

COMPAL CONFIDENTIAL

MODEL NAME : *QAL70*

PCB NO : *LA-7741P(DAB00000800)*

BOM P/N : *4619EO31L01 TPM ;4519EO31L02 TPM/TAA*

GPIO MAP: *Rev0.9*

Dalmore 13 UMA

Ivy Bridge + Panther POINT

2011-06-23
REV : 0.1 (X00)
@ : Nopop Component
CONN@ : Connector Component

MB Type	BOM P/N	
TPM EN/ TCM DIS		1@ 3@
TPM DIS/ TCM EN		2@ 4@
TPM DIS/ TCM DIS		2@ 3@
TAA		@TAA

SPI ON BOARD

@SPI

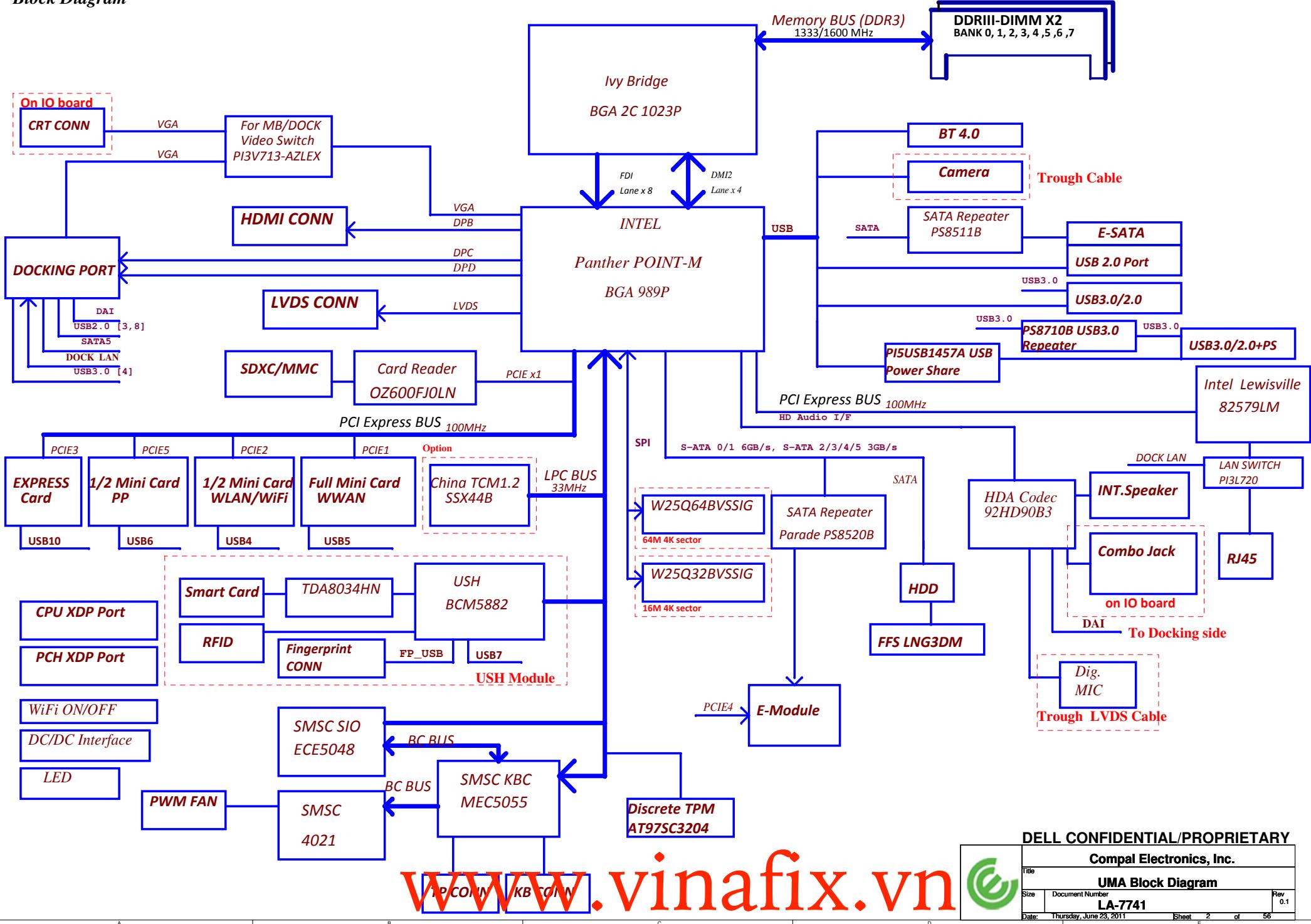
Part Number	Description
DA800001700	PCB OFM LA-6562P REV0 M/B UMA

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

WWW.Vinafix.VN

DELL CONFIDENTIAL/PROPRIETARY		
Compal Electronics, Inc.		
Title		
Cover Sheet		
Size	Document Number	Rev
	LA-7741	0.1
Date:	Thursday, June 23, 2011	Sheet 1 of 56

Block Diagram



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title	UMA Block Diagram	
Size	Document Number	Rev

LA-7741

0.1

Thursday, June 23, 2011

Sheet 2 of 56



POWER STATES

Signal State \ SLP S3#	SLP S4#	SLP S5#	SLP A#	ALWAYS PLANE	M PLANE	SUS PLANE	RUN PLANE	CLOCKS
S0 (Full ON) / M0	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON
S3 (Suspend to RAM) / M3	LOW	HIGH	HIGH	HIGH	ON	ON	ON	OFF
S4 (Suspend to DISK) / M3	LOW	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S5 (SOFT OFF) / M3	LOW	LOW	LOW	HIGH	ON	ON	OFF	OFF
S3 (Suspend to RAM) / M-OFF	LOW	HIGH	HIGH	LOW	ON	OFF	ON	OFF
S4 (Suspend to DISK) / M-OFF	LOW	LOW	HIGH	LOW	ON	OFF	OFF	OFF
S5 (SOFT OFF) / M-OFF	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF

PM TABLE

power plane \ State	+15V_ALW	+5V_ALW	+3.3V_ALW_PCH	+3.3V_RTC_LDO	+3.3V_SUS	+1.5V_MEM	+5V_RUN	+3.3V_RUN	+1.8V_RUN	+1.5V_RUN	+0.75V_DDR_VTT	+VCC_CORE	+1.05V_RUN_VTT	+1.05V_RUN	+3.3V_M	+1.05V_M	+1.05V_M (M-OFF)
S0	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
S3	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
S5 S4/AC	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
S5 S4/AC don't exist	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

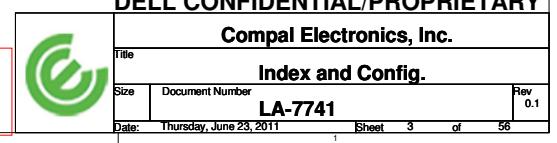
need to update Power Status and PM Table

	USB PORT#	DESTINATION
PCH	0	JUSB1 (Right side)
	1	JUSB2 (Rear Left side)
	2	NA
	3	MLK DOCK
	4	WLAN
	5	WWAN
	6	JMINI3(PP)
	7	USH->BIO
	8	DOCKING
	9	JESATA1 (right side)
	10	Express card
	11	Bluetooth
	12	Camera
	13	NA

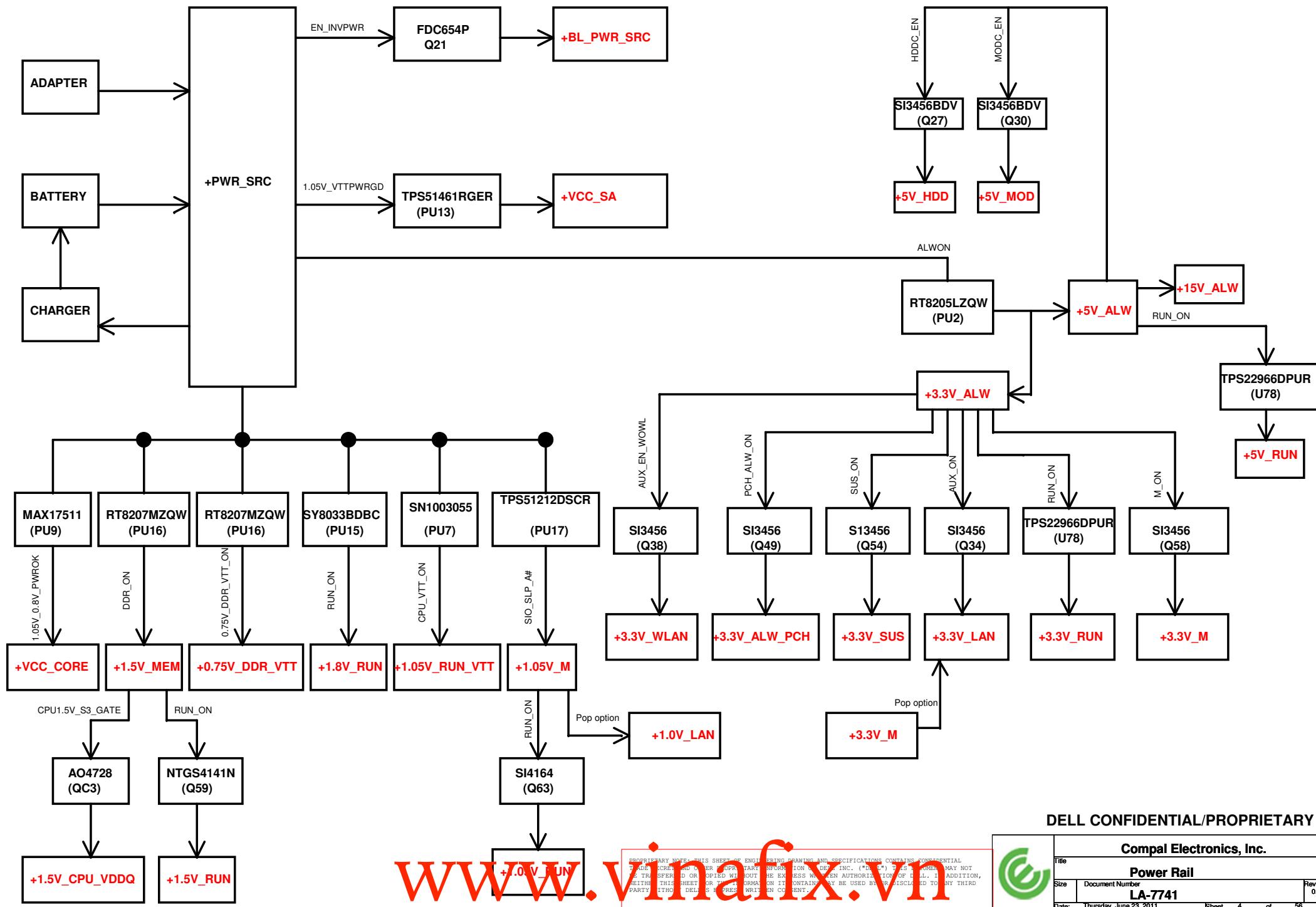
USH	0	BIO
	1	NA

PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	MINI CARD-2 WLAN
Lane 3	Express card
Lane 4	E3 Module Bay (USB3)
Lane 5	1/2vMINI CARD-3 PCIE
Lane 6	MMI
Lane 7	10/100/1G LOM
Lane 8	None

UMA DP/HDMI Port	Connnection
Port B	MB HDMI Conn
Port C	Dock DP port 2
Port D	Dock DP port 1



WWW.Vinafix.vn

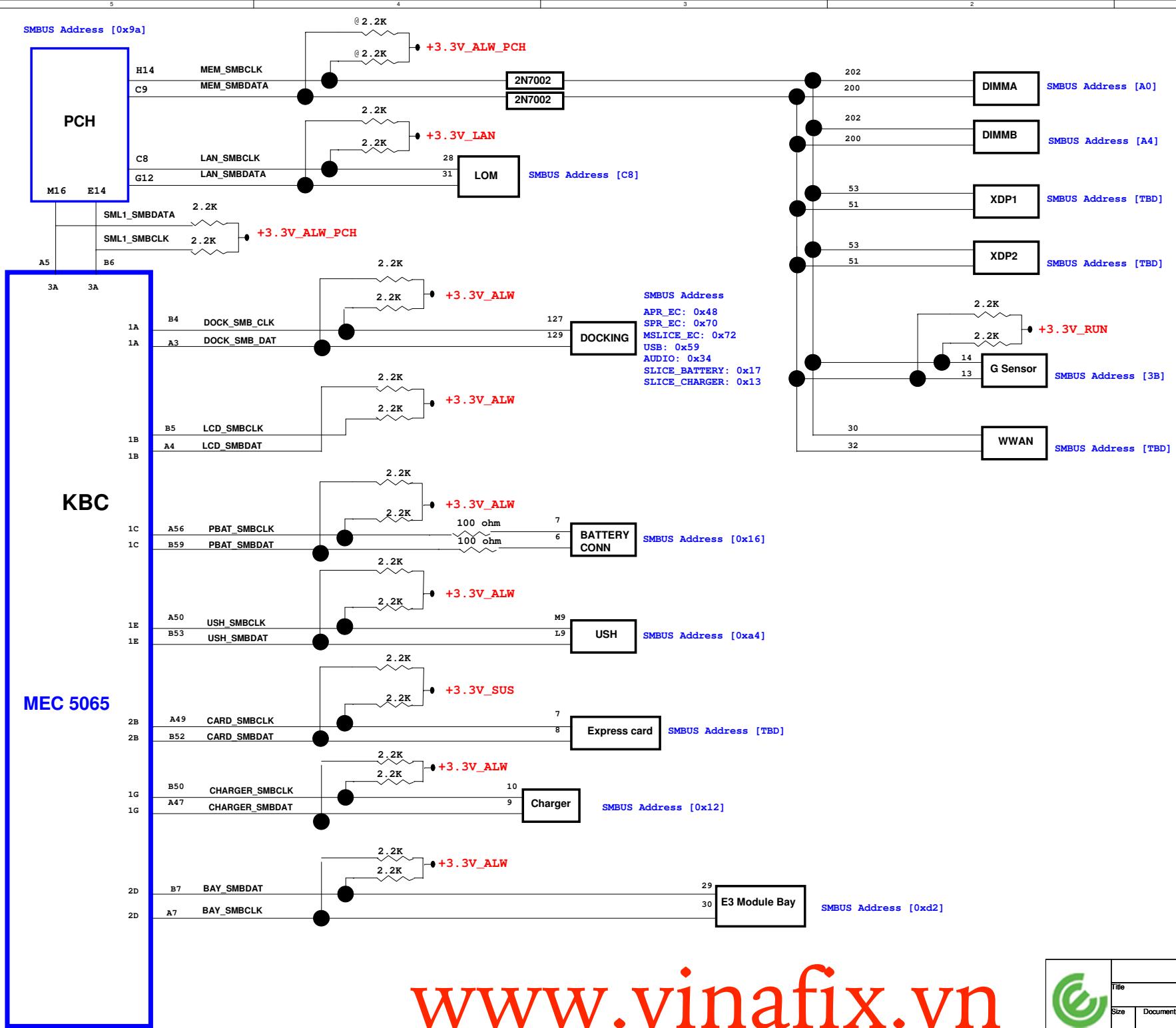


DELL CONFIDENTIAL/PROPRIETARY

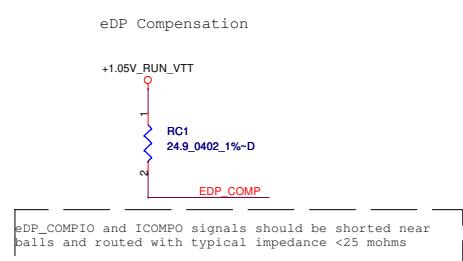
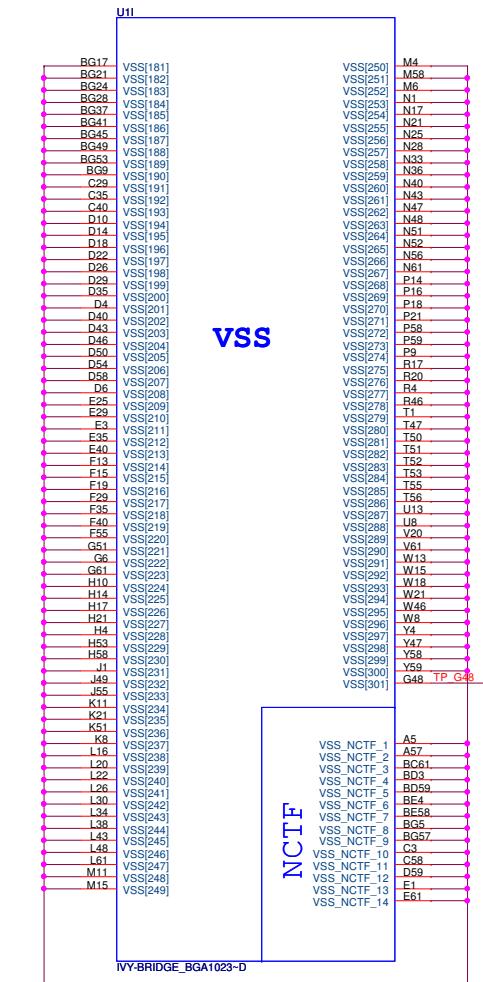
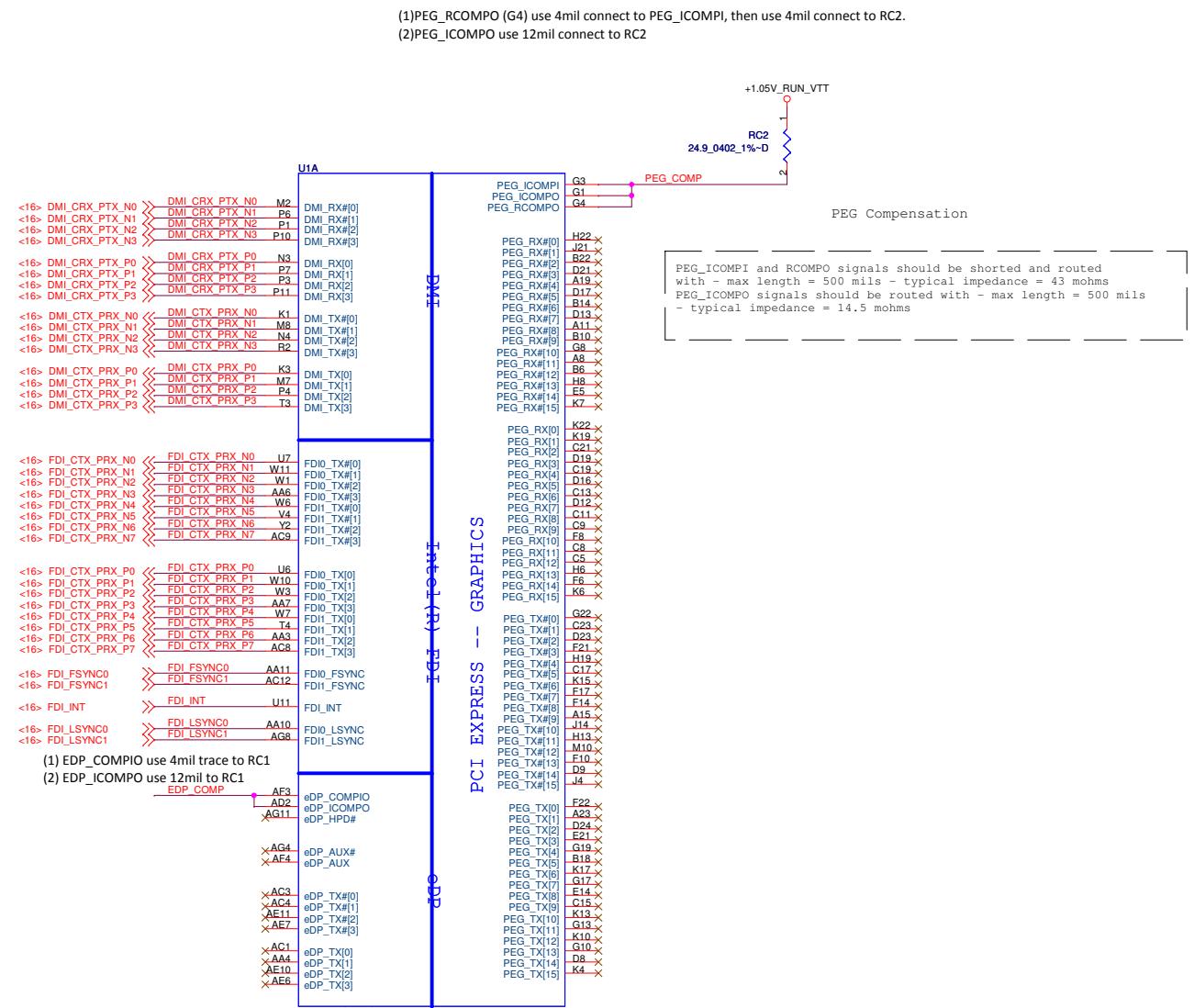
Compal Electronics, Inc.	
Title	
Power Rail	
Size	Document Number
	LA-7741
Rev	0.1
Date:	Thursday, June 23, 2011
Sheet	4 of 56

WWW.Vinamfix.Vn

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). IT IS UNAUTHORIZED TO REPRODUCE OR COPY IN WHOLE OR IN PART, EXCEPT WITH WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR ANY INFORMATION CONTAINED THEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE EXPRESS WRITTEN CONSENT OF DELL.

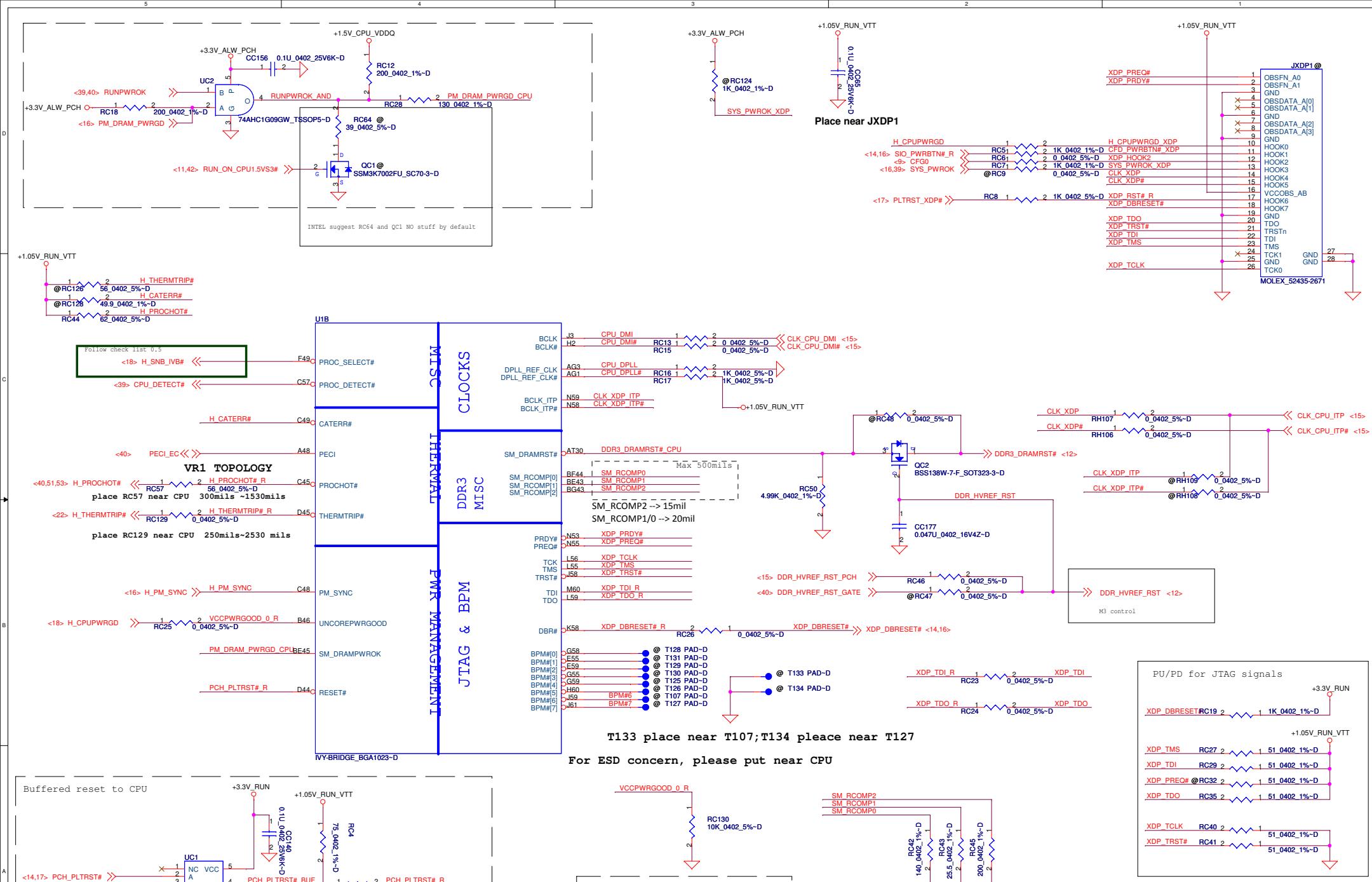


www.vinafix.vn



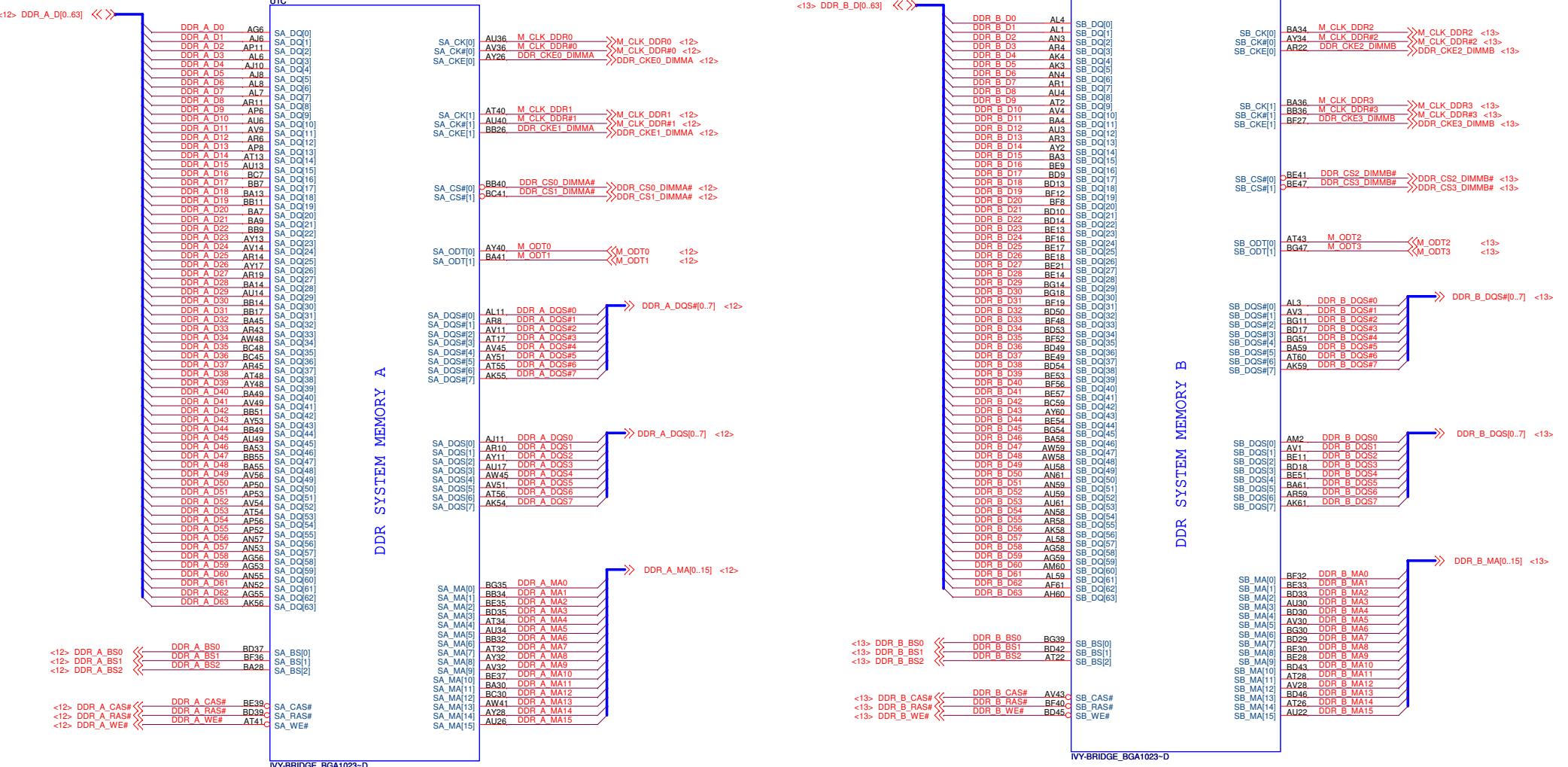
www.vinafix.vn

DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
Title			
Sandy Bridge (1/6)			
Size	Document Number	Rev	
	LA-7741	0.1	
Date	Thursday, June 23, 2011	Effect	6
		-	56

