

Compal confidential

JBK00 LA-4093P Schematics Document

Mobile AMD S1G2 CPU with ATI
RX781 & SB700 core logic with M86-M

2009-03-25

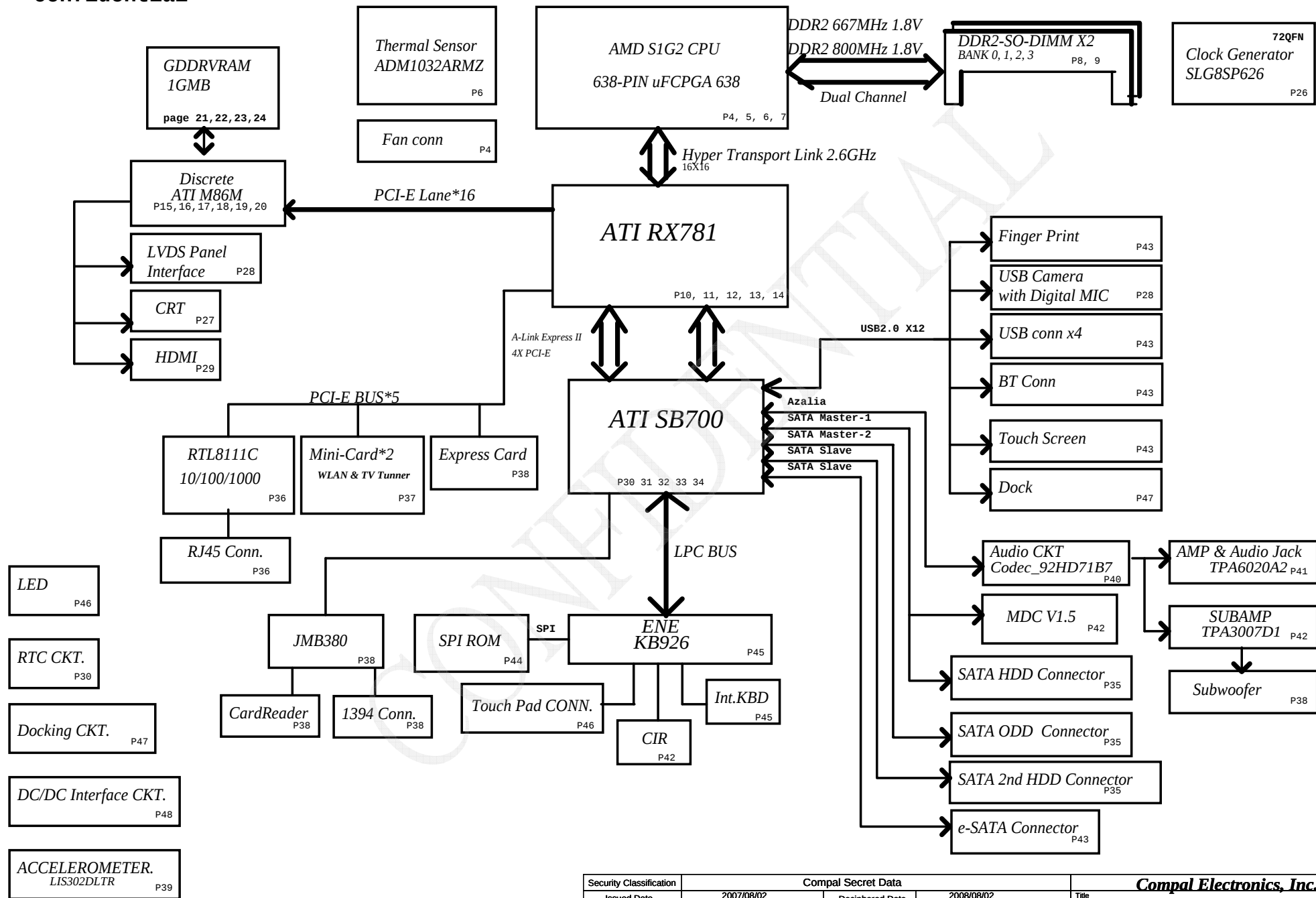
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Consumer AMD Discrete 17"



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Voltage Rails

State \ power plane				+5VS +3VS +2.5VS +1.8VS +1.5VS +1.1VS +VGA_CORE +1.2V_HT +CPU_CORE_NB +CPU_CORE_0 +CPU_CORE_1
	+B +3VL +5VL	+5VALW +3VALW +1.2VALW +3V_LAN	+1.8V +0.9V	
	S0	0	0	0
	S1	0	0	0
	S3	0	0	X
	S5 S4/AC	0	0	X
	S5 S4/ Battery only	0	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

0 MEANS ON X MEANS OFF

Symbol Note :

 : means Digital Ground

 : means Analog Ground

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

 Layout Notes

@ : means just reserve , no build

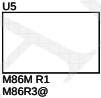
45@ : means need be mounted when 45 level assy or rework stage.

RX781R1@ : means just reserve for R1 FRU BOM

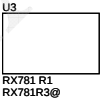
SBR1 @ : means just reserve for R1 FRU BOM

M86R1@ : means just reserve for R1 FRU BOM

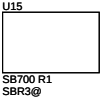
M86M



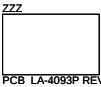
RX781



SB700



PCB



I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 0
DDR SO-DIMM 1	A4	1 0 1 0 0 1 0 0
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 0
ACCELEROMETER	3A	0 0 1 1 1 0 1 0

SMBUS Control Table

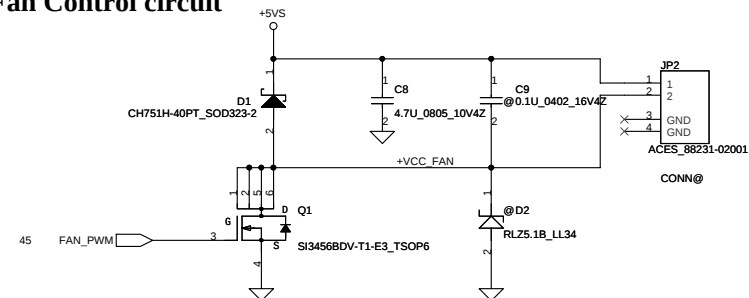
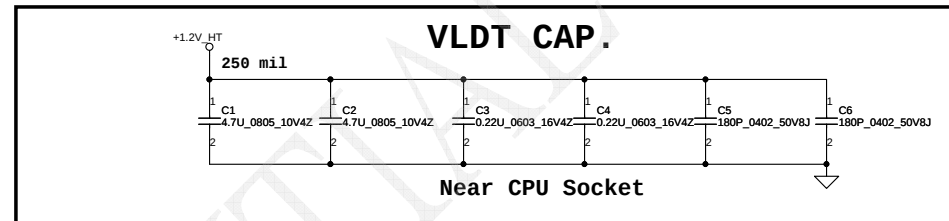
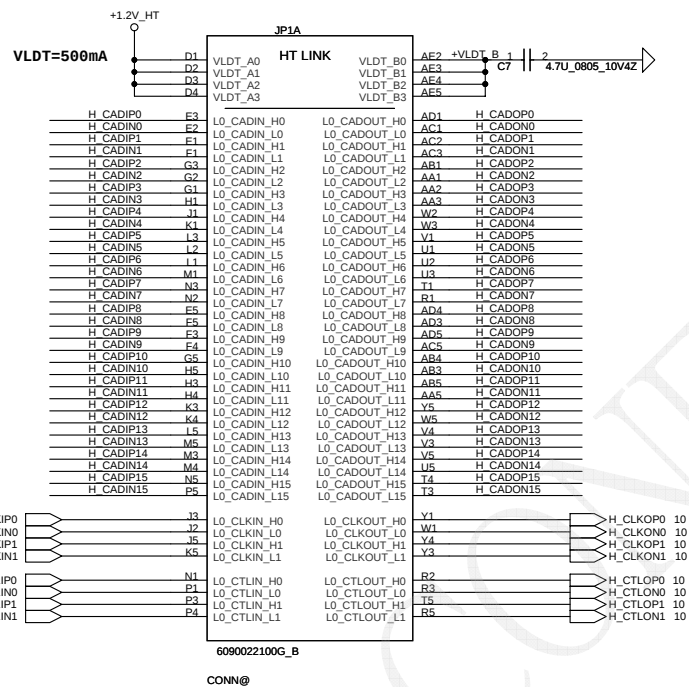
	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR CPU & ADM1032	SODIMM I / II	CLK CHIP	MINI CARD Slot 2	LCD	HDMI	G-Sensor
SMB_EC_CK1 SMB_EC_DA1	KB926	X	V	V	X	X	X	X	X	X	X
SMB_EC_CK2 SMB_EC_DA2	KB926	X	X	X	V	X	X	X	X	X	X
I2C_CLK I2C_DATA	RS780M	X	X	X	X	X	X	X	V	X	X
DDC_CLK0 DDC_DATA0	RS780M	X	X	X	X	X	X	X	X	V	X
DDC_CLK1 DDC_DATA1	RS780M	X	X	X	X	X	X	X	X	X	X
SCL0 SDA0	SB700	X	X	X	X	V	V	X	X	X	V
SCL1 SDA1	SB700	X	X	X	X	X	X	V	X	X	X
SCL2 SDA2	SB700	X	X	X	X	X	X	X	X	X	X
SCL3 SDA3	SB700	X	X	X	X	X	X	X	X	X	X

EC SM Bus1 address

EC SM Bus2 address

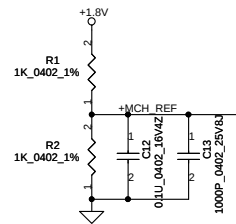
Device	HEX	Address	Device	HEX	Address
Smart Battery	16H	0001 011X b	ADI1032-2 CPU	9AH	1001 101X b
24C16	A0H	1010 000X b	ADI1032-1 VGA	98H	1001 100X b
CPU SIC interface	98H	1001 100X b			

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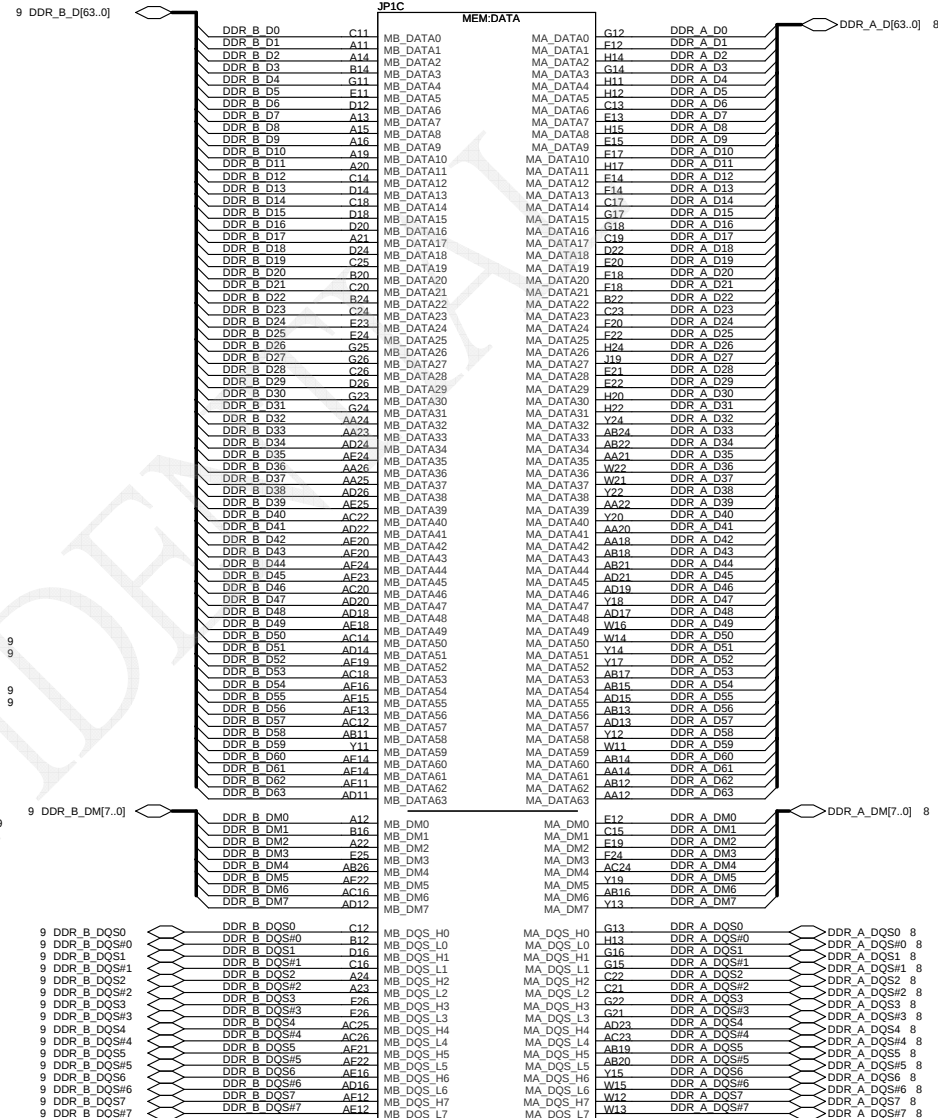
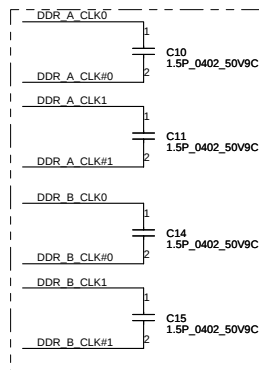


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Processor DDR2 Memory Interface



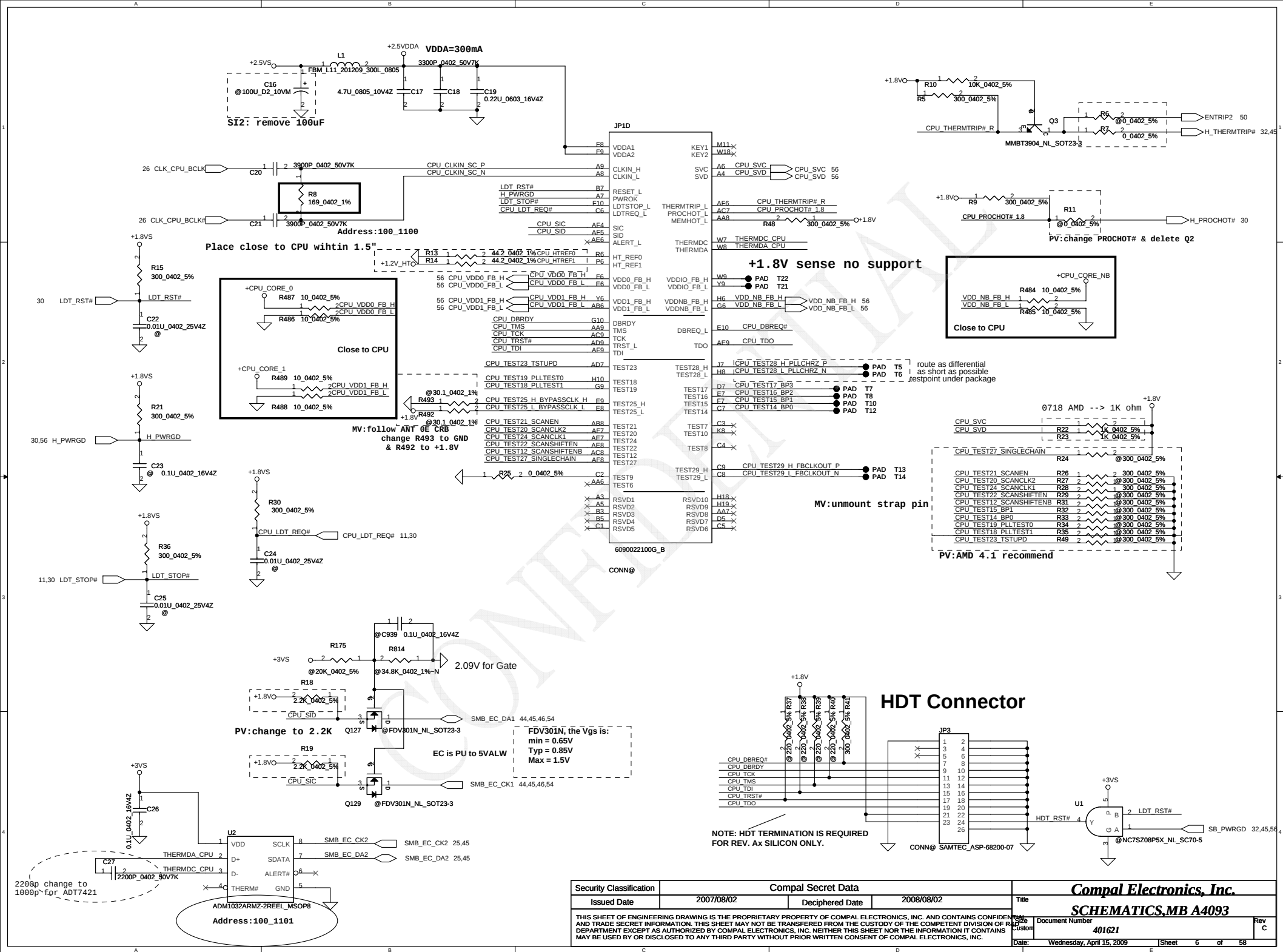
PLACE CLOSE TO PROCESSOR
WITHIN 1.5 INCH



CONN@

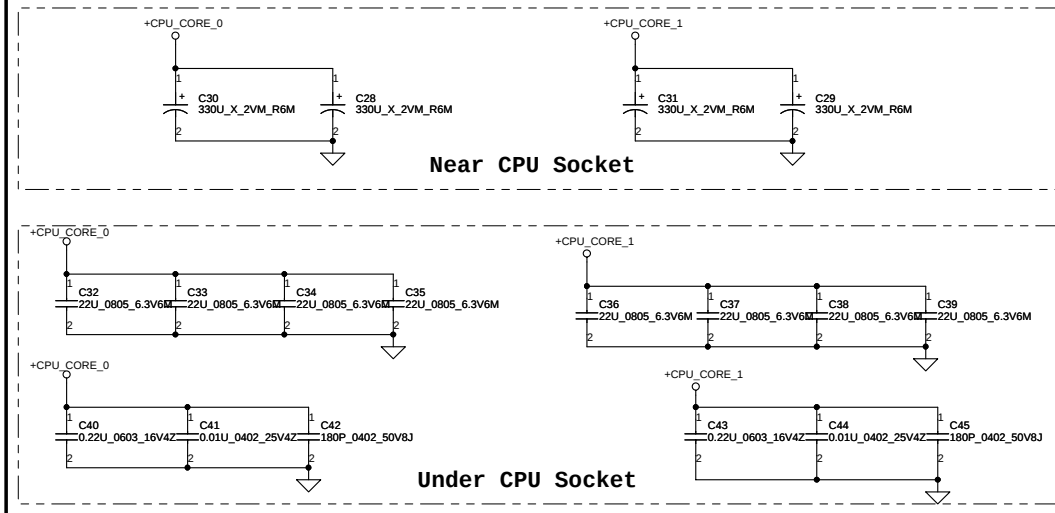
6090022100G B

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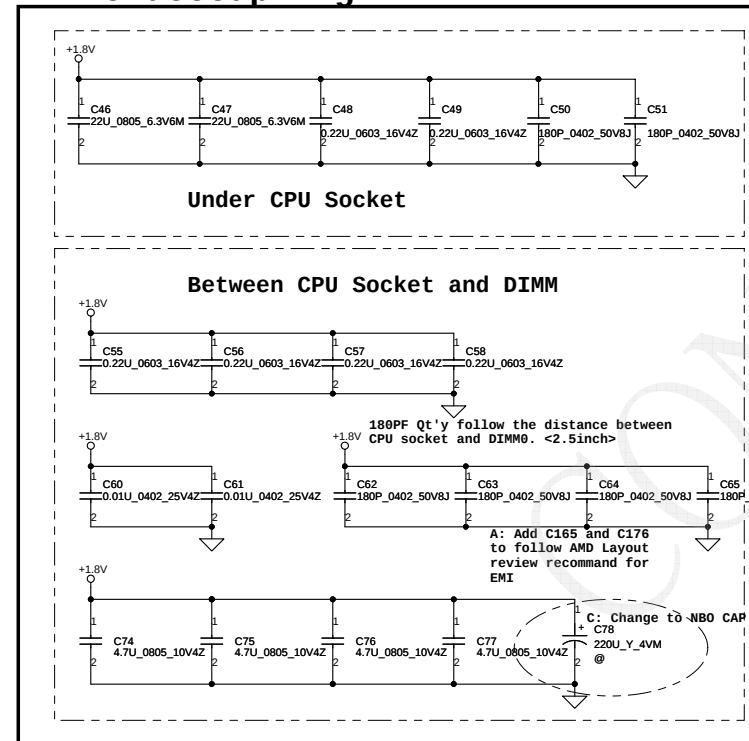


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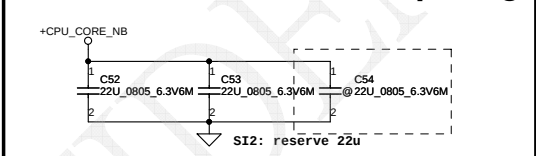
VDD(+CPU_CORE) decoupling.



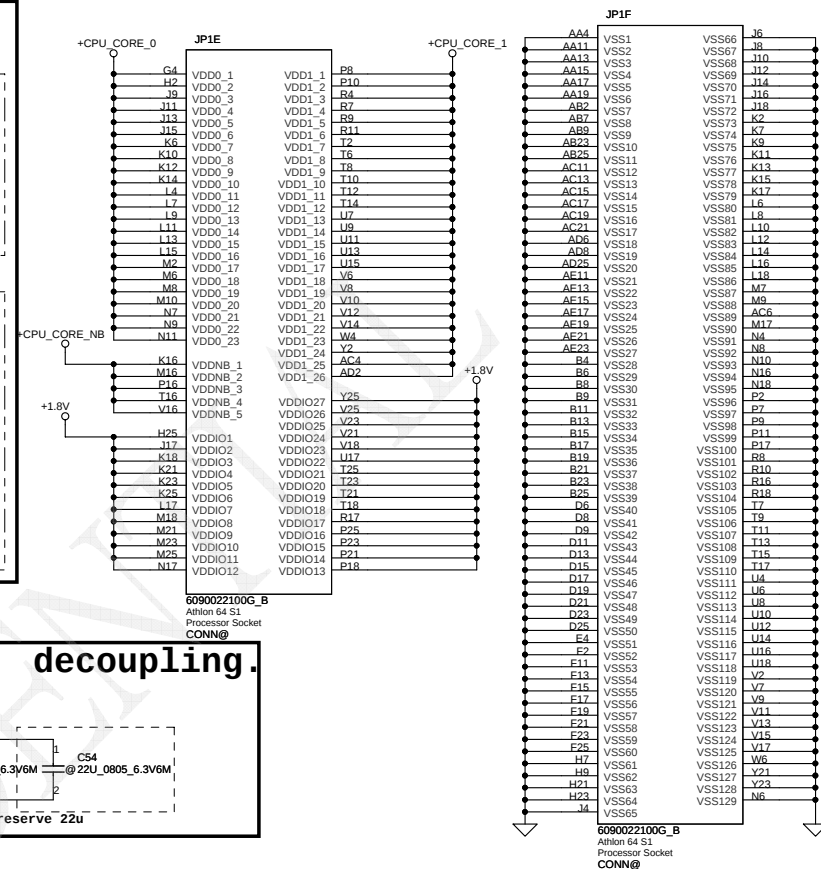
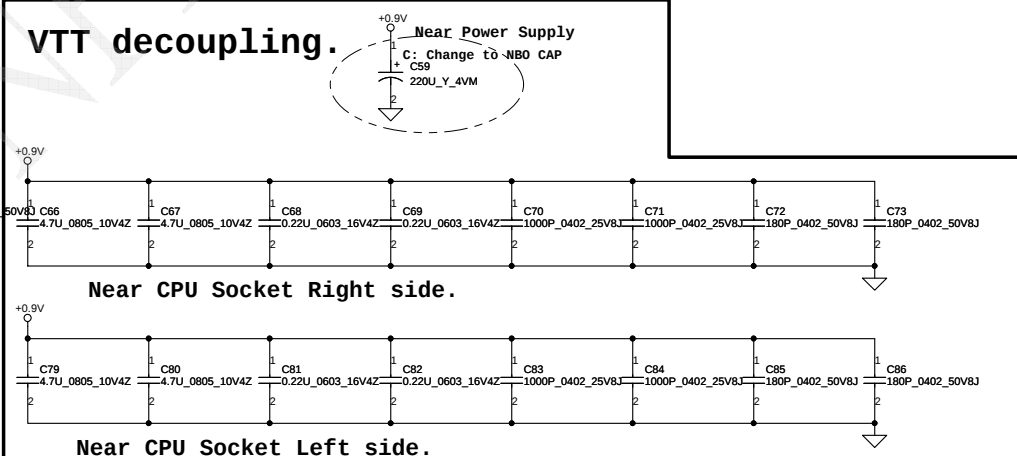
VDDIO decoupling.



