

SULLIVAN

REV : X01

@ : Depop Component for All

Dothan Schematic with Capture CIS and Function field

uFCPGA Dothan
02-11-2004
REV: 0.2

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL
TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT
BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION,
NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD
PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

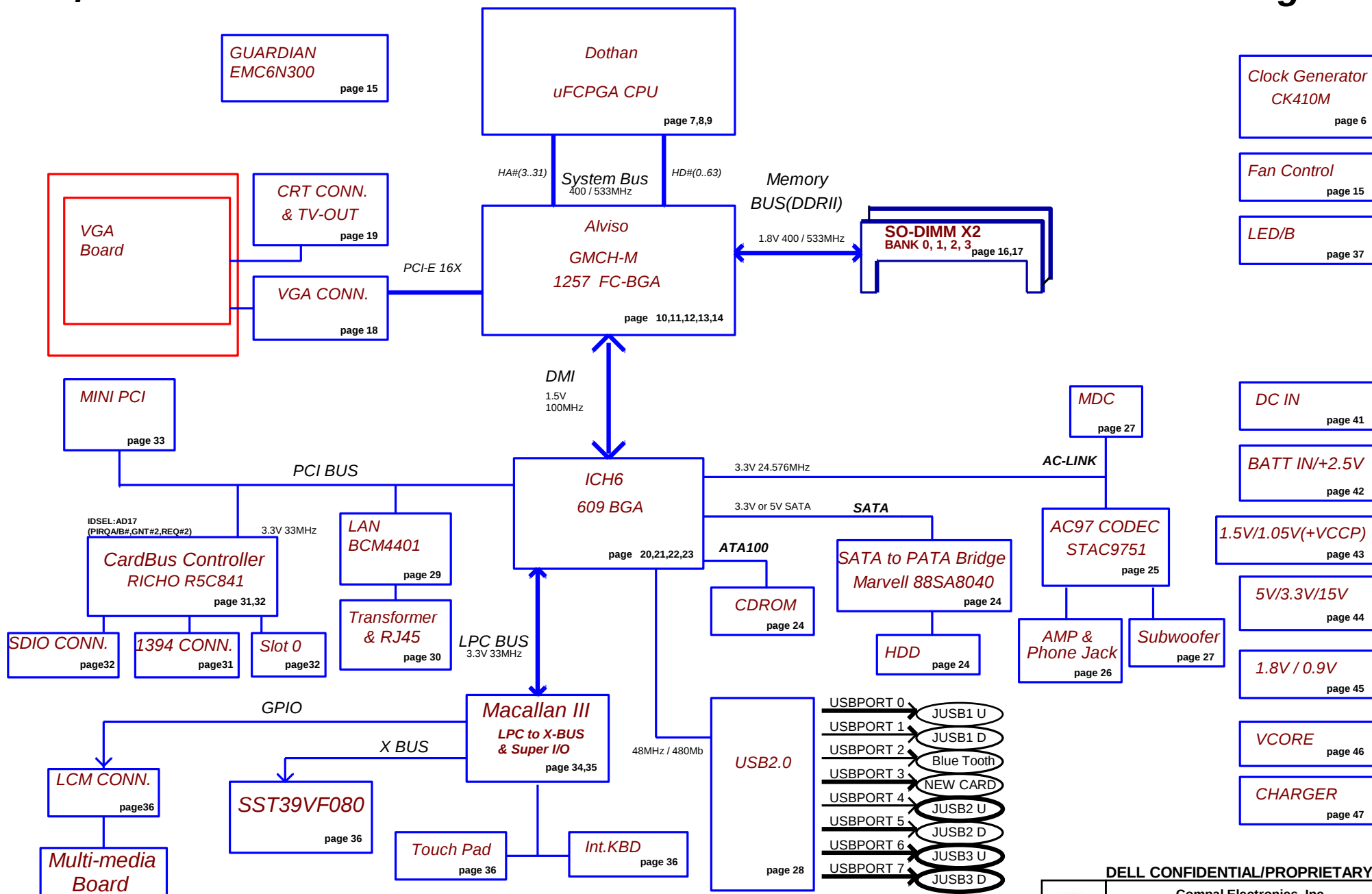


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Cover Sheet

Size	Document Number	Rev
	LA-2171	0.2
Date	12/2004	Sheet 1 of 50



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Block Diagram

Size	Document Number	Rev
	LA-2171	0.2

Date: 12/2004 Sheet: 2 of 50

PM TABLE

State \ power plane	+3VALW +5VALW	+3VSUS +5VSUS +1.8VSUS +1.5VSUS	+5VRUN +3VRUN +0.9V_DDR_VTT +2.5VRUN +1.8VRUN +1.5VRUN +VCC_CORE +VCCP +15V
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

PCI TABLE

PCI DEVICE	IDSEL	REQ#/GNT#	PIRQ
CARD BUS	AD17	1	D,C
MINI PCI	AD19	3	D,B
LAN	AD16	4	C

USB TABLE

USB PORT#	DESTINATION
0	JUSB1 (Top)
1	JUSB1 (Bottom)
2	Blue Tooth
3	NEW CARD
4	JUSB2 (Top)
5	JUSB2 (Bottom)
6	JUSB3 (Top)
7	JUSB3 (Bottom)

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

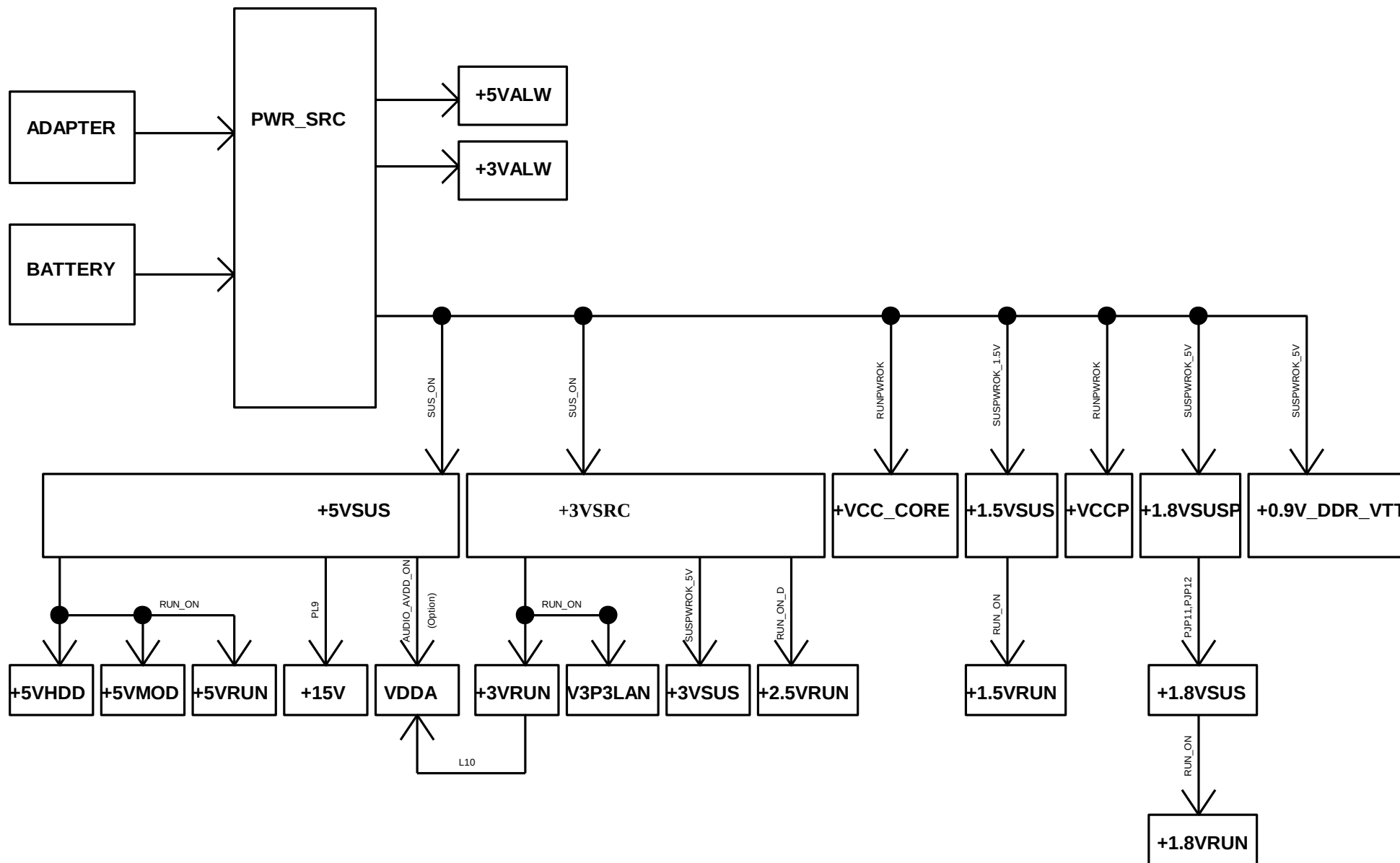


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Index and Config.

Size	Document Number	Rev
	LA-2171	0.2
Date	12/2004	Sheet 3 of 50



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



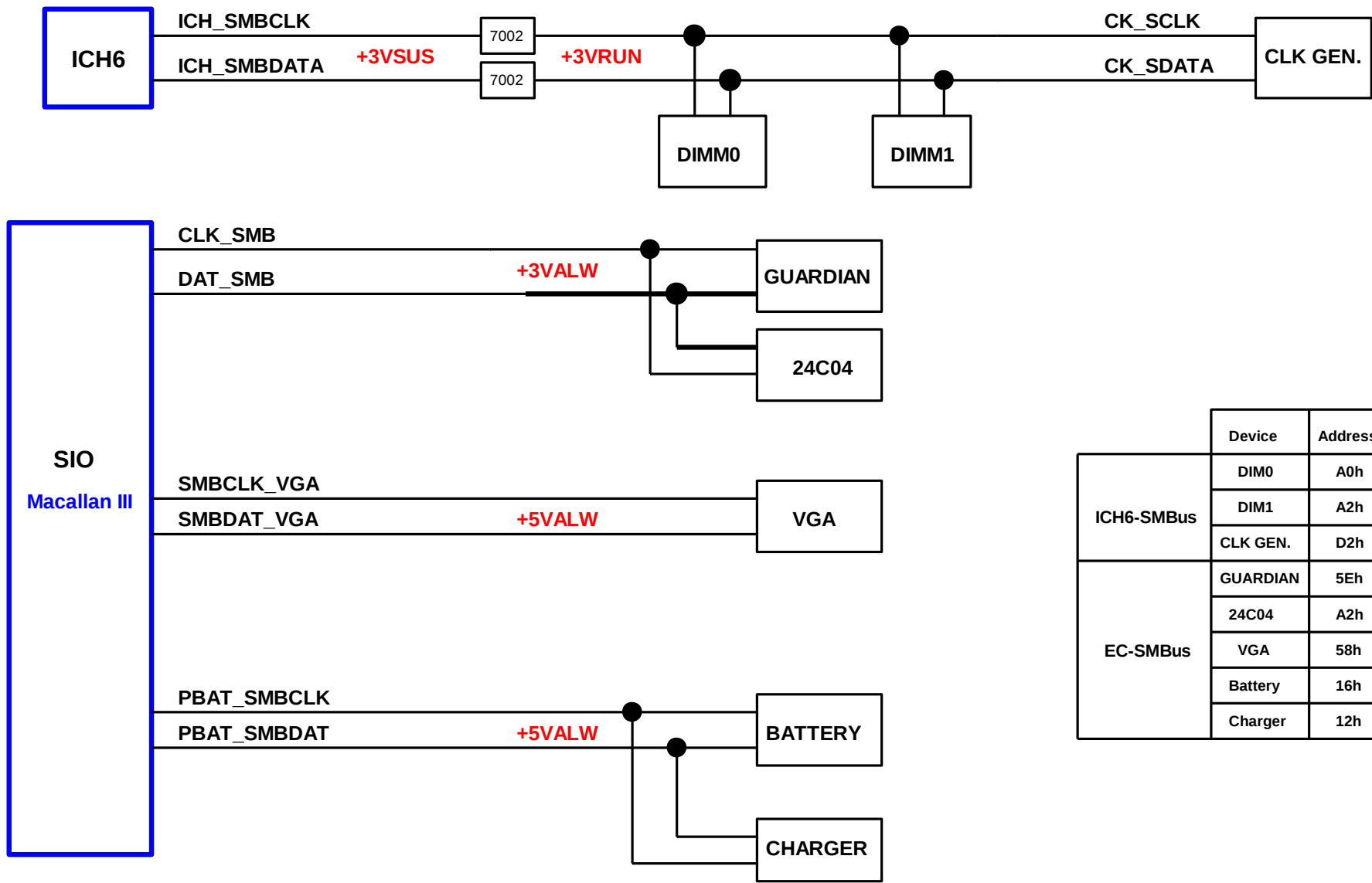
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Power Rail

Size	Document Number	Rev
	LA-2171	0.2

Date: 12/2004 Sheet: 4 of 50



	Device	Address
ICH6-SMBus	DIM0	A0h
	DIM1	A2h
	CLK GEN.	D2h
EC-SMBus	GUARDIAN	5Eh
	24C04	A2h
	VGA	58h
	Battery	16h
	Charger	12h

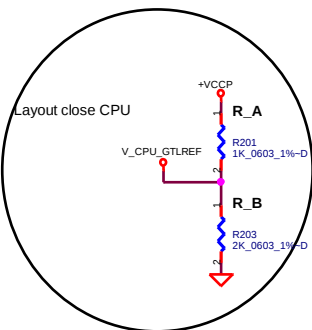
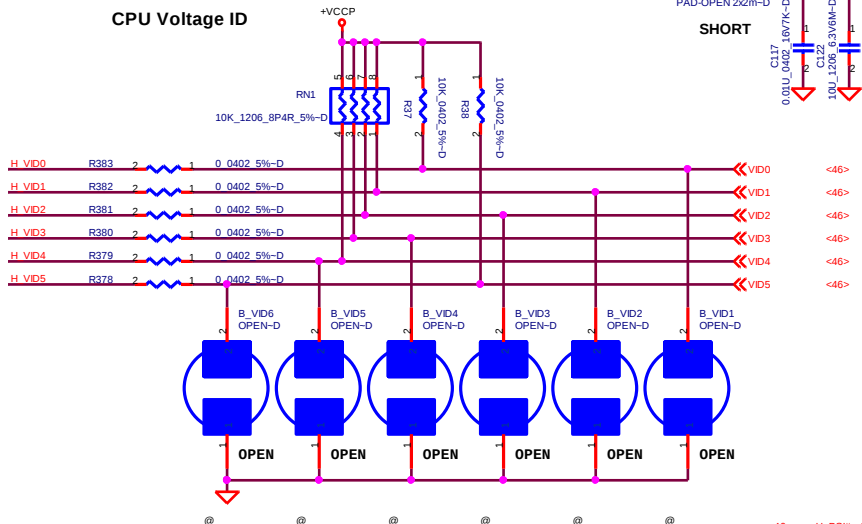
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

DELL CONFIDENTIAL/PROPRIETARY
Compal Electronics, Inc.
SMBUS TOPOLOGY
 Size: Document Number
LA-2171
 Date: 12/2004 Sheet 5 of 50 Rev 0.2



For test only ,Cmos output

CPU Voltage ID



Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal.

