

COMPAL CONFIDENTIAL

MODEL NAME : *JAL20*

PCB NO : *LA-4043P (DA80000CV0L)*

BOM NO : *43164831L01(TPM)*

43XXXXXXX (Non TPM)



M09 Maybach UMA uFCPGA Mobile Penryn Intel Cantiga GM + ICH9M

2008-10-22

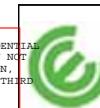
REV : 0.1(X00)

@ : Nopop Component
3@ : disable TPM
4@ : enable TPM

Fix Function Field

| MB PCB | |
|-------------|------------------------------------|
| Part Number | Description |
| DA80000CV0L | PCB 03N LA-4043P REV0 M/B LOW COST |

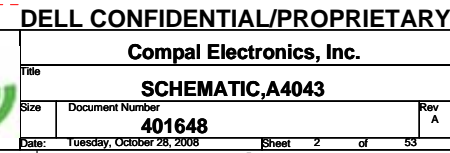
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION 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 | | SCHEMATIC,A4043 | |
| Size | Document Number | 401648 | Rev A |
| Date: Tuesday, October 28, 2008 | | Sheet 1 of 53 | |

http://laptopblue.vn



POWER STATES

| Signal State | SLP S3# | SLP S4# | SLP S5# | S4 STATE# | SLP M# | ALWAYS PLANE | M PLANE | SUS PLANE | RUN PLANE | CLOCKS |
|------------------------------|------------|------------|------------|--------------|-----------|-----------------|------------|--------------|--------------|--------|
| S0 (Full ON) / M0 | HIGH | HIGH | HIGH | HIGH | HIGH | ON | ON | ON | ON | ON |
| S3 (Suspend to RAM) / M1 | LOW | HIGH | HIGH | HIGH | HIGH | ON | ON | ON | OFF | ON |
| S4 (Suspend to DISK) / M1 | LOW | HIGH | HIGH | LOW | HIGH | ON | ON | ON | OFF | ON |
| S5 (SOFT OFF) / M1 | LOW | HIGH | LOW | LOW | HIGH | ON | ON | ON | OFF | ON |
| S3 (Suspend to RAM) / M-OFF | LOW | HIGH | HIGH | HIGH | LOW | ON | OFF | ON | OFF | OFF |
| S4 (Suspend to DISK) / M-OFF | LOW | LOW | HIGH | LOW | LOW | ON | OFF | OFF | OFF | OFF |
| S5 (SOFT OFF) / M-OFF | LOW | LOW | LOW | LOW | LOW | ON | OFF | OFF | OFF | OFF |

PM TABLE

| power plane State | +15V_ALW +5V_ALW +3.3V_ALW_ICH +3.3V_RTC_LDO | +3.3V_SUS +1.8V_MEM | +5V_RUN +3.3V_RUN +2.5V_RUN +1.5V_RUN +0.9V_DDR_VTT +VCC_GFXCORE +VCC_CORE +1.05V_VCCP | +3.3V_M +1.05V_M | +3.3V_M +1.05V_M (M-OFF) |
|-------------------------|---|------------------------|---|---------------------|--------------------------------|
| S0 | ON | ON | ON | ON | ON |
| S3 | ON | ON | OFF | ON | OFF |
| S5 S4/AC | ON | OFF | OFF | ON | OFF |
| S5 S4/AC don't exist | OFF | OFF | OFF | OFF | OFF |

PCI TABLE

| PCI DEVICE | IDSEL | REQ#/GNT# | PIRQ |
|------------|-------|---------------|------------|
| R5C847 | AD17 | REQ#1 / GNT#1 | PIRQ[B..D] |

| ICH9-M | USB PORT# | DESTINATION |
|--------|-----------|-------------------------------|
| | 0 | JUSB1 (Ext Right Side Top) |
| | 1 | JUSB1 (Ext Right Side Bottom) |
| | 2 | JESA1 (Ext Left Side Top) |
| | 3 | JESA1 (Ext Left Side Bottom) |
| | 4 | WLAN |
| | 5 | WWAN |
| | 6 | WPAN |
| | 7 | Card Bus/Express card |
| | 8 | DOCKING |
| | 9 | DOCKING |
| | 10 | USH->BIO |
| | 11 | Camera |

