Compal confidential

Schematics Document
Mobile Dothan uFCPGA with Intel
Alviso_GM+ICH6-M core logic

2006-09-15

REV:1.0

Compal Electronics, Inc.		
Title: *Cover Sheet*		
Size: Custom	Document Number: *LA-3361P*	Rev: 0.3
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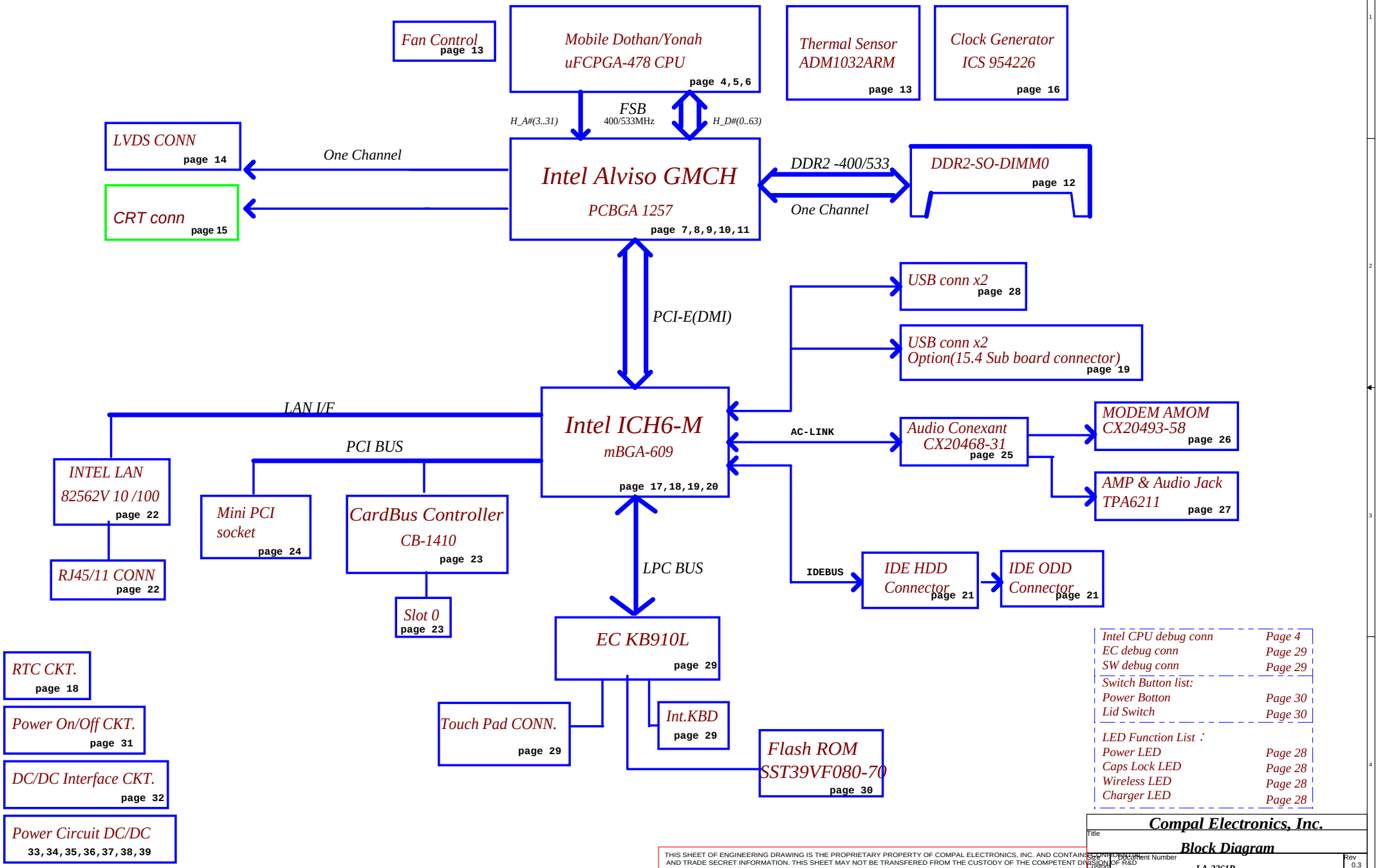
File Name : LA-3361P



Intel CPU debug conn	Page 4
EC debug conn	Page 29
SW debug conn	Page 29
Switch Button list:	
Power Botton	Page 30
Lid Switch	Page 30
LED Function List :	
Power LED	Page 28
Caps Lock LED	Page 28
Wireless LED	Page 28
Charger LED	Page 28

Compal Electronics, Inc.

Title: **Block Diagram**

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I2C / SMBUS ADDRESSING

External PCI Devices

DEVICE	IDSEL #	REQ/GNT #	PIRQ
CARD BUS	AD22	2	C
Wireless LAN(MINI PCI)	AD20	0	E、F

Power Managment table

Signal / State	+3VALW +5VALW	+1.8V	+CPU_CORE +VCCP(1.05V) +5VS +3VS +2.5VS +1.5VS +1.8VS +0.9VS
S0	ON	ON	ON
S1	ON	ON	ON
S3	ON	ON	OFF
S5 S4/AC	ON	OFF	OFF
S5 S4/AC don't exist	OFF	OFF	OFF

Alviso 915GM SA00000K040

Alviso 910GML SA00000K100

BOM

@ : not install

45@ : 45 level

14@ : 14"(IAT00) install

WLAN@ : with WLAN (mini PCI) install

AMOM@ : with AMOM install

BATT@ : 45 level

SPI@ : SPI ROM install

conn@ : ME part

IAT00 14"

46144232L01 915GM
46144232L02 910GML W/O WLAN
46144232L03 910GML

IAT10 15.4"

46144232L11 910GML
46144232L12 915GM
46144232L13 910GML W/O WLAN

SMBUS Control Table

	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR (CPU) ADM1032	SODIMM	CLK CHIP	MINI PCI	LCD
SMB_EC_CK1 SMB_EC_DA1	KB910L	X	√	X	X	X	X	X	X
SMB_EC_CK2 SMB_EC_DA2	KB910L	X	X	X	√	X	X	X	X
ICH_SMBCLK ICH_SMBDATA	ICH6-M	X	X	X	X	√	√	X	X
LCD_DDCCLK LCD_DDCDATA	Alviso GM-GP	X	X	X	X	X	X	X	√
I2CC_SCL I2CC_SDA	NV44M								

ZZZ1

LA3361P-Rev0.1

<7> H_A#[3..31]

<7> H_REQ#[0..4]

U15A

Dothan

ADDR GROUP

DATA GROUP

HOST CLK

CONTROL GROUP

MISC

LEGACY CPU

THERMAL DIODE

TYCO_1612365-1_Dothan

H_D#[0..63] <7>

XDP Connector

layout note: Change R2004 to 649 ohm if using XTP to ITP adapter

04/10 no stuff

JP48

CONN@ SAMTE_BSH-030-01-L-D-A

Place R2006 within 200ps (~1") to CPU

H_DPRSLP will change to H_DPRSTP in future collateral version.

H_DSTBN#[0..3] <7>

H_DSTBP#[0..3] <7>

PROCHOT# <29>

Add pullups for PWRGOOD and THERMTRIP per INTEL

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Title: Dothan Processor(1/2)			
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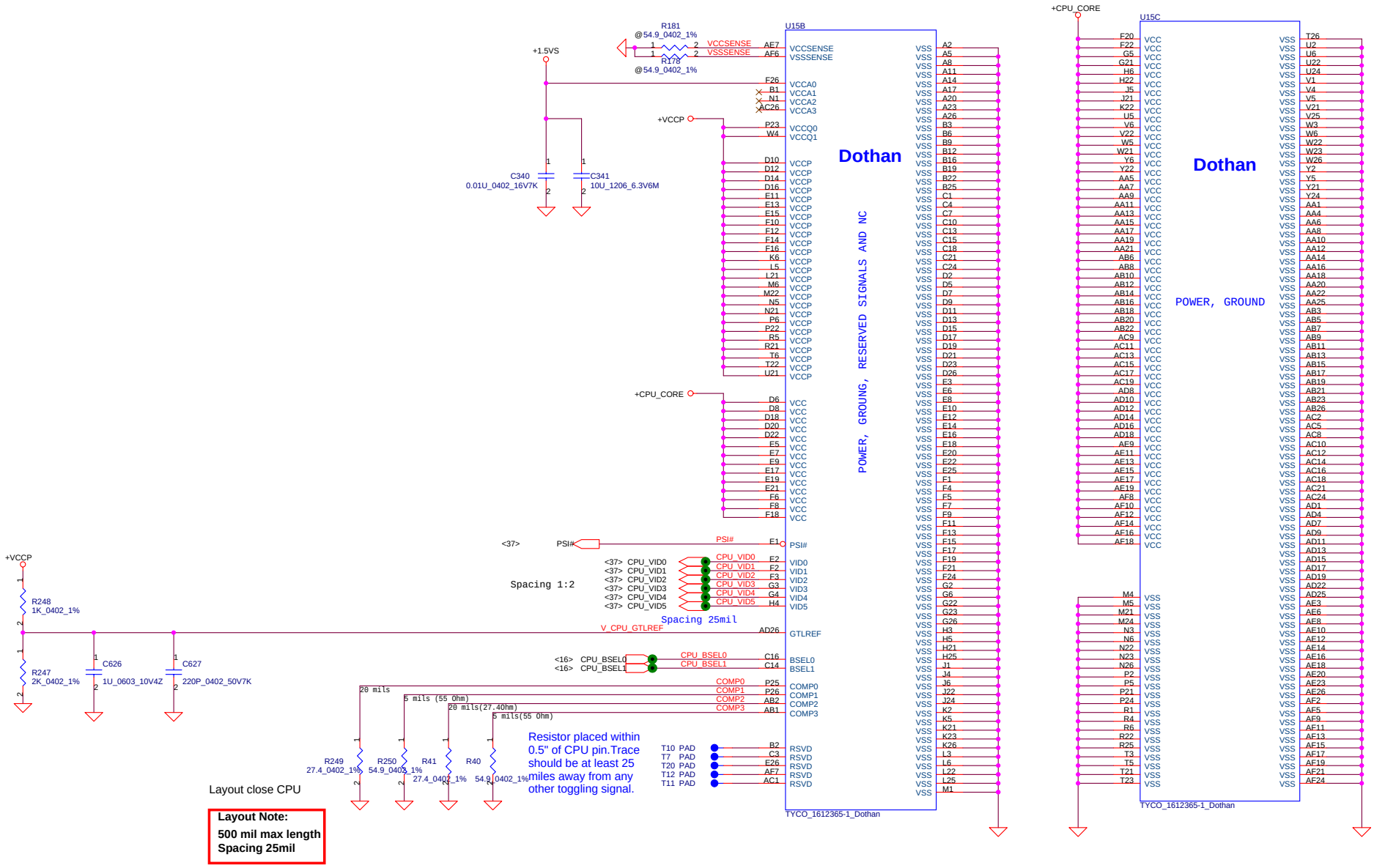

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Title: **Dothan Processor(2/2)**

Size	Document Number	Rev
Custom	LA-3361P	0.3
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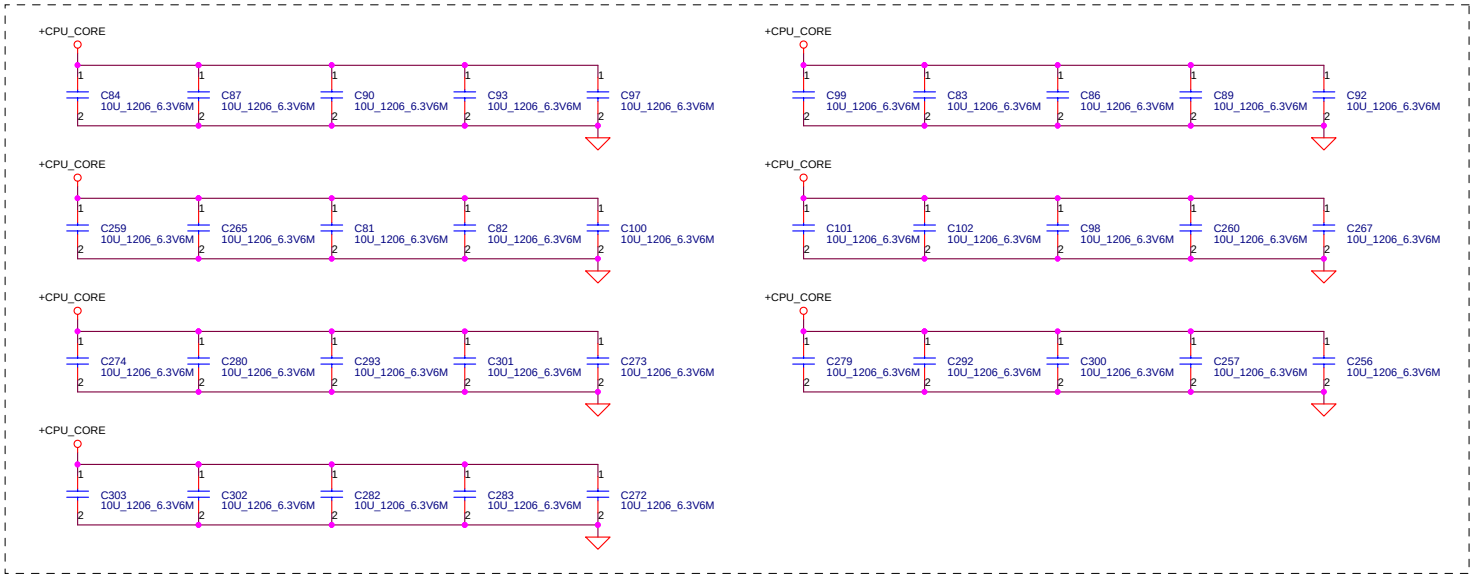
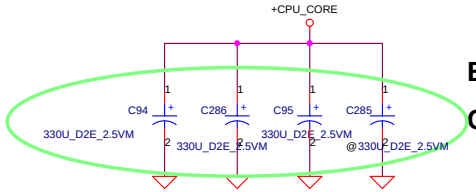


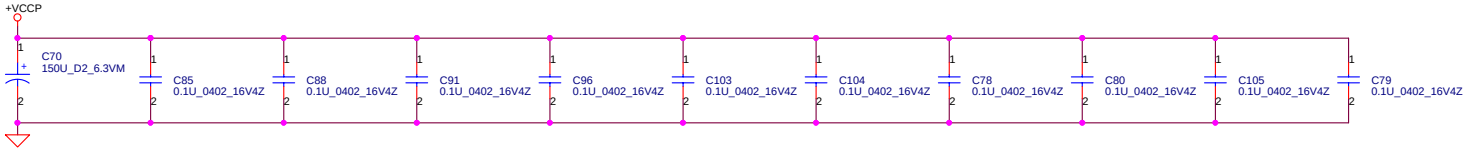
Near VCORE regulator.



6/21

ESR <= 3m ohm

Capacitor > 880 uF



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Title: Dothan Bypass		
Size: Custom	Document Number: LA-3361P	Rev: 0.3
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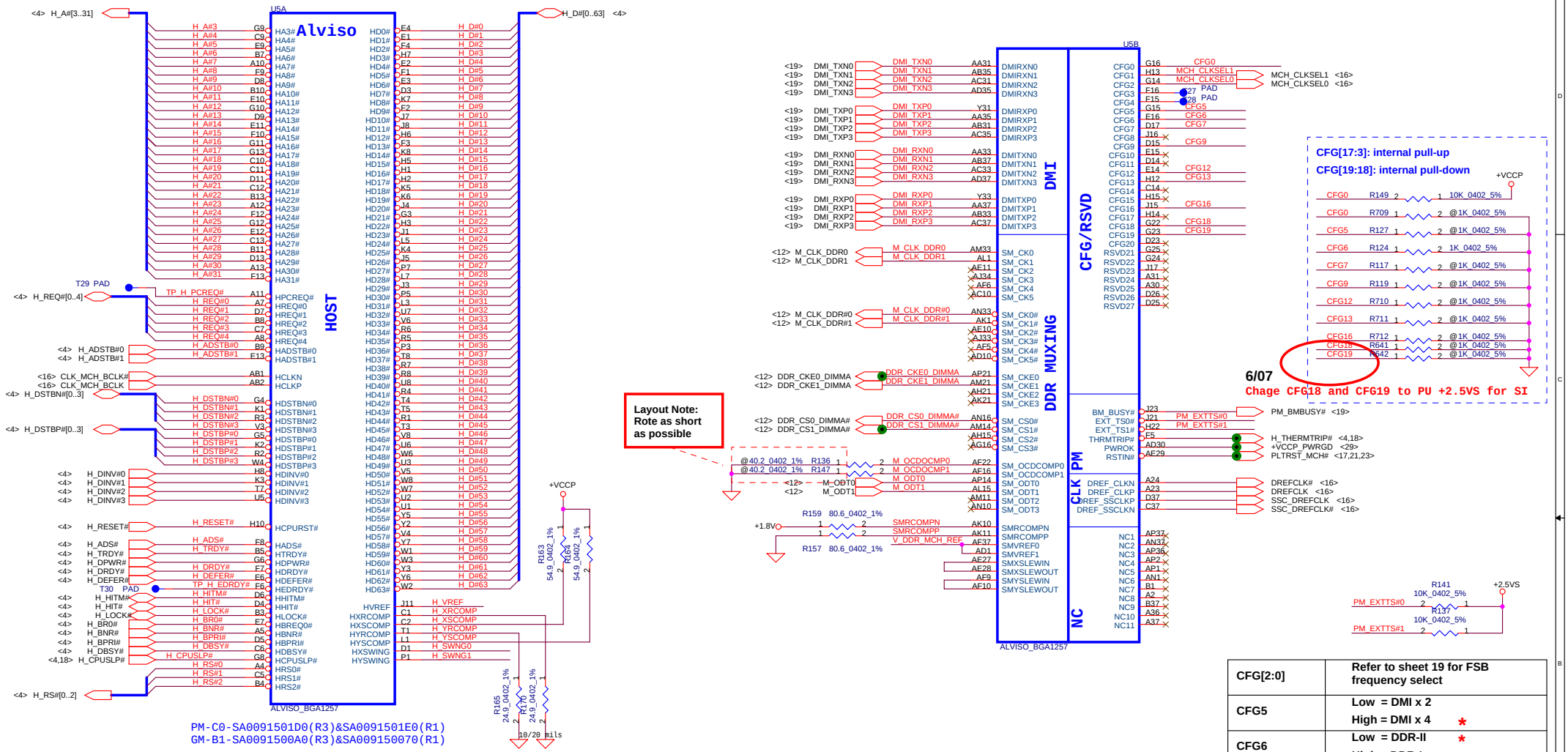

CFG[2:0]	Refer to sheet 19 for FSB frequency select
CFG5	Low = DMI x 2 High = DMI x 4 *
CFG6	Low = DDR-II * High = DDR-I
CFG7	Low = DT/Transportable CPU High = Mobile CPU *
CFG9	Low = Reverse Lane High = Normal Operation *
CFG[13:12]	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled 11 = Normal Operation (Default) *
CFG16 (FSB Dynamic ODT)	Low = Disabled High = Enabled *
CFG18 (VCC Select)	Low = 1.05V (Default) * High = 1.5V
CFG19 (VTT Select)	Low = 1.05V (Default) * High = 1.2V

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Title: Alviso(1 of 5)

