Compal confidential

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

2004-09-09

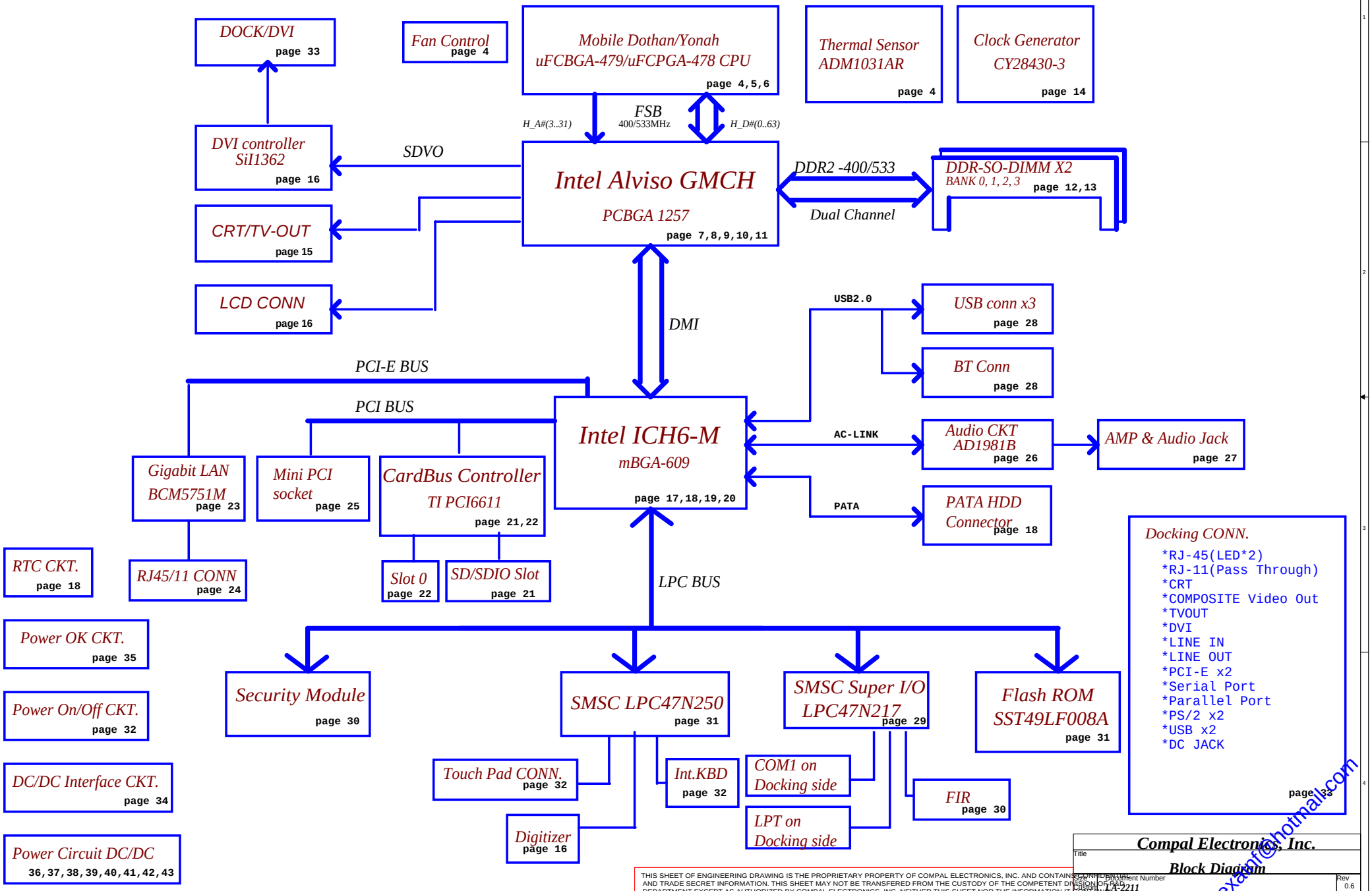
REV:06

Compal Electronics, Inc.		
Title: Cover Sheet		
Size: C	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 1 of 48	

Compal confidential

File Name : LA-2211

Heavenly



Compal Electronics, Inc.		
Title: Block Diagram		
Size: Custom	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 2 of 48	

Voltage Rails

Power Plane	Description	S0-S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+VCCP	1.05V power rail for Processor I/O and MCH core power	ON	OFF	OFF
+0.9VS	0.9V switched power rail for DDRII Vtt	ON	OFF	OFF
+1.5VALW	1.5V always on power rail	ON	ON	ON*
+1.5VS	1.5V switched power rail for PCI-E interface	ON	OFF	OFF
+1.8V	1.8V power rail for DDRII	ON	ON	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5VALW	2.5V always on power rail	ON	ON	ON*
+2.5VS	2.5V switched power rail for MCH video PLL	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V	3V power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5V	5V power rail	ON	ON	OFF
+5VS	5V switched power rail	ON	OFF	OFF
+12VALW	12V always on power rail	ON	ON	ON*
+12V	12V power rail	ON	ON	OFF
+12VS	12Vswitched power rail on power rail	ON	OFF	OFF
RTCVCC	RTC power	ON	ON	ON

Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.

Internal PCI Devices

DEVICE	PCI Device ID	IDSEL #
LAN	D8	AD24
Azalia	D27	AD11
PCI-E	D28	AD12
USB1.1/2.0	D29	AD13
PCI to PCI (DMI to PCI)	D30	AD14
AC97 MODEM	D30	AD14
AC97 Audio	D30	AD14
PATA/SATA	D31	AD15
LPC I/F	D31	AD15
SMBUS	D31	AD15

External PCI Devices

DEVICE	PCI Device ID	IDSEL #	REQ/GNT #	PIRQ
Mini-PCI	D4	AD20	0	F
CARD BUS	D6	AD22	2	A B C D

I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 0
DDR SO-DIMM 1	A2	1 0 1 0 0 0 1 0
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 0

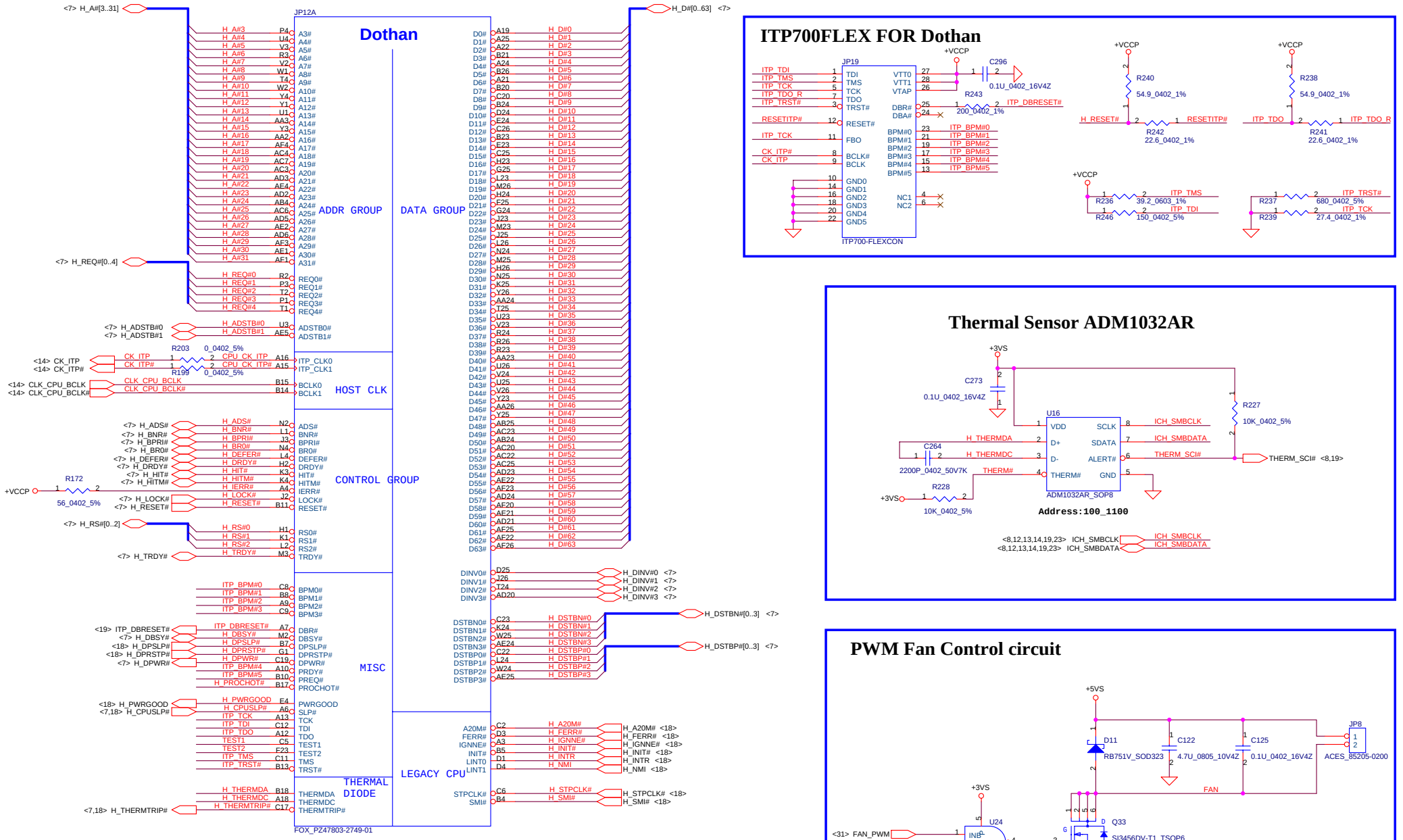
Symbol note:

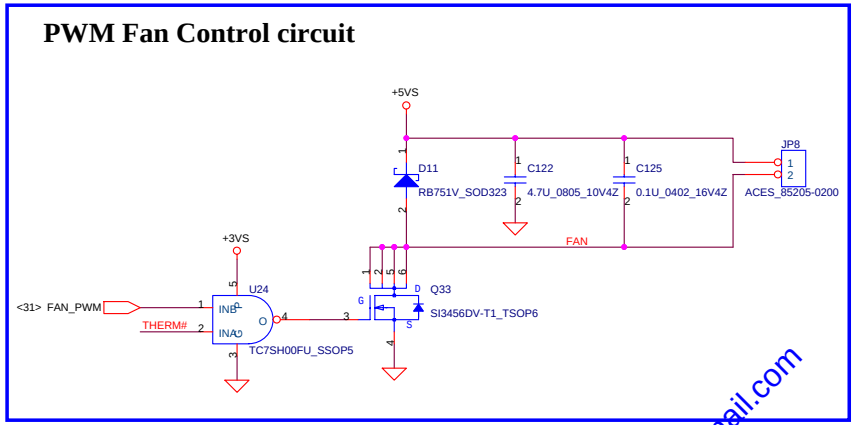
:means digital ground.

:means analog ground.

@ :means reserved.

hexian@hotmail.com



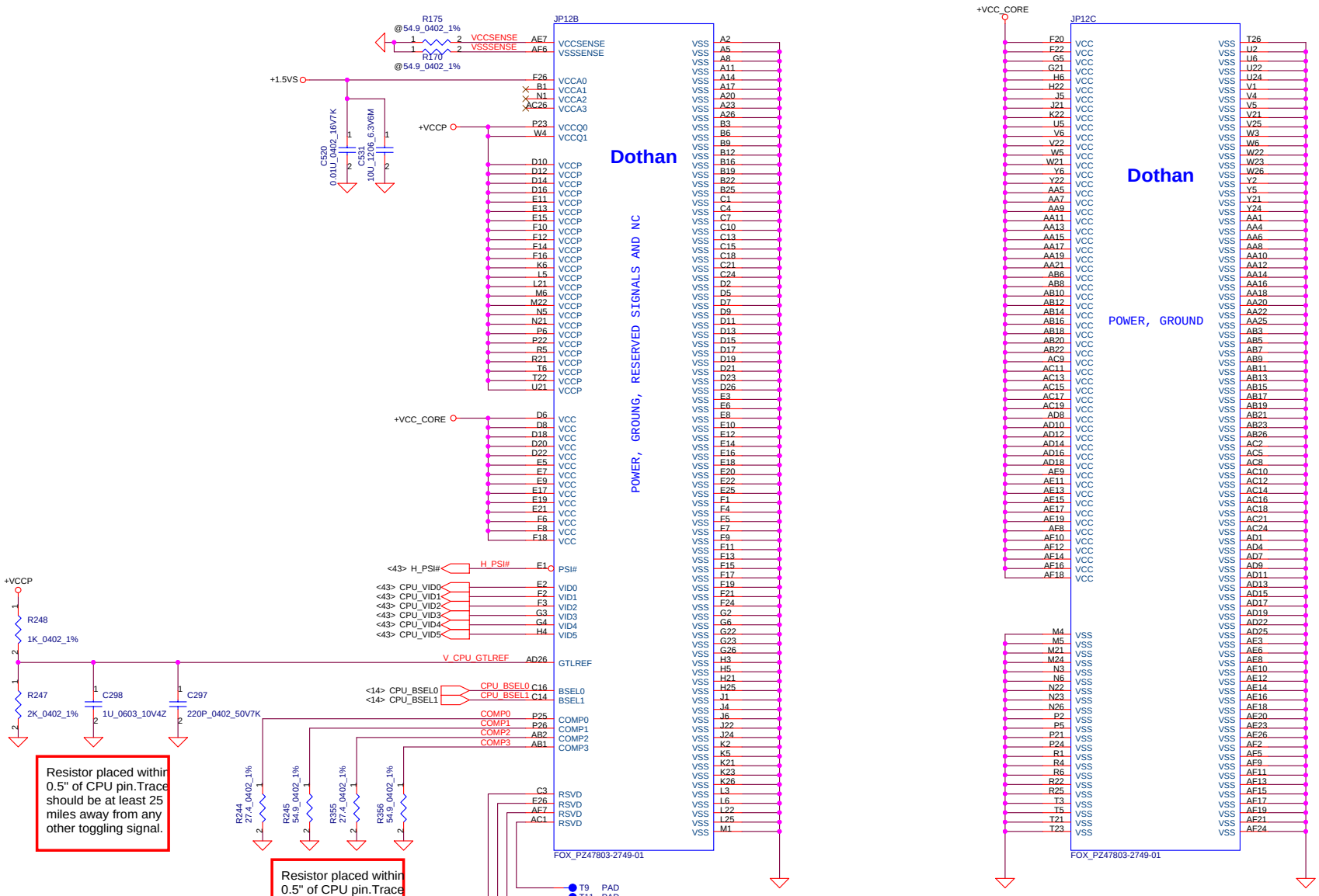


Compal Electronics, Inc.

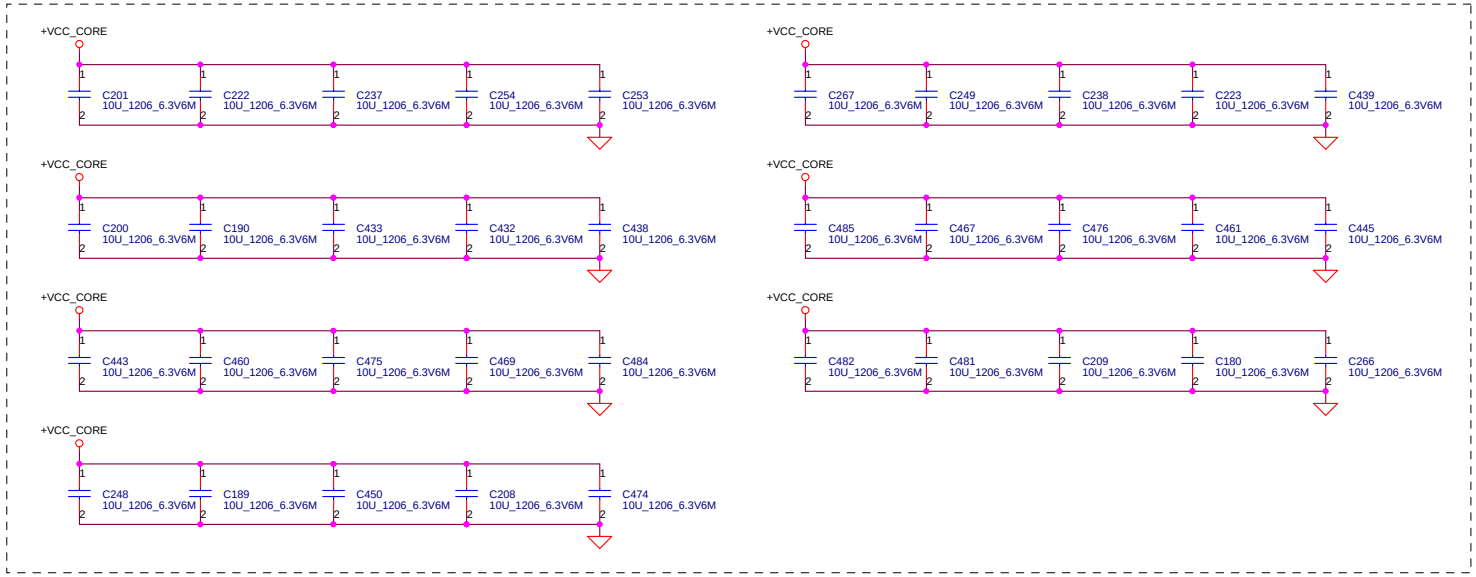
Title: Dothan Processor in mFCPGA479

Size: Document Number: LA-2211 Rev: 0.6

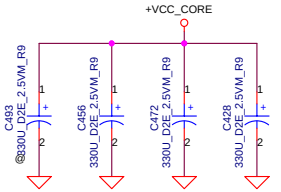
Date: Thursday, September 09, 2004 Sheet 4 of 48

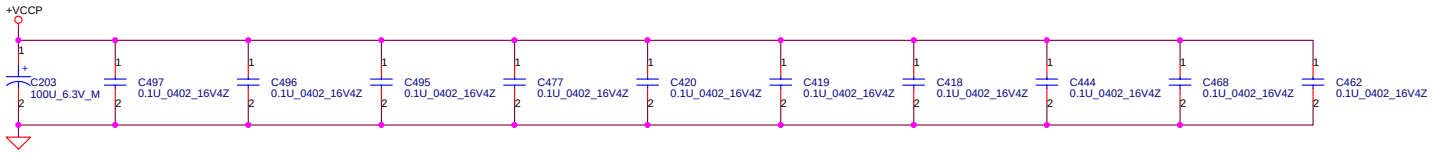


Compal Electronics, Inc.		
Title: Dothan Processor in mFCPGA479		
Size:	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 5 of 48	

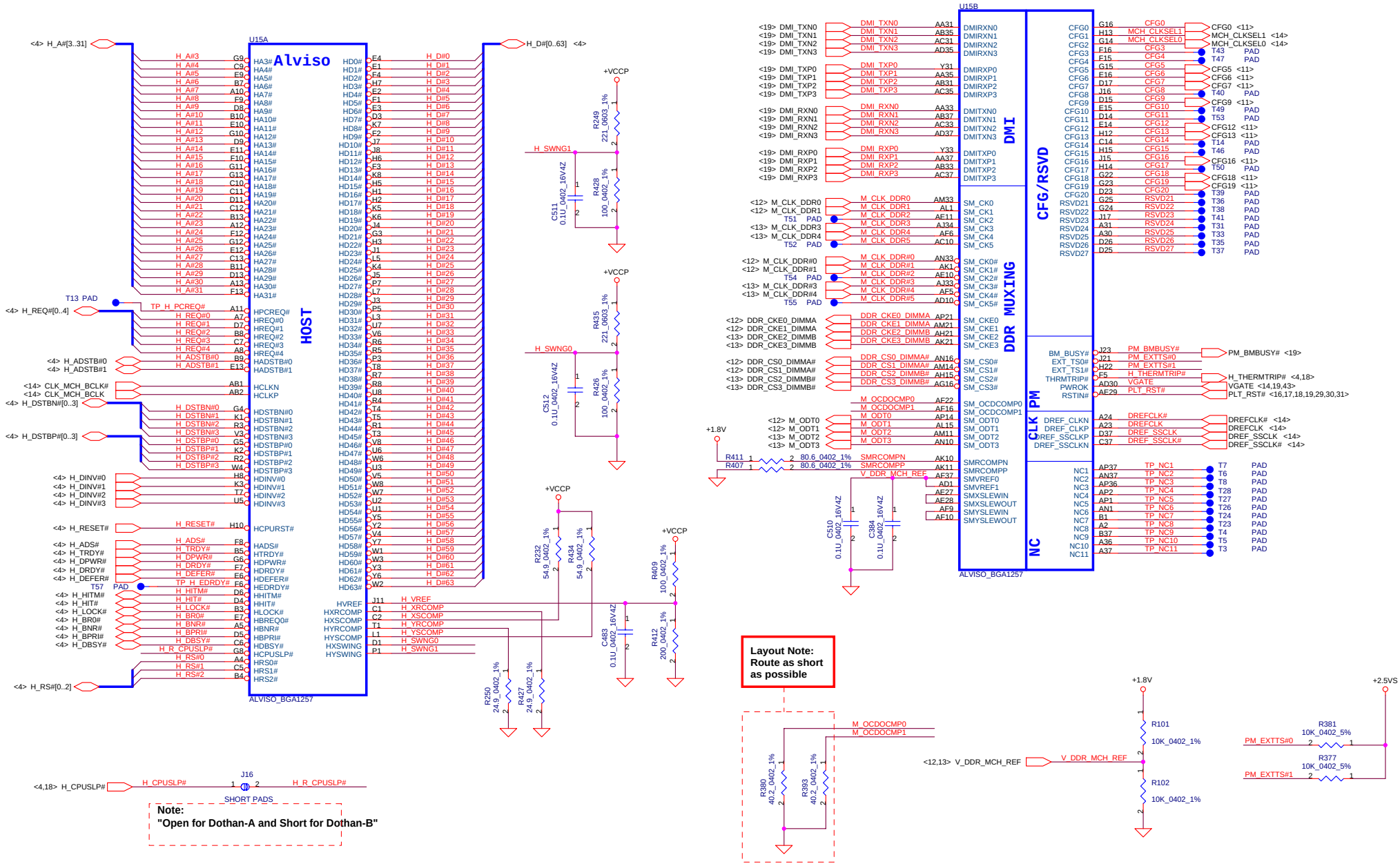


Near VCORE regulator.





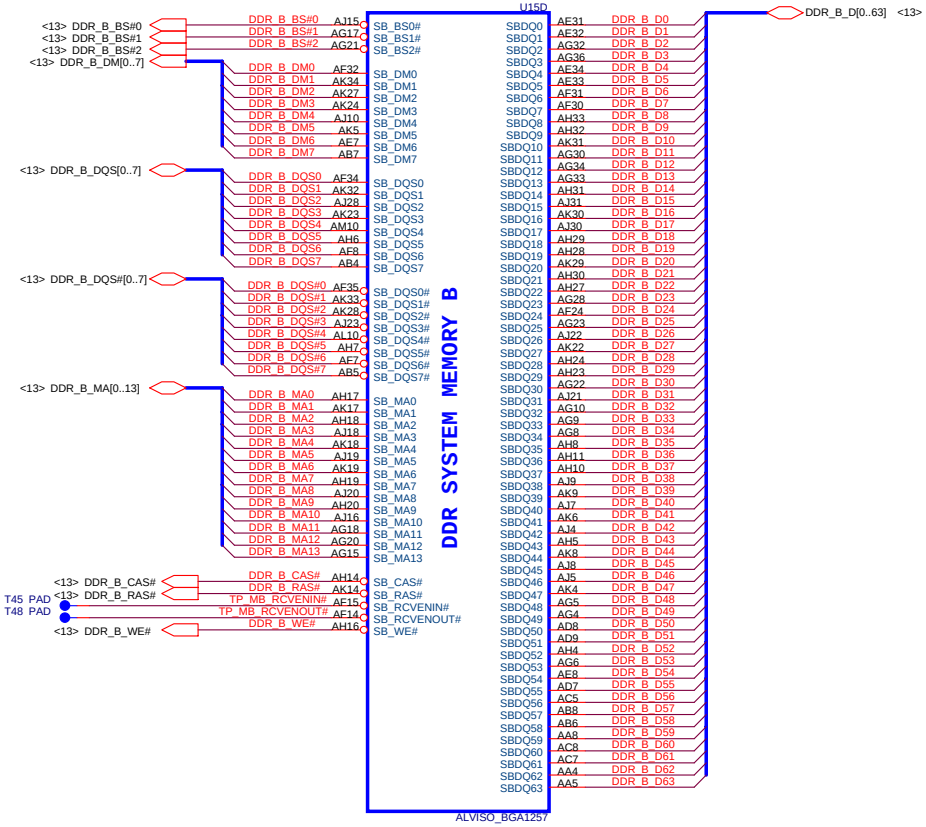
Compal Electronics, Inc.		
Title: CPU Bypass		
Size: B	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 6 of 48	



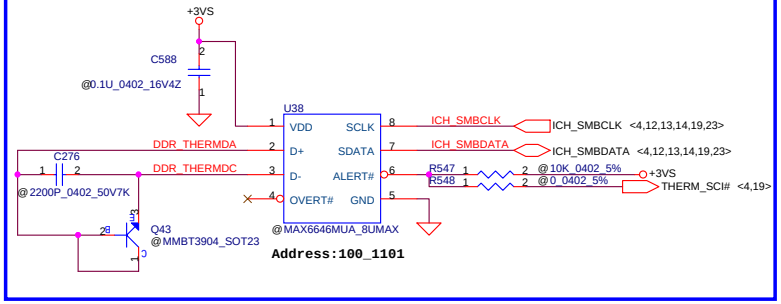
Compal Electronics, Inc.

