Compal Confidential

Schematics Document

Intel

ARRANDALE with IBEX PEAK-M

U3X

LA-5792P

2010-06-21

REV:1.0

Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

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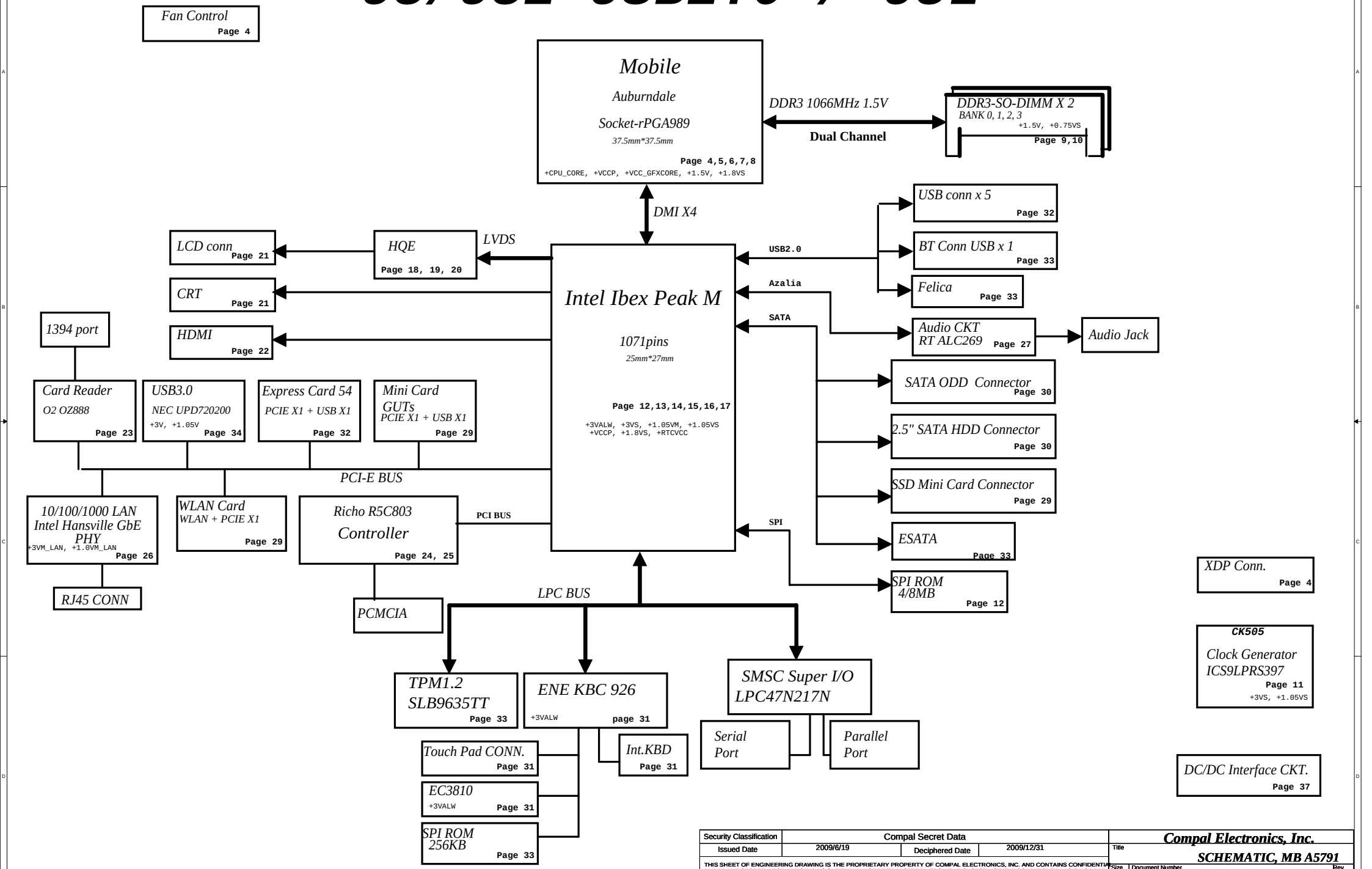
Title	SCHEMATIC, MB A5791	
Size: Custom	Document Number: 401831	Rev: F
Date: Thursday, July 15, 2010	Sheet 1 of 55	

U3/U32 USB2.0 / U3L



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Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 2 of 55

Voltage Rails (O MEANS ON X MEANS OFF)

power plane / State	+RTCVCC	+B +3VL	+5VALW +3VALW	+1.05VM_LAN	+3VM +1.05VM	+1.5V +1.05V +3V	+5VS +3VS +1.5VS +VCC_GFXCORE +VCCP +CPU_CORE +1.05VS +1.8VS +0.75VS +1.2VS
S0	O	O	O	O	O	O	O
S3 / DC	O	O	O	O	X	O	X
S3 / AC	O	O	O	O	O	O	X
S3 / S4 / S5 WoLAN	O	O	O	O	X	X	X
S5 S4/AC	O	O	O	O	O	X	X
S5 S4/ Battery only	O	O	X	X	X	X	X
S5 S4/AC & Battery don't exist	O	X	X	X	X	X	X

Symbol Note :

: means Digital Ground

: means Analog Ground

@ : means just reserve , no build
CONN@ : means ME part.

Install below 45 level BOM structure for ver. 0.1

45@ : means just put it in the BOM of 45 level.

Install below 43 level BOM structure for ver. 0.2

LV: LV@+FEL@+LC@+HQE@+USB3@

VA: VA@+LC@+SW@+LVDS@+USB2@

VE: VA@+VE@+FEL@+LVDS@+USB2@

LV WO/HQE USB3: LV@+FEL@+LC@+LVDS@+USB2@

LV W/HQE WO/USB3: LV@+FEL@+LC@+HQE@+USB2@

U3L(VA): VA@+LC@+SW@+LVDS@+USB2@

U32(LV WO/HQE W/USB3): LV@+FEL@+LC@+LVDS@+USB3@

SMBUS Control Table

	SOURCE	BATT	XDP	SODIMM	CLK CHIP	MINI CARD	DOCK	NIC	THERMAL SENSOR	G-SENSOR
SMB_EC_CK1 SMB_EC_DA1	SMSC1098	V	X	X	X	X	X	X	X	X
SMBCLK SMBDATA	Calpella	X	V	V	V	V	V	X	X	V
SML0CLK SML0DATA	Calpella	X	X	X	X	X	X	V	X	X
SML1CLK SML1DATA	Calpella	X	X	X	X	X	X	X	V	X

Board ID Table for AD channel

Vcc	3.3V +/- 5%
Ra / Rc	100K +/- 5%

Board ID	Rb / Rd	V_{AD_BID} min	V_{AD_BID} typ	V_{AD_BID} max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

Compal Electronics, Inc.		
Title	SCHEMATIC, MB A5791	
Size: Custom	Document Number: 401831	Rev: F
Date: Thursday, July 15, 2010	Sheet 3 of 55	

Layout rule：10mil width trace
length < 0.5", spacing 20mil

JCPU1B

MISC
CLOCKS
THERMAL
DDR3 MISC
PWR MANAGEMENT
JTAG & BPM

20_0402_1% R2 COMP3 AT23 COMP3
20_0402_1% R5 COMP2 AT24 COMP2
49.9_0402_1% R7 COMP1 G16 COMP1
49.9_0402_1% R9 COMP0 AT26 COMP0
T2 TP_SKTOCC# AH24 SKTOCC#
H_CATERR# AK14 CATERR#
15 H_PECI R16 0_0402_5% H_PECI_ISO AT15 PECI
to power; PU to VCCP at power side also
44 H_PROCHOT# H_PROCHOT# AN26 PROCHOT#
15 H_THERMTRIP# R19 0_0402_5% H_THERMTRIP#_R AK15 THERMTRIP#
H_CPURST# R20 @ 0_0402_5% H_CPURST#_R AP26 RESET_OBS#
14 H_PM_SYNC R21 0_0402_5% H_PM_SYNC_R AL15 PM_SYNC
H_CPUPWRGD R22 0_0402_5% VCCPWRGOOD_1 AN14 VCCPWRGOOD_1
15 H_CPUPWRGD R24 0_0402_5% VCCPWRGOOD_0 AN27 VCCPWRGOOD_0
14 PM_DRAM_PWRGD R26 0_0402_5% VDDPWRGOOD_R AK13 SM_DRAMPWROK
from power
43 VTTPWRGOOD AM15 VTTPWRGOOD
H_PWRGD_XDP R30 0_0402_5% H_PWRGD_XDP_R AM26 TAPPWRGOOD
26,29,31,32,34 BUF_PLT_RST# R31 1.5K_0402_1% PLT_RST#_R AL14 RSTIN#
R33 750_0402_1%
IC,AUB_CFD_rPGA,R1P0

CONN@

BCLK A16 CLK_BCLK → CLK_CPU_BCLK 15
BCLK# B16 CLK_BCLK# → CLK_CPU_BCLK# 15
BCLK_ITP AR30 CLK_CPU_XDP
BCLK_ITP# AT30 CLK_CPU_XDP#
PEG_CLK F16 CLK_EXP → CLK_EXP 13
PEG_CLK# D16 CLK_EXP# → CLK_EXP# 13
DPLL_REF_SSCLK A18 R11 0_0402_5%
DPLL_REF_SSCLK# A17 R13 0_0402_5%
CLK_DP 13
CLK_DP# 13

SM_DRAMRST# F6 H_DRAMRST#
SM_RCOMP[0] AL1 SM_RCOMP0
SM_RCOMP[1] AM1 SM_RCOMP1
SM_RCOMP[2] AN1 SM_RCOMP2
PM_EXT_TS#[0] AN15 PM_EXTTS#0 T3
PM_EXT_TS#[1] AP15 PM_EXTTS#1 R18 0_0402_5% from DDR → PM_EXTTS#1_R 9,10

PRDY# AT28 XDP_PRDY#
PREQ# AP27 XDP_PREQ#
TCK AN28 XDP_TCK
TMS AP28 XDP_TMS
TRST# AT27 XDP_TRST#
TDI AT29 XDP_TDI
TDO AR27 XDP_TDO
TDI_M AR29 XDP_TDI_M
TDO_M AP29 XDP_TDO_M
DBR# AN25 XDP_DBRESET# → XDP_DBRESET# 14
+3VS
R23 1K_0402_5%

BPM#[0] AJ22 XDP_BPM#0
BPM#[1] AK22 XDP_BPM#1
BPM#[2] AK24 XDP_BPM#2
BPM#[3] AJ24 XDP_BPM#3
BPM#[4] AJ25 XDP_BPM#4
BPM#[5] AH22 XDP_BPM#5
BPM#[6] AK23 XDP_BPM#6
BPM#[7] AH23 XDP_BPM#7

+VCCP
PM_EXTTS#0 R1 10K_0402_5%
PM_EXTTS#1 R3 10K_0402_5%
PM_PWRBTN# R909 @ 1K_0402_5%
14 PM_PWRBTN#_R

+VCCP
XDP_TDO R10 51_0402_5%

Remove reserve circuit: XDP CONN

+1.5V
VDDPWRGOOD_R R14 @ 1.1K_0402_1%
R15 @ 3K_0402_1%

Processor Pullups
+VCCP
H_CATERR# R39 49.9_0402_1%
H_PROCHOT# R42 68_0402_5%
H_CPURST#_R R45 @ 68_0402_5%

DDR3 Compensation Signals
SM_RCOMP0 R52 100_0402_1%
SM_RCOMP1 R53 24.9_0402_1%
SM_RCOMP2 R54 130_0402_1%
Layout Note:Please these resistors near Processor

Close to XDP
XDP_TRST# R55 51_0402_5%

8/6 S3 Power Reduction

+3VALW
+3VS
C1565 0.1U_0402_16V7K-N
SN74AHC1G08DCKR_SC70-5 U130
R2085 0_0402_5%
+1.5VS_CPU_VDDQ
R2065 1.1K_0402_1%-D
R2066 1.5K_0402_1%-D
R2088 0_0402_5%
R2086 0_0402_5% @ → 1.5V_POK 30,41
R2089 0_0402_5% → EC_S3_SAVE 30
R2069 750_0402_1%-D
VDDPWRGOOD_R
@

+1.5V
@ R2062 0_0402_5%-D
R2063 1K_0402_1%
2N7002_SOT23-3
H_DRAMRST# → DRAMRST# 9,10
Q3
R2067 100K_0402_5%-D @
RST_GATE 15,48
C1571 0.047U_0402_16V7K

FAN Control circuit

C1433 10U_1206_16V4Z~N
C1435 1000P_0402_50V7K-N
+5VS
C1434 10U_1206_16V4Z~N
U106
EN VIN VOUT VSET GND
APL5607KI-TRG_SO8
31 EN_DFAN1 → EN_DFAN1
FAN1_POWER
+3VS
R1773 10K_0402_5%
40mil
JFAN1
31 FAN_SPEED1
C1436 0.01U_0402_16V7K
ACES_85205-03001
conn@
FAN1

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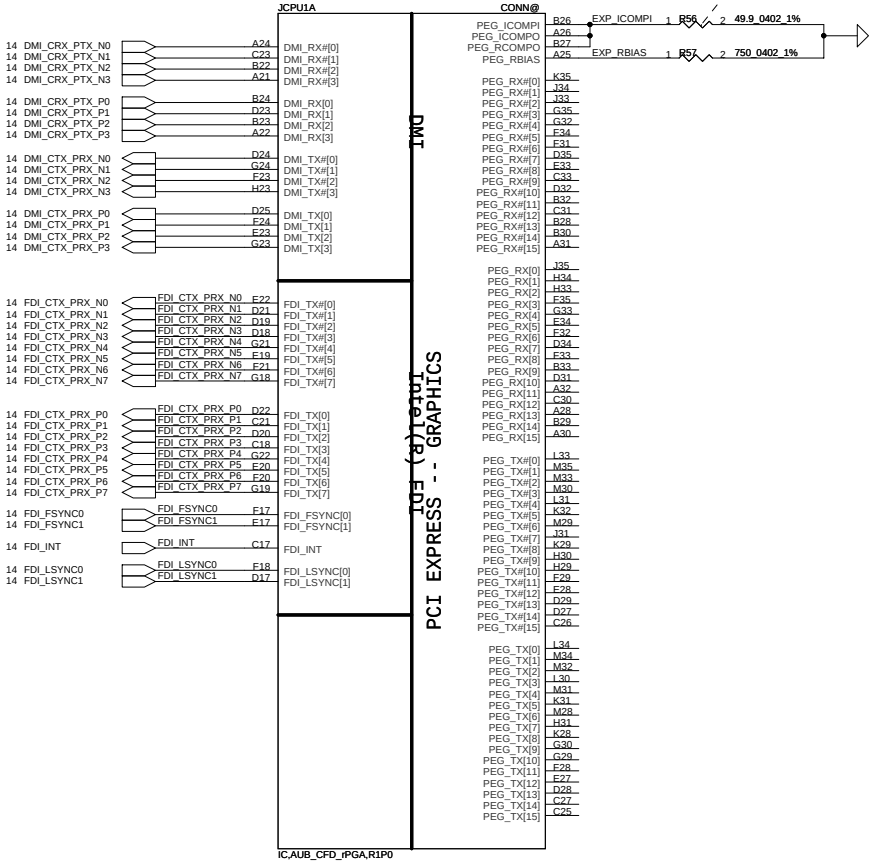
Compal Electronics, Inc.

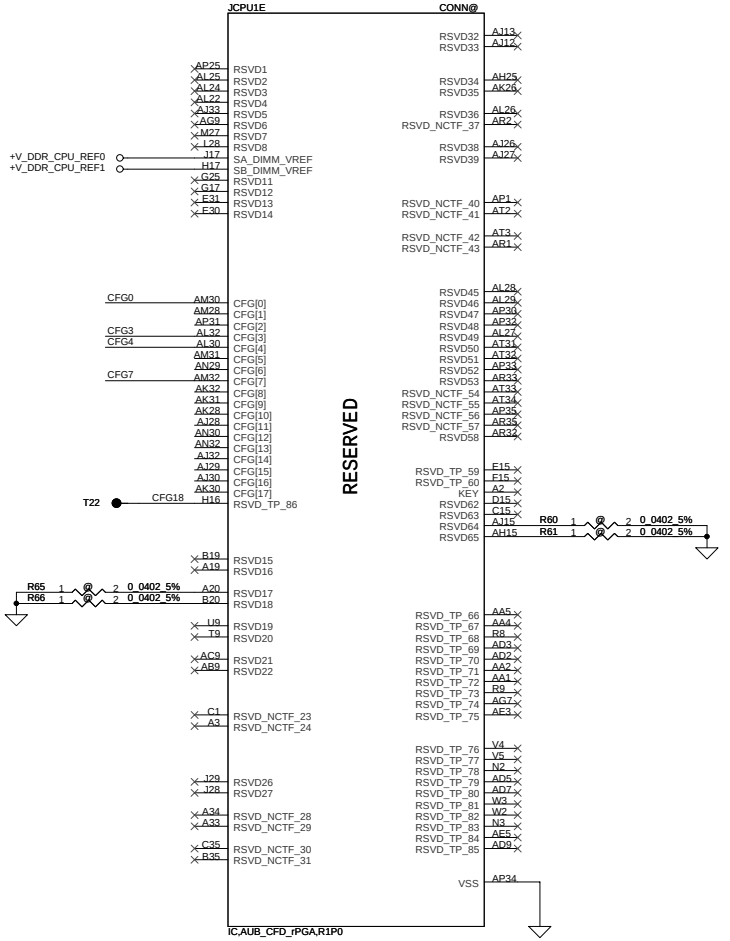
Title: SCHEMATIC, MB A5791

Size: Custom | Document Number: 401831 | Rev: F

Date: Thursday, July 15, 2010 | Sheet 4 of 55

Layout rule : trace length < 0.5"





CFG Straps for PROCESSOR

CFG0 R67 3.01K_0402_1%

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

Not applicable for Clarksfield Processor

CFG3 R69 3.01K_0402_1%

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

CFG4 R70 3.01K_0402_1%

CFG4-Display Port Presence	
CFG4	1: Disabled; No Physical Display Port attached to Embedded Display Port 0: Enabled; An external Display Port device is connected to the Embedded Display Port

CFG7 R68 3.01K_0402_1%

Only temporary for early CFD samples (rPGA/BGA)

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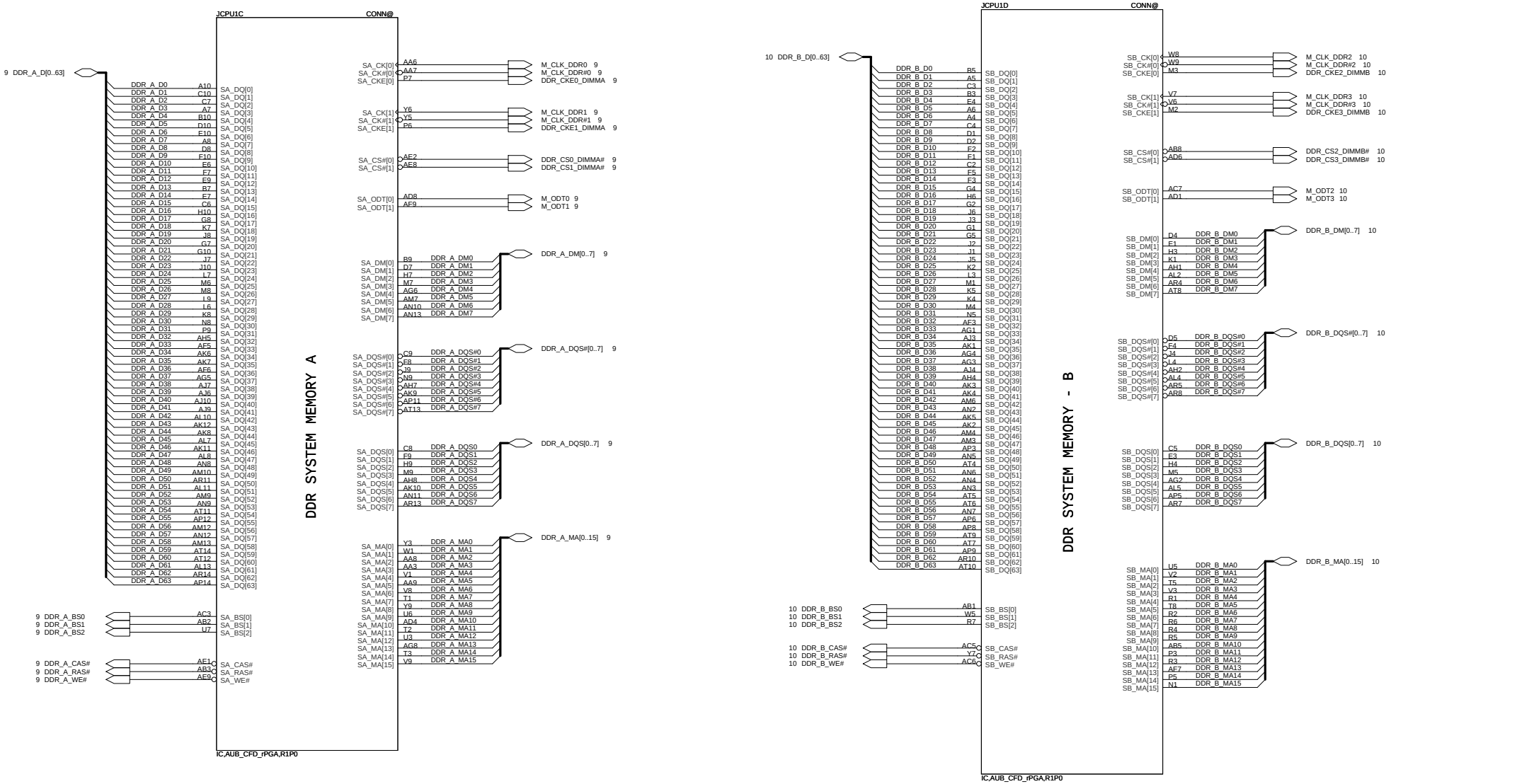
Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 Sheet 5 of 55



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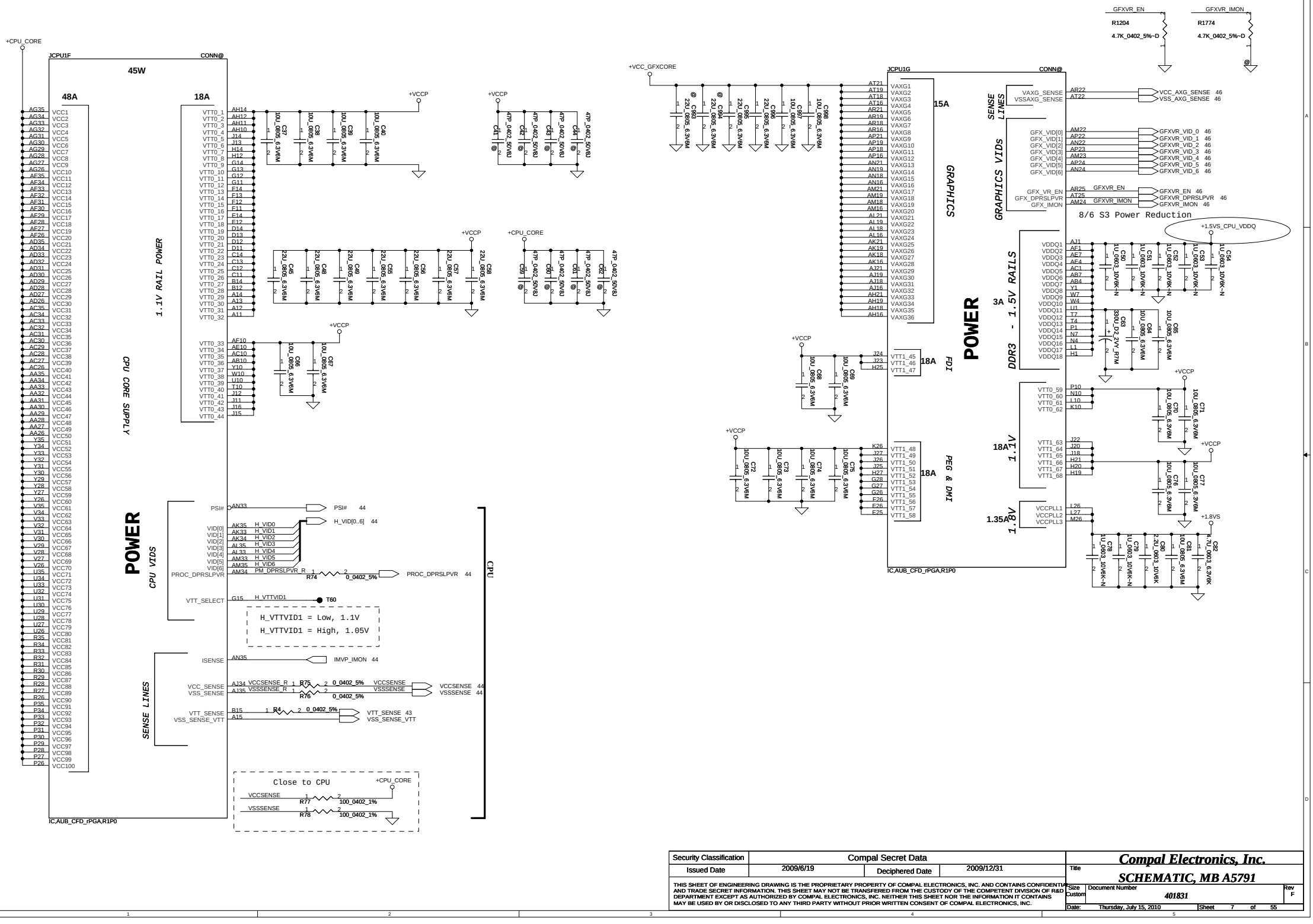
Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 6 of 55



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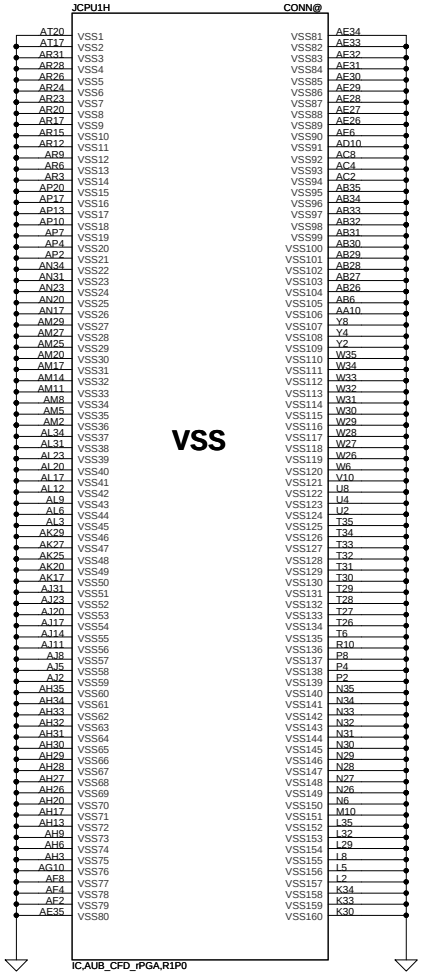
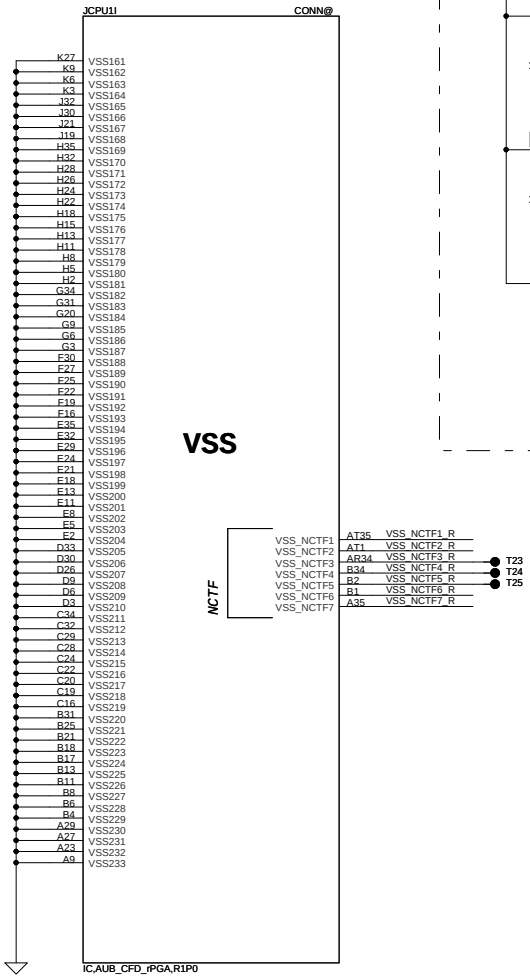
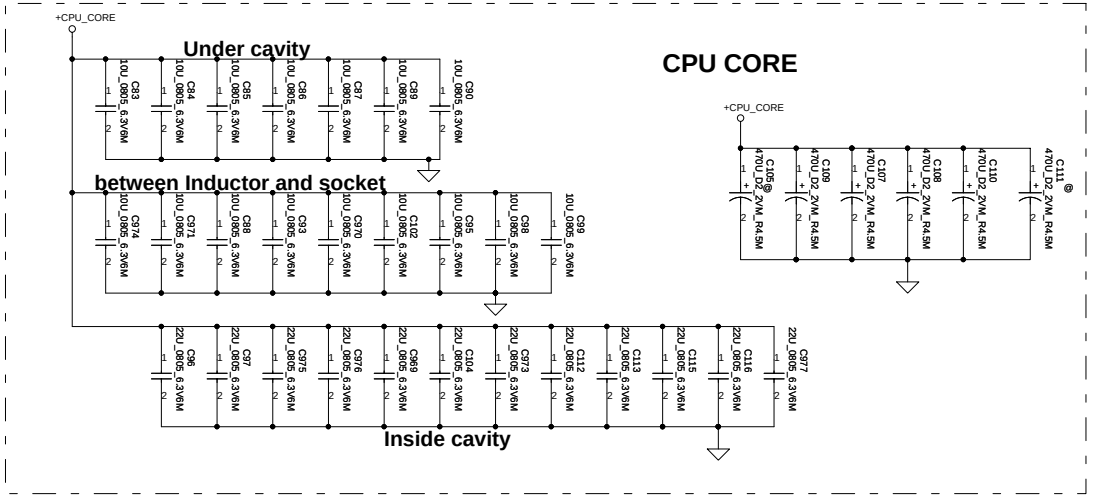
Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 Sheet 7 of 55







