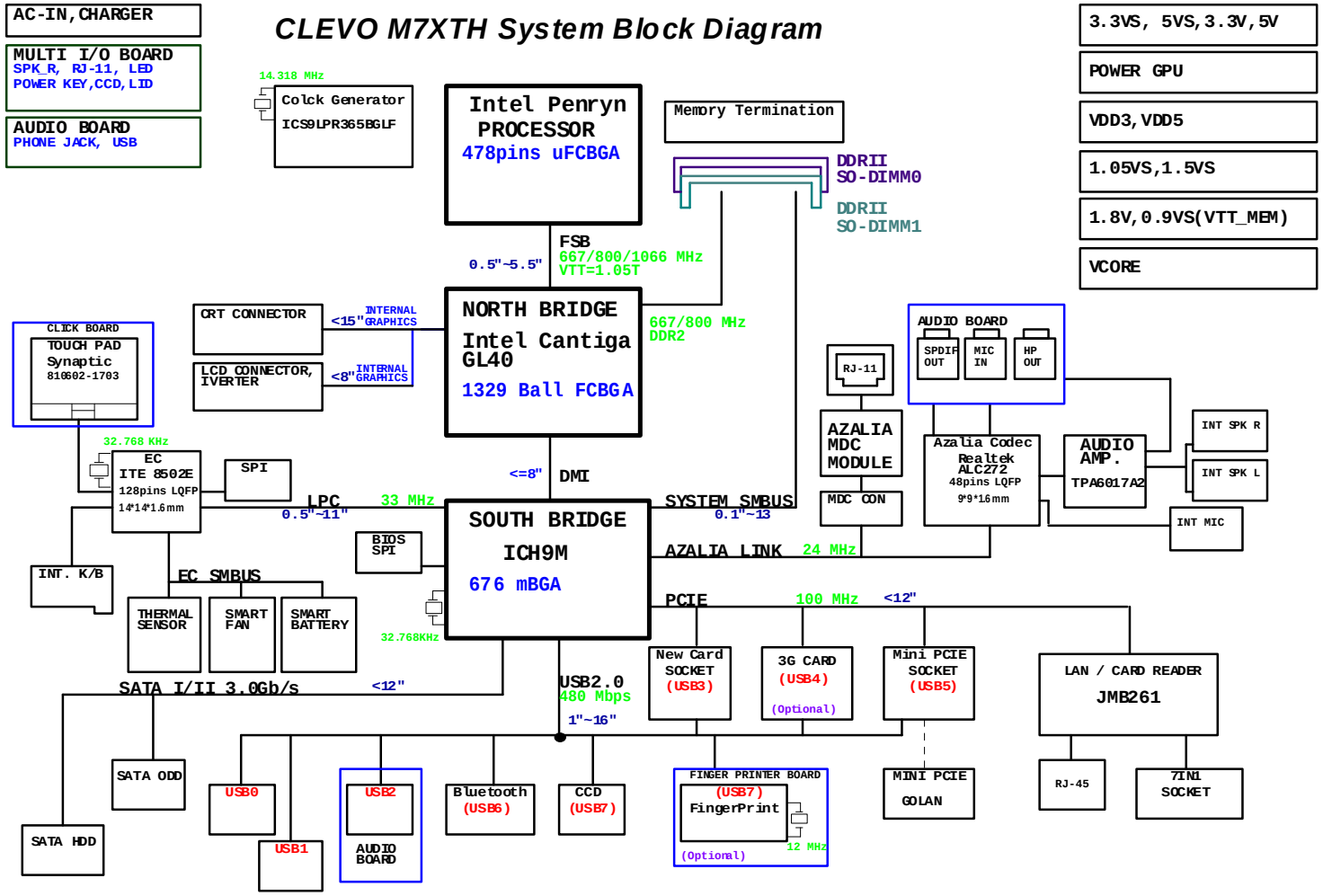
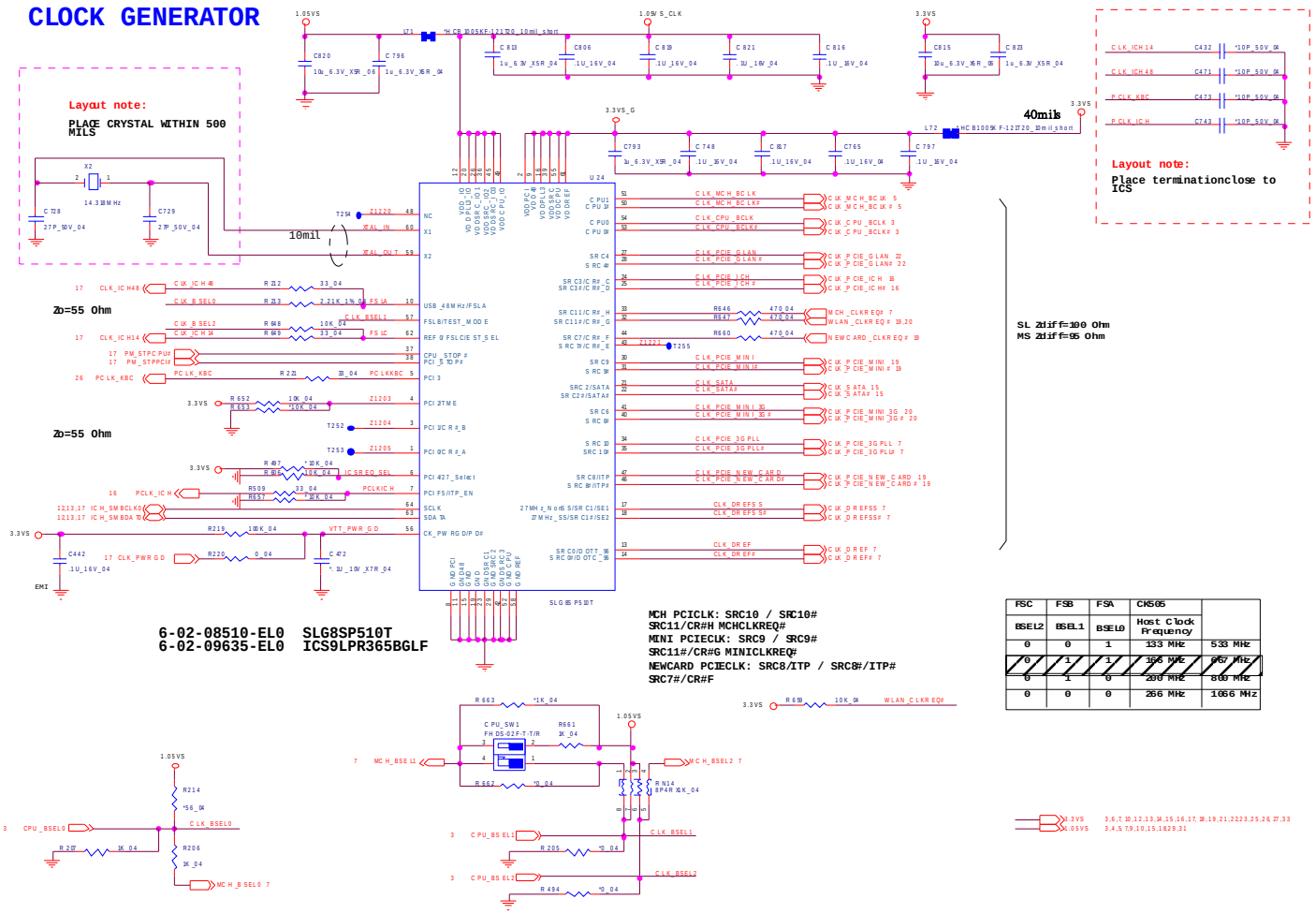
System Block Diagram

Sheet 1 of 42
System Block Diagram



Clock Generator



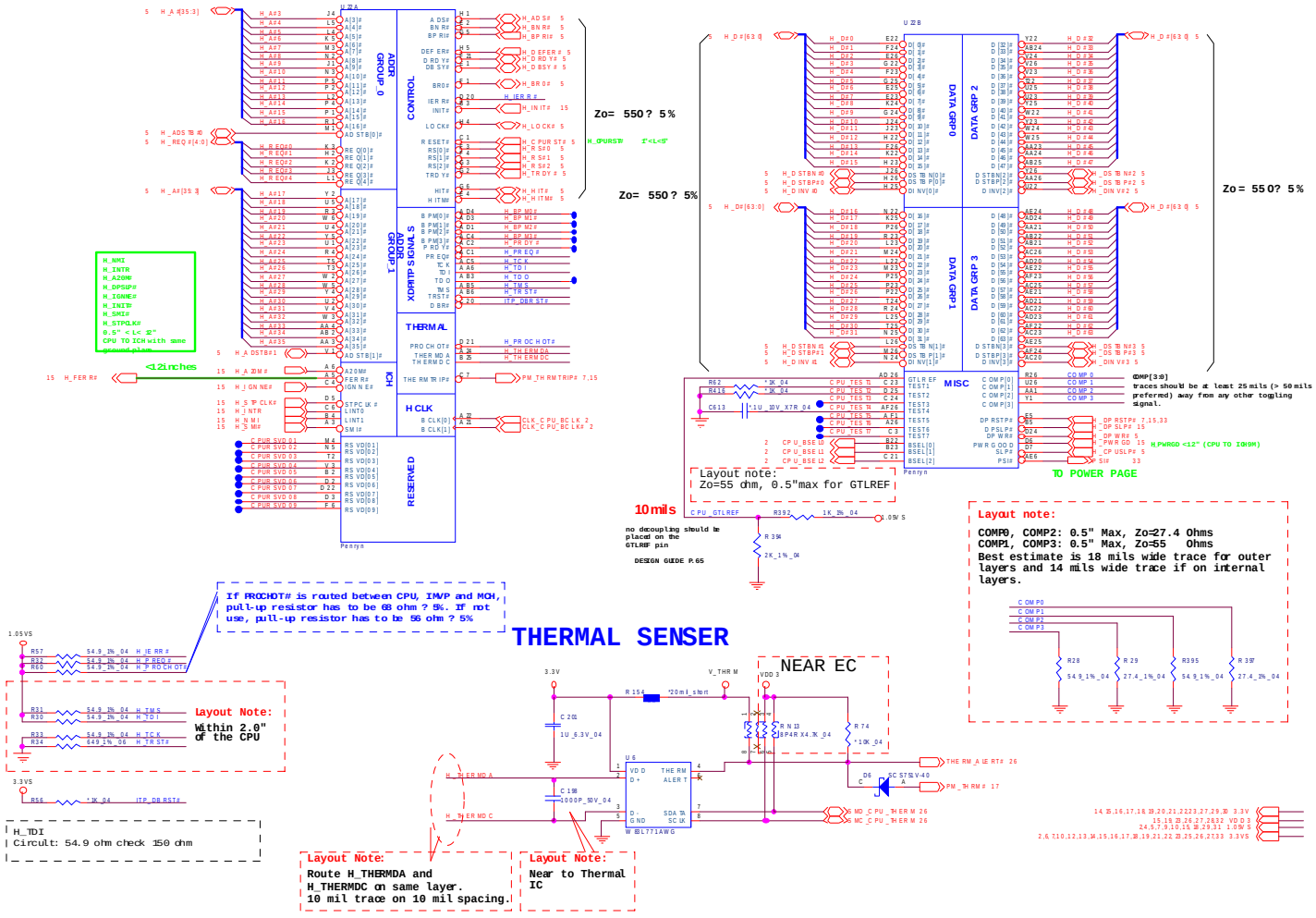
FSC	FSB	FSA	CK505	
BSEL2	BSEL1	BSEL0	Host Clock Frequency	
0	0	1	133 MHz	533 MHz
0	1	1	166 MHz	667 MHz
0	1	0	200 MHz	800 MHz
0	0	0	266 MHz	1066 MHz

