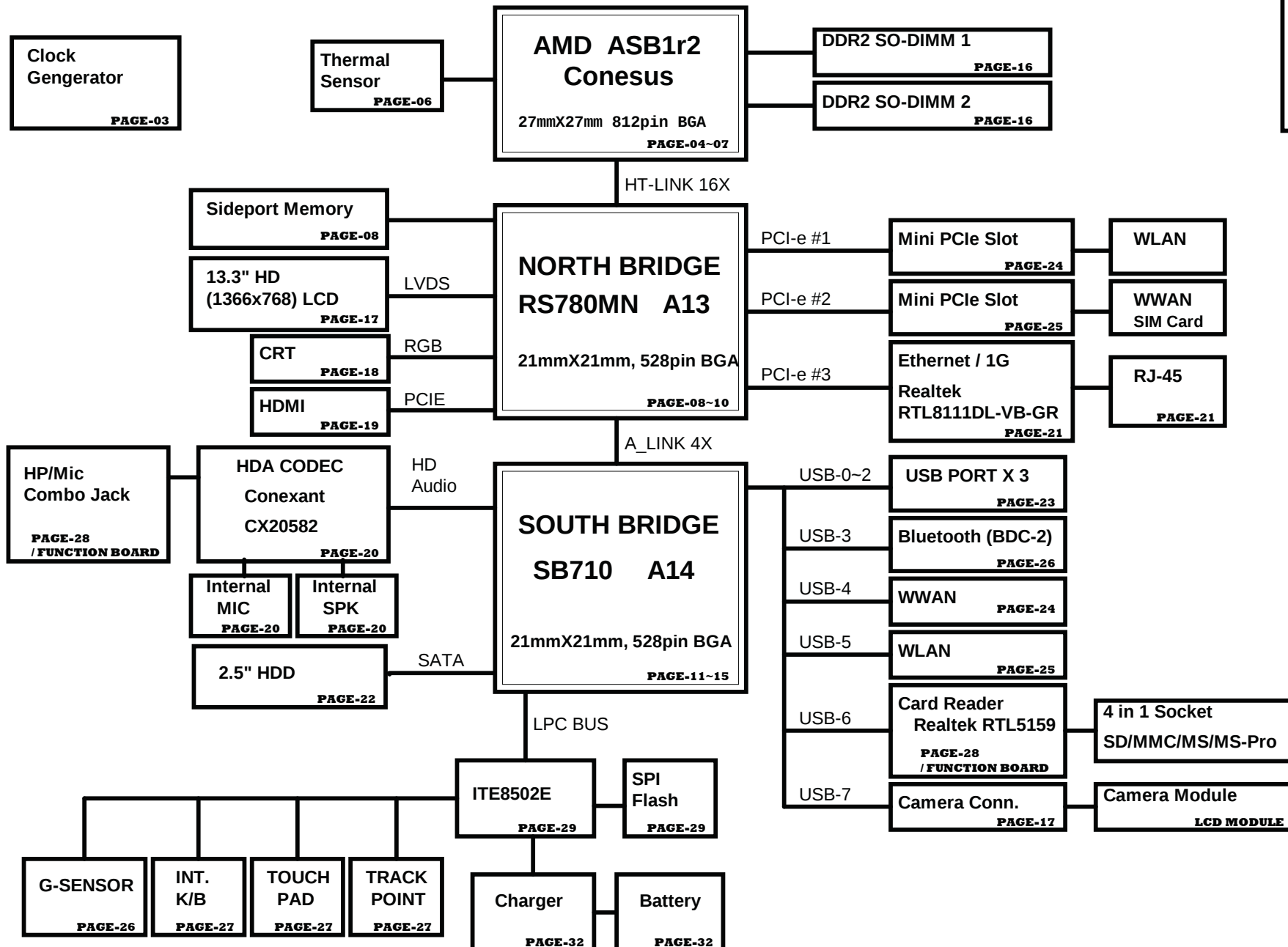
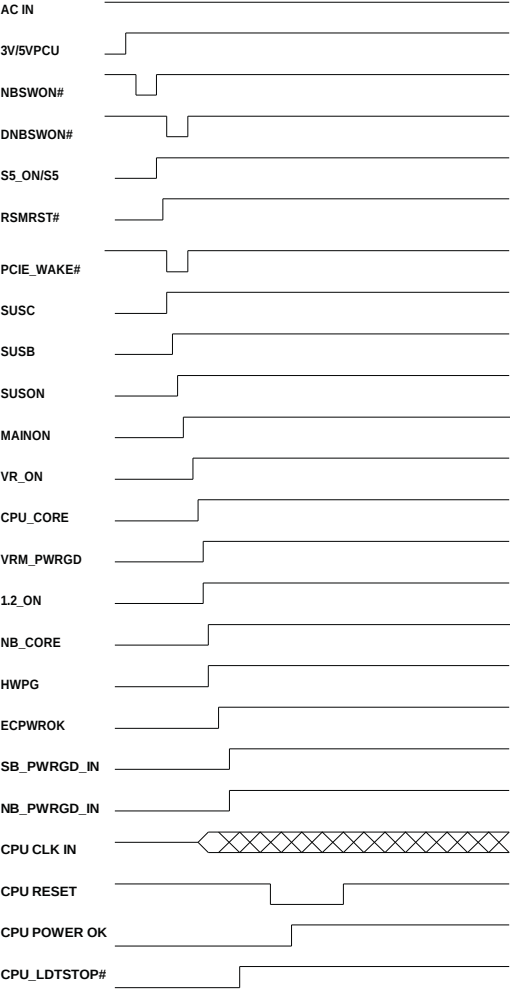


LAYER 1 : TOP
LAYER 2 : GND
LAYER 3 : IN1
LAYER 4 : VCC
LAYER 5 : IN2
LAYER 6 : IN3
LAYER 7 : GND
LAYER 8 : BOT



PAGE#	DESCRIPTION	NOTE
1	SCHEMATIC BLOCK DIAGRAM	
2	SYSTEM INFORMATION	
3	CLOCK GENERATOR_SLG8SP628	
4	K8G BGA HT I/F 1/4	
5	K8G BGA DDR2 MEMORY I/F 2/4	
6	K8G BGA CTRL & DEBUG 3/4	
7	K8G BGA PWR & GND 4/4	
8	RS780-HT LINK/PCIE/MEM I/F 1/3	
9	RS780-SYSTEM/STRAPS I/F 2/3	
10	RS780-POWER/GND 3/3	
11	SB710-PCIE/PCI/CPU/LPC 1/4	
12	SB710-ACP/GPIO/USB 2/4	
13	SB710-SATA/IDE/HWM/SPI 3/4	
14	SB710-PWR/DECOUPLING 4/4	
15	SB710-STRAPS & TERMINATOR	
16	SB710-STRAPS & PWRGD	
17	LCD/CAMERA	
18	CRT CONN	
19	HDMI CONN	
20	AUDIO (CX20582)	
21	LAN (RTL8111DL-VB-GR)	
22	SATA & FAN CONTROL	
23	USB	
24	WLAN	
25	WWAN	
26	BT, G-SENSOR	
27	KB, Touch Pad, Track Point	
28	Audio & Function CONN	
29	KBC IT8502E	
30	Screw Hole / EMI	
31	Discharge	
32	Charger	
33	1.8VSUS, +SMDDR_VTERM, +1.5V	
34	+1.2V, +1.1V	
35	3VPCU, 5VPCU	
36	CPU_CORE, +2.5V	
37	+1.8V, +1.2V_S5	
38	+NB_CORE	
39	POWER BLOCK DIAGRAM	
40	HISTORY (Pre A)	
41	HISTORY (A --> C)	
42	HISTORY (C --> C2)	
43	HISTORY (C2 --> MP)	



RS780 SM BUS

RS780 I2C (S0)	I2C and AUX Function Define
DAC_SCL DAC_SDA	CRT (+5V)
I2C_CLK I2C_DATA	LVDS (+3V)
DDC_CLK0/AUX0N DDC_DATA1/AUX0P	HDMI (+5V)
DDC_CLK1/AUX1N DDC_DATA1/AUX1P	not used

SB710 SM BUS

SB710 SMBUS	SMBUS Function Define
SMBCLK0 SMBDAT0 (+3V)	DDR / DDR THER / CLOCK GEN
SMBCLK1 SMBDAT1 (+3V_S5)	LAN IC/WI-FI
SMBCLK2 SMBDAT2 (+3V_S5)	not used

KBC(EC) SM BUS

KBC SMBUS (+3VPCU)	SMBUS Function Define
MBCLK MBDAT	BATTERY (+3VPCU)
2ND_MBCLK 2ND_MBDATA	CPU THER SENSOR(+3V) EC EEPROM (+3VPCU)
3ND_MBCLK 3ND_MBDATA	G-SENSOR(+3VS5)



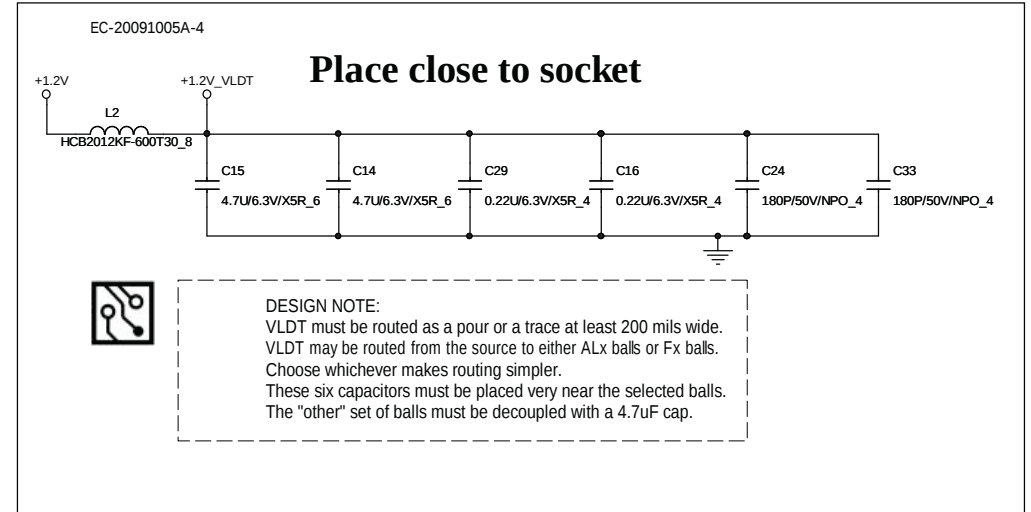
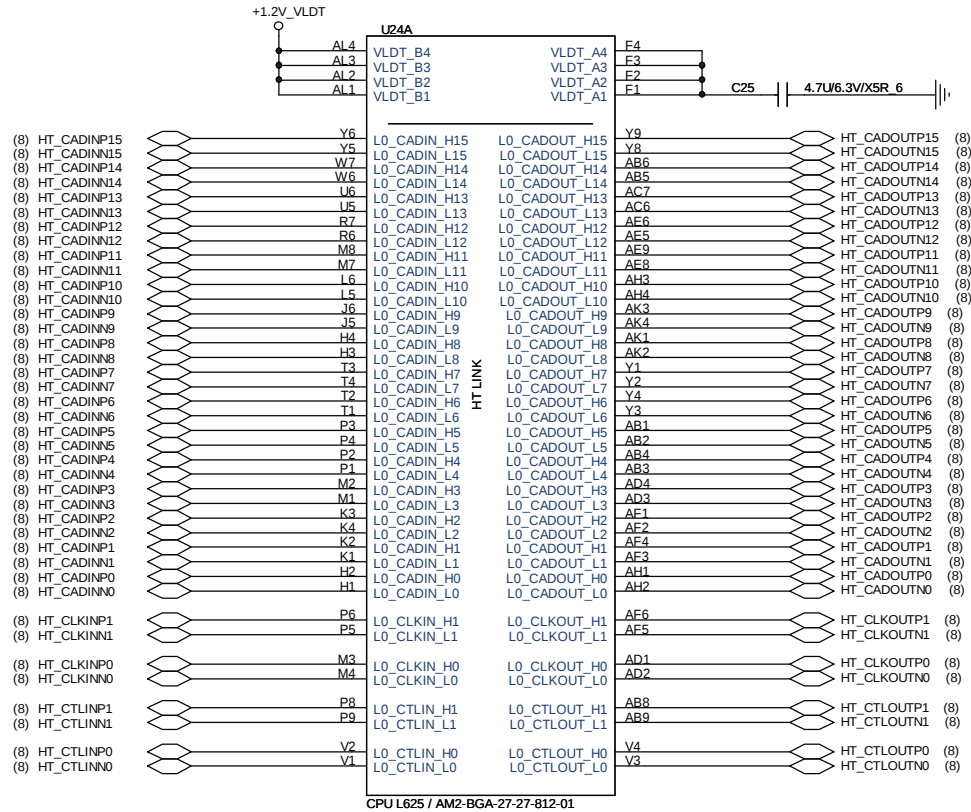
- Place within 0.5" of CLKGEN
- Differential clock damping resistors
- Delete after FA PASS.



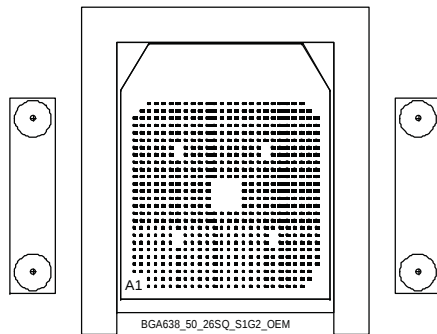
NB CLOCKS		RS780	RS780
HT_REFCLKP	100M DIFF		100M DIFF
HT_REFCLKN	100M DIFF		100M DIFF
REFCLK_P	14M SE (1.8V)		14M SE (1.1V)
REFCLK_N	NC		wref
GFX_REFCLK	100M DIFF		100M DIFF(INOUT*)
GPP_REFCLK	100M DIFF		NC or 100M DIFF OUTPUT
GPPSB_REFCLK	100M DIFF		100M DIFF

SEL_HTT66	1	66 MHz 3.3V single ended HTT clock
	0*	100 MHz differential HTT clock
SEL_SATA	1	100 MHz non-spreading differential SRC clock
	0 *	100 MHz spreading differential SRC clock
SEL_27	1	27MHz and 27M SS outputs
	0*	100 MHz SRC clock

EMI Cap placement close IC



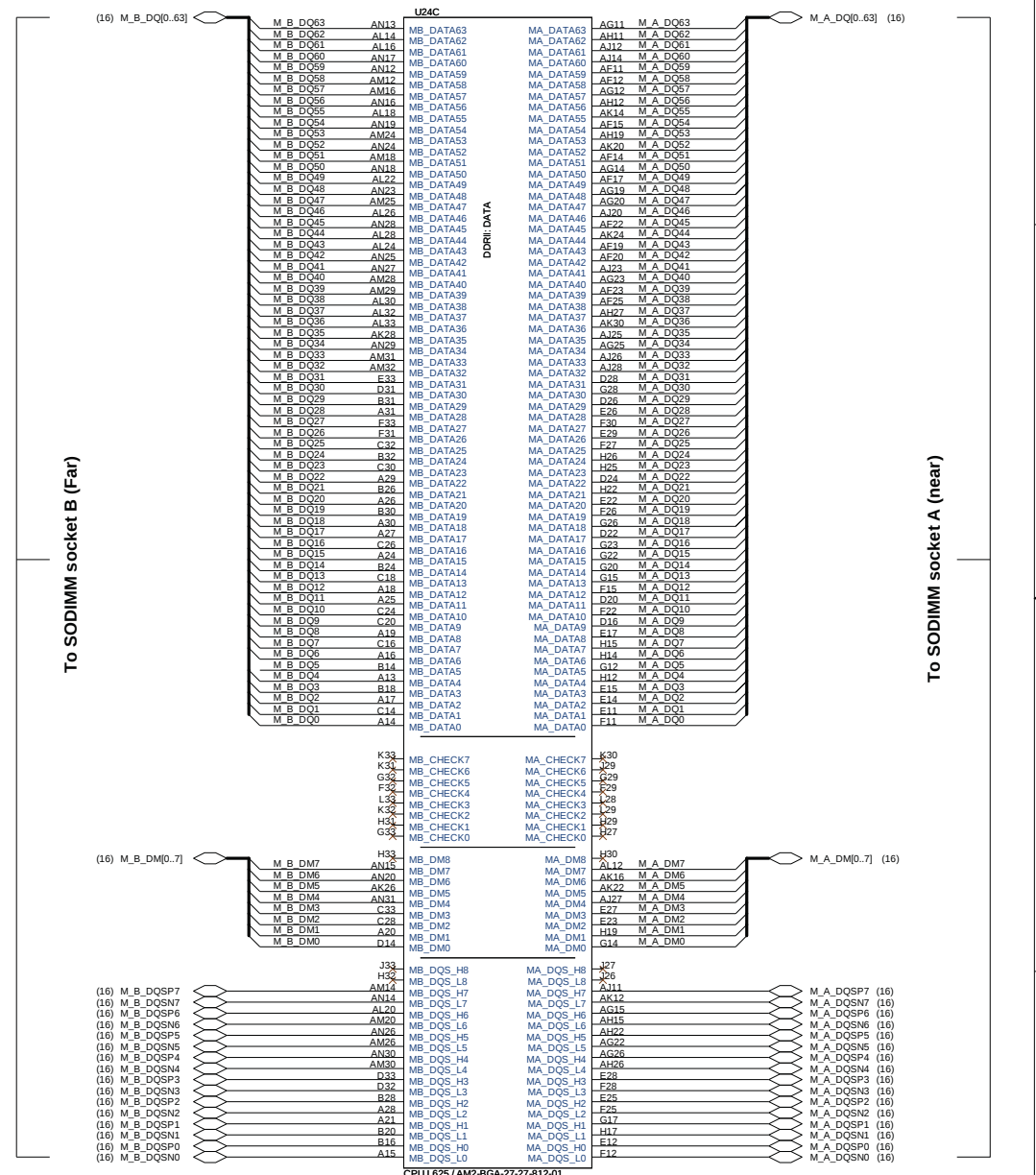
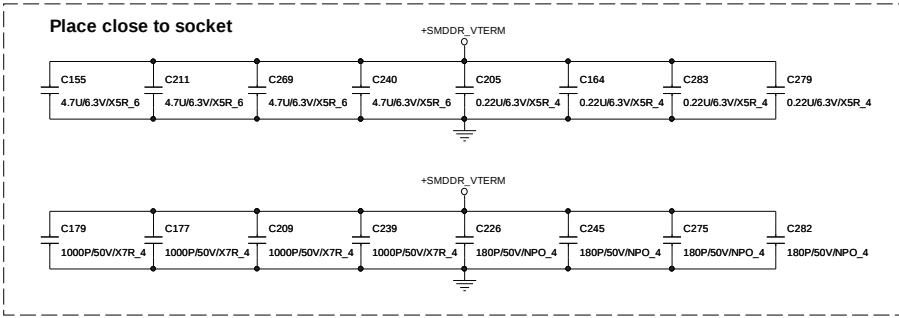
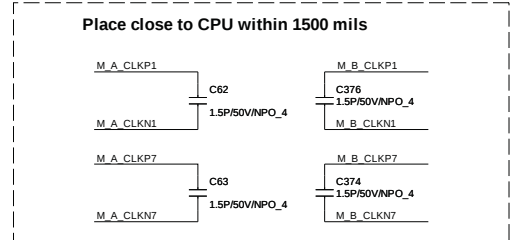
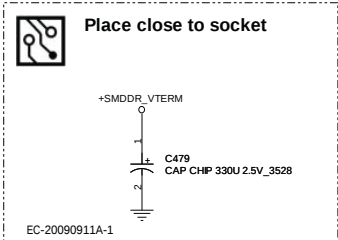
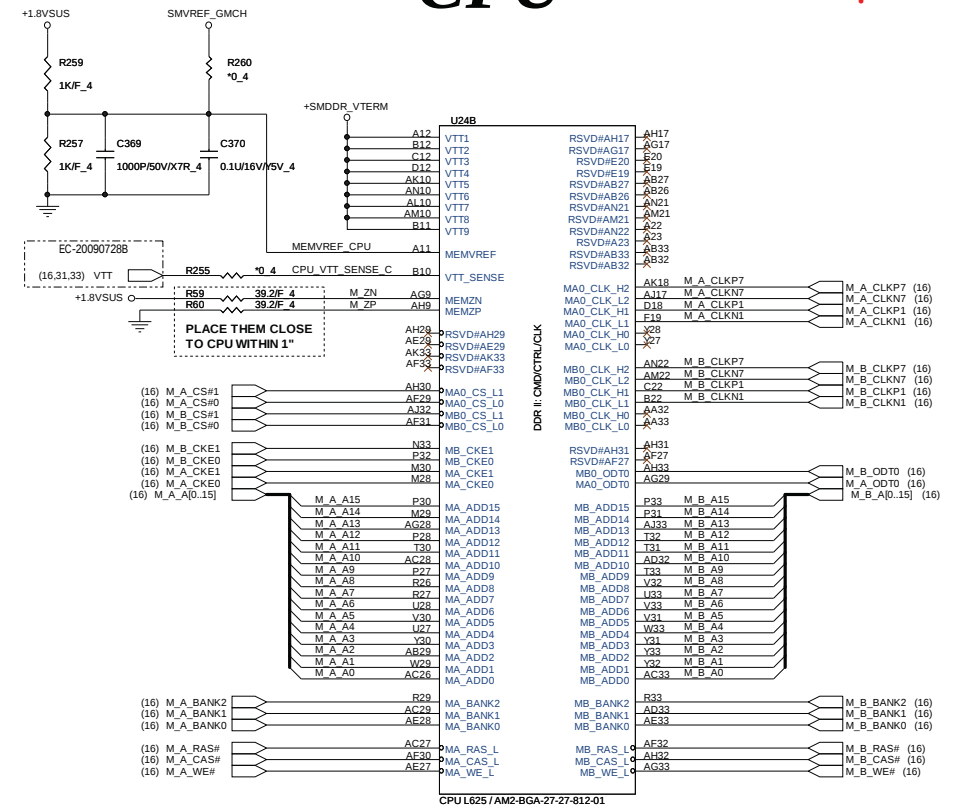
CPU

