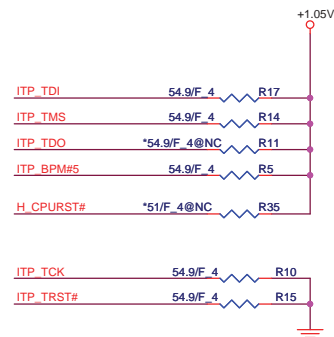
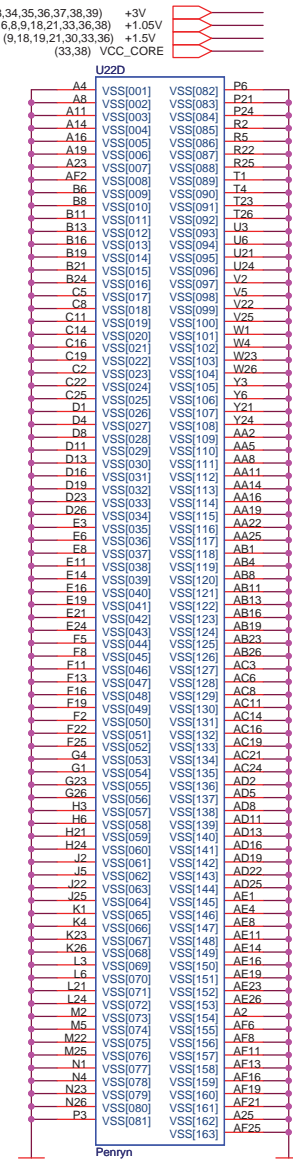


Populate ITP700Flex for bringup



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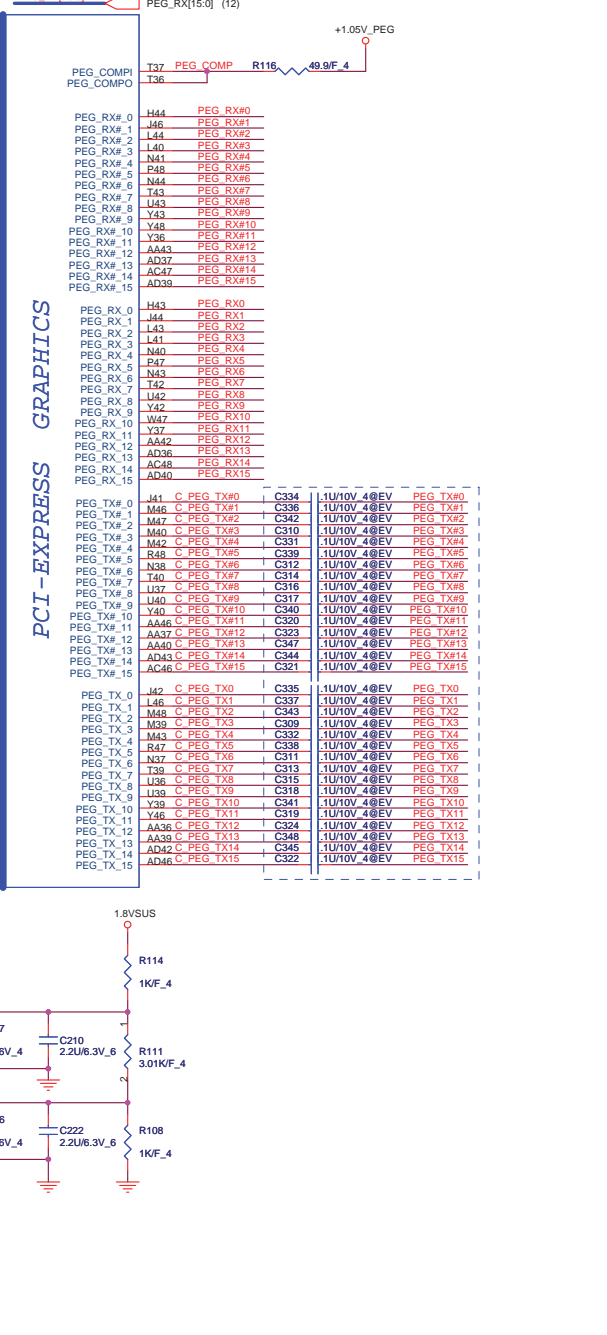
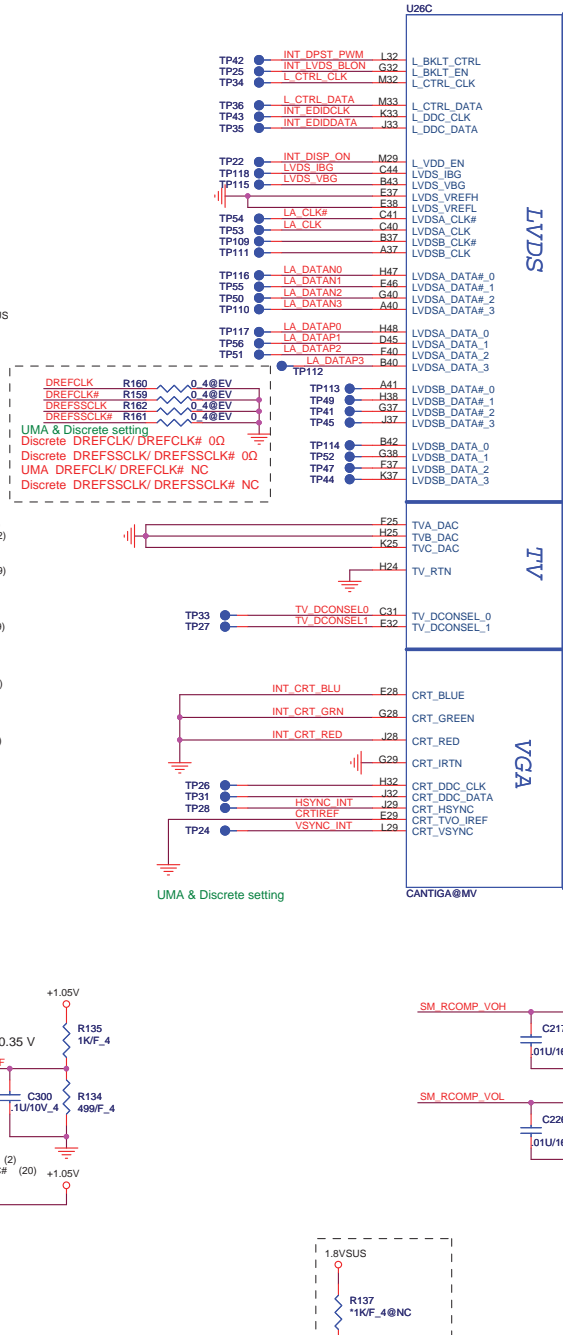




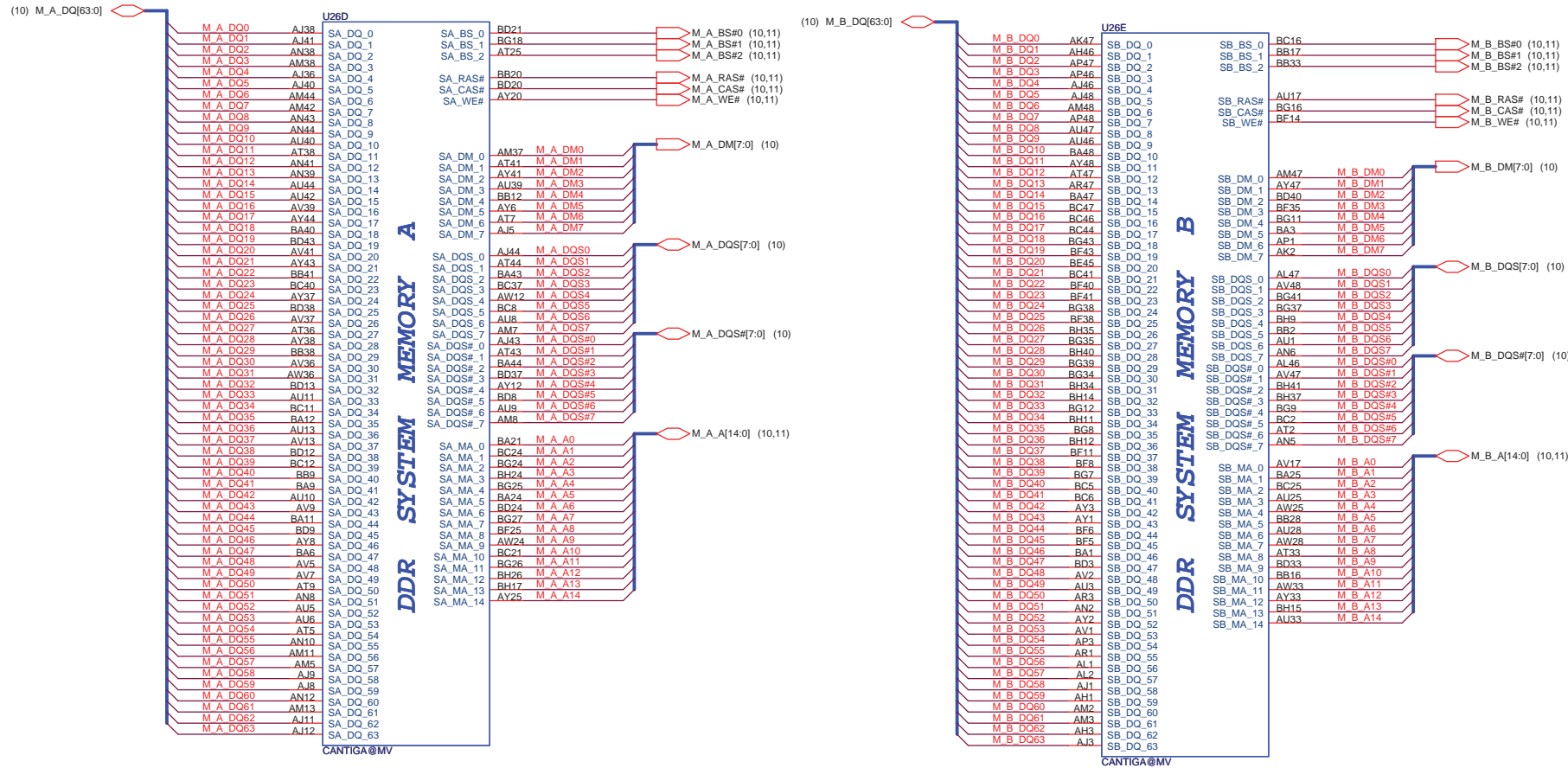




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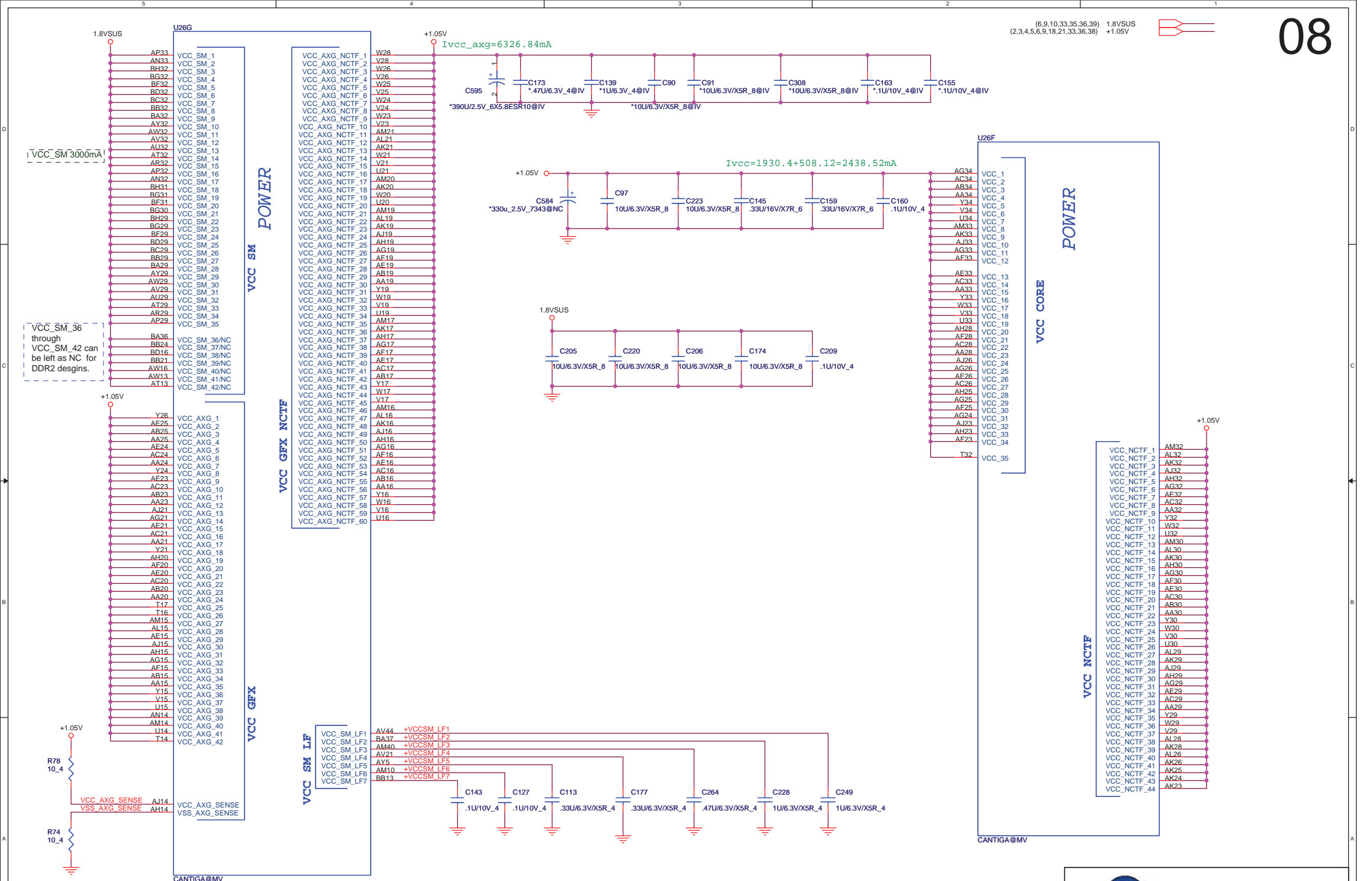