Sheet 2 of 42
Clock Generator

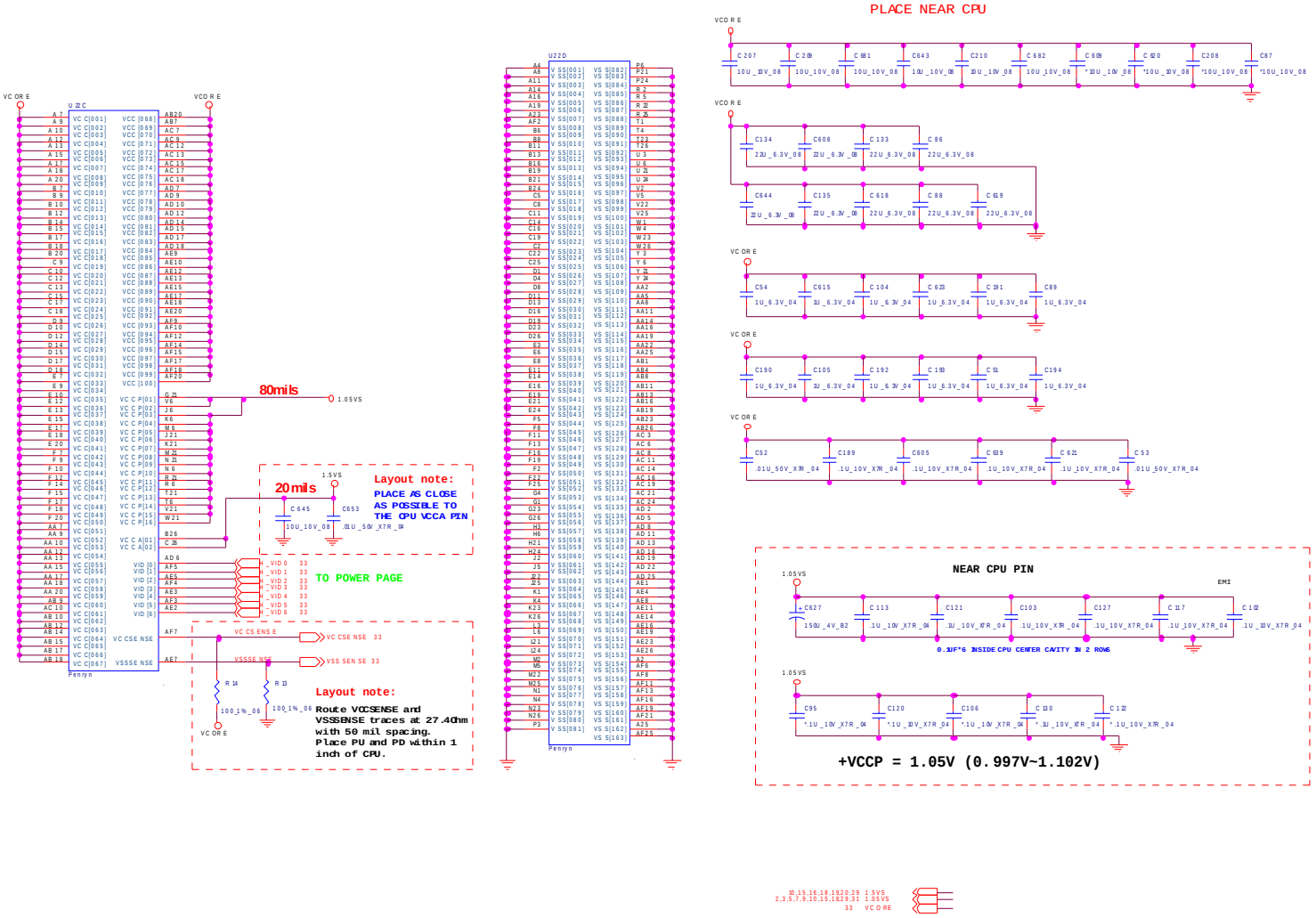
B.Schematic Diagrams

Penryn (Socket-P) CPU 1/2

Sheet 3 of 42
Penryn (Socket-P)
CPU 1/2



Penryn (Socket-P) CPU 2/2

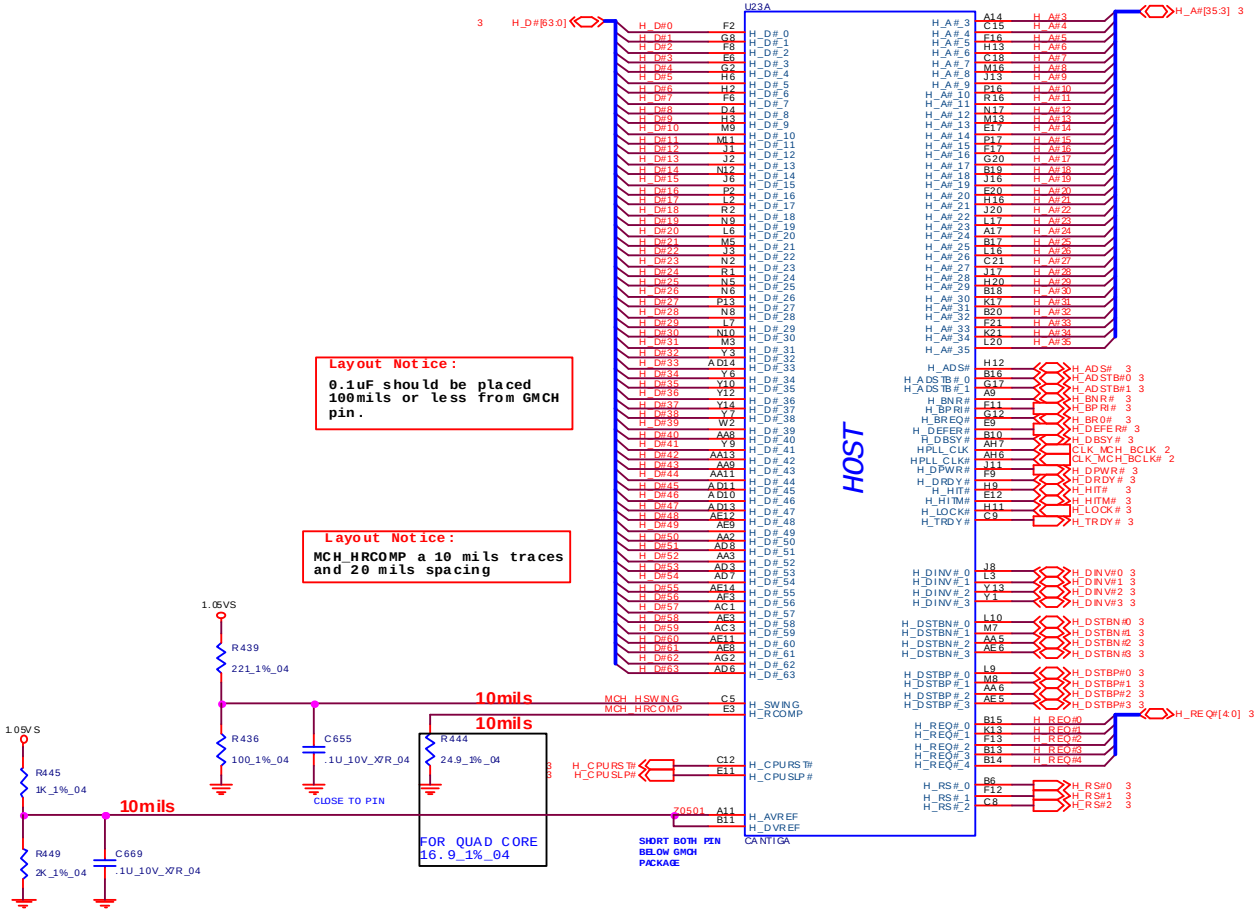


Sheet 4 of 42
Penryn (Socket-P)
CPU 2/2

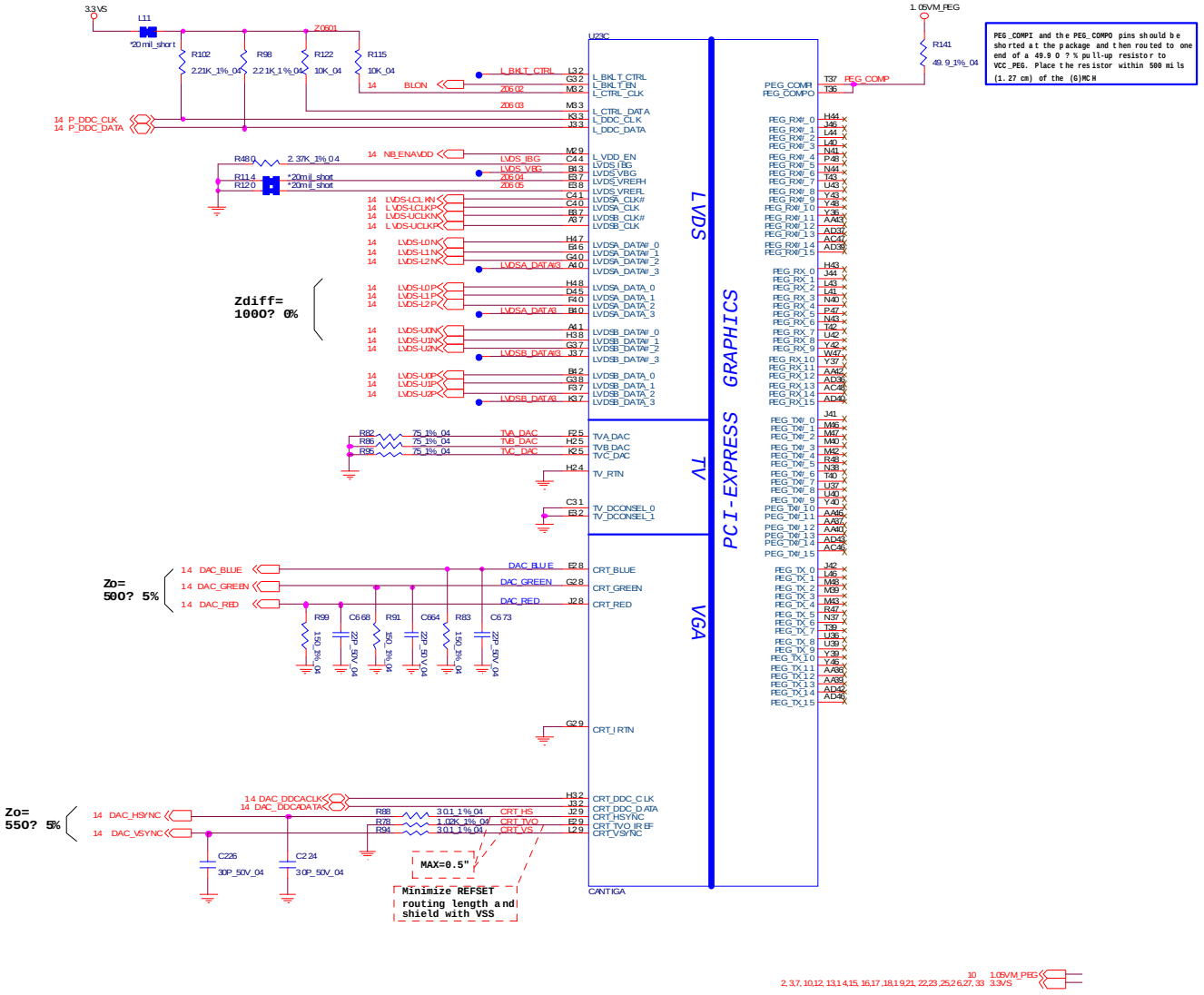
B.Schematic Diagrams

CANTIGA 1/7, Host

Sheet 5 of 42
CANTIGA 1/7, Host



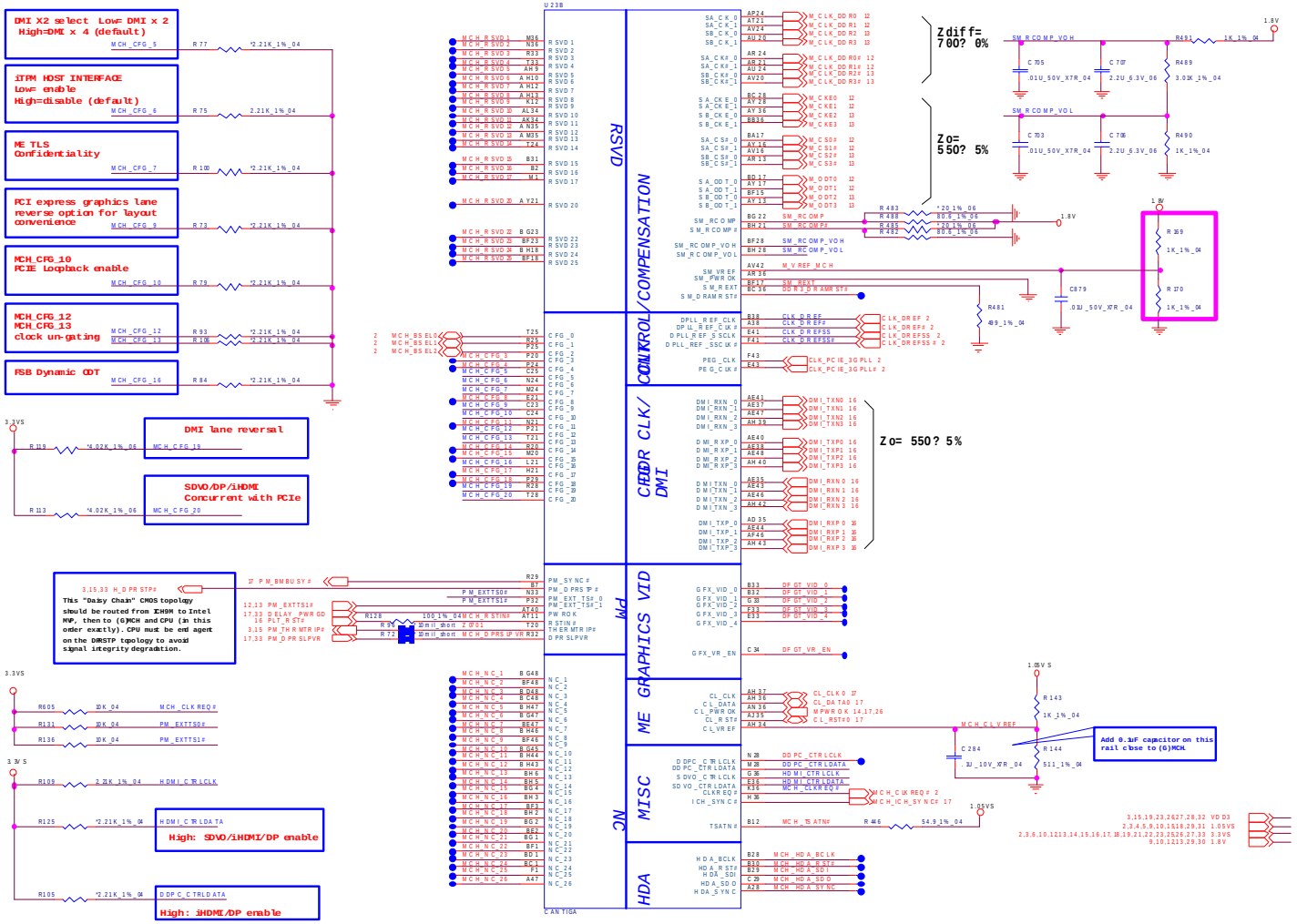
CANTIGA 2/7, Graphics



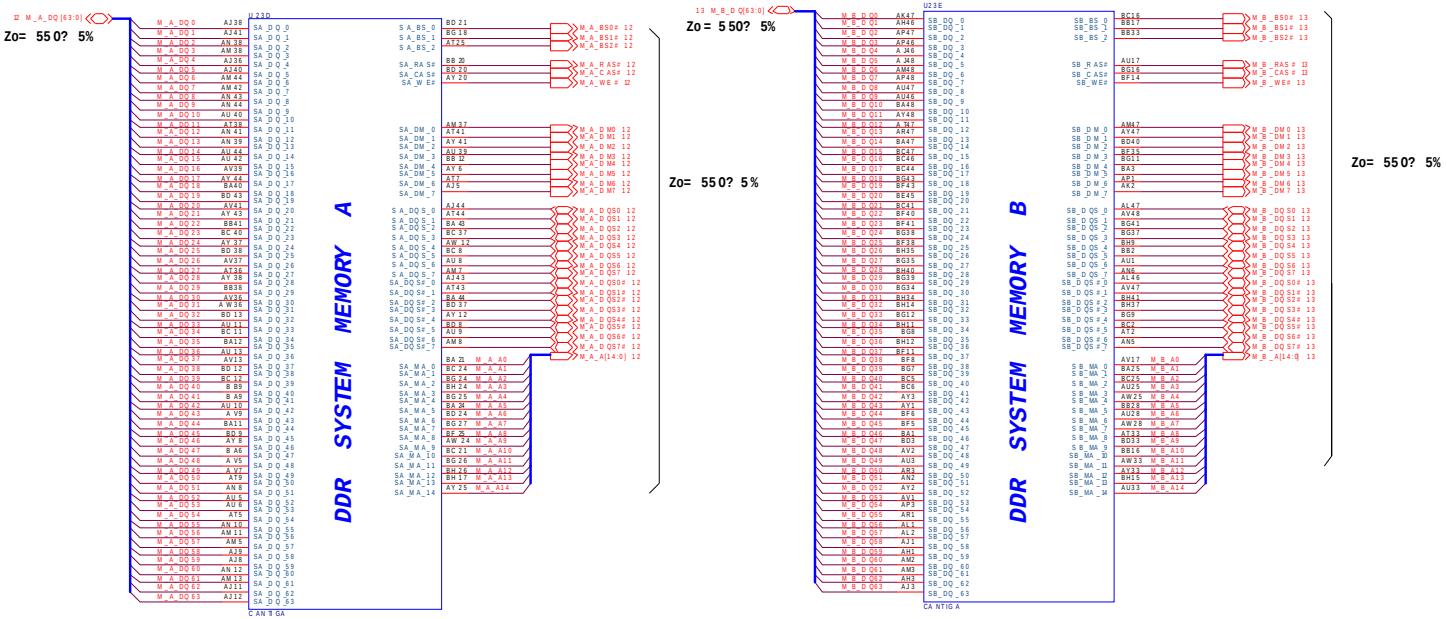
Sheet 6 of 42
CANTIGA 2/7, Graphics

CANTIGA 3/7

Sheet 7 of 42
CANTIGA 3/7



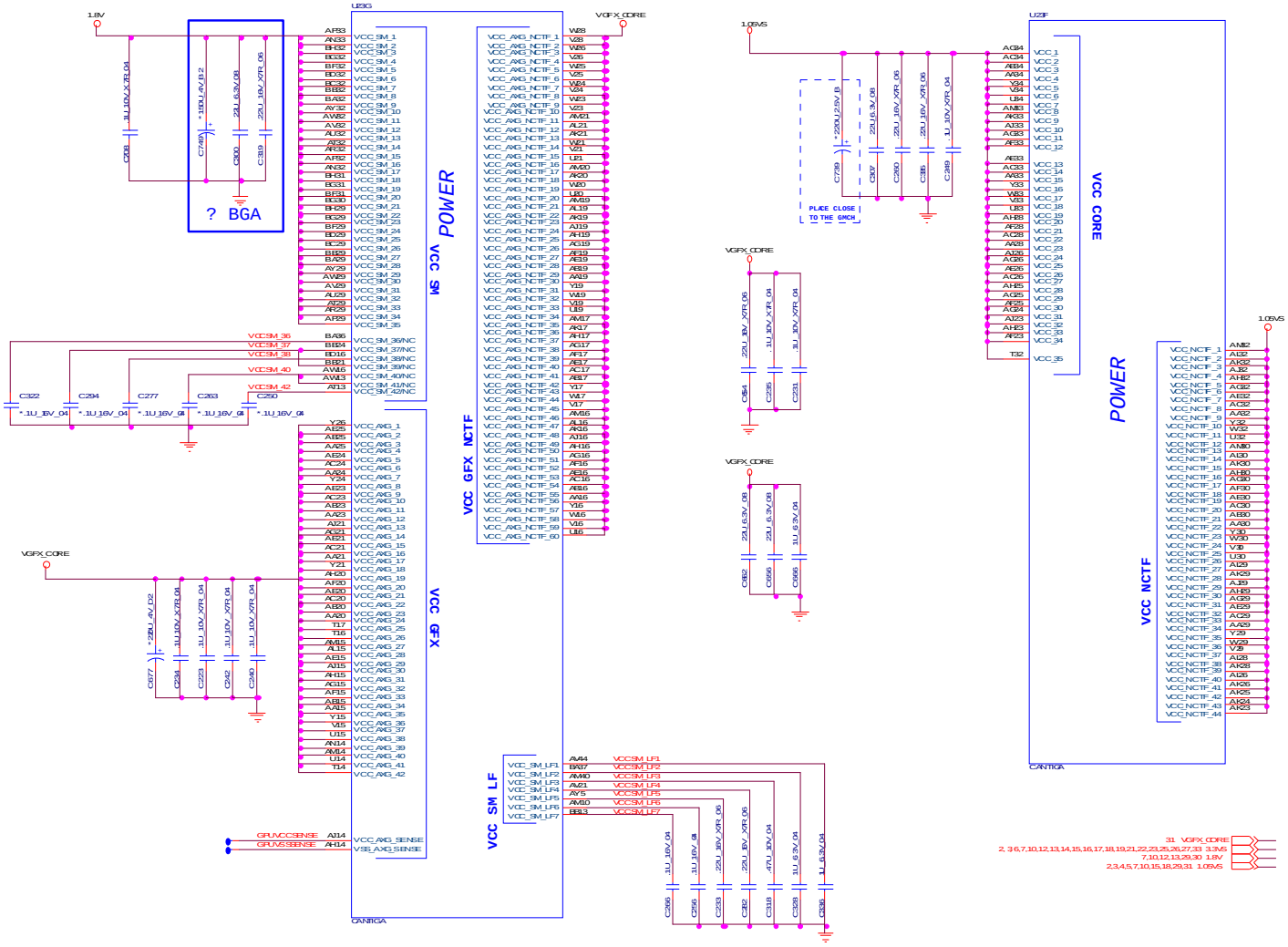
CANTIGA 4/7



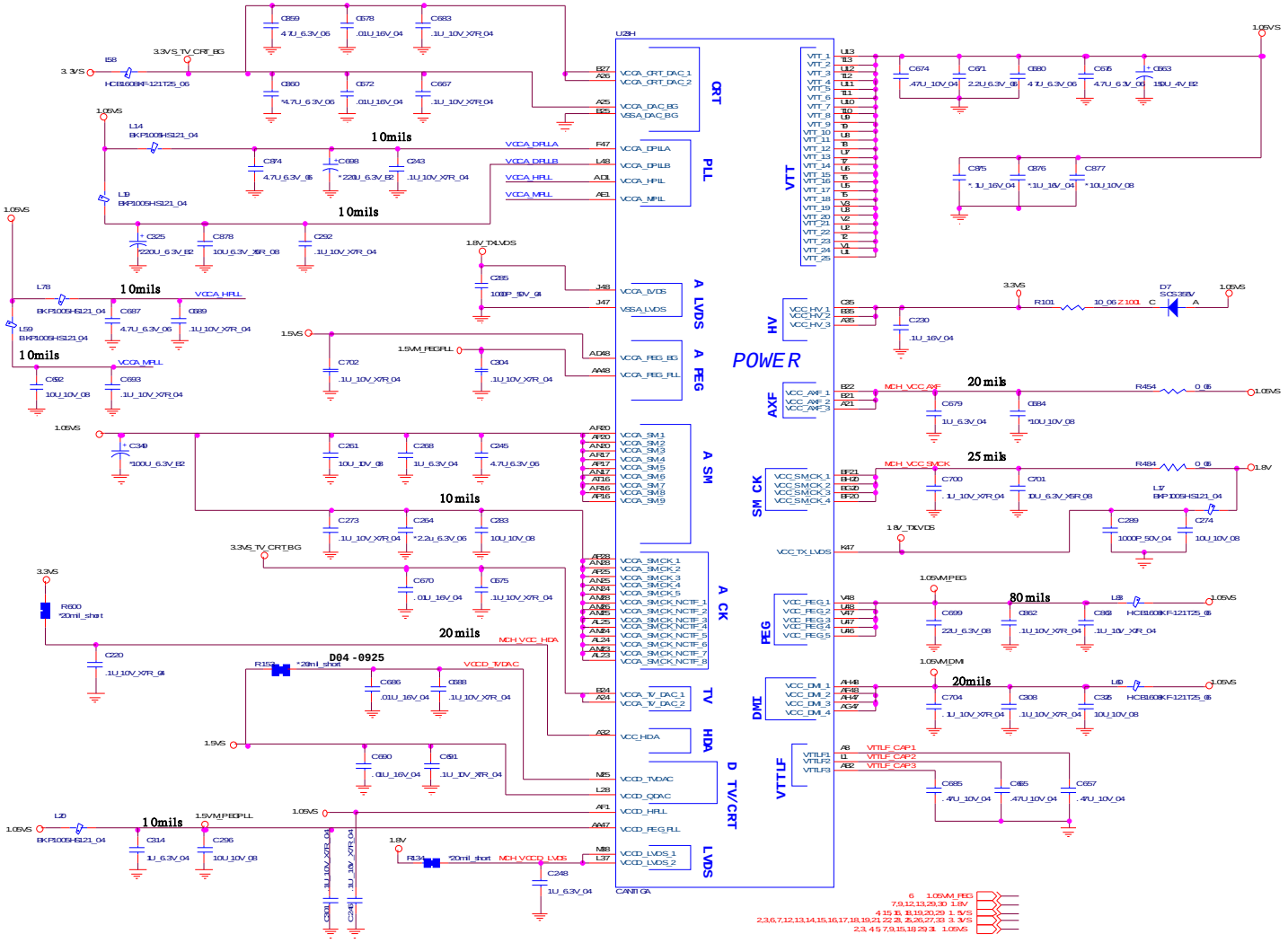
Sheet 8 of 42
CANTIGA 4/7

CANTIGA 5/7

Sheet 9 of 42
