Greenland
Napa

REV : X03G
12/28/2005

@ : Nopop Component

Compal Electronics, Inc.

Title: Cover Sheet		
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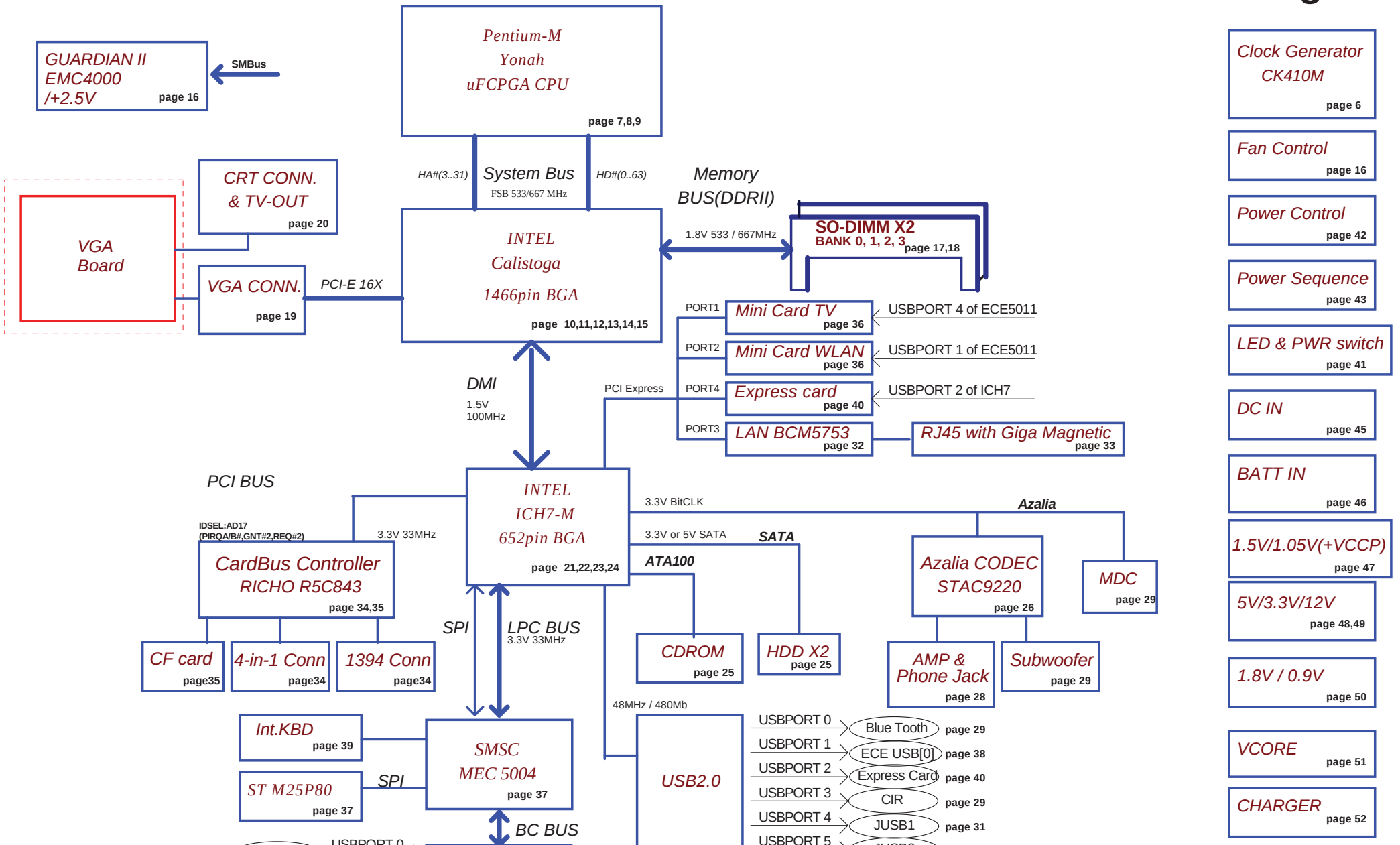
Block Diagram



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Title: Block Diagram

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PM TABLE

power plane / State	+3VALW +5VALW	+3VSUS +5VSUS +1.8VSUS	+12VRUN +5VRUN +3VRUN +2.5VRUN +1.8VRUN +1.5VRUN +VCC_CORE +VCCP +0.9V_DDR_VTT
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	2	D,C

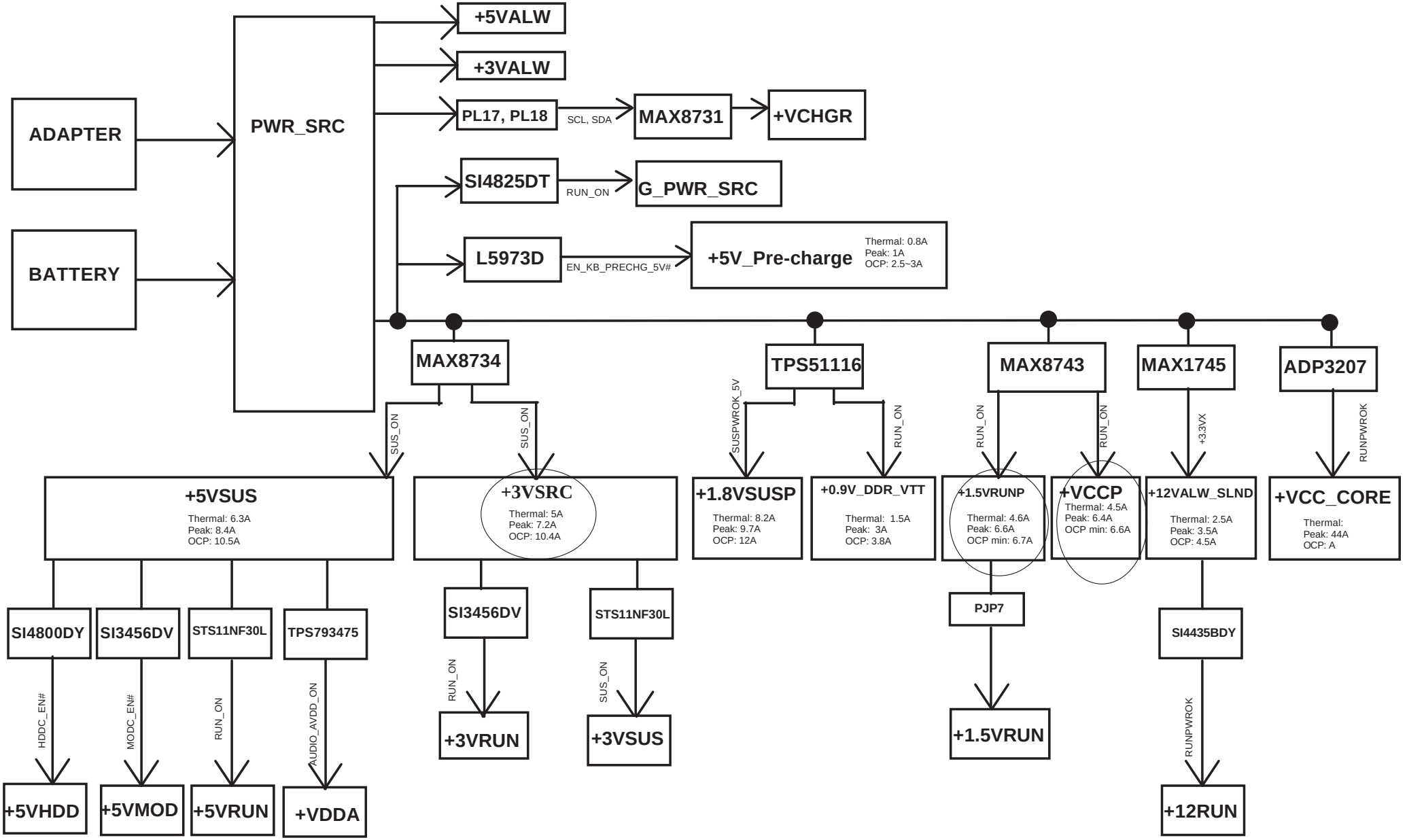
PCI EXPRESS	DESTINATION
Lane 1	MINI CARD TV
Lane 2	MINI CARD WLAN
Lane 3	GIGA LAN
Lane 4	EXPRESS CARD

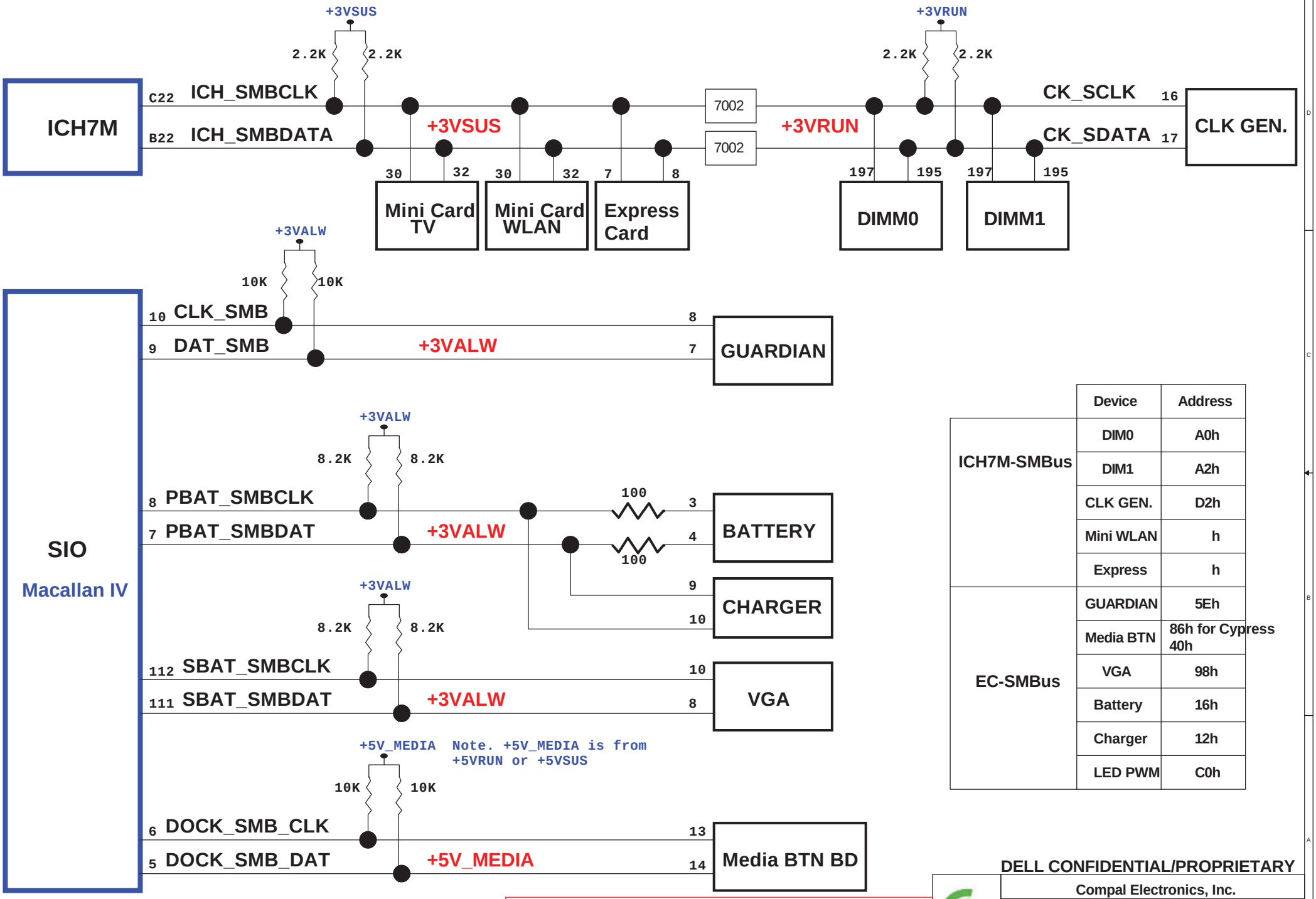
ICH7M USB TABLE

USB PORT#	DESTINATION
0	BLUETOOTH
1	USB[0] of ECE5011
2	Express Card
3	CIR
4	JUSB1(M/B)
5	JUSB2(M/B)
6	JUSB3(USB/BD)
7	JUSB4(USB/BD)

ECE5011 USB TABLE

USB PORT#	DESTINATION
0	USB[1] of ICH7M
1	Mini Card WLAN
2	
3	WUSB
4	Mini Card TV





	Device	Address
ICH7M-SMBus	DIM0	A0h
	DIM1	A2h
	CLK GEN.	D2h
	Mini WLAN	h
	Express	h
EC-SMBus	GUARDIAN	5Eh
	Media BTN	86h for Cypress 40h
	VGA	98h
	Battery	16h
	Charger	12h
	LED PWM	C0h

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Title: SMBUS TOPOLOGY

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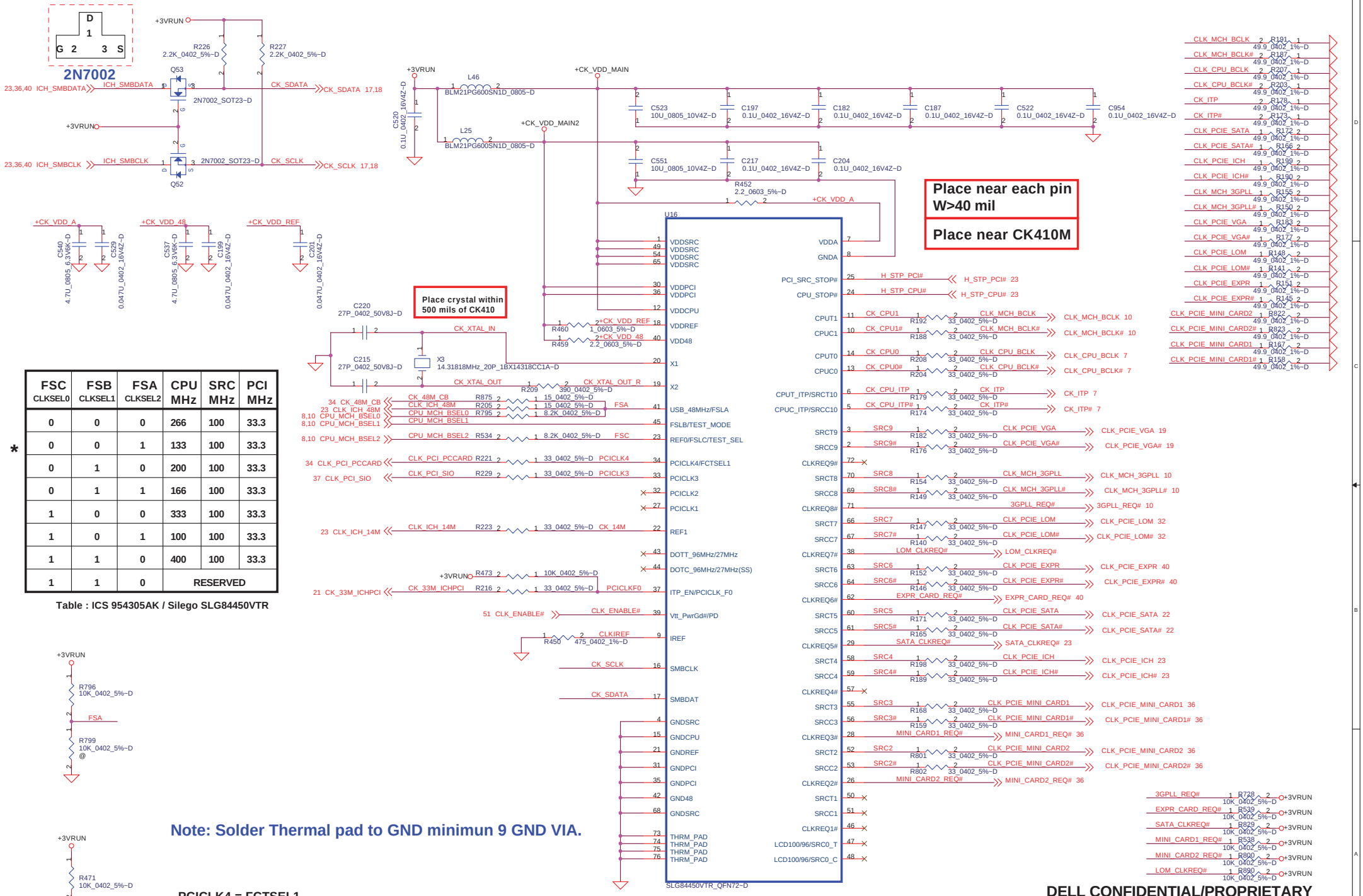
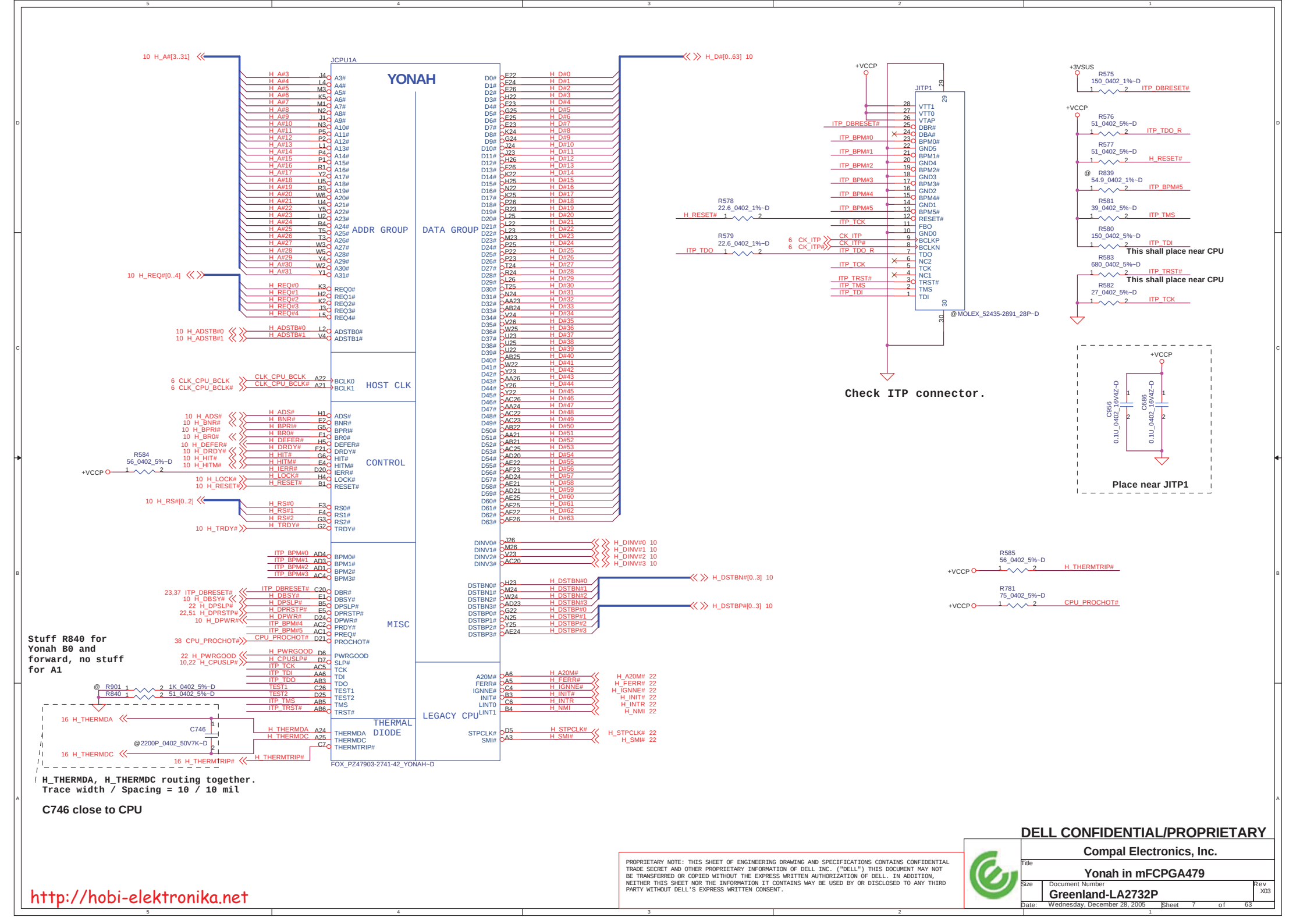


FSC CLKSEL0	FSB CLKSEL1	FSA CLKSEL2	CPU MHz	SRC MHz	PCI MHz
0	0	0	266	100	33.3
0	0	1	133	100	33.3
0	1	0	200	100	33.3
0	1	1	166	100	33.3
1	0	0	333	100	33.3
1	0	1	100	100	33.3
1	1	0	400	100	33.3
1	1	0	RESERVED		

*

Table : ICS 954305AK / Silego SLG84450VTR

FCTSEL1	Pin 43	Pin 44	Pin 47	Pin 48
UMA 0	DOT96T	DOT96C	LCD100/96T	LCD100/96C
Discrete 1	27MHz	27MHz	SRC0_T	SRC0_C


JCPU1A
YONAH
ADDR GROUP
DATA GROUP
HOST CLK
CONTROL
MISC
LEGACY CPU
THERMAL DIODE
FOX_PZ47903-2741-42_YONAH-D
JITP1
@MOLEX_52435-2891_28P-D
Check ITP connector.
This shall place near CPU
This shall place near CPU
Place near JITP1
Stuff R840 for Yonah B0 and forward, no stuff for A1
H_THERMDA, H_THERMDC routing together.
Trace width / Spacing = 10 / 10 mil
C746 close to CPU
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Yonah in mFCPGA479
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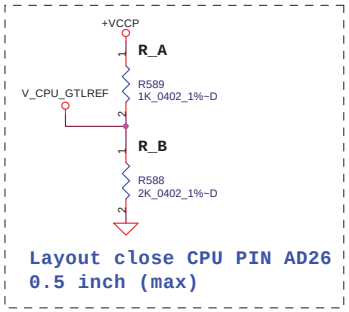
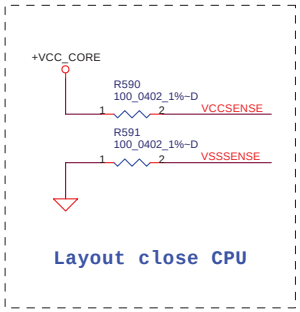
Length match within 25 mils



Layout close CPU PIN AD26
0.5 inch (max)



Layout close CPU

C687
Layout close CPU PIN B26

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

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

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Title: Yonah in mFCPGA479

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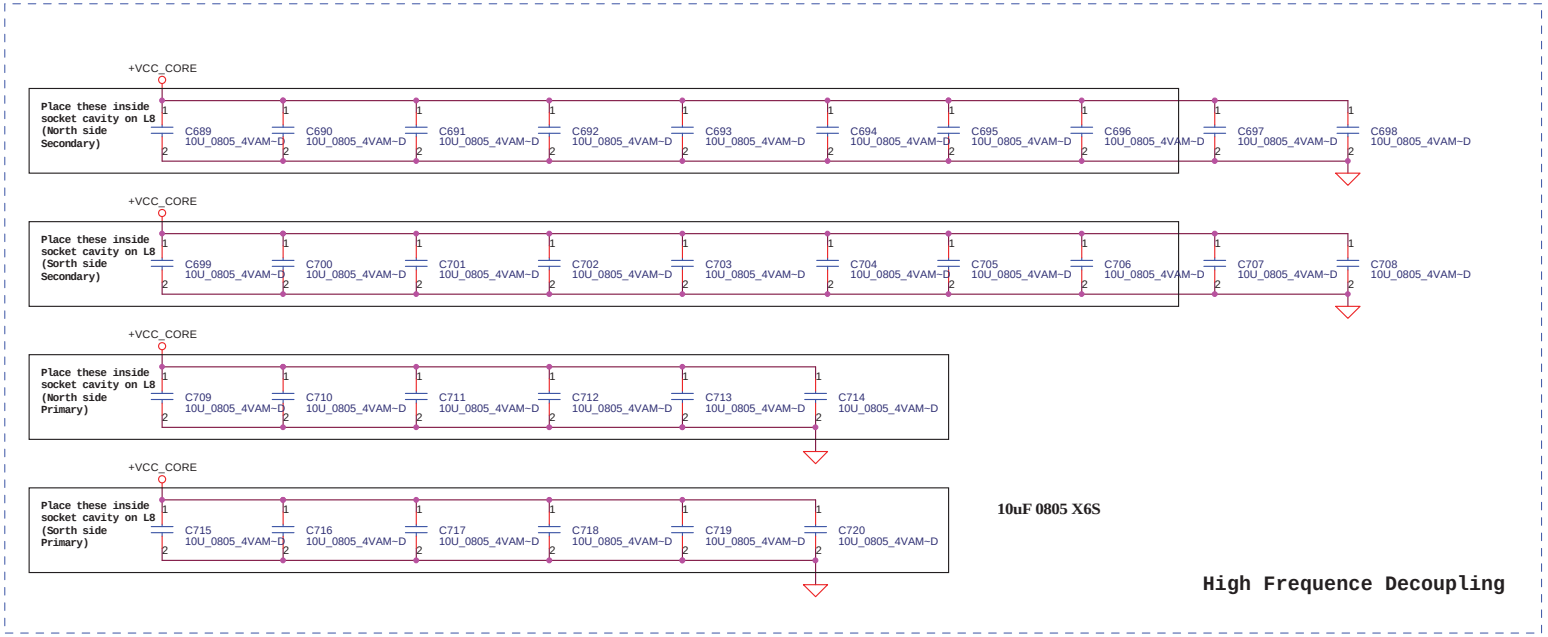
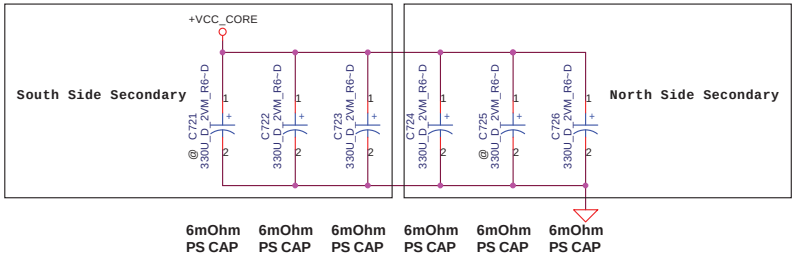
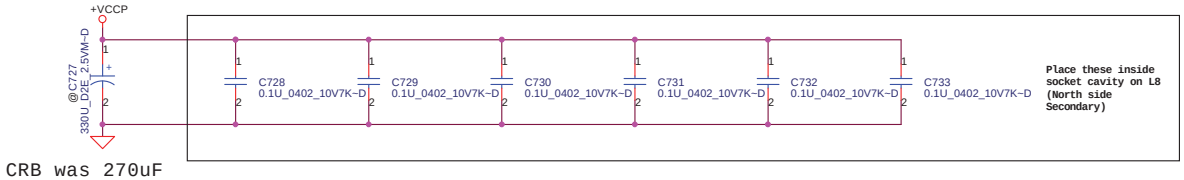


Near VCORE regulator.



ESR <= 1.5m ohm



CRB was 270uF

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Title: CPU Bypass

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Description at page12

Note :
CFG3:17 has internal pullup,
CFG18:19 has internal pulldown

Layout Note:
H_XRCOMP & H_YRCOMP trace width and spacing is 10/20

close to AK1, AK41

CALISTOGA A0_FCBGA1466~D

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Title: Calistoga(1 of 6)

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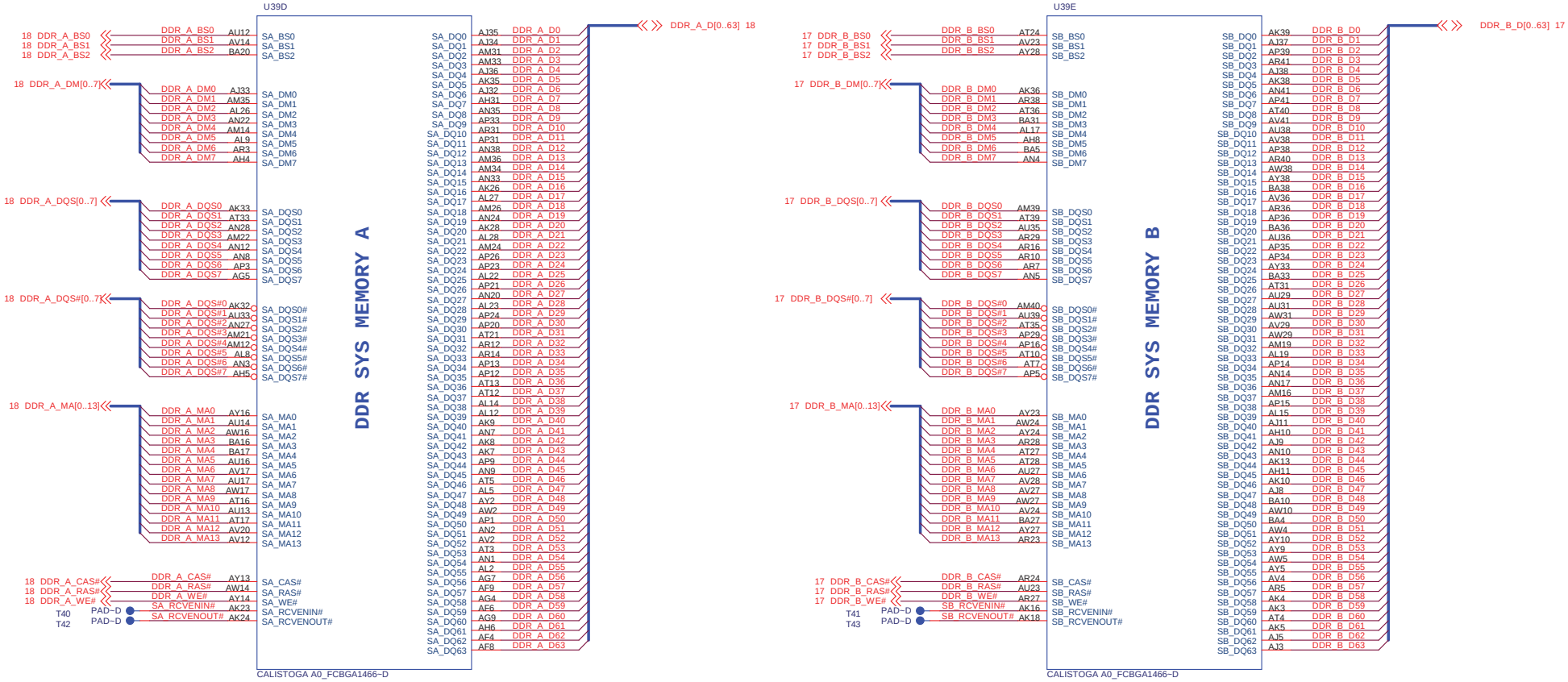

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Title: Calistogo(2 of 6)

