

# Compal confidential

## Schematics Document

Mobile Merom uFCPGA with Intel  
Crestline\_PM+ICH8-M core logic

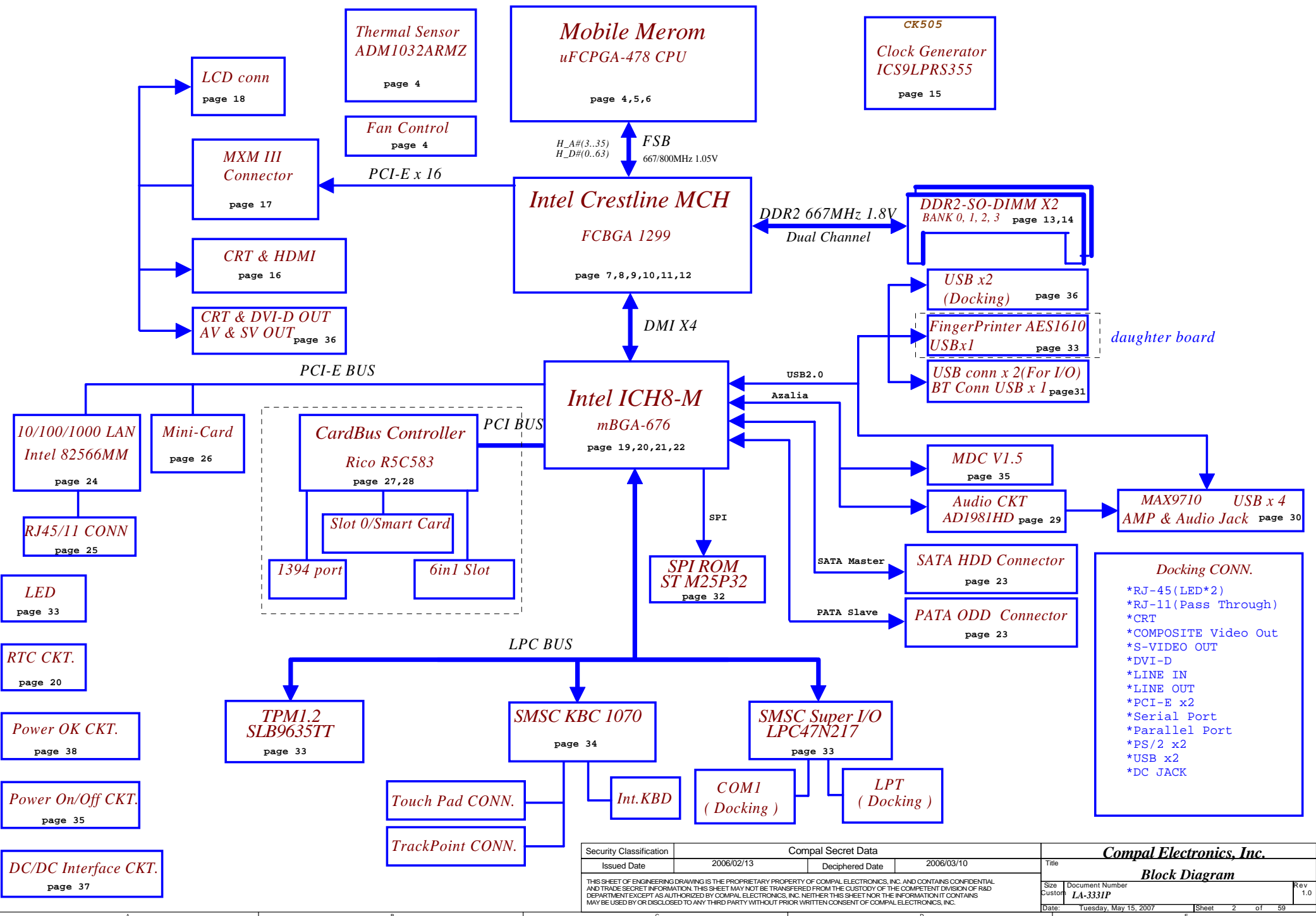
2007-05-15

REV:1.0



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# ABITA



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								<b>Block Diagram</b>	
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## Voltage Rails

power plane State	+B LDO3 LDO5	+5VALW +3VALW	+3VM +1.25VM +1.05VM	+5V +1.8V +0.9V	+5VS +3VS +1.8VS +1.5VS +1.25VS +CPU_CORE +VCCP
S0	O	O	O	O	O
S1	O	O	O	O	O
S3	O	O	O	O	X
S5 S4/AC	O	O	O	X	X
S5 S4/ Battery only	O	X	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X	X

O MEANS ON X MEANS OFF

## PCI Devices

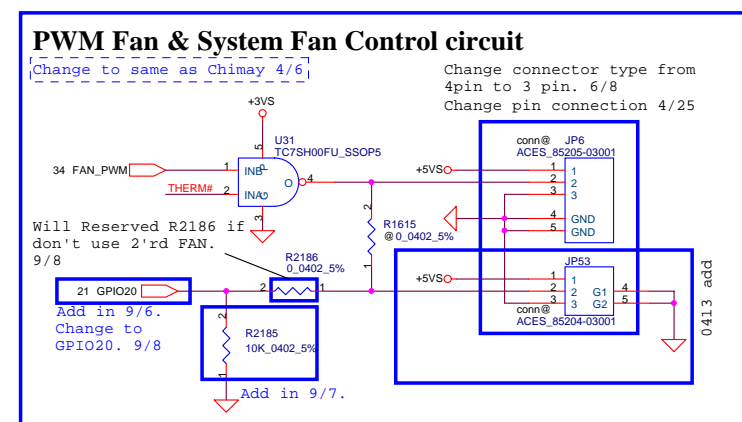
EXTERNAL	IDSEL#	REQ/GNT#	PIRQ
CARD BUS & 1394	AD22	2	C,D,E,G

DMA Channel	Device
DMA0	MODEM / LAN
DMA1	ECP
DMA2	FLOPPY DISK
DMA3	AUDIO
DMA4	(Cascade)
DMA5	Unused
DMA6	Unused
DMA7	Unused

USB PORT#	Destination
0	M/B
1	Finger Printer
2	M/B
3	On Audio Board
4	On Audio Board
5	On Audio Board
6	Blut Tooth
7	Docking
8	On Audio Board
9	Docking

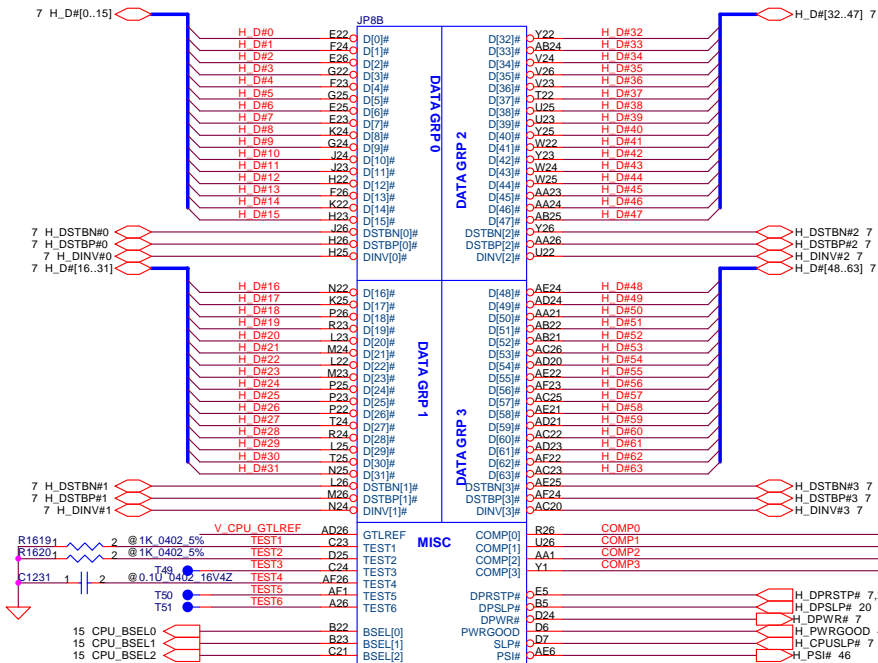
IRQ	Device
0	System Timer
1	Keyboard
2	N/A
3	Serial port (COM2),LAN/Modem
4	Serial port (COM1)
5	Audio/VGA
6	<del>Floppy</del>
7	Parallel port
8	System CMOS/Real-time clock
9	Microsoft ACPI
10	N/A,Momem,LAN
11	Mass stororage control/ PCI simple communication control
12	synactic PS2 port GlidePAD
13	Numeric Data Process
14	Primary IDE interface,HDD
15	Secondary IDE innterface,CD-ROM
16	Mobile Intel Crestline Express Chipset Family Microsoft UAA Bus Driver for High Definition Audio Intel 82801H (ICH8 Family) PCI Express Root Port -27D0 Broadcom NetXtreme Gigabit Ethernet
17	Intel 82801H (ICH8 Family)PCI Express Root Port - 27D2 Broadcom 802.11b/g WLAN Intel 82801H (ICH8 Family)USB Universal Host Controll
18	Intel 82801H (ICH8 Family)USB Universal Host Controll Ricoh R5C853 Cardbus Control Ricoh R5C853 Integrates FlashMedia Control Ricoh R5C853 Gemcore based SmartCard Control
19	Intel 82801H (ICH8 Family)PCI Express Root Port - 27D6 Intel 82801H (ICH8 Family)USB Universal Host Controll
20	Intel 82801H (ICH8 Family)USB Universal Host Controll Intel 82801H (ICH8 Family)USB2 Enhanced Host Controll
21	Intel 82801H (ICH8 Family)USB Universal Host Controll
22	SDA Standard Compliant SD Host Controller
23	HP Mobile Data Protection Sensor

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Change to same as Chimay 4/6

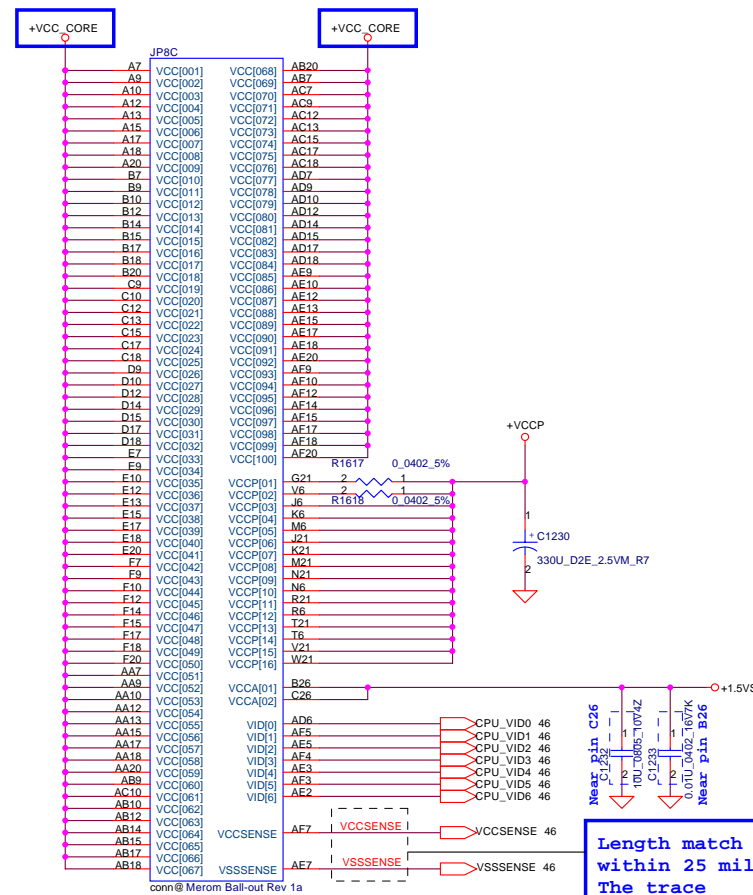
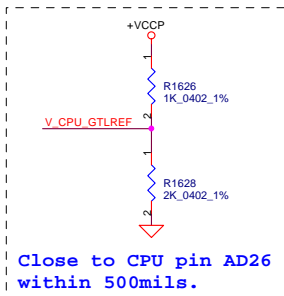
Security Classification	Compal Secret Data			<i>Compal Electronics, Inc.</i> <b>Merom(1/3)-AGTL+XDP</b>		
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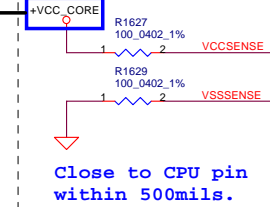
layout note: Route TEST3 & TEST5 traces on ground referenced layer to the TPs

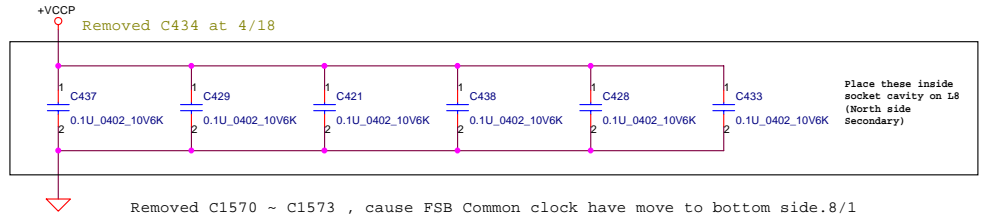
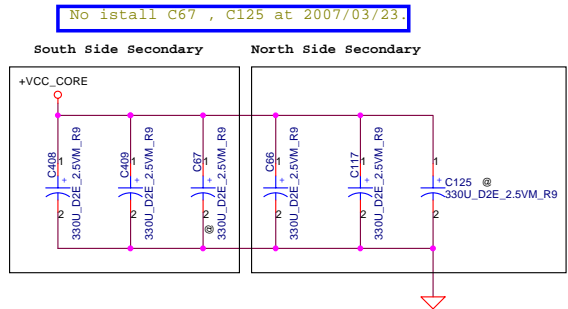
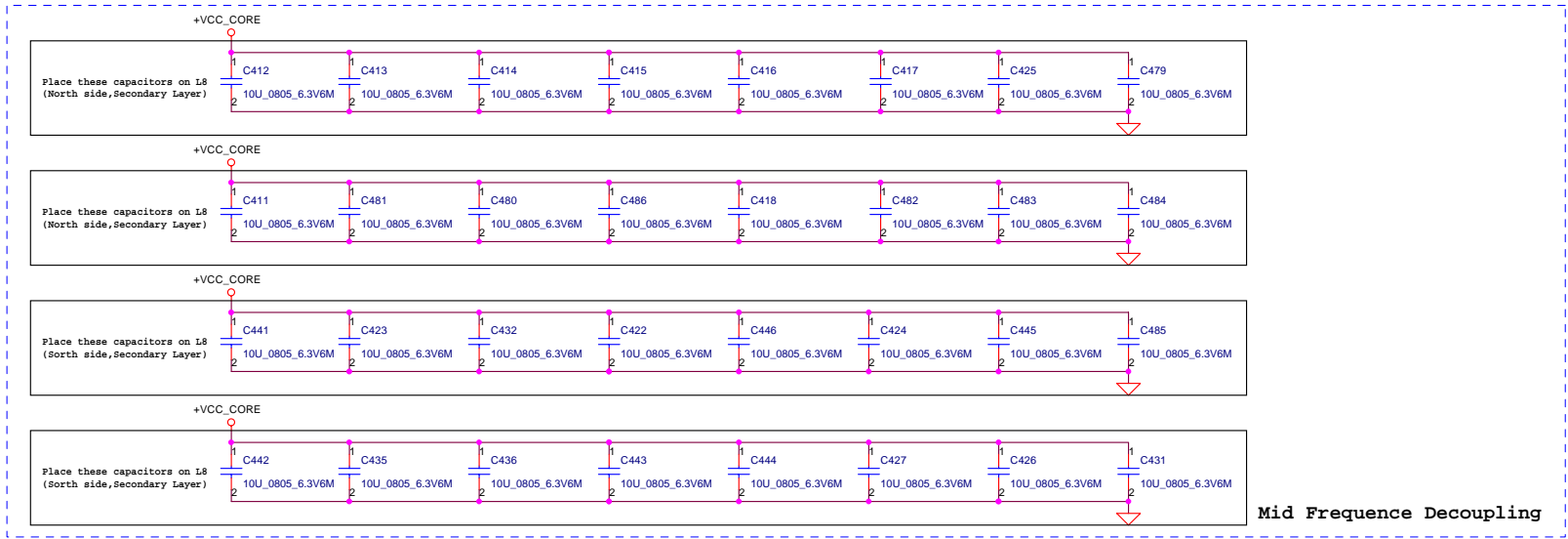
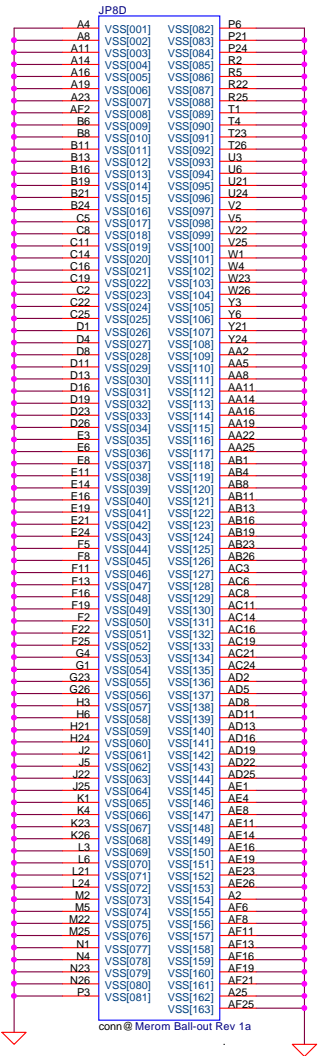
CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
166	0	1	1
200	0	1	0

Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal. COMP[0,2] trace width is 18 mils. COMP[1,3] trace width is 4 mils.



Correct net name 6/16

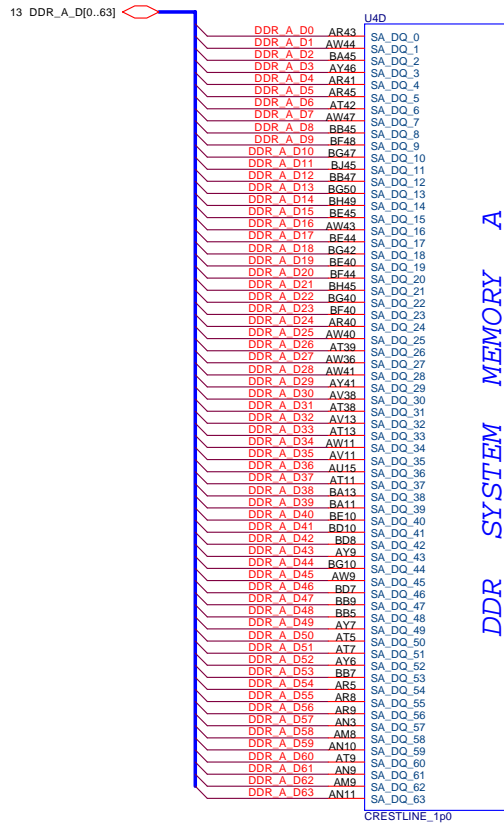




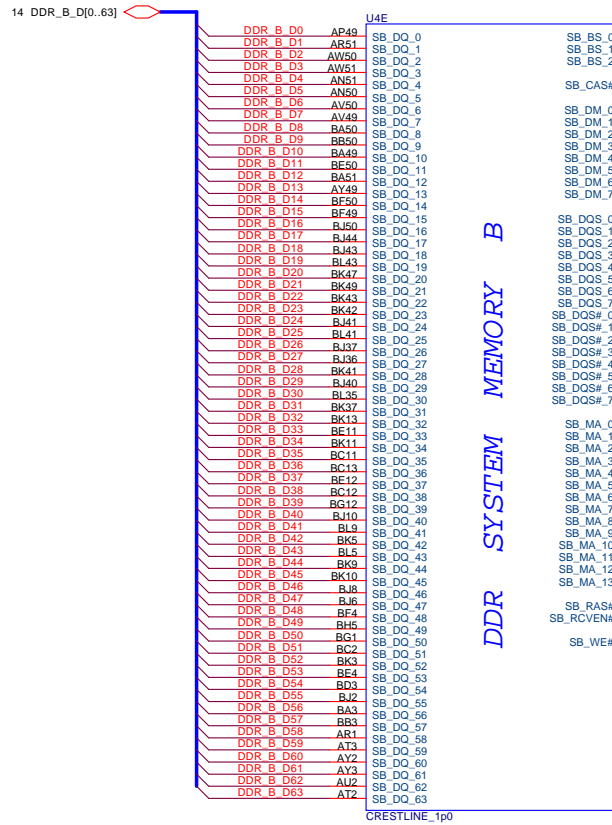
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DDR SYSTEM MEMORY A



DDR SYSTEM MEMORY B

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Del R1685 and D58 cause duplicate on P10. 6/28

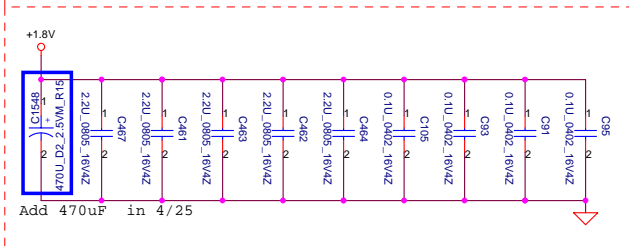
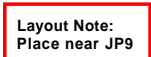


Del C1339 ~ C1343 in 4/27.

