

<http://adf.ly/3o8pJ>

Compal Confidential

QLA01 LA7811P Schematics Document

Intel Sandy Bridge Processor with DDRIII + Cougar Point

AIO M/B

2011-06-02

REV: 0.1

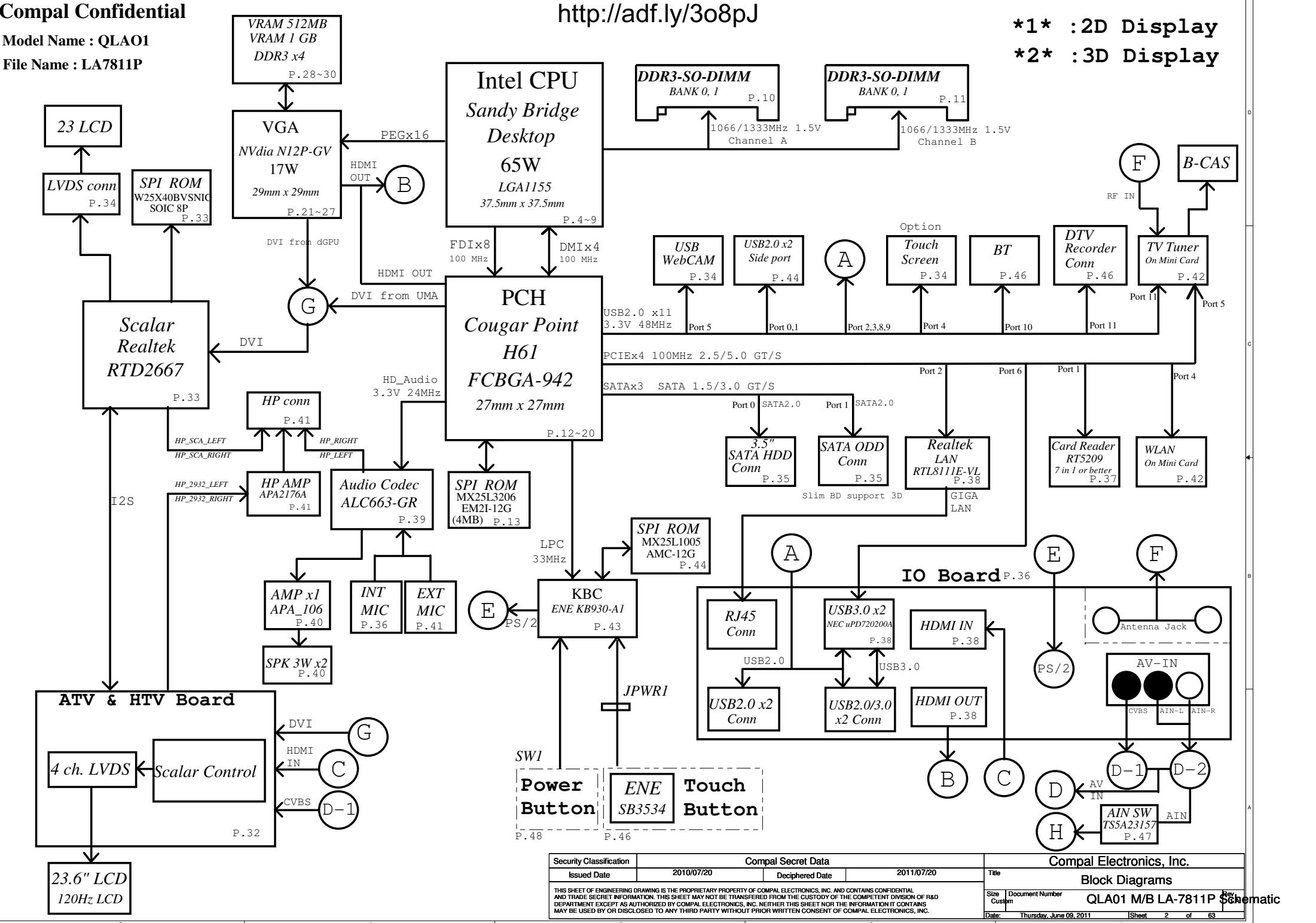
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				Custom	QLA01 M/B LA-7811P Schematic	1.A
				Date	Thursday, June 09, 2011	Sheet 1 of 63

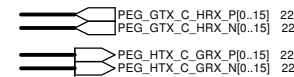
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Model Name : QLA01
File Name : LA7811P

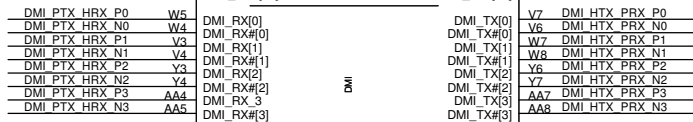
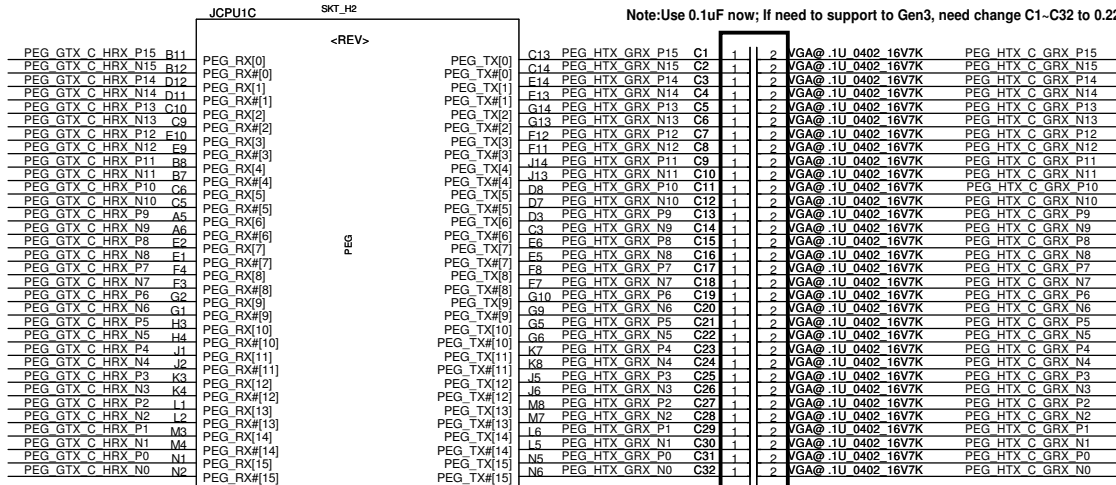
http://adf.ly/3o8pJ

1 :2D Display
2 :3D Display



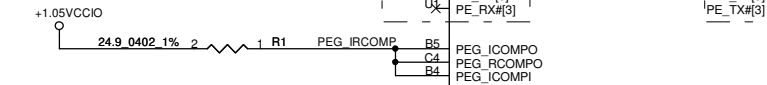


Note: Use 0.1uF now; If need to support to Gen3, need change C1-C32 to 0.22uF.



7/20 PE_RX[0-3]/PE_RX#[0-3] only use on Workstation.

7/20 PE_TX[0-3]/PE_TX#[0-3] only use on Workstation.

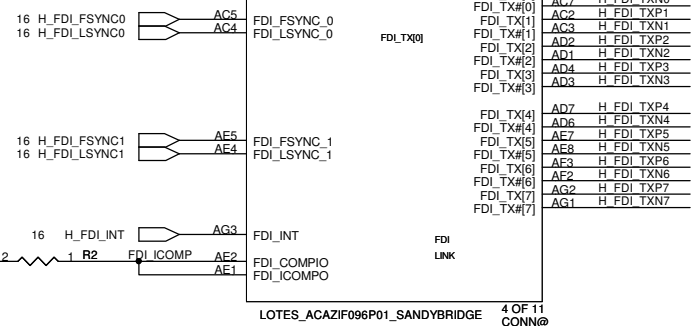
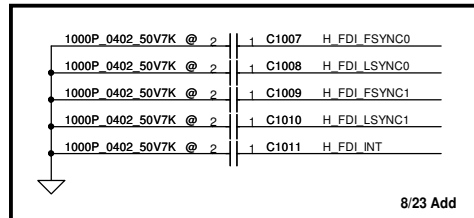


PEG_ICOMPI and RCOMP signals should be shorted and routed

with - max length = 500 mils - Width/Space= (4 mils/15mils)

PEG_ICOMPO signals should be routed with - max length = 500 mils

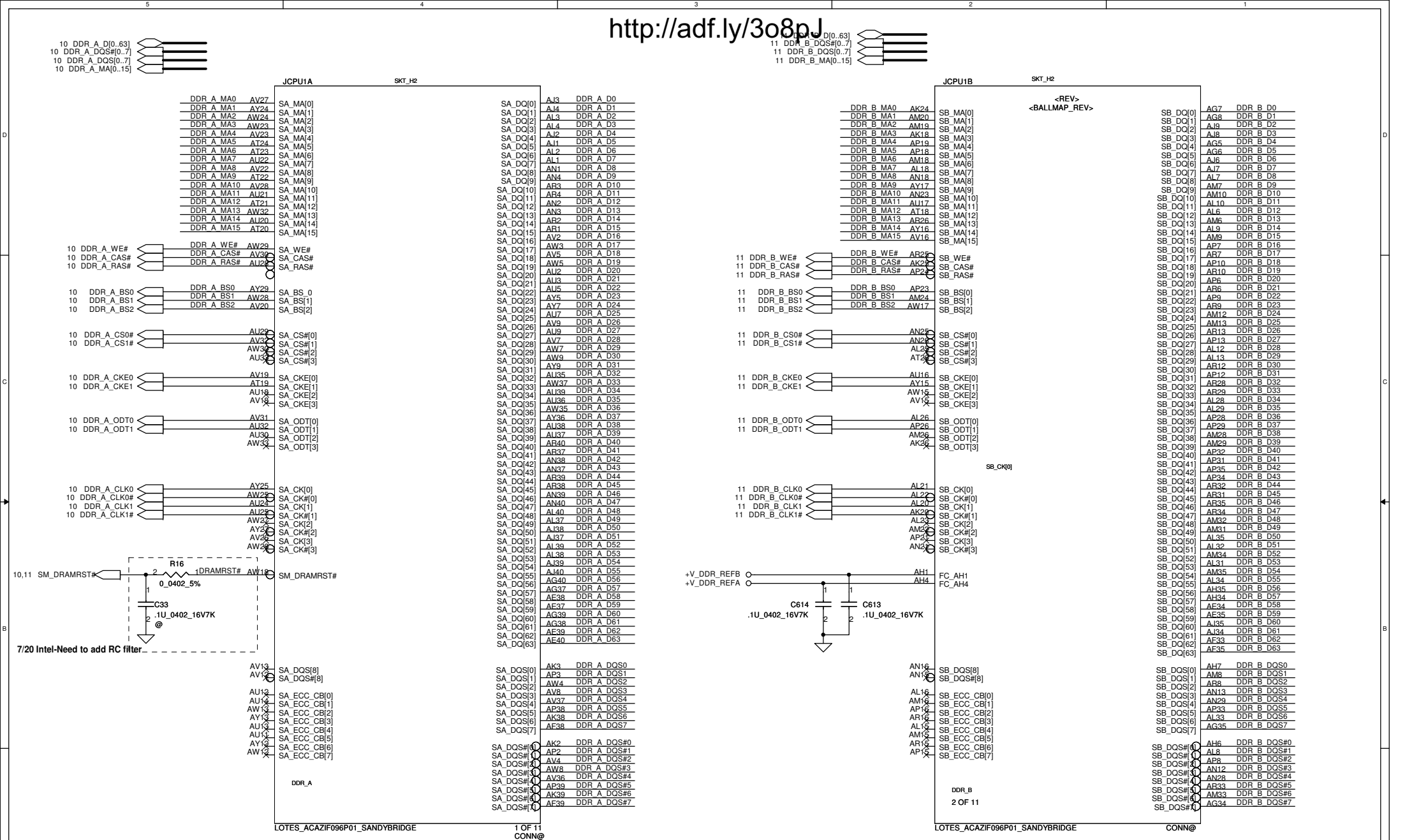
- Width/Space (12 mils/15mils)



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										PROCESSOR (1/6) DMI,FDI,PEG	
										Size B	
										Document Number	
										QLA01 M/B LA-7811P Schematic	
										Date	
										Thursday, June 16, 2011	
										Sheet 4 of 63	

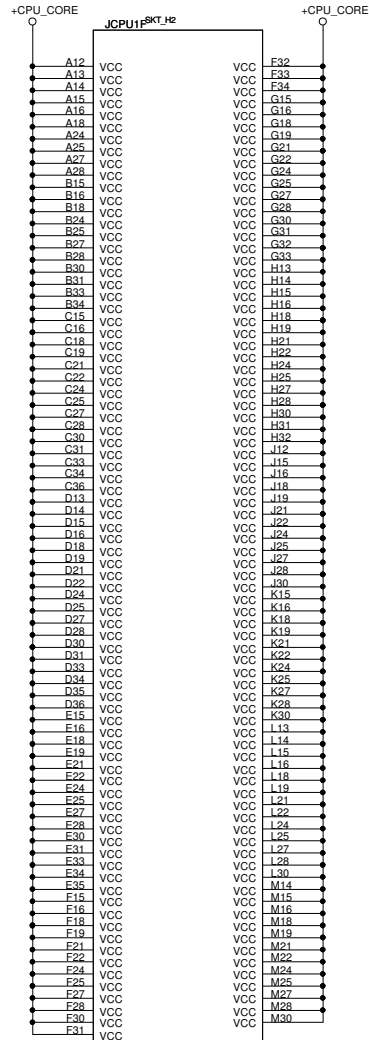
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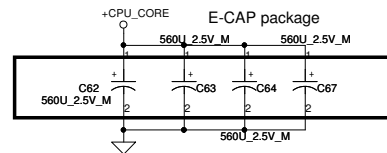
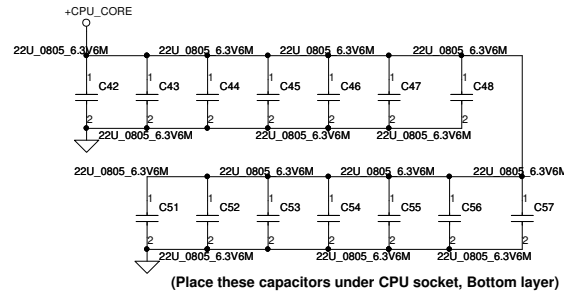
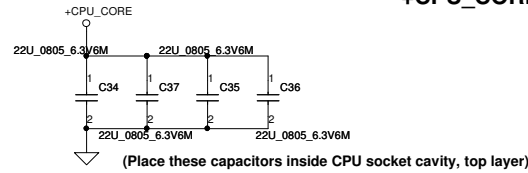
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+CPU_CORE: 112A

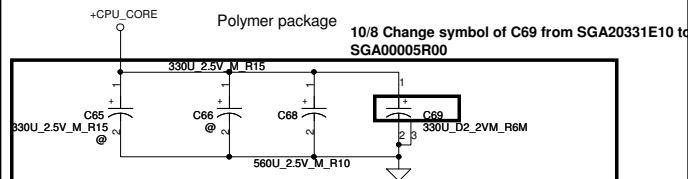


CPU POWER
6 OF 11
LOTES_ACAZIF096P01_SANDBRIDGE
CONN@

+CPU_CORE

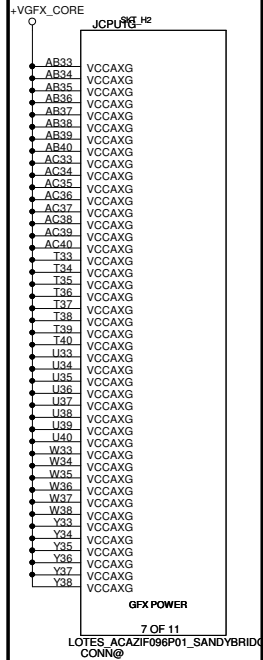


8/24 Change symbol of C62-C63 from SF000001P00 to SF000001K00
(Place C62-C64 capacitors under CPU socket, Top layer)



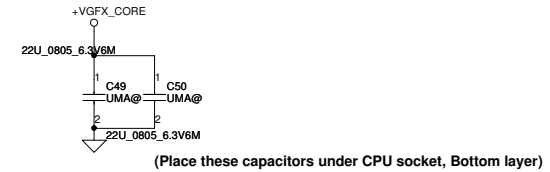
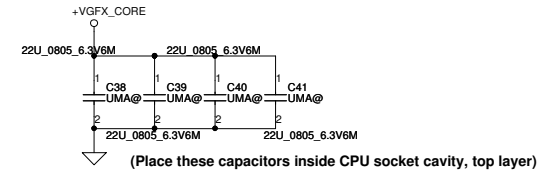
10/23 Change symbol of C65/C66/C68 from SGA20331E10 to SF000002M00
(Place C65-C69 capacitors under CPU socket, Bottom layer)
11/2 Change PN of C68 from SF000002M00 to SF000001K00

+VGFX_CORE: 35A

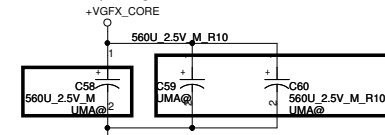


7 OF 11
LOTES_ACAZIF096P01_SANDBRIDGE
CONN@

+VGFX_CORE

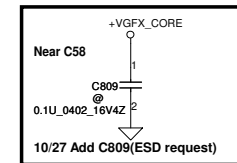


E-CAP package

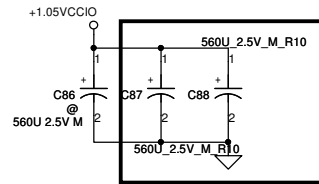
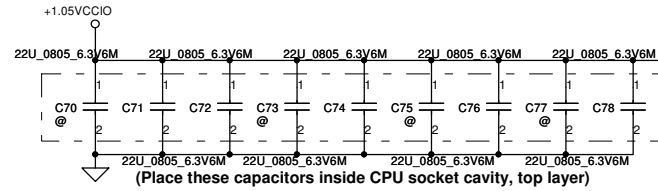


(Place C58 capacitors under CPU socket, Top layer)
(Place C59, C60 capacitors under CPU socket, Bottom layer)

8/24 Change symbol of C58 from SF000001P00 to SF000001K00
10/23 Change symbol of C59/C60 from SGA20331E10 to SF000002M00
11/2 Change PN of C59/C60 from SF000002M00 to SF000001K00

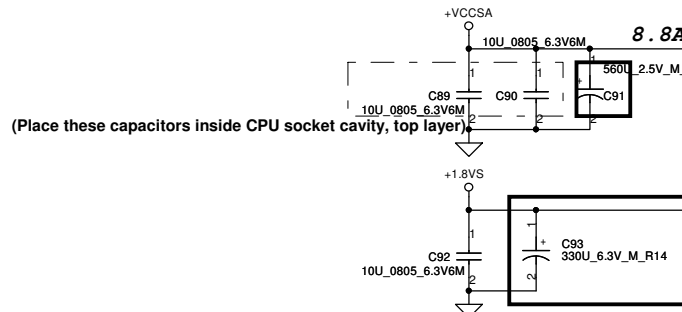


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								Custom			
								Date			
								Thursday, June 09, 2011			
								Sheet			
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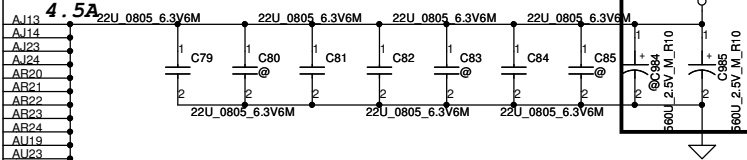
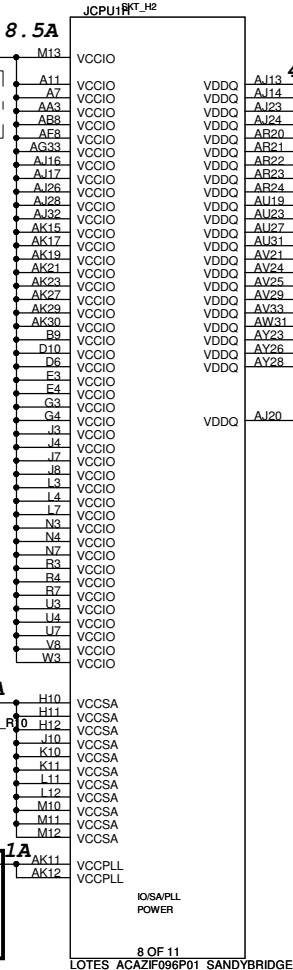


11/2 Change PN of C87/C88 from SF000001P00 to SF000001K00

11/4 Change PN of C91 from SF000001P00 to SF000001K00

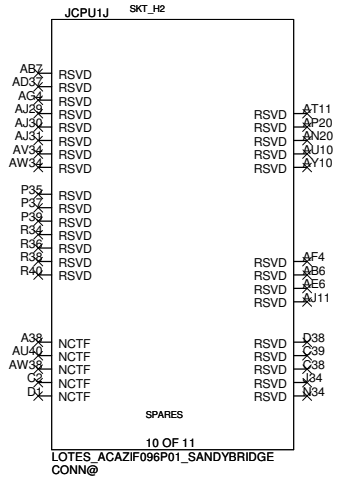
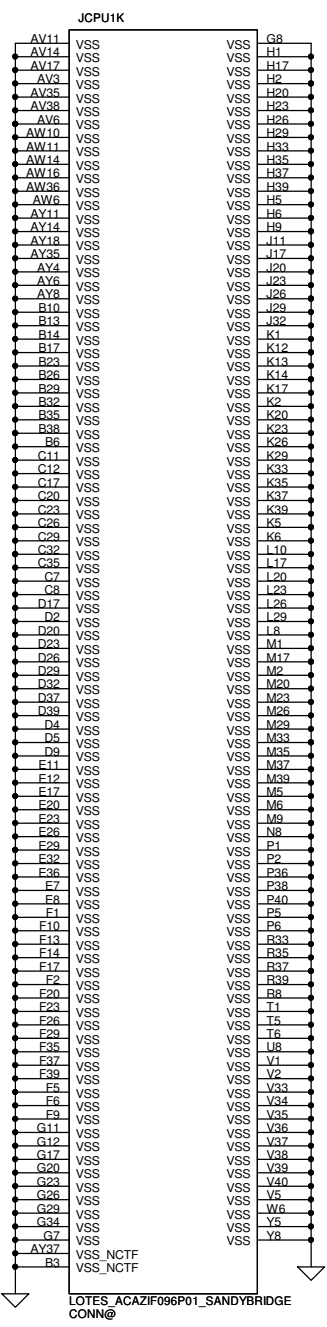
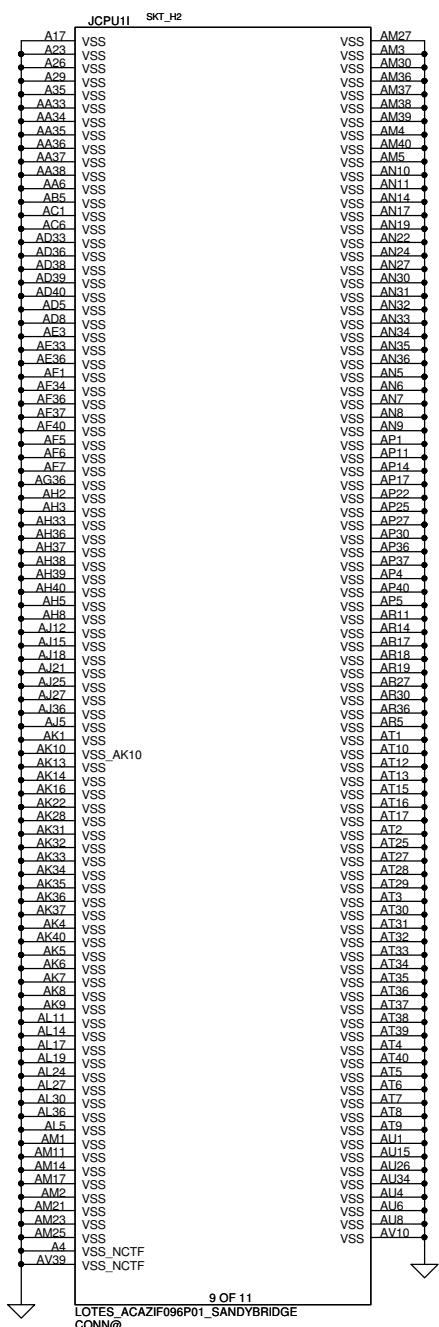