+CPU_CORE_NB decoupling.

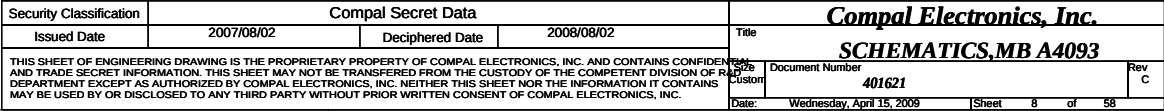


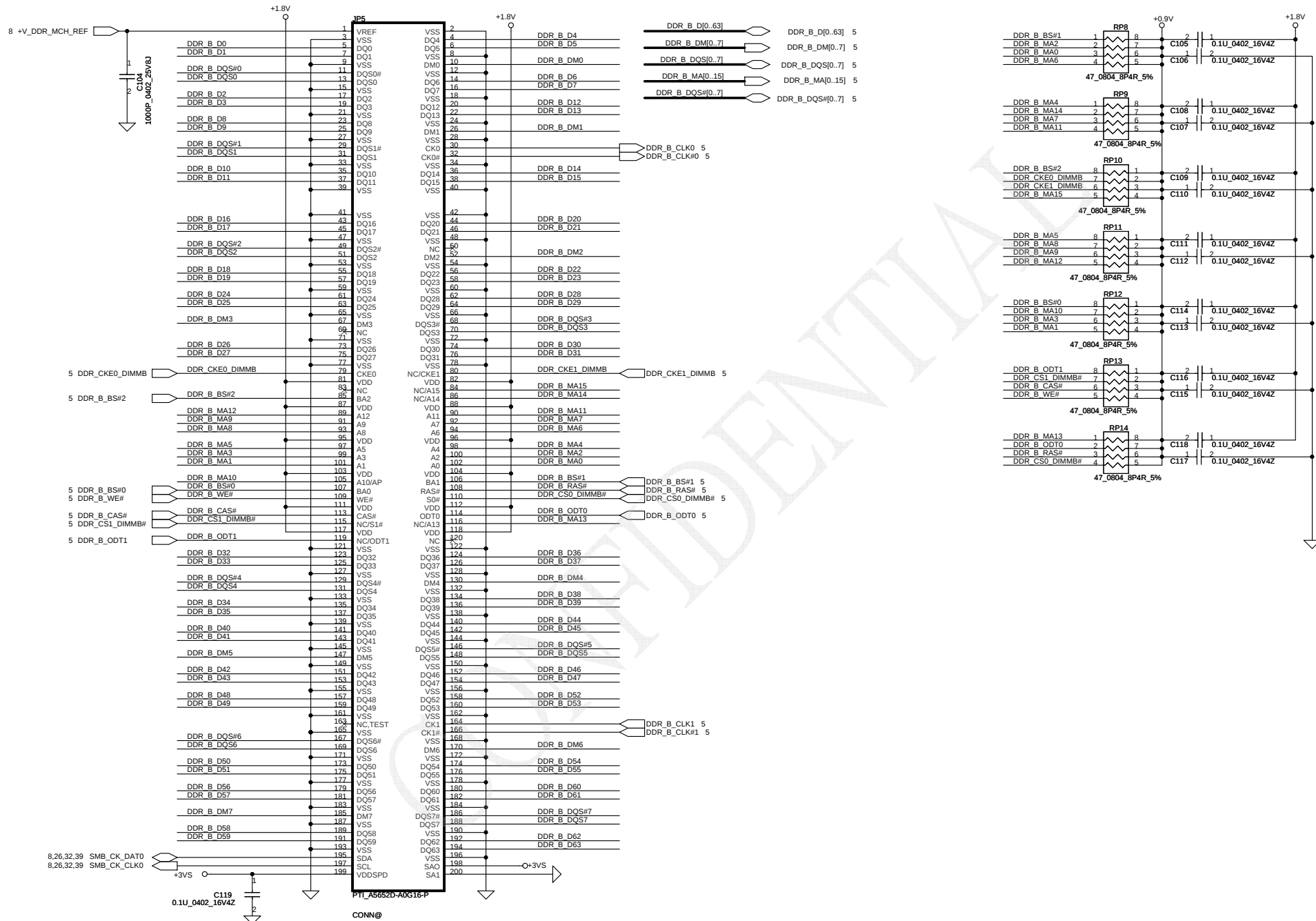
VTT decoupling.



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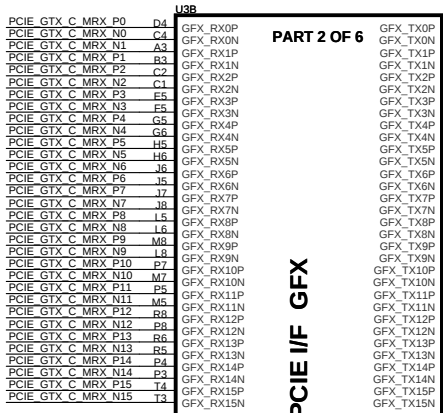




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15 PCIE_GTX_C_MRX_P0[0..15] PCIE GTX_C_MRX_P0[0..15]
15 PCIE_GTX_C_MRX_N0[0..15] PCIE GTX_C_MRX_N0[0..15]

PCIE_MTX_C_GRX_P0[0..15] PCIE_MTX_C_GRX_P0[0..15]
PCIE_MTX_C_GRX_N0[0..15] PCIE_MTX_C_GRX_N0[0..15]



PART 2 OF 6

PCIE I/F GFX

37 PCIE_PTX_C_IRX_P0
37 PCIE_PTX_C_IRX_N0
38 PCIE_PTX_C_IRX_P1
38 PCIE_PTX_C_IRX_N1
37 PCIE_PTX_C_IRX_P2
37 PCIE_PTX_C_IRX_N2
36 PCIE_PTX_C_IRX_P3
36 PCIE_PTX_C_IRX_N3

AE3
AD4
AE2
AD3
AD1
AD2
V6
W6
U6
U8
U7

PCIE I/F GPP

37 PCIE_PTX_C_IRX_P5
37 PCIE_PTX_C_IRX_N5

U8
U7

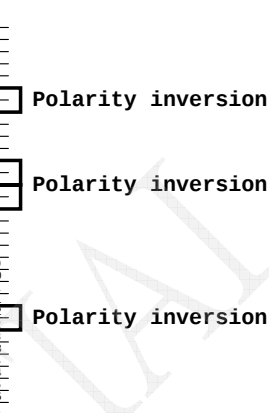
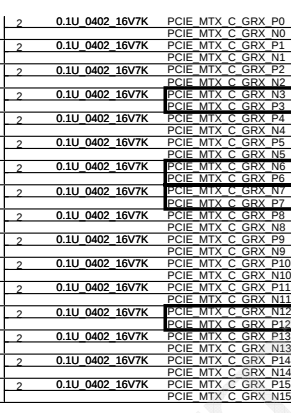
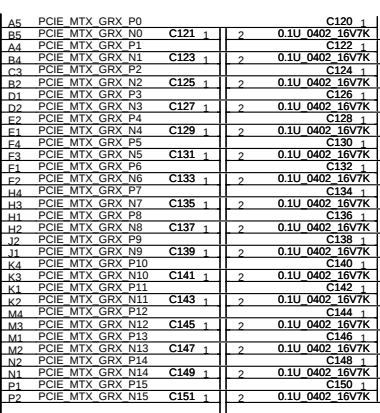
PCIE I/F SB

PCE_CALRP(PCE_BCALRP)
PCE_CALRN(PCE_BCALRN)

RS780M_FCBGA528

RS780M Display Port Support (muxed on GFX)

DP0	GFX_TX0,TX1,TX2 and TX3 AUX0 and HPD0
DP1	GFX_TX4,TX5,TX6 and TX7 AUX1 and HPD1



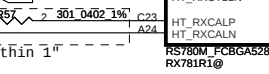
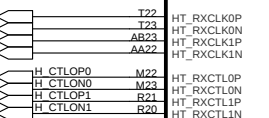
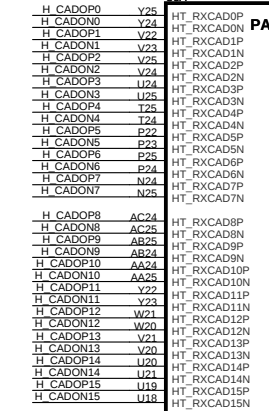
Polarity inversion

Polarity inversion

Polarity inversion

New Card
Cardreader
WLAN
GLAN

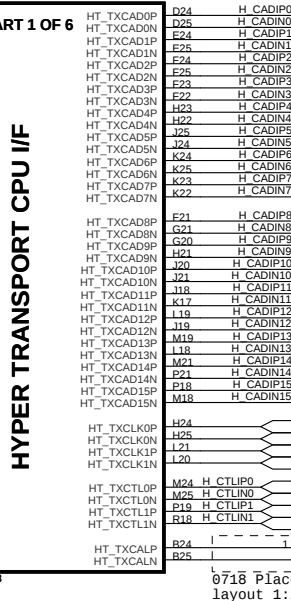
TV Tuner



0718 Place within 1" layout 1:2

HYPER TRANSPORT CPU I/F

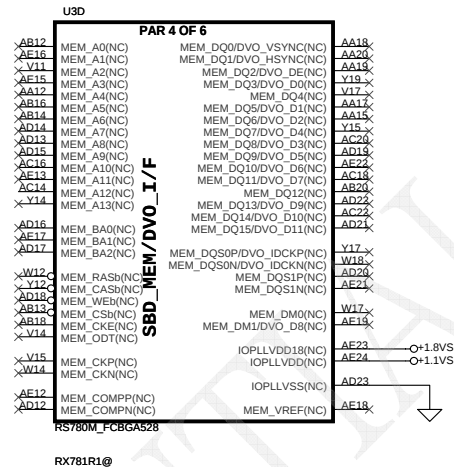
PART 1 OF 6



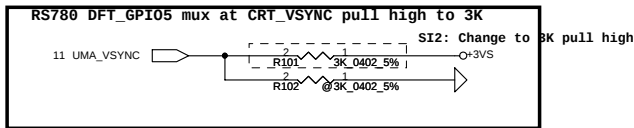
0718 Place within 1" layout 1:2

NEED CHECK R68 & R69 WITH AMD

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DFT_GPIO5:STRAP_DEBUG_BUS_GPIO_ENABLEb

Enables the Test Debug Bus using GPIO.

1 : Enable (RX780, RS780)

0 : Disable (RX780, RS780)

PIN: RS740-->RS780_AUX_CAL; RX780-->NB_TV_C; RS780--> VSYNC#

RS780 use register to control PCI-E configure

DFT_GPIO[4:2]: STRAP_PCIE_GPP_CFG[2:0]

These pin straps are used to configure PCI-E GPP mode.

000 : 00001

001 : 00010

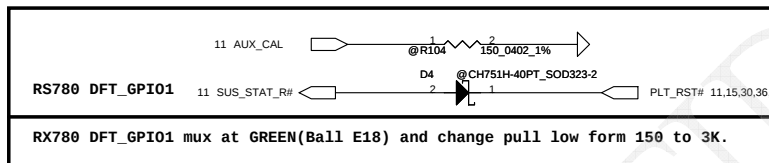
010 : 01011

011 : 00100

100 : 01010

101 : 01100

111 : 01011



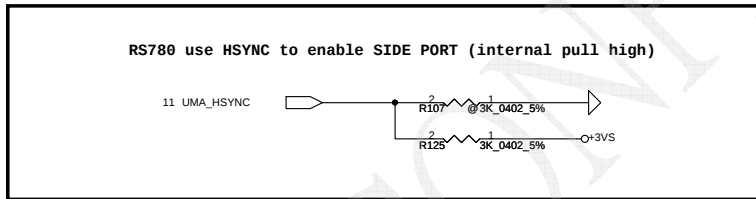
DFT_GPIO1: LOAD_EEPROM_STRAPS

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

RS740/RX780: DFT_GPIO1 RS780:SUS_STAT



DFT_GPIO0: STRAP_DEBUG_BUS_PCIE_ENABLEb

RX780: Enables the Test Debug Bus using PCIE bus

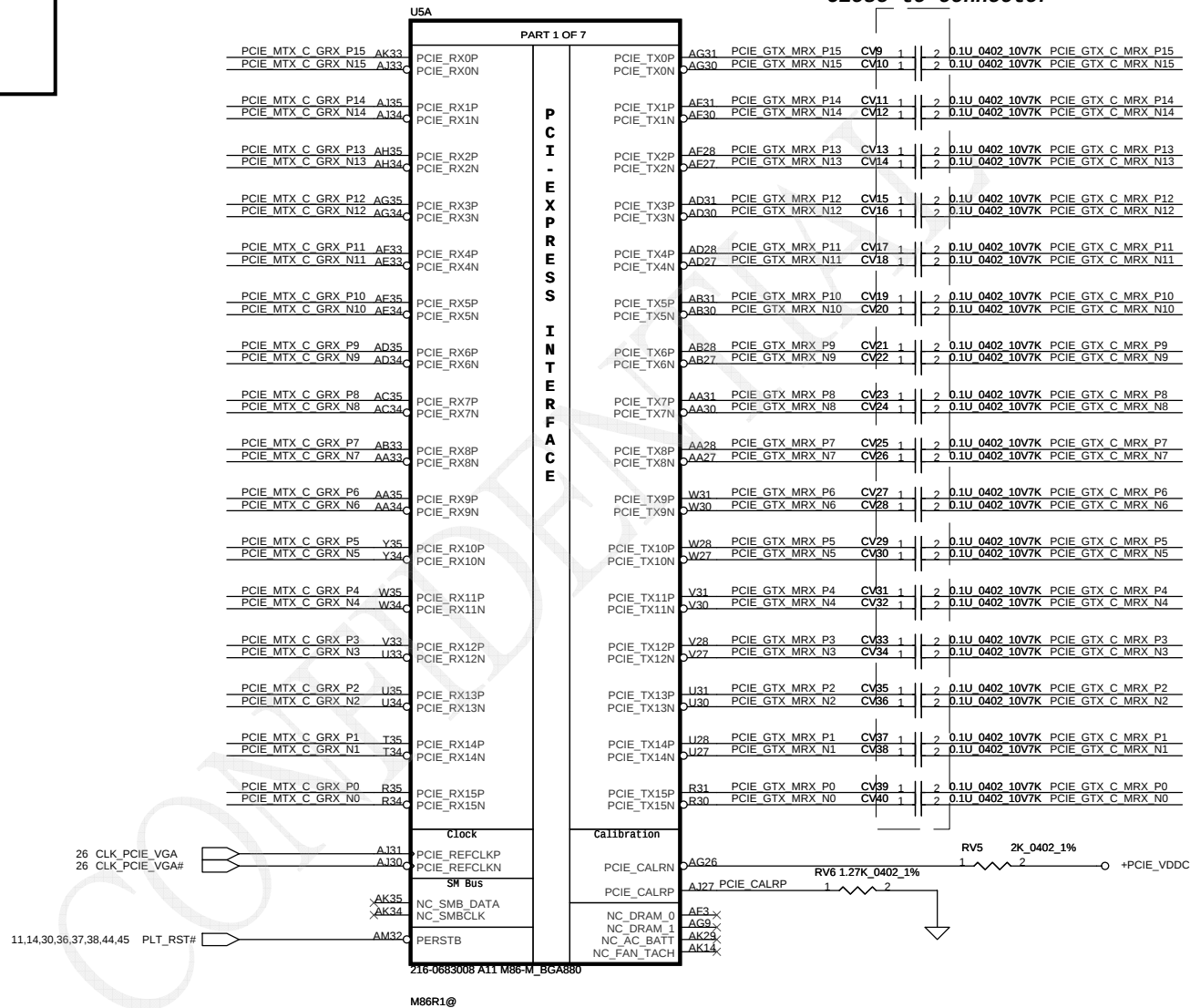
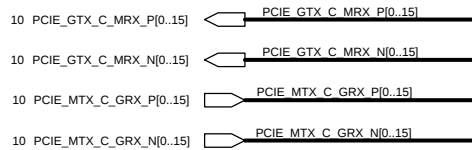
1 : Disable (Can still be enabled using nbcfg register access)

0 : Enable

RS780: Enables Side port memory (RS780 use HSYNC#)

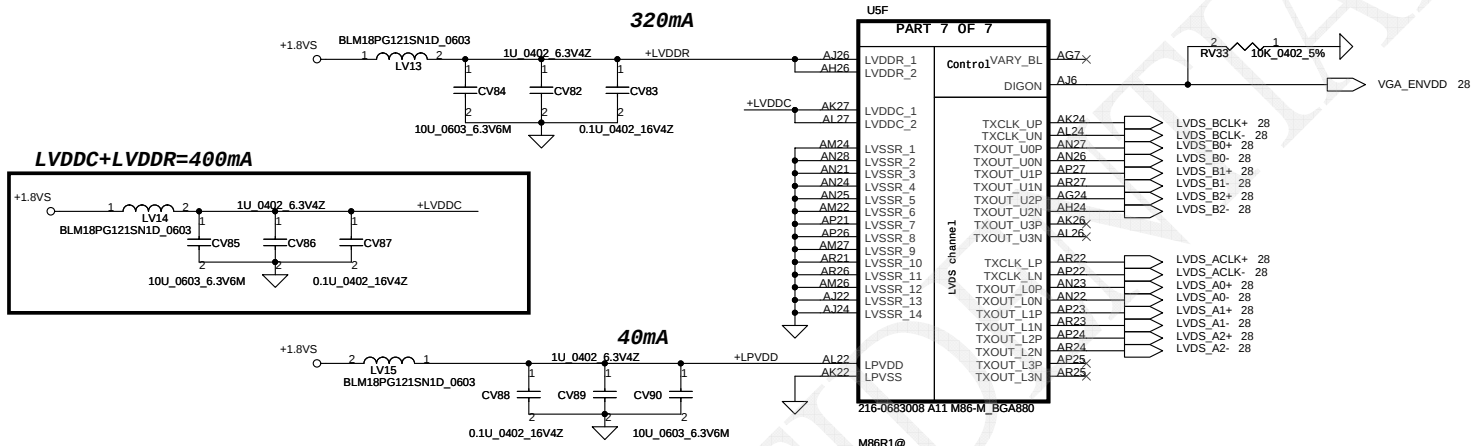
1. Disable (RS780)

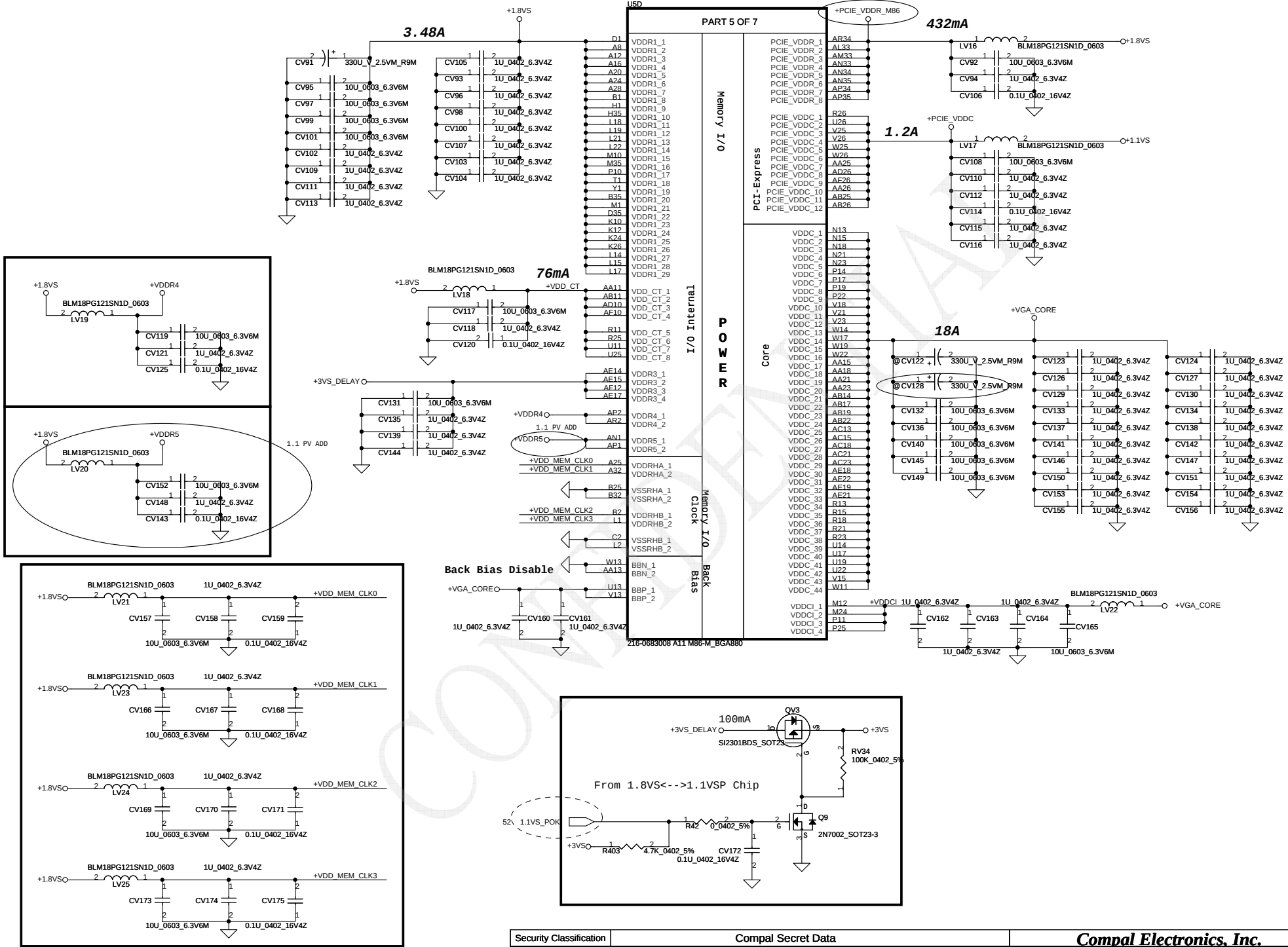
0 : Enable (RS780)

