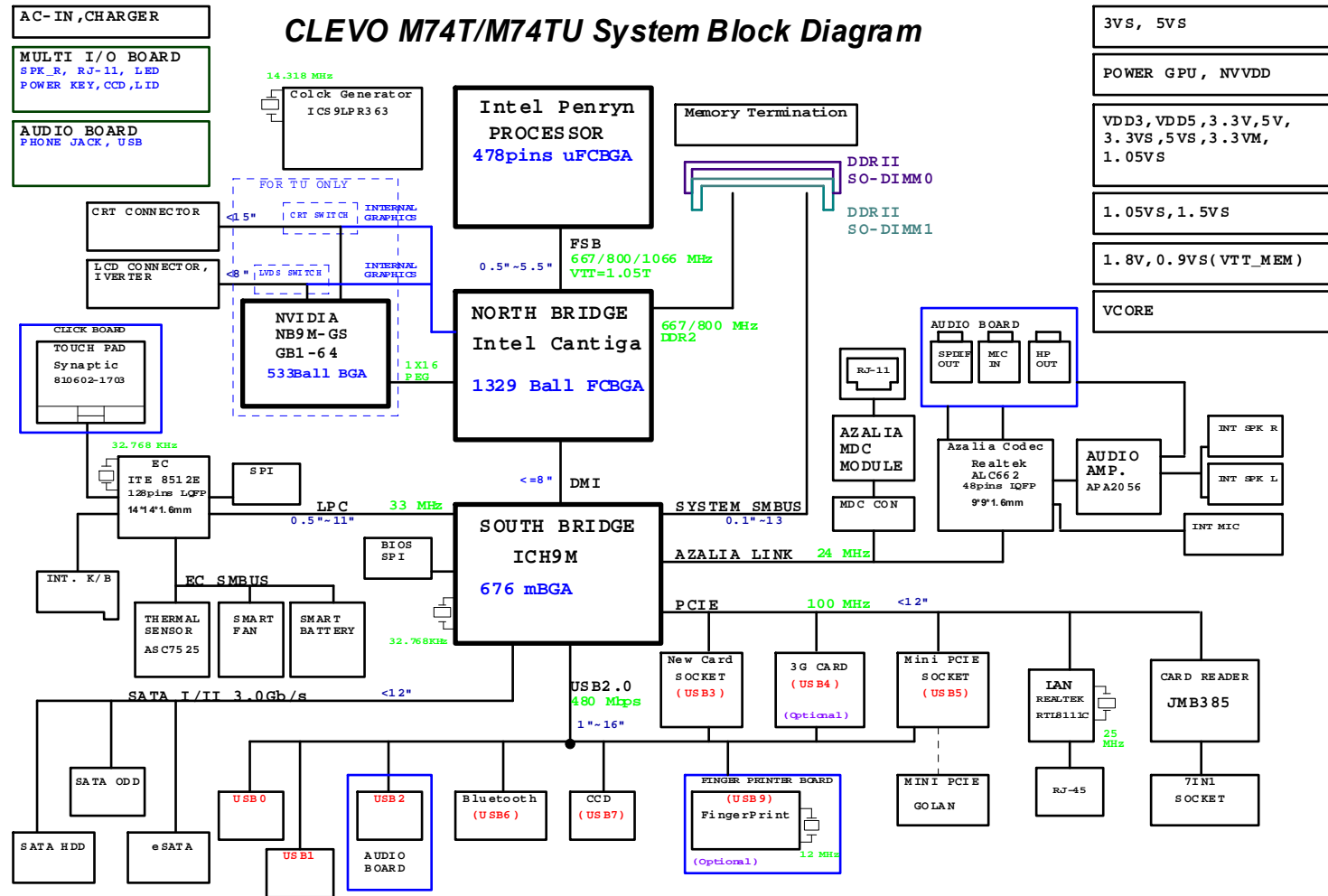
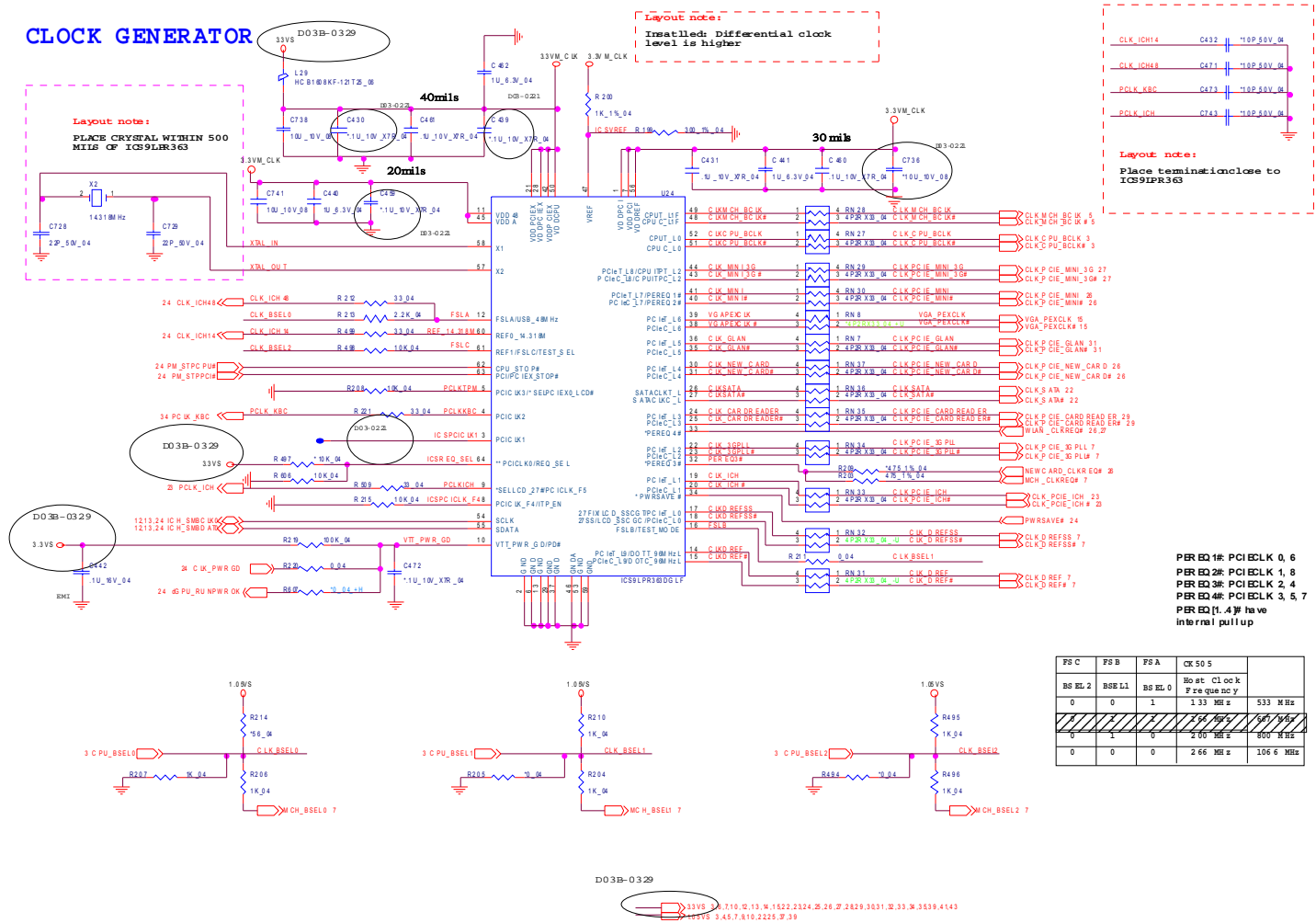


System Block Diagram

Sheet 1 of 51
System Block
Diagram



Clock Generator



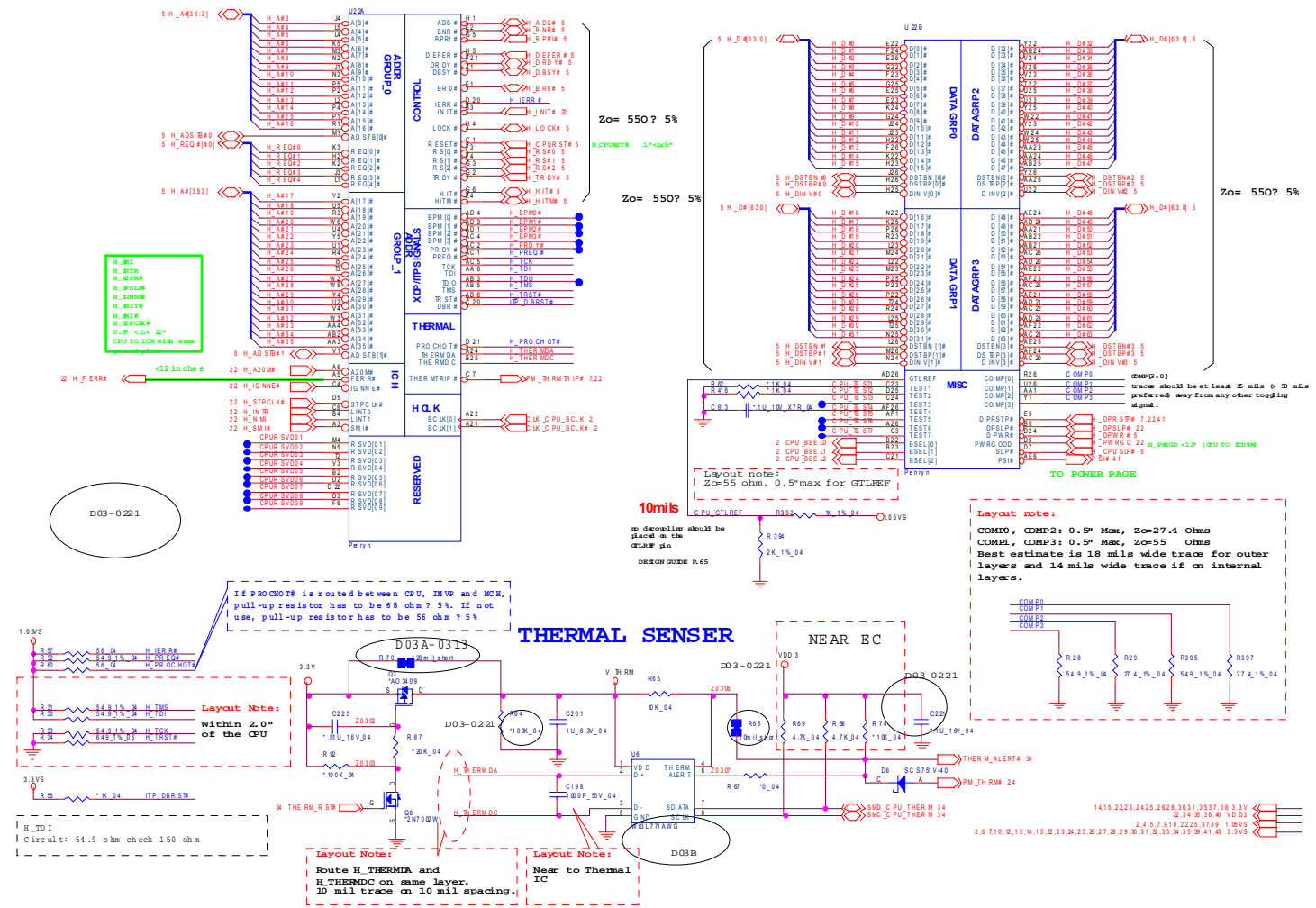
Sheet 2 of 51
Clock Generator

B.Schematic Diagrams

Schematic Diagrams

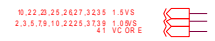
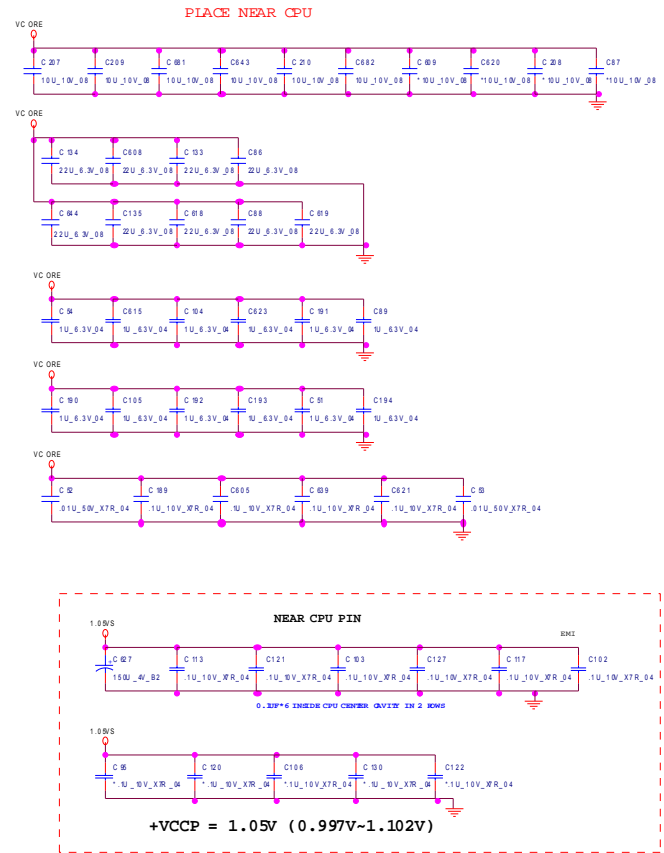
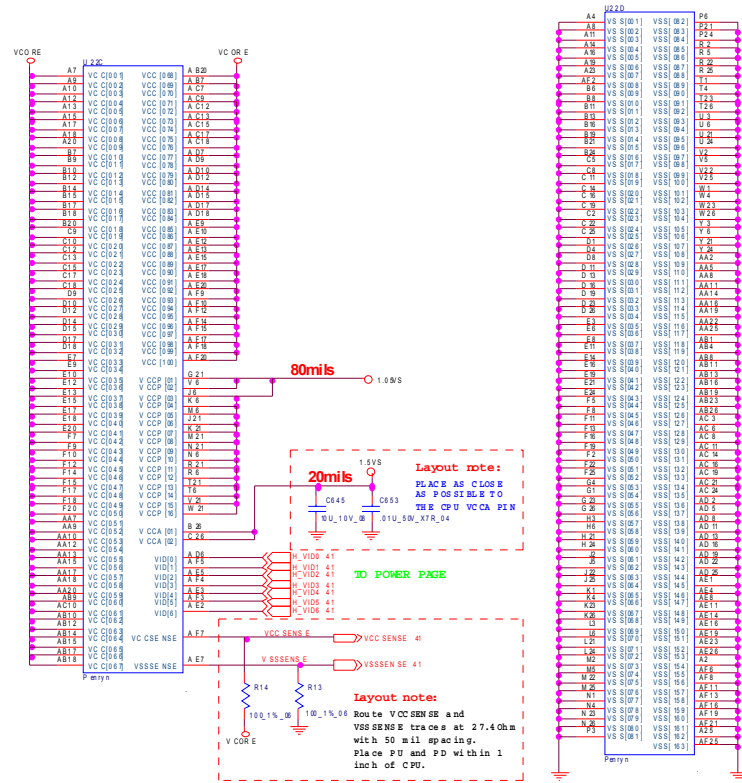
Penryn (Socket-P) CPU 1/2

