

# Greenland Napa

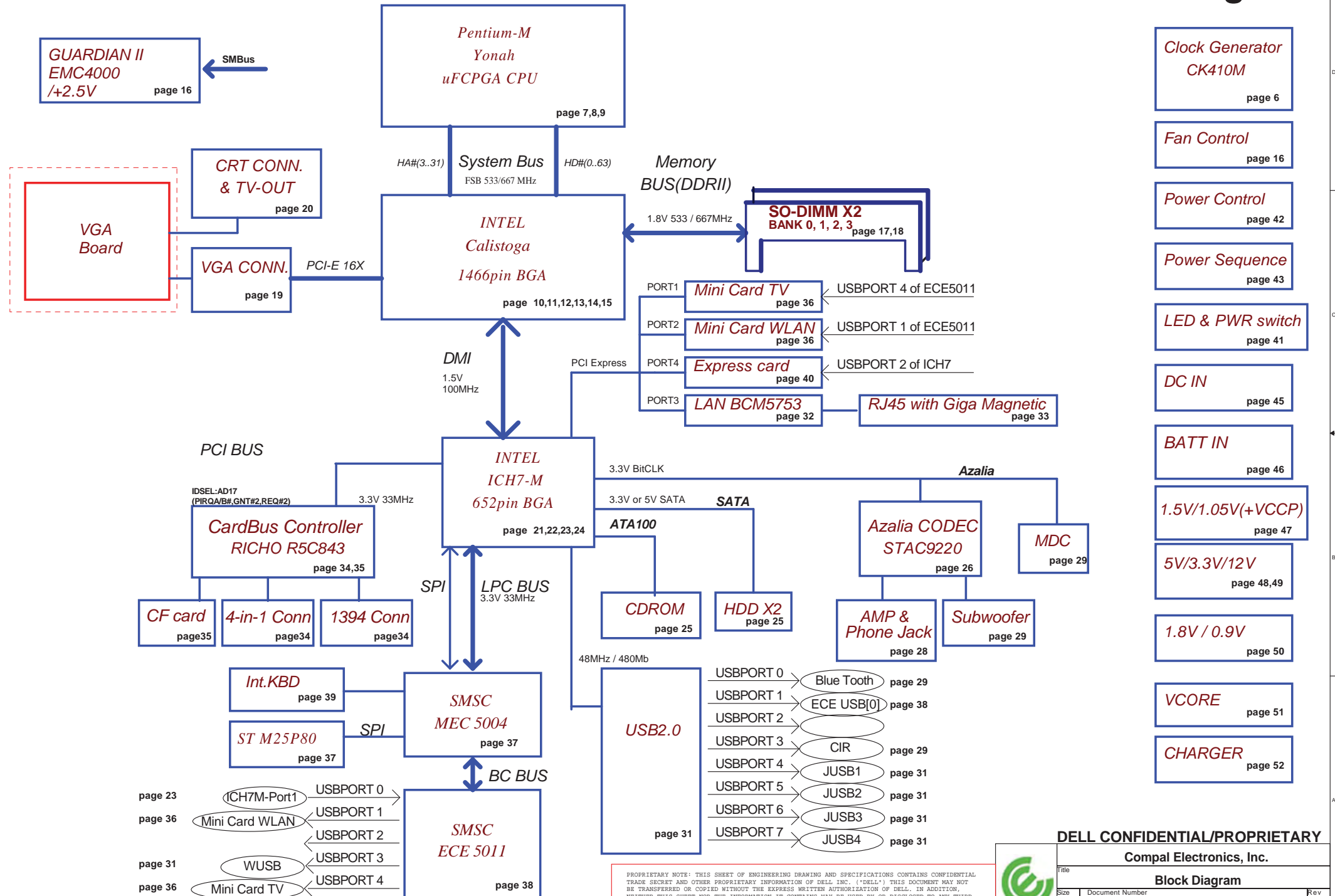
REV : X03G  
12/28/2005

@ : Nopop Component

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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

### 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	

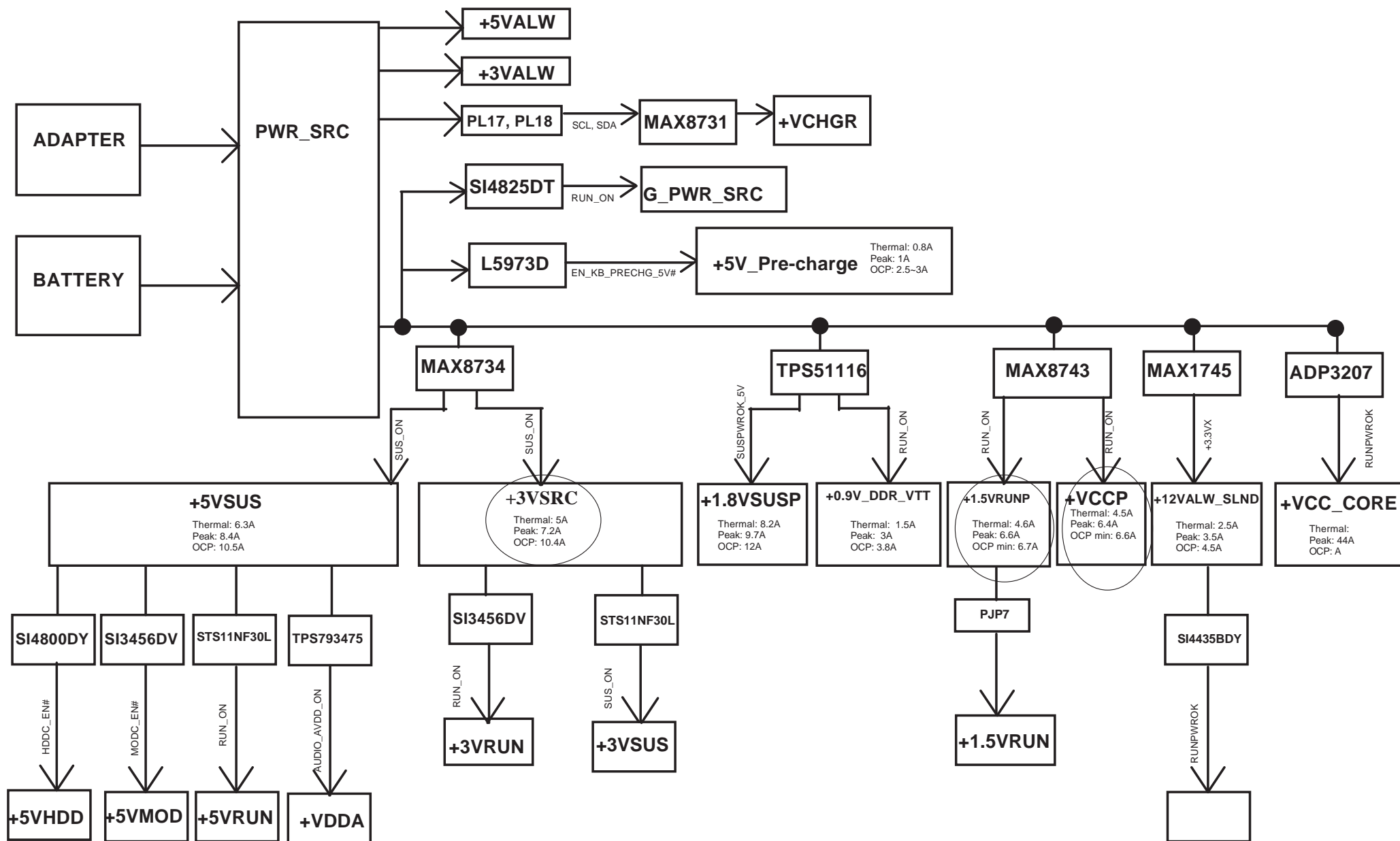
PCI EXPRESS	DESTINATION
Lane 1	
Lane 2	MINI CARD WLAN
Lane 3	GIGA LAN
Lane 4	EXPRESS CARD

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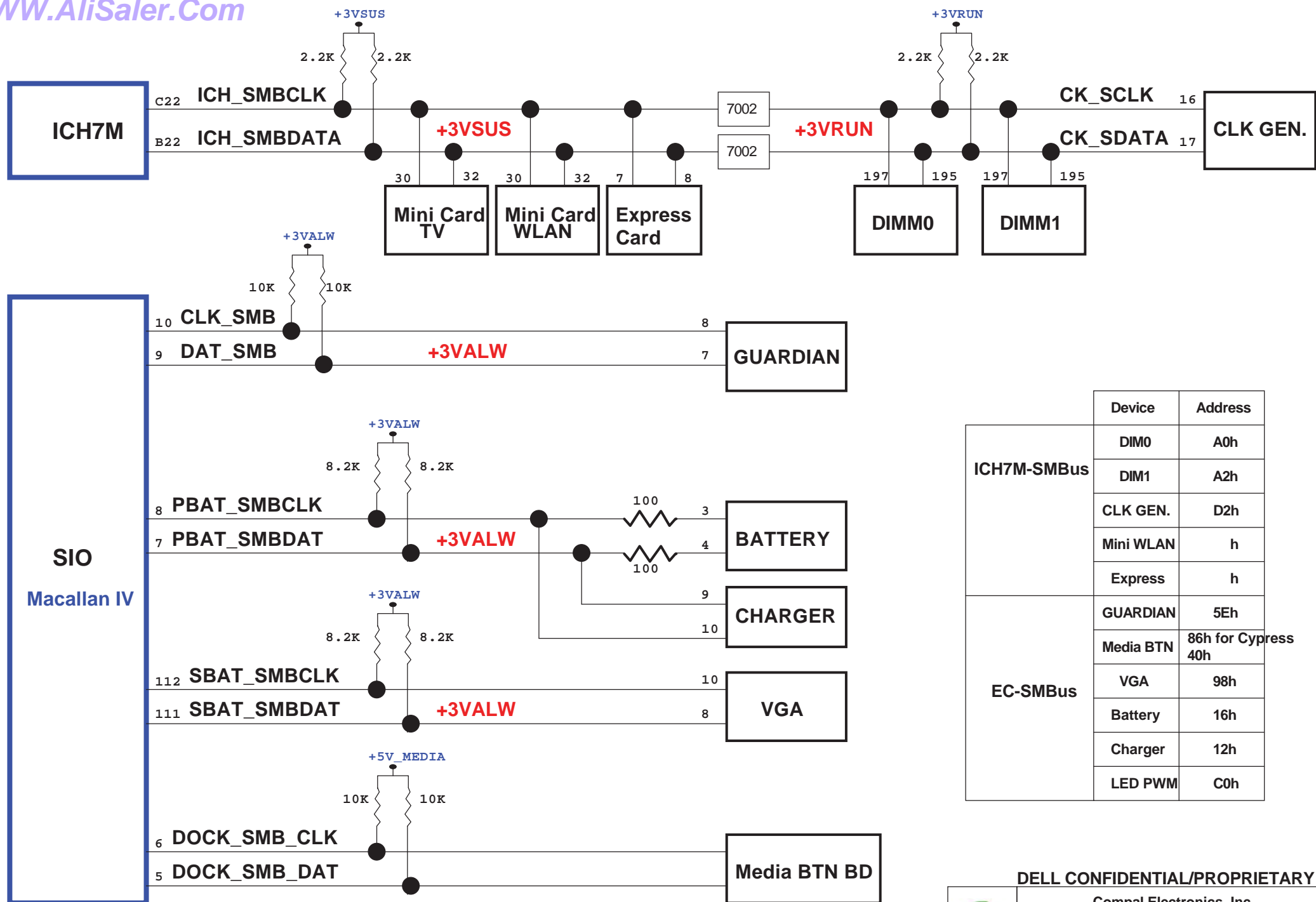
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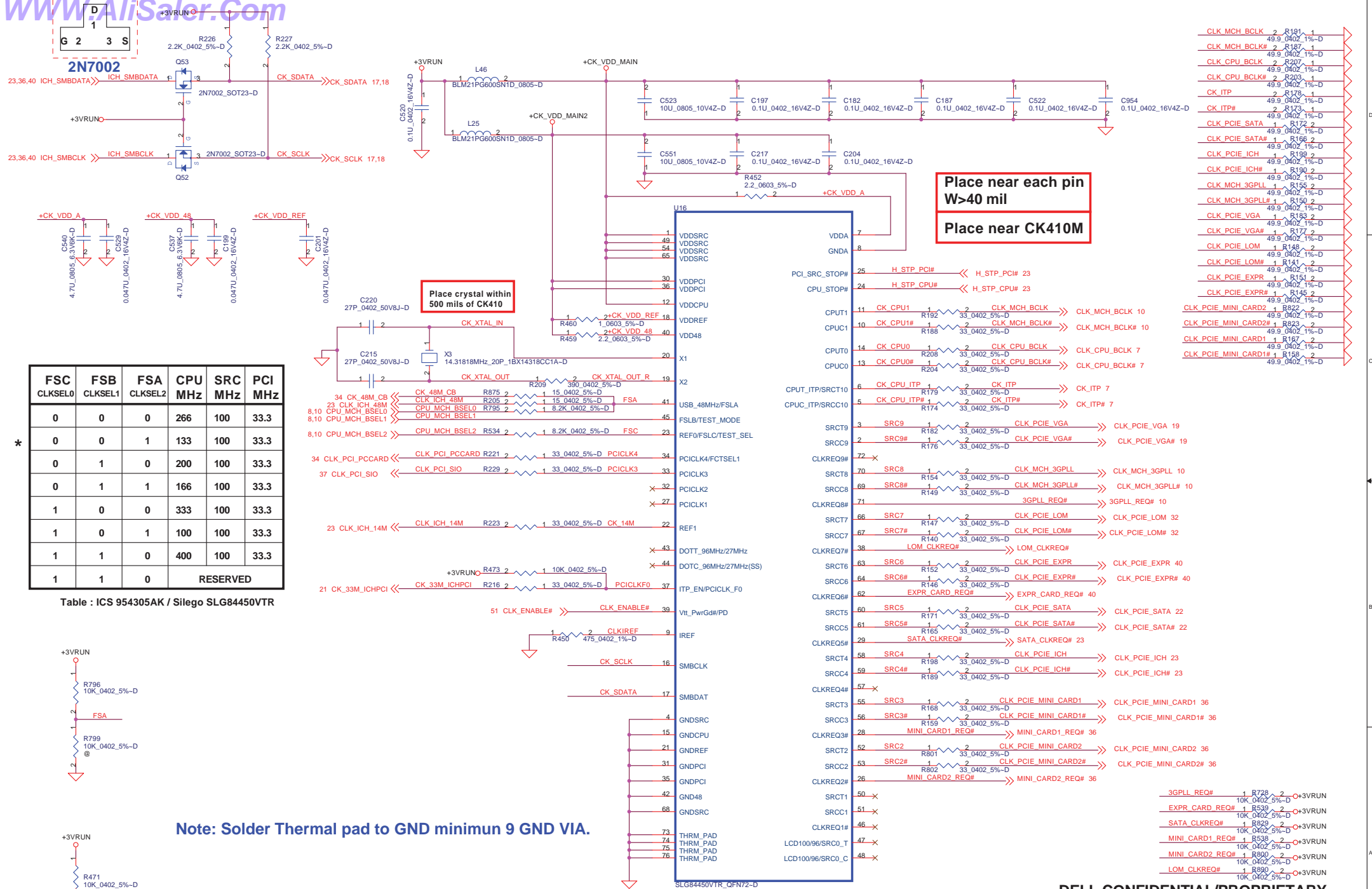
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Power Rail				
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	Device	Address
ICH7M-SMBus	DIM0	A0h
	DIM1	A2h
	CLK GEN.	D2h
	Mini WLAN	h
	Express	h
EC-SMBus	GUARDIAN	5Eh
	Media BTN	86h for Cypress 40h
	VGA	98h
	Battery	16h
	Charger	12h
	LED PWM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

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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

**Note: Solder Thermal pad to GND minimun 9 GND VIA.**

PCICLK4 = FCTSEL1				
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

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## Clock Generator

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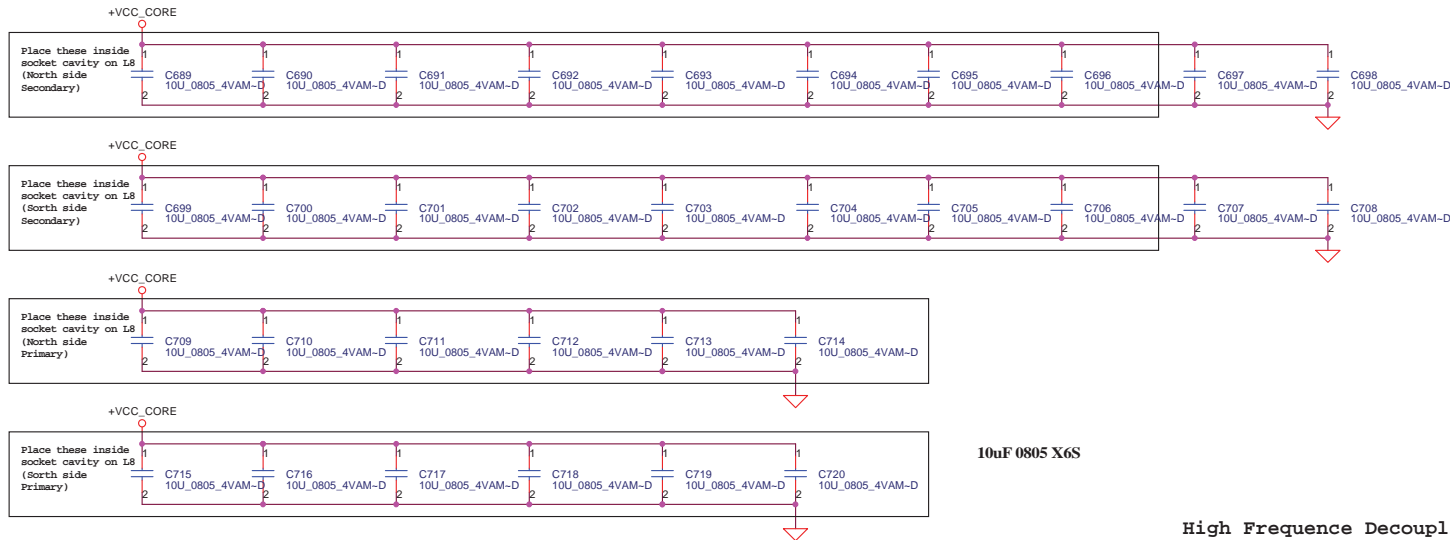
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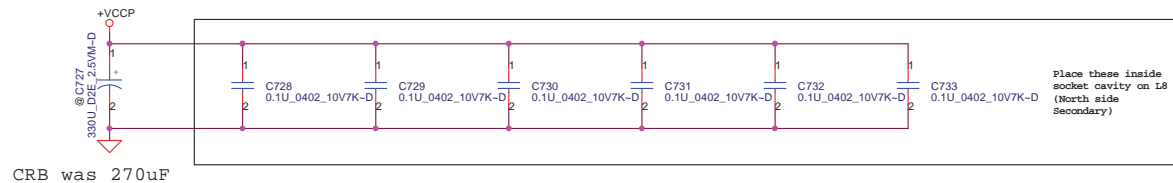
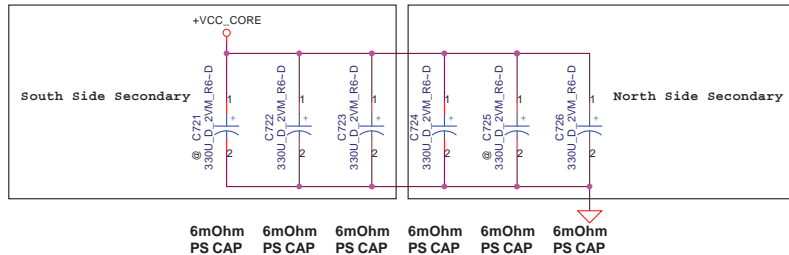


CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
133	0	0	1
166	0	1	1





Near VCORE regulator.



