

Compal Confidential

PEW96 M/B Schematics Document AMD Danube Only UMA AMD Champlain Processor with RS880M/SB820M

2010-06-11

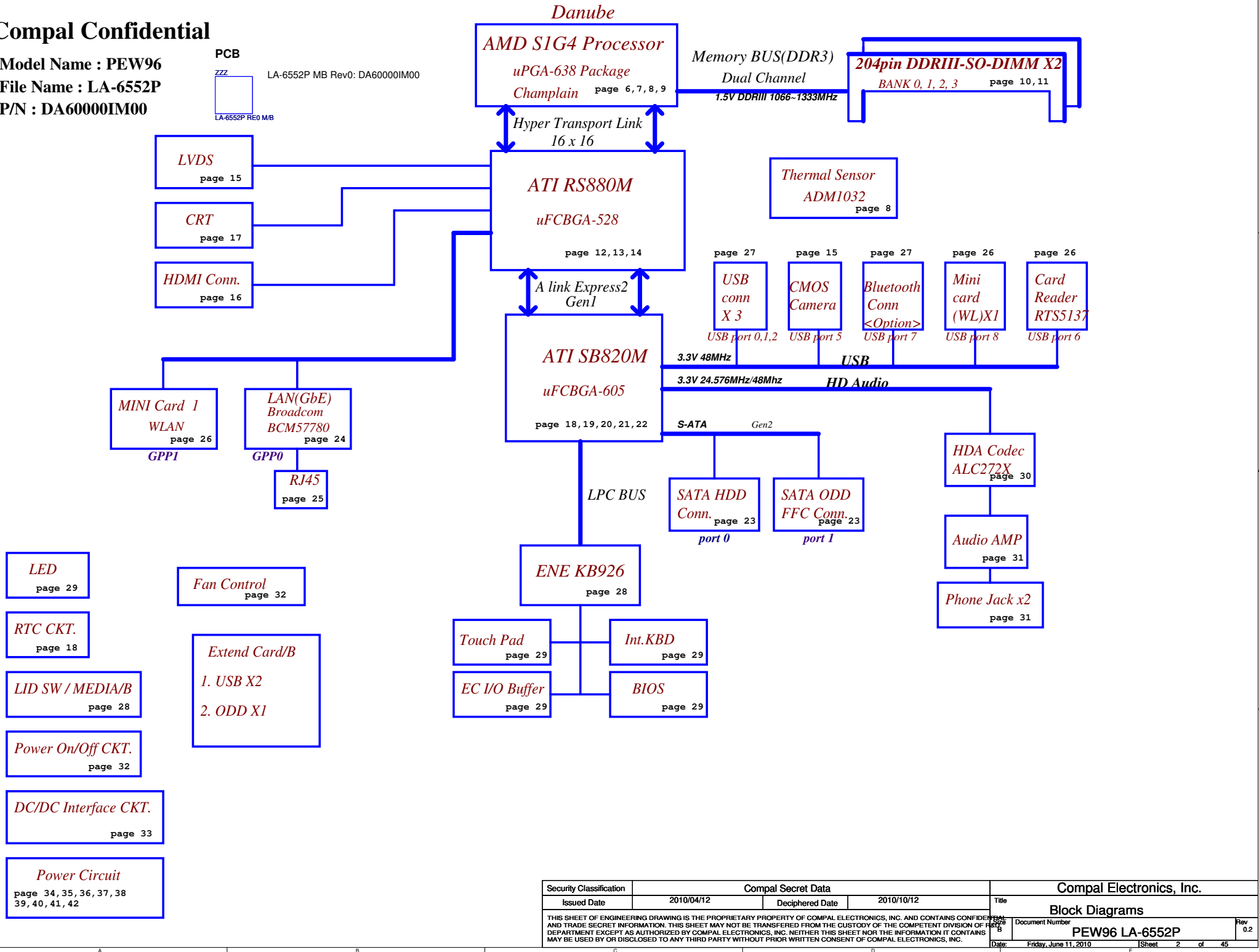
LA6552P REV: 0.2

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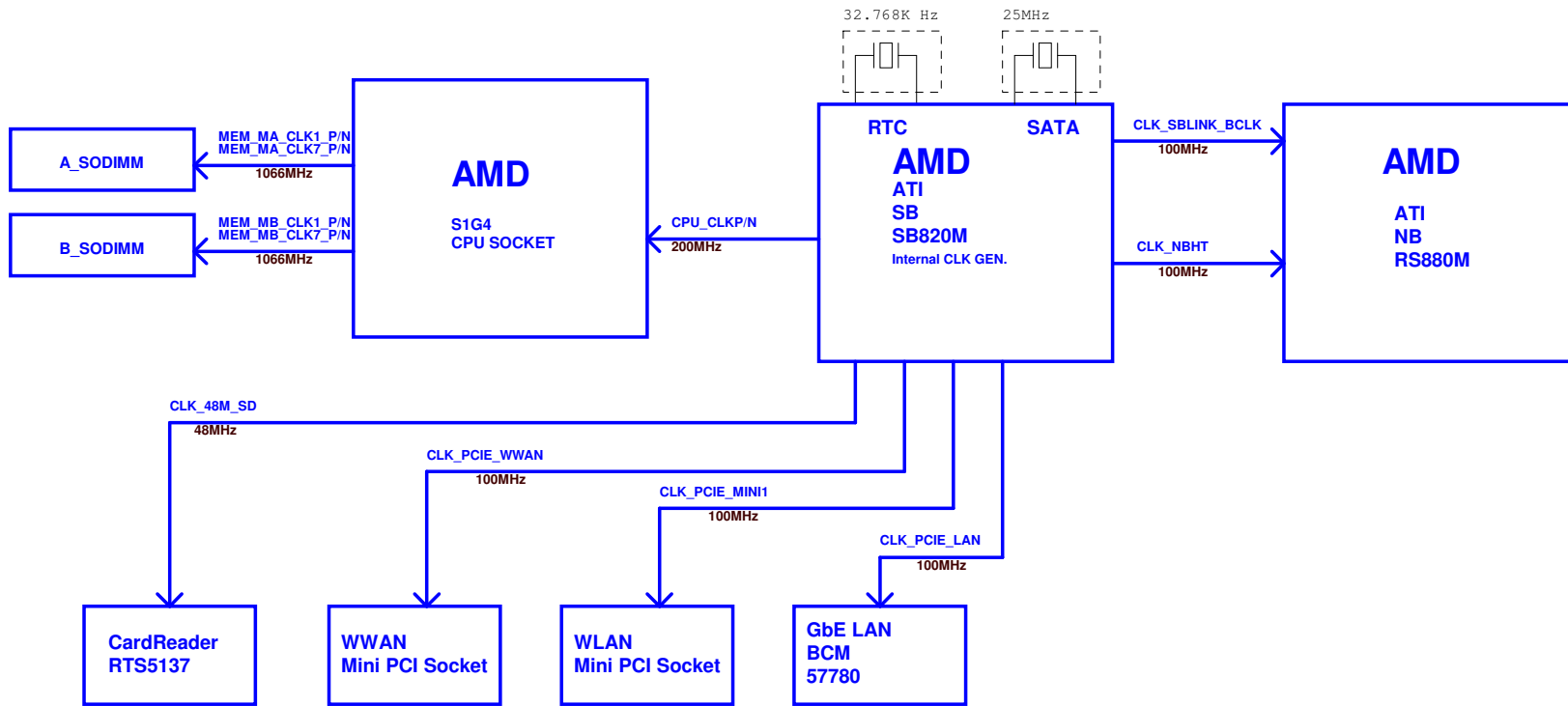
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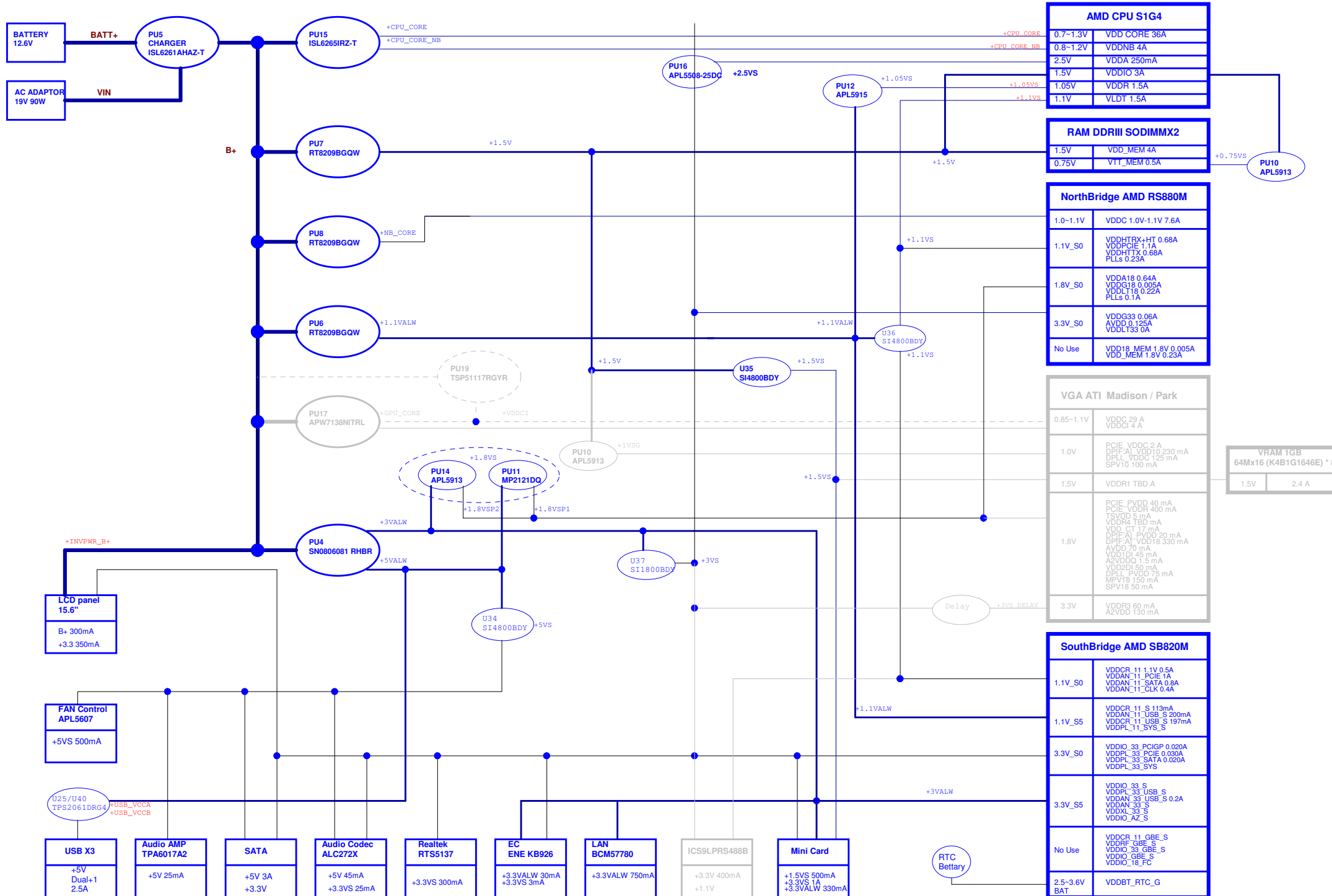
PCB
 LA-6552P MB Rev0: DA60000IM00
 LA-6552P RE0 MB



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AMD CPU S1G4	
0.7-1.3V	VDD CORE 36A
0.8-1.2V	VDDNB 4A
2.5V	VDDA 250mA
1.5V	VDDIO 3A
1.05V	VDDR 1.5A
1.1V	VLDT 1.5A



RAM DDRIII SODIMM2	
1.5V	VDD_MEM 4A
0.75V	VTT_MEM 0.5A

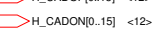
NorthBridge AMD RS880M	
1.0-1.1V	VDDC 1.0V-1.1V 7.6A
1.1V_S0	VDDHTRX+HT 0.68A VDDPCIE 1.1A VDDHTX 0.68A PLLs 0.23A
1.8V_S0	VDDA18 0.64A VDDG18 0.005A VDDL18 0.22A PLLs 0.1A
3.3V_S0	VDDG33 0.06A AVDD 0.125A VDDL33 0A
No Use	VDD18_MEM 1.8V 0.005A VDD_MEM 1.8V 0.23A

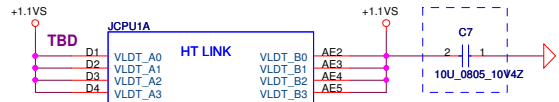
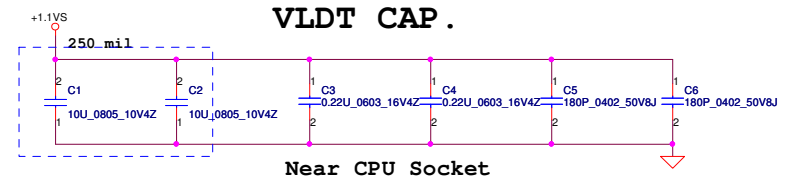
VGA ATI Madison / Park	
0.85-1.1V	VDDC 29 A VDDCI 4 A
1.0V	PCIE_VDDC 2 A DPFEA1_VDD10 230 mA DPLL_VDDC 125 mA SPV10 100 mA
1.5V	VDDR1 TBD A
1.8V	PCIE_PVDD 40 mA PCIE_VDDR 400 mA TSVDD 5 mA VDDR4 TBD mA VDD_CT 17 mA DPFEA1_PVDD 20 mA DPFEA1_VDD18 330 mA AVDD 70 mA VDDI1 45 mA AZVDDIO 1.5 mA VDD2DI 50 mA DPLL_PVDD 75 mA MPV18 150 mA SPV18 50 mA
3.3V	VDDR3 60 mA A2VDD 130 mA

VRAM 1GB	
1.5V	2.4 A






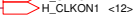

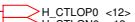
SouthBridge AMD SB820M	
1.1V_S0	VDDCR_11 1.1V 0.5A VDDAN_11_PCIE 1A VDDAN_11_SATA 0.8A VDDAN_11_CLK 0.4A
1.1V_S5	VDDCR_11_S 113mA VDDAN_11_USB_S 200mA VDDCR_11_USB_S 197mA VDDL_11_SYS_S
3.3V_S0	VDDIO_33_PCIEP 0.020A VDDPL_33_PCIE 0.030A VDDPL_33_SATA 0.020A VDDL_33_SYS
3.3V_S5	VDDIO_33_S VDDPL_33_USB_S VDDAN_33_USB_S 0.2A VDDAN_33_S VDDXL_33_S VDDIO_AZ_S
No Use	VDDCR_11_GBE_S VDDRF_GBE_S VDDIO_33_GBE_S VDDIO_GBE_S VDDIO_18_FC
2.5-3.6V BAT	VDDBT_RTC_G


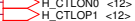

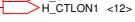




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H_CADOP[0..15]  H_CADOP[0..15] <12>
 H_CADON[0..15]  H_CADON[0..15] <12>



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H_CADIN0	E2	L0_CADIN_L0	L0_CADOUT_L0	AC1	H_CADON0
H_CADIP1	F1	L0_CADIN_H1	L0_CADOUT_H1	AC2	H_CADOP1
H_CADIN1	F1	L0_CADIN_L1	L0_CADOUT_L1	AC3	H_CADON1
H_CADIP2	G3	L0_CADIN_H2	L0_CADOUT_H2	AB1	H_CADOP2
H_CADIN2	G2	L0_CADIN_L2	L0_CADOUT_L2	AA1	H_CADON2
H_CADIP3	G1	L0_CADIN_H3	L0_CADOUT_H3	AA2	H_CADOP3
H_CADIN3	H1	L0_CADIN_L3	L0_CADOUT_L3	AA3	H_CADON3
H_CADIP4	J1	L0_CADIN_H4	L0_CADOUT_H4	W2	H_CADOP4
H_CADIN4	K1	L0_CADIN_L4	L0_CADOUT_L4	W3	H_CADON4
H_CADIP5	L3	L0_CADIN_H5	L0_CADOUT_H5	V1	H_CADOP5
H_CADIN5	L2	L0_CADIN_L5	L0_CADOUT_L5	U1	H_CADON5
H_CADIP6	L1	L0_CADIN_H6	L0_CADOUT_H6	U2	H_CADOP6
H_CADIN6	M1	L0_CADIN_L6	L0_CADOUT_L6	U3	H_CADON6
H_CADIP7	N3	L0_CADIN_H7	L0_CADOUT_H7	T1	H_CADOP7
H_CADIN7	E5	L0_CADIN_L7	L0_CADOUT_L7	R1	H_CADON7
H_CADIP8	N2	L0_CADIN_H8	L0_CADOUT_H8	AD4	H_CADOP8
H_CADIN8	F5	L0_CADIN_L8	L0_CADOUT_L8	AD3	H_CADON8
H_CADIP9	F3	L0_CADIN_H9	L0_CADOUT_H9	AD5	H_CADOP9
H_CADIN9	F4	L0_CADIN_L9	L0_CADOUT_L9	AC5	H_CADON9
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H_CADIP14	M3	L0_CADIN_H14	L0_CADOUT_H14	V5	H_CADOP14
H_CADIN14	M4	L0_CADIN_L14	L0_CADOUT_L14	U5	H_CADON14
H_CADIP15	N5	L0_CADIN_H15	L0_CADOUT_H15	T4	H_CADOP15
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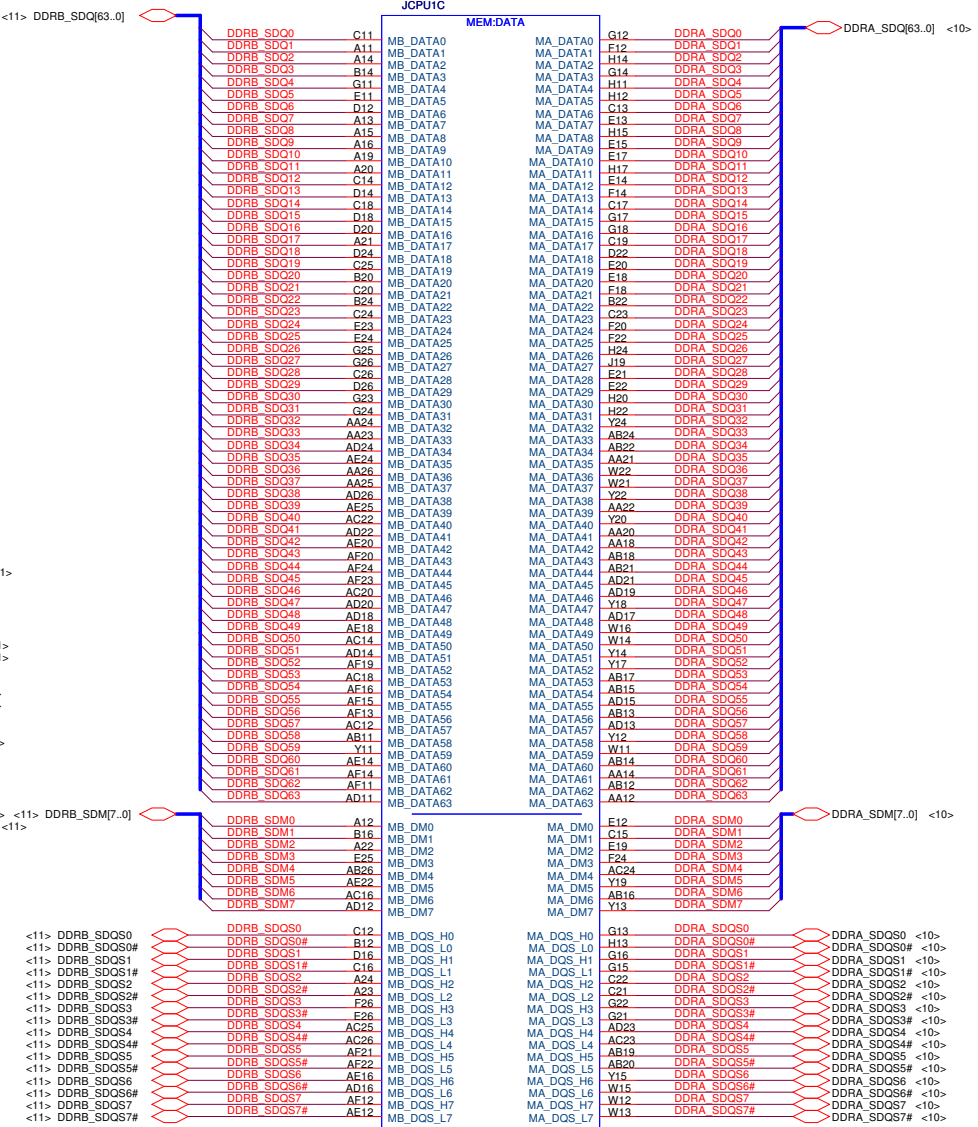
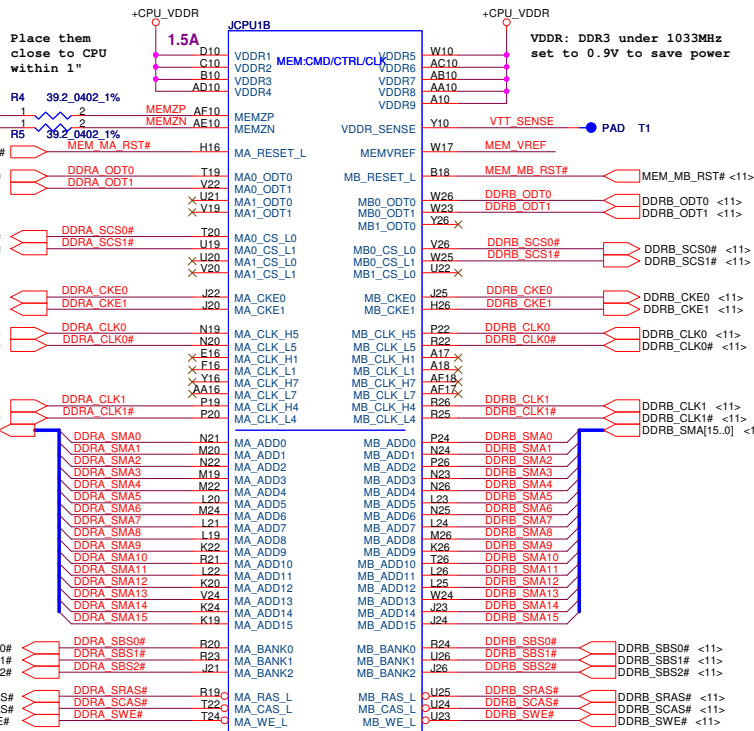
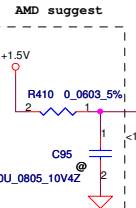
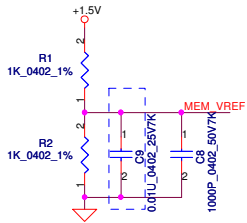
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FOX_PZ63823-284S-41F_Champilan