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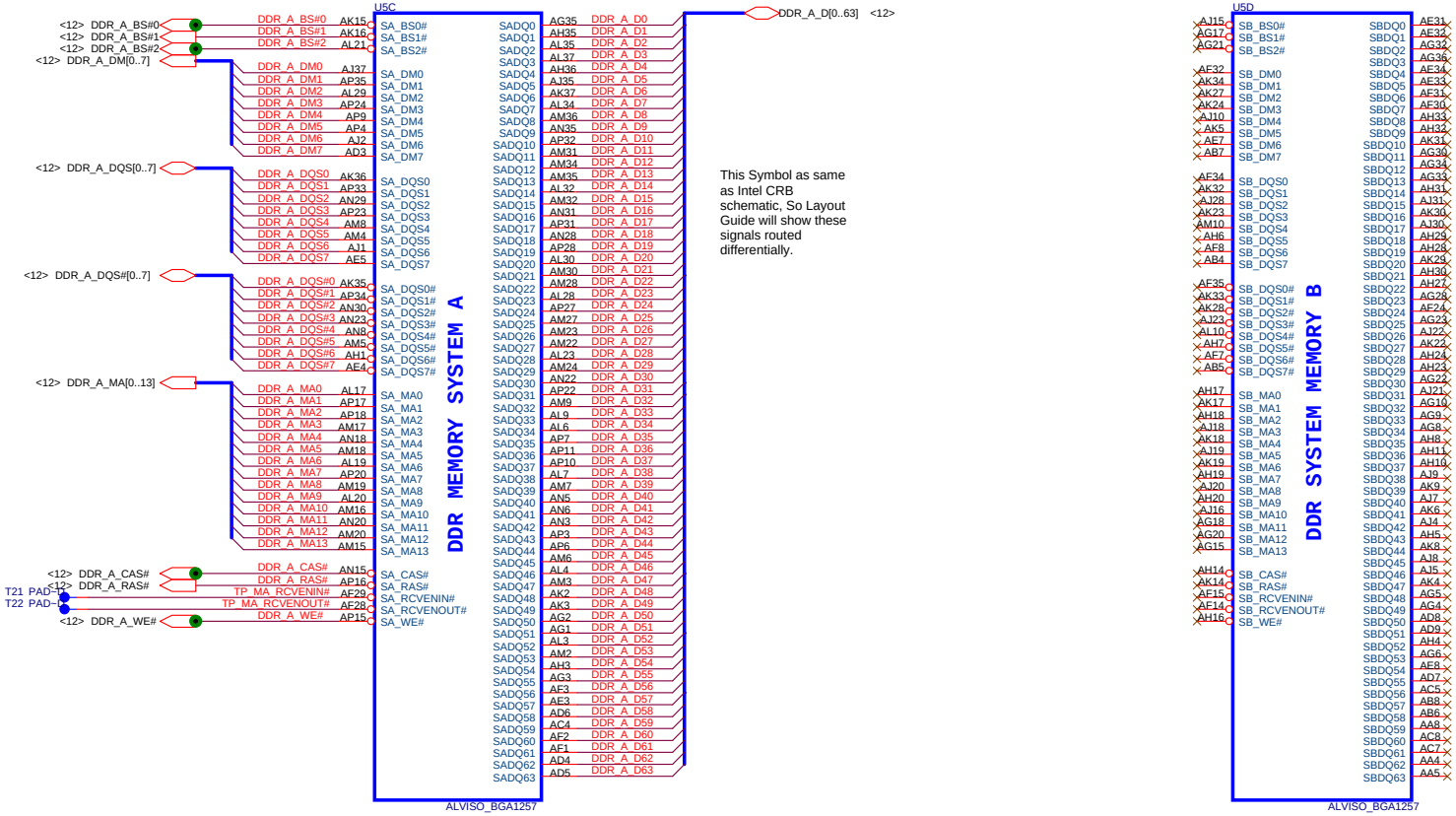

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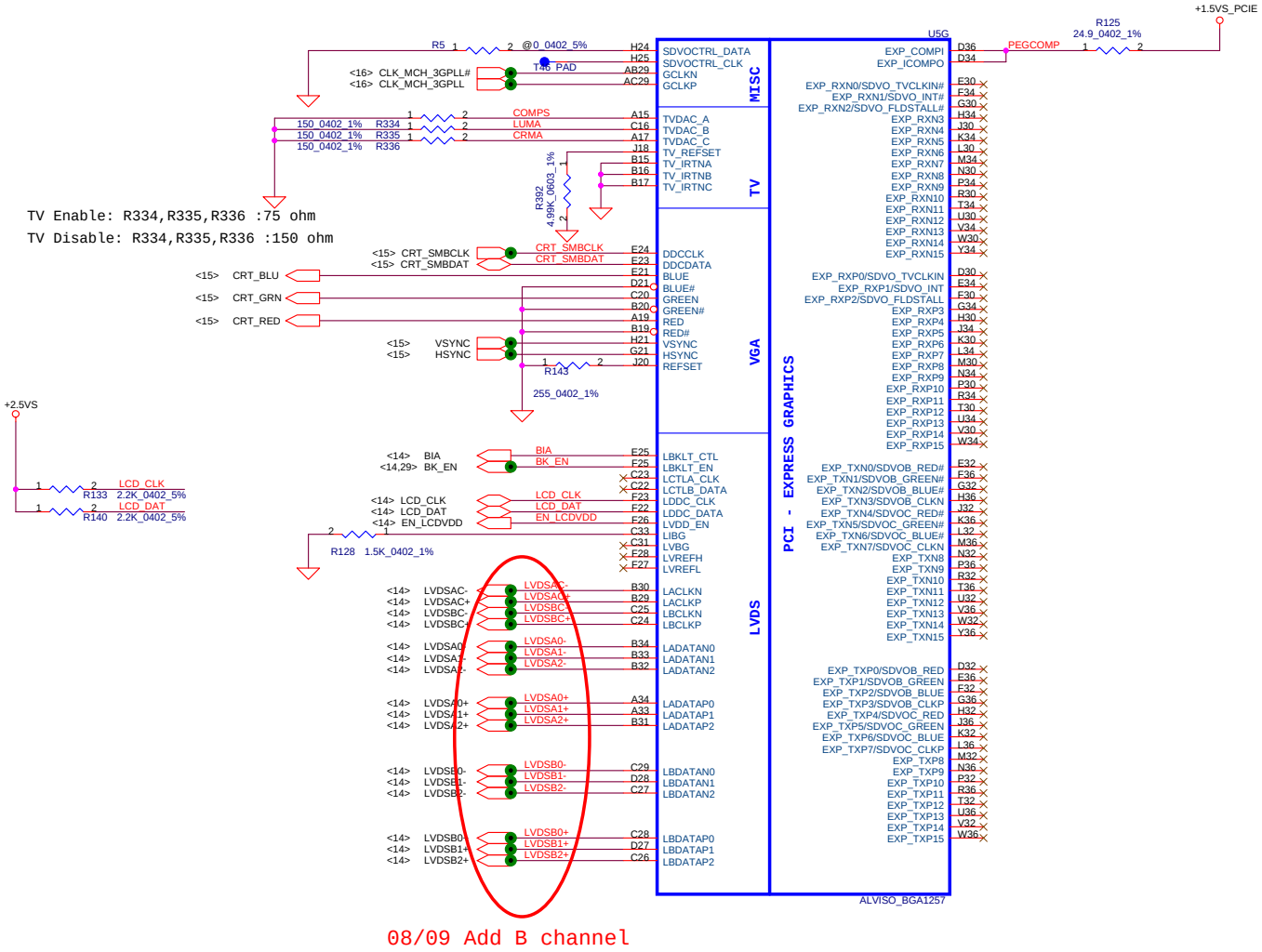
Title: Alviso(2 of 5)		
Size: Custom	Document Number: LA-3361P	Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 8 of 43	



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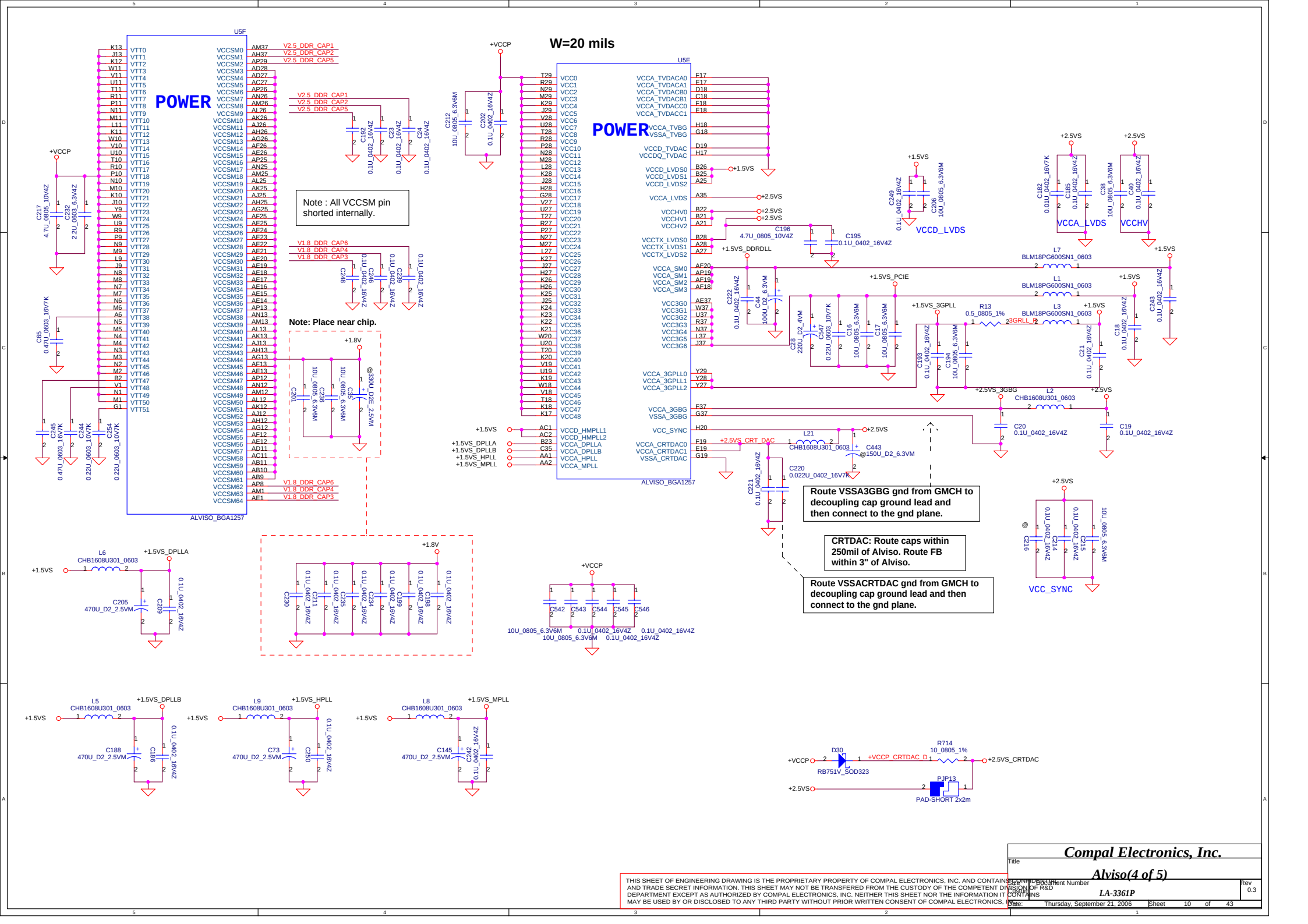
Title: Alviso(3 of 5)		
Size: Custom	Document Number: LA-3361P	Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 9 of 43	



Compal Electronics, Inc.			
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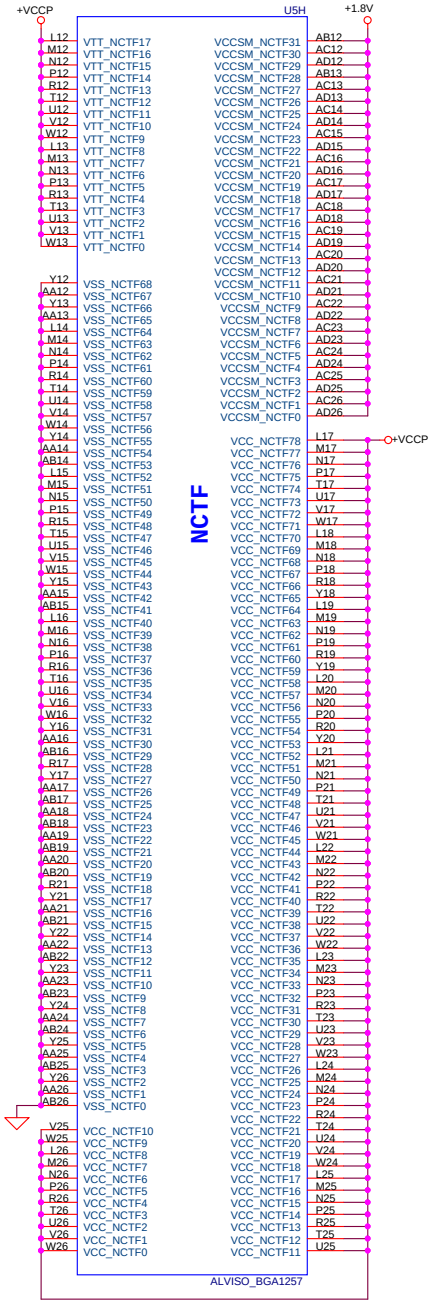
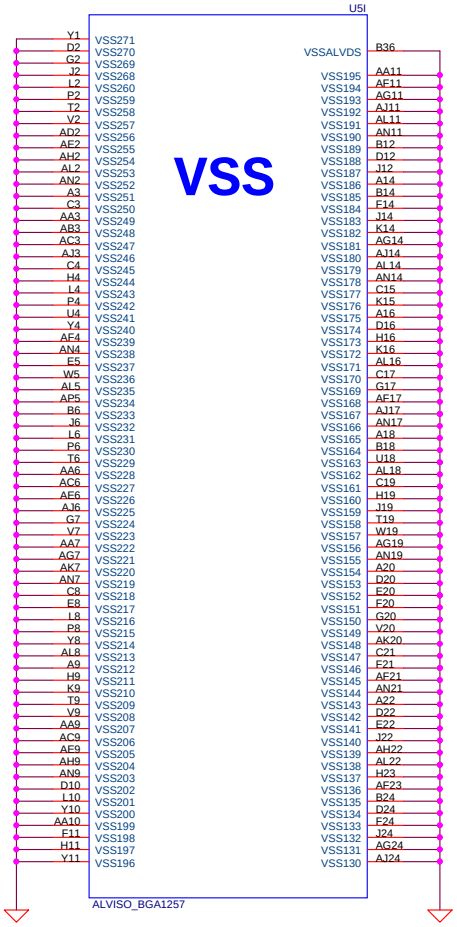
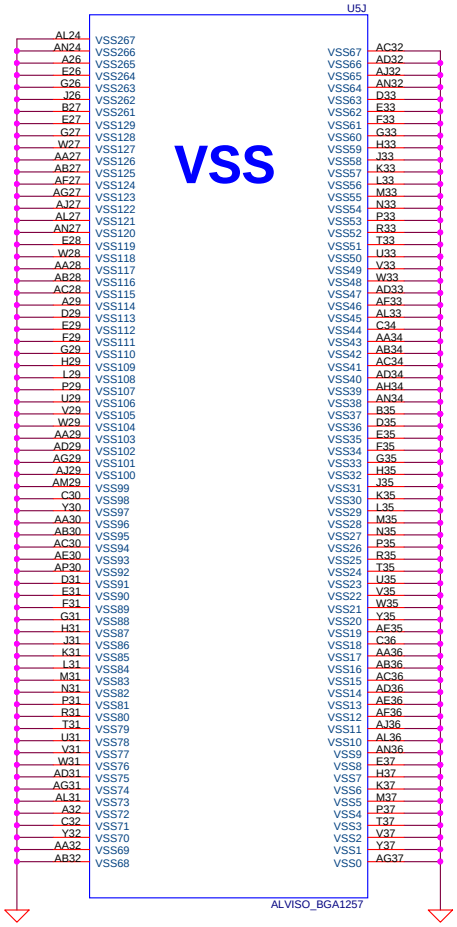
Size: Custom	Document Number: LA-3361P		Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 10 of 43		