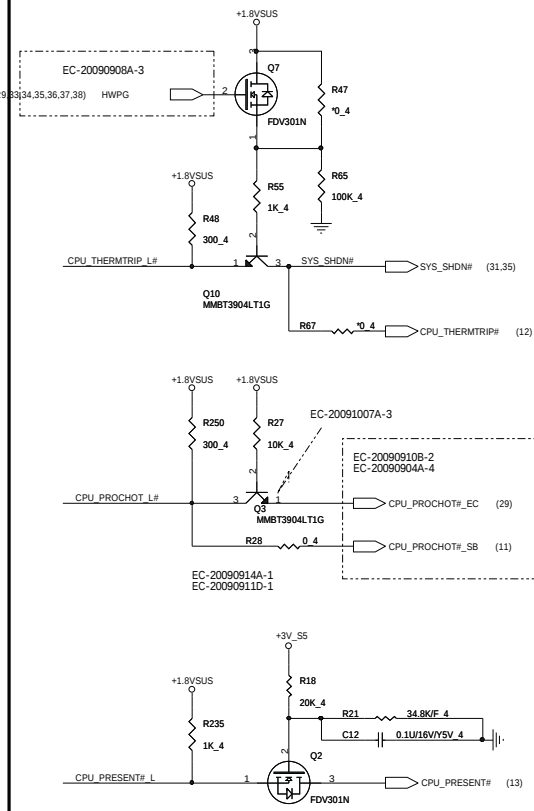


1.6GHz, 18W – Turion™ Neo X2 L625
1.5GHz, 18W – Athlon Neo X2 L325
1.6GHz, 15W – Athlon Neo MV-40

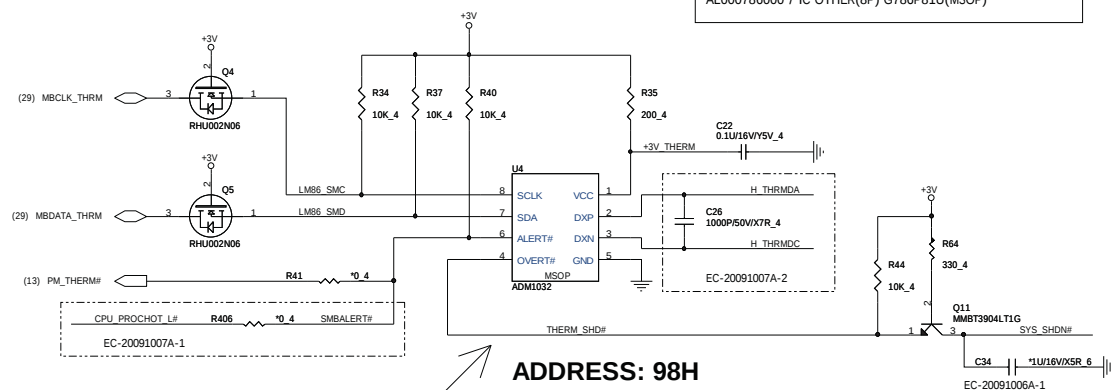
CPU

Processor Memory Interface



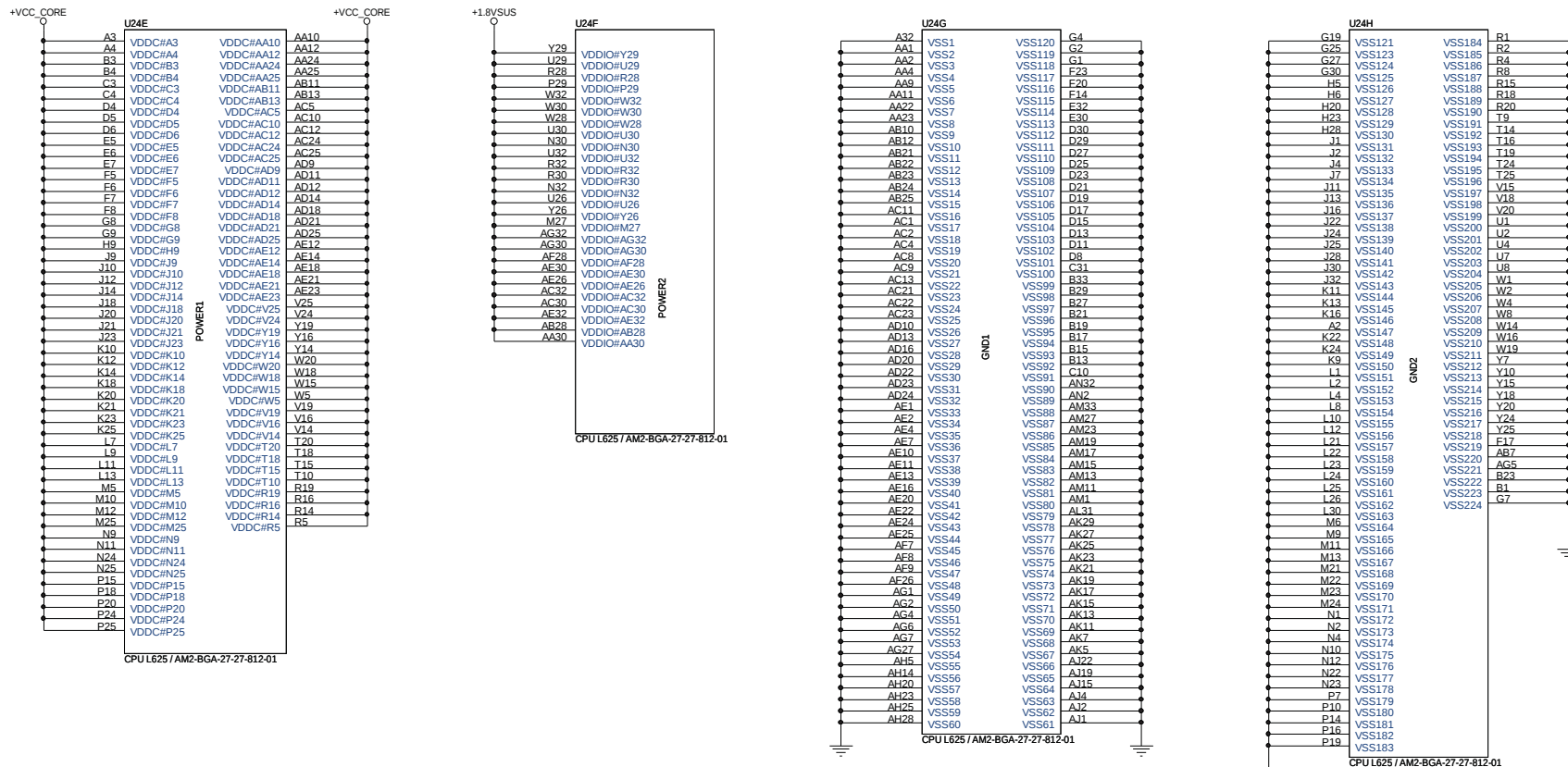


CPU H/W MONITOR



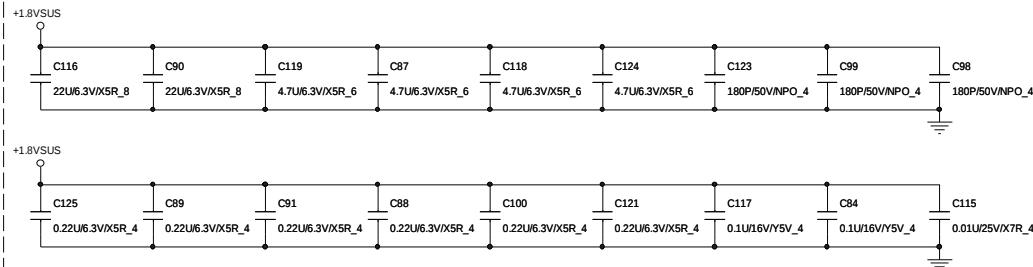
ADDRESS: 98H

OVERT# Check EC Setting Degree

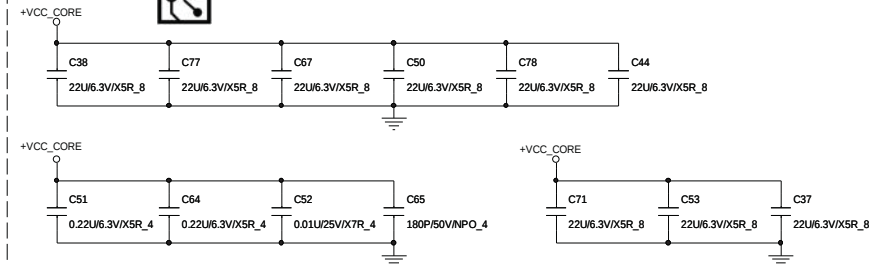


DECOUPLING BETWEEN PROCESSOR AND DIMMs

PLACE CLOSE TO PROCESSOR AS POSSIBLE

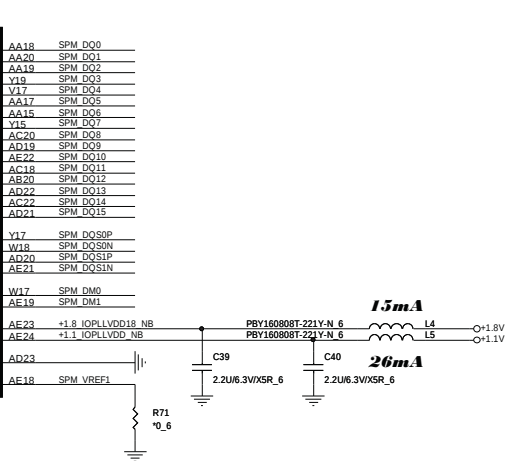
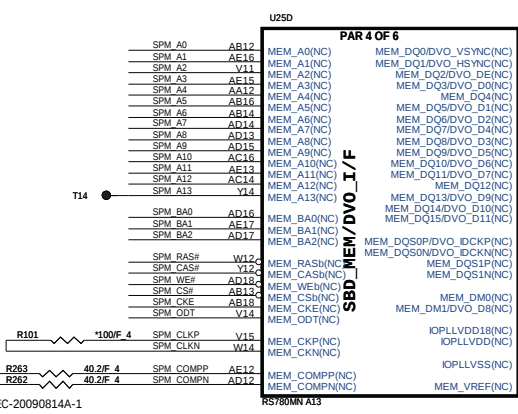
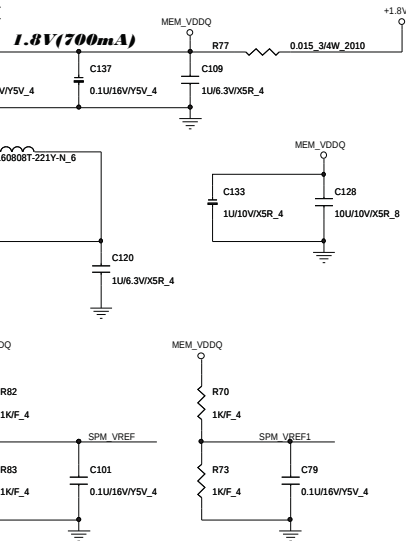


BOTTOM SIDE DECOUPLING



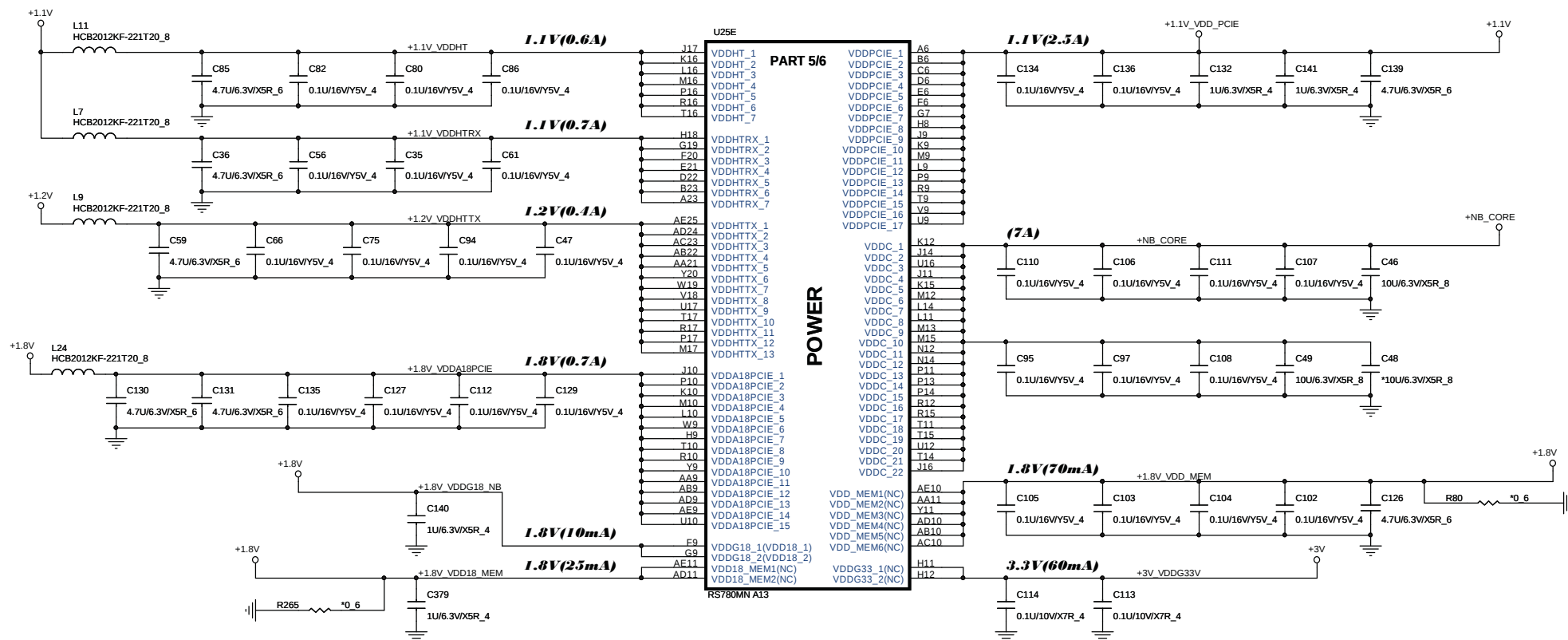
```
105-A75631_00F_HDMI.pdf
TMD5_DATA2+ <> PETp0
TMD5_DATA2- <> PETn0
TMD5_DATA1+ <> PETp1
TMD5_DATA1- <> PETn1
TMD5_DATA0+ <> PETp2
TMD5_DATA0- <> PETn2
TMD5_CLK+ <> PETp3
TMD5_CLK- <> PETn3
```

IC SDRAM(84P) H5PS1G63EFR-20L(FBGA)



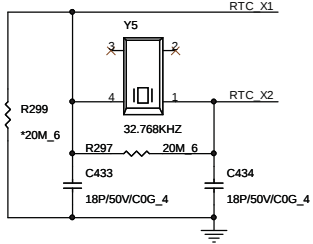


PIN NAME	RS740	RX780	RS780	PIN NAME	RS740	RX780	RS780
VDDHT	NC	+1.1V	+1.1V	IOPLLVD	+1.2V	NC	+1.1V
VDDHTRX	NC	+1.1V	+1.1V	AVDD	+3.3V	NC	+3.3V
VDDHTTX	+1.2V	+1.2V	+1.2V	AVDDDI	+1.8V	NC	+1.8V
VDDA18PCIE	NC	+1.8V	+1.8V	AVDDQ	+1.8V	NC	+1.8V
VDDG18	+1.8V	+1.8V	+1.8V	PLLVD	+1.2V	NC	+1.1V
VDD18_MEM	NC	NC	+1.8V	PLLVD18	+1.8V	NC	+1.8V
VDDPCIE	+1.2V	+1.1V	+1.1V	VDDA18PCIEPLL	+1.2V	+1.8V	+1.8V
VDDC	+1.2V	+1.1V	+1.1V	VDDA18HTPLL	+1.8V	+1.8V	+1.8V
VDD_MEM	+1.8V/1.5V	NC	+1.8V/1.5V	VDLTLP18	+1.8V	NC	+1.8V
VDDG33	+3.3V	NC	+3.3V	VDDLT18	+1.8V	NC	+1.8V
IOPLLVD18	+1.8V	NC	+1.8V	VDDLT33	+3.3V	NC	NC

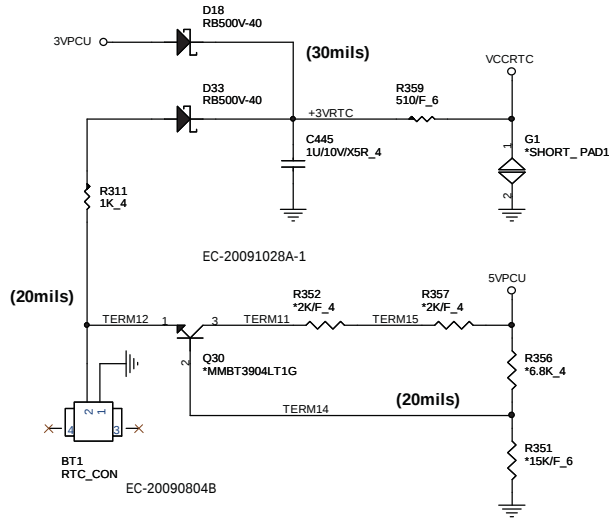


RTC XTAL

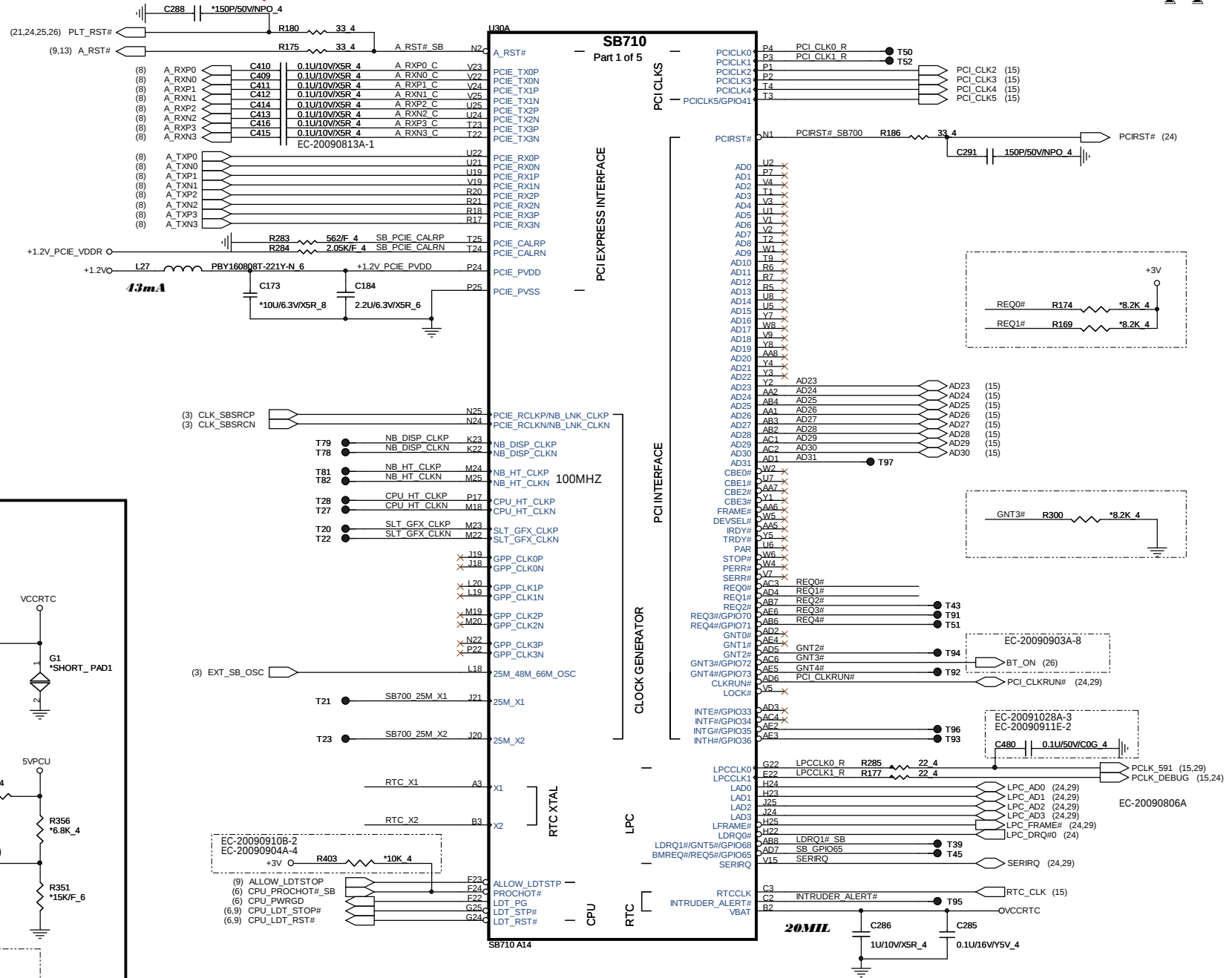
EC-20090909A-2

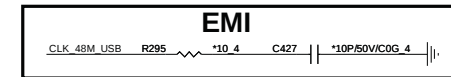


RTC

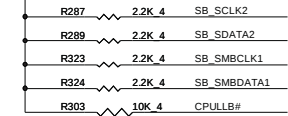


RTC P/N: AHL03002009 (CR2025)
Don't support chargeable Battery

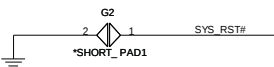
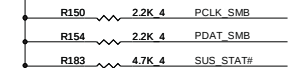