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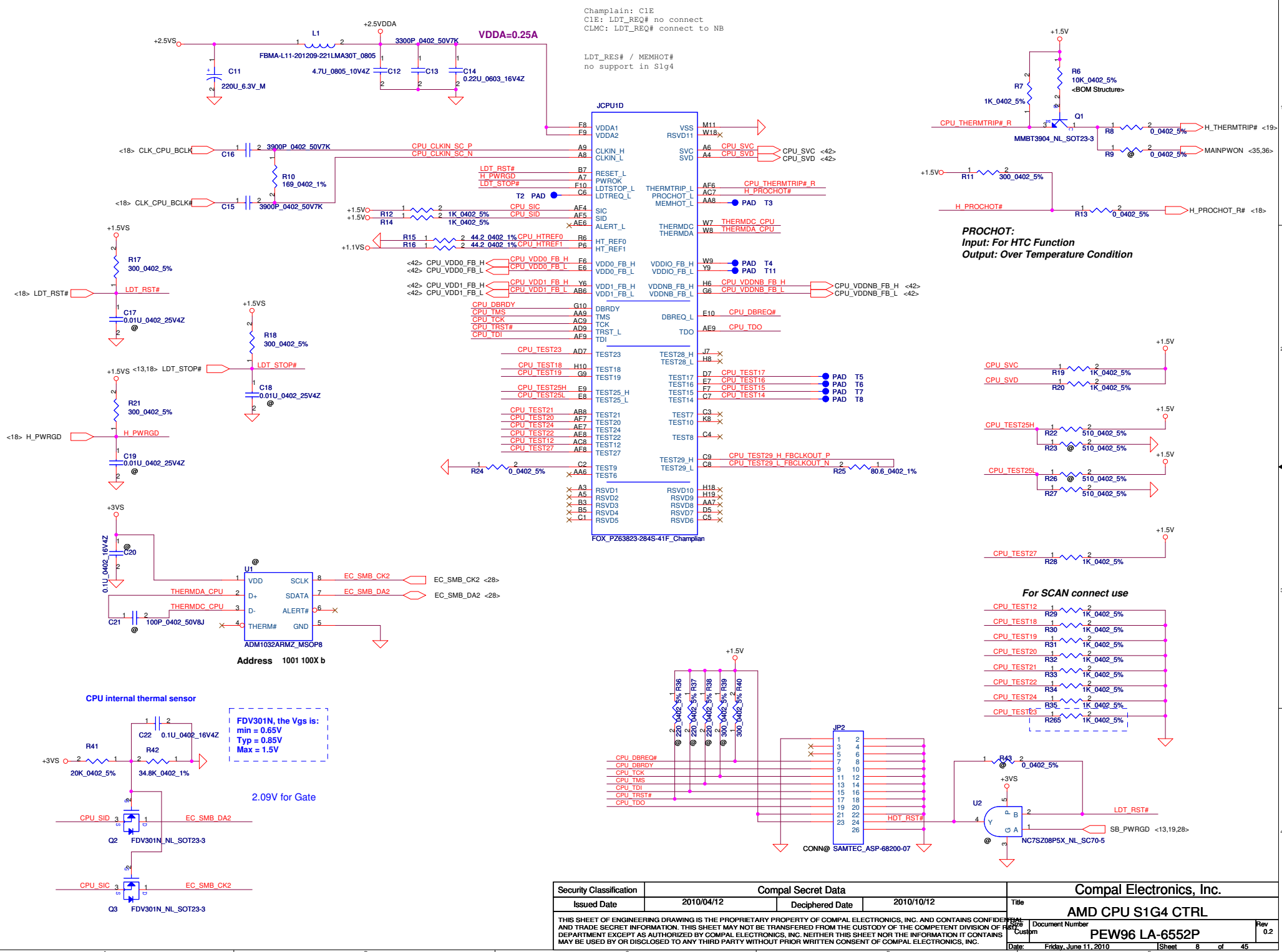
Processor DDR3 Memory Interface



FOX_P263823-284S-41F_Champian

FOX_P263823-284S-41F_Champian

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Champlain: C1E
 C1E: LDT_REQ# no connect
 CLMC: LDT_REQ# connect to NB

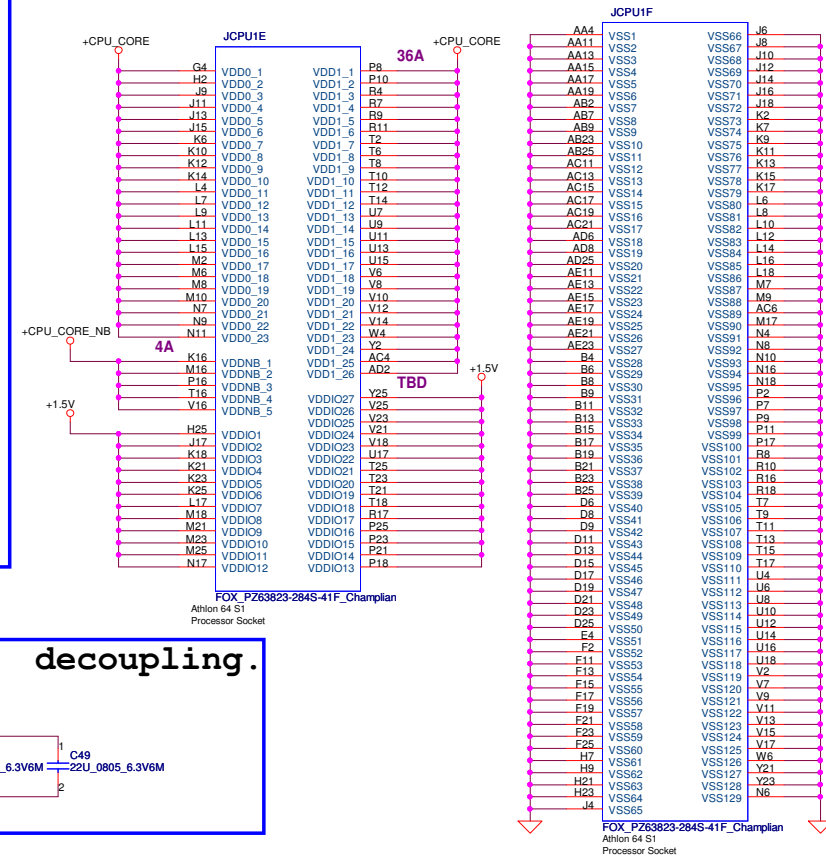
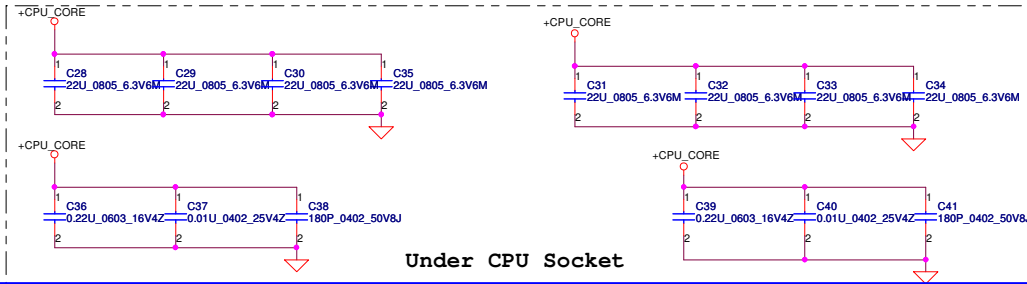
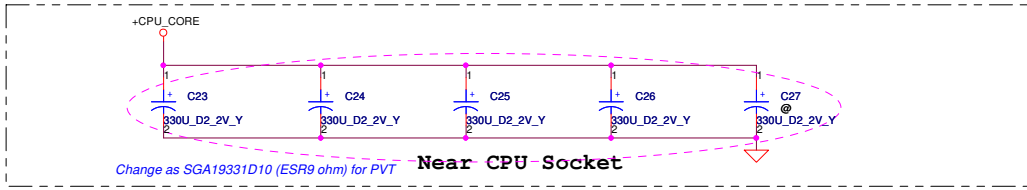
LDT_RES# / MEMHOT#
 no support in S1g4

PROCHOT:
 Input: For HTC Function
 Output: Over Temperature Condition

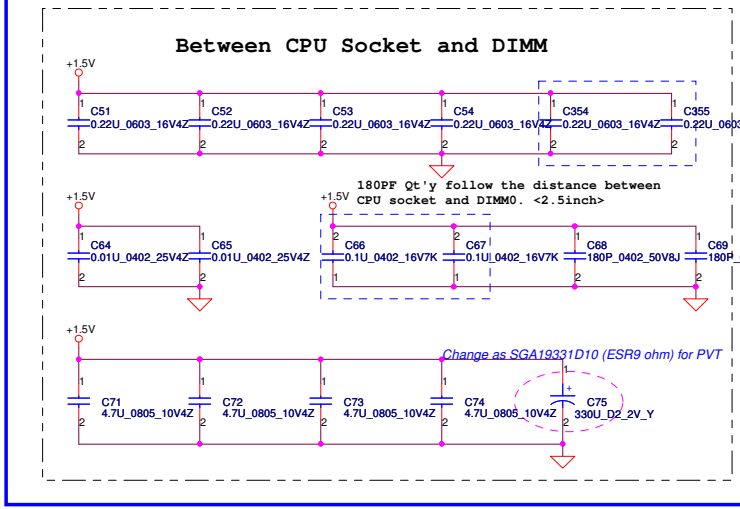
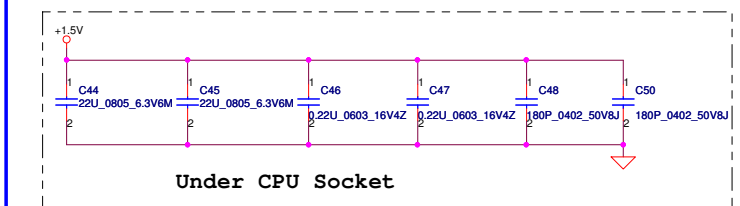
For SCAN connect use

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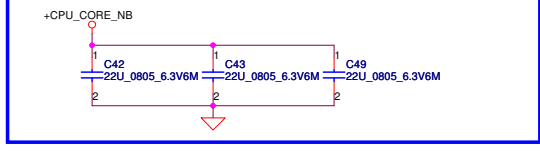
VDD (+CPU_CORE) decoupling.



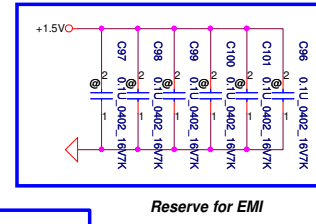
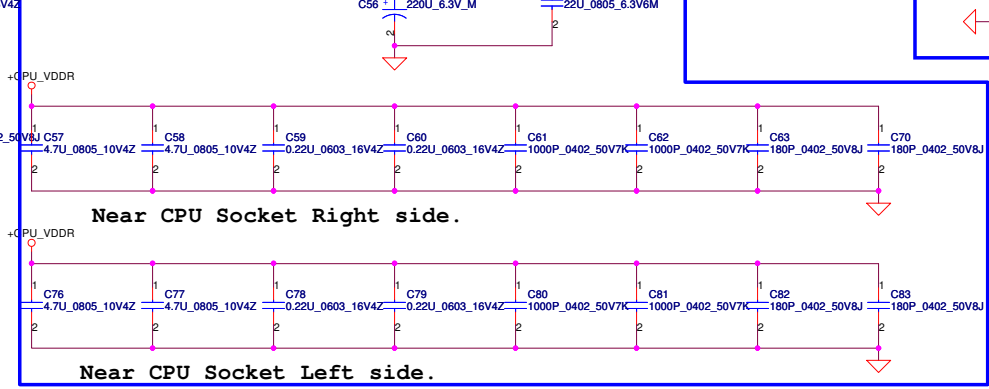
VDDIO decoupling.



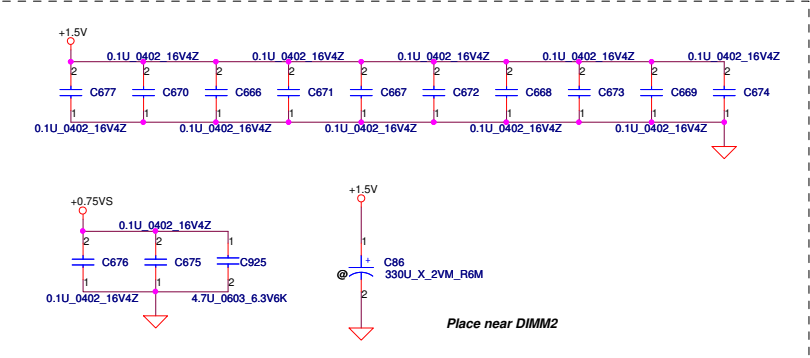
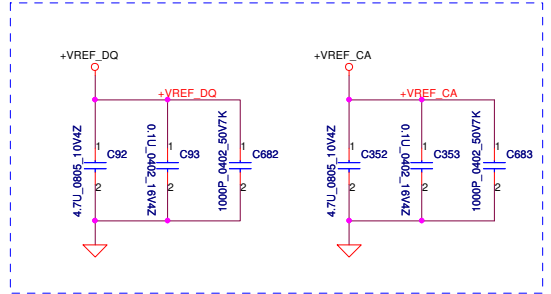
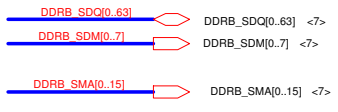
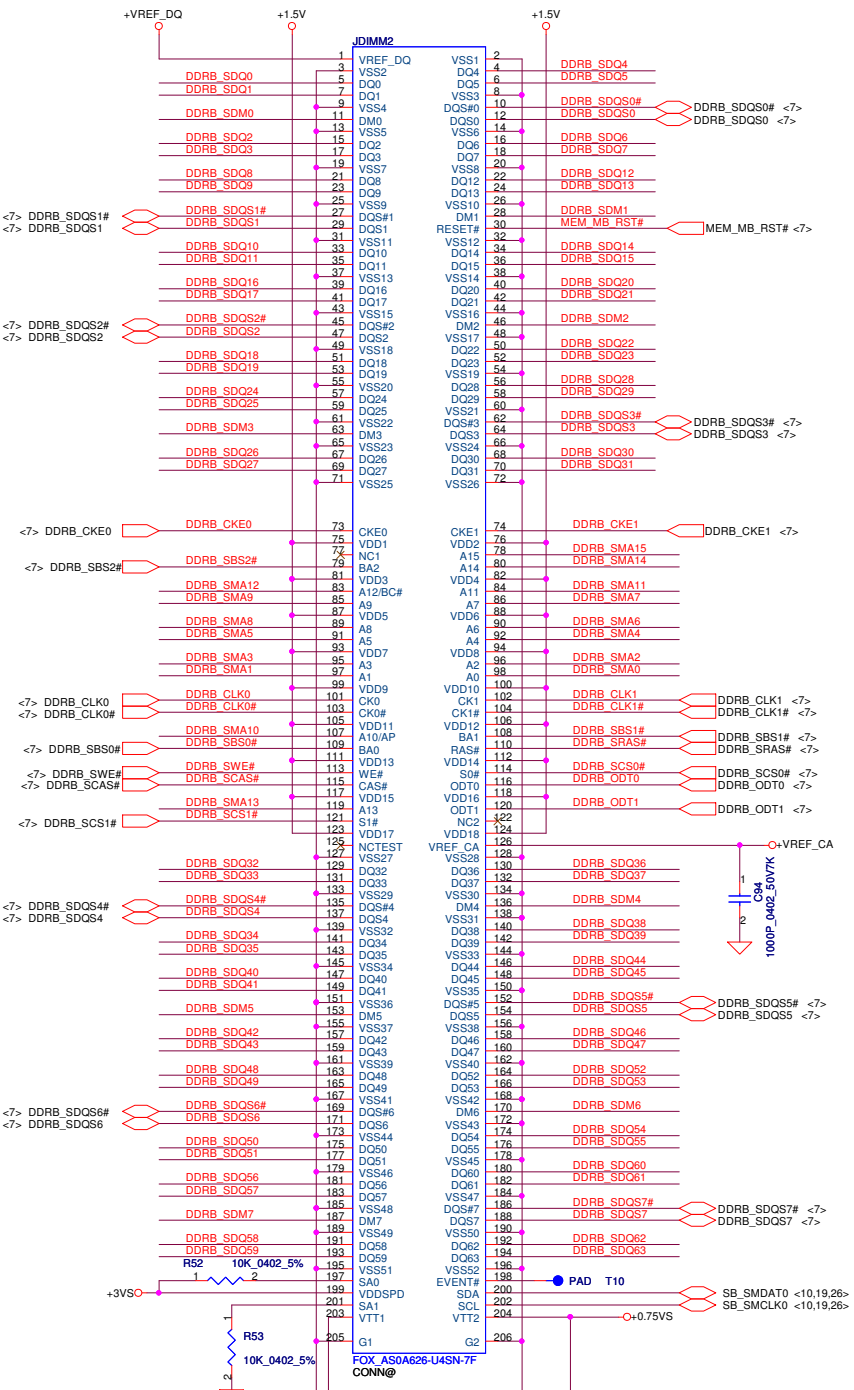
+CPU_CORE_NB decoupling.



VDDR decoupling.

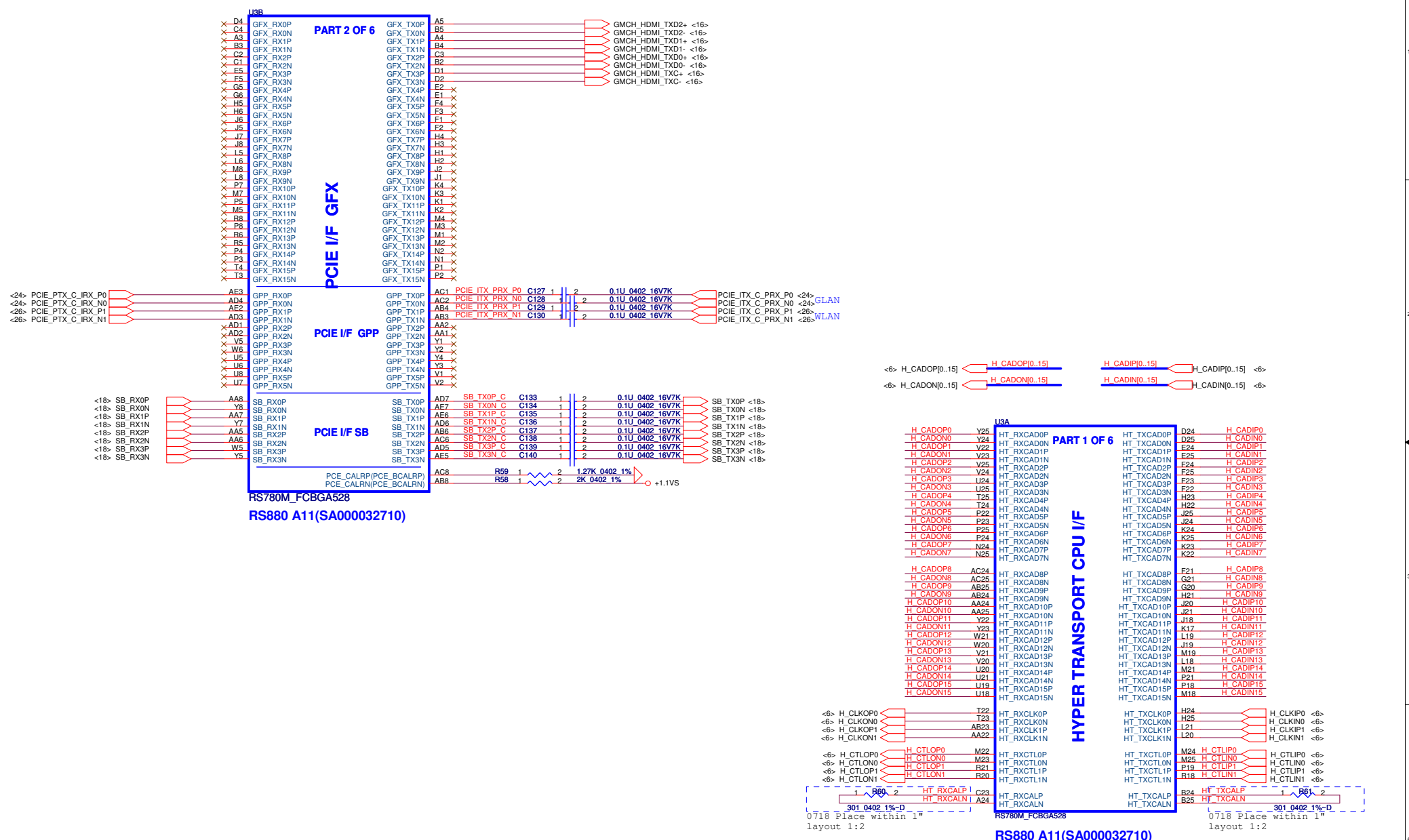


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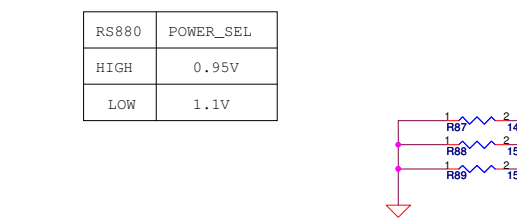
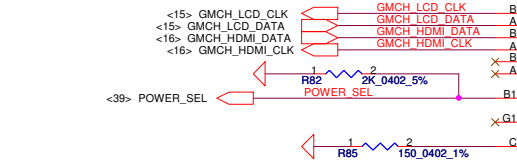
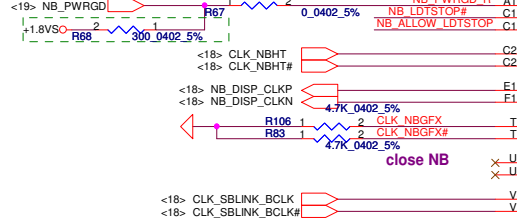
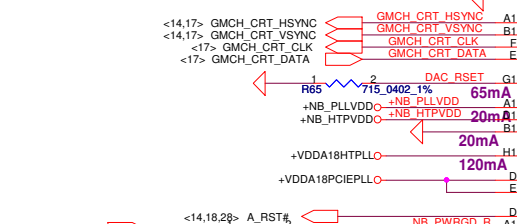
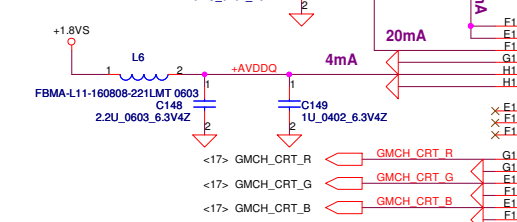
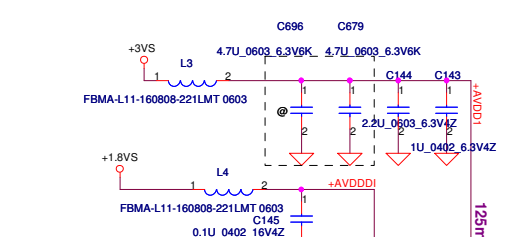
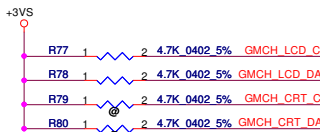
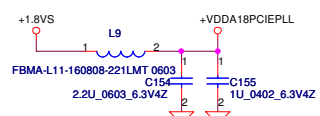
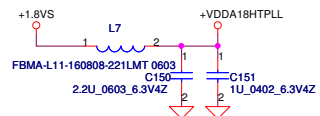
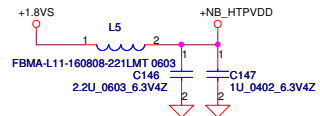
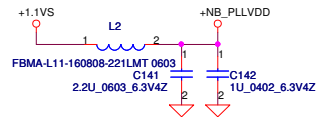


