

Compal confidential

Schematics Document

Mobile Arrandale rPGA989 with
Intel PCH (Ibex Peak-M) core logic

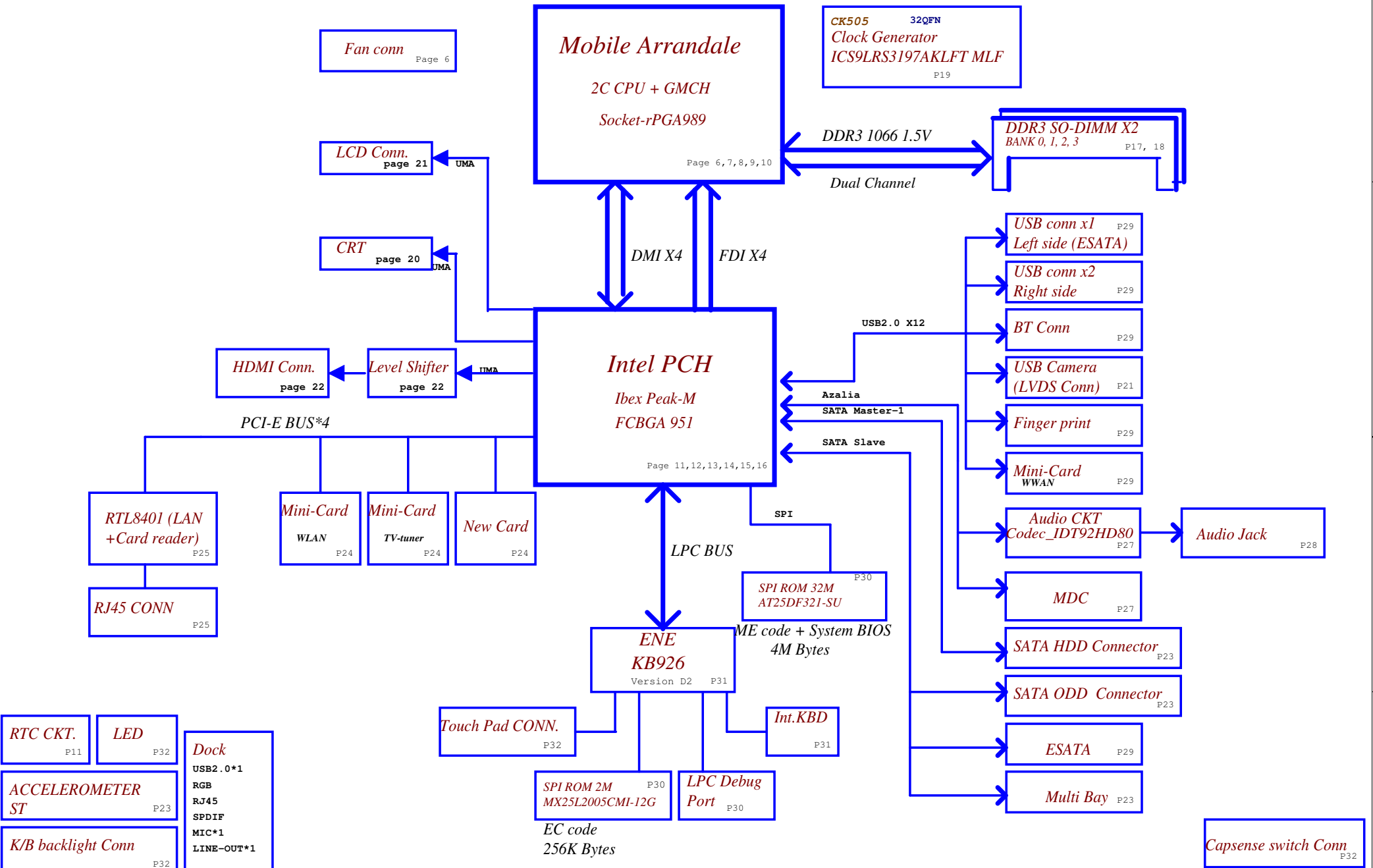
2009-11-05

REV 1.0



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Calpella Consumer 14" UMA

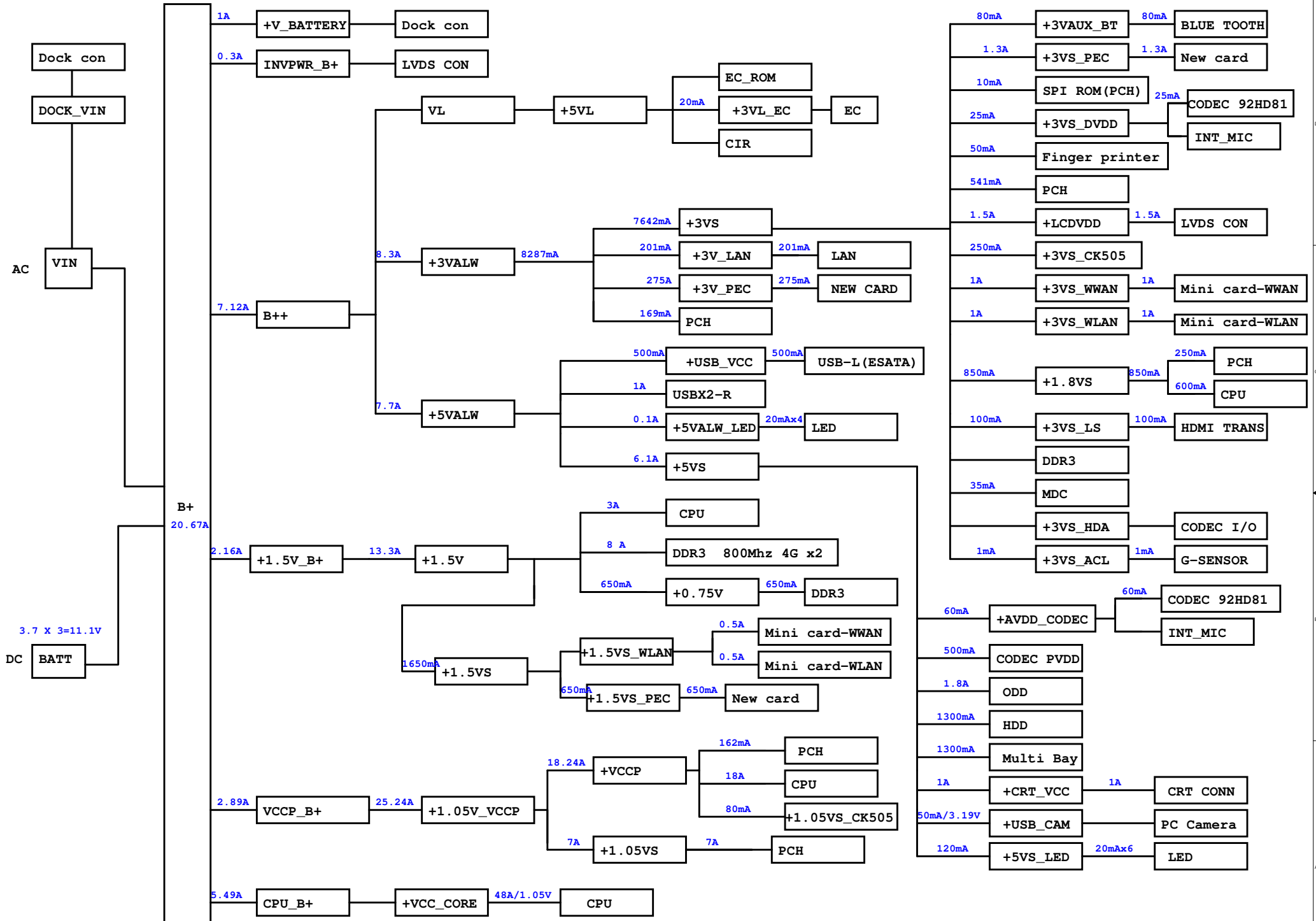


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Block Diagram



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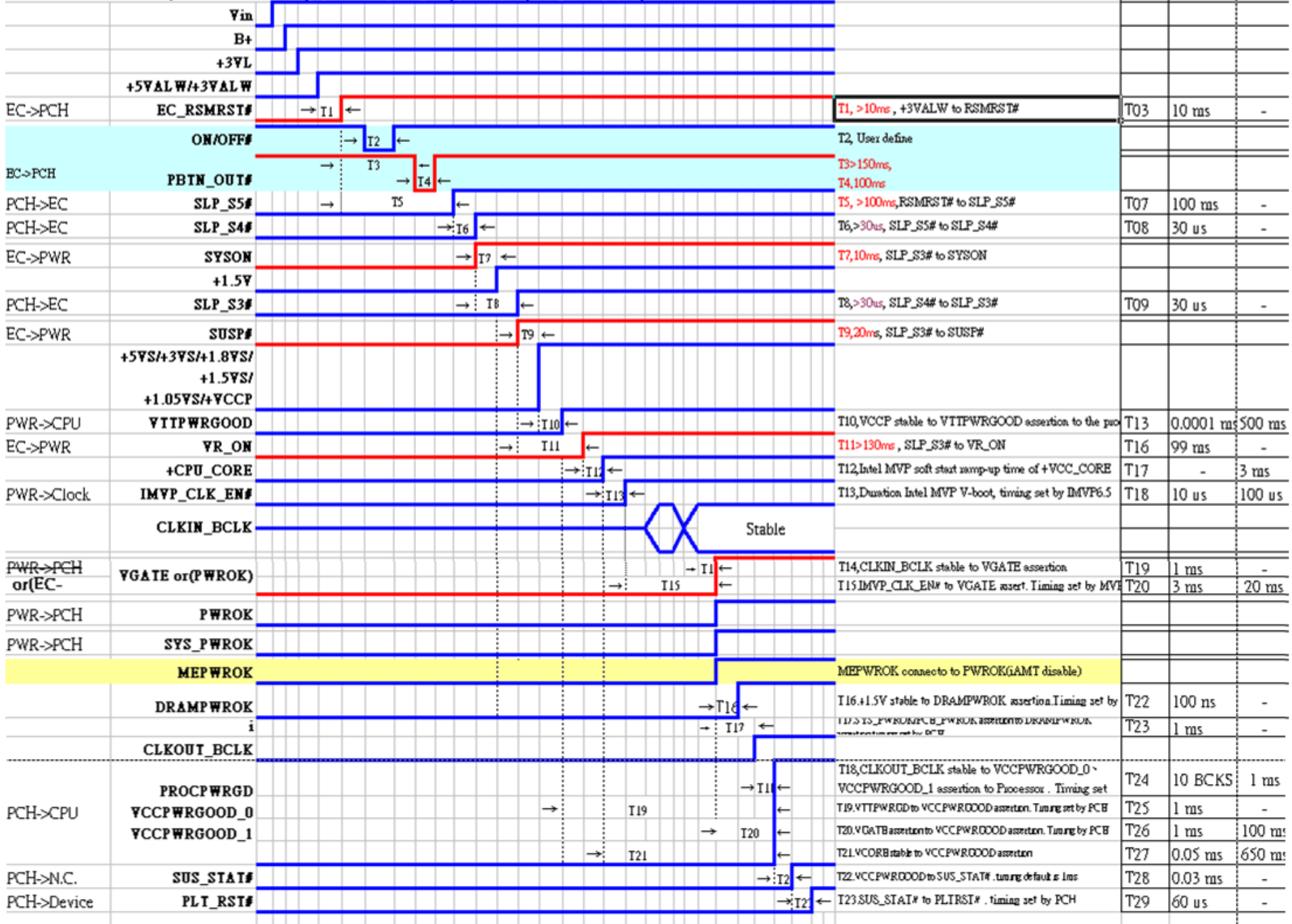
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Calpella UMA power on sequence(AC mode)

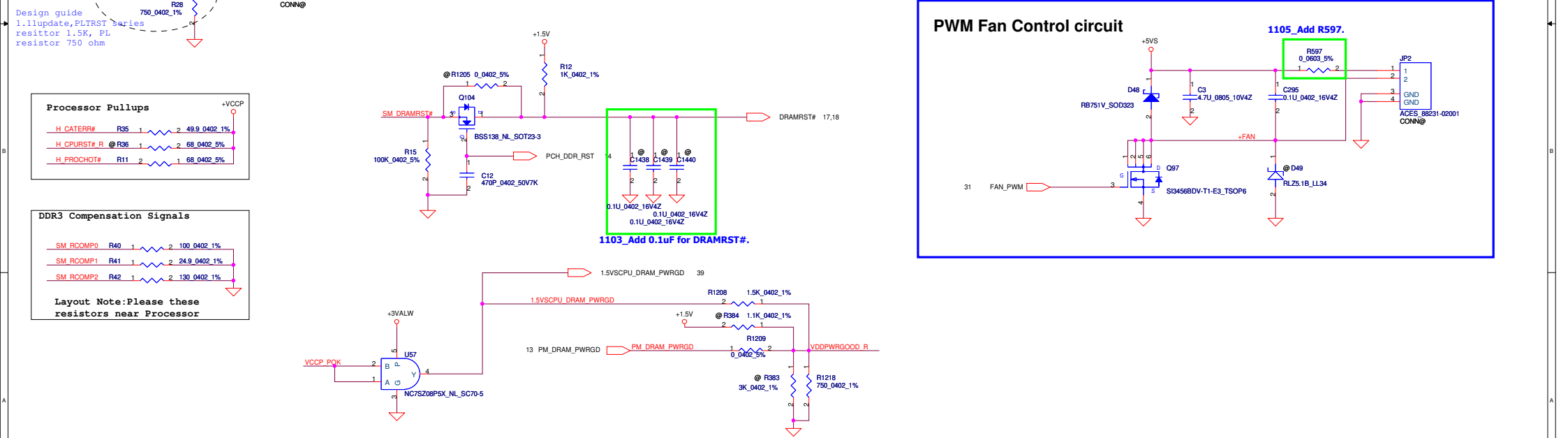
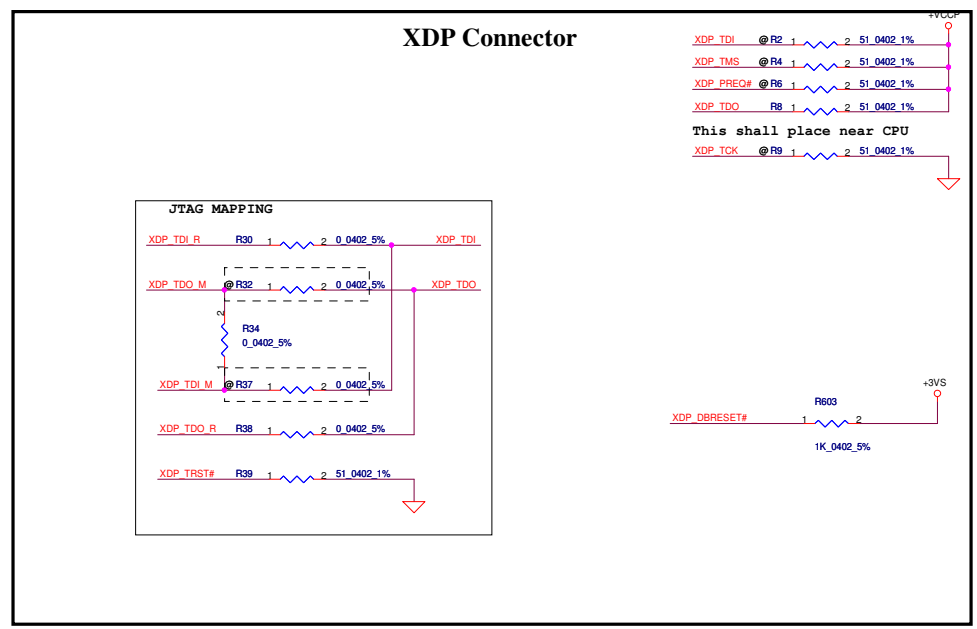
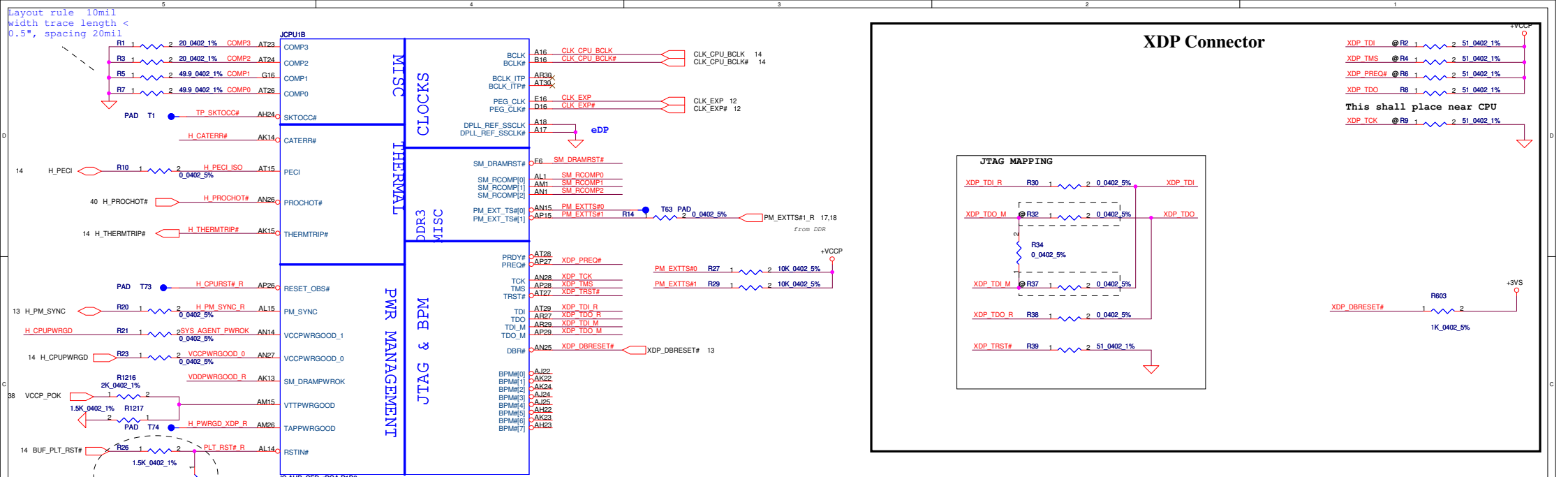
98.03.03.

