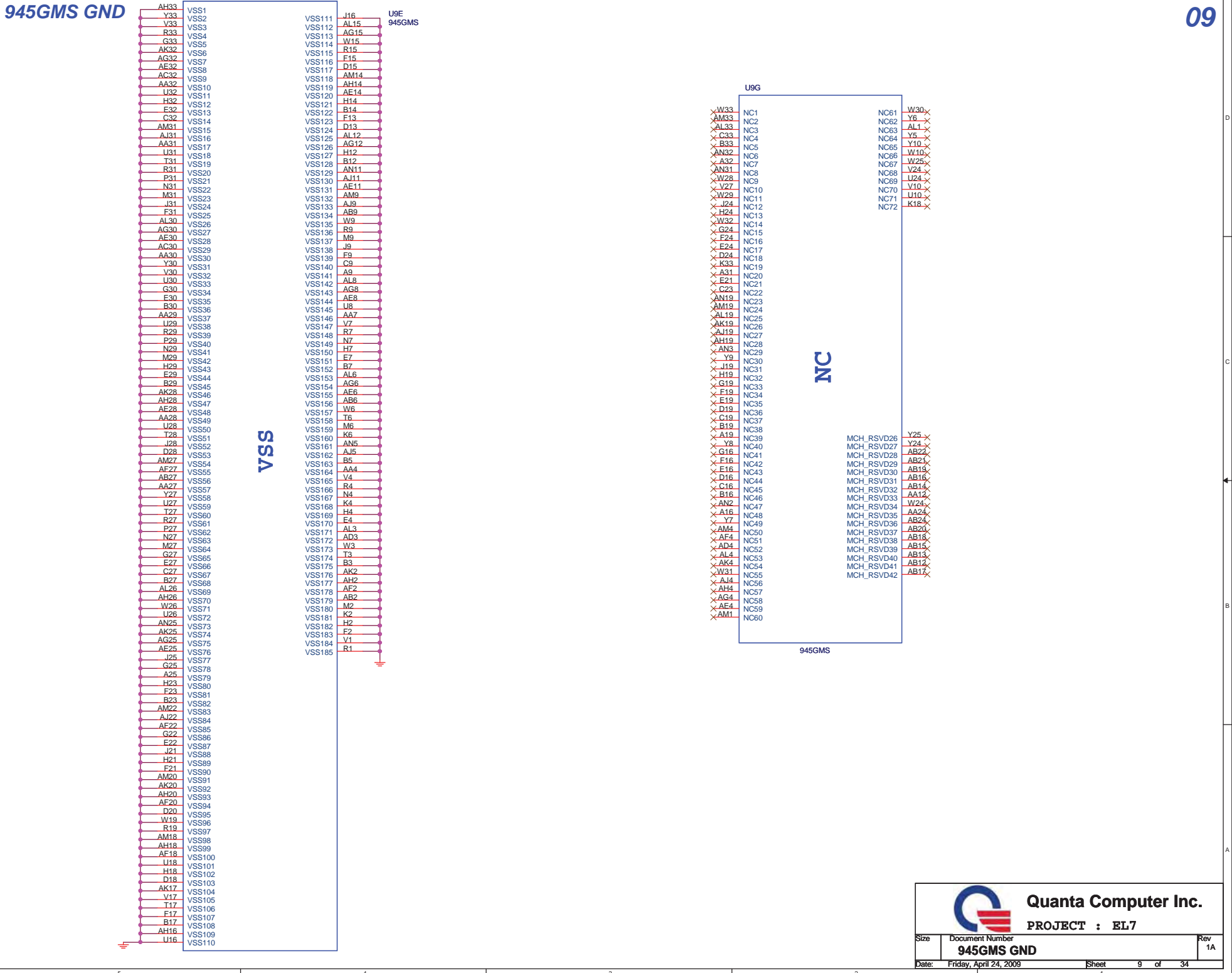
Quanta Computer Inc.

PROJECT : EL7

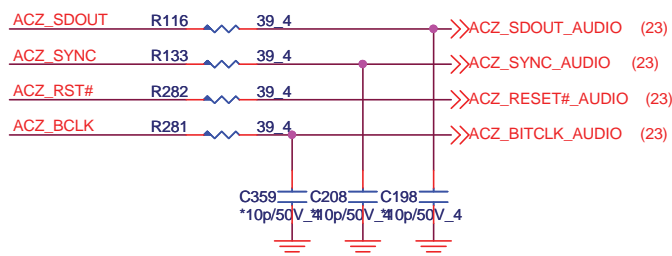
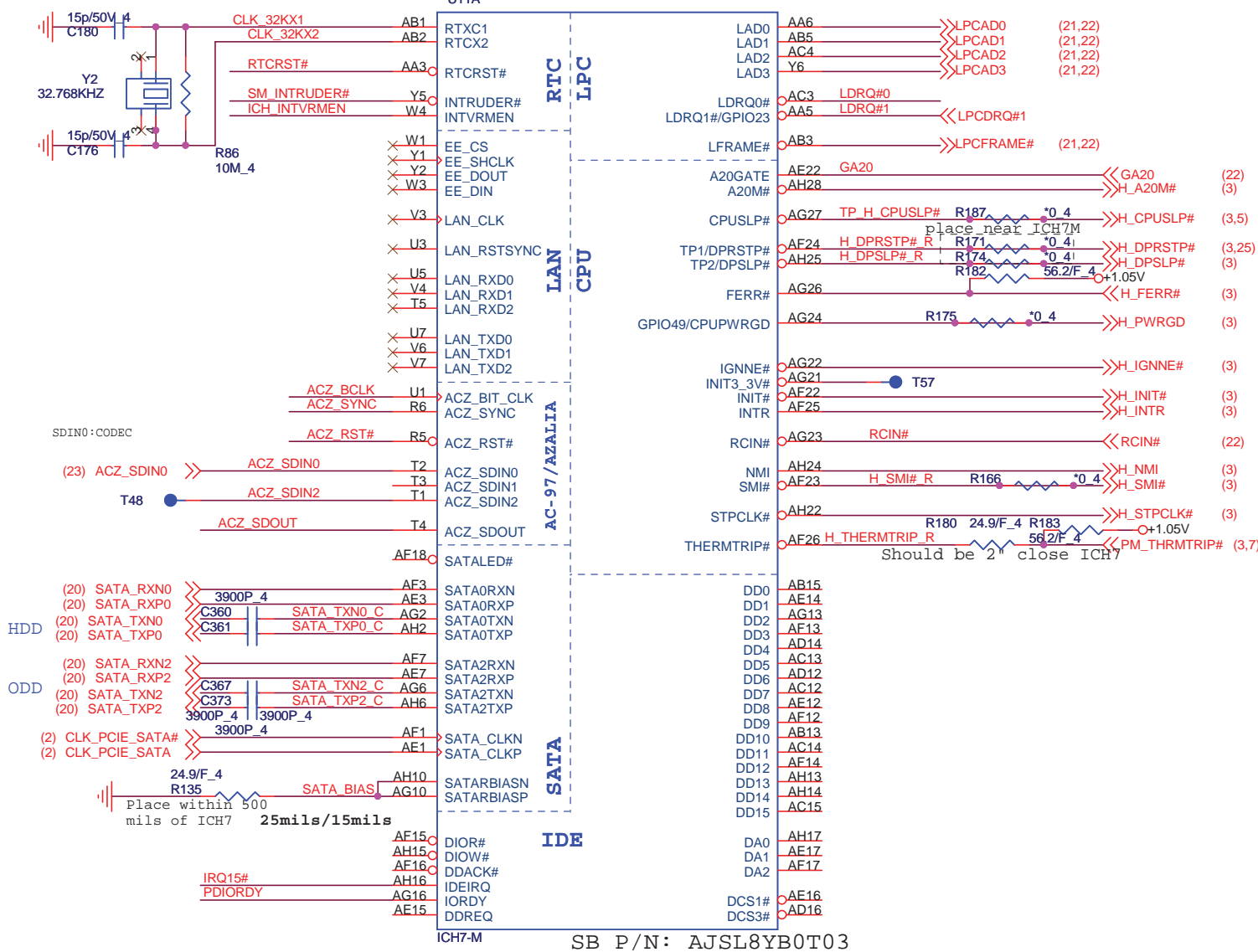
Size	Document Number	Rev
	945GMS HOST	1A
Date:	Friday, April 24, 2009	Sheet 5 of 34