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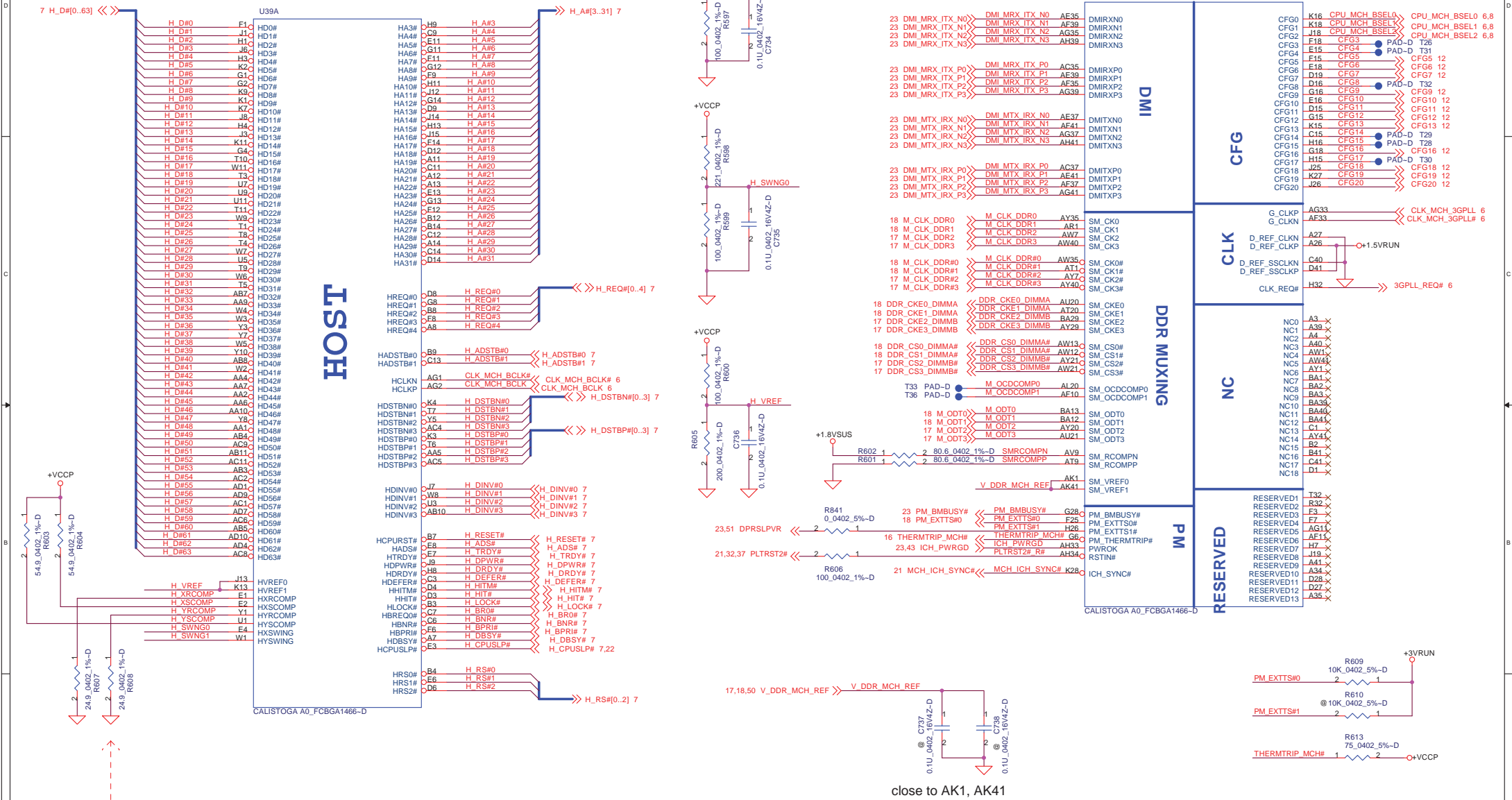
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CPU Bypass

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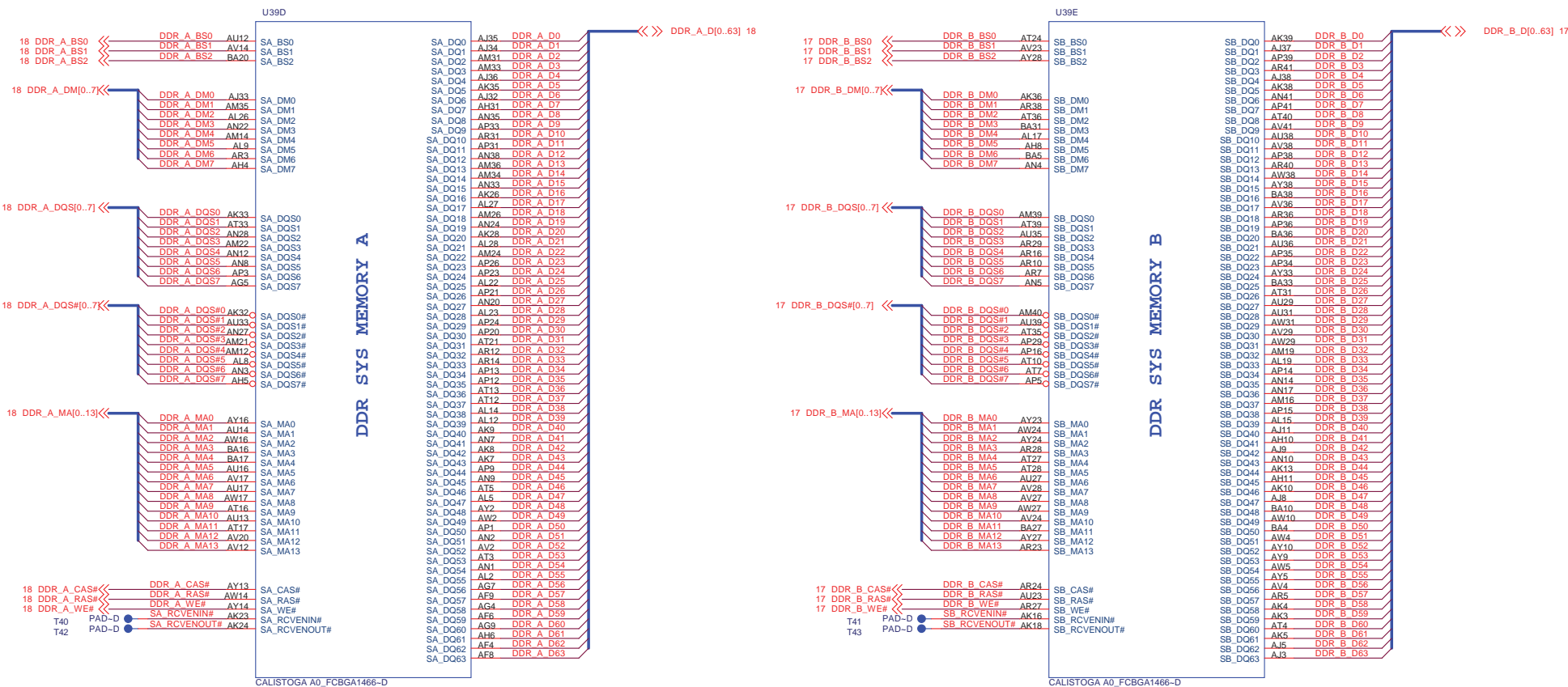


Description at page12  
Note :  
CFG3:17 has  
internal pullup,  
CFG18:19 has  
internal pulldown

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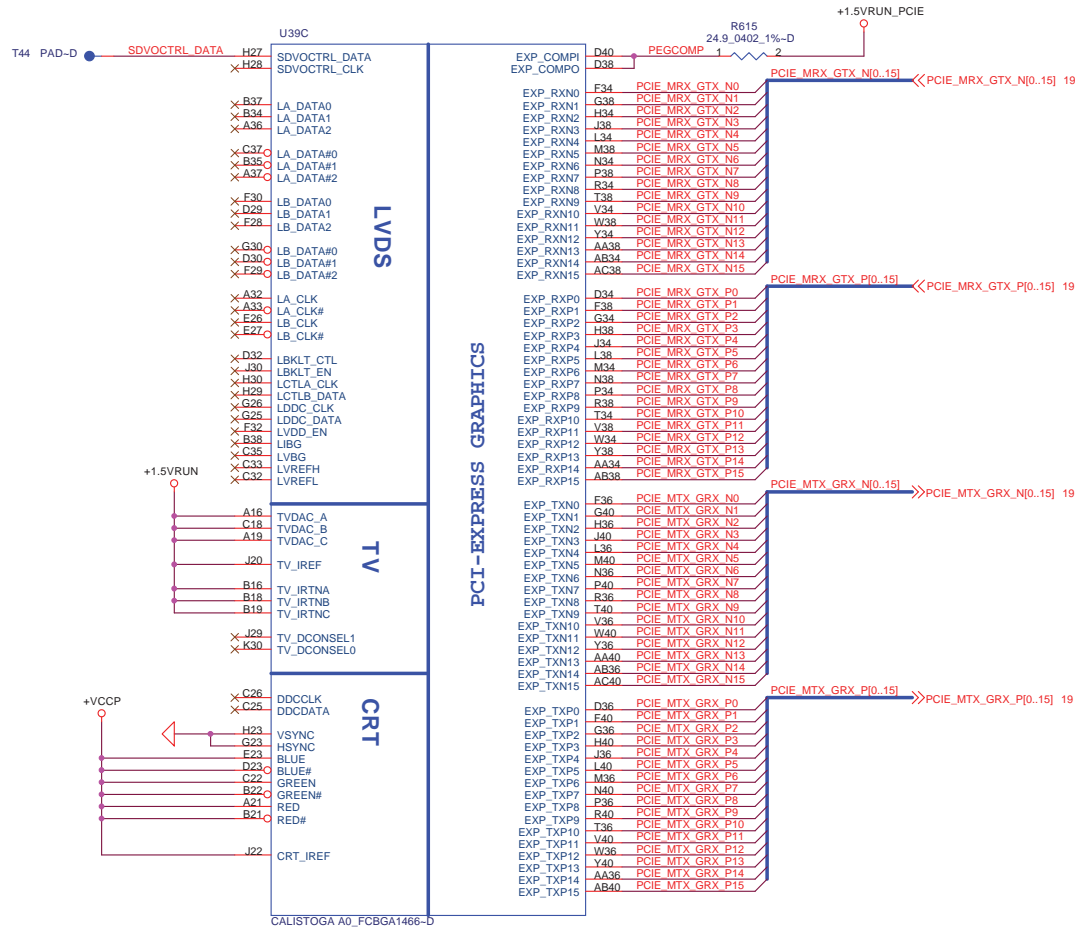
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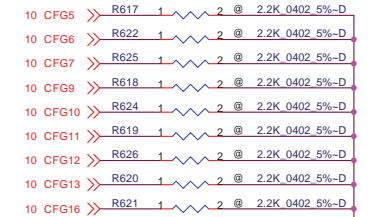
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## Strap Pin Table

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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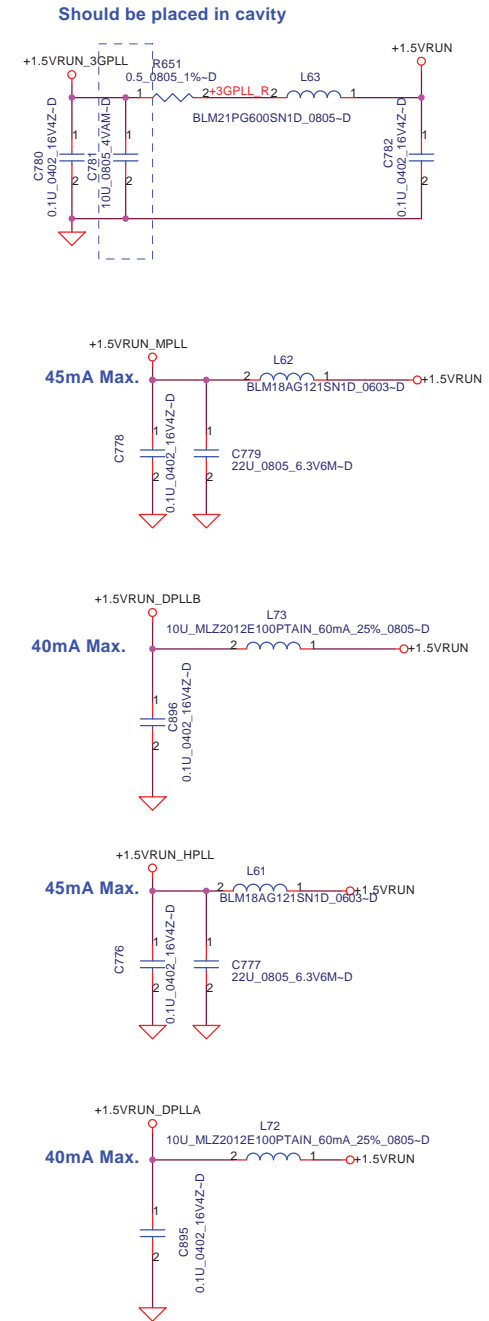
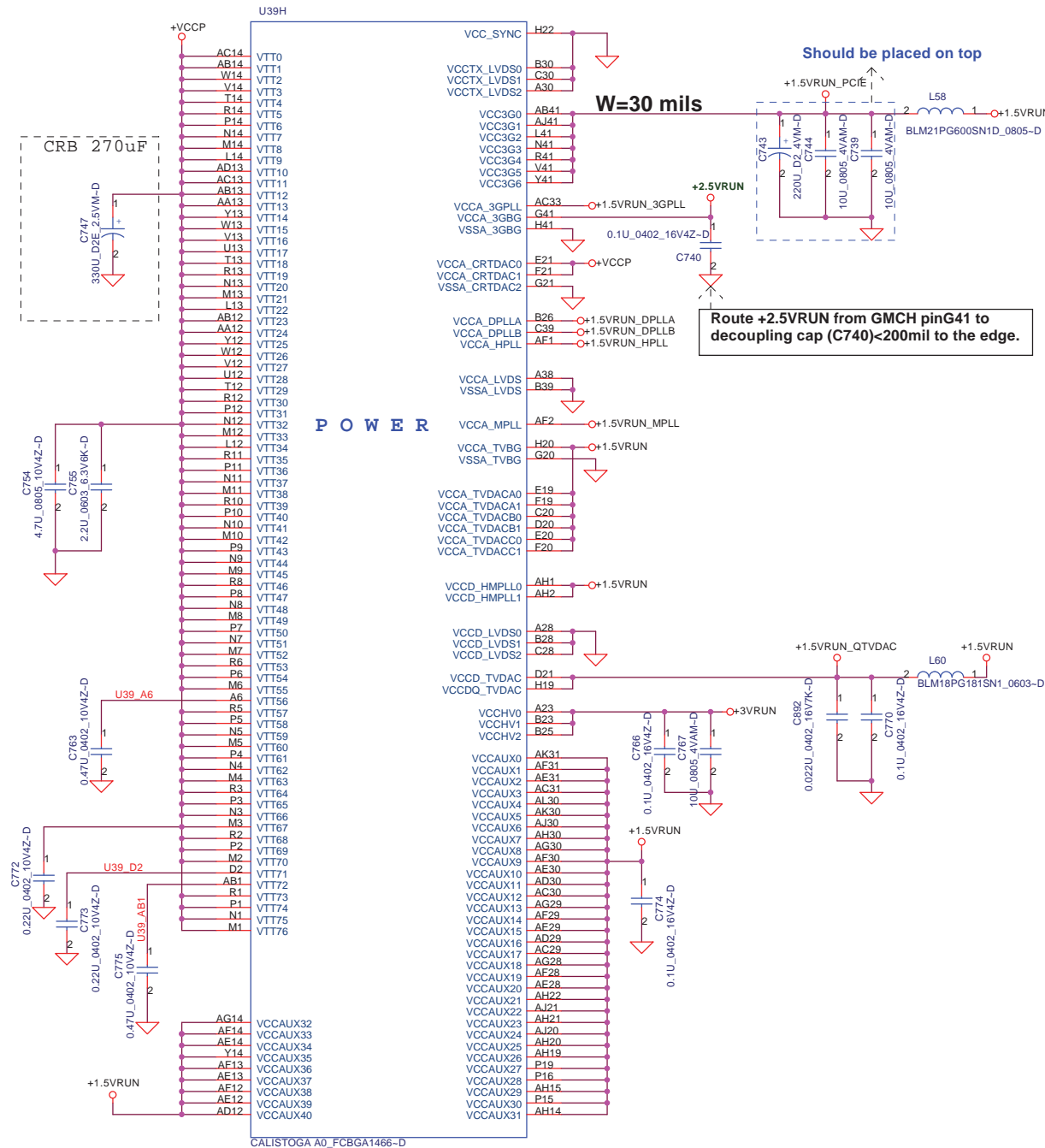
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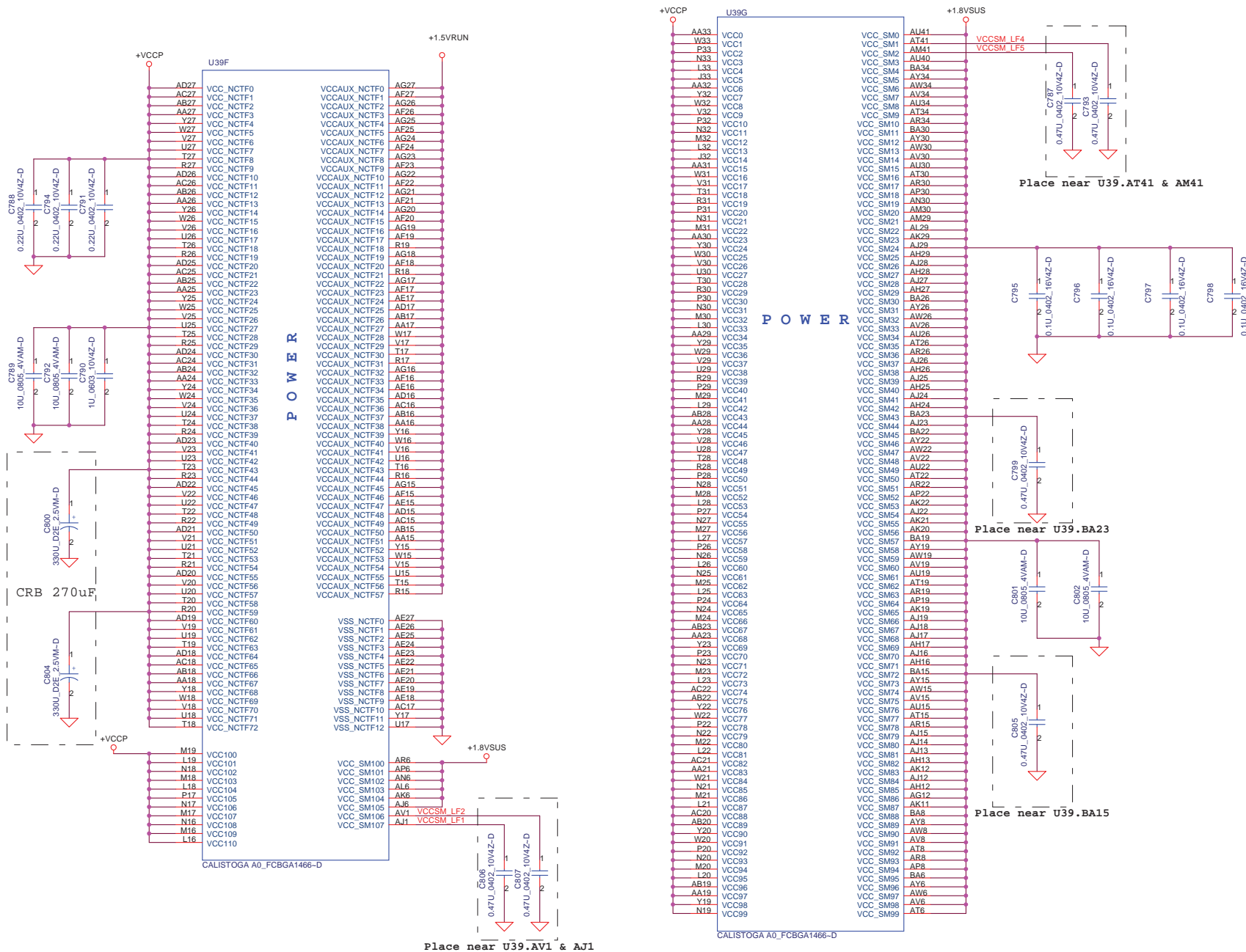
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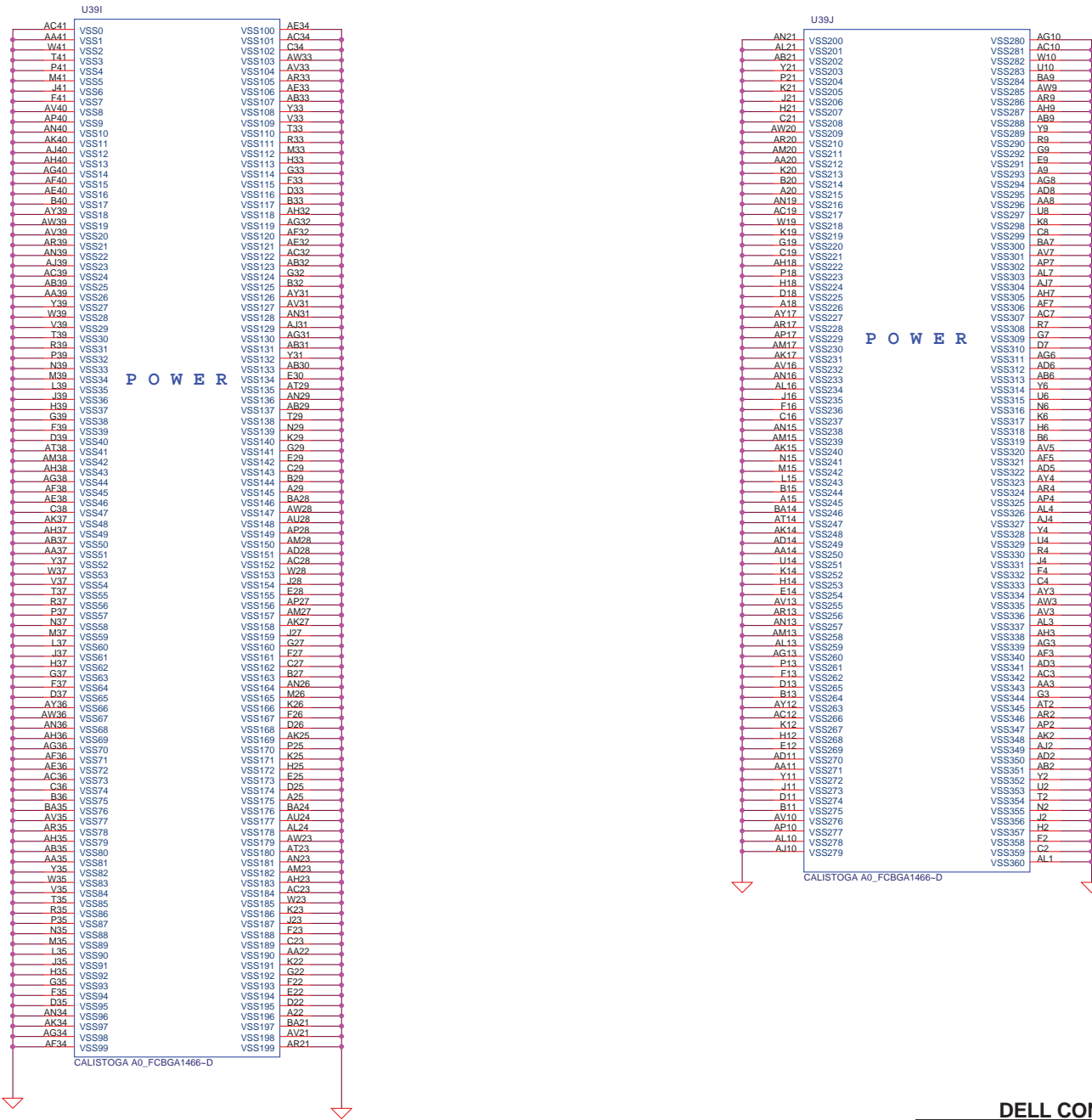
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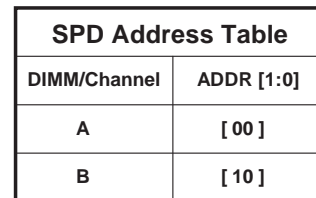
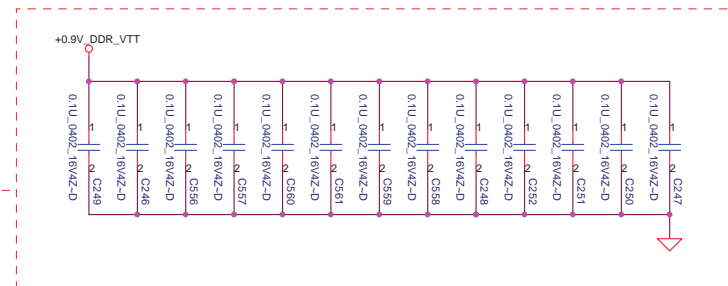
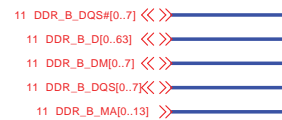