10/23 Change symbol of C93 from SGA00000Y80 to SF000002N00
11/4 Change PN of C93 from SF000002N00 to SF000001G00



11/2 Change PN of C984/C985 from SF000002000 to SF000001K00

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Layout Note: Place C94 on Bottom Layer at DIMM close to CPU

Layout Note: Place near JDIMMA

Layout Note: Place near JDIMMA

10/23 Change symbol of C107 from SGA20331E10 to SF000002M00

All VREF traces should have 10 mil trace width

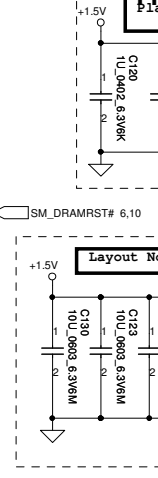
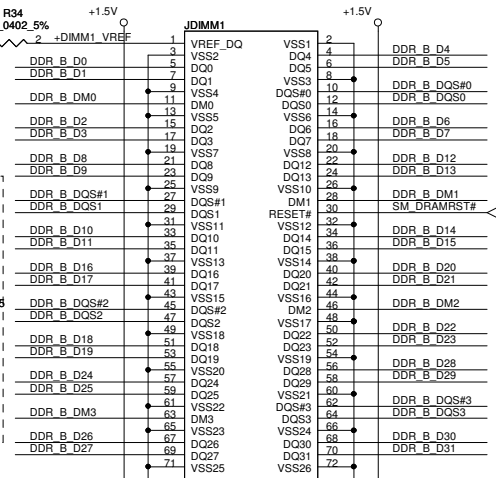
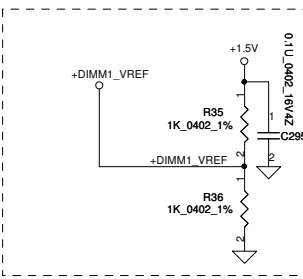
Layout Note: Place near JDIMM1.203/204

STANDARD: 5.2mm

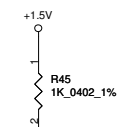
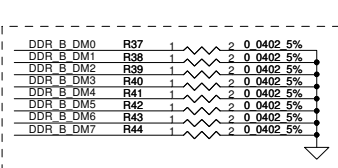
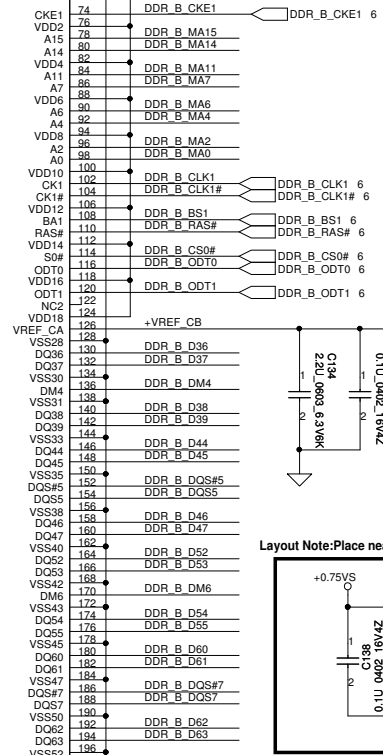
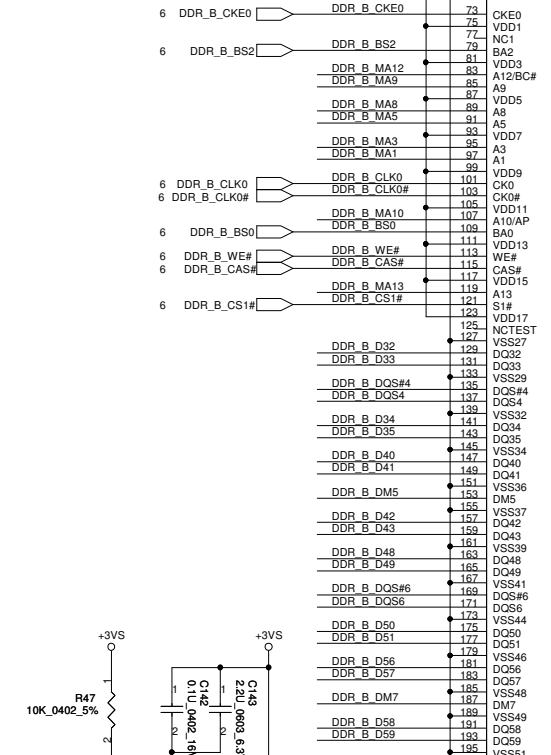
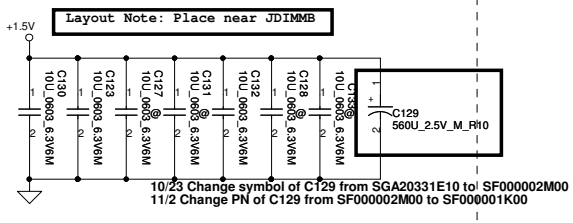
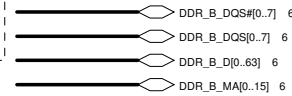
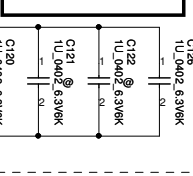
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Issued Date	2010/07/20	Deciphered Date	2011/07/20	DDRIII CHANNELA	
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Layout Note:Place C124 on Bottom Layer at DIMM close to CPU

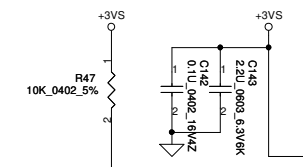
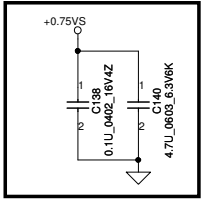
All VREF traces should have 10 mil trace width



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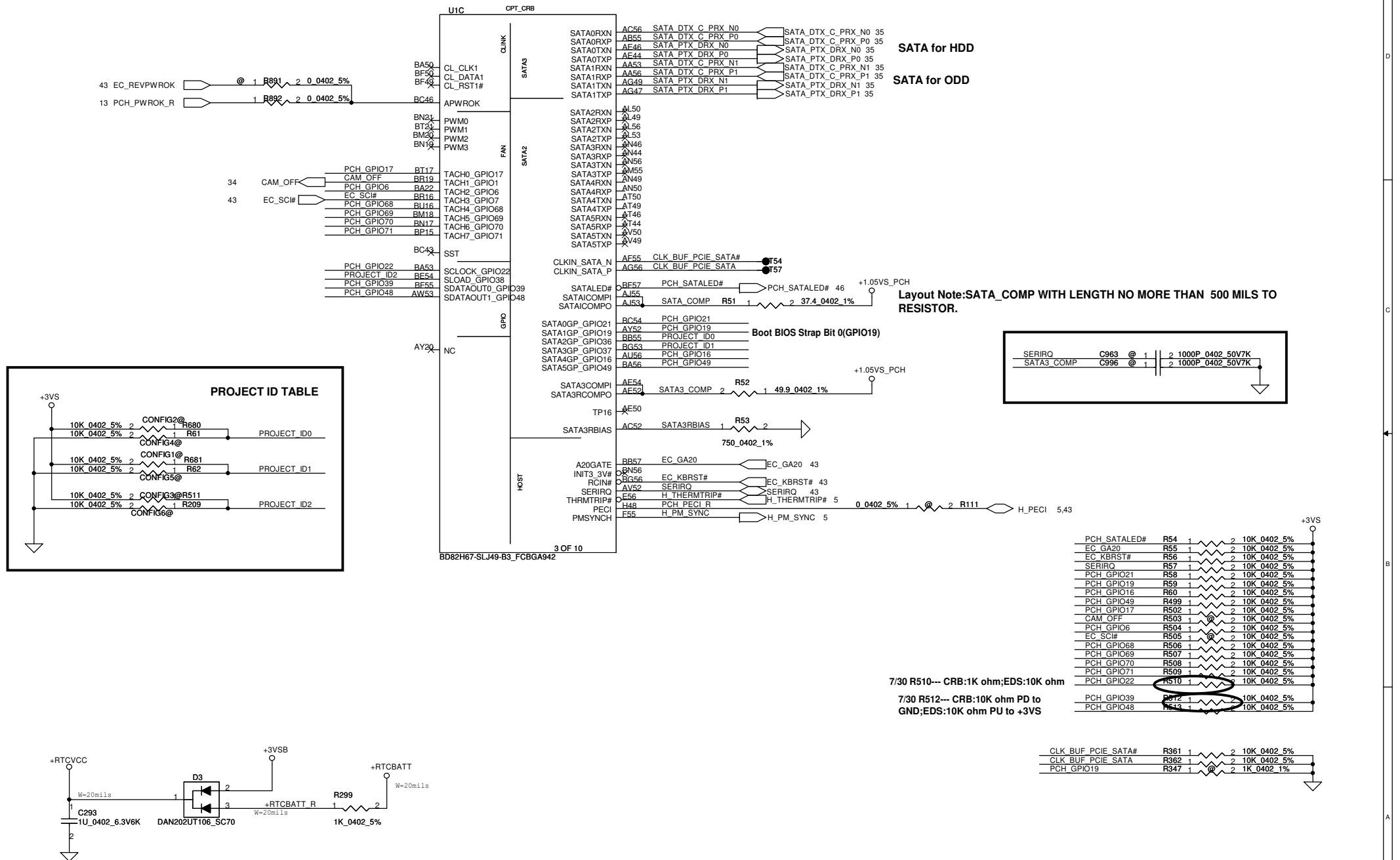
Layout Note:Place near JDIMM4.203/204



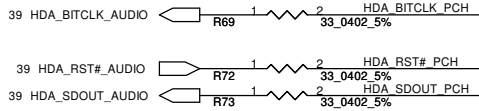
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STANDARD:9.2mm

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HDA for AUDIO



HDA SDO

**ME debug mode,
this signal has a weak internal pull down**

★Low = Disable (default)

High = Enable (flash descriptor security override)

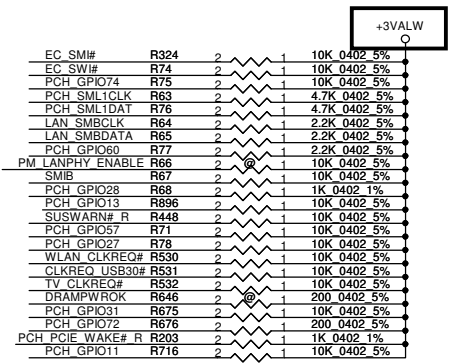
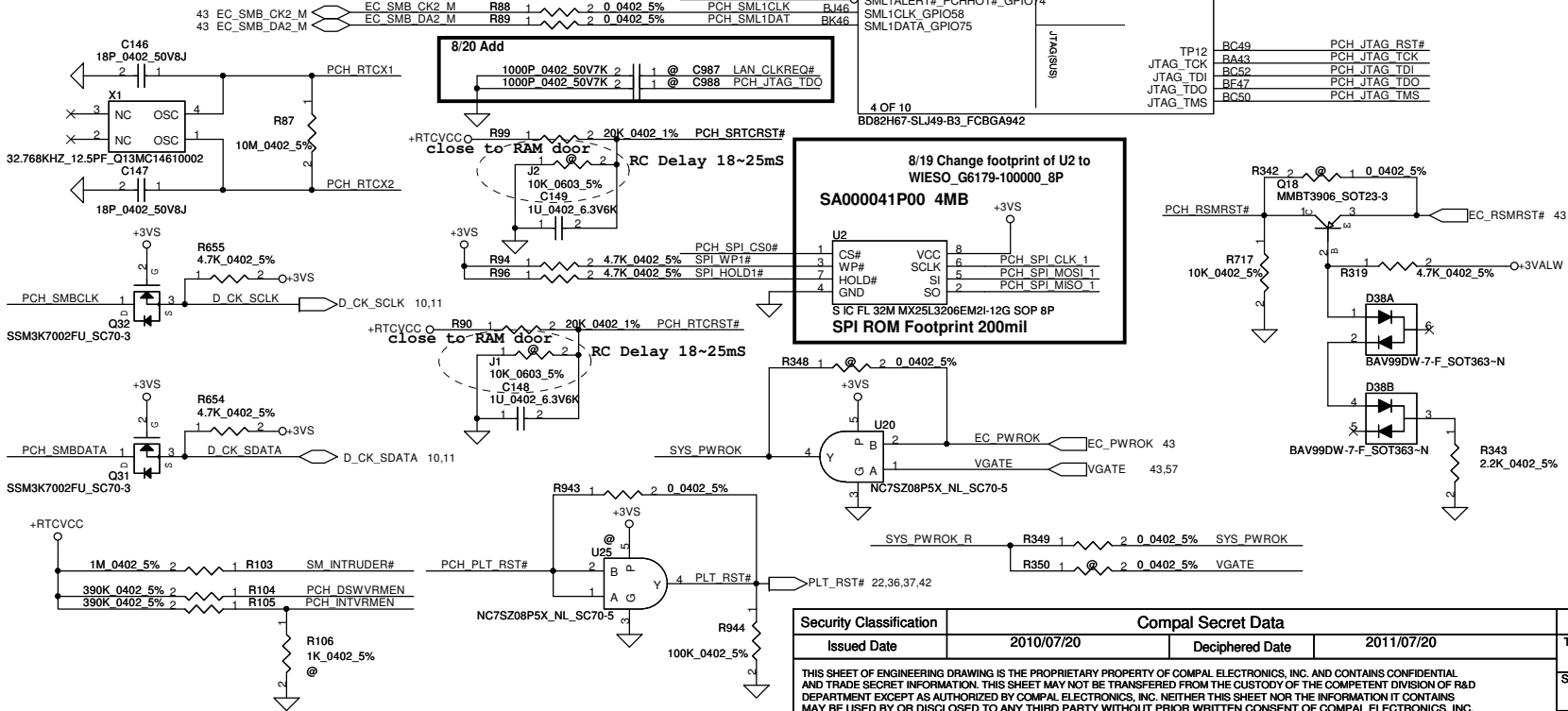
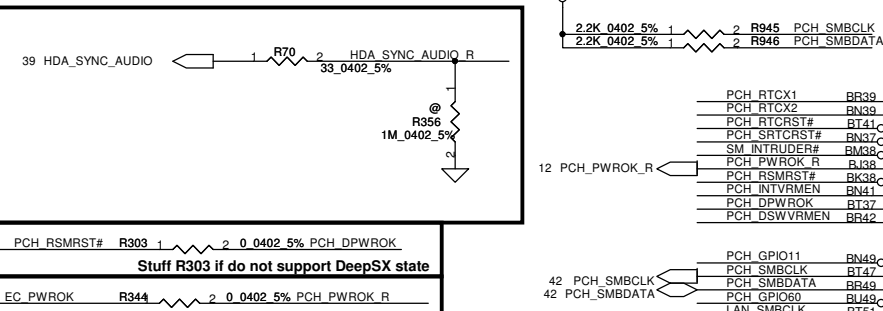
HDA_SYNC

This signal has a weak internal pull down
The On-Chip PLL is supplied by 1.5V

H=>On Die PLL is supplied by 1.5V

- **Need to pull high for Ixora, River platforms**

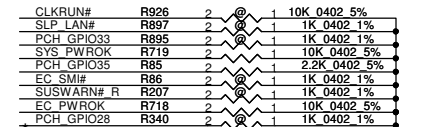
***Need to pull high for Huron River platform**



Stuff R391 if EC don't want to involve in the handshake mechanism for the DeepSX state entry and exit



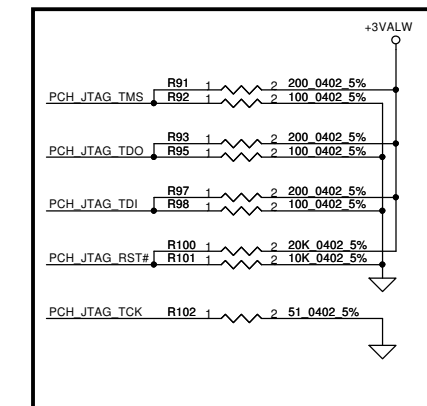
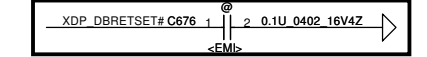
PCH_SPKR:HIGH= Enable (No Reboot);
*** LOW= Disable(Default)**



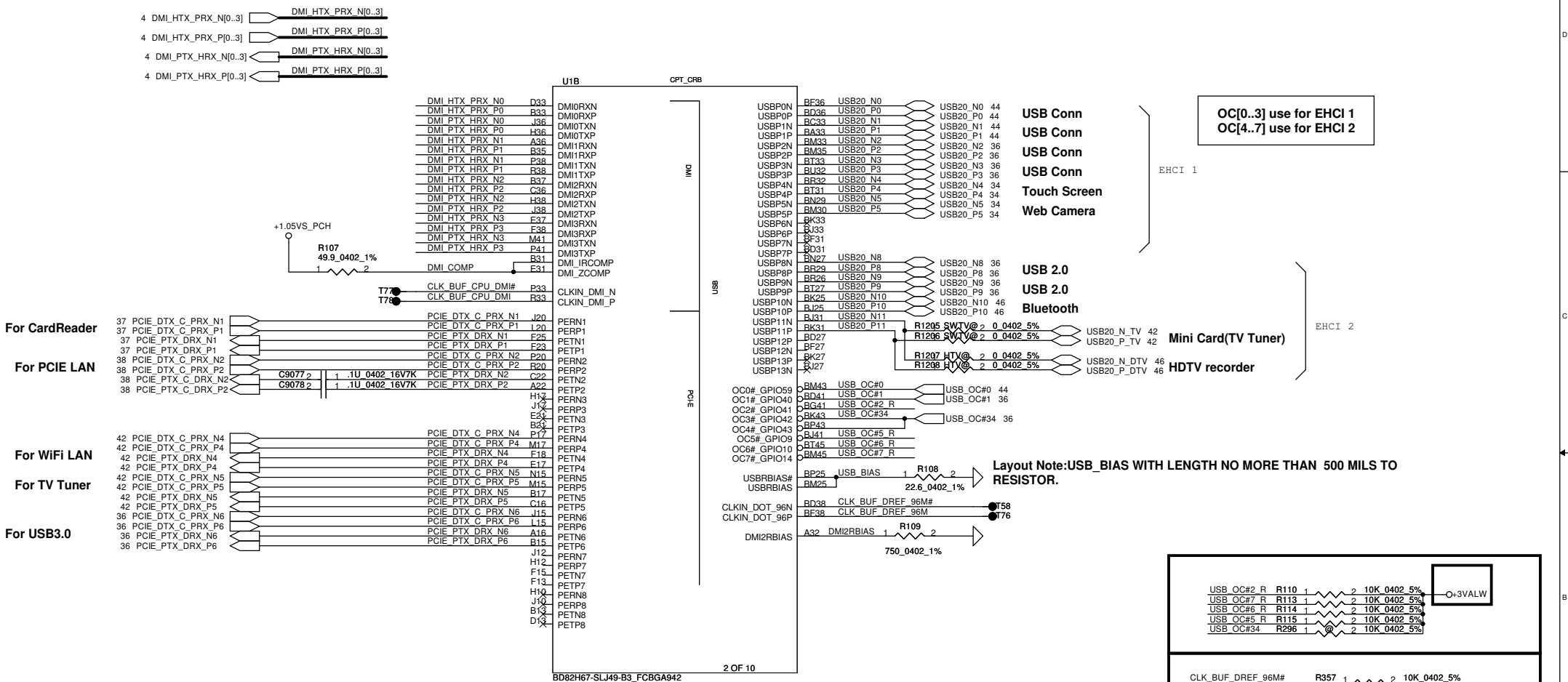
On-Die PLL Voltage Regulator

H: Enable

L: Disable

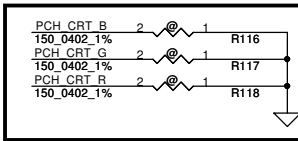


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				Size	Document Number	Rev
				Custm	QLA01 M/B LA-7811P Schematic	1.A
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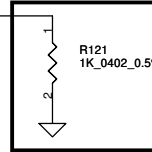


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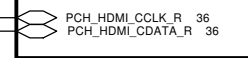
PLACE RGB RESISTORS CLOSE TO
CH:<250 MILS TO MCH BALL



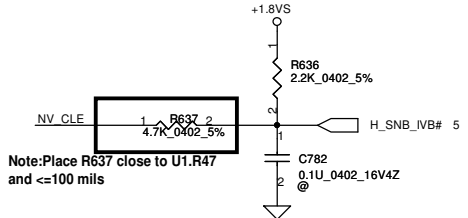
PLACE DACREFSET RES(R121) CLOSE TO
PCH:<500 MILS TO MCH BALL



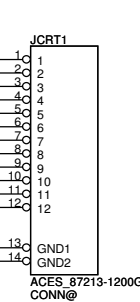
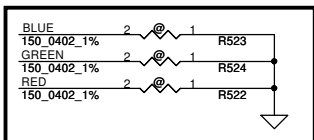
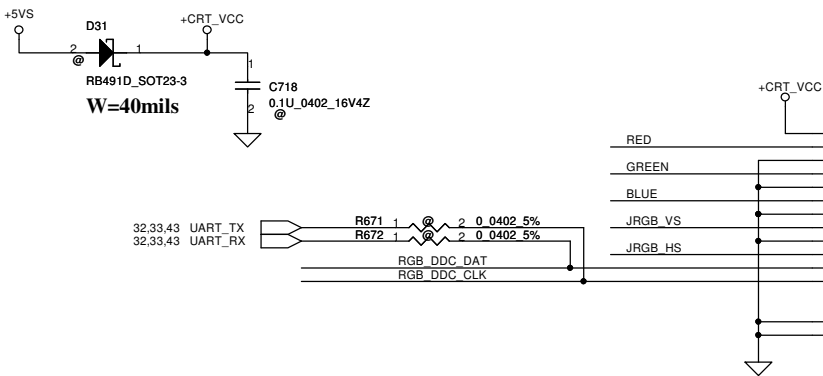
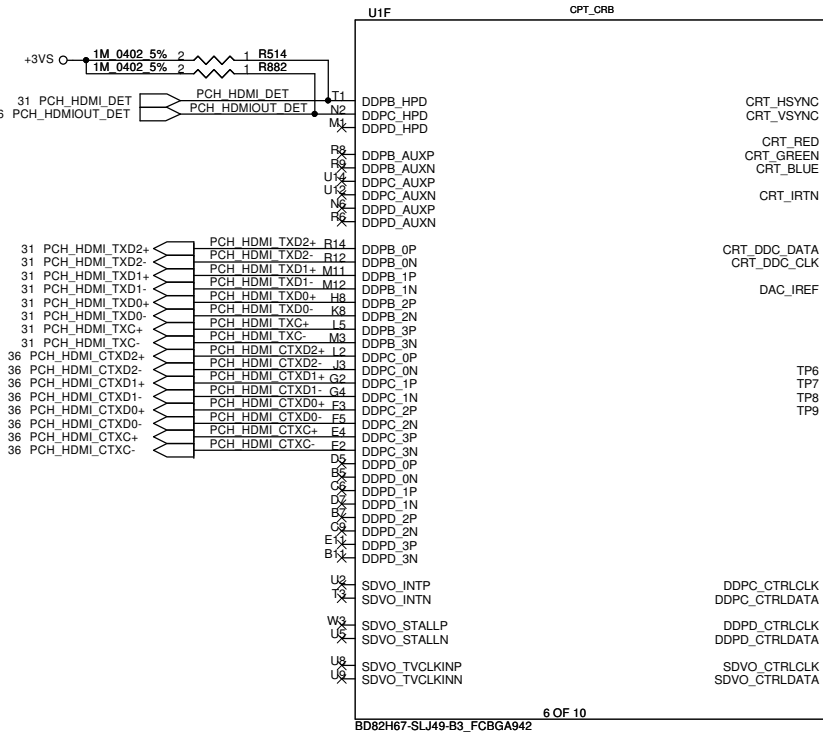
For HDMI OUT