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



DELL CONFIDENTIAL/PROPRIETARY

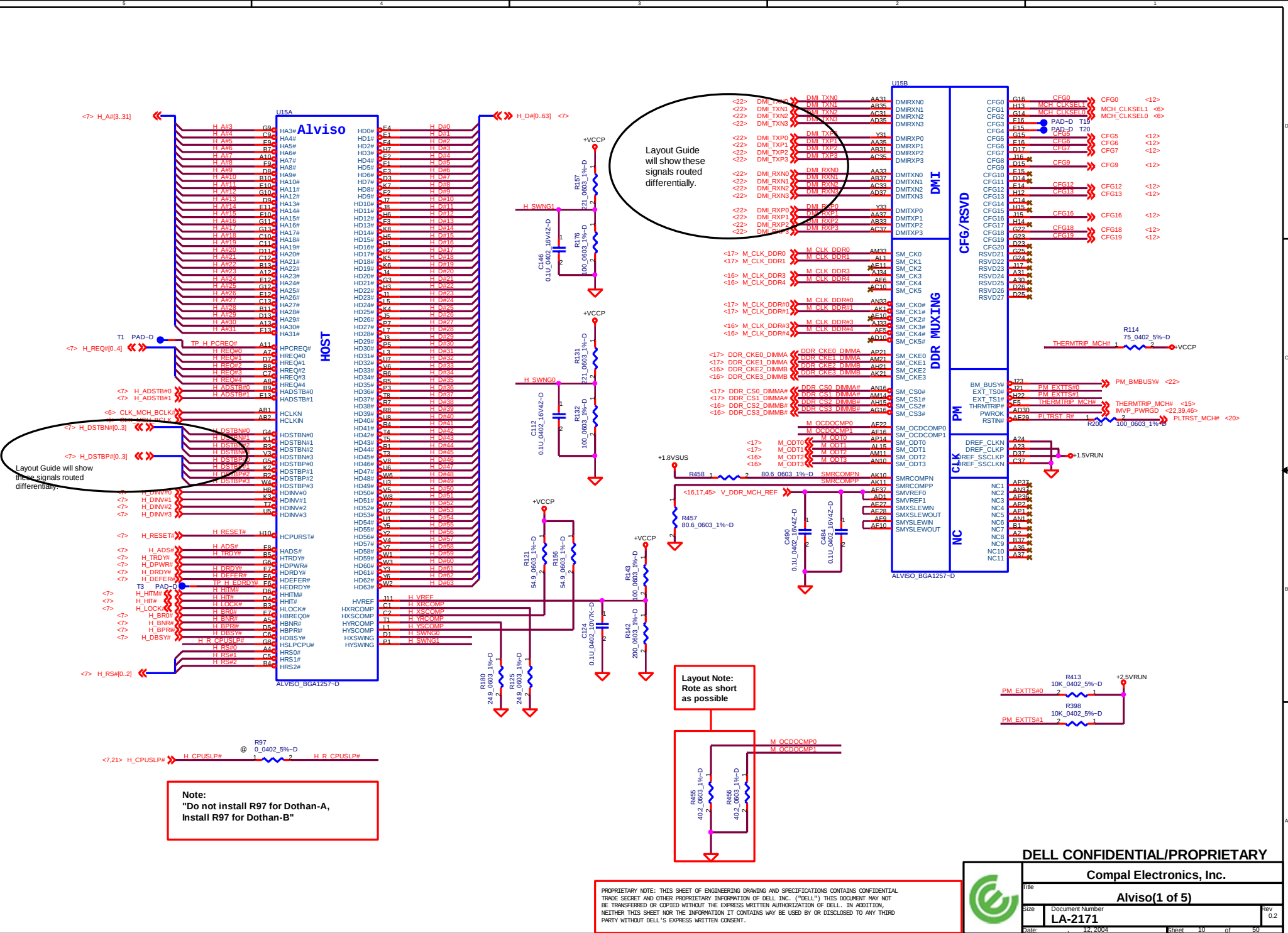
Compal Electronics, Inc.

Dothan Processor(2/2)

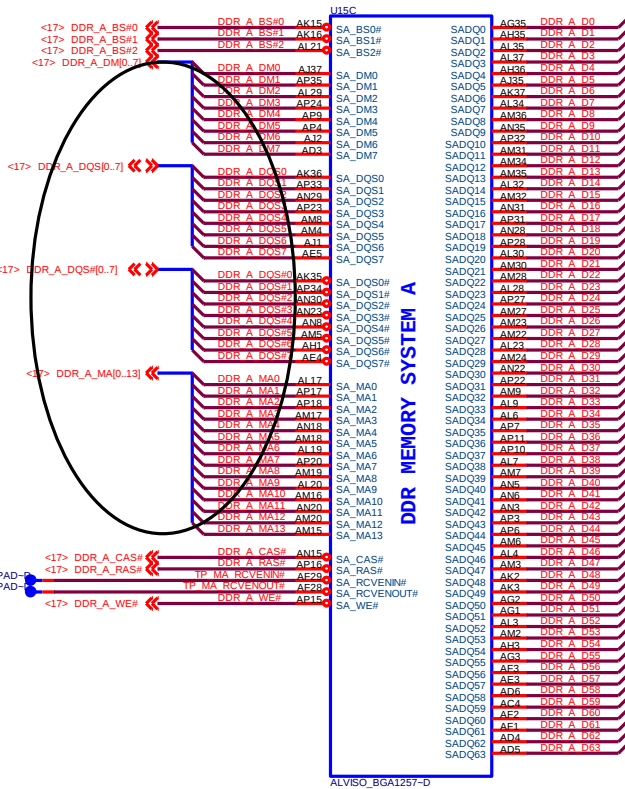
Size Document Number
LA-2171

Date 12/2004 Sheet 8 of 50

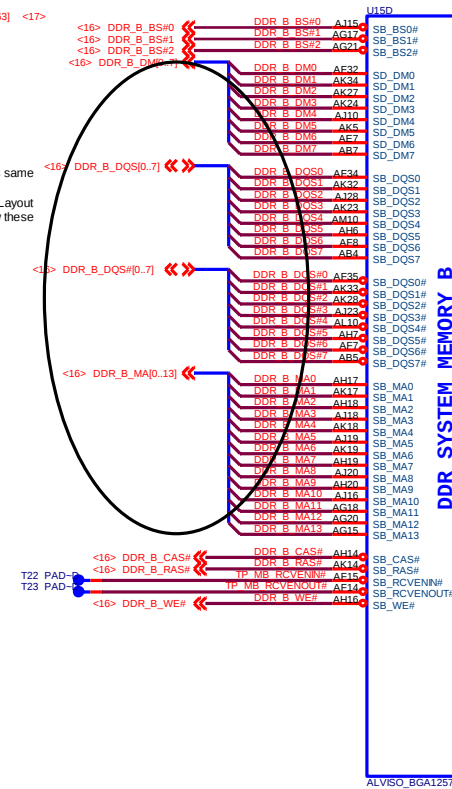
Rev 0.2



This Symbol as same as Intel CRB schematic, So Layout Guide will show these signals routed differentially.



This Symbol as same as Intel CRB schematic, So Layout Guide will show these signals routed differentially.



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL, INC. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.



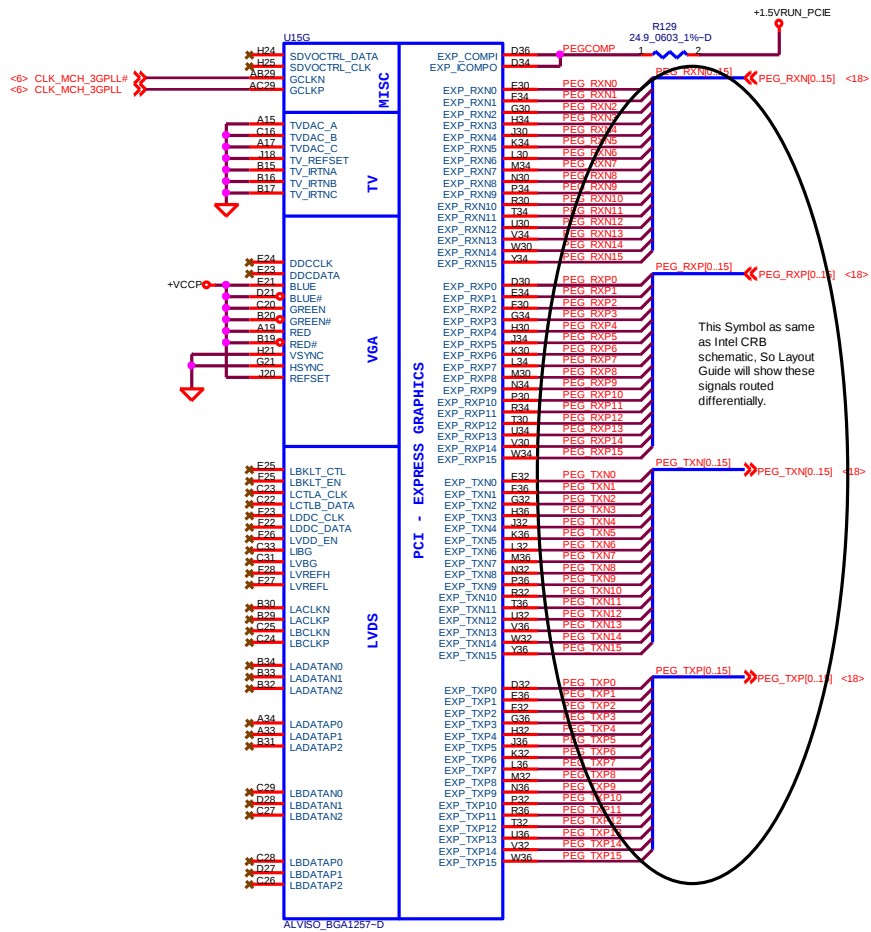
Alviso(2 of 5)

LA-2171

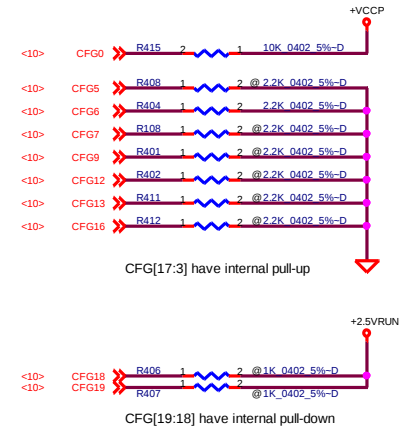
Rev 0.2

12/2004

Sheet 11 of 50



CFG[2:0]	Refer to sheet 6 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



DELL CONFIDENTIAL/PROPRIETARY

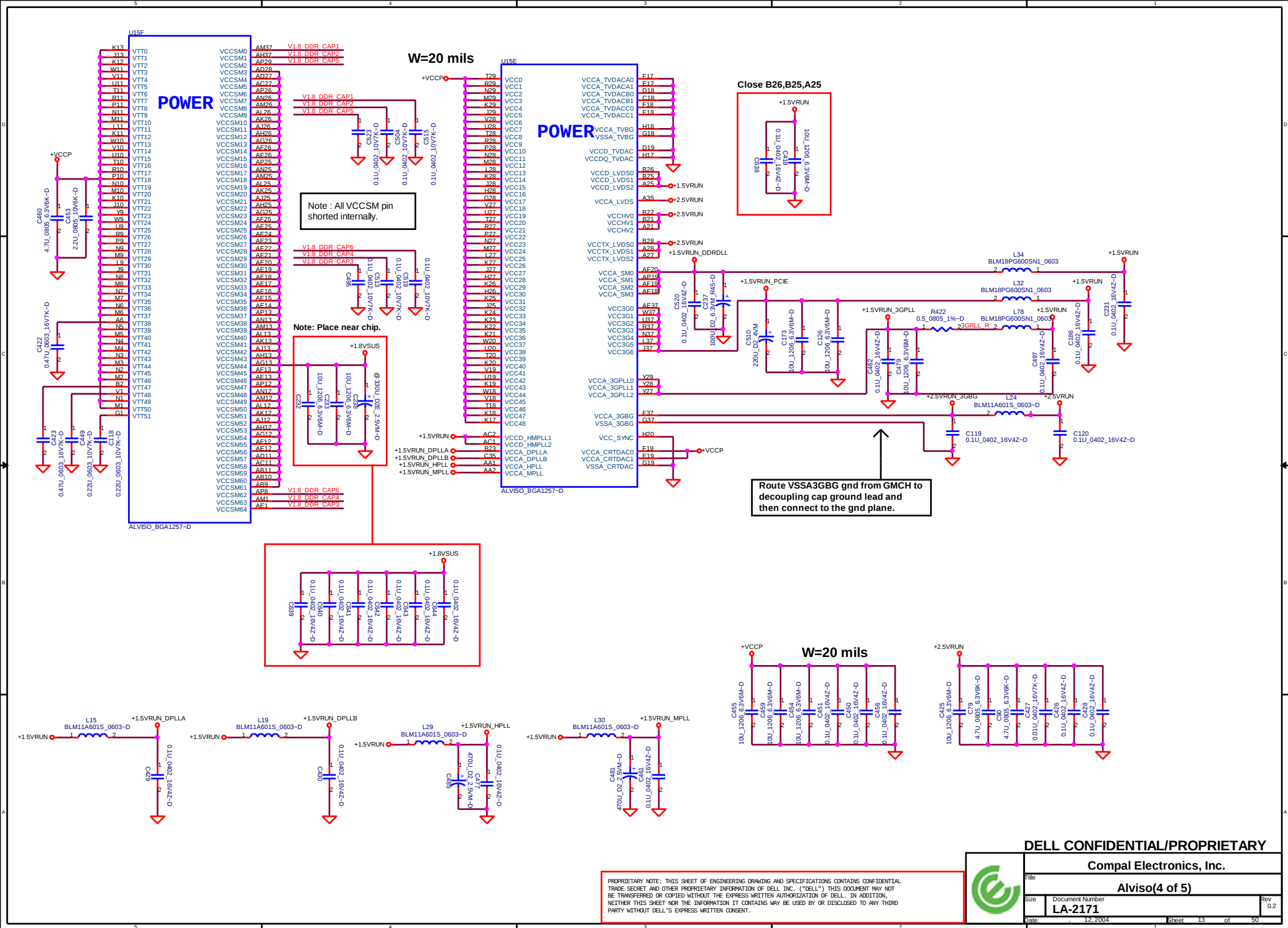
Compal Electronics, Inc.