CANTIGA 5/7



CANTIGA 6/7

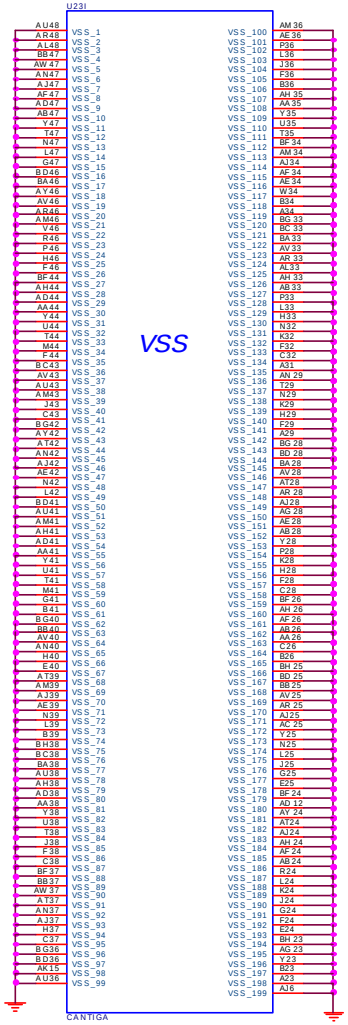


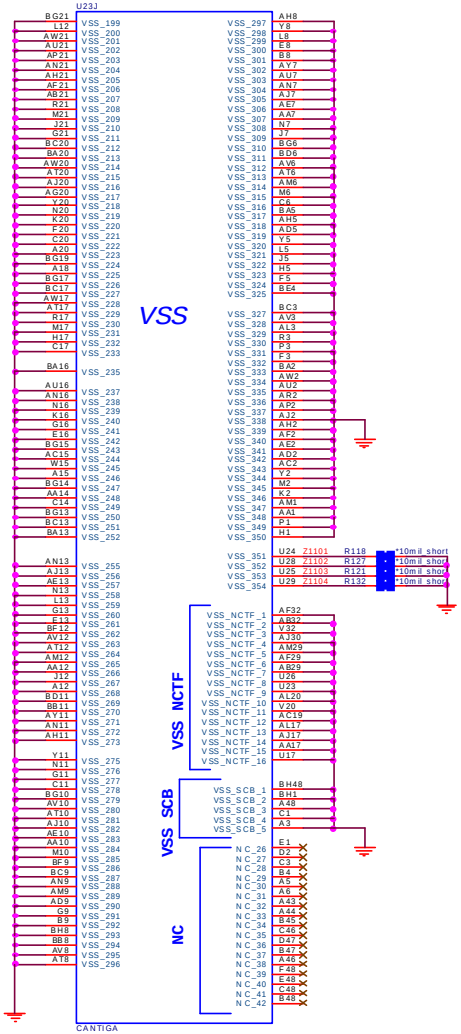
Sheet 10 of 42
CANTIGA 6/7

B.Schematic Diagrams

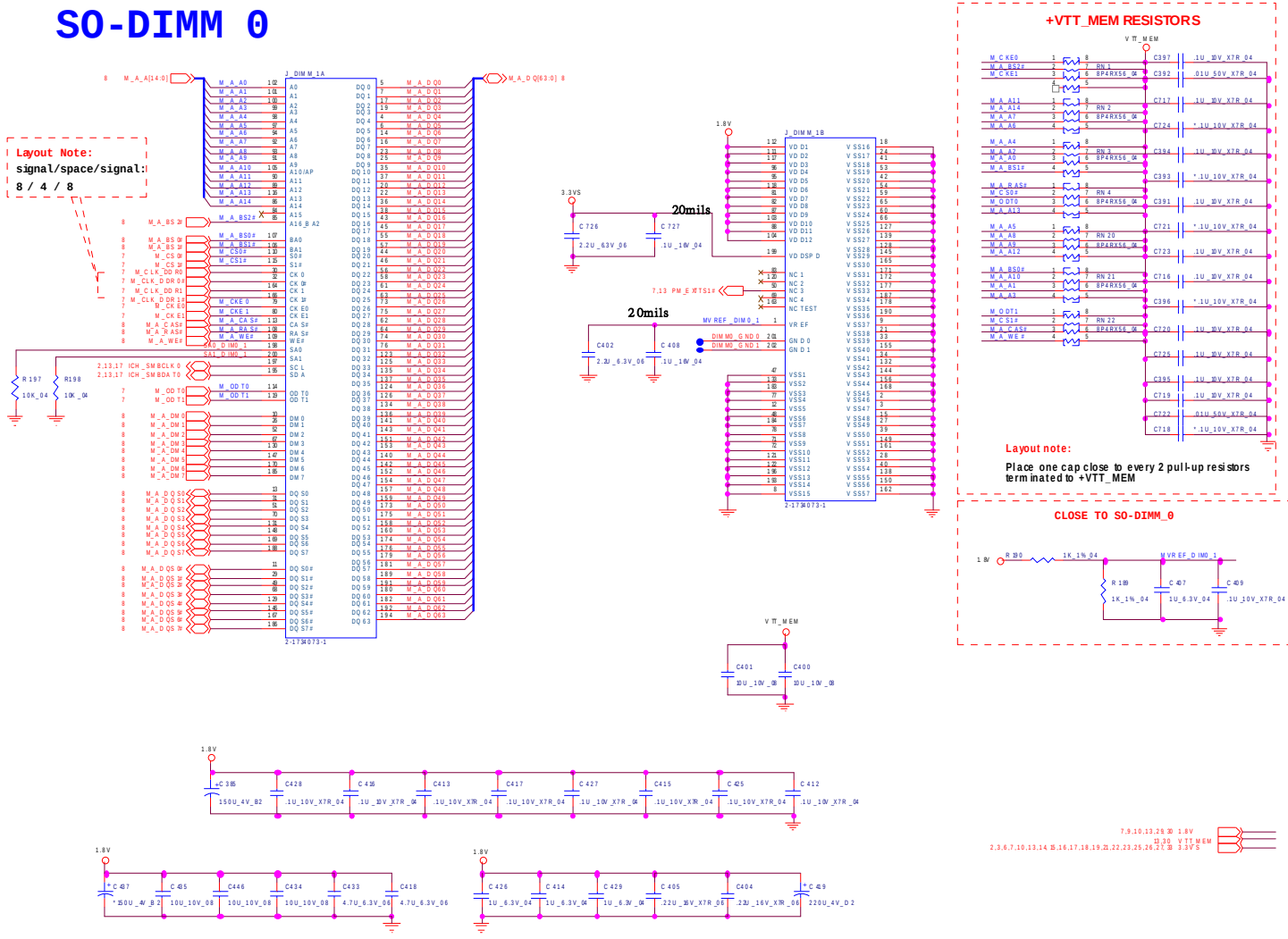
CANTIGA 7/7

Sheet 11 of 42
CANTIGA 7/7





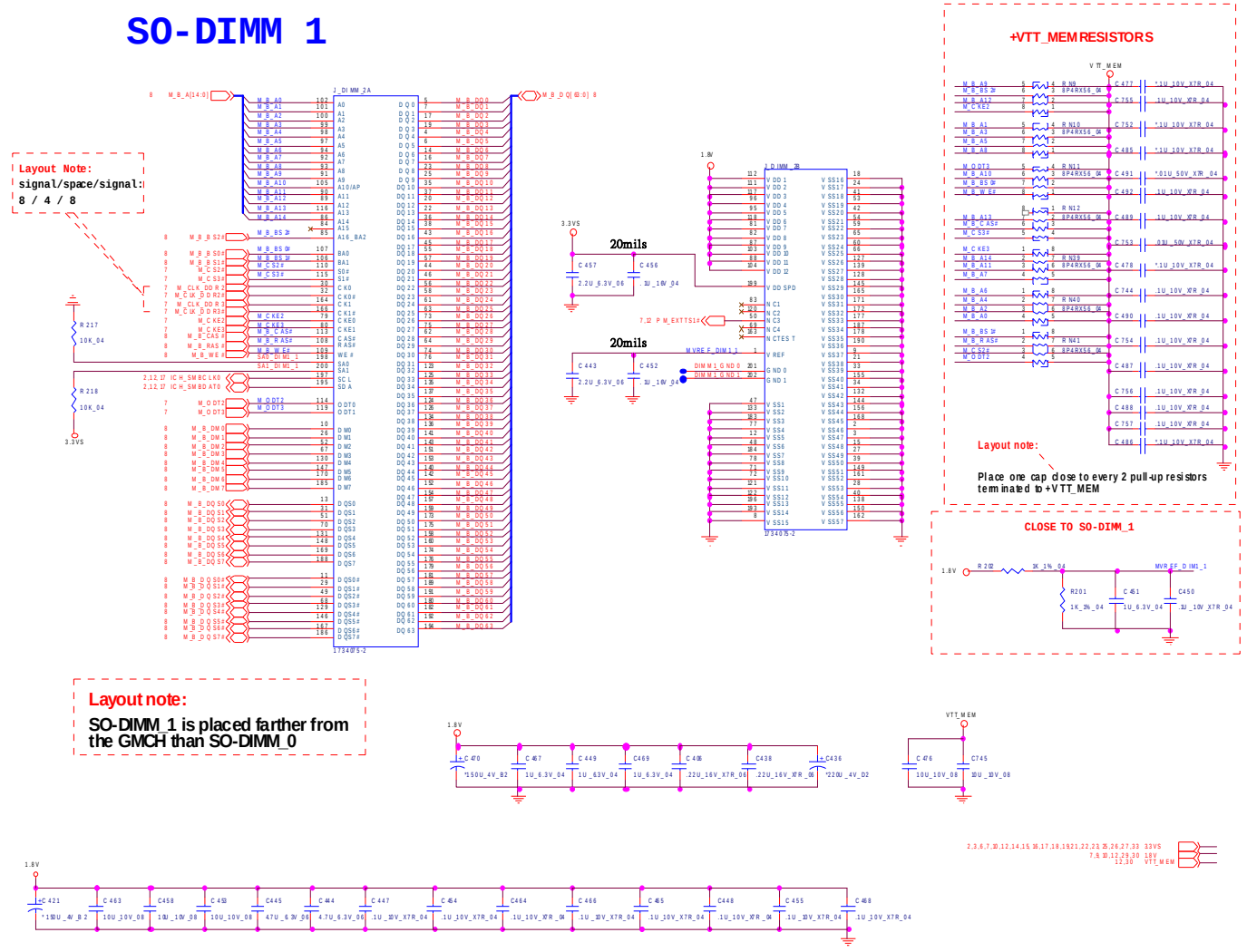
DDRII SO-DIMM - 0



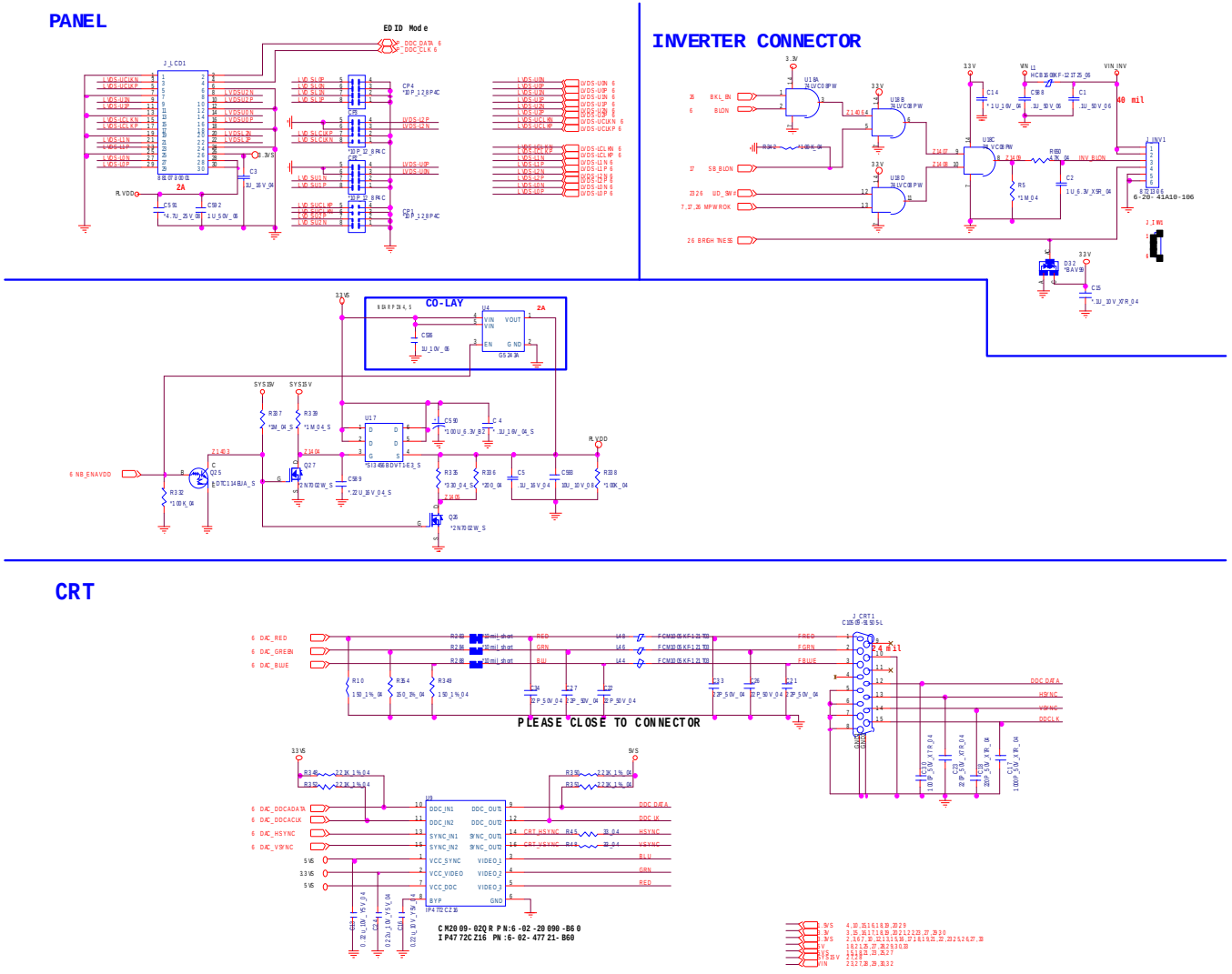
Sheet 12 of 42
DDRII SO-DIMM - 0

DDRII SO-DIMM - 1

Sheet 13 of 42
DDRII SO-DIMM - 1



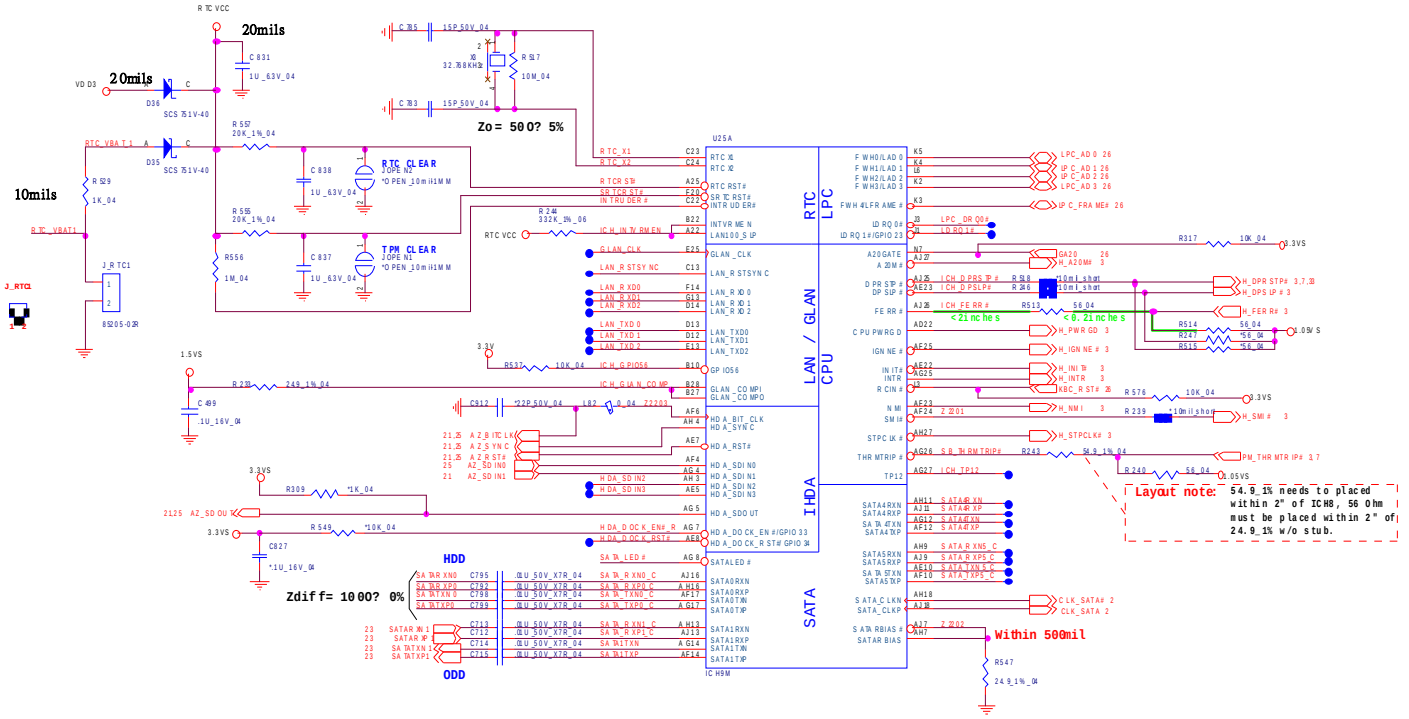
Panel, Inverter, CRT



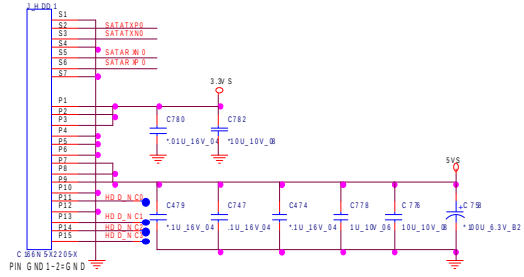
Sheet 14 of 42
Panel, Inverter, CRT

ICH9M 1/4, SATA

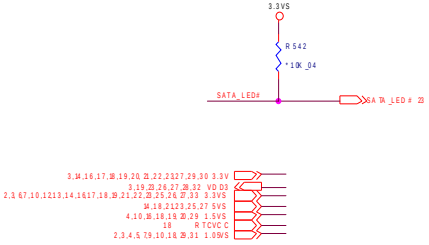
Sheet 15 of 42
ICH9M 1/4, SATA



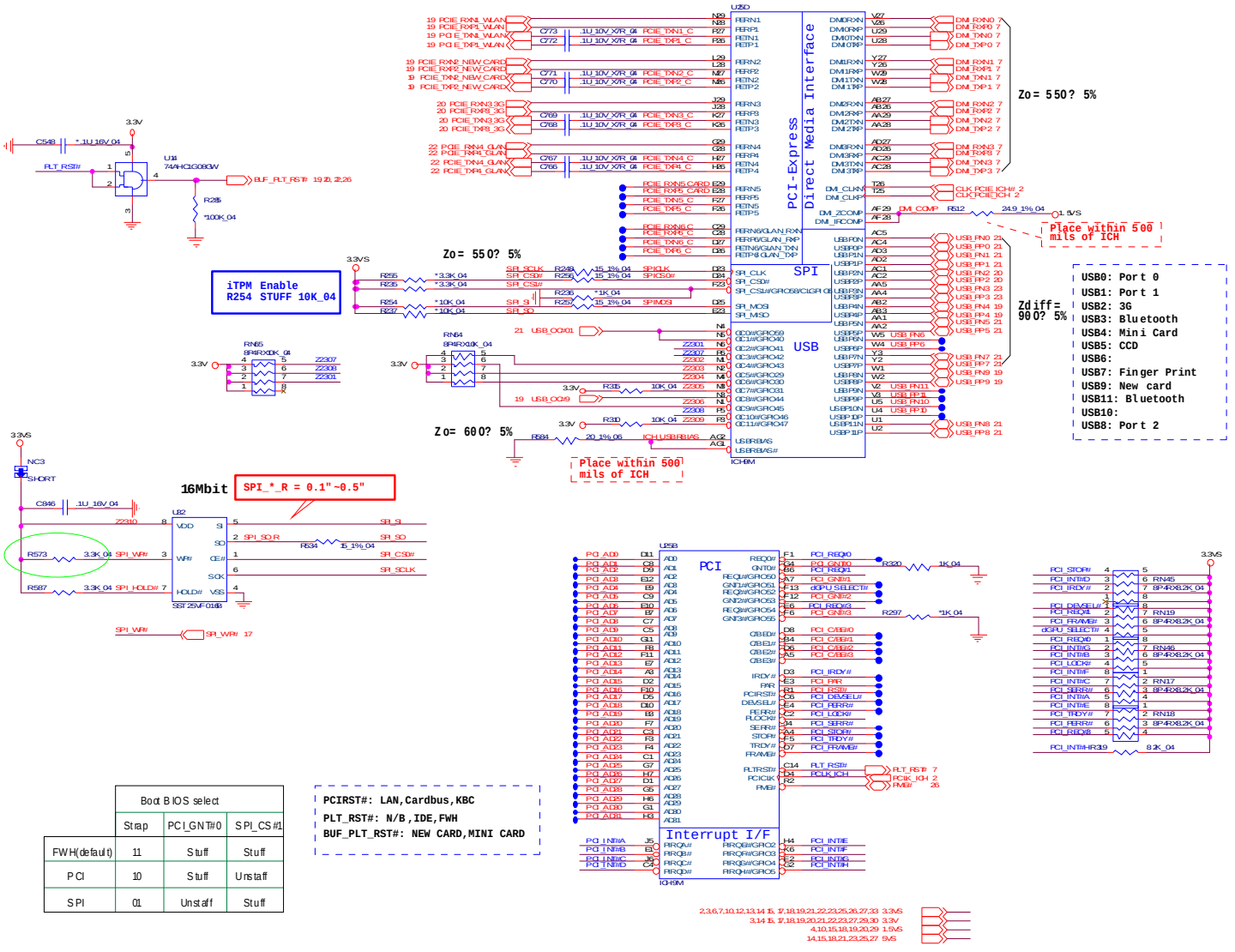
SATA HDD



