

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the **W950JU / W955JU** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page	Diagram - Page
<i>System Block Diagram - Page B - 2</i>	<i>DDR3L SO-DIMM_B_0 - Page B - 15</i>	<i>VDD3, VDD5 - Page B - 28</i>
<i>Skylake ULT - Page B - 3</i>	<i>Panel, Inverter - Page B - 16</i>	<i>VDDQ, VDDQ_VTT, 1.5VS, 1.8VS - Page B - 29</i>
<i>Skylake ULT DDR - Page B - 4</i>	<i>CRT - Page B - 17</i>	<i>1.0V Series - Page B - 30</i>
<i>Skylake ULT RTC/HDA/CLK/SD - Page B - 5</i>	<i>PS8625 - Page B - 18</i>	<i>VCore, VCCGT, VCCSA, VCCIO - Page B - 31</i>
<i>Skylake ULT LPC/SPI/SMB - Page B - 6</i>	<i>Card Reader & RTL8411B - Page B - 19</i>	<i>Charger, DC-In - Page B - 32</i>
<i>Skylake ULT Power Maint - Page B - 7</i>	<i>HDMI, RJ45, Fan - Page B - 20</i>	<i>NCP81206 Regulator - Page B - 33</i>
<i>Skylake ULT GPIOs/I2C/EMMC - Page B - 8</i>	<i>M.2 (WLAN, 3G, SSD) - Page B - 21</i>	<i>Audio Board - Page B - 34</i>
<i>Skylake ULT PCIE, USB, SATA - Page B - 9</i>	<i>Audio Codec - Page B - 22</i>	<i>Power SW Board - Page B - 35</i>
<i>Skylake ULT Power 1 - Page B - 10</i>	<i>USB 3.0, G Sensor, TPM - Page B - 23</i>	<i>Option BOM List - Page B - 36</i>
<i>Skylake ULT Power 2 - Page B - 11</i>	<i>KBC ITE IT8587 - Page B - 24</i>	
<i>Power-VSS - Page B - 12</i>	<i>CCD, MIC, LID, I/O Connector - Page B - 25</i>	
<i>CFG, RSVD, VCCGT - Page B - 13</i>	<i>HDD, ODD, LED - Page B - 26</i>	
<i>DDR3L SO-DIMM_A_0 - Page B - 14</i>	<i>3V, 5V, 3VS, 5VS - Page B - 27</i>	

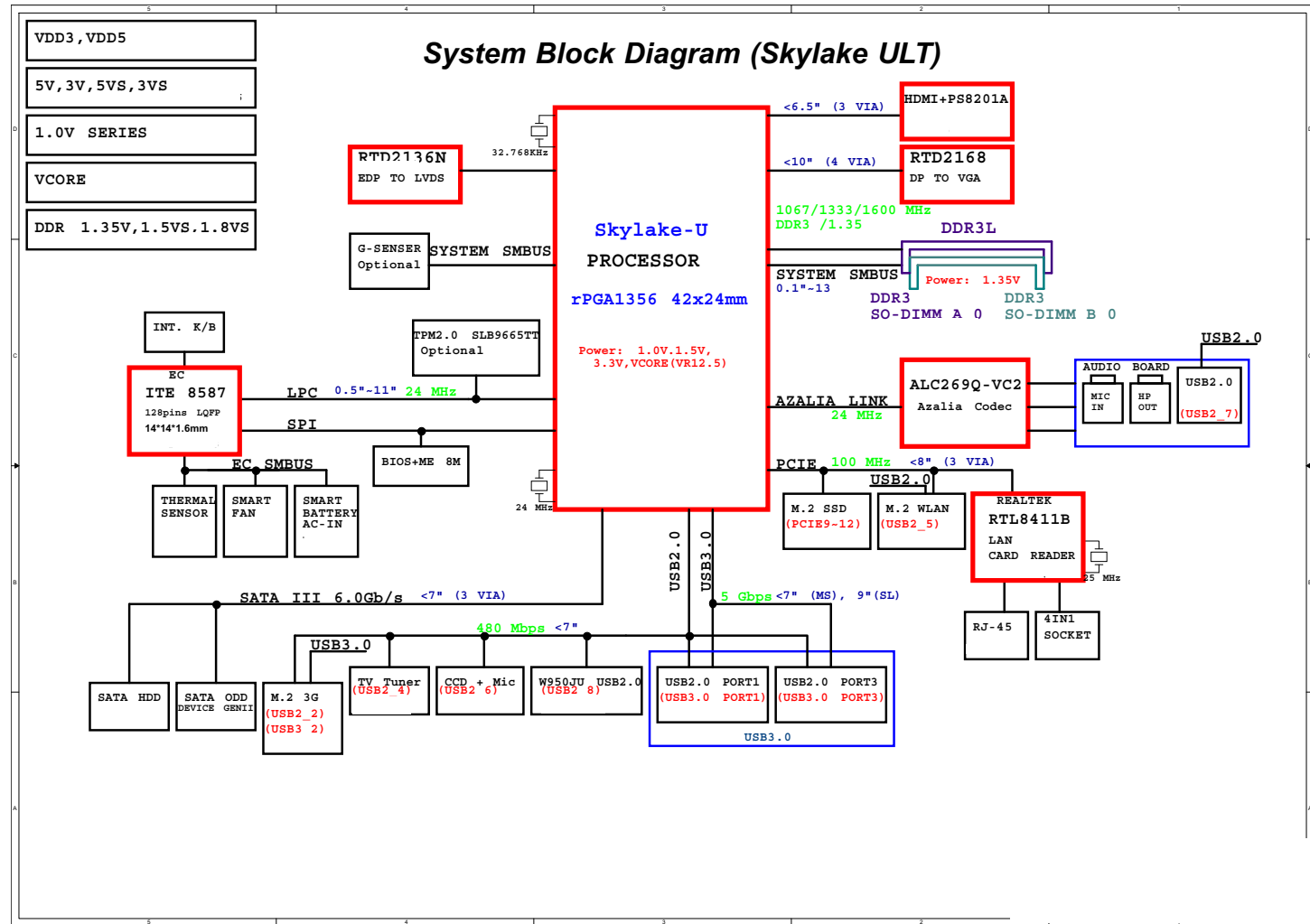
Table B - 1
**SCHEMATIC
DIAGRAMS**



Version Note

The schematic diagrams in this chapter are based upon version 6-7P-W95J4-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram