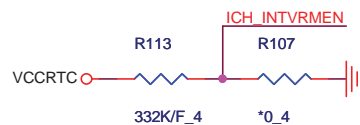


ICH7M



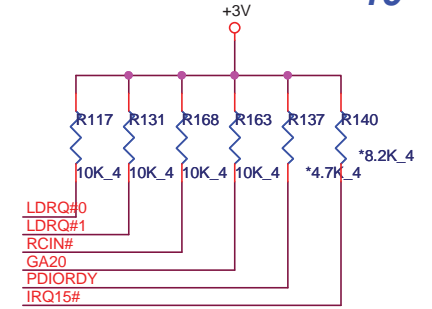
	INTVRMEN
Enable (default)	1
Disable	0

ICH7 internal VR enable strap

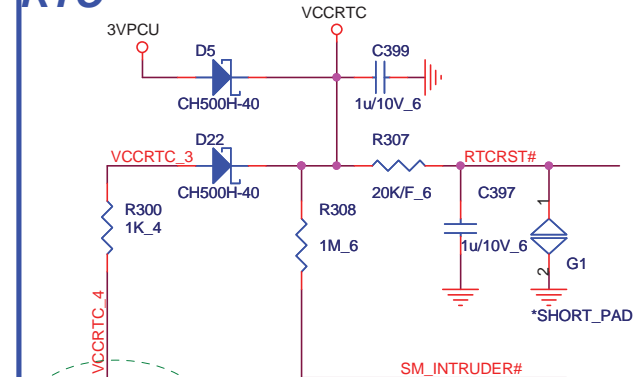


Pull-UP

10



RTC



Modified 2009/01/21

RTC Battery P/N: AHL03003002

COMPONENTS

P/N

N270

AJSLB73VT01

945GSE

AJSLB2R0T00

ICH7-M

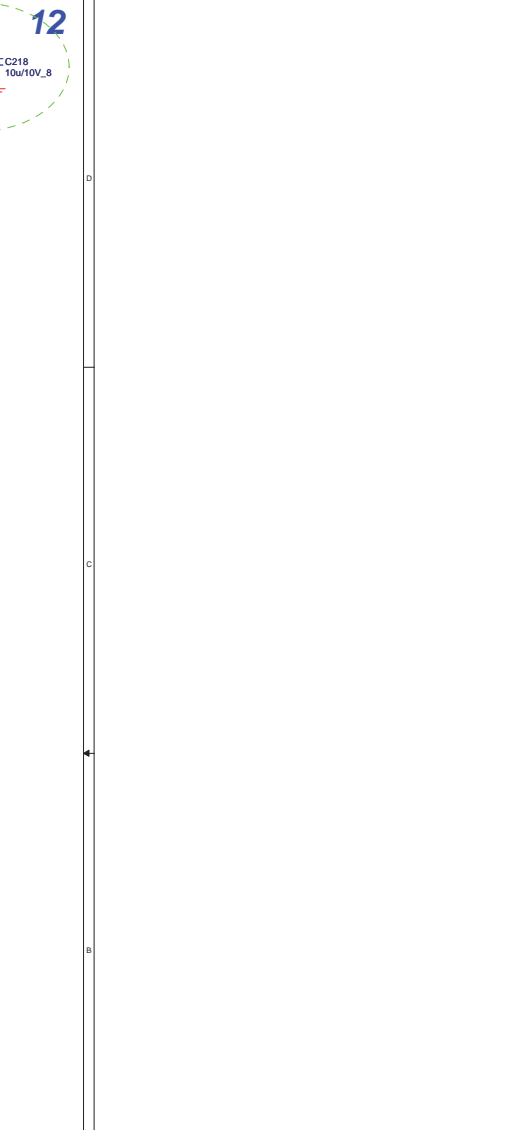
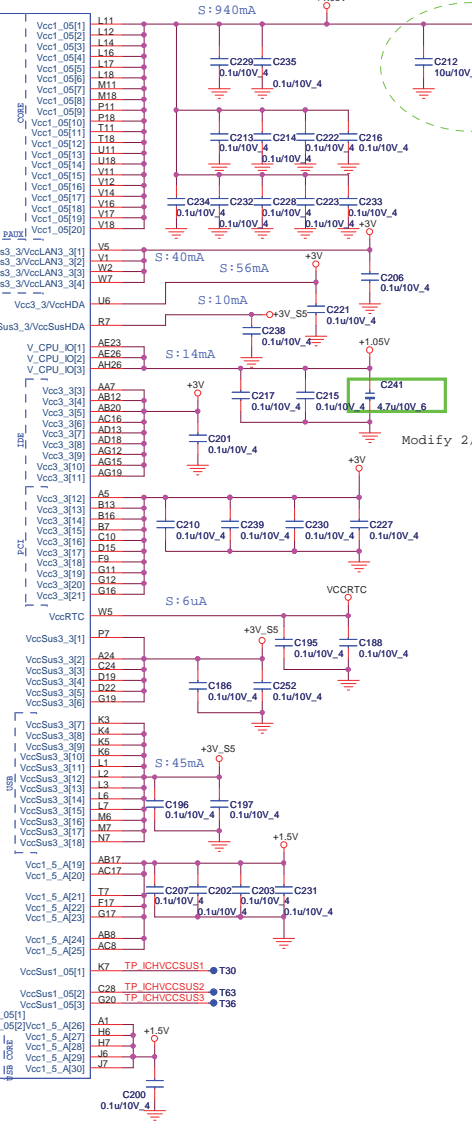
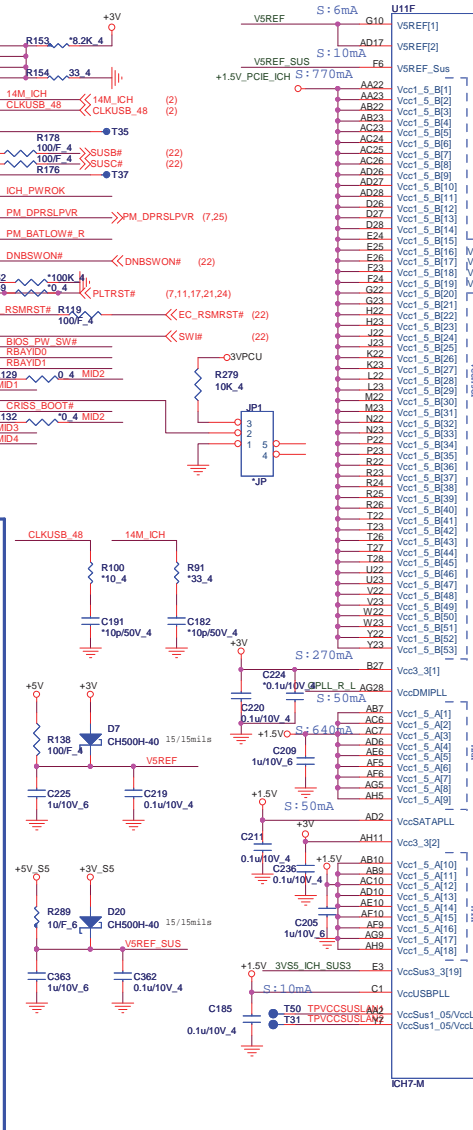
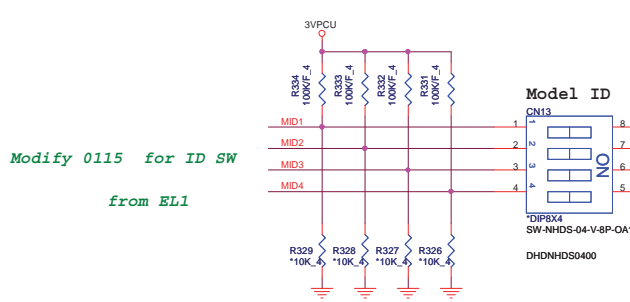
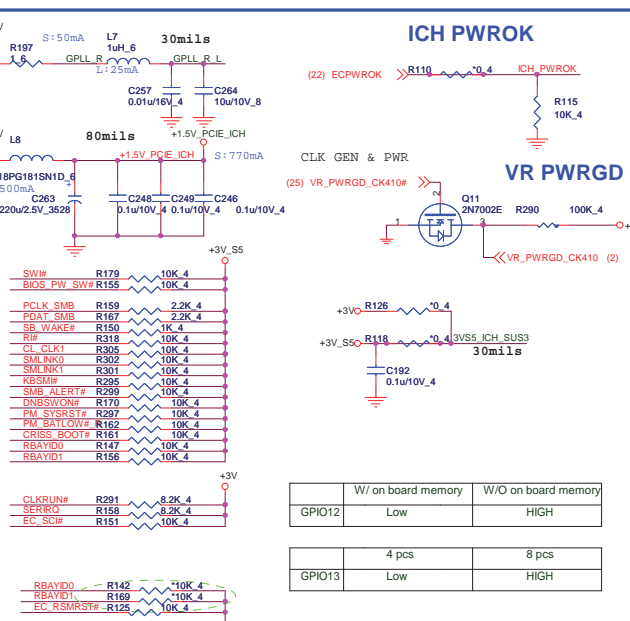
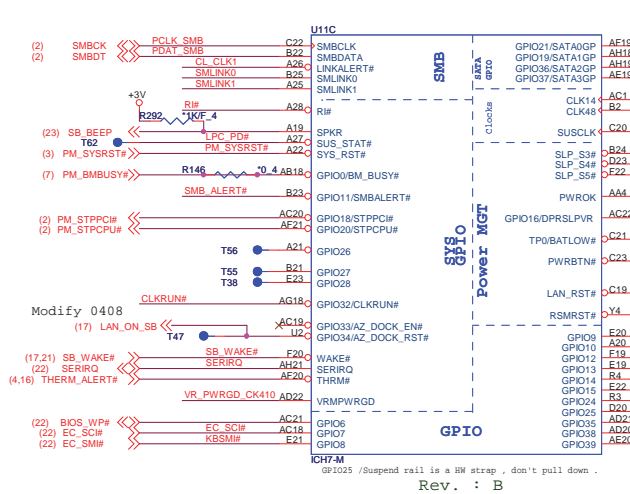
AJSL8YB0T03



Quanta Computer Inc.

PROJECT : EL7

Size	Document Number	Rev
	ICH7-M (CPU, SATA, IDE, LPC)	1A
Date:	Friday, April 24, 2009	Sheet 10 of 34



Modify 0115 for ID SW from EL1

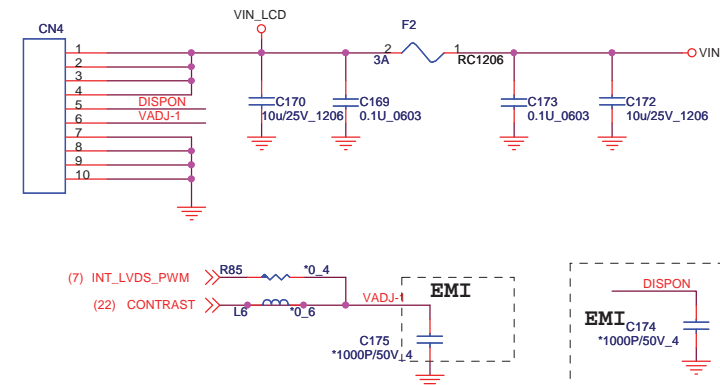
GP15	GP14	GP38	GP39
MID1	MID2	MID3	MID4
1	1	1	1
1	0	1	0
0	1	0	1
0	0	0	0

OFF=1= Hi On= 0= Low

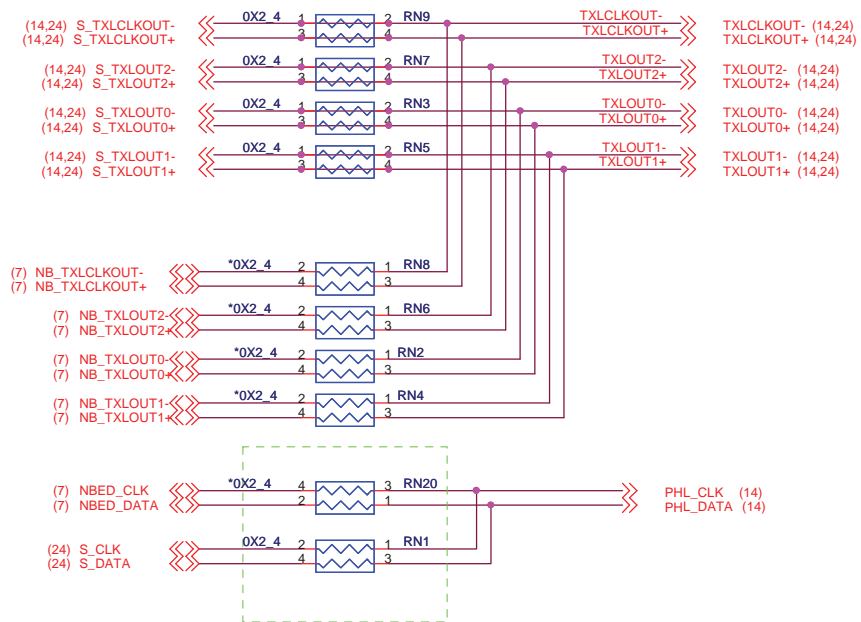
Quanta Computer Inc.
PROJECT : EL7

Size Document Number ICH7-M (POWER & GND) Rev 1A

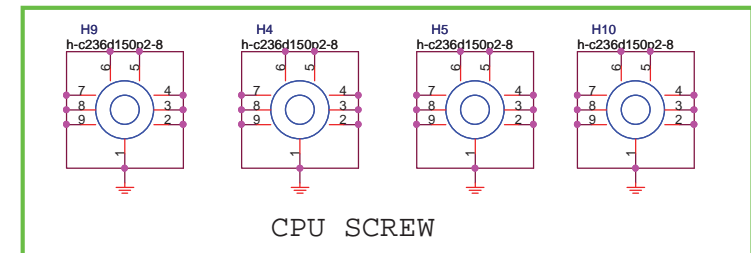
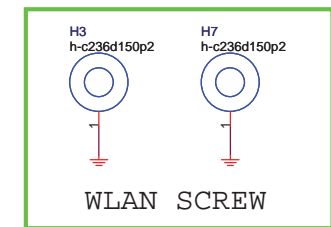
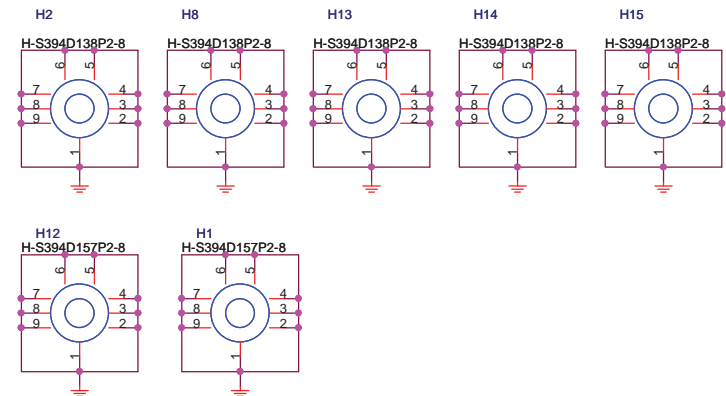
Date: Friday, April 24, 2009 Sheet 12 of 34



WWW.AliSaler.Com



Note: Close to LVDS CNN:CON1



Modify footprint 2009/03/05 by Jimmy:h-c236d150p2-8
NUT is the same as JRL:MBJR1003010



