

COMPAL CONFIDENTIAL

MODEL NAME : *HAL31(Discrete) & HAL30(UMA)*

PCB NO : *LA-3001P*

COMPAL P/N : *45140031L11 (For Discrete)*
45140031L01 (For UMA)



Bali (DIS&UMA) Schematics Document

uFCPGA Mobile Yonah
Intel Calistoga + ICH7M

2006 - 04 - 14

REV : 0.5 (DELL: X03)

@ : Nopop Component
1@ : UMA Used Only
2@ : Bali with discrete Used Only

MB PCB	
Part Number	Description
DA800004W0L	PCB LA-3001P REV0.4 MB

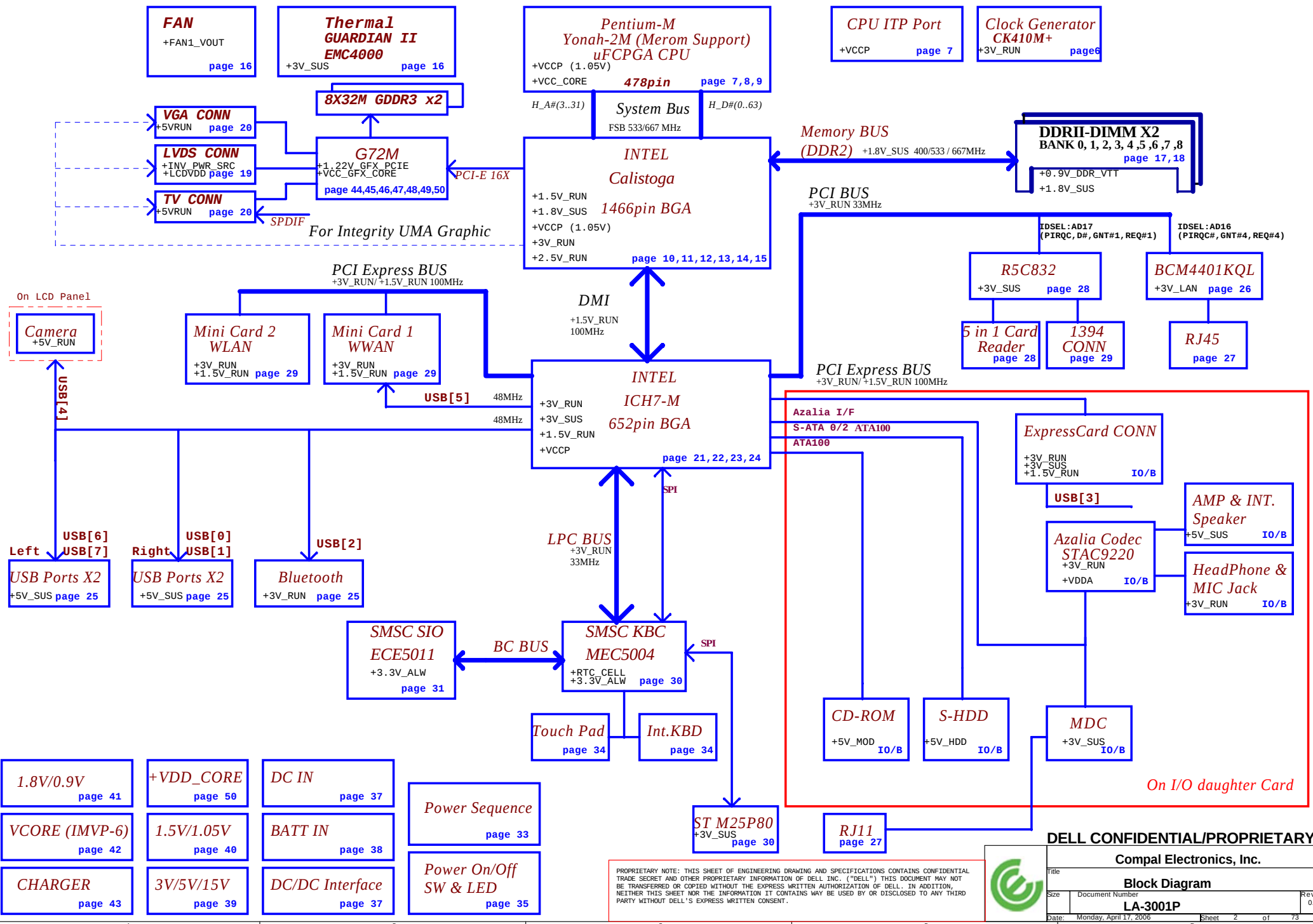
BOM NO: *45140031L11 (For Discrete)*
45140031L01 (For UMA)

PCB P/N: *DA800004W0L*

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		Cover Sheet	
Size	Document Number	Rev	
		LA-3001P	
Date: Monday, April 17, 2006		Sheet 1	of 73



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.



PM TABLE

State	power plane		
	+5V_ALW +3.3V_ALW	+15V_SUS +5V_SUS +3.3V_SRC +3.3V_SUS +1.8V_SUS	+5V_RUN +3.3V_RUN +2.5V_RUN +1.8V_RUN +1.5V_RUN +1.22V_GFX_PCIE +0.9V_DDR_VTT +VCC_GFX_CORE +VCC_CORE +1.05V_VCCP
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
LAN	AD16	REQ#3/GNT#3	IRQB
R5C832	AD17	REQ#2/GNT#2	IRQC IRQD

	USB PORT#	DESTINATION
ICH7-M	0	JUSB1 (Ext Back Right Side)
	1	JUSB1 (Ext Back Right Side)
	2	Blue Tooth
	3	EXPRESS CARD
	4	CCD Camera
	5	WWAN
	6	JUSB2 (Ext Back Left Side)
	7	JUSB2 (Ext Back Left Side)
SIO ECE5011	0	None
	1	None
	2	None
	3	None
	4	None

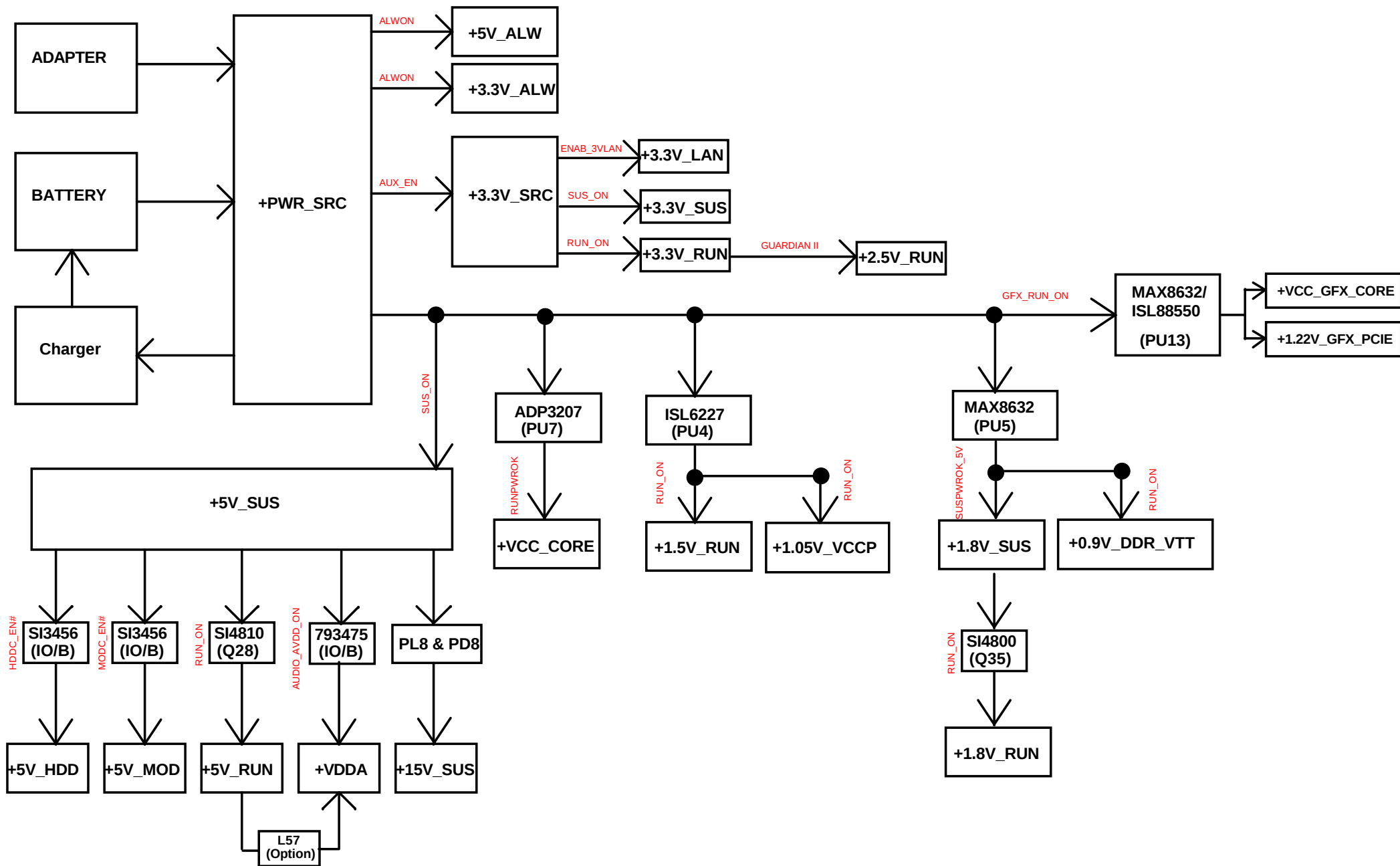
PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	MINI CARD-2 WLAN
Lane 3	None
Lane 4	EXPRESS CARD

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

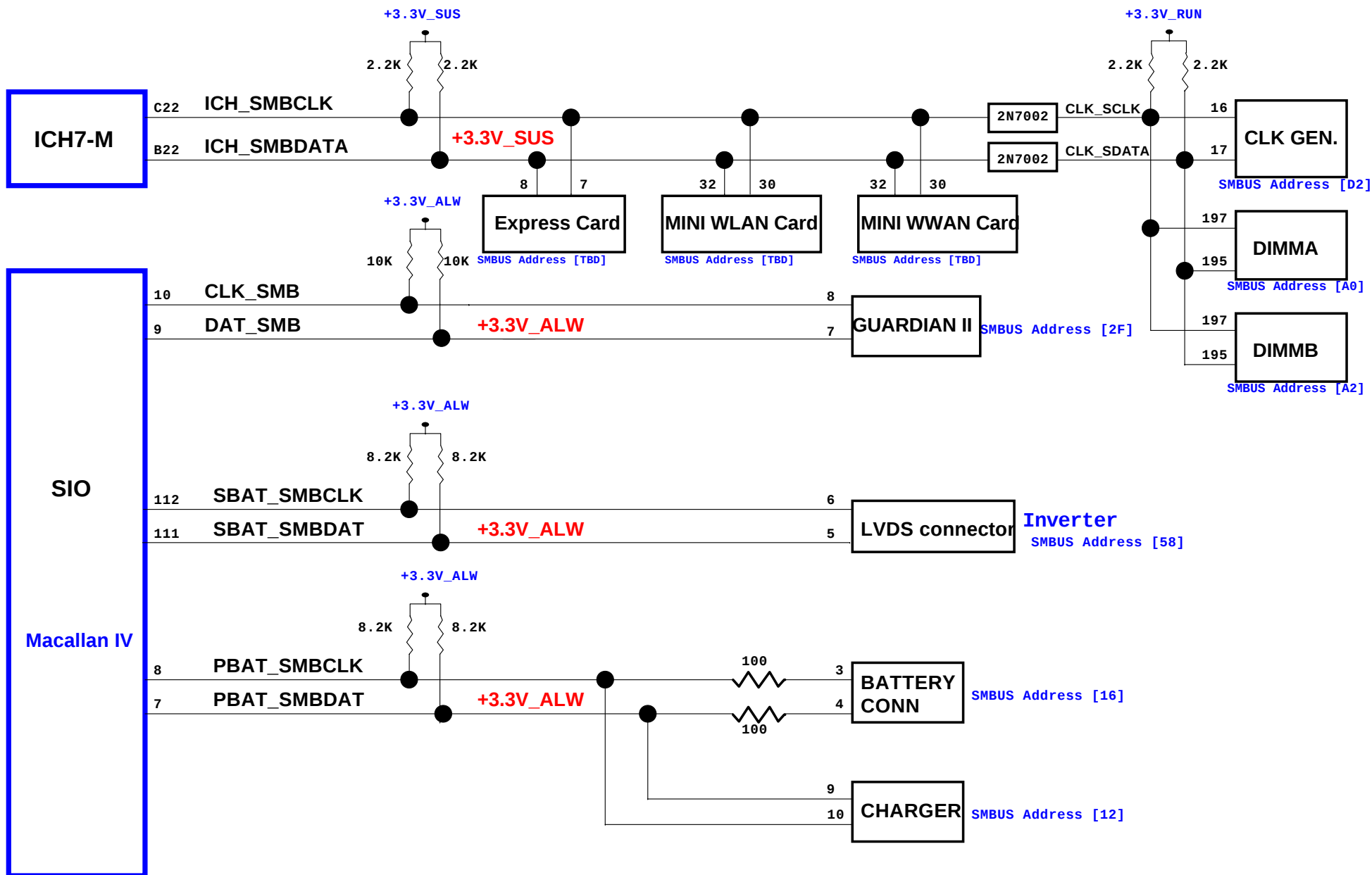
Compal Electronics, Inc.

Title		
Index and Config.		
Size	Document Number	Rev
	LA-3001P	0.4
Date:	Monday, April 17, 2006	Sheet 3 of 73



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.





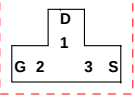
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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



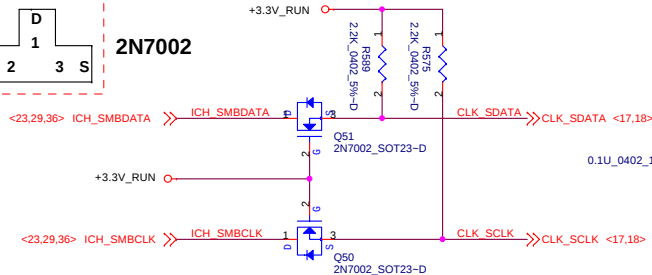
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title		SMBUS TOPOLOGY	
Size	Document Number	Rev	
	LA-3001P	0.4	
Date:	Monday, April 17, 2006	Sheet	5 of 73



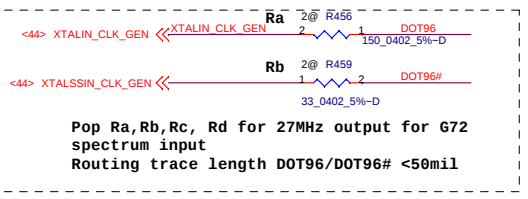
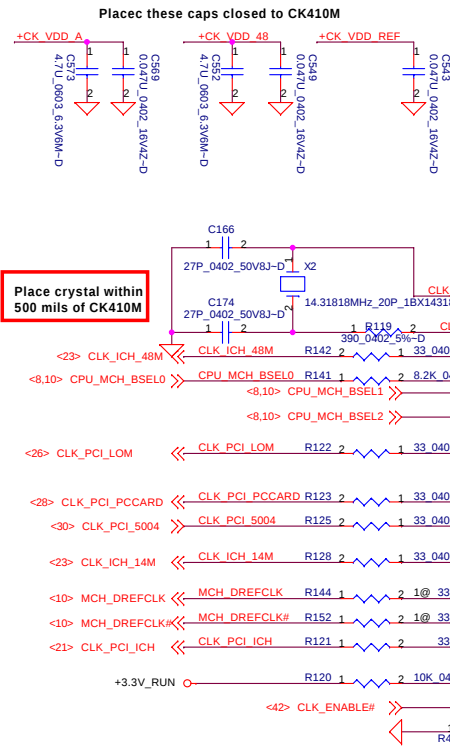
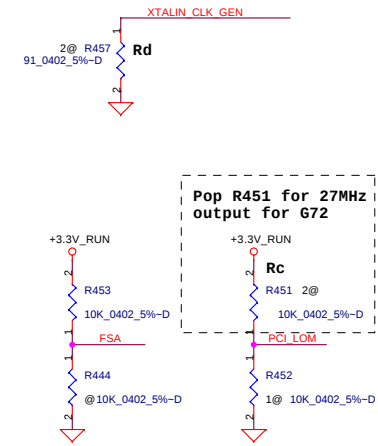
2N7002



FSC	FSB	FSA	CPU MHz	SRC MHz	PCI MHz
CLKSEL2	CLKSEL1	CLKSEL0			
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	1	Reserve		

Table : ICS954305AK

CPU_BSEL	CPU_BSEL2(FSC)	CPU_BSEL1(FSB)
133	0	0
166	0	1



FCTSEL1 (PIN34)	PIN43	PIN44	PIN47	PIN48
0	DOT96T	DOT96C	96/100M_T	96/100M_C
1	27M_out	27M SSout	SRCT0	SRCC0

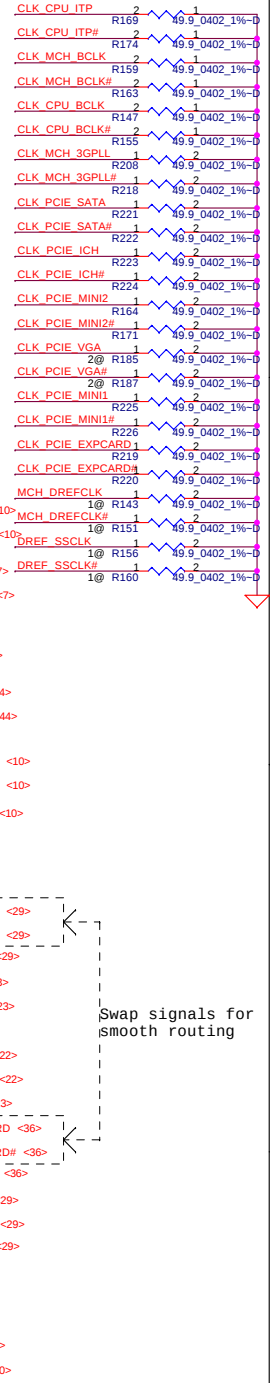
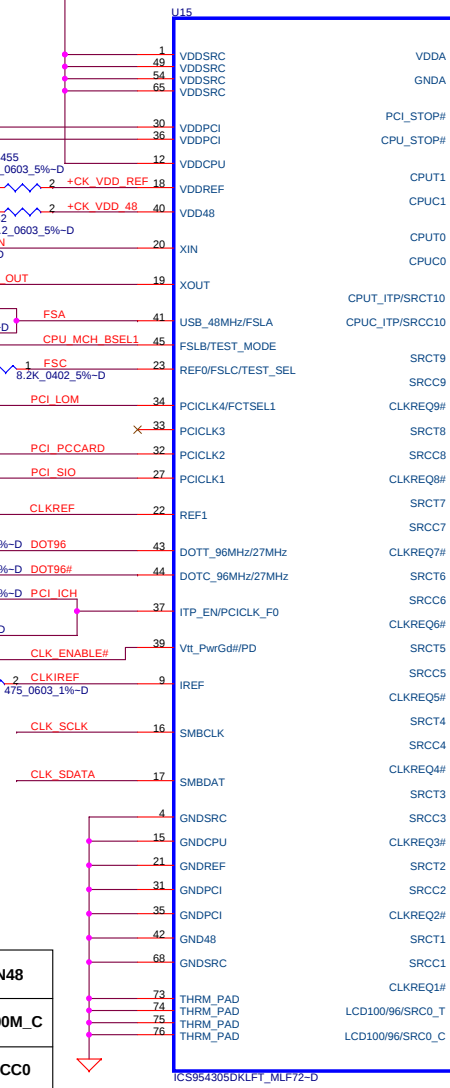
UMA
Discrete

Change to ECJCV50J06M 6.3V10UF 0805 X5R M H:0.85mm, wait CIS symbol.

place Decoupling as closed physically possible to each VDD oins

Place near each pin
W>40 mil

Place near CK410+



Swap signals for smooth routing

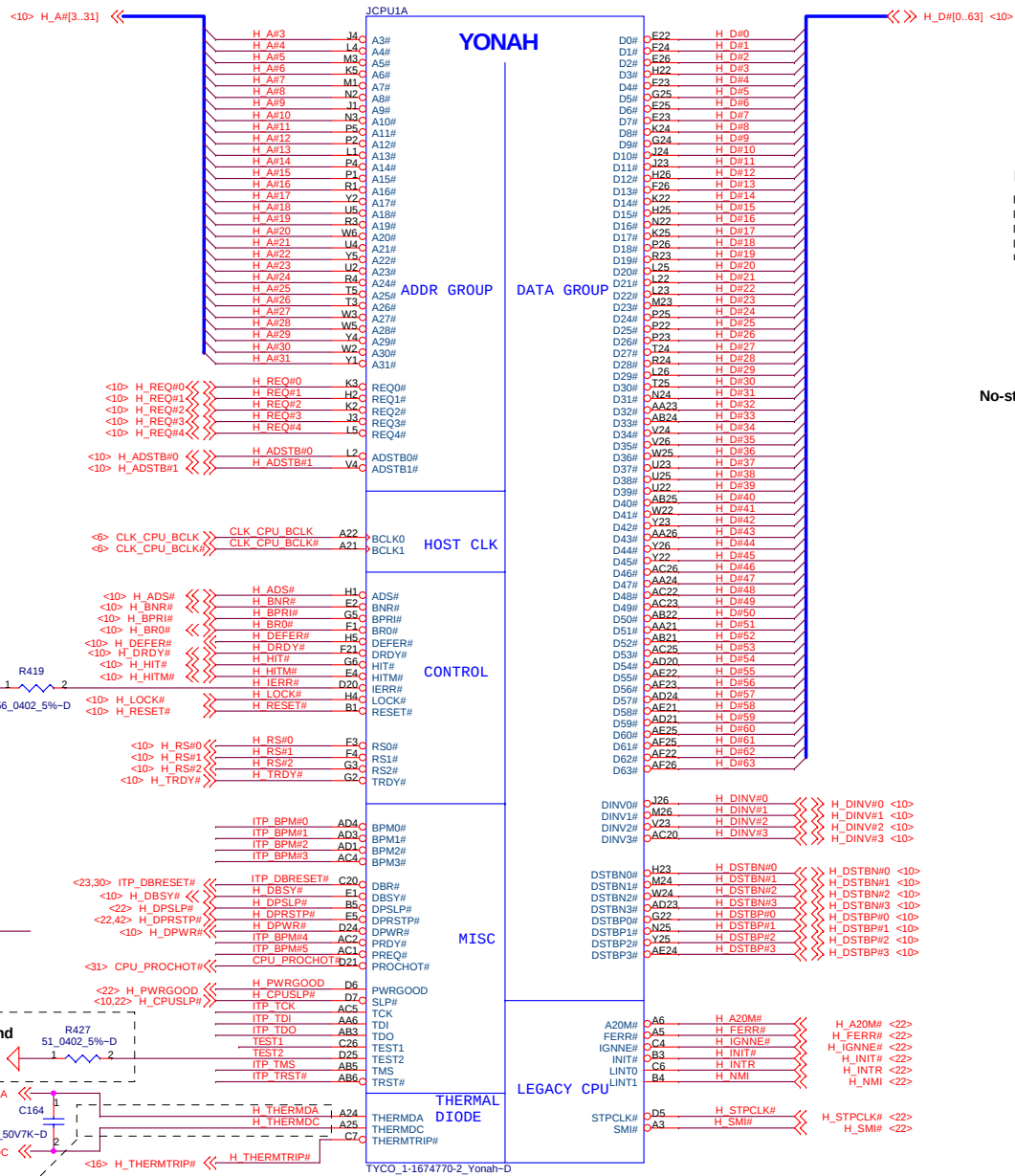
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Clock Generator			
File	Document Number	Rev	
	LA-3001P	0.4	
Date	Monday, April 17, 2006	Sheet	6 of 73