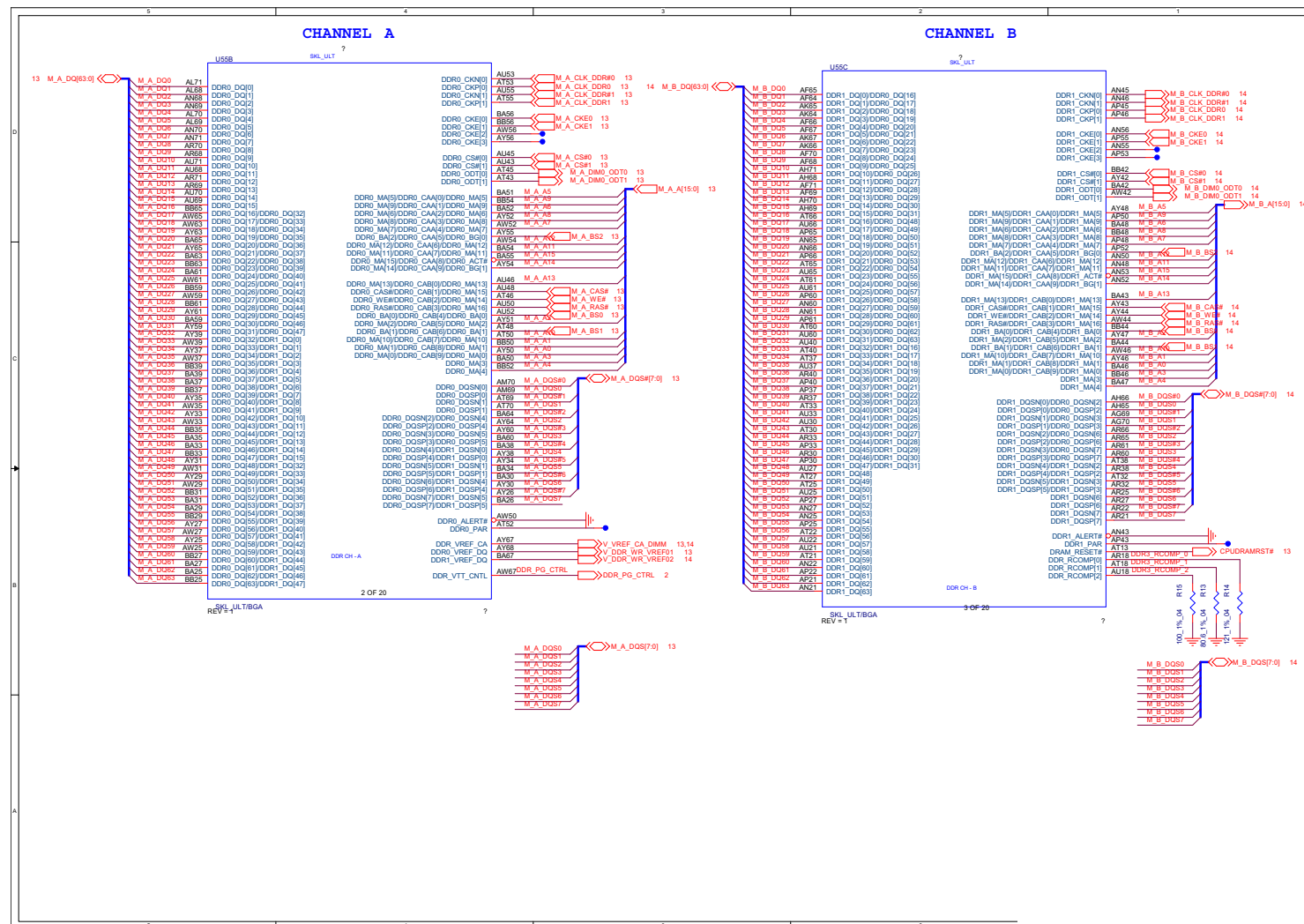
Sheet 1 of 35
System Block
Diagram

Skylake ULT B - 3

Skylake ULT B - 3



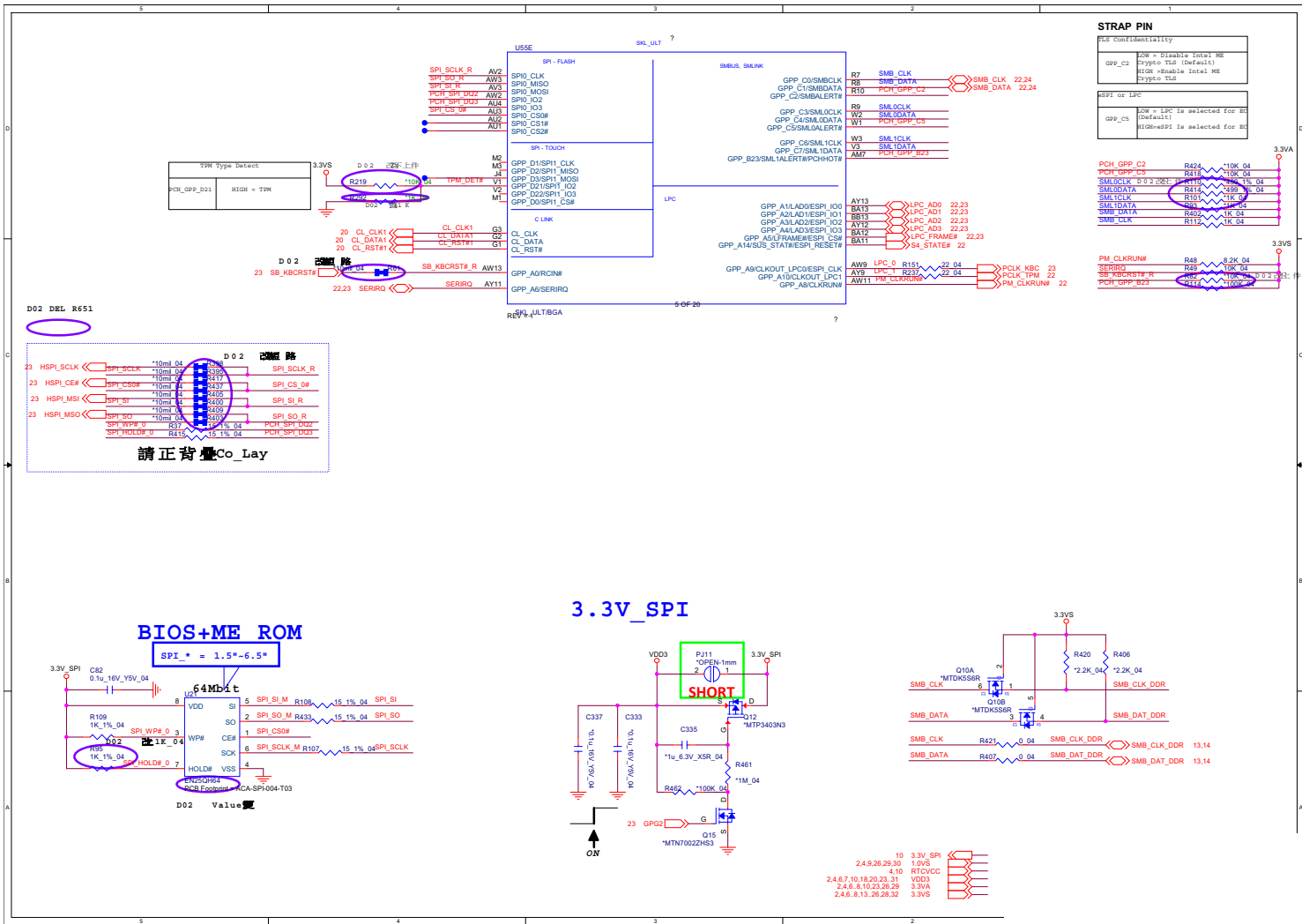
Skylake ULT DDR



Schematic Diagrams

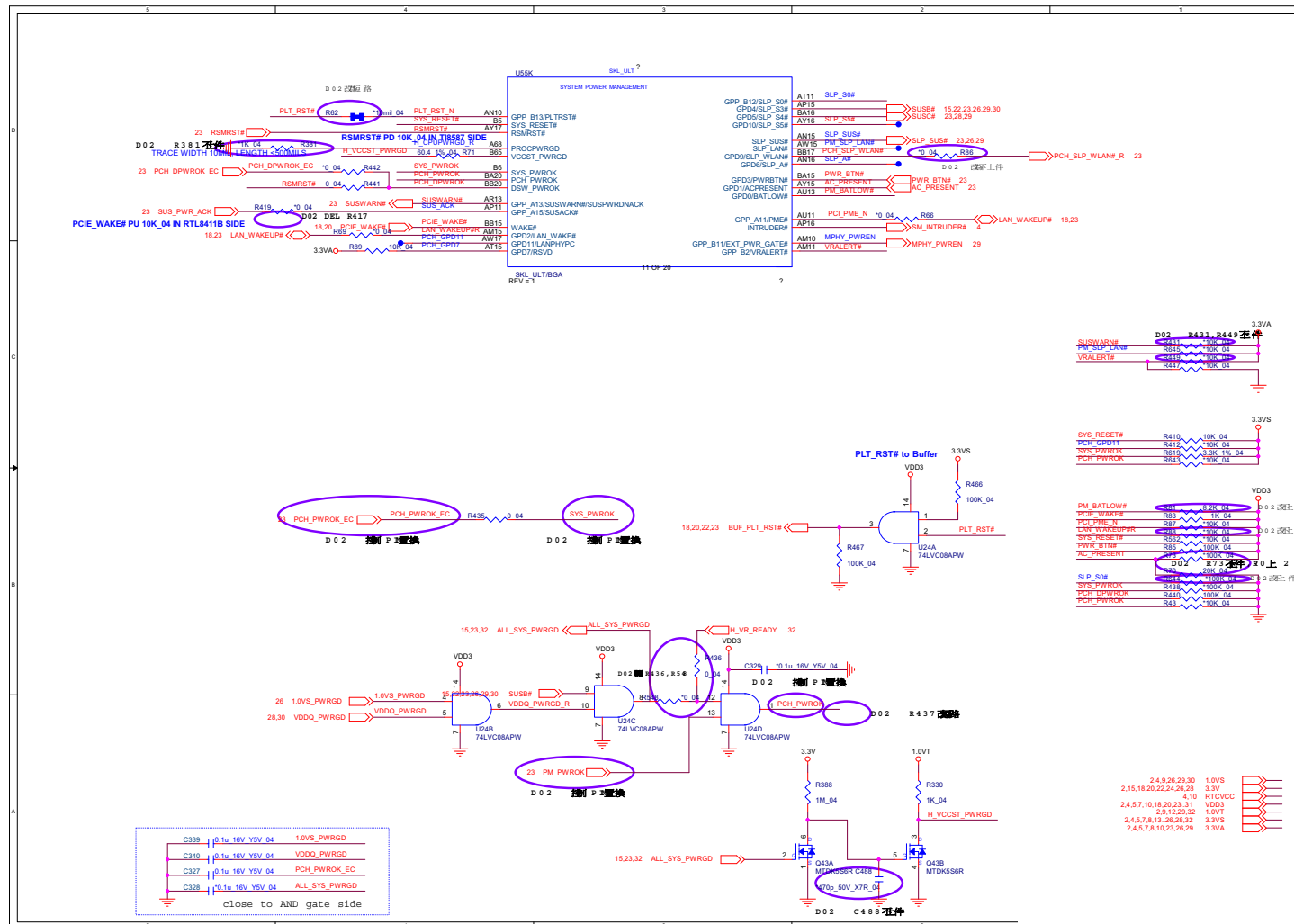
Skylake ULT LPC/SPI/SMB

Sheet 5 of 35
Skylake ULT LPC/
SPI/SMB



Skylake ULT Power Maint

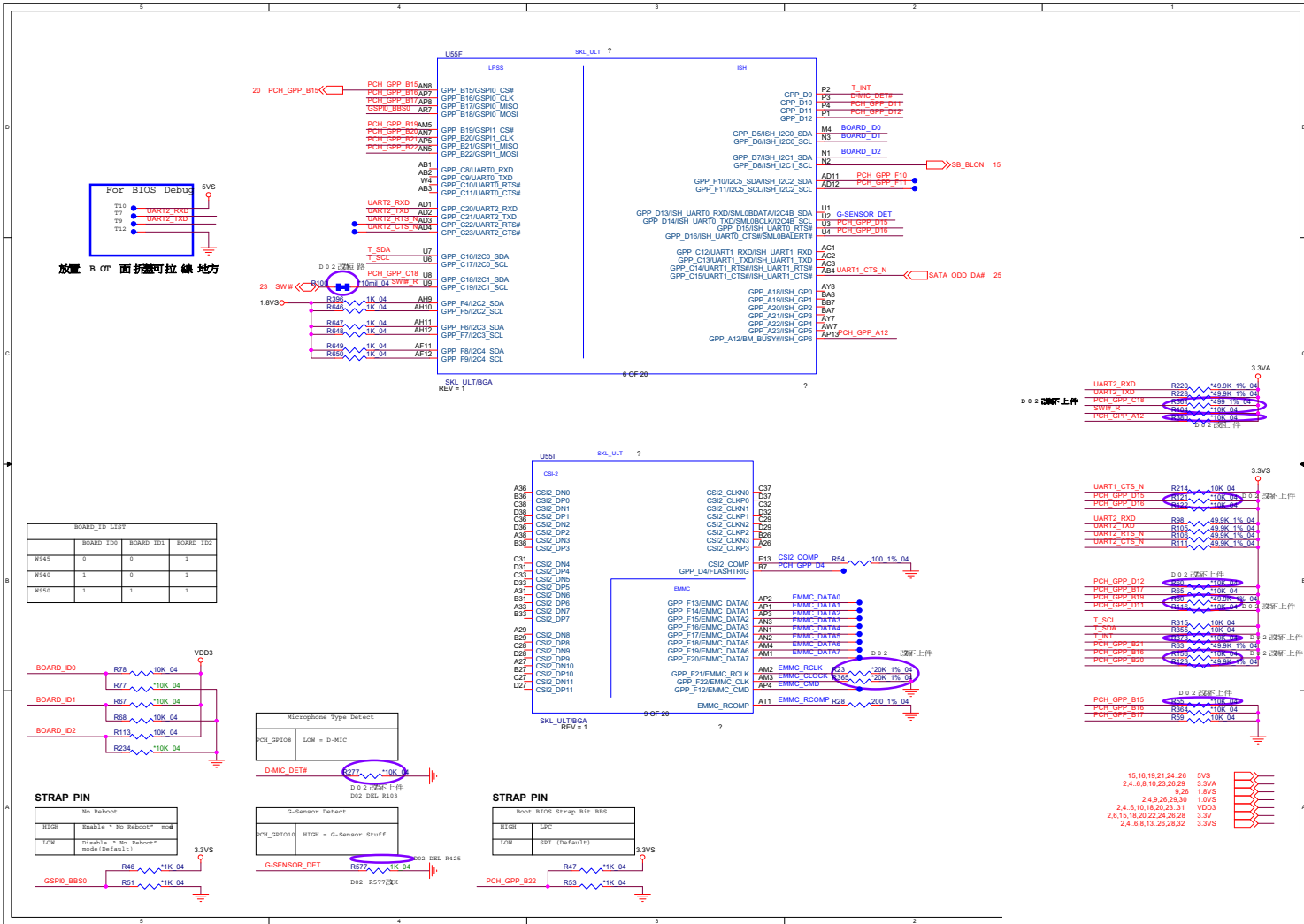