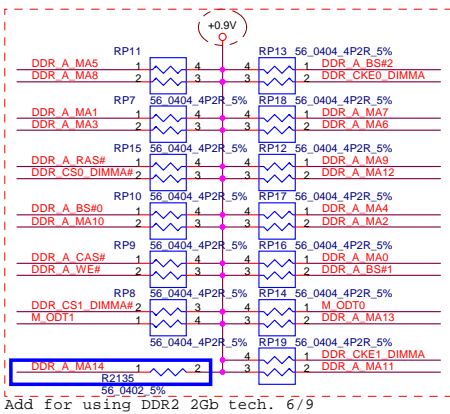
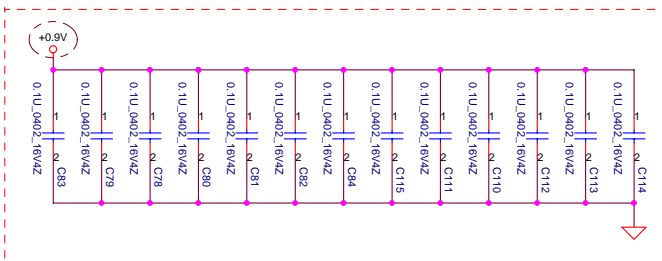
The schematic diagram illustrates the power supply section of the RCU, featuring four parallel channels. Each channel is powered by a 3V5 input, which passes through a 100K\_0402\_5% resistor (R2049, R2050, R2051, R2052) and a 47µF capacitor (labeled 'Change in 4/24'). The MOSFETs (Q114, Q115, Q116, Q117) are driven by MCHGND1 through MCHGND4. The output of each channel is connected to a common output line labeled CRACK\_BGA. The output voltage is 22.34V.

A

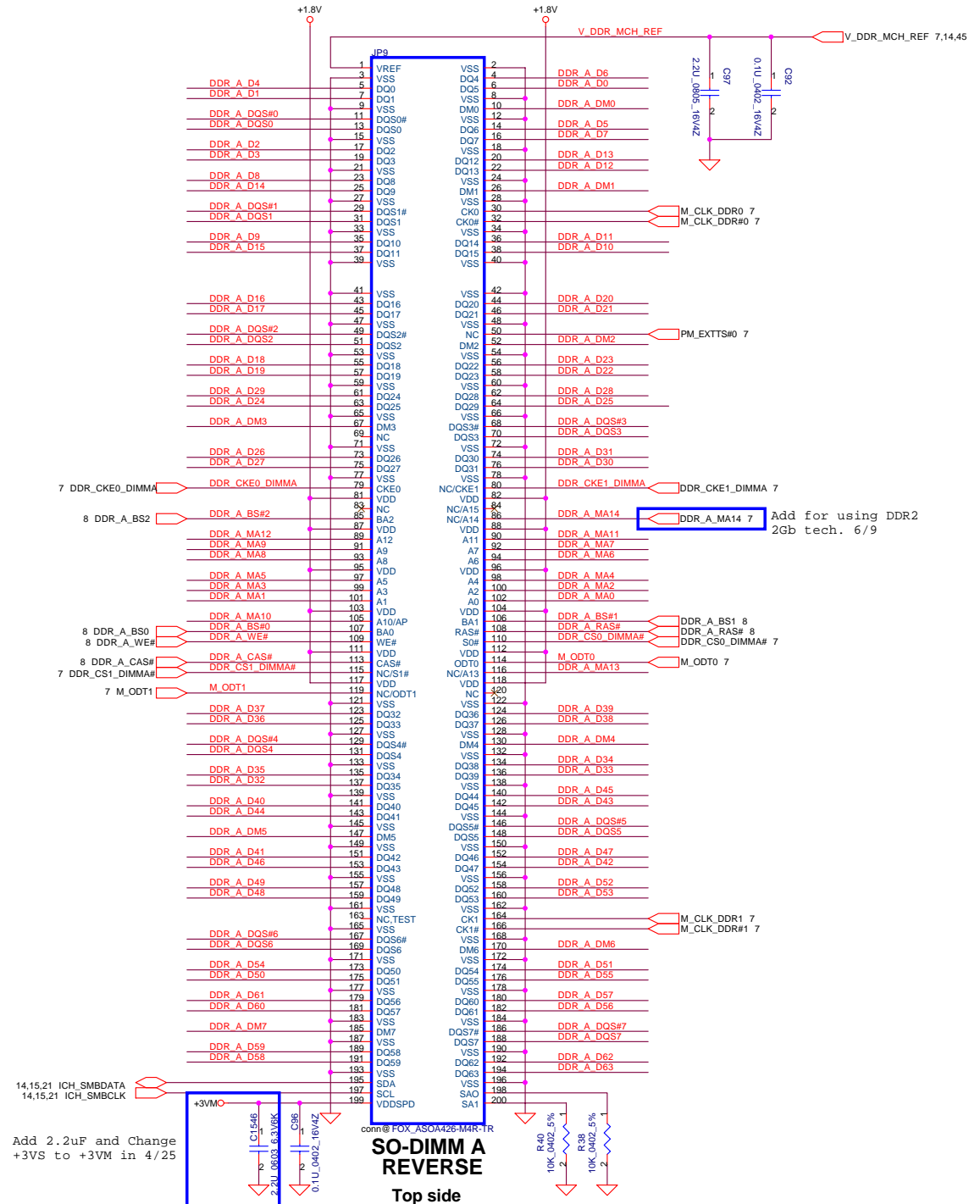




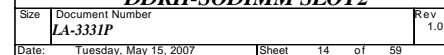
**Layout Note:**  
Place one cap close to every 2 pullup resistors terminated to +0.9V



**Layout Note:**  
Place these resistor  
closely JP9,all  
trace length Max=1.5



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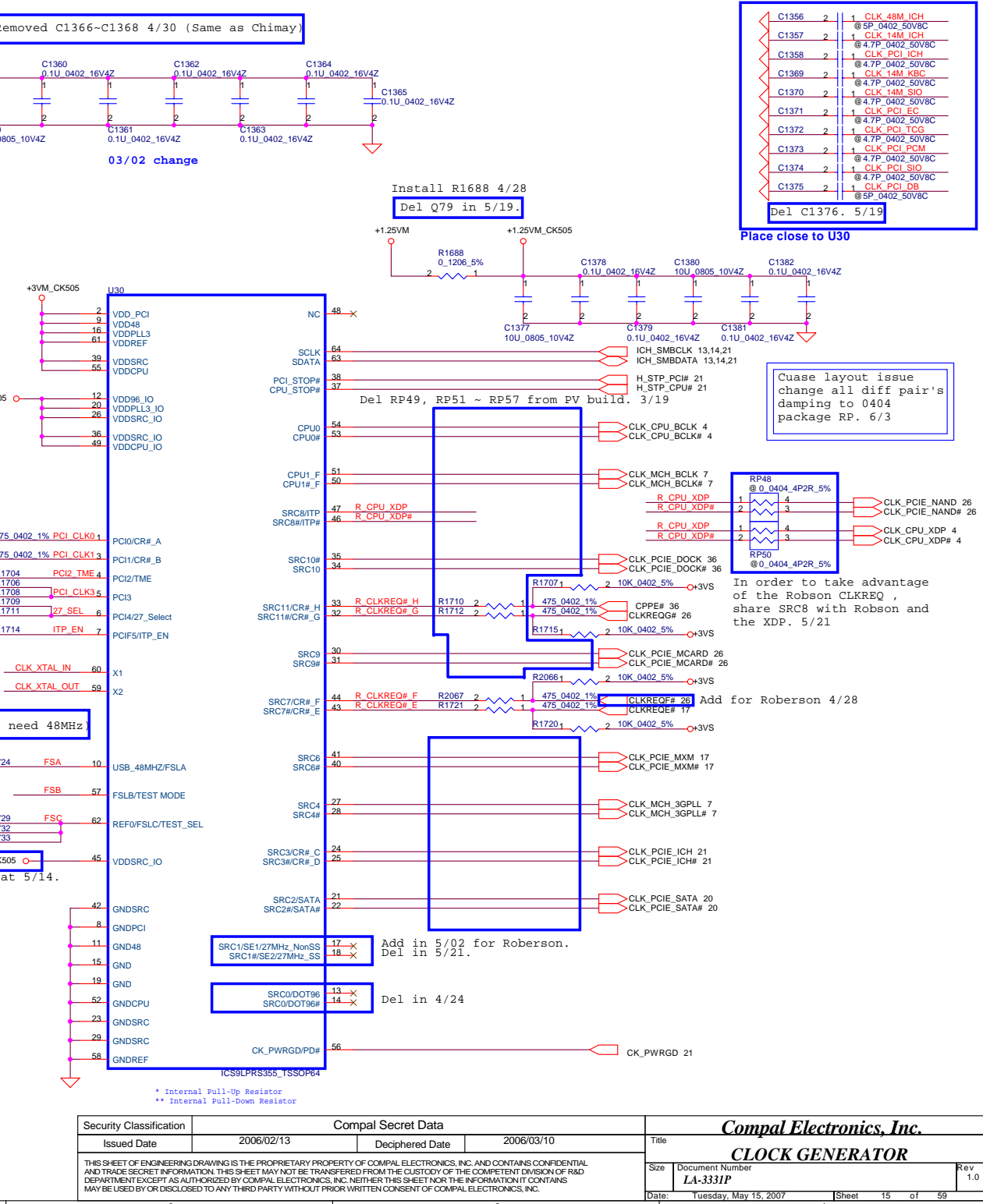
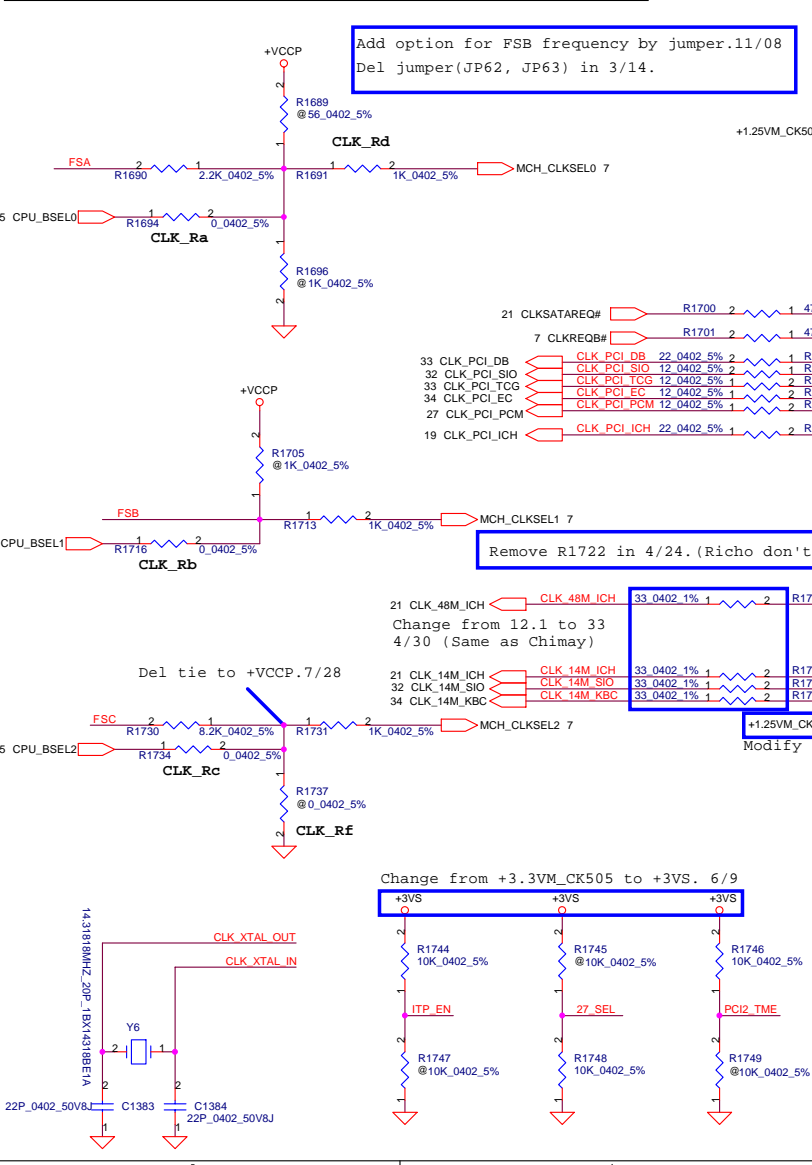




FSLC CLKSEL2	FSLB CLKSEL1	FSLA CLKSEL0	CPU MHz	SRC MHz	PCI MHz
0	1	0	200	100	33.3
0	1	1	166	100	33.3

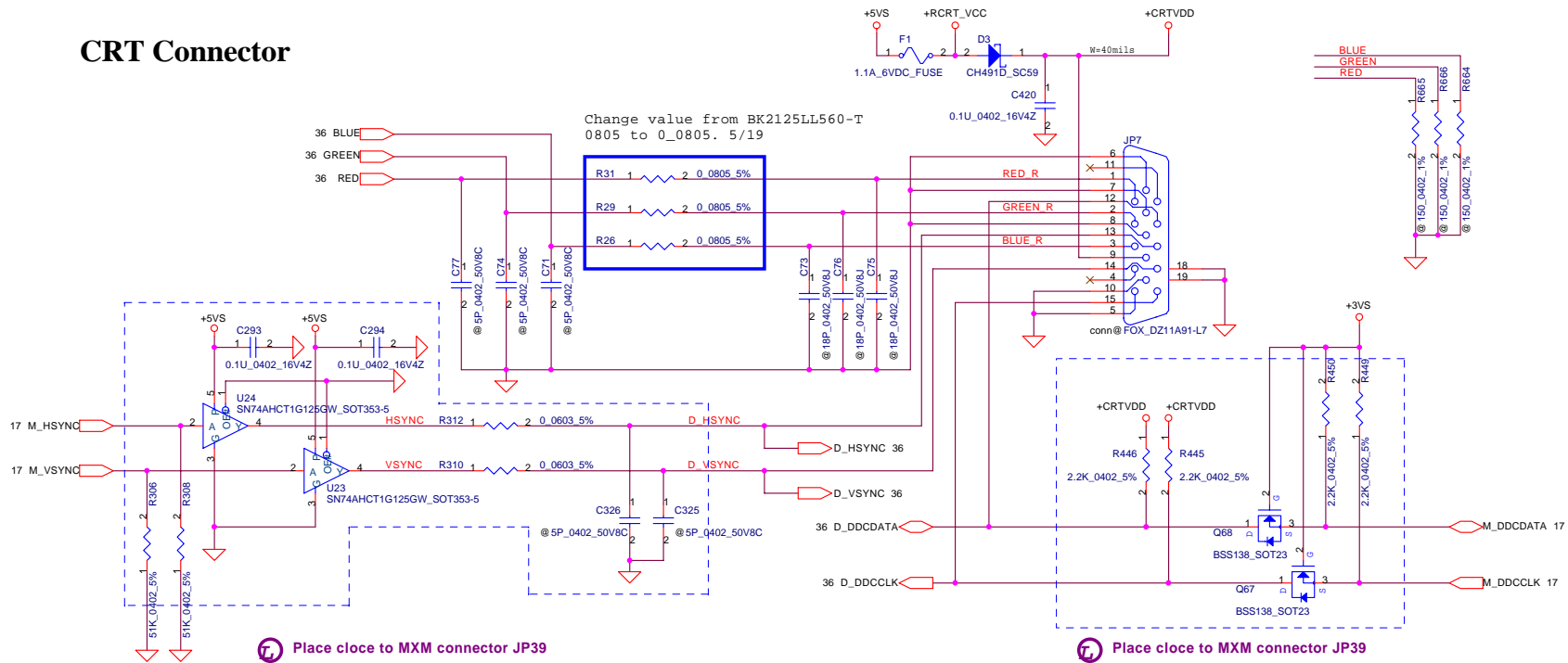
FSB Frequency Selet:

CPU Driven	Stuff	R1694	R1716	R1734			
* (Default)	No Stuff	R1689	R1696	R1705	R1719	R1726	R1737
667MHz	Stuff	R1689	R1696	R1734	R1737		
	No Stuff	R1694	R1705	R1716	R1719	R1726	
800MHz	Stuff			R1734	R1737		
	No Stuff	R1689	R1694	R1696	R1705	R1716	R1726 R1719