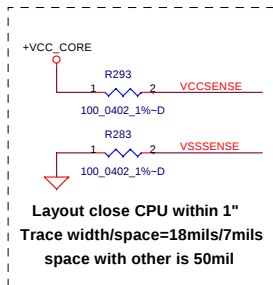
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

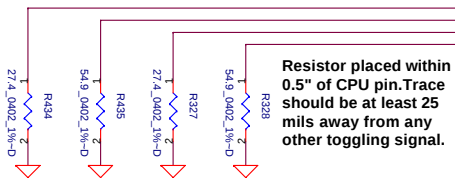
Yonah Processor(1/2)



File	Document Number	Rev
LA-3001P		0.4
Date: Monday, April 17, 2006	Sheet 7 of 73	

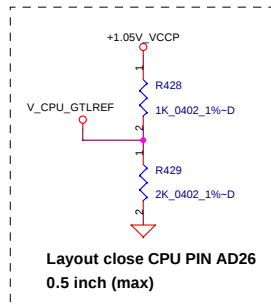


CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
133	0	0	1
166	0	1	1

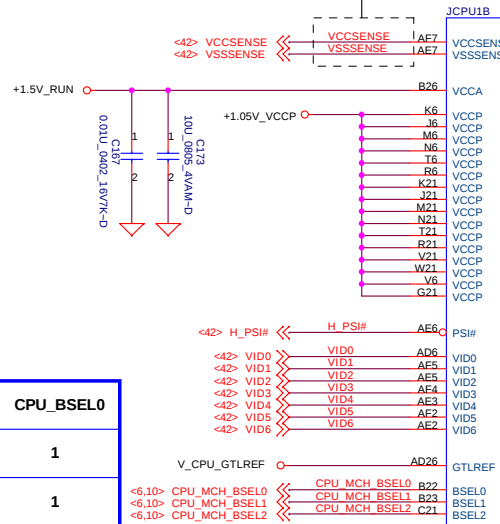


Layout Note:

COMP0,2 connect with Z0=27.4 ohm, make trace length shorter than 0.5".
COMP1,3 connect with Z0=55.5 ohm, make trace length shorter than 0.5".

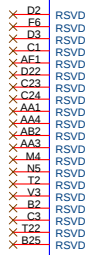
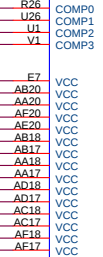
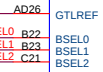
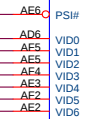
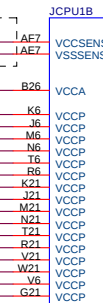


Length match within 25 mils

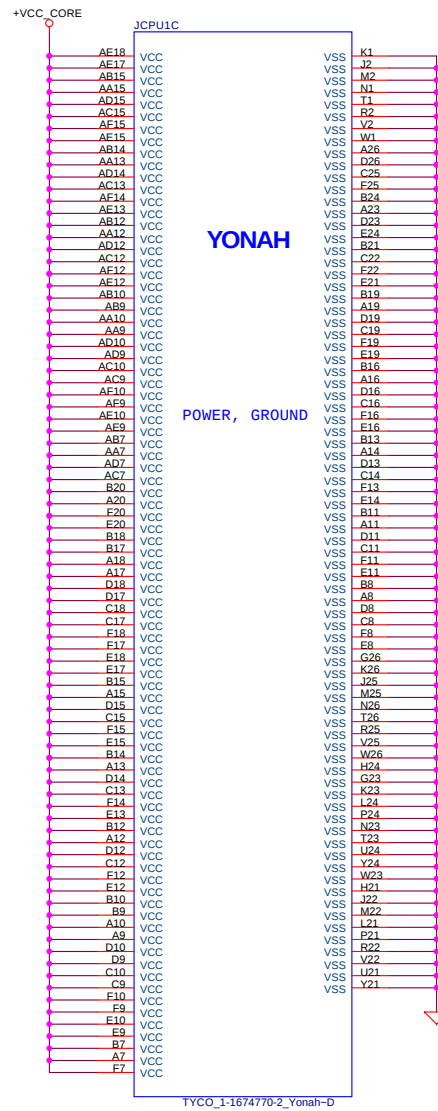


YONAH

POWER, GROUND, RESERVED SIGNALS AND NC



TYCO_1-1674770-2_Yonah-D



POWER, GROUND

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

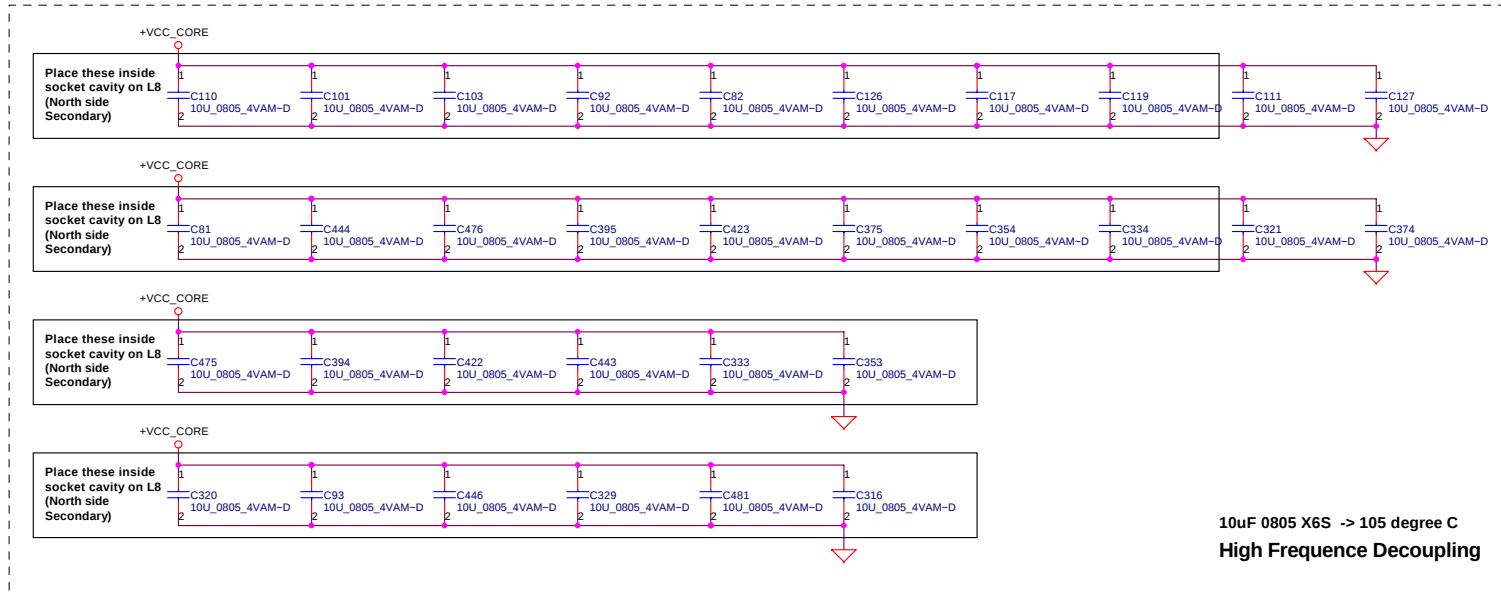
Yonah Processor(2/2)



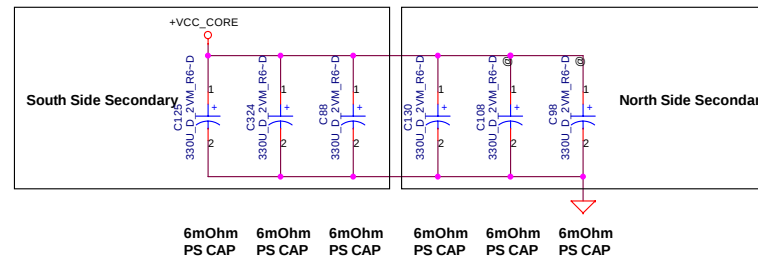
File	Document Number	Rev
LA-3001P	0.4	
Date: Monday, April 17, 2006	Sheet 8 of 73	

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.

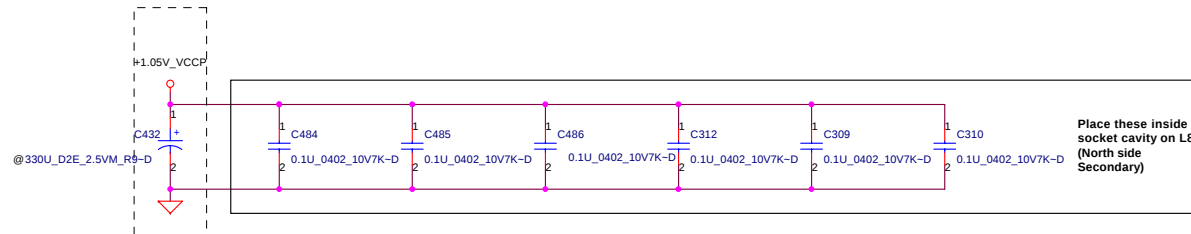
Intel CRB schematic suggest to use X5R or better



Near VCORE regulator



ESR <= 1.5m ohm
Capacitor > 1980uF



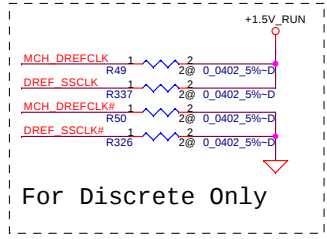
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION 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	CPU Bypass		
Size	Document Number	Rev	0.4
Date:	Monday, April 17, 2006	Sheet	9 of 73



<17.18,41> V_DDR_MCH_REF

V_DDR_MCH_REF

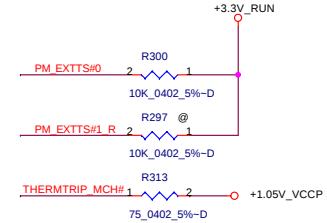
0.1u,0402,16VWZ-D

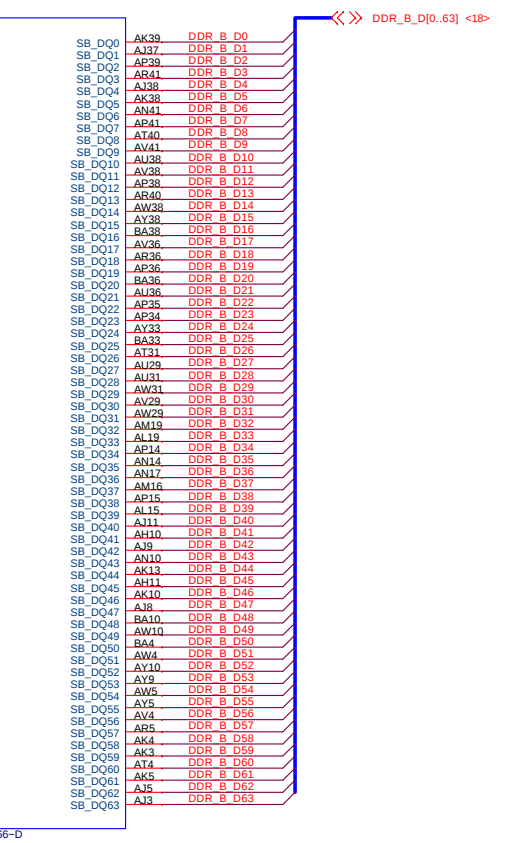
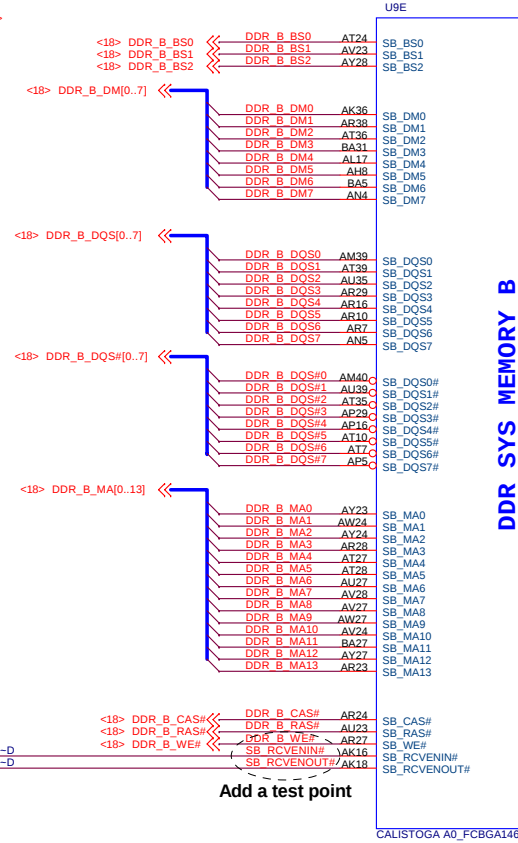
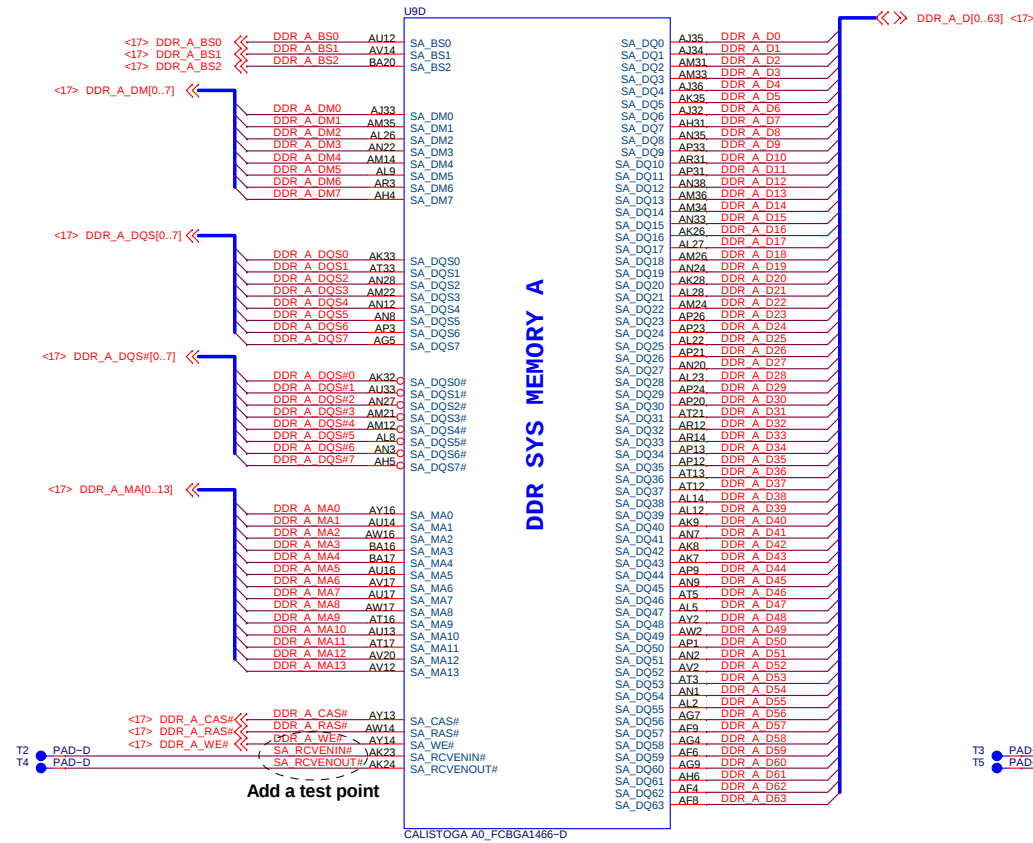
C509

0.1u,0402,16VWZ-D

C704

Place closed to U9 pinAK1,pinAK41





DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.



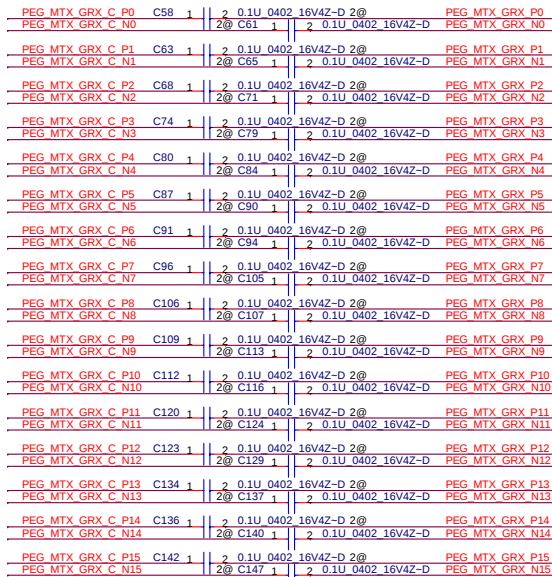
Calistogo(2 of 6)			
Title	Document Number	Rev	0.4
Size	LA-3001P		
Date	Monday, April 17, 2006	Sheet	11 of 73

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.

[illegible]

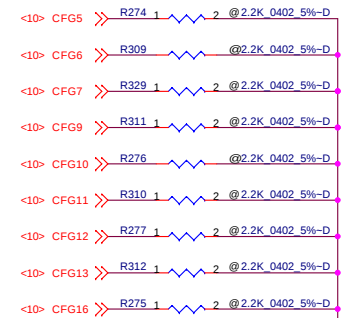
PCI-EXPRESS GRAPHICS

Stuff AC Caps For Discrete

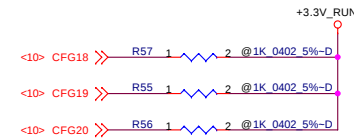


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

CFG5	Low = DMI x 2 High = DMI x 4 *
CFG6	Low = Moby Dick High = Calistoga *
CFG7	Low = DT/Transportable CPU High = Mobile CPU *
CFG9	Low = Reverse Lane High = Normal Operation *
CFG10	Low = Reserved High = Mobility *
CFG11	Low = Calistoga * High = Reserved
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 (DMI Lane Reversal)	Low = Normal Operation (Default): * Lane number in Order High = Reverse Lane
SDVO_CTRLDATA	Low = No SDVO Device Present (Default) * High = SDVO Device Present
CFG20 (PCIE/SDVO select)	Low = Only PCIE or SDVO is operational. (Default) * High = PCIE/SDVO are operating simu.

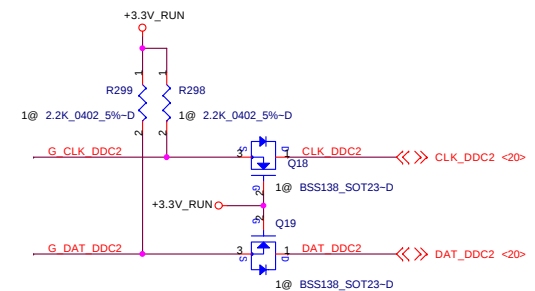


CFG[3:17] have internal pullup



CFG[18:19] have internal pulldown

	Resistors Stuff Table
UMA	R290,R305,R307,R308,R360 ,R366,R301,R302,R303,R294 ,R295,R292,R306,R304,R38 ,R39,298,R299,
Discrete	R271,R272,R273,R270,R53, R358,R345,R266,R267,R268, R371,R269



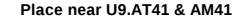
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Calistoga(3 of 6)

Title			
Calistoga(3 of 6)			
Size	Document Number		Rev
	LA-3001P		0.4
Date:	Monday, April 17, 2006	Sheet 12 of 73	

NOTE:
1@ is for UMA Implementation.
2@ is for Discrete Implementation.