+3V_S5
SCL1/SDATA1 is 3V/S5 tolerance
AMD datasheet define it

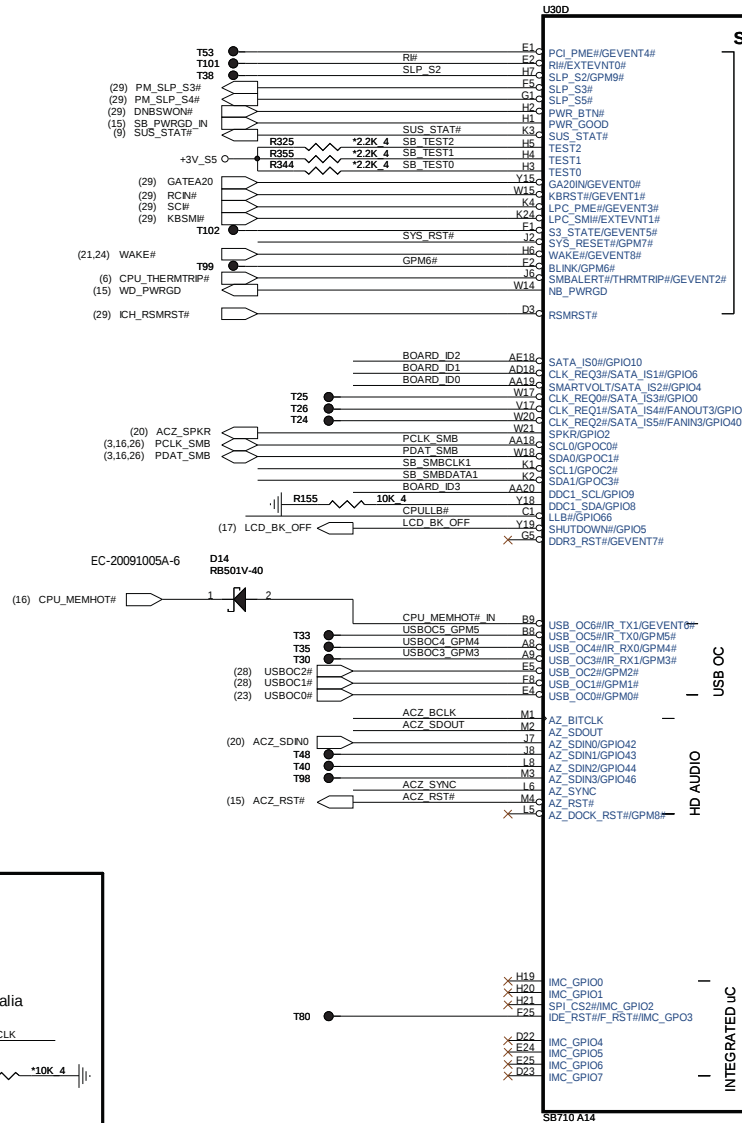
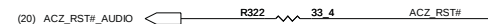
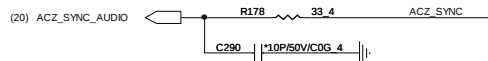
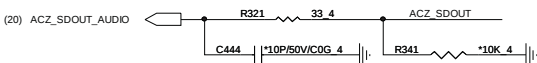
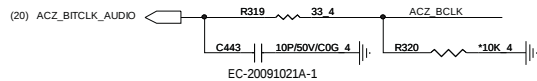


+3V
SCL0/SDATA0 is 3V tolerance
AMD datasheet define it

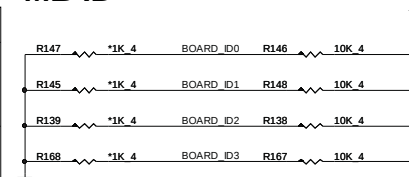


HD Audio Interface

To Azalia



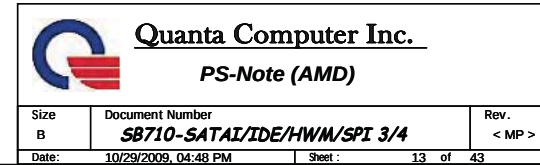
MB ID



MB ID Selection Table

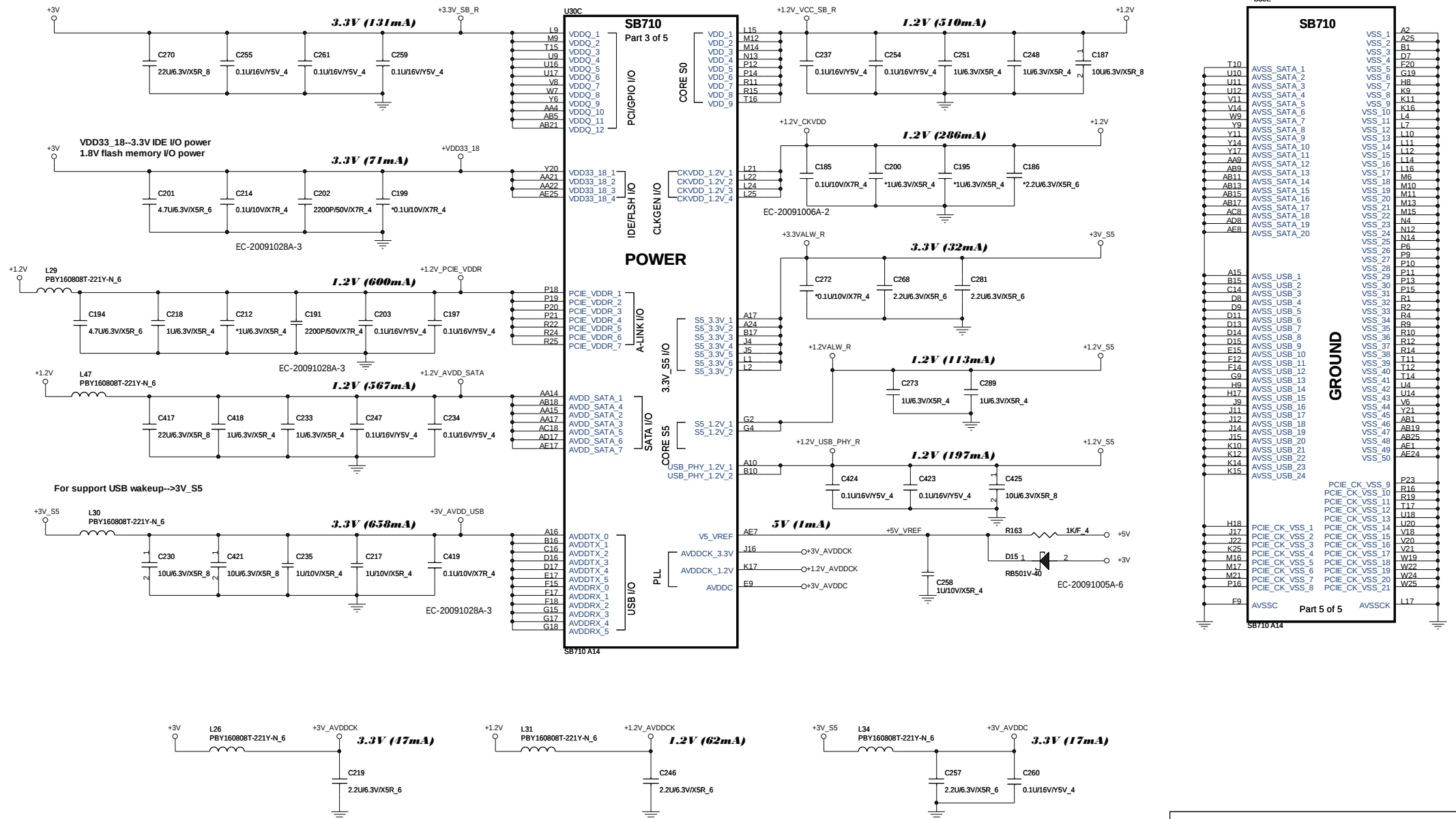
BOARD_ID	BOARD_ID0	BOARD_ID1	BOARD_ID2	BOARD_ID3
Turion Neo X2 L625	H	H		
Athlon Neo MV-40	L	H		
Athlon Neo X2 L325	L	L		
W/ SIDE-PORT MEMORY			H	H
W/O SIDE-PORT MEMORY			L	H

Quanta Computer Inc.
PS-Note (AMD)



SB710

PLACE ALL THE DECOUPLING CAPS ON THIS SHEET CLOSE TO SB AS POSSIBLE.

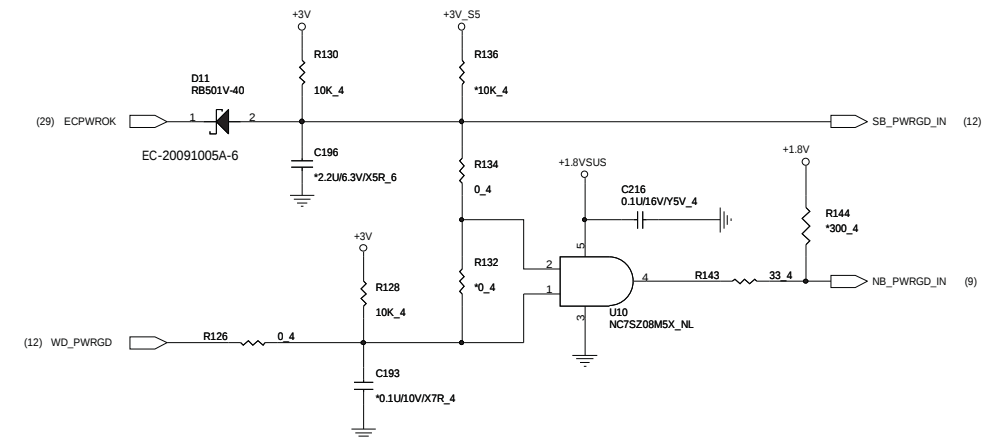


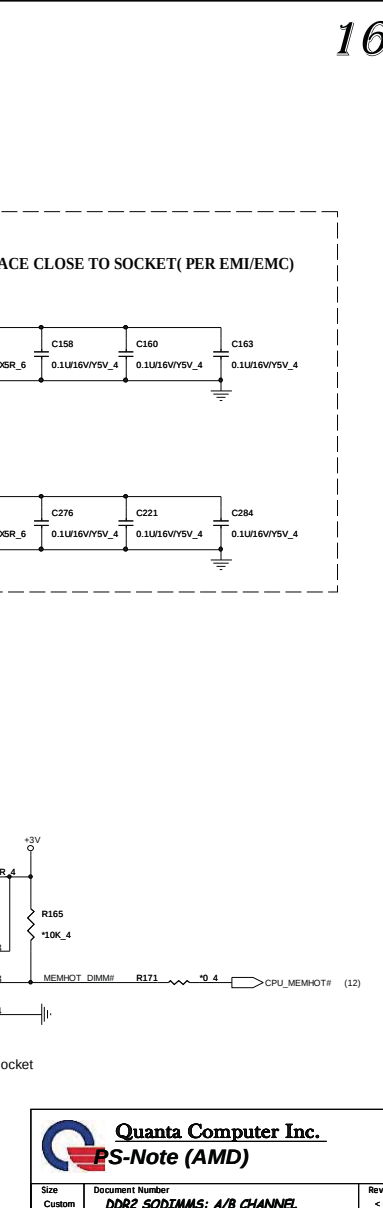
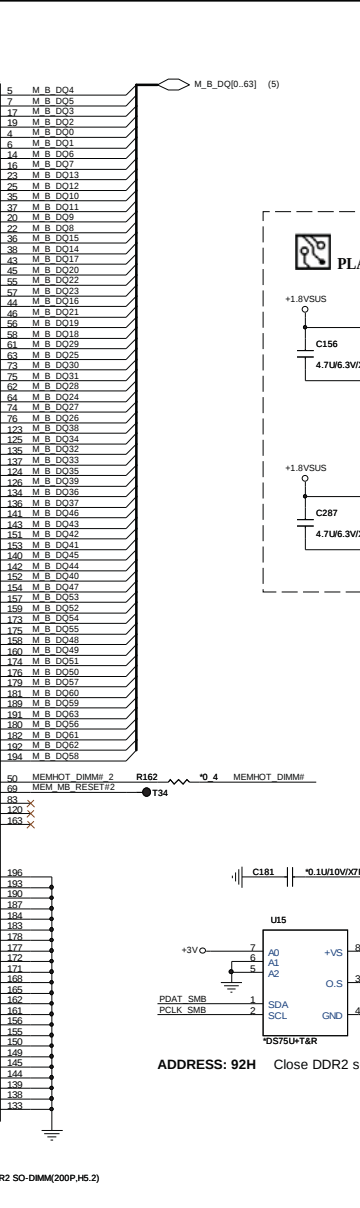
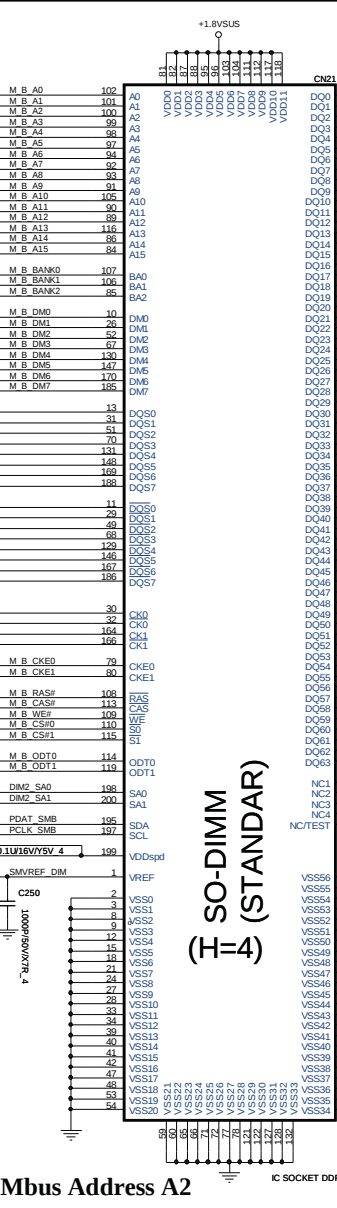
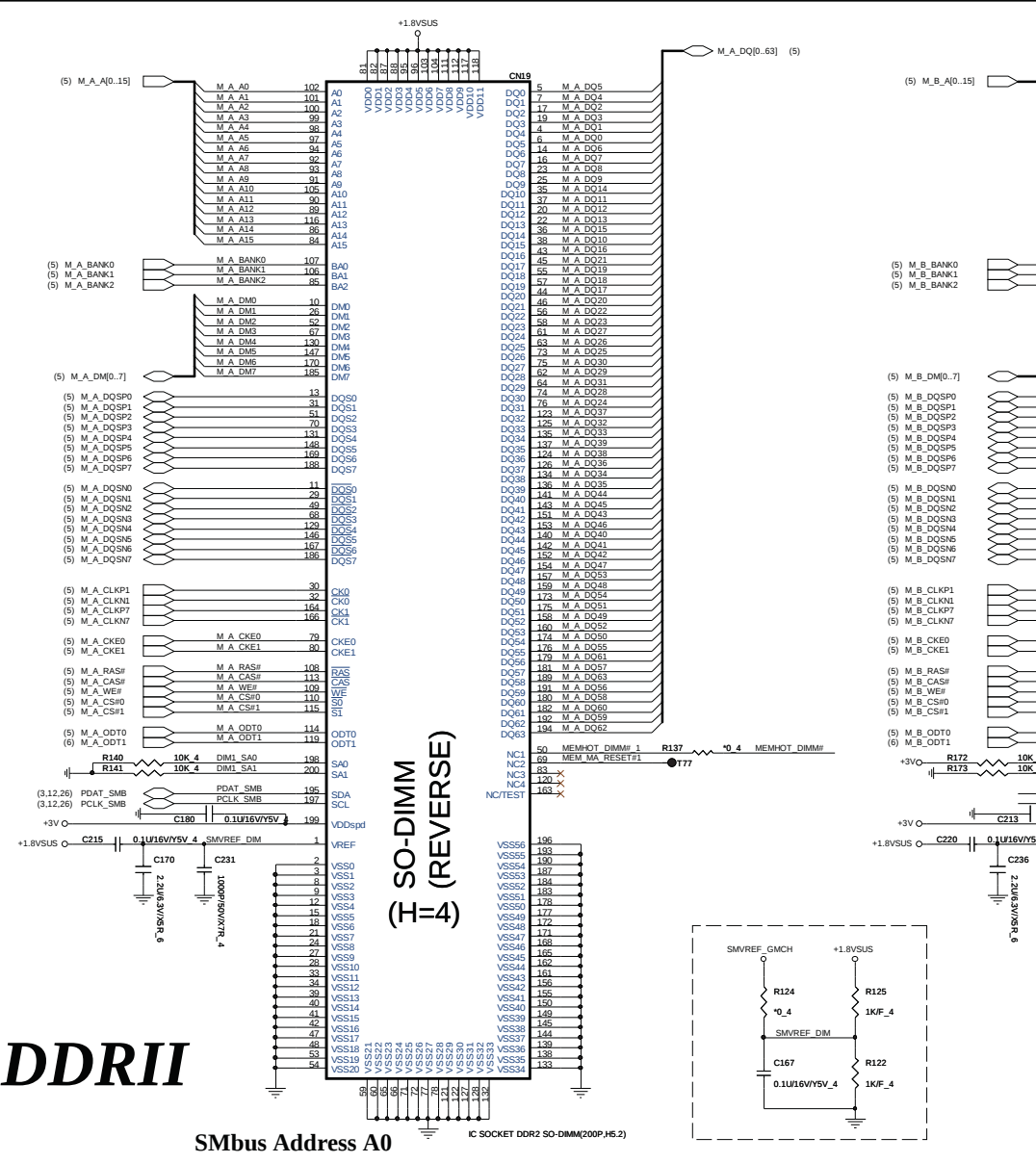
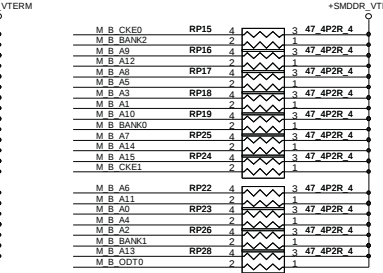
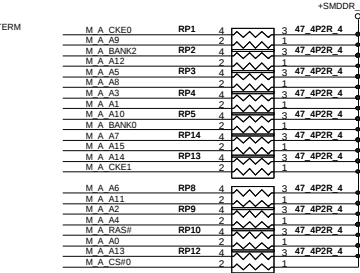
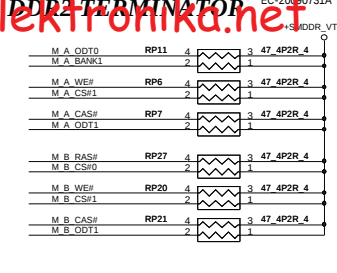
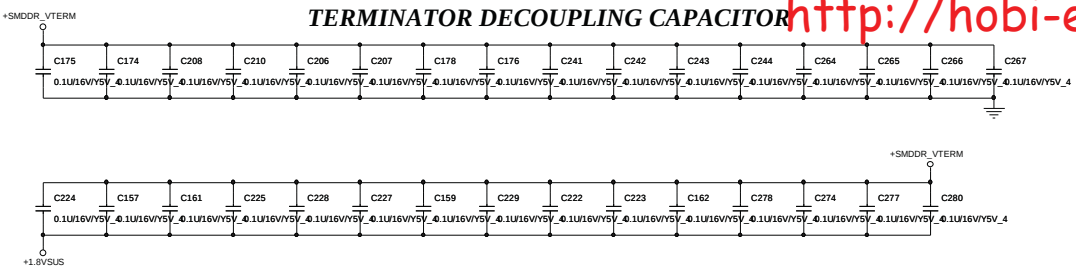
	LPC_CLK1	RTC_CLK	ACZ_RST#	GP17	GP16
PULL HIGH	CLKGEN ENABLED	INTERNAL RTC <i>DEFAULT</i>	ENABLE PCI MEM BOOT	ROM TYPE: H, H = Reserved H, L = SPI ROM	
PULL LOW	CLKGEN DISABLED <i>DEFAULT</i>	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	DISABLE PCI MEM BOOT <i>DEFAULT</i>	L, H = LPC ROM <i>DEFAULT</i> L, L = FWH ROM	