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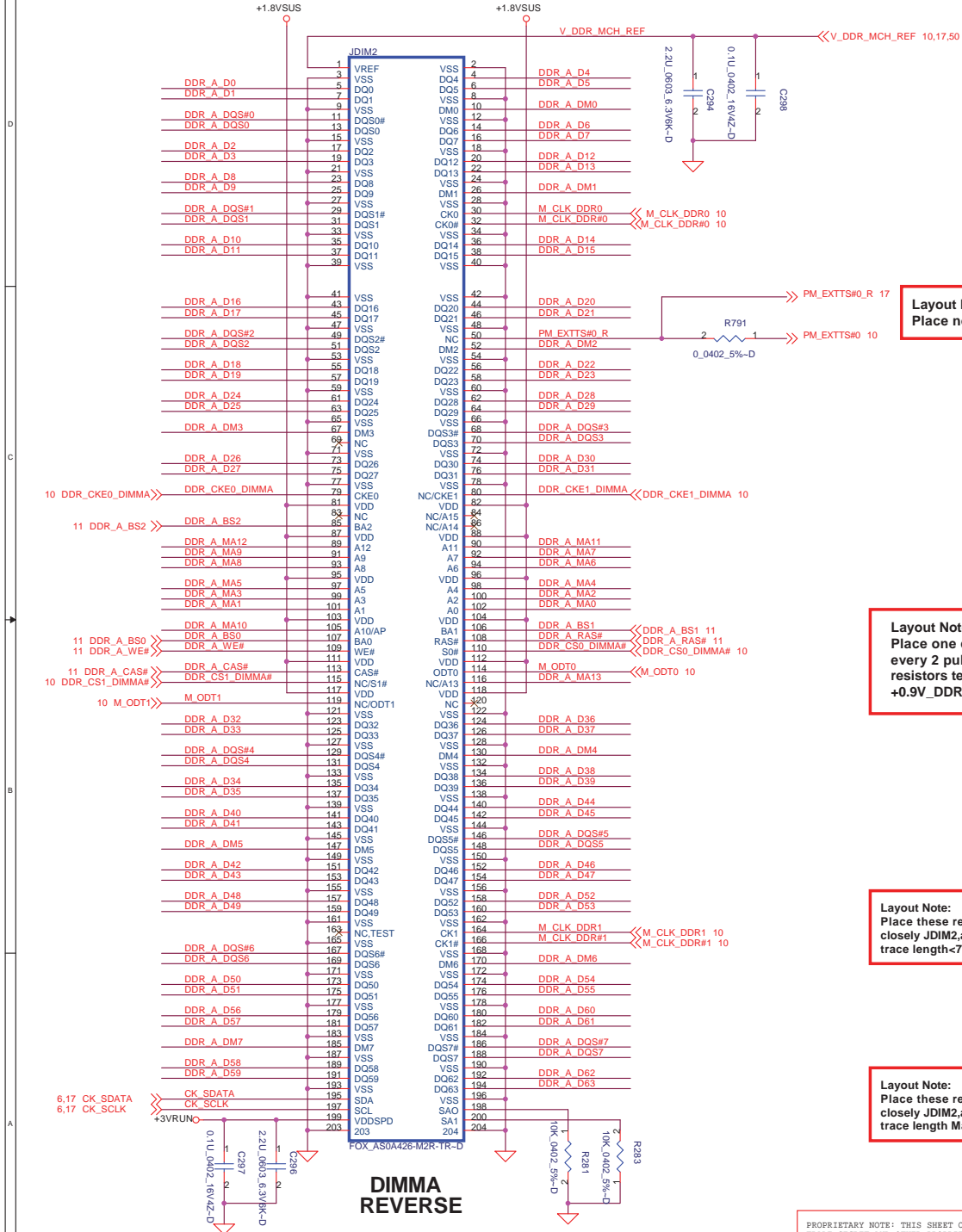






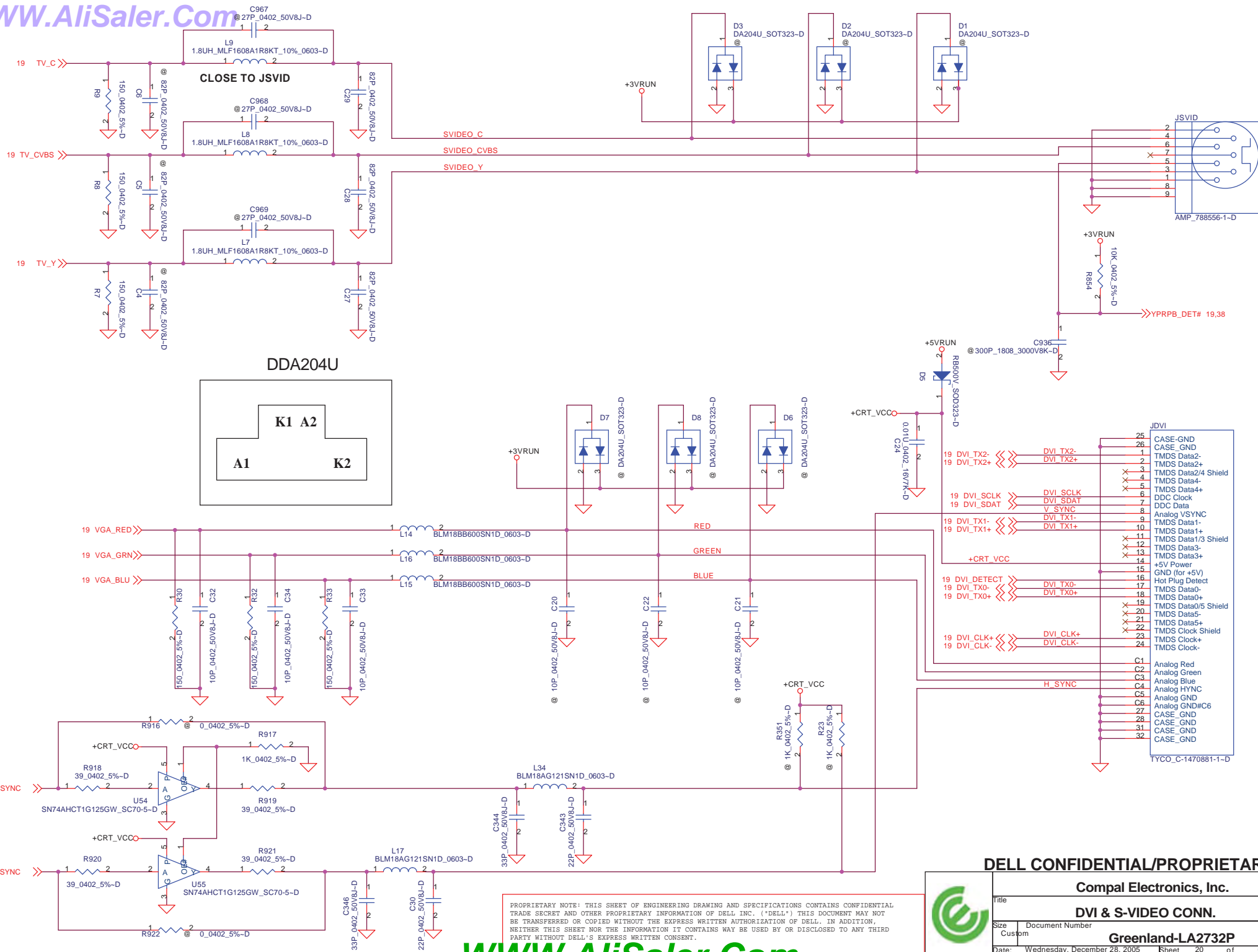


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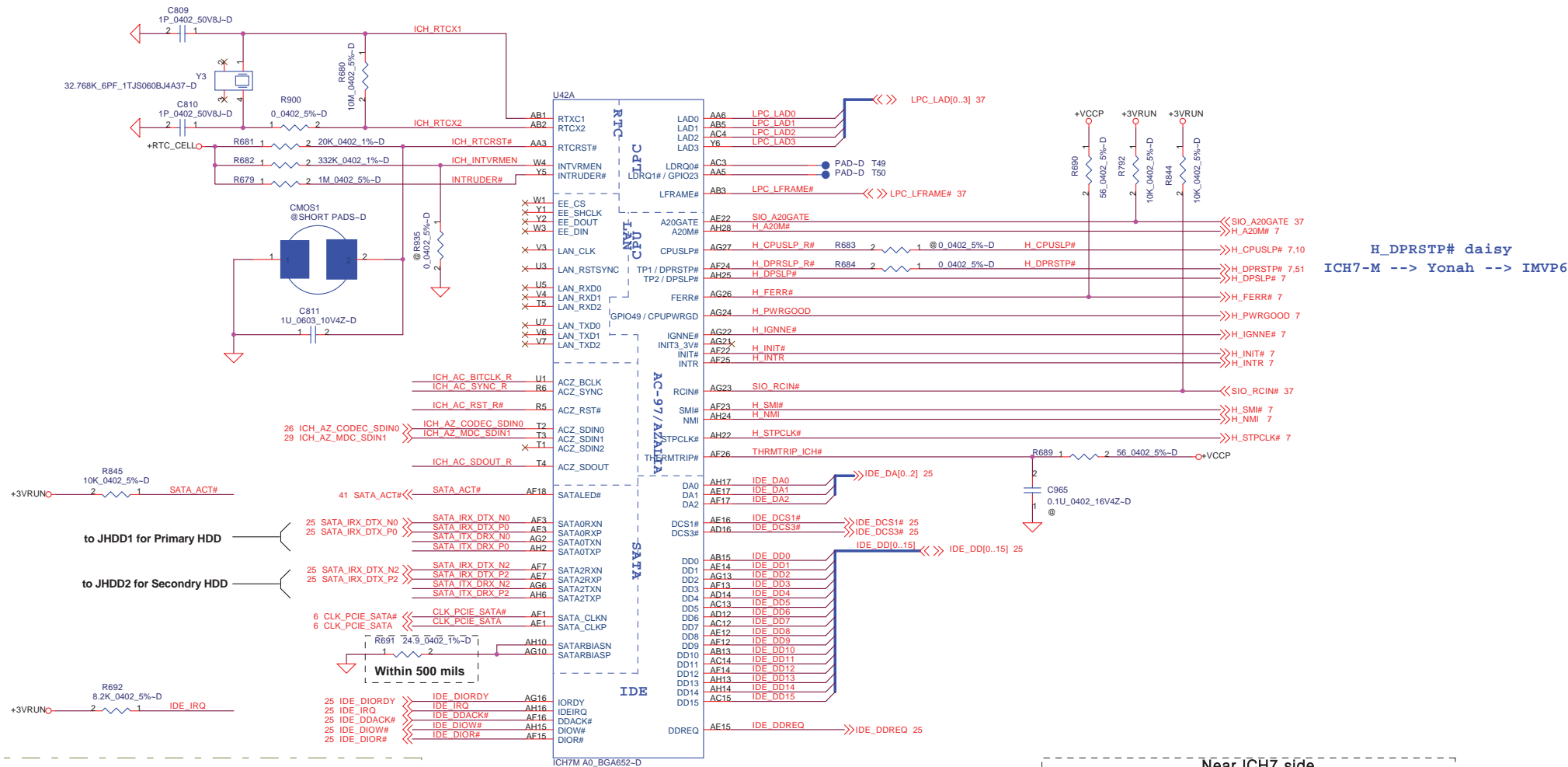
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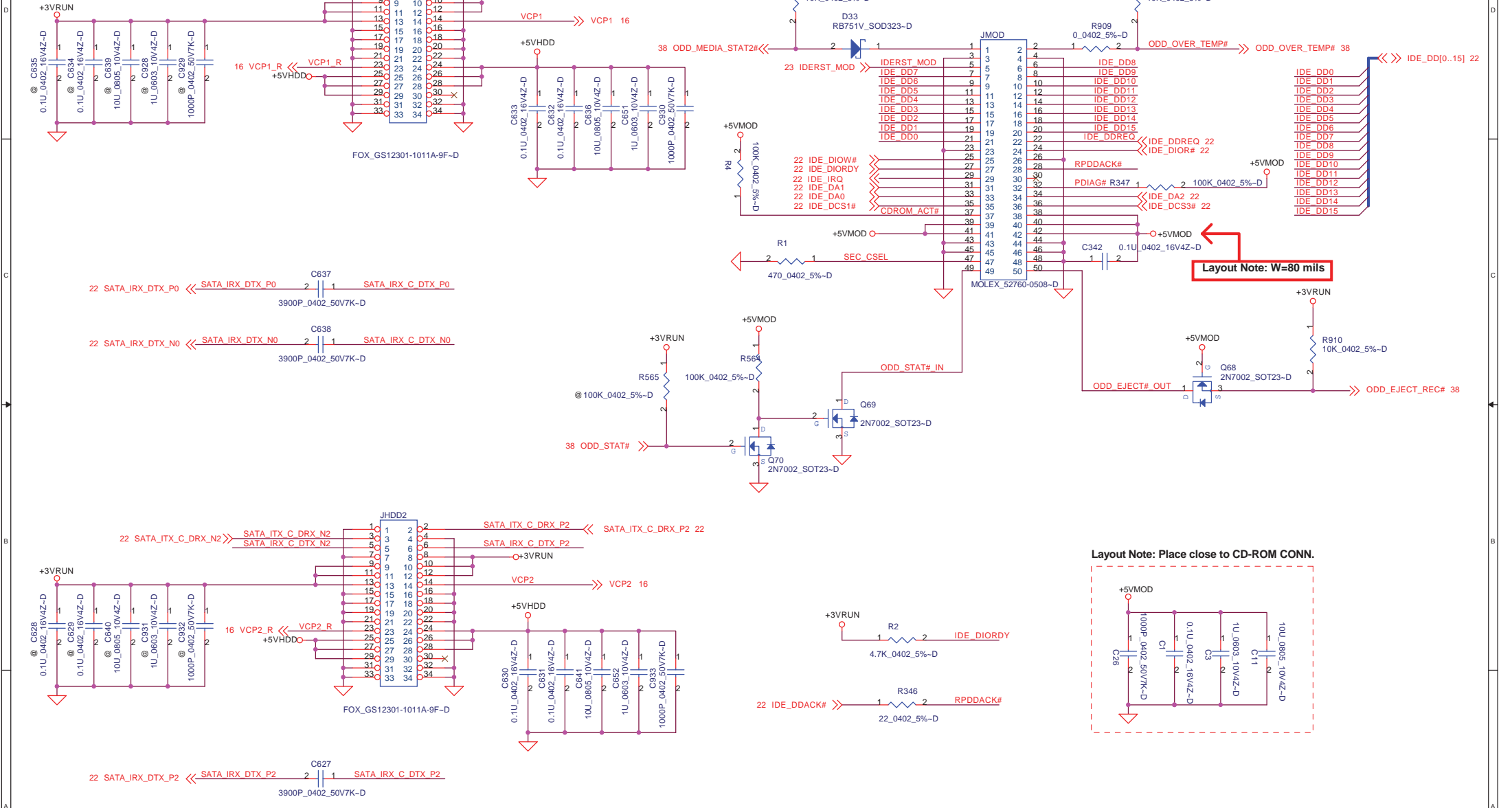