Place near U9.BA23

Place near U9.BA15

Place near U9.AV1 & AJ1



U9I		
AC41	VSS0	VSS100
AA41	VSS1	VSS101
W41	VSS2	VSS102
T41	VSS3	VSS103
P41	VSS4	VSS104
M41	VSS5	VSS105
J41	VSS6	VSS106
F41	VSS7	VSS107
AV39	VSS8	VSS108
AP40	VSS9	VSS109
AN40	VSS10	VSS110
AK40	VSS11	VSS111
AJ40	VSS12	VSS112
AH40	VSS13	VSS113
AG40	VSS14	VSS114
AF40	VSS15	VSS115
AE40	VSS16	VSS116
B40	VSS17	VSS117
AY39	VSS18	VSS118
AW39	VSS19	VSS119
AV39	VSS20	VSS120
AF39	VSS21	VSS121
AN39	VSS22	VSS122
AJ39	VSS23	VSS123
AG39	VSS24	VSS124
AF39	VSS25	VSS125
AA39	VSS26	VSS126
Y39	VSS27	VSS127
W39	VSS28	VSS128
V39	VSS29	VSS129
T39	VSS30	VSS130
R39	VSS31	VSS131
P39	VSS32	VSS132
N39	VSS33	VSS133
M39	VSS34	VSS134
L39	VSS35	VSS135
J39	VSS36	VSS136
H39	VSS37	VSS137
G39	VSS38	VSS138
F39	VSS39	VSS139
D39	VSS40	VSS140
AT38	VSS41	VSS141
AM38	VSS42	VSS142
AH38	VSS43	VSS143
AG38	VSS44	VSS144
AF38	VSS45	VSS145
AE38	VSS46	VSS146
C38	VSS47	VSS147
AK37	VSS48	VSS148
AH37	VSS49	VSS149
AB37	VSS50	VSS150
AA37	VSS51	VSS151
Y37	VSS52	VSS152
W37	VSS53	VSS153
V37	VSS54	VSS154
T37	VSS55	VSS155
R37	VSS56	VSS156
P37	VSS57	VSS157
N37	VSS58	VSS158
M37	VSS59	VSS159
L37	VSS60	VSS160
J37	VSS61	VSS161
H37	VSS62	VSS162
G37	VSS63	VSS163
F37	VSS64	VSS164
D37	VSS65	VSS165
AY36	VSS66	VSS166
AW36	VSS67	VSS167
AN36	VSS68	VSS168
AH36	VSS69	VSS169
AG36	VSS70	VSS170
AF36	VSS71	VSS171
AE36	VSS72	VSS172
AC36	VSS73	VSS173
C36	VSS74	VSS174
B36	VSS75	VSS175
BA35	VSS76	VSS176
AV35	VSS77	VSS177
AR35	VSS78	VSS178
AH35	VSS79	VSS179
AB35	VSS80	VSS180
AA35	VSS81	VSS181
Y35	VSS82	VSS182
W35	VSS83	VSS183
V35	VSS84	VSS184
T35	VSS85	VSS185
R35	VSS86	VSS186
P35	VSS87	VSS187
N35	VSS88	VSS188
M35	VSS89	VSS189
L35	VSS90	VSS190
J35	VSS91	VSS191
H35	VSS92	VSS192
G35	VSS93	VSS193
F35	VSS94	VSS194
D35	VSS95	VSS195
AK34	VSS96	VSS196
AG34	VSS97	VSS197
AF34	VSS98	VSS198
AE34	VSS99	VSS199

POWER

U9J		
AN21	VSS200	VSS280
AL21	VSS201	VSS281
AB21	VSS202	VSS282
Y21	VSS203	VSS283
P21	VSS204	VSS284
M21	VSS205	VSS285
J21	VSS206	VSS286
H21	VSS207	VSS287
D21	VSS208	VSS288
AW20	VSS209	VSS289
AR20	VSS210	VSS290
AM20	VSS211	VSS291
AA20	VSS212	VSS292
K20	VSS213	VSS293
B20	VSS214	VSS294
A20	VSS215	VSS295
AN19	VSS216	VSS296
R32	VSS217	VSS297
AY31	VSS218	VSS298
W19	VSS219	VSS299
K19	VSS220	VSS300
G19	VSS221	VSS301
C19	VSS222	VSS302
AH18	VSS223	VSS303
P18	VSS224	VSS304
H18	VSS225	VSS305
D18	VSS226	VSS306
A18	VSS227	VSS307
AY17	VSS228	VSS308
AR17	VSS229	VSS309
AP17	VSS230	VSS310
AM17	VSS231	VSS311
AK17	VSS232	VSS312
AV16	VSS233	VSS313
AN16	VSS234	VSS314
F29	VSS235	VSS315
C29	VSS236	VSS316
B29	VSS237	VSS317
A29	VSS238	VSS318
BA28	VSS239	VSS319
AN15	VSS240	VSS320
AK15	VSS241	VSS321
N15	VSS242	VSS322
M15	VSS243	VSS323
L15	VSS244	VSS324
B15	VSS245	VSS325
A15	VSS246	VSS326
BA14	VSS247	VSS327
AT14	VSS248	VSS328
AK14	VSS249	VSS329
AD14	VSS250	VSS330
AA14	VSS251	VSS331
U14	VSS252	VSS332
K14	VSS253	VSS333
H14	VSS254	VSS334
C27	VSS255	VSS335
AV13	VSS256	VSS336
AR13	VSS257	VSS337
AN13	VSS258	VSS338
AM13	VSS259	VSS339
F26	VSS260	VSS340
AL13	VSS261	VSS341
P13	VSS262	VSS342
F13	VSS263	VSS343
D13	VSS264	VSS344
B13	VSS265	VSS345
AY12	VSS266	VSS346
AC12	VSS267	VSS347
A25	VSS268	VSS348
K12	VSS269	VSS349
H12	VSS270	VSS350
E12	VSS271	VSS351
AL24	VSS272	VSS352
AA11	VSS273	VSS353
Y11	VSS274	VSS354
J11	VSS275	VSS355
D11	VSS276	VSS356
B11	VSS277	VSS357
AV10	VSS278	VSS358
AP10	VSS279	VSS359
AL10		VSS360
AJ10		

POWER

CALISTOGA A0_FCBGA1466-D

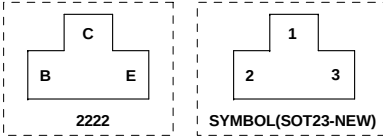
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

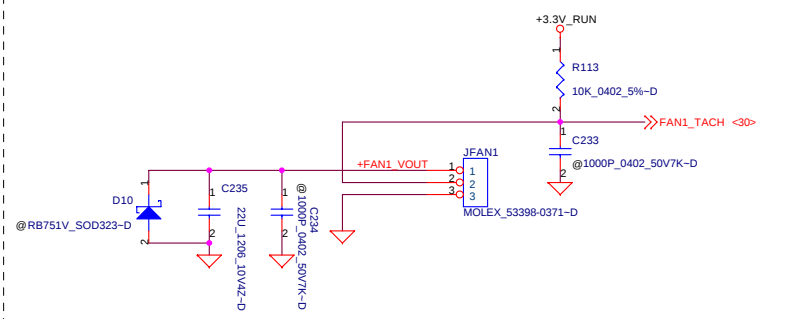
Calistoga(6 of 6)

Title		Rev
Size	Document Number	
LA-3001		0.4
Date:	Monday, April 17, 2006	Sheet 15 of 73

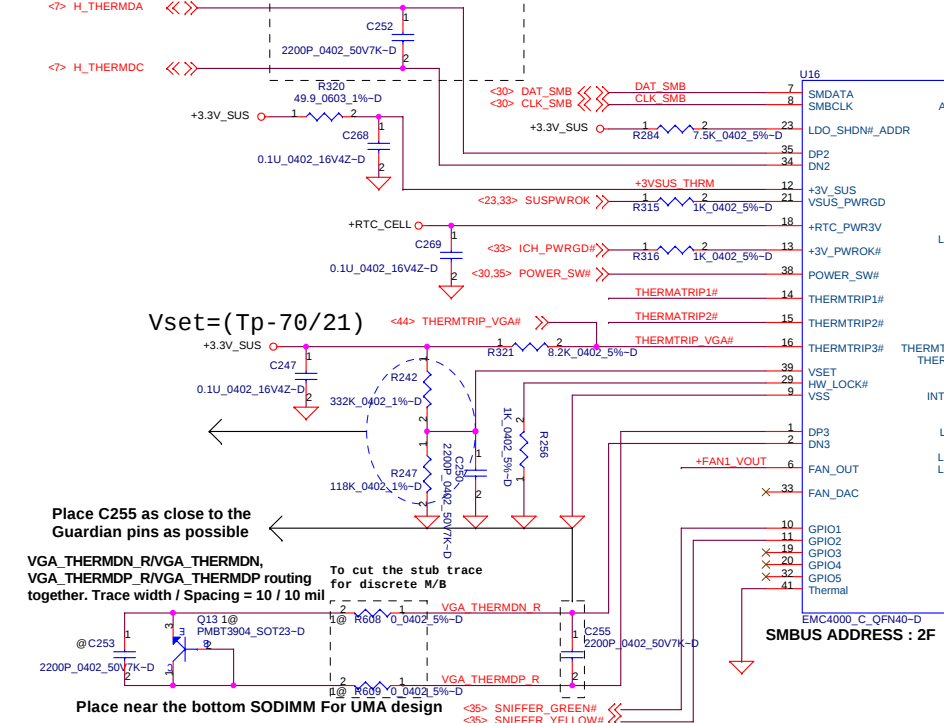
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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



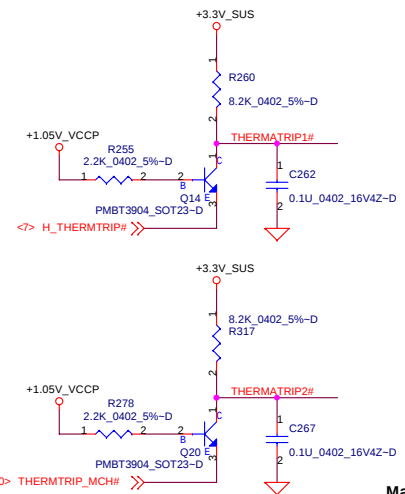
FAN1 Control and Tachometer



H_THERMDA/H_THERMDC routing together. Trace width / Spacing = 10 / 10 mil

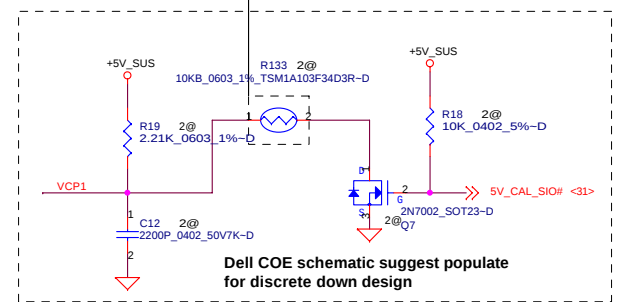


For Discrete: Stuff R259, R249 and no stuff Q13, C253
 For UMA: Stuff Q13 and no stuff R259, R249



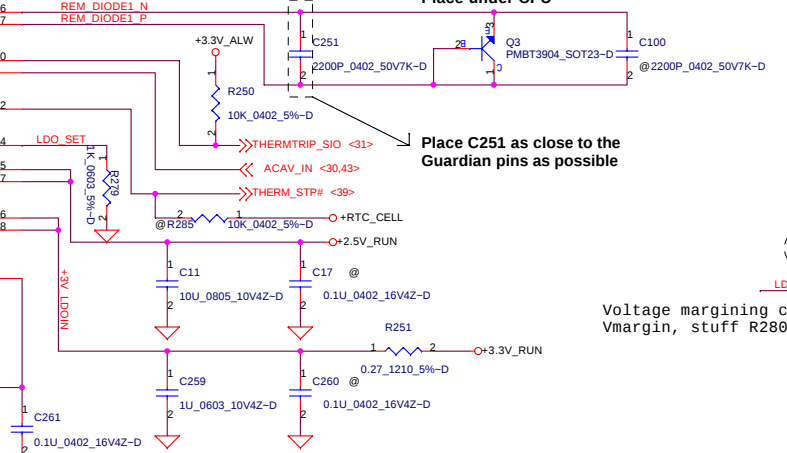
May need to place thermal resistor underneath WWAN Mini Card stuff
 this thermistor circuit for additional sensor in Discrete Down Designs

Place thermal resistor near the SODIMM For discrete design



Dell COE schematic suggest populate
 for discrete down design

REM_DIODE1_N, REM_DIODE1_P routing together. Trace width / Spacing = 10 / 10 mil



Place under CPU

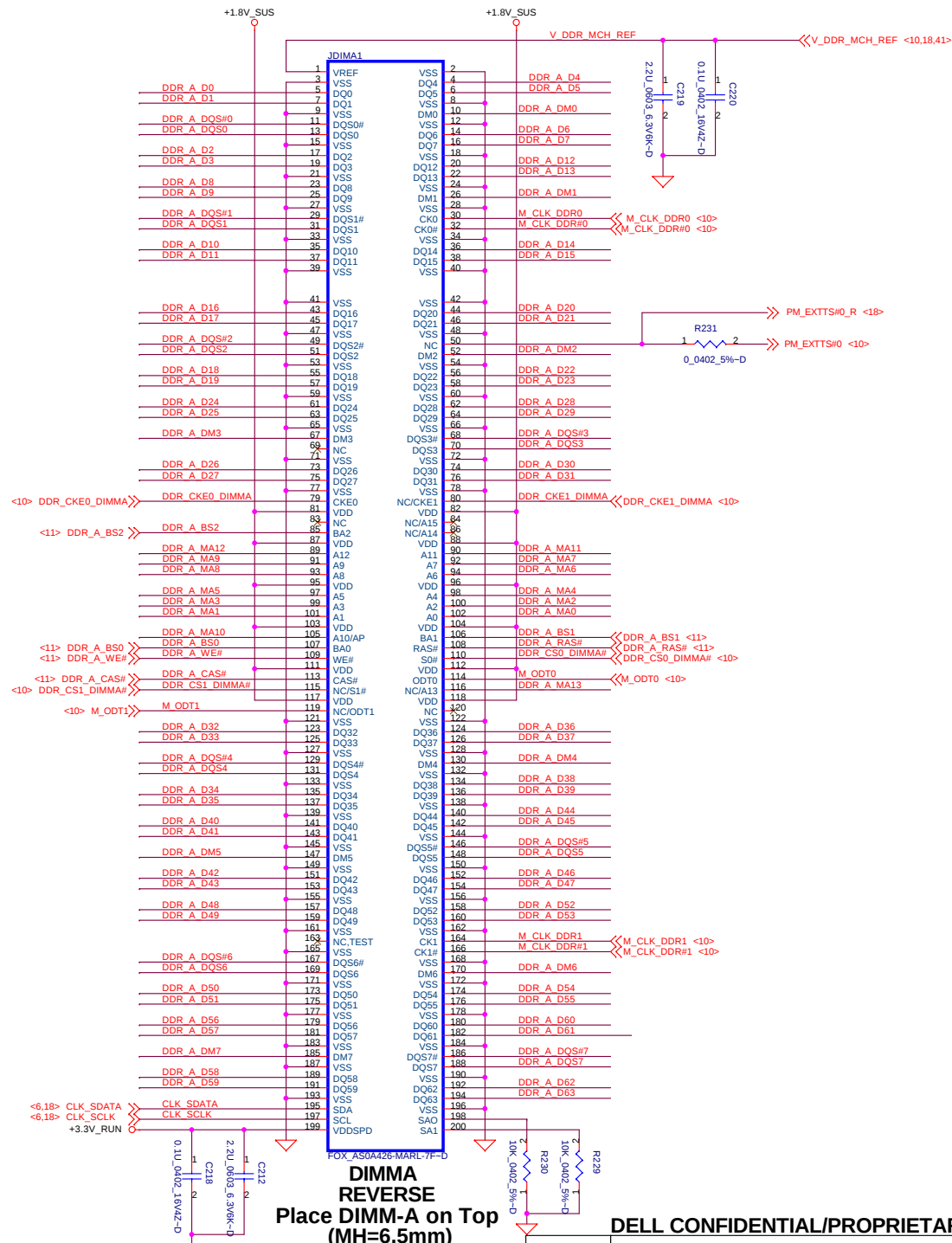
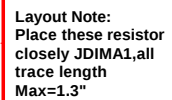
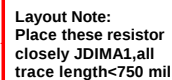
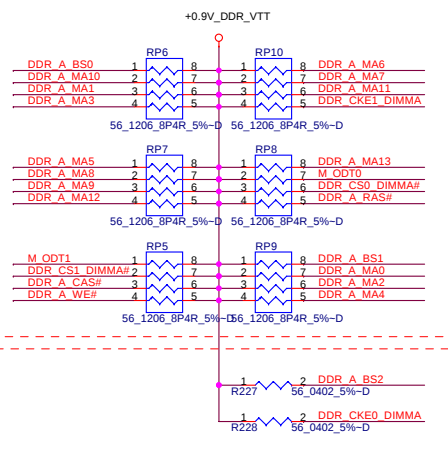
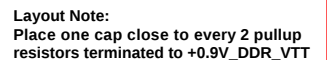
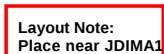
Place C251 as close to the
 Guardian pins as possible

Voltage margining circuit for LDO output. For
 Vmargin, stuff R280=31.6K and R279=1K for production

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.			
Thermal sensor and Fan			
File	Document Number	Rev	
	LA-3001P	0.3	
Date	Monday, April 17, 2006	Sheet	16 of 73

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.

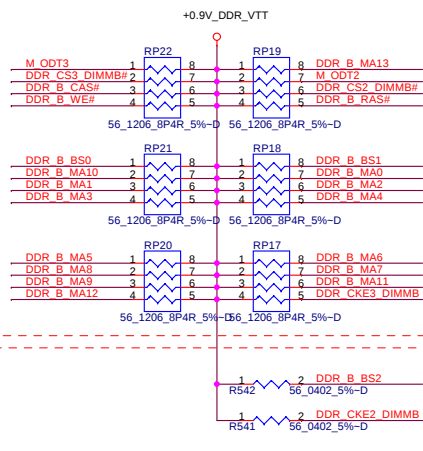
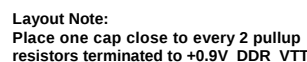
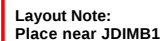


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

DDRII-SODIMM SLOT-A

Title		DDR2-SODIMM SLOT-A	
Size	Document Number	Rev	
	LA-3001P	0.4	
Date:	Monday, April 17, 2006	Sheet	17 of 73



Layout Note:
Place these resistor
closely JDIMB1,all
trace length<750 mil

Layout Note:
Place these resistor
closely JDIMB1,all
trace length
Max=1.3"



Compal Electronics, Inc.

DDRII-SODIMM SLOT-B

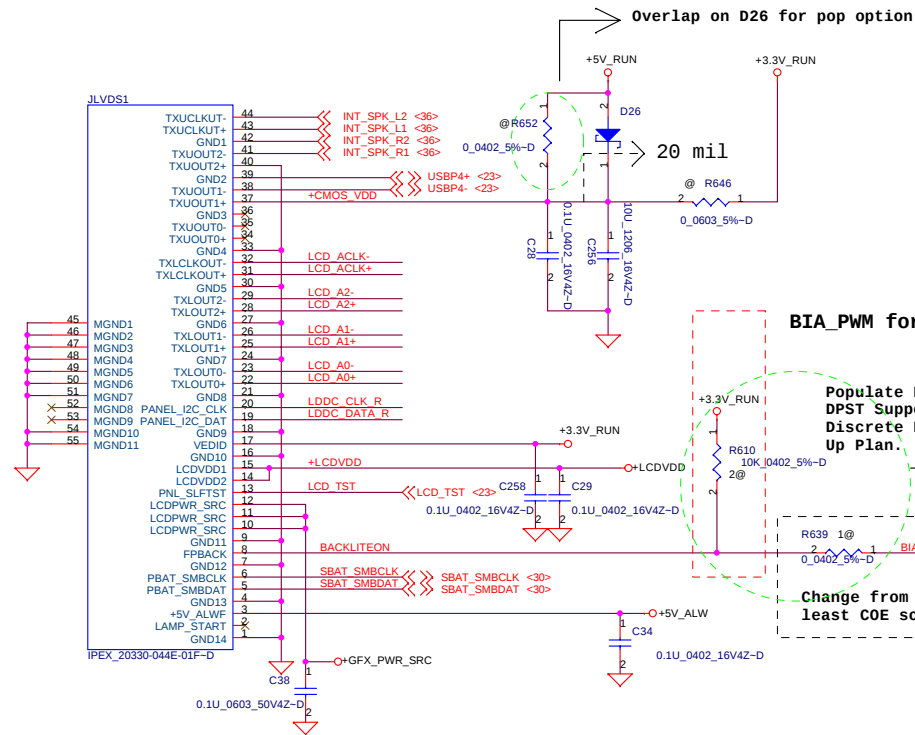
Title			
DDRII-SODIMM SLOT-B			
Size	Document Number		Rev
	LA-3001P		0.4
Date:	Monday, April 17, 2006	Sheet 18	of 73

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL AND 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.