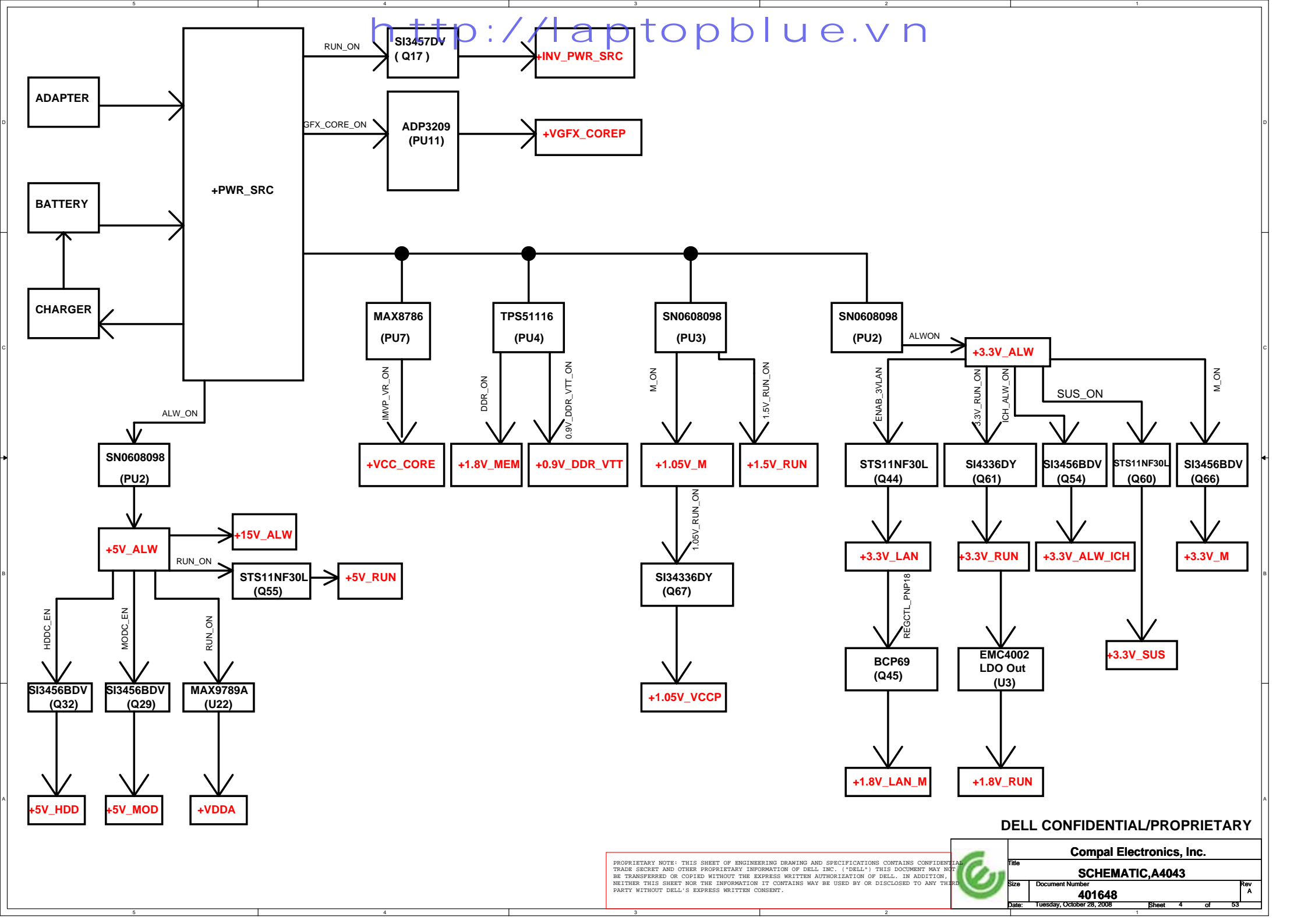
| PCI EXPRESS | DESTINATION |
|-------------|--------------------|
| Lane 1 | MINI CARD-1 WWAN |
| Lane 2 | MINI CARD-2 WLAN |
| Lane 3 | MINI CARD-3 BT/UWB |
| Lane 4 | EXPRESS CARD |
| Lane 5 | None |
| Lane 6 | 10/100/1G LAN |

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

| | | | |
|---------------------------------|-----------------|-------|---|
| Title | SCHEMATIC,A4043 | | |
| Size | Document Number | Rev | A |
| 401648 | | | |
| Date: Tuesday, October 28, 2008 | Sheet 3 | of 53 | |

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

[illegible]

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

RUN_ON

GFX_CORE_ON

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

ALWON

+3.3V_ALW

SUS_ON

M_ON

IMVP_VR_ON

DDR_ON

0.9V_DDR_VTT_ON

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

ENAB_3VLAN

3.3V_RUN_ON

3.3V_ALW_ON

ICH_ALW_ON

STS11NF30L (Q44)

SI4336DY (Q61)

SI3456BDV (Q54)

STS11NF30L (Q60)

SI3456BDV (Q66)

+3.3V_LAN

+3.3V_RUN

+3.3V_ALW_ICH

+3.3V_M

+3.3V_SUS

REGCTL_PNP18

BCP69 (Q45)

EMC4002 LDO Out (U3)

+1.8V_LAN_M

+1.8V_RUN

ALW_ON

SN0608098 (PU2)

+5V_ALW

+15V_ALW

RUN_ON

STS11NF30L (Q55)

+5V_RUN

HDDC_EN

MODC_EN

RUN_ON

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+5V_HDD

+5V_MOD

+VDDA

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008

Sheet 4 of 53

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

RUN_ON

GFX_CORE_ON

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

ALWON

+3.3V_ALW

SUS_ON

M_ON

IMVP_VR_ON

DDR_ON

0.9V_DDR_VTT_ON

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

ENAB_3VLAN

3.3V_RUN_ON

3.3V_ALW_ON

ICH_ALW_ON

STS11NF30L (Q44)

SI4336DY (Q61)

SI3456BDV (Q54)

STS11NF30L (Q60)

SI3456BDV (Q66)

+3.3V_LAN

+3.3V_RUN

+3.3V_ALW_ICH

+3.3V_M

+3.3V_SUS

REGCTL_PNP18

BCP69 (Q45)

EMC4002 LDO Out (U3)

+1.8V_LAN_M

+1.8V_RUN

ALW_ON

SN0608098 (PU2)

+5V_ALW

+15V_ALW

RUN_ON

STS11NF30L (Q55)

+5V_RUN

HDDC_EN

MODC_EN

RUN_ON

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+5V_HDD

+5V_MOD

+VDDA

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008

Sheet 4 of 53

Rev A

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.