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Title: Alviso(5 of 5)			
Size: B	Document Number: LA-3361P		Rev: 0.3
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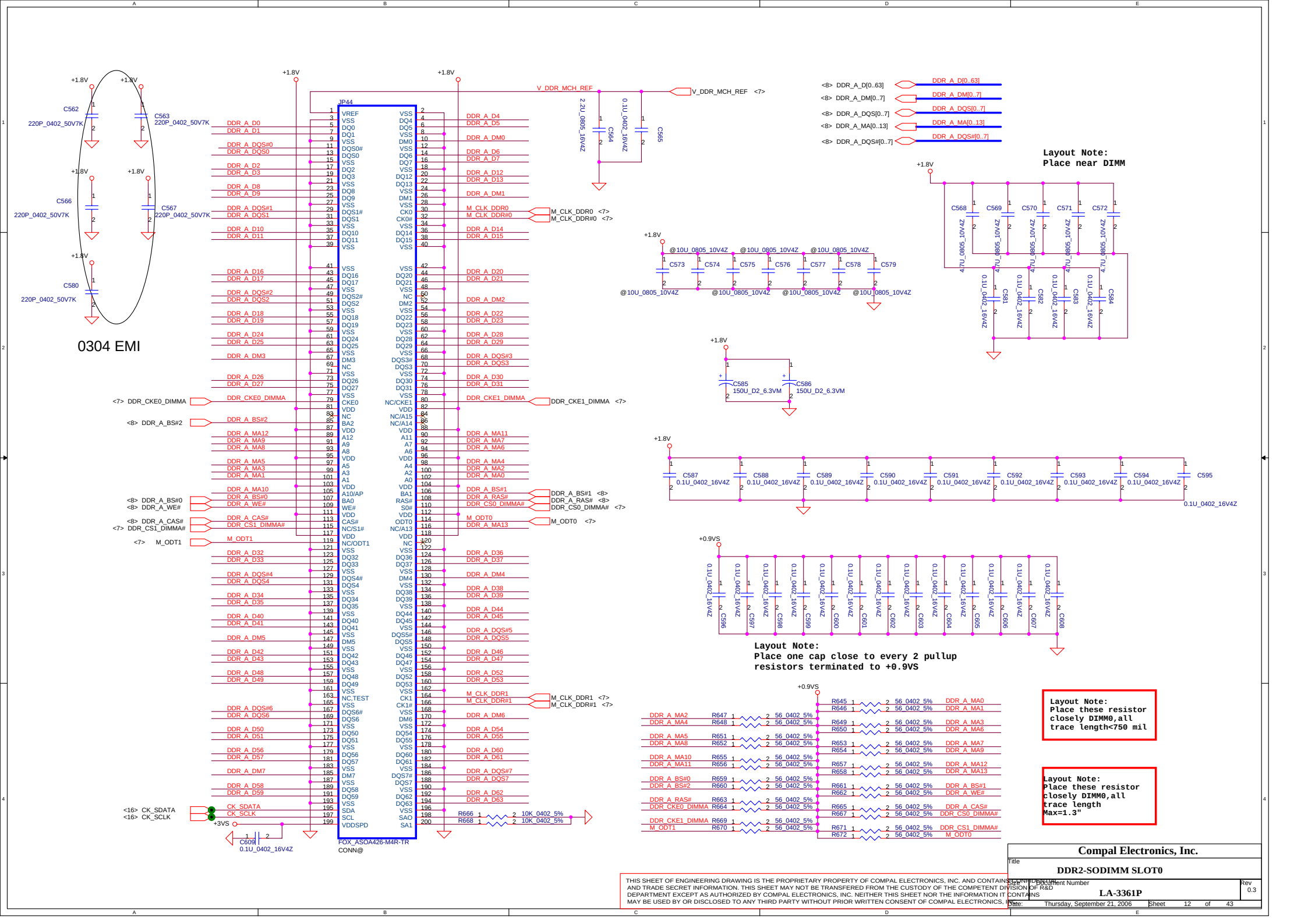
0304 EMI
JP44
FOX_ASOA426-M4R-TR
CONN@
Layout Note:
Place near DIMM
Layout Note:
Place one cap close to every 2 pullup
resistors terminated to +0.9VS
Layout Note:
Place these resistor
closely DIMM0,all
trace length<750 mil
Layout Note:
Place these resistor
closely DIMM0,all
trace length
Max=1.3"
Compal Electronics, Inc.
DDR2-SODIMM SLOT0
LA-3361P
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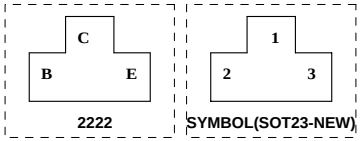
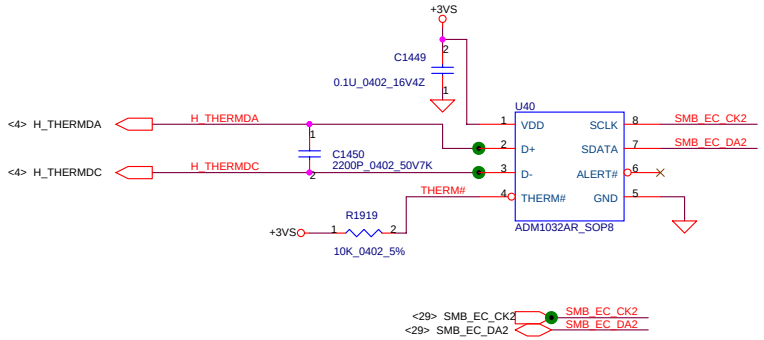
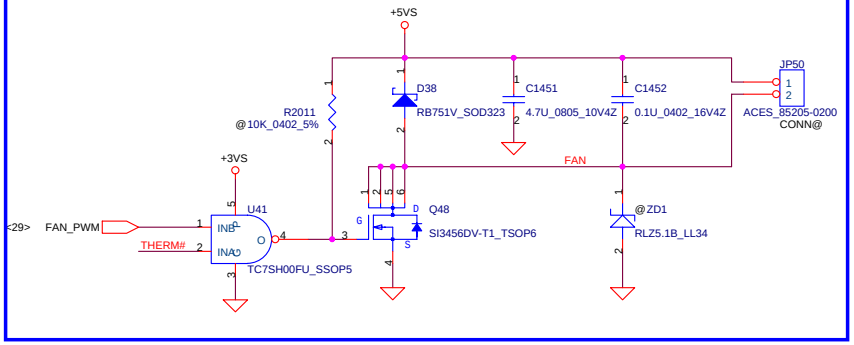




PWM Fan Control circuit



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Title: Thermal sensor and Fan		
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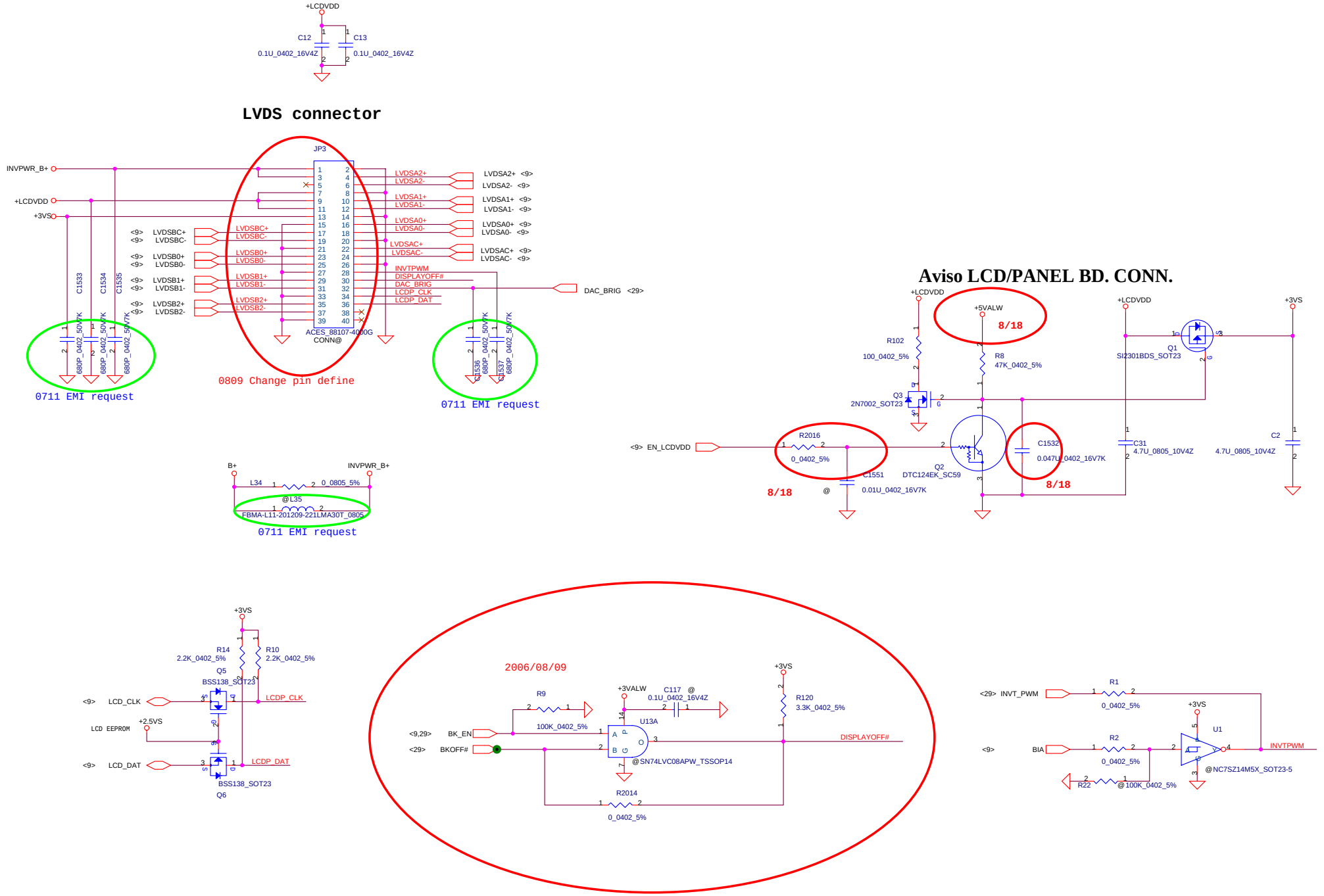

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Title: LVDS connector		
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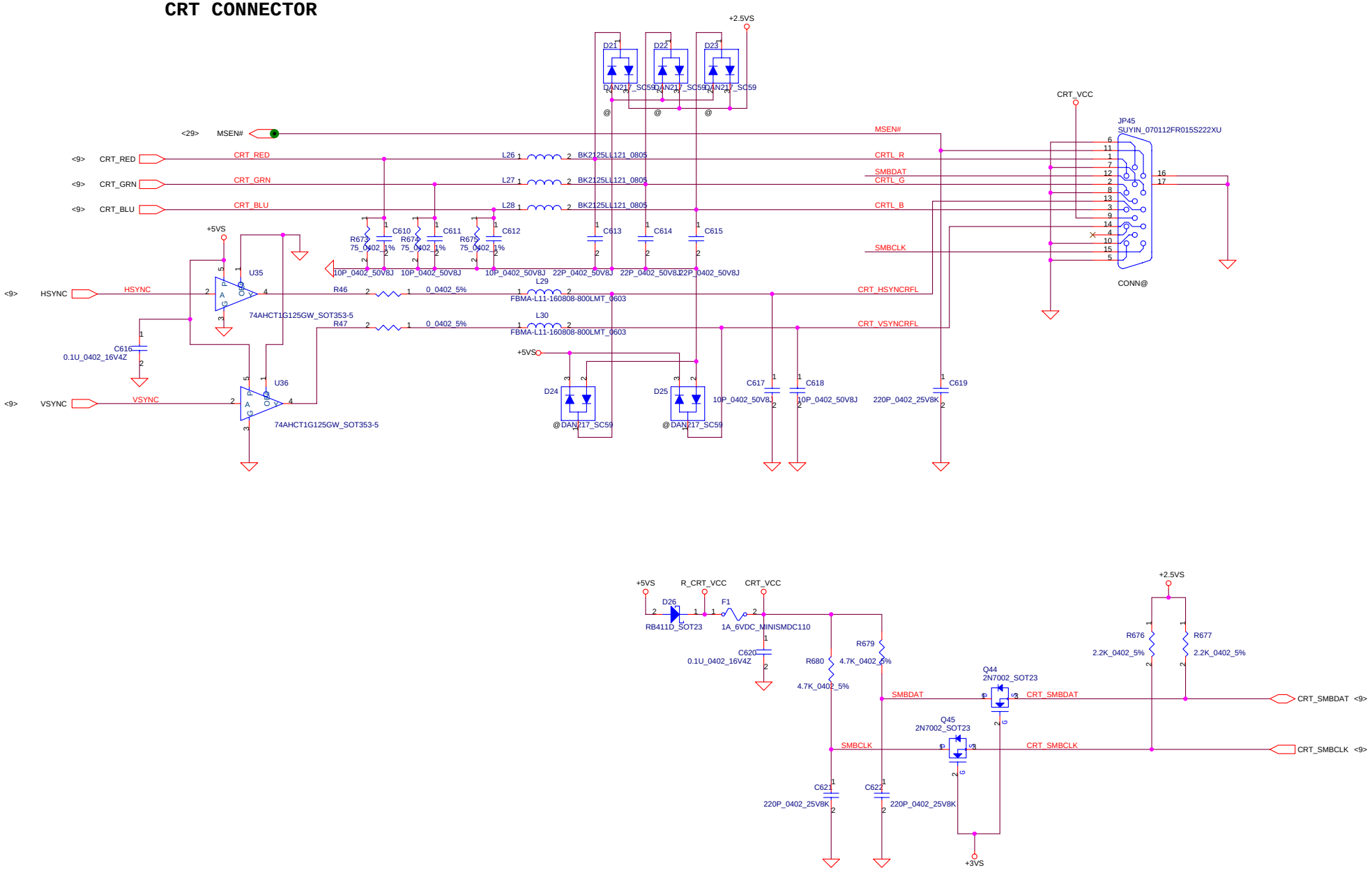
CRT CONNECTOR



Compal Electronics, Inc.		
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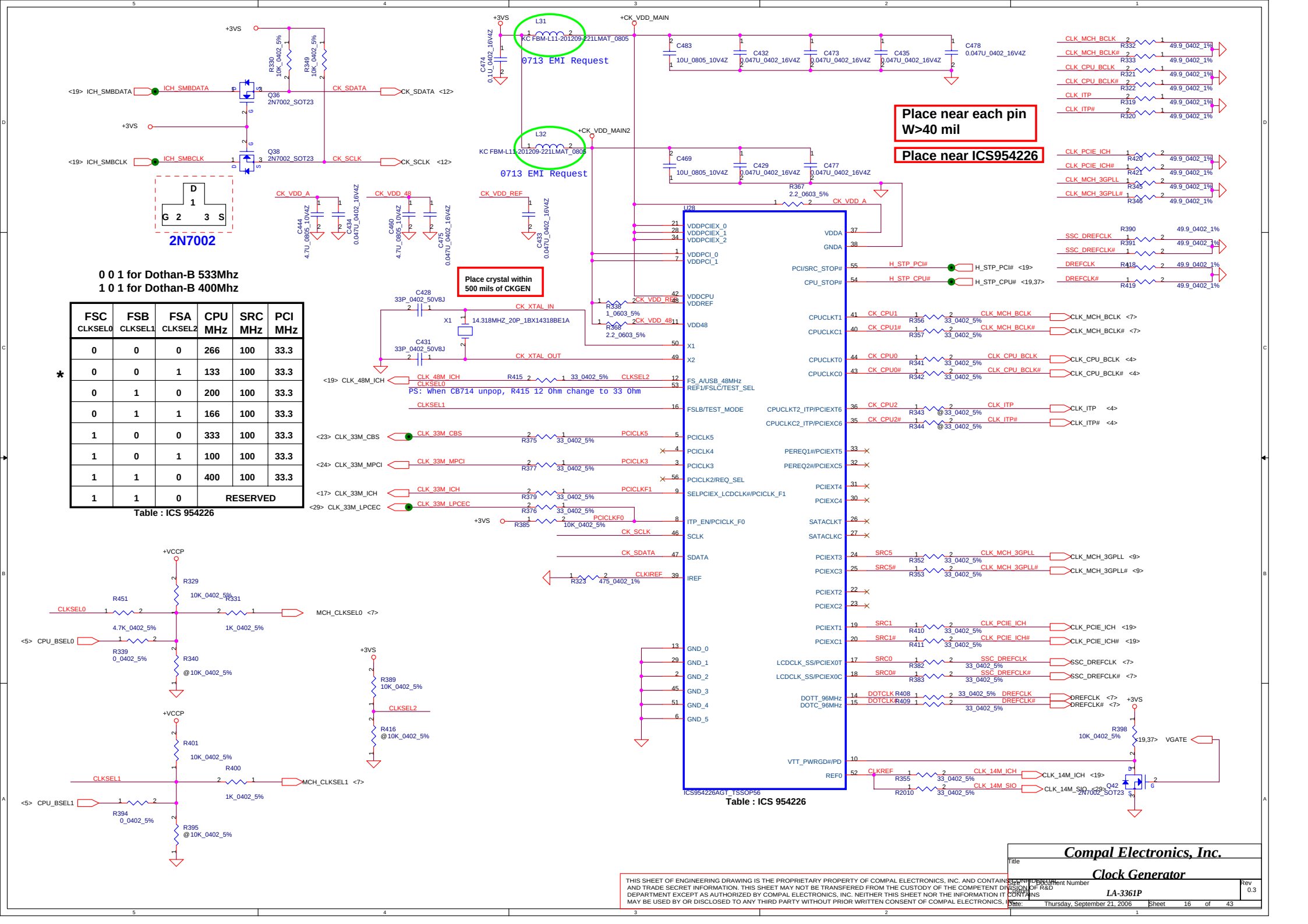
Size:	Document Number: LA-3361P	Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 15 of 43	



FSC CLKSEL0	FSB CLKSEL1	FSA CLKSEL2	CPU MHz	SRC MHz	PCI MHz
0	0	0	266	100	33.3
* 0	0	1	133	100	33.3
0	1	0	200	100	33.3
0	1	1	166	100	33.3
1	0	0	333	100	33.3
1	0	1	100	100	33.3
1	1	0	400	100	33.3
1	1	0	RESERVED		

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Title: Clock Generator

Size: C | Document Number: LA-3361P | Rev: 0.3

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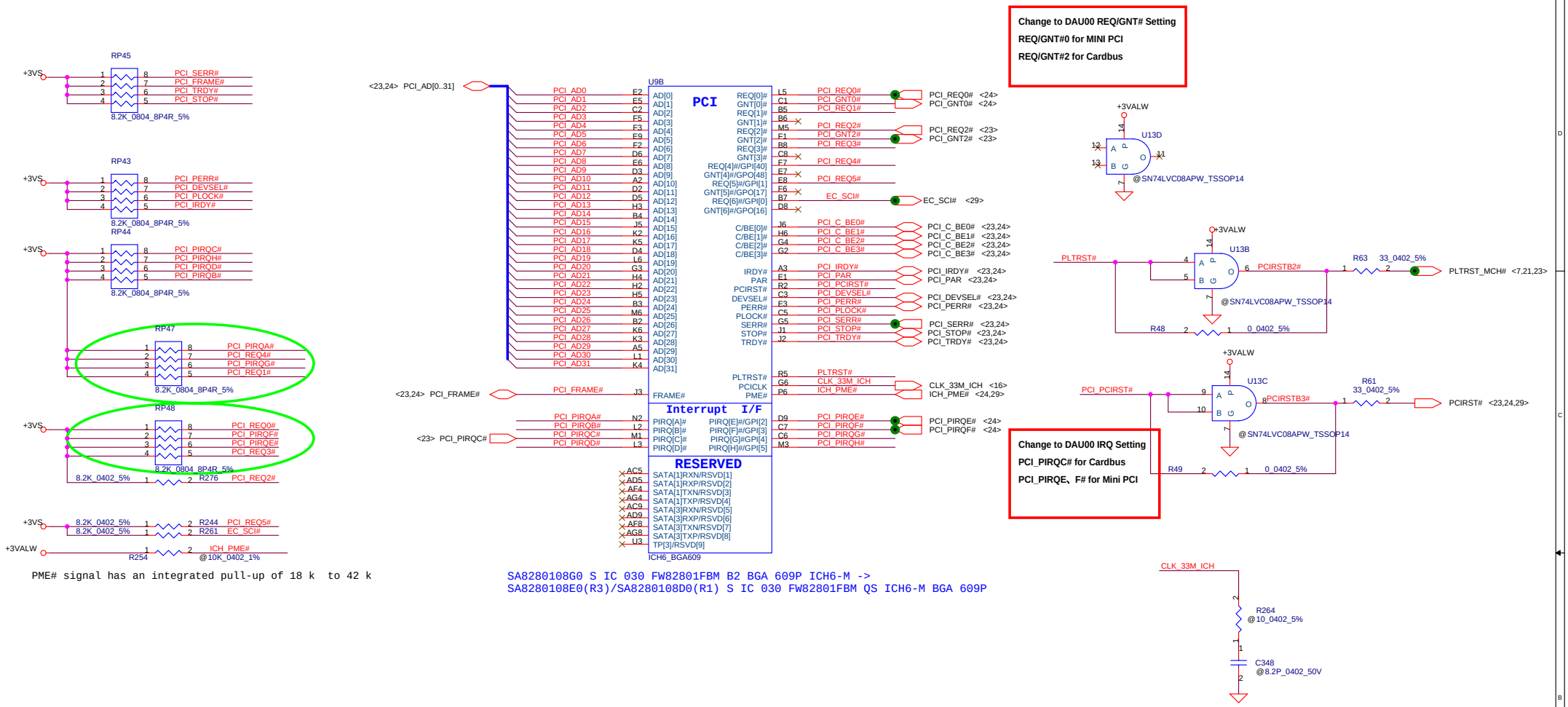

SA8280108G0 S IC 030 FW82801FBM B2 BGA 609P ICH6-M ->
SA8280108E0(R3)/SA8280108D0(R1) S IC 030 FW82801FBM QS ICH6-M BGA 609P

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Title: ICH6(1/4)