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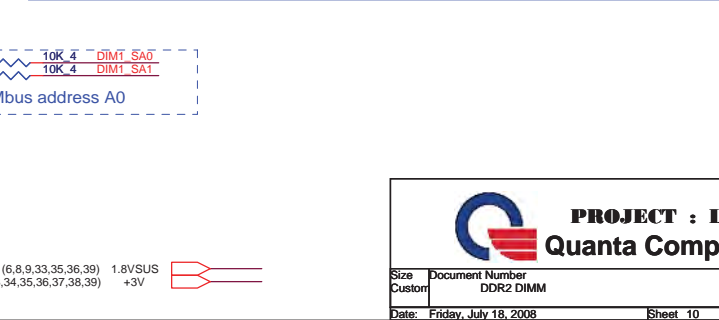
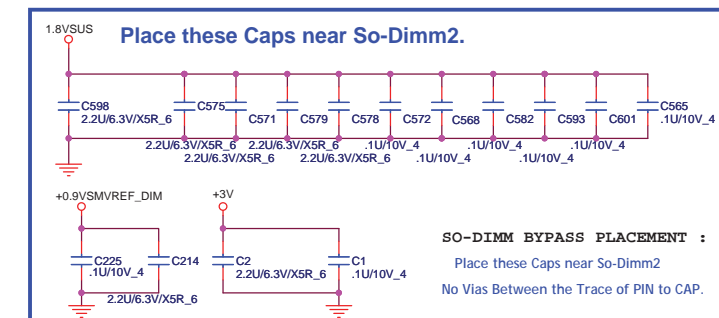
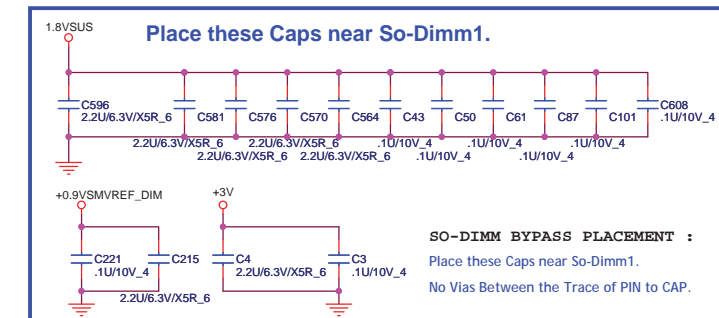
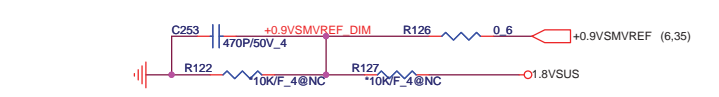
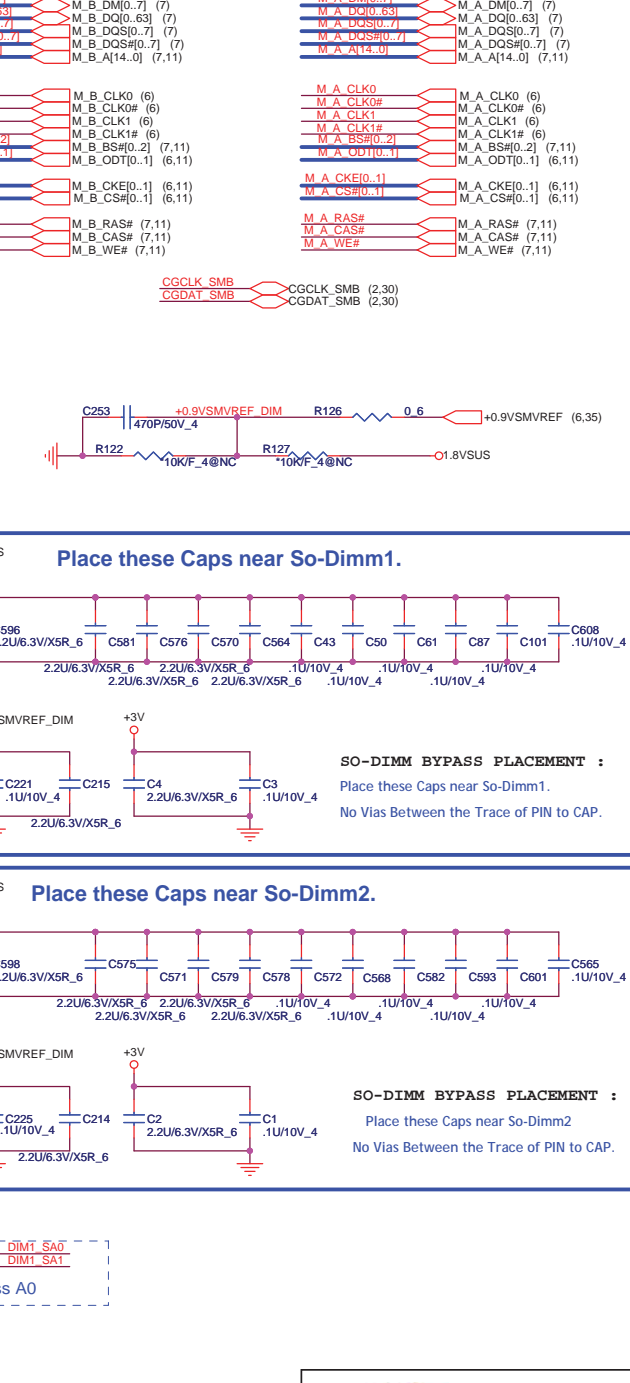
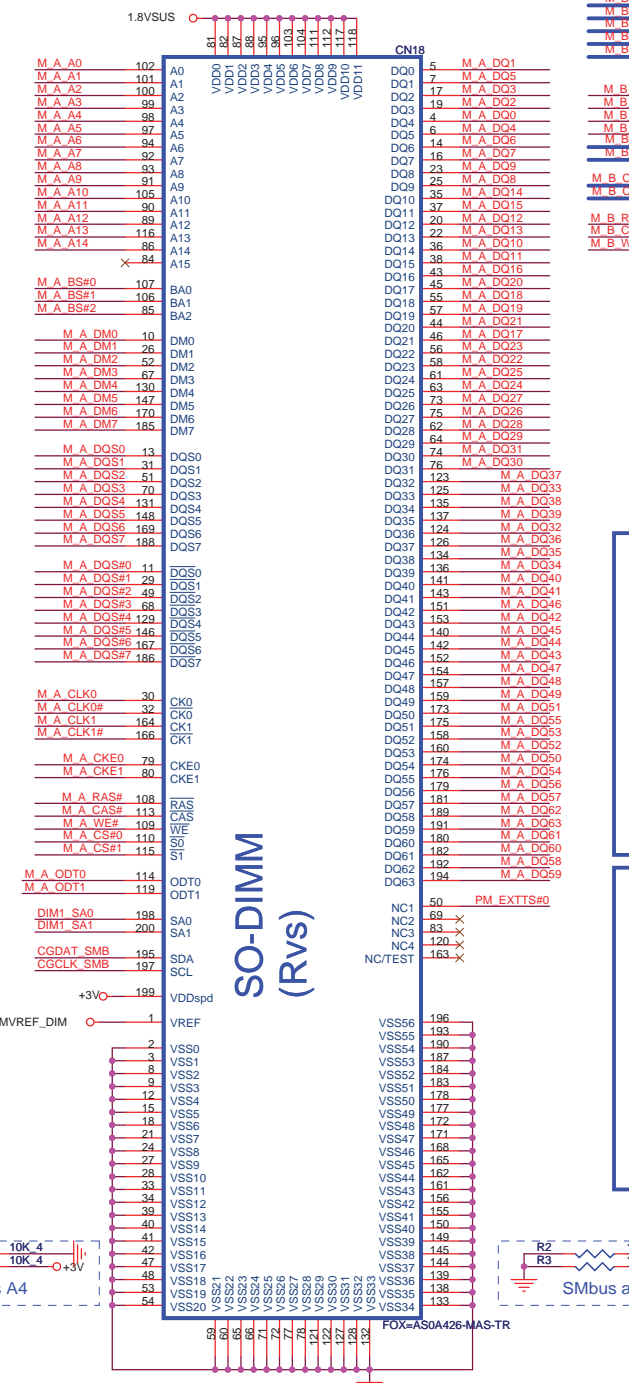
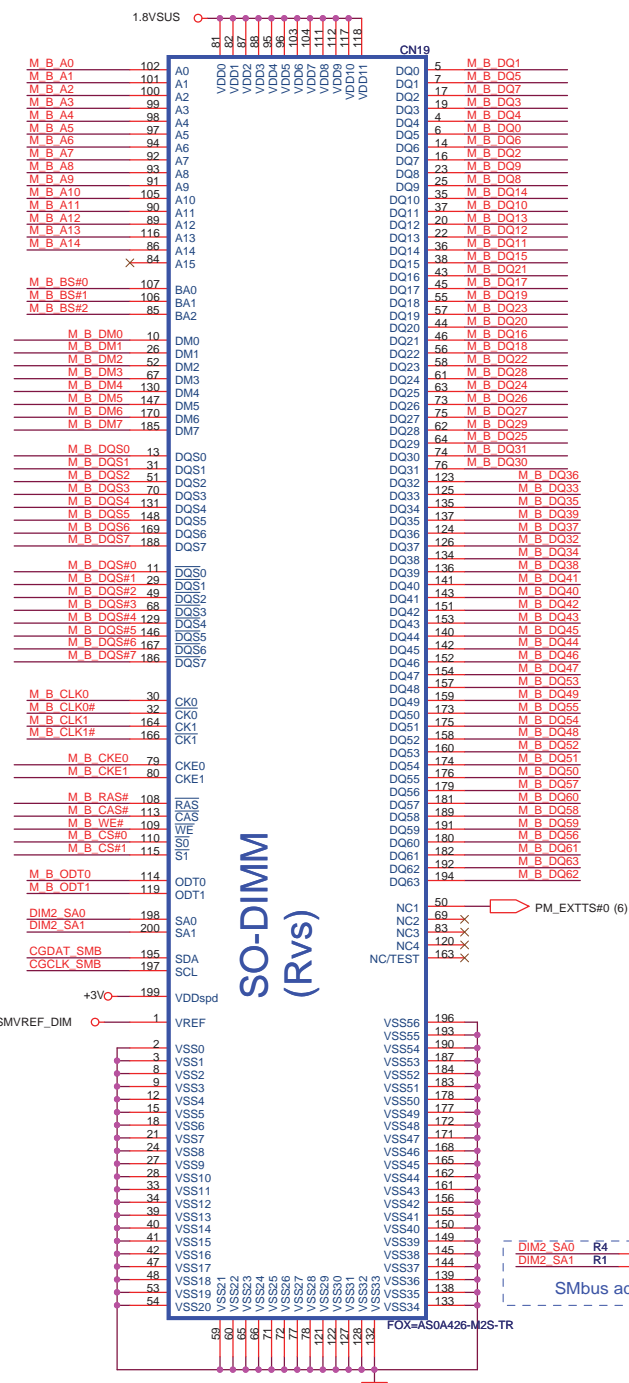








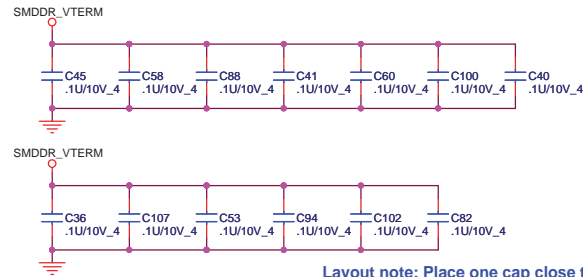






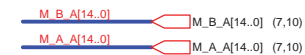
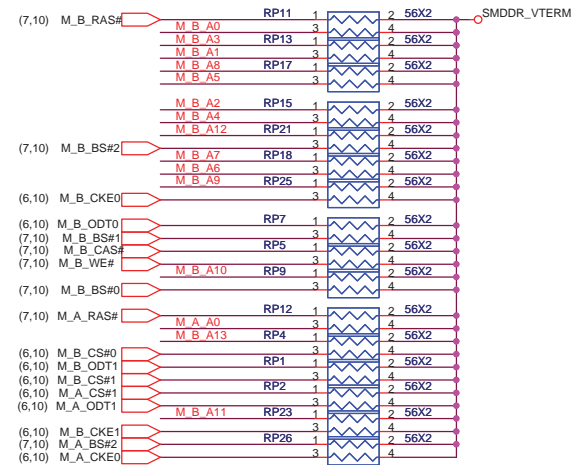
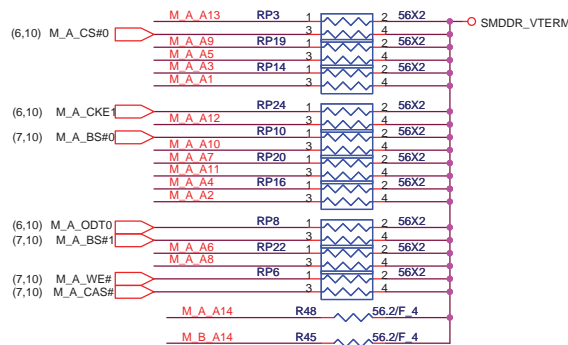
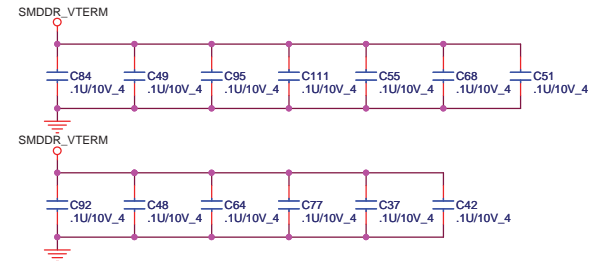
# DDRII DUAL CHANNEL A,B.

## DDRII A CHANNEL

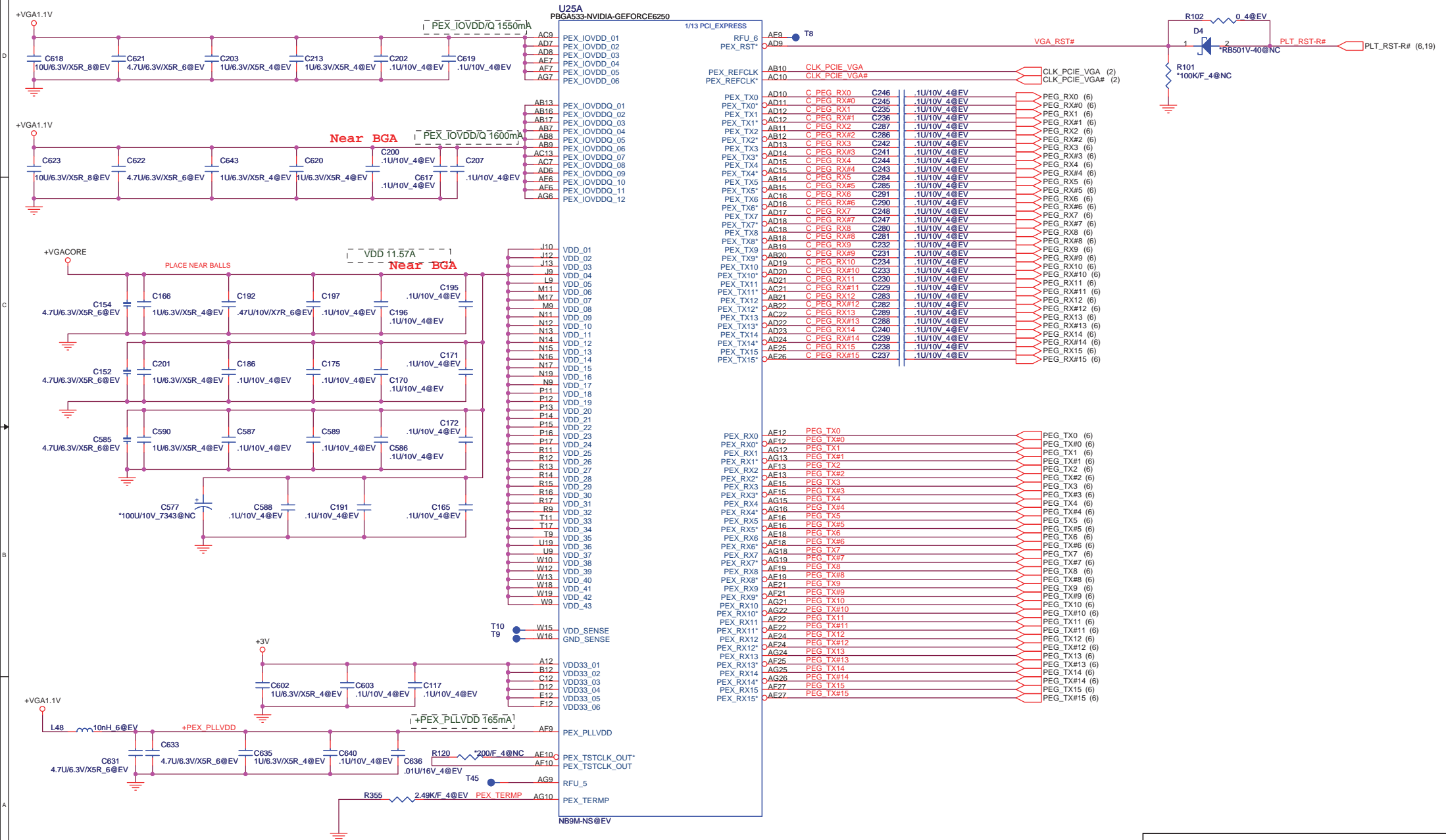


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR\_VTERM

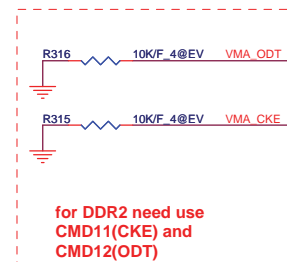
## DDRII B CHANNEL



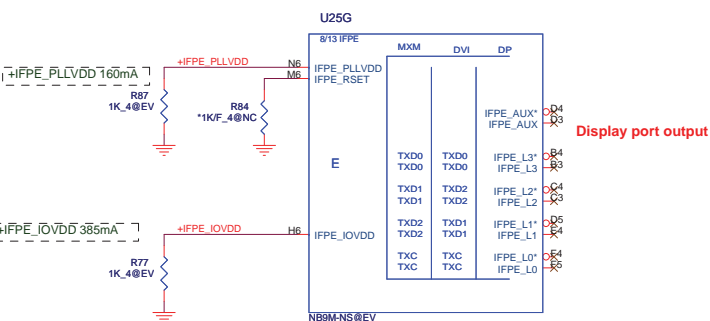
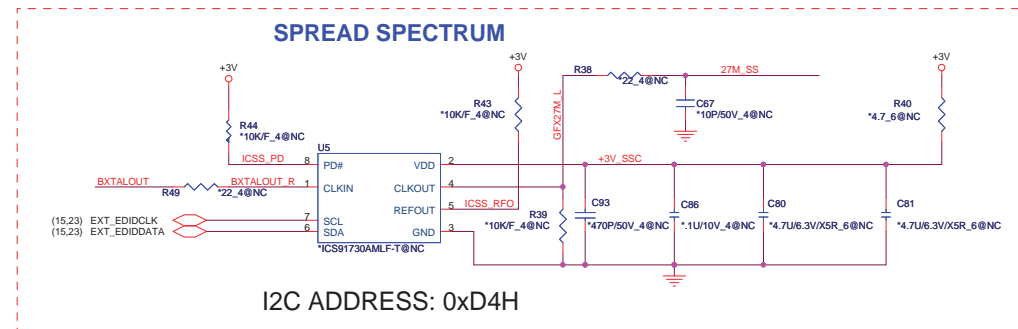