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

RUN_ON

GFX_CORE_ON

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

ALWON

+3.3V_ALW

SUS_ON

M_ON

IMVP_VR_ON

DDR_ON

0.9V_DDR_VTT_ON

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

ENAB_3VLAN

3.3V_RUN_ON

3.3V_ALW_ON

ICH_ALW_ON

STS11NF30L (Q44)

SI4336DY (Q61)

SI3456BDV (Q54)

STS11NF30L (Q60)

SI3456BDV (Q66)

+3.3V_LAN

+3.3V_RUN

+3.3V_ALW_ICH

+3.3V_M

+3.3V_SUS

REGCTL_PNP18

BCP69 (Q45)

EMC4002 LDO Out (U3)

+1.8V_LAN_M

+1.8V_RUN

ALW_ON

SN0608098 (PU2)

+5V_ALW

+15V_ALW

RUN_ON

STS11NF30L (Q55)

+5V_RUN

HDDC_EN

MODC_EN

RUN_ON

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+5V_HDD

+5V_MOD

+VDDA

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008

Sheet 4 of 53

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

RUN_ON

GFX_CORE_ON

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

ALWON

+3.3V_ALW

SUS_ON

M_ON

IMVP_VR_ON

DDR_ON

0.9V_DDR_VTT_ON

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

ENAB_3VLAN

3.3V_RUN_ON

ICH_ALW_ON

STS11NF30L (Q44)

SI4336DY (Q61)

SI3456BDV (Q54)

STS11NF30L (Q60)

SI3456BDV (Q66)

+3.3V_LAN

+3.3V_RUN

+3.3V_ALW_ICH

+3.3V_M

+3.3V_SUS

REGCTL_PNP18

BCP69 (Q45)

EMC4002 LDO Out (U3)

+1.8V_LAN_M

+1.8V_RUN

ALW_ON

SN0608098 (PU2)

+5V_ALW

+15V_ALW

RUN_ON

STS11NF30L (Q55)

+5V_RUN

HDDC_EN

MODC_EN

RUN_ON

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+5V_HDD

+5V_MOD

+VDDA

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008

Sheet 4 of 53

Rev A

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

RUN_ON

GFX_CORE_ON

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

ALWON

+3.3V_ALW

SUS_ON

M_ON

IMVP_VR_ON

DDR_ON

0.9V_DDR_VTT_ON

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

1.05V_RUN_ON

SI4336DY (Q67)

+1.05V_VCCP

ENAB_3VLAN

3.3V_RUN_ON

3.3V_ALW_ON

ICH_ALW_ON

STN1NF30L (Q44)

SI4336DY (Q61)

SI3456BDV (Q54)

STN1NF30L (Q60)

SI3456BDV (Q66)

+3.3V_LAN

+3.3V_RUN

+3.3V_ALW_ICH

+3.3V_M

+3.3V_SUS

REGCTL_PNP18

BCP69 (Q45)

EMC4002 LDO Out (U3)

+1.8V_LAN_M

+1.8V_RUN

HDDC_EN

MODC_EN

RUN_ON

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+5V_HDD

+5V_MOD

+VDDA

+5V_ALW

+15V_ALW

STN1NF30L (Q55)

+5V_RUN

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008

Sheet 4 of 53

Rev A

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.

http://laptopblue.vn

ADAPTER

BATTERY

CHARGER

+PWR_SRC

SI3457DV (Q17)

+INV_PWR_SRC

ADP3209 (PU11)

+VGFX_COREP

MAX8786 (PU7)

TPS51116 (PU4)

SN0608098 (PU3)

SN0608098 (PU2)

+3.3V_ALW

+5V_ALW

+15V_ALW

STS11NF30L (Q55)

+5V_RUN

+5V_HDD

+5V_MOD

+VDDA

SI3456BDV (Q32)

SI3456BDV (Q29)

MAX9789A (U22)

+VCC_CORE

+1.8V_MEM

+0.9V_DDR_VTT

+1.05V_M

+1.5V_RUN

SI34336DY (Q67)

+1.05V_VCCP

STS11NF30L (Q44)

+3.3V_LAN

BCP69 (Q45)

+1.8V_LAN_M

SI4336DY (Q61)

+3.3V_RUN

EMC4002 LDO Out (U3)

+1.8V_RUN

SI3456BDV (Q54)

+3.3V_ALW_ICH

+3.3V_SUS

STS11NF30L (Q60)

+3.3V_M

SI3456BDV (Q66)