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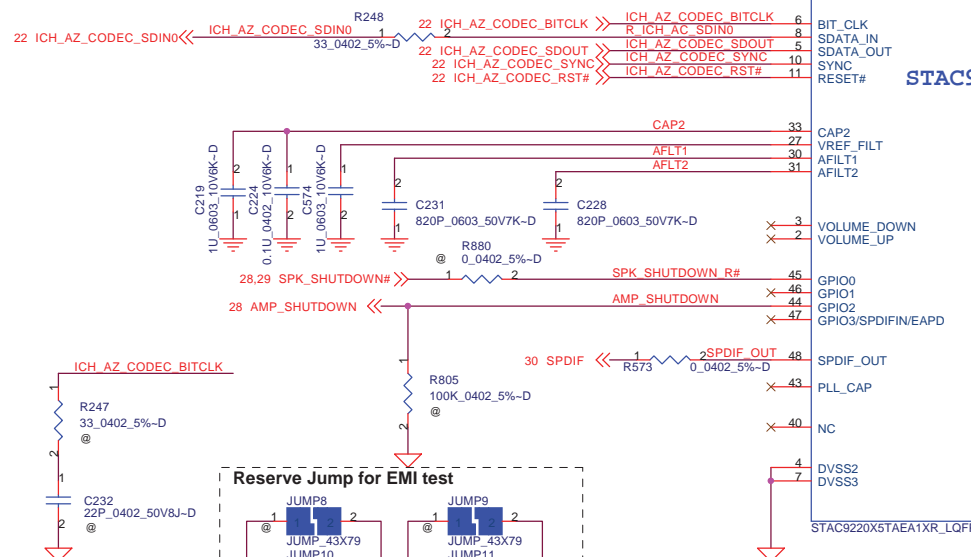
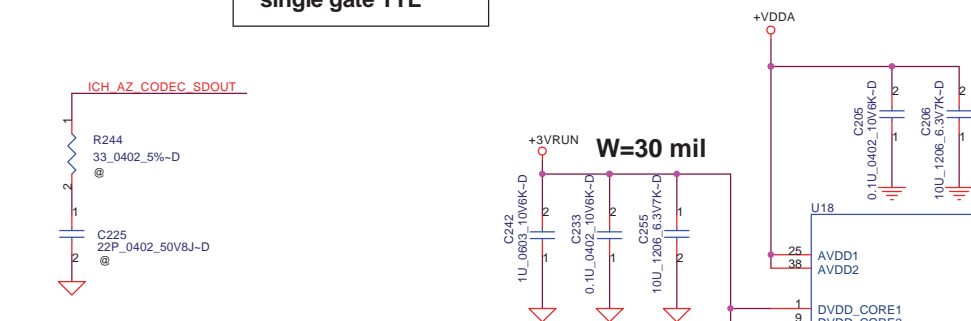
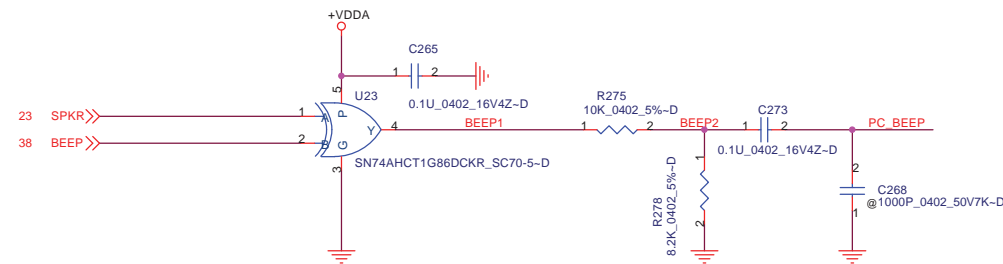
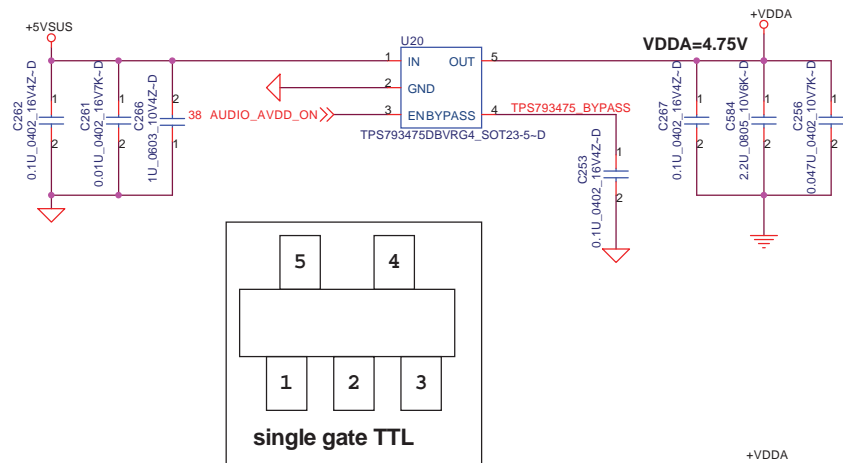


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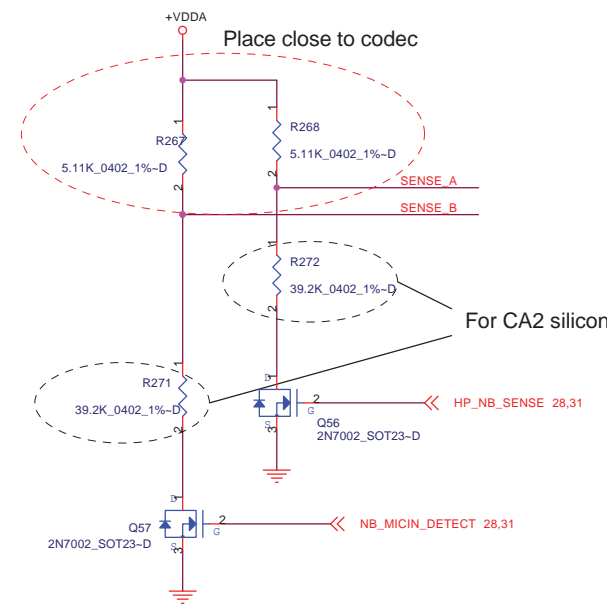
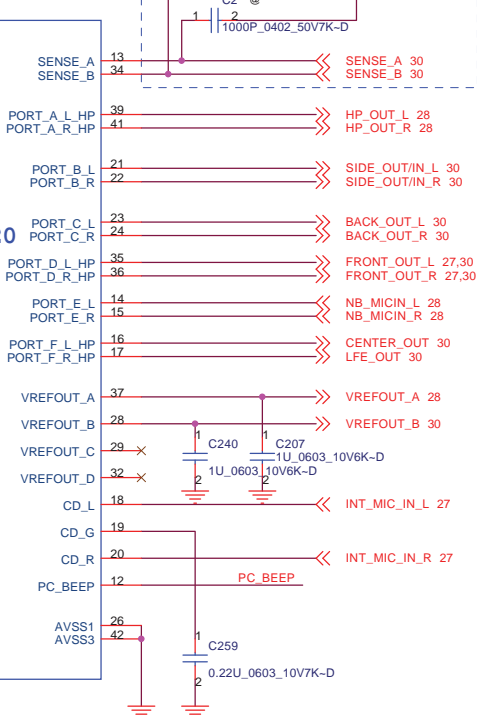
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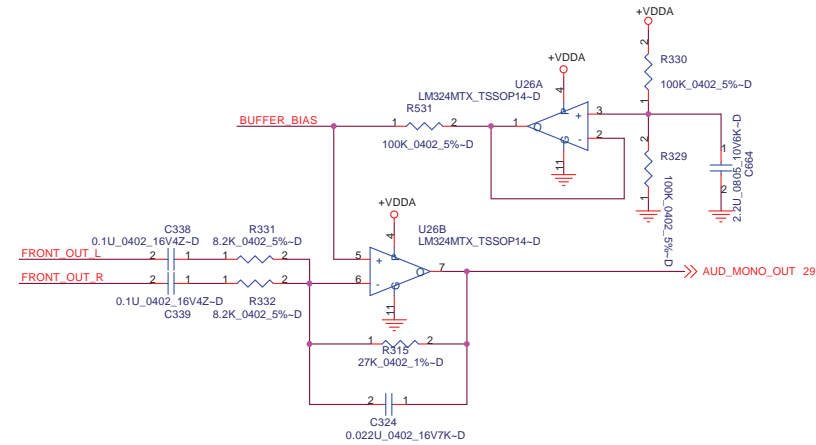
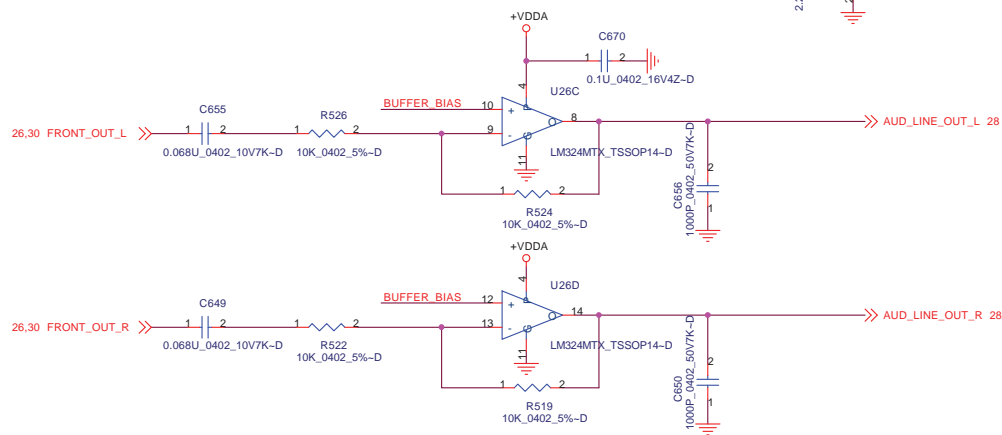
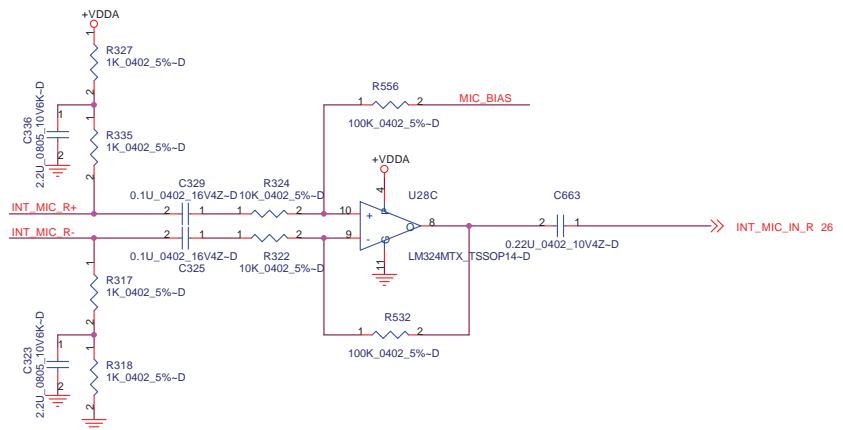
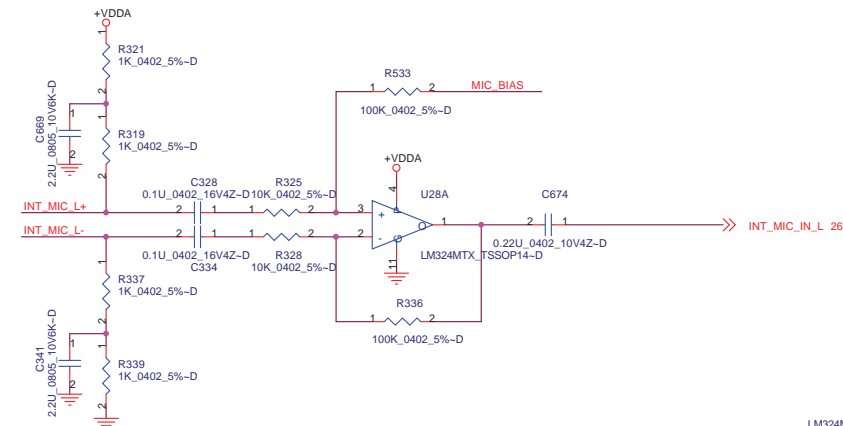
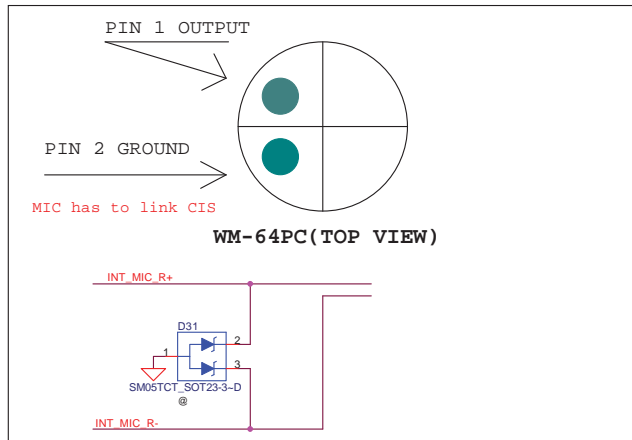
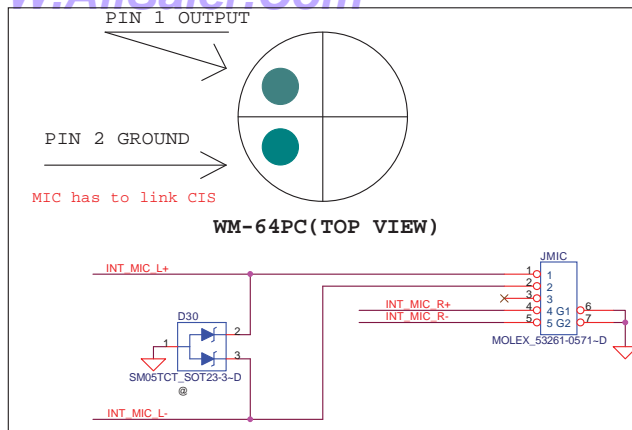
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For CA1 silicon	5.11K	5.11K	bring-up
For CA2 silicon	39.2K	39.2K	SST

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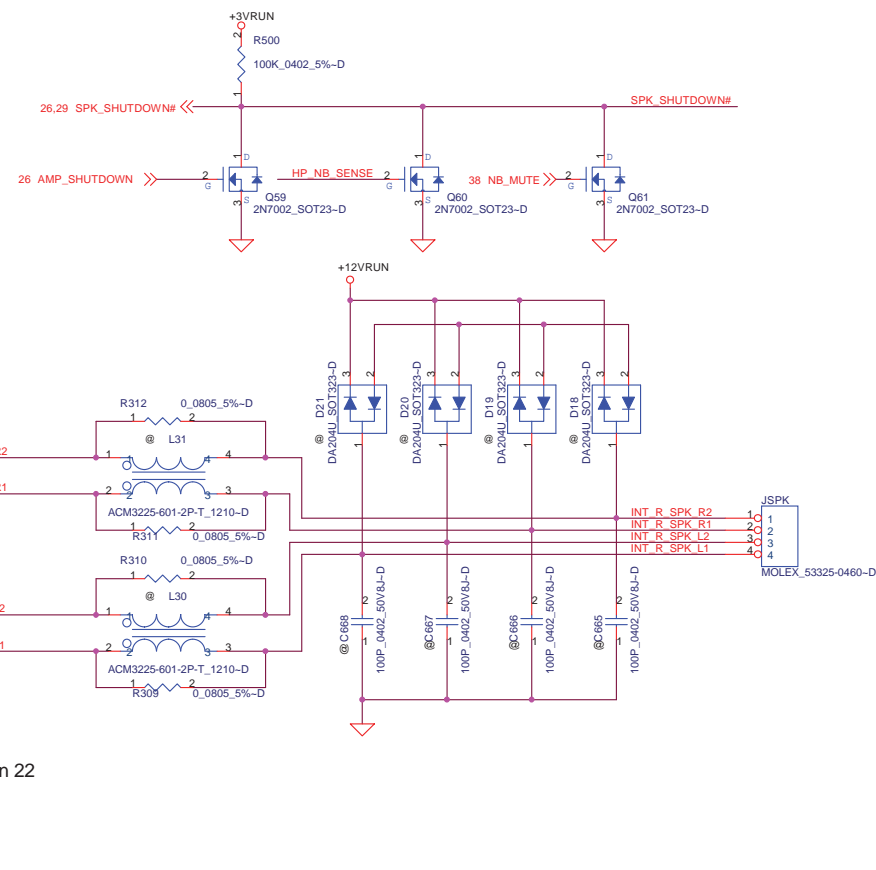
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Internal MIC

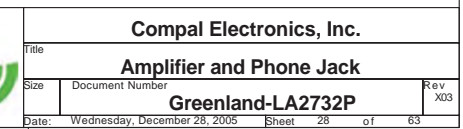
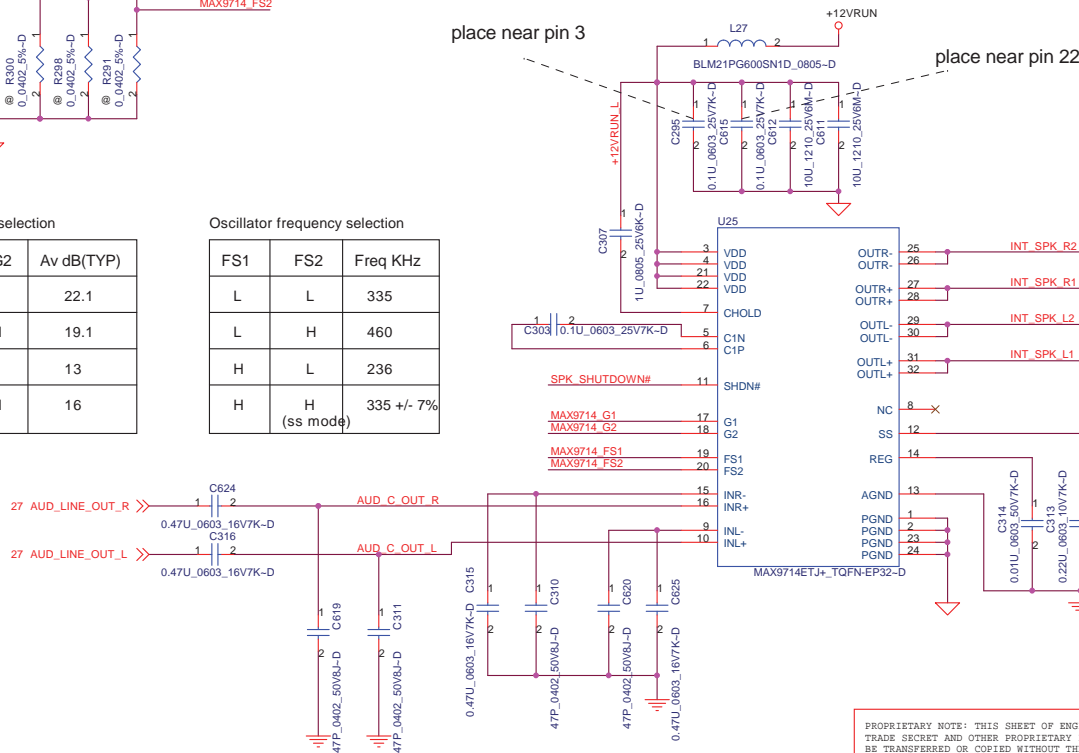
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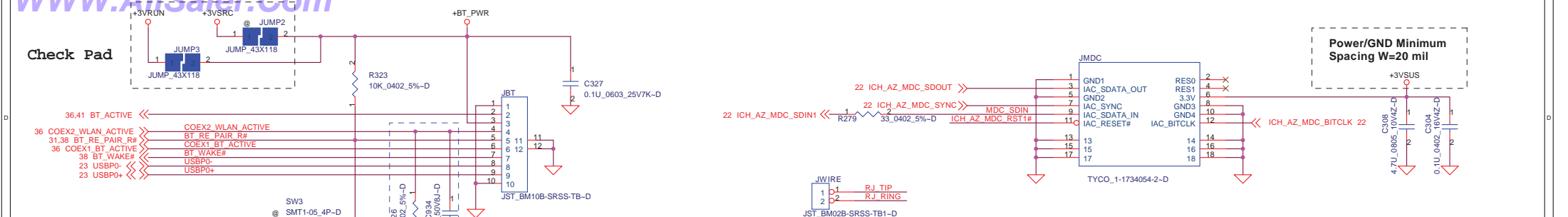
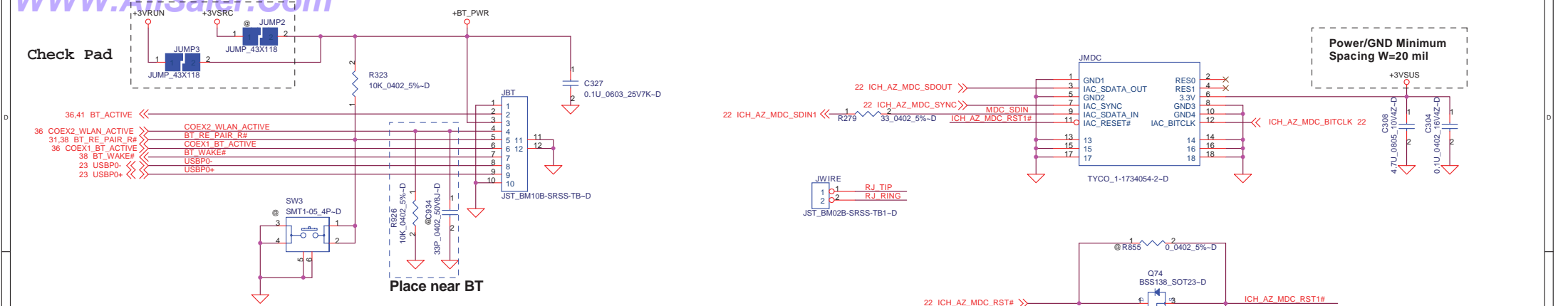