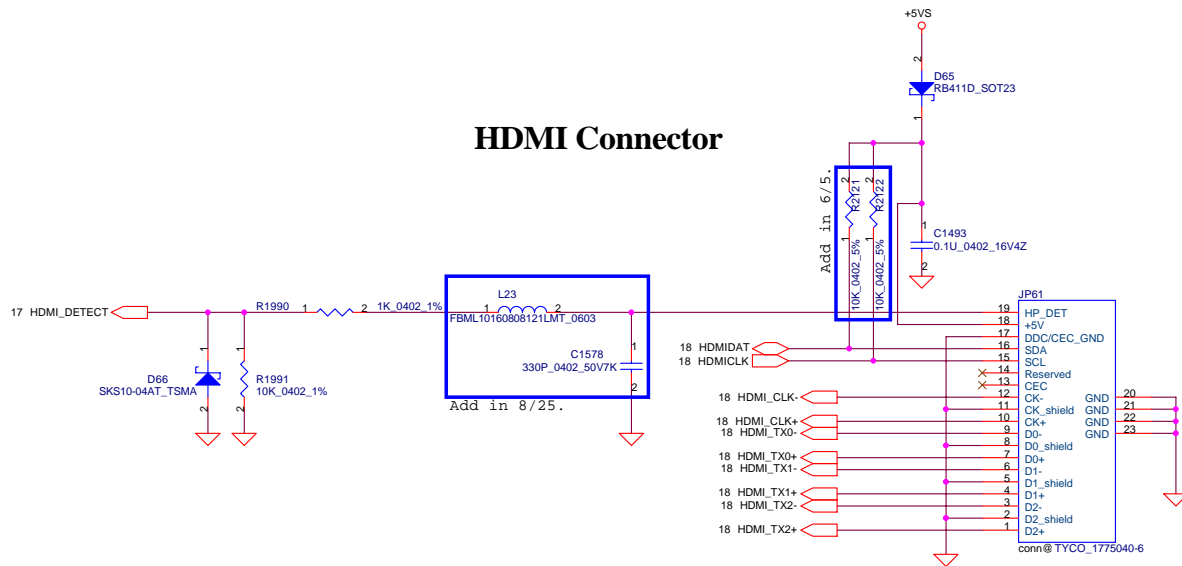




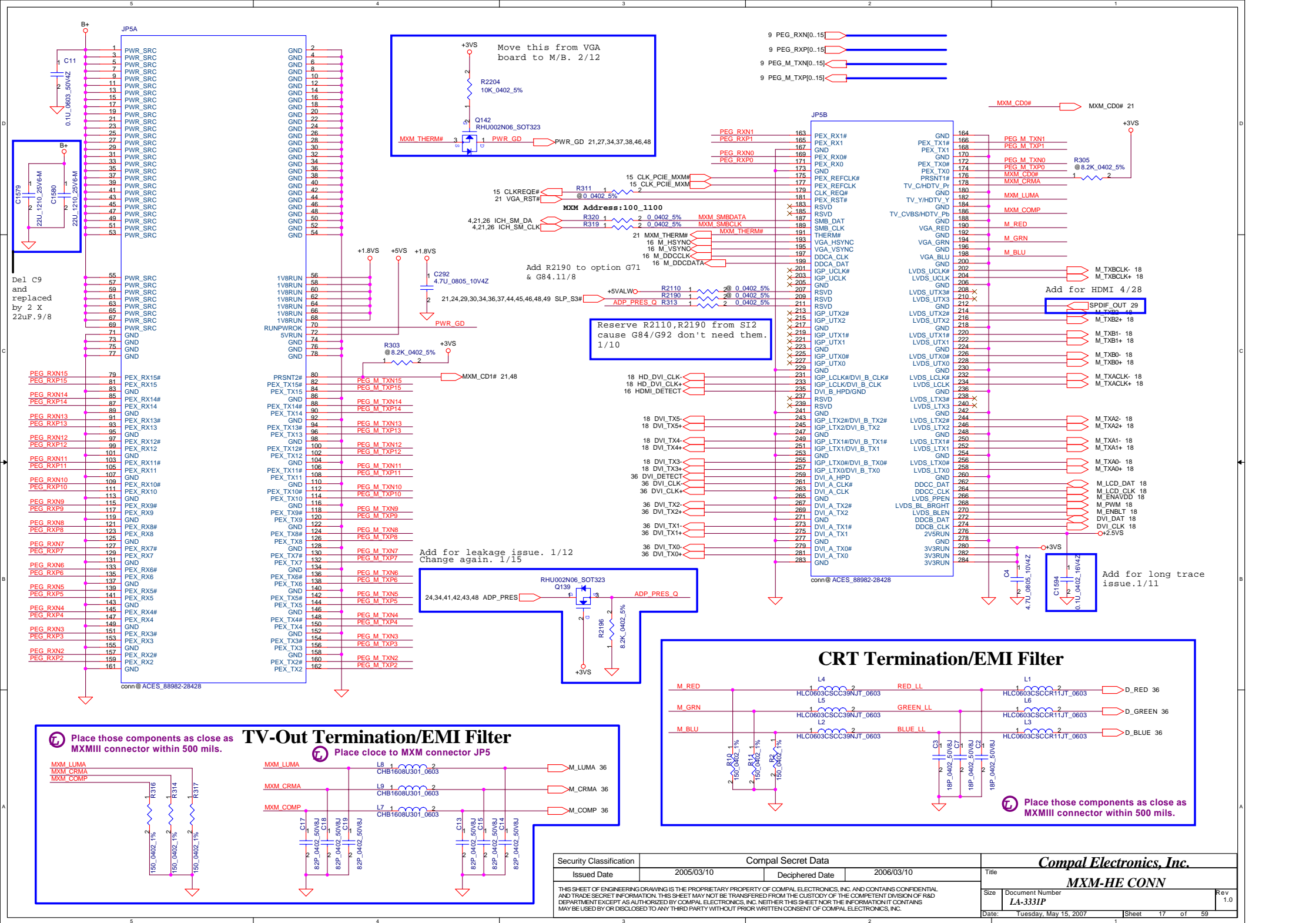
# CRT Connector



# HDMI Connector

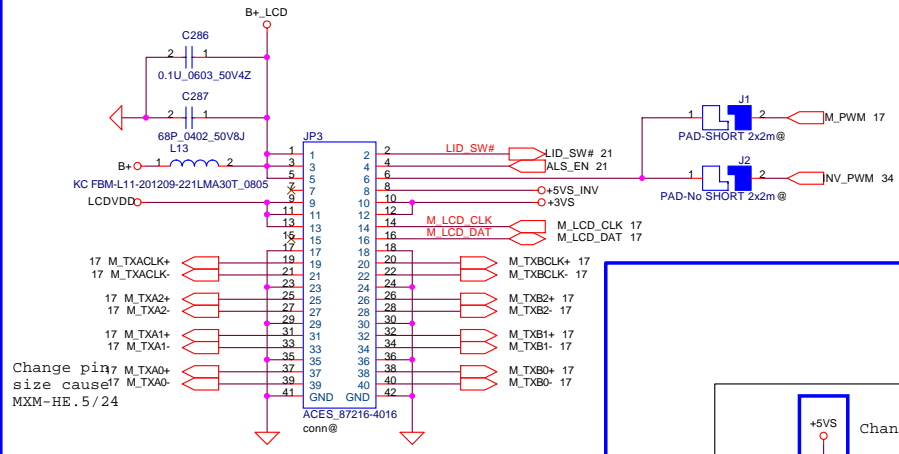


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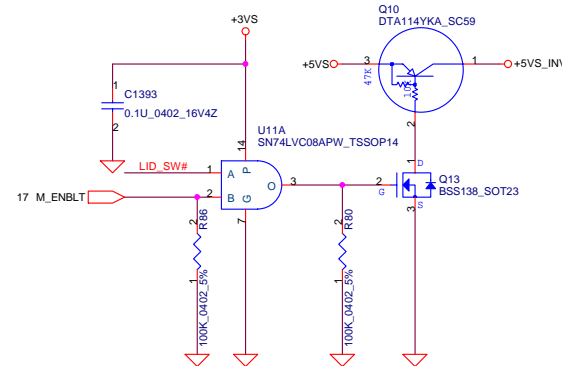
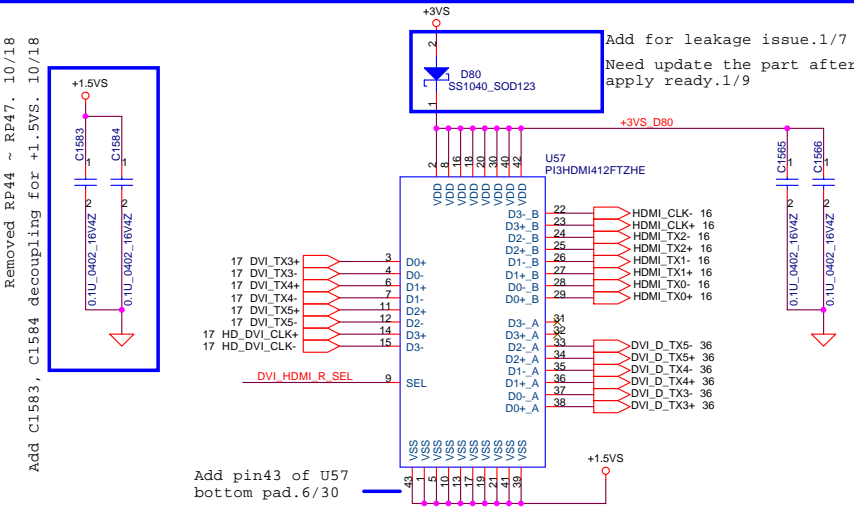
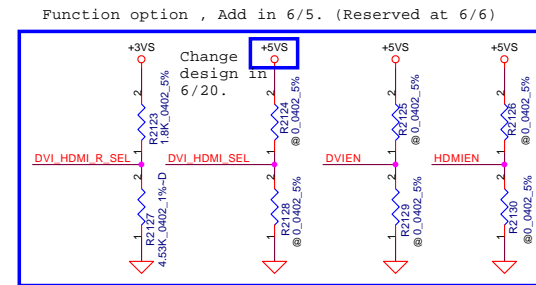
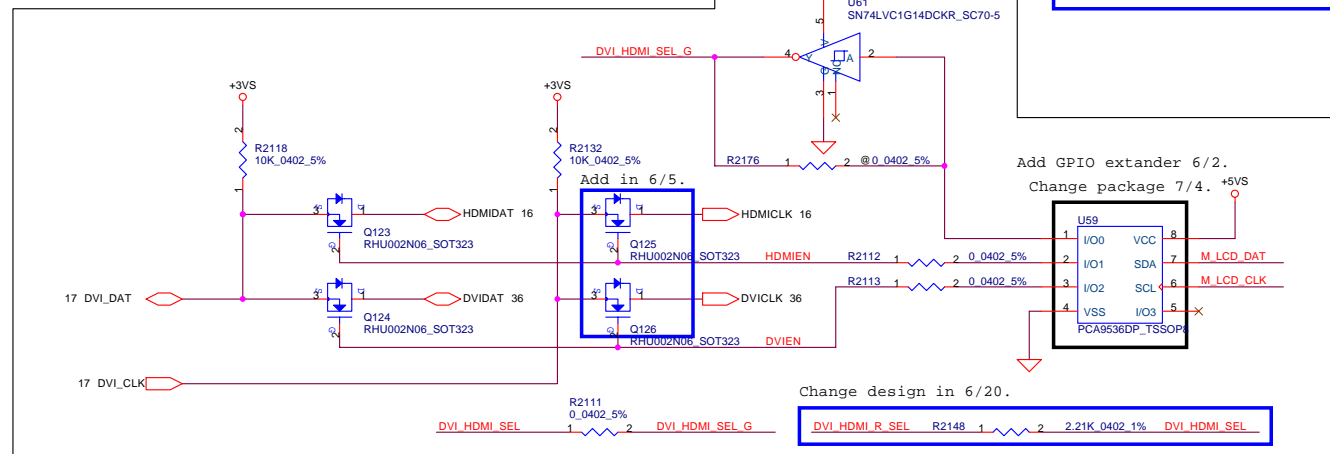
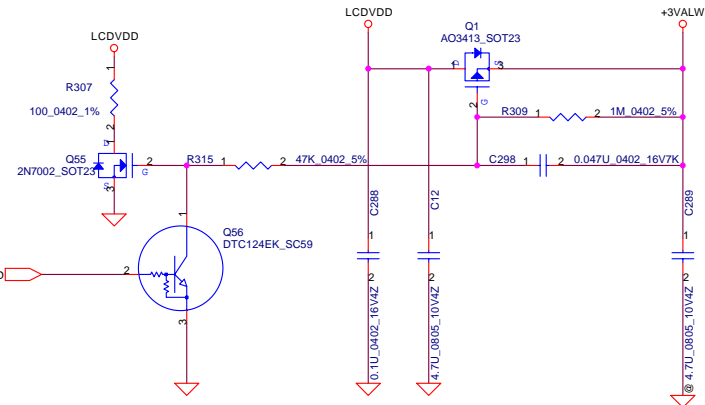


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## MXM LVDS CONN

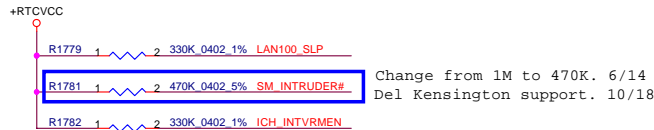
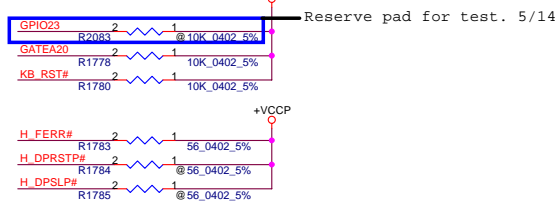


## LCD POWER CIRCUIT

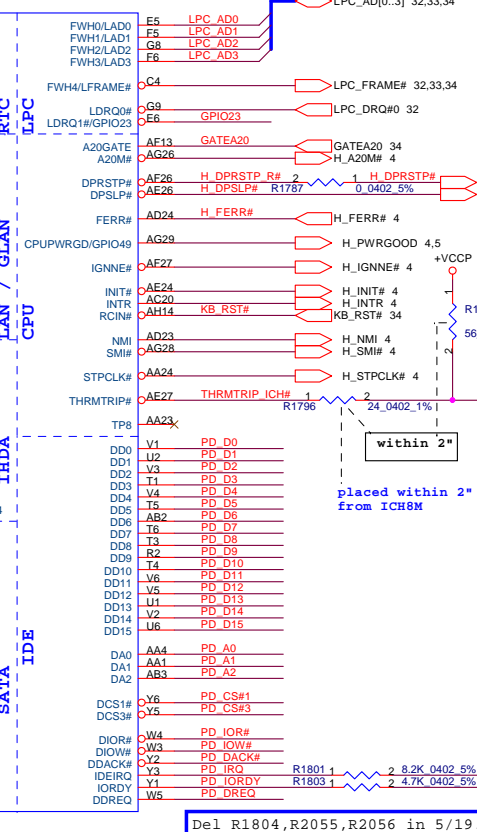
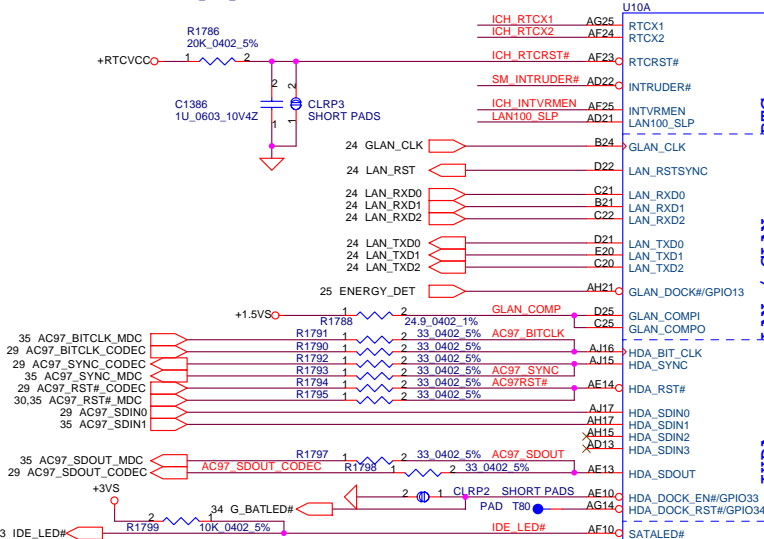
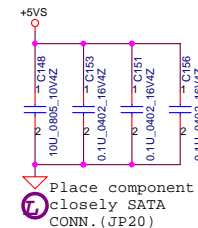
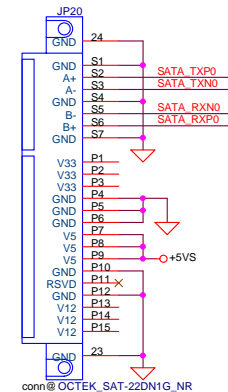


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								Size	
								Document Number	
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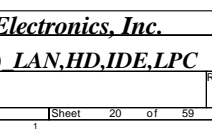
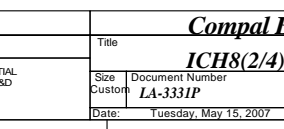
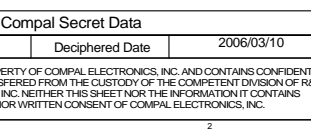
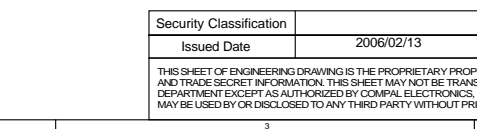
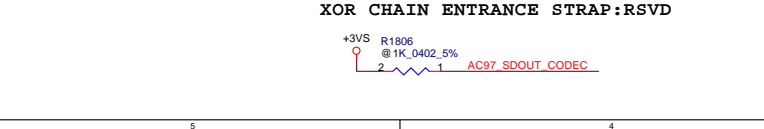
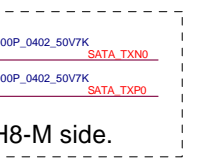
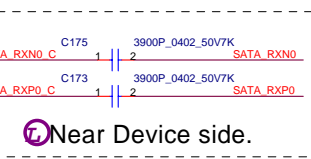
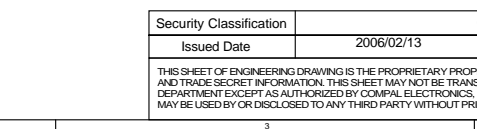
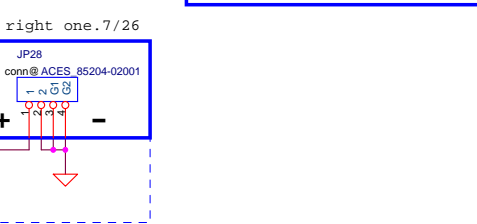
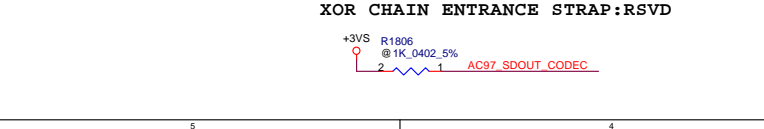
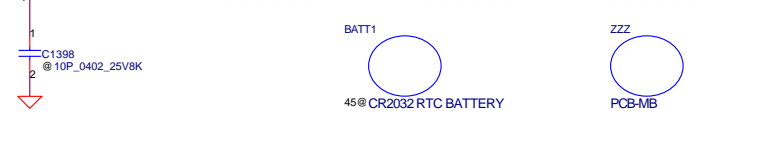
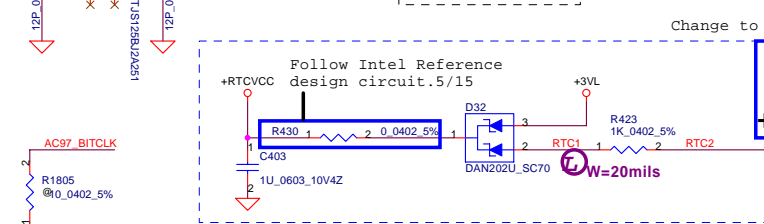
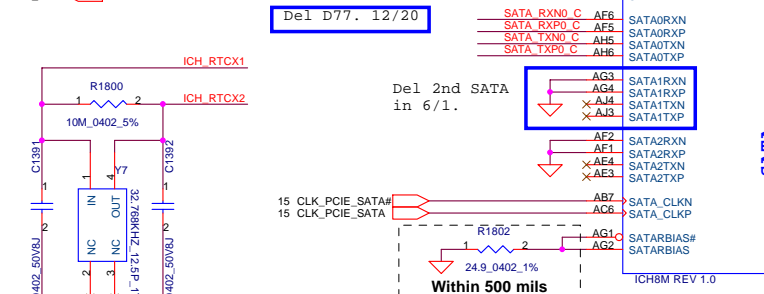
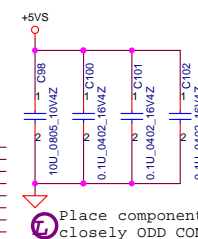
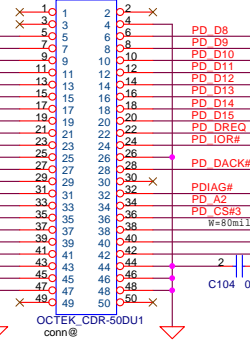
## SATA CONN