Alviso(1 of 5)

Size	Document Number	Rev
Custom	LA-2211	0.6
Date: Thursday, September 09, 2004	Sheet 7 of 48	



Reserved thermal CKT and closed to JP34.

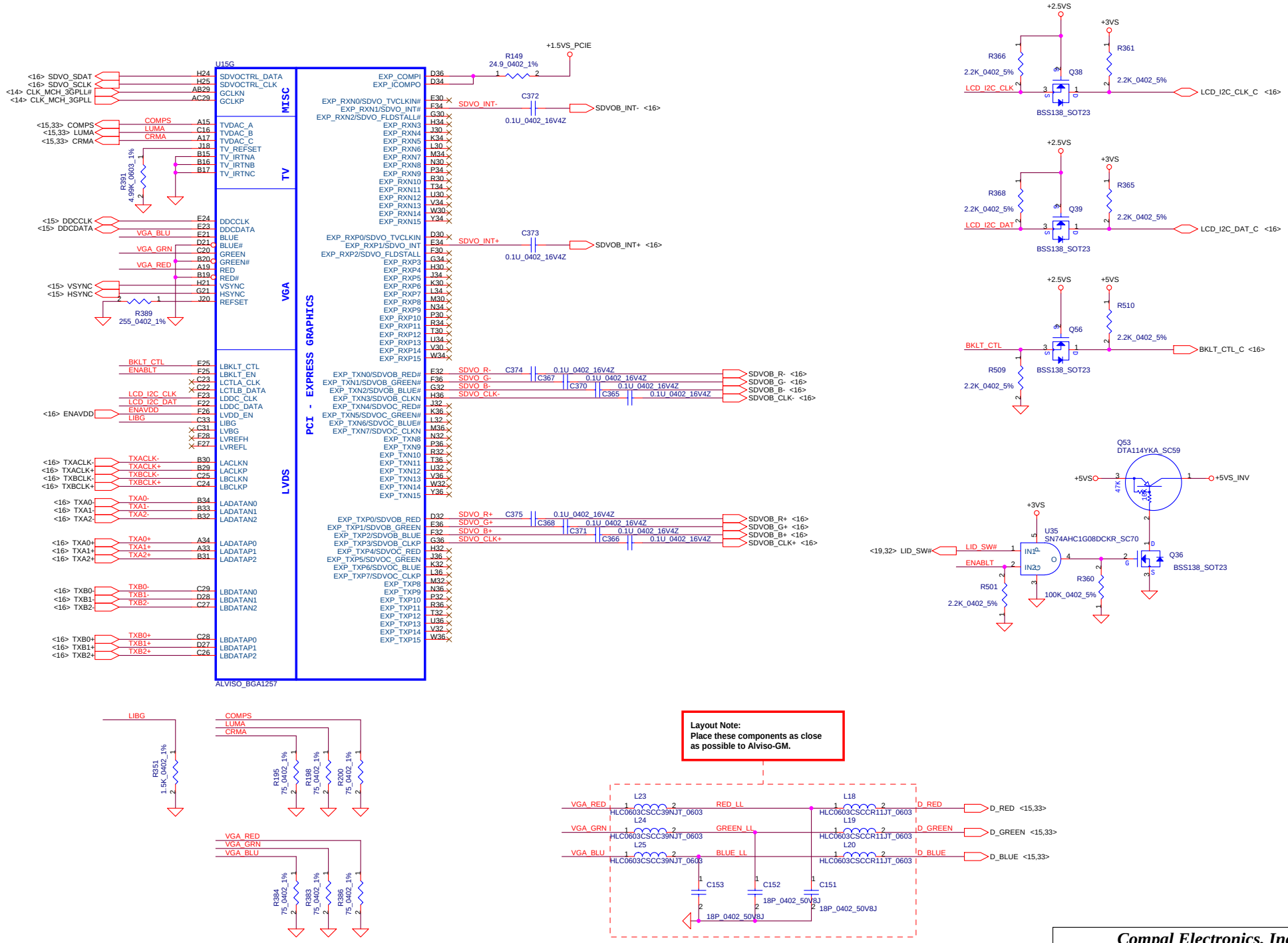


Compal Electronics, Inc.

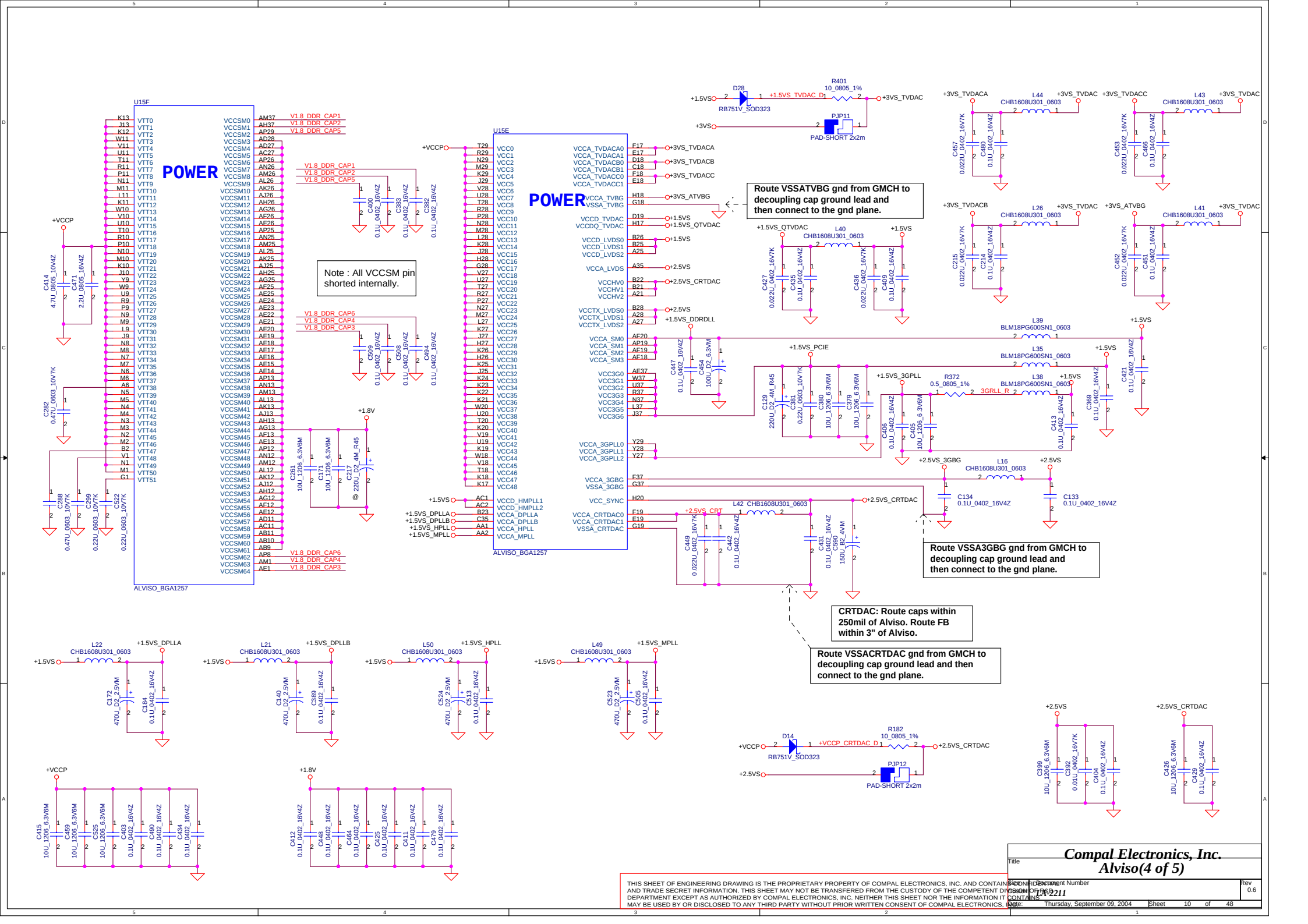
Title: Alviso(2 of 5)

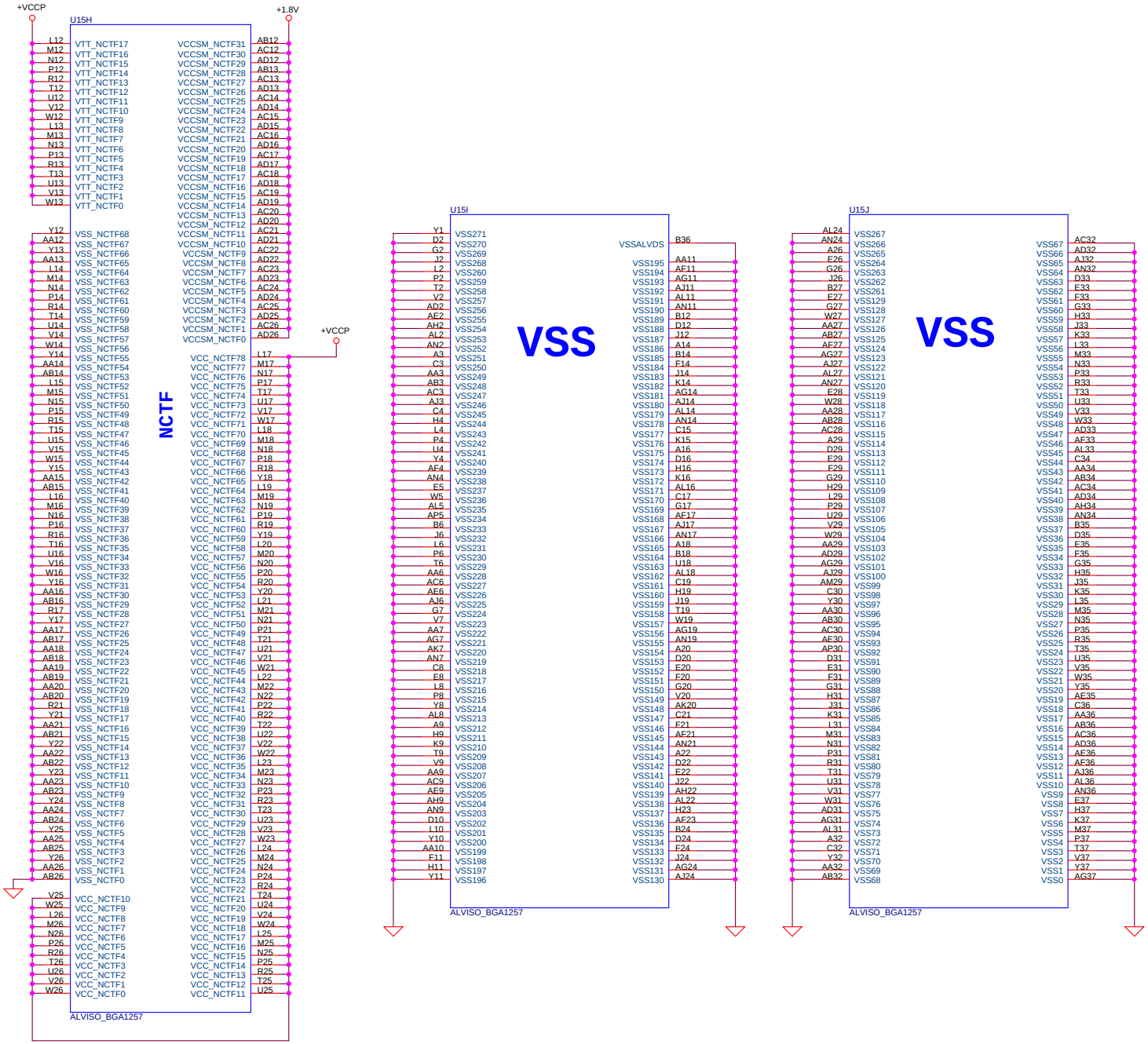
Size: C | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 8 of 48

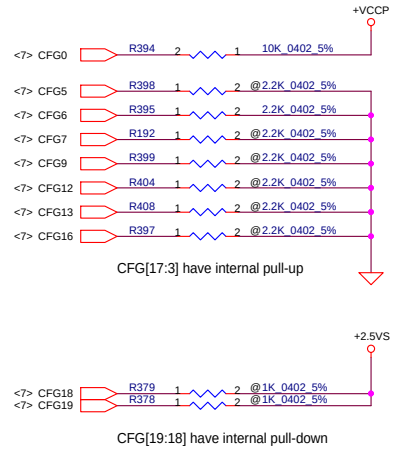


Compal Electronics, Inc.			
Title: Alviso(3 of 5)			
Size:	Document Number: LA-2211		Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 9	of 48	


U15F
POWER
ALVISO_BGA1257
U15E
POWER
ALVISO_BGA1257
Note : All VCCSM pin shorted internally.
Route VSSATVBG gnd from GMCH to decoupling cap ground lead and then connect to the gnd plane.
Route VSSA3GBG gnd from GMCH to decoupling cap ground lead and then connect to the gnd plane.
CRTDAC: Route caps within 250mil of Alviso. Route FB within 3" of Alviso.
Route VSSACRTDAC gnd from GMCH to decoupling cap ground lead and then connect to the gnd plane.
Compal Electronics, Inc.
Alviso(4 of 5)
LA-2211
Thursday, September 09, 2004



CFG[2:0]	**Refer to page14 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**

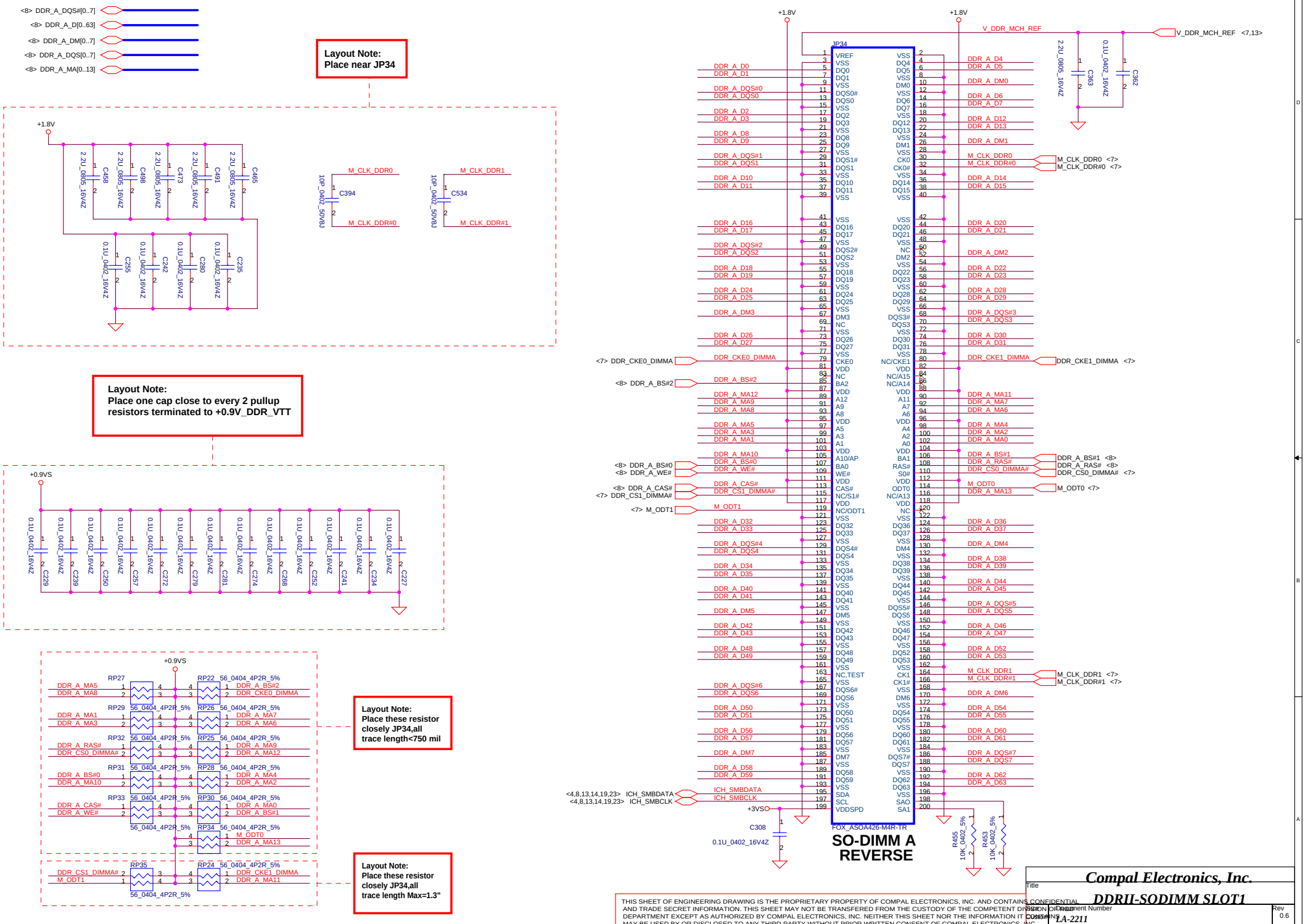


Compal Electronics, Inc.

Title: **Alviso(5 of 5)**

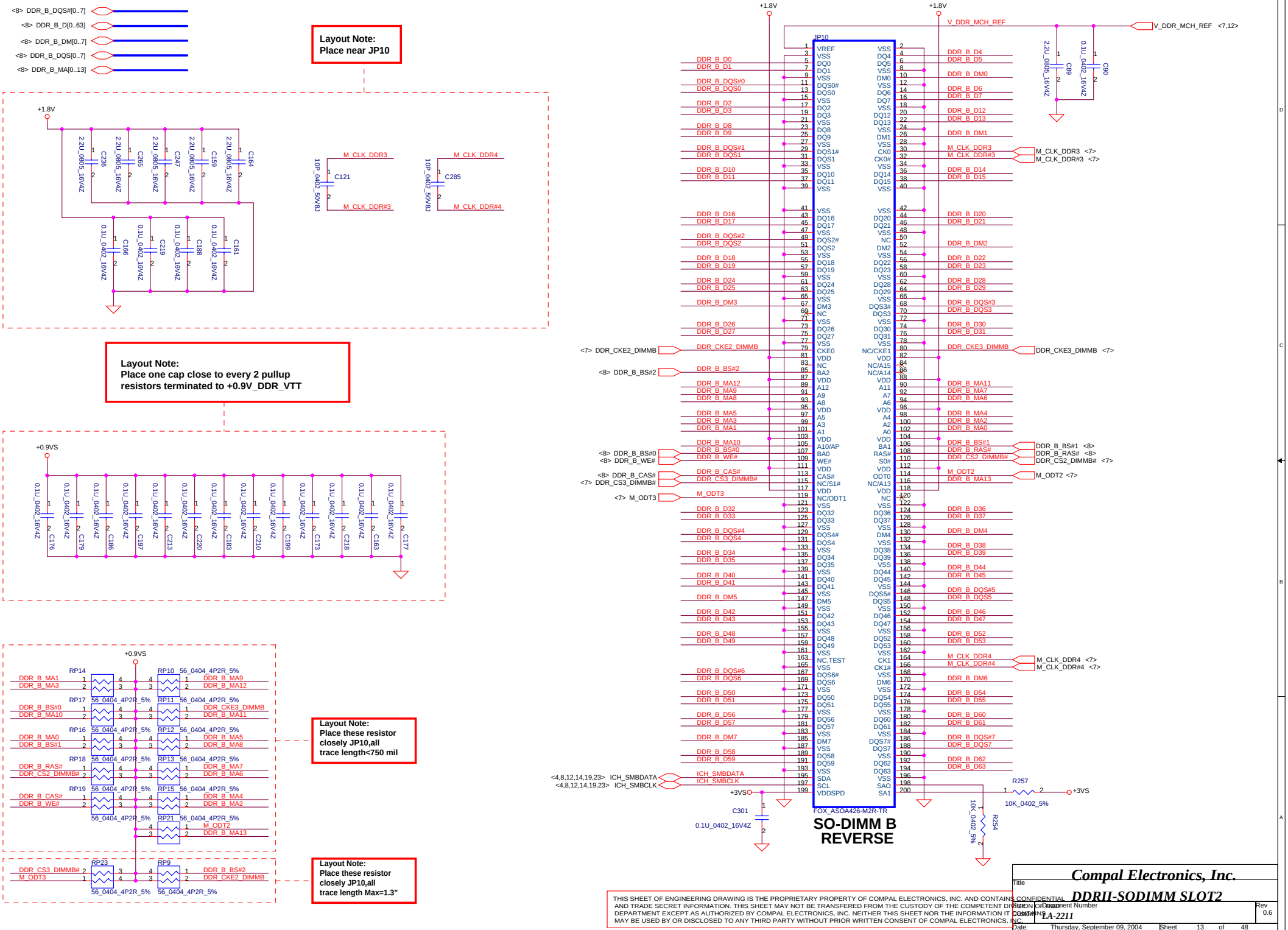
Size	Document Number	Rev
Custom	LA-2211	0.6

Date: Thursday, September 09, 2004 Sheet 11 of 48



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.

Compal Electronics, Inc.			
Title: DDRII-SODIMM SLOT1			
Size: C	Document Number: LA-2211		Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 12 of 48		


Layout Note:
Place near JP10
Layout Note:
Place one cap close to every 2 pullup
resistors terminated to +0.9V_DDR_VTT
Layout Note:
Place these resistor
closely JP10,all
trace length<750 mil
Layout Note:
Place these resistor
closely JP10,all
trace length Max=1.3"
SO-DIMM B
REVERSE
Compal Electronics, Inc.
DDRII-SODIMM SLOT2
LA-2211
Thursday, September 09, 2004
13 of 48
0.6

FSC CLKSEL0	FSB CLKSEL1	FSA CLKSEL2	CPU MHz	SRC MHz	PCI MHz
0	0	1	133	100	33.3
1	0	1	100	100	33.3

CPU Type	CLK-Ra	CLK-Rb	CLK-Rc	CLK-Rd	CLK-Re	CLK-Rf
Dothan-A PSB400	OPEN	1K Ohm	OPEN	OPEN	0 Ohm	OPEN
Dothan-A PSB533	OPEN	OPEN	0 Ohm	OPEN	0 Ohm	OPEN
Dothan-B	SHORT	1K Ohm	OPEN	0 Ohm	OPEN	1K Ohm

SS frequency selection

96*_100MSEL	96_100MSST/C
LOW	96 MHZ
HIGH	100 MHZ

Place crystal within 500 mils of CK410M

Width=40mils

Width=40mils

U25 IDTCV140PAG_TSSOP56

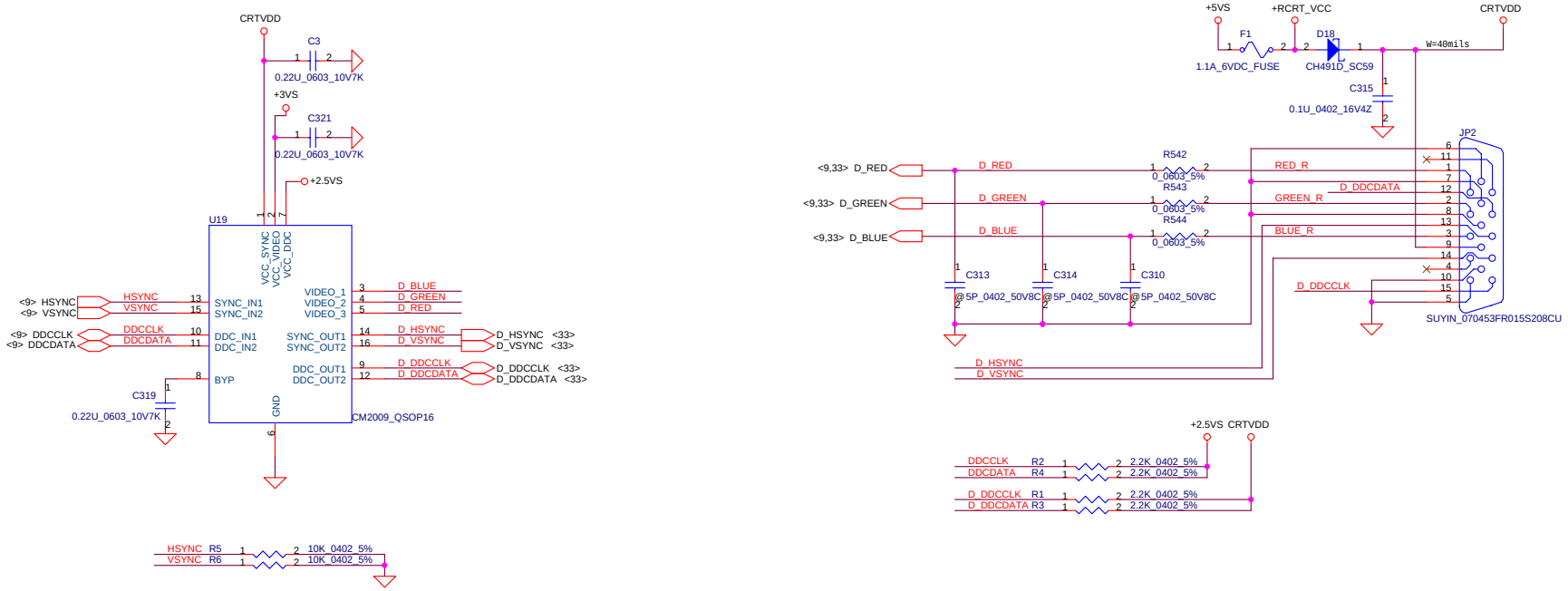
Compal Electronics, Inc.