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

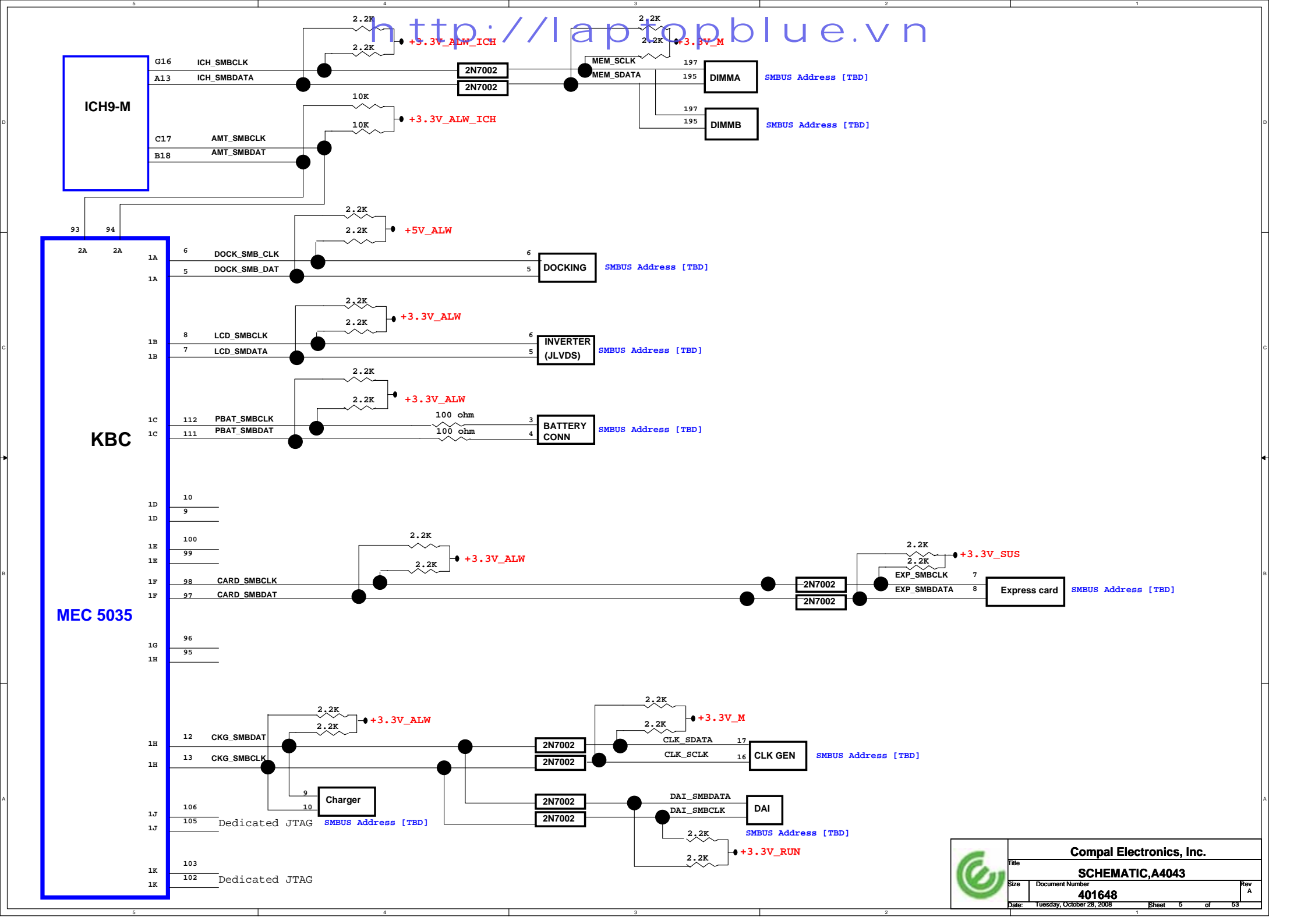
401648

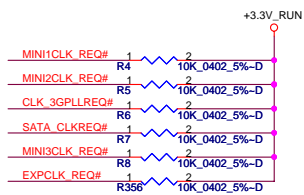
Tuesday, October 28, 2008

Sheet 4 of 53