	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23	PCI_AD29	PCI_AD30
PULL HIGH	USE LONG RESET <i>DEFAULT</i>	USE PCI PLL <i>DEFAULT</i>	USE ACPI BCLK <i>DEFAULT</i>	USE IDE PLL <i>DEFAULT</i>	USE DEFAULT PCIE STRAPS <i>DEFAULT</i>	RESERVED		
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS		RESERVED	RESERVED

SB710 HAS 15K INTERNAL PU FOR PCI_AD[28:23]

NB/SB POWER GOOD CIRCUIT



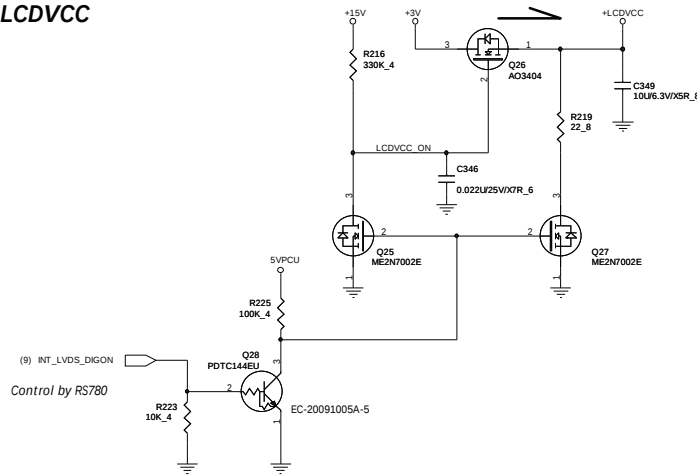


DDR2

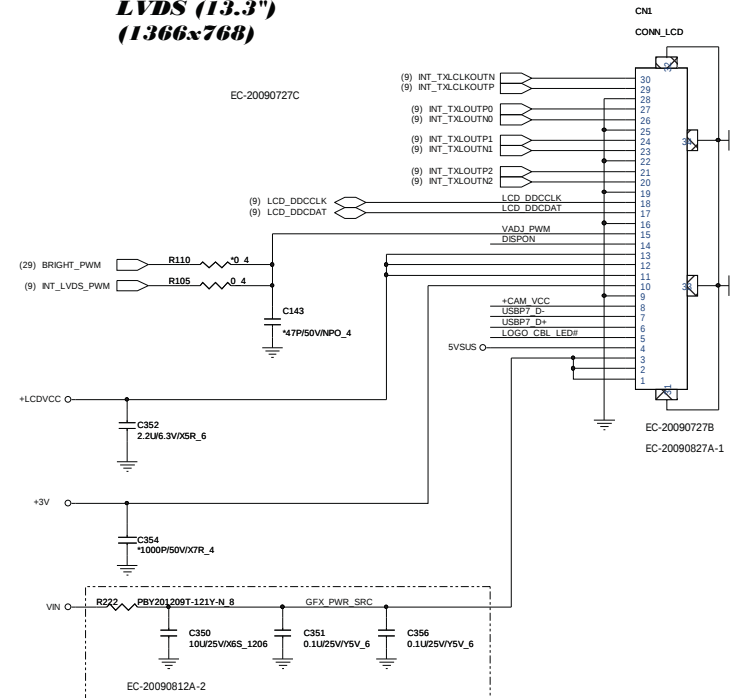
Smbus Address A0

Smbus Address A2

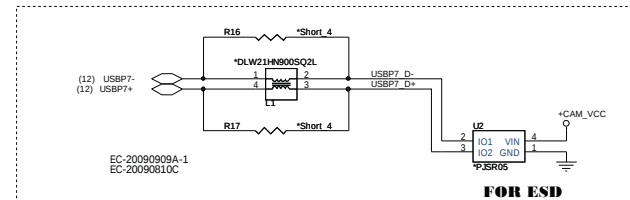
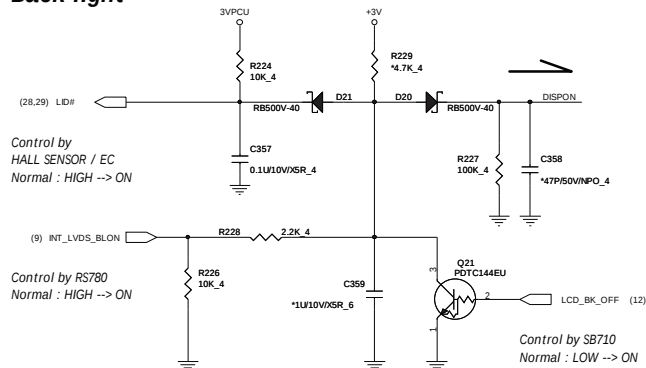
LCDVCC



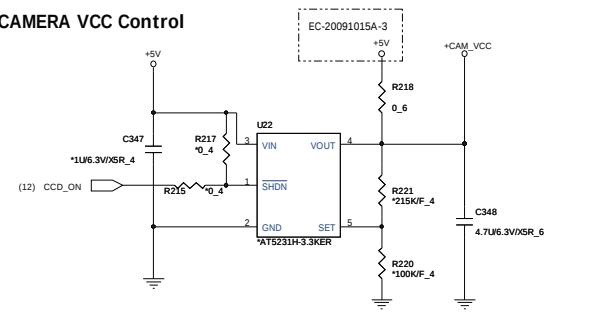
LVDS (13.3") (1366x768)



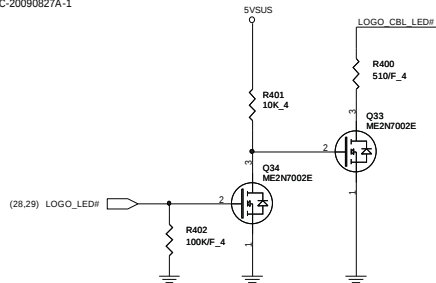
Back light



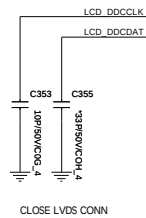
CAMERA VCC Control



EC-20090827A-1

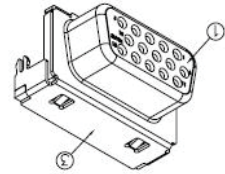


EC-20091022A-1
EC-20090805C



CLOSE LVDS CONN

20090720A-Add LL1 CRT circuit.



EC-20090722B
EC-20090814A-1

R282 715/F_4 R279 715/F_4

(8) TX2_HDMI+ TX2_HDMI+
(8) TX2_HDMI- TX2_HDMI-
(8) TX1_HDMI+ TX1_HDMI+
(8) TX1_HDMI- TX1_HDMI-
(8) TX0_HDMI+ TX0_HDMI+
(8) TX0_HDMI- TX0_HDMI-
(8) TXC_HDMI+ TXC_HDMI+
(8) TXC_HDMI- TXC_HDMI-

EC-20090729A
D9 RB500V-40

EC-20091019A-2
R113 2K/F_4 R111 2K/F_4

(9) AUX_HDMI_SCL
(9) AUX_HDMI_SDA

EC-20090729B
Q15 FDV301N
Q16 FDV301N

+3V

HDMI_SCL
HDMI_SDA

EC-20090724D

U29

TX2_HDMI+ OUT	1	10	TX2_HDMI+ OUT
TX2_HDMI- OUT	2	10	TX2_HDMI- OUT
VCC	3	GND	8
TX1_HDMI+ OUT	4	7	TX1_HDMI+ OUT
TX1_HDMI- OUT	5	6	TX1_HDMI- OUT

*RClamp0514M_AG@NC

U28

TX0_HDMI+ OUT	1	10	TX0_HDMI+ OUT
TX0_HDMI- OUT	2	10	TX0_HDMI- OUT
VCC	3	GND	8
TXC_HDMI+ OUT	4	7	TXC_HDMI+ OUT
TXC_HDMI- OUT	5	6	TXC_HDMI- OUT

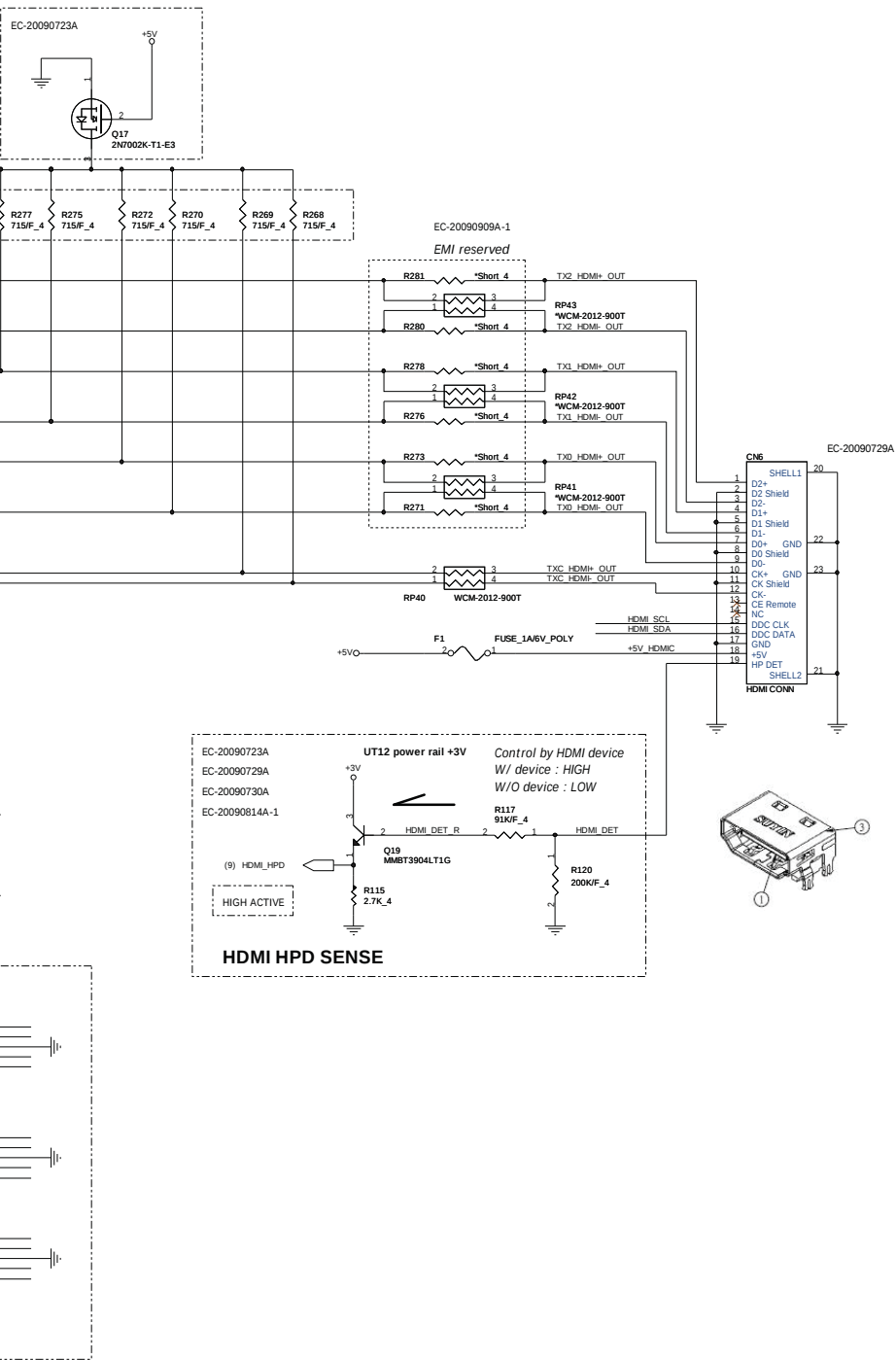
*RClamp0514M_AG@NC

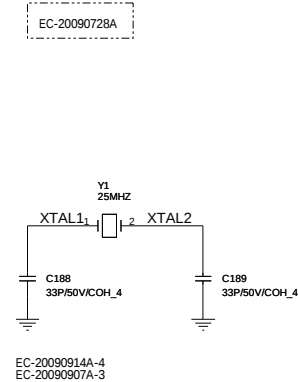
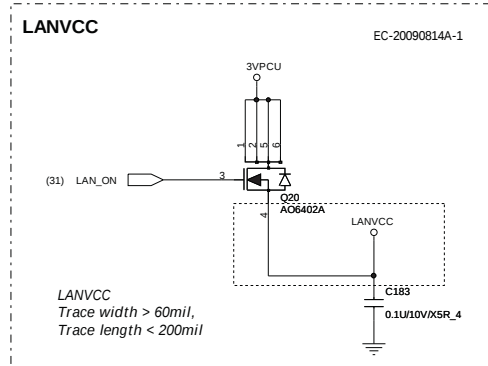
U27

HDMI_SDA	1	10	HDMI_SDA
HDMI_SCL	2	10	HDMI_SCL
VCC	3	GND	8
+5V_HDMIC	4	7	+5V_HDMIC
HDMI_DET	5	6	HDMI_DET

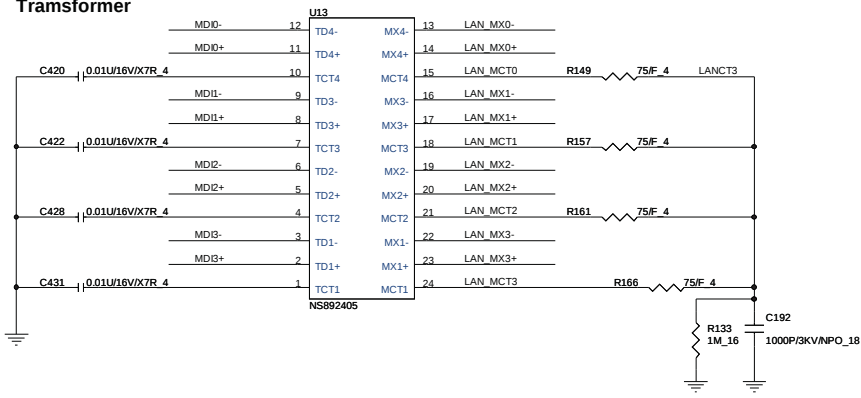
*RClamp0514M_AG@NC

For ESD
Layout note: Place close to HDMI Conn
Reference GC6.



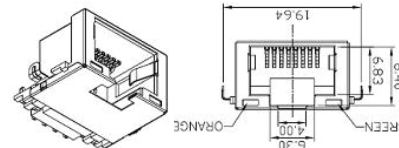
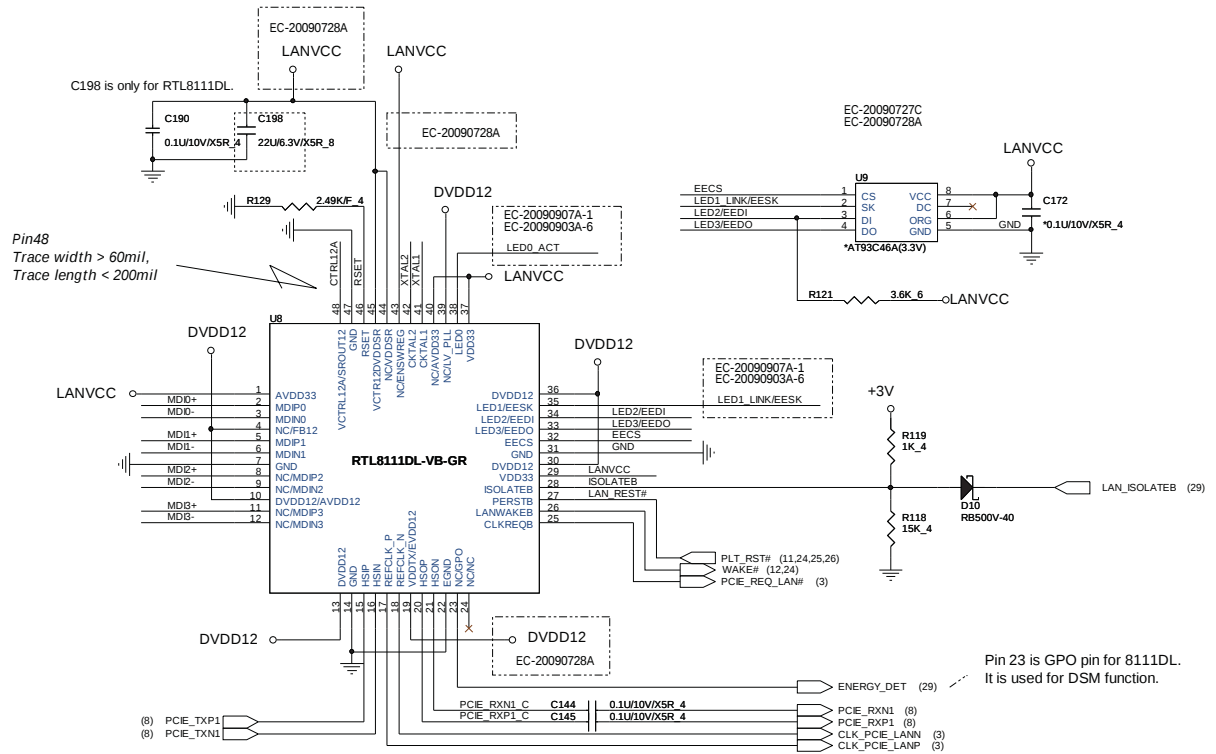
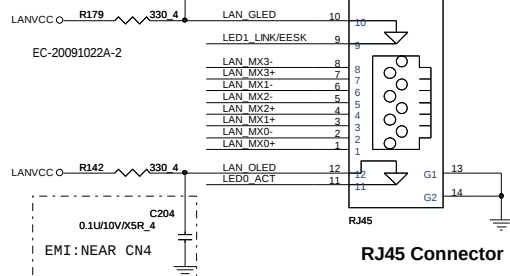
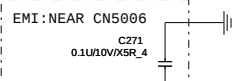
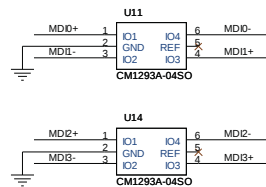