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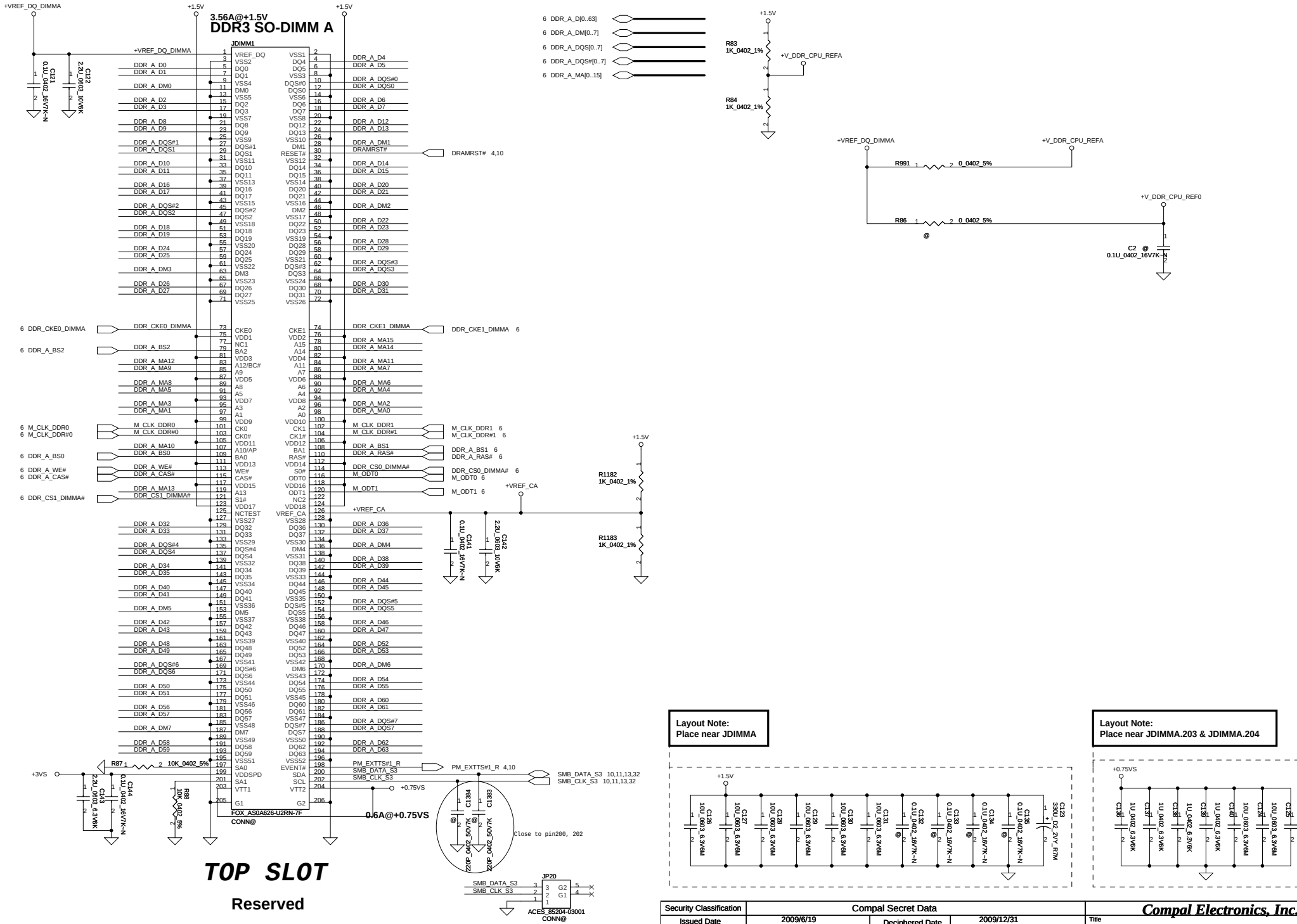
Size: Custom	Document Number: 401831		Rev: F
Date: Thursday, July 15, 2010	Sheet 8 of 55		



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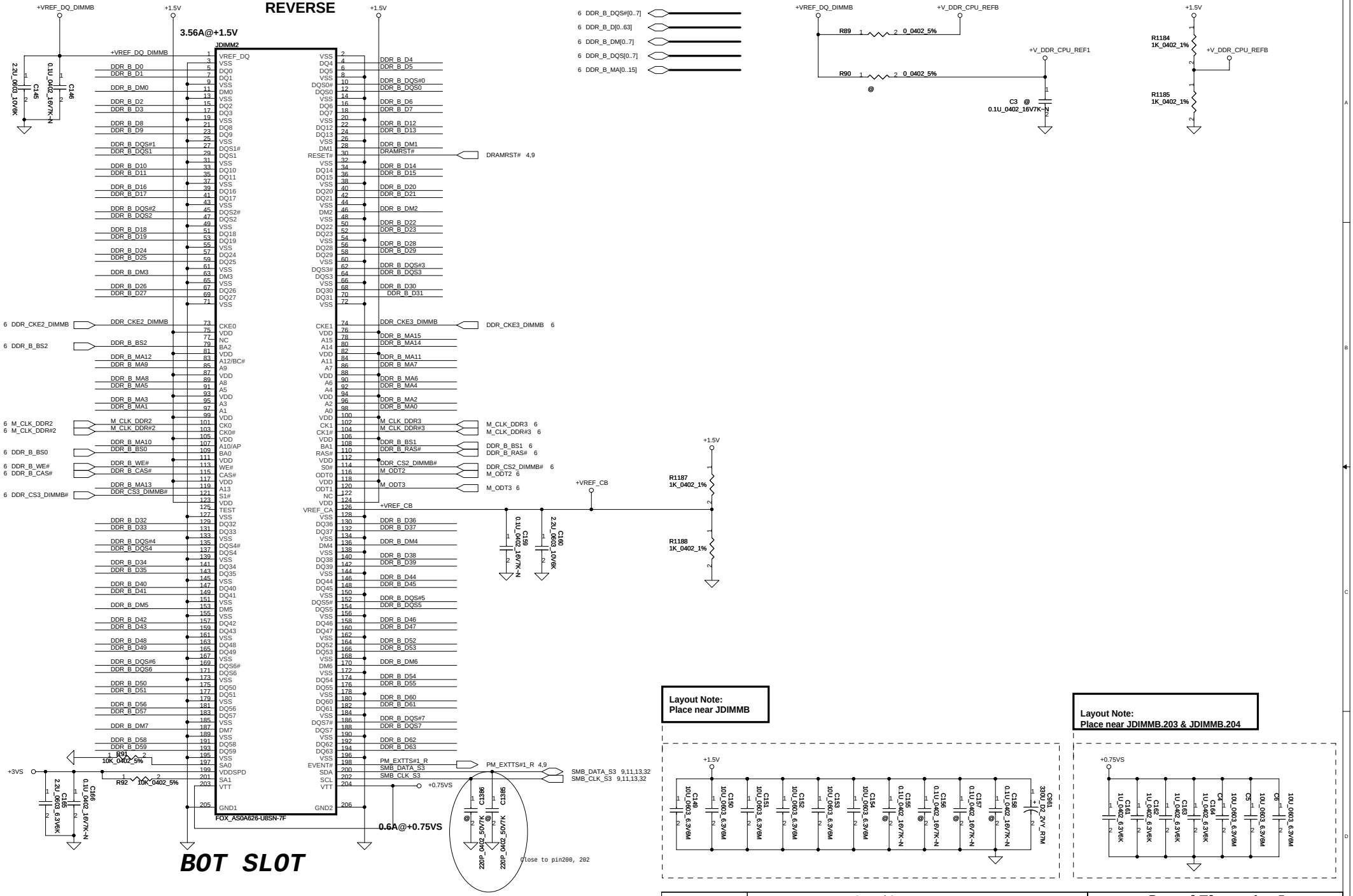
Title: SCHEMATIC, MB A5791

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 Sheet 9 of 55

DDR3 SO-DIMM B REVERSE



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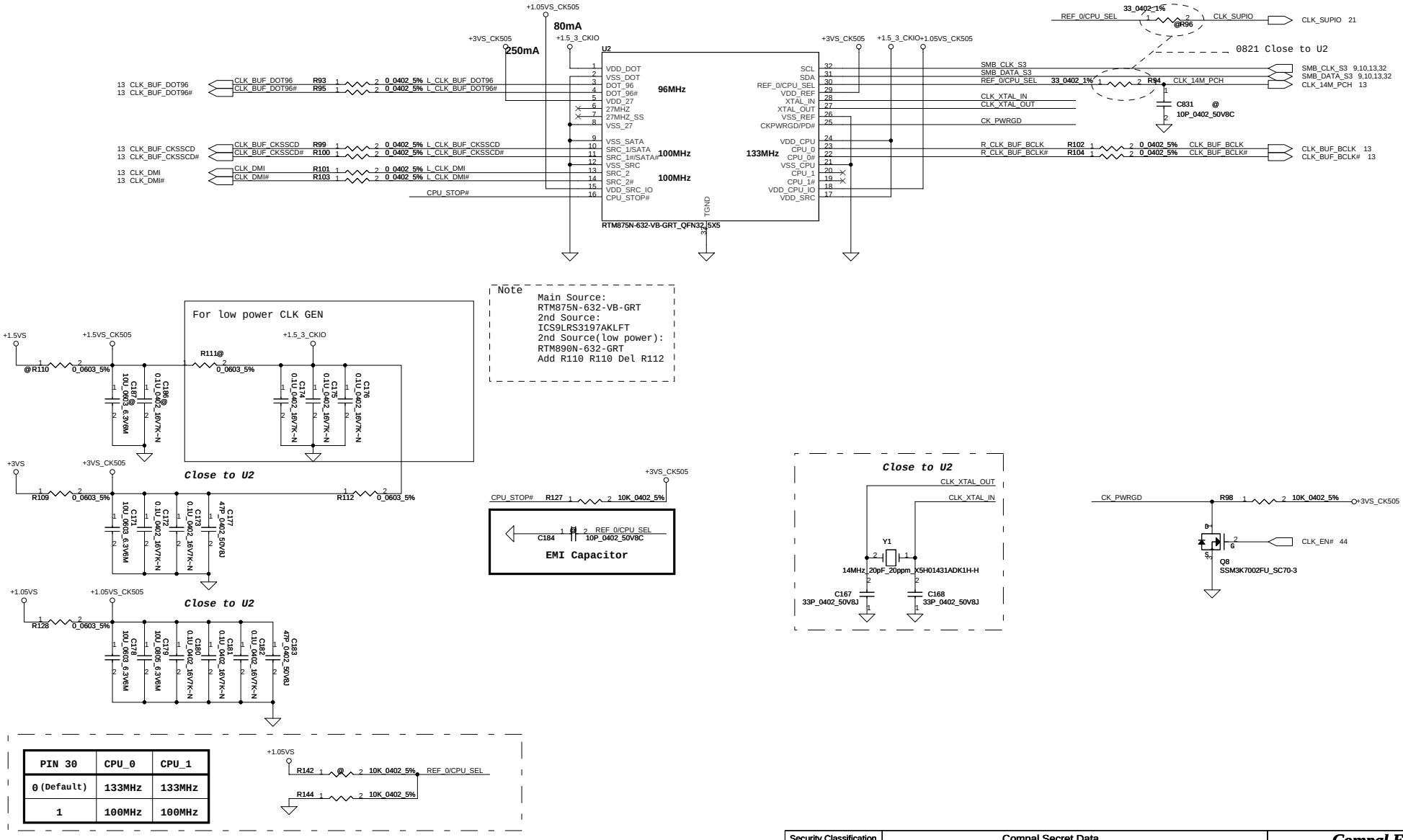
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
	401831	F

Date: Thursday, July 15, 2010 | Sheet 10 of 55



Note
Main Source:
RTM875N-632-VB-GRT
2nd Source:
ICS9LRS3197AKLFT
2nd Source(low power):
RTM890N-632-GRT
Add R110 R110 Del R112

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

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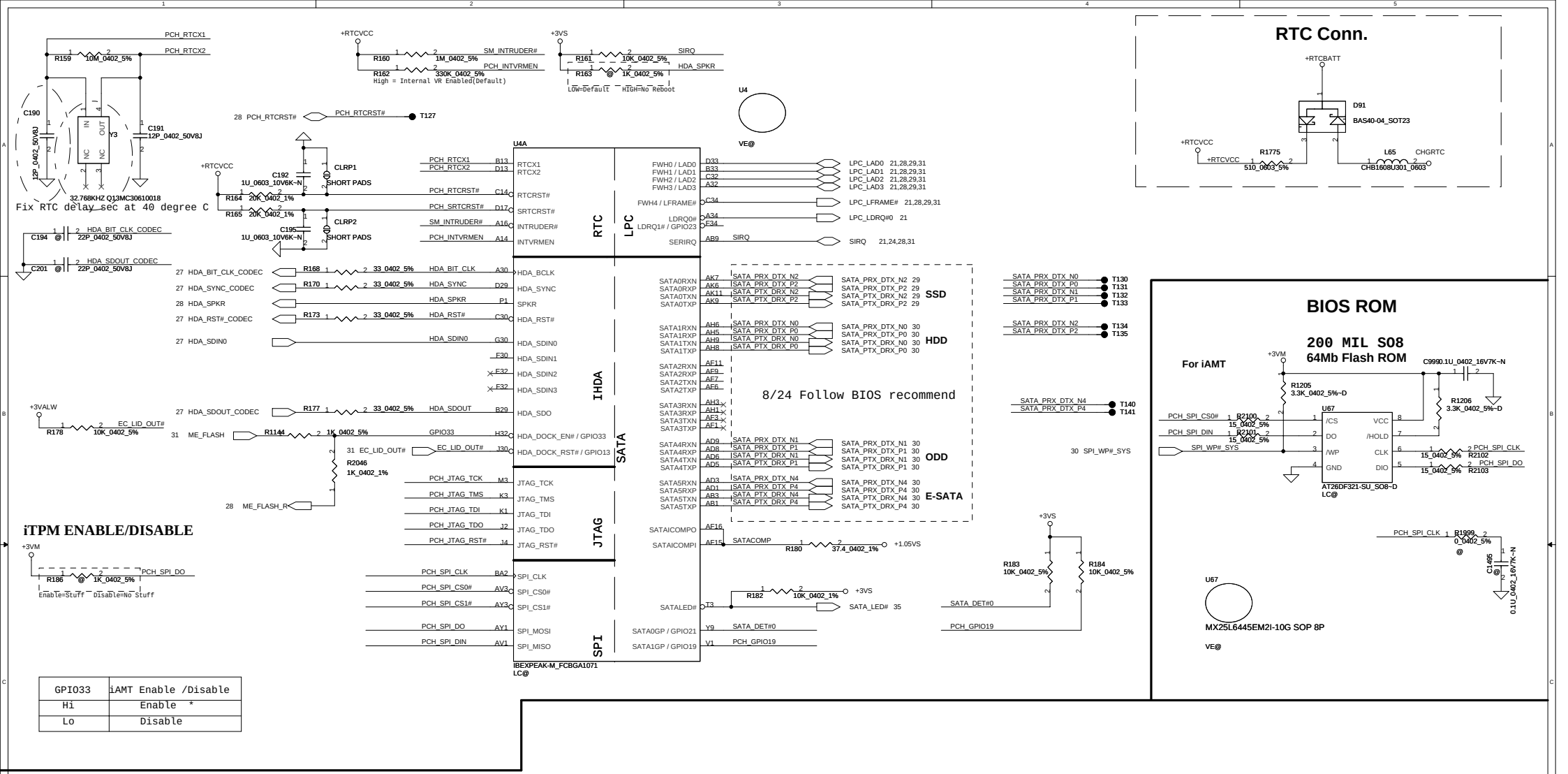
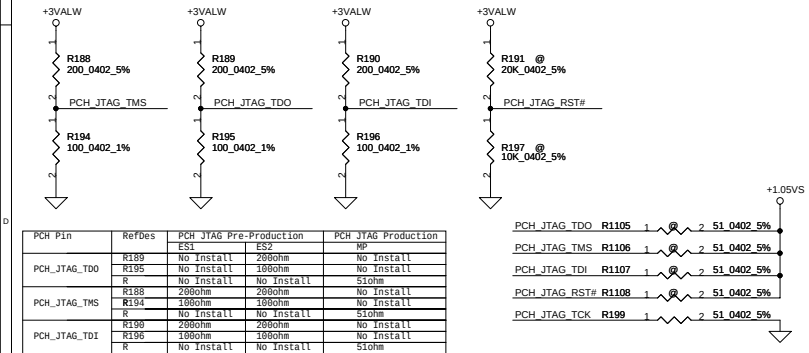
Title	SCHEMATIC, MB A5791		
Size	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 11 of 55		



GPIO33	iAMT Enable /Disable
Hi	Enable *
Lo	Disable



PCH Pin	RefDes	PCH JTAG Pre-Production		PCH JTAG Production
		ES1	ES2	MP
PCH_JTAG_TDO	R189	No Install	200ohm	No Install
	R195	No Install	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TMS	R188	200ohm	200ohm	No Install
	R194	100ohm	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TDI	R190	200ohm	200ohm	No Install
	R196	100ohm	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TCK	R199	51ohm	51ohm	51ohm
PCH_JTAG_RST#	R191	20Kohm	20Kohm	No Install
	R197	10Kohm	10Kohm	No Install
	R	No Install	No Install	51ohm

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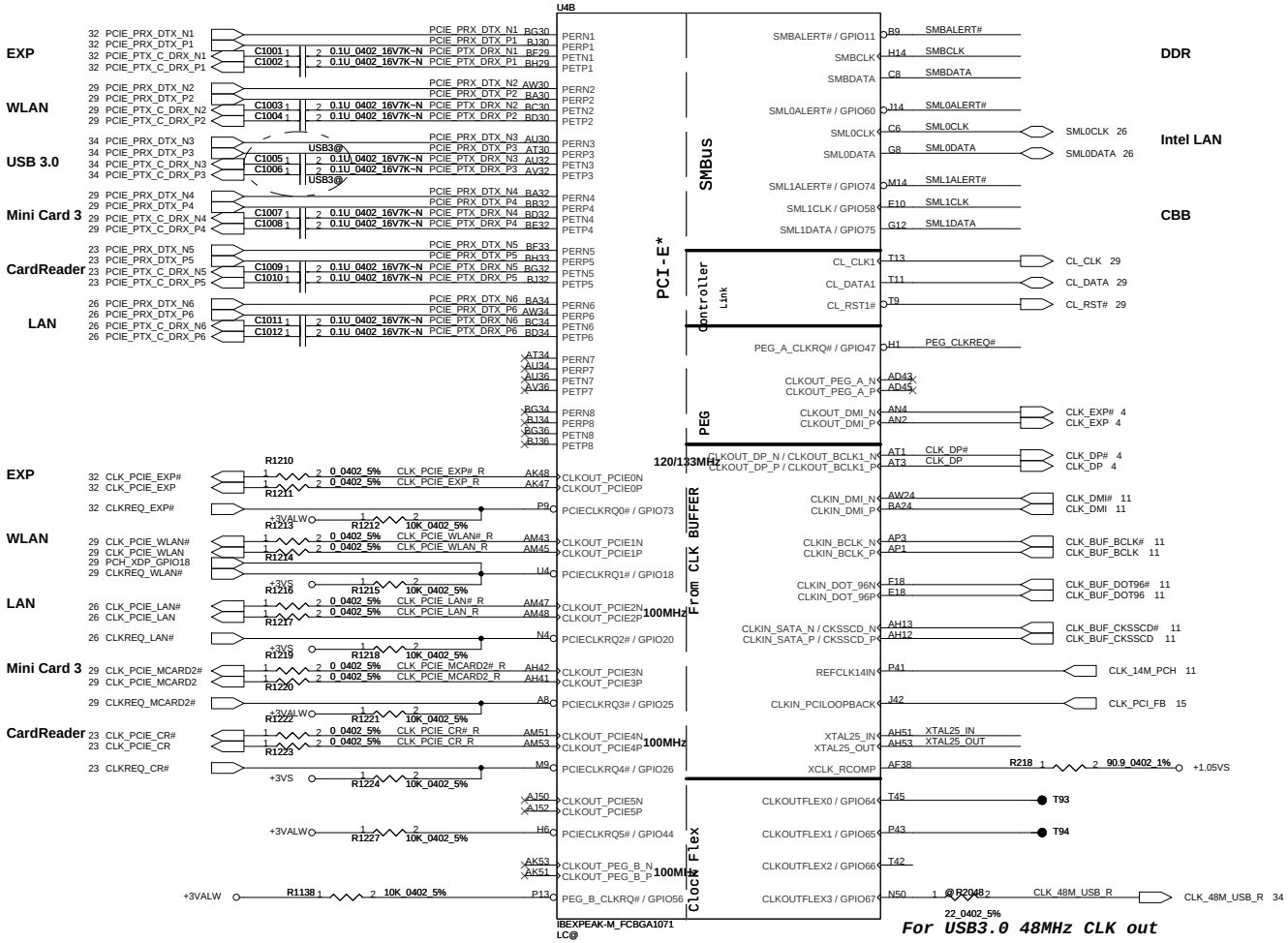
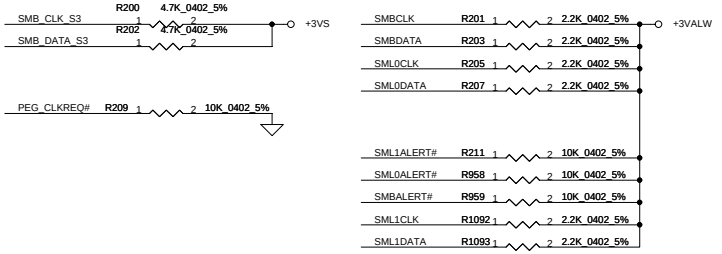
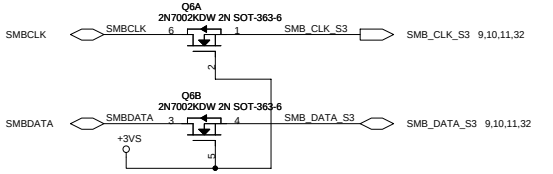
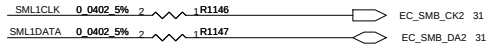
Size: Custom | Document Number: 401831 | Rev: F

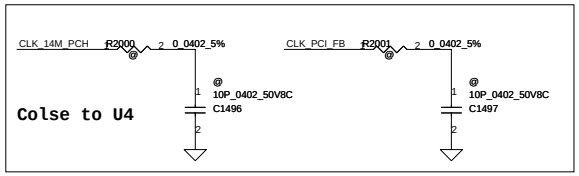
Date: Thursday, July 15, 2010 | Sheet 12 of 55

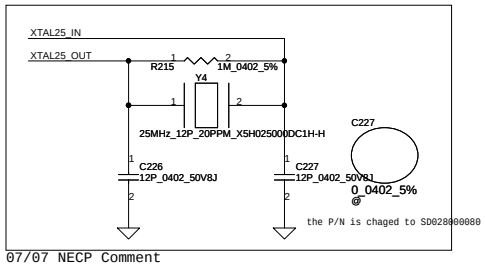












07/07 NECP Comment

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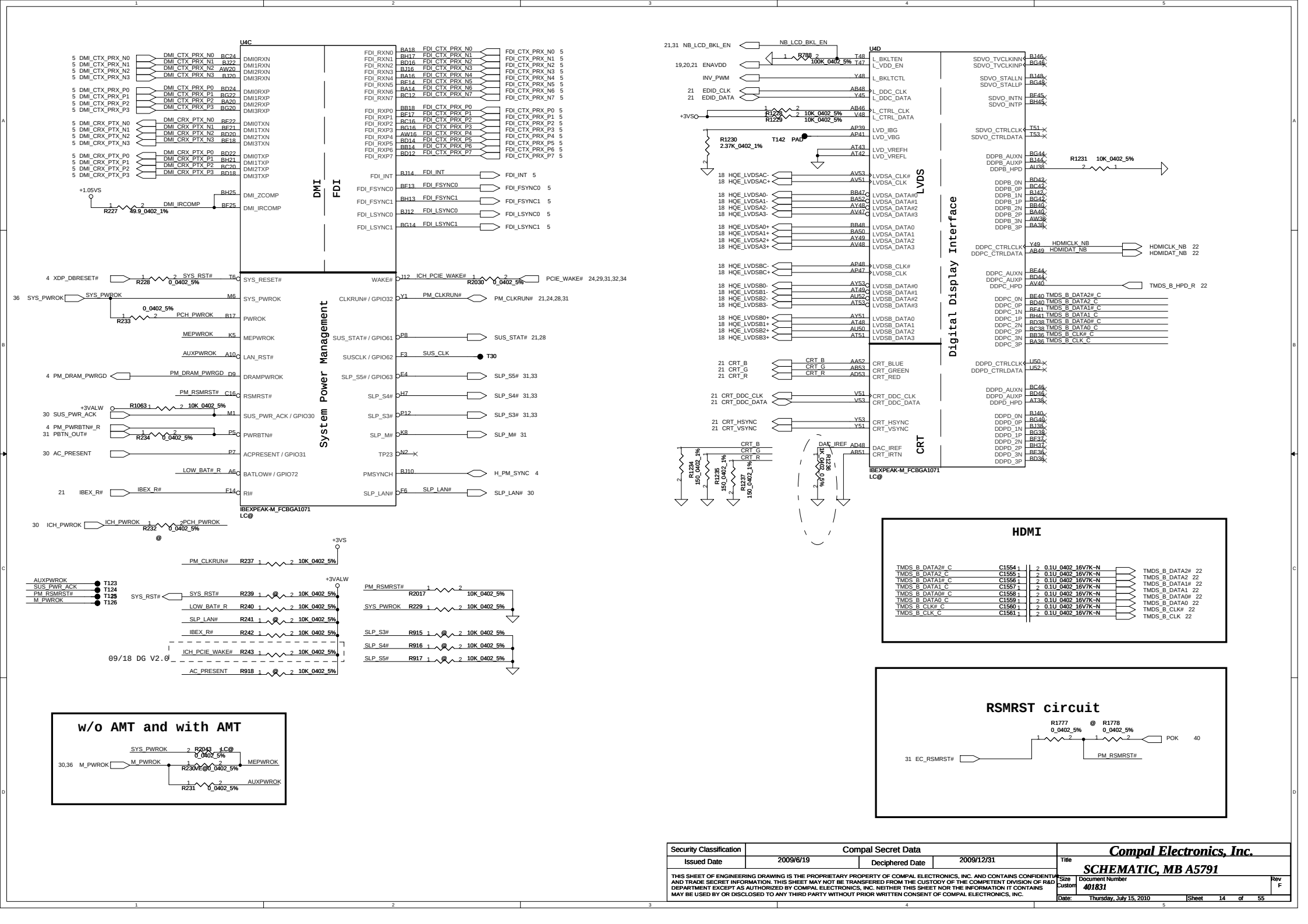
Size: Custom	Document Number: 401831		Rev: F
Date: Thursday, July 15, 2010	Sheet 13 of 55		



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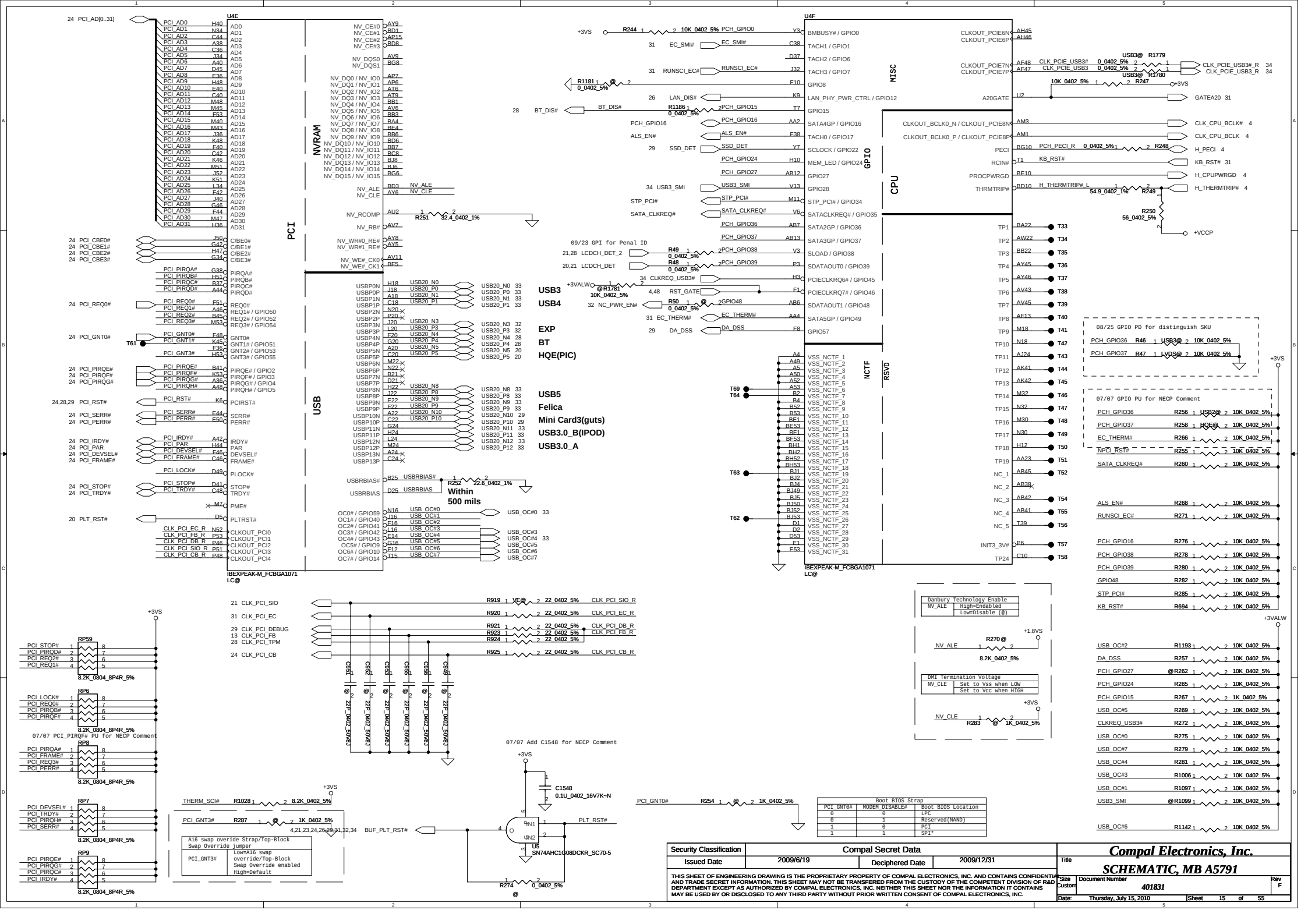
Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 14 of 55