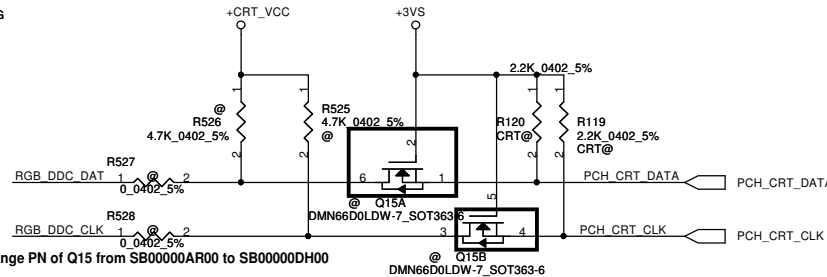
DMI & FDI Termination Voltage	
NV_CLE	Set to VCC when HIGH Set to VSS when LOW



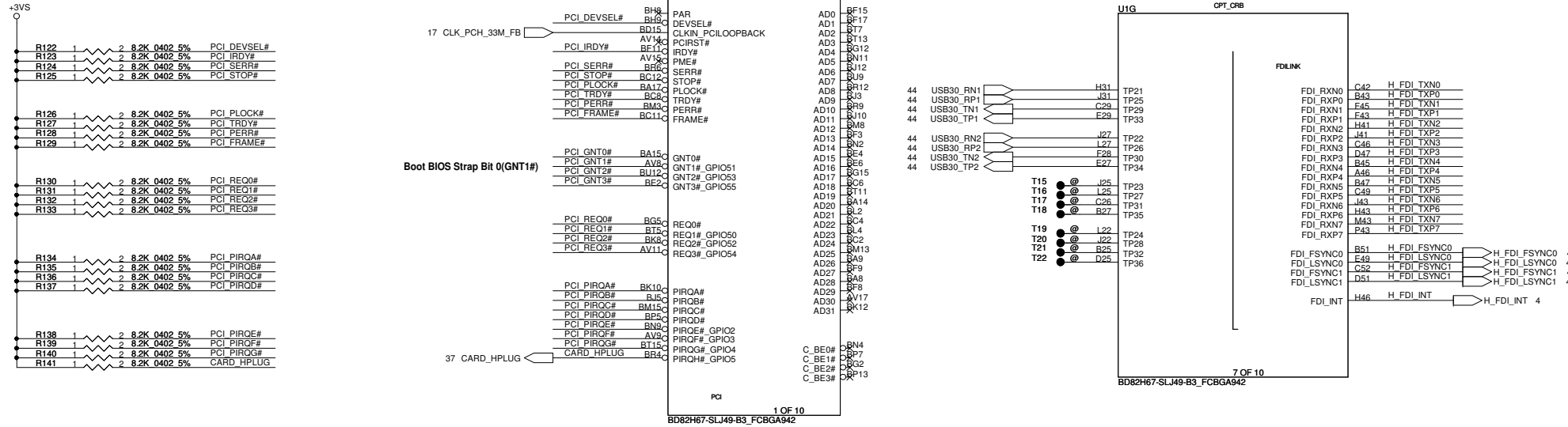
Note:Place R637 close to U1.R47
and <=100 mils



11/4 Change PN of Q15 from SB000000AR00 to SB000000DH00

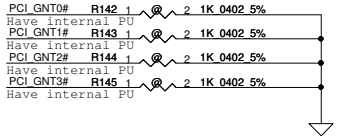


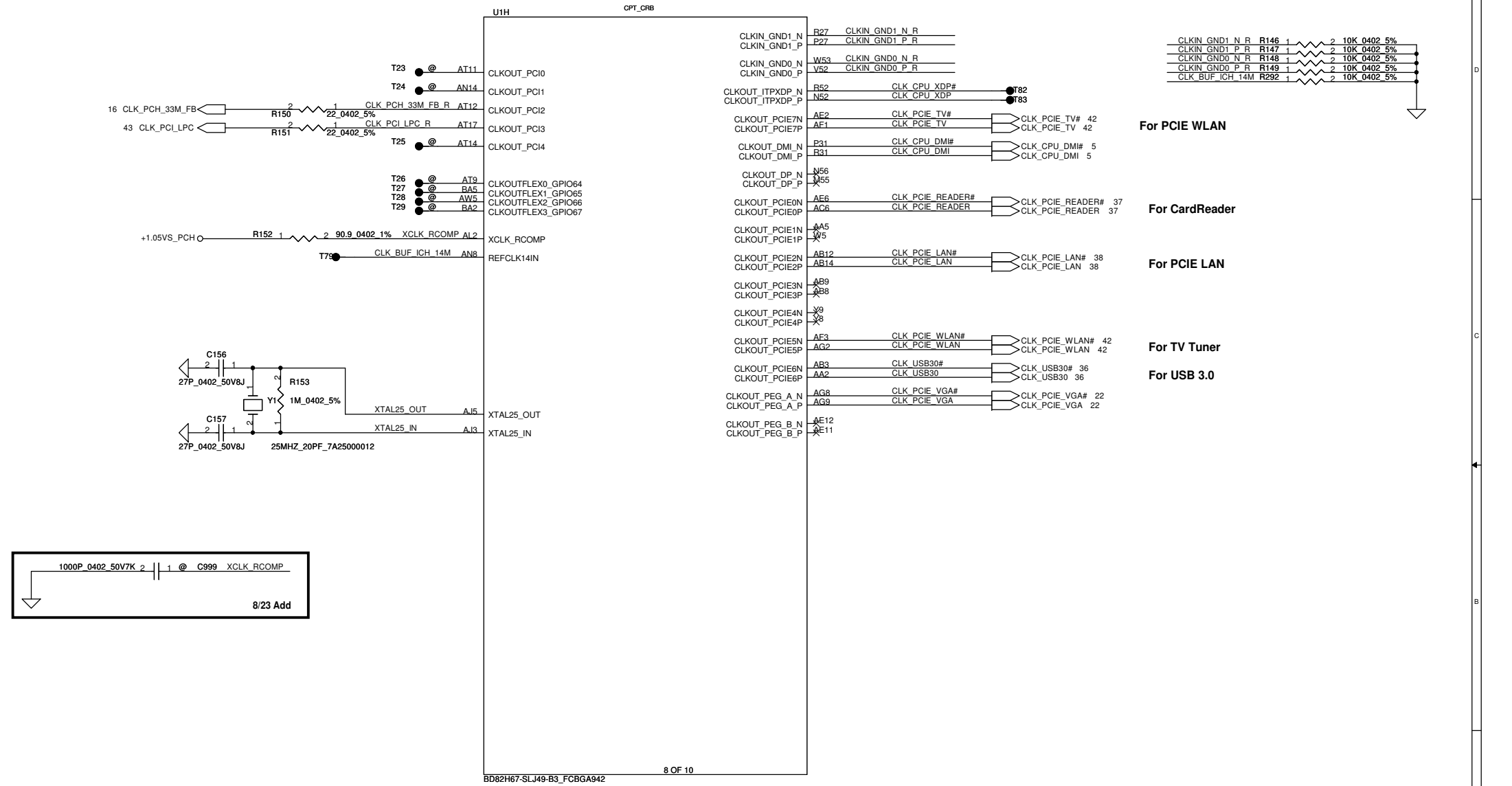
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Size	Custom	Document Number	QLA01 M/B LA-7811P Schematic	Rev	1.A
Date:	Thursday, June 16, 2011	Sheet	15	of	63



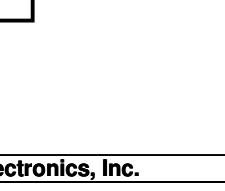
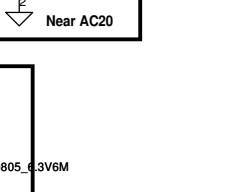
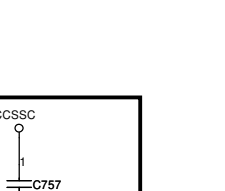
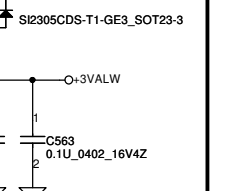
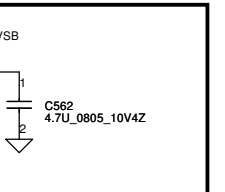
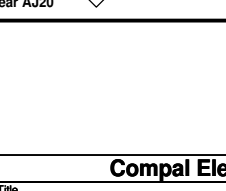
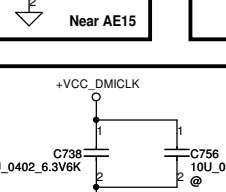
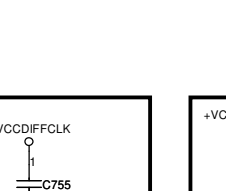
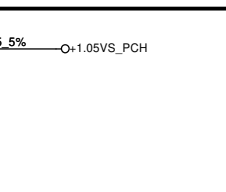
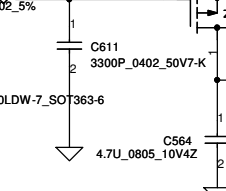
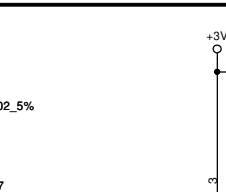
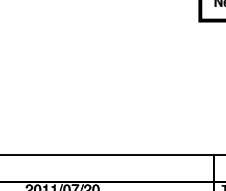
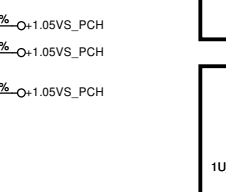
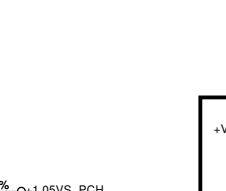
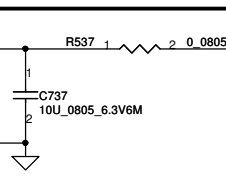
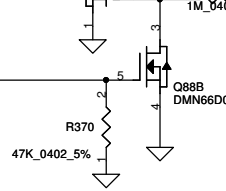
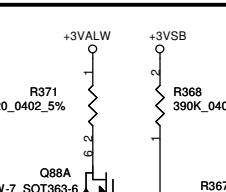
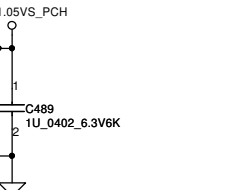
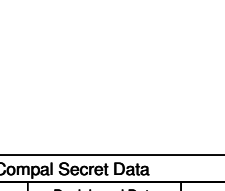
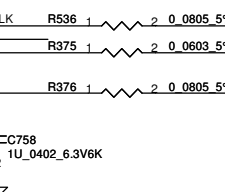
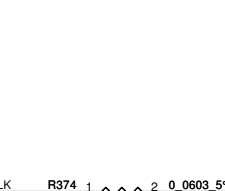
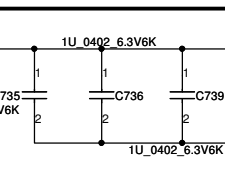
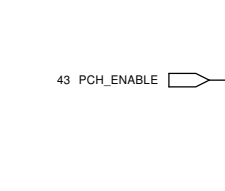
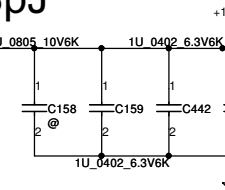
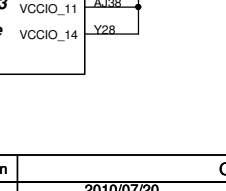
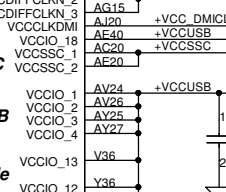
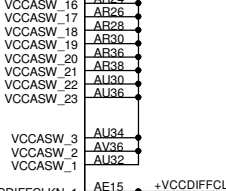
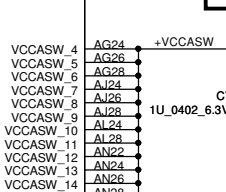
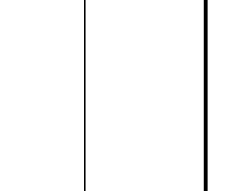
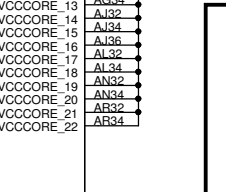
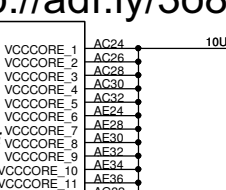
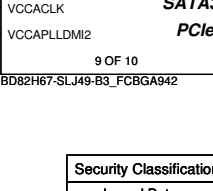
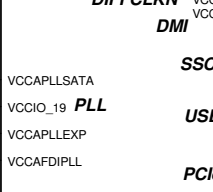
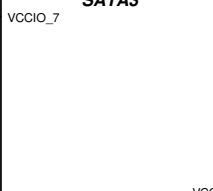
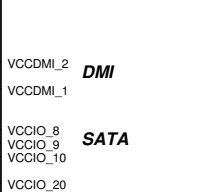
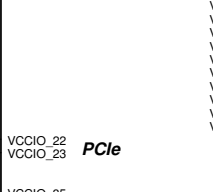
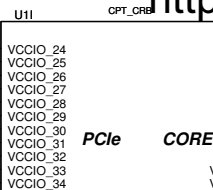
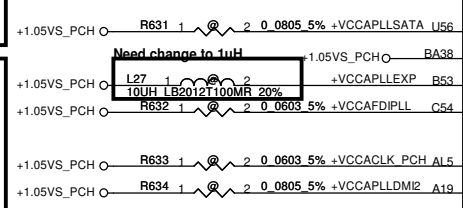
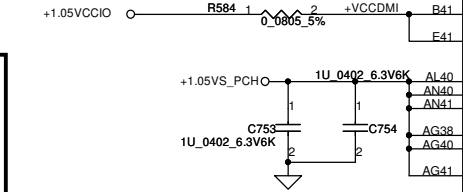
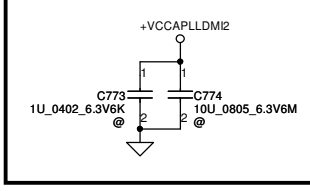
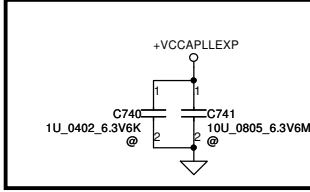
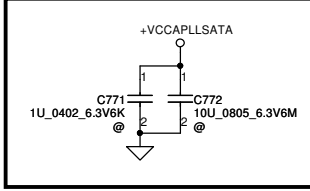
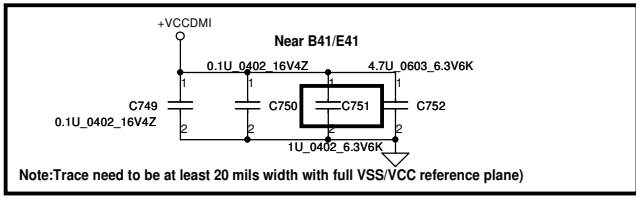
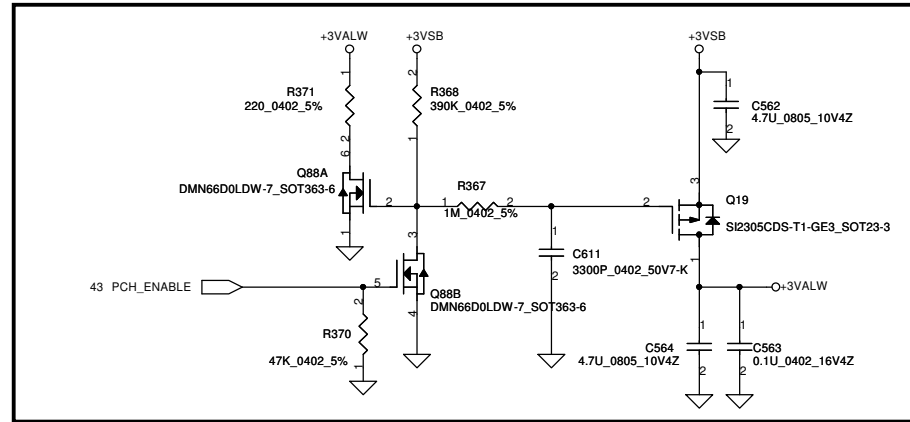
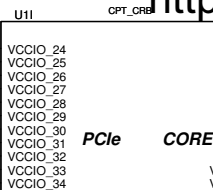
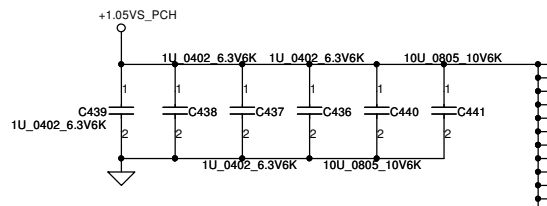
1000P 0402 50V7K 2 1 @ C989 CLK_PCH_33M_FB
8/23 Add

Boot BIOS Strap		
PCH_GNT1#	PCH_GPIO19	Boot BIOS Location
0	0	LPC
0	1	Reserved
1	0	PCI
1	1	SPI *



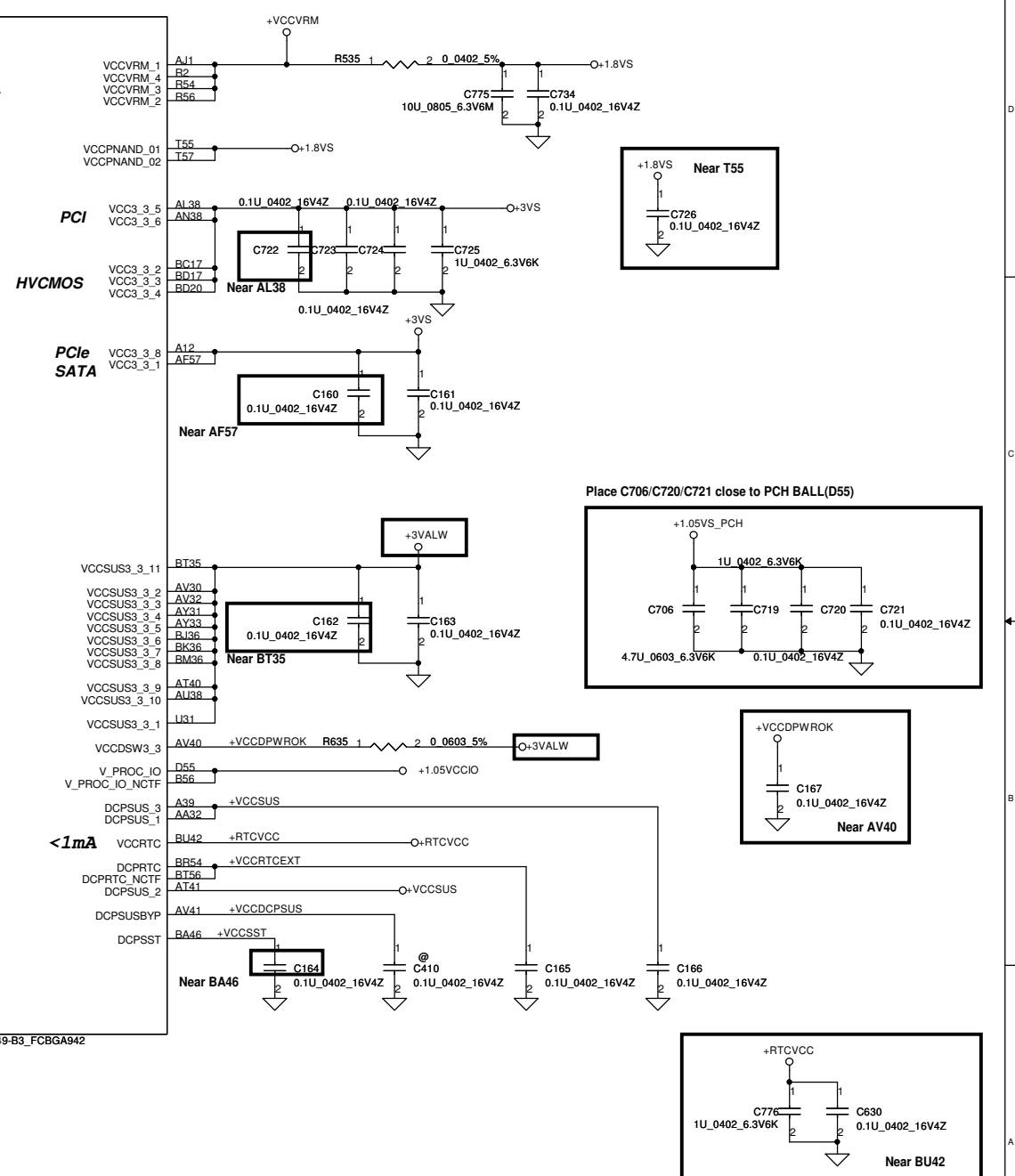
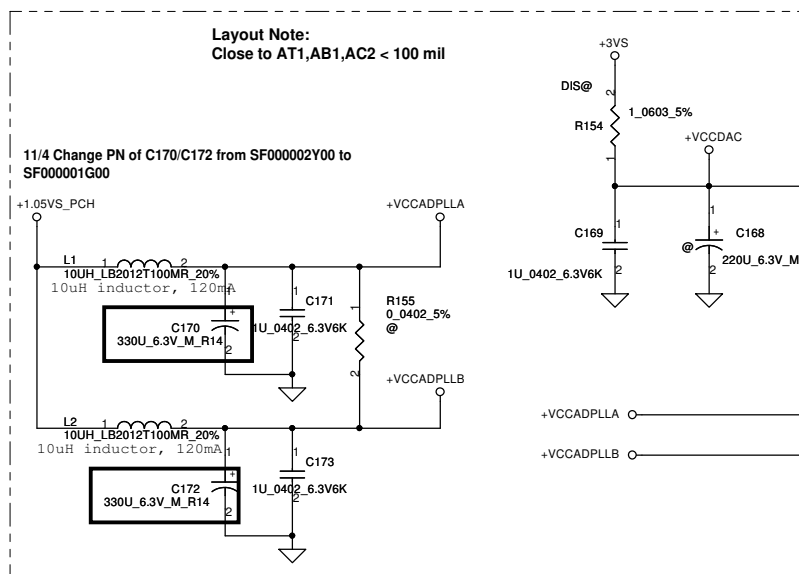
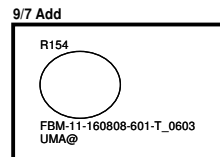
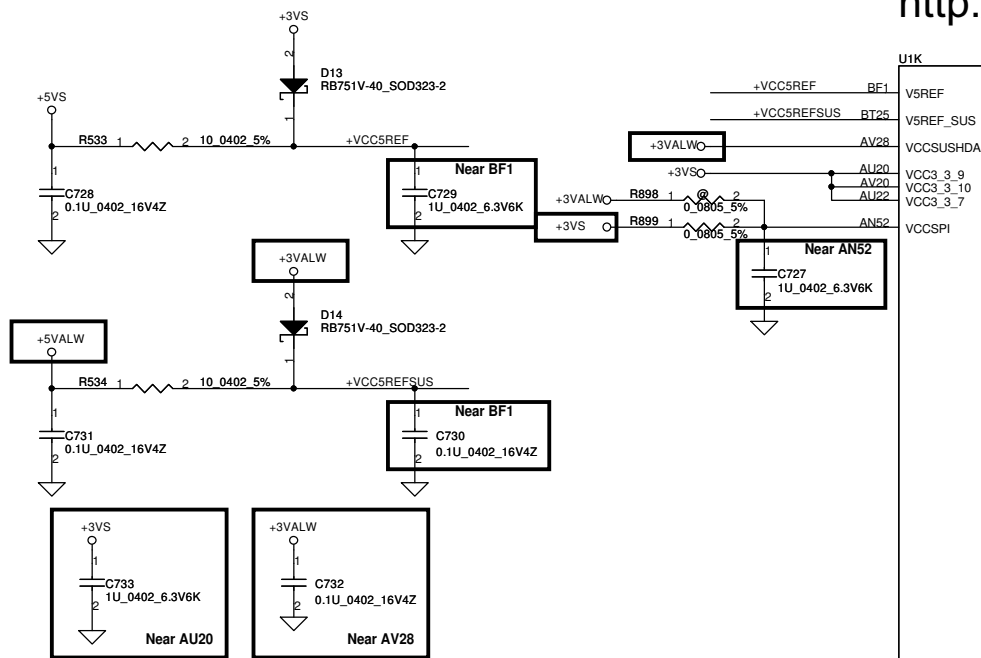