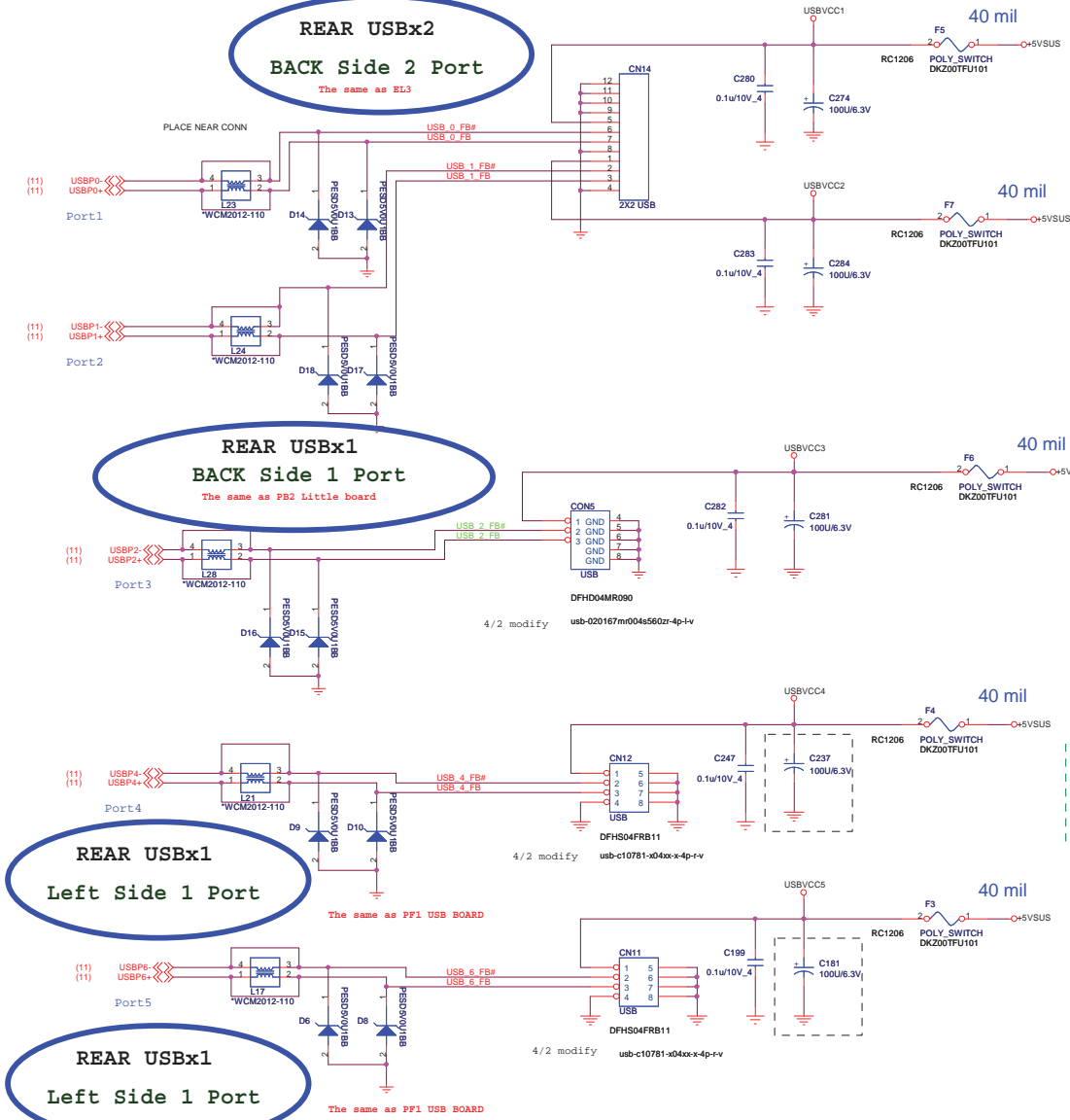
Quanta Computer Inc.

PROJECT : EL7

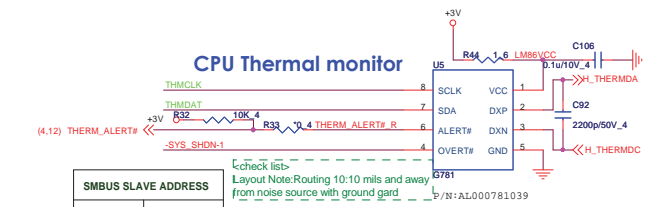
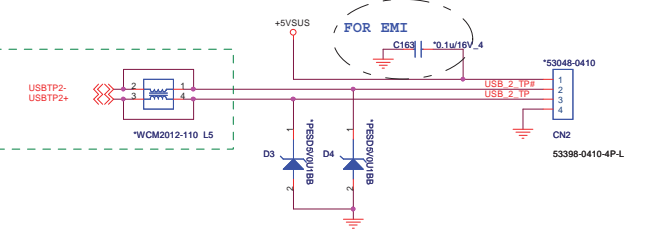
Size	Document Number	Rev
1	1	1A

LVDS Bridge/HOLES

Date: Friday, April 24, 2009 Sheet 15 of 34



*touch panel connector



SMBUS SLAVE ADDRESS	
G781	98
G781-1	9A

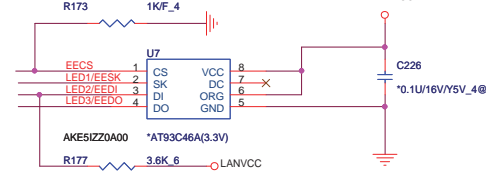
LANVCC

+3V_S5 R192 short0805 LANVCC

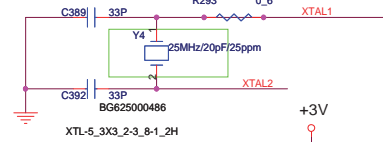
C391 0.1u/10V_4
C388 22u/6.3V_8

Remove R394 if external power 1.2v is used.
Remove R395 if switching regulator is enable

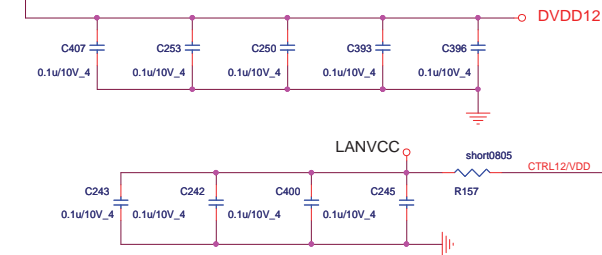
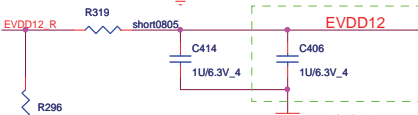
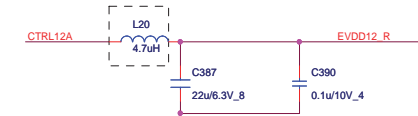
Reserve EEPROM for first stage. No stuff.



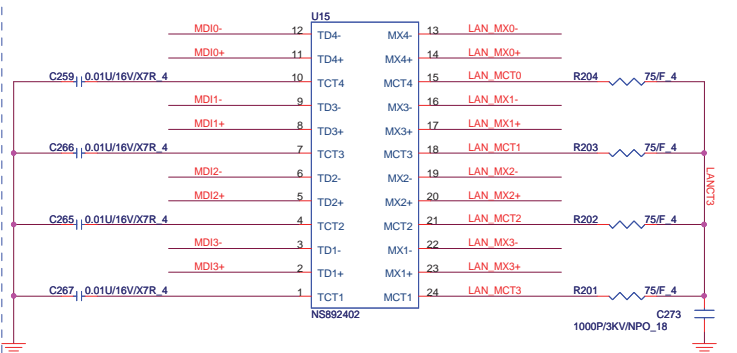
X'tal 25MHz



Modify 0413



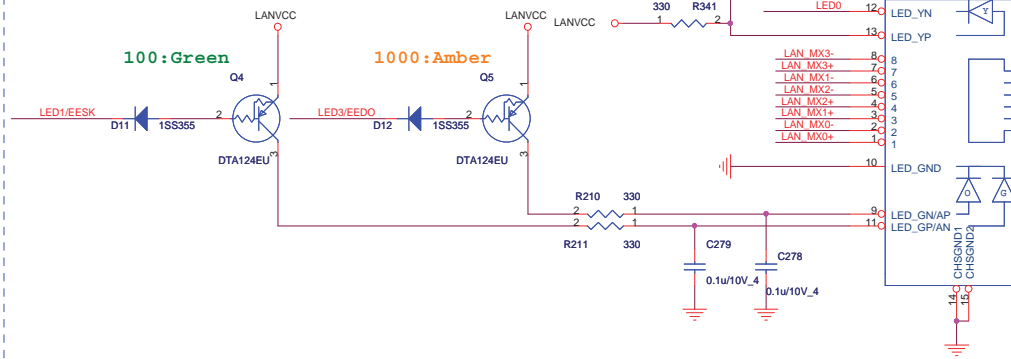
Transformer



P/N:DB0AT9LAN05

100:Green

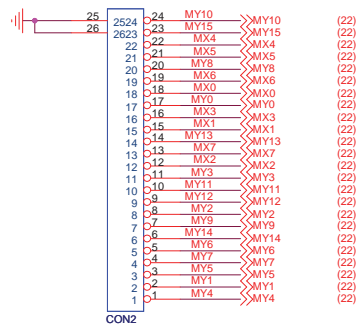
1000:Amber



KEYBOARD For debug

(22) MY[15..0] >>> (22) MY[7..0] >>>

*88502-2401-24P-L



From EL1V

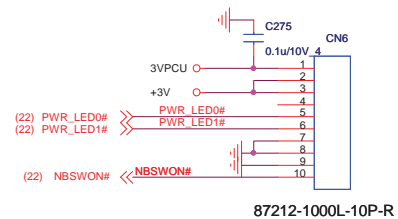
TOP Side

MB Side

TOP Side

SWITCH/B Side

Power SW



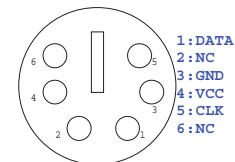
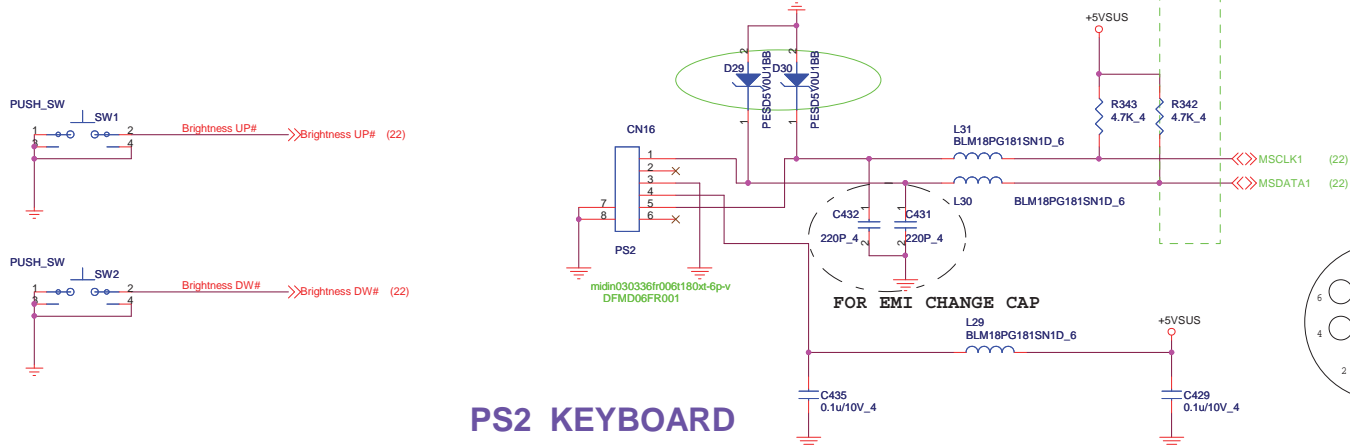
Modify 2209/03/02 :the same as CN4