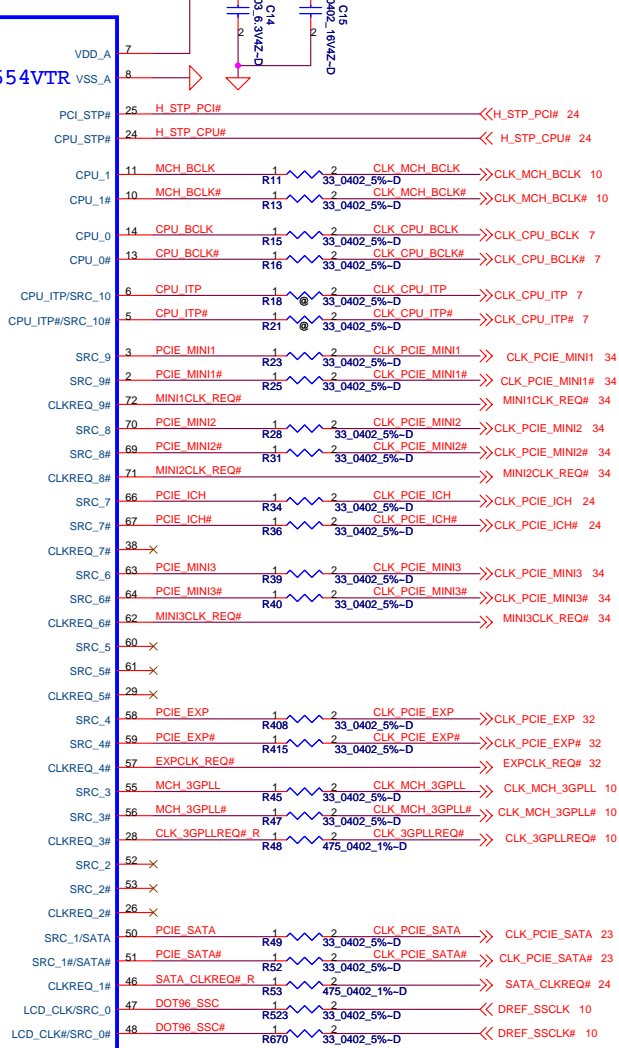
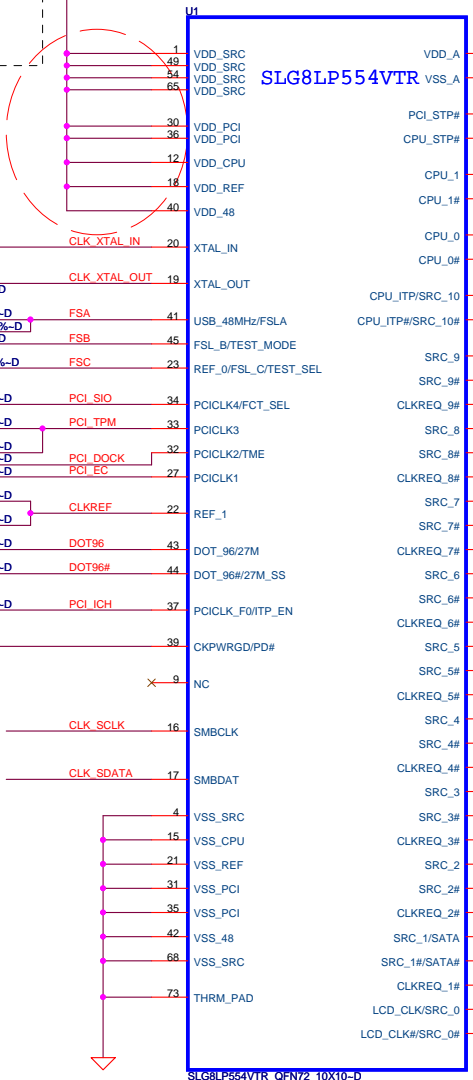
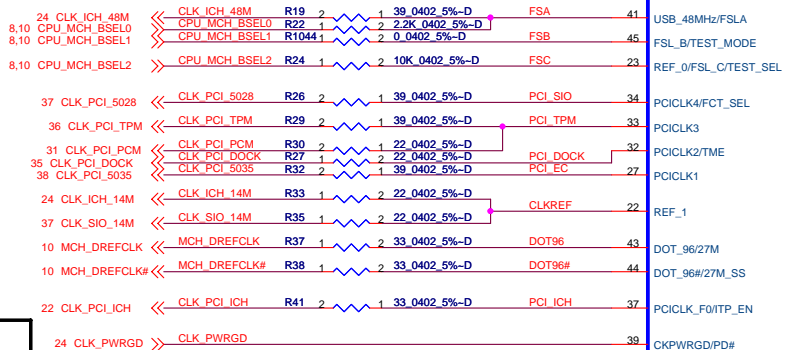
Rev A

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.