FS1	FS2	Freq KHz
L	L	335
L	H	460
H	L	236
H	H (ss mode)	335 +/- 7%



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Check Pad



place near pin 3

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

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

place near pin 22

U27

D14

C337, C332, C333, C334, C335, C336

1000P

+12VRUN

22

1000P\_0402\_50V7K-D

@ C332

@ D14 DA204U\_SOT323-D

JWOFR

place near pin 3

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

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

place near pin 22

U27

D14

C337, C332, C333, C334, C335, C336

1000P

+12VRUN

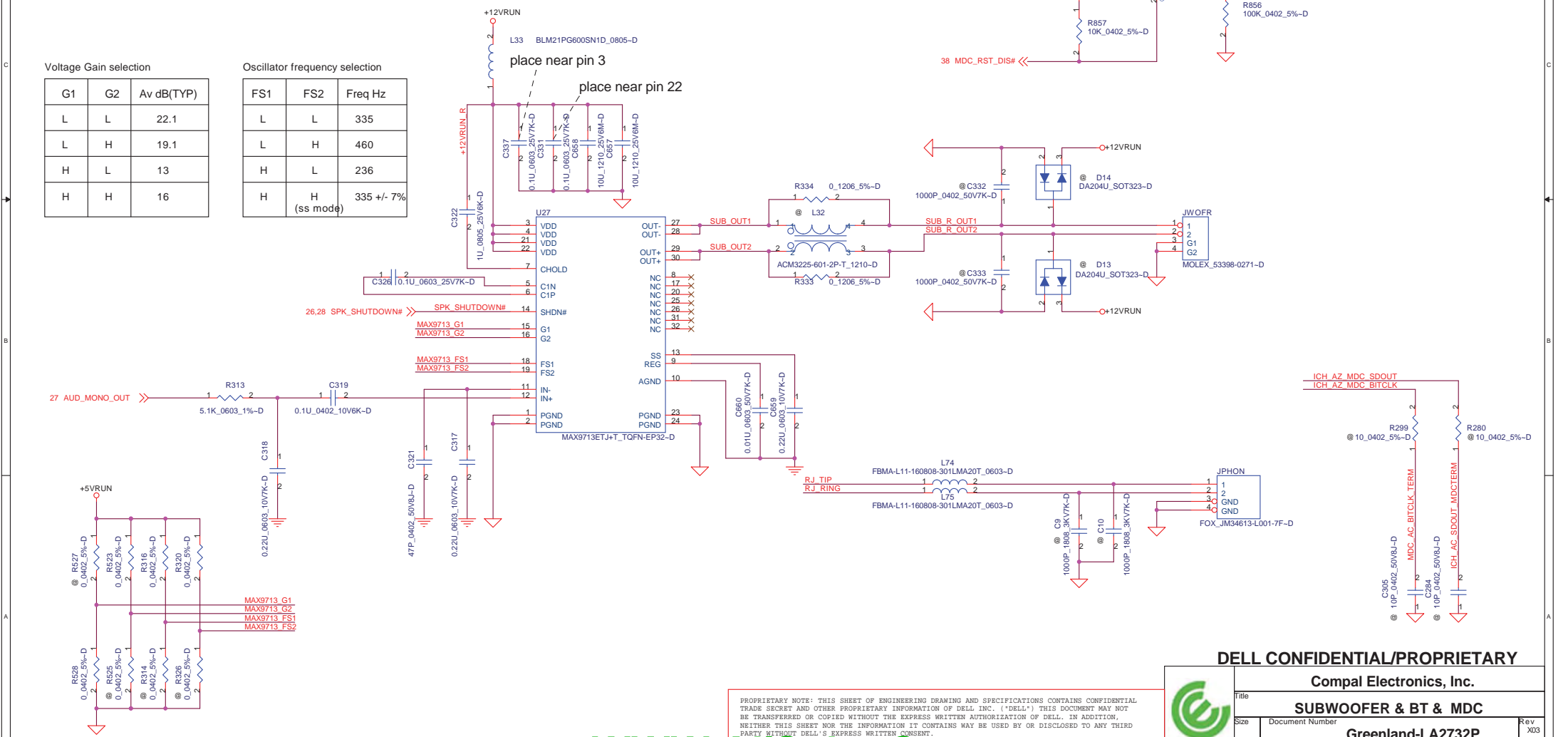
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@ C332

@ D14 DA204U\_SOT323-D

JWOFR



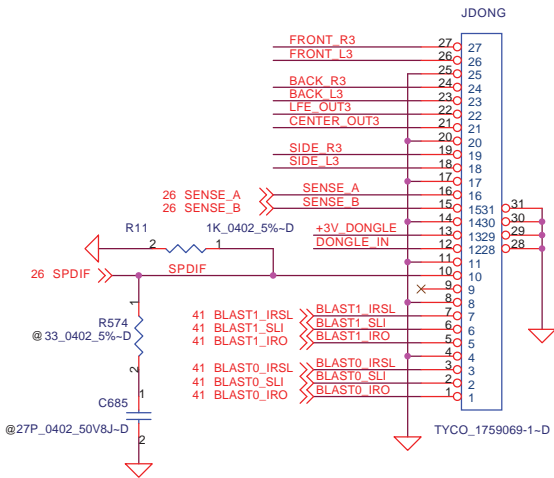
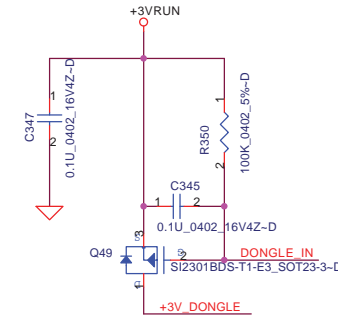
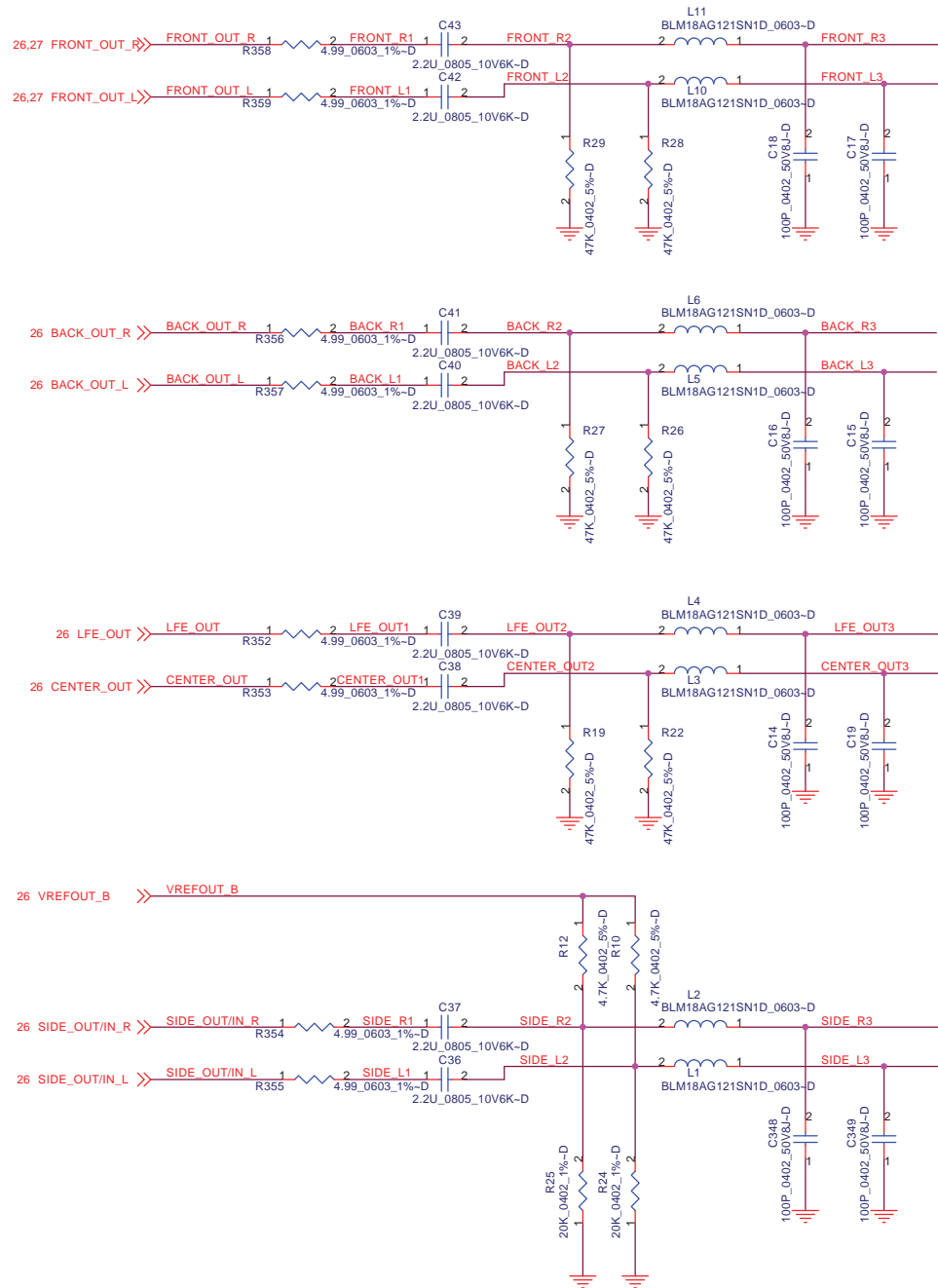
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Audio DONGLE

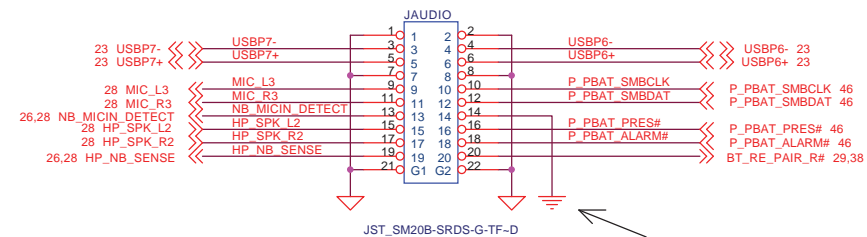
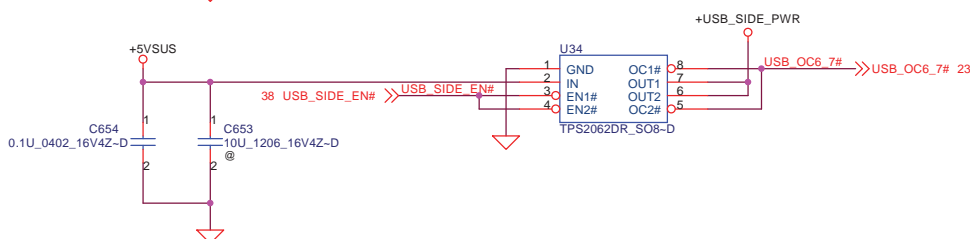
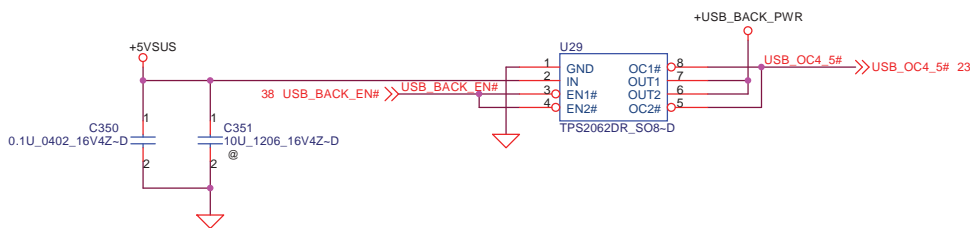
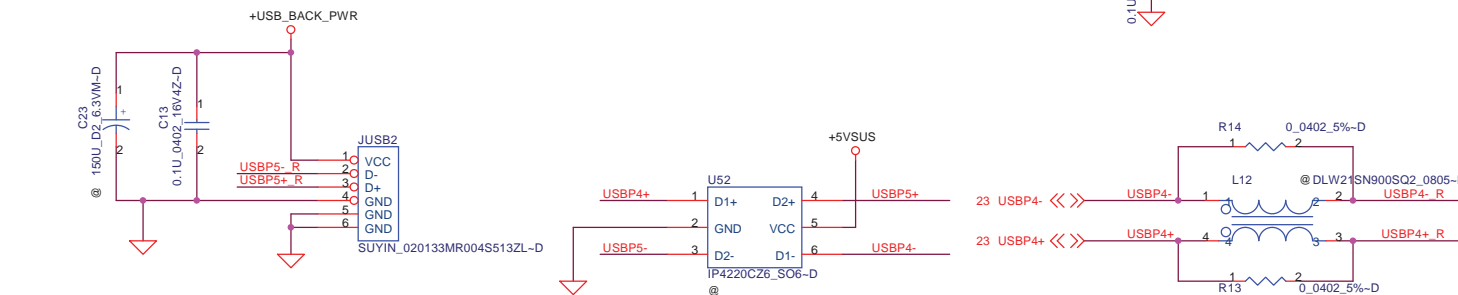
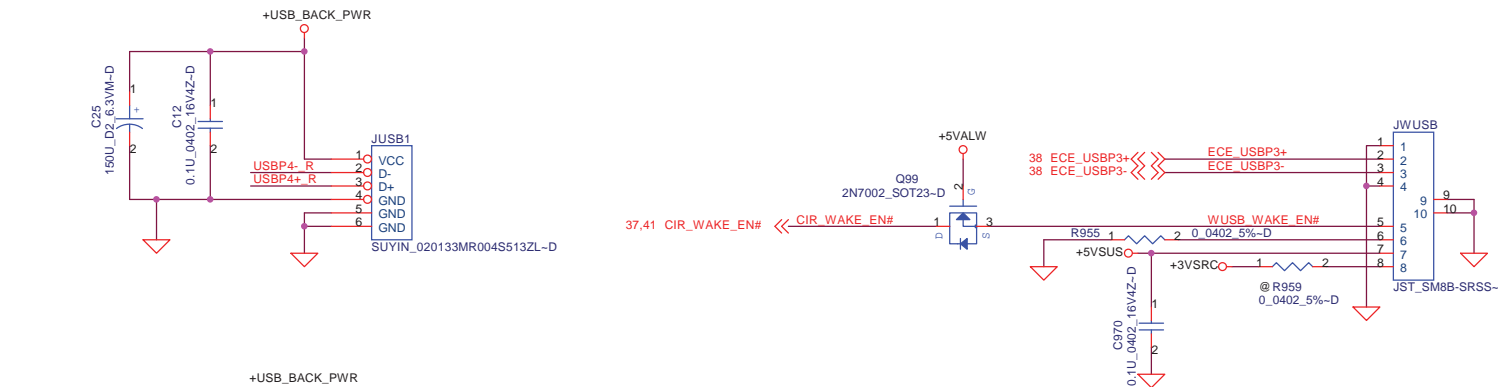
Greenland-LA2732P

Size	Document Number	Rev
Date	Wednesday, December 28, 2005	Sheet 30 of 63

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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)