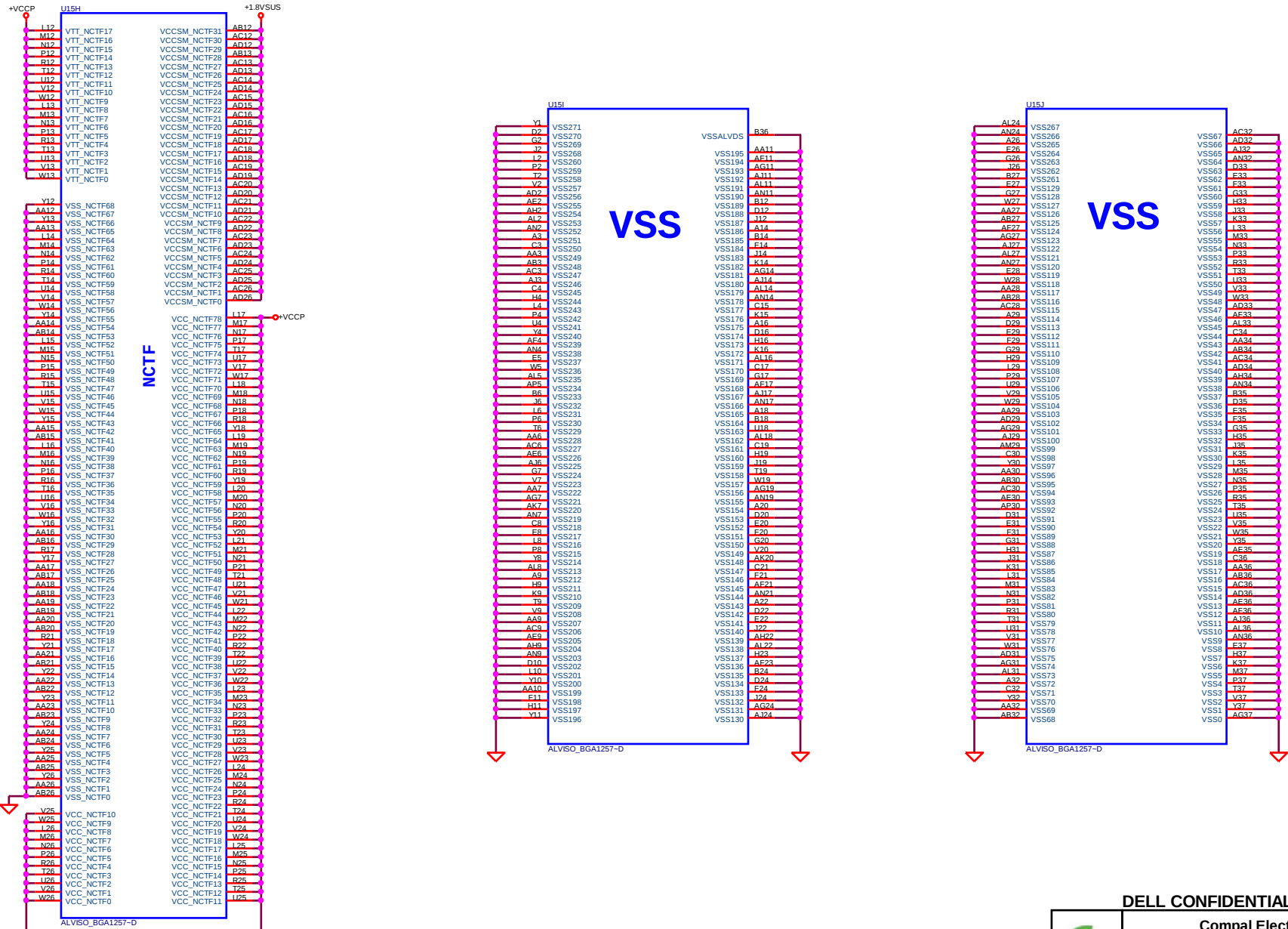
Alviso(3 of 5)

Size	Document Number	Rev
LA-2171		0.2

Date: 12/2004 Sheet: 12 of 50

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.





DELL CONFIDENTIAL/PROPRIETARY

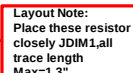
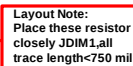
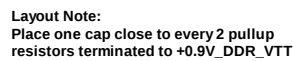
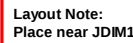
Compal Electronics, Inc.

Alviso(5 of 5)

Size Document Number LA-2171 Rev 0.2

Date 12/2004 Sheet 14 of 50

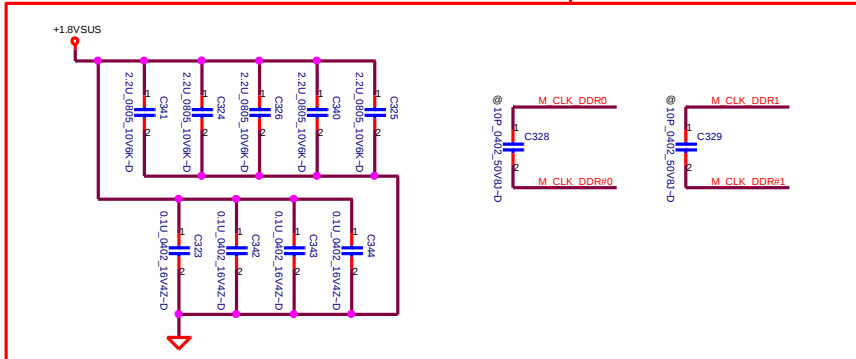
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL"). THIS DOCUMENT MAY NOT BE REPRODUCED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



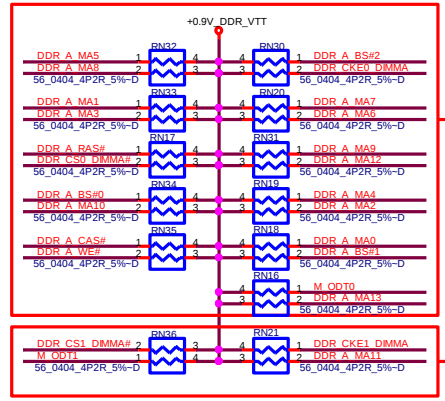
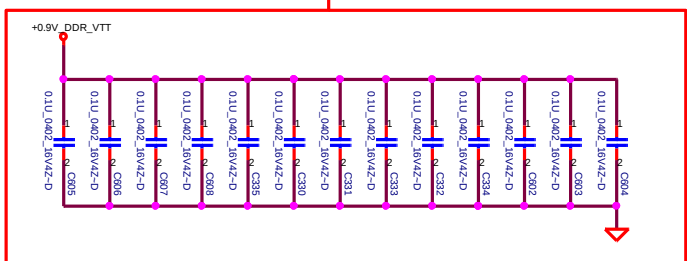
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS WAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

<1> DDR_A_DQS#0[0..7] <<>
 <1> DDR_A_D[0..63] <<>
 <1> DDR_A_DM[0..7] <<>
 <1> DDR_A_DQS#0[0..7] <<>
 <1> DDR_A_MA[0..13] <<>

Layout Note:
Place near JDIM2

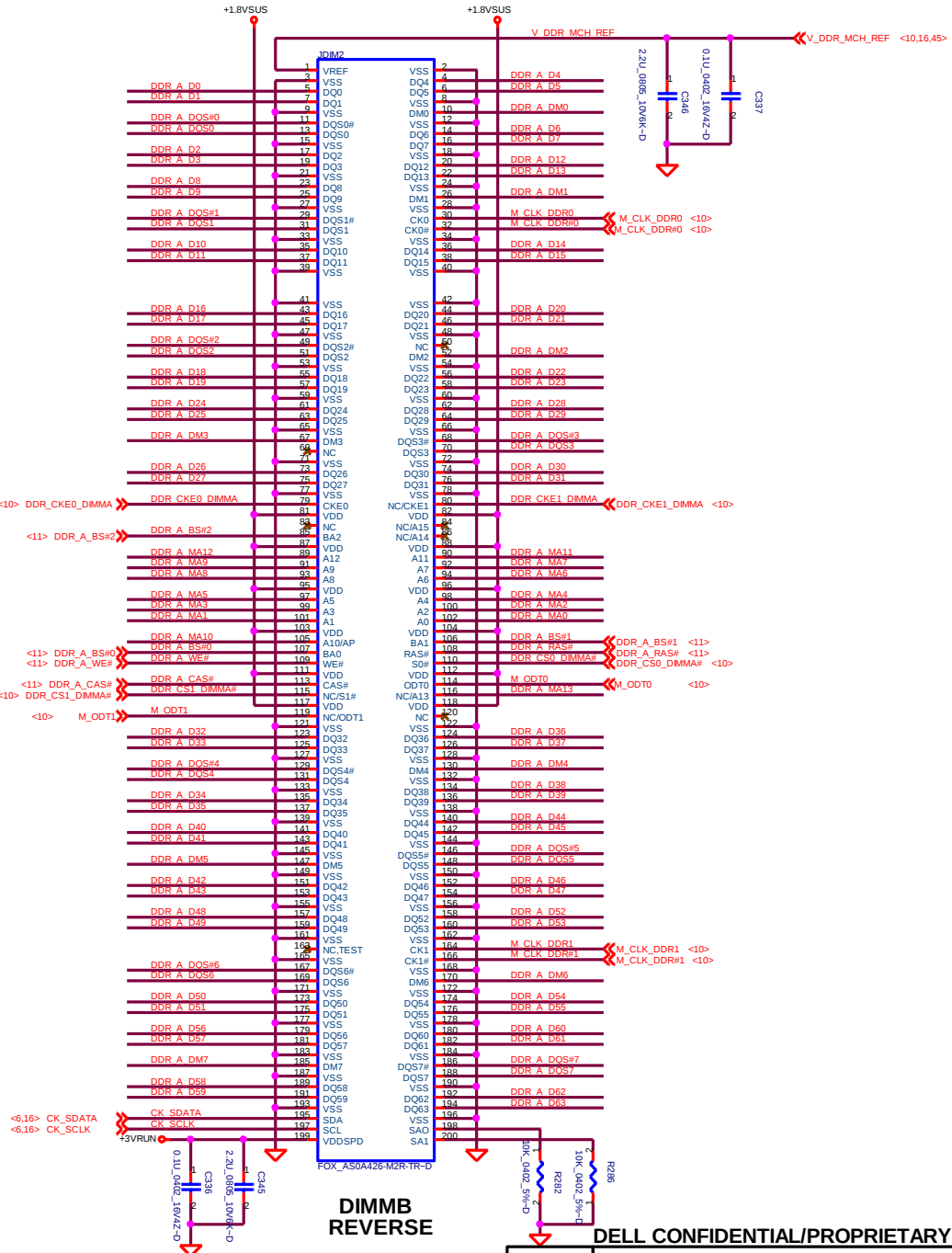


Layout Note:
Place one cap close to every 2 pullup resistors terminated to +0.9V_DDR_VTT



Layout Note:
Place these resistor closely JDIM2,all trace length<750 mil

Layout Note:
Place these resistor closely JDIM2,all trace length Max=1.3"



DIMMB
REVERSE

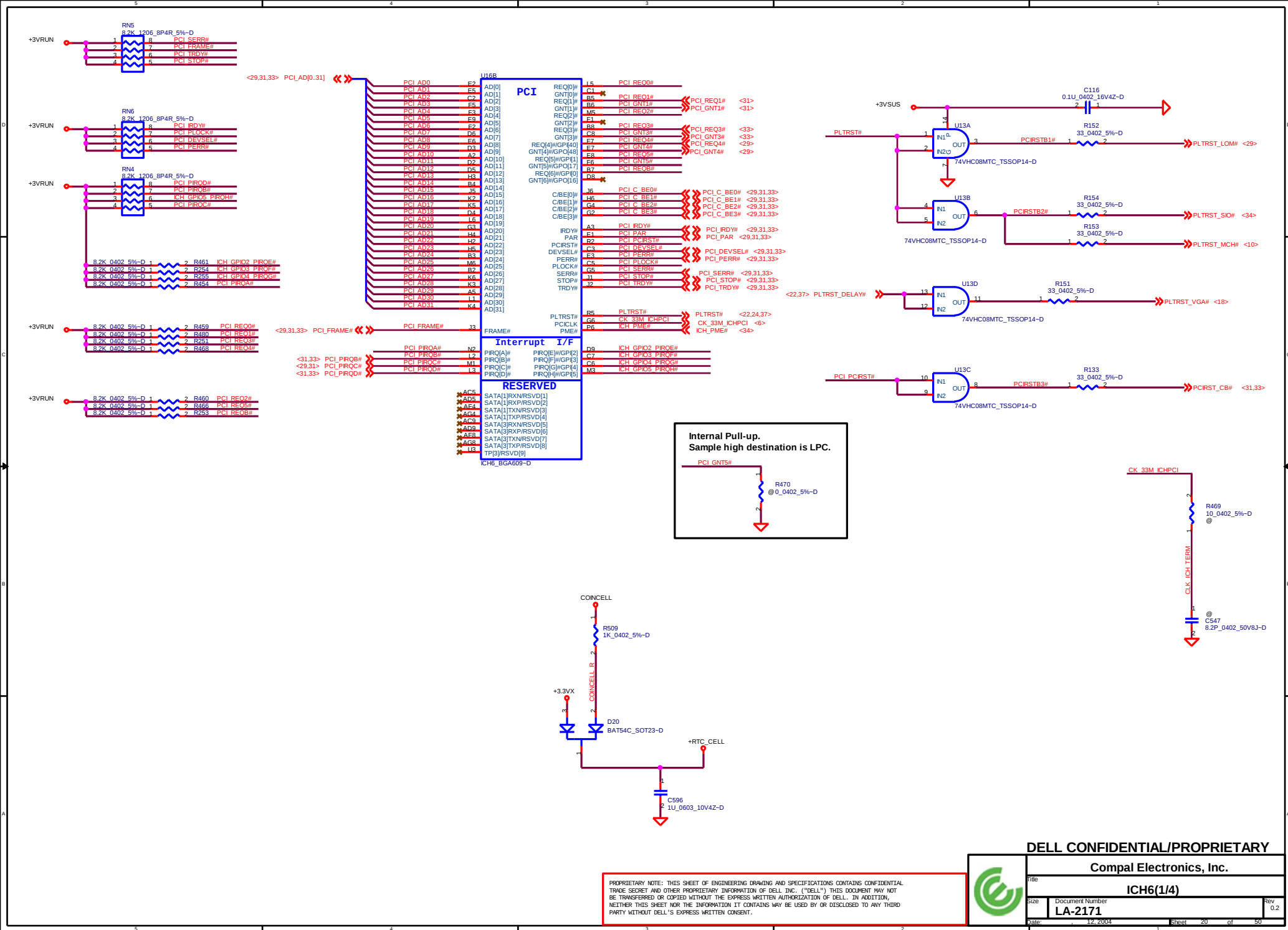
DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.	
DDR2-SODIMM SLOT2	
Size	Document Number
LA-2171	
Rev	0.2

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL, INC. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



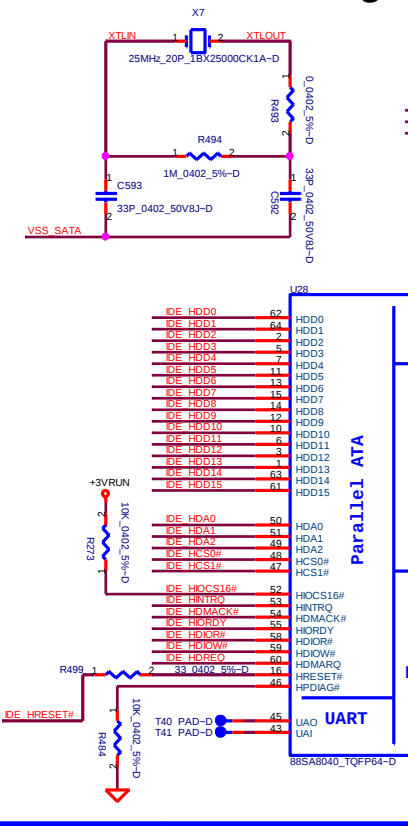




Compal Electronics, Inc.