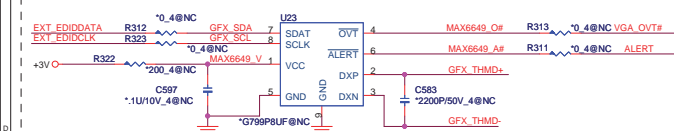




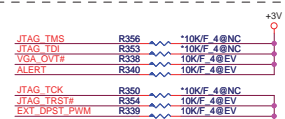
(2,4,6,9,10,12,15,18,19,20,21,22,23,25,27,28,29,30,31,33,34,35,36,37,38,39)	(13,17,33,35)	+1.8V	
		+3V	
	(12,13,33,39)	+VGA1.1V	



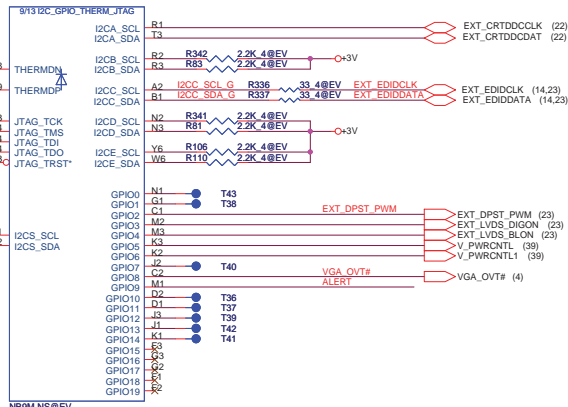
I2C ADDRESS: 0x98H



Thermal Trace Constraints  
Use 10MIL Guard(GND) Trace around THERMDO and THERMDA



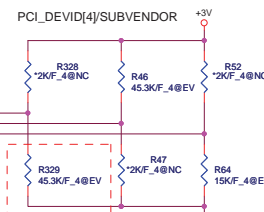
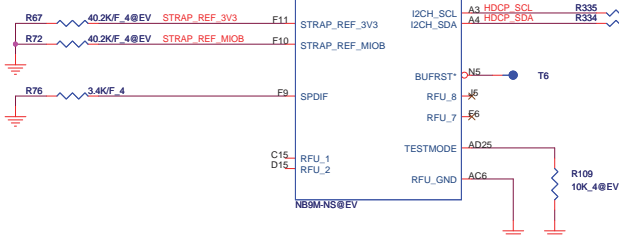
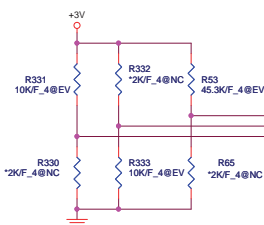
U25M



## GPIO ASSIGNMENTS

SEE Datasheet for details on G9x Straps!

GPIO	I/O	ACTIVE	USAGE
0	IN	N/A	NVGEM HOTPLUG DETECT
1	IN	N/A	DVI/HDMI LINKC HOTPLUG DETECT
2	OUT	HIGH	PANEL BACKLIGHT PWM
3	OUT	HIGH	PANEL POWER ENABLE
4	OUT	HIGH	PANEL BACKLIGHT ENABLE
5	OUT	HIGH	NVVD ALTV0
6	OUT	HIGH	NVVD ALTV1
7	OUT	HIGH	FBVDD VID0
8	IN	LOW	OVERTEMP ALERT
9	OUT	LOW	THERMAL ALERT
10	OUT	HIGH	DYNAMIC FB VREF GDDR3(not used for DDR2)
11	OUT	HIGH	SLI SYNC0(not used for GB1-64)
12	IN	N/A	AC DETECT
13	OUT	LOW	POWER SUPPLY CONTROL0
14	OUT	HIGH	POWER SUPPLY CONTROL1
15	IN	N/A	HPD_E
16	IN	N/A	DVI_E
17	IN	N/A	HDMI_E
18	IN	N/A	DVI_F(not used)
19	IN	N/A	HDMI_F(not used)

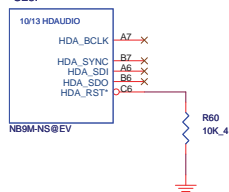


## NB9M-NS Straps

**NB9M-NS VRAM Configuration Table**  
ROM\_SI VRAM CONFIG SET

STRAP	R329 VALUE		MEMORY Vendor
0	5K	PD	NOT USED
1	10K	PD	Samsung DDR2 16Mx16
2	15K	PD	Qmnd DDR2 16Mx16
3	20K	PD	HYNX DDR2 16Mx16
4	25K	PD	NOT USED
5	30K	PD	Samsung DDR2 32Mx16
6	34.8K	PD	Qmnd DDR2 32Mx16
7	45.3K	PD	HYNX DDR2 32Mx16

U25I



(2,4,6,9,10,12,14,18,19,20,21,22,23,25,27,28,29,30,31,33,34,35,36,37,38,39)

+3V



**PROJECT : LE6D**  
**Quanta Computer Inc.**

Size C	Document Number NV9X (GPIO & STRAPS) 4/5	Rev 1A
Date: Thursday, July 24, 2008	Sheet 15	of 40



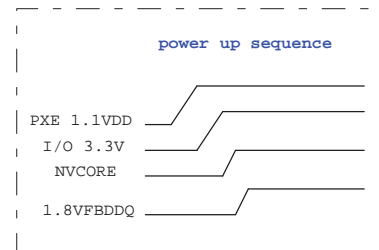
U25J

13/13 GND\_NC

AC11	GND_01	NC_01	AA6
AC14	GND_02	NC_02	AC19
AC17	GND_03	NC_03	E15
AC2	GND_04	NC_04	E6
AC20	GND_05		
AC23	GND_06		
AC26	GND_07		
AC5	GND_08		
AC8	GND_09		
AE11	GND_10		
AE14	GND_11		
AE17	GND_12		
AE2	GND_13		
AE20	GND_14		
AE23	GND_15		
AE26	GND_16		
AE5	GND_17		
AE8	GND_18		
B11	GND_19		
B14	GND_20		
B17	GND_21		
B2	GND_22		
B20	GND_23		
B23	GND_24		
B26	GND_25		
B5	GND_26		
B8	GND_27		
E11	GND_28		
E14	GND_29		
E17	GND_30		
E2	GND_31		
E20	GND_32		
E23	GND_33		
E26	GND_34		
E5	GND_35		
E8	GND_36		
H2	GND_37		
H5	GND_38		
J11	GND_39		
J14	GND_40		
J17	GND_41		
K19	GND_42		
K9	GND_43		
L11	GND_44		
L12	GND_45		
L13	GND_46		
L14	GND_47		
L15	GND_48		
L16	GND_49		
L17	GND_50		
L2	GND_51		
L5	GND_52		
M12	GND_53		
M13	GND_54		
M14	GND_55		
M15	GND_56		
M16	GND_57		
P19	GND_58		
P2	GND_59		
P23	GND_60		
P26	GND_61		
P5	GND_62		
P9	GND_63		
T12	GND_64		
T13	GND_65		
T14	GND_66		
T15	GND_67		
T16	GND_68		
U11	GND_69		
U12	GND_70		
U13	GND_71		
U14	GND_72		
U15	GND_73		
U16	GND_74		
U17	GND_75		
U2	GND_76		
U23	GND_77		
U26	GND_78		
U5	GND_79		
V19	GND_80		
V9	GND_81		
W11	GND_82		
W14	GND_83		
W17	GND_84		
Y2	GND_85		
Y23	GND_86		
Y26	GND_87		
Y5	GND_88		

NB9M-NS@EV

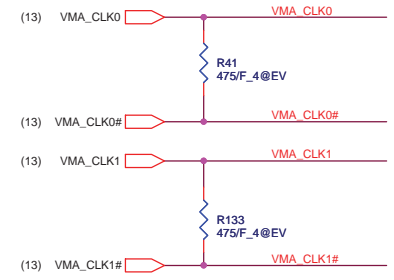
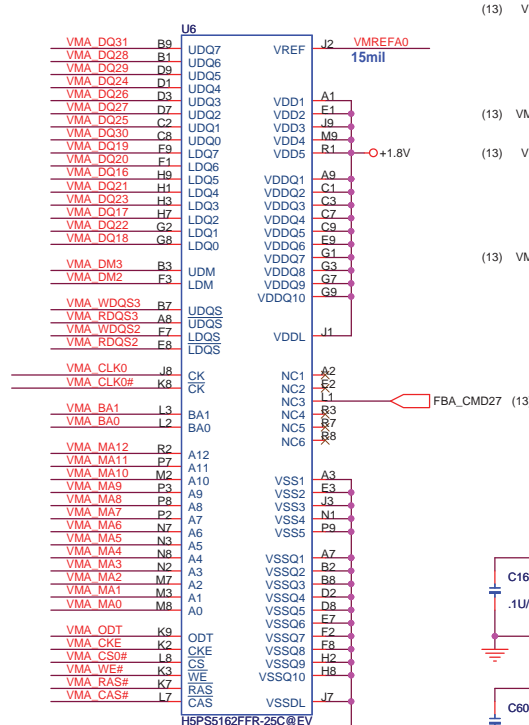
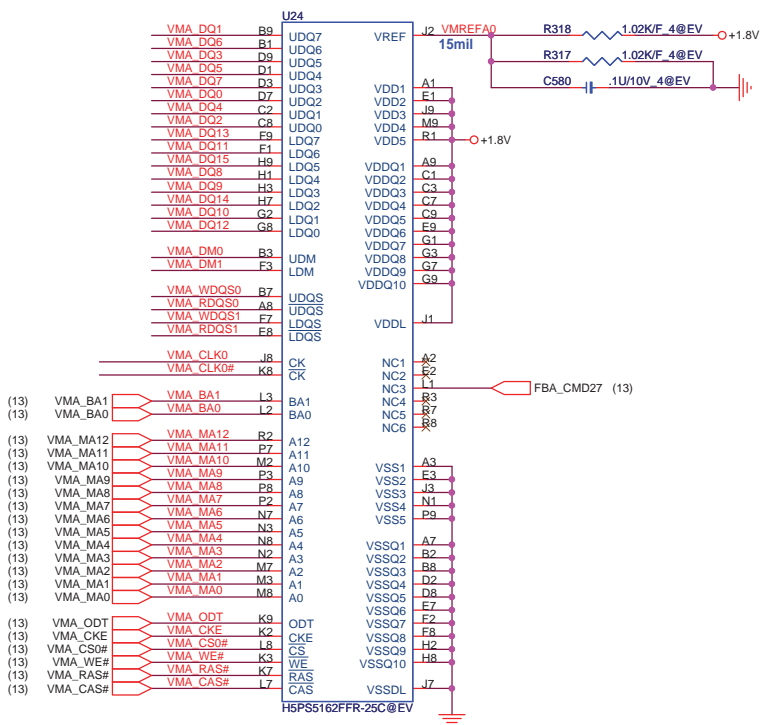
NB9M: VGACORE +0.9V ~ +1.0V



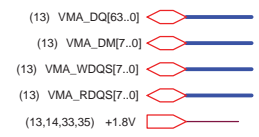
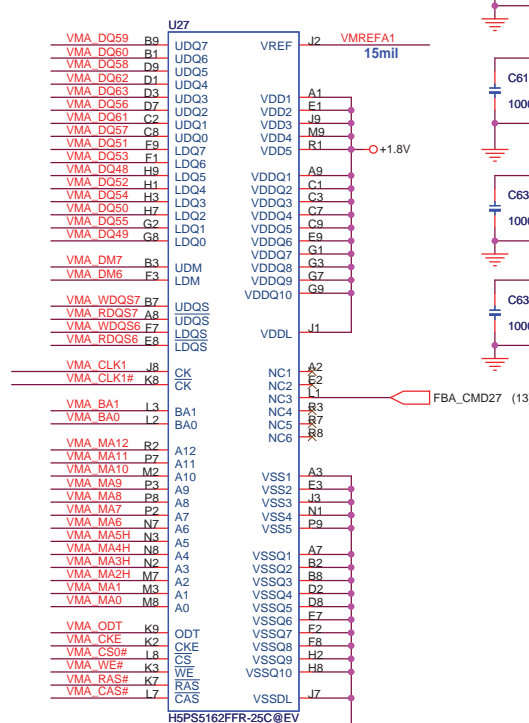
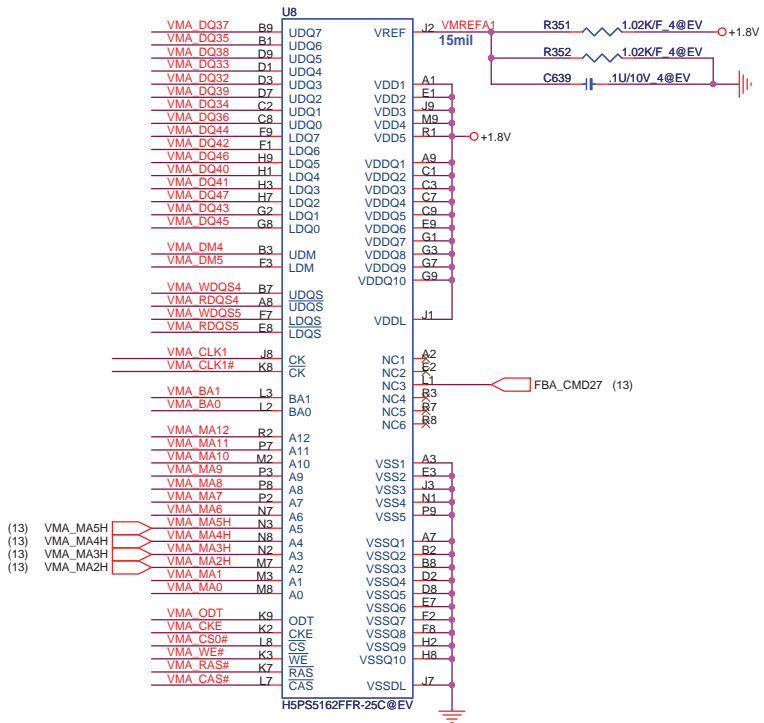
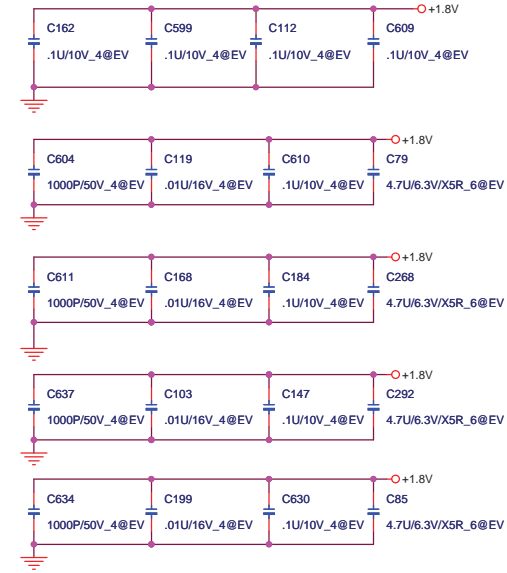
**PROJECT : LE6D**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	NV9X GND 5/5	1A
Date:	Friday, July 18, 2008	Sheet 16 of 40