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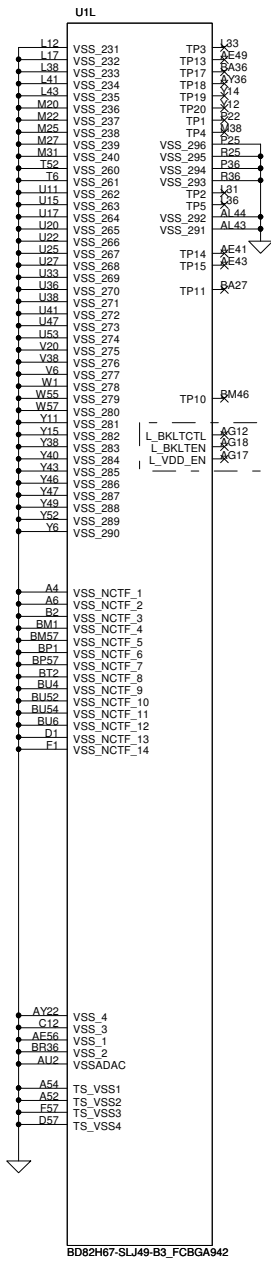
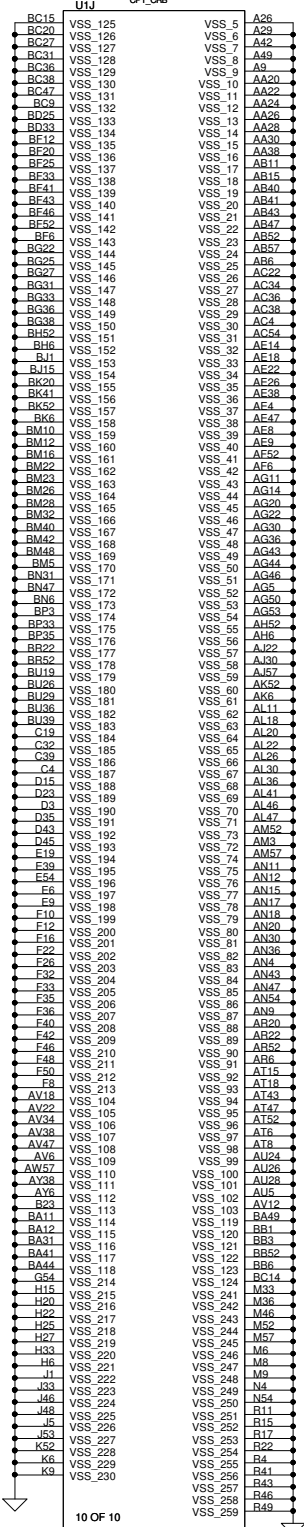
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								Size	Document Number			Rev		1.A	
								Custom	QLA01 M/B LA-7811P Schematic						
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				Custm	QLA01 M/B LA-7811P Schematic	1.A
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NOTE: PCH adds support for panel power sequencing required for embedded DisplayPort support. L_VDDEN, L_BKLTEN and L_BKLTCTL pins are added on the PCH for panel power sequencing. It is important to note that a 6 layer board design may be required to access these pins on the PCH package in a fully featured platform design.

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								Size		Document Number		Rev	
								Custom		QLA01 M/B LA-7811P Schematic		1.A	
								Date:		Thursday, June 16, 2011		Sheet 20 of 63	

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NC

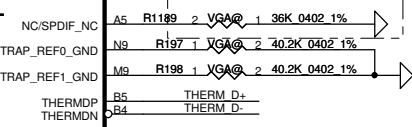
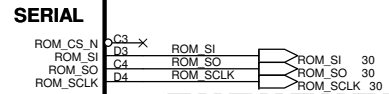
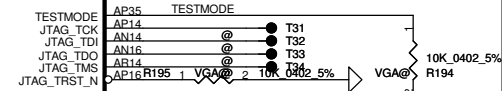
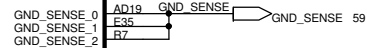
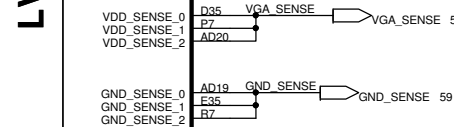
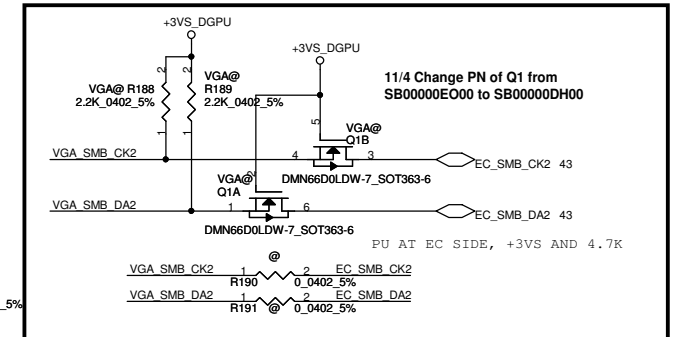
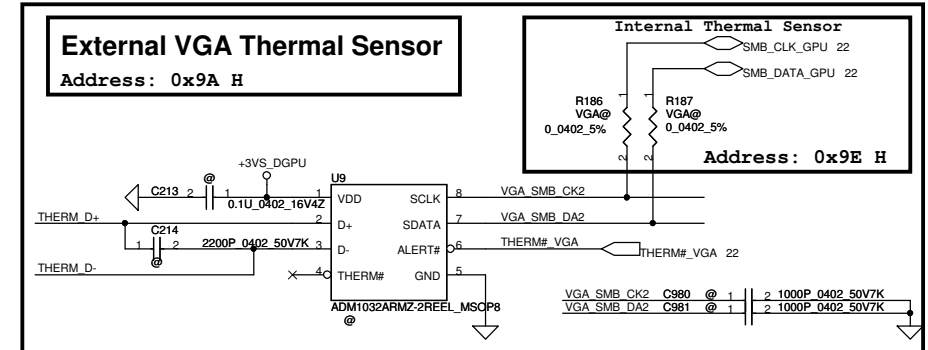
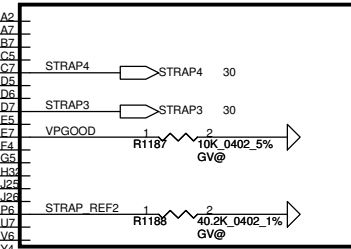
LVDS/TMDS

TEST

SERIAL

GENERAL

N12P-GV1-A1_BGA973 VGA@



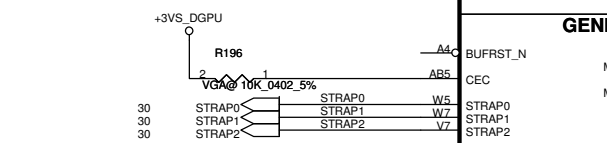
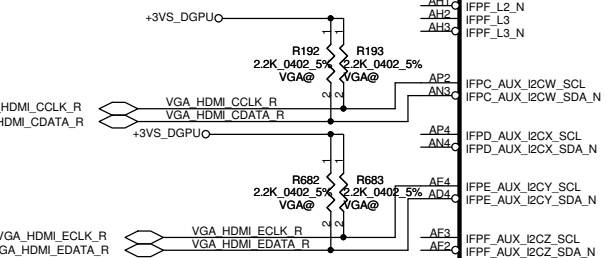
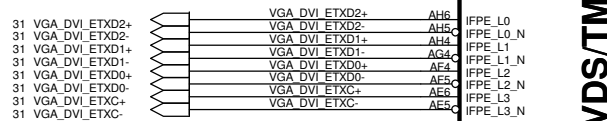
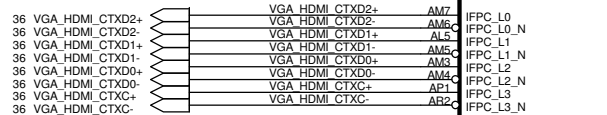
N12P-GV1-A1_BGA973 VGA@

To HDMI-out

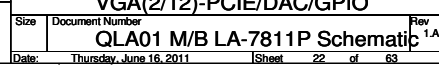
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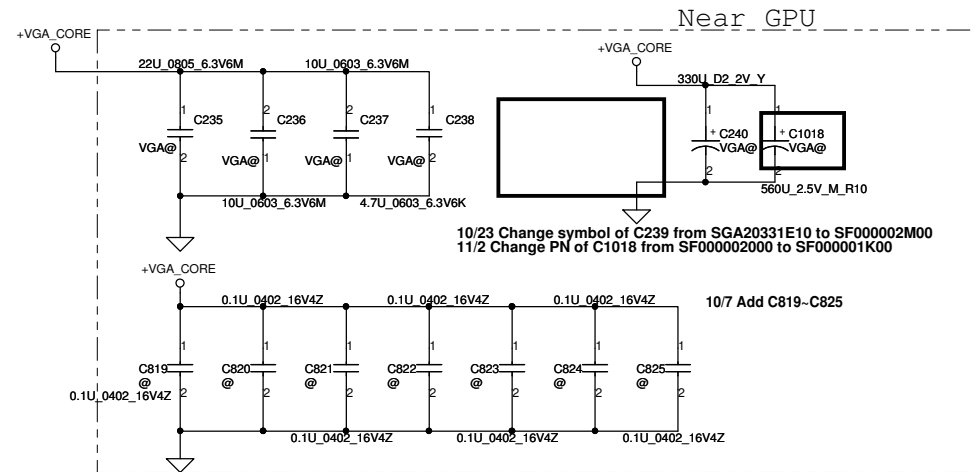
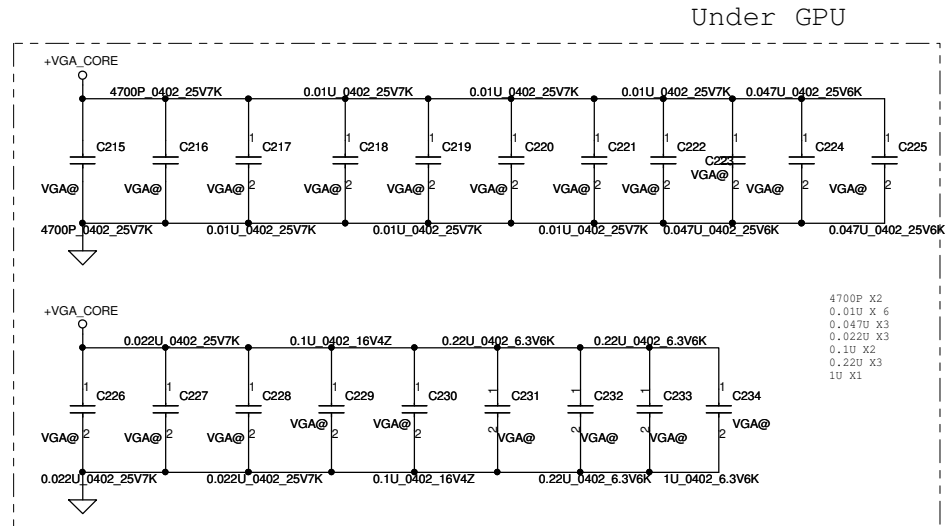
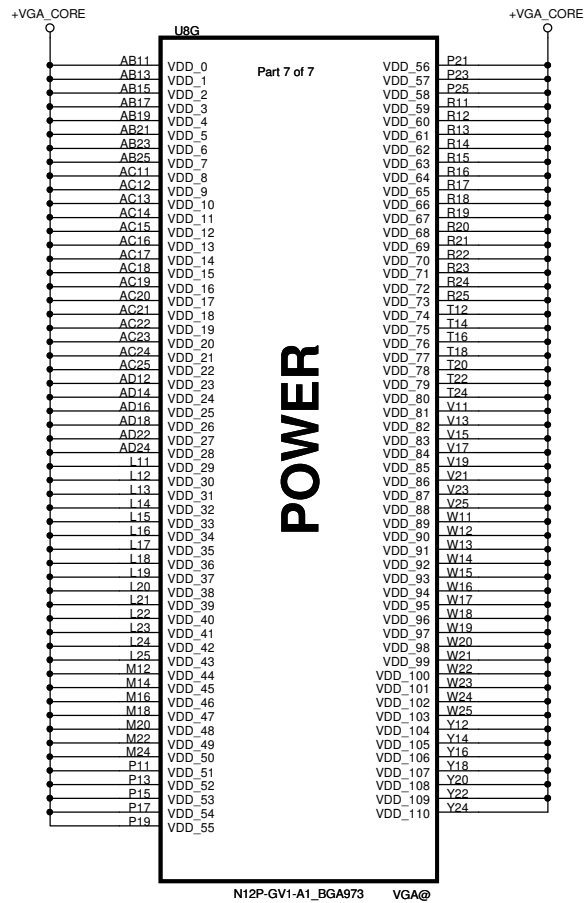
HDMI-OUT

Scalar

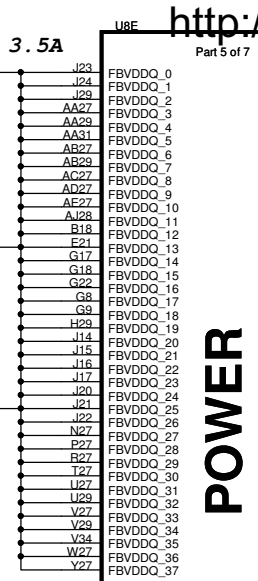
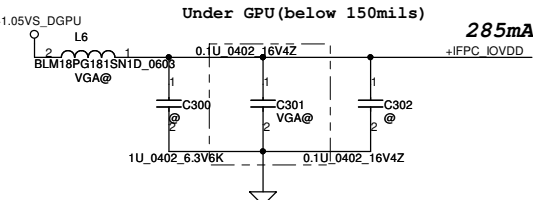
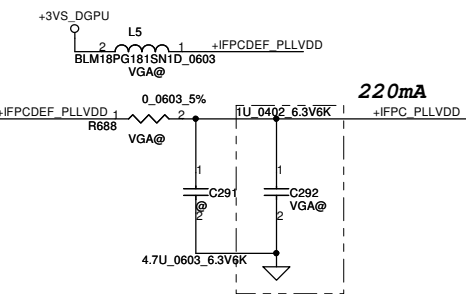
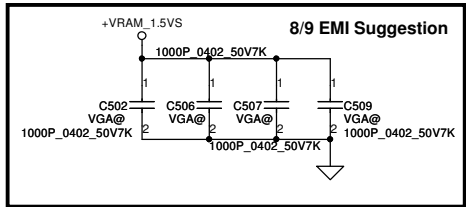
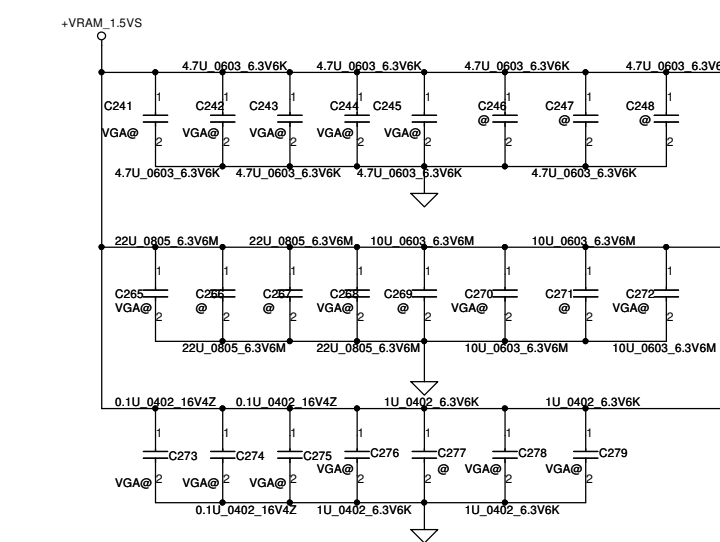


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Size	Document Number	Rev		Date	
	QLA01 M/B LA-7811P Schematic	1.A		Thursday, June 16, 2011	
				Sheet 21 of 63	

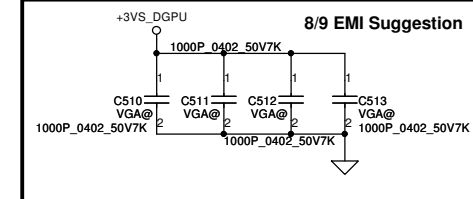
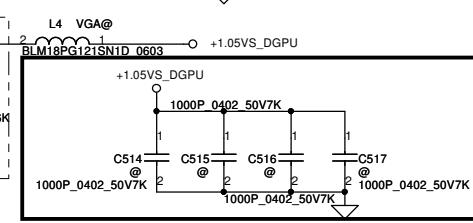
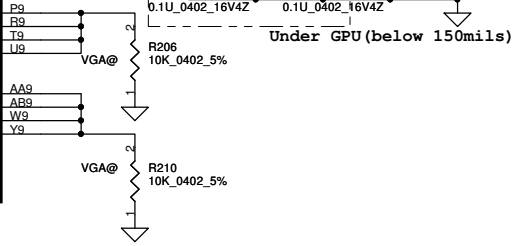
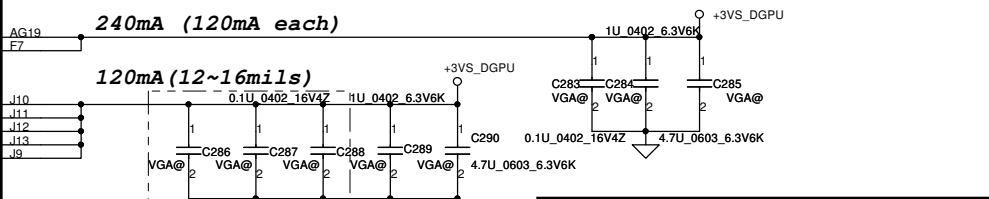
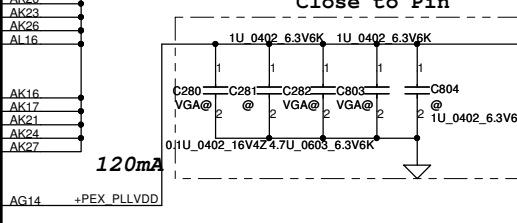
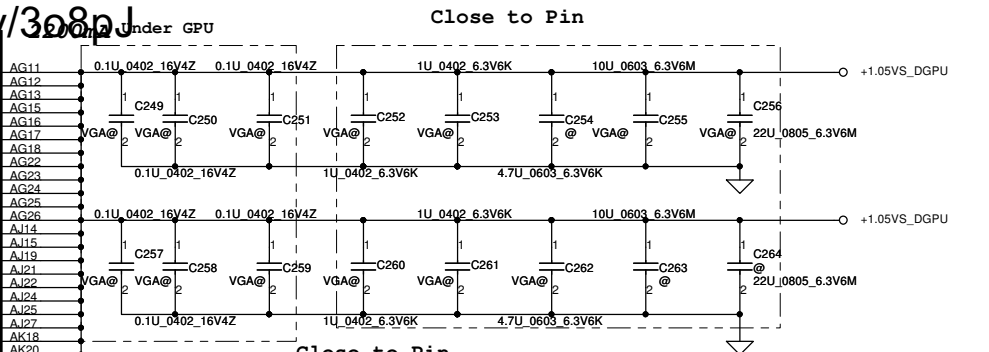
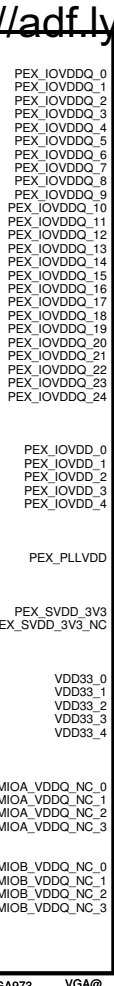




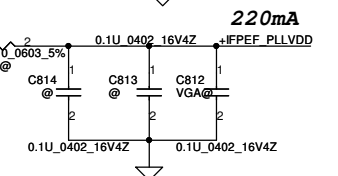
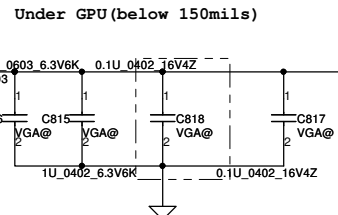
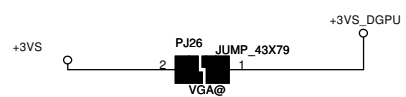
Security Classification		Compal Secret Data		Compal Electronics, Inc. VGA(3/12)-VGA CORE	
Issued Date	2010/07/20	Deciphered Date	2011/07/20		
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				Size	Document Number
				QLA01 M/B LA-7811P Schematic ^A	
Date:				Thursday, June 09, 2011	Sheet 23 of 63