Transformer



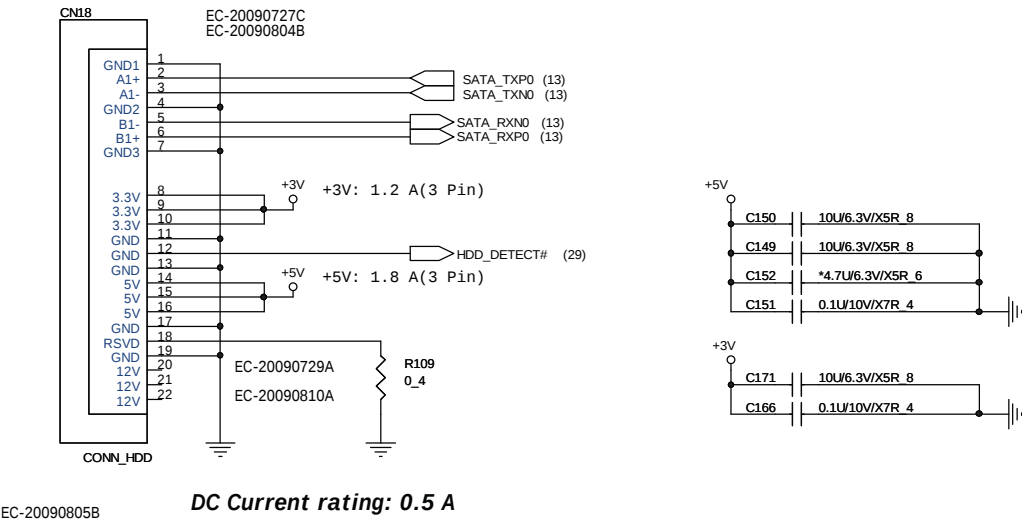
RJ45 Connector

EC-20090803A



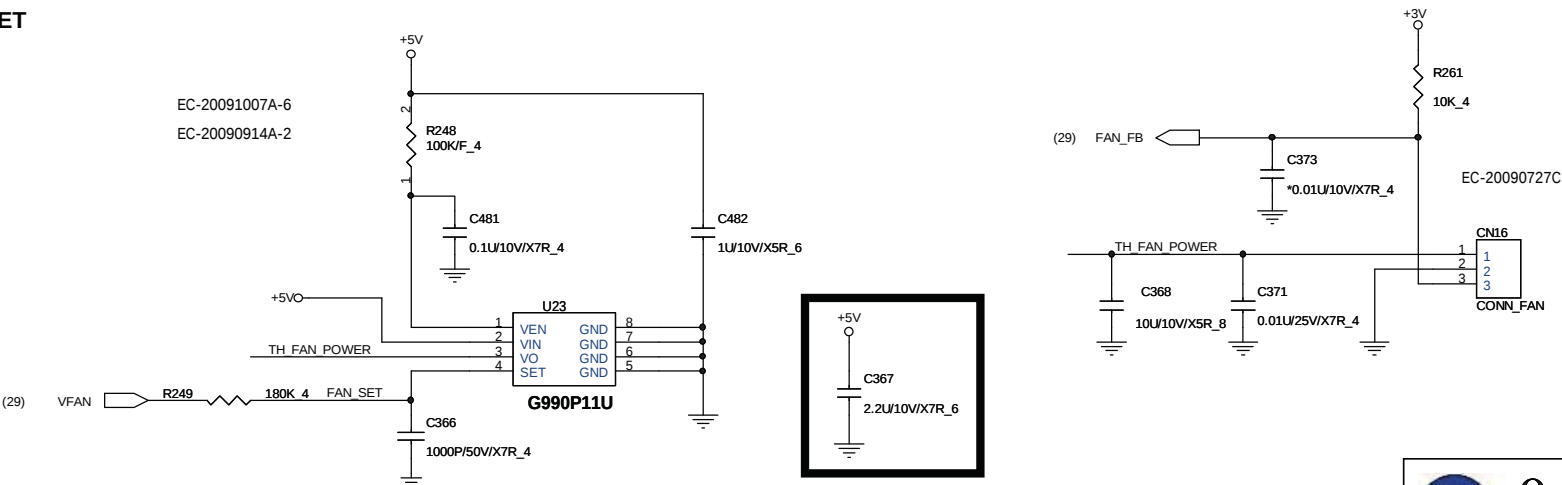
SANTA P/N:130451-E

SATA HDD



CPU FAN

FANPWR = 1.6*VSET

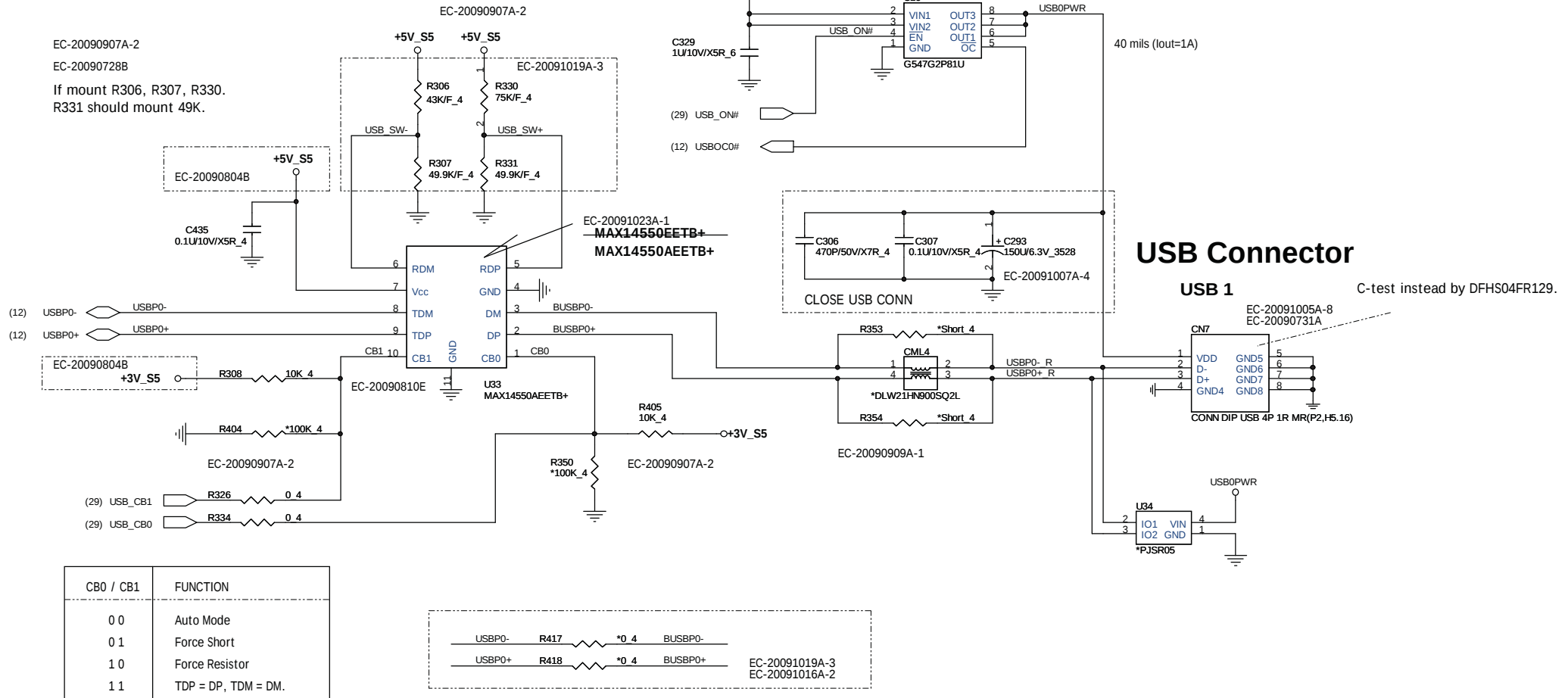


USB SLEEP CHARGE (NEW)

EC-20090907A-2

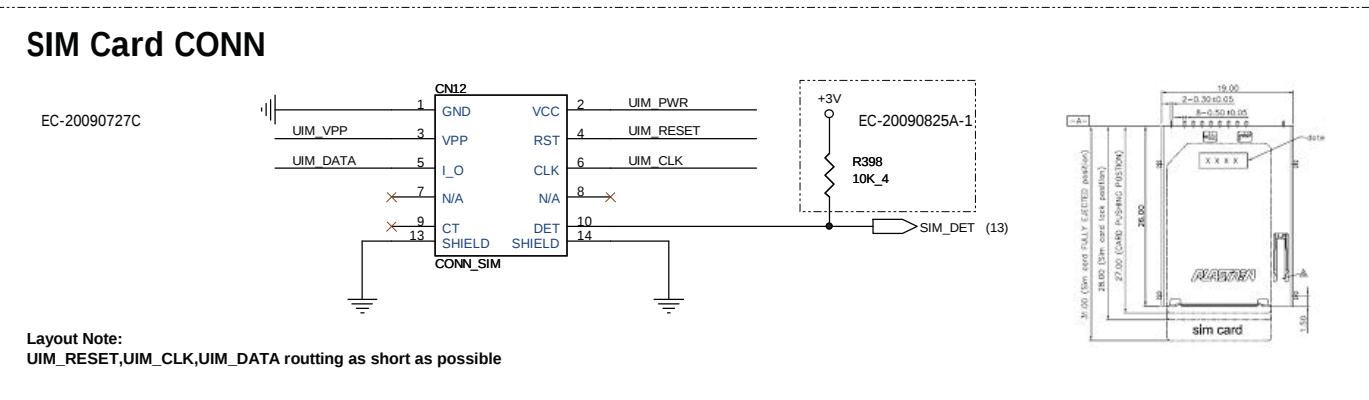
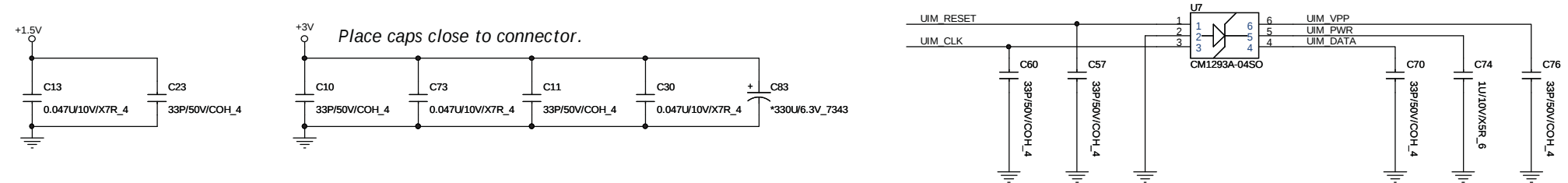
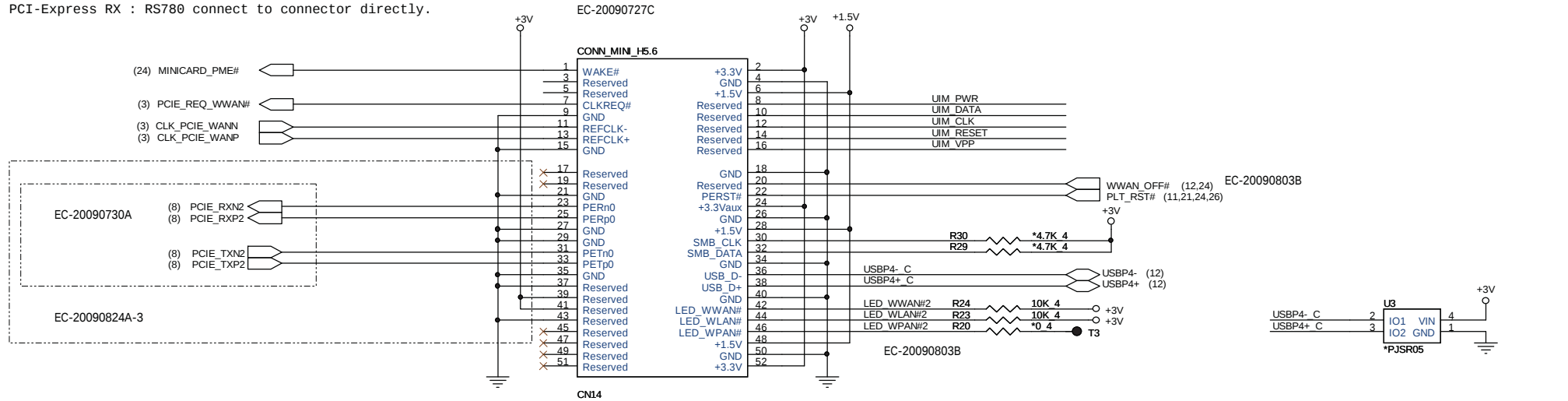
EC-20090728B

If mount R306, R307, R330.
R331 should mount 49K.

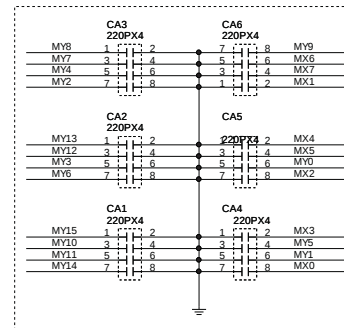
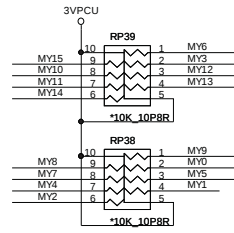
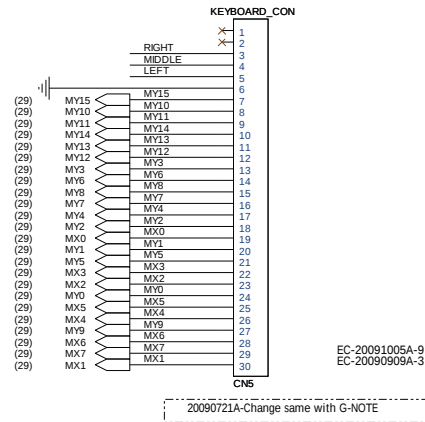


MiniCard WWAN connector

PCI-Express RX : RS780 connect to connector directly.

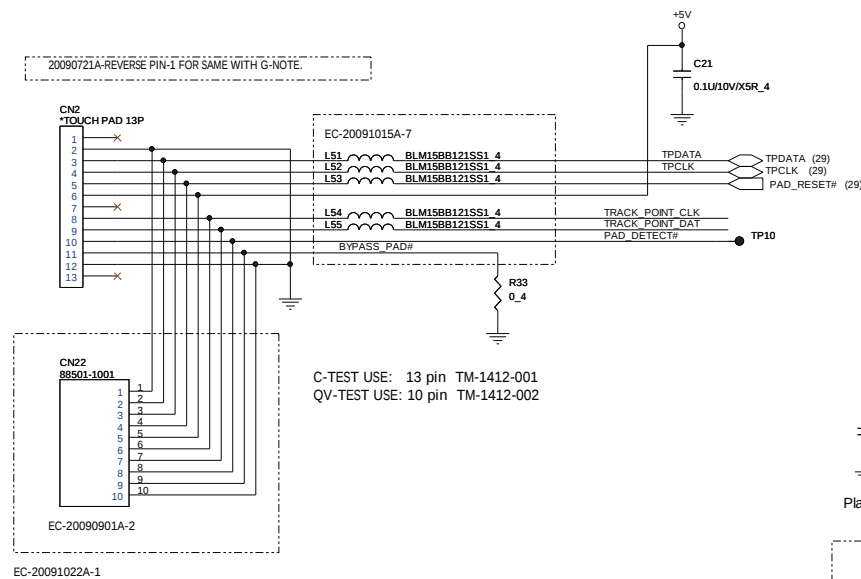


Layout Note:
UIM_RESET, UIM_CLK, UIM_DATA routing as short as possible

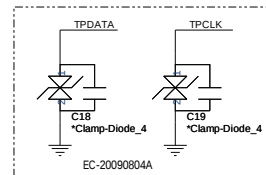
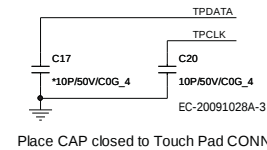
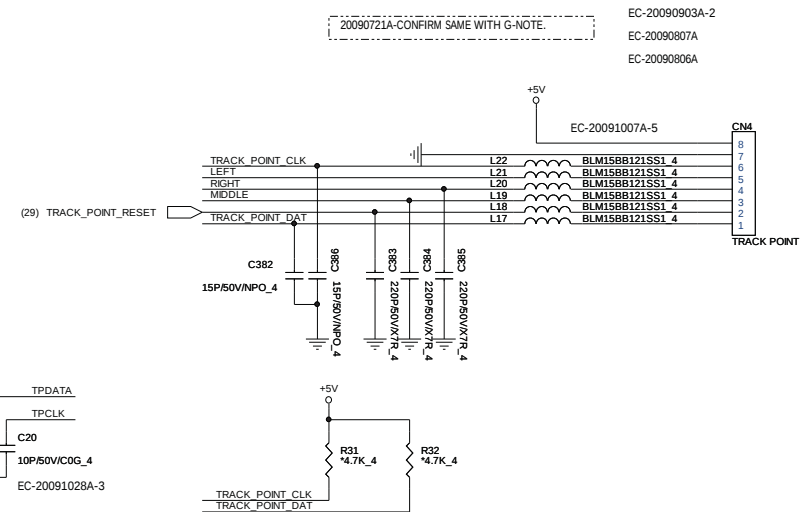


For EMI request

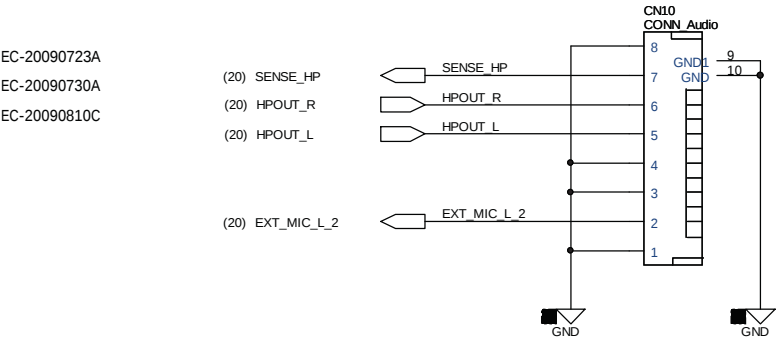
TOUCH PAD



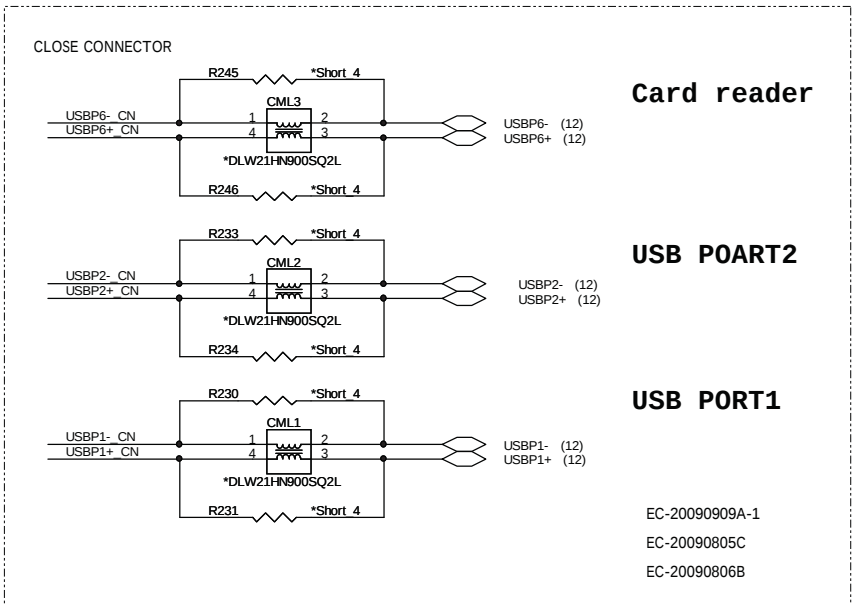
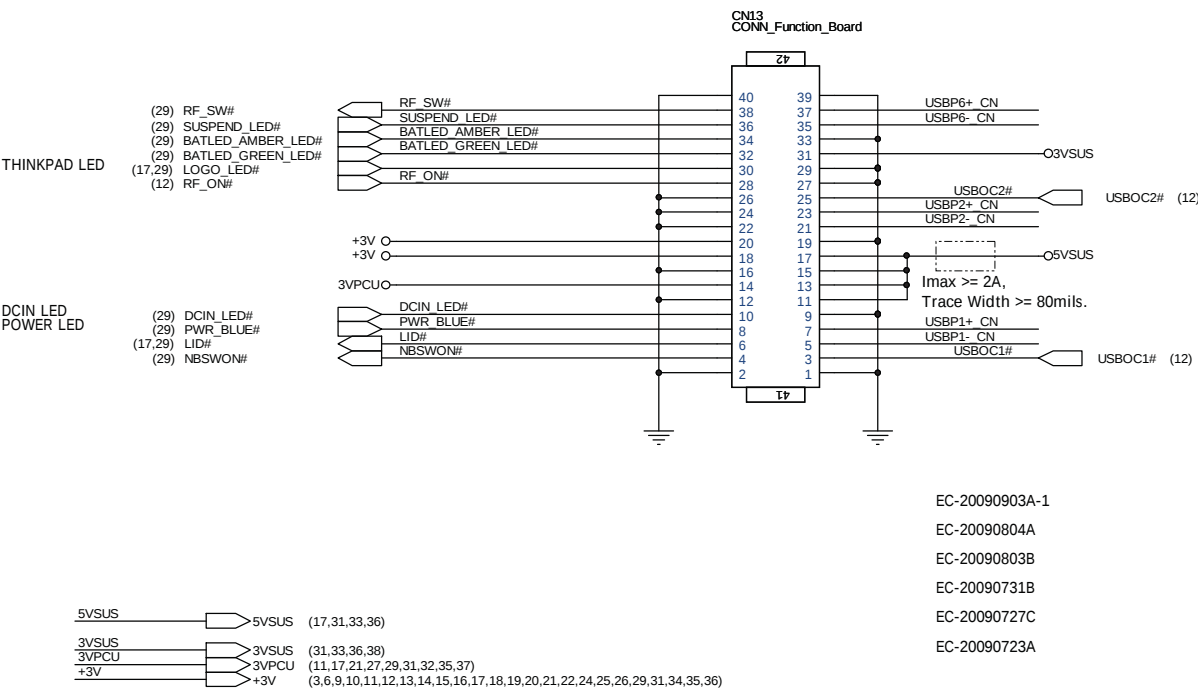
TRACK POINT

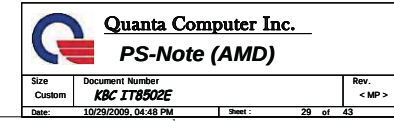


Audio Connector --> Function Board (8-PIN)

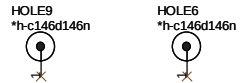


Function Connector --> Function Board (40-PIN)

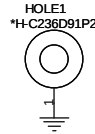




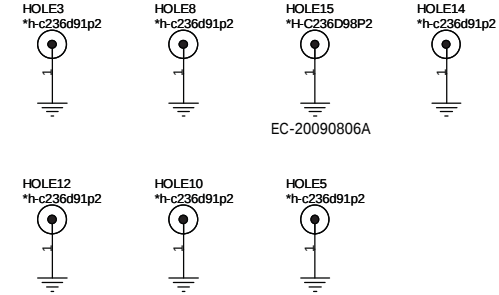
CPU THERMAL (NON-PTH)



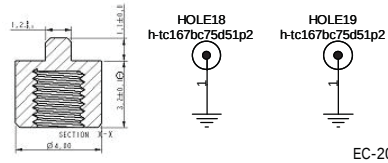
BATTERY CONN LEFT SIDE



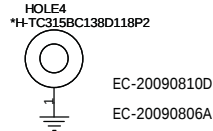
BOARD EDGE SCREW



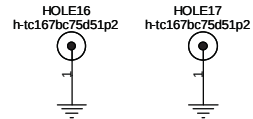
WWAN



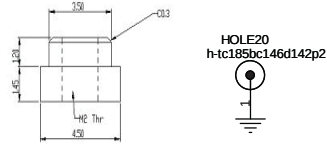
CPU TOP SIDE SCREW



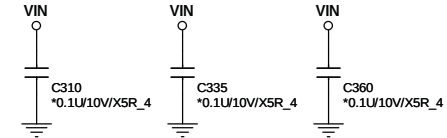
WLAN



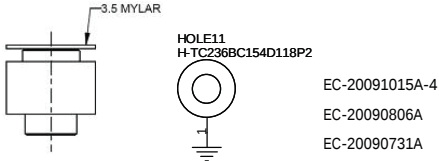
NB LEFT SIDE SCREW



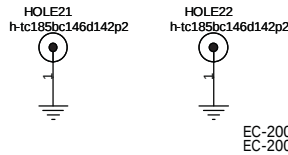
EC-20090805C



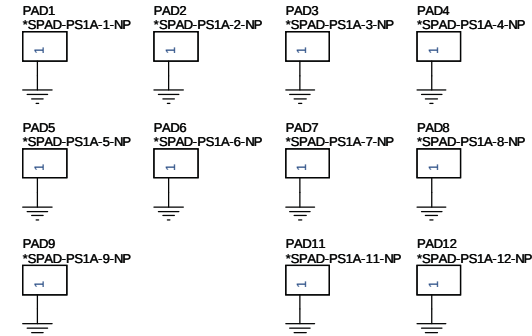
Bluetooth SCREW



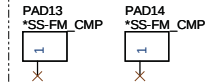
SB THERMAL



Symbol of GROUND SHAPE.