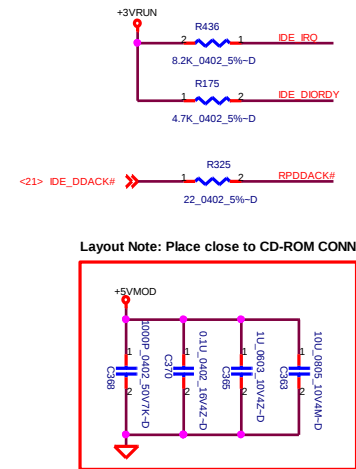
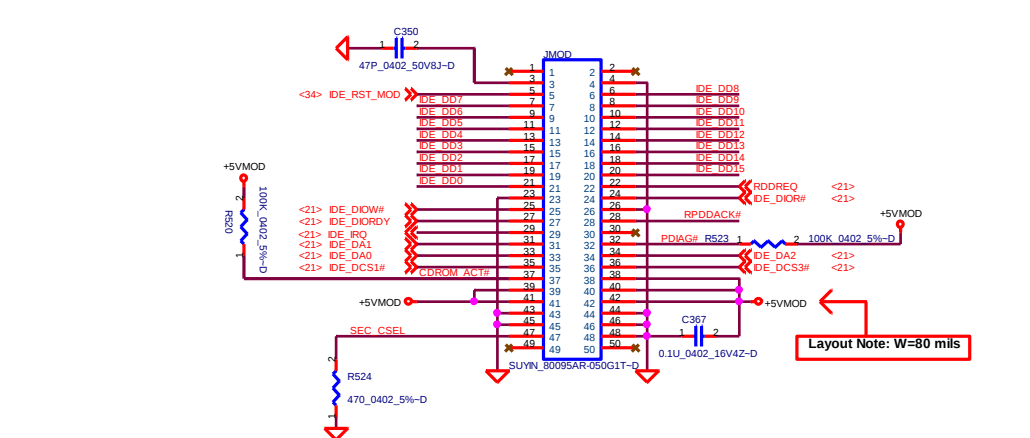
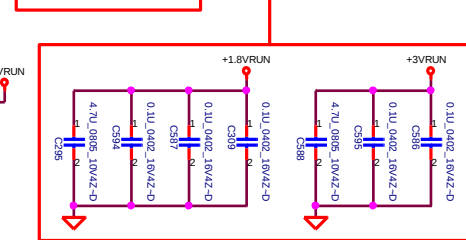
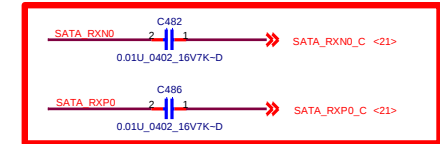
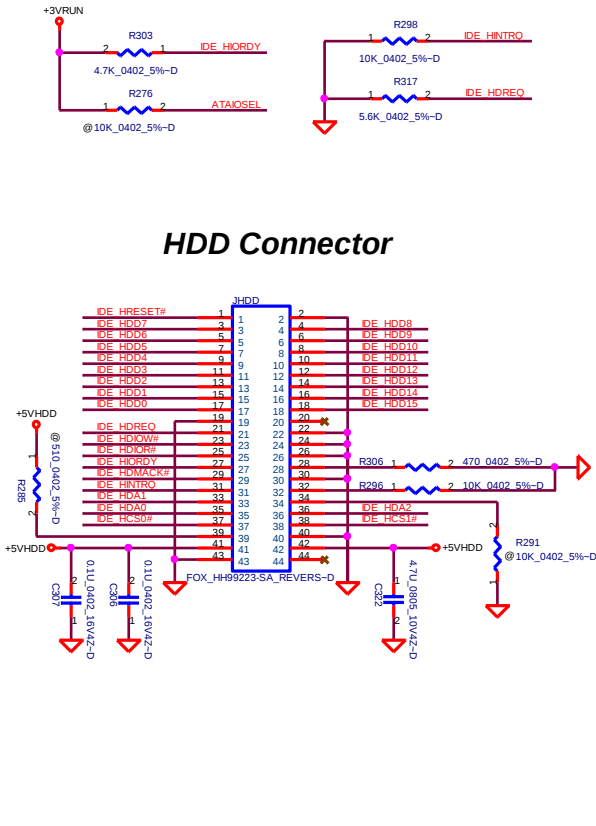
Title				ICH6(3/4)			
Size	Document Number						Rev
	LA-2171						0.2
Date:	12, 2004		Sheet	22	of	50	





T4	T3	
0	0	20MHz
0	1	25MHz
1	0	30MHz
1	1	40MHz

Pin Name	Pin No.	Int. PU/PD	Settings
SATATEST0	33	PD	NC
SATATEST1	34	PU	NC
SATATEST2	35	PD	NC
SATATEST3	36	PD	1
SATATEST4	37	PD	NC
SATATEST5	38	PU	0
SATATEST6	39	PD	1
SATATEST7	40	PD	NC
CFG0	20	PD	NC
CFG1	19	PU	0
CFG2	18	PD	NC



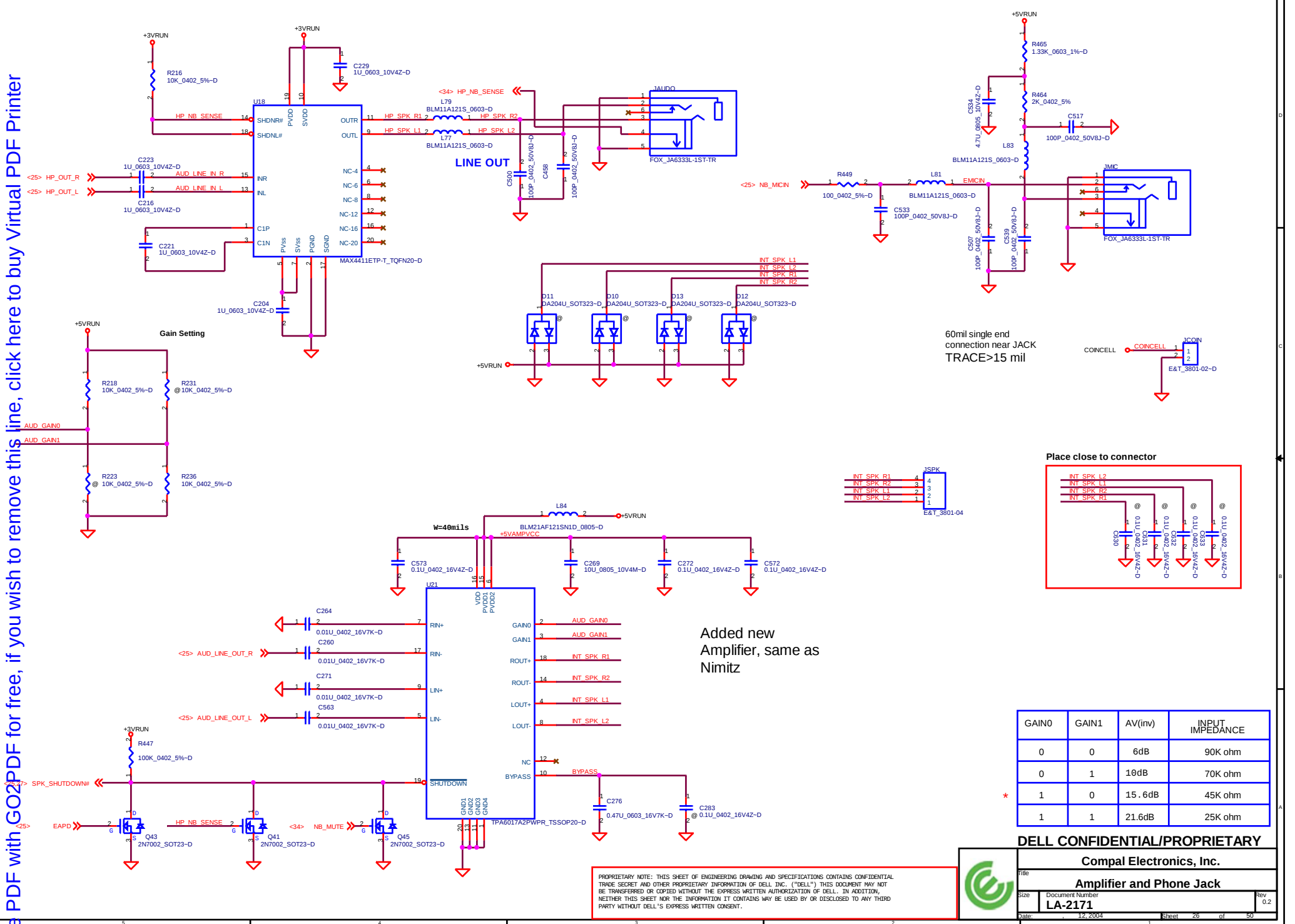
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