Spec

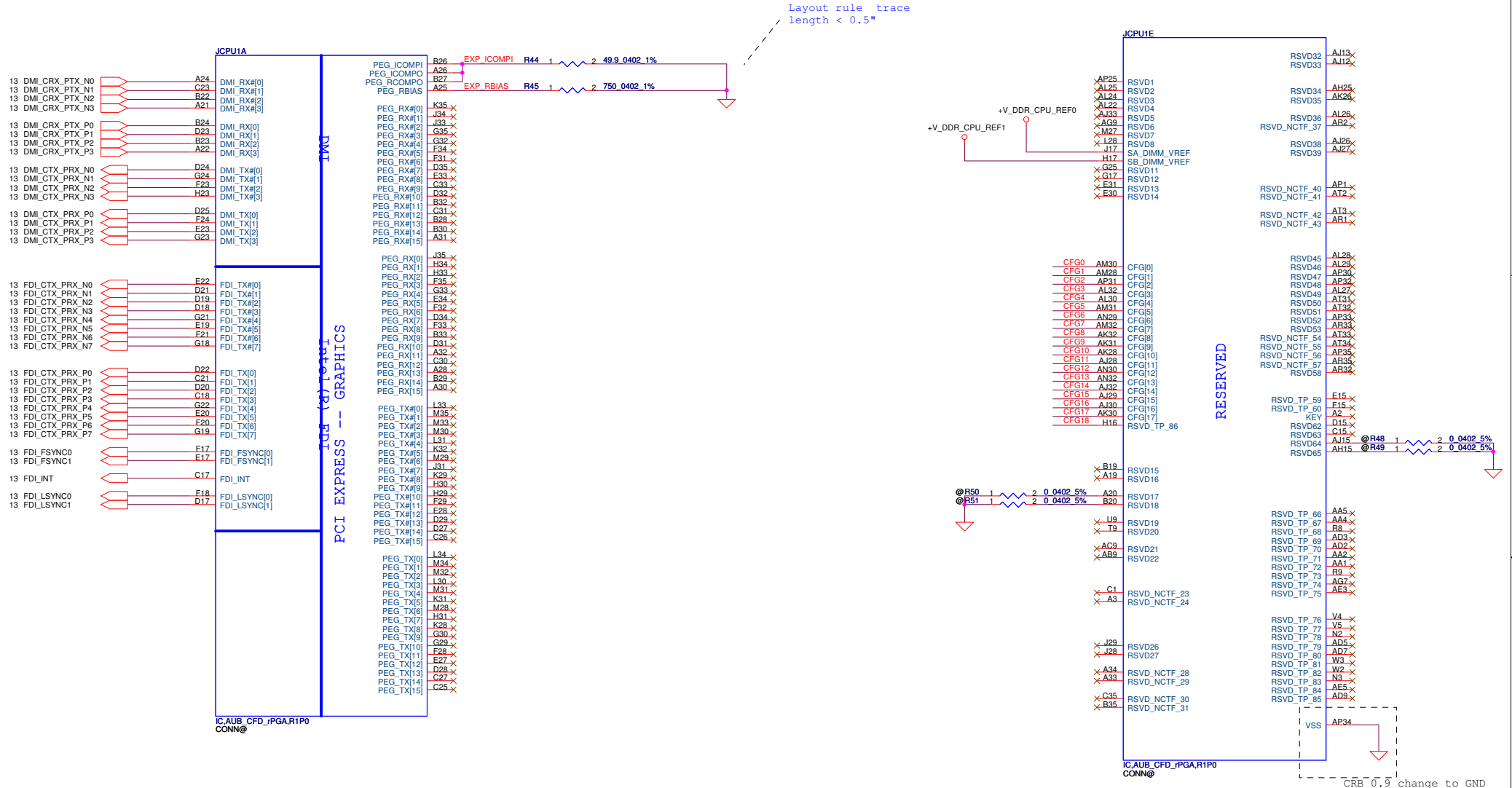
define	min	Max
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CFG Straps for PROCESSOR

CFG0 @R52 1 2 3.01K 0402 1%

CFG4 @R53 1 2 3.01K 0402 1%

PCI-Express Configuration Select
 CFG0
 1: Single PEG *
 0: Bifurcation enabled

CFG4-Display Port Presence
 CFG4
 1: Disabled; No Physical Display Port *
 0: Enabled; An external Display Port

CFG3 @R54 1 2 3.01K 0402 1%

CFG3-PCI Express Static Lane Reversal
 CFG3
 1: Normal Operation
 0: Lane Numbers Reversed
 15 -> 0, 14 -> 1, *

CFG7 @R55 1 2 3.01K 0402 1%
 Only temporary for early CFD samples (rPGA/BGA)
 Only for pre ES1 sample

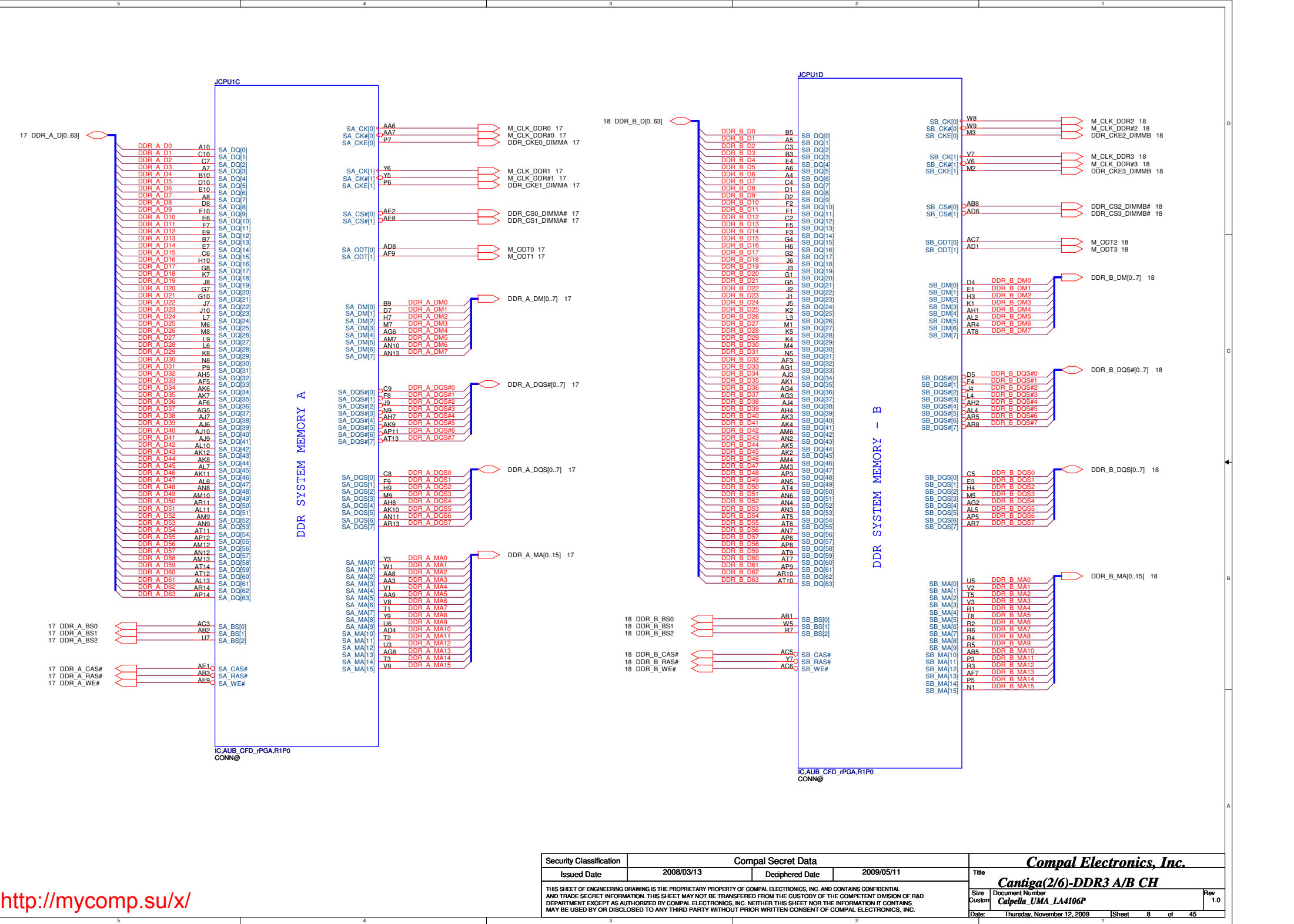
CFG7
 MW33 PD 3.01K on CFG7 for PCIe Jitter
 MW41 don't staff

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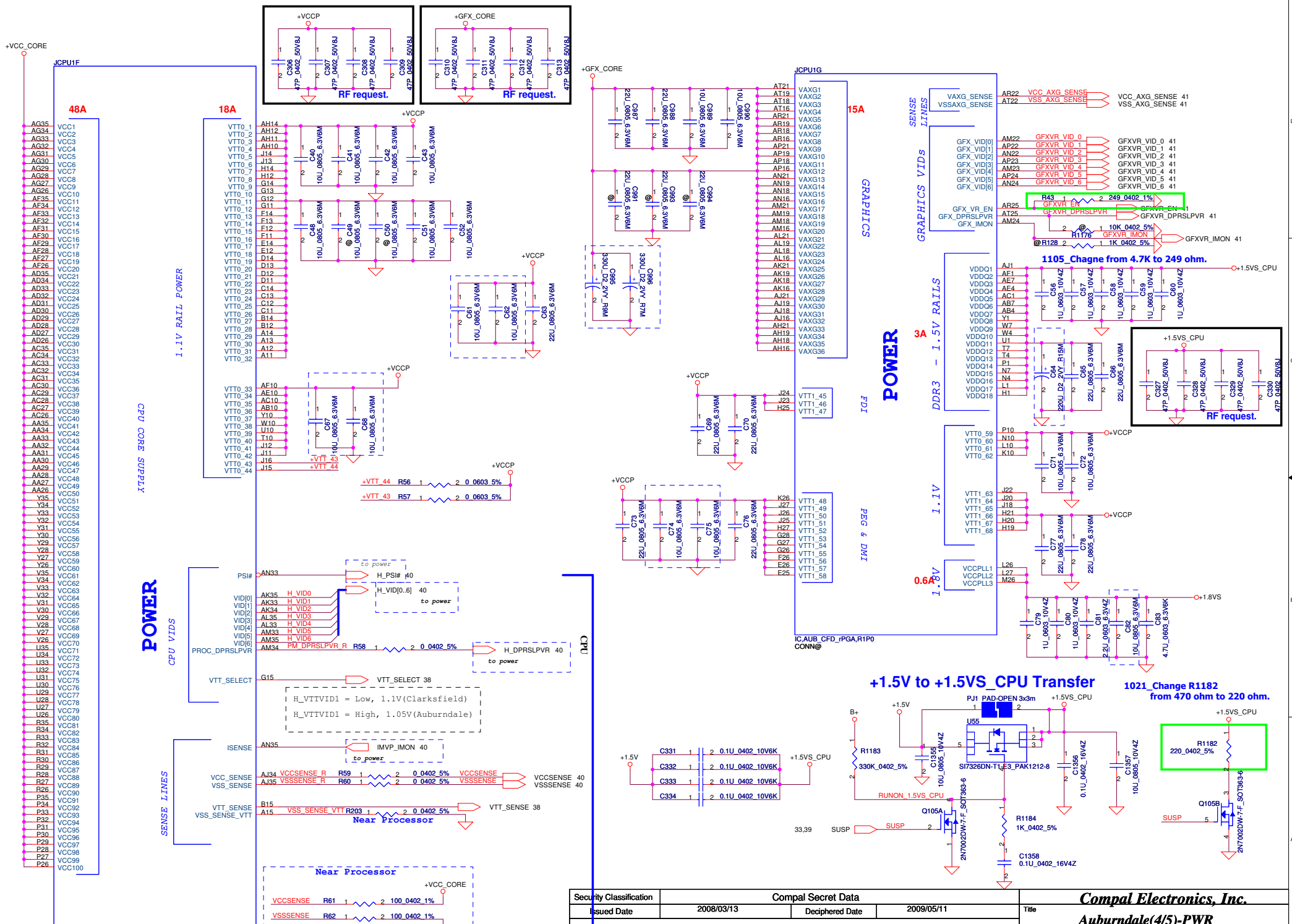
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Auburndale(2/5)-DMI/PEG/FDI		
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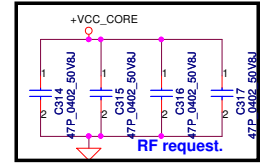
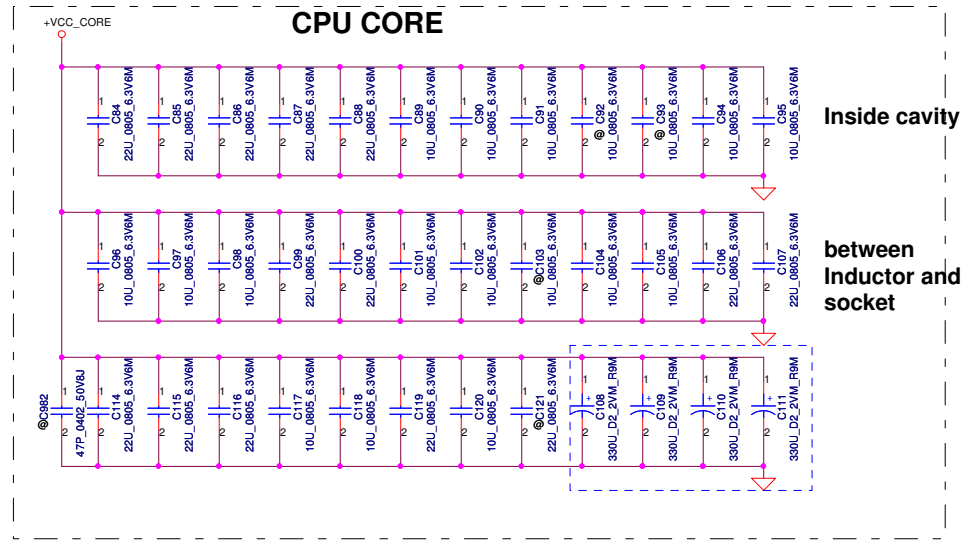
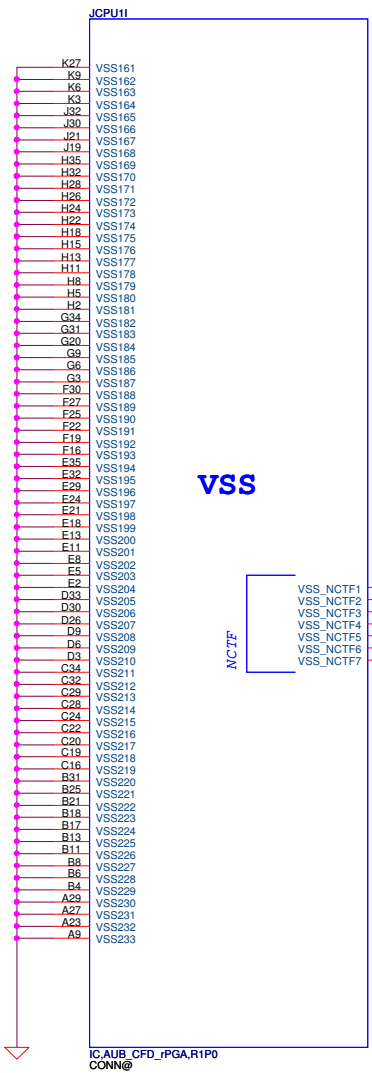
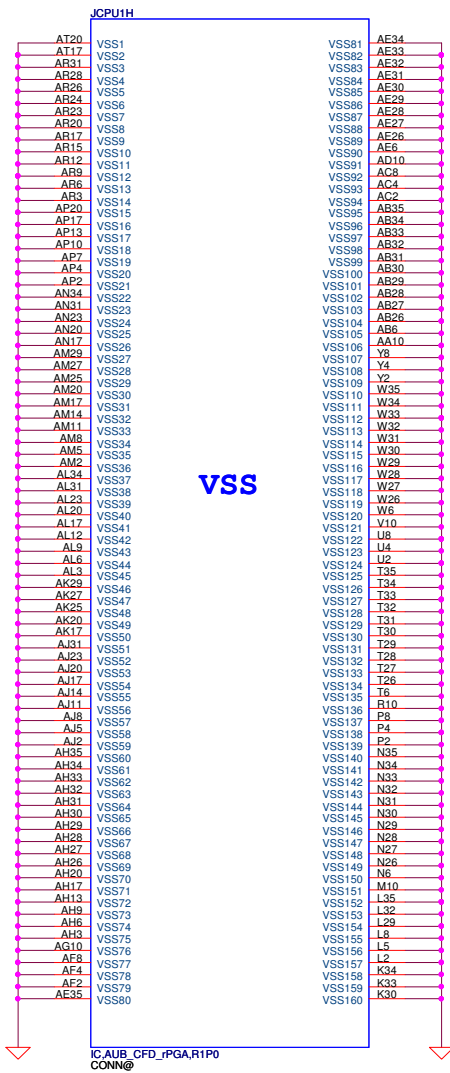


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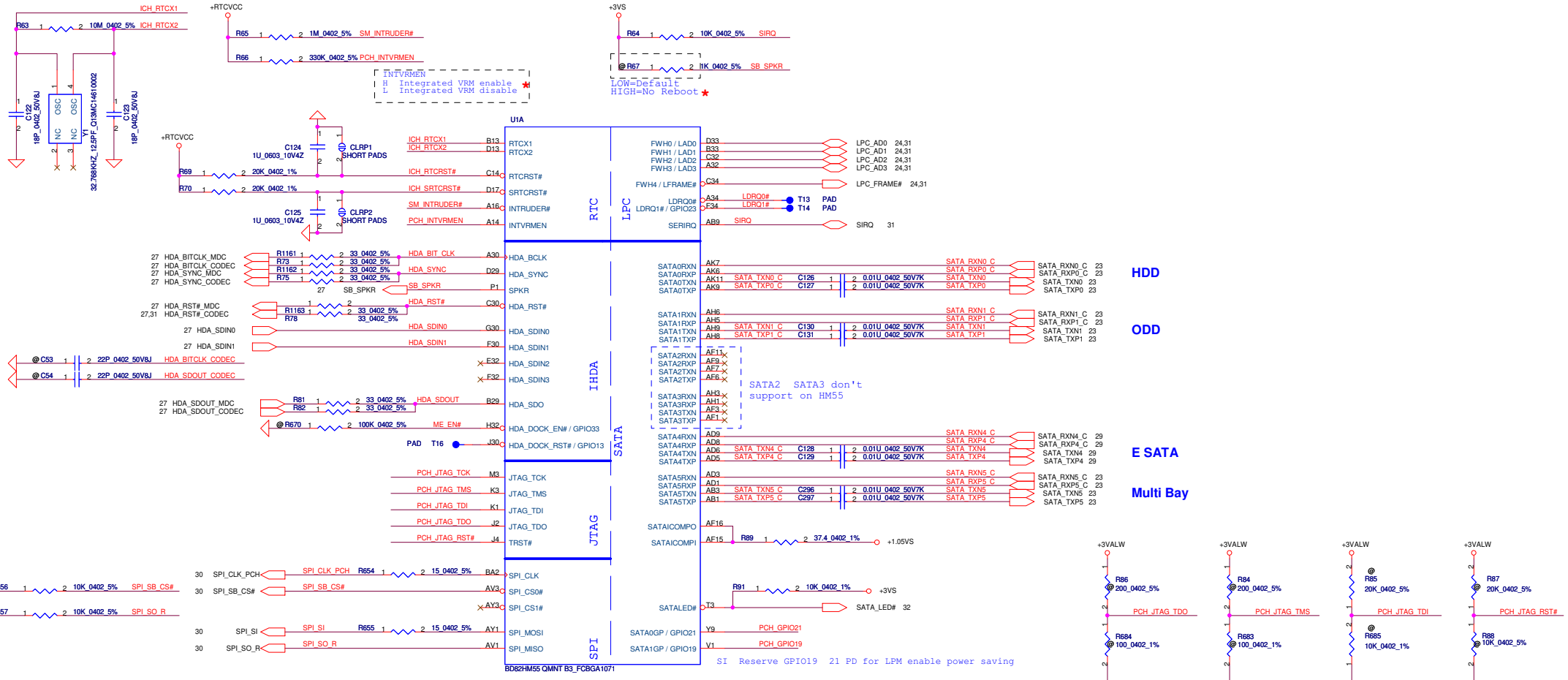
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Auburndale(4/5)-PWR	
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HDD
ODD
E SATA
Multi Bay

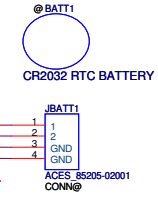
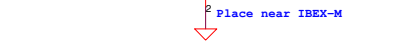
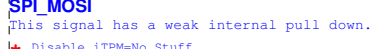
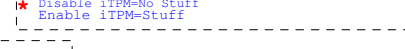
HDA_SYNC
This signal has a weak internal pull down.
H=>On Die PLL is supplied by 1.5V
L=>On Die PLL is supplied by 1.8V

HDA_SDO
This signal has a weak internal pull down.
This signal can't PU
* Disable iTPM-No Stuff
Enable iTPM=Stuff

HDA_DOCK_EN#
ME debug mode, this signal has a weak internal PU
* H=>security measures defined in the Flash Descriptor will be in effect (default)
L=>Flash Descriptor Security will be overridden