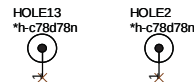
Optics Point



Track Point Square Hole

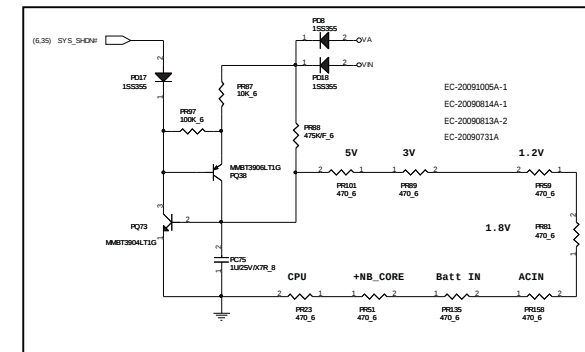
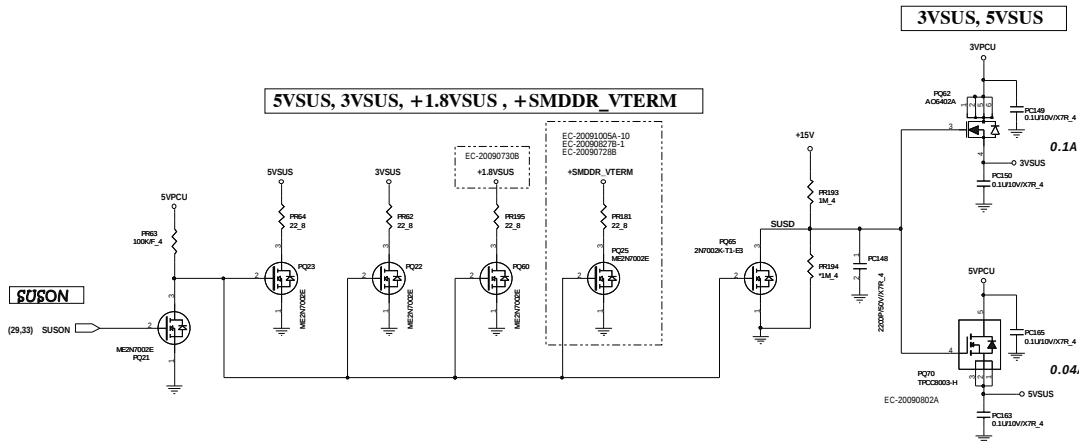
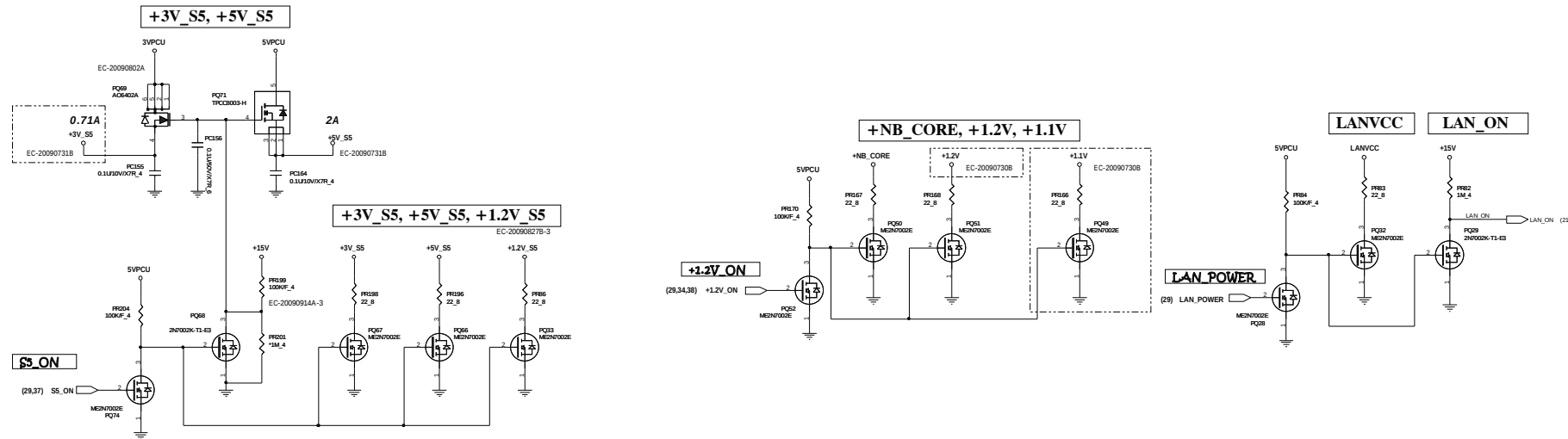
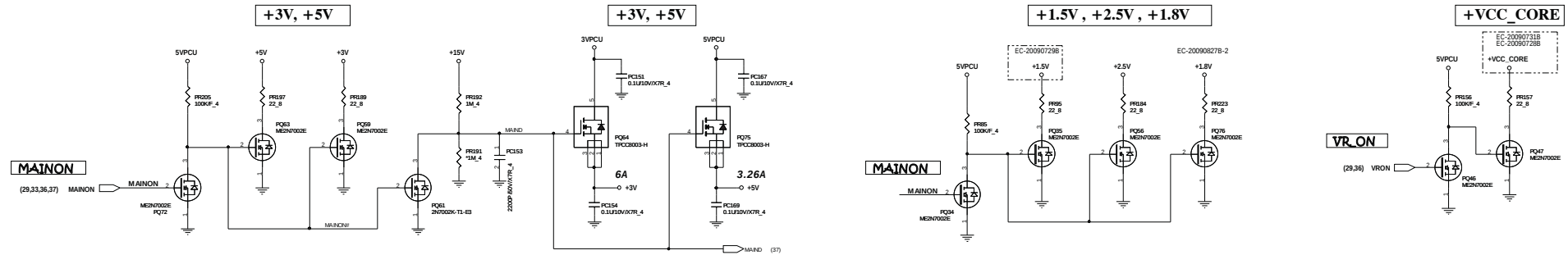


BOARD EDGE SCREW (NON-PTH)

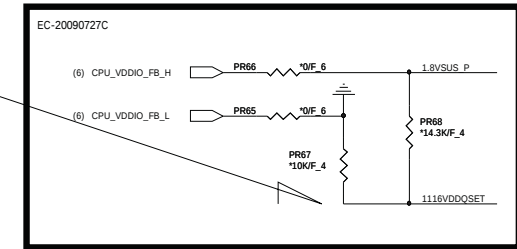


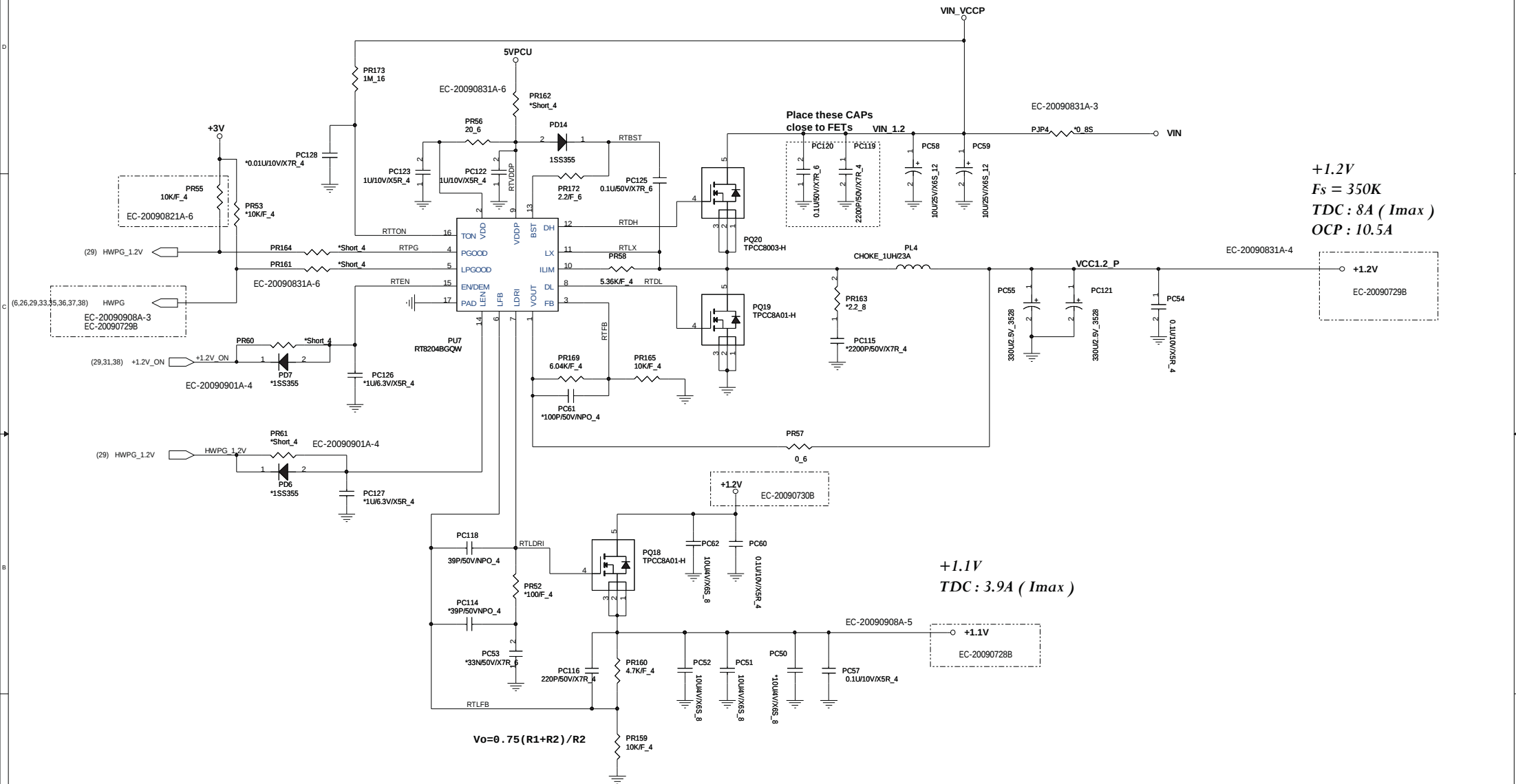
EC-20090804B

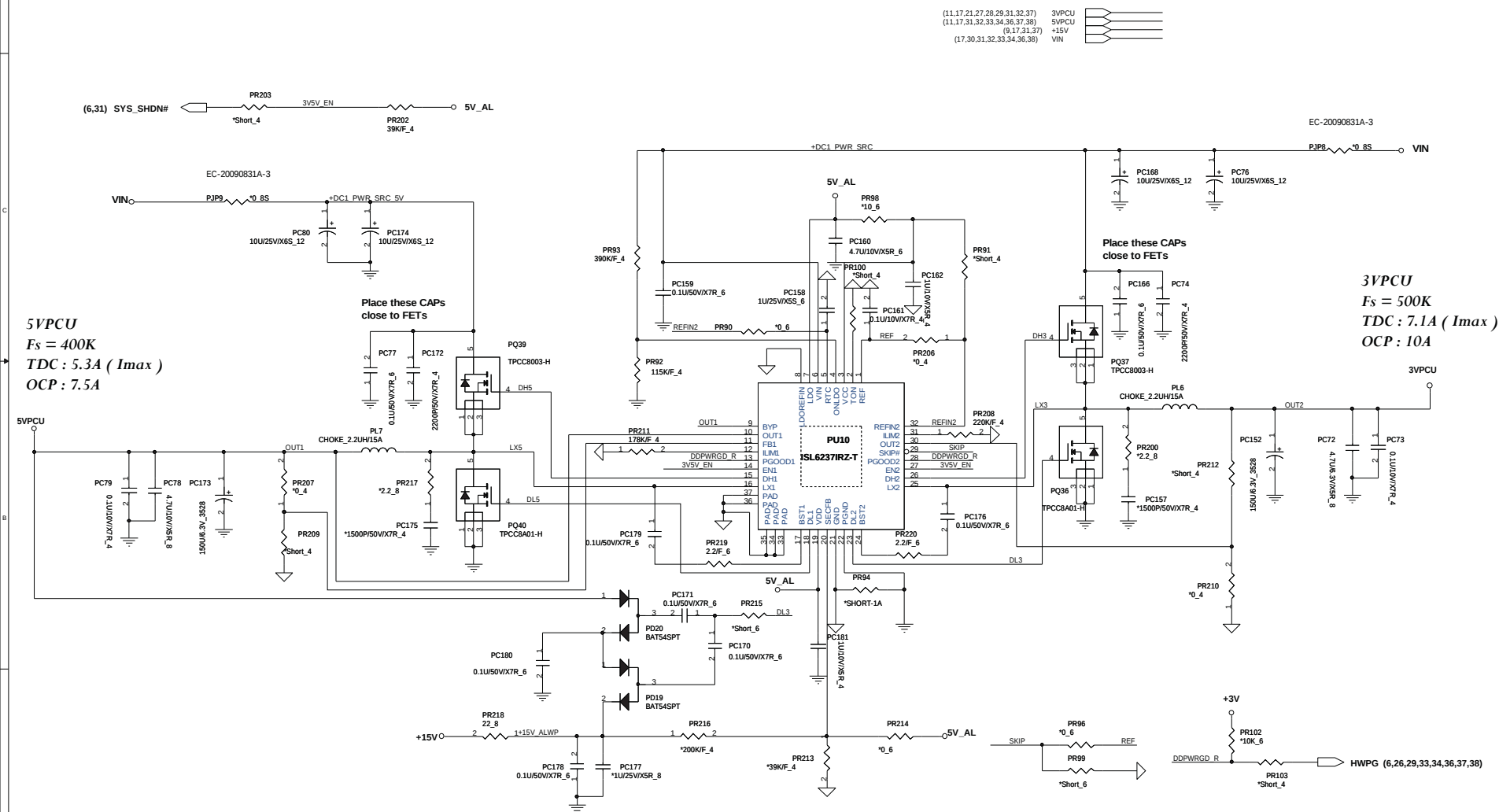
20090721B-ADD FOR PLACEMENT USE. BASE ON LL1.



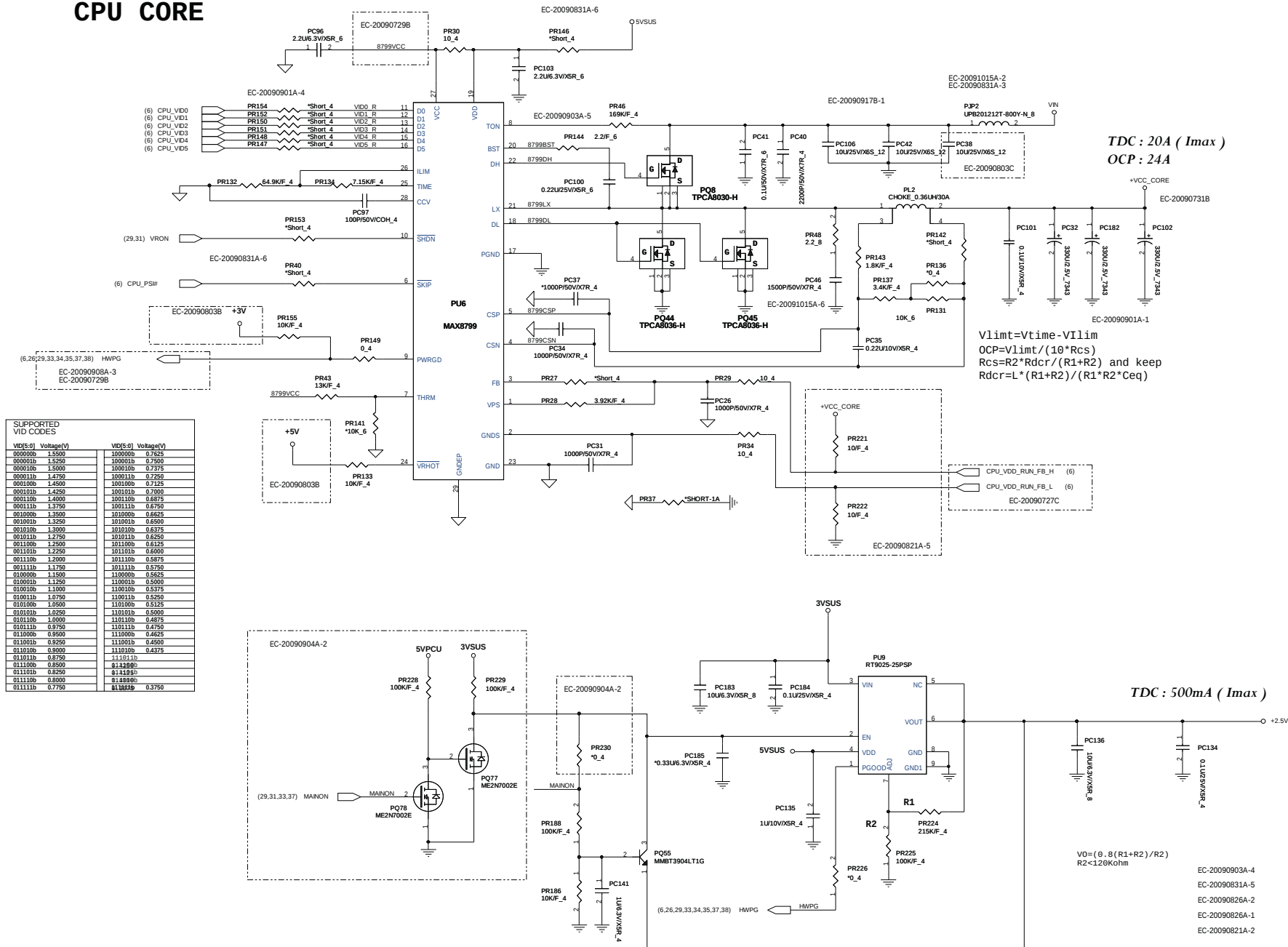
[illegible]