PS2 MOUSE

Green

Brightness Control

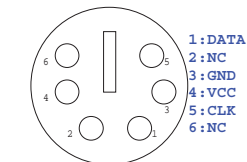
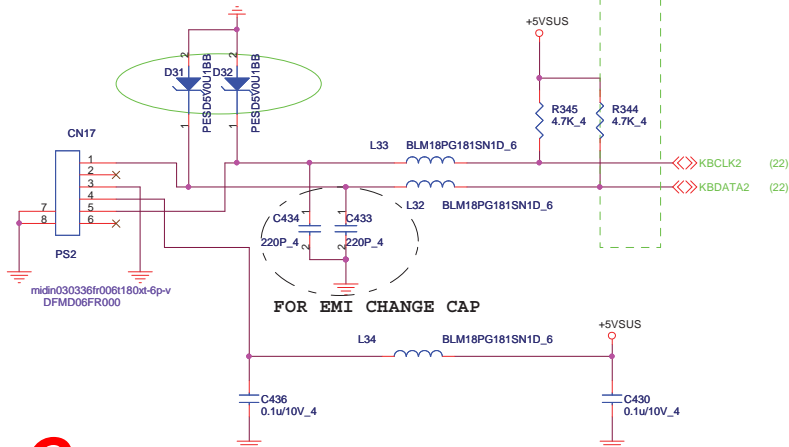
close to conn to version:A



PS2 KEYBOARD

Purple

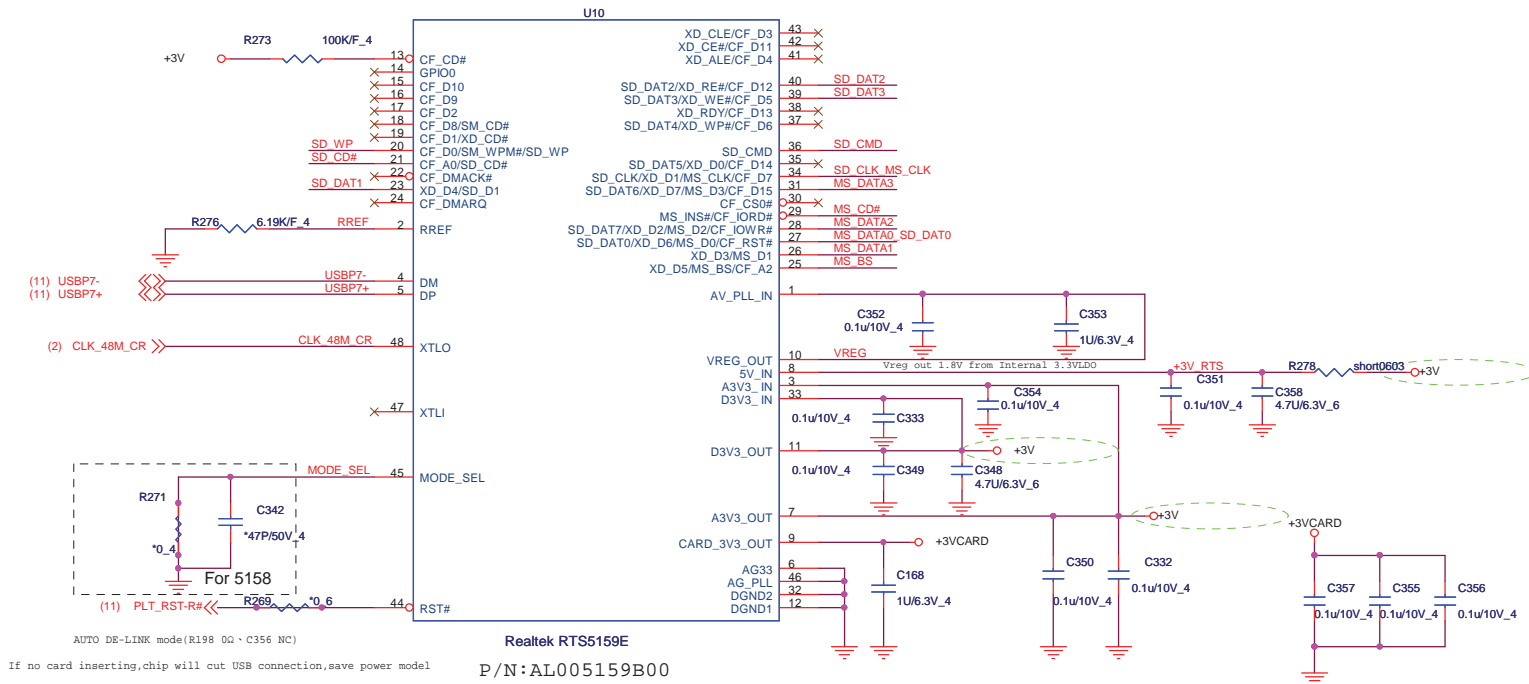
close to conn to version:A



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PROJECT : EL7

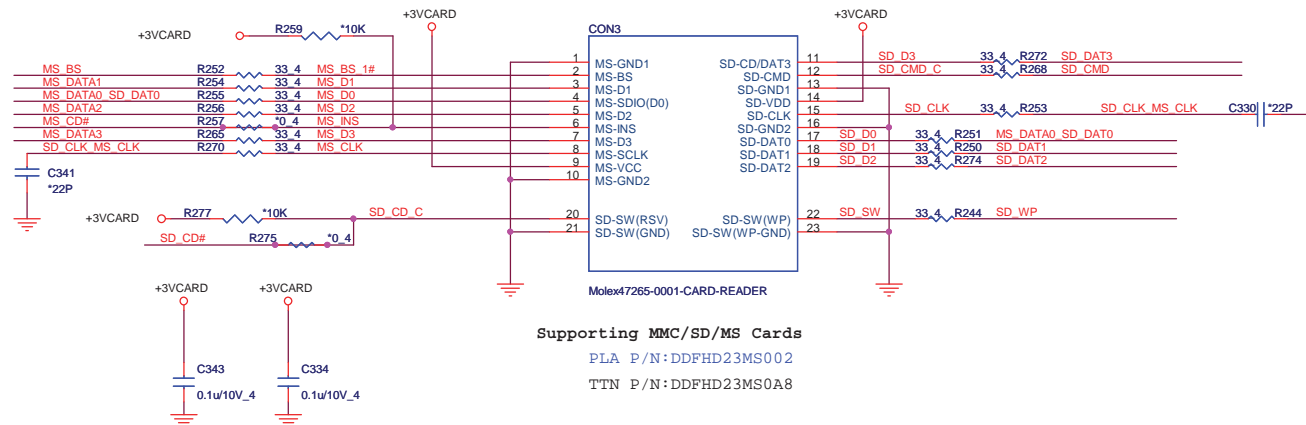
Size	Document Number	Rev
	KB/TP	1A
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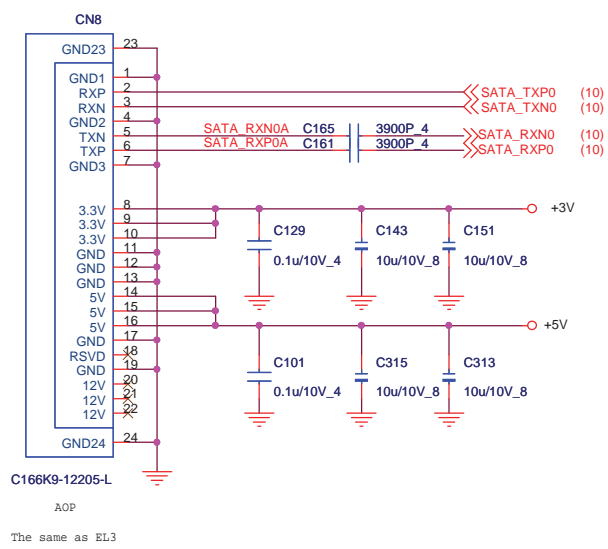
	SD/MMC	MS	XD
SP0			XD_CD#
SP1	SD_WP		
SP2	SD_CD#		
SP3	SD_DAT1	MS_BS	XD_D4
SP4	SD_DAT0	MS_D0	XD_D3
SP5	SD_DAT7	MS_D2	XD_D2
SP6	SD_DAT6	MS_D3	XD_D1
SP7	SD_CLK	MS_SCLK	XD_D1
SP8	SD_DAT5		XD_D0
SP9	SD_DAT4		XD_WP#
SP10	SD_DAT3		XD_WE#
SP11	SD_DAT2		XD_RE#
SP12	SD_DAT1		XD_ALE
SP13	SD_DAT0		XD_CE#
SP14	SD_CMD		XD_CLE
SP15			
SP16			
SP17			
SP18			
SP19			

4 IN 1 CONN

From PB2

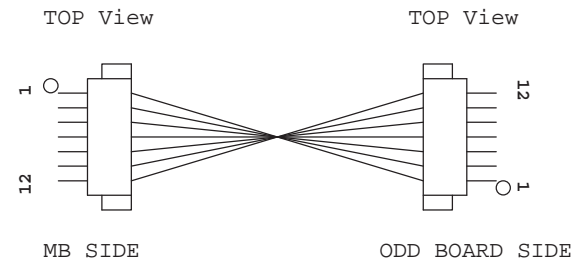
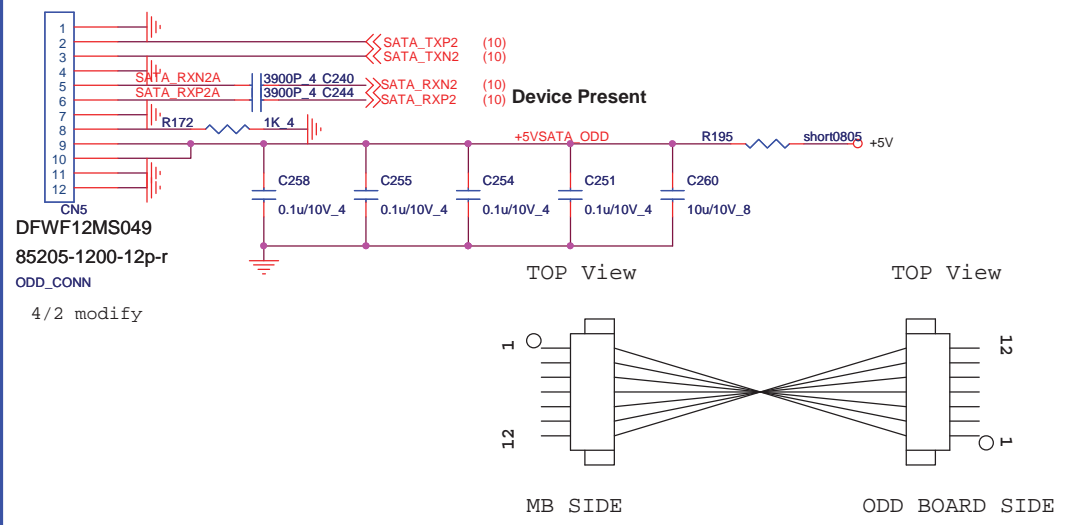


SATA HDD




SATA ODD

Check New ODD CONN Pin Define.