Sheet 3 of 51
Penryn (Socket-P)
CPU 1/2



Penryn (Socket-P) CPU 2/2

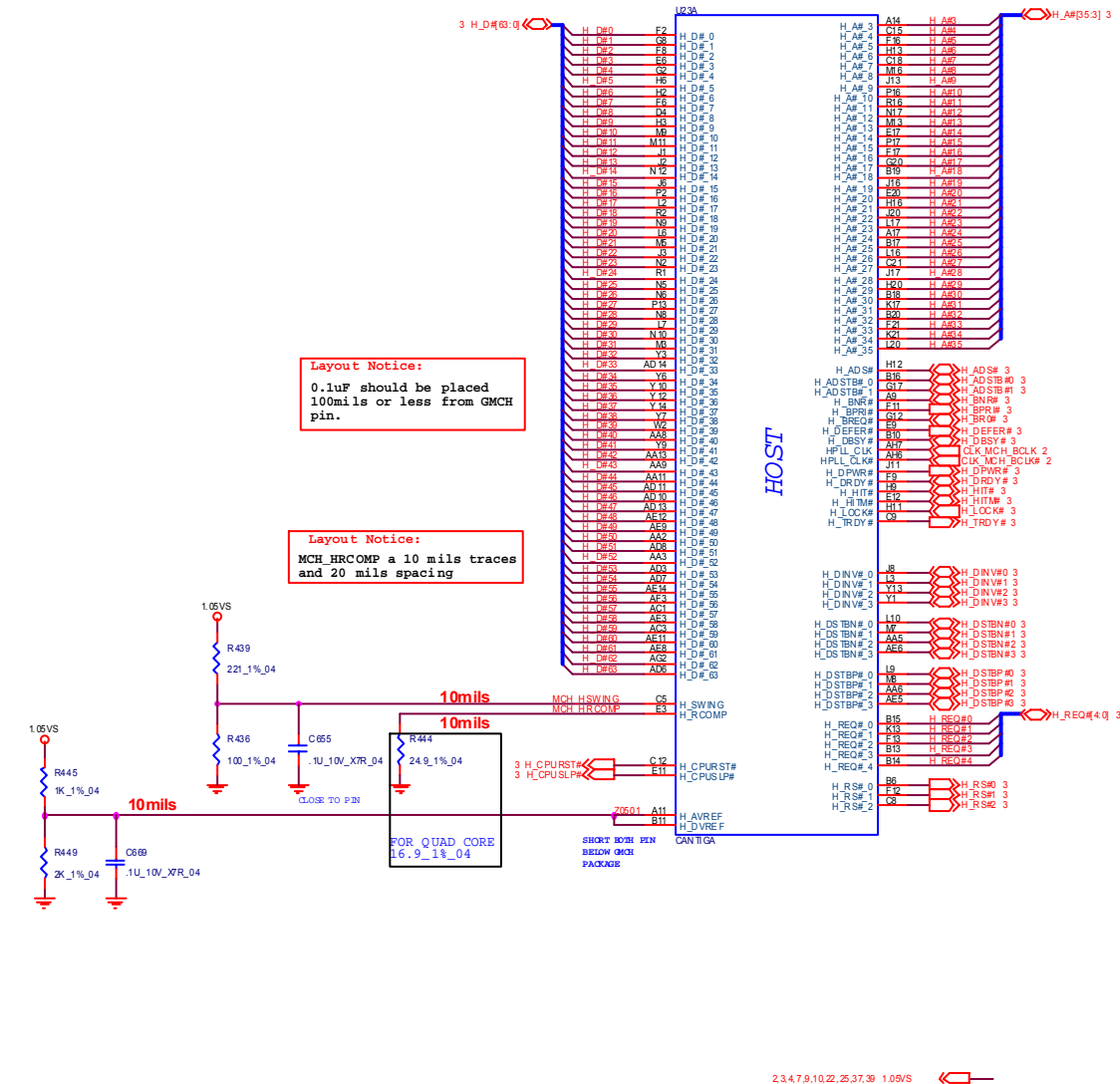
B.Schematic Diagrams



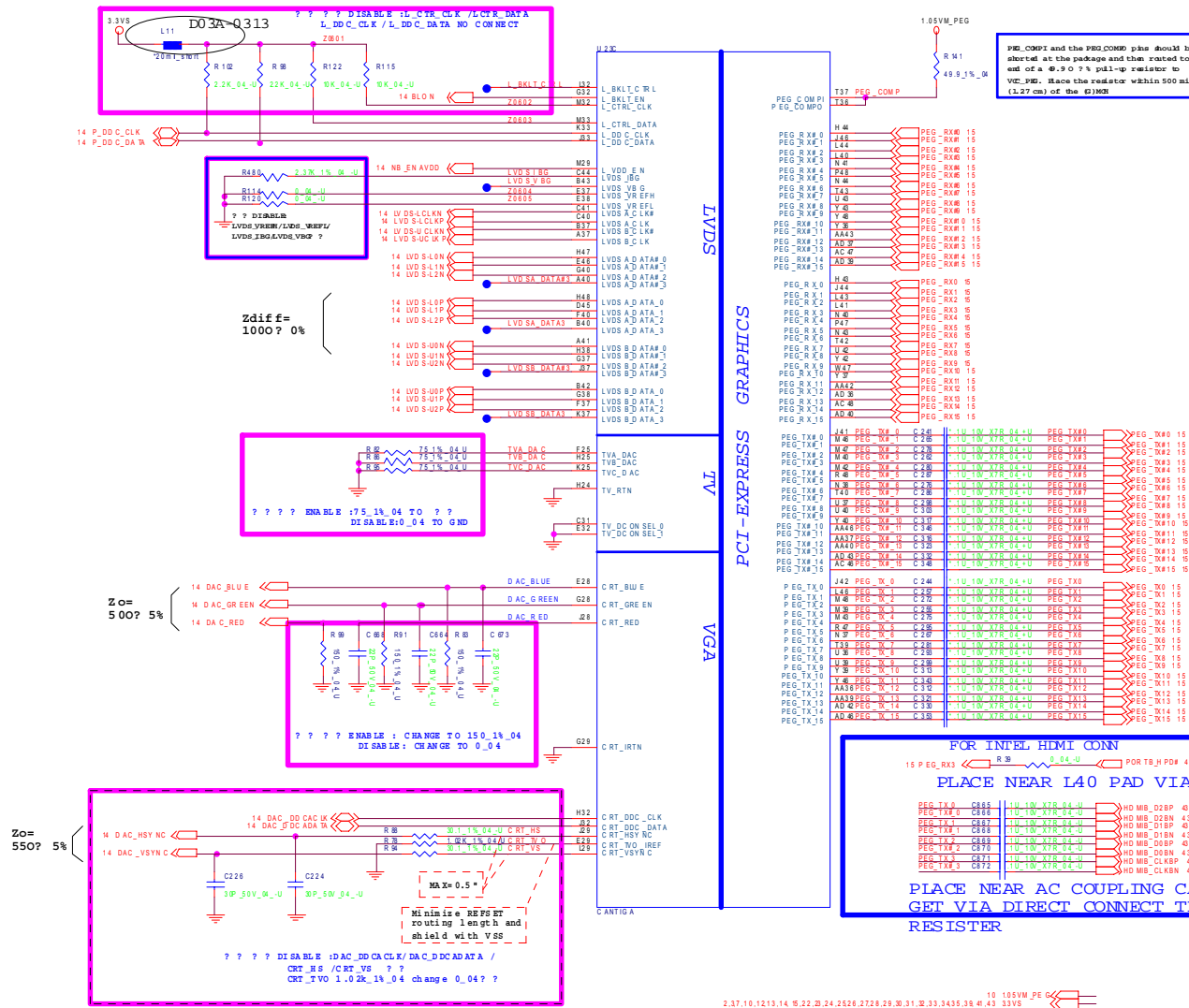
Sheet 4 of 51
Penryn (Socket-P)
CPU 2/2

CANTIGA 1/7, Host

Sheet 5 of 51
CANTIGA 1/7, Host



CANTIGA 2/7, Graphics



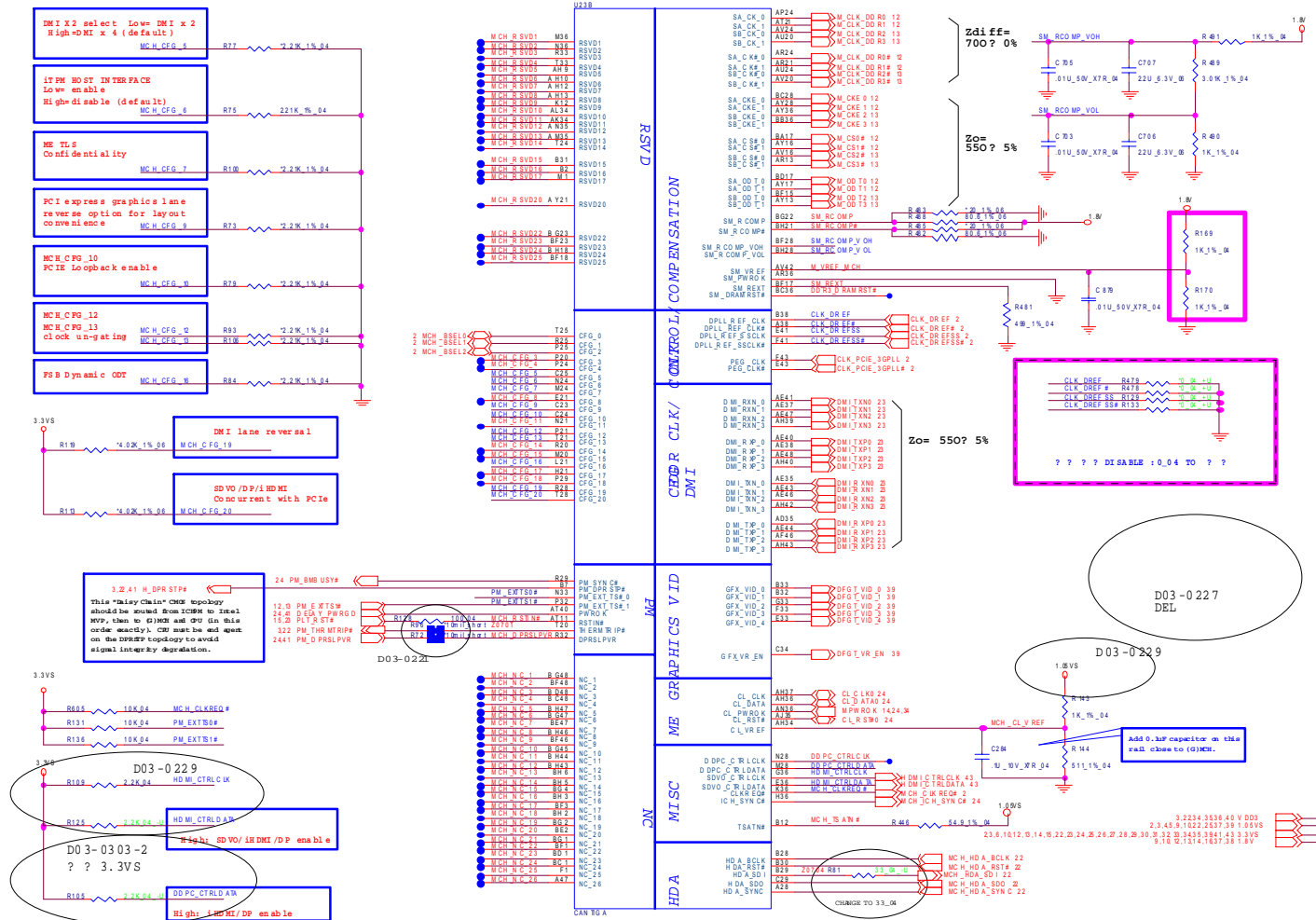
PEG_C0M0 and the PEG_C0M0 pins should be placed at the package and then routed to one end of a 49.9 ohm 1% pull-up resistor to VCC_PEG. Place the resistor within 500 mils (1.27 cm) of the package.

Sheet 6 of 51
CANTIGA 2/7,
Graphics

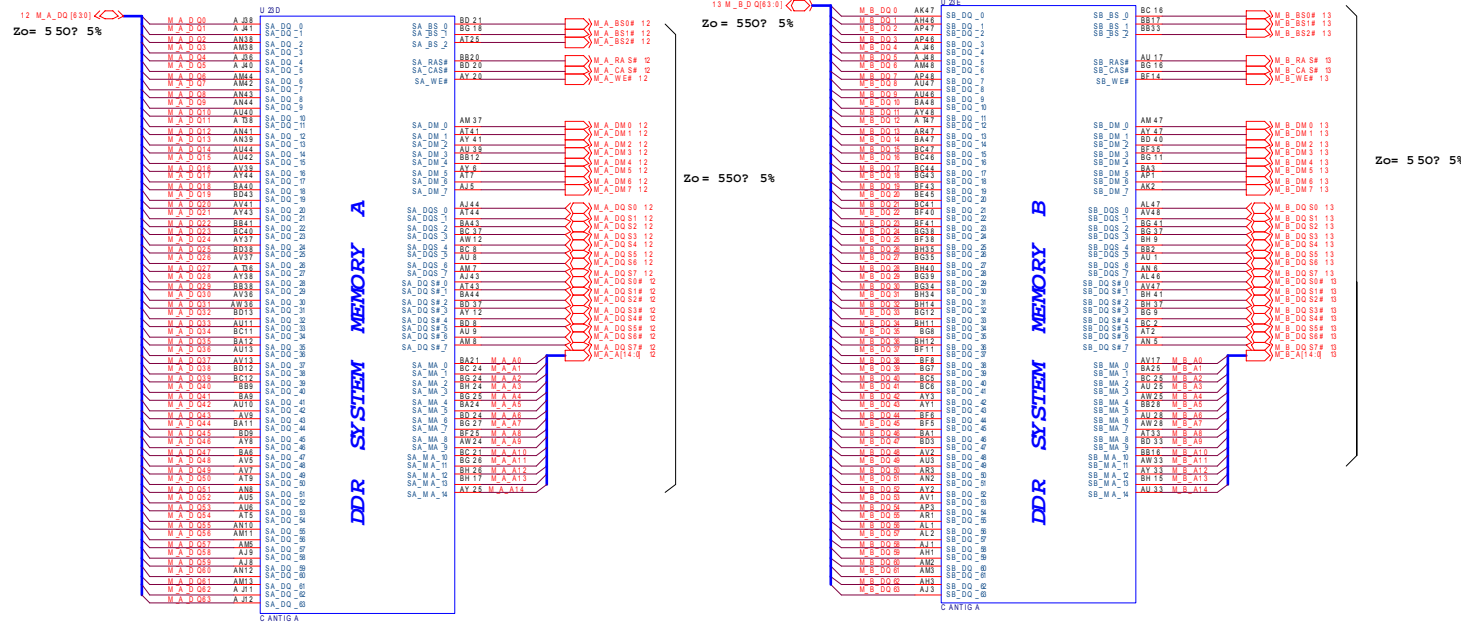
B.Schematic Diagrams

CANTIGA 3/7

Sheet 7 of 51
CANTIGA 3/7



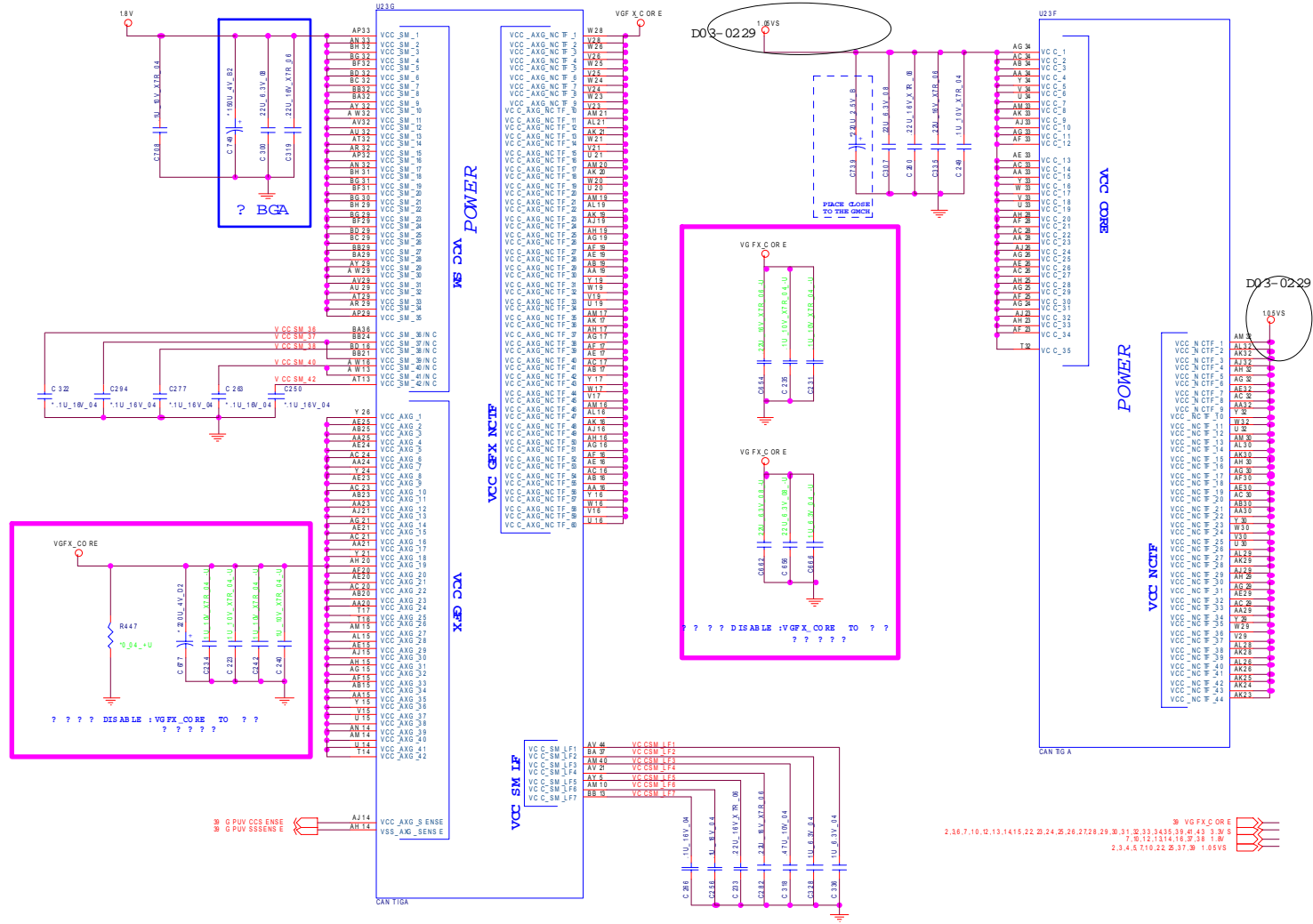
CANTIGA 4/7



Sheet 8 of 51
CANTIGA 4/7

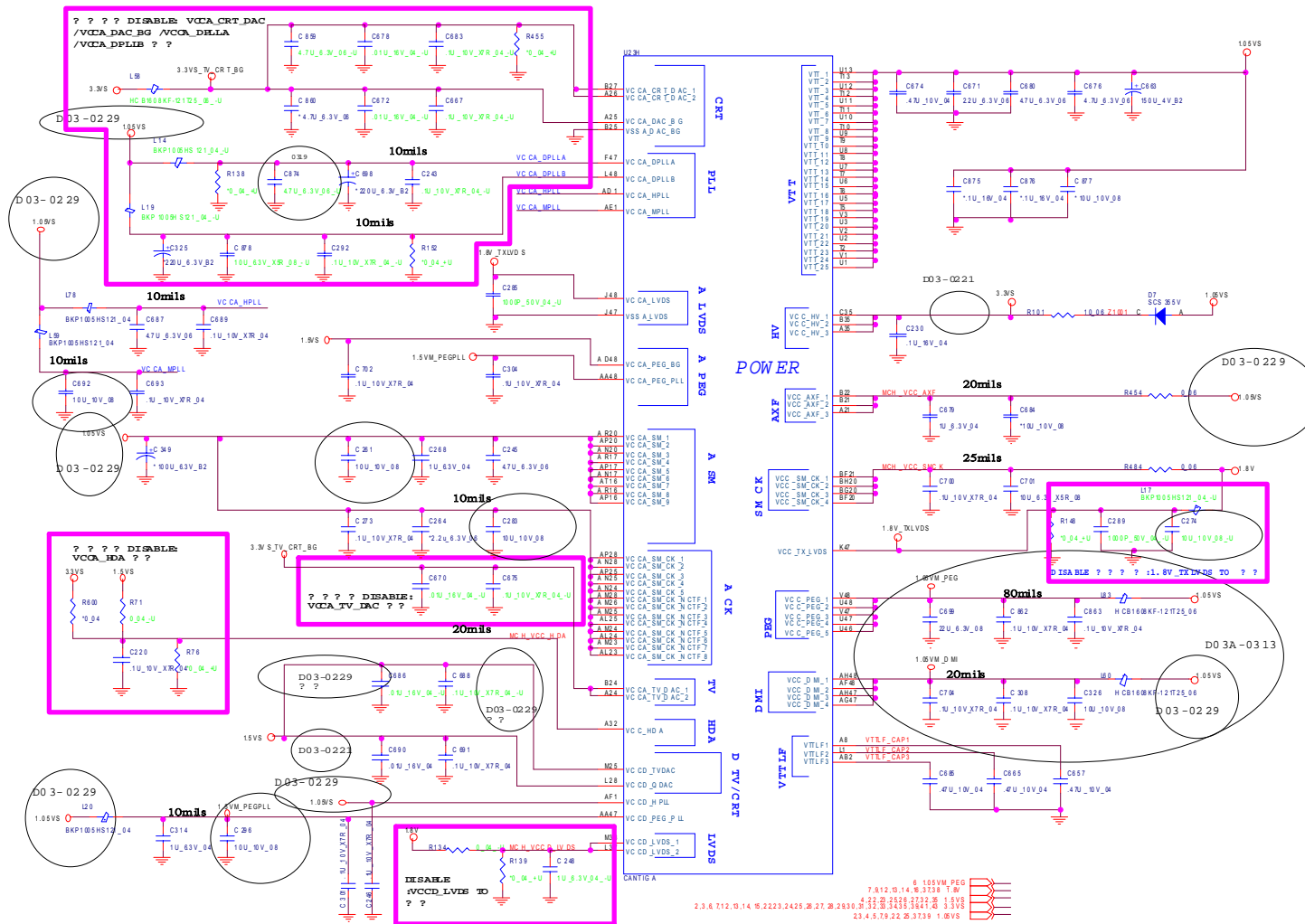
B.Schematic Diagrams

CANTIGA 5/7



CANTIGA 6/7

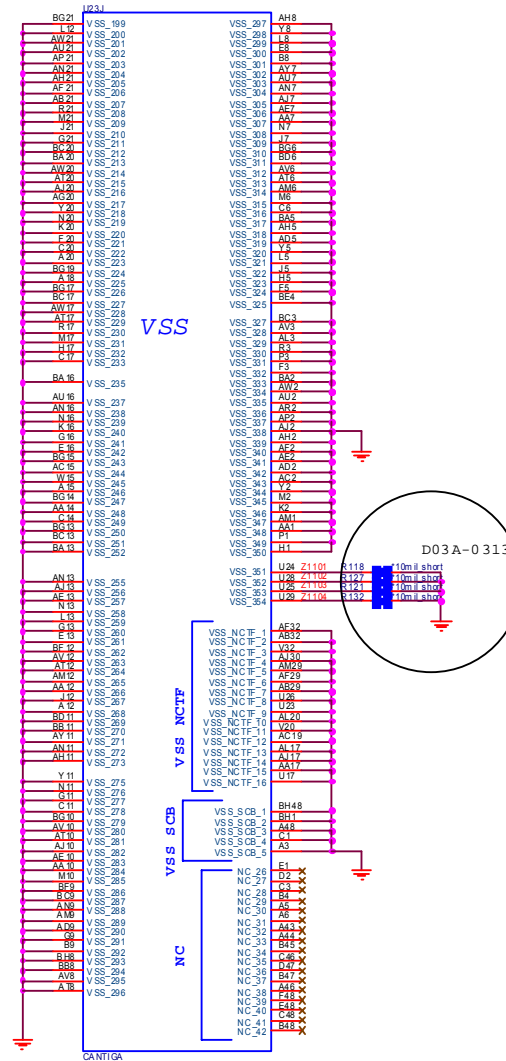
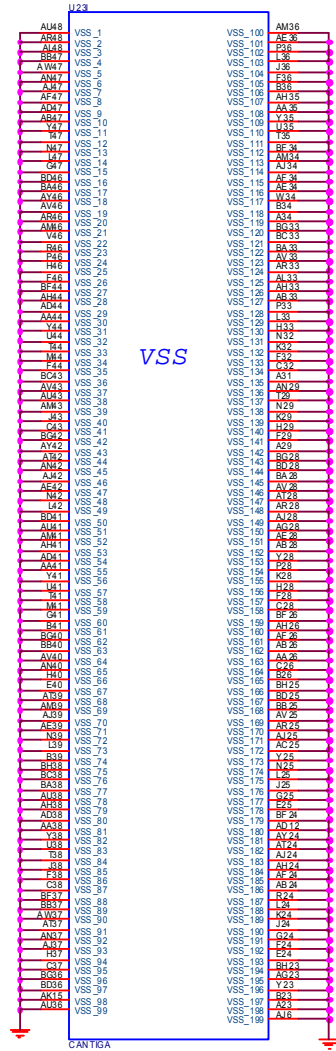
Sheet 10 of 51
CANTIGA 6/7



Schematic Diagrams

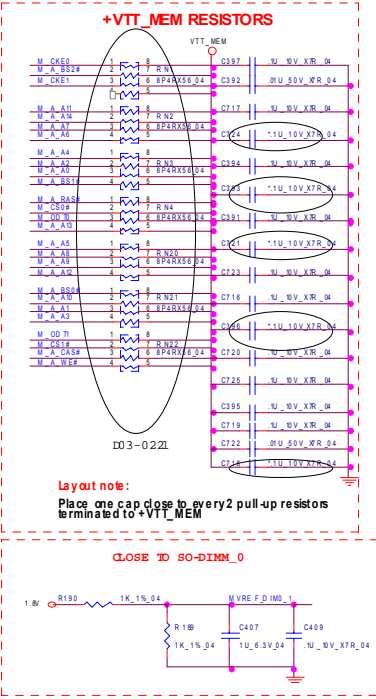
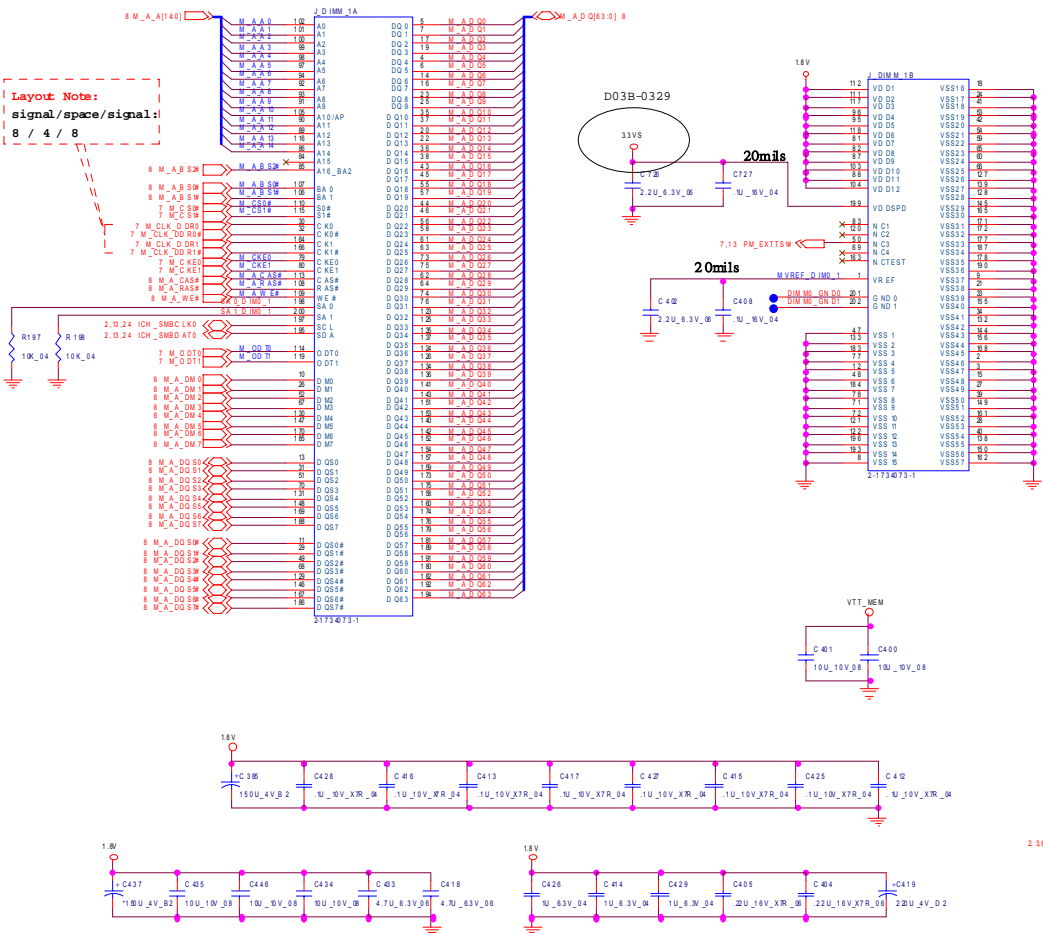
CANTIGA 7/7