Date: Monday, April 17, 2006 Sheet 18 of 73

Overlap on D26 for pop option

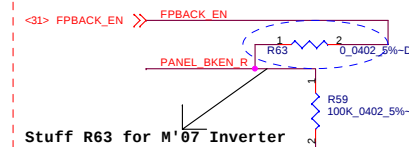
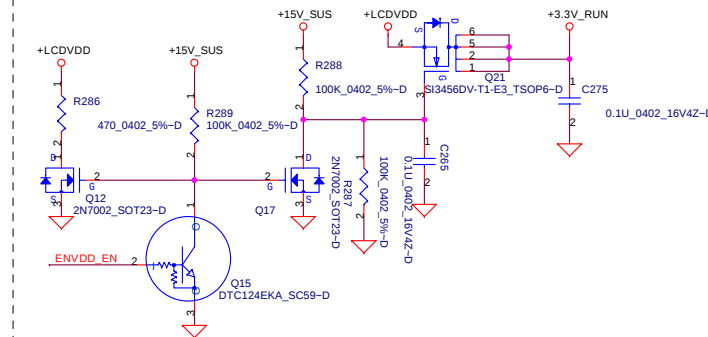


BIA_PWM for M'07 Inverter

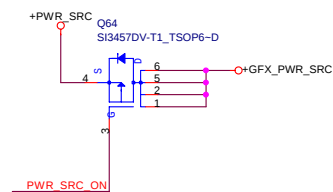
Populate R610 For Platform Without DPST Support. No STUFF for Discrete DPST Support Due to Back Up Plan.
Change population for discrete board as dell request, bits issue p/n:DF51426

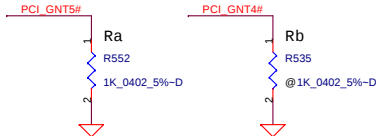
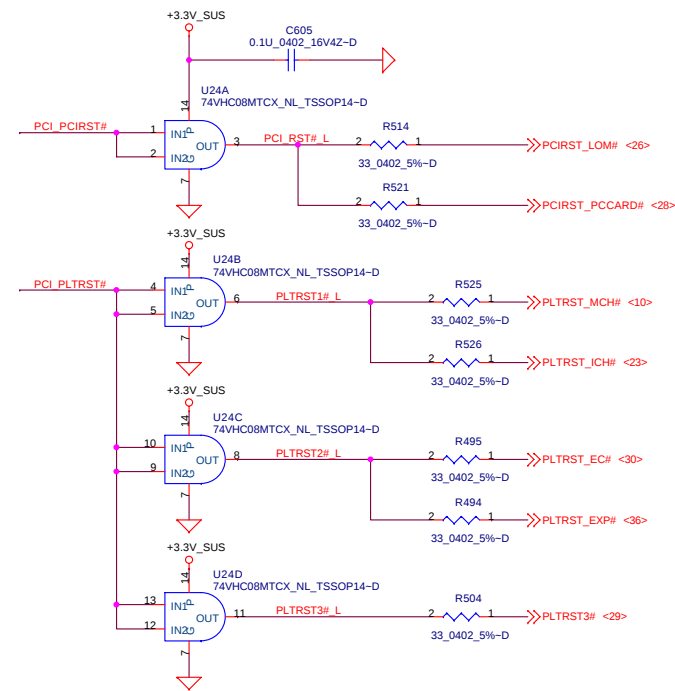
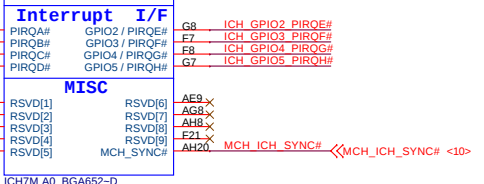
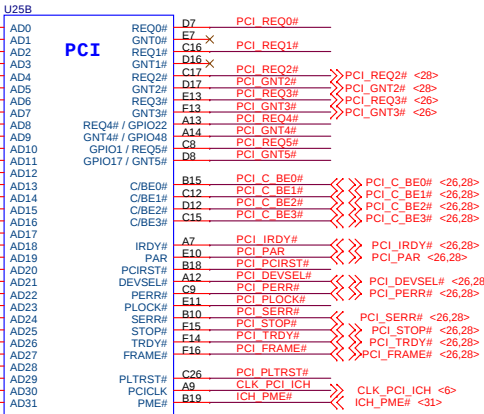
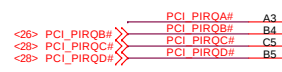
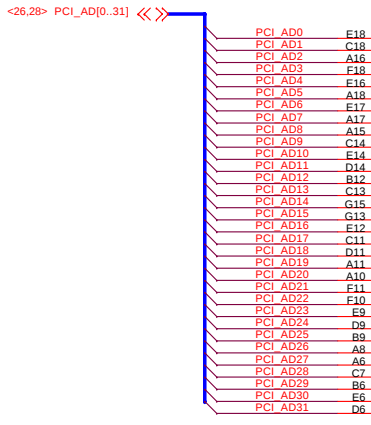
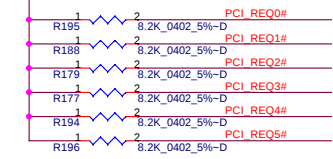
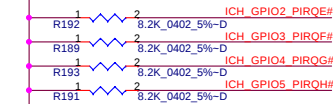
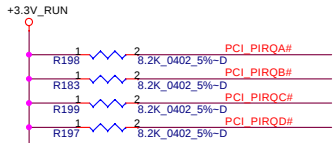
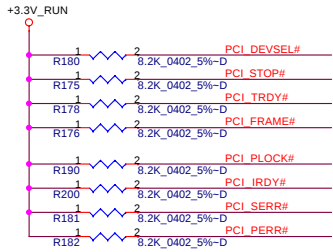
Change from 12/08 Dell G6 list as least COE schematic

LCD Power



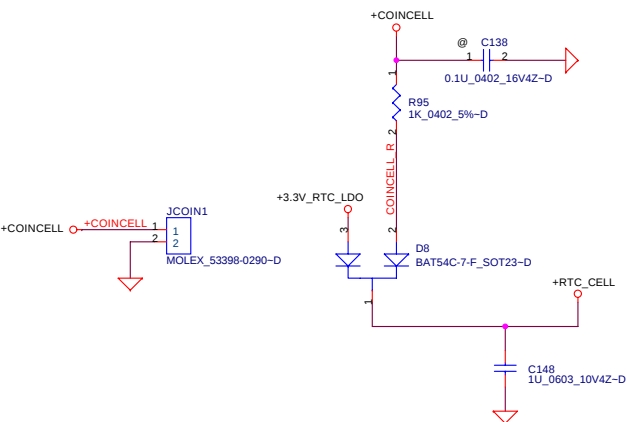
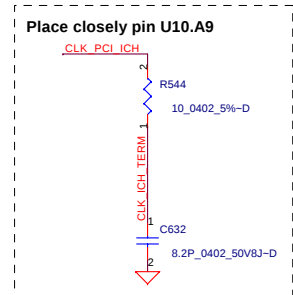
Dual layout for Q16 Overlap on Q16 for pop option





ICH Boot BIOS select

		GNT5# Ra	GNT4# Rb
LPC	11	unstuff	unstuff
PCI	10	unstuff	stuff
SPI	01	stuff	unstuff



DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.

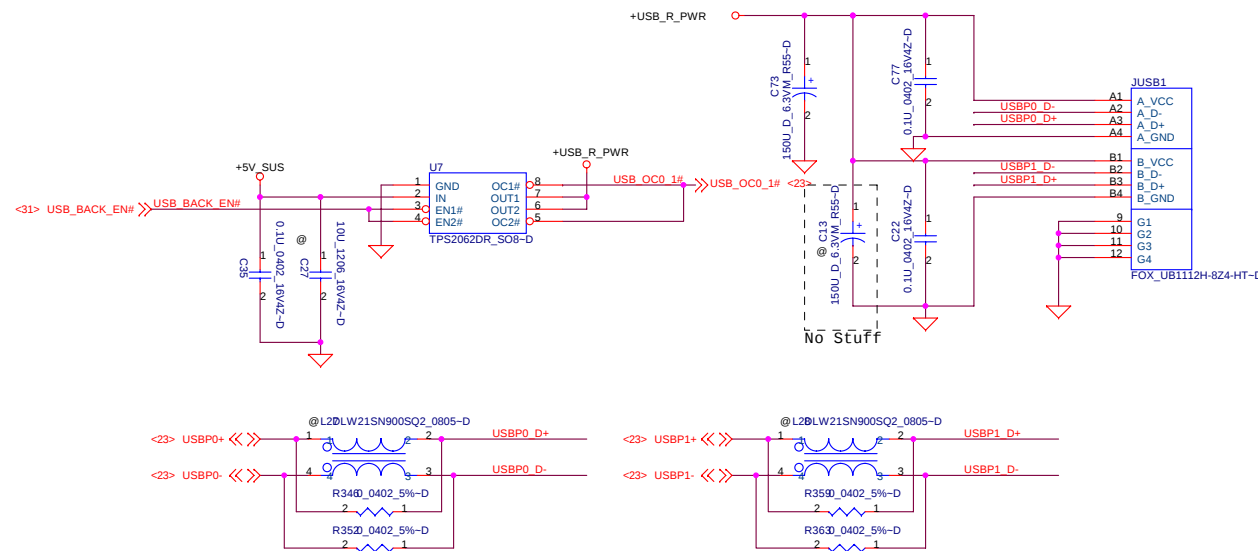
File ICH7(1/4)

Size Document Number LA-3001P Rev 0.4

Date: Monday, April 17, 2006 Sheet 21 of 73

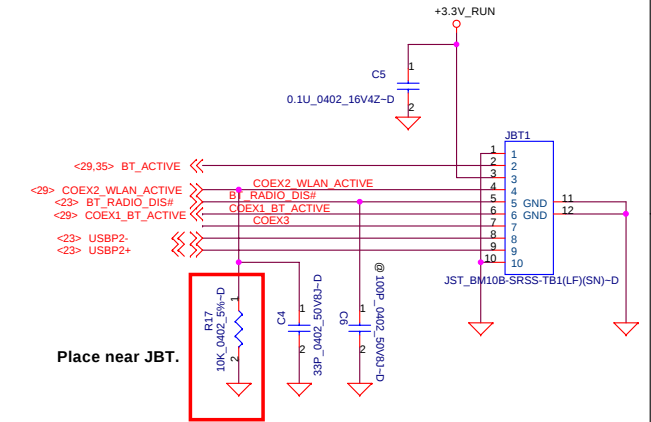
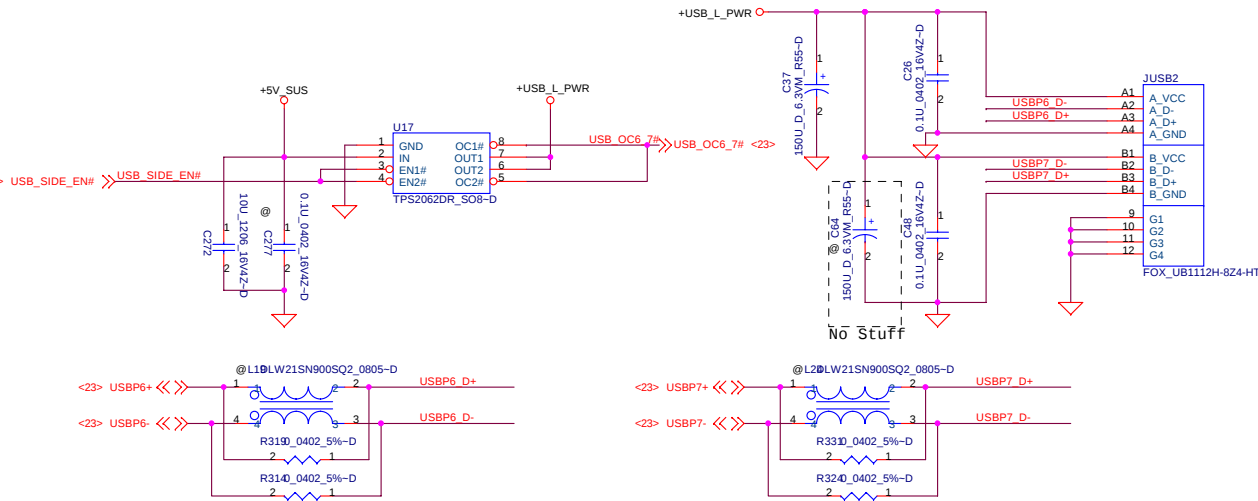
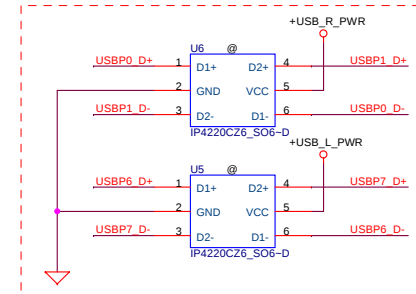
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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





USB PORT#	DESTINATION
0	JUSB1 (Ext Back Right Side)
1	JUSB1 (Ext Back Right Side)
2	Blue Tooth
3	EXPRESS CARD
4	CCD Camera
5	ECE5011 HUB
6	JUSB2 (Ext Back Left Side)
7	JUSB2 (Ext Back Left Side)

Place U5, U6 as close as USB connector.



Place near JBT.

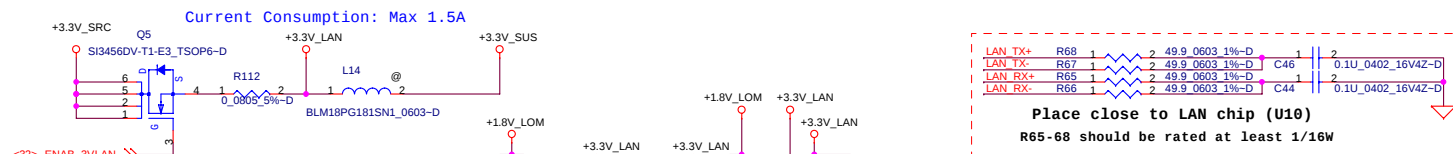
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

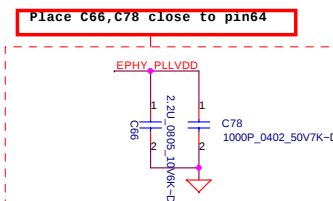
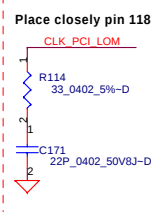
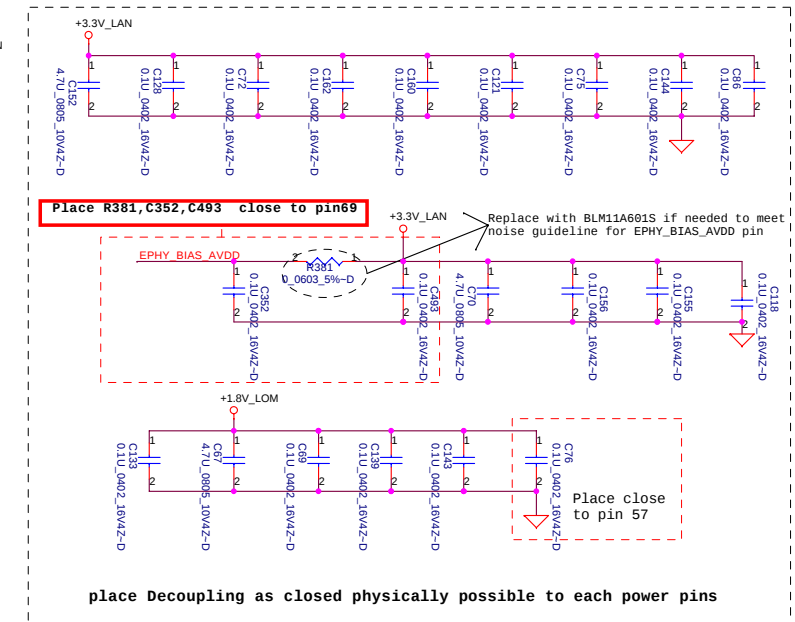
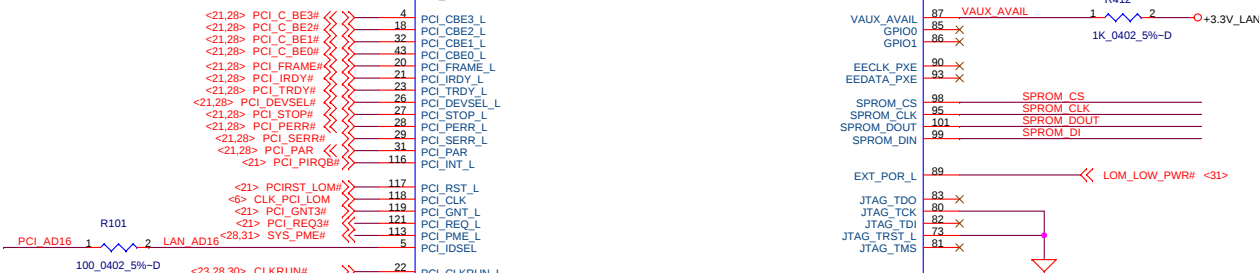
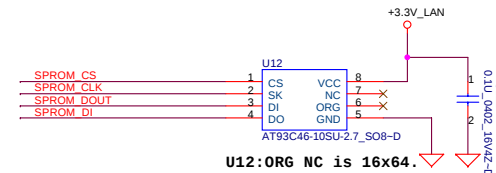
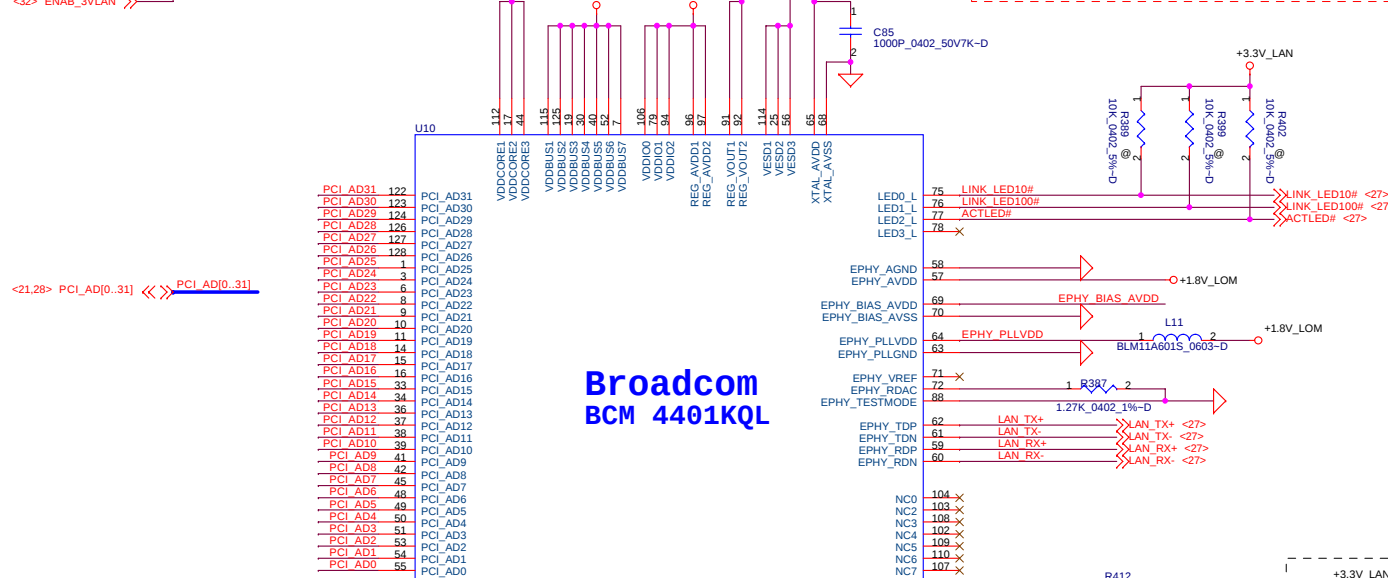


USB 2.0 PORT		
Title	Document Number	Rev
LA-3001P		0.4
Date: Monday, April 17, 2006	Sheet 25 of 73	

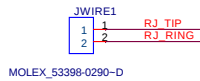
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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



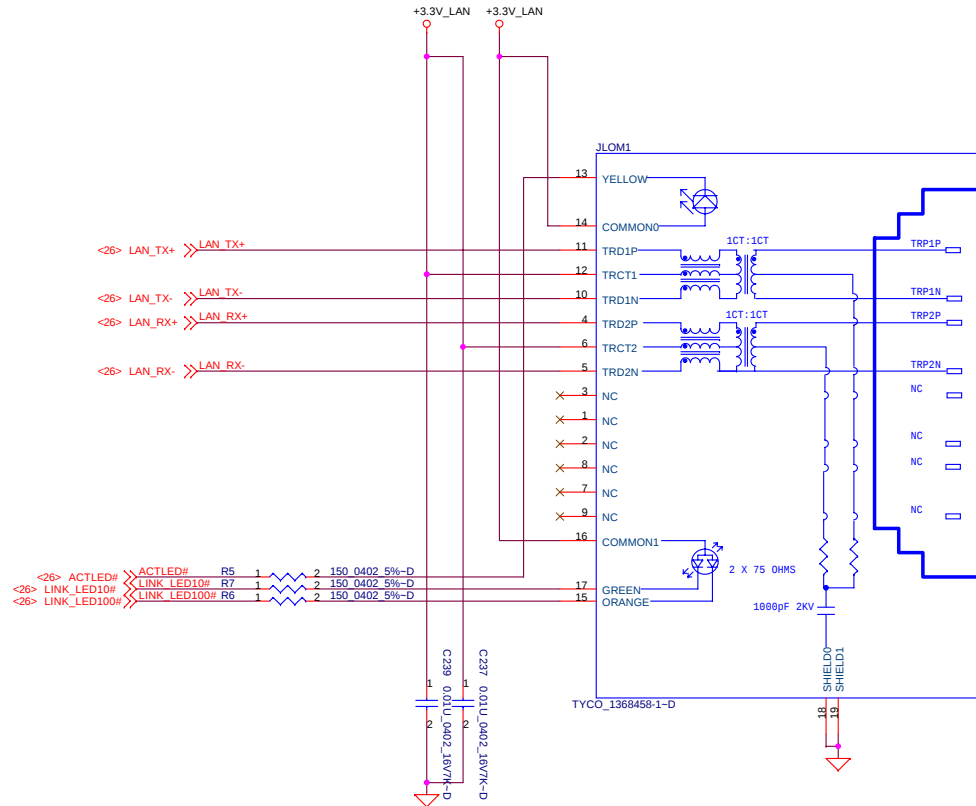
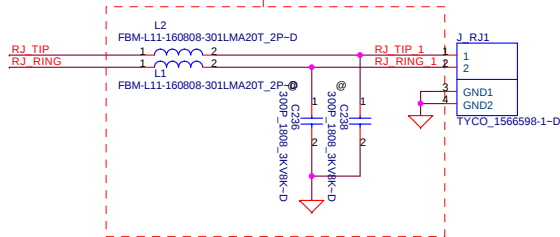
	SPROM_DOUT	SPROM_CLK
1Kb	None	None
4Kb	10K Pullup	None
16Kb	None	10K Pullup



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.



Layout Note: Place close to the J_RJ1



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.