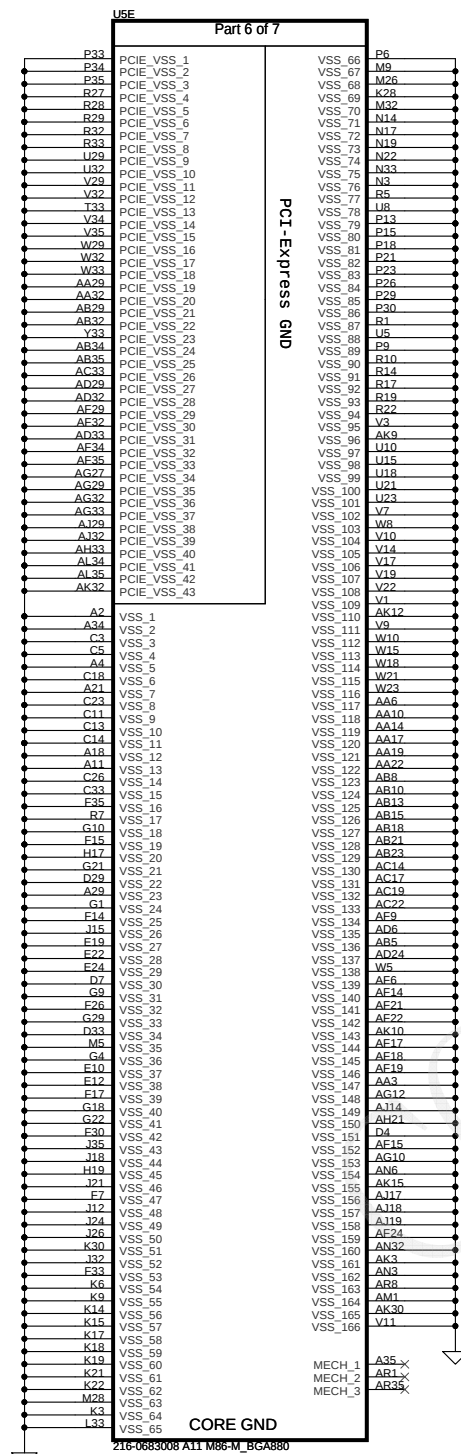


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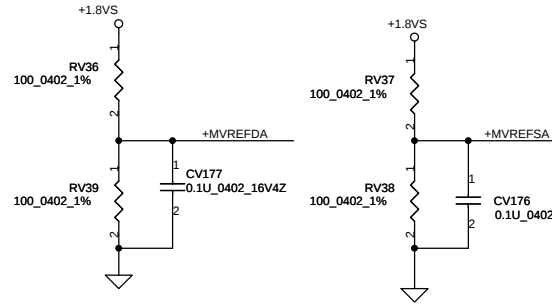




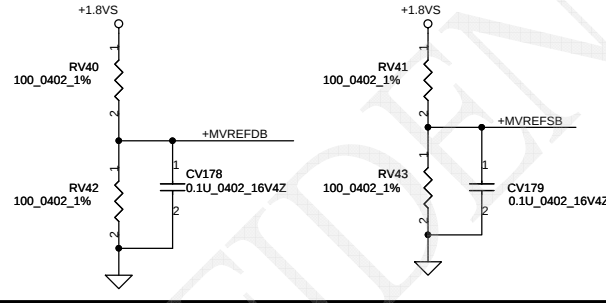
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					Size	Document Number
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DQMA#7..0] << DQMA#7..0] 21,22
QSA#7..0] << QSA#7..0] 21,22
QSA#7..0] << QSA#7..0] 21,22
MAA#12..0] << MAA#12..0] 21,22
BA#2..0] << BA#2..0] 21,22
MDA#63..0] << MDA#63..0] 21,22

Close to pin N34, N35



Close to pin A13, B14



MDB#63..0] << MDB#63..0] 23,24
MAB#12..0] << MAB#12..0] 23,24
BB#2..0] << BB#2..0] 23,24
DQMB#7..0] << DQMB#7..0] 23,24
QSB#7..0] << QSB#7..0] 23,24
QSB#7..0] << QSB#7..0] 23,24

USG

Part 3 of 7

MEMORY INTERFACE A

write strobe read strobe

MDA0 P27	DQA_0	MAA_0	C27	MAA0
MDA1 P28	DQA_1	MAA_1	B28	MAA1
MDA2 P31	DQA_2	MAA_2	B27	MAA2
MDA3 P32	DQA_3	MAA_3	G26	MAA3
MDA4 M27	DQA_4	MAA_4	E27	MAA4
MDA5 K29	DQA_5	MAA_5	E27	MAA5
MDA6 K31	DQA_6	MAA_6	D27	MAA6
MDA7 K32	DQA_7	MAA_7	J27	MAA7
MDA8 M33	DQA_8	MAA_8	F29	MAA8
MDA9 M34	DQA_9	MAA_9	C30	MAA9
MDA10 I34	DQA_10	MAA_10	E26	MAA10
MDA11 I35	DQA_11	MAA_11	A27	MAA11
MDA12 I33	DQA_12	MAA_12	G27	MAA12
MDA13 I34	DQA_13	MAA_13	D26	BA2
MDA14 H33	DQA_14	MAA_14	C28	BA0
MDA15 H34	DQA_15	MAA_15	B29	BA1
MDA16 K27	DQA_16			
MDA17 J29	DQA_17			
MDA18 J30	DQA_18			
MDA19 J31	DQA_19			
MDA20 E29	DQA_20			
MDA21 F32	DQA_21			
MDA22 D30	DQA_22			
MDA23 D32	DQA_23			
MDA24 G33	DQA_24			
MDA25 G34	DQA_25			
MDA26 G35	DQA_26			
MDA27 F34	DQA_27			
MDA28 D34	DQA_28			
MDA29 C34	DQA_29			
MDA30 C35	DQA_30			
MDA31 B34	DQA_31			
MDA32 C24	DQA_32			
MDA33 B24	DQA_33			
MDA34 B23	DQA_34			
MDA35 A23	DQA_35			
MDA36 C21	DQA_36			
MDA37 B21	DQA_37			
MDA38 C20	DQA_38			
MDA39 B20	DQA_39			
MDA40 J22	DQA_40			
MDA41 H22	DQA_41			
MDA42 E22	DQA_42			
MDA43 J19	DQA_43			
MDA44 G18	DQA_44			
MDA45 F19	DQA_45			
MDA47 D19	DQA_46			
MDA48 C19	DQA_47			
MDA49 B19	DQA_48			
MDA50 A19	DQA_49			
MDA51 B18	DQA_50			
MDA52 C16	DQA_51			
MDA53 B16	DQA_52			
MDA54 C15	DQA_53			
MDA55 A15	DQA_54			
MDA56 H18	DQA_55			
MDA57 F18	DQA_56			
MDA58 E18	DQA_57			
MDA59 D18	DQA_58			
MDA60 I17	DQA_59			
MDA61 G15	DQA_60			
MDA62 F15	DQA_61			
MDA63 D15	DQA_62			
	DQA_63			
+MVREFDA N35	MVREFDA			
+MVREFSA N34	MVREFSA			
AM34 NC_1				

216-0683008 A11 M86-M_BGA880

M86R1@

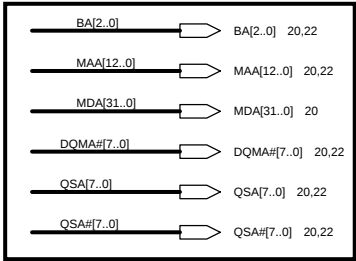
Part 4 of 7

MEMORY INTERFACE B

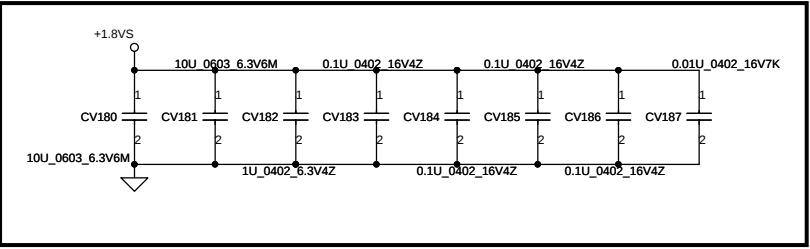
write strobe read strobe

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MDB1 G14	DQB_1	MAB_1	H3	MAB1
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MDB3 D14	DQB_3	MAB_3	J4	MAB3
MDB4 H12	DQB_4	MAB_4	J6	MAB4
MDB5 G12	DQB_5	MAB_5	J6	MAB5
MDB6 F12	DQB_6	MAB_6	G5	MAB6
MDB7 D10	DQB_7	MAB_7	J9	MAB7
MDB8 B13	DQB_8	MAB_8	E3	MAB8
MDB9 C12	DQB_9	MAB_9	F4	MAB9
MDB10 B12	DQB_10	MAB_10	J1	MAB10
MDB11 B11	DQB_11	MAB_11	J2	MAB11
MDB12 C9	DQB_12	MAB_12	J7	MAB12
MDB13 B9	DQB_13	MAB_13	F1	BB2
MDB14 A9	DQB_14	MAB_14	G2	BB0
MDB15 B8	DQB_15	MAB_15	G3	BB1
MDB16 J10	DQB_16			
MDB17 H10	DQB_17			
MDB18 F10	DQB_18			
MDB19 D9	DQB_19			
MDB20 G7	DQB_20			
MDB21 G6	DQB_21			
MDB22 F6	DQB_22			
MDB23 D6	DQB_23			
MDB24 C8	DQB_24			
MDB25 C7	DQB_25			
MDB26 B7	DQB_26			
MDB27 A7	DQB_27			
MDB28 B5	DQB_28			
MDB29 A5	DQB_29			
MDB30 C4	DQB_30			
MDB31 B4	DQB_31			
MDB32 M3	DQB_32			
MDB33 M2	DQB_33			
MDB34 N2	DQB_34			
MDB35 M1	DQB_35			
MDB36 R3	DQB_36			
MDB37 R2	DQB_37			
MDB38 T3	DQB_38			
MDB39 T2	DQB_39			
MDB40 M8	DQB_40			
MDB41 M7	DQB_41			
MDB42 P5	DQB_42			
MDB43 P4	DQB_43			
MDB44 R9	DQB_44			
MDB45 R8	DQB_45			
MDB46 R6	DQB_46			
MDB47 U4	DQB_47			
MDB48 U3	DQB_48			
MDB49 U2	DQB_49			
MDB50 U1	DQB_50			
MDB51 V2	DQB_51			
MDB52 Y3	DQB_52			
MDB53 Y2	DQB_53			
MDB54 A2	DQB_54			
MDB55 A1	DQB_55			
MDB56 U9	DQB_56			
MDB57 U7	DQB_57			
MDB58 U6	DQB_58			
MDB59 V4	DQB_59			
MDB60 W9	DQB_60			
MDB61 W7	DQB_61			
MDB62 W6	DQB_62			
MDB63 V4	DQB_63			
+MVREFDB B14	MVREFDB			
+MVREFSB A13	MVREFSB			
RV44 1 2	1K 0402 5%	AM30		
RV45 1 2	4.7K 0402 5%	AA7		
RV46 1 2	4.7K 0402 5%	AA5		
RV47 1 2	240_0402_1%	AA19		
TESTEN				
TEST_MCLK				
TEST_YCLK				
MEMTEST				
PLLTEST				

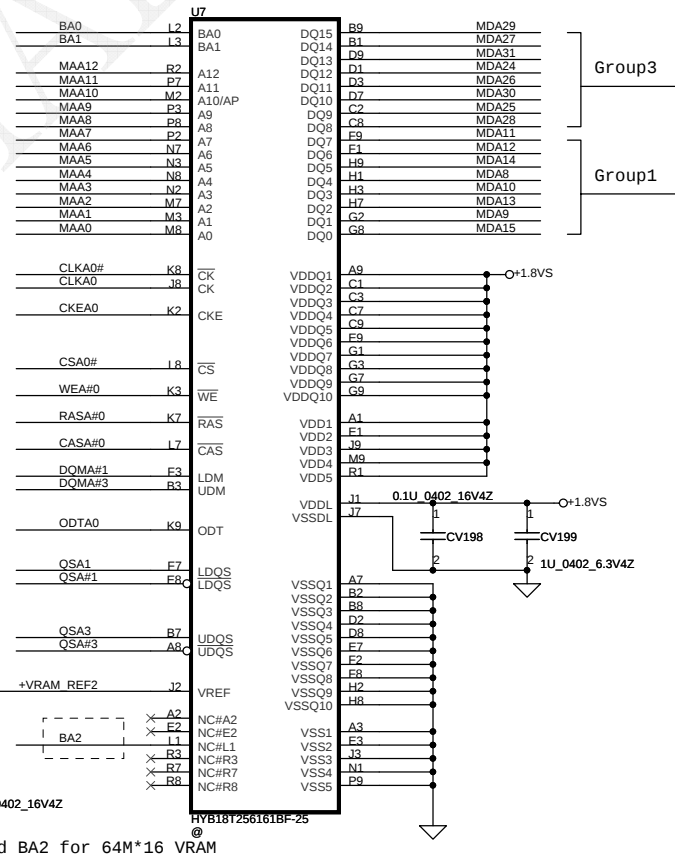
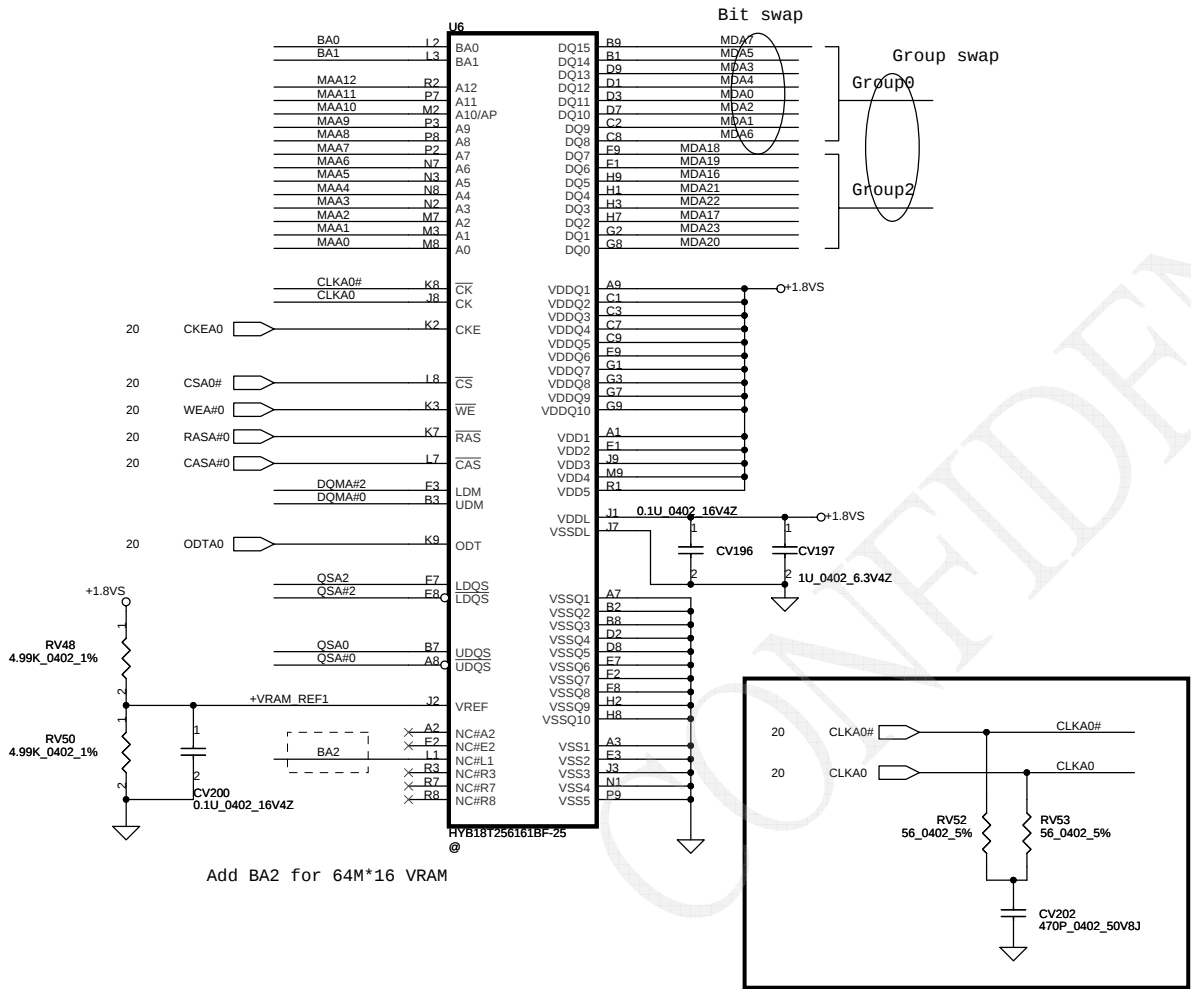
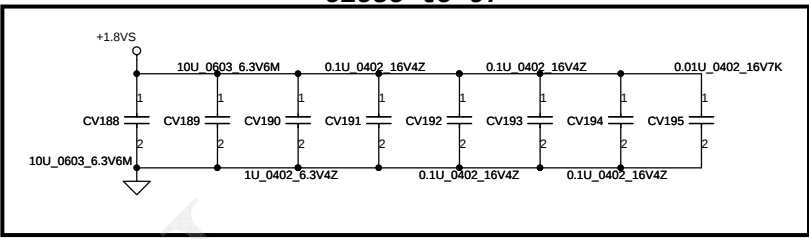
216-0683008 A11 M86-M_BGA880



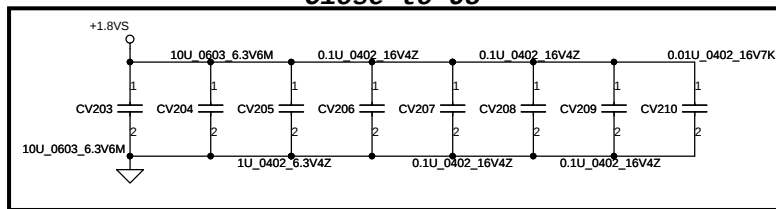
Close to U6



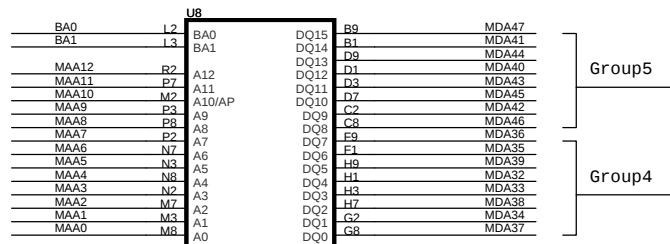
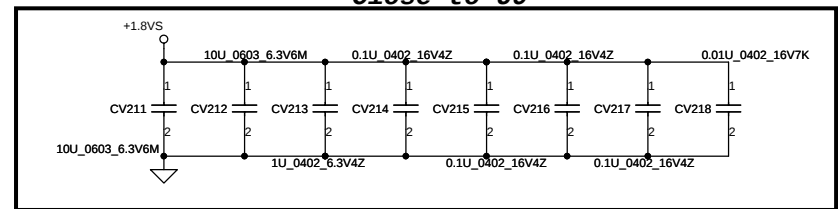
Close to U7



Close to U8

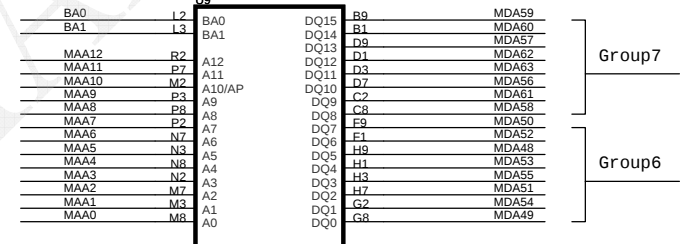


Close to U9



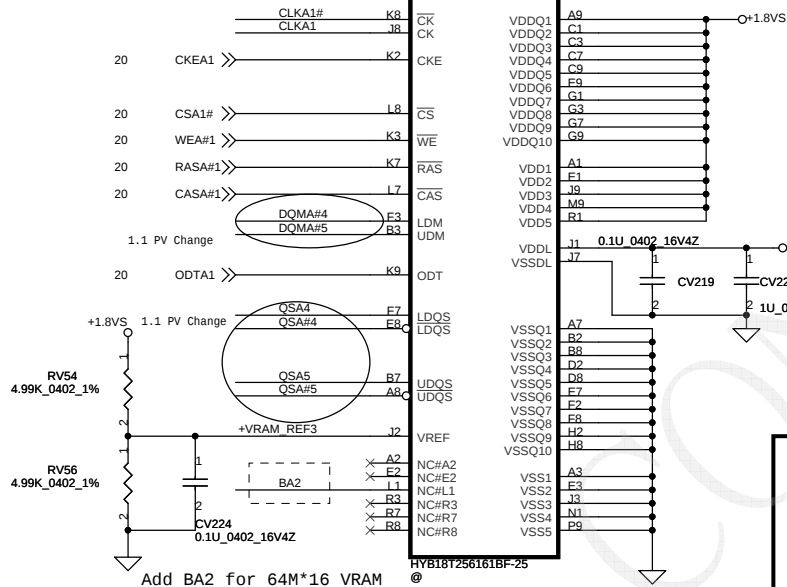
Group5

Group4

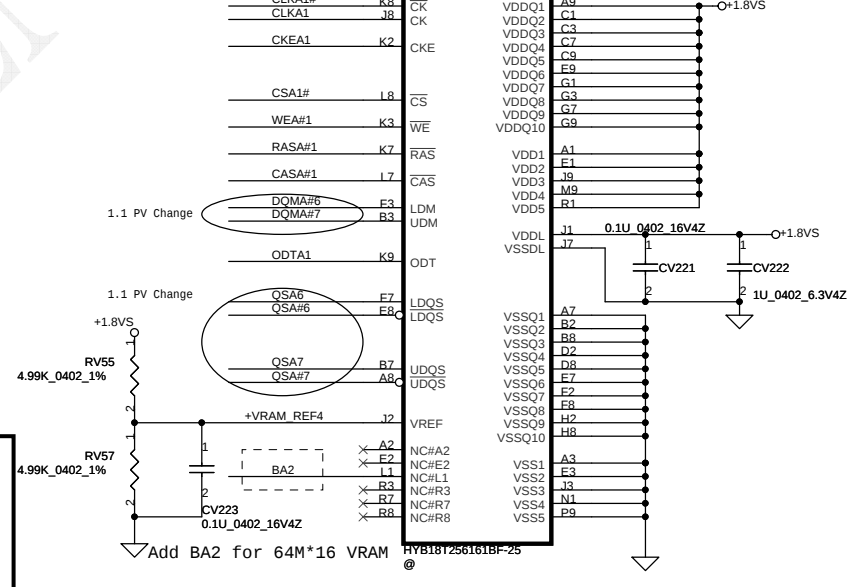
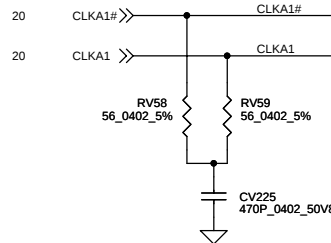