Sheet 6 of 35
Skylake ULT Power
Maint



Skylake ULT GPIOs/I2C/EMMC

B.Schematic Diagrams

Sheet 7 of 35
Skylake ULT
GPIOs/I2C/EMMC



Schematic Diagrams

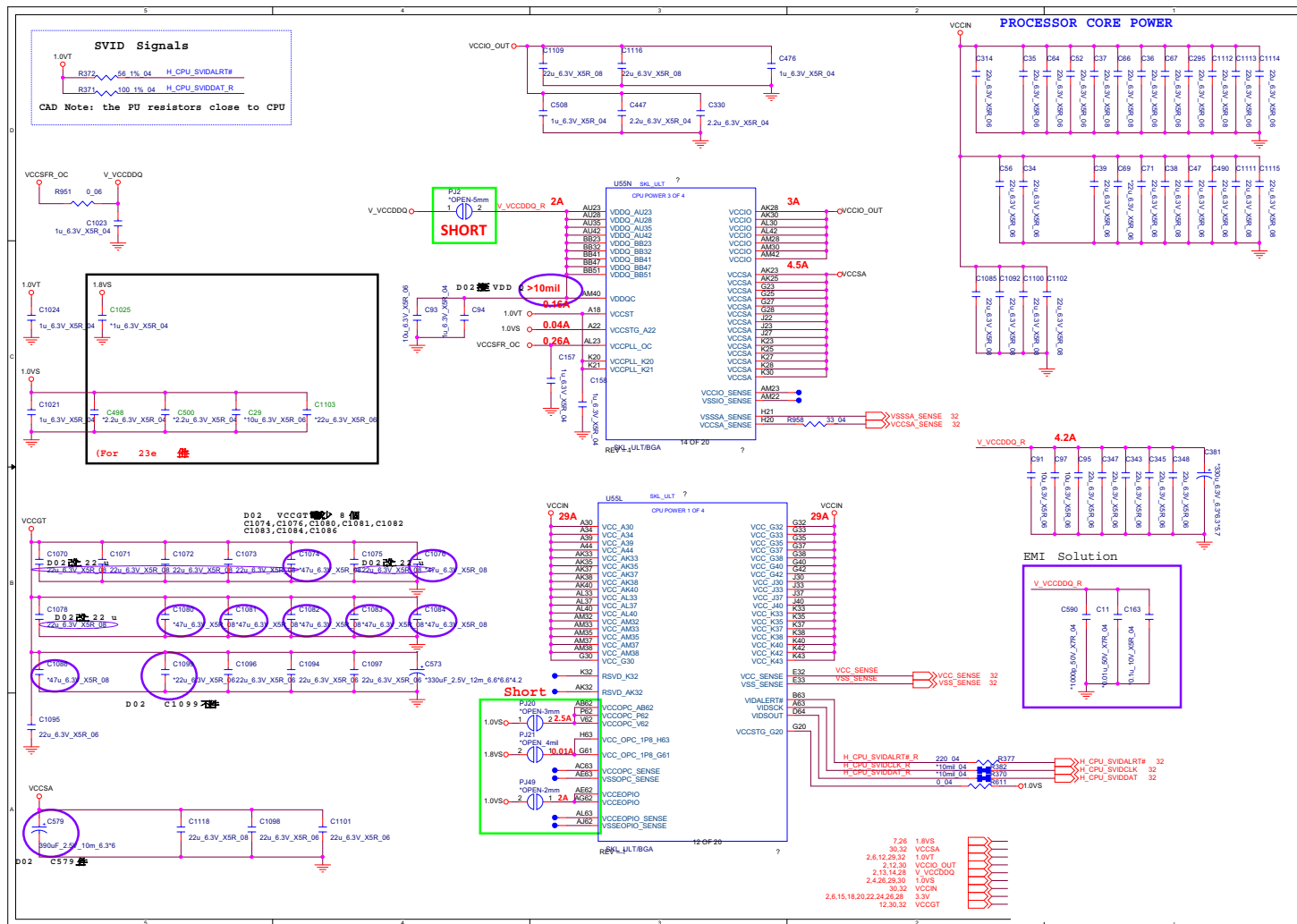


Schematic Diagrams

Skylake ULT Power 1

B. Schematic Diagrams

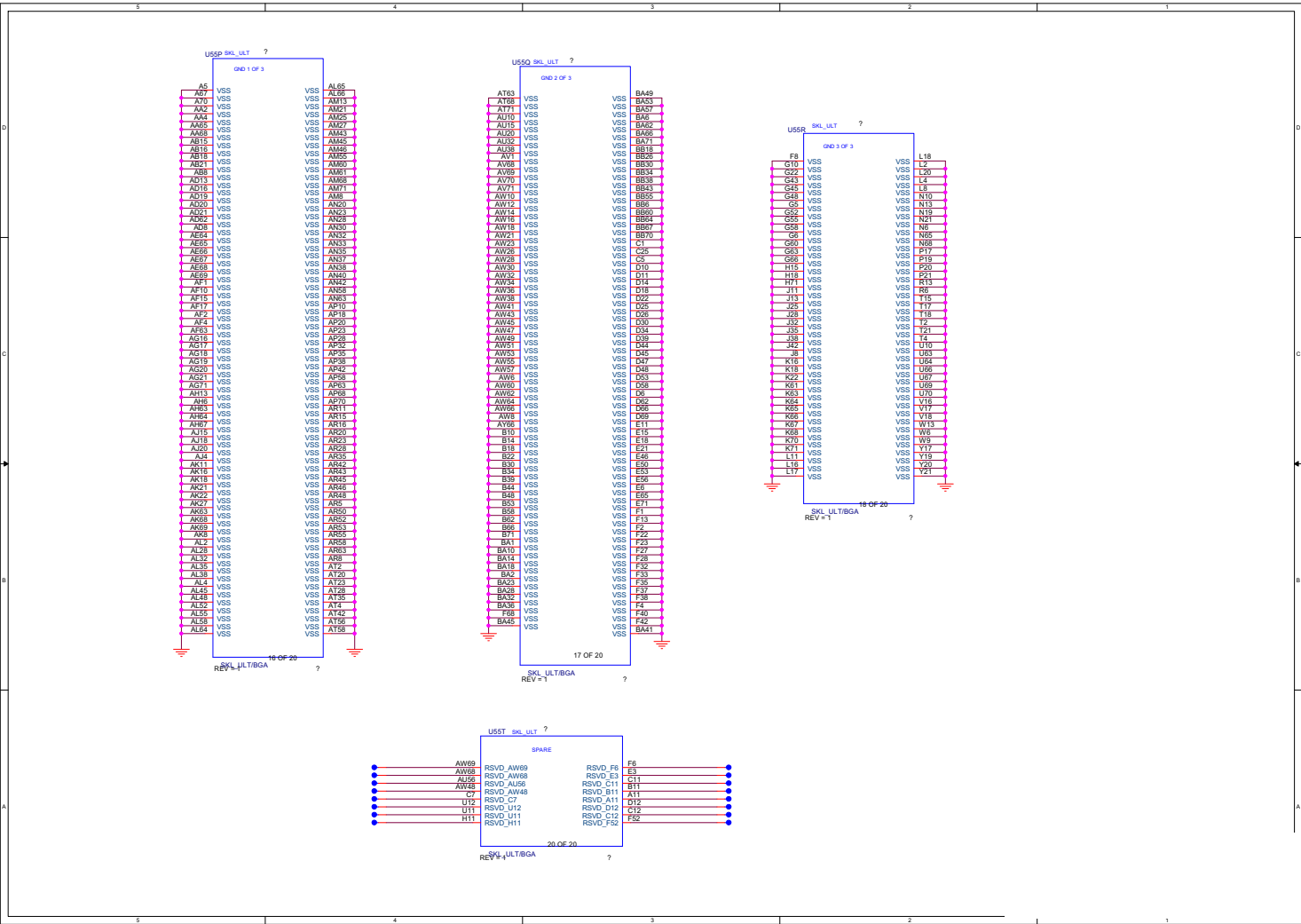
Sheet 9 of 35
Skylake ULT
Power 1



Sheet 10 of 35
