

Model Name: KAT00 UMA  
PCB NO: LA-5152P  
BOM P/N: 43169631L01

# Compal Confidential

## Schematic Document


### POITIER Montevina

2008 / 06 / 15 Rev:1.0

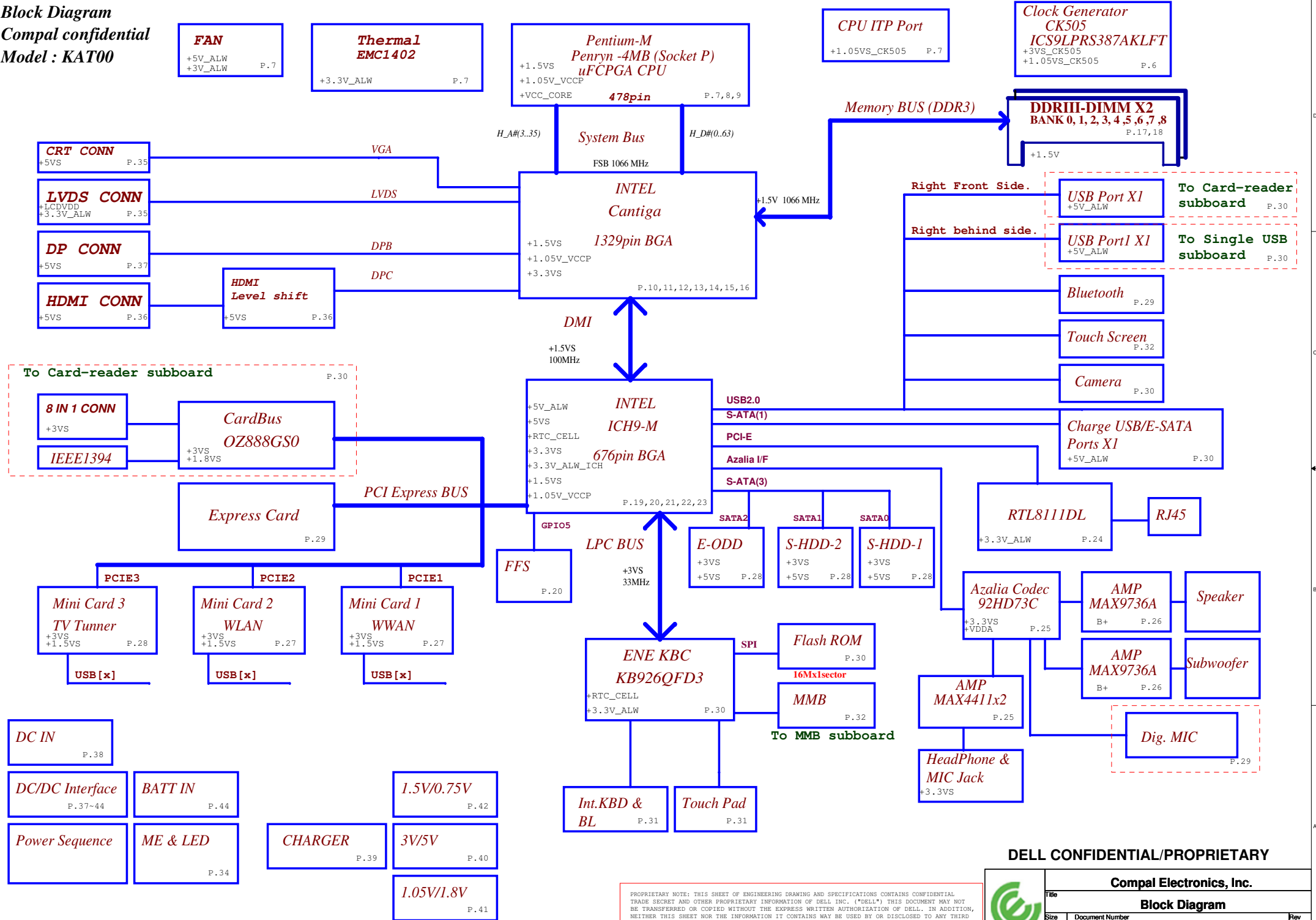
MB PCB	
Part Number	Description
DAB0000E510	PCB 080 LA-5152P REV1 UMA M/B

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**Block Diagram**  
**Compal confidential**  
**Model : KAT00**



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<b>Block Diagram</b>		
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**Voltage Rails**    **O MEANS ON**    **X MEANS OFF**

power plane State	+B	+5VALW +3VALW	+1.5V	+5VS +3VS +1.8VS +1.5VS +1.1VS +VCCP +0.75VS +CPU_CORE
S0	O	O	O	O
S1	O	O	O	O
S3	O	O	O	X
S5 S4/AC	O	O	X	X
S5 S4/ Battery only	O	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

**Symbol Note :**

 : means Digital Ground

 : means Analog Ground

@ : means just reserve , no build  
DEBUG@ : means just reserve for debug.

USB Port	Device
0	USB&ESATA
1	Reader/BD
2	USB board
3	NC
4	WLAN
5	WWAN
6	WPAN
7	Express
8	NC
9	Touch screen
10	Bluetooth
11	Camera

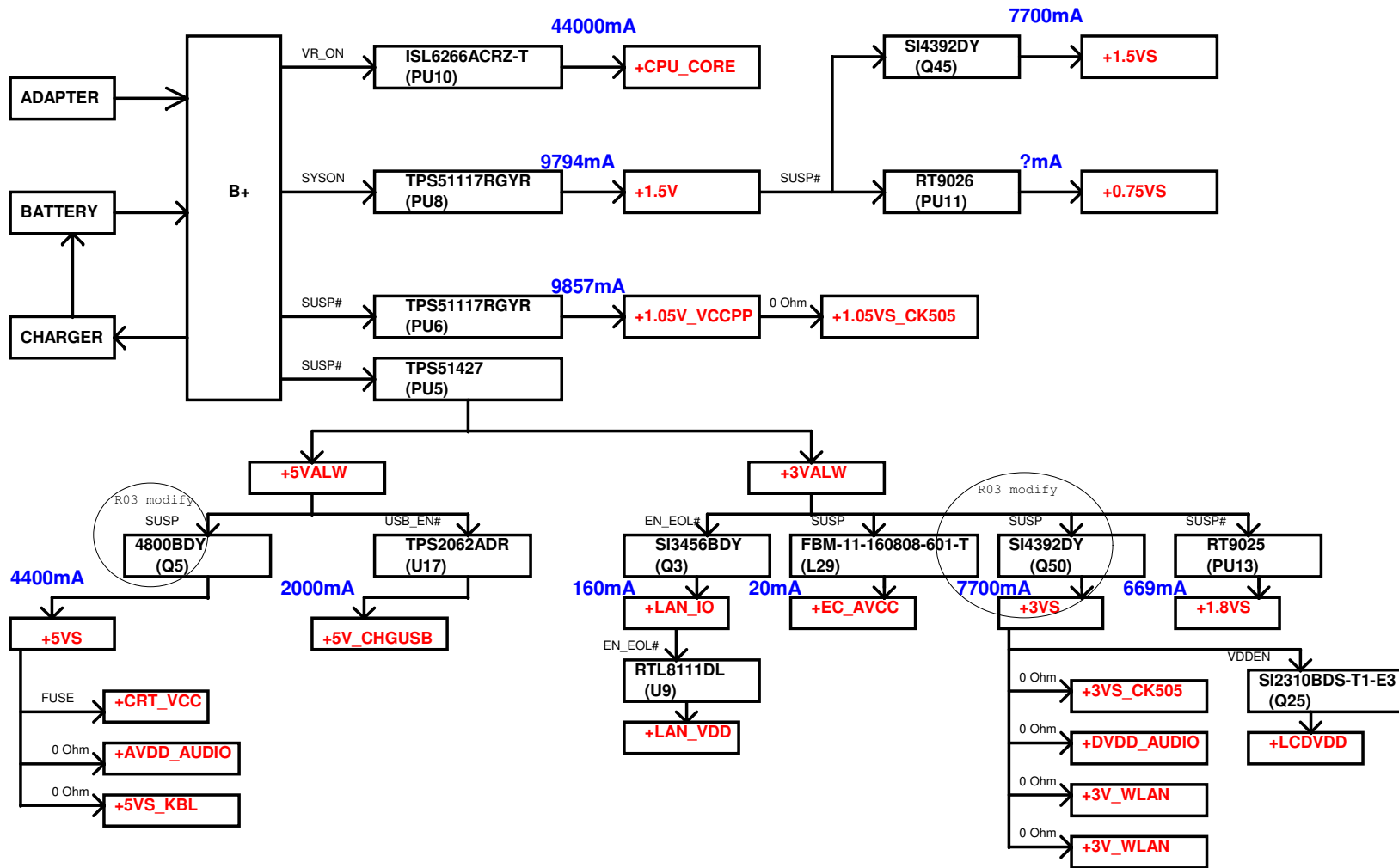
SATA Port	Device
0	JSATA2
1	JSATA1
2	JESA1
3	JODD

PCIe Port	Device
1	JWWAN1
2	JWLAN1
3	JWPAN1
4	Reader/BD (OZ888)
5	JEXP1
6	RTL8111DL

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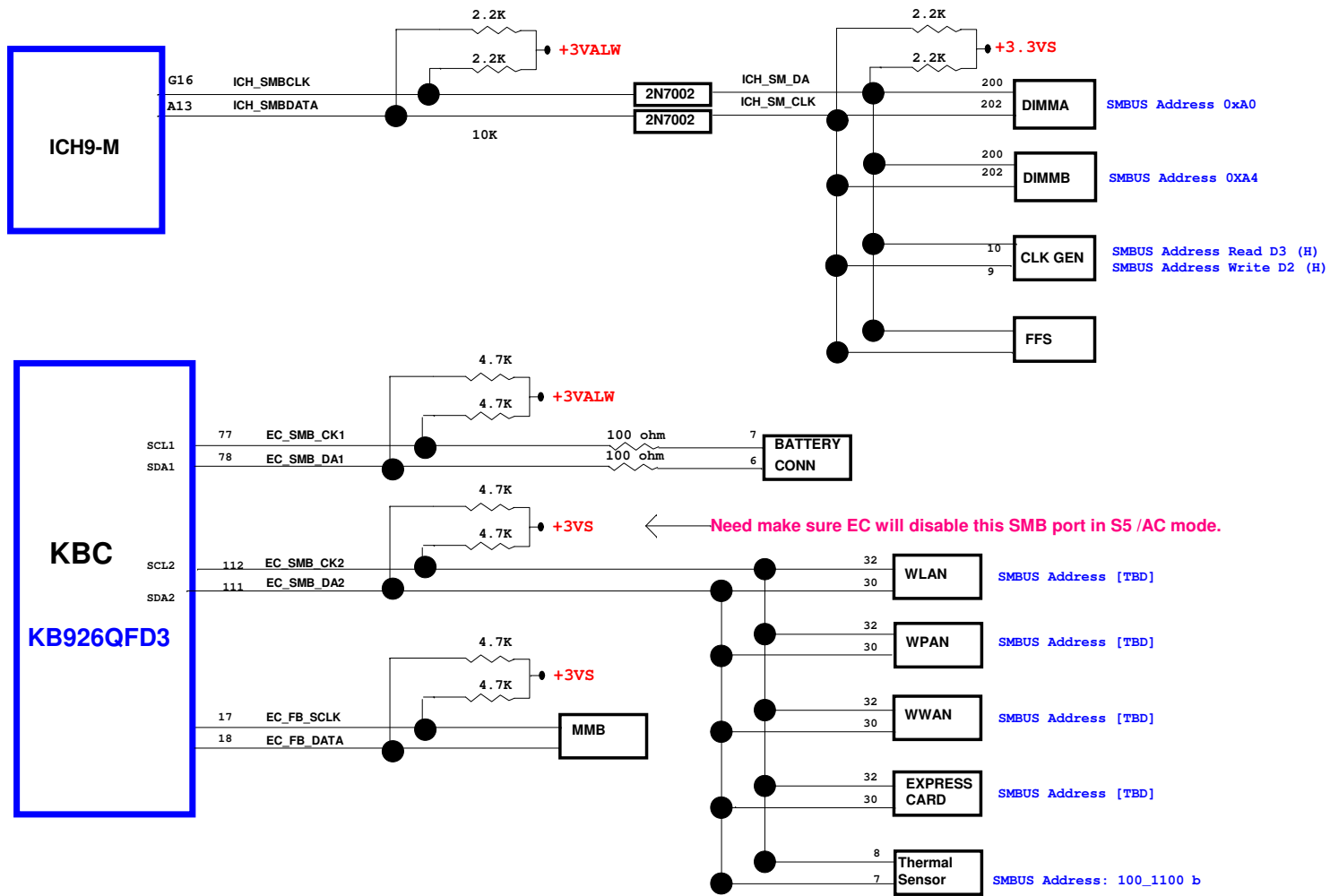
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<b>Note List</b>			
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<b>Power Rail</b>		
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### I2C / SMBUS ADDRESSING

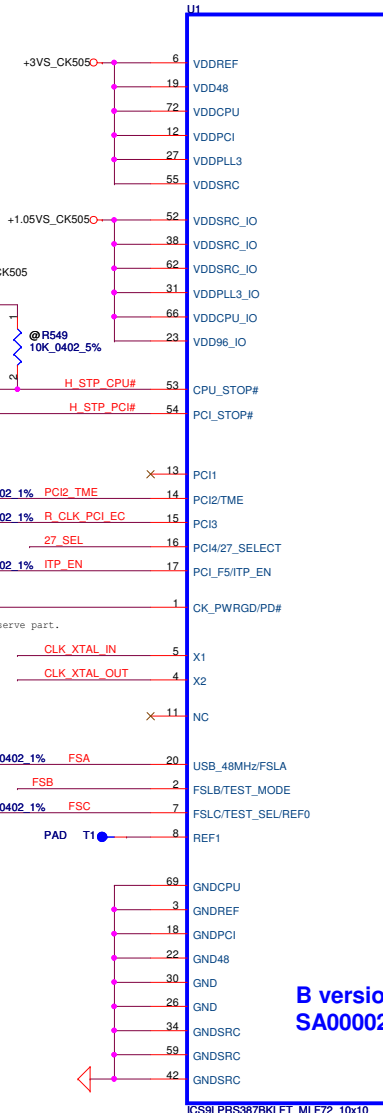
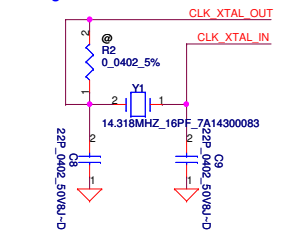
DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	10100000
DDR SO-DIMM 1	A4	10100100
CLOCK GENERATOR (EXT.)	D2	11010010

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<b>SMBUS TOPOLOGY</b>		
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**Routing the trace at least 10mil**

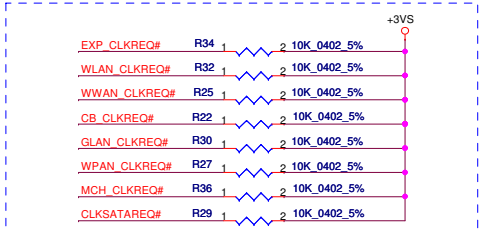
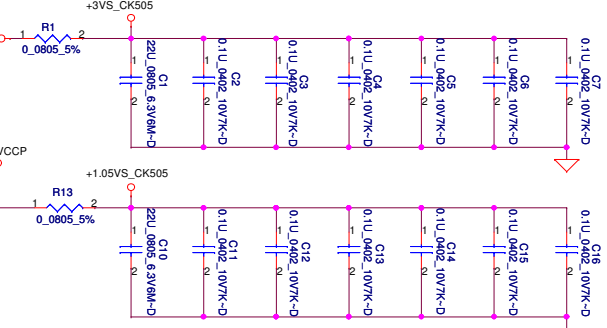
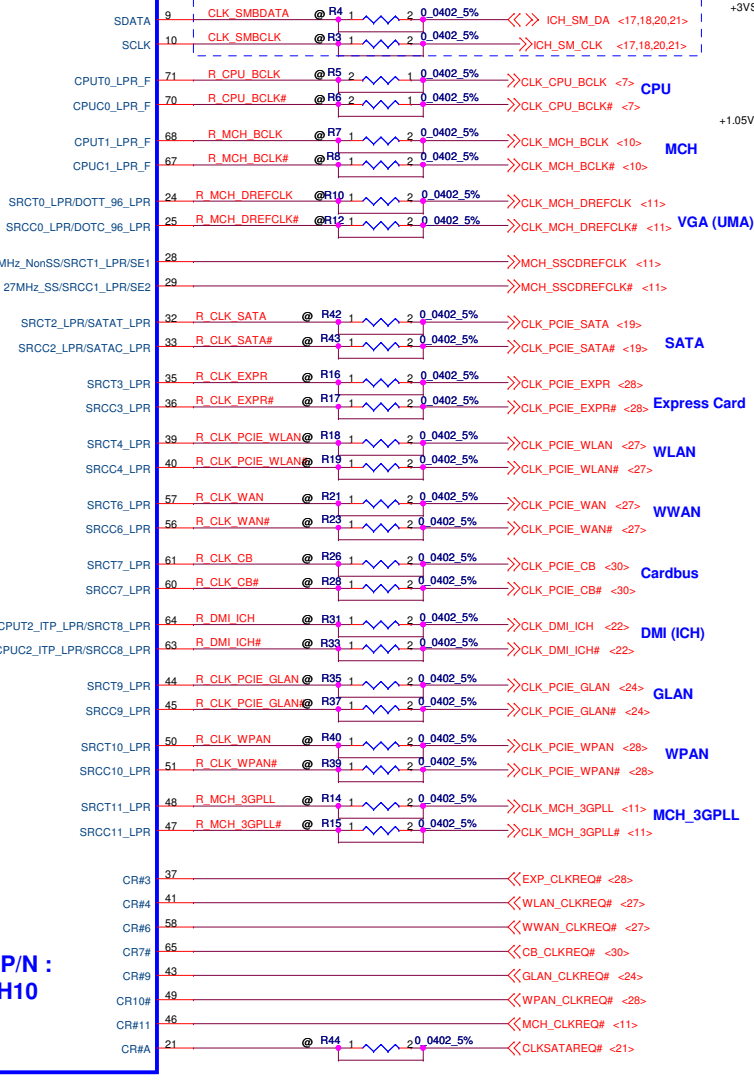


**B version P/N : SA00020H10**

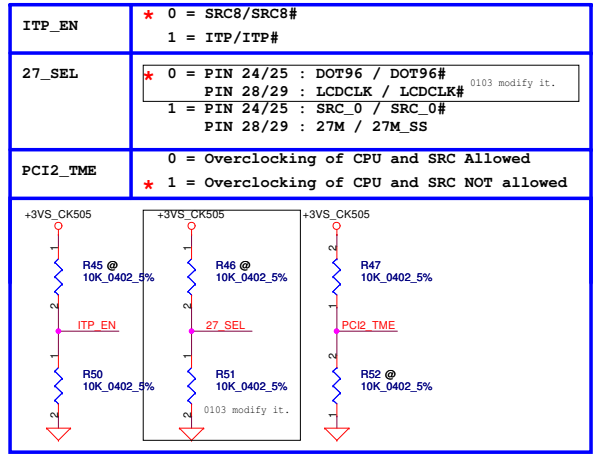
FSC CLKSEL2	FSB CLKSEL1	FSA CLKSEL0	CPU MHz	SRC MHz	PCI MHz	REF MHz	DOT_96 MHz	USB MHz
0	0	0	266	100	33.3	14.318	96.0	48.0
0	0	1	133	100	33.3	14.318	96.0	48.0
0	1	0	200	100	33.3	14.318	96.0	48.0
0	1	1	166	100	33.3	14.318	96.0	48.0
1	0	0	333	100	33.3	14.318	96.0	48.0
1	0	1	100	100	33.3	14.318	96.0	48.0
1	1	0	400	100	33.3	14.318	96.0	48.0
1	1	1						

**Reserved**

**Level shift on ICH side.**



Port	Device	REQ#	REQ# NAME
SRC0	PCIE_VGA		
SRC2	PCIE_SATA	REQ_A#	CLKSATAREQ#
SRC3	PCIE_EXPR	REQ#3	EXP_CLKREQ#
SRC4	PCIE_WLAN	REQ#4	WLAN_CLKREQ#
SRC6	PCIE_WWAN	REQ#6	WWAN_CLKREQ#
SRC7	PCIE_CB	REQ#7	CB_CLKREQ#
SRC8	DMI_ICH		
SRC9	PCIE_GLAN	REQ#9	GLAN_CLKREQ#
SRC10	PCIE_WPAN	REQ#10	WPAN_CLKREQ#
SRC11	MCH_3GPLL	REQ#11	MCH_CLKREQ#



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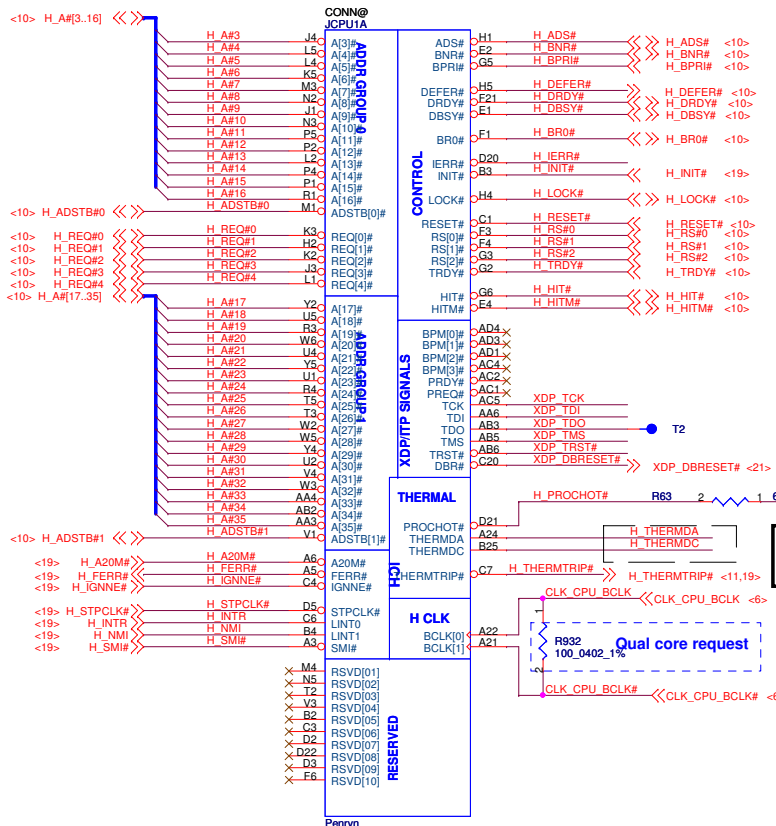
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**Clock Generator CK505**

**LA-5152P**

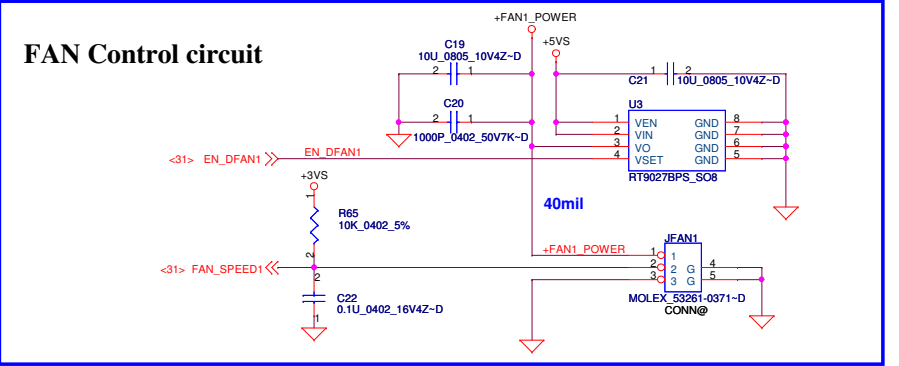
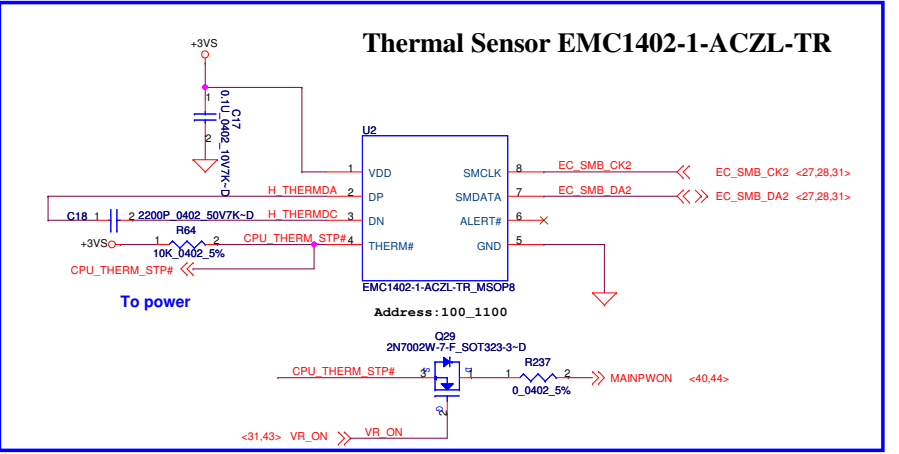
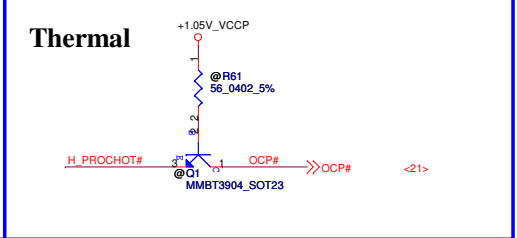
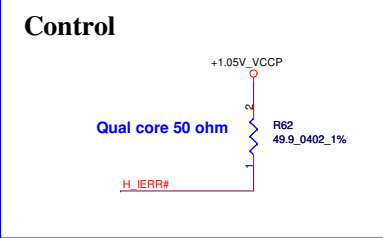
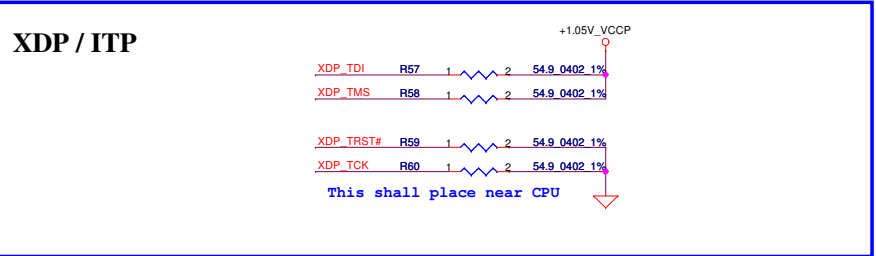
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**H\_THERMDA, H\_THERMDC routing together, Trace width / Spacing = 10 / 10 mil**

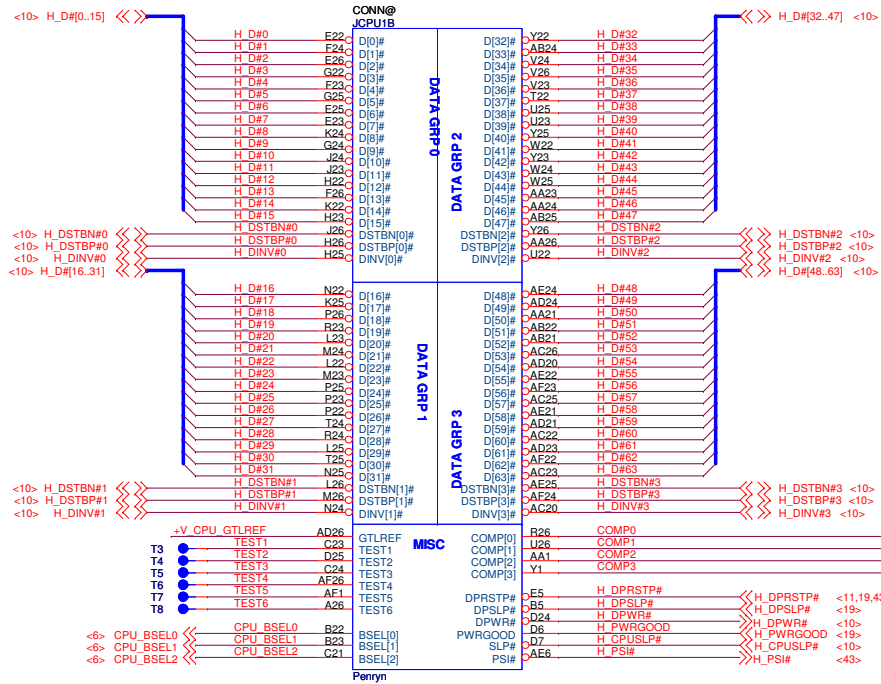
**Qual core request**



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Title	<b>Penryn(1/3)-AGTL+/ITP-XDP</b>		
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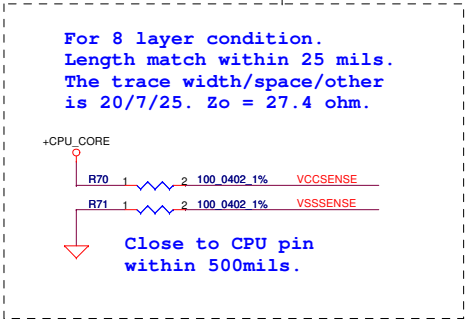
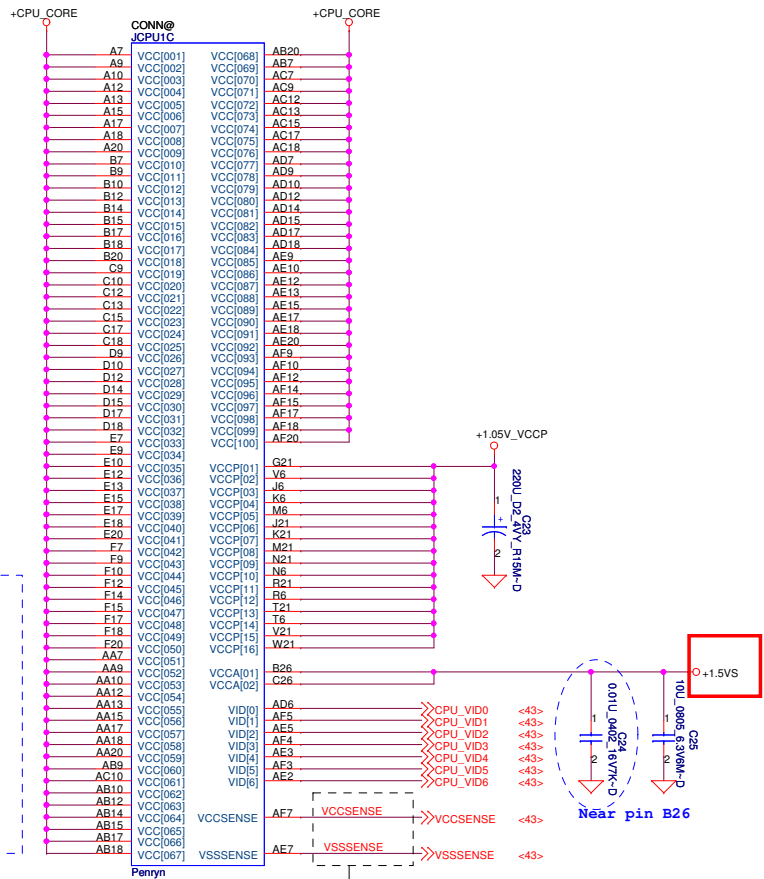
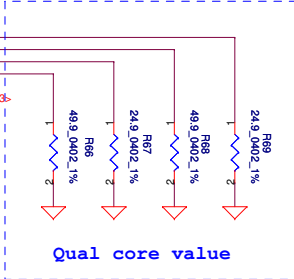
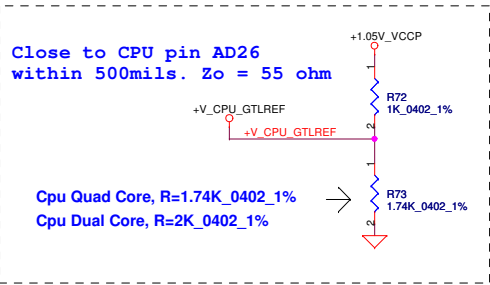
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layout note: Rout H\_DPRSTP# from ICH9 to IMVP6 then to GMCH & CPU

layout note: Route TEST3 & TEST5 traces on ground referenced layer to the TPs

FSB	BCLK	BSEL2	BSEL1	BSEL0
533	133	0	0	1
667	166	0	1	1
800	200	0	1	0
1067	266	0	0	0



For 8 layer condition.  
Length match within 25 mils.  
The trace width/space/other is 20/7/25.  $Z_o = 27.4 \text{ ohm}$ .