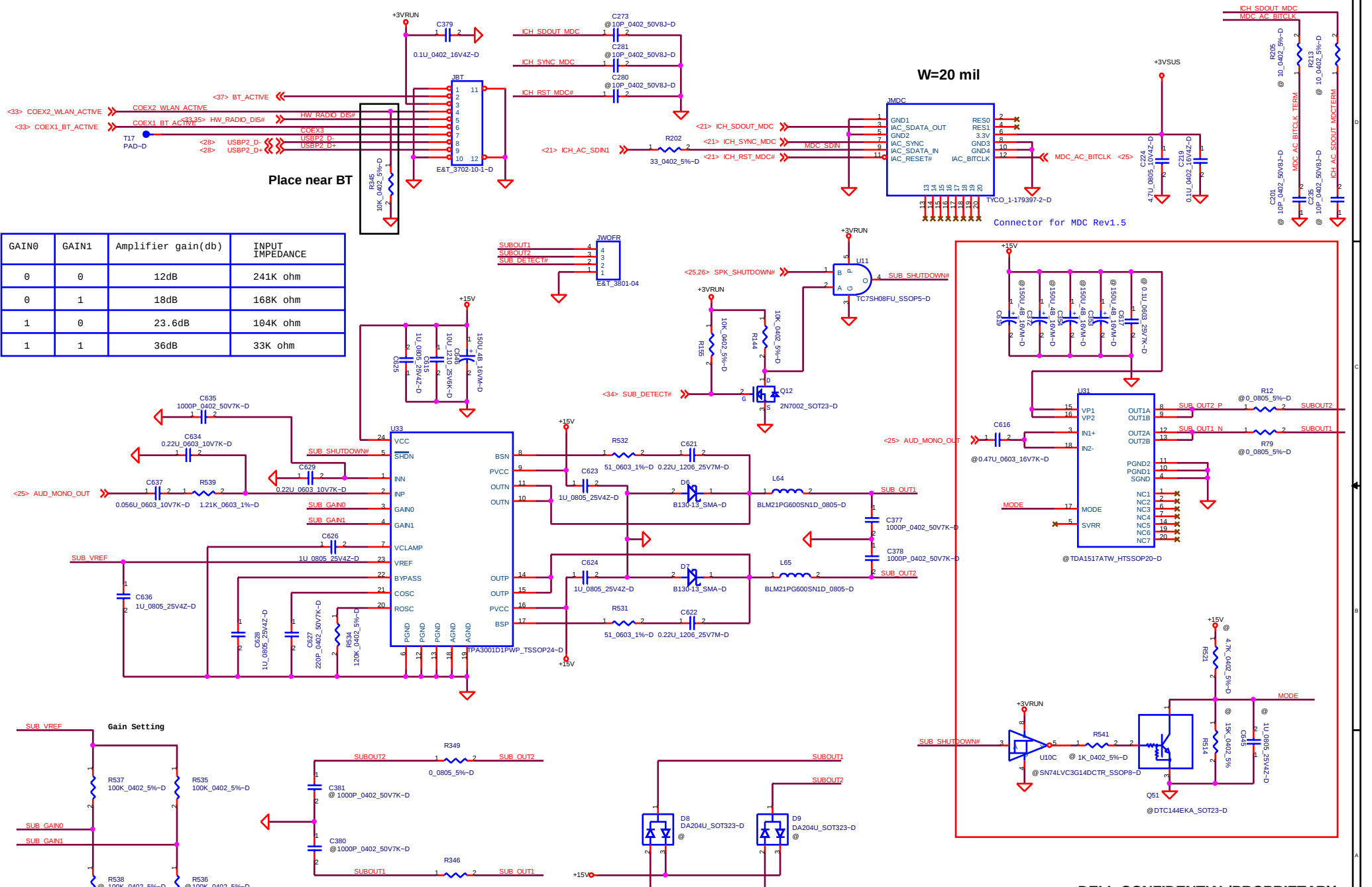


Size	Document Number
	LA-2171

Date: 12, 2004 Sheet 24 of 50







PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

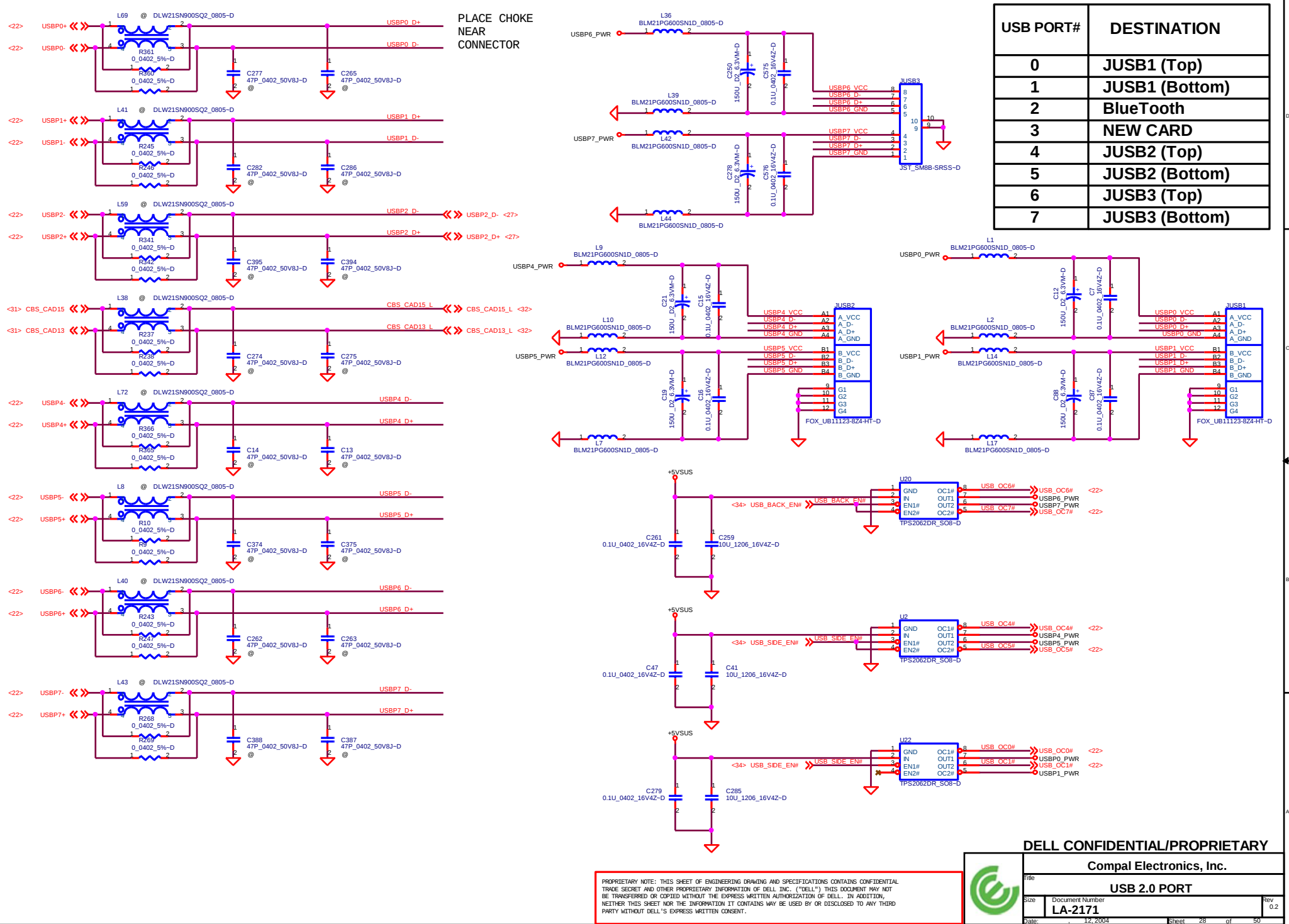
DELL CONFIDENTIAL/PROPRIETARY

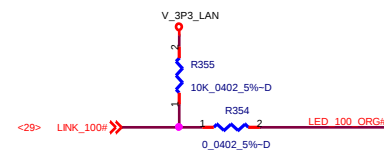
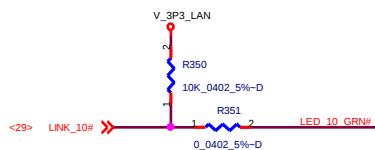
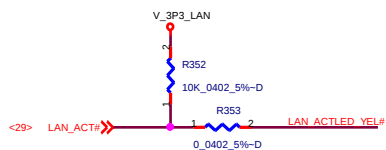
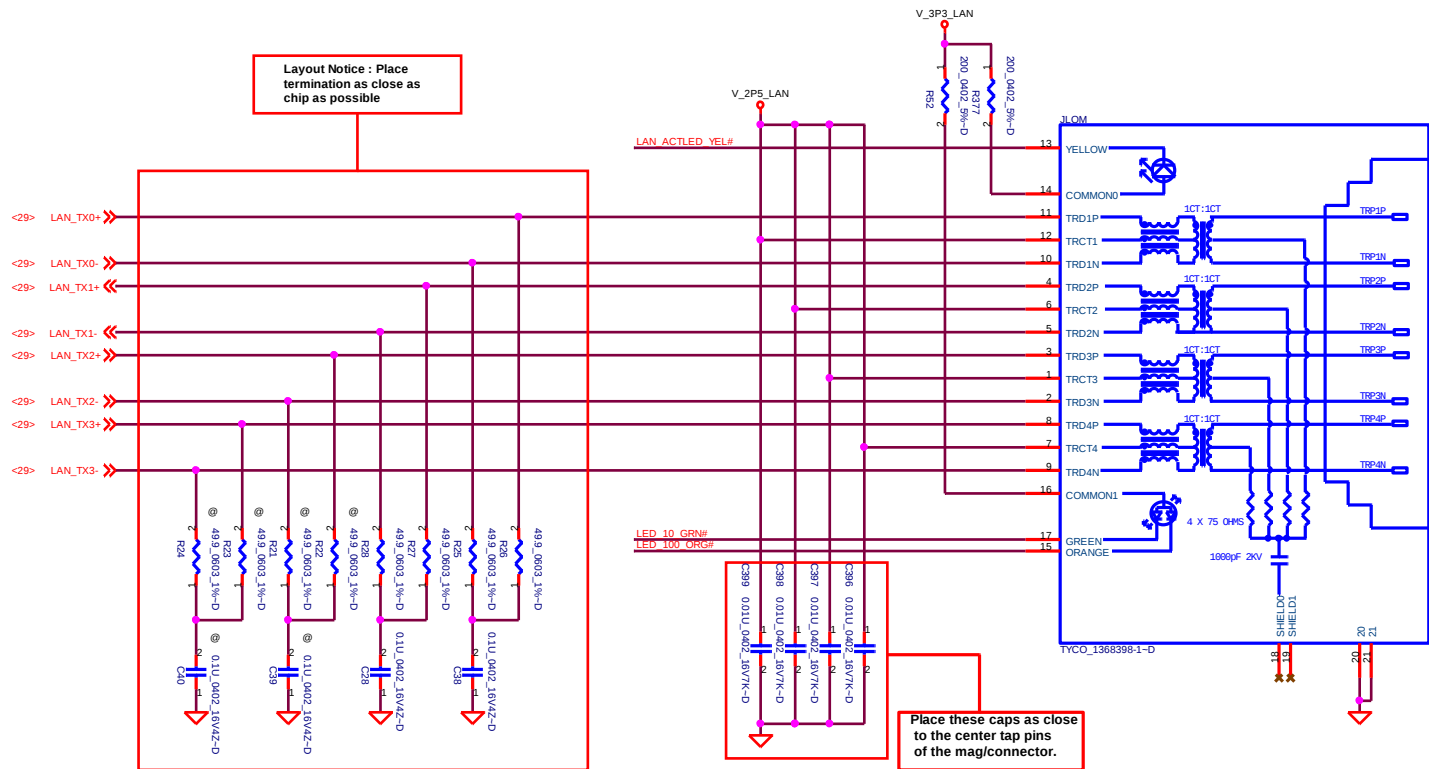
Compal Electronics, Inc.

SUBWOOFER,BT PORT and MDC

Size: LA-2171

Rev: 0.2





Place these caps as close to the center tap pins of the mag/connector.

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



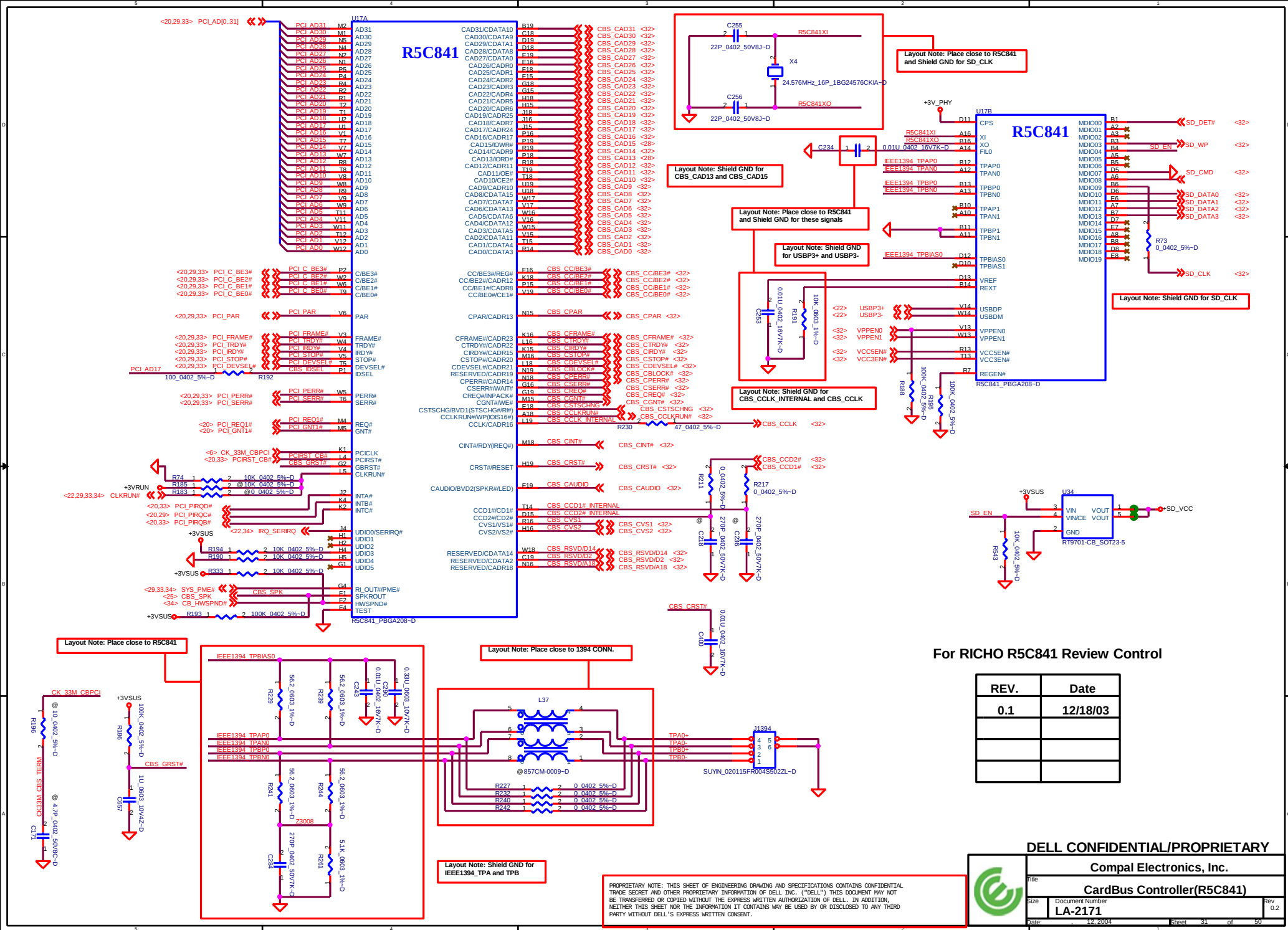
DELL CONFIDENTIAL/PROPRIETARY

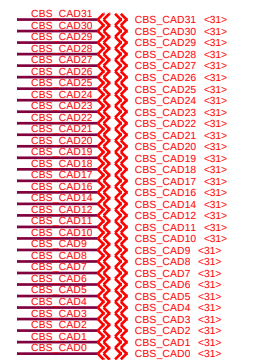
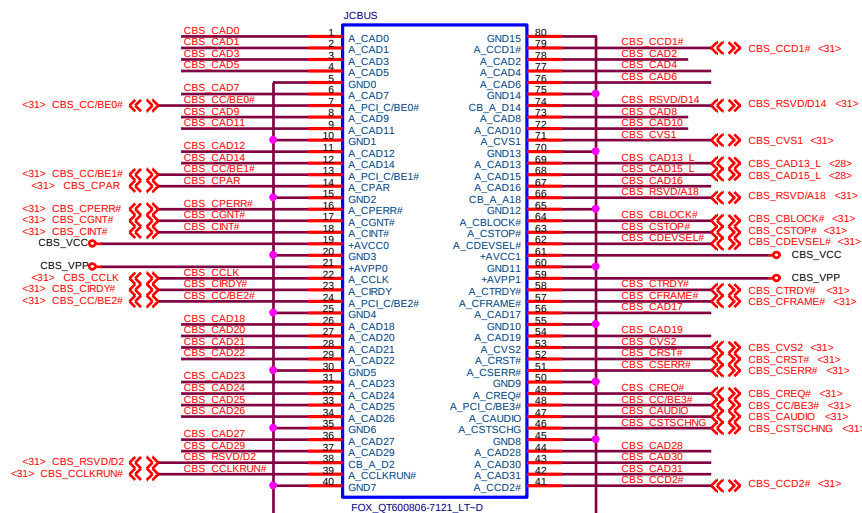
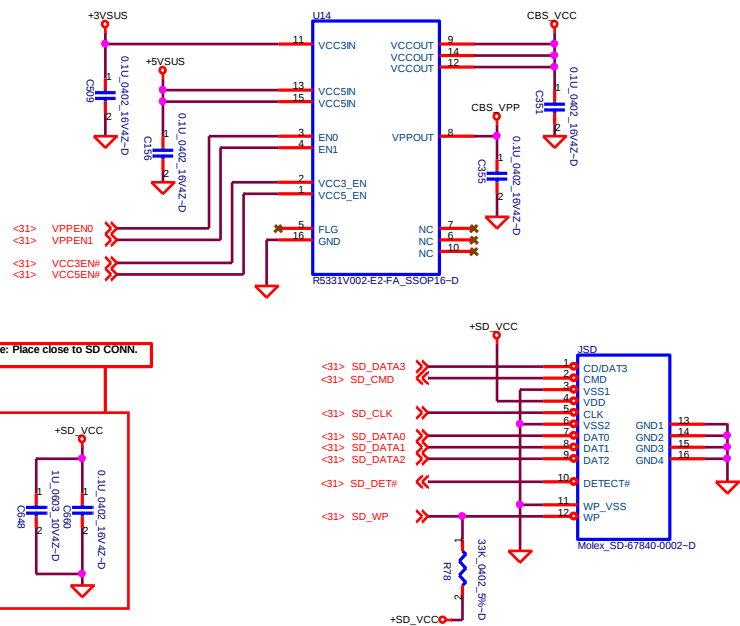
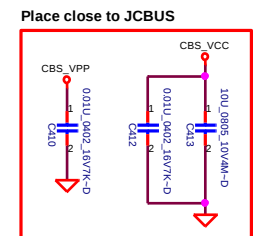
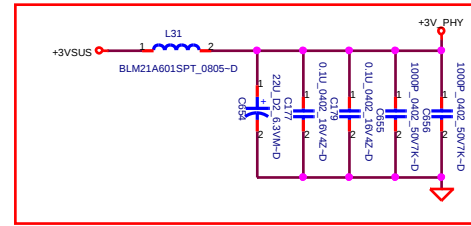
Compal Electronics, Inc.

LAN Transfomer and RJ45

Size	Document Number	Rev
LA-2171	LA-2171	0.2

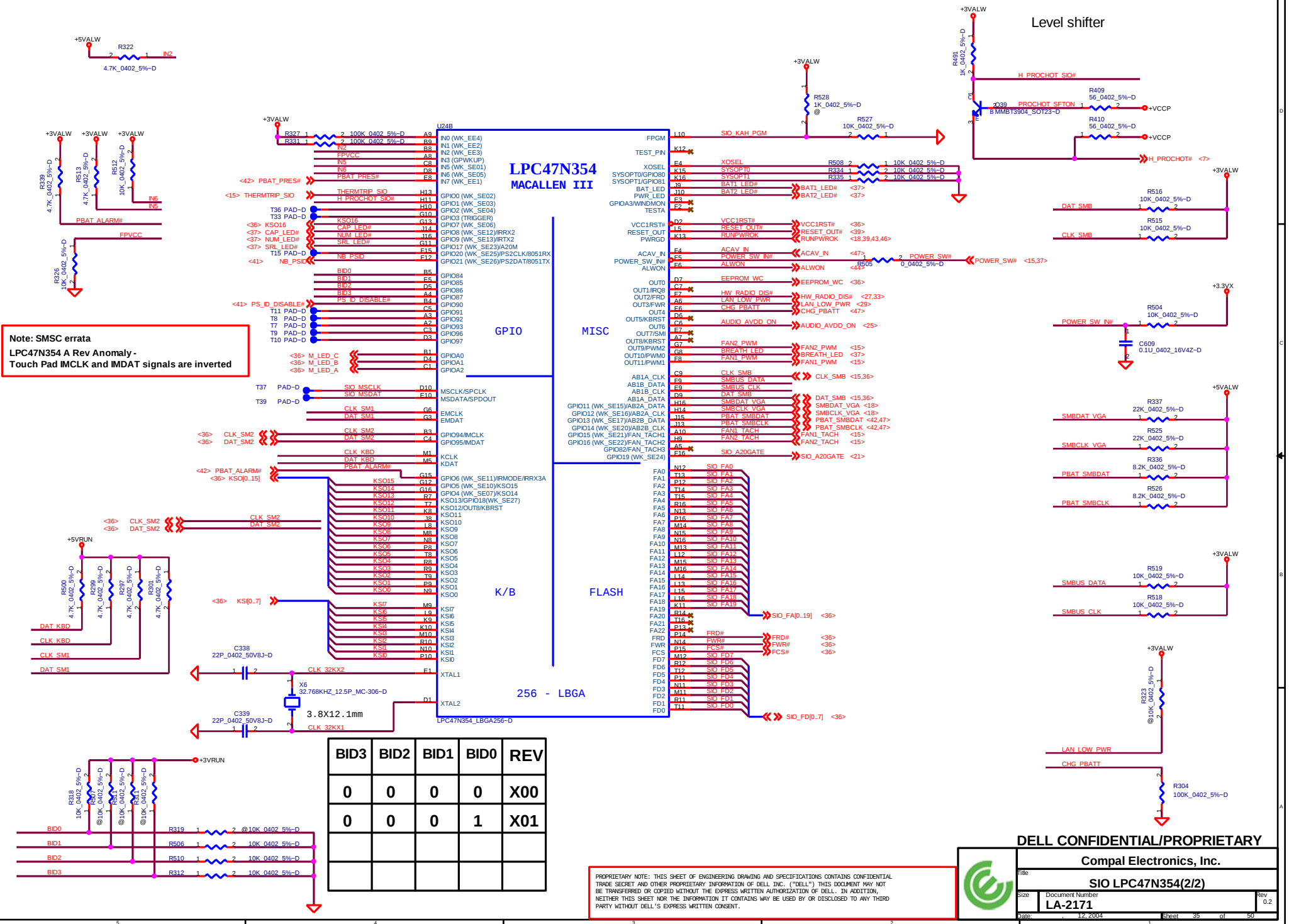
Date: 12/2004 Sheet: 30 of 50



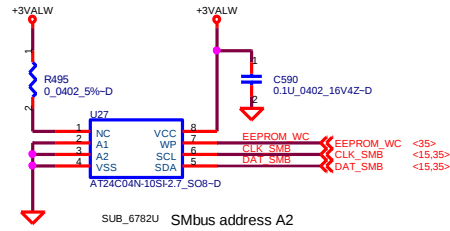
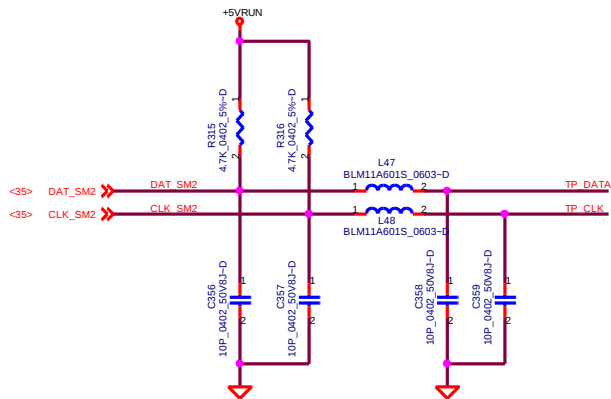