Skylake ULT
Power 2



Power-VSS

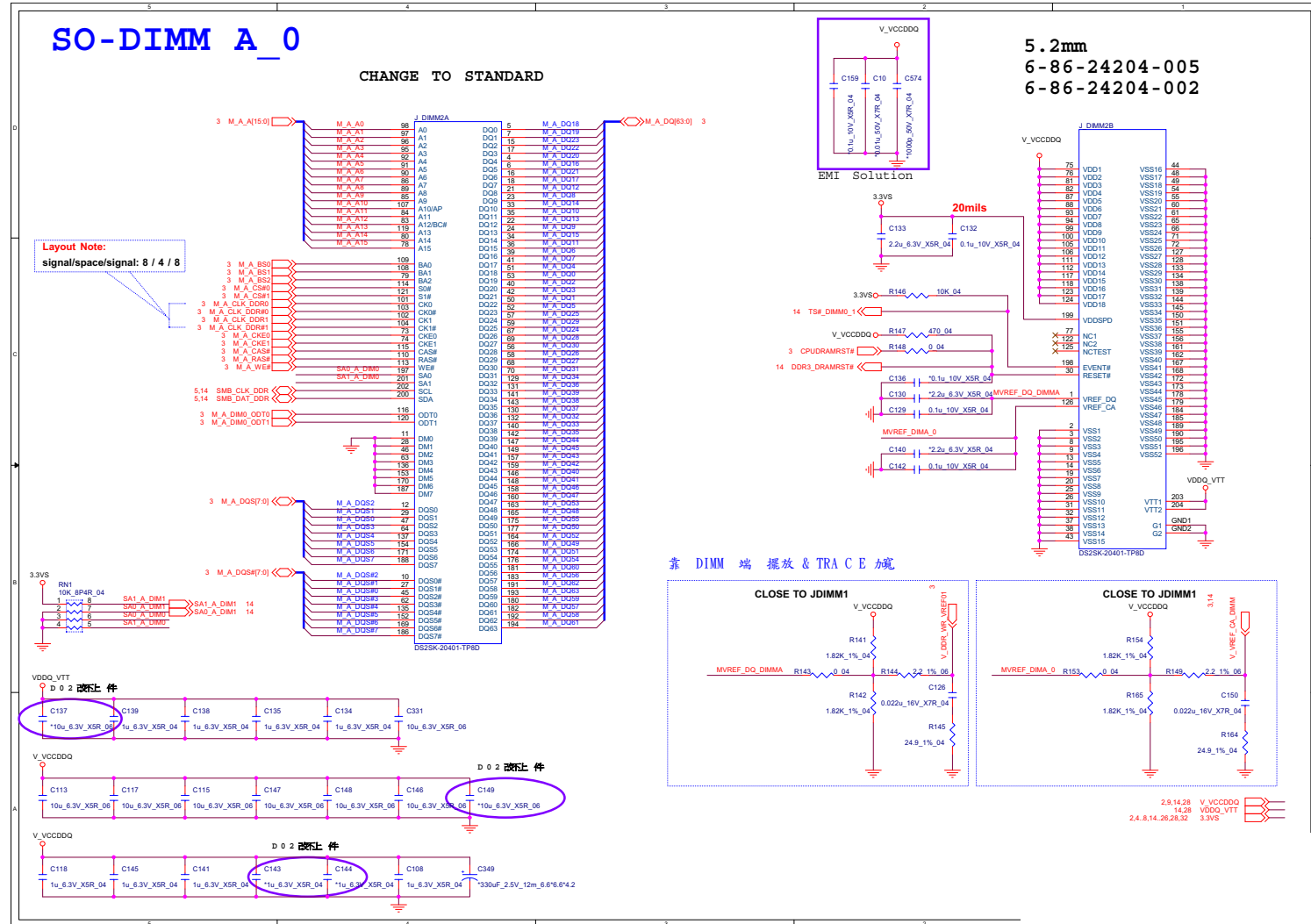


Sheet 12 of 35
CFG, RSVD,
VCCGT

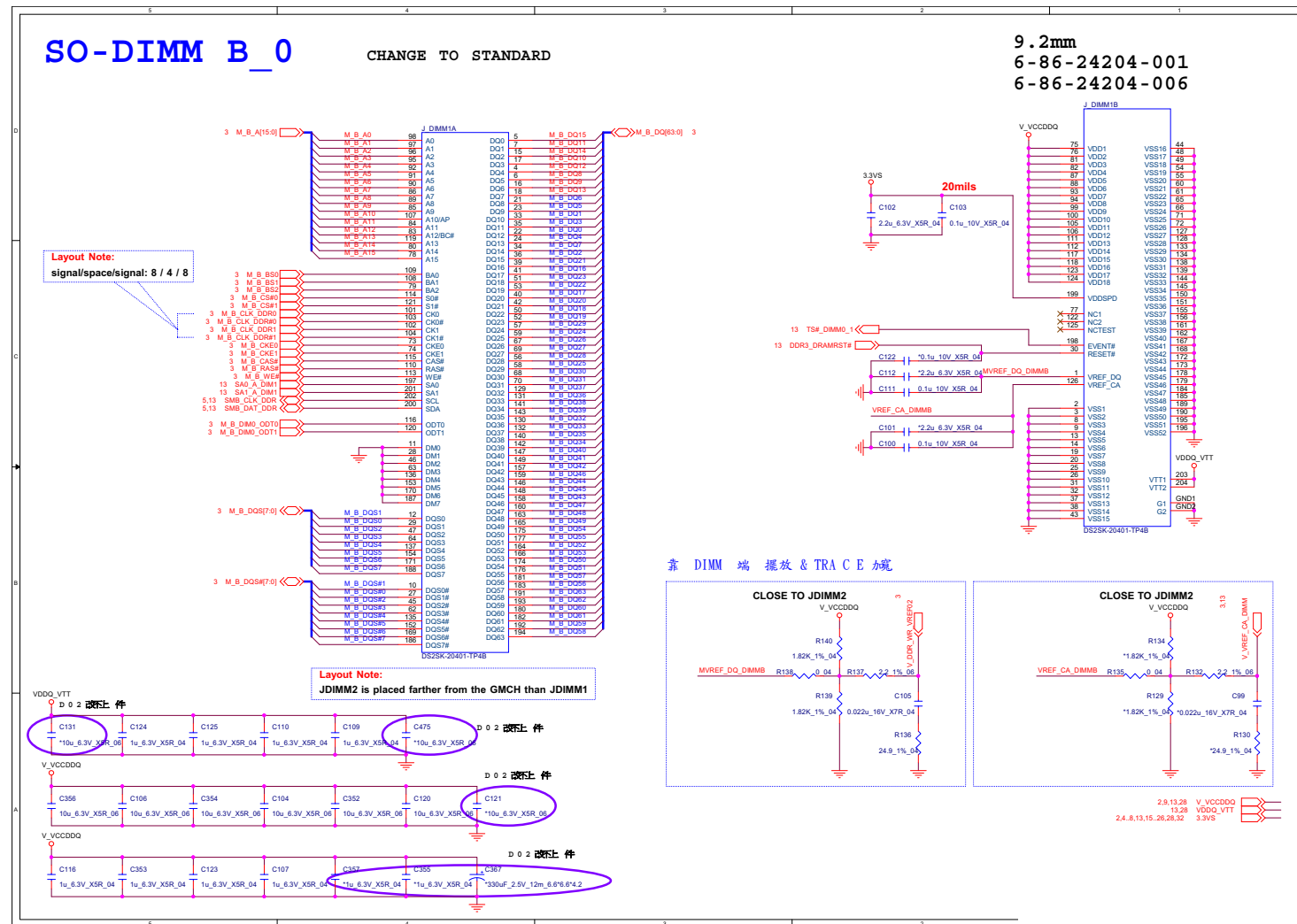


DDR3L SO-DIMM_A_0

Sheet 13 of 35
DDR3L SO-DIMM_A_0



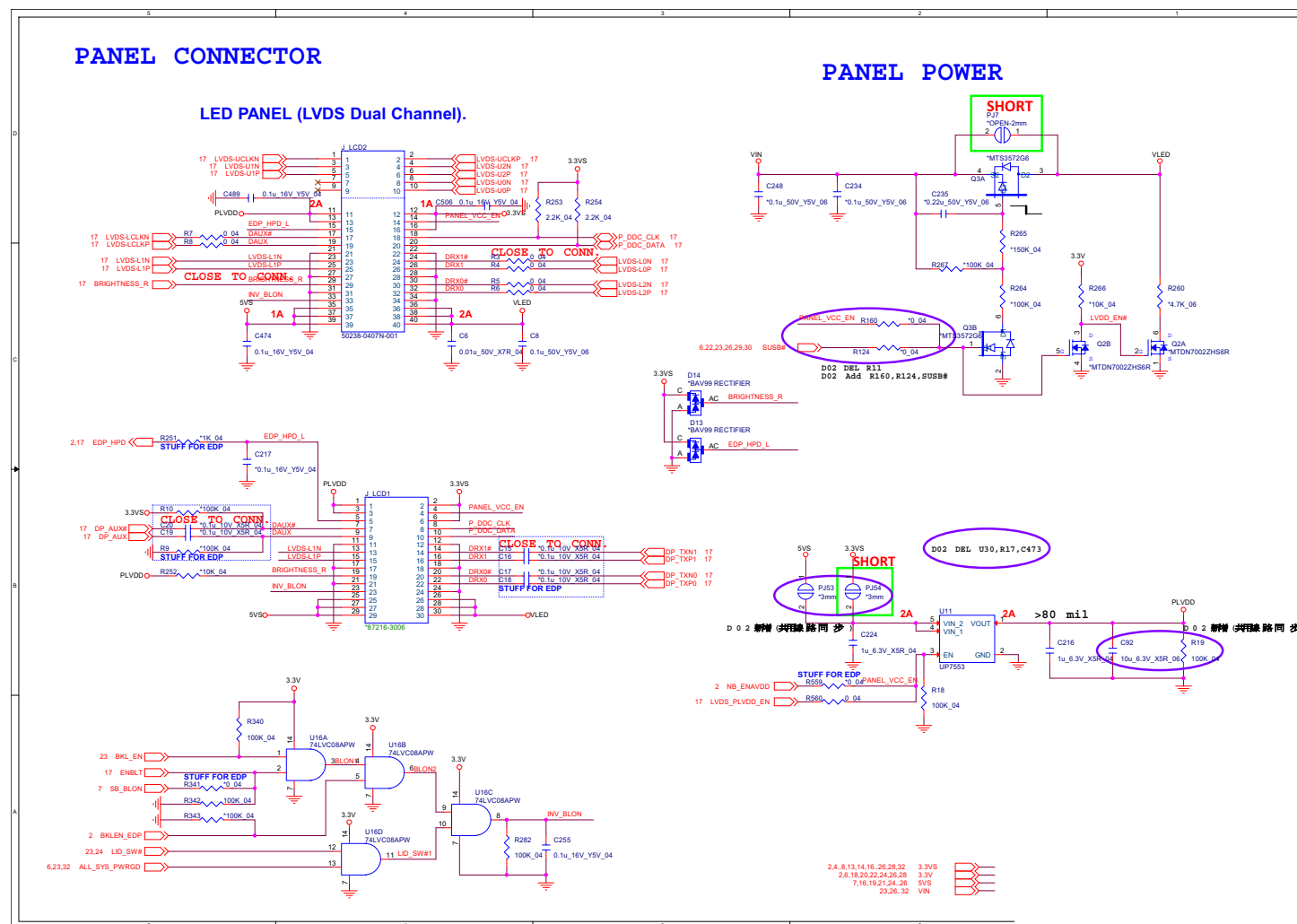
DDR3L SO-DIMM_B_0

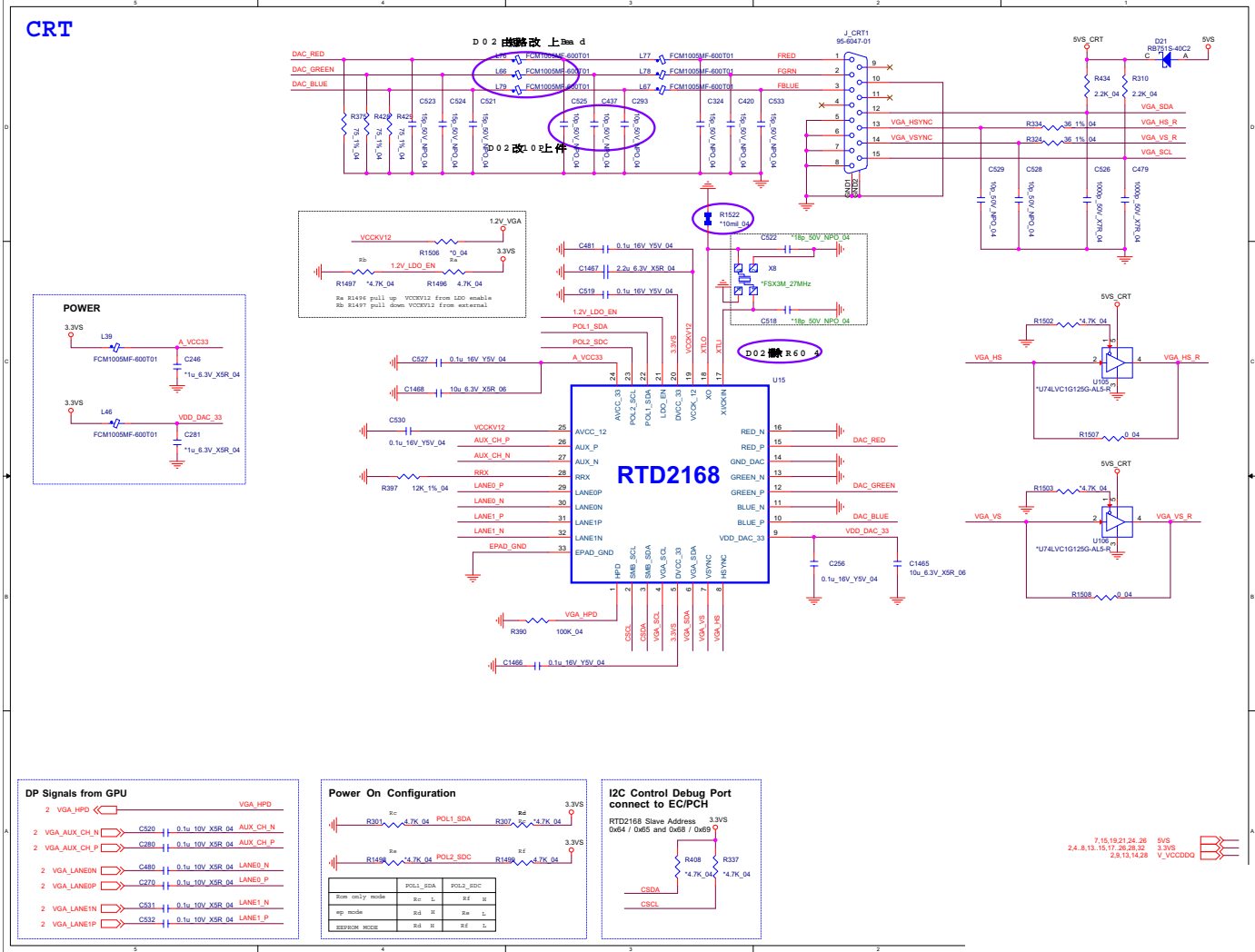


Sheet 14 of 35
DDR3L SO-
DIMM_B_0

Panel, Inverter