Clock Generator

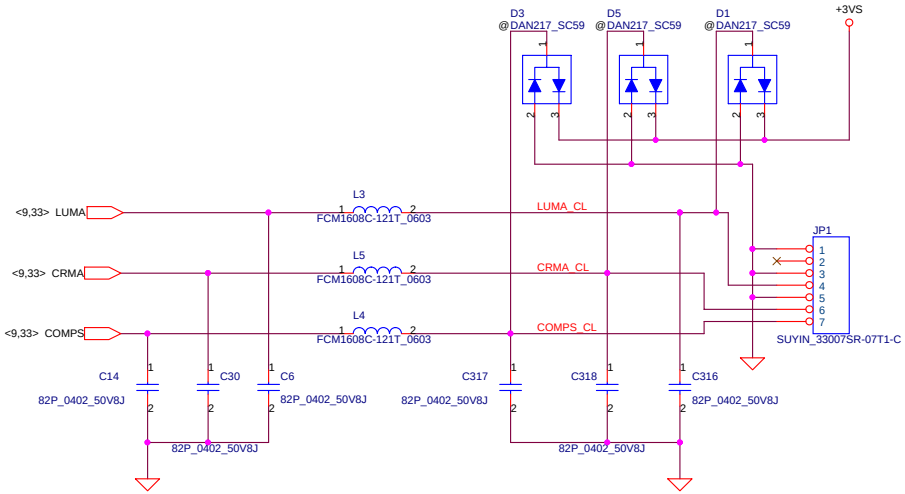
Size: Custom | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 14 of 48

CRT Connector

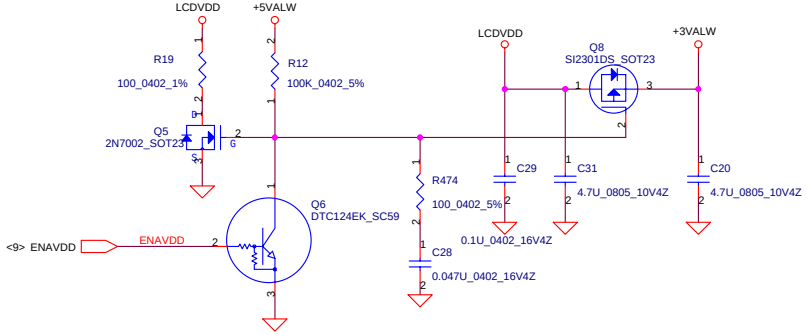


TV-Out Connector

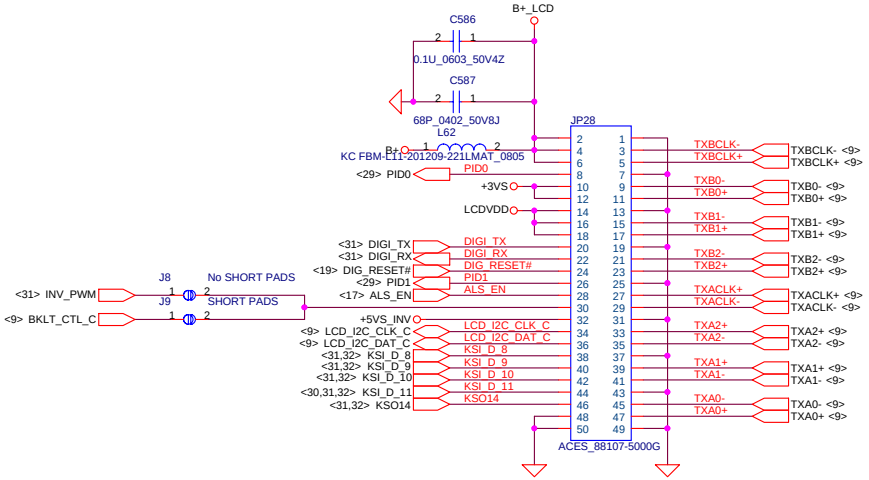


Compal Electronics, Inc.		
Title: CRT & TVout Connector		
Size: Custom	Document Number: LA-2211	Rev: 0.6
Date: Friday, September 10, 2004	Sheet 15 of 48	

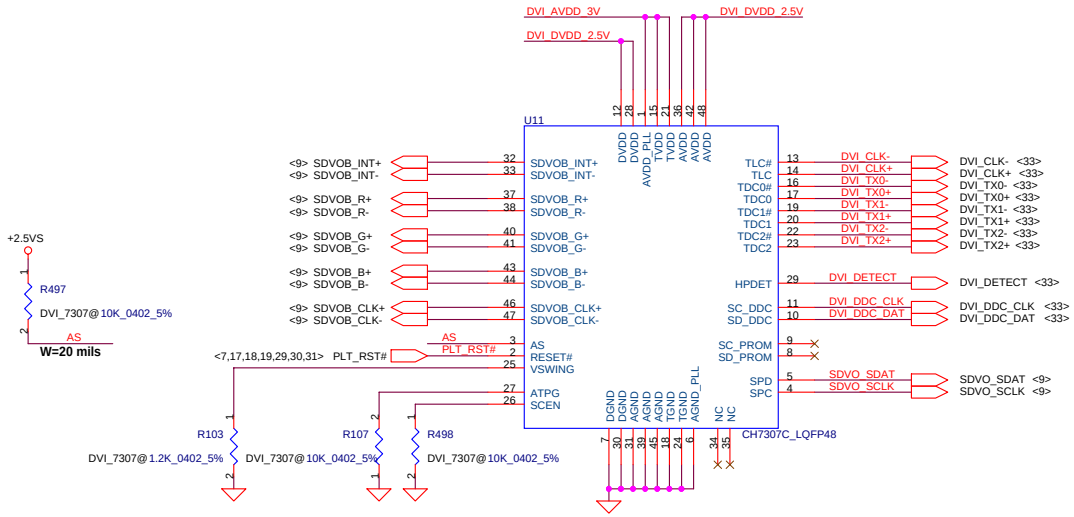
LCD POWER CIRCUIT

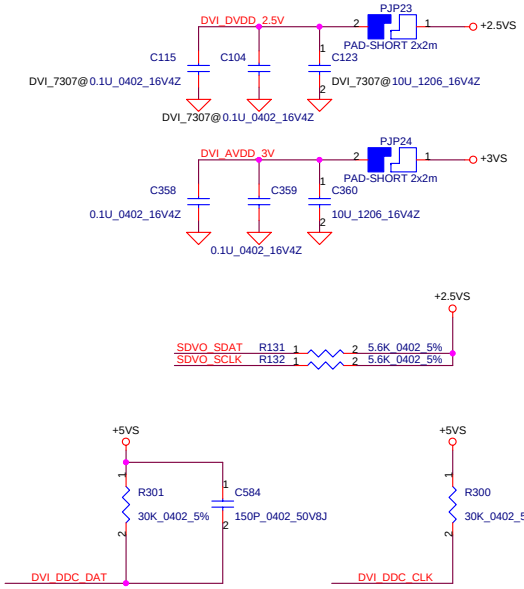


LCD/PANEL BD. CONN.



DVI CONTROLLER



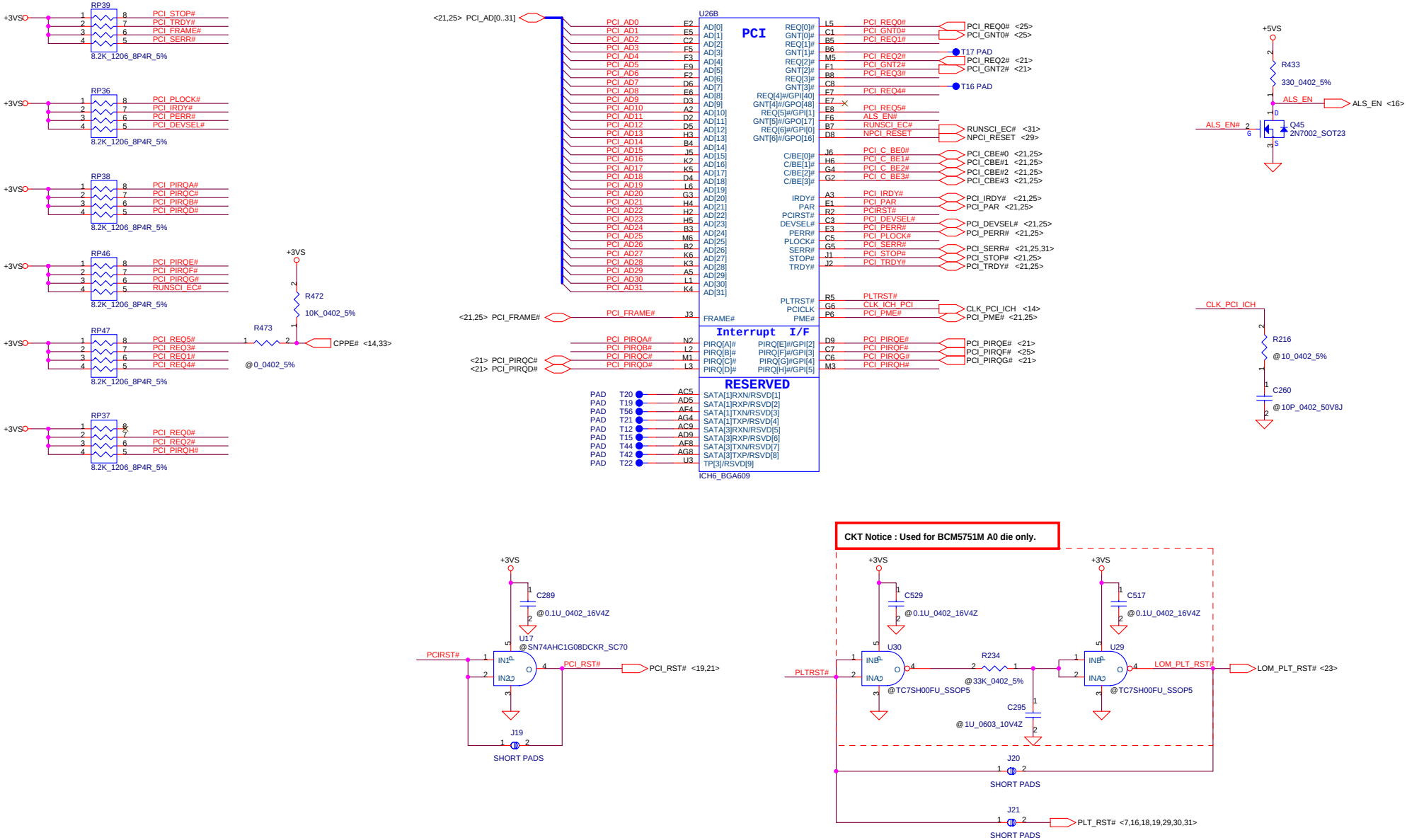


Compal Electronics, Inc.

Title: DVI (Sil1362)/LCD CONN.

Size: C | Document Number: LA-2211 | Rev: 0.6

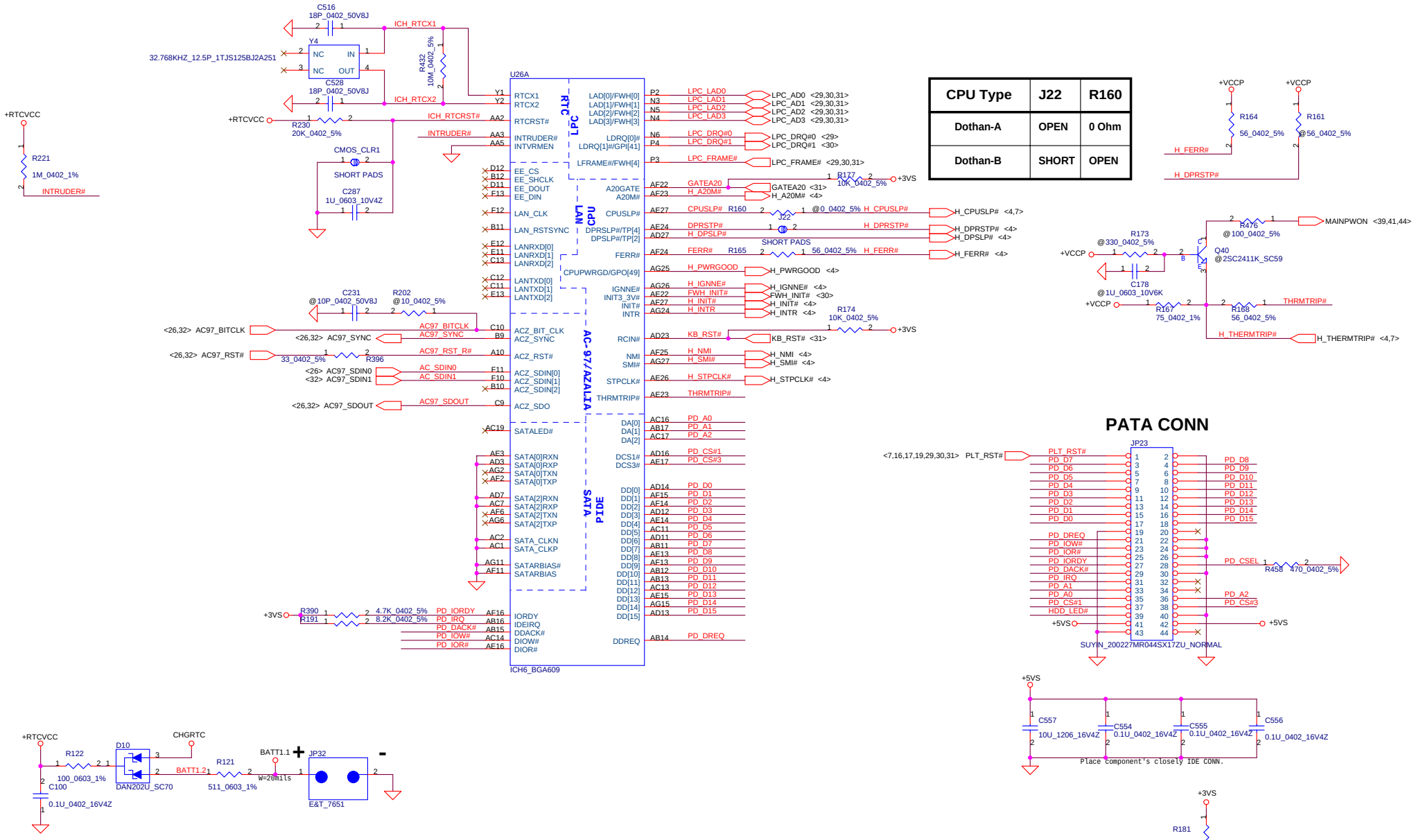
Date: Thursday, September 09, 2004 | Sheet 16 of 48



Compal Electronics, Inc.

ICH6(1/4)

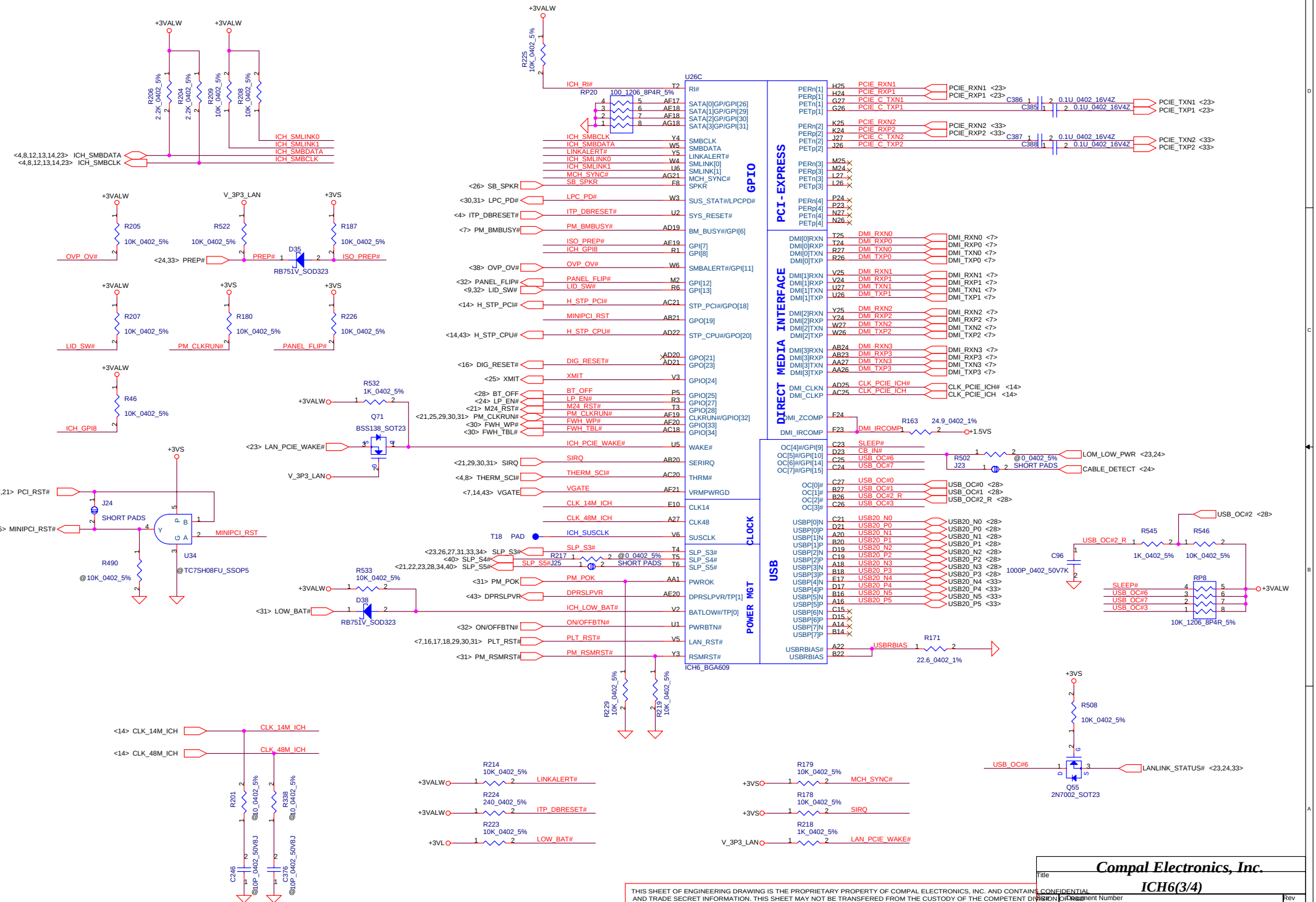
Title			
Size:	Document Number: LA-2211		Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 17	of 48	



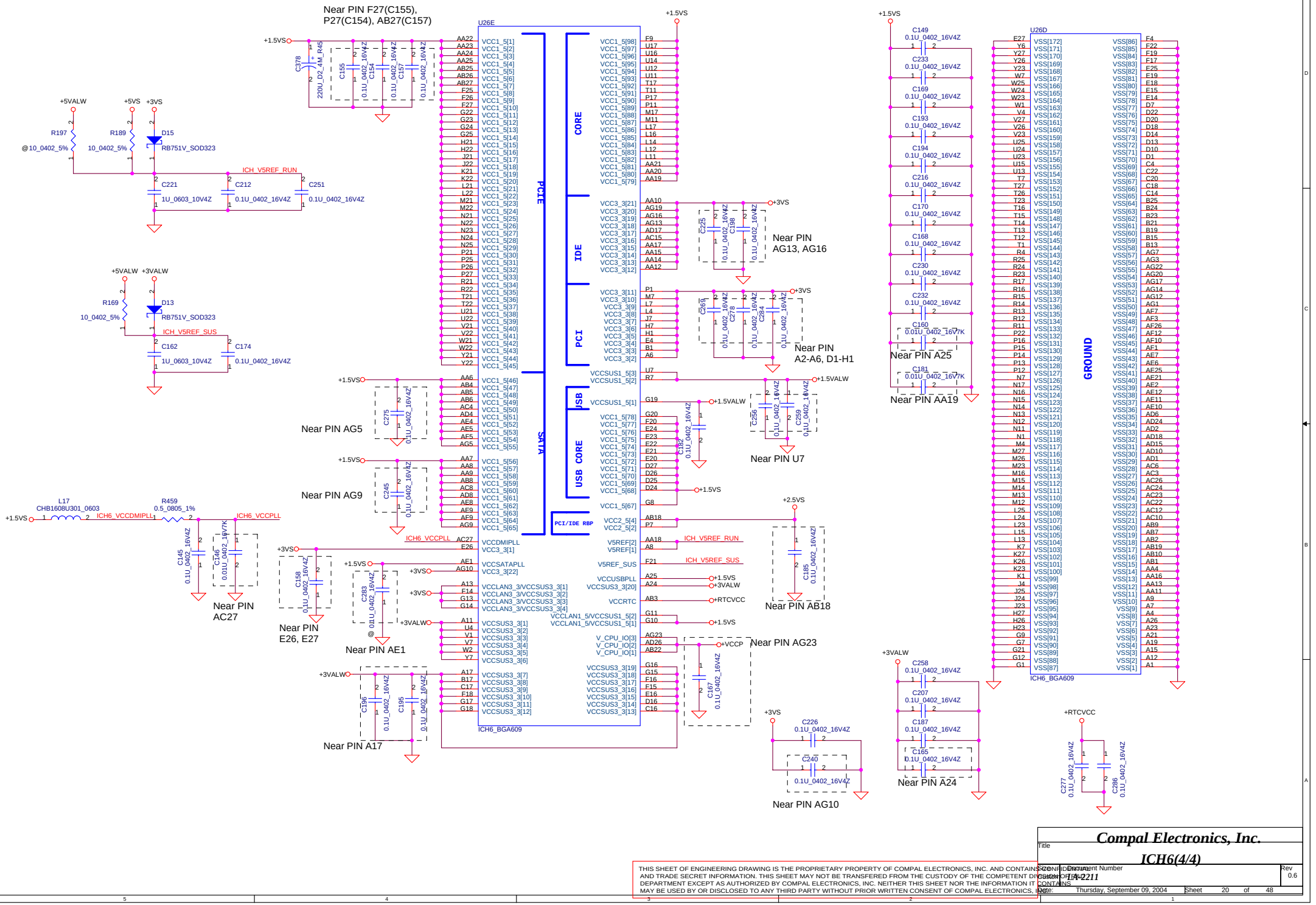
Compal Electronics, Inc.