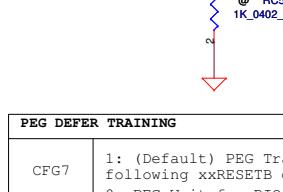
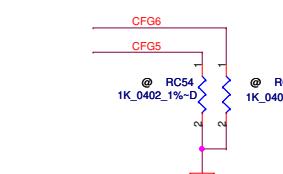
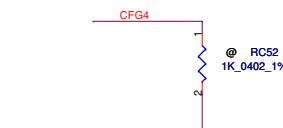
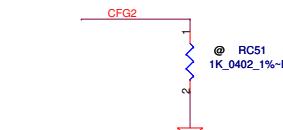
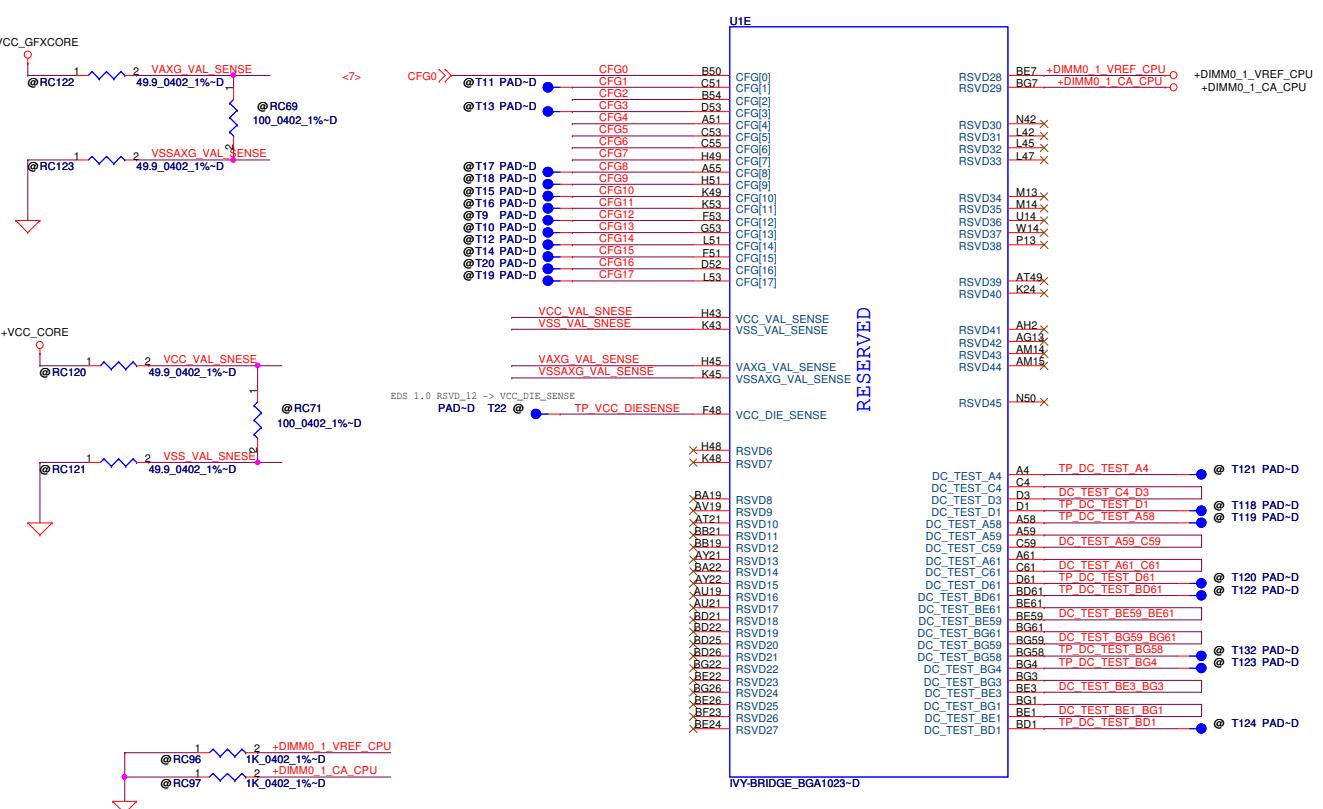


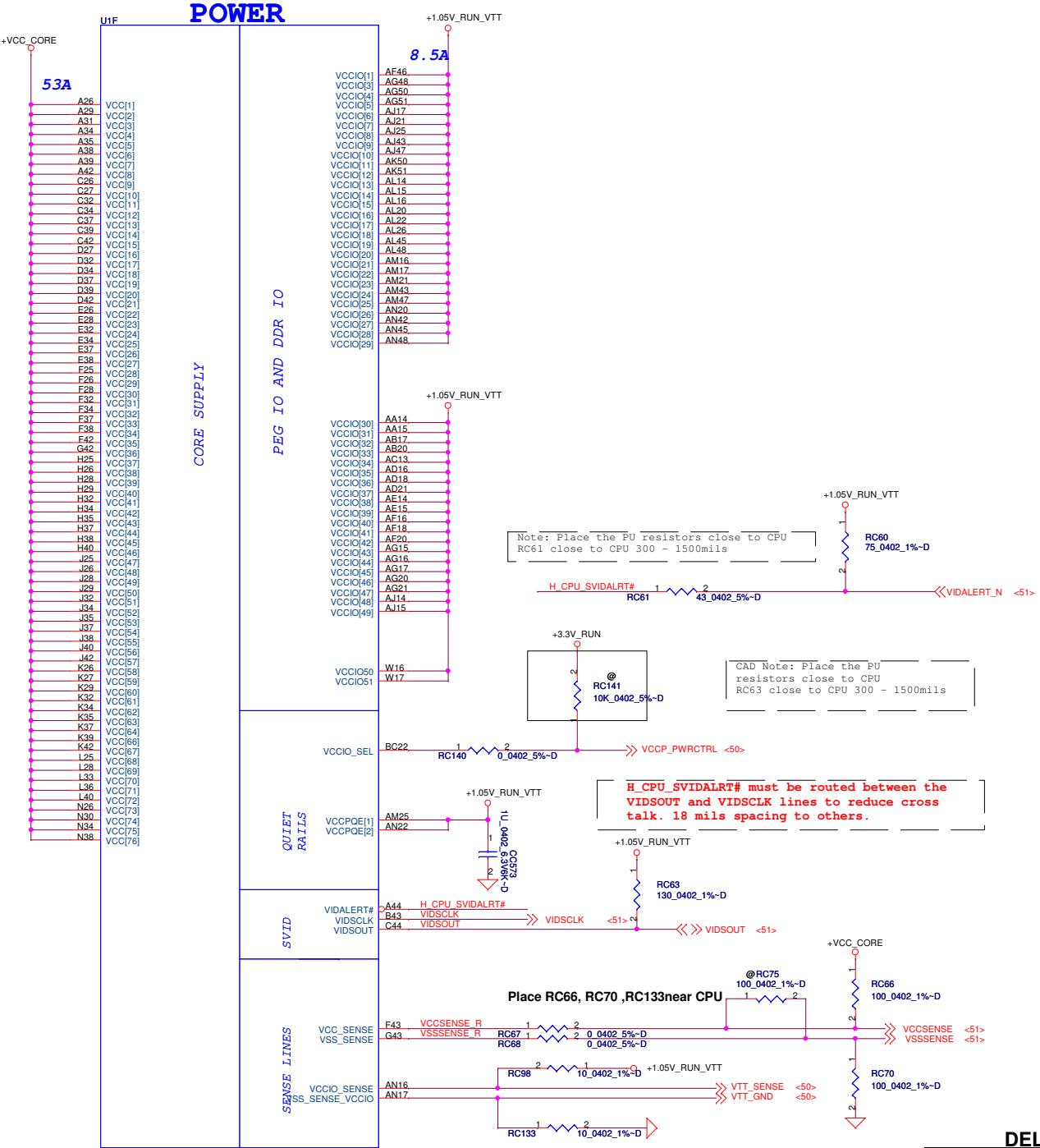
www.vinafix.vn

DELL CONFIDENTIAL/PROPRIETARY			
<p align="center">Compal Electronics, Inc.</p>			
Title	Sandy Bridge (2/6)		
Size	Document Number	Rev	
	LA-7741	0.1	
Date	Thursday, June 22, 2011		



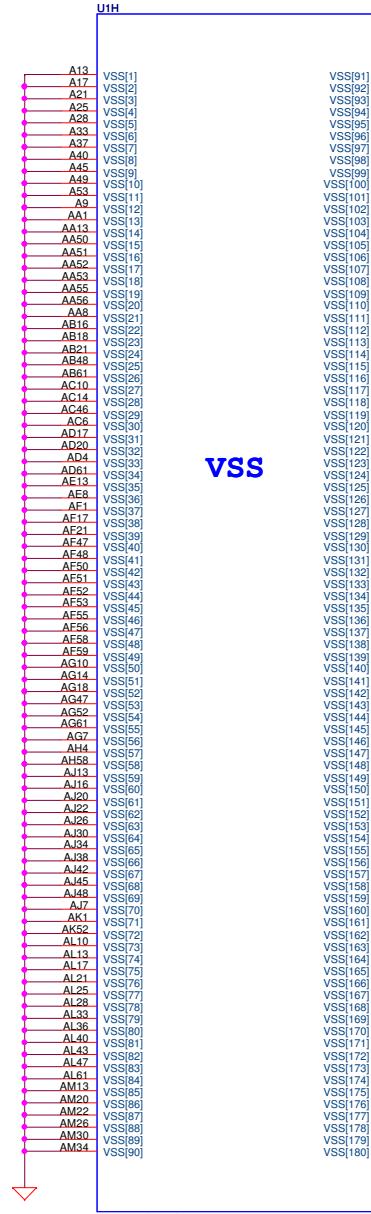
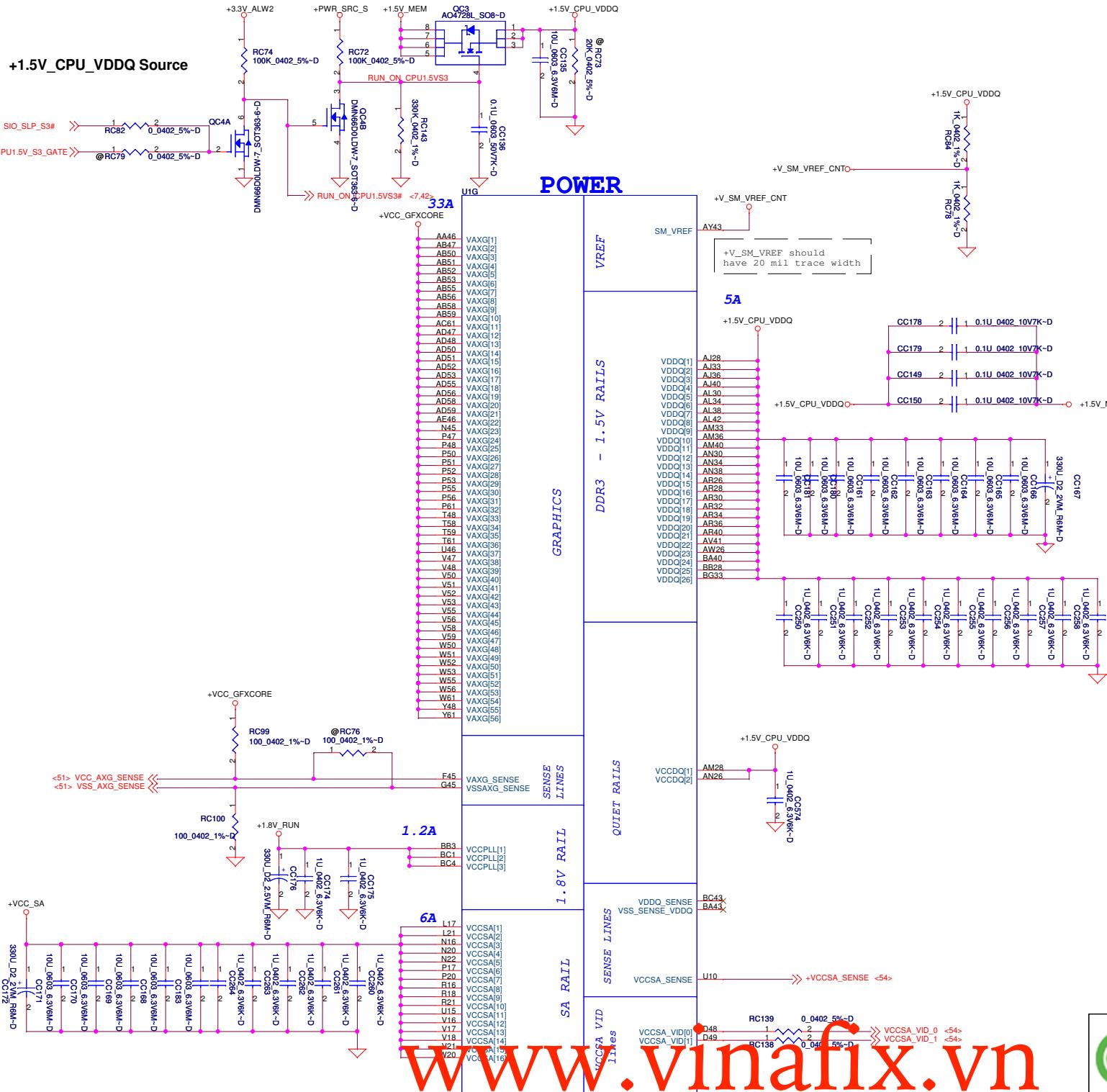
CFG Straps for Processor



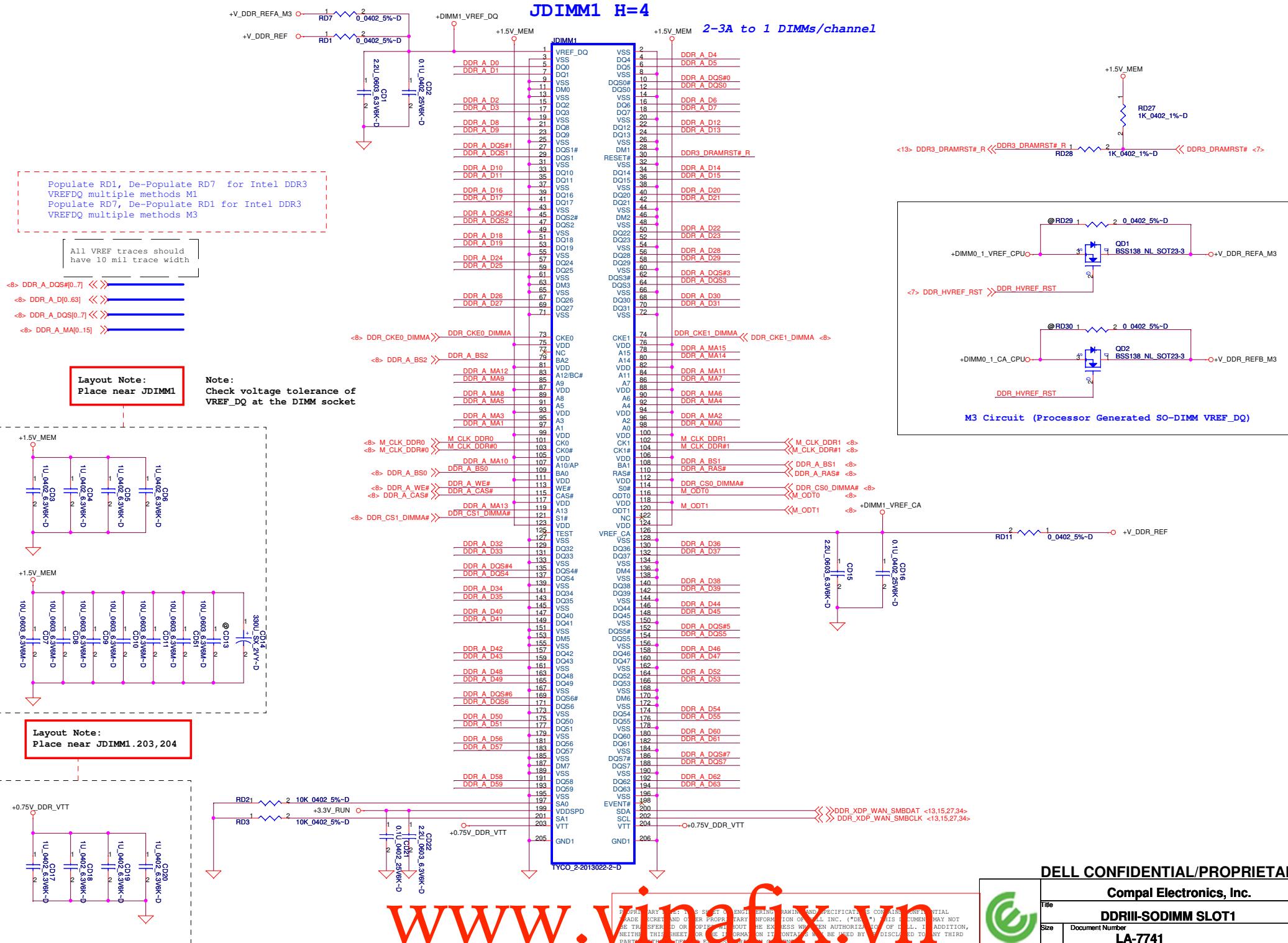


CPU Power Rail Table		
Voltage Rail	Voltage	S0 Iccmax Current (A)
VCC	0.65-1.3	53
VCCIO	1.05/1	8.5
VAXG	0.0-1.1	33
VCCPLL	1.8	1.2
VDDQ	1.5	5
VCCSA	0.65-0.9	6
+1.5V_MEM	1.5	12-16 *

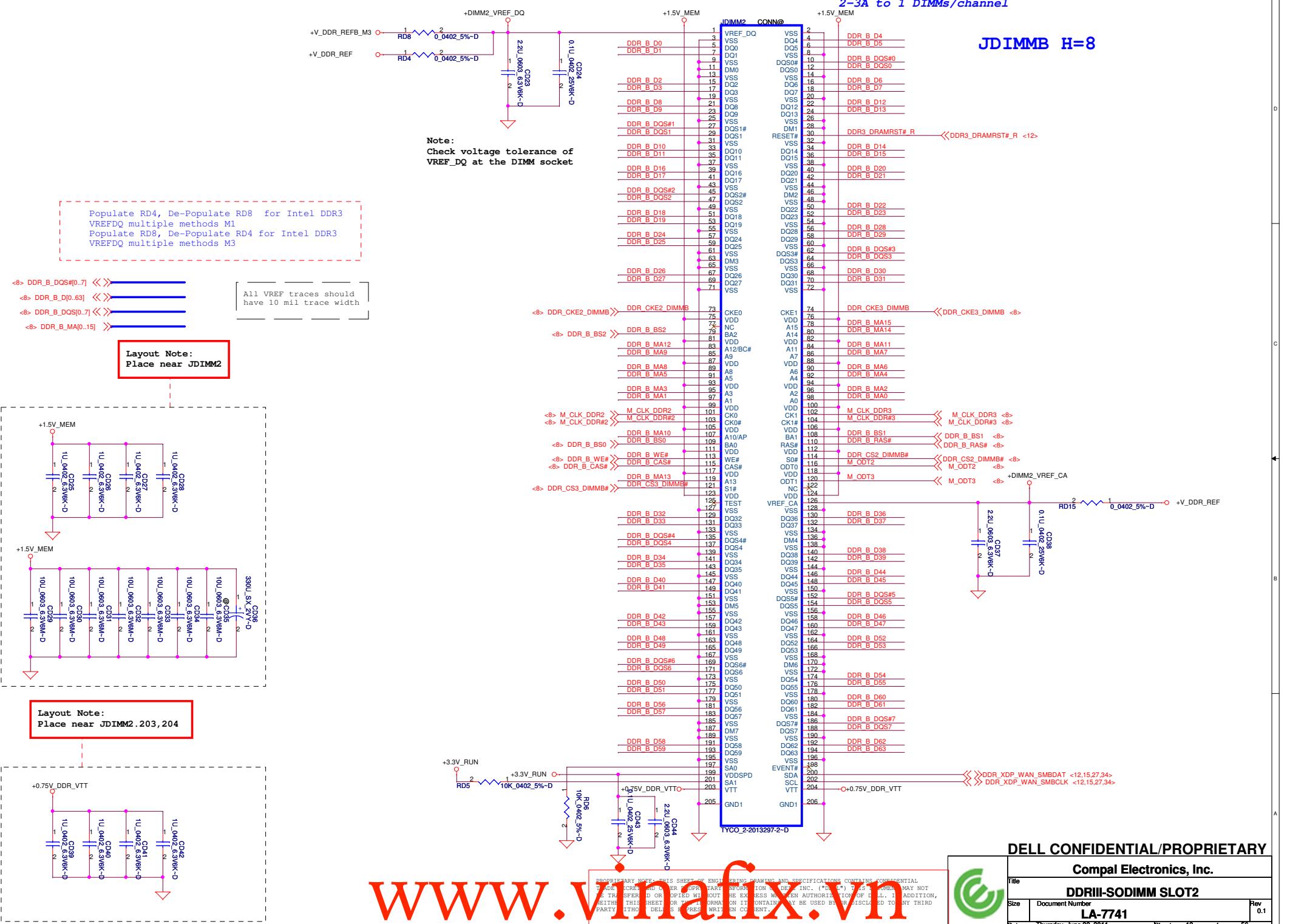
* Description
5A to Mem controller(+1.5V_CPU_VDDQ)
5-6A to 2 DIMMs/channel
2-5A to +1.5V_RUN & +0.75V_DDR_VTT

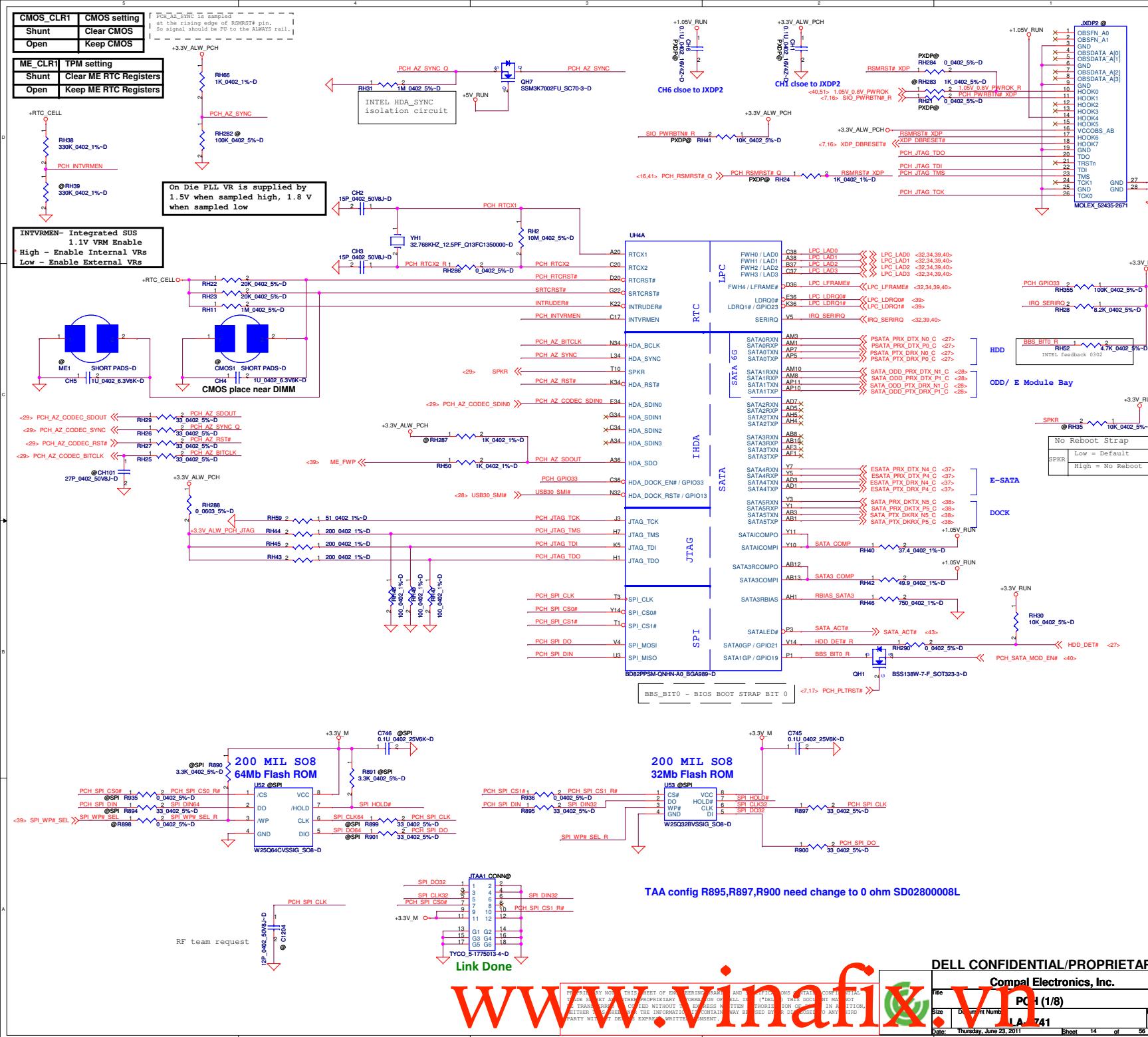


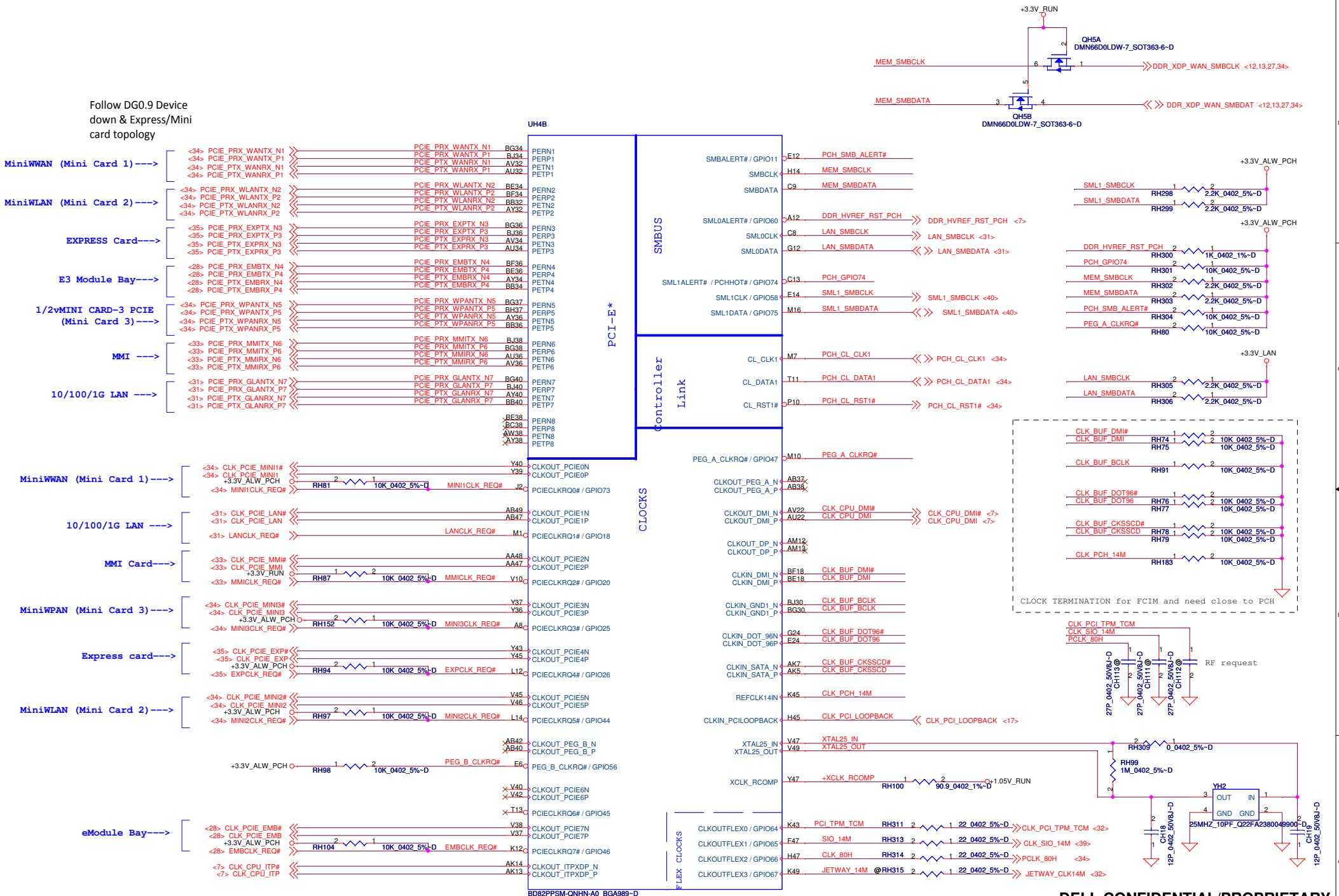
DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
Title	Sandy Bridge (6/6)		
Size	Document Number	Rev. 0.1	
		LA-7741	
Date:	Thursday, June 29, 2011	Sheet:	11
			56