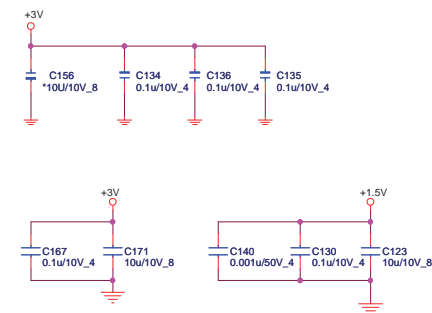
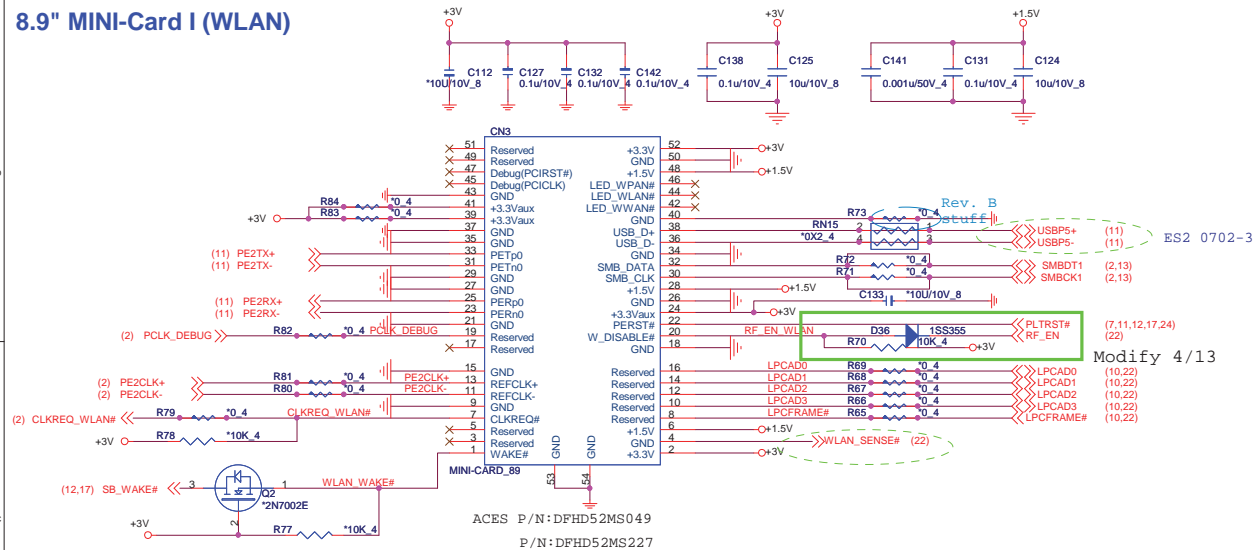
ZT4 card connector

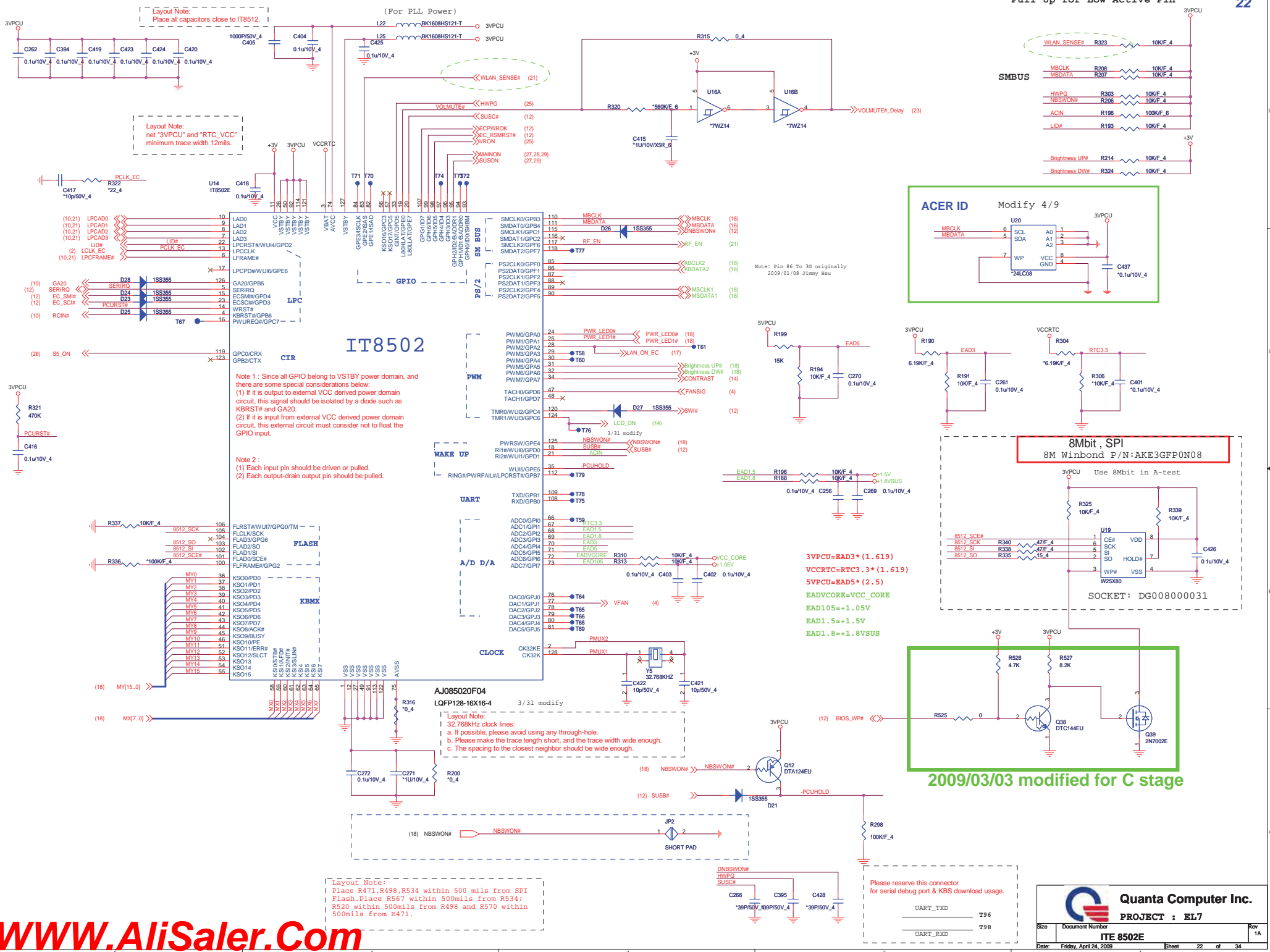


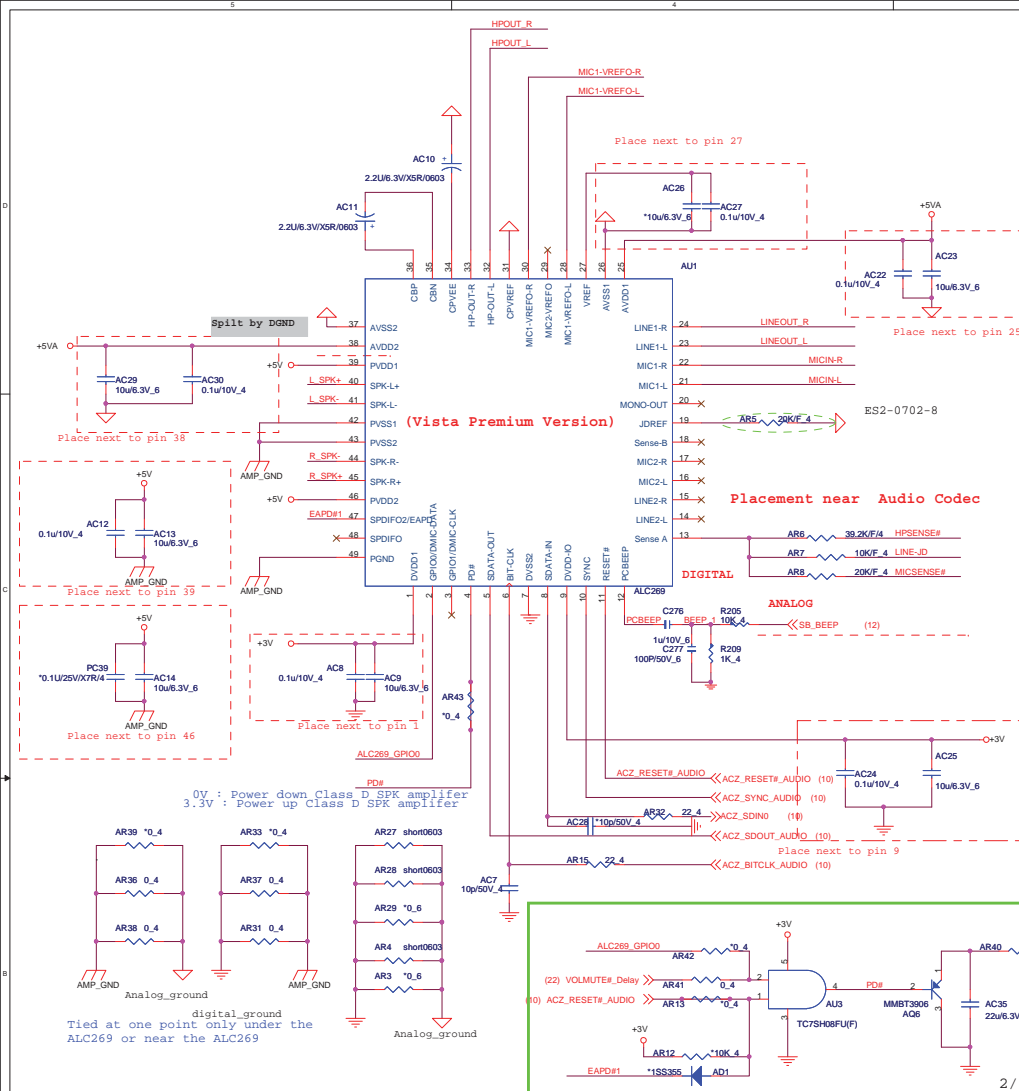
Quanta Computer Inc.
PROJECT : EL7

Size	Document Number	Rev
	SATA-HDD/CF/SSD	1A
Date:	Friday, April 24, 2009	Sheet 20 of 34

8.9" MINI-Card I (WLAN)



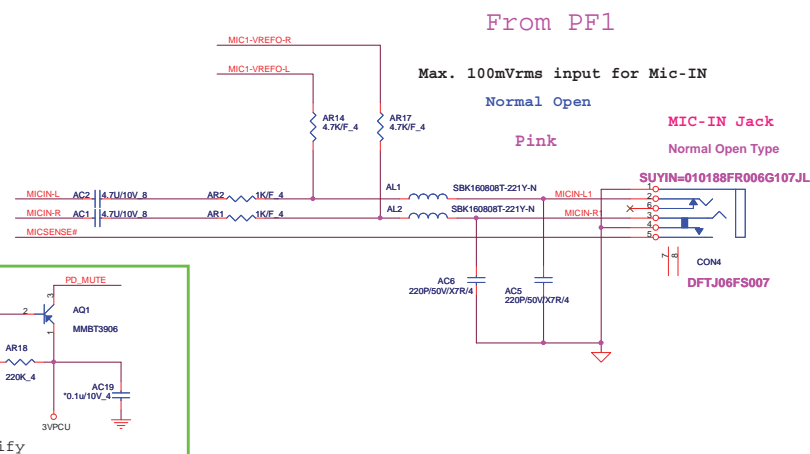
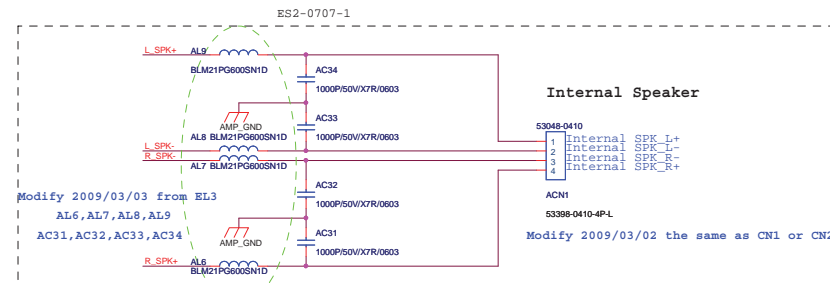
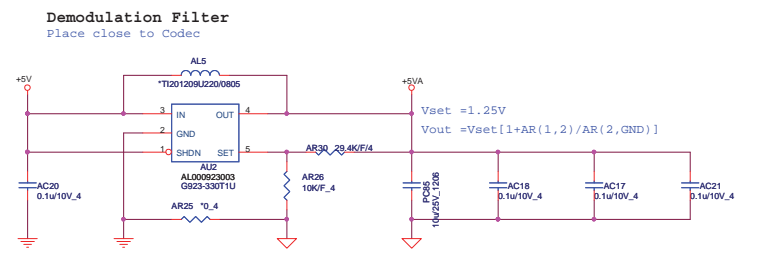
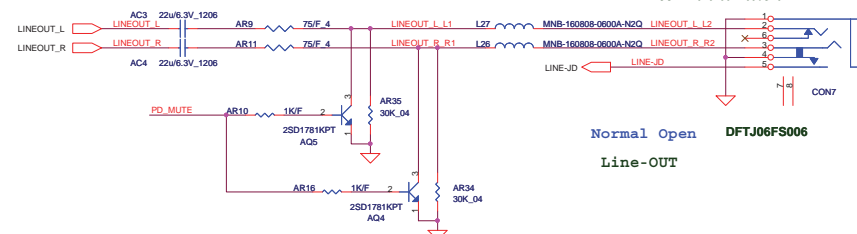