Sheet 15 of 35
Panel, Inverter



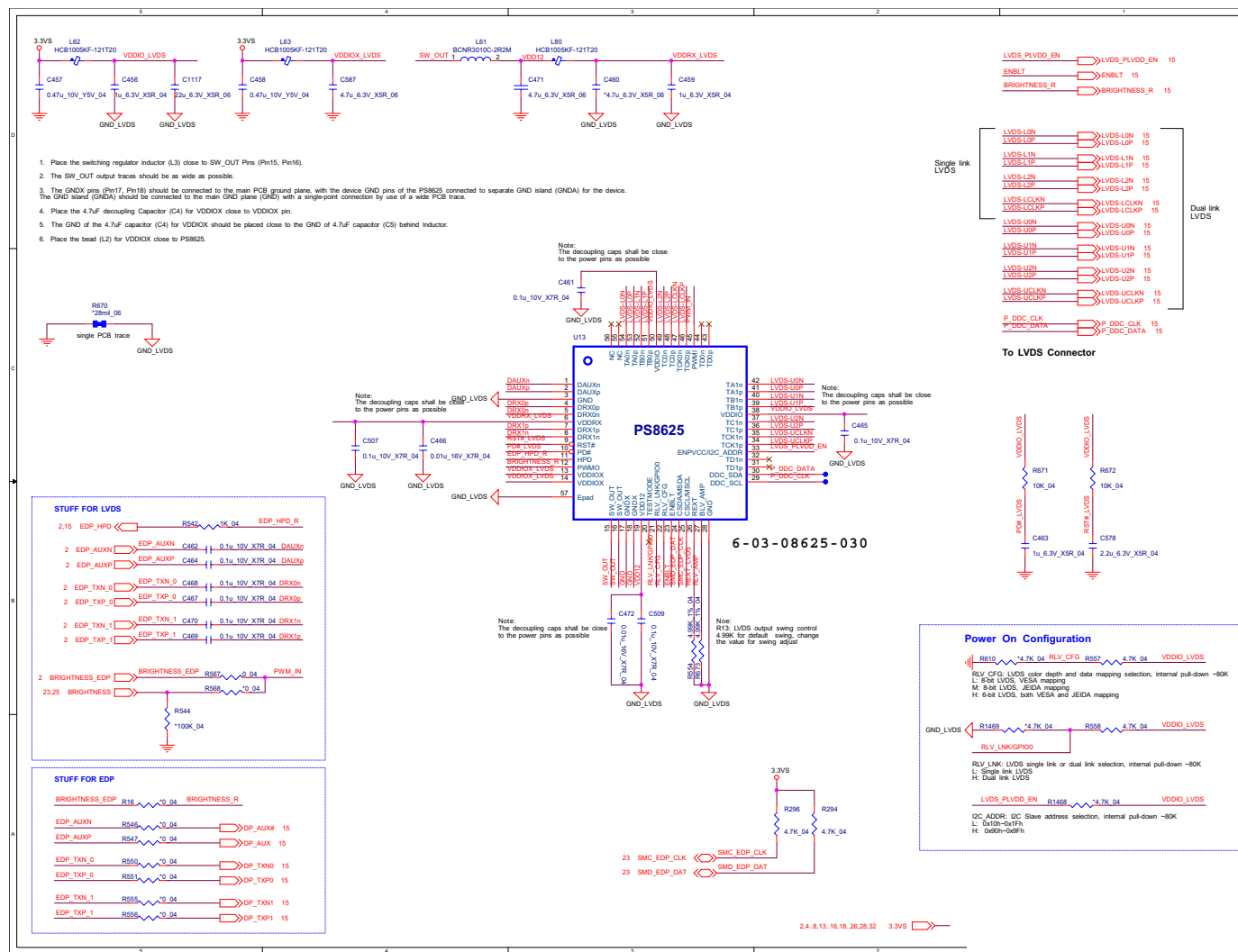


Sheet 16 of 35
CRT

B.Schematic Diagrams

PS8625

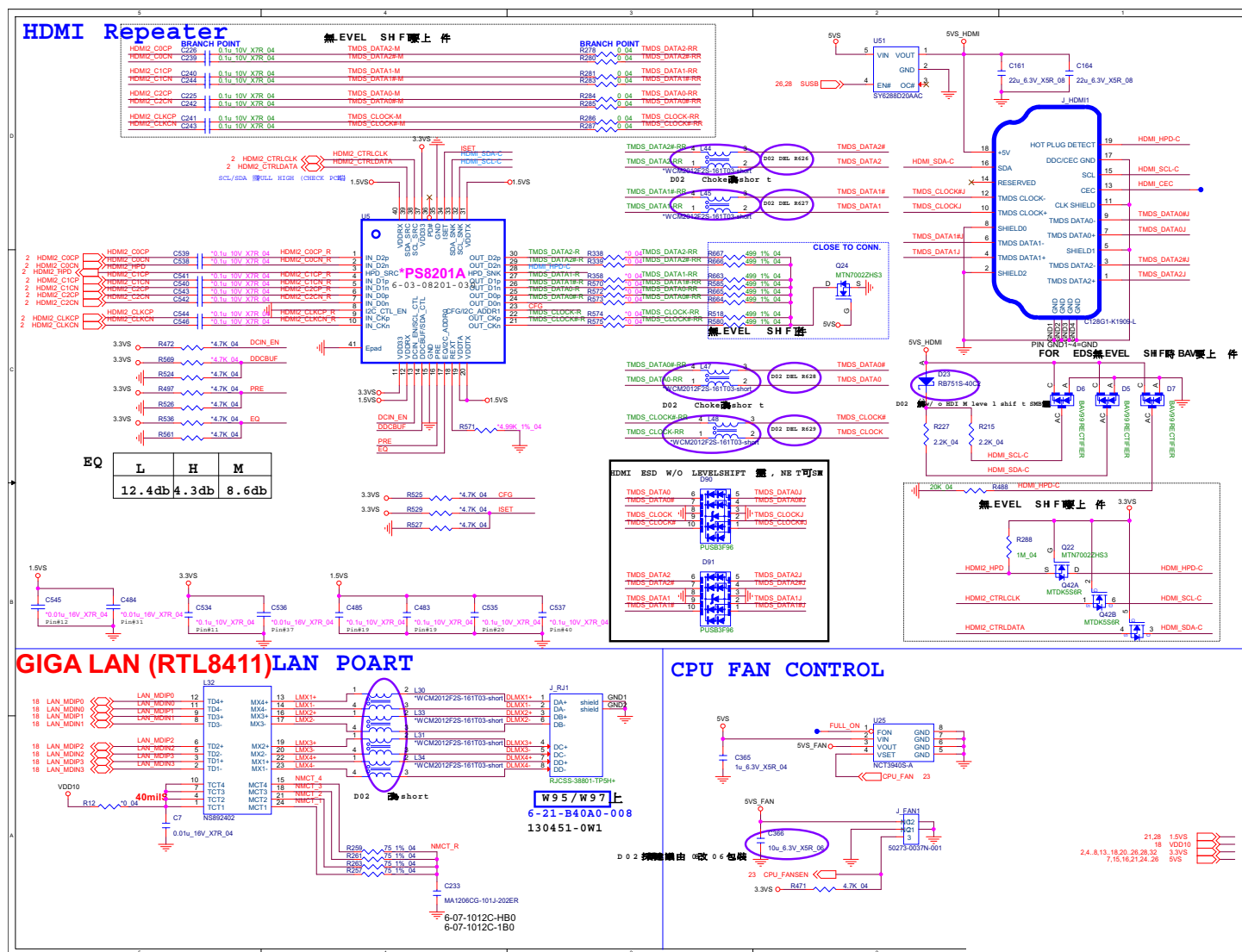
Sheet 17 of 35
PS8625



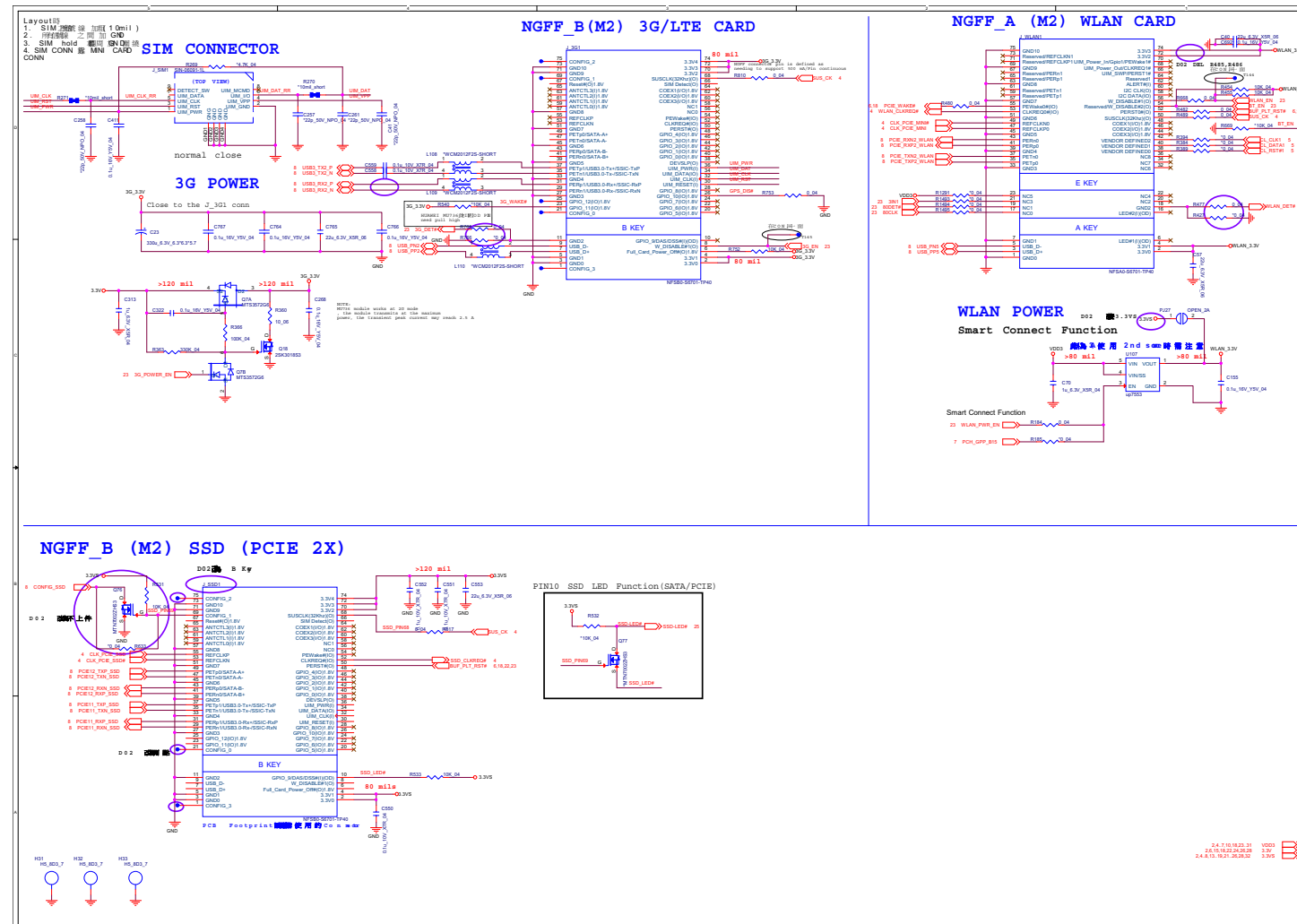
HDMI, RJ45, Fan

B. Schematic Diagrams

Sheet 19 of 35
HDMI, RJ45, Fan

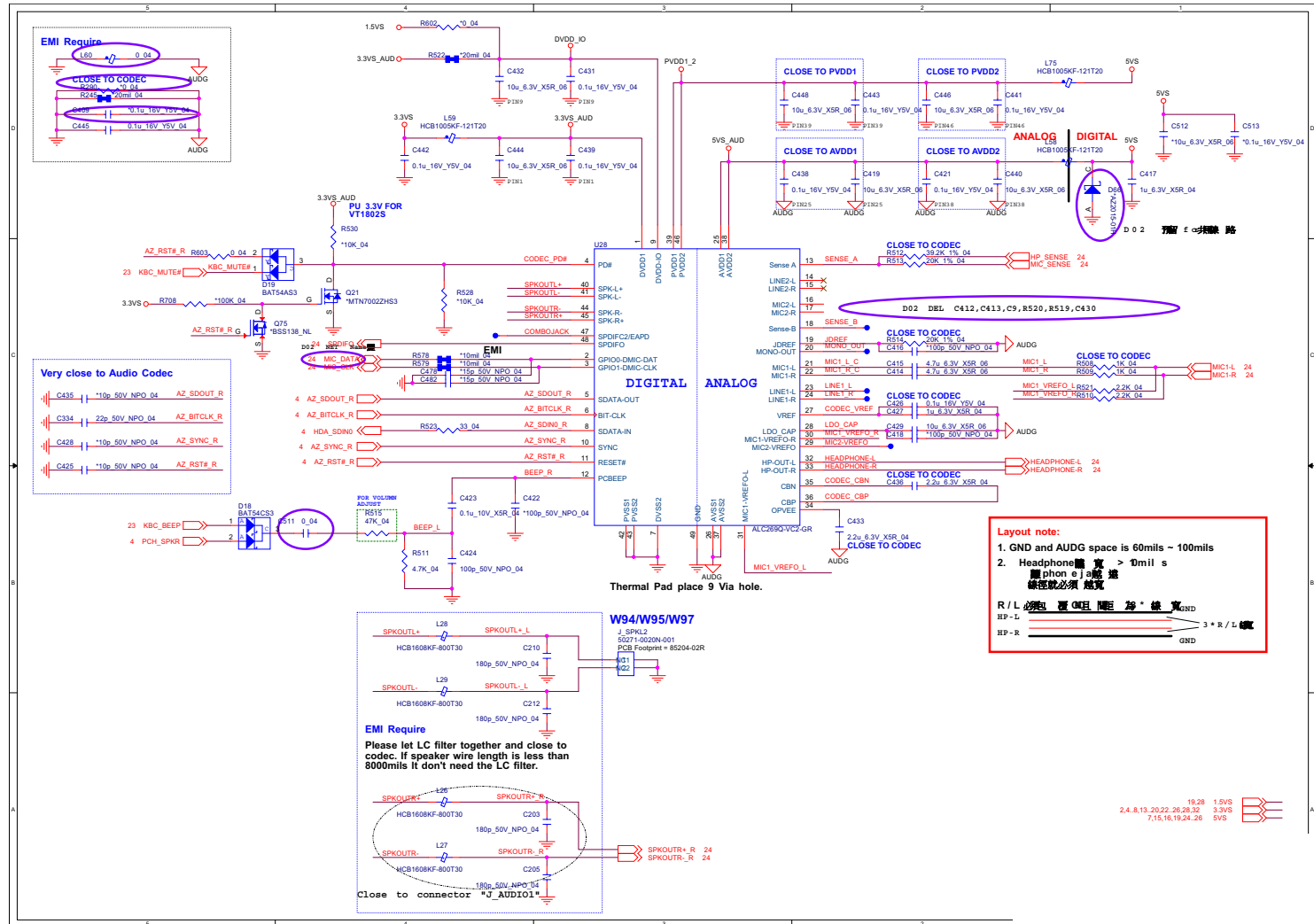


M.2 (WLAN, 3G, SSD)