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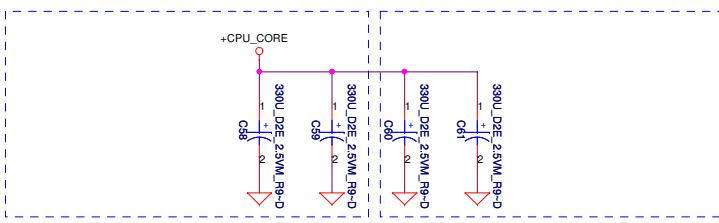
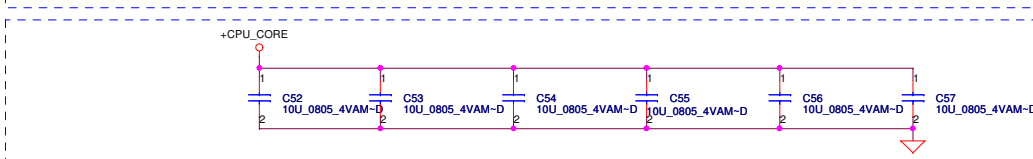
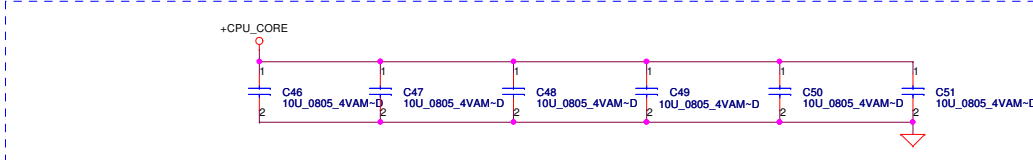
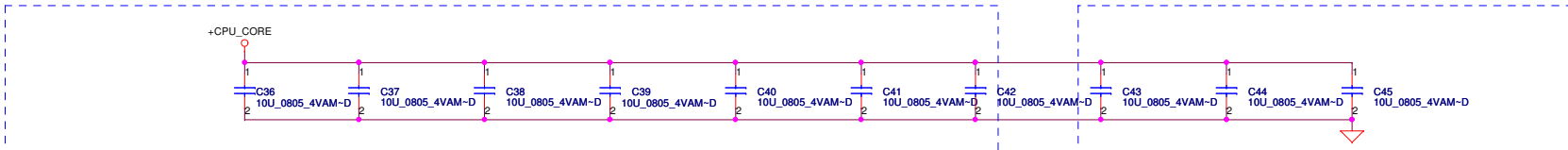
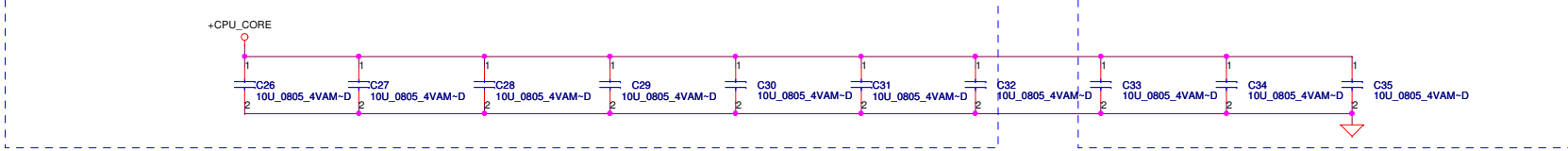
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<b>Penryn(2/3)-AGTL+/ITP-XDP</b>		
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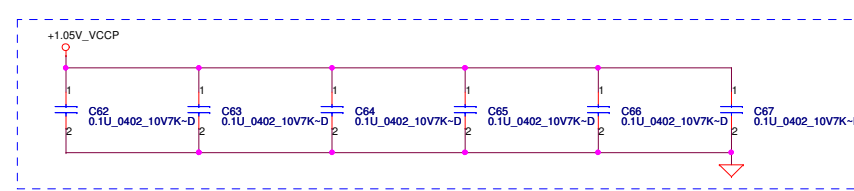


**High Frequency Decoupling**  
10uF 0805 X5R -> 85 degree.

CONN#	JCPU1D	VSS[001]	VSS[082]	P6
A4	VSS[001]	VSS[082]	P6	
A8	VSS[002]	VSS[083]	P21	
A11	VSS[003]	VSS[084]	P24	
A14	VSS[004]	VSS[085]	R2	
A16	VSS[005]	VSS[086]	R5	
A19	VSS[006]	VSS[087]	R22	
A23	VSS[007]	VSS[088]	R25	
AF2	VSS[008]	VSS[089]	T1	
BF	VSS[009]	VSS[090]	T4	
B8	VSS[010]	VSS[091]	T23	
B11	VSS[011]	VSS[092]	T26	
B13	VSS[012]	VSS[093]	U3	
B16	VSS[013]	VSS[094]	U6	
B19	VSS[014]	VSS[095]	U21	
B21	VSS[015]	VSS[096]	U24	
B24	VSS[016]	VSS[097]	V2	
C3	VSS[017]	VSS[098]	V5	
C8	VSS[018]	VSS[099]	V22	
C11	VSS[019]	VSS[100]	V25	
C14	VSS[020]	VSS[101]	W1	
C16	VSS[021]	VSS[102]	W4	
C19	VSS[022]	VSS[103]	W23	
C2	VSS[023]	VSS[104]	W26	
C22	VSS[024]	VSS[105]	Y3	
C25	VSS[025]	VSS[106]	Y6	
D1	VSS[026]	VSS[107]	Y21	
D4	VSS[027]	VSS[108]	Y24	
D8	VSS[028]	VSS[109]	AA2	
D11	VSS[029]	VSS[110]	AA5	
D13	VSS[030]	VSS[111]	AA8	
D16	VSS[031]	VSS[112]	AA11	
D19	VSS[032]	VSS[113]	AA14	
D23	VSS[033]	VSS[114]	AA16	
D26	VSS[034]	VSS[115]	AA19	
E3	VSS[035]	VSS[116]	AA22	
E6	VSS[036]	VSS[117]	AA25	
F8	VSS[037]	VSS[118]	AB1	
F11	VSS[038]	VSS[119]	AB4	
F14	VSS[039]	VSS[120]	AB8	
F16	VSS[040]	VSS[121]	AB11	
F19	VSS[041]	VSS[122]	AB13	
E21	VSS[042]	VSS[123]	AB16	
E24	VSS[043]	VSS[124]	AB19	
F5	VSS[044]	VSS[125]	AB22	
F8	VSS[045]	VSS[126]	AB26	
F11	VSS[046]	VSS[127]	AC3	
F13	VSS[047]	VSS[128]	AC6	
F16	VSS[048]	VSS[129]	AC8	
F19	VSS[049]	VSS[130]	AC11	
F2	VSS[050]	VSS[131]	AC14	
F22	VSS[051]	VSS[132]	AC16	
F25	VSS[052]	VSS[133]	AC19	
G4	VSS[053]	VSS[134]	AC21	
G1	VSS[054]	VSS[135]	AC24	
G26	VSS[055]	VSS[136]	AD2	
H3	VSS[056]	VSS[137]	AD5	
H6	VSS[057]	VSS[138]	AD8	
H21	VSS[058]	VSS[139]	AD11	
H24	VSS[059]	VSS[140]	AD13	
J2	VSS[060]	VSS[141]	AD19	
J5	VSS[062]	VSS[143]	AD22	
J22	VSS[063]	VSS[144]	AD25	
J25	VSS[064]	VSS[145]	AE1	
K1	VSS[065]	VSS[146]	AE4	
K4	VSS[066]	VSS[147]	AE8	
K23	VSS[067]	VSS[148]	AE11	
K26	VSS[068]	VSS[149]	AE14	
L3	VSS[069]	VSS[150]	AE16	
L6	VSS[070]	VSS[151]	AE19	
L21	VSS[071]	VSS[152]	AE23	
L24	VSS[072]	VSS[153]	AE26	
M2	VSS[073]	VSS[154]	A2	
M5	VSS[074]	VSS[155]	AF6	
M22	VSS[075]	VSS[156]	AF8	
M25	VSS[076]	VSS[157]	AF11	
N1	VSS[077]	VSS[158]	AF13	
N4	VSS[078]	VSS[159]	AF16	
N23	VSS[079]	VSS[160]	AF19	
N26	VSS[080]	VSS[161]	AF21	
P3	VSS[081]	VSS[162]	A25	
		VSS[163]	AF25	



ESR <= 1.5m ohm  
Capacitor > 880 uF



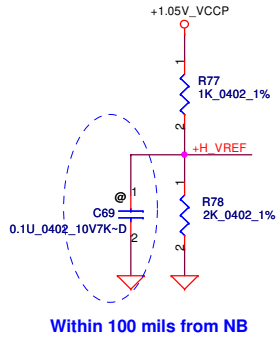
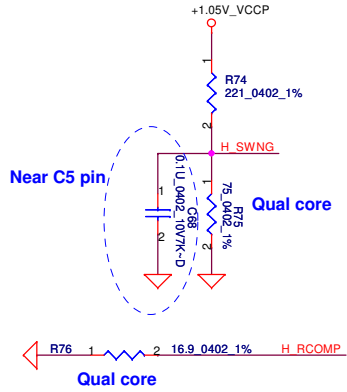
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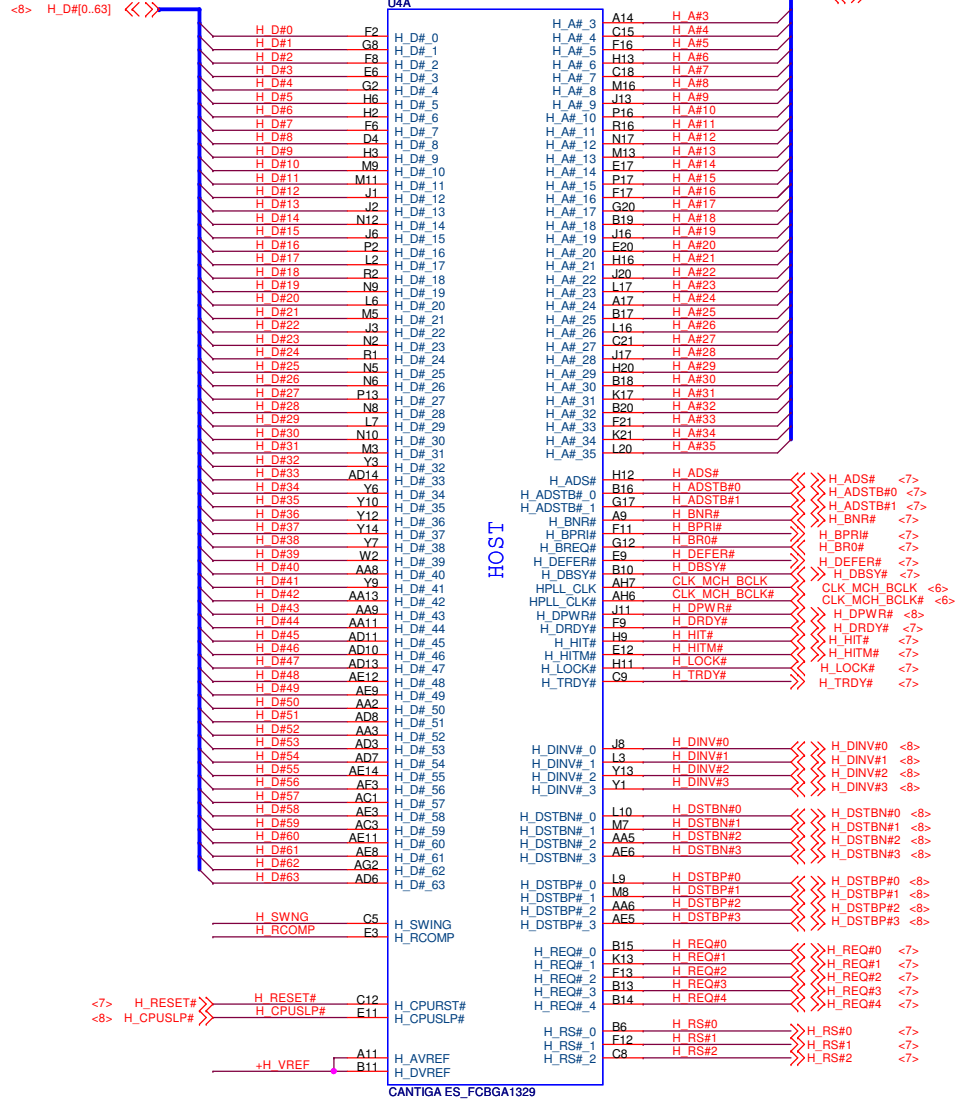
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<p align="center"><b>Penryn(3/3)-AGTL+/ITP-XDP</b></p>		
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**Layout Note :**  
**H\_RCOMP / H\_VREF / H\_SWNG**  
 Trace width and spacing is 10 / 20



**H\_RCOMP** Dual core 24.9 ohm\_1% pull down  
**Qual core** 16.9 ohm\_1% pull down  
**H\_SWNG** Dual core 100 ohm\_1% pull down  
 Qual core 75 ohm\_1% pull down



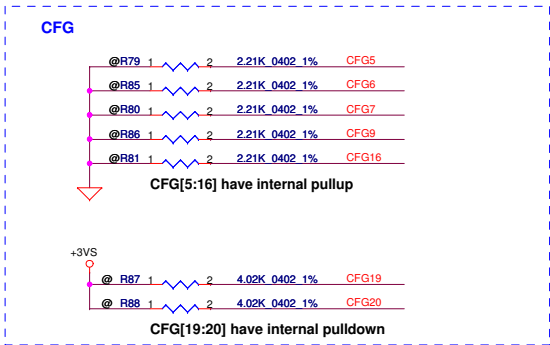
CANTIGA ES\_FCBGA1329

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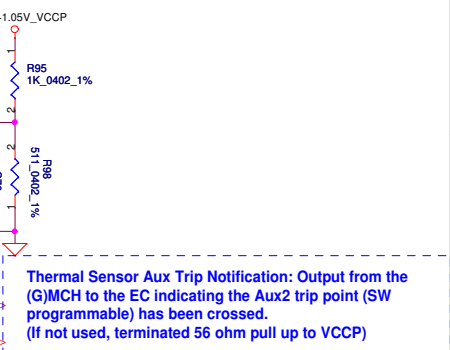
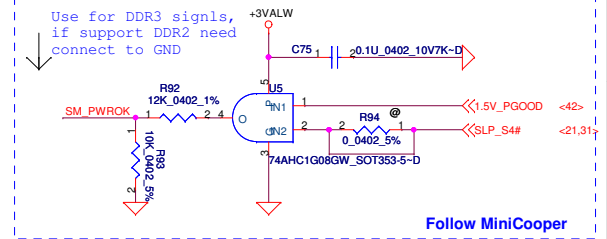
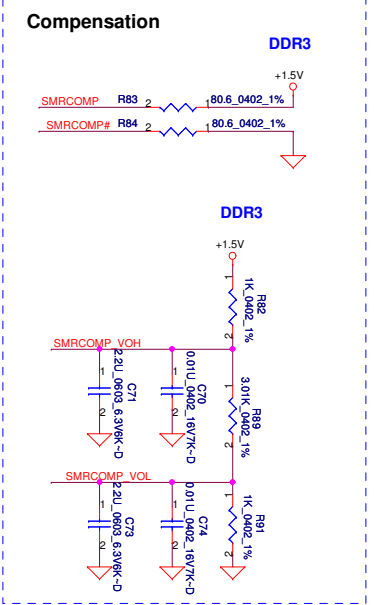
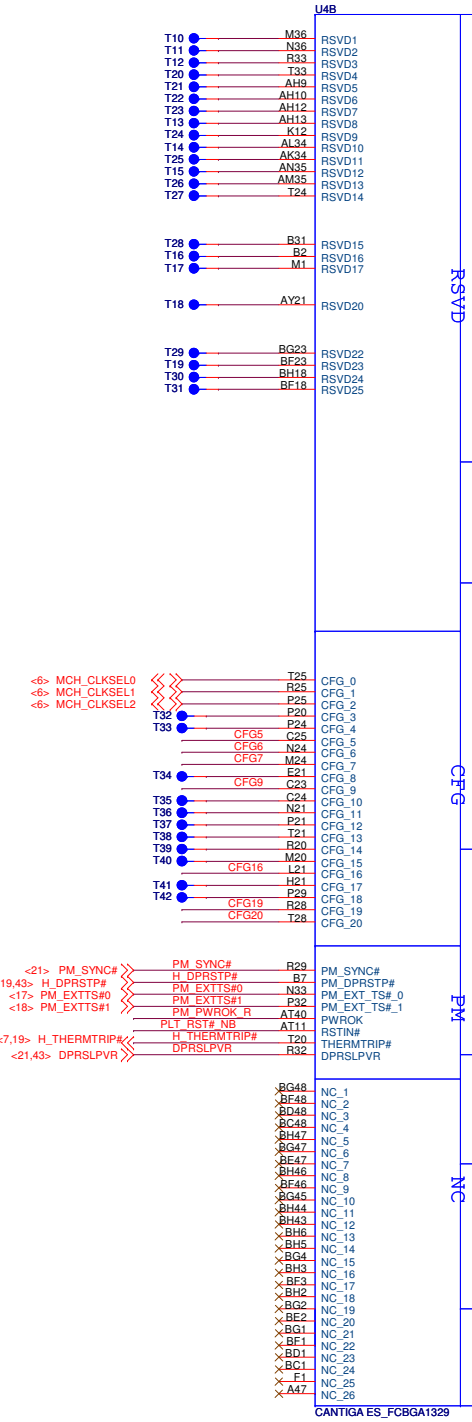
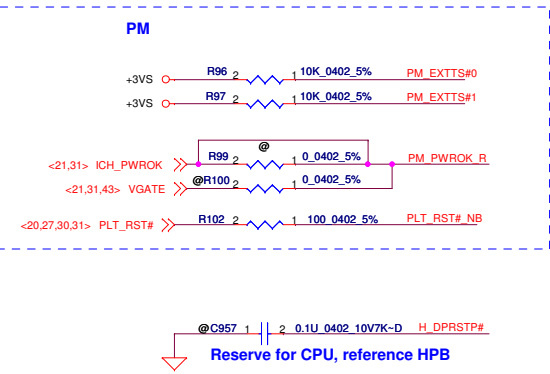
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<b>Cantiga(1 of 7)</b>		
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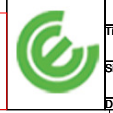


### Strap Pin Table

CFG5	DMI X2 Select	Low = DMI x 2 High = DMI x 4 (Default)
CFG6	ITPM Host Interface	Low = iTPM enable High = iTPM disable(Default)
CFG7	Management Engine Crypto Strap	Low = TLS cipher suite with no confidentiality High = TLS cipher suite with confidentiality(Default)
CFG9	PCI Express Graphic Lane	Low = Reverse Lane High = Normal Operation(Default)
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default)
CFG19	DMI Lane Reversal	Low=Normal (default) High=Lane Reversed
CFG20	Digital Display Port Concurrent Operation	Low=Only digital display port (SDVO/DP/iHDMI) or PCIe is operational (default) High = Digital display port (SDVO/DP/iHDMI) and PCIe are operating simultaneously via the PEG port
SDVO_CTRL_DATA		Low=No SDVO Device Present (default) High=SDVO Device Present
DDPC_CTRLDATA		Low=DisplayPort disabled (default) High=DisplayPort device present



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**Cantiga (2 of 7)**

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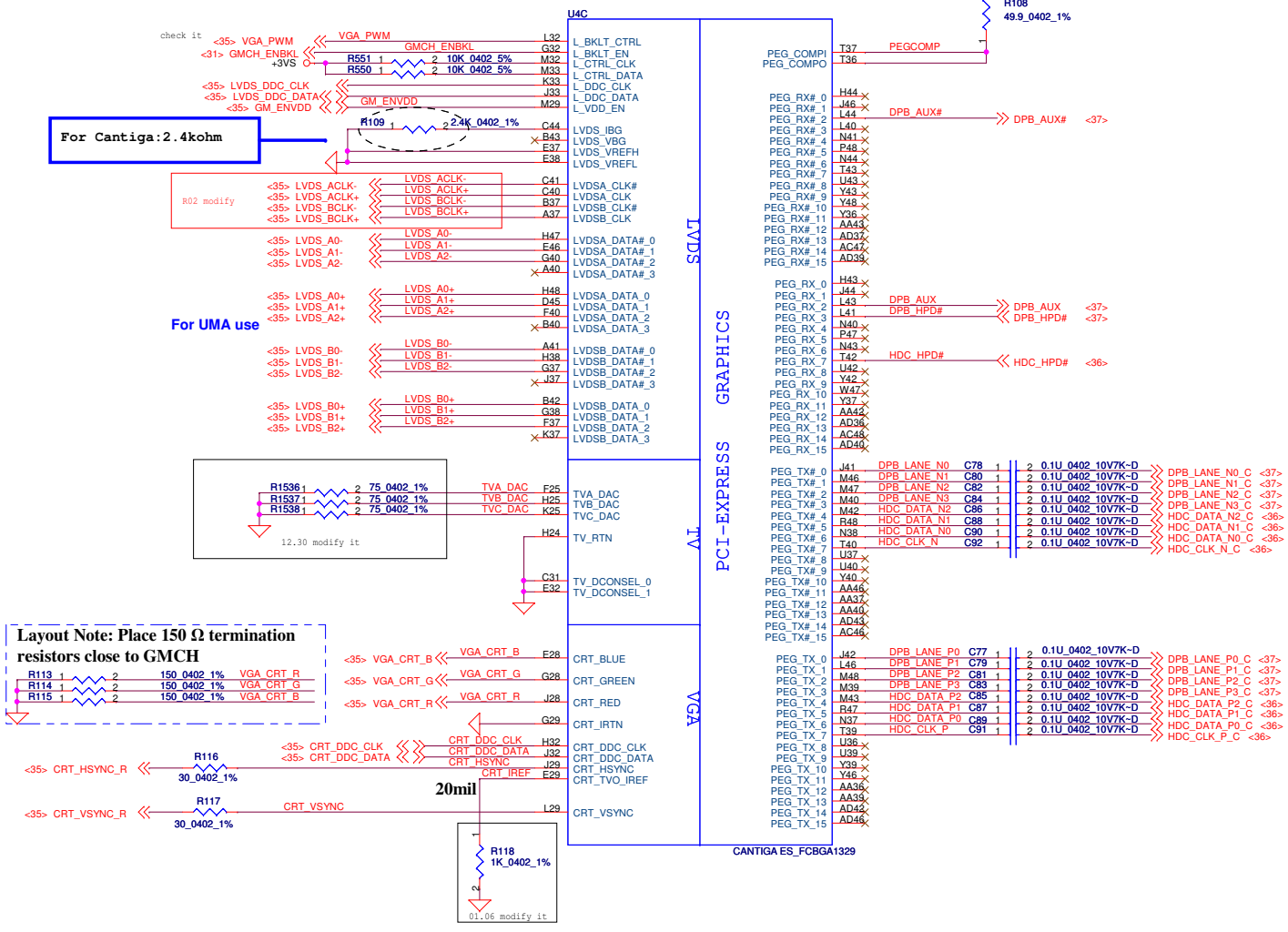
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For HDA UMA support 1.5V

CANTIGA ES\_FCBGA1329

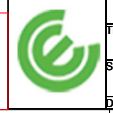
Note: All LVDS data signals/and it's compliments should be routed Differentially

Place the resistor within 500mils of the GMCH PEGCOMP trace widht and spacing is 20/25 mils.



Layout Note: Place 150 Ω termination resistors close to GMCH

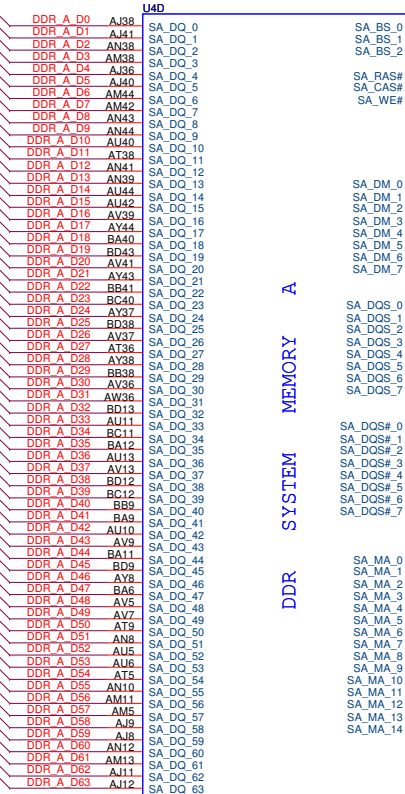
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Title <b>Cantiga(3 of 7)</b>		
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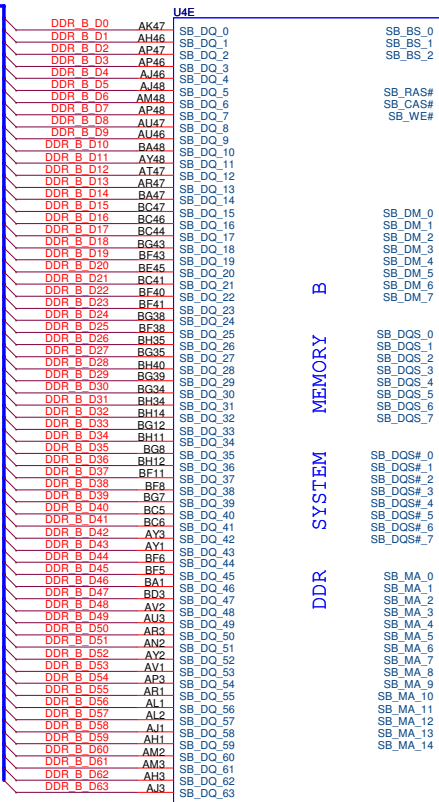
<17> DDR\_A\_D[0.63] <<>



DDR SYSTEM MEMORY A

CANTIGA ES\_FCBGA1329

<18> DDR\_B\_D[0.63] <<>



DDR SYSTEM MEMORY B

CANTIGA ES\_FCBGA1329

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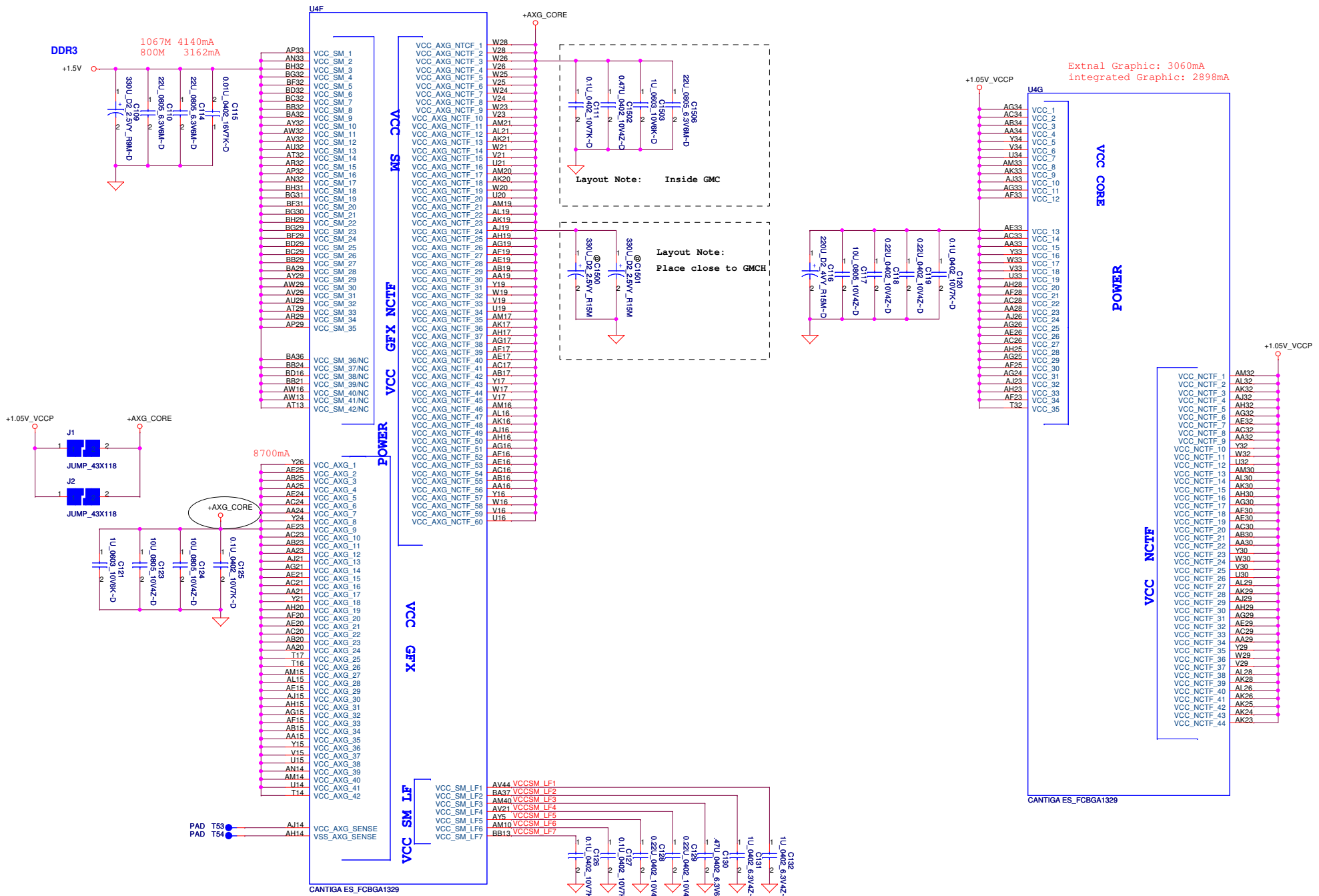
Compal Electronics, Inc.