SATA HDD & ODD LED



ICH9M 2/4, PCI, USB



Boot BIOS select			
	Strap	PCI_GNT#0	SPI_CS#1
FWH(default)	11	Stuff	Stuff
PCI	10	Stuff	Unstaff
SPI	01	Unstaff	Stuff

PCIRST#: LAN,Cardbus,KBC
PLT_RST#: N/B,IDE,FWH
BUF_PLT_RST#: NEW CARD,MINI CARD

Sheet 16 of 42
ICH9M 2/4, PCI, USB

B.Schematic Diagrams

ICH9M 3/4

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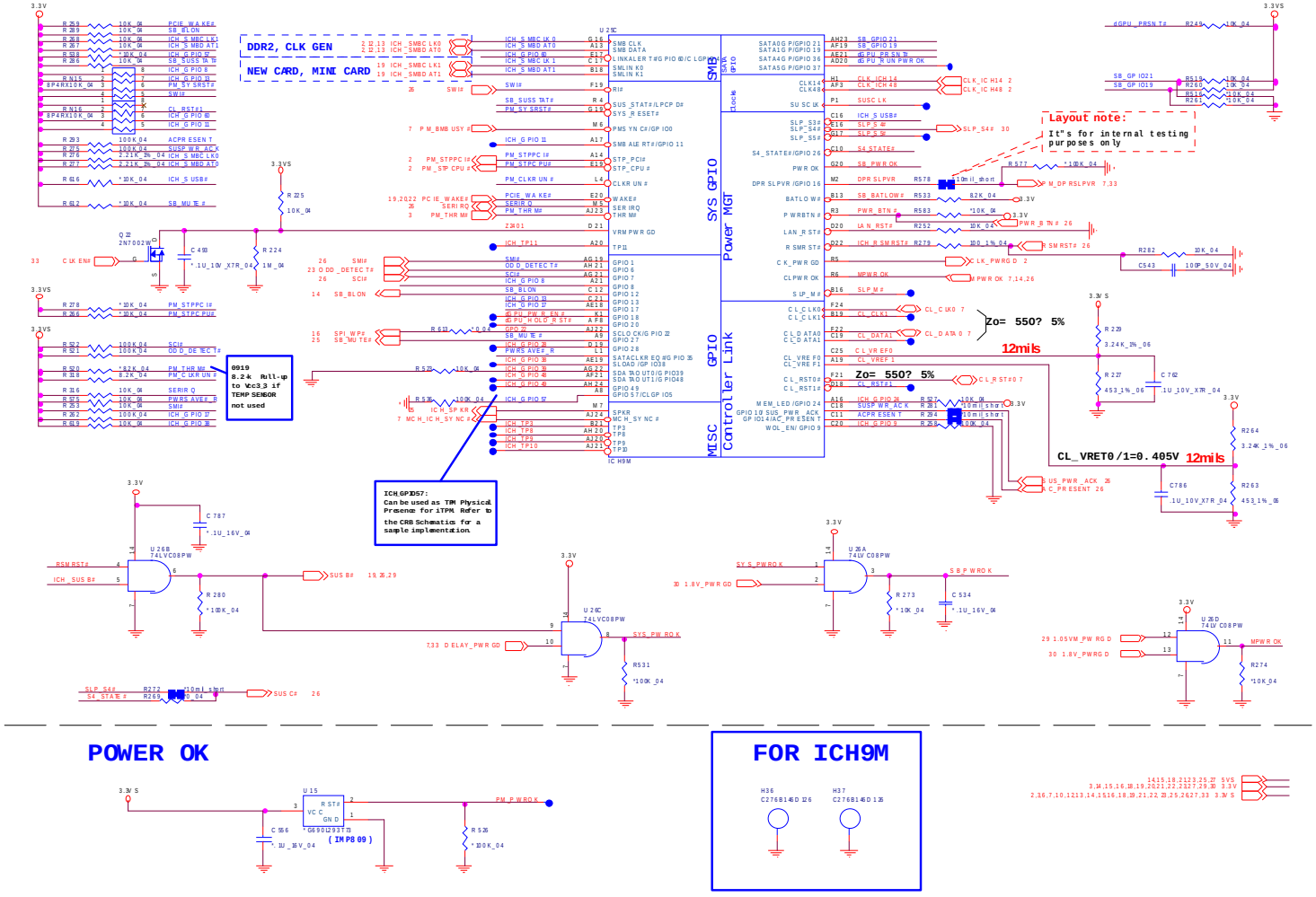
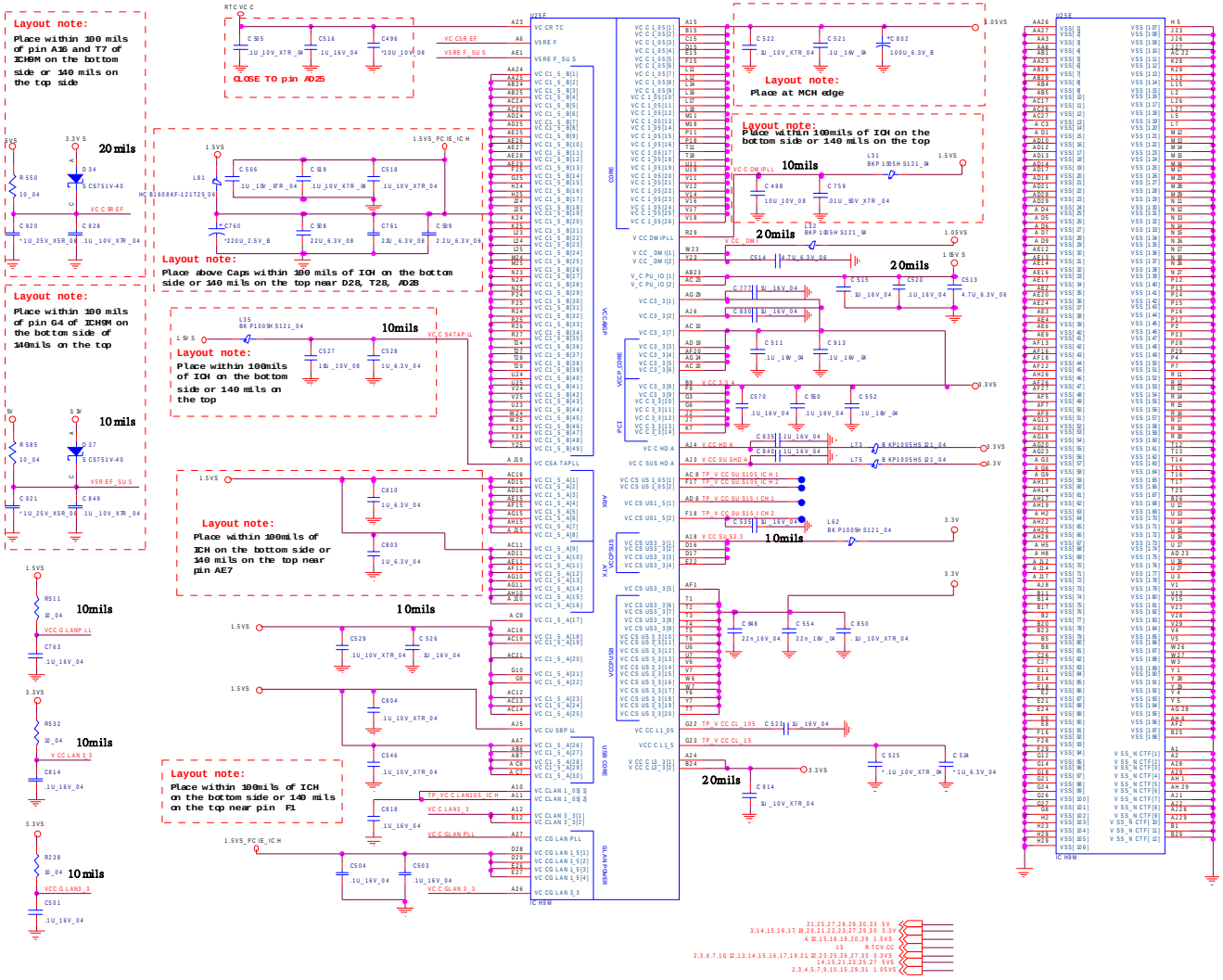
ICH9M 3/4



ICH9M 4/4



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ICH9M 4/4

B.Schematic Diagrams

NEW CARD, MINI PCIE

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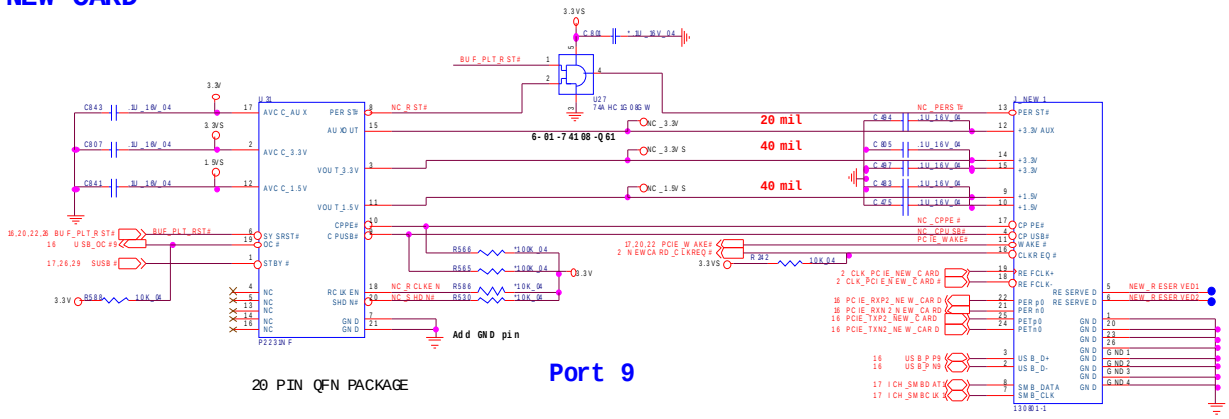
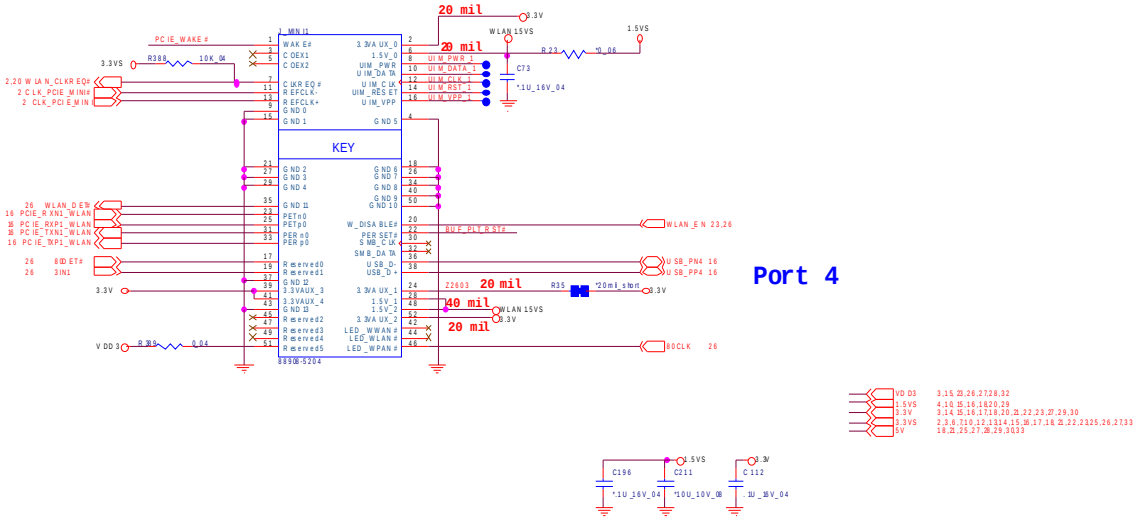
NEW CARD, MINI PCIE