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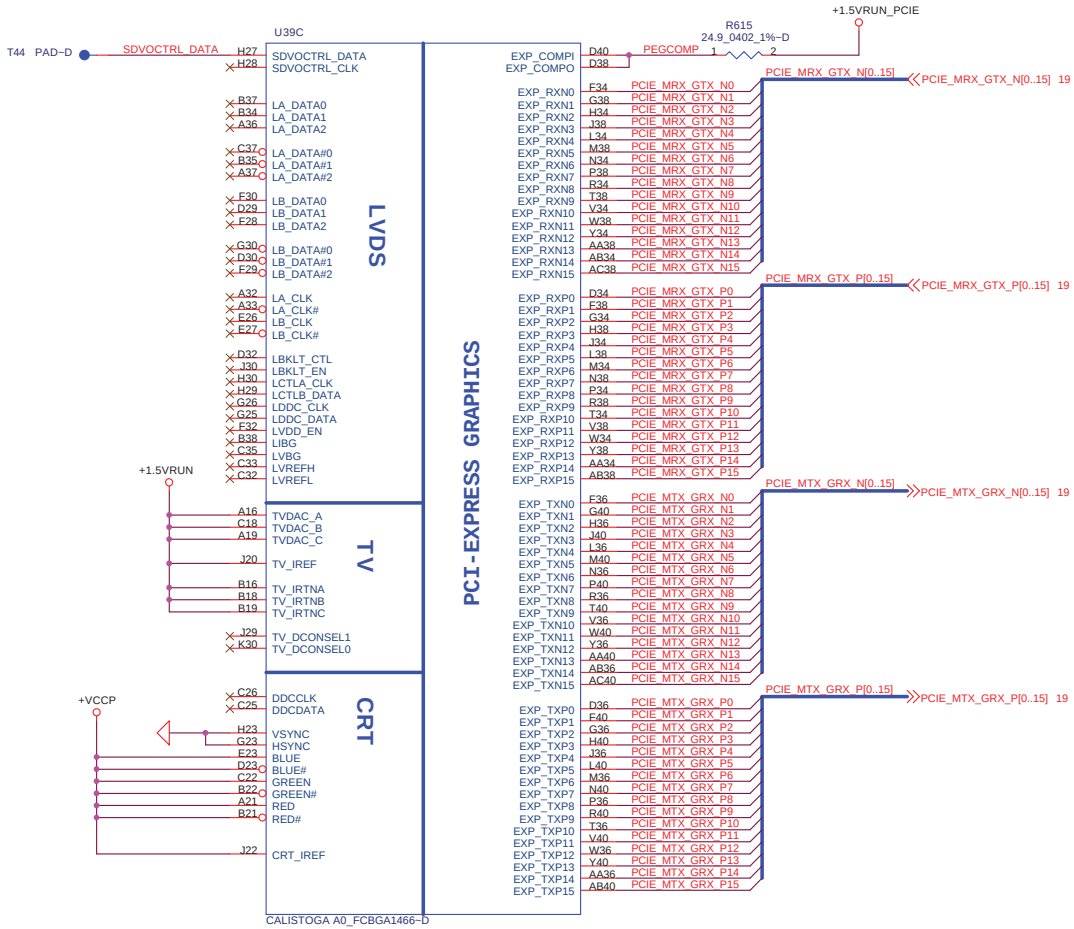
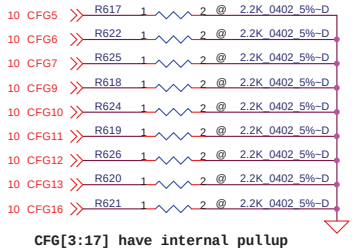
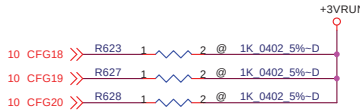


Strap Pin Table

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	PSB 4x Clock Enable 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

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Title: Calistoga(3 of 6)

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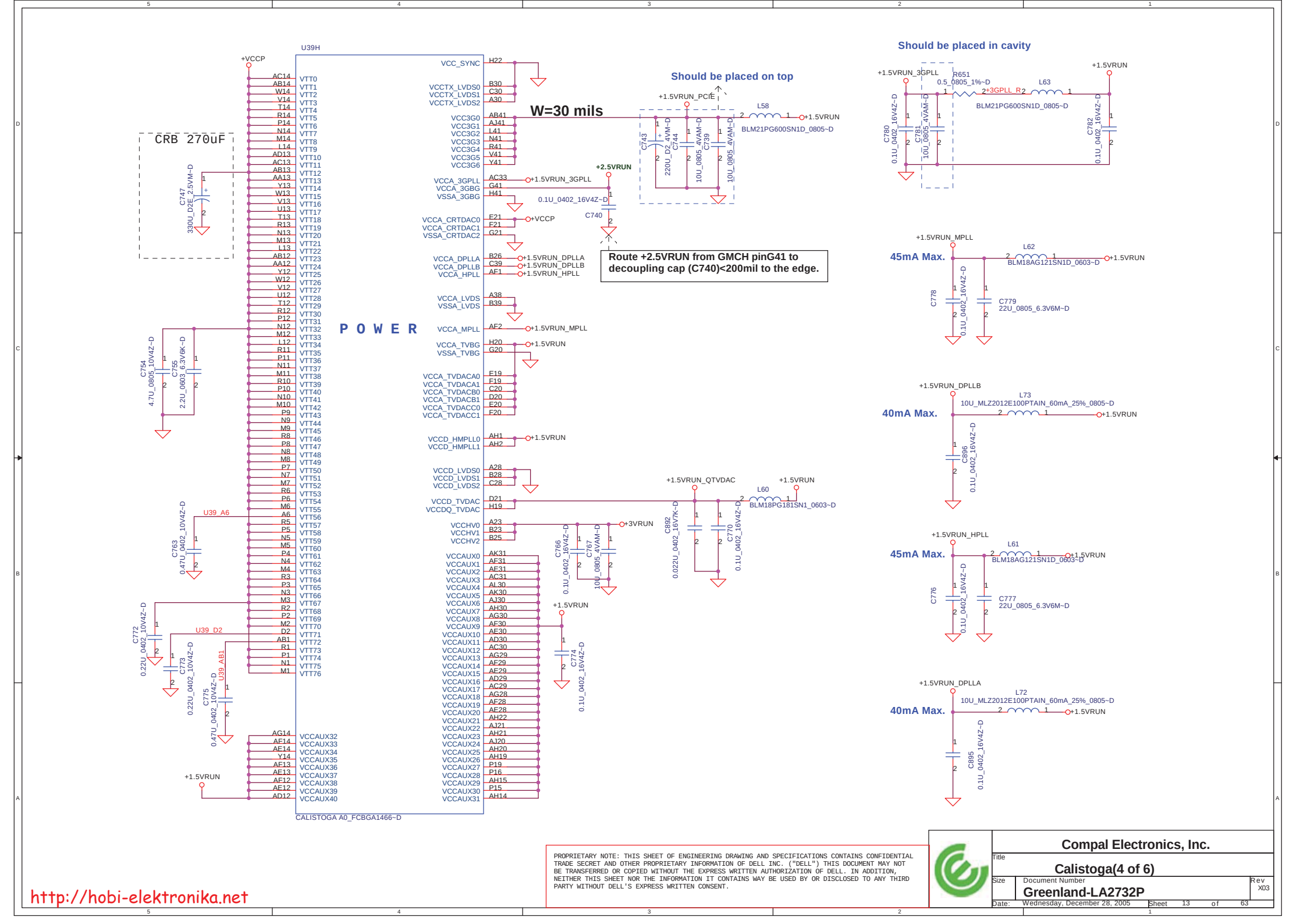

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Title: Calistoga(4 of 6)

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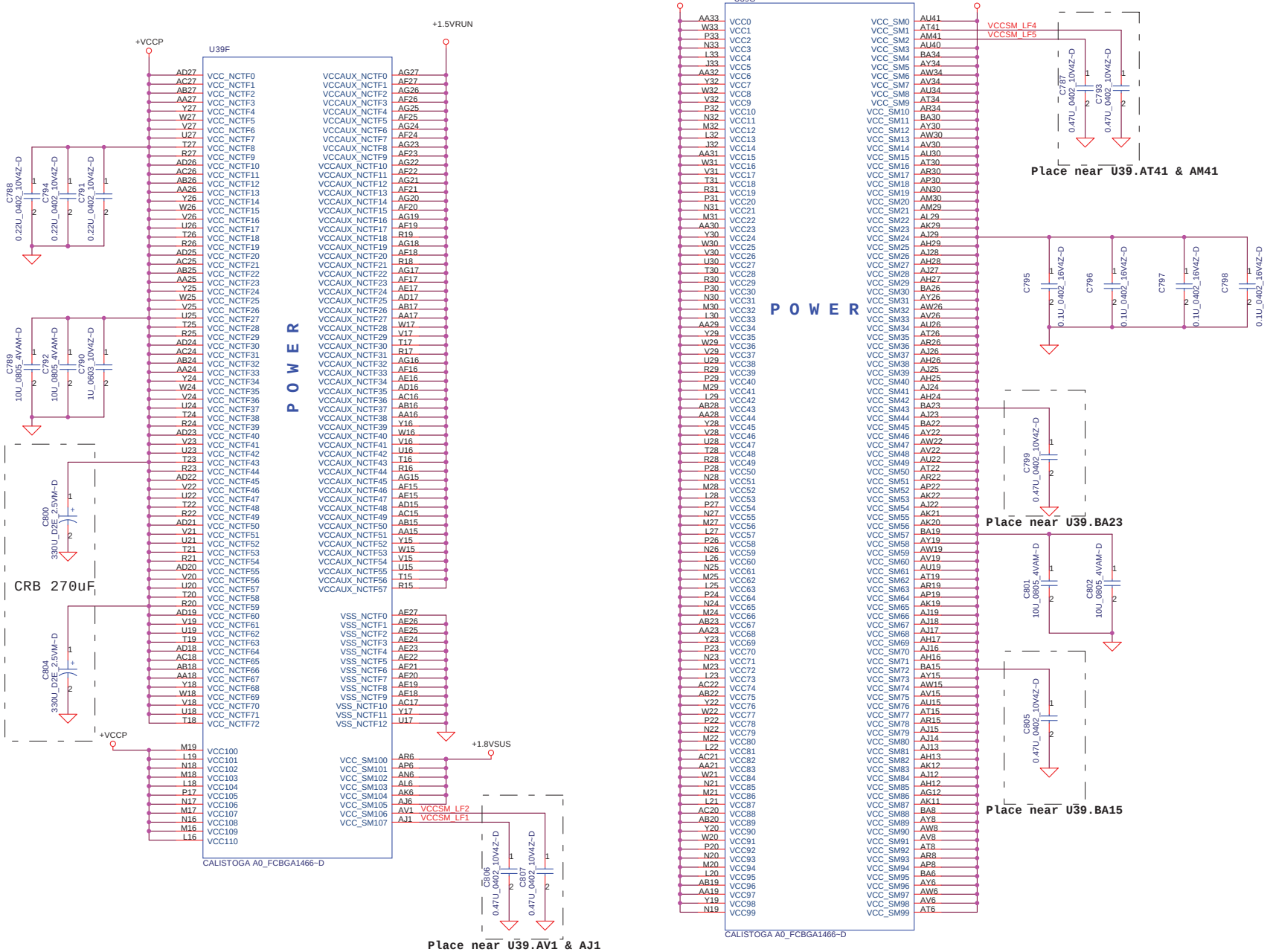

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Title: Calistoga(5 of 6)

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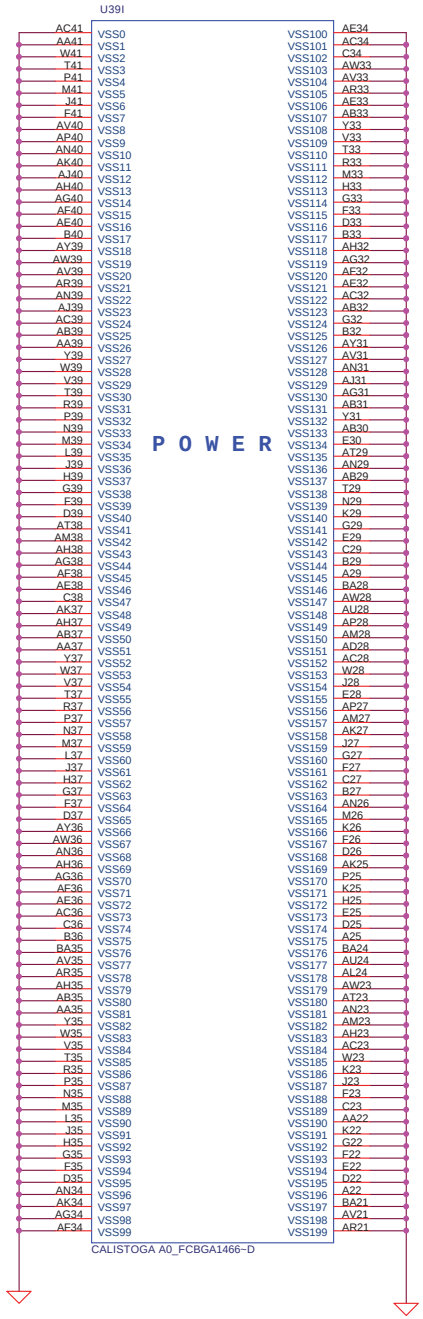

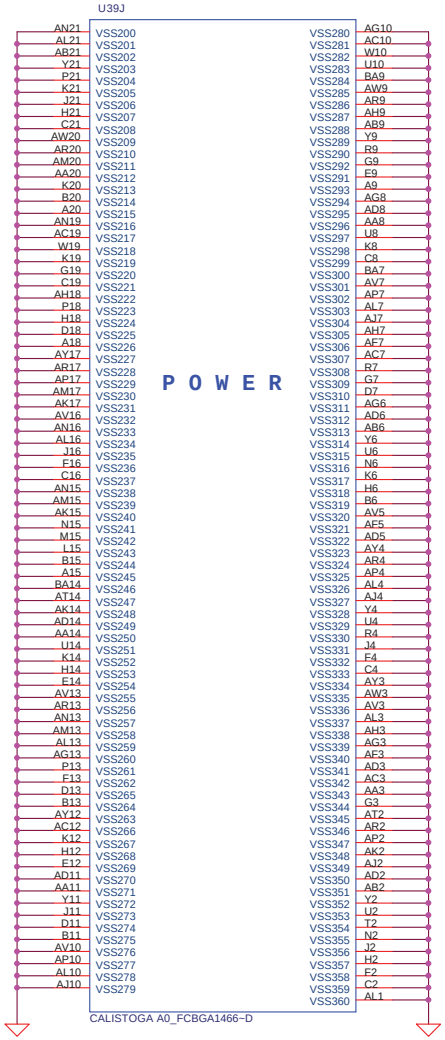

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Title: Calistoga(6 of 6)

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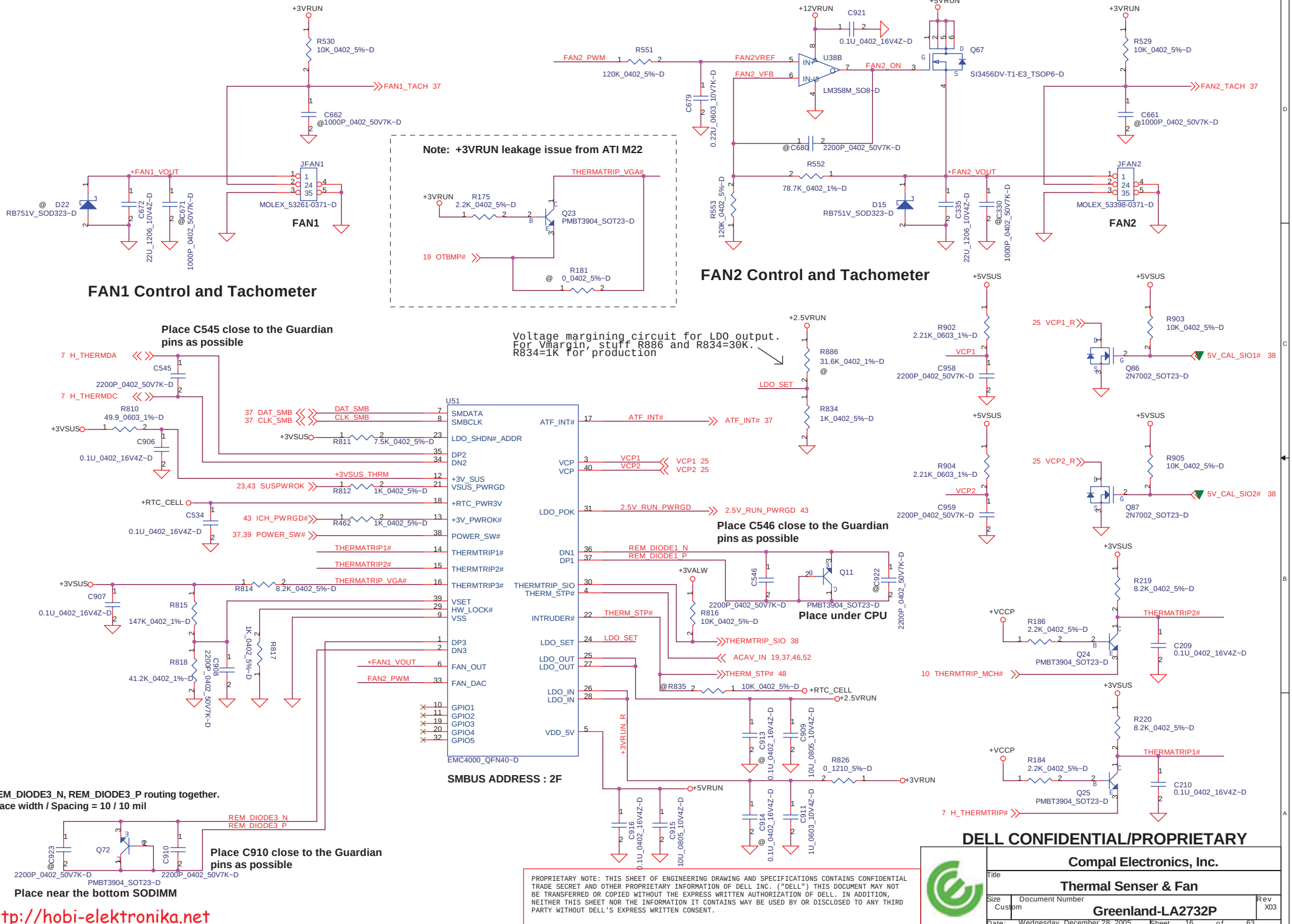
FAN1 Control and Tachometer
FAN2 Control and Tachometer
Note: +3VRUN leakage issue from ATI M22
Place C545 close to the Guardian pins as possible
Voltage margining circuit for LDO output.
For Vmargin, stuff R886 and R834=30K.
R834=1K for production
Place C546 close to the Guardian pins as possible
Place under CPU
SMBUS ADDRESS : 2F
REM_DIODE3_N, REM_DIODE3_P routing together.
Trace width / Spacing = 10 / 10 mil
Place C910 close to the Guardian pins as possible
Place near the bottom SODIMM
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Compal Electronics, Inc.
Thermal Senser & Fan
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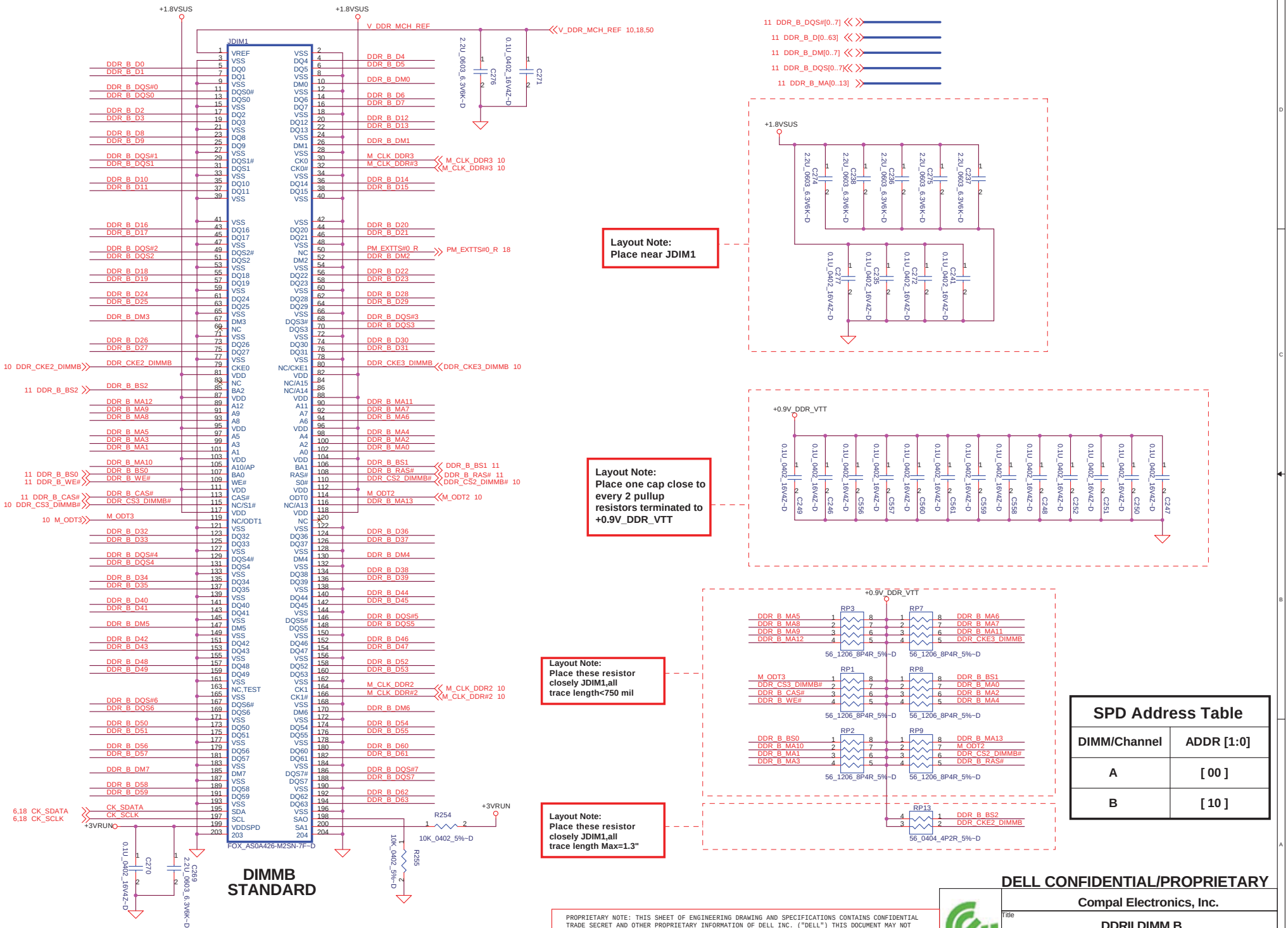

SPD Address Table	
DIMM/Channel	ADDR [1:0]
A	[00]
B	[10]

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Title: DDRII DIMM B

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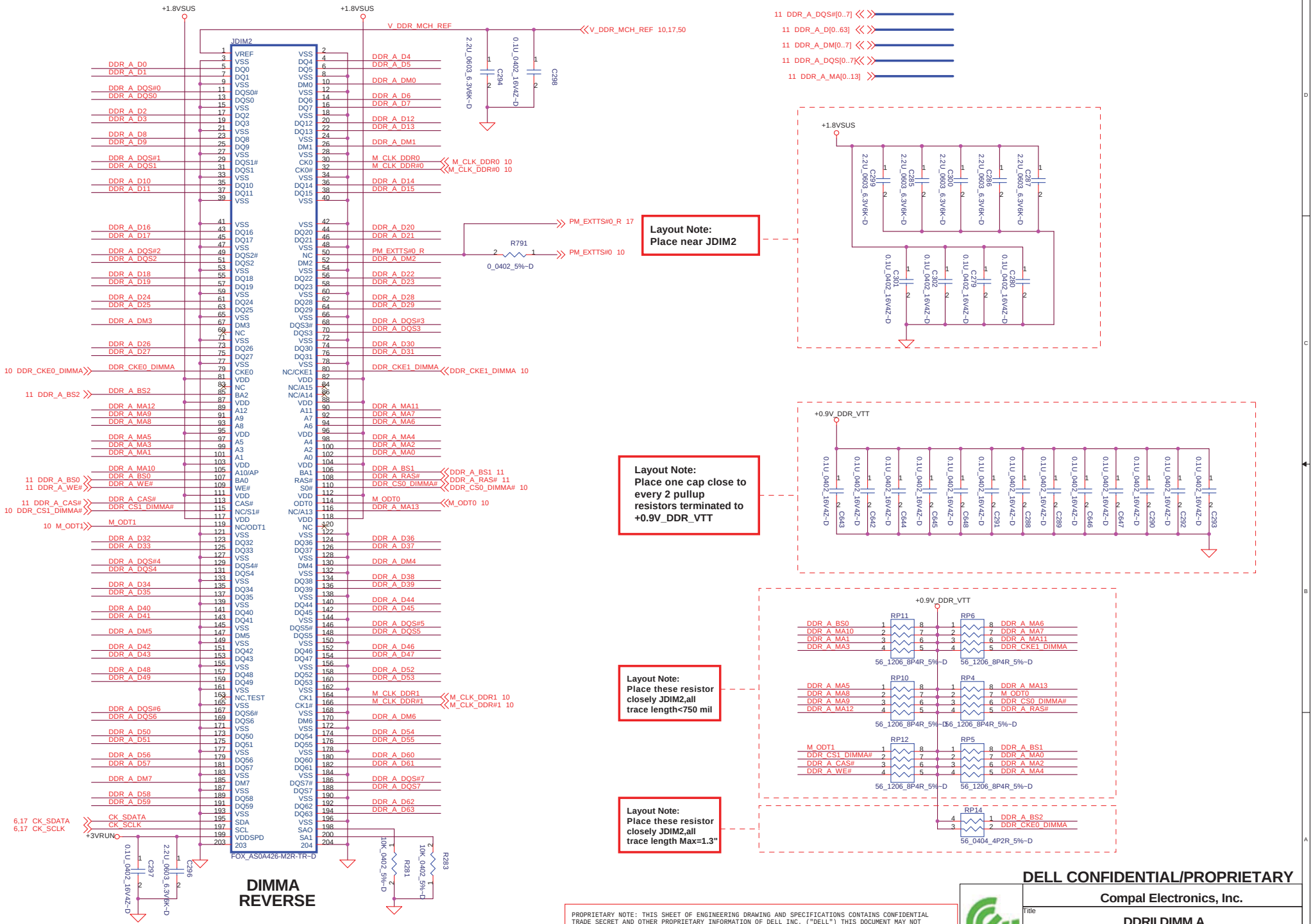

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Title: DDRII DIMM A

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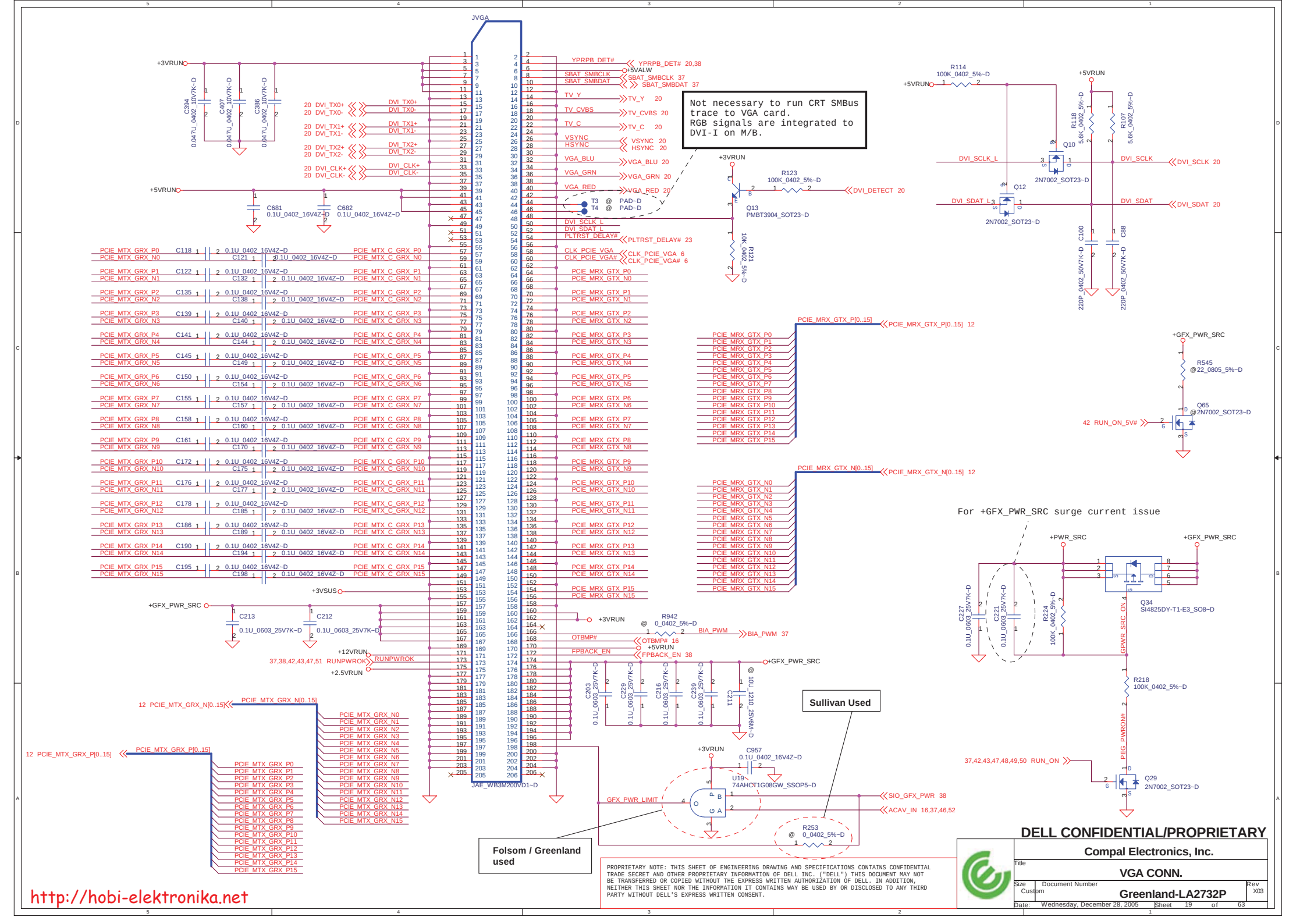
JVGA
JAE_WB3M200VD1-D
Not necessary to run CRT SMBus trace to VGA card.
RGB signals are integrated to DVI-I on M/B.
For +GFX_PWR_SRC surge current issue
Sullivan Used
Folsom / Greenland used
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VGA CONN.
Greenland-LA2732P
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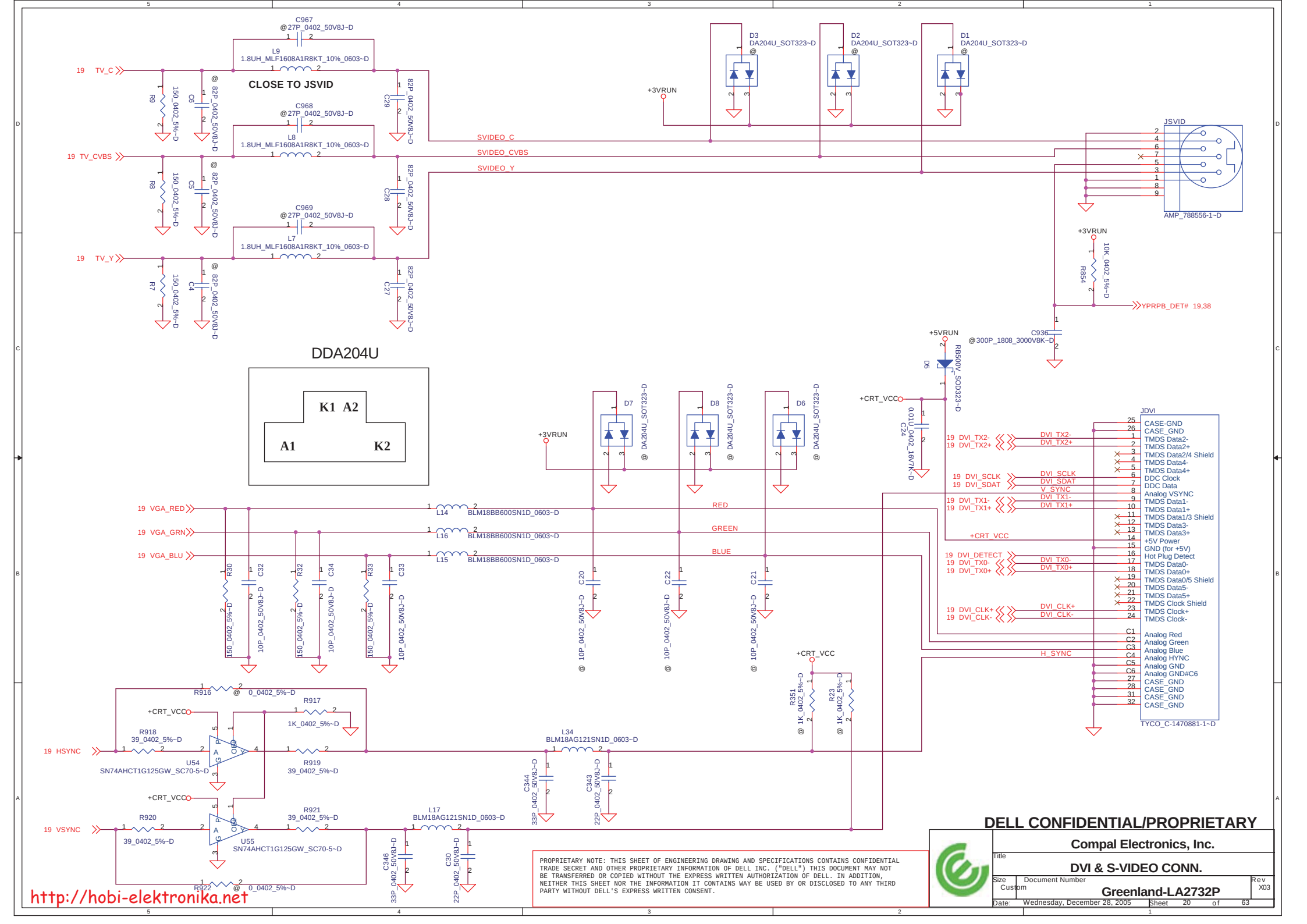
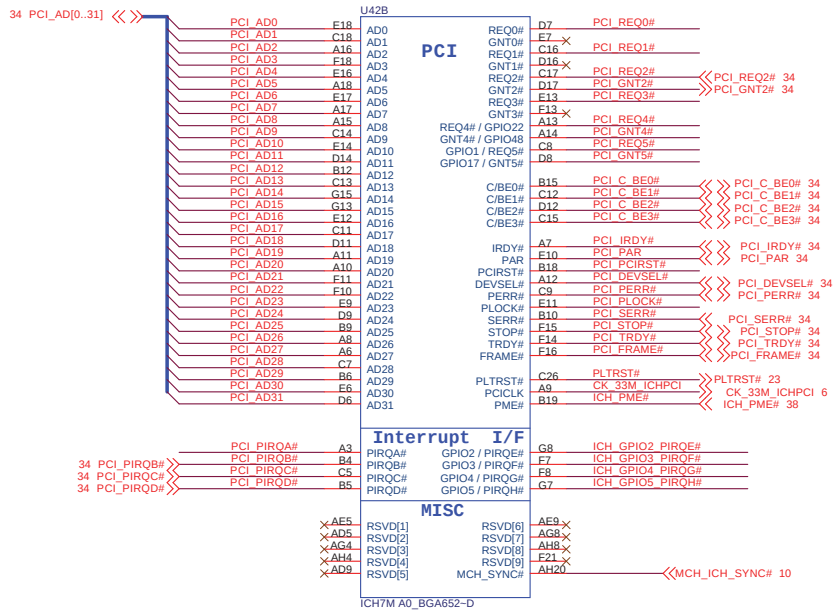
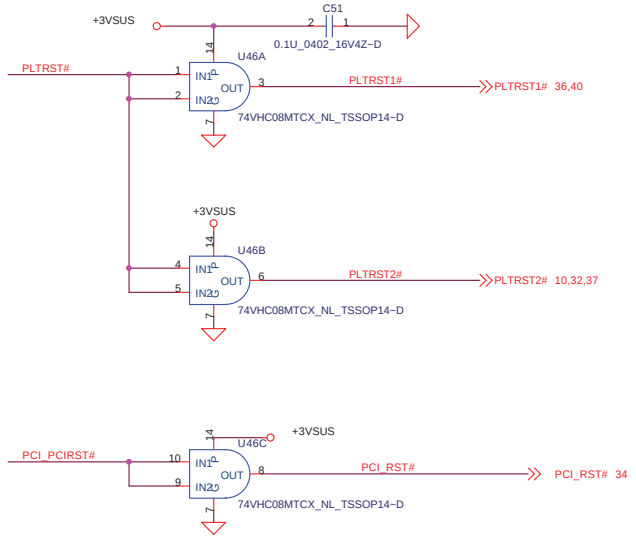
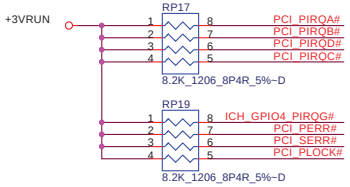
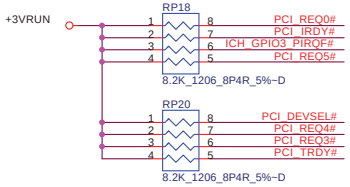
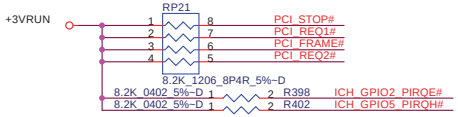