Magnetic & RJ45

Title				
Magnetic & RJ45				
Size	Document Number			Rev
	LA-3001			0.4
Date:	Monday, April 17, 2006		Sheet 27 of 73	

R5C832

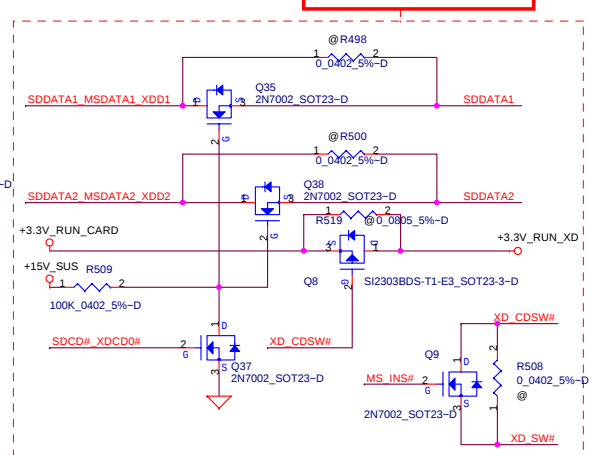
SD,MMC,MS,MS PRO,XD multi-function pin define

Media I/F	SD Card	MMC Card	MS Card MS Pro Card	XD Card
MDI000	SDCD#	MMCCD#		XDCD0#
MDI001			MSCD#	XDCD1#
MDI002				XDCE#
MDI003	SDWP#			XDR/B#
MDI004	SDPWR0	MMCPWR	MSWR	XDPWR
MDI005	SDPWR1			XDWP#
MDI006	SDLED#	MMCLD#	MSLED#	XDLED#
MDI007	SDEXTCK		MSEXTCK	
MDI008	SDCCMD	MMCCMD	MSBS	XDWE#
MDI009	SDCLK	MMCLK	MSCCLK	XDRE#
MDI010	SDCDAT0	MMCDAT	MSCDAT0	XDCDAT0
MDI011	SDCDAT1		MSCDAT1	XDCDAT1
MDI012	SDCDAT2		MSCDAT2	XDCDAT2
MDI013	SDCDAT3		MSCDAT3	XDCDAT3
MDI014				XDCDAT4
MDI015				XDCDAT5
MDI016				XDCDAT6
MDI017				XDCDAT7
MDI018				XDCLE
MDI019				XDALE

Function set pin define

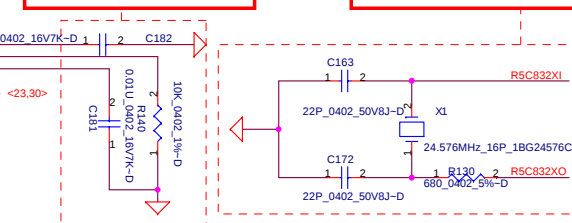
UDI03	UDI04	MSEN	XDEN	Function
Pull-up	Pull-up	Pull-up	Pull-up	Enable SD, XD, MS, MMC Card

Solve MS Duo Adaptor short problem

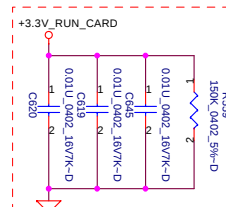


Layout Note: Place close to R5C832

Layout Note: Place close to R5C832 and Shield GND



Place close to J5IN1



DELL CONFIDENTIAL/PROPRIETARY

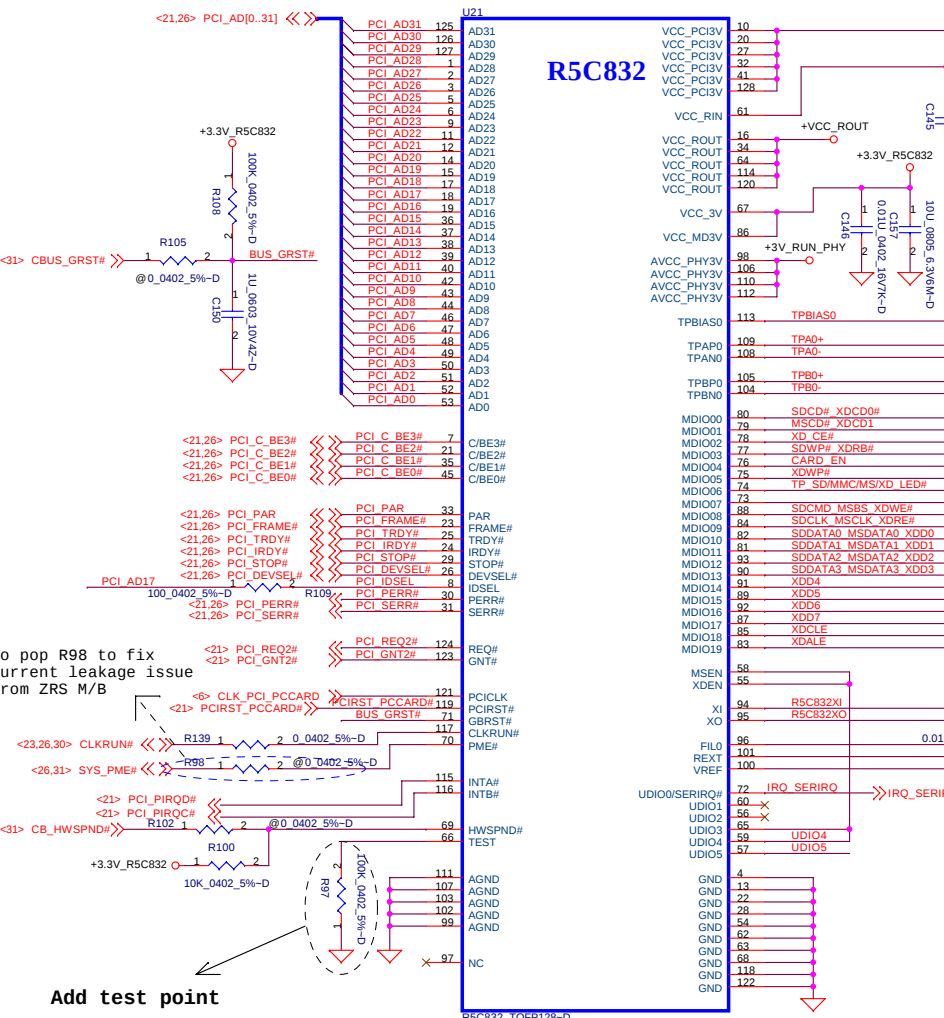
Compal Electronics, Inc.

R5C832 and 5 IN 1

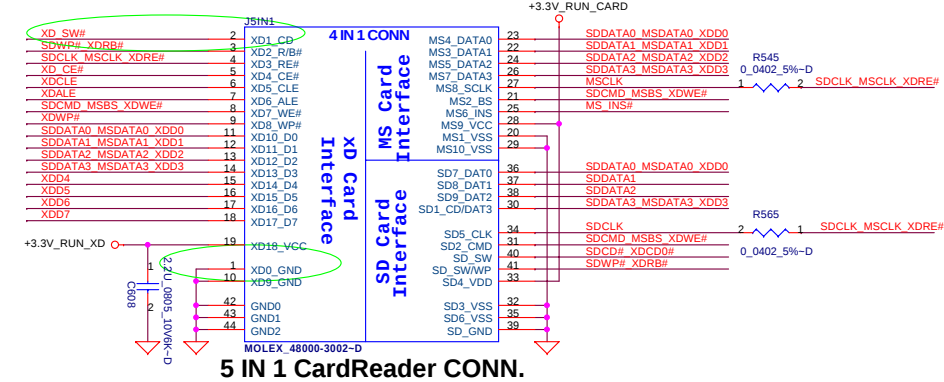
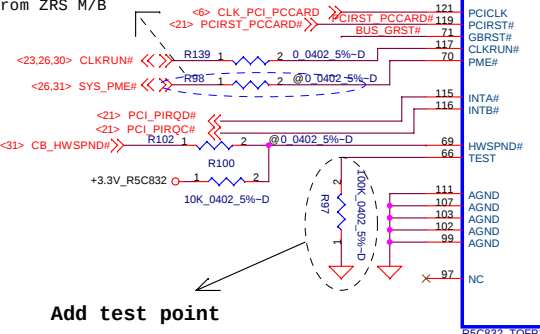
File	Document Number	Rev
LA-3001P	LA-3001P	0.4
Date: Monday, April 17, 2006	Sheet 28 of 73	

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.

Add test point

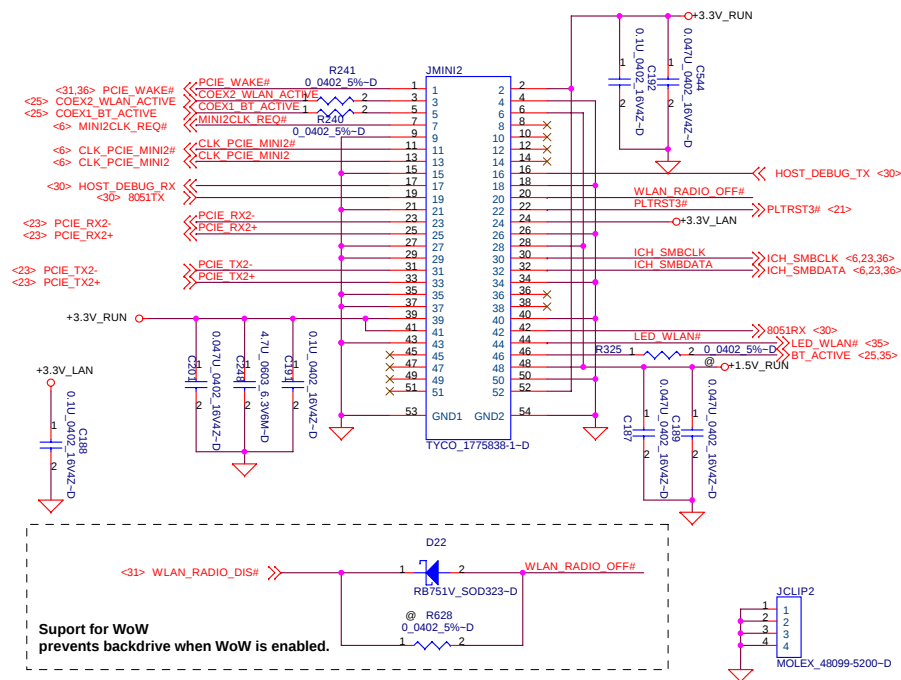


No pop R98 to fix current leakage issue from ZRS M/B

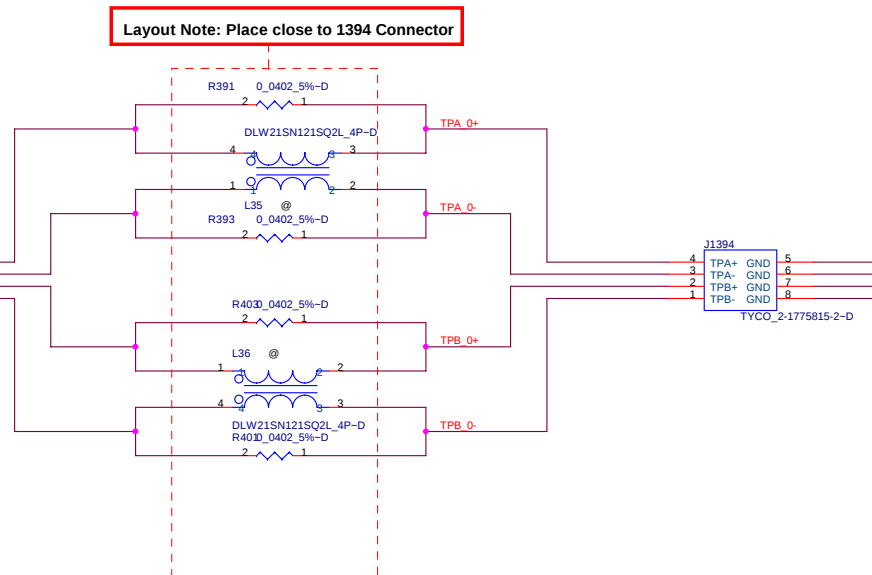
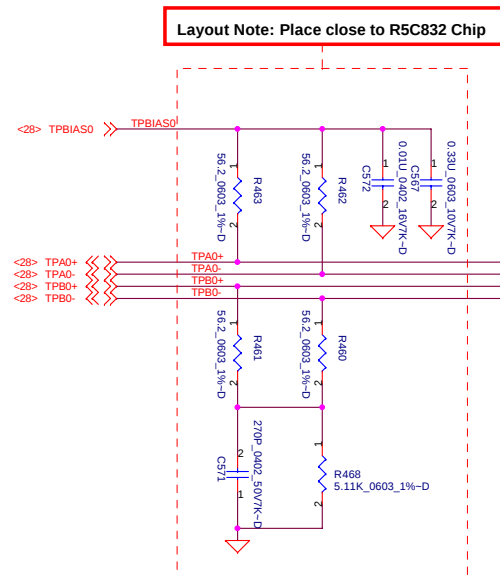
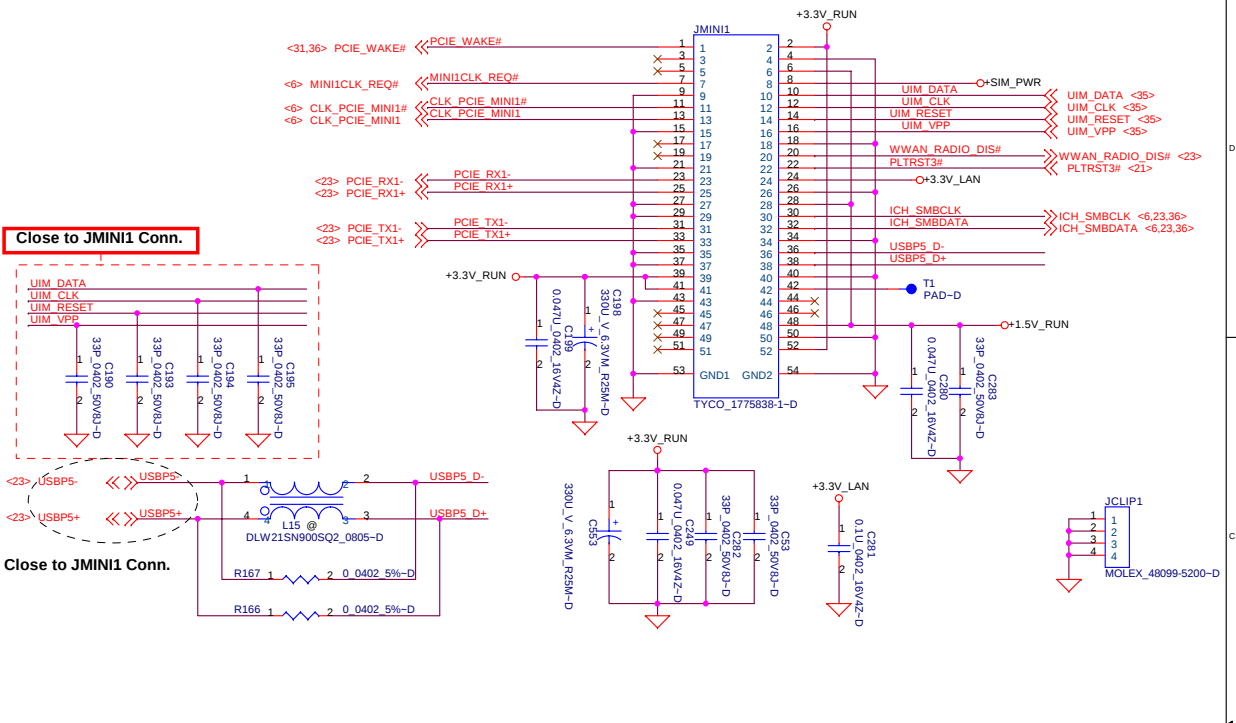


5 IN 1 Card Reader CONN.

Mini Wireless LAN Card



Mini Wireless WAN Card



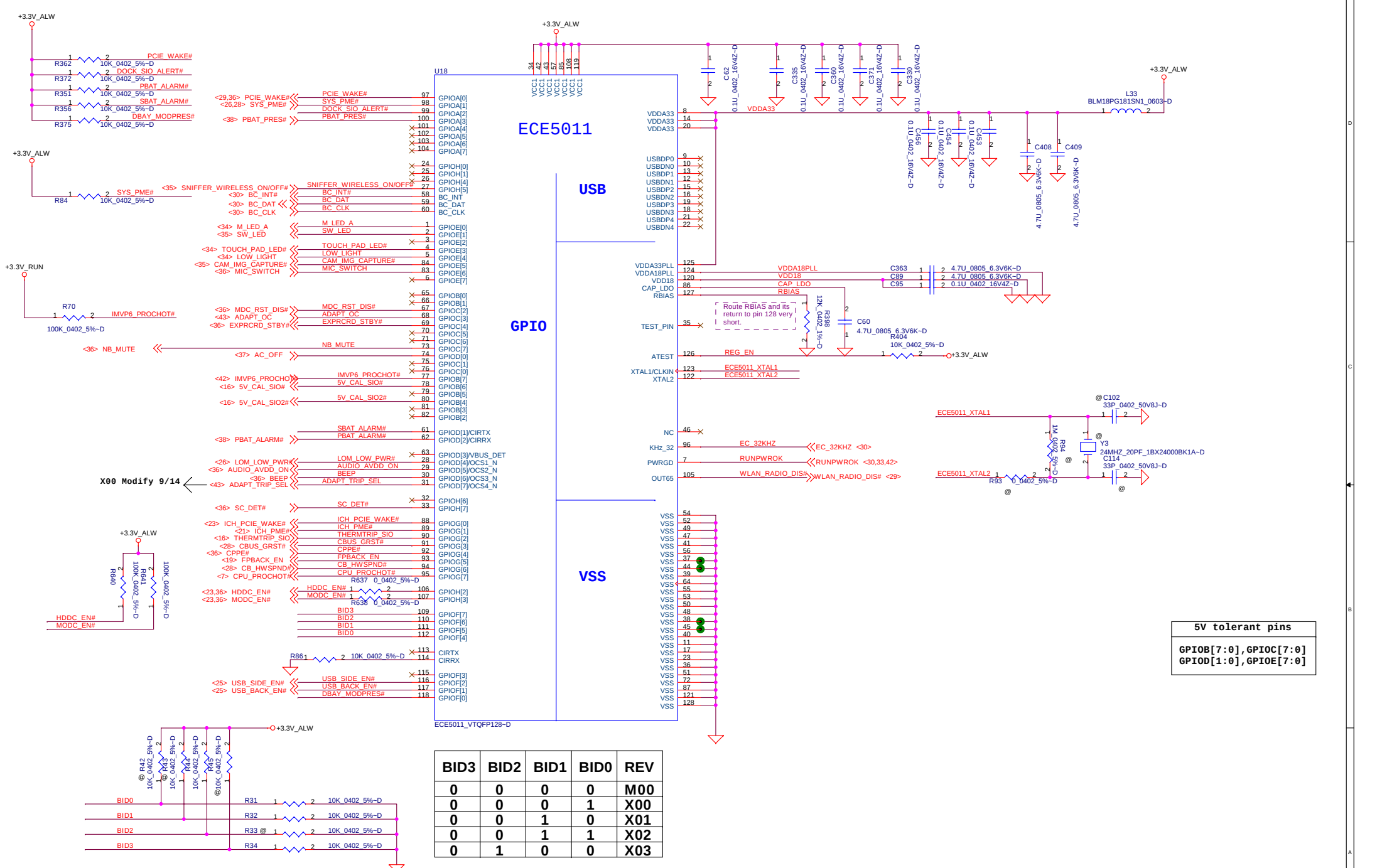
DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.

Title		
MINI CARD & 1394 Connector		
Size	Document Number	Rev
	LA-3001P	0.4
Date:	Monday, April 17, 2006	Sheet 29 of 73

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.



5V tolerant pins
GPIOB[7:0], GPIOC[7:0]
GPIOD[1:0], GPIOE[7:0]

BID3	BID2	BID1	BID0	REV
0	0	0	0	M00
0	0	0	1	X00
0	0	1	0	X01
0	0	1	1	X02
0	1	0	0	X03



DELL CONFIDENTIAL/PROPRIETARY

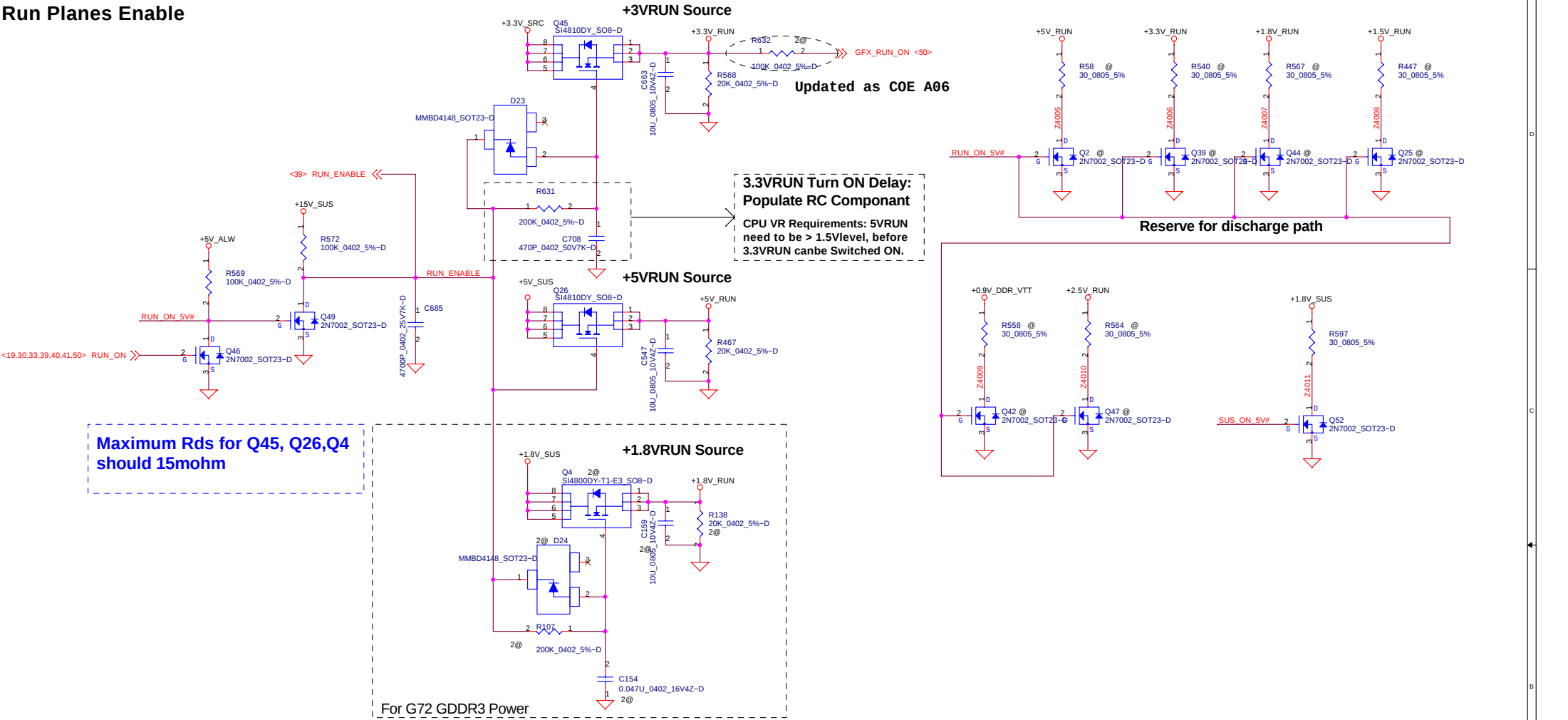
Compal Electronics, Inc.