Boot BIOS Strap		
PCI_GNT0#	MODEM_DISABLE#	Boot BIOS Location
0	0	LPC
0	1	Reserved(NAND)
1	0	PCI
1	1	SPI*

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Size	Document Number	Rev
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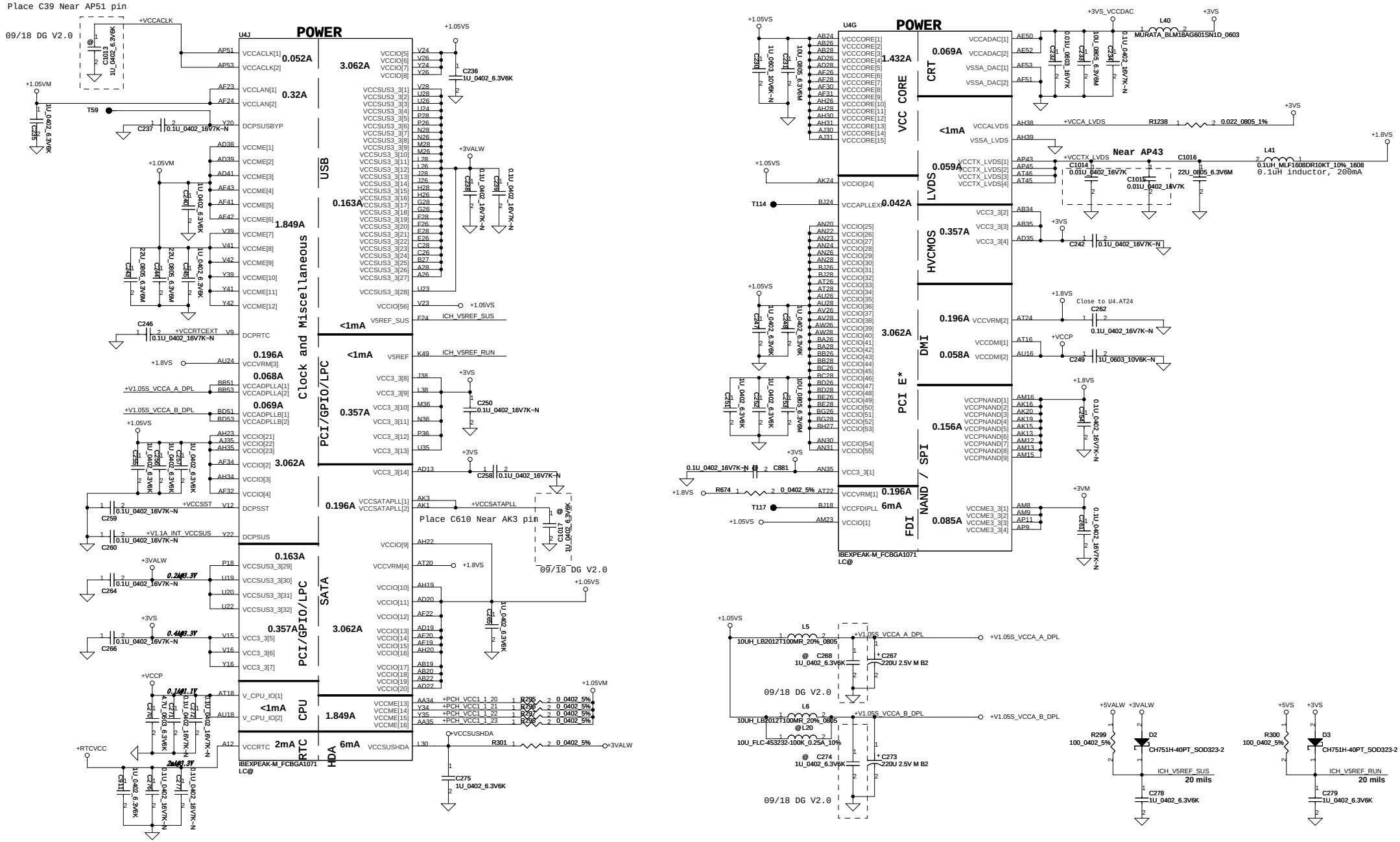
Date: Thursday, July 15, 2010 | Sheet 15 of 55



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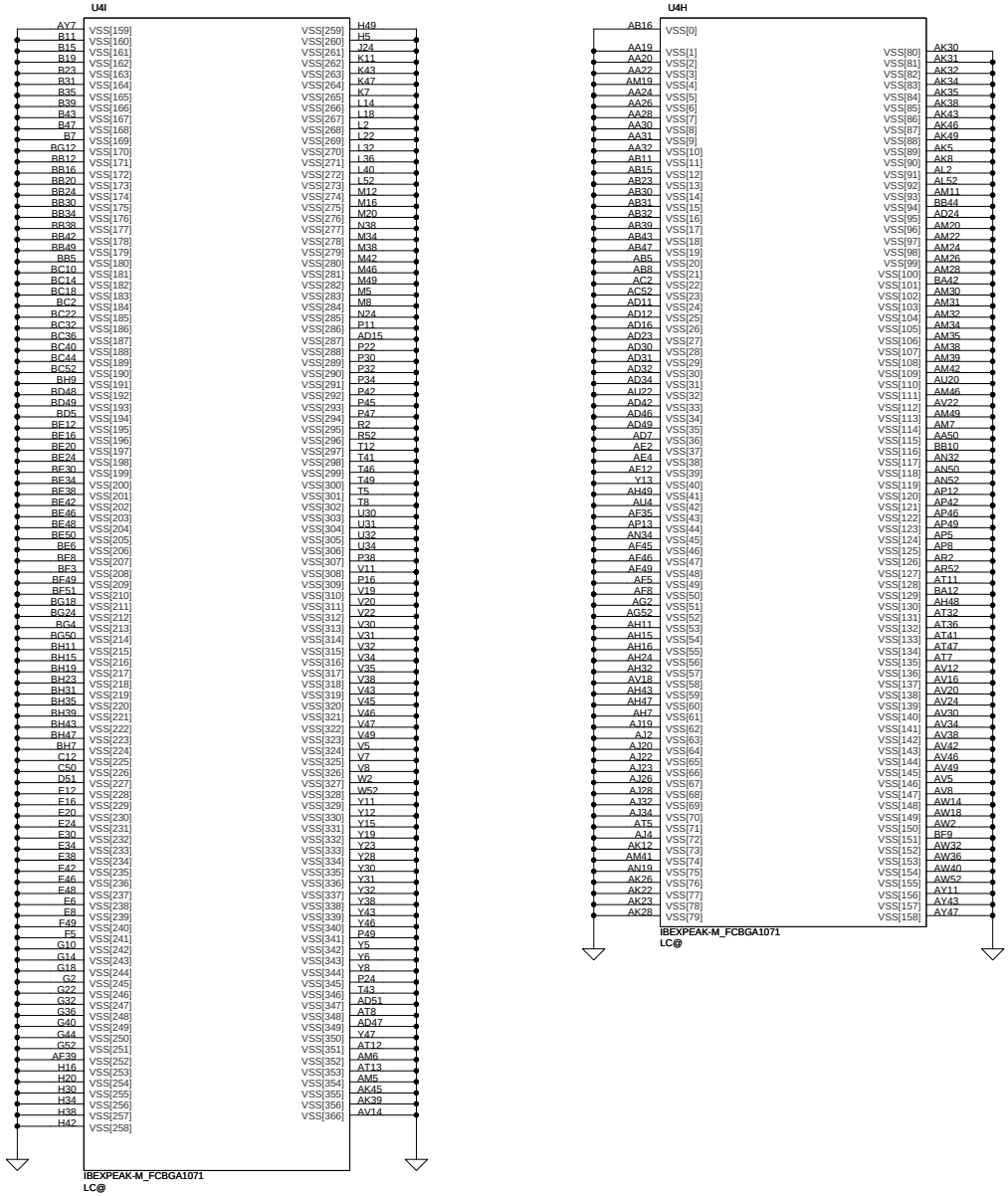
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 16 of 55



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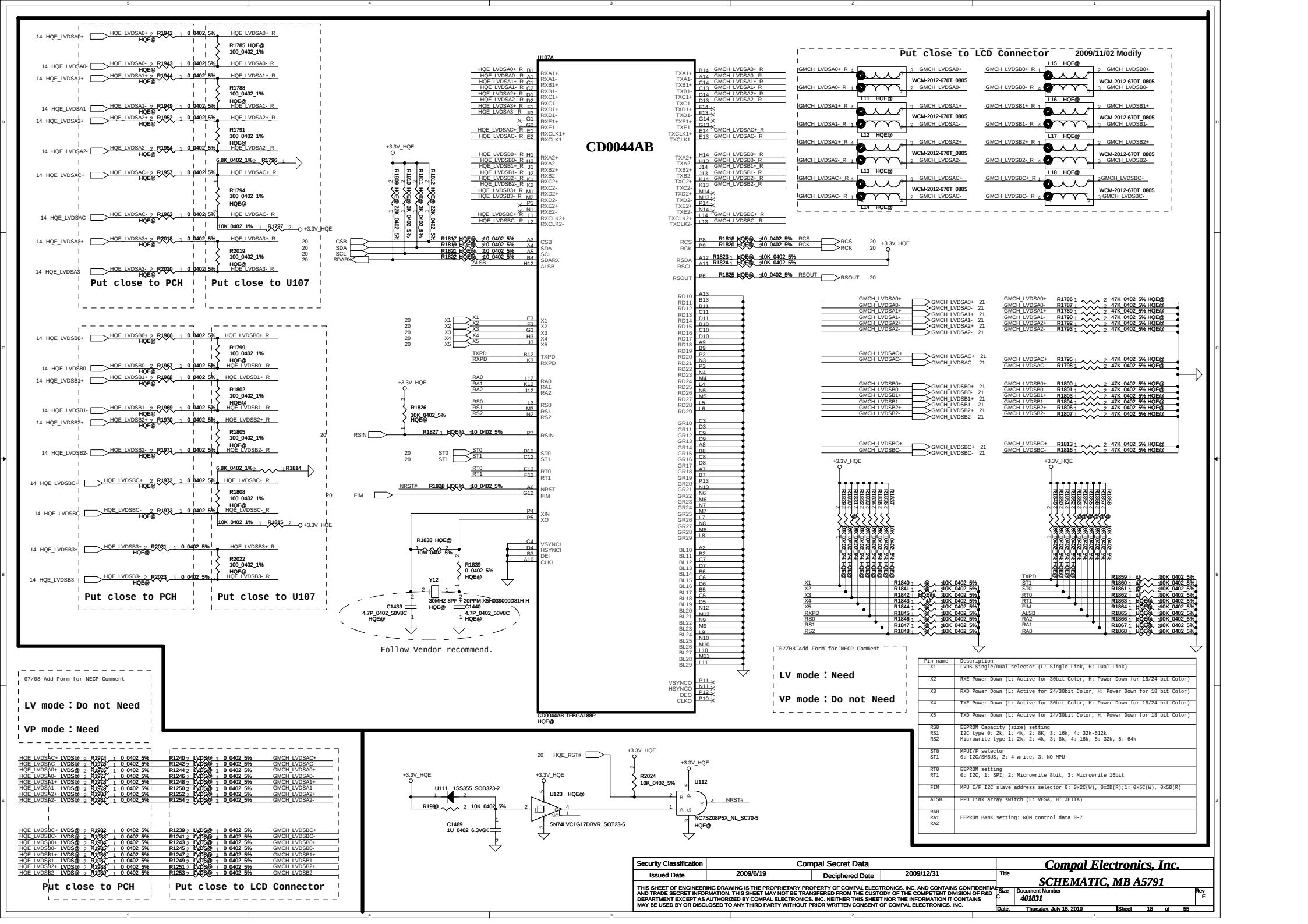
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 17 of 55



Pin name	Description
X1	LVDS Single/Dual selector (L: Single-Link, H: Dual-Link)
X2	RXE Power Down (L: Active for 30bit Color, H: Power Down for 18/24 bit Color)
X3	RXD Power Down (L: Active for 24/30bit Color, H: Power Down for 18 bit Color)
X4	TXE Power Down (L: Active for 30bit Color, H: Power Down for 18/24 bit Color)
X5	TXD Power Down (L: Active for 24/30bit Color, H: Power Down for 18 bit Color)
RS0 RS1 RS2	EEPROM Capacity (size) setting I2C type 0: 2k, 1: 4k, 2: 8K, 3: 16k, 4: 32k-512k Microwrite type 1: 2k, 2: 4k, 3; 8k, 4: 16k, 5: 32k, 6: 64k
ST0 ST1	MPUI/F selector 0: I2C/SMBUS, 2: 4-write, 3: NO MPU
RT0 RT1	EEPROM setting 0: I2C, 1: SPI, 2: Microwrite 8bit, 3: Microwrite 16bit
FIM	MPU I/F I2C slave address selector 0: 0x2C(W), 0x2D(R);1: 0x5C(W), 0x5D(R)
ALSB	FPD Link array Switch (L: VESA, H: JEITA)
RA0 RA1 RA2	EEPROM BANK setting: ROM control data 0-7

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Issued Date	2009/6/19	Deciphered Date	2009/12/31

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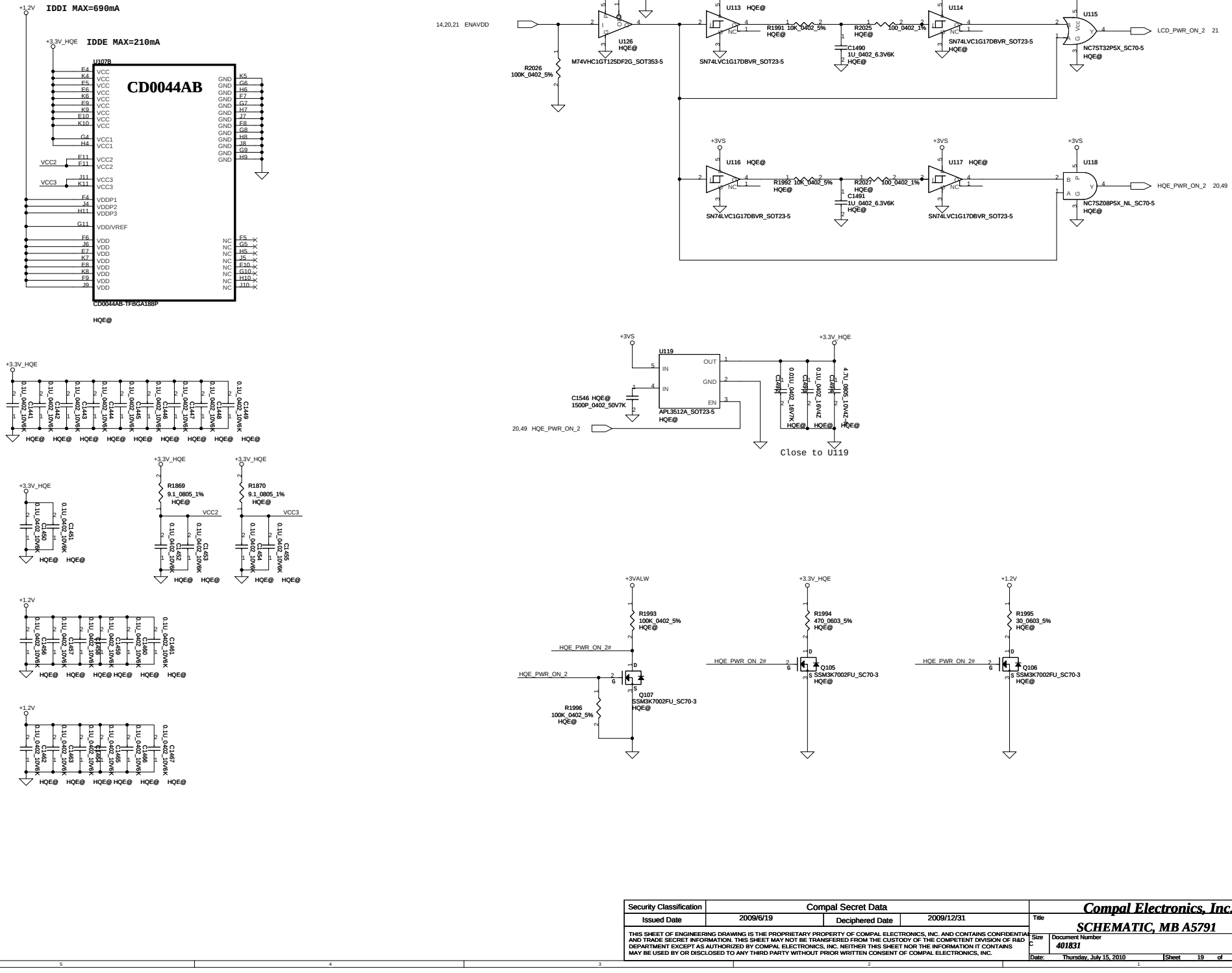
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
C	401831	F

Date: Thursday, July 15, 2010 | Sheet 18 of 55



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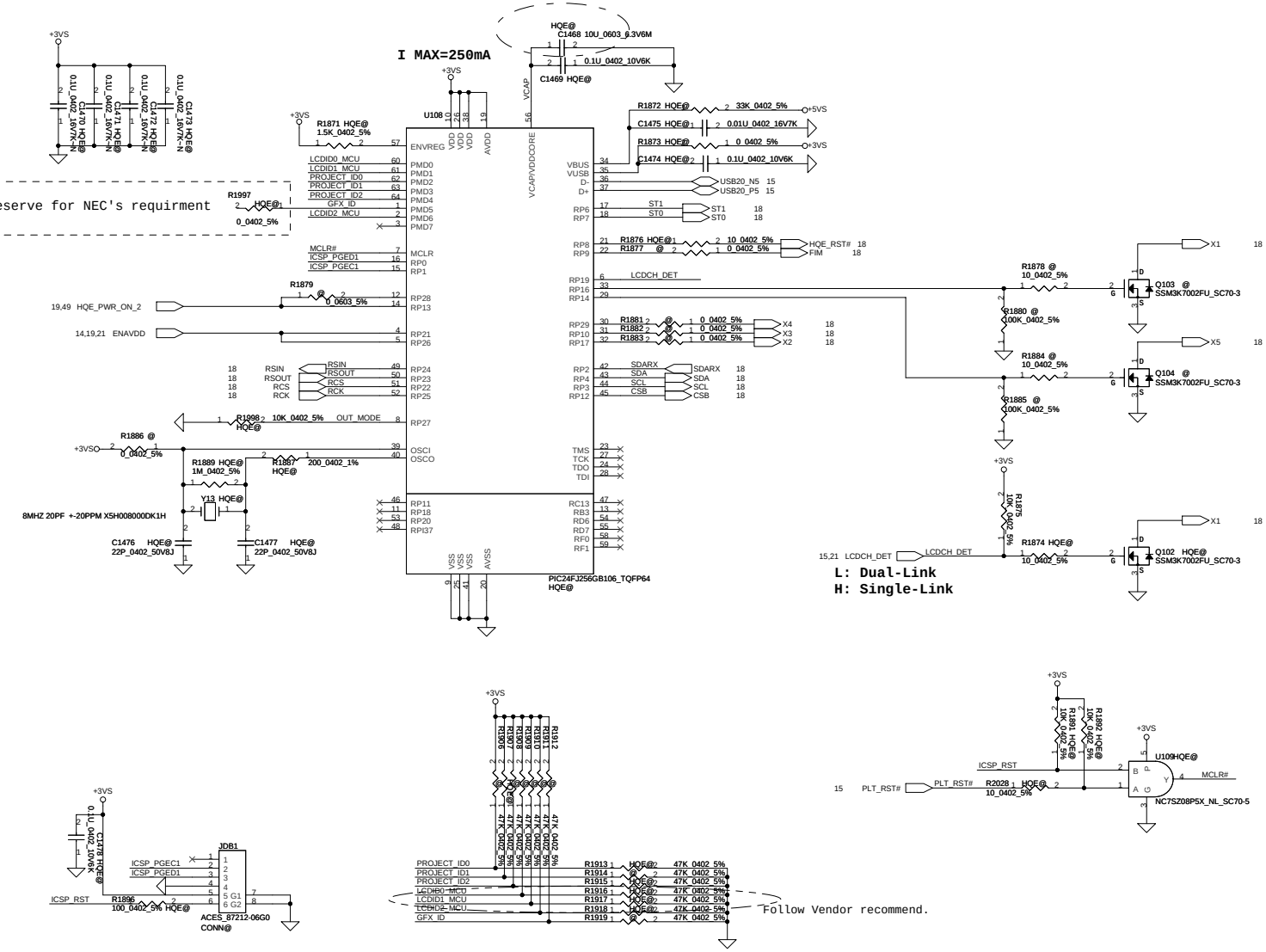
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
C	401831	F

Date: Thursday, July 15, 2010 | Sheet 19 of 55



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Issued Date	2009/6/19	Deciphered Date	2009/12/31

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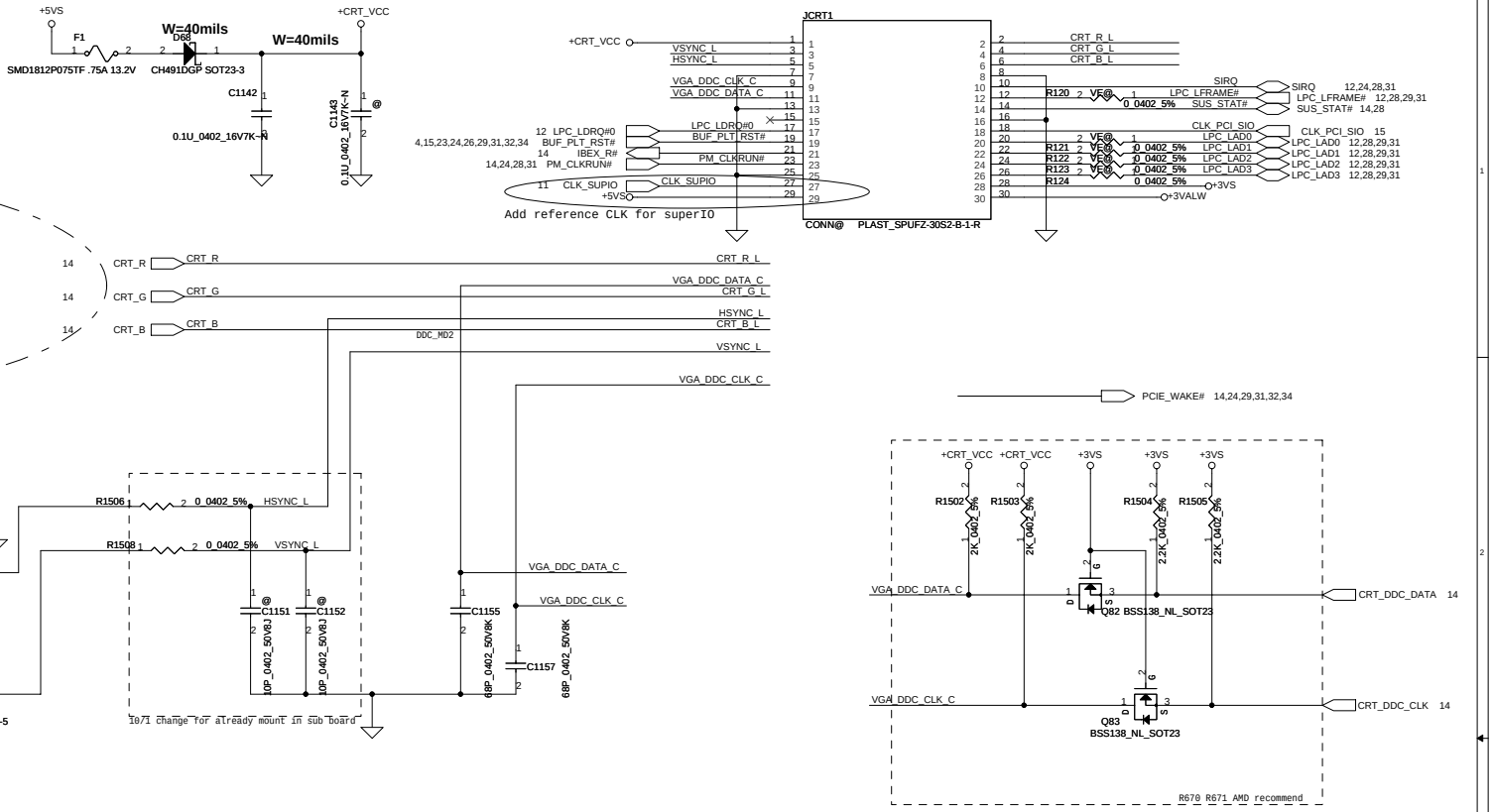
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
C	401831	F

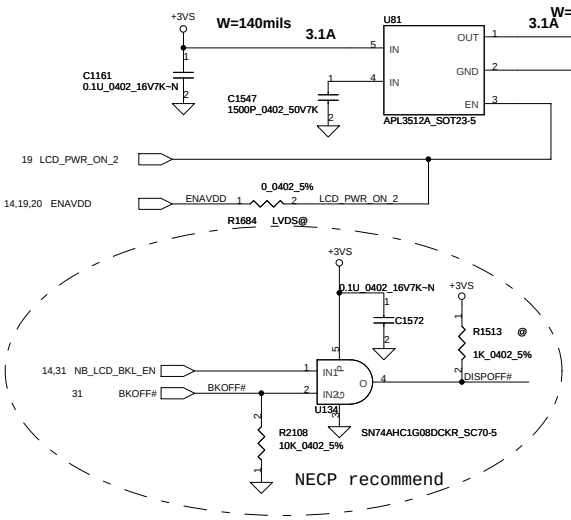
Date: Thursday, July 15, 2010 | Sheet 20 of 55

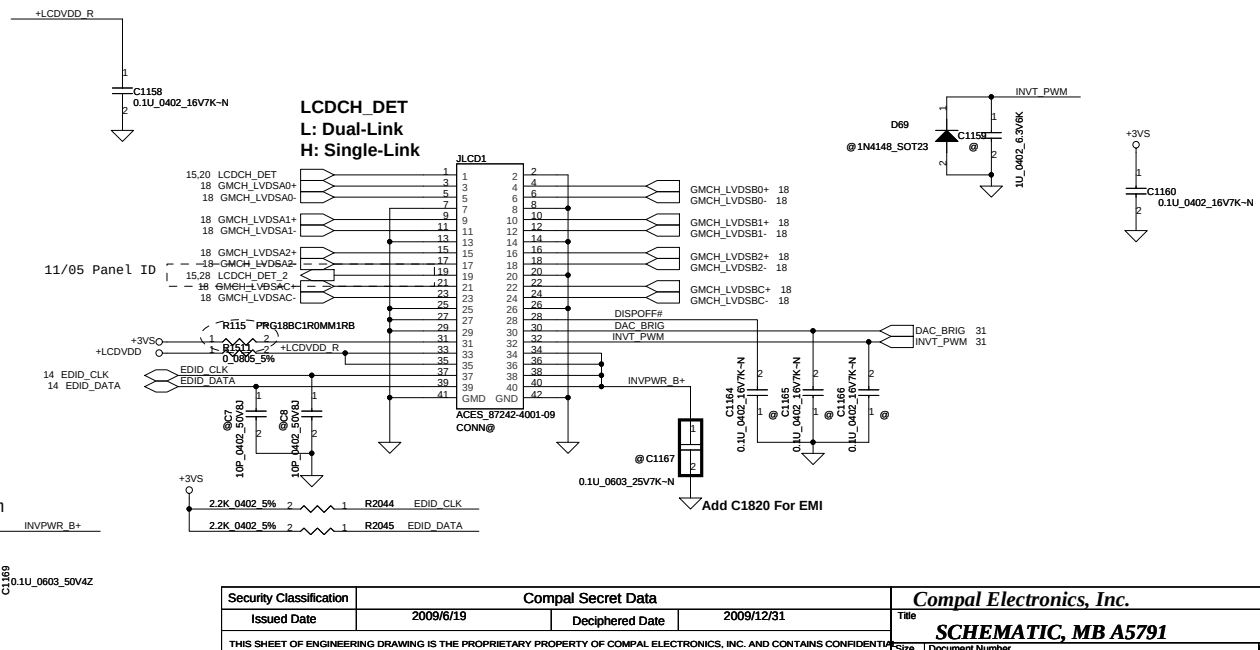
CRT

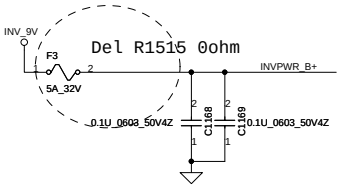


LCD

LCD POWER CIRCUIT







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Issued Date	2009/6/19	Deciphered Date	2009/12/31

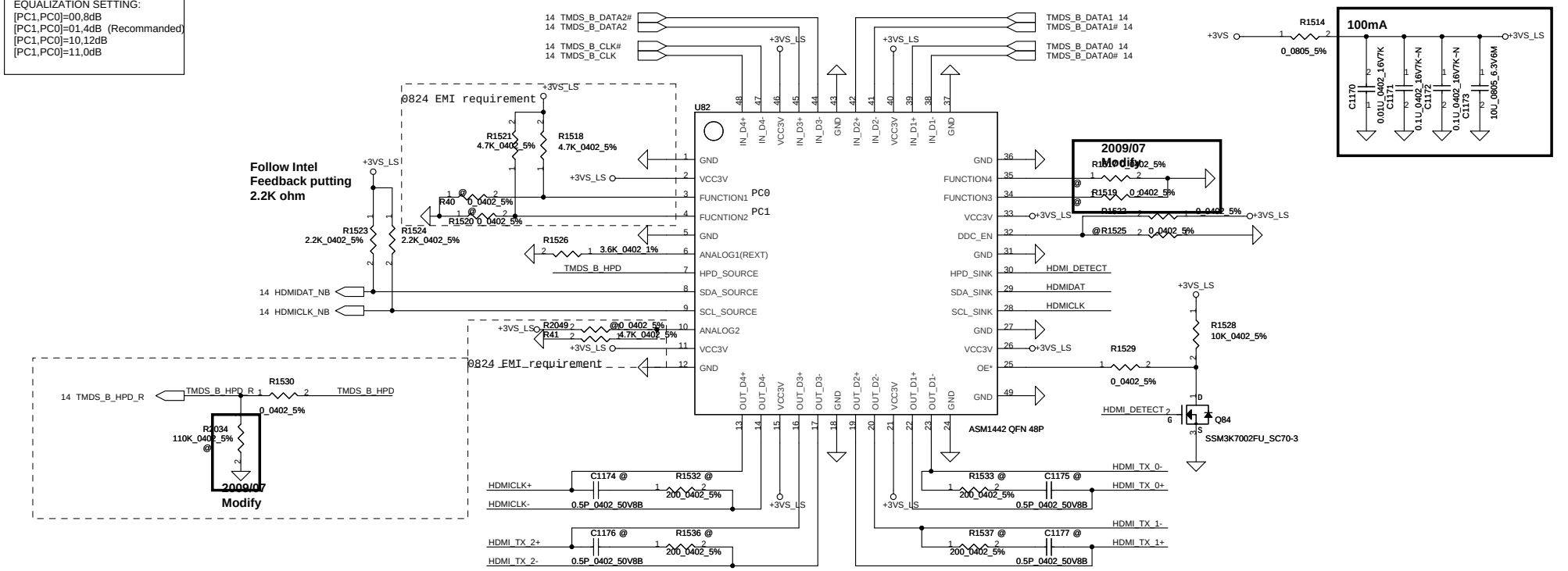
Compal Electronics, Inc.