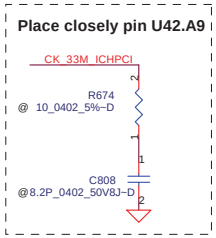




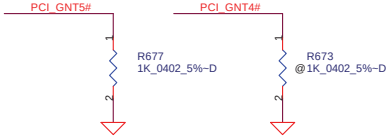




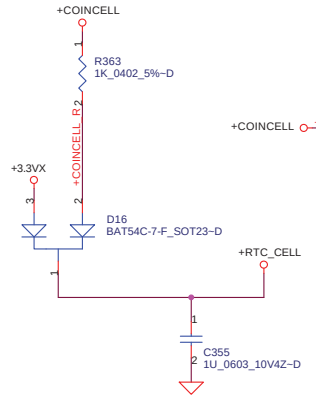


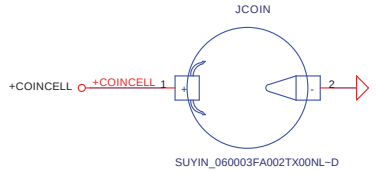


Pop resistor to boot from SPI



		GNT5# R677	GNT4# R673	
LPC	11	unstuff	unstuff	
PCI	10	unstuff	stuff	
SPI	01	stuff	unstuff	*





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Title: ICH7(1/4)

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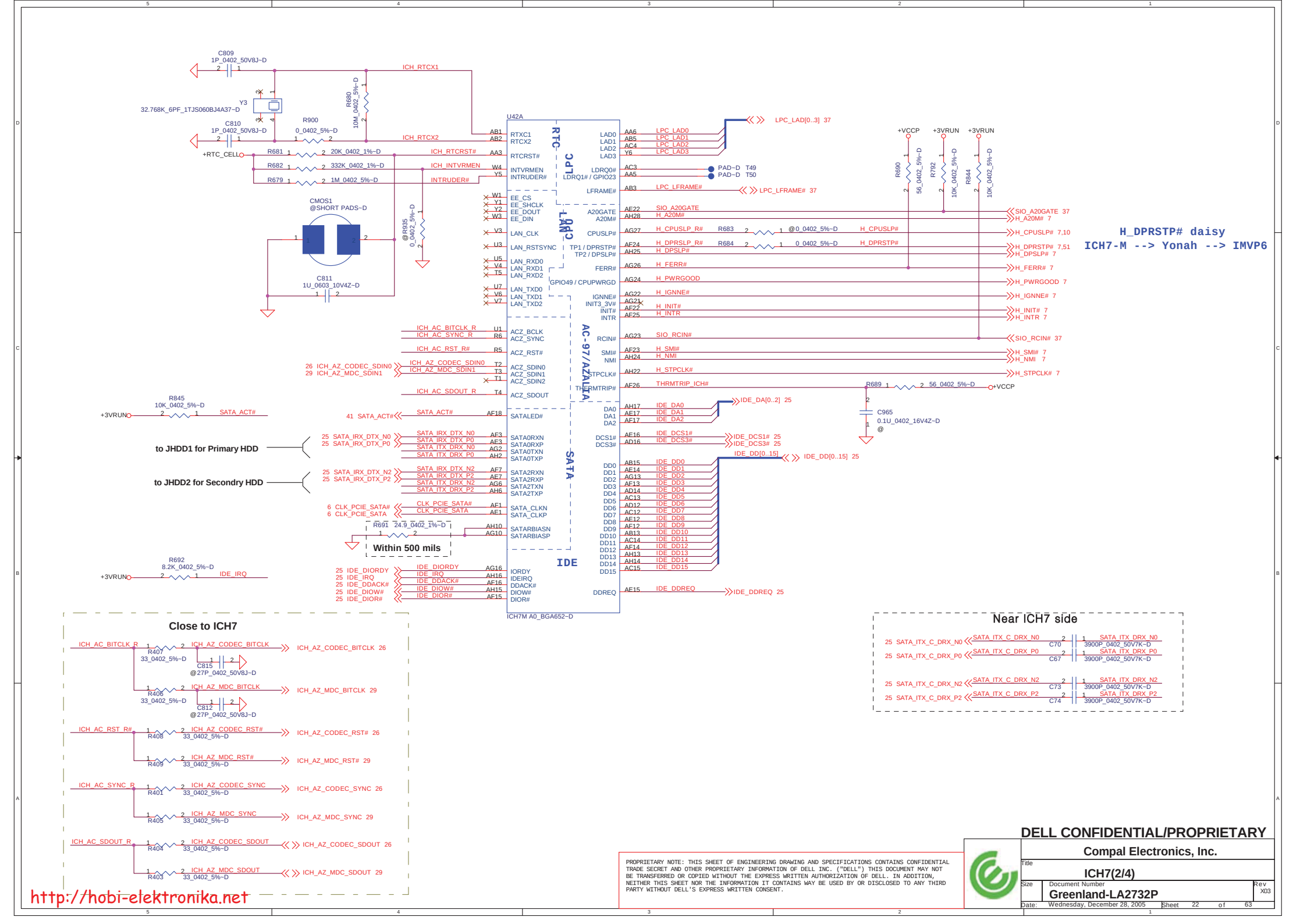
U42A
RTC
LPC
LAN
AC-97/AZALIA
SATA
IDE
ICH7M A0_BGA652~D
RTCX1
RTCX2
RTCRST#
INTVRMEN
INTRUDER#
EE_CS
EE_SHCLK
EE_DOUT
EE_DIN
LAN_CLK
LAN_RSTSYNC
LAN_RXD0
LAN_RXD1
LAN_RXD2
LAN_TXD0
LAN_TXD1
LAN_TXD2
ACZ_BCLK
ACZ_SYNC
ACZ_RST#
ACZ_SDIN0
ACZ_SDIN1
ACZ_SDIN2
ACZ_SDOUT
SATALED#
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA2RXN
SATA2RXP
SATA2TXN
SATA2TXP
SATA_CLKN
SATA_CLKP
SATARBIASN
SATARBIASP
IORDY
IDEIRQ
DDACK#
DIOW#
DIOR#
LAD0
LAD1
LAD2
LAD3
LDRQ0#
LDRQ1# / GPIO23
LFRAME#
A20GATE
A20M#
CPUSLP#
TP1 / DPRSTP#
TP2 / DPSLP#
FERR#
GPIO49 / CPUPWRGD
IGNNE#
INIT3_3V#
INIT#
INTR
RCIN#
SMI#
NMI
STPCLK#
THERMTRIP#
DA0
DA1
DA2
DCS1#
DCS3#
DD0
DD1
DD2
DD3
DD4
DD5
DD6
DD7
DD8
DD9
DD10
DD11
DD12
DD13
DD14
DD15
DDREQ
C809
1P_0402_50V8J~D
Y3
32.768K_6PF_1TJS060BJ4A37~D
C810
1P_0402_50V8J~D
R900
0_0402_5%~D
R680
10M_0402_5%~D
+RTC_CELL
R681
20K_0402_1%~D
R682
332K_0402_1%~D
R679
1M_0402_5%~D
CMOS1
@SHORT PADS~D
C811
1U_0603_10V4Z~D
R935
@0_0402_5%~D
ICH_RTCX1
ICH_RTCX2
ICH_RTCRST#
ICH_INTVRMEN
INTRUDER#
LPC_LAD[0..3] 37
LPC_LAD0
LPC_LAD1
LPC_LAD2
LPC_LAD3
PAD~D T49
PAD~D T50
LPC_LFRAME# 37
+VCCP
+3VRUN
R690
56_0402_5%~D
R792
10K_0402_5%~D
R844
10K_0402_5%~D
SIO_A20GATE
H_A20M#
H_CPUSLP_R#
R683
@0_0402_5%~D
H_CPUSLP#
H_DPRSTP_R#
R684
0_0402_5%~D
H_DPRSTP#
H_DPSLP#
H_FERR#
H_PWRGOOD
H_IGNNE#
H_INIT#
H_INTR
SIO_RCIN#
H_SMI#
H_NMI
H_STPCLK#
THRMTRIP_ICH#
R689
56_0402_5%~D
+VCCP
C965
0.1U_0402_16V4Z~D
@
H_DPRSTP# daisy
ICH7-M --> Yonah --> IMVP6
ICH_AC_BITCLK_R
ICH_AC_SYNC_R
ICH_AC_RST_R#
ICH_AC_SDOUT_R
ICH_AZ_CODEC_SDIN0
ICH_AZ_MDC_SDIN1
R845
10K_0402_5%~D
+3VRUN
SATA_ACT#
41 SATA_ACT#
to JHDD1 for Primary HDD
to JHDD2 for Secondry HDD
SATA_IRX_DTX_N0
SATA_IRX_DTX_P0
SATA_ITX_DRX_N0
SATA_ITX_DRX_P0
SATA_IRX_DTX_N2
SATA_IRX_DTX_P2
SATA_ITX_DRX_N2
SATA_ITX_DRX_P2
CLK_PCIE_SATA#
CLK_PCIE_SATA
R691
24.9_0402_1%~D
Within 500 mils
R692
8.2K_0402_5%~D
IDE_IRQ
IDE_DIORDY
IDE_DDACK#
IDE_DIOW#
IDE_DIOR#
IDE_DA[0..2] 25
IDE_DCS1# 25
IDE_DCS3# 25
IDE_DD[0..15]
IDE_DD[0..15] 25
IDE_DDREQ 25
Close to ICH7
R407
33_0402_5%~D
C815
@27P_0402_50V8J~D
R406
33_0402_5%~D
C812
@27P_0402_50V8J~D
R408
R409
R401
R405
R404
R403
ICH_AZ_CODEC_BITCLK 26
ICH_AZ_MDC_BITCLK 29
ICH_AZ_CODEC_RST# 26
ICH_AZ_MDC_RST# 29
ICH_AZ_CODEC_SYNC 26
ICH_AZ_MDC_SYNC 29
ICH_AZ_CODEC_SDOUT 26
ICH_AZ_MDC_SDOUT 29
Near ICH7 side
C70
C67
C73
C74
3900P_0402_50V7K~D
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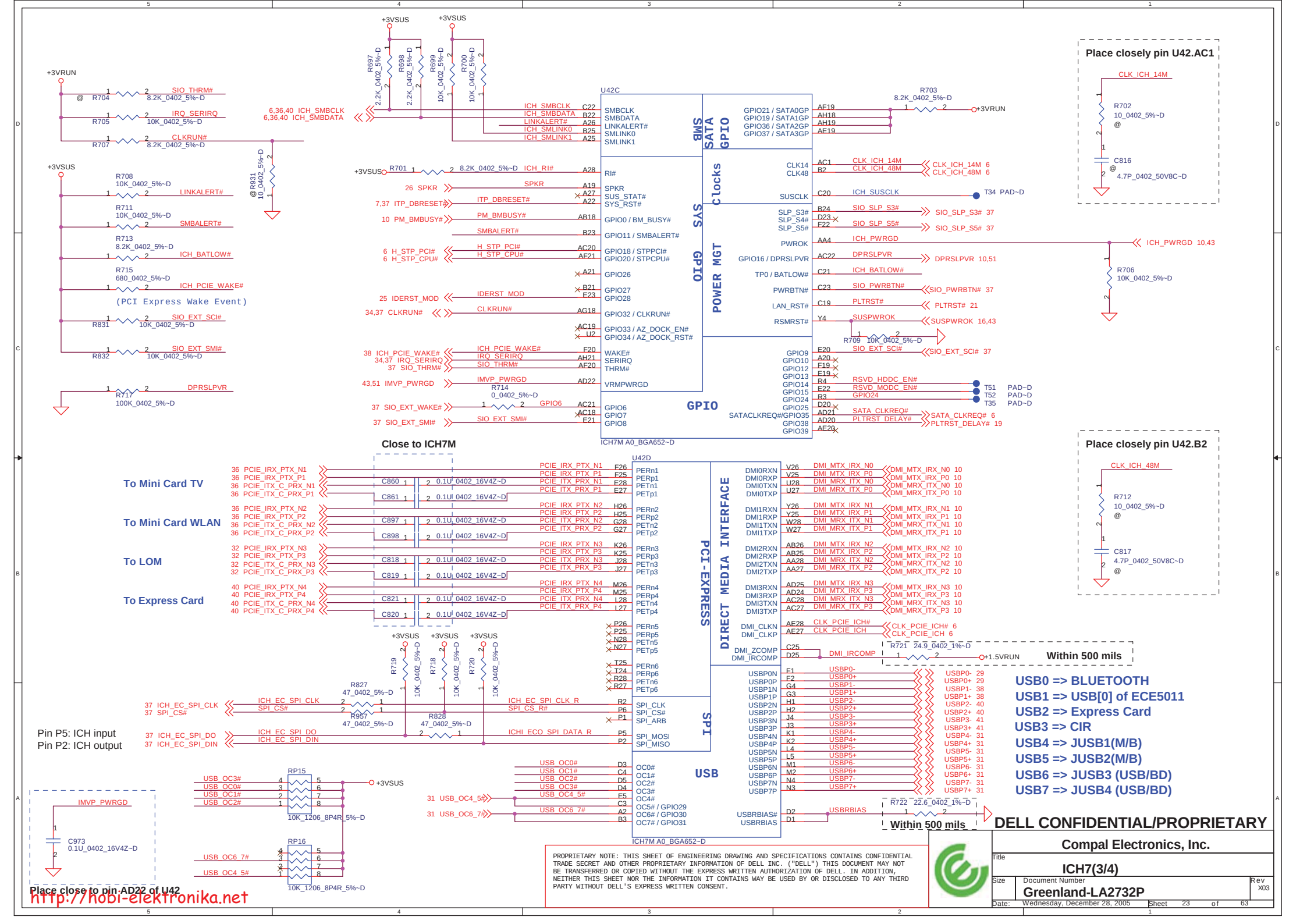
Compal Electronics, Inc.
Title
ICH7(2/4)
Size
Document Number
Greenland-LA2732P
Rev
X03
Date: Wednesday, December 28, 2005
Sheet 22 of 63


Place closely pin U42.AC1
Place closely pin U42.B2
Close to ICH7M
To Mini Card TV
To Mini Card WLAN
To LOM
To Express Card
Pin P5: ICH input
Pin P2: ICH output
Place close to pin AD22 of U42
Within 500 mils
Within 500 mils
USB0 => BLUETOOTH
USB1 => USB[0] of ECE5011
USB2 => Express Card
USB3 => CIR
USB4 => JUSB1(M/B)
USB5 => JUSB2(M/B)
USB6 => JUSB3 (USB/BD)
USB7 => JUSB4 (USB/BD)
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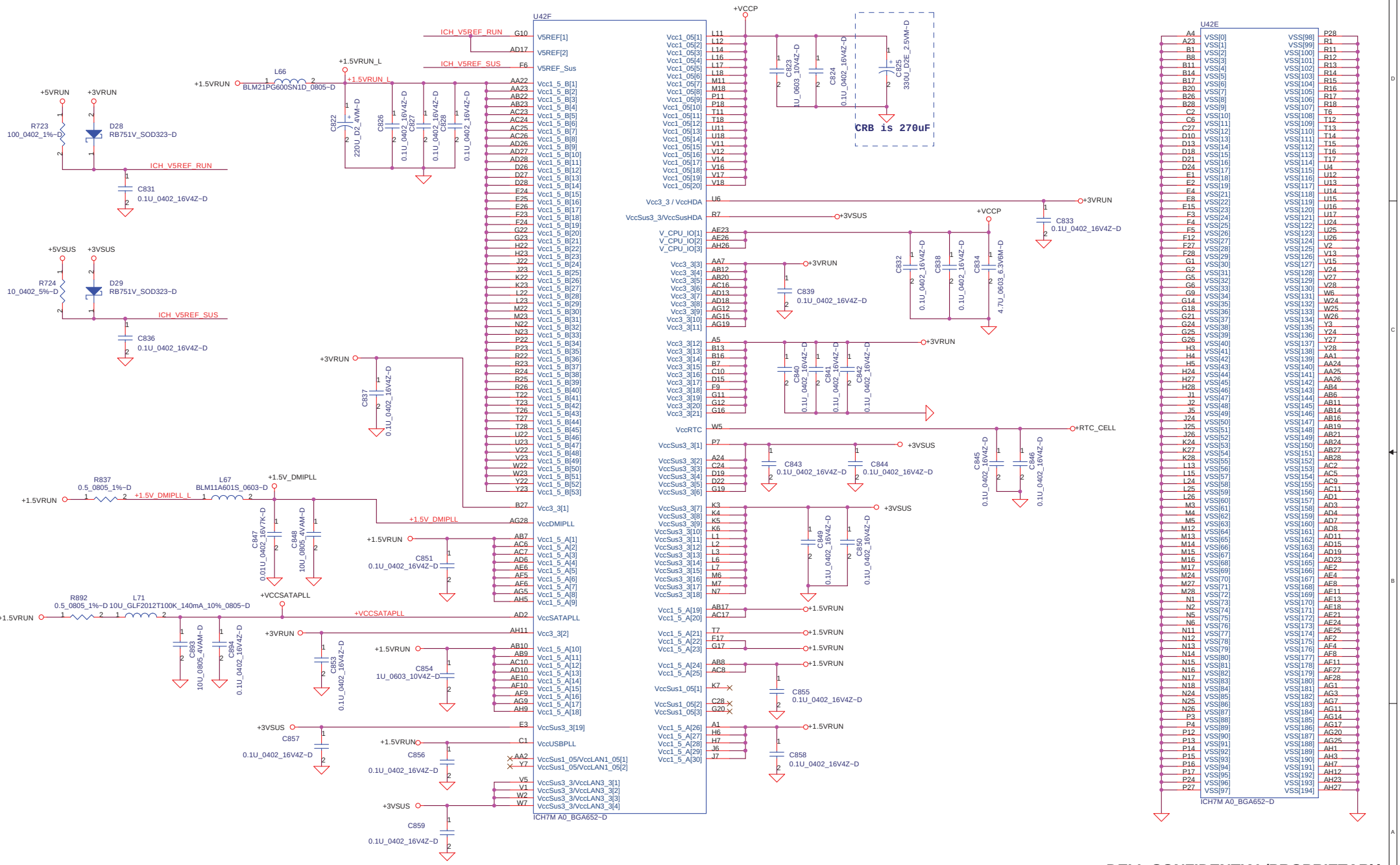
Compal Electronics, Inc.
ICH7(3/4)
Greenland-LA2732P
X03
Wednesday, December 28, 2005
23
63
http://hobi-elektronika.net



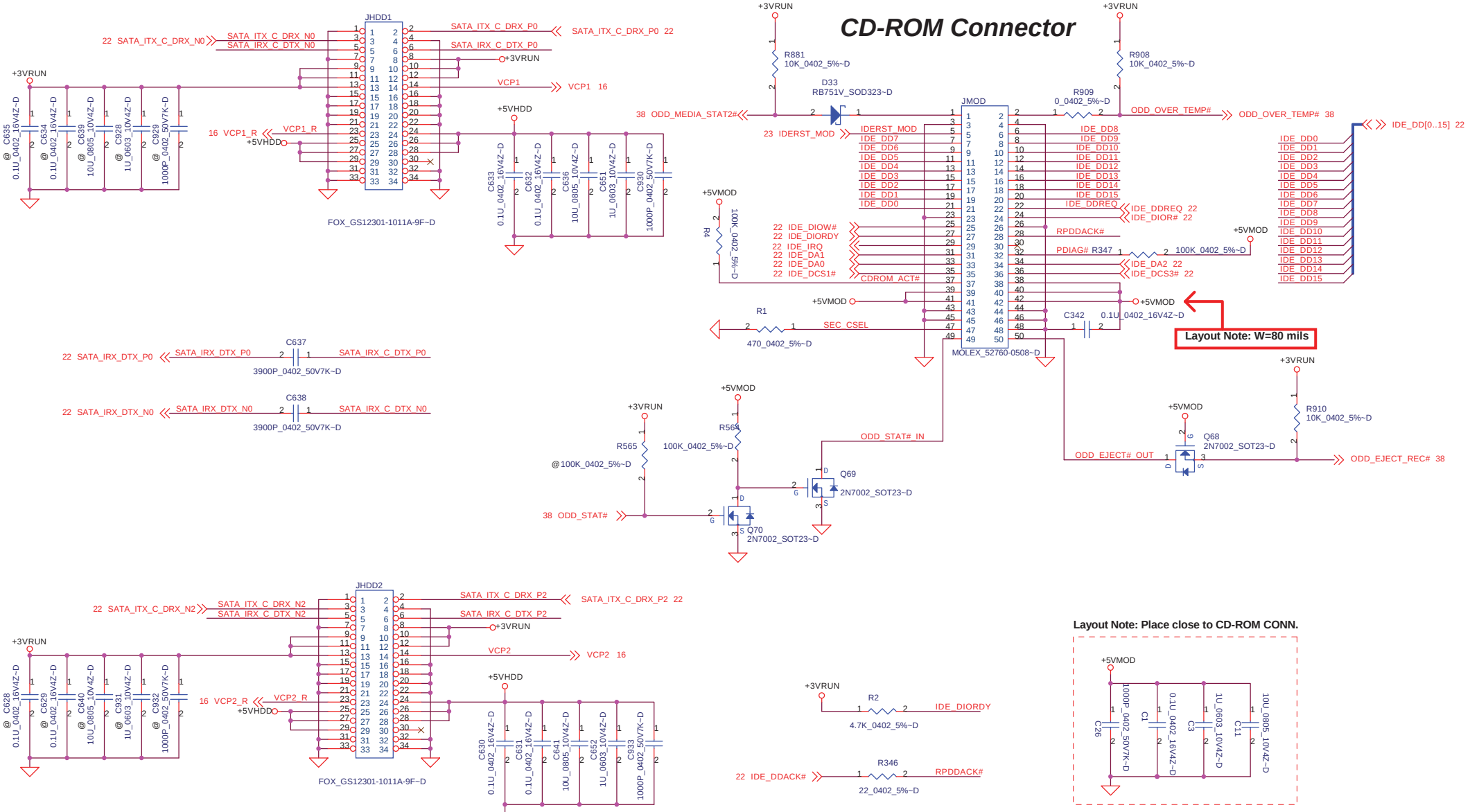
Compal Electronics, Inc.

Title: ICH7(4/4)

Size: | Document Number: Greenland-LA2732P | Rev: X03

Date: Wednesday, December 28, 2005 | Sheet 24 of 63

CD-ROM Connector

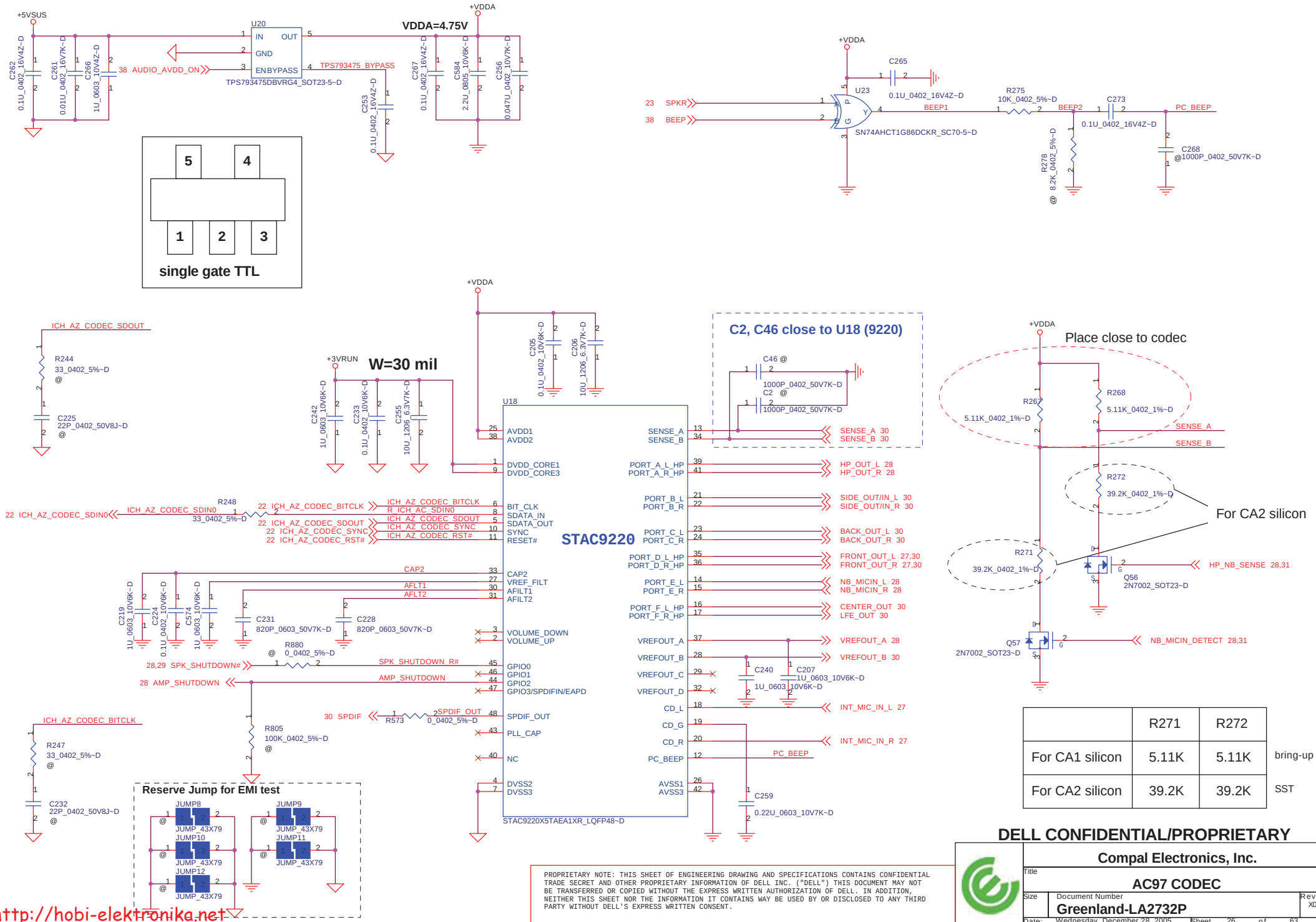


Compal Electronics, Inc.

Title: SATA & CD-ROM

Size: Custom | Document Number: Greenland-LA2732P | Rev: X03

Date: Wednesday, December 28, 2005 | Sheet 25 of 63



	R271	R272	
For CA1 silicon	5.11K	5.11K	bring-up
For CA2 silicon	39.2K	39.2K	SST

Compal Electronics, Inc.