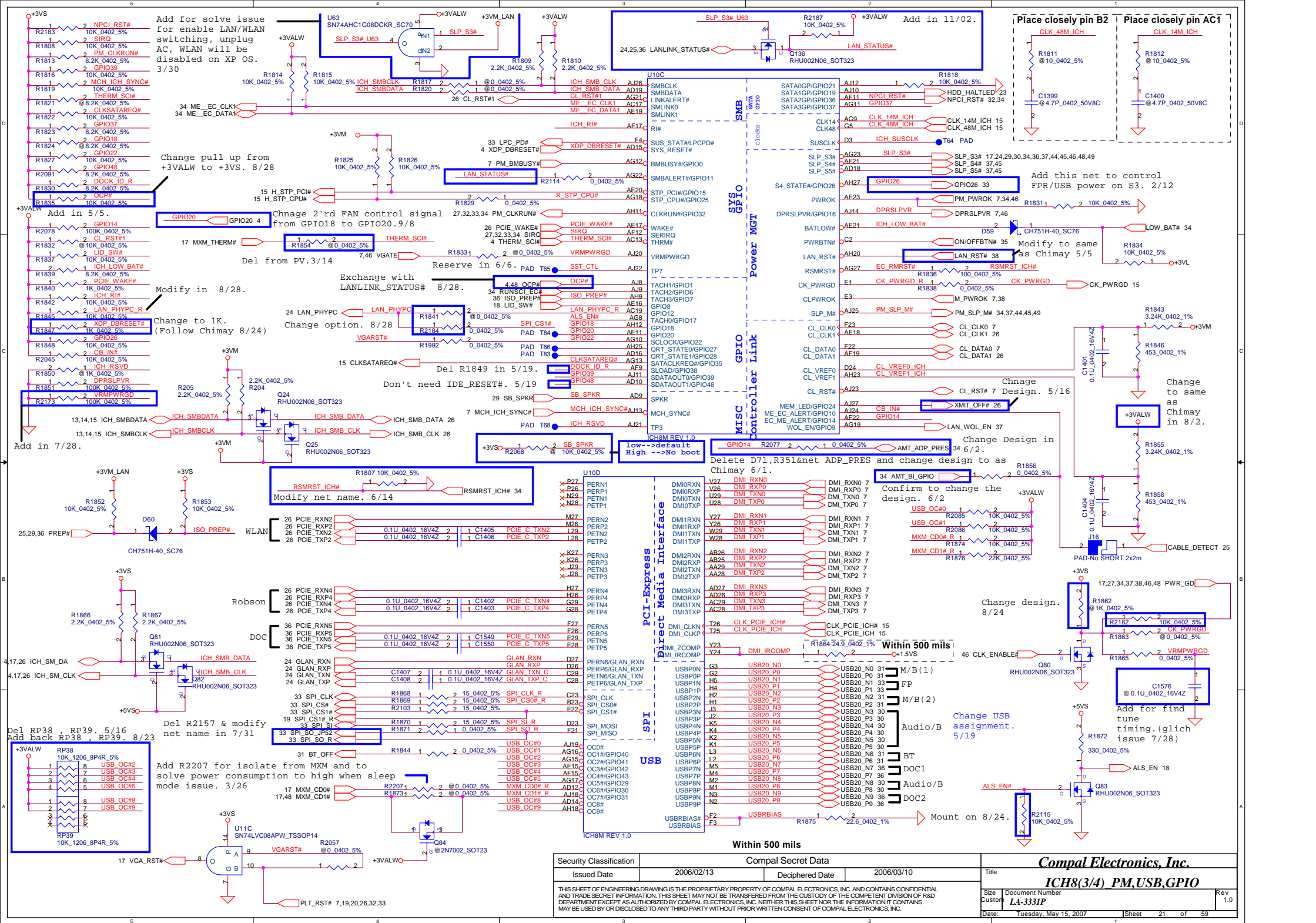
Add 2nd STAT in 4/19.  
Del 2nd SATA in 6/1.  
Del JP54 , C1387-C1390.6/1

Change PLT\_RST# to  
PLT\_RST#. 6/15  
change from ODD\_RST# to  
PLT\_RST#. 5/19

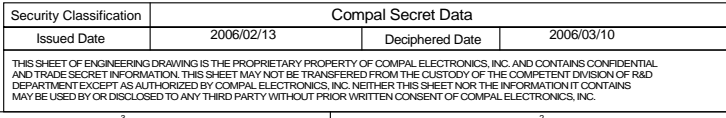
## ODD CONN



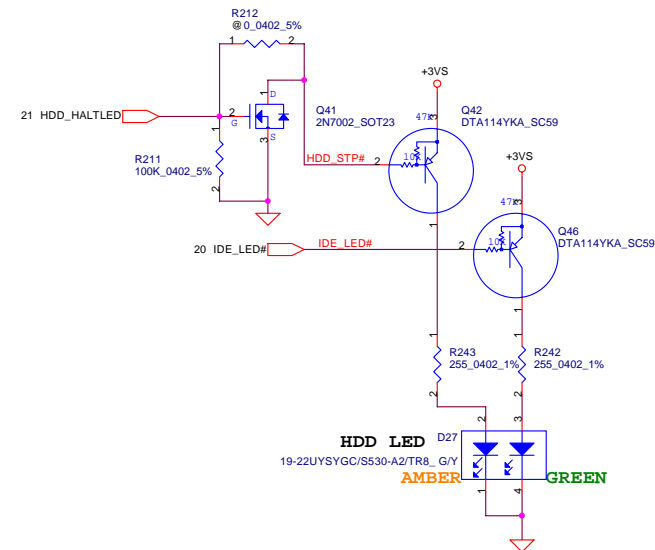
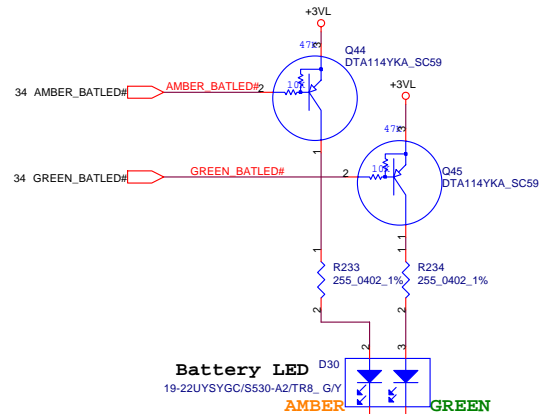
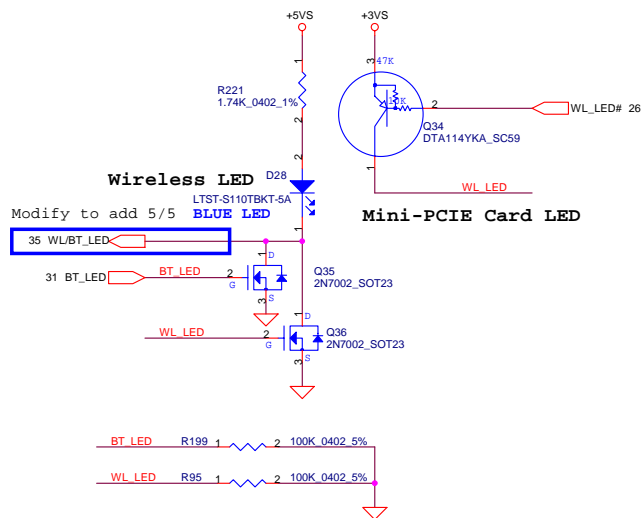




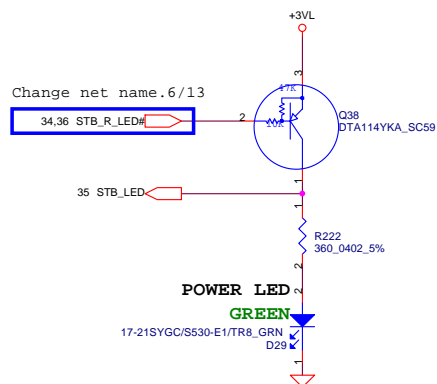
Security Classification		Compal Secret Data		<b>Compal Electronics, Inc.</b> <b>ICH8(3/4) PM,USB,GPIO</b>	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Title	
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				Sheet	21 of 59
3		1		2	







Del R2109. 6/14  
 Add the kill circuit.5/25  
 Update design. 5/14  
 Reserved Space for Kensington 4/27  
 Removed Kensington 10/18.



Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	<b>LEDs &amp; Kensington</b>	
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				Sheet 23 of 59	





# ACCELEROMETER

**ACCELEROMETER**

U6  
LIS3LV02DL-TR\_LGA16

Must be placed in the center of the system.

19 ACCEL\_INT

4,17,21 ICH\_SM\_DA

+3VS\_ACL\_IO

4,17,21 ICH\_SM\_CLK

+3VS\_ACL

R48

R50

R43

R44

R45

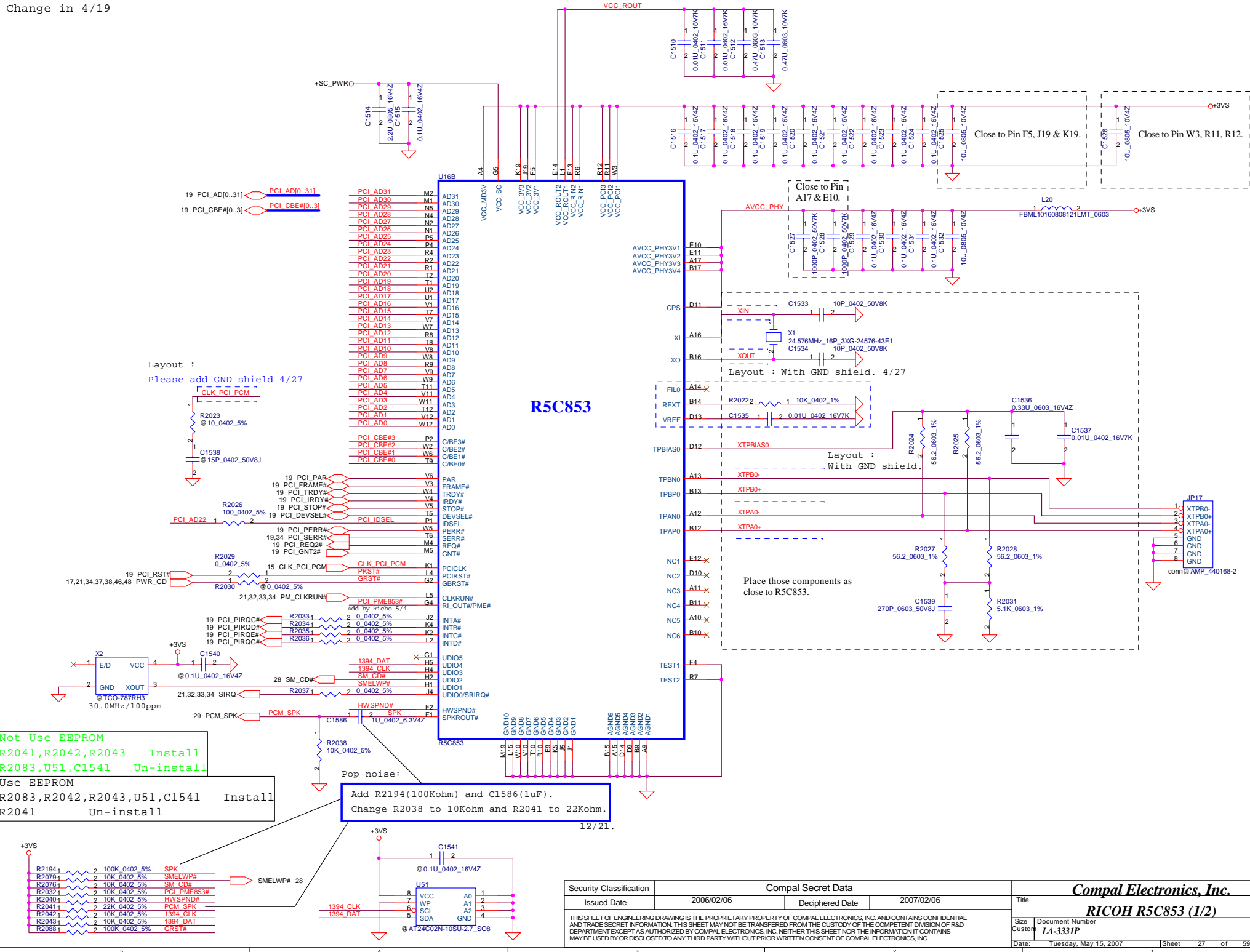
R55

C121

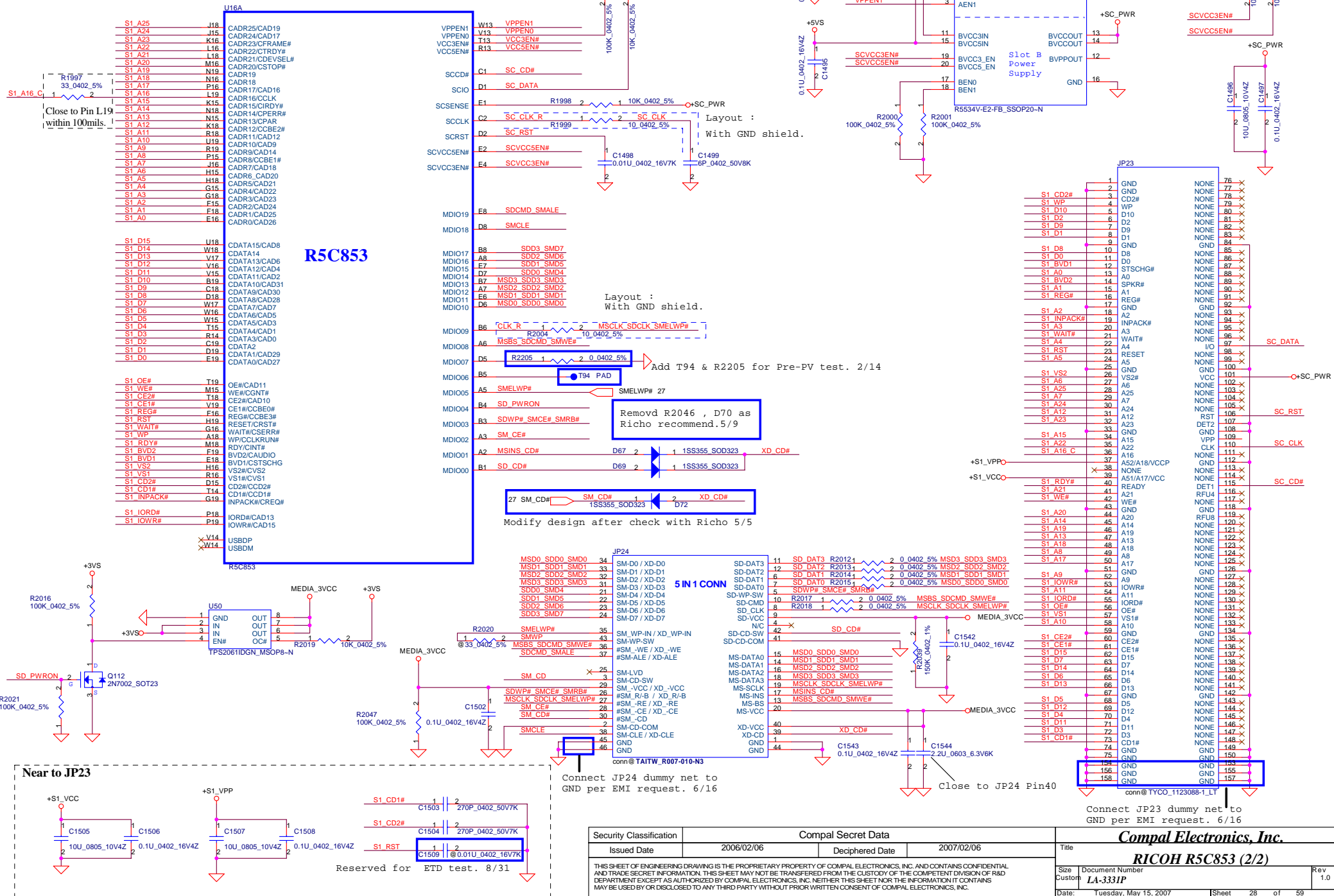
C135

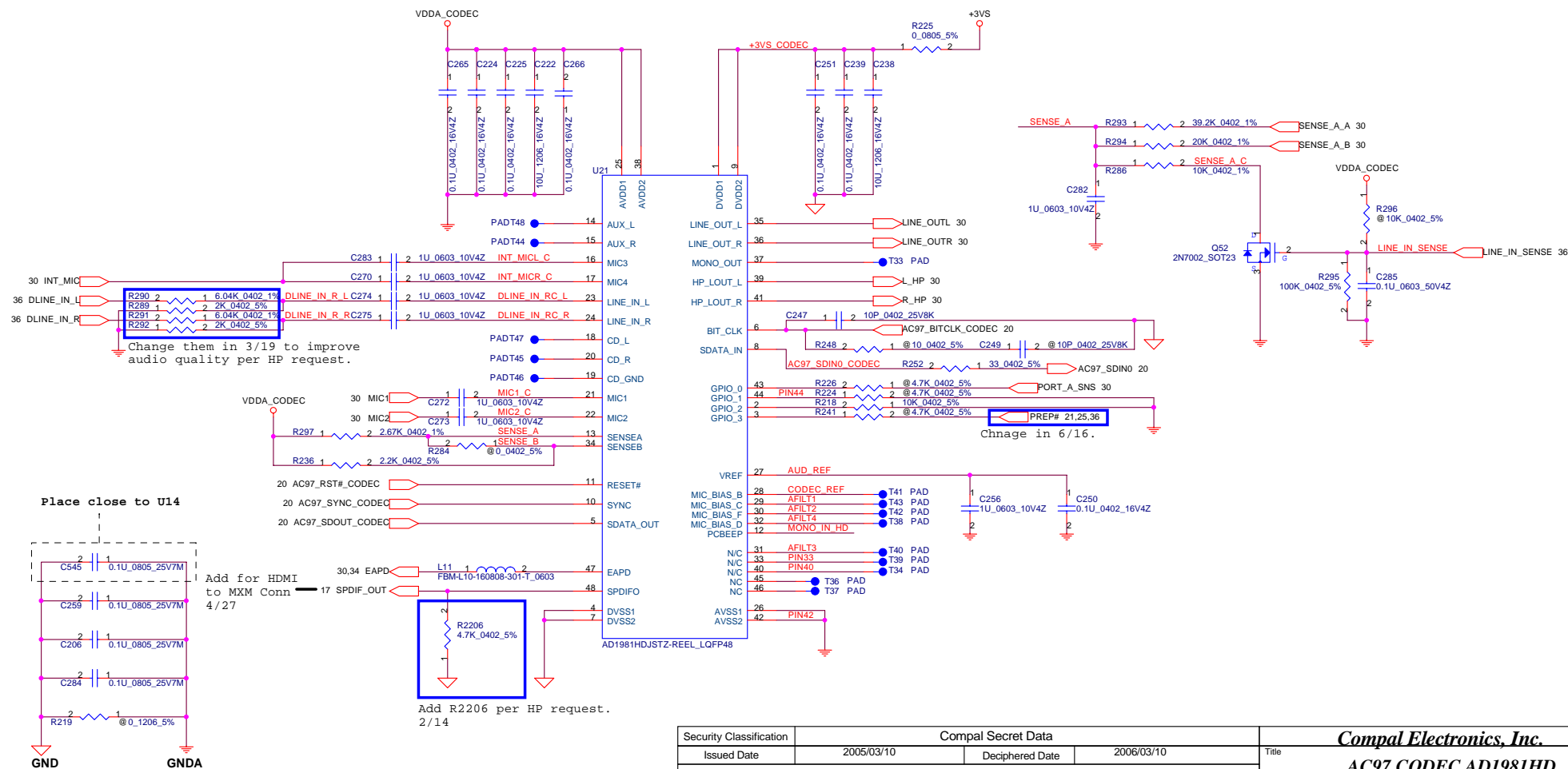
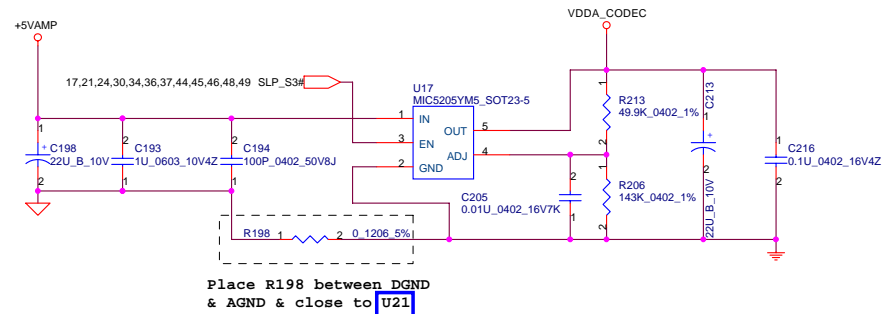
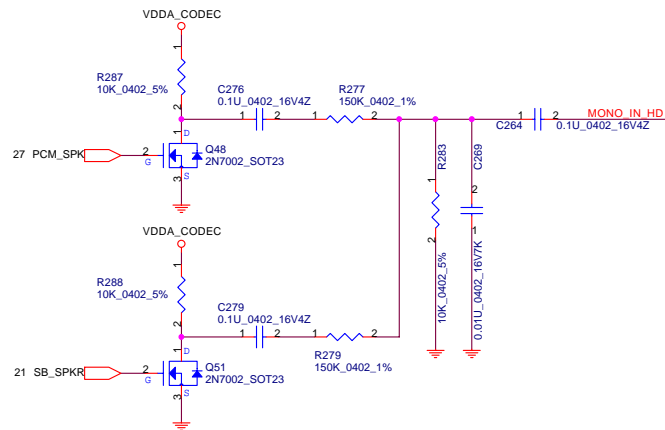
100\_0805\_6.3V6M

Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b>		
Issued Date	2005/03/10	Deciphered Date	2006/03/10	Title	<b>Mini-Card/Mini-NAND/Accelerometer</b>	
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					LA-3331P	1.0
				Date:	Tuesday, May 15, 2007	Sheet 26 of 59



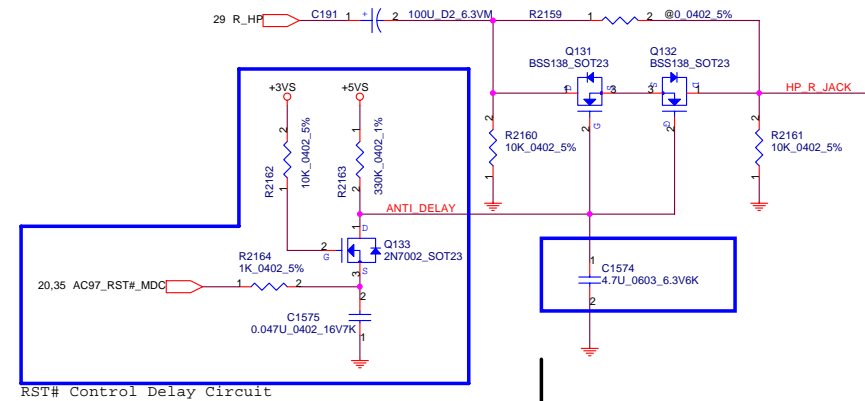
Change in 4/19





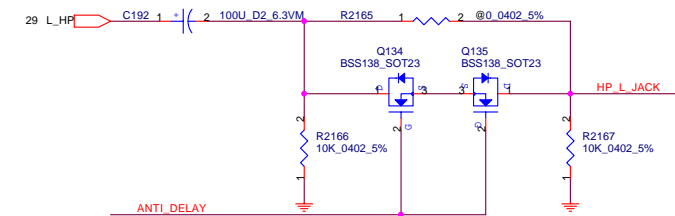
Security Classification		Compal Secret Data		<b>Compal Electronics, Inc.</b>		
Issued Date	2005/03/10	Deciphered Date	2006/03/10	Title	<b>AC97 CODEC AD1981HD</b>	
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					LA-333IP	1.0
				Date: Tuesday, May 15, 2007		



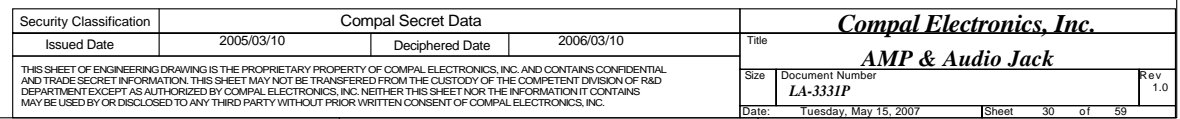


### RST# Control Delay Circuit

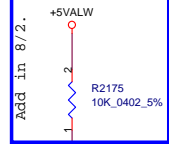
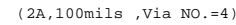
*ANTI POP Circuit* (Add in 7/26)



*To Audio / USB Board CONN*



Del C118, C498, C499 at 3/28.



USB20 P6 R85 2 1 0.0402 5% +3V\_AUX\_BT

USB20 N6 R87 2 1 0.0402 5% USB20 P6 21

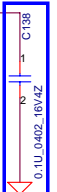
BT\_LED 23 USB20 N6 20

CH\_DATA\_26 BT\_LED 23

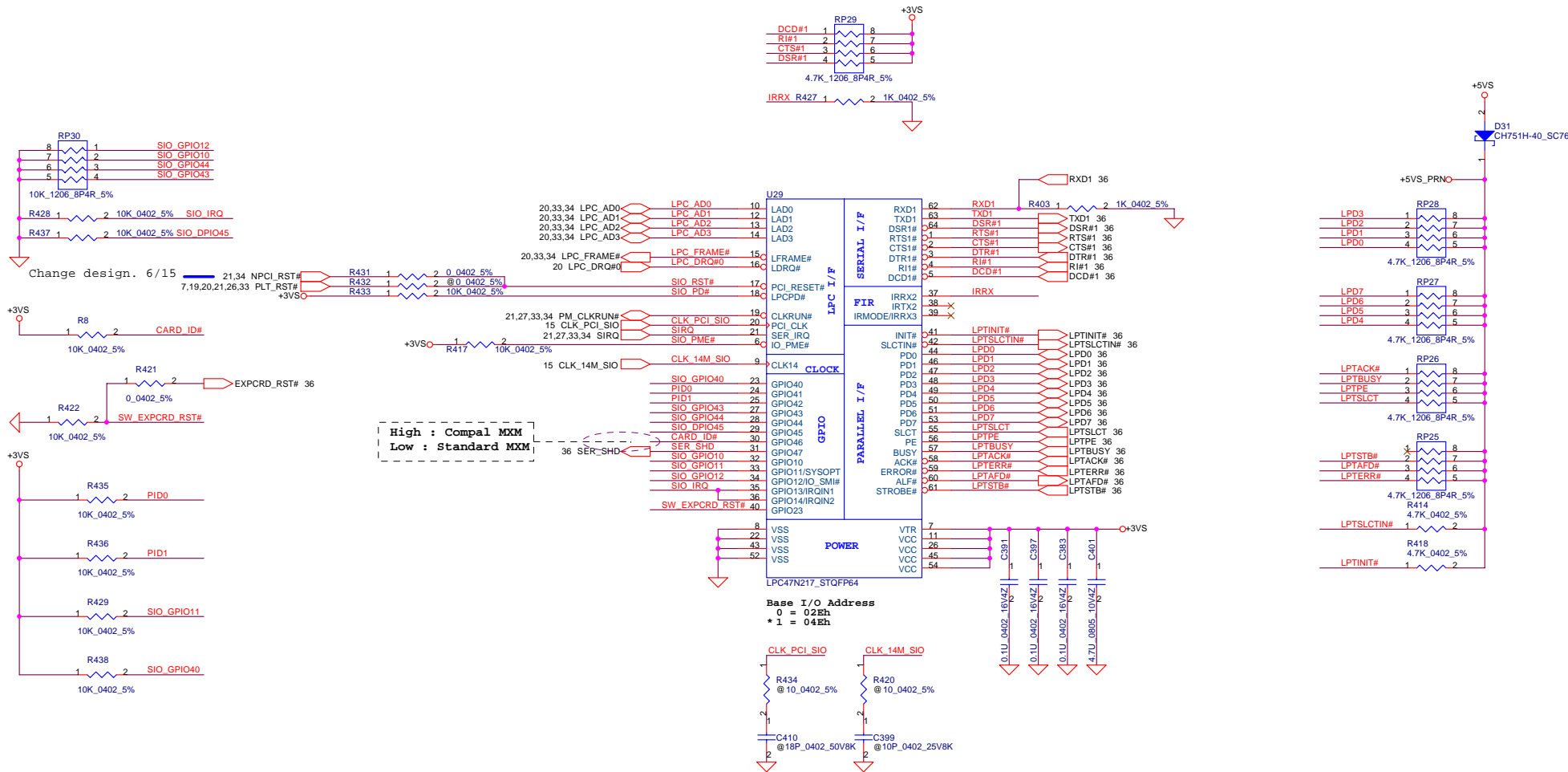
CH\_CLK\_26 CH\_DATA\_26

Change value. 5/10 Del D16. 3/28

Del D16. 3/28

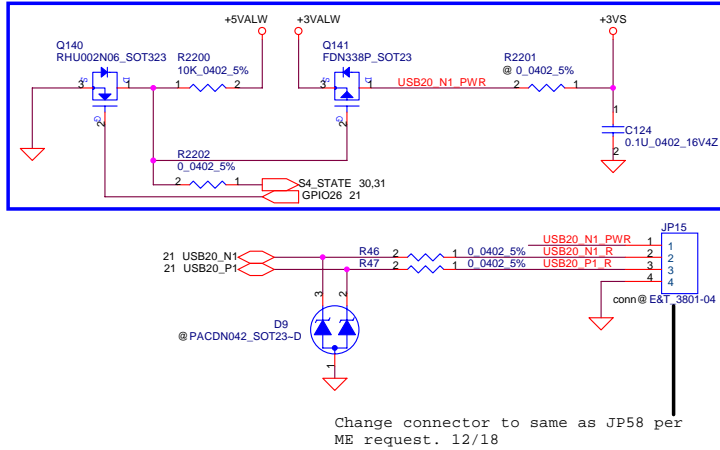


Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b>		
Issued Date	2005/03/10	Deciphered Date	2006/03/10	Title <b>USB I/O &amp; BT Connector</b>		
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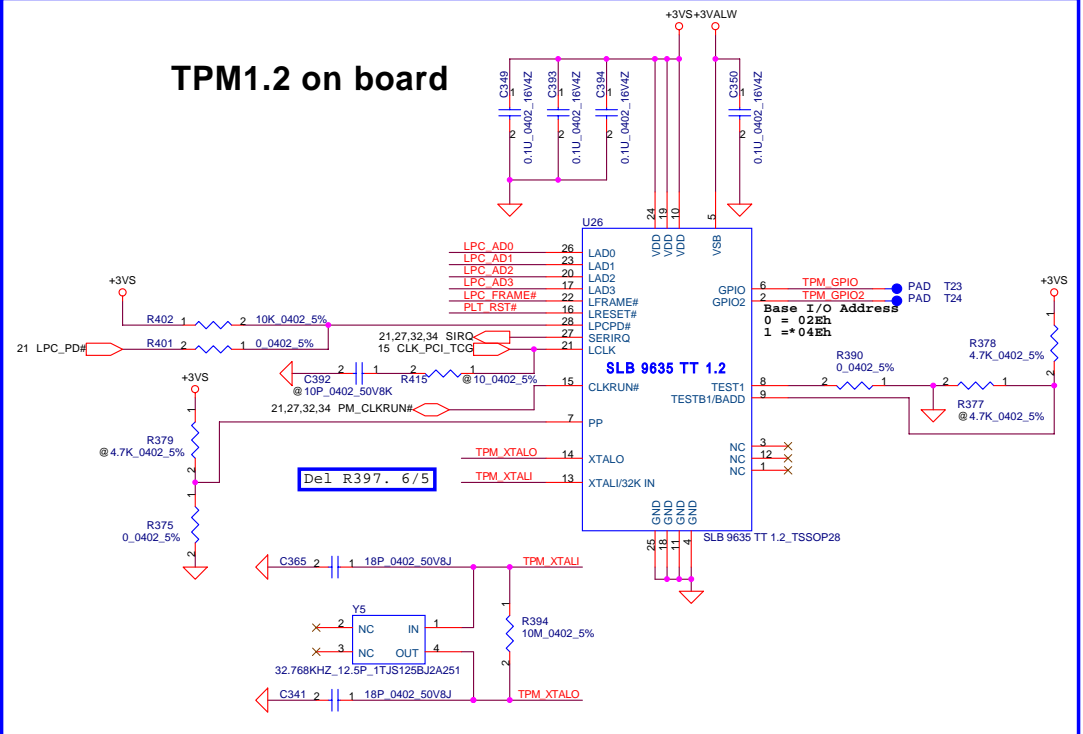
## Finger printer

Add change per request for FPR resume in S3. 2/12



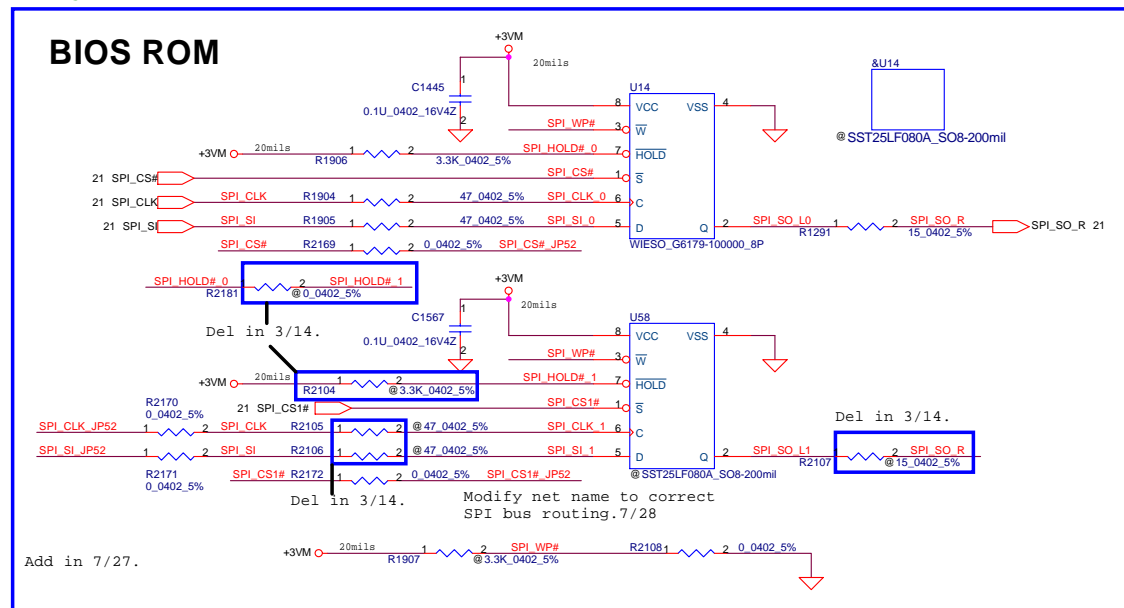
Change connector to same as JP58 per  
ME request. 12/18

## TPM1.2 on board

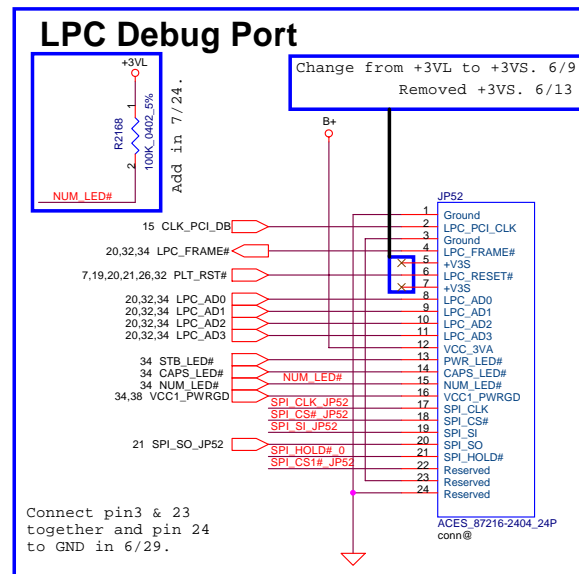


```
# Change SPI ROM to 8Mbit(SA00001JX00) from SI2.
```

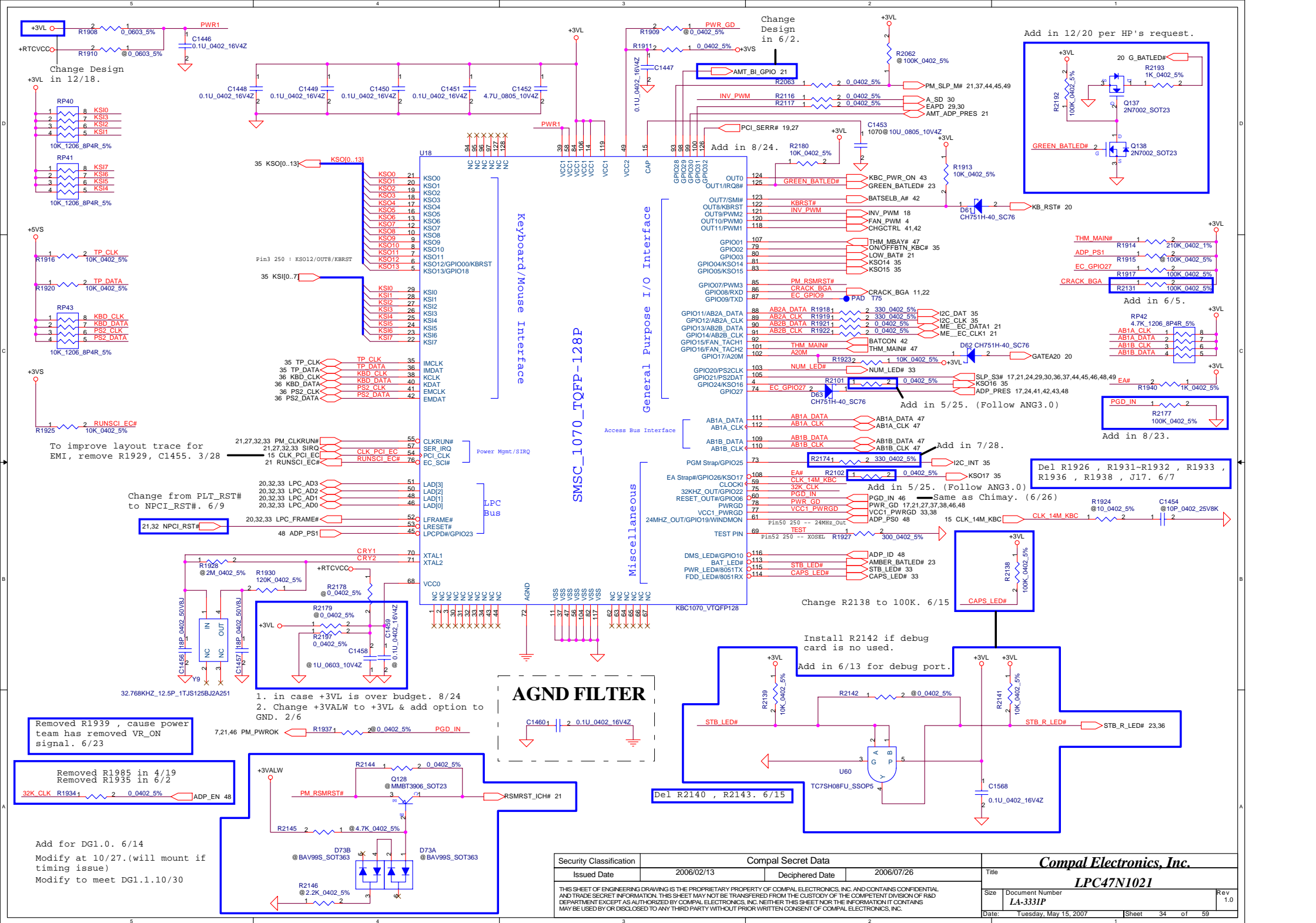
## BIOS ROM



## LPC Debug Port

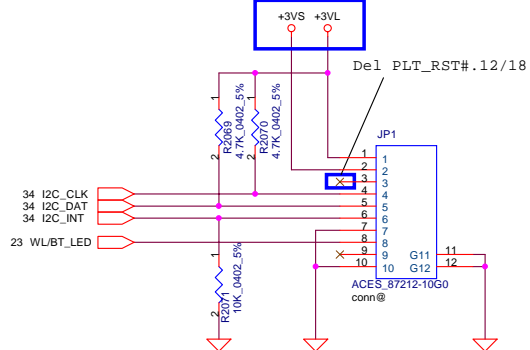


Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b>		
Issued Date	2005/03/10	Deciphered Date	2006/03/10	Title	<b>TCG/BIOS ROM/PS2/SW LPC DEBUG</b>	
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				Date:	Tuesday, May 15, 2007	Sheet 33 of 59