HUB/ECE5011

Size	Document Number	Rev
LA-3001P		0.4
Date	Monday, April 17, 2006	Sheet 31 of 73

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.

Run Planes Enable

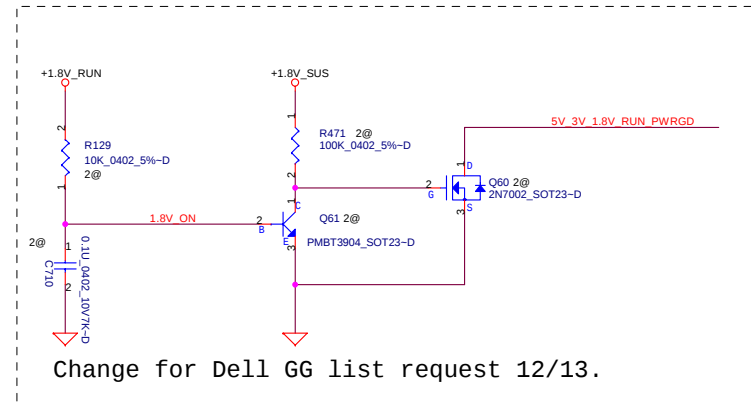
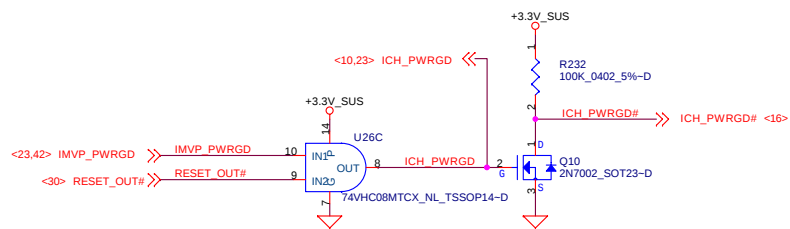
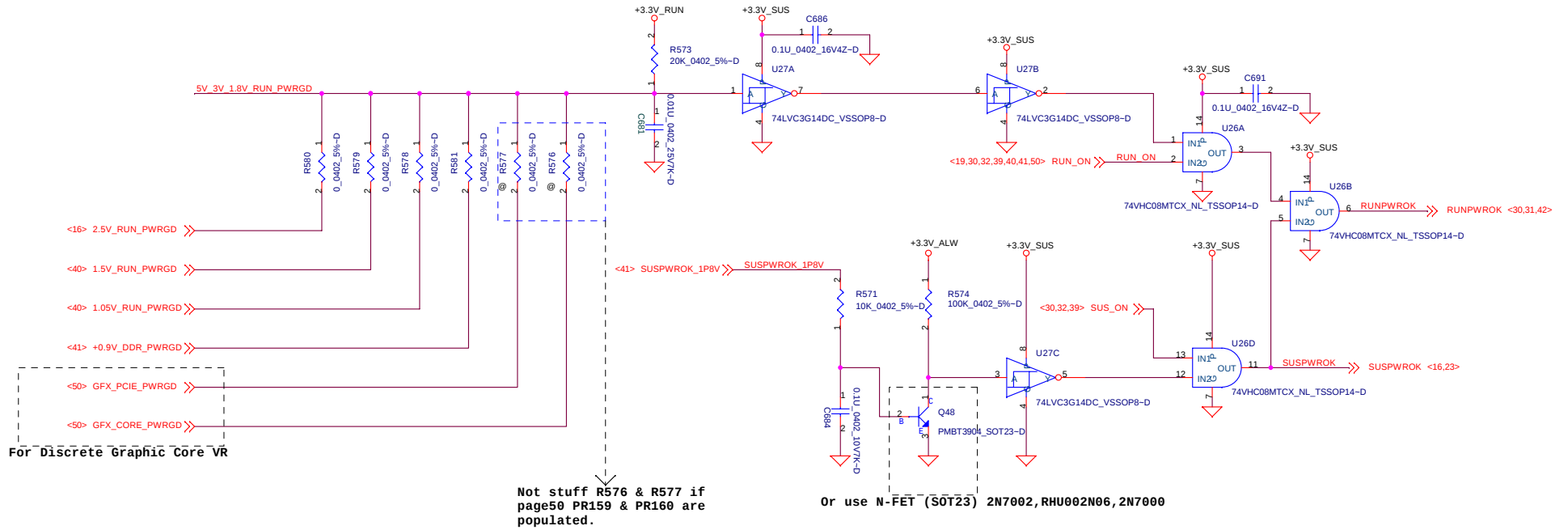


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title		POWER CONTROL
Size	Document Number	LA-3001P
Date	Monday, April 17, 2006	Sheet 32 of 73

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.

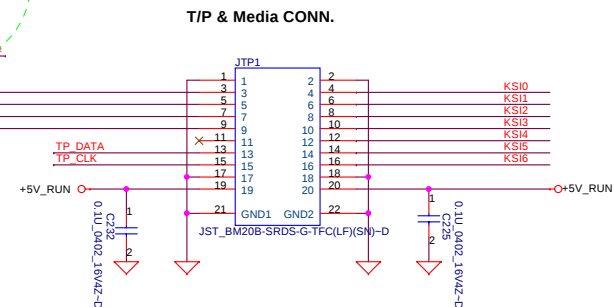


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

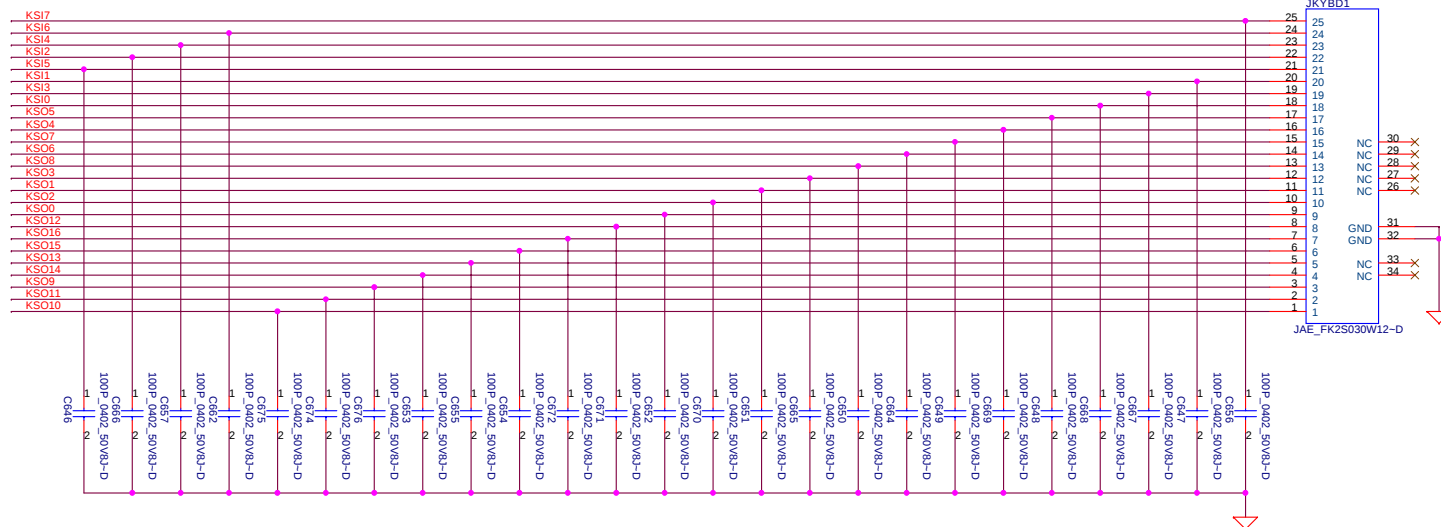
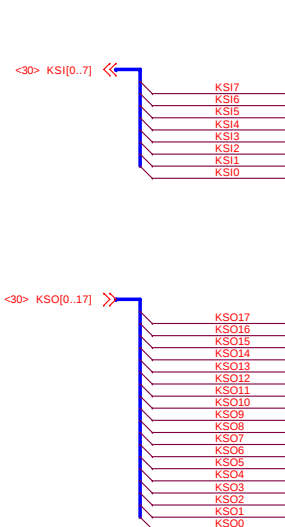
File		Document Number	Rev
Size		LA-3001P	0.4
Date:	Monday, April 17, 2006	Sheet	33 of 73

Add a 10K pull-up to +5V_RUN from bits issue list: WI52078



LED Control		
Status	LOW_LIGHT	TOUCH_PAD_LED#
OFF	L	L
LOW	L	H
HIGH	H	H

Signals	Description
M_LED_A	High bright for Media LED
	High bright for Touch PAD LED
	Low bright for Media LED/Touch PAD LED



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.



Title	INT KB/Touch Pad/Media CONN
-------	-----------------------------

Size	Document Number
------	-----------------

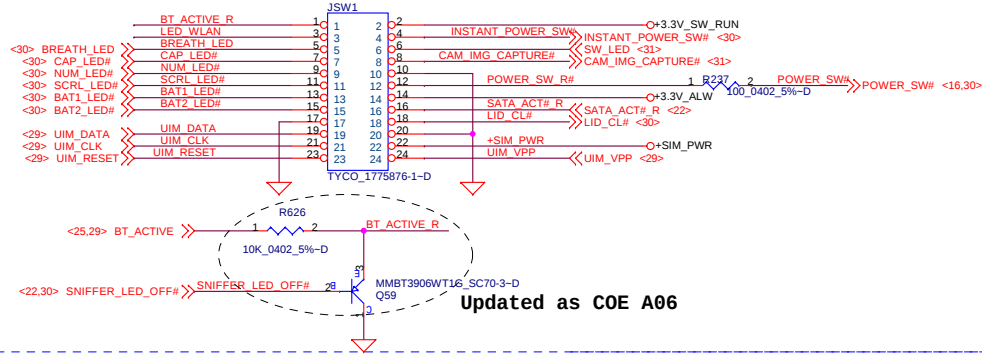
Document Number
LA-3001P

Rev	0.4
-----	-----

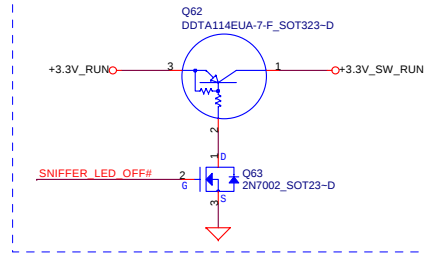
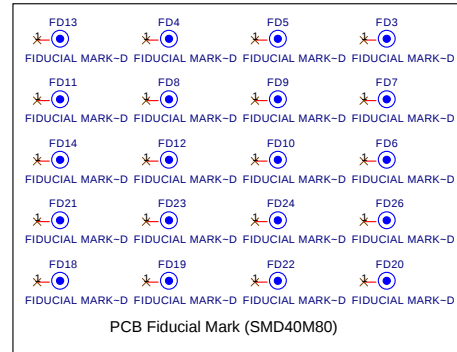
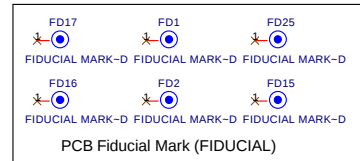
Date: Monday, April 17, 2006 Sheet 34 of 73

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.

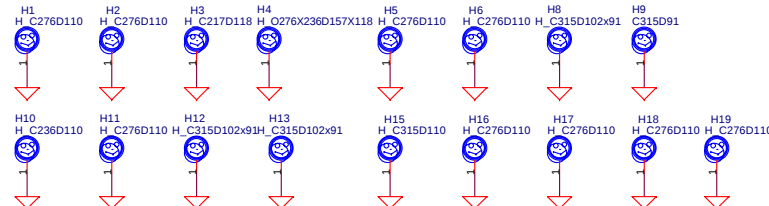
POWER Button CONN.



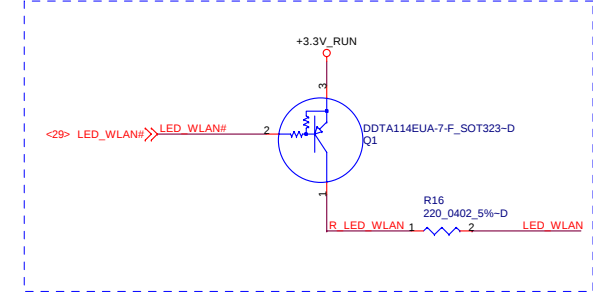
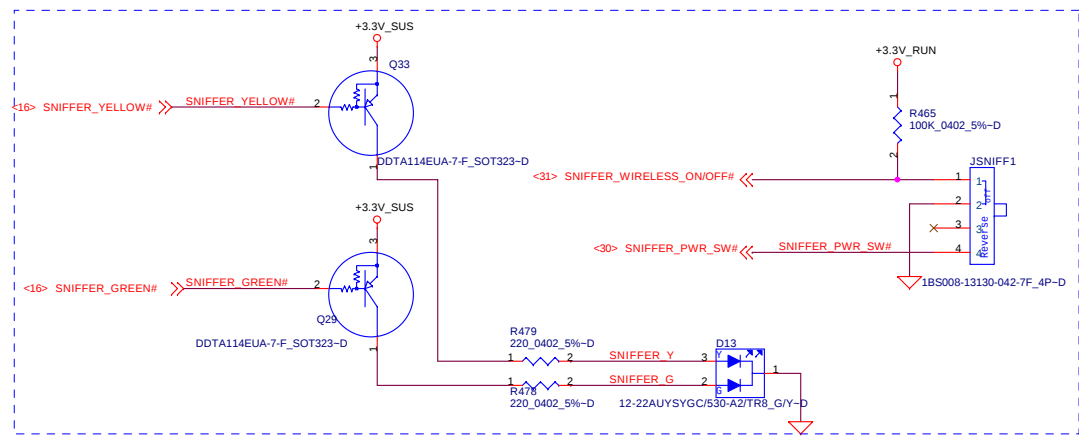
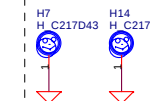
Fiducial Mark



Screw



V6A stand-Off



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.

File SW LED/B & ME & spare parts

Size Document Number LA-3001P Rev 0.4

Date: Monday, April 17, 2006 Sheet 35 of 73

CD-ROM IDE BUS

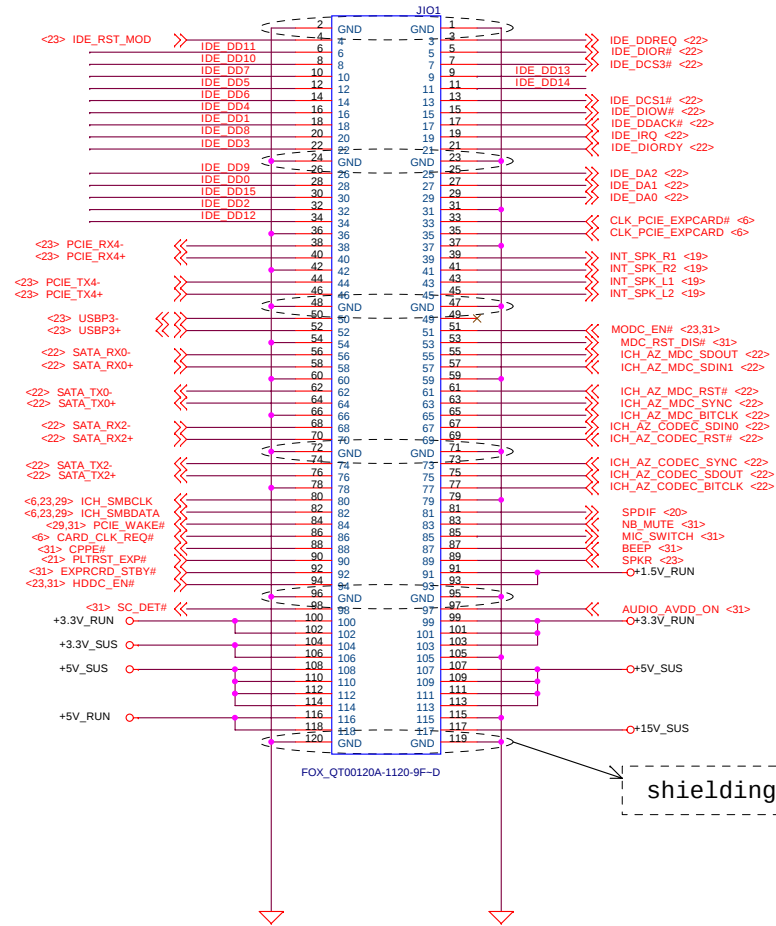
EXPRESS CARD

SATA HDD

SPEAKER

MDC

AC 97



IDE_DD[0..15] <22>

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.

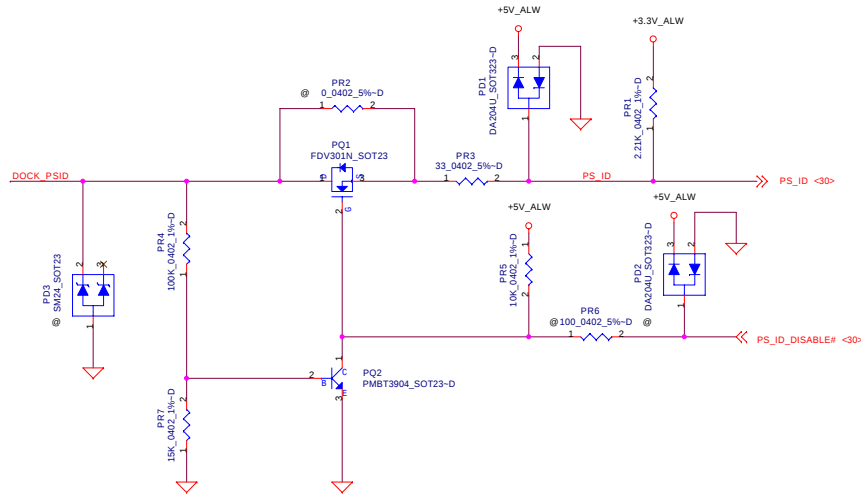


DELL CONFIDENTIAL/PROPRIETARY

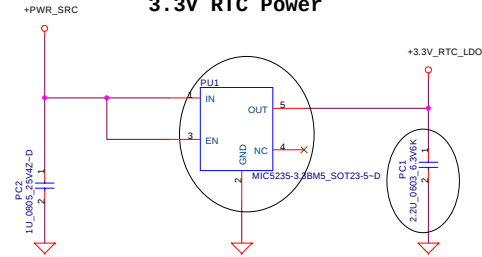
Compal Electronics, Inc.