ICH6(2/4)

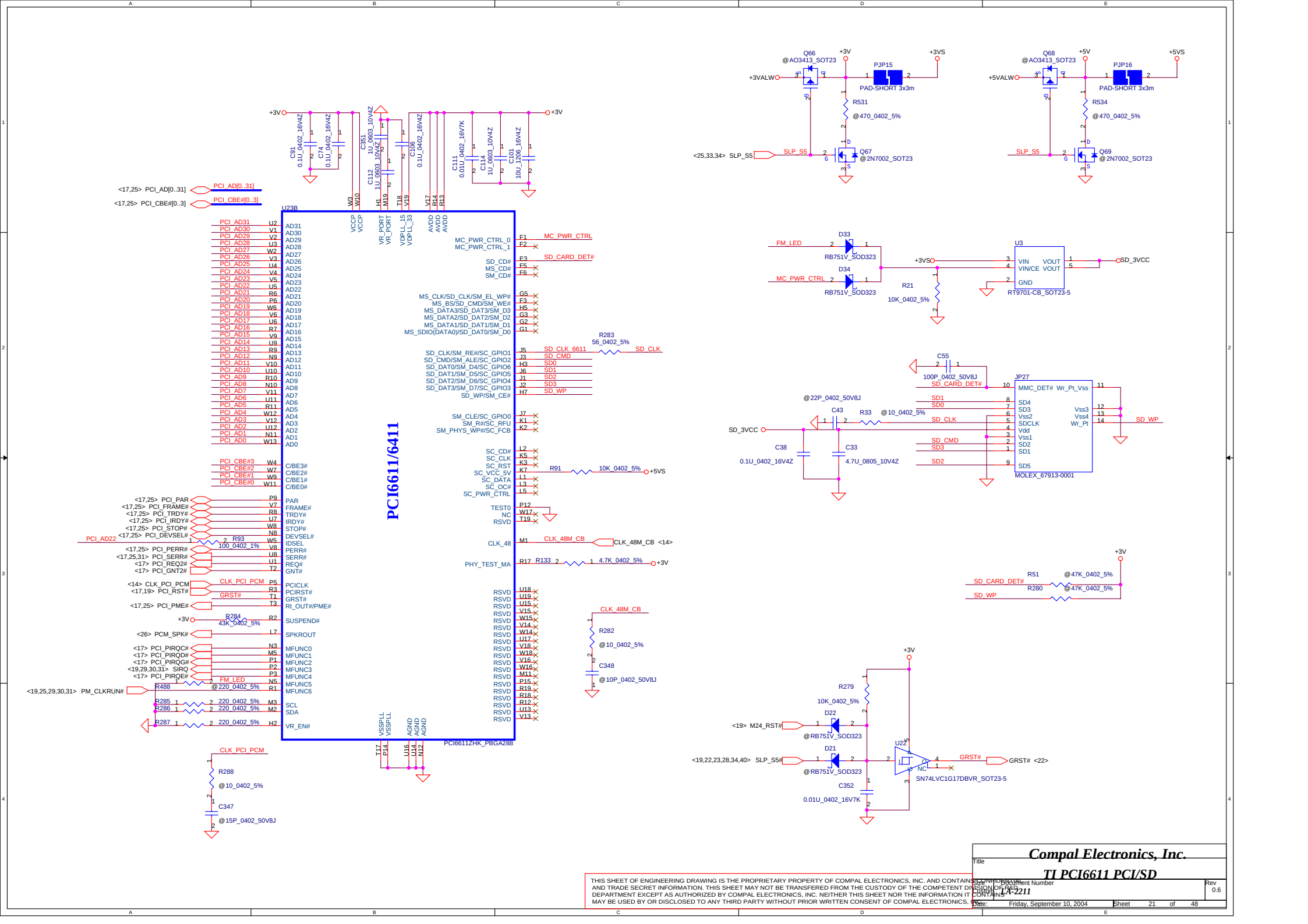
Size: B	Document Number: LA-2211		Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 18 of 48		

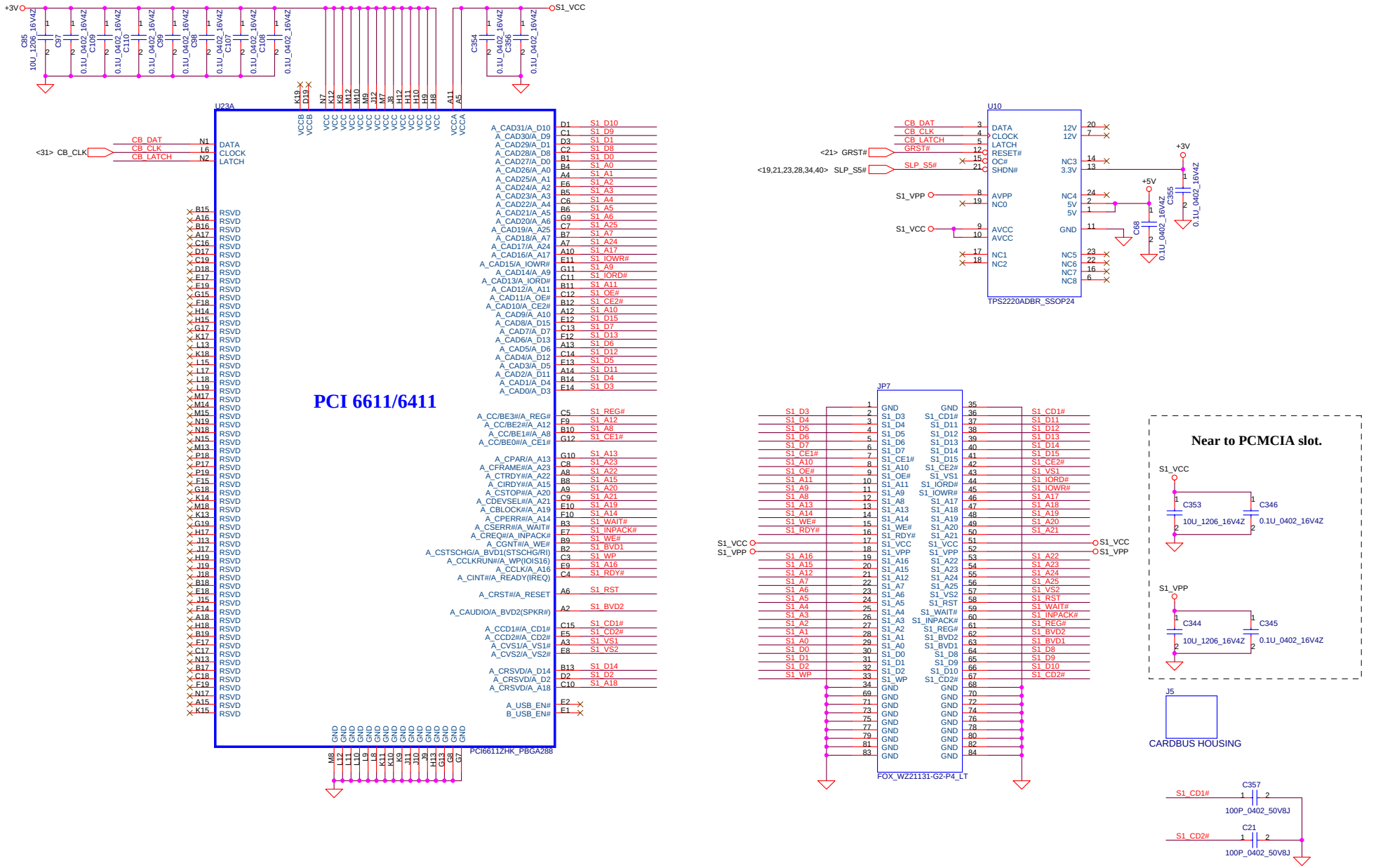


Compal Electronics, Inc.		
Title: ICH6(3/4)		
Size: B	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 19 of 48	



Compal Electronics, Inc.			
ICH6(4/4)			
Size: C	Document Number: LA-2211	Rev: 0.6	
Date: Thursday, September 09, 2004	Sheet 20 of 48		


PCI6611/6411
U23B
PCI6611ZHK_PBGA288
Q66 @AO3413_SOT23
Q68 @AO3413_SOT23
PJP15
PJP16
PAD-SHORT 3x3m
Q67 @2N7002_SOT23
Q69 @2N7002_SOT23
R531 @470_0402_5%
R534 @470_0402_5%
D33 RB751V_SOD323
D34 RB751V_SOD323
U3 RT9701-CB_SOT23-5
JP27 MOLEX_67913-0001
D22 @RB751V_SOD323
D21 @RB751V_SOD323
U22 SN74LVC1G17DBVR_SOT23-5
Compal Electronics, Inc.
TI PCI6611 PCI/SD
LA-2211
Friday, September 10, 2004



Compal Electronics, Inc.	
Title: TI PCI6611 CB socket	
Size: C	Document Number: LA-2211
Rev: 0.6	
Date: Thursday, September 09, 2004	Sheet 22 of 48

Layout Notice : Place as close chip as possible.

Layout Notice : 3.3V filter. Place as close chip as possible.

Layout Notice : 1.2V filter. Place as close chip as possible.

Layout Notice : Filter place as close chip as possible.

Layout Notice : Filter place as close chip as possible.

Layout Notice : No high speed signal should be routed near RDAC or on adjacent layer to RDAC

CKT Notice : Reserved for A1 die.

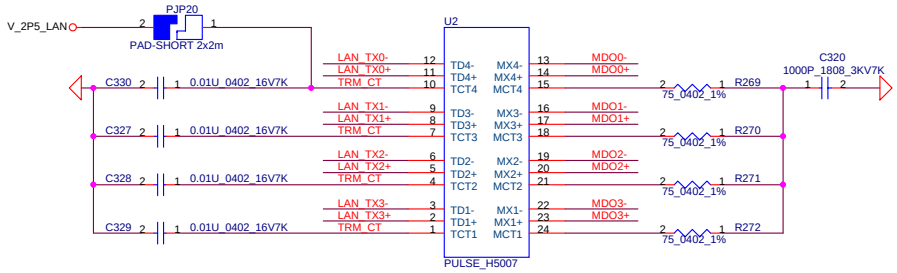
Compal Electronics, Inc.

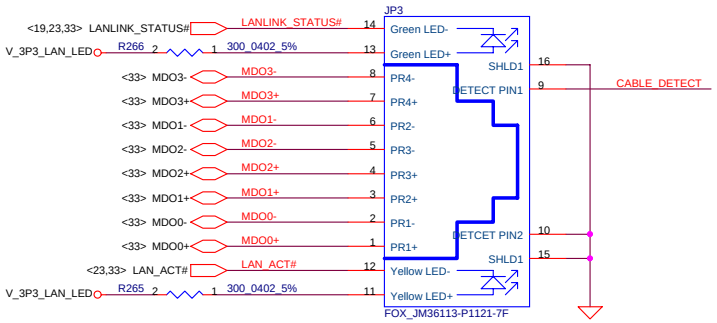
Title: BCM5751M

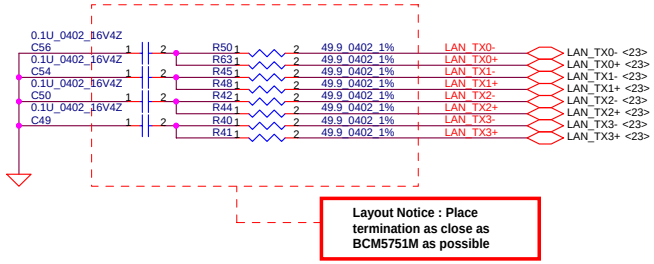
Size: Document Number: LA-2211 Rev: 0.6

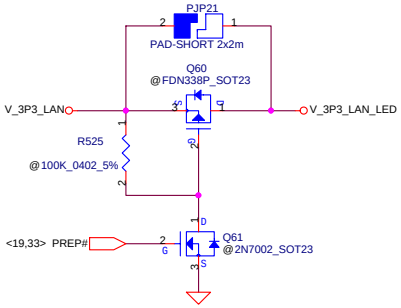
Date: Thursday, September 09, 2004 Sheet 23 of 48

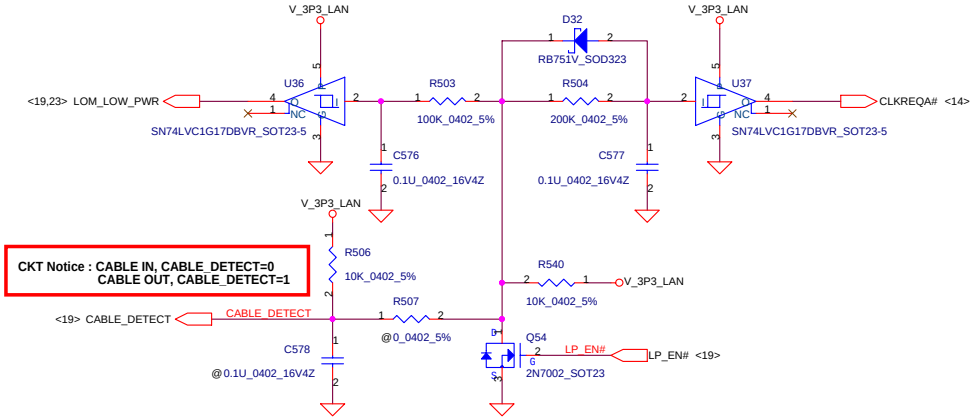
RJ-45 CONN.



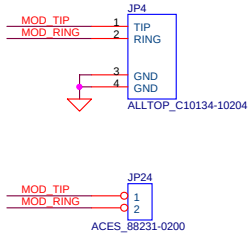








RJ-11 CONN.

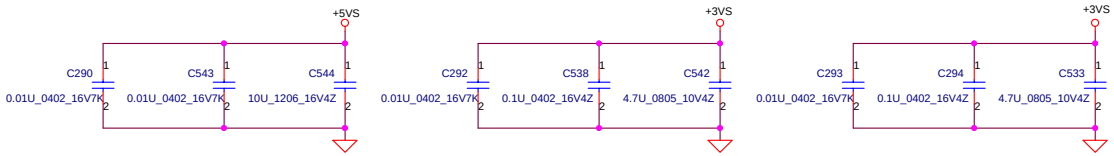


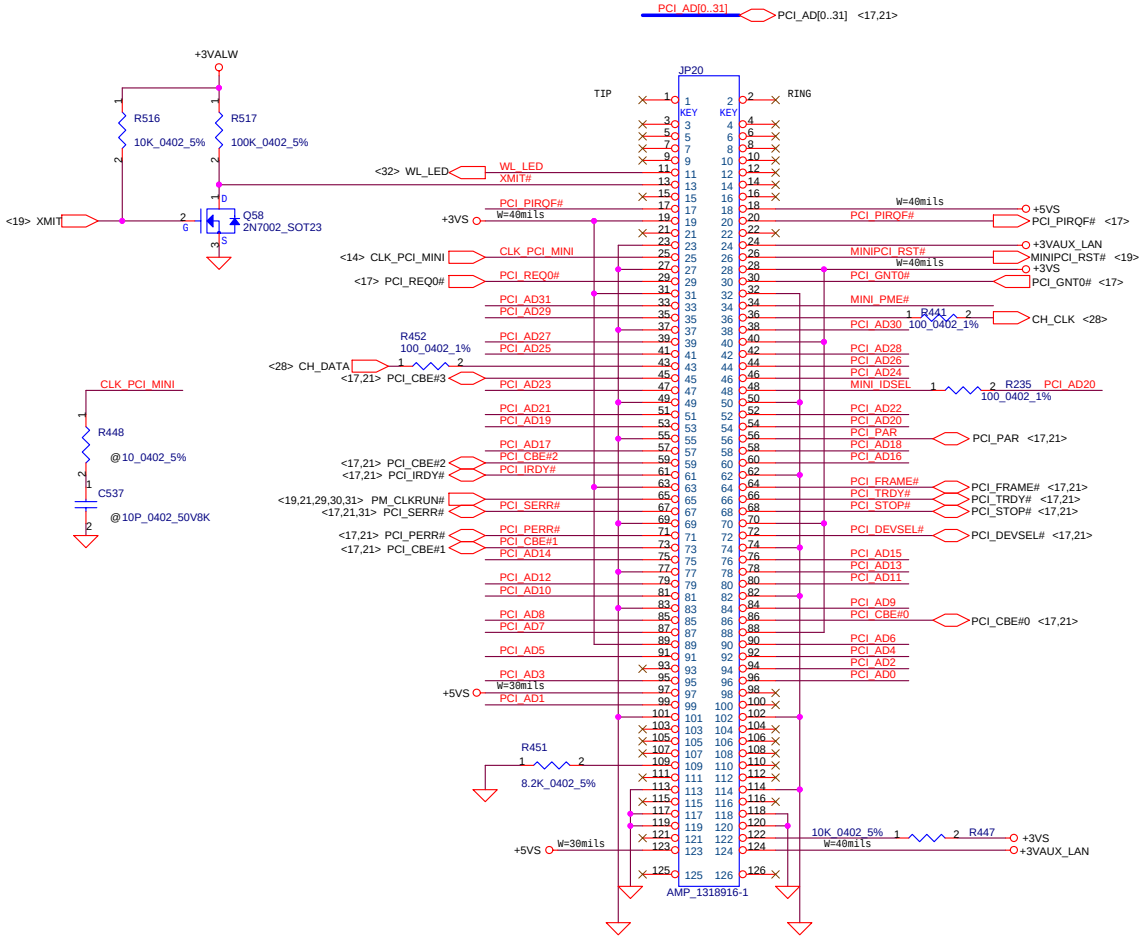
Compal Electronics, Inc.

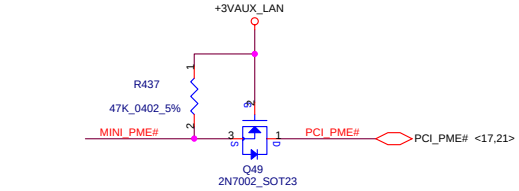
Title: Magnetic & RJ45/RJ11

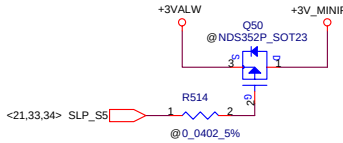
Size: Document Number: LA-2211 Rev: 0.6

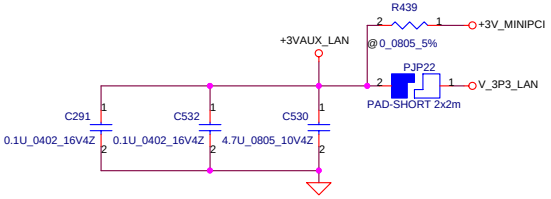
Date: Thursday, September 09, 2004 Sheet 24 of 48







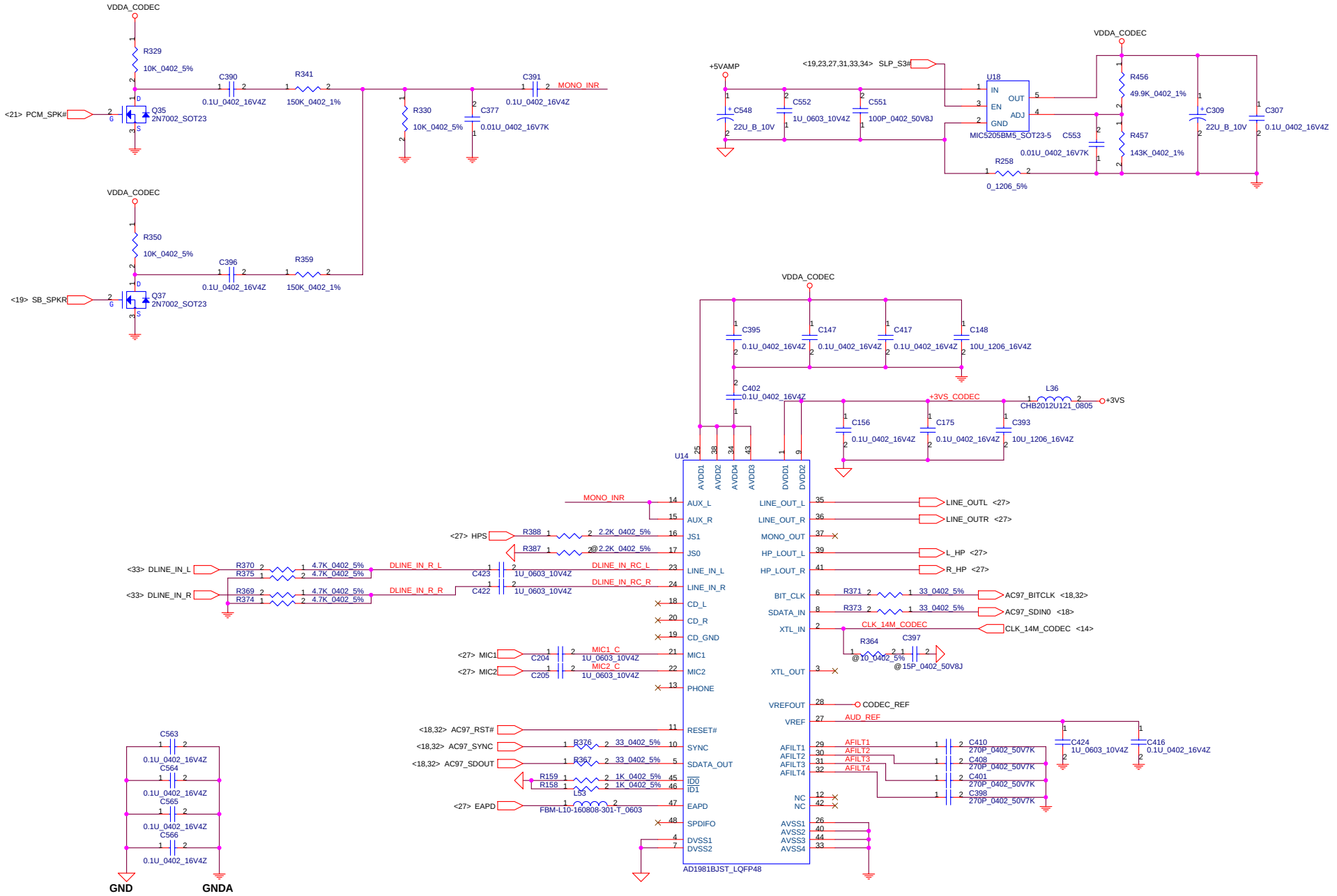




Compal Electronics, Inc.

Title: **Mini PCI Slot**

Size	Document Number	Rev
Custom	LA-2211	0.6
Date: Thursday, September 09, 2004	Sheet 25 of 48	



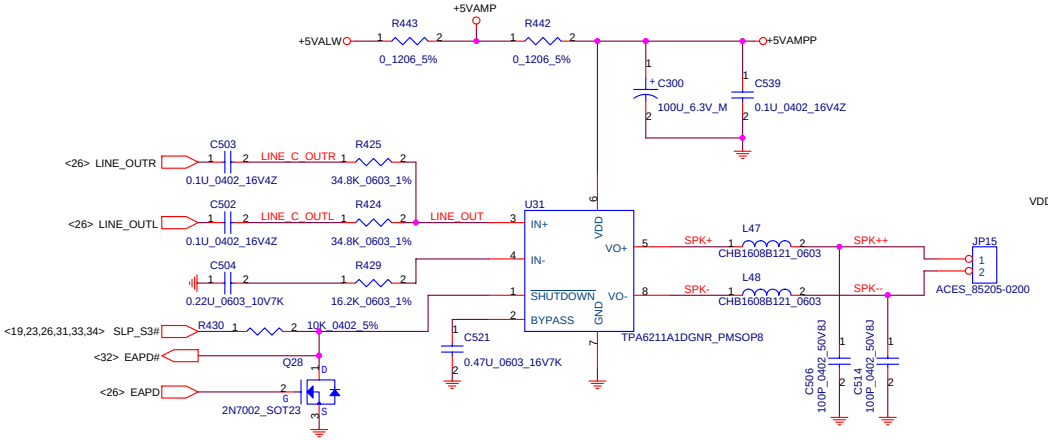
Compal Electronics, Inc.