Sheet 11 of 51
CANTIGA 7/7



DDRII SO-DIMM - 0

SO-DIMM 0

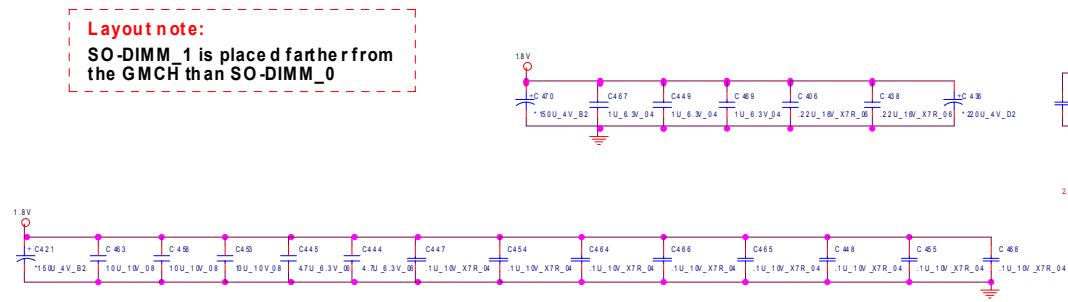
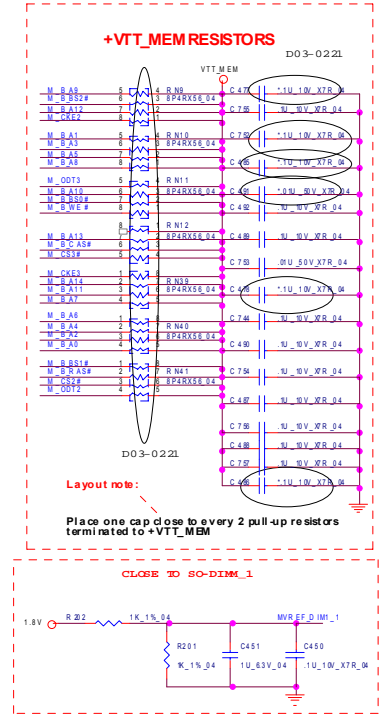
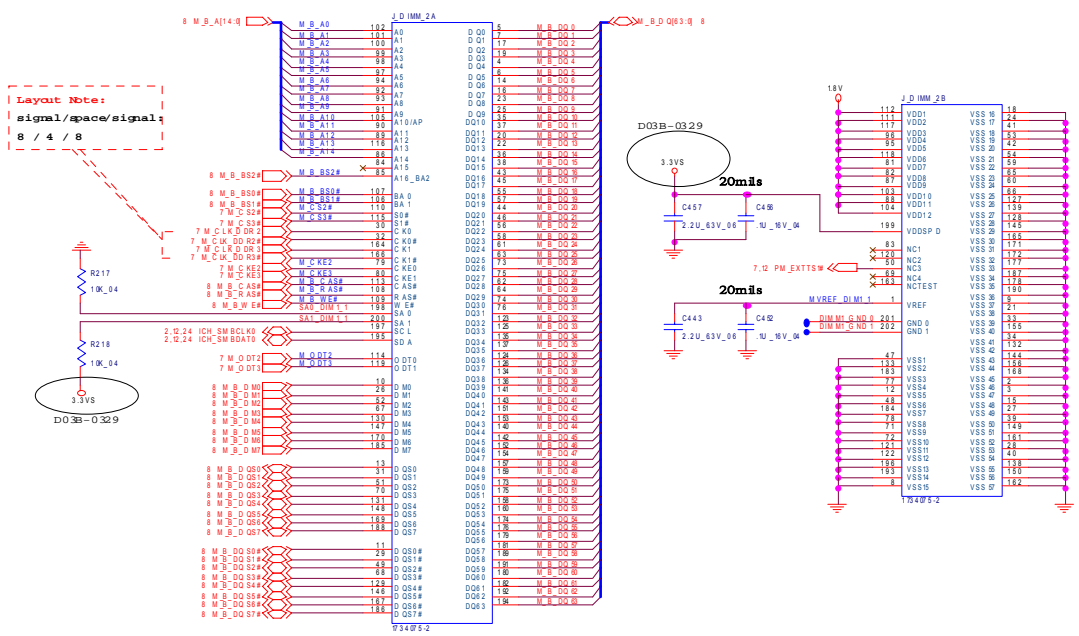


Sheet 12 of 51
DDRII SO-DIMM - 0

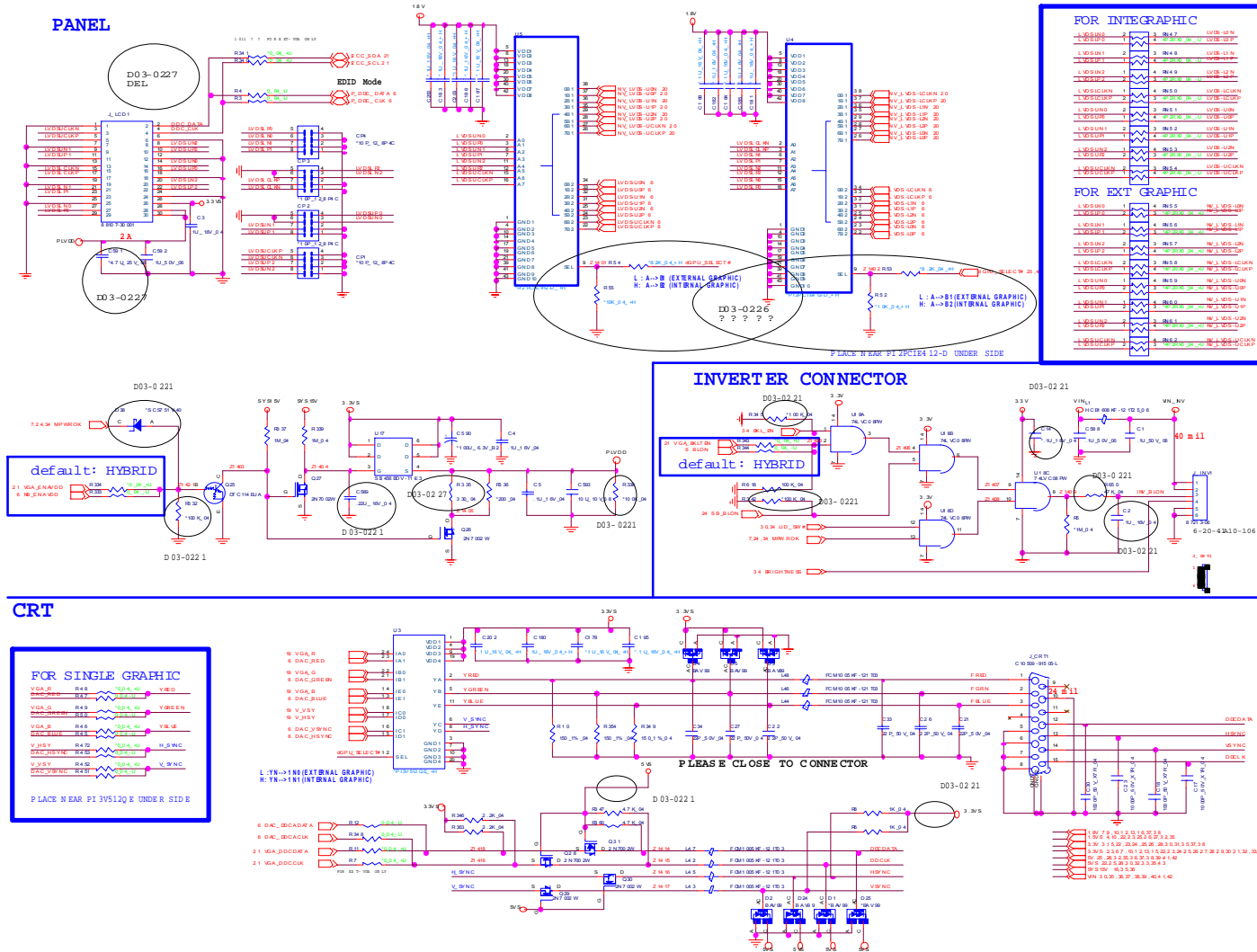
B.Schematic Diagrams

DDRII SO-DIMM - 1

SO-DIMM 1



Panel, Inverter, CRT

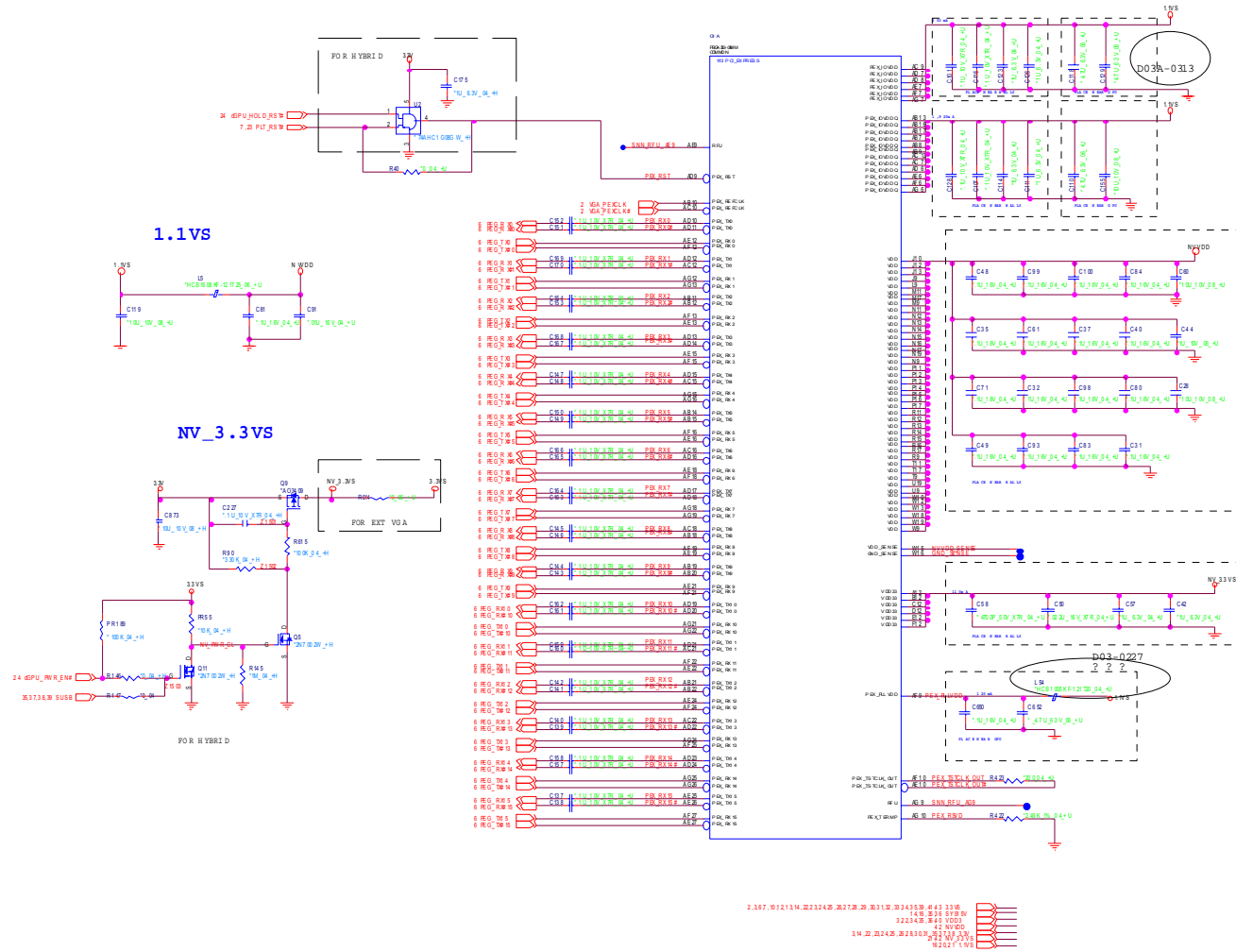


Sheet 14 of 51
Panel, Inverter,
CRT

B.Schematic Diagrams

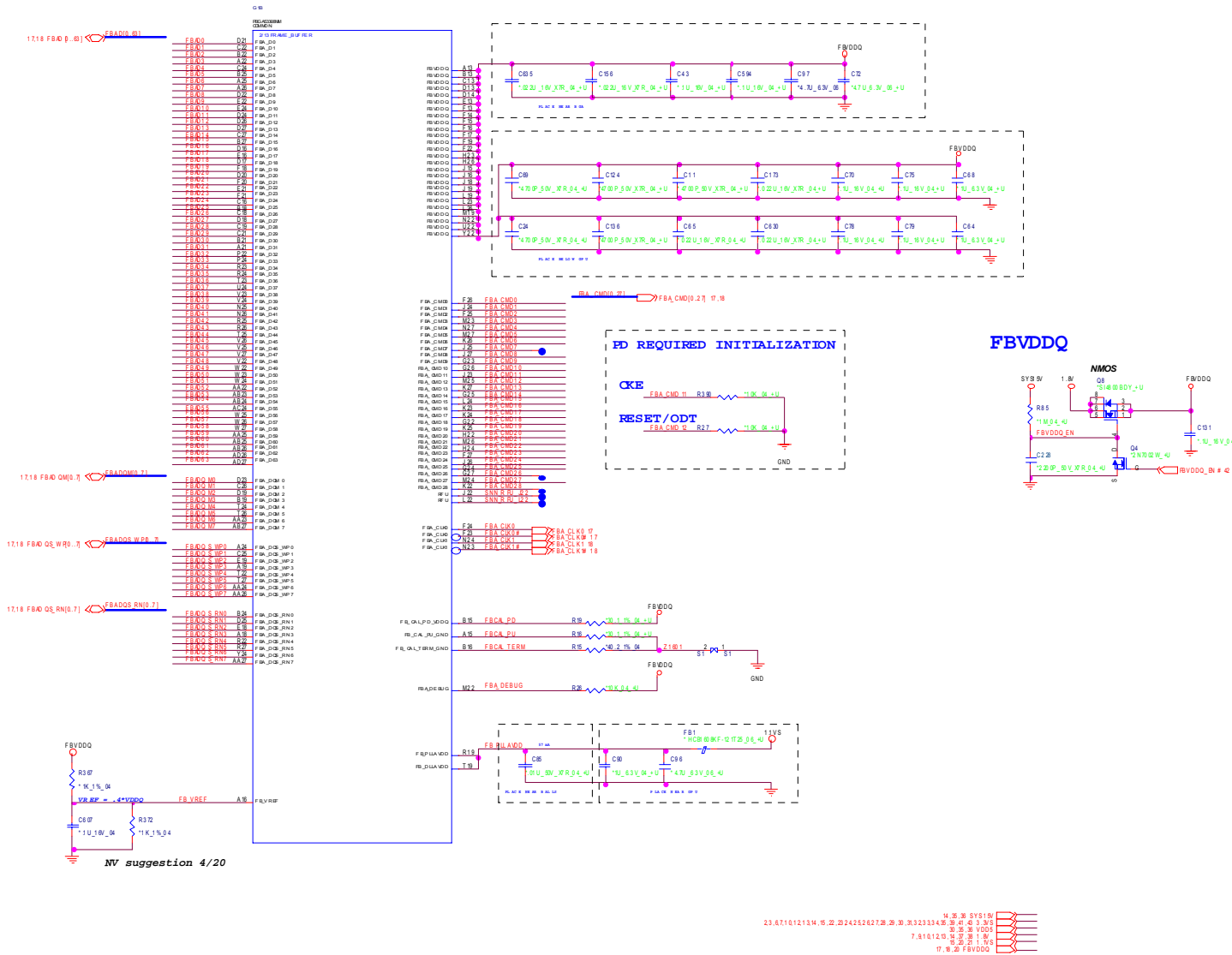
VGA NB9M-1

Sheet 15 of 51
VGA NB9M-1



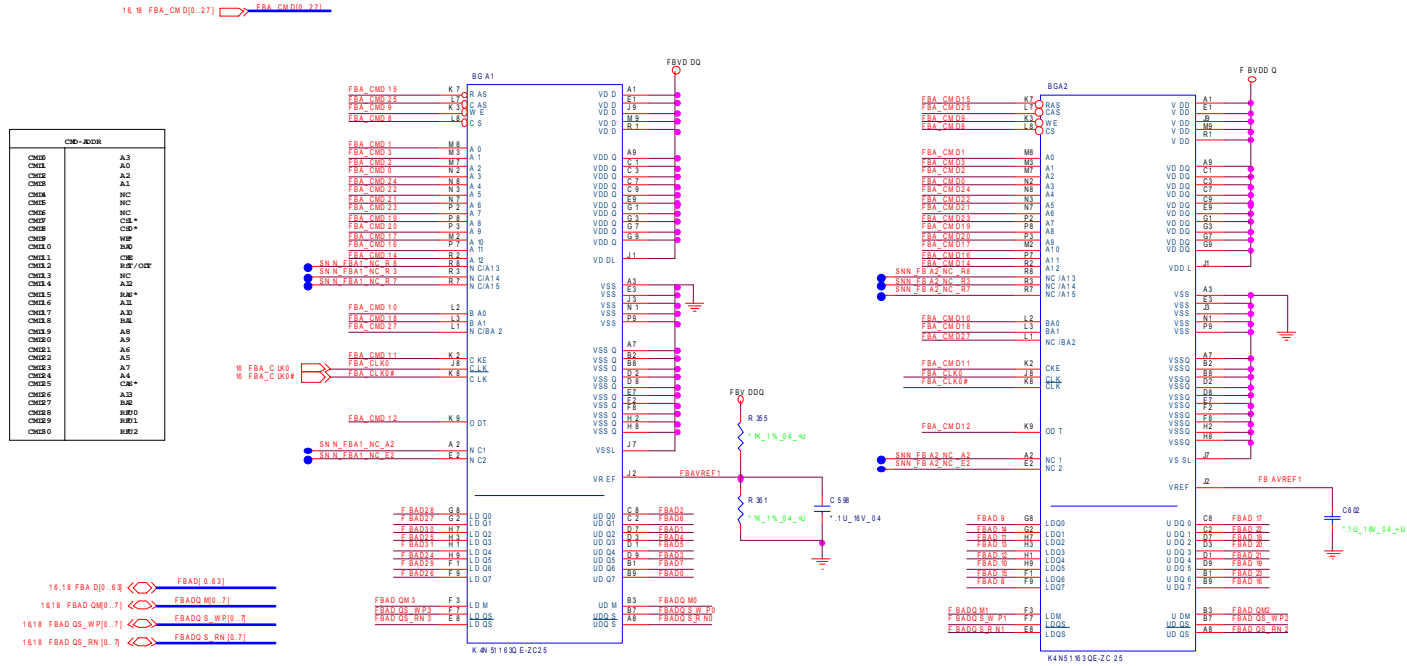
VGA NB9M-2

Sheet 16 of 51
VGA NB9M-2



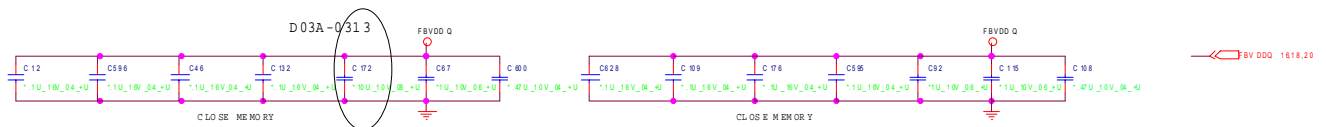
VGA NB9M-3

Sheet 17 of 51
VGA NB9M-3



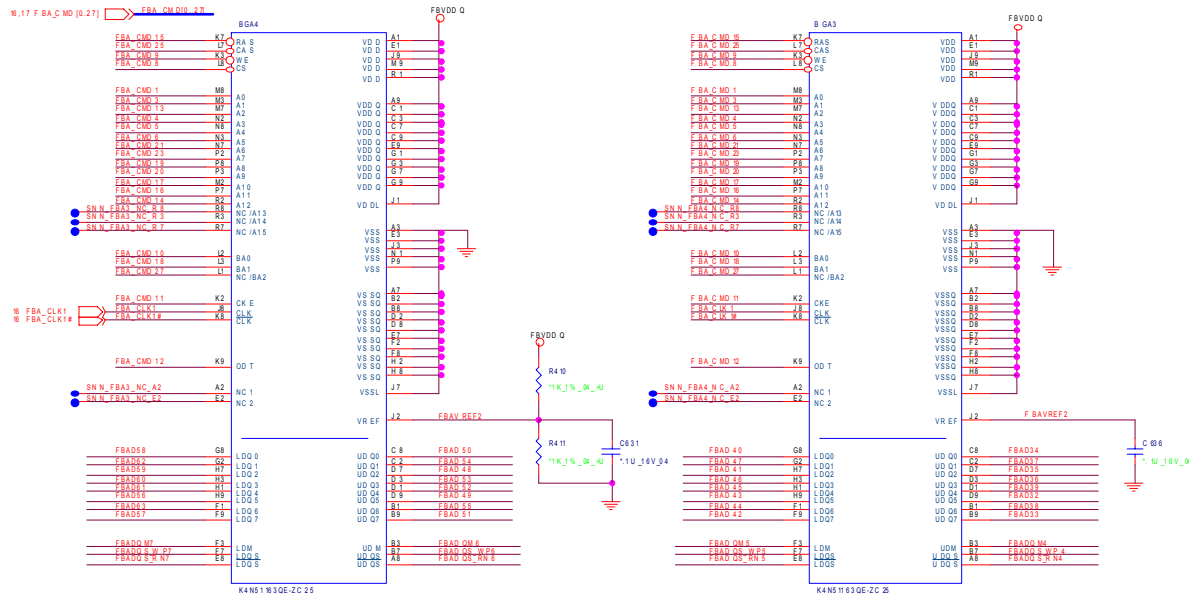
CMD-RXDR	
CM10	A3
CM11	A0
CM12	A2
CM13	A1
CM14	NC
CM15	NC
CM16	CA+
CM17	CM+
CM18	WR
CM19	RW
CM20	CS
CM21	R#
CM22	WE
CM23	OE
CM24	CE
CM25	OE
CM26	WE
CM27	OE
CM28	RW
CM29	RW
CM30	RW