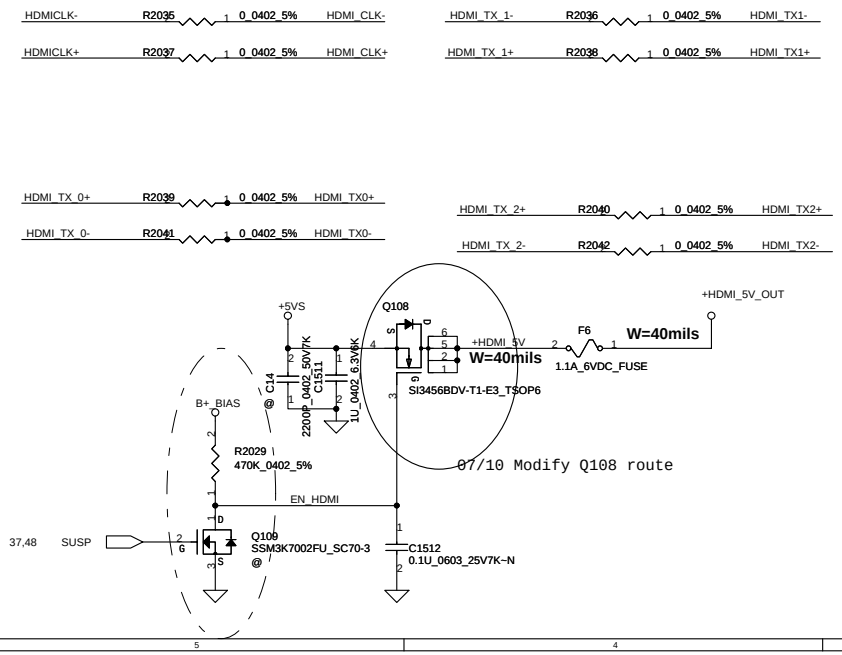
Title: SCHEMATIC, MB A5791

Size	Document Number	Rev
Custom	401831	F

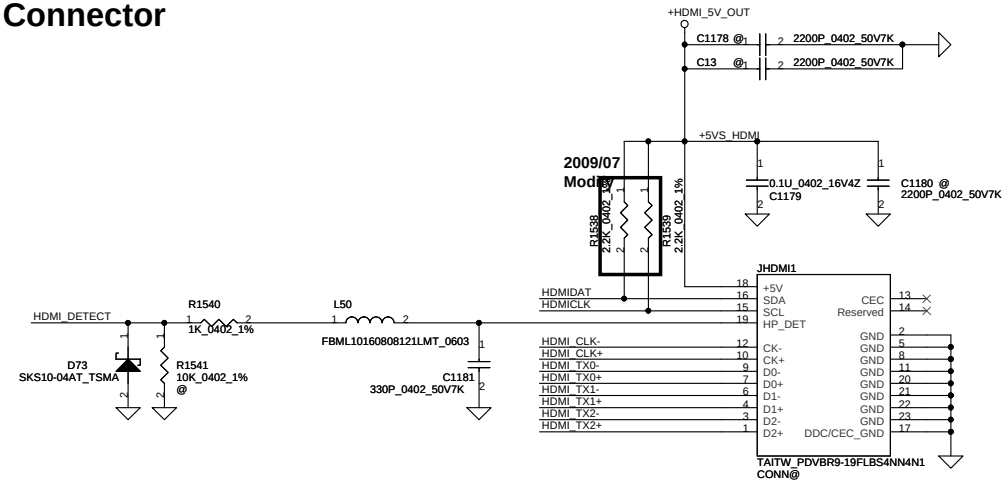
Date: Thursday, July 15, 2010 | Sheet 21 of 55

EQUALIZATION SETTING:
[PC1,PC0]=00,8dB
[PC1,PC0]=01,4dB (Recommanded)
[PC1,PC0]=10,12dB
[PC1,PC0]=11,0dB





HDMI Connector



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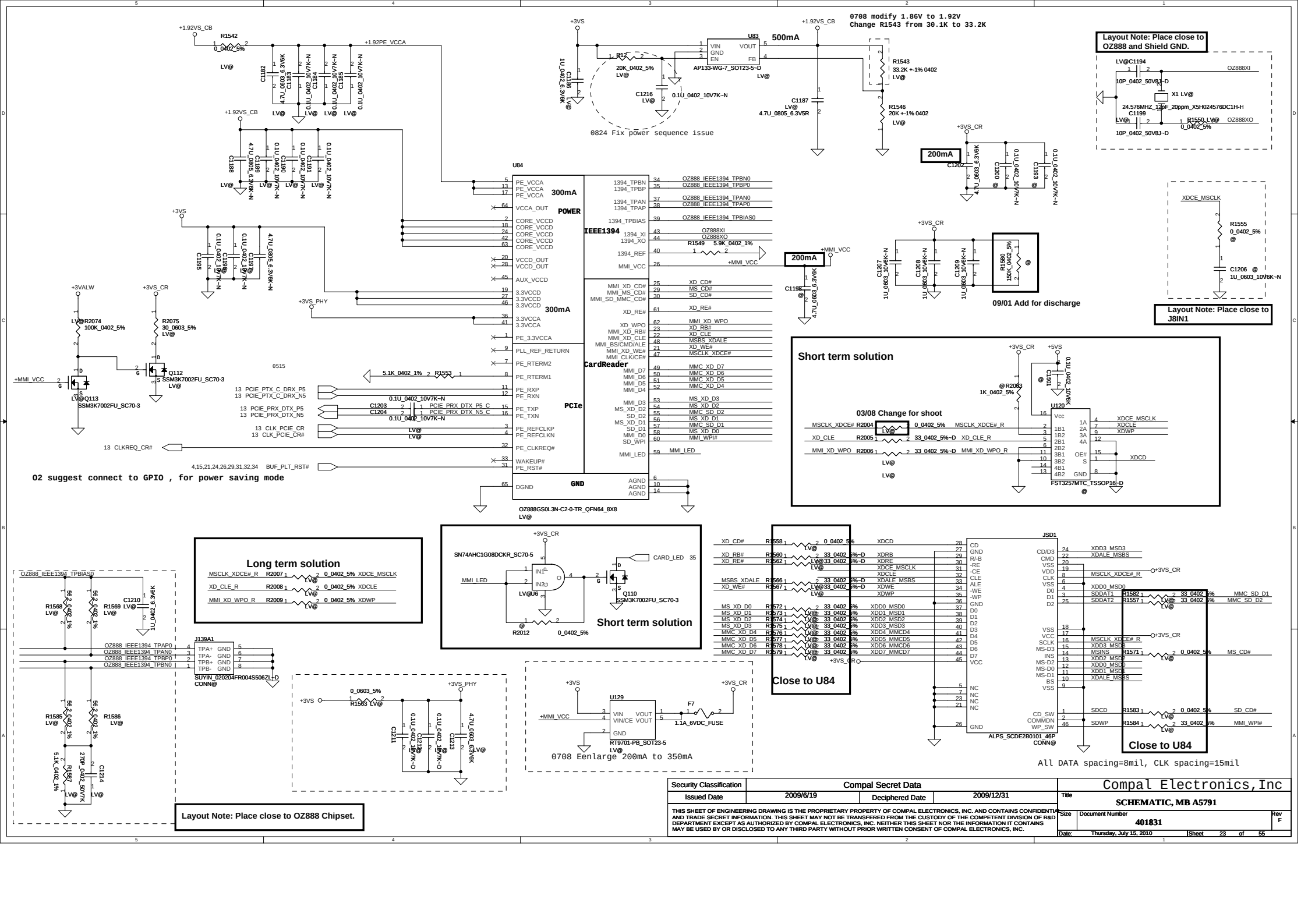
Compal Electronics, Inc.

Title: SCHEMATIC, MB A5791

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 | Sheet 22 of 55


0708 modify 1.86V to 1.92V
Change R1543 from 30.1K to 33.2K
0824 Fix power sequence issue
Layout Note: Place close to OZ888 and Shield GND.
09/01 Add for discharge
Layout Note: Place close to J8IN1
02 suggest connect to GPIO , for power saving mode
Short term solution
03/08 Change for shoot
Long term solution
Short term solution
Close to U84
Close to U84
0708 Eenlarge 200mA to 350mA
All DATA spacing=8mil, CLK spacing=15mil
Layout Note: Place close to OZ888 Chipset.
U84
OZ888GS0L3N-C2-0-TR_QFN64_8X8
LV@
AP133-WG-7_SOT23-5-D
SN74AHC1G08DCKR_SC70-5
SSM3K7002FU_SC70-3
RT9701-PB_SOT23-5
FST3257MTC_TSSOP16-D
ALPS_SCDE2B0101_46P
SUYIN_020204FR004S506ZL+D
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Issued Date
2009/6/19
Deciphered Date
2009/12/31
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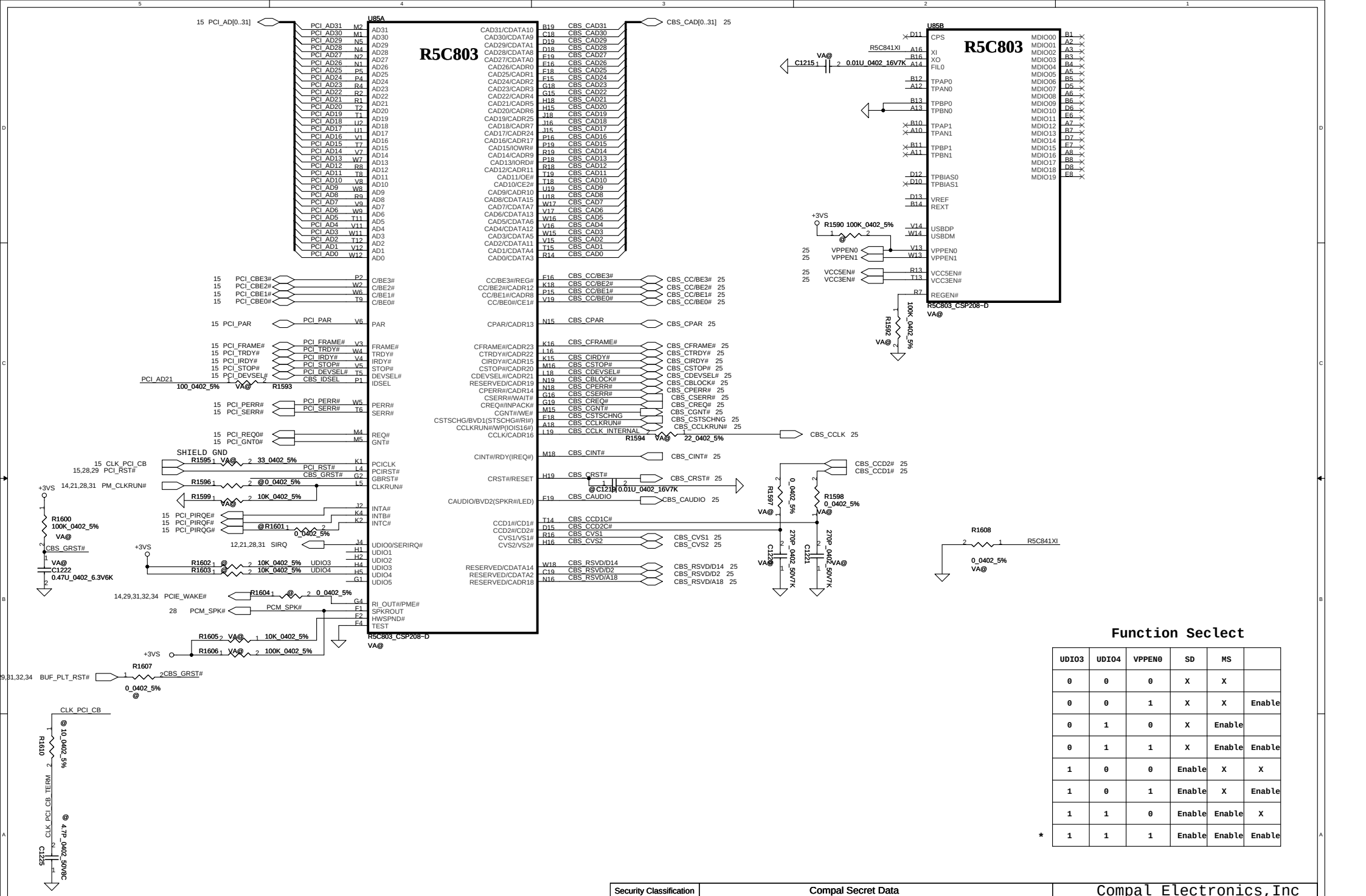
Title
SCHEMATIC, MB A5791
Size
Document Number
401831
Rev
F
Date: Thursday, July 15, 2010
Sheet 23 of 55



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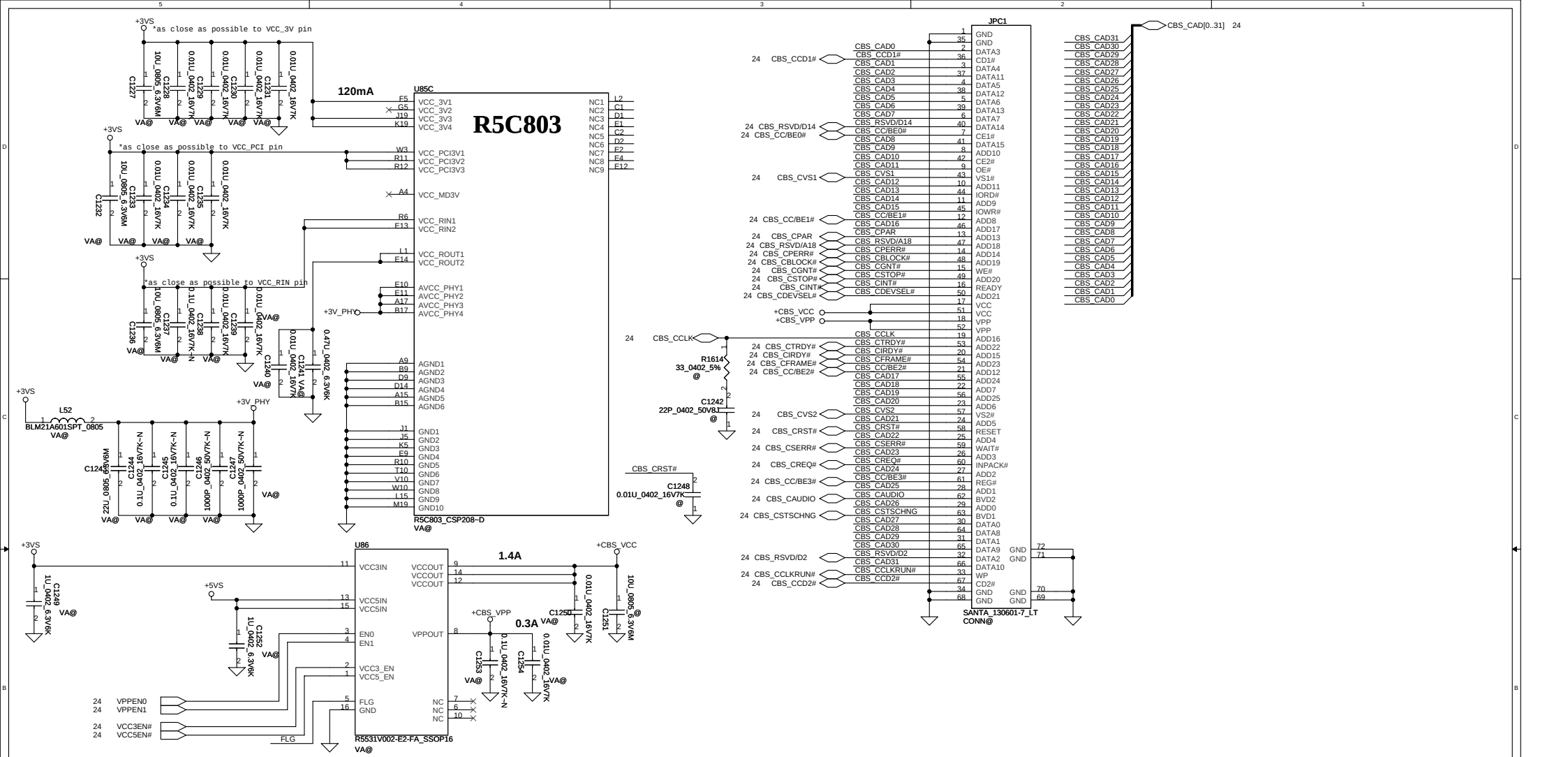
Title: SCHEMATIC, MB A5791

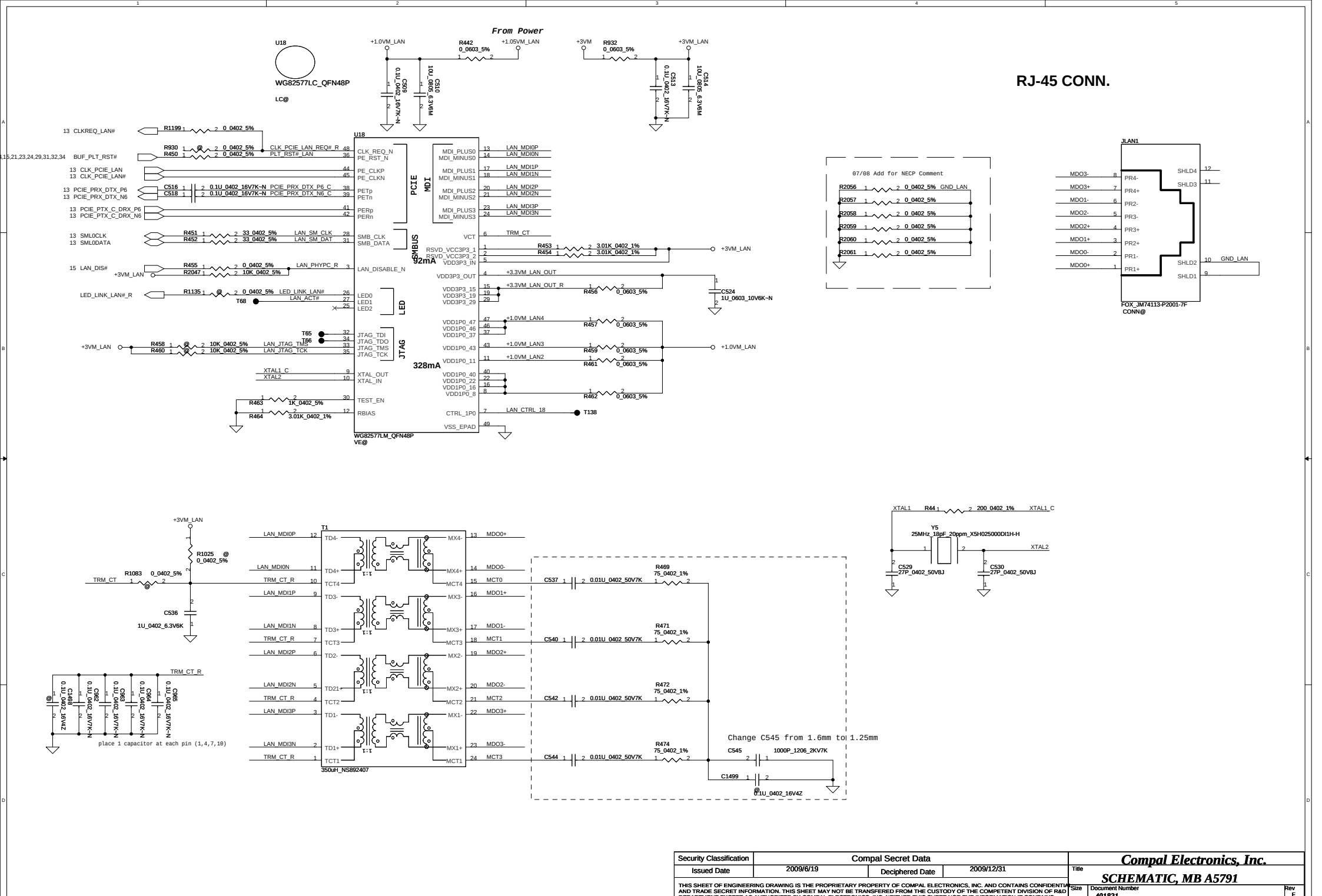
Size: | Document Number: 401831 | Rev: F

Date: Thursday, July 15, 2010 | Sheet 24 of 55



Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

Compal Electronics, Inc.			
Title	SCHEMATIC, MB A5791		
Size	Document Number		Rev
	401831		F
Date:	Thursday, July 15, 2010	Sheet	25 of 55



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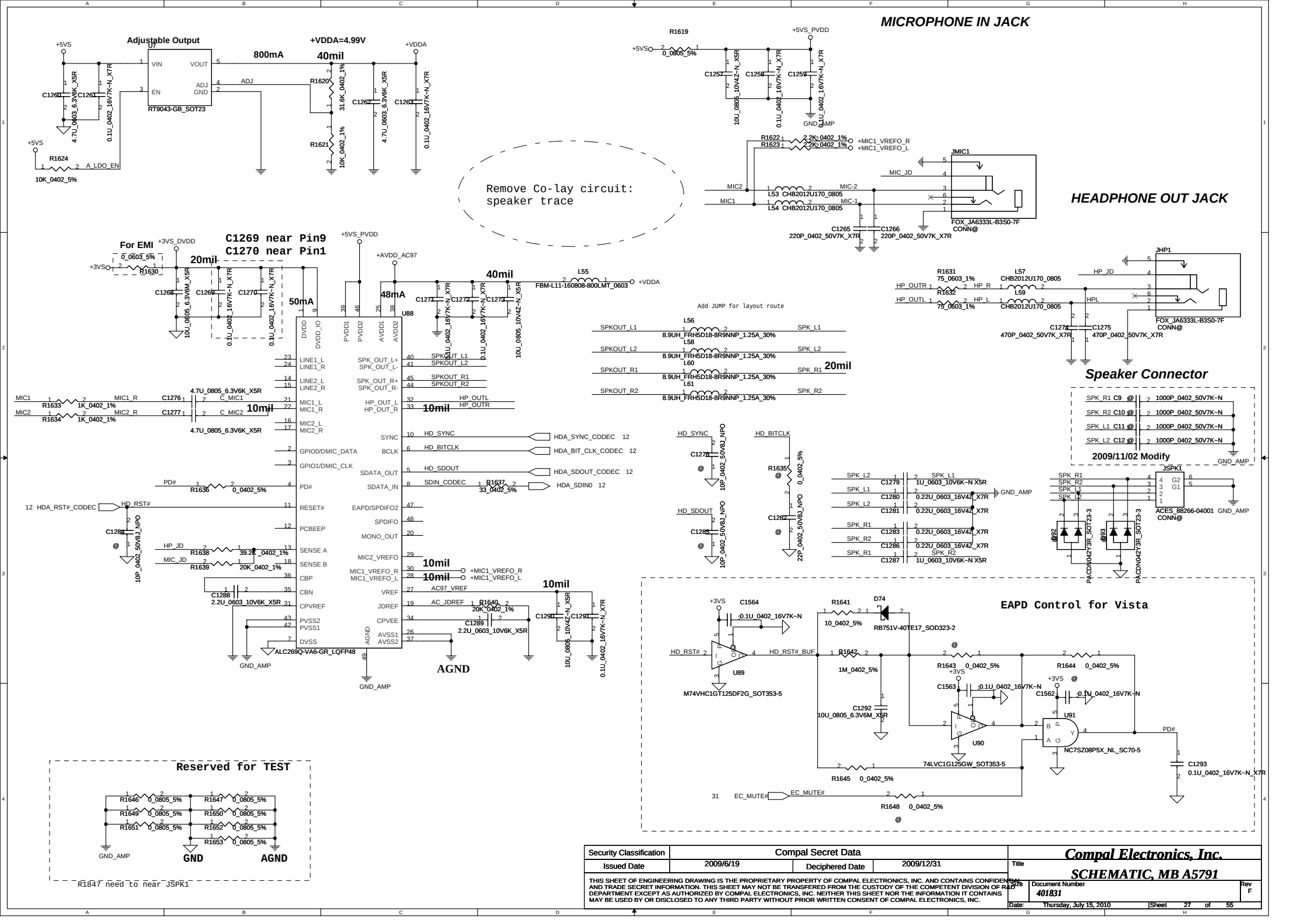
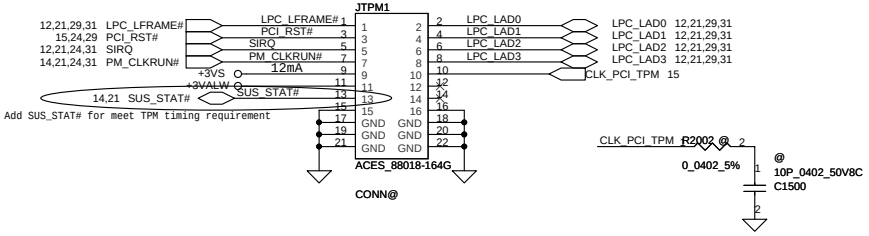
Title: **SCHEMATIC, MB A5791**

Size	Document Number	Rev
	401831	F

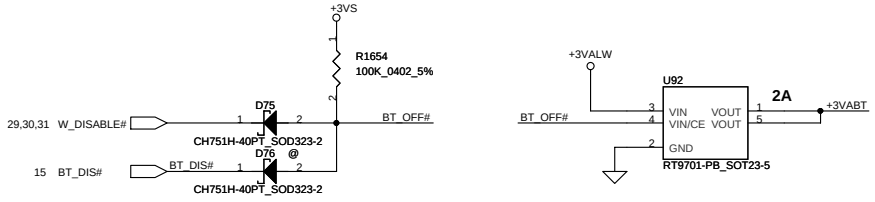
Date: Thursday, July 15, 2010 | Sheet 26 of 55

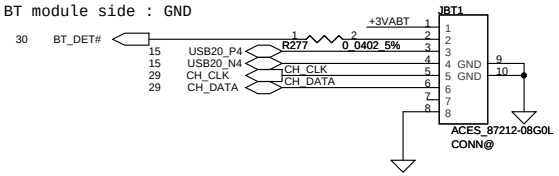

MICROPHONE IN JACK
HEADPHONE OUT JACK
Speaker Connector
Adjustable Output
+VDDA=4.99V
800mA
40mil
RT9043-GB_SOT23
Remove Co-lay circuit:
speaker trace
For EMI
C1269 near Pin9
C1270 near Pin1
20mil
50mA
48mA
ALC269Q-VA6-GR_LQFP48
Add JUMP for layout route
2009/11/02 Modify
EAPD Control for Vista
Reserved for TEST
R1847 need to near JSPK1
AGND
GND_AMP
Compal Electronics, Inc.
SCHEMATIC, MB A5791
Compal Secret Data
2009/6/19
2009/12/31
401831
Thursday, July 15, 2010
27 of 55

TPM 1.2 Conn

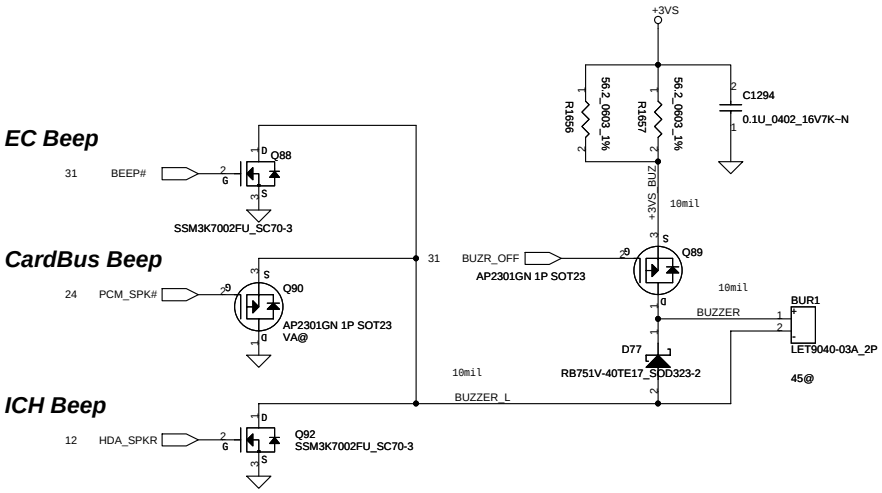


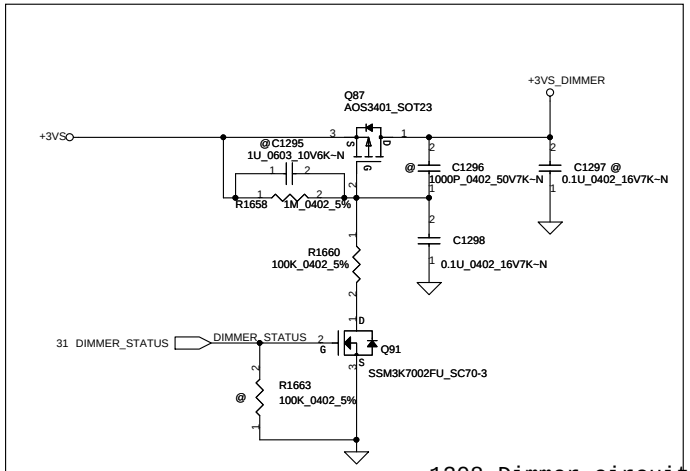
Bluetooth



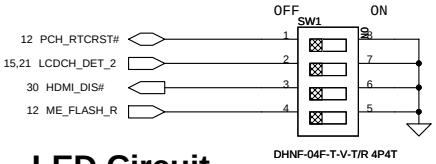


BUZZER

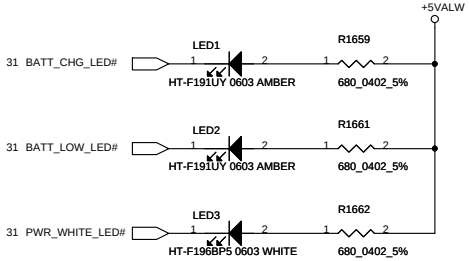




1208 Dimmer circuit



LED Circuit



Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

Compal Electronics, Inc.