Title: AC97 CODEC

Size | Document Number: Greenland-LA2732P | Rev: X03

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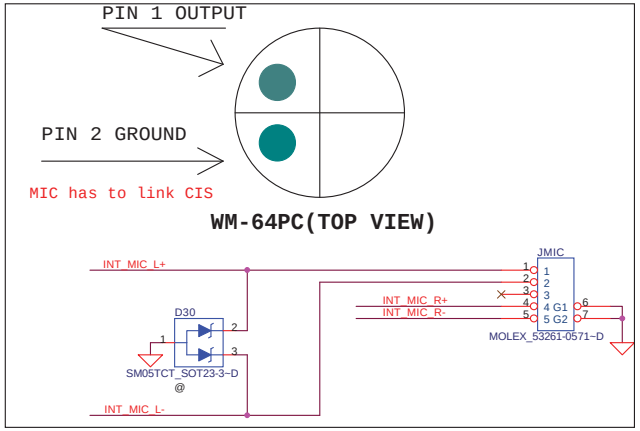
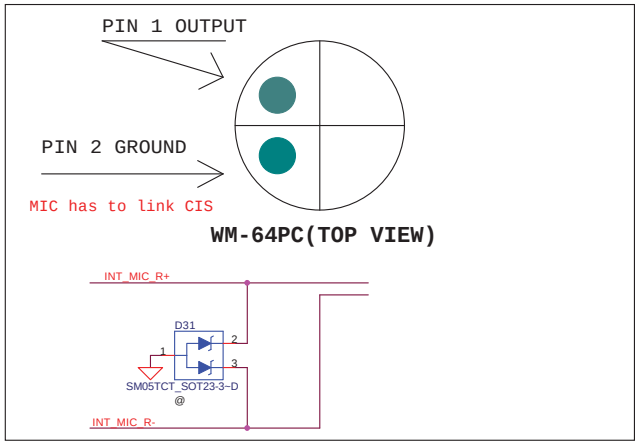
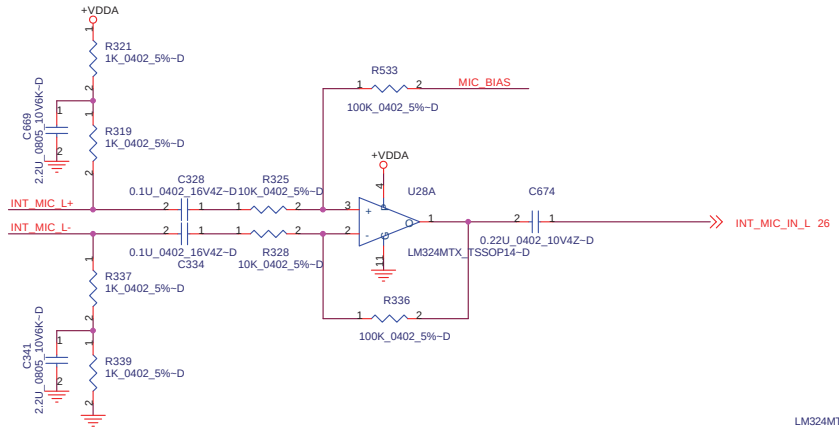
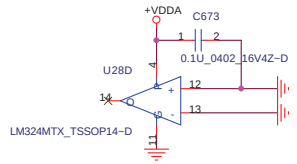
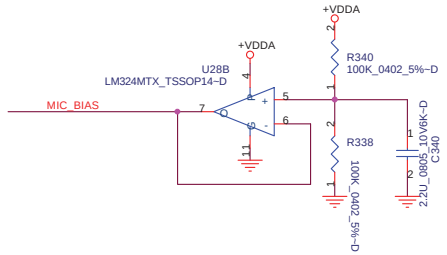
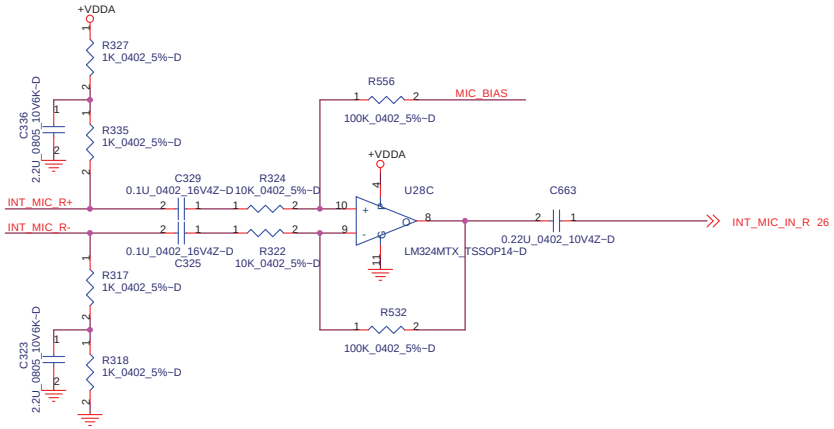


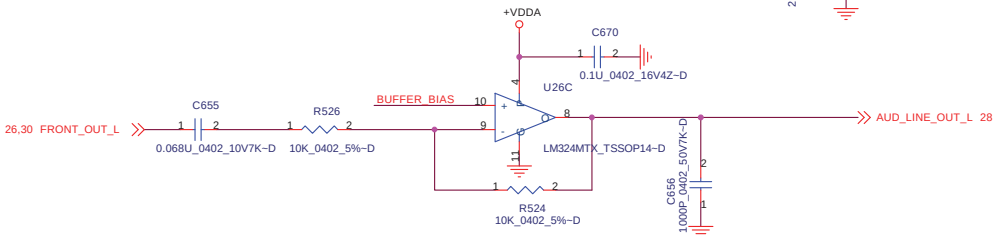


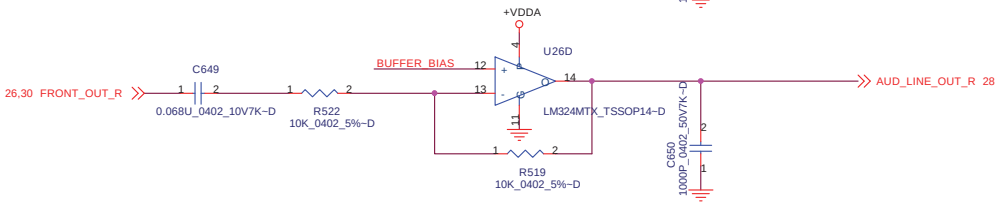


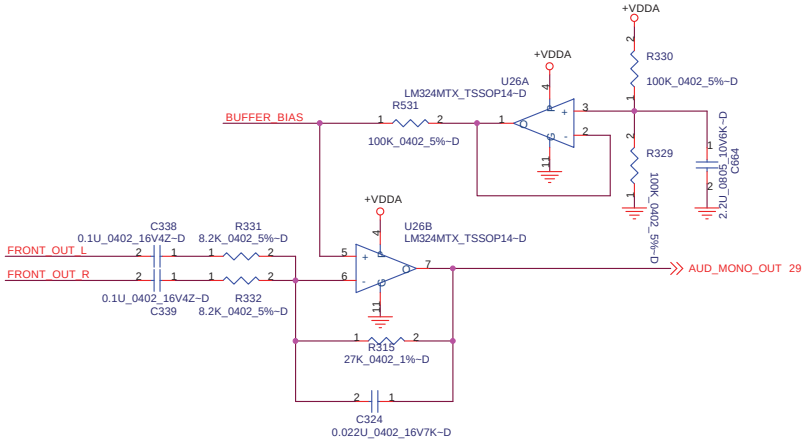










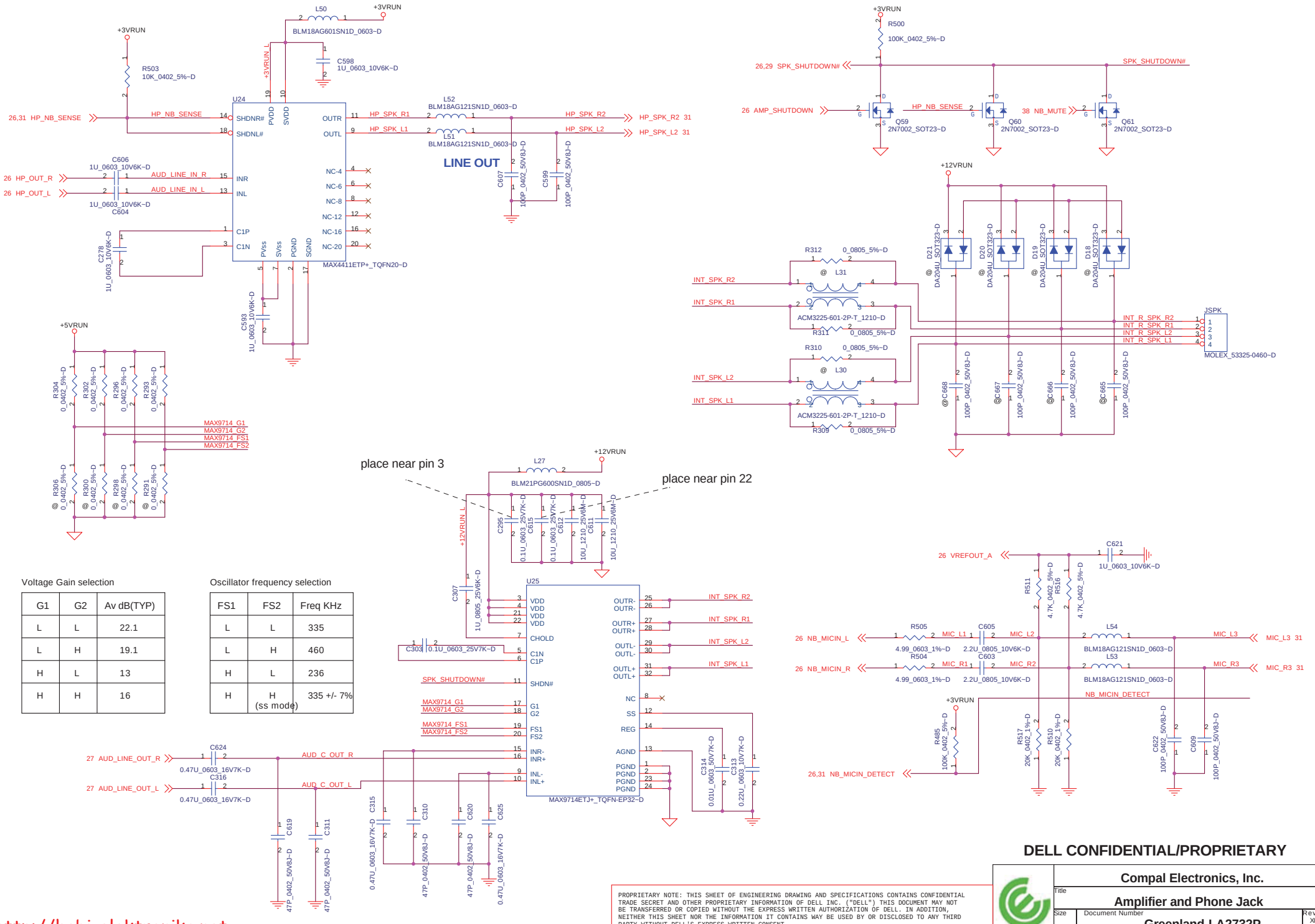


Compal Electronics, Inc.

Title: Internal MIC

Size: Custom | Document Number: Greenland-LA2732P | Rev: X03

Date: Wednesday, December 28, 2005 | Sheet 27 of 63



Voltage Gain selection

G1	G2	Av dB(TYP)
L	L	22.1
L	H	19.1
H	L	13
H	H	16

Oscillator frequency selection

FS1	FS2	Freq KHz
L	L	335
L	H	460
H	L	236
H	H (ss mode)	335 +/- 7%

Compal Electronics, Inc.
Title: Amplifier and Phone Jack
Size
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Rev: X03
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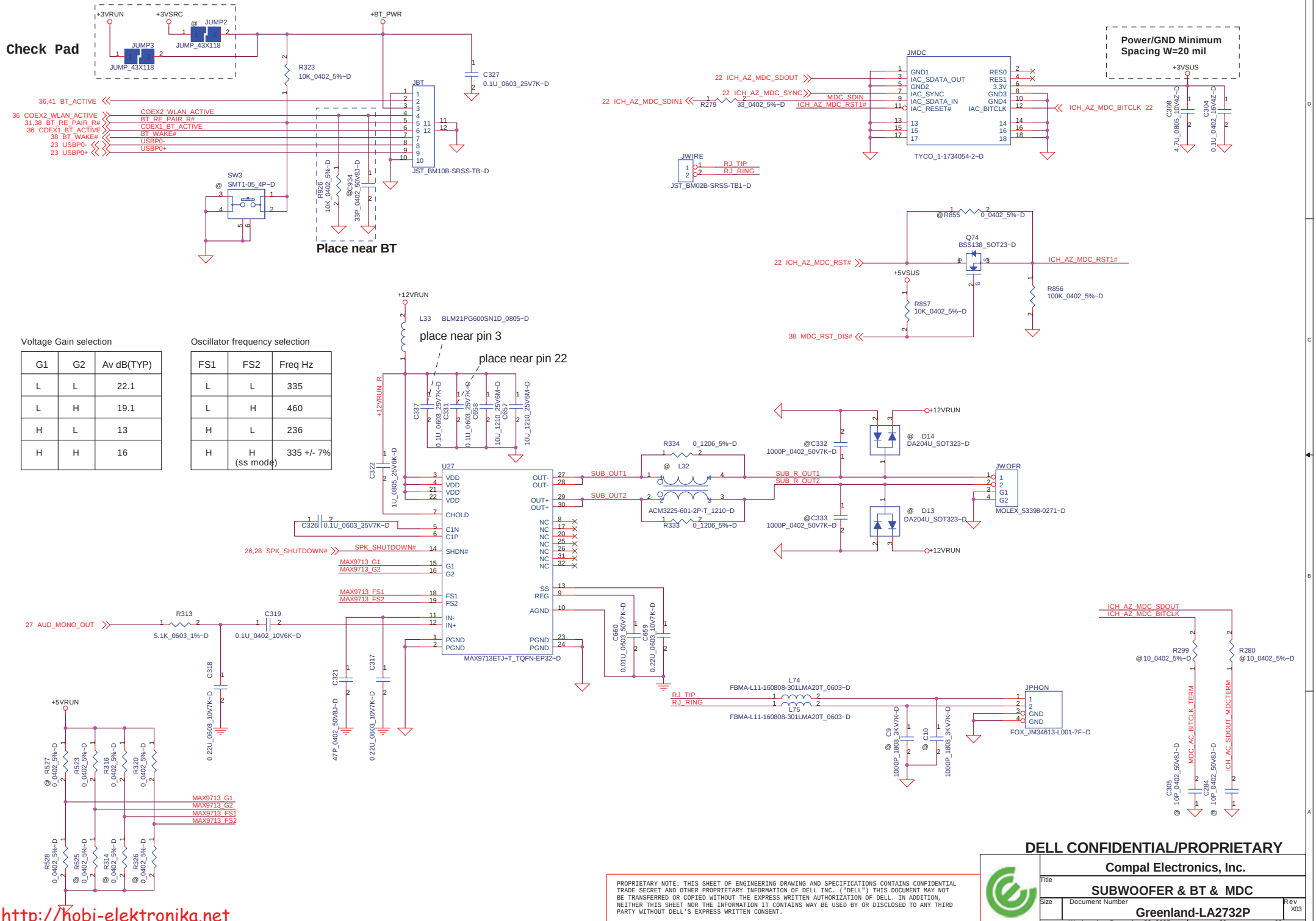
Check Pad
+3VRUN
+3VSRC
JUMP2
JUMP_43X118
JUMP3
JUMP_43X118
+BT_PWR
R323
10K_0402_5%~D
C327
0.1U_0603_25V7K~D
JBT
JST_BM10B-SRSS-TB~D
36,41 BT_ACTIVE
36 COEX2_WLAN_ACTIVE
31,38 BT_RE_PAIR_R#
36 COEX1_BT_ACTIVE
38 BT_WAKE#
23 USBP0-
23 USBP0+
COEX2_WLAN_ACTIVE
BT_RE_PAIR_R#
COEX1_BT_ACTIVE
BT_WAKE#
USBP0-
USBP0+
SW3
SMT1-05_4P~D
R926
10K_0402_5%~D
@C934
33P_0402_50V8J~D
Place near BT
JMDC
TYCO_1-1734054-2~D
22 ICH_AZ_MDC_SDOUT
22 ICH_AZ_MDC_SYNC
22 ICH_AZ_MDC_SDIN1
R279
33_0402_5%~D
MDC_SDIN
ICH_AZ_MDC_RST1#
ICH_AZ_MDC_BITCLK 22
GND1
IAC_SDATA_OUT
GND2
IAC_SYNC
IAC_SDATA_IN
IAC_RESET#
RES0
RES1
3.3V
GND3
GND4
IAC_BITCLK
Power/GND Minimum
Spacing W=20 mil
+3VSUS
C308
4.7U_0805_10V4Z~D
C304
0.1U_0402_16V4Z~D
JWIRE
JST_BM02B-SRSS-TB1~D
RJ_TIP
RJ_RING
@R855
0_0402_5%~D
Q74
BSS138_SOT23~D
22 ICH_AZ_MDC_RST#
ICH_AZ_MDC_RST1#
+5VSUS
R857
10K_0402_5%~D
R856
100K_0402_5%~D
38 MDC_RST_DIS#
Voltage Gain selection
G1 G2 Av dB(TYP)
L L 22.1
L H 19.1
H L 13
H H 16
Oscillator frequency selection
FS1 FS2 Freq Hz
L L 335
L H 460
H L 236
H H (ss mode) 335 +/- 7%
+12VRUN
L33 BLM21PG600SN1D_0805~D
place near pin 3
place near pin 22
+12VRUN_R
C337
0.1U_0603_25V7K~D
C331
0.1U_0603_25V7K~D
C658
10U_1210_25V6M~D
C657
10U_1210_25V6M~D
C322
1U_0805_25V6K~D
U27
MAX9713ETJ+T_TQFN-EP32~D
VDD
CHOLD
C1N
C1P
SHDN#
G1
G2
FS1
FS2
IN-
IN+
PGND
OUT-
OUT+
NC
SS
REG
AGND
C326
0.1U_0603_25V7K~D
26,28 SPK_SHUTDOWN#
SPK_SHUTDOWN#
MAX9713_G1
MAX9713_G2
MAX9713_FS1
MAX9713_FS2
SUB_OUT1
SUB_OUT2
R334
0_1206_5%~D
@ L32
ACM3225-601-2P-T_1210~D
R333
0_1206_5%~D
SUB_R_OUT1
SUB_R_OUT2
@C332
1000P_0402_50V7K~D
@C333
1000P_0402_50V7K~D
@ D14
DA204U_SOT323~D
@ D13
DA204U_SOT323~D
JWOFR
MOLEX_53398-0271~D
27 AUD_MONO_OUT
R313
5.1K_0603_1%~D
C319
0.1U_0402_10V6K~D
C318
0.22U_0603_10V7K~D
C321
47P_0402_50V8J~D
C317
0.22U_0603_10V7K~D
C660
0.01U_0603_50V7K~D
C659
0.22U_0603_10V7K~D
L74
FBMA-L11-160808-301LMA20T_0603~D
L75
FBMA-L11-160808-301LMA20T_0603~D
RJ_TIP
RJ_RING
C9
@ 1000P_1808_3KV7K~D
C10
@ 1000P_1808_3KV7K~D
JPHON
FOX_JM34613-L001-7F~D
ICH_AZ_MDC_SDOUT
ICH_AZ_MDC_BITCLK
R299
@10_0402_5%~D
R280
@10_0402_5%~D
MDC_AC_BITCLK_TERM
ICH_AC_SDOUT_MDCTERM
C305
@ 10P_0402_50V8J~D
C284
@ 10P_0402_50V8J~D
+5VRUN
@ R527
0_0402_5%~D
R523
0_0402_5%~D
R316
0_0402_5%~D
R320
0_0402_5%~D
R528
0_0402_5%~D
R525
@ 0_0402_5%~D
R314
@ 0_0402_5%~D
R326
@ 0_0402_5%~D
MAX9713_G1
MAX9713_G2
MAX9713_FS1
MAX9713_FS2
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Compal Electronics, Inc.
Title
SUBWOOFER & BT & MDC
Size
Document Number
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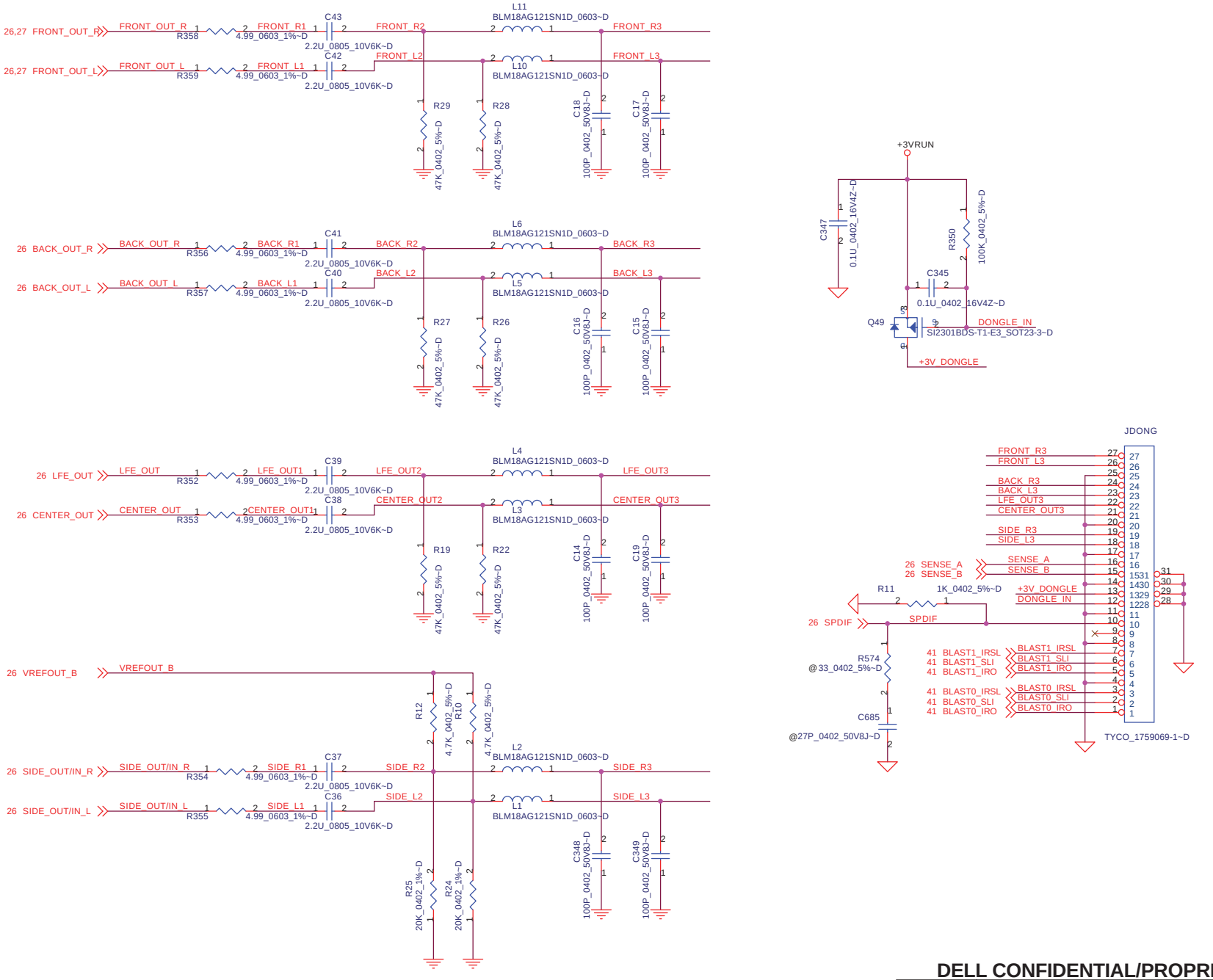

Compal Electronics, Inc.

Title: Audio DONGLE

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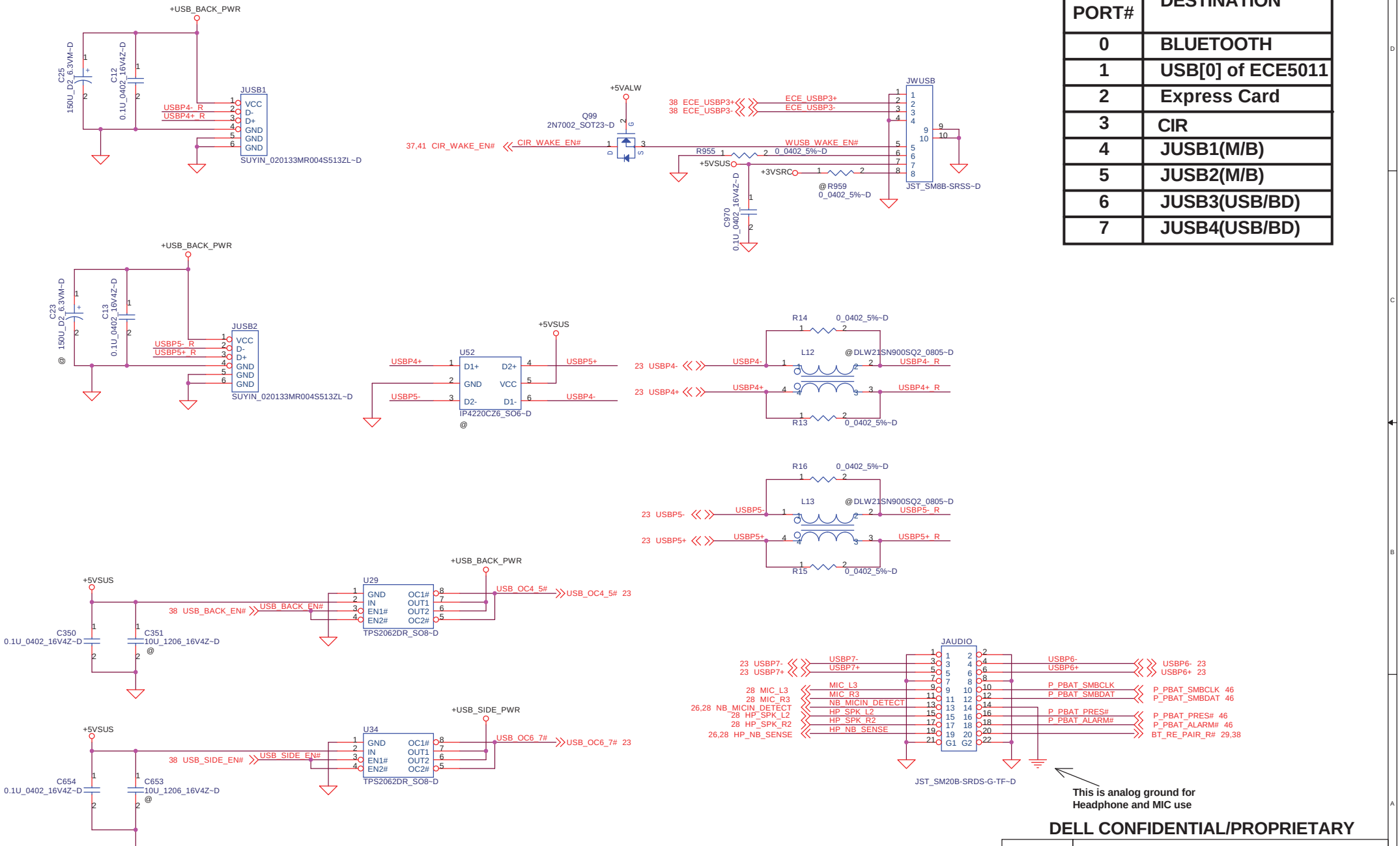
USB TABLE

USB PORT#	DESTINATION
0	BLUETOOTH
1	USB[0] of ECE5011
2	Express Card
3	CIR
4	JUSB1(M/B)
5	JUSB2(M/B)
6	JUSB3(USB/BD)
7	JUSB4(USB/BD)



Compal Electronics, Inc.

Title: USB 2.0 PORT

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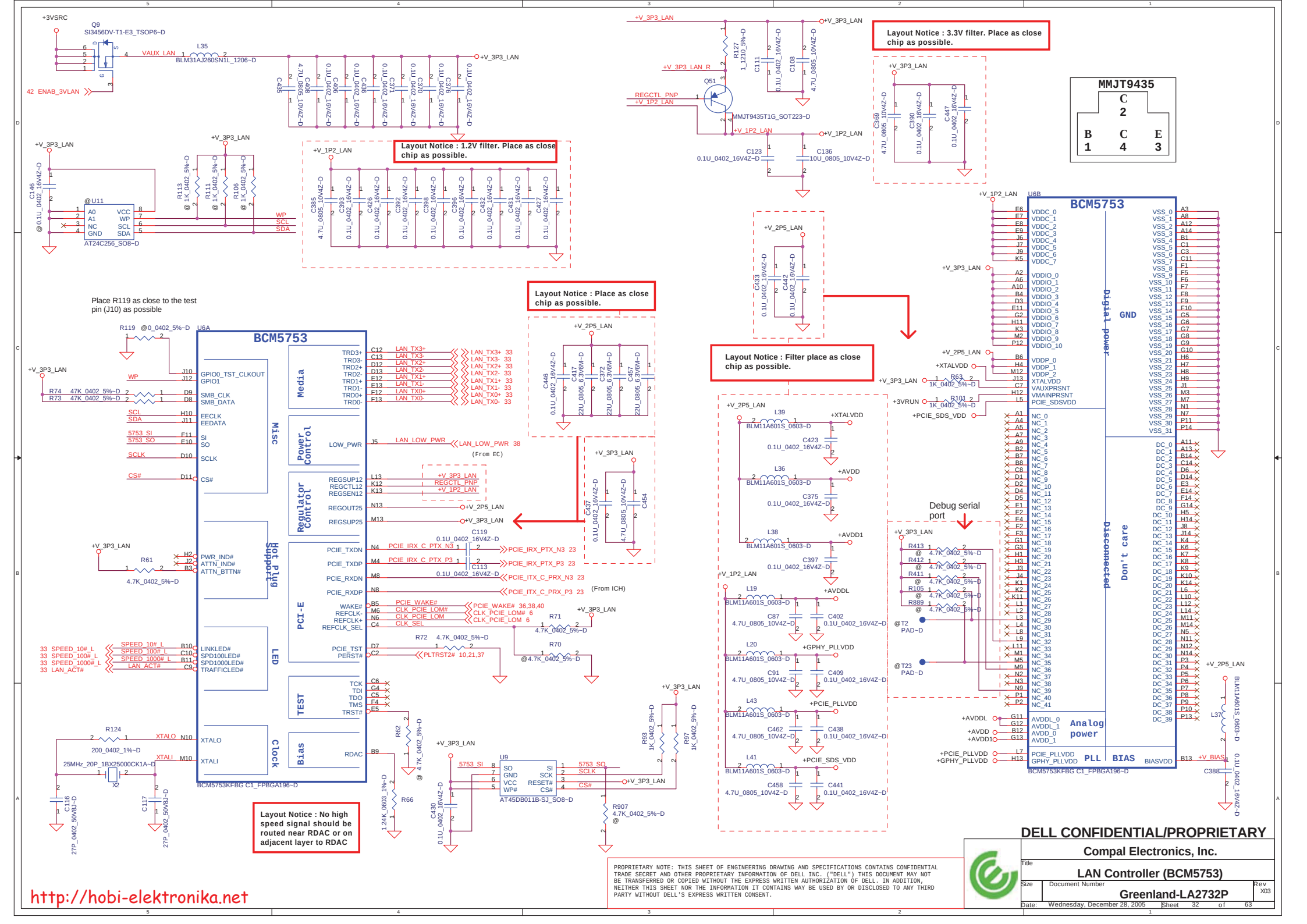
+3VSRC
Q9
SI3456DV-T1-E3_TSOP6-D
VAUX_LAN
L35
BLM31AJ260SN1L_1206-D
+V_3P3_LAN
42 ENAB_3VLAN
Layout Notice : 1.2V filter. Place as close chip as possible.
+V_1P2_LAN
+V_2P5_LAN
Layout Notice : Place as close chip as possible.
Layout Notice : Filter place as close chip as possible.
Layout Notice : 3.3V filter. Place as close chip as possible.
MMJT9435
Q51
MMJT9435T1G_SOT223-D
REGCTL_PNP
+V_3P3_LAN_R
+V_1P2_LAN
@U11
AT24C256_SO8-D
WP
SCL
SDA
Place R119 as close to the test pin (J10) as possible
BCM5753
U6A
Media
Power Control
Regulator Control
Misc
Hot Plug Support
PCI-E
LED
TEST
Clock
Bias
LAN_LOW_PWR
(From EC)
(From ICH)
PCIE_WAKE# 36,38,40
CLK_PCIE_LOM# 6
CLK_PCIE_LOM 6
CLK_SEL
PLTRST# 10,21,37
XTALO
XTALI
25MHz_20P_1BX25000CK1A-D
X2
BCM5753KFBG C1_FPBGA196~D
Layout Notice : No high speed signal should be routed near RDAC or on adjacent layer to RDAC
U9
AT45DB011B-SJ_SO8~D
Debug serial port
Disconnected
Don't care
Digital power
GND
Analog power
PLL
BIAS
BCM5753KFBG C1_FPBGA196~D
DELL CONFIDENTIAL/PROPRIETARY
Compal Electronics, Inc.
LAN Controller (BCM5753)
Greenland-LA2732P
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Wednesday, December 28, 2005
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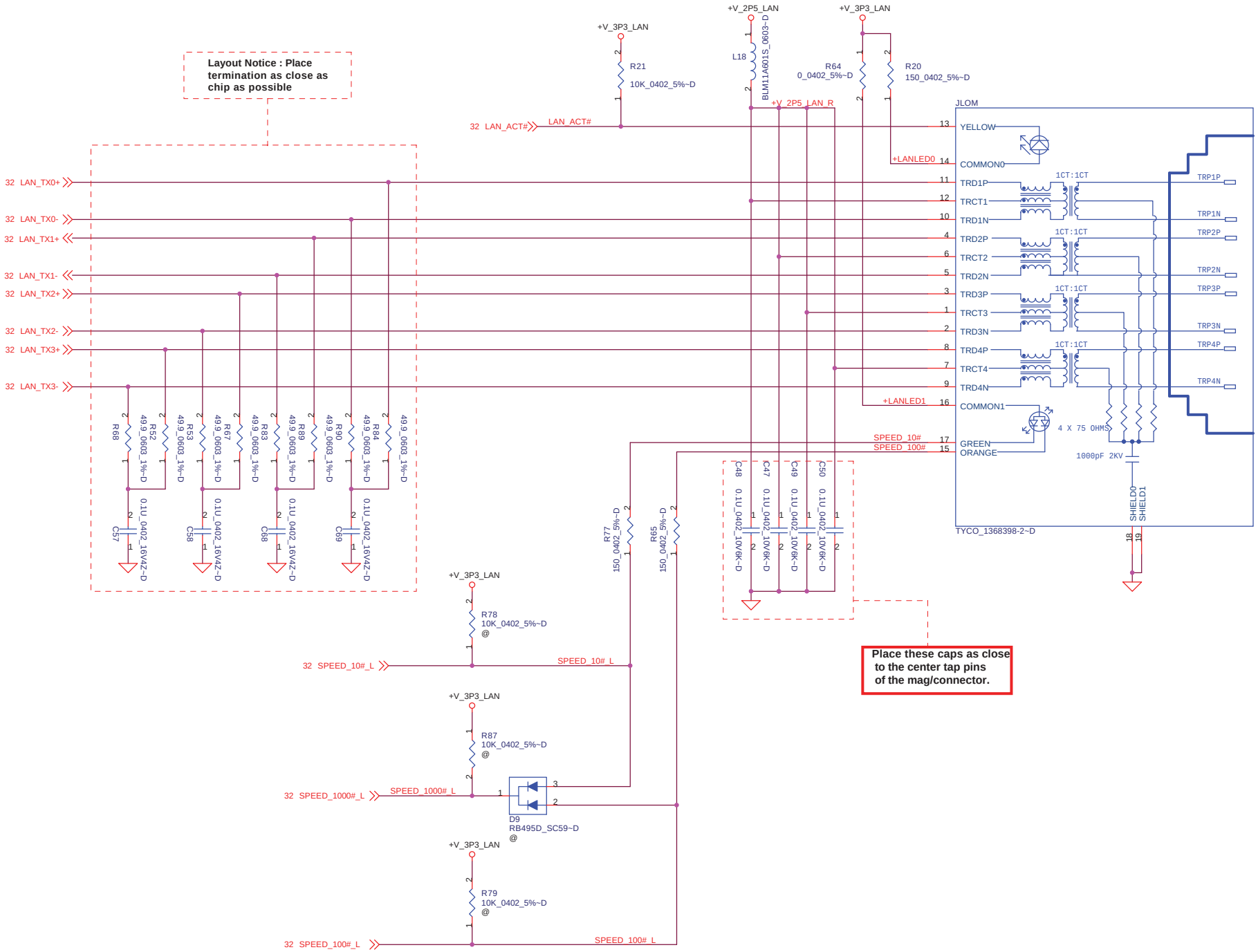