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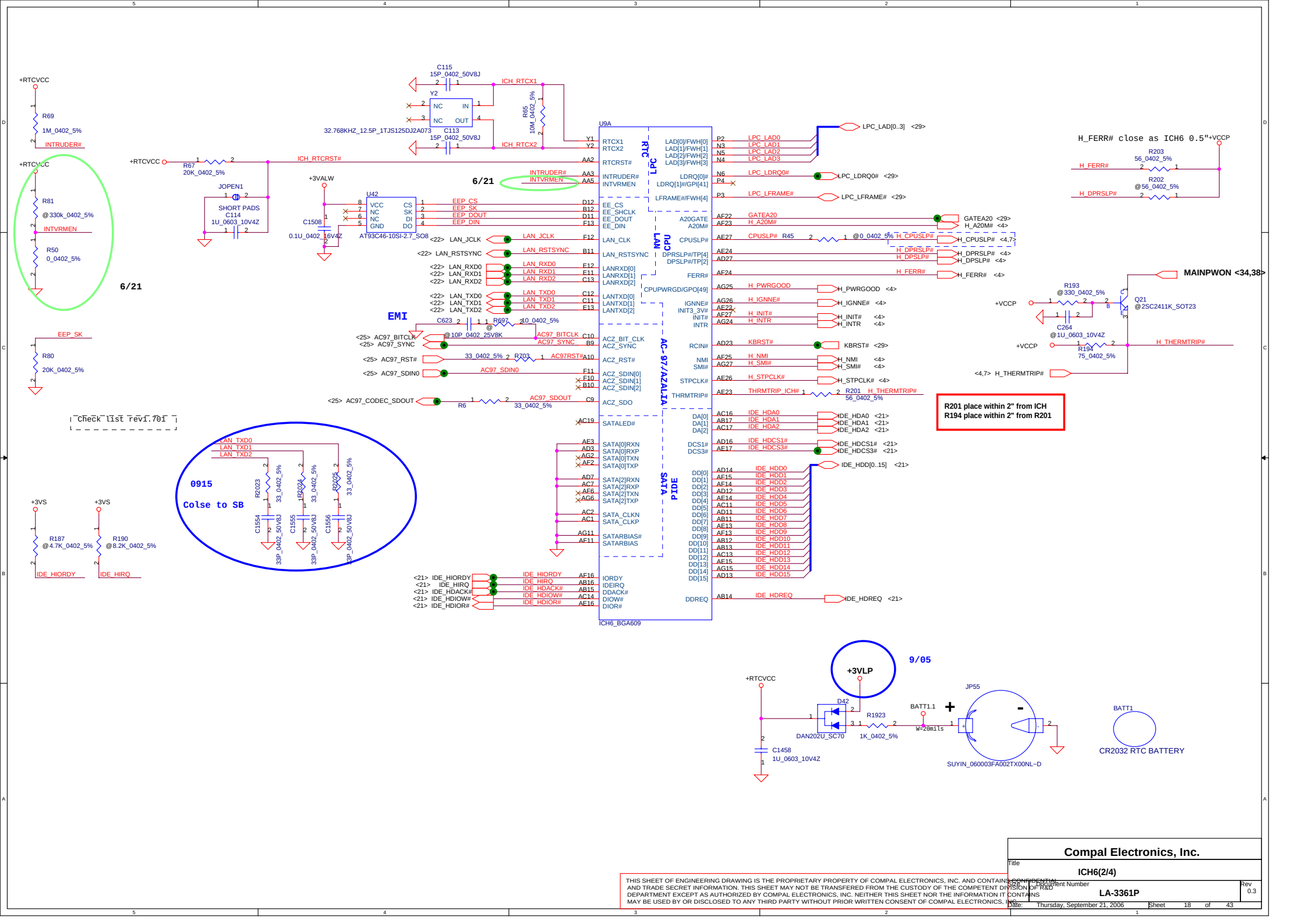

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Title	ICH6(2/4)
Size	Document Number: LA-3361P
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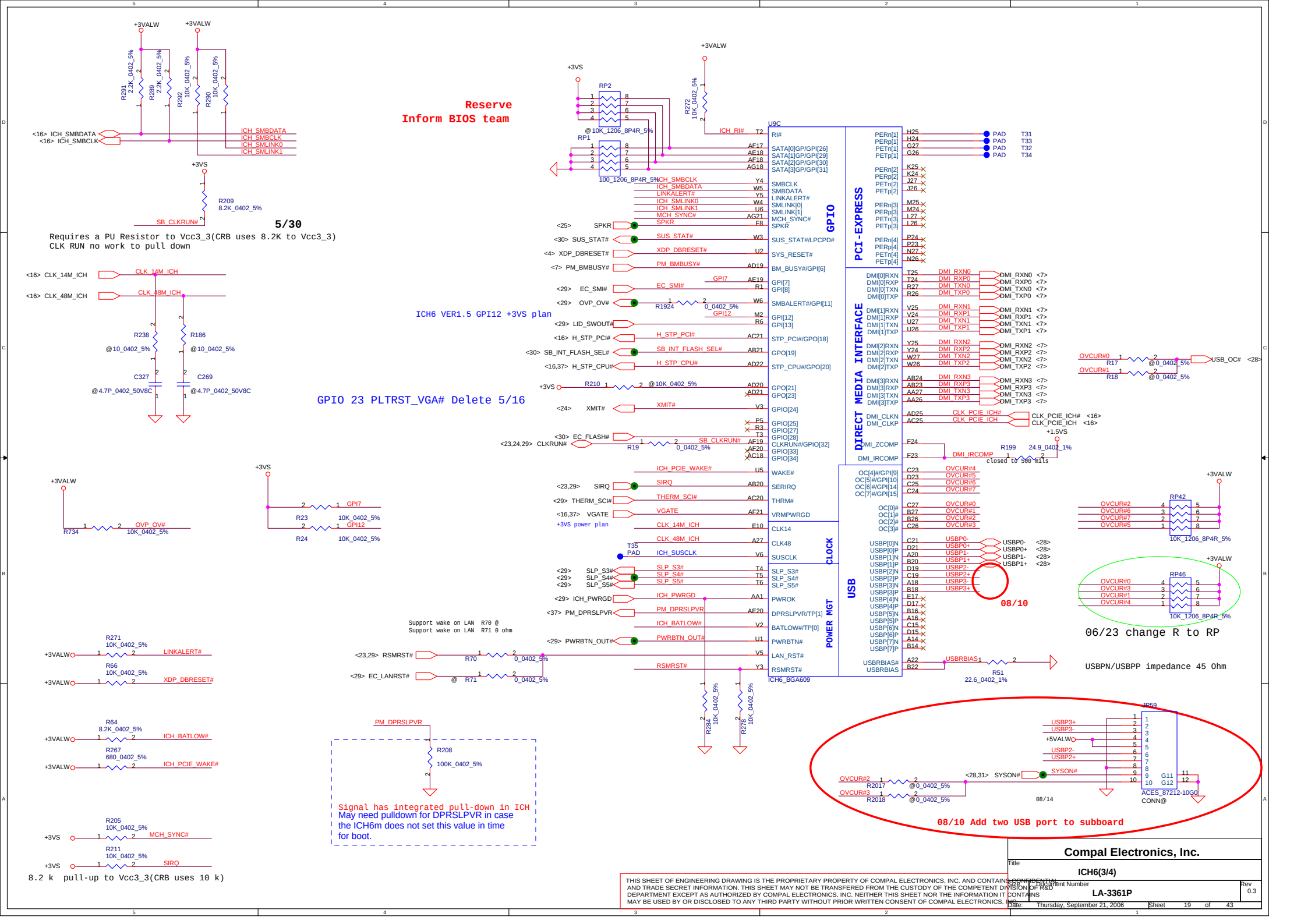

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Title	ICH6(3/4)
Size	Document Number: LA-3361P
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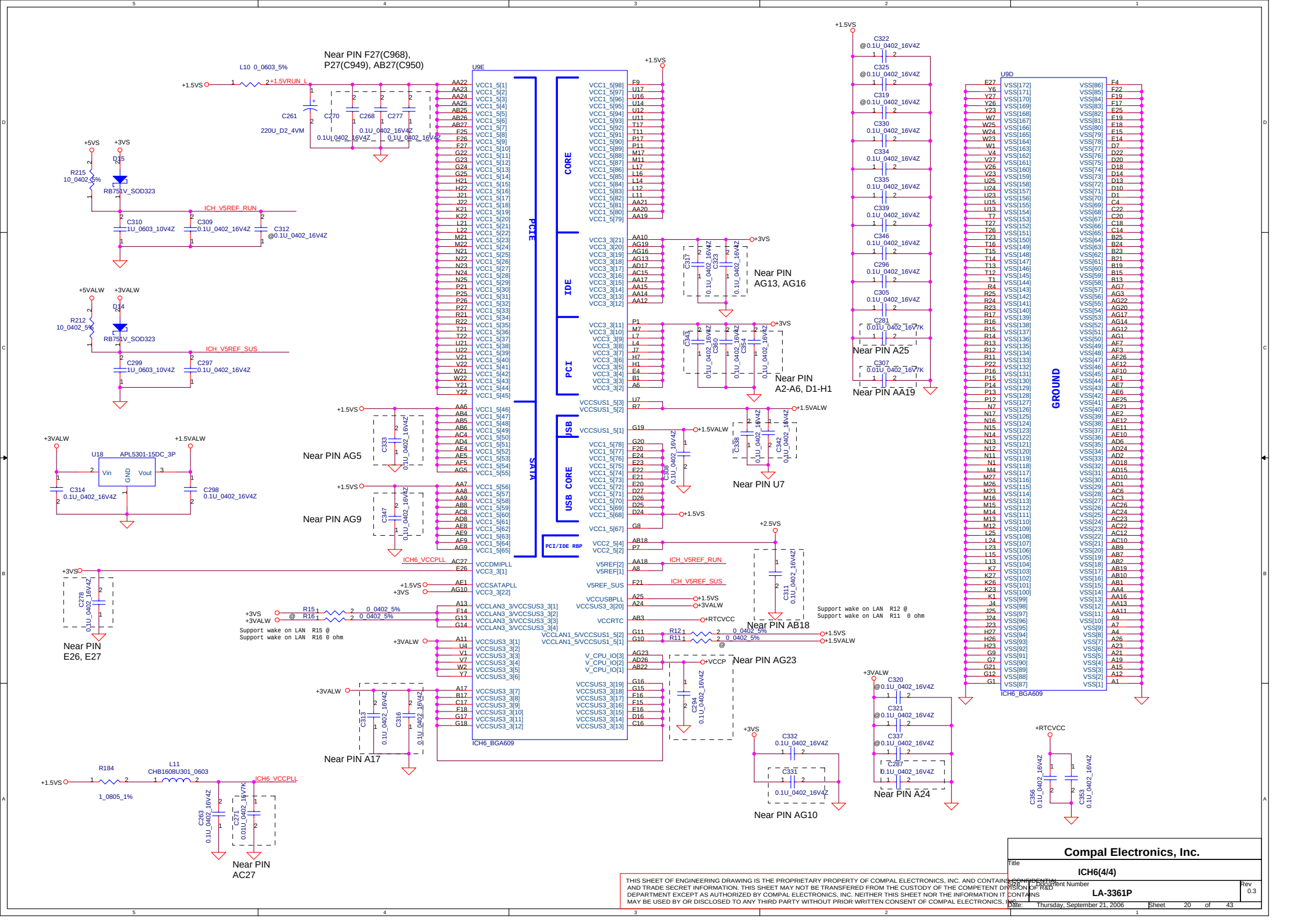
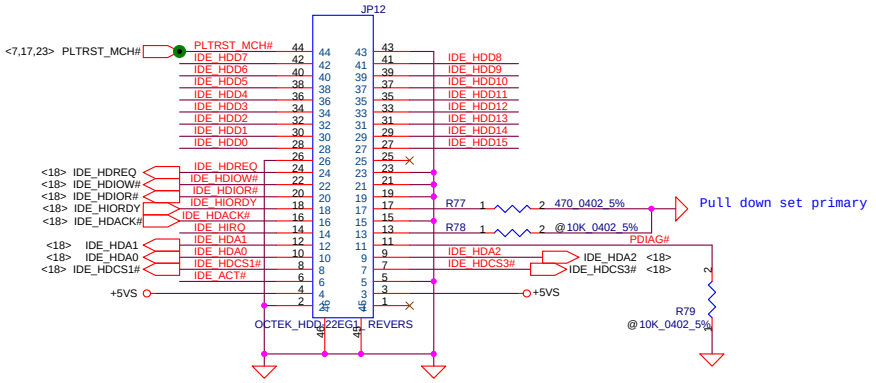
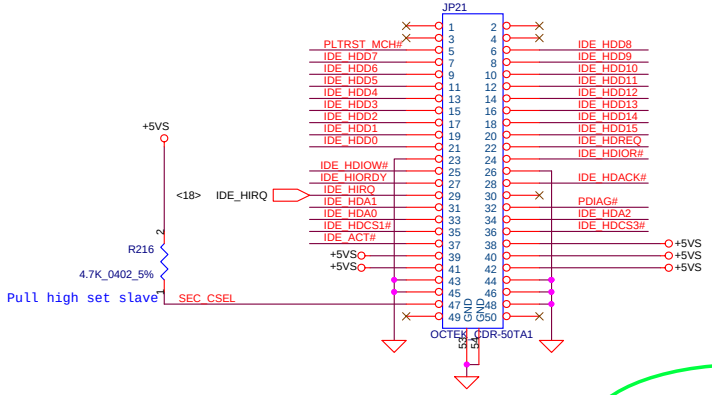
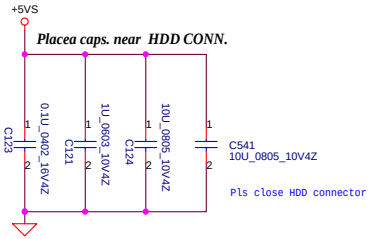


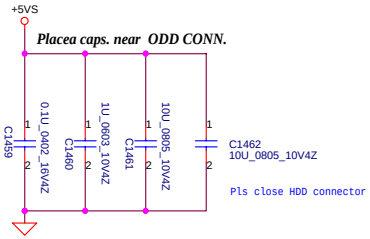
HDD Connector

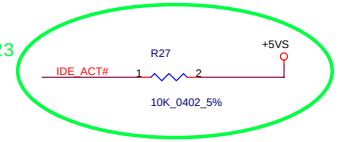


CD-ROM Connector









Compal Electronics, Inc.		
Title: HDD & CD-ROM CONN.		
Size: B	Document Number: LA-3361P	Rev: 0.3
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close to U25chip(Intel rule)

close to U25chip(Intel rule)

close to U21

RJ45

0915

Colse to LAN chipset

0718 Intel checklist recommend

Support wake on LAN R2019,2020 @
Support wake on LAN R1972,R1976 0 ohm

8/23

09/15 follow INTEL suggest

8/18 for EMI

RJ11

NINEVEH-EKRON_N (REV 1p0)

RJ11 CABLE

Security Classification	Compal Secret Data		
Issued Date	2005/03/10	Deciphered Date	2006/03/10

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Title: 82562EZ LAN

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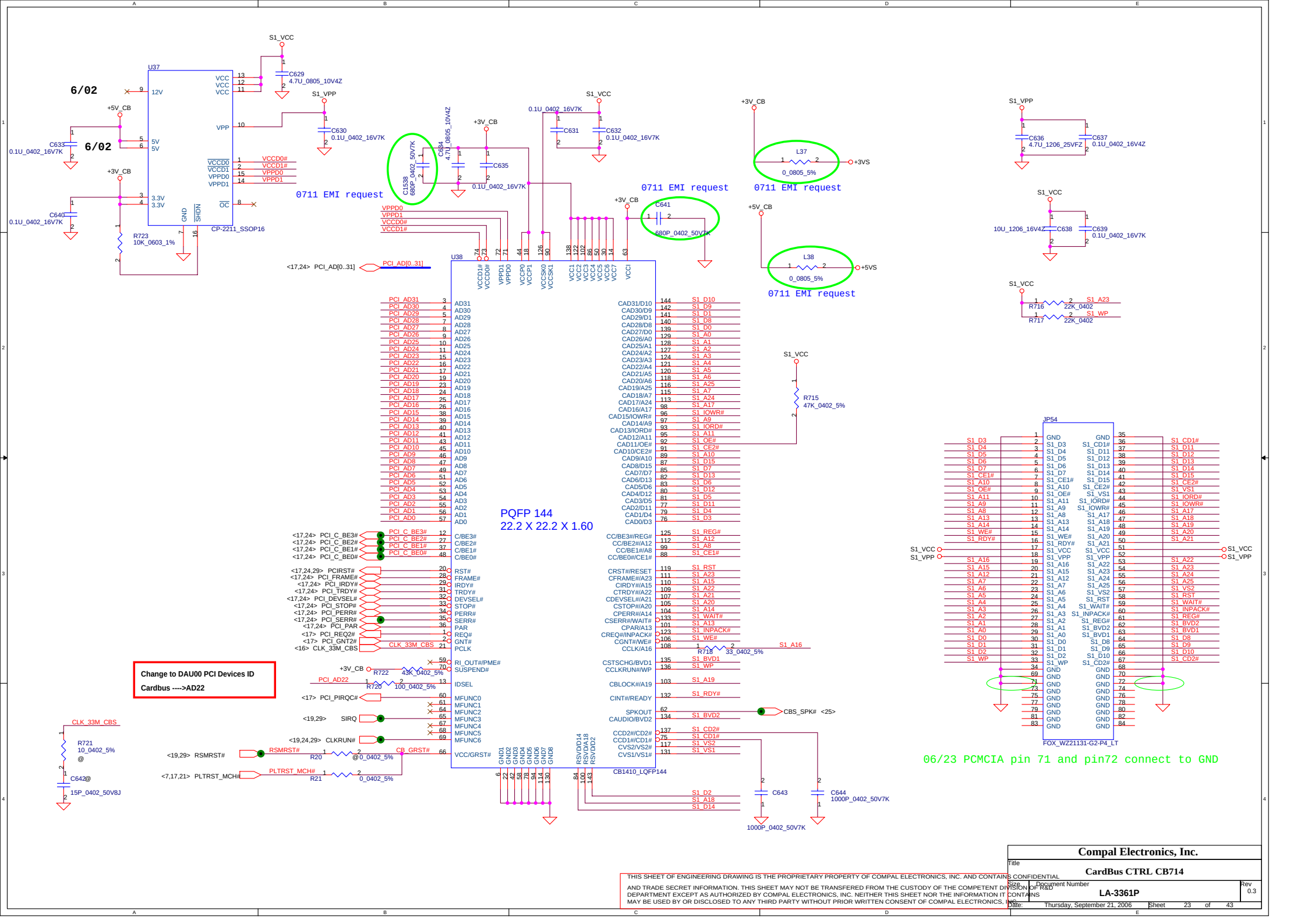
U37
CP-2211_SSOP16
6/02
6/02
0711 EMI request
0711 EMI request
0711 EMI request
0711 EMI request
U38
PQFP 144
22.2 X 22.2 X 1.60
CB1410_LQFP144
JP54
FOX_WZ21131-G2-P4_LT
Change to DAU00 PCI Devices ID
Cardbus ---->AD22
06/23 PCMCIA pin 71 and pin72 connect to GND
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CardBus CTRL CB714
LA-3361P
Thursday, September 21, 2006
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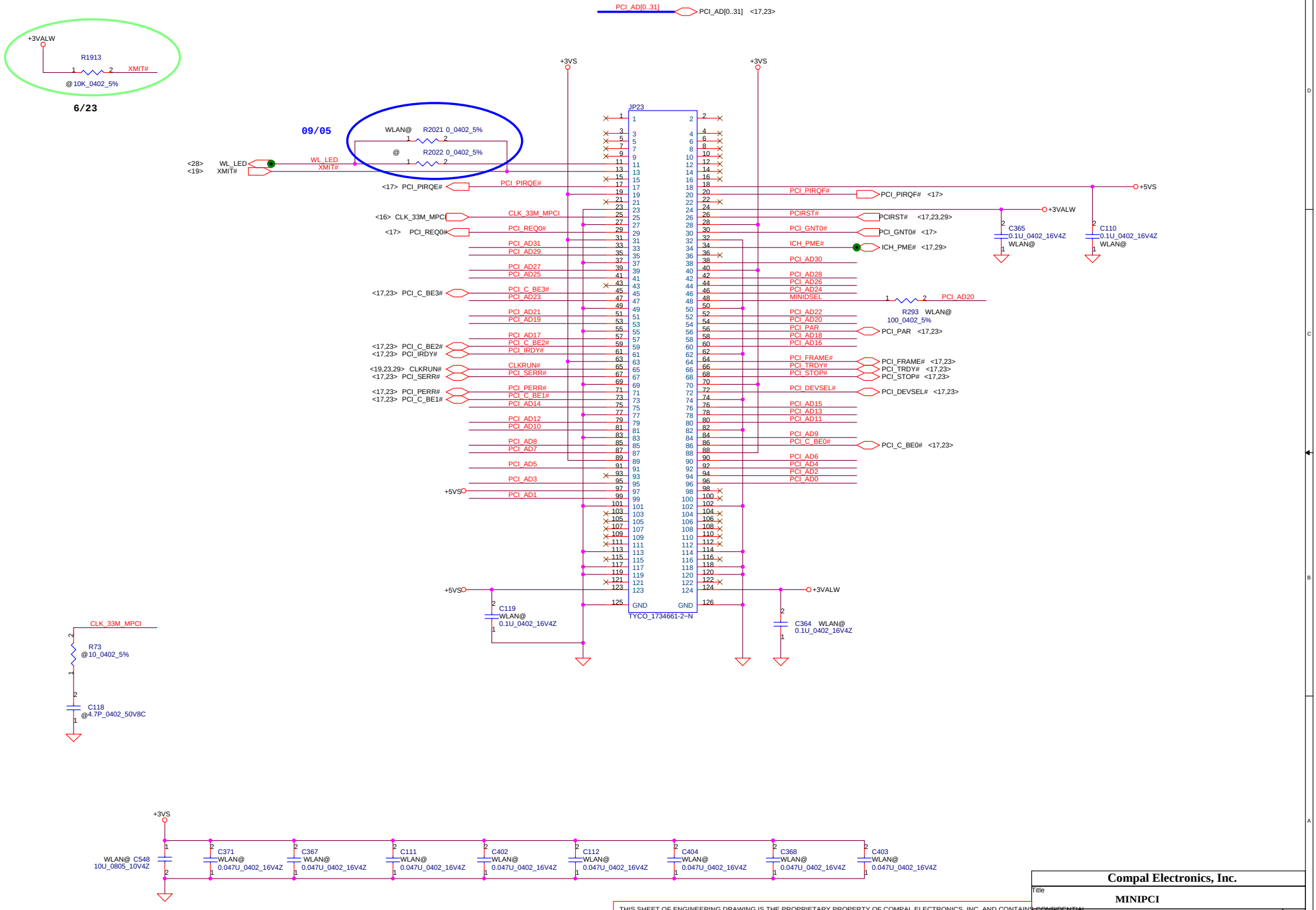