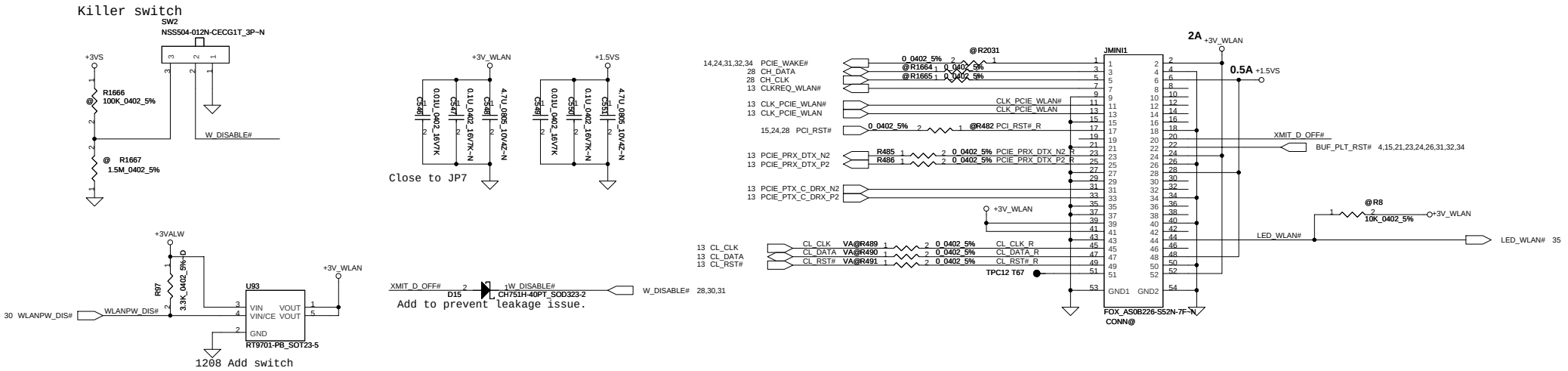
Title: **SCHEMATIC, MB A5791**

Size: | Document Number: **401831** | Rev: F

Date: Thursday, July 15, 2010 | Sheet 28 of 55

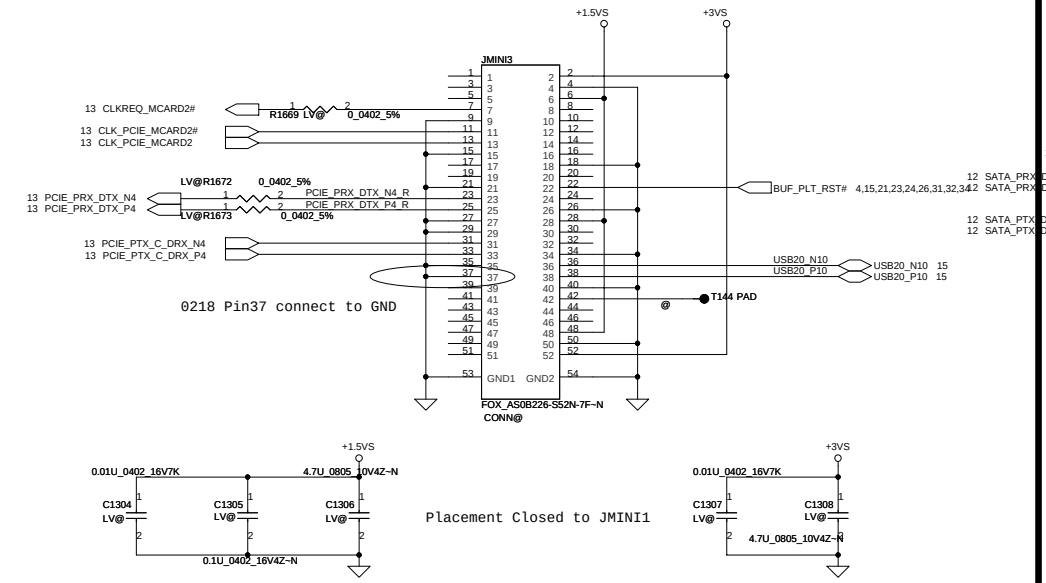
WLAN (Mini Card1)

Reserve for port80 card use for FCS in factory side. 10/17



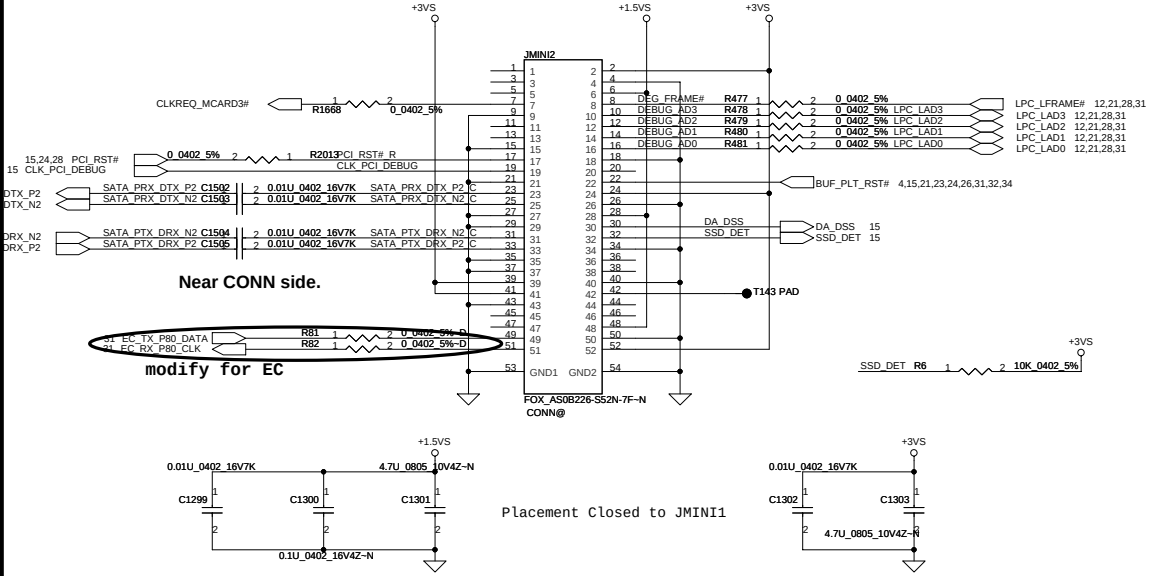
GUTS(Mini Card3)

(+1.5VS=0.5A) (+3VS=1A)



SSD(Mini Card2)

Add Tx debug



Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

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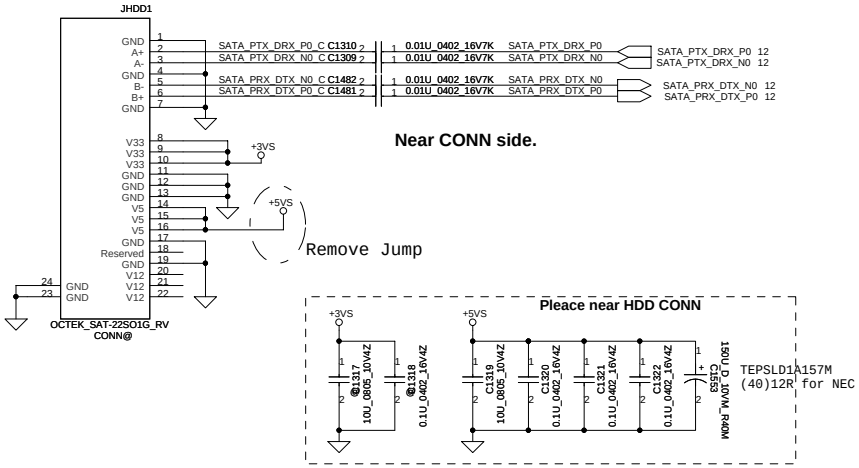
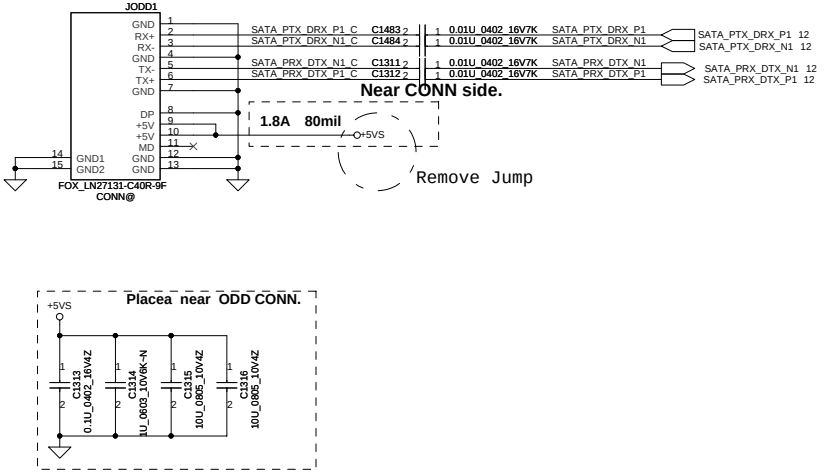
Title	SCHEMATIC, MB A5791		
Size	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 29 of 55		

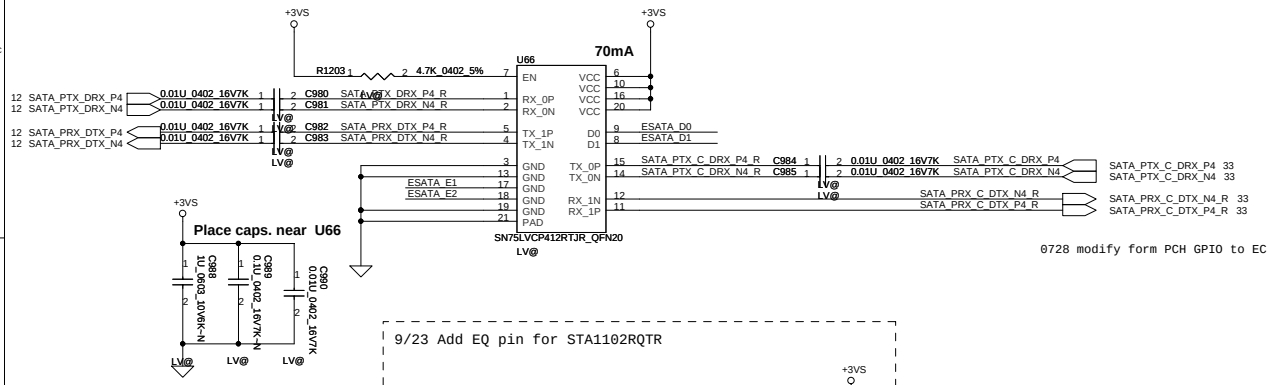
SATA HDD CONN.



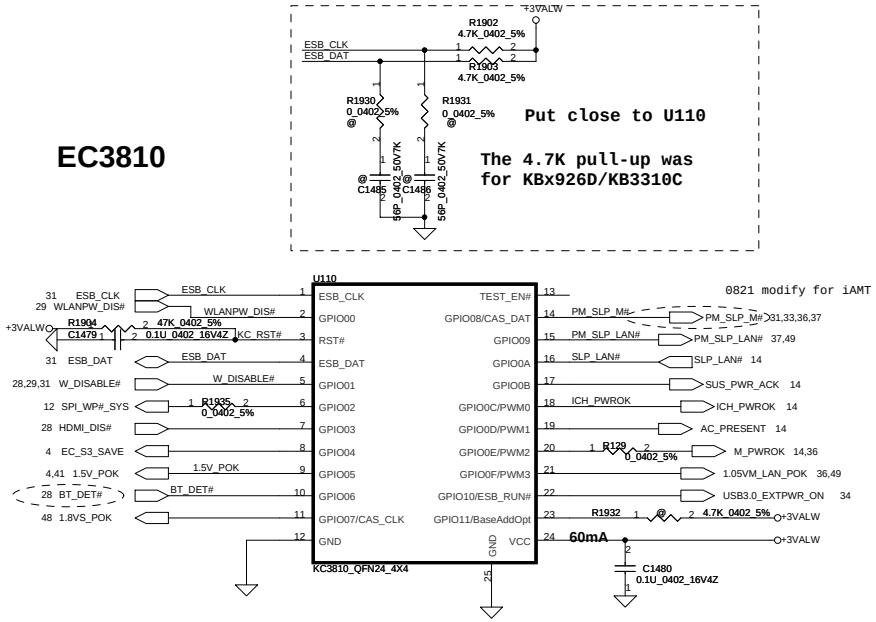
SATA ODD CONN.

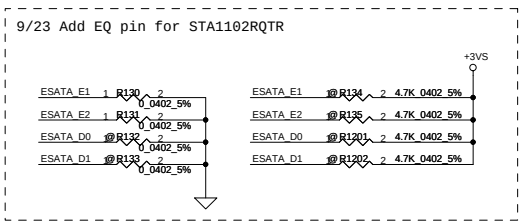


E-SATA Redriver



EC3810





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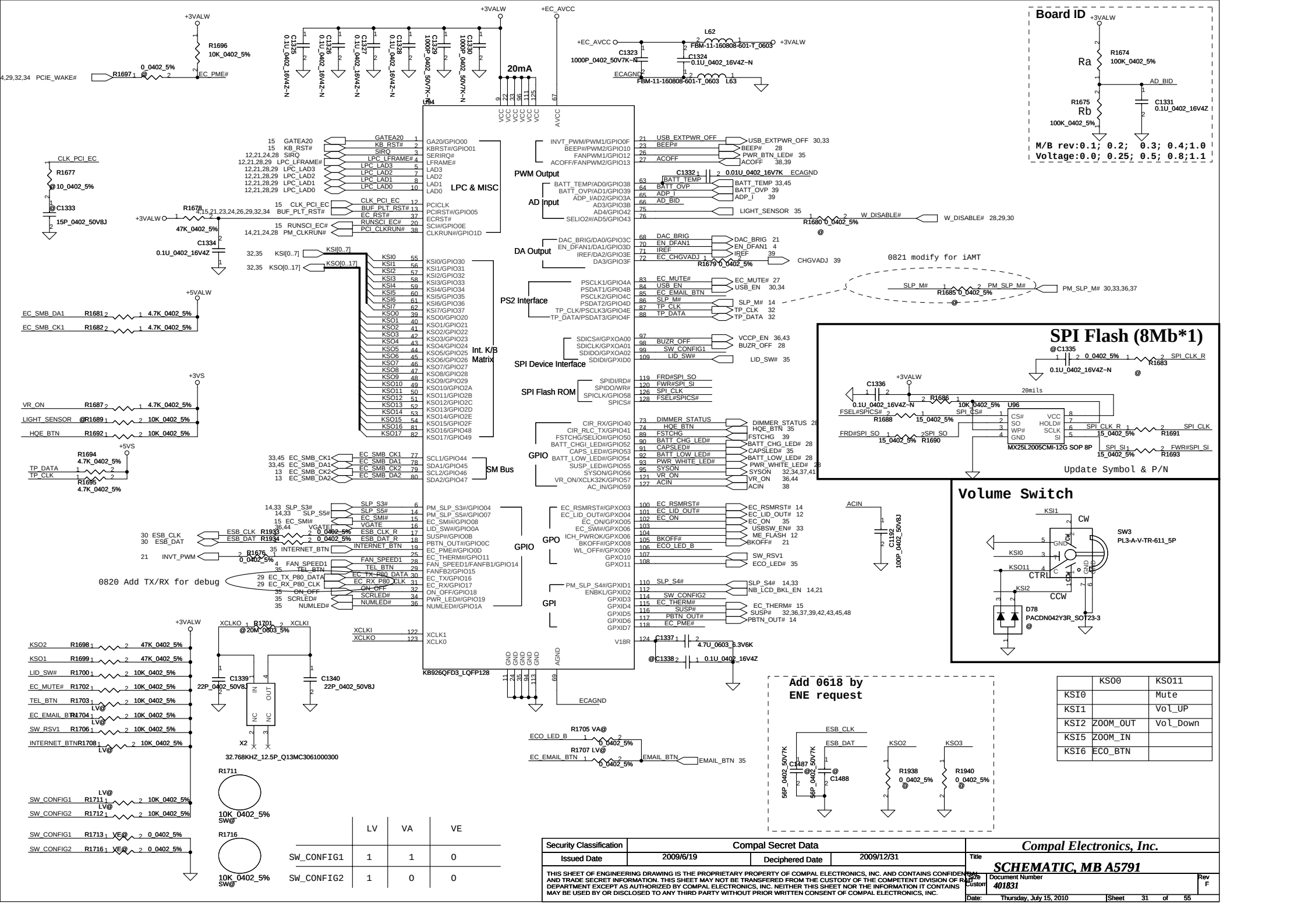
Compal Electronics, Inc.

Title: **SCHEMATIC, MB A5791**

Size | Document Number: **401831** | Rev: F

Date: Thursday, July 15, 2010 | Sheet 30 of 55



	KSO0	KSO11
KSI0		Mute
KSI1		Vol_UP
KSI2	ZOOM_OUT	Vol_Down
KSI5	ZOOM_IN	
KSI6	ECO_BTN	

	LV	VA	VE
SW_CONFIG1	1	1	0
SW_CONFIG2	1	0	0

Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

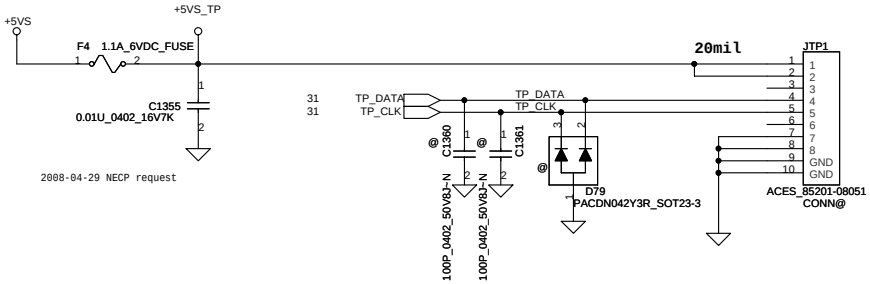
Compal Electronics, Inc.

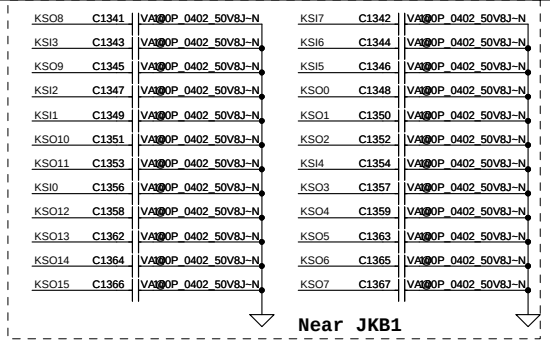
Title: SCHEMATIC, MB A5791

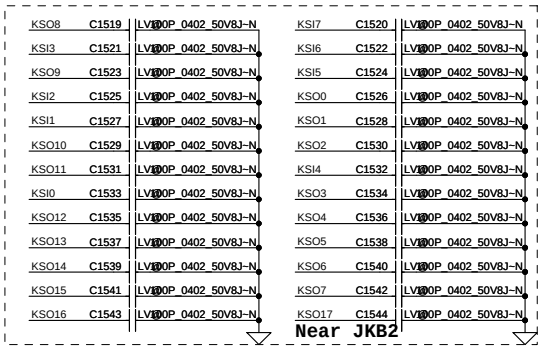
Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 Sheet 31 of 55

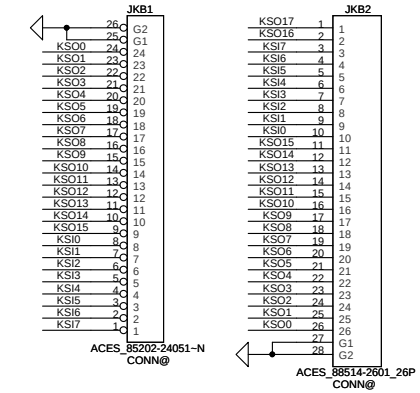
TouchPad

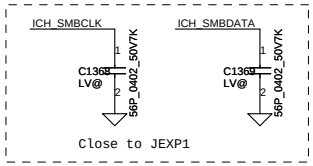


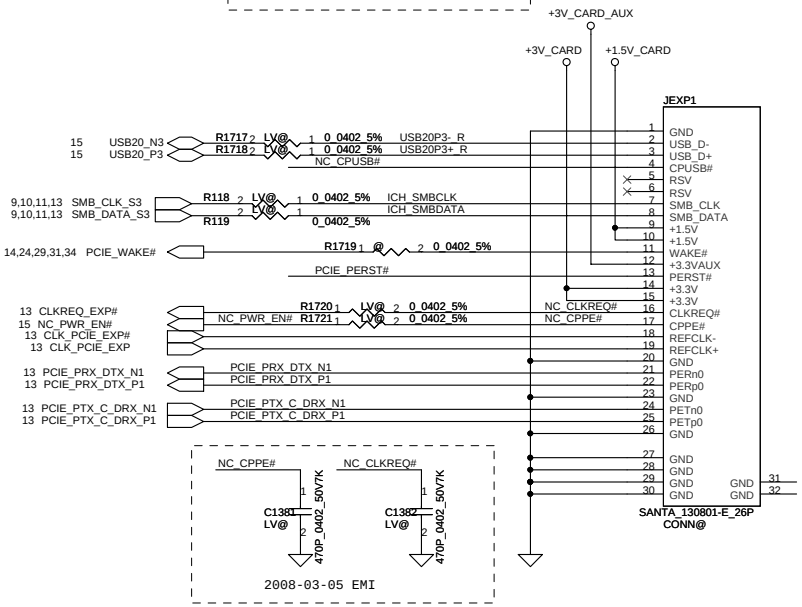


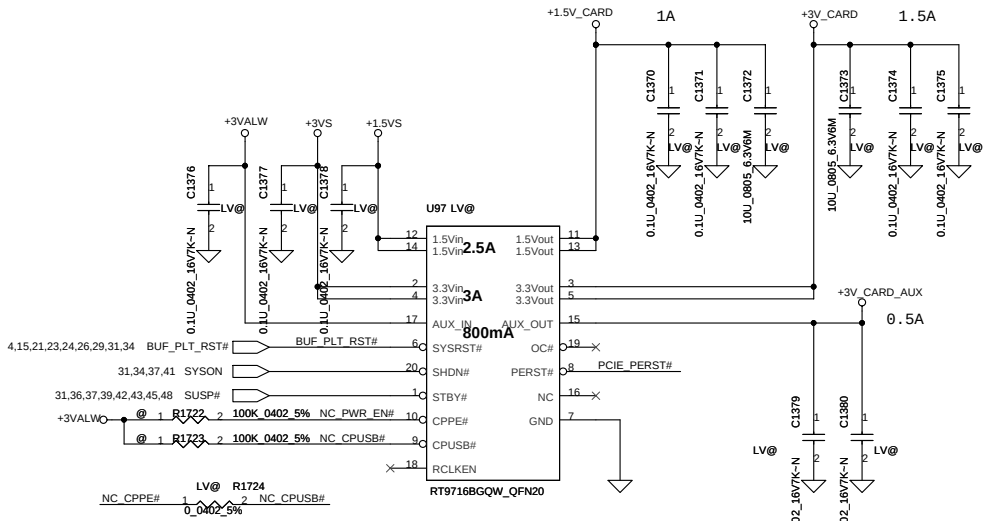


INT_KBD CONN.