Size	Document Number LA-2171	Rev 0.2
Date:	12, 2004	Sheet 32 of 50

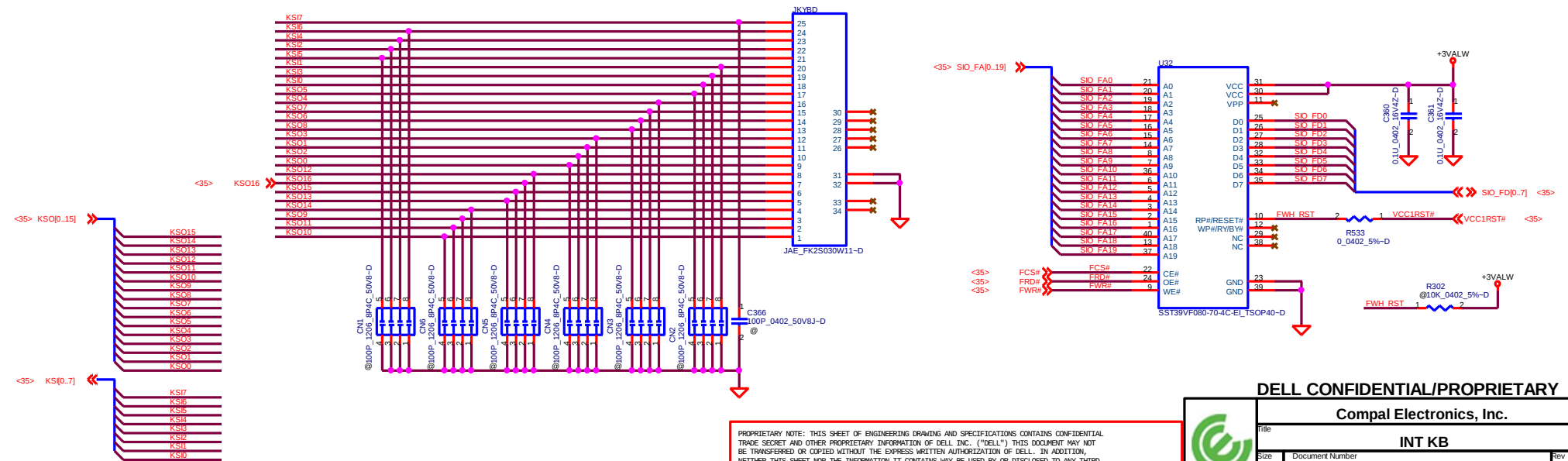
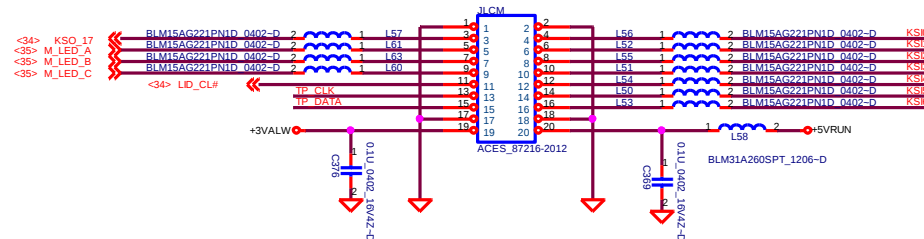
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



Note: SMSC errata
LPC47N354 A Rev Anomaly - Touch Pad IMCLK and IMDAT signals are inverted



LCM & Direct play SW & T PAD



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL, INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED, REPRODUCED, COPIED, OR DISCLOSED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL, INC. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

INT KB

LA-2171

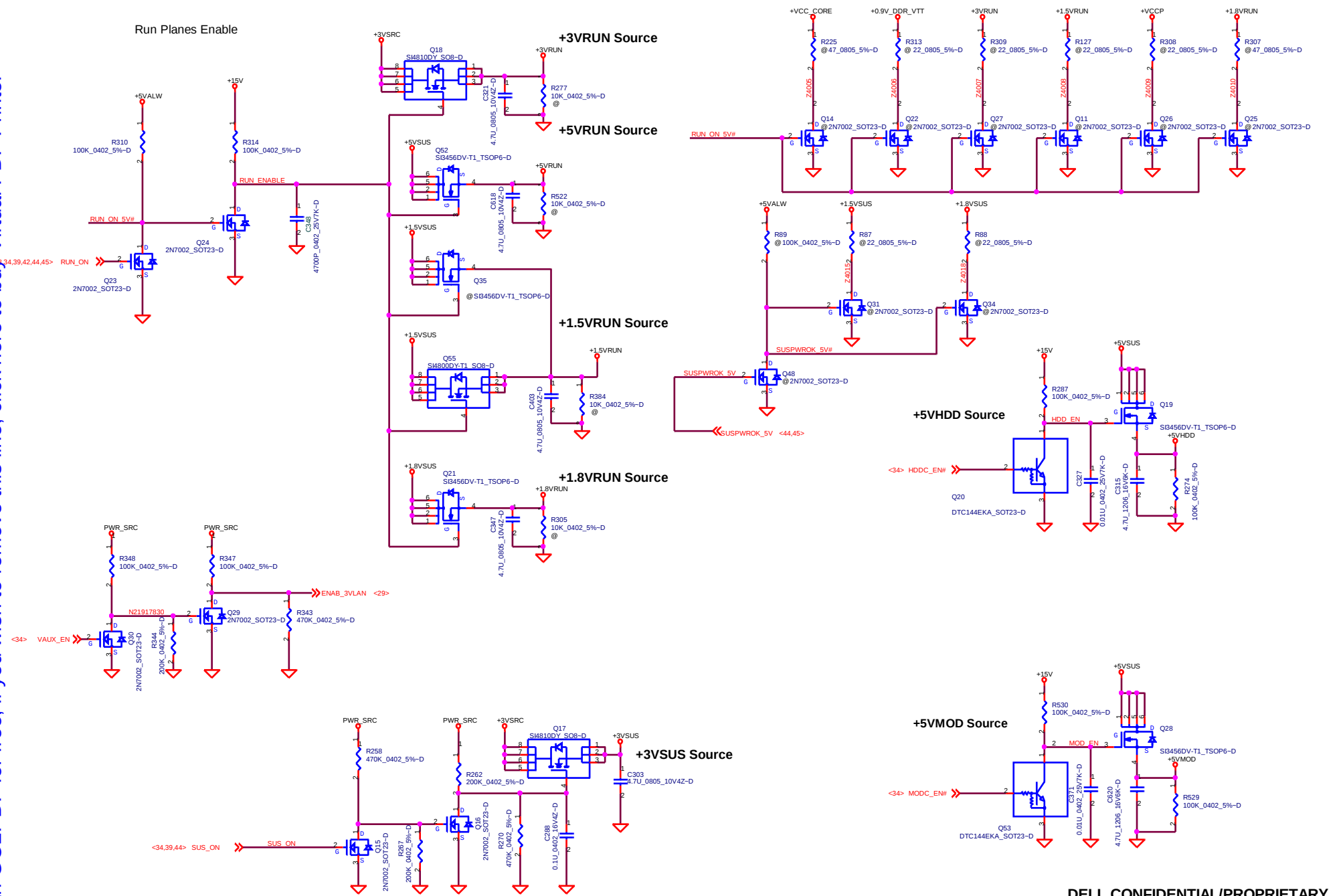
Rev 0.2

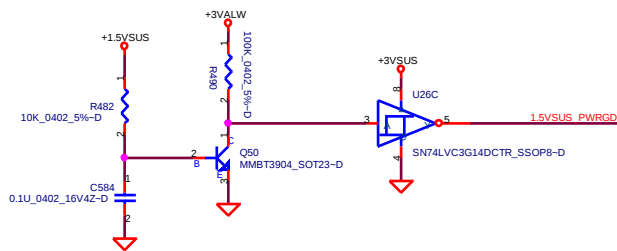
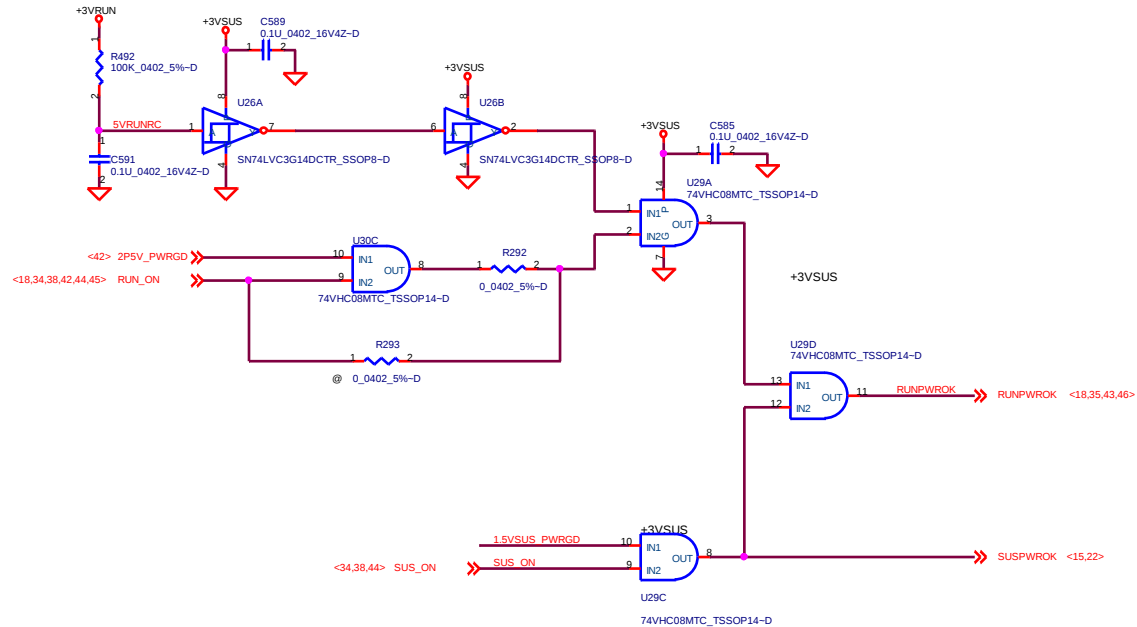
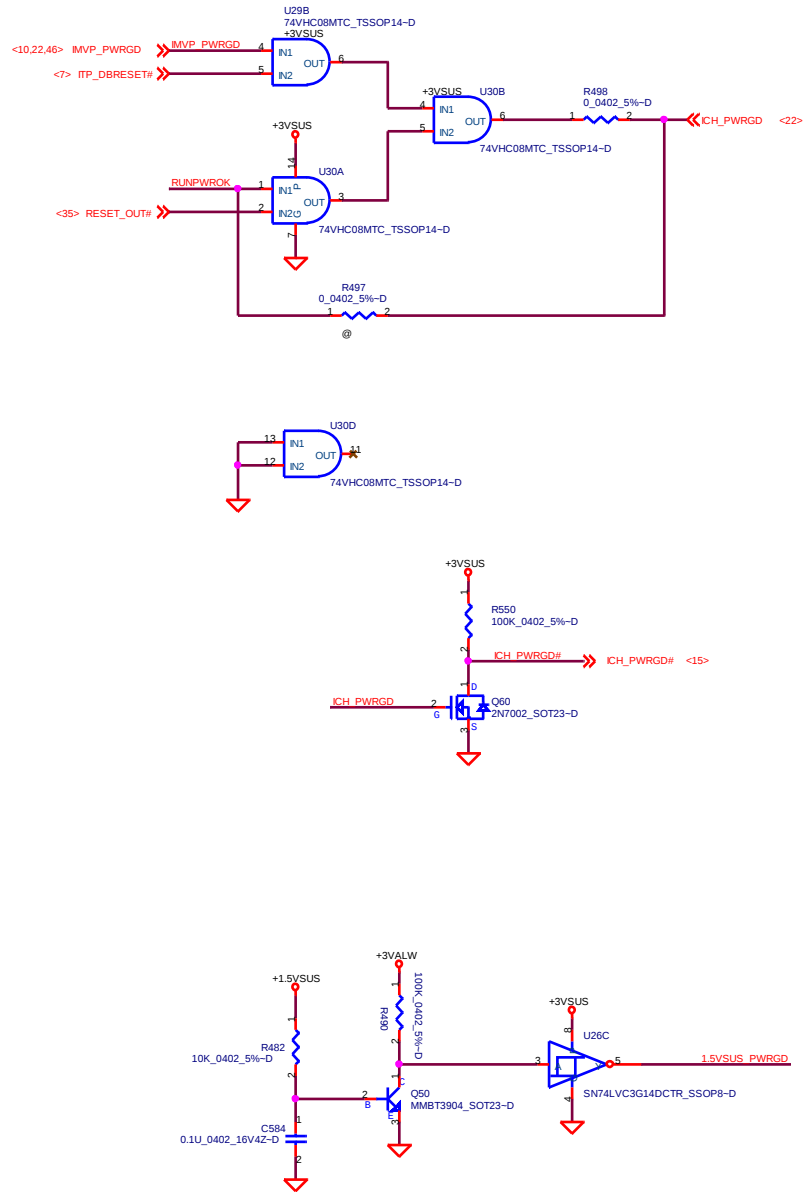
12, 2004