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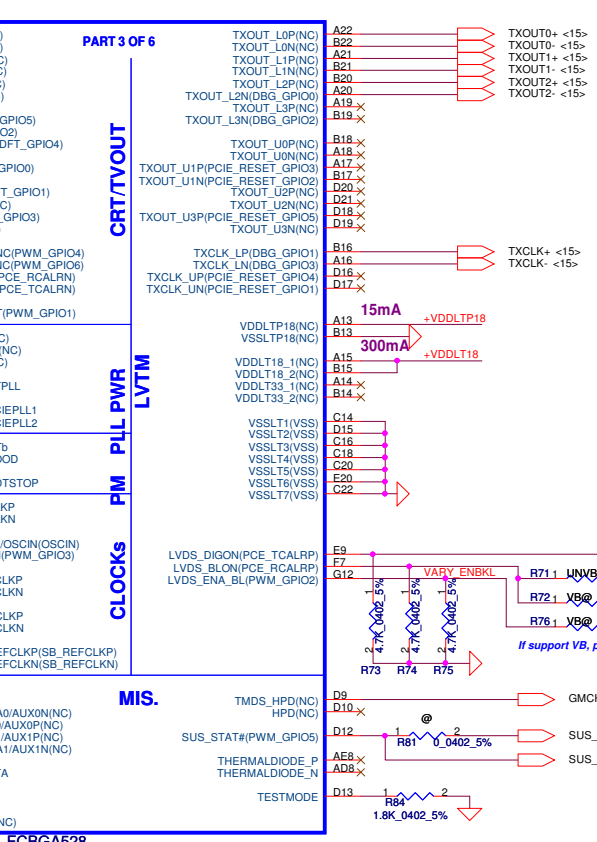
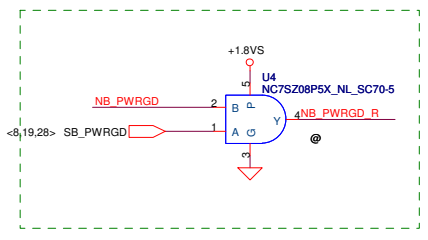
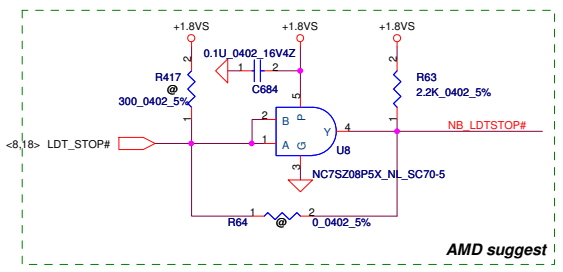
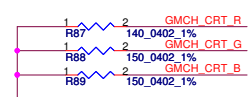
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Security Classification		Compal Secret Data		Title	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	RS880-HT/PCIE	
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				PEW96 LA-6552P	0.2
				Date: Friday, June 11, 2010	Sheet 12 of 45

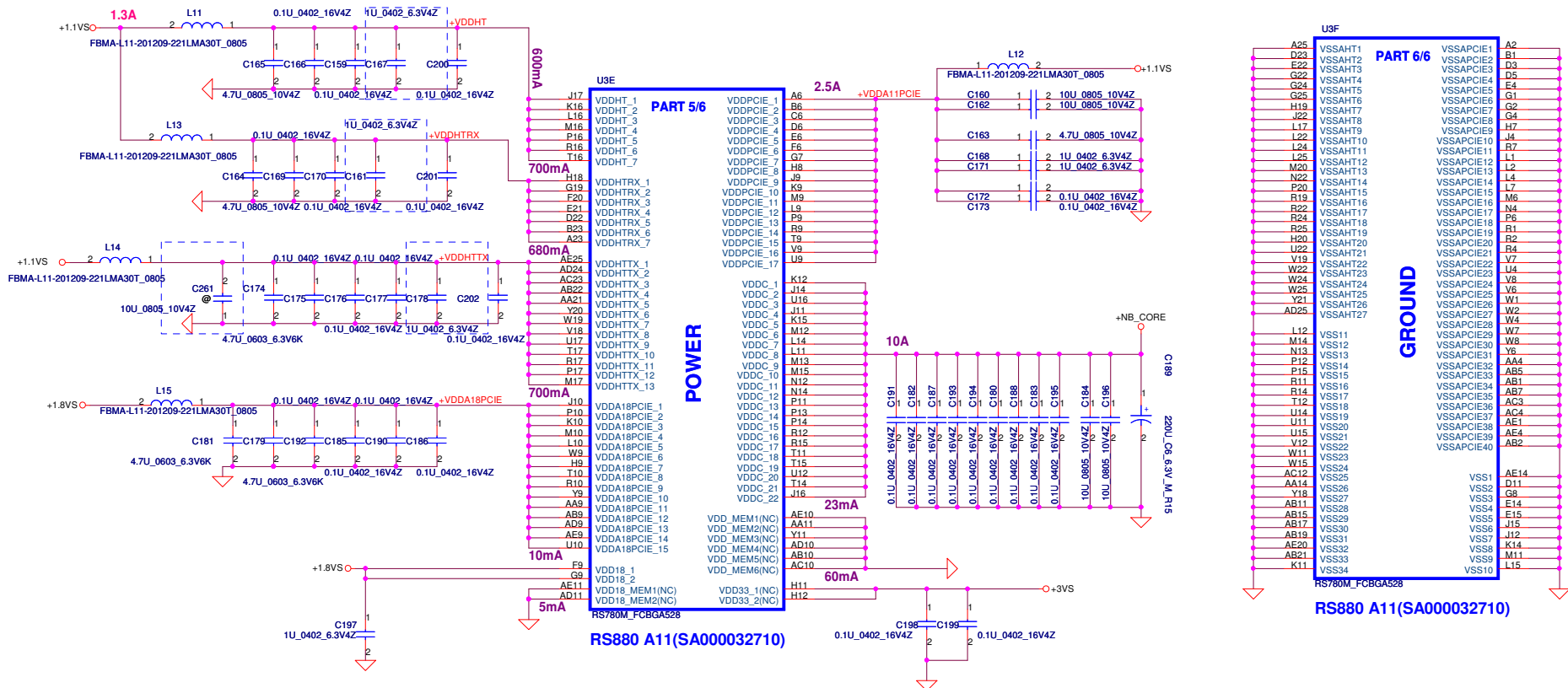


RS880	POWER_SEL
HIGH	0.95V
LOW	1.1V

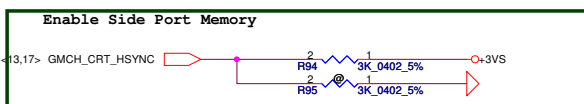
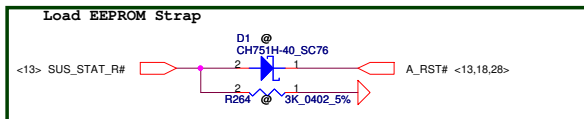
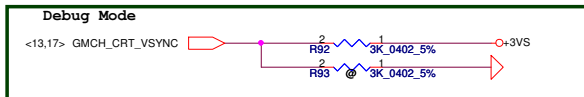


RS780M_FCBGA528
RS880 A11(SA000032710)

Security Classification	Compal Secret Data		Title	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	RS880 VEDIO/CLK GEN
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Side port and Strap setting



DFT_GPIO5:STRAP_DEBUG_BUS_GPIO_ENABLED

Enables the Test Debug Bus using GPIO. (VSYNC)

1 : Disable
0 : Enable

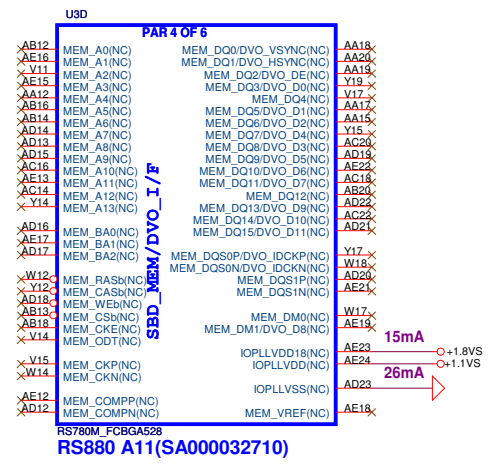
DFT_GPIO1: LOAD_EEPROM_STRAPS

Selects Loading of STRAPS from EPROM

1 : Bypass the loading of EEPROM straps and use Hardware Default Values
0 : I2C Master can load strap values from EEPROM if connected, or use default values if not connected

Enable Side Port Memory

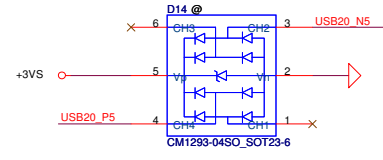
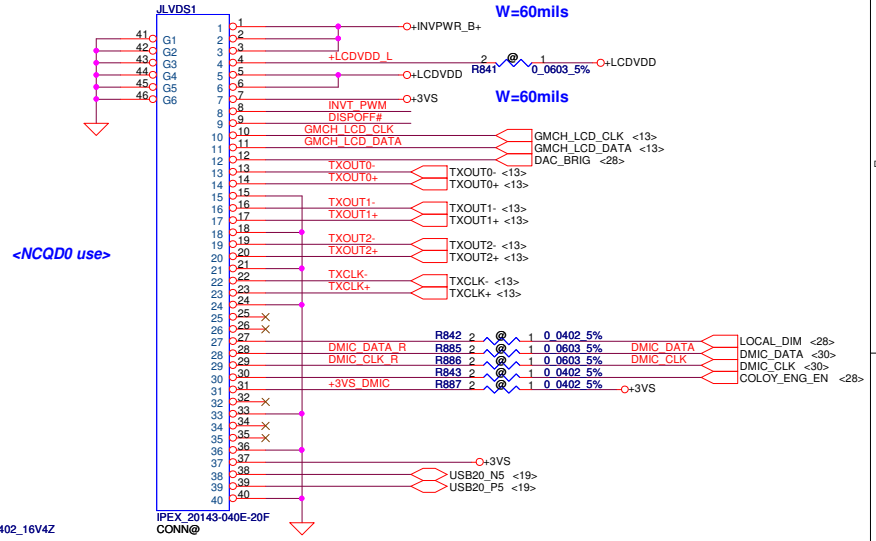
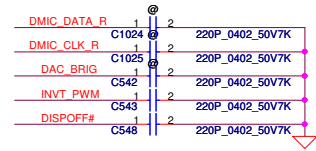
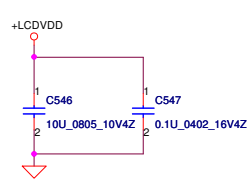
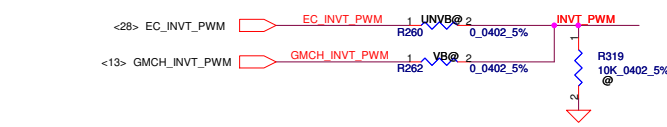
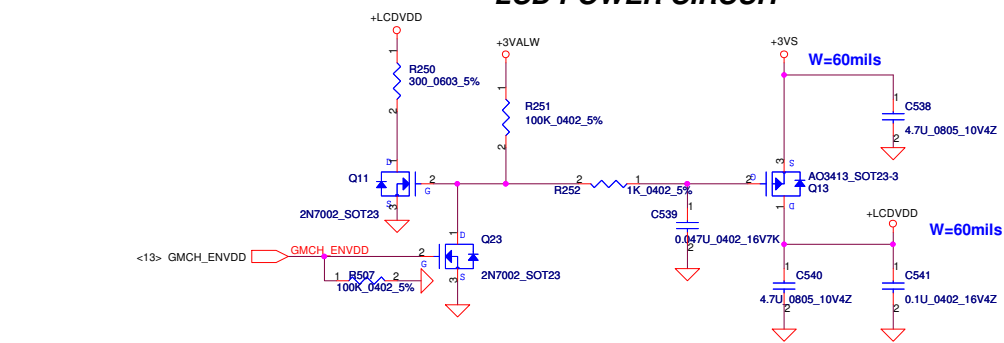
RS880: HSYNC# Register Readback of strap:
0: Enable NB_CLKCFG:CLK_TOP_SPARE_D[1]
1: Disable



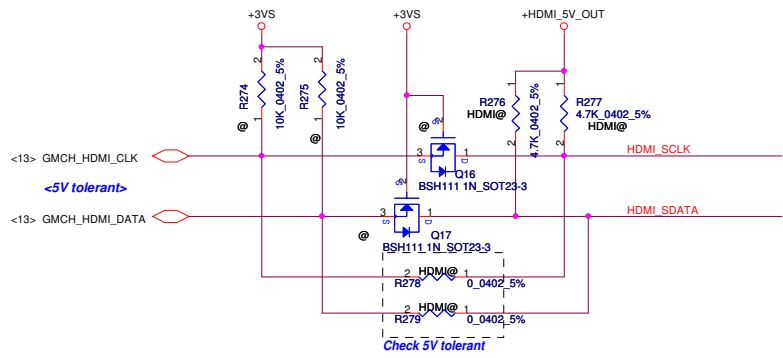
Security Classification	Compal Secret Data		Title	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	RS880 PWR/GND
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<p>RS880 A11(SA000032710)</p>			<p>Compal Electronics, Inc.</p>	
<p>Document Number</p>			<p>RS880 PWR/GND</p>	
<p>Customer</p>			<p>PEW96 LA-6552P</p>	
<p>Date: Friday, June 11, 2010</p>			<p>Rev 0.2</p>	
<p>Sheet</p>			<p>14 of 45</p>	

LCD POWER CIRCUIT

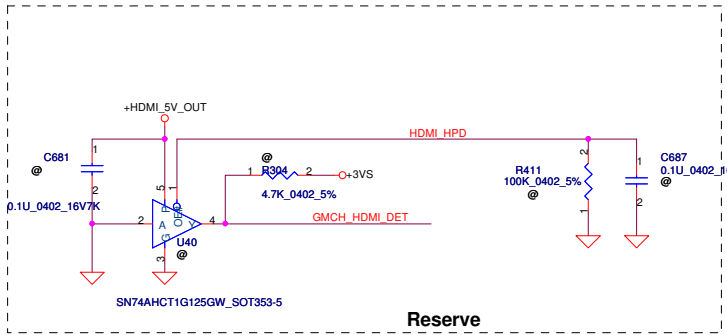
LCD/LED PANEL Conn.



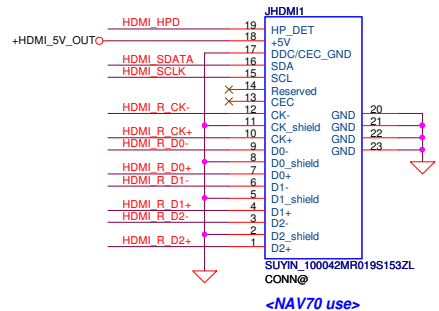
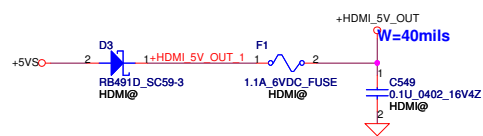
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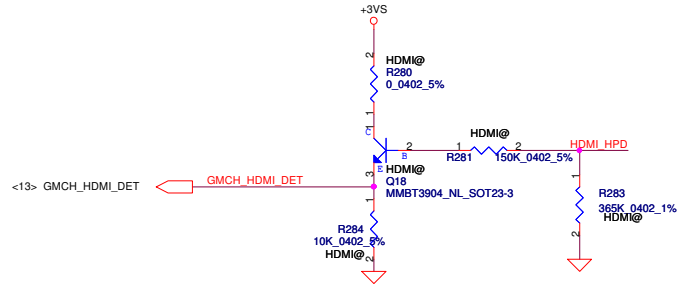
Place closed to JHDMI1



Reserve

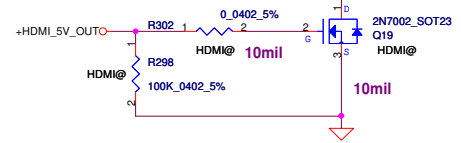


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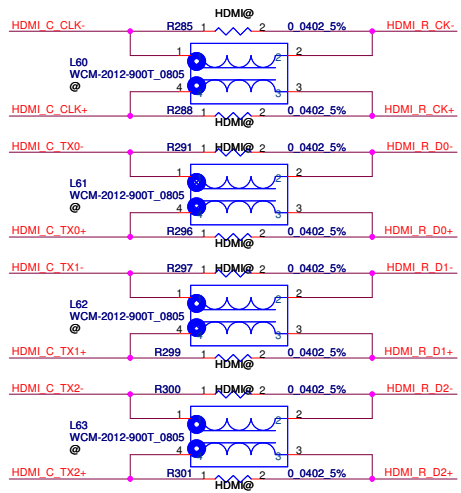


UMA 715 ohm

<12> GMCH_HDMI_TXD2-	C550	HDMI@	1	0.1U_0402_16V7K	HDMI C TX2-	R286	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD2+	C551	HDMI@	1	0.1U_0402_16V7K	HDMI C TX2+	R287	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD1-	C552	HDMI@	1	0.1U_0402_16V7K	HDMI C TX1-	R289	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD1+	C553	HDMI@	1	0.1U_0402_16V7K	HDMI C TX1+	R290	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD0-	C554	HDMI@	1	0.1U_0402_16V7K	HDMI C TX0-	R292	1	HDMI@	2	715_0402_1%
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<12> GMCH_HDMI_TXC-	C556	HDMI@	1	0.1U_0402_16V7K	HDMI C CLK-	R294	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXC+	C557	HDMI@	1	0.1U_0402_16V7K	HDMI C CLK+	R295	1	HDMI@	2	715_0402_1%

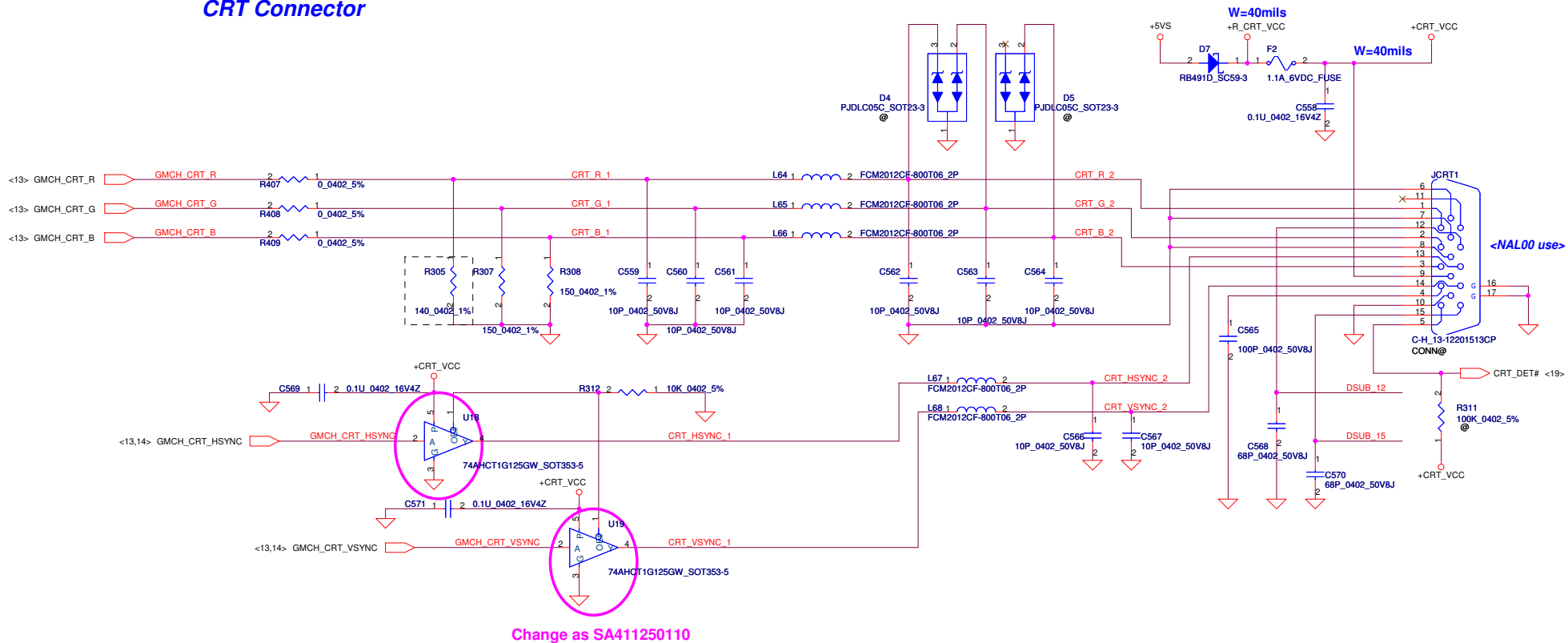


Place closed to JHDMI1



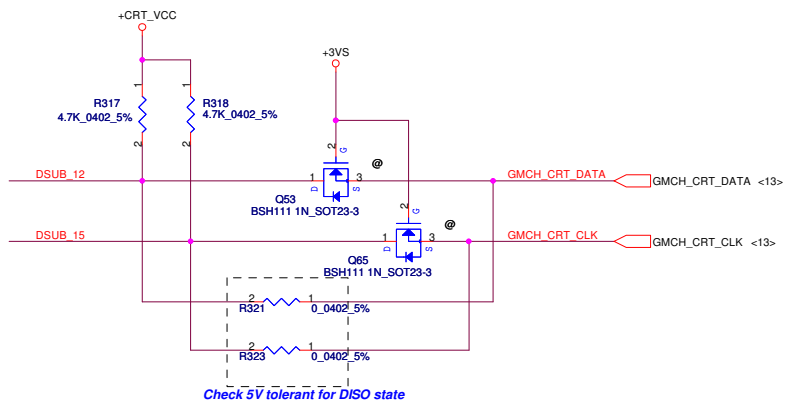
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Date: Friday, June 11, 2010				Rev 0.2
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CRT Connector