Group7

Group6



Add BA2 for 64M*16 VRAM

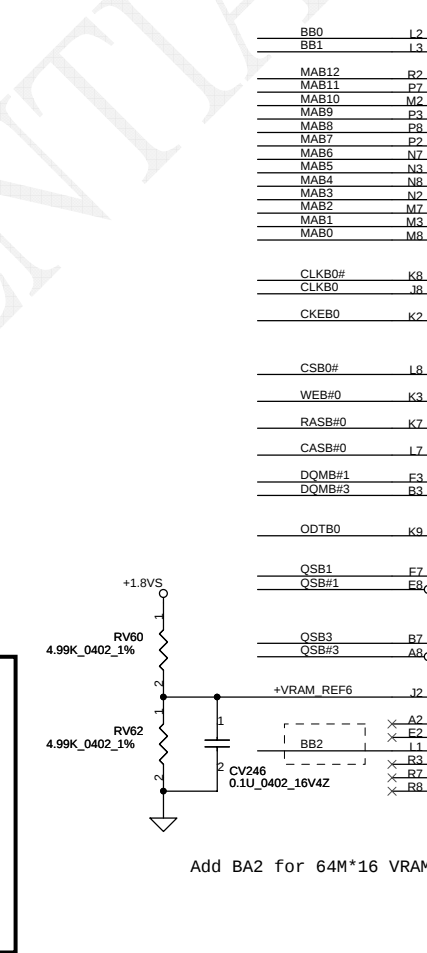
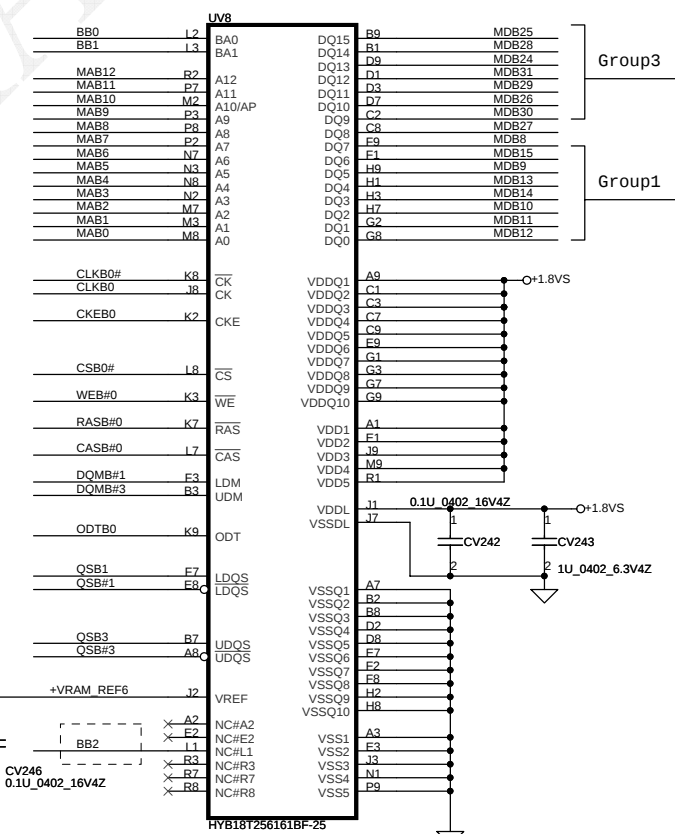
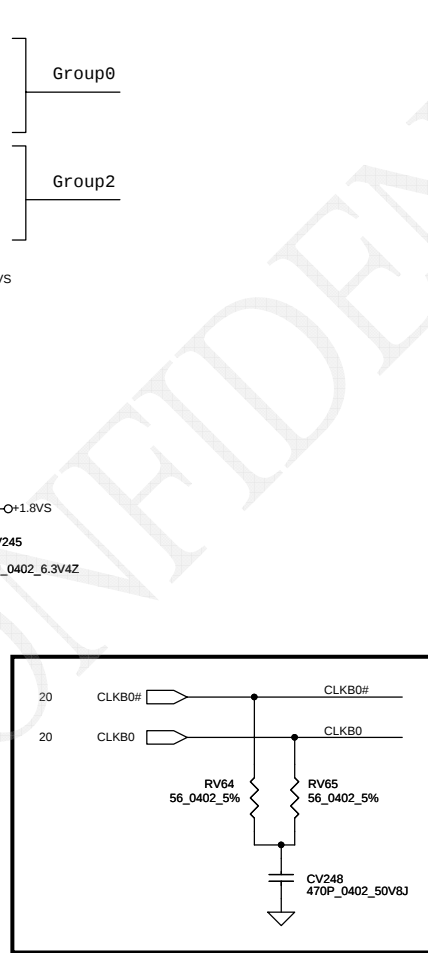
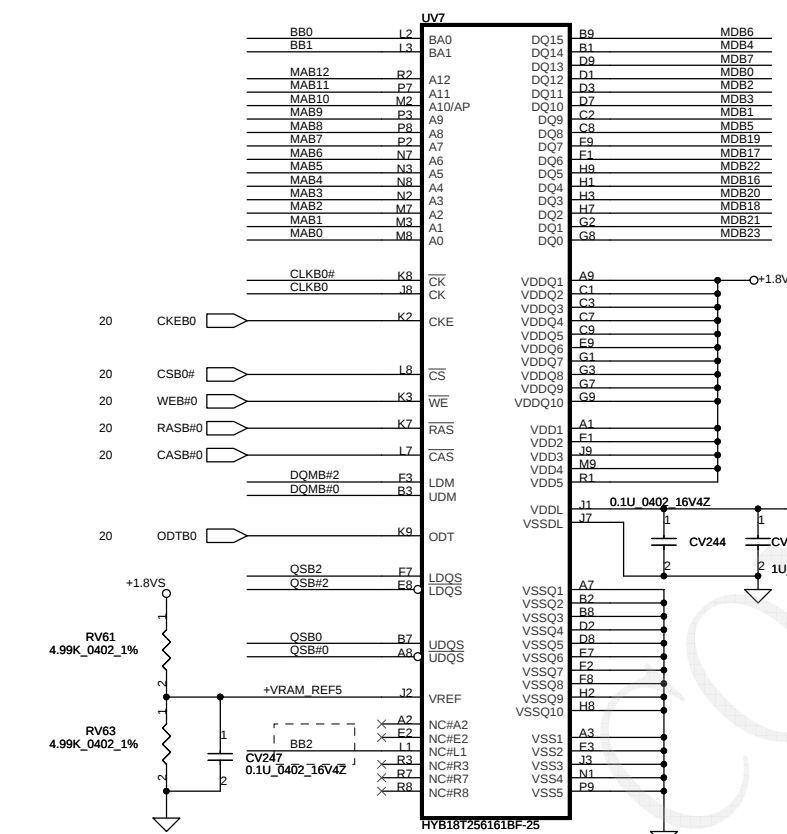
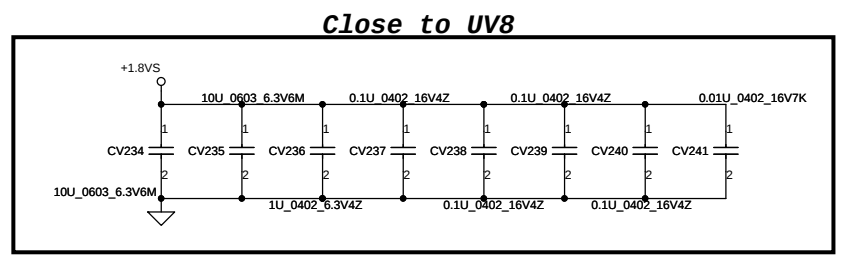
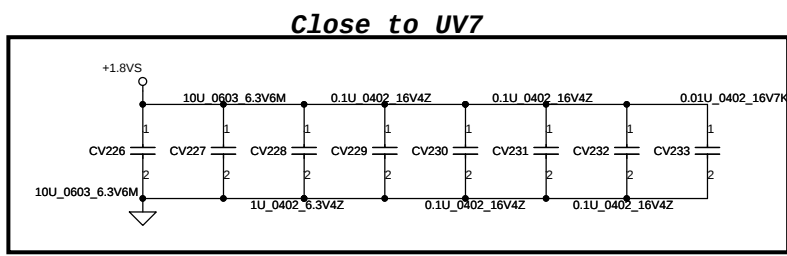
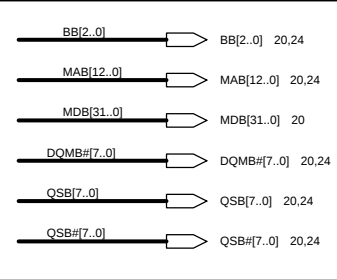


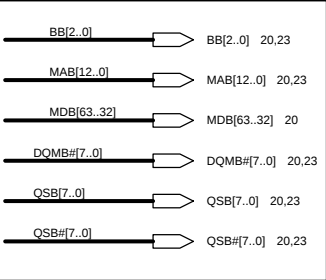
Add BA2 for 64M*16 VRAM

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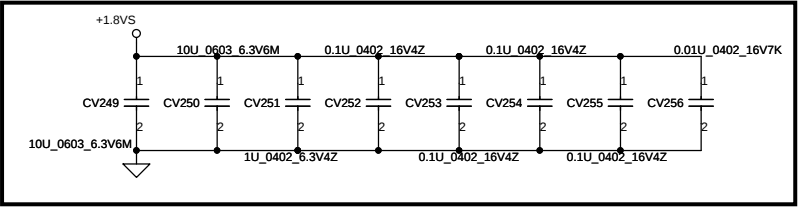
SCHEMATICS, MB A4093

Rev C

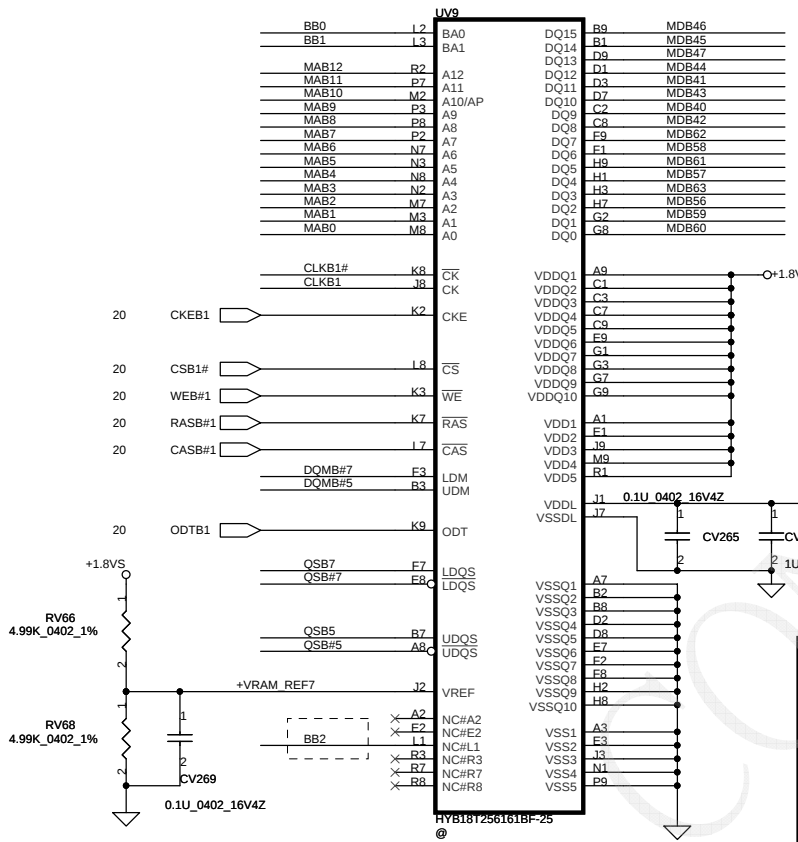
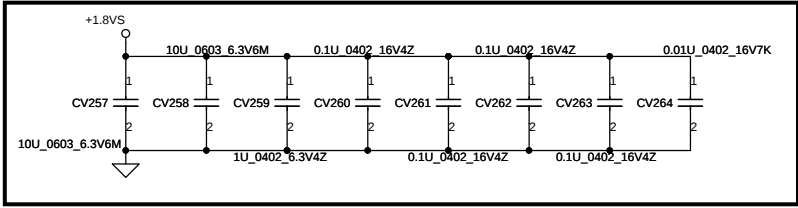




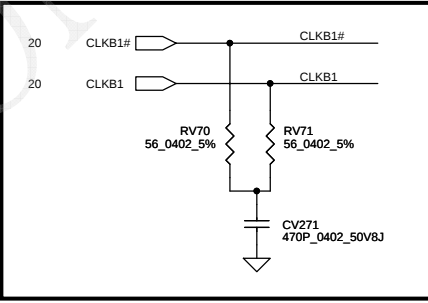
Close to UV9



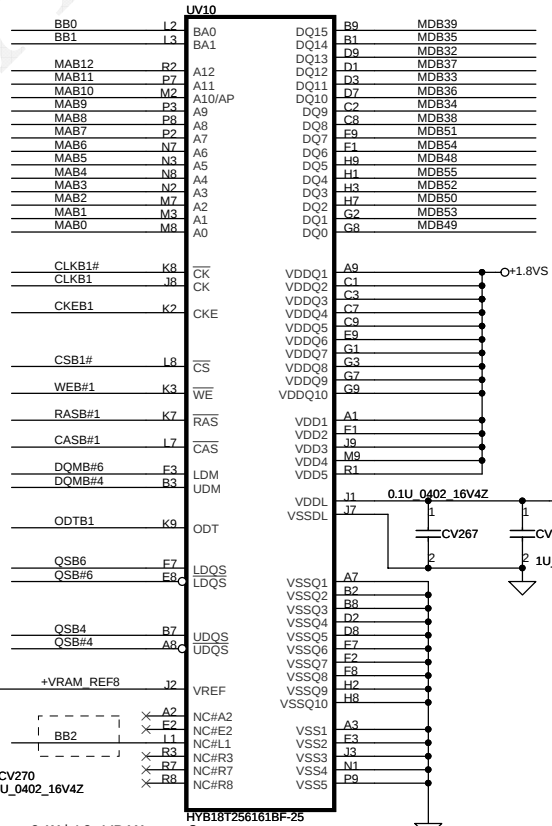
Close to UV10



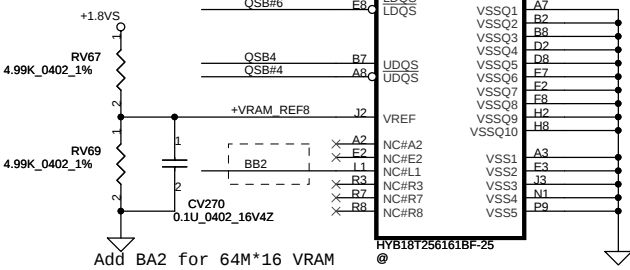
Group5
Group7



Add BA2 for 64M*16 VRAM



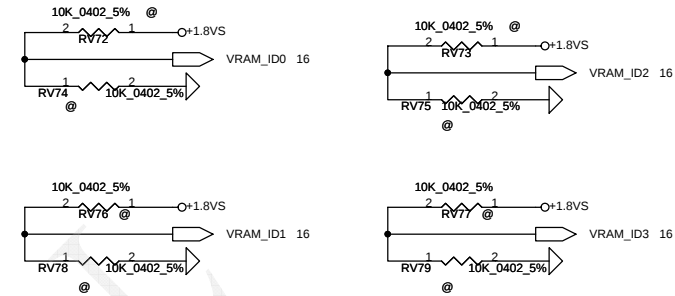
Group4
Group6



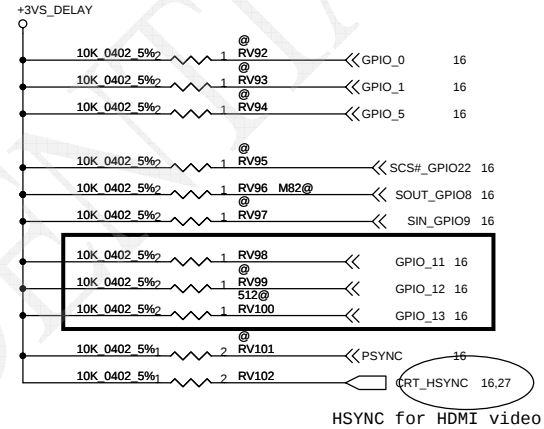
Add BA2 for 64M*16 VRAM

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STRAPS	PIN	GPU	Project	VRAM size	Vendor Part Number#	Compal Part Number#	VRAM_ID 3,2,1,0
VRAM_ID[3:0]	DVPPDATA (23,22,21,20)	M82M-XT	JBK00 1.0a	512M(x4)	Samsung 64Mx16 1.8V	SA00002MD00	0 0 0 0
			JBK00 1.0	256M(X4)	Samsung 32Mx16 1.8V	SA00002AJ10	0 0 0 1
				512M(x4)	Hynix 64Mx16 1.8V		0 0 1 0
			JBK00 1.0	256M(X4)	Hynix 32Mx16 1.8V	SA00002DL00	0 0 1 1
			JBK00 1.0	256M(X4)	Qimonda 32Mx16 1.8V	SA00002A600	0 1 0 0
			JBK00 1.0a	512M(x4)	Qimonda 64Mx16 1.8V	SA00002MF00	0 1 0 1
		M86M	JBK00 1.1	512M(x8)	Samsung 32Mx16 1.8V	SA00002AJ10	0 1 1 0
			JBK00 1.1	512M(x8)	Hynix 32Mx16 1.8V	SA00002DL00	0 1 1 1
			JBK00 1.1	512M(x8)	Qimonda 32Mx16 1.8V	SA00002A600	1 0 0 0
				1G(x8)	Samsung 64Mx16 1.8V	SA00002MD00	1 0 0 1
				1G(x8)	Hynix 64Mx16 1.8V		1 0 1 0
				1G(x8)	Qimonda 64Mx16 1.8V	SA00002MF00	1 0 1 1

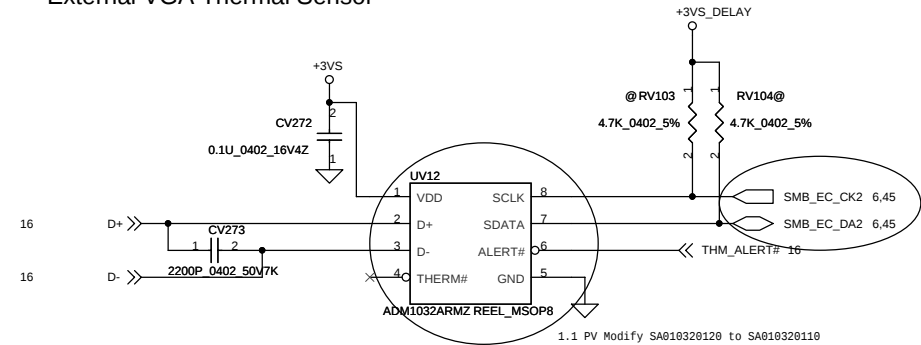


STRAPS	PIN	DESCRIPTION OF RECOMMENDED SETTING	RECOMMENDED M8X
TX_PWRS_ENB	GPIO0	PCIE FULL TX OUTPUT SWING	0
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLES	0
BIF_DEBUG_ACCESS	GPIO4	DEBUG SIGNALS MUXED OUT	0
BIF_GEN2_EN_A	GPIO5	PCI-E 5.0GT/s or 2.5 GT/s select	0
DEBUG_I2C_ENABLE	GPIO6	Internal use only	0
BIF_AUDIO_EN	VIP3	ENABLE HD AUDIO M86-M ONLY	
BIF_AUDIO_EN	GPIO8	ENABLE HD AUDIO M82-M ONLY	
ROMIDCFG[3:0]	GPIO [9,13,12,11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	0 0 0 1
BIF_VGA_DIS	PSYNC	VGA ENABLED==0 is enable	0
BIF_HDMI_EN	HSYNC	HDMI ENABLE	1

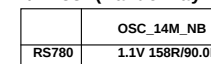
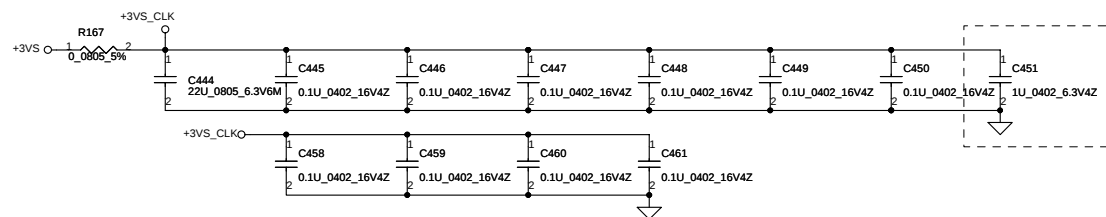


GPIO9 = 0 (BIOS_ROM_EN = 0)	
GPIO[13:11]	MEMORY SIZE
0 0 0	128MB
0 0 1	256MB
0 1 0	64MB
1 0 0	512MB

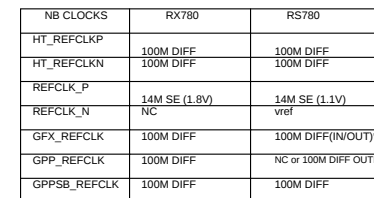
External VGA Thermal Sensor



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Routing the trace at least 10mil



NB_OSC_14.318M	1	configure as single-ended 66MHz output
	0*	configure as differential 100MHz output

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Diagram illustrating the connection of the **RB4910_SOT23 1A_6VDC_MINISMD110** component to the CRT connection.