Title: AC97 CODEC AD1981B

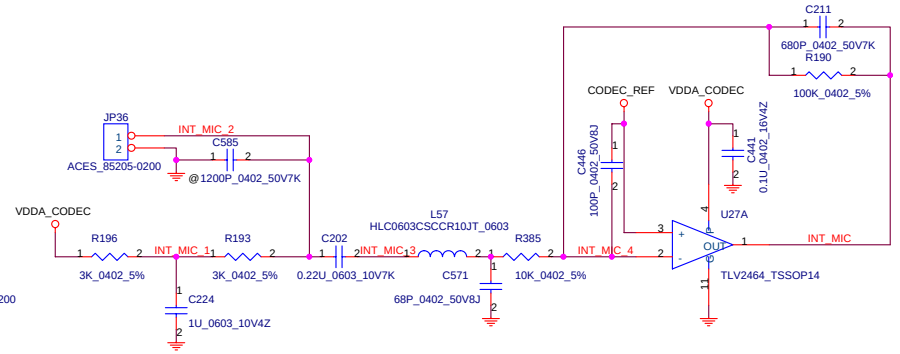
Size: A3 | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 26 of 48

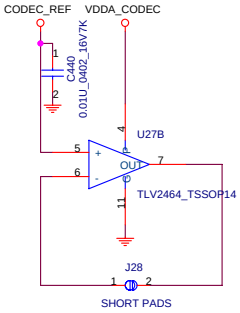
AMP. FOR INTERNAL SPEAKER



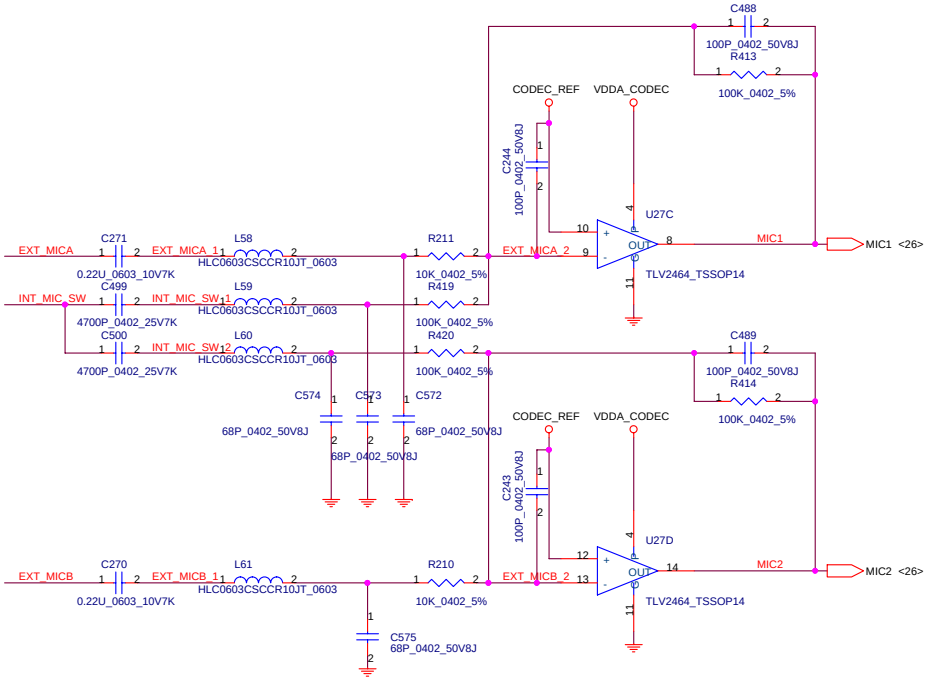
AMP. FOR INTERNAL MICROPHONE



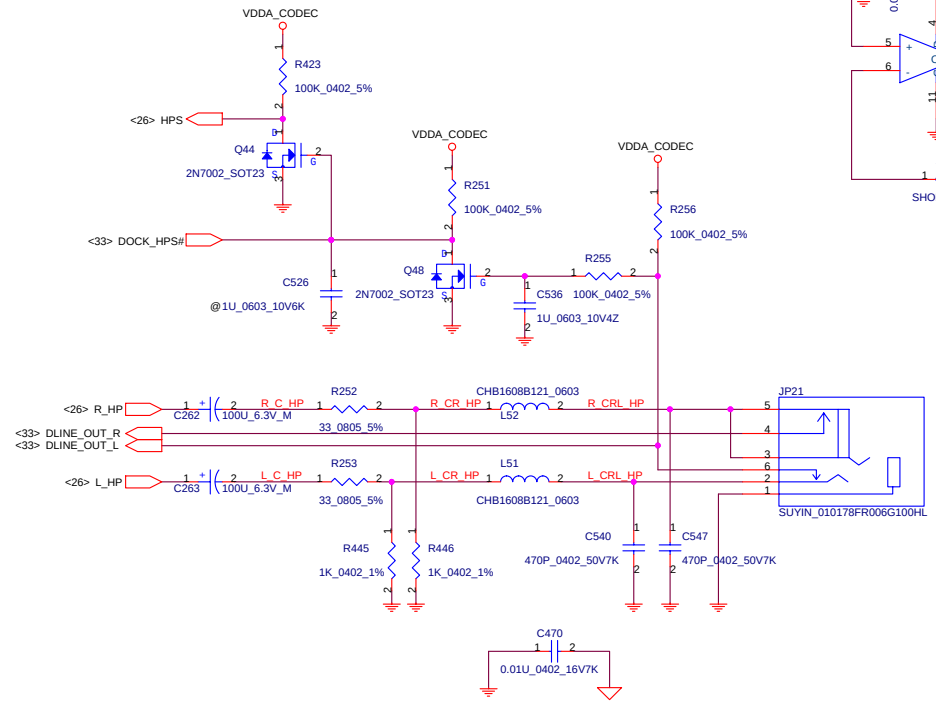
UNUSED



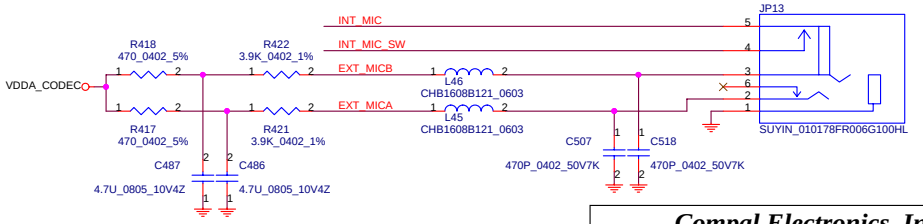
AMP. FOR EXTERNAL MICROPHONE



LINE OUT/HEADPHONES AUDIO JACK



EXT. MICIN AUDIO JACK



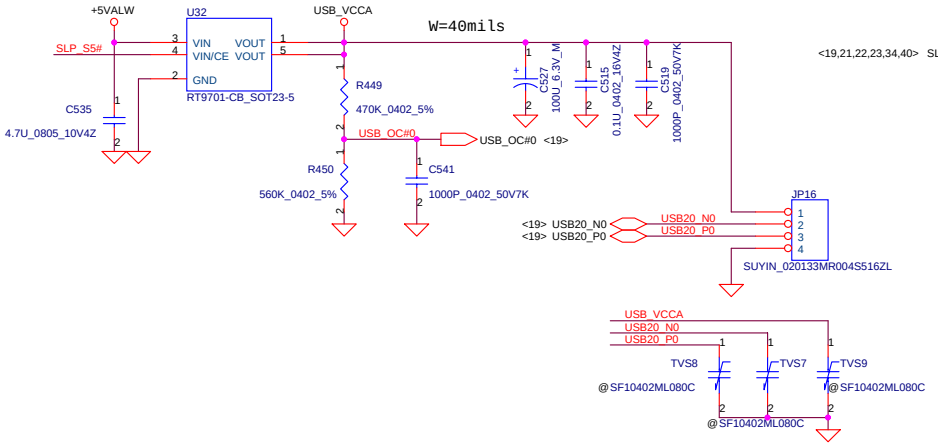
Compal Electronics, Inc.

Title: AMP & Audio Jack

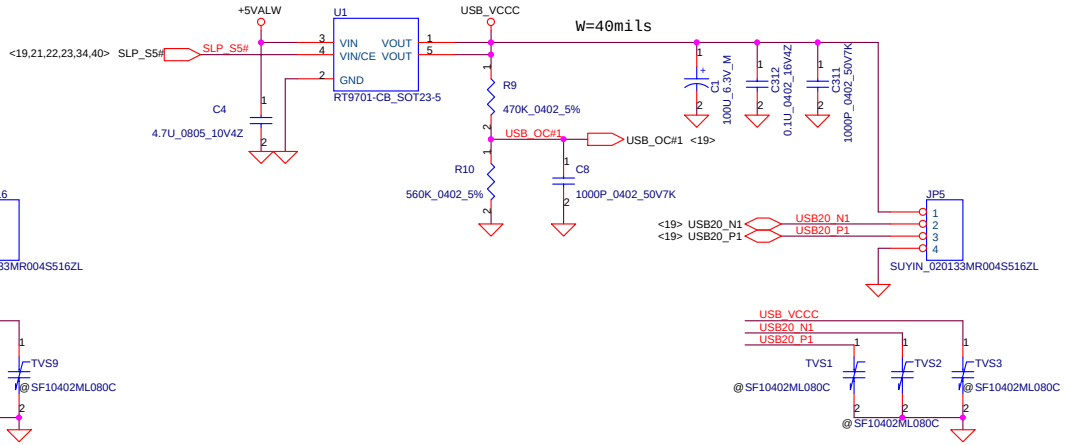
Size: C | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 27 of 48

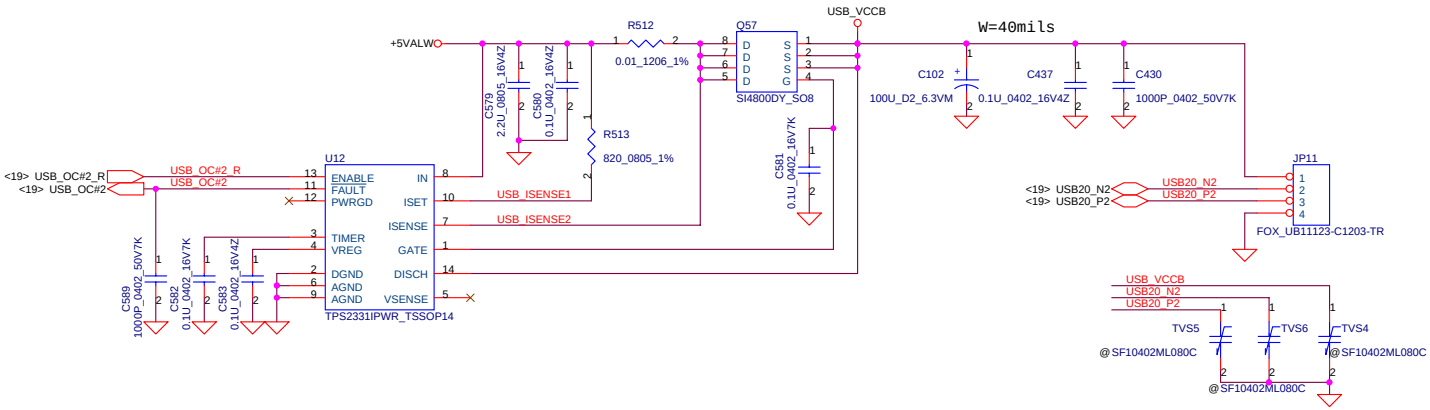
USB CONNECTOR 1



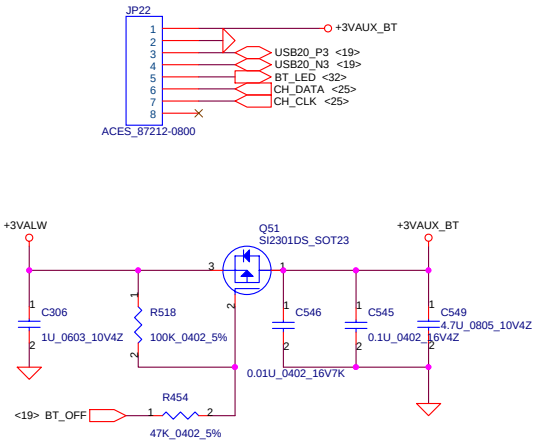
USB CONNECTOR 2



USB CONNECTOR 3



BT Connector

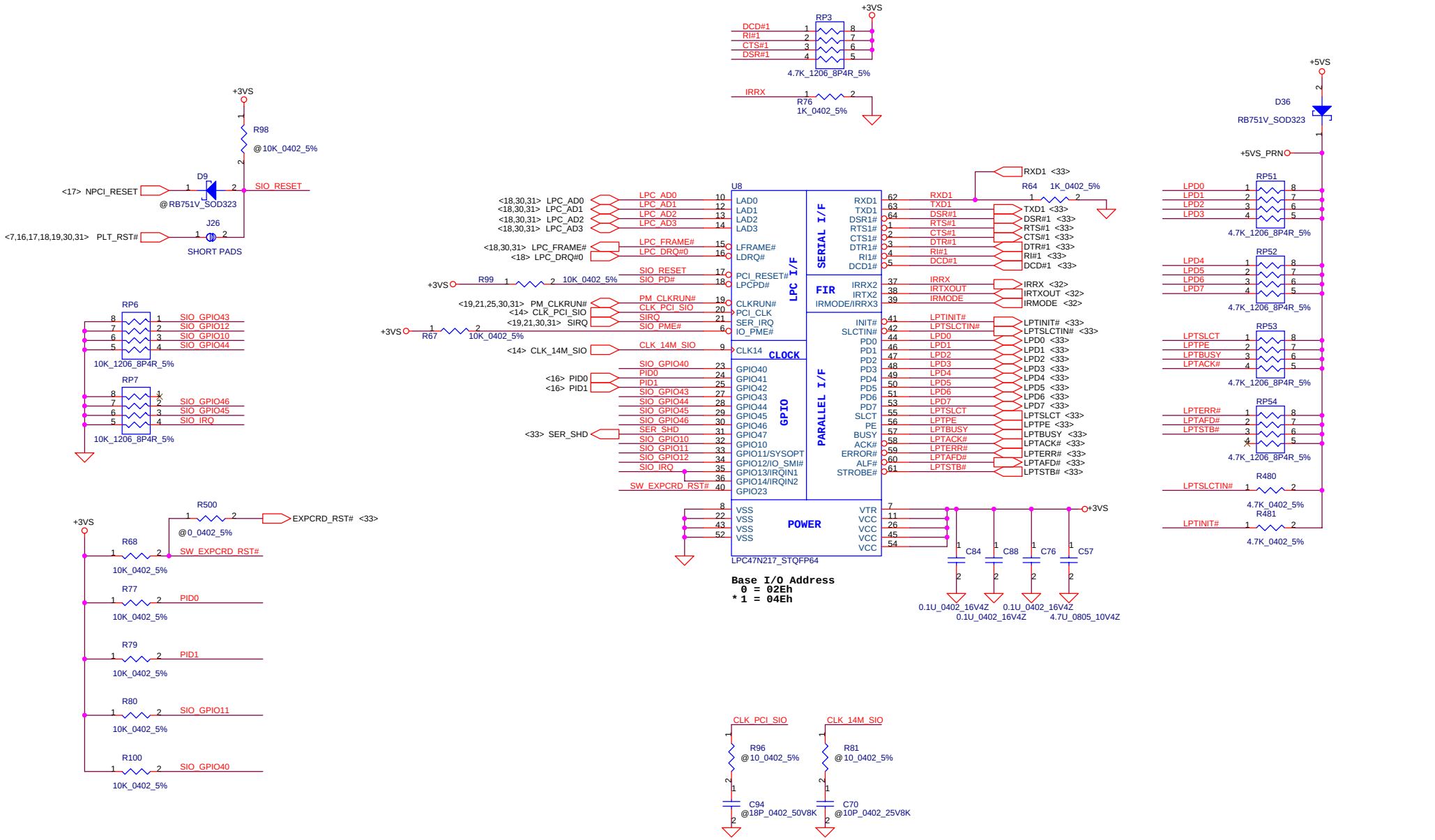


Compal Electronics, Inc.

Title: USB & BT Connector

Size: Custom | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 28 of 48



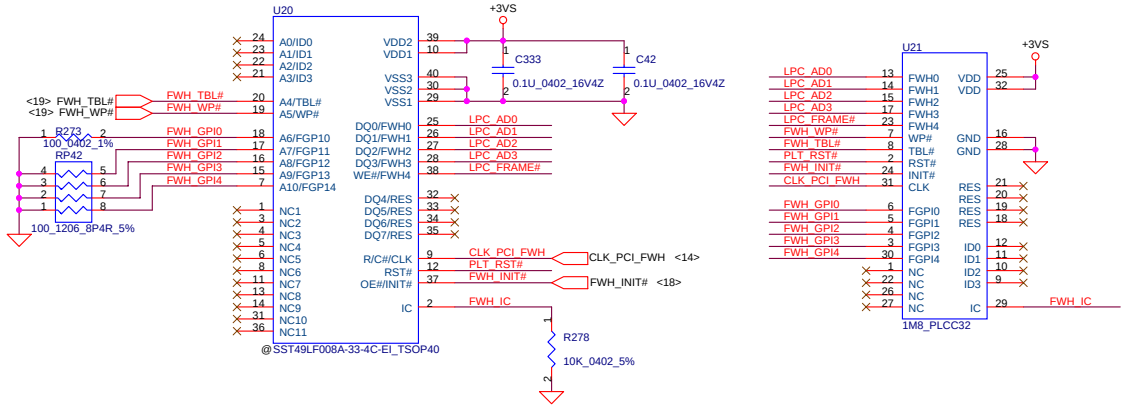
Compal Electronics, Inc.

Title: SUPER I/O LPC47N217

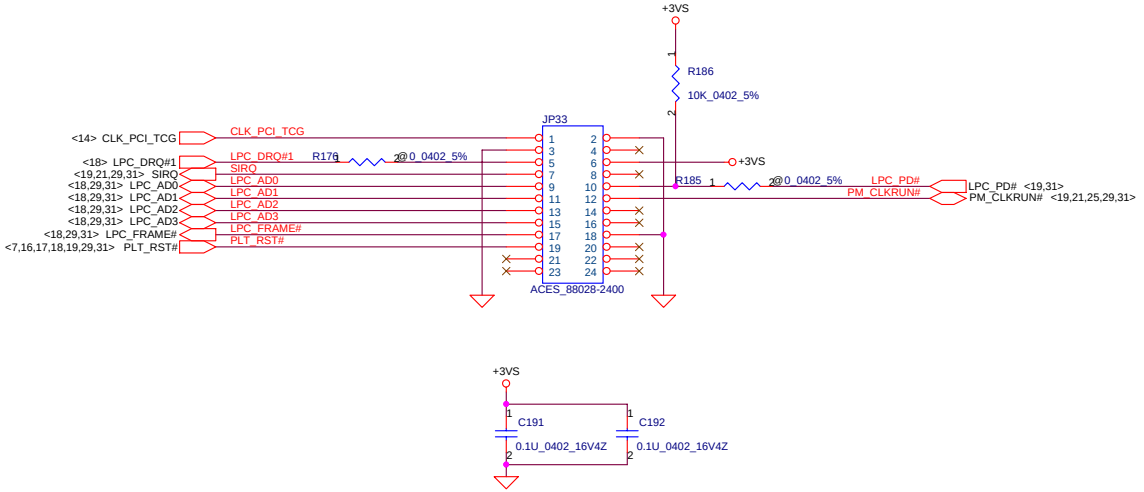
Size: A3 | Document Number: LA-2211 | Rev: 0.6

Date: Thursday, September 09, 2004 | Sheet 29 of 48

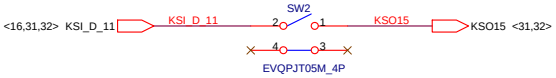
BIOS ROM



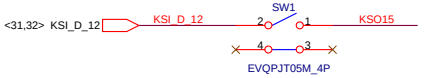
TPM Module



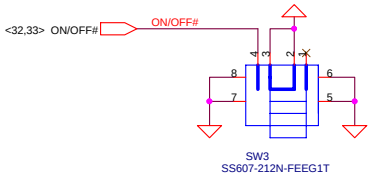
Wireless/BT ON & OFF Button

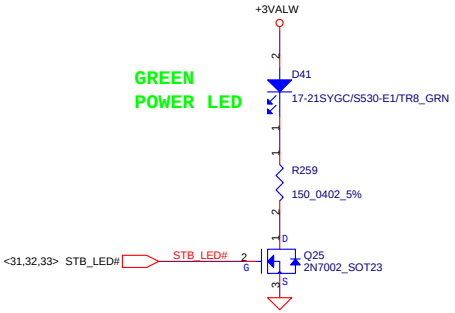


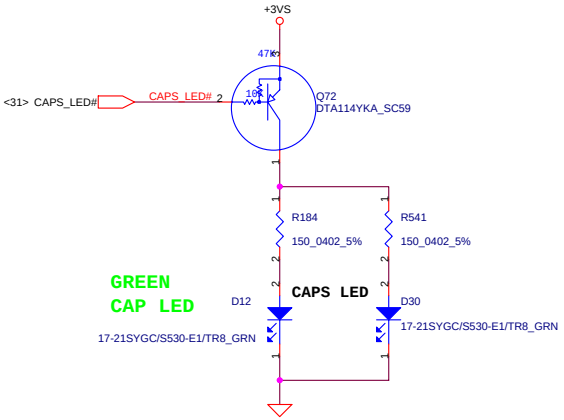
QuickLook Button



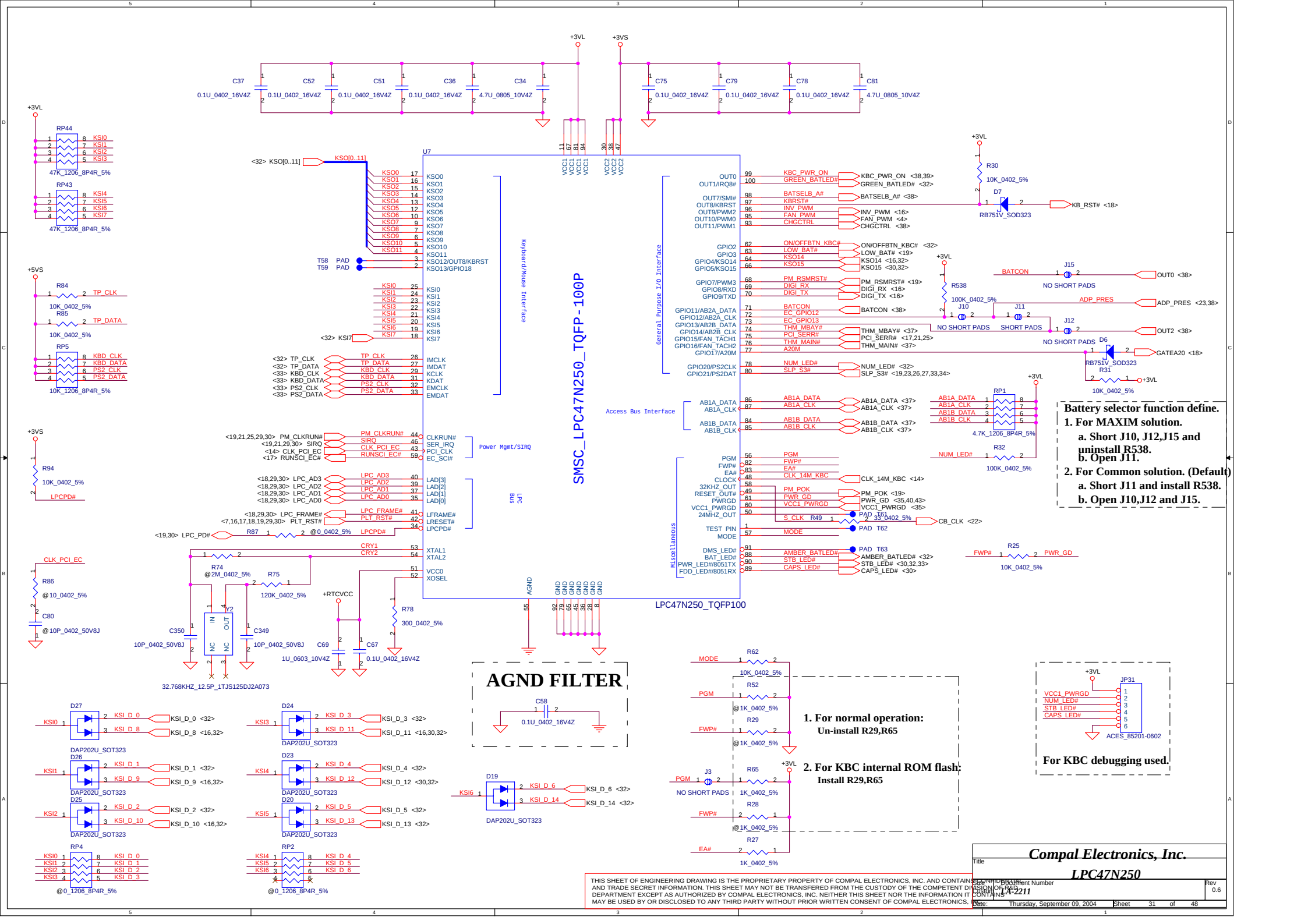
ON/OFF & SLEEP Button



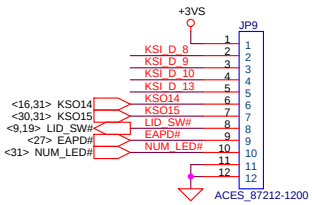




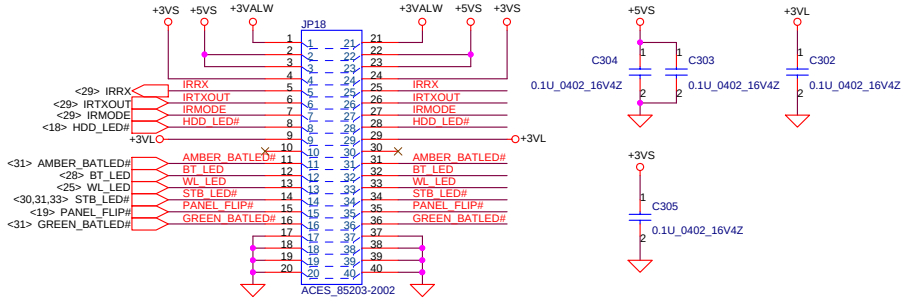
Compal Electronics, Inc.		
Title: TCG/BIOS ROM/PS2/LED/SW		
Size: Custom	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 30 of 48	