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Compal Electronics, Inc.	
Title	LAN Transfomer and RJ45
Size	Document Number: Greenland-LA2732P
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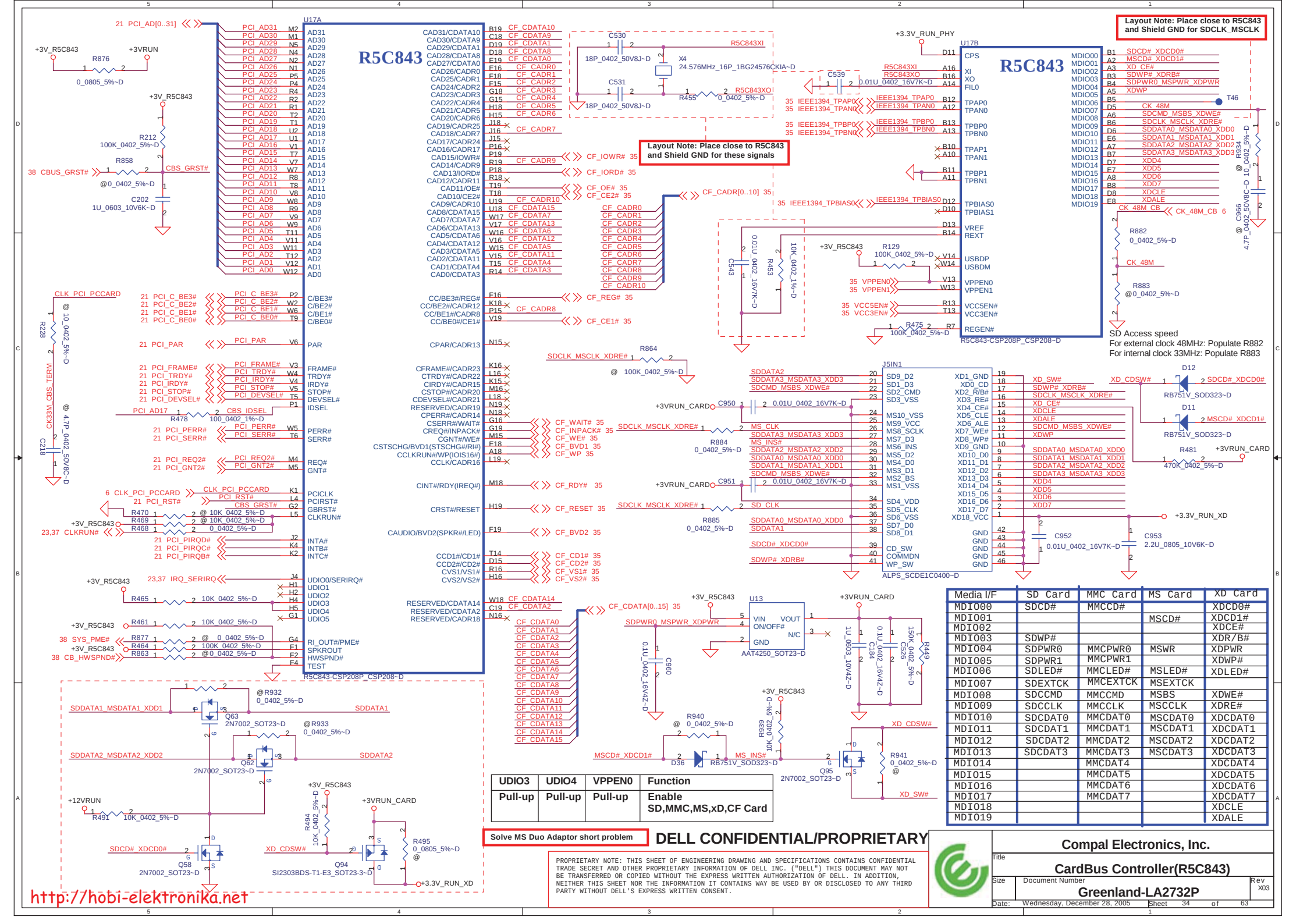
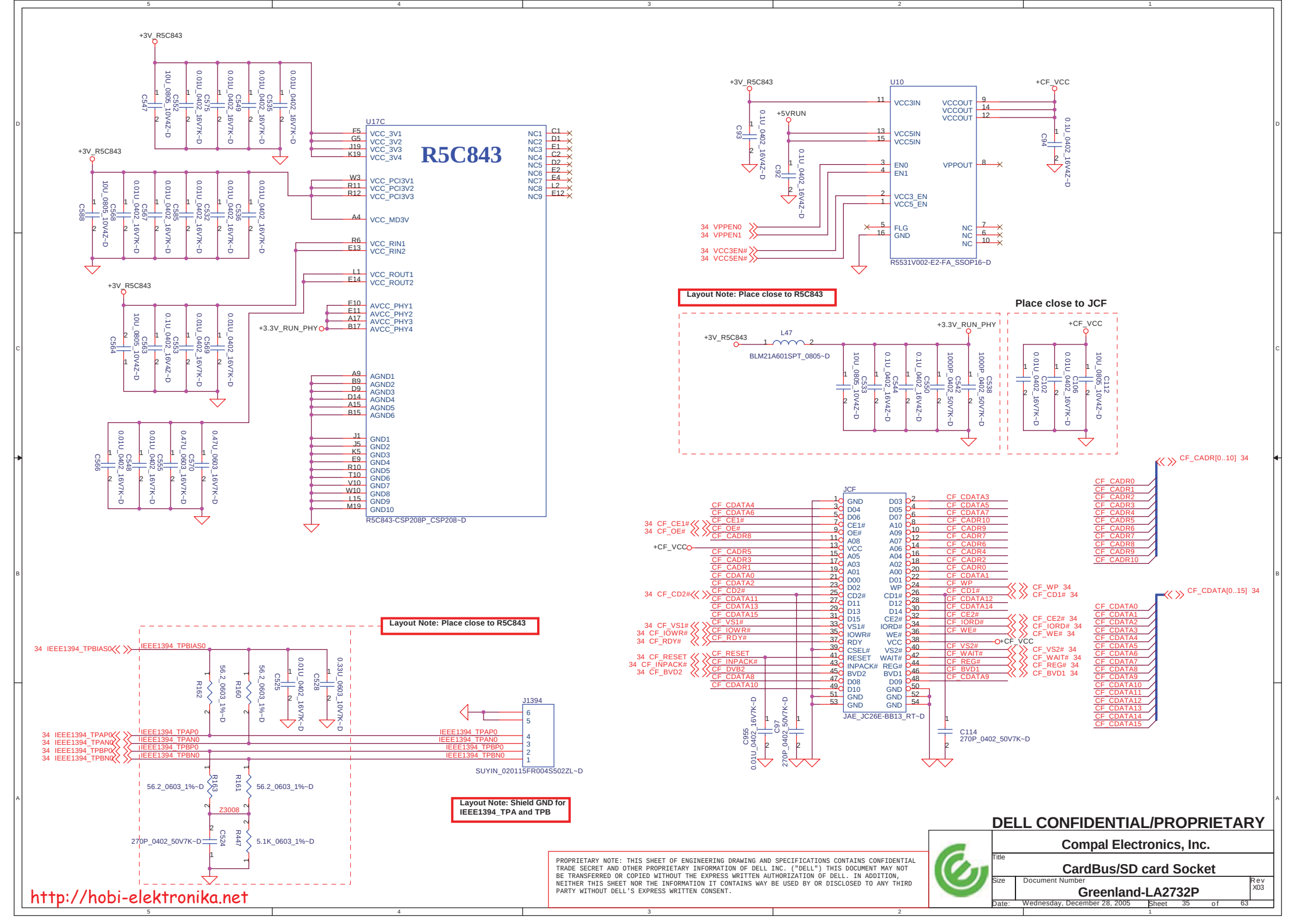


UDIO3	UDIO4	VPPEN0	Function
Pull-up	Pull-up	Pull-up	Enable SD,MMC,MS,xD,CF Card

Media I/F	SD Card	MMC Card	MS Card	XD Card
MDI000	SDCD#	MMCCD#		XDCD0#
MDI001			MSCD#	XDCD1#
MDI002				XDCE#
MDI003	SDWP#			XDR/B#
MDI004	SDPWR0	MMCPWR0	MSWR	XDPWR
MDI005	SDPWR1	MMCPWR1		XDWP#
MDI006	SDLED#	MMCLED#	MSLED#	XDLED#
MDI007	SDEXTCK	MMCEXTCK	MSEXTCK	
MDI008	SDCCMD	MMCCMD	MSBS	XDWE#
MDI009	SDCCLK	MMCCLK	MSCCLK	XDRE#
MDI010	SDCDAT0	MMCDAT0	MSCDAT0	XDCDAT0
MDI011	SDCDAT1	MMCDAT1	MSCDAT1	XDCDAT1
MDI012	SDCDAT2	MMCDAT2	MSCDAT2	XDCDAT2
MDI013	SDCDAT3	MMCDAT3	MSCDAT3	XDCDAT3
MDI014		MMCDAT4		XDCDAT4
MDI015		MMCDAT5		XDCDAT5
MDI016		MMCDAT6		XDCDAT6
MDI017		MMCDAT7		XDCDAT7
MDI018				XDCLE
MDI019				XDALE



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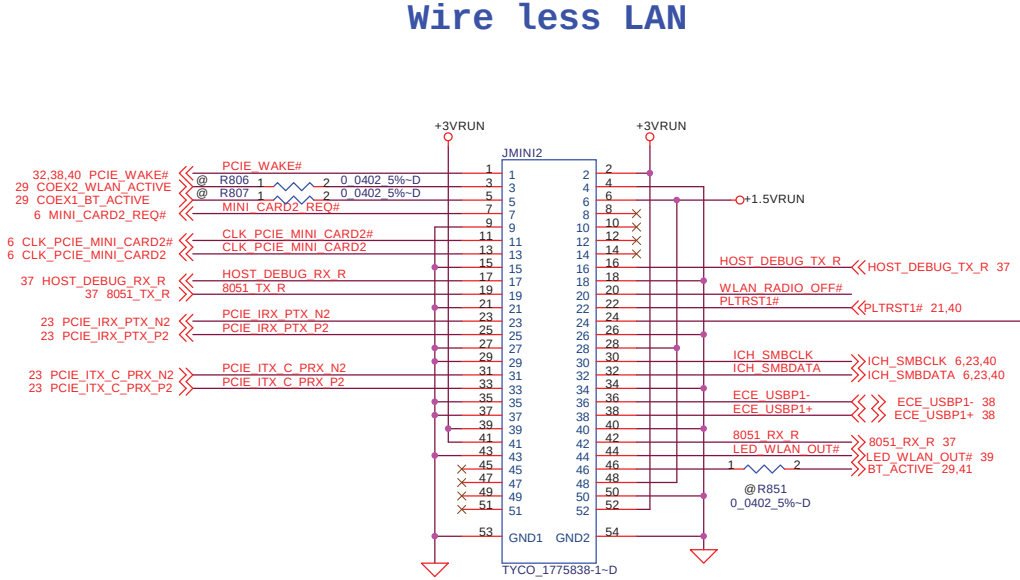
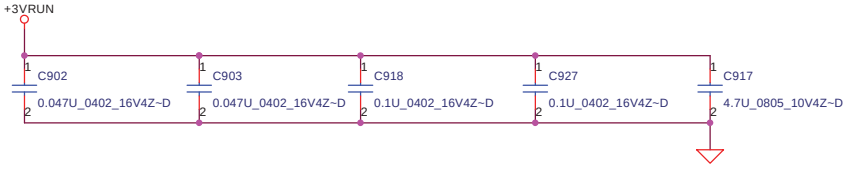
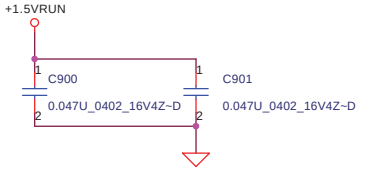
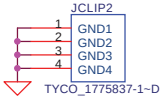
Mini-Express Card
Wire less LAN

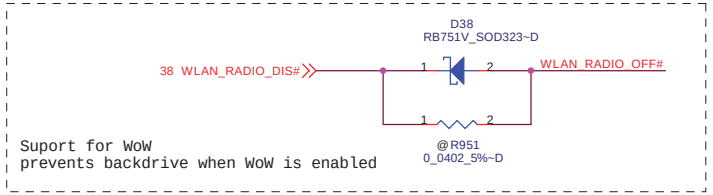




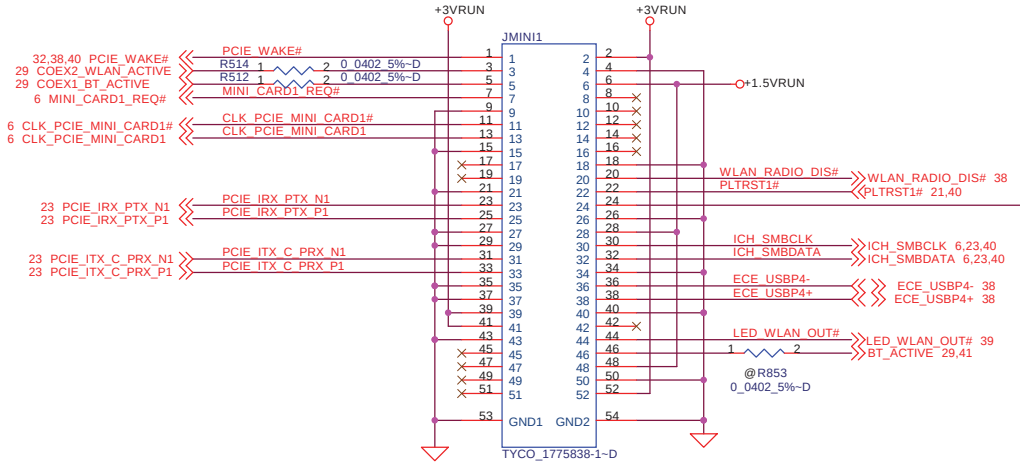


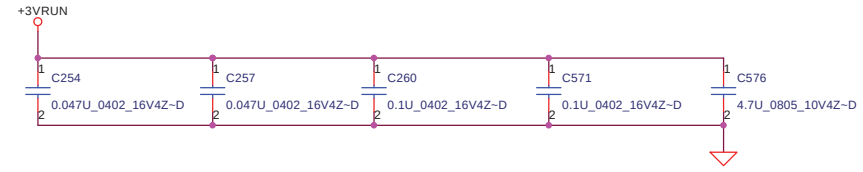


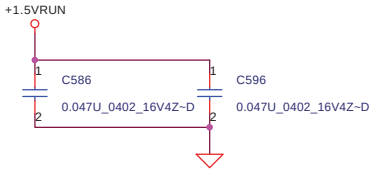
Mini-Card Latch

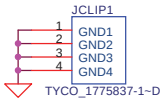


Mini-Express Card TV









Mini-Card Latch

Compal Electronics, Inc.

Title: MINI-CARD WLAN/TV

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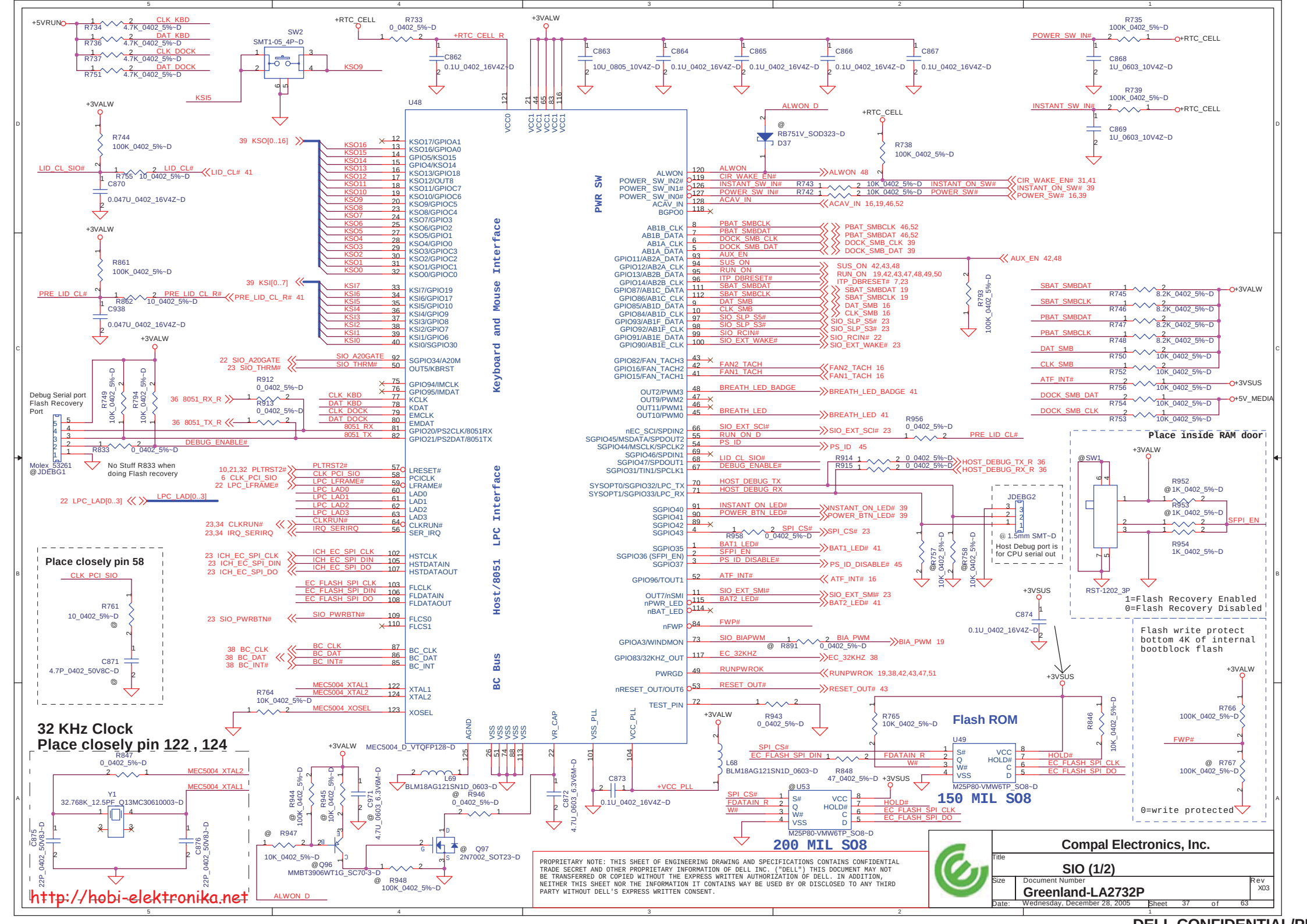

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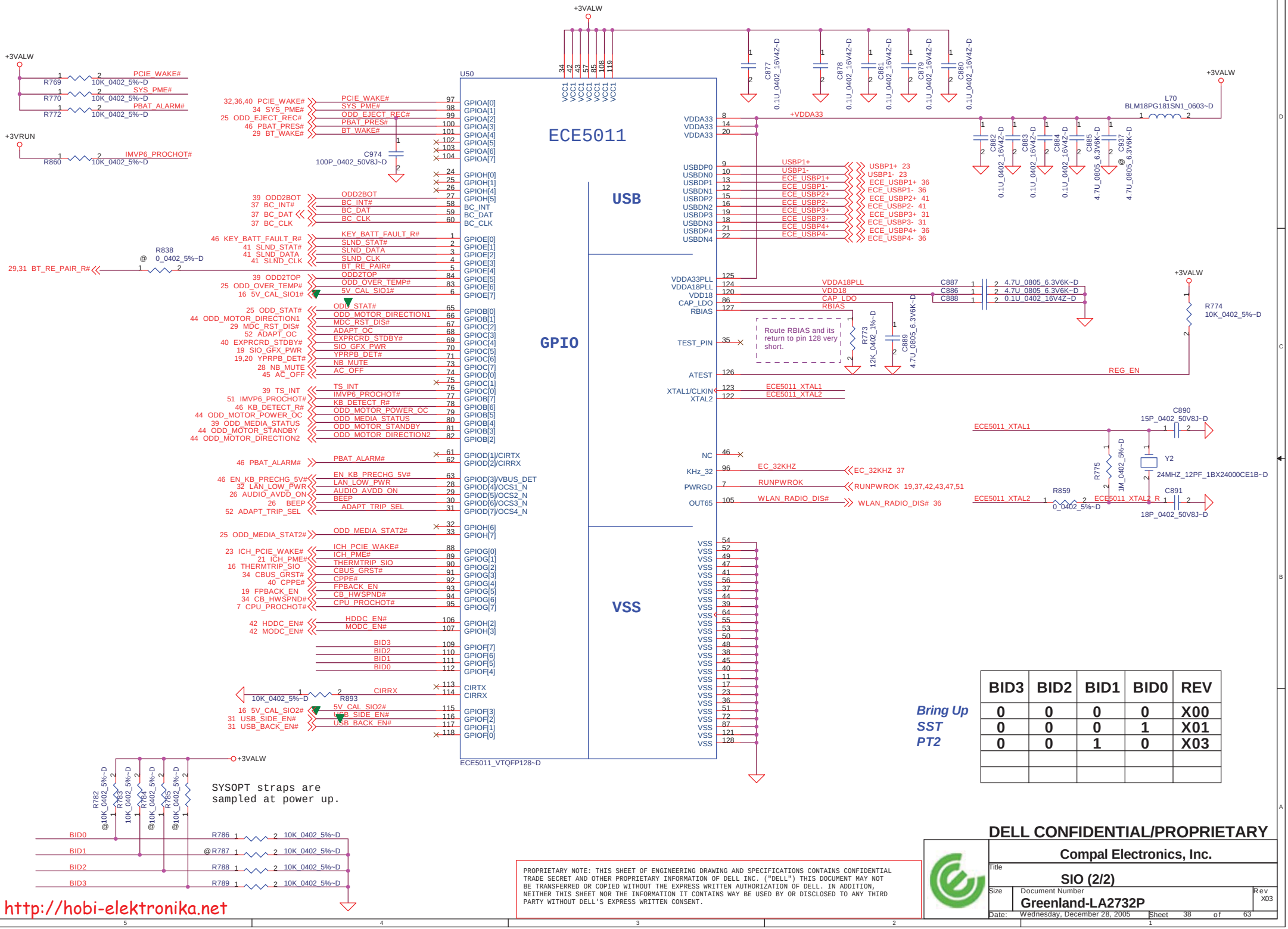

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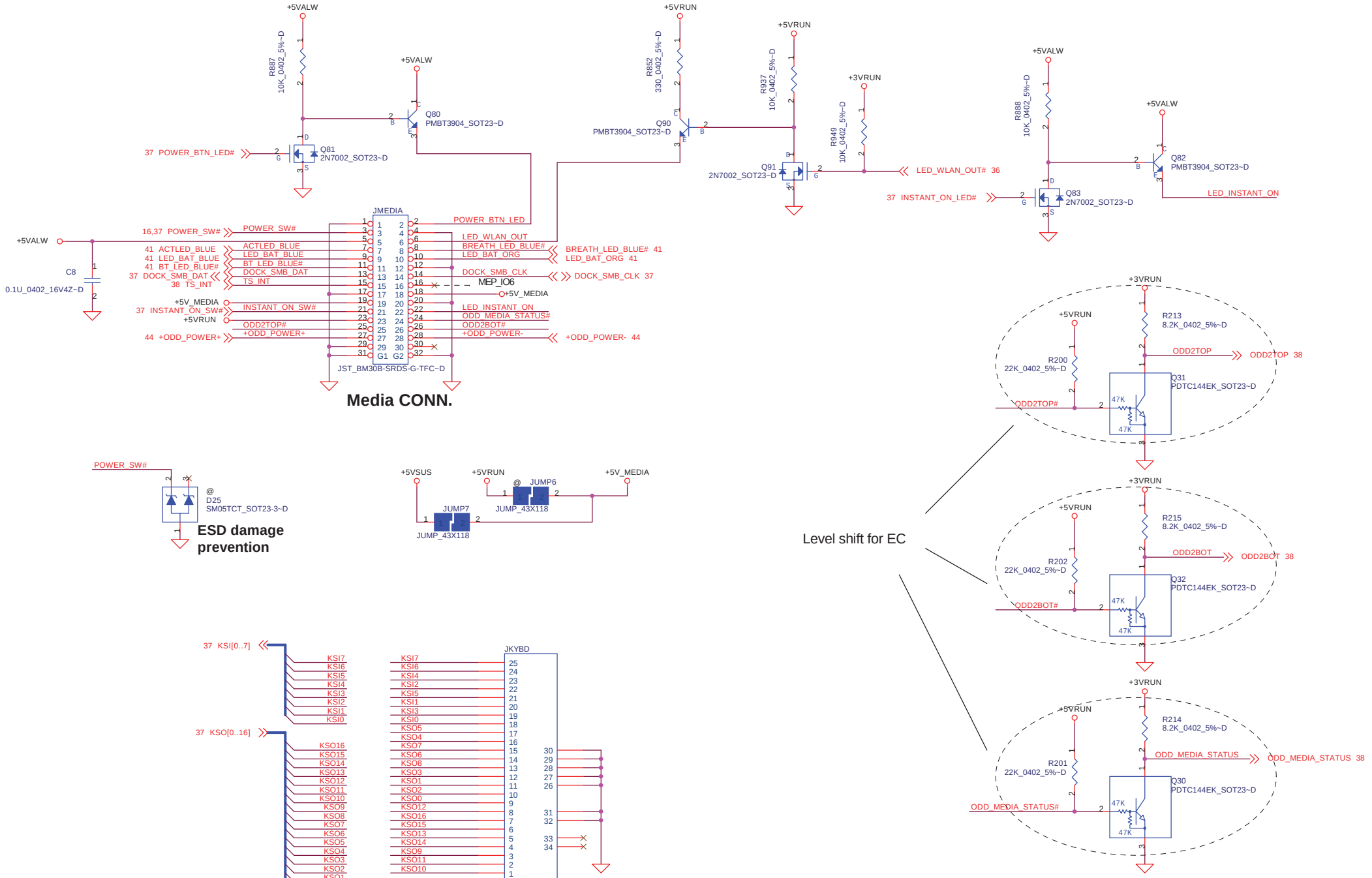

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Compal Electronics, Inc.	
Title	INT KB & Media Conn.
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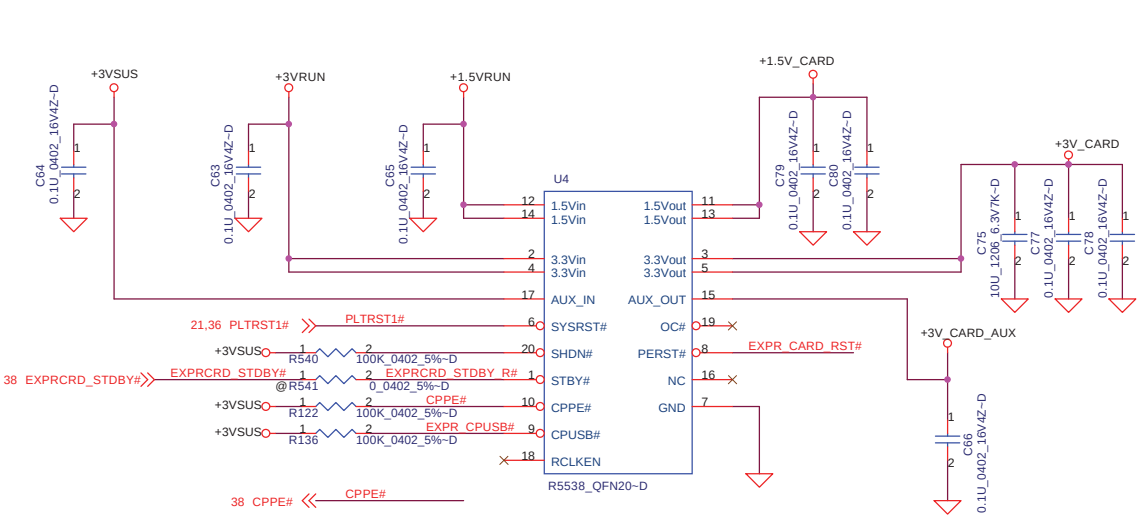
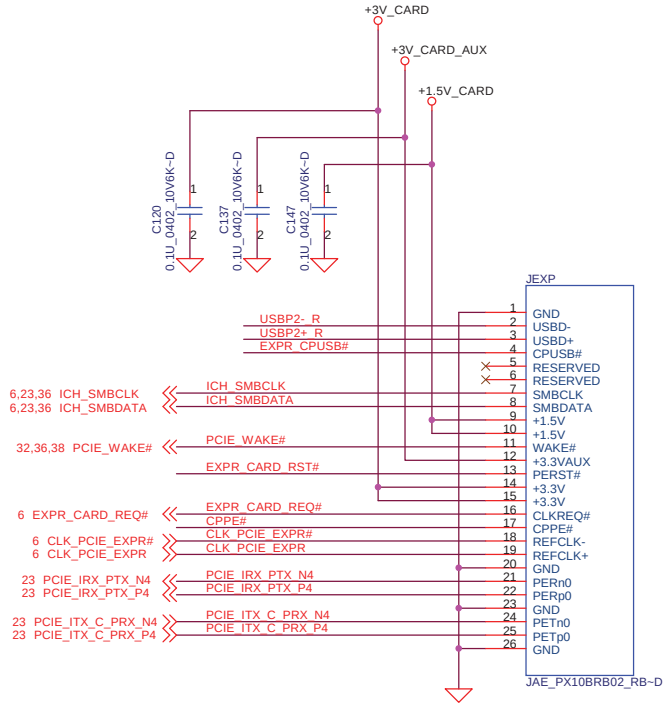
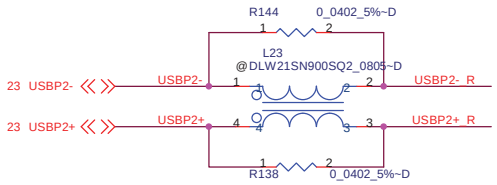


+1.5V_CARD Max. 650mA, Average 500mA

+3V_CARD Max. 1300mA, Average 1000mA



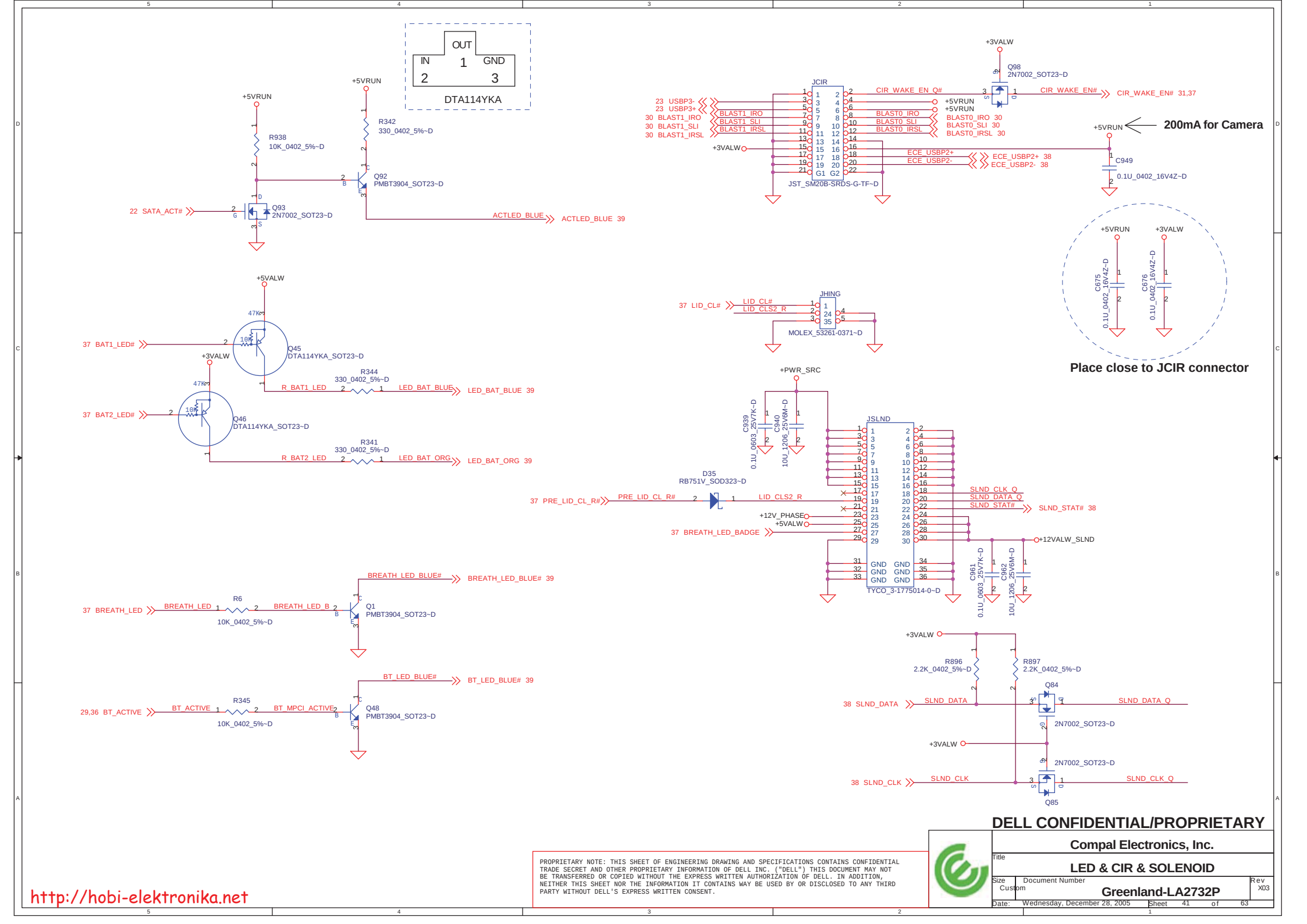


Compal Electronics, Inc.