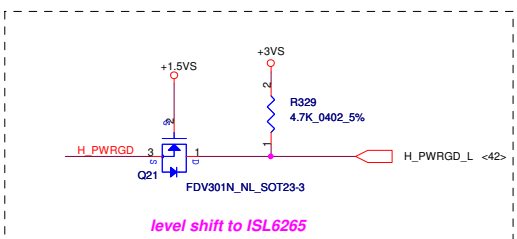
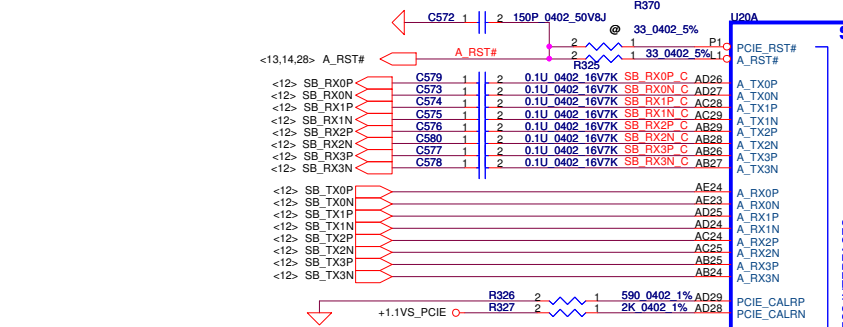


Change as SA411250110

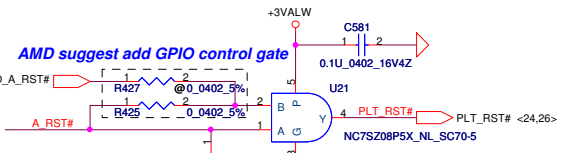
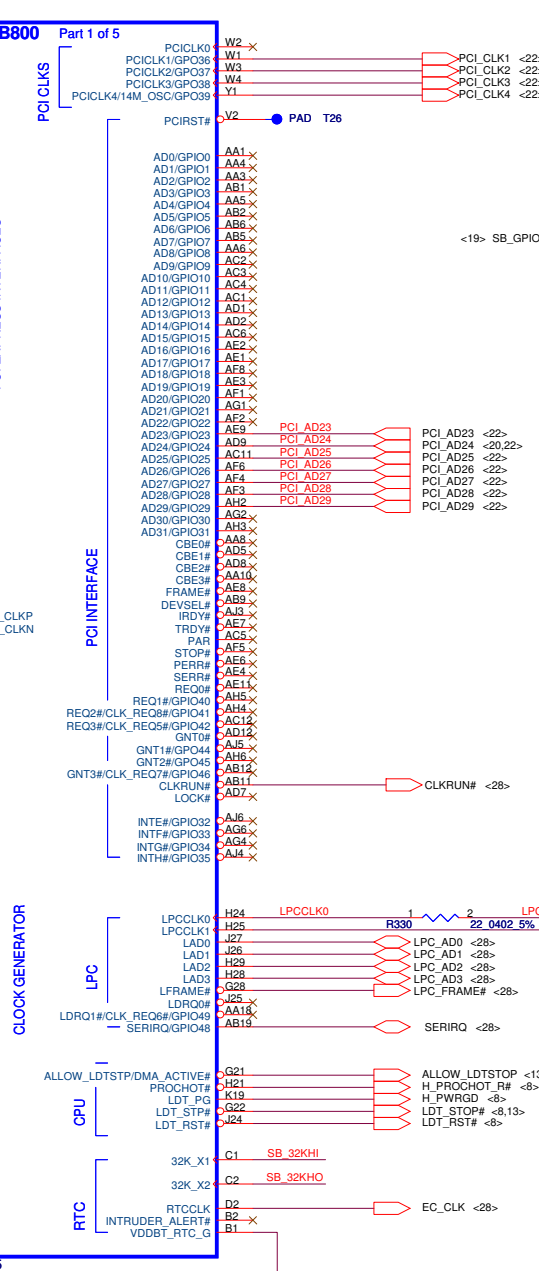
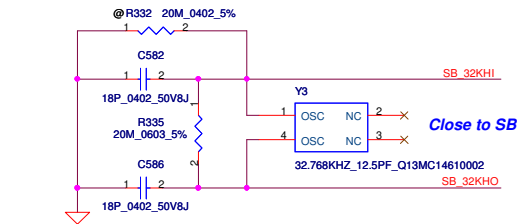
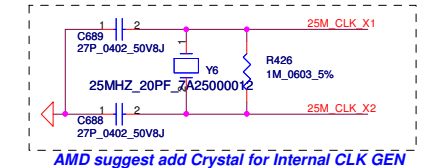
Close to Conn side



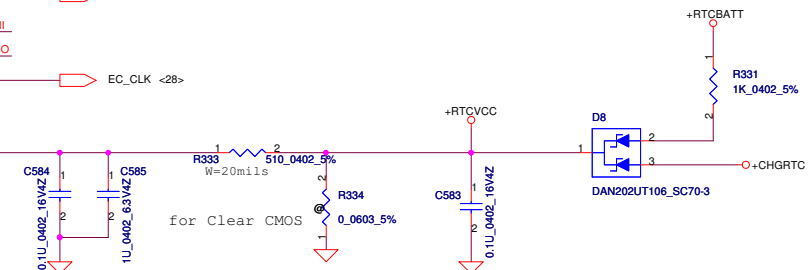
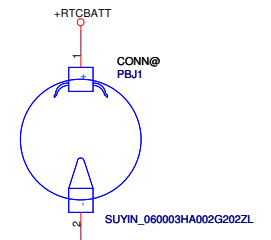
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ISL6265 PWROK input, TTL level: 0.8V-2.0V
 When this pin is high, the SVI interface is active and I2C protocol is running. While this pin is low, the SVC, SVD, and VFIXEN input states determine the pre-PWROK metal VID or VFIX mode voltage. This pin must be low prior to the ISL6265 PGOOD output going high



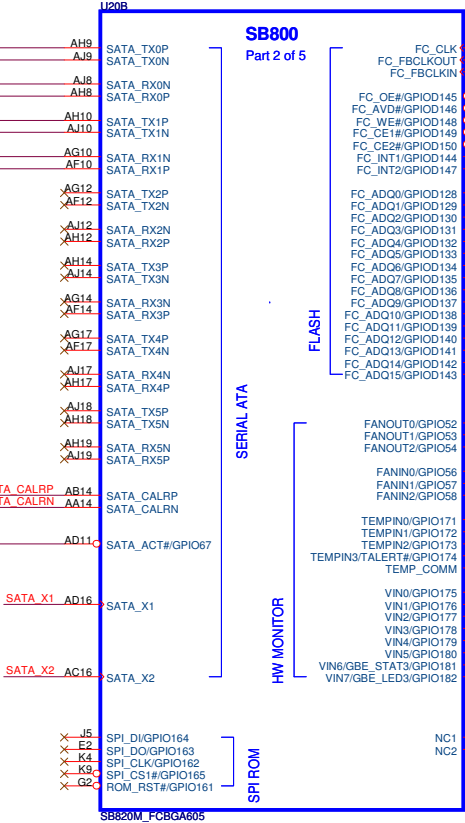
PCI_AD24 : VDDR Voltage SW



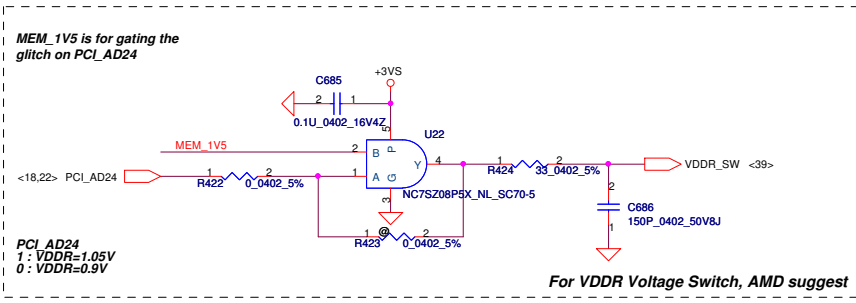
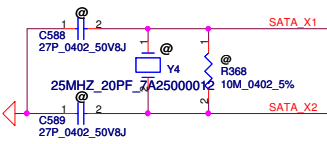
Security Classification	Compal Secret Data		Title	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	SB820-PCIE/PCI/ACPI/LPC/RTC
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Compal Electronics, Inc. SB820-PCIE/PCI/ACPI/LPC/RTC			Document Number	Rev
			PEW96 LA-6552P	0.2
			Date: Friday, June 11, 2010	Sheet 18 of 45

HDD

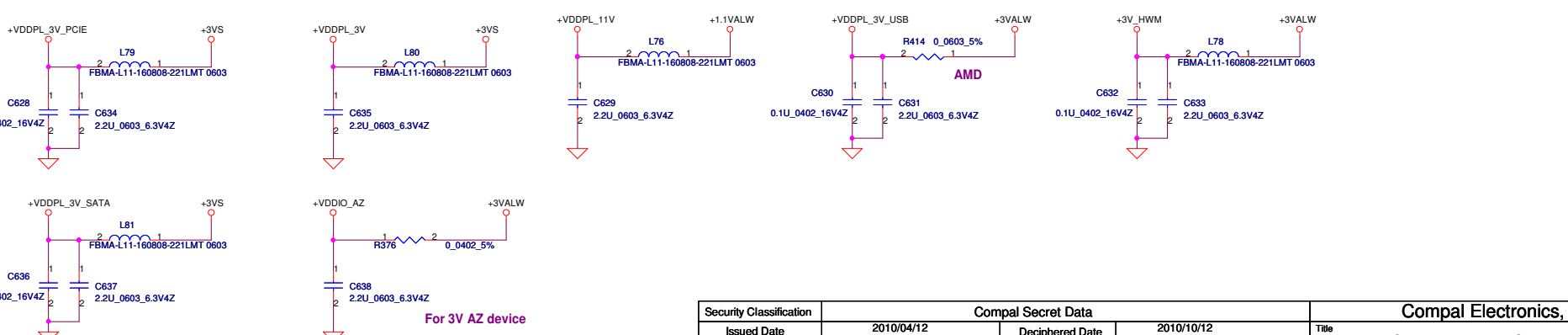
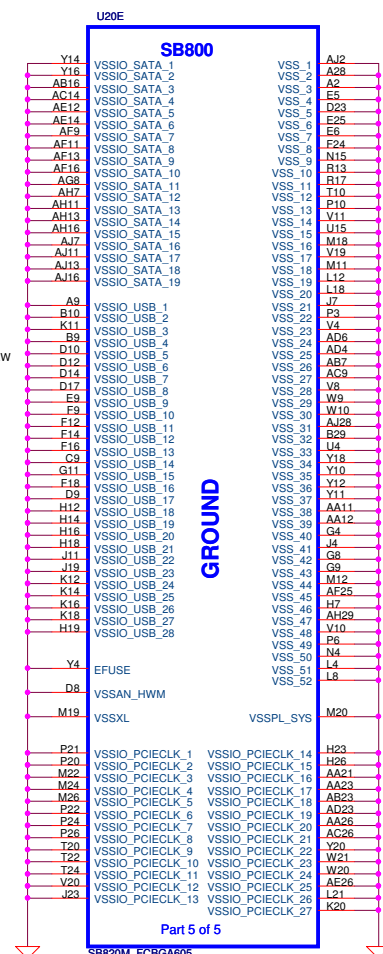
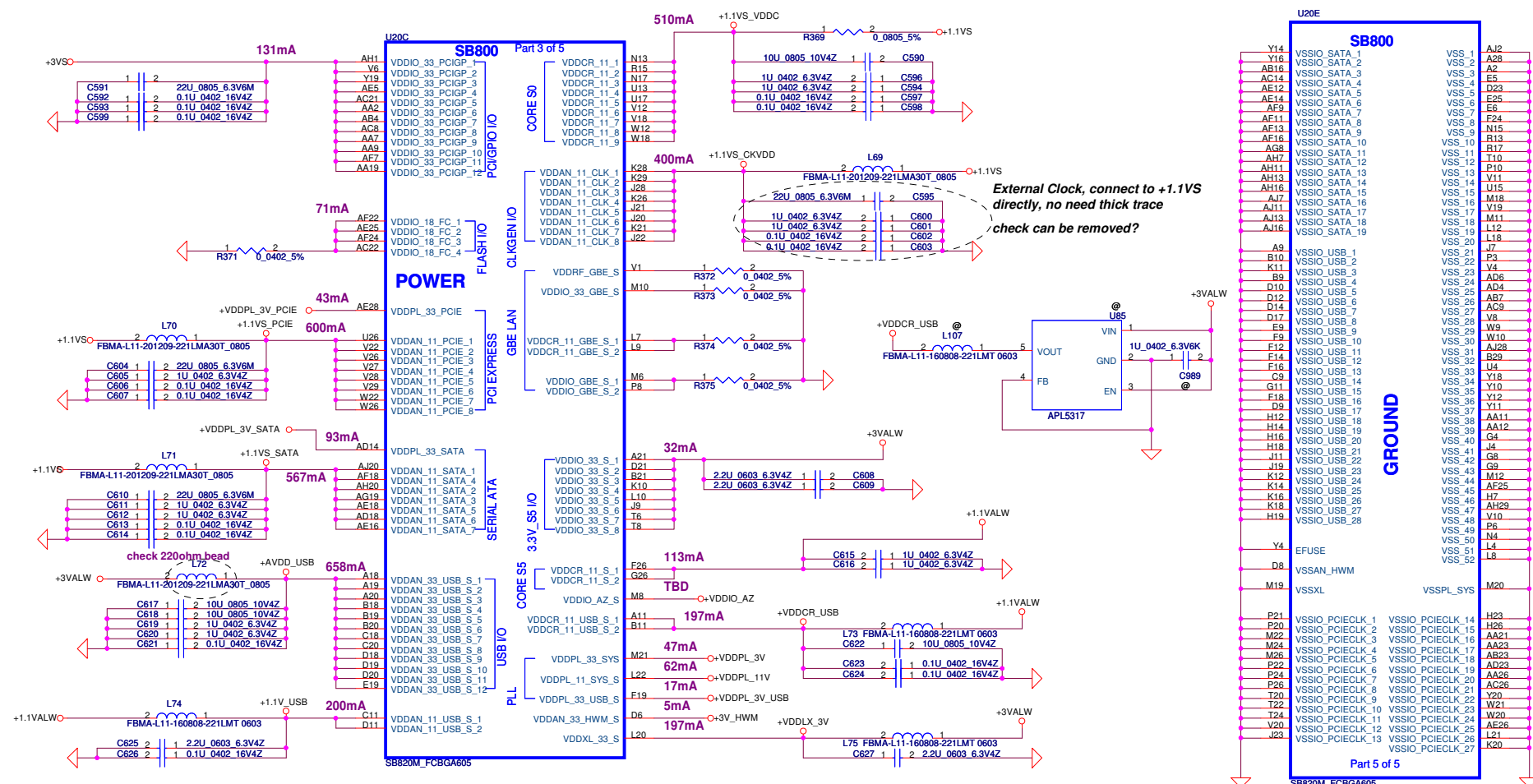
ODD



SB820 A12(SA000031W10)



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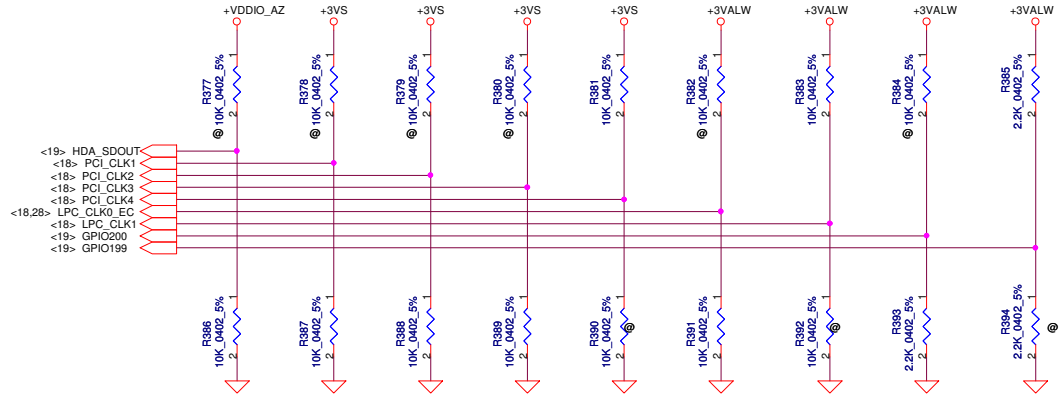


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				Date:	Friday, June 11, 2010
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REQUIRED STRAPS

Check Internal PU/PD

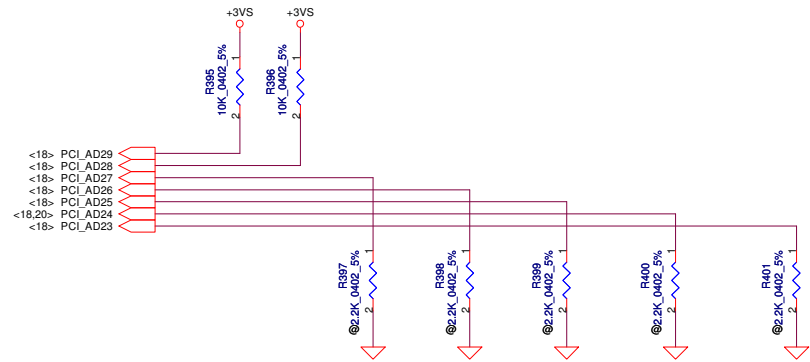
	AZ_SDOUT	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	LPC_CLK0	LCP_CLK1		GPIO200	GPIO199
PULL HIGH	LOW POWER MODE	ALLOW PCIE GEN2	WATCHDOG TIMER ENABLE	USE DEBUG STRAP	Inter CLK Gen Mode Enable	EC ENABLE	CLOCKGEN ENABLE		H,H = Reserved H,L = SPI ROM	
PULL LOW	Performance MODE	FORCE PCIE GEN1	WATCHDOG TIMER DISABLE	IGNORE DEBUG STRAP	Inter CLK Gen Mode Disable	EC DISABLE	CLOCKGEN DISABLE		L,H = LPC ROM (Default L,NC) L,L = FWH ROM	
	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT			



DEBUG STRAPS

SB800 HAS 15K INTERNAL PU FOR PCI_AD[27:23]

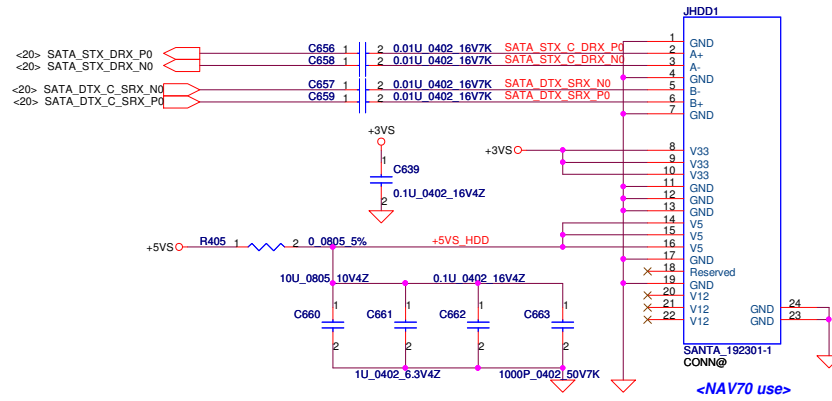
	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL	DISABLE ILA AUTORUN	USE FC PLL	USE DEFAULT PCIE STRAPS	DISABLE PCI MEM BOOT
	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT



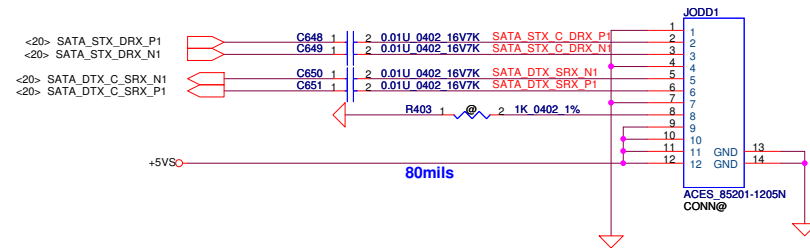
Check AD29,AD28 strap function

check default

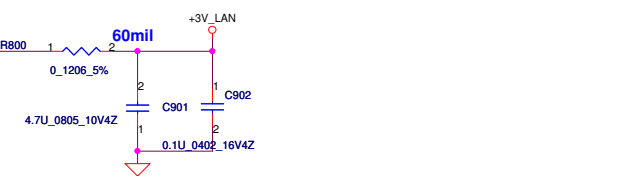
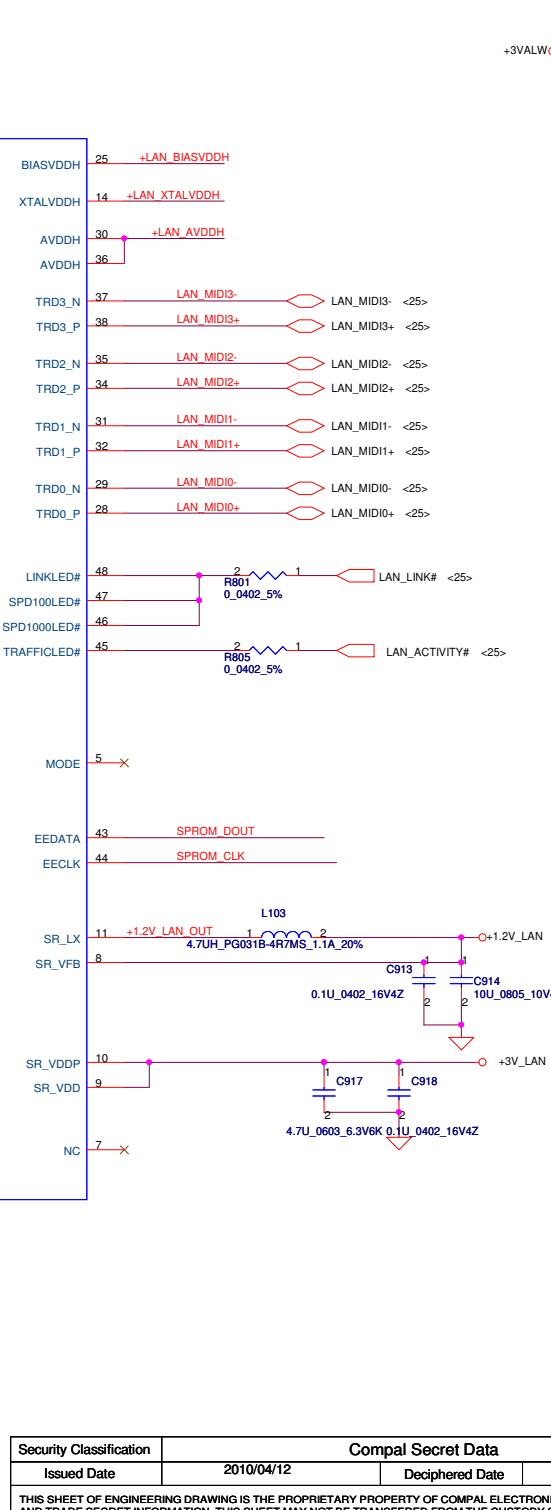
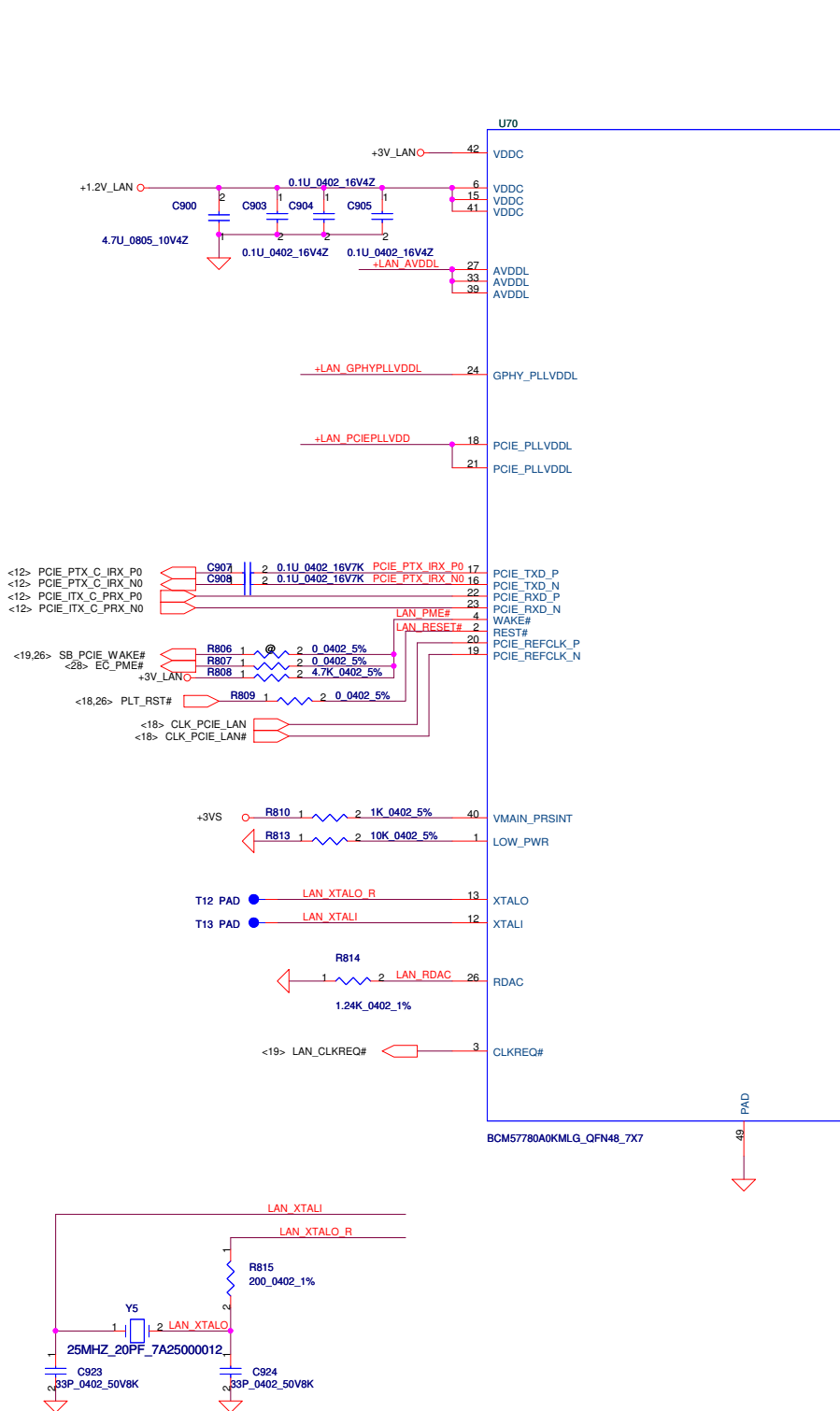
SATA HDD Conn.



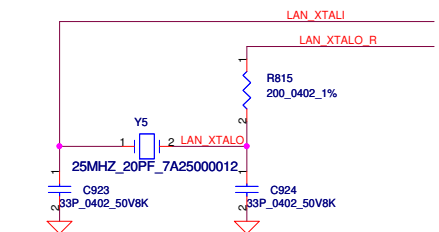
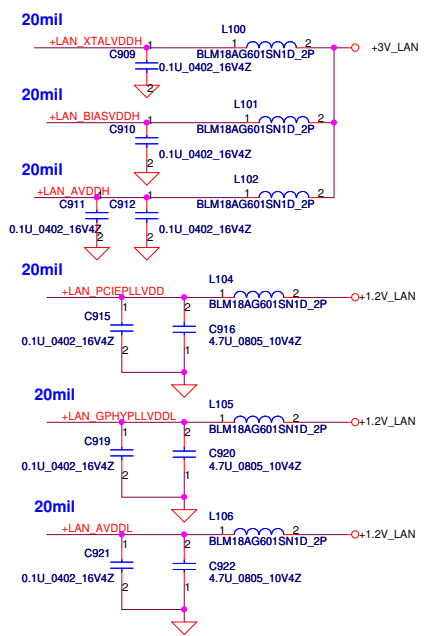
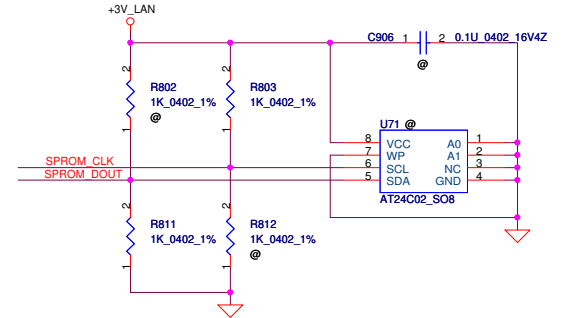
SATA ODD FFC Conn.



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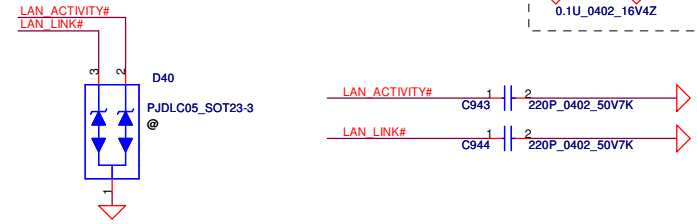
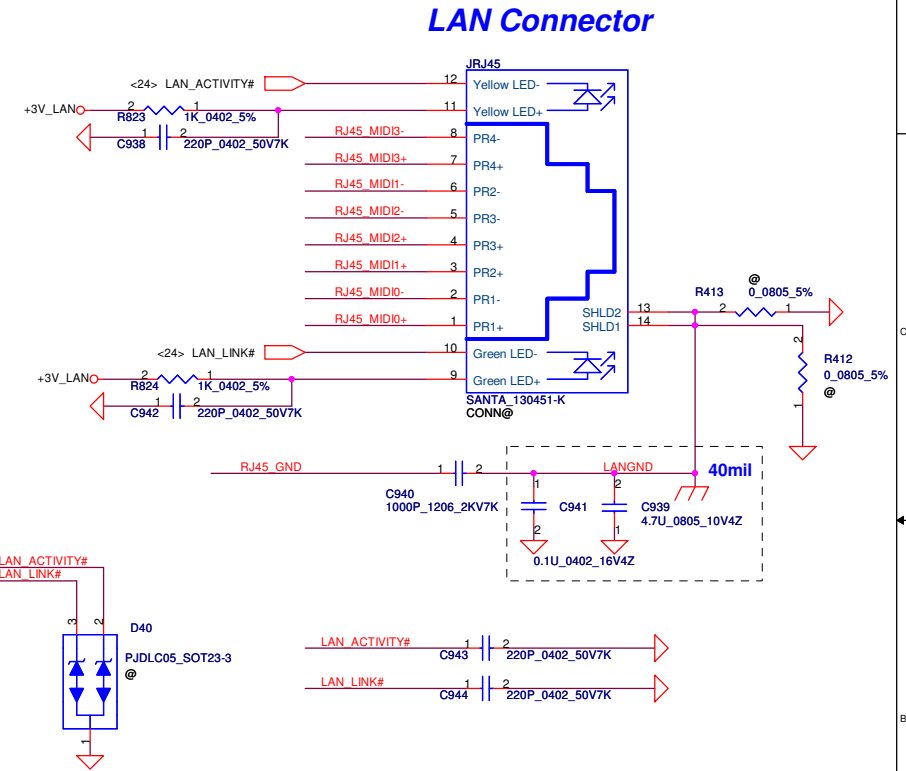
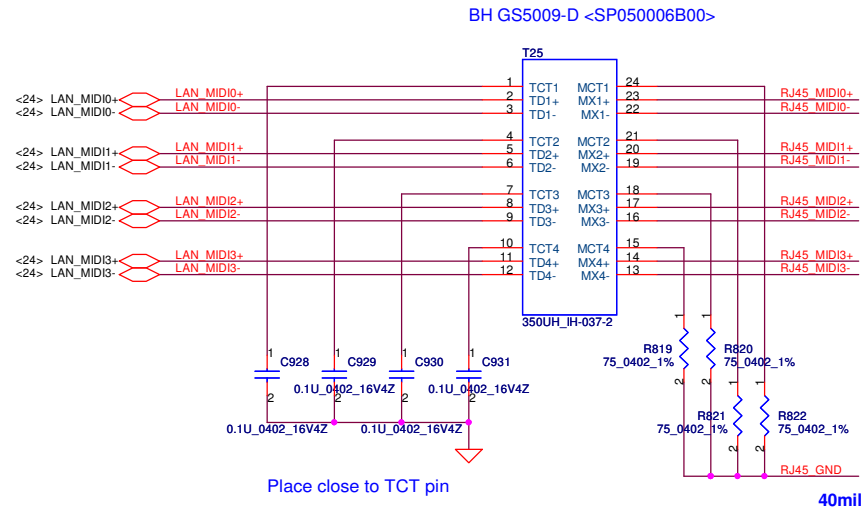


	SPROM_CLK (EECLK)	SPROM_DOUT (EEDATA)
On chip	1	0
AT24C02	1	1



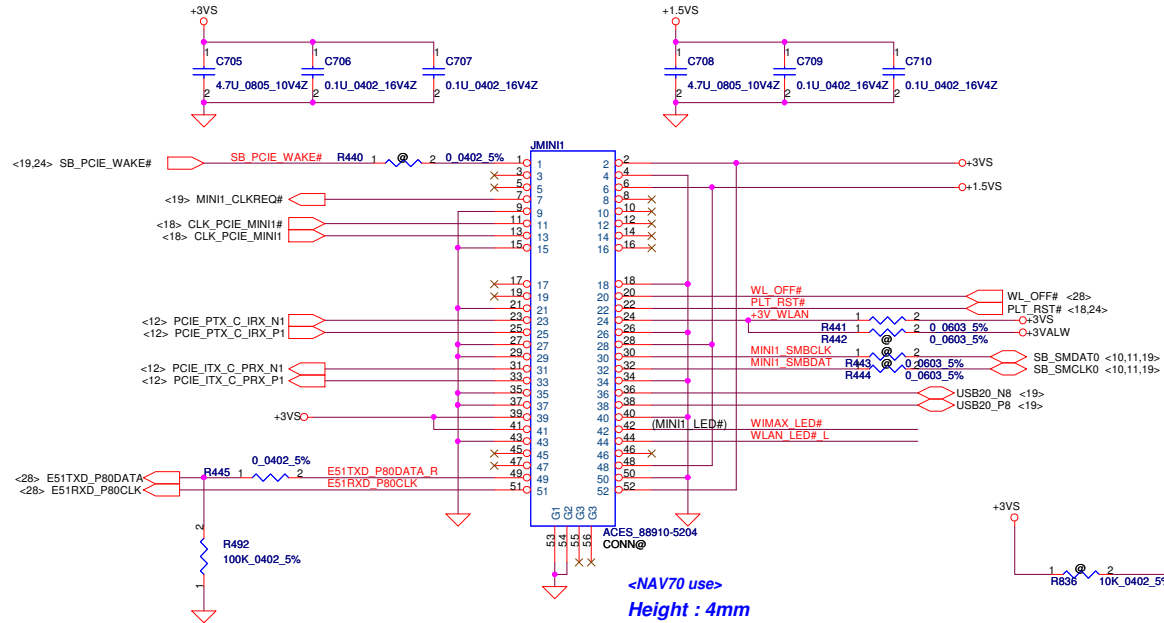
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Title: BROADCOM 57780			
Size: Custom	Document Number: PEW96 LA-6552P	Rev: 0.2	
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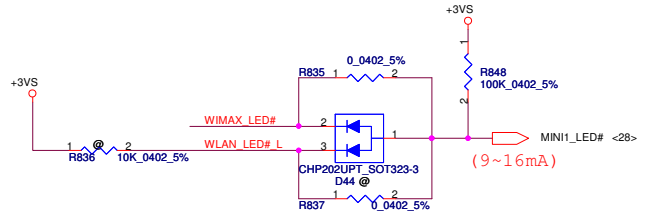


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Size	B	Document Number	PEW96 LA-6552P		Rev
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Mini-Express Card for WLAN

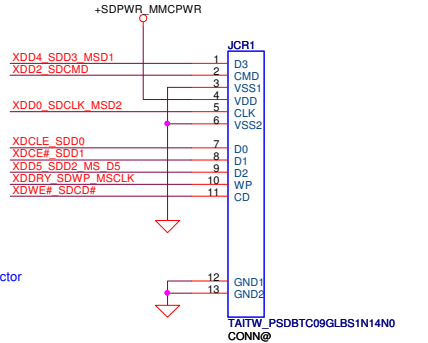
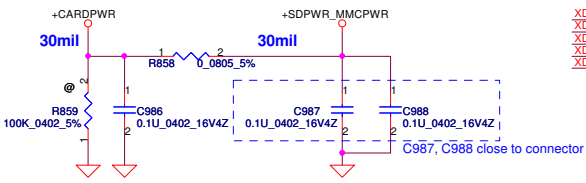
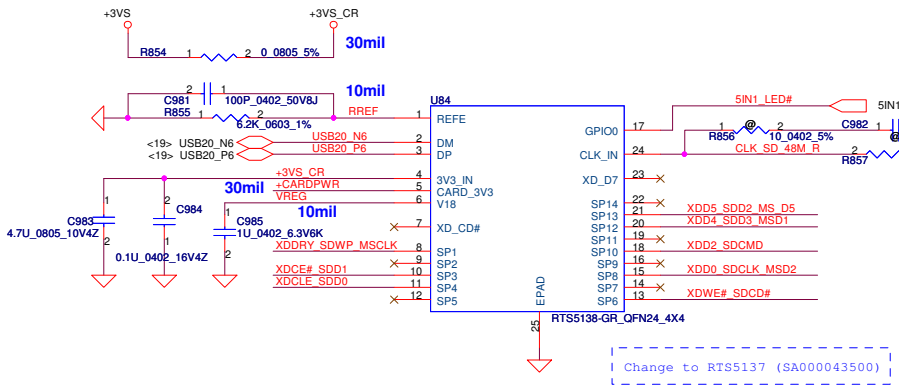


Power	Mini Card Power Rating	
	Primary Power (mA)	Auxiliary Power (mA)
+3VS	Peak 1000	Normal 750
+3V	330	250 (wake enable)
+1.5VS	500	375 (5 (Not wake enable))

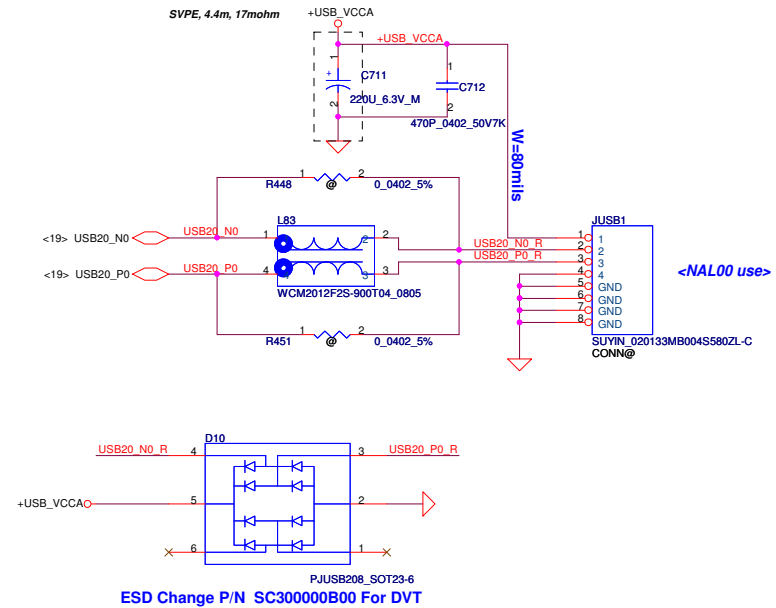
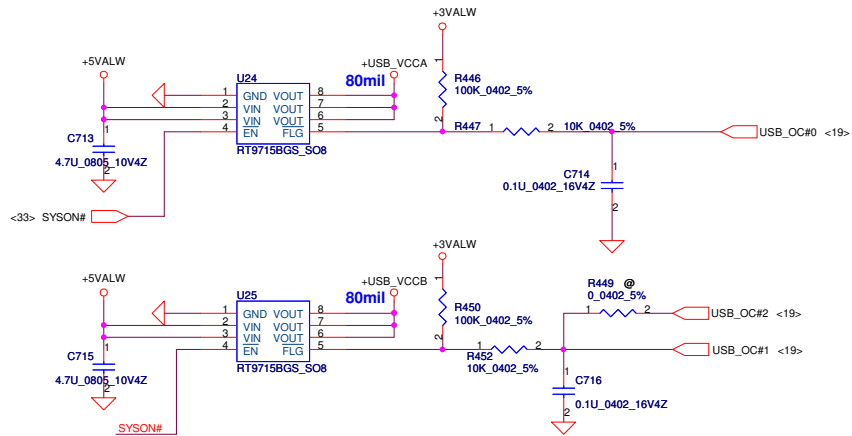


Card Reader RTS5138 / RTS5137 (only SD+MMC function)

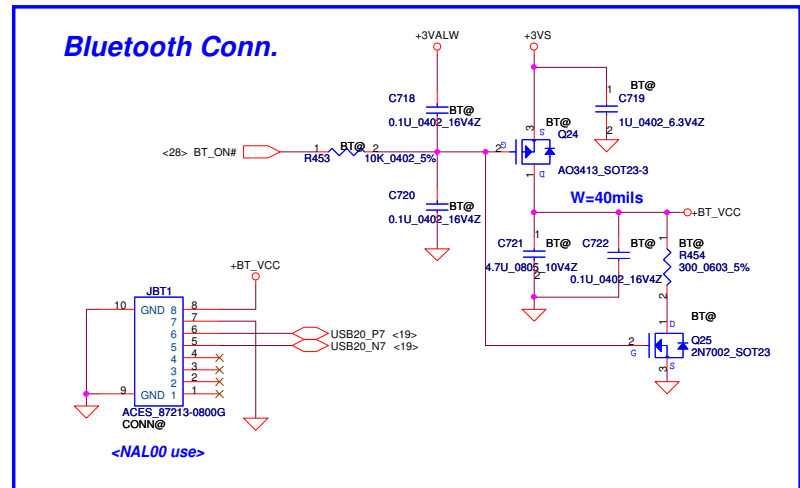
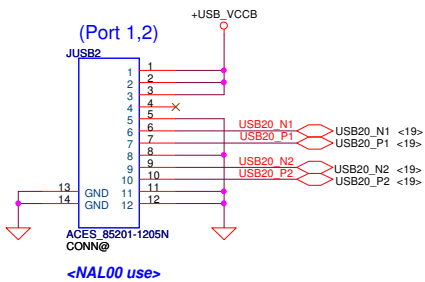
Card Reader Connector