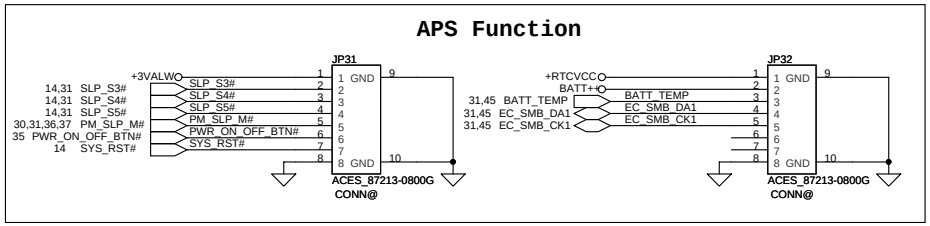
Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

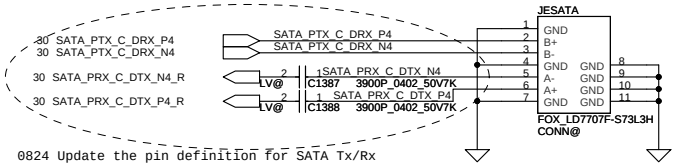
Compal Electronics, Inc

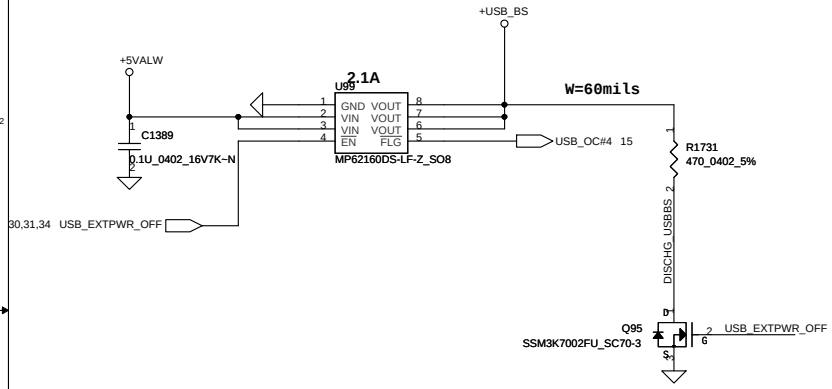
Title: SCHEMATIC, MB A5791

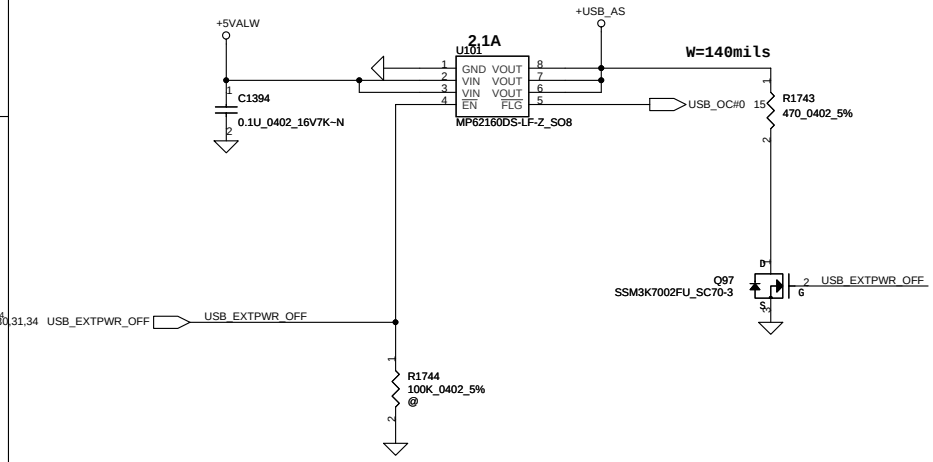
Size: Custom | Document Number: 401831 | Rev: F

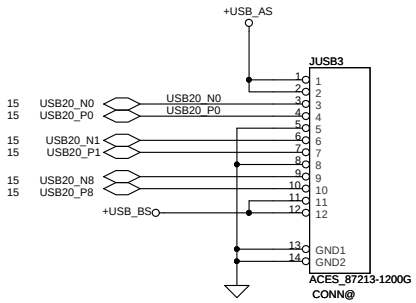
Date: Thursday, July 15, 2010 | Sheet 32 of 55

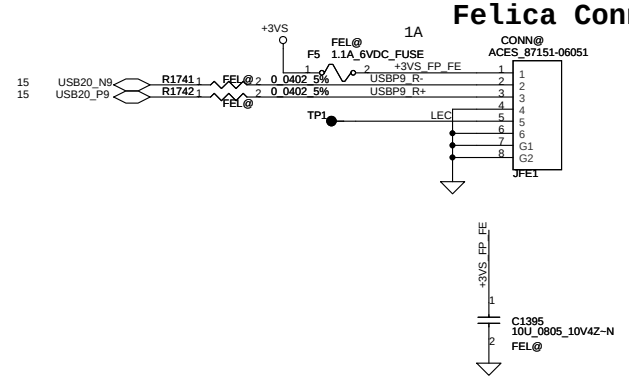






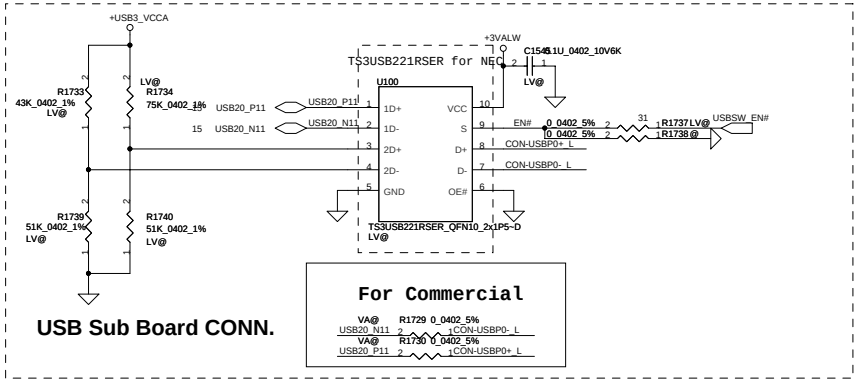


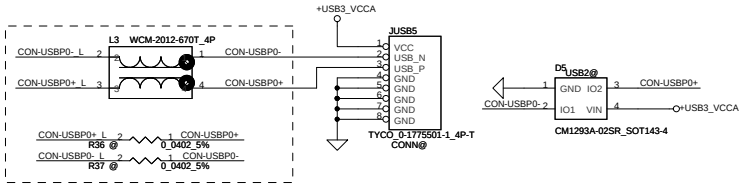


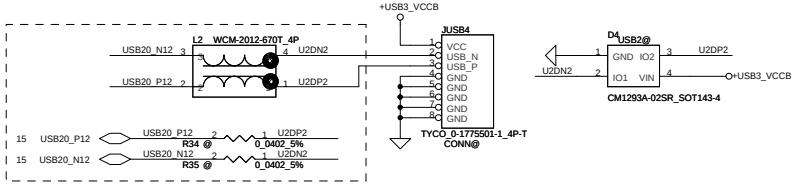


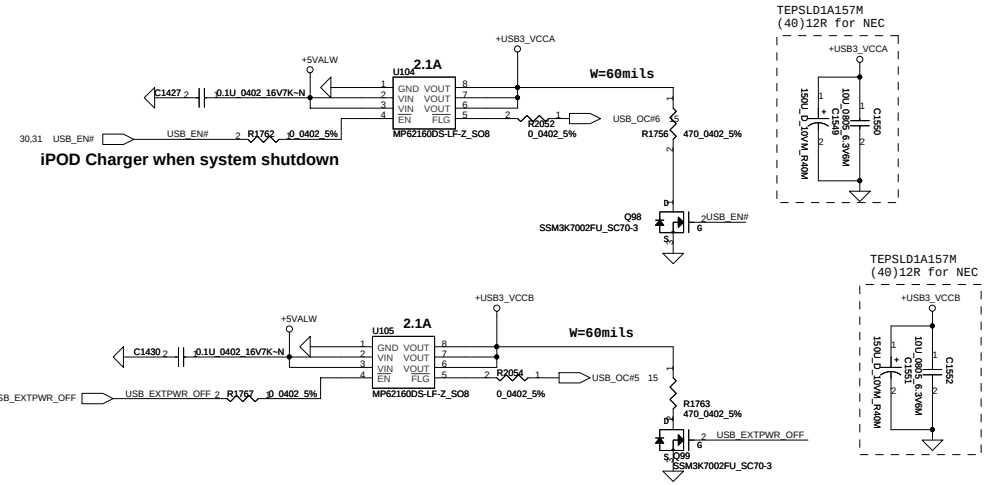
Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

Compal Electronics, Inc.	
Title	SCHEMATIC, MB A5791
Size	Document Number: 401831 — Rev: F
Date: Thursday, July 15, 2010	Sheet 33 of 55







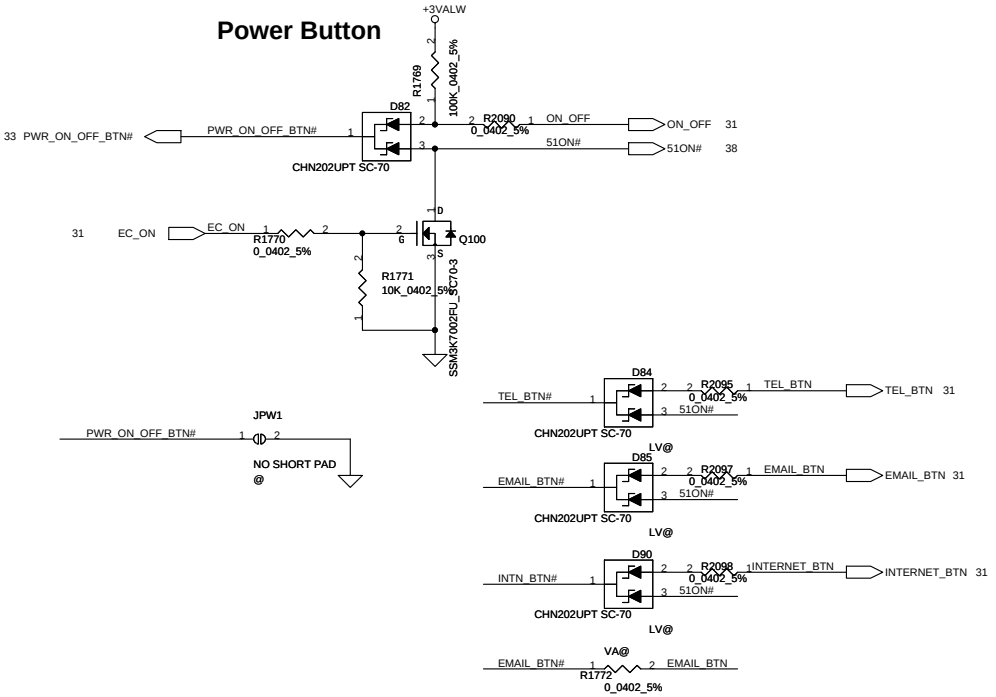


USB_EN Hi=Enable, Low=Disable IPOD USB power

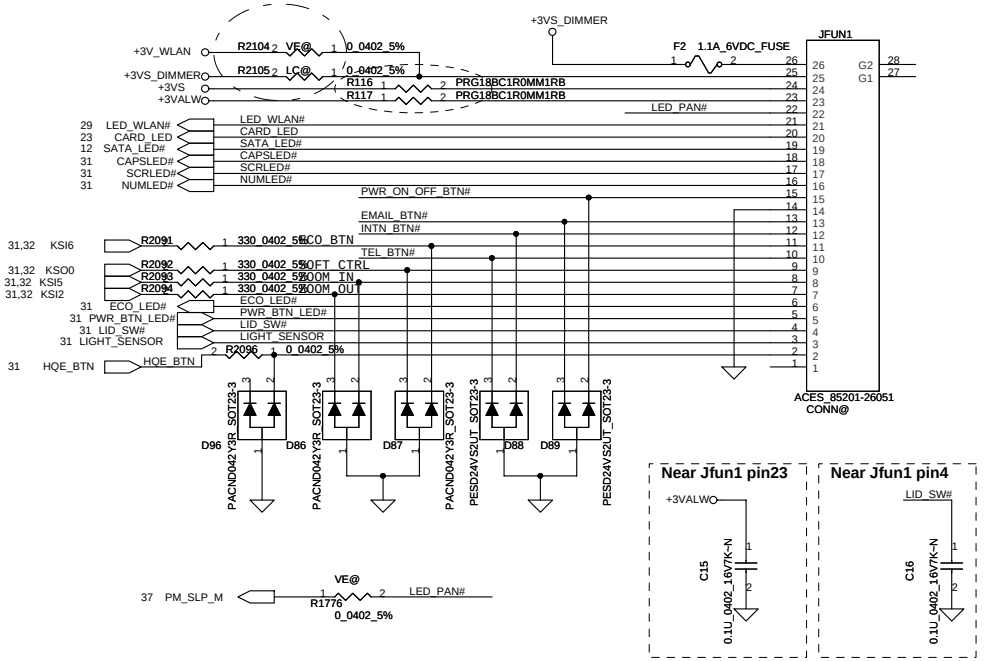
	BIOS MENU	S0	S3	S4	S5
AC /DC	ON	ON	ON	ON	ON
	OFF	ON	OFF	OFF	OFF

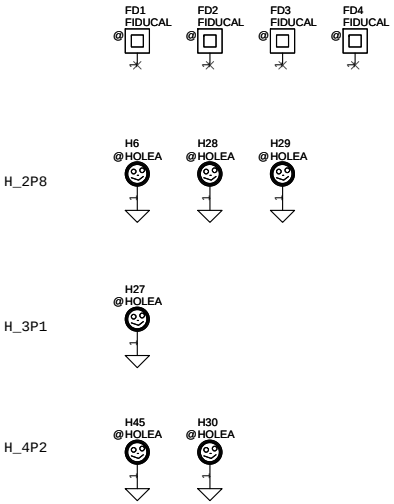
Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date		Deciphered Date	
Title	SCHEMATIC, MB A5791		
Size C	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 34 of 55		

Power Button



Function/B CONN.





Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

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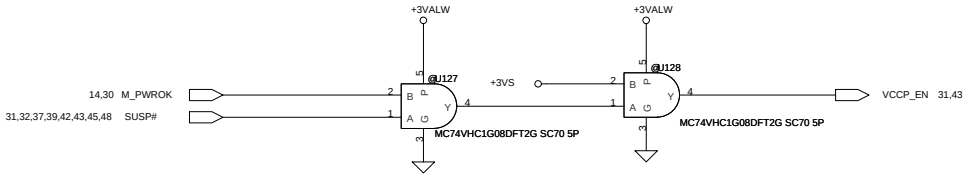
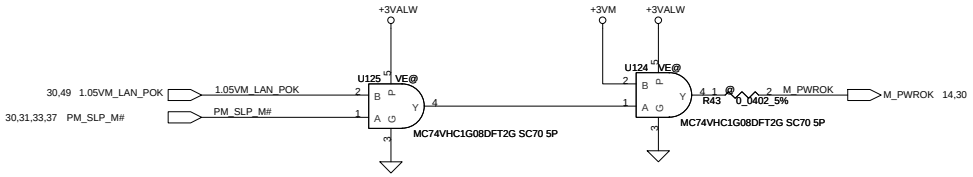
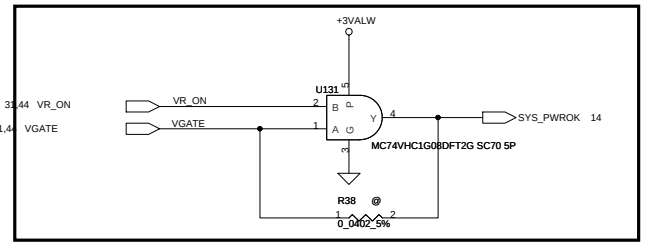
Title: ***SCHEMATIC, MB A5791***

Size: Custom	Document Number: *401831*	Rev: F
Date: Thursday, July 15, 2010	Sheet 35 of 55	

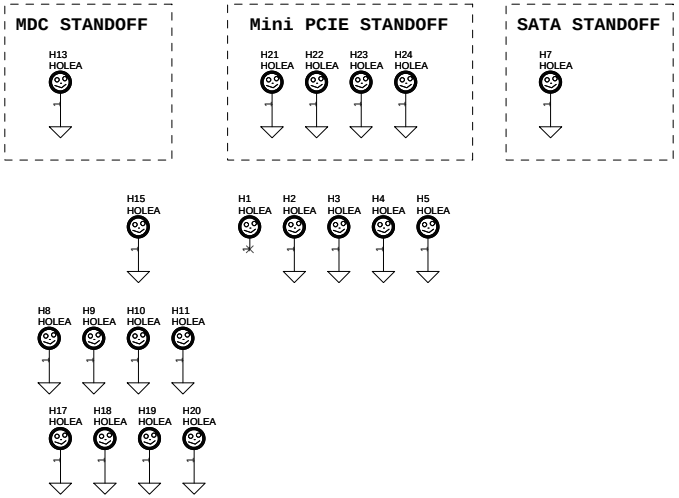






09/01 Add for tune vgate falling-time

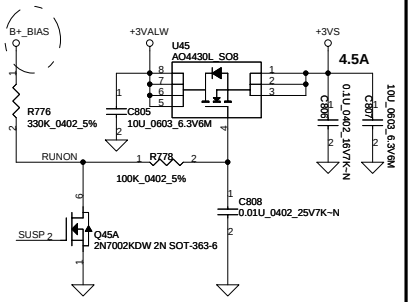
Update Symbol



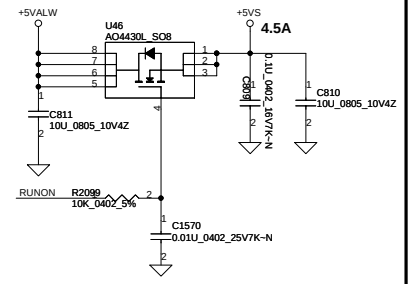
Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

Compal Electronics, Inc.			
Title	SCHEMATIC, MB A5791		
Size	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 36 of 55		

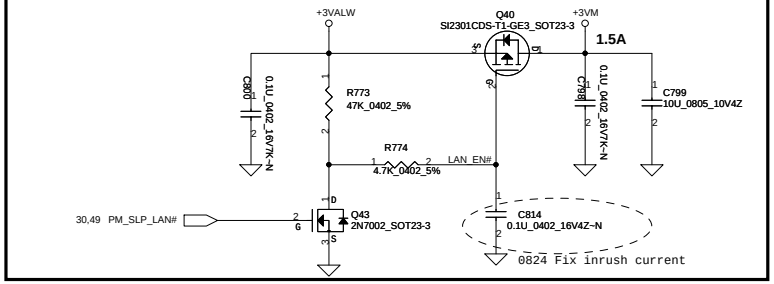
+3VALW to +3VS Transfer



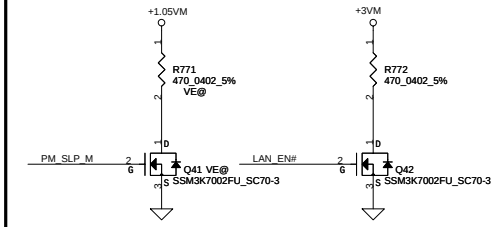
+5VALW to +5VS Transfer



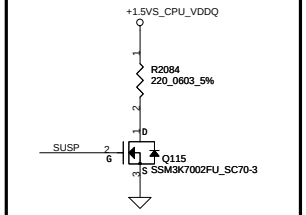
+3VALW to +3VM Transfer



Discharge circuit-2 for V-M

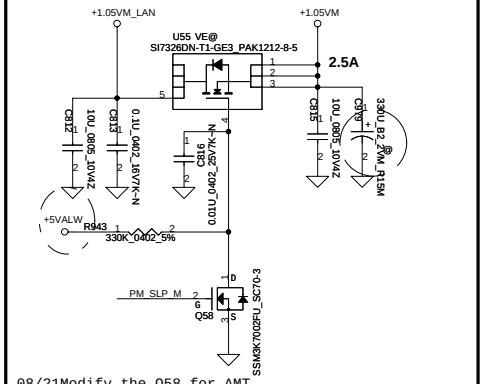


+1.5VS_VDDQ_PP discharge



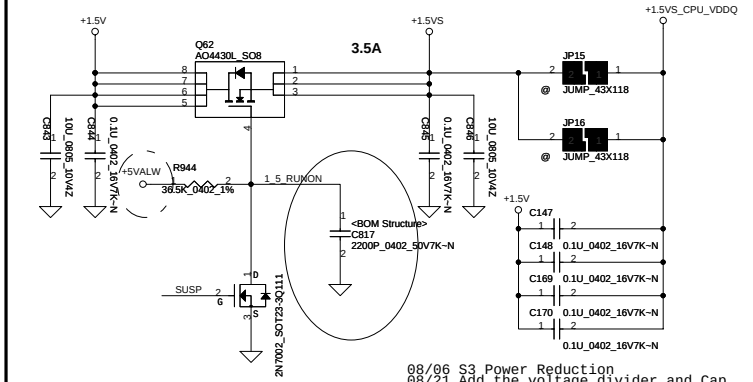
09/14 Reserve for S3
power saving

+1.05VM_LAN to +1.05VM Transfer



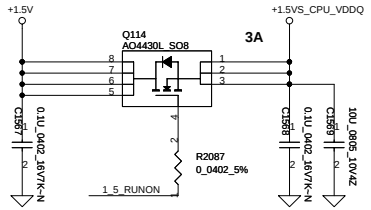
08/21Modify the Q58 for AMT

+1.5V to +1.5VS Transfer

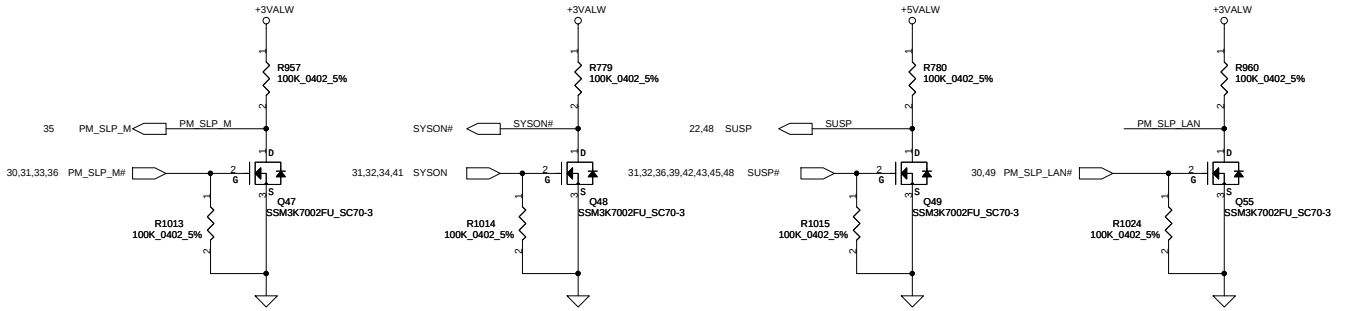


08/06 S3 Power Reduction
08/21 Add the voltage divider and Cap
04/8 Chnage RC timing to 36.5K and 2200P

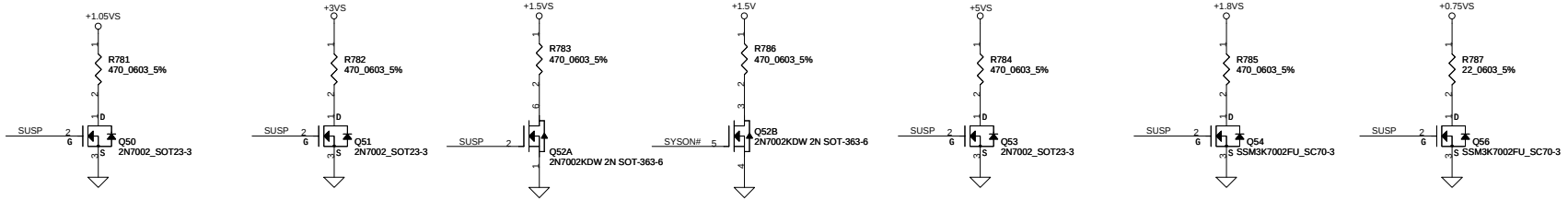
+1.5V to +1.5VS_VDDQ_PP



09/14 Reserve for S3 power saving

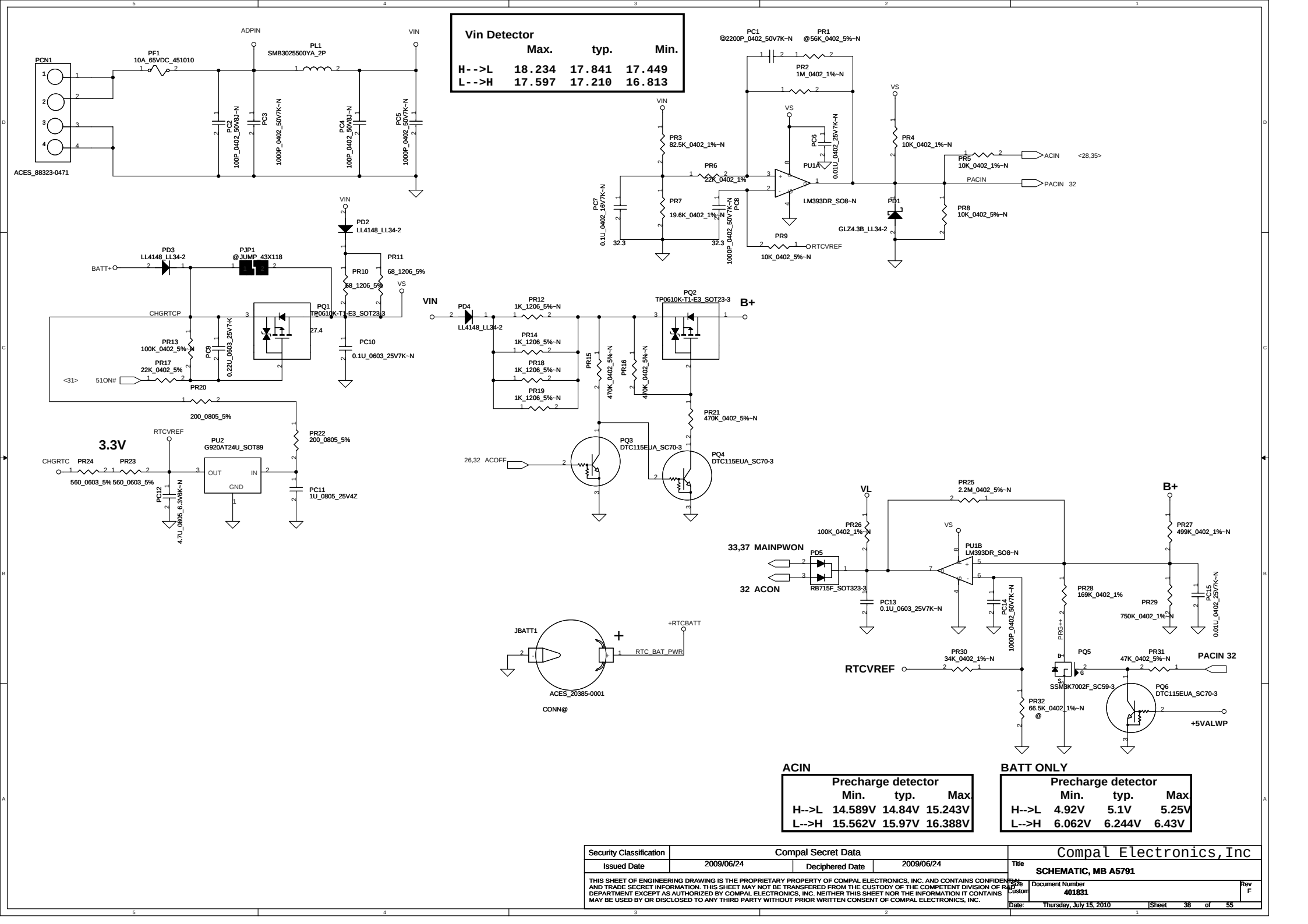


Discharge circuit-1



Security Classification	Compal Secret Data		
Issued Date	2009/6/19	Deciphered Date	2009/12/31

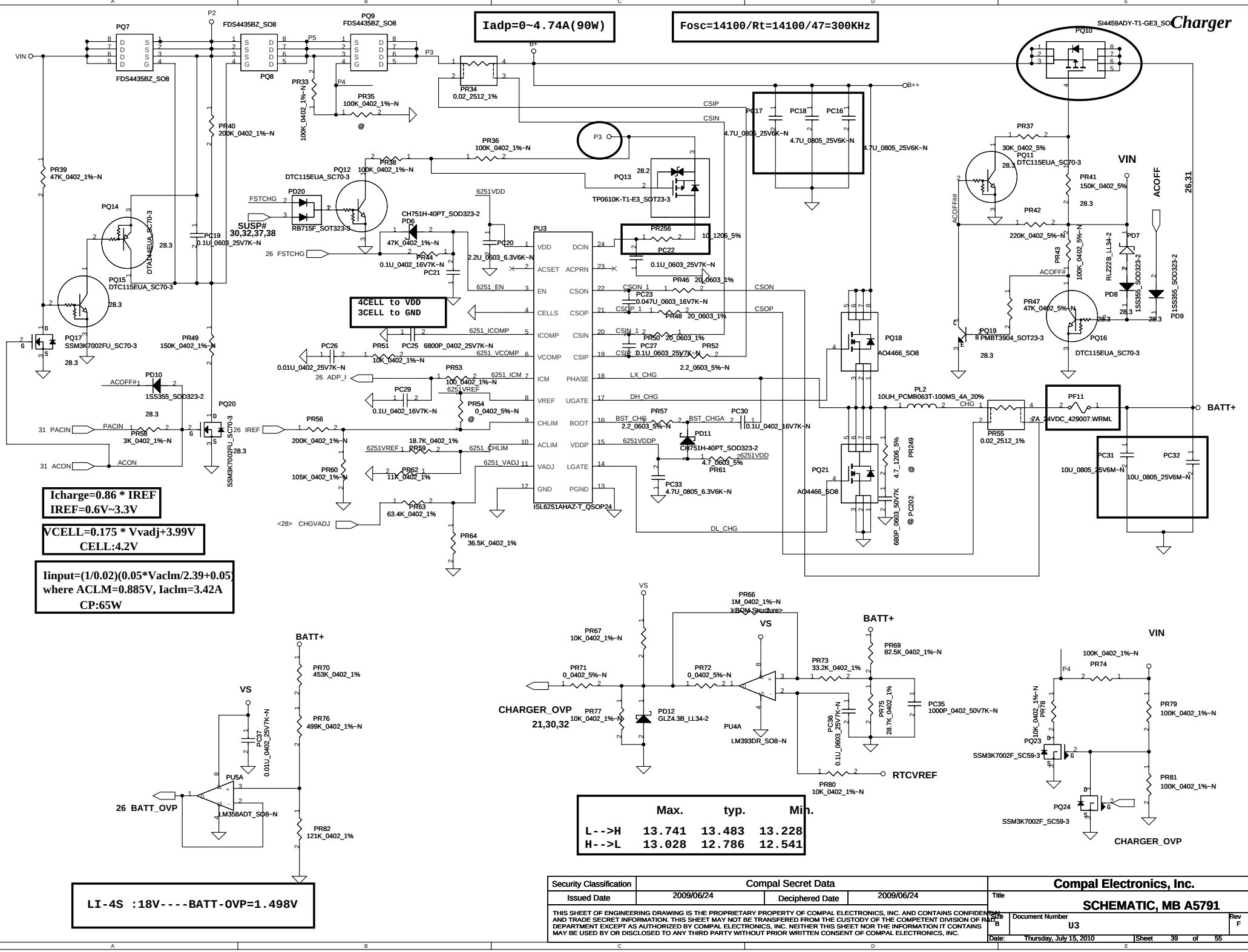
Compal Electronics, Inc.			
Title	SCHEMATIC, MB A5791		
Size	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 37 of 55		



Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Compal Electronics, Inc

Title	SCHEMATIC, MB A5791
Size	Custom
Document Number	401831
Rev	F
Date:	Thursday, July 15, 2010
Sheet	38 of 55