Title: EXPRESS CARD

Size: Custom | Document Number: Greenland-LA2732P | Rev: X03

Date: Wednesday, December 28, 2005 | Sheet 40 of 63



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Compal Electronics, Inc.

Title: LED & CIR & SOLENOID

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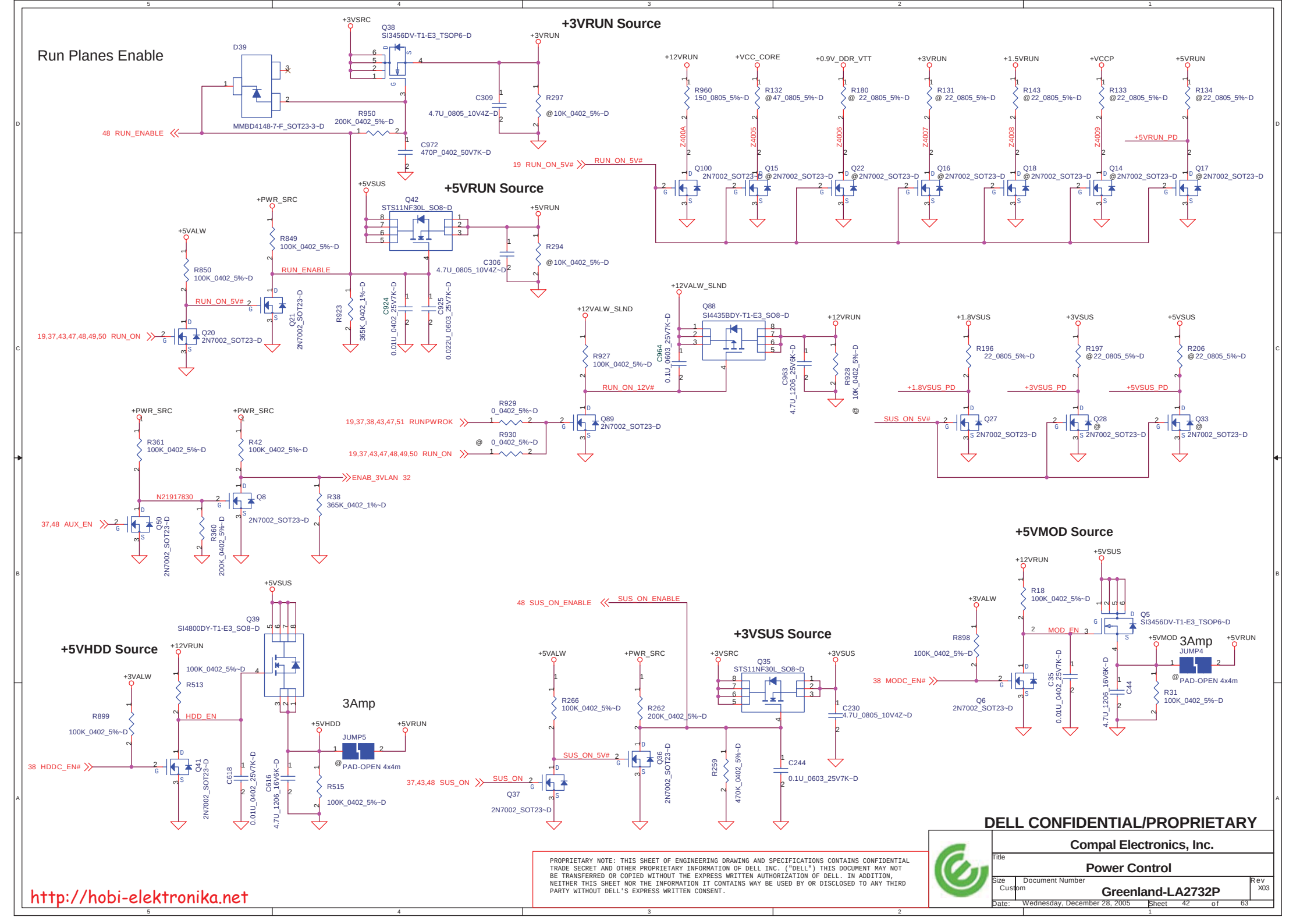
Run Planes Enable
+3VRUN Source
+5VRUN Source
+5VHDD Source
+5VMOD Source
+3VSUS Source
D39
MMBD4148-7-F_SOT23-3~D
48 RUN_ENABLE
Q38
SI3456DV-T1-E3_TSOP6~D
+3VSRC
+3VRUN
R950
200K_0402_5%~D
C972
470P_0402_50V7K~D
C309
4.7U_0805_10V4Z~D
R297
@10K_0402_5%~D
19 RUN_ON_5V#
+12VRUN
+VCC_CORE
+0.9V_DDR_VTT
+1.5VRUN
+VCCP
+5VRUN
R960
150_0805_5%~D
R132
@47_0805_5%~D
R180
@ 22_0805_5%~D
R131
@ 22_0805_5%~D
R143
@22_0805_5%~D
R133
@22_0805_5%~D
R134
@22_0805_5%~D
Z4000A
Z4005
Z4006
Z4007
Z4008
Z4009
Q100
2N7002_SOT23~D
Q15
@2N7002_SOT23~D
Q22
@2N7002_SOT23~D
Q16
@2N7002_SOT23~D
Q18
@2N7002_SOT23~D
Q14
@2N7002_SOT23~D
Q17
@2N7002_SOT23~D
+5VRUN_PD
+5VSUS
Q42
STS11NF30L_SO8~D
+PWR_SRC
+5VALW
R849
100K_0402_5%~D
R850
100K_0402_5%~D
RUN_ENABLE
RUN_ON_5V#
19,37,43,47,48,49,50 RUN_ON
Q20
2N7002_SOT23~D
Q21
2N7002_SOT23~D
R923
365K_0402_1%~D
C924
0.01U_0402_25V7K~D
C925
0.022U_0603_25V7K~D
C306
4.7U_0805_10V4Z~D
R294
@10K_0402_5%~D
+12VALW_SLND
Q88
SI4435BDY-T1-E3_SO8~D
R927
100K_0402_5%~D
RUN_ON_12V#
C964
0.1U_0603_25V7K~D
C963
4.7U_1206_25V6K~D
R928
@ 10K_0402_5%~D
+1.8VSUS
+3VSUS
+5VSUS
R196
22_0805_5%~D
R197
@22_0805_5%~D
R206
@22_0805_5%~D
+1.8VSUS_PD
+3VSUS_PD
+5VSUS_PD
SUS_ON_5V#
Q27
Q28
@
Q33
@
2N7002_SOT23~D
19,37,38,43,47,51 RUNPWROK
19,37,43,47,48,49,50 RUN_ON
R929
0_0402_5%~D
R930
@ 0_0402_5%~D
Q89
2N7002_SOT23~D
R361
100K_0402_5%~D
R42
100K_0402_5%~D
ENAB_3VLAN 32
N21917830
Q8
2N7002_SOT23~D
R38
365K_0402_1%~D
37,48 AUX_EN
Q50
2N7002_SOT23~D
R360
200K_0402_5%~D
Q39
SI4800DY-T1-E3_SO8~D
+12VRUN
+3VALW
R513
100K_0402_5%~D
R899
100K_0402_5%~D
HDD_EN
38 HDDC_EN#
Q41
2N7002_SOT23~D
C618
0.01U_0402_25V7K~D
C616
4.7U_1206_16V6K~D
3Amp
JUMP5
@PAD-OPEN 4x4m
R515
100K_0402_5%~D
48 SUS_ON_ENABLE
SUS_ON_ENABLE
+5VALW
+PWR_SRC
+3VSRC
+3VSUS
Q35
STS11NF30L_SO8~D
R266
100K_0402_5%~D
R262
200K_0402_5%~D
C230
4.7U_0805_10V4Z~D
SUS_ON_5V#
SUS_ON
37,43,48 SUS_ON
Q37
2N7002_SOT23~D
Q26
2N7002_SOT23~D
R259
470K_0402_5%~D
C244
0.1U_0603_25V7K~D
R18
100K_0402_5%~D
R898
100K_0402_5%~D
MOD_EN
38 MODC_EN#
Q6
2N7002_SOT23~D
Q5
SI3456DV-T1-E3_TSOP6~D
+5VMOD
3Amp
JUMP4
@PAD-OPEN 4x4m
R31
100K_0402_5%~D
C35
0.01U_0402_25V7K~D
C44
4.7U_1206_16V6K~D
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Compal Electronics, Inc.
Title
Power Control
Size
Custom
Document Number
Greenland-LA2732P
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X03
Date:
Wednesday, December 28, 2005
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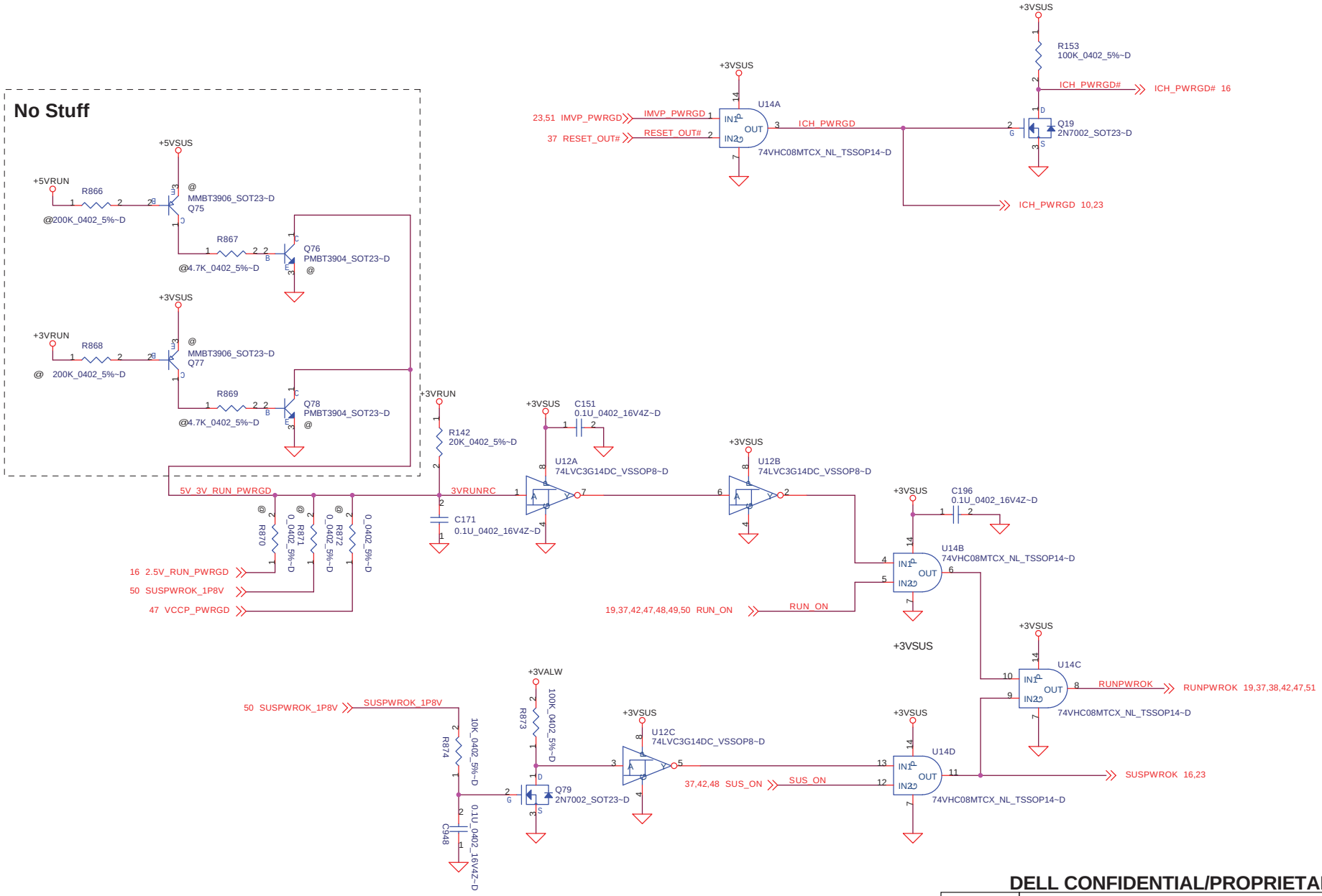

Compal Electronics, Inc.

Title: Power sequence

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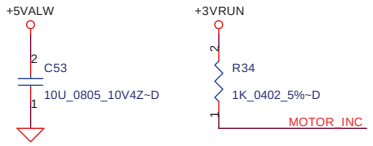
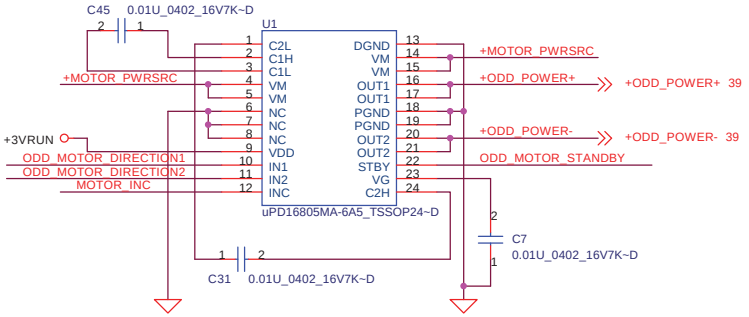
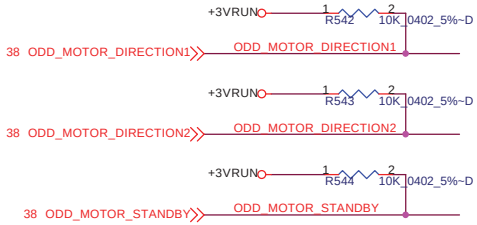
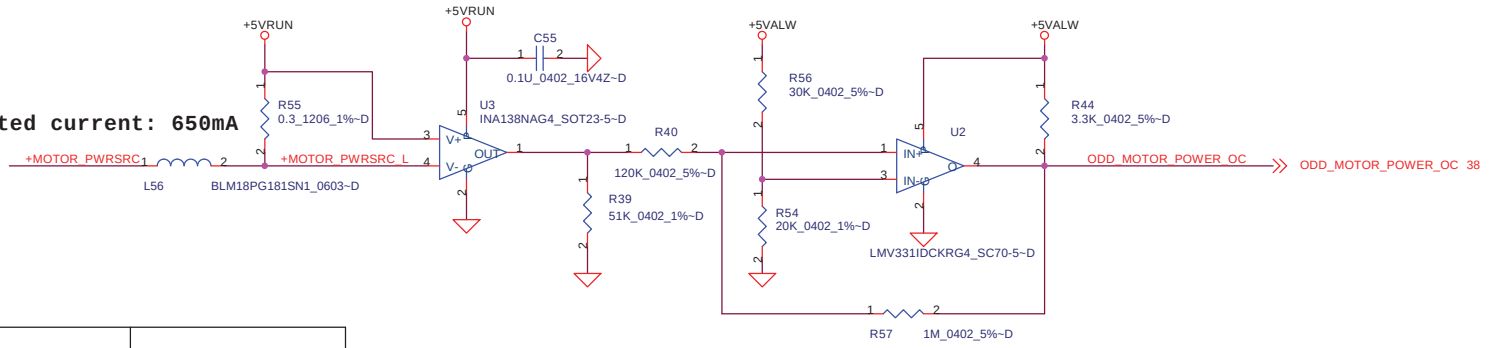


With Charge pump





limited current: 650mA



Input Signal				Function
MOTOR_IN1	MOTOR_IN2	MOTOR_INC	MOTOR_STBY#	
H	H	H	H	Brake Mode
H	L	H	H	Forward Mode
L	H	H	H	Reverse Mode
L	L	H	H	Stop Mode
X	X	L	H	Stop Mode
X	X	X	L	Standby Mode

Compal Electronics, Inc.

Title: CD ROM Motor

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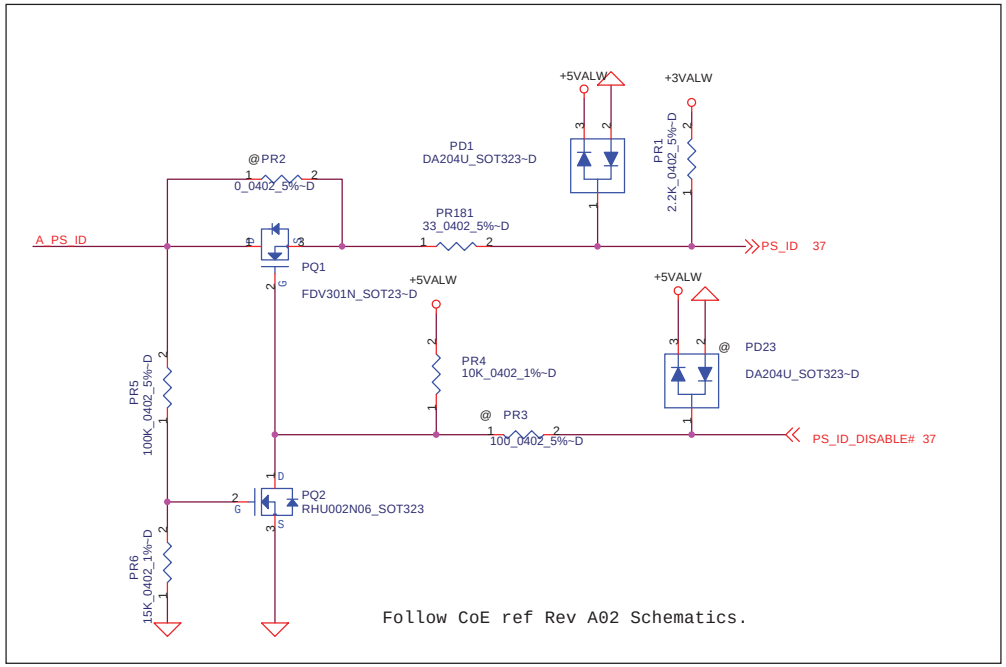
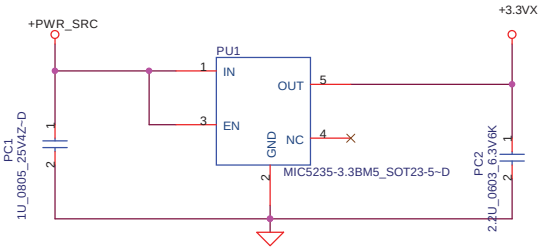
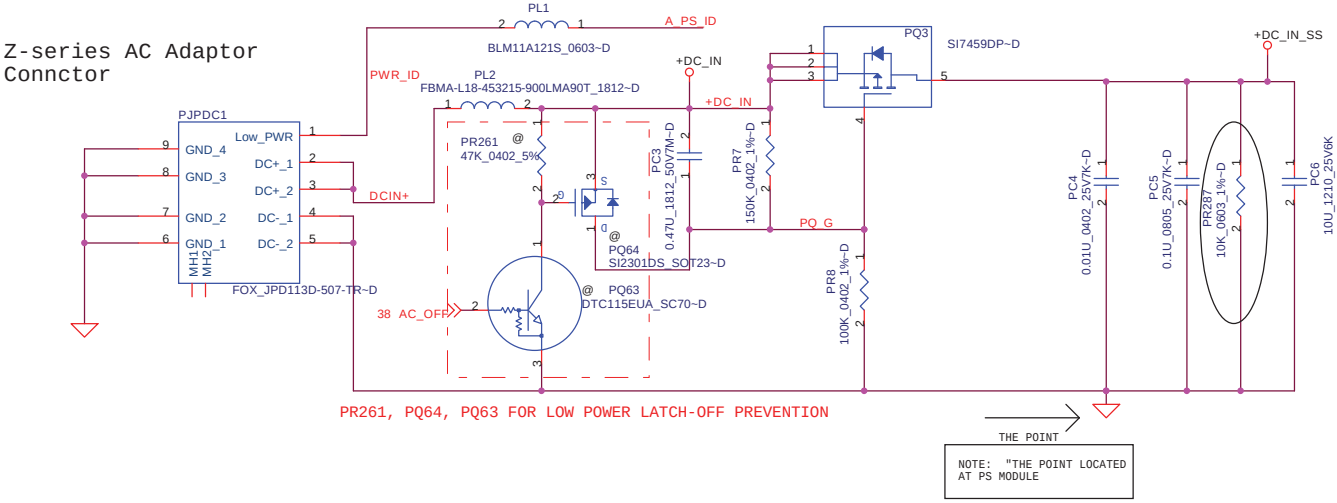


+3.3VRTC Source



DC_IN+ Source

Z-series AC Adaptor
Connctor



Compal Electronics, Inc.

Title: +DCIN

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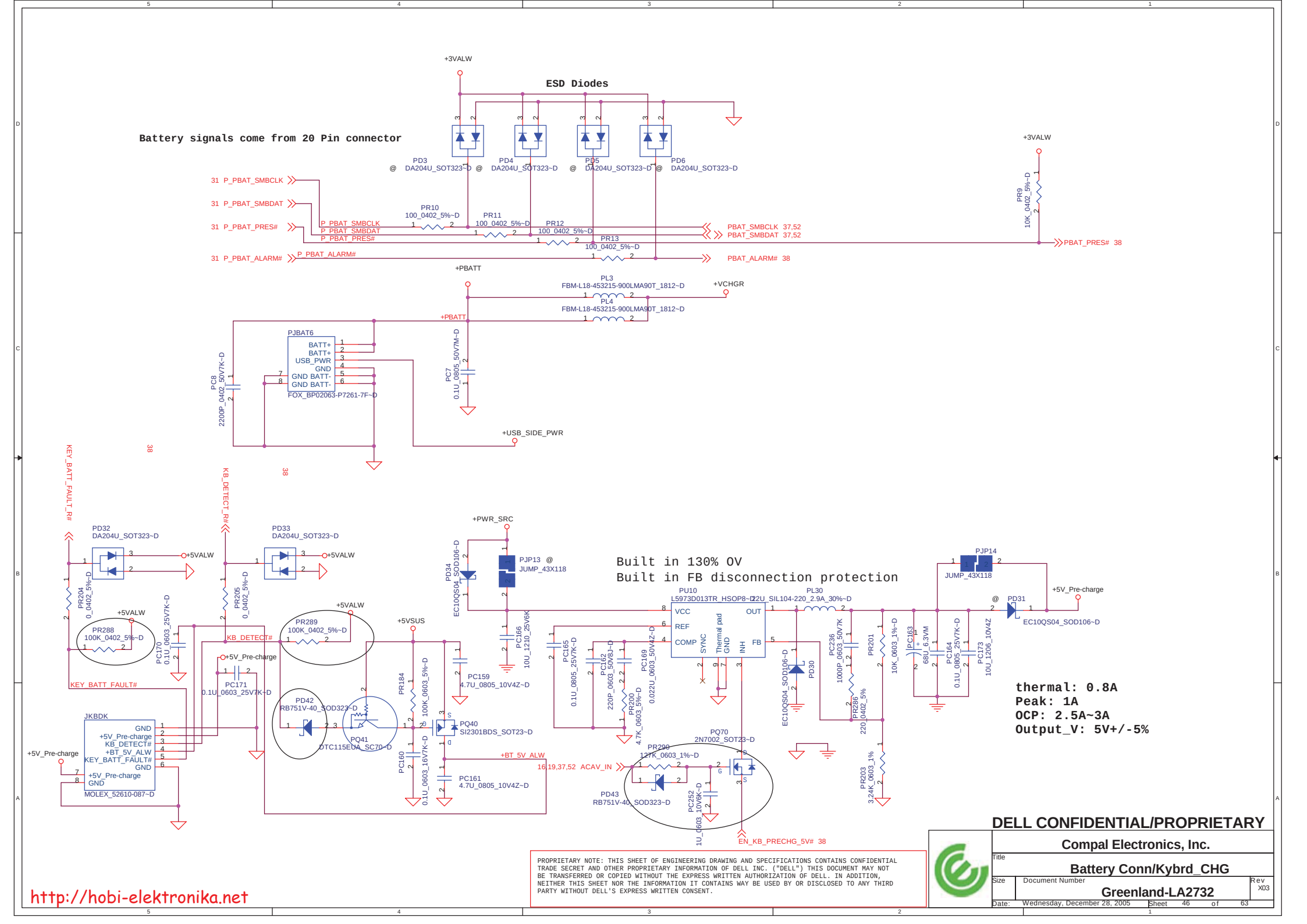
ESD Diodes
Battery signals come from 20 Pin connector
+3VALW
PD3 DA204U_SOT323~D
PD4 DA204U_SOT323~D
PD5 DA204U_SOT323~D
PD6 DA204U_SOT323~D
31 P_PBAT_SMBCLK
31 P_PBAT_SMBDAT
31 P_PBAT_PRES#
31 P_PBAT_ALARM#
PR10 100_0402_5%~D
PR11 100_0402_5%~D
PR12 100_0402_5%~D
PR13 100_0402_5%~D
PR9 10K_0402_5%~D
PBAT_SMBCLK 37,52
PBAT_SMBDAT 37,52
PBAT_PRES# 38
PBAT_ALARM# 38
+PBATT
PL3 FBM-L18-453215-900LMA90T_1812~D
PL4 FBM-L18-453215-900LMA90T_1812~D
+VCHGR
PJBAT6
BATT+
BATT+
USB_PWR
GND
GND BATT-
GND BATT-
FOX_BP02063-P7261-7F~D
PC8 220P_0402_50V7K~D
PC7 0.1U_0805_50V7M~D
+USB_SIDE_PWR
KEY_BATT_FAULT_R#
KB_DETECT_R#
38
PD32 DA204U_SOT323~D
PD33 DA204U_SOT323~D
+5VALW
PR204 0_0402_5%~D
PR205 0_0402_5%~D
PR288 100K_0402_5%~D
PR289 100K_0402_5%~D
PC170 0.1U_0603_25V7K~D
PC171 0.1U_0603_25V7K~D
KB_DETECT#
+5V_Pre-charge
KEY_BATT_FAULT#
JKBDK
GND
+5V_Pre-charge
KB_DETECT#
+BT_5V_ALW
KEY_BATT_FAULT#
GND
+5V_Pre-charge
GND
MOLEX_52610-087~D
PD42 RB751V-40_SOD323~D
PQ41 DTC115EUA_SC70~D
PQ40 SI2301BDS_SOT23~D
PR184 100K_0603_5%~D
PC160 0.1U_0603_16V7K~D
PC159 4.7U_0805_10V4Z~D
PC161 4.7U_0805_10V4Z~D
+5VSUS
+PWR_SRC
PD34 EC10QS04_SOD106~D
PJP13 @ JUMP_43X118
PC166 10U_1210_25V6K
Built in 130% OV
Built in FB disconnection protection
PU10 L5973D013TR_HSOP8~D
VCC
REF
COMP
SYNC
Thermal pad
GND
INH
FB
OUT
PL30 22U_SIL104-220_2.9A_30%~D
PC165 0.1U_0805_25V7K~D
PC162 220P_0603_50V8J~D
PC169 0.022U_0603_50V4Z~D
PR200 4.7K_0603_5%~D
PD30 EC10QS04_SOD106~D
PC236 1000P_0603_50V7K
PR286 220_0402_5%
PR201 10K_0603_1%~D
PC163 68U_6.3VM
PC164 0.1U_0805_25V7K~D
PC173 10U_1206_10V4Z
PJP14 JUMP_43X118
PD31 EC10QS04_SOD106~D
+5V_Pre-charge
thermal: 0.8A
Peak: 1A
OCP: 2.5A~3A
Output_V: 5V+/-5%
PQ70 2N7002_SOT23~D
PR299 127K_0603_1%~D
16,19,37,52 ACAV_IN
PD43 RB751V-40_SOD323~D
PC252 1U_0603_10V6K~D
PR203 3.24K_0603_1%
EN_KB_PRECHG_5V# 38
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Compal Electronics, Inc.
Title
Battery Conn/Kybrd_CHG
Size
Document Number
Greenland-LA2732
Rev X03
Date: Wednesday, December 28, 2005
Sheet 46 of 63
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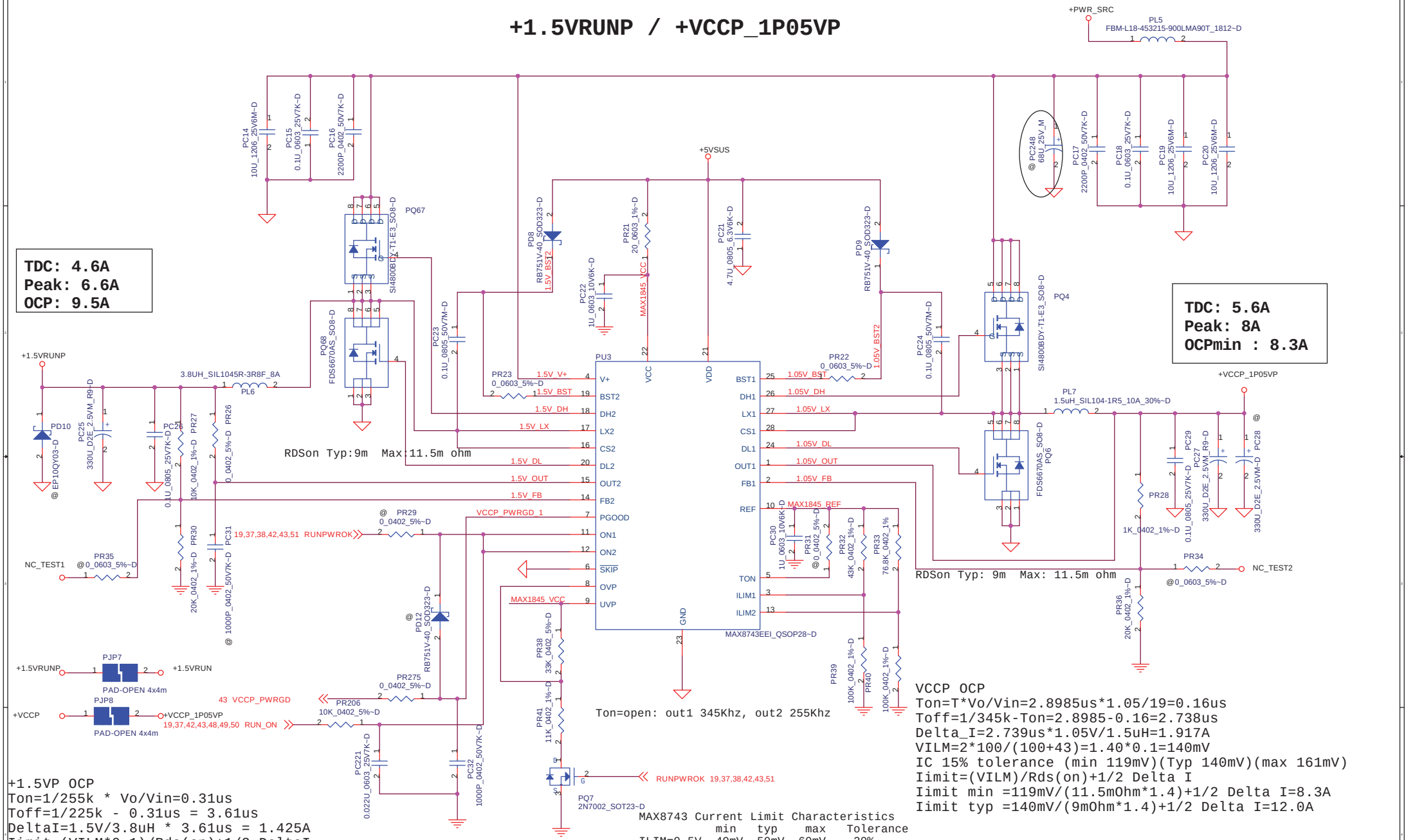
http://hobi-elektronika.net

+1.5VRUNP / +VCCP_1P05VP



Compal Electronics, Inc.