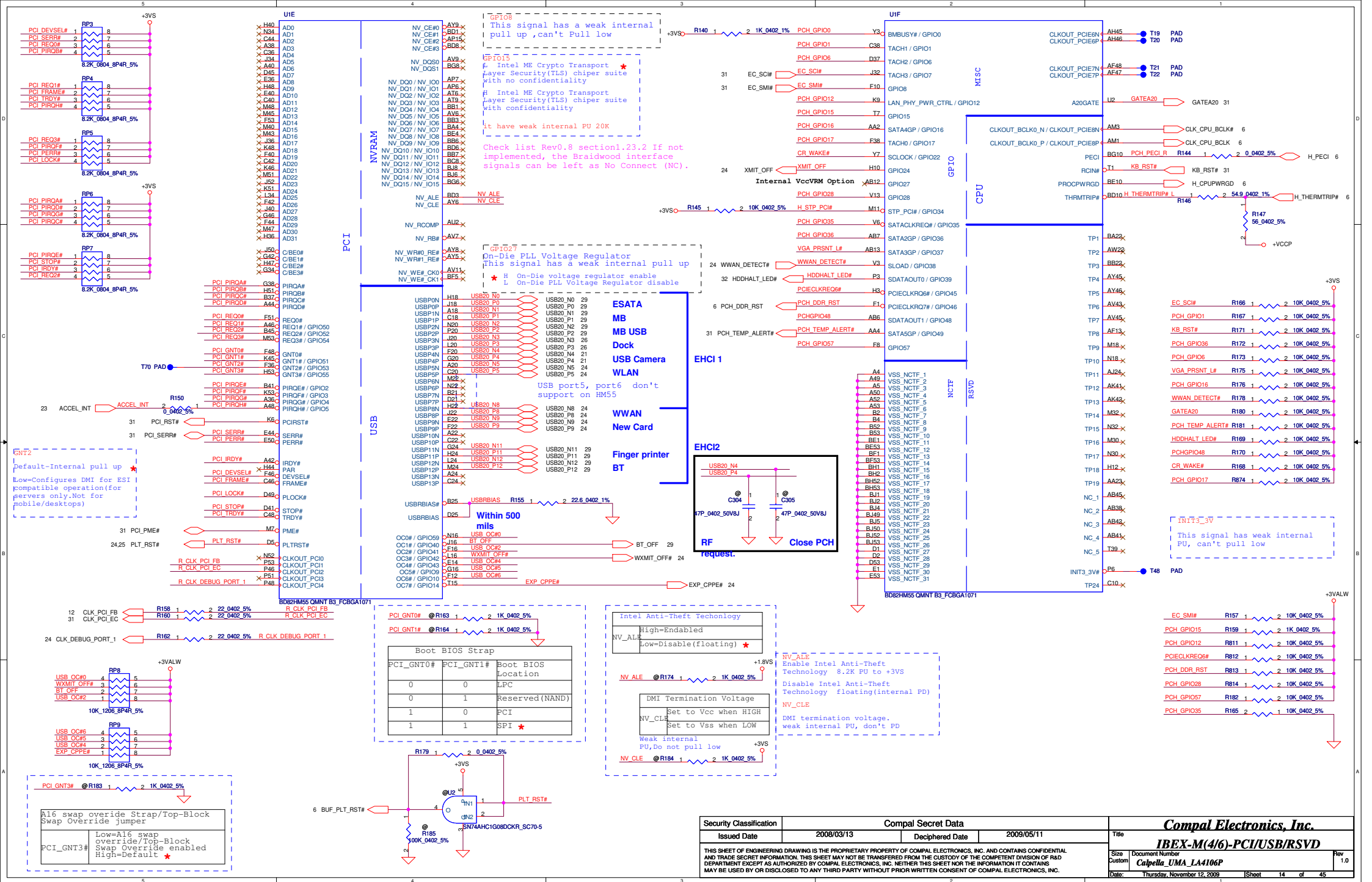
SPI_MISO
This signal has a weak internal pull down.
* Disable iTPM-No Stuff
Enable iTPM=Stuff

iTPM ENABLE/DISABLE



PCH Pin	RefDes	PCH JTAG		PCH JTAG	
		Enable	ES1	Enable	ES2
PCH_JTAG_TDO	R86	No Install	200ohm	No Install	No Install
PCH_JTAG_TMS	R84	No Install	100ohm	No Install	No Install
PCH_JTAG_TDI	R85	200ohm	200ohm	20Kohm	No Install
PCH_JTAG_TCK	R90	100ohm	100ohm	10Kohm	No Install
PCH_JTAG_RST#	R87	20Kohm	20Kohm	No Install	No Install
	R88	10Kohm	10Kohm	No Install	No Install

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Docu	Document Number	IBEX-M(116)-HDA/JTAG/SATA		Rev
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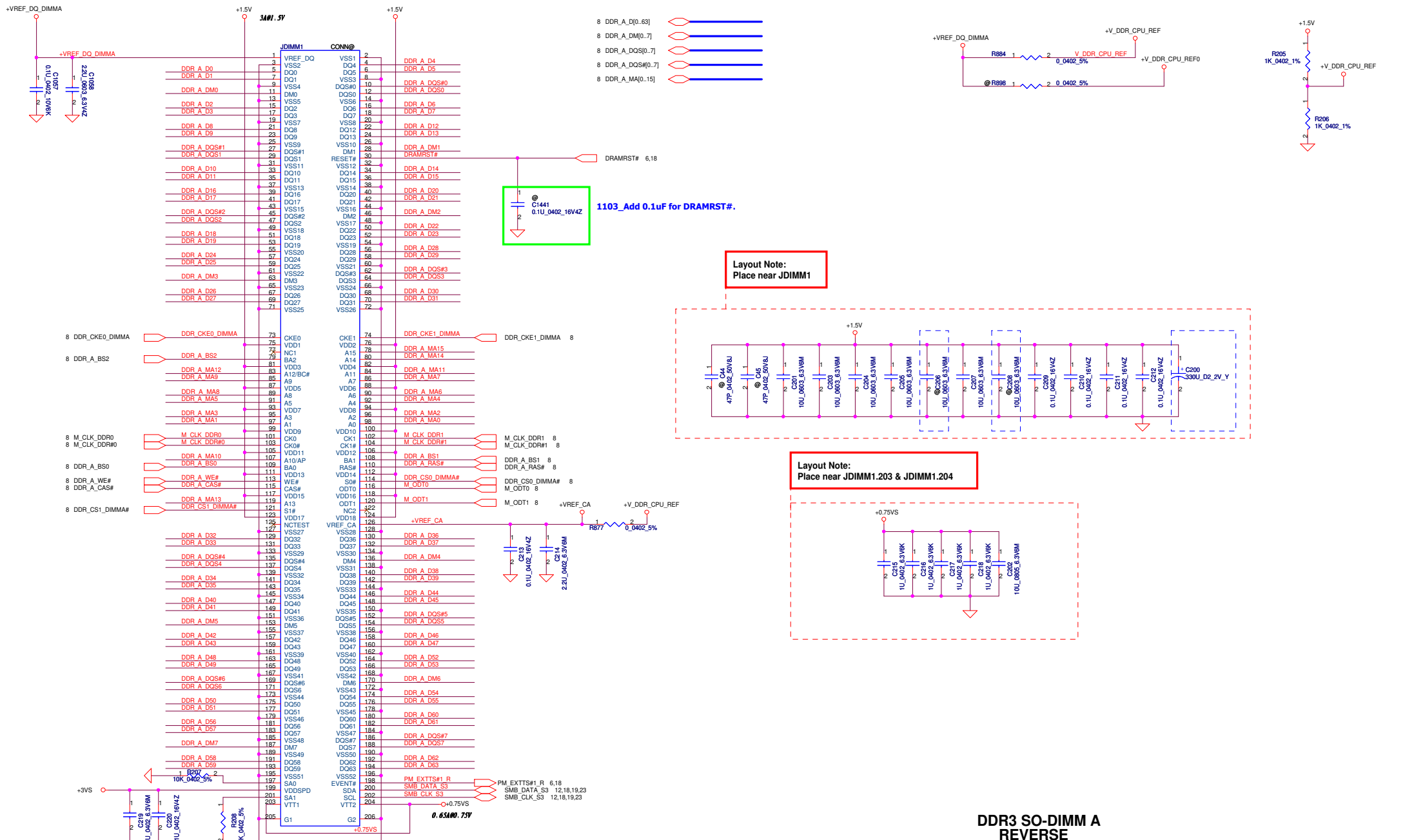
U1H		H49	
AY7	VSS[159]	VSS[259]	H49
B11	VSS[160]	VSS[260]	H5
B19	VSS[161]	VSS[261]	H24
B21	VSS[162]	VSS[262]	K11
B22	VSS[163]	VSS[263]	K43
B31	VSS[164]	VSS[264]	K47
B35	VSS[165]	VSS[265]	K7
B39	VSS[166]	VSS[266]	L14
B42	VSS[167]	VSS[267]	L18
B47	VSS[168]	VSS[268]	L2
B7	VSS[169]	VSS[269]	L22
BB12	VSS[170]	VSS[270]	L32
BB15	VSS[171]	VSS[271]	L36
BB16	VSS[172]	VSS[272]	L40
BB20	VSS[173]	VSS[273]	L52
BB24	VSS[174]	VSS[274]	M12
BB30	VSS[175]	VSS[275]	M16
BB34	VSS[176]	VSS[276]	M20
BB38	VSS[177]	VSS[277]	M38
BB42	VSS[178]	VSS[278]	M34
BB49	VSS[179]	VSS[279]	M38
BB5	VSS[180]	VSS[280]	M42
BC10	VSS[181]	VSS[281]	M49
BC14	VSS[182]	VSS[282]	M49
BC18	VSS[183]	VSS[283]	M5
BC2	VSS[184]	VSS[284]	N24
BC22	VSS[185]	VSS[285]	N24
BC32	VSS[186]	VSS[286]	P11
BC38	VSS[187]	VSS[287]	P11
BC40	VSS[188]	VSS[288]	P22
BC44	VSS[189]	VSS[289]	P30
BC52	VSS[190]	VSS[290]	P32
BH8	VSS[191]	VSS[291]	P34
BD48	VSS[192]	VSS[292]	P42
BD49	VSS[193]	VSS[293]	P45
BD5	VSS[194]	VSS[294]	P47
BE12	VSS[195]	VSS[295]	R2
BE16	VSS[196]	VSS[296]	R52
BE20	VSS[197]	VSS[297]	T12
BE24	VSS[198]	VSS[298]	T41
BE30	VSS[199]	VSS[299]	T46
BE34	VSS[200]	VSS[300]	T49
BE38	VSS[201]	VSS[301]	T5
BE42	VSS[202]	VSS[302]	T8
BE46	VSS[203]	VSS[303]	U30
BE50	VSS[204]	VSS[304]	U32
BE5	VSS[205]	VSS[305]	U34
BE6	VSS[206]	VSS[306]	U34
BE8	VSS[207]	VSS[307]	F38
BF3	VSS[208]	VSS[308]	V11
BF49	VSS[209]	VSS[309]	F16
BF51	VSS[210]	VSS[310]	V19
BG18	VSS[211]	VSS[311]	V20
BG24	VSS[212]	VSS[312]	V22
BG4	VSS[213]	VSS[313]	V30
BG50	VSS[214]	VSS[314]	V31
BH11	VSS[215]	VSS[315]	V32
BH15	VSS[216]	VSS[316]	V34
BH18	VSS[217]	VSS[317]	V35
BH23	VSS[218]	VSS[318]	V38
BH31	VSS[219]	VSS[319]	V43
BH35	VSS[220]	VSS[320]	V45
BH39	VSS[221]	VSS[321]	V46
BH43	VSS[222]	VSS[322]	V47
BH47	VSS[223]	VSS[323]	V49
CH7	VSS[224]	VSS[324]	V5
C12	VSS[225]	VSS[325]	V7
C50	VSS[226]	VSS[326]	V8
D51	VSS[227]	VSS[327]	W2
E12	VSS[228]	VSS[328]	W29
E16	VSS[229]	VSS[329]	Y11
E24	VSS[230]	VSS[330]	Y12
E30	VSS[231]	VSS[331]	Y15
E34	VSS[232]	VSS[332]	Y19
E38	VSS[233]	VSS[333]	Y23
E42	VSS[234]	VSS[334]	Y28
E46	VSS[235]	VSS[335]	Y30
E48	VSS[236]	VSS[336]	Y31
E5	VSS[237]	VSS[337]	Y32
E8	VSS[238]	VSS[338]	Y38
F49	VSS[239]	VSS[339]	Y43
F5	VSS[240]	VSS[340]	Y46
G10	VSS[241]	VSS[341]	Y49
G14	VSS[242]	VSS[342]	Y5
G18	VSS[243]	VSS[343]	Y6
G2	VSS[244]	VSS[344]	Y8
G22	VSS[245]	VSS[345]	P24
G32	VSS[246]	VSS[346]	T43
G36	VSS[247]	VSS[347]	AD51
G40	VSS[248]	VSS[348]	AT8
G44	VSS[249]	VSS[349]	AD47
G52	VSS[250]	VSS[350]	Y47
AF39	VSS[251]	VSS[351]	AT12
H16	VSS[252]	VSS[352]	AM6
H20	VSS[253]	VSS[353]	AT13
H30	VSS[254]	VSS[354]	AM5
H34	VSS[255]	VSS[355]	AK45
H38	VSS[256]	VSS[356]	AK39
H42	VSS[257]	VSS[357]	AV14
	VSS[258]	VSS[358]	

BD82HM55 QMNT B3_FCBGA1071

U1H		AB16		VSS[0]	
AA19	VSS[1]	VSS[0]		AK30	
AA20	VSS[2]	VSS[1]		AK31	
AA22	VSS[3]	VSS[2]		AK32	
AA19	VSS[4]	VSS[3]		AK34	
AA24	VSS[5]	VSS[4]		AK35	
AA26	VSS[6]	VSS[5]		AK38	
AA28	VSS[7]	VSS[6]		AK43	
AA30	VSS[8]	VSS[7]		AK46	
AA31	VSS[9]	VSS[8]		AK49	
AA32	VSS[10]	VSS[9]		AK5	
AB11	VSS[11]	VSS[10]		AK8	
AB15	VSS[12]	VSS[11]		AL2	
AB23	VSS[13]	VSS[12]		AL32	
AB31	VSS[14]	VSS[13]		AM11	
AB32	VSS[15]	VSS[14]		BB44	
AB39	VSS[16]	VSS[15]		AD24	
AB43	VSS[17]	VSS[16]		AM00	
AB47	VSS[18]	VSS[17]		AM22	
AB5	VSS[19]	VSS[18]		AM24	
AB5	VSS[20]	VSS[19]		AM26	
AC2	VSS[21]	VSS[20]		AM29	
AC2	VSS[22]	VSS[21]		BA42	
AC2	VSS[23]	VSS[22]		AM30	
AD11	VSS[24]	VSS[23]		AM31	
AD12	VSS[25]	VSS[24]		AM32	
AD16	VSS[26]	VSS[25]		AM34	
AD15	VSS[27]	VSS[26]		AM35	
AD30	VSS[28]	VSS[27]		AM38	
AD31	VSS[29]	VSS[28]		AM39	
AD32	VSS[30]	VSS[29]		AM42	
AD34	VSS[31]	VSS[30]		AM46	
AD22	VSS[32]	VSS[31]		AV22	
AD42	VSS[33]	VSS[32]		AM49	
AD46	VSS[34]	VSS[33]		AM7	
AD49	VSS[35]	VSS[34]		AM50	
AD7	VSS[36]	VSS[35]		AE10	
AE2	VSS[37]	VSS[36]		AN32	
AE4	VSS[38]	VSS[37]		AN50	
AF12	VSS[39]	VSS[38]		AN52	
Y18	VSS[40]	VSS[39]		AP12	
Y18	VSS[41]	VSS[40]		AP42	
AH40	VSS[42]	VSS[41]		AP46	
AL4	VSS[43]	VSS[42]		AP5	
AF35	VSS[44]	VSS[43]		AP8	
AP19	VSS[45]	VSS[44]		AR2	
AN34	VSS[46]	VSS[45]		AR52	
AF46	VSS[47]	VSS[46]		AT11	
AF46	VSS[48]	VSS[47]		BA12	
AF5	VSS[49]	VSS[48]		AT32	
AF8	VSS[50]	VSS[49]		AT36	
AG2	VSS[51]	VSS[50]		AT41	
AGS2	VSS[52]	VSS[51]		AT47	
AH11	VSS[53]	VSS[52]		AT7	
AH15	VSS[54]	VSS[53]		AV12	
AH16	VSS[55]	VSS[54]		AV16	
AH24	VSS[56]	VSS[55]		AV20	
AH32	VSS[57]	VSS[56]		AV24	
AV18	VSS[58]	VSS[57]		AV30	
AH43	VSS[59]	VSS[58]		AV34	
AH47	VSS[60]	VSS[59]		AV38	
AH7	VSS[61]	VSS[60]		AV42	
AI19	VSS[62]	VSS[61]		AV46	
AJ2	VSS[63]	VSS[62]		AV49	
AJ20	VSS[64]	VSS[63]		AV5	
AJ22	VSS[65]	VSS[64]		AV8	
AJ23	VSS[66]	VSS[65]		AW14	
AJ26	VSS[67]	VSS[66]		AW18	
AJ28	VSS[68]	VSS[67]		AT5	
AJ32	VSS[69]	VSS[68]		AW2	
AJ34	VSS[70]	VSS[69]		BF9	
AT5	VSS[71]	VSS[70]		AW32	
AJ4	VSS[72]	VSS[71]		AW36	
AK12	VSS[73]	VSS[72]		AW40	
Y28	VSS[74]	VSS[73]		AW52	
AN19	VSS[75]	VSS[74]		AY11	
AK26	VSS[76]	VSS[75]		AY43	
AK22	VSS[77]	VSS[76]		AY47	
AK23	VSS[78]	VSS[77]			
AK28	VSS[79]	VSS[78]			

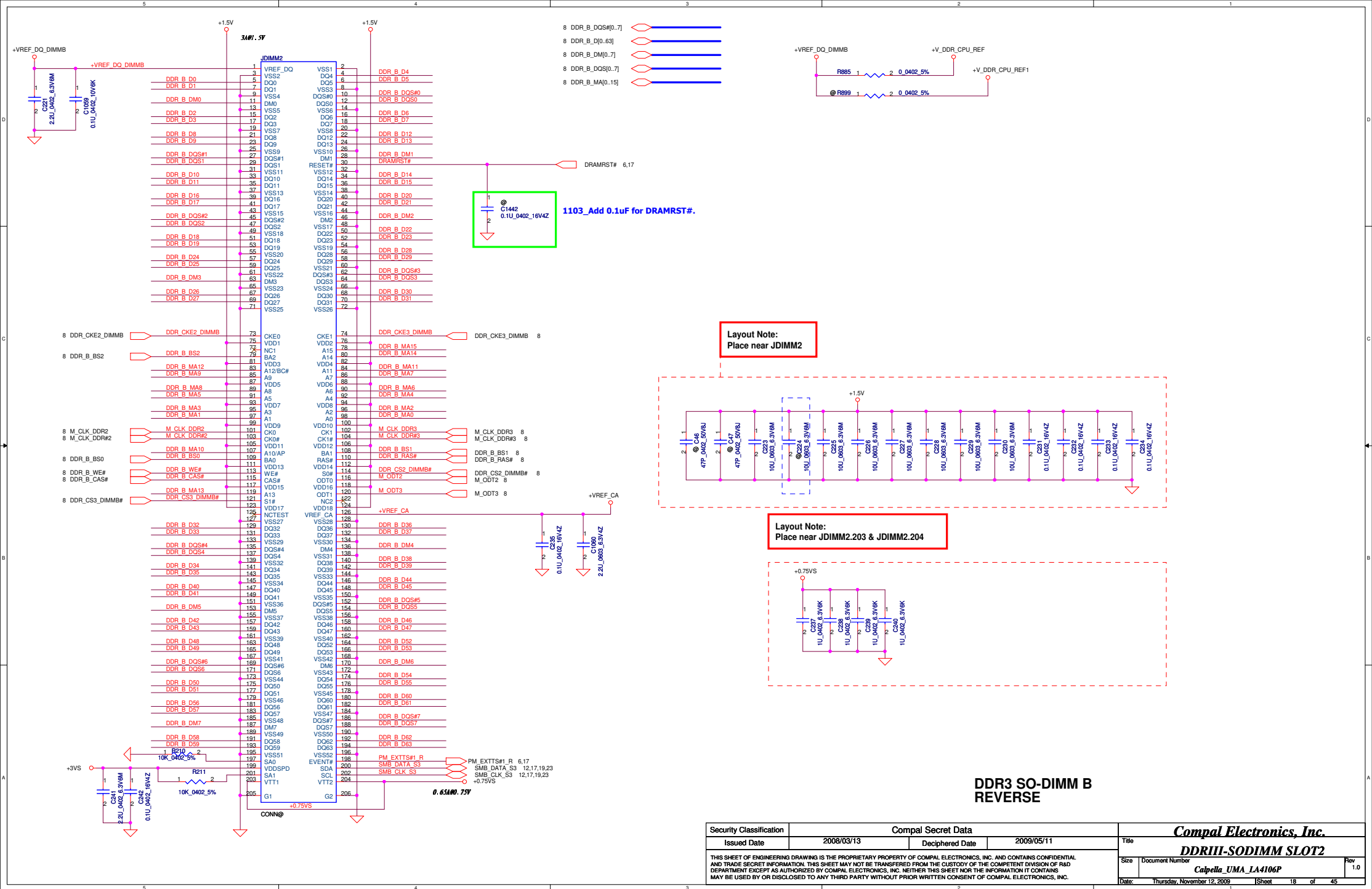
BD82HM55 QMNT B3_FCBGA1071

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Issued Date	2008/03/13	Deciphered Date	
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DDR3 SO-DIMM A REVERSE

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Issued Date	2008/03/13	Deciphered Date	2009/05/11	DDR3-SODIMM SLOT1	
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Date:	Thursday, November 12, 2009	ISheet	17	of	45