U7
SMSC_LPC47N250_TQFP-100P
LPC47N250_TQFP100
Keyboard/Mouse Interface
General Purpose I/O Interface
Access Bus Interface
LPC Bus
Power Mgmt/SIRQ
Miscellaneous
AGND FILTER
C58
0.1U_0402_16V4Z
Battery selector function define.
1. For MAXIM solution.
a. Short J10, J12,J15 and uninstall R538.
b. Open J11.
2. For Common solution. (Default)
a. Short J11 and install R538.
b. Open J10,J12 and J15.
1. For normal operation:
Un-install R29,R65
2. For KBC internal ROM flash:
Install R29,R65
For KBC debugging used.
Compal Electronics, Inc.
LPC47N250
LA-2211
Thursday, September 09, 2004
Sheet 31 of 48

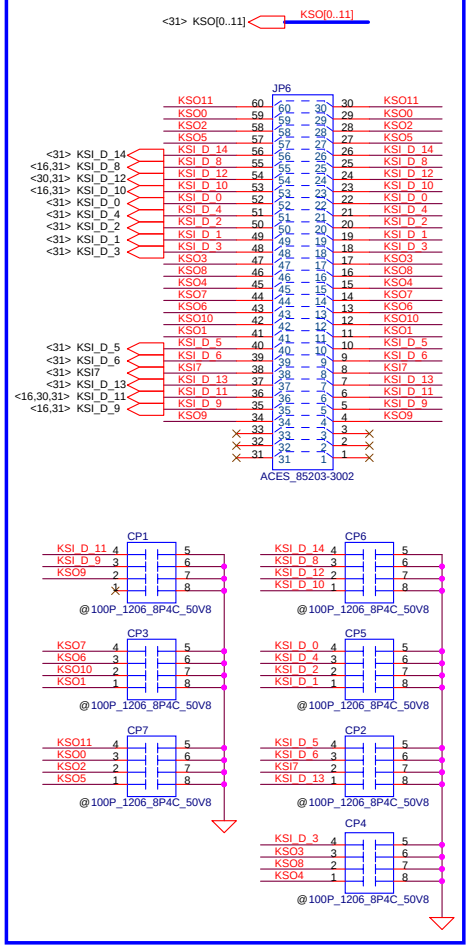
FUN BD.



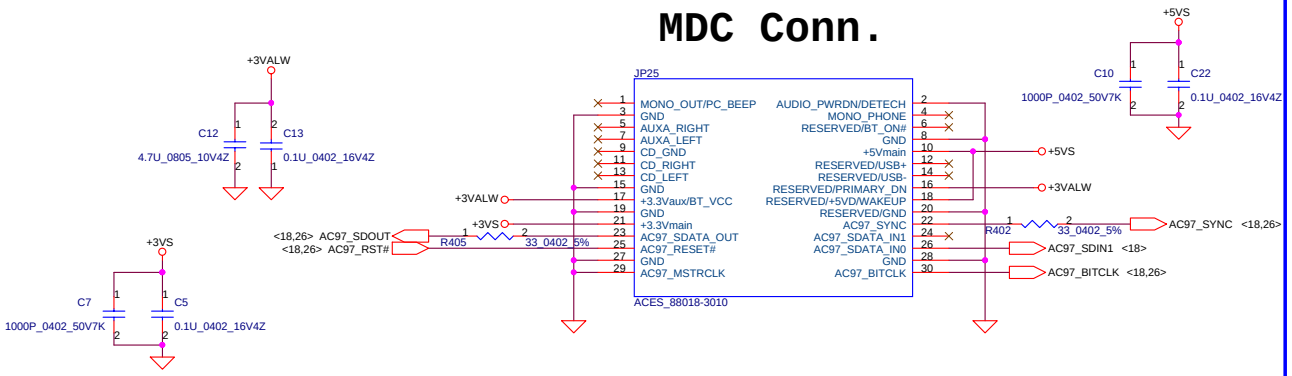
FIR & LED BD.



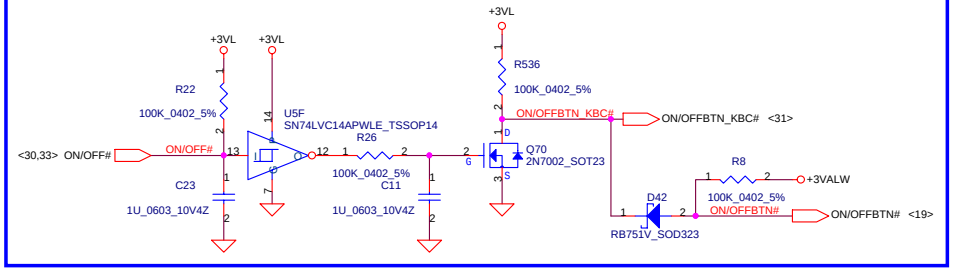
INT_KBD CONN.



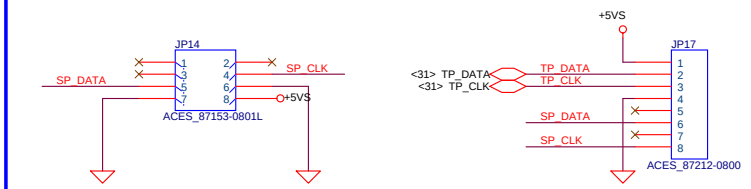
MDC Conn.



Power button



TrackPoint CONN. TP BD.



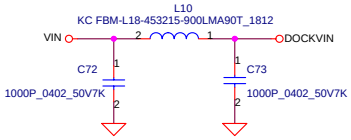
Compal Electronics, Inc.

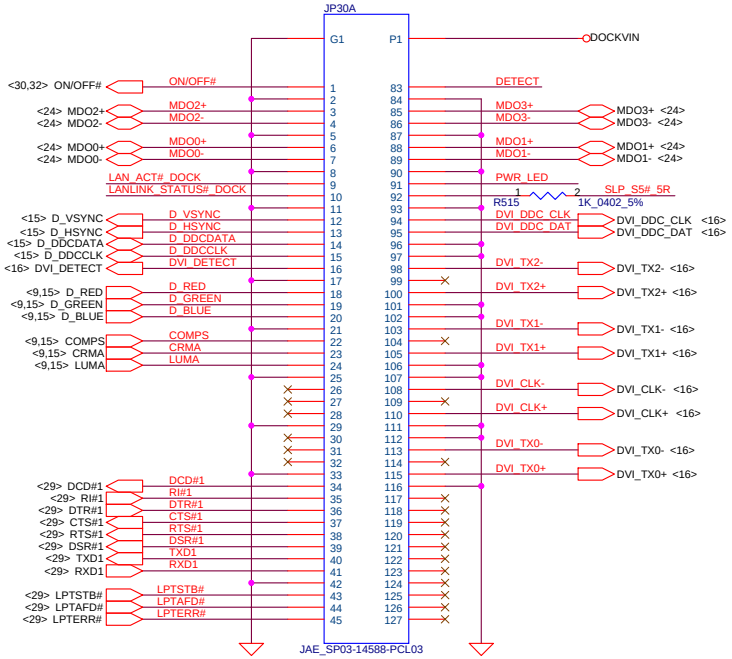
Title: MDC/KBD/ON_OFF/LID

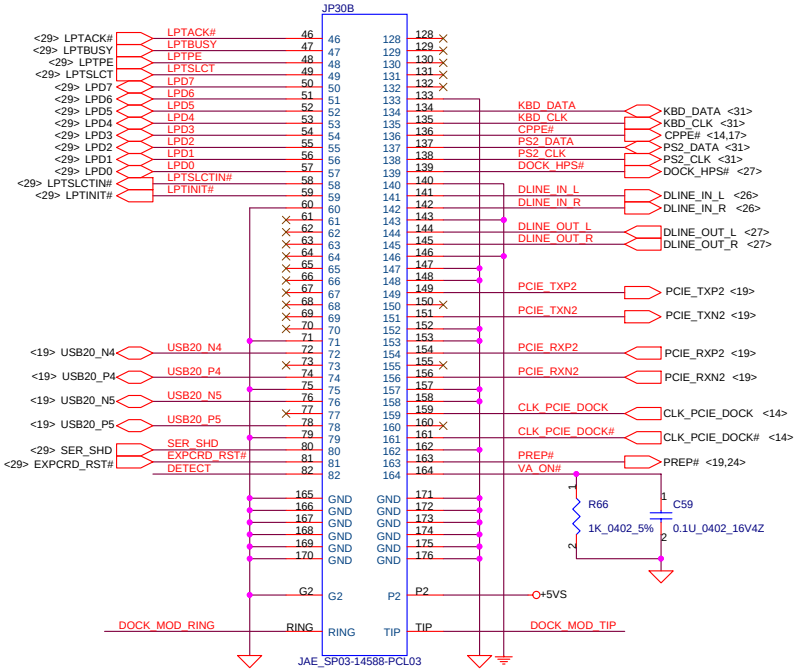
Size: C | Document Number: LA-2211 | Rev: 0.6

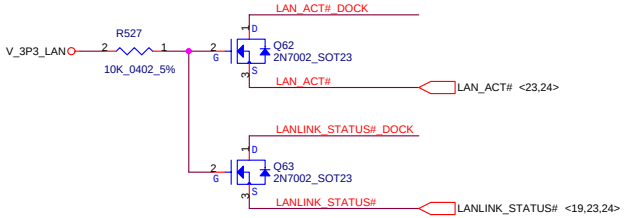
Date: Thursday, September 09, 2004 | Sheet 32 of 48

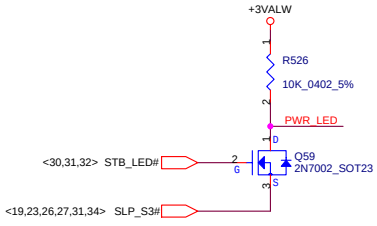
DOCK CONN. 184PIN

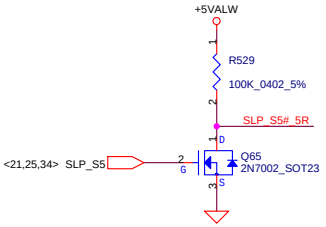










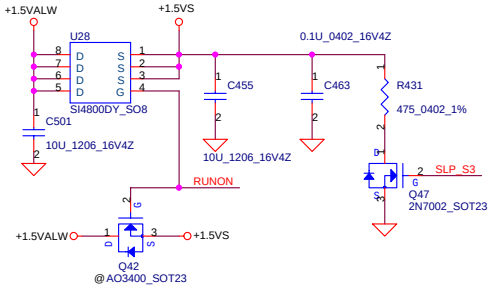


Compal Electronics, Inc.

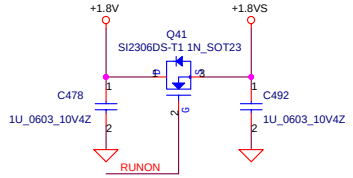
Title: **SPR Connector**

Size	Document Number	Rev
Custom	LA-2211	0.6
Date: Thursday, September 09, 2004	Sheet 33 of 48	

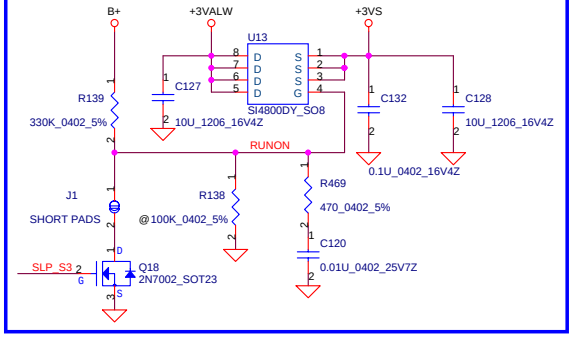
+1.5VALW to +1.5VS Transfer



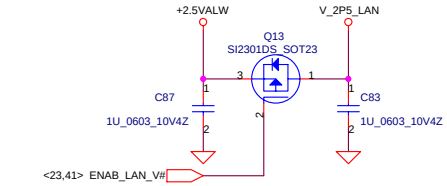
+1.8V to +1.8VS Transfer



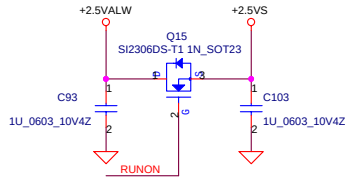
+3VALW to +3VS Transfer



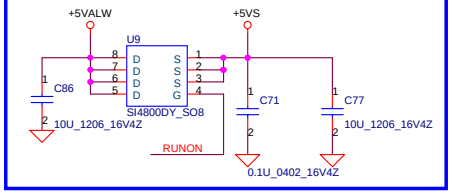
+2.5VALW to V_2P5_LAN Transfer

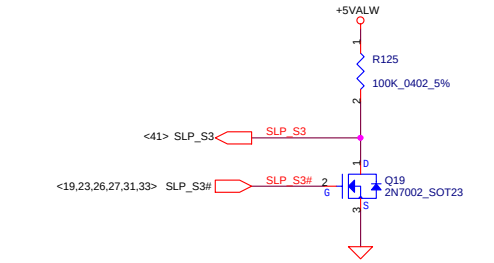


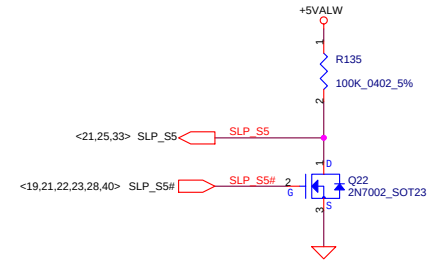
+2.5VALW to +2.5VS Transfer



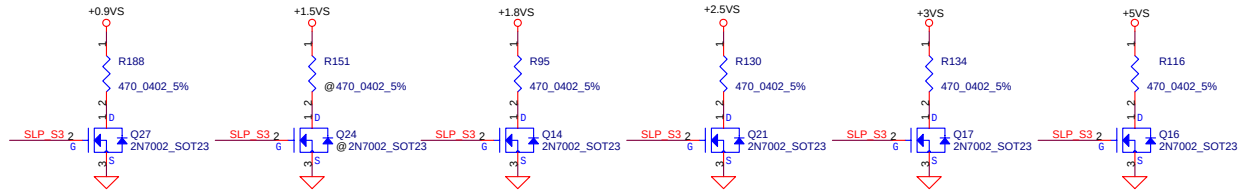
+5VALW to +5VS Transfer







Discharge circuit

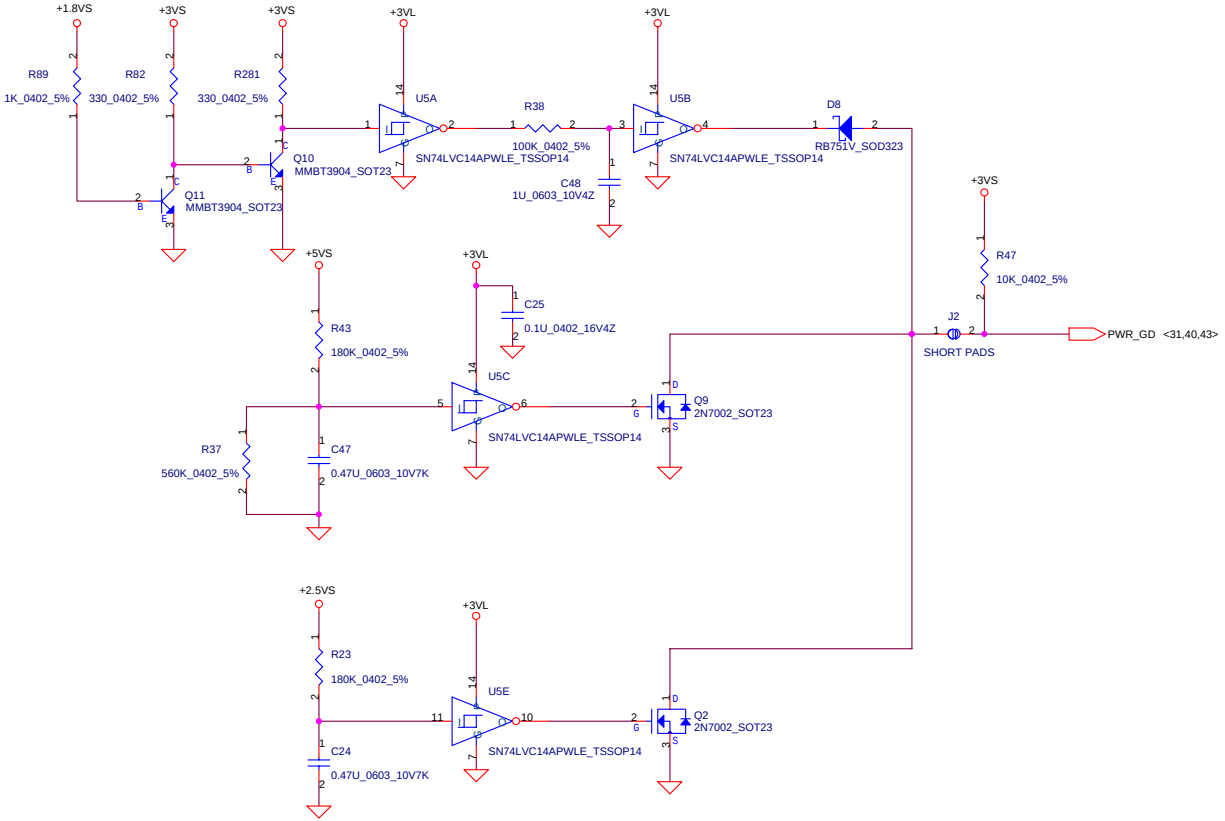


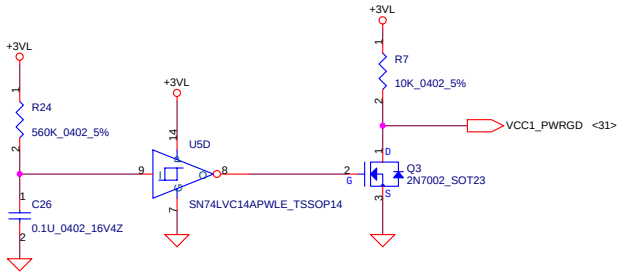
Compal Electronics, Inc.

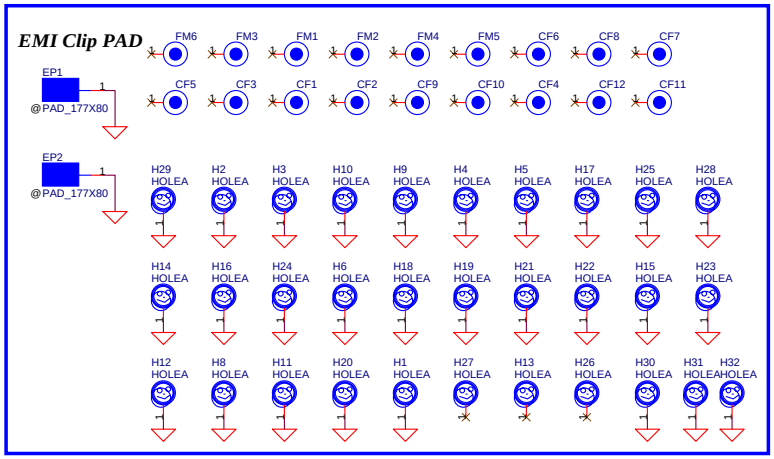
Title: DC/DC Circuits

Size: C | Document Number: LA-2211 | Rev: 0.6

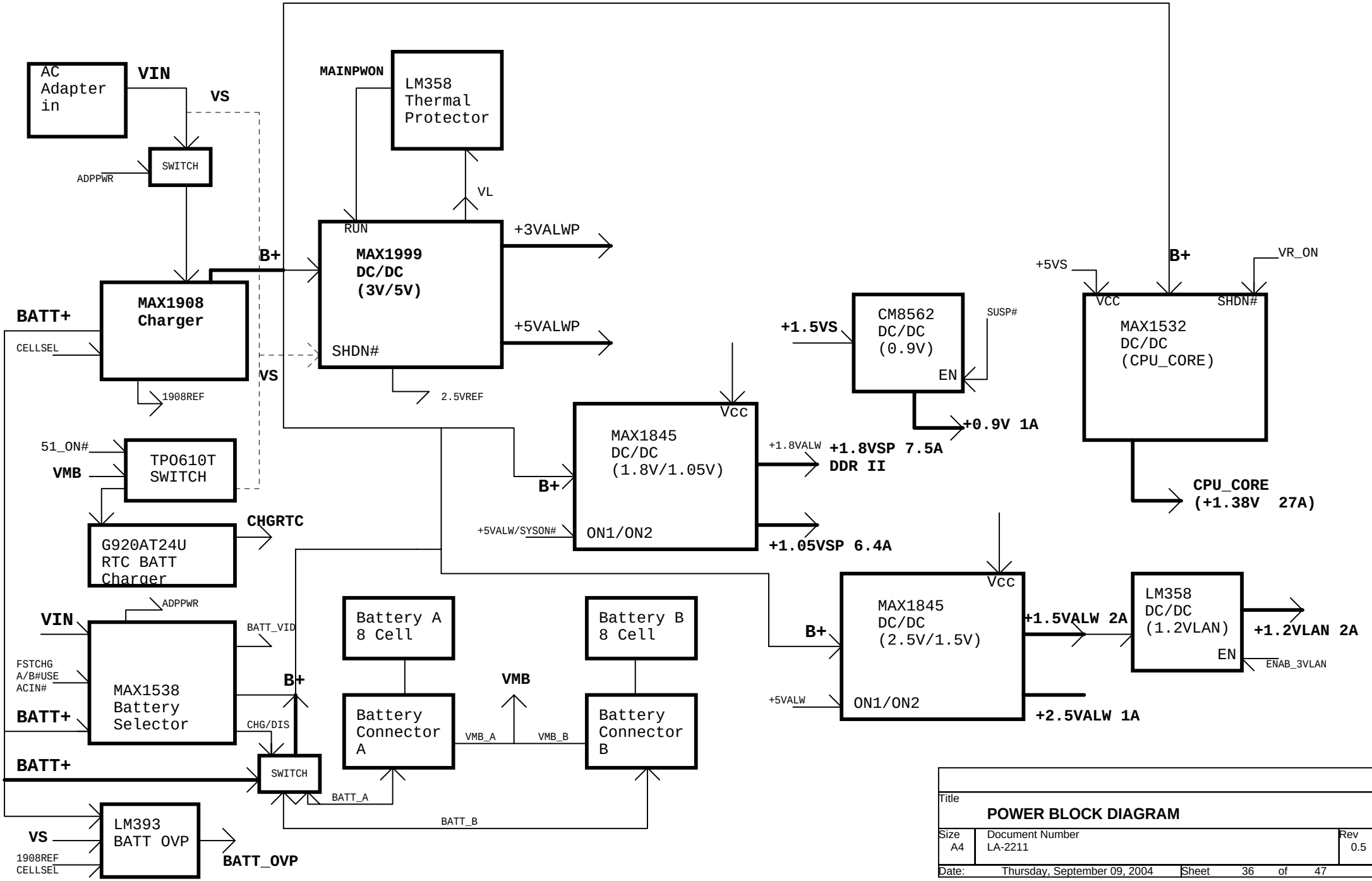
Date: Thursday, September 09, 2004 | Sheet 34 of 48