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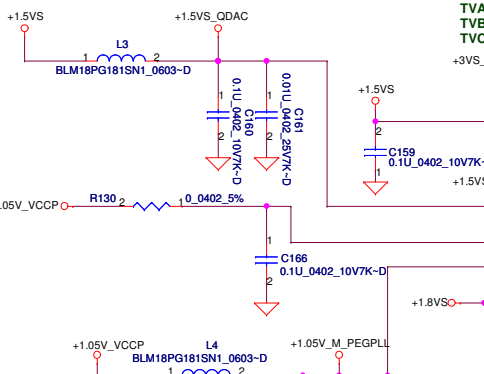
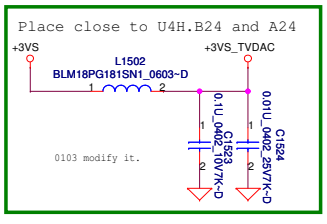
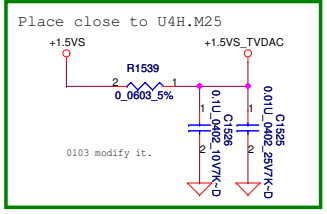
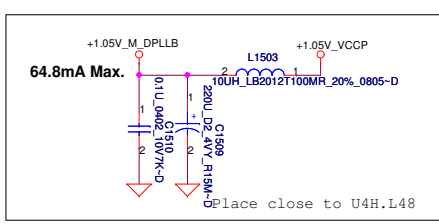
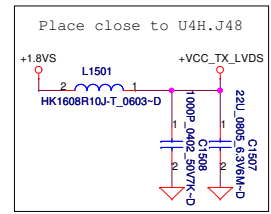
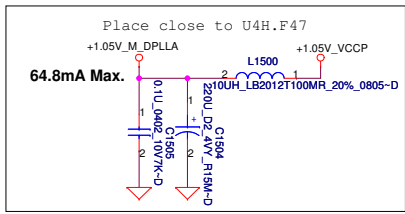
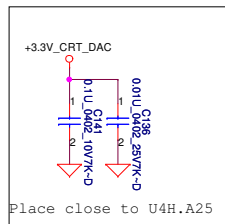
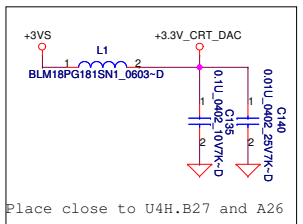
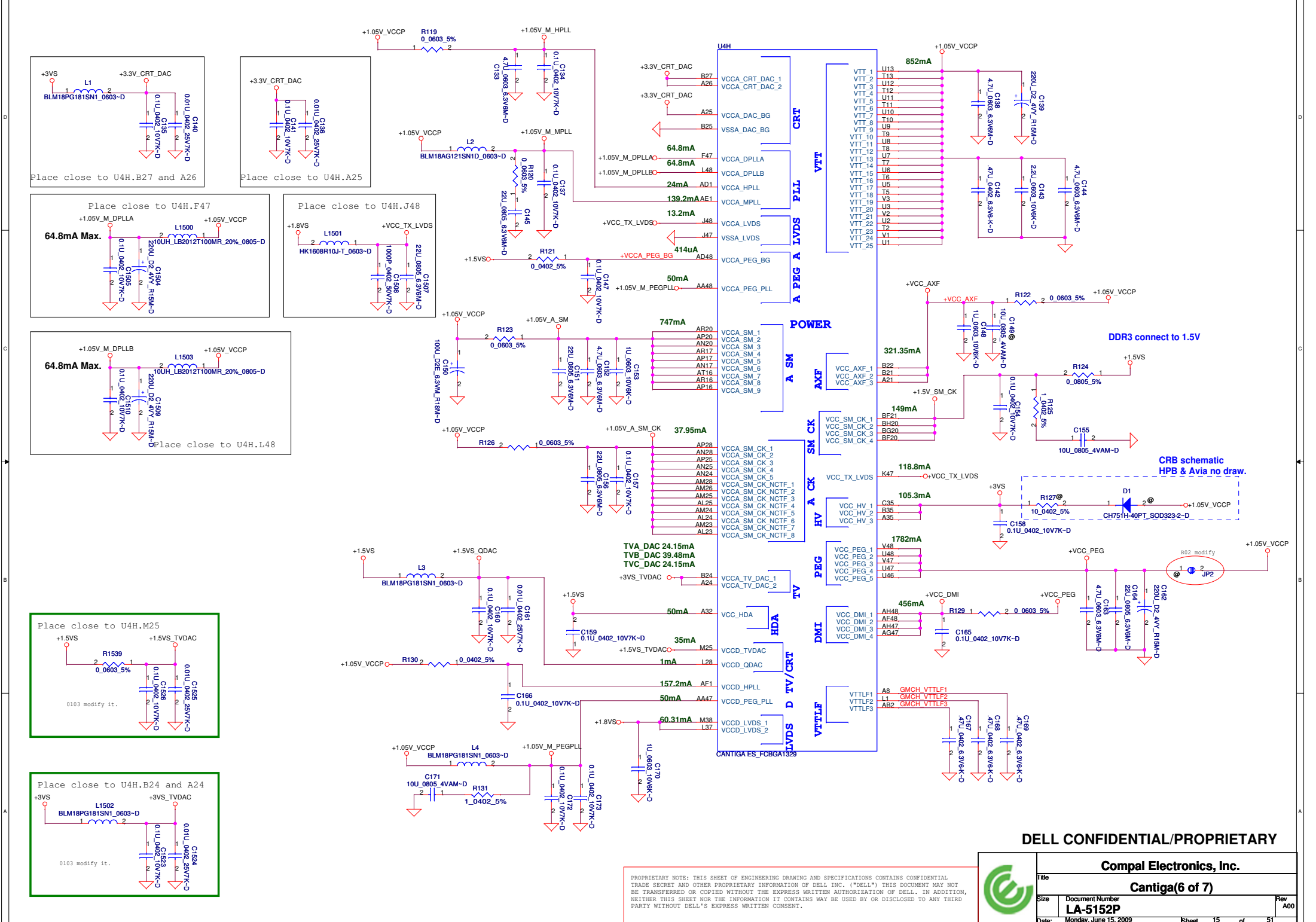
**Cantiga(5 of 7)**

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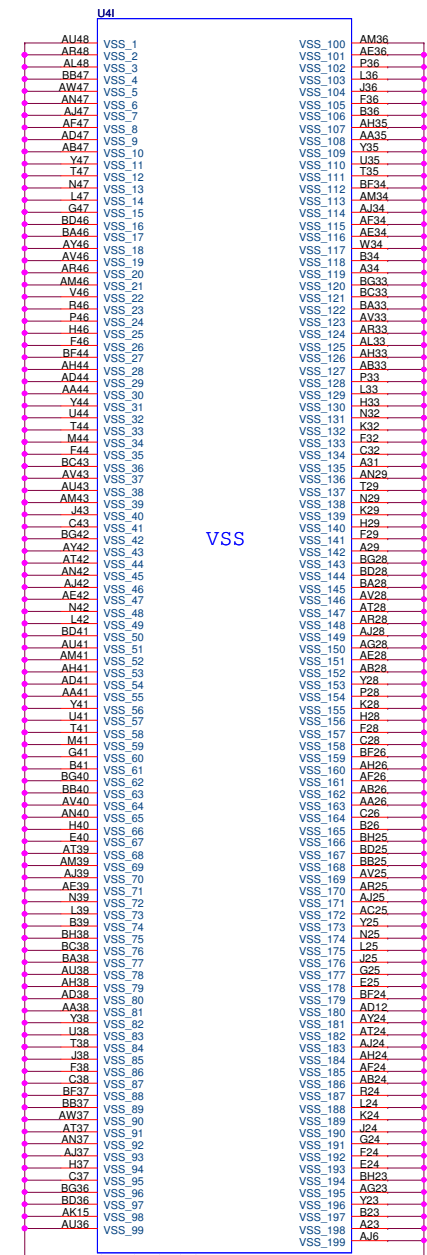
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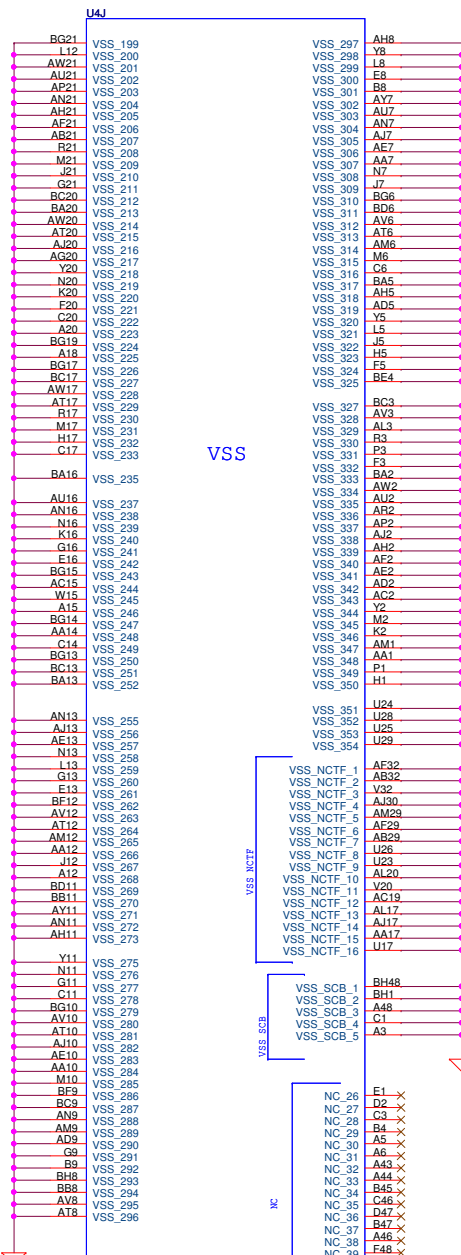
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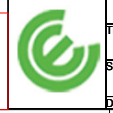


CANTIGA\_ES\_FCBGA1329



CANTIGA\_ES\_FCBGA1329

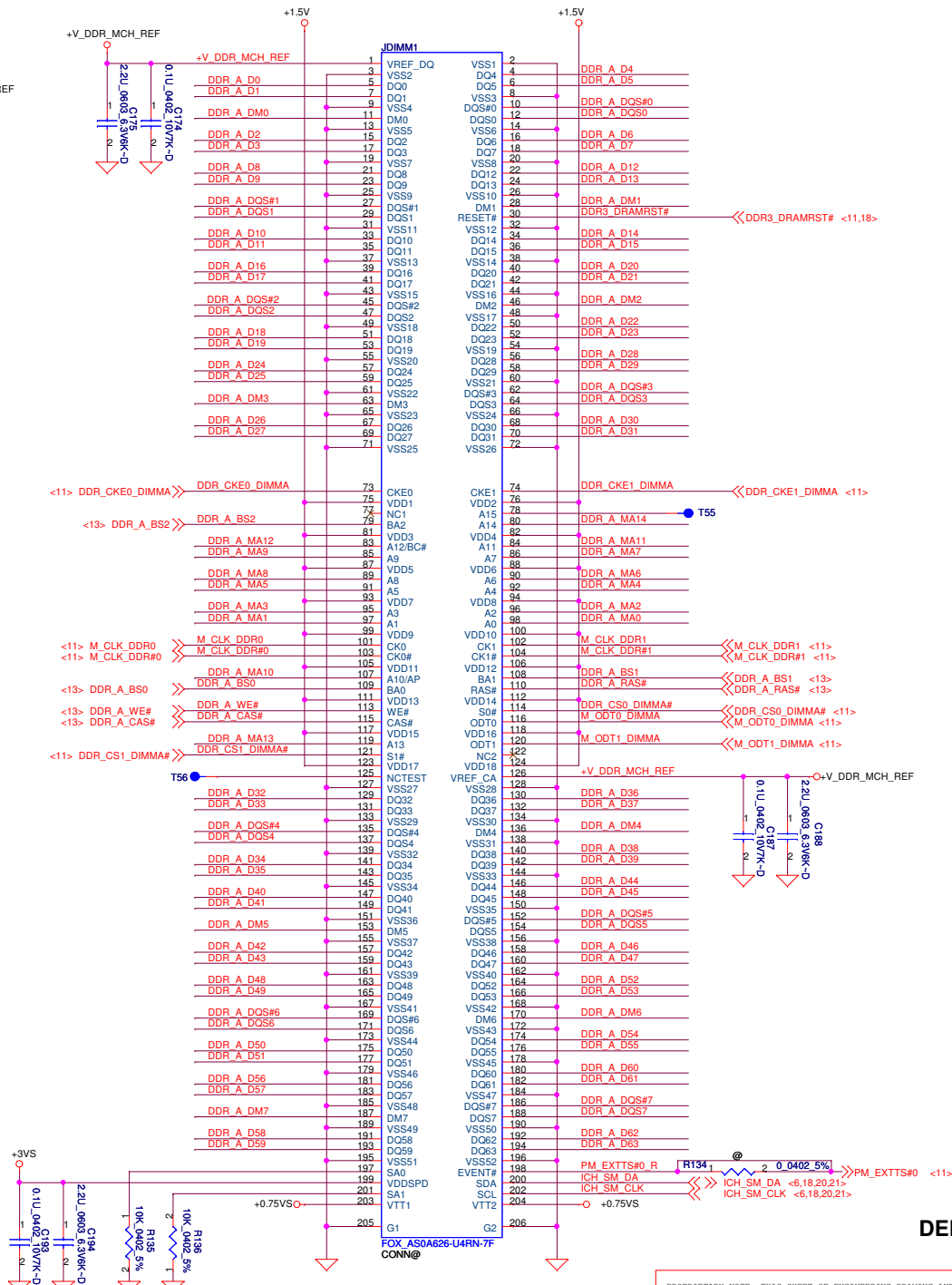
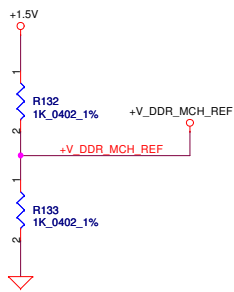
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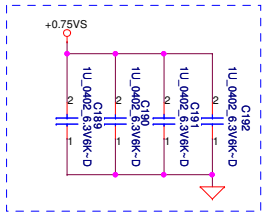
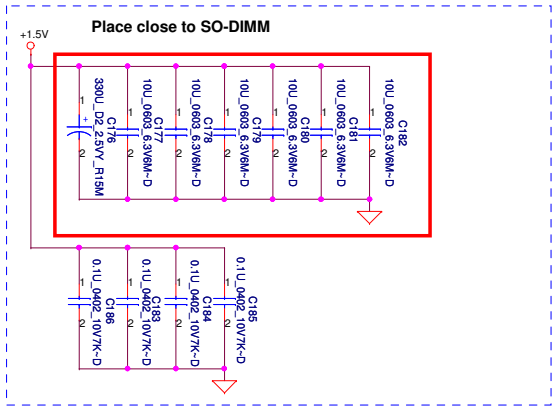
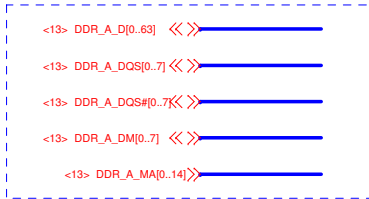
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<b>Cantiga(7 of 7)</b>		
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Note :  
 DDR3 command & control signals need no termination.  
 DDR2 command & command signals 56 ohm pull up to VccSus0\_9



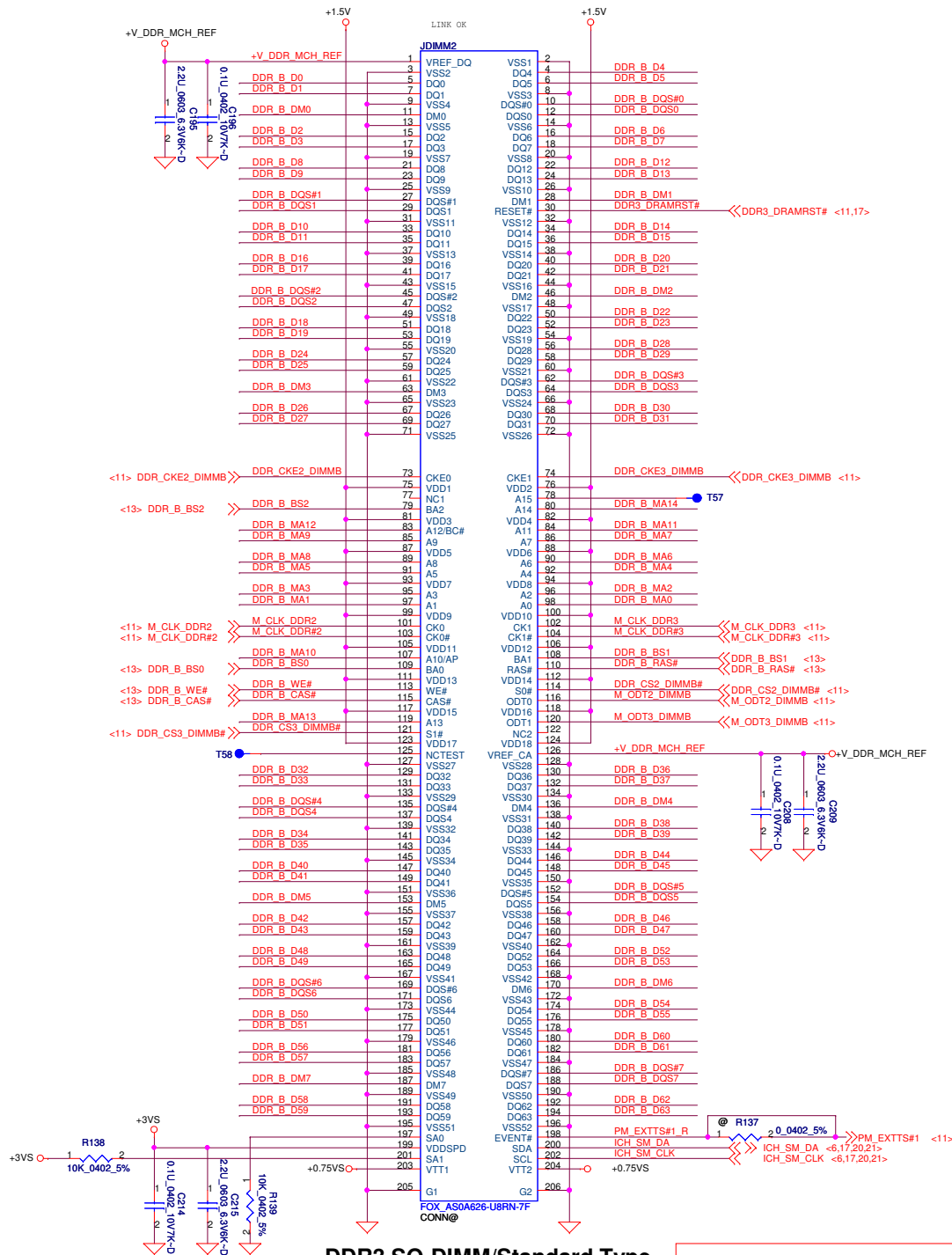
Place close to JDIMM pin 203 and 204

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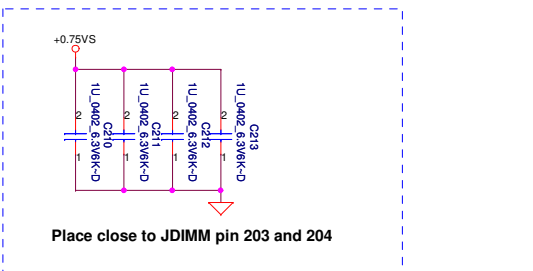
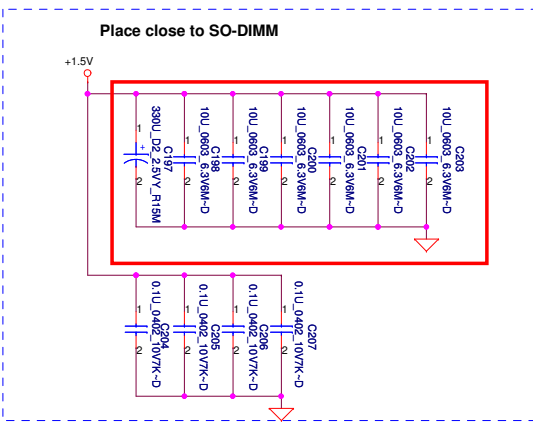
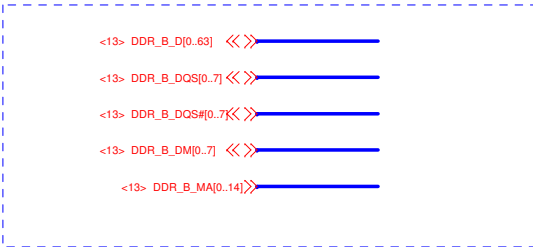
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		<b>DDR3 SO-DIMM A SLOT</b>	
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DDR3 SO-DIMM/Standard Type



DDR3 SO-DIMM/Standard Type



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DDR3 SO-DIMM B SLOT

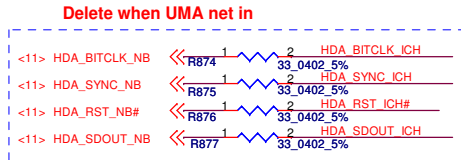
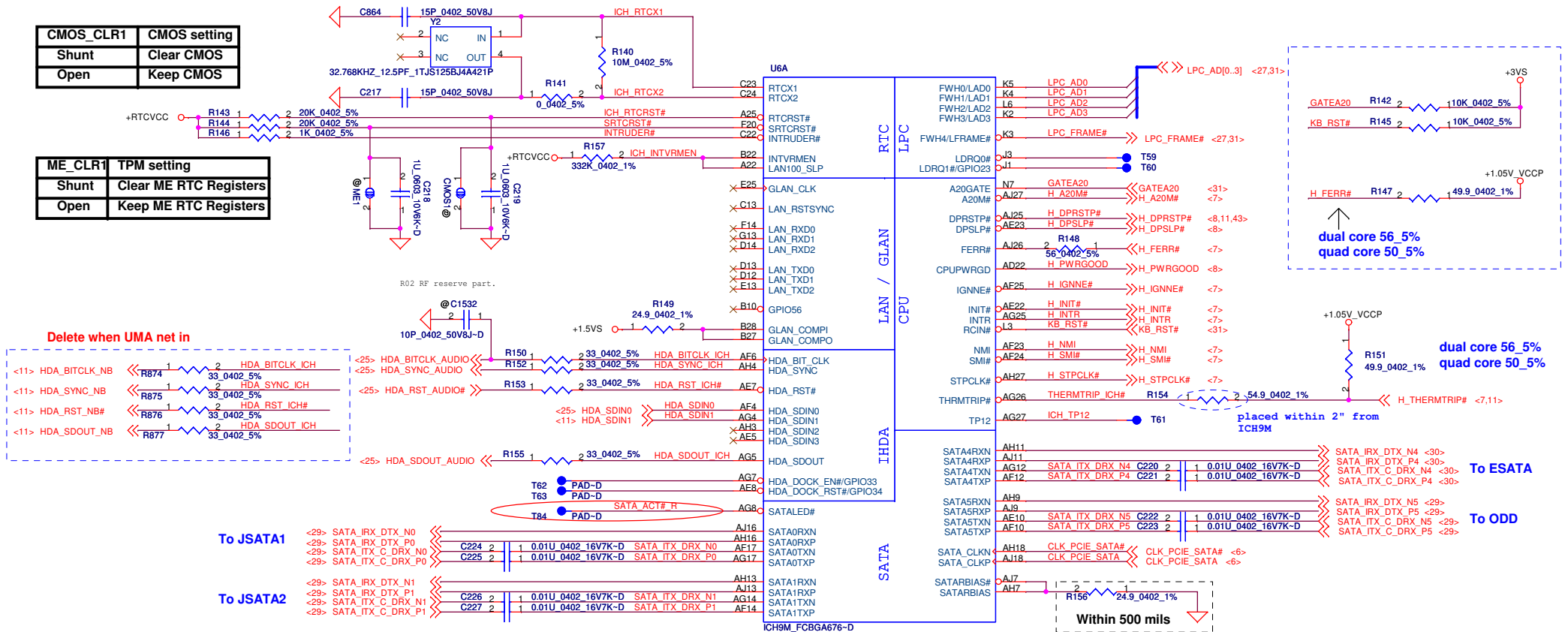


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CMOS_CLR1	CMOS setting
Shunt	Clear CMOS
Open	Keep CMOS

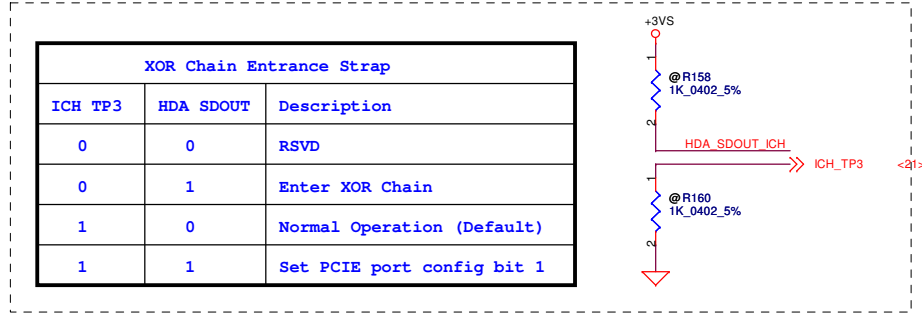
ME_CLR1	TPM setting
Shunt	Clear ME RTC Registers
Open	Keep ME RTC Registers



To JSATA1

To JSATA2

P/N : SA00002G12L (S IC AF82801IEM SLB8P A3 PBGA676P ICH9ME)



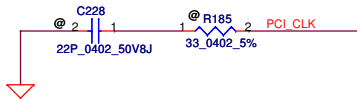
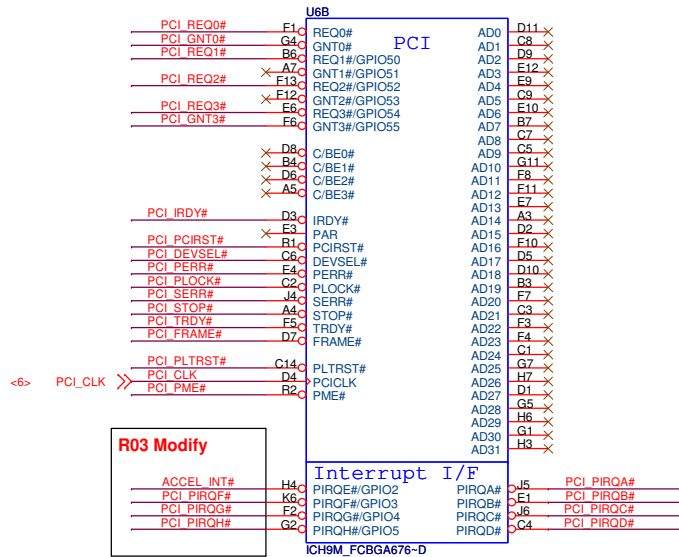
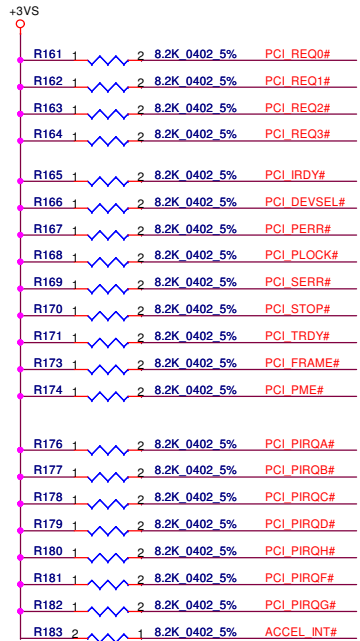
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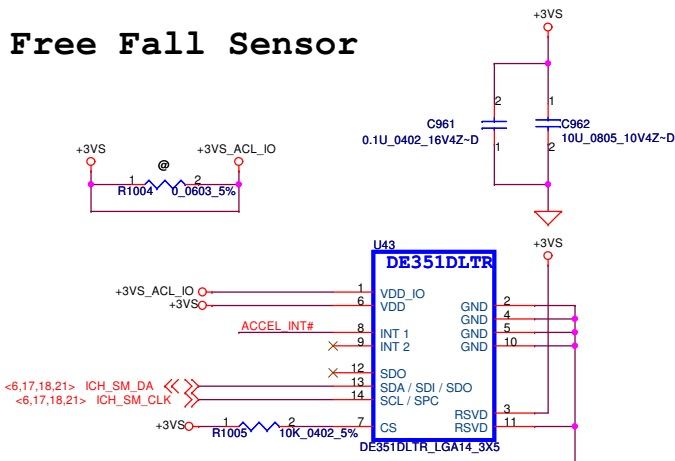
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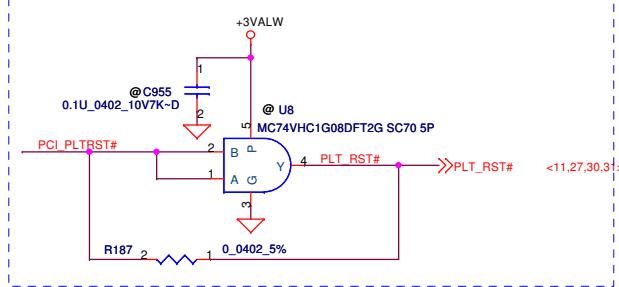
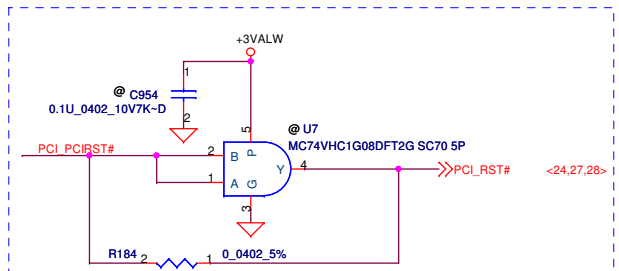
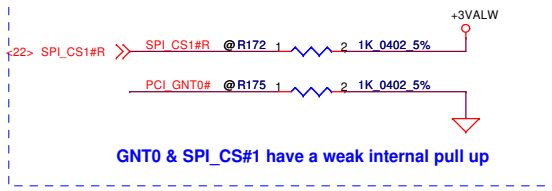


### Free Fall Sensor

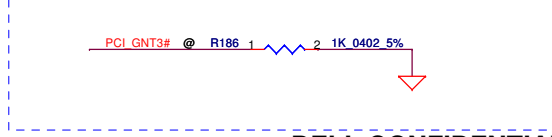


Must be placed in the center of the system.  
 P/N : SA000039C00 (S IC DE351DLTR LGA 14P MOTION SENSOR)

Boot BIOS Strap		
PCI_GNT0#	SPI_CS#1	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC *



A16 swap override Strap	
PCI_GNT3#	Low= A16 swap override Enble High= Default *
1	High= Default *