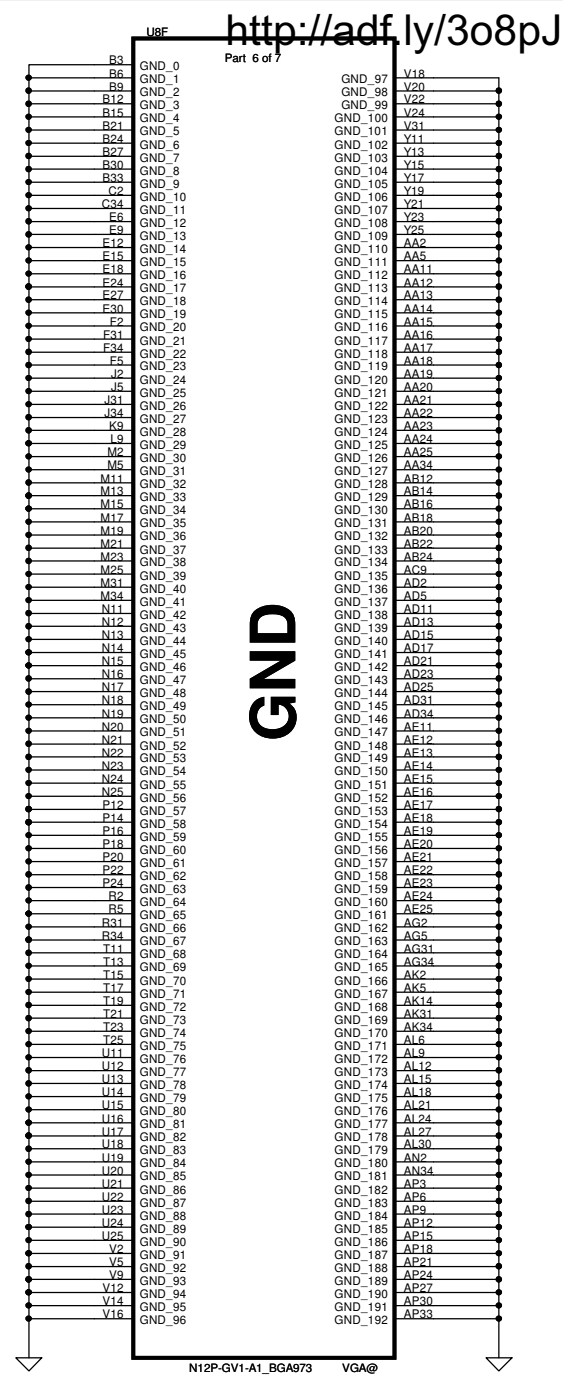
POWER



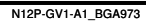
+3VS to +3VS_DGPU



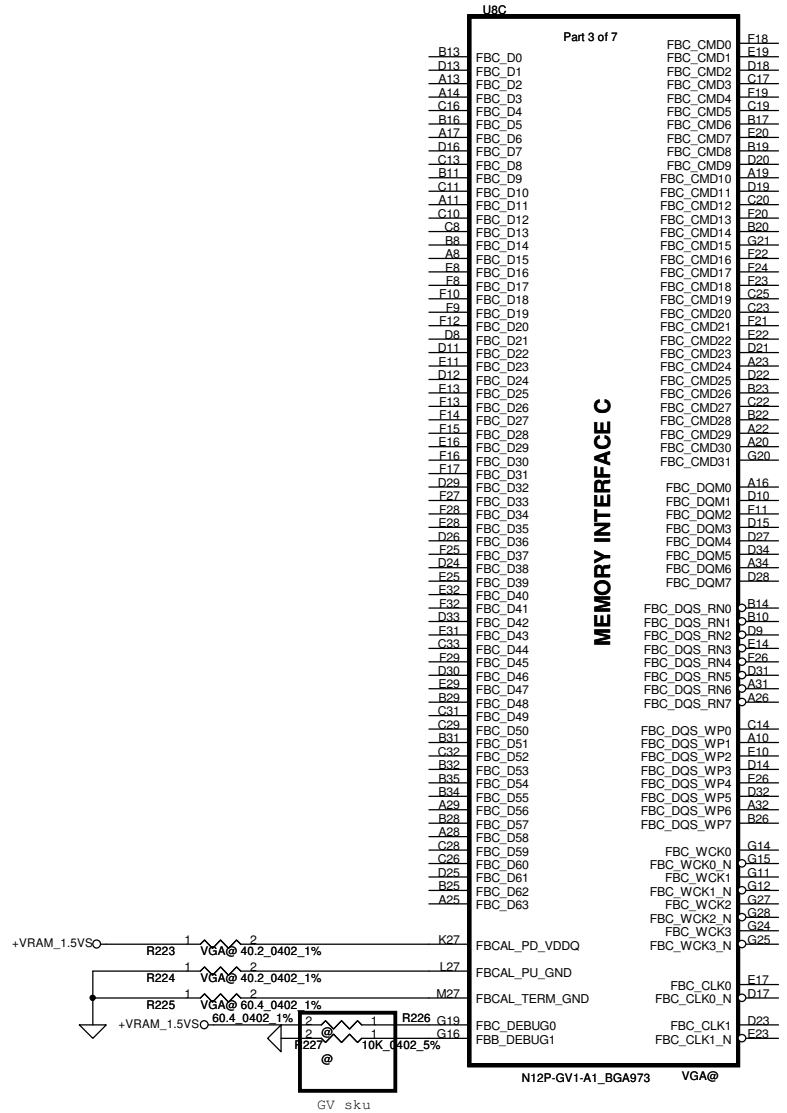
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Issued Date	2010/07/20	Deciphered Date	2011/07/20	VGA(4/12)-POWER	
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				Rev	
				QLA01 M/B LA-7811P Schematic	
				Date	Thursday, June 09, 2011
				Sheet	24 of 63



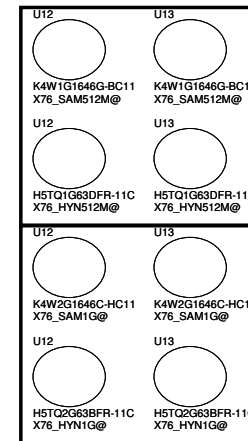
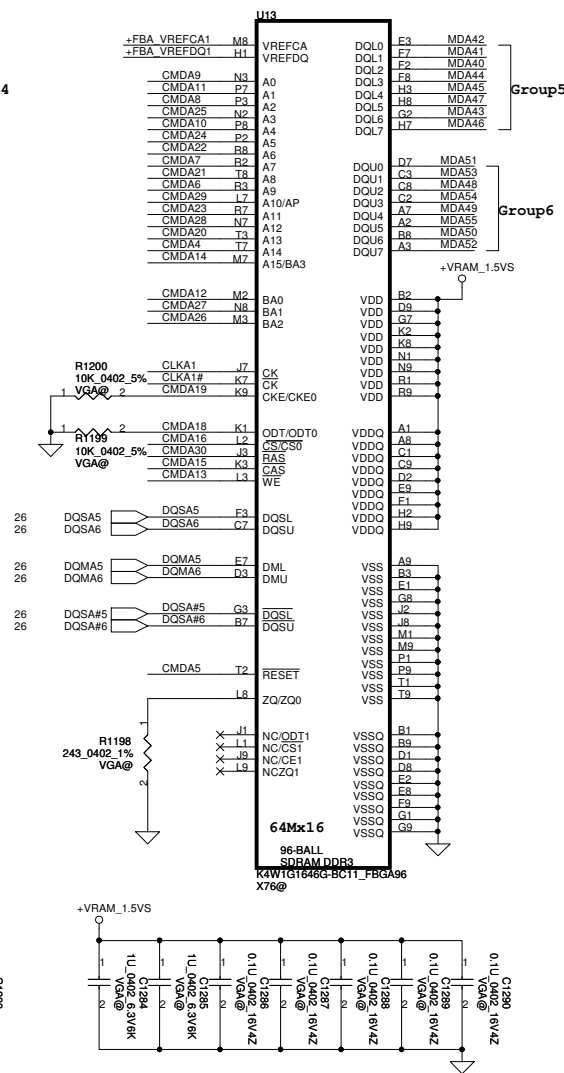
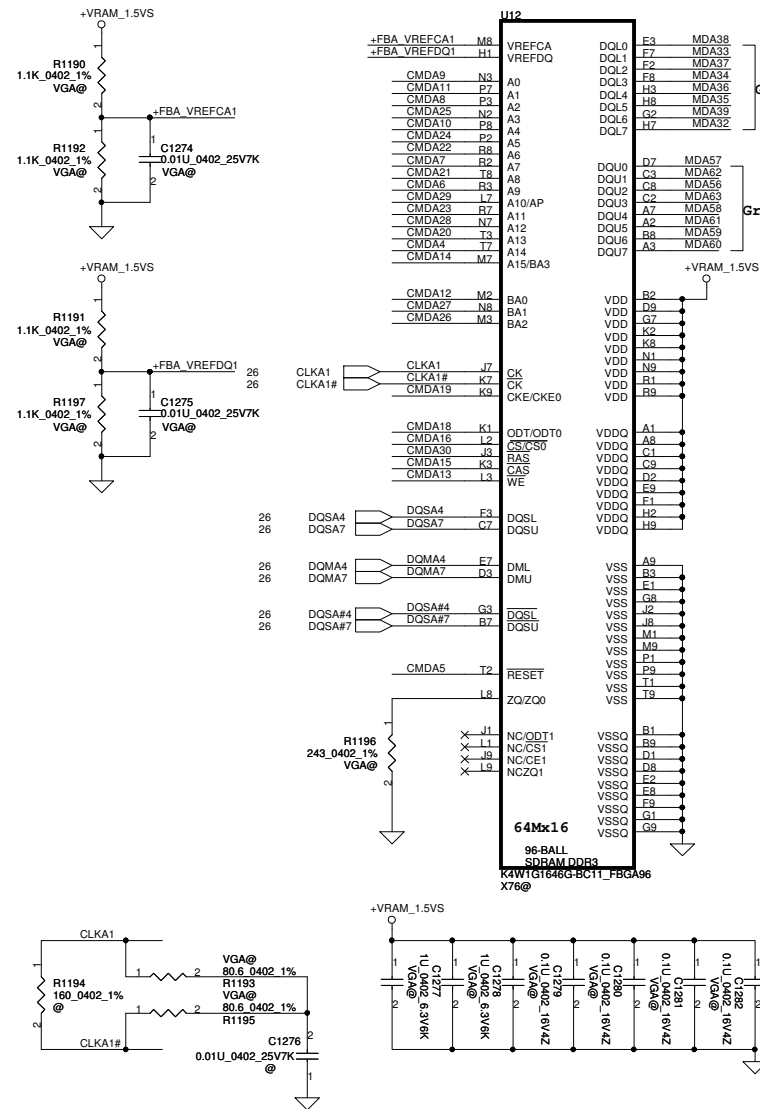
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		QLA01 M/B LA-7811P Schematic		1.A	
		Date:		Thursday, June 09, 2011	
Sheet		25		of	
63		1		63	



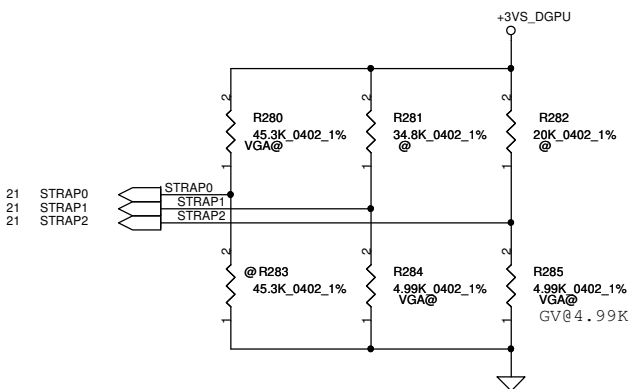
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					Size	Document Number	Rev	
					QLA01 M/B LA-7811P Schematic			1.A
					Date:	Thursday, June 16, 2011	Sheet	26 of 63



Memory Partition A - Upper 32 bits

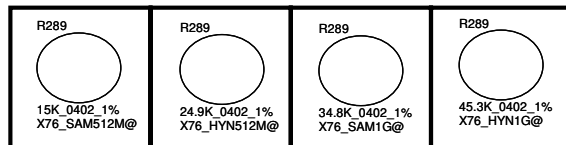
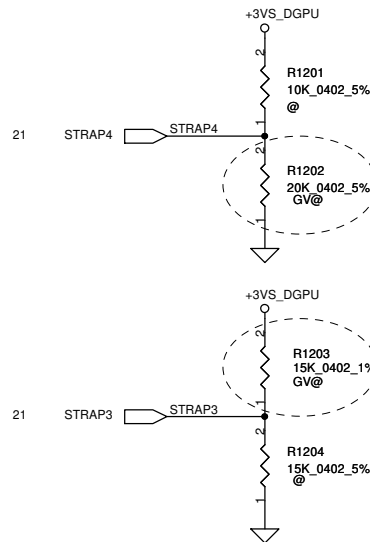
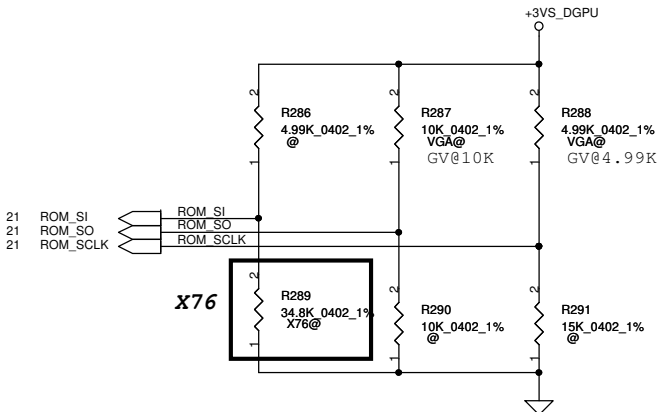


http://adf.ly/3o8pJ



Resistor Values	Pull-up to +3VGS	Pull-down to Gnd
5K	1000	0000
10K	1001	0001
15K	1010	0010
20K	1011	0011
25K	1100	0100
30K	1101	0101
35K	1110	0110
45K	1111	0111

Physical Strapping pin	Power Rail	Logical Strapping Bit3	Logical Strapping Bit2	Logical Strapping Bit1	Logical Strapping Bit0
ROM_SO	GS	XCLK_417	FB_0_BAR_SIZE	SMB_ALT_ADDR	VGA_DEVICE
	GV	FB[1]	FB[0]		
ROM_SCLK	GS	PCI_DEVID[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_EN_TERM
	GV			PCI_DEVID[5]	
ROM_SI	+3VGS	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
STRAP0	+3VGS	USER[3]	USER[2]	USER[1]	USER[0]
STRAP1	+3VGS	3GIO_PADCFG[3]	3GIO_PADCFG[2]	3GIO_PADCFG[1]	3GIO_PADCFG[0]
STRAP2	+3VGS	PCI_DEVID[3]	PCI_DEVID[2]	PCI_DEVID[1]	PCI_DEVID[0]
STRAP3	+3VGS	SOR3_EXPOSED	SOR2_EXPOSED	SOR1_EXPOSED	SOR0_EXPOSED
STRAP4	+3VGS	RESERVED	RESERVED	PCIE_MAX_SPEED	DP_PLL_VDD33V



GPU	Frenq.	Memory Size	Memory Config	strap0	strap1	strap2	strap3	strap4	ROM_SI	ROM_SO	ROM_SCLK
N12P-GV	900 MHz	64M* 16* 4 512MB	K4W1G1646G-BC11 SA00004GS00	1111	0000	0000	1010	0011	0010	1001	1000
				R1221 PU 45K	R1235 PD 5K	R1226 PD 5K	R1642 PU 15K	R1644 PD 20K	R289 PD 15K	R1228 PU 10K	R1229 PU 5K
N12P-GV	900 MHz	64M* 16* 4 512MB	H5TQ1G63DFR-11C SA000041S20	1111	0000	0000	1010	0011	0100	1001	1000
				R1221 PU 45K	R1235 PD 5K	R1226 PD 5K	R1642 PU 15K	R1644 PD 20K	R289 PD 25K	R1228 PU 10K	R1229 PU 5K
N12P-GV	900 MHz	128M* 16* 4 1GB	K4W2G1646C-HC11 SA000047Q00	1111	0000	0000	1010	0011	0110	1001	1000
				R1221 PU 45K	R1235 PD 5K	R1226 PD 5K	R1642 PU 15K	R1644 PD 20K	R289 PD 35K	R1228 PU 10K	R1229 PU 5K
N12P-GV	900 MHz	128M* 16* 4 1GB	H5TQ2G63BFR-11C SA00003YO30	1111	0000	0000	1010	0011	0111	1001	1000
				R1221 PU 45K	R1235 PD 5K	R1226 PD 5K	R1642 PU 15K	R1644 PD 20K	R289 PD 45K	R1228 PU 10K	R1229 PU 5K

SUB_VENDOR	
0	No VBIOS ROM (Default)
1	BIOS ROM is present

XCLK_417	
0	277MHz (Default)
1	Reserved

FB_0_BAR_SIZE	
0	256MB (Default)
1	Reserved

User [3:0]	
1111	EDID is used 1920x1080
1000-1100	Customer defined

3GIO_PADCFG[3:0]	
0000	RESERVED
0110	Notebook Default

PEX_PLL_EN_TERM	
0	Disable (Default)
1	Enable

SLOT_CLOCK_CFG	
0	GPU and MCH don't share a common reference clock
1	GPU and MCH share a common reference clock (Default)

SMBUS_ALT_ADDR	
0	0x9E (Default)
1	0x9C (Multi-GPU usage)

VGA_DEVICE	
0	3D Device
1	VGA Device (Default)

PCIE_MAX_SPEED	
1	Default

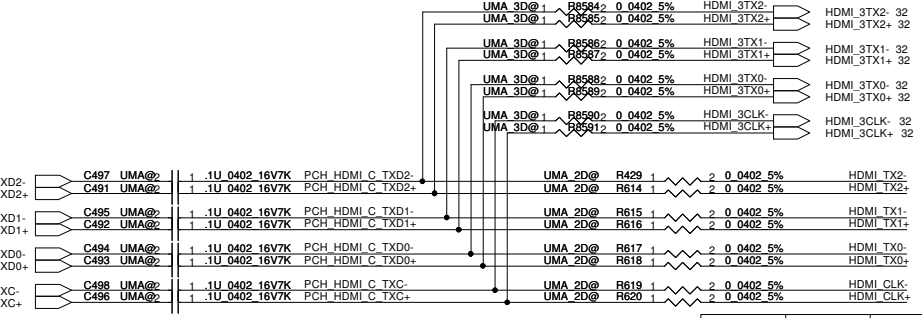
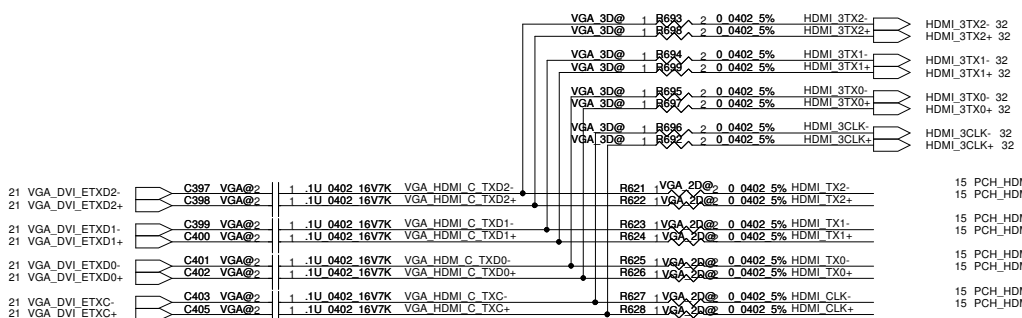
DP_PLL_VDD33V	
0	Default

GPU	Package	DeviceID	PCI_DEVID[5..0]
N12P-GS	GB2-128	0x0DF4	(..1111 0100)
N12P-GV-B	GB2b-128	0x1050	(..0101 0000)

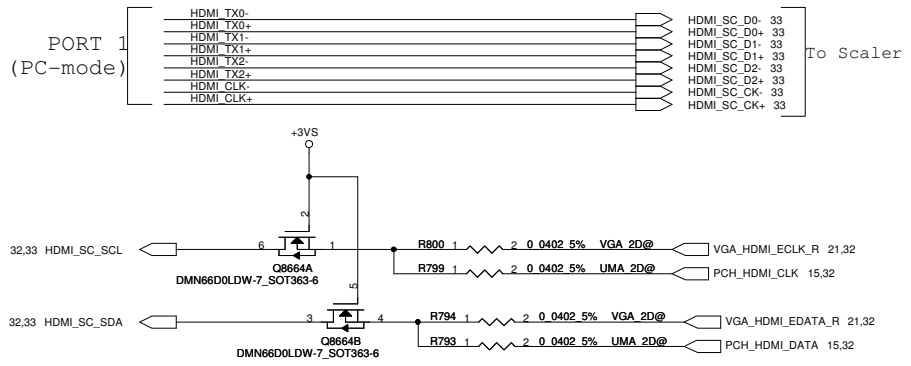
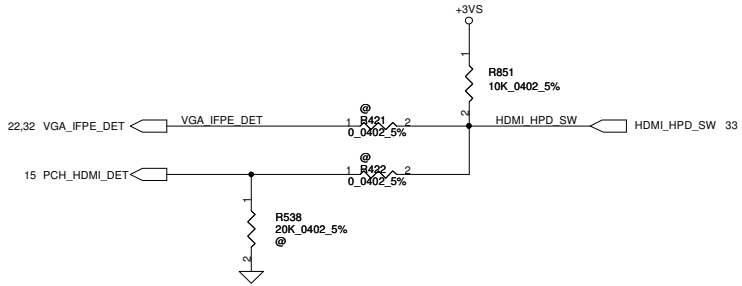
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Issued Date	2010/07/20	Deciphered Date	2011/07/20	Title	VGA(12/12)-MISC
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				Date	Thursday, June 16, 2011
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0804 Vendor suggest close to Cap.

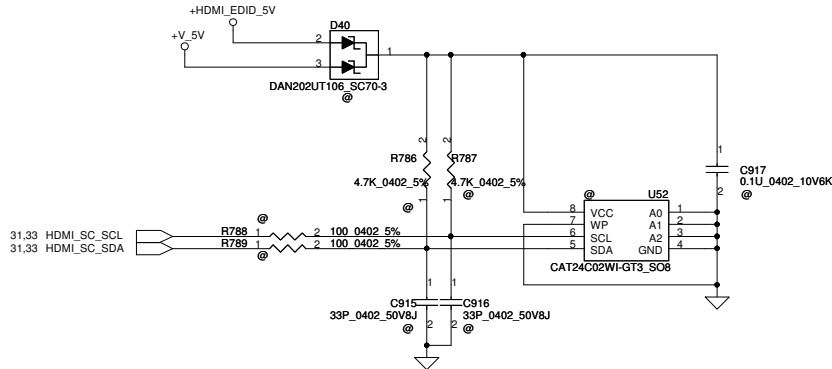
0804 Vendor suggest close to Cap.