Title: +1.5VRUNP /+VCCP_1P05VP

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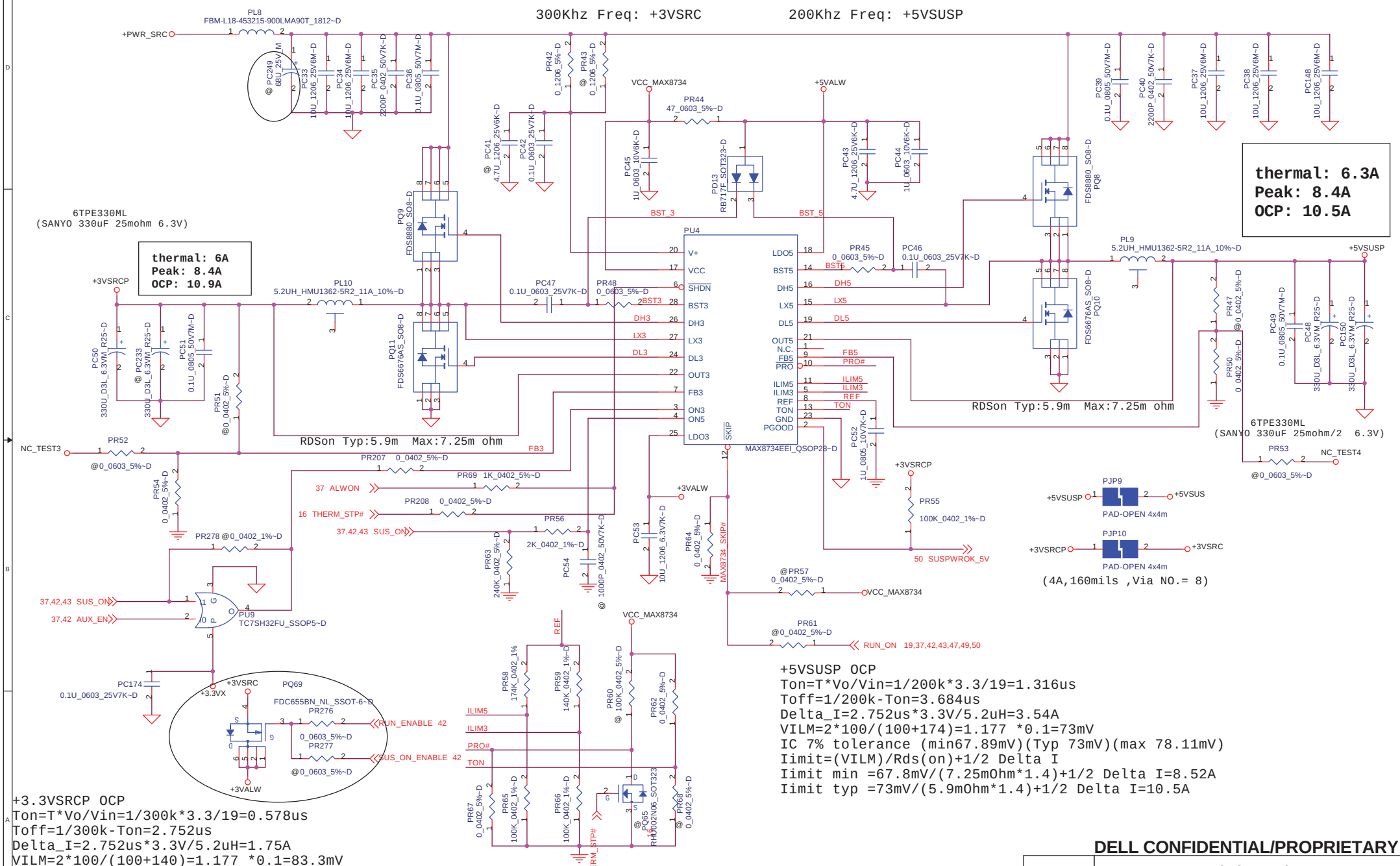
MAX8734 Current Limit Characteristics

	min	typ	max	Tolerance
VLIM=0.5V	40mV	50mV	60mV	20%
VLIM=1.0V	93mV	100m	107mV	7%

Follow CoE ref Rev A04 Schematics.

DC/DC +3V/ +5V

300Khz Freq: +3VSRC 200Khz Freq: +5VSUSP



+3.3VSRCP OCP
Ton=T*Vo/Vin=1/300k*3.3/19=0.578us
Toff=1/300k-Ton=2.752us
Delta_I=2.752us*3.3V/5.2uH=1.75A
VILM=2*100/(100+140)=1.177 *0.1=83.3mV
IC 7% tolerance (min 77.5mV)(Typ 83.3mV)(max 89.1mV)
Iimit=(VILM)/Rds(on)+1/2 Delta I
Iimit min =77.5mV/(7.25mOhm*1.4)+1/2 Delta I=8.52A
Iimit typ =83.3mV/(5.9mOhm*1.4)+1/2 Delta I=10.9A

+5VSUSP OCP
Ton=T*Vo/Vin=1/200k*3.3/19=1.316us
Toff=1/200k-Ton=3.684us
Delta_I=2.752us*3.3V/5.2uH=3.54A
VILM=2*100/(100+174)=1.177 *0.1=73mV
IC 7% tolerance (min67.89mV)(Typ 73mV)(max 78.11mV)
Iimit=(VILM)/Rds(on)+1/2 Delta I
Iimit min =67.8mV/(7.25mOhm*1.4)+1/2 Delta I=8.52A
Iimit typ =73mV/(5.9mOhm*1.4)+1/2 Delta I=10.5A

Compal Electronics, Inc.

Title: +3.3V/+5V

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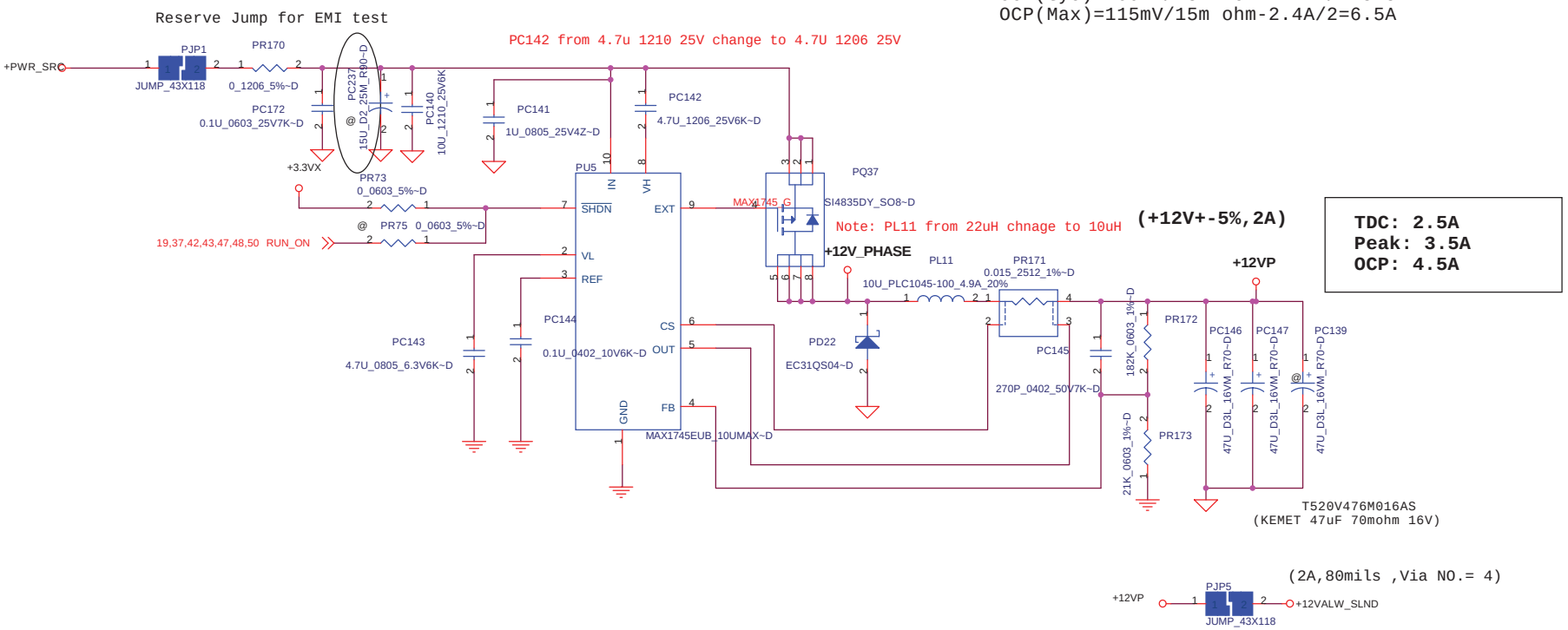
fz=550k*(1-D)=500*(1-12/19)=184Khz
Toff=(1-12/19)/184Khz=2us
Delta I=12V*2us/10uH=2.4A
OCP(min)=85mV/15m ohm - 2.4A/2 =4.5A
OCP(tyo)=100mV/15m ohm-2.4A/2=5.5A
OCP(Max)=115mV/15m ohm-2.4A/2=6.5A



Compal Electronics, Inc.		
Title: 12VRUN		
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Reserve Jump for EMI test

Follow CoE ref Rev A04 Schematics.

thermal: 8.3A
Peak: 10.4A
OCP: 11.8A

Keep using this (used in Turtuga)

Thermal: 1.5A
Peak: 3A
OCP: 3.8A

PD40, PC220 and PR264 for match second source consideration

VTTSNS pin that the sense trace need separated with power pass trace and close to terminal of output cap.

2R5TPE330M0
(SANYO 330uF 9mohm 2.5V)

RDSon Typ:6.3m Max: 7.6m ohm

Internal or external feedback choice

CS_GND is CS sense "+" terminal should connect to source of bootom MOSFET

(12A,480mils ,Via NO.=24)

(1.2A,48mils ,Via NO.=3)

Vtrip=7.9kX10uA=79mV
fs=400kHz
Ton=T*Vo.Vin=0.25us
Toff=2.25us
delta I=2.25*1.8/1.4=2.9A
IC 10% TOL: 70mV
RDS(on)max=7.6mohm
Iocp=Vtrip/RDS+1/2 delta I=11.8A (temperature factor has been compensated inside IC)

Compal Electronics, Inc.
Title: +1.8V / +0.9V
Size: Document Number: Greenland-LA2732 Rev: X03
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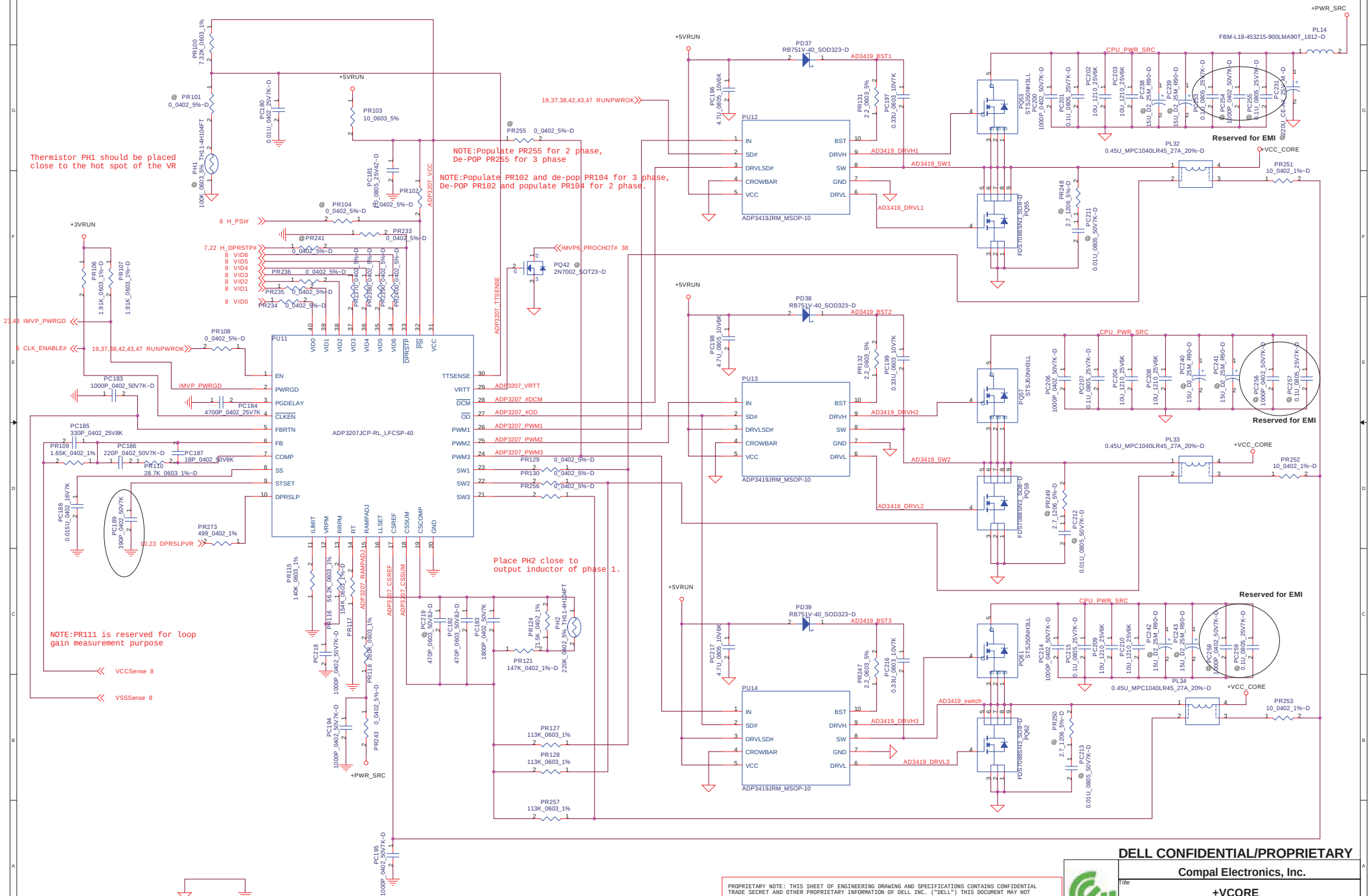
Follow CoE ref Rev A03 Schematics.

IMVP-6 solution for Merom: 3-phase/44A



Compal Electronics, Inc.

Title: +VCORE

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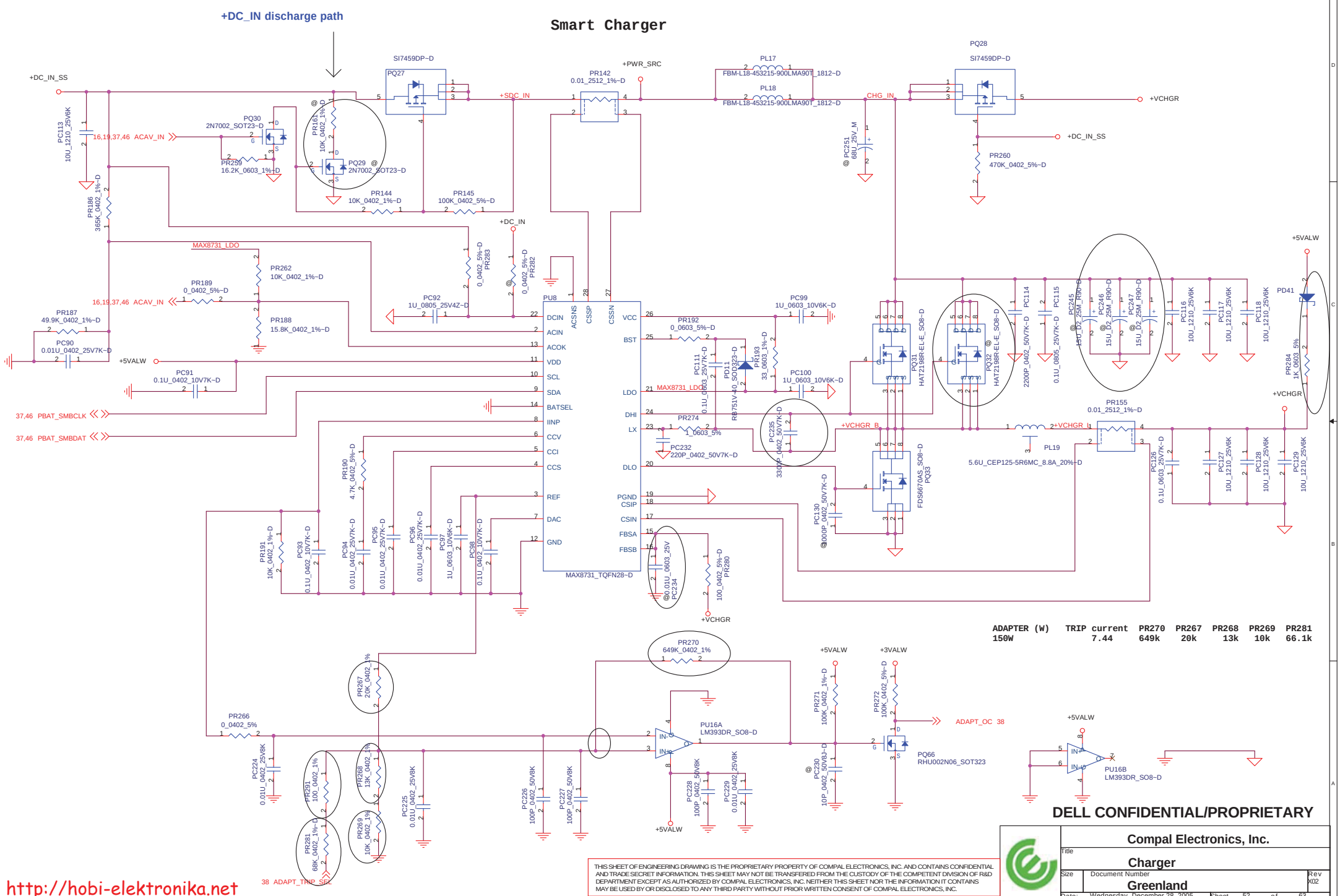
Follow CoE ref Rev A09 Schematics.

Smart Charger

+DC_IN discharge path



ADAPTER (W)	TRIP current	PR270	PR267	PR268	PR269	PR281
150W	7.44	649k	20k	13k	10k	66.1k

Compal Electronics, Inc.
Title: Charger
Size: Document Number: Greenland
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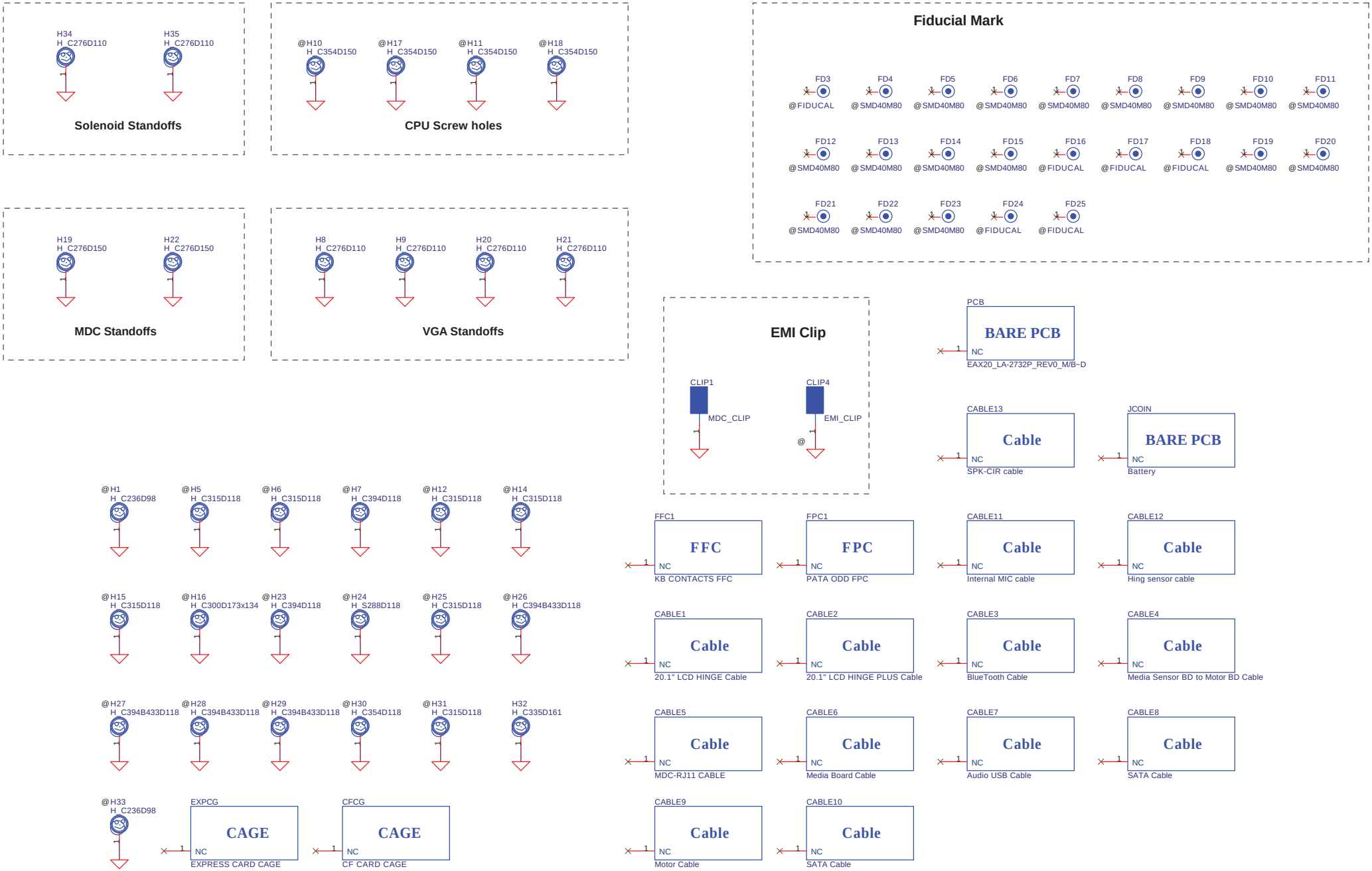

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Compal Electronics, Inc.

Title: PAD and Standoff

Size | Document Number: Greenland-LA2732P | Rev: X03

Date: Wednesday, December 28, 2005 | Sheet 53 of 63

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	29	CoE update	2005/08/22	Dell CoE	M07-MDC-A03 CoE update: This change is due to circuit issues seen by the Travis platform regarding the varying Vgs threshold of different 2N7002 FETs.	change Q74 to BSS138 from 2n7002. The BSS138 FET has a Vgs threshold of 1.3V (typical) and 1.6V (max). This should ensure proper operation of the circuit. This change is only required by platforms using the disable circuit.	X01A
2	38	5011 Library correct	2005/08/22	Compal Willis	5011 USB port 1,3 +/- pin mistake on early version datasheet, we correct it.	U50: 5011 pin 13: USBDP1, pin 12: USBDN1 pin 19: USBDP3, pin 18: USBDN3	X01A
3	29	JWIRE Conn. Change	2005/08/23	Dell/Compal	Change JWIRE connector from 5pins include GND pin to 2 pins connetcor.	Change JWIRE connector to JST_BM02B-SRSS-TB1~D from JST_BM03(5-2.3)B-SRSSTB1LFSN~D	X01B
4	37	CoE update	2005/08/23	Dell CoE	M07-EC-Inspiron-A04 CoE update: Enable SPI ROM Boot Block are write enable on developer phase, disable it on when production.	pop R766 100Kohm, depop R767	X01B
5	10	CoE update	2005/08/23	Dell CoE	M07-945pm_gm_m07_a02 Update Delete reserved pull down resistor on M_OCDCOMP0, M_OCDCOMP1. Intel DG1.0 no require.	Delete R611, R612, Add Test point T33, T36 only	X01B
6	10	CoE update	2005/08/23	Dell CoE	M07-945pm_gm_m07_a02 Update Add 0.1uF on V_DDR_MCH_REF (total 2pcs)	Add C738 (0.1uF) but depop it now.	X01B
7	42	CoE update	2005/08/23	Dell CoE	M07-system power sequence a02 Update Add +5VRUN, +5VSUS, +3VSUS clamp ckt	1. Delete R263(100K 0402), R197 (@100K 0402), Q28 (@2N7002) 2. Change R266/1 to +5VALW from +PWR_SRC 3. Change Q27/2 to SUS_ON_5V# 4. Add Q17 (@2N7002), Q28 (@2N7002), Q33(@2N7002), R134 (@22 0805), R197 (@22 0805), R206 (@22 0805), depop them.	X01B
8	37, 41	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 33	Change net name from LID_CL# to LID_CL_SIO#. Change net name from LID_CL_R# to LID_CL#	X01C
9	6, 37	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 34	Change net name from CK_33M_SIOPCI to CLK_PCI_SIO.	X01C
10	23, 37	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 35	Change net name from ICHO_ECI_SPI_DATA to ICH_EC_SPI_DIN Change net name from ICHI_ECO_SPI_DATA to ICH_EC_SPI_DO	X01C
11	37	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 36	Change net name from FCLK to EC_FLASH_SPI_CLK Change net name from FDATAIN to EC_FLASH_SPI_DIN Change net name from FDATAOUT to EC_FLASH_SPI_DO	X01C
12	37, 42	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 37	Change net name from VAUX_EN to AUX_EN	X01C
13	38, 40	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 38	Change net name from EXPR_CPPE# to CPPE#	X01C
14	38	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 39	Change net name from IRRX to CIRRX	X01C
15	22, 26	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 68, 78, 80, 82, 84	Rename ICH_AC_SDIN0 to ICH_AZ_CODEC_SDIN0 Rename AUDIO_AC_BITCLK to ICH_AZ_CODEC_BITCLK Rename ICH_RST_AUDIO# to ICH_AZ_CODEC_RST# Rename ICH_SYNC_AUDIO to ICH_AZ_CODEC_SYNC Rename ICH_SDOUT_AUDIO to ICH_AZ_CODEC_SDOUT	X01C
16	22, 29	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 69, 79, 81, 83, 85	Rename ICH_AC_SDIN1 to ICH_AZ_MDC_SDIN1 Rename MDC_AC_BITCLK to ICH_AZ_MDC_BITCLK Rename ICH_RST_MDC# to ICH_AZ_MDC_RST# Rename ICH_SYNC_MDC to ICH_AZ_MDC_SYNC Rename ICH_SDOUT_MDC to ICH_AZ_MDC_SDOUT	X01C

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
17	23, 25	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 88	Rename IDE_RST_MOD to IDERST_MOD	X01C
18	6, 23	CoE update	2005/08/25	Dell CoE	Change net name same as CoE, GG issue list item 89, 90	Rename CK_14M_ICH to CLK_ICH_14M Rename CK_48M_ICH to CLK_ICH_48M	X01C
19	34, 35	GG Issue fixed	2005/08/25	Soo Lee	Modify pin number assignment for NC1 to NC7. Do match the Ricoh reference schematic. GG issue list item 96.	Update U17 R5C843 library	X01C
20	10, 12	GG Issue fixed	2005/08/25	Mohammed	Add MCH CFG10, 12 strapping pins reserved pull down resistors. GG issue list item 104	Add R622, R624, depop them.	X01C
21	20	GG Issue fixed	2005/08/25	Mohammed	change the ESD diodes (of D3, D2, D1) protection powerr rail to +3VRUN. GG Issue list item 105	Change D3, D2, D1 pull up to +3VRUN from +3VSUS.	X01C
22	7	CoE update	2005/08/25	Dell CoE	M07-Yonah A01 Update Add the 2200 PF cap to the H_THERMDA and _THERMDC pins next to he CPU pins	Add C746 2200pf on CPU side, depop it.	X01C
23	38	Board ID Change	2005/08/25	Compal Great	Change Board ID to X01 for SST	Pop R782 (10Kohm), Depop R786 (10Kohm)	X01C
24	26	GG Issue fixed	2005/08/26	Ty	A 1000pF capacitor to ground should be added to SENSE_A and SENSE_B. These should be placed close to the 9220.	Add C2, C46 (1000pf 0402), depop it now.	X01D
25	29	BT module support	2005/08/29	Compal Great	G06 BT module pin 5: BT_RE_PAIR#, and other BT module pin 5: BT_RADIO_DIS#, Standard BT module will disable when install on G06 machines.	change R323 from pull down to pull up +BT_PWR, R838 (0ohm) depop, C934 (33pf) depop. enable standard BT on developer phase.	X01E
26	31	WUSB connector	2005/08/29	Mohammed	Change WUSB connector pin define, follow Mohammed forward Cypress recommend @08/26/2005 mail.	Change JWUSB pin2 to +3VSRC from +3VSUS , pin3 to NC from +3VRUN Delete C683 (0.1uF) for +3VRUN capacitor	X01E
27	36, 37	Debug port	2005/08/30	Mohammed	Debug signals routed to WLAN mCard connector, follow Mohammed forward Kris recommend @08/30/2005 mail.	1. Connect U48.70 to JMINI2.16, and add serial resistor as 0 ohm (R914) 2. Connect U48.71 to JMINI2.17, and add serial resistor as 0 ohm (R915) 3. Connect U48.82 to JMINI2.19, and add serial resistor as 0 ohm (R913) 4. Connect U48.81 to JMINI2.42, and add serial resistor as 0 ohm (R912)	X01F
28	41	LID circuit	2005/10/07	Compal Great	Due to LID_CL# and PRE_LID_CL# always high on Solenoid board, correct LID circuit	1. change JHING pin1 connection from D34 pin2 to D34 pin1 for LID_CL 2. change JHING pin2 connection from D35 pin2 to D35 pin1 for PRE_LID_CL	X02A
29	10	CPU latency circuit	2005/10/11	Mohammed	Change the population option for the CPU latency circuit change per Intel's update. GG issue list item 5	Populate R841, Depop R610	X02B
30	20	CRT	2005/10/11	Mohammed	Add the HSYNC and VSYNC buffers to the VGA page, the Graphics card will not have it populated. Copy the same circuit on ZRS schemaitcs (X02) for U4 and U5. GG issue list item 6	Add R916~R922, U54 and U55. Depop R916 and R922, others pop	X02B
31	32	LOM	2005/10/11	Mohammed	LOM ASIC (U6) symbol name should specify 'C1' revision instead of 'C0'	Update U6 symbol name as C1	X02B
32	33	LOM	2005/10/11	Mohammed	De-pop R78, R79, R87 & D9. These are not required for BCM5753. Once LED circuit is verified on X00, these components can be removed, GG issue list item 9	De-pop R78, R79, R87 & D9.	X02B
33	42	VGS rating of FET	2005/10/11	Shiguo	RUN_ENABLE and SUS_ON_ENABLE voltage may be high up to 20.5V, so PQ69 has VGS voltage stress issue, by Dell derating, these FET signal should be 80% of VGS rating, so a resistor divider should be applied to nodes at RUN_ENABLE and SUS_ON_ENABLE.	Add R923 470K ohm, pop it.	X02B