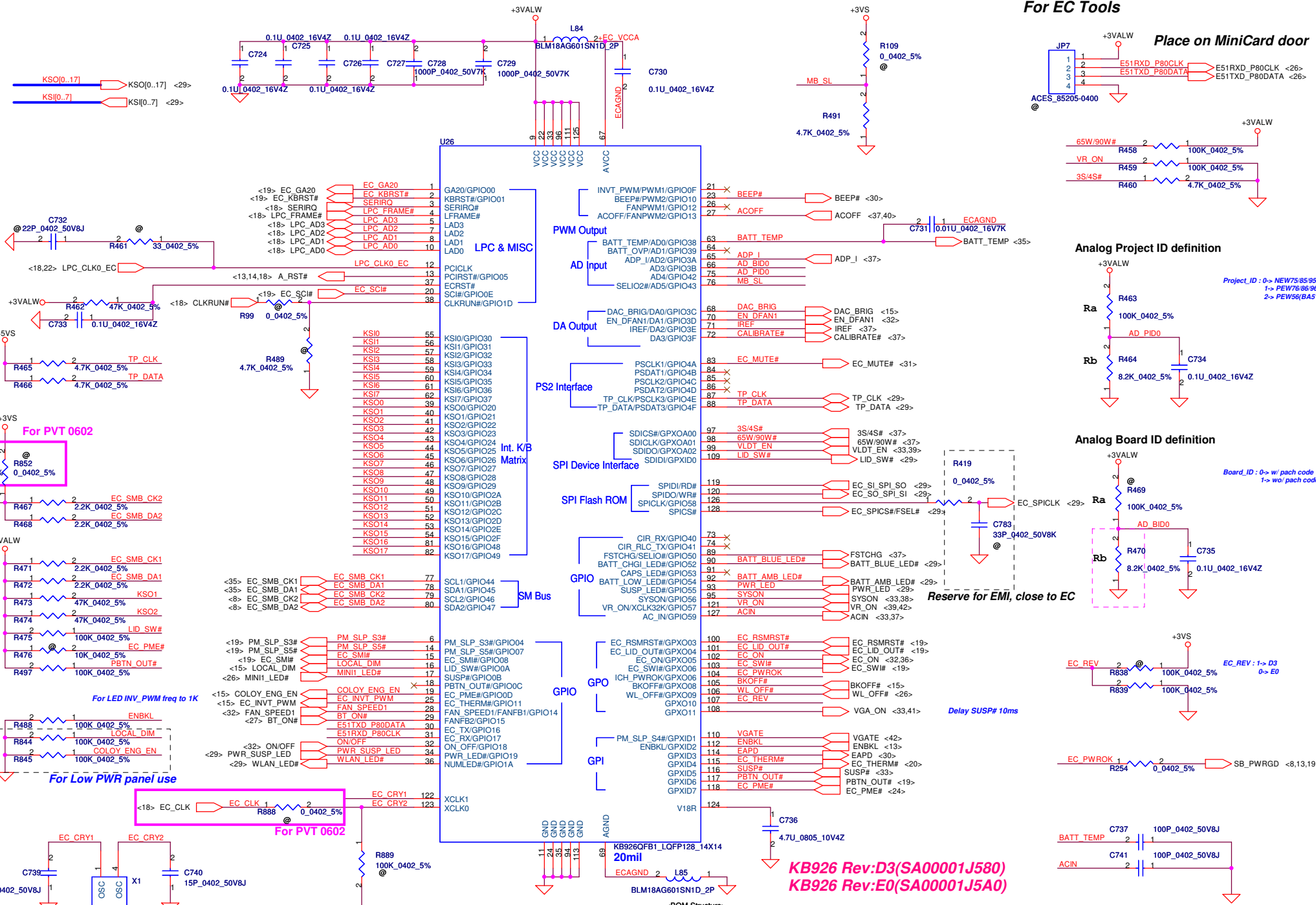
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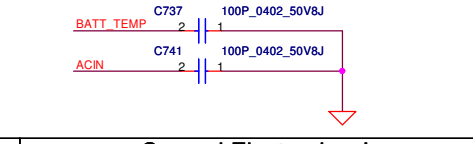
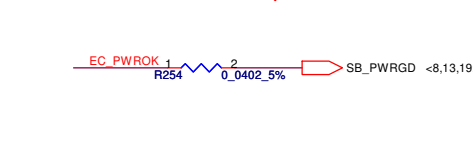
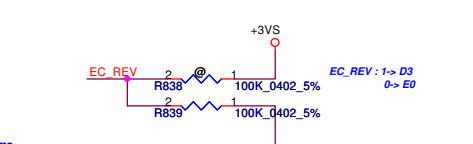
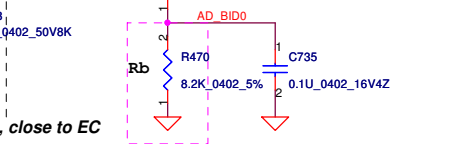
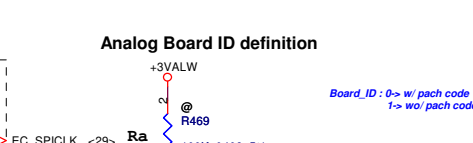
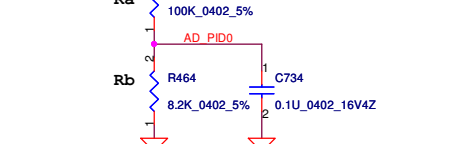
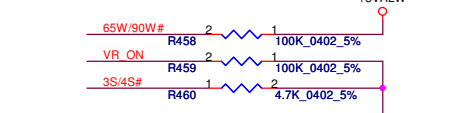
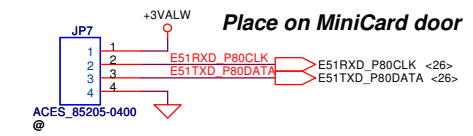
To USB/B Connector



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For EC Tools

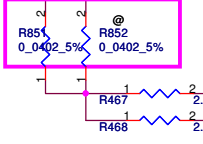


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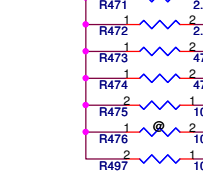
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KB926 Rev:E0(SA00001J5A0)

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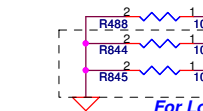
For PVT 0602



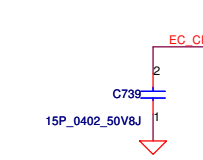
For LED INV_PWM freq to 1K

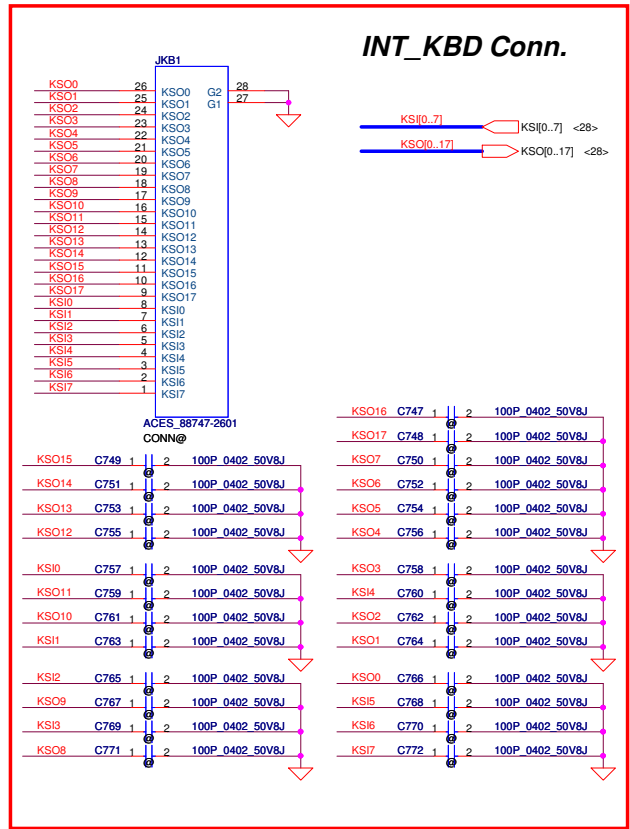
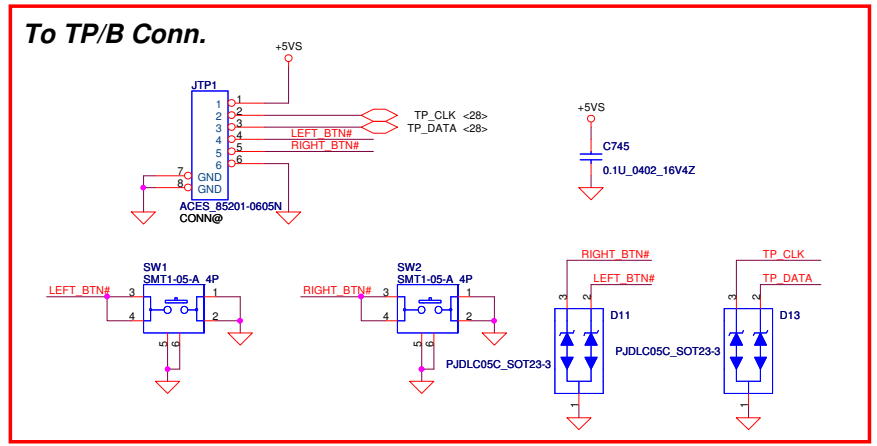
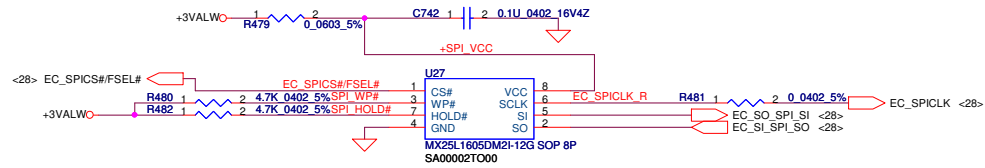


For Low PWR panel use

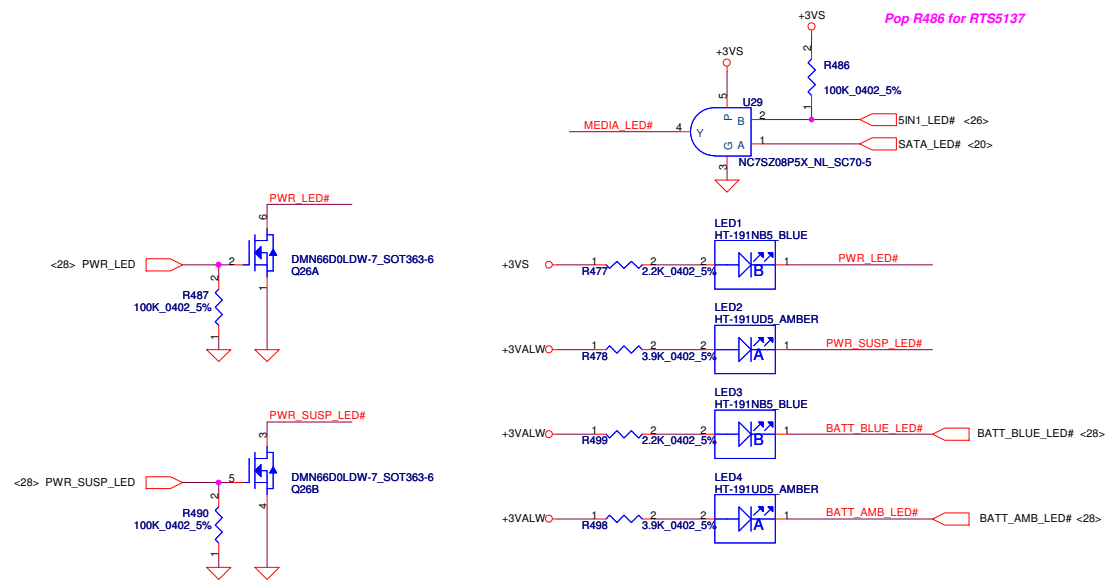
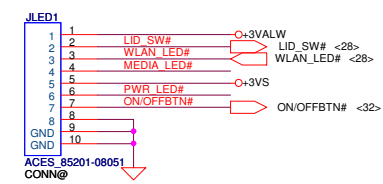


For PVT 0602



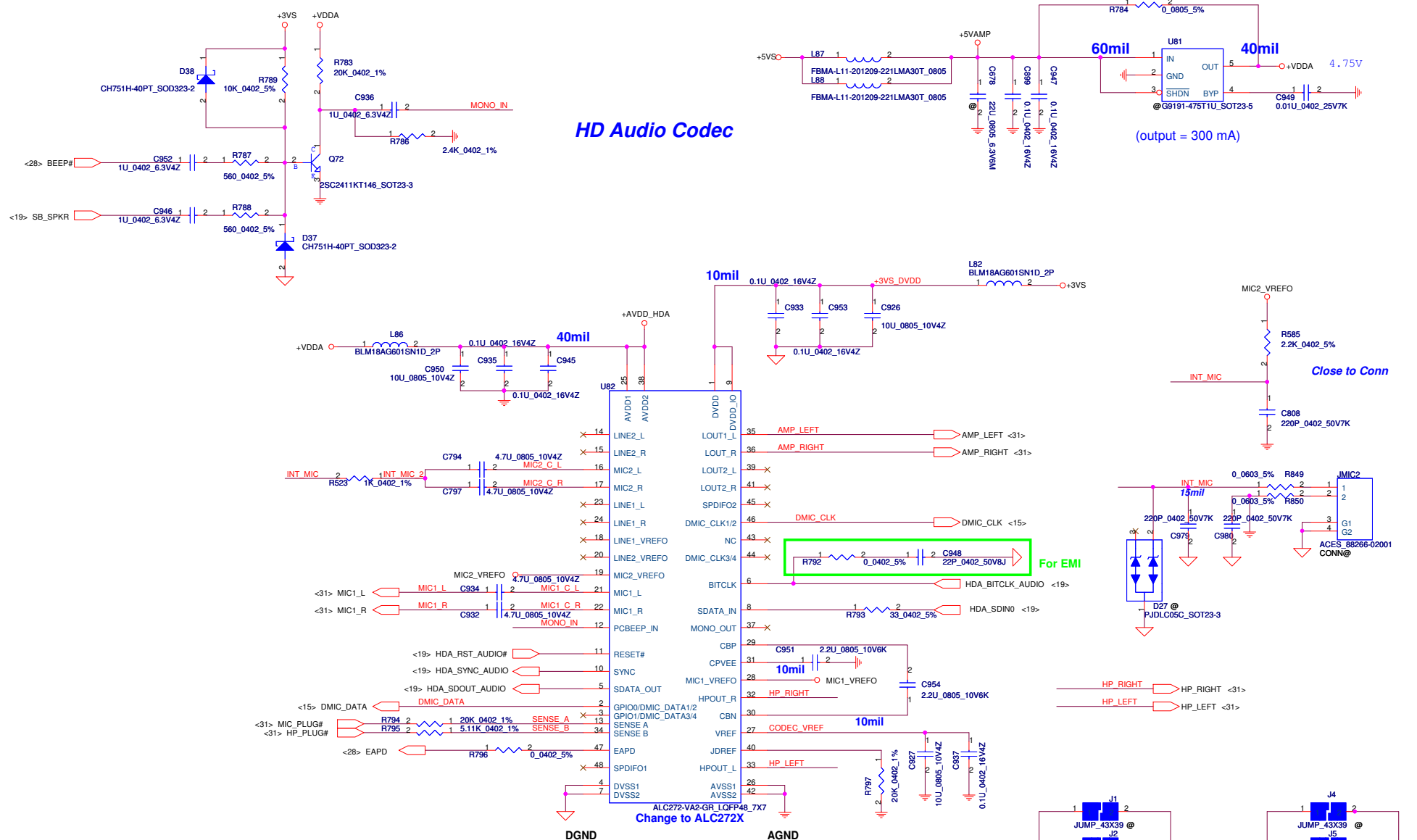


For PVT 0608 Unpop Cap.



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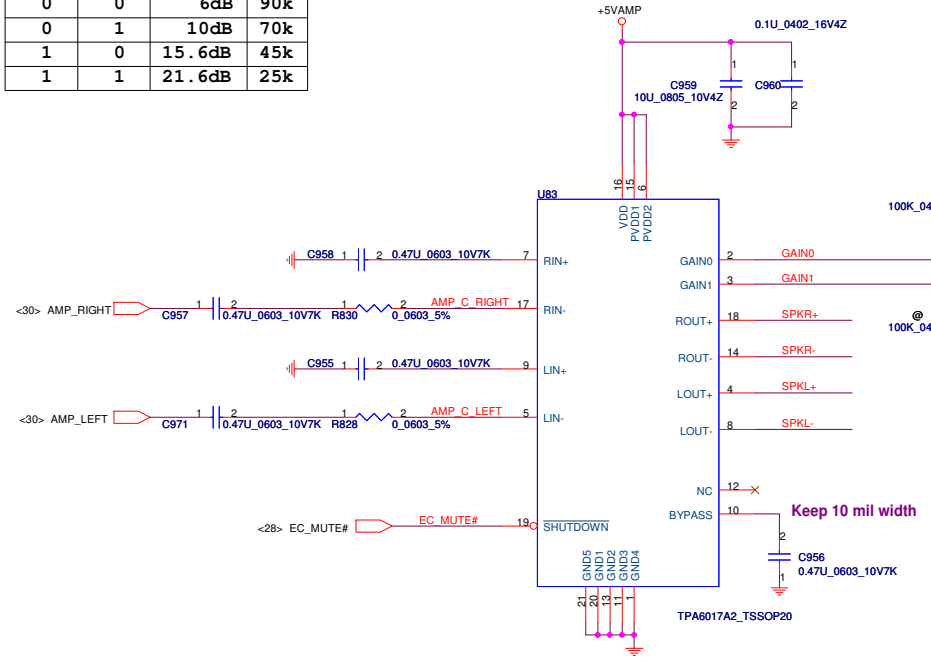
HD Audio Codec



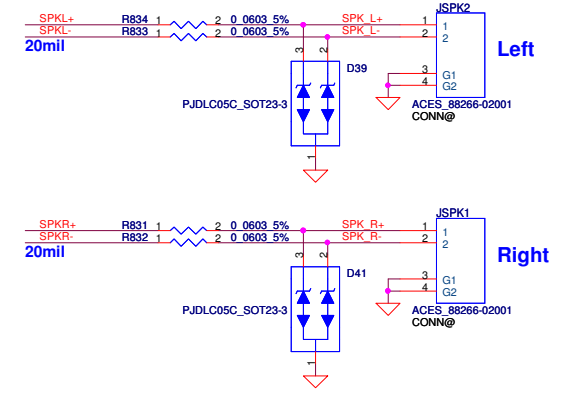
ALC272X			
Sense Pin	Impedance	Codec Signals	Function
SENSE A	39.2K	PORT-A (PIN 39, 41)	LOUT2
	20K	PORT-B (PIN 21, 22)	MIC1
	10K	PORT-C (PIN 23, 24)	LINE1
	5.1K	PORT-D (PIN 35, 36)	LOUT1
SENSE B	39.2K	PORT-E (PIN 14, 15)	LINE2
	20K	PORT-F (PIN 16, 17)	MIC2
	10K		
	5.1K	PORT-I (PIN 32, 33)	HP

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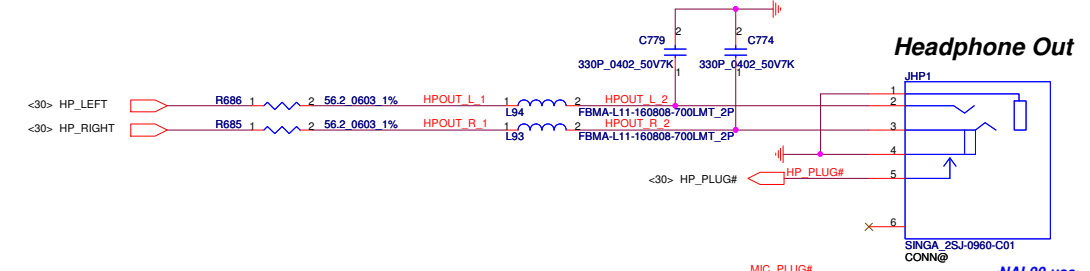
GAIN0	GAIN1	AV (inv)	Ri
0	0	6dB	90k
0	1	10dB	70k
1	0	15.6dB	45k
1	1	21.6dB	25k



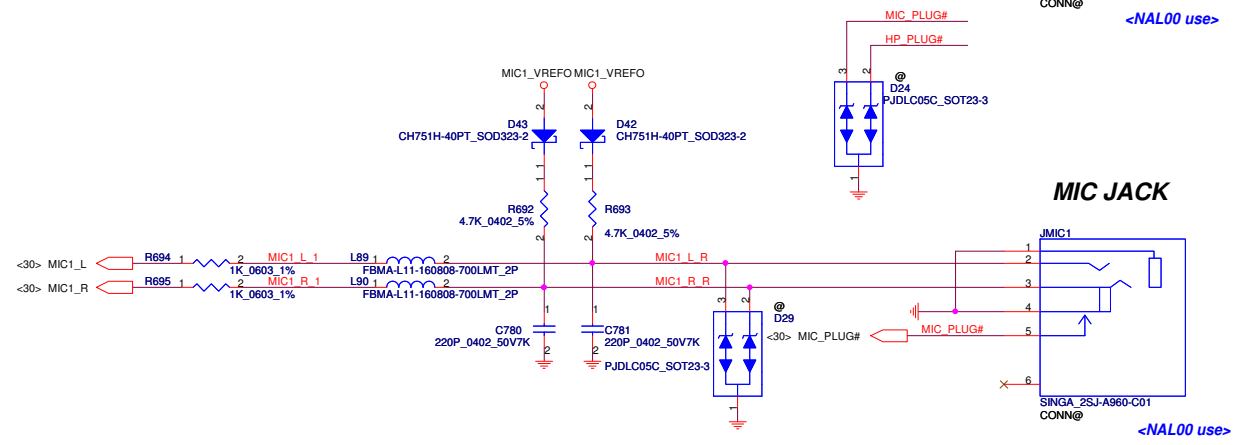
Int. Speaker Conn.