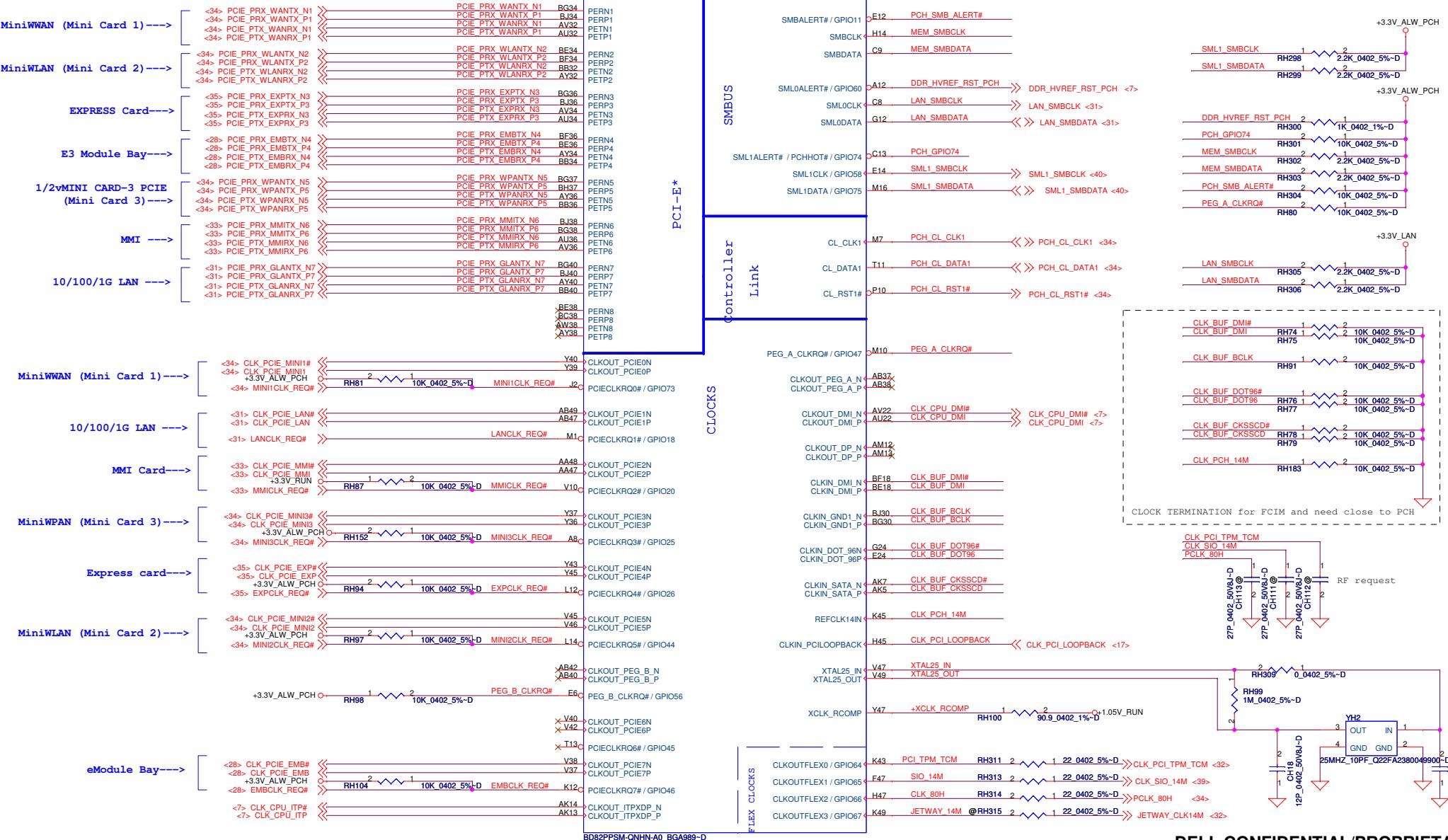
PROPRIETARY SHEET OF ENGINEERING DRAWING AND SPECIFICATION CONTAINING CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IT IS NEITHER THE SHEET NOR THE INFORMATION IT CONTAINS TO BE USED BY ANYONE DISCLOSED TO

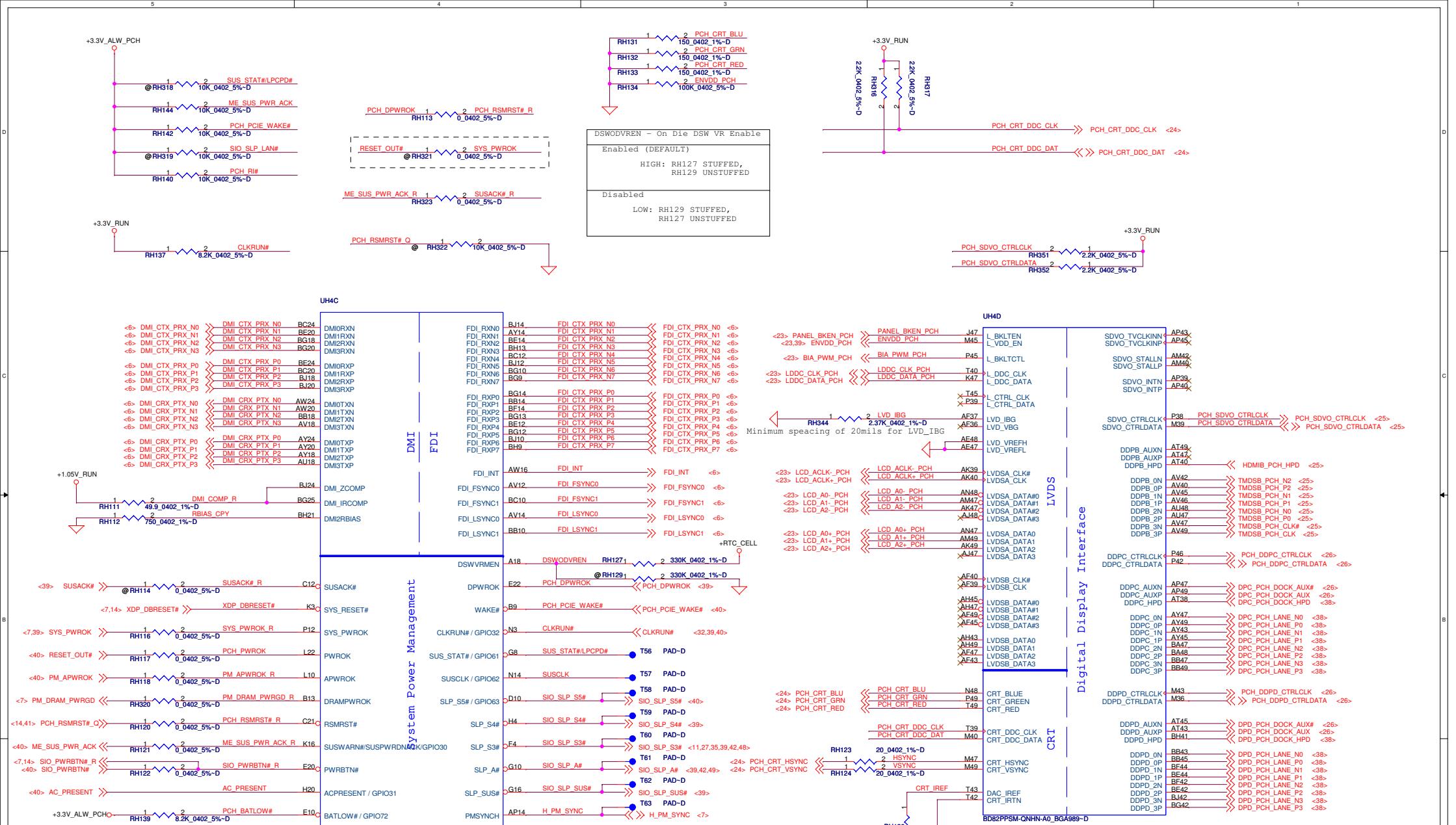






Follow DG0.9 Device
down & Express/Mini
card topology





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

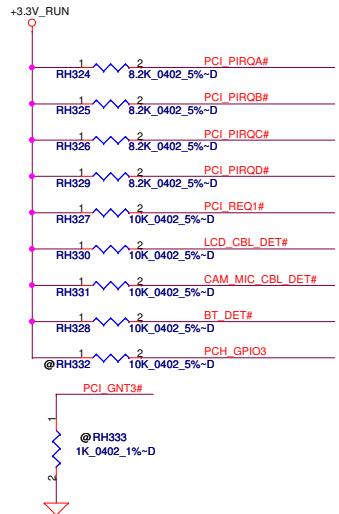
DELL CONFIDENTIAL/PROPRIETARY	
Compal Electronics, Inc.	
Title	PCH (3/8)
Size	Document Number
Rev	0.1

LA-7741

Date: Thursday, June 23, 2011

Sheet 16 of 56

www.vinafix.vn



A16 swap override Strap/Top-Block
Swap Override jumper

PCI_GNT#3	Low = A16 swap High = Default
-----------	----------------------------------

CLK_PCI_5048
CLK_PCI_MEC
CLK_PCI.Dock
CLK_PCI_LOOPBACK

RF request

CH107@ 27P_0402_5VBL-D
CH108@ 27P_0402_5VBL-D
CH109@ 27P_0402_5VBL-D
CH110@ 27P_0402_5VBL-D

<36> USB3RN1
<36> USB3RN2
<36> USB3RN3
<38> USB3RN4
<36> USB3RP1
<36> USB3RP2
<38> USB3RP4
<36> USB3TN1
<36> USB3TN2
<38> USB3TN4
<36> USB3TP1
<36> USB3TP2
<38> USB3TP4

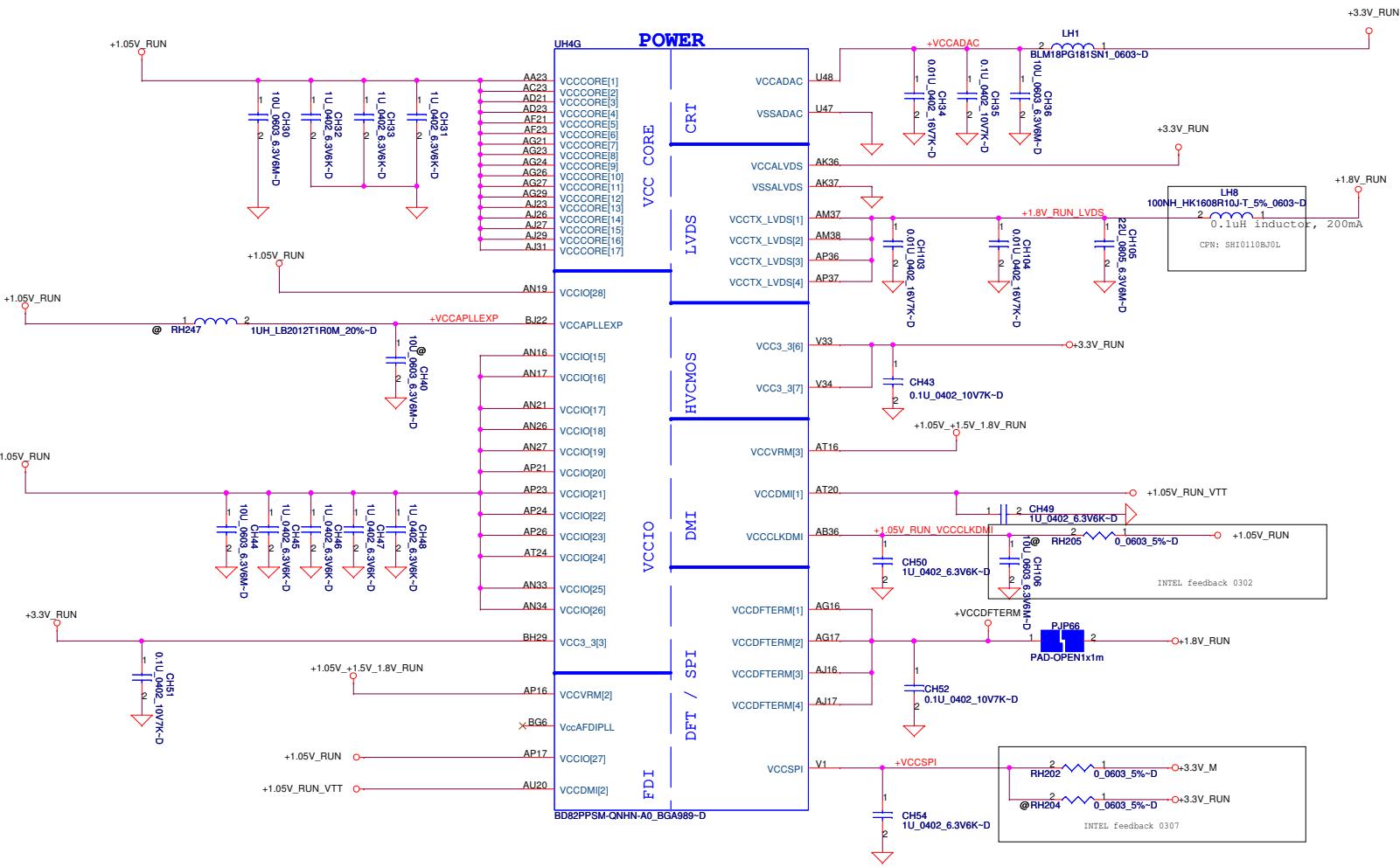
RSVD

USB30

PCI

USB

PCI



PCH Power Rail Table			
Voltage Rail	Voltage	I _{CC}	max Current (A)
V_Proc_IO	1.05	0.001	
V5REF	5	0.001	
V5REF_Sus	5	0.001	
Vcc3_3	3.3	0.228	
VccADAC3	3.3	0.063	
VccADPLL_A	1.05	0.08	
VccADPLL_B	1.05	0.08	
VccCore	1.05	1.7	
VccDMI	1.1	0.047	
VccIO	1.05	3.711	
VccASW	1.05	0.903	
VccSPI	3.3	0.01	
VccDSW3_3	3.3	0.001	
VCCDFTTERM	1.8	0.002	
VccRTC	3.3	2 (mA)	
VccSus3_3	3.3	0.095	
VccSusHDA	3.3	0.01	
VccVRM	1.5	0.167	
VccClkDMI	1.05	0.07	
VccSSC	1.05	0.095	
VccDIFFCLKN	1.05	0.055	
VccALVDS	3.3	0.001	
VccTX_LVDS	1.8	0.04	

www.vinifix.vn

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

DELL CONFIDENTIAL / PROPRIETARY

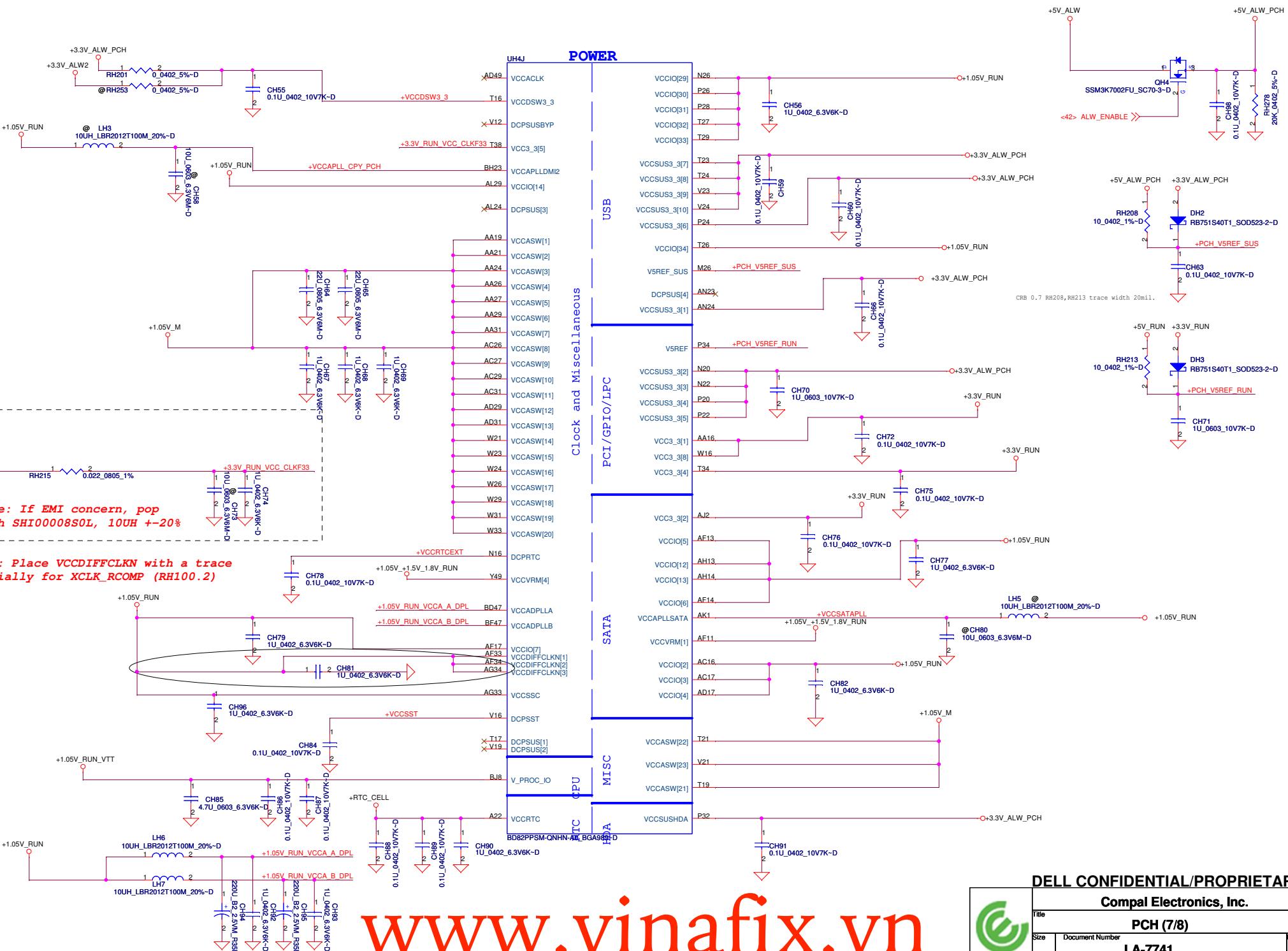
Compal Electronics, Inc.

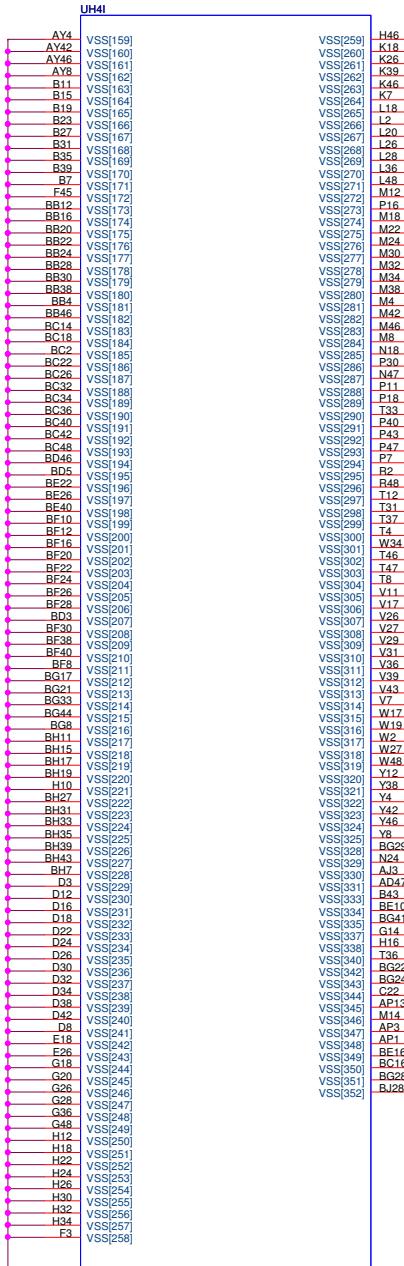
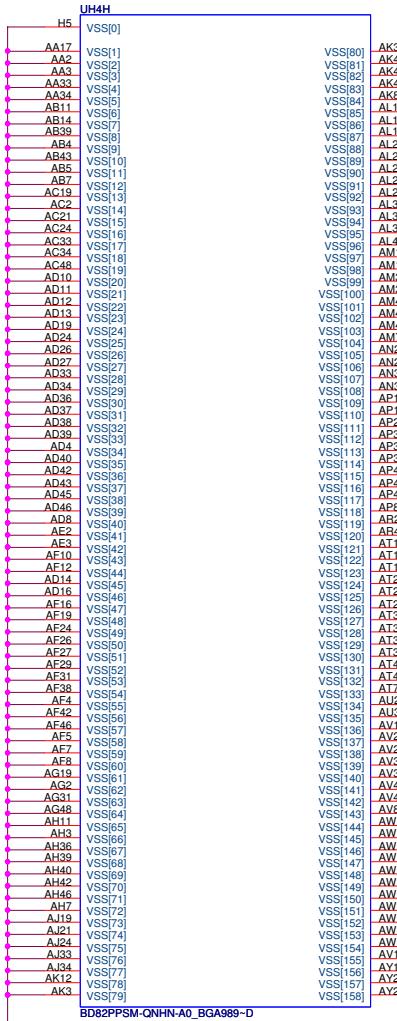
PCH (6/8)

Number

June 23, 2011 Sheet 19 of 19







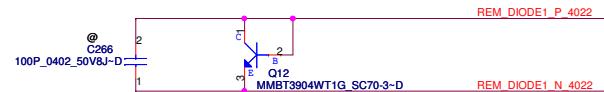
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). IT IS UNAUTHORIZED TO REPRODUCE OR DISCLOSE THIS DOCUMENT IN WHOLE OR IN PART, EXCEPT WITH WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE DOCUMENTS CONTAINED HEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELIVERING THE SAME TO DELL IN WRITTEN FORM.

WWW.Vinafix.Vn

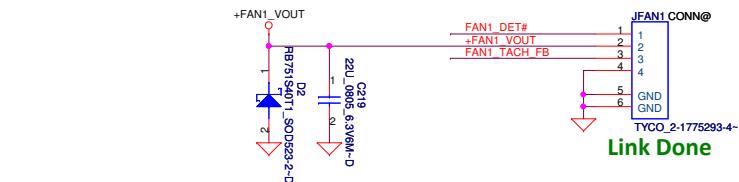
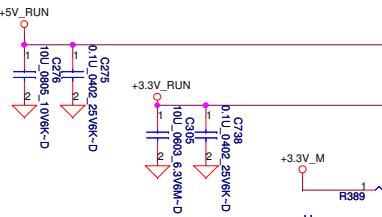
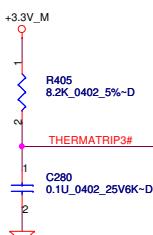
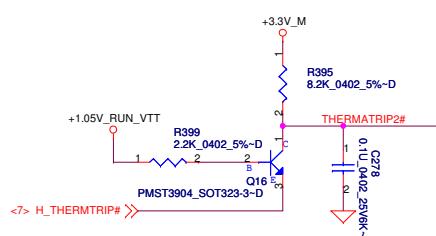
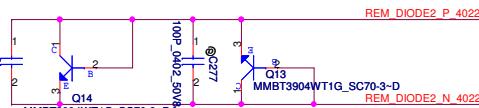
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.	
Title	PCH (8/8)
Size	Document Number
Rev	LA-7741
Date:	Thursday, June 23, 2011
Sheet	21
of	56

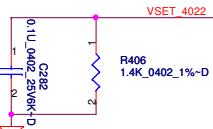
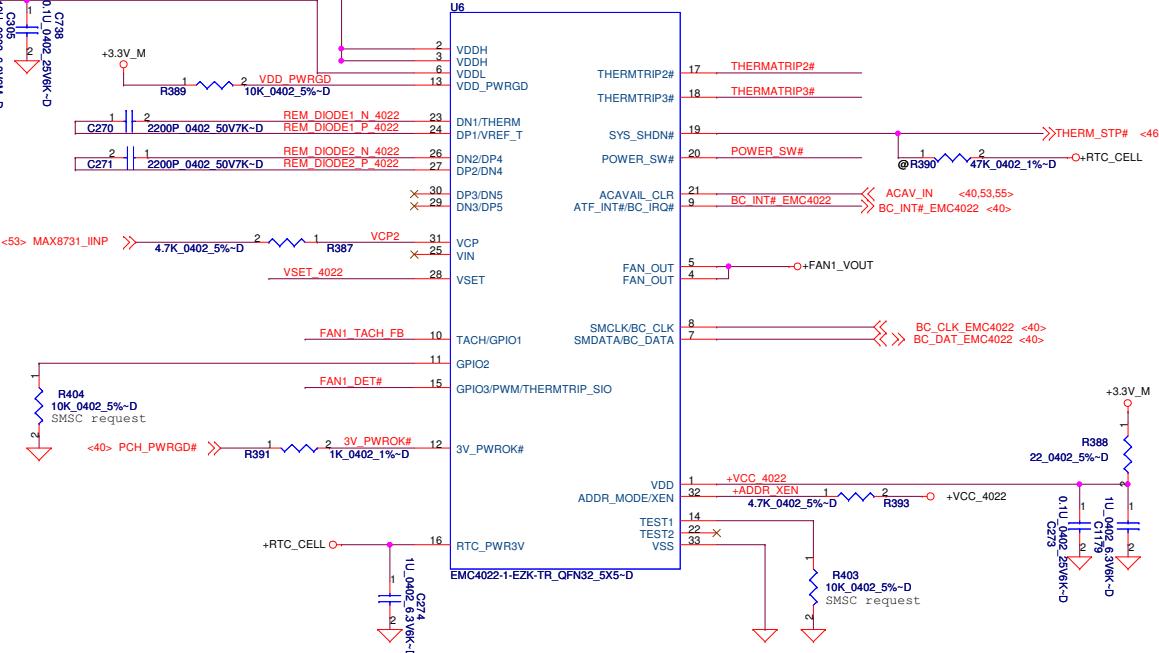
Place under CPU
Place C266 close to the Q12 as possible



(1) DP3/DN3 for SODIMM on Q14, place Q14 close to SODIMM and C272 close to Q14
(2) DP5/DN5 for Skin on Q13, place Q13 close to Vcore VR choke.



Change to EMC4021 for cost saving



Rest=1400 Tp=94degree

DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.