Title			I/O BOARD DOCKING
Size	Document Number	Rev	0.4
LA-3001P			
Date:	Monday, April 17, 2006	Sheet	36 of 73

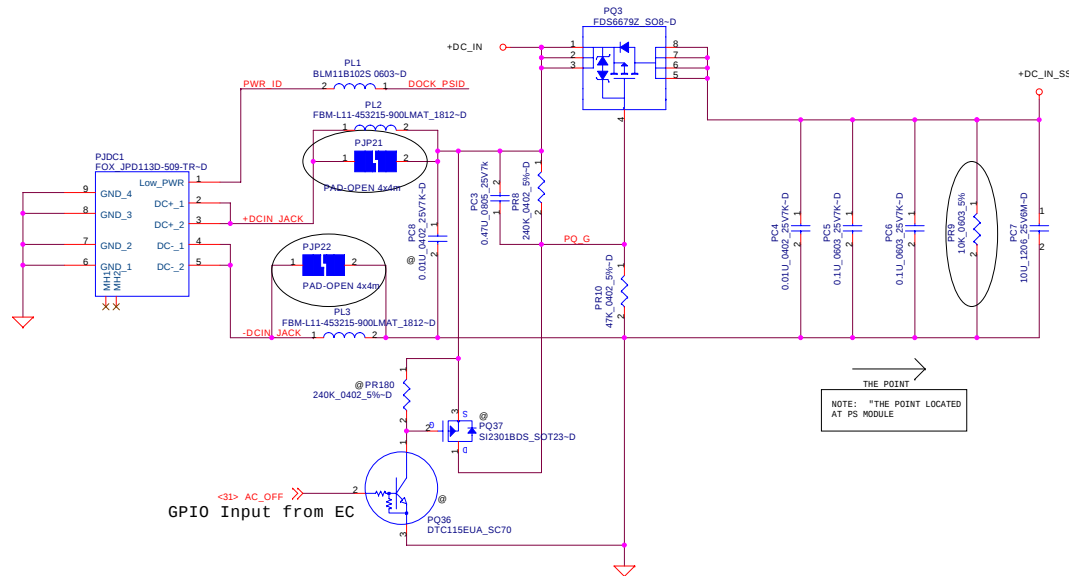
PS_ID Detector



3.3V RTC Power



+DC_IN Source



THE POINT
NOTE: *THE POINT LOCATED
AT PS MODULE

GPIO Input from EC

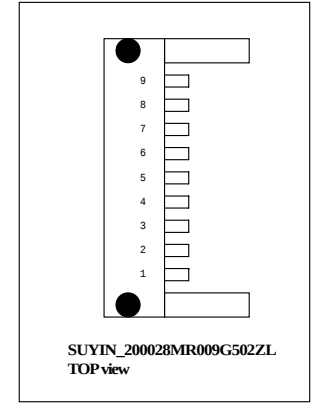
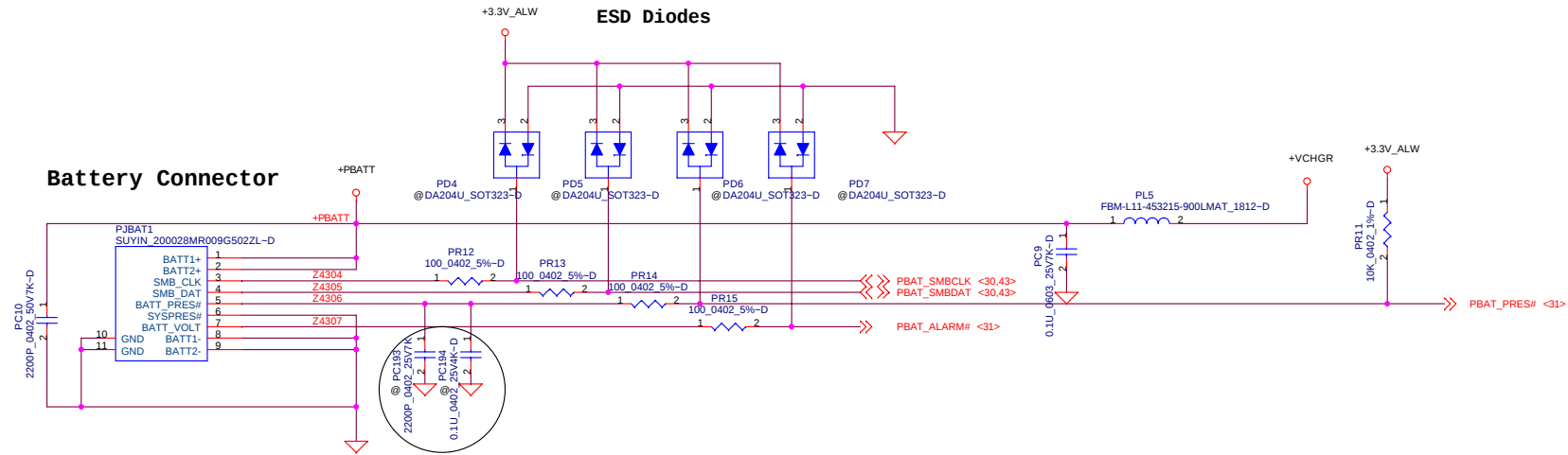
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

+DCIN

Size	Document Number	Bali	Rev X02
Date	Monday, April 17, 2006	Sheet 37 of 73	

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.



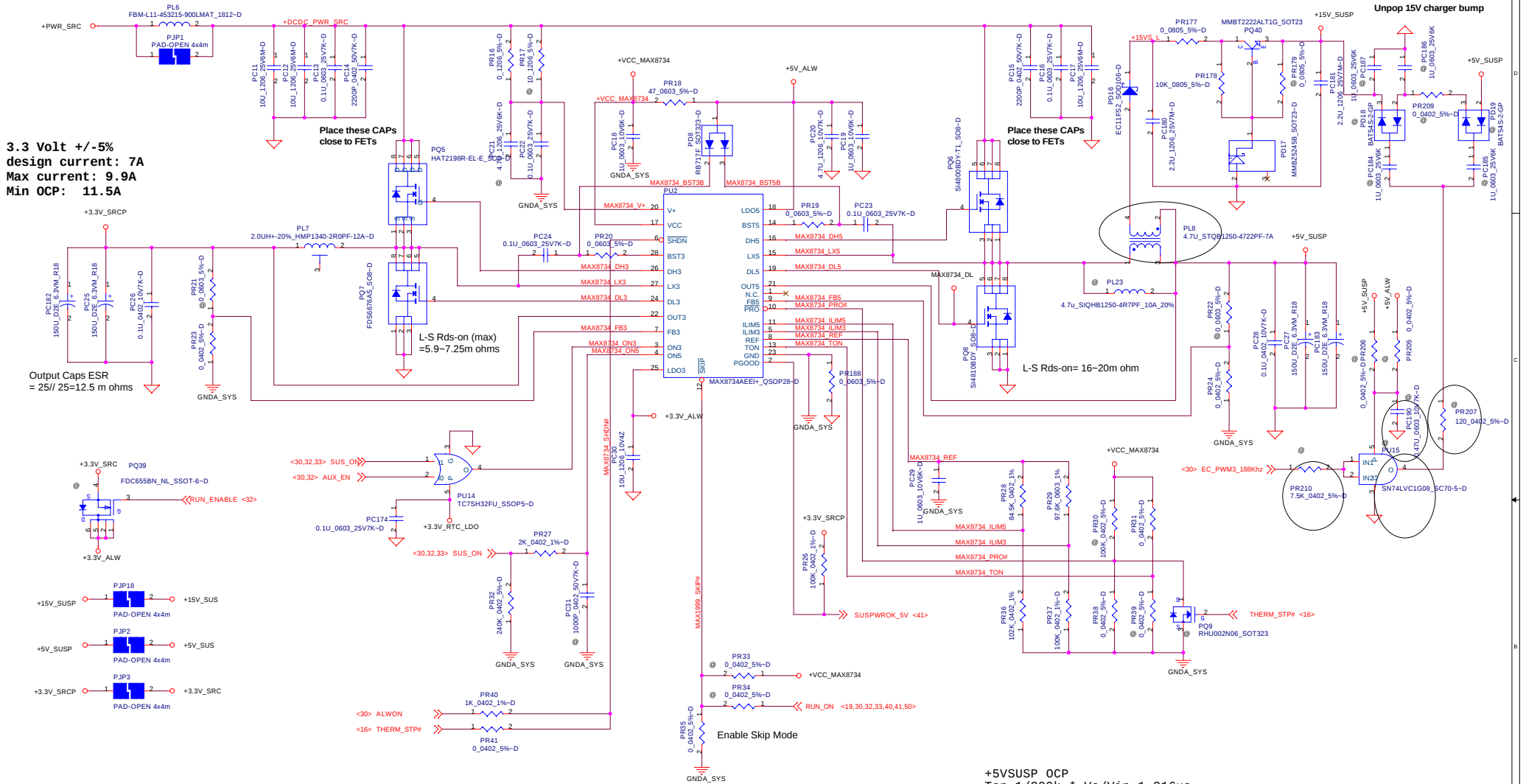
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.			
Title	Battery Conn		
Size	Document Number	Bali	Rev x02
Date:	Monday, April 17, 2006	Sheet 38	of 73

5 Volt +/-5%
design current: 4.1A
peak current: 5.8A
Min OCP: 5.9A



```
+3.3VSRCP OCP
Ton=1/300k * Vo/Vin=0.578us
Toff=1/300k - 0.578us = 2.752us
DeltaI=3V/2uH * 2.752us = 4.54A
Ilimit=(VILM*0.1)/Rds(on)+1/2 DeltaI
VILM=2*100/(100+97.6)=1.01V *0.1=101mV
IC 7% tolerance (min 94mV)(Typ 101mV)(max 108mV)
Ilimit=(VILM)/Rds(on)+1/2 Delta I
Ilimit Min=94mV/(7.25mOhm*1.4)+1/2 Delta I=11.5A
Ilimit Typ=101mV/(5.9mOhm*1.4)+1/2 Delta I=14A
Ilimit Max=108mV/(5.9mOhm*1.4)+1/2 Delta I=15.3A
```

```
+5VSUSP OCP
Ton=1/200k * Vo/Vin=1.316us
Toff=1/200k * 1.316us = 3.684us
DeltaI=5V/4.7uH * 3.684us = 3.92A
Iimit=(VILM*0.1)/Rds(on)+1/2 DeltaI
Iimit=2*102/(102+84.5)=1.094V * 0.1=109.4mV
IC 7% tolerance (min 101.7mV)(Typ 109.4mV)(max 117mV)
Iimit=(VILM)/Rds(on)+1/2 Delta I
Iimit Min=101.7mV/(20mOhm*1.4)+1/2 Delta I=5.86A
Iimit Typ=109.4mV/(16mOhm*1.4)+1/2 Delta I=6.8A
Iimit Max=117mV/(16mOhm*1.4)+1/2 Delta I=7.2A
```

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

+3.3V/+5V

Ba

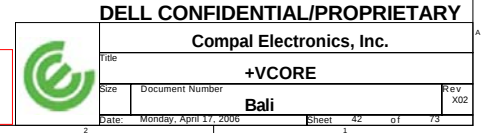
Rev
X02

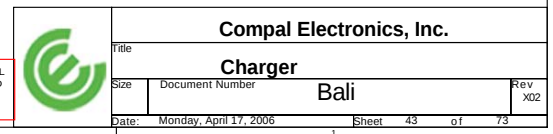
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

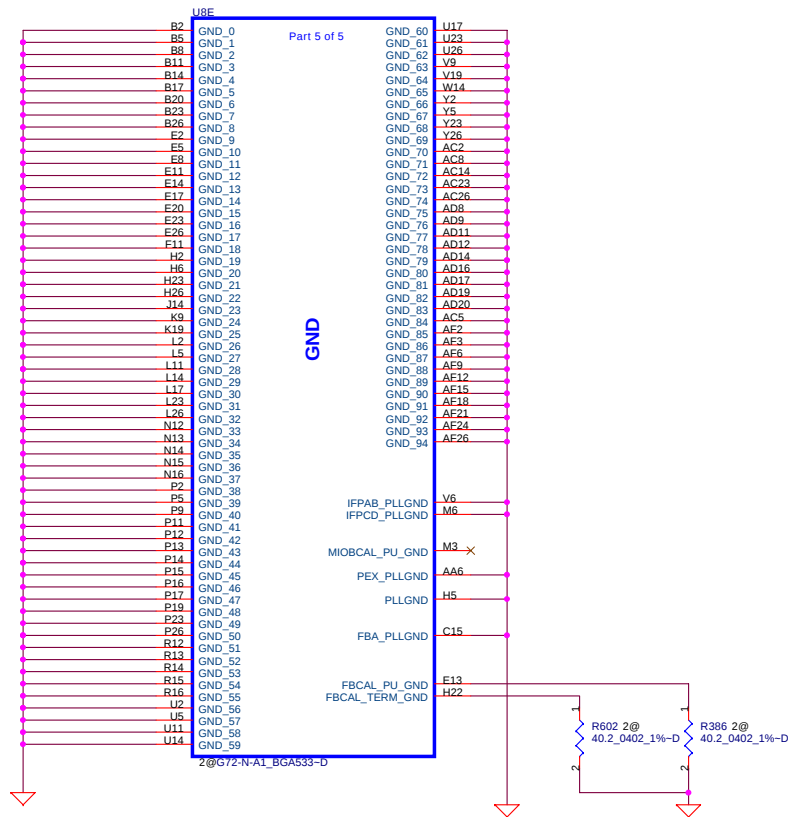
+1.5VRUNP / +VCCP_1P05VP



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.







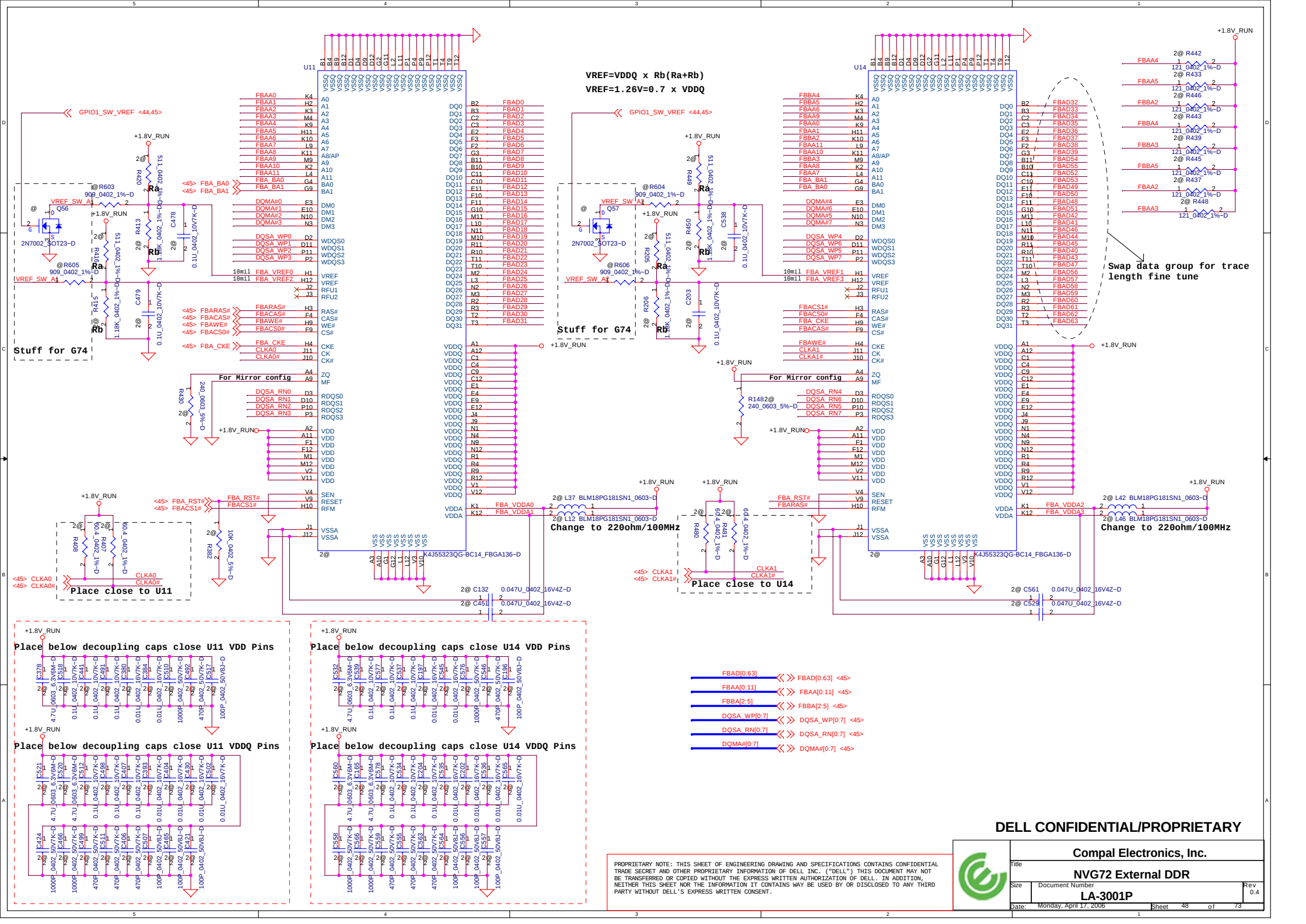
DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.

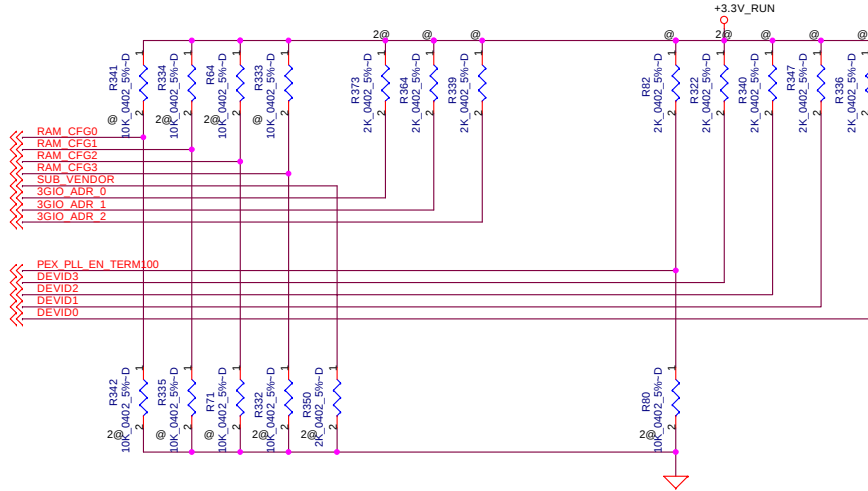
Title			NVG72 GND	
Size	Document Number		Rev	
	LA-3001P		0.4	
Date:	Monday, April 17, 2006	Sheet	47	of 73

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.



<44> RAM_CFG0
<44> RAM_CFG1
<44> RAM_CFG2
<44> RAM_CFG3
<45> SUB_VENDOR
<45> 3GIO_ADR_0
<45> 3GIO_ADR_1
<45> 3GIO_ADR_2

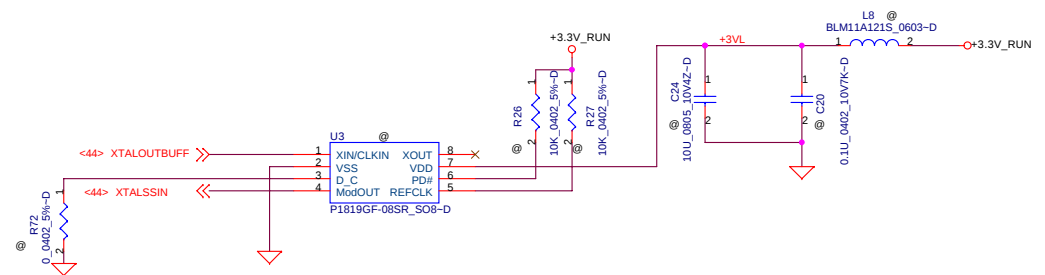
<45> PEX_PLL_EN_TERM100
<44> DEVID3
<44> DEVID2
<44> DEVID1
<44> DEVID0



G72xx				
	DEVID3	DEVID2	DEVID1	DEVID0
G72GLM	1	1	0	0
G72M	1	0	0	0
G72MV	0	1	1	1

G72MV STRAPS

STRAPS	PIN	DESCRIPTION		Value
ROM_TYPE[1:0]	MIOBD10 MIOB_VSYNC	Parallel=00, SERIAL AT25F=01 DEFAULT, Serial SST45VF=10, LPC=11		01
SUB_VENDOR	MIOAD1	VBIOS on card (pull high) VBIOS with system BIOS (pull down)		0
PEX_PLL_TERM	MIOAD0			0
RAM_CFG[3:0]	MIOBD0 MIOBD1 MIOBD8 MIOBD9	For GDDR1	8Mx32 DDR monolithic (64bit) 300MHz, 1.8V	0001
			8Mx32 DDR monolithic (32bit) 300MHz, 1.8V	1001
			8Mx32 DDR (Samsung K4D55323QF-GC) 300MHz, 1.8V	0010
			4Mx32 DDR generic (64bit) 1.8V I/O	0100
		For GDDR3	4Mx32 DDR generic (32bit) 1.8V I/O	1100
			Infineon 8Mx32 500MHz, 1.8V	0101
			Hynix 8Mx32 500MHz, 1.8V	0111
			Samsung 8Mx32 500MHz, 1.8V	0110 *



	U3.Pin3	Internal pull up
-1.75% (DOWN)	0	*
±0.875% (CENTER)	1	

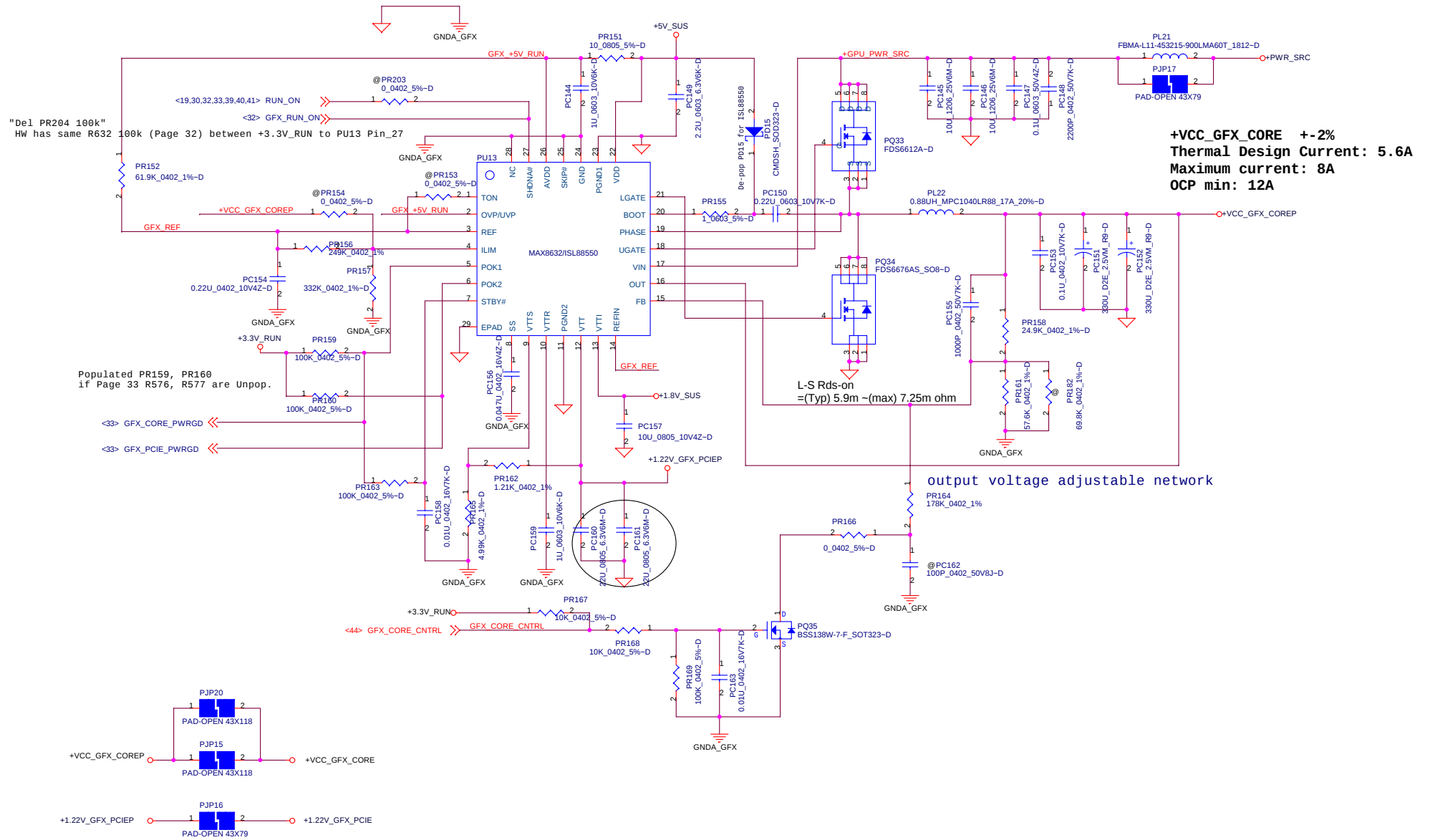
DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.		
Title	NVG72 Strapping	
Size	Document Number	Rev
	LA-3001P	0.4
Date	Monday, April 17, 2006	Sheet 49 of 73

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.