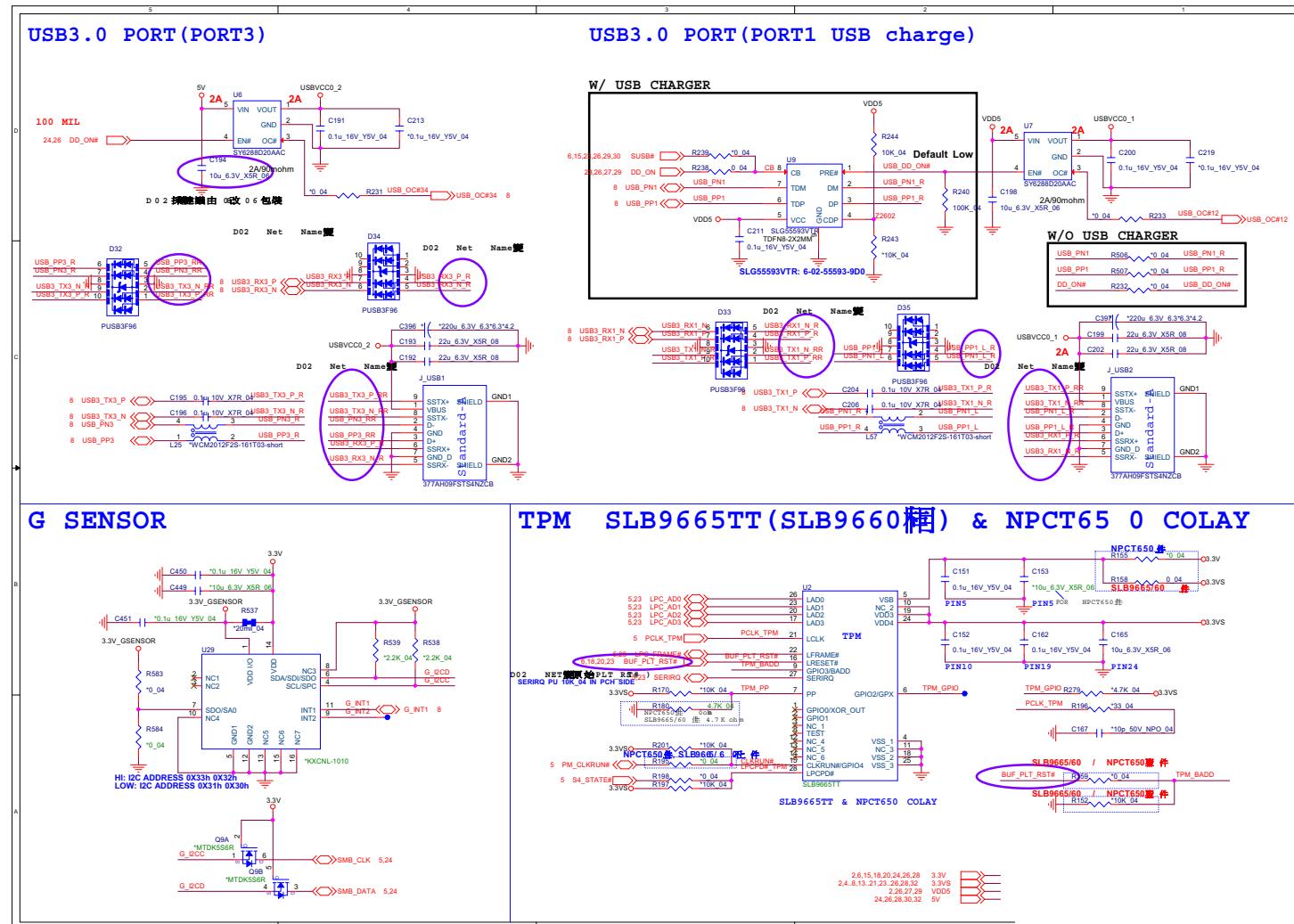


Audio Codec

Sheet 21 of 35
Audio Codec



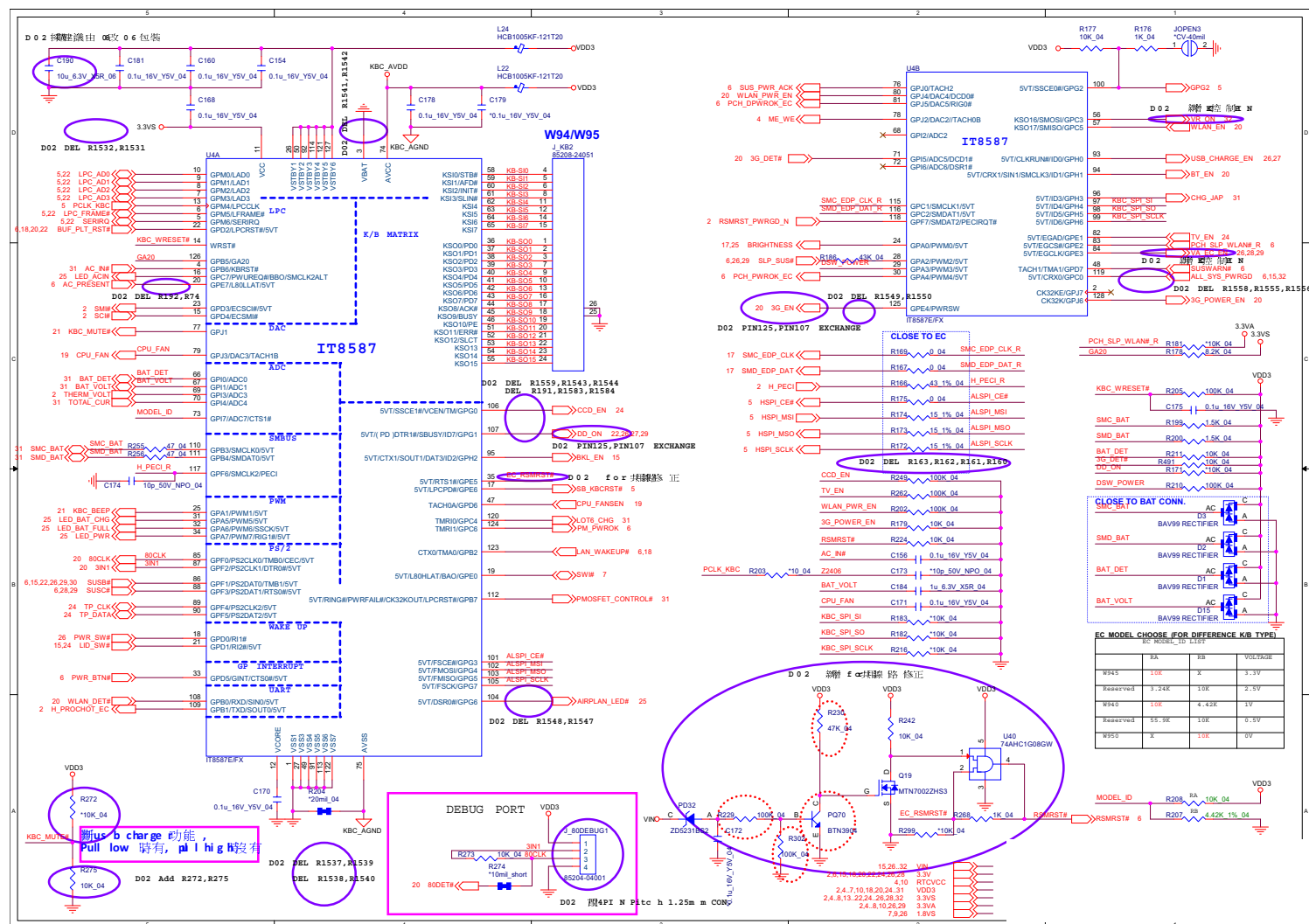
USB 3.0, G Sensor, TPM



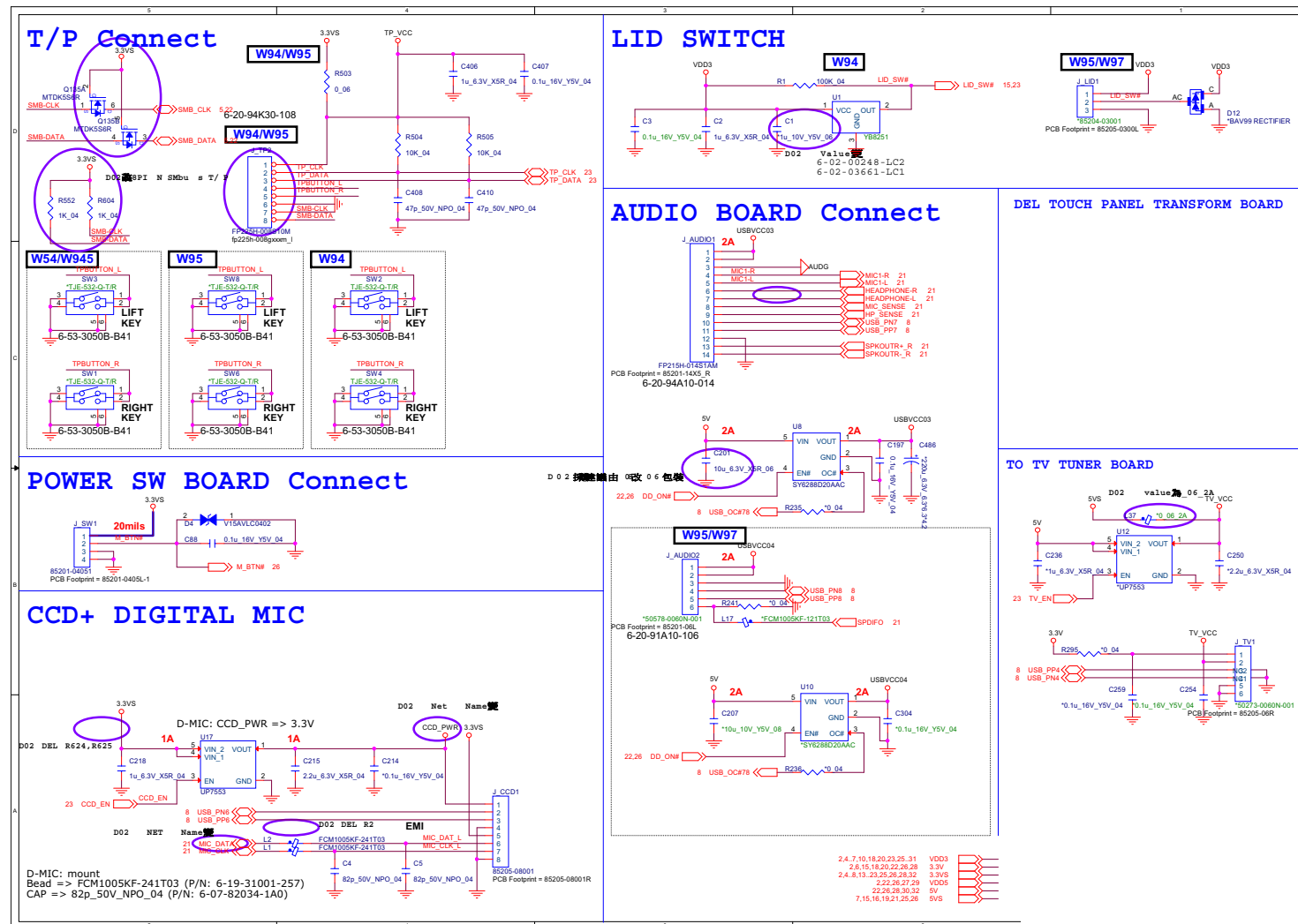
KBC ITE IT8587

B. Schematic Diagrams

Sheet 23 of 35
KBC ITE IT8587



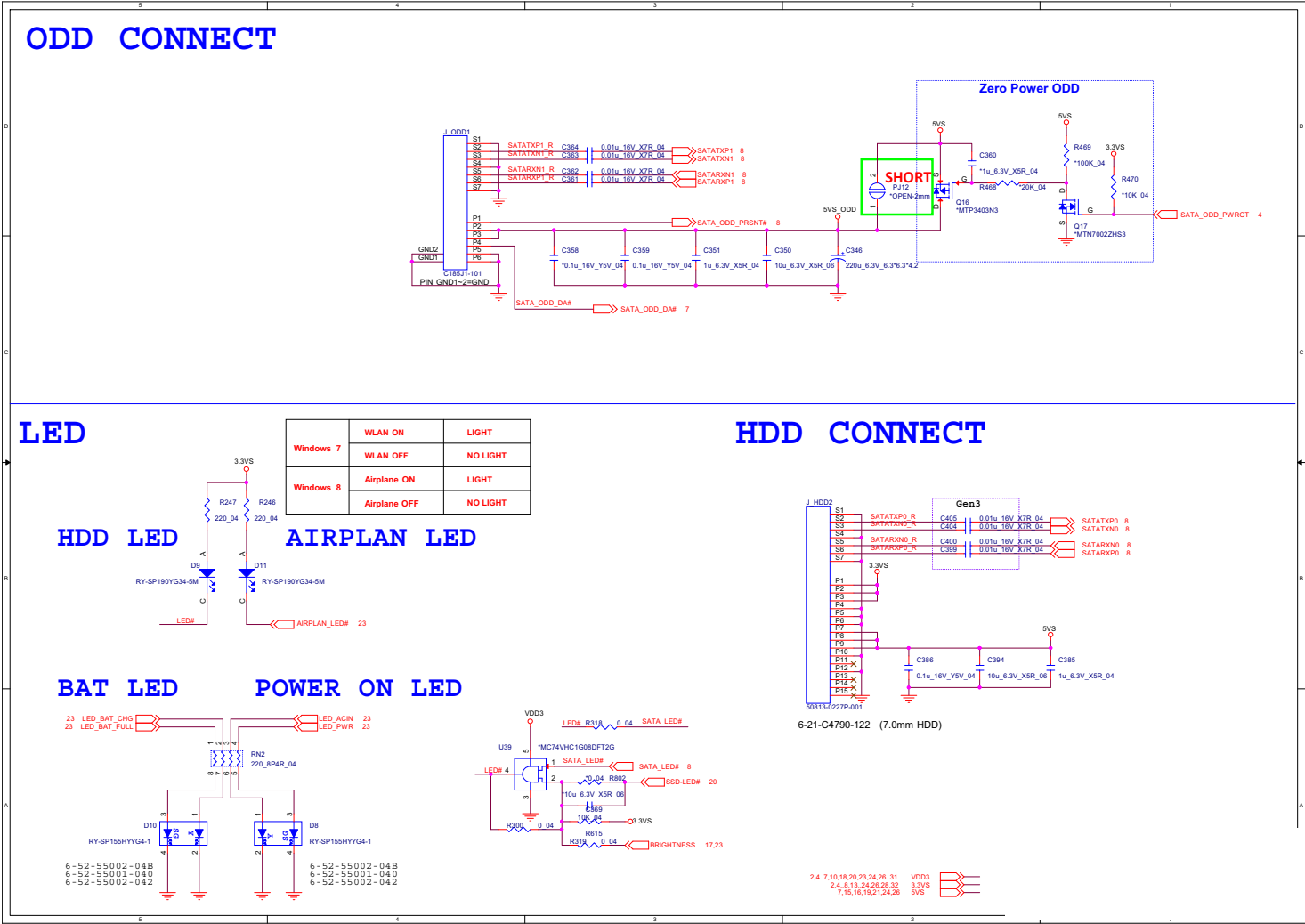
CCD, MIC, LID, I/O Connector



Sheet 24 of 35
CCD, MIC, LID, I/O
Connector

HDD, ODD, LED