Title

FAN & Thermal Sensor

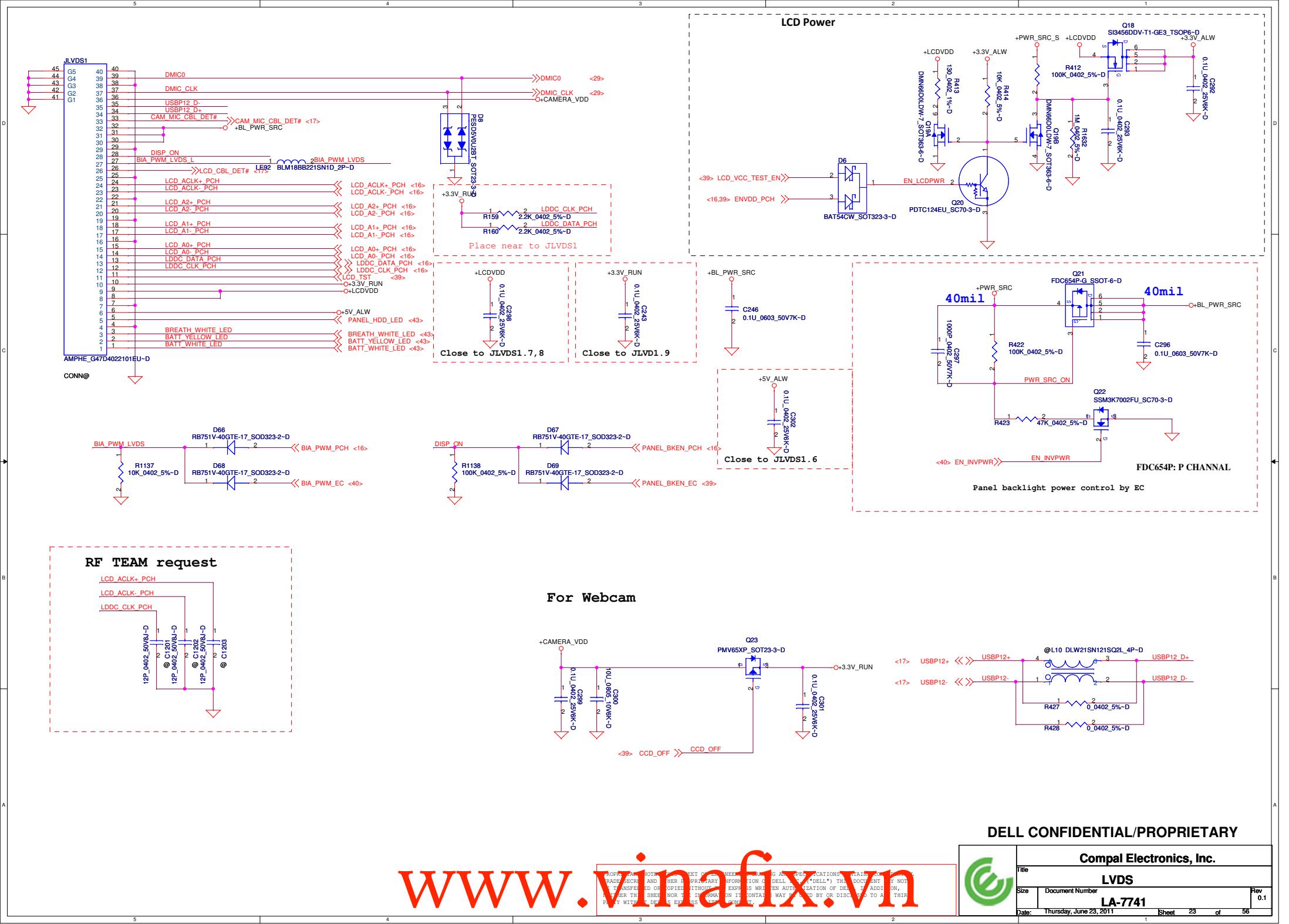
Size Document Number Rev. 0.1

LA-7741

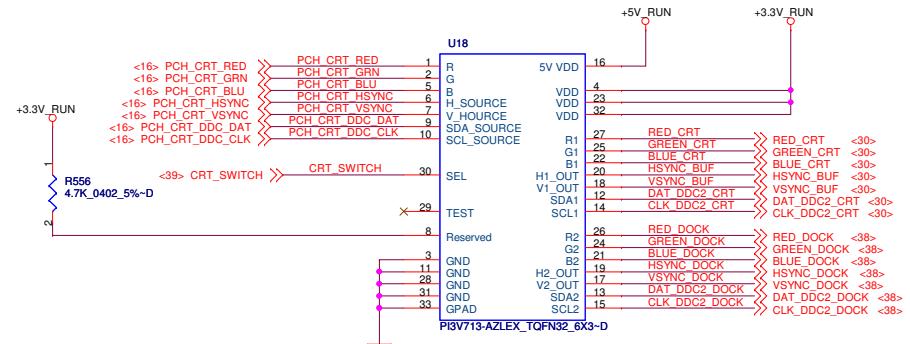
Date: Thursday, June 23, 2011 Sheet 22 of 56

WWW.Vinamfix.VN

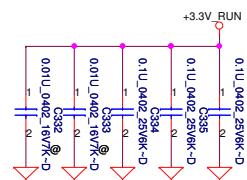
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). IT IS UNAUTHORIZED TO REPRODUCE OR DISCLOSE THIS INFORMATION EXCEPT WITH THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR ANY DRAWINGS OR DOCUMENTATION CONTAINED HEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELLS EXPRESS WRITTEN CONSENT.



SW for MB/DOCK

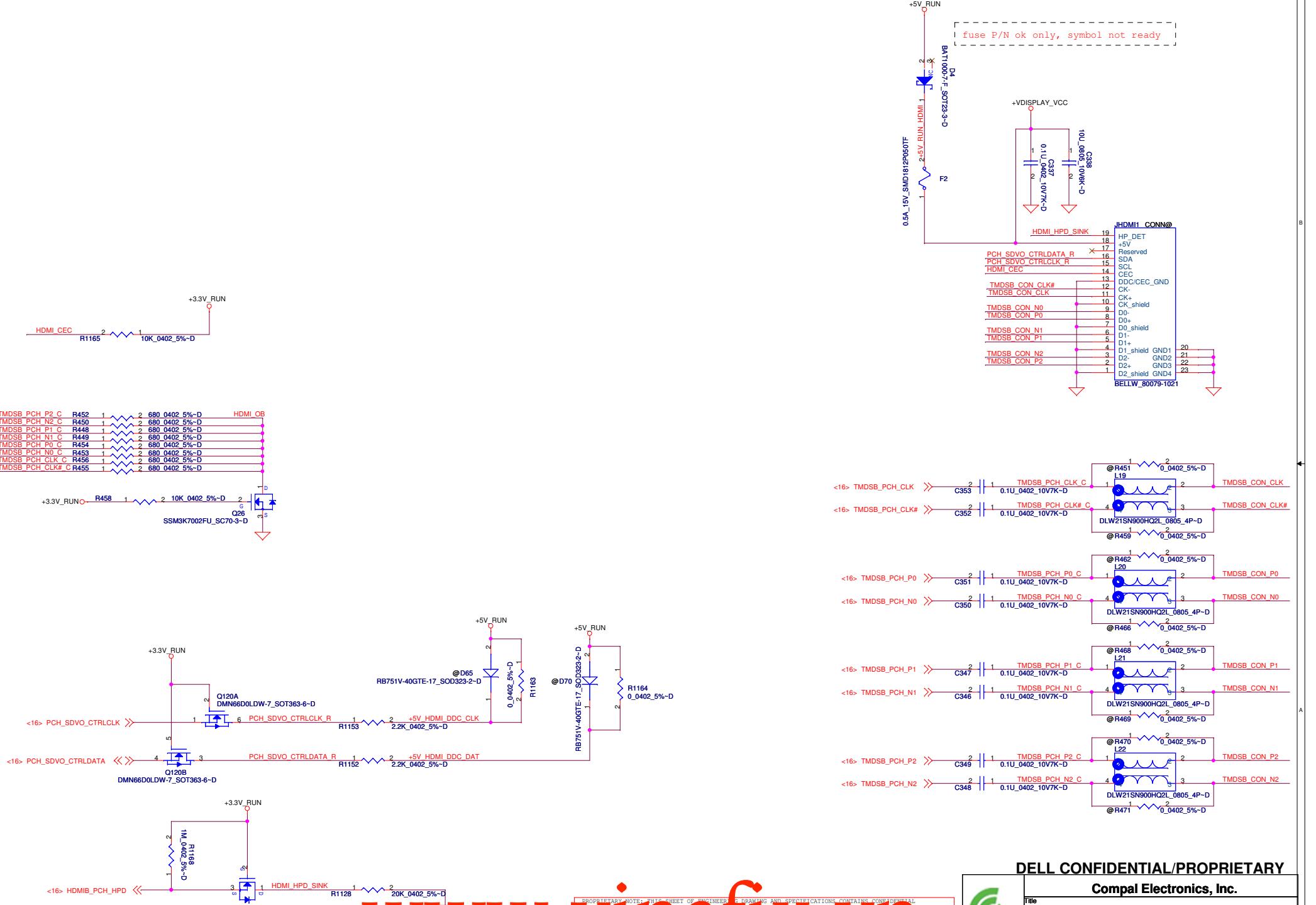


SEL1/SEL2	Chanel	Source
0	A=B1	MB
1	A=B2	APR/SPR



DELL CONFIDENTIAL/PROPRIETARY

	Compal Electronics, Inc.	
	Title	CRT/Video switch
	Size	Document Number
	Rev	LA-7741
Date:	Thursday, June 23, 2011	
Sheet	24	
of	56	



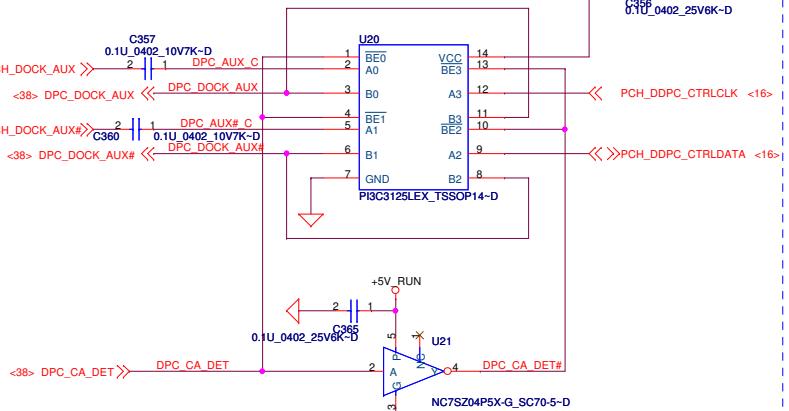
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THE DOCUMENT IS NOT TO BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, THE INFORMATION CONTAINED HEREIN MAY NOT BE USED IN WHOLE OR IN PART WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.	
Title	HDMI port
Size	Document Number
	LA-7741
Date:	Thursday, June 23, 2011
Rev.	0.1
Sheet	25
of	56

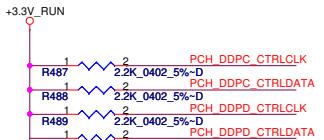
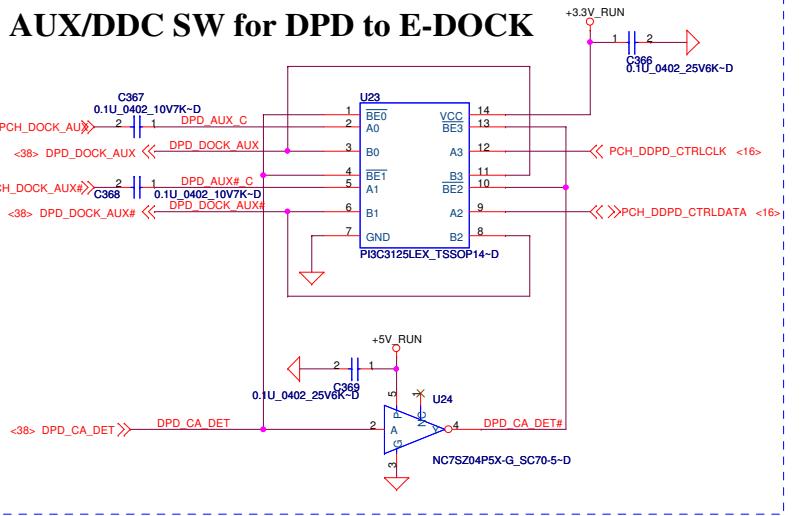
WWW.vinafix.vn

AUX/DDC SW for DPC to E-DOCK



There is a new die for PI3C3125. Sample available on May.

AUX/DDC SW for DPD to E-DOCK



Intel WW18 Strapping option

Intel WW18 Strapping option

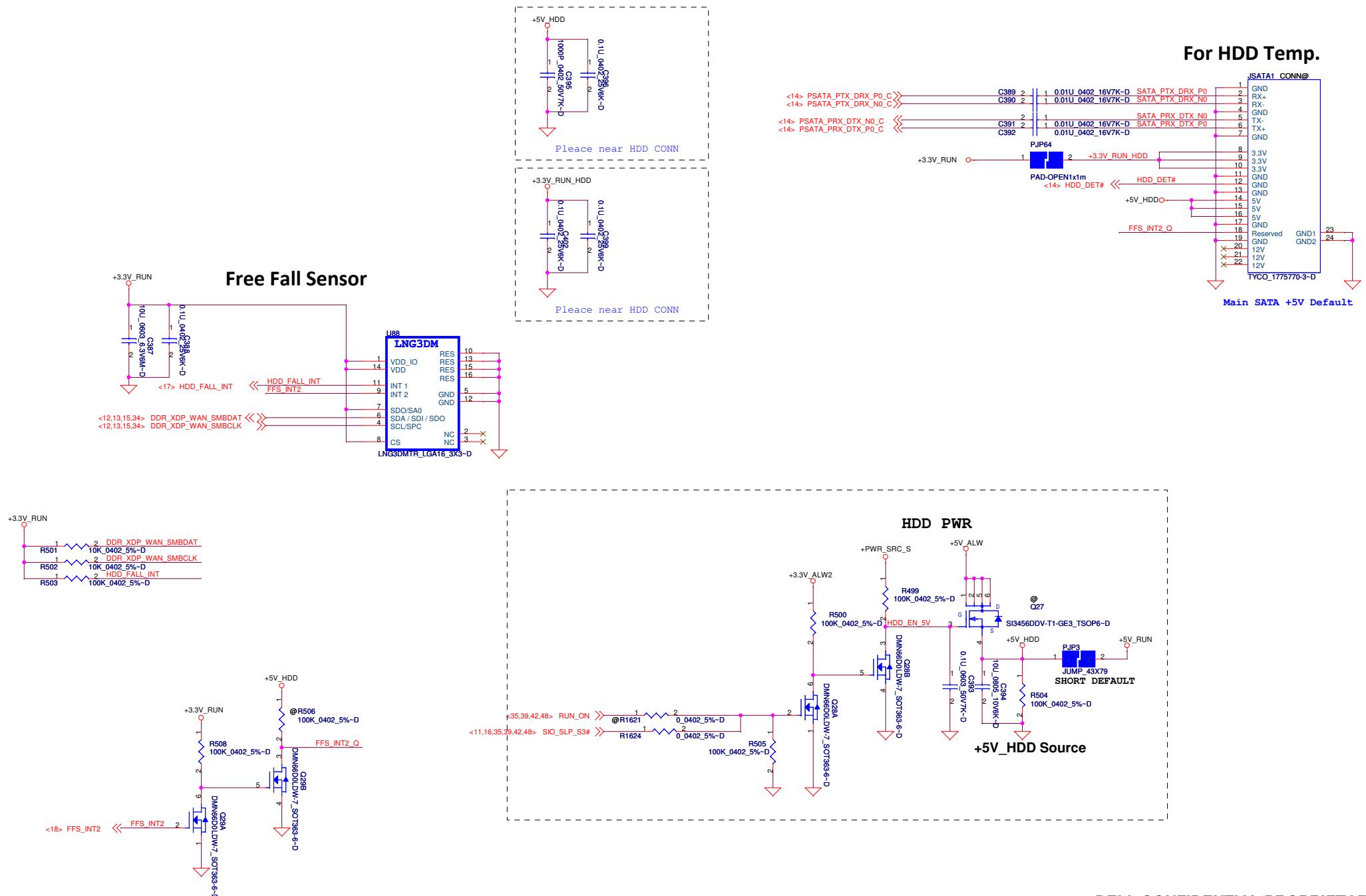


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NO PARTS OF THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED, REPRODUCED, OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

DELL CONFIDENTIAL/PROPRIETARY

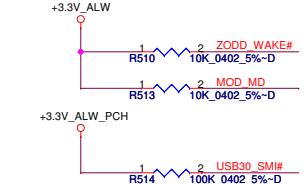
Compal Electronics, Inc.	
Title	DP125
Size	Document Number
	LA-7741
Rev	0.1
Date:	Thursday, June 23, 2011
Sheet	26
of	56

WWW.vinafix.vn

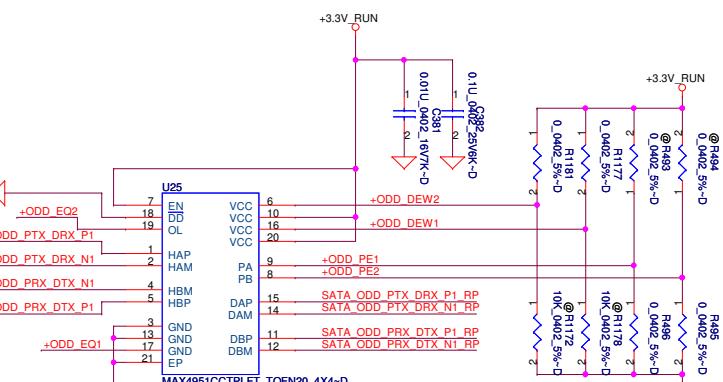
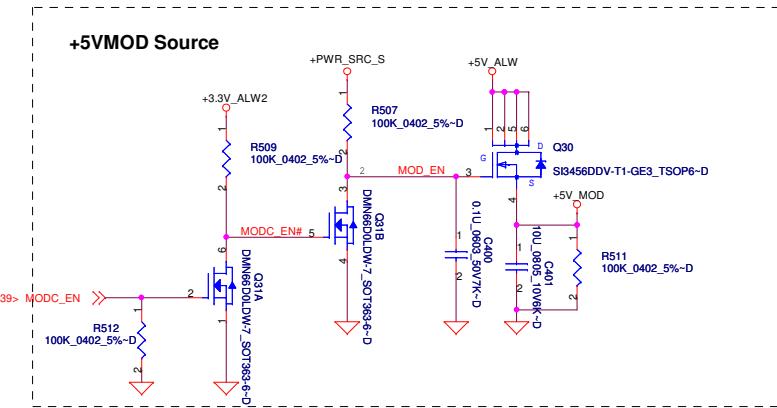
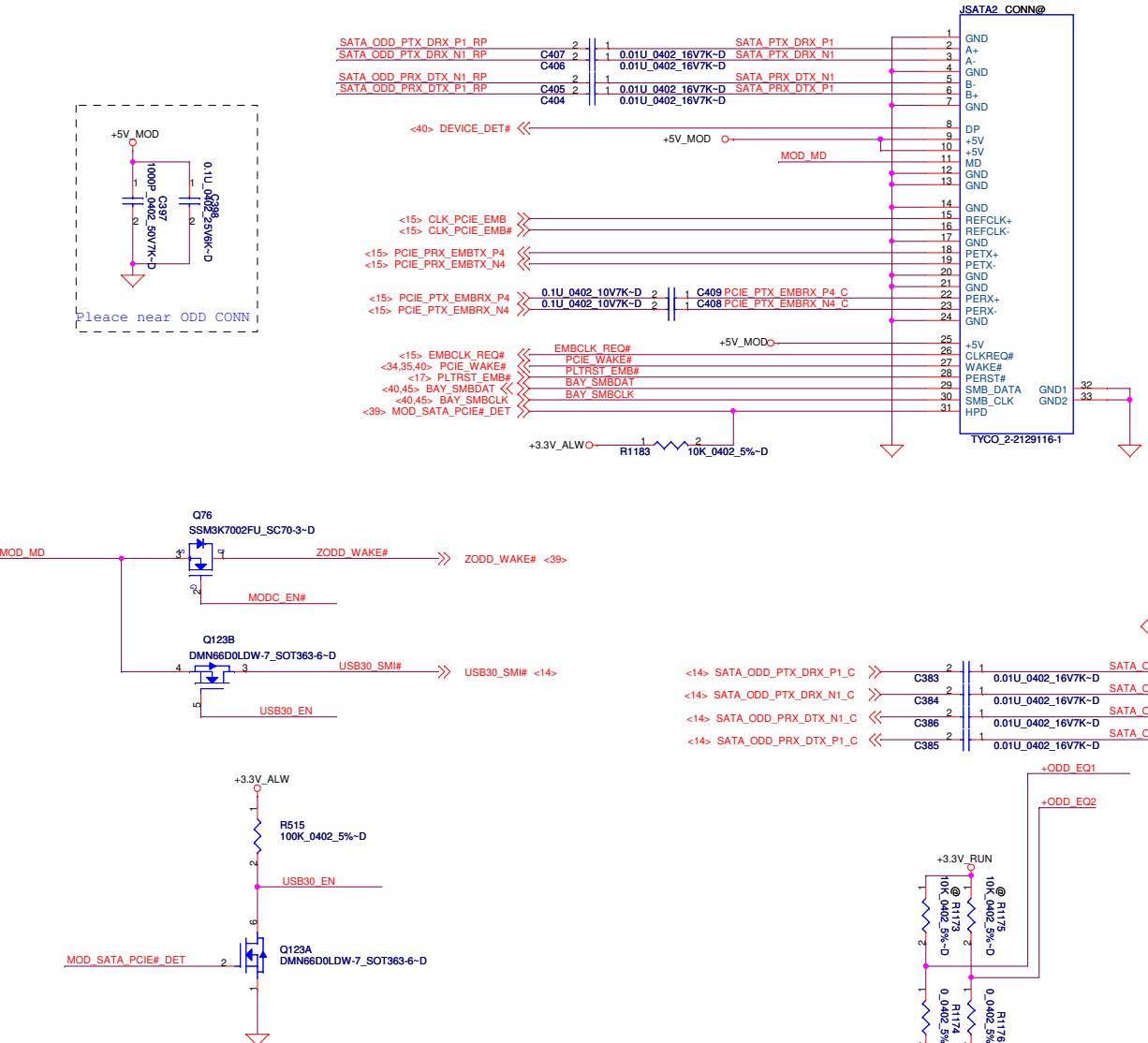


PROPRIETARY NOTICE - ALL INFORMATION CONTAINED HEREIN IS UNPUBLISHED PROPRIETARY INFORMATION OF VINAFIX. ANY REPRODUCTION, DISMEMBERMENT OR USE OF THIS INFORMATION IN WHOLE OR IN PART IS PROHIBITED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF VINAFIX. ANTHONY P. HARRIS, INC. D/B/A VINAFIX. VINAFIX IS A REGISTERED TRADEMARK OF VINAFIX. ANTHONY P. HARRIS, INC.

DELL CONFIDENTIAL/PROPRIETARY		
Compaq Electronics, Inc.		
Title		
HDD CONNECTOR		
Size	Document Number	Rev 0.1
LA-7741		
Date: Thursday, June 23, 2011		Sheet 27 of 56



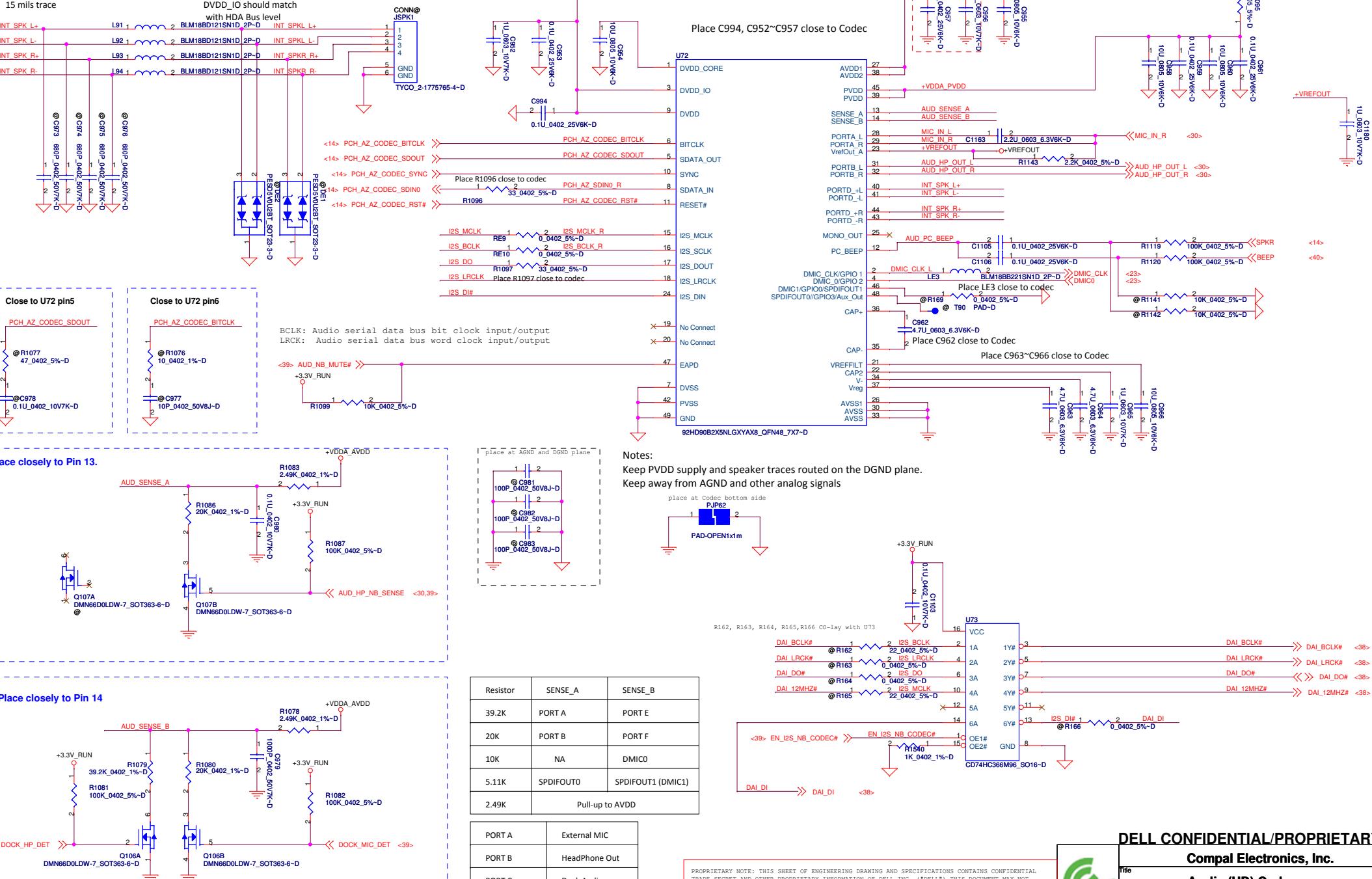
For ODD



PROPRIETARY NOTICE - DO NOT DUPLICATE OR DISTRIBUTE. DRAWING AND SPECIFICATIONS CONTAINED
HEREIN ARE THE EXCLUSIVE PROPERTY OF "BELL". THIS DOCUMENT IS NOT
TO BE COPIED OR REPRODUCED IN WHOLE OR IN PART, EXCEPT WITH WRITTEN AUTHORIZATION OF DEPARTMENT OF
THE SHEET NOR TO BE REMOVED FROM IT. CONTACT BELL BY OR DISCLOSED TO A THIRD
PARTY WITHOUT THE EXPRESS WRITTEN CONSENT OF BELL.

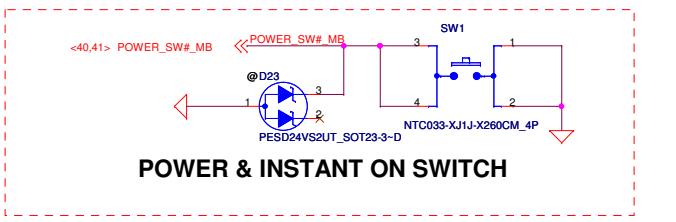
DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
ODD CONNECTOR			
Size	Document Number	Rev	0.1
LA-7741			
Date:	Thursday, June 29, 2011	Page:	28

Internal Speakers Header

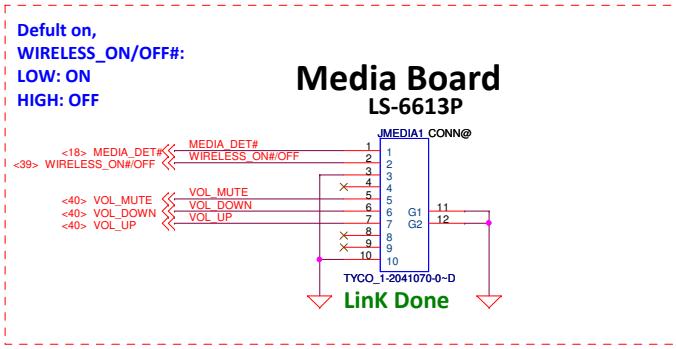


www.vinafix.vn



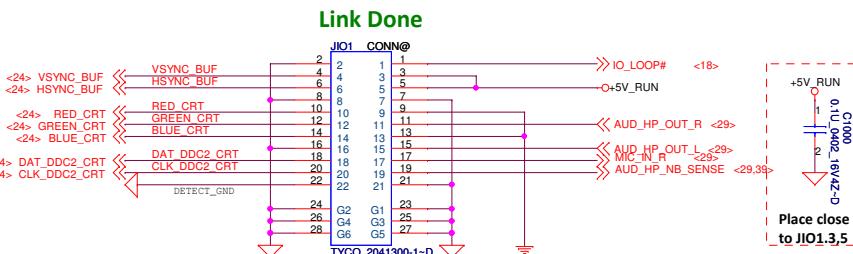


POWER & INSTANT ON SWITCH



5 4 3 2 1

I/O board CONN.