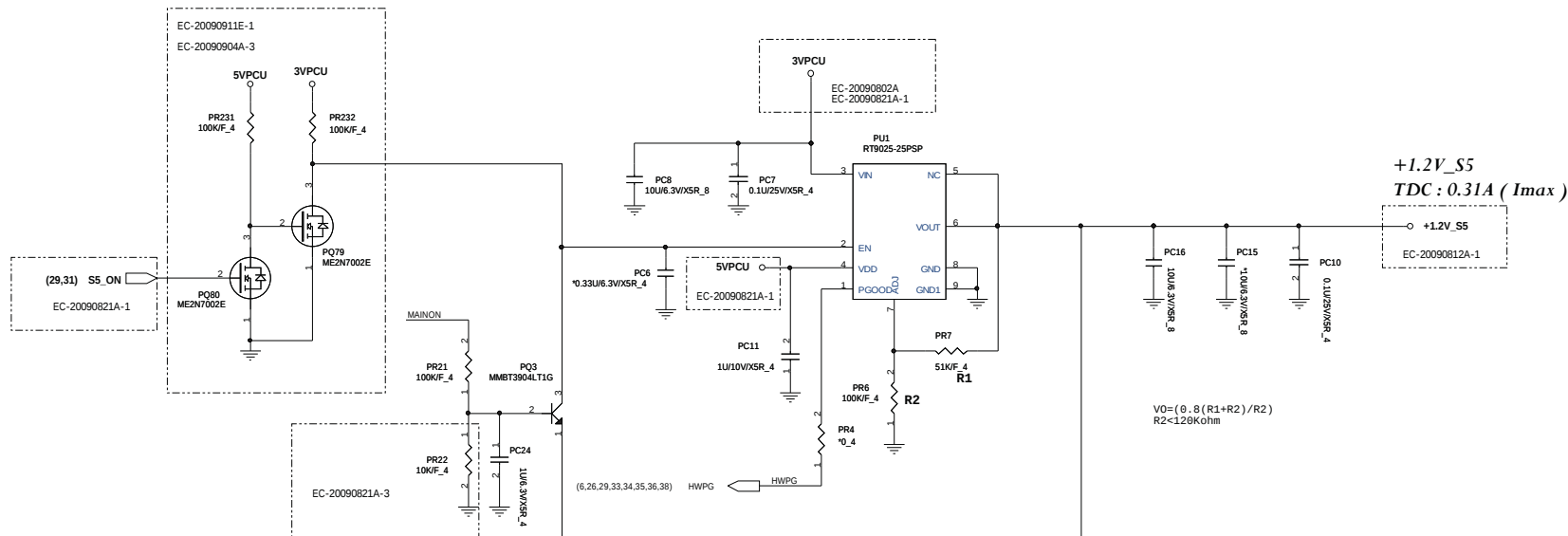
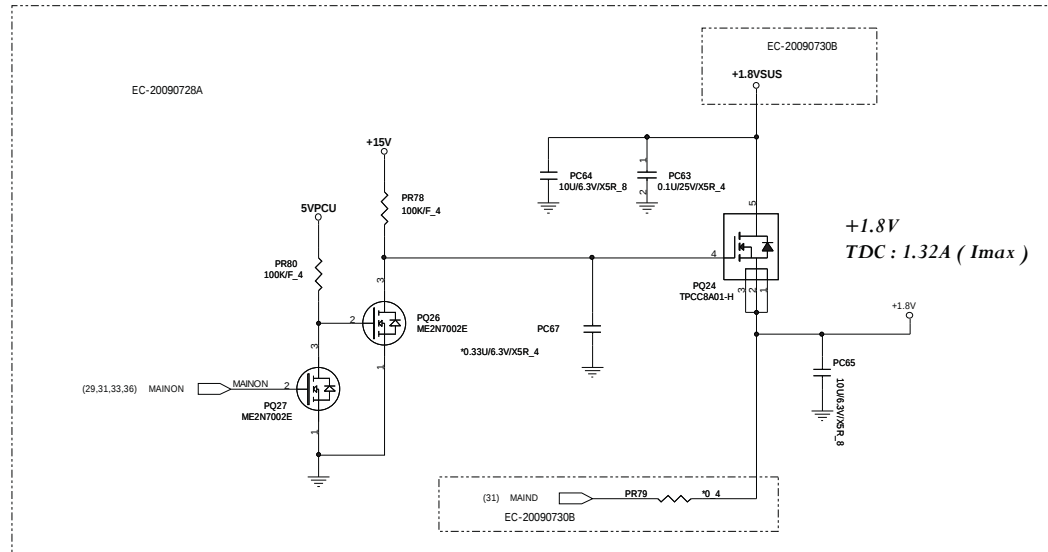


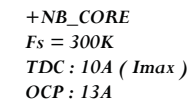
CPU CORE



Quanta Computer Inc.
PS-Note (AMD)

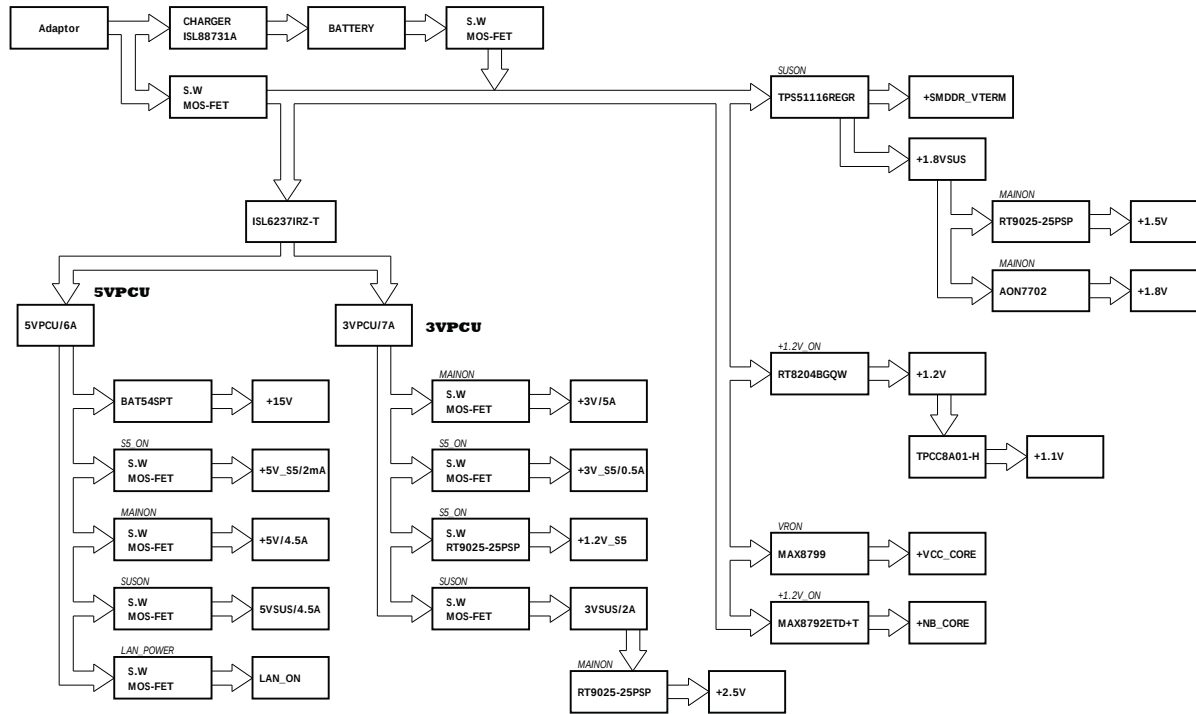
Size	Document Number	Rev.
C	CPU_CORE / +2.5V	< MP >
Date:	10/29/2009, 04:48 PM	Sheet: 36 of 43



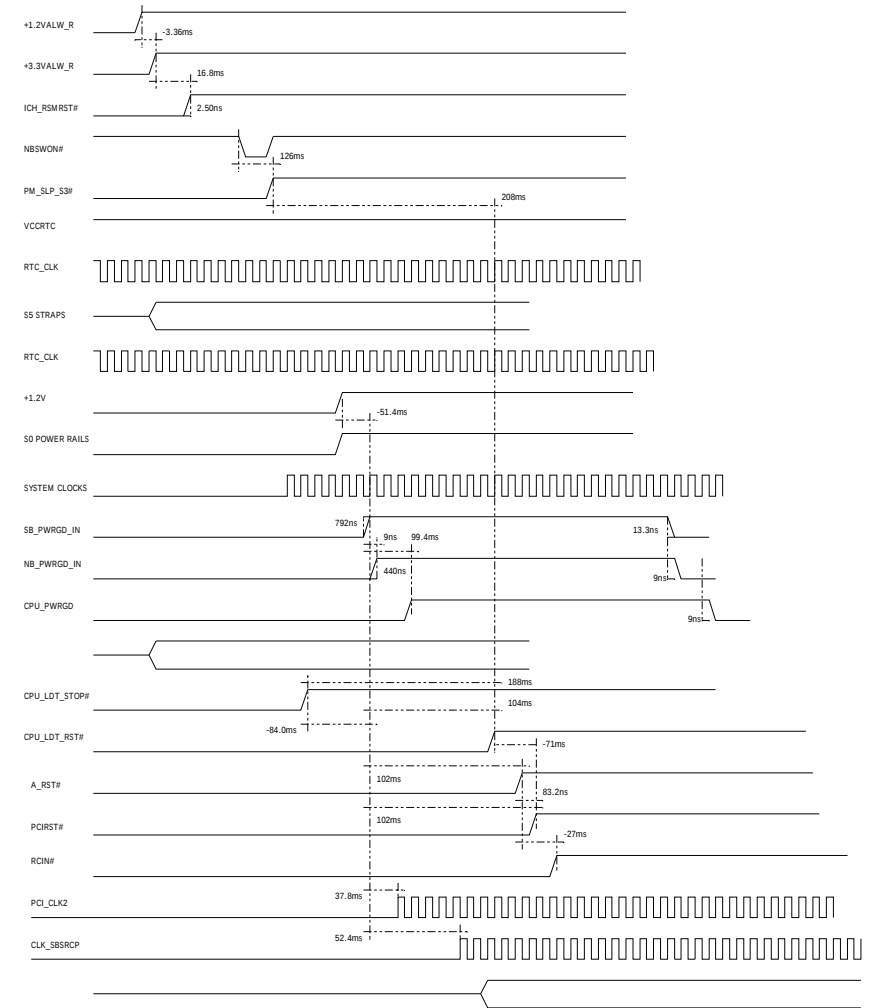


+NB_CORE_ON	+NB_CORE
LOW	1.0V
HIGH	1.1V

PS1A SYSTEM POWER BLOCK DIAGRAM



PS1A POWER SEQUENCE



EC-20090722B	P19	AMD AE RECOMMAND	R907E, R907F, R908D, R908I, R908Z, R908B, R908A, R908S change from RES 490ohm to RES 715ohm.
EC-20090723A	P28		Net connect for FUNCTION BOARD CONN / AUDIO CONN.
	P19	AMD AE RECOMMAND	HDMI_DET circuit modify. DEL Q901Z, Q901I, R9990. ADD U/P (P/N: AL01G125024)
	P19	AMD AE RECOMMAND	Meet HDMI compliance requirements. Delete Q9006, Q9007, Q9008.
	P19	AMD AE RECOMMAND	Q9005 pin 2 connect change from +5V to +5V.
EC-20090723B	P20		Change audio codec circuit from AL C268 to CX2058Z.
EC-20090724B	P33	POC Request.	Battery CONN / PJM4 change footprint from bat-2009082wr007g105c417p-4g1 to bat-2009082wr007g105c417p-4.
EC-20090724C			Change audio codec circuit (CX2058Z) base on L11.
EC-20090724D	P19		HDMI add ESD components (R901Z, U901J, U9014)
	P20		Add RES 0 ohm*2 (R9120, R9121) between AGND & GND.
EC-20090727B	P17		Change LVDS footprint same with L11.
EC-20090727C	P17		Change LVDS pin define same with P51.
EC-20090727C	P20		Change INT. MIC same with P51.
EC-20090727C	P20		Change SATA HDD CONN & pin define same with P51.
EC-20090727C	P24		Change WLAN CONN & pin define same with P51.
EC-20090727C	P24		Change WWAN CONN / SIM SOCKET & pin define same with P51.
EC-20090727C	P28		Change FUNCTION BOARD CONN pin define same with P51.
EC-20090727C	P29		Change FAN CONN footprint same with P51.
EC-20090727C	P37		Net: COREFB+V change net name to CPU_VDD_RUN_FH_H. Net: COREFB- change net name to CPU_VDD_RUN_FB_L.
EC-20090727C	P34		Add Net: CPU_VDDIO_FB_H & CPU_VDDIO_FB_L reserve circuit.
EC-20090727C	P3		Follow IDT recommend, (Q19, Q21, R165, R167) change from NU to stuff. (R8153) change from stuff to NU.
EC-20090727C	P3		Follow IDT recommend, R1234 change from RES 220ohm to 330ohm for ONLY ONE PORT of CLK_48M_USB.
EC-20090727C	P21		Follow REALTEK recommend, R158 change from RES 10kohm to RES 13kohm for NET: EECS. RTL81110L is NU.
EC-20090727C	P34		Change power net: SMODR_VTERM to +SMODR_VTERM.
EC-20090727D	P23		Modify USB SS charge circuit same with OC7.
EC-20090728A	P38		Change +1.8V MOSFET circuit / PD not enough.
EC-20090728A	P33		P31 pin define reverse for layout spacing.
EC-20090728A	P21		Cancel R55, R54, R158, R56, R58, R66, R152 location. Change Power net name CTRL15/VDD03 & CTRL12/VDD to LAWCC. Change Power net name EVDD12 & CTRL12A to EVDD12.
EC-20090728A	P20		Cancel R9120, R9121 between AGND & GND.
EC-20090728B	P34		PC102, PC103 change footprint for layout spacing not enough. Change all AGND to GND.
EC-20090728B	P20		NC NET: BIT_CLK_AUDIO change to ACZ_BITCLK_AUDIO
EC-20090728B	P35		NC NET: +1.1V_NB change to +1.1V
EC-20090728B	P23		Cancel net name: BUSBP3+BUSBP3-. Channel USBP3+USBP3- to USBP0+USBP0-.
EC-20090728B	P34		NC NET: 1.5VUS_P change to 1.8VUS_P.
EC-20090728B	P32		NC NET: SMODR_VTERM change to +SMODR_VTERM.
EC-20090728B	P32		NC NET: VCC_CORE change to CPU_CORE.
EC-20090728B	P30		NC NET: USB_C80 change to USB_A0_SEL0. USB_C81 change to USB_A0_SEL1.
EC-20090728B	P34		NC NET: +0.9VSMVREF change to SMVREF_GMCH.
EC-20090728B	P5		NC NET: CPU_VTT_SENSE change to VTT.
EC-20090728B	P8		Add HDMI net name between R970B & CAP for control panel define.
EC-20090729A	P22		SATA HDD CONN pin-18 modify (W/O connect with GND)
EC-20090729A	P20		NET: FILT_1_1V add RES 10kohm & CAP 0.1uF. Cancel C9100 (RES 14kohm).
EC-20090729A			For leakage current, HDMI detect pin & DDC circuit modify.
EC-20090729A	P12		Double net name. Add net USBP6+USBP6-.
EC-20090729A	P26		G-sensor from 3-axial change to 2-axial. R9020 (NET: GENSDR_Z) change to NU.
EC-20090729A			HDMI CONN footprint from (hdmi-100042gq1018x48-15p-4p-v) change to (hdmi-hdmi-014-40p-15p-v-v-snt) (same with KL1)
EC-20090729A	P09		R8064 footprint from short pad (short R6003) change to RES CHIP 0.1/10W +/-1% (0603).
EC-20090729A	P20		Add headphone sense circuit.
EC-20090729B	P26		C337 change to NU. (G-sensor from Z-axis)
EC-20090729B	P12		SB710 USB port-18 add TP for reserve.
EC-20090729B	P30		Cancel NET: +1.5V_PG_HAWPG_2.5V_HAWPG_3V5_HAWPG_1.2V_3S. NET: HAWPG_1.8V change to HAWPG. Delete D28, D29, D21, D25.
EC-20090729B	P37		NET: CPU_COREPG change to VRM_PWRGD.
EC-20090729B	P35		Power rail VCC1.2 change to +1.2V.
EC-20090729B	P35		NET: HAWPG_1.1V_NB change to HAWPG_NB_1.1V.
EC-20090729B	P30		EC PIN-97 change to control LOGO_LED EC PIN-99 change to control DCH_LED
EC-20090729B	P32, P34		Power rail VCC1.5V change to +1.5V.
EC-20090729B	P37		Add net name: B79VCC between PC2B5 & P3739 to connect with P9403.
EC-20090729B	P19	AMD AE RECOMMAND	SMBUS Q9009 & Q9010 change form (2N7002-11-E3) to (TRANS MOSFET FDV301A_NL(25V,200mA))

EC-20090730A	P19	AMD AE RECOMMAND	Power rail VCC1.2 change to +1.2V (+1.1V source)
EC-20090730A	P20		Power rail VCC1.2 change to +1.2V (+1.1V source)
EC-20090730A	P28, P20		Swap AUDIO wire cable connector (C90054) pin define. Cancel NET: SPDP (connect with TP)
EC-20090730A	P24, P25		For layout routing, WLAN CONN change from PCIE LANE-2 to LANE-3. WWAN CONN change from PCIE LANE-3 to LANE-2.
EC-20090730A	P20, P28		Separate AGND & GND.
EC-20090730B	P35, P32		Power rail VCC1.2 change to +1.2V (+1.1V source)
EC-20090730B	P32		Add +1.1V discharge circuit.
EC-20090730B	P38		NC NET: MAIND control +1.8V MOSFET.
EC-20090730B	P32, P34, P38		Power rail 1.8VUS change to +1.8VUS.
EC-20090731A	P33		P31 pin define reverse for layout spacing.
EC-20090731A	P32		Cancel P9066 for charger circuit.
EC-20090731A	P33		Change BAT connector same with L19. (P/N:DPH007MR023, Footprint: BAT-C1309601-1-7P-L)
EC-20090731A	P31		Add Bluetooth SCHW HOLE.
EC-20090731A	P16		DDQ net SWAP for layout routing.
EC-20090731A	P21		Change R45 footprint. (r45-1000731n1313x112p-v) -> (r45-130461-e-12p-v)
EC-20090731A	P21		C34, C35 change NU to stuff. (R45 EM)
EC-20090731A	P23		Change MB USB footprint. (usb-020113m104n555c14p-r-v) -> (usb-c1079b-10405-14p-r-v)
EC-20090731A	P23		Modify USB SLEEP CHARGER circuit (SAME with MK-NOTE)
EC-20090731A	P19		HDMI CONN / R9029, R9040, R9041, R9043, R9045, R9046 change from SHORT PAD to RES 0ohm (RC0402).
EC-20090731A	P20		AUDIO / R9099, R9110 change from SHORT PAD to RES 0ohm (RC0402).
EC-20090731A	P18		CRY DQ / R9060, R9061 change from SHORT PAD to RES 0ohm (RC0603).
EC-20090731B	P32		Power name change (3V_3S -> +3V_3S) (5V_3S -> +5V_3S)
EC-20090731B	P32, P37		Power name change (CPU_CORE -> +VCC_CORE)
EC-20090731B	P13		SIM DETECT (net: SIM_DET) connect to SB710 (GPIO3 / A4)
EC-20090731B			Wire cable connector PIN-28 change net name from RF_ON1 to WLAN_OFFH.
EC-20090802A	P38		Power rail 1.5VUS change to +1.8VUS.
EC-20090802A	P26		G-SENSOR add LDO circuit for clear power.
EC-20090802A	P32		PQ119 change footprint. (power-3_3x3_3-45-5p -> tsop6-2_9-1)
EC-20090802A	P32		PQ128 change footprint. (tsop6-2_9-1 -> power-3_3x3_3-45-5p)
EC-20090802A	P32		Speaker connector pin-1 reverse.
EC-20090803A	P6		NET: SB_SCLV3, SB_DATA3, CPU_3C reserve resistor to pull high or pull low. Follow MK-NOTE.
EC-20090803A	P21		Net SWAP for layout routing. (R45 ESD)
EC-20090803A	P24		Delete R132, R139, and NET: PC102F / PCLK_DEBUG connect direct with MINI-CARD.
EC-20090803B	P24, P25		Separate MINI CARD LED pullhigh circuit.
EC-20090803B	P12, P24, P25, P28		Define SB710 GPIO to control RF_ONW (RF SW), WLAN_OFFN (WLAN enable), WWAN_OFFH (WWAN enable).
EC-20090803B	P30		NET: CAPSLED connect with TP.
EC-20090803B	P13		NET: SATA_LED connect with TP.
EC-20090803B	P37		PUS1 PIN-9 add pullhigh with +3V. PIN-24 add pullhigh with +5V.
EC-20090803C	P37		Power: +VCC_CORE input (VIN) add one CAP (10u/25V, 1006).
EC-20090804A	P27		ESD request to add varistor on Touch Pad CLK & DATA.
EC-20090804A	P12, P13		Add RES 0ohm Net: SIM_DET, RF_ONW, WLAN_OFFH for GPIO debug use.
EC-20090804A	P28		Win CONN name add one pin for 5VUS.
EC-20090804B	P26		Add RFID circuit. (Refer OC7)
EC-20090804B	P20		R9131 change footprint. (SHORT0603 -> RC0603)
EC-20090804B	P18		CRY CONN change footprint. (dsub-070546B-015205c1-15p-v -> dsub-070546B-015422c1-15p-v)
EC-20090804B	P22		SATA HDD CONN change footprint. (hds-127072H-022p20r-22p-r -> sata-c160H-12204-22p-r)
EC-20090804B	P20		SWAP NET. (R445 PIN-10/LAN_GLED, PIN8/LEDO_ACT, PIN12/LAN_OLED, PIN11/LEDA1_LAN/EEBK)
EC-20090804B	P31		Change EC footprint. (LQFP128-16X16-4 -> TQFP128-16X16-4)
EC-20090804B	P31		Modify HOLE type.
EC-20090804B	P23		USB sleep charge power plan change. (5VPCU -> +5V_3S) (3VPCU -> +3V_3S)
EC-20090805A			UPDATE PART NUMBER & VALUE.
EC-20090805B	P34		Change +1.5V symbol.
EC-20090805B	P34		SATA HDD CONN change same with L11. (Footprint change : sata-c160H-12204-22p-r -> hds-127072H-022p20r-22p-r)
EC-20090805C	P20	EMI RECOMMAND	NET: ACZ_BITCLK_AUDIO add one RES 0ohm.
EC-20090805C	P31	EMI RECOMMAND	Add CAP * 3PCS (p3_11U/1V_4) (Between VIN & GND)
EC-20090805C	P17	EMI RECOMMAND	Add CAP * 2PCS (33P/50V_4) on NET: LCD_D0CCCLK / LCD_D0CCDAT.
EC-20090805C	P28	EMI RECOMMAND	Add COM Check * 3PCS (PCLW21H9005Q2L) for USB pair.
EC-20090805C	P26, P30		Change NET: GENSDR_ONW -> GENSDR_ON.
EC-20090806A	P09		NET: LCD_D0CCCLK / LCD_D0CCDAT add pull high circuit. (add RES 4.7kohm with +3V) Follow MK-NOTE.
EC-20090806A	P11		NET: PCLK_DEBUG release change form SB710 PIN: P4 -> PIN: E22. Follow MK-NOTE.
EC-20090806A	P23		1. HOLE13 change to H-C236098P2 2. HOLE20 change to H-TC138C236011BP2 3. HOLE24 change to H-TC1878C1864031BP2
EC-20090806A	P27		Track Point CONN add BLM138D12101, 477pCs.