- 1618 FBA_D0[0..63] <-> FBAD0[0..63]
- 1618 FBAD_QM0[..7] <-> FBAD0_QM0[..7]
- 1618 FBAD_QS_WP[0..7] <-> FBAD0_QS_WP[0..7]
- 1618 FBAD_QS_RN[0..7] <-> FBAD0_QS_RN[0..7]



VGA NB9M-4

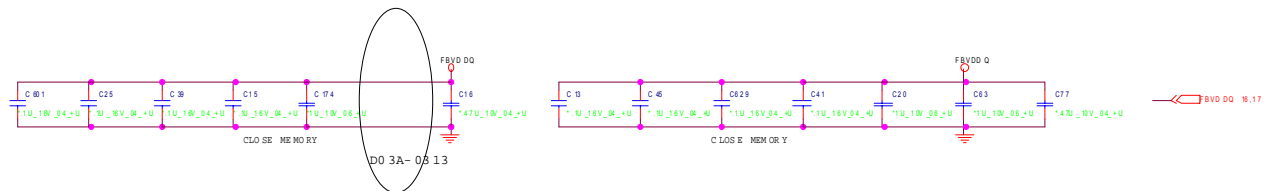
CMD	NC
CM0	NC
CM1	A0
CM2	NC
CM3	A1
CM4	A3
CM5	A4
CM6	A5
CM7	CS1*
CM8	CS0*
CM9	WE*
CM10	RA0
CM11	CS2*
CM12	WE*
CM13	A2
CM14	A12
CM15	RA0*
CM16	A13
CM17	A10
CM18	BA3
CM19	A8
CM20	A9
CM21	A6
CM22	NC
CM23	A7
CM24	NC
CM25	CS0*
CM26	A13
CM27	BA2
CM28	RF00
CM29	RF01
CM30	RF02



Sheet 18 of 51
VGA NB9M-4

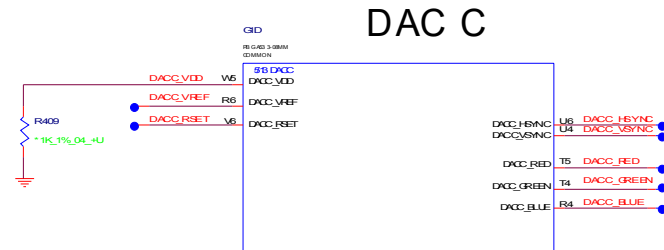
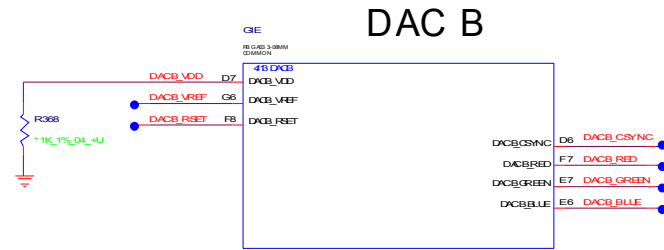
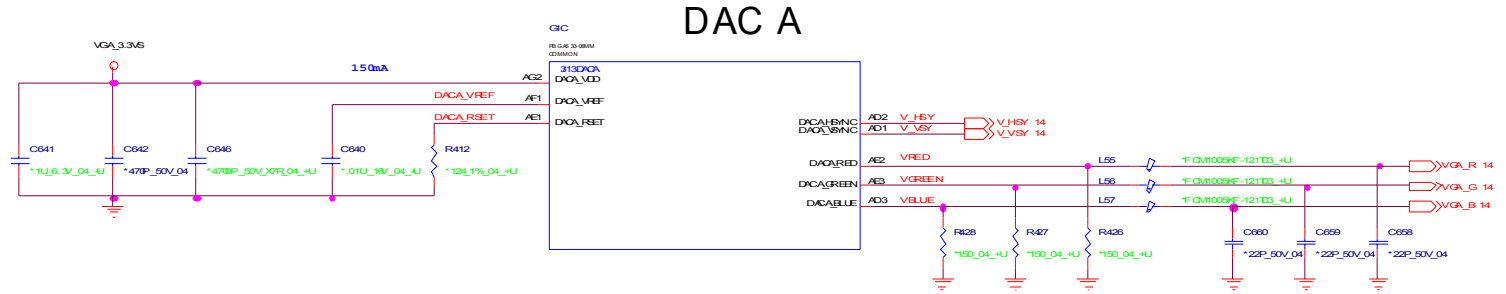
B. Schematic Diagrams

- 14 17 FBAD0_031 <-> FBAD0_031
- 16 17 FBAD0_M0_7 <-> FBAD0_M0_7
- 16 17 FBAD0_S_W_P10_71 <-> FBAD0_S_W_P10_71
- 16 17 FBAD0_S_R_N10_71 <-> FBAD0_S_R_N10_71



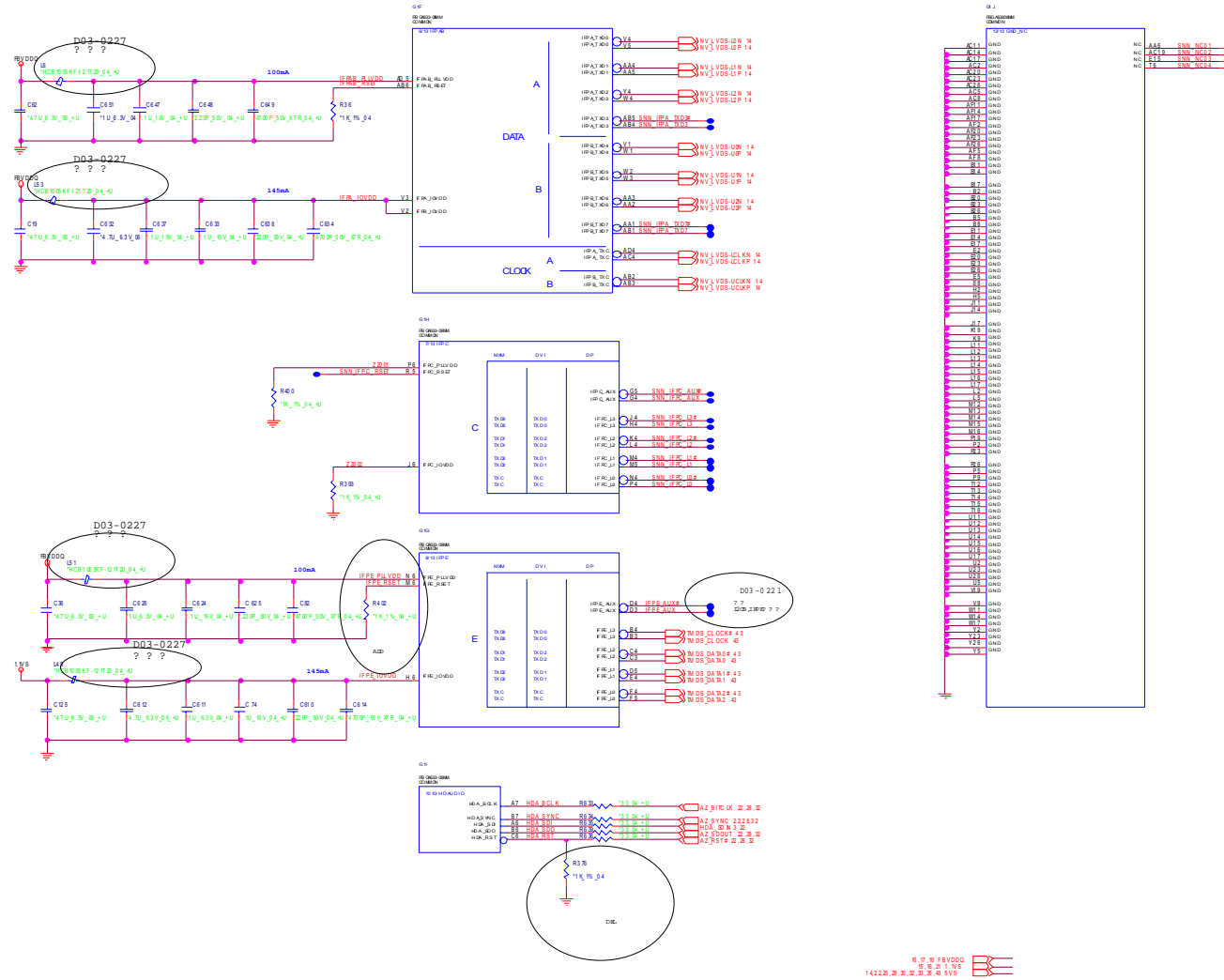
VGA NB9M-5

Sheet 19 of 51
VGA NB9M-5



21 VGA_3.3V5

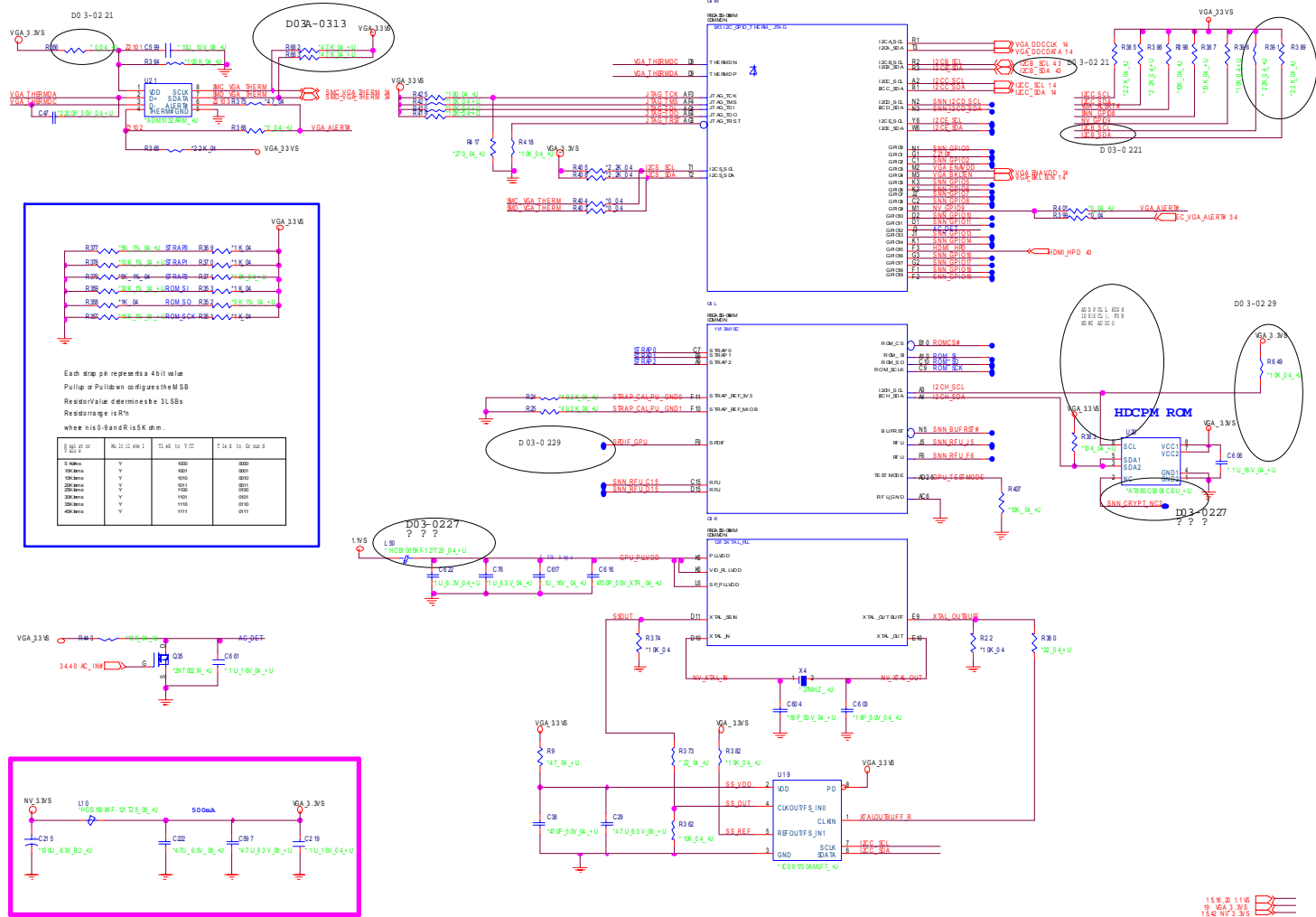
VGA NB9M-6



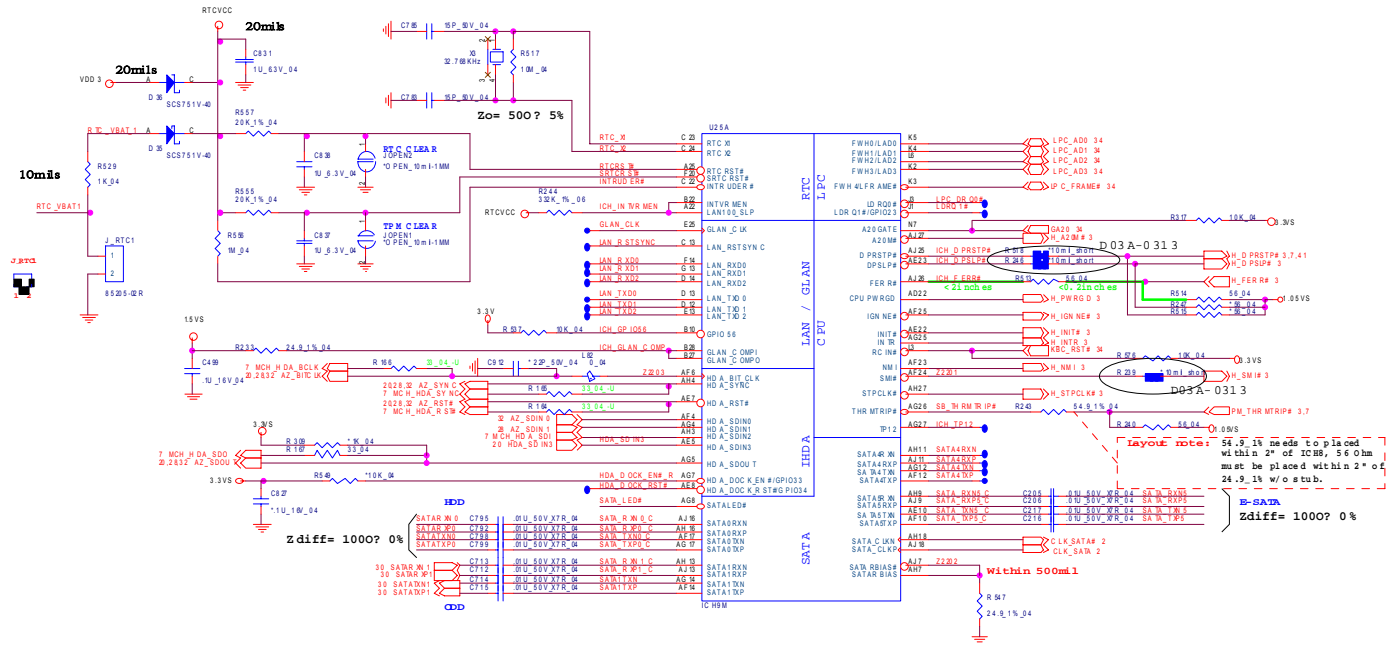
Sheet 20 of 51
VGA NB9M-6

VGA NB9M-7

Sheet 21 of 51
VGA NB9M-7



ICH9M 1/4, SATA

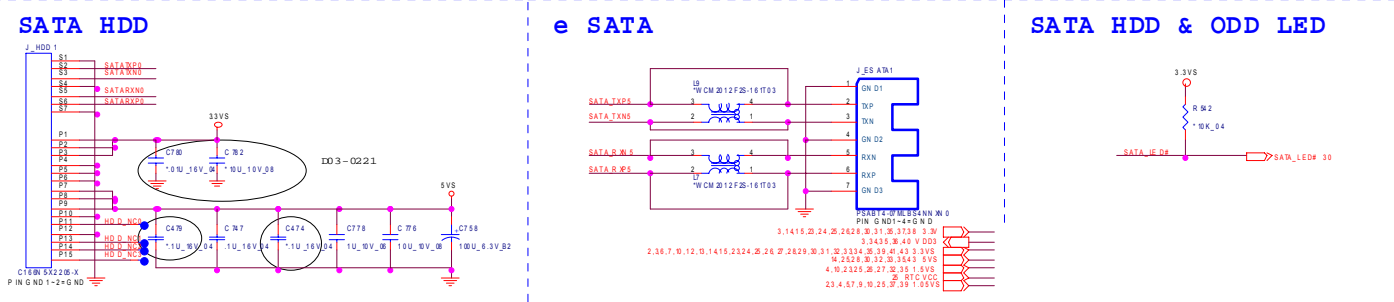


Sheet 22 of 51
ICH9M 1/4, SATA

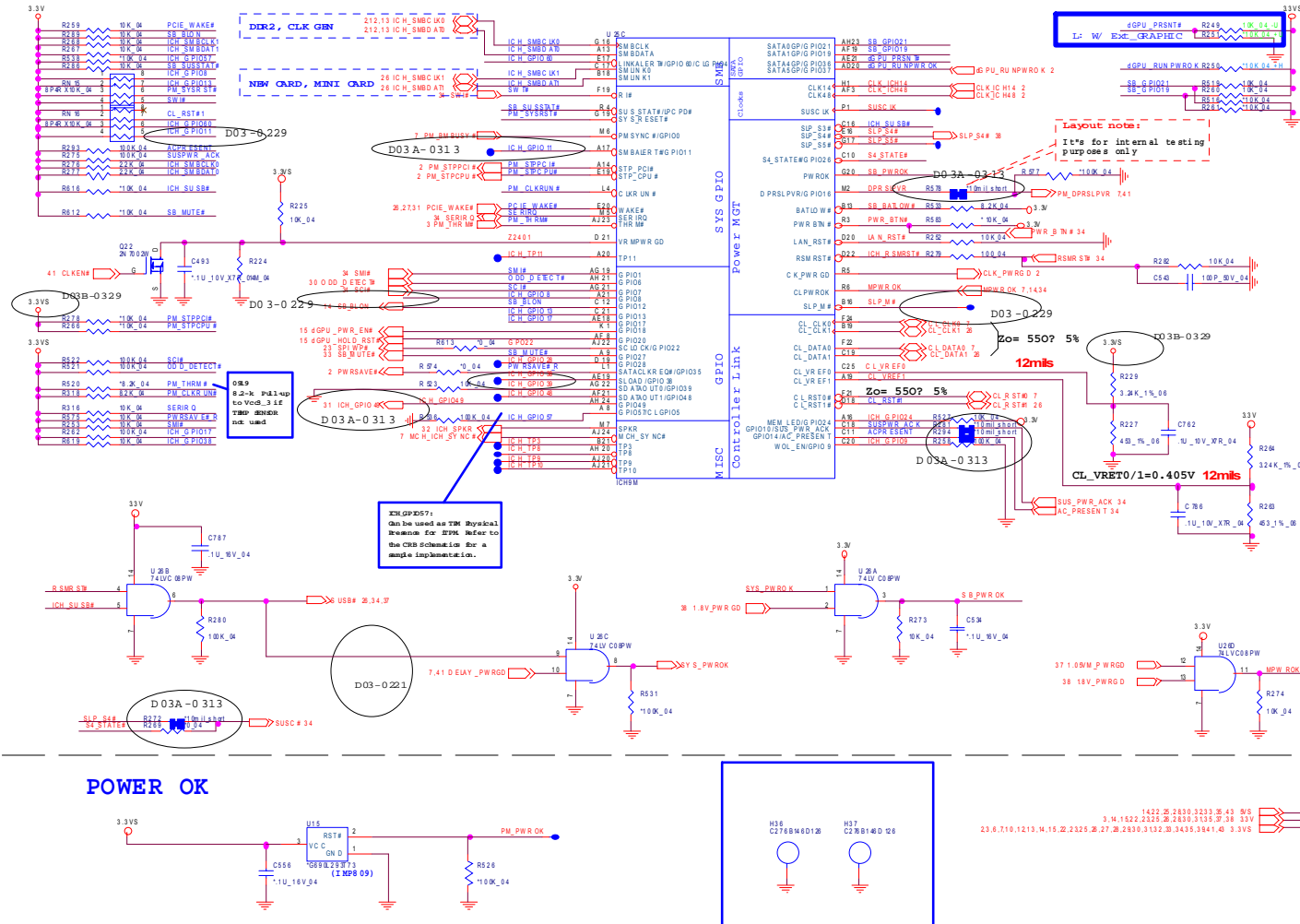
B. Schematic Diagrams

Layout note: 54.9 16 pads to be placed within 2" of ICH8, 56 0hm must be placed within 2" of 24.9 16 w/o stub.