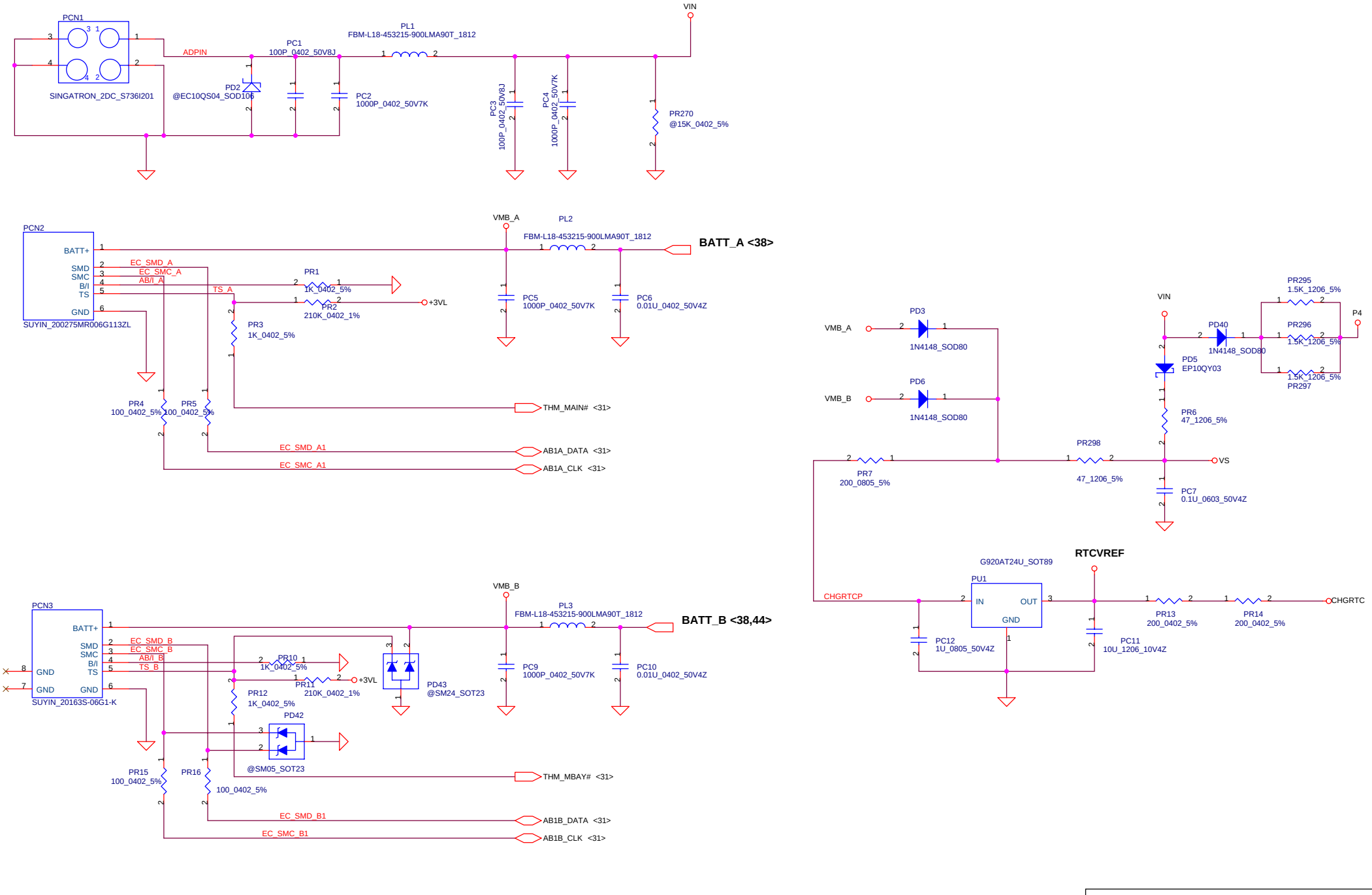




Compal Electronics, Inc.		
Title: POK CKT		
Size:	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 35 of 48	



Title	POWER BLOCK DIAGRAM	
Size: A4	Document Number: LA-2211	Rev: 0.5
Date: Thursday, September 09, 2004	Sheet 36 of 47	

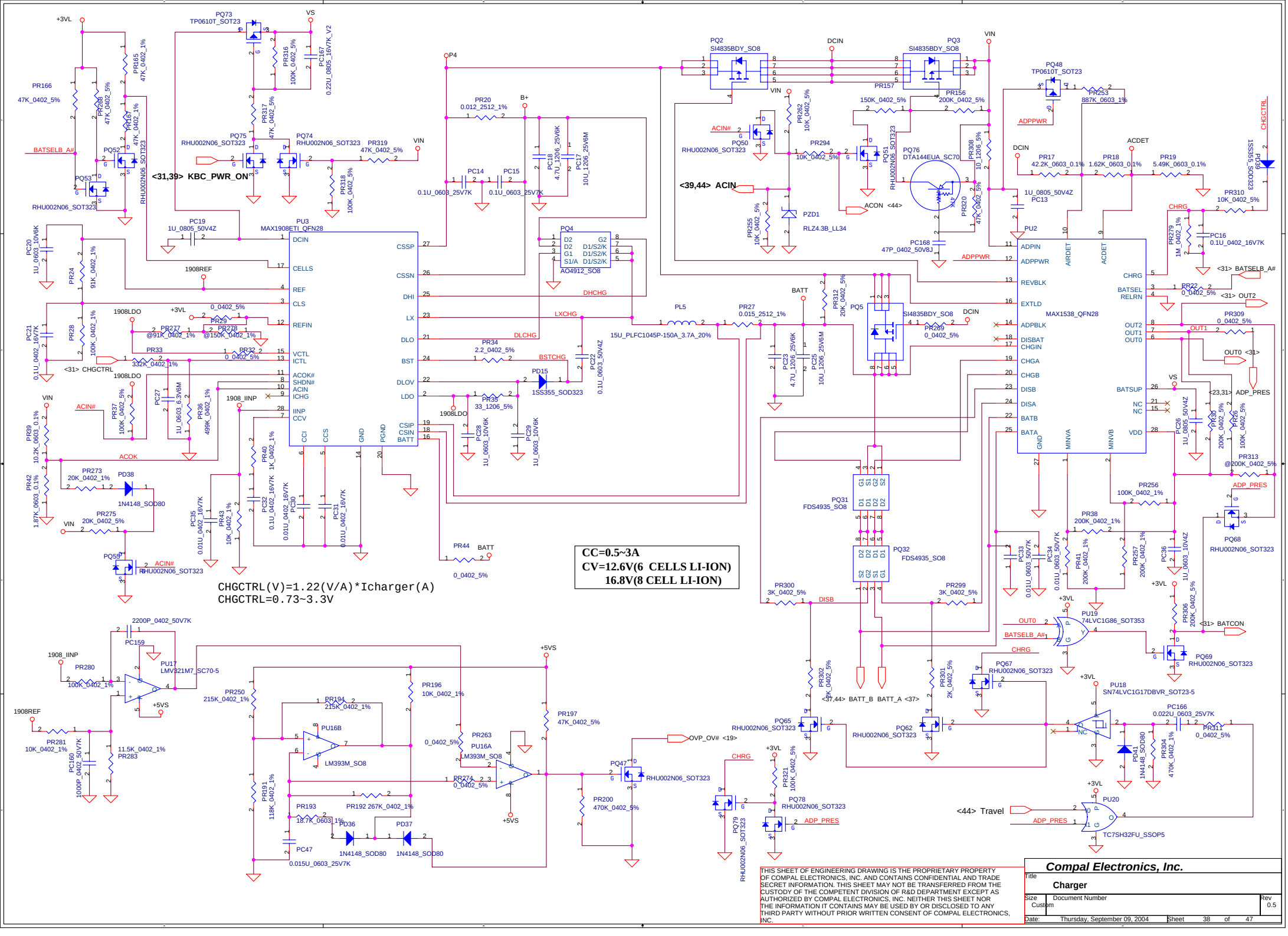


Compal Electronics, Inc.

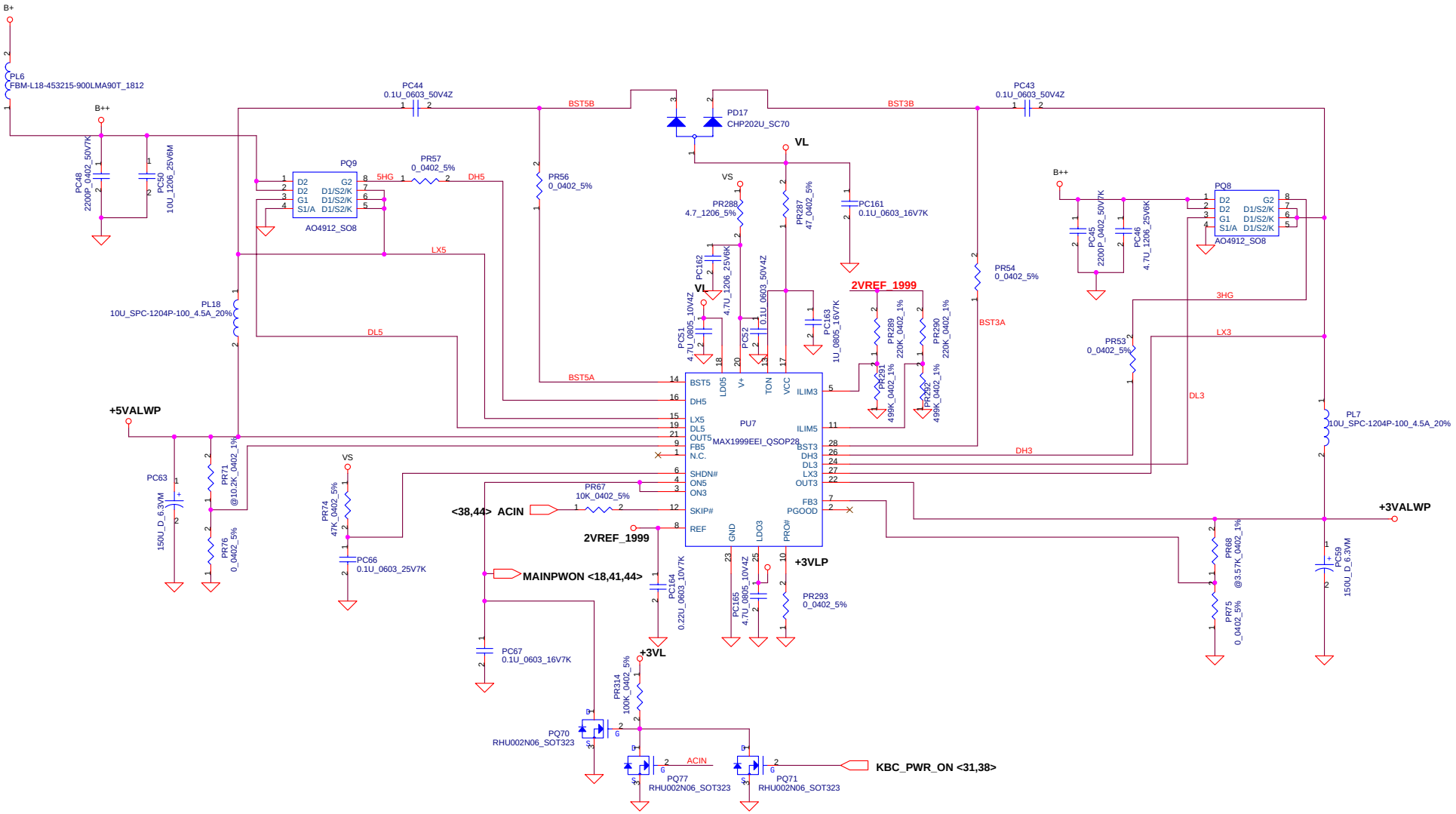
Title: **BATTERY CONN**

Size	Document Number	Rev
B		

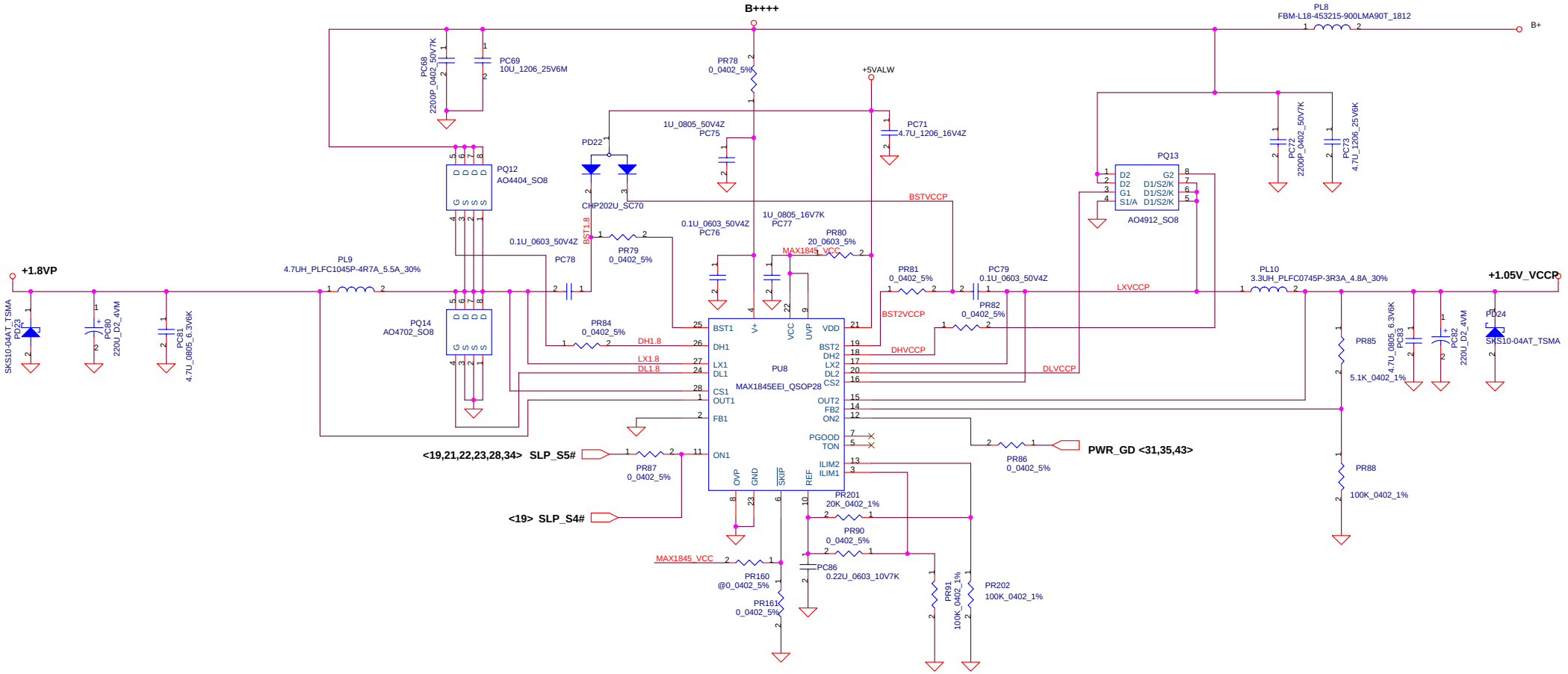
Date: Thursday, September 09, 2004 | Sheet 37 of 47


CC=0.5~3A
CV=12.6V(6 CELLS LI-ION)
16.8V(8 CELL LI-ION)
CHGCTRL(V)=1.22(V/A)*Icharger(A)
CHGCTRL=0.73~3.3V
<31,39> KBC_PWR_ON
<39,44> ACIN
<37,44> BATT_B BATT_A <37>
<44> Travel
OVP_OV# <19>
MAX1908ETI_QFN28
MAX1538_QFN28
LM393M_SO8
LMV321M7_SC70-5
SN74LVC1G17DBVR_SOT23-5
TC7SH32FU_SSOP5
74LVC1G86_SOT353
Compal Electronics, Inc.
Charger
Document Number
Rev 0.5
Thursday, September 09, 2004
Sheet 38 of 47
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 TRANSFERRED 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.

+3.3V/+5V



Compal Electronics, Inc.		
Title: 3.3V / 5V		
Size: B	Document Number: LA-2211	Rev: 0.1
Date: Thursday, September 09, 2004	Sheet 39 of 47	



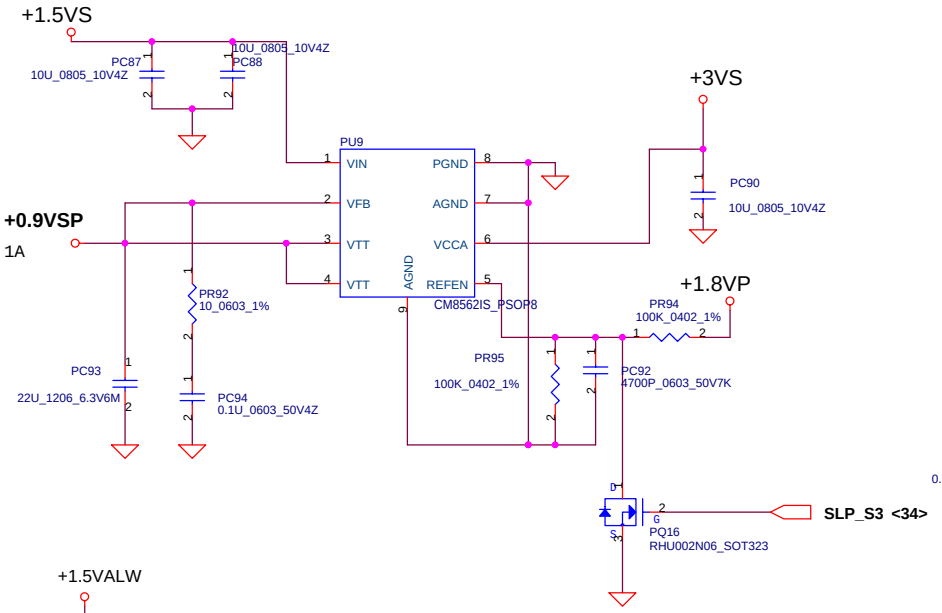
Compal Electronics, Inc.

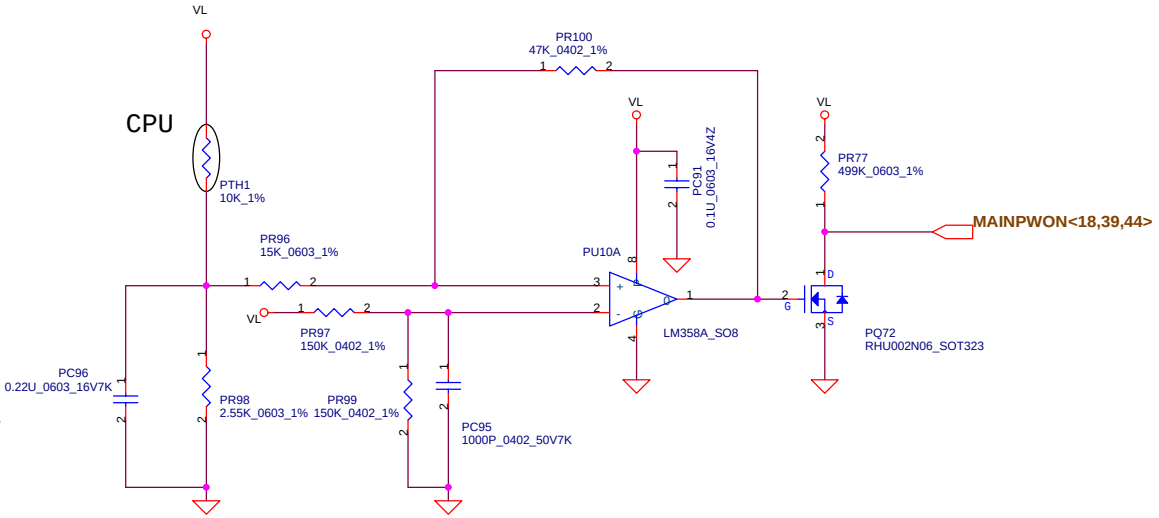
Title: **DDRII/+1.05VSP/+1.8VSP**

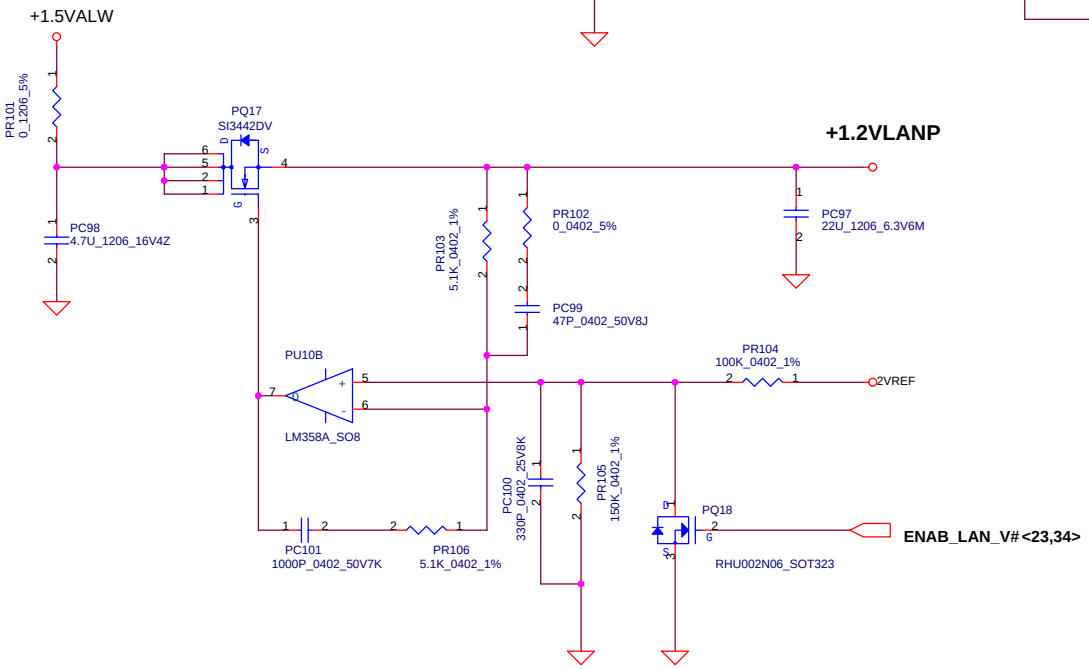
Size: | Document Number | Rev: | Custom

Date: Thursday, September 09, 2004 | Sheet 40 of 47

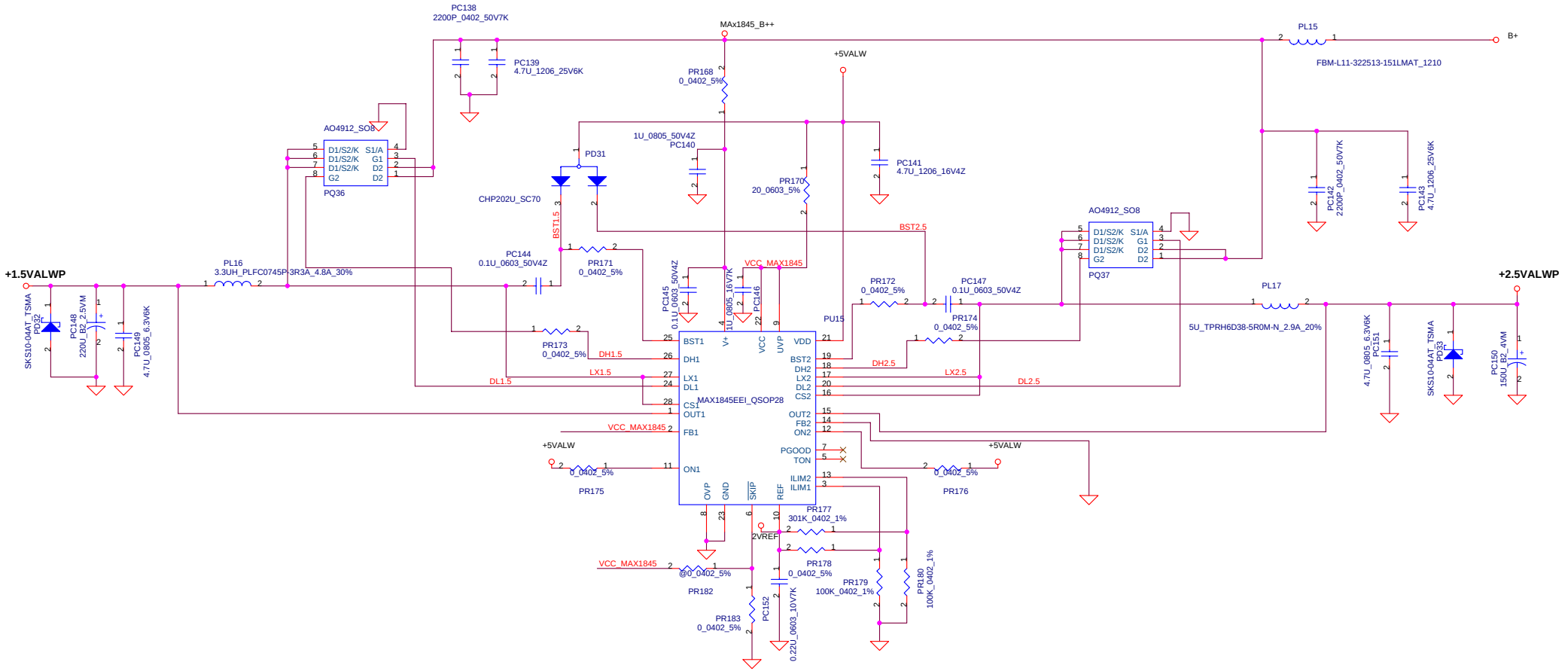
PH1 under BATT botten side :
CPU thermal protection at 90 +-3 degree C
Recovery at 43 +-3 degree C