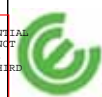


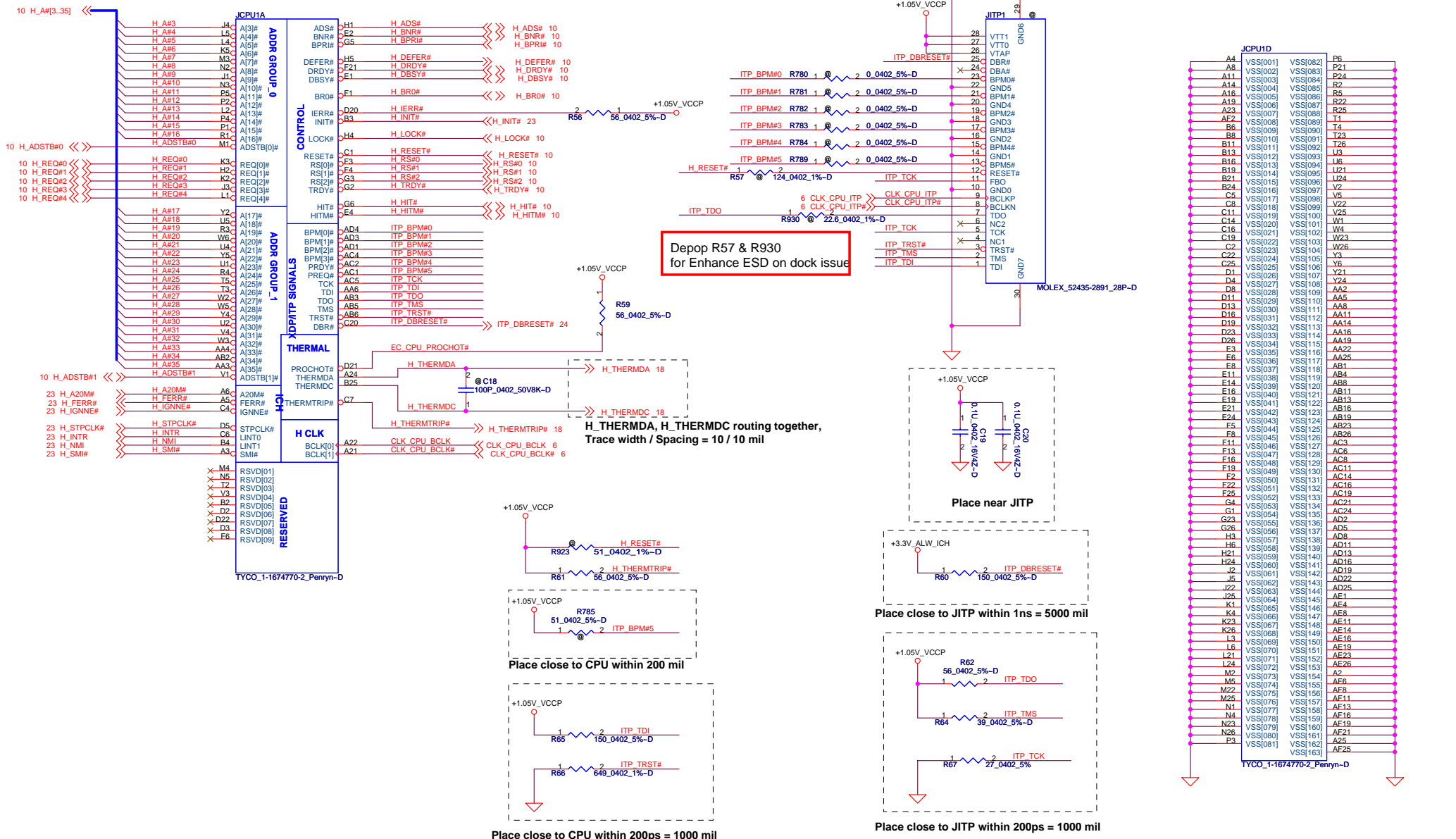
**Place crystal within
500 mils of CK505**



| | | | |
|---------------------------------|---------------------------|------------|----------|
| Compal Electronics, Inc. | | | |
| Title | | | |
| SCHEMATIC, A4043 | | | |
| Size | Document Number | | Rev |
| | 401648 | | A |
| Date: | Tuesday, October 28, 2008 | Sheet 6 of | 53 |

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

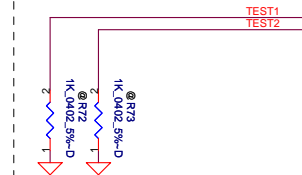
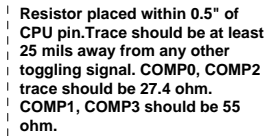
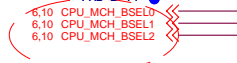
Compal Electronics, Inc.

SCHEMATIC_A4043

401648

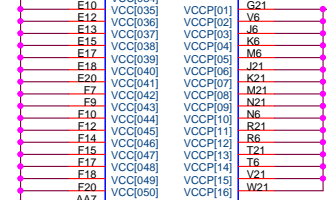
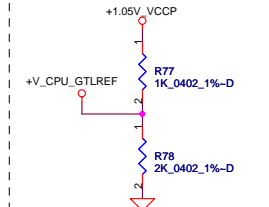
Date: Tuesday, October 28, 2008 Sheet 7 of 53

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.



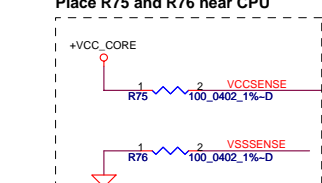
For the purpose of testability, route these signals through a ground referenced Z0 = 55ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection.

| FSB | BCLK | BSEL2 | BSEL1 | BSEL0 |
|------|------|-------|-------|-------|
| 533 | 133 | 0 | 0 | 1 |
| 667 | 166 | 0 | 1 | 1 |
| 800 | 200 | 0 | 1 | 0 |
| 1067 | 266 | 0 | 0 | 0 |



CRB was 270uF

Length match within 25 mils, $Z_0=27.4$ ohm



Route VCCSENSE and VSSSENSE trace at
27.4 ohms, 7 mils spacing and the placement should be within 1 inch (max)