Charger
Iadp=0~4.74A(90W)
Fosc=14100/Rt=14100/47=300KHz
ISL6251AHAZ-T_QSOP24
4CELL to VDD
3CELL to GND
Icharge=0.86 * IREF
IREF=0.6V~3.3V
VCELL=0.175 * Vvadj+3.99V
CELL:4.2V
Iinput=(1/0.02)(0.05*Vaclm/2.39+0.05)
where ACLM=0.885V, Iaclm=3.42A
CP:65W
LI-4S :18V----BATT-OVP=1.498V
Max. typ. Min.
L-->H 13.741 13.483 13.228
H-->L 13.028 12.786 12.541
Security Classification
Compal Secret Data
Issued Date
2009/06/24
Deciphered Date
2009/06/24
Compal Electronics, Inc.
SCHEMATIC, MB A5791
Size B
Document Number U3
Rev F
Date: Thursday, July 15, 2010
Sheet 39 of 55
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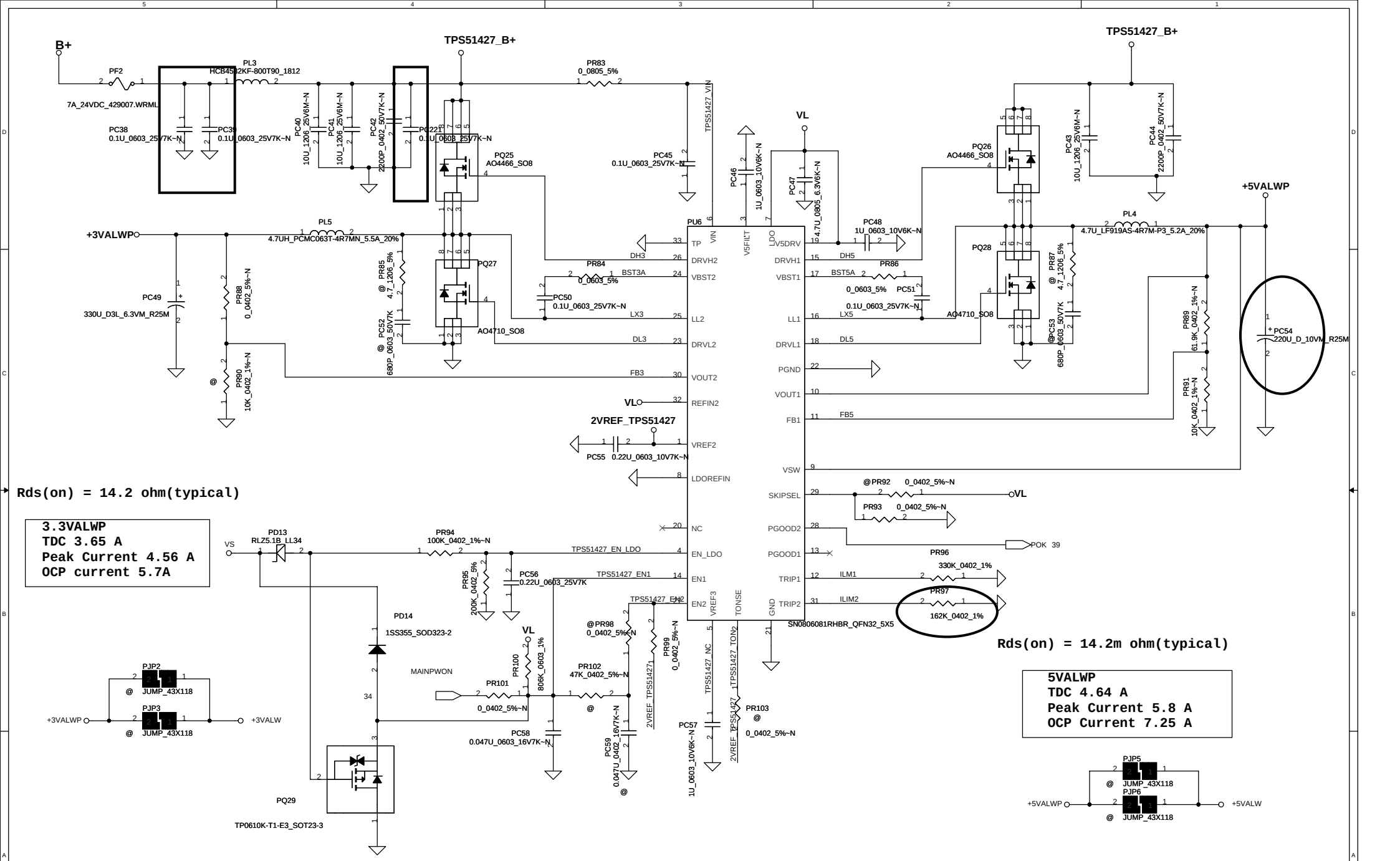


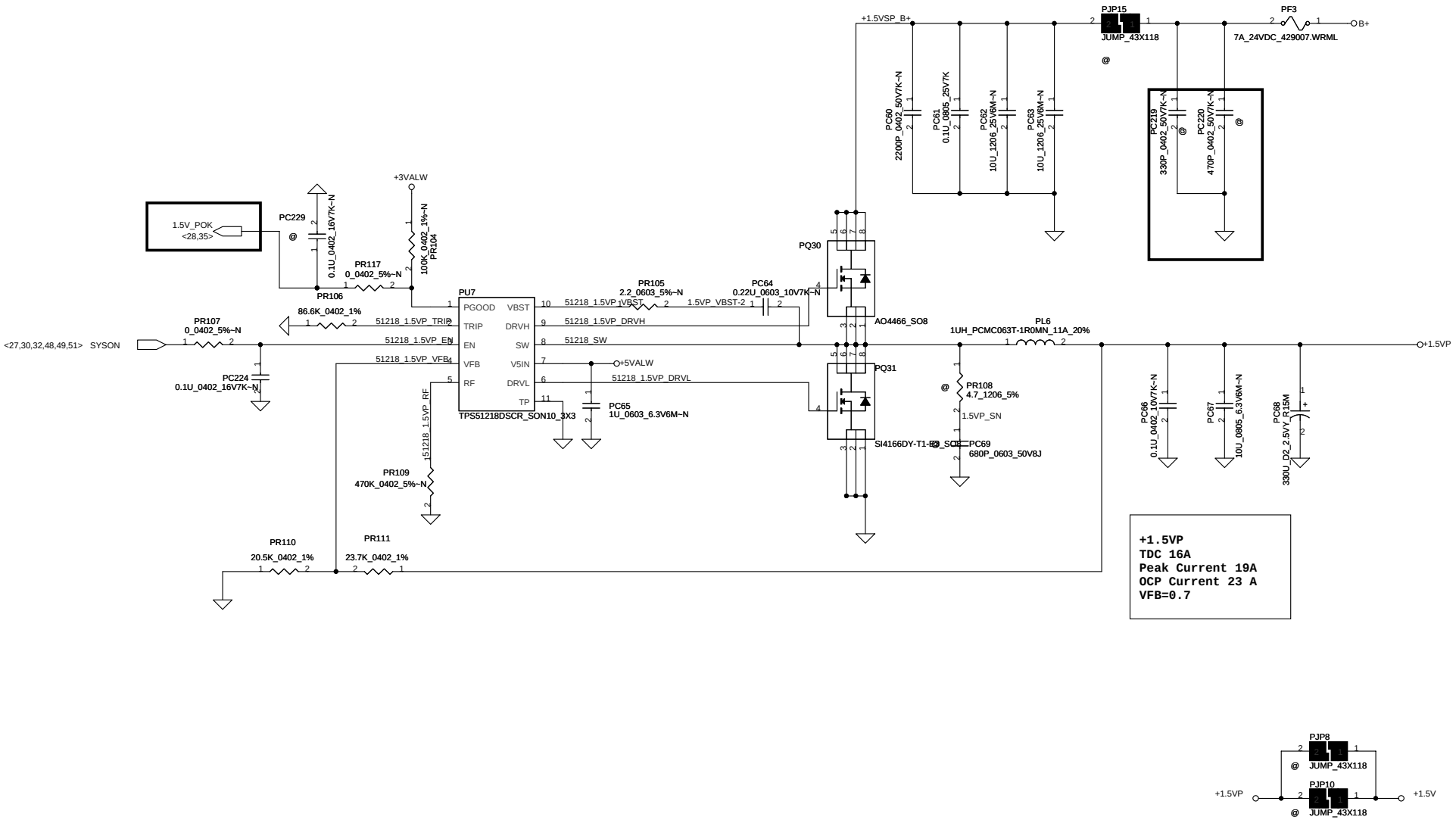
Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Compal Electronics, Inc.

Title: SCHEMATIC, MB A5791

Size: Custom | Document Number: 401831 | Rev: F

Date: Thursday, July 15, 2010 | Sheet 40 of 55



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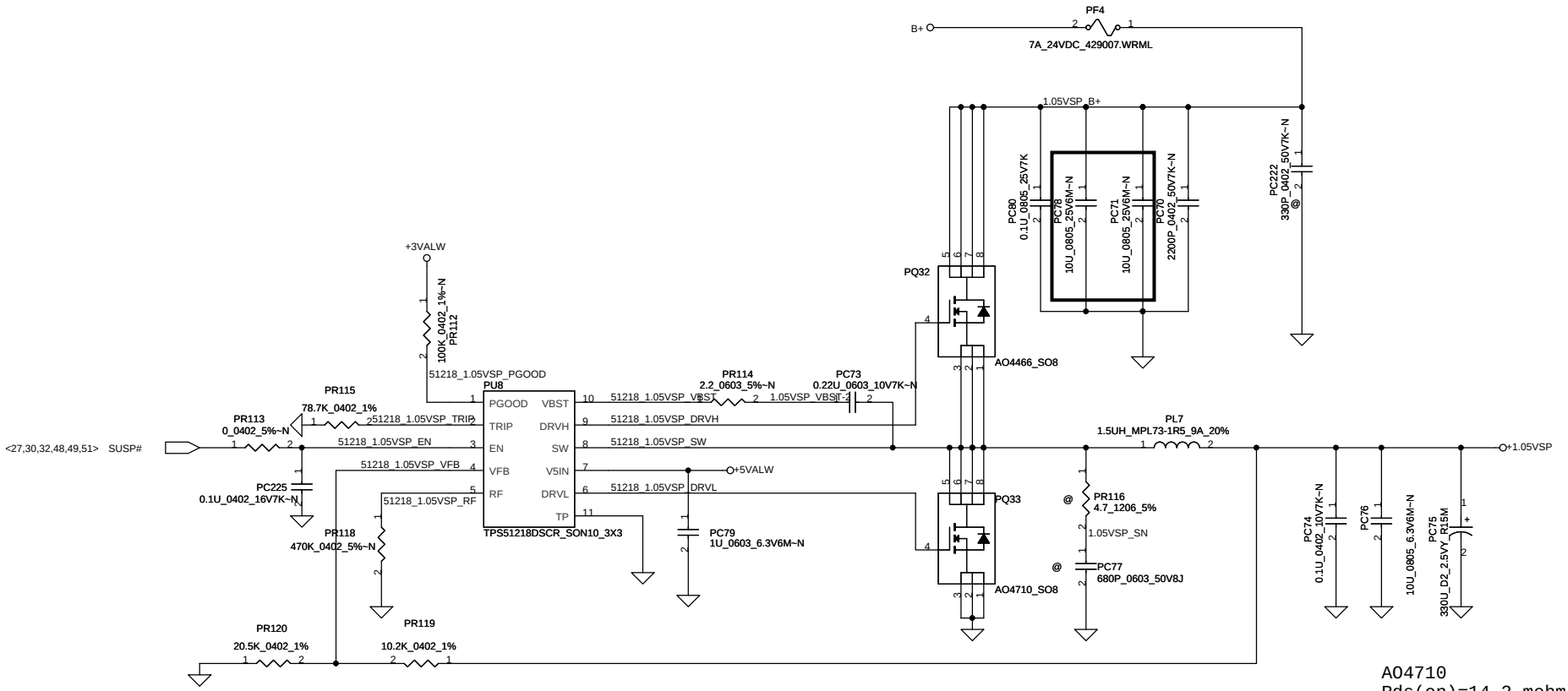
Title: SCHEMATIC, MB A5791

Size: Custom | Document Number: 401831 | Rev: F

Date: Thursday, July 15, 2010 | Sheet 41 of 55



Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

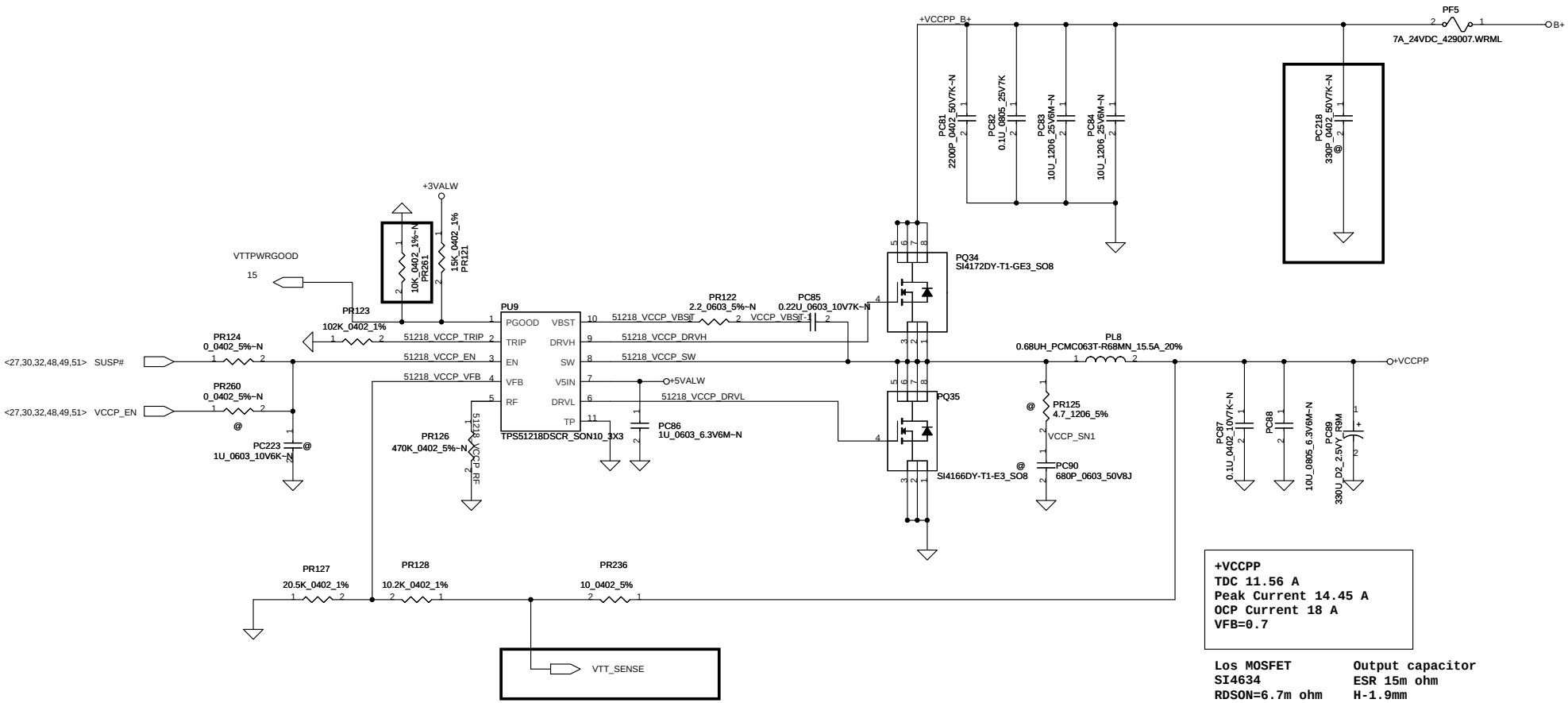
Compal Electronics, Inc.

Title: SCHEMATIC, MB A5791

Size | Document Number: 401831 | Rev: F

Date: Thursday, July 15, 2010 | Sheet 42 of 55

+VCCPP



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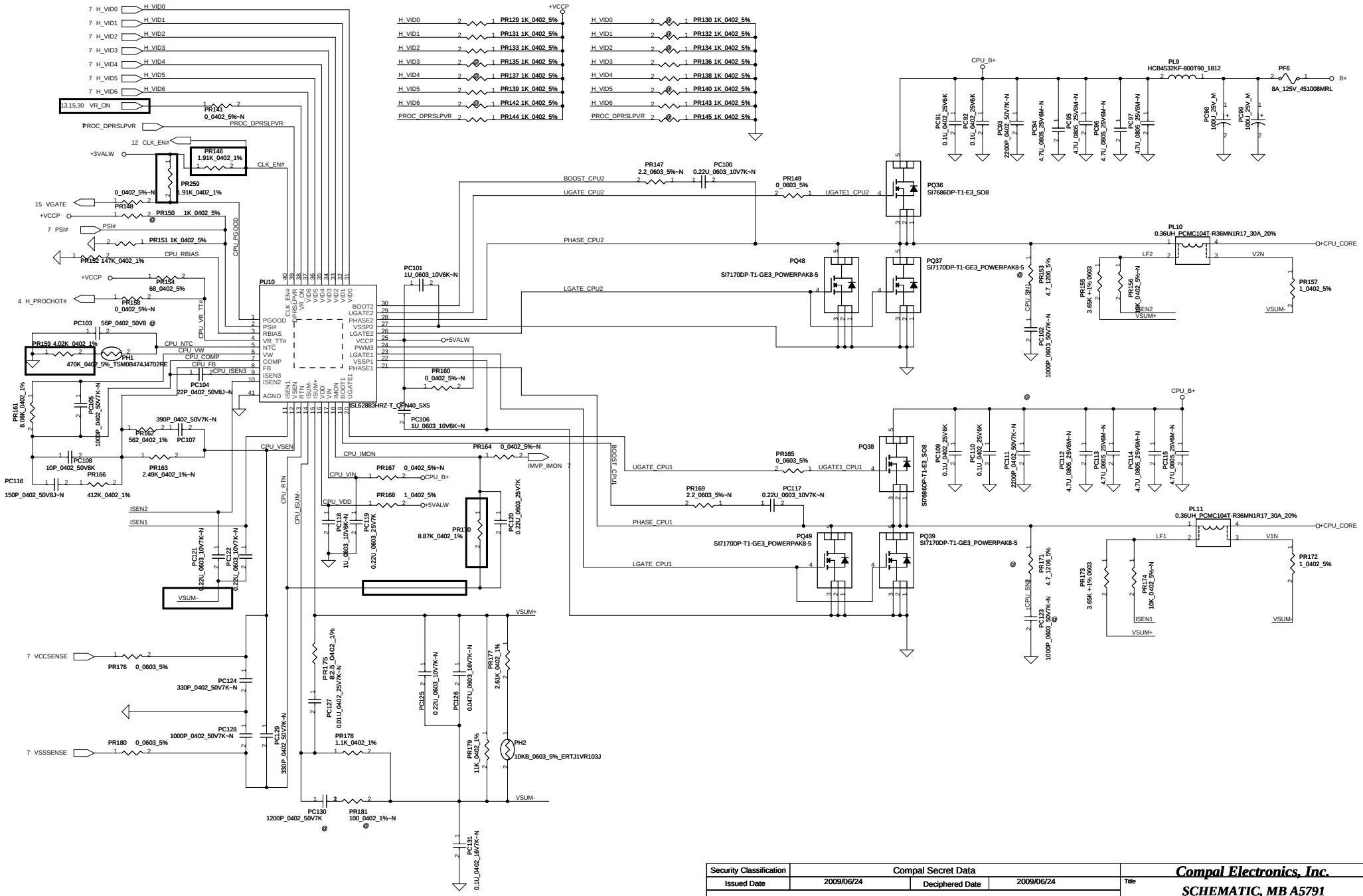
Title: SCHEMATIC, MB A5791

Size: Custom | Document Number: 401831 | Rev: F

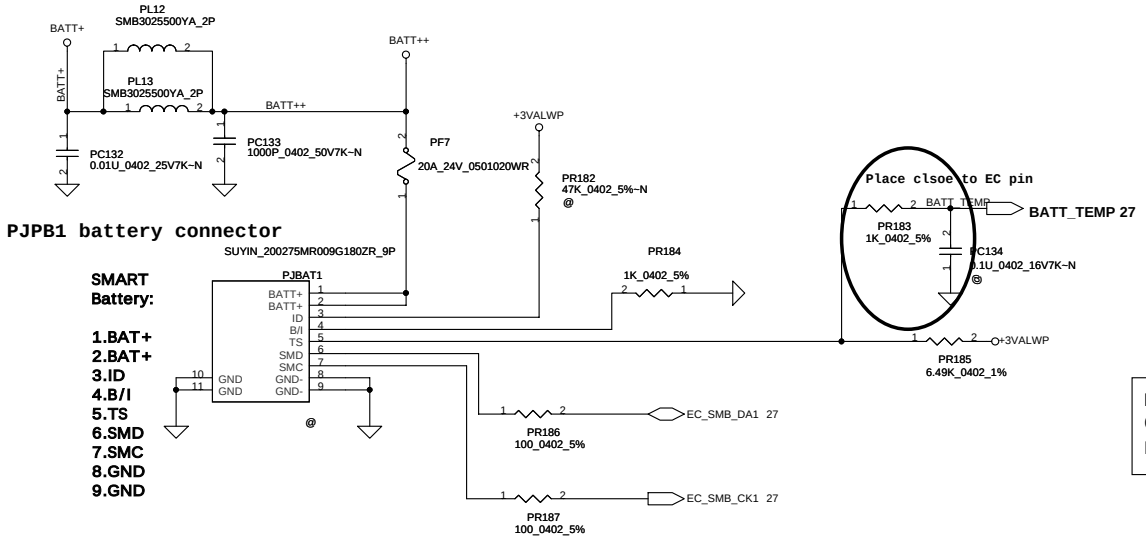
Date: Thursday, July 15, 2010 | Sheet 43 of 55

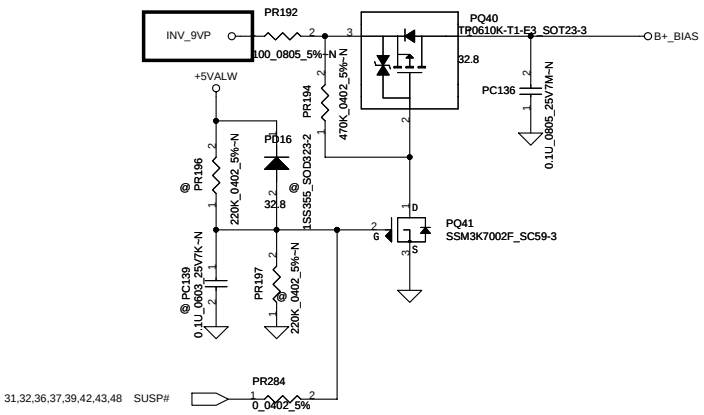


Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Compal Electronics, Inc.			
Title	SCHEMATIC, MB A5791		
Size	Document Number		Rev
	401831		F
Date: Thursday, July 15, 2010	Sheet 44 of 55		

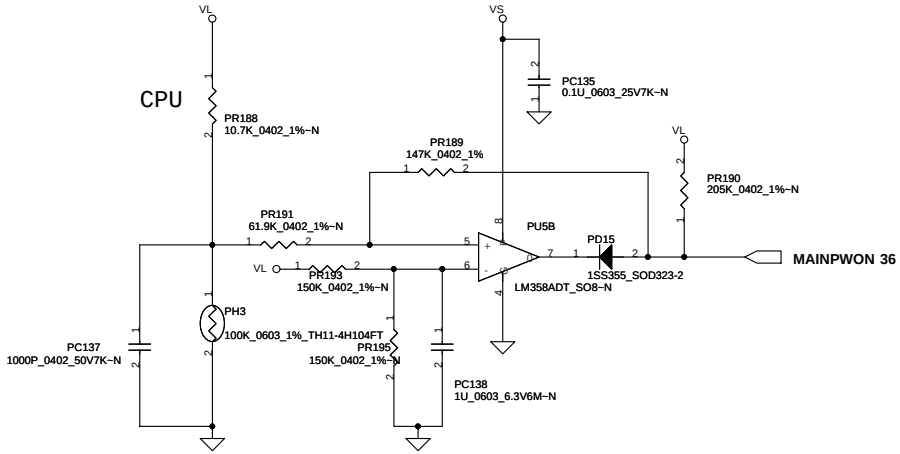
Battery Connect/OTP





CPU

PH3 under CPU botten side :
CPU thermal protection at 90 +-3 degree C
Recovery at 50 +-3 degree C



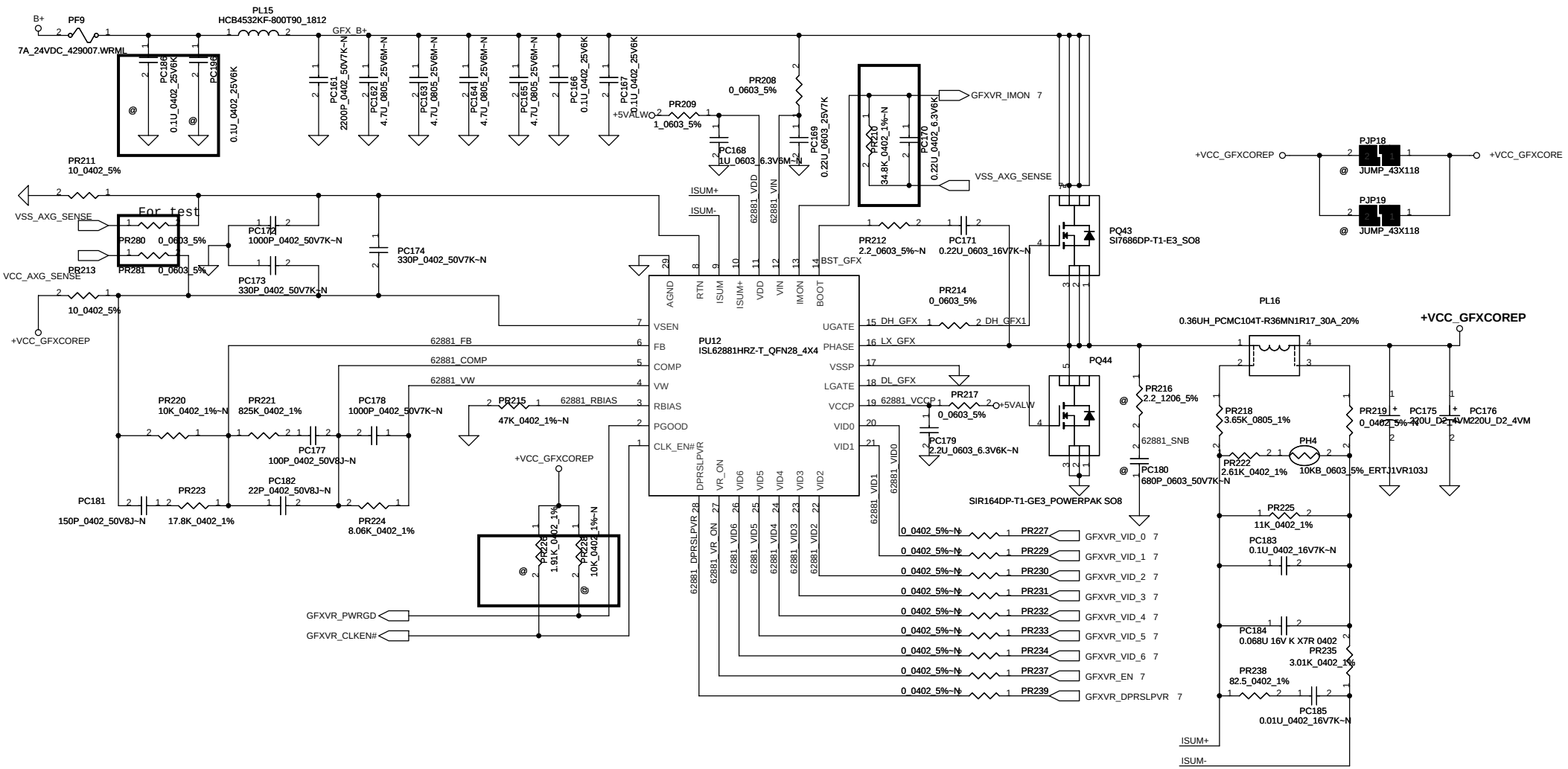
Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Compal Electronics, Inc.