This is analog ground for Headphone and MIC use

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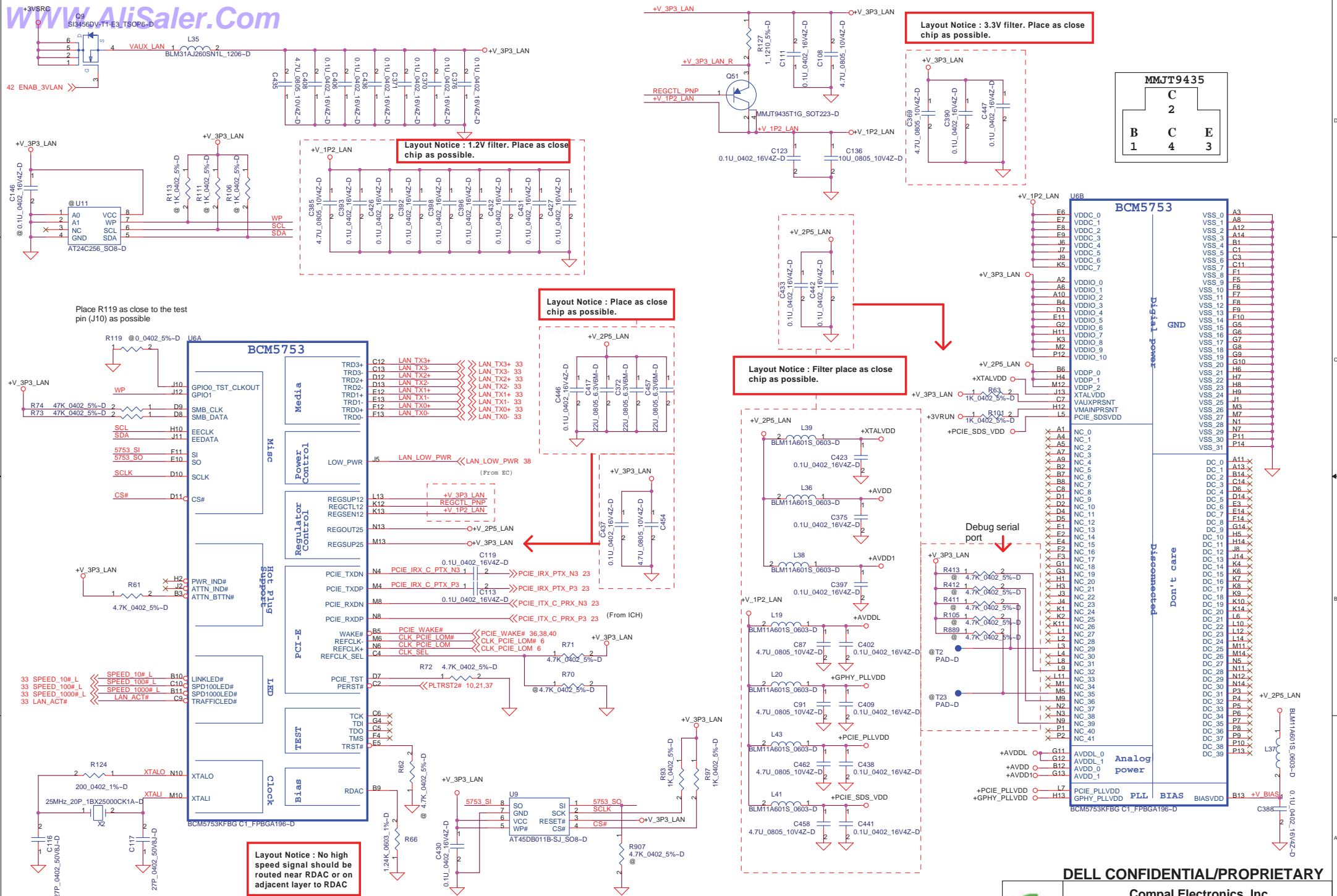
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Title		
USB 2.0 PORT		
Size	Document Number	Rev
		X03
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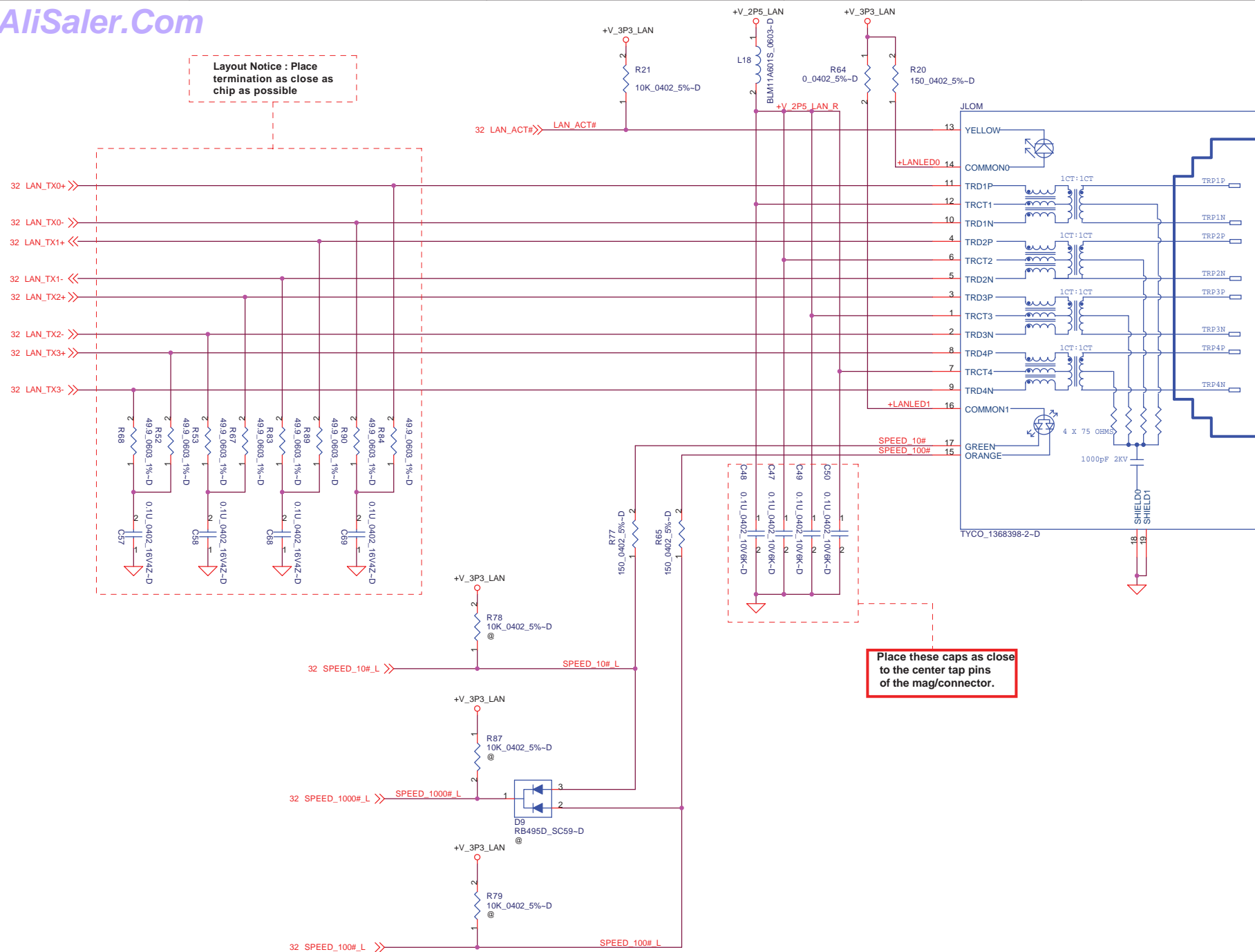
**Compal Electronics, Inc.**

### LAN Controller (BCM5753)

Greenland-LA2732P

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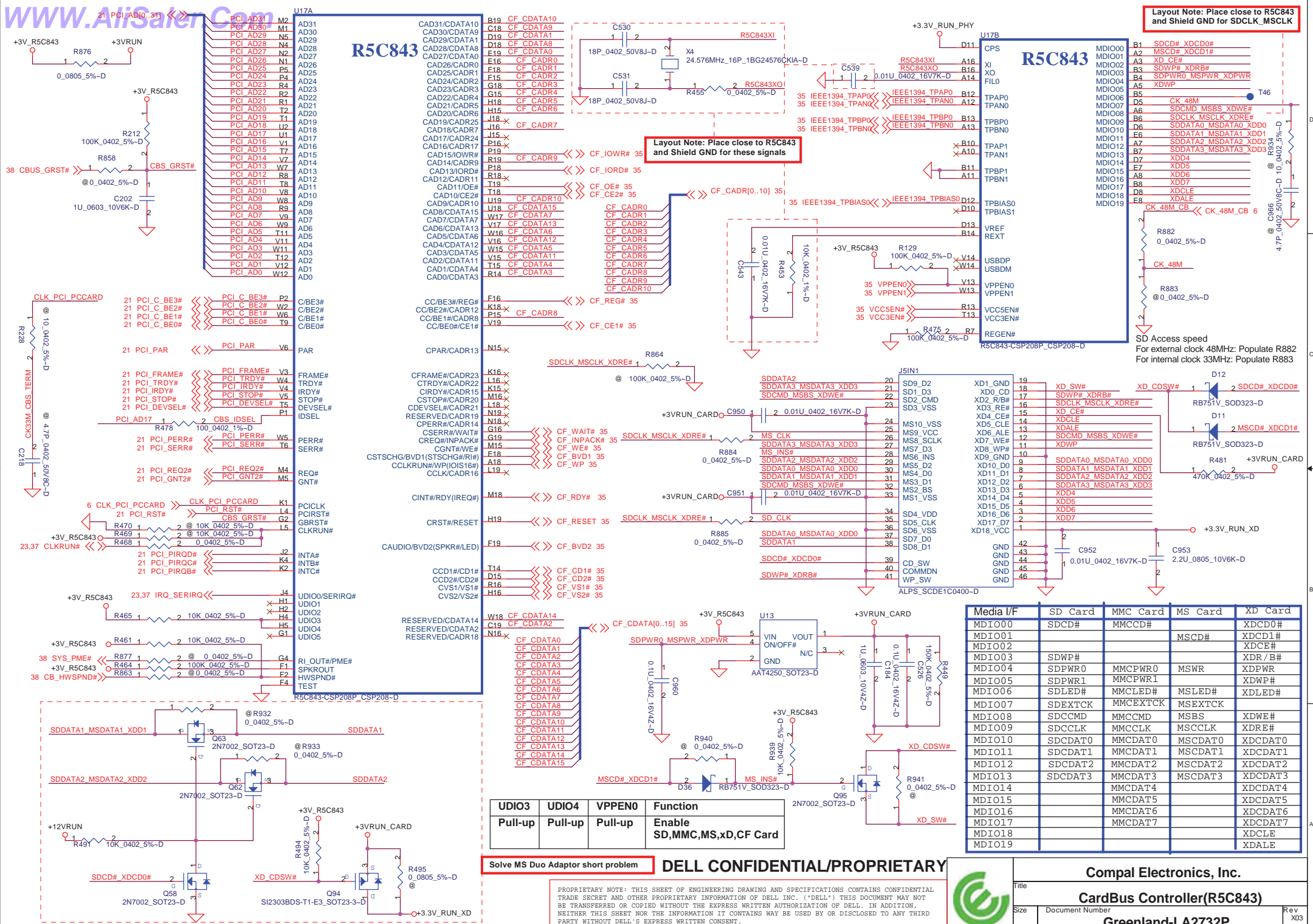


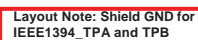
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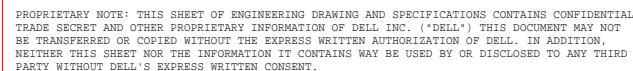
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LAN Transfomer and RJ45		
Size	Document Number	Rev X03
Date:	Wednesday, December 28, 2005	Sheet 33 of 63

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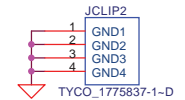
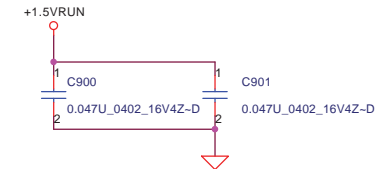
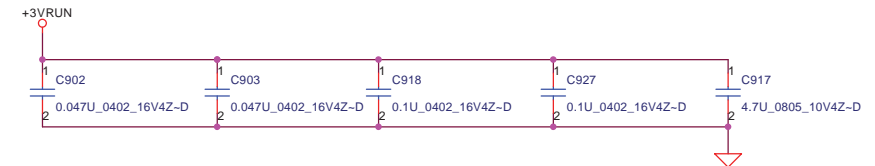
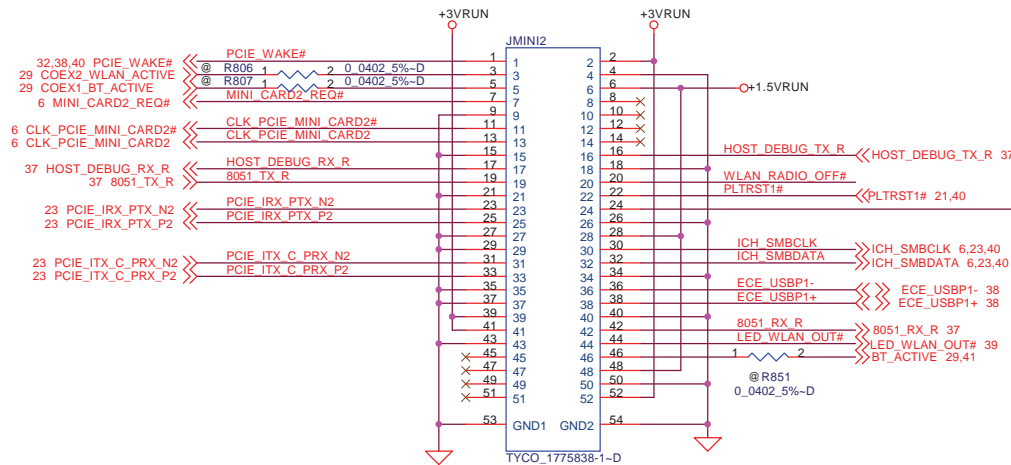


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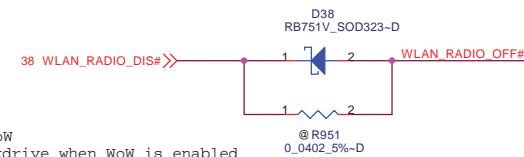


## Mini-Express Card

### Wire less LAN

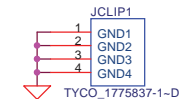
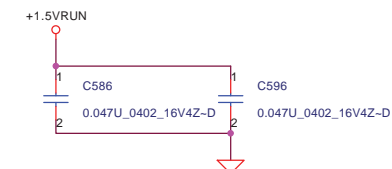
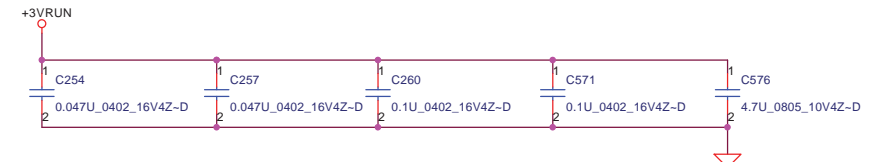
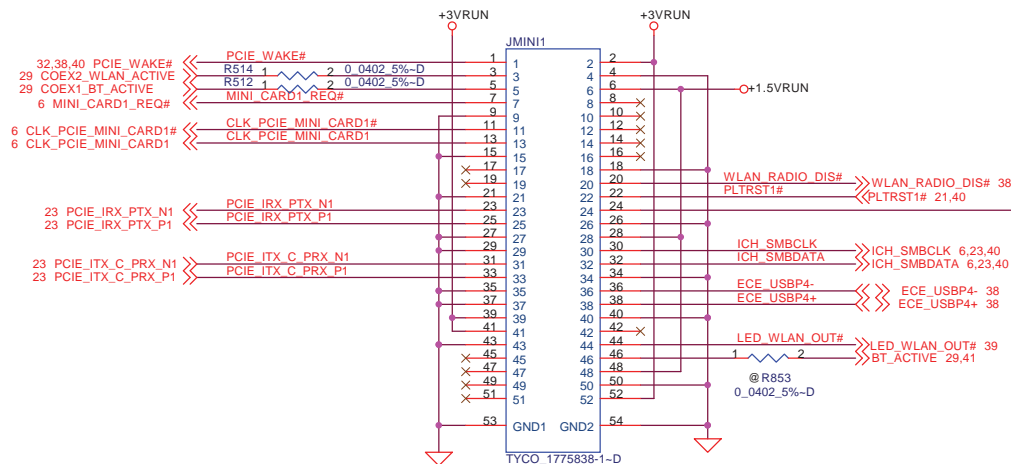


### Mini-Card Latch



```
| Suport for WoW
| prevents backdrive when WoW is enabled
```

## Mini-Express Card TV



### Mini-Card Latch

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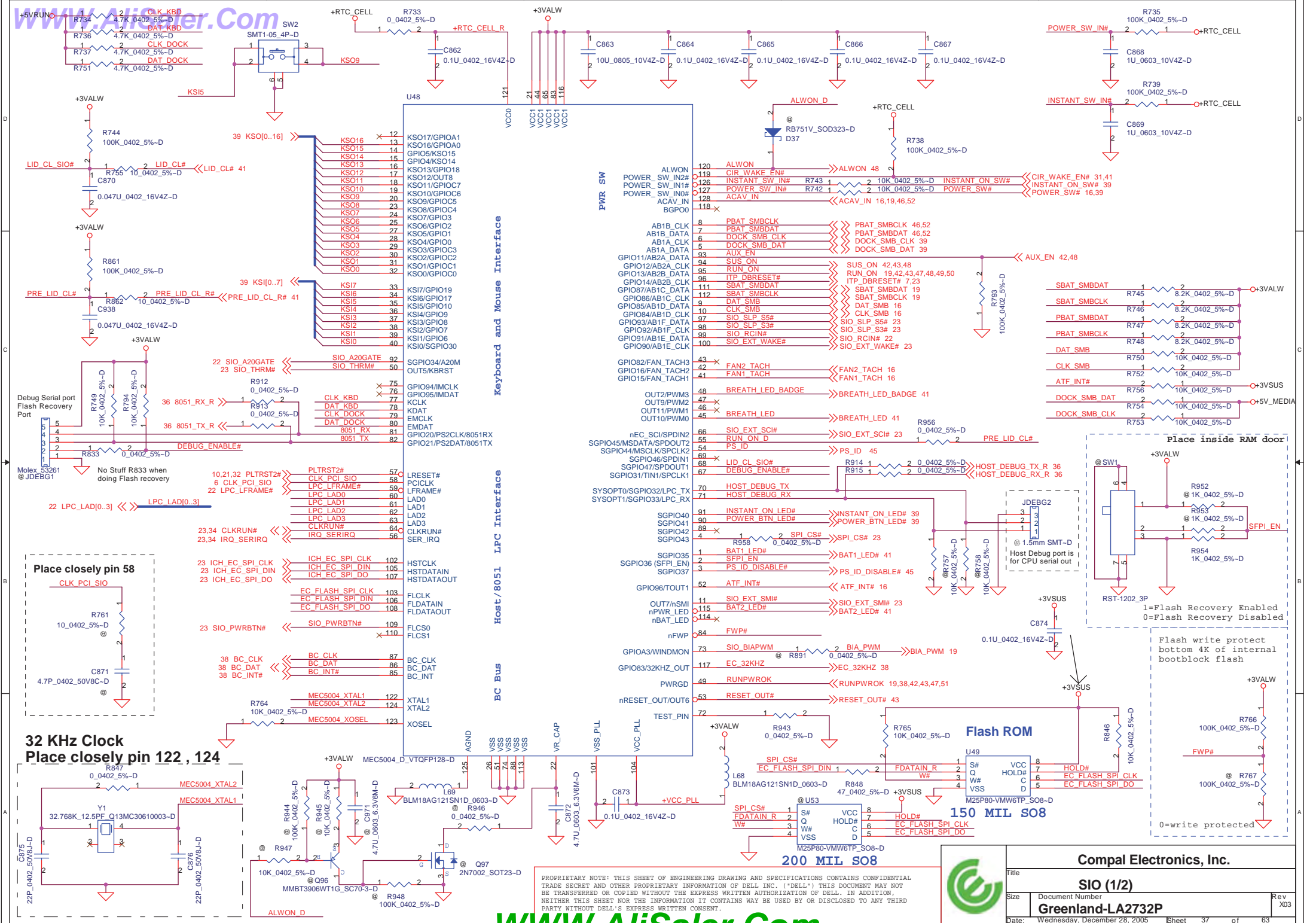
### MINI-CARD WLAN/TV

Greenland-LA2732P

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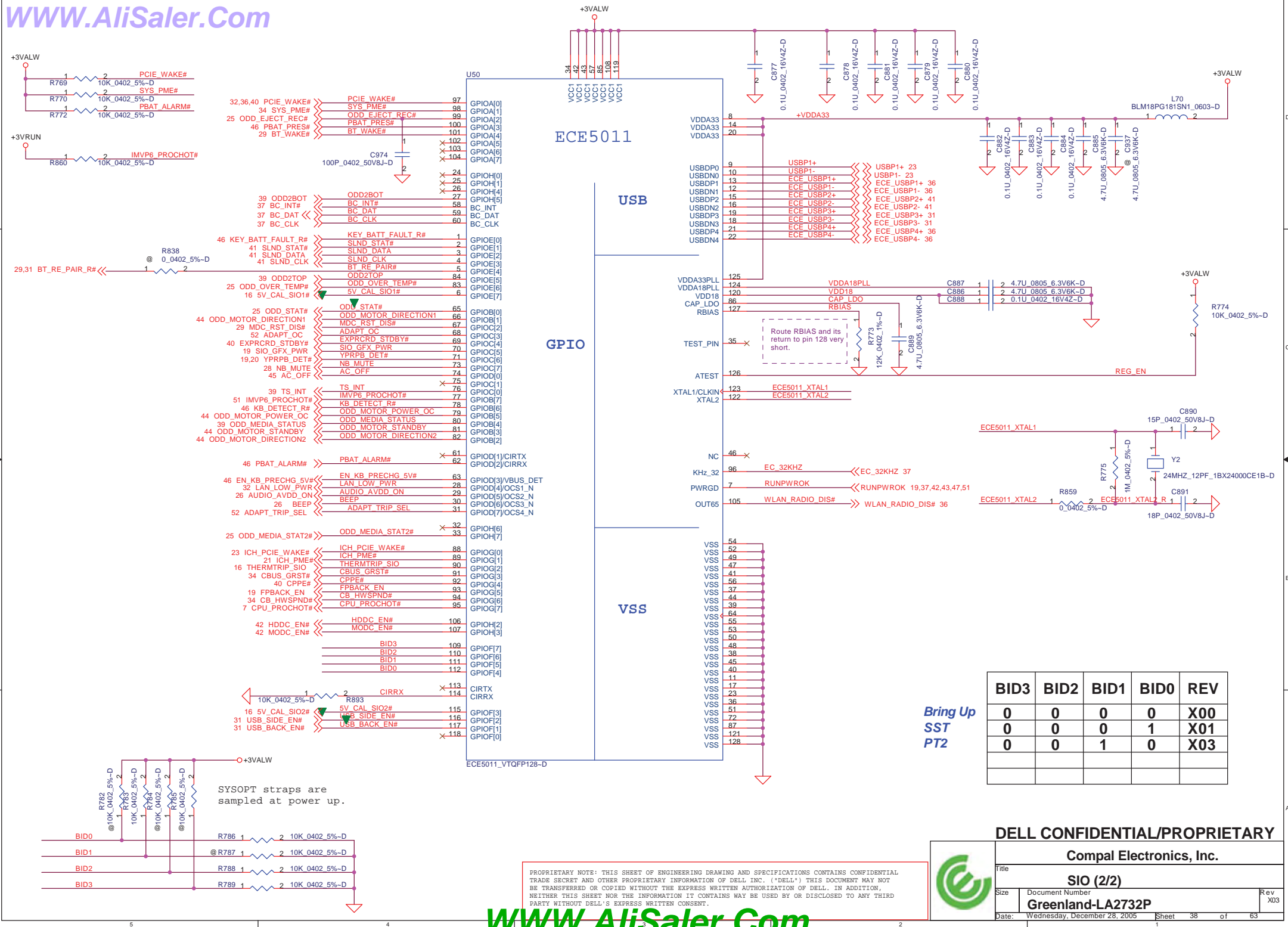