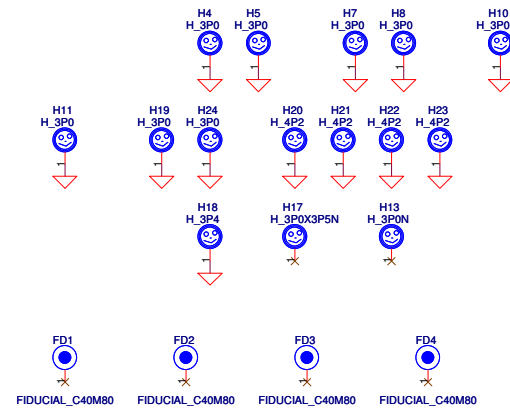
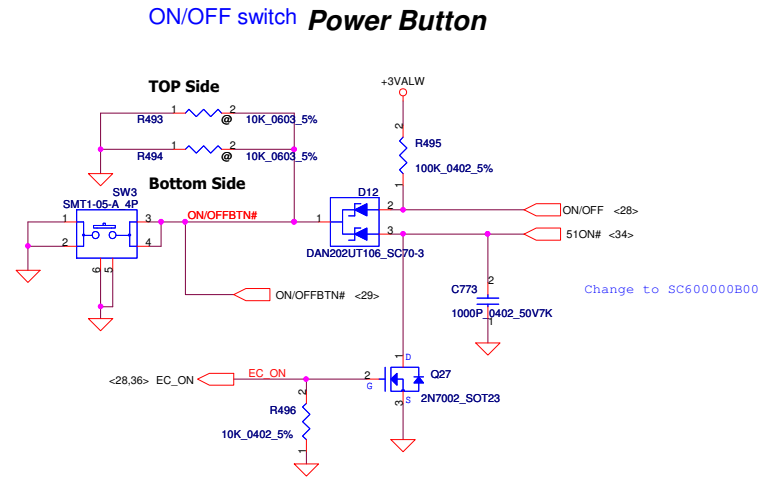
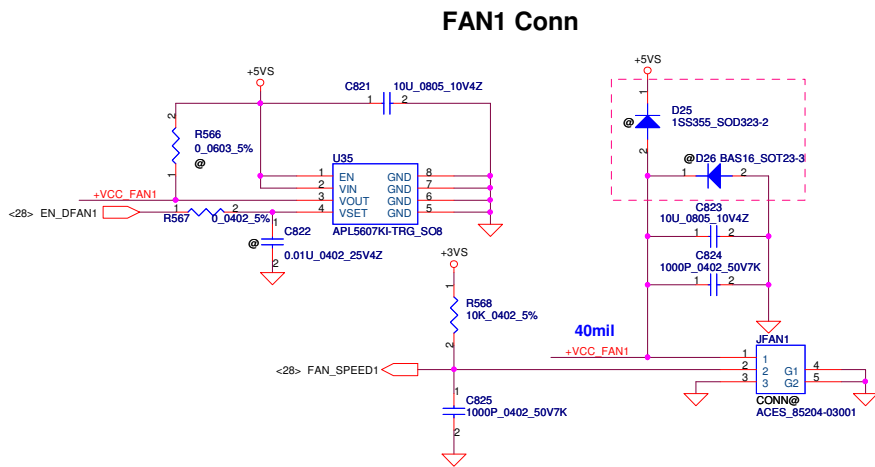
Headphone Out



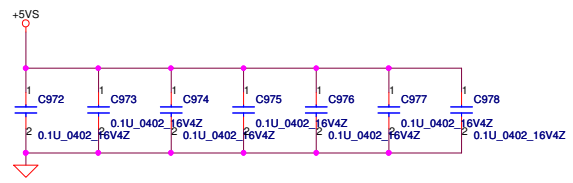
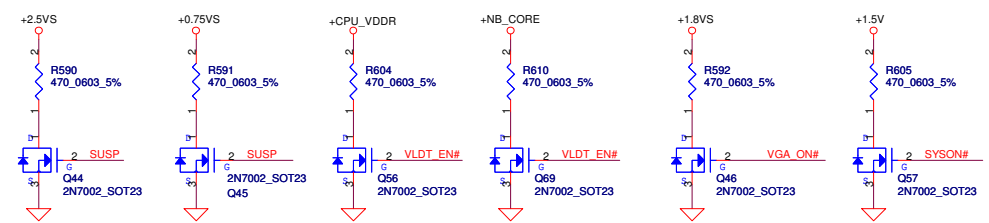
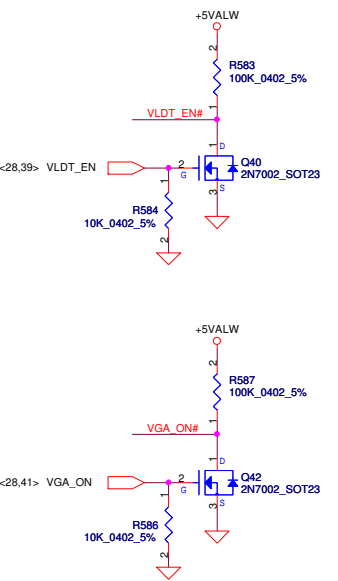
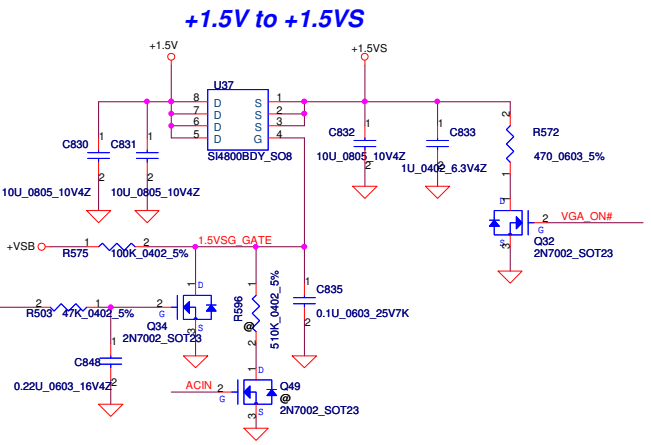
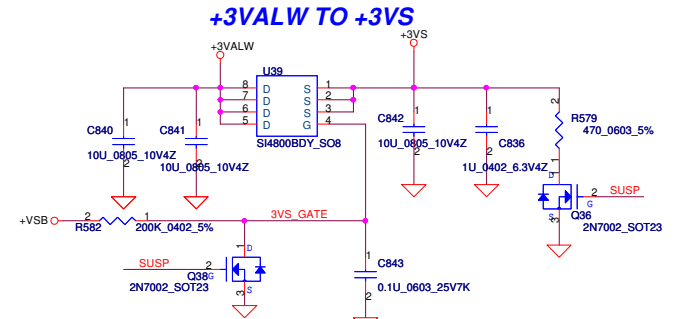
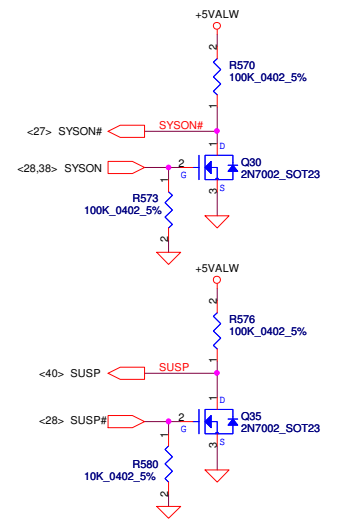
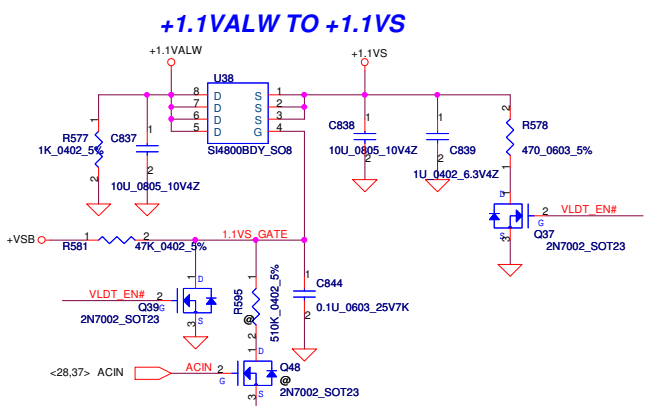
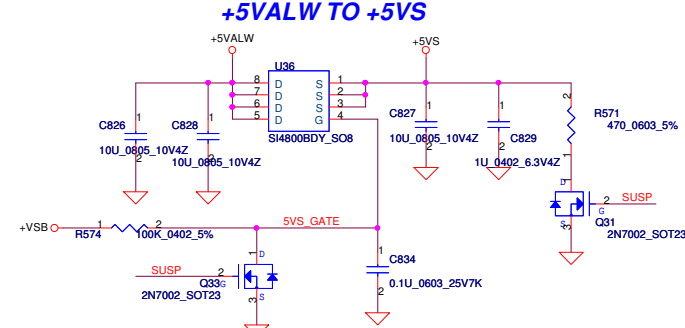
MIC JACK



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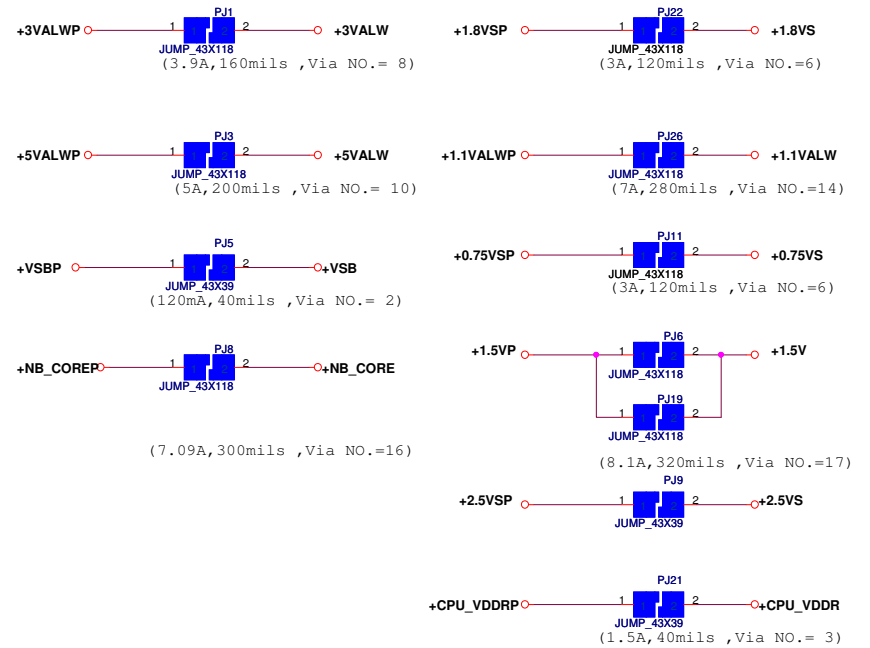
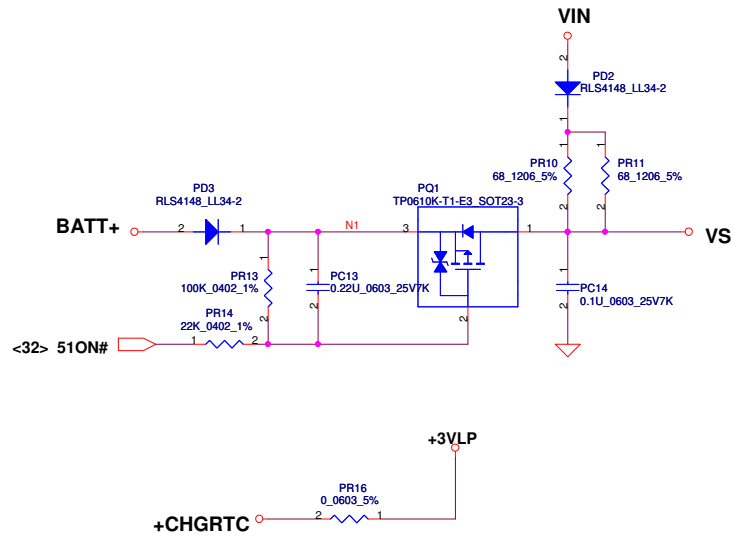
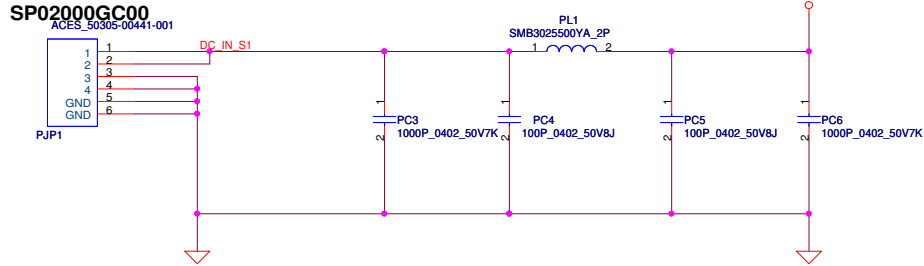


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DC-IN cable: DC301009W00 (Yellow)

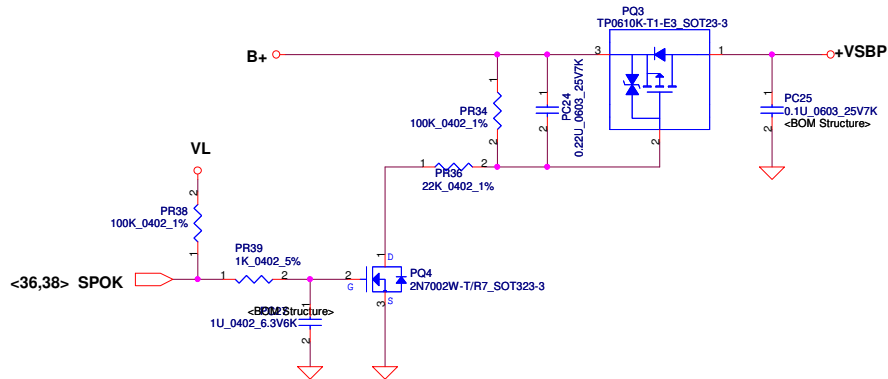
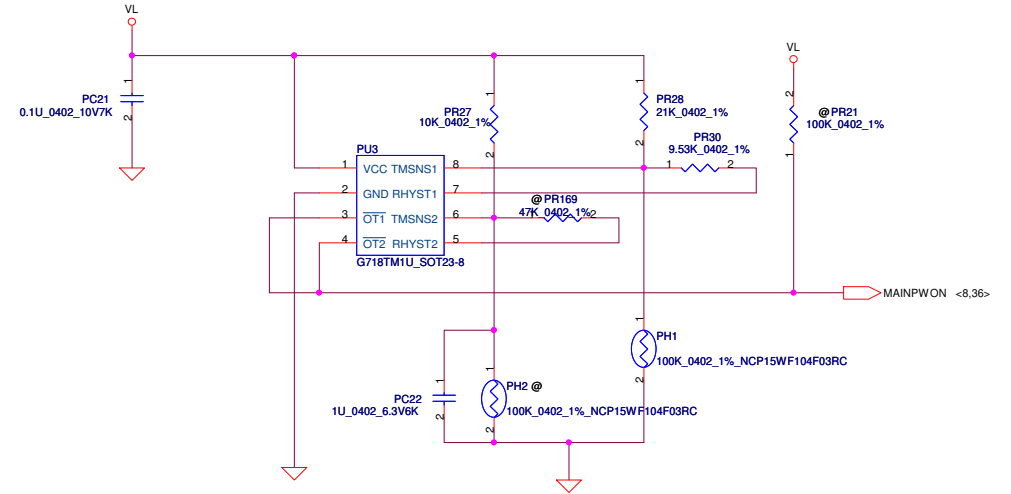
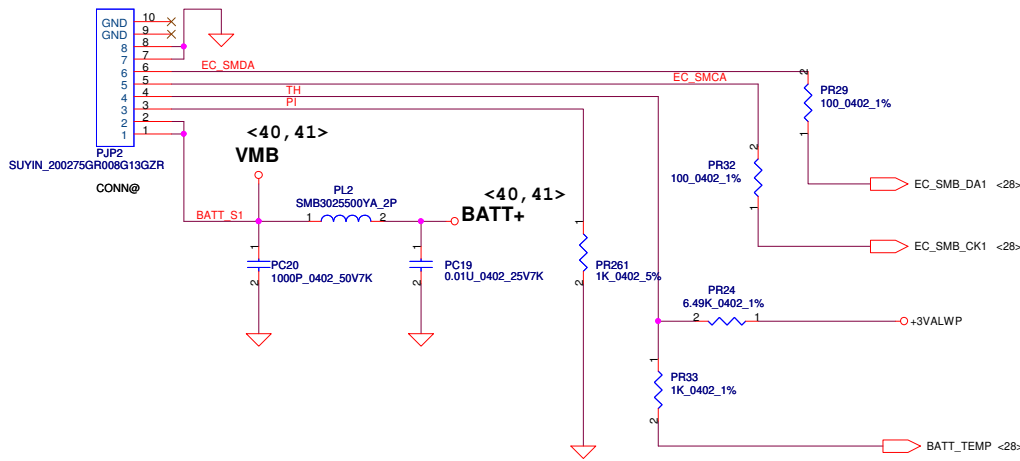


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PH1 under CPU botten side : Not SPEC, reference only!

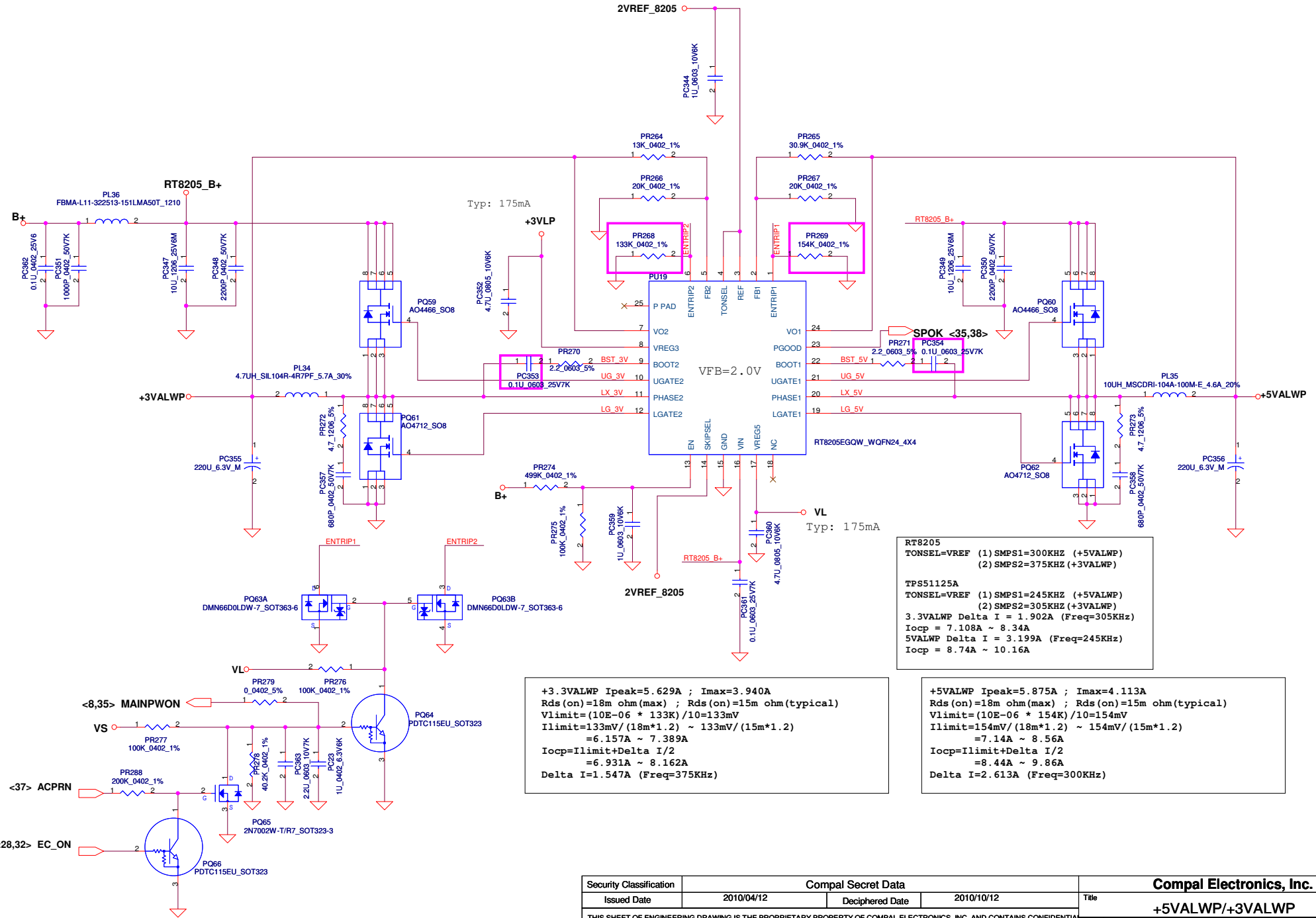
CPU thermal protection at 92 degree C

Recovery at 56 degree C



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Note:
 Use TPS51125 IC can remove RTC refernece LDO
 Use TPS51427 IC must keep RTC refernece LDO



RT8205
 TONSEL=VREF (1) SMPS1=300KHZ (+5VALWP)
 (2) SMPS2=375KHZ (+3VALWP)

TPS51125A
 TONSEL=VREF (1) SMPS1=245KHZ (+5VALWP)
 (2) SMPS2=305KHZ (+3VALWP)

3.3VALWP Delta I = 1.902A (Freq=305KHz)
 Iocp = 7.108A ~ 8.34A
 5VALWP Delta I = 3.199A (Freq=245KHz)
 Iocp = 8.74A ~ 10.16A

+3.3VALWP Ipeak=5.629A ; Imax=3.940A
 Rds(on)=18m ohm(max) ; Rds(on)=15m ohm(typical)
 Vlimit=(10E-06 * 133K)/10=133mV
 Ilimit=133mV/(18m*1.2) ~ 133mV/(15m*1.2)
 =6.157A ~ 7.389A
 Iocp=Ilimit+Delta I/2
 =6.931A ~ 8.162A
 Delta I=1.547A (Freq=375KHz)

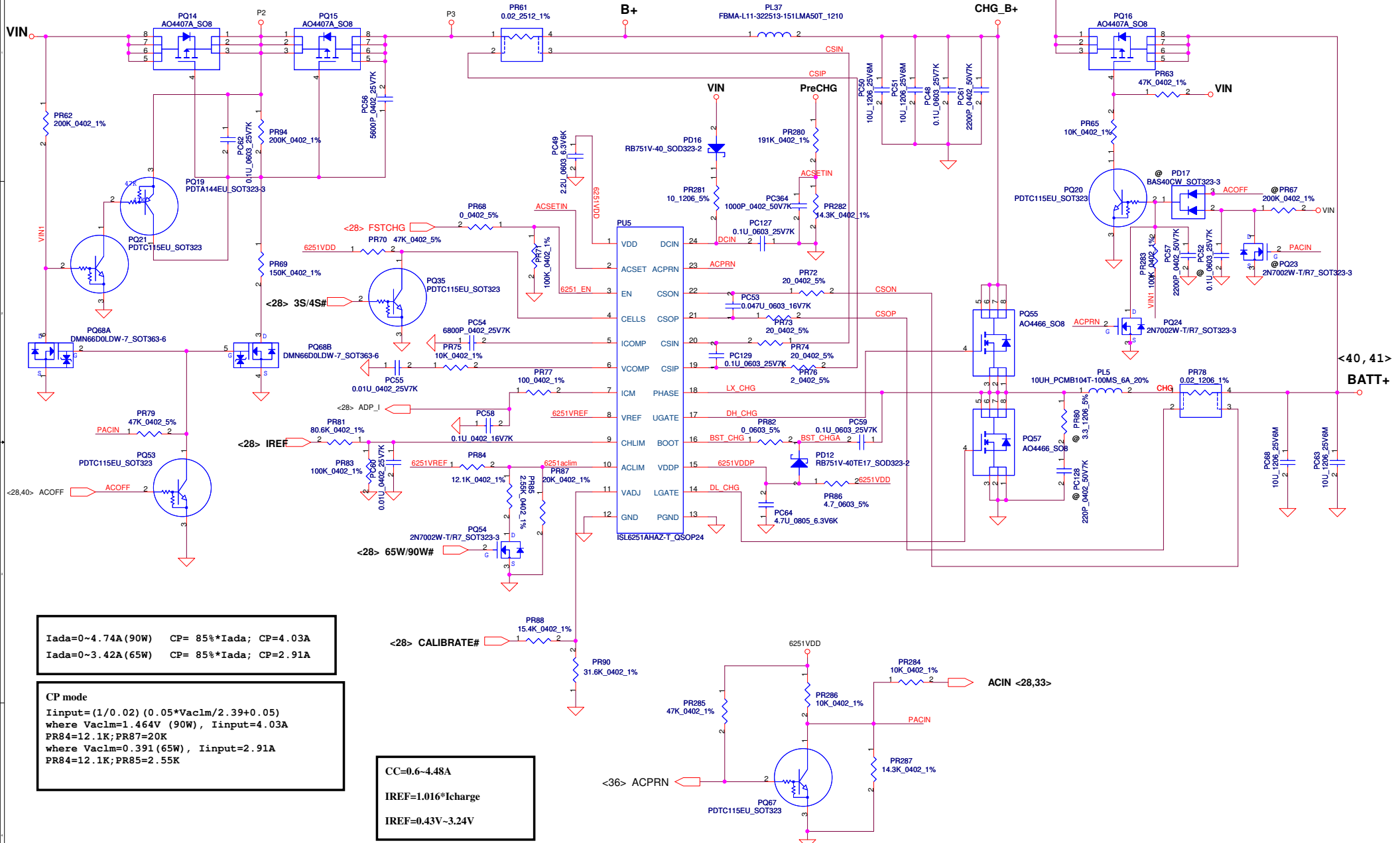
+5VALWP Ipeak=5.875A ; Imax=4.113A
 Rds(on)=18m ohm(max) ; Rds(on)=15m ohm(typical)
 Vlimit=(10E-06 * 154K)/10=154mV
 Ilimit=154mV/(18m*1.2) ~ 154mV/(15m*1.2)
 =7.14A ~ 8.56A
 Iocp=Ilimit+Delta I/2
 =8.44A ~ 9.86A
 Delta I=2.613A (Freq=300KHz)