Compal Electronics, Inc.	
Title: MINIPCI	
Size: B	Document Number: LA-3361P
Rev: 0.3	
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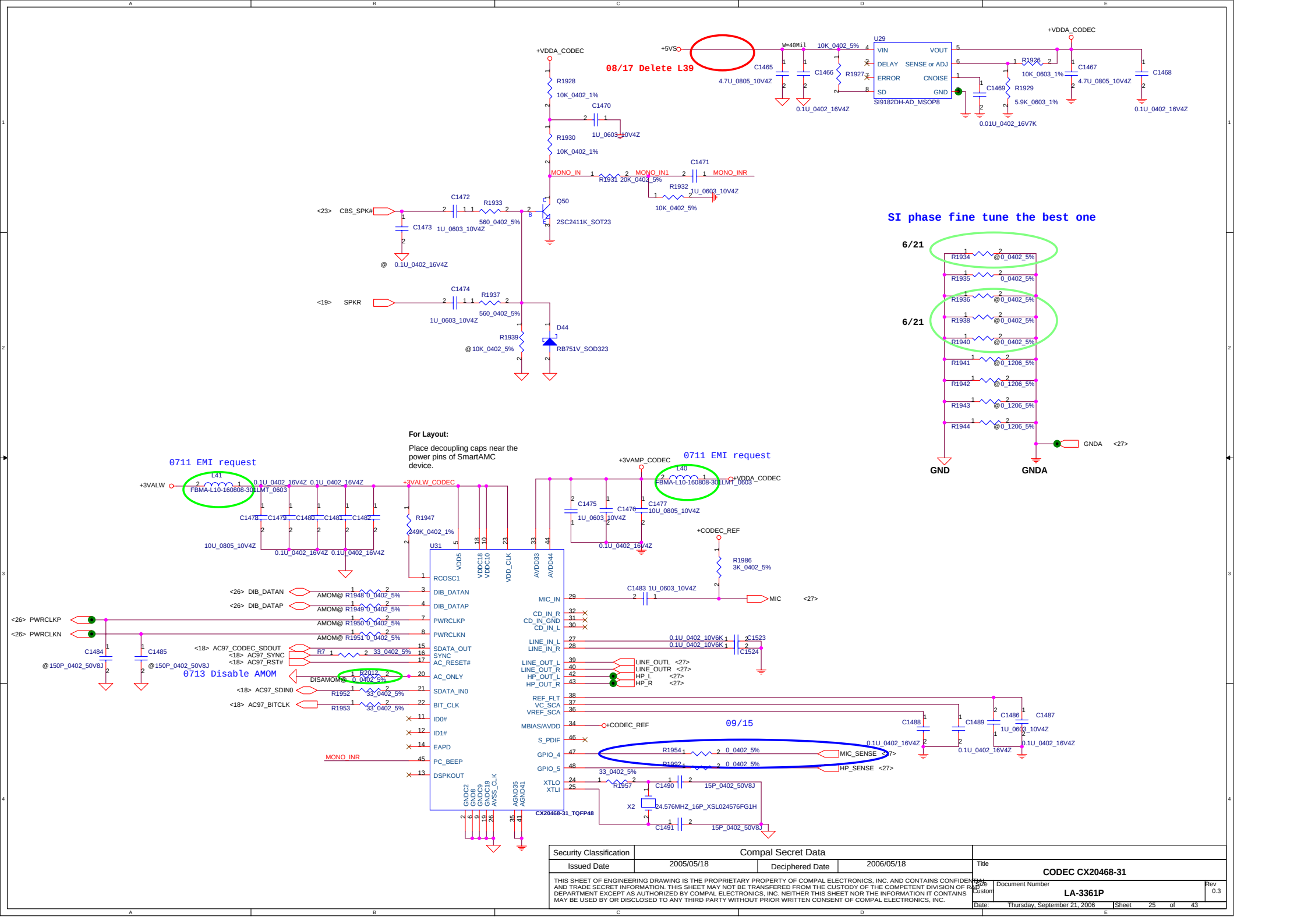
08/17 Delete L39
SI phase fine tune the best one
6/21
6/21
0711 EMI request
0711 EMI request
For Layout:
Place decoupling caps near the power pins of SmartAMC device.
0713 Disable AMOM
09/15
GND
GNDA
U29
SI9182DH-AD_MSOP8
U31
CX20468-31_TQFP48
+VDDA_CODEC
+3VALW
+3VALW_CODEC
+3VAMP_CODEC
+5VS
+CODEC_REF
MIC
MIC_SENSE
HP_SENSE
LINE_OUTL
LINE_OUTR
HP_L
HP_R
CBS_SPK#
SPKR
MONO_IN
MONO_INR
PWRCLKP
PWRCLKN
DIB_DATAN
DIB_DATAP
AC97_CODEC_SDOUT
AC97_SYNC
AC97_RST#
AC97_SDIN0
AC97_BITCLK
MONO_IN1
GNDA
Security Classification
Compal Secret Data
Issued Date
2005/05/18
Deciphered Date
2006/05/18
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Title
CODEC CX20468-31
Size
Custom
Document Number
LA-3361P
Rev
0.3
Date:
Thursday, September 21, 2006
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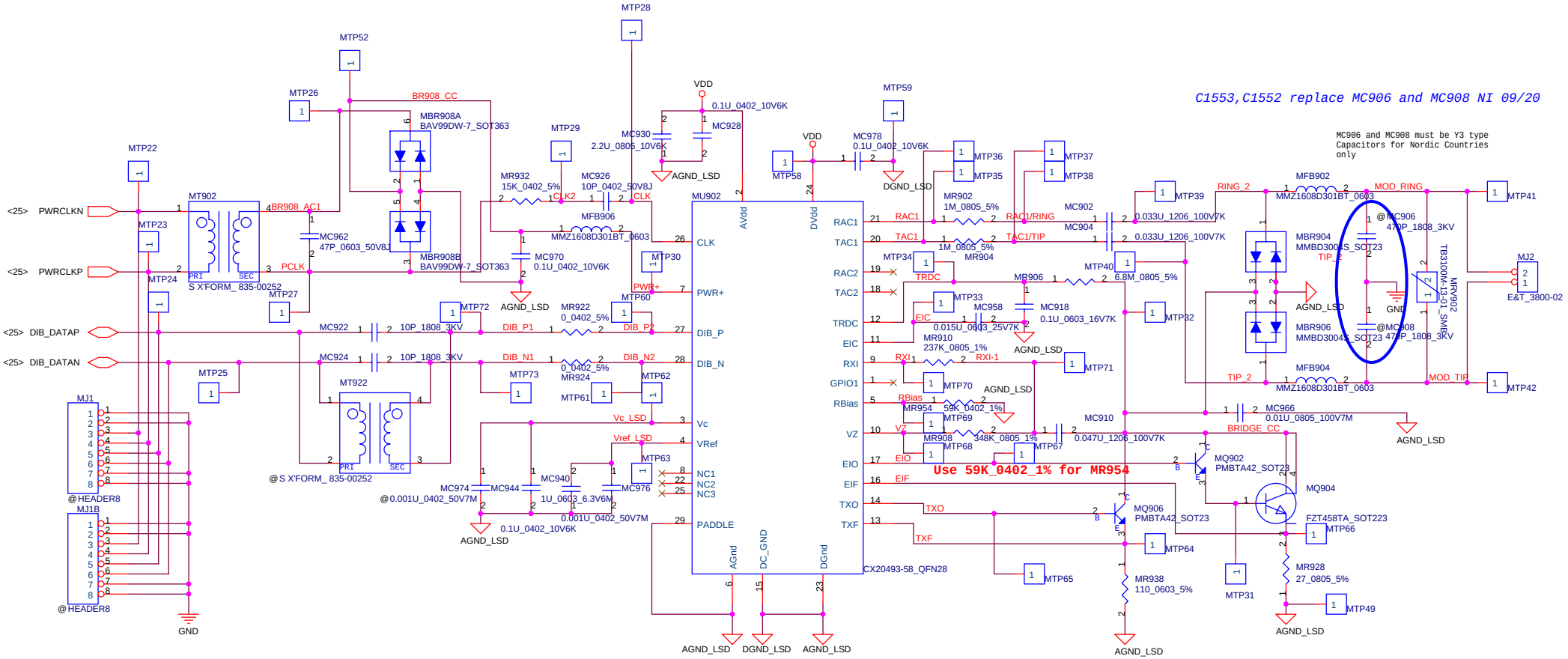
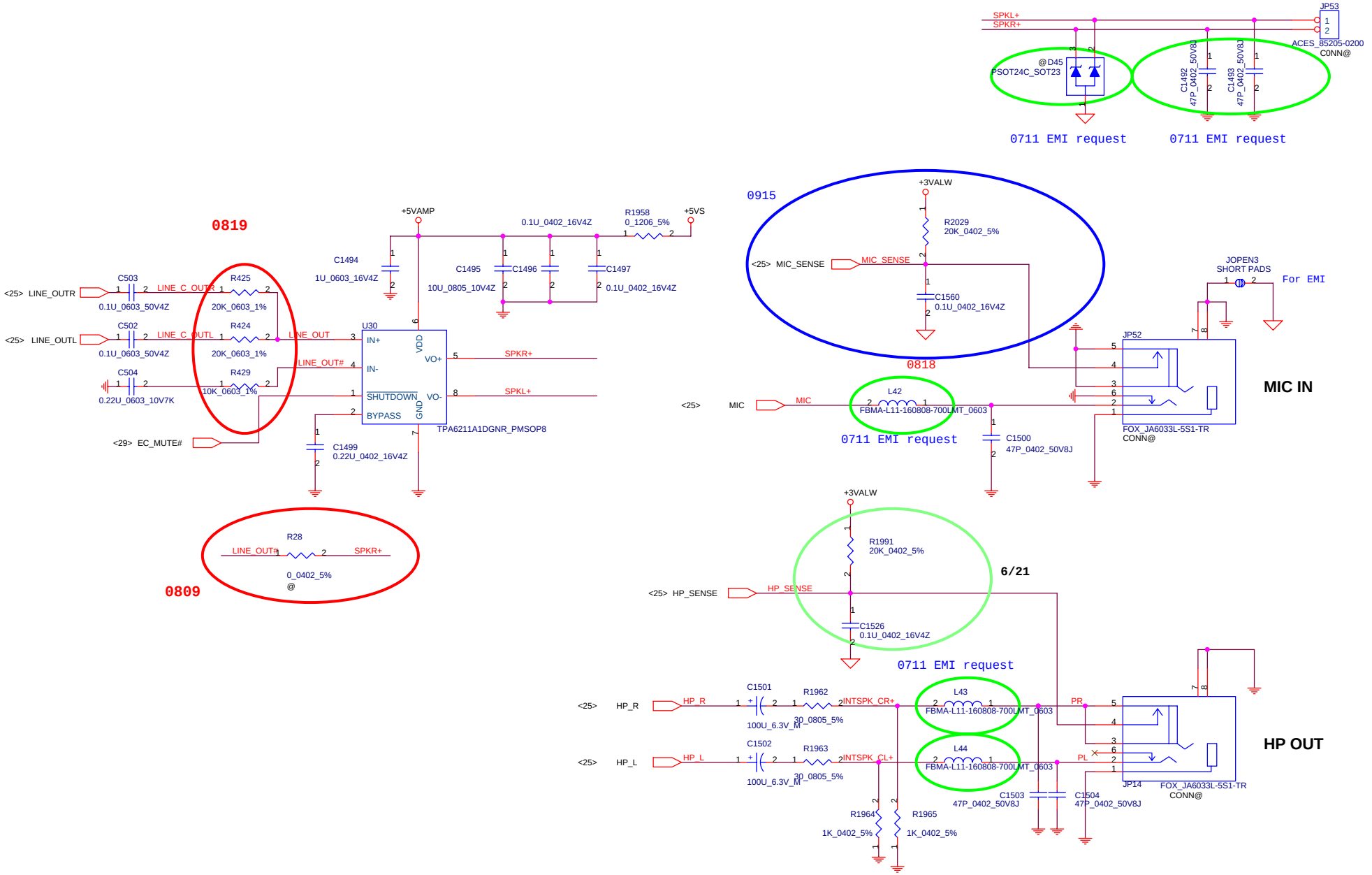
25
of
43



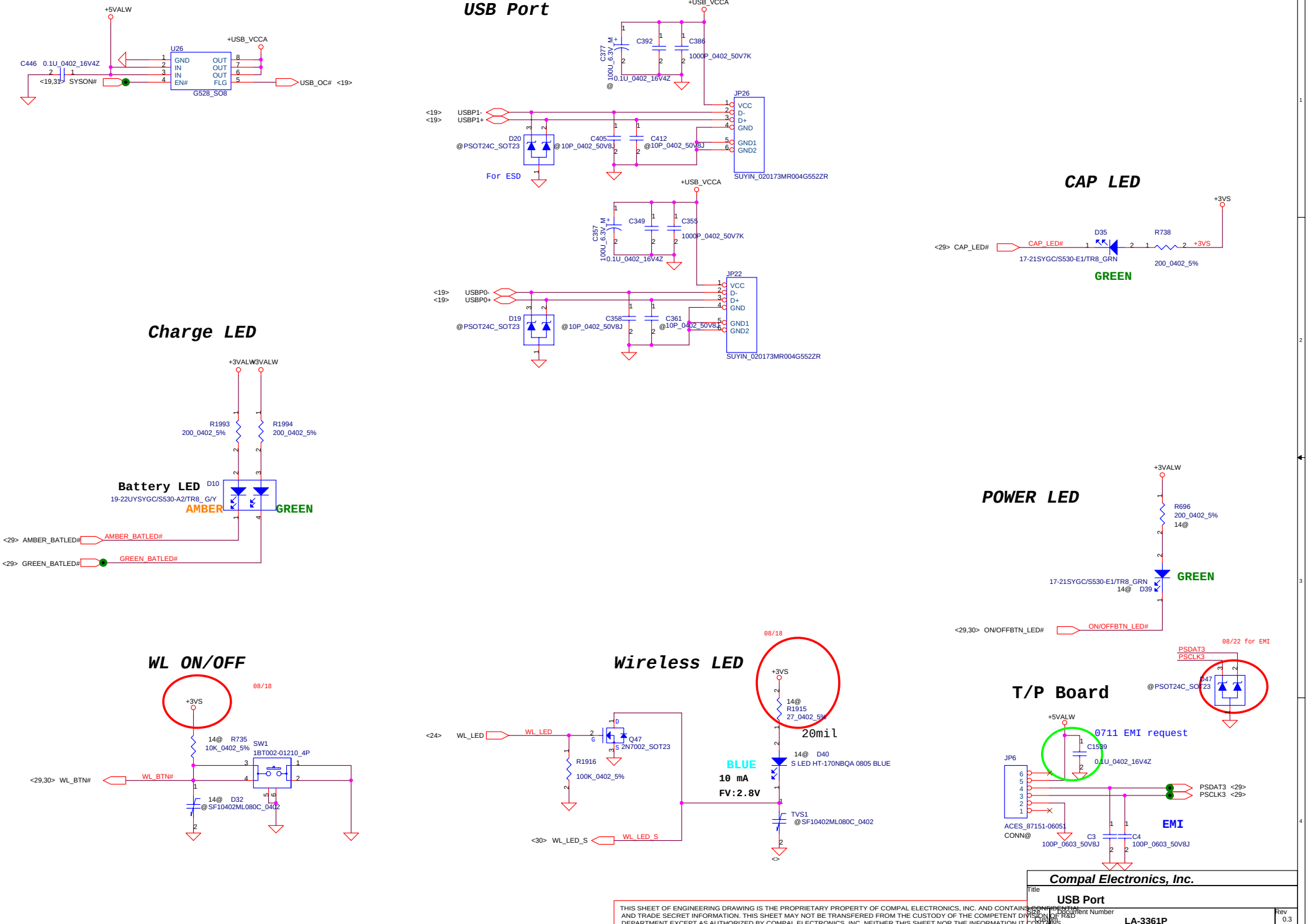
Security Classification	Compal Secret Data		
Issued Date	2005/05/18	Deciphered Date	2006/05/18