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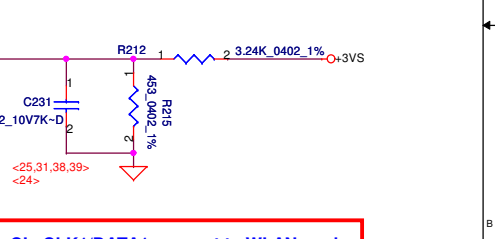
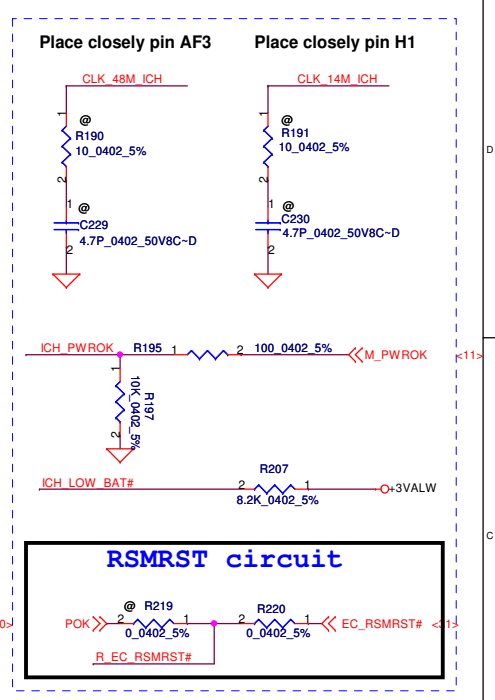
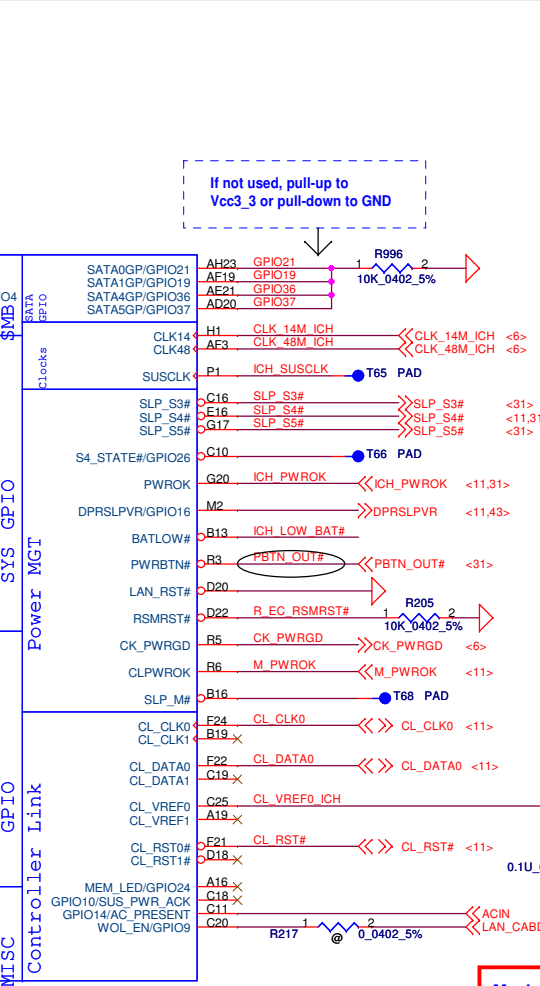
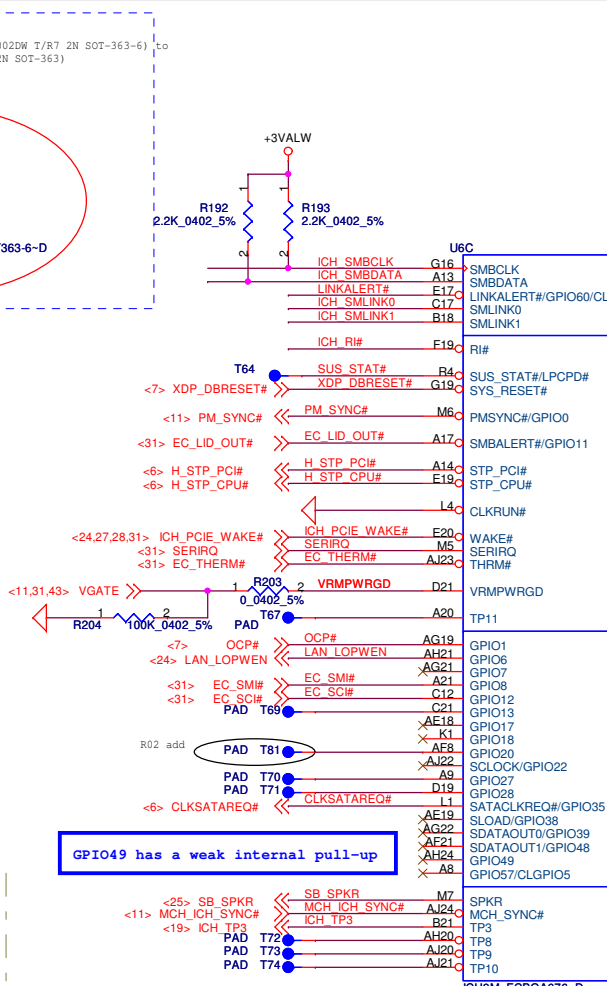
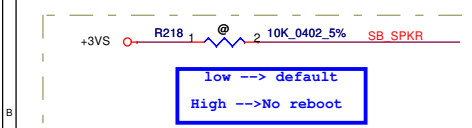
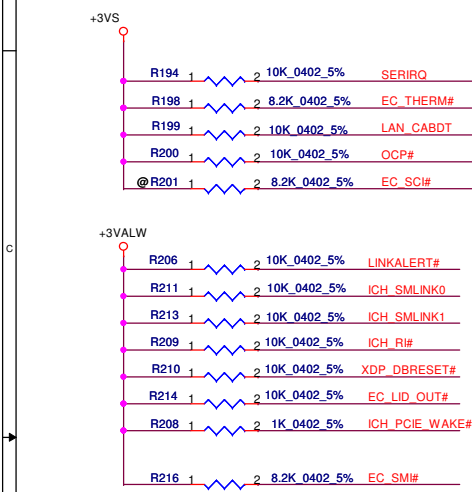
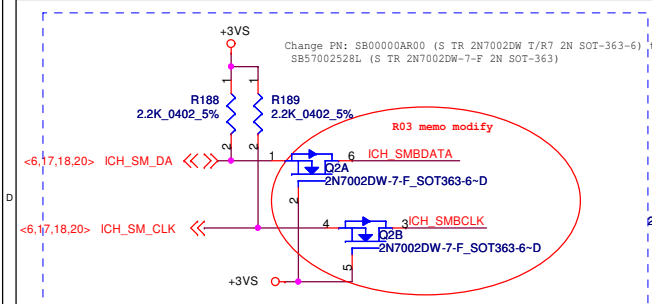
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MiniWWAN (Mini Card 1) ---->

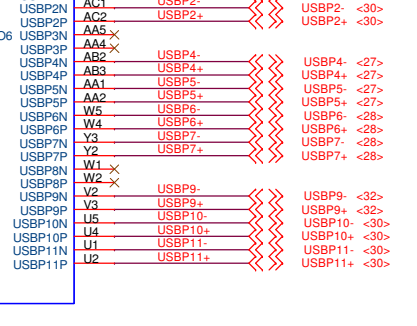
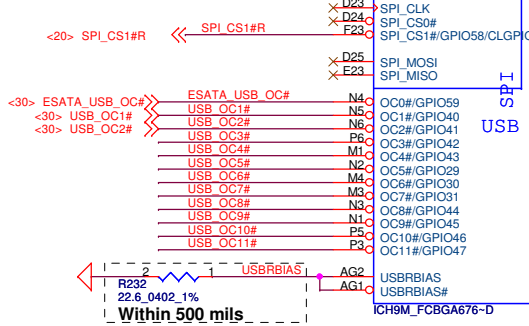
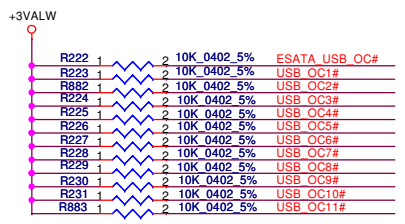
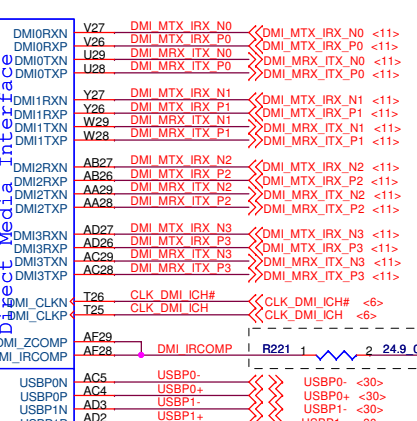
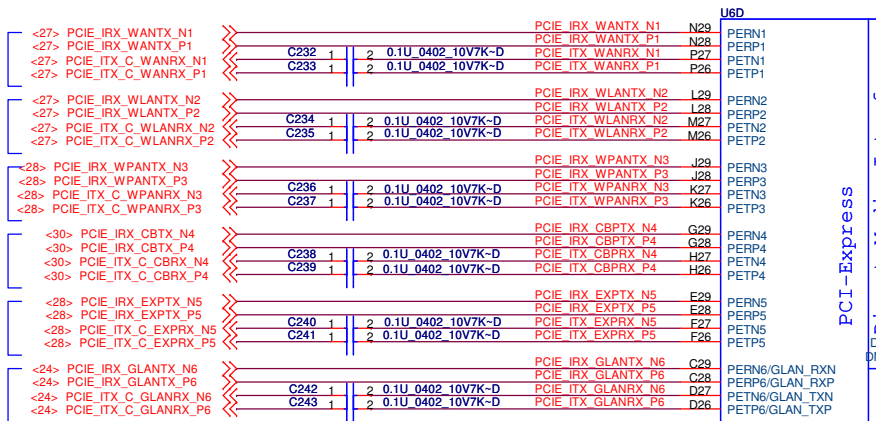
MiniWLAN (Mini Card 2) ---->

MiniWPAN (Mini Card 3) ---->

Cardbus ---->

Express card ---->

10/100/1G LAN ---->



Within 500 mils

USB Port	Device
0	USB&ESATA
1	Reader board
2	USB board
3	NC
4	WLAN
5	WWAN
6	WPAN
7	Express
8	NC
9	Touch screen
10	Bluetooth
11	Camera

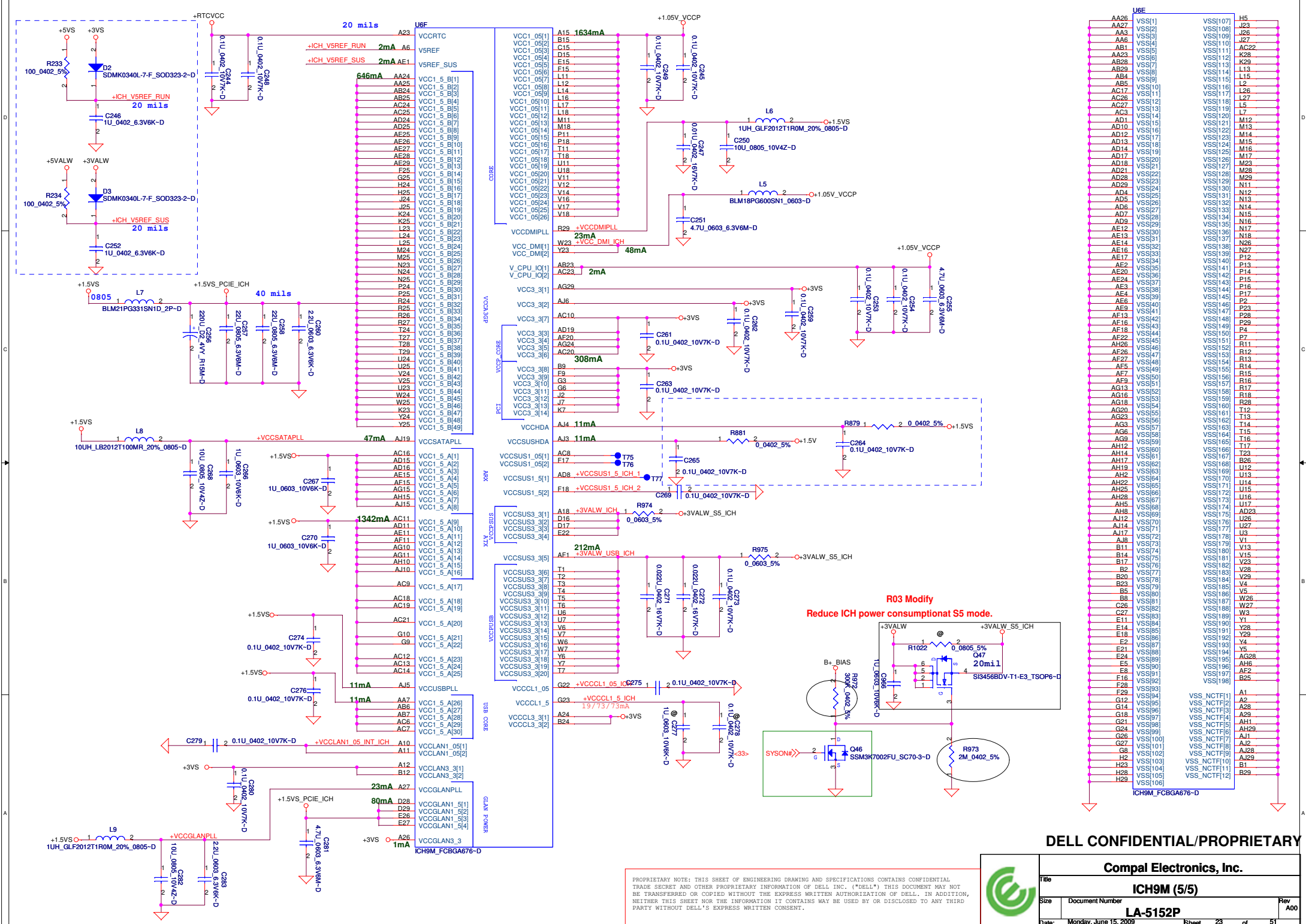
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U8E			
AA26	VSS1[1]	VSS1[07]	H5
AA27	VSS1[2]	VSS1[08]	J23
AA3	VSS1[3]	VSS1[09]	J26
AA6	VSS1[6]	VSS1[12]	J27
AA23	VSS1[5]	VSS1[11]	AC22
AB1	VSS1[1]	VSS1[13]	K28
AB29	VSS1[8]	VSS1[7]	K29
AB4	VSS1[9]	VSS1[14]	L13
AB5	VSS1[10]	VSS1[15]	L5
AC17	VSS1[11]	VSS1[17]	L26
AC26	VSS1[12]	VSS1[18]	L27
AD1	VSS1[15]	VSS1[19]	L7
AD10	VSS1[16]	VSS1[20]	M12
AD12	VSS1[17]	VSS1[21]	M13
AD13	VSS1[18]	VSS1[22]	M14
AD14	VSS1[19]	VSS1[24]	M15
AD17	VSS1[20]	VSS1[25]	M16
AD18	VSS1[21]	VSS1[26]	M17
AD21	VSS1[22]	VSS1[27]	M28
AD22	VSS1[23]	VSS1[28]	M29
AD29	VSS1[24]	VSS1[30]	N11
AD4	VSS1[25]	VSS1[31]	N12
AD6	VSS1[26]	VSS1[32]	N13
AD7	VSS1[27]	VSS1[33]	N14
AD9	VSS1[28]	VSS1[34]	N15
AE12	VSS1[30]	VSS1[35]	N16
AE13	VSS1[31]	VSS1[36]	N17
AE14	VSS1[32]	VSS1[38]	N26
AE16	VSS1[33]	VSS1[39]	N27
AE17	VSS1[34]	VSS1[40]	P12
AE2	VSS1[35]	VSS1[41]	P13
AE20	VSS1[36]	VSS1[42]	P14
AE24	VSS1[37]	VSS1[43]	P15
AE3	VSS1[38]	VSS1[44]	P17
AE4	VSS1[39]	VSS1[45]	P18
AE6	VSS1[40]	VSS1[46]	P2
AE9	VSS1[41]	VSS1[47]	P23
AE10	VSS1[42]	VSS1[48]	P28
AE16	VSS1[43]	VSS1[49]	P29
AF18	VSS1[44]	VSS1[50]	P4
AF22	VSS1[45]	VSS1[51]	P7
AH6	VSS1[46]	VSS1[52]	R11
AF27	VSS1[47]	VSS1[53]	R12
AF5	VSS1[48]	VSS1[54]	R13
AF7	VSS1[49]	VSS1[55]	R14
AG1	VSS1[50]	VSS1[56]	R15
AG13	VSS1[51]	VSS1[57]	R16
AG16	VSS1[52]	VSS1[58]	R18
AG18	VSS1[53]	VSS1[59]	R28
AG20	VSS1[54]	VSS1[60]	R29
AG23	VSS1[55]	VSS1[61]	T13
AG3	VSS1[56]	VSS1[62]	T14
AG6	VSS1[57]	VSS1[63]	T15
AG9	VSS1[58]	VSS1[64]	T16
AH12	VSS1[59]	VSS1[65]	T17
AH14	VSS1[60]	VSS1[66]	T23
AH17	VSS1[61]	VSS1[67]	B26
AH19	VSS1[62]	VSS1[68]	L12
AH2	VSS1[63]	VSS1[69]	L13
AH22	VSS1[64]	VSS1[70]	L14
AH25	VSS1[65]	VSS1[71]	L15
AH28	VSS1[66]	VSS1[72]	L16
AH5	VSS1[67]	VSS1[73]	L17
AH8	VSS1[68]	VSS1[74]	AD23
AH12	VSS1[69]	VSS1[75]	L17
AH14	VSS1[70]	VSS1[76]	V1
AH17	VSS1[71]	VSS1[77]	V1
AH18	VSS1[72]	VSS1[78]	V1
B11	VSS1[73]	VSS1[79]	V13
B14	VSS1[74]	VSS1[80]	V15
B17	VSS1[75]	VSS1[81]	V23
B2	VSS1[76]	VSS1[82]	V28
B20	VSS1[77]	VSS1[83]	V29
B23	VSS1[78]	VSS1[84]	V4
B5	VSS1[79]	VSS1[85]	V5
B8	VSS1[80]	VSS1[86]	W26
C26	VSS1[81]	VSS1[87]	W27
C27	VSS1[82]	VSS1[88]	W3
E14	VSS1[83]	VSS1[89]	Y1
E18	VSS1[84]	VSS1[90]	Y28
E19	VSS1[85]	VSS1[91]	Y29
E2	VSS1[86]	VSS1[92]	Y4
E3	VSS1[87]	VSS1[93]	Y4
E4	VSS1[88]	VSS1[94]	AG28
E5	VSS1[89]	VSS1[95]	AH6
E8	VSS1[90]	VSS1[96]	AF2
F16	VSS1[91]	VSS1[97]	B25
F28	VSS1[92]	VSS1[98]	
F29	VSS_NCTFF1[1]	VSS_NCTFF1[12]	A1
G12	VSS_NCTFF2[1]	VSS_NCTFF2[2]	A28
G14	VSS_NCTFF3[1]	VSS_NCTFF3[3]	A29
G18	VSS_NCTFF4[1]	VSS_NCTFF4[4]	AH1
G21	VSS_NCTFF5[1]	VSS_NCTFF5[5]	AH29
G24	VSS_NCTFF6[1]	VSS_NCTFF6[6]	AJ1
G26	VSS_NCTFF7[1]	VSS_NCTFF7[7]	AJ28
G8	VSS_NCTFF8[1]	VSS_NCTFF8[8]	AJ29
H2	VSS_NCTFF9[1]	VSS_NCTFF9[9]	B1
H23	VSS_NCTFF10[1]	VSS_NCTFF10[10]	B1
H28	VSS_NCTFF11[1]	VSS_NCTFF11[11]	B29
H29	VSS_NCTFF12[1]	VSS_NCTFF12[12]	

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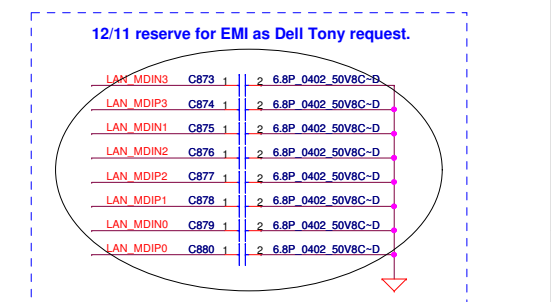
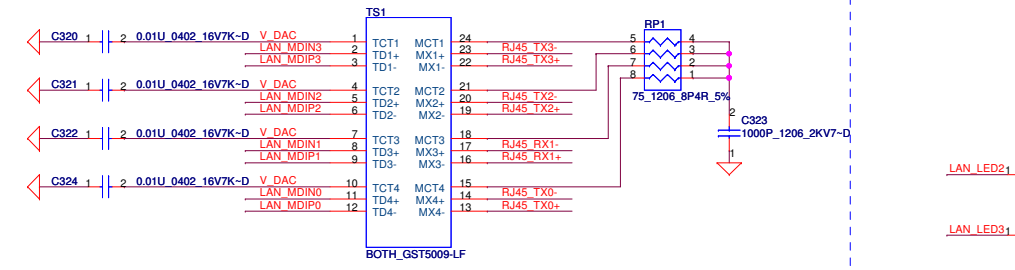
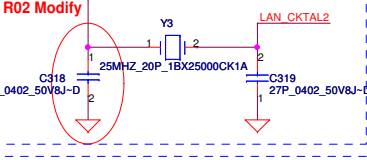
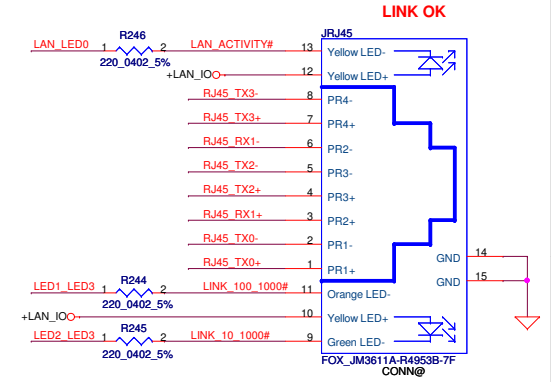
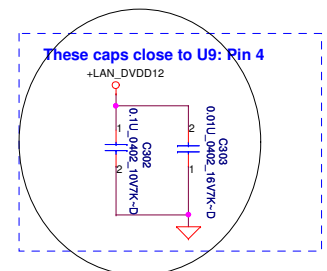
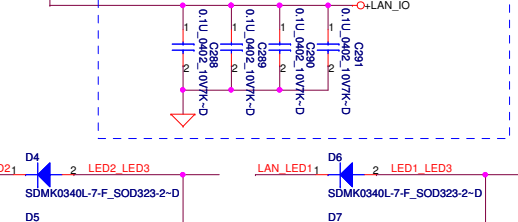
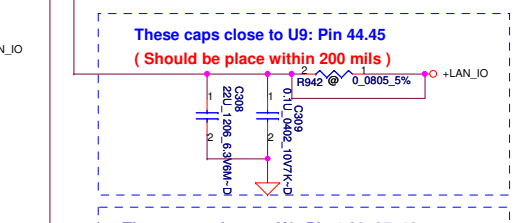
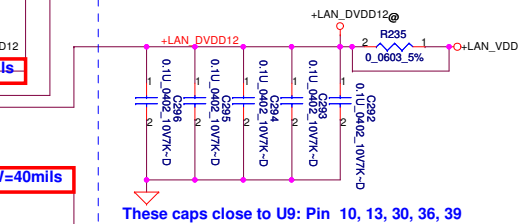
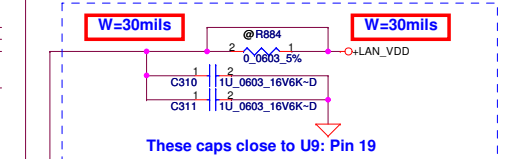
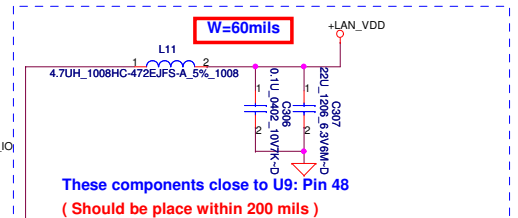
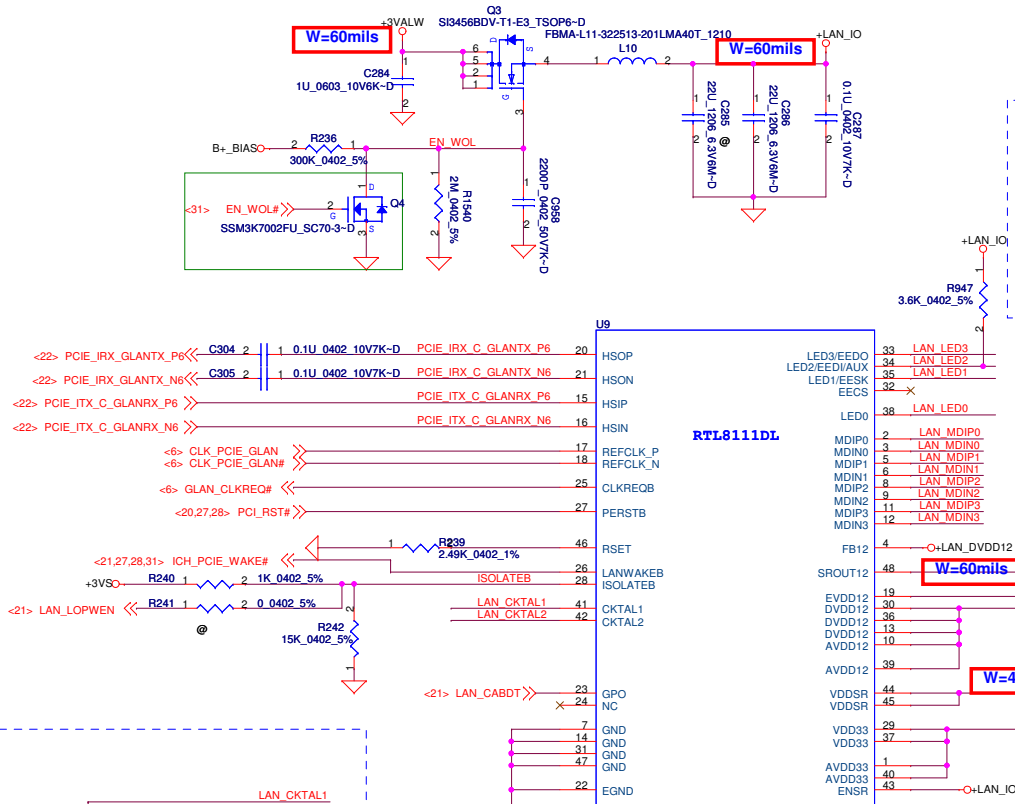
**Compal Electronics, Inc.**

**ICH9M (5/5)**

**LA-5152P**

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LEDS1-0	00	01	10	11
LED0	Tx / Rx	Tx / Rx	Tx	LINK10 / ACT
LED1	LINK100	LINK10 / 100 / 1000	LINK	LINK100 / ACT
LED2	LINK10	LINK10 / 100	Rx	FULL
LED3	LINK1000	LINK1000	FULL	LINK1000 / ACT

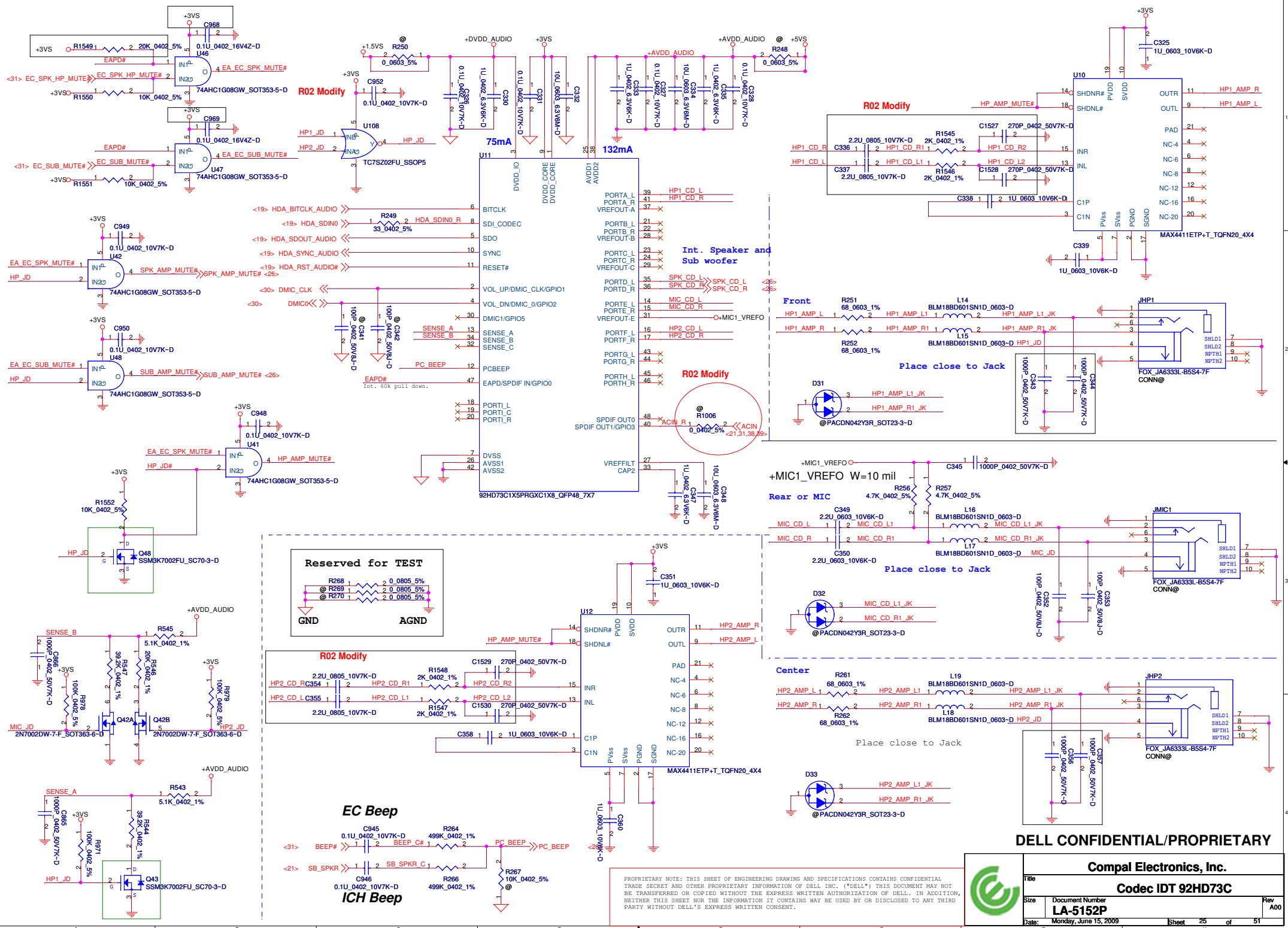
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**Gigabit LAN RTL8111DL**  
**LA-5152P**  
 Date: Monday, June 15, 2009 Sheet 24 of 45



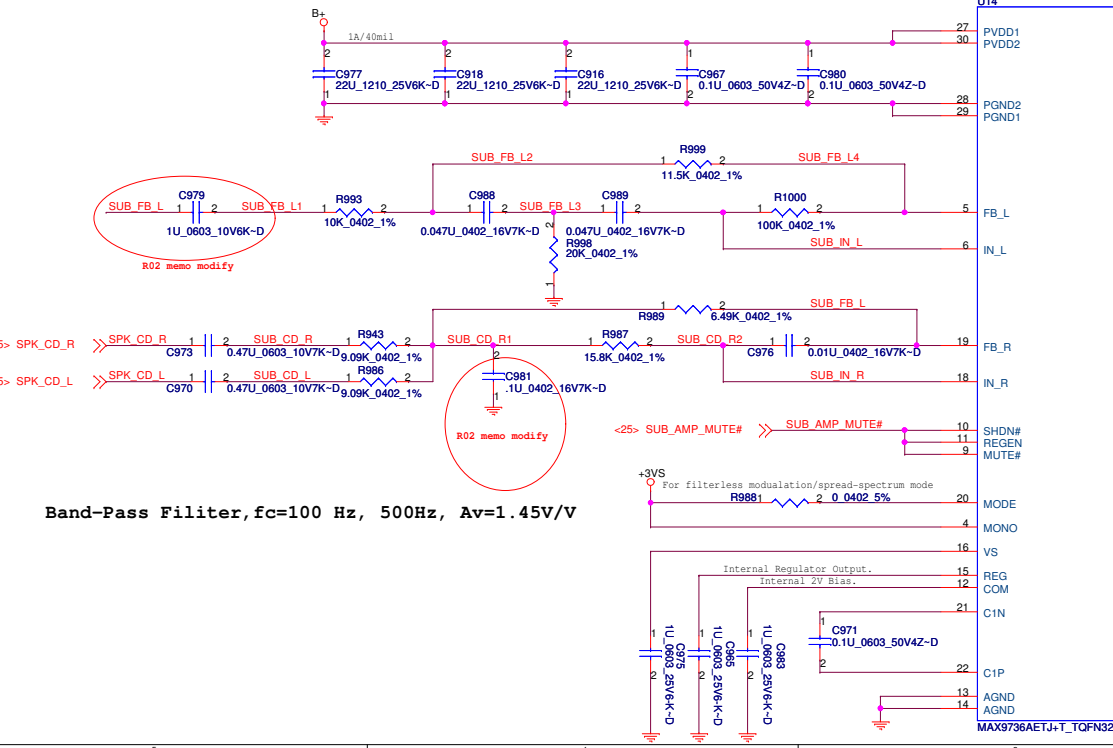
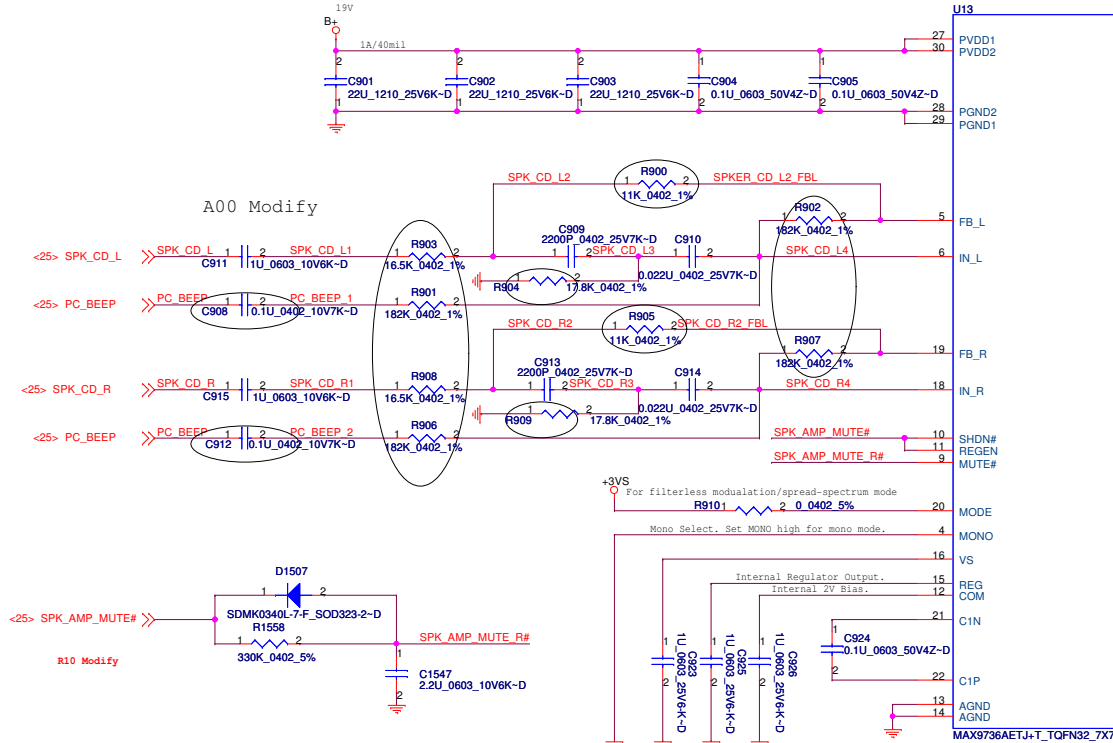