Comment by RichPower Vic 2008/01/12

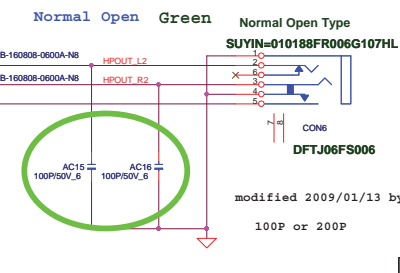
From PF1

Green SUYIN=010188FR006G107HL

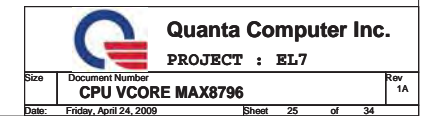


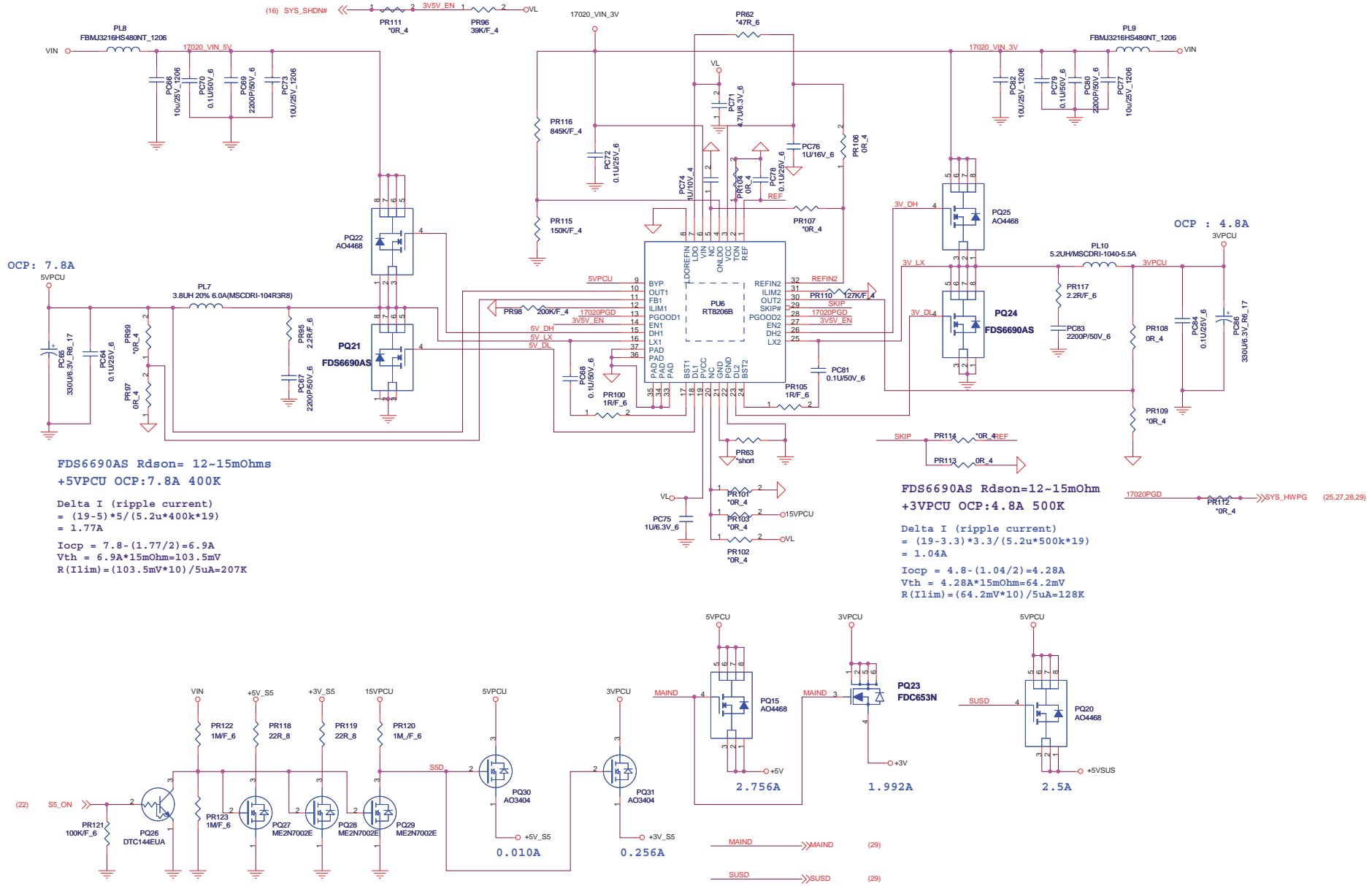
From PF1

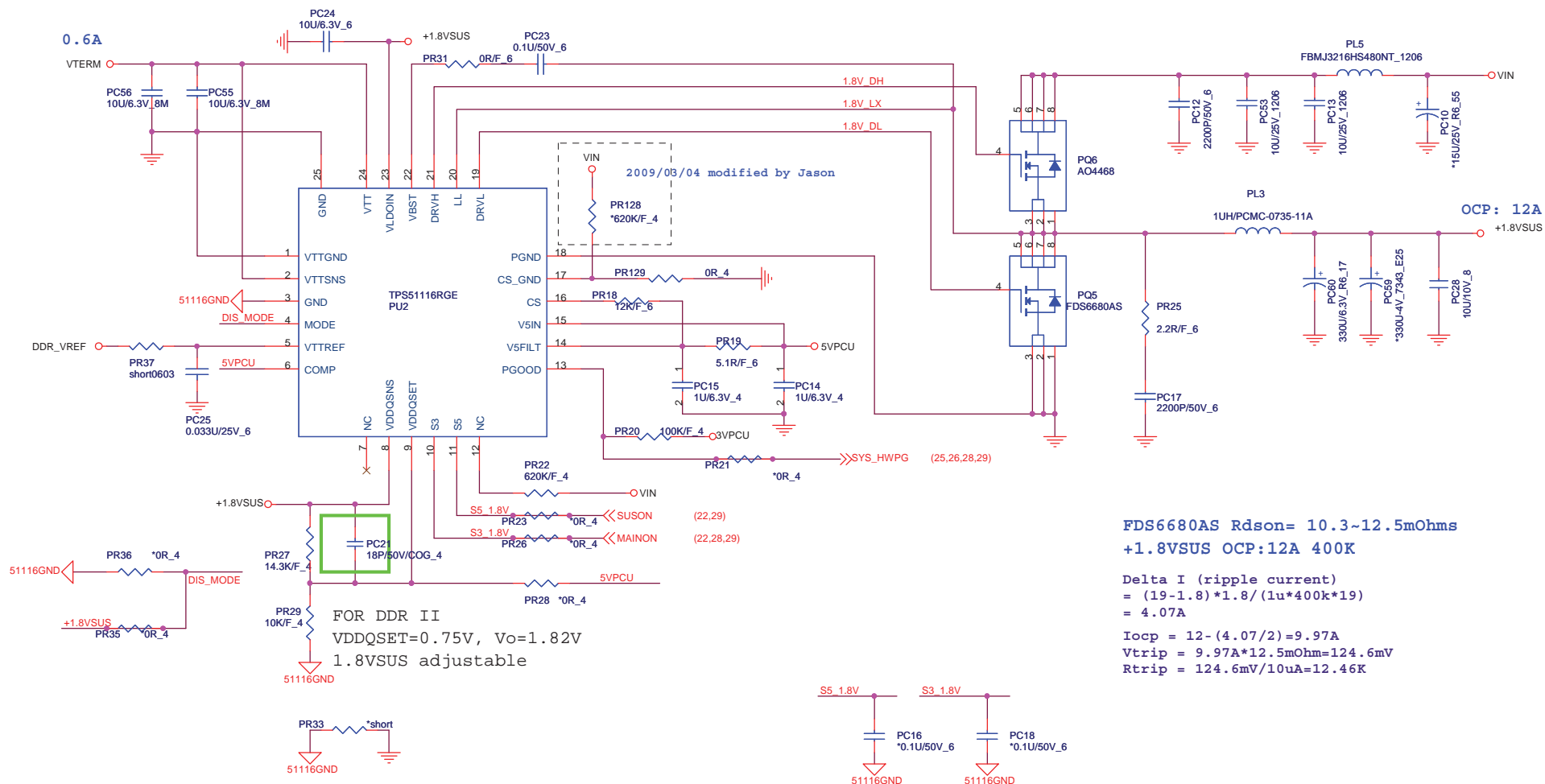
Headphone-OUT







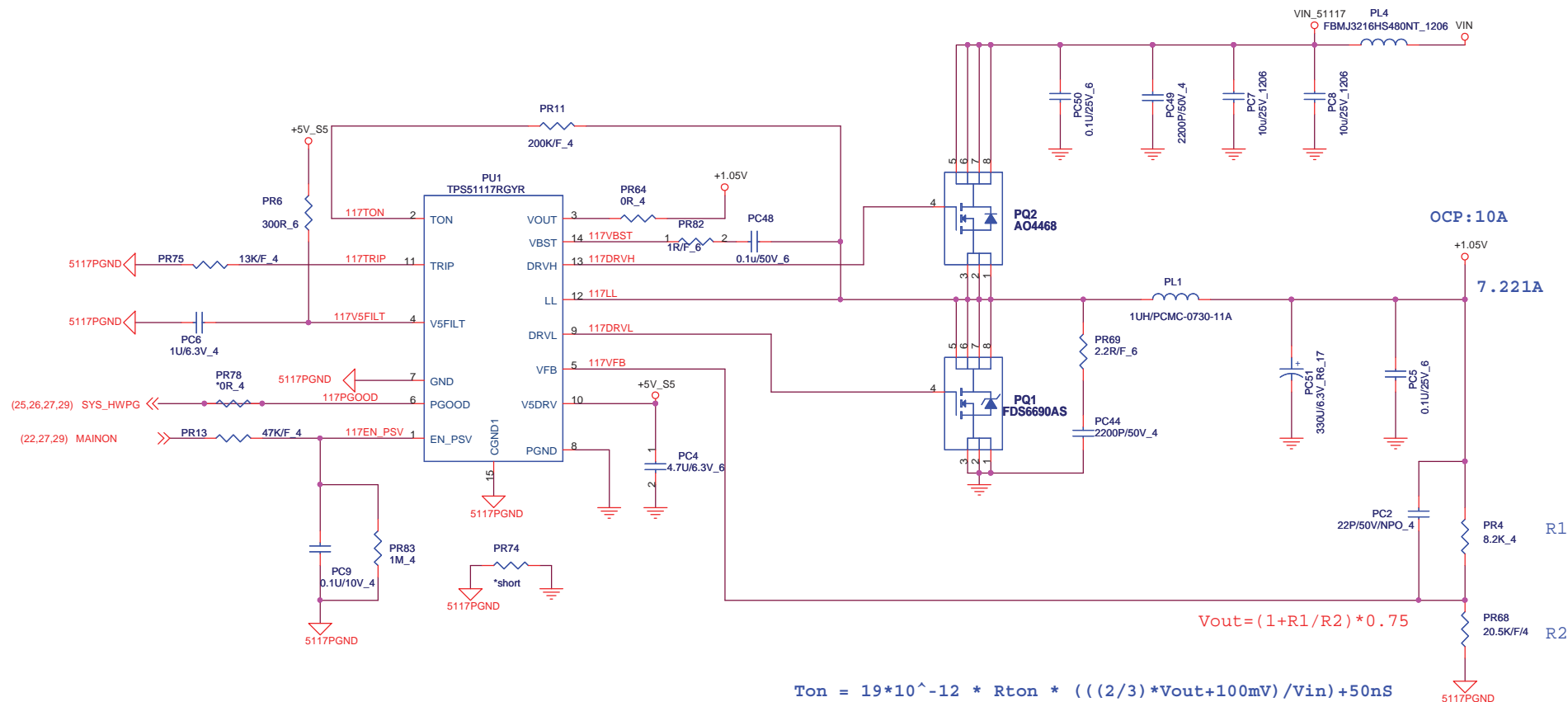




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Size	Document Number	Rev
	TPS51116REGR/1.8VSUS	1A
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$$\begin{aligned}
 T_{on} &= 19 \cdot 10^{-12} \cdot R_{ton} \cdot ((2/3) \cdot V_{out} + 100\text{mV}) / V_{in} + 50\text{nS} \\