OK DOT96

OK DMI#

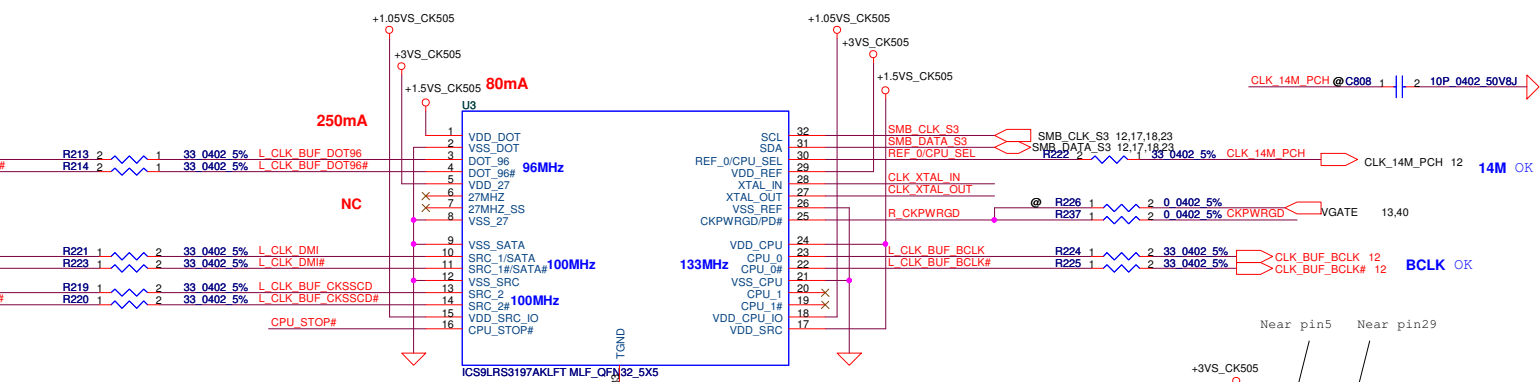
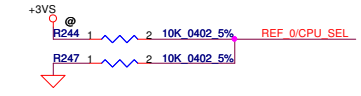
OK CKSSCD

Number of Clock Outputs

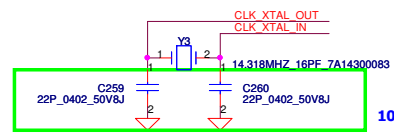
Output	Number
133MHz	2
SRC(100MHz_SS)	1
SRC/SATA(100MHz)	1
REF(14.318MHz)	1
DOT_CLK(96MHz)	1
27MHz	1
27MHz_SS	1

PIN 30	CPU_0	CPU_1
0 (default)	133MHz	133MHz
1	100MHz	100MHz

CPU_SEL During CK_PEWGD Latch Pin1

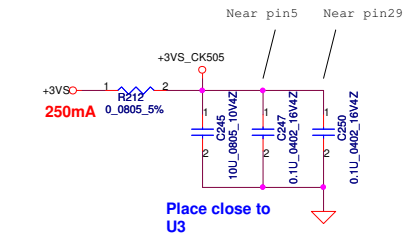
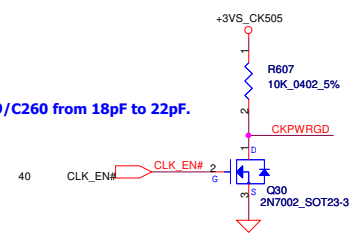


SLG8SP585 pin8 is GND (for DELL HP)
 SLG8SP587 pin8 is 48MHz (For ABO or 030)

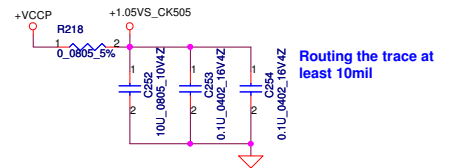


Vendor suggests 22pF

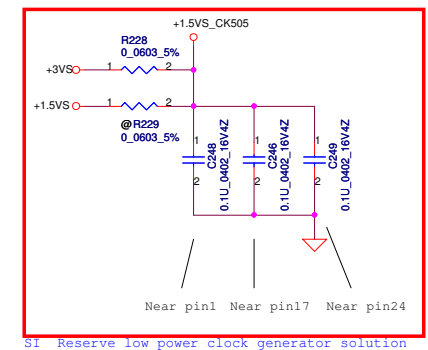
1019_Change C259/C260 from 18pF to 22pF.



Place close to U3



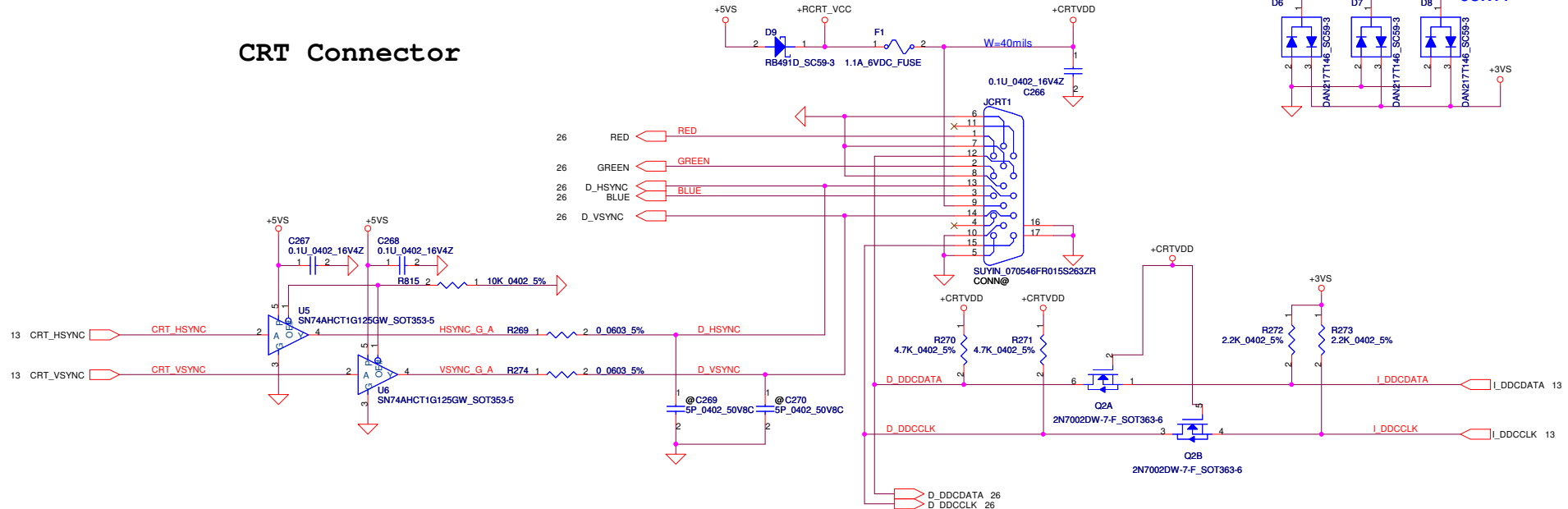
Routing the trace at least 10mil



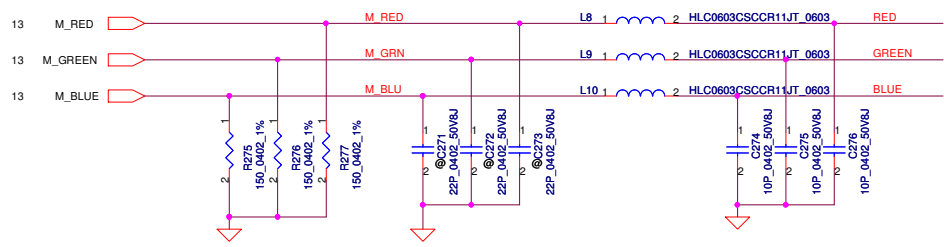
S1 Reserve low power clock generator solution

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Size	Document Number	Calpella_UMA_1A4106P		Rev	1.0
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CRT Connector



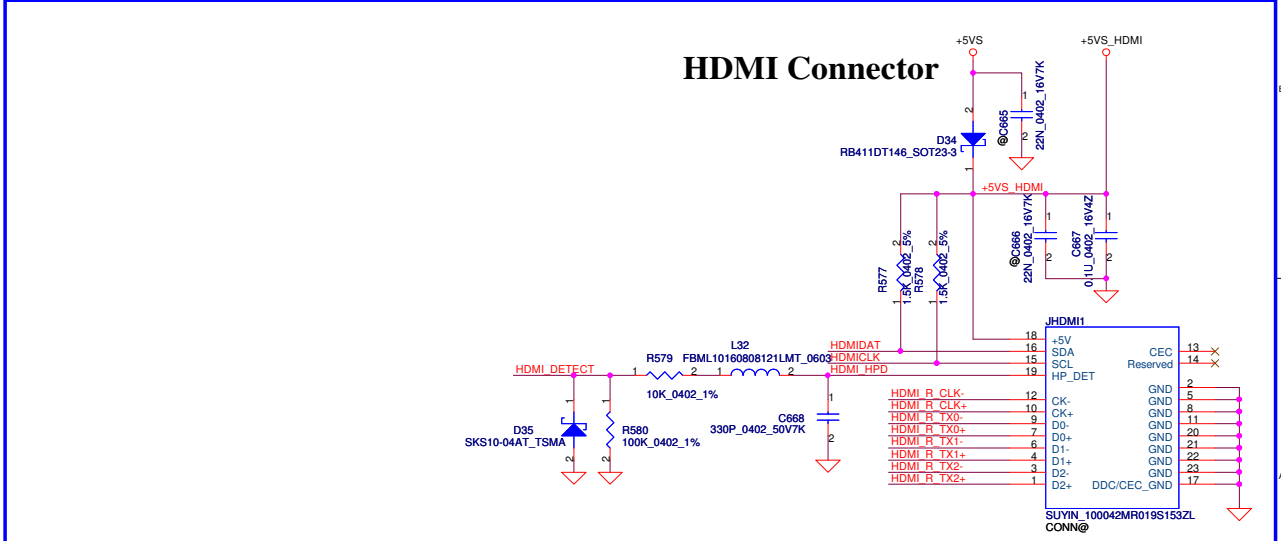
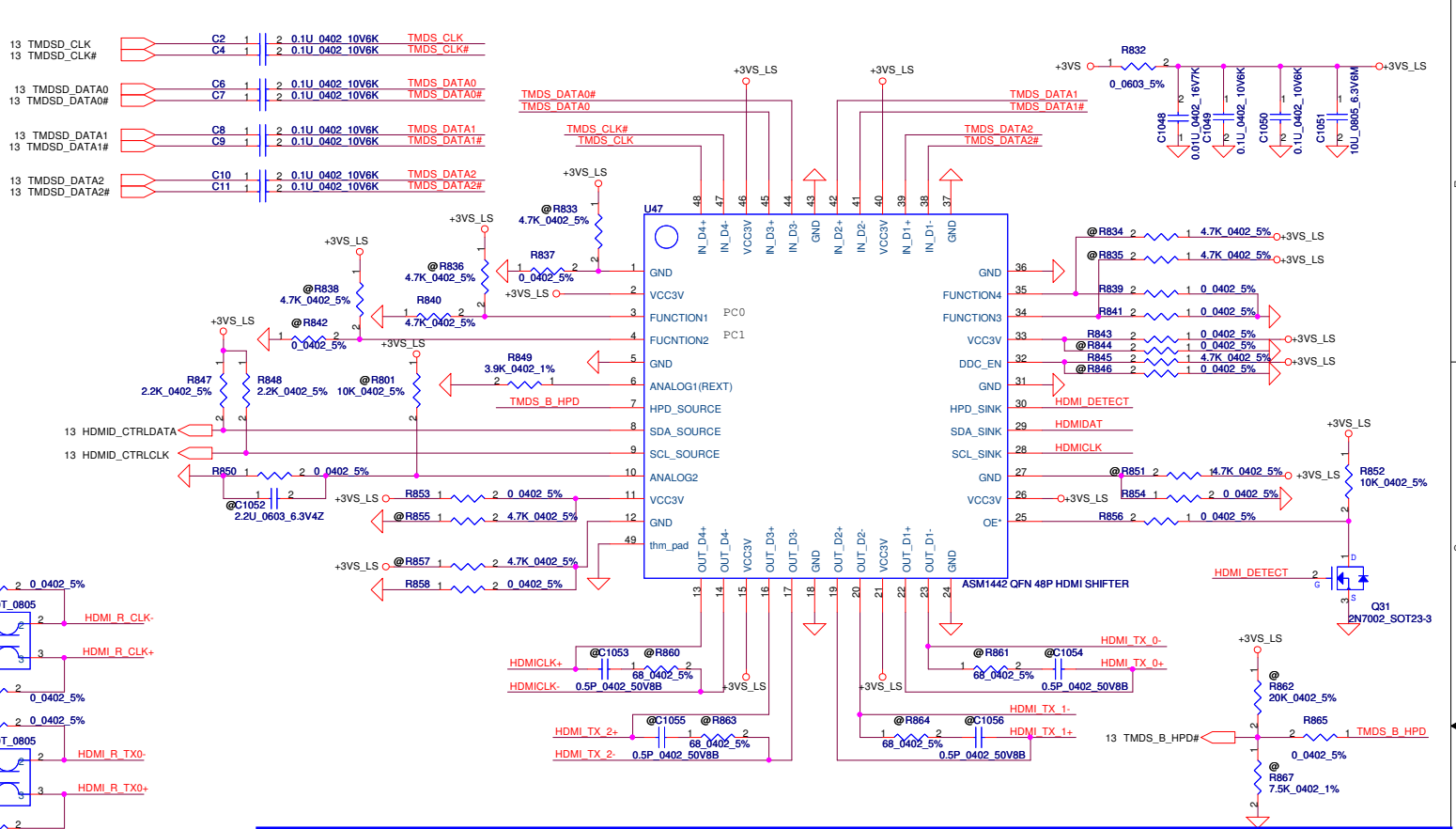
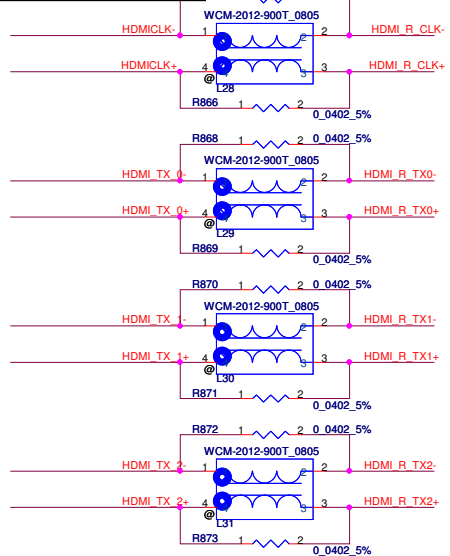
CRT Termination/EMI Filter



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				Document Number	Rev
				Calpella_UMA_LA4106P	1.0
				Date:	Thursday, November 12, 2009
				Sheet	20 of 45

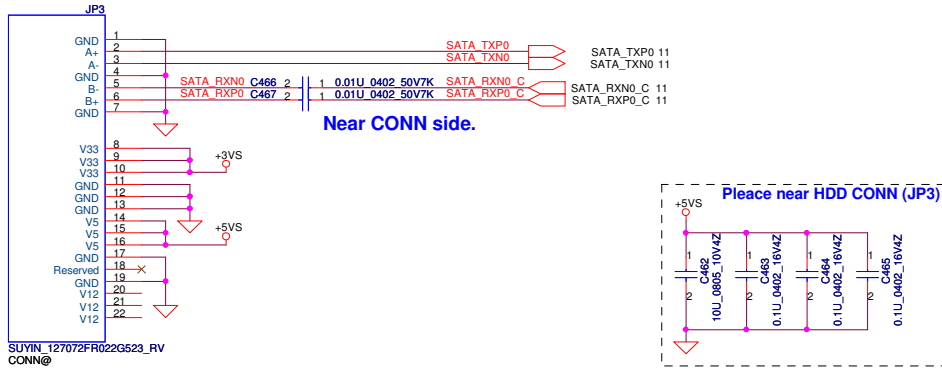
	ST	Parade 81011	8171	Asmedia 1442	TI
R833	X	X	X	X	X
R837	0 ohm	0 ohm	4.7K ohm	0 ohm	0 ohm
R836	X	4.7K ohm	X	X	4.7K ohm
R840	4.7K ohm	X	4.7K ohm	4.7K ohm	X
R838	X	X	4.7K ohm	X	4.7K ohm
R842	X	X	X	X	X
R849	3.9K ohm	499 ohm	499 ohm	3.9K ohm	4.3K ohm
R850	0 ohm	X	X	0 ohm	X
C1052	X	X	2.2uF	X	X
R853	0 ohm	0 ohm	X	0 ohm	0 ohm
R855	X	X	4.7K ohm	X	X
R857	X	X	4.7K ohm	X	X
R858	0 ohm	0 ohm	X	0 ohm	0 ohm
R851	X	X	4.7K ohm	X	X
R854	0 ohm	0 ohm	X	0 ohm	0 ohm
R843	0 ohm	0 ohm	X	0 ohm	0 ohm
R844	X	X	4.7K ohm	X	X
R839	0 ohm	X	4.7K ohm	0 ohm	0 ohm
R834	X	X	X	X	X
R841	0 ohm	X	X	0 ohm	0 ohm
R835	X	X	4.7K ohm	X	X
C667	0.1uF	1uF	1uF	0.1uF	1uF
R862	V	X	X	X	X
R867	V	X	X	X	X

EQUALIZATION SETTING:
PC1,PC0]-00.8dB
PC1,PC0]-01.4dB (Recommended)
PC1,PC0]-10.12dB
PC1,PC0]-11.0dB

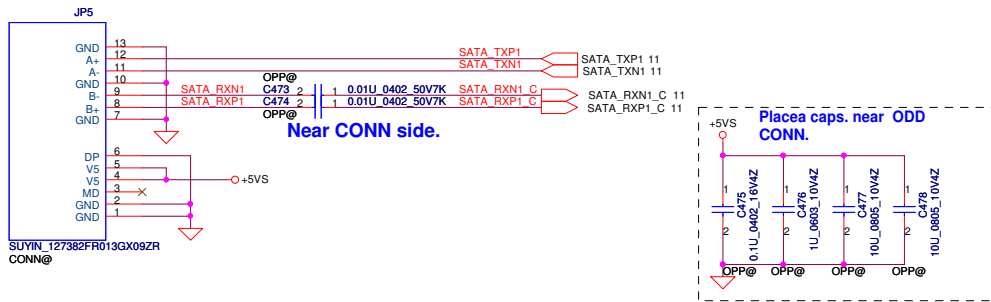


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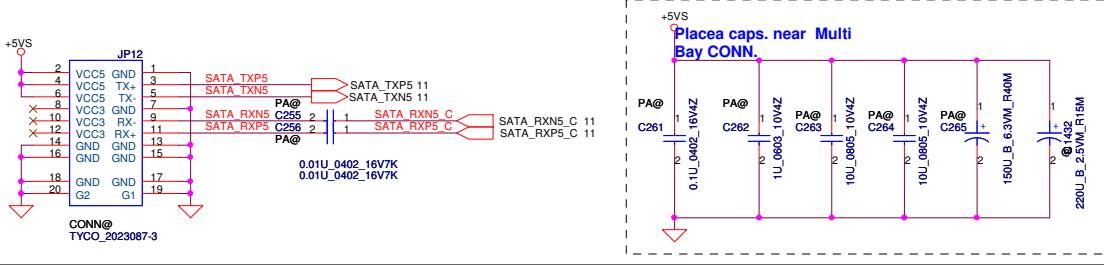
HDD Connector



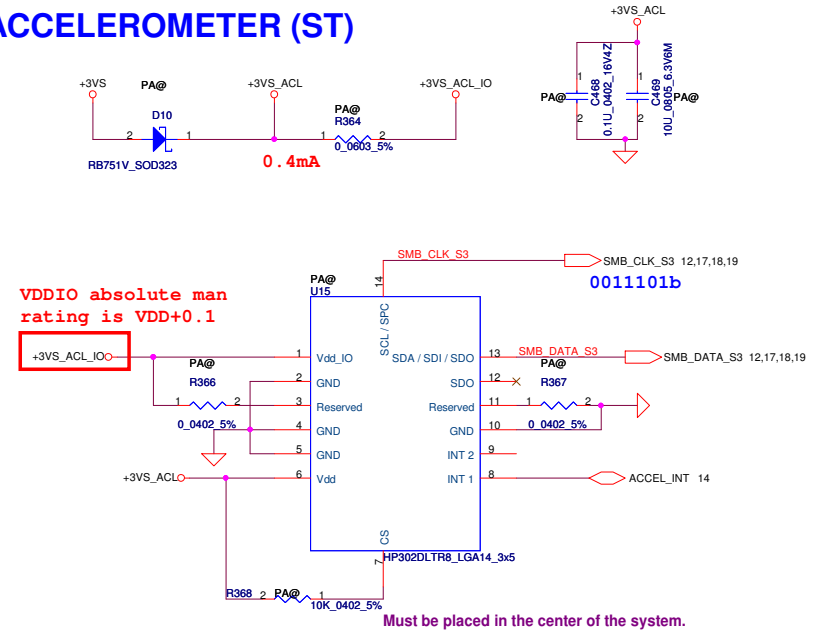
CD-ROM Connector



Multi Bay

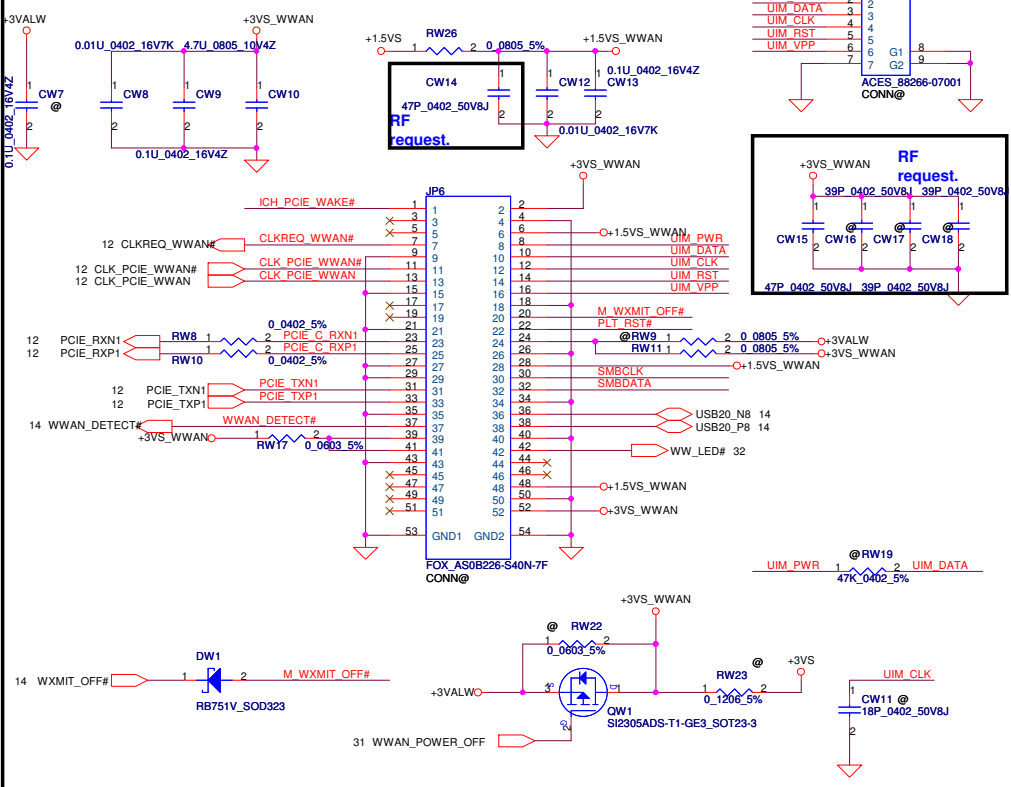


ACCELEROMETER (ST)