Graphics Power reference COE Rev A08
Graphics Power for HAL31 Discrete only.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title	PWR_NVG72 +VDD CORE
-------	---------------------

LA-3001P

Date: Monday, April 17, 2006

Sheet 50 of 73

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)

Item	Page#	Title	Date	Request	Owner Issue	Solution Description	Rev.
1	ALL	H/W	9/14	Bill	Revision change to X00(0.2)	Modify Done.	0.2
2	31	H/W	9/14	Bill	Update Board ID to 0001 for X00	Stuff R42 and no-stuff R31	0.2
3	31	H/W	9/14	Bill	CoE update. (EC_A05)	Add GPIO USB_CAM_EN# and ADAPT_TRIP_SEL	0.2
4	19	H/W	9/20	Bill	CoE update. (CRT, LVDS, SVIDEO and DVI Interfaces_A06)	Delete U28, R607. Add R610.	0.2
5	20	H/W	9/20	Bill	CoE update. (CRT, LVDS, SVIDEO and DVI Interfaces_A06)	Update Population Note for the RGB and TV out Filter.	0.2
6	32	H/W	9/23	Reden	CoE update. (M07 SYSTEM POWER SEQUENCE_A03)	Change R58,R540,R567,R447,R558,R564,R597 to 30_0805_5%	0.2
7	23	H/W	9/28	Reden	Update the ICH7 USB bus connection	Add connection of USB4+/- for CCD, USB2+/- for Blue tooth	0.2
8	ALL	H/W	9/28	Reden	Change Connector for ME request	Update J1394, JTP1, JBT1, JLVDS1 connector	0.2
9	14	H/W	9/30	Reden	Update the note for MCH power	Remove the placement note for C489,C525 as COE schematic	0.2
10	22	H/W	9/30	Scott	Pull-up on SATA_ACT# (R530) should be populated	Modify OK	0.2
11	22	H/W	9/30	Scott	Capacitor on THRMTRIP_ICH# (C609) can be de-populated	Modify OK	0.2
12	23	H/W	9/30	Scott	Rename net LCM_SMB_CLK to ICH_SMLINK0	Modify OK	0.2
13	23	H/W	9/30	Scott	Rename net LCM_SMB_DAT to ICH_SMLINK1	Modify OK	0.2
14	29	H/W	9/30	B.McFarland	Can remove R489 and R490. Leave pins 3 and 5 as NC on JMINI1. See A06 Ref Schem.	Modify OK	0.2
15	20	H/W	9/30	John Lerma	Please check the latest reference schematics. Delete 75 ohm resistors on RED, GREEN, & BLUE. Add 39 ohms series resistors to ouputs of U1 & U2. Move L3 & L4 before caps C1 & C2.	Delete R233, R235, R238, Add R611, R612 (39 Ohm). And move L3 & L4 before caps C1 & C2.	0.2
16	20	H/W	9/30	John Lerma	Please check the latest reference schematics. Delete 75 ohm resistors on TV_C, TV_CVBS, & TV_Y. Filter circuit values have been changes and a cap in parallel with each inductor has been added.	Remove R368, R380, R385.	0.2
17	33	H/W	9/30	John Lerma	Add diode for power leakage in power sequence circuit	Change R129,R482,R466 to 100K,and change Q6,Q30,Q27 to 2N3906,and change R471,R474,R469 to 4.7K.	0.2
18	23	H/W	9/30	Reden	No stuff R485 (10k pull high) for M'07 inverter	Modify OK	0.2
19	47	H/W	9/30	Reden	Change pull down resistor value to follow COW schematic	Change R602,R386 to 37.4_0402_1%	0.2
20	20	H/W	10/04	Reden	Change S-video filter bead same as COE schematic	Change L29,L32,L34 to 0.47UH_CIL10NR47KNC_10%_0603	0.2

DELL CONFIDENTIAL/PROPRIETARY

		Compal Electronics, Inc.	
		Changed-List History 1	
Size	Document Number	Rev	
	LA-3001P	0.3	
Date	Monday, April 17, 2006	Sheet	51 of 73

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)

Item	Page#	Title	Date	Request	Owner	Issue Description	Solution Description	Rev.
1	29	H/W	10/05	John	Swap CLKREQ signal between WWAN and WLAN	Modify ok.		0.2
2	27	H/W	10/05	John	Change C236,C238 from 1000p to 300p	Modify ok.		0.2
3	29	H/W	10/05	John	Add debug signals to WLAN connector	Connecting JMINI2 pins 16 - HOST_DEBUG_TX, 17 - HOST_DEBUG_RX, 19 - 8051 TX, & 42 - 8051 RX.		0.2
4	32	H/W	10/05	John	Remove C682 and replace C685 with 4700pF as COE schematic	Modify ok.		0.2
5	44	H/W	10/05	John	Add signal THERMTRIP_VGA# to G72 pin B13 from Guardian II	Modify ok.		0.2
6	49	H/W	10/05	John	Change R341, R334, R64, & R333 from 2K to 10K	Modify ok.		0.2
7	20	H/W	10/05	John	Change Caps C331,C325,C351,C349,C381,& C379 from 82pF to 47pF and add C705-C707	Modify ok.		0.2
8	44	H/W	10/05	John	Add 10K pull-down resistor to G72 pins C3, C1, & D7	Modify ok.		0.2
9	31	H/W	10/06	Reden	Add signal U18 pin5 (GPIOE4) connect to TP connector for LED.	Modify ok.		0.2
10	44	H/W	11/02	John	Add 150ohm terminal resistor on GFx side.	Add 150ohm of R619-R624		0.3
11	22	H/W	11/02	Reden	Add SNIFFER LED Disable Circuit as COE schematic	Add Q58,R625		0.3
12	30	H/W	11/02	Reden	Added 0 ohm to EC5004 test pin	Modify ok.		0.3
13	29	H/W	11/02	Reden	Added circuit to support WoW from S3/S4. Blocking diode and bypass resistor as COE	Modify ok.		0.3
14	35	H/W	11/02	Reden	Added a circuit (Transistor and Resistors) to keep BT LED off when the SNIFFER is turned on	Modify ok.		0.3
15	44	H/W	11/02	Reden	Change pull up resistor same as COE graphic schematic.	Change R370,R376 from 4.7K to 470K.		0.3
16	20	H/W	11/17	Reden	Change VCC_CRT Diode D11 to RB500 (rate Io=100mA).	Modify ok.		0.3
17	44	H/W	11/17	Reden	Add series resistor on signal of PLTRST_DELAY#.	Modify ok.		0.3
18	44	H/W	11/17	Reden	Add series resistor on signal of THERMTRIP_VGA#.	Modify ok.		0.3
19	33	H/W	11/18	Reden	Change Q6,Q27,Q30 to MMBT3906, and delete D19-D21(RB751V_SOD323-D) same as COE schematic.	Modify ok.		0.3
20								
21	32	H/W	11/18	Reden	Added 3VRUN Delay RC CKT, to Fix IMVP_PWRGD Glitch issue and add 1.8 VRUN Delay RC CKT, to meet GFX Power Sequence Requirement	Modify ok.		0.3
22								
23								
24	32	H/W	11/18	Reden	Added Diode Bleed off for 3VRUN and 1.8VRUN for GFX Power Down Sequence adjustment.	Modify ok.		0.3
25	32	H/W	11/21	Reden	Change the GFX_RUN_ON connection to VR turn on pin as COE A06 version schematic.	Modify ok.		0.3
26	20	H/W	11/23	John	Change U19 connection from EC to GND as GG list request.	Modify ok.		0.3

DELL CONFIDENTIAL/PROPRIETARY

		Compal Electronics, Inc.	
		Changed-List History 2	
Size	Document Number	Rev	
	LA-3001P	0.3	
Date:	Monday, April 17, 2006	Sheet	52 of 73

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)

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	34	H/W	11/23	John	Change JTP1 pin 19 from +5V_ALW to +5V_RUN as Dell GG list	Modify ok.	0.3
2	20	H/W	11/23	John	Place a 0 ohm 1206 place holder between D11 pin 1 and JCRT1 pin 9	Modify ok.	0.3
3	29	H/W	11/23	John	Change WWAN USB source from EC to ICH7M/USB5 and remove WLAN USB signal from EC.	Modify ok.	0.3
4	44	H/W	11/24	John	Add connection for signal of YPRPB_DET# to G72 pin A15 through a series resistor.	Modify ok.	0.3
5	44	H/W	12/01	John	Change R615 to no-pop	Modify ok.	0.3
6	23/31	H/W	12/02	John	Add connection to EC for signal HDDC_EN# and MDDC_EN#	Modify ok.	0.3
7	6	H/W	12/06	Reden	Change R456 to 150, R457 to 91 for internal spectrum clock.	Modify ok.	0.3
8	20	H/W	12/07	John	Add a diode for U1,U2 power pin.	Modify ok.	0.3
9	20	H/W	12/07	John	Add a cap 0.1uf for JSVID1 pin5	Modify ok.	0.3
10	28	H/W	12/07	John	Change u13 to G5240B1T1U	Modify ok.	0.3
11	30	H/W	12/07	John	Add connection for pin73 for LVDS BIA_PWM through resistor	Modify ok.	0.3
12	20	H/W	12/08	John	Remove the C104 form dell COE team request.	Modify ok.	0.3
13	6/44/49	H/W	12/12	Reden	Remove external spectrum and swap populated resistor for internal CLK GEN.	Modify ok.	0.3
14	31	H/W	12/12	John	Add pull up resistors to +3.3V_ALW for signals of HDDC_EN#,MDDC_EN#	Modify ok.	0.3
15	23/30	H/W	12/13	John	Add damping series resistors (47ohm) for signal SPI_CS# on EC and ICH7	Modify ok.	0.3
16	33	H/W	12/13	John	Removed 3V/5V power good sequence circuit and change +1.8V_RUN PWRGD circuit.	Modify ok.	0.3
17	35	H/W	12/14	Reden	Swap the Sniffer LED (D13) pin define, Pin3=>Yellow, Pin2=>Green.	Modify ok.	0.3
18	9	H/W	12/14	Reden	Change CPU VCORE area caps , 22uF->10uF and replace 330uF poly with 6m ohm x 4pcs.	Modify ok.	0.3
19	31	H/W	12/15	Reden	Change pull up resistors of HDDC_EN#,MDDC_EN# from 10k to 100K for leakage issue.	Modify ok.	0.3
20	49	H/W	12/15	Reden	Change Device ID from 0111 to 1000 for G72M	Modify ok.	0.3
21	32	H/W	2006/2/07	Reden	Change C154 from 0.01uf to 0.047uf to match G72 VDD_CORE&1.8V power up sequence	Modify ok.	0.4
23	13	H/W	2006/2/07	Reden	Change L6/L26 TDK to 2nd and use Taiyo for main source	Modify ok.	0.4
24	24	H/W	2006/2/07	Reden	Change L53 TDK to 2nd and use Taiyo for main source	Modify ok.	0.4
25	20	H/W	2006/2/08	Reden	Change TV filter caps value as dell's suggest 1. Change C331,C351,C381,C325,C349,C378 from 47pf to 82pf 2. Change C705,C706,C707 from 22pf to 8.2pf	Modify ok.	0.4

DELL CONFIDENTIAL/PROPRIETARY

		Compal Electronics, Inc.	
		Changed-List History 3	
Size	Document Number		Rev
	LA-3001P		0.3
Date	Monday, April 17, 2006		Sheet 53 of 73

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)

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	35	H/W	02/17	Reden	To add logic circuit to control 3.3V_RUN for power switch board.	Modify ok.	0.4
2	35	H/W	02/17	Reden	Add pull down resistor (10K) for signal PLTRST_DELAY# to fix leakage issue	Modify ok.	0.4
3	19	H/W	02/21	Reden	Add SI3457DV P channel mos to dual-stuff for +GFX_PWR_SRC	Modify ok.	0.4
4	31	H/W	02/21	Reden	Change board ID to X02 (0011)	Modify ok.	0.4
5	19	H/W	02/21	Reden	Add voltage drop diode for CMOS power (+5V_RUN), and remove D'05 buffer.	Modify ok.	0.4
6	22, 23, 34	H/W	02/21	Reden	populate the 48MHz/bit_clk/keyboard signal termination for EMI issue	Modify ok.	0.4
7	19	H/W	02/21	Reden	Change population option for BACKLITEON, stuff R610 for DSC and stuff R639 for UMA.	Modify ok.	0.4
8	20	H/W	02/21	Reden	Change R611, R612 resistor to 0 for signal quality.	Modify ok.	0.4
9	23	H/W	02/22	Reden	Stuff R485 for Bits issue WI52653	Modify ok.	0.4
10	16	H/W	02/22	Reden	Change thermal setpoint from 85 degrees to 88 degrees, change R242 from 147K ohm to 322K ohm 1% and R247 from 41.2K ohm to 118K ohm 1%.	Modify ok.	0.4
11							
12	19	H/W	02/28	Reden	Add R652 overlap on D26 for CMOS power pop option	Modify ok.	0.4
13	31	H/W	04/03	Reden	Change board ID to X03 (0100)	Modify ok.	0.5
14	16	H/W	04/11	Reden	Switch Q7, Q24 Pin S, D connection	Modify ok.	0.5
15		H/W				Modify ok.	0.5
16		H/W				Modify ok.	0.5
17		H/W				Modify ok.	0.5
18		H/W				Modify ok.	0.5
19		H/W				Modify ok.	0.5
20		H/W				Modify ok.	0.5
21		H/W				Modify ok.	0.5
23		H/W				Modify ok.	0.5
24		H/W				Modify ok.	0.5
25		H/W				Modify ok.	0.5
26		H/W					

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

Changed-List History 4

Size

Document Number

Date

Monday, April 17, 2006

Sheet

54

of

73

Rev

0.3

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	P39	+3.3VALW	0926/2005	Dell	Dell request to change PC30 from 4.7U_1206 to 10U_1206	PC30 change to 10U_1206_10V	X00
2	P40	+1.5V / +1.05V OCP	0926/2005	Dell	+1.5V OCP min = 7.4A, +1.05V OCP min = 9.3A	1.) +1.5V OCP: PR56 change to 124K, PR46 change to 1.43K 2.) +1.05V OCP: PR57 change to 124K, PR47 change to 1.87K	X00
3	P41	+1.8V_SUS	0926/2005	Dell	Contact the FB pin of the controller to the AVDD pin via zero ohm resister	Add PR202 0 ohm 0603 between FB pin with AVDD pin of PU5 MAX8632	X00
4	P39	+15V_SUS	0926/2005	Compal	Follows COE +15V reference schematics	Unpop PR179 10K_0805	X00
5	P50	+VCC_GFX	0926/2005	Compal	Improve +1.22V_GFX_PCIEP pin7 STBY# and pin5 POK1 pull high resister of PU13 MAX8632.	Depop PR159, PR160 100K_0402	X00
6	P40	+1.5V / +1.05V	1004/2005	Dell	Improve better phase margin	PC46 change to 330pf/0402/50v	X00
7	P41	+1.8V_SUSP OCP	1004/2005	Dell	Improve 1.8V_SUSP OCP	PR78 change to 84.5K	X00
8	P39	+3.3VALW	1004/2005	Dell	Dell request to populate PC11 at the input to the 3V regulator	Populate PC11 10uf/1206/25V	X00
9	P50	+VCC_GFX	1007/2005	Dell	Dell request to Change PR167 pin 1 contact to +3.3V_RUN	PR167 pin1 contact to +3.3V_RUN	X00
10	P50 P41	+VCC_GFX +1.8V_SUSP	1007/2005	Dell	MAX8632 Just connect pin 24 directly to the exposed pad without using zero ohm resistor .	DEL PR186 and PR79	X00
12	P41	+1.8V_SUSP	1007/2005	Dell	Dell request to populate PR74. (PU5 MAX8632 f from 300K change to 450khz)	Add PR74	X00
13	P43	Charger	1007/2005	Dell	Dell request to change PR174 to 1_0603.	PR174 from 1_0805 change to 1_0603(refer to COE Rev A09)	X00
14							
15	P41	+1.8V_SUSP	1107/2005	Dell	Dell Coe DDR Rev A05 request to del PR70	DEL PR70 Change PR69 from 0 ohm to 1 ohm.	X01
16	P43	Charger	1107/2005	Dell	Dell Coe Cgarger Rev A07 requested	1. Change PR174 from 0_0805 to 1_0603. 2. Add PC175 220P_0402 3. Del PR200, Add PR199 100_0402, PC189 0.01U_0603 PU10 Pin 15 & Pin16 shorted. 4. Add PR144 4.3M 0402. 5. Del PR201. 6. Change PR149 from 59K to 56.2K 0402 7. Change PR150 from 33.2K to 27.4K 0402.	X01

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

Power-Changed-List History

Size

Document Number

Bali

Rev

X01

Date

Monday, April 17, 2006

Sheet

55

of

73

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

Power Circuit

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
17	P50	+VDD_CORE	1108/2005	Dell	Dell COE Graphics Power reference A07 requested	1. Change PR155 to 1 ohm. 2. Change PR161 from 69.8K to 57.6K. 3. Change PR164 from 118K to 178K. 4. Change PR166 from 301 to 0 ohm. 5. Change PR162 from 1.1K to 1.21K 6. All +5V_RUN change to +5V_SUS. 7. All +3V_RUN change to +3V_SUS.	X01
18	P50	+VDD_CORE	1108/2005	Dell	Follow Coe ref De-pop PR203. Del PR204, H/W has same R632 100k on Page 32 between +3.3V_RUN to PU13 Pin_27.	Del PR203 Del PR204	X01
19	P37	+DC_IN	1202/2005	Dell	Add solder jumper pads in parallel with PL2 & PL3.	Add PJP21, PJP22	X01
20	P43	Charger	1120/2005	Dell	Dell COE Charger reference A09 requested	De pop PC189 Add PC191	X01
21	P42	+VCC_CORE	1120/2005	Compal	Improve VCC-CORE OCP to 55A. (original design X00 PR109 191K OCP point 45A only.)	Change PR109 to 160K	X01
22	P37 P38 P39 P40 P41 P42 P43 P50	EMI Bead	1122/2005	Compal	Change Footprint 'L_1812' to "L-1812-S" for 2nd source	Change PL2, PL5, PL6, PL9, PL12, PL14, PL19, PL21 footprint to L_1812-S for 2nd source	X01
23	P39	3.3VSR	1124/2005	Dell	Nopop PQ39 since this will not be needed once the EC HUB is removed.	Unpop PQ39	X01
24	P42	+VCC_CORE	1130/2005	Compal	Tokin inductor 0.45uH/27A rusted on surface after storage test.	change PL15, PL16, PL17 to Panasonic ETQP4LR45XFC (0.45uH 10% Lead Free)	X01
25	P50	+VDD_CORE	1201/2005	Dell	Improve +3.3V_RUN leakage at S3 mode	1. Change PR167 Pin_1 net name from +3.3V_SUS change to +3.3V_RUN 2. Change PR159, PR160 Pin_1 net name from +3.3V_SUS change to +3.3V_RUN	X01
26	P43	Charger	1201/2005	Dell	CoE Charger Ref A10 request: Deeply discharged battery problem.	Add PR208, PD20	X01
27	P50	+VDD_CORE	1202/2005	Dell	Change PR167 to 4.7K to fix stair step issue seen on signal.	Change PR167 to 4.7K	X01
28	P40	+1.5V_RUN	1202/2005	Dell	Add PC192 0.1uF cap to pin 21 of PU4 for power-up sequencing. Also add PD20 diode in parallel with PR59 for power-down sequencing.	Add PC192, PD21	X01
29	P37	DC_IN	1206/2005	Dell	ChangePR9 from 4.7K to 10K. The existing 4.7K exceeds power dissipation rating of 0603 size at 20V.	Change PR9 from 4.7K to 10K	X01
30	P43	Charger	1206/2005	Dell	Unpop PQ27, PR126	Unpop PQ27, PR126	X01
31	P44	+15VP	1206/2005	Dell	Add a PR209 150 ohm between PD19 Pin_3 and PD18 Pin_2 to prevent +15V_SUS short cause PD18 damage.	Add PR209 150 ohm	X01

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-Changed-List History

Title	Bali			Rev	X01
Date	Monday, April 17, 2006	Sheet	56	of	73

Request Owner

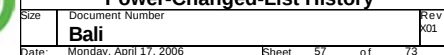
Item	Page#	Title	Date
------	-------	-------	------

Issue

~~Description~~

Solution

~~Description~~



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.