Sheet 36 of 50



Run Planes Enable





PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



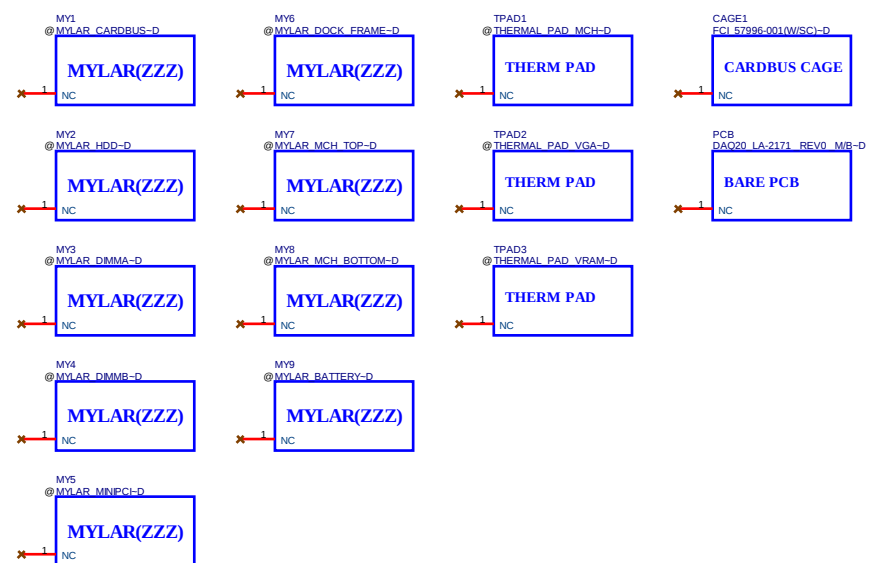
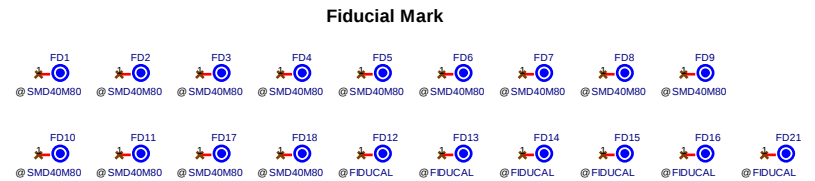
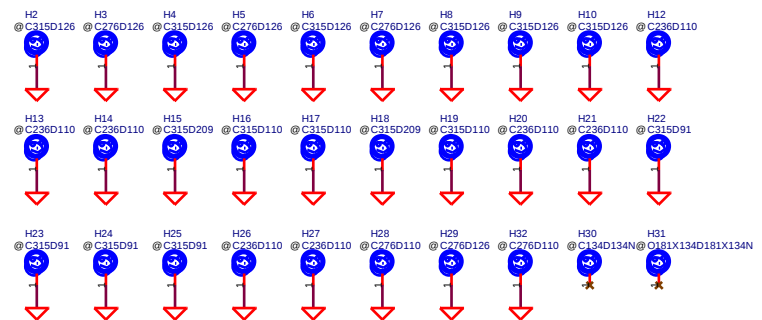
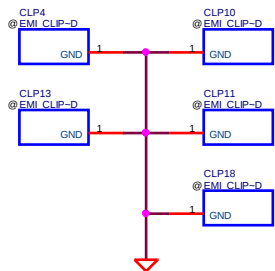
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Power Good

Size	Document Number	Rev
LA-2171		0.2

Date: 12/2004 Sheet: 39 of 50

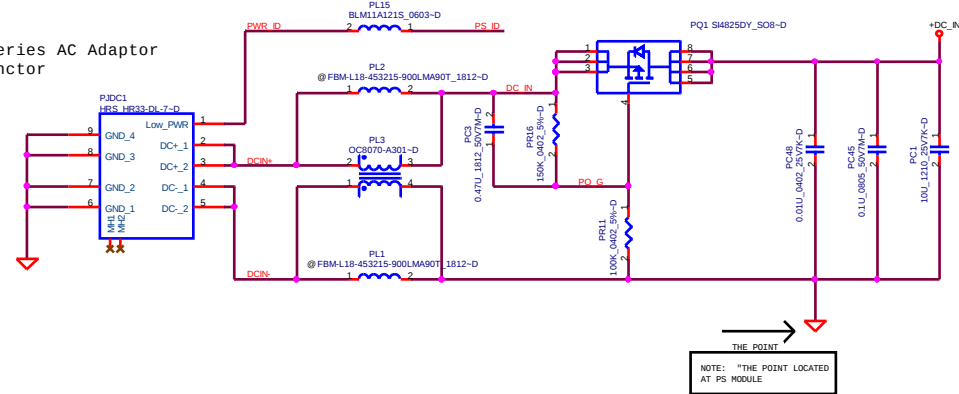


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

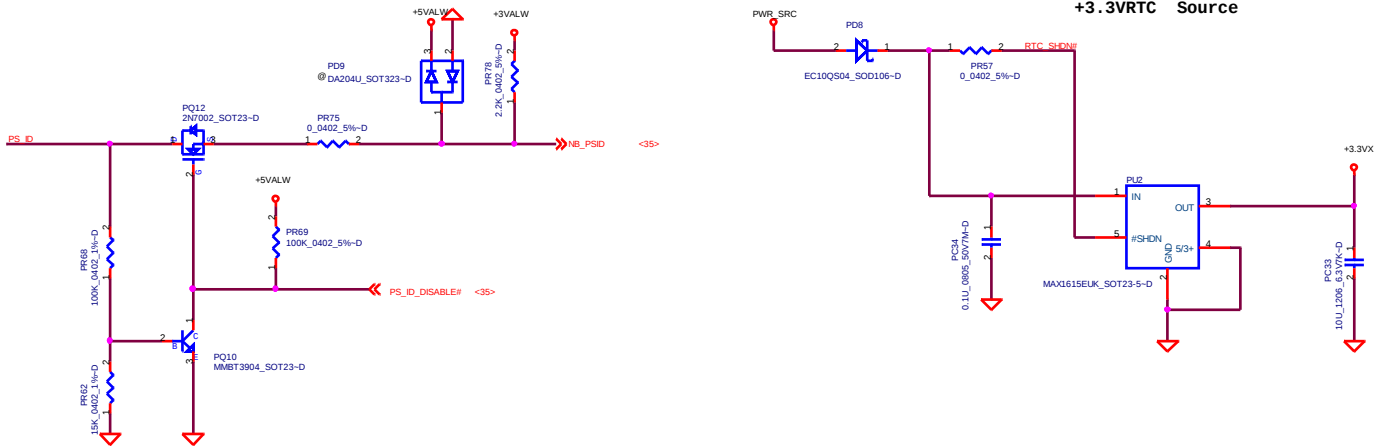


DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
Title			
PAD and Standoff			
Size	Document Number	Rev	
	LA-2171	0.2	
Date	12/2004	Sheet	40 of 50

Z-series AC Adaptor
Connector



DC_IN+ Source

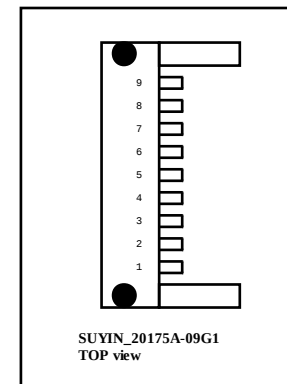
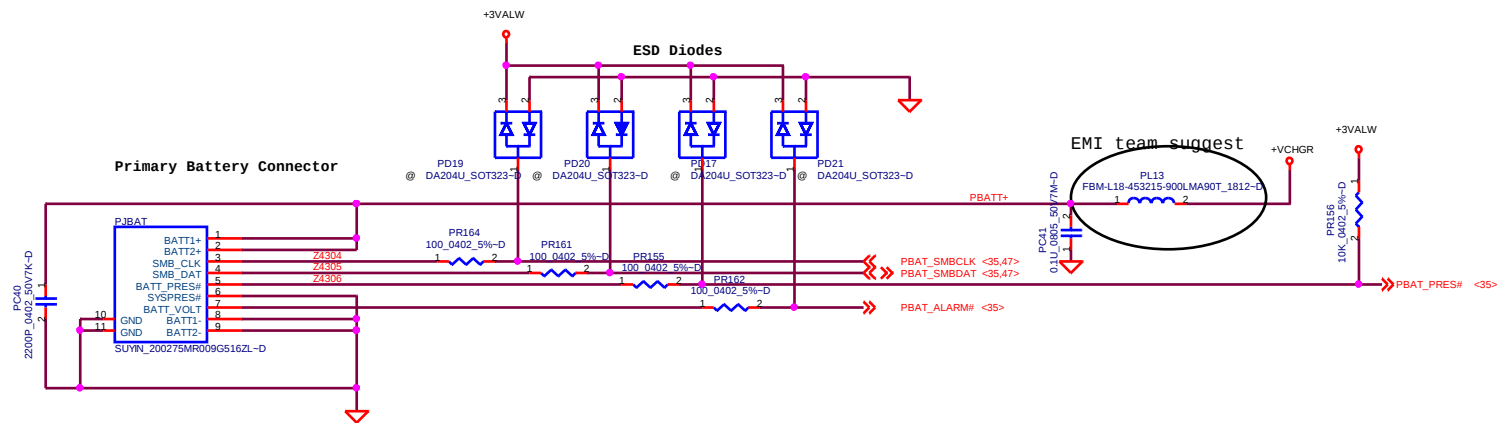


DELL CONFIDENTIAL/PROPRIETARY
Compal Electronics, Inc.

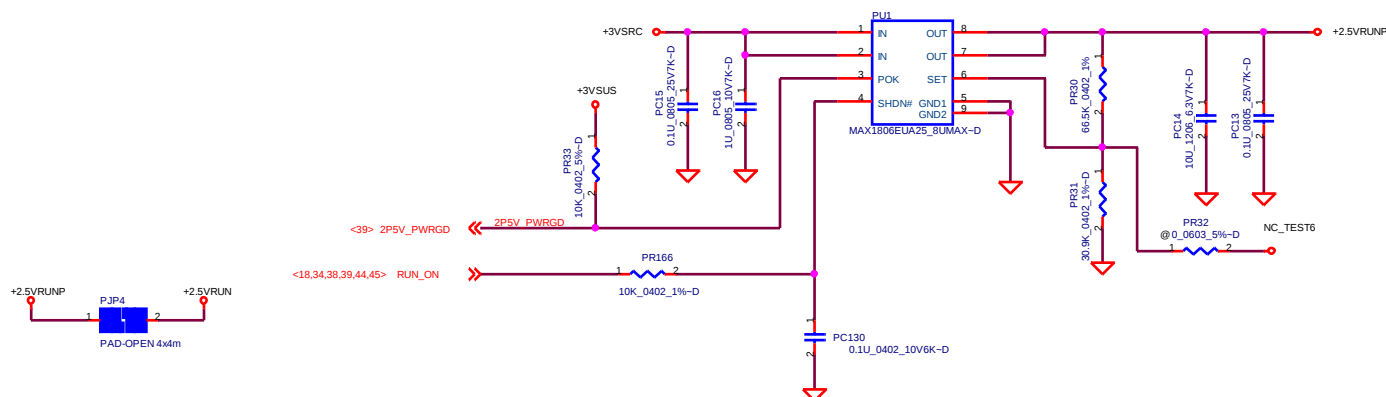


+DCIN		Rev
Doc	Document Number	0.2
LA-2171		
Date	12/2004	Sheet 41 of 50

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



+2.5V RUN $R1=R2 * (Vo / 0.8 - 1)$, $R2:25K-100K$.



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

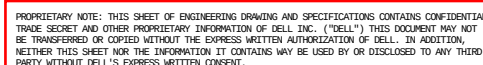


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Battery Conn./+2.5V

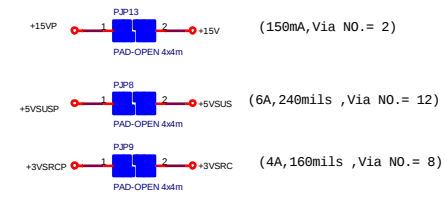
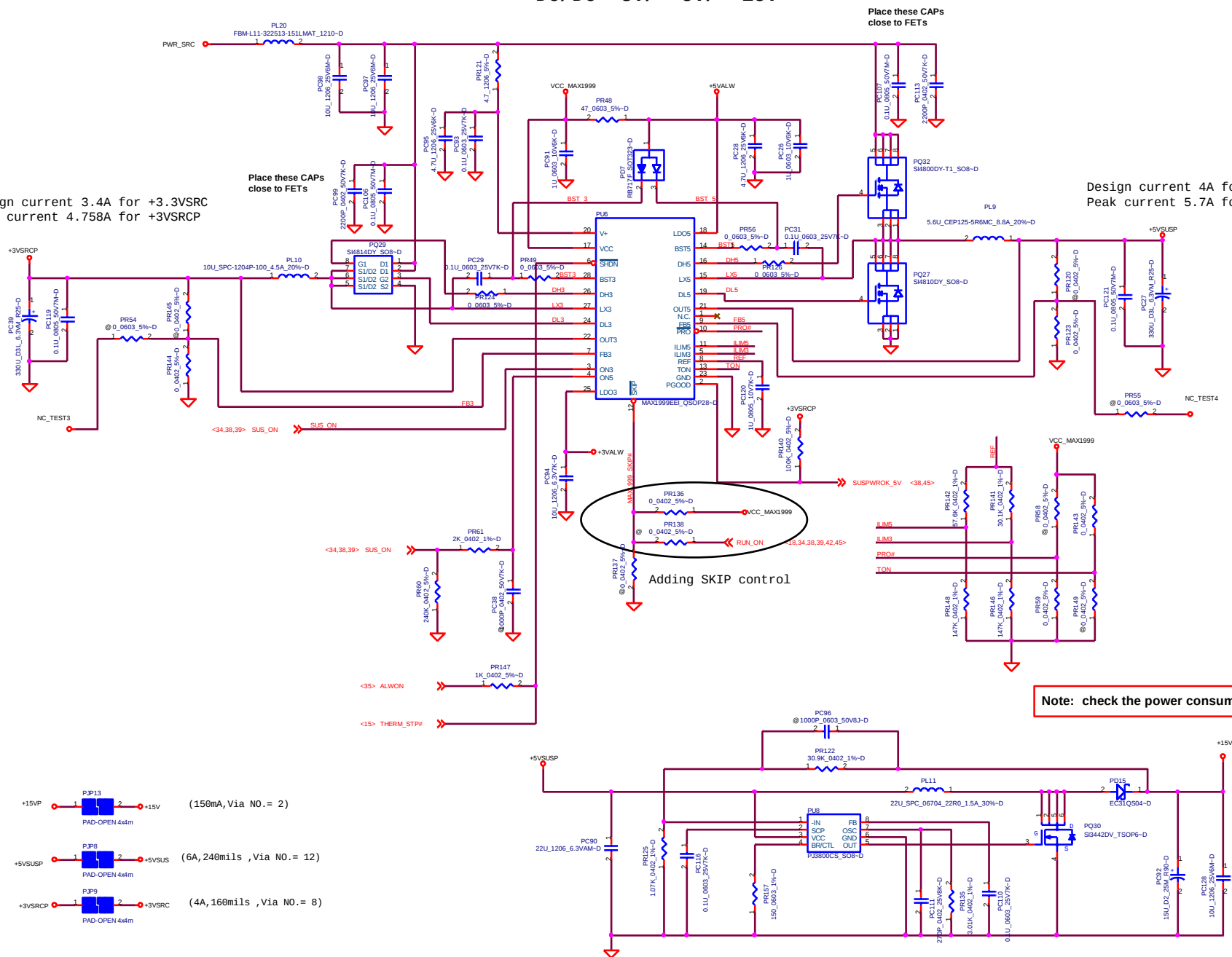
Size: Document Number
LA-2171
Date: 12/2004 Sheet: 42 of 50 Rev: 0.2



DC/DC +3V/ +5V/ +15V

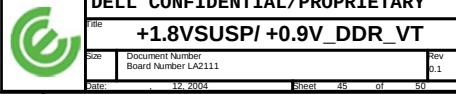
Design current 3.4A for +3.3VSRCP
Peak current 4.758A for +3VSRCP