B-SATA
Zdiff= 1000? 0%



ICH9M 3/4

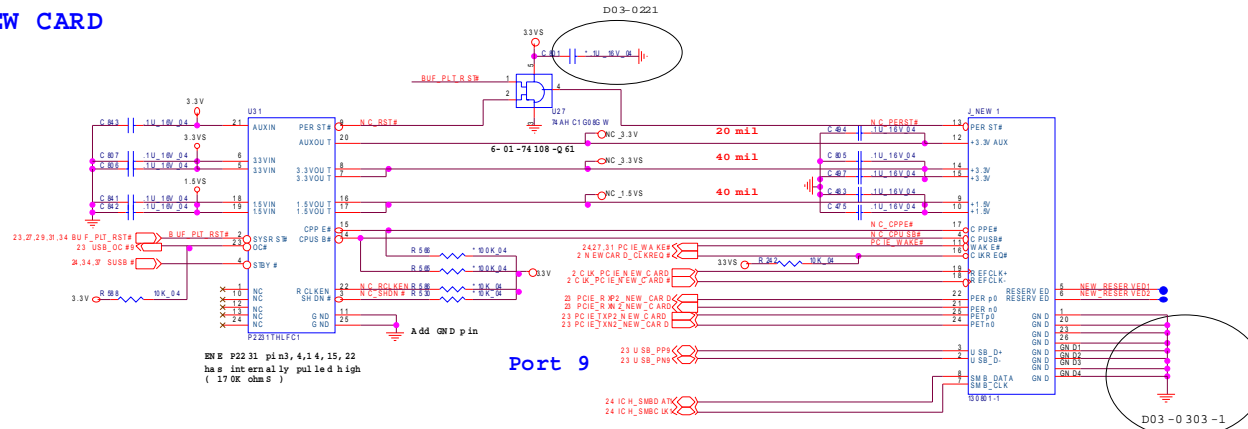


Sheet 24 of 51
ICH9M 3/4

B. Schematic Diagrams

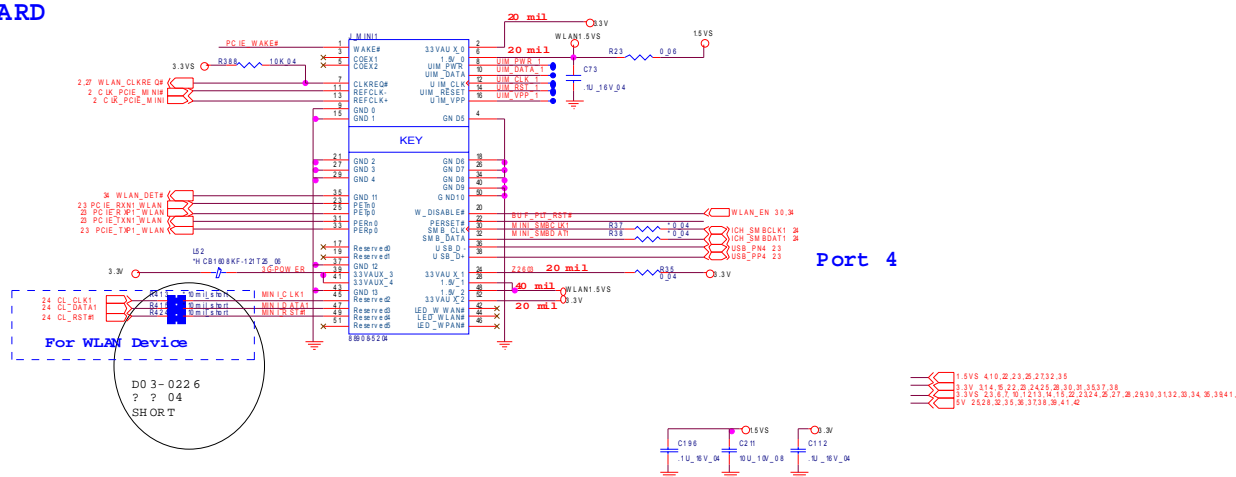
New Card, Mini PCIE

NEW CARD



Sheet 26 of 51
New Card,
Mini PCIE

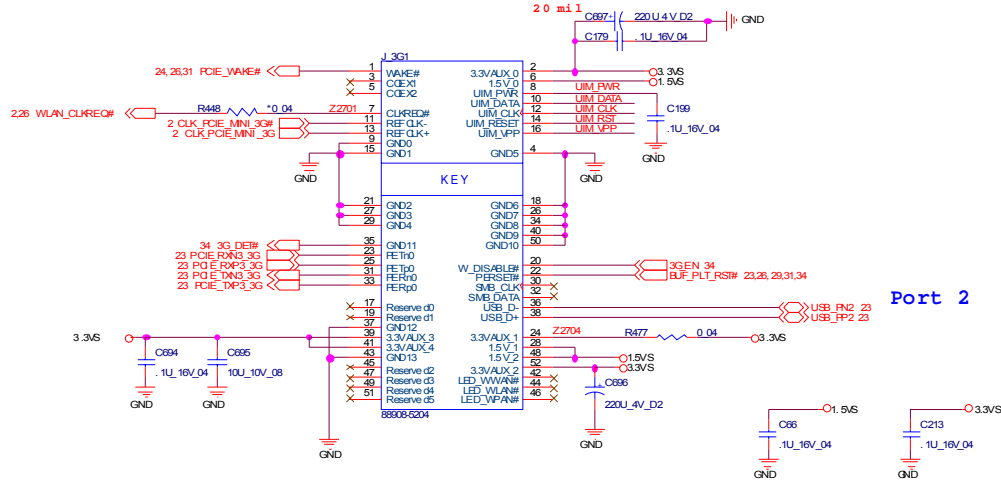
MINI CARD



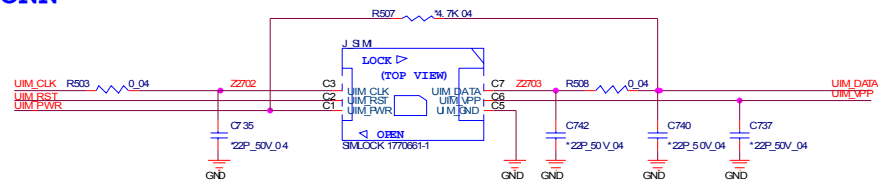
B. Schematic Diagrams

3G, Powergood

3G



SIM CONN

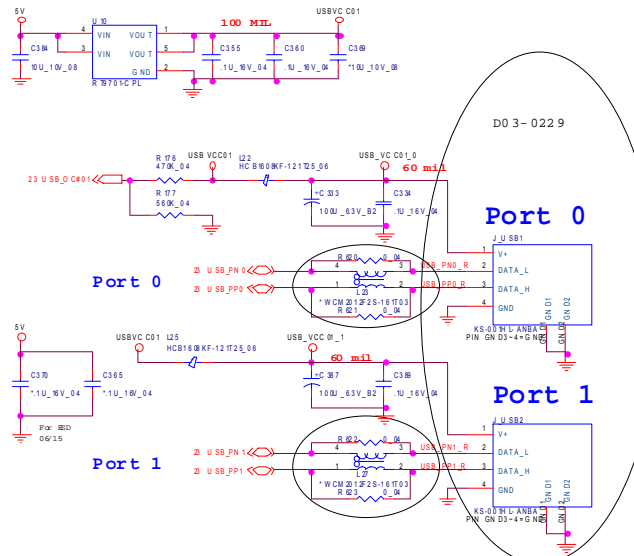


- 1.5V/5 4, 10, 22, 23, 25, 26, 32, 36
- 3.3V 3, 14, 15, 22, 23, 24, 25, 26, 28, 30, 31, 35, 37, 38
- 3.3V/5 2, 3, 6, 7, 10, 12, 13, 14, 15, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 39, 41, 43
- 5V 14, 22, 25, 28, 30, 32, 33, 35, 43

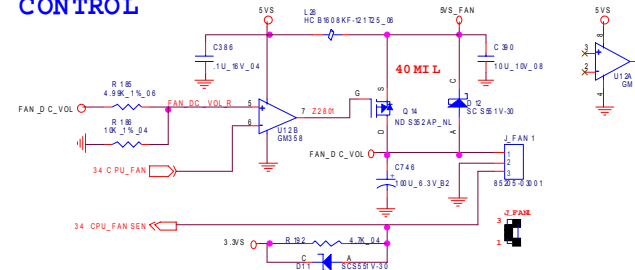
Sheet 27 of 51
3G, Powergood

USB, Fan, TP, FP, Multi CON

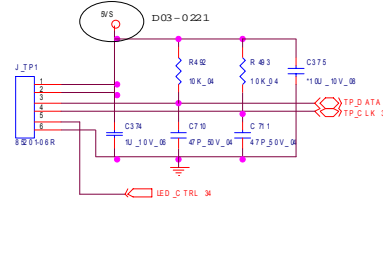
USB PORT*2



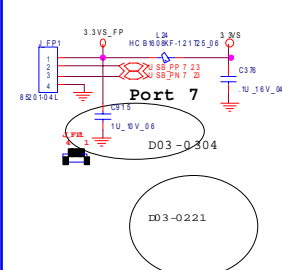
FAN CONTROL



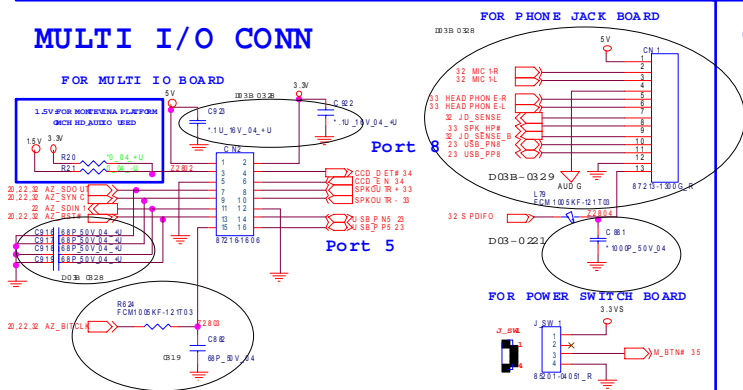
CLICK CONN FOR M760T



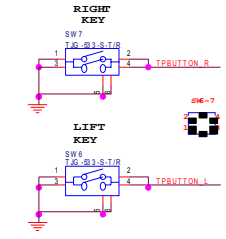
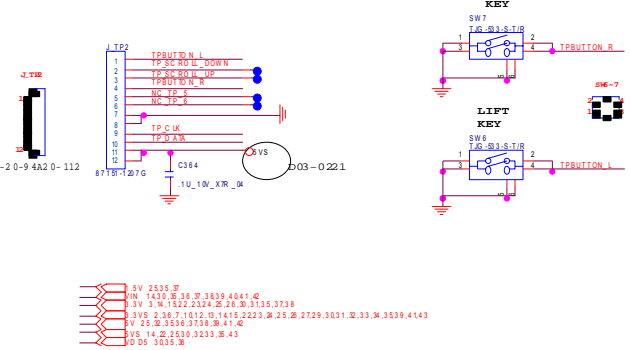
FP CONN



MULTI I/O CONN



CLICK CONN FOR M740T

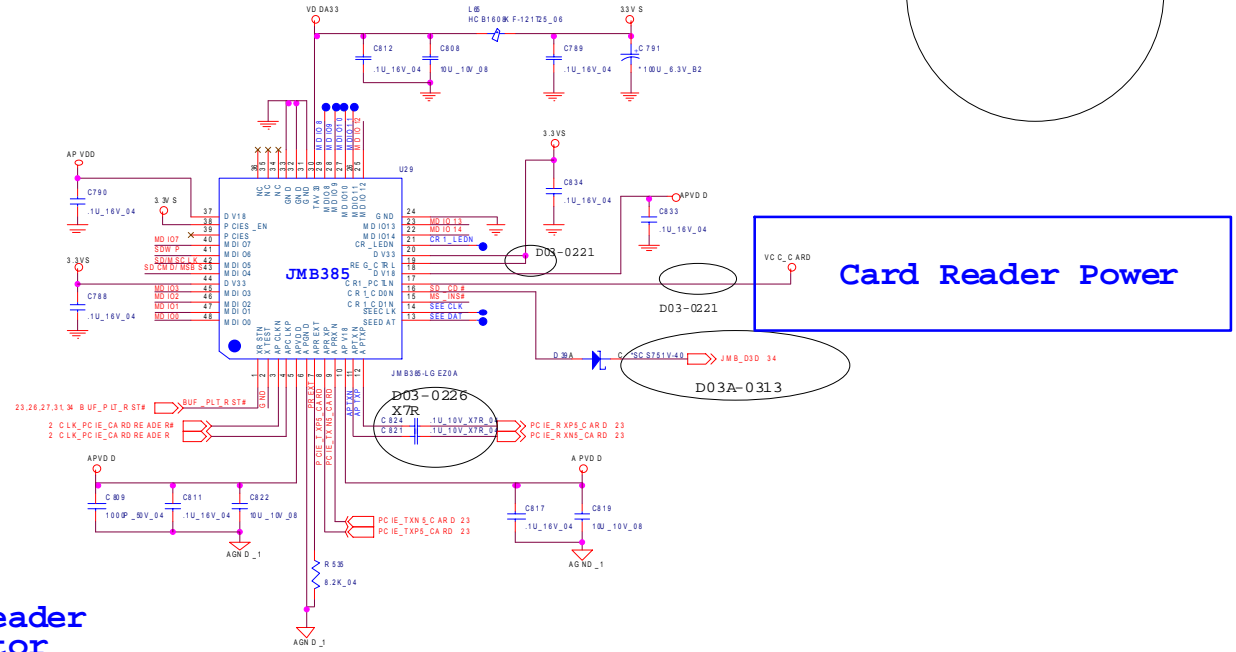
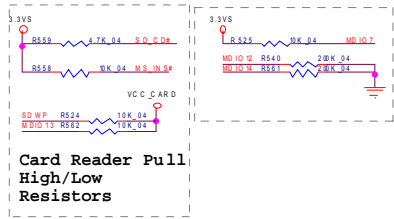


Sheet 28 of 51
USB, Fan, TP, FP,
Multi CON

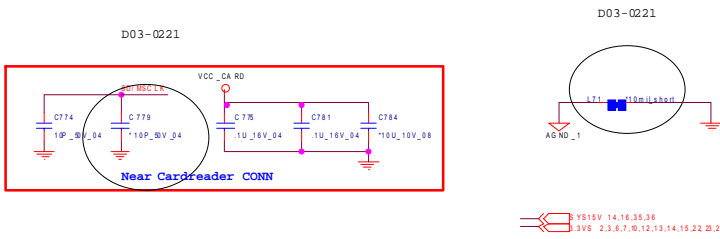
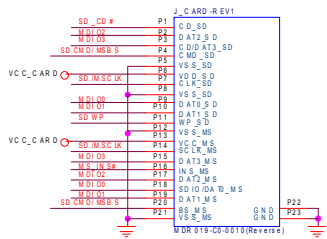
B.Schematic Diagrams

Card Reader

Sheet 29 of 51
Card Reader



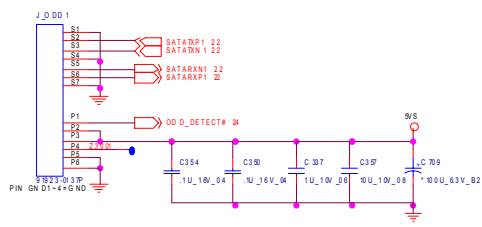
Card Reader Connector



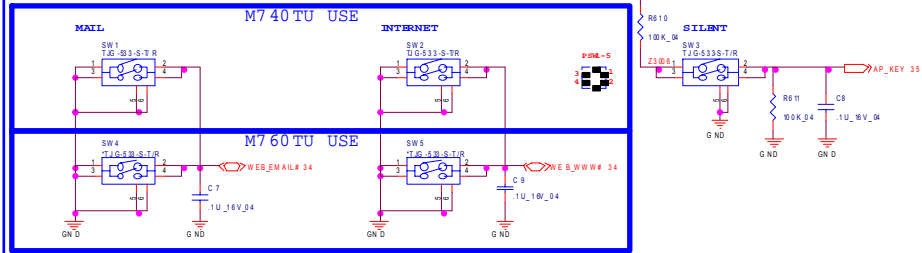
YS15V 14,18,38,38
3VS 2,3,6,7,8,12,13,14,15,22,24,25,26,27,28,30,31,32,33,35,39,41,43

SATA ODD, LED, Hotkey, LID SW

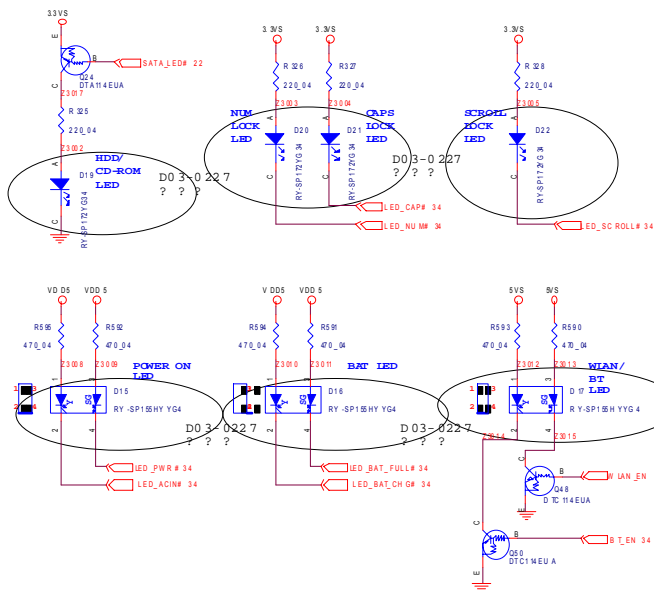
SATA ODD



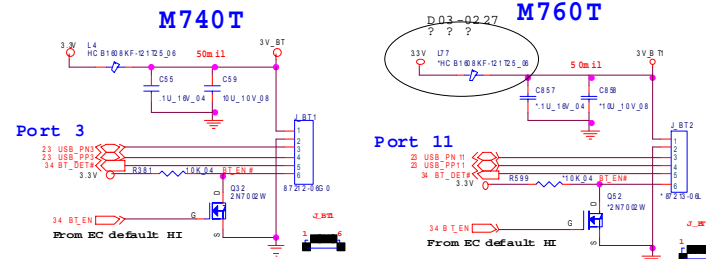
HOT KEY



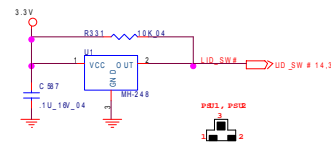
LED



Bluetooth



LID SWITCH IC

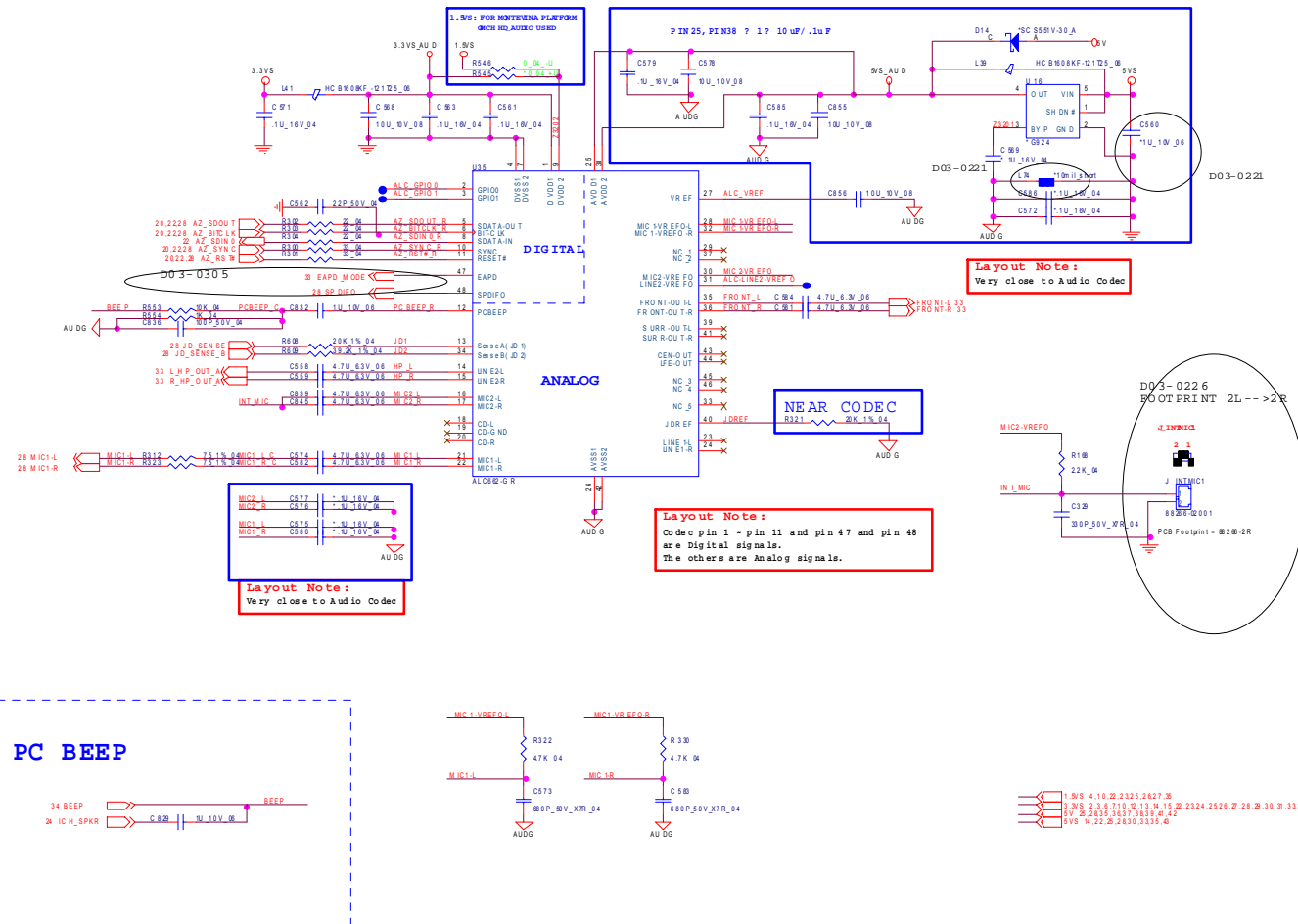


- VIN 14,35,36,37,38,39,40,41,42
- 1.8V 4,10,20,23,25,26,27,30,33
- 3.3V 3,14,15,22,23,24,32,28,31,35,37,38
- 3.3V 5,6,7,10,11,14,15,22,23,24,25,26,27,28,28,31,32,33,34,35,39,41,43
- 1.8V 2,3,9,20,25,26,27,28,30,34,44
- 5V 8,22,23,23,32,33,34,35
- VDD 5 35,36