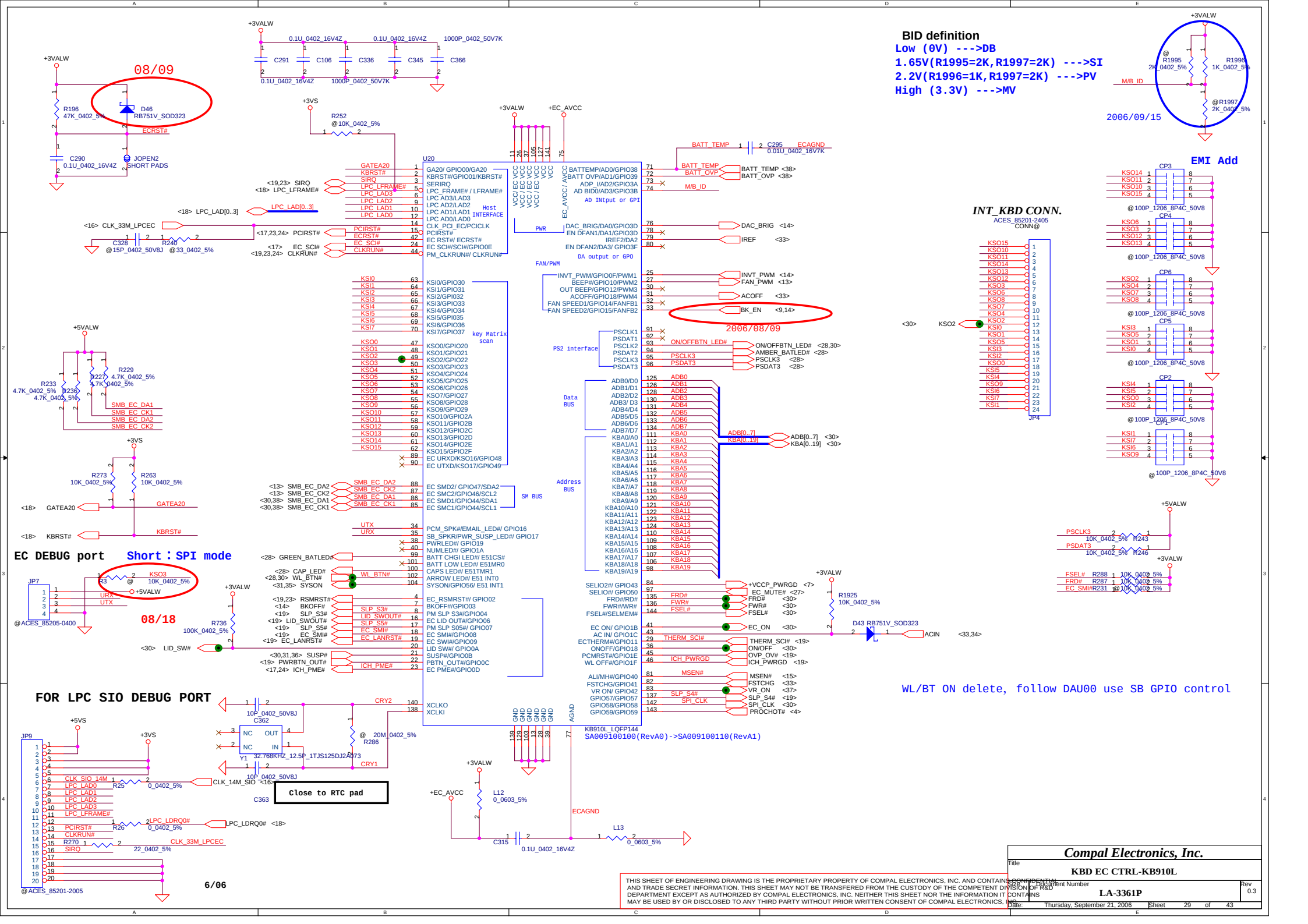
Title	AMOM_modem		
Size: Custom	Document Number: LA-3361P		Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 26 of 43		



Security Classification	Compal Secret Data		
Issued Date	2005/05/18	Deciphered Date	2006/05/18

Title	AMP and Audio Jack		
Size: Custom	Document Number: LA-3361P		Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 27 of 43		


USB Port
+5VALW
+USB_VCCA
U26
C446 0.1U_0402_16V4Z
GND
IN
IN
EN#
OUT
OUT
OUT
FLG
G528_SO8
<19,31> SYSON#
USB_OC# <19>
C377 100U_6.3V_M
C392
C386
1000P_0402_50V7K
0.1U_0402_16V4Z
JP26
VCC
D-
D+
GND
GND1
GND2
SUYIN_020173MR004G552ZR
<19> USBP1-
<19> USBP1+
D20 @PSOT24C_SOT23
C405 @10P_0402_50V8J
C412 @10P_0402_50V8J
For ESD
C357 100U_6.3V_M
C349
C355
1000P_0402_50V7K
0.1U_0402_16V4Z
JP22
<19> USBP0-
<19> USBP0+
D19 @PSOT24C_SOT23
C358 @10P_0402_50V8J
C361 @10P_0402_50V8J
SUYIN_020173MR004G552ZR
CAP LED
+3VS
<29> CAP_LED#
CAP_LED#
D35
R738
17-21SYGC/S530-E1/TR8_GRN
200_0402_5%
GREEN
Charge LED
+3VALW
R1993 200_0402_5%
R1994 200_0402_5%
Battery LED
D10
19-22UYSYGC/S530-A2/TR8_ G/Y
AMBER
GREEN
<29> AMBER_BATLED#
AMBER_BATLED#
<29> GREEN_BATLED#
GREEN_BATLED#
POWER LED
R696 200_0402_5%
14@
17-21SYGC/S530-E1/TR8_GRN
14@ D39
GREEN
<29,30> ON/OFFBTN_LED#
ON/OFFBTN_LED#
WL ON/OFF
08/18
+3VS
14@ R735 10K_0402_5%
SW1
1BT002-01210_4P
<29,30> WL_BTN#
WL_BTN#
14@ D32
@SF10402ML080C_0402
Wireless LED
08/18
+3VS
14@ R1915 27_0402_5%
20mil
<24> WL_LED
WL_LED
Q47
2N7002_SOT23
R1916
100K_0402_5%
14@ D40
S LED HT-170NBQA 0805 BLUE
BLUE
10 mA
FV:2.8V
TVS1
@SF10402ML080C_0402
<30> WL_LED_S
WL_LED_S
T/P Board
08/22 for EMI
PSDAT3
PSCLK3
D47 @PSOT24C_SOT23
+5VALW
0711 EMI request
C1539 0.1U_0402_16V4Z
JP6
ACES_87151-06051
CONN@
PSDAT3 <29>
PSCLK3 <29>
EMI
C3 100P_0603_50V8J
C4 100P_0603_50V8J
Compal Electronics, Inc.
Title
USB Port
Size
Document Number
LA-3361P
Rev 0.3
Date: Thursday, September 21, 2006
Sheet 28 of 43
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.


BID definition
Low (0V) --->DB
1.65V(R1995=2K,R1997=2K) --->SI
2.2V(R1996=1K,R1997=2K) --->PV
High (3.3V) --->MV
2006/09/15
08/09
2006/08/09
08/18
EMI Add
INT_KBD CONN.
EC DEBUG port
Short：SPI mode
FOR LPC SIO DEBUG PORT
Close to RTC pad
WL/BT ON delete, follow DAU00 use SB GPIO control
KB910L_LQFP144
SA009100100(RevA0)->SA009100110(RevA1)
6/06
Compal Electronics, Inc.
KBD EC CTRL-KB910L
LA-3361P
Thursday, September 21, 2006
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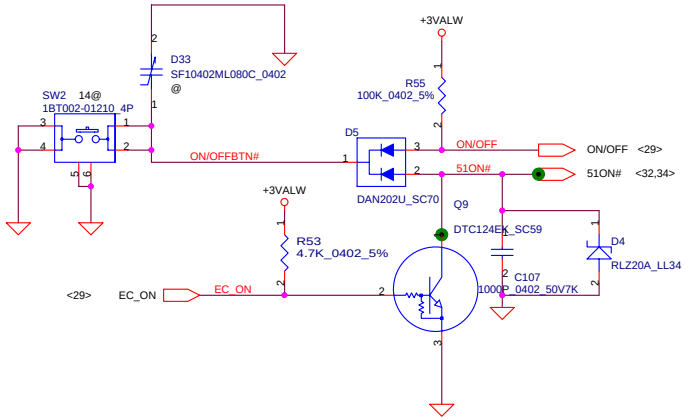
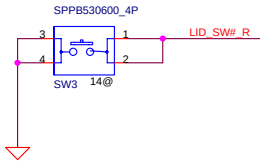
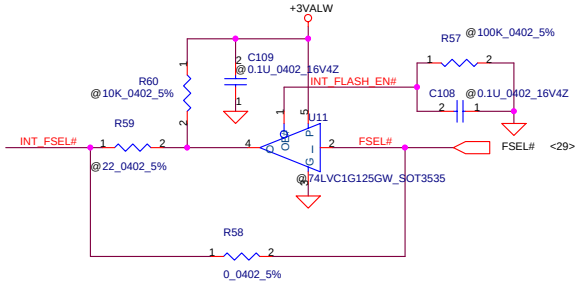
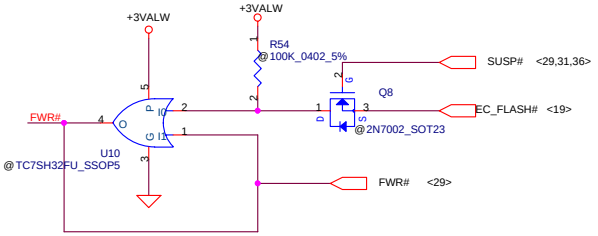
Power BTN
ON/OFF Botton

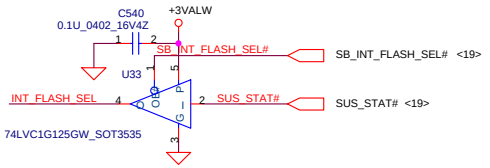


LID_SW









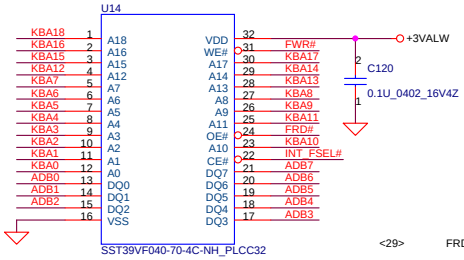
1MB FLASH ROM

Alternative SA290080100

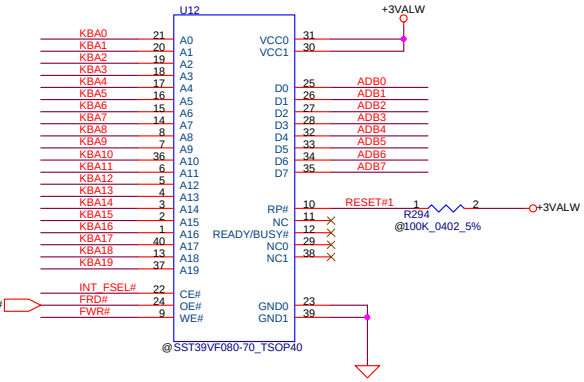
KBA[0..19] KBA[0..19] <29>

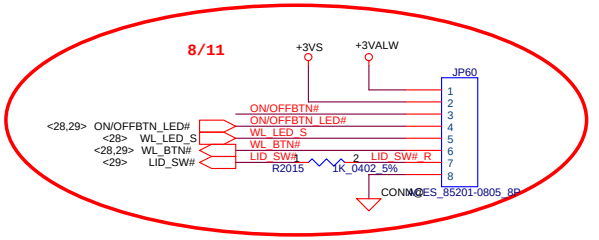
ADB[0..7] ADB[0..7] <29>

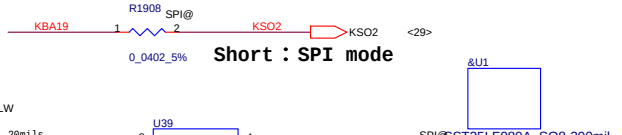
512K FLASH ROM

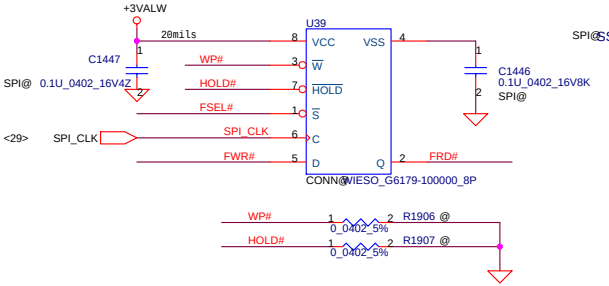


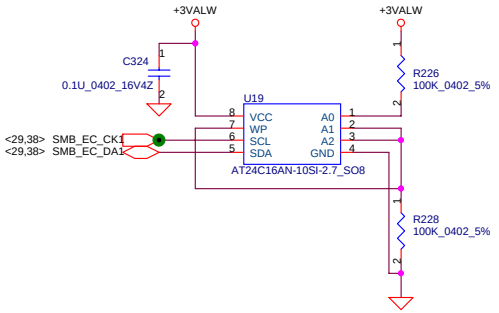
BIOS SOCKET-DC040043905



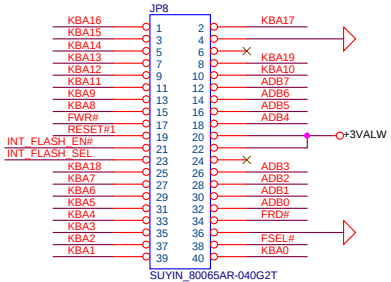








1MB ROM SOCKET



Compal Electronics, Inc.		
Title: BIOS & EXT. I/O PORT & PW BT		
Size:	Document Number: LA-3361P	Rev: 0.3
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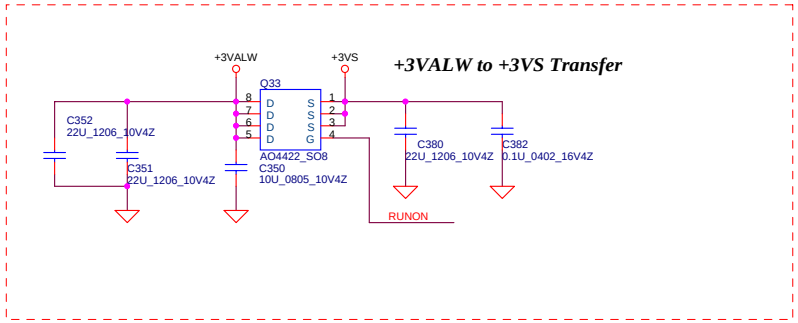
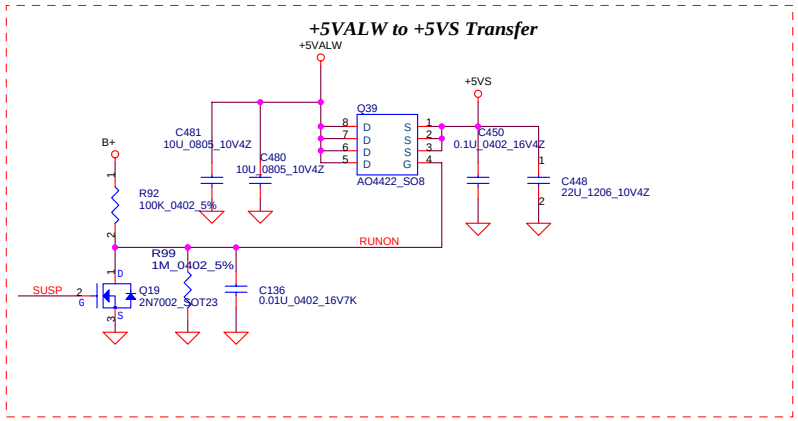
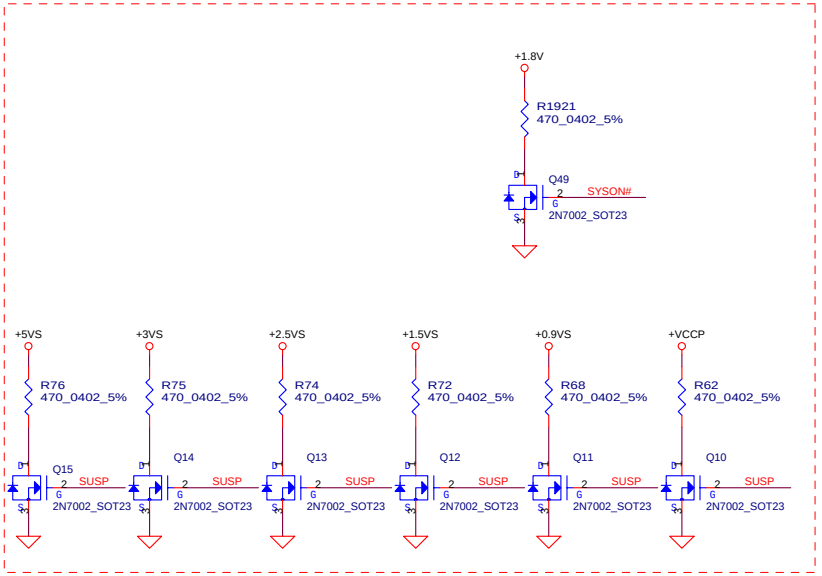
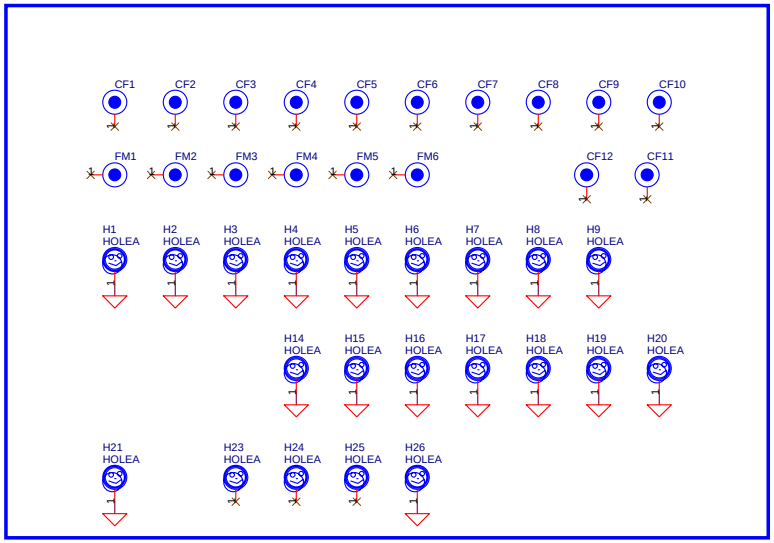
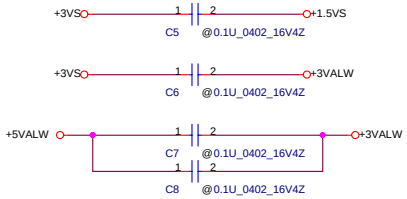
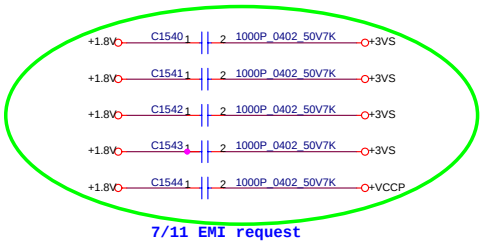