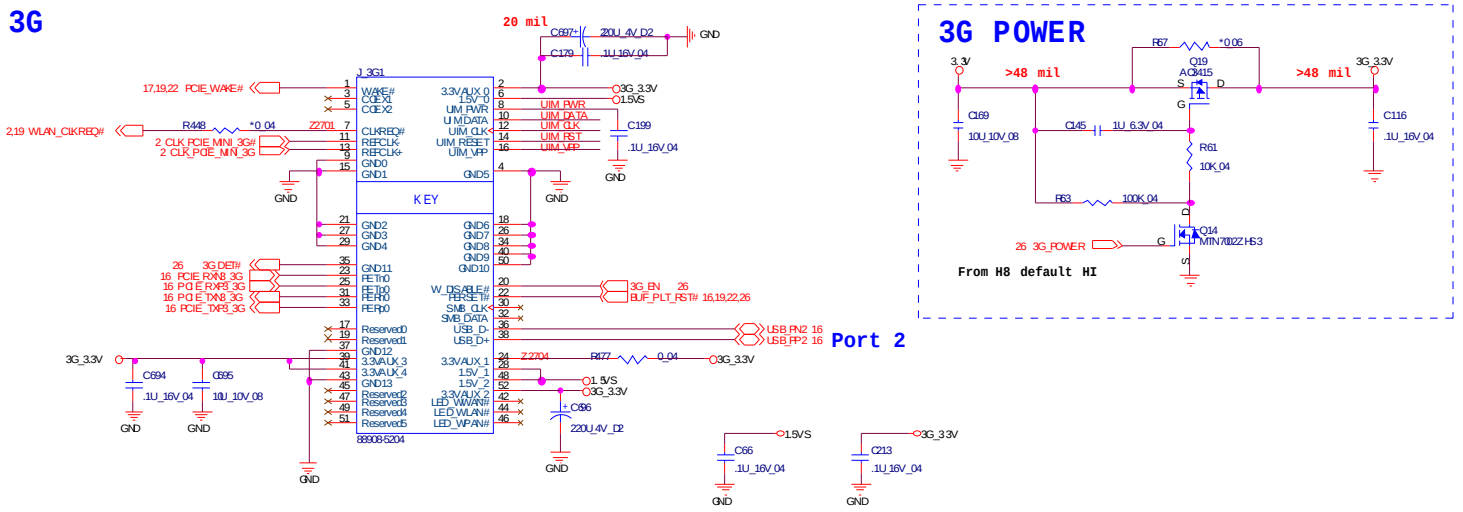
NEW CARD



MINI CARD



3G, POWERGOOD

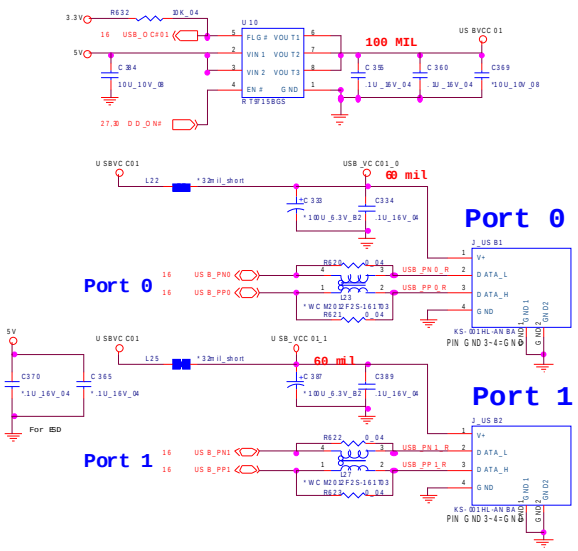


Sheet 20 of 42
3G, POWERGOOD

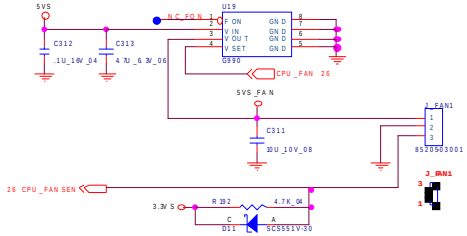
USB, FAN, TP, FP, MULTI CON

Sheet 21 of 42
USB, FAN, TP, FP,
MULTI CON

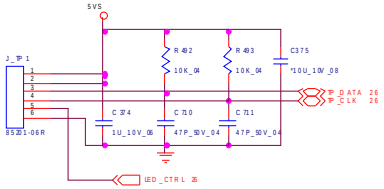
USB PORT*2



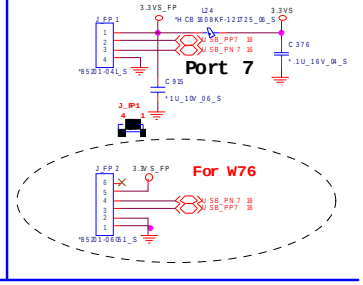
FAN CONTROL



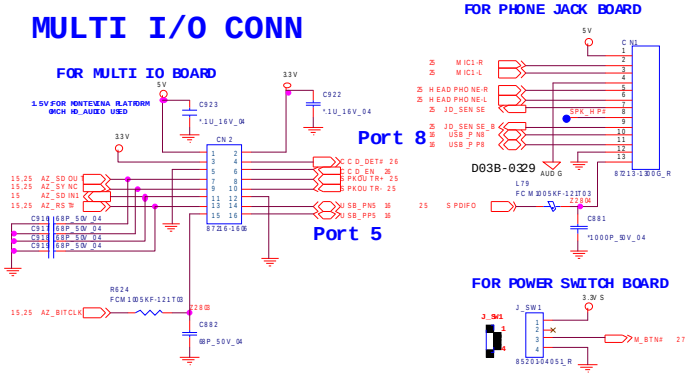
CLICK CONN FOR M760T



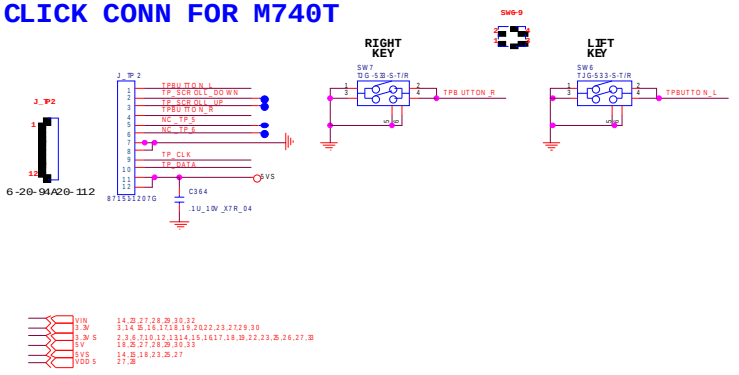
FP CONN



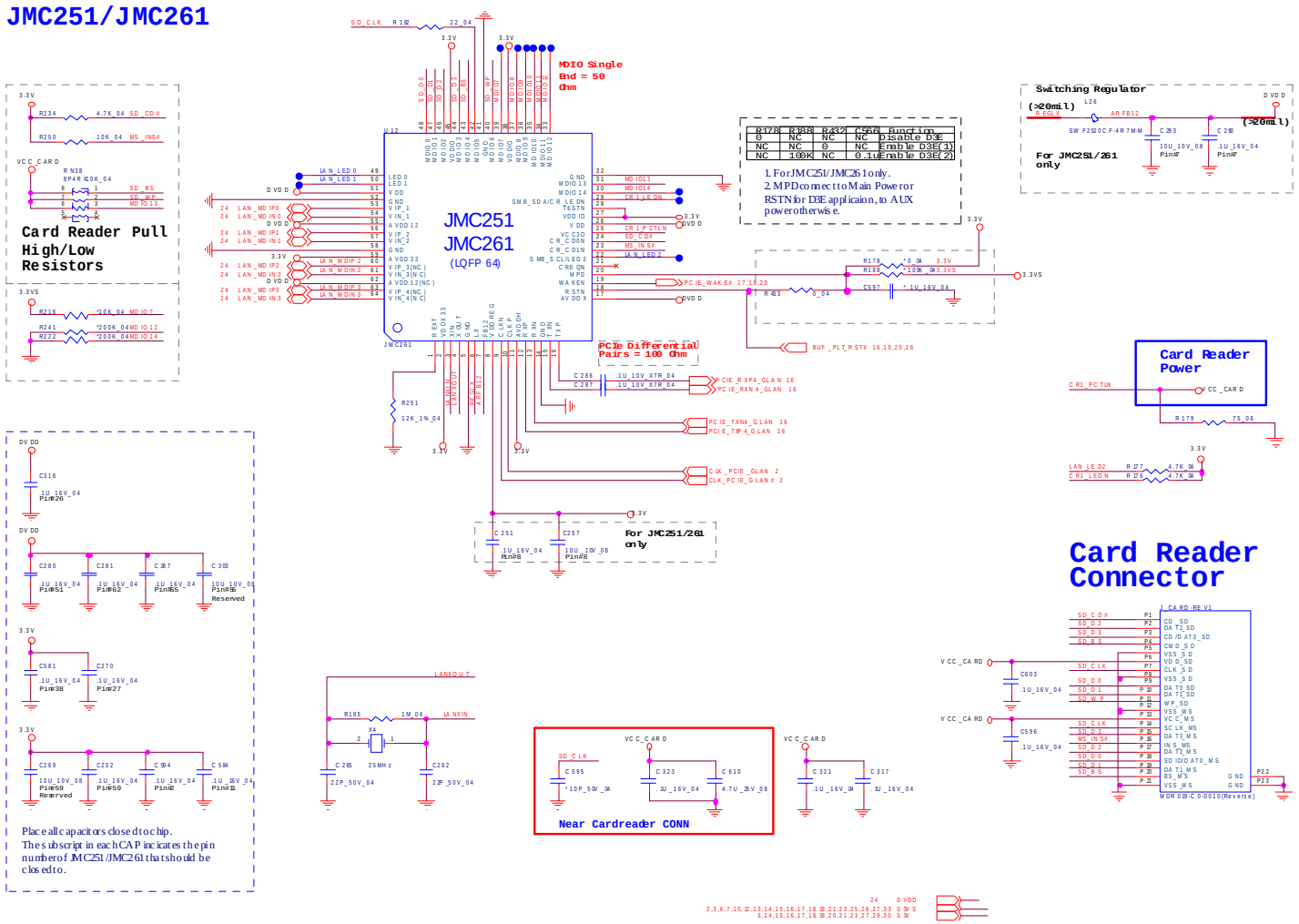
MULTI I/O CONN



CLICK CONN FOR M740T



CARD READER(JMB261)

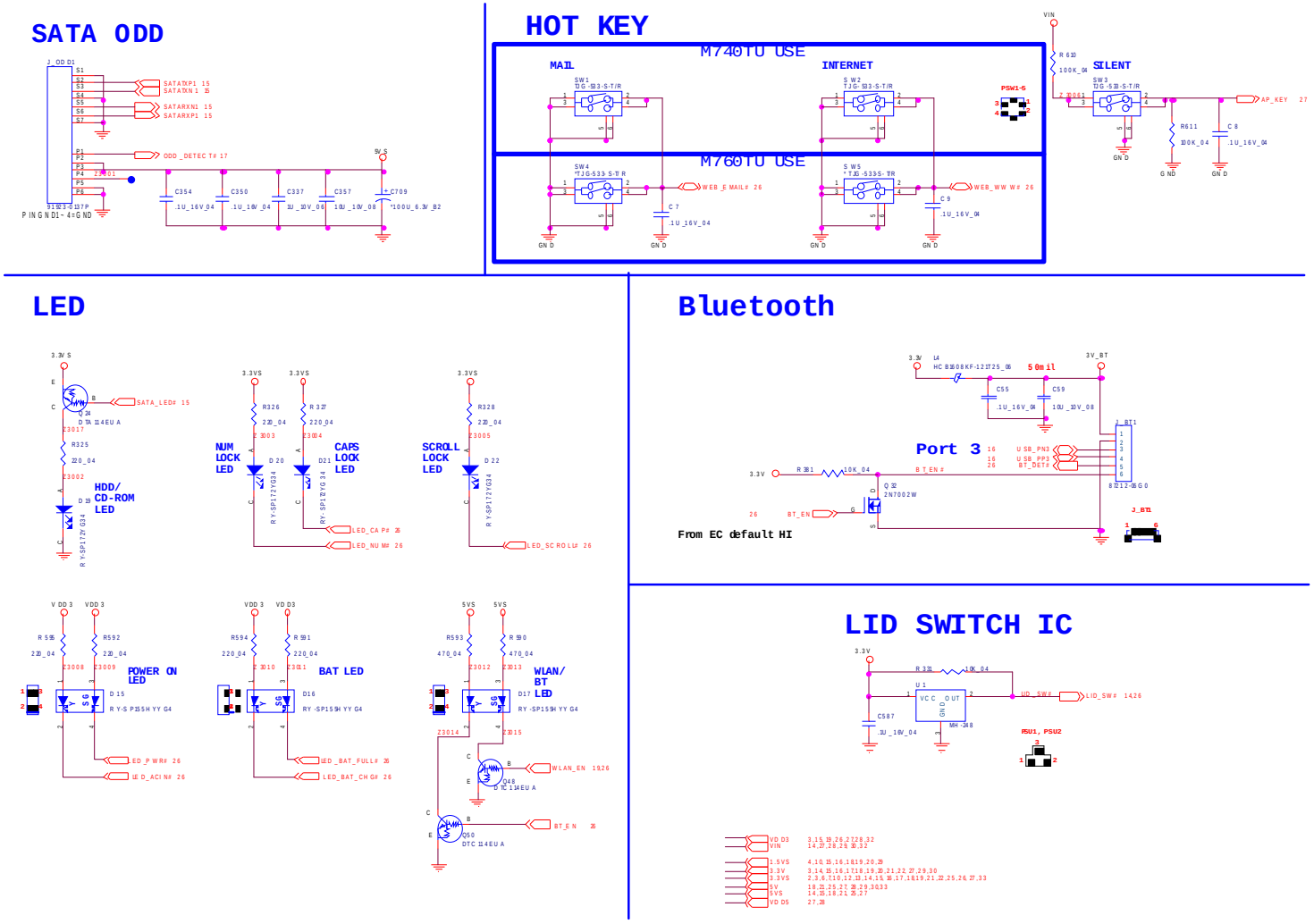


B.Schematic Diagrams

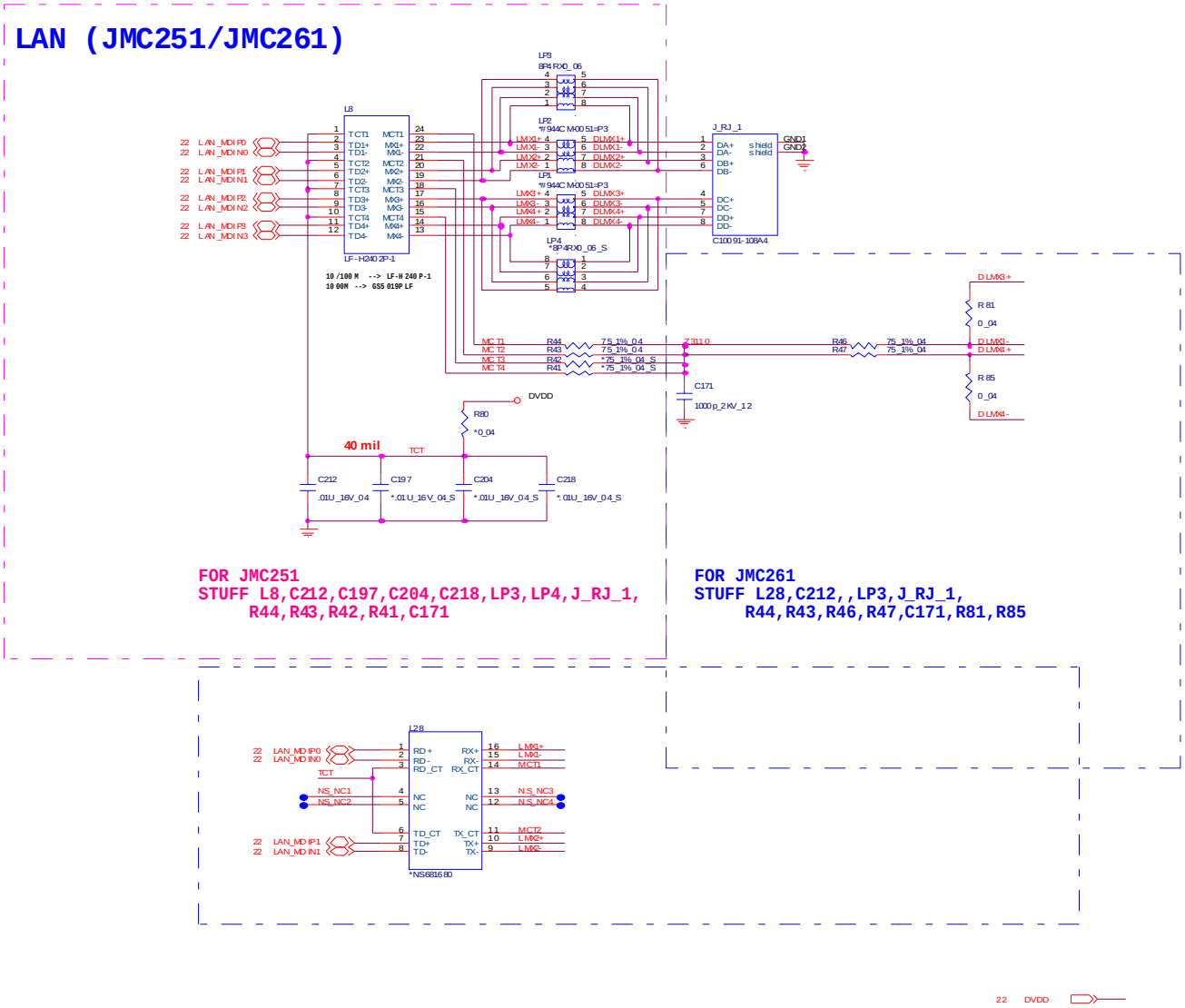
Sheet 22 of 42
CARD READER(JMB261)

SATA ODD, LED, HOTKEY, LID SW

Sheet 23 of 42
SATA ODD, LED, HOTKEY, LID SW



LAN(JMB261)



Sheet 24 of 42
LAN(JMB261)