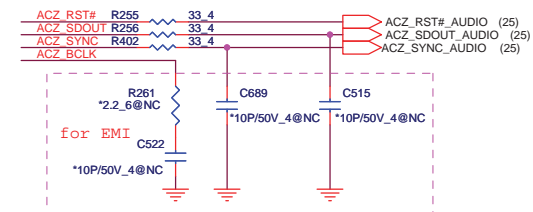
(By pass capacitor)



**PROJECT : LE6D**  
**Quanta Computer Inc.**

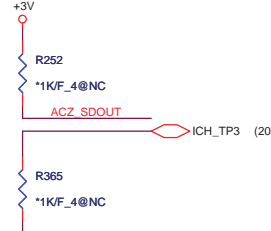
Size	Document Number	Rev
Custom	NV9X VRAM-1(GDDR2 BGA84)	1A
Date: Friday, July 18, 2008	Sheet 17	of 40



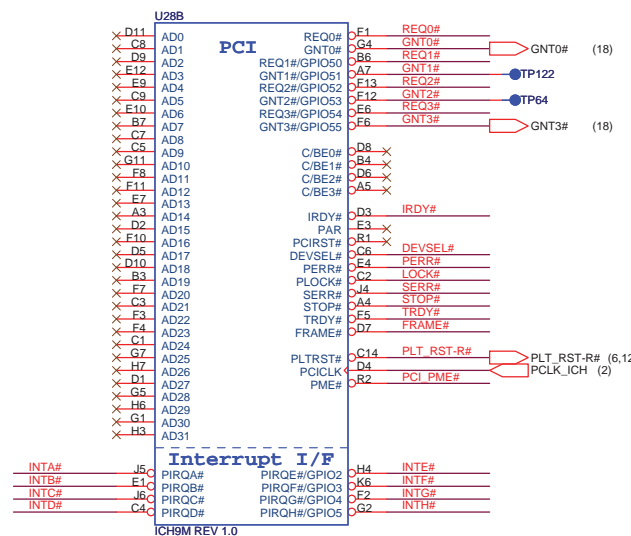
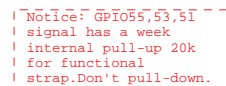



(default)

(default)



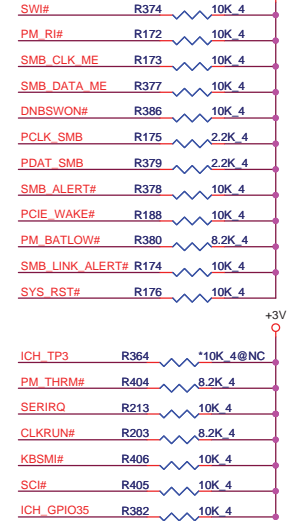
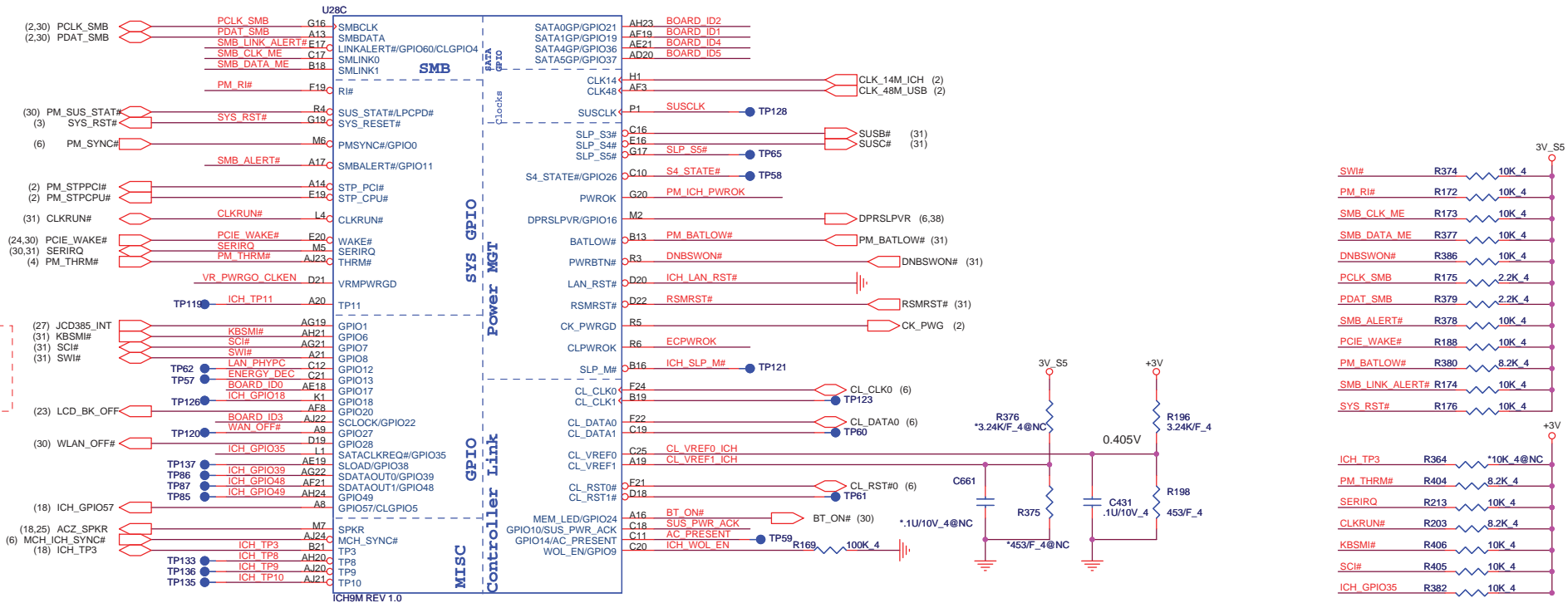
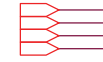




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Size Custom	Document Number ICH9-M PCIE 2/4	Rev 1A
Date: Friday, July 18, 2008	Sheet 19	of 40

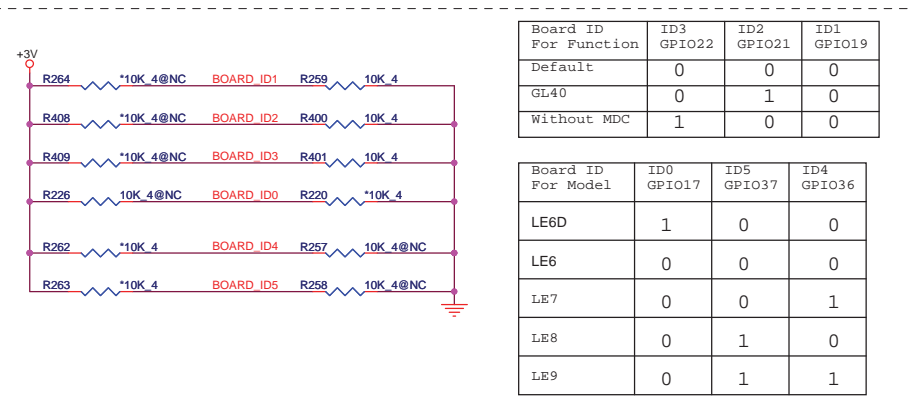
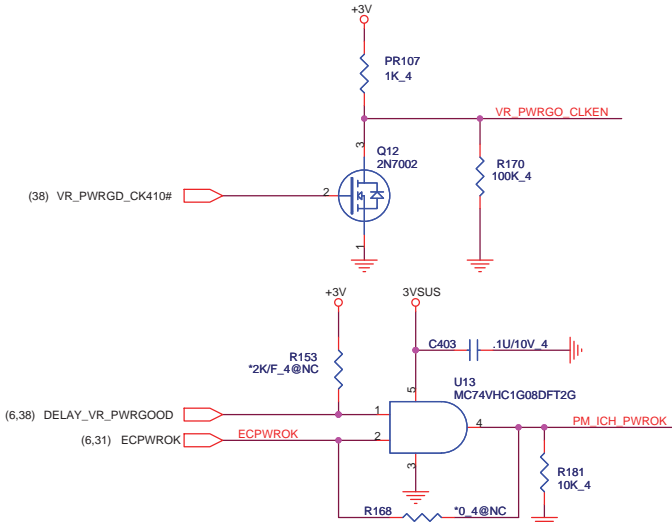


(2,4,6,9,10,12,14,15,18,19,21,22,23,25,27,28,29,30,31,33,34,35,36,37,38,39) +1.5V  
 (18,19,21,33) +3V  
 (25,28,30,33,38) 3V\_S5



Notice: GPIO20 signal should not be pulled high for functional strap(internal pull down 20k).

Notice: GPIO49 is also a strap pin(internal pull up 20k). Don't pull-down.

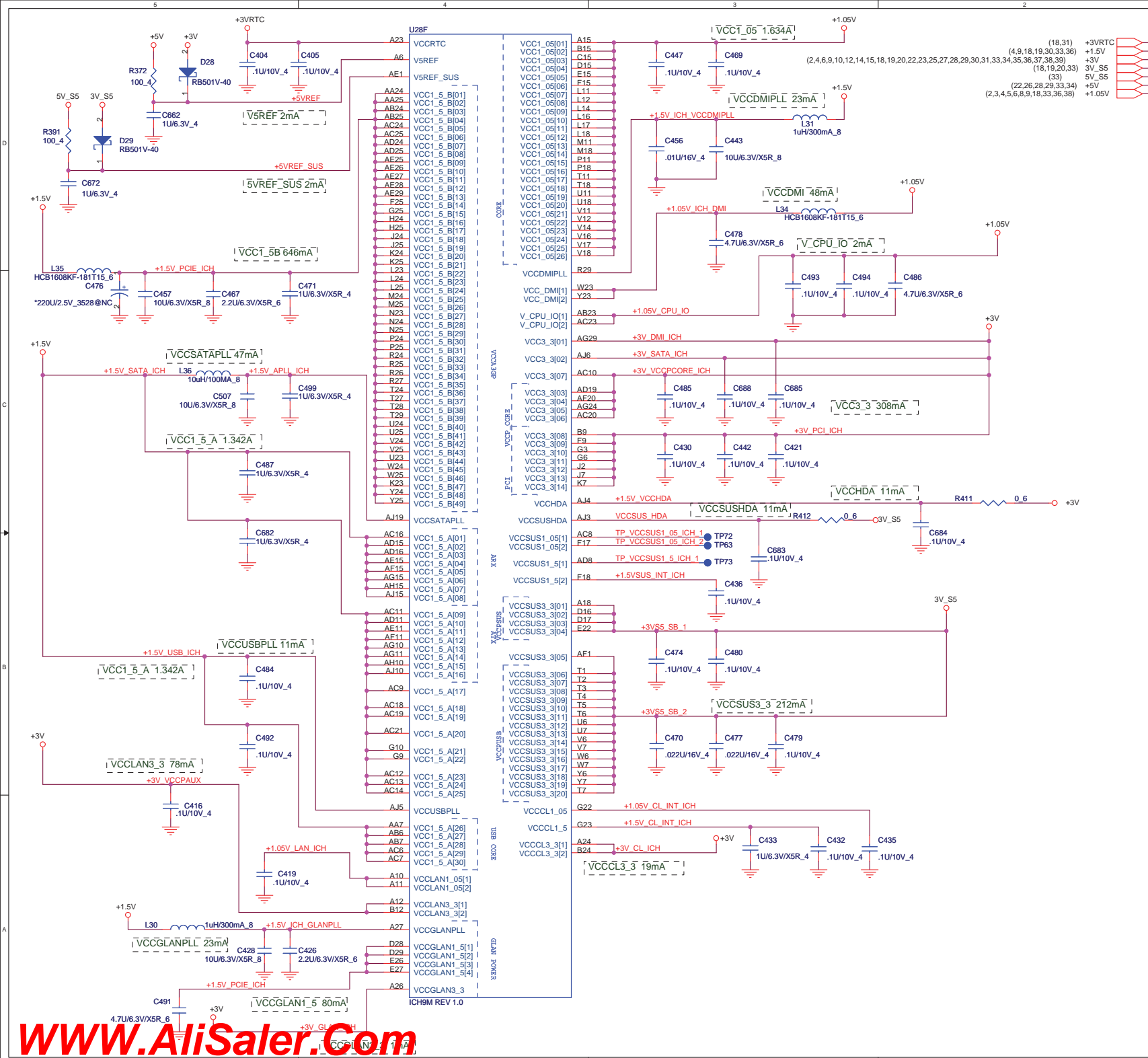


Board ID For Function	ID3 GPIO22	ID2 GPIO21	ID1 GPIO19
Default	0	0	0
GL40	0	1	0
Without MDC	1	0	0

Board ID For Model	ID0 GPIO17	ID5 GPIO37	ID4 GPIO36
LE6D	1	0	0
LE6	0	0	0
LE7	0	0	1
LE8	0	1	0
LE9	0	1	1



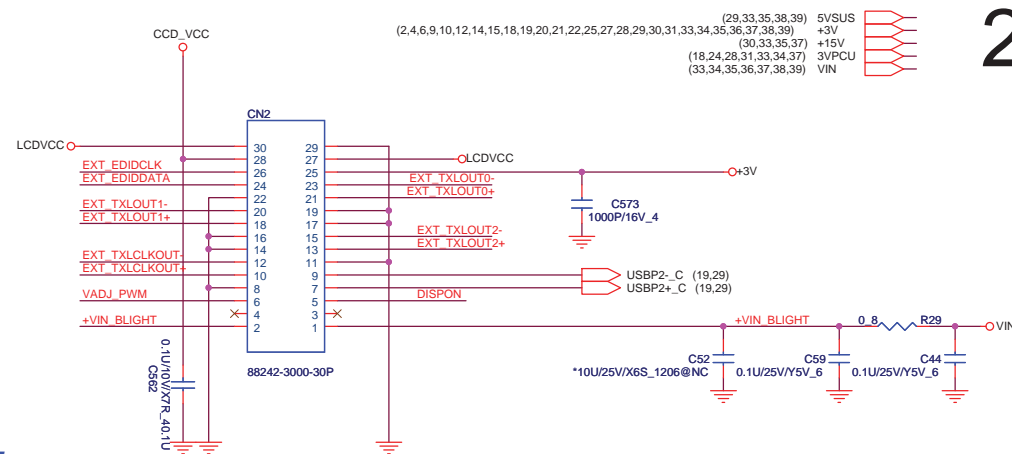
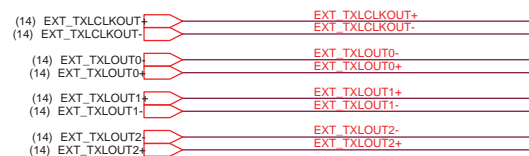