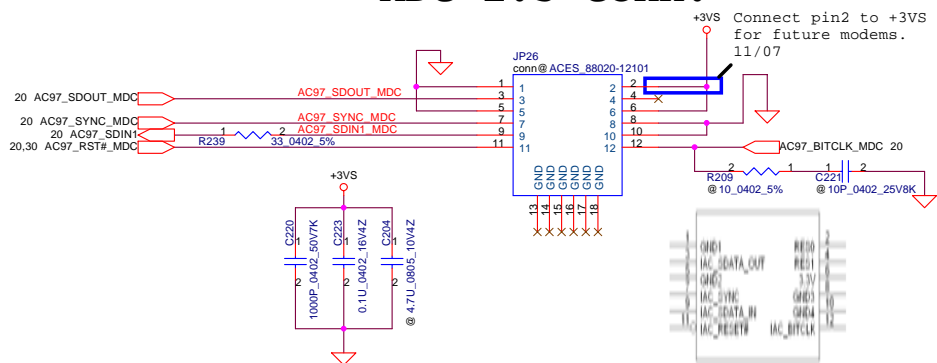


Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b>		
Issued Date	2006/02/13	Deciphered Date	2006/07/26	Title <b>LPC47N1021</b>		
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				Date:	Tuesday, May 15, 2007	Sheet 34 of 59

**SWTCH BOARD.** Modify at 10/5.

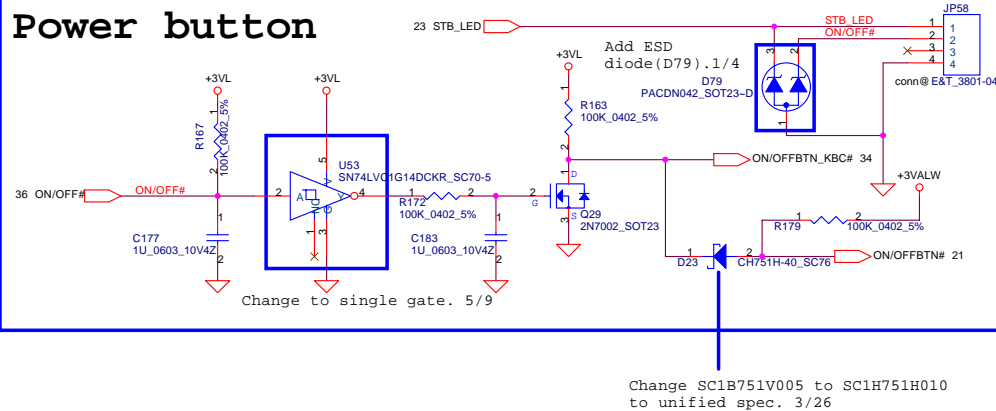


### MDC 1.5 Conn.

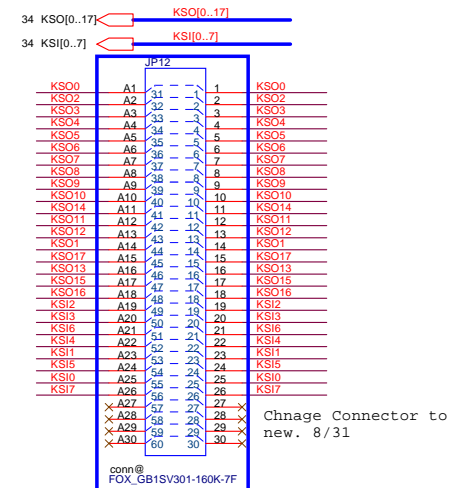


```
Del Modem disable  
function(Del  
R2147). 6/21.
```

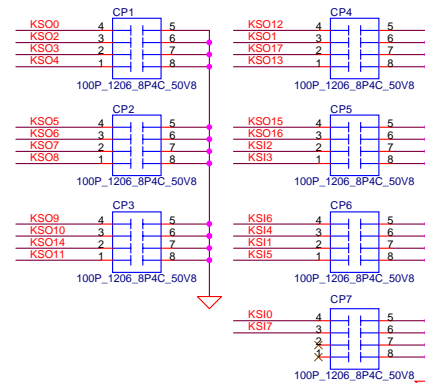
## Power button



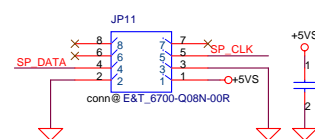
## INT\_KBD\_CONN.



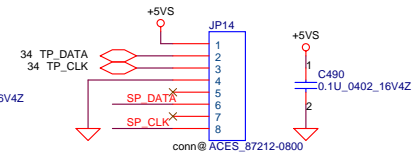
Update to 18x8 angelfire keyboard matrix



# TrackPoint CONN.

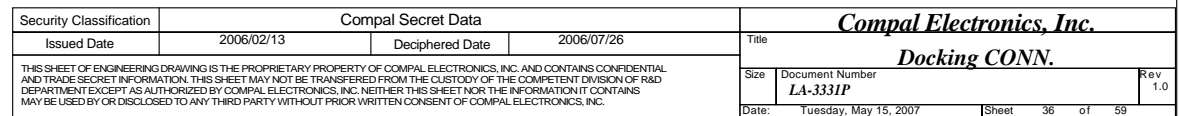


**T/P BOARD.**

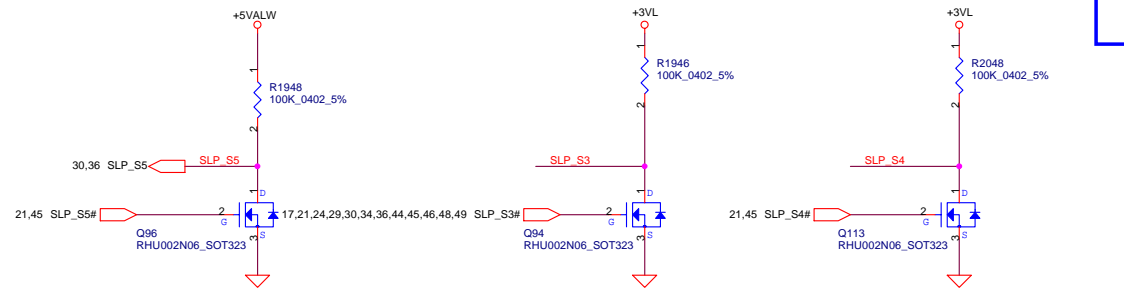
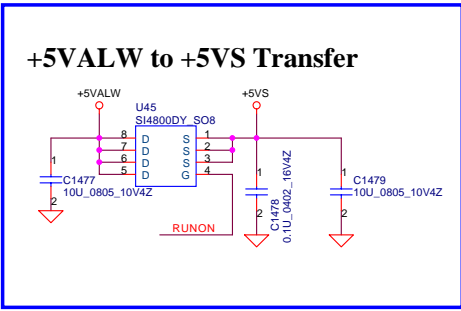
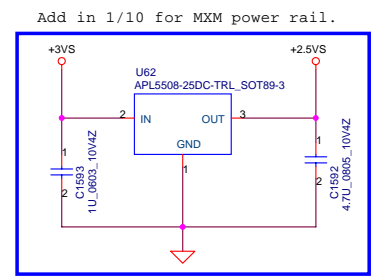
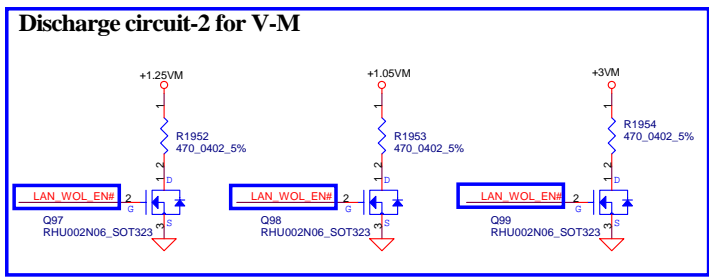
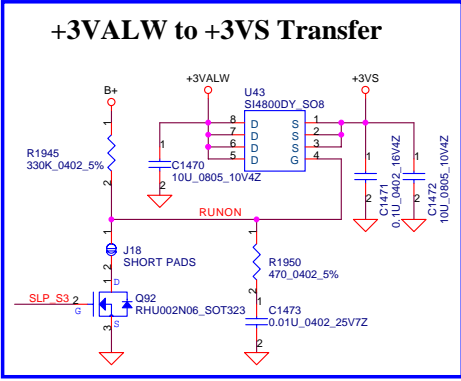
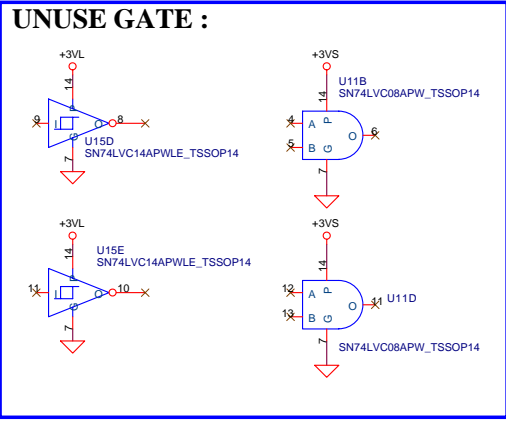
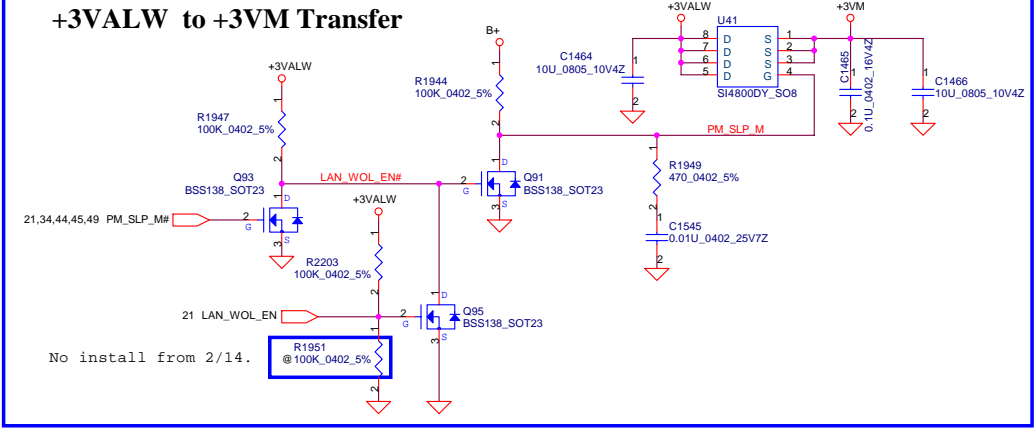
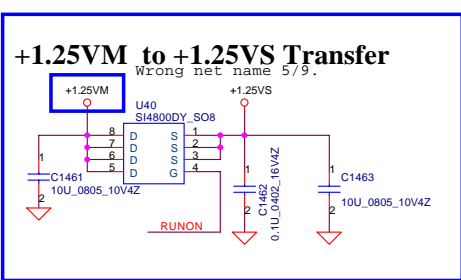


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Issued Date	2005/03/10	Deciphered Date	2006/03/10	Title	<b>MDC/KBD/ON OFF/LID</b>	
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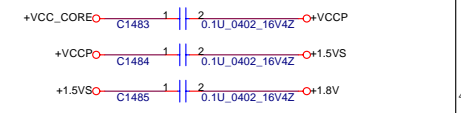
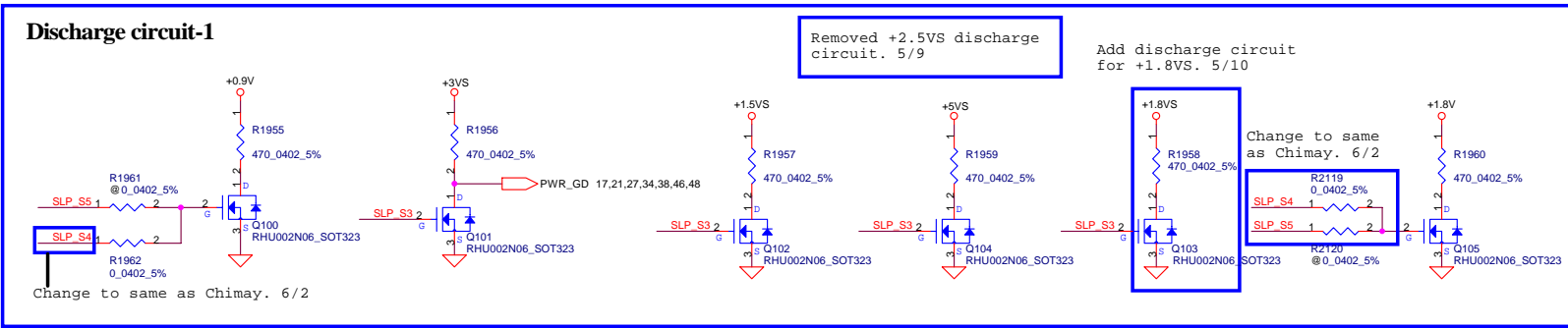
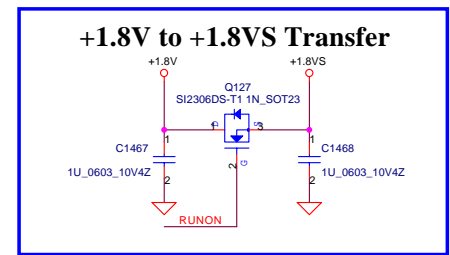
Change L14 from SM010020720 to SM010008E10.



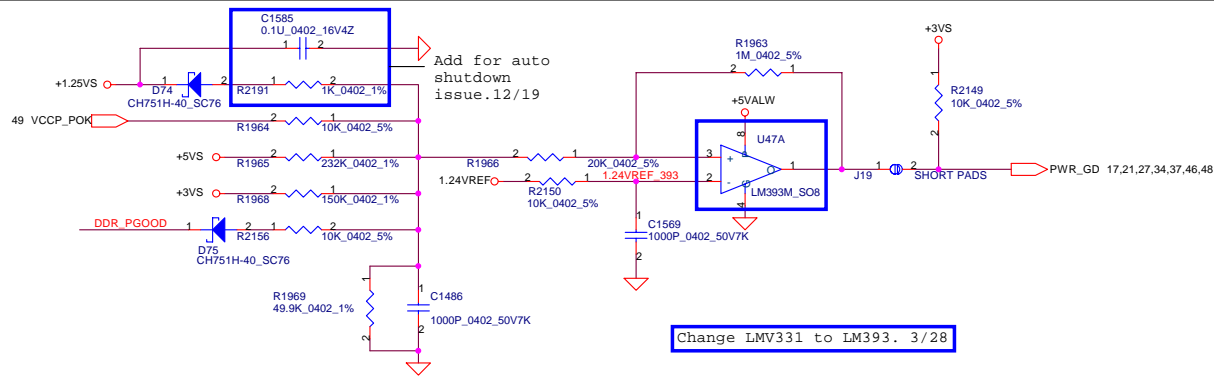




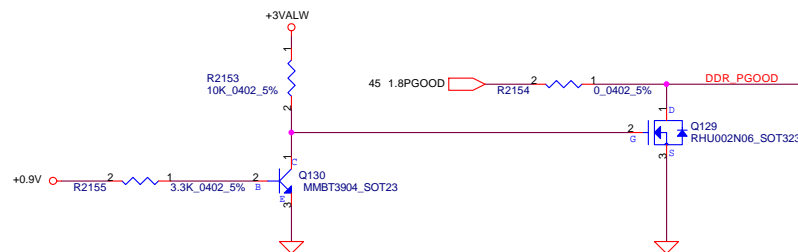
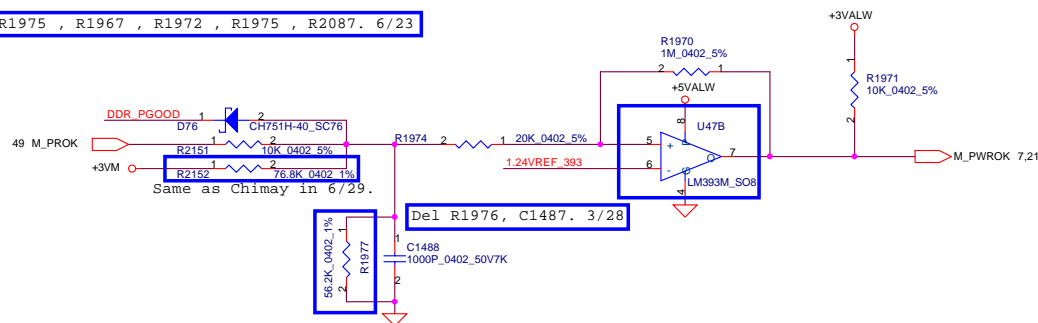
Change U42 to Q , cause no need such power consumption of +1.8VS. 6/9



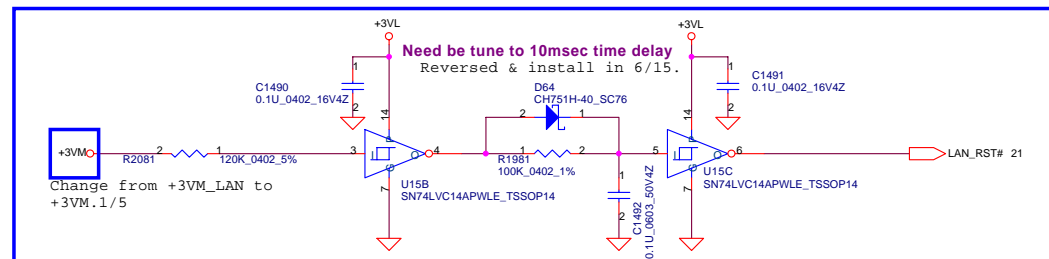
Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/07/26	DC/DC Circuits	
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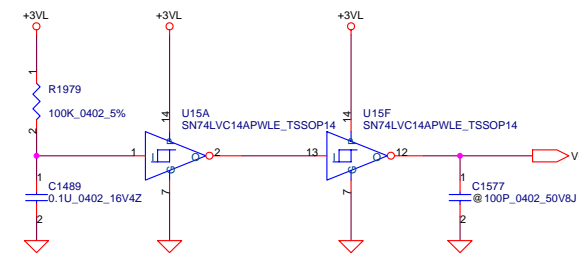
Del R1975 , R1967 , R1972 , R1975 , R2087. 6/23



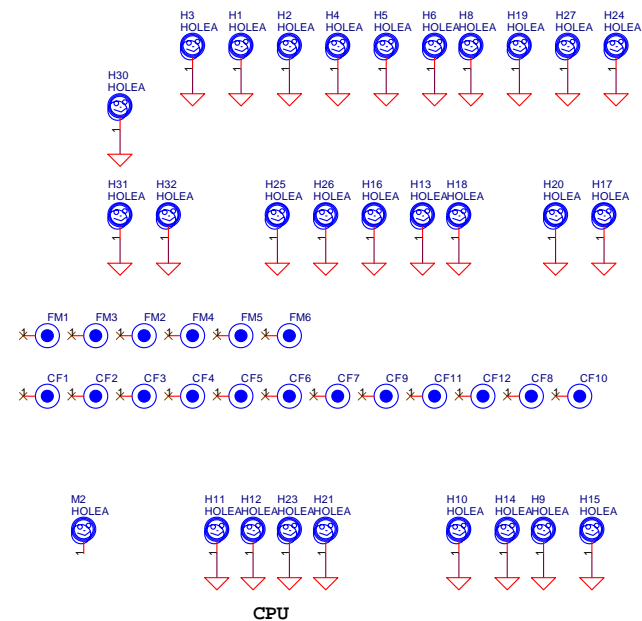
Change to same as Chimay (Del R2080 , R1980 , R2082. 6/23  
Modify to same as Chimay 5/5