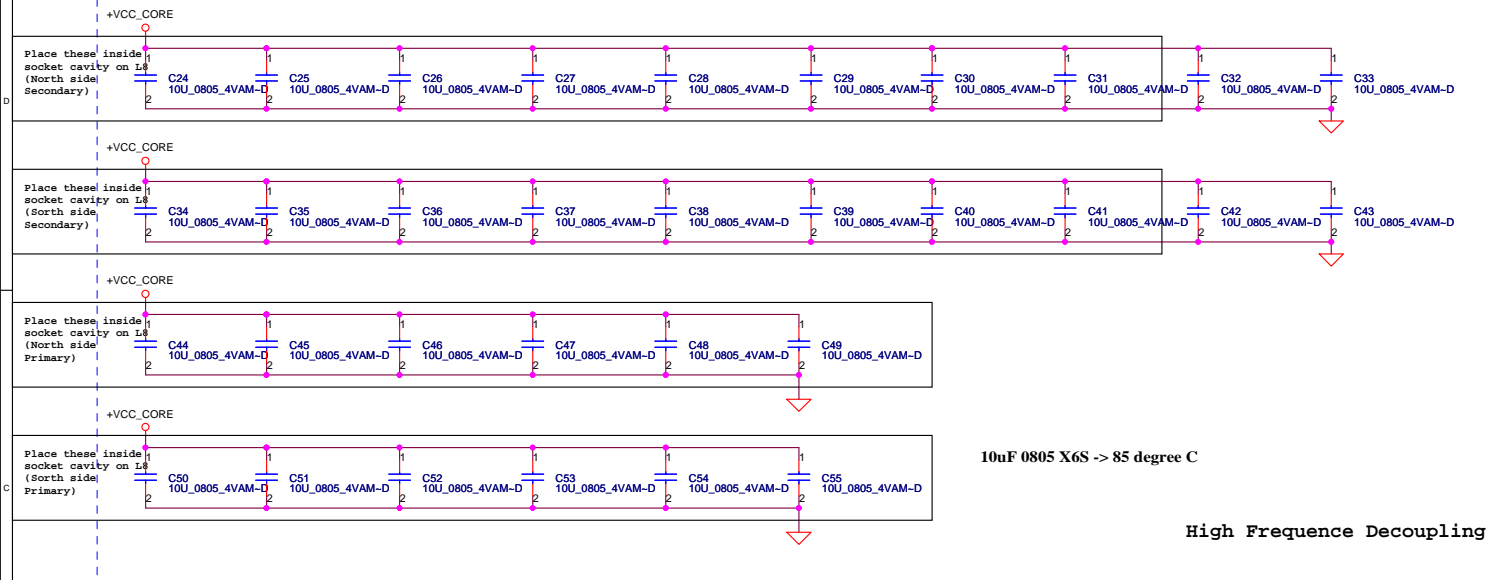
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

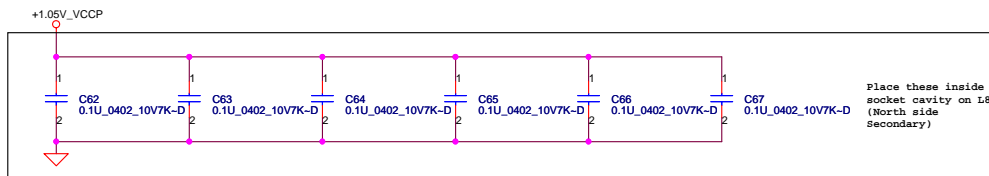
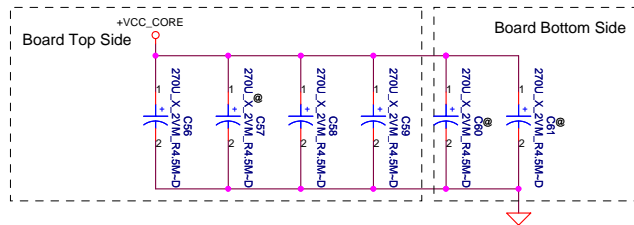
Title **SCHEMATIC,A4043**

401648

Date: Tuesday, October 28, 2008 Sheet 8 of 53



Near VCORE regulator.