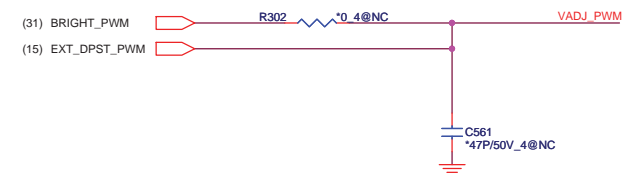
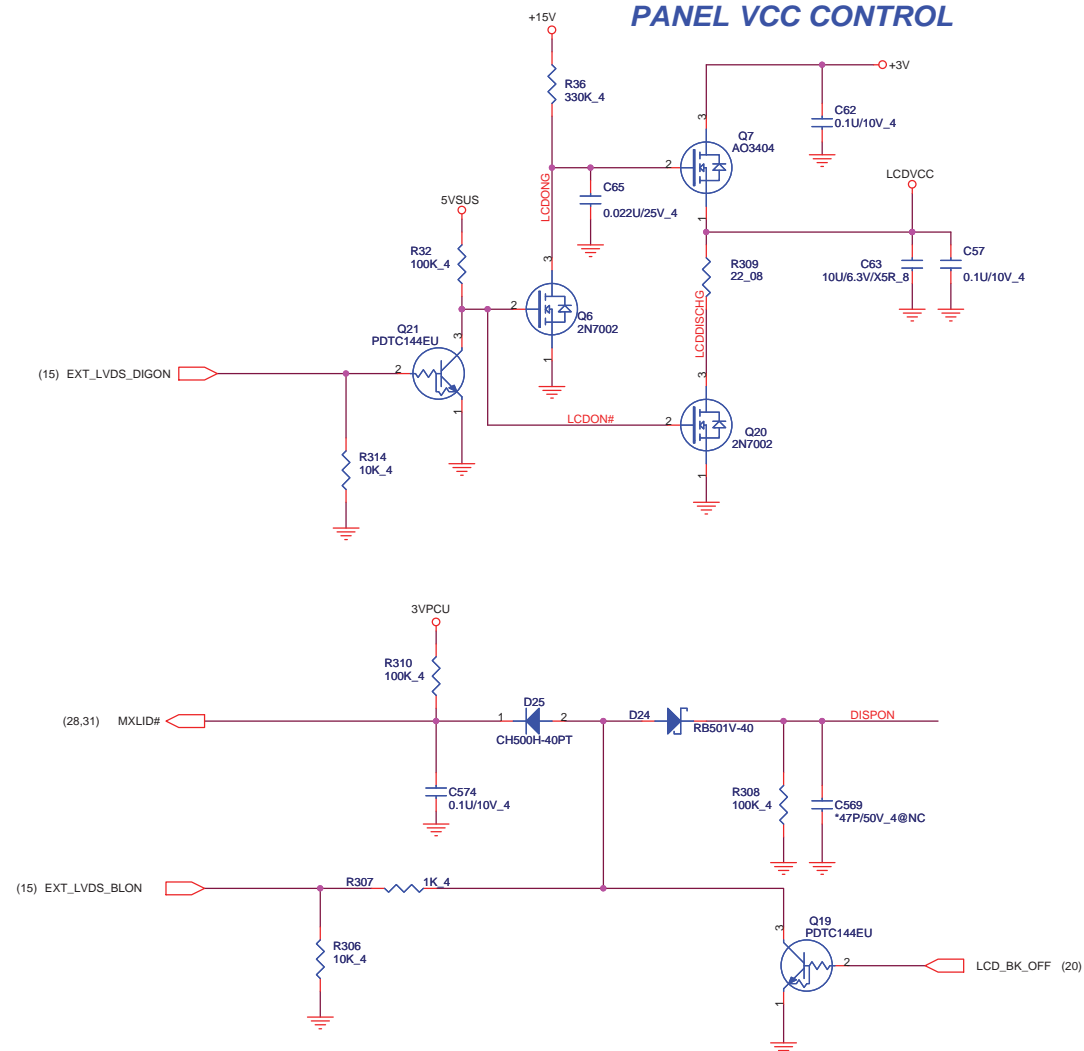
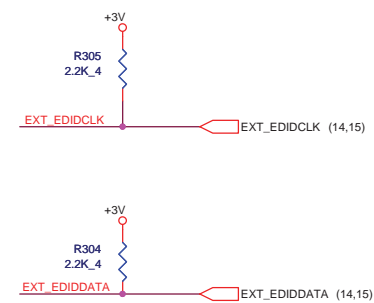








### PANEL VCC CONTROL



**PROJECT : LE6D**  
**Quanta Computer Inc.**

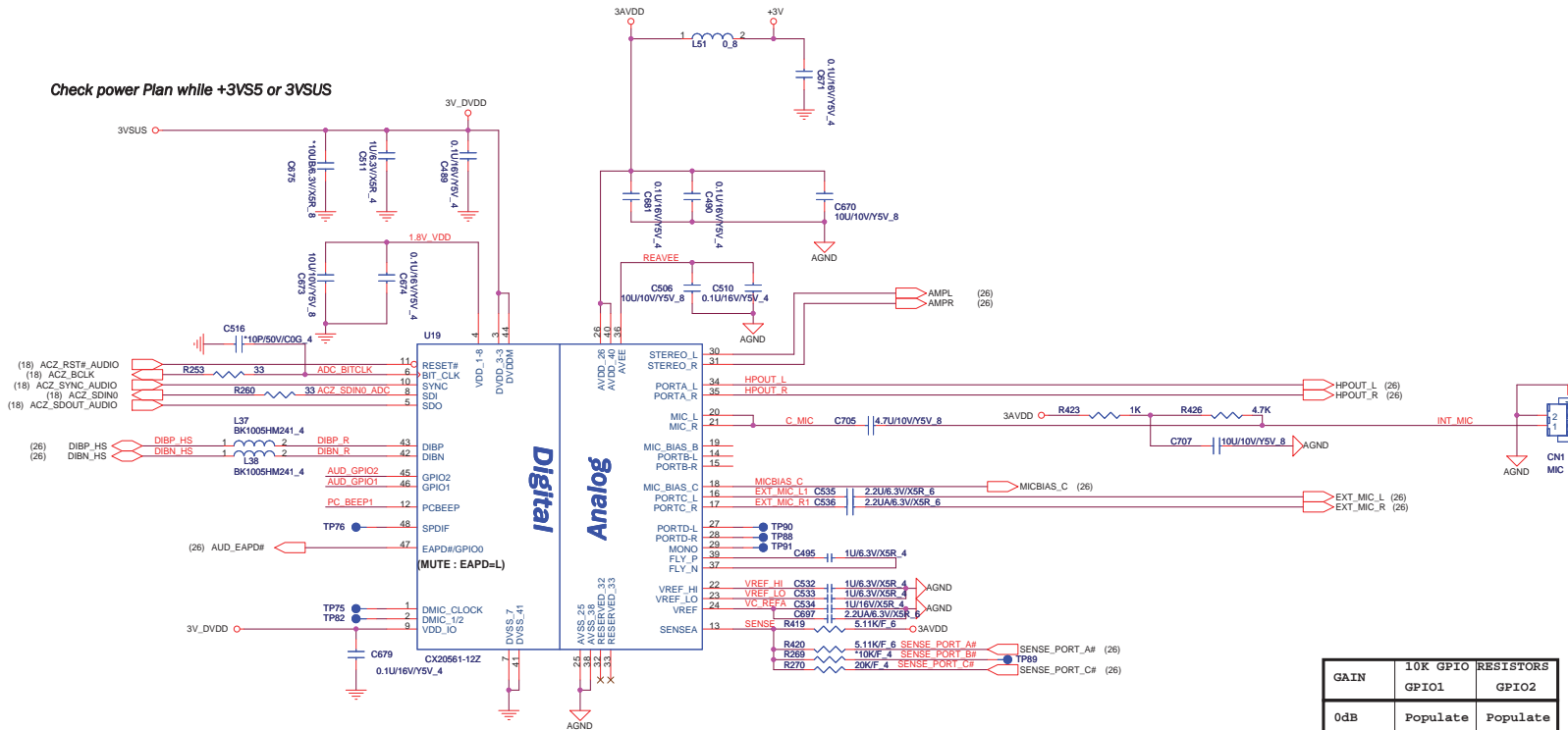
Size	Document Number	Rev
Custom	LCD & LID CON	1A
Date:	Thursday, July 24, 2008	Sheet 23 of 40



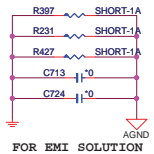




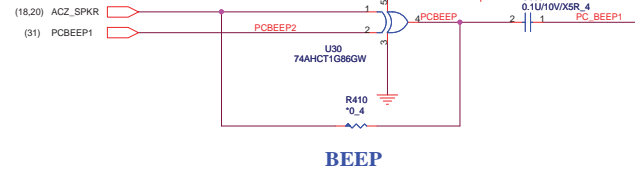
Check power Plan while +3VS5 or 3VSUS



Check power Plan while +1.5VS5 or 1.5VSUS



Default gain is -6dB without populating the 10K ohm pull down resistors going to GPIO1 and GPIO2

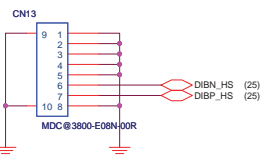
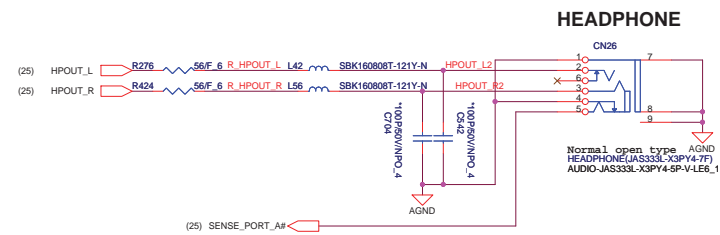
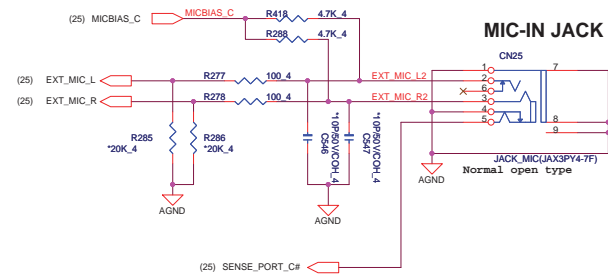
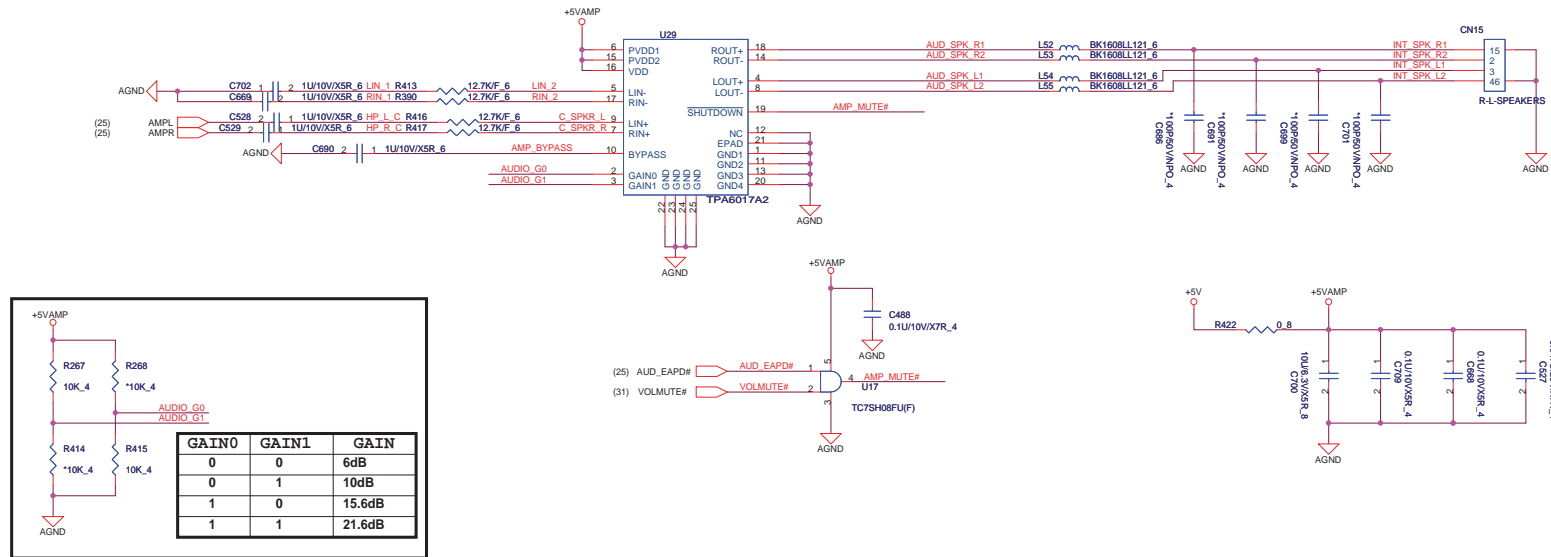


GAIN	10K GPIO GPIO1	RESISTORS GPIO2
0dB	Populate	Populate
-6dB	Omit	Omit
-12dB	Populate	Omit
-16dB	Omit	Populate

STEREO	INTERNAL SPEAKERS
PORT-A	EXTERNAL HEAD-PHONE
MIC	INTERNAL MIC
PORT-B	EXTERNAL MIC



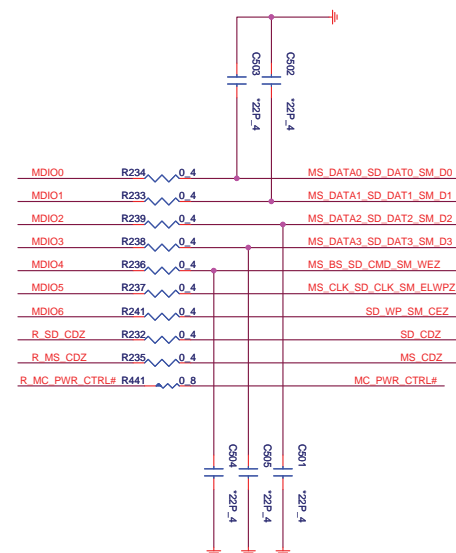
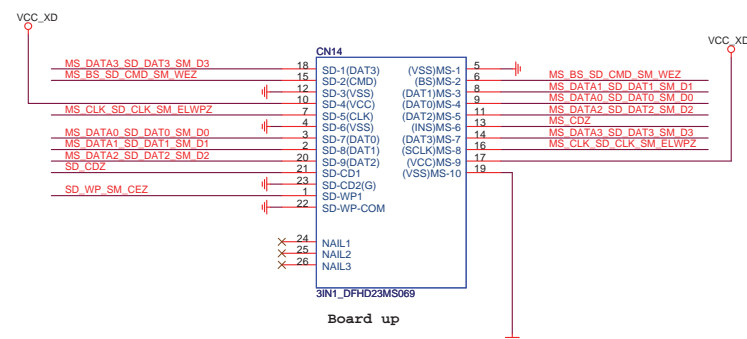
## INTERNAL SPEAKER AMPLIFIER