Sheet 30 of 51
SATA ODD, LED,
Hotkey, LID SW

Audio Codec ALC662

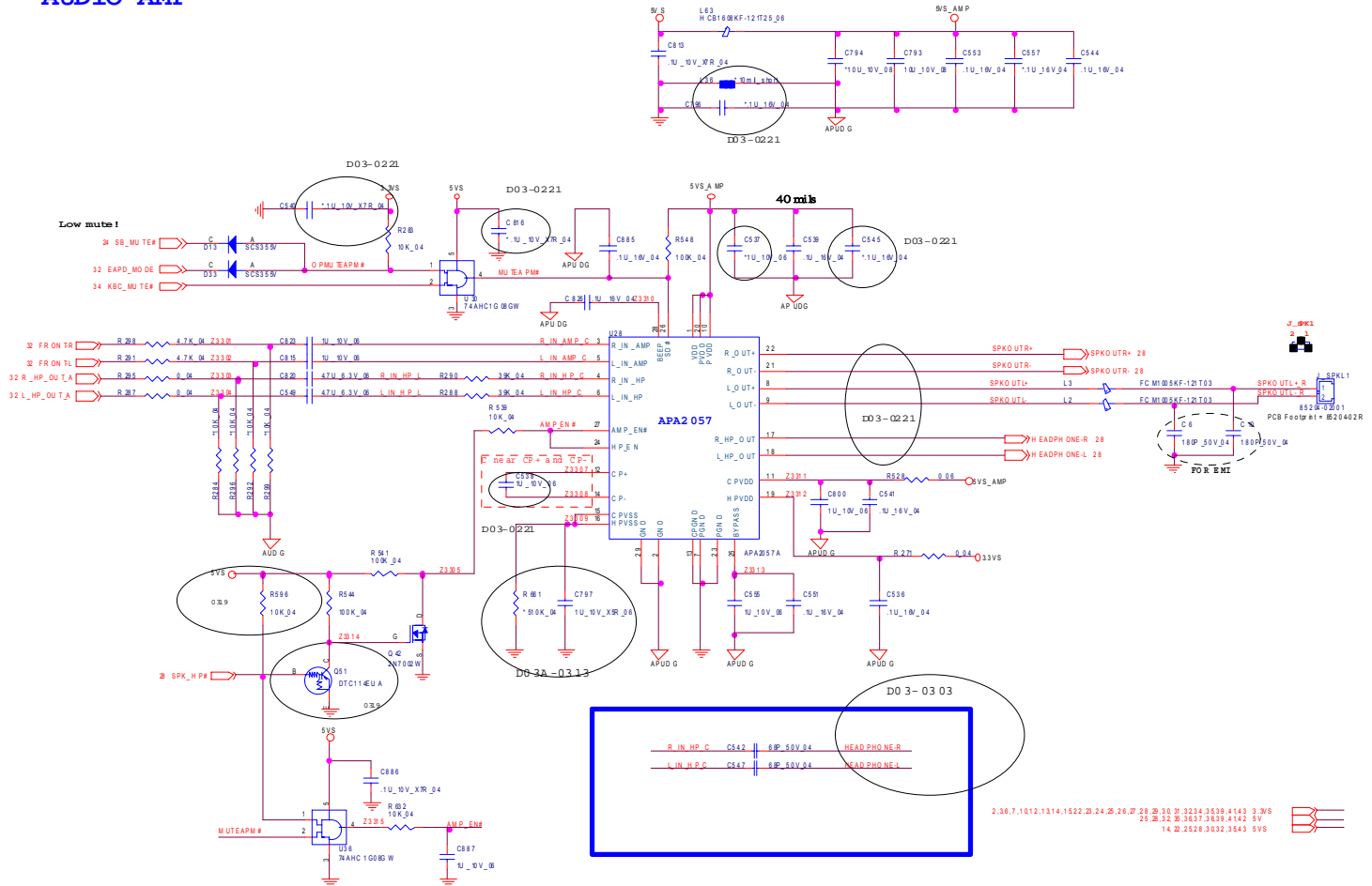
CODEC (ALC662-GR)



Sheet 32 of 51
Audio Codec
ALC662

Audio AMP

AUDIO AMP

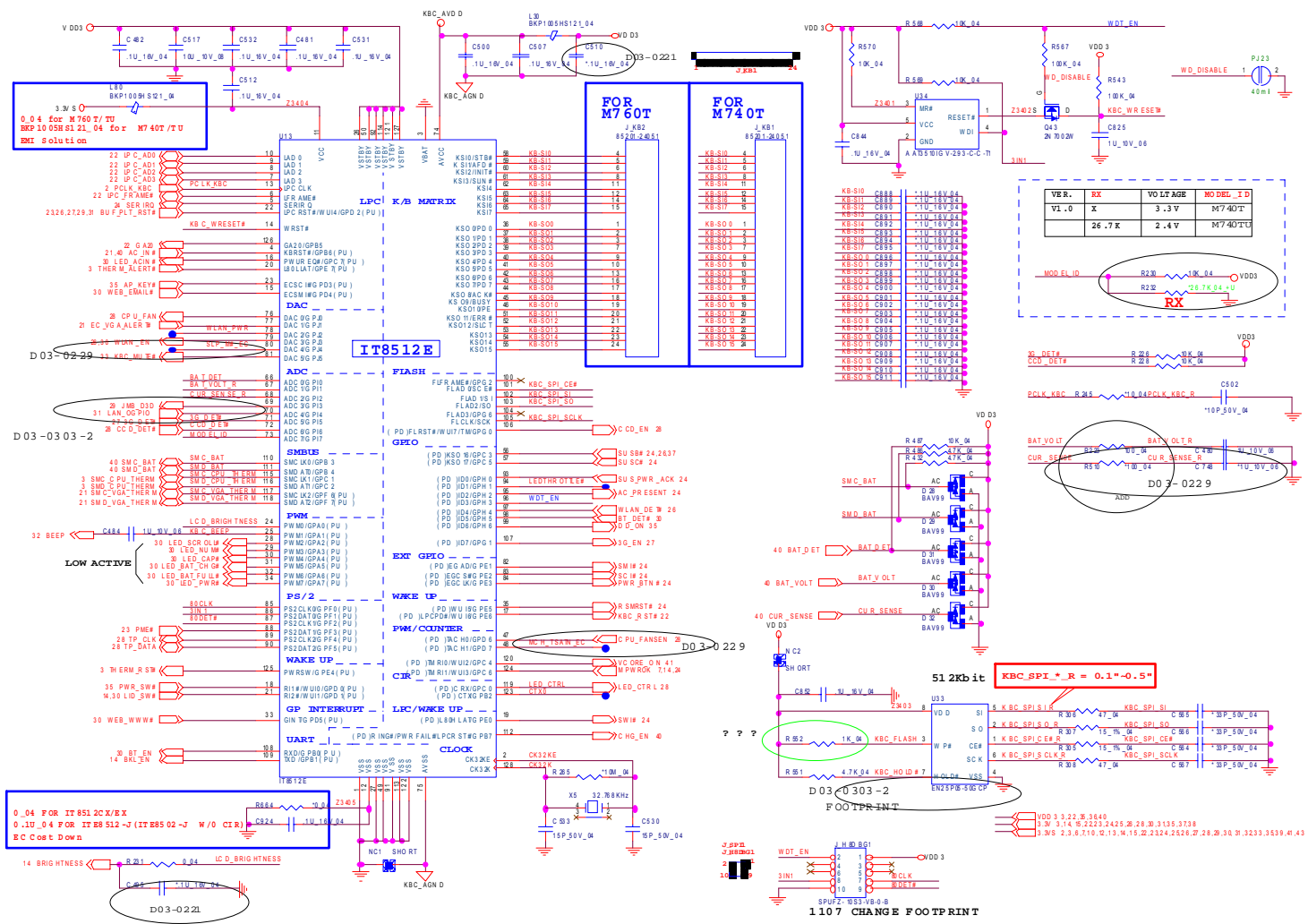


Sheet 33 of 51
Audio AMP

B.Schematic Diagrams

KBC-ITE IT8512E

B.Schematic Diagrams

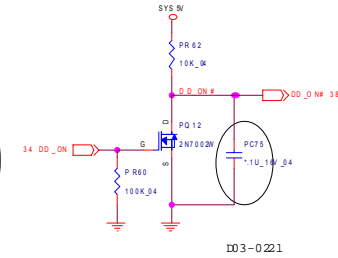
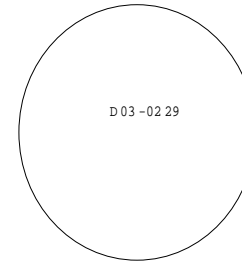
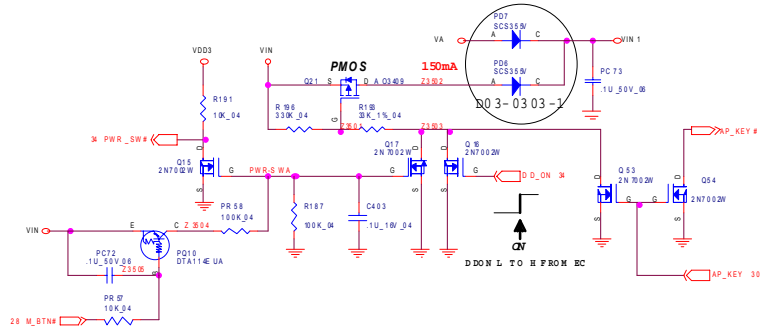


Sheet 34 of 51
KBC-ITE IT8512E

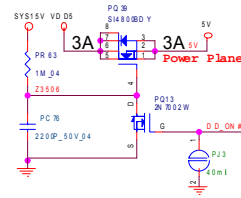
Schematic Diagrams

5VS, 3VS, 3.3VM, 1.05VS, VIN1

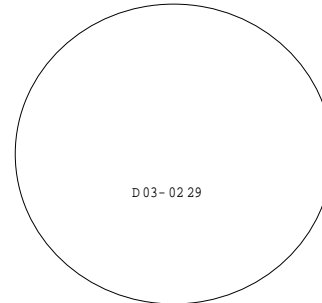
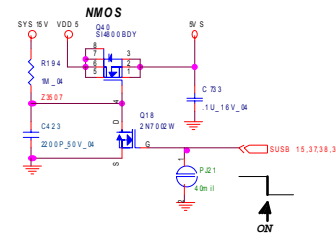
Sheet 35 of 51
5VS, 3VS, 3.3VM,
1.05VS, VIN1



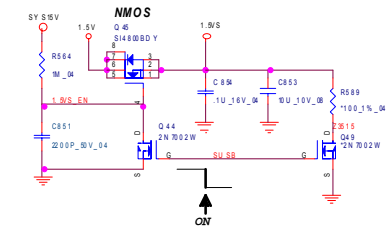
5V



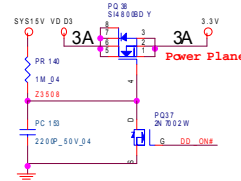
5VS



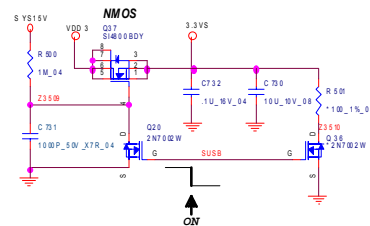
1.05VS



3.3V

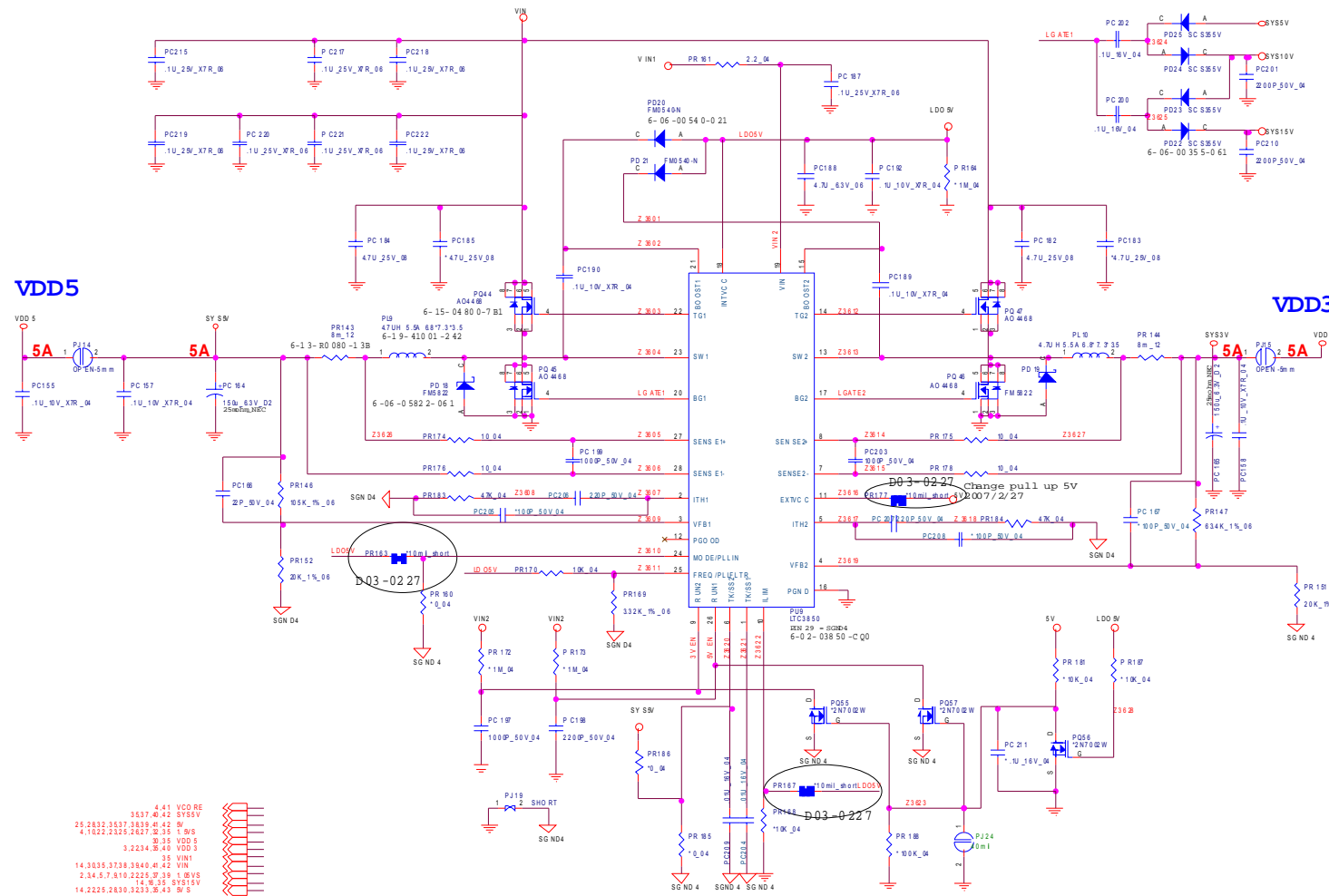


3.3VS



- 1.0V 28,27
- 1.0V 410,2223,24,26,27,39
- 1.0VS 2,3,4,5,79,10,22,25,37,39
- SYS5V 38,3740,42
- 3V 7,25,8,9,33,6,7,5,8,35,41,42
- 3.3V 314,1622,2324,2526,28,30,31,37,38
- VIN 14,39,38,37,38,39,40,41,42
- VA 4,6
- VDD 5,8,39
- VDD 3 122,3436,40
- 5VS 1422,2926,3852,33,4
- 3.3S 23,47,1812,131,1,122,2324,2526,27,28,29,30,31,32,33,34,39,41,43
- SYS15V 14,16,36