5 4 3 2 1

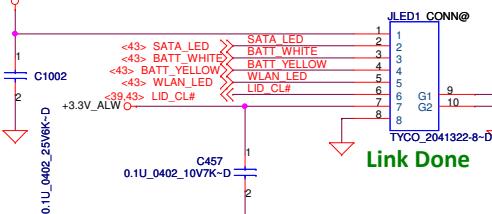
www.vinafix.vn

3 2 1

LED Board with Lid

5 4 3 2 1

LS-6612P



5 4 3 2 1

DELL CONFIDENTIAL/PROPRIETARY

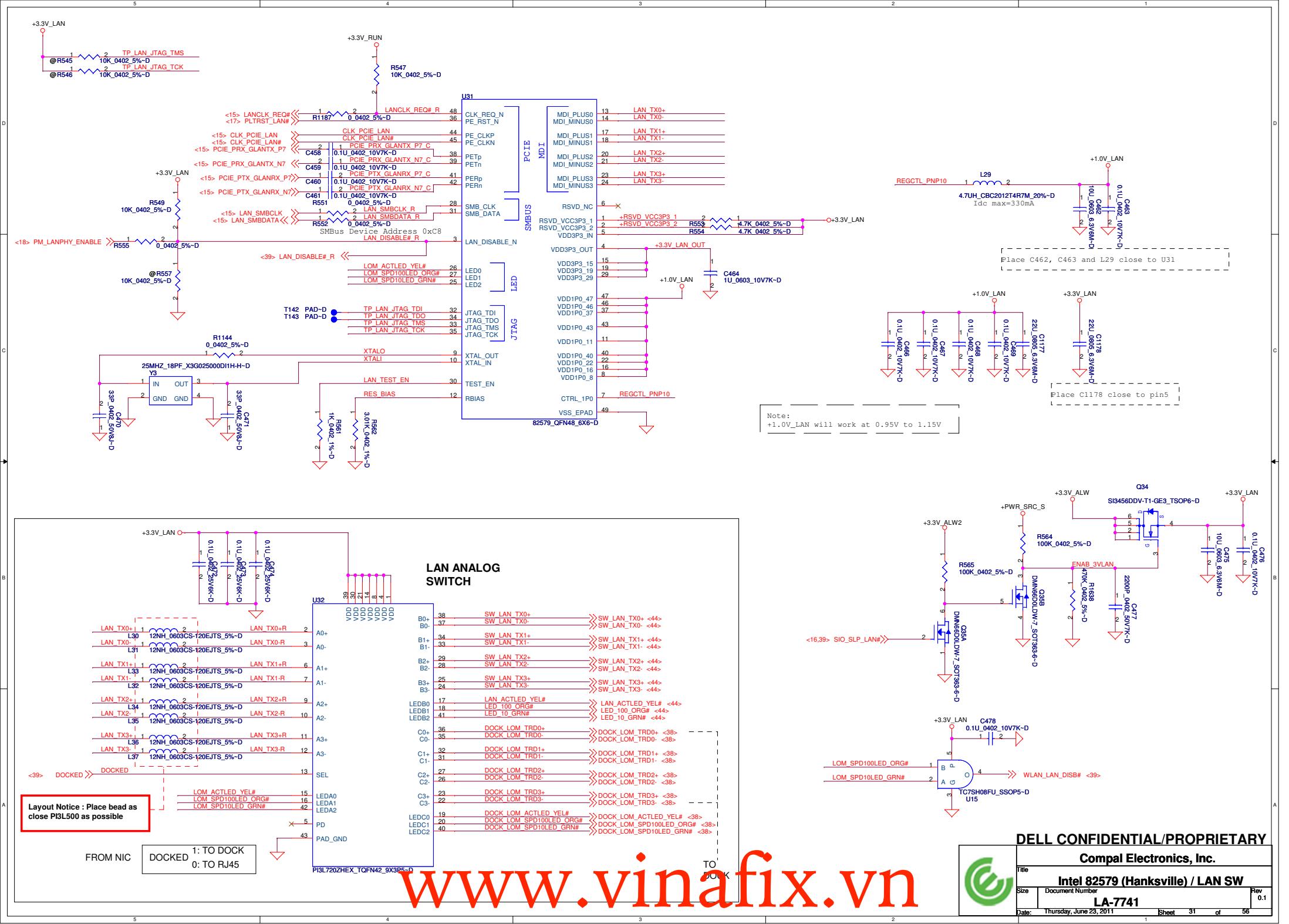
Compal Electronics, Inc.

Title
PWR SW/Sub-board Connector

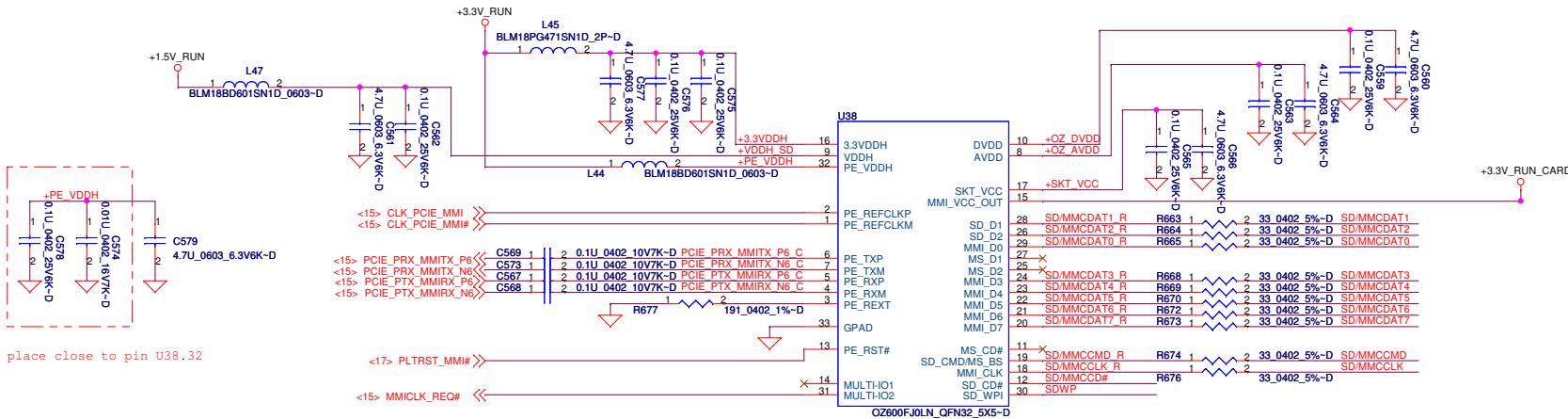
Size Document Number Rev
LA-7741 0.1

Date: Thursday, June 23, 2011 Sheet 30 of 56

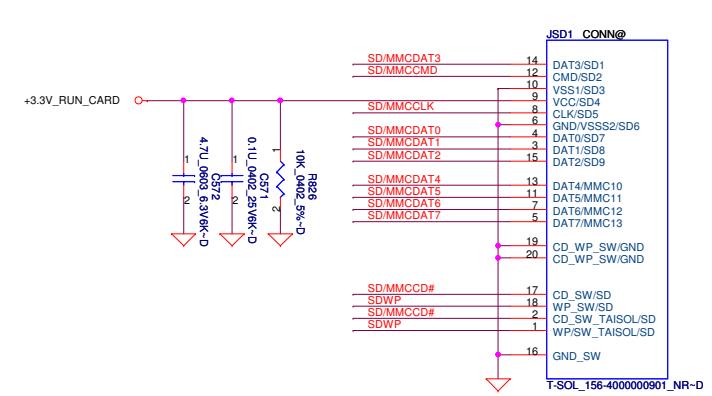
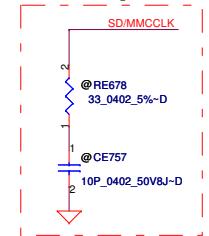




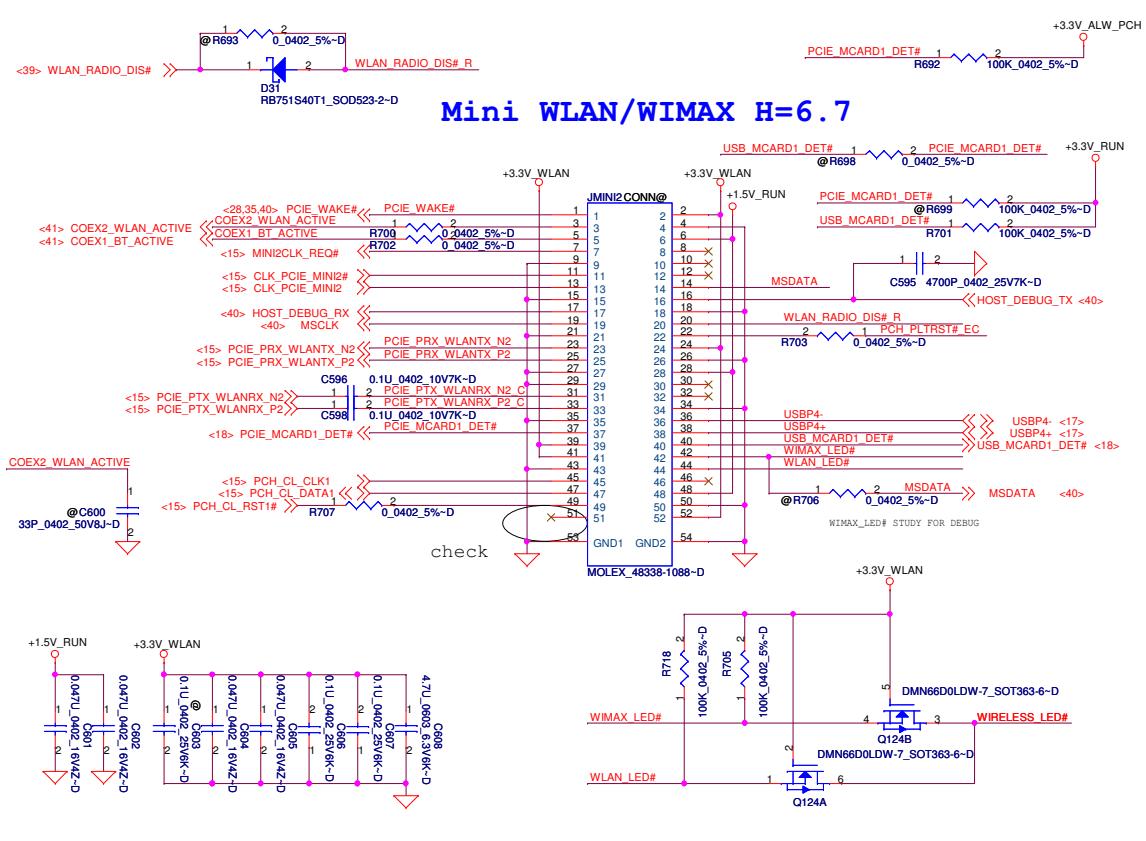
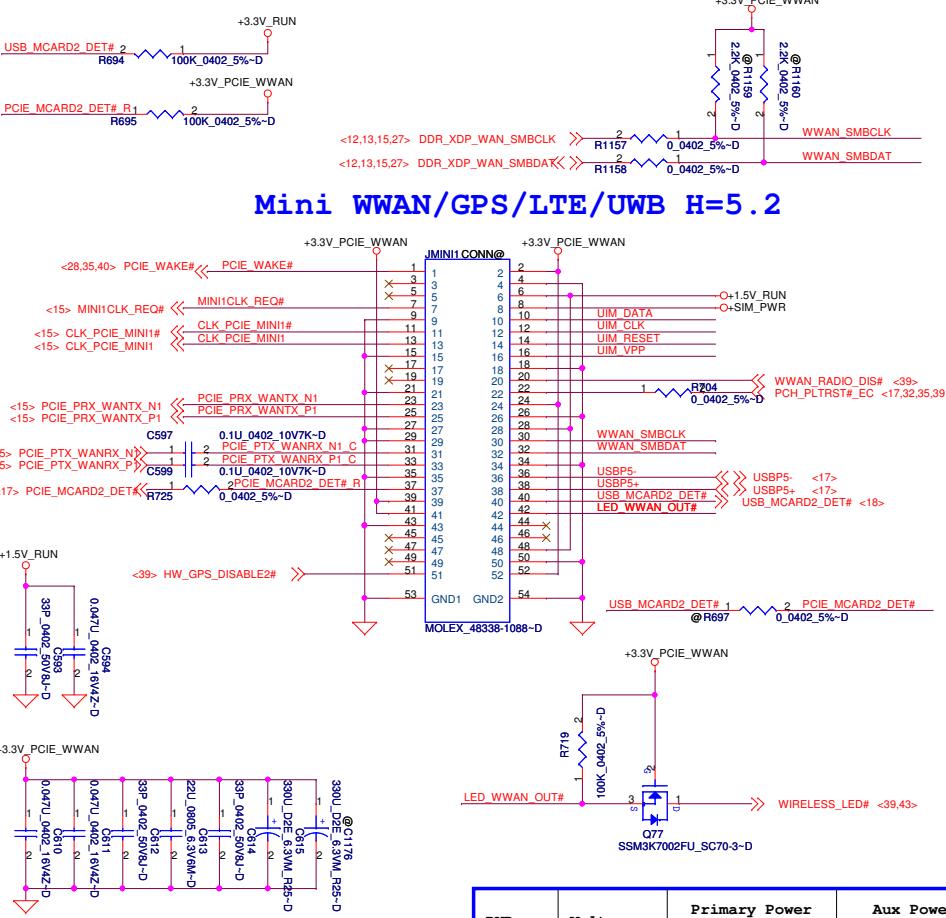
www.vinafix.vn



EMI request

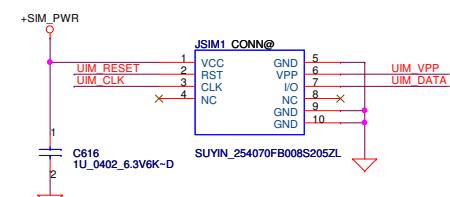


DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
Card Reader			
Size	Document Number	Rev	
	LA-7741	0.1	
Date:	Thursday, June 23, 2011	Sheet	33 of 56

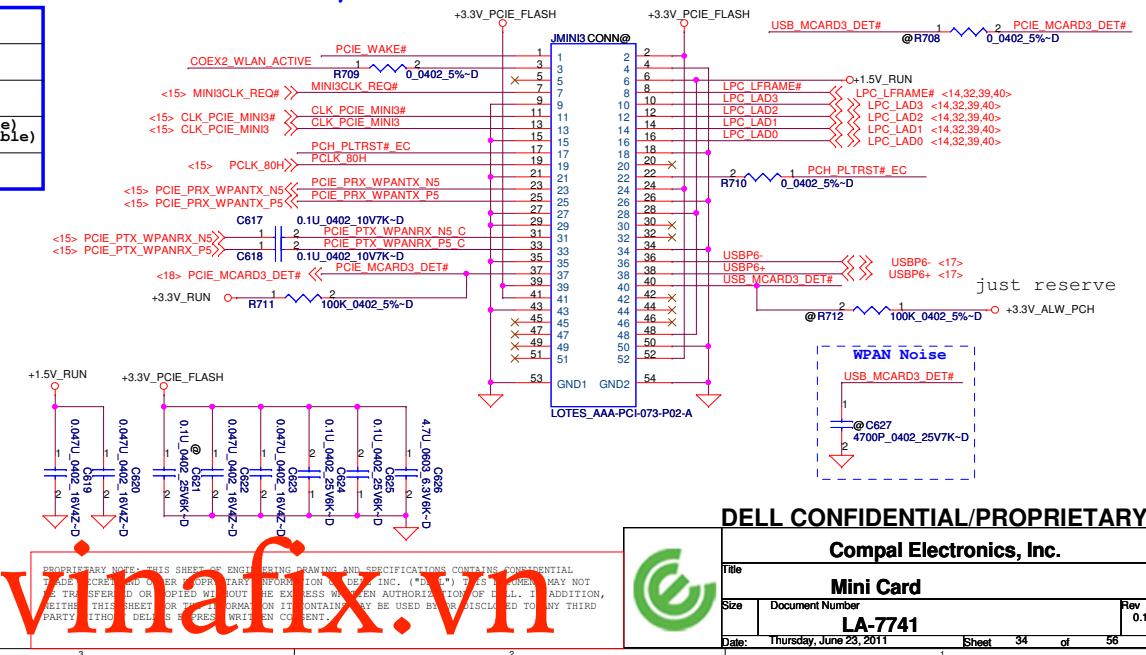


PWR Rail	Voltage Tolerance	Primary Power		Aux Power
		Peak	Normal	Normal
+3.3V	+/-9%	1000	750	
+3.3Vaux	+/-9%	330	250	250 (Wake enable) 5 (Not wake enable)
+1.5V	+/-5%	500	375	NA

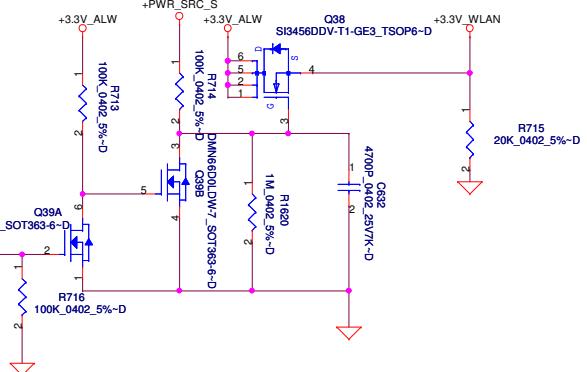
SIM Card Push-Push



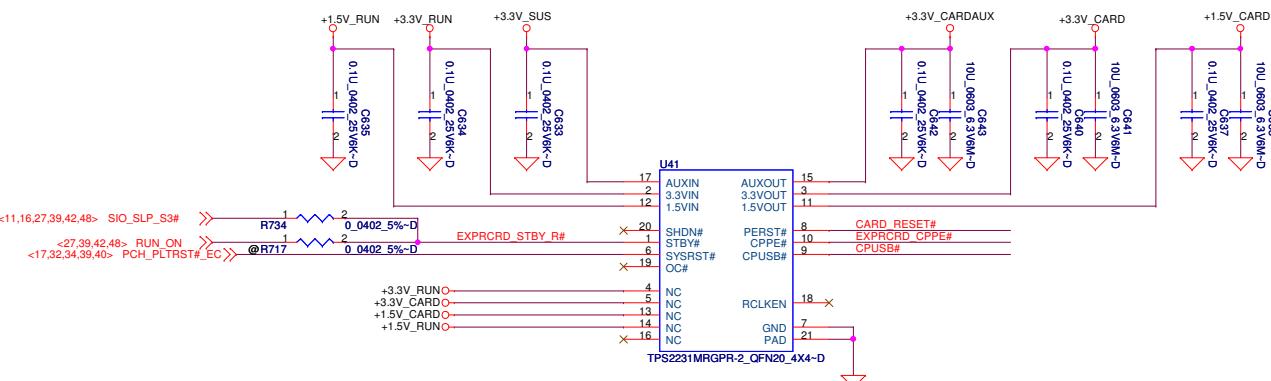
1/2 Minicard Flash Card H=4



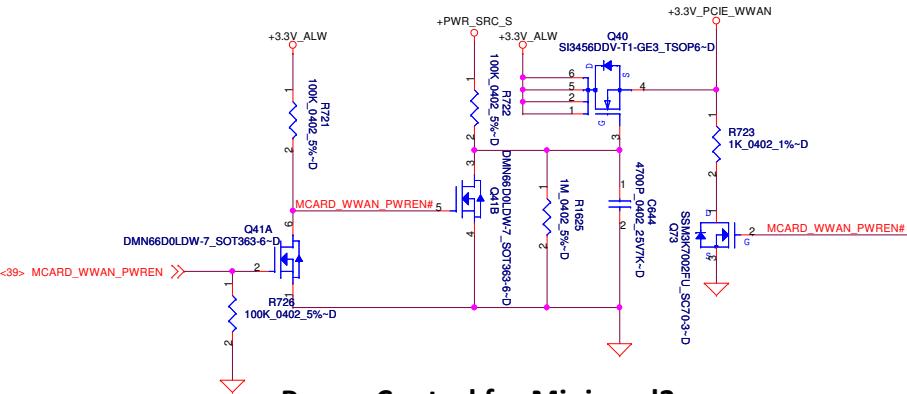
Power Control for Mini card2



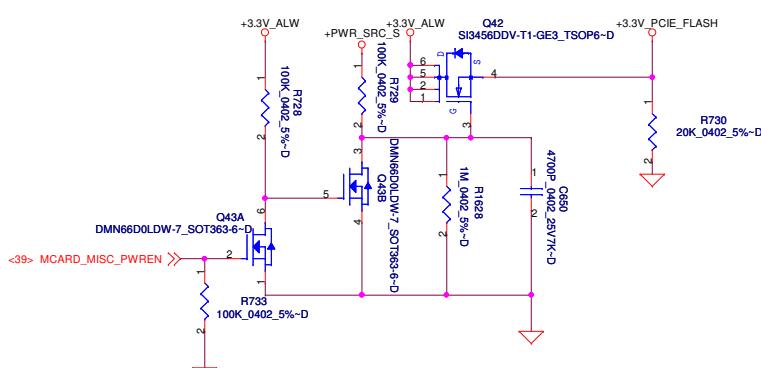
Express Card PWR S/W



Power Control for Mini card1

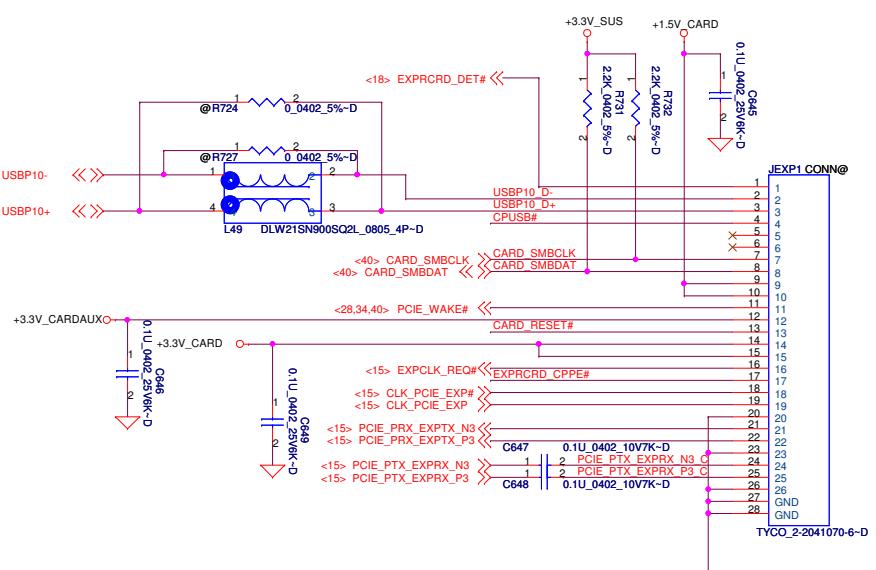


Power Control for Mini card3



Note: Add connection on pin4, pin5, pin13 and pin14 to support GMT 2nd source part

Express Card Conn.

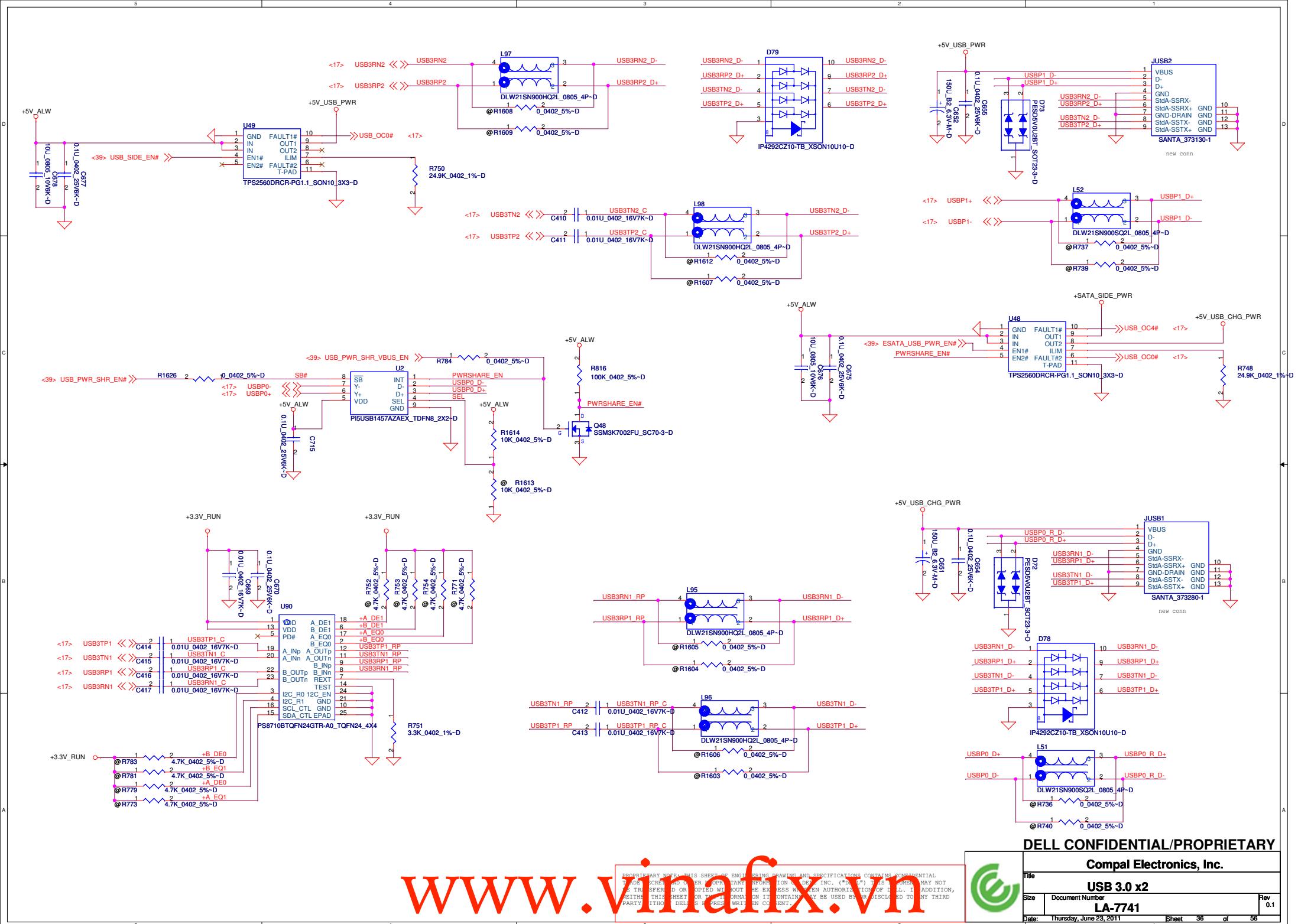


DELL CONFIDENTIAL/PROPRIETARY

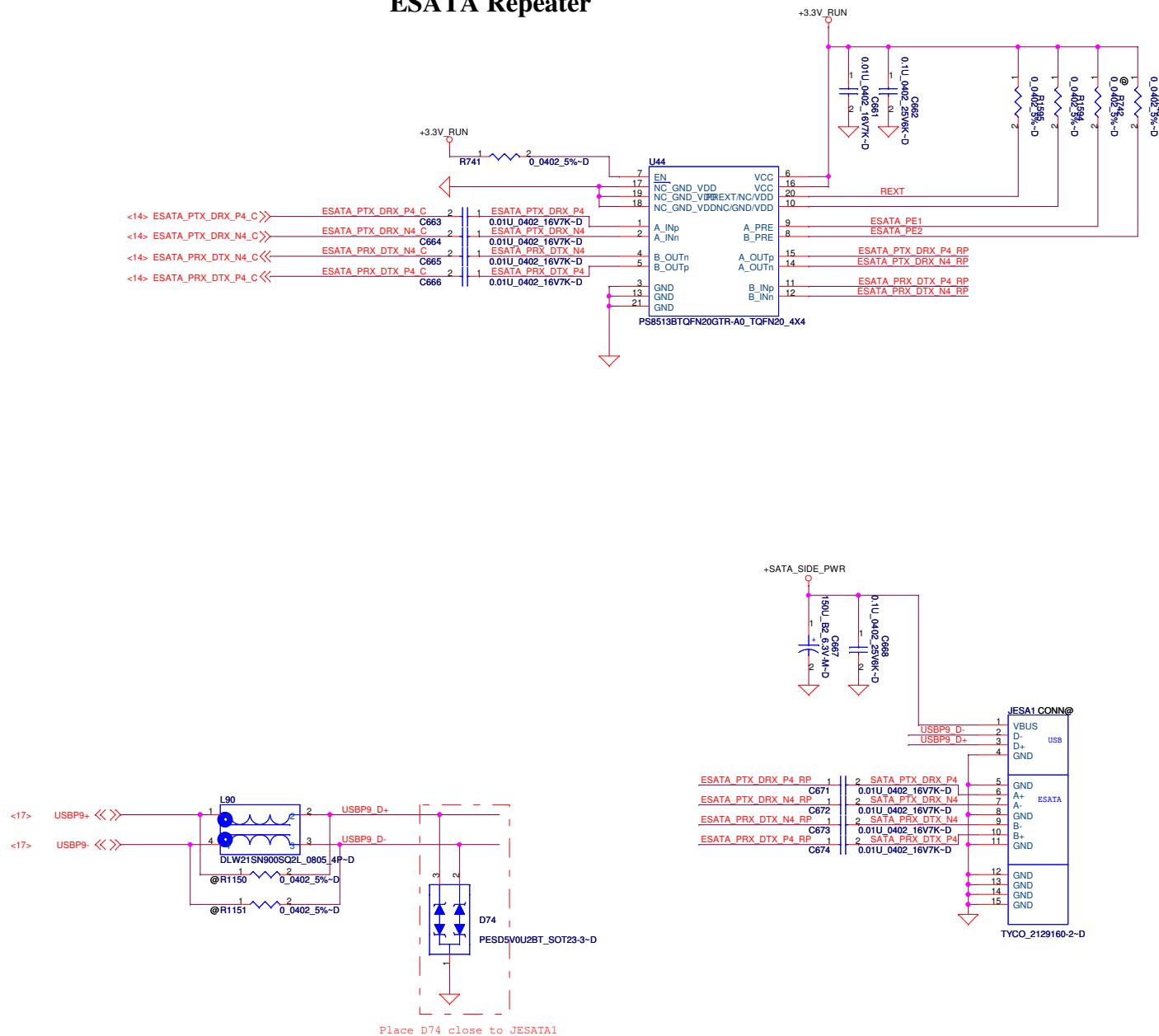
Compal Electronics, Inc.