 &= 210\text{nS} \\
 f &= (1/T_{on}) \cdot (V_{out}/V_{in}) \\
 &\approx 263\text{Hz}
 \end{aligned}$$

FDS6690AS $R_{dson} = 12 \sim 15\text{m}\Omega$
 +1.05V OCP:10A 263K

Delta I (ripple current)
 $= (19 - 1.05) \cdot 1.05 / (1\mu \cdot 263\text{k} \cdot 19)$
 $= 3.77\text{A}$

$I_{ocp} = 10 - (3.77/2) = 8.16\text{A}$
 $V_{trip} = 8.16\text{A} \cdot 15\text{m}\Omega = 122.4\text{mV}$
 $R_{trip} = 122.4\text{mV} / 10\mu\text{A} = 12.24\text{K}$

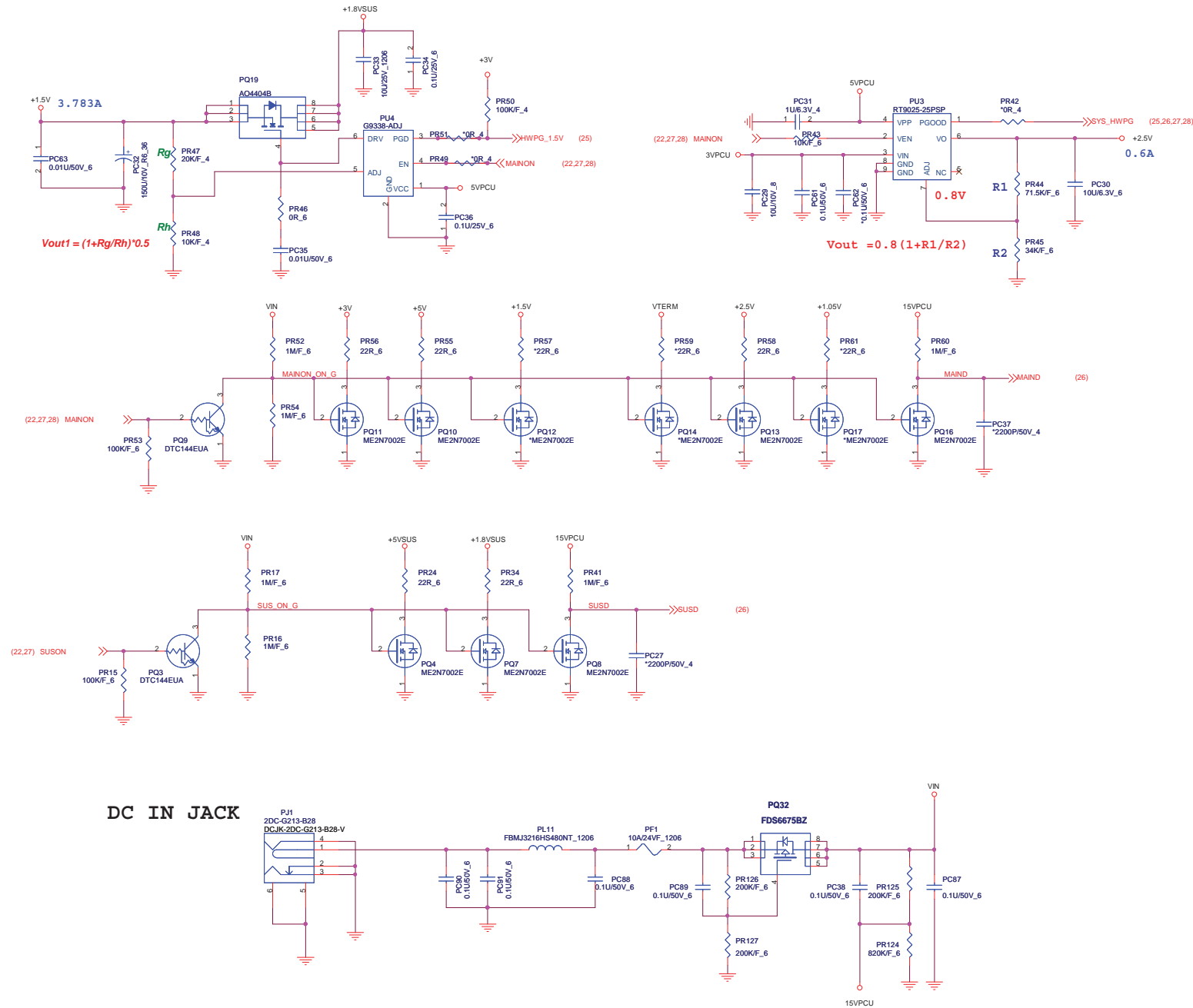


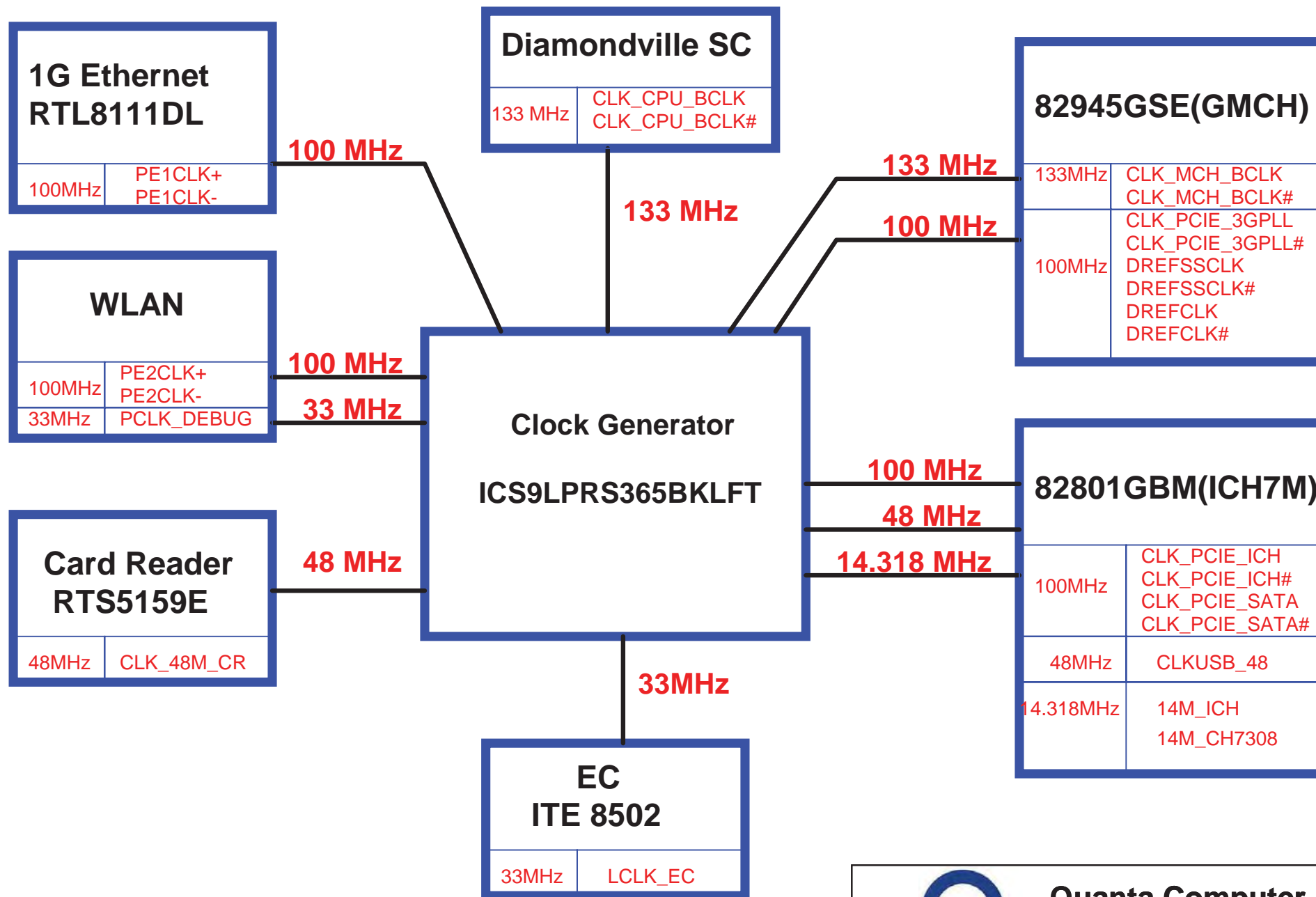
Quanta Computer Inc.