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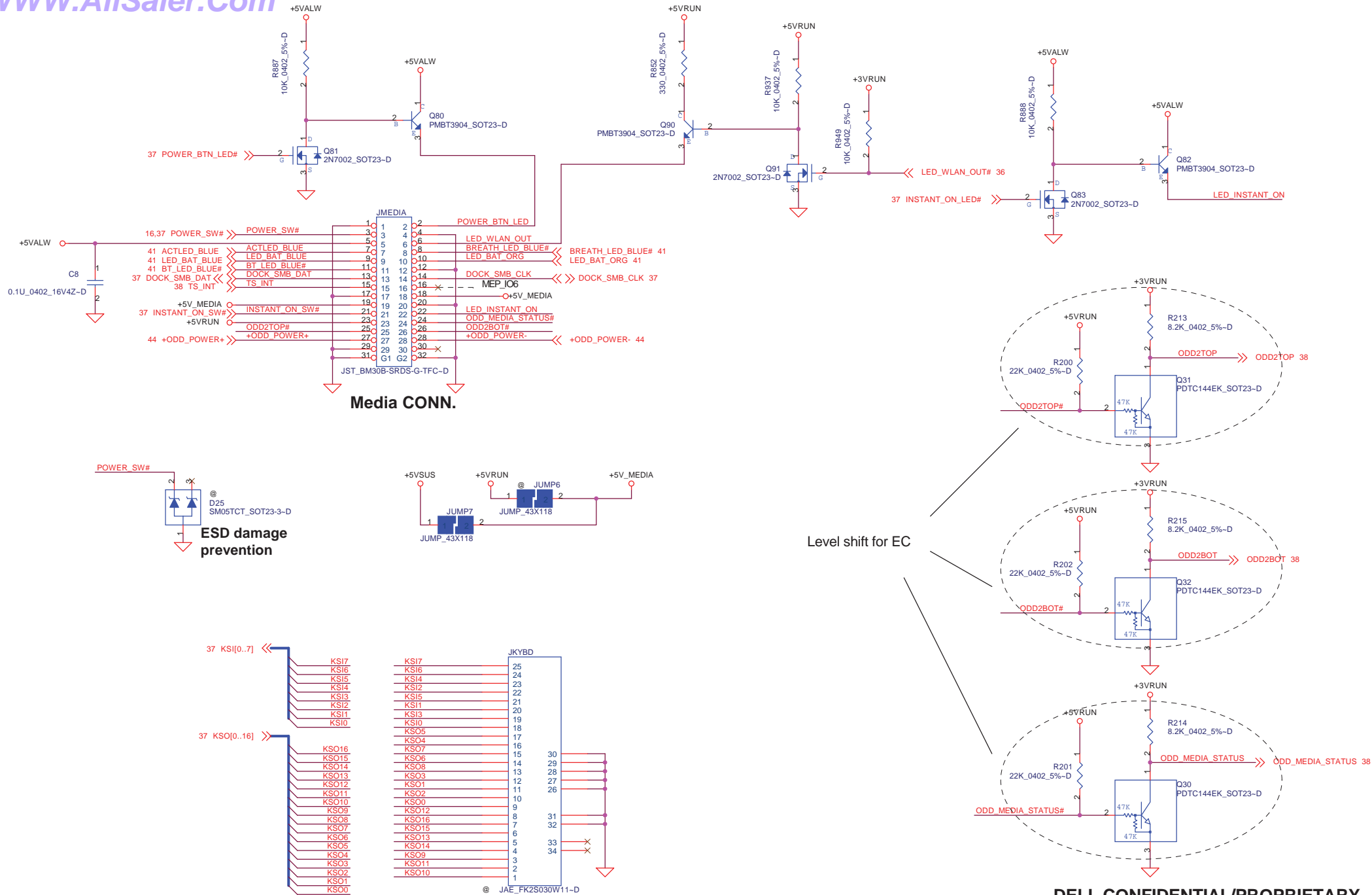
Compal Electronics, Inc.			
SIO (1/2)			
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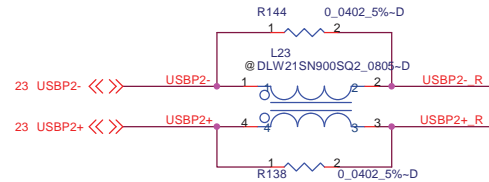
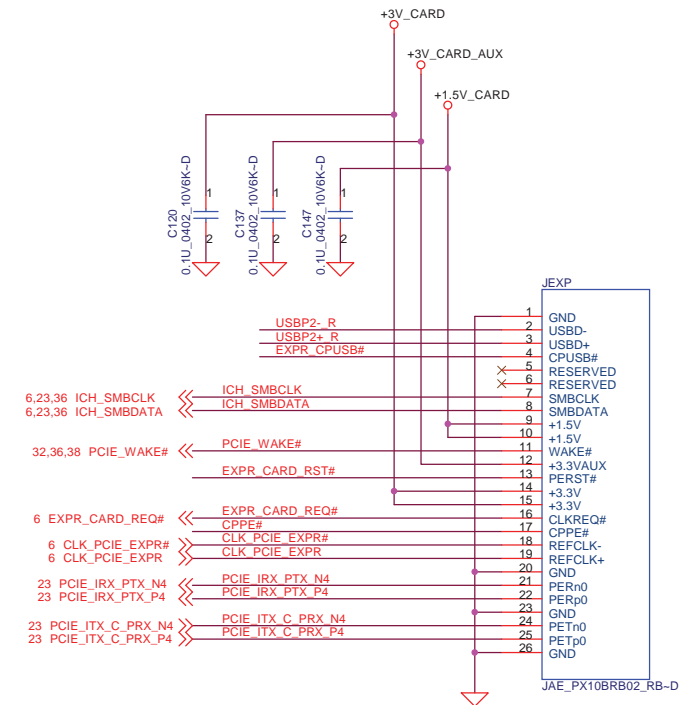
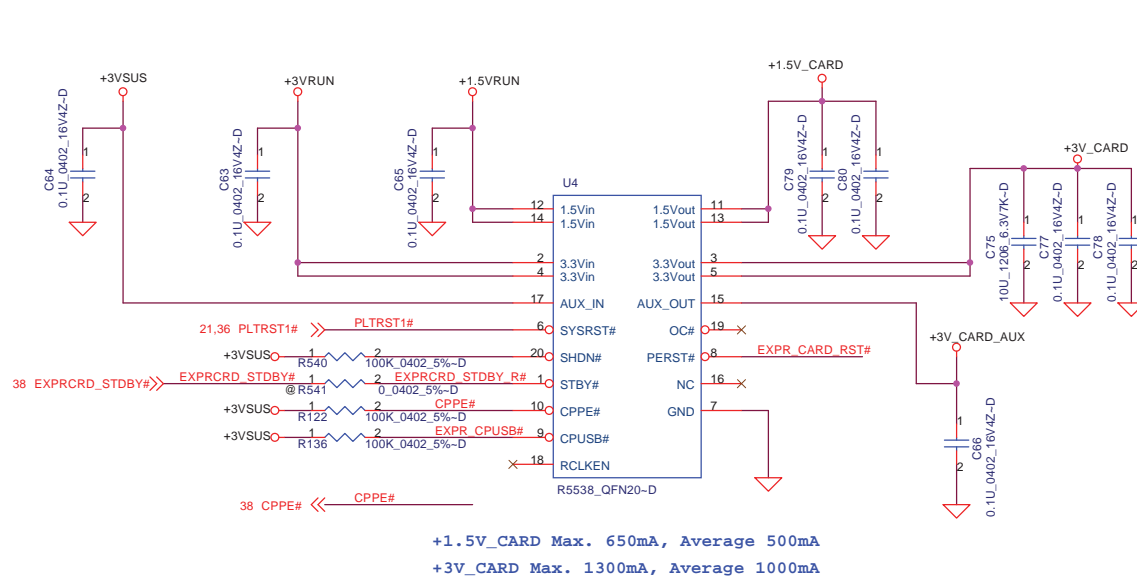
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INT KB & Media Conn.

Greenland-LA2732P

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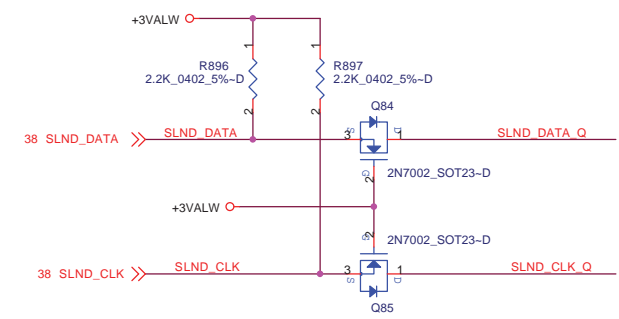
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Title		EXPRESS CARD	
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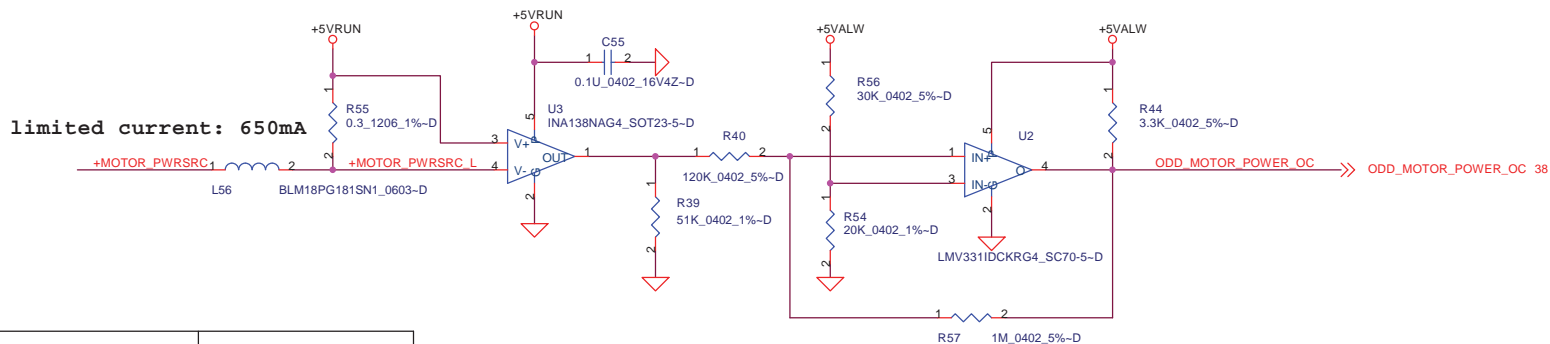
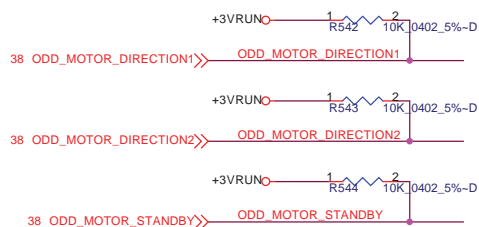
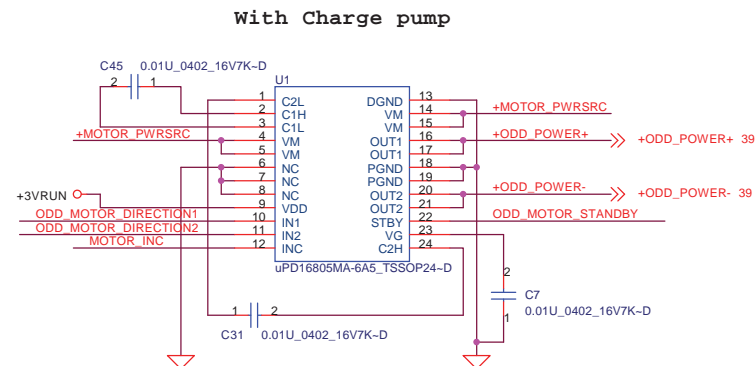
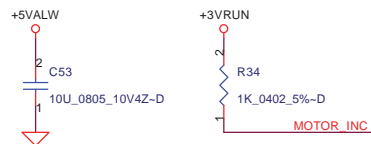
## Power Control

Greenland-LA2732P

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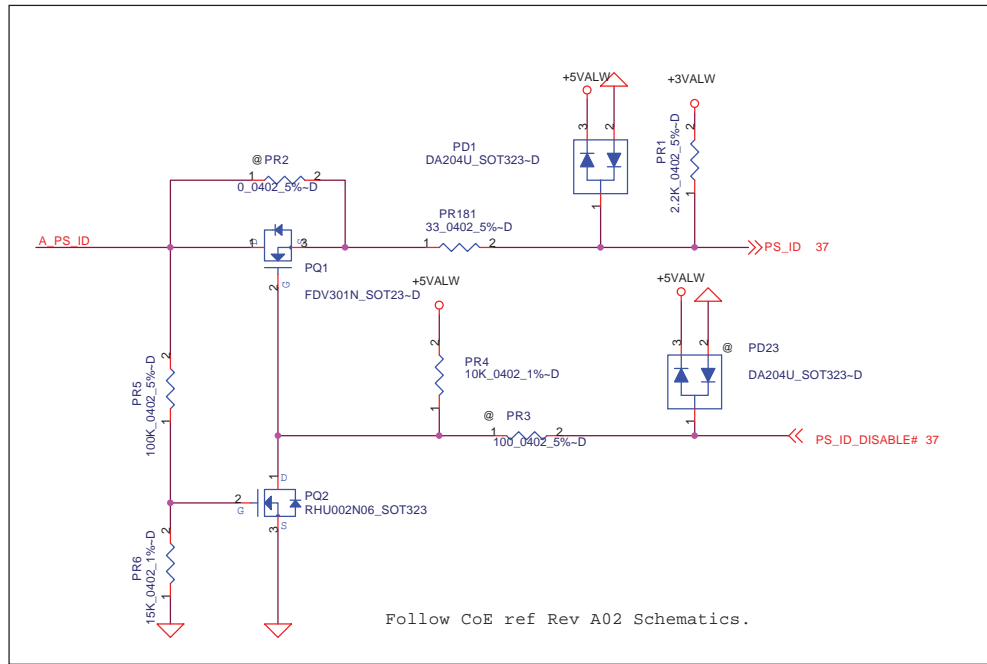


Input Signal				Function
MOTOR_IN1	MOTOR_IN2	MOTOR_INC	MOTOR_STBY#	
H	H	H	H	Brake Mode
H	L	H	H	Forward Mode
L	H	H	H	Reverse Mode
L	L	H	H	Stop Mode
X	X	L	H	Stop Mode
X	X	X	L	Standby Mode

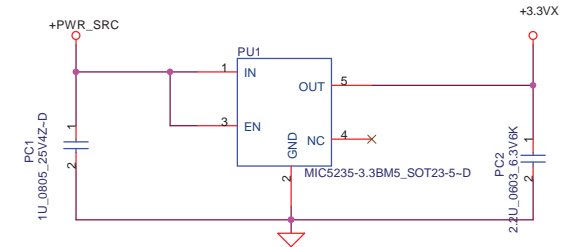
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	<b>Compal Electronics, Inc.</b>				
	Title				
	<b>CD ROM Motor</b>				
	Size	Document Number		Rev X03	
	<b>Greenland-LA2732P</b>				
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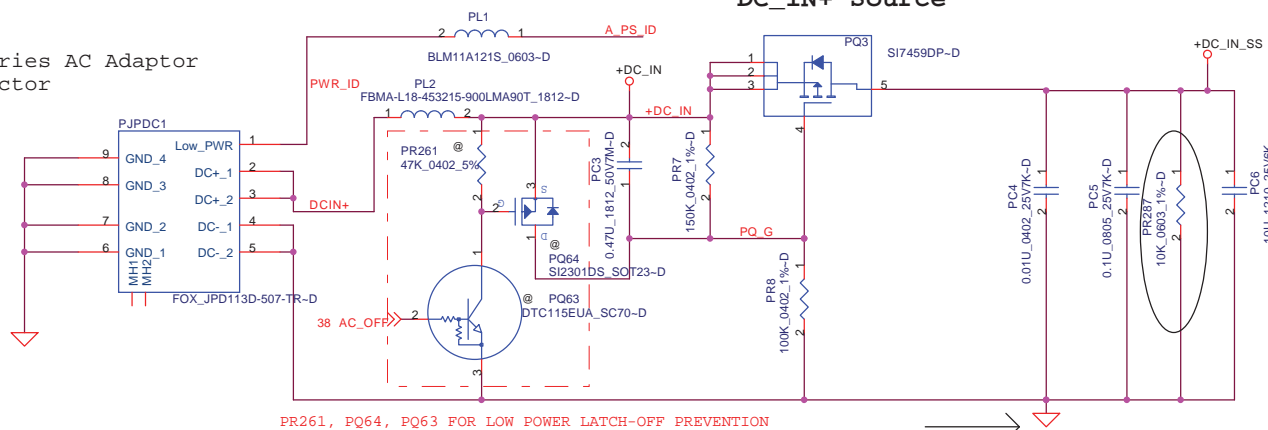