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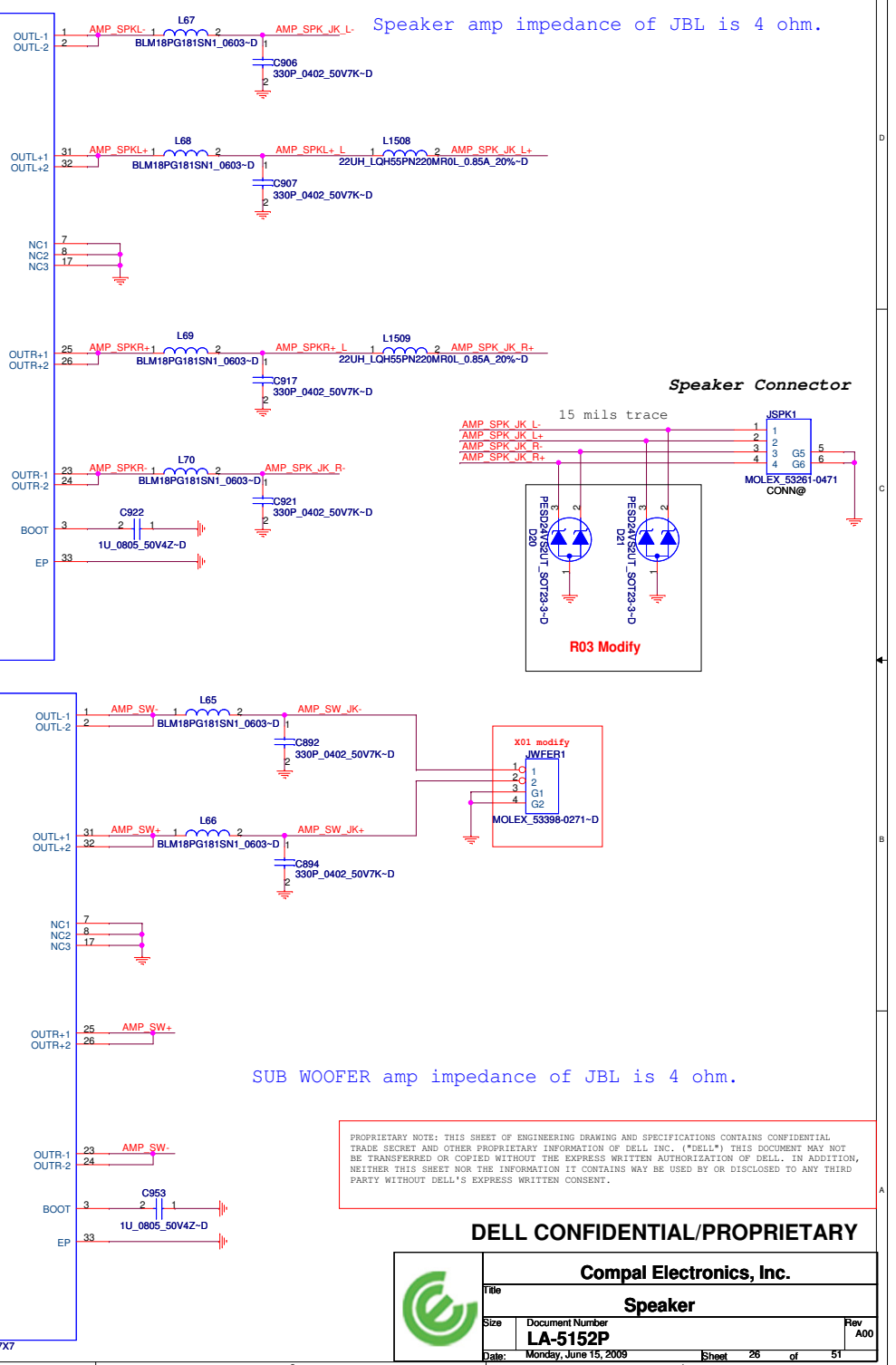
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		<b>Codec IDT 92HD73C</b>	
Size	Document Number	Rev	
	<b>LA-5152P</b>	A00	
Date	Monday, June 15, 2009	Sheet	25 of 51

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High-Pass Filiter,  $f_c=500\text{Hz}$ ,  $A_v=1.45\text{V/V}$



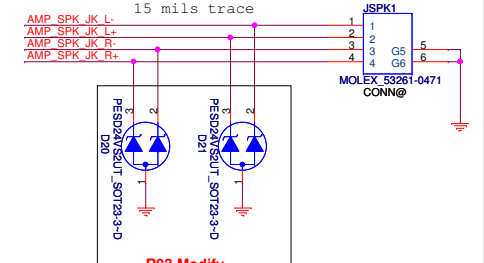
Band-Pass Filiter,  $f_c=100\text{ Hz}$ ,  $500\text{Hz}$ ,  $A_v=1.45\text{V/V}$



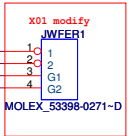
Speaker amp impedance of JBL is 4 ohm.

15 mils trace

Speaker Connector



R03 Modify



X01 modify

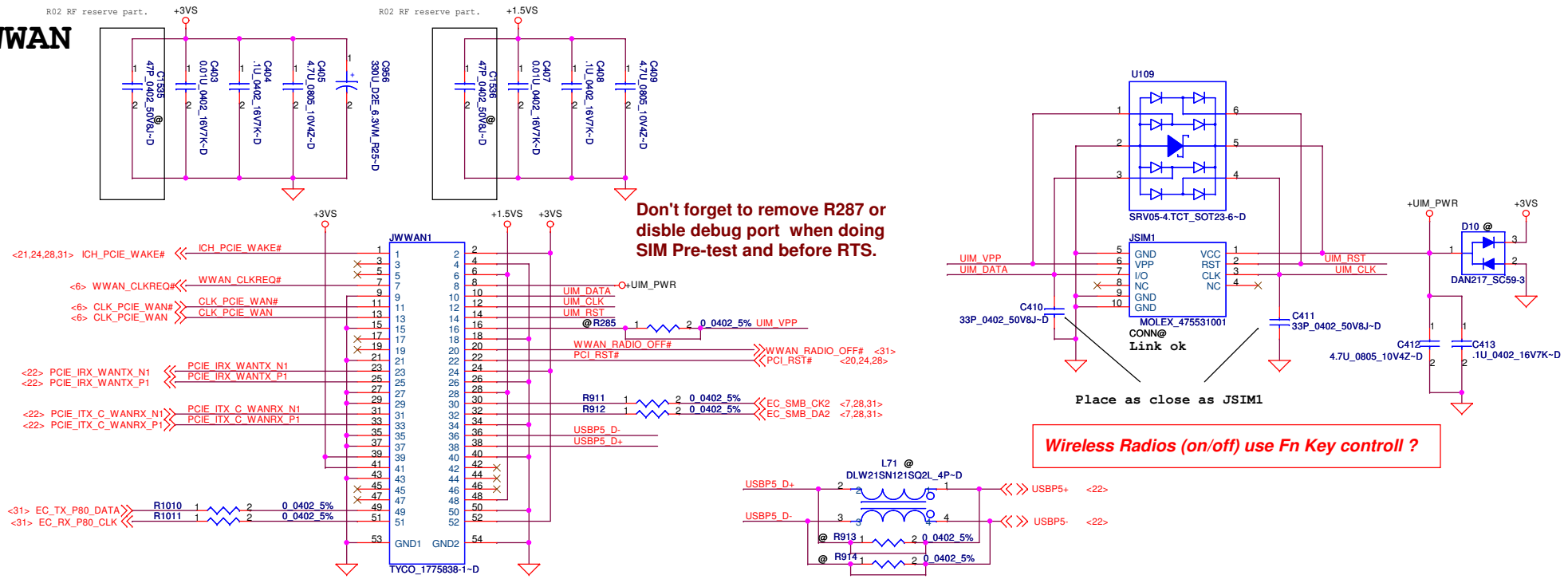
SUB WOOFER amp impedance of JBL is 4 ohm.

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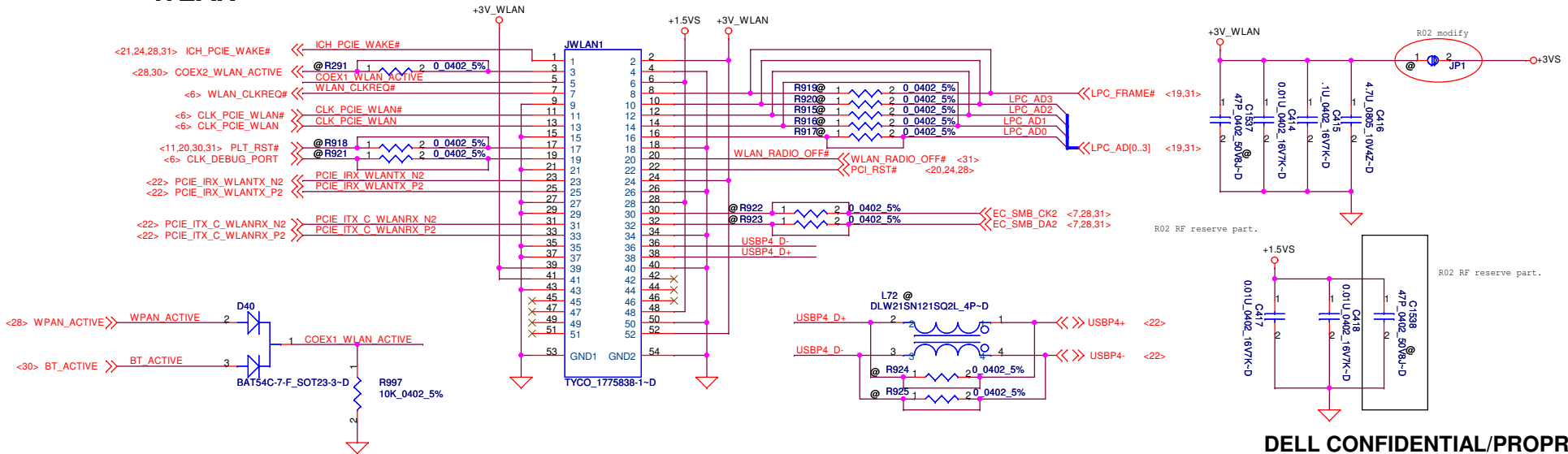
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	<b>Compal Electronics, Inc.</b>	
	<b>Speaker</b>	
Title Size Date:	Document Number <b>LA-5152P</b> Monday, June 15, 2009	Rev A00 Sheet 26 of 51

# WWAN




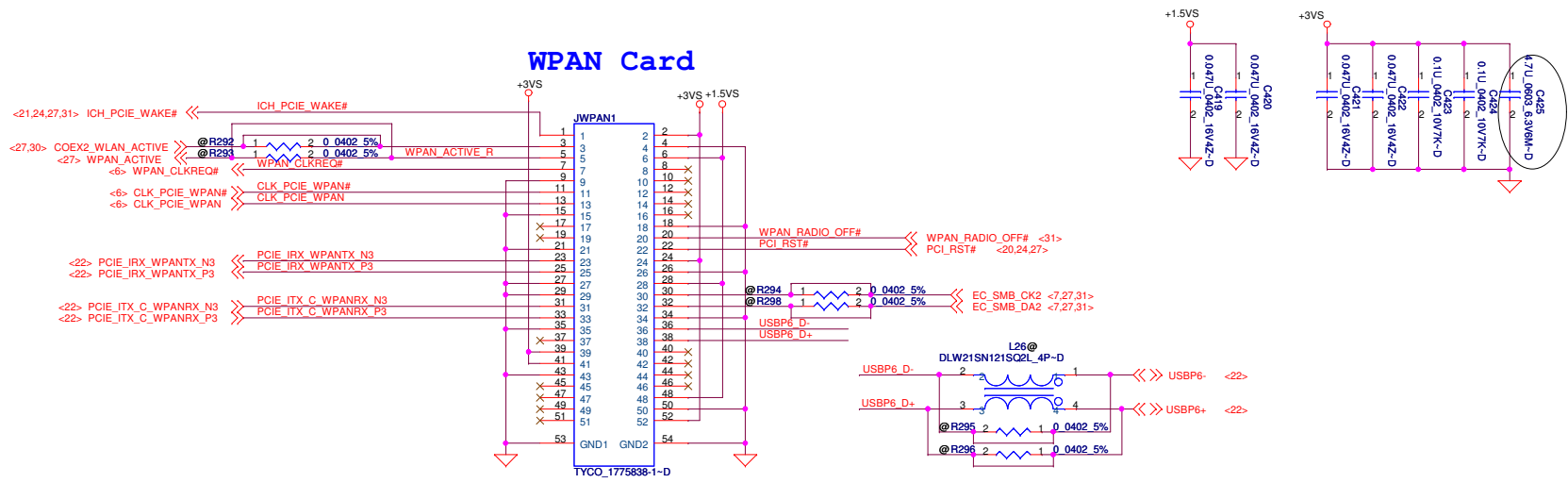
# WLAN



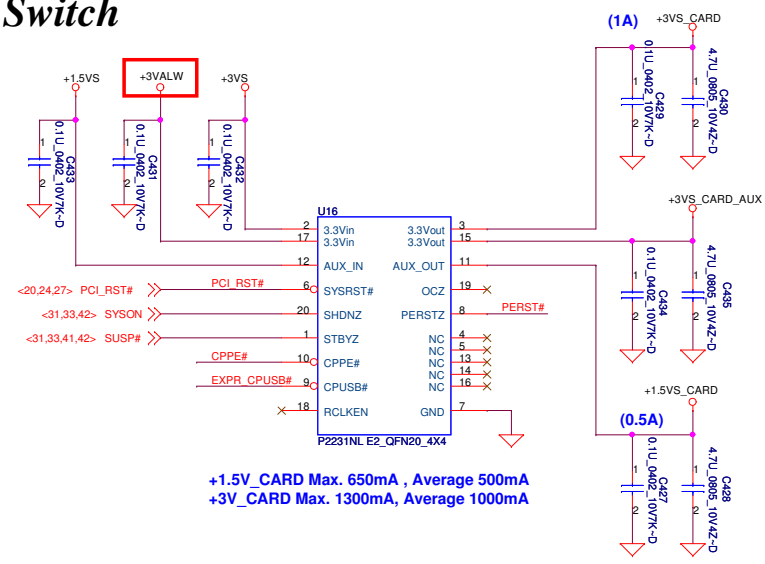
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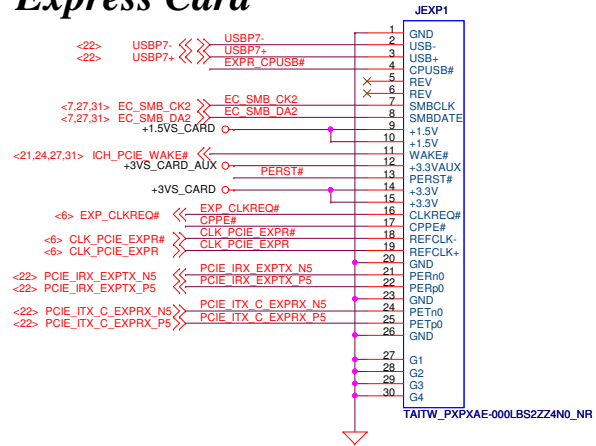
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		<b>Mini Card WLAN/WWAN</b>	
Size	Document Number	Rev	
	<b>LA-5152P</b>	<b>A00</b>	
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## Express Card Power Switch



## Express Card

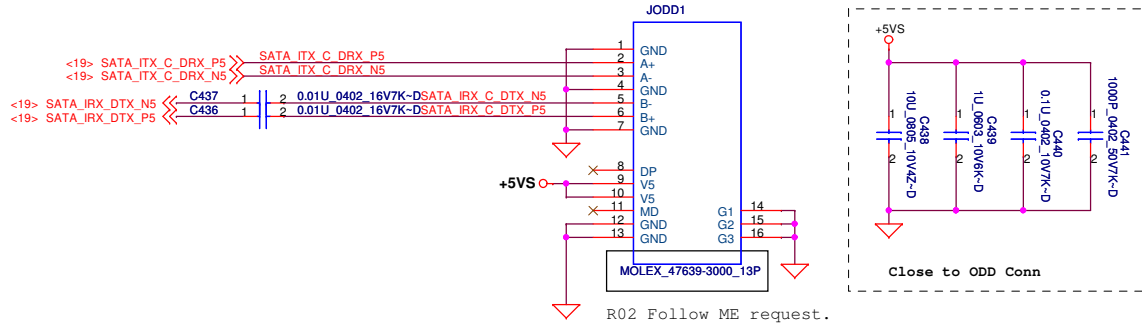


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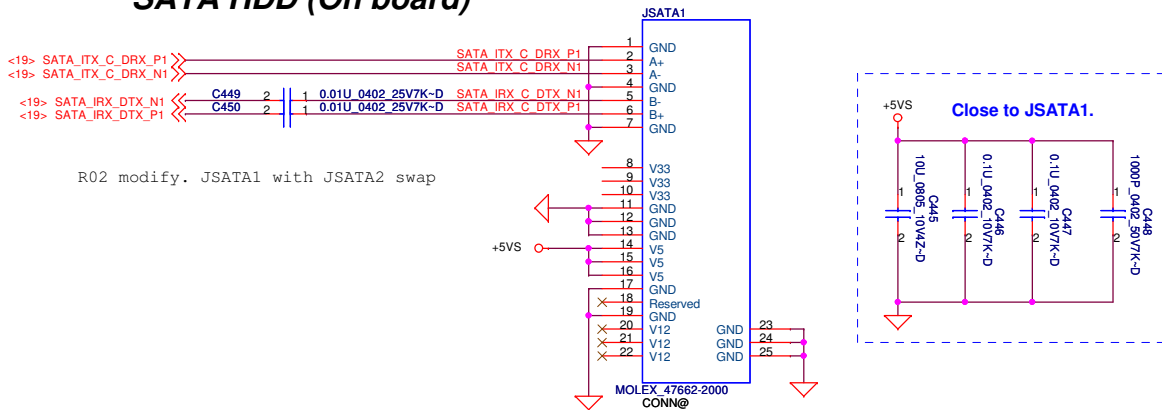
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	<b>WPAN / Express Card</b>	
	Document Number <b>LA-5152P</b>	Rev <b>A00</b>
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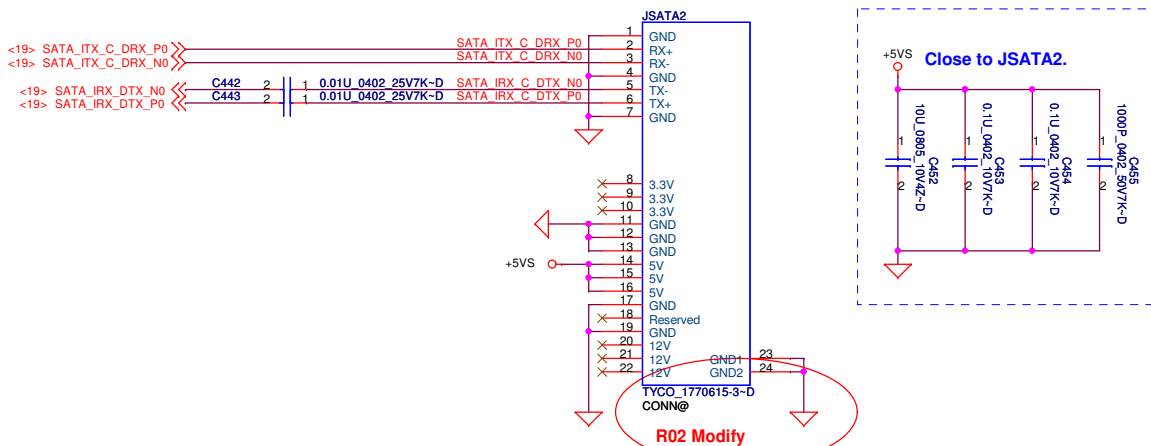
## SATA ODD CONN



## SATA HDD (On board)




## SATA HDD



由於Kink pin尺寸大於kink hole，將導致零件干涉，也同時會使pin腳空焊 - 因此將 原HDD Conn.(REV.) -FOXCONN-SP01000LC0L layout 改成Tyco-SP01000E70L layout 即可解決造成pin腳空焊的問題

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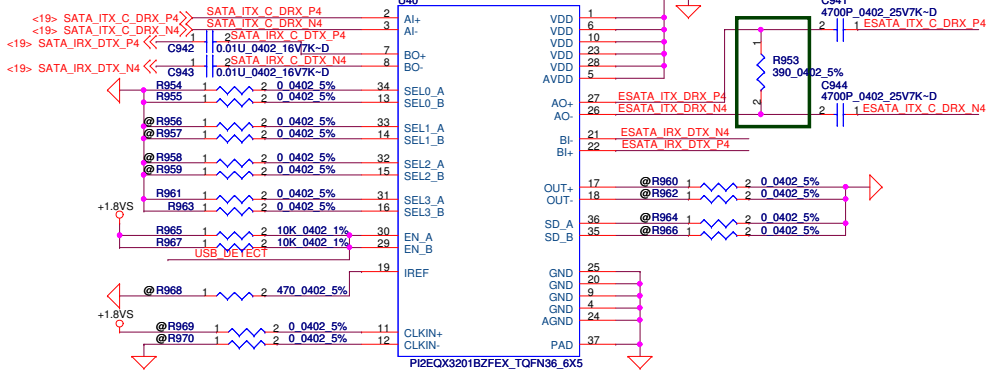
			<b>Compal Electronics, Inc.</b>	
			<b>ODD / SATA CONN</b>	
Size	Document Number			Rev
	<b>LA-5152P</b>			<b>A00</b>
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### Output Swing Control

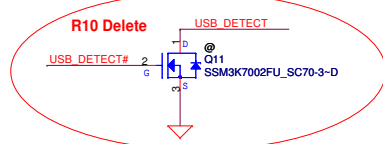
SEL2_ [A:B]	Swing
0	1x
1	1.2x

### Output De-emphasis Adjustment

SEL3_ [A:B]	De-emphasis
0	0dB
1	-3.5dB

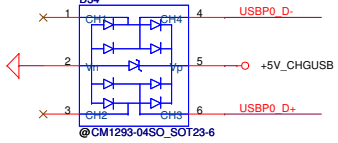


A00 change to SA00002YQ0L (S IC PI2EQX3201BLZFEX TQFN 36P)

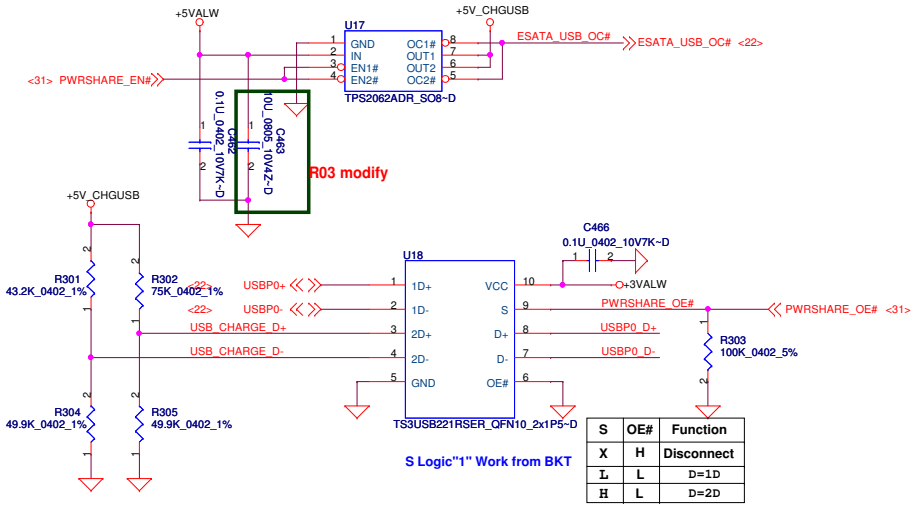


### Equalizer Selection

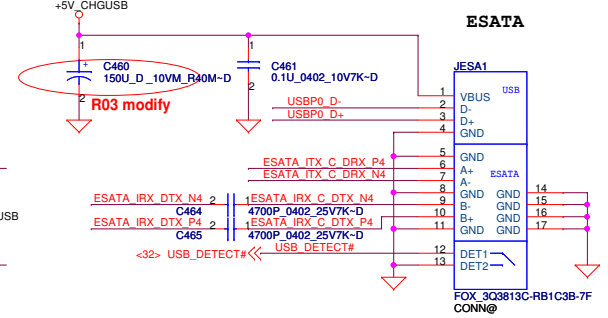
SEL0_ [A:B]	SEL1_ [A:B]	Compliance Channel
0	0	no equalization
0	1	[0:2.5dB] @ 1.6 GHz
1	0	[2.5:4.5dB] @ 1.6 GHz
1	1	[4.5:6.5dB] @ 1.6 GHz



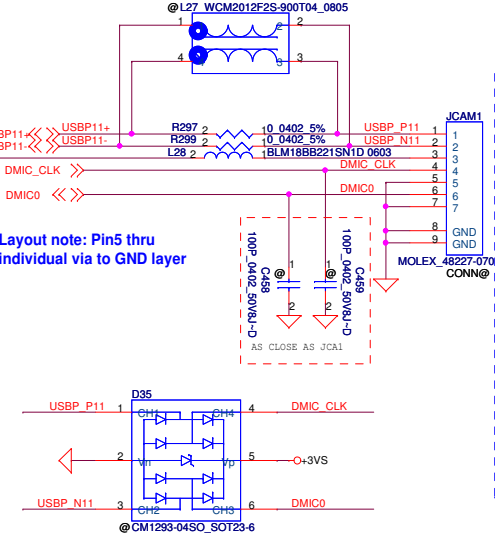
Place close JESA1



S	OE#	Function
X	H	Disconnect
L	L	D=1D
H	L	D=2D



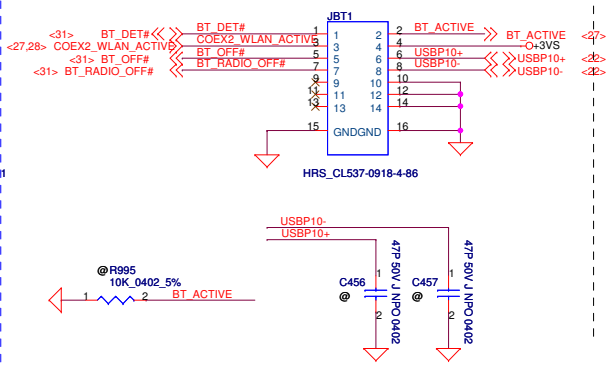
### Camera Conn



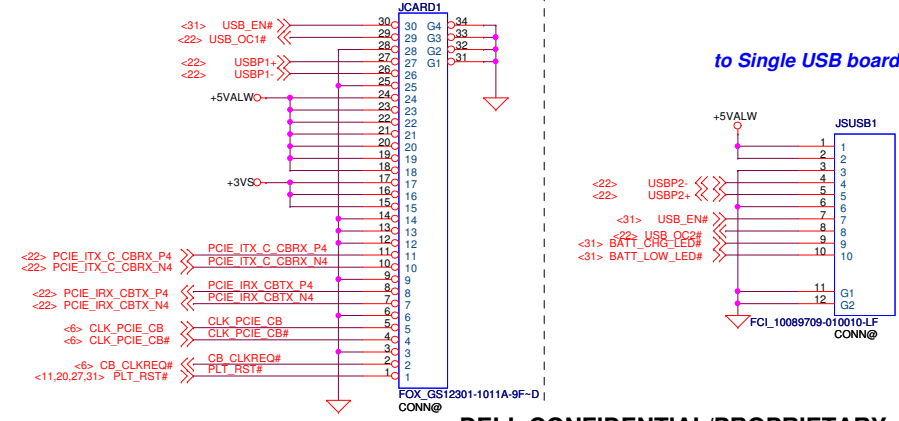
Layout note: Pin5 thru individual via to GND layer

Place close JCAM1

### Bluetooth



### Cardreader Connector



to Single USB board

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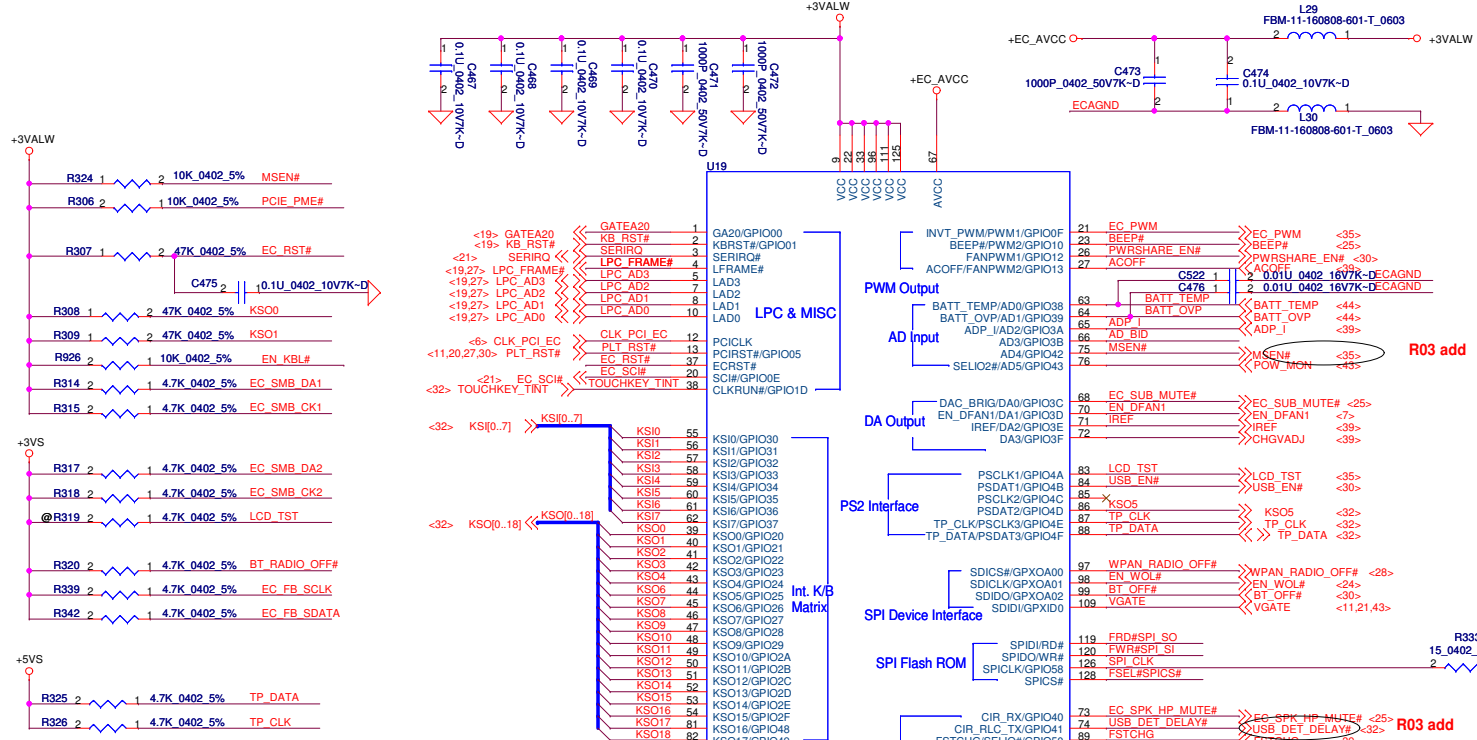
**Compal Electronics, Inc.**

**USB / ESATA / BT / CAMARA**

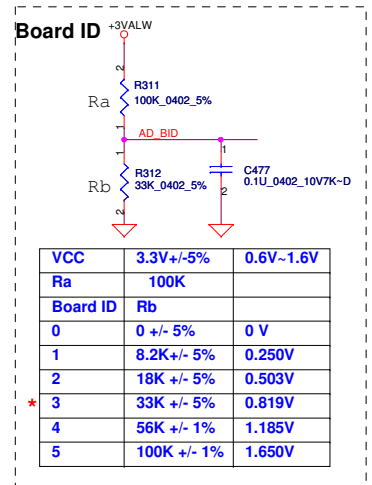
Document Number: **LA-5152P**

Date: Monday, June 15, 2009

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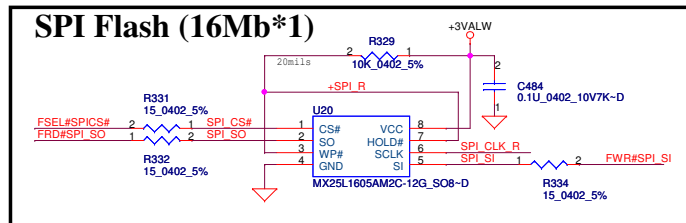


D3 Version : P/N : SA0001J580



VCC	3.3V +/- 5%	0.6V ~ 1.6V
Ra	100K	
Board ID	Rb	
0	0 +/- 5%	0 V
1	8.2K +/- 5%	0.250V
2	18K +/- 5%	0.503V
3	33K +/- 5%	0.819V
4	56K +/- 1%	1.185V
5	100K +/- 1%	1.650V

Follow the suggestion of EC team to follow JAT10 setting.