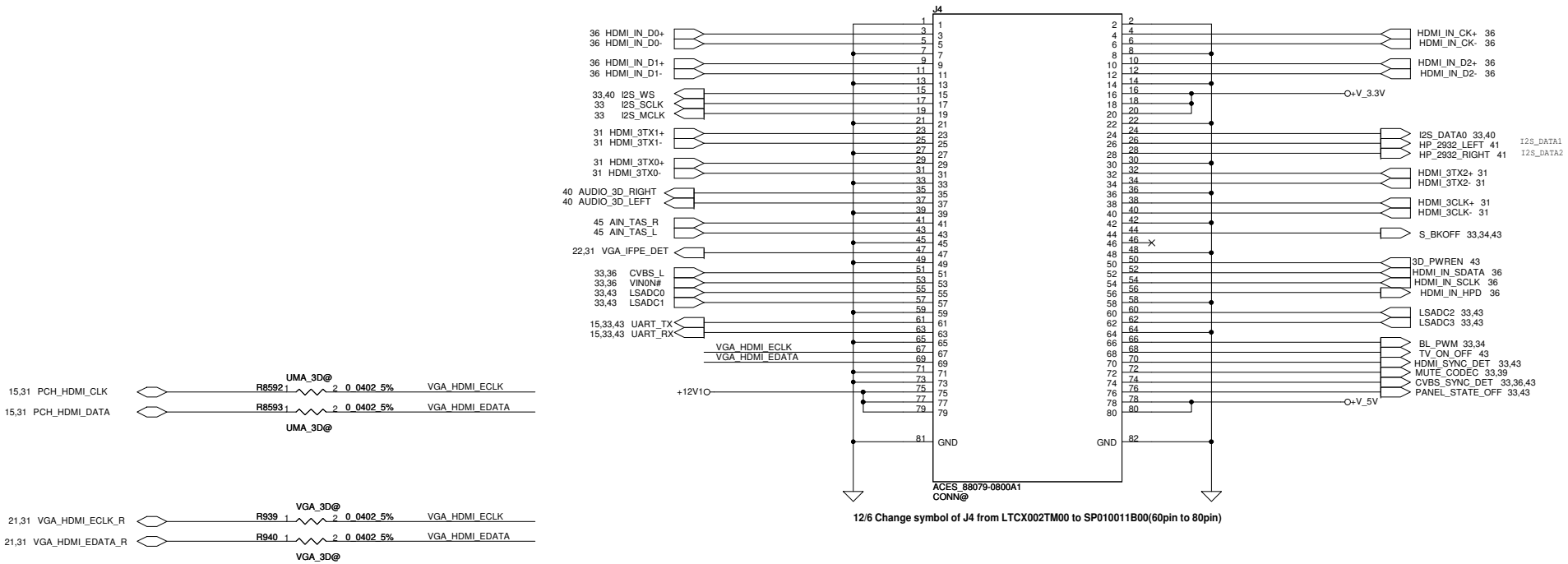
S2 (pin33)	S1 (pin32)	TMDS/DDC output
H	H	PORT1/SCL1, SDA1
H	L	PORT2/SCL2, SDA2
L	H	All disconnected



0810 Vendor suggest to reserve for EDID debug

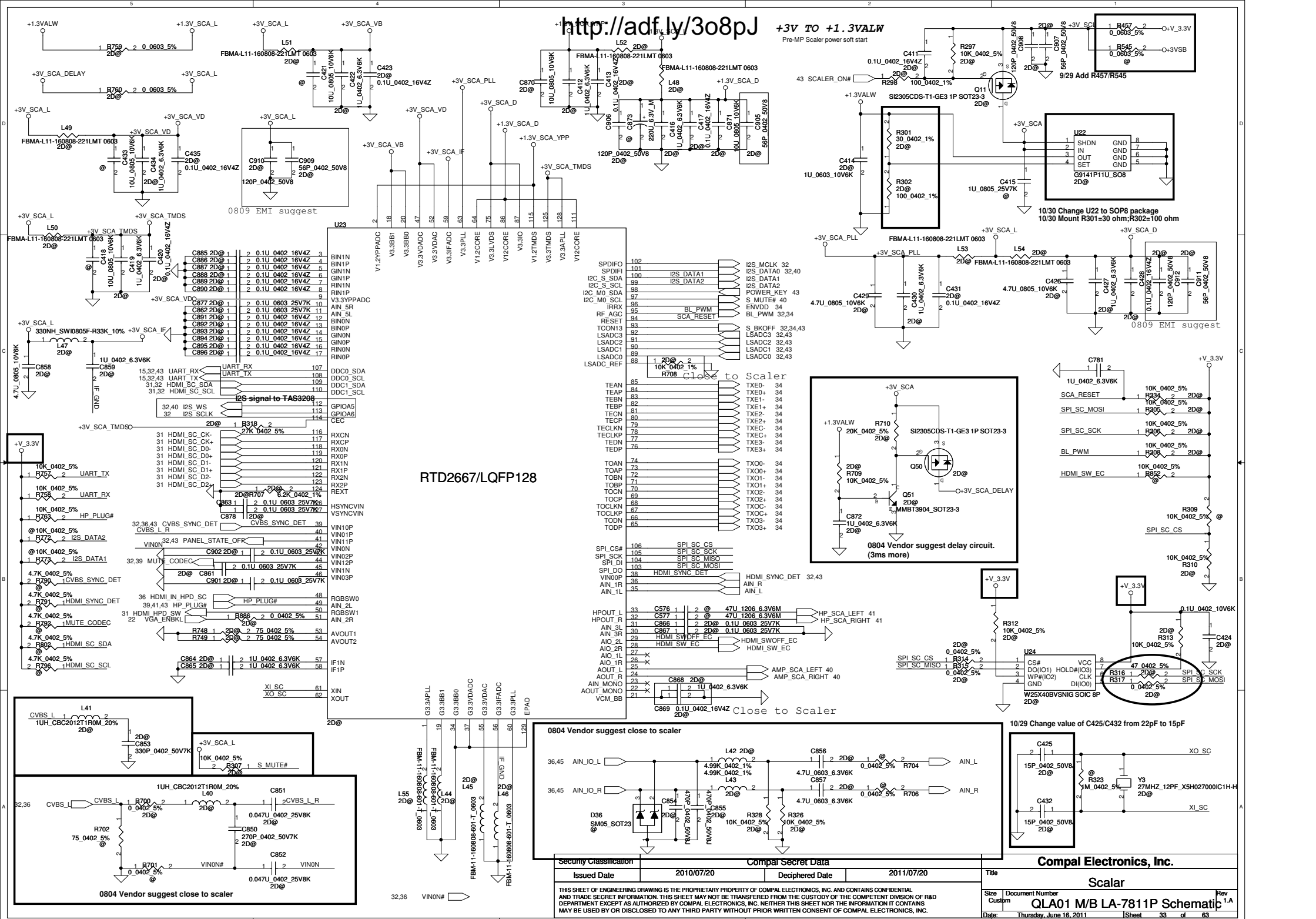


12/11 3D Scaler Pin define update

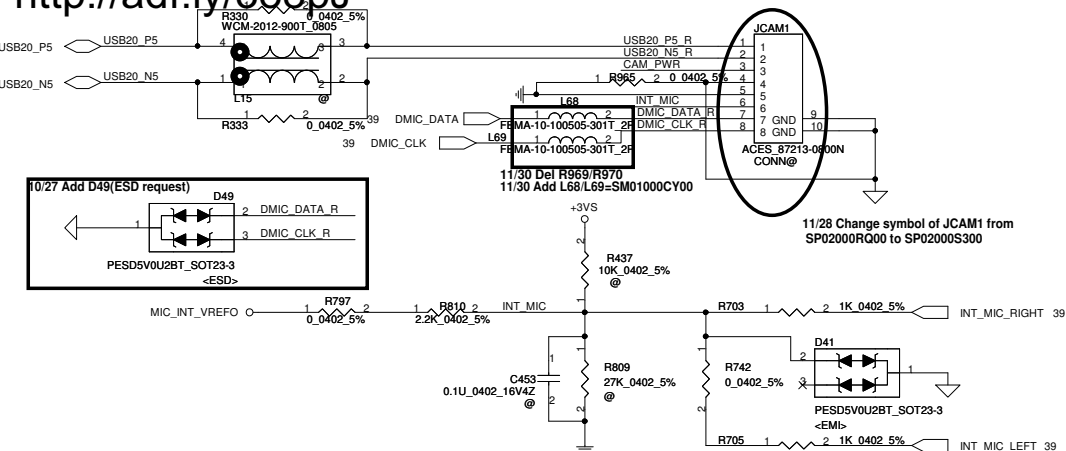
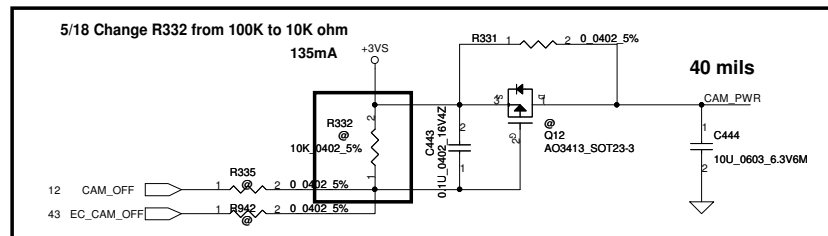
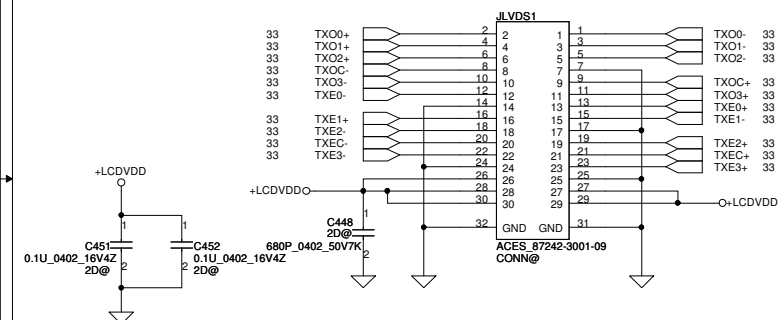


12/6 Change symbol of J4 from LTCX002TM00 to SP010011B00(60pin to 80pin)

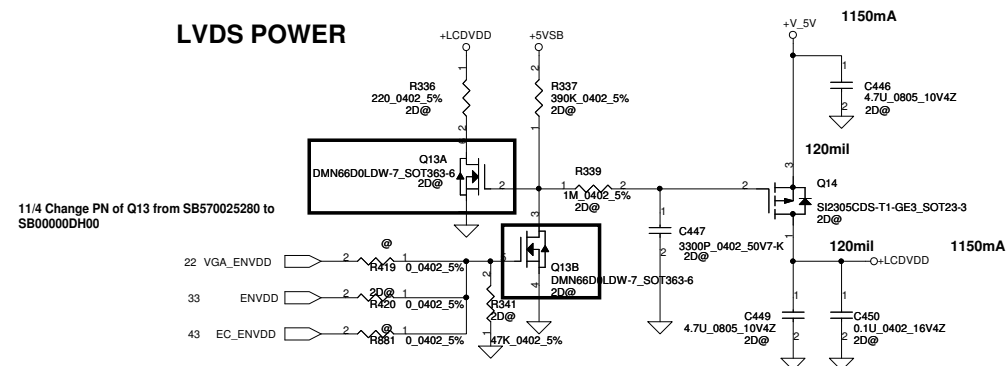
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Size		Document Number		Rev	
Custom		QLA01 M/B LA-7811P Schematic		1.A	
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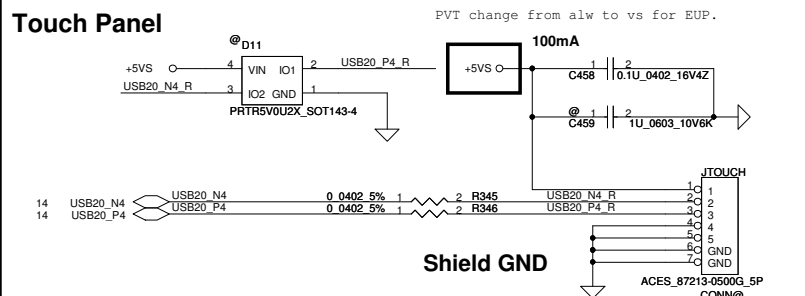
WebCam+Digital Mic

**LVDS CONN**

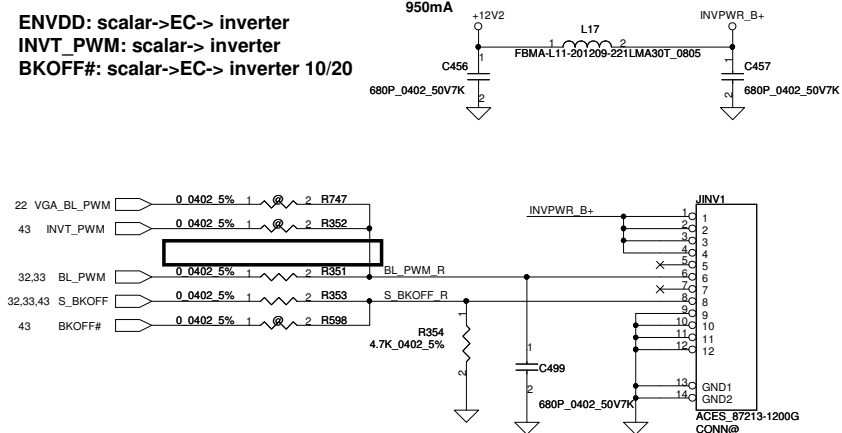
LVDS POWER



Touch Panel

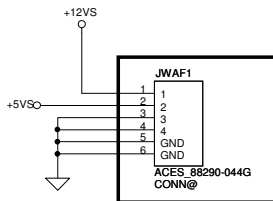
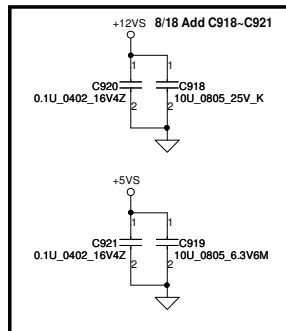


INVERTER



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HDD POWER Conn



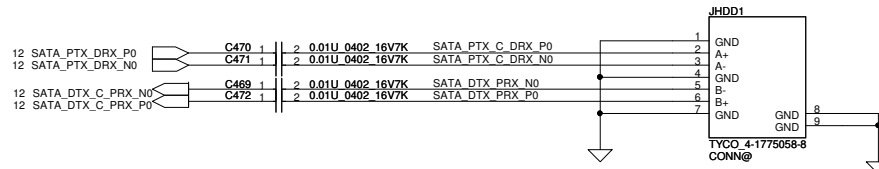
12/6 Change footprint of JWAF1 from SP02000AO00 to SP02000EB00

Layout Note: Place C918/C919/C920/C921 close to JWAFER1

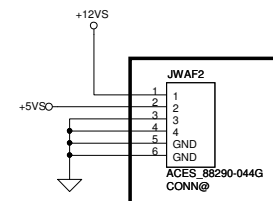
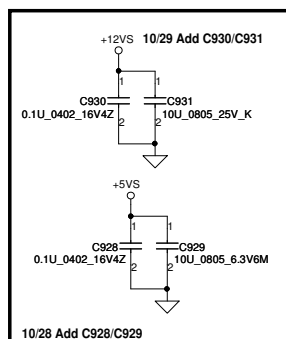
HDD

<http://adf.ly/3o8pJ>

SATA HDD Conn.



ODD POWER Conn



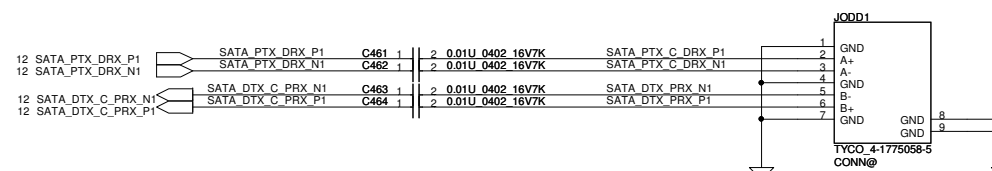
12/6 Change footprint of JWAF1 from SP02000AO00 to SP02000EB00

10/28 Add C928/C929

Layout Note: Place C928/C929 close to JWAFER2

ODD

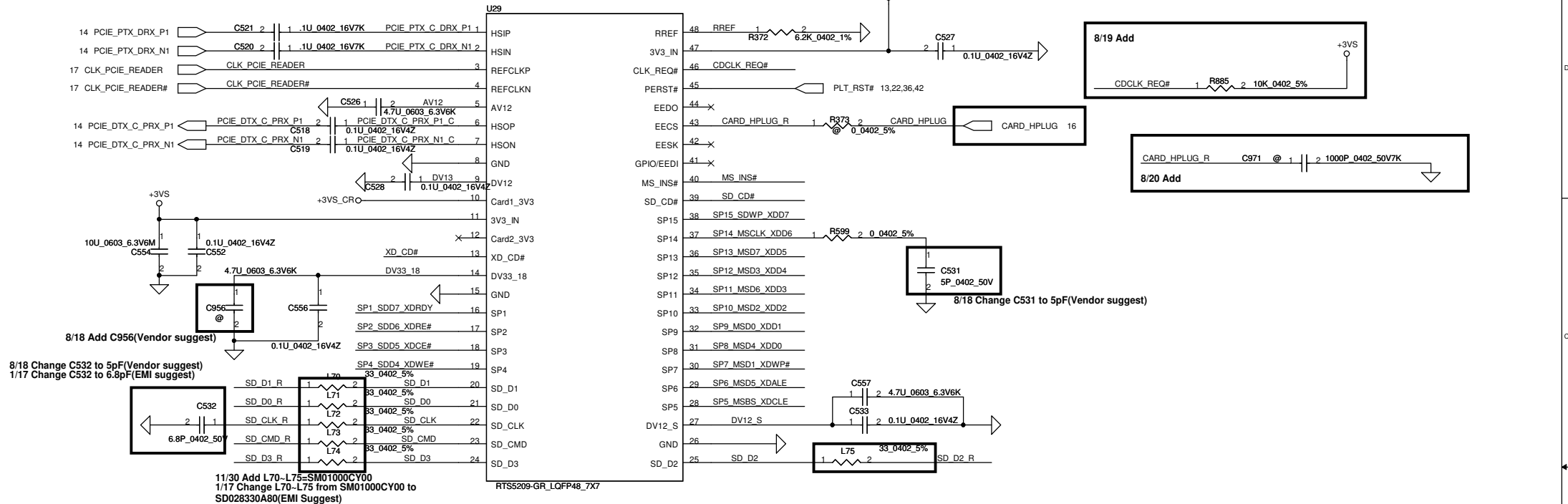
SATA ODD Conn.



SSD

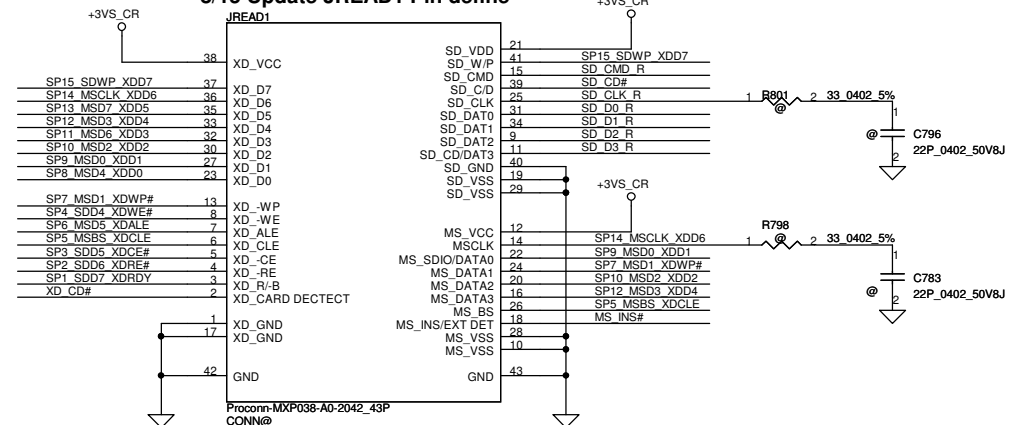
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Issued Date		2010/07/20		Deciphered Date		2011/07/20		Title			
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						Size B		Document Number		Rev	
								QLA01 M/B LA-7811P Schematic		1.4	
								Date: Thursday, June 16, 2011		Sheet 35 of 63	

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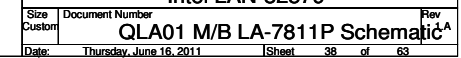


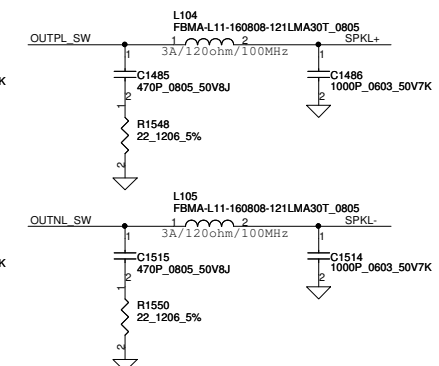
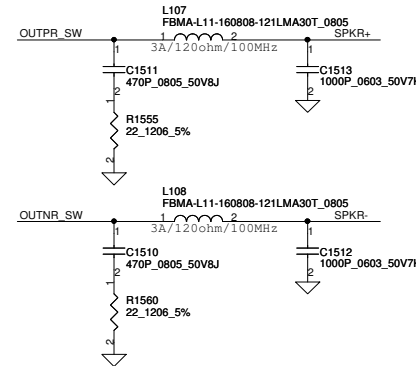
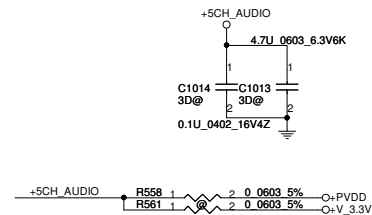
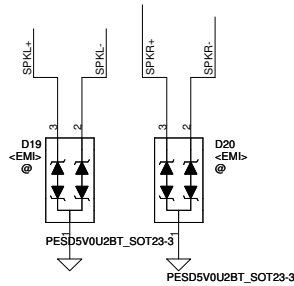
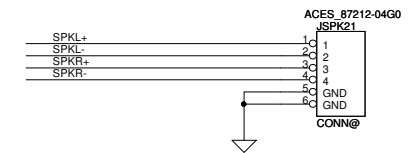
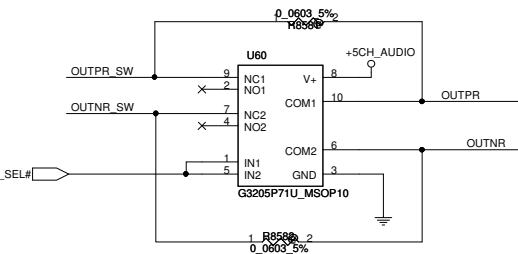
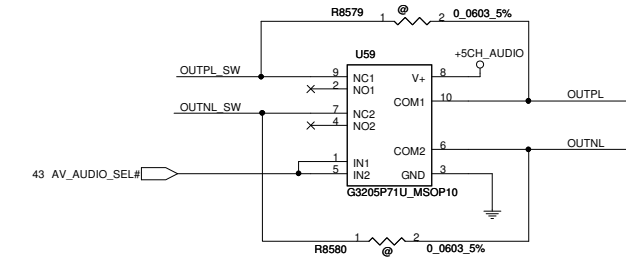
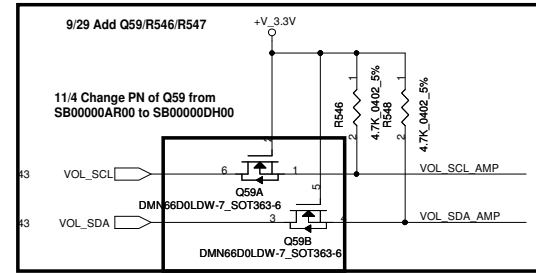
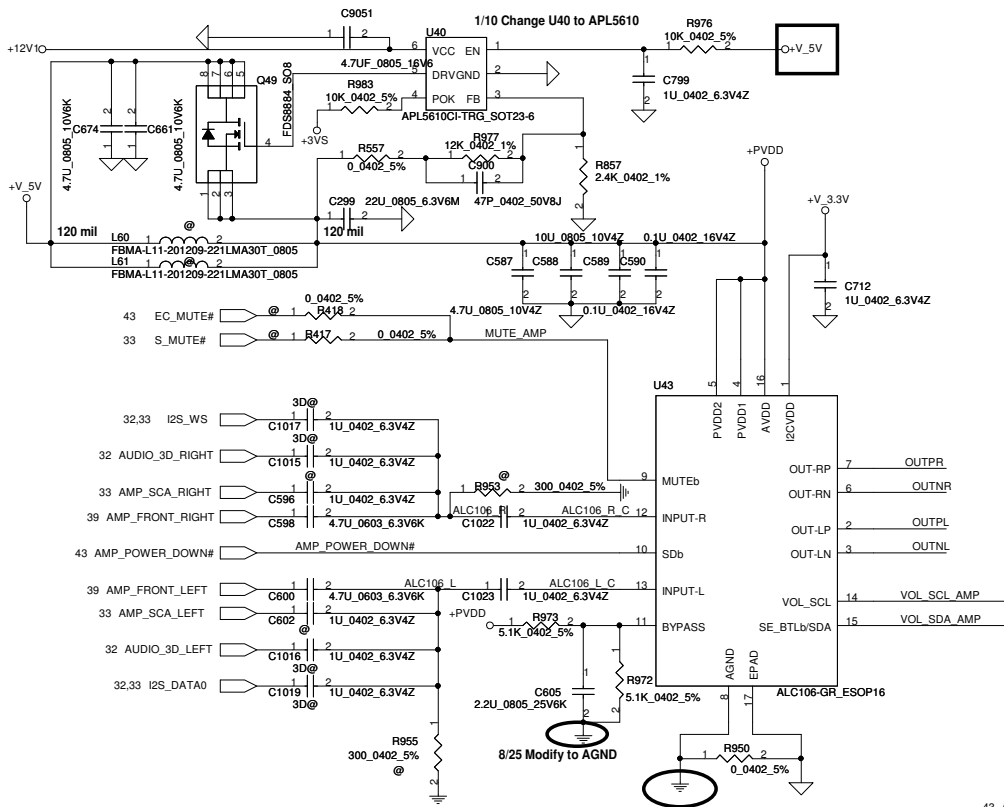
< 7 in 1 Card Reader >

8/15 Update JREAD1 Pin define



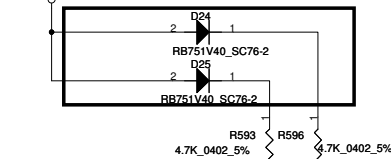
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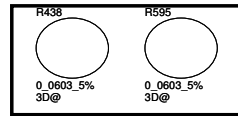