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Iada=0~3.42A (65W/19V=3.421A)
 Iada=0~4.74A (90W/19V=4.736A)

ADP_I = 19.9*Iadapter*Rsense

CP = 85%*Iada ; CP = 2.91A
 CP = 85%*Iada ; CP = 4.07A



Iada=0~4.74A (90W) CP= 85%*Iada; CP=4.03A
 Iada=0~3.42A (65W) CP= 85%*Iada; CP=2.91A

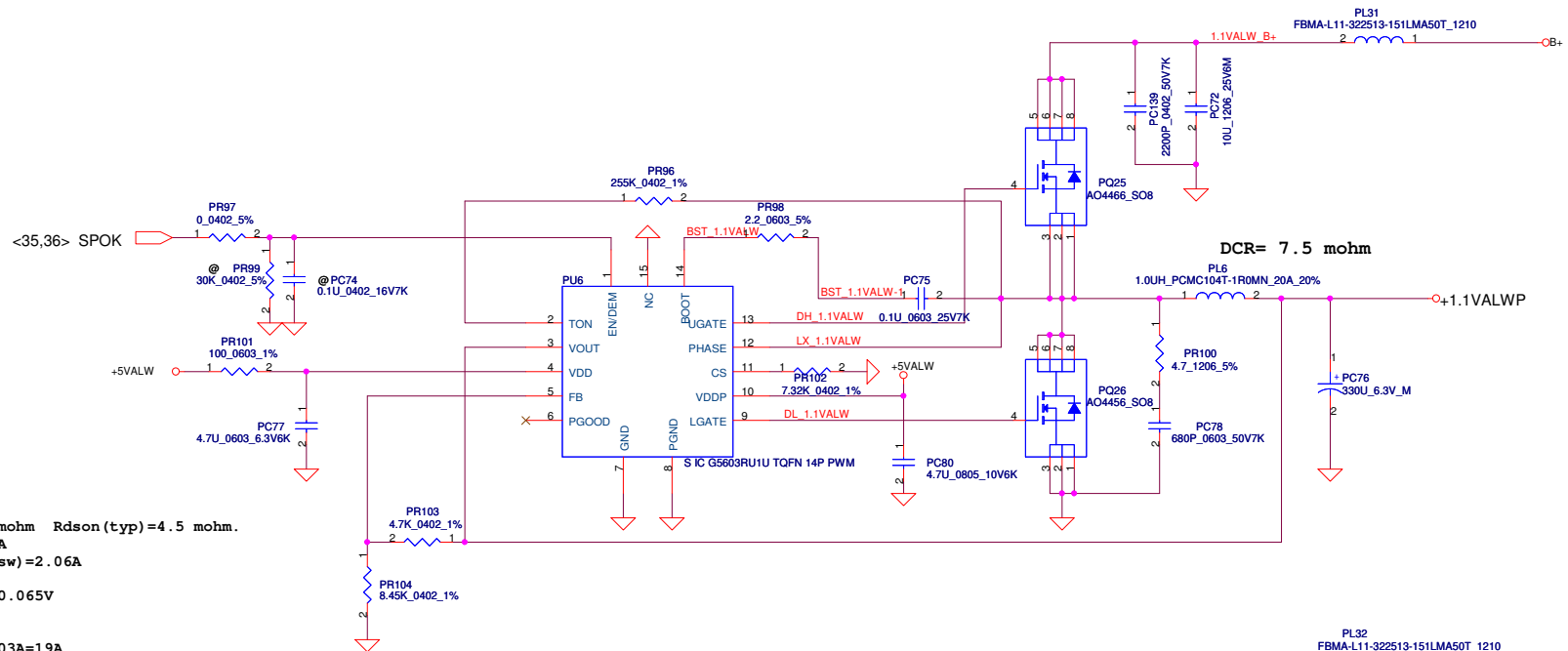
CP mode
 Iinput=(1/0.02) (0.05*Vaclm/2.39+0.05)
 where Vaclm=1.464V (90W), Iinput=4.03A
 PR84=12.1K; PR87=20K
 where Vaclm=0.391 (65W), Iinput=2.91A
 PR84=12.1K; PR85=2.55K

CC=0.6~4.48A
 IREF=1.016*Icharge
 IREF=0.43V~3.24V

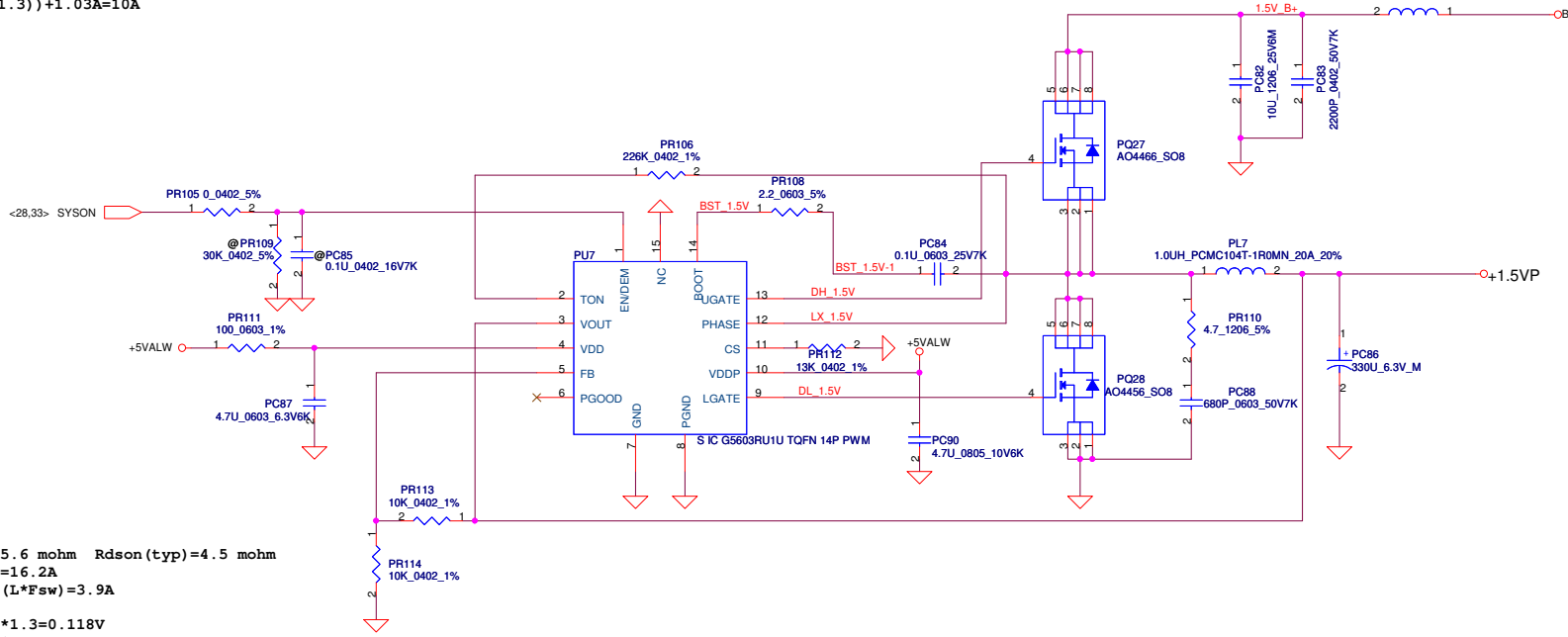
BATT Type	Charging Voltage (0x15)	CV mode
Normal 3S LI-ON Cells	12600mV	12.60V

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CHARGER			
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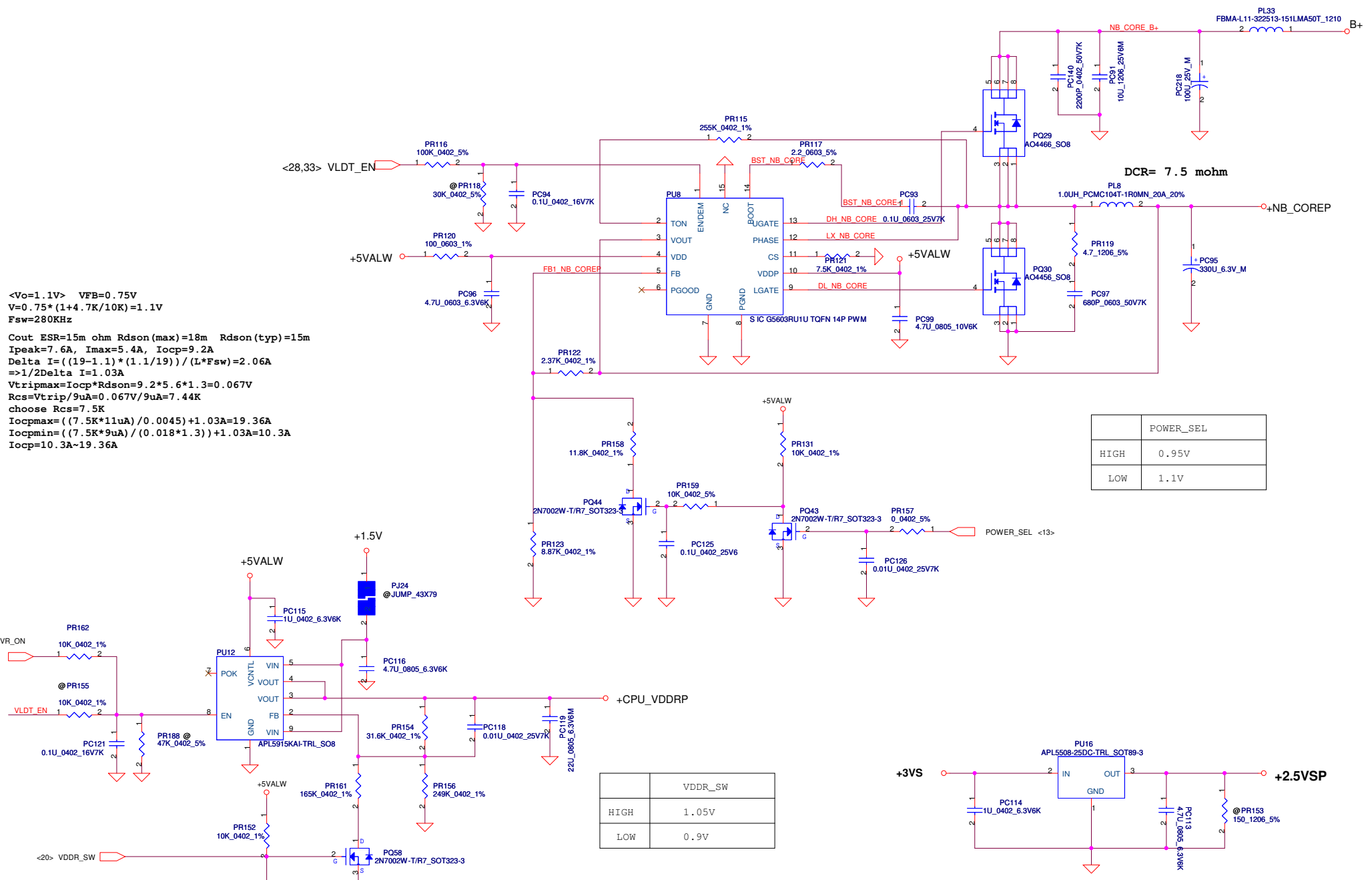
$\langle V_o=1.1V \rangle$ $V_{FB}=0.75V$
 $V=0.75 * (1+4.7K/10K)=1.1V$
 $F_{sw}=280KHz$
 $C_{out} ESR=15m\ \Omega$ $R_{dson(max)}=5.6\ m\Omega$ $R_{dson(typ)}=4.5\ m\Omega$
 $I_{peak}=7.42A$, $I_{max}=5.2A$, $I_{ocp}=8.9A$
 $\Delta I = ((19-1.1) * (1.1/19)) / (L * F_{sw}) = 2.06A$
 $\Rightarrow 1/2 \Delta I = 1.03A$
 $V_{tripmax} = I_{ocp} * R_{dson} = 8.9 * 5.6 * 1.3 = 0.065V$
 $R_{cs} = V_{trip} / 9\ \mu A = 0.065V / 9\ \mu A = 7.2K$
 choose $R_{cs}=7.32K$
 $I_{ocpmax} = ((7.32K * 11\ \mu A) / 0.0045) + 1.03A = 19A$
 $I_{ocpmin} = ((7.32K * 9\ \mu A) / (0.0056 * 1.3)) + 1.03A = 10A$
 $I_{ocp}=10A \sim 19A$



$\langle V_o=1.5V \rangle$ $V_{FB}=0.75V$
 $V_o=0.75 * (1+10K/10K)=1.5V$
 $F_{sw}=335KHz$
 $C_{out} ESR=17\ m\Omega$ $R_{dson(max)}=5.6\ m\Omega$ $R_{dson(typ)}=4.5\ m\Omega$
 $I_{peak}=13.5A$, $I_{max}=9.5A$, $I_{ocp}=16.2A$
 $\Delta I = ((19-1.5) * (1.5/19)) / (L * F_{sw}) = 3.9A$
 $\Rightarrow 1/2 \Delta I = 1.95A$
 $V_{tripmax} = I_{ocp} * R_{dson} = 16.2 * 5.6 * 1.3 = 0.118V$
 $R_{cs} = V_{trip} / 9\ \mu A = 0.118V / 9\ \mu A = 13.1K$
 choose $R_{cs}=13K$
 $I_{ocpmax} = ((13K * 11\ \mu A) / 0.0045) + 1.95A = 32A$
 $I_{ocpmin} = ((13K * 9\ \mu A) / (0.0056 * 1.3)) + 1.95A = 18A$
 $I_{ocp}=18A \sim 32A$

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				1.1VALWP/1.5VP
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$\langle V_o = 1.1V \rangle$ $V_{FB} = 0.75V$
 $V = 0.75 * (1 + 4.7K/10K) = 1.1V$
 $F_{sw} = 280KHz$
 $C_{out} ESR = 15m\ \Omega$ $R_{dson(max)} = 18m$ $R_{dson(typ)} = 15m$
 $I_{peak} = 7.6A$, $I_{max} = 5.4A$, $I_{ocp} = 9.2A$
 $\Delta I = ((19 - 1.1) * (1.1/19)) / (L * F_{sw}) = 2.06A$
 $\Rightarrow 1/2 \Delta I = 1.03A$
 $V_{tripmax} = I_{ocp} * R_{dson} = 9.2 * 5.6 * 1.3 = 0.067V$
 $R_{cs} = V_{trip} / 9\mu A = 0.067V / 9\mu A = 7.44K$
 choose $R_{cs} = 7.5K$
 $I_{ocpmax} = ((7.5K * 11\mu A) / (0.0045)) + 1.03A = 19.36A$
 $I_{ocpmin} = ((7.5K * 9\mu A) / (0.018 * 1.3)) + 1.03A = 10.3A$
 $I_{ocp} = 10.3A \sim 19.36A$

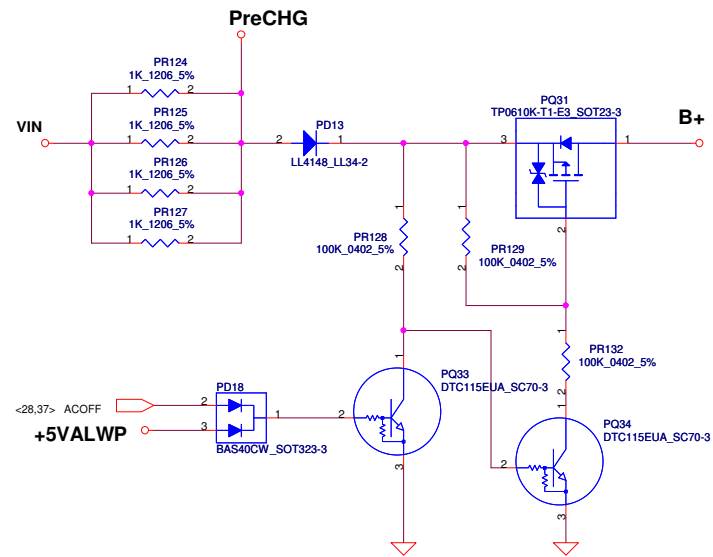
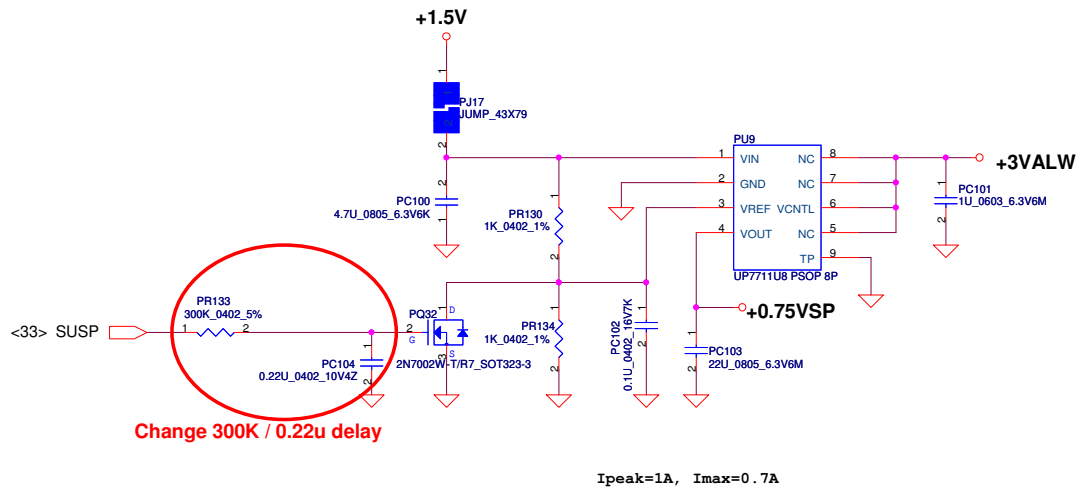


POWER_SEL	
HIGH	0.95V
LOW	1.1V

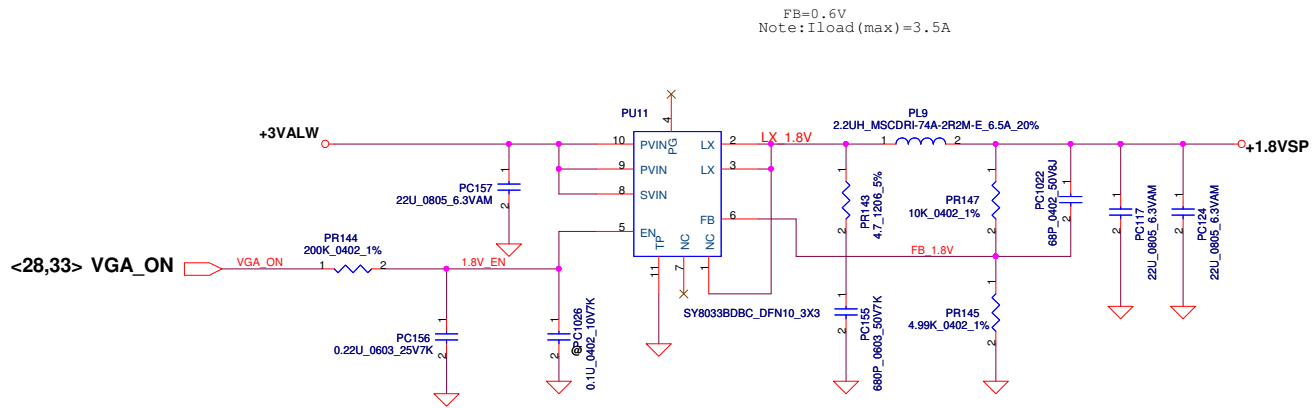
VDDR_SW	
HIGH	1.05V
LOW	0.9V

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NB_CORE/2.5VS/CPU_VDDRP			
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Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1	Modify Pre-charger				Add PR279,PR288,PC57 Change PR285 100K to 47K Change PR287 20K to 14.3K Change PQ67 2N7002 to PDTc115 Change PR62 47K to 200K Change PR79 22K to 47K Change PR283 0 to 100K	2010 0528	PVT
2	Meet common rule				Change PJ30 to PL36, PJ23 to PL37 Add PC361,PC362	2010 0602	PVT
3	HDMI test fail	5V voltage too low at test termial		36	Change PR265 from 30K to 30.9K	2010 0604	PVT
4	ESD test fail	ESD solution			Add PC22, PC23	2010 0608	PVT
5	EMI test fail	EMI solution			Enable 3V,5V,1.1V,1.5V,NB_CORE,CPU snubber	2010 0608	PVT
6							
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Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
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05/10 First release

1. Change Cardreader chip (RTS5137/RTS5138)
2. ODD used to ODD sub/b
3. RTC Battery change (w/o charge)

06/02 PVT

1. P.28 Reserve R889 For EC_CLK, pop R851, unpop R852 For EC_SMBus leakage
2. P.26 Remove R853
3. P.28 project ID-->1 Board ID -->1, unstuff KSI, KSO Cap.

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