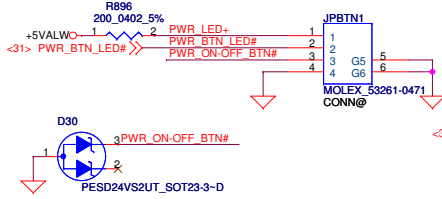


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Compal Electronics, Inc.		
<b>BIOS &amp; EC I/O Port</b>		
Size	Document Number	Rev
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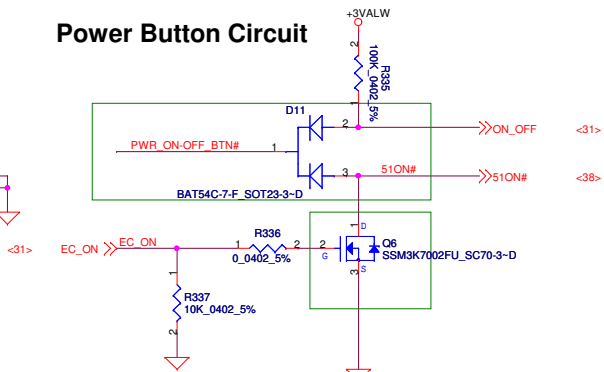
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### To power board

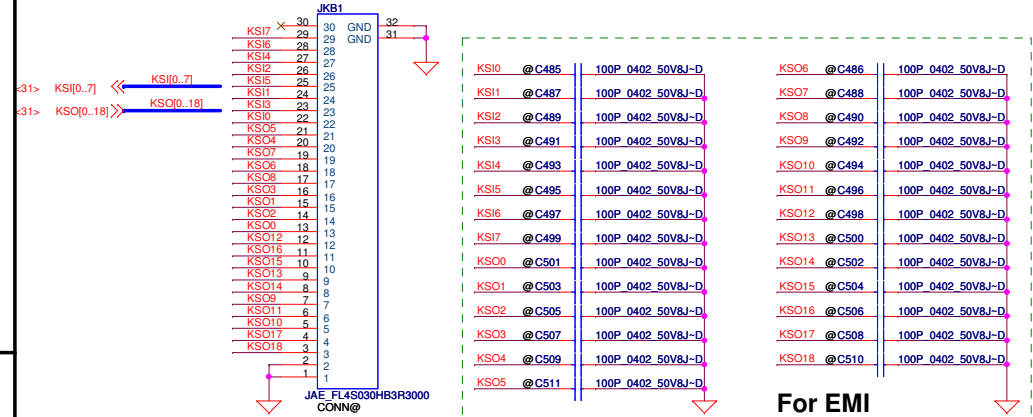


### Place close JPBTN1

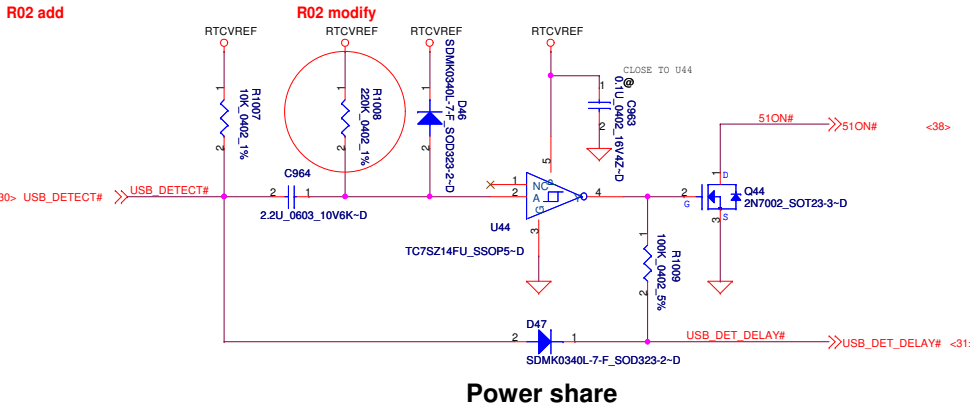
### Power Button Circuit



### INT\_KB\_Conn.1

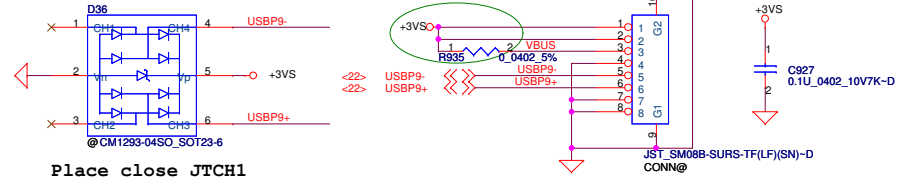


### For EMI



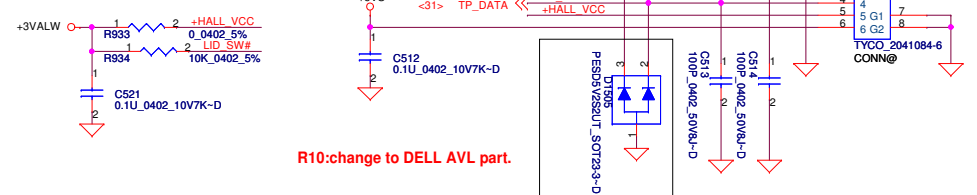
### Power share

### Touch Screen Connector



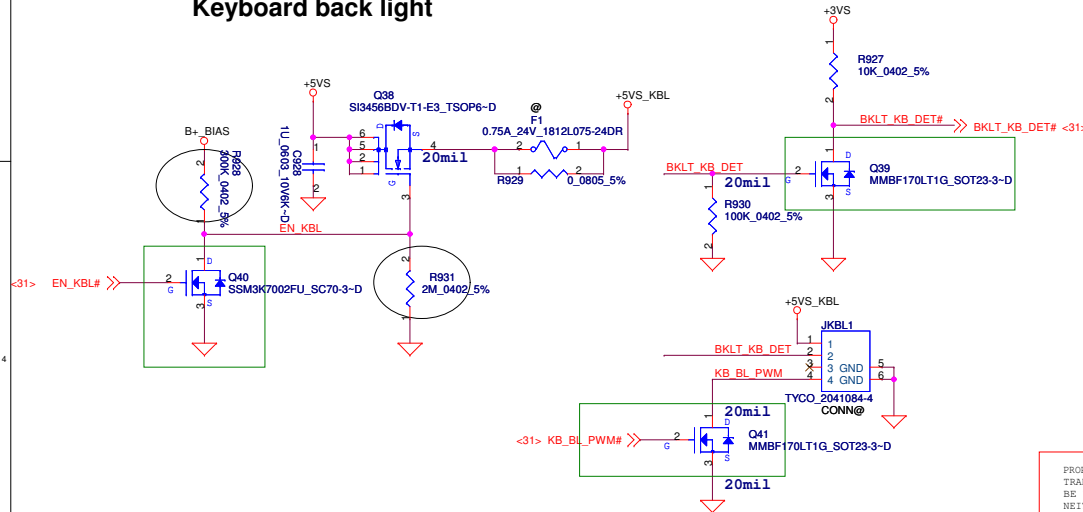
### Place close JTCH1

### Touch PAD/B Conn.

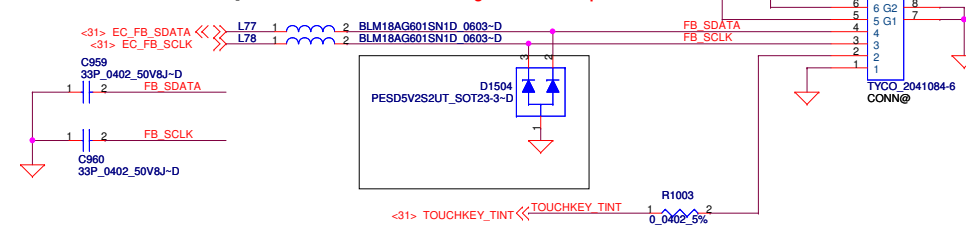


R10:change to DELL AVL part.

### Keyboard back light



### Cap Sensor



R10:change to DELL AVL part.

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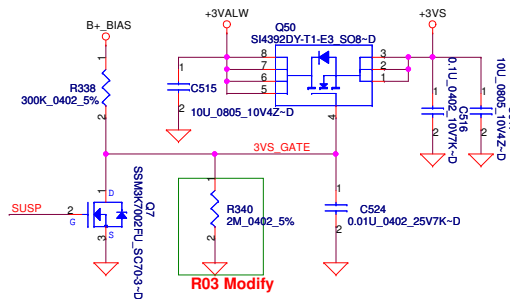
Compal Electronics, Inc.

Title	PWR/KB/TN/KB/Touch Pad	
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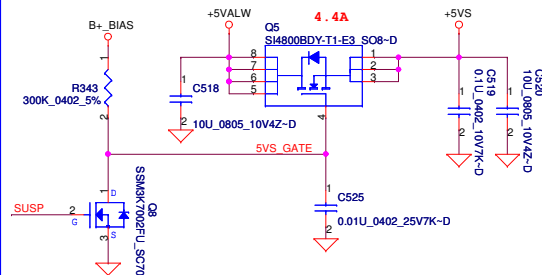


### +3VALW to +3VS Transfer

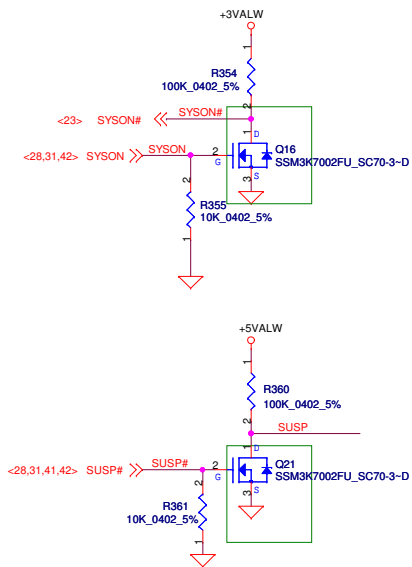
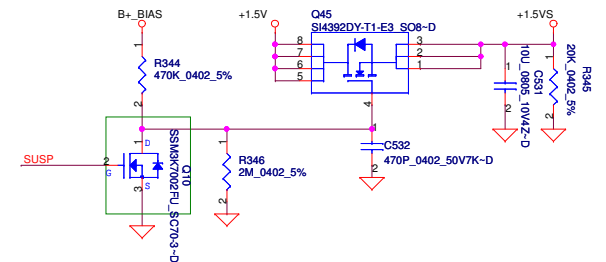


R03 Modify

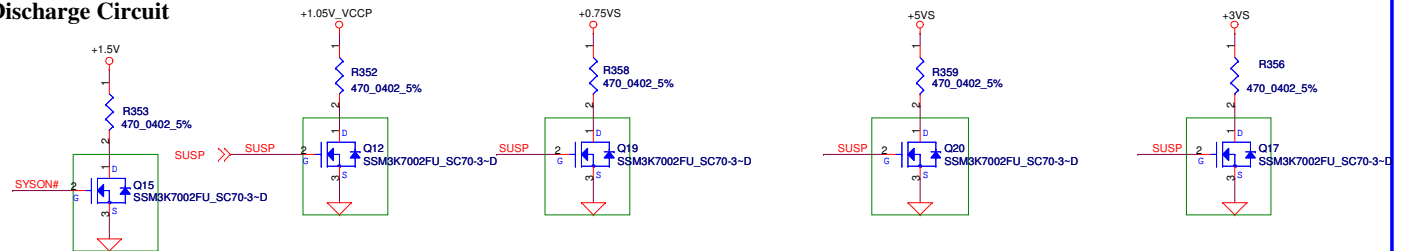
### +5VALW to +5VS Transfer



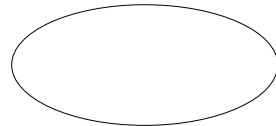
### +1.5V to +1.5VS Transfer




### Discharge Circuit



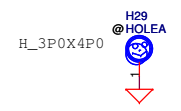
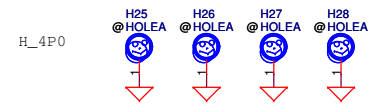
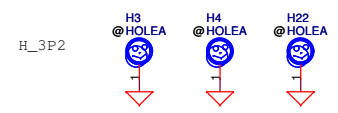
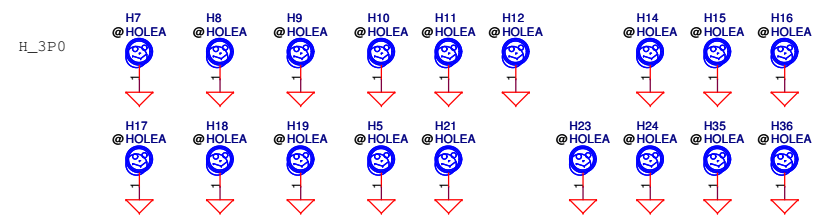
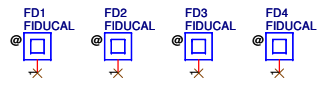
R03 Delete +3V\_WLAN discharge circuit.



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		<b>Compal Electronics, Inc.</b>	
		<b>DC/DC Circuits</b>	
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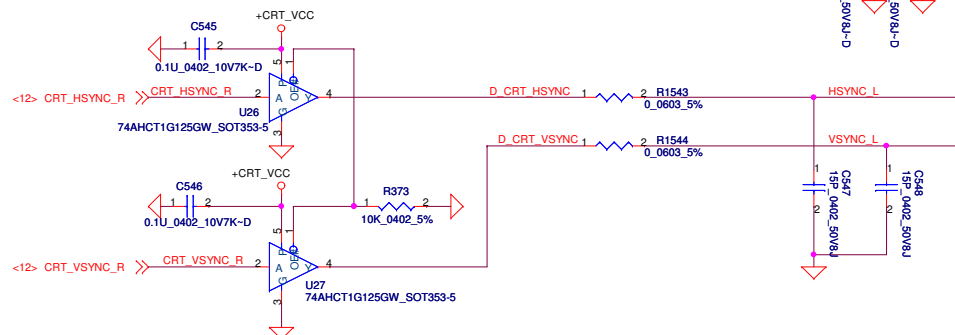
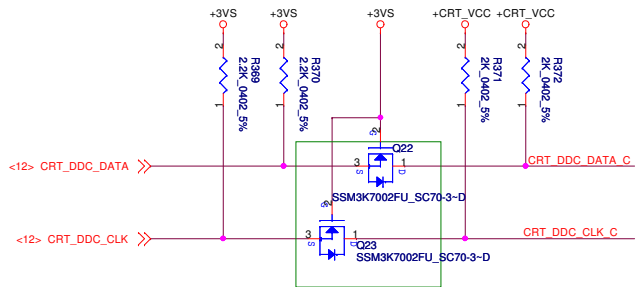
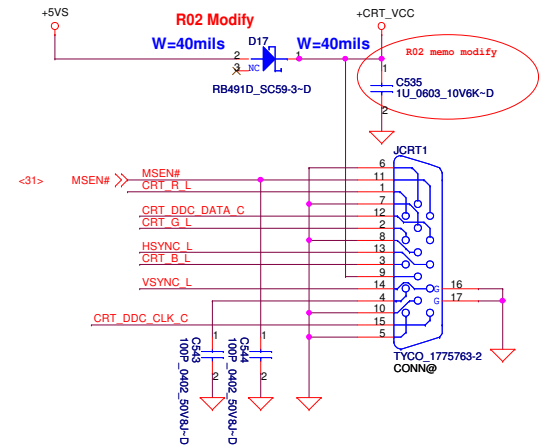
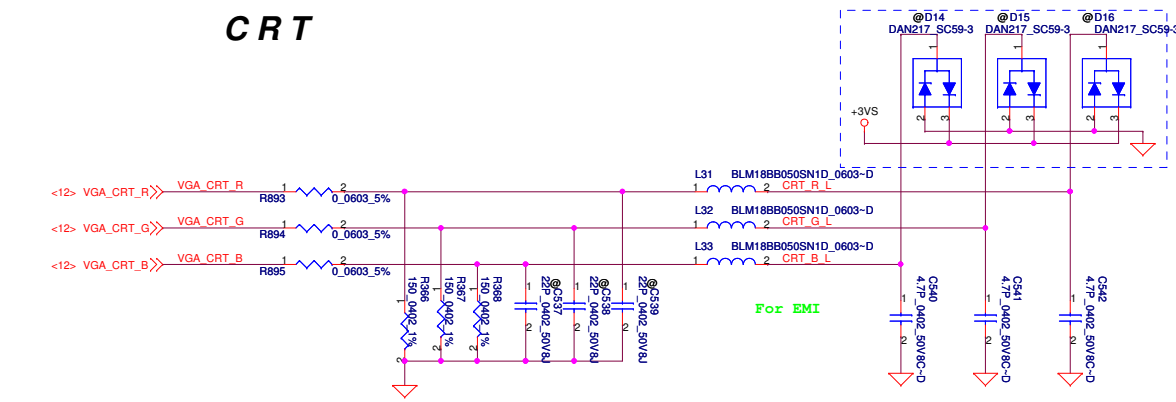


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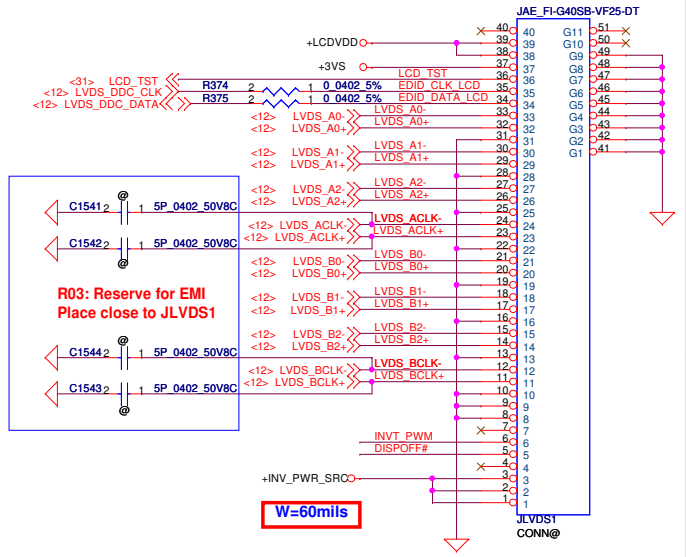
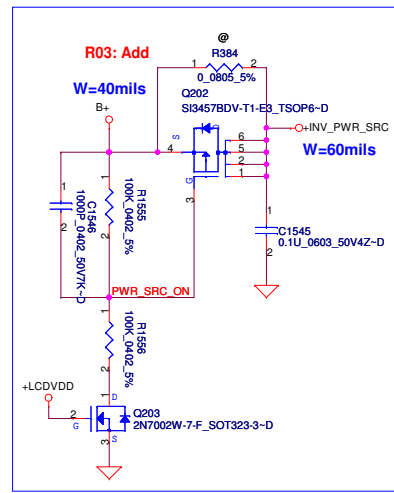
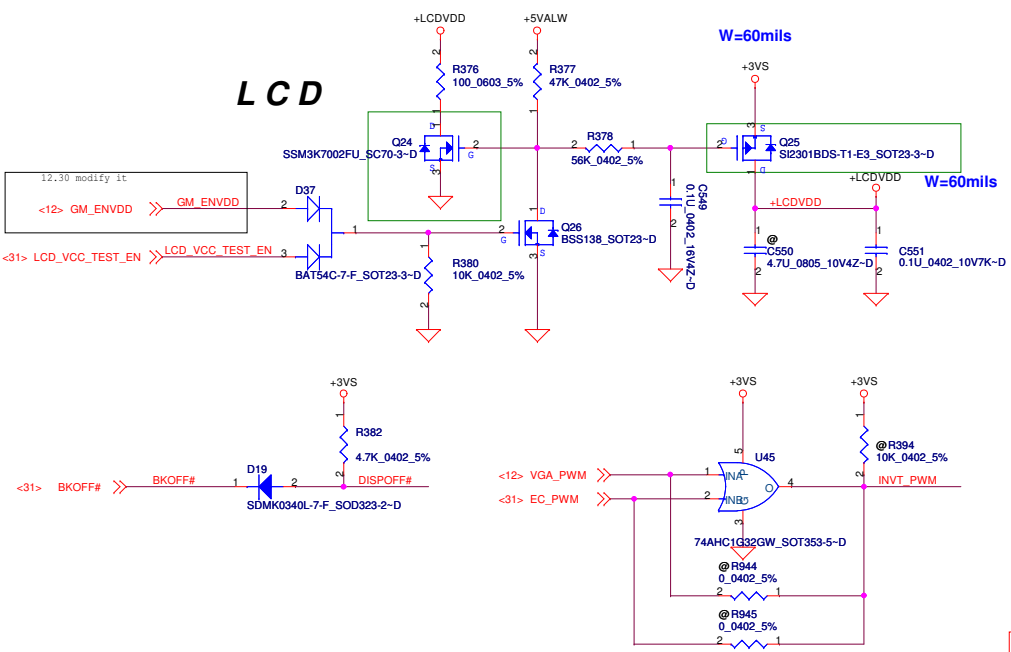
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			<b>Compal Electronics, Inc.</b>		
Title			<b>Screw</b>		
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# CRT



# LCD

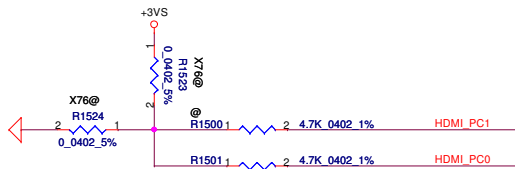


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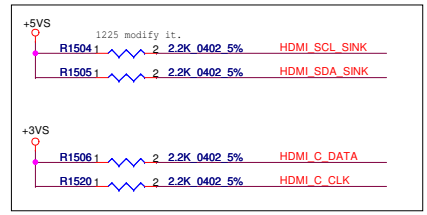
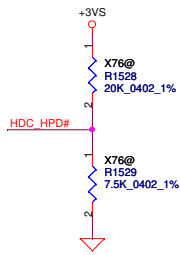
	<b>Compal Electronics, Inc.</b>	
	<b>CRT / LVDS CONN</b>	
	Size	Document Number
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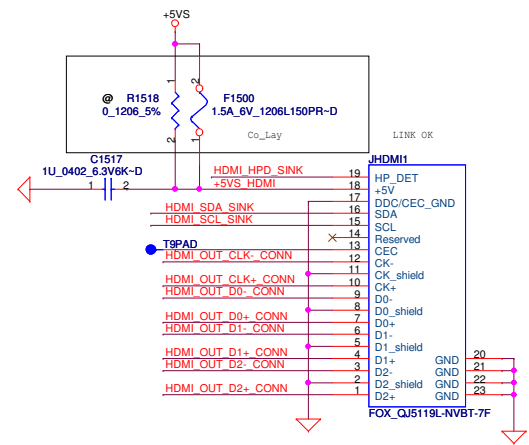
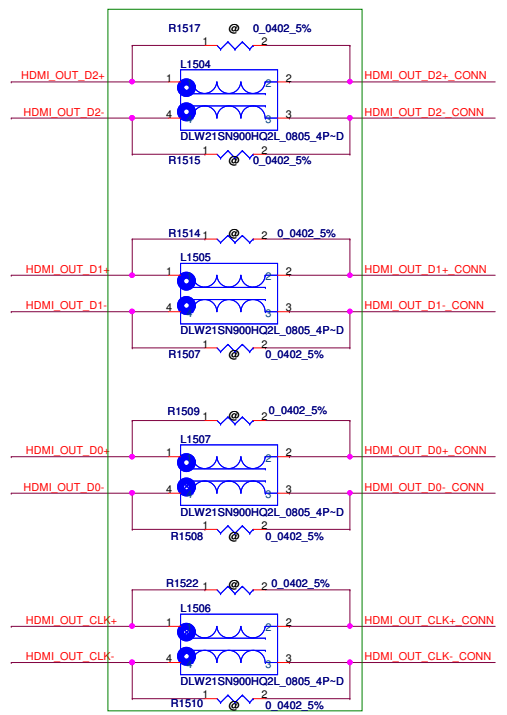
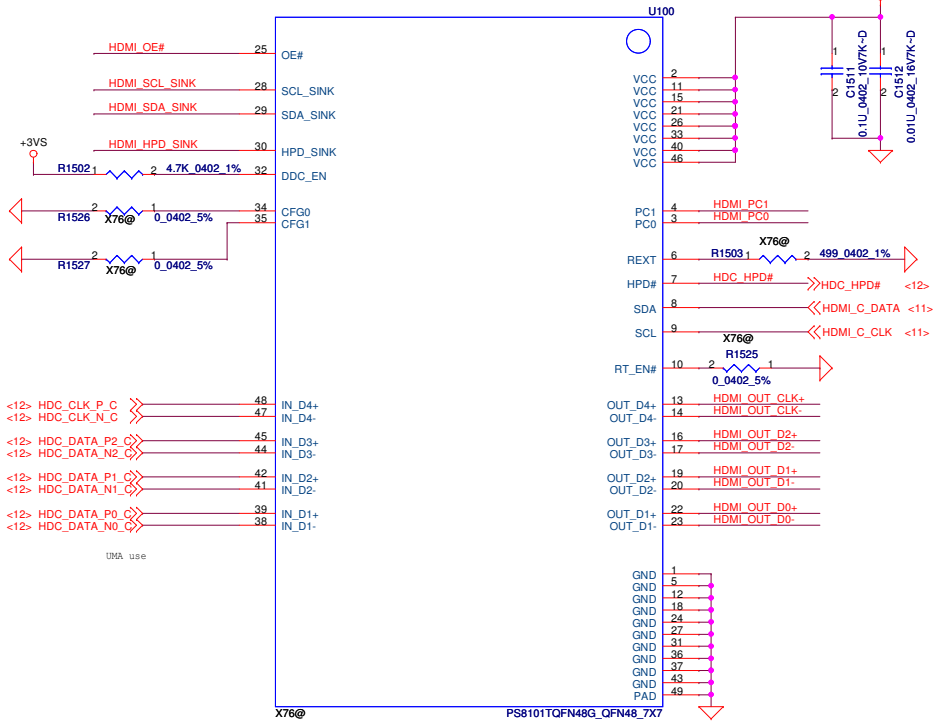
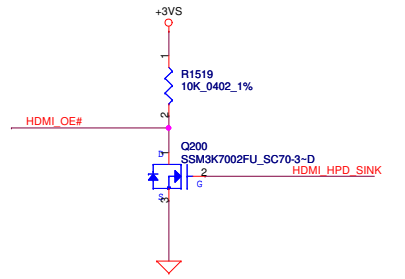
Recommended Equalization: [PC1,PC0]=01, 4dB



ST	Parade
R1523	X V
R1524	V V
R1503	4.3K 499
R1525	V X
R1526	V X
R1527	V X
R1528	V X
R1529	V X
U100	V V
R1500	V X
R1516	V X
R1511	V X
R1512	V X
R1513	V X
C1513	V X
C1514	V X
C1515	V X
C1516	V X



Vendor's suggestion for power saving.