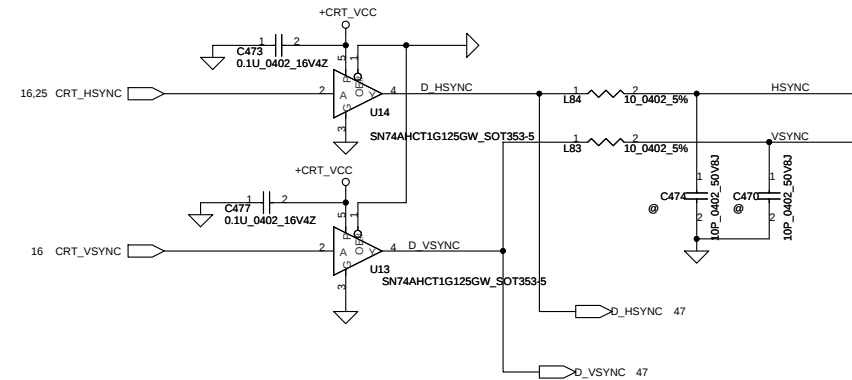
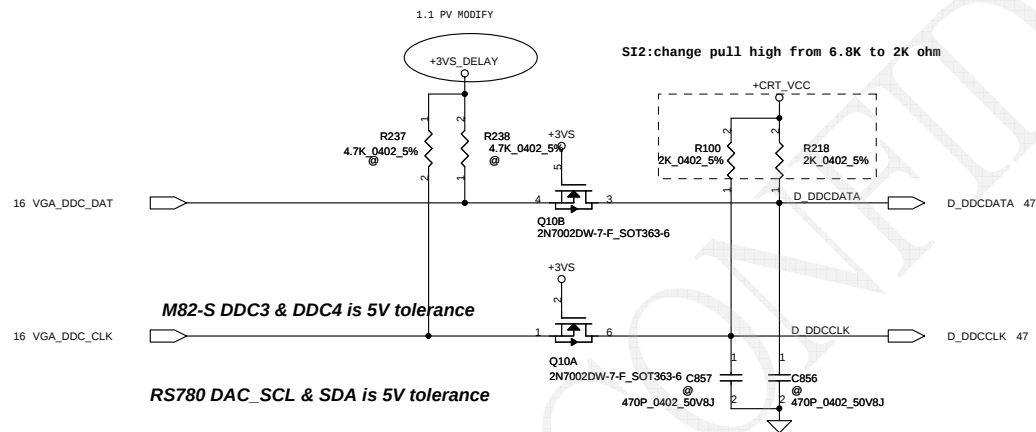
The component is connected to the following pins:

- Pin 1:** +5VS
- Pin 2:** +H CRT_VCC
- Pin 3:** F2
- Pin 4:** +CRT_VCC
- Pin 5:** C475
- Pin 6:** 0.1U_0402_16V4Z

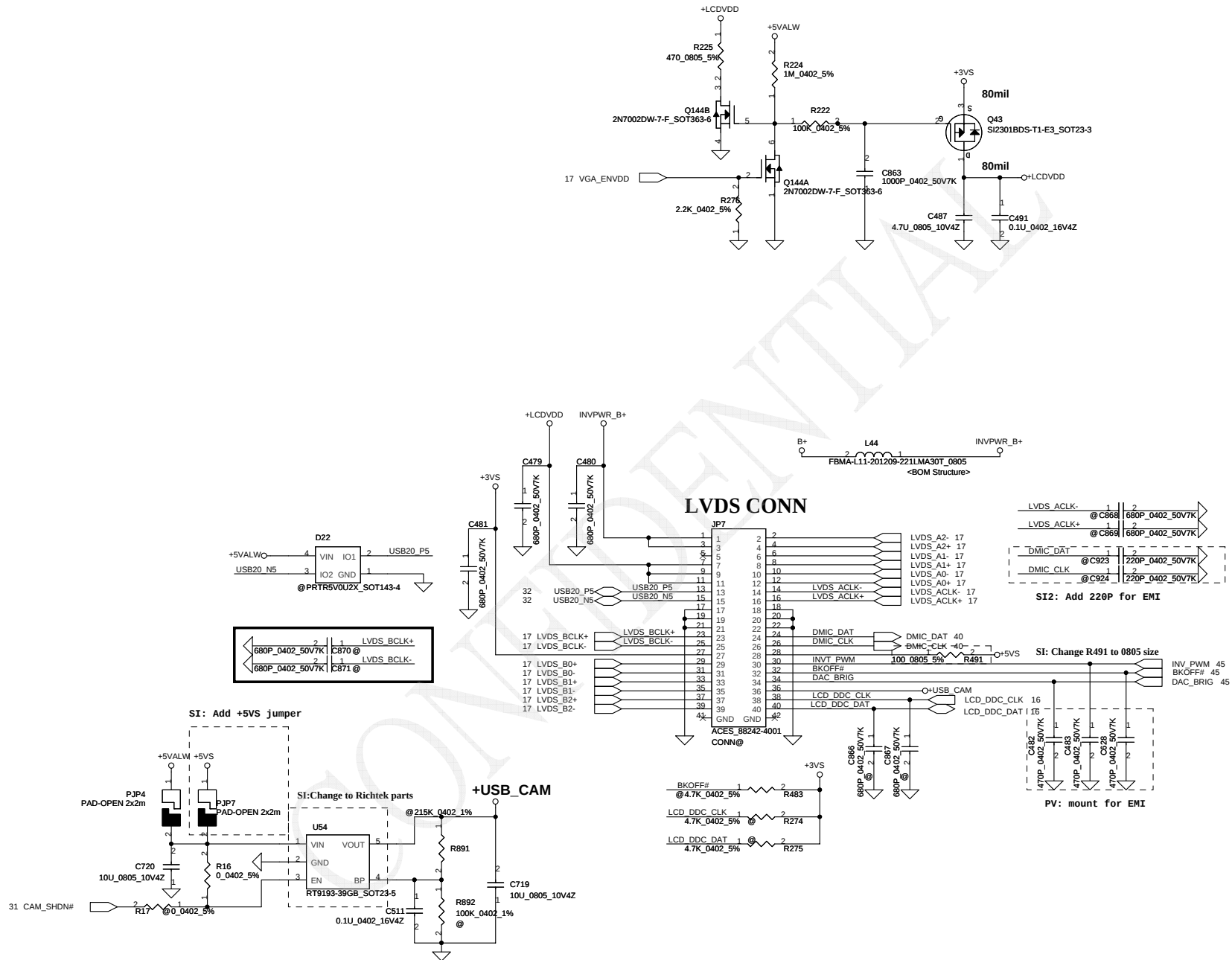
The diagram also shows the connection of the **JP6** connector to the CRT connection. The connector pins are labeled as follows:

- Pin 1:** D DDCCDATA
- Pin 2:** HSYNC
- Pin 3:** VSYNC
- Pin 4:** D DDCCCLK
- Pin 5:** RED_L 47
- Pin 6:** GREEN_L 47
- Pin 7:** BLUE_L 47
- Pin 8:** CRT_VCCO
- Pin 9:** GND
- Pin 10:** GND

The diagram includes a note: **SI:change CRT Conn.**

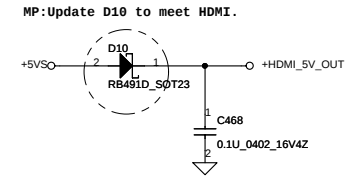
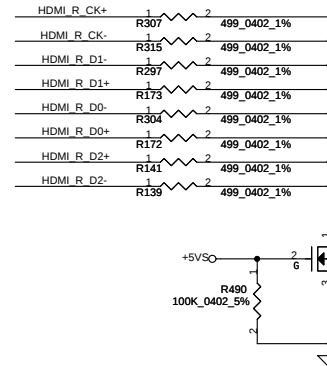
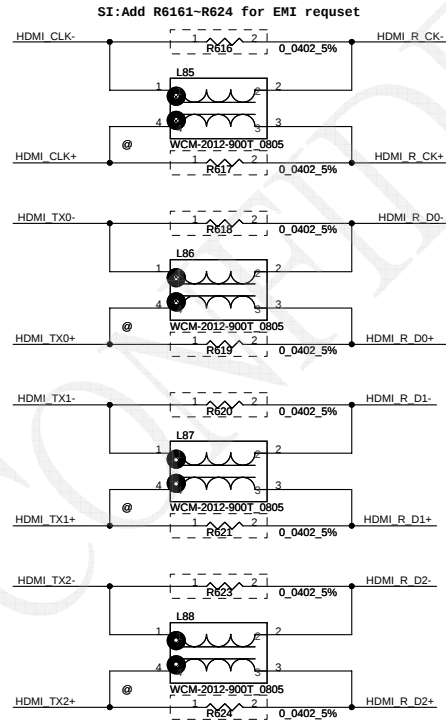
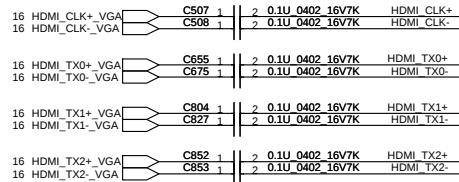
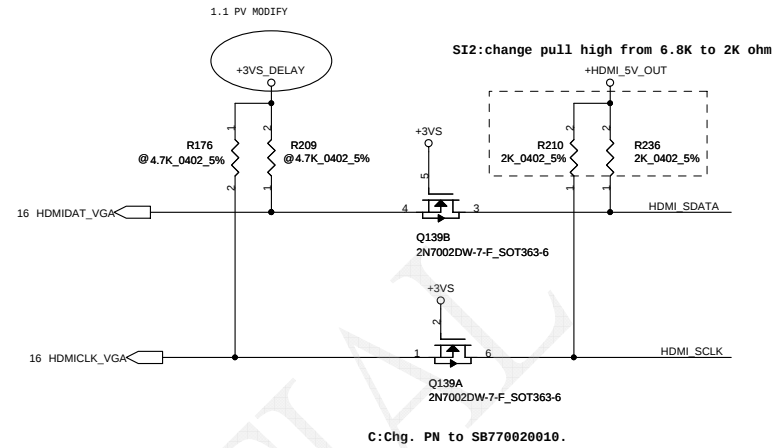
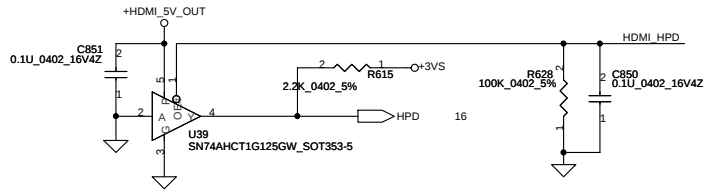


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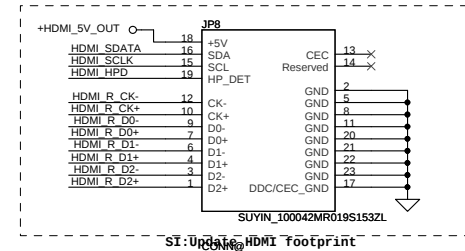


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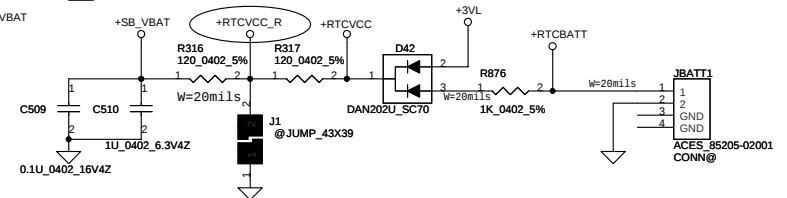
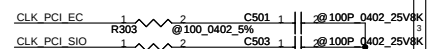
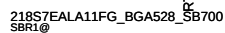
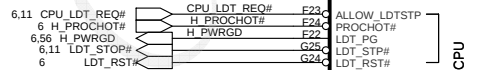
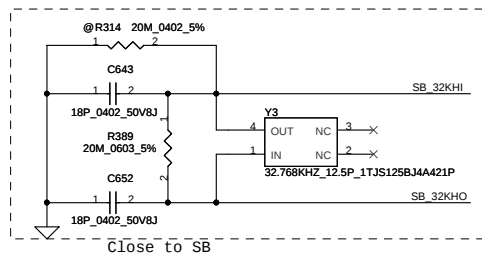
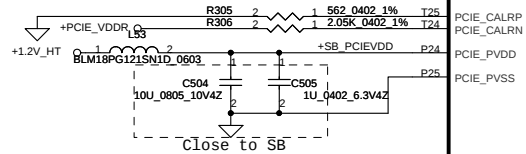


HDMI Connector

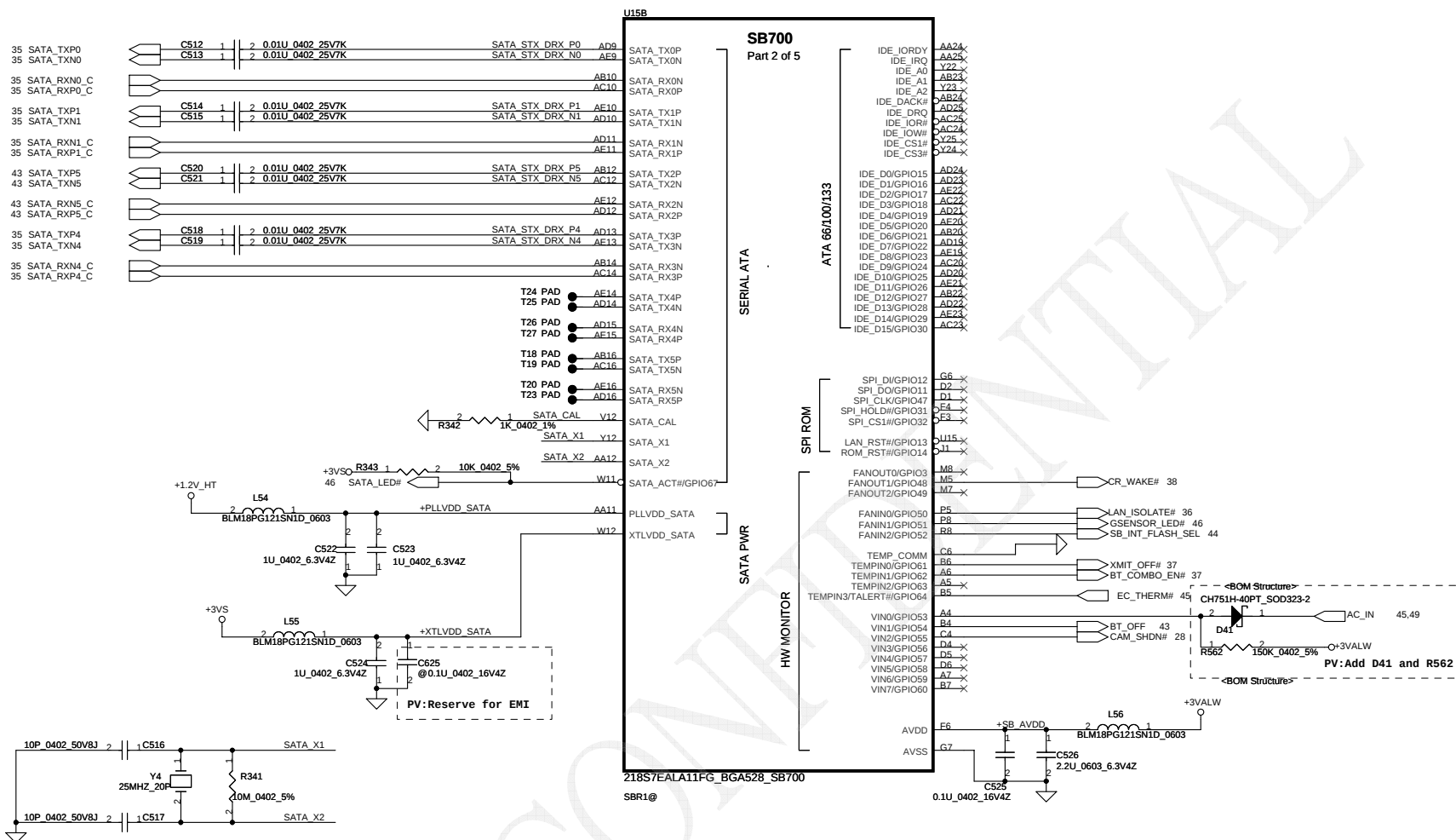


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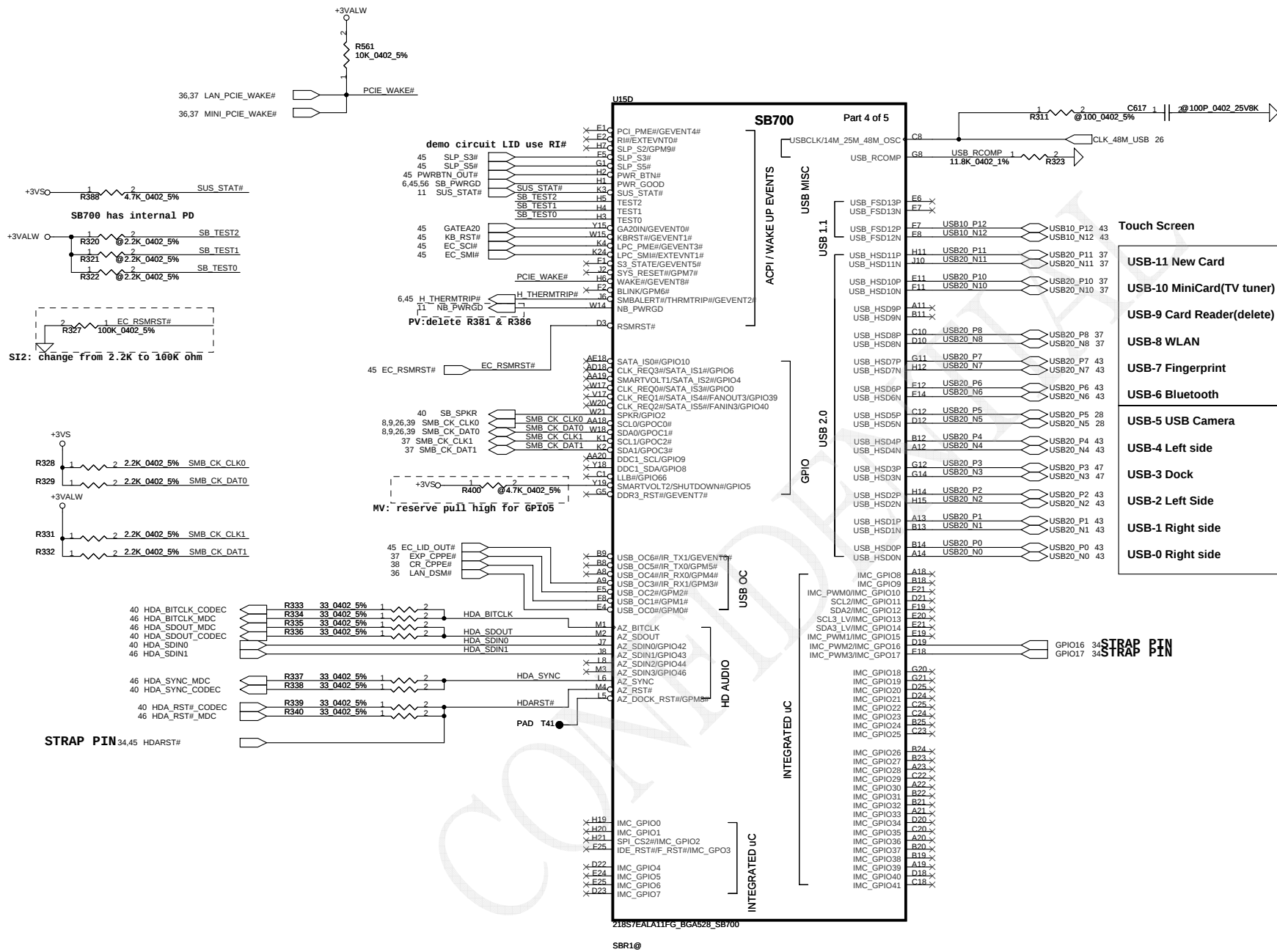
1 2 NB RST# R
R300 @8.2K_0402_5%



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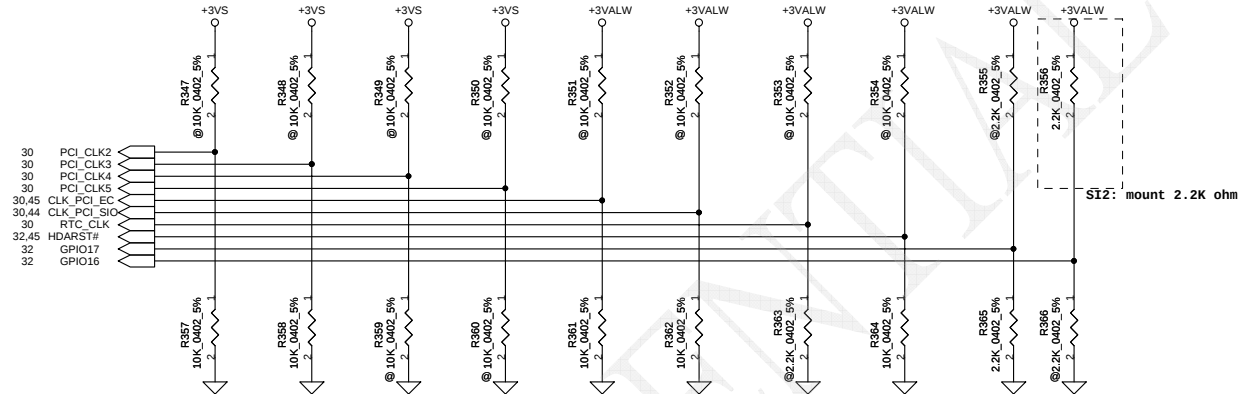
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REQUIRED STRAPS

NOTE: SB700 HAS INTERNAL 15K PULL UP RESISTOR FOR RTC_CLK

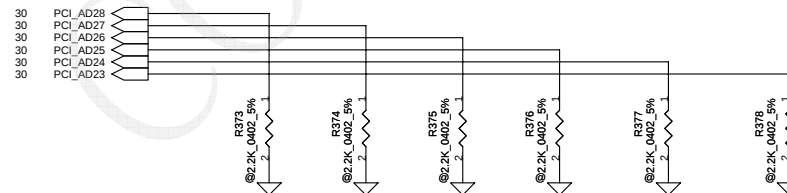
	PCI_CLK2	PCI_CLK3	PCI_CLK4	PCI_CLK5	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST_CD#	GP17	GP16
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED	Internal pull up H,H = Reserved H,L = SPI ROM	
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	EC DISABLED DEFAULT		



DEBUG STRAPS

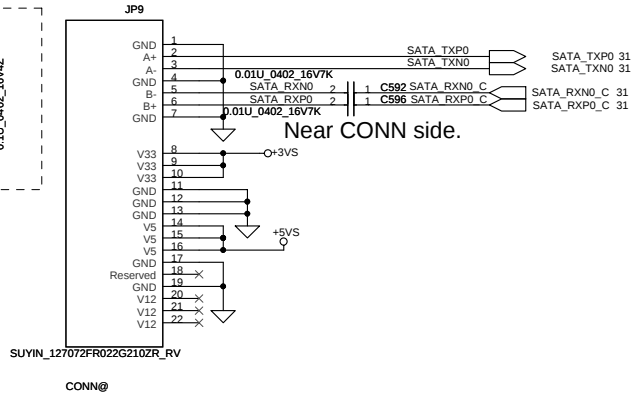
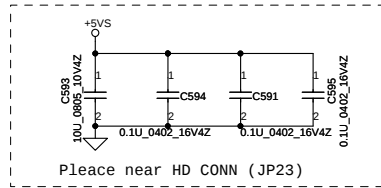
SB700 HAS 15K INTERNAL PU FOR PCI_AD[28:23]

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

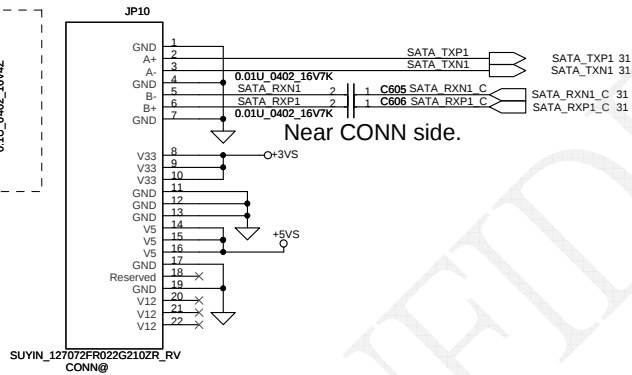
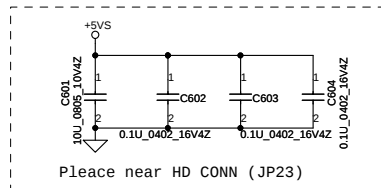