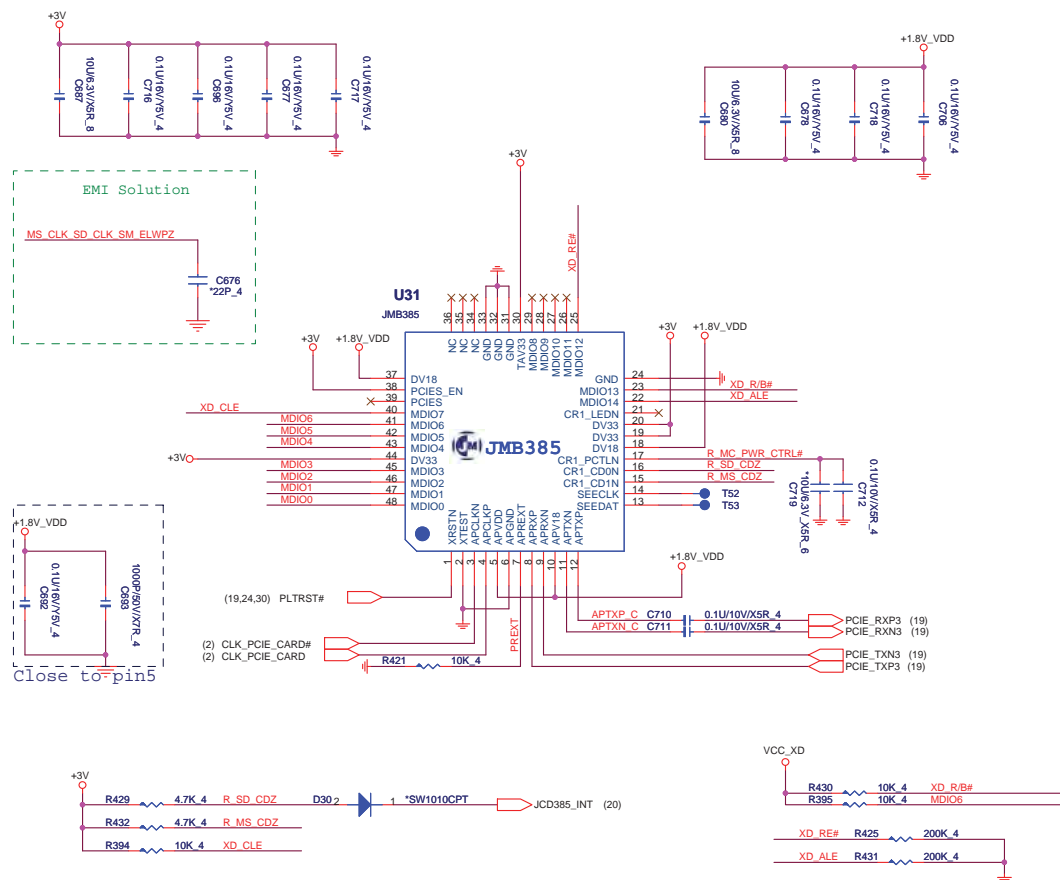
Modem connector



### 3 IN 1 CARD READER



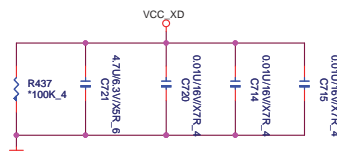
## CARDREADER POWER



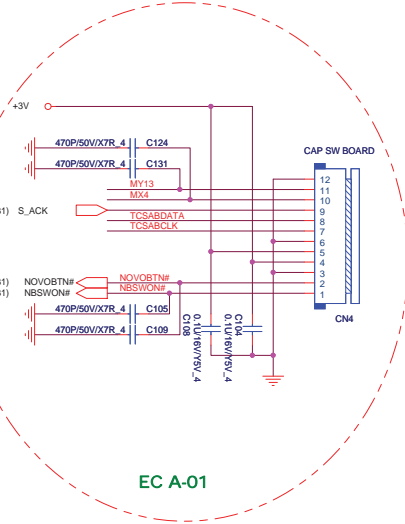
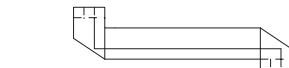
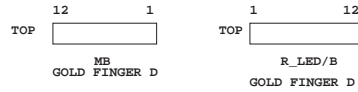
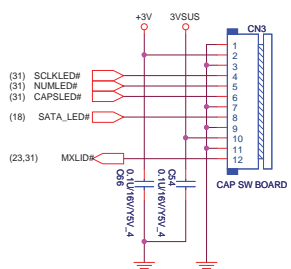
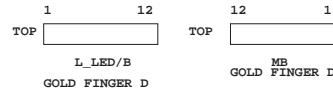
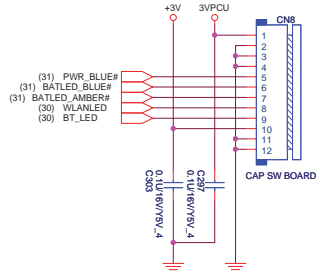
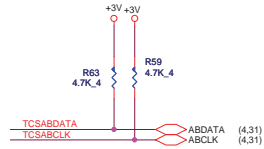
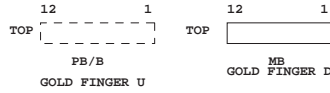
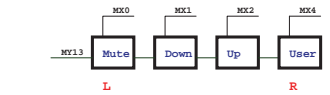
### Memory Card Power Supply



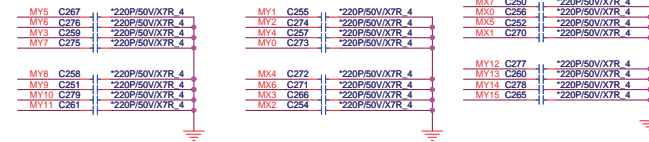
Use 0805 type and over  
20 mils trace width on  
both side



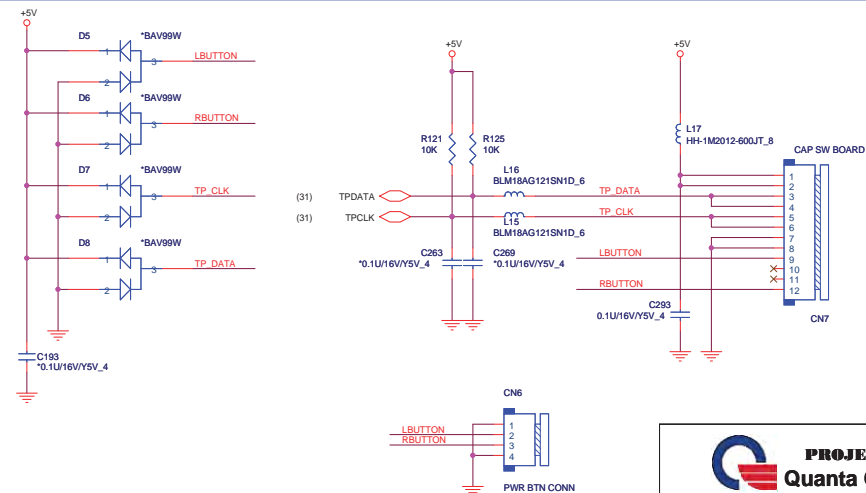
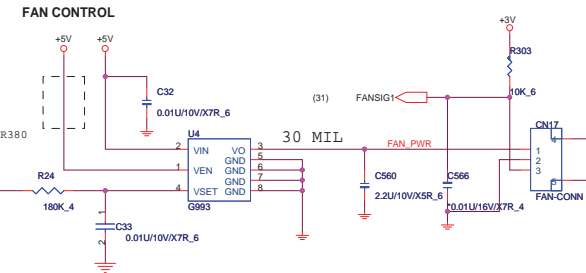
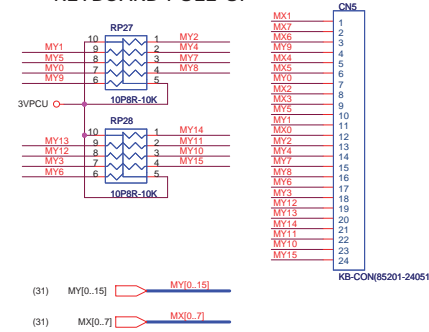




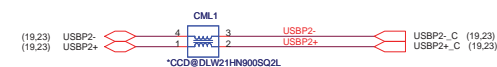
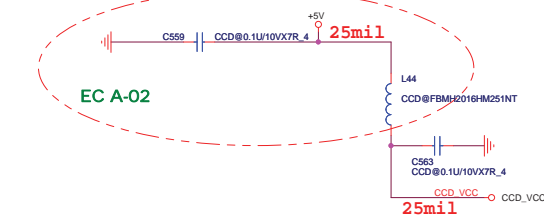
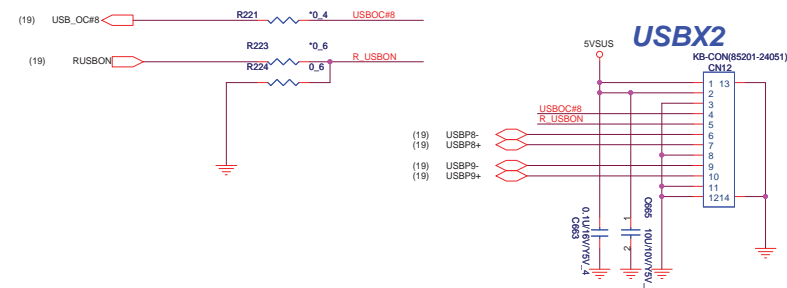
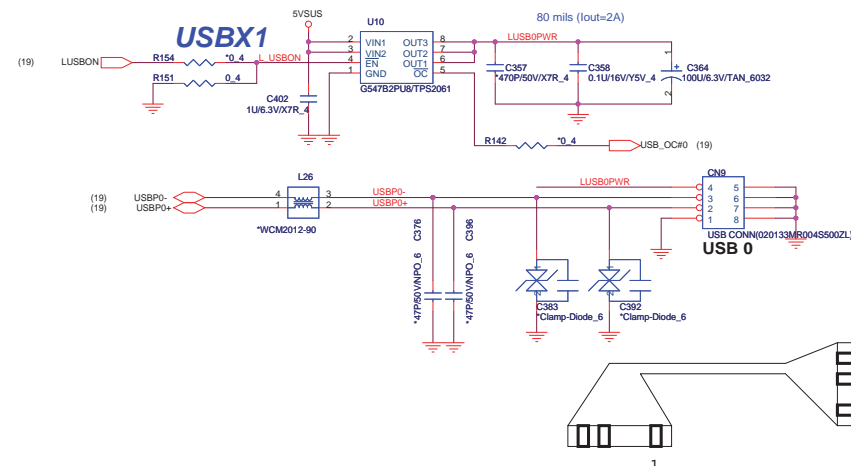
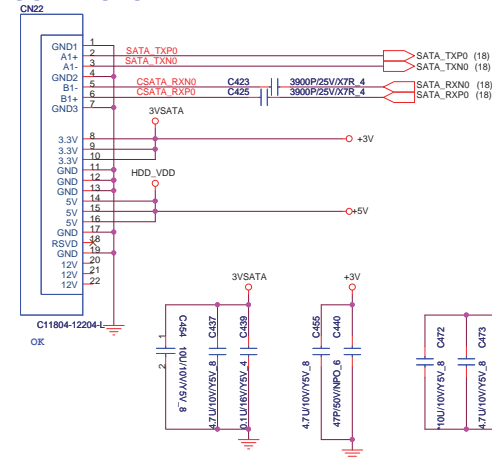
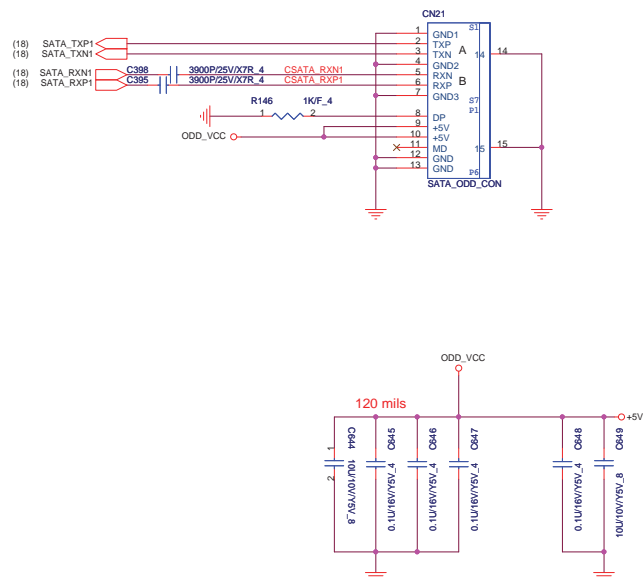
EC A-01



## KEYBOARD PULL-UP

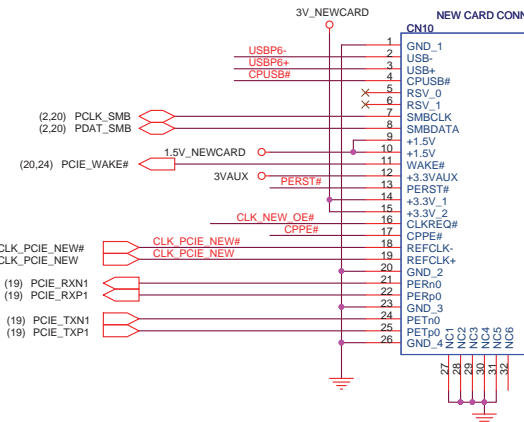




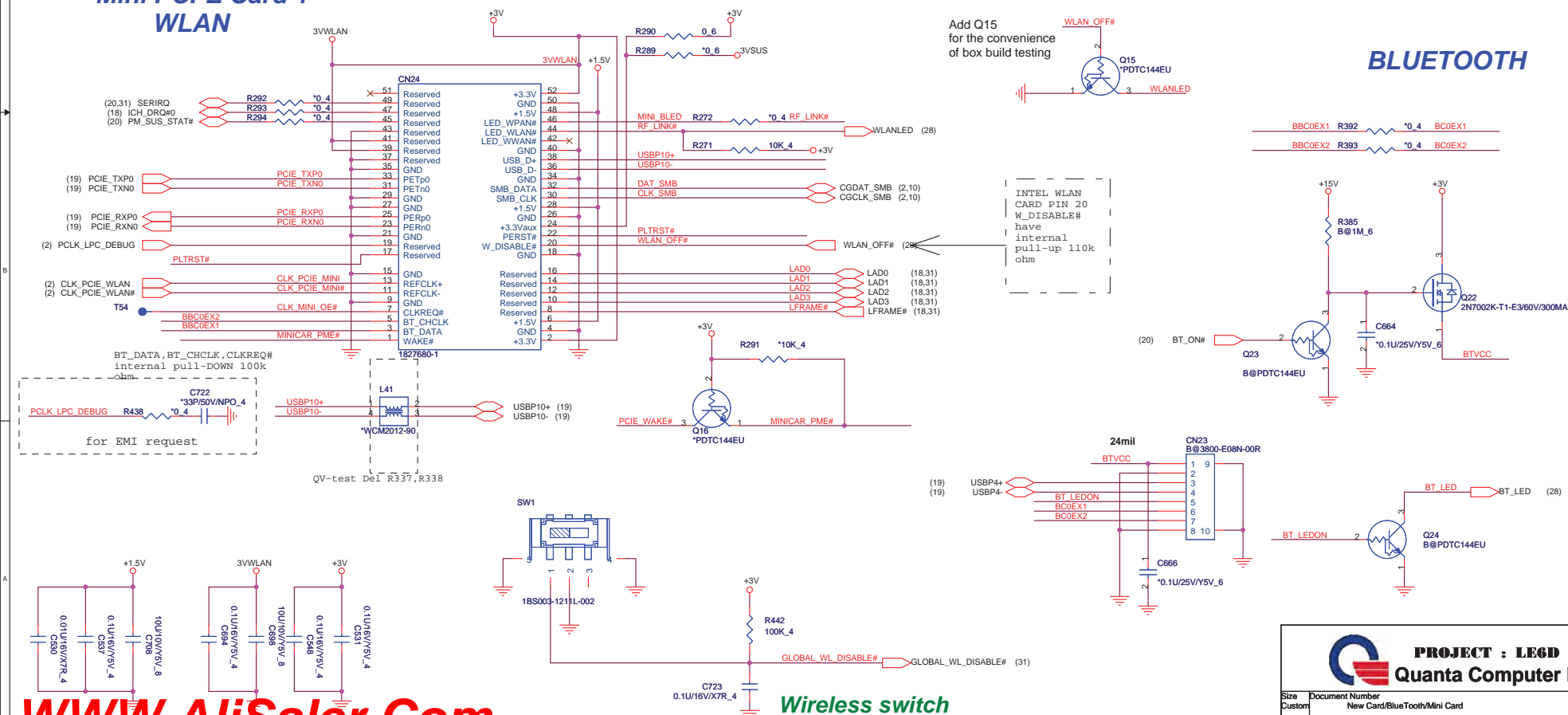


CCD_PWRON#	High Disable	Low Enable
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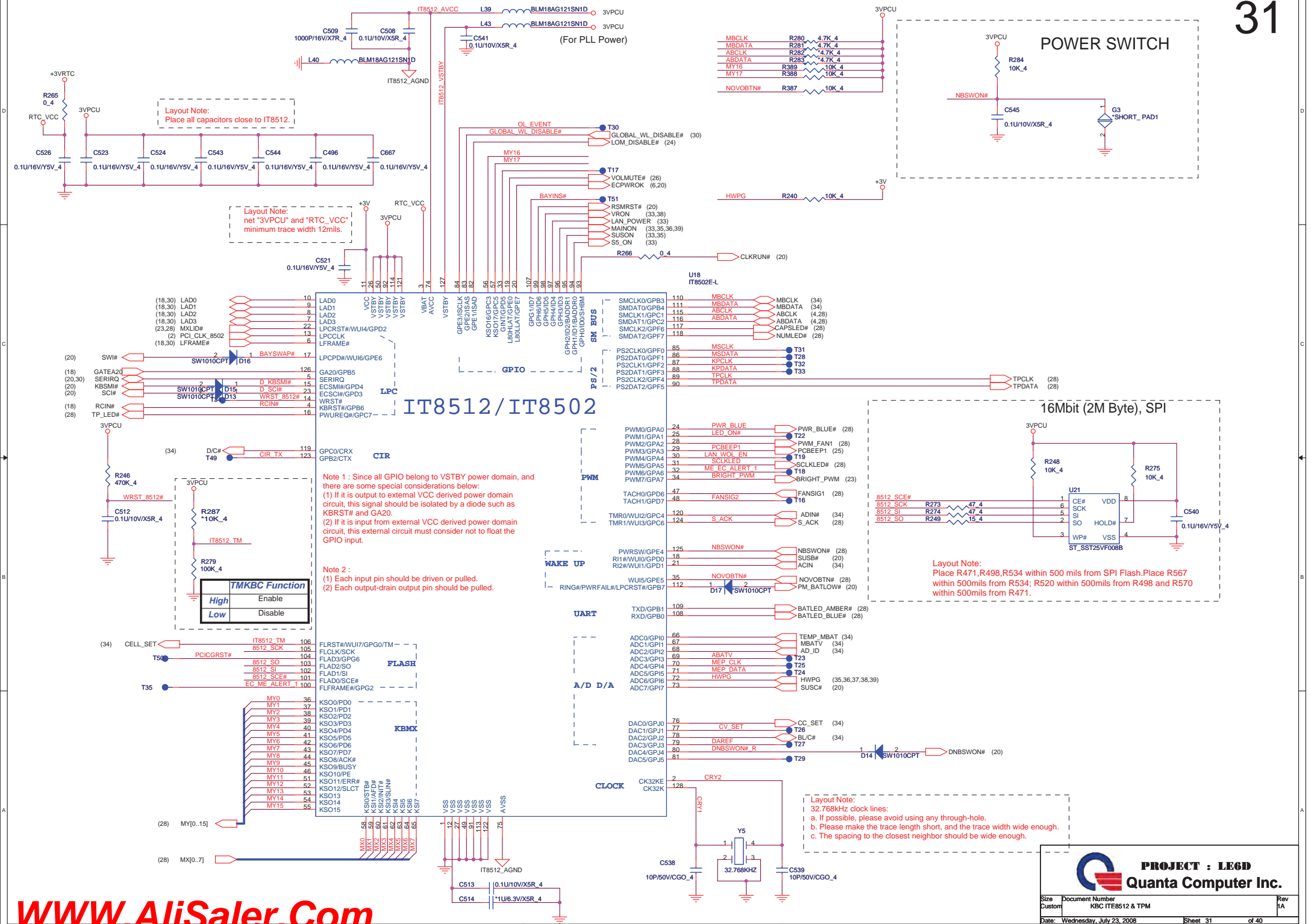