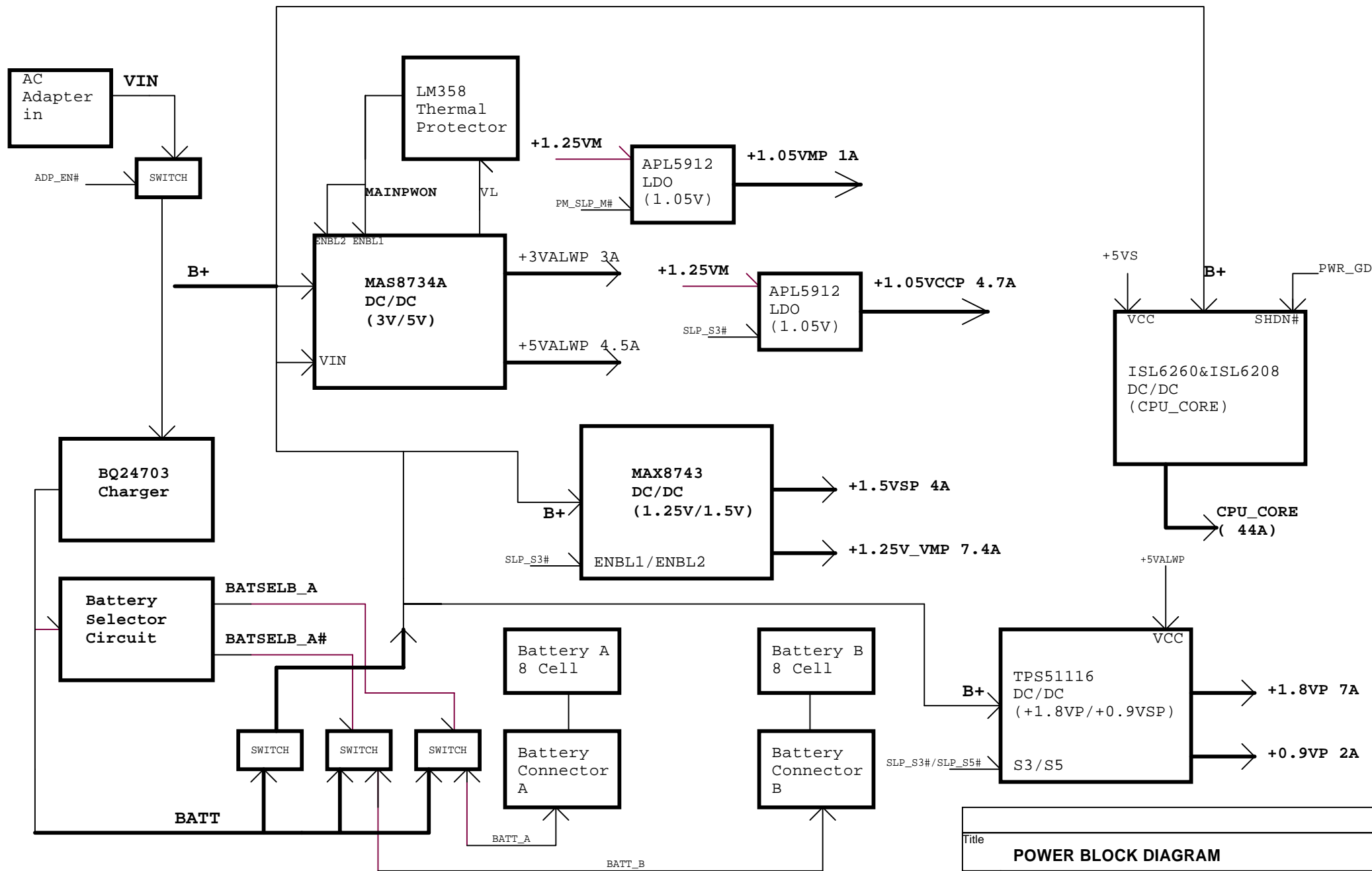
## KBC Power OK



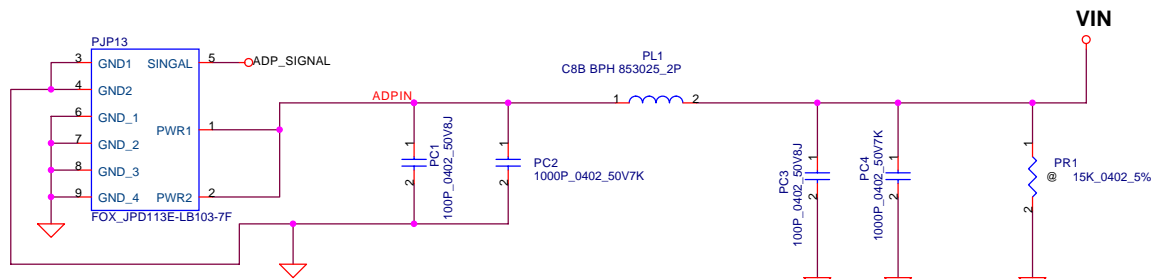
Del U54 and connect to U15. 12/19  
Del Q106 and connect to U15, del R1978 and reserve C1577.



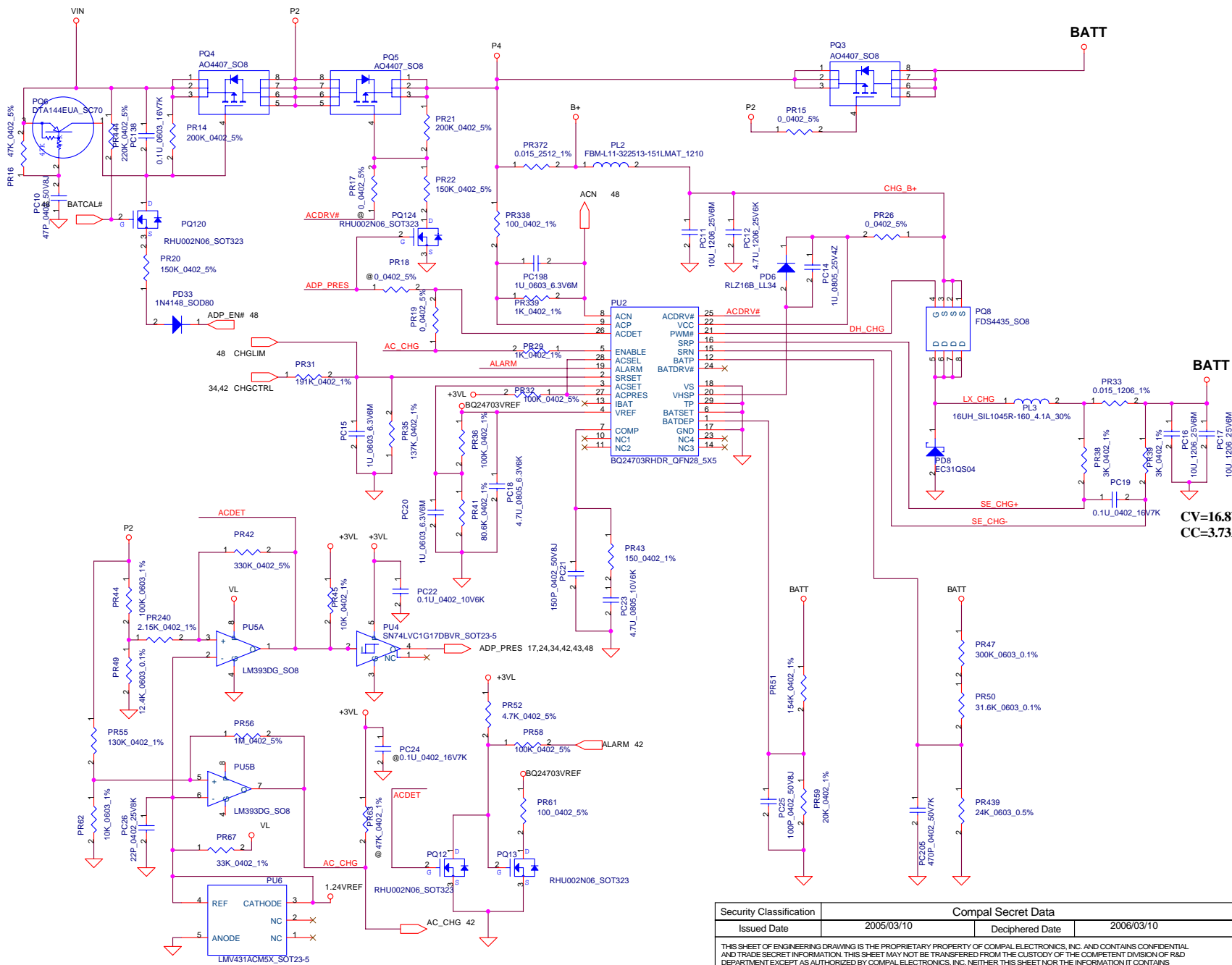
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2005/05/26	Deciphered Date	2006/07/26	Title	
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Title		
POWER BLOCK DIAGRAM		
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CV=16.8V (8 CELLS LI-ION)  
CC=3.73A when duty for CHGCTRL is 100%

Security Classification		Compal Secret Data		Title	
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2005/03/10		2006/03/10		Compal Electronics, Inc.	
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Size		Document Number		LA-3331P	
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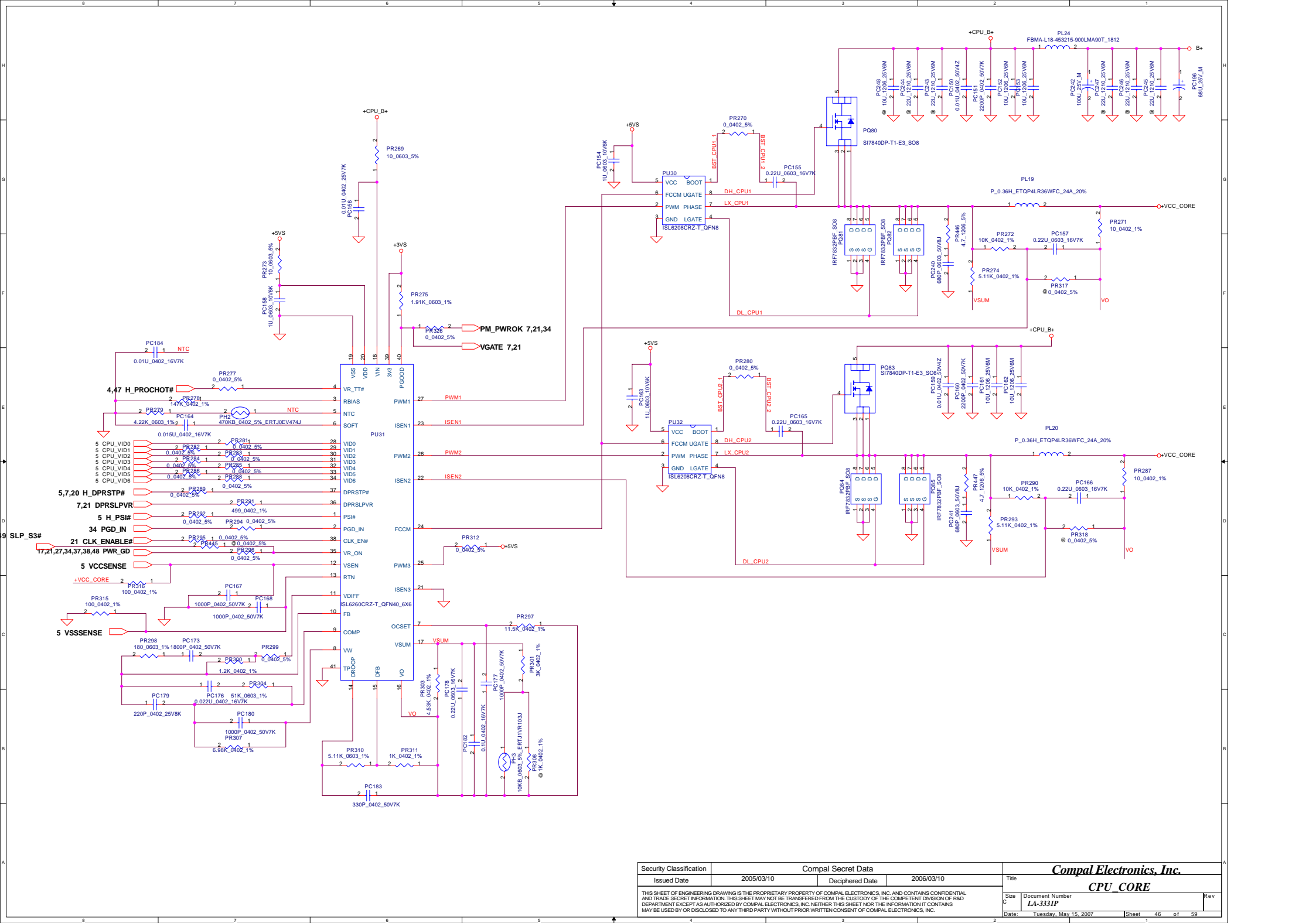








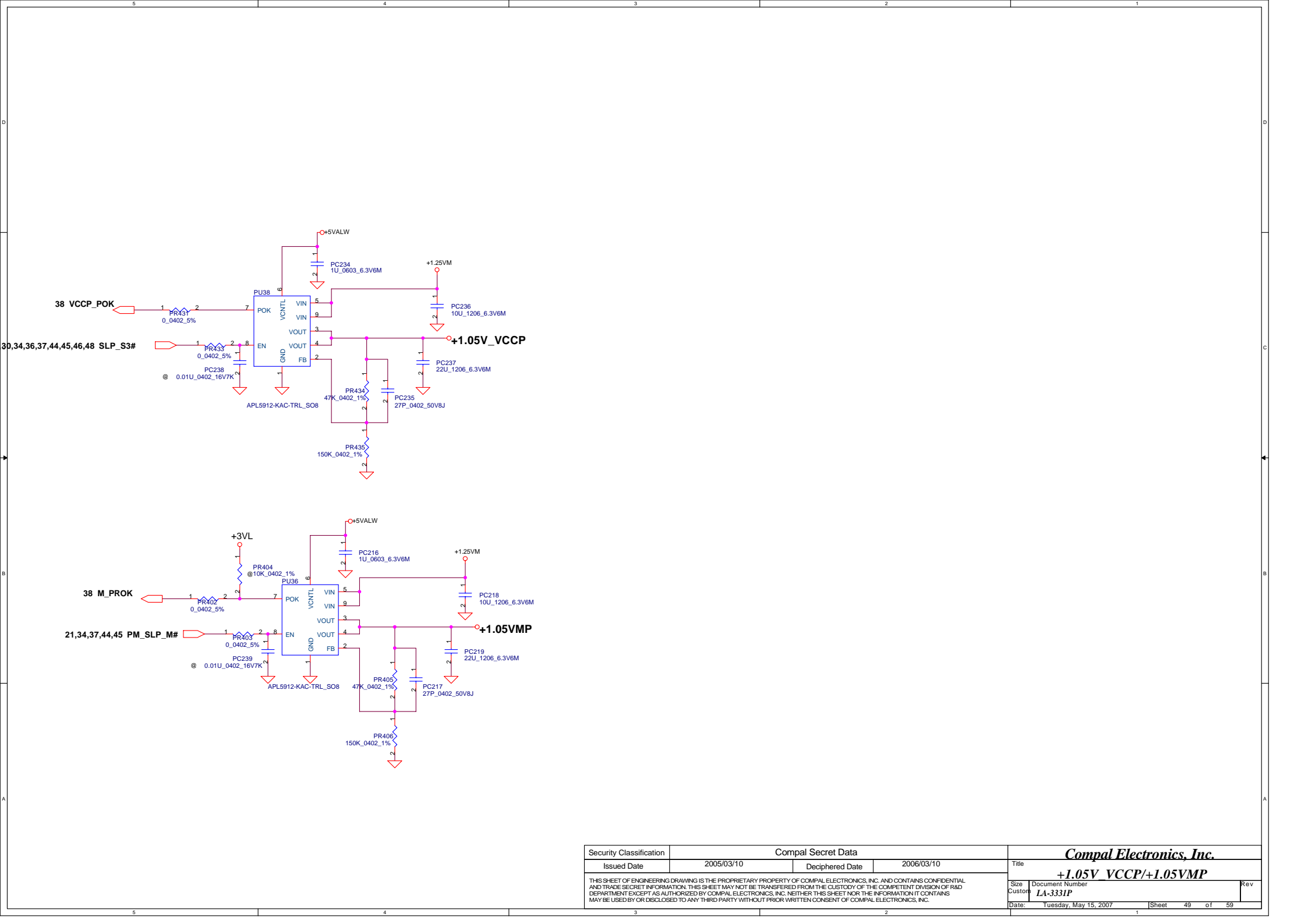












# Version Change List ( P. I. R. List ) for Power Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	41	Charger	5/9	HP	Remove PQ91,PD32,PR376	Remove PQ91,PD32,PR376	Rev.
2	42	Battery Selector	5/9	HP	Modify battery selector design.	PU12 Change from SN74LVC1G17DBVR_SOT23-5 to SN74LVC1G14DCKR_SC70-5 Add new location PC220 as 0.047uF Add new location PC221 as 1000PF Add new location PR407 as 470K ohm. Add new location PR408 as 1K ohm.	
3	43	3.3VALW/5VALW	5/9	HP	Modify 3.3VALW/5VALW solution	Change solution from TPS51020 to MAX8734A	
4	44	2.5VALW/1.5VS/ 1.05VCCP	5/9	Compal	Remove 2.5VALW, H/W no need!	Remove PU20, PC72, PC73	
5	47	BATTERY CONN	5/9	Compal Thermal team	Add RAM thermal protection schematic.	Add new location PH4,PC233,PR430,PR429,PR426,PQ111	
6	48	ADP_OCP	5/9	HP	Modify ADP_OCP design	Delete PR379,PQ103,PQ104,PR386,PR382,PQ106	
7	43	3.3VALW/5VALW	5/9	Compal	Modify 3.3VALW/5VALW location for layout.	Swap location PC33, PC44 Swap location PC34, PC45 Swap location PQ37, PQ38, PL5 PL6, PR100, PR104, PC39 , PC199.	
8	44	1.25VM/1.5VS	5/29	Compal	Layout concern.	Modify 1.05V_VCCP/1.25VM solution	
9	49	1.05V_VCCP/ 1.05VS	5/29	Compal	Layout concern.	Modify 1.05V_VCCP/1.25VM solution.	
10	45	1.8V/0.9VS	6/2	HP	HP request to follow Chimay.	Modify 1.8V/0.9VS schematic.	
11	41	Charger	6/6	HP	HP request!	Modify Charger schematic.	
12	42	Battery selector	6/6	HP	HP request!	Modify selector schematic.	
13	47	BATTERY CONN	6/6	HP	HP request!	Modify main battery power in schematic.	
14	45	1.8V/0.9VS	6/7	HP	At S3 mode, 0.9V need exist, so connect PR242 to 1.8V	Modify PR242 connect to 1.8V	
15	46	CPU_CORE	6/21	HP	HP request.	Modify PU31.35 pin connect to SLP_S3#, originally is connect to VR_ON.	
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Version Change List ( P. I. R. List ) for Power Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
16	41	Charger	5/9	HP	Change PQ114 to BSS138.	Change PQ114 to BSS138.	
17	47	BATTERY CONN	9/7	Compal	Intel Document for the DDR Module Thermal Diode design	Change the PQ111.1 connection from H_PROCHOT# to PM_EXTTS#1	
18	43/44		11/1	Compal	Dual N MOSFET has failure rate at other project, to reduce Dual N MOS useage.	Change 3V, 1.5V solution, to single N Mos FET solution.	
19	41	Charger	03/29	Compal	Reserve some components for EPA.	Reserve PR21, PR22, PQ124 and PR19.	
20			03/30	Compal	DFx request modify footprint to prevent shift issue.	Modlfy PD10,PD12,PD14,PD16,PD33,PD34,PD35,PD37(SC11N414880) footprint from SOD80 to LL34.	
21			04/02	Compal	For Energy star	Unlstaill UnInstall PR1, PR17 and PR18.And Install PR19,PR21,PR22,PQ124.	
22			04/02	Compal	For ADP OCP setting.	Change PC116 from 0.22U_0603_16V_X7R to 0.027U_0603_16V_X7R.	
23			04/02	Compal	For ADP OCP setting.	Change PR222 from 422 ohm 1% to 215 ohm 1%.	
24			04/02	Compal	For ADP OCP setting.	Change PC117 form 0.027U_0603_16V_X7R to 0.01U_0603_16V_X7R.	
25			04/02	Compal	For ADP OCP setting.	Change PR217 from 604K_0603_1% to 200K_0603_1%	

### Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	26	Mini Express Card	7/3	Compal	H28 & H29 size different.	Change H28 size to same as H29.	0.2
2	24	GIGA LAN	7/4	Compal	BOM Leverage to Chimay.	Chnage Y8 to 25MHz_20P_1BG25000CK1A (Same as Chimay)	0.2
3	18	GPIO Extender	7/4	Compal	Use wrong package with BOM (U59).	Correct the package.	0.2
4	34	Capacitive I2C	7/27	HP		Change R1918, R1919 & add R2174 to 330 ohm.	0.2
5	15	FSB SEL	7/27	HP	No good for layout quality.	Del R1719, R1726.	0.2
6	20	RTC Conn	7/26	Compal	Wrong Package	Change JP28 from SP02000D000 to SP02000D700.	0.2
7	33	NUM_LED#	7/25	Compal	System auto re-boot	Add R2168 pull up to 3VL.	0.2
8	30	Head Phone	7/26	HP	ANTI-POP noise	Add circuit for this issue	0.2
9	26	WLAN	7/27	HP		Add R2158 connect to +3VS and connect to JP30 pin 2,39,41,52 , pin37,43 connect to GND.	0.2
10	18	Quick Switch	7/26	Compal	Wrong package for PCB foot print (U57).	Correct the package.	0.2
11	21	CPU Clock	7/28	Compal/HP	VRMPWRGD has glitch to cause wrong CPU clk.	Add R2173 & reserve C1576.	0.2
12	18	Quick Switch	7/28	Compal	Channel A & B will twist together as current layout.	Swap Channel A & B on schematic.	0.2
13	06	VCCP	8/1	Compal		Delete C1570 ~ C1573	0.2
14	21	CL_VREF1_ICH	8/2	Compal	Wrong pull high to +3VM.(R1855)	Change pull up to +3VALW.	0.2
15	31	USB	8/2	Compal	No pull up resistor for USB power switch OC pin.	Add R2175 and pull up to +5VALW.	0.2
16	18	Quick Switch	8/3	HP		Add U61 and Reserved R2176 for Q-switch select pin.	0.2
17	38	Power Good	8/4	Compal	VCC1_PWRGD has glitch when power on.	Reserve C1577 on PWRGD to GND.	0.2
18	21	Power Good	8/7	Compal	CLK_ENABLE# has glitch when power on.	Change R1862 from 330ohm to 1K ohm.	0.2
19	07	Clock	8/11	Compal	CLK_MCH_3GPLL/CLK_MCH_3GPLL# reversed.	Correct CLK_MCH_3GPLL/CLK_MCH_3GPLL#.	0.3
20	27	CardBus Controller	8/15.	Compal	Easy conflict with other device that use same IRQ.	Chnage connect from PCI_PIRQB# to PCI_PIRQG#.	0.3

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<b>HW Changed-List History-1</b>		
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### Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	07	Clock	8/11	Compal	CLK_MCH_3GPLL/CLK_MCH_3GPLL# reversed.	Correct CLK_MCH_3GPLL/CLK_MCH_3GPLL#.	0.3
2	27	CardBus Controller	8/15	Compal	Easy conflict with other device that use same IRQ.	Chnage connect from PCI_PIRQB# to PCI_PIRQG#.	0.3
3	21	USB	8/23	Compal	System easy hang-up when plug USB2.0 device.	Separate from pull up resistor of U10 for these pins.	0.3
4	34	PGD_IN	8/23	HP	Leverage Chimay SI schematic.	Add R2177(100K) pull down to GND.	0.3
5	34	EC VCC0(PIN 68)	8/24	HP	+3VL may over budget.	Add R2178, R2179(RV) for option the power source.	0.3
6	34	EC	8/24	HP	Leverage Chimay SI schematic.	Add D77, R2180 and connect D77 pin2 to U10 pinAE10.	0.3
7	33	SPI ROM	8/24	HP	Debug card asserts hold, can't assert both SPI ROM.	Add R2181 to connect SPI_HOLD#0 and SPI_HOLD#1.	0.3
8	26	MINI Card	8/24	HP	May leakage issue from WLAN card.	Add D78 to prevent this issue.	0.3
9	21	Power Sequency	8/24	HP	There is a shoot when power on of this pin.	Reserve R1862 and add R2182(10K) pull up to PWR_GD.	0.3
10	21	GPIO26	8/24	HP	Default is input can't floating.	Add a pull up R2183(10K) to +3VS.	0.3
11	21	GPIO17	8/24	HP	Default is input can't floating.	Make R2115 from RV to mount.	0.3
12	21	STP_CPU#	8/24	HP	Can't into C3 status.	Mount R1829.	0.3
13	21	XDP_DBRESET#	8/24	HP	Leverage Chimay SI schematic.	Change R1847 to 1K.	0.3
14	21	SPI_CS1#	8/24	HP	Only need one 4MB BIOS chip.	Add R2184(0 ohm) for BOM option.	0.3
15	17	MXM-HE	8/24	HP	Need High performace VGA card.	Chnage MXM-III to MXM-HE.	0.3
16	17	HDMI	8/25	HP	BOM change.	Change R1990 to 1K, R1991 to 10K and add L23, C1578.	0.3
17	21	GPIO12	8/28	HP	Add BOM option for SPI_CS1#.	Change connect of R1845.2 from LAN_PHYPC to LAN_PHYPC_R.	0.3
18	21	GPIO1 & GPIO11	8/28	HP	Net Change.	Exchnage OCP#(To GPIO1)&LANLINK_STATUS#(To GPIO11)	0.3
19	28	Card bus ETD test	8/31	HP	May some issue with ETD test.	Reserved C1509.	0.3
20	35	KBD Connector	8/31	HP	To meet HP 2007 platform defined.	Chnage JP12 from 26pin to 30pin.	0.3
21	10	L22	9/6	HP	BLM18PG221SN1 impedance is 221ohm@100MHz.	BLM18PG330SN1 impedance is 33ohm@100MHz.	0.3
22	26	Wireless LAN	9/6	HP	Connect C217, C171, C493 to wrong power.	Connect C217, C171, C493 from +3VS to +3VS_WLAN.	0.3
23	07	CRESTLINE	9/6	HP	Change Chip version from A0 to B0.	Mount R2134.	0.3
24	04, 21	Second FAN	9/7	Compal	Thermal team ask to add control for second FAN.	Add R2185, R2186 and use GPIO20 to control FAN.	0.3
25	17	MXM power B+	9/8	Compal	Delete C9 cause not enough space to placement.	ADD C1579, C1580(1210 size) to replace C9.	0.3
26	24	LAN Connector	9/12	Compal	EMI issue for LANLINK_STATUS#, LAN_ACT#.	ADD C1581, C1582(0402 size) per EMI request.	0.3

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# Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	20, 34	BATTERY LED	10/2	HP	GREEN_BATLED# keep high when AC/DC exist.	Change connection between SB & EC.	0.4
2	21	SM Bus	10/3	Compal	SM Bus connection is not correct.	Correct connection of SM bus and reserved R1817, R1820.	0.4
3	35	Function Connector	10/5	HP	Wireless LED always on.	Make change of JP1, pin1-> +3VL, pin2 -> +3VS.	0.4
4	20, 23	Kensington support	10/18	HP	Removed Kensington support.	Remove JP60, Q122, R2084.	0.4
5	18	Quick-Switch	10/18	Nvidia	We will change Quick switch to PI3HDMI412FT-A	Don't need pull up, removed RP44 ~ RP47.	0.4
6	18	Quick-Switch	10/18	HP	Don't have decoupling for U57 1.5VS.	Add C1583, C1584.	0.4
7	34	KBC Debug port	10/18	HP	Don't need use JP55, JP56 for debug.	Removed JP55, JP56 from SI1.	0.4
8	34	RUMRST# timing	10/18	HP	It may don't need these circuit.	Reserve them at SI1.(Install R2144, RV : Q128, D73, R2145~2146)	0.4
9	34	RUMRST# timing	10/18	HP	It different to desgn guide 1.1.	Change R2145 to 4.7k, pull up to +3VALW and connect to Q128 base pin.	0.4
10	34	VCC1 Power	11/02	HP	Chnage Design.	Chnage VCC1 power option to +3VALW or +RTCVCC.	0.4
11	21	LANSTATUS#	11/02	HP	System auto power on after plug AC in.	Add Q136 to isolation U10 directly link to NIC, and add PU R2187.	0.4
12	31	USB Switch	11/03	Compal	Don't need dual layout for USB power switch.	Remove U7, U36.	0.4
13	30	Audio	11/03	HP	To pass Vista test of Audio.	Change R207, R217 from 15ohm to 56.2ohm.	0.4
14	25	LAN	11/06	Intel	Intel Santa Rosa Platform Message of the WW44	Change R1903 from 3.92Kohm to 1.4Kohm.	0.4
15	24	LAN Connector	11/06	Compal	EMI issue for LANLINK_STATUS#, LAN_ACT#.	Mount C1581, C1582 --> 680pF(0402).	0.4
16	17	MXM Connector	11/08	HP	Need BOM option of SLP_S3# for use G71 or G84.	Add R2190(0ohm).	0.4
17	4	Thermal Senser	11/08	HP	Abita will chnage to new Thermal senser in the future.	Add R2188, R2189(0ohm).	0.4
18	35	MDC	11/08	HP	Implement new MDC future.	Connect JP26.2 to +3VS.	0.4
19	15	FSB Freq Selecter	11/09	HP	Need HW option for 667MHz or 800MHz	Add JP62, JP63 and install R1689,R1696,R1705,R1737 and reserve R1694,R1716,R1734.	0.4
20							
21	37	M-Power discharge	11/10	Compal	It's wrong connection of discharge control circuit.	Correct Q97, Q98, Q99 pin2 connect to LAN_WOL_EN#.	0.4
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23							
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25							
26							
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# Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	33	FP Connector	12/18	Compal	ME ask to change FP connector.	Change FP connector(JP15) to same as JP58.	0.5
2	34	KBC	12/18	HP	System can't power on.(PWR1 connect to +3VALW)	PWR1 will modify connect to +3VL(R1908.2).	0.5
3	35	PLTRST/CBB	12/18	HP	Capacitive Button Board may not need PLTRST.	Disconnect PLT_RST# from JP1.3.	0.5
4	38	KBC Power good	12/19	HP	VCC1_PWRGD have glitch when plug AC/DC power.	Del U54, Q106 and R1978, replace by U15.	0.5
5	25	LAN ENERGY DET	12/19	Intel	Intel request chnage value of R1903.	Change R1903 from 1.4K to 1.87Kohm.	0.5
6	38	PWR_GD	12/19	HP	Ripple noise to cause system auto shutdown issue.	Add C1585(0.1uF) and R2191(1Kohm).	0.5
7	34	KBC	12/20	HP	Current design may possible to damage the KBC.	Change design to add Q137, Q138(2N7002) and R2192(100Kohm), R2193(1Kohm).	0.5
8	27	Card bus Controller	12/21	Compal	There is pop noise when plug some PCMCIA card.	Add R2194 and C1586 and change value for R2038 and R2041.	0.5
9	24	NIC	12/21	Intel	82566MM may have start-up issue with Crystal.	Modify layout and add R2195(0ohm).	0.5
10	24	ACBS	01/02	Intel	To enable IAMT and support ACBS.	Mount Q85 and R2072 but remove Q87~Q88 and R1877.	0.5
11	35	Power Button	01/04	Compal	ESD test is not good for Switch board.	Add ESD diode(D79) to M/B and add ME solution.	0.5
12	24	NIC	01/05	Compal	EMI test is fail from NIC.	Add C1587~C1590, L24 and change C1421 to 820pF, R12~R13 to FBMA-10-100505-151T.	0.5
13	38	LAN Reset	01/05	HP	HP request to modify.	Change this power rail from +3VM_LAN to +3VM.	0.5
14	18	Quick-Switch	01/07	HP	There is leakage issue of Q-Switch.	Add D80 for this issue.	0.5
15	37	MXM	01/10	HP	MXM board need external +2.5VS power rail.	Add U62, C1592, C1593 for this issue.	0.5
16	37	MXM	01/11	HP	2.5VS for MXM is too long.	Reserve C1594(0.1uF) close to pin.	0.5
17	37	MXM	01/12	HP	Leakage issue from MXM pin211(ADP_PRES)	Add Q139(RHU002N06) & R2196(8.2K).	0.5
18							0.5
19							0.5
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Version Change List ( P. I. R. List ) for HW Circuit

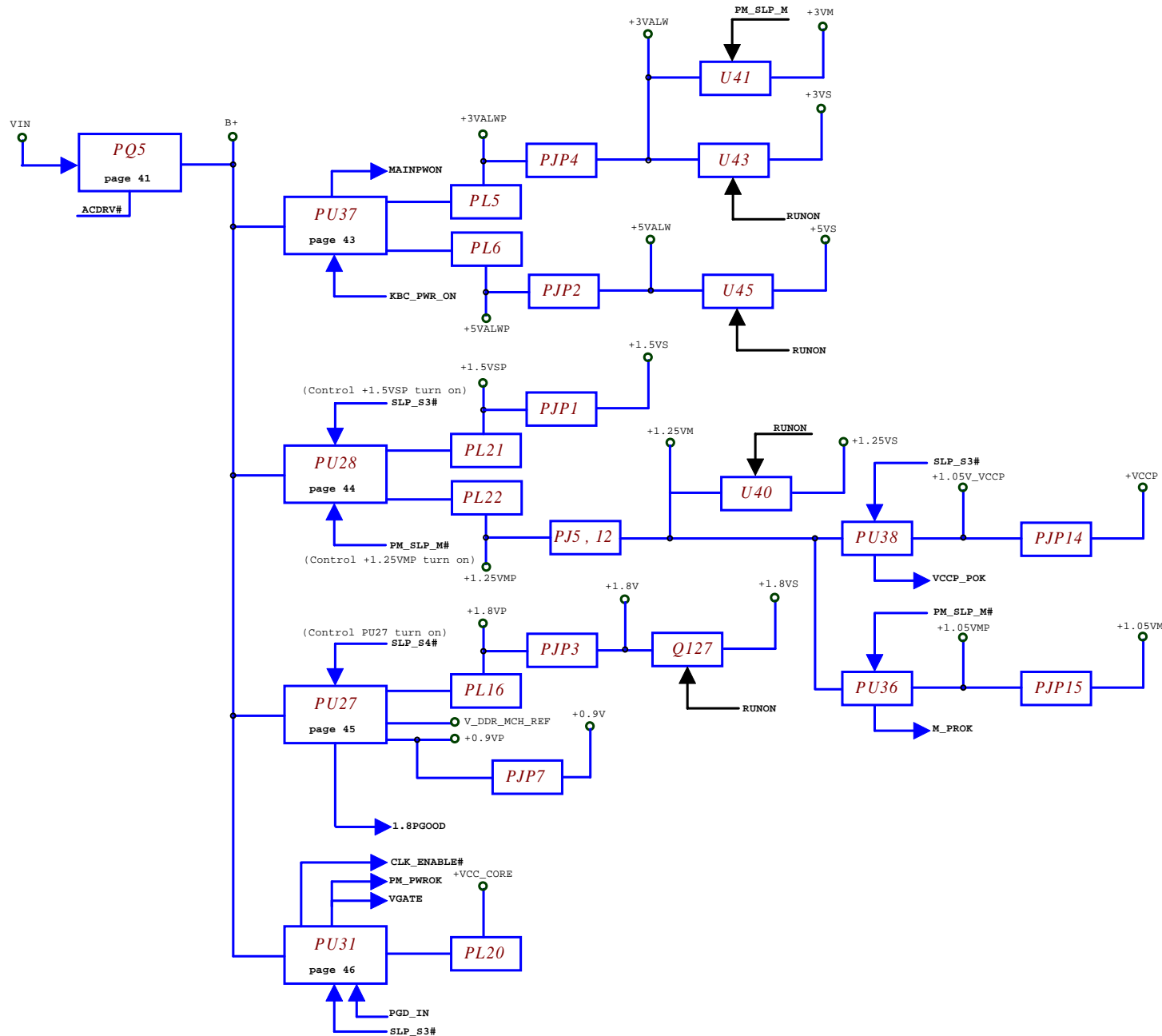
Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	30	USB Connector	02/07	Compal	Not need 40 pin connector for USB/Audio connector.	Change JP25 from 40pin to 30pin.	0.6
2	34	KBC VCC0	02/07	Compal	Can't power on and AC power LED always light.	Change R2179 connect to +3VL, and add option R2197 to GND.	0.6
3	33	FPR/USB S3/S4	02/12	HP	Change control method for FPR/USB power in S3/S4.	Add R2198, R2200~R2202, Q140~Q141.	0.6
4	37	WOL control	02/14	HP	Add 100K pull up for LAN_WOL_EN.	Add R2203(100Kohm).	0.6
5	29	SPDIF	02/14	HP	HP request to add 4.7K pull down on SPDIF out.	Add R2206(4.7Kohm).	0.6
6	29	Card reader	02/14	HP	Need reserve some test point.	Add R2205(0ohm) and T94.	0.6
7	17	MXM thermal pin	02/14	HP	Isolation MXM_THERM# and PWR_GD use MOSFET.	Add Q142 and R2204 for the modify.	0.6
8	30	USB Connector	02/28	HP	Couple mV over the 150mV GS limits.	Change R207, R217 from 56.2 ohm to 60.4 ohm.	0.6
9	21	THERM_SCI#	02/28	HP	HP request to design change.	Remove R1854 from BOM list.	0.6
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Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	15	Clock Gen	03/19	HP	Remove Ohm damping of differential clock pair.	Remove RP49, RP51~RP57, reserve RP48.	0.8
2	15	FSB selector	03/19	HP	Remove FSB selection function. Remove JP62, JP63, Reserve R1689, R1696, R1705, R1737, install R1694, R1716, R1734.		0.8
3	29	Audio Codec	03/19	HP	To improve audio quality of docking.	Change R290~R291 to 6.04K and R289, R292 to 2K.	0.8
4	20	GPU Thermal	03/19	HP	Design change for MXM board.	Reserve R1854.	0.8
5	26	NAND Card	03/23	HP	Don't need this function for MP.	Reserve R2064, R2065, C1553 ~ C1560.	0.8
6	21	OC6#/GPIO30	03/23	HP	This pin is not long use for MXM.	Reserve R2207 for isolation.	0.8
7	38	POK CKT	03/28	Compal	For schematic leverage to Chimay.	Change LMV331(U47,U48) to LM393(U47), and remove R1976, C1487	
8	24	NIC power	03/28	Compal	Don't need +V1.0M_LAN power regulator.	Remove Q90, C1436 ~ C1440.	0.8
9	31	USB Port	03/28	Compal	To correct schematic and make layout smooth.	Remove C118, C498, C499, R49 and change C126 to 330uF.	0.8
10	31	BT	03/28	Compal	To make layout smoothly.	Remove D16.	0.8
11	34	KBC Clock	03/28	Compal	To make layout smoothly and EMI request.	Remove R1929, C1455.	0.8
12	21	LAN/WLAN Switch	03/30	HP	Unplug AC, WLAN will be disabled on XP OS.	Add U63 for slove leakage issue of enable ACBS.	0.8
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Version Change List ( P. I. R. List ) for HW Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	11	NB Crack detect	05/02	HP	Reserve BGA crack detect function	Remove Q114~Q117, R2049~R2052, install R111, R113, R122, R132.	1.0
2	22	SB Crack detect	05/02	HP	Reserve BGA crack detect function	Remove Q118~Q121, R2058~R2061, install R138~R141.	1.0
3	22	Audio Codec	05/02	HP	To improve ICH_V5REF_RUN of SB.	Change C1190 from 0.1uF to 1uF.	1.0
4	36	Easy crack Issue	05/14	HP	To prevent crack Issue for L14	Change L14 material to SM010008E10.	1.0
5	14	DDR DIMM B	5/15	HP	To solve OTS issue OTS 265441 and 261307.	Change R33 pin2 connect to +3VM.	1.0
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