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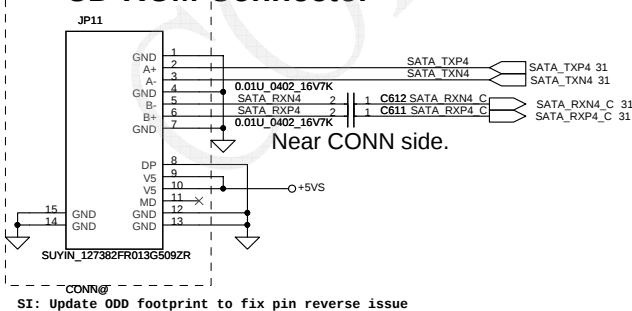
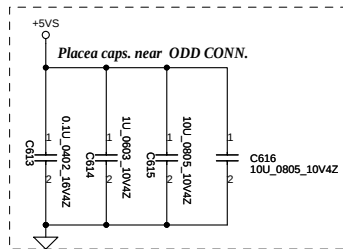
HDD Connector



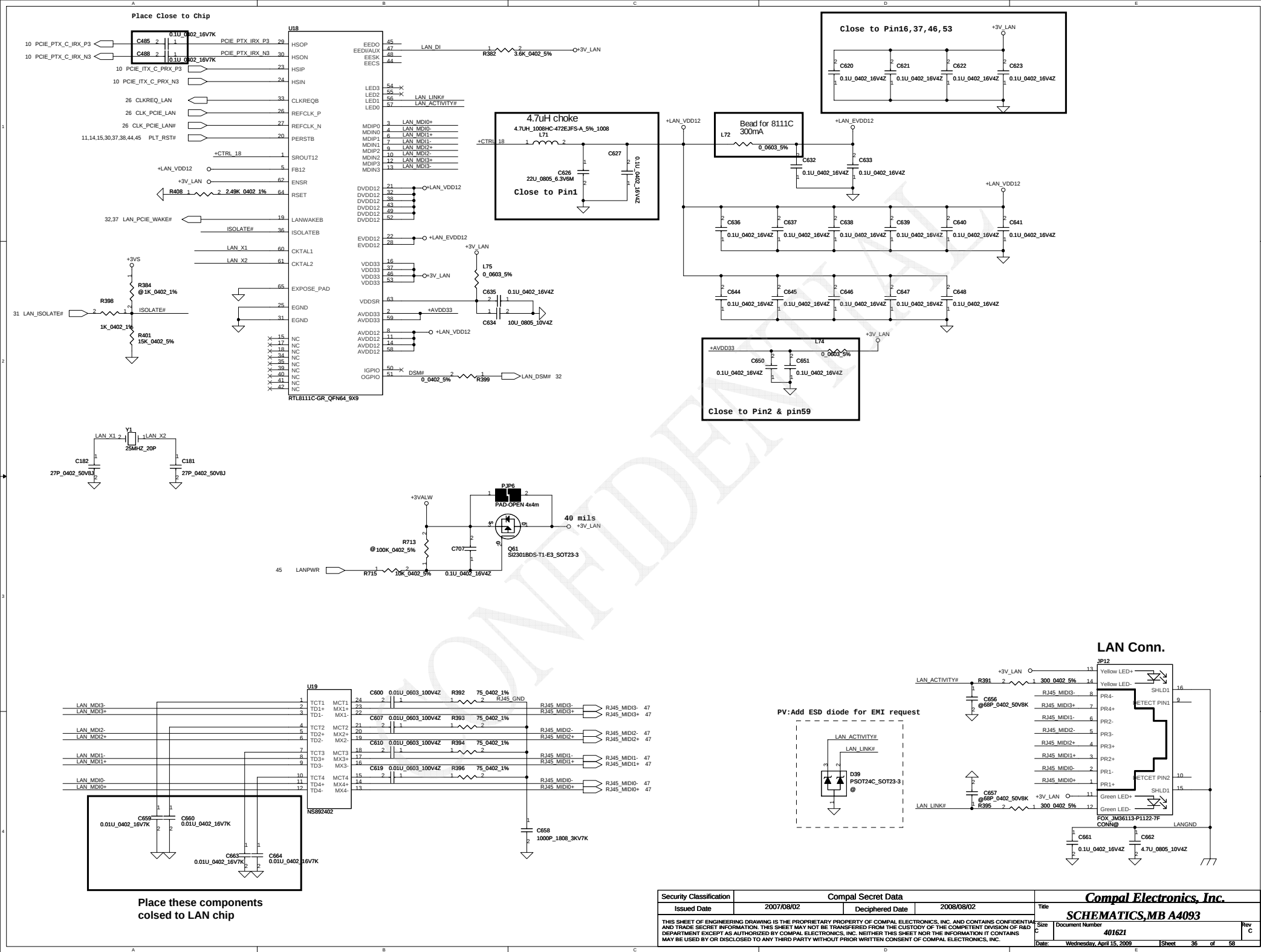
2nd HDD Connector-option



CD-ROM Connector

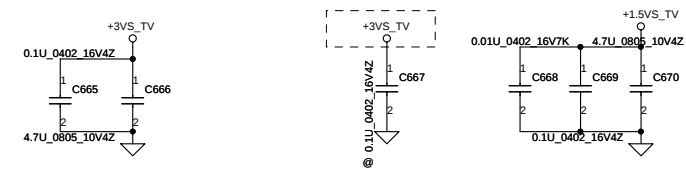


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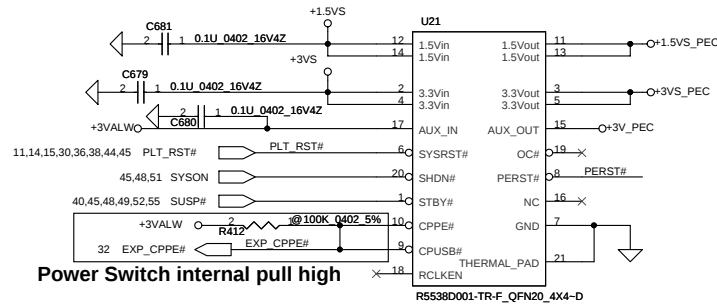


Mini Card---TV tuner

SI2: chagne power plan from +3VALW to +3VS_TV

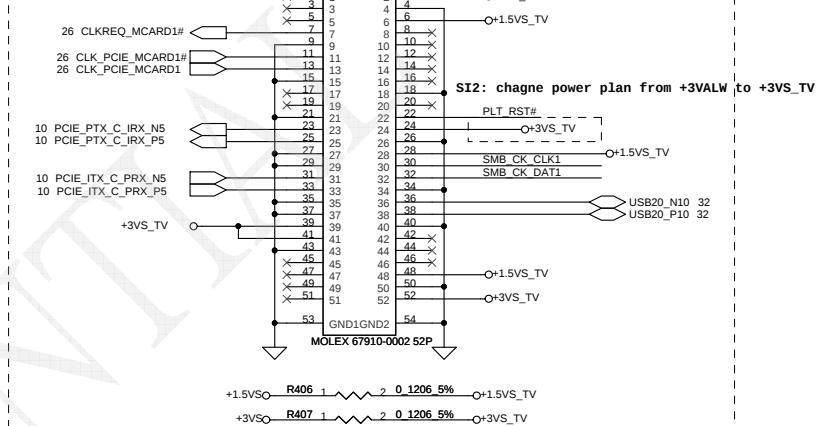


New Card



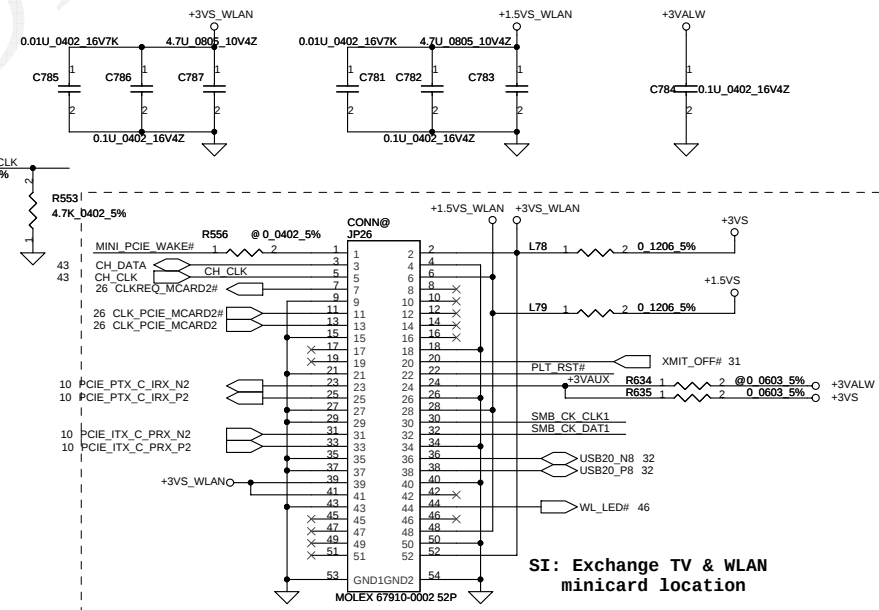
USE TI TPS2231MRGPR

SI: Exchange TV & WLAN minicard location



Mini-Express Card---WLAN

Near to Express Card slot.



SI: Exchange TV & WLAN minicard location

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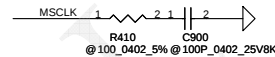
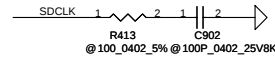
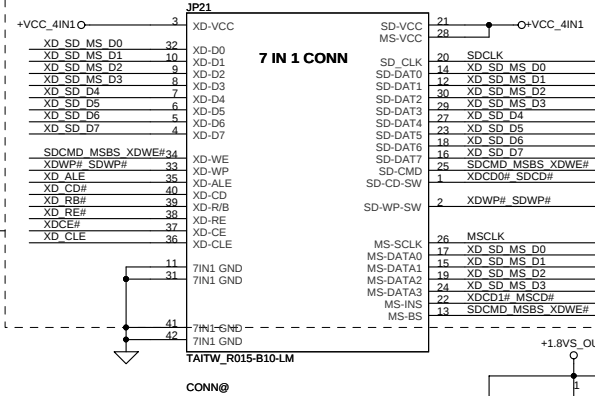
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SI:Per ME request change
JP21 to new one

Card Reader Connector

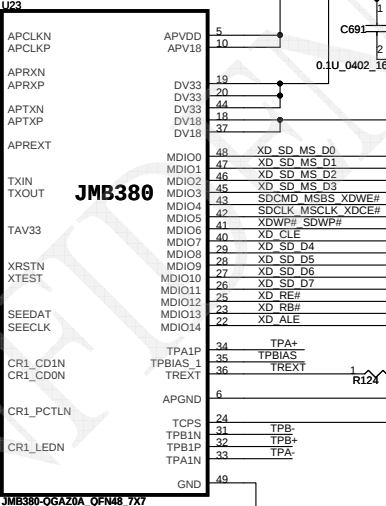


SI:Per Jmicro request change
R405 & R122 from 200K to 10K

SI2:Support D3E function

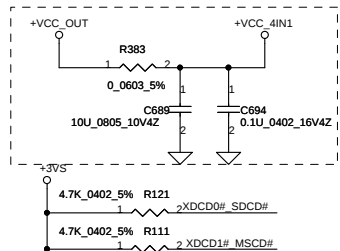
SI:Use build in Regulator
Chip unmount R387

Power Circuit



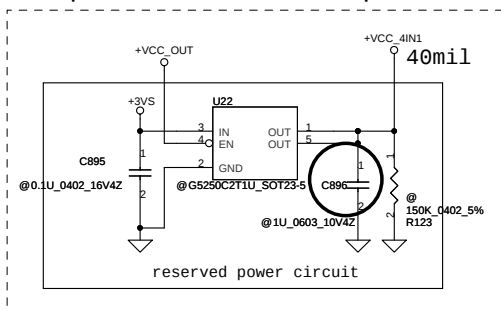
SI2: Use B version chip

SI:Use build in Regulator
Chip mount R383,C689,C694

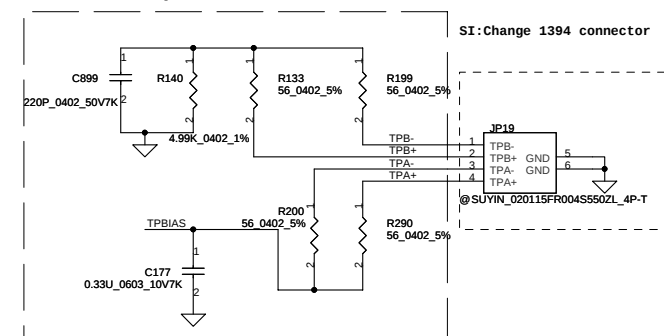


SI:Use new chip, change to
High active control

SI:Use build in Regulator
Chip unmount U22 and relation parts



Close to Chip



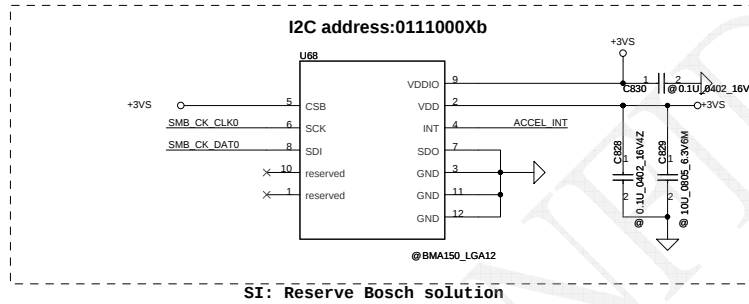
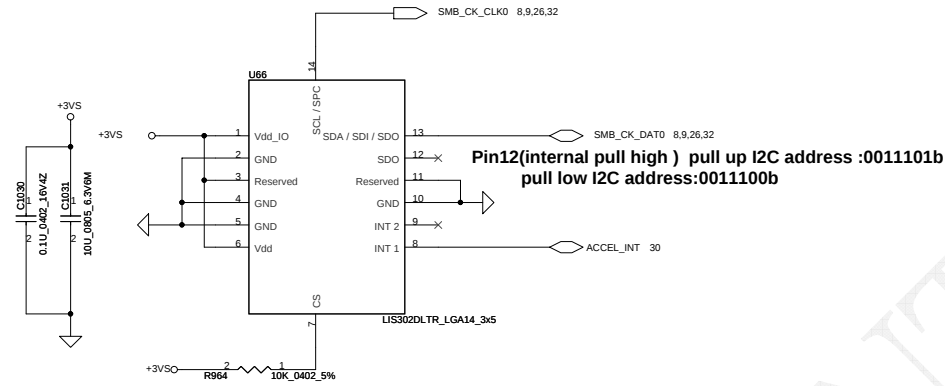
SI:Change 1394 connector

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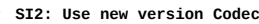
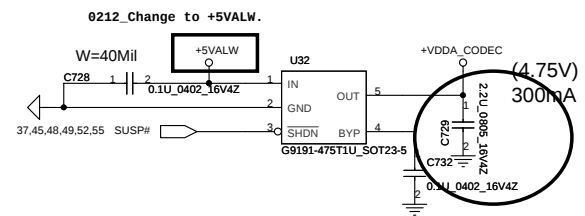
SCHEMATICS, MB A4093

ACCELEROMETER



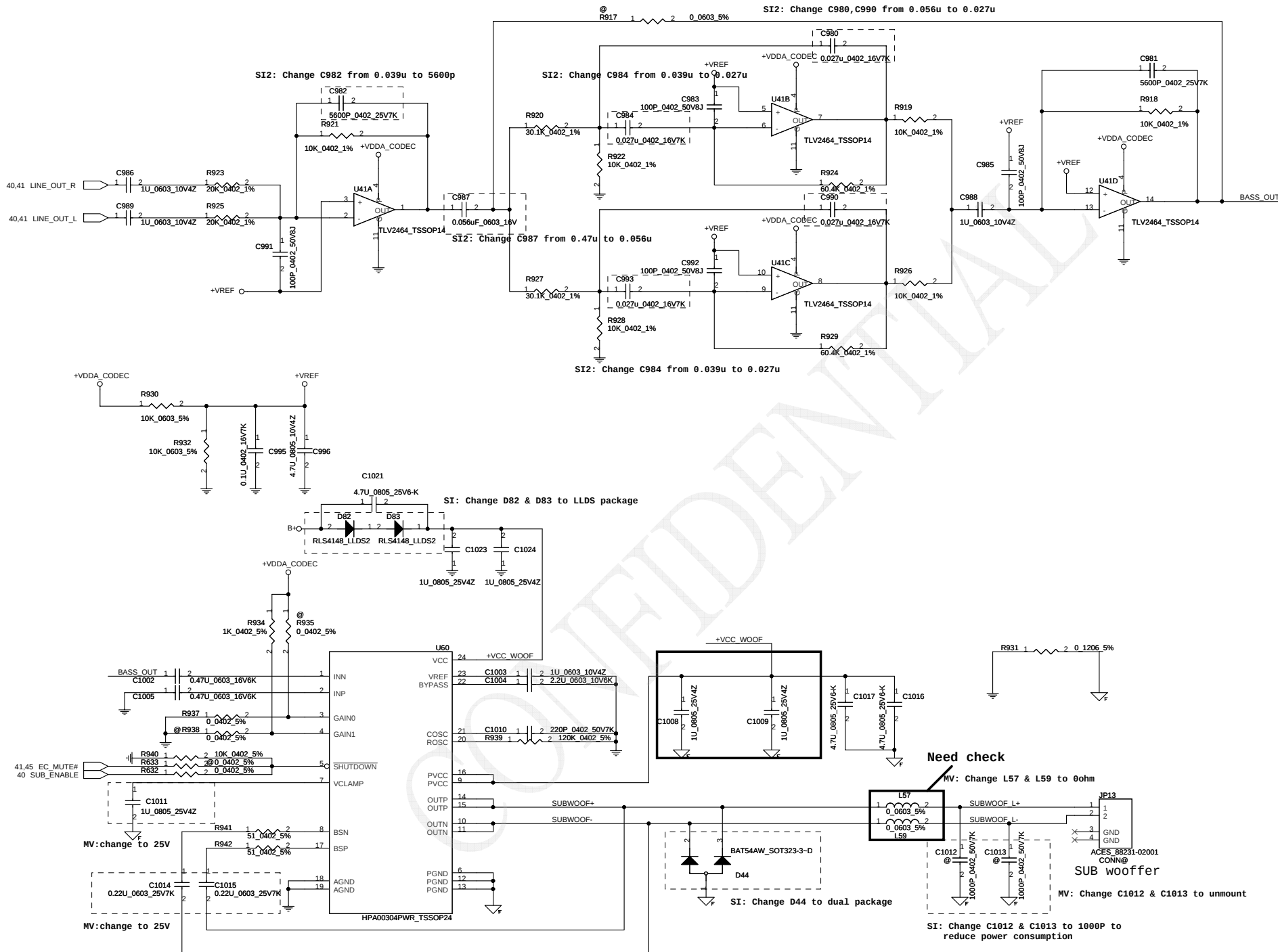
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5VALW



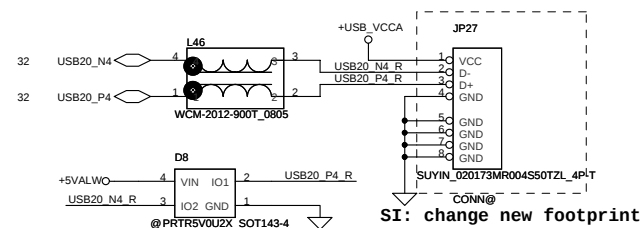
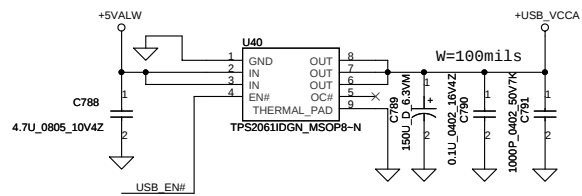
Schematic diagram of a 4-wire RTD circuit. The circuit includes four resistors: R195 (1206 5%), R198 (0.0005 5%), R199 (1206 5%), and R200 (1206 5%). The bridge is powered by a 5V supply. The output is measured between the two midpoints. A 1000pF capacitor (C746) is connected between the 5V supply and the midpoint of the R195/R198 branch. A 1000pF capacitor (C747) is connected between the 5V supply and the midpoint of the R199/R200 branch. A 1000pF capacitor (C748) is connected between the 5V supply and the midpoint of the R198/R199 branch. A 1000pF capacitor (C749) is connected between the 5V supply and the midpoint of the R195/R200 branch. The output is connected to a 4-wire RTD sensor.