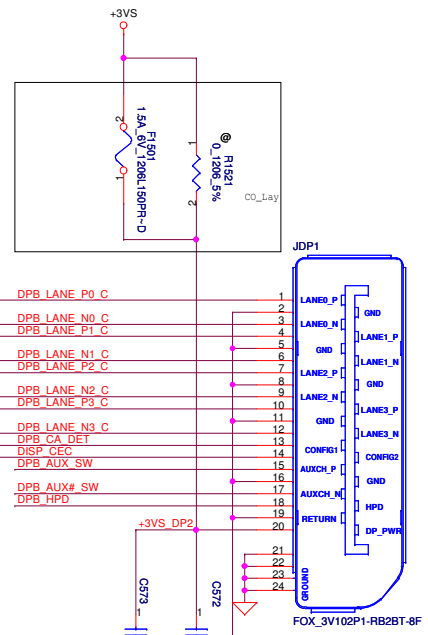
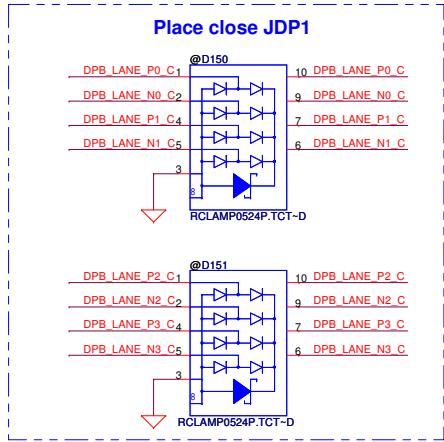
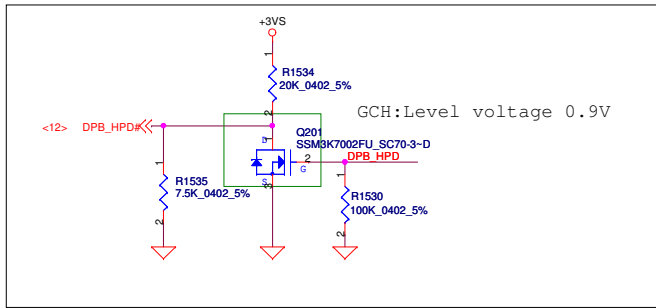


HDMI_OUT_D2+	@R1516 1	300_0402_1%	HDMI_OUT_D2+	@C1514 1	0.1U_0402_10V7K-D
HDMI_OUT_D1+	@R1511 1	300_0402_1%	HDMI_OUT_D1+	@C1513 1	0.1U_0402_10V7K-D
HDMI_OUT_D0+	@R1513 1	300_0402_1%	HDMI_OUT_D0+	@C1516 1	0.1U_0402_10V7K-D
HDMI_OUT_CLK+	@R1512 1	300_0402_1%	HDMI_OUT_CLK+	@C1515 1	0.1U_0402_10V7K-D

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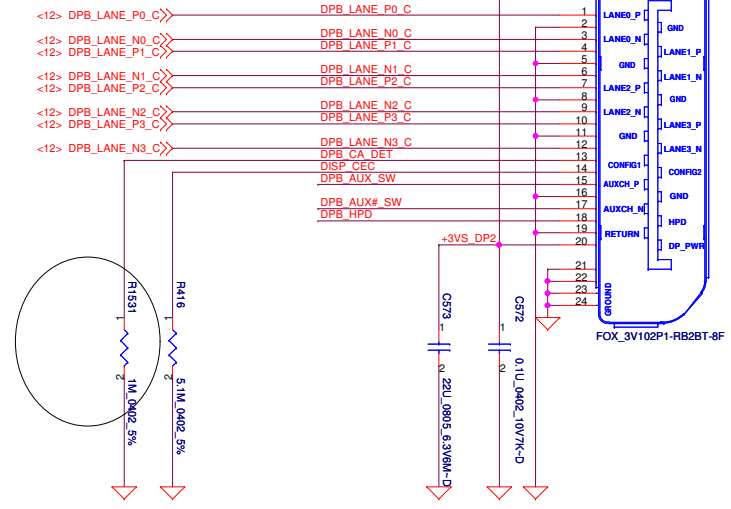
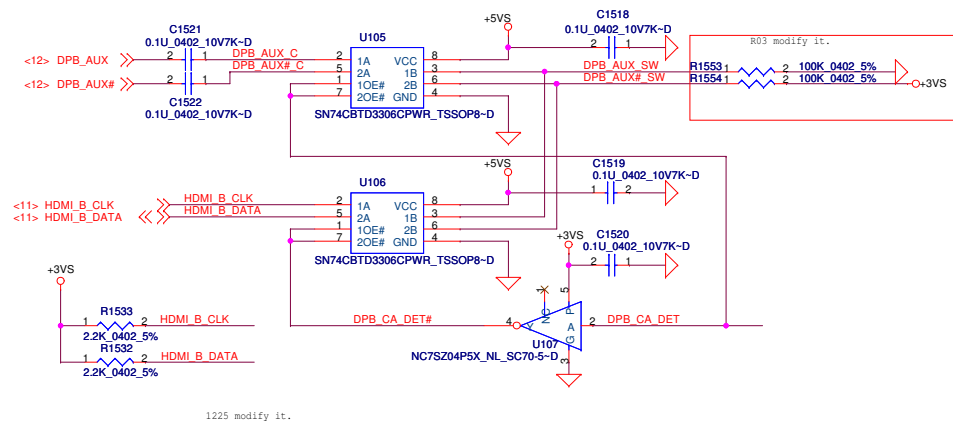
Compal Electronics, Inc.  
**HDMI CONN**  
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**SW for MB side**

DPB\_CA\_DET= 1 TMSD Signaling  
 DPB\_CA\_DET= 0 DP Signaling

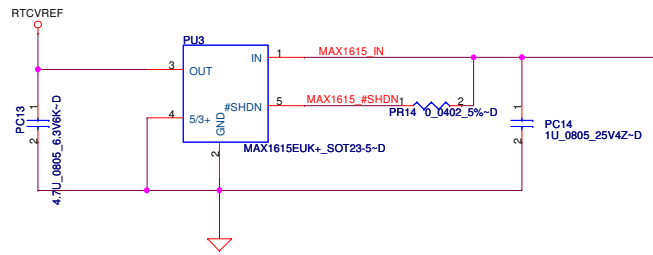
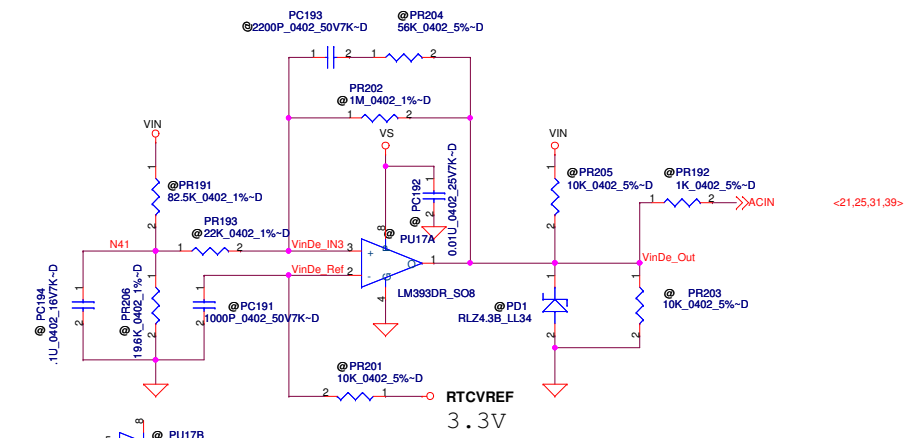
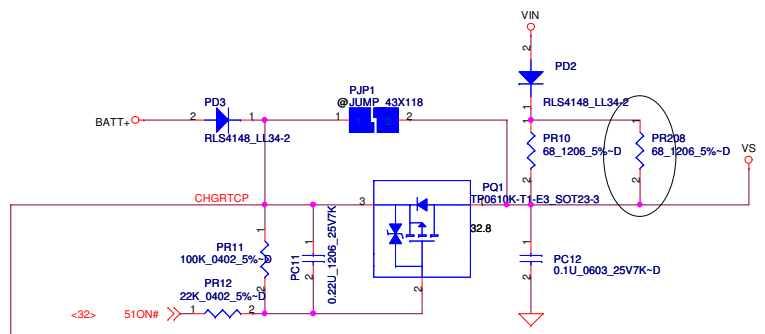
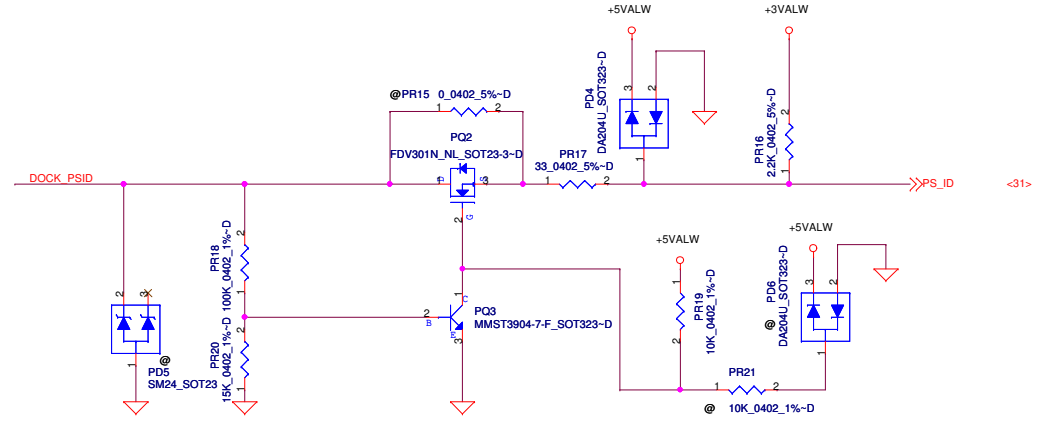
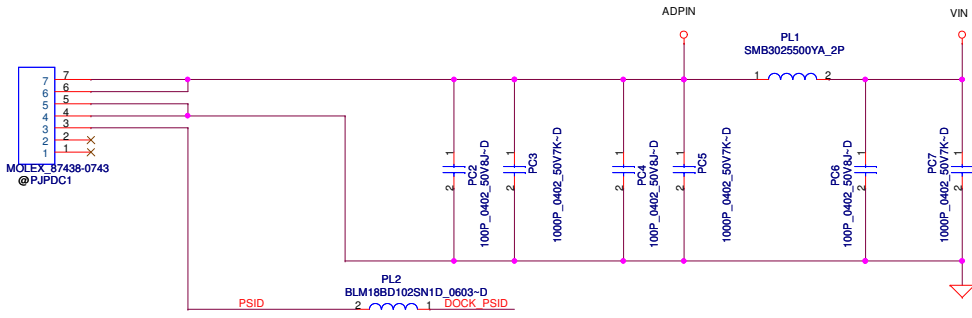


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Table		Compal Electronics, Inc.	
Size		Display Port	
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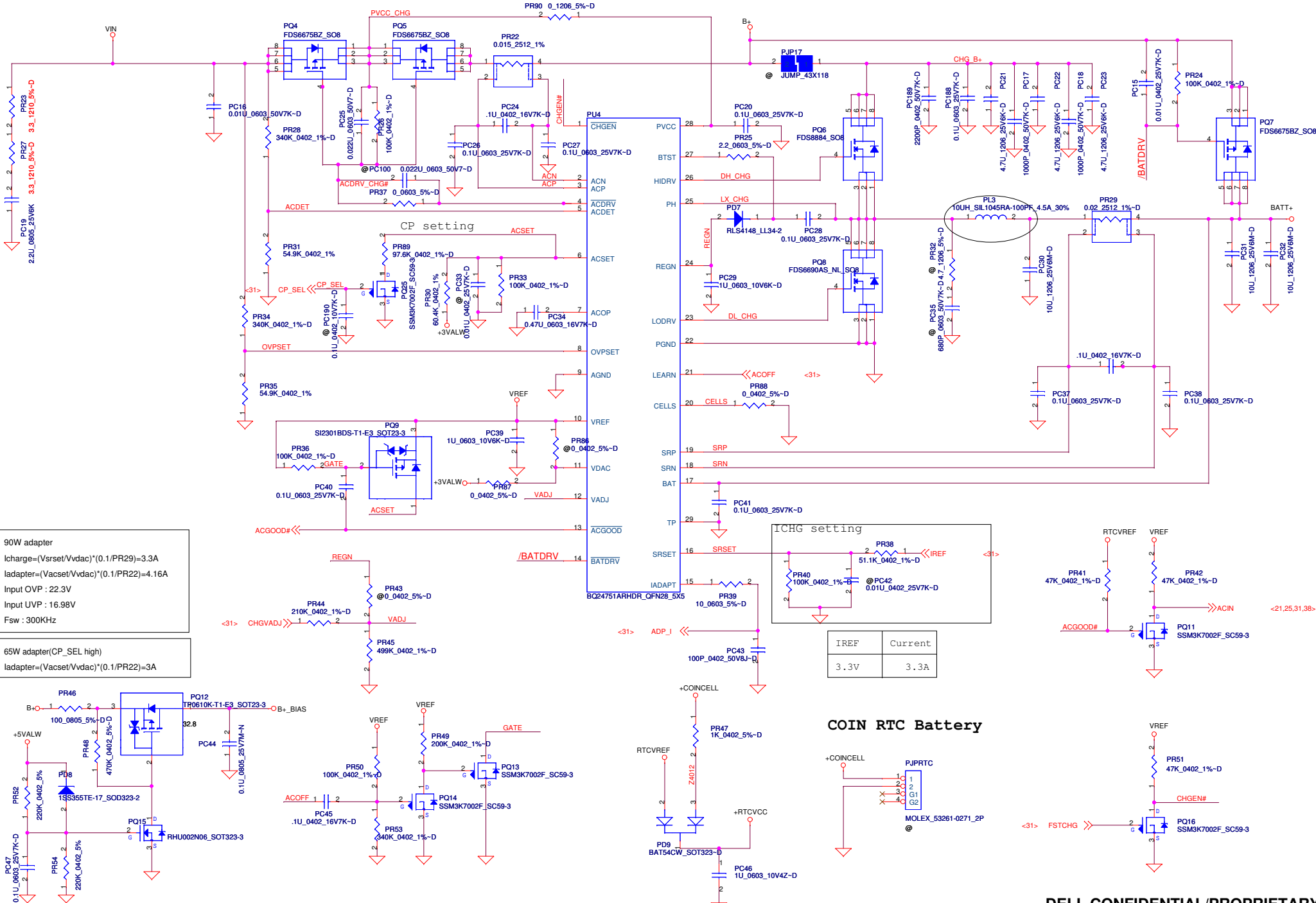


Vin Detector			
	Max.	typ.	Min.
L-->H	18.234	17.841	17.449
H-->L	17.597	17.210	16.813

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	<b>Compal Electronics, Inc.</b>		
	<b>DCIN/Precharge</b>		
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90W adapter  
 $I_{charge} = (V_{srset}/V_{vdac}) * (0.1/PR29) = 3.3A$   
 $I_{adapter} = (V_{acset}/V_{vdac}) * (0.1/PR22) = 4.16A$   
 Input OVP: 22.3V  
 Input UVP: 16.98V  
 Fsw : 300KHz

65W adapter (CP\_SEL high)  
 $I_{adapter} = (V_{acset}/V_{vdac}) * (0.1/PR22) = 3A$

IREF	Current
3.3V	3.3A

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**Compal Electronics, Inc.**

Title: **SCHEMATIC, MB A5152**

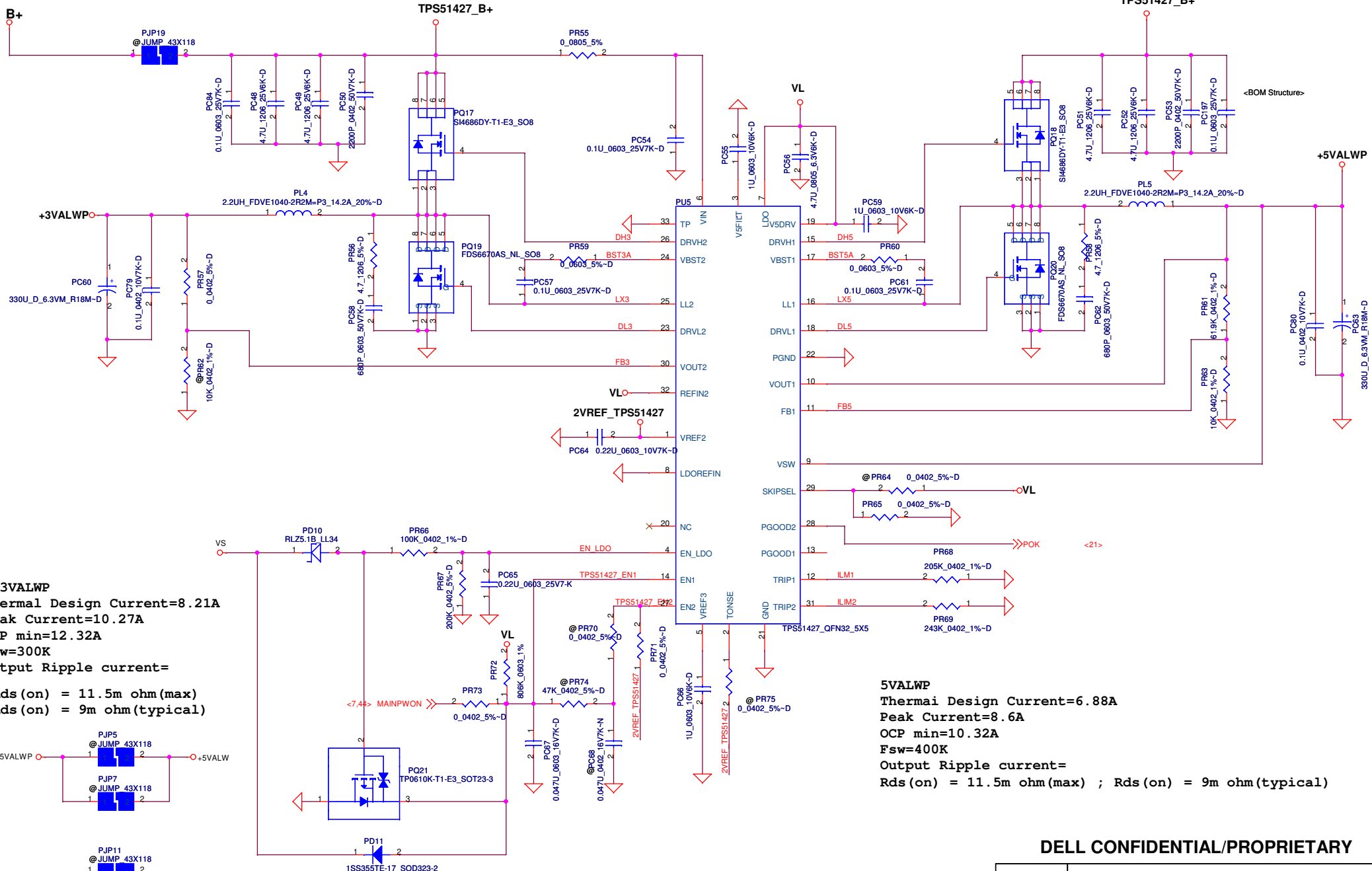
Size: **LA-5152P**

Date: **Monday, June 15, 2009**

Rev: **A00**

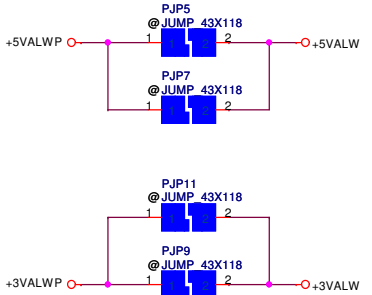
Sheet: **39** of **51**

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**3.3VALWP**  
 Thermal Design Current=8.21A  
 Peak Current=10.27A  
 OCP min=12.32A  
 Fsw=300K  
 Output Ripple current=  
 Rds(on) = 11.5m ohm(max)  
 Rds(on) = 9m ohm(typical)

**5VALWP**  
 Thermal Design Current=6.88A  
 Peak Current=8.6A  
 OCP min=10.32A  
 Fsw=400K  
 Output Ripple current=  
 Rds(on) = 11.5m ohm(max) ; Rds(on) = 9m ohm(typical)



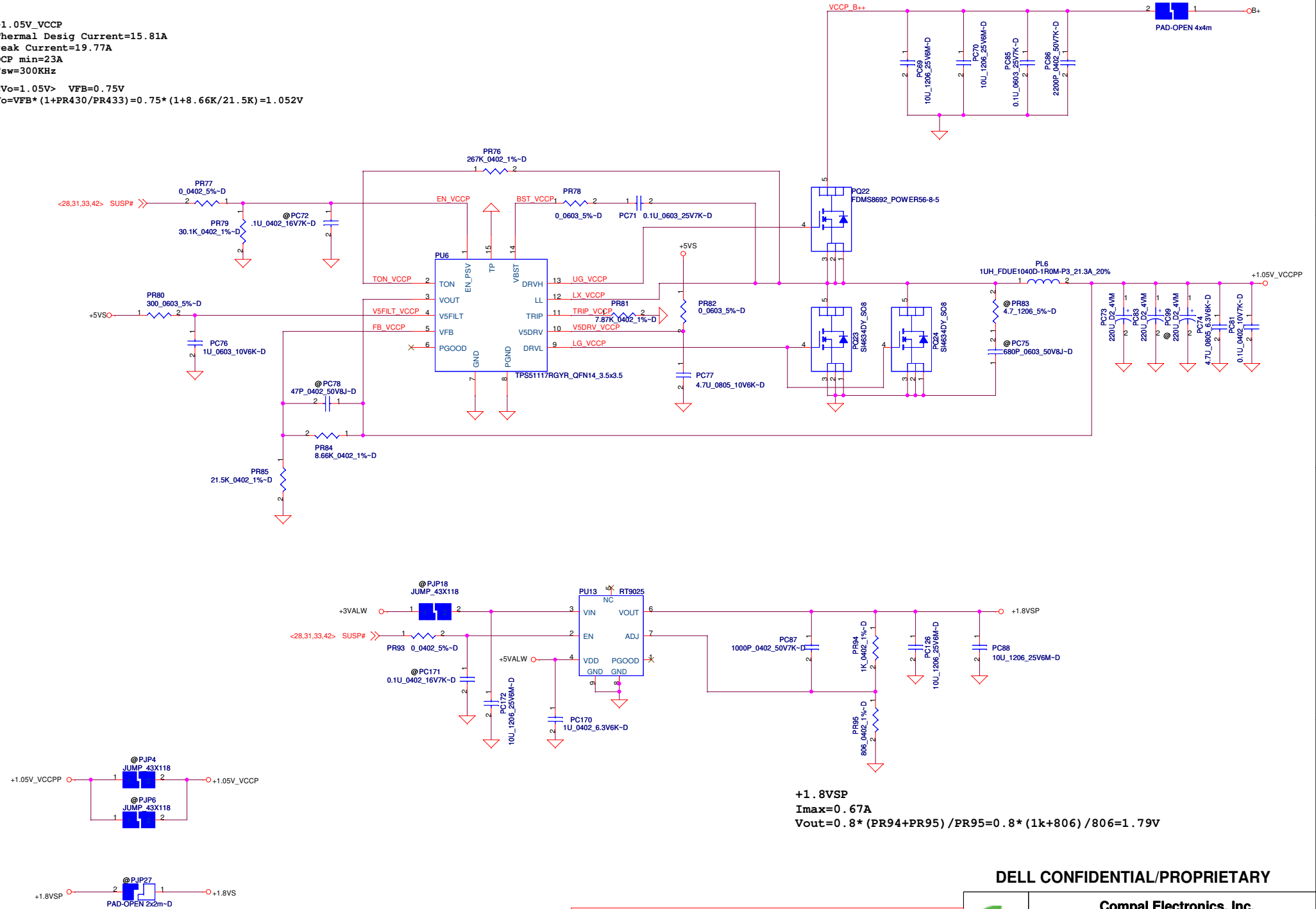
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			<b>Compal Electronics, Inc.</b>	
			<b>+3VALWP/+5VALWP</b>	
Size	Document Number	Rev		A00
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+1.05V\_VCCP  
 Thermal Desig Current=15.81A  
 Peak Current=19.77A  
 OCP min=23A  
 Fsw=300KHz  
 $V_o=1.05V$   $V_{FB}=0.75V$   
 $V_o=V_{FB} * (1+PR430/PR433) = 0.75 * (1+8.66K/21.5K) = 1.052V$



**+1.8VSP**  
**I<sub>max</sub>=0.67A**  
**V<sub>out</sub>=0.8 \* (PR94+PR95) / PR95 = 0.8 \* (1k+806) / 806 = 1.79V**

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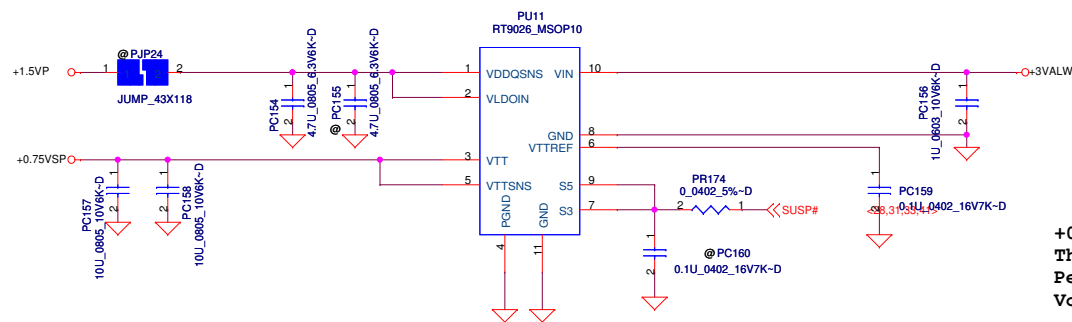
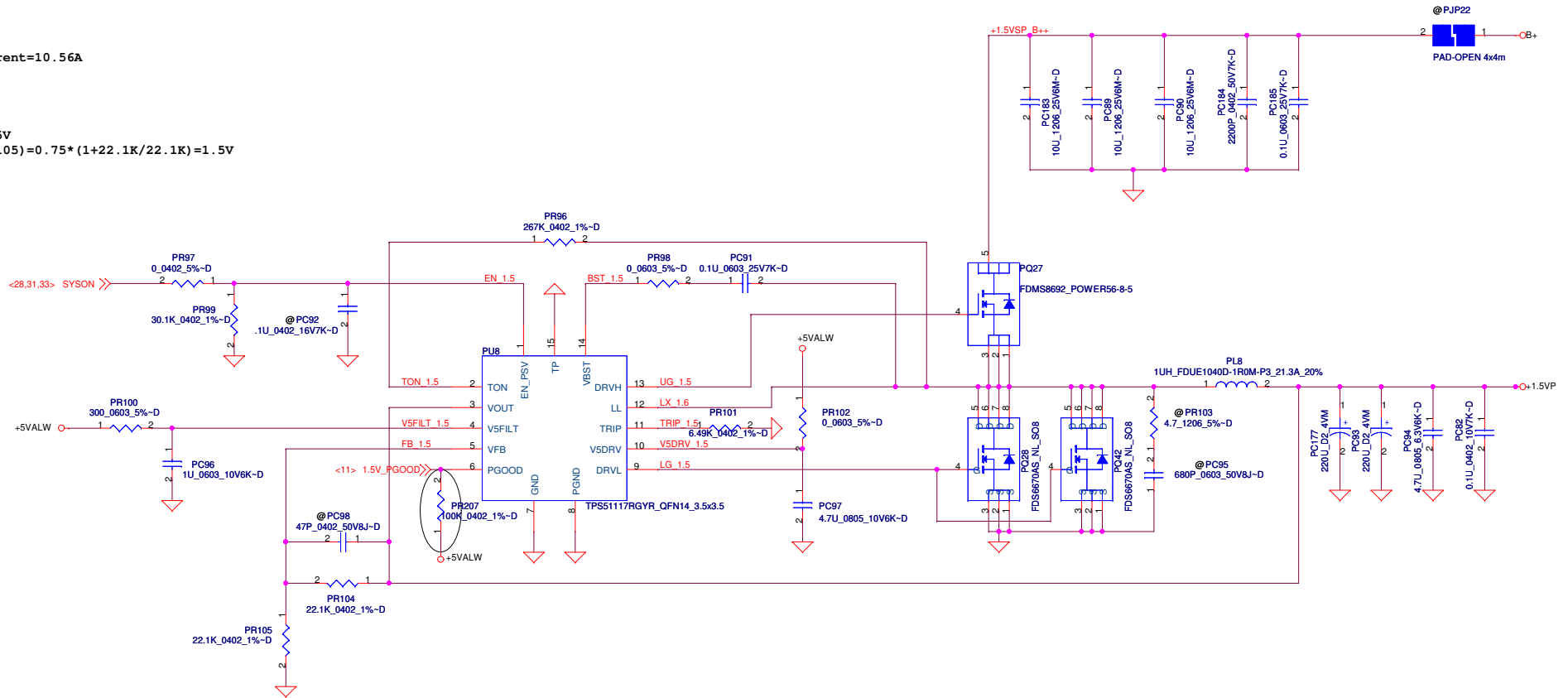


<b>Compal Electronics, Inc.</b>		
<b>Title</b> +1.05V_VCCP/+1.8VSP		
<b>Size</b> LA-5152P	<b>Document Number</b>	<b>Rev</b> A00
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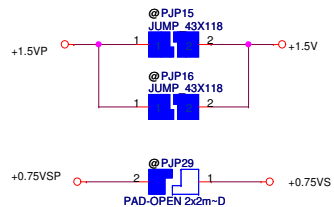
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1.5V  
 Thermal Design Current=10.56A  
 Peak Current=13.2A  
 OCP min=15.84A  
 Fsw=298KHz

<Vo=1.5V> VFB=0.75V  
 $V_o = V_{FB} * (1 + PR104/PR105) = 0.75 * (1 + 22.1K/22.1K) = 1.5V$



+0.75VSP  
 Thermal Design Current:0.7A  
 Peak current:1A  
 $V_{out} = V_{DDQSNS} / 2 = 1.5V / 2 = 0.75V$

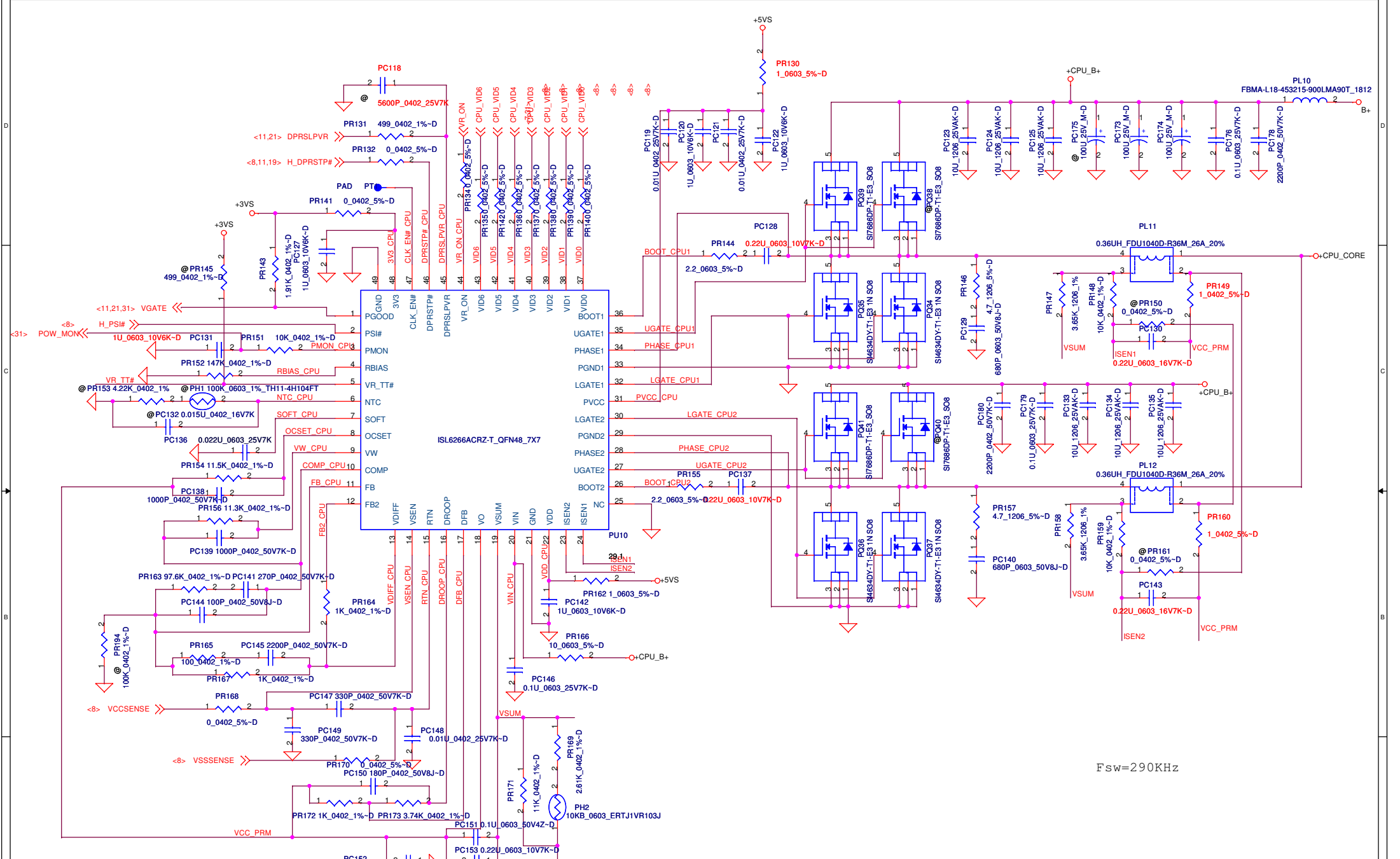


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Compal Electronics, Inc.		
Title: +1.5VSP/+0.75VSP		
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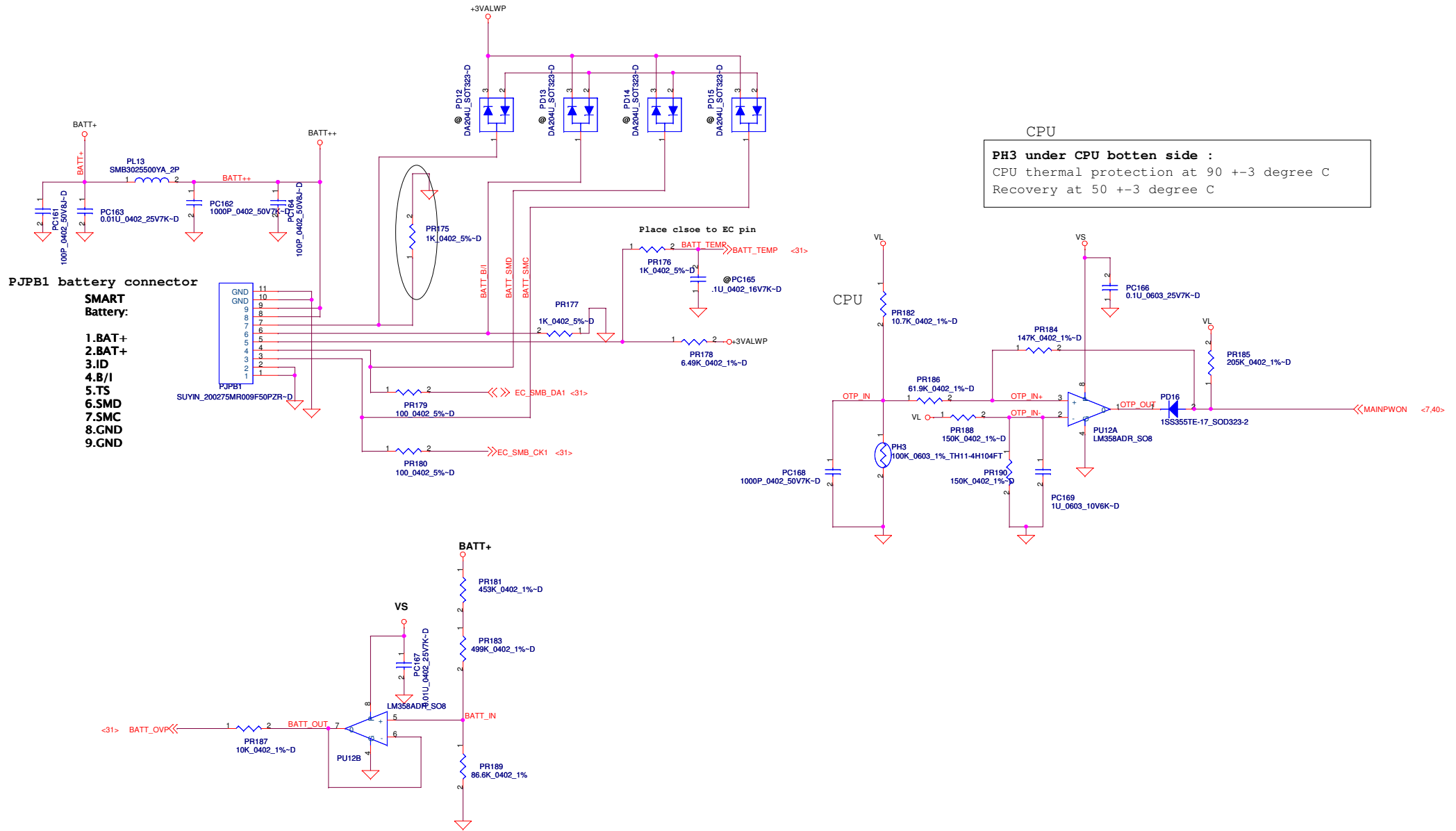
F<sub>sw</sub>=290KHz