B.Schematic Diagrams

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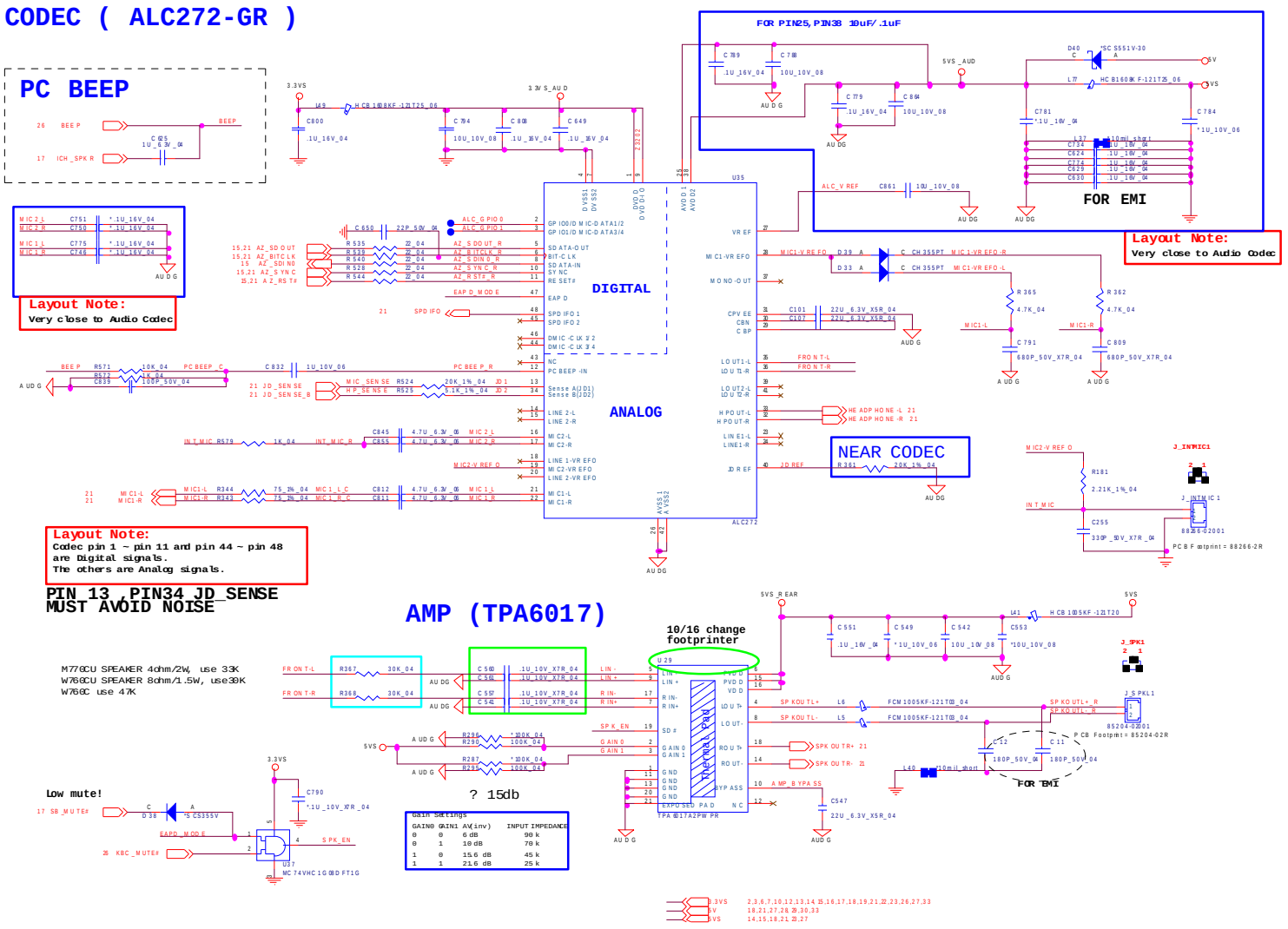
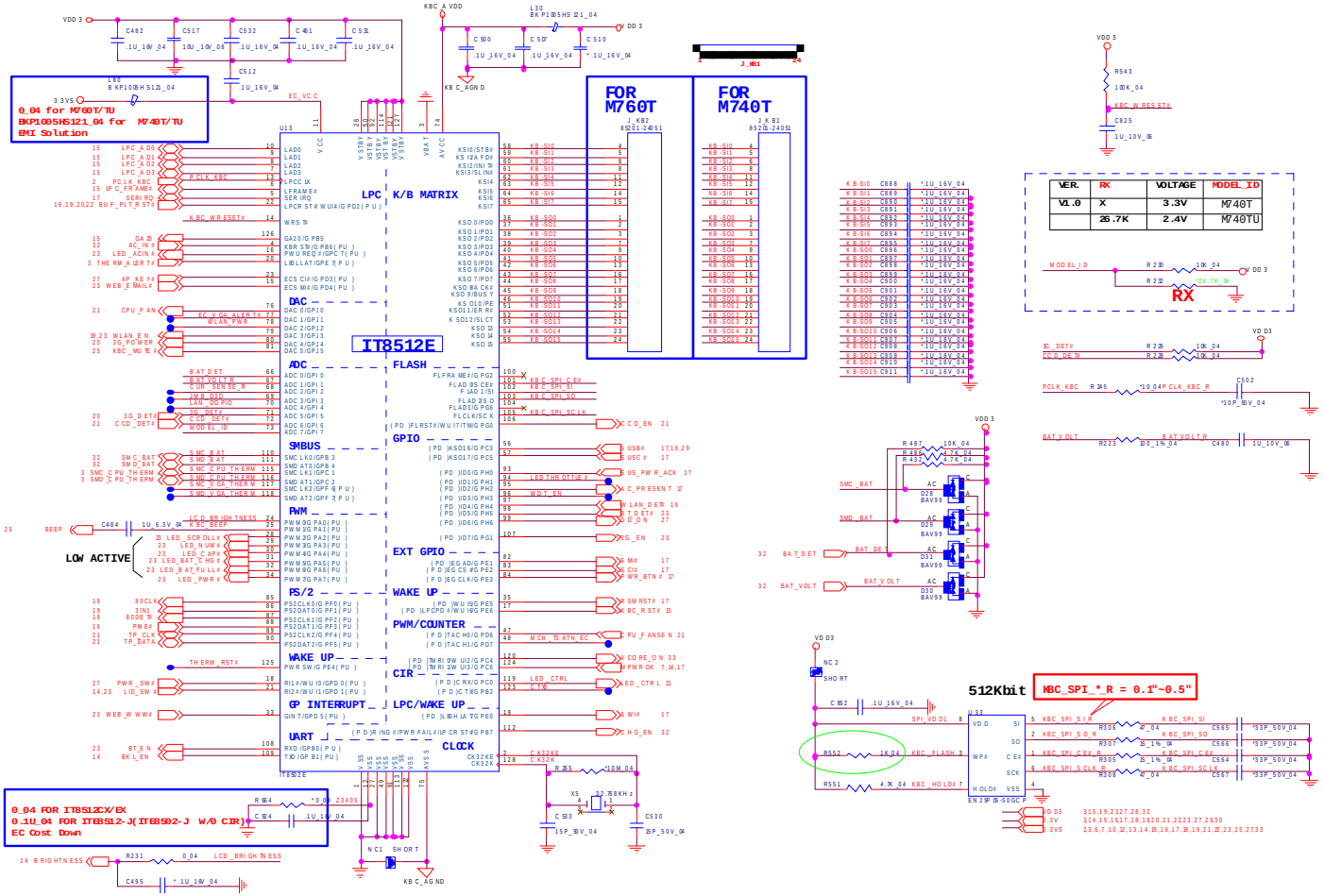
AUDIO CODEC
ALC272

AUDIO CODEC ALC272



KPC-ITE IT8502E



Sheet 26 of 42
KPC-ITE IT8502E

B.Schematic Diagrams

5VS, 3VS, 3.3VM, 1.05VS, V1N1

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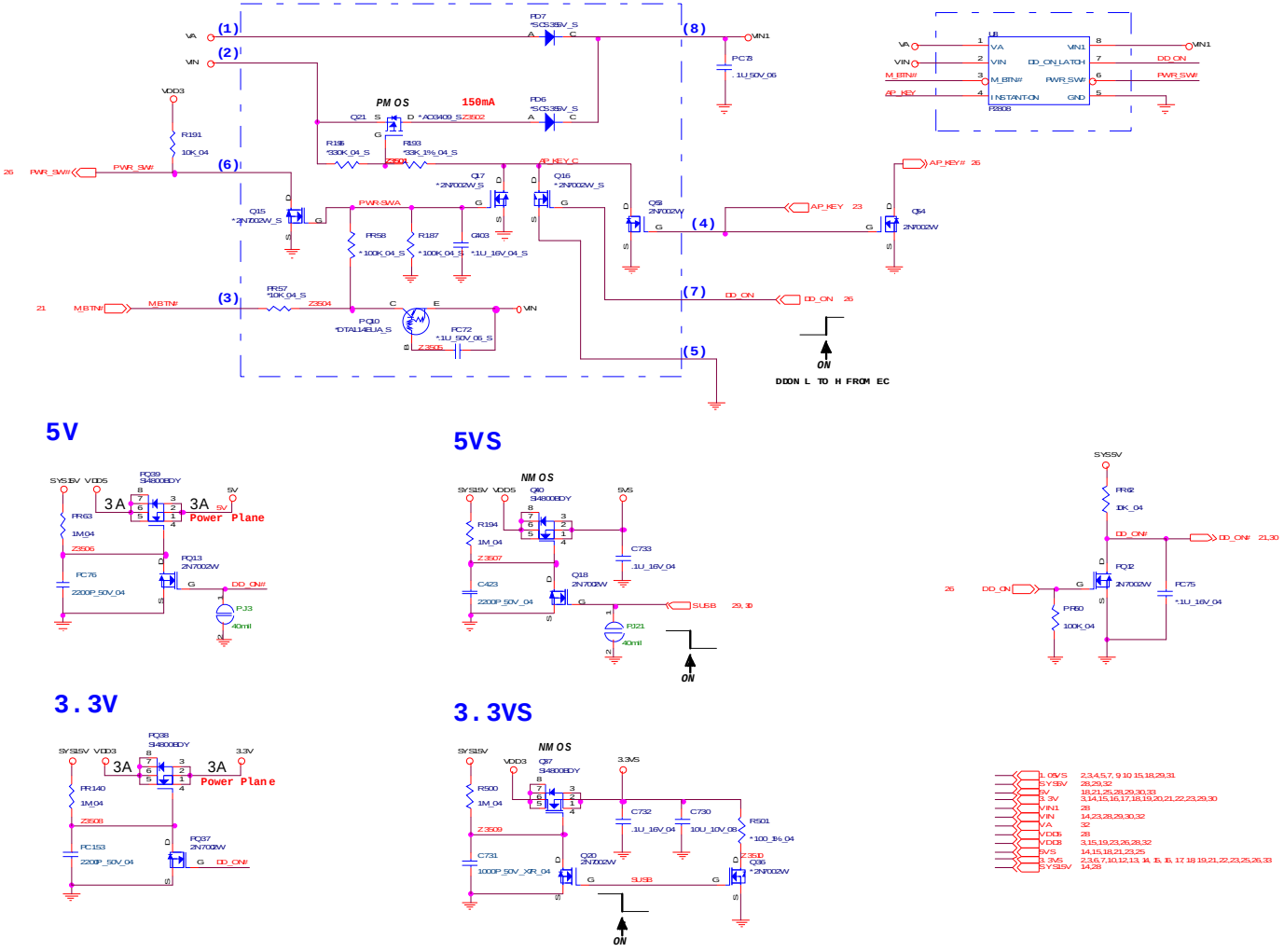
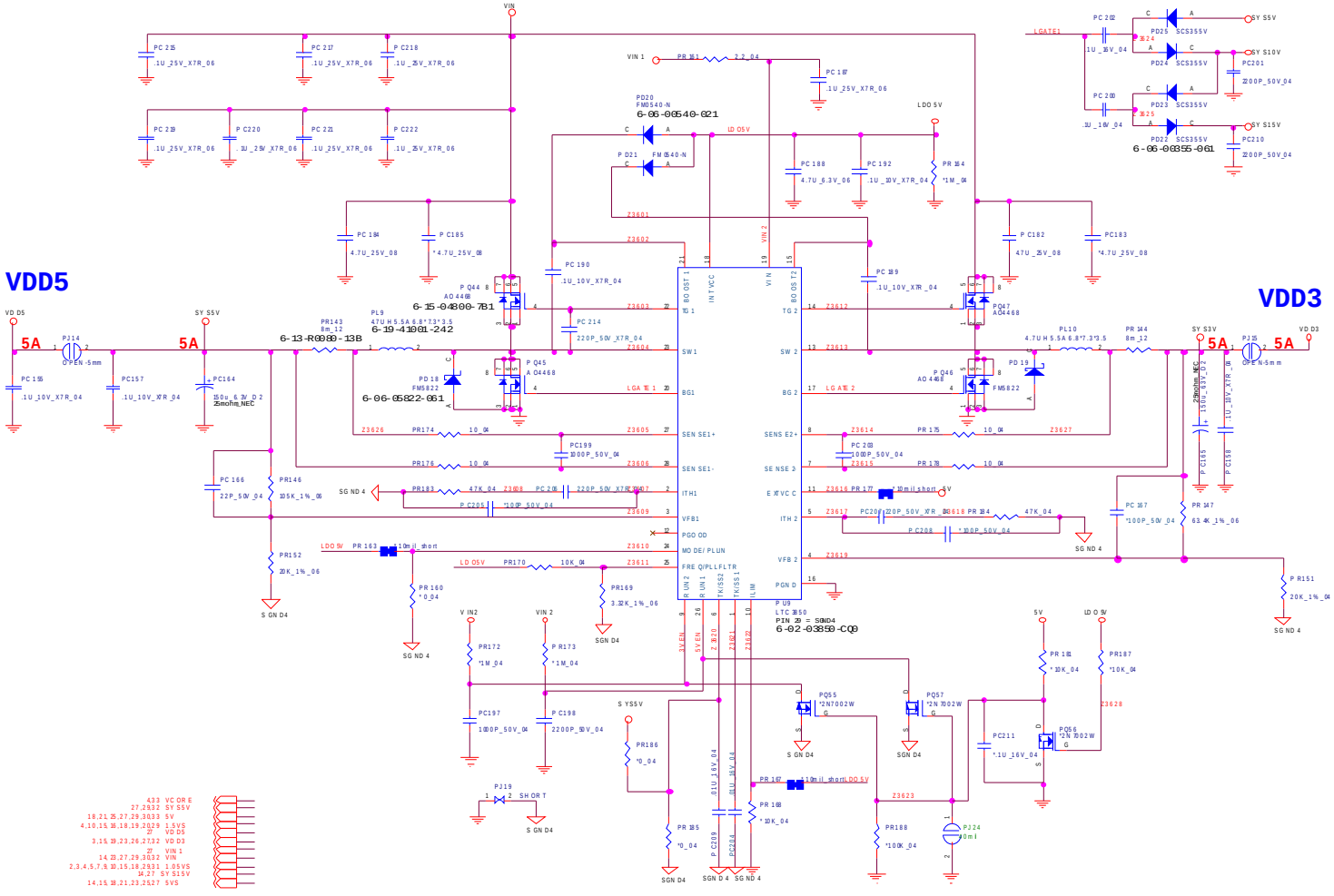
5VS, 3VS, 3.3VM,
1.05VS, V1N1