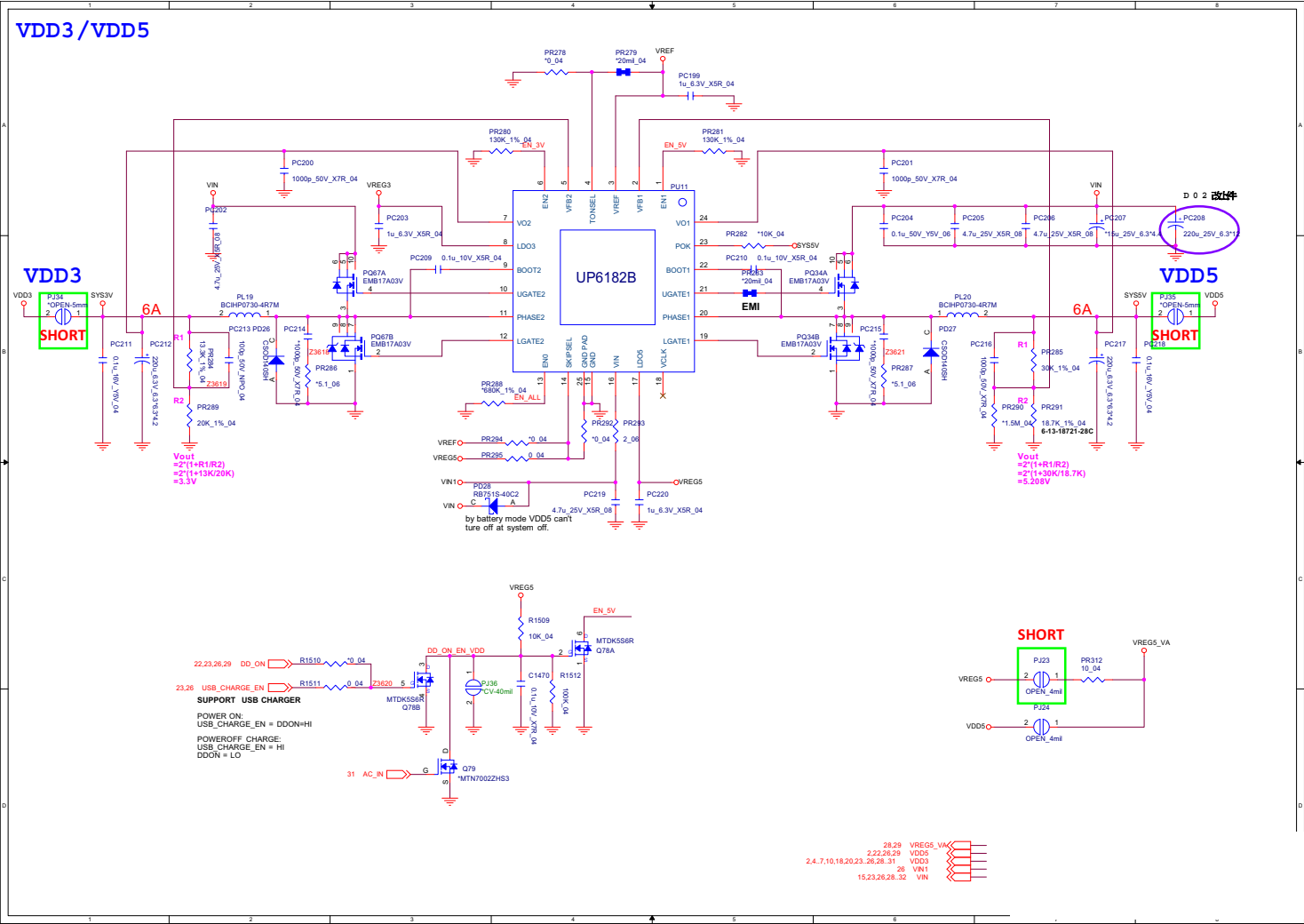
Sheet 25 of 35
HDD, ODD, LED



Schematic Diagrams

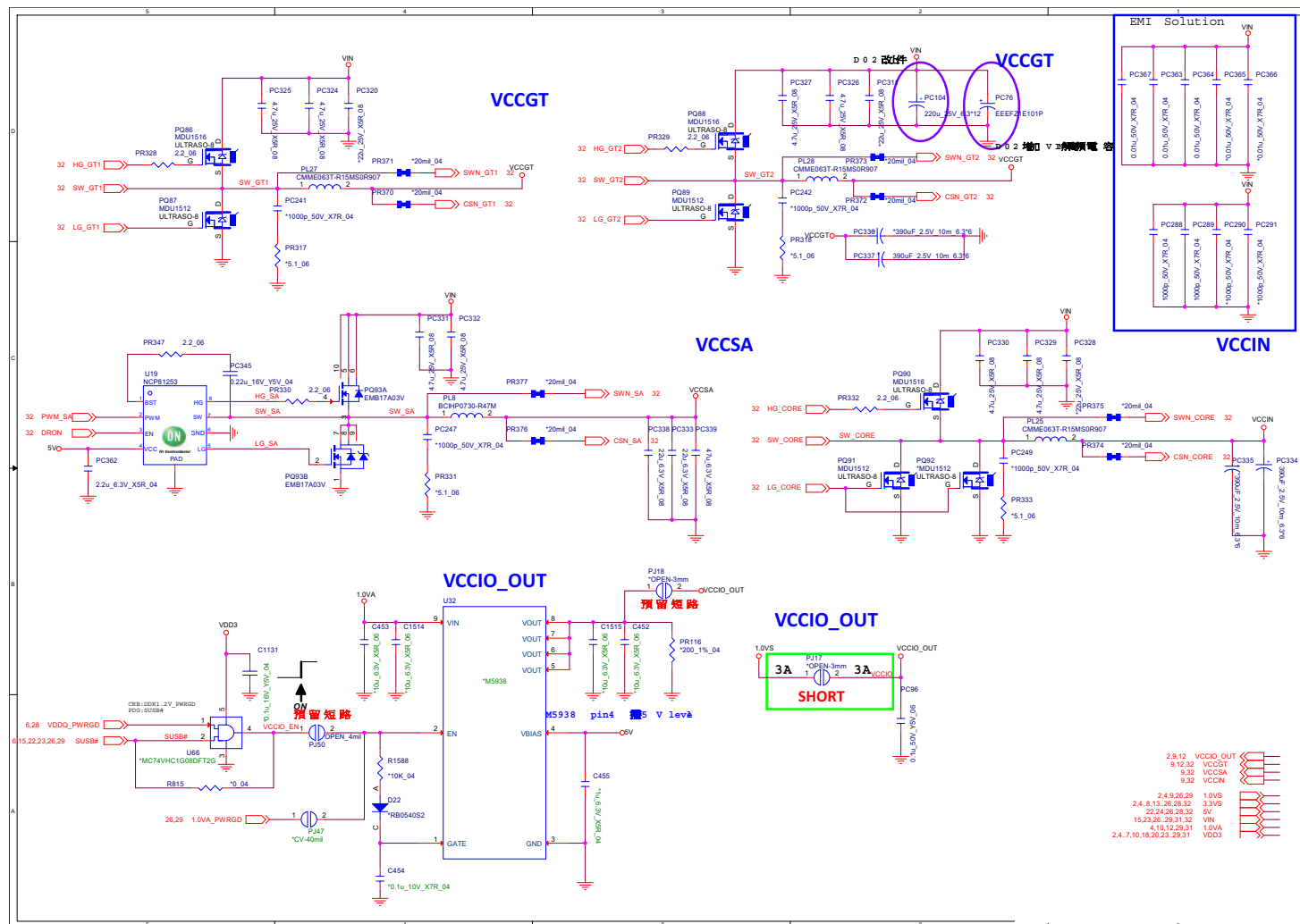
VDD3, VDD5

Sheet 27 of 35
VDD3, VDD5



10,26	1.8VA	
2,9,13,14	V_VCCDDQ	
13,14	VDDQ_VTT	
19,21	1.5VS	
2,4,8,13,26,32	3.3VS	
2,6,15,16,20,22,24,26	3.3V	
2,4,7,10,18,20,23,27,29,31	VDD3	
22,24,26,30,32	5V	
15,23,26,27,29,32	VIN	
2,22,26,27,29	VDD5	
27,29	VREG5_VA	