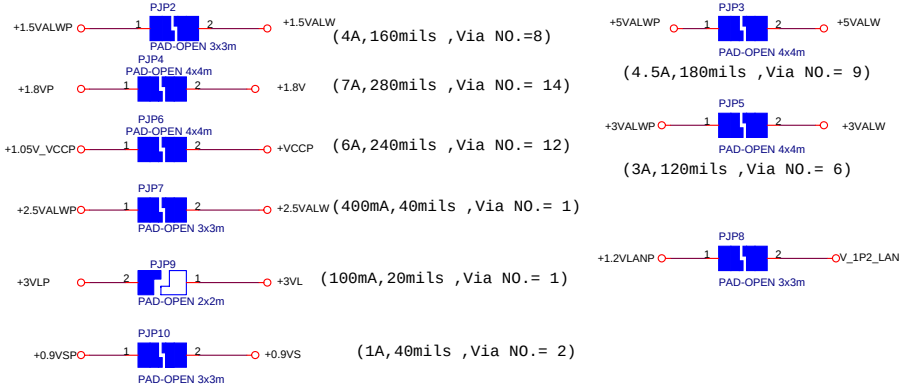




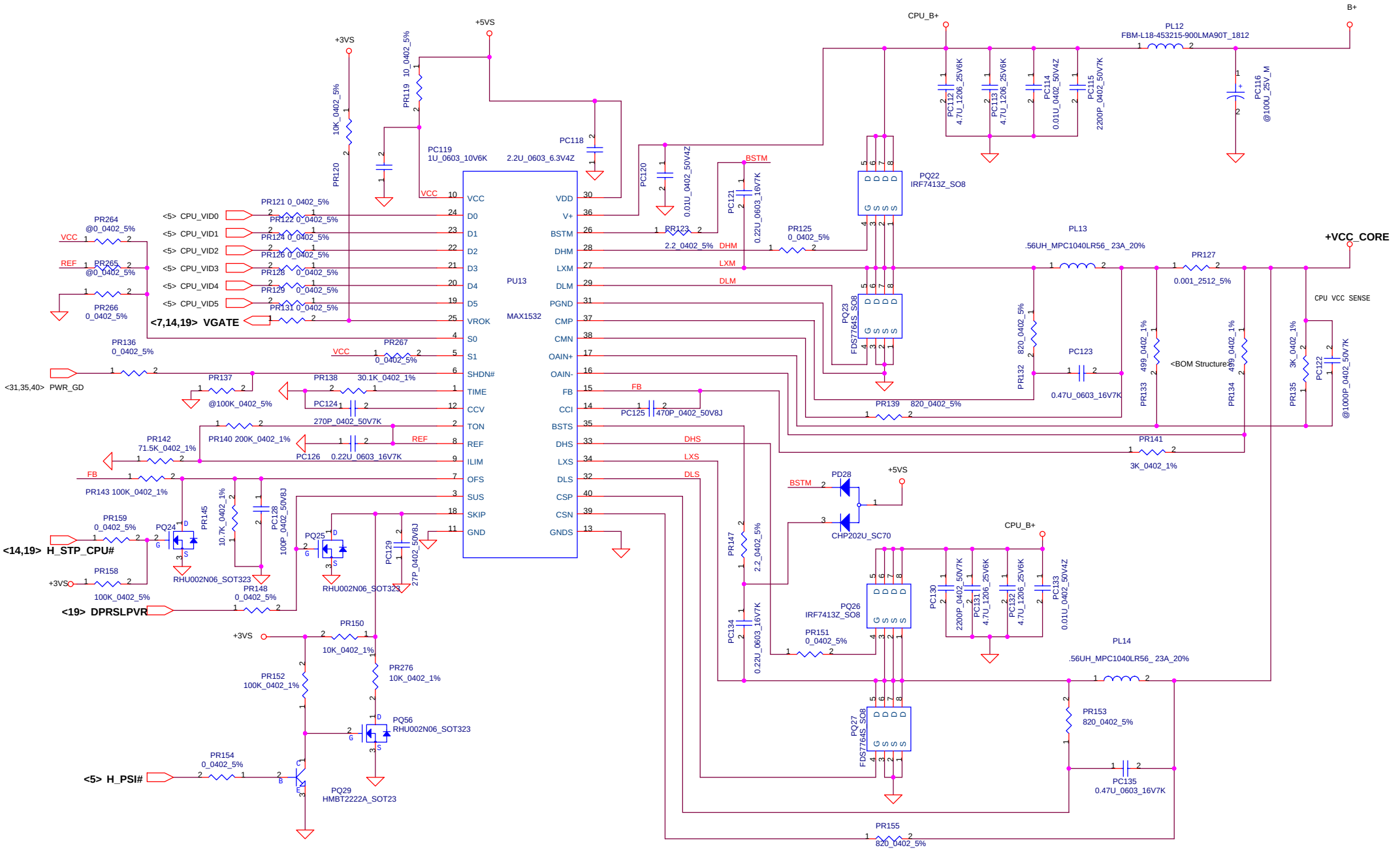
Title	<Title>	
Size B	Document Number LA-2211	Rev 0.5
Date: Thursday, September 09, 2004	Sheet 41 of 47	



1.5VALWP/ +2.5VALWP

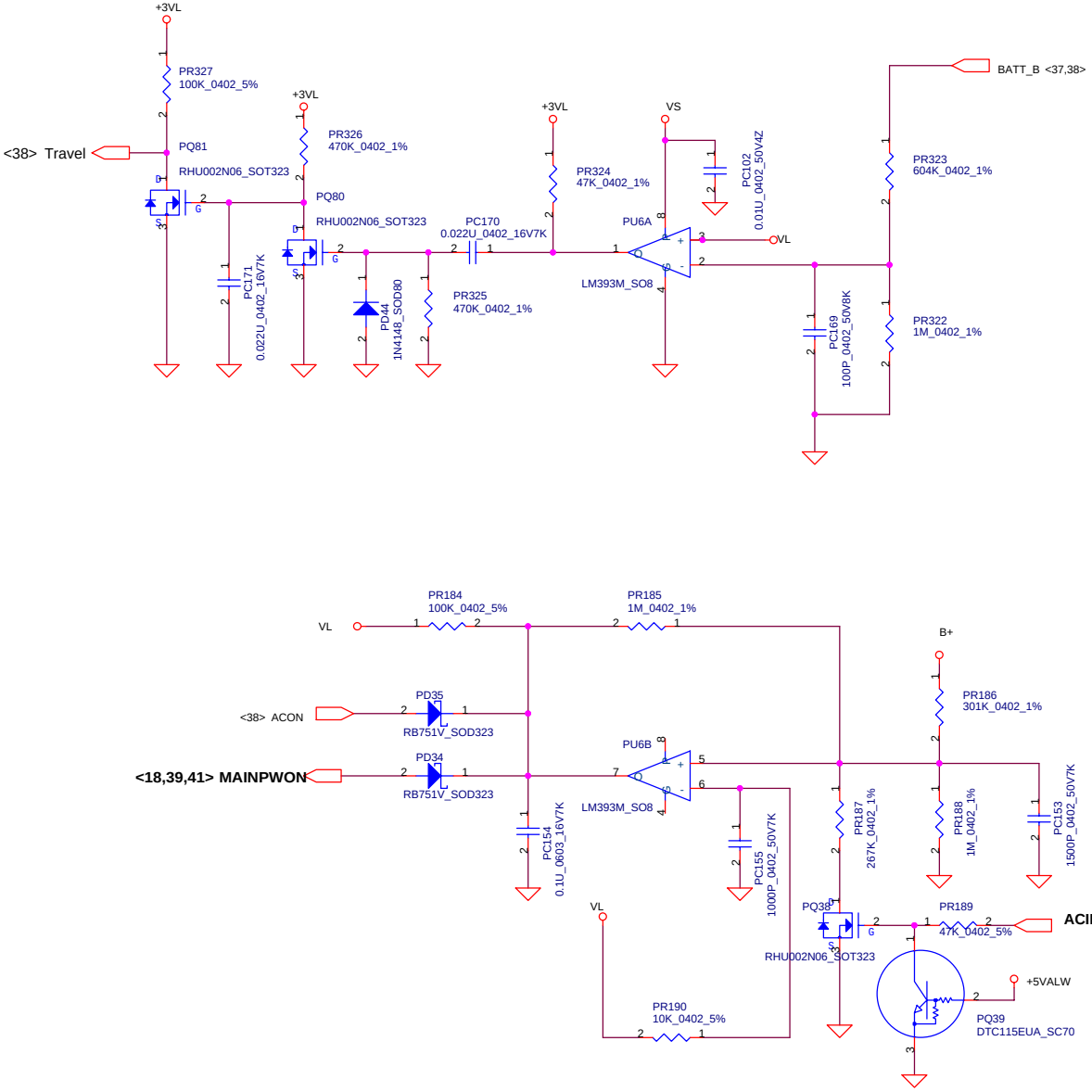


Compal Electronics, Inc.	
Title	DDRII/+1.05VSP/+1.8VSP
Size: C	Document Number
Custom	Rev
Date: Thursday, September 09, 2004	Sheet 42 of 47



Compal Electronics, Inc.

Title	+CPU_CORE	
Size: Custom	Document Number	Rev 0.5
Date: Thursday, September 09, 2004	Sheet 43 of 47	



Compal Electronics, Inc.

Title: **BATT OVP**

Size: A3 | Document Number | Rev: 0.5

Date: Thursday, September 09, 2004 | Sheet 44 of 47

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	39	12VALWP	03/3/2004 (DB2)	HP	remove 12V	delete PQ11,PC54,PR55,PC42,PR52,PD16,PC41,PR51	DB2
2	41	+1.2VLANP	03/3/2004 (DB2)	Compal	1.2VLANP rise plus voltage	change the Vref form 2.5VREF to 2VREF, and change PR104 form 107k_0603 to 100k_0402, PR105 form 100k_0402 to 150k_0402	DB2
3	44	BATT_OVP	03/3/2004 (DB2)	Compal	For BATT_OVP issue	add PC157,PC158 change PR241 from 20k_0402 to 499k_0402, PR243 from 40.2k_0603 to 402k_0402 , PR244 from 453k_00603 to 4499k_0402, PR251 from 20k_0402 to 499k_0402.	DB2
4	41	+1.2VLANP	03/3/2004 (DB2)	Compal	For ME issue	Change PC97,PC93 from 22u_1210 to 22u_1206	DB2
5	38	CHARGER	03/3/2004 (DB2)	Compal	For Charger issue	Change PC27 from 0.1u_0402 to 1u_0603	DB2
6	38	CHARGER	03/3/2004 (DB2)	HP	For SYSTEM OCP function issue	Delete PR263,PR274 . add PU17,PR280,PR281,PR282,PR283,PC159.	DB2
7	38	CHARGER	03/19/2004 (DB2)	HP	For support that Main Battery is 4 cell pack (4S).	add PQ60,PQ61,PQ62,PR284,PR285,PR286,PR287	DB2
8	38	CHARGER	04/20/2004	HP	To drop the 4 cell battery design.	delete PQ60,PQ62,PR284,PR285,PR287	SI
9	42	1.5VALW/2.5VALW	04/20/2004	Compal	For +1.5VS/+2.5VS peak current issue	Change PL16 from 5uF to 3.3uF PLC0745-3R3A Change PR177 from 100k to 301k Change PR178 from 100K to 0 ohm	SI
10	39	3.3VALW/5VALW	04/28/2004	HP	remove 12V	Change PU7 from MAX1902 to MAX1999 delete PD19,PD20,PR58,PR61,PR63,PR64,PR66,PR59. add PR294,PR295,PR296,PR287,PR288.	SI
11	38	CHARGER	05/13/2004	Compal	add B+ soft start resister.	Add PR294,PR295,PR296	SI
12	38	CHARGER	07/5/2004	HP	For MAX1538 5ms issue	Add PU18,PQ62,PQ65,PD41,PR299, PR300,PR301,PR302,PR304,PR305,PC166	SI1-B
13	38	CHARGER	07/5/2004	HP	Add HP common logic solution	Add PU19,PQ68,PQ69,PR306	SI1-B
14	39	3.3VALW/5VALW	07/5/2004	HP	For S5 POWER consumption issue	Add PQ70,PQ71,PR314	SI1-B
15	38	CHARGER	09/1/2004	HP	remove AC OCP	delete PR249	SI2
16	38	CHARGER	09/1/2004	Compal	To improve S5 POWER consumption	Add PQ73,PQ74,PQ75,PR316,PR317,PR318,PR319,PC167	SI2

Compal Electronics, Inc.			
Title: Changed-List History-1			
Size	Document Number: LA-2211		Rev: 0.5
Date: Thursday, September 09, 2004	Sheet 45 of 47		

Version Change List (P. I. R. List) for EE Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Cut-In Date
1	26	AGND	03/22/2004 (DB2)	HP	Link AGND and GND with capacitor	changeR460,R461,R462,R463 from 0_0402_5% to C563,C564,C565,C566 0.1U_0402_16V4Z	DB2(0.3)
2	16	SiI1362	03/22/2004 (DB2)	HP	Follow SiI1362 demo circuit	changeR117 from 100_0402_5% to 1k_0402_5% changeR105 from 300_0402_5% to 1k_0402_5%	DB2(0.3)
3	16	SiI1362	03/23/2004 (DB2)	HP	Follow SiI1362 data sheet recommend	Add R493,R494,R495,R496 300_0402_1% Add C567,C568,C569,C570 0.1U_0402_16V4Z	DB2(0.3)
4	27	Microphone circuit	03/23/2004 (DB2)	HP	To improve frequncy response	Add L57,L58,L59,L60,L61 HLC0603CSCCR10JT_0603 Add C571,C572,C573,C574,C575 68P_0402_50V8J	DB2(0.3)
5	32	Trackpoint CONN	03/23/2004 (DB2)	Compal	Change trackpoint connector from pitch1.0mm to 0.5mm	change JP14 from ACES_85203-0802 to ACES_87153-0801L	DB2(0.3)
6	23	V_1P2_LAN	04/01/2004 (DB2)	Compal	V_1P2_LAN ripple over spec	change L8,L29,L30,L32,L33 from 0_0603_5% to BLM11A601S_0603	DB2(0.3)
7	4	ADM1031	04/02/2004 (DB2)	Compal	Can't read DDRII temprature	link Q43 pin1 from GND to Q43 pin2	SI1(0.4)
8	23	ATTN_BTTN#	04/08/2004 (DB2)	HP	Per Broadcom, this signal should be pulled up to +3VS.	Delete R72 layout pad and change R73.1 from GND to +3VS.	SI1(0.4)
9	16	CH7307	04/08/2004 (DB2)	CHrontle	Recommendation from Chrontle.	1. Pin25 VSWING for CH7307 should be added 1.2K ohm to GND. 2. Pin 26, 27 should be GND as 10K ohm. 3. Pin3 AS should be pull up as 1K ohm.	SI1(0.4)
10	29,33	SER_SHD	04/08/2004 (DB2)	HP	Add active high signal SER_SHD to GPIO47 on U8 pin 31 that connects to pin 80 on docking connector JP30B. Add Pull down to this signal. This is used to control serial port transceiver in dock.		SI1(0.4)
11	34	PWR on fail	04/19/2004 (DB2)	Compal	System can't boot reliably.	1. Change Q15 from SI2301 to SI2306. 2. Change Q15.2 control signal from SLP_S3 to RUNON. 3. Change R139 from 100K_0402_5% to 330K_0402_5%.	SI1(0.4)
12	29	MAX3243	04/28/2004 (DB2)	Compal	Delete COM port components.	Delete U33,C558,C559,C561,C560,C562,R468,RP50.	SI1(0.4)
13	9	White screen	04/28/2004 (DB2)	Compal	LCD has white screen when system power on or resume from S3/S4.	1. Exchange U35.3 and U35.5 2. Add a 2.2K_0402_5% pull down resistor on U35.2	SI1(0.4)
14	14,19 23,24	LAN PWR down	04/29/2004 (DB2)	HP	Support LAN controller power down feature when LAN cable do not installed.	1. Delete R499 10K_0402_5%. 2. Add R502,R505,R507 0_0402_5%. 3. Delete R15 4.7K_0402_5%. 4. Add U36,U37 SN74LVC1G17DBVR. 5. Add Q54 2N7002. 6. Add C576,C577 0.1U_0402_16V4Z. 7. Add D32 RB751V. 8. Add R503 100K_0402_5%. 9. Add R504 120K_0402_5%. 10. Add R506 10K_0402_5%.	SI1(0.4)

Compal Electronics, Inc.	
Title	Changed-List EE History-1
Size	Document Number: LA-2211 — Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 46 of 48

Version Change List (P. I. R. List) for EE Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Cut-In Date
15	21	TI Flash media IO	04/30/2004 (DB2)	HP	Solve TI Flash media IO work around circuit.	Add D33,D34 RB751V.	SI1(0.4)
16	19	LANLINK_STATUS#	04/30/2004 (DB2)	HP	Change this signal from pin M3 of U26B to pin C25 of U26C.	1. Add R508 10K_0402_5%. 2. Add Q55 2N7002.	SI1(0.4)
17	21,22	Change power rail	05/12/2004 (DB2)	HP	PCMCIA interface don't support S3 or S5 wake up feature.	Change all of components power rail to main power plane.	SI1(0.4)
18	28	USB+PWR switcher	05/21/2004 (DB2)	Compal	Change USB power switcher from MIC2044 to TPS2330.		SI1(0.4)
19	27	Microphone pre-amp	05/26/2004 (DB2)	HP	Per HP's requirement change microphone pre-amp from MAX4492 to TLV2464A.		SI1(0.4)
20	21,22	Change power rail	05/27/2004 (DB2)	HP	Going back and forth for waking up support for PCMCIA interface.	Change all of components power rail to resume power plane.	SI1(0.4)
21	21,22	Change power rail	07/05/2004 (SI1)	HP	PCMCIA interface don't support S3 or S5 wake up feature.	1. Reserved some component layout pads for +3V/+5V. 2. Add R530 and R537 for supportting PCMCIA power rail with main power rail.	SI1-B(0.5)
22	19,31 32,35	S5 power consumption	07/05/2004 (SI1)	HP	To reduce power consumption on S5. The specification is under 50 mW.	1. Add isolation circuit. (R532,R533,D37,D38) 2. Change some component's power rail from +3VALW to +3VL. (R223,R218[V_3P3_LAN],U7,RP44,RP43,R65,R28,R27,JP31 RP1,R32,R31,R30,U5,R22,R24,R7)	SI1-B(0.5)
23	28	USB+PWR switcher	07/20/2004 (SI1)	Compal	To solve voltage droop issue when cradle plugged in USB port.	1. Change C582 from 1000pF to 0.1uF. 2. Add C581 0.1uF. 3. Change C102 to 100uF Low ESR capacitor.	SI2(0.6)
24	31	Wrong voltage level on FWP#.	07/22/2004 (SI1)	Compal	To solve wrong voltage on FWP# when system is powered off.	Delete R28.	SI2(0.6)
25	27	OTS#133751	07/22/2004 (SI1)	Compal	When mute is off, the mute button LED remains on (very dim though).	Change R430 from 100K ohm to 10K ohm.	SI2(0.6)
26	18	ICH_RTCRST# timing	07/22/2004 (SI1)	Intel	Intel changed component's value.	1. Change R230 from 180K ohm to 20K ohm. 2. Change C287 from 0.1uF to 1uF.	SI2(0.6)
27	14	R511	08/03/2004 (SI1)	Compal	For supporting CY28442 on SI2.	Delete R511.	SI2(0.6)
28	27	R429, C504	08/03/2004 (SI1)	HP	Follow Lloyd Daniel's suggestion, change R429 to 16.2K ohm and change C504 to 0.22uF.	change R429 to 16.2K ohm and change C504 to 0.22uF.	SI2(0.6)
29	30	Power LED active error.	08/03/2004 (SI1)	Compal	Swap D41.1 with D41.4 for solving LED active error on SI1-B unit.		SI2(0.6)
30	16,26 32	Modify EMI solution	08/03/2004 (SI1)	Compal		1. Add FBM-L11-201209-221LMAT on L62 and delete R466. 2. Add 0.1u (C586) / 68p (C587) capacitors at B+_LCD. 3. Add CHB2012U121 on L36. 4. Remove CP1~CP7	SI2(0.6)
31	30	Delete sleep button function	08/10/2004 (SI1)	HP	Sleep LED is no longer required.	Delete D40 & R261.	SI2(0.6)
32	30	Add additional R & LED for CAP. function	08/10/2004 (SI1)	Compal	For solving CAP LED bright issue. This requirement was coming from ME team.	1. Add R541 150 ohm. 2. Add green LED 17-21SYGC/S530-E1/TR8.	SI2(0.6)

Version Change List (P. I. R. List) for EE Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Cut-In Date
33	30	Power Button	08/10/2004 (SI1)	Compal	Change powr button from 2-way to 1-way.	From SS056-Pt213BBT-PA2 to SS607-212N-FEEG1T.	SI2(0.6)
34	19	OTS#137561	08/19/2004 (SI1)	Compal	I found this issue was caused by ICH_PCIE_WAKE# signal generated again. Because V_3P3_LAN disappeared before +3VALW under battery mod. This is wrong.	1. Change R532 from 10K ohm to 1K ohm. 2. Delete D37. 3. Add a additional MOS Q71 (BSS138). 4. Connection Q71.2 with V_3P3_LAN. 5. Connection Q71.3 with D37.1. 6. Connection Q71.1 with D37.2.	SI2(0.6)
35	15	RGB rise/fall time.	08/23/2004 (SI1)	Compal	RGB rise/fall time out of specification issue.	Short L54,L55,L56.	SI2(0.6)
36	18	RTC Accuracy	08/27/2004 (SI1)	Compal	To improve RTC accuracy.	1. Change Y4 to 32.768 KHz +-10 ppm. 2. Change C516 and C528 to 18pF.	SI2(0.6)
37	16	DVI CKT	08/31/2004 (SI1)	HP	Remove any components that associate with Silicon Image controller for DVI.		SI2(0.6)
38	4	ADM1032	09/02/2004 (SI1)	Compal	Change thermal sensor to ADM1032 and reserve a thermal sensor CKT (MAX6646) on page 8.		SI2(0.6)

Compal Electronics, Inc.		
Title: Changed-List EE History-3		
Size	Document Number: LA-2211	Rev: 0.6
Date: Thursday, September 09, 2004	Sheet 48 of 48	