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Size	Document Number	Rev
	VCCP 1.05V(TPS51117)	1A

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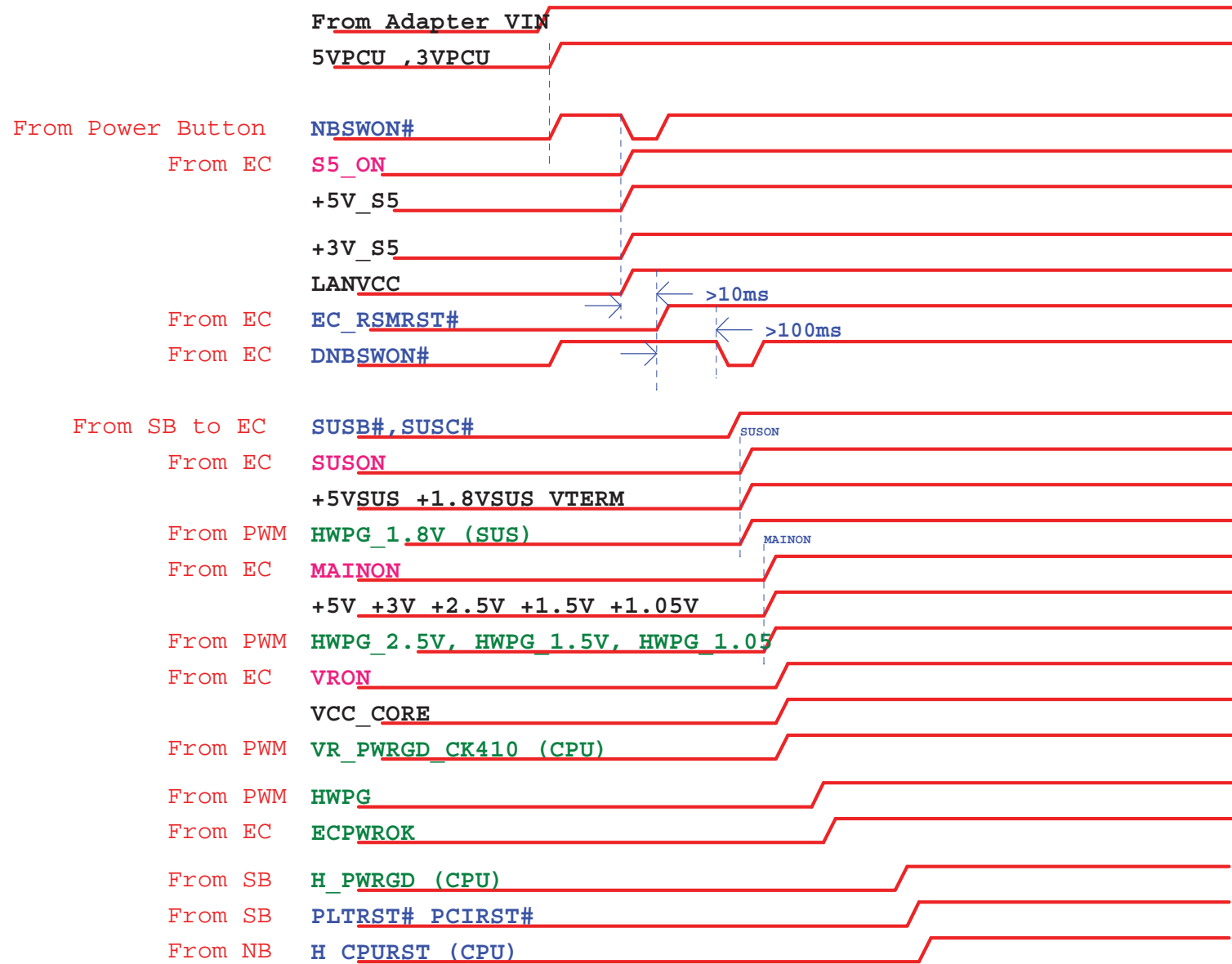


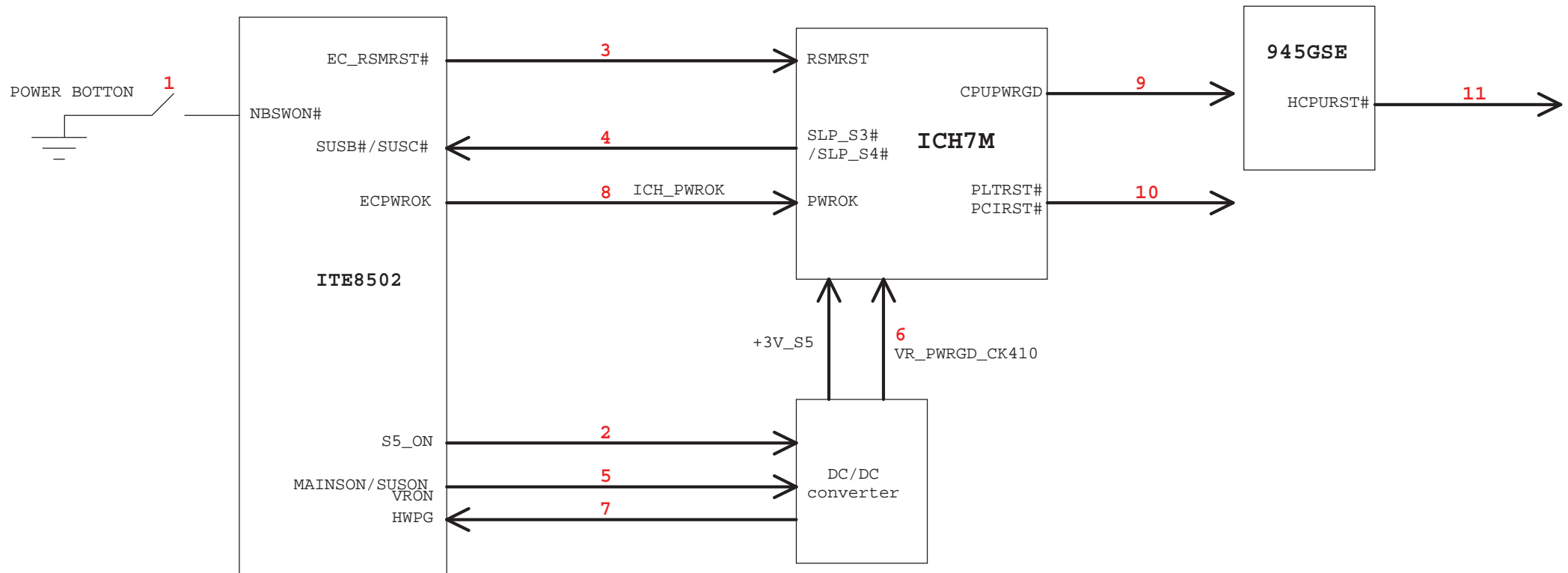
Quanta Computer Inc.

PROJECT : EL7

Size	Document Number	Rev
	Clock Block Diagram	1A
Date:	Friday, April 24, 2009	Sheet 30 of 34

Power On Sequence

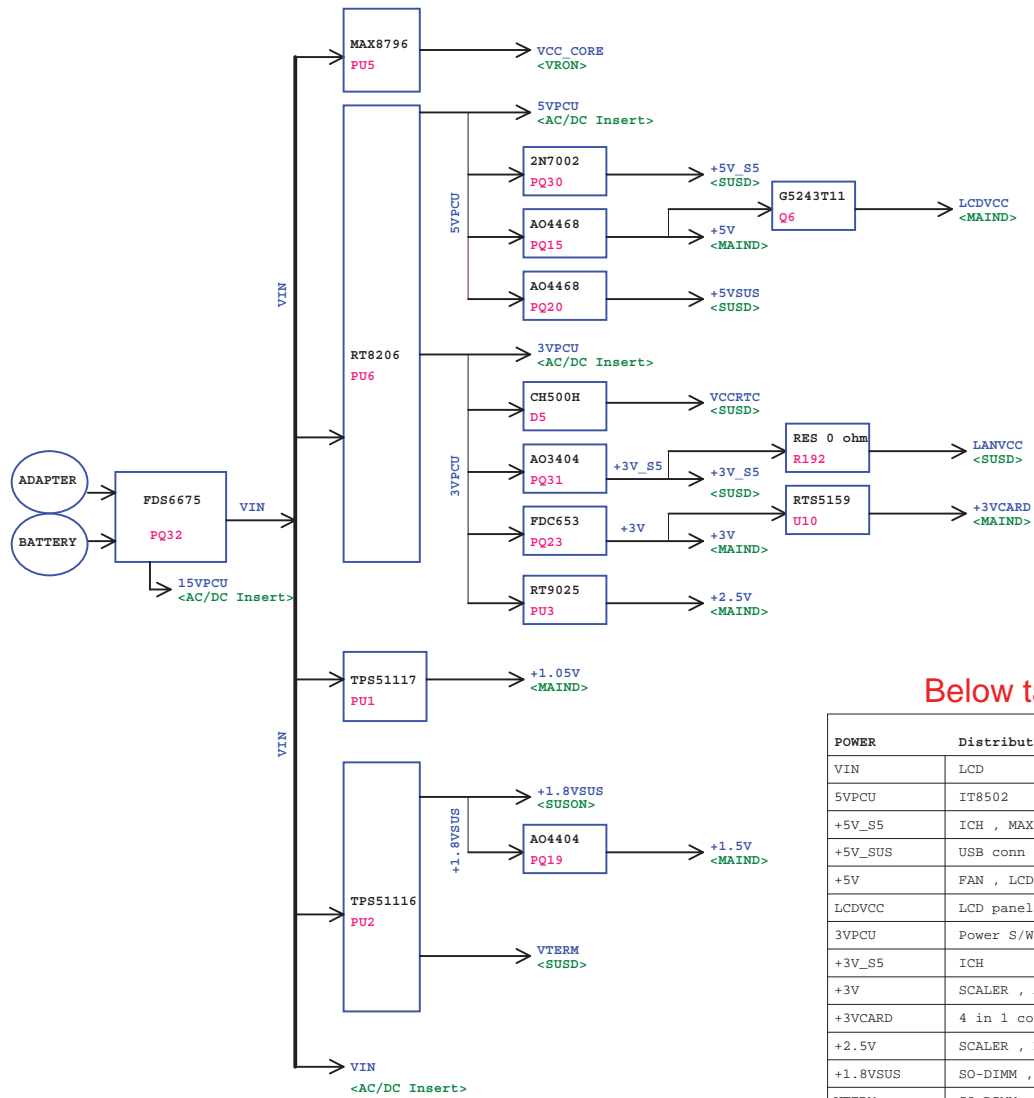




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PROJECT : EL7

Size	Document Number	Rev
	Power On Diagram	1A
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Below table need be modify (waiting other schematic ready)

POWER	Distribution
VIN	LCD
5VPCU	IT8502
+5V_S5	ICH , MAX8796 , TPS51117
+5V_SUS	USB conn , PS/2 mouse K/B conn , CAMERA
+5V	FAN , LCD , SATA HDD , SATA ODD , ALC269 , ICH
LCDVCC	LCD panel
3VPCU	Power S/W , IT8502 , ICH
+3V_S5	ICH
+3V	SCALER , ALC269 , IT8502 , CLK gen , MCH , ICH , SO-DIMM , EDID EEPROM , SATA HDD , SSD , WLAN , Power S/W , G781 , RTL8111 , RTS5159
+3VCARD	4 in 1 conn
+2.5V	SCALER , MCH
+1.8VSUS	SO-DIMM , MCH , TPS51116
VTERM	SO-DIMM
+1.5V	CPU , MCH , ICH , WLAN
+1.05V	CLK gen , CPU , MCH , ICH
VCC_CORE	CPU
LANVCC	RTL8111

DATE	Modify Description List	Note
2009 0302 VER:B	1.PAG23 SPK Change ACN1 :the same as CN1 or CN2 (53398-0410-4P-L) 2.PAG18 SW Change CN6:the same as CN4 (87212-1000L-10P-R) 3.PAG20&PG18 Remove SSD module ,H6 and H11 4.PAG12 Signal MID2 change form GPIO35 to GPIO14 5.Change caps or resistors footprints with "-C" to non "-C" 6.PAG16 Chage C274,C281 and C284 to CC3528	
2009 0303 VER:B	1.PAG16 delete R129,R132,R181,R185 of USB 2.PAG25 Short 0 Ohm resistor:PR84,PR88,PR89,PR91,PR92,PR93,PR94,PR85,PR79,PR73,PR5,PR81,PR90 3.PAG26 Short 0 Ohm resistor:PR104,PR111,PR112 4.PAG29 Short 0 Ohm resistor:PR49,PR51 5.PAG22 Modify EC Pin3 to VCCRTC 6.PAG29 Solve +1.5 discharge circuit short problem 7.PAG23 Modify AL6,AL7,AL8,AL9,AC31,AC32,AC33,AC34 8.PAG12 Change GPIO6 to BIOS_WP#,delete R164,R165 9.PAG22 ADD BIOS PROTECT Circuit	
2009 0305 VER:B	1.PAG18 Change L29,L30,L31,L32,L33,L34 to BLM18PG181SN1D_6(The same as L10) 2.PAG27 Add PR129	
2009 0413 VER:C	1.PAG16 Chage C237,C181 to CC3528 2.PAG20 Chage CN5 footprint to 85205-1200-12p-r (DFWF12MS049) 3.PAG14 Add D35 U2 pin connector to EC U14_124 LCD_ON 4.PAG17 Add D33,D34 GPIO34 LAN_ON_SB and LAN_ON_EC U12 pin28 5.PAG21 Add D36,R70 6.PAG22 Add U20,C437	