Title	PCIE-SATA SW / PCIE PWR
Size	Document Number
	LA-7741
Date:	Thursday, June 23, 2011





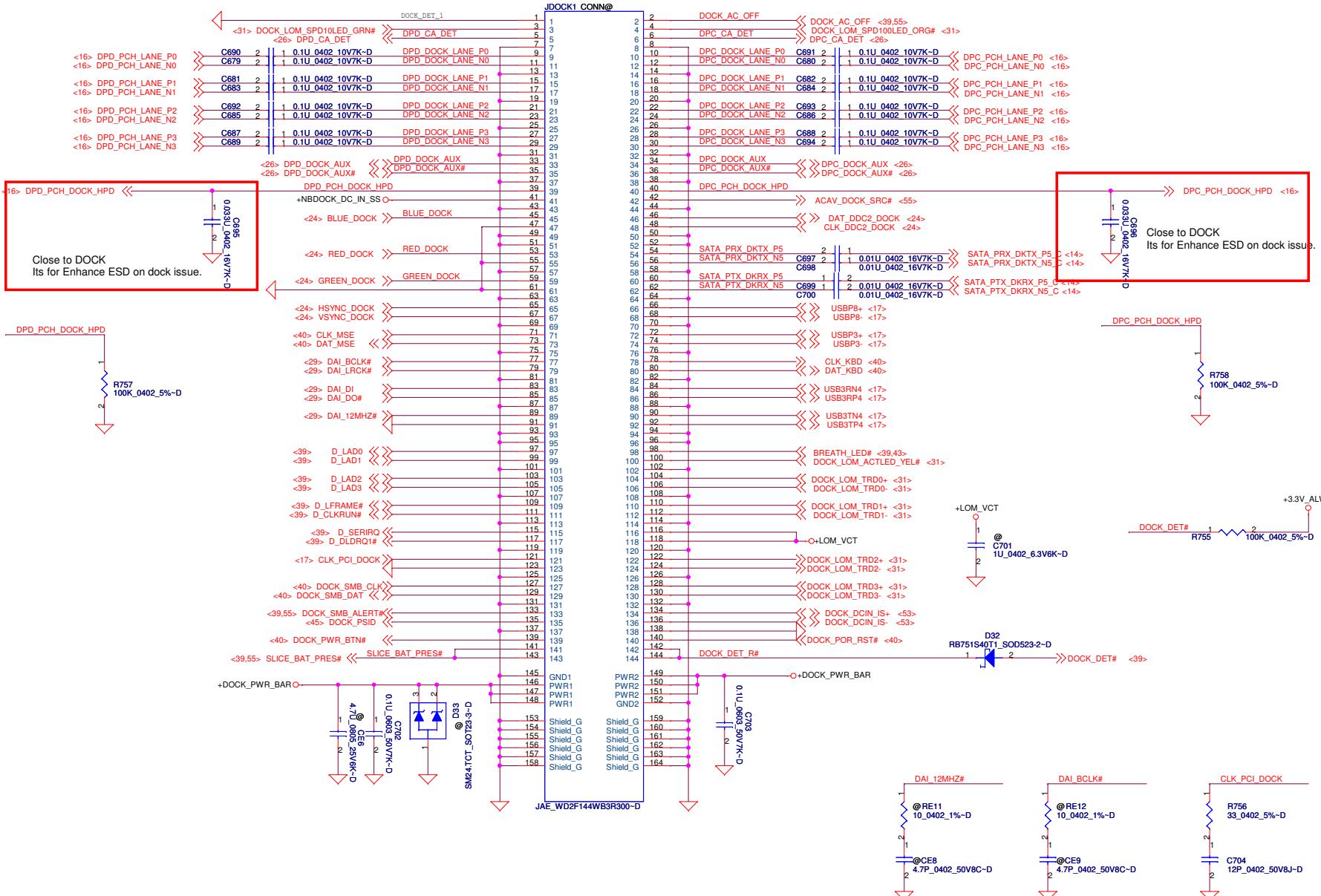
ESATA Repeater

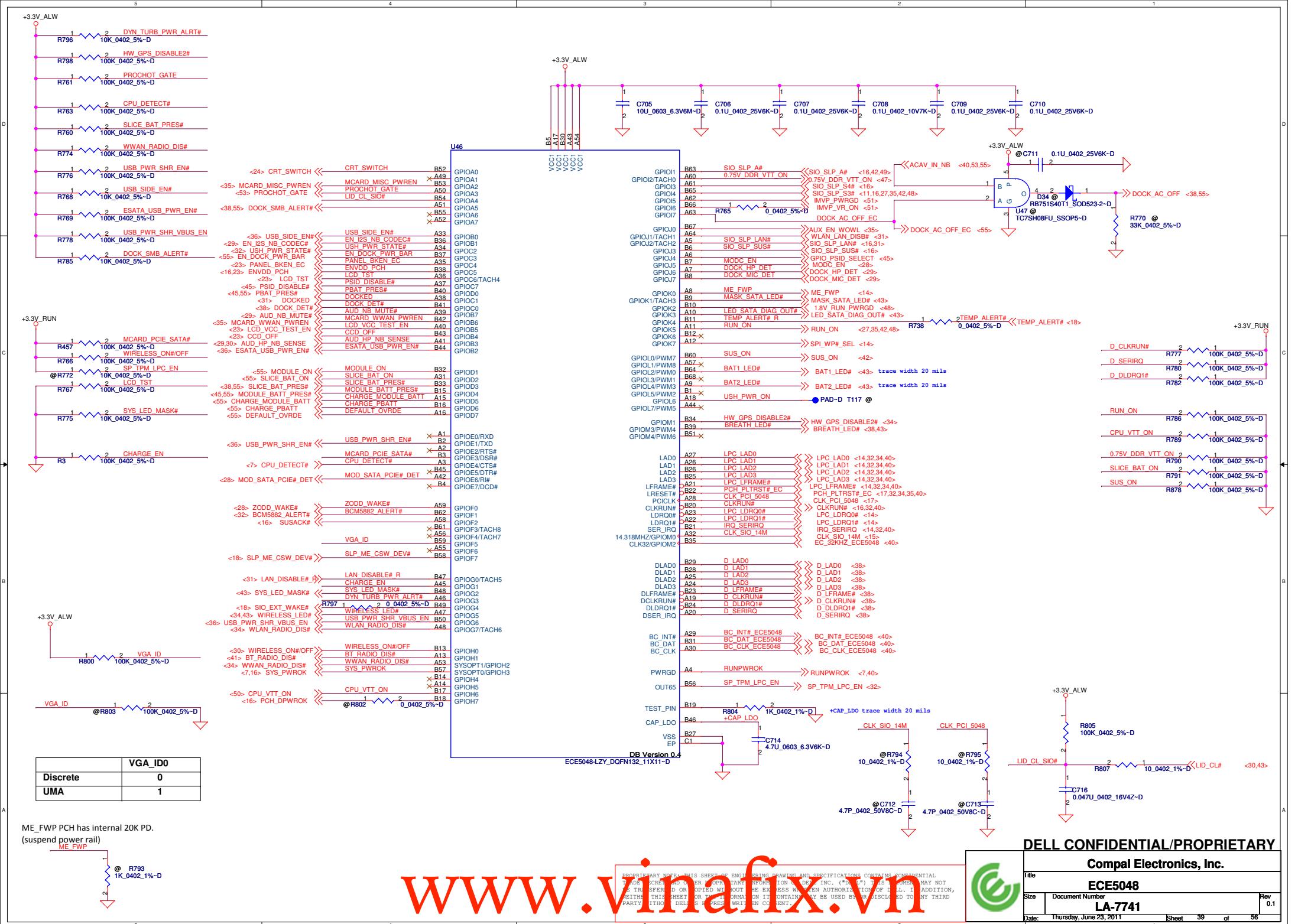


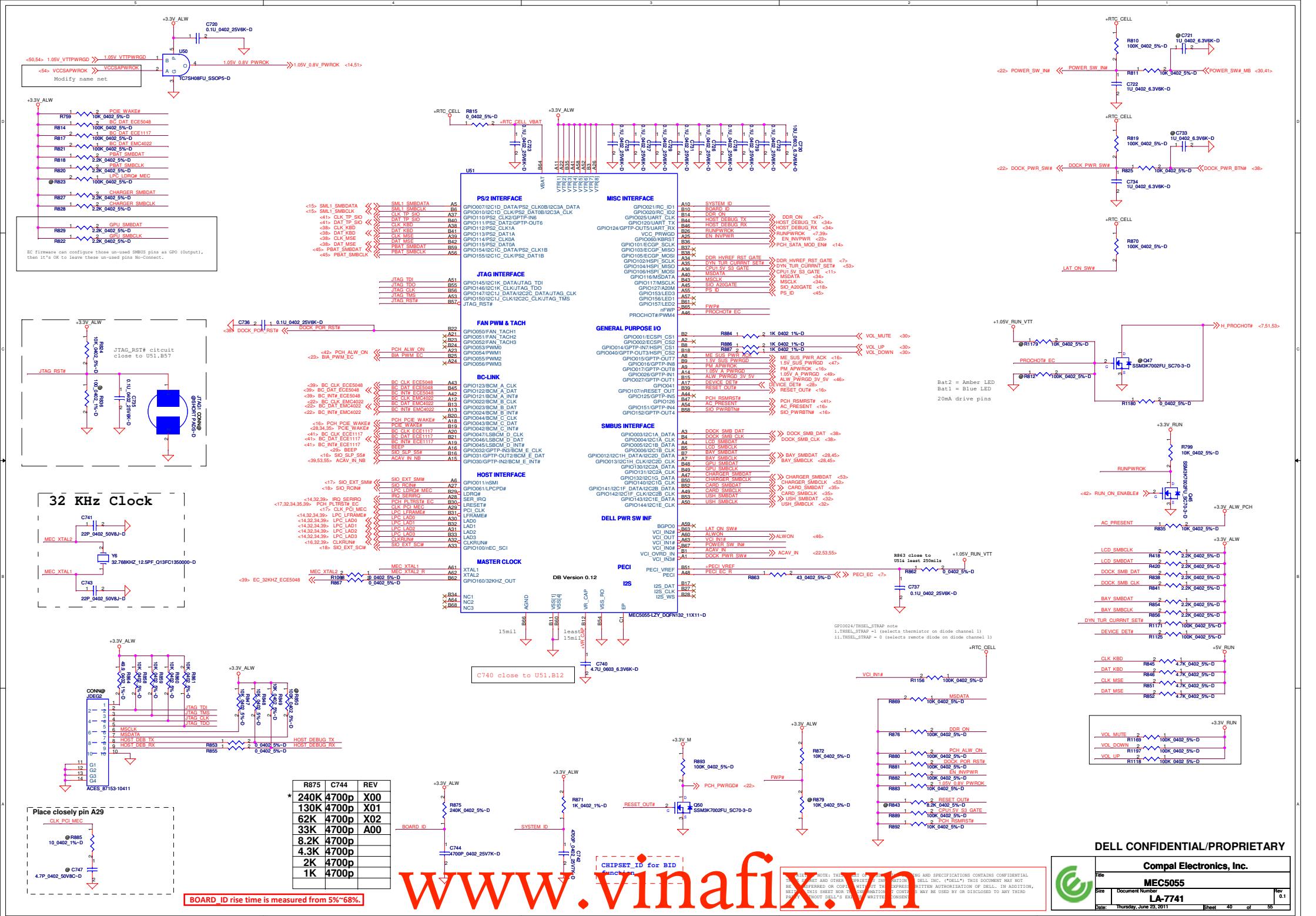
www.Vinafix.vn

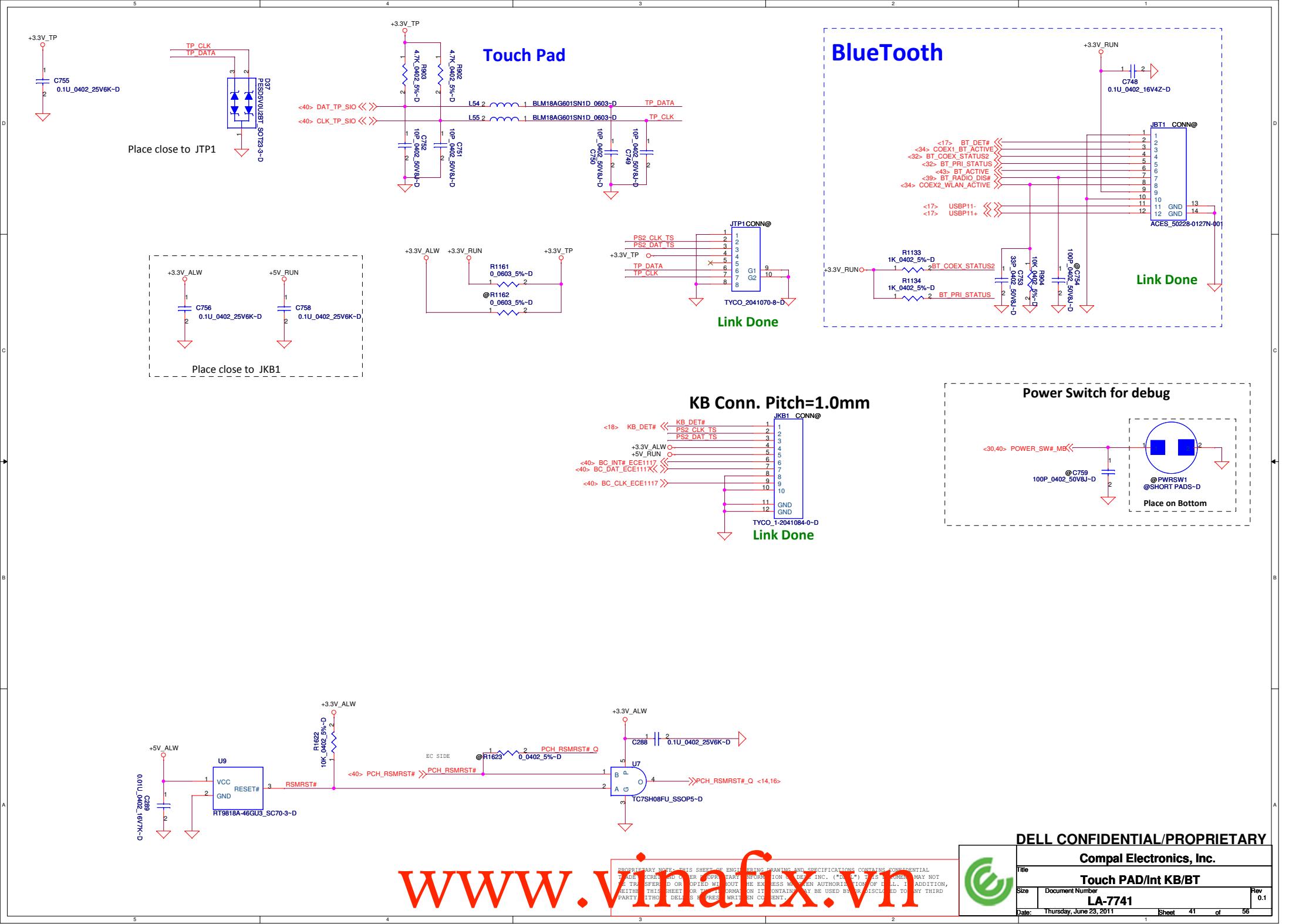
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL
 TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). IT IS UNAUTHORIZED
 TO REPRODUCE OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION,
 NEITHER THIS SHEET NOR ANY INFORMATION CONTAINED THEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD
 PARTY UNLESS IT HAS BEEN APPROVED IN WRITING BY DELL.

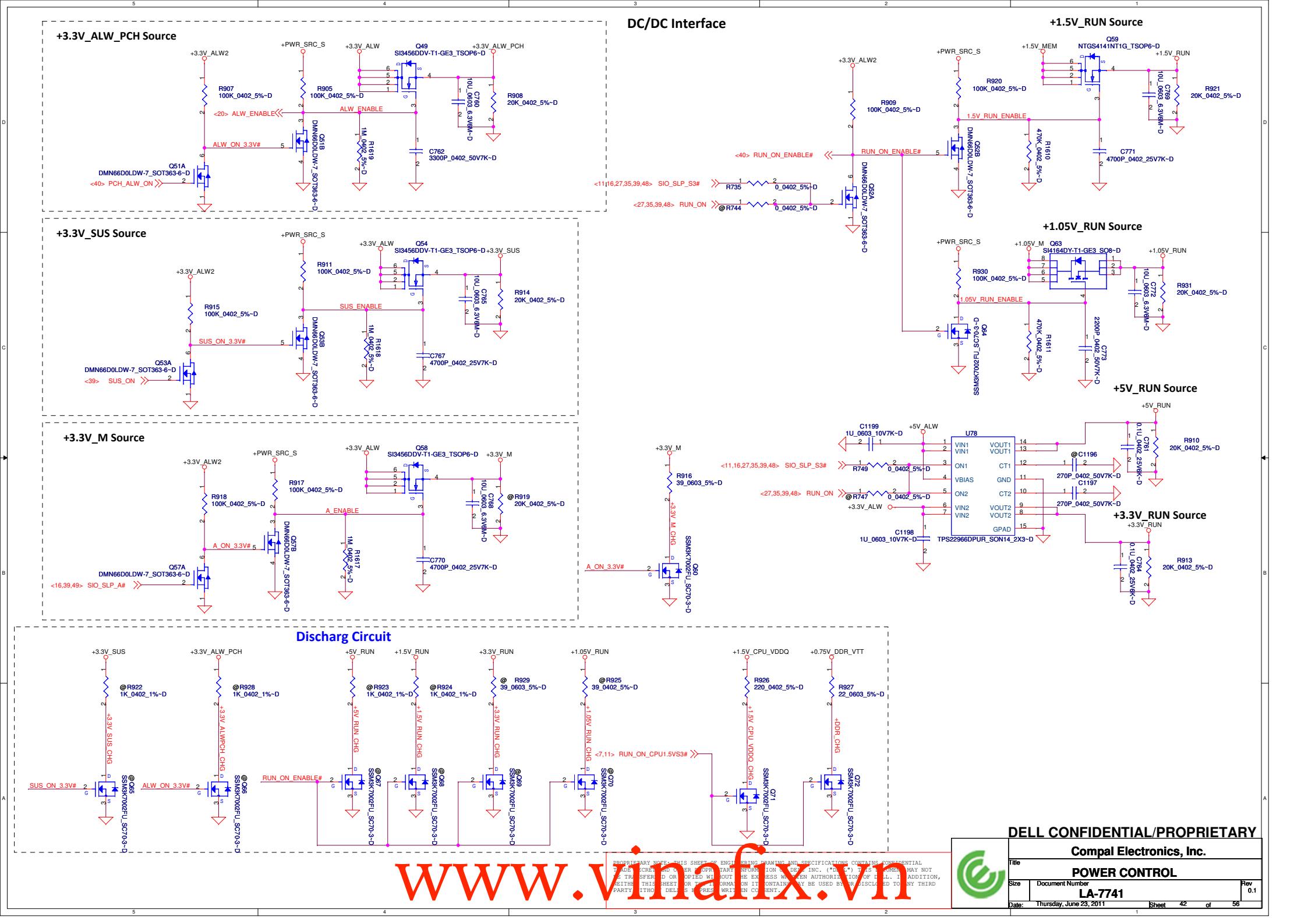
DELL CONFIDENTIAL/PROPRIETARY			
Compal Electronics, Inc.			
Title	USB/ESATA/IO/MDC	Rev	0.1
Document Number	LA-7741	Date	Thursday, June 23, 2011
Sheet	37	of	56

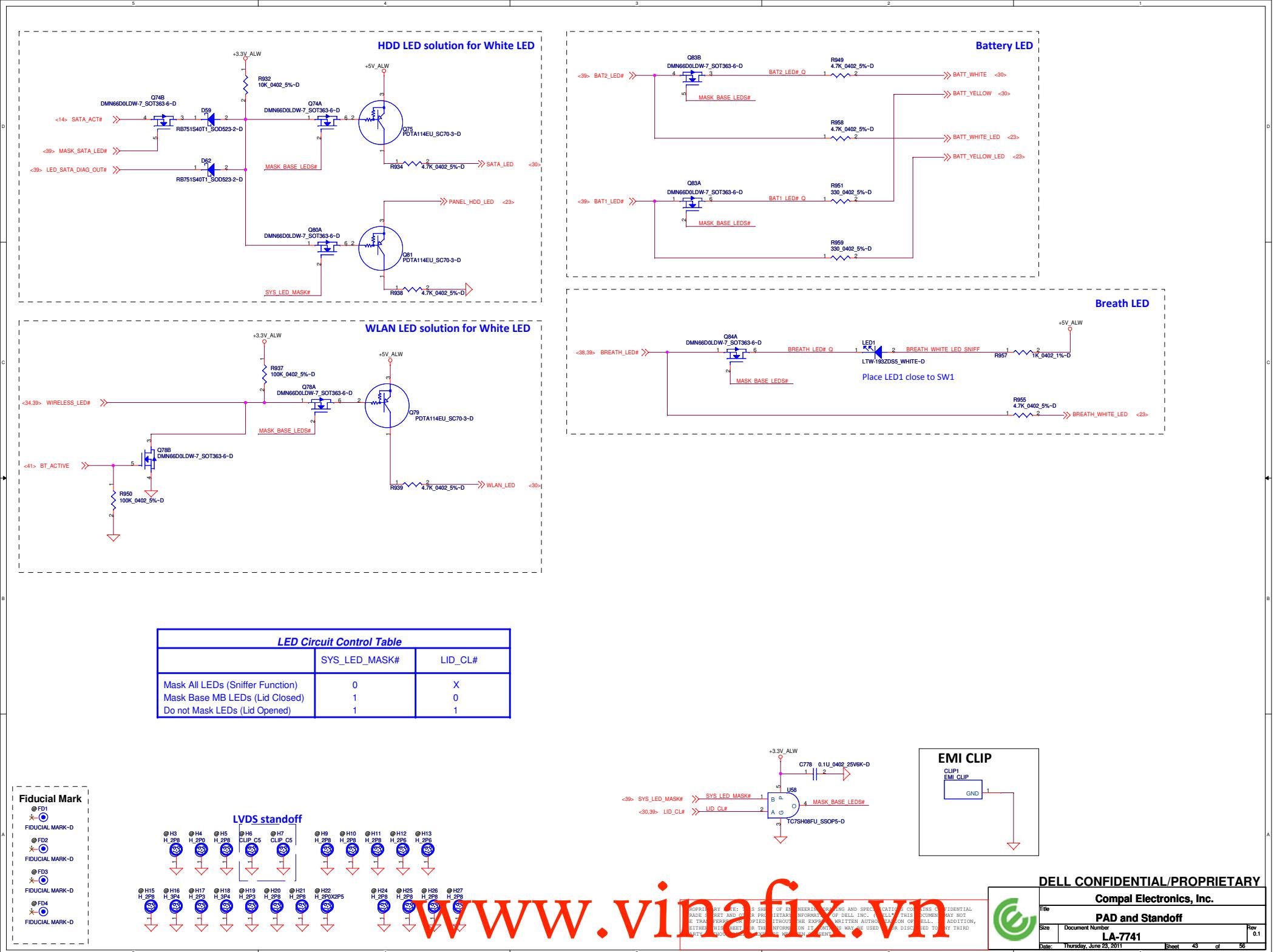


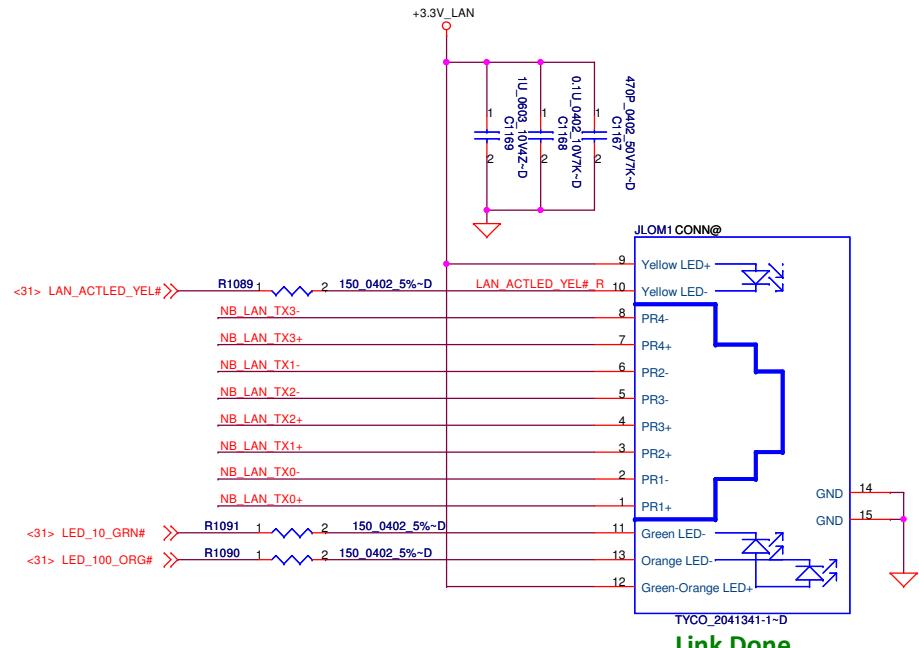
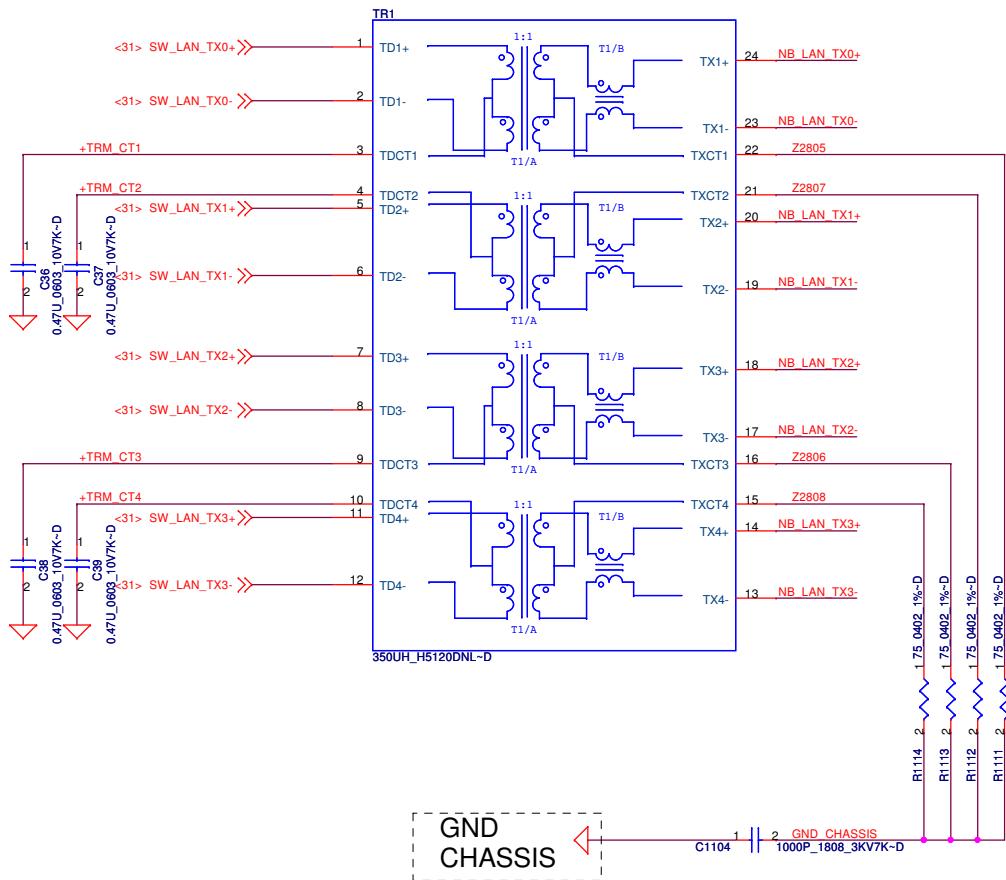