Power 3.3V/5V

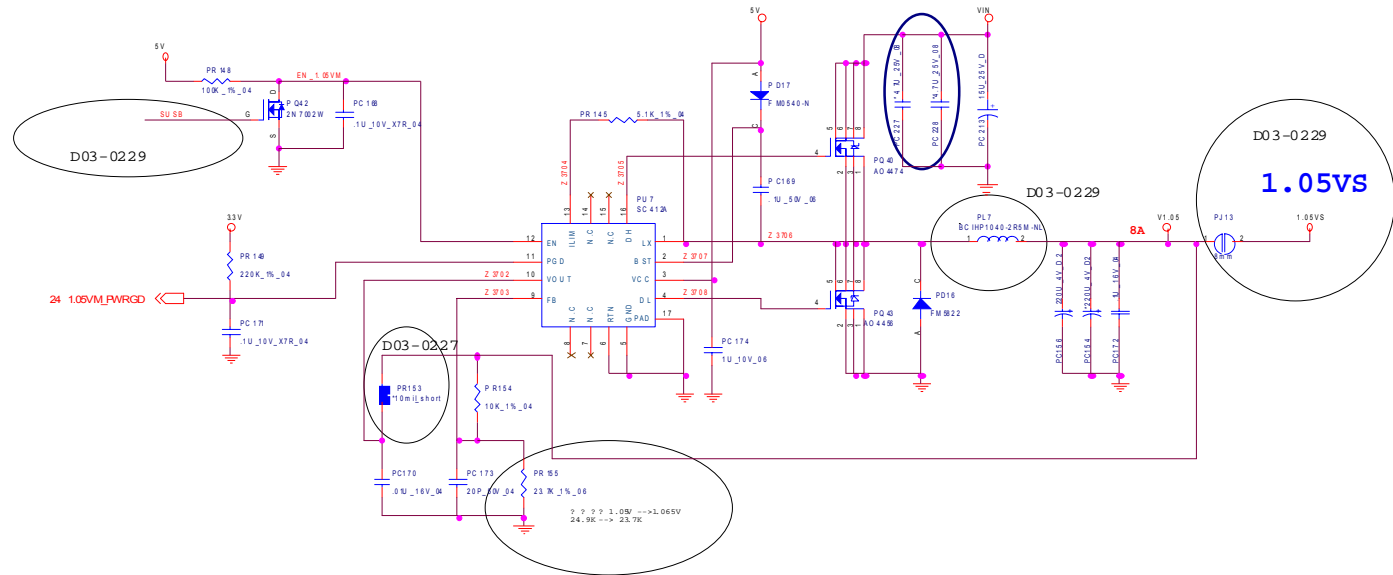


Sheet 36 of 51
Power 3.3V/5V

B. Schematic Diagrams

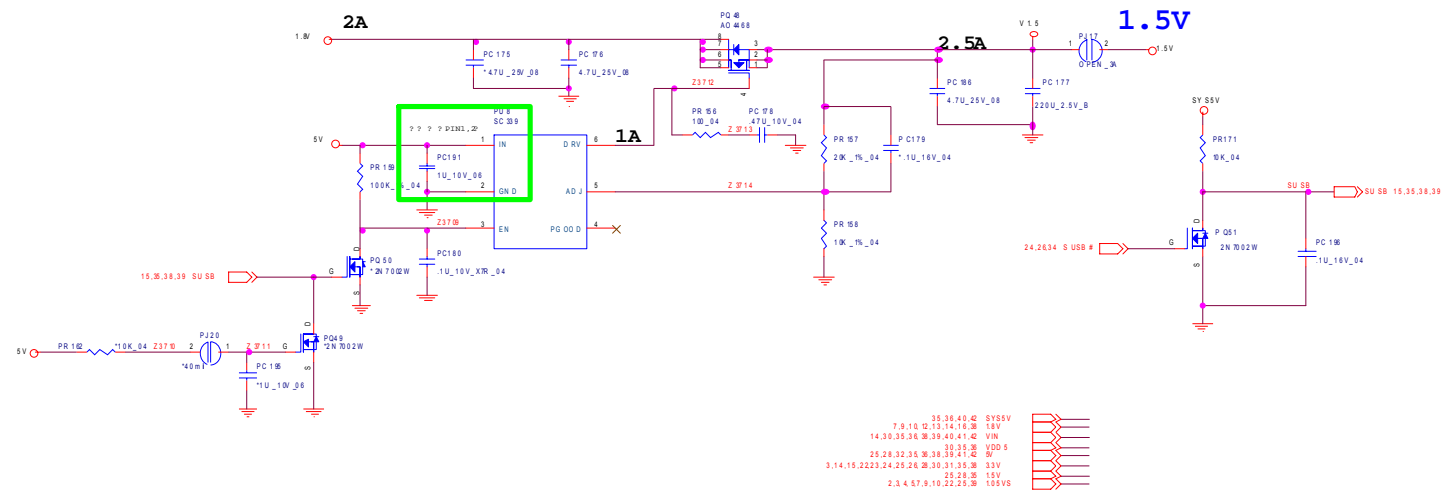
Schematic Diagrams

Power 1.5VS/1.05VS



Sheet 37 of 51
Power 1.5VS/
1.05VS

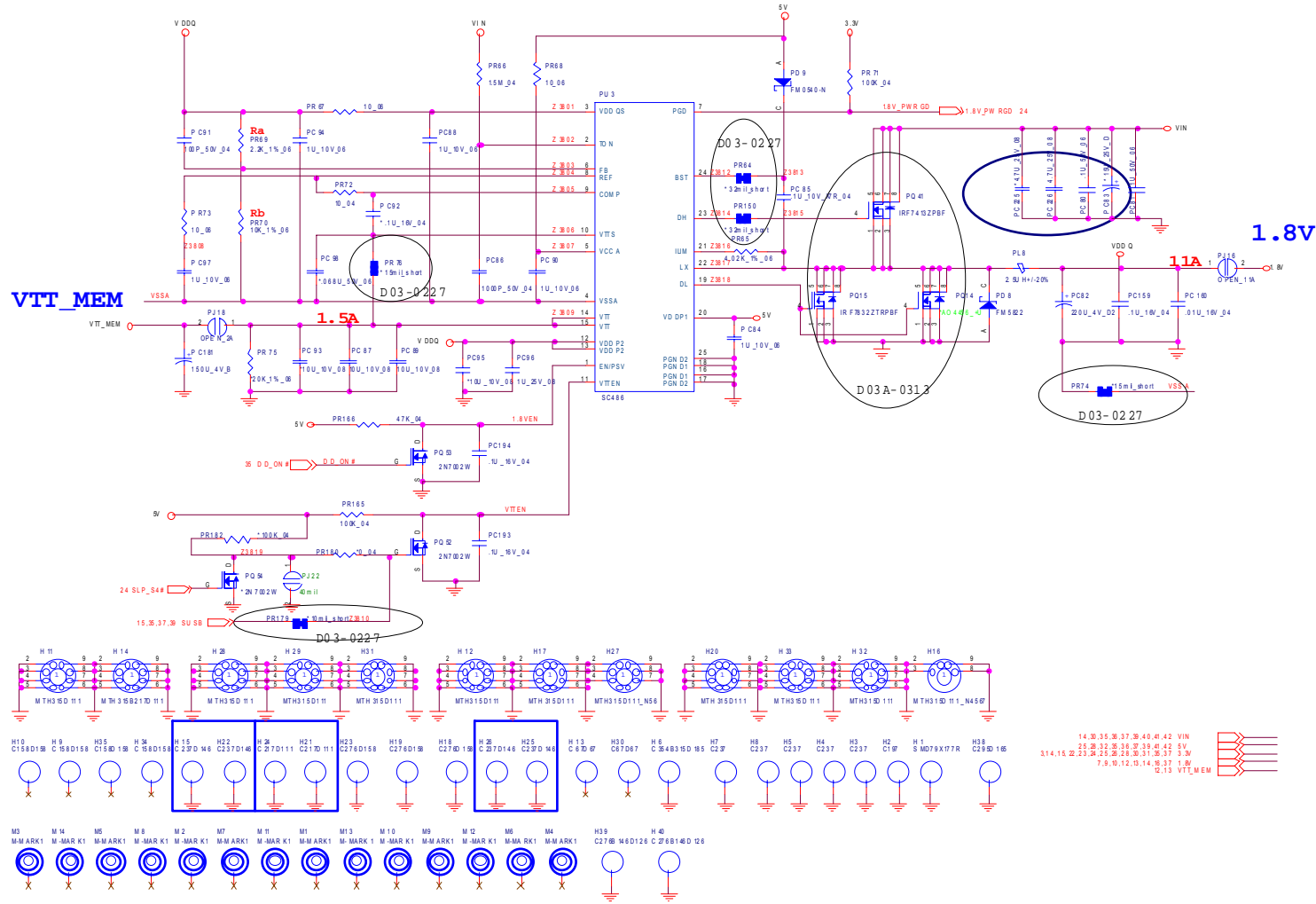
B.Schematic Diagrams



35.36.40.42	5V55V
7.9.10.12.13.14.16.18	5V
14.30.35.36.38.39.40.41.42	VIN
15.35.36.38.39.40.41.42	VDD5
25.28.32.35.36.38.39.41.42	33V
3.14.15.22.23.24.25.26.28.30.31.35.38	5V
25.28.35	5V
2.3.4.5.7.9.10.22.25.35	1.05VS

Power 1.8V/0.9V

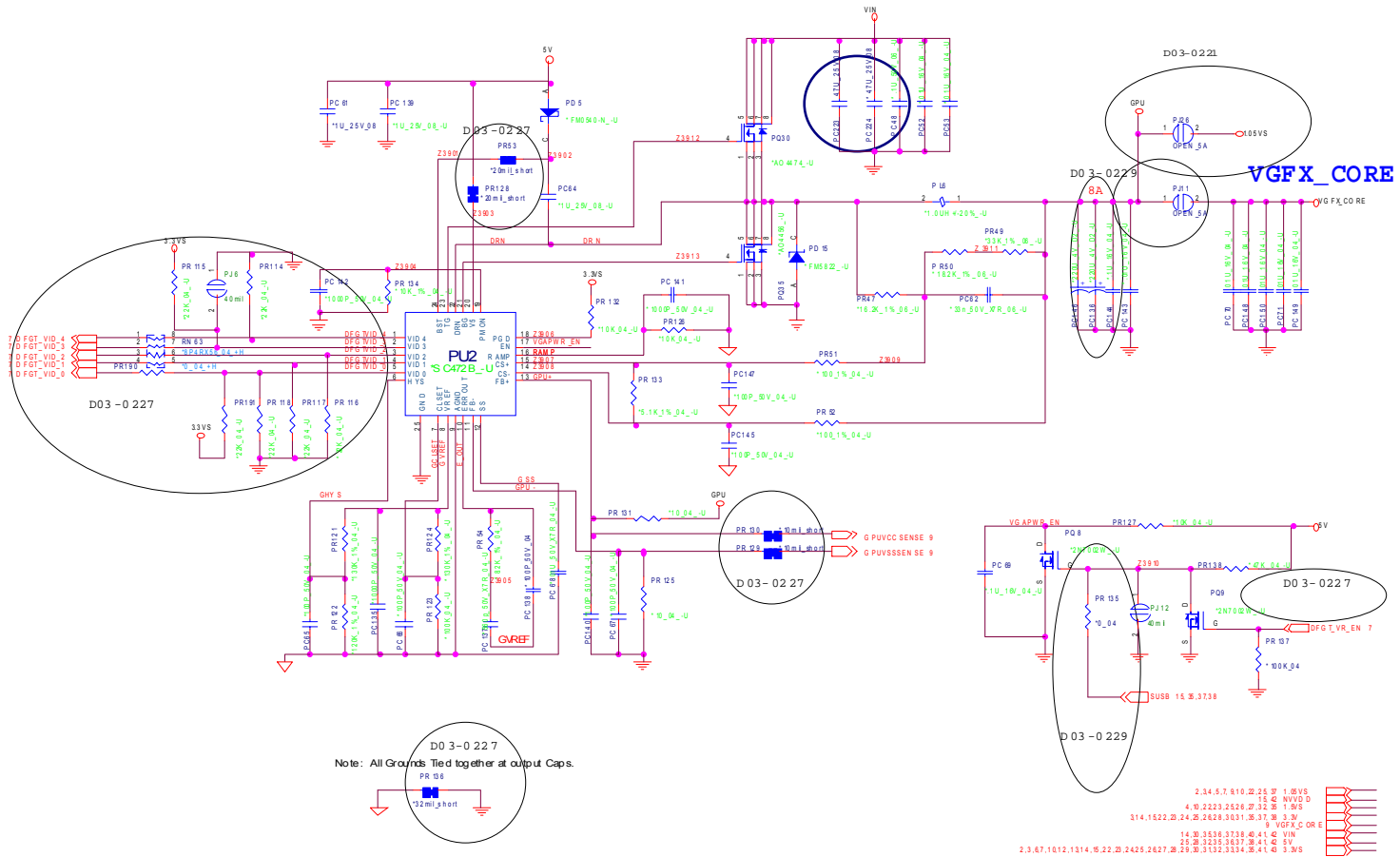
B. Schematic Diagrams



Sheet 38 of 51
Power 1.8V/0.9V

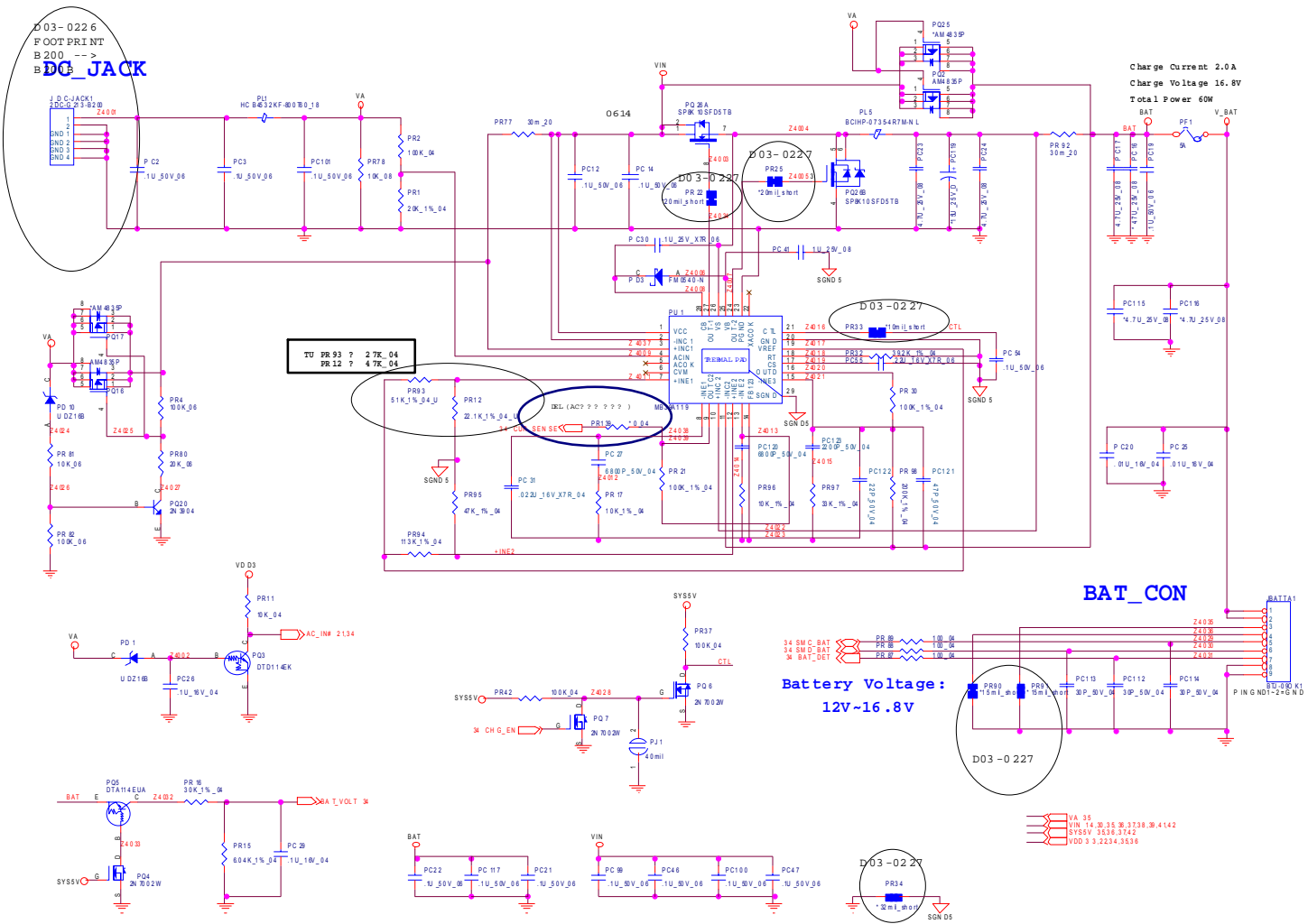
Power GPU/NVVDD

Sheet 39 of 51
Power GPU/NVVDD



AC-IN, Charger

B.Schematic Diagrams



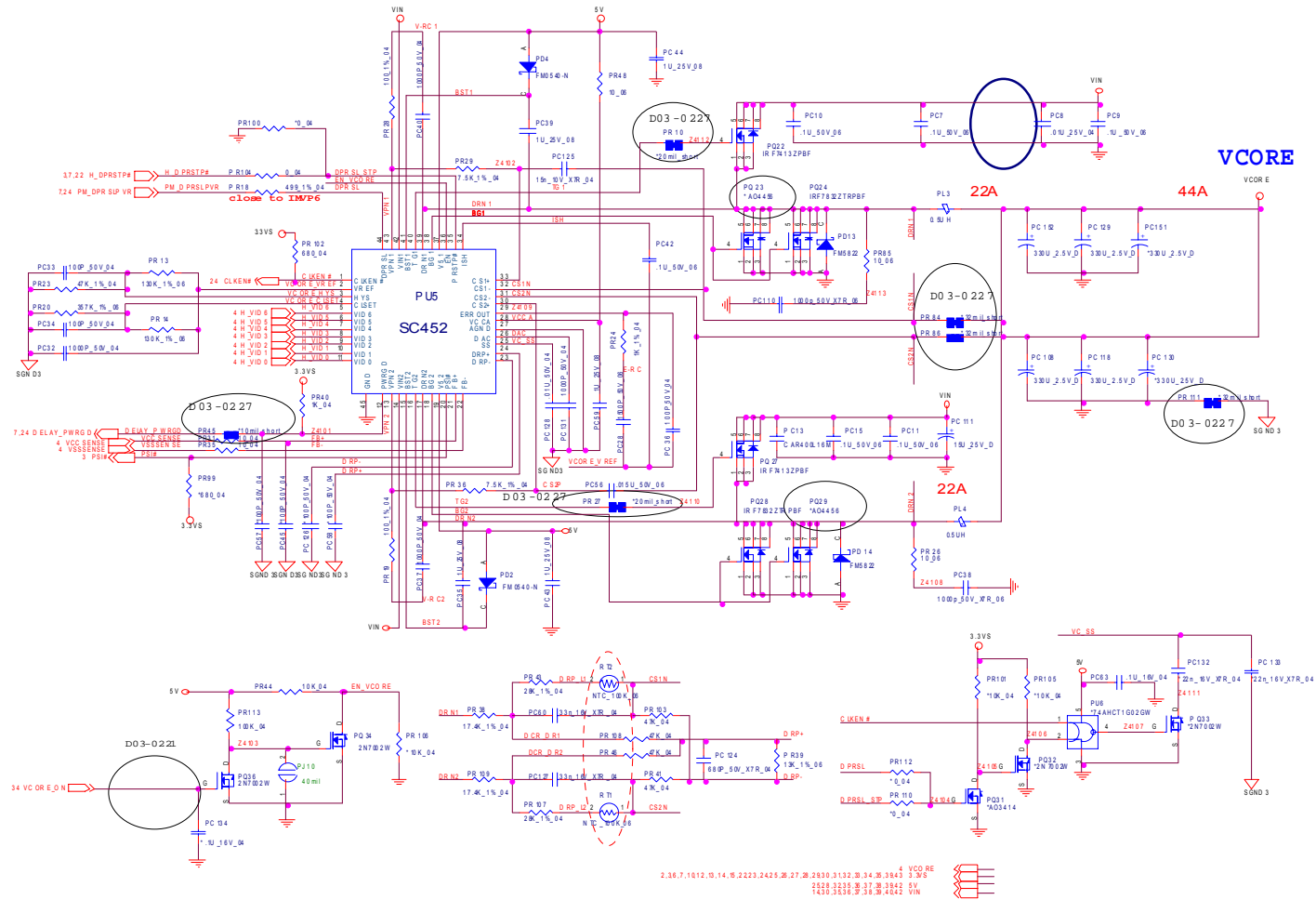
Sheet 40 of 51
 AC-IN, Charger

Schematic Diagrams

VCORE

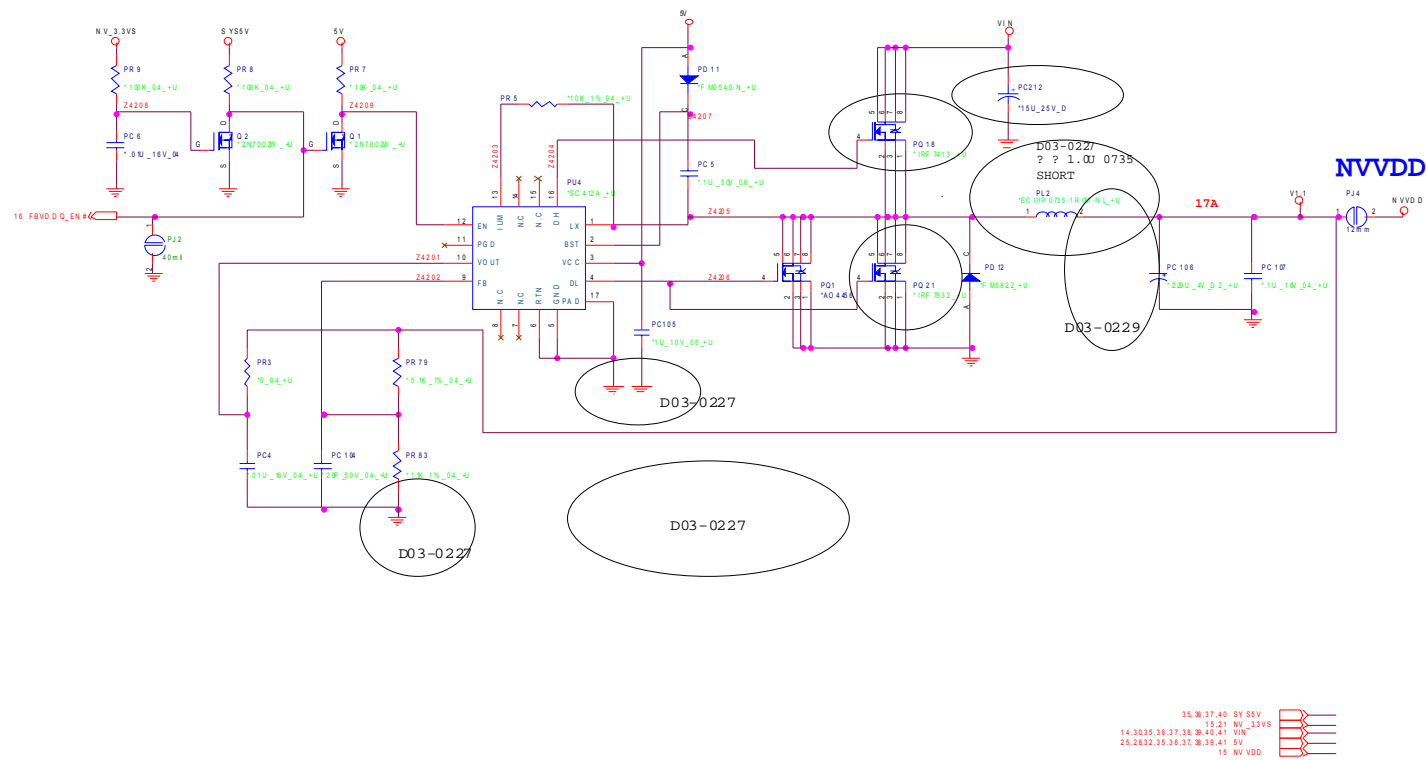
B.Schematic Diagrams

Sheet 41 of 51
VCORE



NVVDD

FOR NV VGA



Sheet 42 of 51
NVVDD

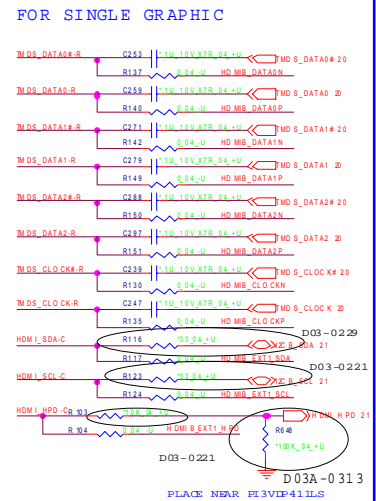
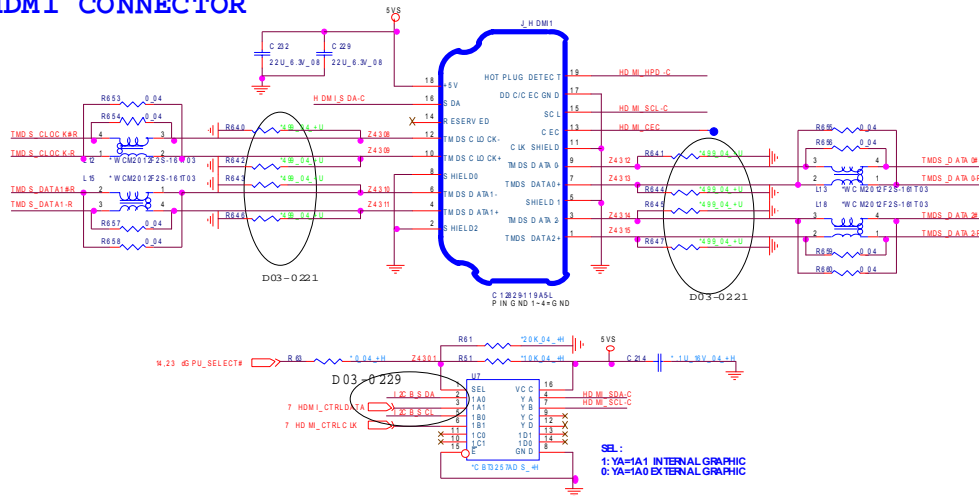
B.Schematic Diagrams