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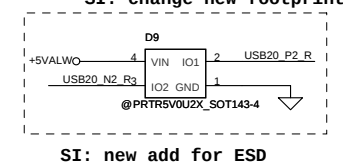
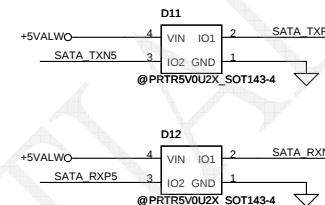
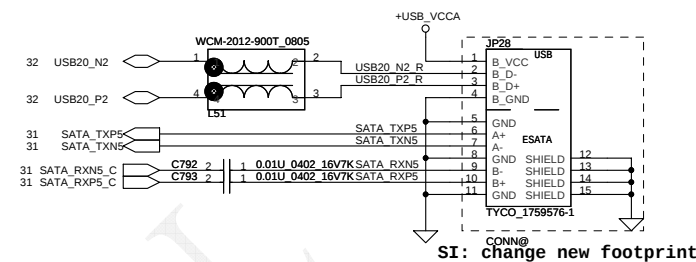


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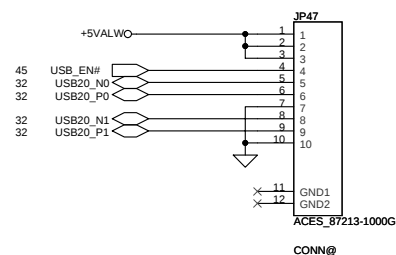
Left side USB CONNECTOR 0



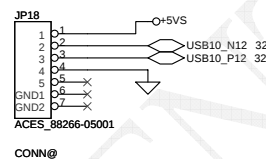
Left side ESATA/USB combination Connector



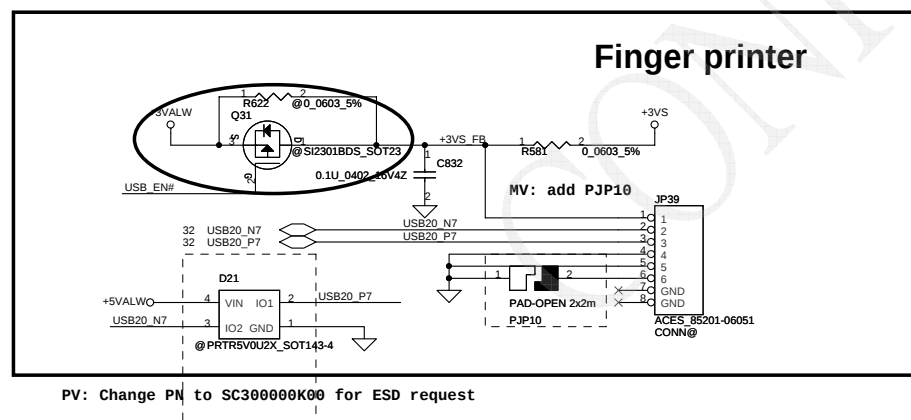
USB Board Conn



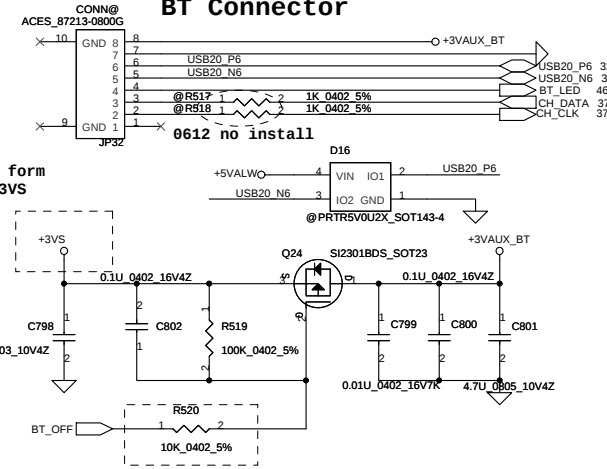
Touch screen



Finger printer



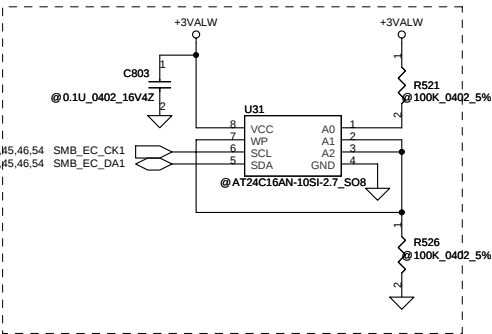
BT Connector



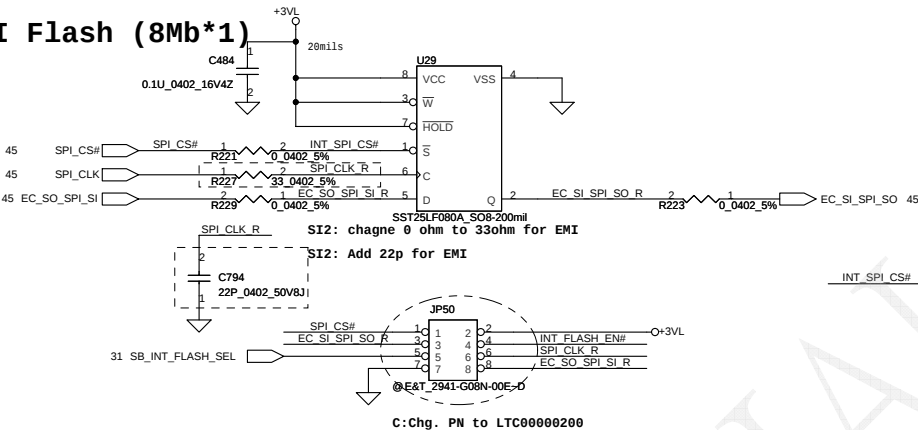
SI: change to 10K ohm to make
sure MOS can turn on

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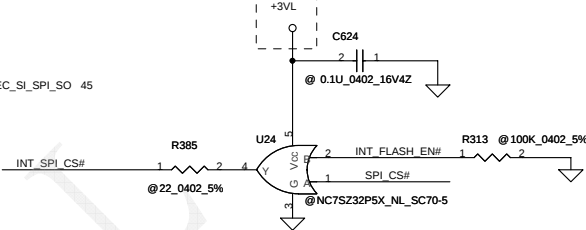
SI2: Change from +3VL to +3VALW and unmount this EEPROM



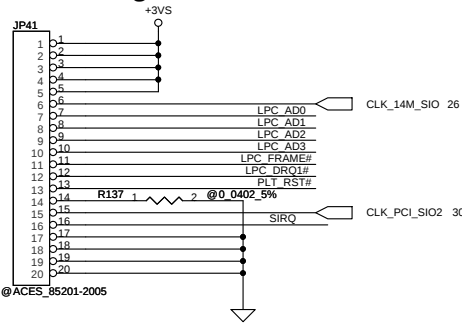
SPI Flash (8Mb*1)



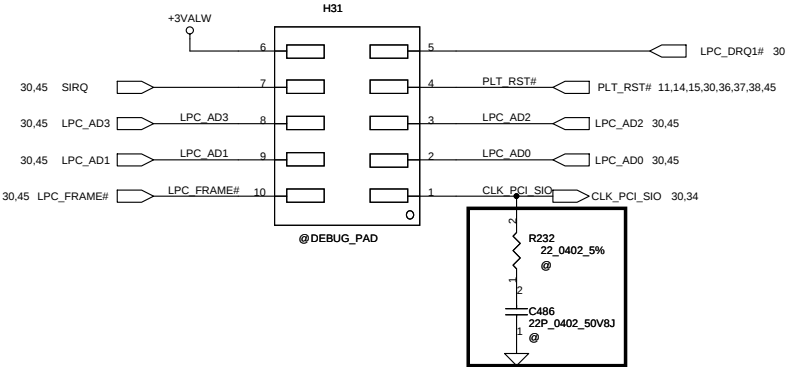
SI2: Change from +3VALW to +3VL



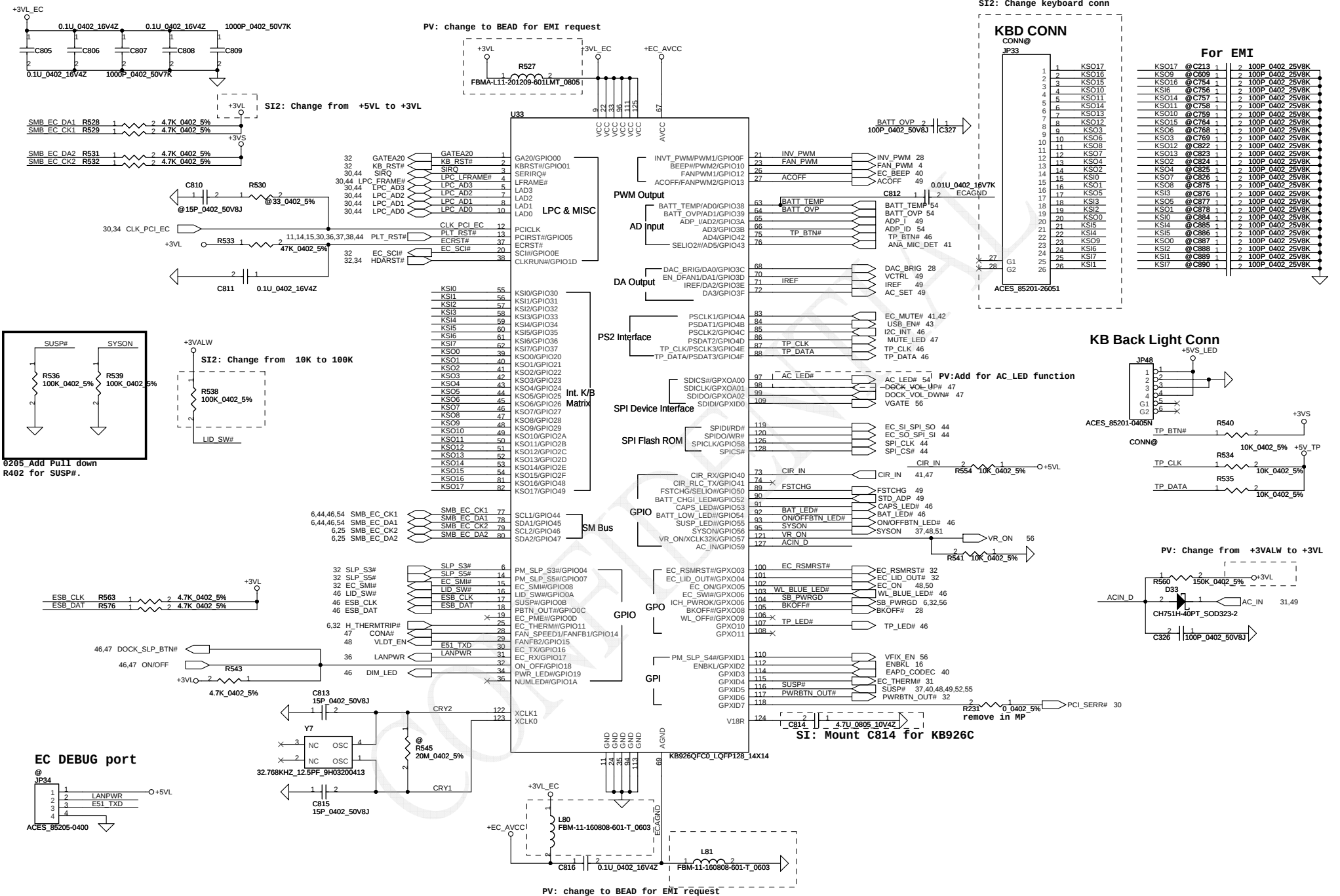
LPC Debug Port



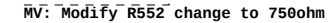
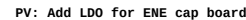
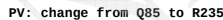
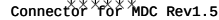
LPC Debug Port



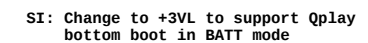
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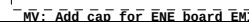
Change type 4/25



MV: Modify R551 & R559 to 470 ohm



SI2: add 4.7u for
Cypress cap board



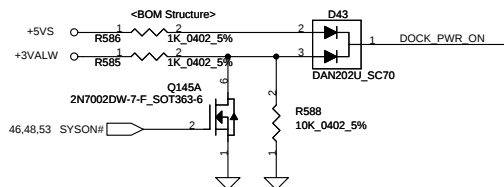
Compal Electronics, Inc.

SCHEMATICS,MB A4093

401621

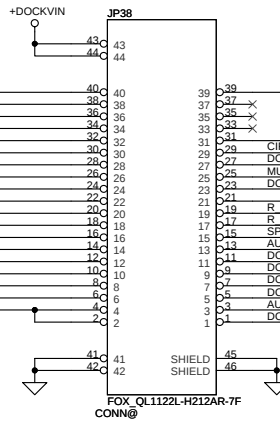
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Atlas/ Saturn Dock

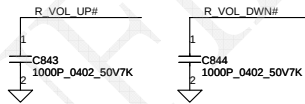
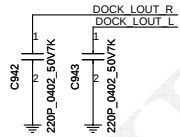
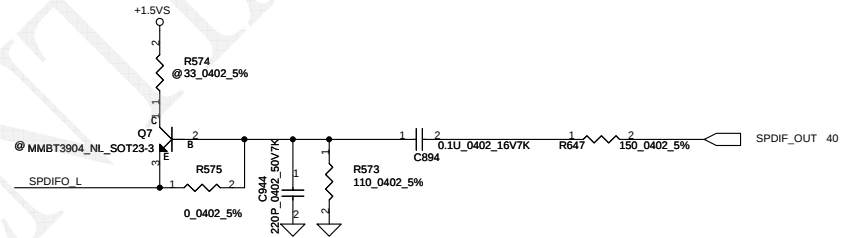
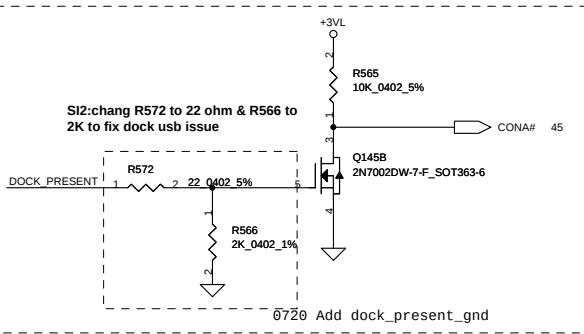
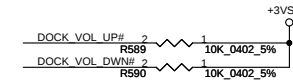


DOCK_PWR_ON Spec
0V = Notebook S4/S5, Dock off
2.5V = Notebook S3, Dock on
4V = Notebook S0, Dock on

27 GREEN_L
27 RED_L
27 BLUE_L
27 D_HSYNC
27 D_DDCLK
32 USB20_N3
27 D_VSYNC
32 USB20_P3
36 RJ45_MIDI3+
36 RJ45_MIDI3-
36 RJ45_MIDI2+
36 RJ45_MIDI2-
36 RJ45_MIDI1+
36 RJ45_MIDI1-
36 RJ45_MIDI0+
36 RJ45_MIDI0-
PJP5
@ PAD-OPEN 2x2m

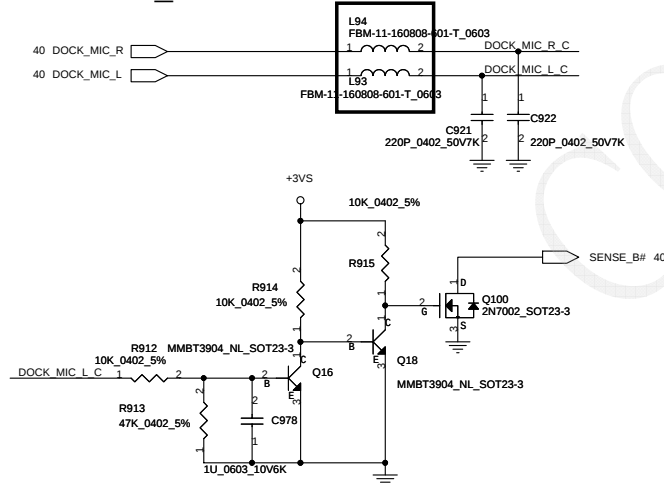


need change to reverse type connector



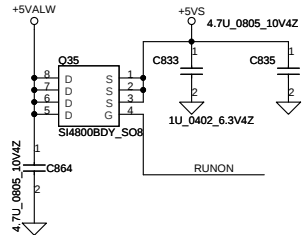
MIC_Dock

Need 600 Ohm 500 mA

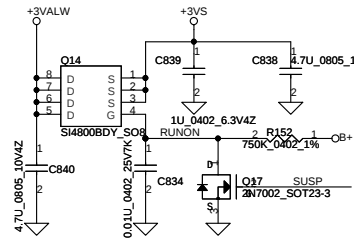


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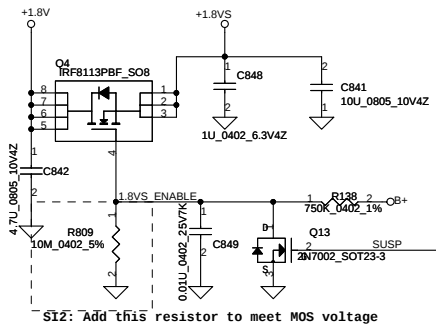
+5VALW TO +5VS



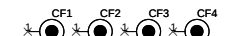
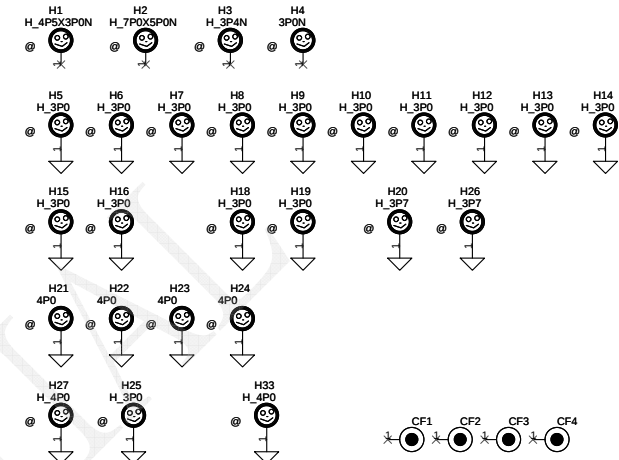
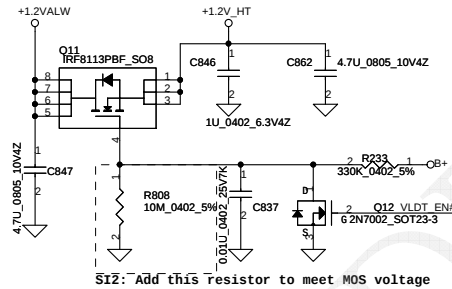
+3VALW TO +3VS



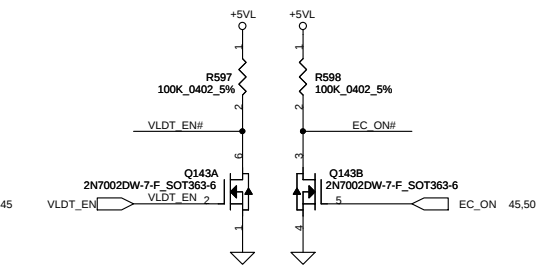
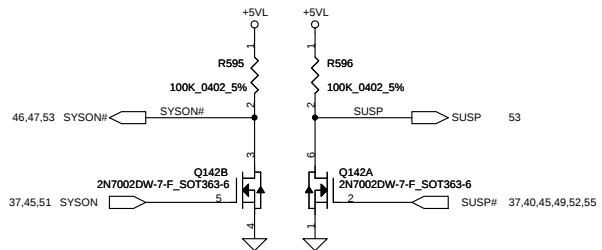
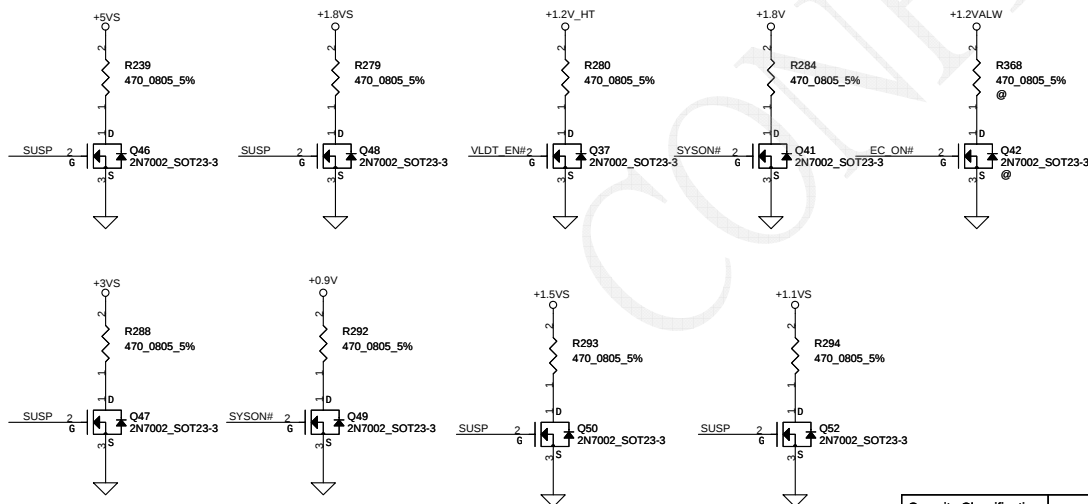
+1.8V TO +1.8VS



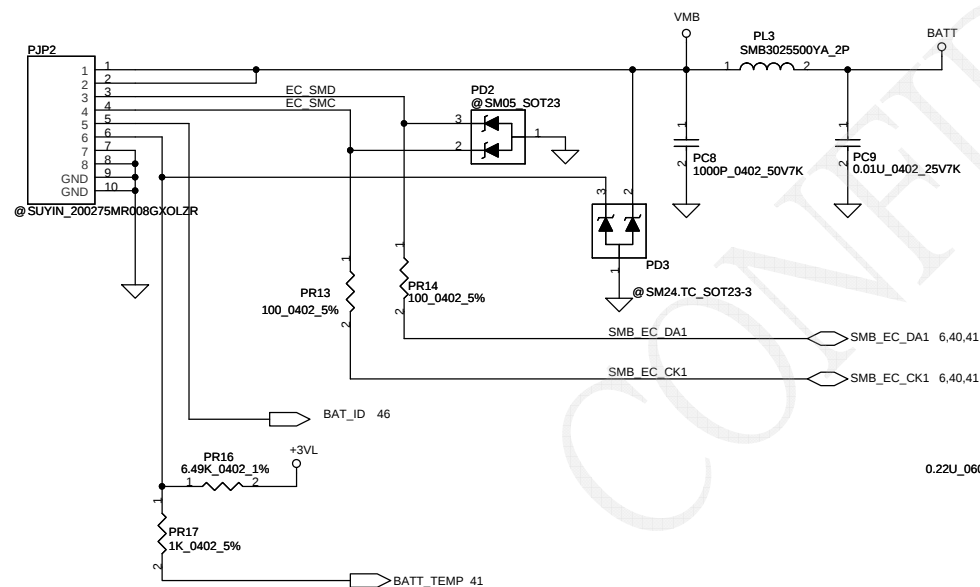
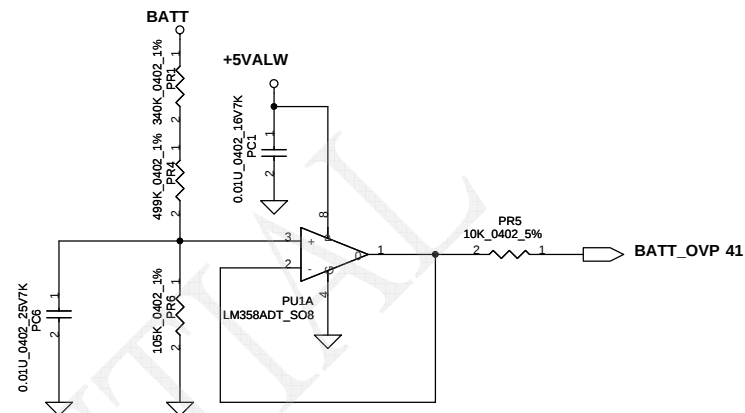
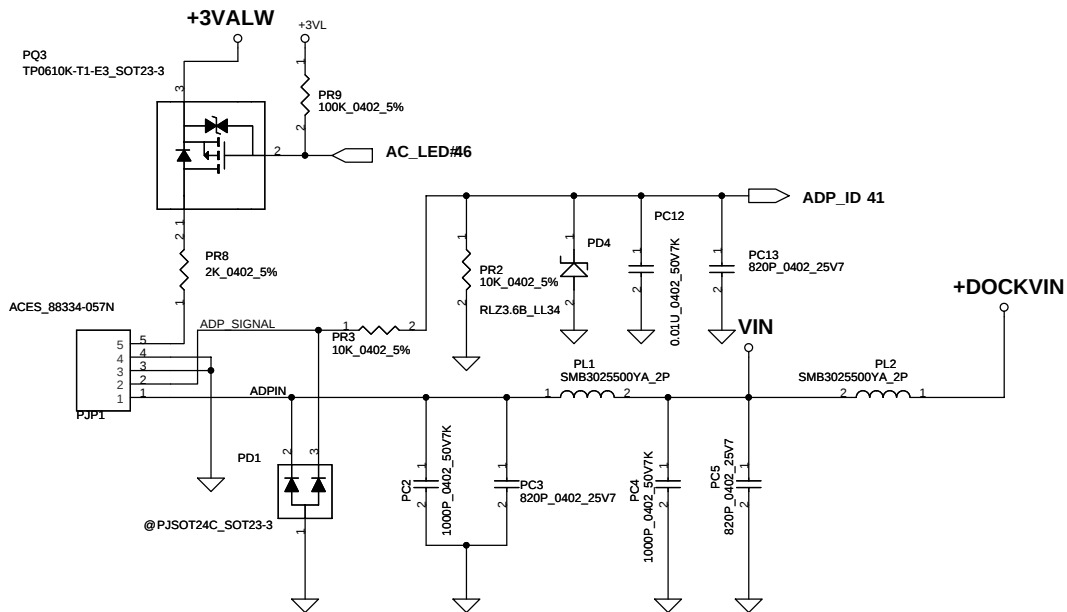
+1.2VALW TO +1.2V_HT