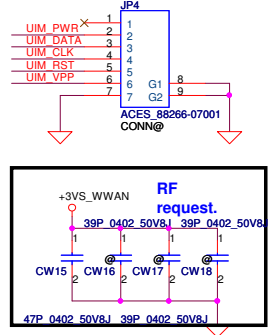


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				Custom	Calpella_UMA_LA4106P
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				Date:	Thursday, November 12, 2009
				Sheet	23 of 45

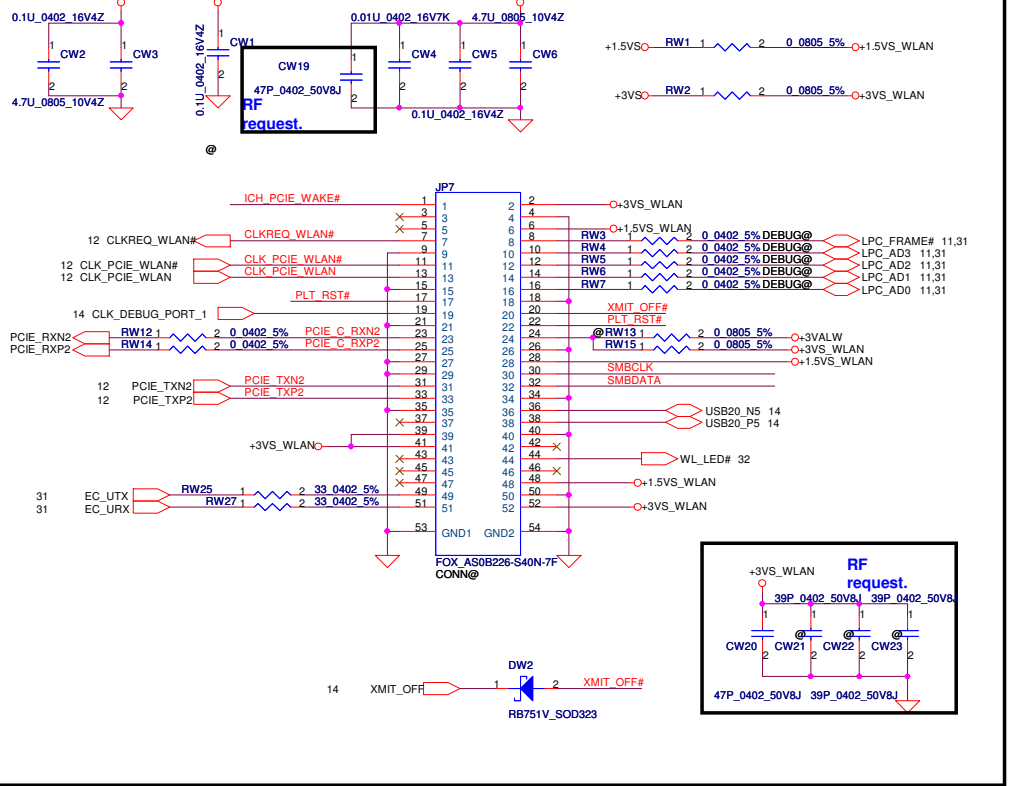
Mini Card 0--TV tuner/WWAN/Robson



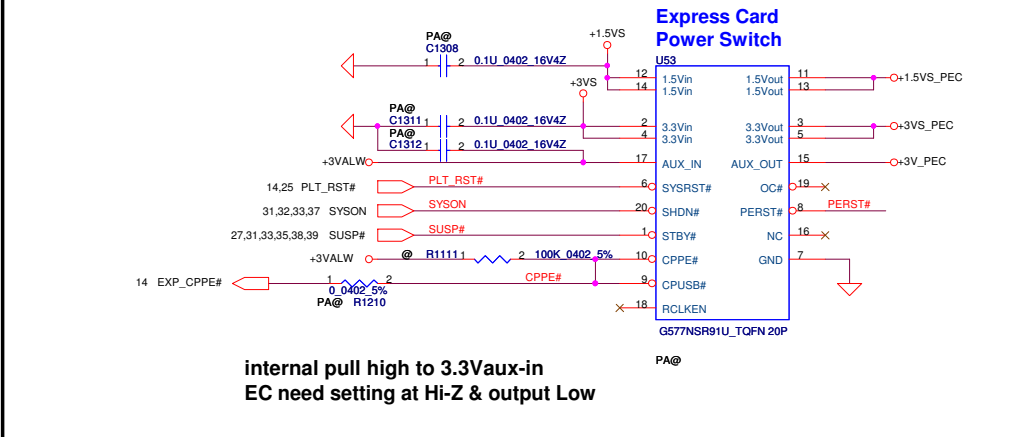
SIM card Connector



Mini Card 2--WLAN

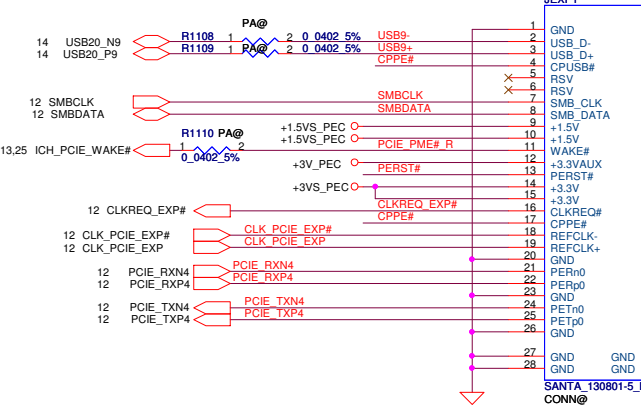


New Card

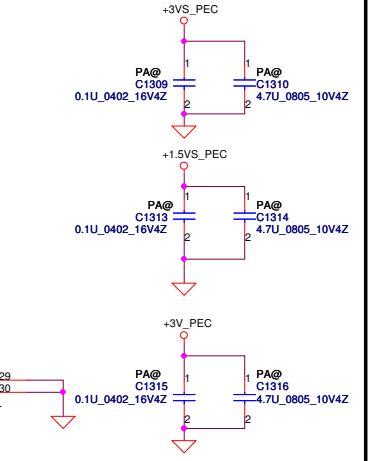


internal pull high to 3.3Vaux-in
EC need setting at Hi-Z & output Low

Close to JEXP



Near to Express Card slot.



<http://mycomp.su/x/>

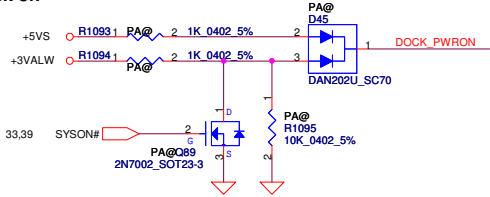
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Issued Date	2007/08/28	Deciphered Date
		2006/07/26

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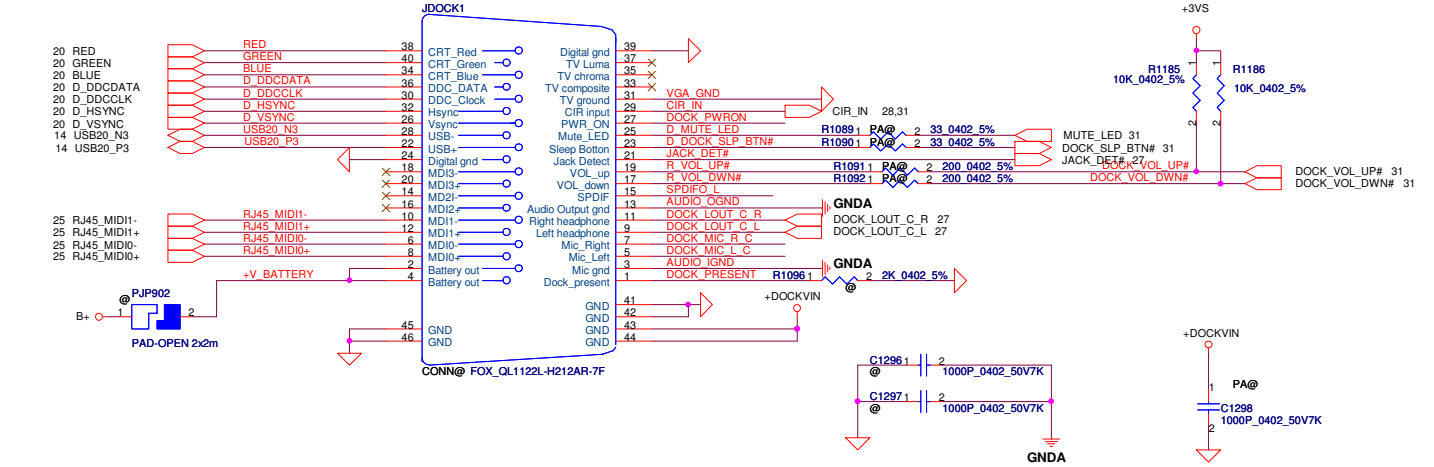
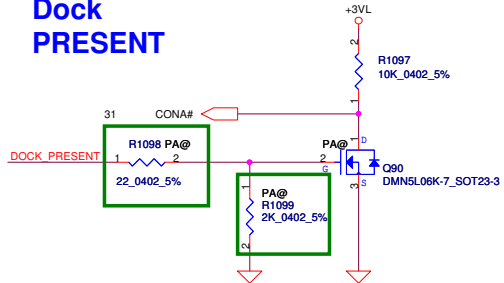
Title		
WLAN, WWAN, New Card		
Size	Document Number	Rev
	Capella_UMA_LA4106P	1.0
Date:	Thursday, November 12, 2009	Sheet 24 of 45

Atlas/ Saturn Dock

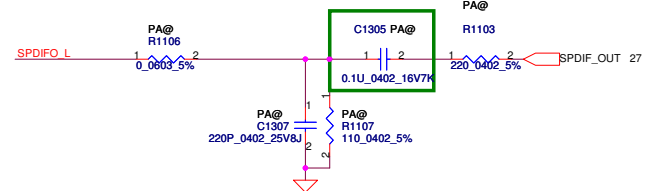
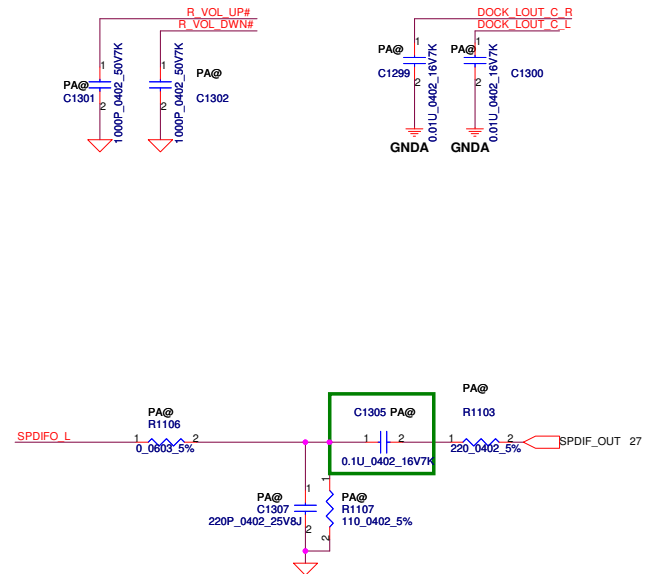
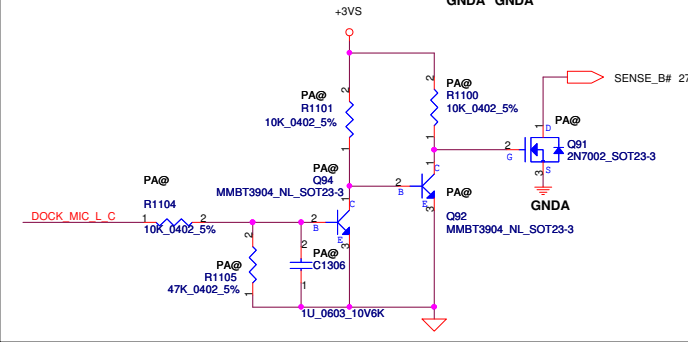
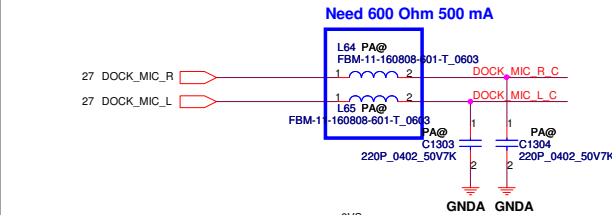
DOCK_PWR_ON Spec
 0V = Notebook S4/S5,
 Dock off
 2.5V = Notebook S3,
 Dock on
 4V = Notebook S0,
 Dock on



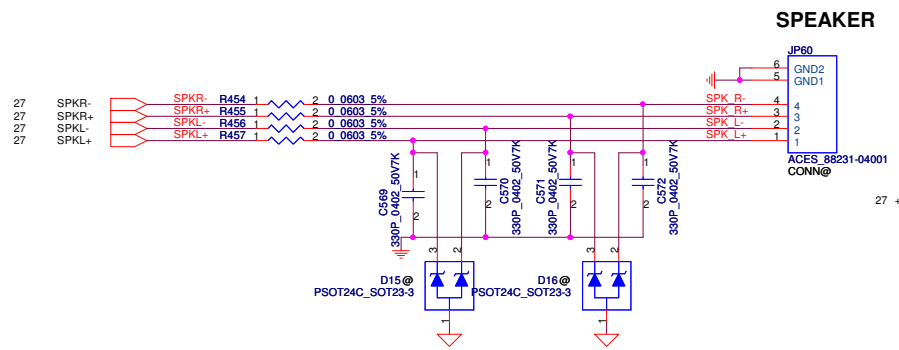
Dock PRESENT



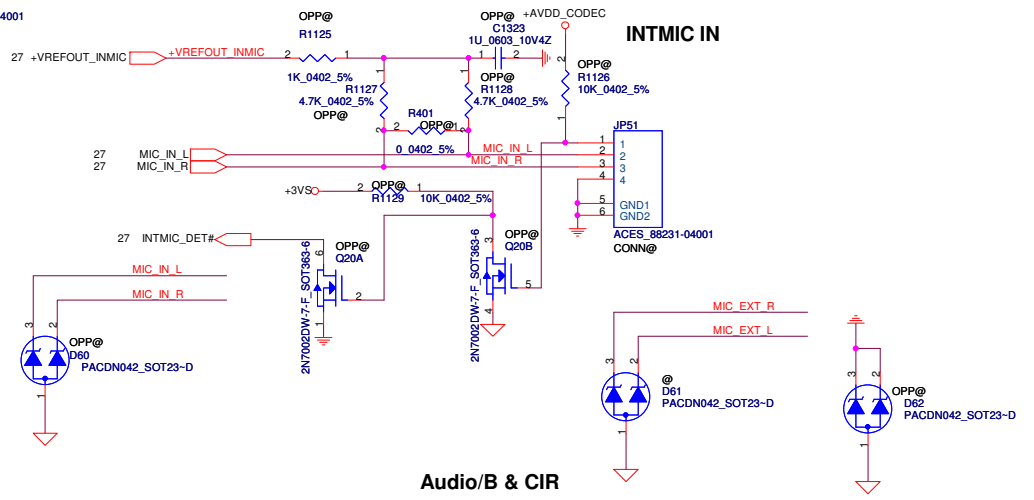
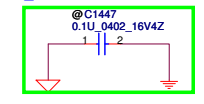
MIC_Dock



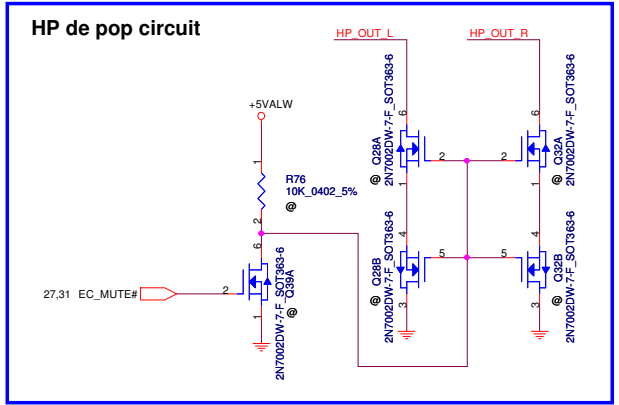
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
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Date:	Thursday, November 12, 2009	Sheet	26	of 45



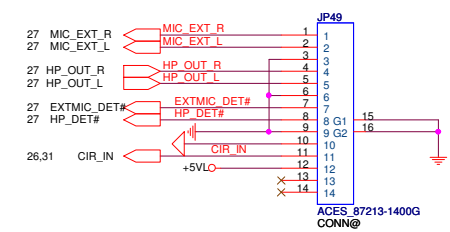
1103_Reserve 0.1uF between GND and GNDA.