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
34	37	EC flash circuit	2005/10/11	BIOS	For flash EC code easily	following ZRS, add SW1, R924 and R925	X02B
35	43	RUNPWROK circuit	2005/10/12	Mohammed	fix a back drive on the RUNPWROK circuit	1. Change Q75 and Q77 from DTA114YKA to MMBT3906, keep no stuff 2. Change R867 and R869 from 20K to 4.7K ohm, keep no stuff 3. Change R866 from 10K to 200K ohm, keep no stuff 4. Change R868 from 10K to 100K ohm, keep no stuff	X02C
36	41	CIR	2005/10/12	Mohammed	change the power rail to the CIR Wake microcontroller from +3VSRC to +3VALW (Pin 15), GG issue list item14	Change JCIR pin15 from +3VSRC to +3VALW	X02C
37	29	BT	2005/10/12	Mohammed	Missing 10K Pulldown on BT, COEX2_WLAN_ACTIVE signal. GG issue list item13	Add R926 10k ohm pull down on JBT pin4	X02C
38	42	+12VRUN	2005/10/13	Compal Great	Original +12VP is transferred to +12RUN, Due to Solenoid board need +12ALW_SLND power rail, so change +12VP to transfer to +12ALW_SLND, then add PMOS for +12ALW_SLND to +12RUN by RUNPWROK or RUN_ON control signal to turn on +12VRUN	Add Q88, Q89, R927~R930, C963 and C964. R928 and R930 no stuff, others pop it	X02D
39	41	Solenoid	2005/10/13	Compal Great	For Dual voltage solenoid board	JSLND pin24, 26, 28 and 30 connect to +12VALW_SLND	X02D
40	22	Crystal circuit	2005/10/13	Richard	R900 should be between Y3 pin 4 and R680 pin2, GG issue list item35	move R900 between Y3 pin 4 and R680 pin2	X02D
41	22	ICH7	2005/10/13	Richard	add a 0.1uF No Stuff cap to THRMTRIP_ICH# at R689 pin 1, GG issue list item36	Add C965 as 0.1uF no stuff	X02D
42	23	ICH7	2005/10/13	Richard	add a 10 ohm No Stuff pulldown to CLKRUN# at R707 pin 2, GG issue list item37	Add R931 as 10 ohm no stuff	X02D
43	23,31	USB OC circuit	2005/10/13	Richard	USB OC pins at U29 and U34 should be ganged, since the outputs are ganged. i.e. USB_OC4# and USB_OC5# can be ganged and named USB_OC4_5#, GG issue list item38	pin 5 and pin 8 are ganged on U29 and U34, and change net name to USB_OC4_5# and USB_OC6_7#	X02D
44	23	Solve MS Duo Adaptor circuit	2005/10/13	C. Massery	Q62 and Q63 need by pass resistor. As it is right now, circuit cannot be set to NoPop if the circuit is not needed, GG issue list item39	Add R932 and R933 as 0 ohm no stuff	X02D
45	34	48MHz	2005/10/13	C. Massery	Need AC termination for CK_48M clock input to R5C843, GG issue list item40	Add R934 and C966 no stuff	X02D
46	35	Power switch	2005/10/13	C. Massery	CardBus power switch input should be 5VRUN and not 5VSUS. Wake states are not supported so SUS plane is not needed. GG issue list item42	Change U10 pin 13 and 15 from +5VSUS to +5VRUN	X02D
47	7	ITP	2005/10/13	Mohammed	ITP termination need value changes: R577=51 Ohm, R581=39 Ohm, R582=27 Ohm per CoE input, GG issue list item44	1. Change R577 form 54.9 to 51 ohm 2. Change R581 from 39.2 to 39 ohm 3. Change R582 from 27.4 to 27 ohm	X02D
48	20	S-VEDIO	2005/10/13	Mohammed	Need to add the caps (No pop) across L9, L8, L7, 27PF caps ,nopop per CoE ref Schematics. GG issue list item46	Add C967~C969 as 27pF, no stuff	X02D
49	22	ICH7	2005/10/13	Mohammed	Need to add 0 Om resistor pulldown to GND on iCH_INVRMEN per CoE ref schematics, please make it no pop. GG issue list item48	Add R935 as 0 ohm, no stuff	X02D
50	37	Flash BIOS	2005/10/13	Mohammed	Need to add a switch that will short KSI5 and KSo9 to simulate the END Key Press for flash recovery. We need to place the switch on the bottom side by the memory. Need ot be exposed through the door. GG issue list item50	Add SW2	X02D

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
51	31	WUSB	2005/10/13	Mohammed	Follow Dell_Greenland_WUSB_Module_NoHub_SCH_V01.pdf by Mohammed's mail 2005/10/12 to modify JWUSB pin define	1. JWUSB pin4 connect to +5VSUS 2. JWUSB pin6 and pin7 change to NC 3. JWUSB pin8 connect to ECE_USBP3- 4. JWUSB pin8 connect to ECE_USBP3+	X02D
52	31,29	BT	2005/10/13	Mohammed	For the BT_RE_PAIR# signal We need to add a switch on the bottom side of the board, near the memory to short the signal to. GND. Please make sure to have a series zero Ohm resistor between the BT_RE_PAIR# signal and the GPIO on the EC. We can have the zero Ohm depoped. Also for PT2 we will have an external switch for repairing the BT module. We will need to send the signal BT_RE_PAIR# JAUDIO (maybe pin 20 has to chage from GND to BT_RE_PAIR#). We need to disucss the detiails.	1. Add R936 as 0 ohm, no stuff 2. Add SW1 for the BT_RE_PAIR# signal	X02D
53	31	SATA LED	2005/10/13	Great	Blue LED issue	1. DEL Q44 2. Add Q92, Q93 and R938	X02D
54	39	Power BTN LED Instant On LED WLAN LED	2005/10/13	Great	Blue LED issue	1. Q81 and Q83 change from 2N3904 to 2N7002 2. R887 and R888 pin1 change from +3VALW to +5VALW 3. DEL Q73 4. Add Q90, Q91 and R937	X02D
55	35	1394 chock	2005/10/13	C. Massery	Check impedance of 1394 choke. Impedance should be 110ohm. Reference schematic recommended part is DLW21HN121SQ2	1. DEL L29 2. follow ZRS, Add L76 and L77 as DLW21SN121SQ2L	X02D
56	35	MS DUO adapter	2005/10/13	C. Massery	Follow COE to modify MS Duo Short counter measure circuit	1. DEL Q55 and Q54 2. Add Q94, Q95, D36, R939~R941 3. Change net name of J4IN1 pin 18 from XDCD# to XD_SW# 4. Change net name of J4IN1 pin 28 from MSCD#_XDCD1# to MS_INS#	X02D
57	20	CRT	2005/10/14	Mohammed	Follow COE, GG issue list item45	Change D5 from RB751 to RB500V-40	X02E
58	7	CPU	2005/10/14	Mohammed	Follow COE yonah_m07_a02	Change R901 from 51 to 1K ohm, no stuff	X02E
59	34	4 IN one card	2005/10/14	Mohammed	ME change 4in1 card connector to 5in1 connector	Del J4IN1, and add J5IN1	X02E
60	20	TV, CRT	2005/10/15	Mohammed	Follow COE	Change R7~9, R30, R32 and R33 from 75 to 150 ohm, pop it	X02F
61	19	VGA	2005/10/15	Mohammed	Follow ZRS	Add R942 as 0 ohm, no stuff	X02F
62	42	Power sequence	2005/10/15	Mohammed	GG issue list item21	R38, R259 and R923 change to 365K ohm	X02F
63	20	CRT	2005/10/15	Mohammed	GG issue list item65	R921 and R919 change to 365K ohm	X02F
64	37	MEC5004	2005/10/15	Mohammed	Modify by Mohammed's mail 10/15/2005, mail title is Greenland issues list updates	Add R943 as 0 ohm, pop it	X02F
65	37	MEC5004	2005/10/15	Mohammed	Modify by Mohammed's mail 10/15/2005, mail title is Greenland issues list updates	1. C872 change from 4.7u to 22uF 2. Add Q96(2N7002), Q97(2N3906), R945 and R947 as 10K, R944 and R946 as 100K, C971 as 4.7uF, D37 as RB751, pop it 3. R946 as 22 ohm, pop it	X02F

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
66	39	Wireless LED	2005/11/28	Willis	LED_WLAN_OUT# signal will be NC when JMIN1 and 2 have been not installed any mini card. Then Wireless LED can not work normally.	Add Pull up resistor (R949 = 10K) to +3VRUN	X03A
67	22	SATA LED	2005/11/28	Willis	SATALED# of pin AF18 of U42 need pull up to +3VRUN. Please refer to Intel ICH7M, doc no. 17837	Change R845 from de-pop to stuff it	X03A
68	28	Audio caps	2005/11/28	Mohammed	total recommendations to move to X5R caps for improved audio performance on ALL M07 designs, follow Mohammed's mail on 11/17	1. Change C598, C207, C240, C219 and C574 form 1uF Y5V to X5R 2. Change C206 from 10uF Y5V to X7R 3. C205 and C233 from 0.1uF Y5V to X5R 4. Change C606, C604, C278 and C593 from 1U_0805_25V_6K to 1U_0603_10V_6K	X03A
69	41	CIR	2005/11/28	Willis	Due to CIR_WAKE_EN# will be pull low to 0.6V by U7 of CIR board when system in S5 state of battery mode only.This will cause ALWON active then turn on +5VALW and +3VALW.	Add Q98 to isolate U48 pin119 of M/B to U7 pin2 of CIR board in S5 state of battery mode only	X03A
70	09	CPU caps	2005/11/28	Dell	total recommendations to move to X5R caps for improved audio performance on ALL M07 designs, follow Mohammed's mail on 11/17	Change C689~C720 form 22uF X5R to X6S	X03A
71	41	BADGE LED	2005/11/28	Willis	Badge LED need +5VALW power plane	Change JCIR pin16 from +3VRUN to +5VALW, the rating current of this connector is 1A per pin.	X03A
72	29, 31, 38	BT	2005/12/01	Willis	Original connection sequence for BT_RE_PAIR#, that BT re-pair function of software and hardware can not be separated by R838.	1. Change connection sequence from U51 --> SW3 pin 1&2 and R936 pin2 --> R838 --> JBT pin5 to U51 --> R838 --> SW3 pin 1&2 and JAUDIO pin20 -->JBT pin5 2. Del R936 Note. BT_RE_PAIR_R# will short to GND when use Rev. 0.3 AUDIO & USB BD	X03A
73	43	Power sequence	2005/12/01	SS	Following M07 System Power Sequence rev. A06	1. Change R868 from 100K to 200K ohm, to minimize the leakage current 2. Add R950=200K ohm and C972=470pF for delay +3VRUN, to fix IMVP_PWRGD glitch issue	X03A
74	36	Mini card	2005/12/01	B. McFarland	Following M07 Minicard rev. A07, to Add Intel WoWLAN Support Circuit	Add pop components D38, and un-pop componet R951.	X03A
75	42	HDD and ODD power	2005/12/01	R. Tonry	Following M07 ICH7 rev. A07	1. Change R898 and R899 from 10K to 100K, and pop it.	X03A
76	37	EC	2005/12/01	Dell	Following M07 EC Inspiron Rev.A06	Change R946 from 22 to 0 ohm	X03A
77	37	Flash recovery circuit	2005/12/01	Willis	Simplify flash recovery circuit	1. remove R760, R763, R924 and R925 2. Add R952, R953 and R954 = 1K ohm, depop R952 and R953, pop R954	X03A
78	41	LID SW	2005/12/04	Willis	Reduce component	Remove D34 and JHING pin1 direct connect to LID_CL# signal	X03B
79	41	USB Camera	2005/12/04	Willis	USB Camera use +5VRUN power plane	Change JCIR pin16 from +3VRUN to +5VRUN, the rating current of this connector is 1A per pin.	X03B
80	41	BADGE LED	2005/12/04	Willis	Change Badge LED circuit connection from CIR BD to Solenoid BD	1. Change JCIR pin19 from BREATH_LED_BADGE signal to NC 2. Change JSLND pin25 from NC to +5VALW pin27 from NC to BREATH_LED_BADGE signal pin29 from NC to GND	X03B

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Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
81	5, 37	SMBUS of Media BTN	2005/12/04	Compal	The Media BTN BD use +5VRUN power source, but its SMBUS has pull up to +5VALW. This will cause back drive issue in AC mode.	Change R754 and R753 pin 1 from +5VALW to +5VRUN	X03B
82	42	+3VRUN power	2005/12/04	SS	Following M07 System Power Sequence rev. A06	Add D39 between R950 pin1 and Q38 pin3	X03B
83	9	CPU Caps	2005/12/08	Shiguo	use Dell recommended cost reduction CAP combination for CPU decoupling: 4 Bulk CAPs (6mohm at 330uF)+ 32 10uF CerCAPs	1. Change C689~C720 form 22uF/X6S to 10uF/X6S 2. Change C721~C726 form 330uF/7m ohm to 330uF/6m ohm 3. Depop C721 and C725	X03B
84	23	ICH	2005/12/08	DELL	Added 0.1uF cap as a short-term solution for IMVP_PWRGD glitch issue. Follow ZRS.	Added C973	X03B
85	36	Mini card	2005/12/08	Mohammed	Follow item 15 of GGG list by Mohammed's mail on 12/08/2005	depop R807 and R806.	X03B
86	29	Subwoofer	2005/12/13	Mohammed	Greenland Filter circuit for Sub amp change by Mohammed's mail on 12/09/2005	1. Remove C320 2. Change U27 pin12 input circuit	X03B
87	31,35	USB, 1394	2005/12/13	DELL	Removing the common mode chocks for the USB ports 6,7 and 1394 port, item 3 of GG list	Remove EMI component of USB port6 & 7 and 1394 1. USB port6 &7 --- L55, L28, R521, R520, R295 and R292 2. 1394 --- L29, R303, R305, R307 and R308	X03B
88	23,38, 42	HDD,MOD enable circuit	2005/12/14	Mohammed	This is to address a problem with the drives spinning up during a SNIFFER functionality, as well as a power glitch during a system warm boot. The ICH and SIO schematics will be updated and released tomorrow on CEC. Please refer to the attachment for the time being. follow Mohammed's mail on 12/9	1. Move HDDC_EN# to ECE5011 pin 106 2. Move MODC_EN# to ECE5011 pin 107 3. Rename ICH pin R4 to RSVD_HDDC_EN#. This pin should be No Connected. 4. Rename ICH pin E22 to RSVD_MODC_EN#. This pin should be No Connected. 5. R898 and R899 change from 100k to 10k	X03B
89	37,39	Media BTN	2005/12/14	Mohammed	Change Media BTN power source from +5VRUN to +5VSUS for remove Media BTN self test when system from S3 to S0 state	1. JMEDIA pin 18 and 19 change from +5VRUN to +5VSUS 2. R753 and R754 change pull up from +5VRUN to +5VSUS	X03B
90	41,49	Solenoid	2005/12/14	Compal	Fix +12V only have 8ms pulse width issue when use Solenoid DV BD(LS-273EP)	Add +12V_PHASE to connect JSLND pin23 and PL11 pin1	X03B
91	31	Wireless USB	2005/12/14	Mohammed	Change JWUSB from 10 pin to 8 pin, item2 of GG list	1. Change JWUSB from 10 pin to 8 pin 2. Add Q99 and R955 3. Remove C684	X03B
92	39	POWER SW	2005/12/14	Mohammed	Depop D25, because it have leakage issue	Depop D25	X03B
93	6,22, 34,38	Crystal	2005/12/14	Compal	Change Crystal circuit base on EA result	1. Change C890 form 22p to 15pF , C891 from 22p to 18pF 2. Change C809 and C810 from 12p to 1pF 3. Change R209 from 0 to 390 ohm 4. Change C530 and C531 from 12p to 18pF	X03B
94	43	Power Sequence	2005/12/14	Mohammed	Change Q79 to a 2N7002 FET per M07 design guide recommendation	Change Q79 from 2N3904 to 2N7002	X03B
95	16	FAN	2005/12/15	Mohammed	Follow M07_GUARDIANII_X05_081205, for fix noise issue	R551 and R553 change 120K, R552 change to 78.7K, and C679 change to .22uF	X03C
96	17	DDR	2005/12/15	Cody	Follow M07_Memory_X03_072105	Remove R911	X03C

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97	37	MEC5004	2005/12/15	Mohammed	Please move the PRE_LID_CL# sigfnal from GPIO46 to GPIO45 pin 55 (currenlty it is RUN_ON_D). Issue with the boot block. Item 38 of GG list	Move the PRE_LID_CL# signal from GPIO46 to GPIO45 pin 55 and add R957 to cascade them	X03C
98	44	Motor	2005/12/15	Compal	Change motor current limit from 300mA to 650mA, base on motor spec	Change R55 from 0.68 ohm/2512 size to 0.4 ohm/1206 size	X03C
99	38	BID	2005/12/15	Compal	Change board ID to 0010 for PT2	Change R786 and R783 from non-pop to pop, R782 and R787 change pop to non-pop	X03C
100	39,41	All LED	2005/12/16	Compal	For fix the light of LED is too bright issue	1. Change R5, R343 and R853 from 150 to 330 ohm 2. Change R342 from 100 to 330 ohm	X03D
101	41	HDD,MOD enable circuit	2005/12/19	Mohammed	Change pull up from +3VRUN to +3VALW, item 36 of GG list	1. Change pull up of R898 and R899 pin1 from +3VRUN to +3VALW. 2. Change Q6 and Q41 from PDTC144 to 2N7002 3. Change R898 and R899 from 10K to 100K	X03E
102	39	Media BTN	2005/12/19	Mohammed	Add an option to Jumper either +5VRUN or +5VSUS rails to the Media BTN for wake from ODD buttons press.	1. Add JUMP6 and JUMP7 for power source option 2. Change pull up of R753 and R754 from +5VSUS to +5V_MEDIA	X03E
103	26~30	Audio	2005/12/19	Mohammed	Add analog ground	Add AGND symbol for connect to analog ground	X03E
104	23	SPI_CS#	2005/12/19	Mohammed	Add 47 ohm Series resistor to SPI_CS# as ICH pin P6 (close to ICH). Populate the resistor. Item 39 og GG list	Add R957 as 47 ohm on SPI_CS#	X03E
105	37	SPI_CS#	2005/12/19	Mohammed	add 0 ohm series resistor to SPI_CS# at SIO pin 4. Populate the resistor. Item 40 of GG list	Add R958 as 0 ohm on SPI_CS#	X03E
106	31	WUSB	2005/12/19	Mohammed	Change +5VRUN to +5VSUS. JWUSB pin 8 connect to +3VSRC for WUSB wake up function	1. Change JWUSB pin 7 from +5VRUN to +5VSUS 2. Change JWUSB pin 8 from Gnd to +3VSRC	X03E
107	39	Power/Instant LED	2005/12/19	Compal	remove serial resistor on MB side, since POWER BTN BD already has it.	Remove R5 and R343	X03E
108	26	Audio	2005/12/19	Compal	Add Jumper to short AGND and GND for EMI requriement	Add JUMP8~12	X03E
109	28	SPK	2005/12/19	Compal	Due to CIR BD has Speaker connector, remove ESD and Caps on MB side, add them on CIR BD	Remove D18~D21and C665~C668	X03E
110	28	SPK	2005/12/20	Compal	1. Due to CIR BD has no +12VRUN power rail to use for ESD diode, so keep ESD and EMI circuit on MB 2. Change JSPK to 2A/pin, currently is 1A/pin	1. Add D18~D21and C665~C668 2. Change JSPK from MOLEX_87438-0443_4P to MOLEX_53325-0460	X03F
111	38	ODD	2005/12/21	Compal	Please add a 100PF cap from ODD_EJECT_REC# to GND due ot a glitch on the signal found during EA. Item 41 of GG list	Add C974	X03F
112	38,22	Crystal	2005/12/21	Compal	Change Crystal circuit base on EA result	1. Change Y2 from 24MHz/20pf to 24MHz/12pf 2. Change Y3 from 32.768kHz/12.5pf to 32.768kHz/6pf	X03F
113	42	Power sequence	2005/12/21	Compal	+1.8VSUS and +12VRUN discharge too slowly issue base on EA result	1. Pop R196 and Q27, follow ZRS 2. Add R960 and Q100 for +12VRUN discharge	X03F
114	37	MEC5004	2005/12/23	Compal	Depop SMSC work around proposed on EMC5004 revision D chip	1. Depop R944~R948, C971, Q96, Q97 and D37 2. Change C872 from 22uF to 4.7uF	X03G
115	20	Headphone/MIC	2005/12/23	Compal	Separate audio ground from power ground on AUDIO&USB board (LS-2736P) for fix headphone noise in battery mode only	Change net name of JAUDIO pin14 from GND to AGND	X03G
116	All	Subsystem ID	2005/12/29	DELL	Add subsystem ID	Add subsystem ID	X03G

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1	P45 P46 P47 P48 P49 P50 P51 P52	+DCIN Battery Conn/KB_CHG +1.5VSUSP /+VCCP_1P05VP +3.3V/ +5V 12V +1.8VSUSP/ +0.9V_DDR +VCORE Charger_new	0715/2005	Dell	Power source rename.	Power source rename to +PWR_SRC from PWR_SRC.	X00
2	P51	+VCORE	0727/2005	Dell	Reserve AL- Caps on CPU PWR_SRC for buzzing noise.	Add PC231 220U_25V	X00
3	P51	+VCORE	0729/2005	Dell	Dell request to add 499ohm 1% series resistor at the CPU VR ADP3207.	Add PR273 499_0402_1%	X00
4	P51	+VCORE	0729/2005	Dell	The Original High side MOSFETs are error.	The manufacture PN of PQ53,PQ57.PQ61 change to FDS6294 from FDS6982.	X00
5	P51	+VCORE	0802/2005	Compal	For support three or two phases options.	Rename PU11 PIN 24 from ADP3207_VCC change to ADP3207_PWM3.	X00
6	P48	+3.3V/5V	0826/2005	Dell	Increased +3.3VSRC rating current	1. PQ9 change to FDS8880 2. PR59 change to 66.5K. 3. PL10 change to 5.2uH_HMU1362_5R2_11A	X01
7	P47	+1.5VRUN	0826/2005	Dell	Increased +1.5VRUN rating current	1. PQ68 change to FDS6670A 2. PL6 change to 3.8uH SIL1045R-3R8F8A 3. PR33 change to 76.8K 4. PC25 change to 330uF@9m ohm_2.5V 5. PR40 change to 100K	X01
8	P47	+1.05V	0826/2005	Dell	Reduced +1.05V rating current	1. PQ6 change to FDS6670A 2. PL7 change to SIL104-1R5PF 3. PR32 change to 80.6K 4. PC27 change to 330uF@9mohm_2.5V 5. De-pop PC28 6. PQ4 change to SI4800	X01
9	P48	+3.3V/5V	0826/2005	Dell	Redesign 5VSRS OCP setting	1. PR58 change to 158K 2. Net name rename to AUX_EN from VAUX_EN	X01
10	P48	+3.3V/5V	0831/2005	Dell	Redesign 3.3VSUS OCP setting	1. PQ11 change to FD6676AS 2. PR59 change to 140k 3. Add PC233 a 330uF_6.3V_25mohm CAP paralleled at PC50	
12	P48	+3.3V/5V	0831/2005	Dell	Redesign 5VSUS OCP setting	PR58 change to 174K	
13	P46	Battery Conn/KB_CHG	0929/2005	Compal	Support JKBDK Pin 2 current rating 1A	JKBDK Pin 7 change to +5V_Pre-charge from GND for support current rating 1A	
14	P48	+3.3V/5V	1004/2005	Dell	Improve +3VALW droop issue	Add an an external FET PQ69.	
15	P48	+3.3V/5V	1007/2005	Compal	Reserve optional path of PQ69 Pin gate which connect to SUS_ON ENABLE.	Add PR276 and Nopop PR277	
16	P51	+VCORE	1011/2005	Dell	Redesign load line adjustment.	Change PR127 PR128 PR257 from 93.1K ohm to 113K ohm.	
17	P51	+VCORE	1011/2005	Dell	Redesign input noise filter.	Move PC231 from PL14's pin 2 end to pin 1 end.	
18	P48	+3.3V/5V	1011/2005	Dell	Delate a filter	Unpopulate PR43 and PC41.	
19	P48	+3.3V/5V	1011/2005	Dell	Redesign for Pin_Pro# should be ketp at Low voltage to enable OVP/UVP and discharge function.	Unpop PR60.	

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20	P48	+3.3V/5V	1011/2005	Dell	Follow CoE schematics.	Reserve a path and unpop PR278 0 ohm resister between PU9 pin4 and SUS_ON.	X02
21	P51	+VCORE	1011/2005	Dell	Follow Napa Platform.	Unpop PR241 and pop PR233.	X02
22	P51	+VCORE	1011/2005	Dell	Delete unuseful function.	Unpop PQ42 PR101 PH1.	X02
23	P47 P48 P49 P50 P51	+1.5VSUSP /+VCCP_1P05VP +3.3V/ +5V 12V +1.8VSUSP/ +0.9V_DDR +VCORE	1011/2005	Dell	Follow CoE grounded form.	Follow CoE grounded symbol.	X02
24	P47	+1.05V	1011/2005	Dell	Redesign OCP setting.	Change PR32 from 80.6K to 43K.	X02
25	P47 P48 P50	+1.5VSUSP /+VCCP_1P05VP +3.3/ +5V +1.8VSUSP/ +0.9_DDR	1011/2005	Dell	Redesign EMI filter rating current.	Change PL5 PL8 to rating current 9A. Change jump PJP2 to PL12(rating current 9A).	X02
26	P51	+VCORE	1013/2005	Dell	Redesign L/S Vgs miller CAP voltage.	Change PR131 PR132 PR247 to 2.2 ohm.	X02
27	P51	+VCORE	1013/2005	Dell	Remove un-needed device.	Del PD41	X02
28	P52	Charger	1013/2005	Dell	Remove un-needed device.	Del PR146 PR147 PR160 PR242.	X02
29	P52	Charger	1013/2005	Dell	Follow CoE ref schematics.	Add PR279 100 ohm ,PC234 0.01U, PC235 0.01U.	X02
30	P52	Charger	1013/2005	Dell	Rename net name.	Change PQ28 gate connect to +DC_IN_SS.	X02
31	P52	Charger	1013/2005	Dell	Follow CoE ref Schematics.	Add PU16 PQ66 PC224 PC225 PC226 PC227 PC228 PC229 PR266 PR267 PR268 PR269 PR281 PR271 PR272.	X02
32	P52	Charger	1015/2005	Dell	Follow CoE ref Rev A06 Schematics. * PT build MEMO need add item 32.*	1. Add PR283 0 ohm ,between +DC_IN_SS with PU8 DCIN_Pin. 2. Del PC235, PR279. 3. Pop PR280 100 ohm 0402 4. Short PU8 FBSA_Pin with PBSB_Pin 5. Change DC_IN net name to +DC_IN 6. Add PR280 0 ohm ,btween +VCHGR with PU8 Pin 15.	X02
33	P52	Charger	1121/2005	Dell	Follow CoE ref Rev A09 Schematics.	1. Move and unpop PC234 to connect with PU8 FBSA and FBSB pins. 2. Add PC235 between PQ31 gate and switching node. 3. Change PR268 from 11.8K to 13K ohm. 4. Change PR269 from 12.1K to 10K ohm. 5. Change PR281 from 154K to 66.5K ohm. 6. Change PR270 from unpopulated to populated. 7. Correct PR270 pin 1 connect with PU16 pin3.	X03
34	P45 P46 P47 P48 P50 P51 P52	+DCIN Battery Conn/KB_CHG +1.5VSUSP /+VCCP_1P05VP +3.3V/ +5V +1.8VSUSP/ +0.9V_DDR +VCORE Charger_new	1121/2005	Compal	Take the daul layout to enter second source of bead.	Change PL2,PL3,PL4,PL5,PL8,PL12,PL14,PL17,PL18 PCB Footpoint from L_1812 to L_1812-S.	X03
35	P45,P46 P49,P51 P52	MITSUBISHI Cap 10u 25V X7R EOL	1129/2005	Compal	MITSUBISHI Cap 10u 25V X7R EOL	Change PC113, PC116, PC117, PC118, PC127, PC128, PC129, PC140, PC166, PC202, PC203, PC204, PC208, PC209, PC210, PC6 to SAMSUNG 10u 25V M X5R 1210 H2.5	X03

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36	P52	Charger	1201/2005	Dell	Follow CoE ref Rev A10 Schematics.	Add PD41, PR284	X03
37	P46	+5V_Pre-charge	1206/2005	Dell	to improve control loop stability	Add PC236, PR286. Corrected PC169 to 0.022uf	X03
38	P50	+1.8V	1206/2005	Dell	Add a PR285 0ohm resistor between the pin 5 and the outpu for 2nd SC480 application	Add PR285	X03
39	P49 P51 P52	+12V Vcore Charger	1207/2005	Dell	Proposed solutions to accoustic noise issues: add dual pads for all input caps (ceramics and POSCAPS) on PWR_SRC.	Add Vcore POSCAP on input (Unpop) :PC238, PC239, PC240, PC241, PC242, PC243. Add Charger POSCAP on input (Unpop): PC245, PC246, PC247 Add +12VP POSCAP on input (Unpop) : PC237	X03
40	P51	Vcore	1207/2005	Dell	to improve Vcore VR slew rate	PC189 from 680pf to 390pf	X03
41	P46	+5V_Pre-charge	1207/2005	Compal	to improve +5V+Pre-charger leakage when battery only.	Add PQ70 2N7002.	X03
42	P45	+DCIN	1215/2005	Dell	Dell require	Add PR287 10K_0603 at PQ3 pin5 to GND	X03
43	P46	+5V_Pre-charge	1215/2005	Dell	Improve +5V_Pre-charge	1.Add PR288 100K , PR289 100K, PR290 127K. 2.Add PD42 PD43 3.Add PQ70 4.Add PC252	X03
44	P52	Charger	1219/2005	Dell	Dell require	1.Change PR281 from 66.5K to 68K 2.Add PR291 100 ohm	X03
45	P51	Vcore	1227/2005	Dell	Dell EMI require.	Add PC253 and reserve PC254 PC255 PC256 PC257 PC258 PC259 .	X03