POWER 3.3V/5V



Sheet 28 of 42
POWER 3.3V/5V

B.Schematic Diagrams

POWER 1.5VS/1.05VS

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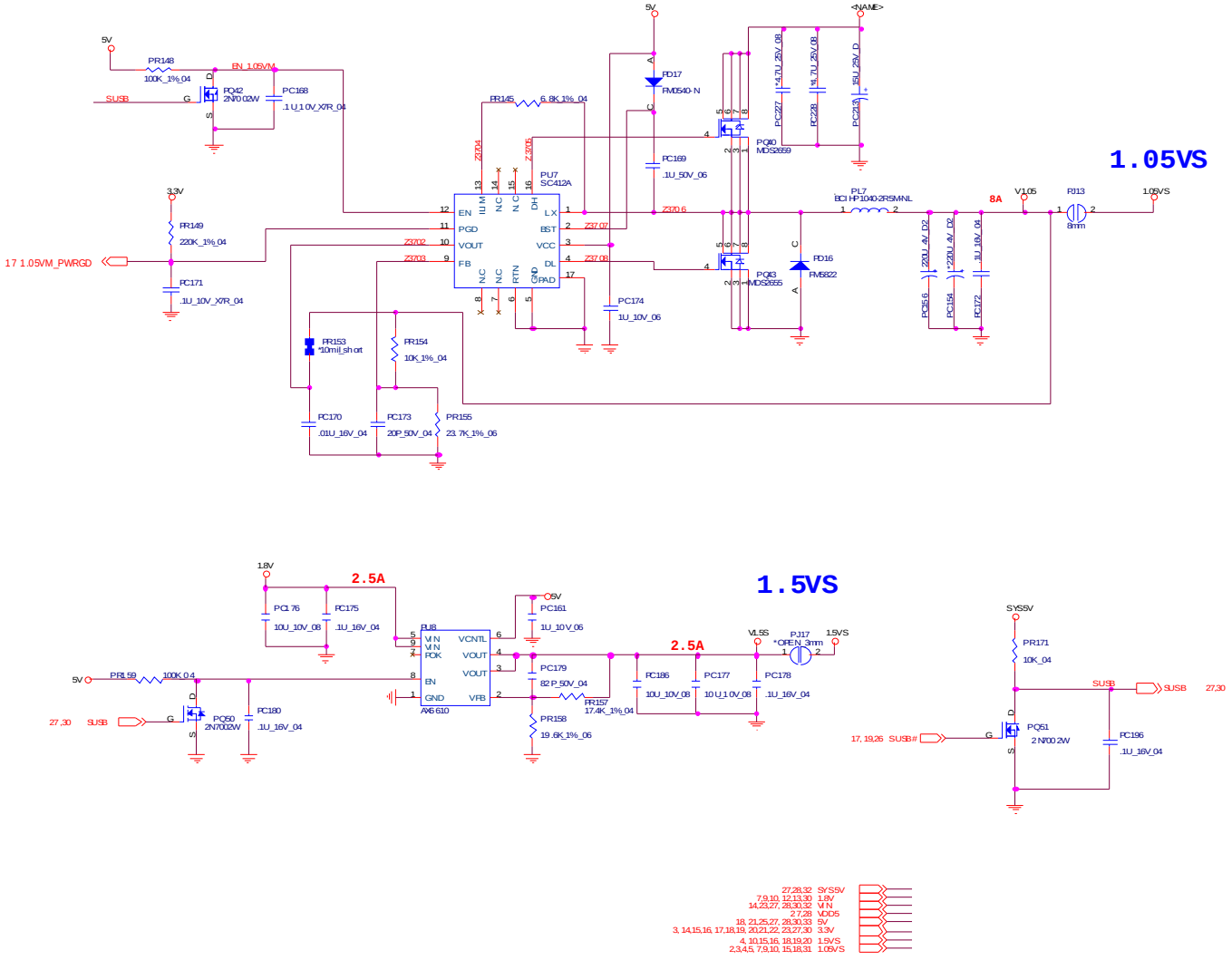
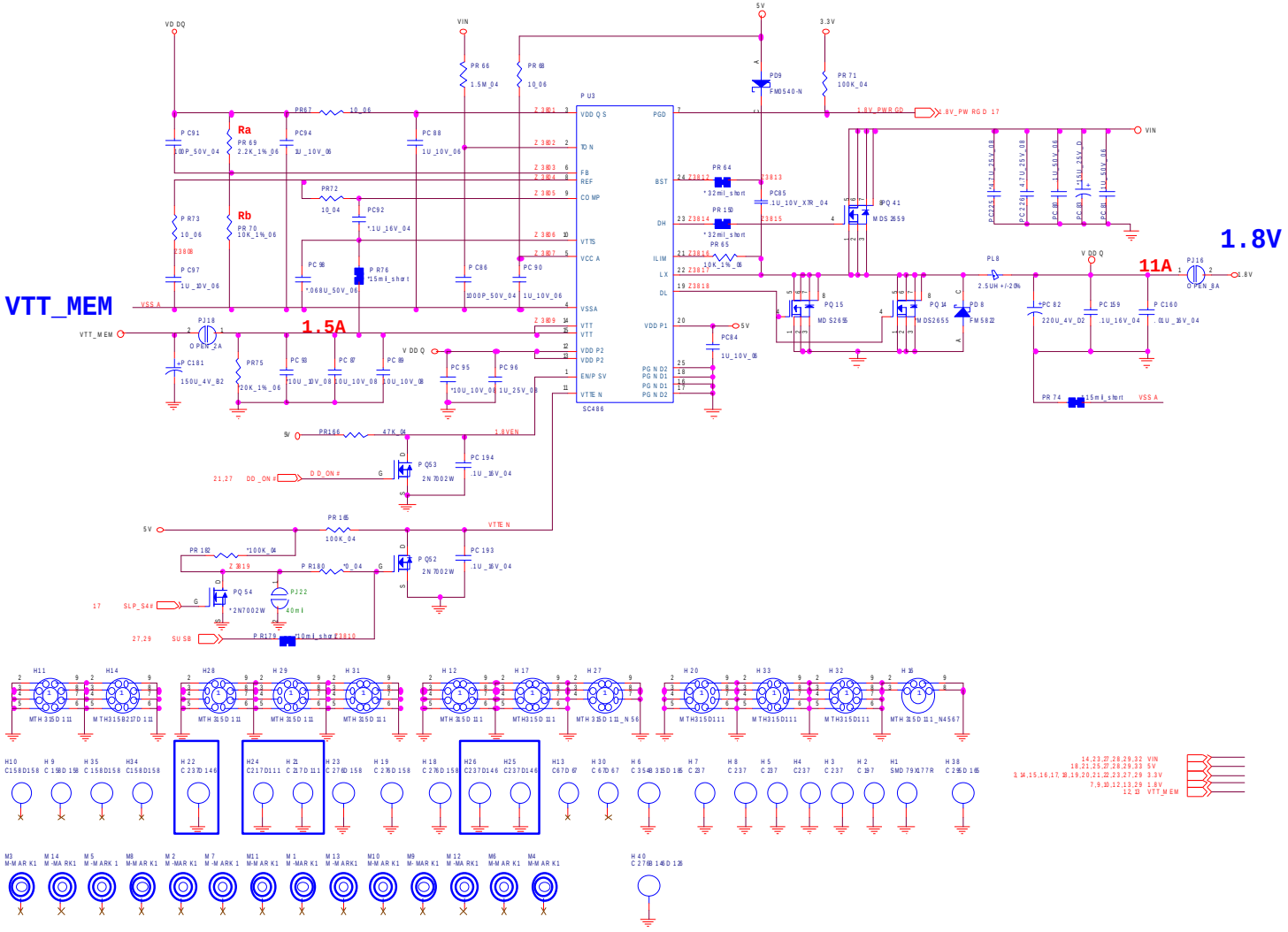
POWER 1.5VS/
1.05VS