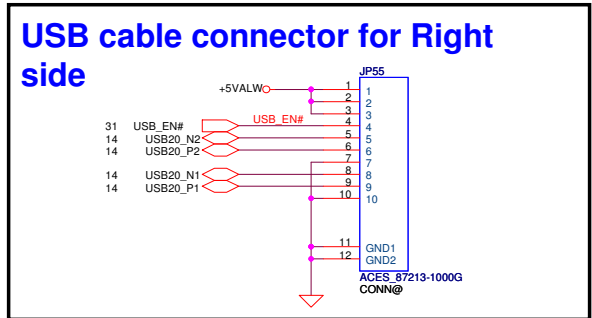
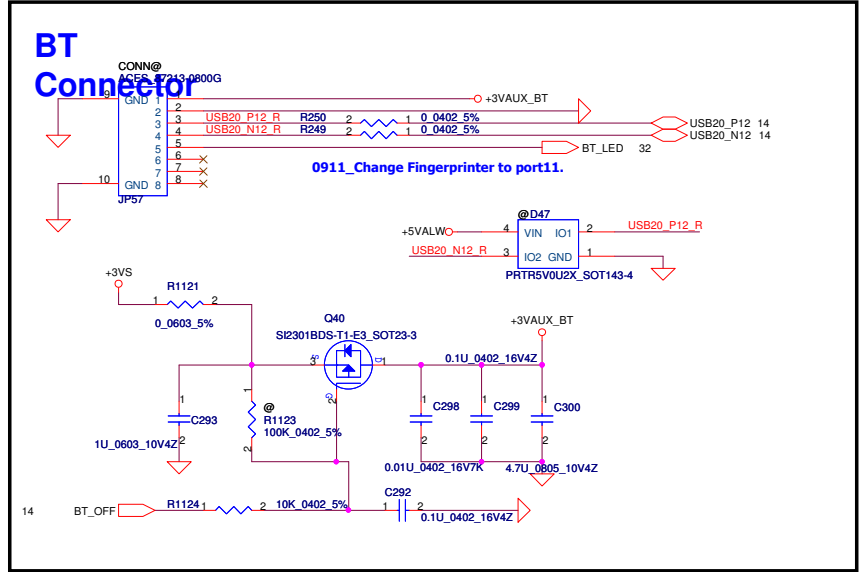
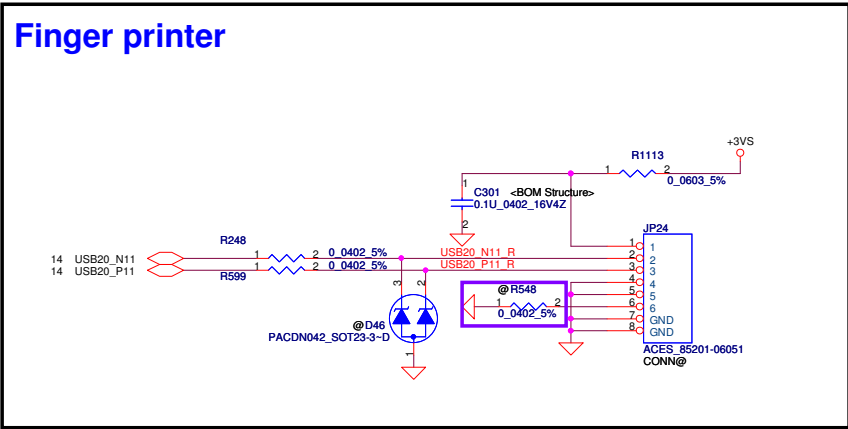
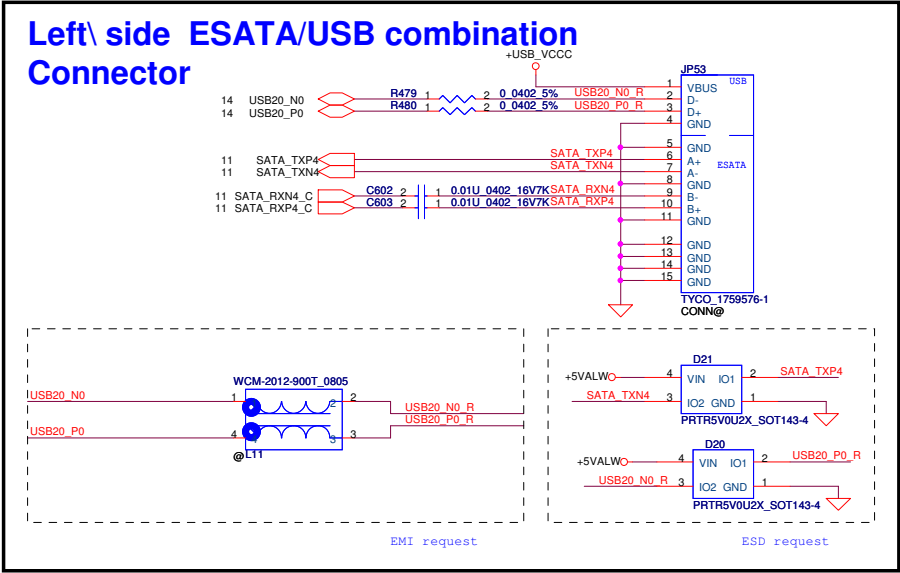
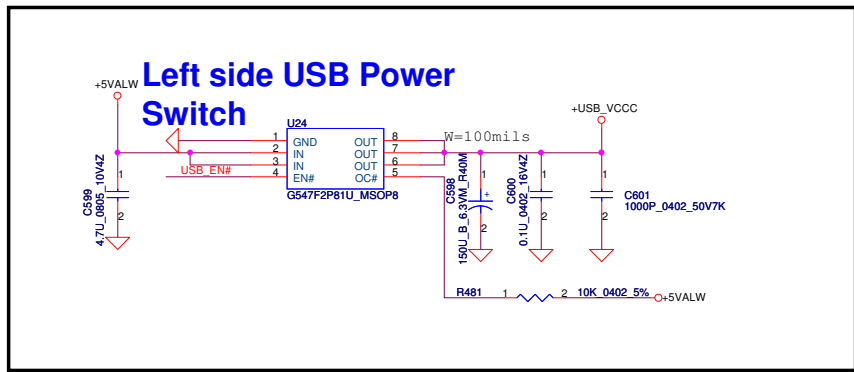
Audio connector



Audio/B & CIR

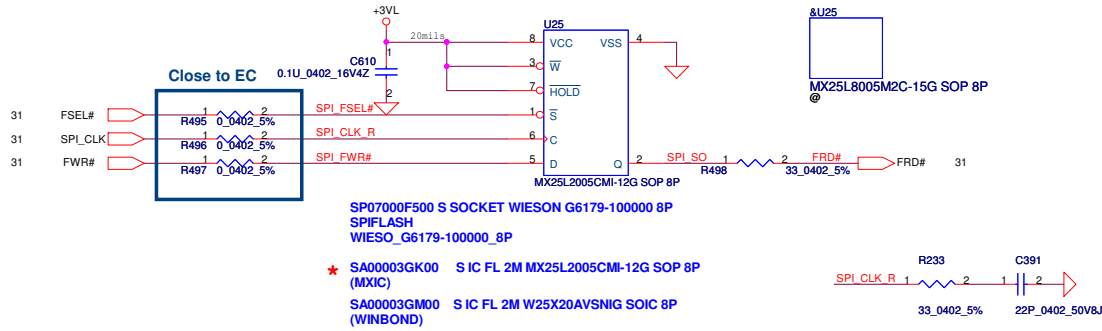


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				Custom	Calpella_UMA_LA4106P
				Date:	Thursday, November 12, 2009
				Sheet	28 of 45
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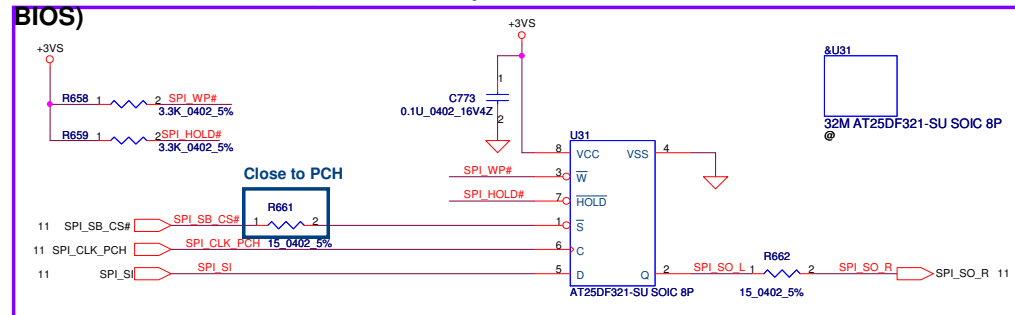


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					Calpella_UMA_LA4106P	1.0
				Date:	Thursday, November 12, 2009	Sheet 29 of 45

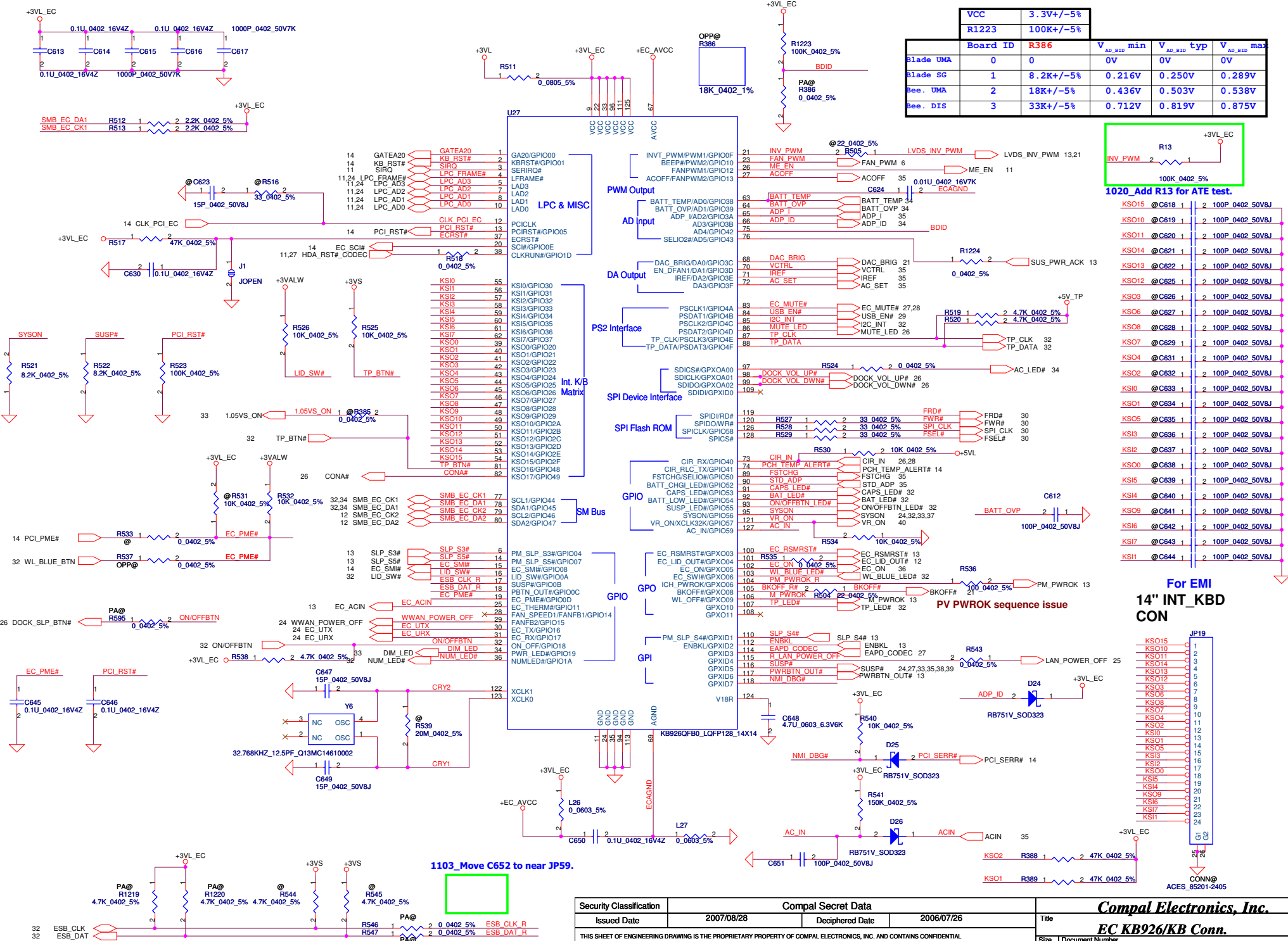
SPI ROM => 256K (EC code)



SPI ROM on PCH => 4M (ME code + System BIOS)



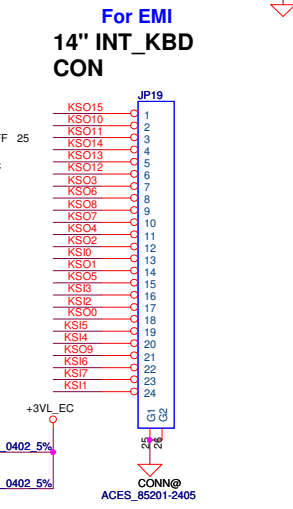
Security Classification		Compal Secret Data		Title	
Issued Date	2007/08/28	Deciphered Date	2006/07/26	BIOS ROM	
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VCC		3.3V+/-5%				
R1223	Board ID	R386	V _{AD_BID} min	V _{AD_BID} typ	V _{AD_BID} max	
Blade UMA	0	0	0V	0V	0V	
Blade SG	1	8.2K+/-5%	0.216V	0.250V	0.289V	
Bee. UMA	2	18K+/-5%	0.436V	0.503V	0.538V	
Bee. DIS	3	33K+/-5%	0.712V	0.819V	0.875V	



- 1200_Add R13 for ATE test.**
- KSO15 @C618 1 2 100P_0402_50V8J
 - KSO10 @C619 1 2 100P_0402_50V8J
 - KSO11 @C620 1 2 100P_0402_50V8J
 - KSO14 @C621 1 2 100P_0402_50V8J
 - KSO13 @C622 1 2 100P_0402_50V8J
 - KSO12 @C625 1 2 100P_0402_50V8J
 - KSO3 @C626 1 2 100P_0402_50V8J
 - KSO6 @C627 1 2 100P_0402_50V8J
 - KSO8 @C628 1 2 100P_0402_50V8J
 - KSO7 @C629 1 2 100P_0402_50V8J
 - KSO4 @C631 1 2 100P_0402_50V8J
 - KSO2 @C632 1 2 100P_0402_50V8J
 - KSO1 @C633 1 2 100P_0402_50V8J
 - KSO1 @C634 1 2 100P_0402_50V8J
 - KSO5 @C635 1 2 100P_0402_50V8J
 - KSI3 @C636 1 2 100P_0402_50V8J
 - KSI2 @C637 1 2 100P_0402_50V8J
 - KSO0 @C638 1 2 100P_0402_50V8J
 - KSI5 @C639 1 2 100P_0402_50V8J
 - KSI4 @C640 1 2 100P_0402_50V8J
 - KSO9 @C641 1 2 100P_0402_50V8J
 - KSI6 @C642 1 2 100P_0402_50V8J
 - KSI7 @C643 1 2 100P_0402_50V8J
 - KSI1 @C644 1 2 100P_0402_50V8J

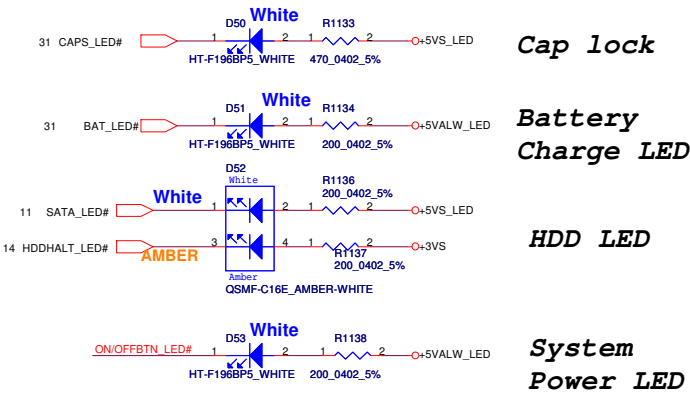


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		2006/07/26

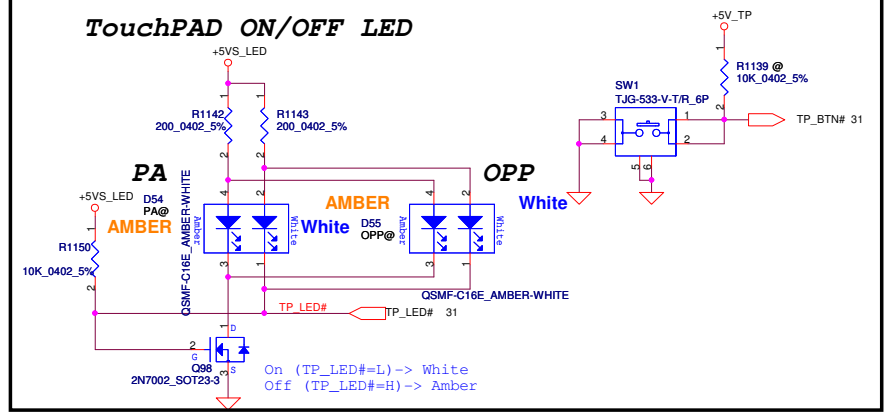
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EC KB926/KB Conn.	
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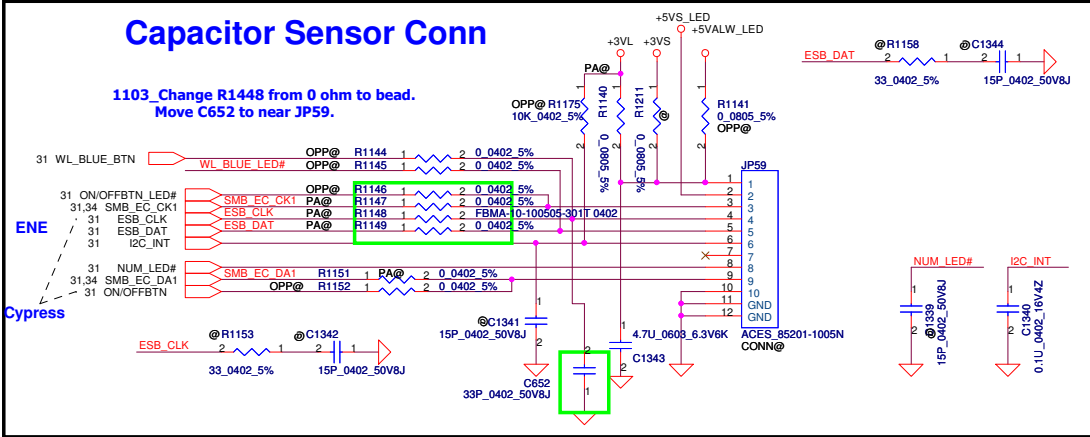
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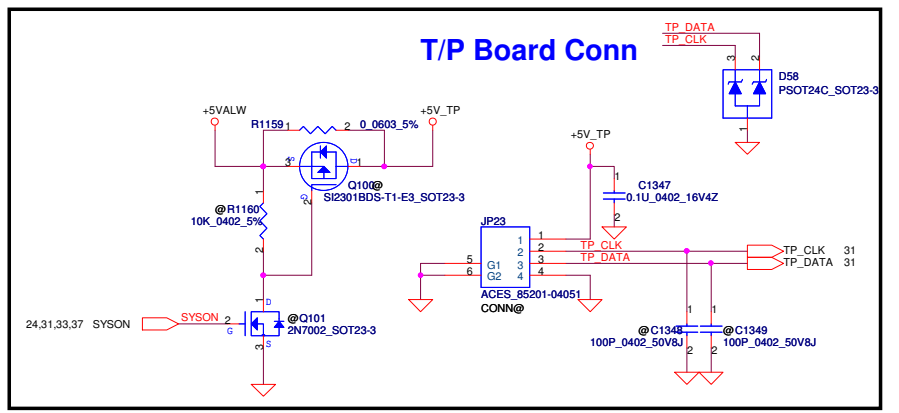
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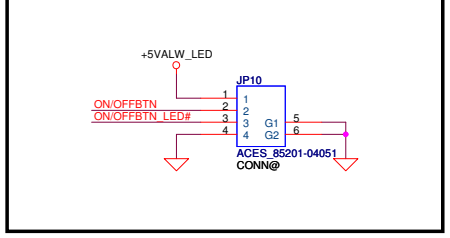
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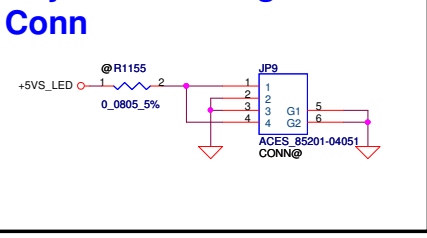
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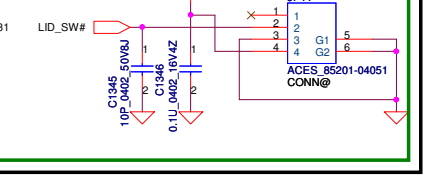
ON/OFF Button Connector