Title: BATTERY CONN

Size: Custom | Document Number: 401831 | Rev: F

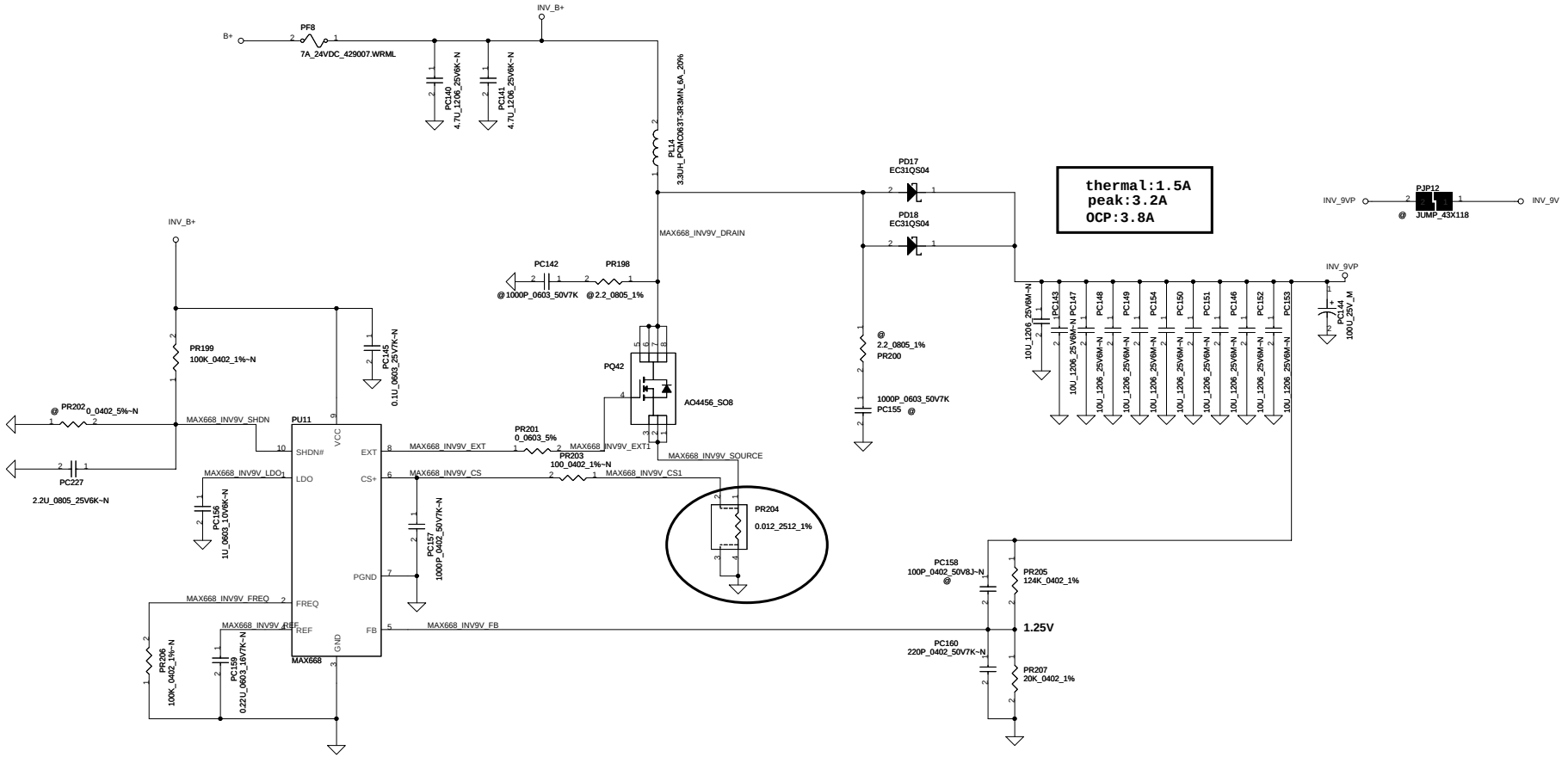
Date: Thursday, July 15, 2010 | Sheet 45 of 55



+VCC_GFXCOREP
TDC 17.6A
Peak Current 22A
OCP Current 24.2 A

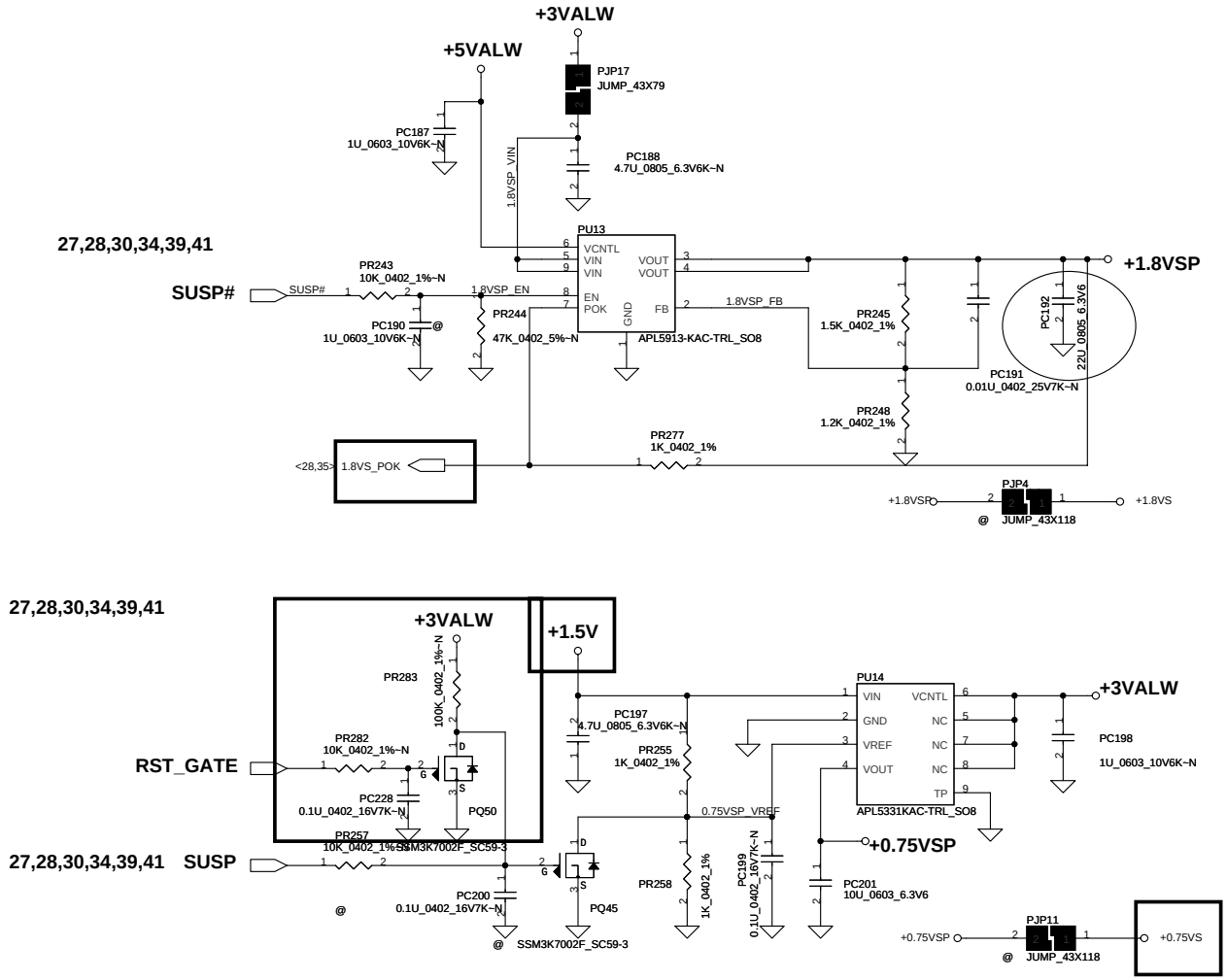
Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Compal Electronics, Inc.			
Title	SCHEMATIC, MB A5791		
Size	Document Number		Rev
	401831		F
Date: Thursday, July 15, 2010	Sheet 46 of 55		

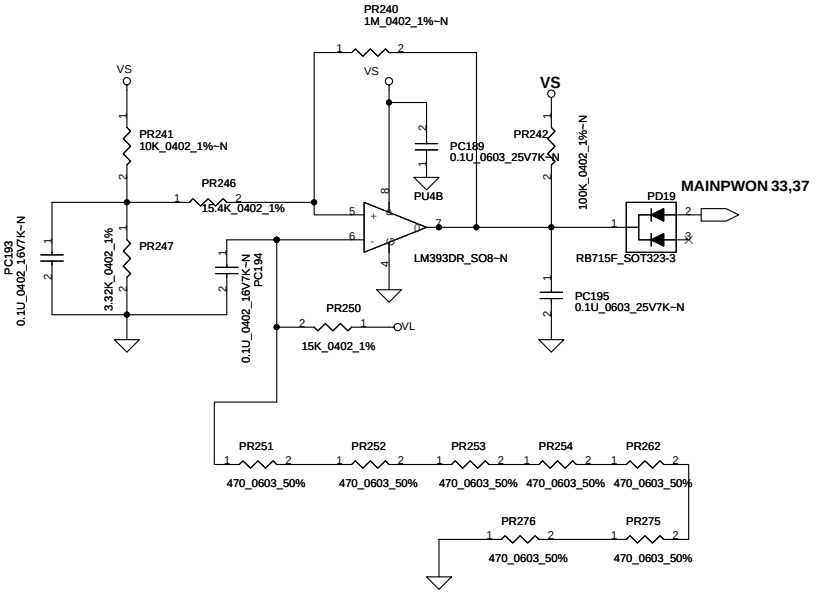


Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2009/06/24	Deciphered Date	2009/06/24

Title	SCHEMATIC, MB A5791		
Size	Document Number 401831		Rev F
Date: Thursday, July 15, 2010	Sheet 47 of 55		



Posestor



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Issued Date	2009/06/24	Deciphered Date	2009/06/24

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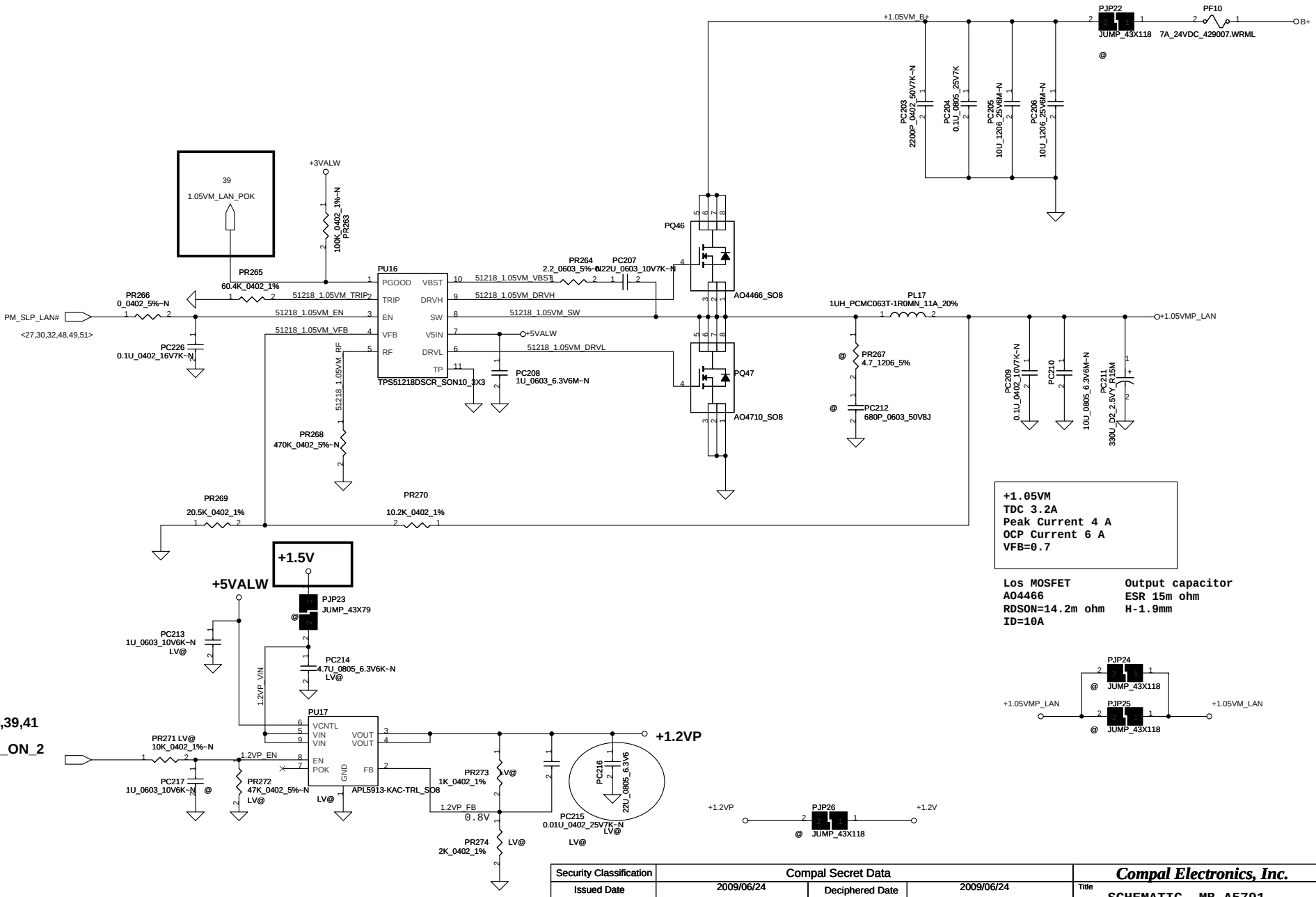
Title: **SCHEMATIC, MB A5791**

Size: Custom | Document Number: **401831** | Rev: F

Date: Thursday, July 15, 2010 | Sheet 48 of 55



Security Classification	Compal Secret Data		
Issued Date	2009/06/24	Deciphered Date	2009/06/24

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Title: SCHEMATIC, MB A5791

Size	Document Number	Rev
Custom	401831	F

Date: Thursday, July 15, 2010 Sheet 49 of 55

Version Change List (P. I. R. List) Page 1

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Schematic	Rev.
1	44	PWR-CPU_CORE	2009/08/04	COMPAL	Change the CPU current gaing meet Arrandale CPU	DEL(SD028100180 S RES 1/16W 1K +-5% 0402) Location :PR135 PR140 ADD(SD028100180 S RES 1/16W 1K +-5% 0402) Location :PR136 PR139		0.1
2	44	PWR-CPU_CORE	2009/08/04	COMPAL	Change the resiter value to same with common circuitry	Change (SD028470280 S RES 1/16W 47K +-5% 0402) to (SD000009O80 S RES 1/16W 1.91K +-1% 0402) Location :PR146		
3	41~49	PWR-1.5VP, 1.05VSP, VCCPP, 1.05VM	2009/08/04	COMPAL	Change the output capacity to same with common circuitry	Change (SGN00000500 S NBO CAP 330U 2.5V M Y NOJ H2.0) to (SGA19331360 S POLY C 330U 6.3V M D3L ESR25M TPE H2.8) Location :PC68 PC75 PC89 PC211		
4	39	PWR-Charger	2009/08/04	COMPAL	Change the schematic to same with common circuitry	Change (SB000009610 S TR SSM3K7002FU 1N SC70-3) to (SB301150000 S TR DTC115EUA NPN (UMT3)) Location :PQ12 ADD (SCSB715F000 S SCH DIO RB715F UMD3) Location:PD20		
5	39	PWR-1.5VSP VCCPP	2009/08/04	COMPAL	Change the MOSFET to meet NECP rule	Change (SB00000DA00 S TR SI4634DY-T1-E3 1N SO8) to (SB00000LC00 S TR SI4166DY-T1-GE3 1N SO8) Location :PQ31 PQ35		
6	44	PWR-CPU_CORE	2009/08/04	COMPAL	Change the schematic to same with common circuitry	Change (SD028470280 S RES 1/16W 47K +-5% 0402) to (SD000009O80 S RES 1/16W 1.91K +-1% 0402) Location :PR146		
7	46	PWR-VCC_GFXCOREP	2009/08/04	COMPAL	FOR INTESIL suggest to add 0 ohm resister	ADD (SD013000080 S RES 1/10W 0 +-5% 0603) Location :PR280 281		
8	48	PWR-0.75VSP/1.8VP	2009/08/04	COMPAL	ADD two posester for HW request	ADD(SL200000S00 S THERM_ 470 +-50% PRF18BA471QB5RB 0603) Location :PR278 PR279		
9	46	PWR-VCC_GFXCOREP	2009/09/30	COMPAL	FOR HW POWER BUDGUT	Change(SB00000CG00 S TR AO4466 1N SO8) to(SB000008L80 S TR SI7686DP-T1-E3 1N POWERPAK SO8) Location :PQ43		
10	48	PWR-0.75VSP/1.8VP	2009/09/30	COMPAL	For HW power saving enable request	ADD(SB000009080 S TR SSM3K7002F 1N SC59-3) Location :PQ50		
11	46	PWR-VCC_GFXCOREP	2009/09/30	COMPAL	FOR HW POWER BUDGUT	Change(SB00000DA00 S TR SI4634DY-T1-E3 1N SO8) to(SB00000FO00 S TR SI7170DP-T1-GE3 1N POWERPAK SO8) Location :PQ44		
12	47	PWR-INV_9VP	2009/09/30	COMPAL	For customer adjust current limit	Change(SD021180D80 S RES 1W .018 +-1% 2512) to(SD021120D80 S RES 1W .012 +-1% 2512) Location :PR204		
13	48	PWR-0.75VSP/1.8VP	2009/09/30	COMPAL	For HW power saving enable request	ADD(SD034100280 S RES 1/16W 10K +-1% 0402) Location :PR282		
14	48	PWR-0.75VSP/1.8VP	2009/09/30	COMPAL	For HW power saving enable request	ADD(SD034100380 S RES 1/16W 100K +-1% 0402) Location :PR283		
15	39	PWR-Charger	2009/09/30	COMPAL	Change the CP point to 65W	Change(SD034100280 S RES 1/16W 10K +-1% 0402) to(SD034110280 S RES 1/16W 11K +-1% 0402) Location :PR62		
16	48	PWR-0.75VSP/1.8VP	2009/09/30	COMPAL	For HW power saving enable request	ADD(SE076104KN0 S CER CAP .1U 16V K X7R 0402) Location :PC228		

Version Change List (P. I. R. List) Page 1

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Schematic	Rev.
1	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	ADD(SB000009080 S TR SSM3K7002F 1N SC59-3) Location :PQ50		0.1
2	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	ADD(SD034100280 S RES 1/16W 10K +-1% 0402) Location :PR282		
3	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	ADD(SD034100380 S RES 1/16W 100K +-1% 0402) Location :PR283		
4	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	ADD(SE076104KN0 S CER CAP .1U 16V K X7R 0402) Location :PC228		
5	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	DEL(SE076104KN0 S CER CAP .1U 16V K X7R 0402) Location :PC200		
7	48	PWR-0.75VSP/1.8VP	2009/09/30	NEC	For HW power saving enable request	DEL(SD034100280 S RES 1/16W 10K +-1% 0402) Location :PR257		

Version Change List (P. I. R. List) Page 1

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	20		7/28	NECP	NECP comment	Change Y13 from 8MHZ 20PF 50PPM X8A008000IK1H to 8MHZ 20PF +-20PPM X5H008000DK1H	0.2
2	31		7/28	Compal	Auto wake up	Connect EC_EMAIL_BTN to R1704 pull high	0.2
3	37		7/28	Compal	System can not wake on LAN	Del Q57 Add Q40, Q41, R772 on LV and VE model	0.2
4	28		7/28	Compal	System can not power on with BT	Change BT_DET# from PCH to ENE3810 GPIO06	0.2
5	10		7/28	Compal	DIMM II can not use	Change DIMMII SA1 from GND to pull high 10K ohm	0.2
6	21		7/28	NECP	NECP comment	Remove MSEN # and REF_GND	0.2
7	4		8/6	Compal	S3 Power Reduction	Add reset and Gate circuit for reduce S3 power consumption.	0.2
8	31		8/6	Compal	HQE button signal is NC	Connect to KB926 GPIO41	0.2
9	23		8/6	Compal	Power leakage from OZ888	Change U83 and U129 power source to +3VS and add Gate for MMI_LED	0.2
10	28		8/20	NECP-AI	TPM timing sequence	Add SUS_STAT# for meet TPM timing requirement and change TPM CONN	0.2
11	34		8/20	Compal	USB3.0 CONN	Add JUSB4/5 for co-lay USB 2.0/3.0	0.2
12	11, 21		8/20	NECP	SUPER I/O reference CLK	Add reference CLK for superIO from CLK GEN	0.2
13	31		8/20	Compal	EC debug port	Add Tx/Rx from EC to Mini card2 for debug	0.2
14	37		8/21	NECP	NECP commet for MOS-FET Spec	Add the voltage divider and soft star circuit	0.2
15	31,37		8/21	NECP-AI	iAMT timing requirement - M_PWROK<->VccLAN	Add SLP_M# signal control by EC and remove SLP_LAN to control +1.05VM power rail	0.2
16	34		8/21	Compal	USB EMI requirement	Add COMM-CHOKE for USB	0.2
17	23		8/24	NECP	OZ888 power sequence	Change Enable pin to +3VS	0.2
18	37		8/24	NECP	+3VM inrush current	Change C814 to 0.1uF	0.2
19	12		8/24	Compal	SATA port re-ddfine for BIOS	Port 0:SSD; Port 1: HDD; Port4:ODD; Port5: eSATA	0.2
20	33, 34		8/24	Compal	USB 3.0 and e-SATA pin definition problem	Update JUSB1, JUSB2, JESATA CONN pin definition	0.2
21	34		8/24	Compal	UPD720200 boot-up sequence	Use USB_RST# to reset	0.2
22	22		8/24	Compal	Set up 4db for EQUALIZATION SETTING:	Change Pin 10,3,4 of ASM1442 to Low,High,High	0.2
23	15		8/25	Compal	Set up for distinguish SKU	Add pull down for GPIO 36 and GPIO 37	0.2
24	11,13,18, 23,26,34		8/27	NECP	NECP comment	Change X1,Y1,Y4,Y5,Y11,Y12 to 20PPM	0.2
25	21		8/27	NECP	NECP comment	Add C7,C8 for EDID_CLK and EDID_DATA.	0.2
26	27		8/27	Compal	U87 will be EOL.	Co-lay U7 for tri-run.	0.2
27	23		8/30	NECP	NECP comment	Update OZ888 circuits	0.2
28	21		8/31	NECP	INV current protect	Change F3 to 5A	0.2
29	23		8/31	NECP	IO current protect	Add R115, R116, R117 posestor for NECP comment	0.2
30	36		9/01	NECP	Add for tune vgate falling-time	Add U131, R38 for NECP comment	0.2
31	23		9/01	NECP	Add for discharge	Add Q112, Q113 for NECP comment	0.2
32	34		9/01	NECP	USB	Add R118, R119, R120, R121 for USB2.0 layout	0.2
33	33		9/02	Compal	Wrong connection in USB port.	Switch signal of R1729,R1730	0.2
34	18		9/02	Compal	Add for EMI test	Add L7~L14	0.2
35	29		9/14	Compal	The power of WLAN card can't be turn on.	Add pull-high to WLANPW_DIS#	0.3
36	33		9/14	Compal	The signals of ESATA are swap.	Swap SATA_PTX_C_DRX_P4 and SATA_PTX_C_DRX_N4	
37	21		10/1	Compal	Already mount in sub board.	Remove form M/B	
38	18		11/2	Compal	Add L11~L18;Delete R1945~R1965 (exclude R1952,R1957,R1963)		

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Title: SCHEMATIC, MB A5791

Size: Document Number: 401831 Rev: F

Date: Thursday, July 15, 2010 Sheet 52 of 55

Version Change List (P. I. R. List) Page 2

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	22,37,45		10/26	NECP	System power on when insert AC	Change B+_BIAS circuit	0.4
2	21		10/29	Compal	Remove reserve circuit	Remove reserve circuit: EMI reserve circuit	0.4
3	27		10/29	Compal	Remove Co-lay circuit	Remove Co-lay circuit: speaker trace	0.4
4	30		10/31	Compal	Remove Jump	Remove Jump: HDD/ODD power	0.4
5	34		10/31	Compal	USB3.0 power switch can not enable.	Change U104/U105	0.4
6	4,5		11/3	Compal	Remove reserve circuit	Remove reserve circuit:XDP	1.0
7	21		11/4	NECP	Add panel ID for HQE	Add LCDCH_DET_2 signal to JLCD1 Pin19	1.0
8	30, 34		11/4	NECP	USB3.0 power switch	Add control signal USB3.0_EXTPWR_OFF	1.0
9	35		11/4	NECP	Change WLAN LED power	Add resistor to JFUN1 Pin25	1.0
10	35		11/4	Compal	ESD protect	Add C15, C16 for ESD team recommend.	1.0
11	23		11/8	NECP	LED On immediately after Power turned On	Add U6, Delete R2012	1.0
12	13		11/8	Compal	BOM for USB3.0	Modify C1005,C1006,R2048 BOM for USB3.0	1.0
13	21		11/9	NECP	Display OFF circuit	Modify DISPLAY_OFF circuit to follow NECP recommend	1.0
14	30,31,34		11/9	NECP	Rename for Net	USB_EN# --> USB_EN; USB3.0_EXTPWR_OFF --> USB3.0_EXTPWR_ON	1.0
15	23		3/8	NECP	Some particular memory card can't be detected.	Change R2004 from 33 ohm to 0 ohm	1.0
16	30,34		3/19	NECP	NEC comment	Use TEPSLD1A157M(40)12R for 150u capacitor.	1.0
17	33		4/8	NECP	Faildchild's bus-switch fail when EA test.	Use TS3USB221RSER for USB bus-switch	1.0
18	37		4/8	NECP	Abnormal auto-reboot happen when S3 test	Chnage RC timing to 36.5K and 2200P	1.0
19	21		4/8	NECP	2nd and 3rd source fail when EA test	Use 74AHCT1G125GW for H/V sync buffer	1.0
20	26		4/8	Compal	1.6mm of height is over 1.5mm of limit-height	Change C545 from 1.6mm to 1.25mm	1.0
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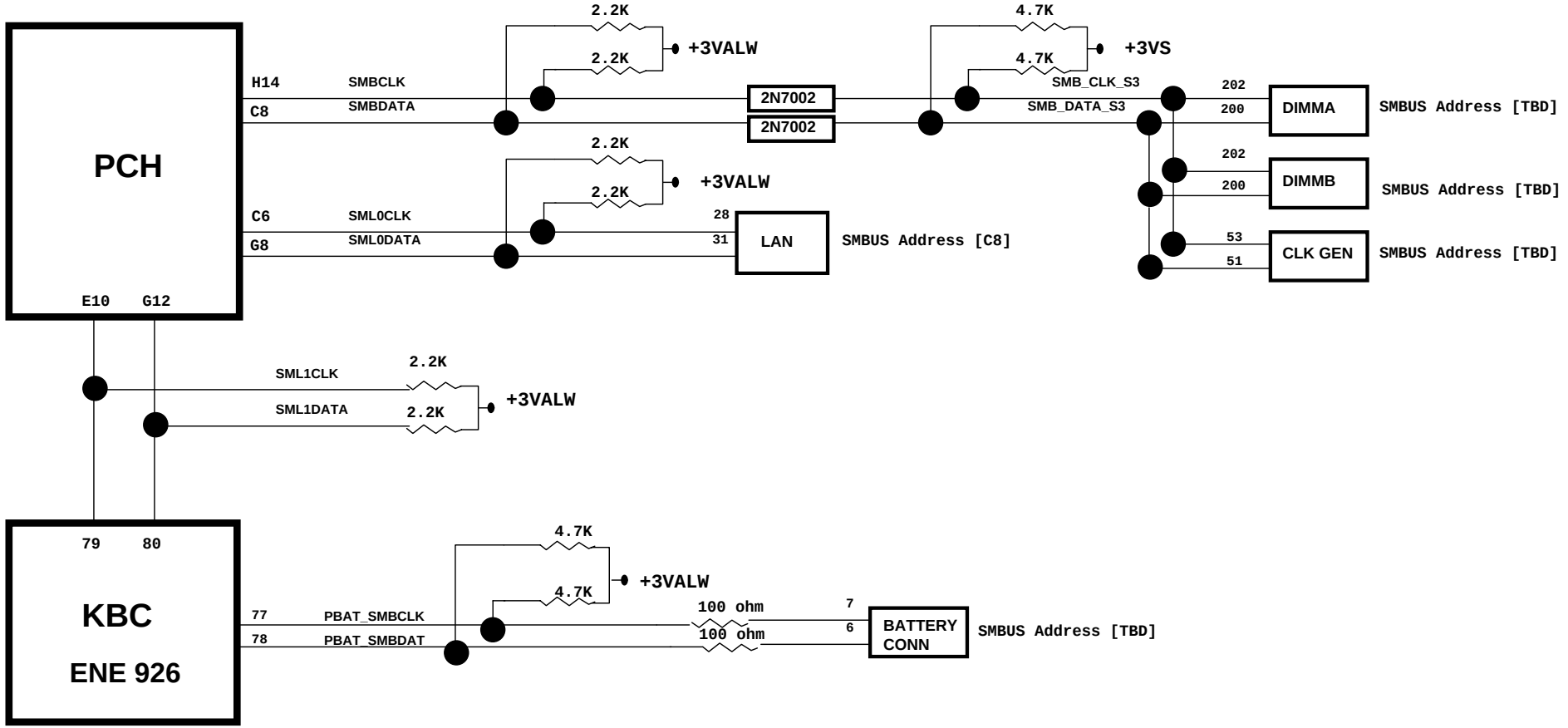
Title: SCHEMATIC, MB A5791

Size: Document Number: 401831 Rev: F

Date: Thursday, July 15, 2010 Sheet 53 of 55



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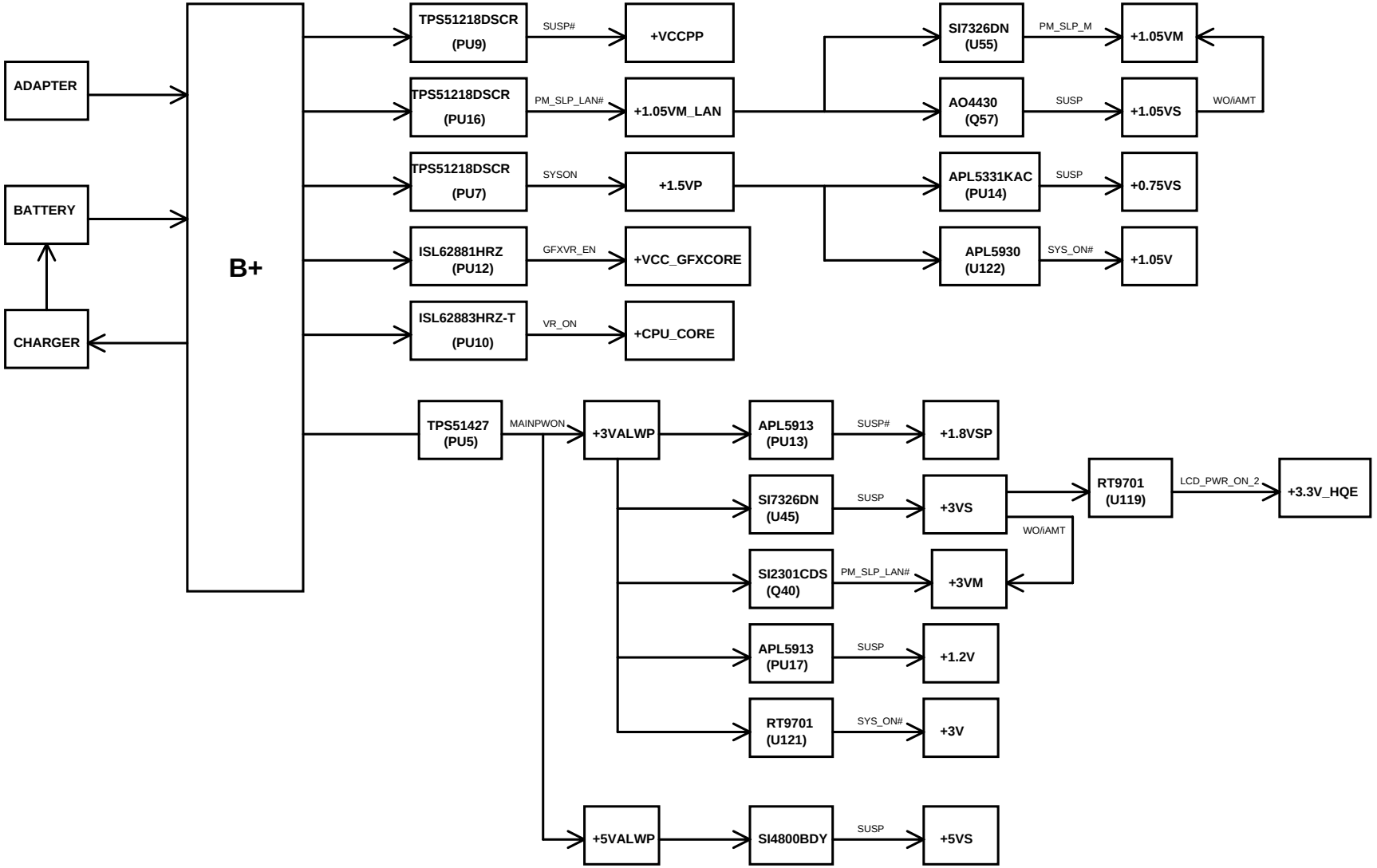
Title: SCHEMATIC, MB A5791		
Size	Document Number: 401831	Rev: F
Date: Thursday, July 15, 2010	Sheet 54 of 55	



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Size: C	Document Number: 401831		Rev: F
Date: Thursday, July 15, 2010	Sheet 55 of 55		