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			<b>Compal Electronics, Inc.</b>	
			<b>CPU CORE</b>	
File				
Size	Document Number			Rev
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# Battery Connect/OTP



LI-3S : 13.5V --- BATT\_OVP = 1.126V  
 BATT\_OVP = 0.08338 \* BATT+

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<b>Compal Electronics, Inc.</b>		
<b>BATTERY CONN</b>		
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Version Change List (P. I. R. List)

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	06	Clock Generator	2009/03/03	Benson_Tung	Error connection of clock gne I2C.	Correct CLK_SMBDATA connect to U1.9 , CLK_SMBCLK connect to U1.10.	Rev02 (X01)
2	06	Clock Generator	2009/03/03	Benson_Tung	Error connection of CLK_PCIE_WPAN & CLK_PCIE_WPAN#	Correct WPAN CLK +/- signal of U1.	Rev02 (X01)
3	30	JCARD1	2009/03/03	COMPAL	1. Change JCARD1 pin 1 location to prevent cable twist. 2. Connect contact current rating is only 0.3 Ampere max.	1. Modify JCARD1 symbol 2. Add +5VALW pin count from 2 to 7 pins.	Rev02 (X01)
4	32	Keyboard	2009/03/03	Benson_Tung	Keyboard connector Pin 1 location is different with Keyboard module.	Correct keyboard pin 1 location to fit keyboard module.	Rev02 (X01)
5	32	Power share	2009/03/03	Benson_Tung	Power share didn't work.	Add power share schematic.	Rev02 (X01)
6	12	Cantiga (3 of 7)	2009/03/03	Benson_Tung	Error connection of LVDS CLK +/-.	1. Correct LVDS_ACLK+ connect to U4C.C40 2. Correct LVDS_ACLK- connect to U4C.C41 3. Correct LVDS_BCLK+ connect to U4C.A37 4. Correct LVDS_BCLK- connect to U4C.B37	Rev02 (X01)
7	33	DC/DC Interface	2009/03/03	Benson_Tung	Change DC to DC transfer of MOS parts	1. +3VALW to +3VS Ttransfer MOS change to U21 SI4800BDY-TI-E3 2. +5VALW to +5VS Ttransfer MOS change to U22 SI4800BDY-TI-E3 3. +1.5V to +1.5VS Ttransfer MOS change to Q45 SI4392DY-T1-E3	Rev02 (X01)
8	20	FFS	2009/03/03	Compal	Add FFS function	Add FFS circuit in page 20	Rev02 (X01)
9	4	Power Rail	2009/02/25	Bill_Huang	Correct error item.	Correct +3VS, +5VS Power consumption.	Rev02 (X01)
10	36	HDMI	2009/03/03	Benson_Tung	Error connection of Q200.3 and C1517.1 GND net name.	1. Change Q200.3 net form GND SIGNAL to GND. 2. Change C1517.1 net form GND SIGNAL to GND.	Rev02 (X01)
11	19-23	ICH9M	2009/03/04	Bill_Huang	Change ICH to consign P/N.	Change U6 P/N: form SA00002G11L to SA00002G12L.	Rev02 (X01)
12	35	CRT RGB EA	2009/03/10	Benson_Tung	CRT RGB signals EA failed on Rising / Falling time.	Change L31-L33 from SM01000AL00 (S SUPPRE_CHENG-HANN MBK1608301YZF 0603) to SM01000BP0L (BLM18BB050SN1D_0603-D)	Rev02 (X01)
13	35	CRT Diode	2009/03/03	Benson_Tung	CRT diode forward current is about 1Amp, need to change part to prevent damage.	Change D17 from SC1B411D010 ( S DIO RB411DT146 SOT23 ) to SCSB491DA0L (S SCH DIO RB491D SC59-3 ROHM)	Rev02 (X01)
14	37 35 26	Display Port VGA / LVDS Sub woofer / Speaker AMP	2009/03/04	Jan_Chang	Change JDP1, JLVDS1 and JWOOFER1 symbol.	1. Update JDP1 symbol. 2. Change JLVDS1 symbol to JAE_FI-G40SB-VF25-DT 3. Change JWOOFER1 symbol to MOLEX_53398-0271-D	Rev02 (X01)
15	31 19 24	EC_KB926/BIOS/Reed SW ICH9M(1/5)_LAN,HD,SATA,LPC Gigabit LAN_RTL8111DL	2009/03/04	Benson_Tung	Meet Xtal EA spec.	1. Change C479,C481 from 15P_0402_50V8J to 22P_0402_50V8J 2. Change C217,C864 from 12P_0402_50V8J to 15P_0402_50V8J 3. Change C318 from 27P_0402_50V8J to 33P_0402_50V8J	Rev02 (X01)
16	25	HD Audio_IDT92HD73C	2009/03/04	Benson_Tung	1. SPK_MUTE# change to controlled by HP1_JD or HP2_JD. 2. Meet HP EA spec.	1. Add U108 OR gate. 2. Change C336, C337, C349, C350 , C354, C355 from 1U_0603 to 2.2U_0805.	Rev02 (X01)
17	27	Mini Card_WLAN/WWAN	2009/03/06	Compal	To supprot EC TX/RX debug card.	Change EC_TX_P80_DATA & EC_RX_P80_CLK connect to JWWAN1 pin 49 & 51	Rev02 (X01)
22	30	USB/BlueTooth/Camera	2009/03/06	Compal	To prevent antenna effect at E-SATA re-driver.	Add R1012 & R1013 place close U40 Pin2 & Pin3 Add R1014 & R1015 place close U40 Pin 21 & Pin22	Rev02 (X01)
23	32	PWROK/BTN/KB/Touch Pad	2009/03/06	Compal	Add powershare schematic.	Add powershare schematic.	Rev02 (X01)
24	33	DC/DC	2009/03/06	Compal	1. To fit power budget	1a. Change U21 & U22 from DMN3030LSS-13 to SI4800BDY 1b. Change U25 SI4800BDY to Q45 SI4329DY	Rev02 (X01)
25		Market / Capacitor	2009/03/06	Compal	Due to Janpan produce Y5V no more in the fucture.	change C133,C138,C144,C152,C163,C251,C255,C281,C425 from SE000009W0L to SE107475M0L	Rev02 (X01)
26	23	ICH9M(5/5)_POWER&GND	2009/03/06	Compal	ICH conect to ALW power rail have power wastage at S5 mode	Add MOSFET control circuit to reduce ICH power wastage at S5 mode.	Rev02 (X01)

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27	24	Gigabit LAN_RTL8111DL	2009/03/06	Compal	1. Prevent B+_BIAS damage Q3 2. Correct +LAN_DVDD12 power name 3. Meet LAN EMI test.	1. Add R1006 (1.5M_0402) 2. Correct C302 & C303 power source from +LAN_VDD12 to +LAN_DVDD12 3. Pop C873 ~ C880 , SE07168AC0L(S CER CAP 6.8P 50V C NPO 0402)	Rev02 (X01)
28	35	VGA / LVDS	2009/03/06	Compal	1. LCD panel need to be turned backlight under this crisis recovery mode. 2. when FN+ D is pressed during POST, the LCD will perform the LCD BIST test and boot to PSA directly	add a gate to OR VGA_PWM and EC_PWM signals	Rev02 (X01)
28	21	ICH9M(3/5)_PM,GPIO	2009/03/06	Compal	Error net name PBTN_OUT#	Correct U6C.R3 net to PBTN_OUT#	Rev02 (X01)
29	4	Power Rail	2009/03/06	Compal	Correct +1.5V to +1.5VS.DC/DC Interface chip name	Form 4800BDY change to SI4392DY	Rev02 (X01)
30	25	HD Audio_IDT92HD73C	2009/03/11	Compal	Meet audio HP EA spec	1.C354,C355,C336,C337 change to 2.2uF 0805 size X7R 2.Add a series 2k ohm resistor between these caps and the maxim amp U10,U12., 3.At the pin of the maxim amp U10,U12 Pin 15 and U10,U12 Pin13 add a 220pF cap 0603 NPO to ground.	Rev02 (X01)
31	26	Speaker/Sub woofer AMP	2009/03/11	DELL	Gain setting to 20.6dB	1. C913,C914,C910,C909 form 6800P_0402_16V7K-D change to 2200P_0402_25V7K-D 2. R907,R902 100K_0402_1% to 280K 3. Delete C951,C952 0.015U_0402_16V7K part. 4.R900,R905 form 4.87K_0402 change to 43.2K_0402 5. U14 form MAX9736B change to MAX9736A 5.R901,R903,R906,R908 form 20K_0402 change to 25.5K_0402	Rev02 (X01)
32	34	Screws/LED/Switch	2009/03/11	ME	Modify MB drawing.	1. H2 change to NON-PTH 1.6mm. 2,. Delete H13 part	Rev02 (X01)
33	26 31 32	Speaker/Sub woofer AMP EC_KB926/BIOS/Reed SW PWROK/BTN/KB/Touch Pad	2009/03/11	EMC	Follow EMC request.	1. D20,D21 (PACDN042Y3R_SOT23-3) change to POP. 2. R330 (0_0402), C483 (0.1U_0402) change to POP. 3. Reserve ESD diode D1505 PJDL05_SOT23-3 on touchpad 4. Change D1504 part to PJDL05_SOT23-3.	Rev02 (X01)
34	29	ODD/SATA HDD	2009/03/11	ME	Follow ME request.	JODD1 form MOLEX_47639-4000_NR change to MOLEX_47639-3000_13P	Rev02 (X01)
35	26	Speaker/Sub woofer AMP	2009/03/11	COMPAL	Band-Pass Filiter,fc=100 Hz, 500Hz, Av=1.45V/V	form MAX9737 change to MAX9736A. please see page 26	Rev02 (X01)
36	27	Display Port	2009/03/11	COMPAL	Meet HDMI test	1. R1518 0_1206 change to non-pop. 2. F1500 1.5A_6V_1206L150PR-D change to POP.	Rev02 (X01)
37	6 19 27 31	Clock Generator CK505 ICH9M(1/5)_LAN,HD,SATA,LPC Mini Card_WLAN/WWAN EC_KB926/BIOS/Reed SW	2009/03/13	Compal RF	Follow RF request.	RF reserve 1.C1531 part. CLK_14M_ICH need close U1 2.C1532 part. HDA_BITCLK_AUDIO need close U6 3.C1533 part.PCI_CLK need close U1 4.c1534 part. CLK_PCI_EC need close U1 5. C1535,C1536 part. Reserve 47 pF for +1.5V and +3V 6. C1537, C1538 part. Reserve 47 pF for +1.5V and +3V 7. Move R333 close to U19 and need reserve C1539 part.	Rev02 (X01)
38	27	USB/BlueTooth/Camera	2009/03/13	COMPAL	Delete E-SATA by-pass R.	Delete R1012,R1013,R949,R950,R951,R952,R1014,R1015 part .	Rev02 (X01)
39	25	HD Audio_IDT92HD73C	2009/03/13	COMPAL	Modify Audio control circuit.	please see page 25 about U46,U42,U108,U48,U47,U41,Q48 parts.	Rev02 (X01)
40	33	DC/DC Interface	2009/03/13	COMPAL	For reduce power consumption	1.R344 change to 470K. 2.R346 change to 2M.	Rev02 (X01)
41	31	EC_KB926/BIOS/Reed SW	2009/03/14	COMPAL	correct SPI_CLK_R non_pop parts.	R330,C483 change to non_pop.	Rev02 (X01)
42	36	HDMI	2009/03/16	COMPAL	Meet HDMI chip spec. X7616831L04 ALT. GROUP PARTS S-(SA00002C610) KAT00	R1500 change to pop part..	Rev02 (X01)
43	11	Cantiga (2 of 7)	2009/04/27	COMPAL	Correct HDMI CLK/DATA part B and C connect	DDPC_CTRLCOK should be connecting HDMI_C_CLK. =>Port C DDPC_CTRLDATA should be connecting HDMI_C_DATA. =>Port C SDVO_CTRLCLK should be connecting HDMI_B_CLK. =>Port B SDVO_CTRLDATA should be connecting HDMI_B_DATA. =>Port B	Rev03 (X02)

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44	36	HDMI Conn	2009/04/27	COMPAL	Follow EMI request of HDMI	L1504,L1505, L1506, L1507 parts change to DLW21SN900HQ2L	Rev03 (X02)
45	37	Display Port	2009/04/27	COMPAL	Follow INTEL Design Guide DP AUX circuit.	DPB_AUX_SW need connect R1553 (100kohm) to pull down. DPB_AUX#_SW need connect R1554 (100Kohm) to pull up +3VS.	Rev03 (X02)
46	33	DC/DC Interface	2009/04/28	COMPAL	Delete +3V_WLAN discharge circuit.	Delete +3V_WLAN discharge circuit.	Rev03 (X02)
47	28	Mini Card_WPAN / Express	2009/04/28	COMPAL	Chagne JEXP1 symbol.	JEXP1 change to TAITW_PXPXAE-000LBS2ZZ4N0_NR part.	Rev03 (X02)
48	34	Screws/LED/Switch	2009/04/29	COMPAL	Original H1 is fan alignment pin , but now cancel this function.	Delete H1 part.	Rev03 (X02)
49	25	HD Audio_IDT92HD73C	2009/04/29	COMPAL	Change EAPD# pull up to (+3VALW).	Change R1549.1, U46.5 and U47.5 to +3VALW power	Rev03 (X02)
50	23	ICH9M(5/5)_POWER&GND	2009/04/29	COMPAL	Change +ICH_V5REF_RUN and SUS resistance	R233,R234 form 10_0402_5% change to 100_0402_5%	Rev03 (X02)
51	32	PWROK/BTN/KB/Touch Pad	2009/04/30	COMPAL	follow EMC request.	1.Change L77 and L78 from 120 ohms to 600 ohms bead. 2. Implement ESD diode on cap sensor D1504 PJDLC05_SOT23-3 3. Implement ESD diode on TP_CLK and TP_DATA for touchpad D1505 PJDLC05_SOT23-3 4. Reserve PES24VS2UT_SOT23-3 ESD diode for speaker connector of D20, D21	Rev03 (X02)
52	23 24 35	ICH9M(5/5)_POWER&GND Gigabit LAN_RTL8111DL CRT / LVDS CONN	2009/04/30	COMPAL	Change to PSL parts	D2,D3,D4,D5,D6,D7,D19 form SC1H751H01L S DIO CH751H-40PT SOD-323 Change to SCS0340L01L SDMK0340L-7-F_SOD323-2-D	Rev03 (X02)
53	07 30	Penryn(1/3)-AGTL+/ITP-XDP USB/BlueTooth/Camera	2009/04/30	COMPAL	C19,C21,C463,C935 form S CER CAP 10U 16V Z F(Y5V) 1206 H1.15 change to SE053106Z8L S CER CAP 10U 10V Z Y5V0805 H1.25		Rev03 (X02)
53	07 30	Penryn(1/3)-AGTL+/ITP-XDP USB/BlueTooth/Camera	2009/04/30	COMPAL	Modify DC to DC circuit.	Modify +3VALW to +3VS and +5VALW to +5VS circuit.	Rev03 (X02)
54	23	ICH9M (5/5)	2009/05/01	COMPAL	Reduce ICH power consumption at S5 mode.	Populate Q47 and non-populate R1022	Rev03 (X02)
55	30	USB/BlueTooth/Camera	2009/05/01	COMPAL	Change E-SATA Output Swing Control TO 1.2x	1.Non-populate R958, R959 2. R953 change to 390 ohm.	Rev03 (X02)
56	30	USB/BlueTooth/Camera	2009/05/01	COMPAL	Solve USB Power Share fail issue.	Swap GPIO for USB_DET_DELAY# and EC_SPK_HP_MUTE#.	Rev03 (X02)
57	31	EC_KB926/BIOS/Reed SW	2009/05/04	COMPAL	Support S5 Power on when CRT insert	Pull-up MSEN# from +3VS to +3VALW	Rev03 (X02)
58	31	EC_KB926/BIOS/Reed SW	2009/05/04	COMPAL	FFS alert signal will change to other GPIO. Because original PIRQH is by USB controller used.	FFS change int to PIRQ setting from PIRQH to PIRQE	Rev03 (X02)
59	25	HD Audio_IDT92HD73C	2009/05/04	COMPAL	Change package form 0603 to 0402.	C1527, C1528, C1529, C1530 Change to 270P_0402_50V7K--D	Rev03 (X02)
60	35	VGA / LVDS	2009/05/05	COMPAL	Add MOSFET circuit for LVDS converter power		Rev03 (X02)
61	24	ICH9M(5/5)_POWER&GND	2009/05/06	COMPAL	Modify +3VALW_S5_ICH circuit.	R972 form 470Kohm change to 300Kohm. R973 form 1.5Mohm change to 2M ohm.	Rev03 (X02)
62	35	VGA / LVDS	2009/05/06	COMPAL	Modify Keyboard back light circuit.	R928 form 470Kohm change to 300Kohm. R931 form 1.5Mohm change to 2M ohm.	Rev03 (X02)
63	24	Gigabit LAN_RTL8111DL	2009/05/07	COMPAL	Modify LAN_IO power circuit.	R236 form 470Kohm change to 300Kohm. R1540 form 1.5Mohm change to 2M ohm.	Rev03 (X02)
64	26	Speaker/Sub woofer AMP	2009/06/04	COMPAL	For Part source	C901, C902, C903, C916, C918, C977 form SE00000NZ0L (S CER CAP 22U 25V K X7R 1210 H2.5) change to SE00000GF8L (S CER CAP 22U 25V K X5R 1210 H2.5)	Rev10 (A00)
65	30	USB/BlueTooth/Camera	2009/06/04	COMPAL	due to E-SATA connector doesn't support E-SATA detect function.	De_pop SB00000960L (S TR SSM3K7002FU 1N SC70-3) Location: Q11	Rev10 (A00)

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66	32	PWROK/BTN/KB/Touch Pad	2009/06/04	Compal	Change to DELL AVL Part	Change PN: SCA00000A00 (S ZEN ROW PJDLCO5 3P C/A SOT23) to SCA00000J0L (S ZEN ROW PESD5V2S2UT 3P C/A SOT23 ESD) Location: D1504, D1505	Rev10 (A00)
67	25	HD Audio_IDT92HD73C	2009/06/04	Compal	Solve S0 to S3 pop noise of HP.	R1549 change to De_POP.	Rev10 (A00)
68	12	CANTIGA((3/7)-VGA/LVDS/TV	2009/06/04	Compal	CRT_HSYNC and CRT_VSYNC net name error	1. R116.1 net change to CRT_HSYNC_R 2. R117.1 net change to CRT_VSYNC_R	Rev10 (A00)
69	36	HDMI	2009/06/04	Compal	Cancel solder mask of by pass 0 ohm	1. Cancel solder mask R1517,R1515,R1514,R1507,R1509,R1508,R1522,R1510 parts. 2. Cancel solder mask R1521 part. 3. Cancel solder mask L26,L71,L72,L27 parts.	Rev10 (A00)
70	31	EC_KB926/BIOS/Reed SW	2009/06/04	Compal	Change Board ID	R312 change to 33Kohm	Rev10 (A00)
71			2009/06/04	Compal	Short by-pass 0 ohm	short parts of R2,R4,R3,R5,R6,R7,R8,R10,R12,R42,R43,R16,R17,R18,R19,R21,R23,R26,R28,R31,R33,R35,R37,R40,R39,R14,R15,R44,R99,R94,R134,R1004,R884,R235,R942,R248,R250,R285,R911,R912,R913,R914,R291,R918,R921,R919,R920,R915,R916,R917,R922,R923,R924,R925,R292,293,R292,R293,R294,R298,R295,R296	Rev10 (A00)
72	26	Speaker/Sub woofer AMP	2009/06/08	Compal	Main speaker AMP gain setting to 13dB	1. Change C908,C912 form 0.22uF to 0.1uF. 2. Change R903,R908 form 25.5Kohm to 16.5Kohm 3. Change R901,R906,R902,R907 form 280Kohm to 182Kohm 4. Change R904,R909 form 16.9ohm to 17.8Kohm 5. Change R900,R905 form 43.2K ohm to 11Kohm	Rev10 (A00)
73	26	Speaker/Sub woofer AMP	2009/06/08	Compal	Modify Main speaker AMP SHDN and mute # control circuit	1. Add D1507, R1558, C1547 diode and RC delay time of MUTE# pin.	Rev10 (A00)
74	30	USB/BlueTooth/Camera	2009/06/08	Compal	Solve E-SATA re-driver issue	Chagne U40 from SA00002D80L (S IC PI2EQX3201BZFEX TQFN 36P) to SA00002YQ0L (S IC PI2EQX3201BLZFEX TQFN 36P)	Rev10 (A00)
75	25	HD Audio_IDT92HD73C	2009/06/08	Compal	Support unboot pc-beep sound function	Pop R1549	Rev10 (A00)
76	27	Mini Card_WLAN/WWAN	2009/06/15	Compal	delete short trace of jump	Delete R1010,R1011,R911,R912 pin1 and pin2 connect trace.	Rev10 (A00)

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01	40	+3VALWP/+5VALWP	01/22	Compal Mike	Setiing +5VALW OCP to 13.56A	Change PR68 from P/N:SD03429438L (294K +-1% 0402) to SD03433238L (332K +-1% 0402)	X01
02	40	+3VALWP/+5VALWP	01/22	Compal Mike	Setiing +3VALW OCP to 14.26A	Change PR69 from P/N: SD03424938L (249K +-1% 0402) to SD03434038L (340K +-1% 0402)	X01
03	41	+1.05V_VCCP/ +1.8VSP	01/22	Compal Mike	Setiing +1.05V_VCCP OCP to 23A	Change PR81 from P/N: SD03480618L (8.06K +-1% 0402) to SD03493118L (9.31K +-1% 0402)	X01
04	42	+1.5VSP/+0.75VSP	01/22	Compal Mike	Setiing +1.5VSP OCP to 15.84A	Change PR101 from P/N: SD03413728L (13.7K +-1% 0402) to SD03410528L (10.5K +-1% 0402)	X01
05	38	DCIN/Precharger	01/22	Compal Mike	Common circuit design modify	Change PR10 from P/N: SD00103308L (33 +-5% 1206) to SD011680A8L (68 +-5% 1206) Add PR208 SD011680A8L (68 +-5% 1206) parallel with PR10	X01
06	42	+1.5VSP/0.75VSP	01/22	Compal Mike	HW need to use +1.5VSP PGOOD signal,so need to add a pull high resister.	Add PR207 SD03410038L (100K +-1% 0402) between PU8 pin6 and PR97 pin 2.	X01
07	46	Charger	02/09	Compal Mike	Take off Cells selector function.	Populate PR88,take off PR37 and PQ10,change PR175 from 47K to SD02810018L(1K +-5% 0402)	X01
08	43	CPU_CORE	02/24	Compal Mike	Change CPU_CORE low-side MOSFET	Change PQ34,PQ35,PQ36,PQ37 from (SI4430BDY-T1-E3 1N SO-8) to SB00000DA00(SI4634DY-T1-E3 1N SO8)	X01
09	43	CPU_CORE	02/24	Compal Mike	HW don't need to use VR_TT# signal,so depopulate pull high resister.	Depopulate PR145 SD03449908L(499 +-1% 0402)	X01
10	43	CPU_CORE	02/24	Compal Mike	Change input cap from X7R(85°C) to X6S(105°C)	Change PC123,PC124,PC125,PC133,PC134,PC135 from (10U 25V M X5R1206 H1.6) to SE153106K8L(10U 25V K X6S 1206 H1.6)	X01
11	40	+3VALWP/+5VALWP	02/24	Compal Mike	Take off Manufacturer:COMPOSTAR from PC64	Change PC64 from P/N: SE080224K8L (.22U 10V K X7R 0603) to SE080224M8L (.22U 10V K X7R 0603)	X01
12	44	BATTERY CONN	02/24	Compal Mike	Take off non-PSL Manufacturer:Panjit	Change PQ45,PQ46 from P/N: SB000006800 (2N7002W T/R7 1N SOT-323) to SB00000B30L (PMF3800SN 1N SC70-3)	X01
13	39	Charger	02/24	Compal Mike	Take off non-Lead Free material.	Change PR29 from P/N: SD021200D0L (S RES 1W .02 +-1% 2512) to SD000001F0L (S RES 1W .02 +-1% 2512 50PPM/C)	X01
14	41	+1.05V_VCCP	02/24	Compal Mike	Change choke setting	Change PL6 from SH00000BQ0L (2.2UH +-20% MPLC1040L2R2 11A) to SH000009U00 (1UH +-20% FDUE1040D-1ROM=P3 21.3A)	X01
15	40	+3VALWP/+5VALWP	02/24	Compal Mike	Change choke reated current from 11A to 14.2A	Change PL4,PL5 from SH00000BQ0L (2.2UH +-20% MPLC1040L2R2 11A) to SH00000CG0L (2.2UH 20% FDVE1040-2R2M=P3 14.2A)	X01
16	38	DCIN / Precharge	03/03	Compal Antony	Prevent diode breakdown from battery inrush current	Change PD3 from SCS00002G00 to SC11N414880	X01

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17	38	DCIN / Precharge	03/03	Compal Antony	Change part number to L-end	Change PD4 part number from SC1A204U000 to SC1A204U00L	X01
18	40	+3VALWP/+5VALWP	03/03	Compal Antony	Change Rtrip resistance to meet OCP setting	Change PR68 from 332K ohm to 205K ohm	X01
19	40	+3VALWP/+5VALWP	03/03	Compal Antony	Change Rtrip resistance to meet OCP setting	Change PR69 from 340K ohm to 243K ohm	X01
20	41	+1.05V_VCCP/ +1.8VSP	03/03	Compal Antony	Change Rtrip resistance to meet OCP setting	Change PR81 from 9.31K ohm to 7.87K ohm	X01
21	41	+1.05V_VCCP/ +1.8VSP	03/03	Compal Antony	Stabilize output voltage	Add PC83 220uF Capand Reserve PC99 Cap space to output	X01
22	42	+1.5VSP/+0.75VSP	03/03	Compal Antony	Change Rtrip resistance to meet OCP setting	Change PR101 from 10.5K ohm to 6.49K ohm	X01
23	43	CPU_CORE	03/03	Compal Antony	To avoid noise	Add PC176、PC179 0.1uF Cap to +CPU_B+	X01
24	43	CPU_CORE	03/03	Compal Antony	To avoid noise	Add PC178、PC180 2200pF Cap to +CPU_B+	X01
25	43	CPU_CORE	03/03	Compal Antony	Reserve space for load line shift control	Reserve PR194 space	X01
26	43	CPU_CORE	03/16	Compal Antony	To improve transient response	Change PC151 from 0.068uF to 0.1uF	X01
27	43	CPU_CORE	03/16	Compal Antony	Let difference of CPU Load Line and Spec smaller than 2mV	Change PR173 from 3.57K ohm to 3.74K ohm	X01
28	44	BATTERY CONN	03/16	Compal Antony	Disable Hardware CPU OTP circuit	Reserve PQ45、PQ46、PR199、PR200 space	X01
29	39	Charger	03/20	Compal Antony	Change 65W CP setting	Changer PR89 from PR89 from 143K ohm to 97.6K ohm	X01
30	41	+1.05V_VCCP/ +1.8VSP	03/20	Compal Antony	For phash margin improved	Add PC87 1000pF capacitor between PU13 pin6 and pin7	X01
31	41	+1.05V_VCCP/ +1.8VSP	03/20	Compal Antony	For phash margin improved	Add PC126 10uF capacitor between PU13 pin6 and GND	X01
32	39	Charger	05/06	Compal Antony	TI FAE request	Reserve PQ26,PD19,PD20,PC203,PR115,PR133 space	X02

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33	39	Charger	05/06	Compal Antony	slove PQ5 design margin issue	Change PQ4,PQ5,PQ7 from FDS4435 to FDS6675 (SB966750080)	X02
34	43	CPU_CORE	05/06	Compal Antony	Montavina platform design	Change PC136 from 15nF to 22nF	X02
35	39	Charger	05/06	Compal Antony	TI FAE request	Reserve PQ26,PD19,PD20,PC203,PR115,PR133,PC25 space	X02
36	39	Charger	06/04	Compal Antony	TI FAE request	Delete PQ26,PD19,PD20,PC203,PR115,PR133	X03
37	39	Charger	06/04	Compal Antony	TI request to reserve protection circuit	Reserve PR90 0ohm , PR37 0ohm , PC100 space ,PC25 0.022uF ,PC20 change to 0603 size	X03
38	39	Charger	06/04	Compal Antony	Recover a correct component	recover correct component PR89 to 97.6K ohm	X03
39	38	DCIN/Precharge	06/04	Compal Antony	DELL command	Change PQ2 from SB502060000 (RHU002N06_SOT323-3) to SB50301008L (FDV301N 1N SOT23-3)	X03

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