EC-20090806A	P27		SWAP CML net for layout routing.
EC-20090806A	P21		RTC BATTERY CONN change footprint. (R5204-0200-2p-l -> 3800-02-2P-R)
EC-20090807A	P27		Delete L0011. Unnecessary component.
EC-20090807B			Change net name: PLT10T9 -> PLT_10T9
EC-20090810A	P39		Rdb/on net enough. +NB_CORE low side MOS. PQ152 change footprint. (power-3_3x3_3-45-5p -> 50-8P-6P)
EC-20090810A	P22		HDD CONN PIN-18 resistor change from NC to STUFF. Follow P51.
EC-20090810A	P31		HOLE11 - HOLE12 - HOLE13 - HOLE15 change footprint (H-TC1878C7508P2 -> h-tc1878c75d51p2. HOLE12 - HOLE12 - HOLE12 change footprint (H-TC186C217079P2 -> h-tc186c2170d14p2).
EC-20090810C	P17		L2 mirror vertically for layout.
EC-20090810C	P20, P28		Change AGND to GND.
EC-20090810C			Modify power BOM.
EC-20090810C	P33		Cancel NET: ADPIN-.
EC-20090810C	P26		Change RFID IC part number. (A9E3C280000 -> A9E3C280000)
EC-20090810C	P31		HOLE20 change footprint. (H-TC138C236011BP2 -> H-TC138C270d11BP2)
EC-20090810E	P23		MAX14550 add bottom pad connect with GND.
EC-20090811C	P31		Add Track Point Hole symbol.

EC-200901B-1	P37, P26, P18	Change part number to match BOM. <1> PC38, PC42, PC100 (PN: CH4304M029 / CAP CHIP 10U 25V(+20%,XSR,1200) -> PN: CH4304M029 / CAP CHIP 10U 25V(+20%,XSR,1200) <2> D12, D13 (PN: BC8600A214 / DIODE CH60040PT(40V,1A,VFO,450C7) -> PN: BC8600A214 / DIODE SMD R850V-40(40V,1A,1A,3CHOTTY) <3> Q6, Q8 (PN: BM7020002 / TRANS MOSFET 2N7002P-T1,3(60V)J0723) -> PN: BM7020008 / TRANS MOSFET 2N7002P-T1,3(60V)J0723	EC-200901B-1	P37, P26, P18	For RF solution. <1> C443 change from NU to stuff on Net: ACZ_BTCLK_AUDIO. (PN: CH41006J80C / CAP CHIP 10P 50V(+5%,COG,0402) <2> C328 change from NU to stuff on Net: PCL5_S9. (PN: CH41006J80B / CAP CHIP 10P 50V(+5%,COG,0402)
EC-2009005A-1	P32	Change part number to match C1-stage BOM. <1> PR23, R51, PR69, PR81, PR89, PR101, PR135, PR158 -> PN: C1147090003 / THERMISTOR 470+-50(600)(TM147191269) -> PN: C1147090002 / THERMISTOR 470+-50(600)(TMR1471269B8)	EC-2009005A-1	P32	Change part number to match C1-stage BOM. <1> Touch pad change from 13-pin to 10-pin connector. CH2 change from stuff to NU. (PN: DFCL13PFR04 / CONN SMD PFC 13P 1R FR (P0.5,H2.2) -> NU) <2> CH22 change from NU to stuff. (PN: DFCL13PFR08 / CONN SMD PFC 10P 1R FR (P0.5,H1.9))
EC-2009005A-2	P6, P8, P9, P11, P13, P14	Change part number to match C1-stage BOM. <1> L4, L5, L13, L14, L15, L16, L25, L26, L27, L29, L30, L31, L32, L33, L34, L42, L44, L45, L46, L47 (PN: C322120003 / EMI FILTER HCB360W-23170223,2000M) -> PN: C322120000 / EMI FILTER RY1608W-221V-NQ20,2A)	EC-2009005A-2	P6, P8, P9, P11, P13, P14	Change schematic to match SMT BOM. <1> DR, D14, D22 change part number. (PN: BC8600V22 / DIODE SMD R850V-40(40V,1A,3CHOTTY) -> PN: BC8600V29 / DIODE SMD R850V-40(40V,1A,3CHOTTY))
EC-2009005A-3	P20	Change part number to match C1-stage BOM. <1> L37, L48 (PN: CX09131008 / EMI FILTER RY20129T-131V-NQ130,2.5A) -> PN: CX09133007 / EMI FILTER RY20129T-130V-NQ13,4A)	EC-2009005A-3	P20	Change schematic to match SMT BOM. <1> H0E103, H0E121, H0E22 change part number. (PN: MBK1002010 / VGA NUT FL1MBKL1002-REV3A/COPPER -> PN: MBK1002010 / MOC NUT A07BAA023-REV3A/COPPER)
EC-2009005A-4	P4	Change part number to match C1-stage BOM. <1> L2 (PN: CX30074000 / EMI FILTER CHIP HCB2014P-300740,30,4A) -> PN: CX30073010 / EMI FILTER CHIP HCB2014P-300730,30,4A)	EC-2009005A-4	P4	Change schematic to match SMT BOM. <1> P3P10 (battery connector) change part number. (PN: DFCD07MR02 / CONN DIP HEADER 7P 3R MRP2,14H) -> PN: DFCD07MR02 / CONN DIP HEADER 7P 3R MRP2,14H)
EC-2009005A-5	P17	Change part number to match C1-stage BOM. <1> Q28 (PN: BA01140027 / TRANSISTOR SMD P0TC14AEU (50V,30MA) -> PN: BA01140013 / TRANS SMD D0TC14AEU-7-(50V,30MA)	EC-2009005A-5	P6, P11, P19	Change schematic to match SMT BOM. <1> Q31, Q10, Q11, Q19, Q30 change part number. (PN: BA03040040 / TRANS SMD MMT304-T4(40V,200MA)S0723 -> PN: BA03040047 / TRANS SMD MMT304-T3(40V,200MA)
EC-2009005A-6	P12, P14, P15	Change part number to match C1-stage BOM. <1> D11, D14, D15 (PN: BC8600V29 / DIODE SMD CH6014-40PT(30V,0.1A) -> PN: BC8600V216 / DIODE SMD R850V-40(40V,0.1A)	EC-2009005A-6	P12, P14, P15	Change schematic to match SMT BOM. <1> Q25, Q27, Q33, Q34 change part number. (PN: BA07002006 / TRANSISTOR MOSFET 2N7002E(60V,0.25A) -> PN: BA07002006 / TRANS MOSFET ME2N7002E(60V,250MA)
EC-2009005A-7	P30	Change part number to match C1-stage BOM. <1> D23 (PN: BC00316207 / DIODE SMD BA0316(75V,200MA)D0323 -> PN: BC14148020 / DIODE SMD H4148W(75V,200MA)	EC-2009005A-7	P30	Change schematic to match SMT BOM. <1> Q36 change part number. (PN: BA02140027 / TRANSISTOR SMD P0TC14AEU (50V,30MA) -> PN: BA02140013 / TRANS SMD D0TC14AEU-7-(50V,30MA)
EC-2009005A-8	P23	Change MB USB connector's part number for final part number. <1> C17 (PN: DFHD0MR153 / CONN DIP USB 4P 1R MRP2,H5,12) -> PN: DFHD0MR162 / CONN DIP USB 4P 1R MRP2,H5,16)	EC-2009005A-8	P23	Change schematic to match SMT BOM. <1> R306 change part number. (PN: CS34302P809 / RES CHIP 43K 1/16W +1%(402) -> PN: CS34302P817 / RES CHIP 43K 1/16W +1%(402)
EC-2009005A-9	P27	Change XB connector part number same with PSL. <1> C15 (PN: DFCC0PFR041 / CONN SMD PFC 30P 1R FR (P1.0,H,5) -> PN: DFCC0PFR042 / CONN SMD PFC 30P 1R FR(PS,0,4H)	EC-2009005A-9	P13	Change schematic to match SMT BOM. <1> Y2 change part number. (PN: B0625000729 / XTAL SMD 25MHz+-30PPM/PP,35000133 -> PN: B0625000000 / XTAL SMD 25MHz+-25PPM/PP,35000133)
EC-2009005A-10	P32	Change +SMODT, ITERM discharge control from MANON to SJON.	EC-2009005A-10	P32	Change schematic to match SMT BOM. <1> R306 change part number. (PN: CS34302P809 / RES CHIP 43K 1/16W +1%(402) -> PN: CS34302P817 / RES CHIP 43K 1/16W +1%(402)
EC-2009006A-1	P6	Follow MK-NOTE circuit (base on BOM). <1> C34 change from stuff to NU. (PN: CH5103X901 / CAP CHIP 0.1U 10V(+10%,X7R,0603) <2> R0, R20, R24L, R24L, R25, R25H change from NU to stuff. (PN: C313002J802 / RES CHIP 300 1/16W +5%(0402) <3> R87 change from NU to stuff. (PN: CS11002J834 / RES CHIP 3K 1/16W 5%(0402)	EC-2009006A-1	P6	For EMI request. H0E11 change footprint. (H-TC1278C154D118P2 -> H-TC298C154D118P2)
EC-2009006A-2	P14	Follow MK-NOTE circuit (base on BOM). <1> C185 change from NU to stuff. (PN: CH4102K1803 / CAP CHIP 0.1U 10V(+10%,X7R,0402)	EC-2009006A-2	P14	For EMI request. <1> C139 change from NU to stuff. (PN: CH41006J80B / CAP CHIP 10P 50V(+5%,COG,0402)
EC-2009007A-1	P6	<1> Cancel NET: 5MBALERT to connect with FAN control IC VCN. <2> Add R406 (NU) (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) between CPU_PROCHOT_L4 & 5MBALERT. <3> Connect NET: CPU_PROCHOT_Lr from R406 to U24_A6G.	EC-2009007A-1	P27	For EMI request. <1> PR48 change from NU to stuff. (PN: CS20N437 / RES CHIP 2.2 1/16W +5%(0605) <2> PC48 change from NU to stuff. (PN: CH1508R814 / CAP CHIP 1500PF 50V +10% X7R 0402)
EC-2009007A-2	P6	<1> Delete R43 (NU / RES 0ohm) location. <2> C26 change part number. (PN: CH2205R616 / CAP CHIP 2200P 50V(+10%,X7R,0402) -> PN: CH2205R610 / CAP CHIP 1000P 50V(+5%,X7R,0402)	EC-2009007A-2	P27	For Touch Pad function issue. <1> Add bead on touch pad connector on NET: TROUTA / TPCLK / PAD_RESETA / TRACK_POINT_CLK / TRACK_POINT_DAT. Add L51, L52, L54, L55 (PN: CS15B12100 / EMI FILTER BLK15B12100L120,0.2A)
EC-2009007A-3	P3	<1> Q3 PIN-1 & PIN-3 swap.	EC-2009007A-3	P31	Add Symbol of GROUND SHAPE. (PAD1, PAD2, PAD3, PAD4, PAD5, PAD6, PAD7, PAD8, PAD9) Add Symbol of optics point. (PAD13, PAD14)
EC-2009007A-4	P6	<1> C293 change part number & footprint for same with PSL. (PN: CH71501J881 / CAP CHIP 150U 6.3V(+20%,POLYMER 7348) -> PN: CH71501J880 / CAP CHIP 150U 6.3V(20%,E95,3526)H1,9 HF)	EC-2009007A-4	P23	For USB charger IC will upgrade the chipset version. <1> Add R417 between USBP0 / BLUBP0. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) <2> Add R418 between USBP0 / BLUBP0. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402)
EC-2009007A-5	P27	<1> Delete F3 (Trace Point Power Fuse) location. (PN: DK300VLU00 / FUSE SMD 3A 24V(IAT,IL,CSA,0603)	EC-2009007A-5	P30	For leakage issue. <1> Cancel PAD_RESETT pullhigh resistor. R302 change from stuff to NU. (PN: C331002J828 / RES CHIP 10K 1/16W 5%(0402) -> NU)
EC-2009007A-6	P29	<1> Delete Q29 location. (NU) (PN: BM702020H / TRANS MOSFET ME2N7002D(60V,300MA)J0723) <2> Delete NET 5MBALERT & CPU_FAN_ON. <3> Change R248 part number. (PN: C331002J828 / RES CHIP 10K 1/16W 5%(0402) -> PN: CS41002P828 / RES CHIP 100K 1/16W +5%(0402) <4> Add C481 (PN: CH4102K1803 / CAP CHIP 0.1U 10V(+10%,X7R,0402) between U23 pin-1 & R248. <5> Add C482 (PN: CH5102X996 / CAPACTOR CHIP 1UF 10V(+10%,X3R,0603) between +5V & GND.	EC-2009007A-6	P19	For HDMI test item 7-13 failed issue. <1> R112, R114 change part number. (PN: CS20N437 / RES CHIP 2.2 1/16W +5%(0605) -> PN: CS22002P819 / RES CHIP 3K 1/16W +1%(0402) <2> R111, R113 change part number. (PN: CS24702J838 / RES CHIP 4.7K 1/16W +5%(0402) -> PN: CS22002P819 / RES CHIP 3K 1/16W +1%(0402)
EC-2009008A-1	P4 - P7	Change CPU (U24) footprint (bga812 and-4584 -> bga812 and-4584-4)	EC-2009008A-1	P23	For USB charger IC upgrade version from MAX14500ETB+ to MAX14500A. Stuff the external resistors for IPod support. <1> R306 change from NU to stuff. (NU -> PN: CS34302P809 / RES CHIP 43K 1/16W +1%(0402) <2> R330 change from NU to stuff. (NU -> PN: CS27502P812 / RES CHIP 75K 1/16W +1%(0402) <3> R307 change from NU to stuff. (PN: CS34902P809 / RES CHIP 49.9K 1/16W +1%(0402) <4> R331 change part number. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) -> PN: CS34902P812 / RES CHIP 49.9K 1/16W +1%(0402) <5> R417, R418 change stuff to NU. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) -> NU)
EC-2009008A-2	P8 - P10	Change NB (U25) footprint (bga528 and-rs780m -> bga528 and-rs780m-4)	EC-2009008A-2	P23	For USB charger IC upgrade version from MAX14500ETB+ to MAX14500A. Stuff the external resistors for IPod support. <1> R306 change from NU to stuff. (NU -> PN: CS34302P809 / RES CHIP 43K 1/16W +1%(0402) <2> R330 change from NU to stuff. (NU -> PN: CS27502P812 / RES CHIP 75K 1/16W +1%(0402) <3> R307 change from NU to stuff. (PN: CS34902P809 / RES CHIP 49.9K 1/16W +1%(0402) <4> R331 change part number. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) -> PN: CS34902P812 / RES CHIP 49.9K 1/16W +1%(0402) <5> R417, R418 change stuff to NU. (PN: CS00002J838 / RESISTOR CHIP 0 1/16W +5%(0402) -> NU)

MB ID Selection Table

BOARD_ID	BOARD_ID0	BOARD_ID1	BOARD_ID2	BOARD_ID3
Turion Neo X2 L625	H	H		
Athlon Neo MV-40	L	H		
Athlon Neo X2 L325	L	L		
W/ SIDE-PORT MEMORY			H	H
W/ SIDE-PORT MEMORY			L	H

CRU TYPE	MB PIN	BOARD_ID0	BOARD_ID1	BOARD_ID2	BOARD_ID3
Turion Neo X2 L625	31P3LMB0030	H (R446 -> STUFF, R247 -> NU)	H (R448 -> STUFF, R145 -> NU)	H (R138 -> STUFF, R139 -> NU)	H (R167 -> STUFF, R168 -> NU)
Athlon Neo MV-40	31P3LMB0050	L (R446 -> NL, R147 -> STUFF)	H (R448 -> STUFF, R145 -> NU)	H (R138 -> STUFF, R139 -> NU)	H (R138 -> STUFF, R139 -> NU)
Athlon Neo X2 L325	31P3LMB0040	L (R446 -> NL, R147 -> STUFF)	L (R448 -> NL, R145 -> STUFF)	H (R138 -> STUFF, R139 -> NU)	H (R138 -> STUFF, R139 -> NU)

EC-20091022a-1	P3, P17	For RF solution. <1> C468 change from NU to stuff. (SEL_SATA) (Pn: CH0300A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <2> C353 change from NU to stuff. (LCO_D0CLK) (Pn: CH0100A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <3> R351 change part number. (EXT_3M_C5C) (Pn: C30302B029 / RES CHIP 33 1/16W +5V (0402) → Pn: CH05T121001 / 08M PLETER HQ9105005T-12117-96(120,309MA)) <4> R374 change part number. (CLK_48M_USB) (Pn: C30302B029 / RES CHIP 33 1/16W +5V (0402) → Pn: CH05T121001 / 08M PLETER HQ9105005T-12117-96(120,309MA))
EC-20091022a-2	P21	For LED brightness. <1> R142, R179 change the resistor value (Pn: CS11502B022 / RES CHIP 150 1/16W +5V(0402) → Pn: CS113002B012 / RES CHIP 330(1/16W +5V 0402))
EC-20091023a-1	P23	USB port charger function. Charger IC upgrade function & version. <1> U33 change part number. (Pn: AL014550000 / IC OTHER(10P) MAX14550AETB+ 10P(TDFN) → Pn: AL014550001 / IC OTHER(10P) MAX14550AETB+ (TDFN))
EC-20091028a-1	P11	RTC battery change from W/ charger able to W/O charger able. So remove the RTC charger circuit & add one diode to prevent charger for RTC battery. <1> Delete Q30. (Pn: B403040047 / TRANS SMD MMHT304LT1Q(40V,200MA)) <2> Delete R352, R357. (Pn: C32002F015 / RES CHIP 2K 1/16W +5V(0402)) <3> Delete R356. (Pn: CS0802B011 / RES CHIP 6.8K 1/16W +5V(0402)) <4> Delete R351. (Pn: CS13503F030 / RESISTOR CHIP 15K,1/16W+5V(0603)) <5> Add D33. (Pn: SC78500V220 / DIODE SMD 78500V-40V(0.1A,SC70T787)) (CHECK TOP or BOT1)
EC-20091028a-2	P23	ME USB power switch (U36) change power source from 5VPCU to +5V_5S. (+5V_5S will control turn ON or OFF by BIOS/EC CMOS setup for USB charger function selection.)
EC-20091028a-3	P11, P03, P27, P29, P14, P14, P03, P13, P14, P13.	For RF solution. (C2_ALREADY IMPROVE) <1> C480 change from NU to stuff. (Pn: CH0100A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <2> C467 change from NU to stuff. (Pn: CH0100A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <3> C21 change from NU to stuff. (Pn: CH0100A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <4> C338 change from stuff to NU. (Pn: CH0100A808 / CAP CHIP 10P 50V(+5V,C0G,0402)) <5> C214 change from NU to stuff. (Pn: CH4102K3803 / CAP CHIP 0.1u 10V(+10V,X7R,0402)) <6> C419 change from NU to stuff. (Pn: CH4102K3803 / CAP CHIP 0.1u 10V(+10V,X7R,0402)) <7> C299, C330, C327 change part number. (Pn: CH4102K3803 / CAP CHIP 0.1u 16V(+16V,-20%,X7R,0402) → Pn: CH022060816 / CAP CHIP 2200P 50V(+10V,X7R,0402)) <8> C191, C202, C252 change from NU to stuff. (Pn: CH022060816 / CAP CHIP 2200P 50V(+10V,X7R,0402)) <9> C262 change from NU to stuff. (Pn: CH022060917 / CAP CHIP 2200P 50V(+10V,X7R,0603))