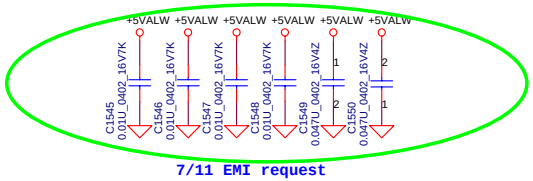




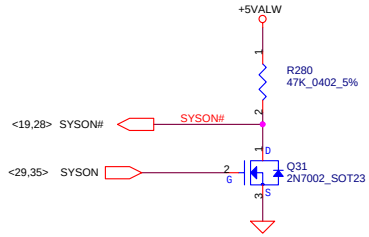


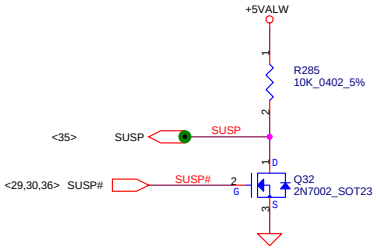


7/11 EMI request

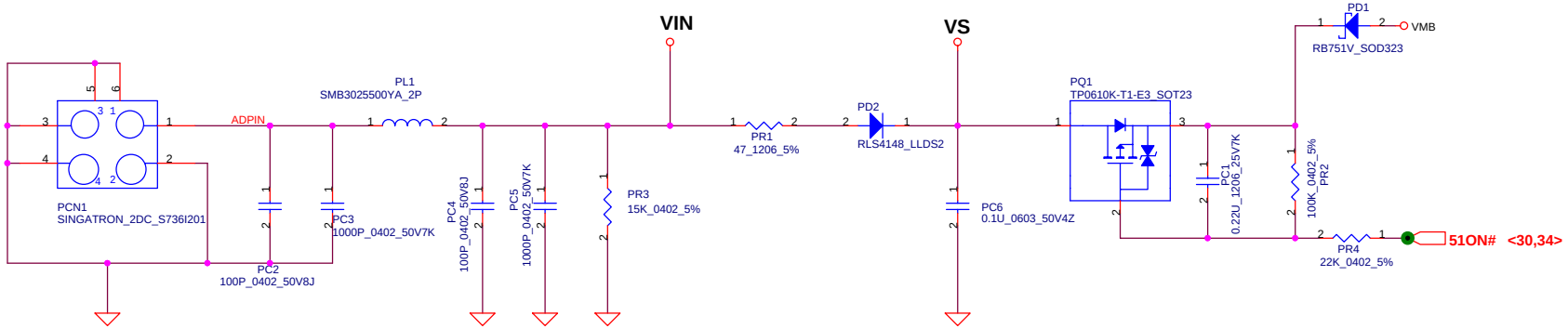


7/11 EMI request





Compal Electronics, Inc.			
Title: POWER CONTROL			
Size:	Document Number: LA-3361P		Rev: 0.3
Date: Thursday, September 21, 2006	Sheet 31 of 43		



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Issued Date	<Issued_Date>	Deciphered Date	<Deciphered_Date>

Title	DC CONN		
Size: Custom	Document Number: <Doc>		Rev
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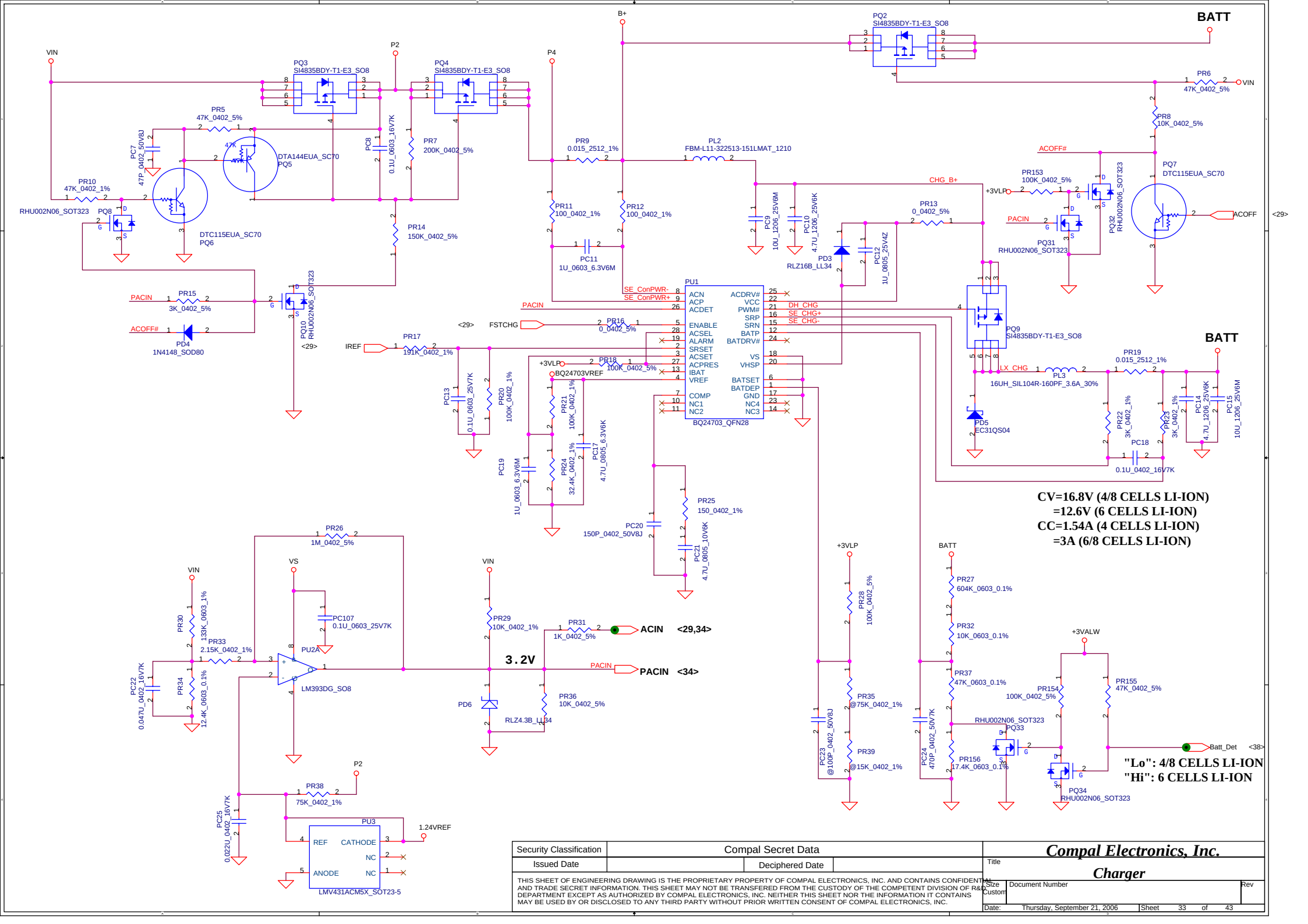


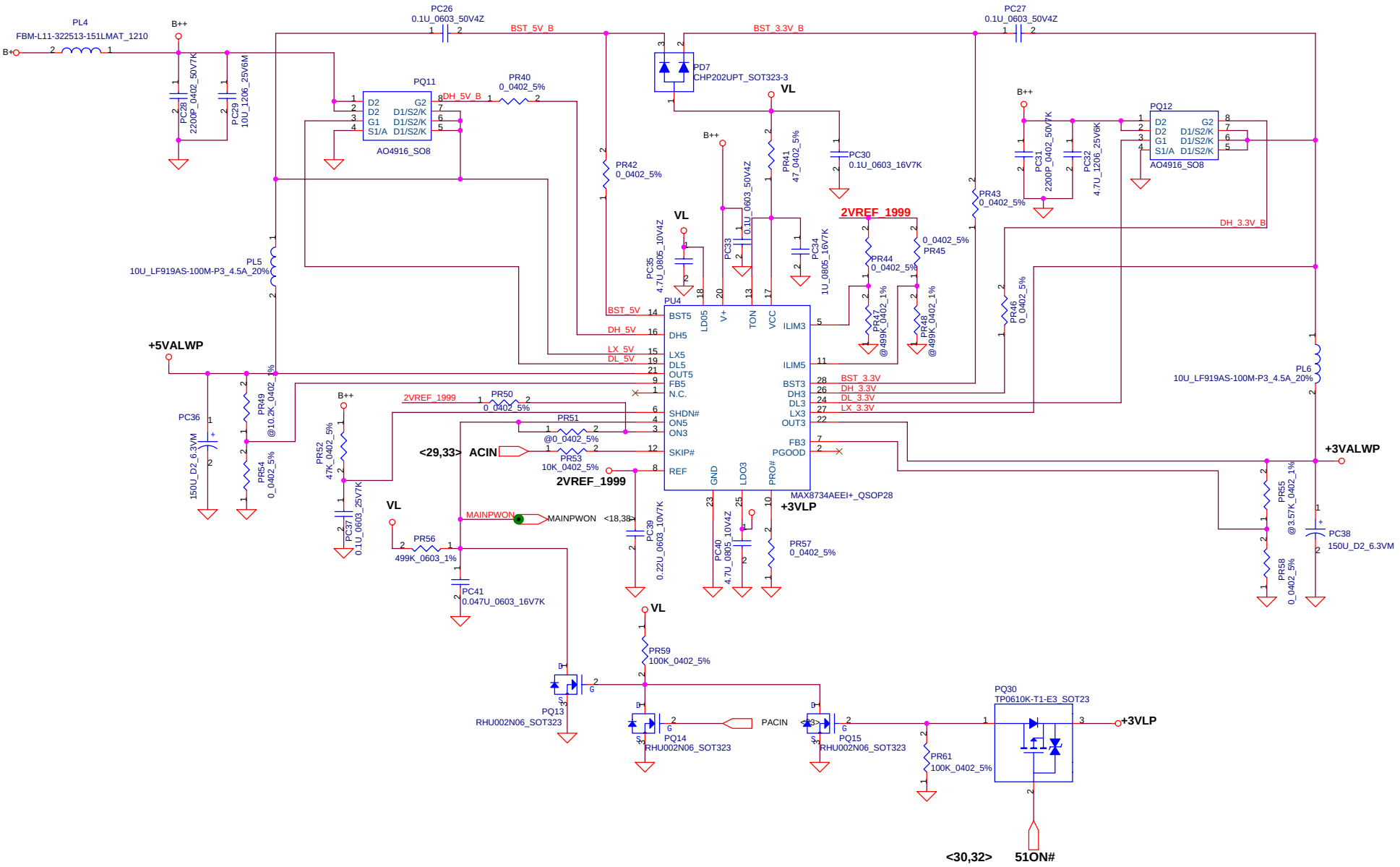
Security Classification	Compal Secret Data		
Issued Date		Deciphered Date	

Compal Electronics, Inc.

Title: **Charger**

Size	Document Number	Rev
Custom		

Date: Thursday, September 21, 2006 Sheet 33 of 43



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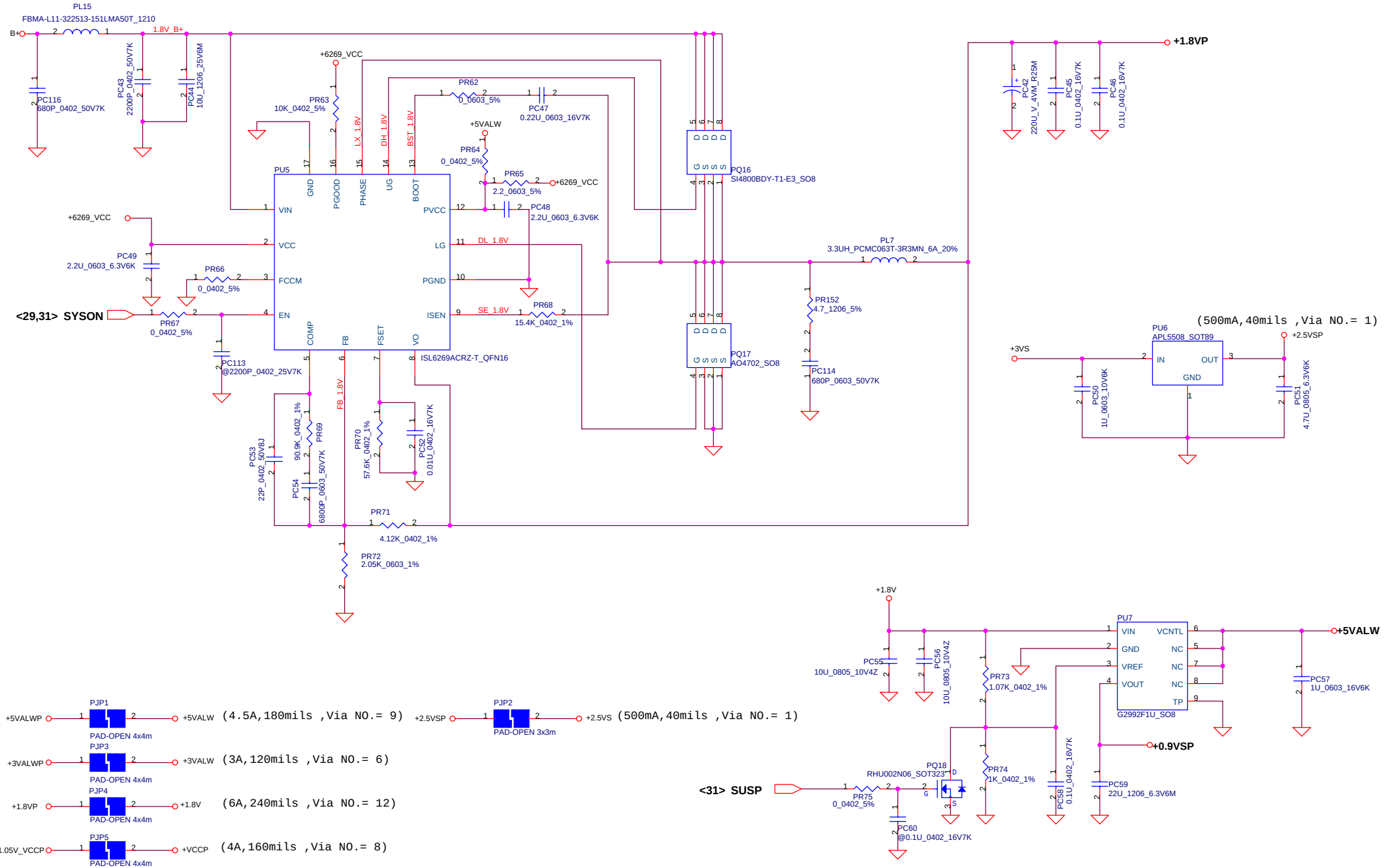
Compal Electronics, Inc.

Title: **3.3VALWP / 5VALWP**

Size | Document Number | Rev

Date: Thursday, September 21, 2006 | Sheet 34 of 43



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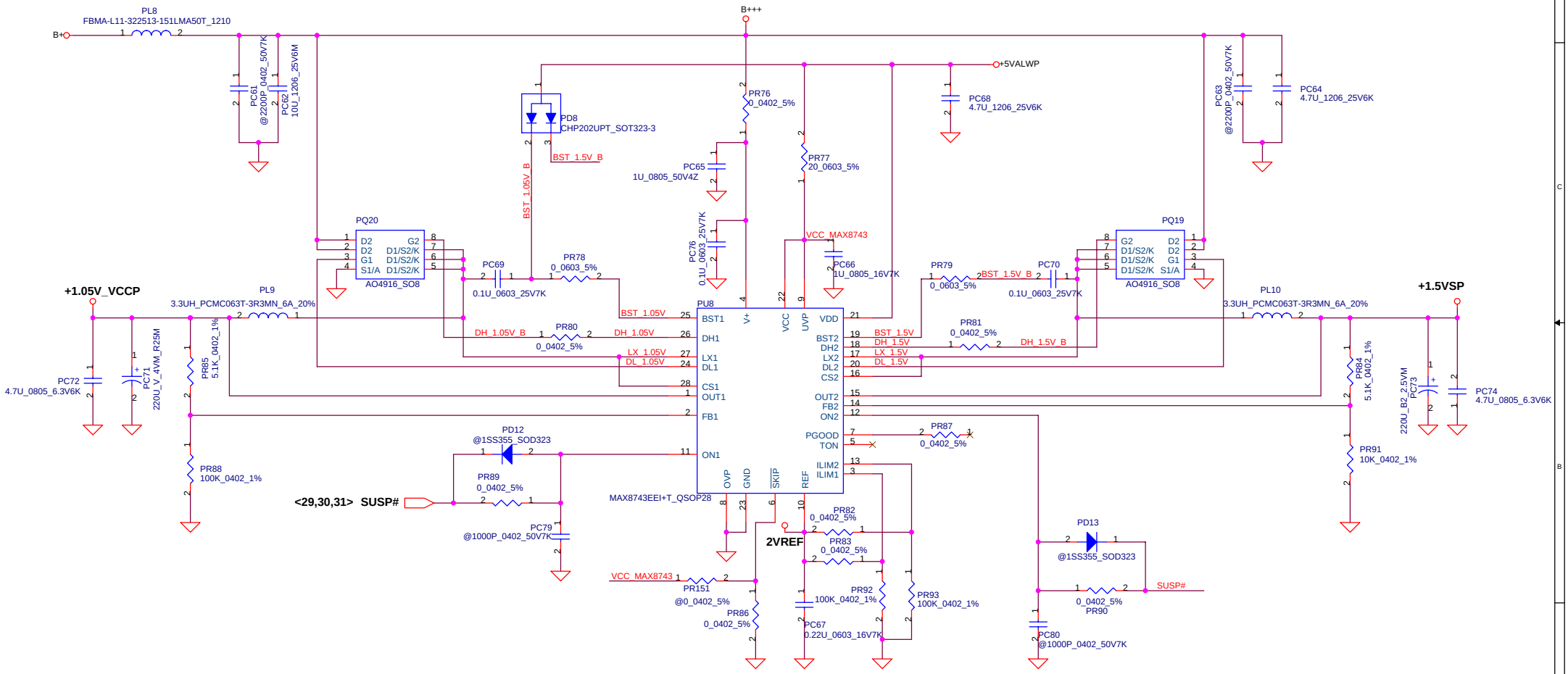
Issued Date	<Issued_Date>	Deciphered Date	<Deciphered_Date>

Compal Electronics, Inc.