HDMI

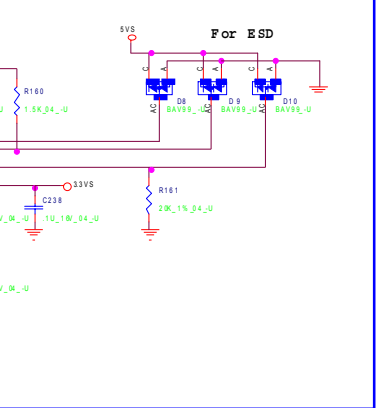
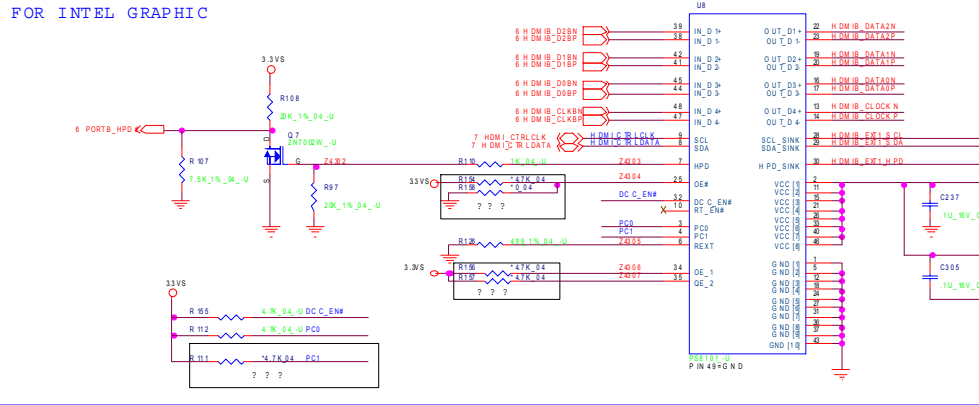
B.Schematic Diagrams

Sheet 43 of 51
HDMI

HDMI CONNECTOR



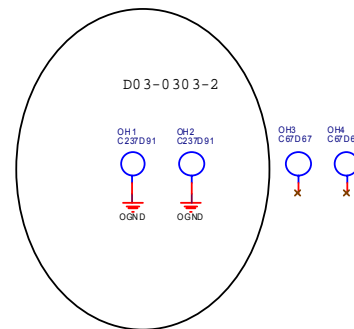
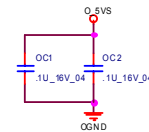
FOR INTEL GRAPHIC



2,3,6,7,10,12,13,14,15,20,23,24,25,26,27,28,29,30,31,32,33,34,35,36,41,3,3V5
4,22,25,28,32,33,5V5

External ODD Board for M76

ODD BOARD

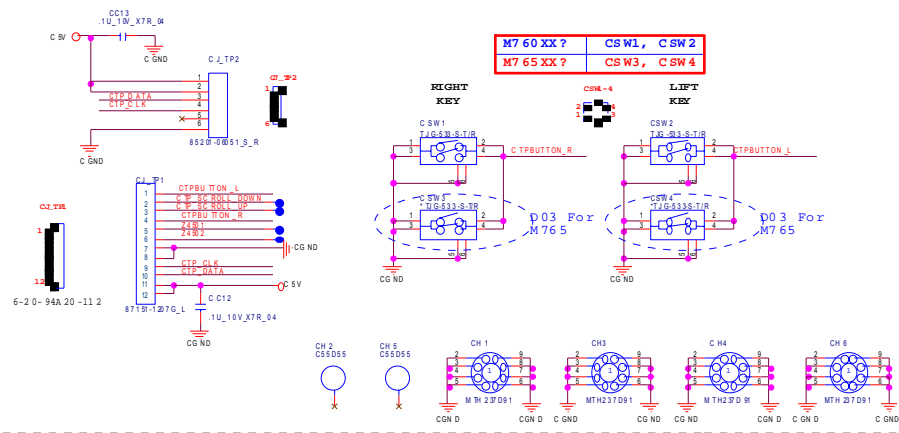


Sheet 44 of 51
External ODD
Board for M76

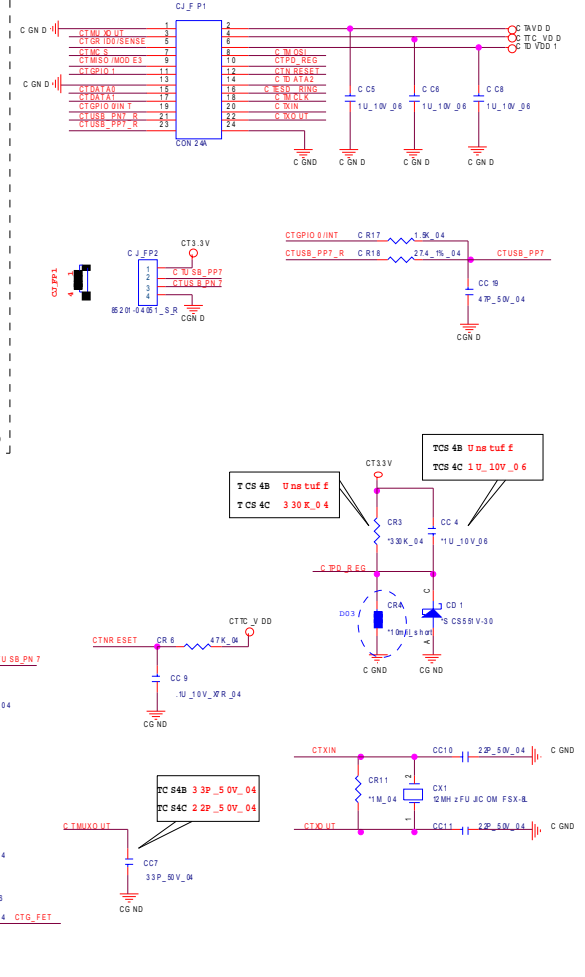
Click & Finger Board for M76

Sheet 45 of 51
Click Finger Board
for M76

CLICK BOARD

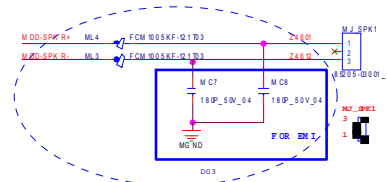


FINGER BOARD

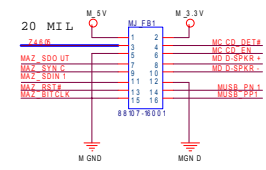


Multi Function Board

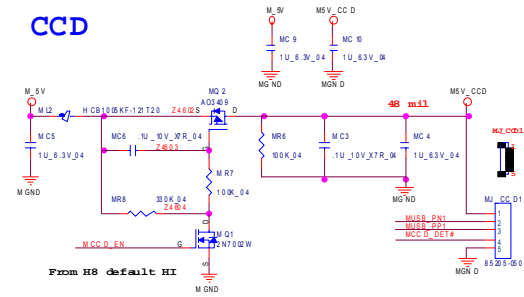
SPEAKER CONNECTOR



MULTI I/O CONN



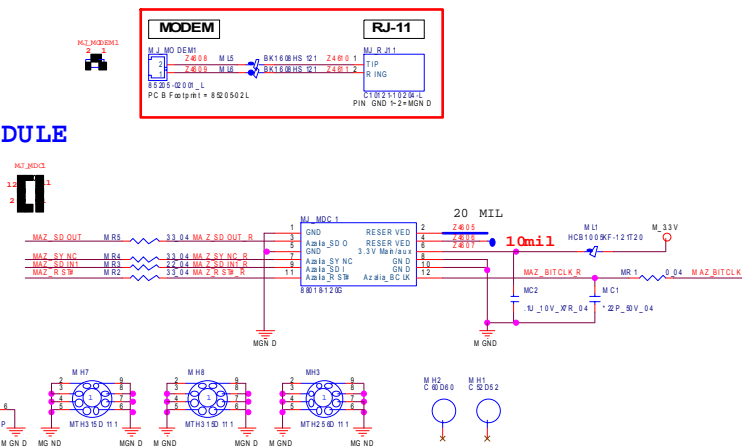
CCD



RJ-11

Sheet 46 of 51
Multi Function
Board

MDC MODULE

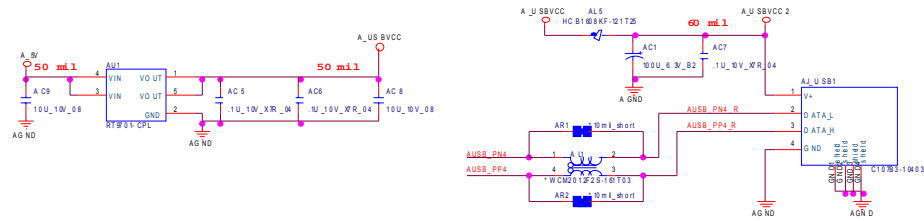


B.Schematic Diagrams

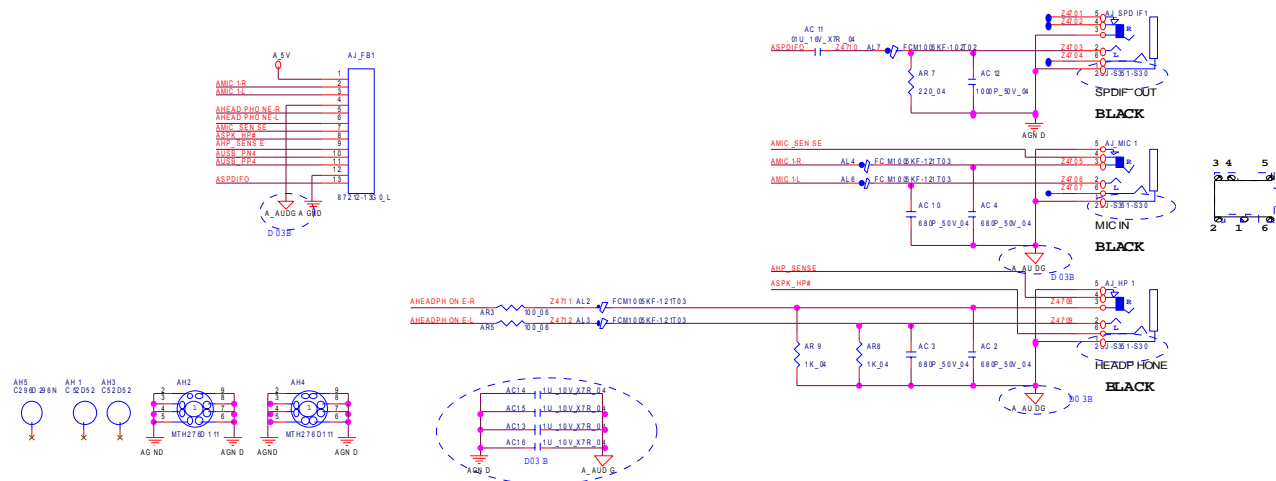
Audio Board

Sheet 47 of 51
Audio Board

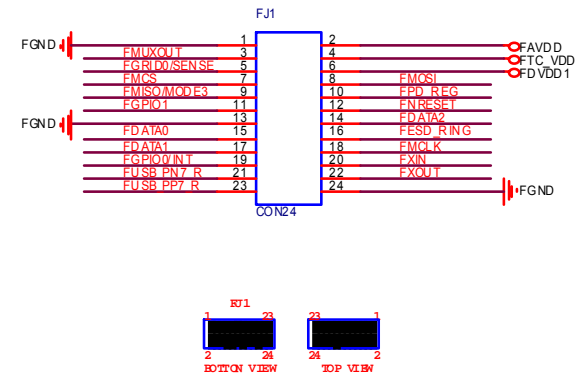
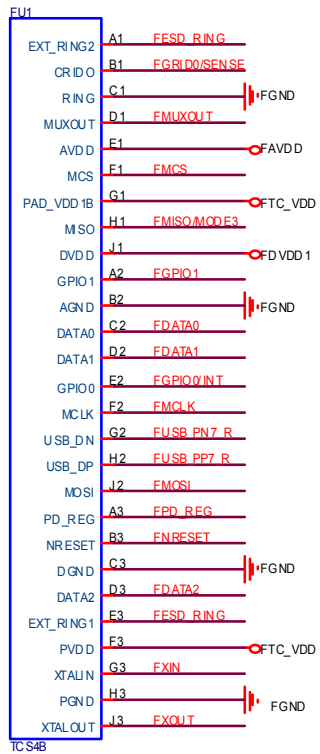
USB PORT



AUDIO JACK



Finger Sensor Board for M76

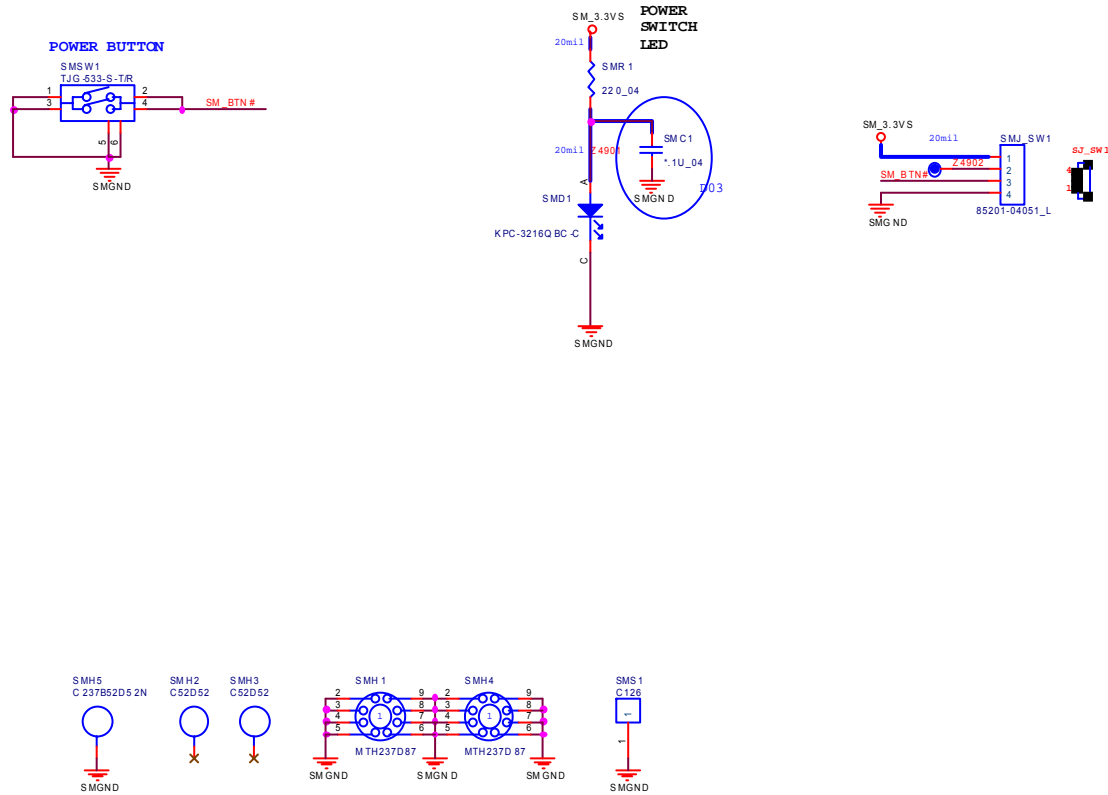


Sheet 48 of 51
Finger Sensor
Board for M76

Power Switch Board for M74

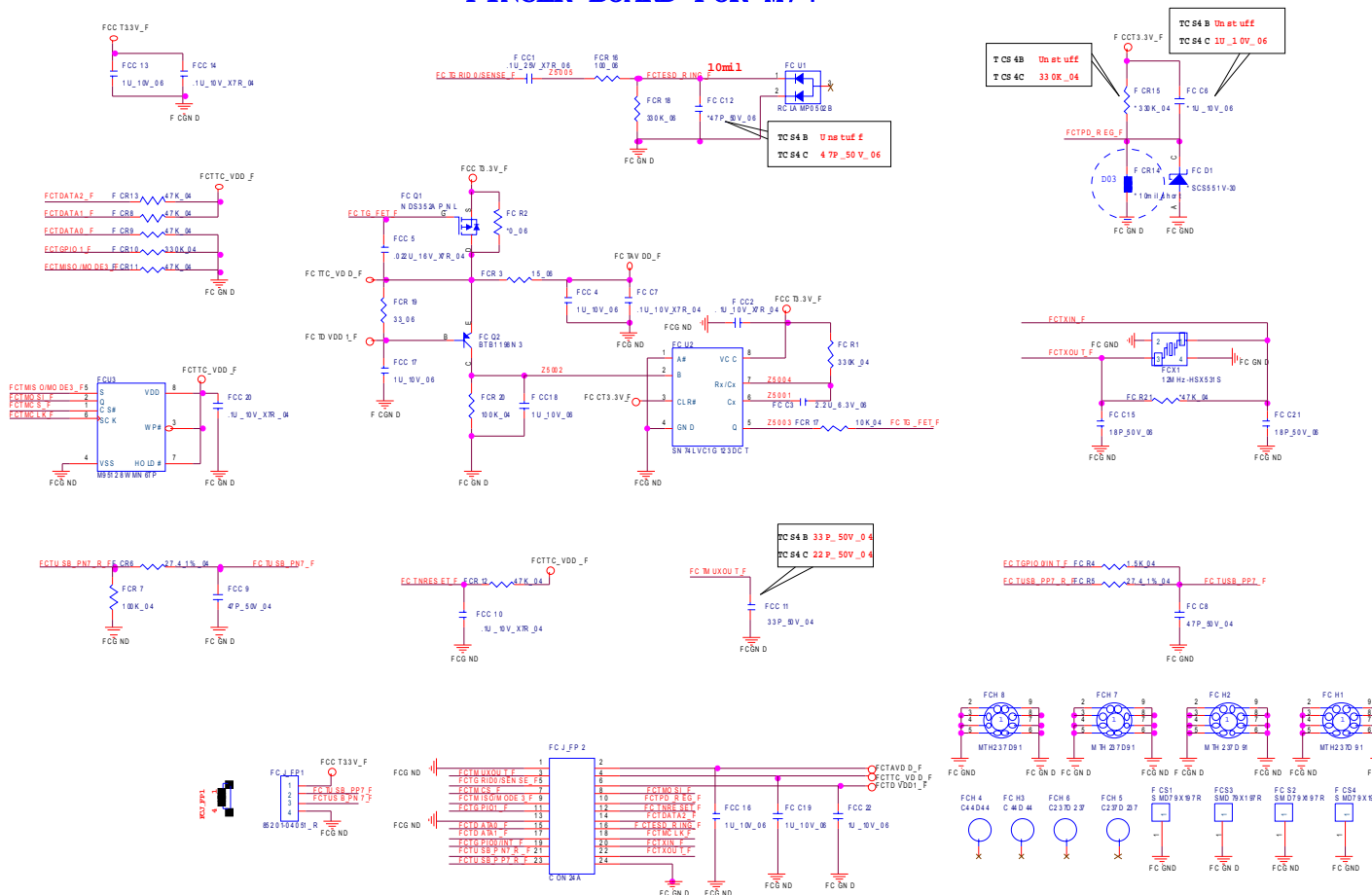
POWER SW & POWER LED FOR M74

Sheet 49 of 51
Power Switch
Board for M74



FingerPrint Board for M74

FINGER BOARD FOR M74



Power Switch Board for M76

POWER SW & POWER LED FOR M76

Sheet 51 of 51
Power Switch
Board for M76