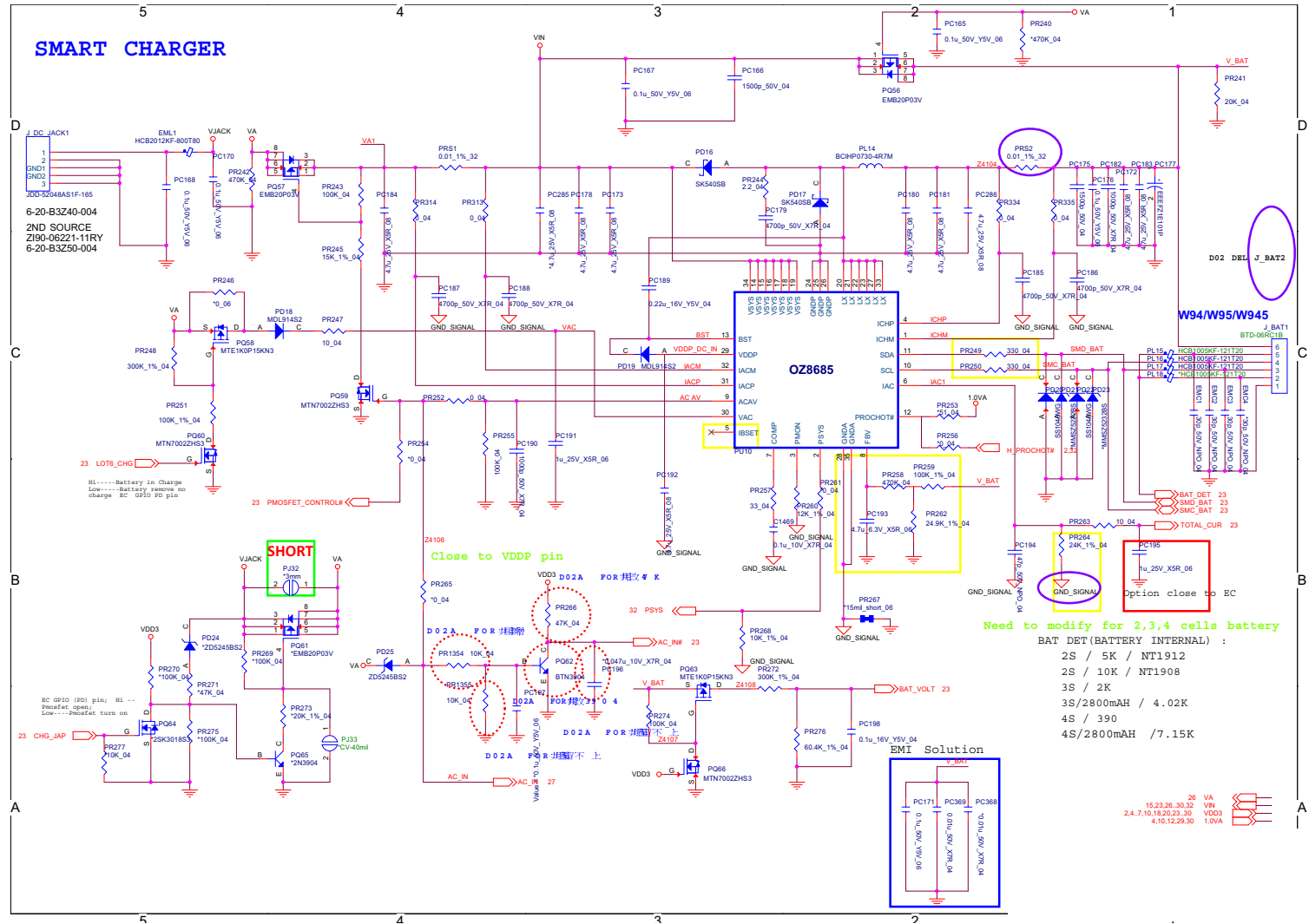
VCore, VCCGT, VCCSA, VCCIO



Sheet 30 of 35
VCore, VCCGT,
VCCSA, VCCIO

Charger, DC-In

Sheet 31 of 35
Charger, DC-In



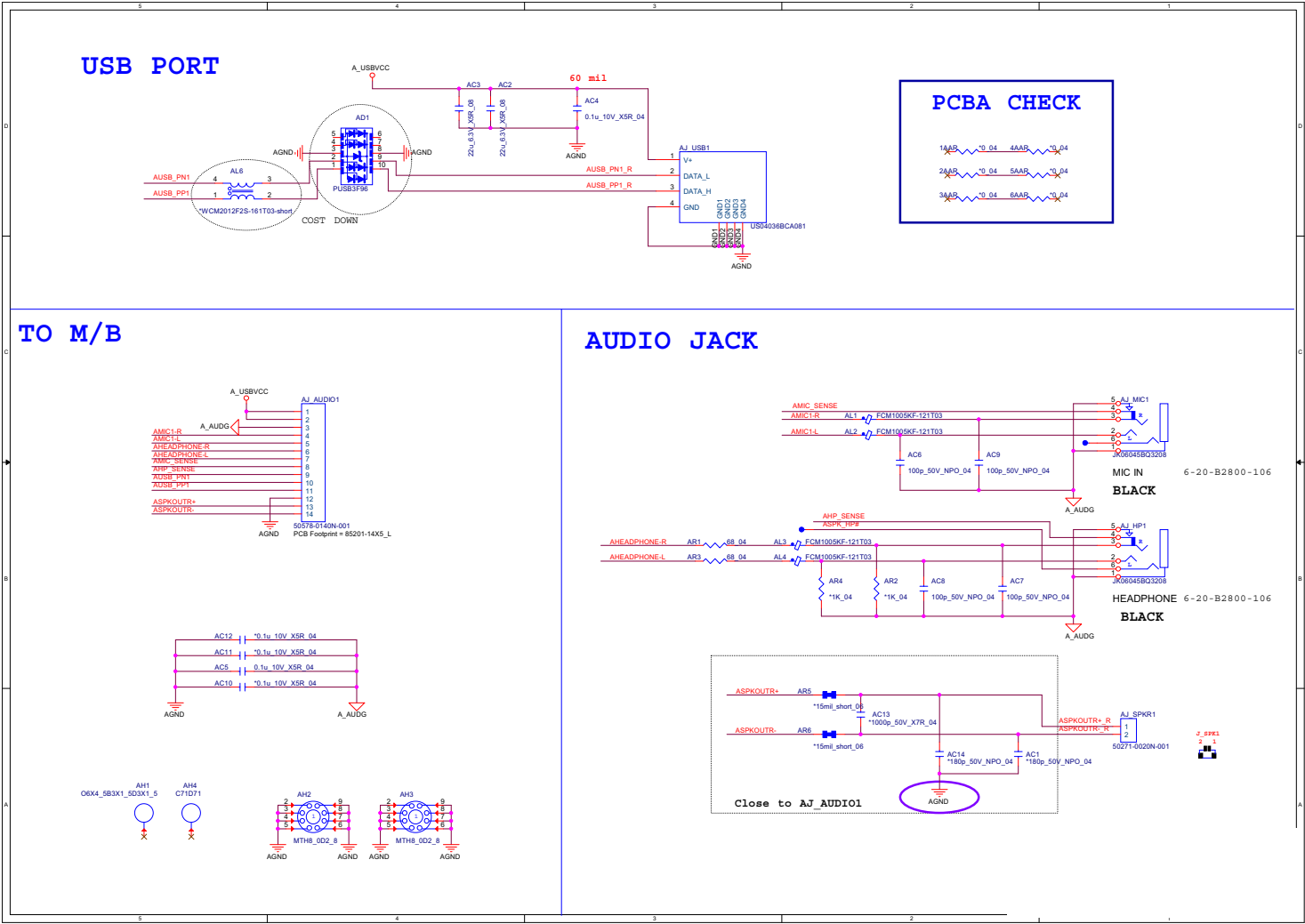
Sheet 32 of 35
NCP81206
Regulator



Schematic Diagrams

Audio Board

Sheet 33 of 35
Audio Board



Power SW Board B - 35



Schematic Diagrams

Option BOM List

Sheet 35 of 35
Option BOM List

Func t i on i t e m	ADD	DEL
W/O TPM	R292	U2,R180,R158,C151,C152,C162,C165
Func t i on i t e m	ADD	DEL
W/O USB Charger	R506,R507,R232,R272	R238,C211,U9,R244,R240,R275
Func t i on i t e m	ADD	DEL
W/O 3G		J_SIM1,C411,C23,C767,C764,C765 C766,C313,C322,R363,R366,Q7,R360 Q18,C268,H28,J_3G1,R810,R753,R752 R765,C559,C558
Func t i on i t e m	ADD	DEL
EDP Panel	J_LCD1,R251,R10,R9,C20,C19,C15 C16,C17,C18,R341,R559,R16,R546 R547,R550,R551,R555,R556	J_LCD2,R7,R8,R253,R254,R3,R4,R5,R6 R542,C462,C464,C468,C467,C470,C469 R567,C457,L62,C456,C1117,C458,L63 C587,L61,L80,C471,C459,R671,C463 R672,C578,R557,R558,R296,R294,C461 C465,C507,C466,C472,C509,U13,R554 R673,R560
Func t i on i t e m	ADD	DEL
BASE SKU CPU (SSD PCIE only)	R635,R636,R637,R639,R638,R640 R641,R642,R607,R608,C562,C563 R609,R614,C560,C561	R605,R606,C556,C557,R581,R582,C554 C555
Func t i on i t e m	ADD	DEL
W945JU	SW1,SW3,R77	SW2,SW4,R78,R207
Func t i on i t e m	ADD	DEL
W950JU	J_CARD-REV2,SW6,SW8 J_LID1,J_AUDIO2,R241 R67,C207,U10,C304,SD3,SPWR_SW1	J_CARD-REV1,SW2,SW4,SD2,SPWR_SW2 U1,C3,R68,R208
CHANGE: 1) J_RJ1 (改 21-B40A0-008) 2) R207 10K_04		
Func t i on i t e m	ADD	DEL
W/TV Tuner	L37,J_TV1,C254,	

Func t i on i t e m	ADD	DEL
W/O HDMI PS8201A	C226,C239,C240,C244,C225 C242,C241,C243,R278,R280 R281,R283,R284,R285,R286 R287,D90,D91,D5,D6,D7 Q22,Q42,R288,R488,R518 R580,R585,R663,R664,R665 R666,R667,Q24	U5,C539,C538,C541,C540,C543 C542,C544,C546,R571,R569 C545,C484,C534,C536,C485 C483,C535,C537,R338,R339 R358,R570,R572,R573,R574 R575
Func t i on i t e m	ADD	DEL
W/G-Sensor	C450,C449,C451,R539,R538 R584,U29,Q9	R577

Appendix C: Updating the FLASH ROM BIOS

To update the FLASH ROM BIOS, you must:

- Download the BIOS update from the web site.
- Unzip the files onto a bootable CD/DVD/USB Flash Drive.
- Reboot your computer from an external CD/DVD/USB Flash Drive.
- Use the flash tools to update the flash BIOS using the commands indicated below.
- Restart the computer booting from the HDD and press **F2** at startup enter the BIOS.
- Load setup defaults from the BIOS and save the default settings and exit the BIOS to restart the computer.
- After rebooting the computer you may restart the computer again and make any required changes to the default BIOS settings.

Download the BIOS

1. Go to www.clevo.com.tw and point to **E-Services** and click **E-Channel**.
2. Use your user ID and password to access the appropriate download area (BIOS), and download the latest BIOS files (the BIOS file will be contained in a batch file that may be run directly once unzipped) for your computer model (see sidebar for important information on BIOS versions).

Unzip the downloaded files to a bootable CD/DVD/ or USB Flash drive

1. Insert a bootable CD/DVD/USB flash drive into the CD/DVD drive/USB port of the computer containing the downloaded files.
2. Use a tool such as Winzip or Winrar to unzip all the BIOS files and refresh tools to your bootable CD/DVD/USB flash drive (you may need to create a bootable CD/DVD with the files using a 3rd party software).

Set the computer to boot from the external drive

1. With the bootable CD/DVD/USB flash drive containing the BIOS files in your CD/DVD drive/USB port, restart the computer and press **F2** (in most cases) to enter the BIOS.
2. Use the arrow keys to highlight the **Boot** menu.
3. Use the “+” and “-” keys to move boot devices up and down the priority order.
4. Make sure that the CD/DVD drive/USB flash drive is set first in the boot priority of the BIOS.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.



BIOS Version

Make sure you download the latest correct version of the BIOS appropriate for the computer model you are working on.

You should only download BIOS versions that are V1.01.XX or higher as appropriate for your computer model.

Note that BIOS versions are not backward compatible and therefore **you may not downgrade your BIOS to an older version** after upgrading to a later version (e.g if you upgrade a BIOS to ver 1.01.05, you **MAY NOT** then go back and flash the BIOS to ver 1.01.04).

BIOS Update

Use the flash tools to update the BIOS

1. Make sure you are not loading any memory management programs such as HIMEM by holding the **F8** key as you see the message “**EFI Shell**”. You will then be prompted to give “**Y**” or “**N**” responses to the programs being loaded by EFI Shell. Choose “**N**” for any memory management programs.
2. You should now see **DISK fsX:\>** (X is the designated drive number for the CD/DVD drive/USB flash drive).
3. **Type the following command:**

fsX:\> Flash.nsh

4. The utility will then proceed to flash the BIOS.
5. You should then be prompted to press any key to restart the system or turn the power off, and then on again but make sure you remove the CD/DVD/USB flash drive from the CD/DVD drive/USB port before the computer restarts.

Restart the computer (booting from the HDD)

1. With the CD/DVD/USB flash drive removed from the CD/DVD drive/USB port the computer should restart from the HDD.
2. Press **F2** as the computer restarts to enter the BIOS.
3. Use the arrow keys to highlight the **Exit** menu.
4. Select **Load Setup Defaults** (or press **F3**) and select “**Yes**” to confirm the selection.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.

Your computer is now running normally with the updated BIOS

You may now enter the BIOS and make any changes you require to the default settings.