+3.3VRTC Source



DC\_IN+ Source

Z-series AC Adaptor  
Connector



THE POINT  
NOTE: \*THE POINT LOCATED  
AT PS MODULE

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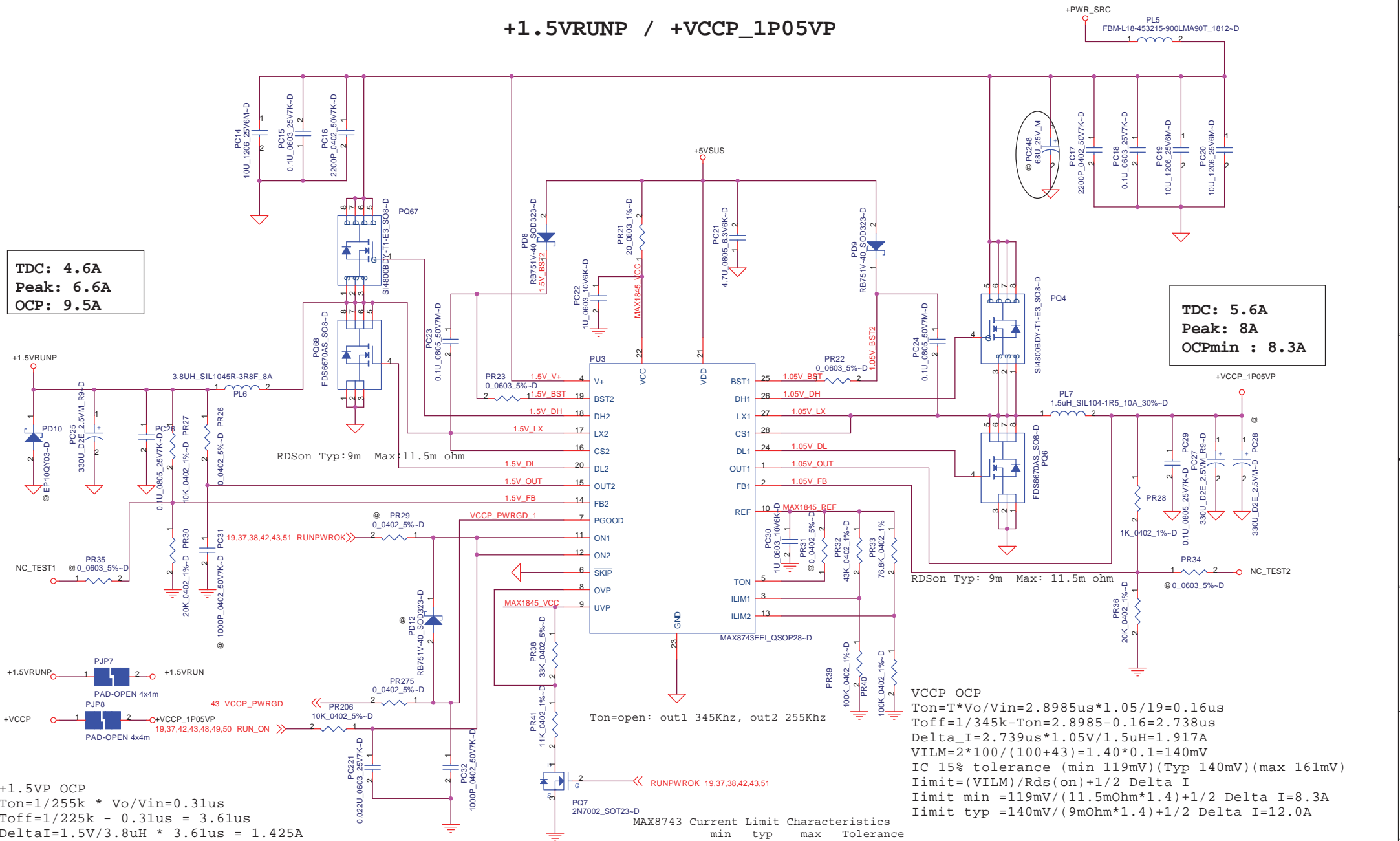
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Title			
Battery Conn/Kybrd_CHG			
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**+1.5VRUNP / +VCCP\_1P05VP**



MAX8743 Current Limit Characteristics				
	min	typ	max	Tolerance
ILIM=0.5V	40mV	50mV	60mV	20%
ILIM=1.0V	85mV	100m	115mV	15%

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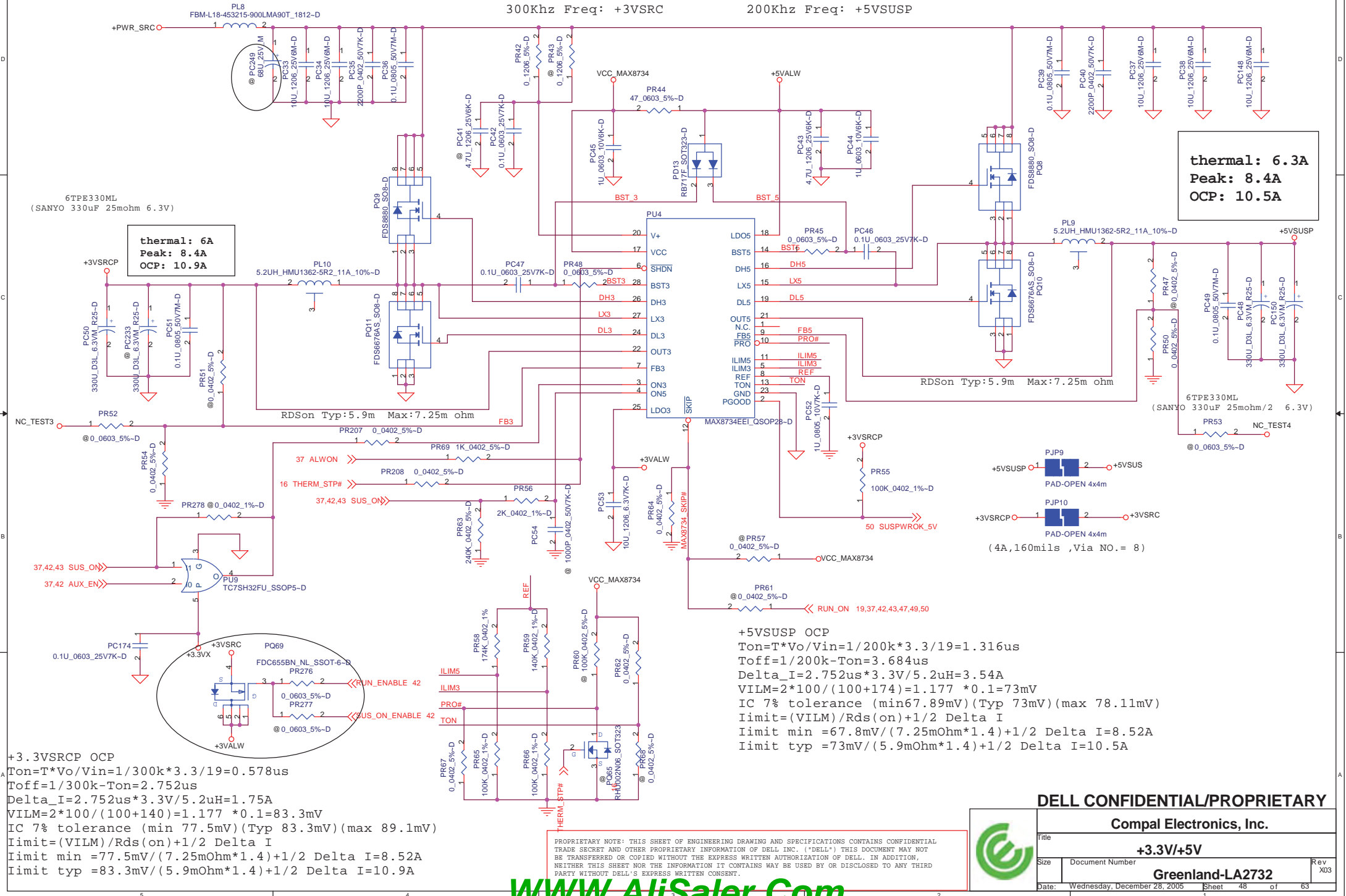
+1.5VRUNP /+VCCP\_1P05VP

Greenland-LA2732

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MAX8734 Current Limit Characteristics					
	min	typ	max	Tolerance	
VLIM=0.5V	40mV	50mV	60mV	20%	
VLIM=1.0V	93mV	100mV	107mV	7%	

## DC/DC +3V/ +5V

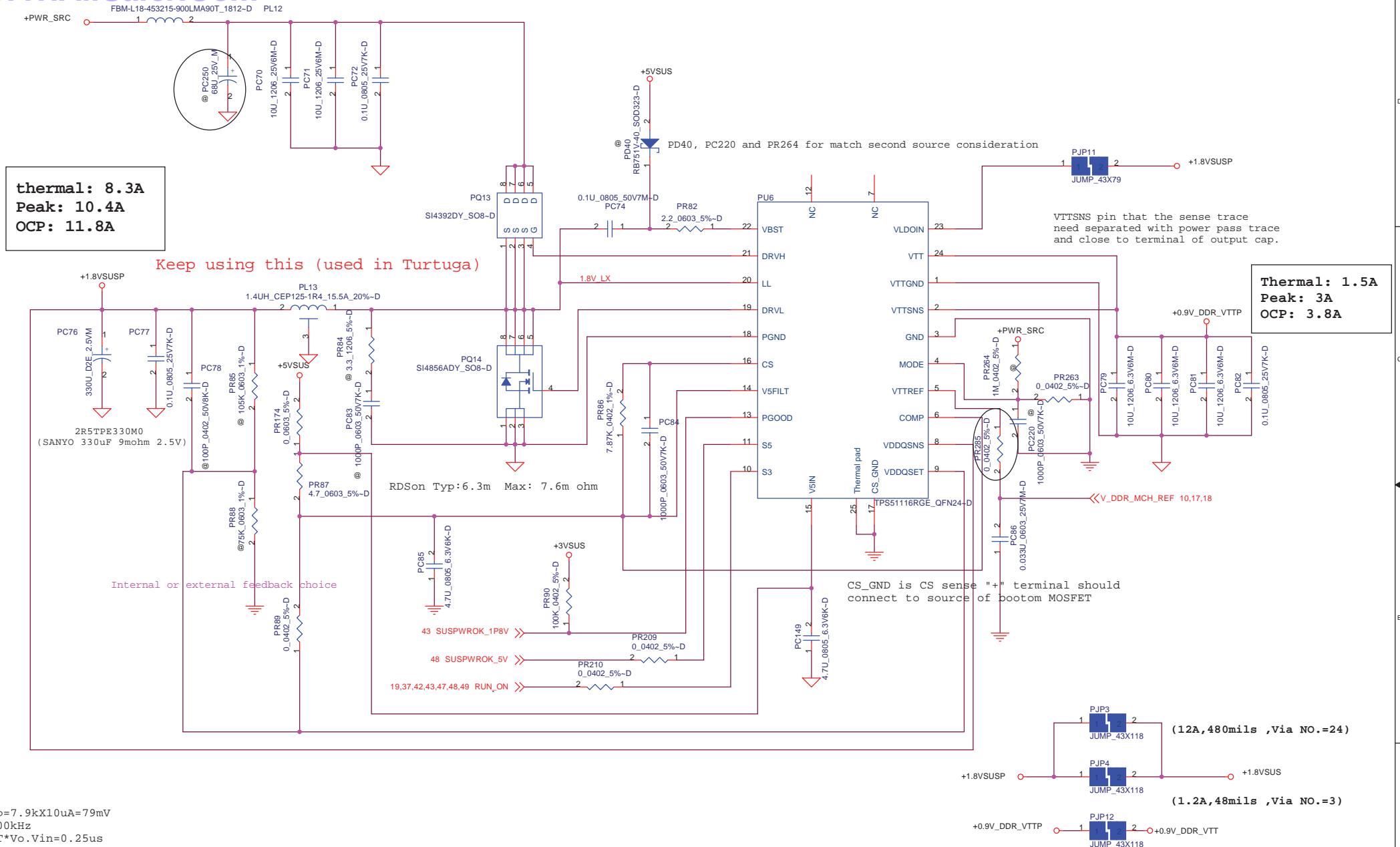


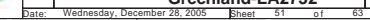
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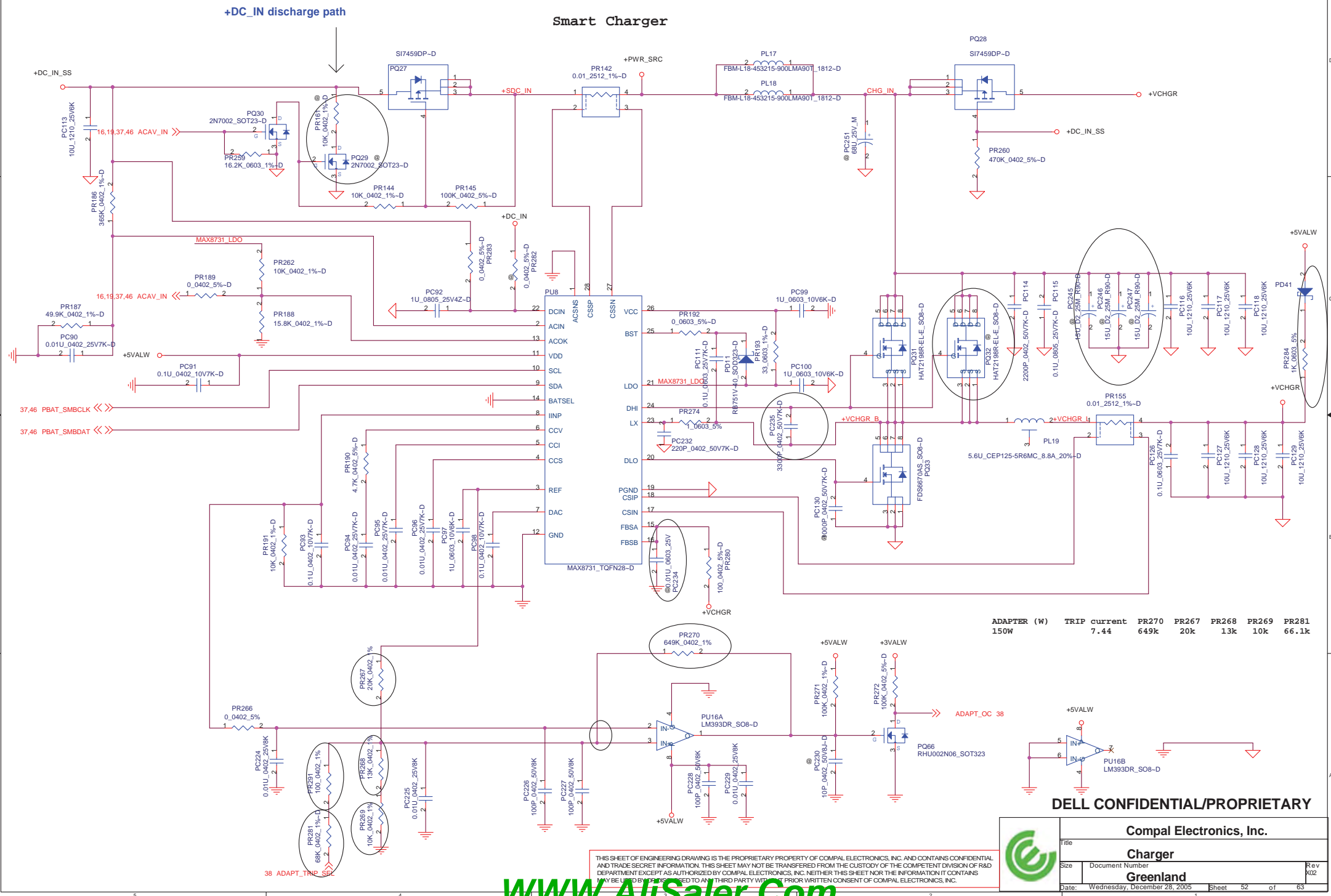
Compal Electronics, Inc.

Title			+3.3V/+5V	
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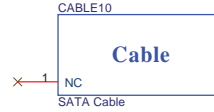
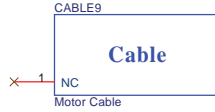
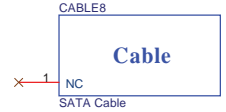
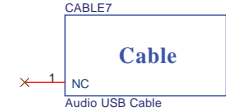
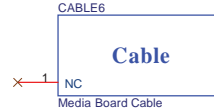
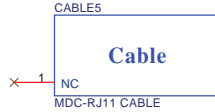
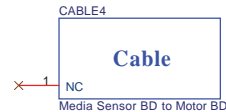
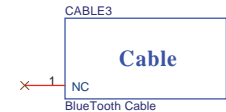
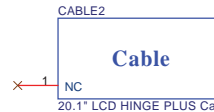
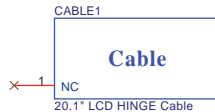
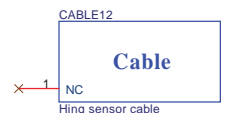
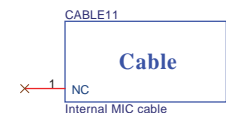
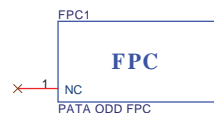
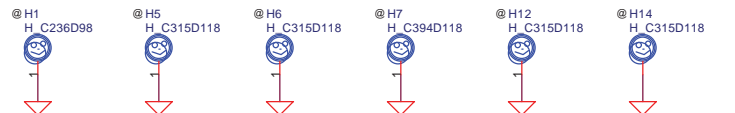
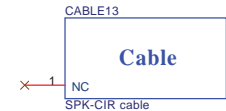
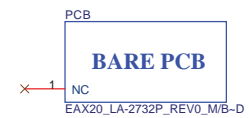
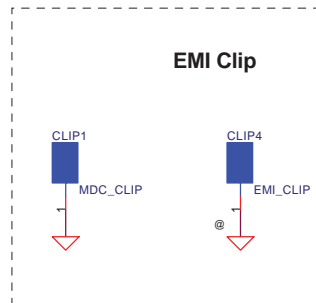
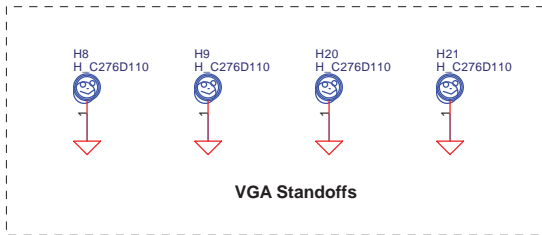
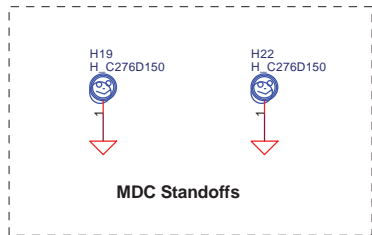
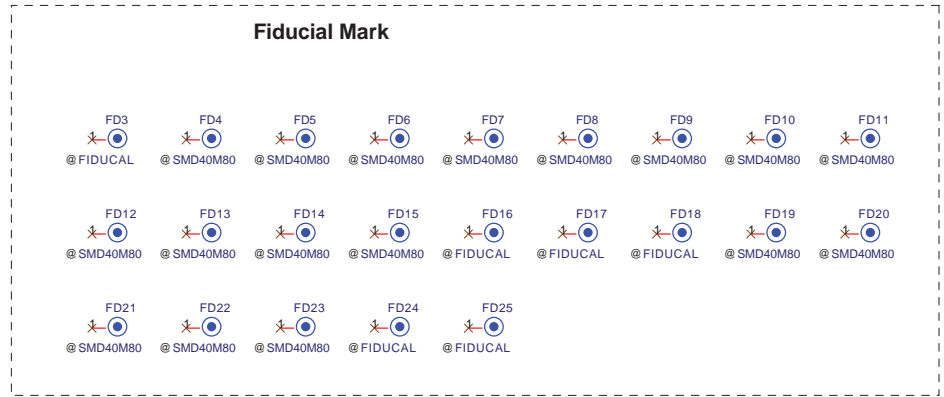
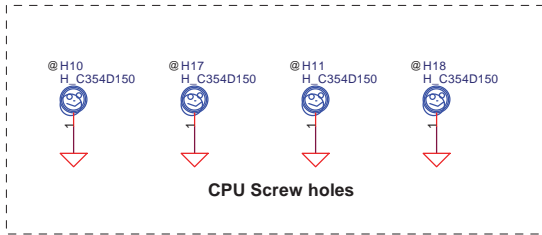
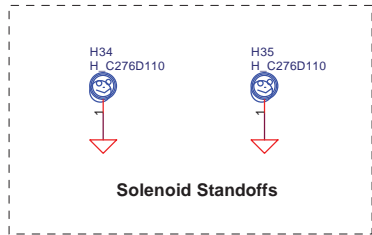












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**PAD and Standoff**

**Greenland-LA2732P**

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# 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_ECL_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_CODEEC_SDIN0 Rename AUDIO_AC_BITCLK to ICH_AZ_CODEEC_BITCLK Rename ICH_RST_AUDIO# to ICH_AZ_CODEEC_RST# Rename ICH_SYNC_AUDIO to ICH_AZ_CODEEC_SYNC Rename ICH_SDOUT_AUDIO to ICH_AZ_CODEEC_SDOUT	X01C

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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 +3VSR 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			Mohammed			

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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 +3VSR to +3VALW (Pin 15), GG issue list item14	Change JCIR pin15 from +3VSR 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 Ohm 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				

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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 details.	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

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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
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.	

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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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**EE-Changed-List History**

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

Item	Page #	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
97	37	MEC5004	2005/12/15	Mohammed	Please move the PRE_LID_CL# signal from GPIO46 to GPIO45 pin 55 (currently 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 PDTCT144 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 +3VSRG for WUSB wake up function	1. Change JWUSB pin 7 from +5VRUN to +5VSUS 2. Change JWUSB pin 8 from Gnd to +3VSRG	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 requiriment	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
		Subsystem ID		DELL	Add subsystem ID		

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
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		
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.	

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