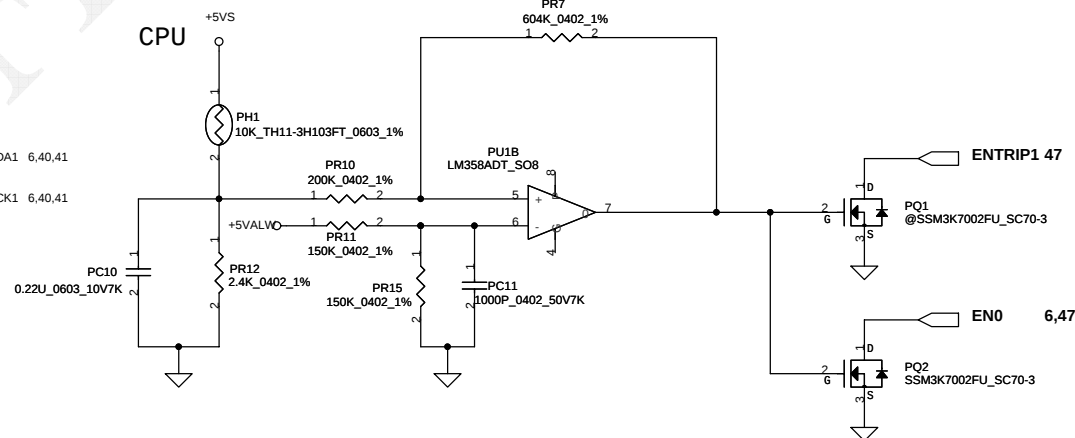
Discharge circuit



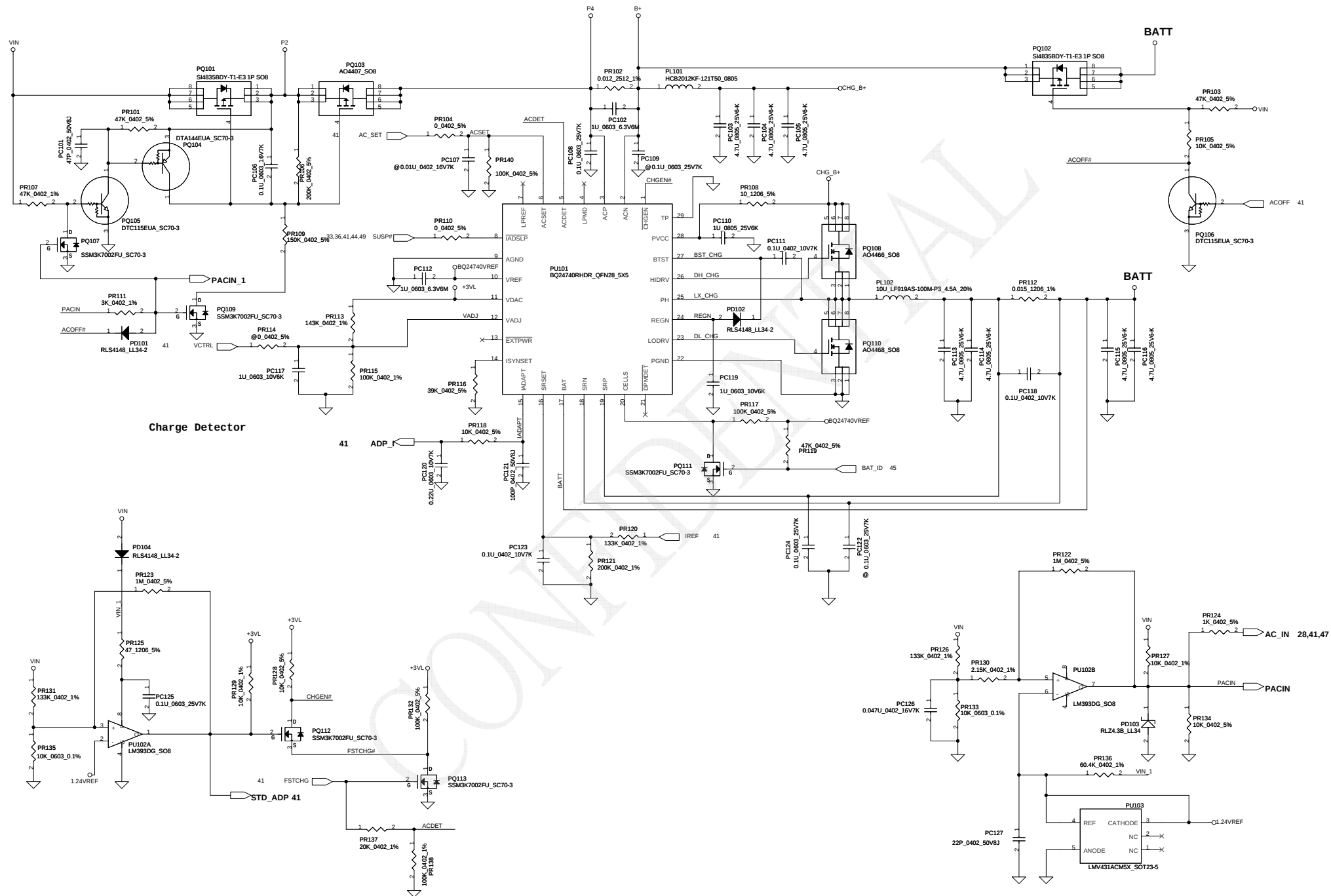
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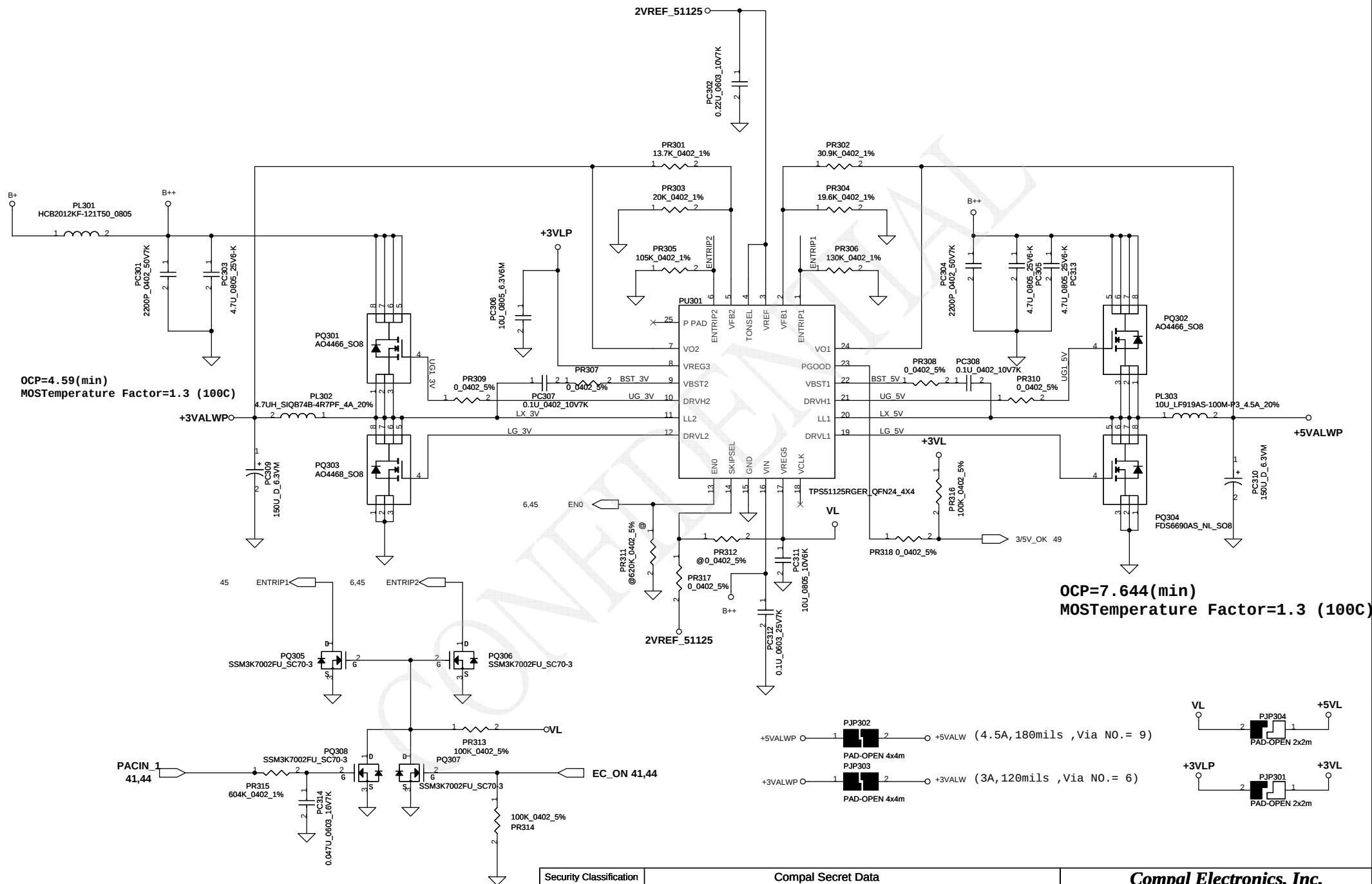


PH1 under CPU bottom side :
CPU thermal protection at 90 +-3 degree C

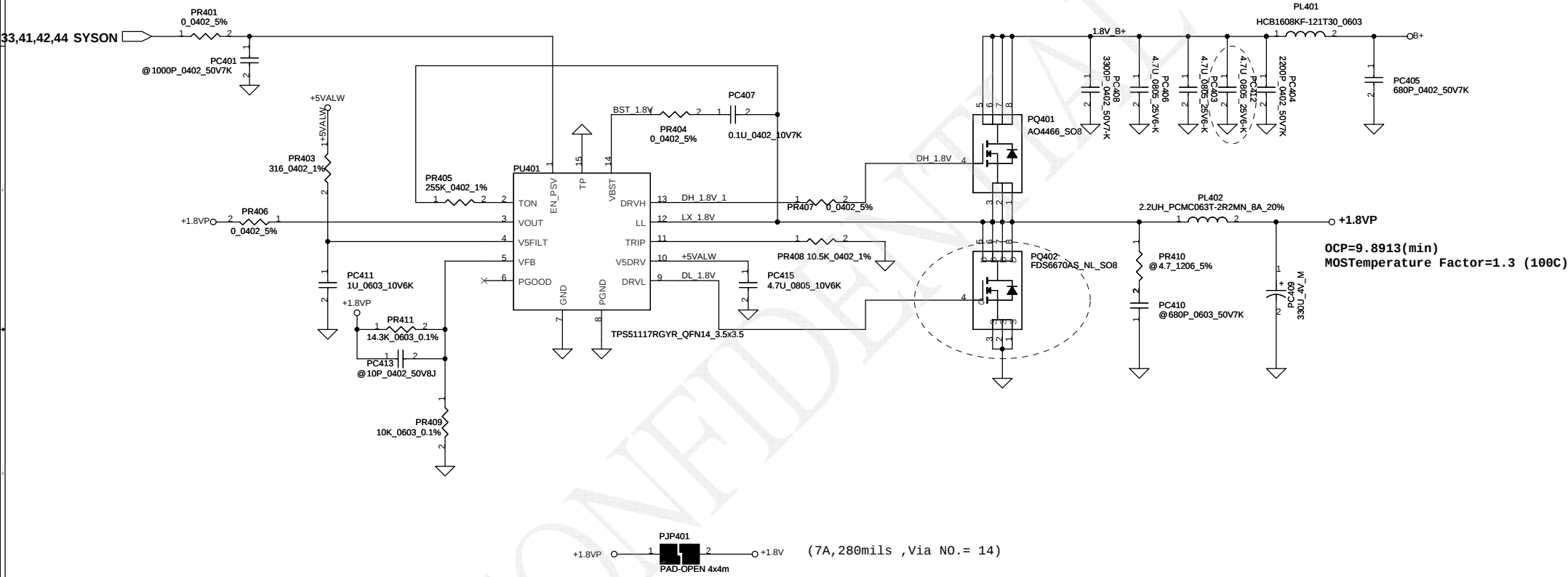


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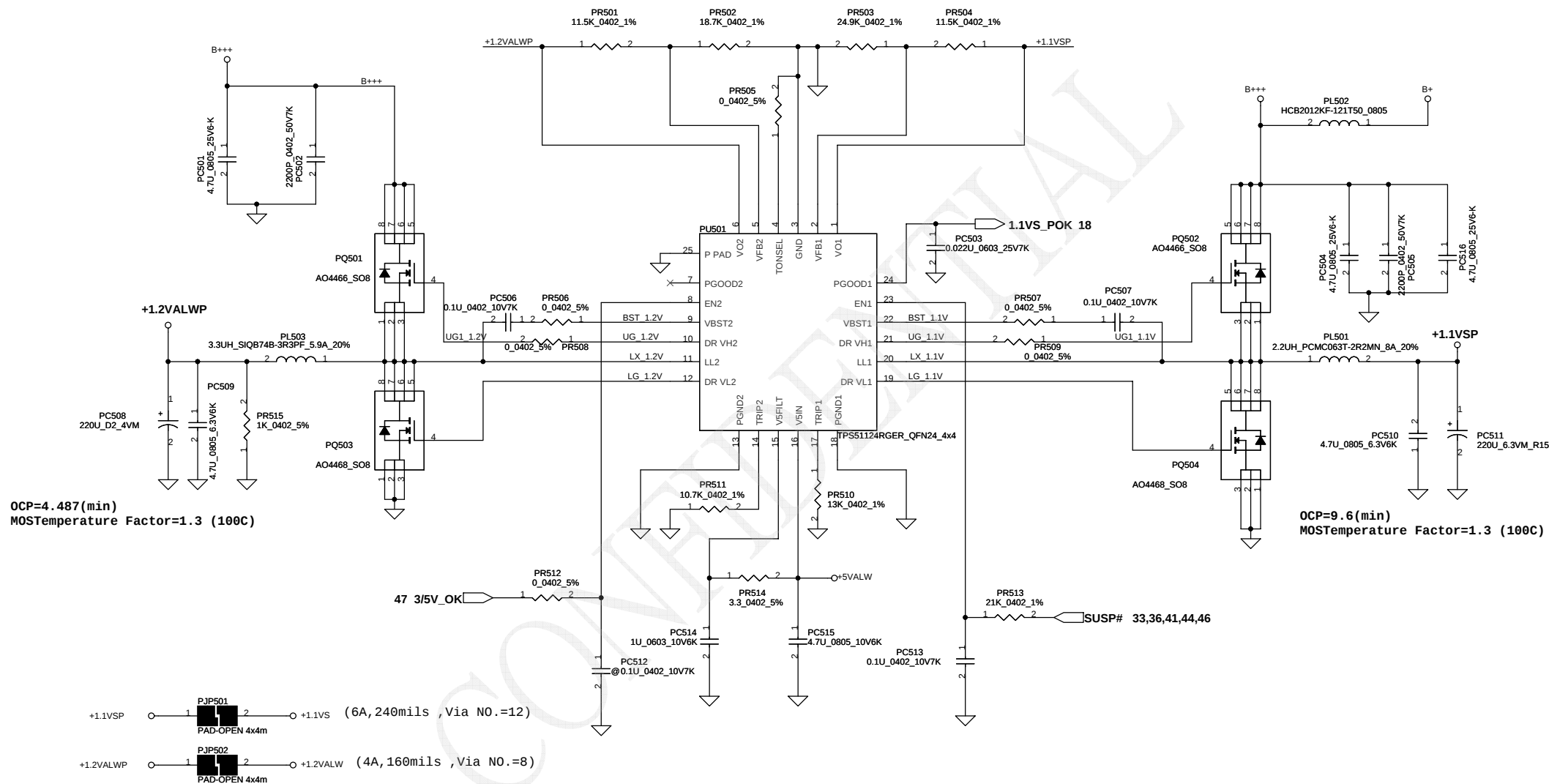




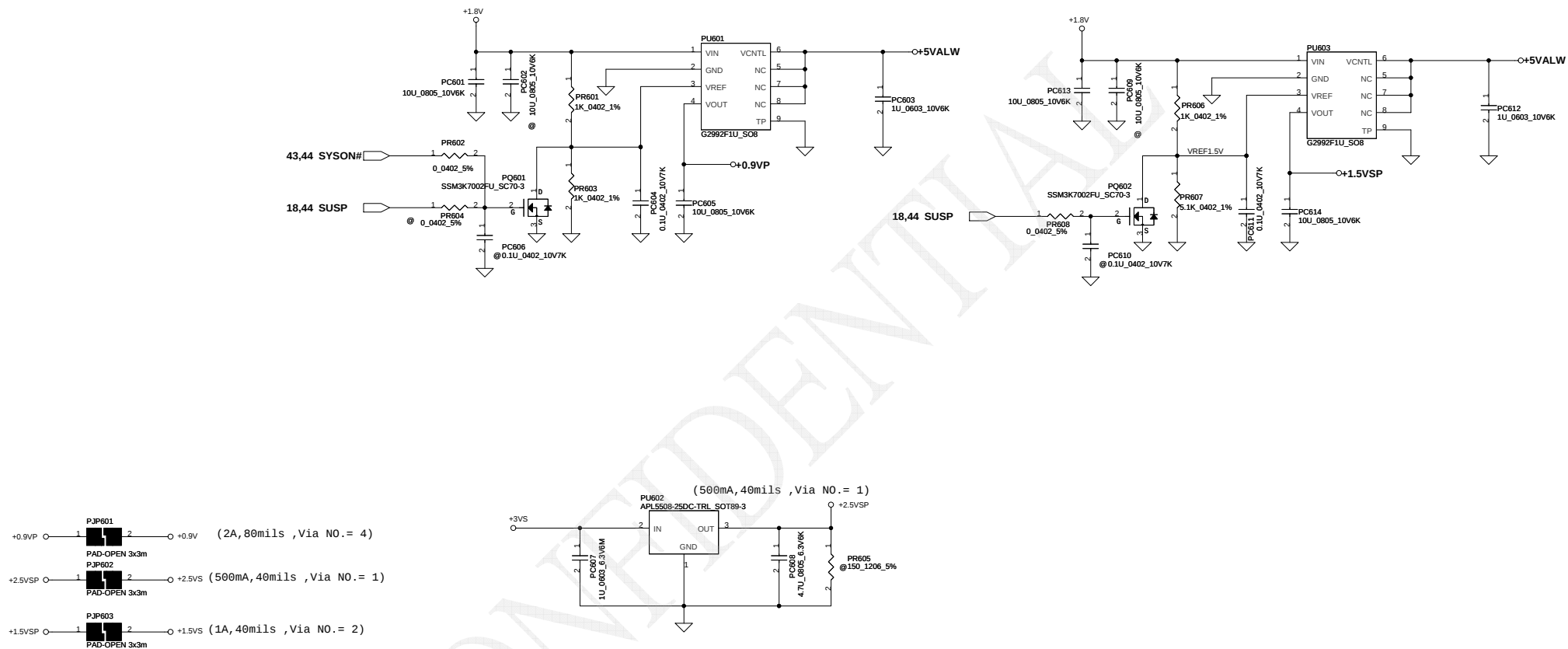
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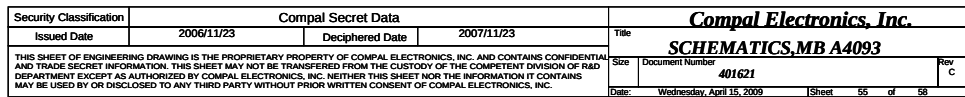
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Item	Modify List	PAGE	Fixed Issue and change item	M.B. Ver.
1	Remove Q23 (2N7002)	41	HP OUT For Docking	1.1
2	ADD R936 R937 (0 ohm)	41	HP OUT For Docking	1.1
3	Remove U5 (M82-S)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
4	Remove U54	15,16,17 18,19,20,21	change M82S TO M86M	1.1
5	Remove Q8(S12301B05)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
6	Remove Q9(2N7002)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
7	Remove R149 (240 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
8	Remove L32,L33 (0 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
9	Remove R42,R625,R630 (0 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
10	Remove R109 (100 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
11	Remove R131,R142 (1K ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
12	Remove R120,R130,R190,R197,R243,R244,R245,R246(10K ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
13	Remove R151 (10Kohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
14	Remove R145,R146,R147,R241,R242,R403 (4.7Kohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
15	Remove R159,R160,R165,R166(56 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
16	Remove R143,R144,R148,R150 (100 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
17	Remove R109 (1.27K ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
18	Remove R112 (150 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
19	Remove R108 (2K ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
18	Remove R1136 (249 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
20	Remove R119,R132 (499 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
21	Remove R155,R156,R157,R158,R161,R162,R163,R164 (4.99Kohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
22	Remove R135 (715 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
23	Remove R177 (75 ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
24	Remove C254,C255,C256,C257,C258,C259,C260,C261,C262,C263,C264,C265,C266,C267,C268,C269,C270,C271,C272,C273,C274,C275,C276,C277,C278,C279,C280,C281,C282,C283,C284,C285 (0.1u)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
25	Remove C478 (220U)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
26	Remove L23,L24,L25,L26,L27,L28,L29,L30,L31,L34,L35,L36,L37,L38,L39,L40,L41,R110,R115 (RLM18P01219K10)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
27	Remove C284,C295,C296,C299,C302,C303,C308,C307,C310,C313,C318,C319,C322,C330,C331,C332,C335,C337,C341,C361,C356,C359,C364,C386,C373,C307,C306,C300,C307,C395,C396,C405,C413,C418,C429,C438,C437,C590 (10 U)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
28	Remove C287,C288,C290,C292,C297,C300,C308,C308,C311,C313,C317,C320,C323,C325,C328,C329,C335,C344,C358,C362,C391,C393,C397,C398,C400,C402,C403,C408,C409,C410,C411,C415,C417,C418,C419,C421,C423,-- C425,C426,C431,C432,C433,C434,C439,C440,C441,C442,C598 (0.1 U)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
29	Remove C288,C317,C336,C340,C342,C343,C345,C345,C352,C353,C354,C355,C360,C361,C362,C363,C365,C370,C371,C372,C374,C375,C376,C377,C387,C388,C393,C396,C289,C291,C293 C296,C301,C304,C309,C313,C316,C321,C324,C333,C334,C335,C347,C348,C349,C350,C357,C365,C366,C367,C378,C379,C381,C383,C384,C385,C389,C399,C401,C407,C415,C422,C424,C430,C438,C597(1U)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
30	Remove U12 (ADM10A2ARZ)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
31	Remove R330(4.7K ohm)	15,16,17 18,19,20,21	change M82S TO M86M	1.1
32	Remove C466 (0.1u)	38	Fix CR_LED	1.1
33	Remove C467 (220P)	38	Fix CR_LED	1.1
34	Remove Q53(2N7002)	38	Fix_XD_ALE	1.1
35	ADD R933(0 ohm)			
36	ADD R127(10Kohm)			