Design current 4A for +5VSUS
Peak current 5.7A for +5VSUSP



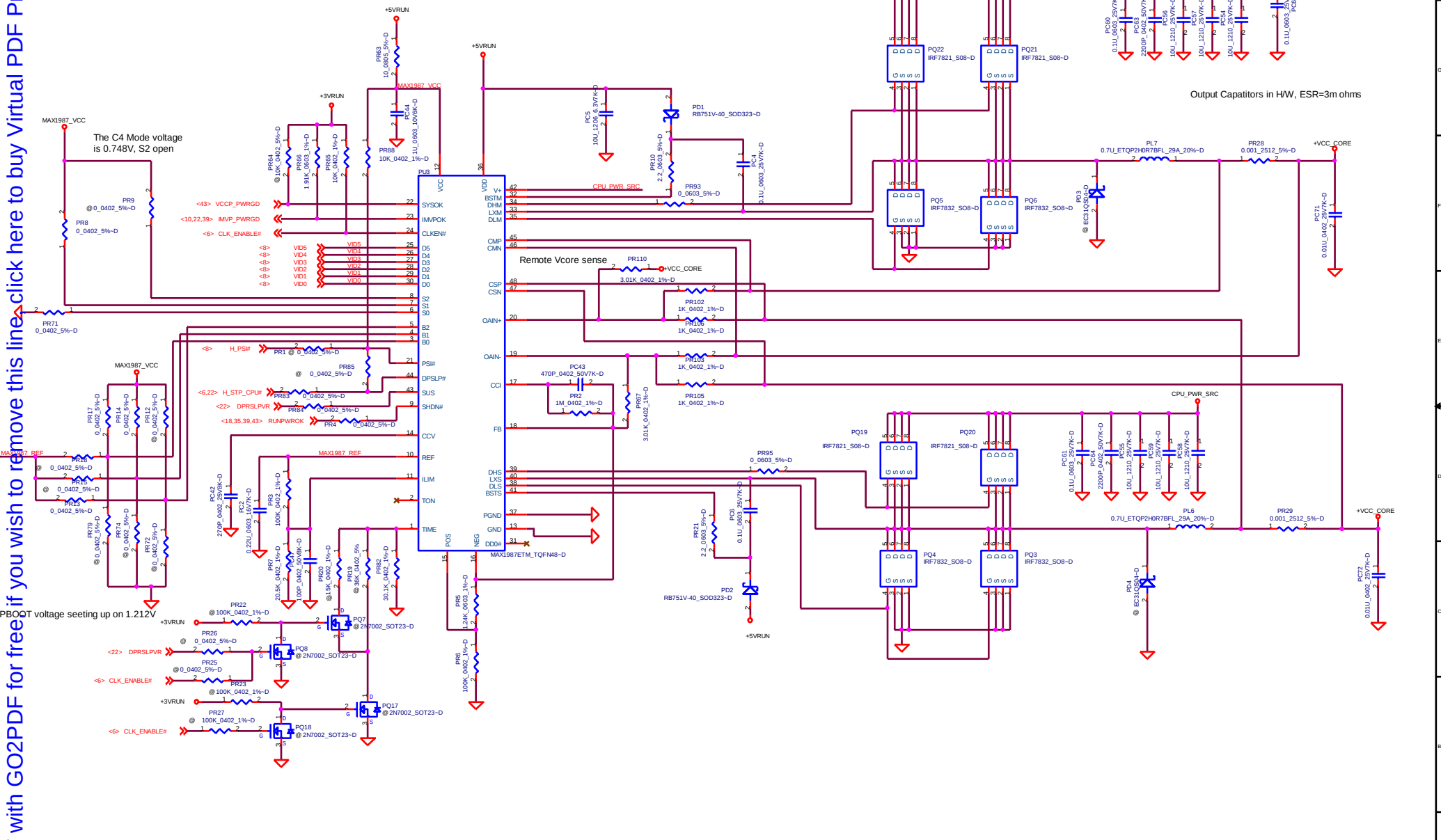
Note: check the power consumption of +15V plane

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

V I D							Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	V	
0	1	1	1	1	0	1.484	
0	1	1	0	0	1	1.308	
1	0	1	1	1	1	0.956	
1	1	1	1	0	0	0.748	



Change PR62 to 30.1k. Delete PR22/PQ8/PQ17/PQ7/PQ18/PR20/PR26/PR23
PR19 for BANIAS and DOTHAN
PR22/PQ8/PQ17/PQ7/PQ18/PR20/PR26/PR23 and PR19 are only for YONAH CPU.
TRANSITION TIMING:
(a) START-UP AND SHUTDOWN (SUS=LOW, RUNPWROK=LOW): 2mV/us
(b) ENTER SUSPEND (SUS=HIGH, RUNPWROK=HIGH): 8.6mV/us
(c) EXIT SUSPEND (SUS=LOW, RUNPWROK=HIGH): 24.7mV/us

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL
TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT
BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION,
NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD
PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



DELL CONFIDENTIAL/PROPRIETARY

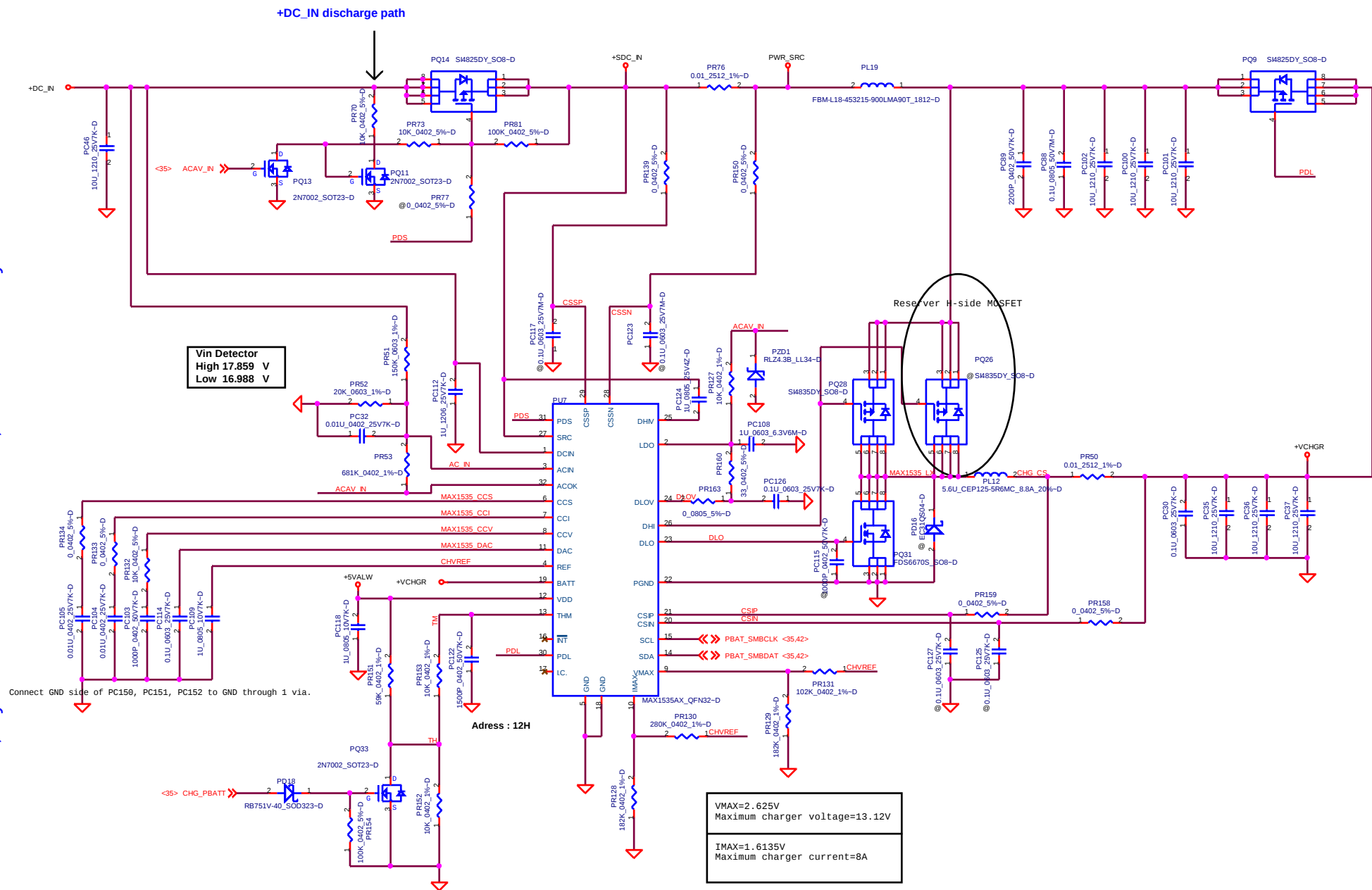
Compal Electronics, Inc.

+VCORE

Document Number
LA-2171

Rev
0.2

Date	12/2004	Sheet	1	of	50
------	---------	-------	---	----	----



PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Charger

Size	Document Number
	LA-2171

Rev	0.2
-----	-----

Date: 12, 2004 Sheet 47 of 50

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	31&32	Cardbus	10/15/03	Dell	Change cardbus controller to TI PCI4515.	Change U162	M00
2	18	VGA/B & DVI CONN.	10/16/03	Dell	Add DVI connector.	Add JDVI	M00
3	25	SATA Bridge	10/16/03	Dell	Add SATA to PATA circuit.	Add page 25	M00
4	28	Subwoofer	10/16/03	Dell	Add subwoofer circuit.	Add page 28	M00
5	40	LED/B	10/16/03	Dell	Removed IR circuit.	Delete U52	M00
6	27	Amplifier & Phone JACK	10/17/03	Dell	Removed internal MIC circuit.		X00
7	31&32	LOM	10/17/03	Dell	Change LAN controller (U164) from 5751M to 4401. Add pop option for the 5705 like Kapalua/Lindbergh board.		X00
8	33	Cardbus	10/17/03	Dell	Depop 1394 choke, L142 and pop bypass resistors, R1025, R1026, R1027, R1028		X00
9	1	Cover page	10/17/03	Dell	Change schematic revision from M00 to X00.		X00
10	40	PAD & ME & spare parts	01/07/04	Compal	For EMI requirement.	Pop CLP4,5,10,11,13 and depop CLP18	X01
11	22	ICH6(3/4)	01/08/04	Dell	Connected PCIE channel 1 to TV-Tuner connector.	Delete T4,T5,T29,T30 and add C661,C662	X01
12	37	LED/B & TV TUNER	01/08/04	Dell	Connected TV tuner signals.	Add C663,C664	X01
13	40	PAD & ME & spare parts	01/08/04	Compal	Added ME standoff.	Pop H12,H13,H14,H17,H20,H21,H26,H27	X01
14	32	CardBus(2/2)	01/28/04	Compal	Fixed SD card issue.	The pin11 of JSD need to be connected to GND and pin 12 need to be connected to U17 pin b3.	X01
15	10	Alviso(1/5)	01/28/04	Dell	From Intel Message.	Change C124 from 220pF to 0.1uF and move capacitor as close as possible to the HVREF pin (pin J11 of U15).	X01
16	6	Clock Generator	01/28/04	Dell	Per Intel and ICS recommendation.	Connect the SATA clock to SRC4 and connect the VGA clock to SRC1.	X01
17	7&10	Dothan(1/2) &Alviso(1/5)	01/28/04	Dell	Per the Intel Check list 1.301	Change R397 and R114 to 75 ohm.	X01
18	36	Internal K/B & LCM CONN.	01/29/04	Compal	The BIOS debug connector is for bring up only.	Delete JDEBUG.	X01
19	1	Cover page	01/29/04	Compal	Change schematic revision from X00 to X01.		X01
20	35	Macallen(2/2)	01/29/04	Compal	Board ID X01.	Pop R318 and depop R319.	X01
21	34	Macallen(1/2)	01/29/04	Compal	Reserved a inverter for serial port debug.	Add U36 and T13.	X01
22	40	PAD & ME & spare parts	01/30/04	Compal	This clip have interferenced with screw hole.	Delete CLP5 and add H32	X01
23	37	LED/B & TV TUNER	02/02/04	Compal	The indicative LED of HDD doesn't work well.	Remove R12 and connect the pin3 of Q2 to +3VRUN.	X01
24	37	LED/B & TV TUNER	02/04/04	Dell	Changed JTUNR pin definitions	Added PCIRST#, CLK_PCIE_TV/TV# signals	X01
25	6	Clock Generator	02/04/04	Dell	Added PCIE clock connection to JTUNR	Added R551, R552, R553, R554	X01

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Changed-List History



Size	Document Number	Rev
	LA-2171	0.2

Date: 12/2004 Sheet: 48 of 50

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL
TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT
BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION,
NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD
PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

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

[illegible]

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Changed-List History

Size	Document Number	Rev
	LA-2171	0.2
Date:	12/20/04	Sheet 49 of 50

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	49	Charger selector	2003/10/14	Compal	Modify charger selector circuit.	Need to discuss.	0.0
2	42	PSID & +3VX	2003/10/15	Compal	Modify PSID circuit same as Nimitas. And add current limit resistor on RTC charger.	Add ESD solution on PSID, and limit RTC charge current.	0.0
3	44	+15VP	2003/11/4	Compal	+15VP current rating is not enough for subwoofer	Use MB3800 Boost IC to genearte +15VP from +5VSUSP	X00
4	47	Charger	2003/11/5	Compal	That has leakage current from battery goes through PQ22 and PQ44 to DC_IN.	Move Adaptor current sense PR144 after PQ24 and before PWR_SRC. That is same as Nimitaz.	X00
5	44	+15VP	2003/12/11	Compal	Test +15VP on Demon board.The output ripple voltage is large and improve efficiency.	Add PC128 10U_1206_25V,change PQ30 from SI2302DS to SI3442DV, change PR157 form 392_0603_1% to 150_0603_1%, no-pop PC96.	M00
6	45	+1.8VSUSP	2004/2/1	DELL	Change DDRII DC-DC solution for cost down.	Using MAXIM MAX8550 .	X01
7	43	+VCCP_1P05VP	2004/2/1	Compal	VCCP_1p05VP has two 330uF caps on it(PC10, PC11), Laguna only has one. Do we need two?	Can de-populate PC11,and test is OK.	X01
8	45	+1.8VSUSP	2004/2/5	Compal	Voltage divider setting is error, the FB regulate on 0.7V.	Change PR116 from 45.3K_0402_1% to 27.4K_0603_1%. Change PC22 from 1U_0603_6.3V to 4.7U_0805_6.3V	X01
9	46	+VCC_CORE	2004/2/5	Compal	Choke height is over mechanical height limitation	Change PL6 and PL7 from 0.6U_HK_AE26A0R6 to 0.7U_ETQP2H0R7BFL.	X01
10	46	+VCC_CORE	2004/2/6	Compal	EMI broad band test is over 1~2 db	Change PR10 and PR21 from 0_0603_5% to 2.2_0603_5%.	X01
11	41	PS_ID	2004/2/11	DELL	Open issue #60 Change PS_ID pullup resistor, PR78, from 1.5K to 2.2K	Change PR78 from 1.5K_0603_1% to 2.2K_0402_5%.	X01
12	45	+0.9V_DDR_VTTP	2004/2/11	DELL	Open issue#63 Please add a 10uf, 1206 package capacitor at the output of PU5 pin 12, +0.9V_DDR_VTTP.	Add and reserve PC131 10U_1206_6.3V7K.	X01
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

TitlePower-Changed-List History

SizeDocument NumberLA-2171Rev0.2

Date12/2004Sheet50 of 50