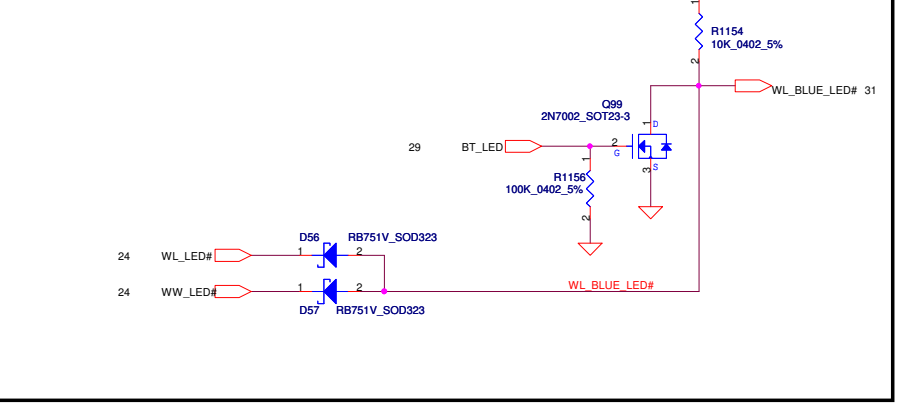
Keyboard backlight Conn



Lid Switch Connector

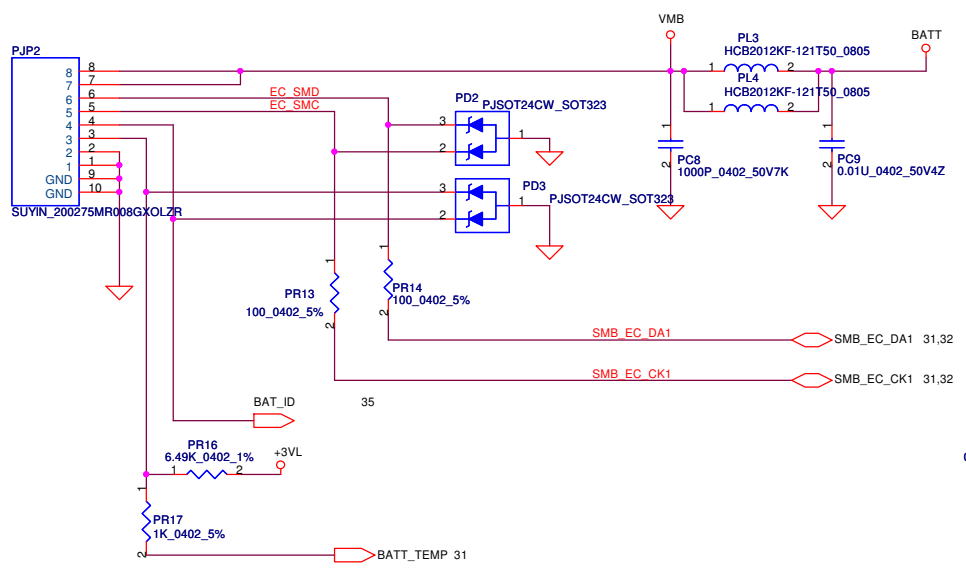
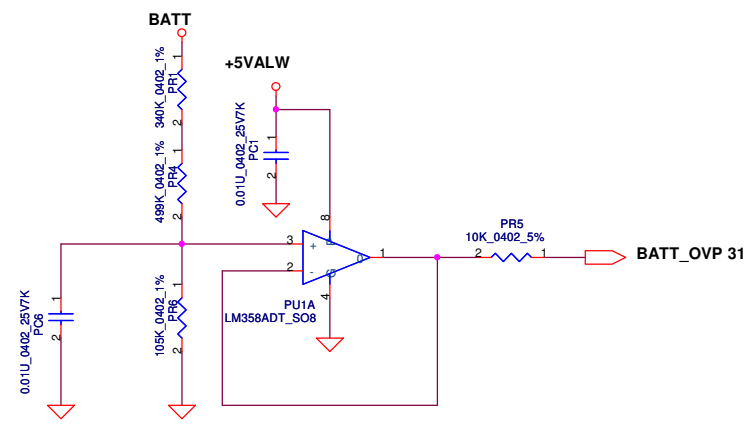
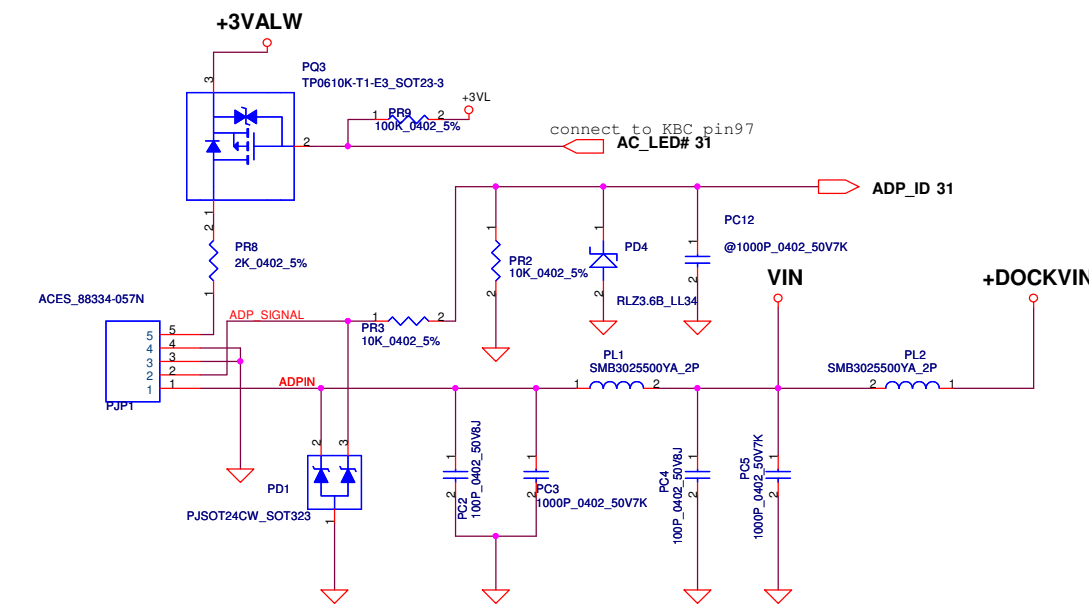


Mini card LED

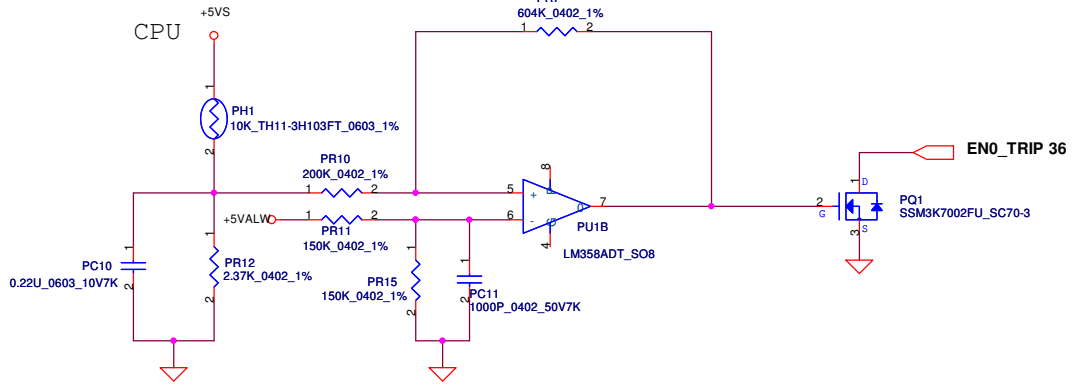


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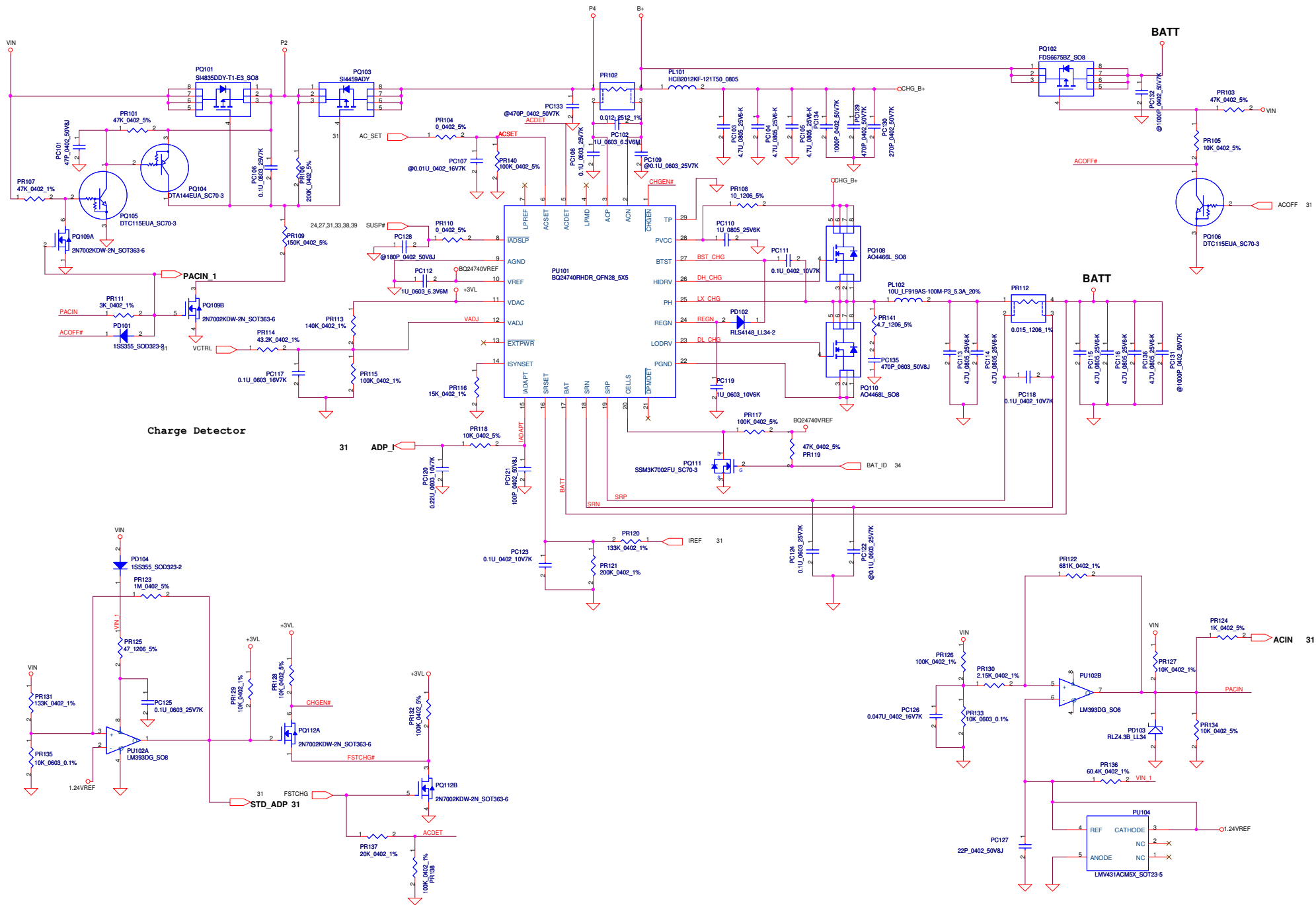


PH1 under CPU bottom side :
 CPU thermal protection at 90 +-3 degree C



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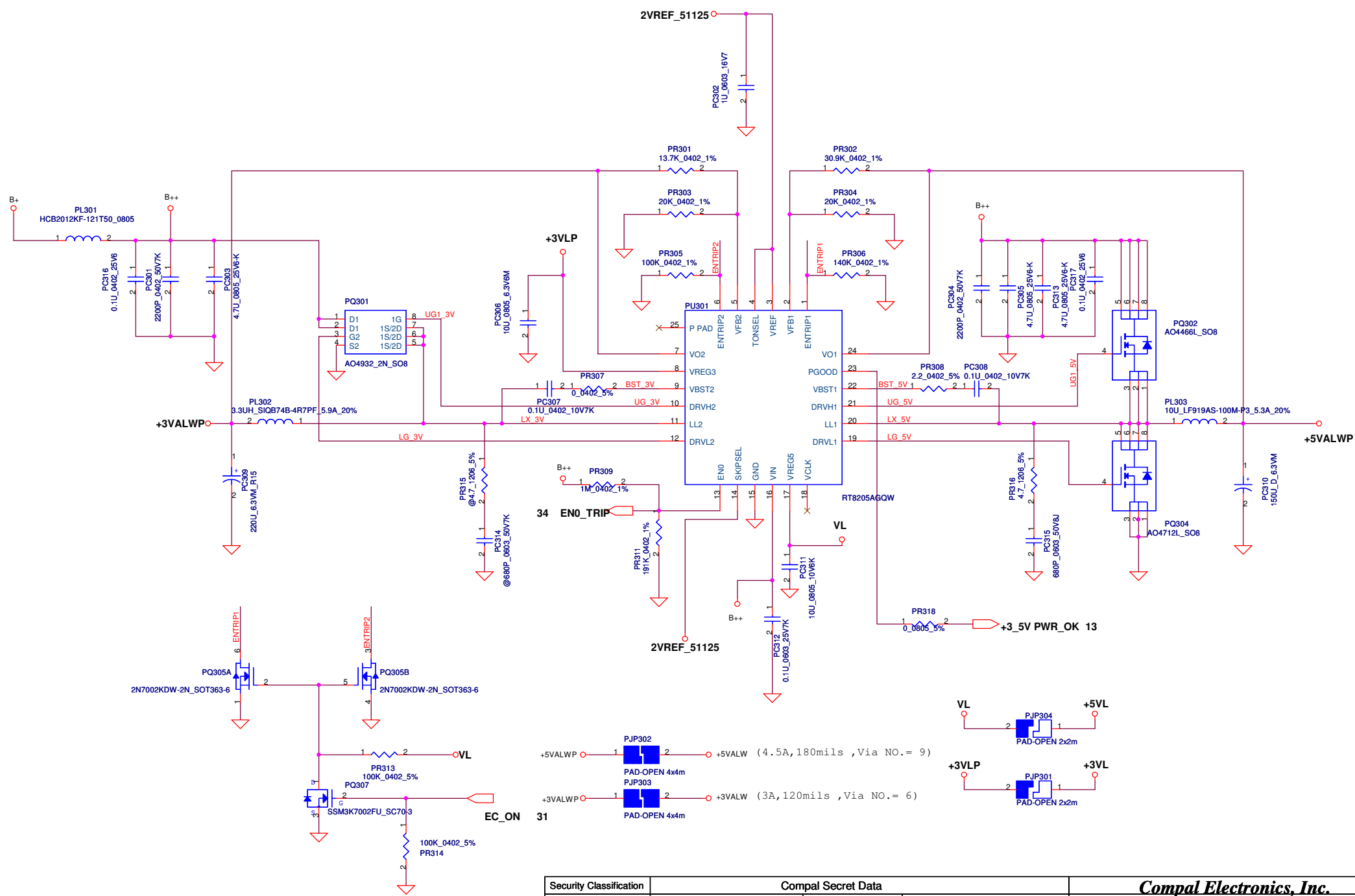
Charge Detector

ADP_1

STD_ADP 31

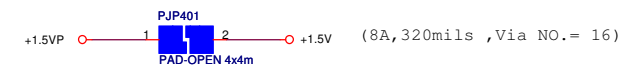
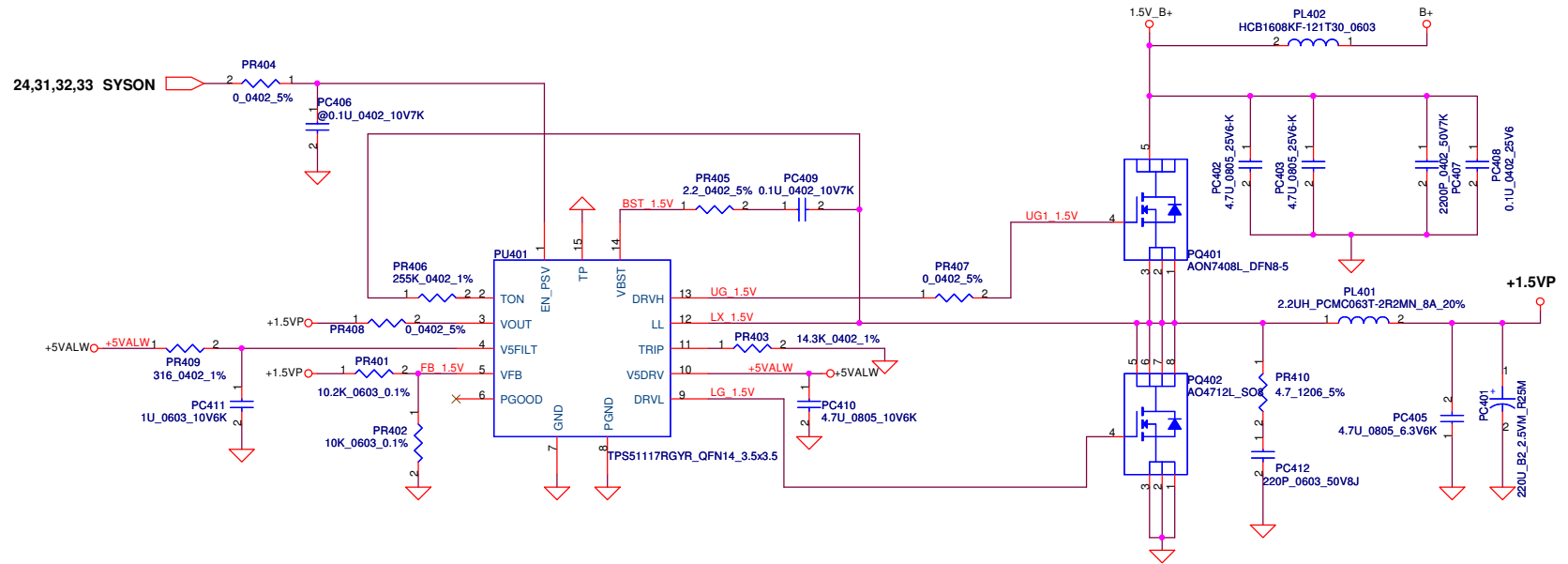
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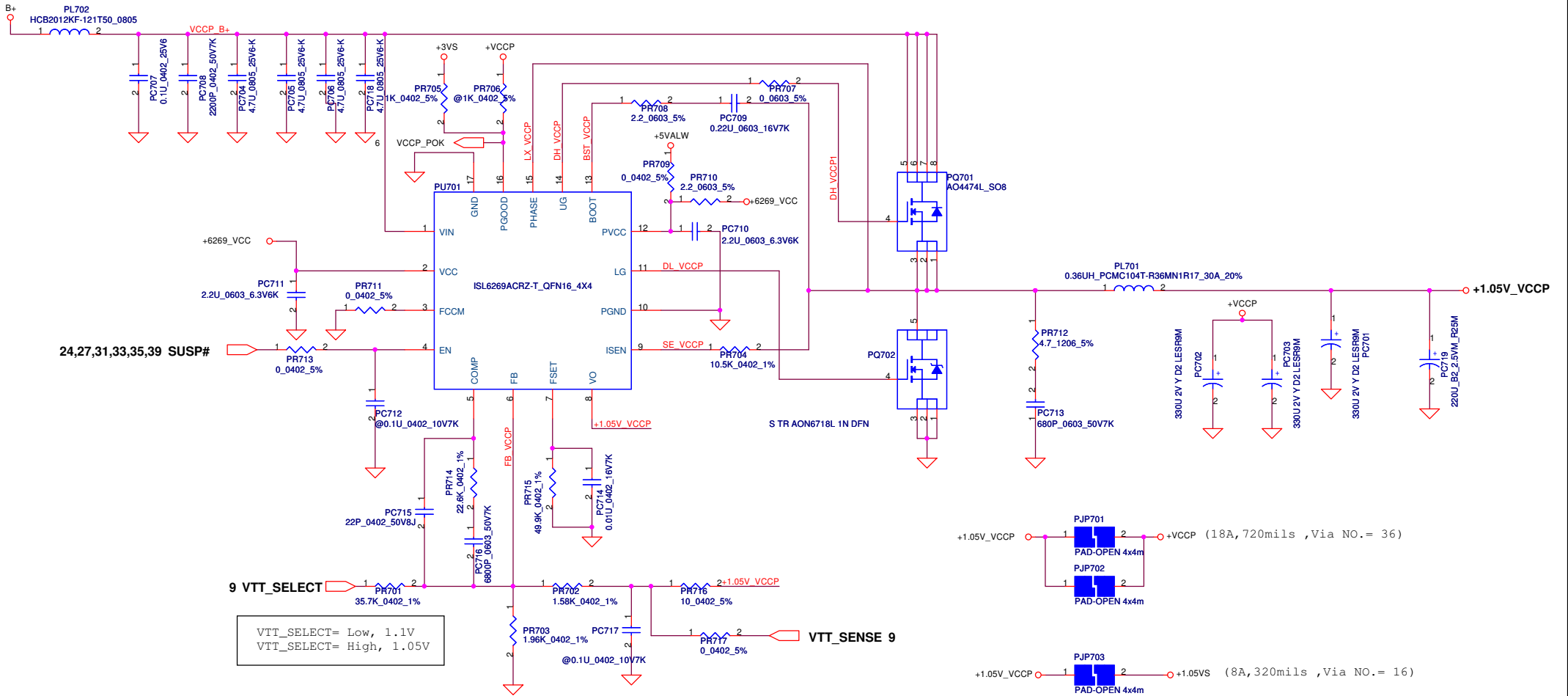
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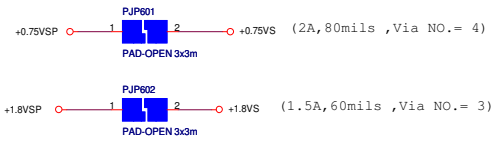
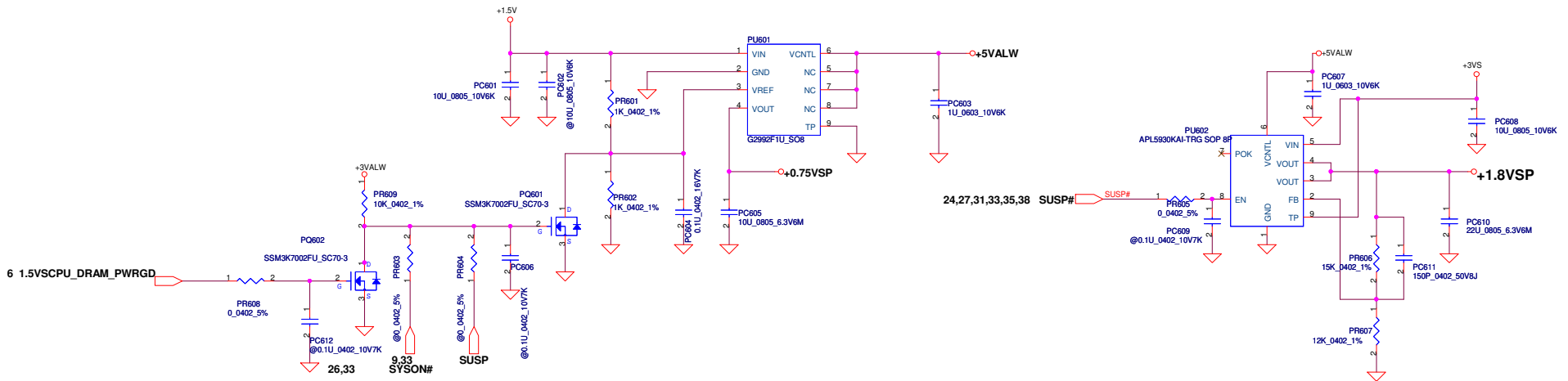