Title: **1.8VP/0.9VSP/2.5VSP**

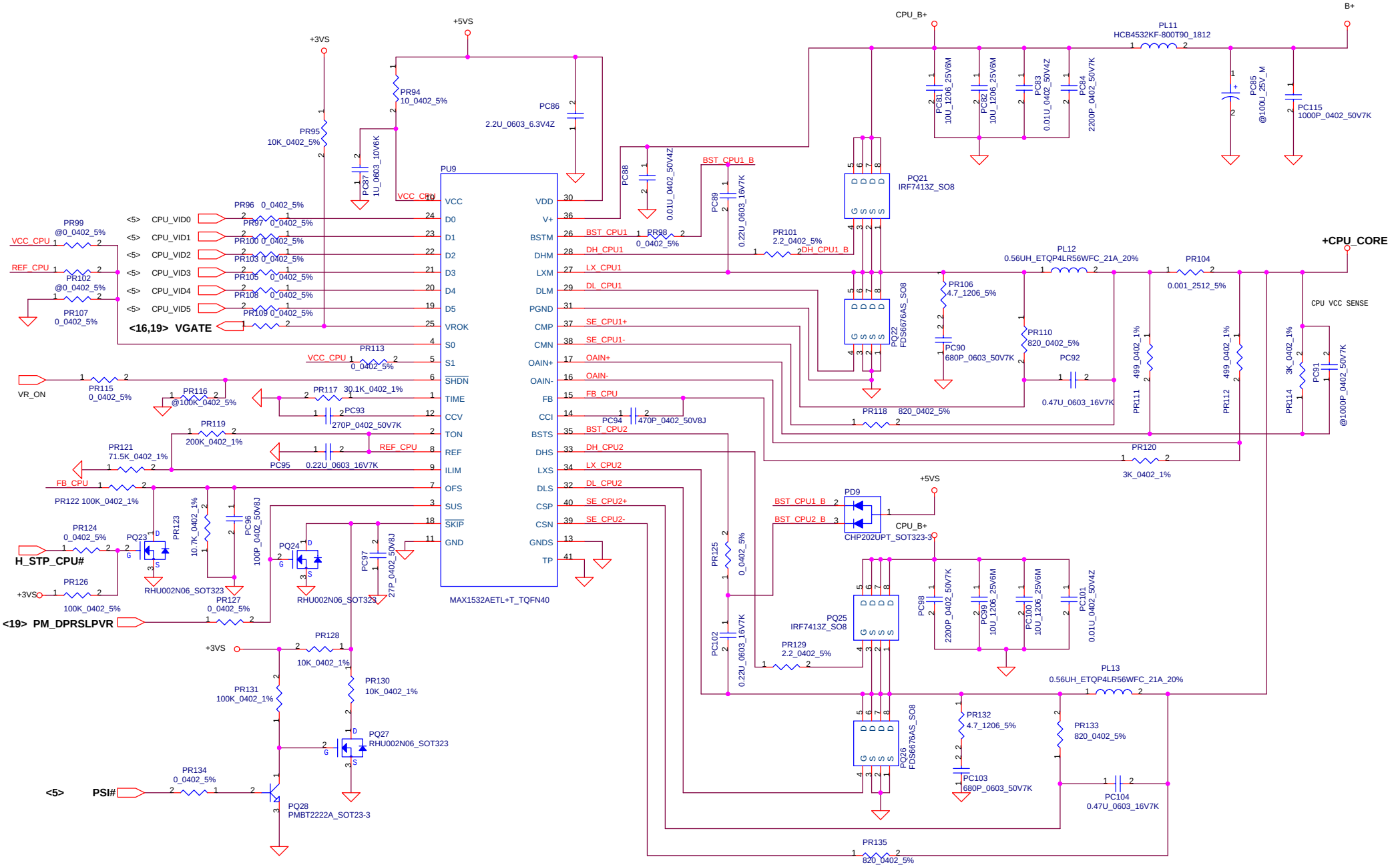
Size	Document Number	Rev
	<Doc>	0.1

Date: Thursday, September 21, 2006 | Sheet 35 of 43



Security Classification	Compal Secret Data		
Issued Date	<Issued_Date>	Deciphered Date	

Title	***1.05VSP/1.5VSP***		
Size: Custom	Document Number		Rev: 0.1
Date: Thursday, September 21, 2006	Sheet 36 of 43		



Compal Electronics, Inc.

Title	+CPU_CORE		
Size: Custom	Document Number		Rev 0.1
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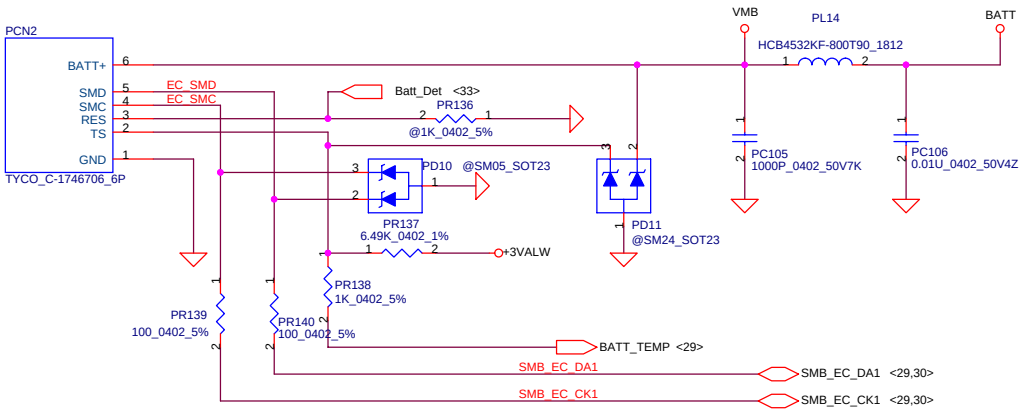
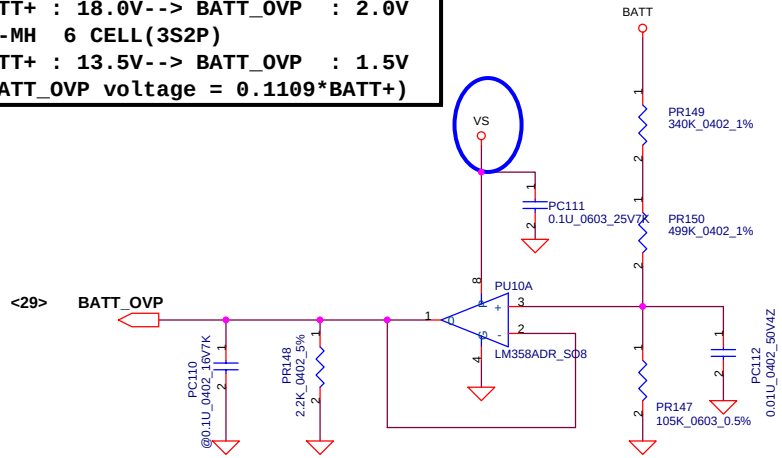
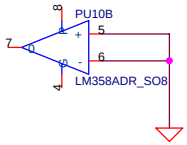
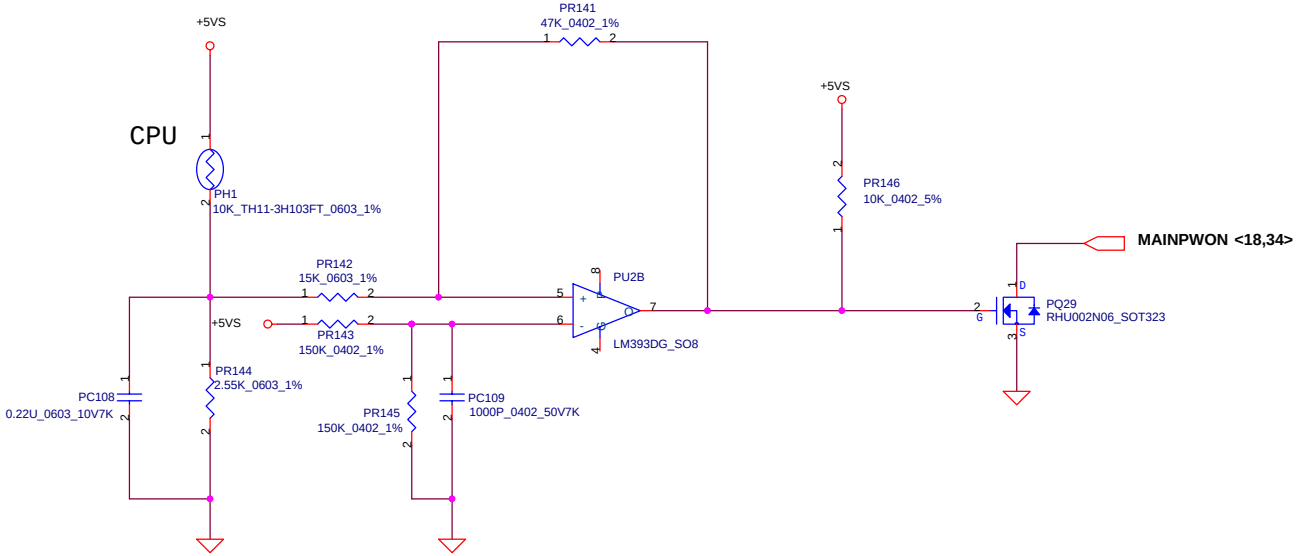
OVP voltage :
LI-MH 4 CELL(4S1P)/ 8 CELL (4S2P)
BATT+ : 18.0V--> BATT_OVP : 2.0V
LI-MH 6 CELL(3S2P)
BATT+ : 13.5V--> BATT_OVP : 1.5V
(BATT_OVP voltage = 0.1109*BATT+)







PH1 under CPU botten side :
CPU thermal protection at 90 +-3 degree C
Recovery at 47 +-3 degree C



Security Classification	Compal Secret Data		
Issued Date	<Issued_Date>	Deciphered Date	<Deciphered_Date>

Compal Electronics, Inc.			
Title: BATTERY CONN			
Size: Custom	Document Number: <Doc>		Rev
Date: Thursday, September 21, 2006		Sheet 43 of 38	

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Note	Phase
1			0.2	6	Change C94,C95,C286 from SGA20331D80 to SGA20331D20	Debug DB	
2		Change U31 to LF parts	0.2	25	Change U31 from SA204680000 to SA204680010	Debug DB	
3		LID switch material error	0.2	30	Change SW3 from SN511000300 to SN111000207	Debug DB	
4		CardBus controller material error	0.2	23	Change U38 from SA014100310 to SA014100130	Debug DB	
5		Un-install some bridge between AGND and DGND	0.2	25	Un-install R1934,R1936,R1938,R1940	Debug DB	
6		Let XMIT# match SW's GPIO definition	0.2	24	Delete Q46,R1913,R1914	Debug DB	
7		Modify Head phone sense's level	0.2	27	Delete R1990 ; Change C1526 to 0.1u 0402 cap ; Change R1991 to 20K resistor.	Debug DB	
8		Reserve for SB internal +1.5VALW regulator	0.2	18	Add R81 and R50	Debug DB	
9		HDD and ODD can't work at same time	0.2	21	Add R27 pull high	Debug DB	
10							
11		DB phase loss	0.2	23	JP54(PCMCIA connector) pin 71、pin72 connect to GND	Debug DB	
12		XMIT# Reserved pull high	0.2	24	Reserve R1913 pull high +3VALW		
13		DB phase error	0.2	17	Change RP43、RP44、RP45 package SIZE from 0804 to1206		
14		Cost down	0.2	19	ChangeR732、R733、R737、R739 to RP46		
15		Cost down	0.2	17	ChangeR277、R274、R265、R279 to RP47		
16		Cost down	0.2	17	ChangeR269、R268、R245、R262 to RP48		
17		Reserver a resistor for 2nd source Amp	0.2	27	Add R28 for 2nd source Amp		
18		Avoid DISPLAYOFF# error status to high	0.2	14	Change R120 to 47K and R9 to 4.7K		
19		Avoid DISPLAYOFF# error status to high	0.2	14	Remove R4、C1 and Add C2. Change pull-up RES R8 with +3VALW to Q1 gate net		
20		EMI Request	0.2	23	Change C641 from 0.1u to 680P、Add C1538(680p) for +3V_CB		
21		EMI Request	0.2	23	Change J4、J6 to bead L37、L38(SM010016810)		
22		EMI Request	0.2	31	Add C1540、C1541、C1542、C1543、C1544 for +1.8V cross plane		
23		EMI Request	0.2	14	Add C1533、C1534、C1535、C1536、C1537 for LVDS EMI Solution		
24		EMI Request	0.2	14	Change L35 from R to Bead		
25		EMI Request	0.2	25	Change R1946、R1945 to Bead L40、L41 and Add L39 For codec regulator		
26		EMI Request	0.2	27	Add C1492、C1493		
27		EMI Request	0.2	27	Change R1982、R1987、R1989 to Bead L42、L43、L44		
28							

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	B.Ver#	Phase
1		EMI Request	0.2	28	Add C1539(0.1u) for Touch Pad +5VALW		
2		EMI Request	0.2	22	Add C1516、C1517 for LAN Transformer		
3		EMI Request	0.2	30	Add C1545、C1546、C1547、C1548、C1549、C1550 for Cardbus reference +5VALW power plane to GND		
4		Change LCD pin define	0.2	14	Change LCD pin define		
5		Reserve ESD diode for SPEAKER	0.2	27	Reserve D45		
6		EMI Request	0.2	16	Change PJP14、PJP15 to Bead		
7		Reserve a resistor to disable AMOM	0.2	25	Add R2012		
8		Place JKCLK series resistor with 2 inches of the 82562	0.2	22	Add R2013 The 33 ohm series resistor is required for signal integrity		
9		Add B channel from compatible with Others	0.3	9	Connect NB LVDS B Channel to LVDS connector		
10		Modify DISPLAYOFF# circuit	0.3	14	Connect BK_EN and BKOFF# to U13A gate to generate DISPLAYOFF# Remove D28,D13 add R2014, Change R9 from 4.7Khom to 100Kohm		
11		Let EC control BK_EN	0.3	29	Connect BK_EN from NB to EC pin33(GPIO15)		
12		EC Reset dis-charge	0.3	29	Add a DIODE D46 for EC reset discharge		
13		MotherBoard ID change to PV	0.3	29	R1996 install 1Kohm,R1997 install 2Kohm		
14		Change LVDS CONN pin assignment for compatible	0.3	14	Add LVDS Channel B from NB and change pin assignment		
15		Reserve two USB port connector	0.3	19	Add JP59,R2017,R2018		
16		Reserve bottom board connector	0.3	30	Add JP60,R2015		
17		Modify LVDS power circuit	0.3	14	Change Q3 pull high from +3VAL to +5VAL,Add R2016,C1551 Change C1532 from 0.01U to 0.047U		
18		Delete MB standoff	0.3	31	Delete H22		
19		Delete L39	0.3	25	Delete L39		
20		WL ON/OFF & Wireless LED pull high voltage	0.3	28	Change pull high voltage form +5VS to +3VS;R1915 from 200 ohm to 27ohm		
21		EMI Request	0.3	22	Add C1552,C1553		
22		Change amplifier gain	0.3	27	Change R425,R424 from 34.8k to 20k; R429 from 16.2k to 10k		
23		Change value of RTC capacitor	0.3	18	Change C115,C113 from 18P to 15P		
24		EMI Request	0.3	28	Reserve D47		
25		Reserve +3VS for LAN connector LED	0.3	22	Add R2019,R2020		
26		EMI Request	0.3	12	Change C562,C563,C566,C567,C568 from 680P to 220P		

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	B.Ver#	Phase
1	LAN signal measure fail on Intel site	Delete EMI capacitor	1.0	22	Change C1516,C1517 to NI		
2	WLAN LED work wrong	Add two resister to select WL_LED and XMIT#	1.0	24	Add R2021,R2022 ; R2022 NI ,R2021 0 ohm		
3		increase RTC battery life	1.0	18	D42 pin2 change power form +3VALW to +3VLP		
4	EMITest fail from LAN	Follow intel reference design	1.0	22	C1517 change form 0.01u to 0.1U and C1516 NI		
5	EMITest fail from LAN	Add parallel damping test is PASS but marging	1.0	18、22			
6	MIC always on have noise	Add MIC_Sense pin to detect MIC plug in	1.0	25	R1954 change from 10k to 0 ohm		
7	MIC always on have noise	Add MIC_Sense pin to detect MIC plug in	1.0	27	Add R？and C？, MIC connector pin 3、pin 5 connect to AGND		
8	M/B ID	Change to 3.3V for MV	1.0	29	R1997 Change to NI		
9	reduce S3 power consumption	Disable wake on LAN function	1.0	19 20 22	Change R16,R11R70 to NI;R15,R12,R71 0 hom		
10	AMON capacitor duplication	C1533,C1552 replace with MC906,MC908	1.0	26	Change MC906,MC908 NI		
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Item	Reason for change	PG#	Modify List	Date	Phase
1	Fine tune the 1.8V OCP set-point as 7.5A (minimum continue load)	35	Change PR68 From SD034182280 (S RES 1/16W 18.2K +-1% 0402) To SD034154280 (S RES 1/16W 15.4K +-1% 0402)	2006/05/26	Before DB
2	Fine tune the charge current as 3A (maximum)	33	Change PR20 From SD034137380 (S RES 1/16W 137K +-1% 0402) To SD034100380 (S RES 1/16W 100K +-1% 0402)	2006/05/30	Before DB
3	Fine tune the AC detector set-point	33	Change PR26 From SD034681380 (S RES 1/16W 681K +-1% 0402) To SD028100480 (S RES 1/16W 1M +-5% 0402)	2006/05/30	Before DB
4	Fine tune the 1.05V OCP set-point as 8.125A (minimum continue load)	36	Change PR82 From SD034274180 (S RES 1/16W 2.74K +-1% 0402) To SD000009480 (S RES 1/16W 1.47K +-1% 0402) Change PR92 From SD034909280 (S RES 1/16W 90.9K +-1% 0402) To SD034499280 (S RES 1/16W 49.9K +-1% 0402)	2006/05/30	Before DB
5	Fine tune the 1.5V OCP set-point as 5A (minimum continue load)	36	Change PR83 From SD034274180 (S RES 1/16W 2.74K +-1% 0402) To SD000009480 (S RES 1/16W 1.47K +-1% 0402) Change PR93 From SD034909280 (S RES 1/16W 90.9K +-1% 0402) To SD034715280 (S RES 1/16W 71.5K +-1% 0402)	2006/05/30	Before DB
6	ID pin for 4 cells battery	38	Add PR136 SD028100180 (S RES 1/16W 1K +-5% 0402)	2006/05/30	Before DB
7	PL1 crack issue	32	As manufactory's comments, change the PL1 from multi-layer bead to beadcore	2006/07/13	DB
8	Modify the sequence of 3V/5V when DC mode	34	Connect the PQ30.1 from VS to +3VLP Change PC41 from 0.1u to 0.047u	2006/07/10	DB
9	The transient of +1.8V is fail	35	Change PR69 from 49.9K to 90.9K for transient	2006/07/12	DB
10	Due to the unstable of ISL6227, change the +1.5V/ +1.05V solution to MAX8743	36	Change the +1.5V/ +1.05V solution from ISL6227 to MAX8743, included all the related components.	2006/07/7	DB
11	For EMI's concern	35	Add PC116 (680pf)	2006/07/17	DB
12	For EMI's concern	37	PC115 (1000pf), PR106/PR132 (4.7ohm), and PC90/ PC103 (680pf)	2006/07/17	DB
13	Modify the sequence of 1.8V for S3 can't resume issue	35	Change connection of PR64.1 from +5VS to +5VALW	2006/08/02	SI
14	For 4 series/ 3 series battery selection, add circuit for changing charge voltage as 16.8V (4 series) or 12.6V (3 series)	33	Add PQ33, PQ34, PR154, PR155 and PR156	2006/08/10	SI

Item	Reason for change	PG#	Modify List	Date	Phase
15	Disable the "ALARM" function of charger	33	Un-pop PR35, PR39 and PC23 Change PR28 from 604K to 100K Change connection of PR28.1 from BATT to +3VLP	2006/08/16	SI
16	Reduce S3 power consumption	38	Change the connection of PU10.1 from VS to VL	2006/08/16	SI
17	For EMI's requirement	35	Add PR152 (4.7ohm) and PC114 (680pf)	2006/08/16	SI
18	Item 16 causes the S4 power consumption fail, so return to SI design. This change will not impact the S3 power consumption (this change adds less than 10mW back)	38	Change the connection of PU10.1 from VL to VS	2006/09/05	PV