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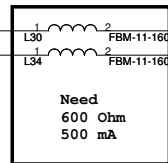
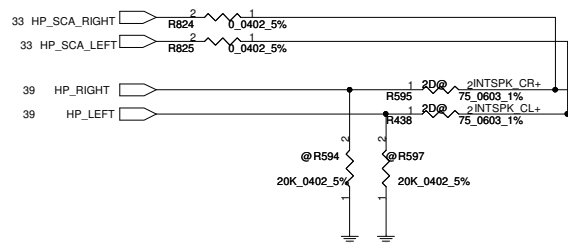
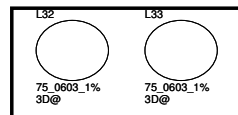
1026 Add Diode for MIC_L_VREF0
12/10 Change symbol of D24/D25 from SC1H751H010 to SCS00002G00



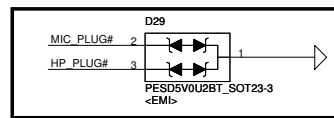
2/18 Add



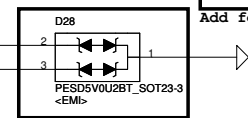
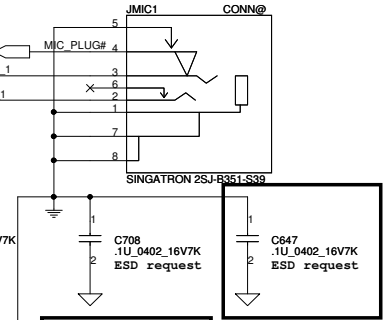
2/24 Add



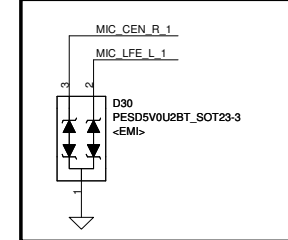
Need
600 Ohm
500 mA



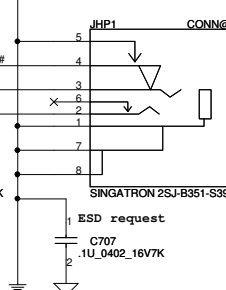
EXT MIC IN



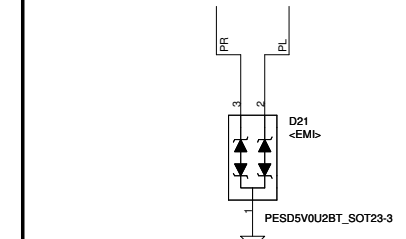
8/13 Change symbol of D30 to SCA00000T00(EMI Suggest)



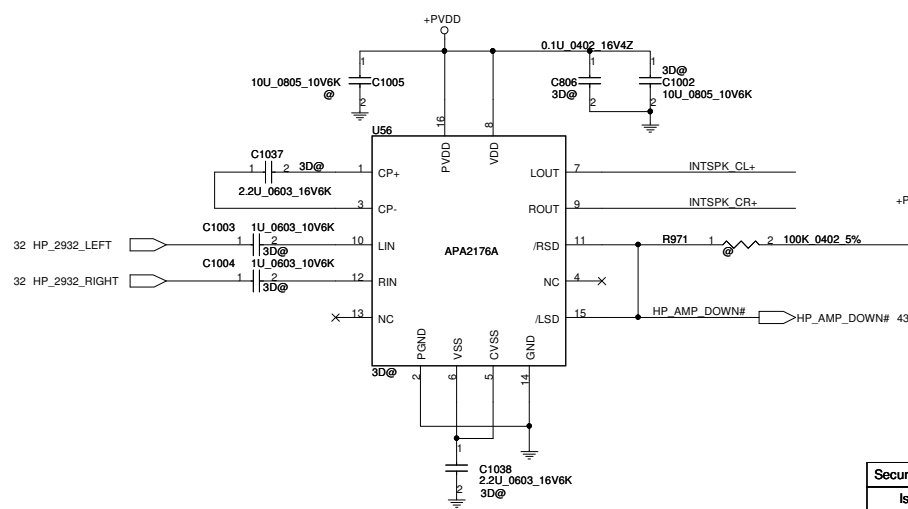
HP OUT



8/13 Change symbol of D21 to SCA00000T00(EMI Suggest)

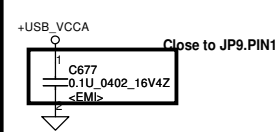
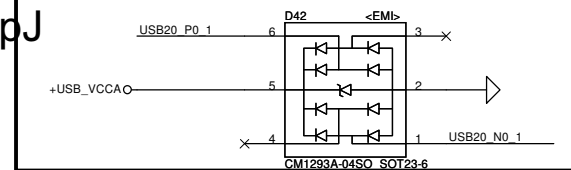
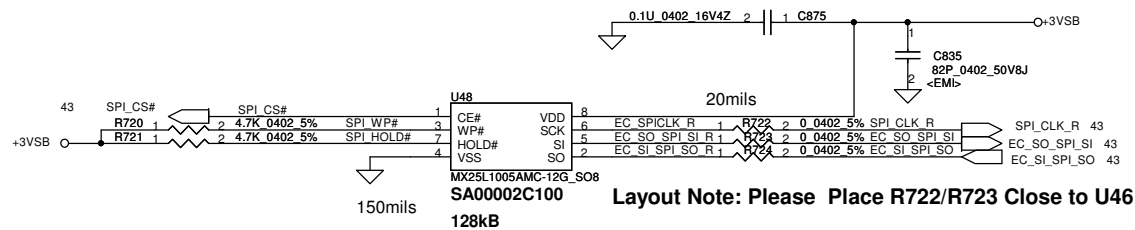


10/22 Change U56 from SA00001ZW00 to SA00004IS00

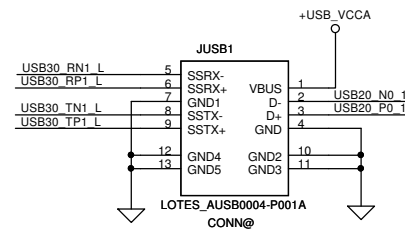
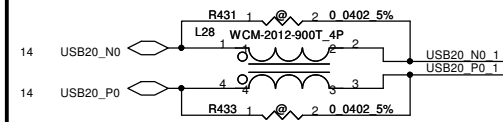


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Size	Custom	Document Number	Rev	Date	
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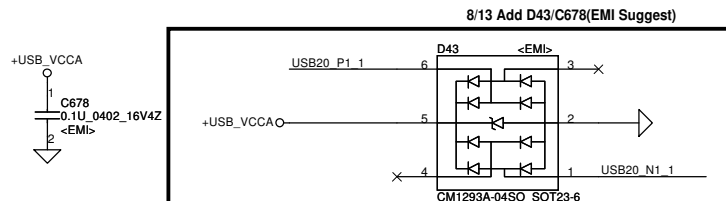
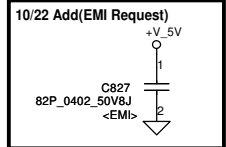
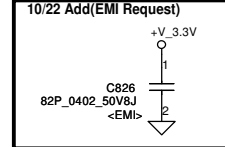
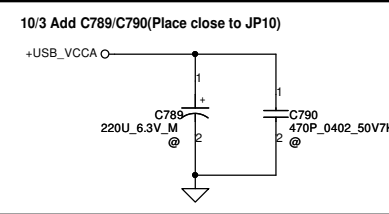
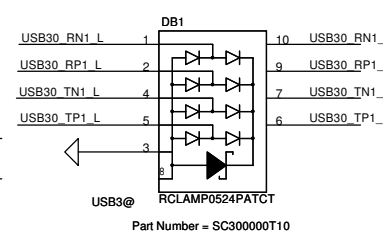
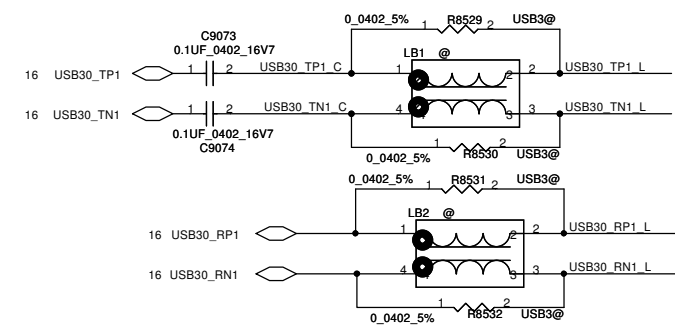
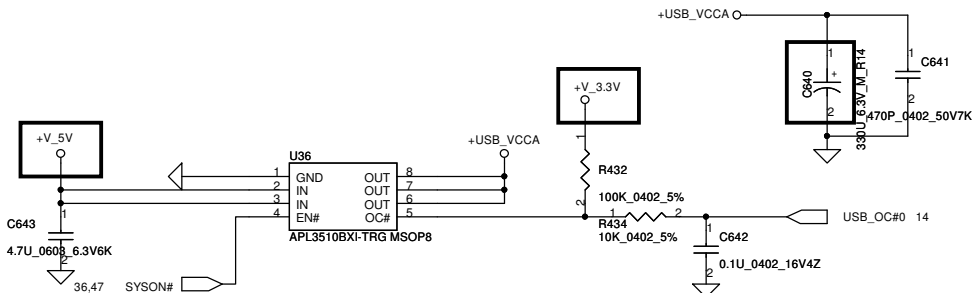
http://adf.ly/3o8pJ



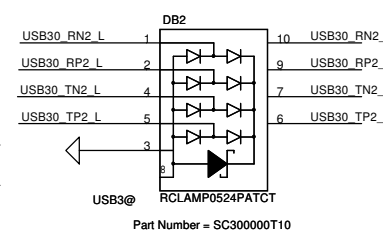
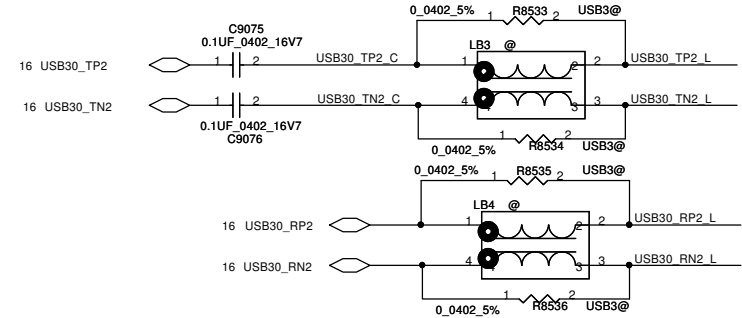
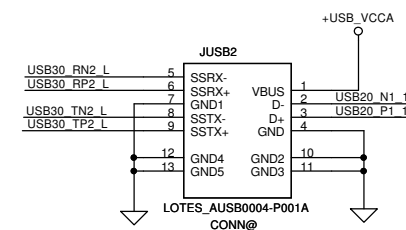
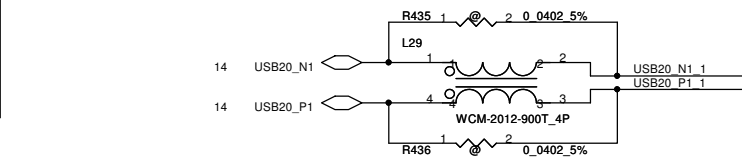
10/25 Change symbol and footprint of D42 from SC300000100 to SC300000000(ESD request)



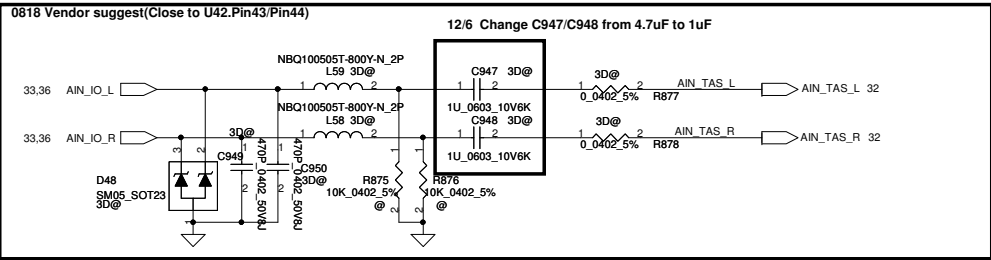
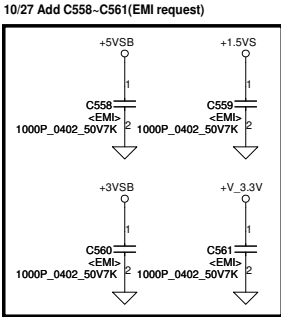
11/2 Change PN of C640 from SF000002Y00 to SF000001G00



10/25 Change symbol and footprint of D43 from SC300000100 to SC300000000(ESD request)



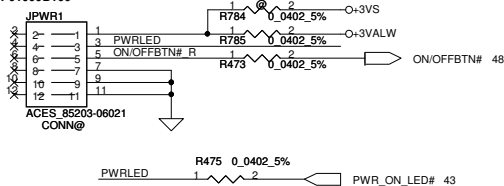
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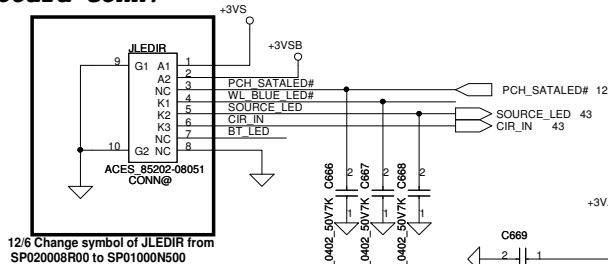
De-Emphasis Control		
DEMT1 (pin 17)	DEMT0 (pin 16)	AUDIO INTERFACE
LOW	LOW	OFF *
LOW	HIGH	48 kHz
HIGH	LOW	44.1 kHz
HIGH	HIGH	32 kHz

Power switch board

12/6 Change symbol of JPWR1 from SP02000U100 to SP01000B100

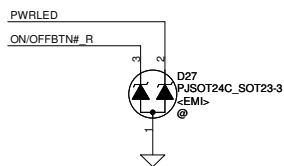


LED board conn.



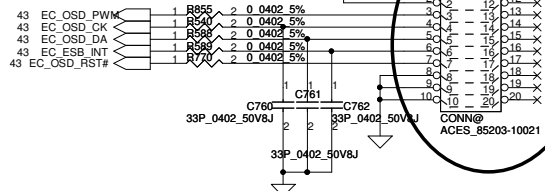
12/6 Change symbol of JLED1R from SP02000B800 to SP01000N500

8/13 Change symbol of D27 to SCA00000E00(EMI Suggest)

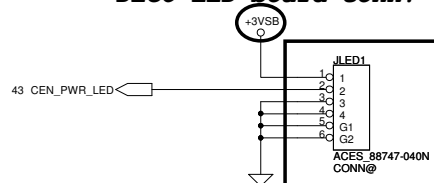


SENSOR BOTTOM

Follow NCQD0



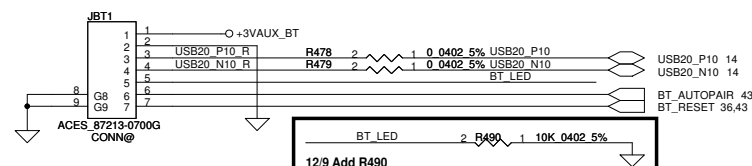
DECO LED board conn.



12/6 Change symbol of JLED1 from SP02000PO00 to SP010028400(3pin to 4 pin)

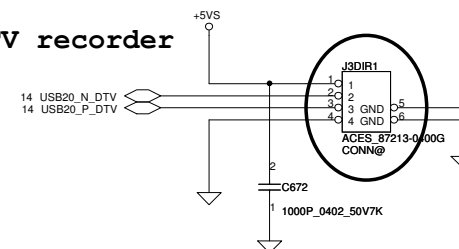
BT Connector

10/26 Change symbol and footprint of JBT1 from SP02000FR00 to SP02000F000

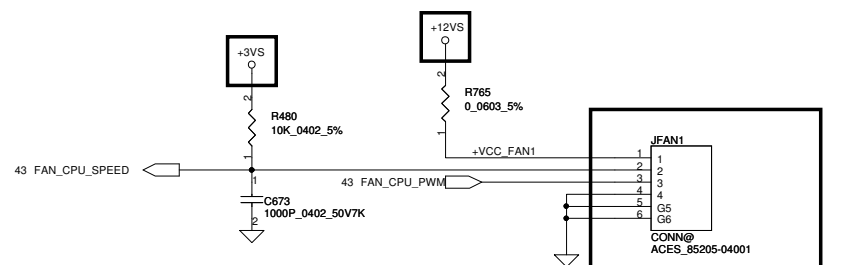


DTV recorder

10/3 Change symbol of J3DIR1 from SP02000B000 to SP02000GC00(置立式 to R/A)



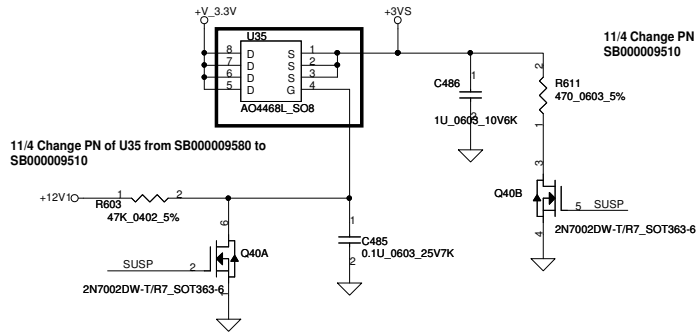
Fan Control circuit



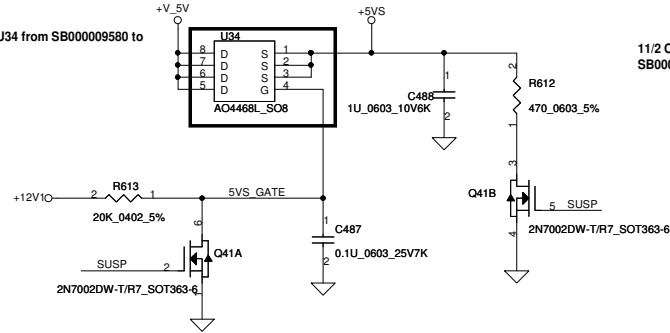
11/29 Change symbol and footprint of JFAN1 from SP02000U900 to SP02000X000

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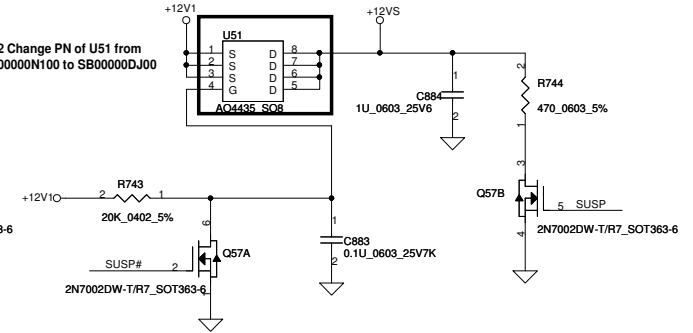
+V_3.3V TO +3VS



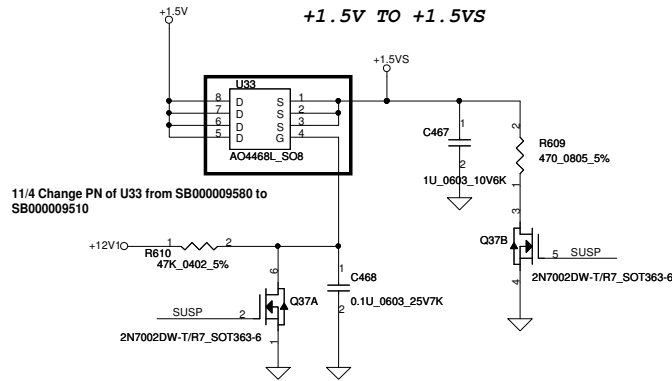
+V_5V TO +5VS



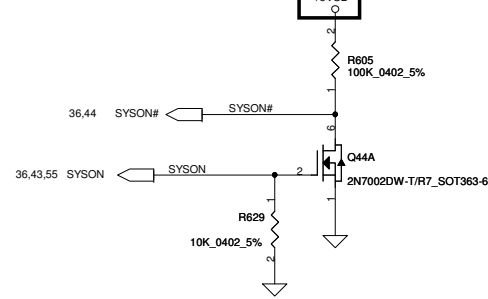
+12V1 TO +12VS



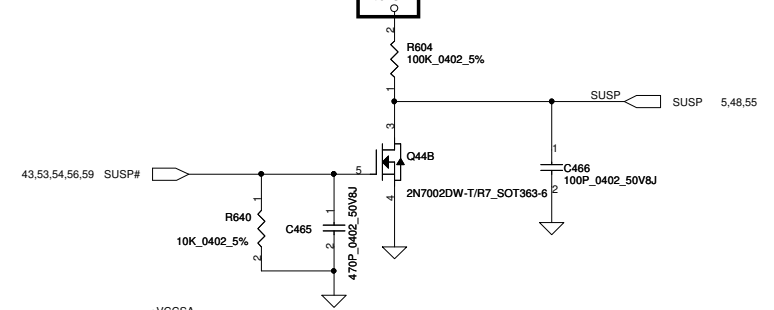
+1.5V TO +1.5VS



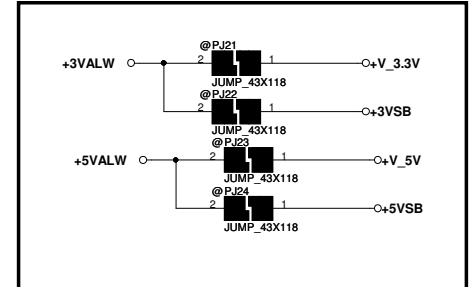
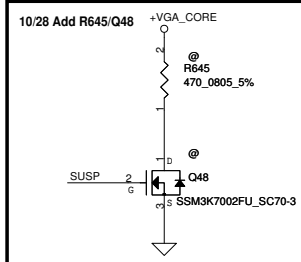
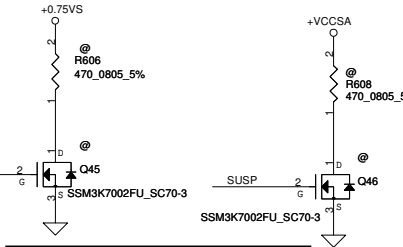
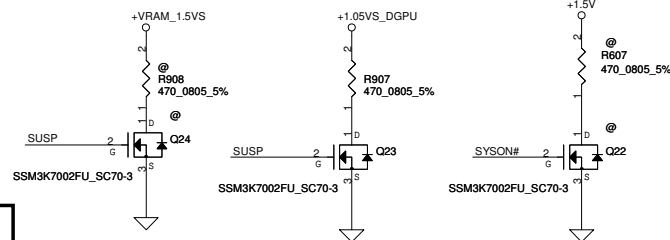
+5VSB TO +5VSB