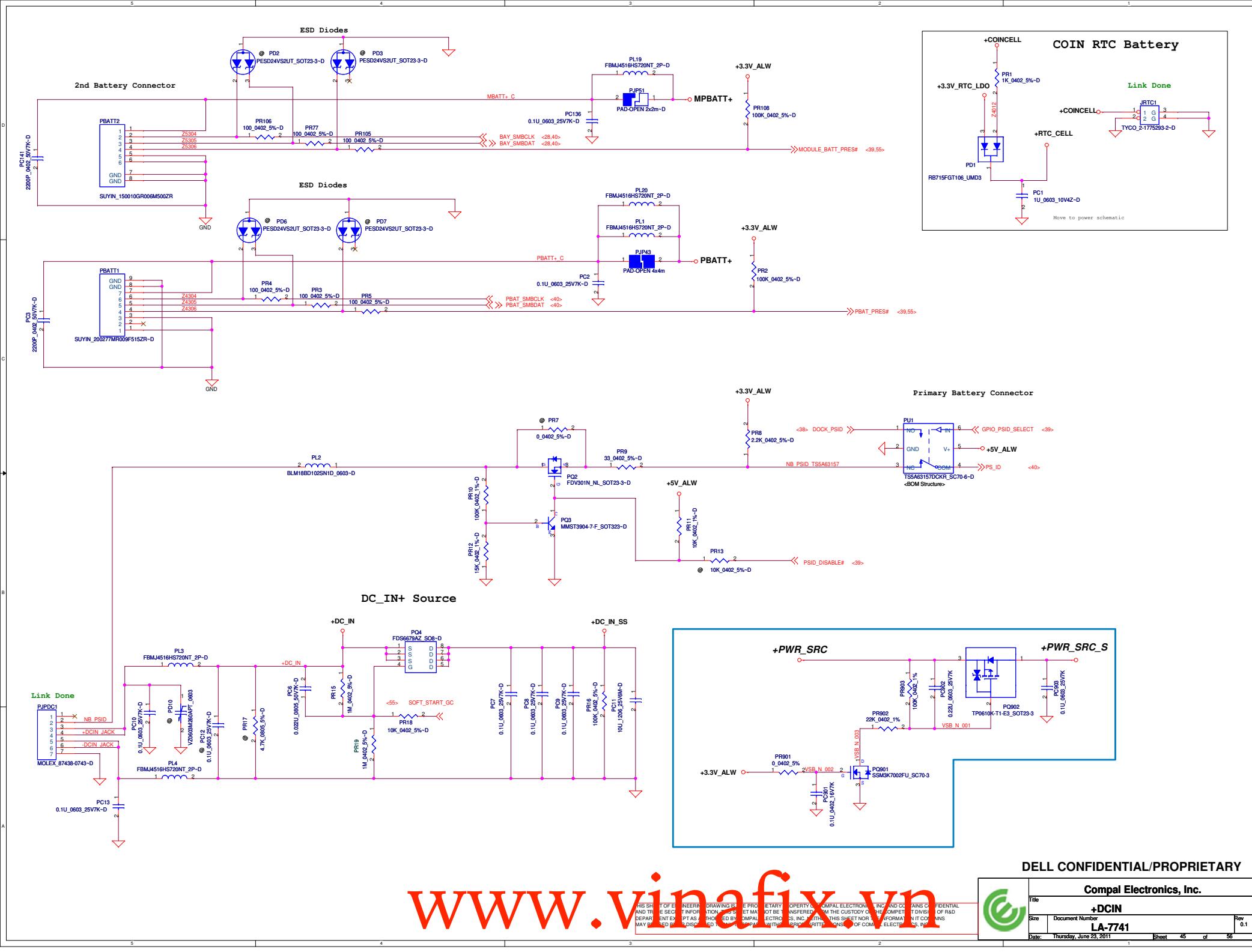




Link Done

THIS SHEET OF ENGINEERING DRAWING IS THE PROPERTY OF WINAUDIO INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT SHALL NOT BE COPIED OR REPRODUCED EXCEPT AS AUTHORIZED BY CORAL ELECTRONICS INC. THIS SHEET OF ENGINEERING DRAWING IS THE PROPERTY OF WINAUDIO INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT SHALL NOT BE COPIED OR REPRODUCED EXCEPT AS AUTHORIZED BY CORAL ELECTRONICS INC.

DELL CONFIDENTIAL/PROPRIETARY		
Compal Electronics, Inc.		
Title	RJ45	
Size	Document Number	Rev
	LA-7741	0.3



```

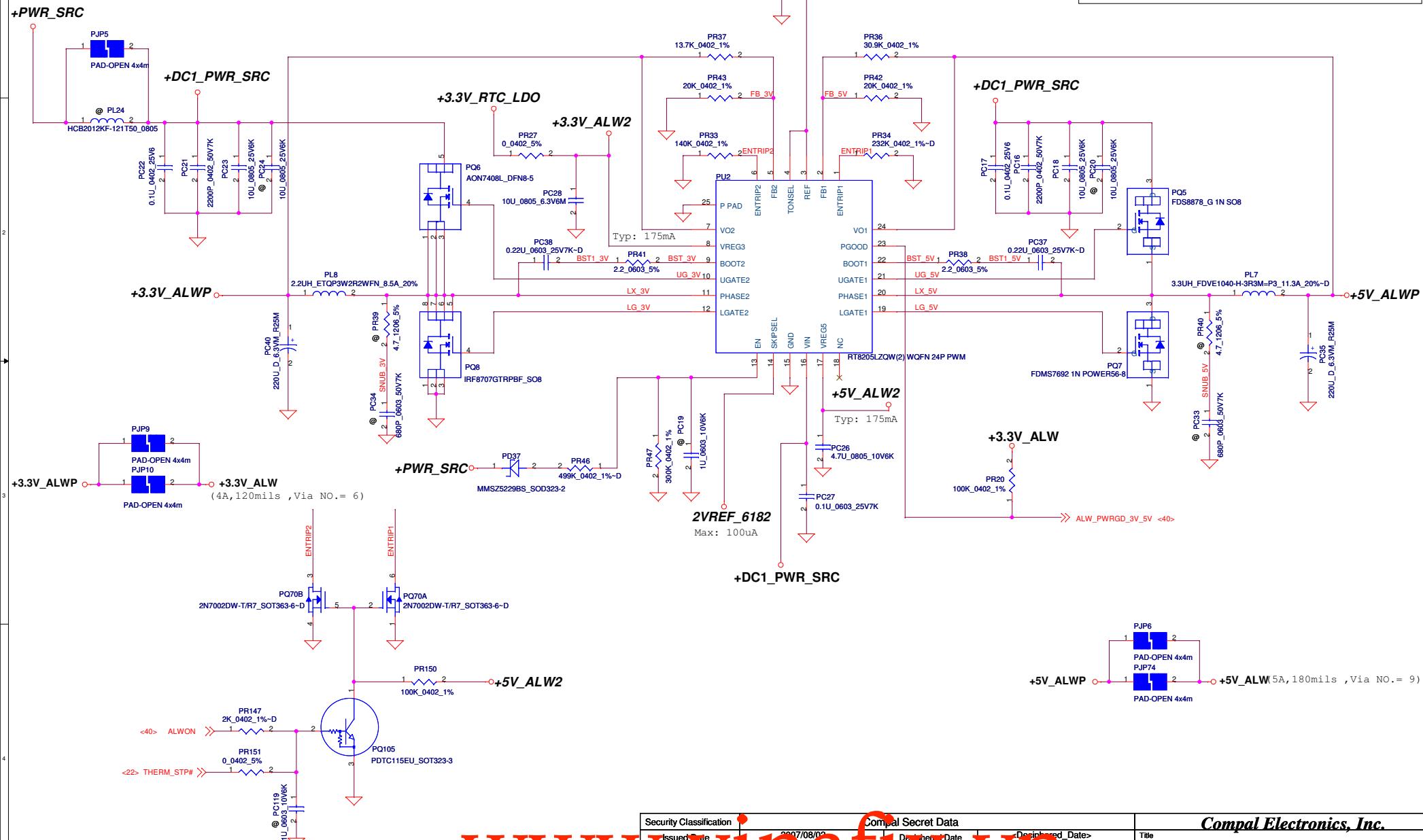
3.3VALWP +/- 5%
TDC=5.45A
Peak Current=7.786A
OCP min=10.122A
L/S RDS(on) 14.2m ohm(typ), 17.5m ohm(max)
FSW=375KHz
Delta_Iin=1.246A
Delta_Io=3.3231A

```

+5V ALWP / +3.3V ALWI

```
Charlie_note :  
    SKIPSEL Connect to REF : DEM Mode  
    @DEM VFBx=2.0V  
  
TONSEL  
    Frequency Selectable Input for VOUT1(+5v)/VOUT2(+5v)  
    respectively.  
    300KHz/375KHz : Connect to REF
```

```
5VALWP +/- 5%
TDC=8.41A
Peak Current=12.012A
OCP min=15.62A
L/S RDS(on) 14.2m ohm(typ), 17.5m ohm(max)
FSW=300KHz
Delta_Iin=1.64A
Delta_Io=3.756A
```

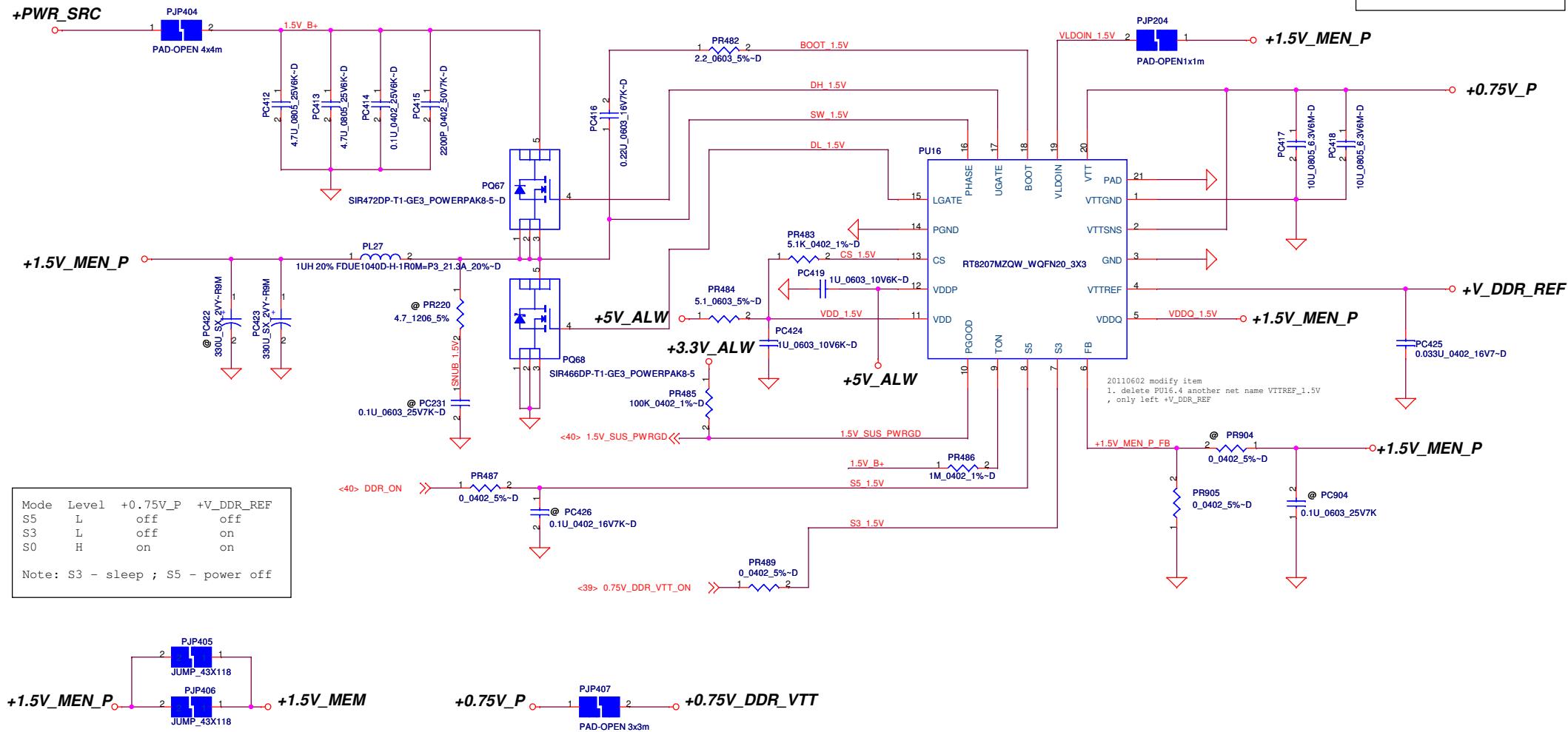


Security Classification	Compal Secret Data			Compal Electronics, Inc.				
Issued Date	2007/08/02	Described Date	Described Date	Title	+5V/+3.3V			
Comments	THIS SHEET OF ENGINEERING DRAWING IS THE PROPERTY OF COMPALELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS NOT TO BE COPIED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPALELECTRONICS, INC. FOR INTERNAL INFORMATION COMMUNICATIONS. IT MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPALELECTRONICS, INC.							
Size Customer	Document Number LA-7741		Rev 0.1	Date:	Thursday, June 23, 2011			

1.5Volt +/- 5%
 TDC=7.18A
 Peak Current=10.25A
 OCP min=13.33A
 L/S RDS (on) 3.8m ohm(typ), 4.8m ohm(max)
 FSW=253KHz for RTON=1M ohm, spec. On-Time =303.947ns
 Delta_In=1.458A
 Delta_Io=5.4728A

+1.5V_MEN_P / +0.75V_P

0.75Volt +/- 5%
 TDC=0.525A
 Peak Current=0.75A
 OCP min=0.975A



(2A, 80mils , Via NO. = 4)

DELL CONFIDENTIAL/PROPRIETARY



Compaq Electronics, Inc.

+1.5V_MEN/+0.75V_DDR_VTT

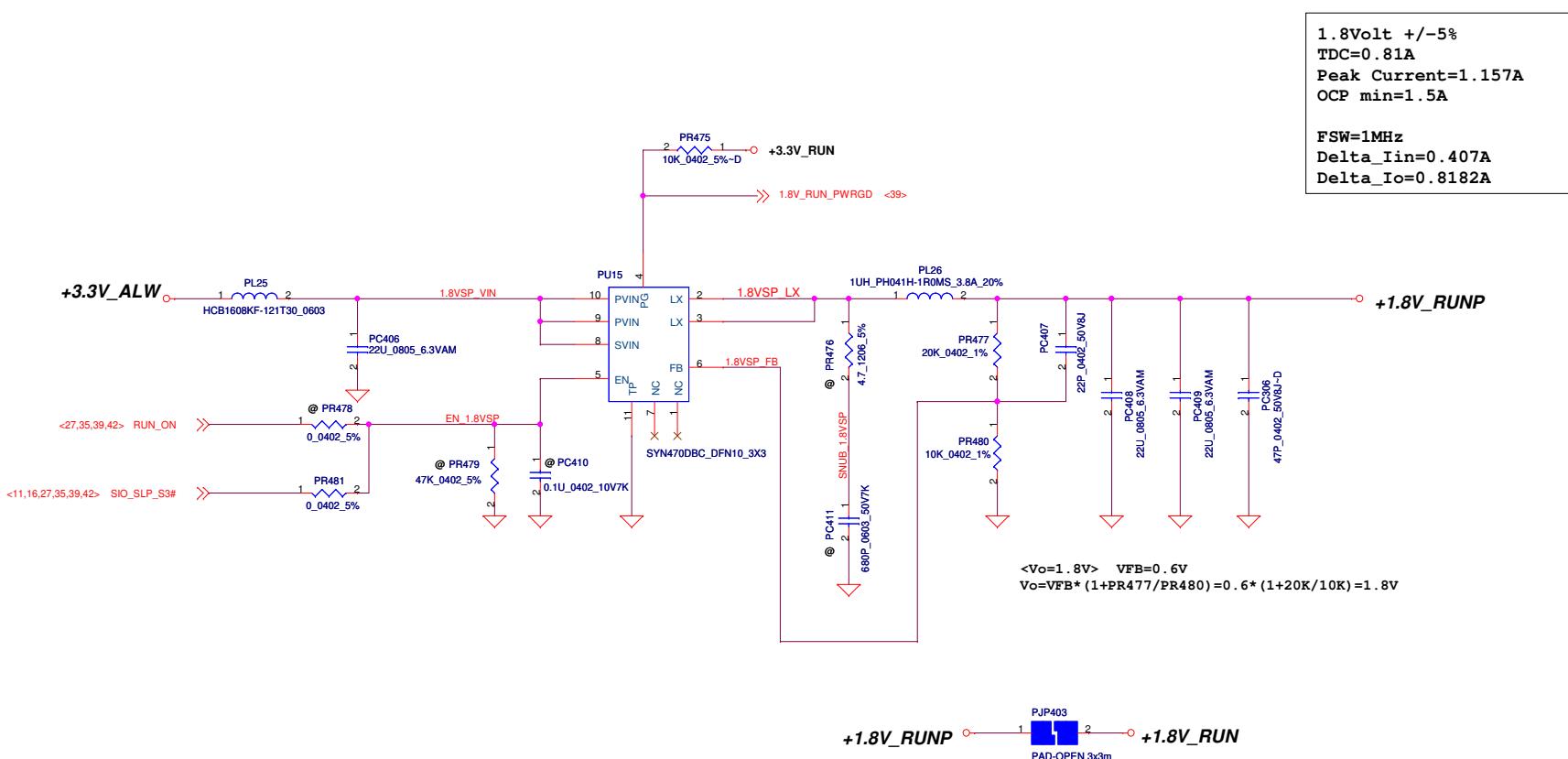
Title _____

Size _____ Document Number _____ Rev. 0.1

LA-7741

Date: Thursday, June 23, 2011 Sheet 47 of 56

www.vinifix.vn



DELL CONFIDENTIAL/PROPRIETARY



Compaq Electronics, Inc.

Title +1.8V_RUN

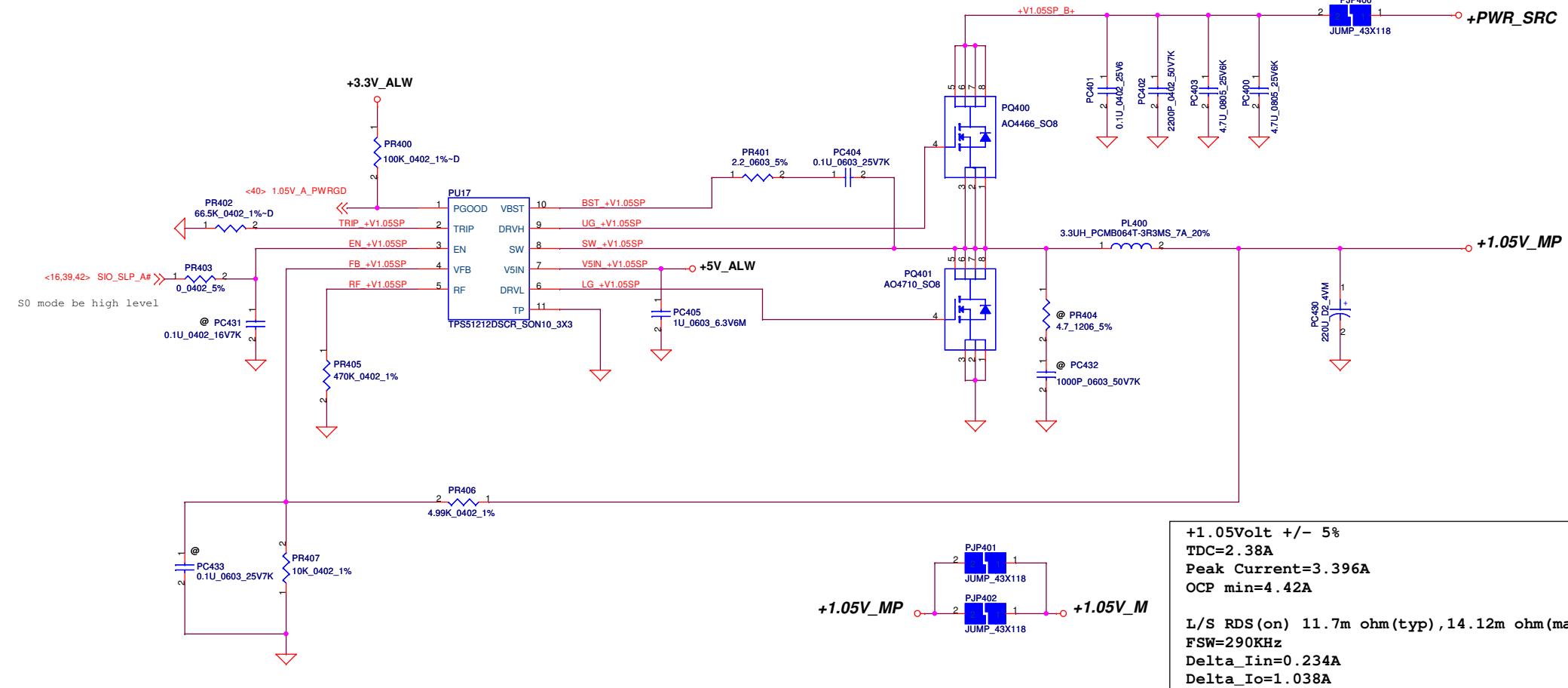
Size Document Number LA-7741 Rev 0.1

Date Thursday, June 23, 2011

Sheet 48 of 56

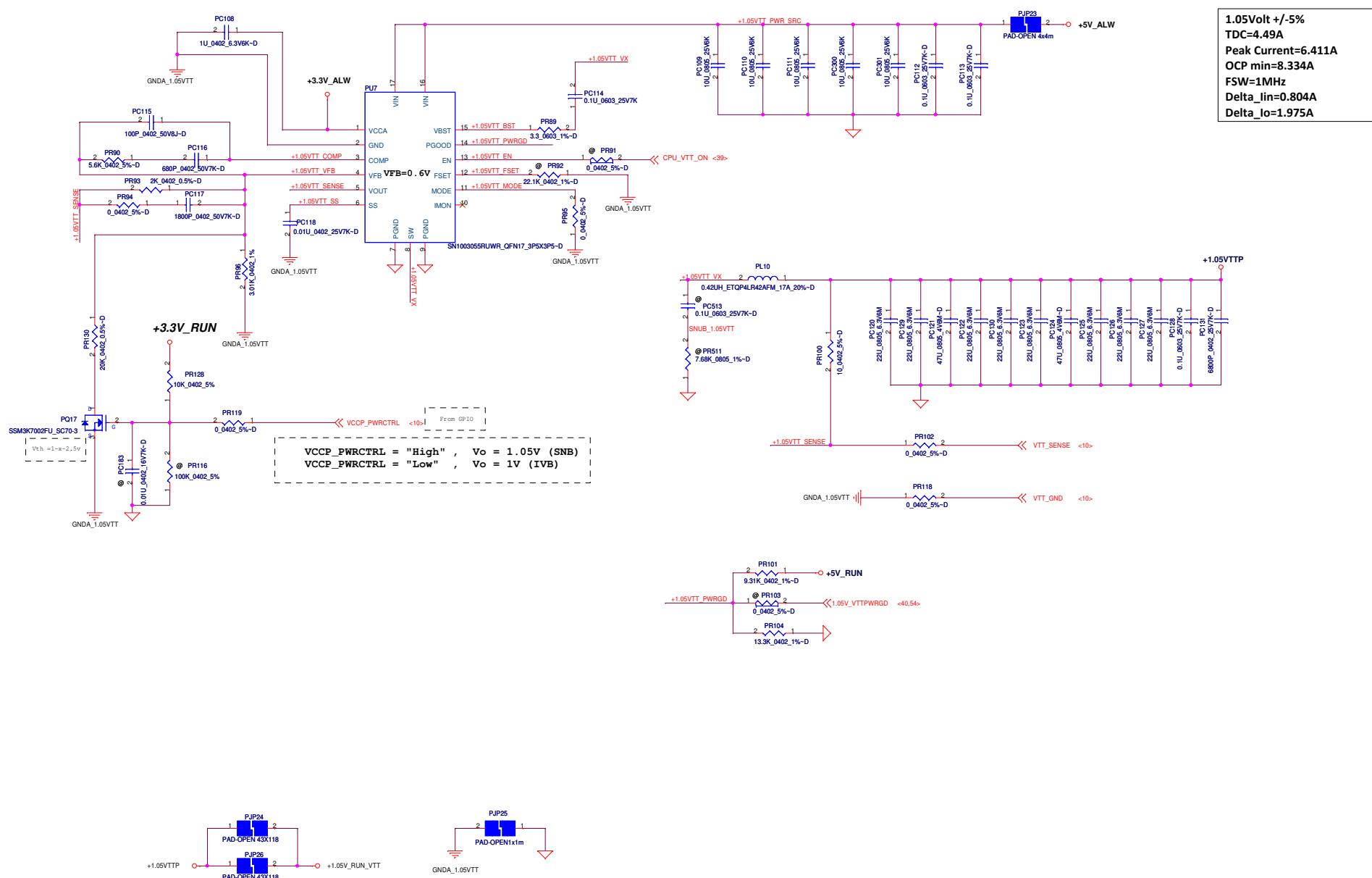
www.vinafix.vn

This sheet of engineering drawing is the property of Compaq Electronics, Inc. and contains confidential information. Its use or reproduction is not permitted without express written permission of the R&D Department except as authorized by Compaq Electronics, Inc. Neither this sheet nor the information it contains may be used by or disclosed to any third party without prior written consent of Compaq Electronics, Inc.