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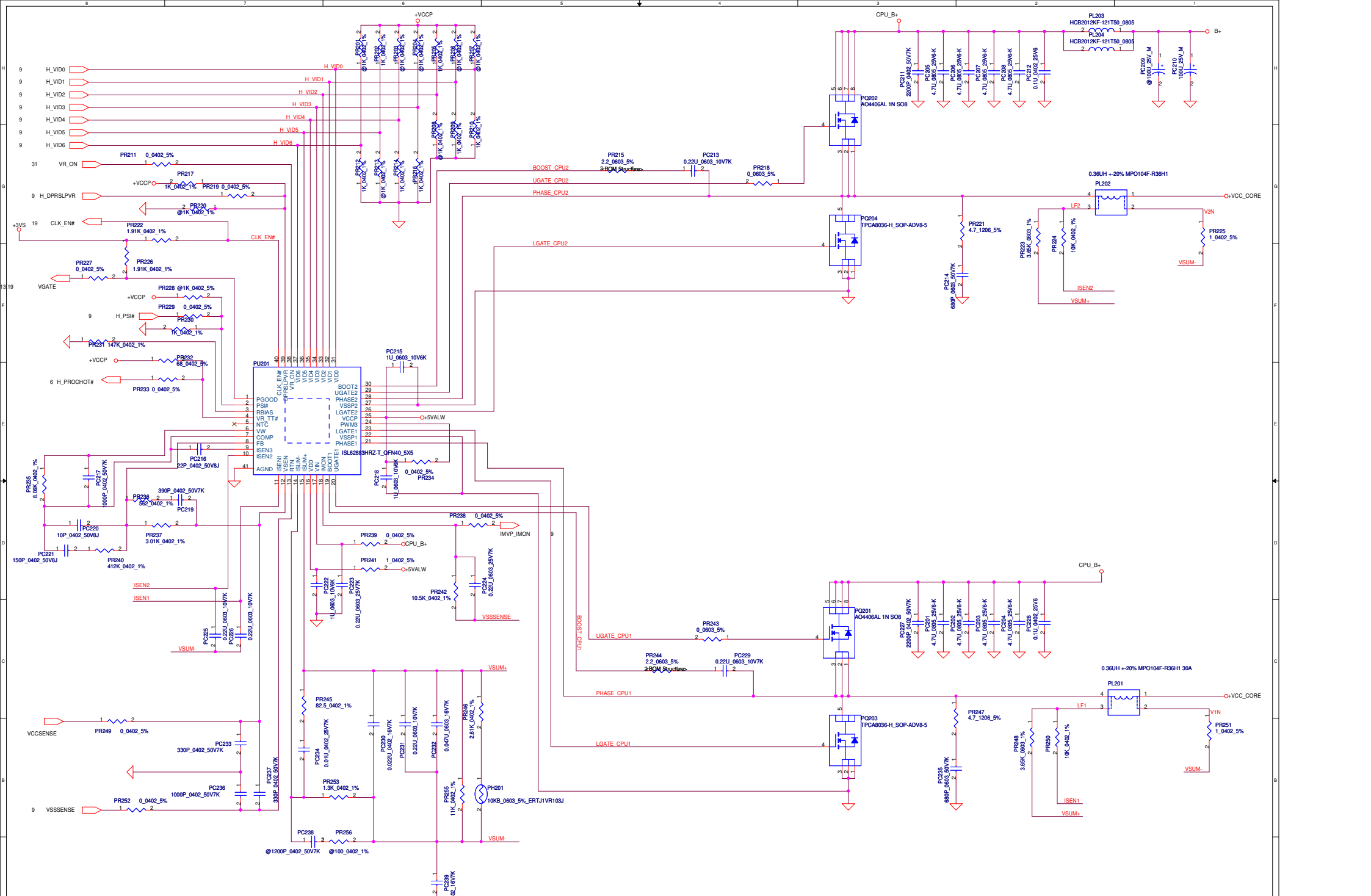
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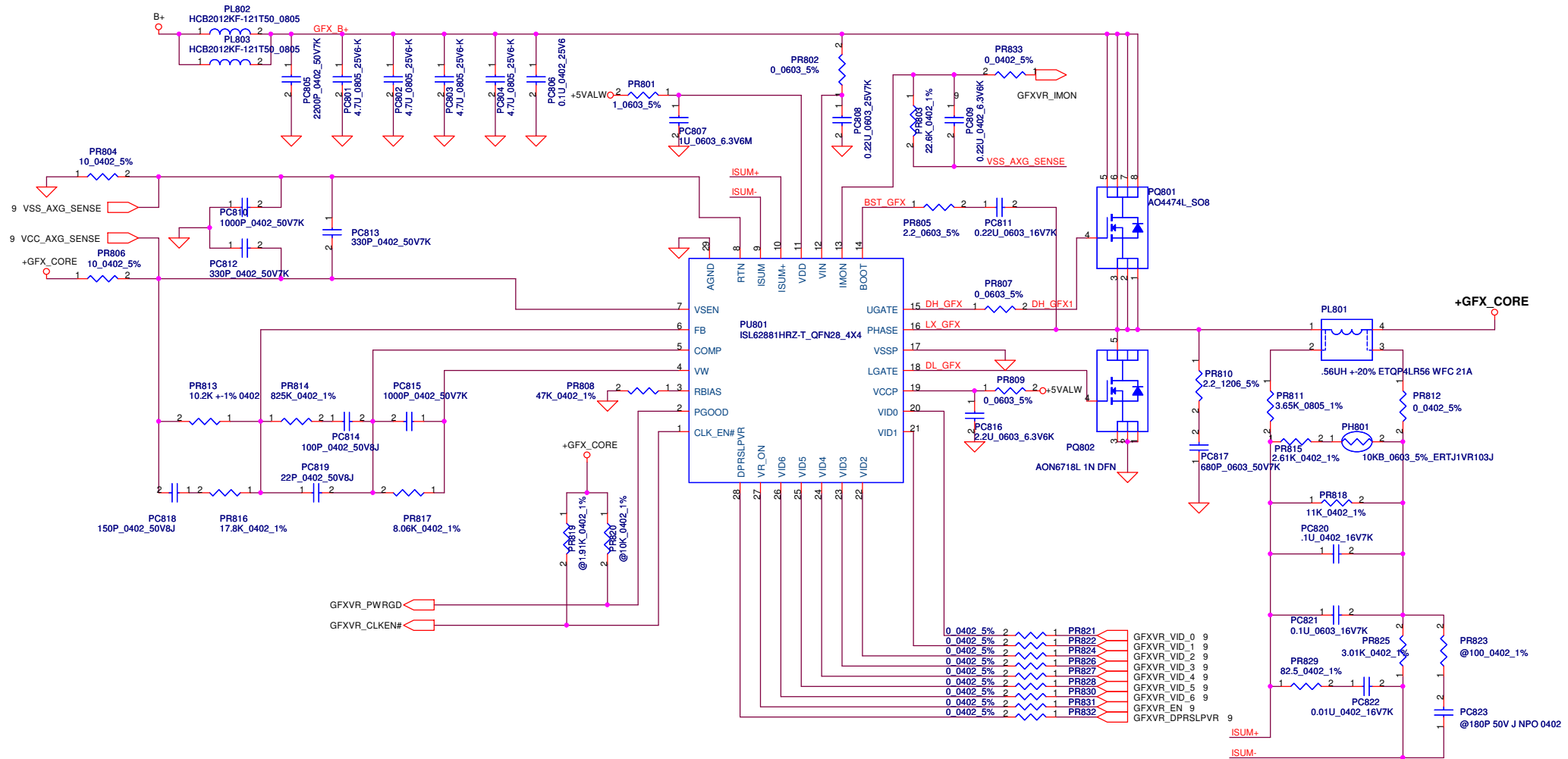
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+CPU CORE

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Version Change List (P. I. R. List) for Power Circuit

Item	Page #	Title	Date	Request Owner	Issue Description	Solution Description	Note
1	36	PWR-3.3VALWP/5VALWP	8/12	PWR	all cap no more than 0805	Add PC313,PC305 from 1206 to 0805 and parallel PC313	DB to PV1
2	40	PWR-CPU_CORE	8/13	PWR	OCF & IMON ajustment and Fixed LL to match INTEL Spec	Change PR253 from 1.1K to 1.3K,Change PR242 from 8.25K to 10.5K Change PR237 from 2.43K to 3.01K	DB to PV1
3	40	PWR-CPU_CORE	8/17	PWR	RF Solution	Change PQ201 PQ202 from AO4474L to AO4406AL	DB to PV1
4	39	PWR-0.75VP/1.8VSP	8/20	PWR	Cost Down plan	Change PU602 from APL5915 to APL5930	DB to PV1
5	35	PWR-Charger	8/20	PWR	Smart Charger	Change PR113 from 143K to 140K, Change PC117 from 1u to 0.1u, Add PR114	DB to PV1
6	38	PWR-1.05V_VCCP	8/24	PWR	Follow HW Suggestion Pull-up resistor connect to 3VS	Add PR705 connect to 3VS, remove PR706	DB to PV1
7	37	PWR-1.5VP	8/24	PWR	PU401 second source solution	PR403 from 8.45K to 14.3K	DB to PV1
8	38	PWR-1.05V_VCCP	8/24	PWR	PU701 second source solution	PR703 from 8.25K to 10.5K	DB to PV1
9	40	PWR-CPU-CORE	8/28	PWR	Improve transient response	Add PC230	DB to PV1
10	38	PWR-1.05V_VCCP	9/2	PWR	Cost down plan	PQ702 from TPCA8028-H to AON6718L	DB to PV1
11	38	PWR-1.05V_VCCP	9/3	PWR	Improve VCCP Ripple	Delet PC717	DB to PV1
12	41	GFX_CORE	9/11	PWR	Let GFX IMON measure easily	Add PR833 connet to GFXVR_IMON and PU801 13pin	PV1 to PV2
13	39	PWR-0.75VP/1.8VSP	9/11	PWR	For HW requirement add 1.5VSCPU_DRAM_PWRGD	Add 1.5VSCPU_DRAM_PWRGD add PR608 connect to PQ601 pin 2 and Delet PR604	PV1 to PV2

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Item	PAGE	Fixed Issue	Request by	Modify List	Date	Note
01	22		HW	Add R801	7/20.	DB --> PV-1
02	26	Fix Volum up/down cannot work on Docking.	HW	Add R1185, R1186 and pull high to +3VS.	7/20.	DB --> PV-1
03	31	Remove double pull high resistor.	HW	Delete R660.	7/20.	DB --> PV-1
04	13	Per EMI request.	EMI	Change R679 from 33 ohm to 100 ohm.	7/20	DB --> PV-1
05	31	Modify correct pull high resistor value.	HW	Change R512 and R513 from 4.7K to 2.2K ohm.	7/20	DB --> PV-1
06	32	Modify LVDS PWM connection.	HW	Connect R890 to PCH and R505(reserve) to EC.	7/24	DB --> PV-1
07	22	Fix cannot hot plug if use Asmedia level shifter.	HW	Remove R862 and R867.	8/13	DB --> PV-1
08	22	Add series for Express card delete signal between Express card power swtich and PCH For Board ID.	HW	Add R1210	8/13	DB --> PV-1
09	31		HW	Add R386 and pull low to GND.	8/13	DB --> PV-1
10	31	Change LAN power off control pin to U27 pin115.	HW	Connect U27 pin115 and add series resistor R543 to LAN power control circuit.	8/13	DB --> PV-1
11	31	Change LID switch power rail from +3VL to +3VALW.	HW	Pull high R526 to +3VALW.	8/13	DB --> PV-1
12	31	Delete useless parts.	HW	Delete R542 because already connect EC_UTX to MINI PCIE connector	8/13	DB --> PV-1
13	32	Change LID switch power rail from +3VL to +3VALW.	HW	Change JP11 pin 1 to +3VLALW.	8/13	DB --> PV-1
14	33	For Cost down.	HW	Reserve U30, R596, R650, R590, C681, C770, C679, C680, Q8; add PJ2 to connect +1.5VS_CPU and +1.5VS power plan.	8/13	DB --> PV-1
15	33	Try to use +1.5VS to replace +1.8VS power rail.	HW	Add and reserve PJ3 to short +1.8VS and +1.5VS_CPU power plan.	8/13	DB --> PV-1
16	14	Modify prevent S3 leakage issue circuit.	HW	Connect PCH_DDR_RST from EC GPIO48 to PCH GPIO46.	8/13	DB --> PV-1
17	31	Modify prevent S3 leakage issue circuit.	HW	Delete R386	8/13	DB --> PV-1
18	21	Fix LCD panel no display issue.	HW	Connect JLVDS1 pin27 to +3VS.	8/13	DB --> PV-1
19	32	Change Cap. board power rail from +3VL to +3VS.	HW	Reserve R1211 and connect to +3VS.	8/13	DB --> PV-1
20	27	Swap Audio port A and F.	HW	Swap port A and port F. Detail please see audio circuit.	8/17	DB --> PV-1
21	6	Delete XDP connector	HW	Delete JP1, R13, R17, R18, R19, R22, R25, C1	8/17	DB --> PV-1
22	25	Conecto Q15 to +3V_LAN.	HW	Delete R1031 and connect Q15 pin1 to +3V_LAN directly.	8/17	DB --> PV-1
23	26	Modify Audio circuit near docking side.	HW	Connect Q91 pin3 to GNDA and move it near Codec.	8/17	DB --> PV-1
24	27	Per EMI/ESD request.	EMI/ESD	Add R1212/C1433 for HDA_RST#_CODEC. Add C1434. Change R132/R135/R139 to C1435/C1436/C1437.	8/17	DB --> PV-1
25	6	Modify prevent S3 leakage issue circuit.	HW	Change U57 from reset IC to AND gate; add R1218 and reserve R383; add voltage divider(R1216/R1217) for VTTWPGOOD.	8/19	DB --> PV-1
26	25	Follow DIS.	HW	Change Y8 material.	8/19	DB --> PV-1
27	28	Per ESD request.	ESD	Add D61, D62 for OPP sku.	8/19	DB --> PV-1
28	32	Change cap. board power rail from +3VL to +3VS.	HW	Pull high R544 and R545 to +3VS power rail.	8/20	DB --> PV-1
29	14	Make sure PLT_RST# level is stable.	HW	Stuff R185.	8/20	DB --> PV-1
30	32	Reserve +3VL power rail for cap. board.	HW	Add and reserve R1219/R1220 to +3VL.	8/21	DB --> PV-1

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Item	PAGE	Fixed Issue	Request by	Modify List	Date	Note
01	6	Make sure +1.5VS can ramp up early than +0.75VS.	HW	Connect 1.5VSCPU_DRAM_PWRGD to enable PU601.	9/11	PV-1 --> PV-2
02	11	ME fuction control enable/disable.	SW/EC	Add Q106, R1221, R1222 and connect to EC pin26.	9/11	PV-1 --> PV-2
03	13	For support ME function.	SW/EC	Connect SUS_PWR_ACK to EC pin76.	9/11	PV-1 --> PV-2
04	14	HM55 disable USB port6/port7.	INTEL	Change Bluetooth port6 to port12, change Fingerprinter port7 to port11.	9/11	PV-1 --> PV-2
05	27	To solve no Vref out when external MIC change from port A to port F.	HW	Reserve R431, add R and connect to +AVDD_CODEC.	9/11	PV-1 --> PV-2
06	27	Delete EC_BEEP from EC because useless.	HW	Delete EC_BEEP to EC.		
07	28	Delete ANA_MIC_DET net to EC.because useless.	HW	Delete ANA_MIC_DET to EC.	9/11	PV-1 --> PV-2
08	29	HM55 disable USB port6/port7.	INTEL	Change Bluetooth port6 to port12, change Fingerprinter port7 to port11.	9/11	PV-1 --> PV-2
09	31	Board ID is not enough when use pin81.	EC	Swap TP_BTN# and BDID, then add pull high resistor R1223 for BDID.	9/11	PV-1 --> PV-2
10	31	ME fuction control enable/disable.	SW/EC	Remove EC_BEEP and change to ME_EN, then connect ME_EN to Q106.	9/11	PV-1 --> PV-2
11	31	For support ME function.	SW/EC	Remove ANA_MIC_DET and change to SUS_PWR_ACK, then connect SUS_PWR_ACK to PCH.	9/11	PV-1 --> PV-2
12	31	Chagne ENE cap. board ESB bus power rail from +3VS to +3VL.	HW	Reserve R544/R545 and stuff R1219/R1220.	9/11	PV-1 --> PV-2
13	32	Chagnge Cap. board power rail from +3VS to +3VL.	HW	Reserve R1211 and stuff R1140.	9/11	PV-1 --> PV-2
14					9/11	PV-1 --> PV-2

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Item	PAGE	Fixed Issue	Request by	Modify List	Date	Note
01	12	To solve RTL8401 cause BSOD 0xD1 issue.	HW	Change RTL8401 PCIE port from port3 to port5 (follow Rhett2.0), new add series resistor R506/0 ohm.	10/19	Delete this item in 10/26.
02	12	To solve HDMI signal jitter fail issue.	Intel	Add Y2, R131, C141. Change C142 from 0 ohm to 18pF.	10/19	PV-2 --> MV
03	19	To solve time too fast in DOS mode.	HW	Change R259 and R260 from 18pF to 22pF.	10/19	PV-2 --> MV
04	25	To solve RTL8401 cause BSOD 0xD1 issue.	HW	Change RTL8401 PCIE port from port3 to port5 (follow Rhett2.0)	10/19	Delete this item in 10/26.
05	31	To solve cannot power on when no CPU insert in ATE test.	HW	Add pull high resistro R13 to +3VL_EC for EC pin21.	10/20	PV-2 --> MV
06	33	To meet Intel power down sequence spec.	HW	Change R593 from 470 ohm to 22 ohm.	10/21	PV-2 --> MV
07	09	To meet Intel power down sequence spec.	HW	Change R1182 from 470 ohm to 220 ohm.	10/21	PV-2 --> MV
08	13	Follow Intel schematic checklist rev2.0 change.	HW	Change R137 from 1K ohm to 10K ohm.	10/21	PV-2 --> MV
09	27	To solve audio noise issue.	HW	Add and reserve U59, R1228, C1443, C1444, C1445, C1446, R1226, R1227.	11/02	PV-2 --> MV
10	04	To solve ESD test fail.	ESD	Add and reserve C1438, C1439, C1440 near Q104.	11/03	PV-2 --> MV
11	17	To solve ESD test fail.	ESD	Add and reserve C1441 near JDIMM1.	11/03	PV-2 --> MV
12	18	To solve ESD test fail.	ESD	Add and reserve C1442 near JDIMM2.	11/03	PV-2 --> MV
13	28	To solve ESD test fail.	ESD	Add and reserve C1447 between GND and GNDA near internal MIC connector.	11/03	PV-2 --> MV
14	32	To solve EMI test fail.	EMI	Change R1148 from 0 ohm to bead (SM01000CY00), move C652 to near JP59.	11/03	PV-2 --> MV
15	32	To solve EMI test fail.	EMI	Move C652 to near JP59.	11/03	PV-2 --> MV
16	27	To solve audio noise issue.	EMI	Move C652 to near JP59.	11/03	PV-2 --> MV
17	27	Reserve ref. power for external MIC.	HW	Reserve R1230 to connect +VREFOUT_INMIC.	11/05	PV-2 --> MV
18	27	To solve GFX power spike when S0 to S3/S5.	Intel	Change R43 from 4.7K ohm to 249 ohm.	11/05	PV-2 --> MV
19	33	To meet Intel power down sequence spec.	HW	Change R592 from 470 ohm to 22 ohm.	11/05	PV-2 --> MV
20	6	To reduce powr noise from FAN.	HW	Add R597.	11/05	PV-2 --> MV

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Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/07/26	Compal Electronics, Inc.	
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