+5VSB TO +5VSB



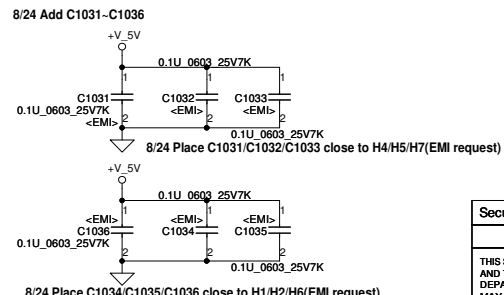
Discharge circuit



NON-PDH

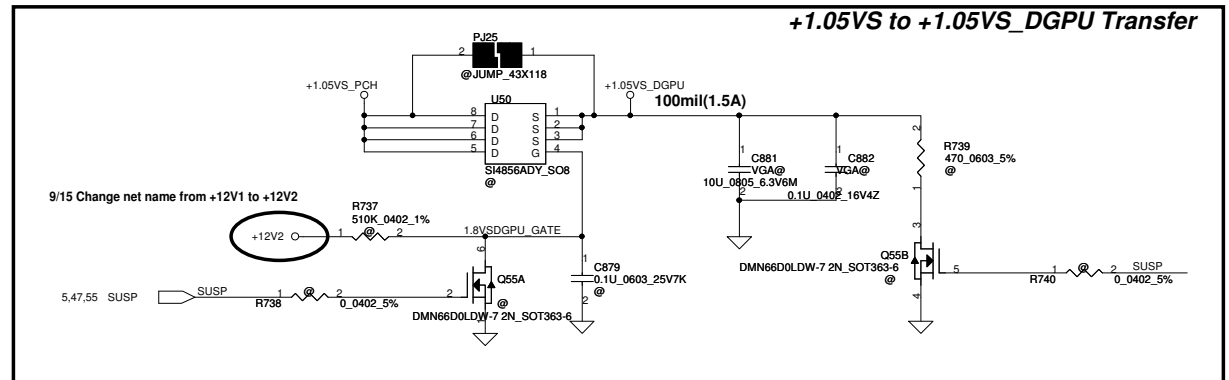
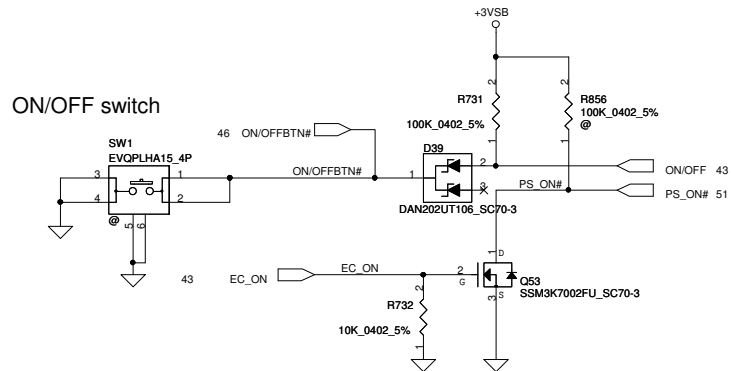
FM1 FM2 FM3 FM4

Screw



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Power Button

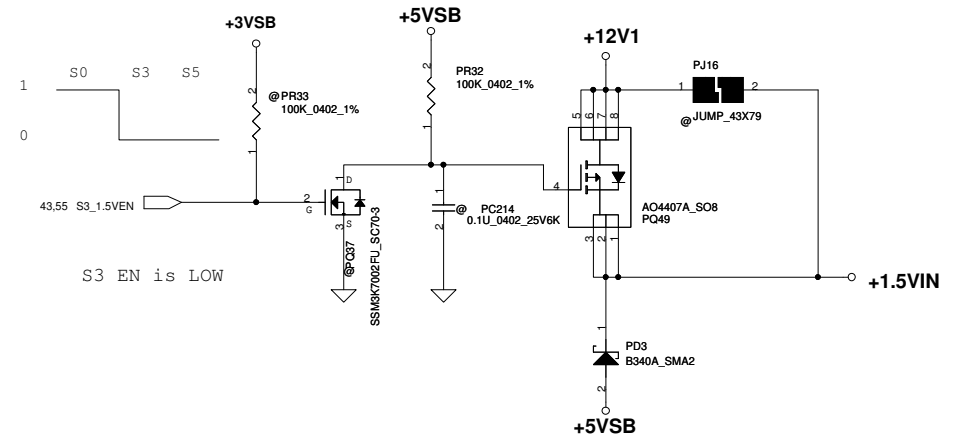
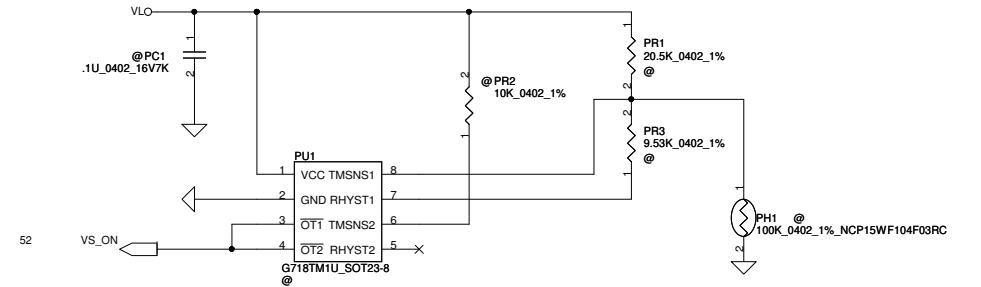
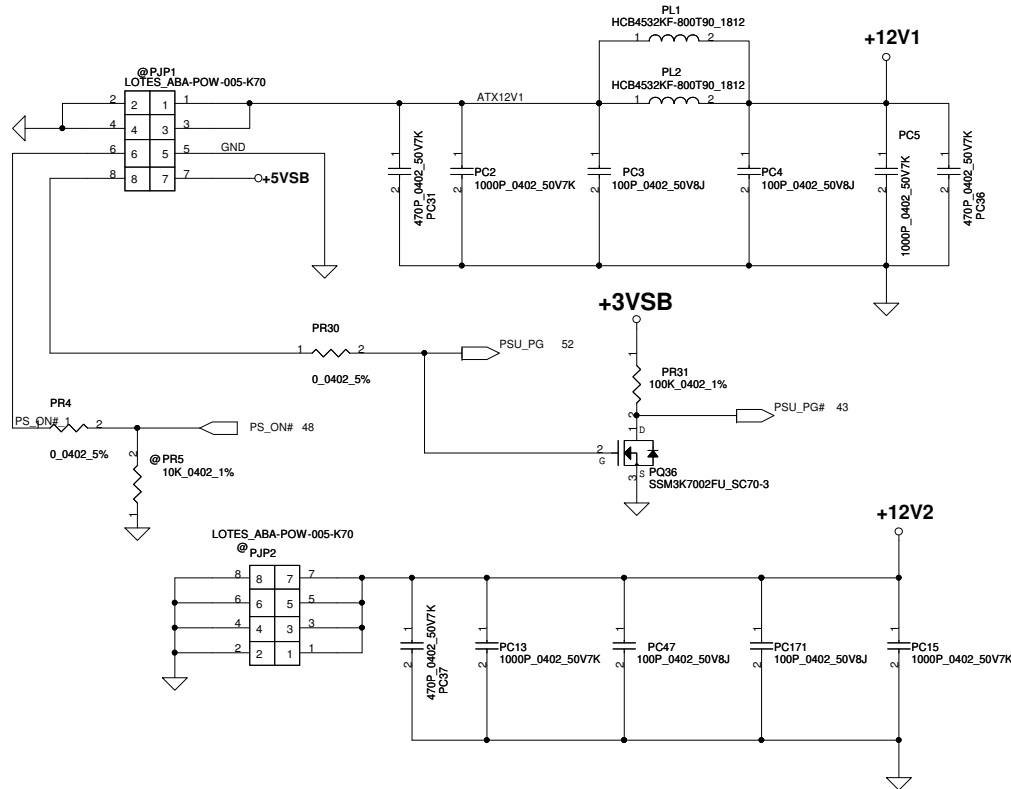


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				Size B	Document Number
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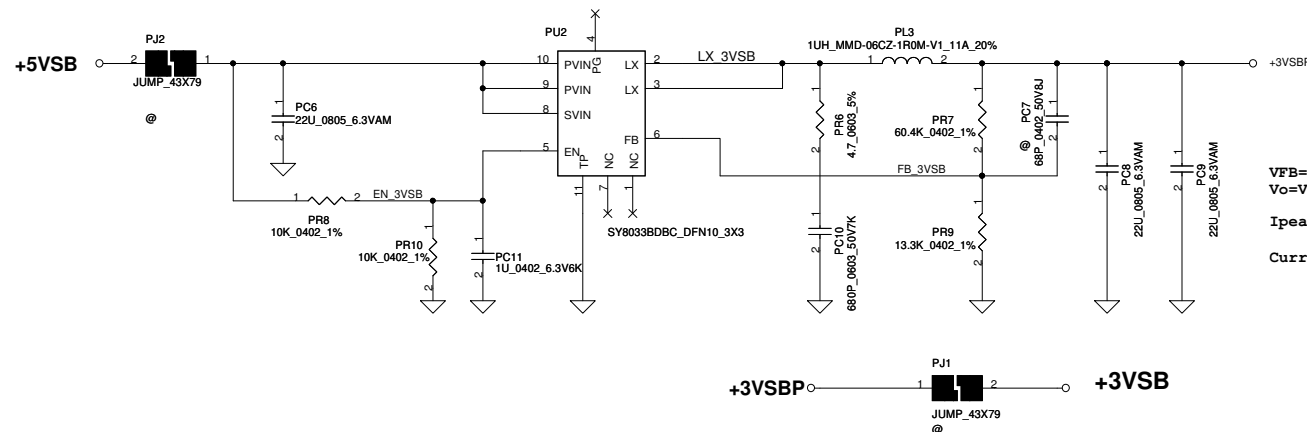
PH1 under CPU bottom side :

CPU thermal protection at 92 degree C

Recovery at 57 degree C



S3 EN is LOW



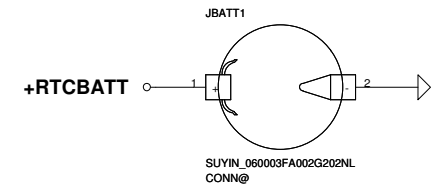
$$V_{FB} = 0.6V$$

$$V_o = V_{FB} * (1 + PR7/PR9) = 3.318V$$

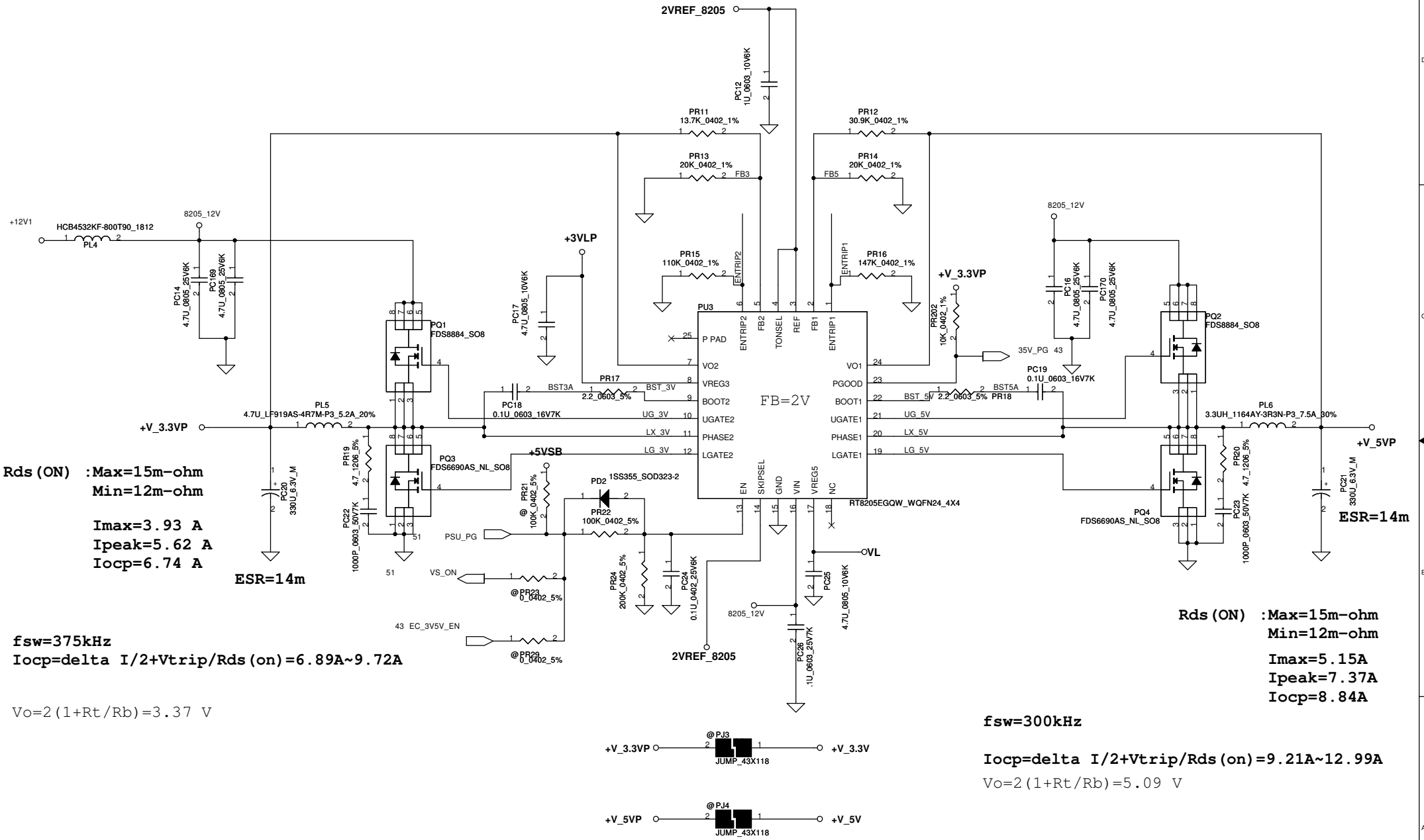
$$I_{peak} = 0.062A, I_{max} = 0.045A$$

Current limit >= 4A

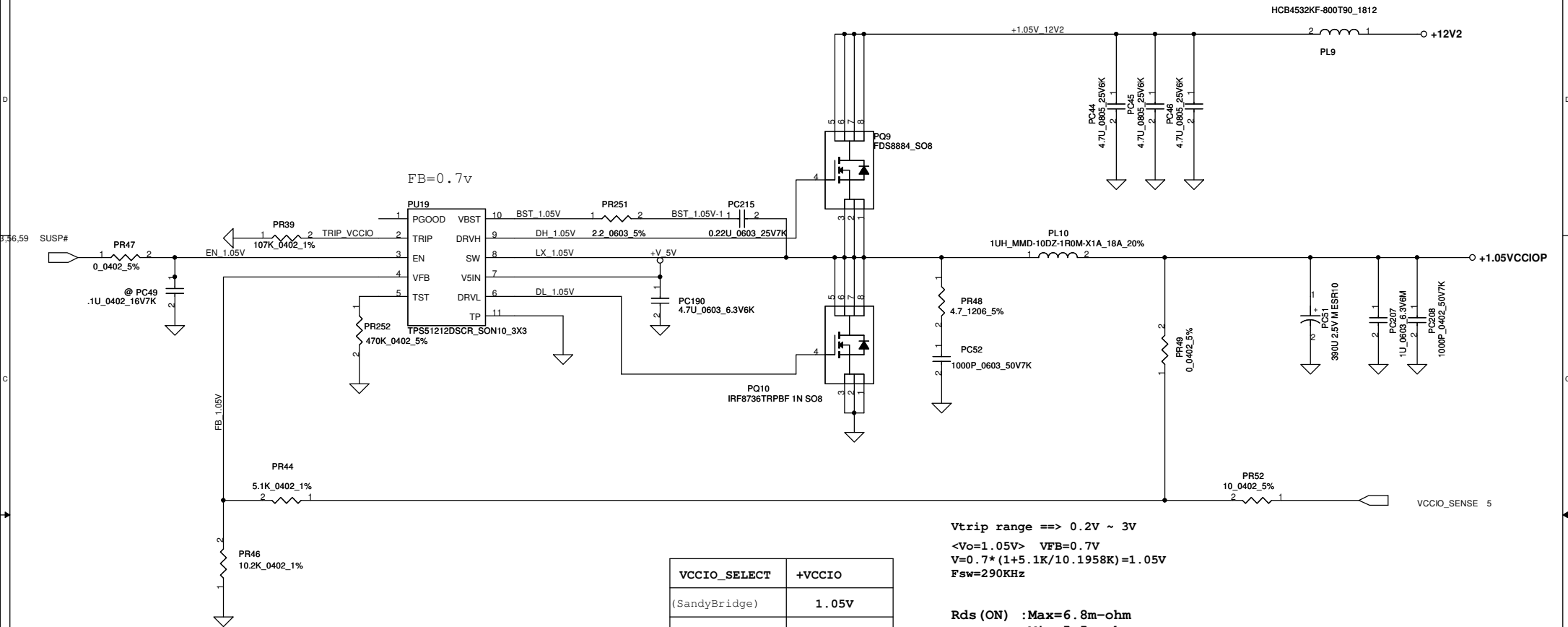
FOR EC suspend



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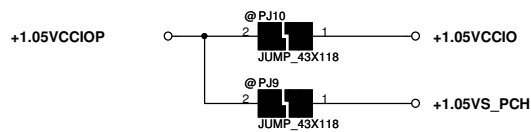


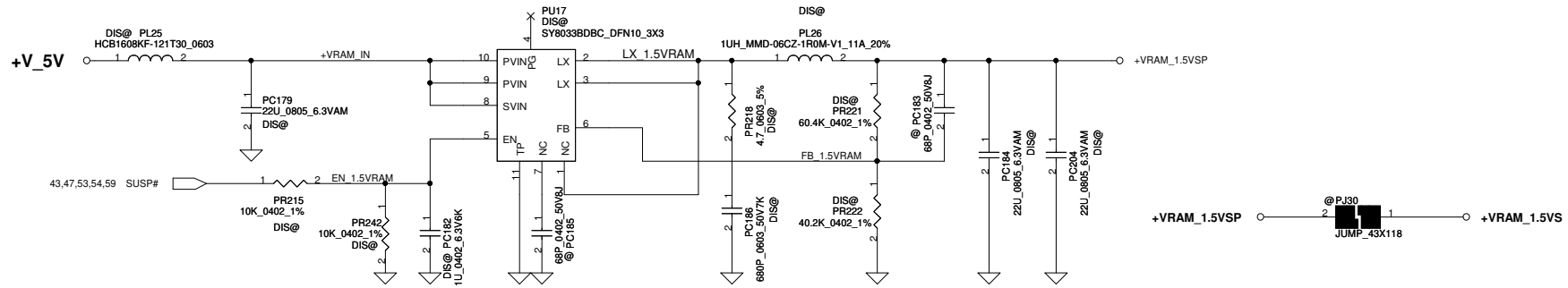
VCCIO_SELECT	+VCCIO
(SandyBridge)	1.05V
(IvyBridge)	1.05V

Vtrip range ==> 0.2V ~ 3V
 $V_o = 1.05V$ VFB=0.7V
 $V = 0.7 * (1 + 5.1K / 10.1958K) = 1.05V$
 $F_{sw} = 290KHz$

Rds (ON) : Max=6.8m-ohm
 Min=5.5m-ohm
 I_{max}=11.17 A
 I_{peak}=15.96 A
 I_{ocp} = 19.15A

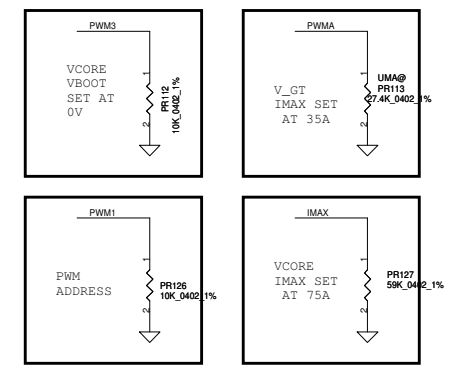
1.05V, I_{ocp}= $\Delta I / 2 + V_{trip} / R_{ds(on)} = 19.35A \sim 28.4A$



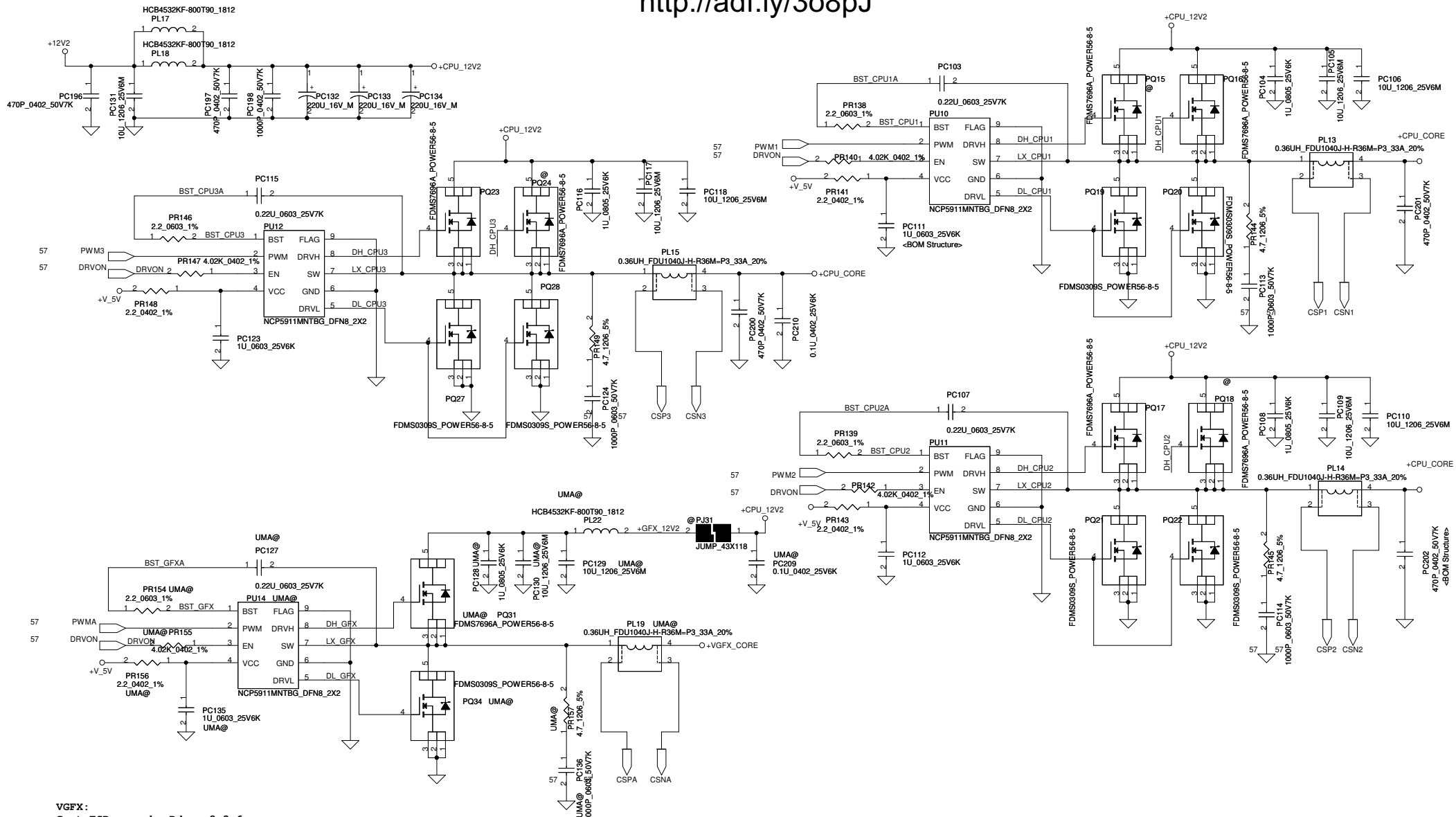


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CPU CORE OCP: 90A-----65W



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VGFX:
 Cout=220*18+ 390u 10m*4+560u 10m*3 +330u 9m*3 +560u 15m*2
 Rdson=3~3.6m
 Ipeak=35 A, Imax=25 A
 Delta I=7A

OCF= 40 A

CPU_CORE:
 Cout=220*18+ 390u 10m*4+560u 10m*3 +330u 9m*3 +560u 15m*2
 Rdson=3~3.6m
 Ipeak= A, Imax=85 A
 F=338k hz
 Delta I=

OCF= 135 A

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				Size Custom	Document Number	Rev 0.1
				Date: Thursday, June 16, 2011		Sheet 58 of 63