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.	
Title	+1.05V_M
Size	Document Number
	LA-7741
Date: Thursday, June 23, 2011	Rev. 0.1
Sheet 49 of 56	



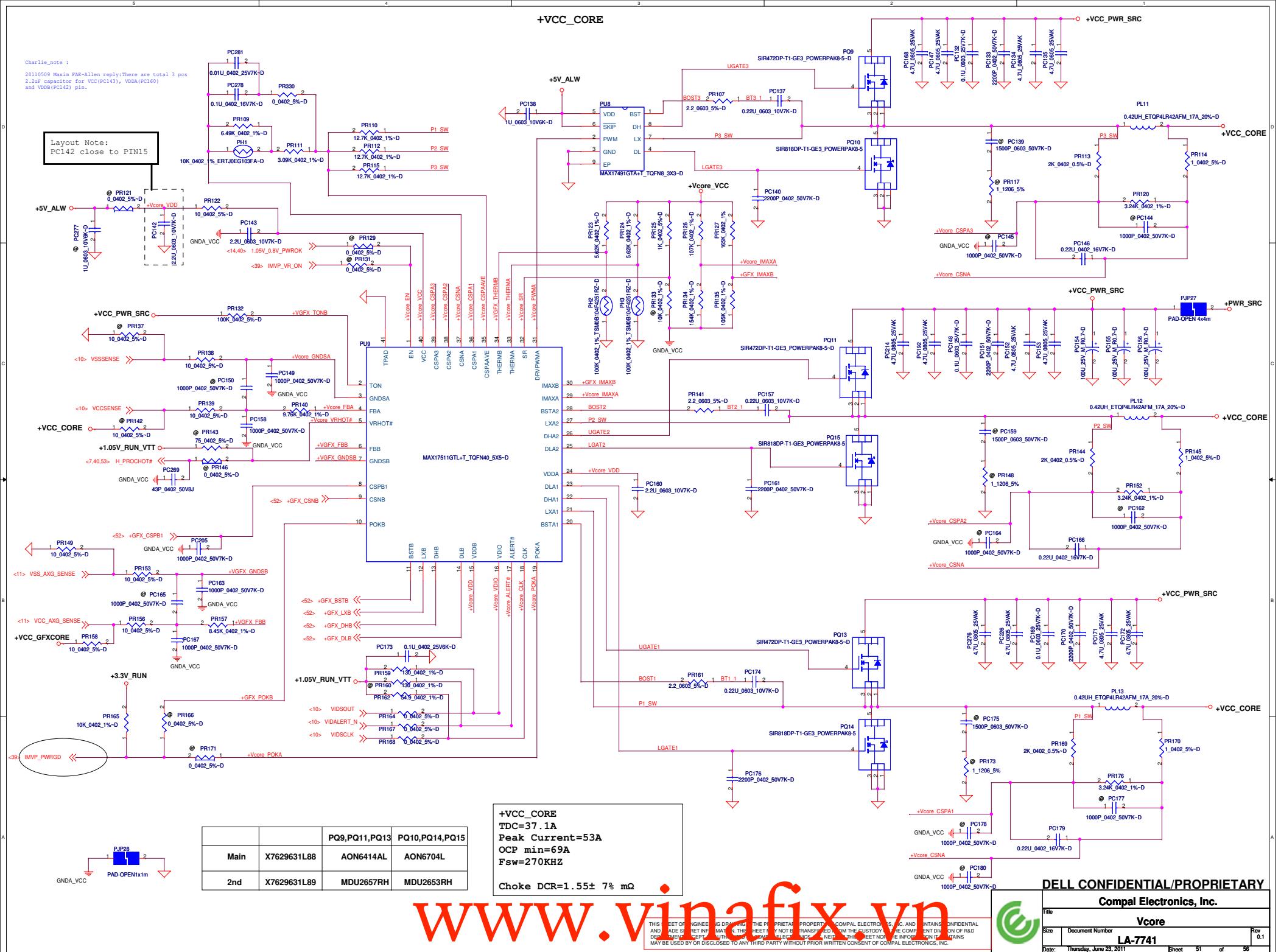
www.vinafix.vn

THIS SHEET OF ENGINEERING DRAWING PROPRIETARY TO COMPALELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPILER OR DIVISION OF R&D DEPARTMENT EXCEPT WITH THE WRITTEN CONSENT OF COMPALELECTRONICS, INC. THIS SHEET CONTAINS NO INFORMATION THAT MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPALELECTRONICS, INC.

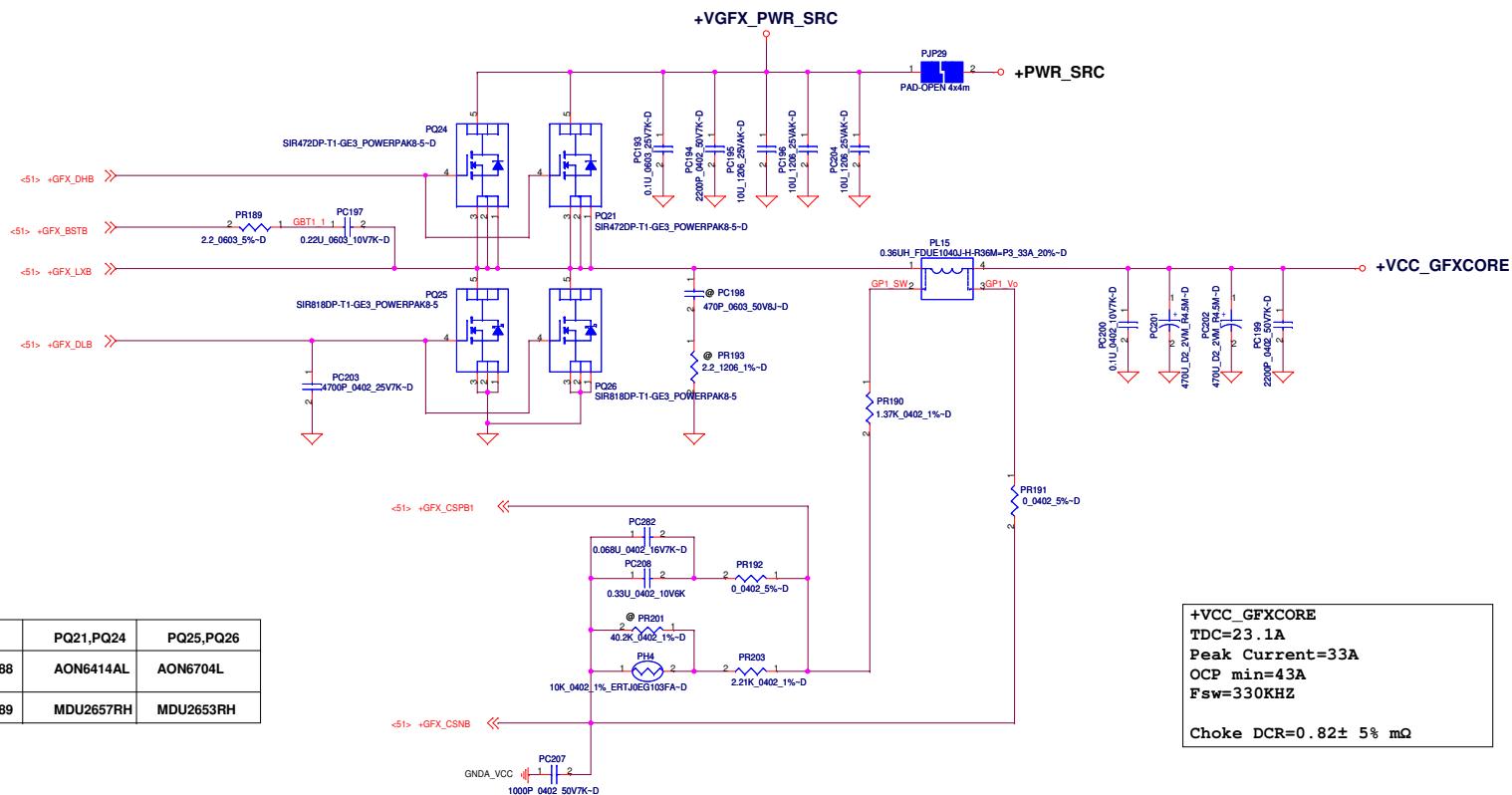
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.


 Title: ISL95870A +1.05V RUN VTT
 Size: Document Number: LA-7741 Rev: 0.1
 Date: Thursday, June 23, 2011 Sheet: 50 of 56



MDU2653RH Choke DCR=1.55± 7% mΩ

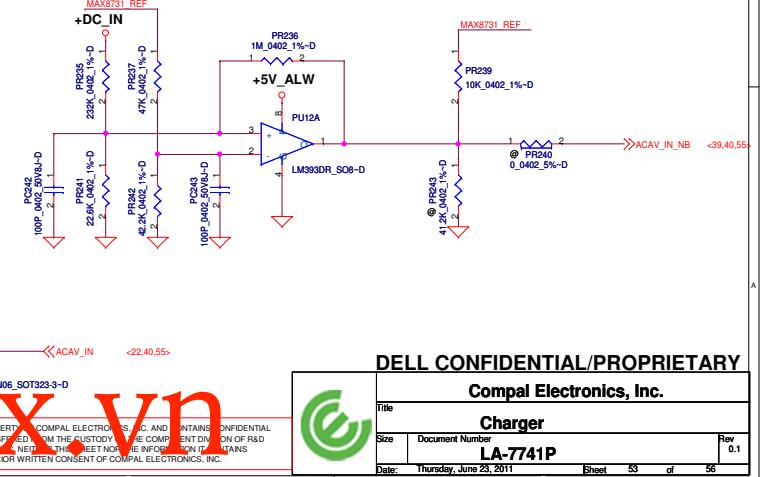
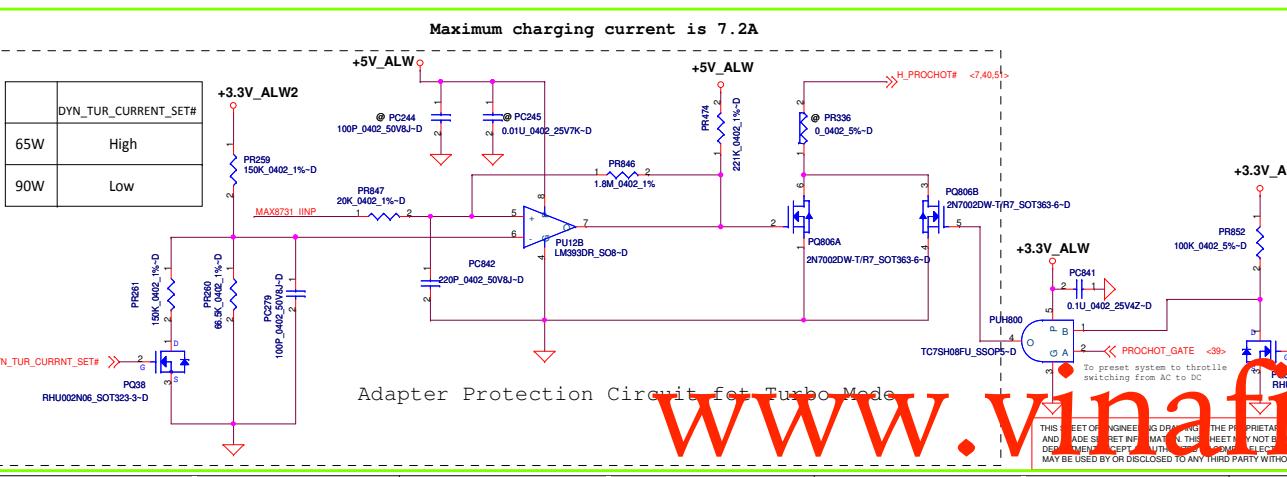
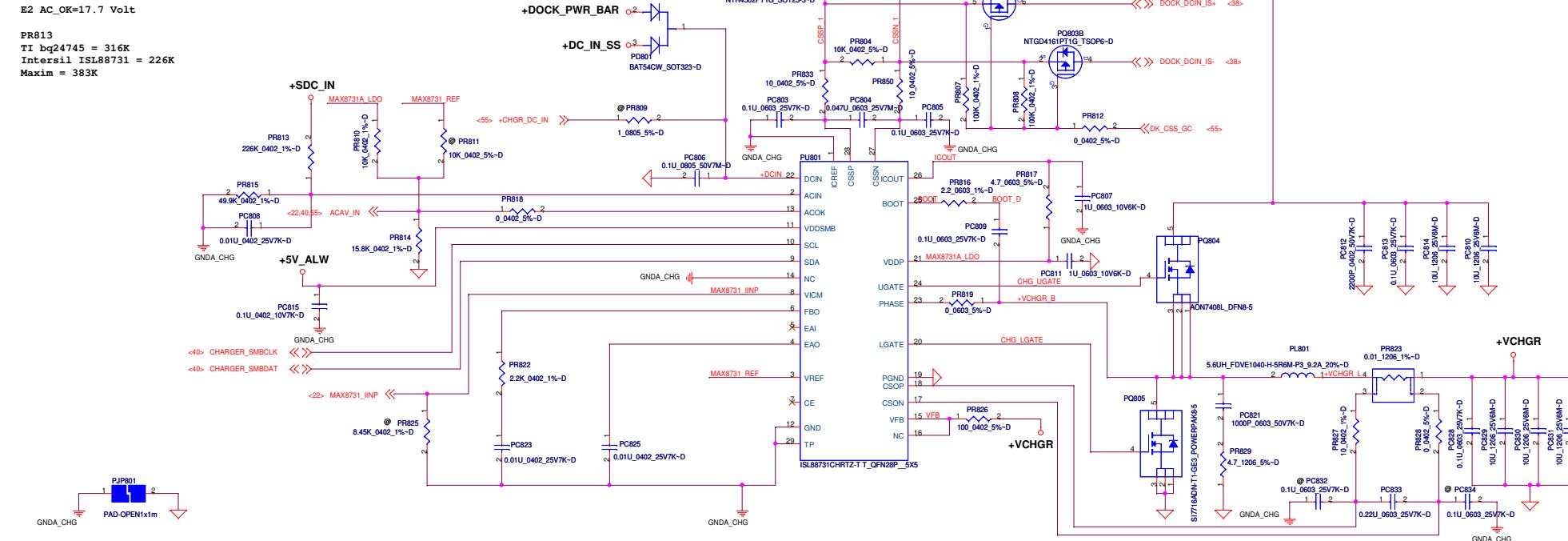


www.vinafix.vn

Adapter Protection Event		
PR521	PR522	PR510
SW	0 Ohm	@ 100k
HW	@ 0 Ohm	@

E2 AC_OK=17.7 Volt

PR813
TI bq24745 = 316K
Intersil ISL88731 = 226K
Maxim = 383K



DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Charger

LA-7741P

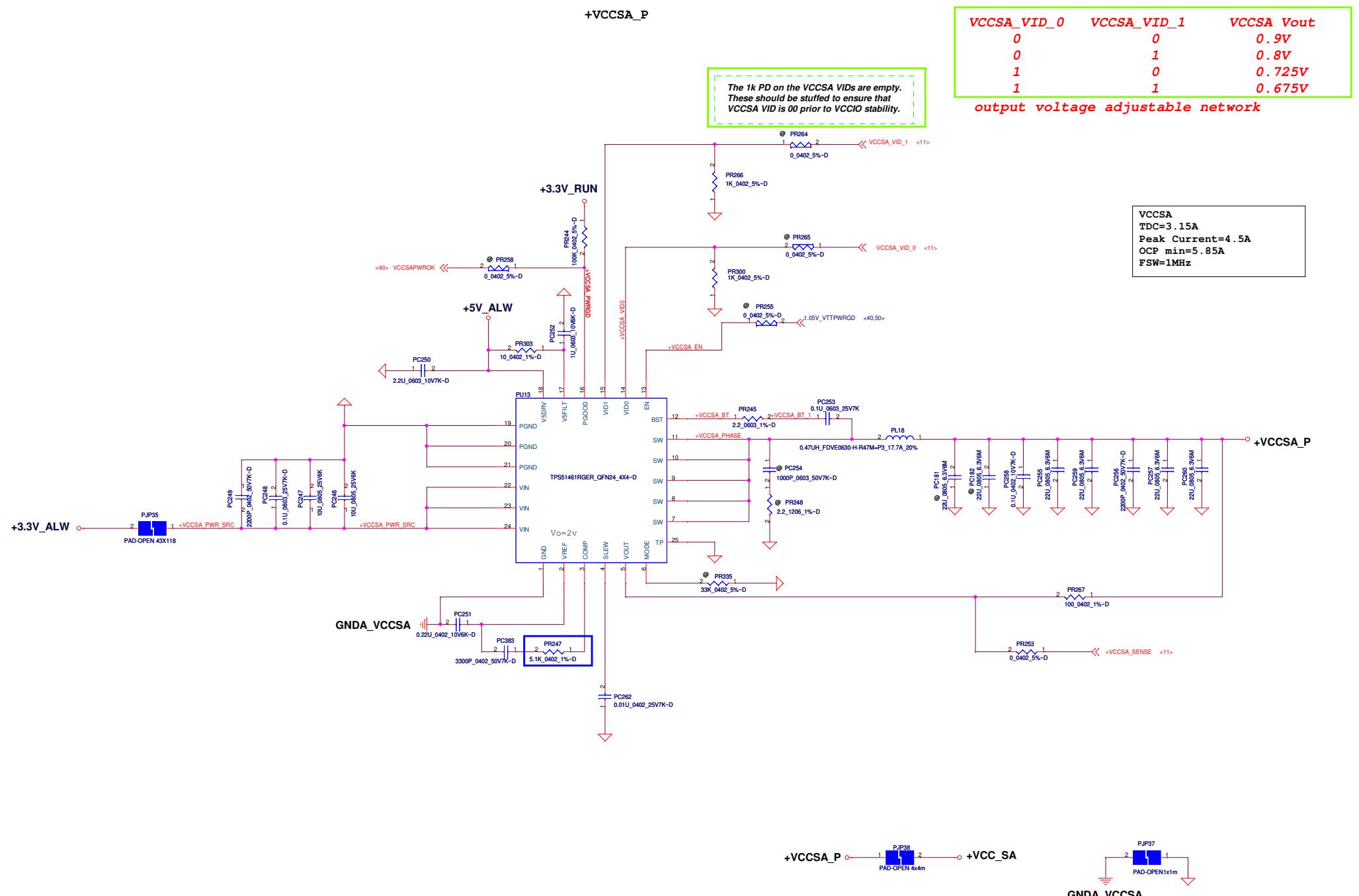
Rev 0.1



Date: Thursday, June 23, 2011

Sheet 53 of 56

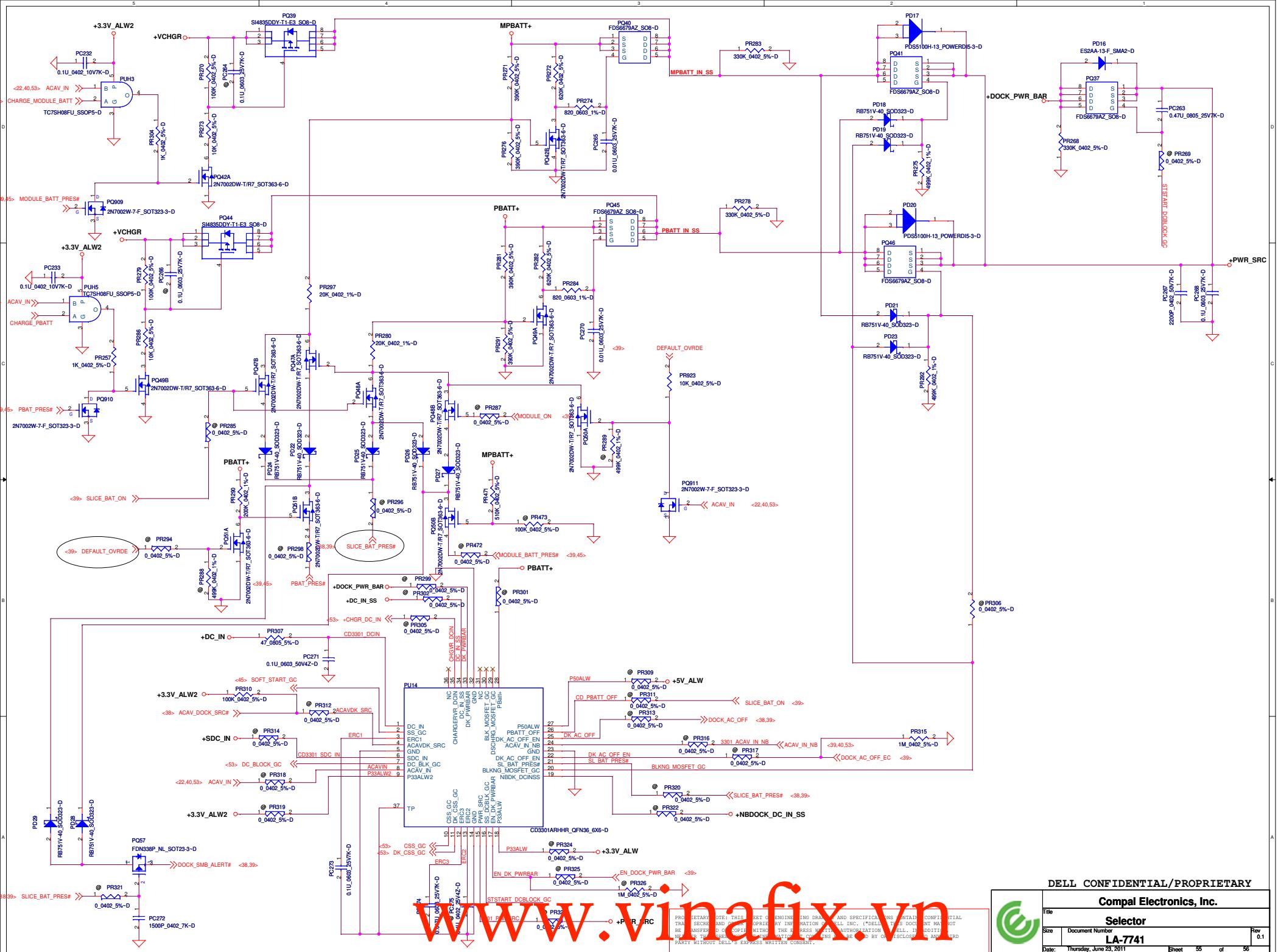
www.vinafix.vn



www.vinifix.vn

THIS SHEET OF ENGINEERING DRAWING IS THE PROPERTY OF COMPAK ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPANYS DIVISION OF R&D DEPARTMENT EXCEPT WITH THE WRITTEN CONSENT OF COMPAK ELECTRONICS, INC. NEEDS THIS SHEET NO ONE ELSE INFORMATION IT CONTAINS MAY BE USED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAK ELECTRONICS, INC.

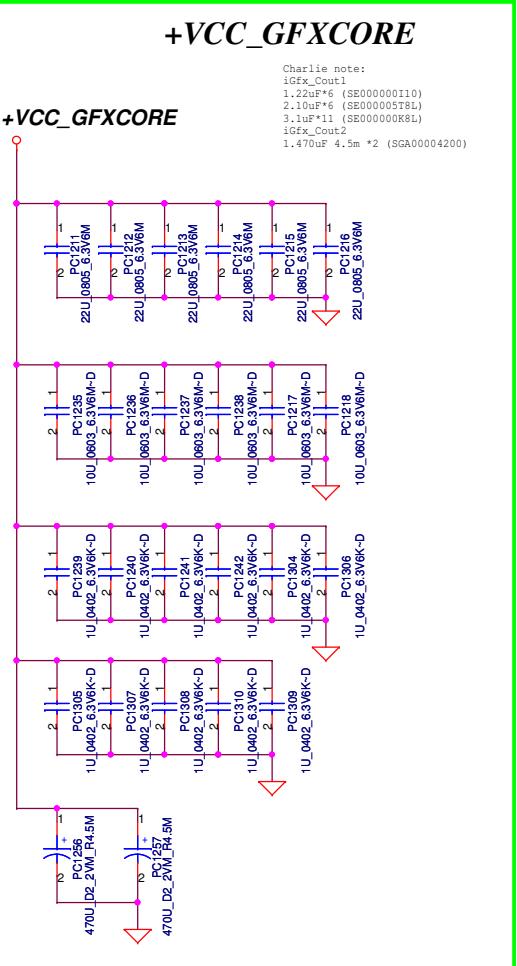
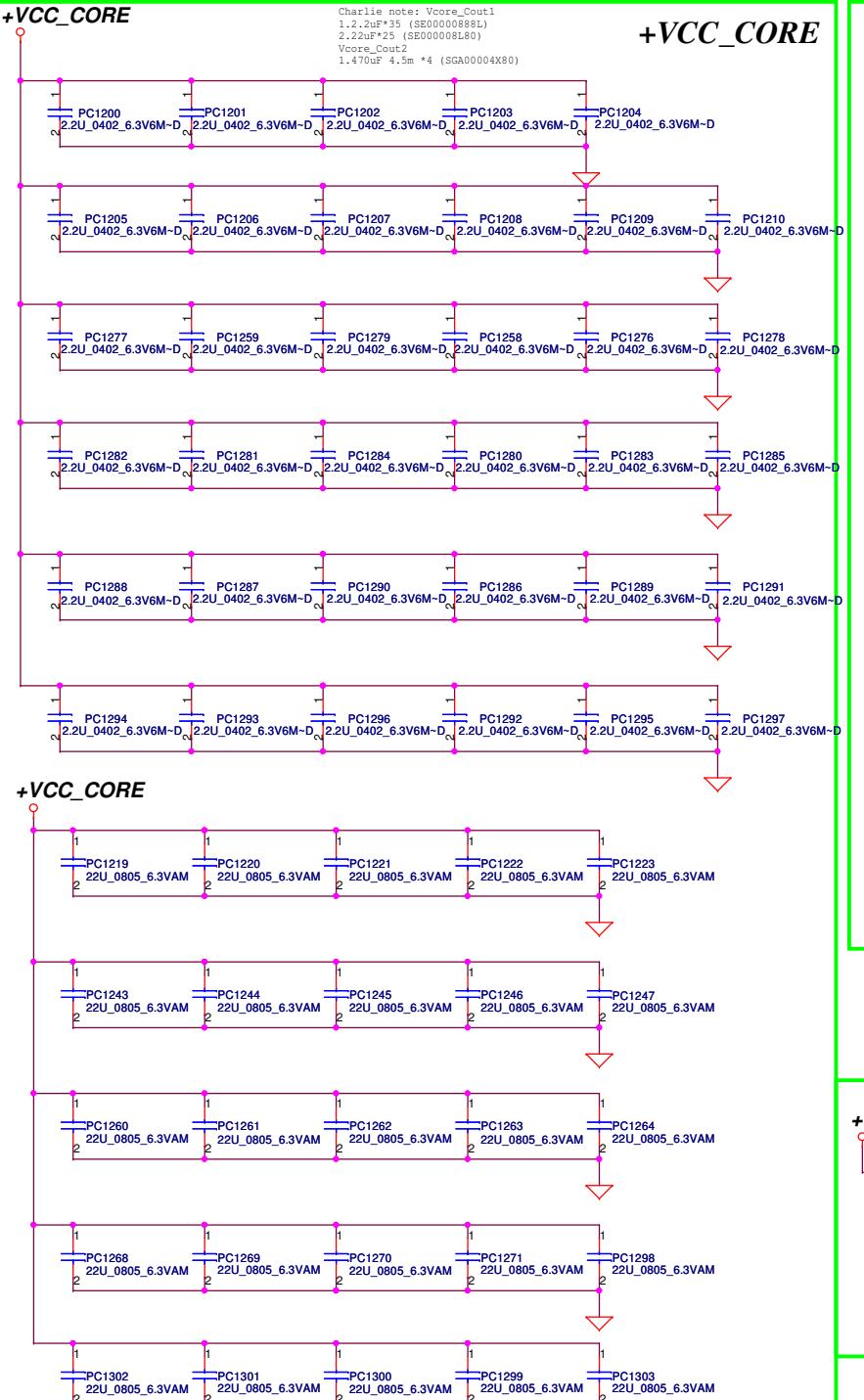
DELL CONFIDENTIAL/PROPRIETARY		
Compaq Electronics, Inc.		
ISL95870A 0.8V VCC SA		
Size	Document Number	Rev
A4	LA-7741	0.1
Date:	Thursday, June 23, 2011	Sheet
Page	54	of
Page	55	of



DELL CONFIDENTIAL/PROPRIETARY



 Compal Electronics, Inc.	Title		
	Selector		
	Size	Document Number	Rev. 0.1
	LA-7741		
Date:	Thursday, June 23, 2011	Sheet	55 of 55



Below is 458544_CRV_PDDG_0.5 Table 5-8.

Socket Bottom	5 x 22 μ F (0805) 5 x (0805) no-stuff sites
Socket Top	7 x 22 μ F (0805) 2 x (0805) no-stuff sites