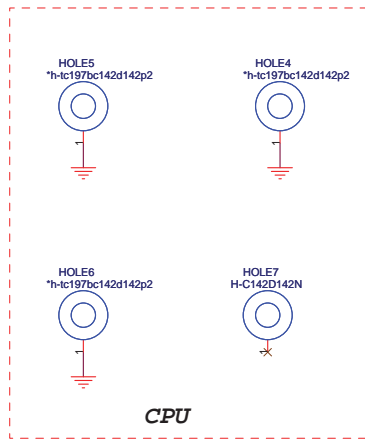
**BLUETOOTH**



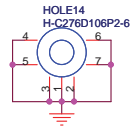
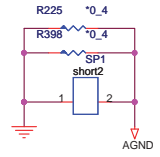
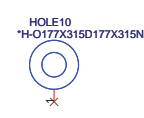
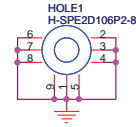
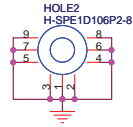
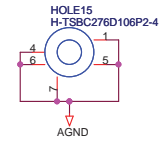
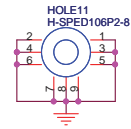
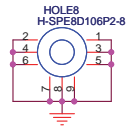




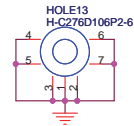




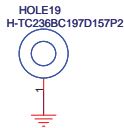
**TOP FAN**



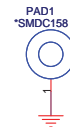
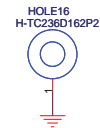
**RSPKR**



**RSPKL**



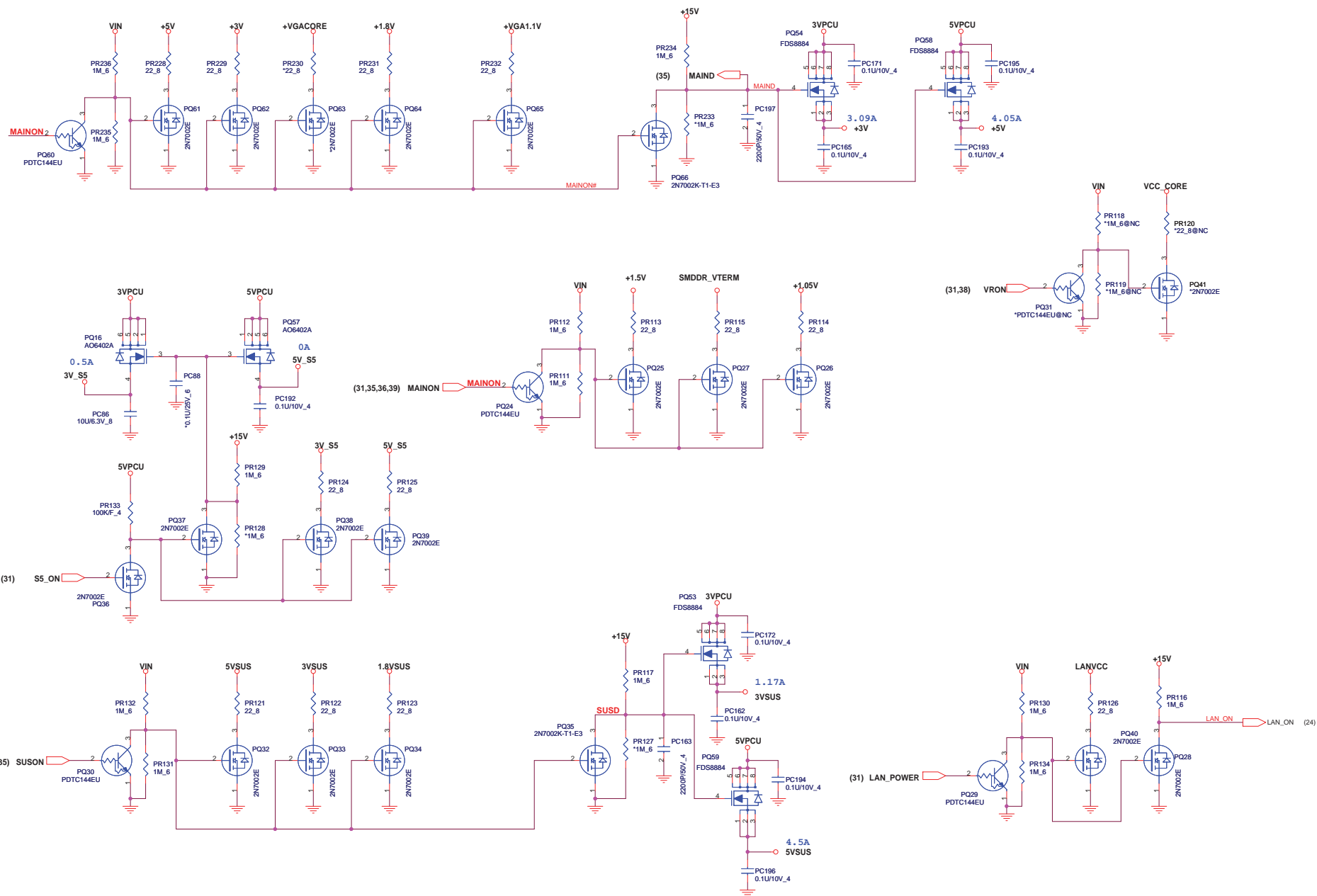
**MINI-PCIE**



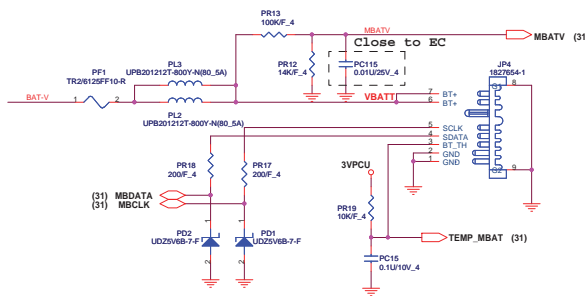
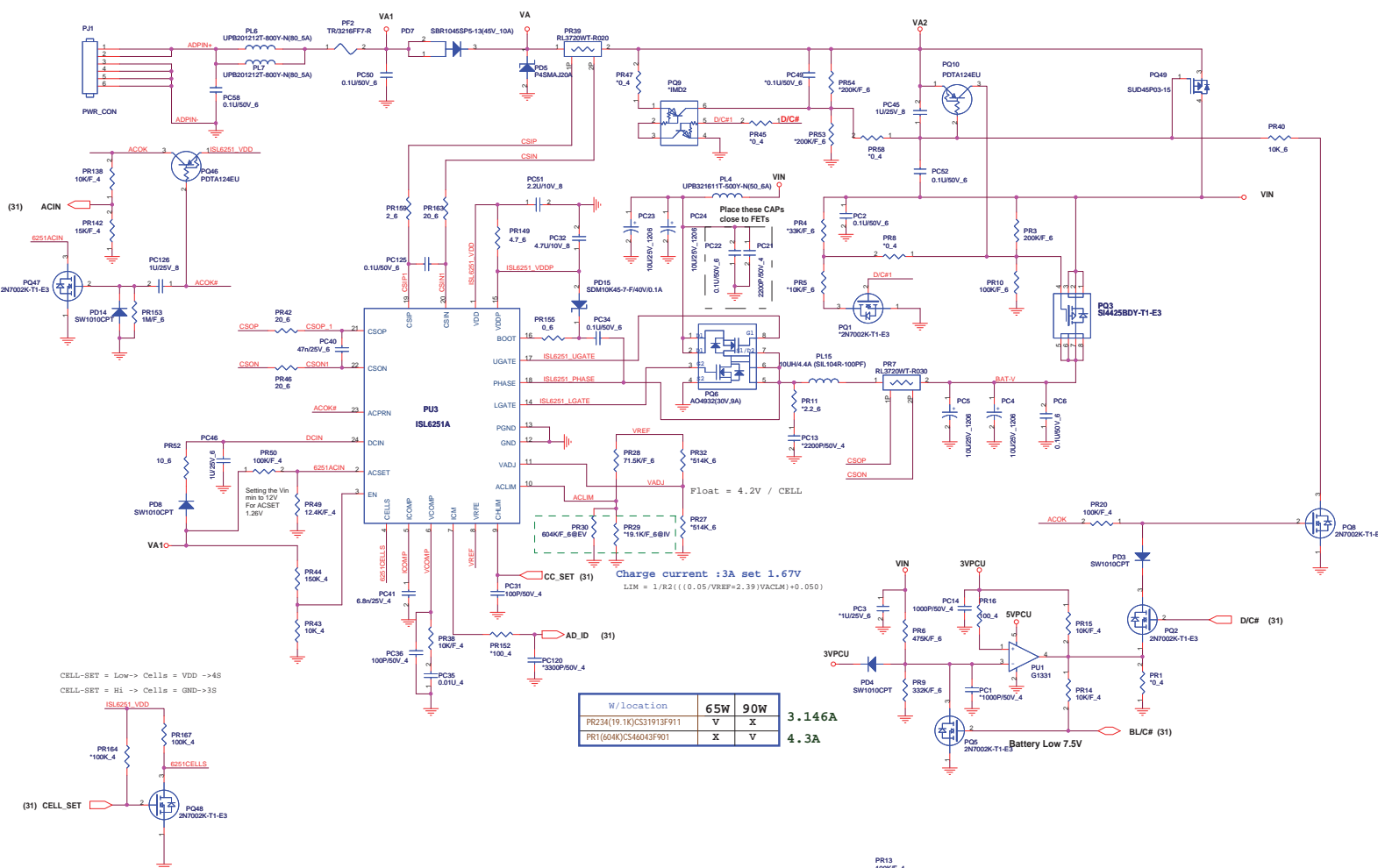
**BOT NB**



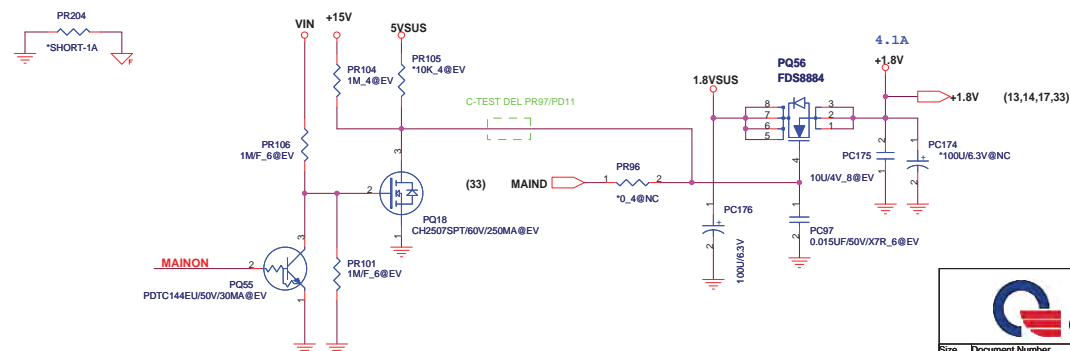
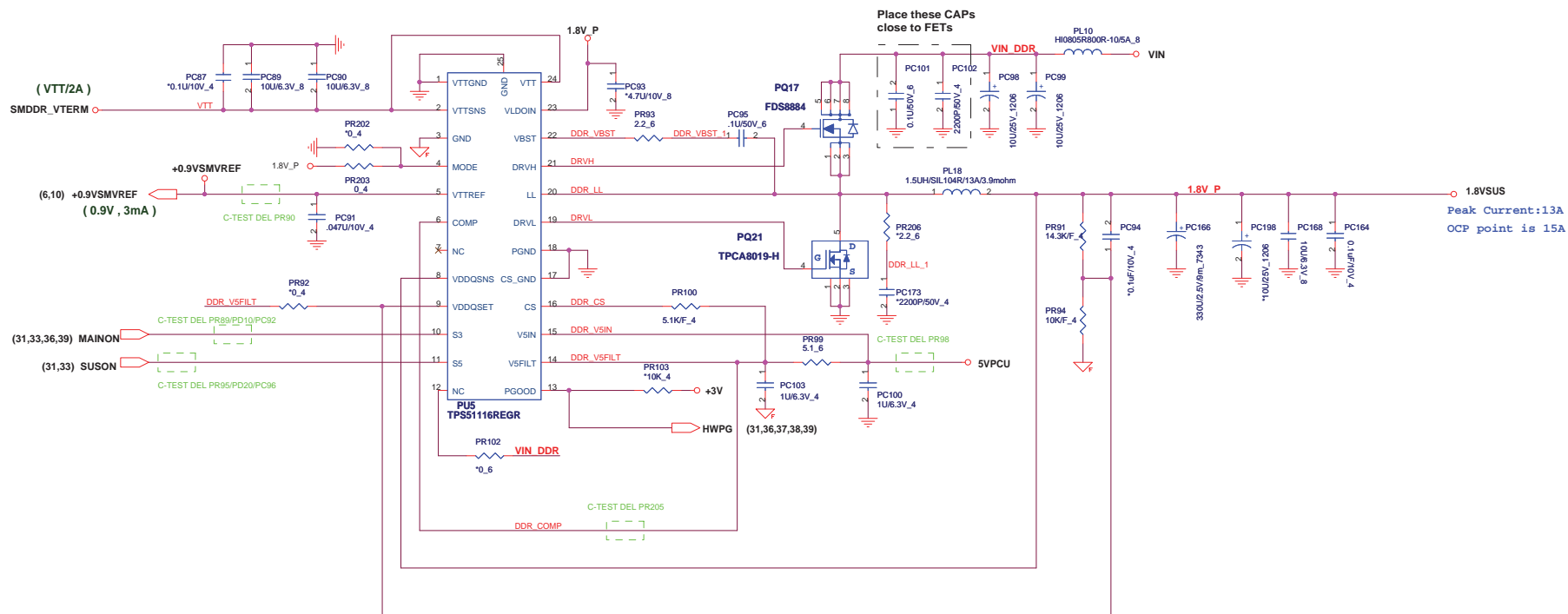
## DISCHARGE