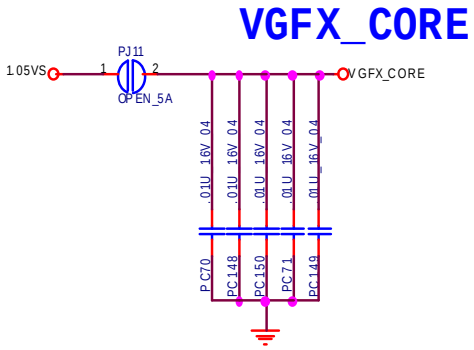
POWER 1.8V/0.9V



Sheet 30 of 42
POWER 1.8V/0.9V

B.Schematic Diagrams

POWER GPU/NVVDD

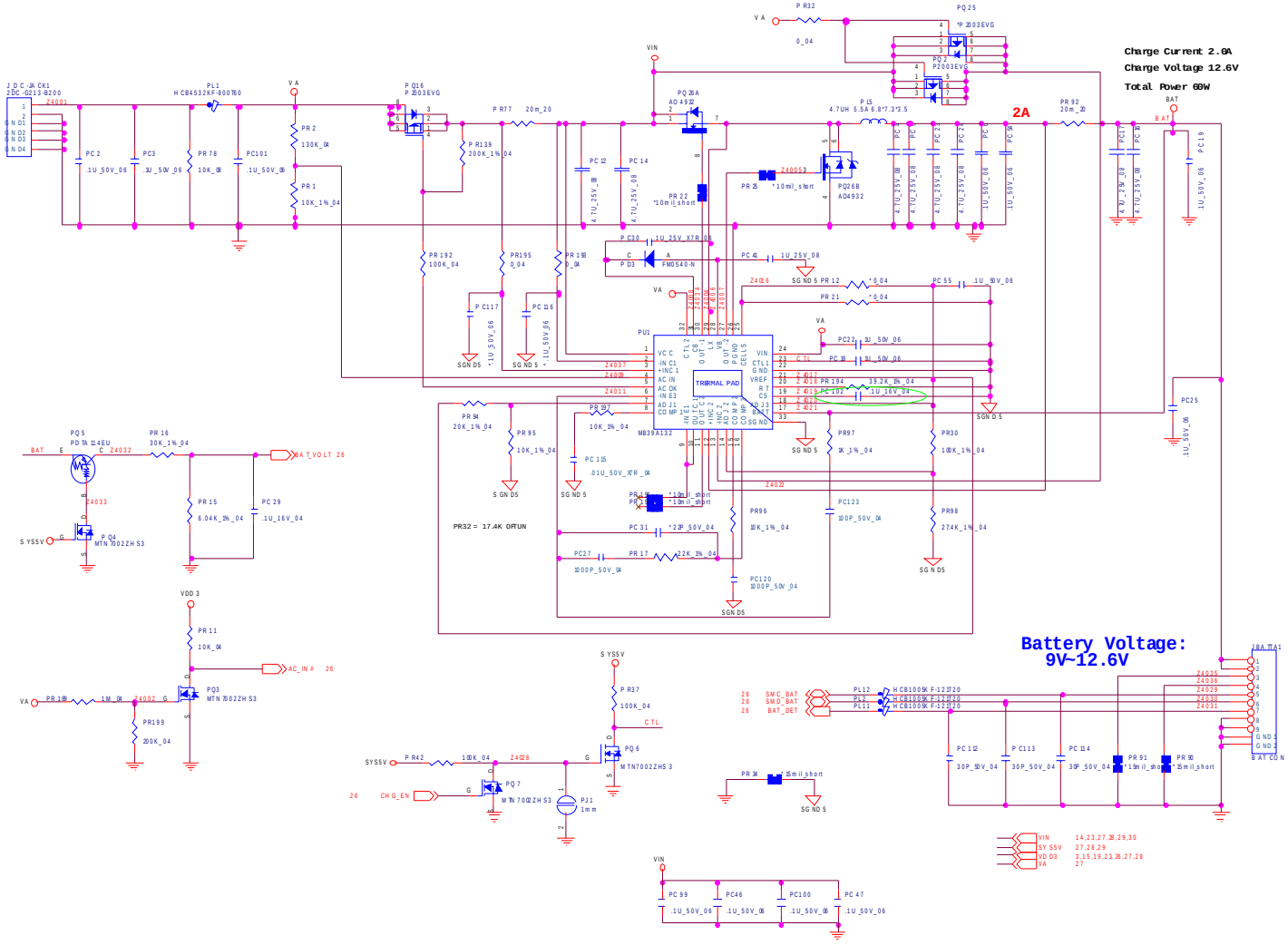


Sheet 31 of 42
POWER GPU/
NVVDD

2,3,4,5,7,9,10,15,18,29 1.05VS

9 VGFX_CORE

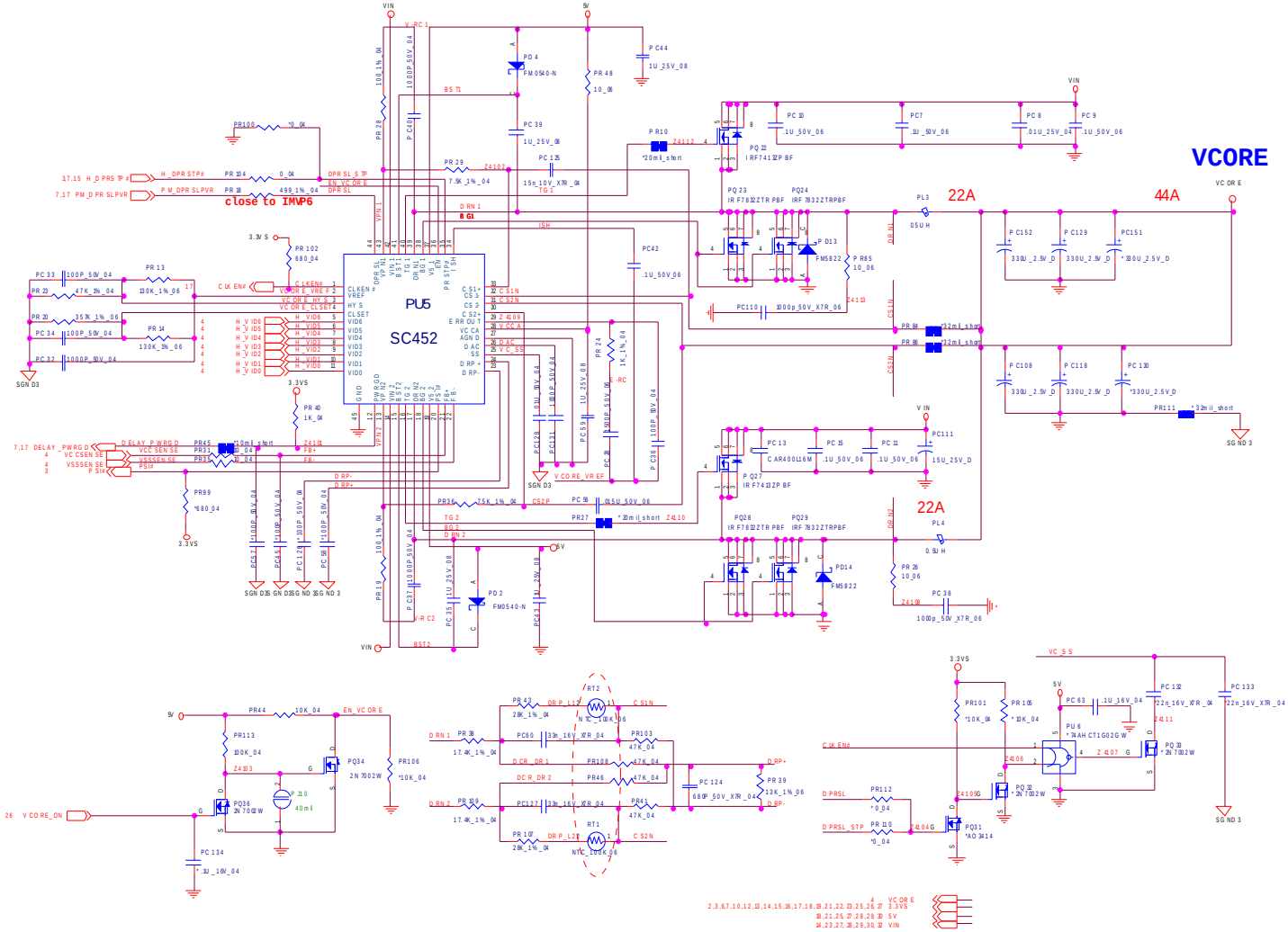
AC_IN, CHARGE



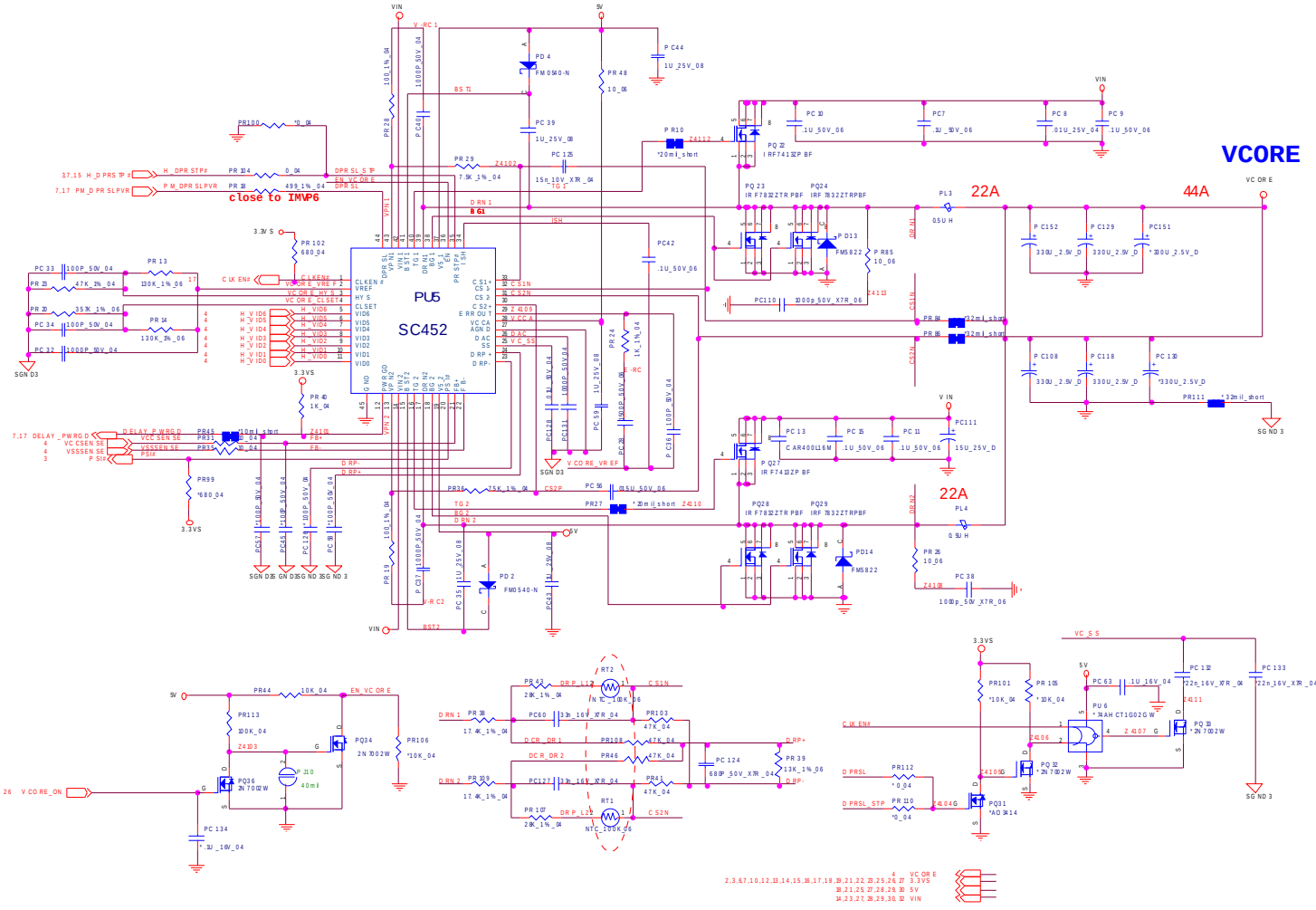
Sheet 32 of 42
AC_IN, CHARGE

VCORE

Sheet 33 of 42
VCORE



ODD BOARD FOR M760T



Sheet 34 of 42
CLICK FINGER
BOARD FOR M77

B.Schematic Diagrams

CLICK FINGER BOARD FOR M77

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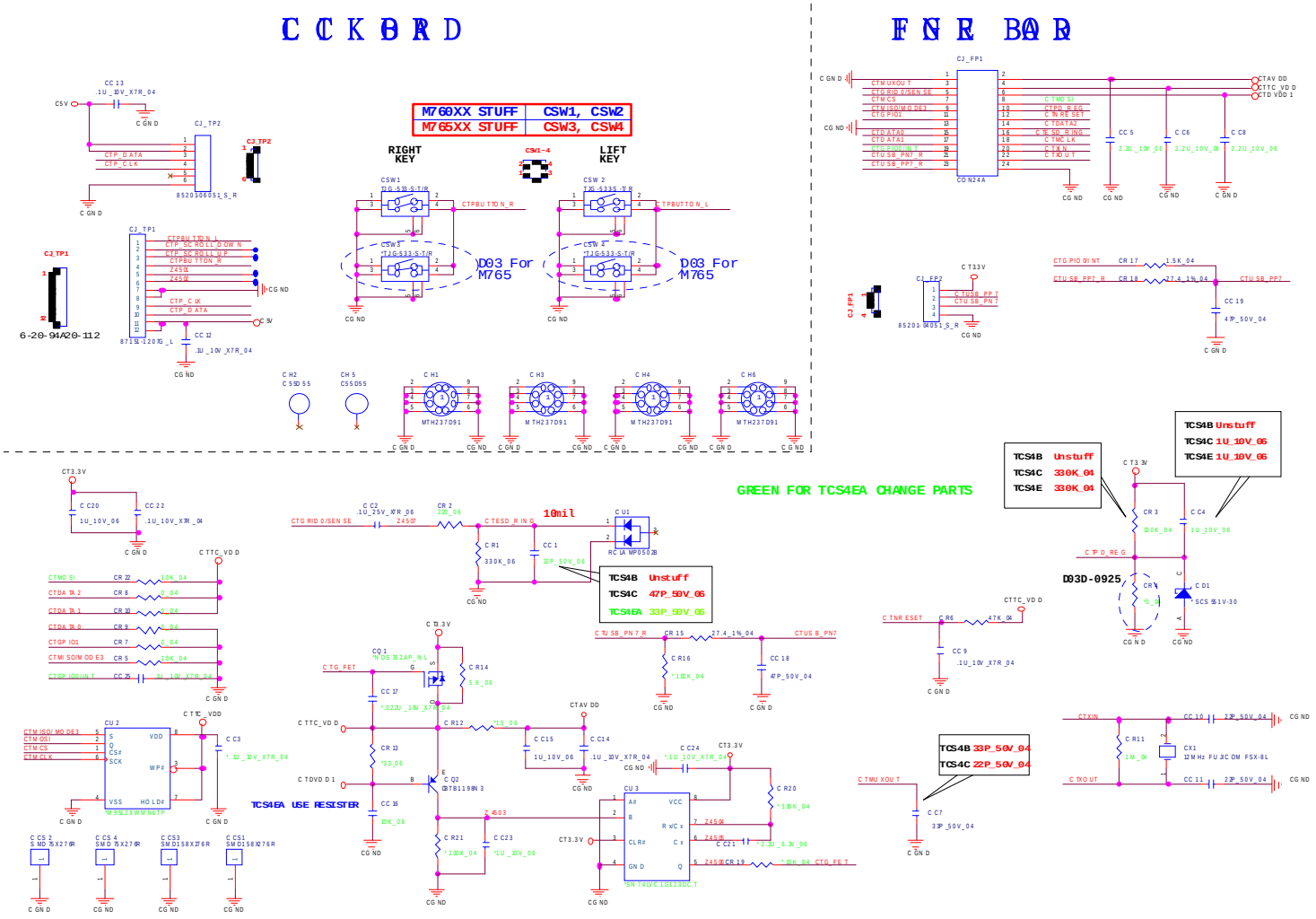
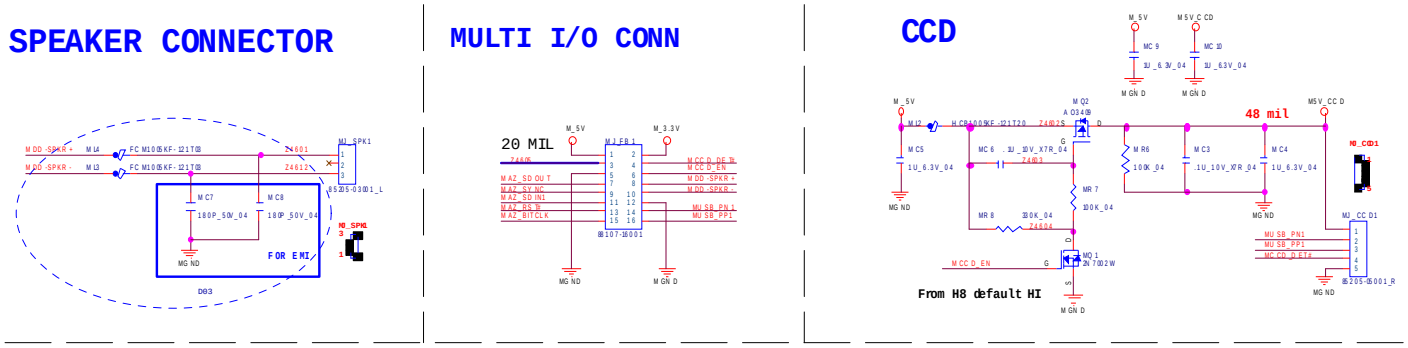
CLICK FINGER
BOARD FOR M77



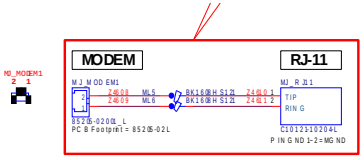
MULTI FUNCTION BOARD



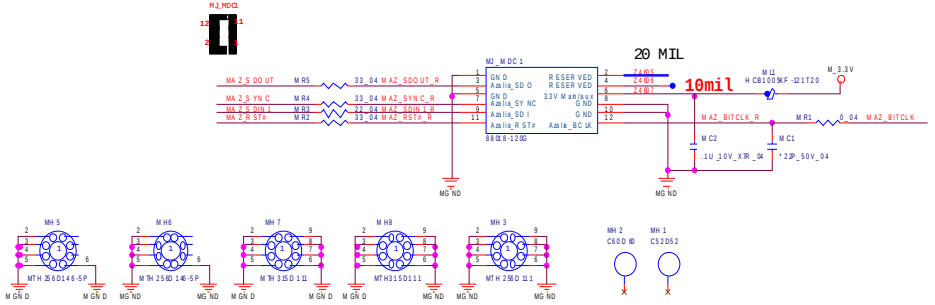
Sheet 36 of 42
MULTI FUNCTION BOARD

RJ-11

FAR AWAY ANOTHER PARTS >2.5mm



MDC MODULE

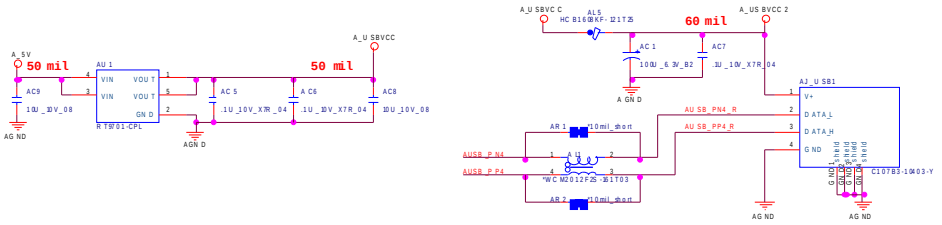


B.Schematic Diagrams

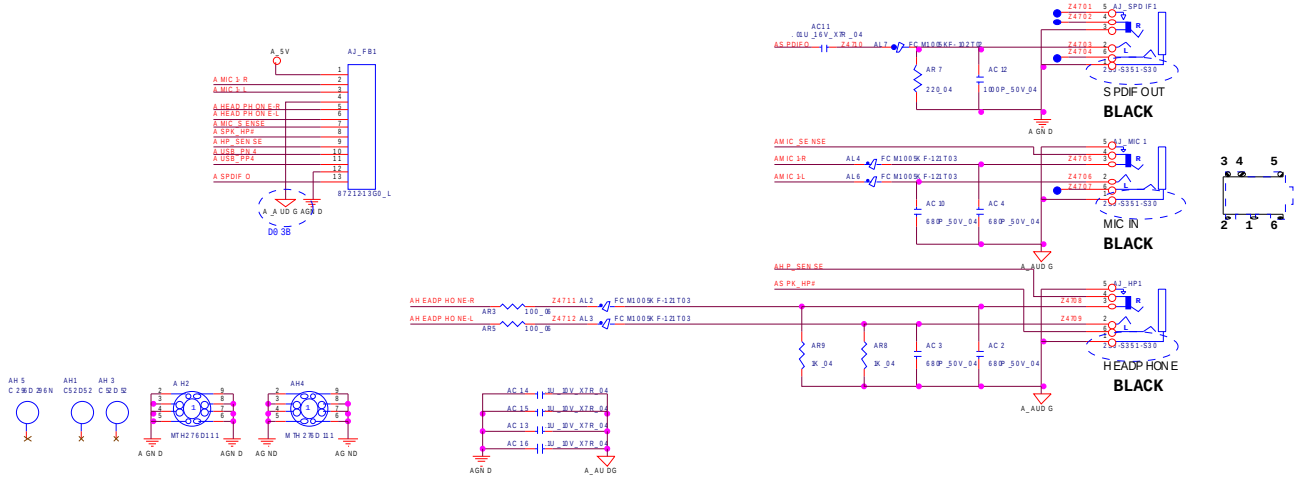
AUDIO BOARD

Sheet 37 of 42
AUDIO BOARD

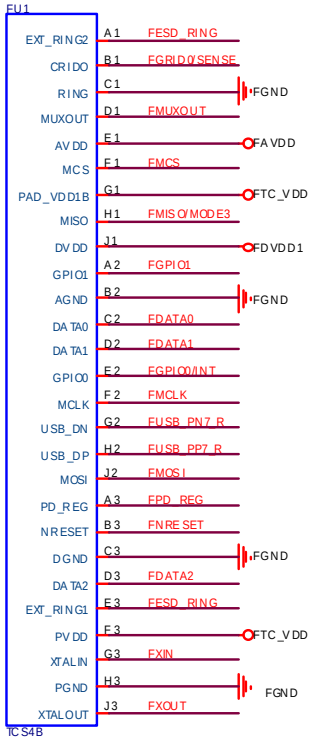
USB PORT

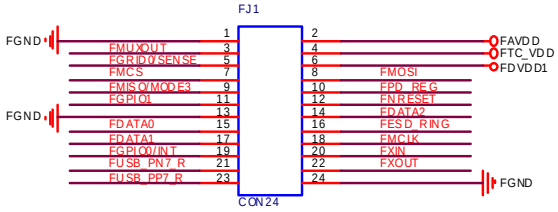


AUDIO JACK



POWER SWITCH BOARD FOR M76



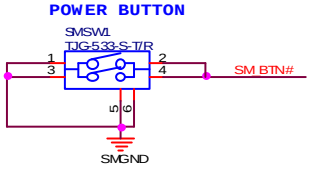


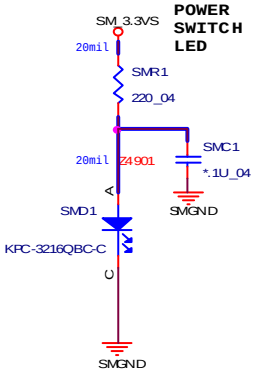
Sheet 38 of 42
POWER SWITCH BOARD FOR M76

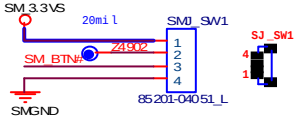
POWER SWITCH BOARD FOR M74

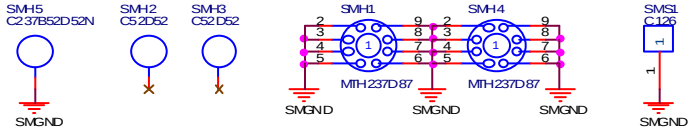
POWER SW & POWER LED FOR M74

Sheet 39 of 42
POWER SWITCH
BOARD FOR M74

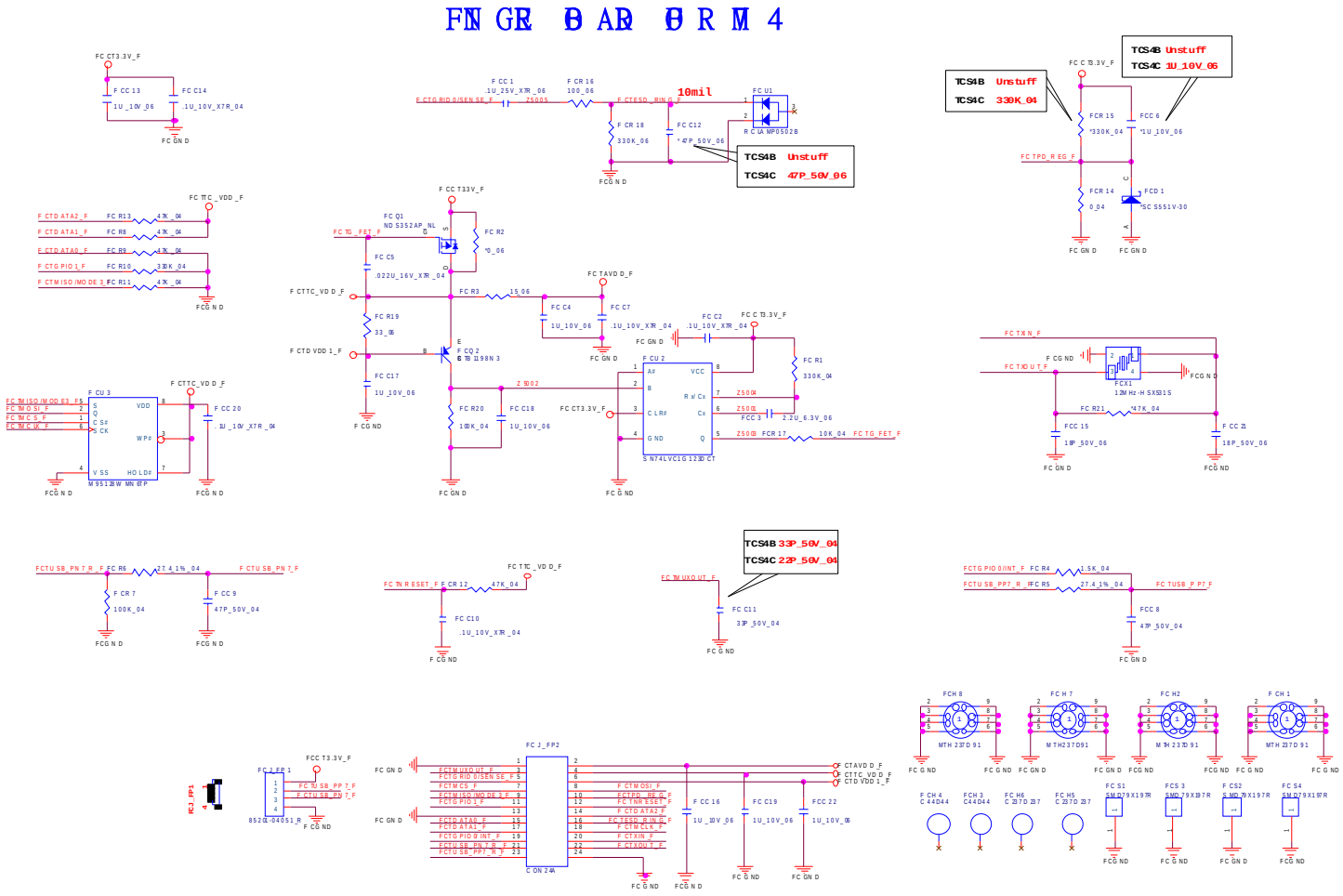








FINGER BOARD FOR M74



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FINGER BOARD
FOR M74

B.Schematic Diagrams

POWER SWITCH BOARD FOR M76

POWER SW & POWER LED FOR M76

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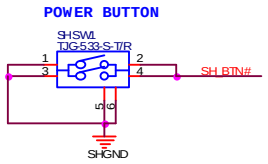
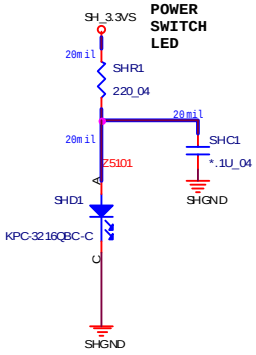
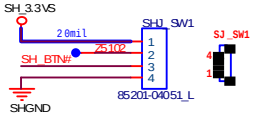
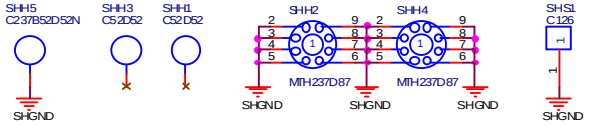
POWER SWITCH
BOARD FOR M76



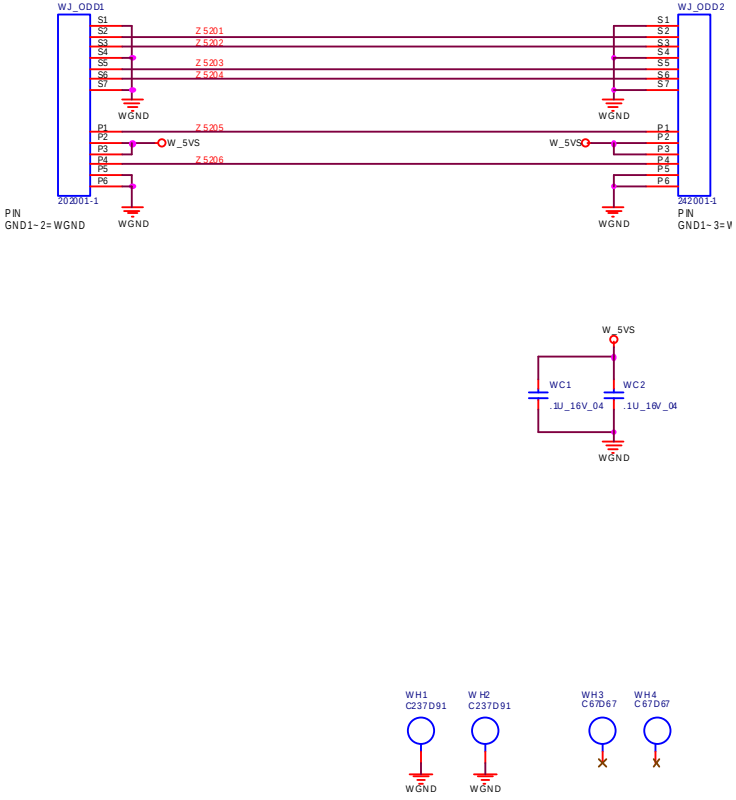






EXTERNAL ODD BOARD FOR W76

ODD BOARD FOR W76



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EXTERNAL ODD
BOARD FOR W76

B.Schematic Diagrams

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 **F10** 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).

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 "**Starting MS-DOS**". You will then be prompted to give "**Y**" or "**N**" responses to the programs being loaded by DOS. Choose "N" for any memory management programs.
2. You should now be at the DOS prompt e.g: DISK **C**:\> (C is the designated drive letter for the CD/DVD drive/USB flash drive).
3. **Type the following command** at the DOS prompt:

   C:\> XXX.bat

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 **F9**) and select "**Yes**" to confirm the selection.
5. Press **F10** 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.