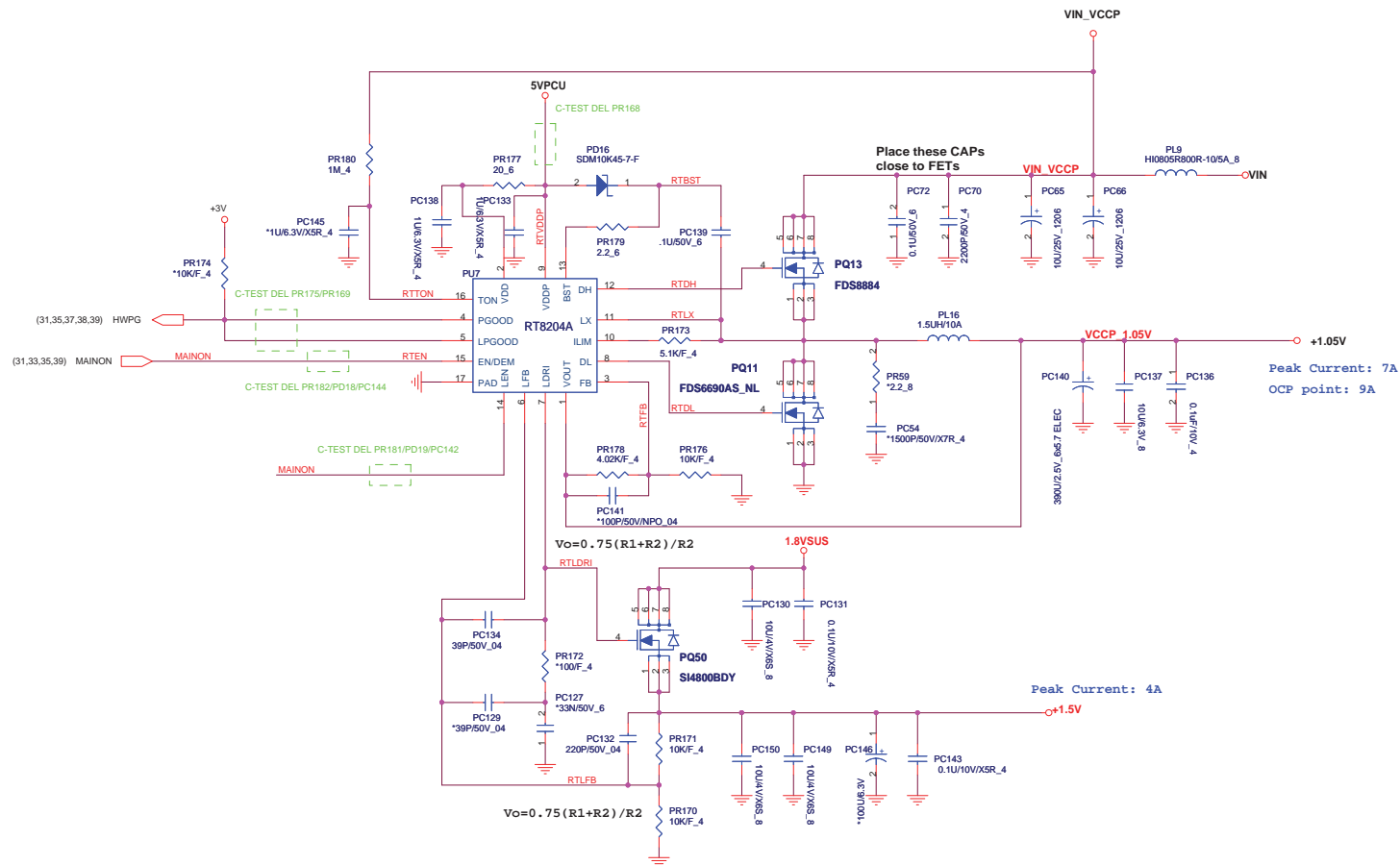








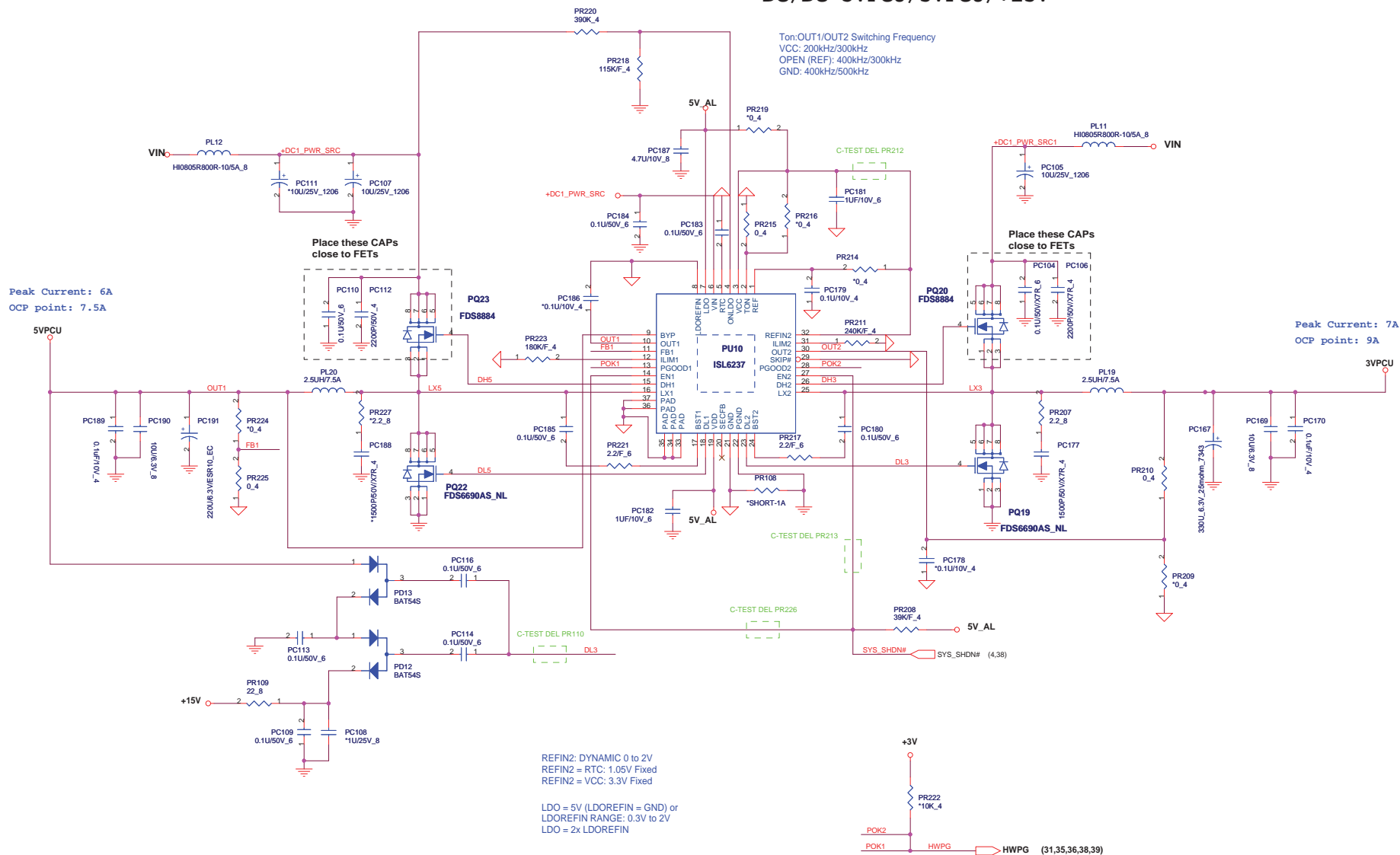






## DC/DC 3VPCU/5VPCU/+15V

Ton:OUT1/OUT2 Switching Frequency  
 VCC: 200kHz/300kHz  
 OPEN (REF): 400kHz/300kHz  
 GND: 400kHz/500kHz



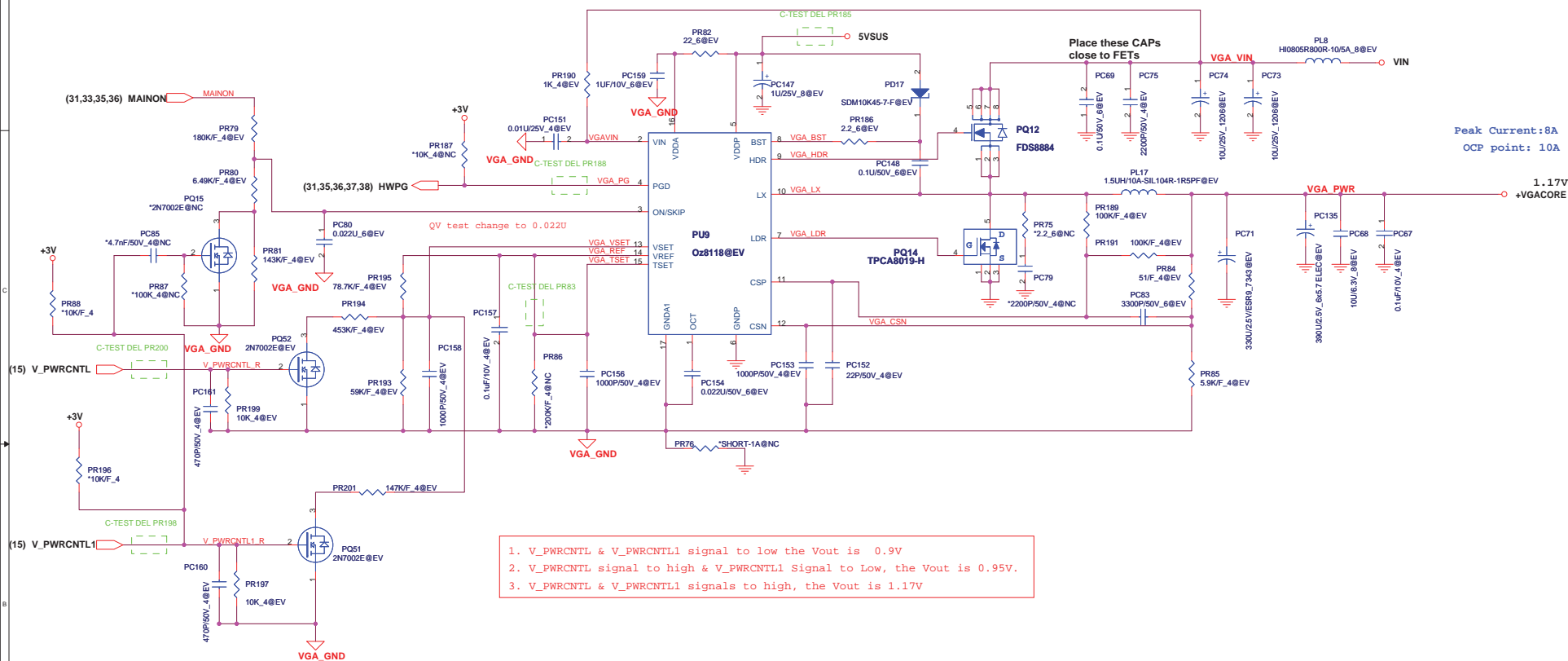
PROJECT : LEGD  
 Quanta Computer Inc.

Size: Document Number  
 Custom: 3V/5V (ISL6237)  
 Date: Monday, July 21, 2008  
 Sheet: 37 of 40



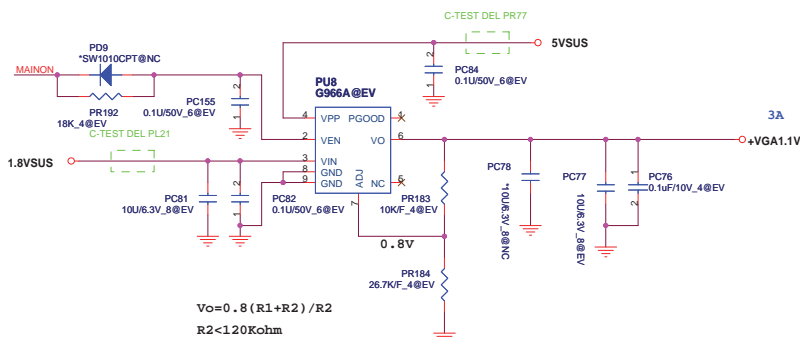






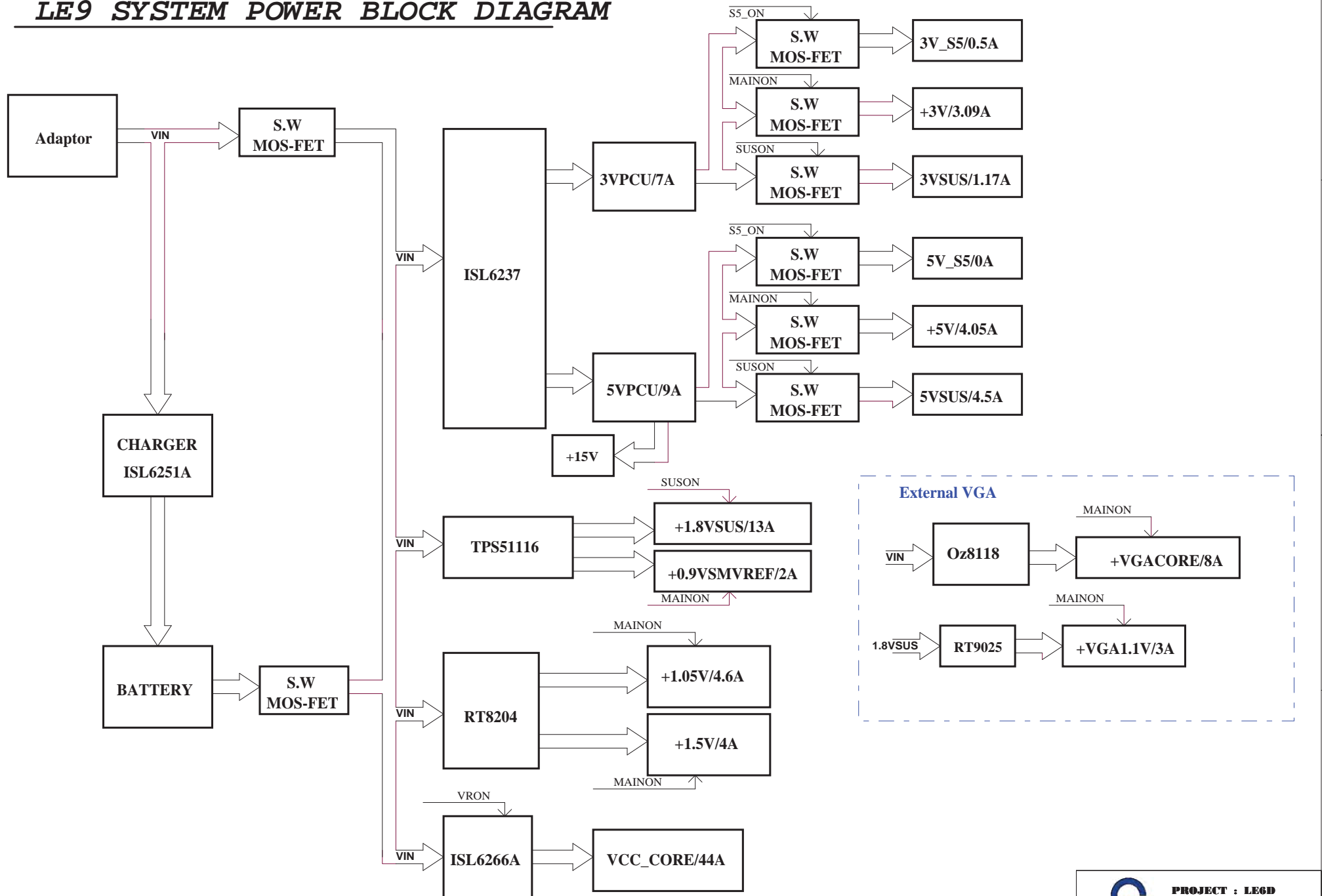
1. V\_PWRCNTL & V\_PWRCNTL1 signal to low the Vout is 0.9V
2. V\_PWRCNTL signal to high & V\_PWRCNTL1 Signal to Low, the Vout is 0.95V.
3. V\_PWRCNTL & V\_PWRCNTL1 signals to high, the Vout is 1.17V

V_PWRCNTL1	V_PWRCNTL	Vout (spec)
0	0	0.9V
0	1	0.95V
1	0	1.09V
1	1	1.17V





# LE9 SYSTEM POWER BLOCK DIAGRAM





**A-test to B-test EC list**

**LE6D Schematic EC Tracking Record A ( for A --> B ) JUL. 04, 2008**

**EC #/Page/Description/Part Affected**

EC A-01 /28/ Delete R55,R56,R58,R62,R68,R69 which were the optional resistors between capacitive touch sensor board(LE6) and switch button board(LE7)--JUL 04 2008

EC A-02 /29/ Delete Q17,Q18,R301--JULY 09 2008