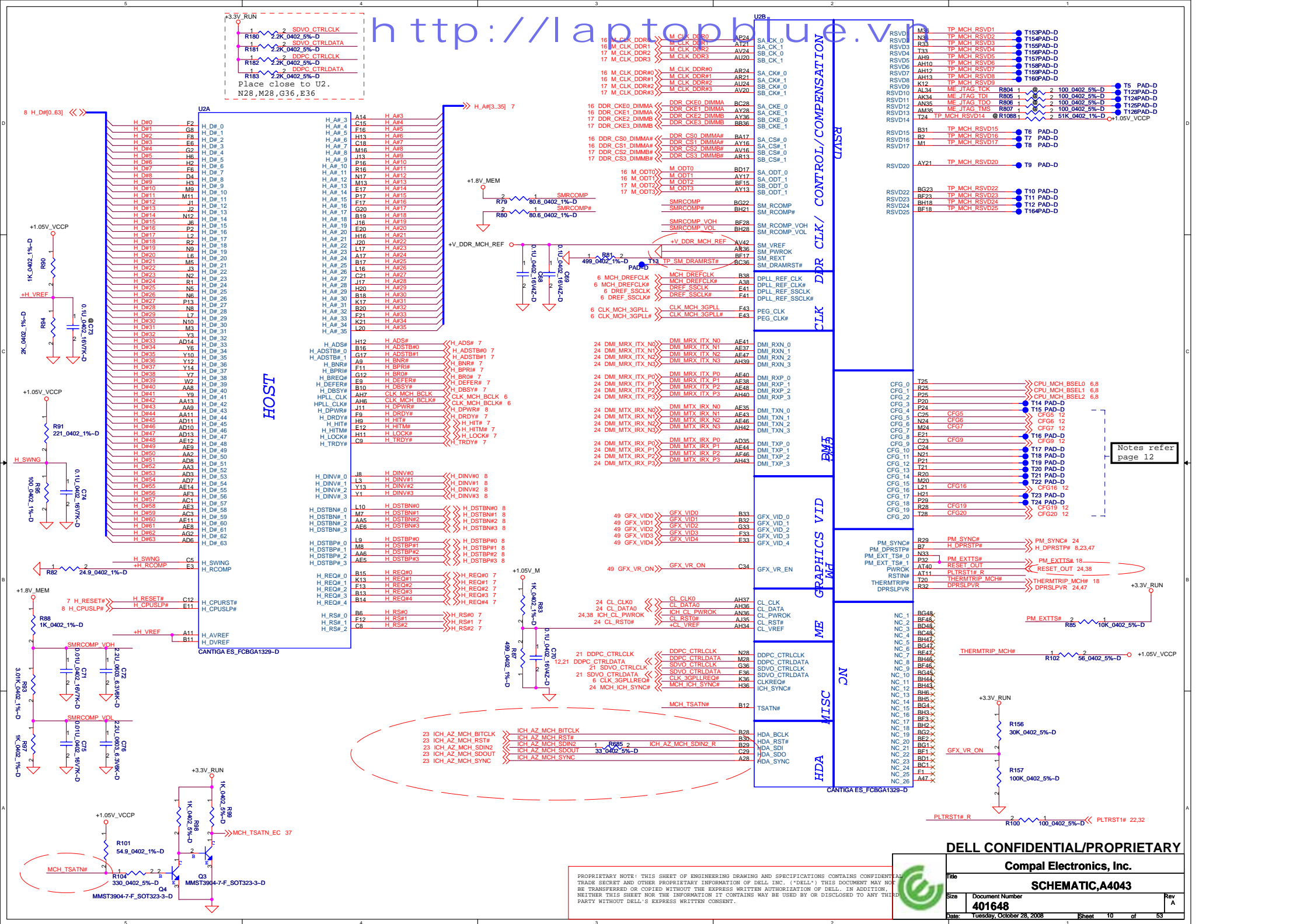
DELL CONFIDENTIAL/PROPRIETARY

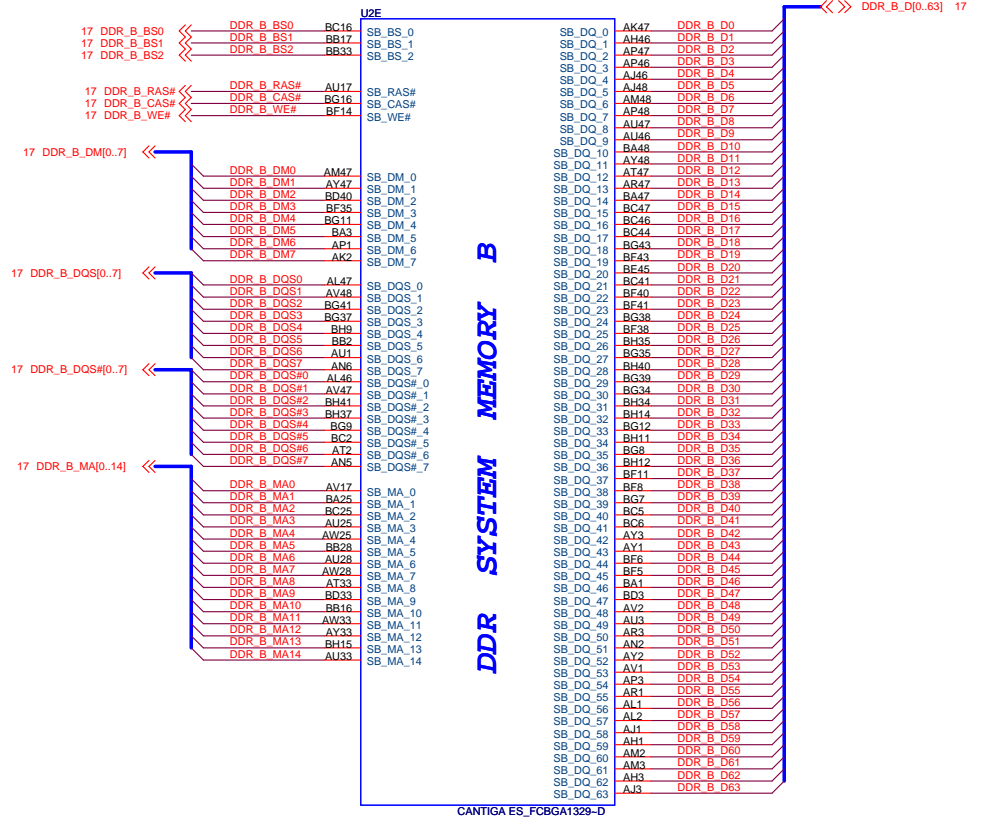
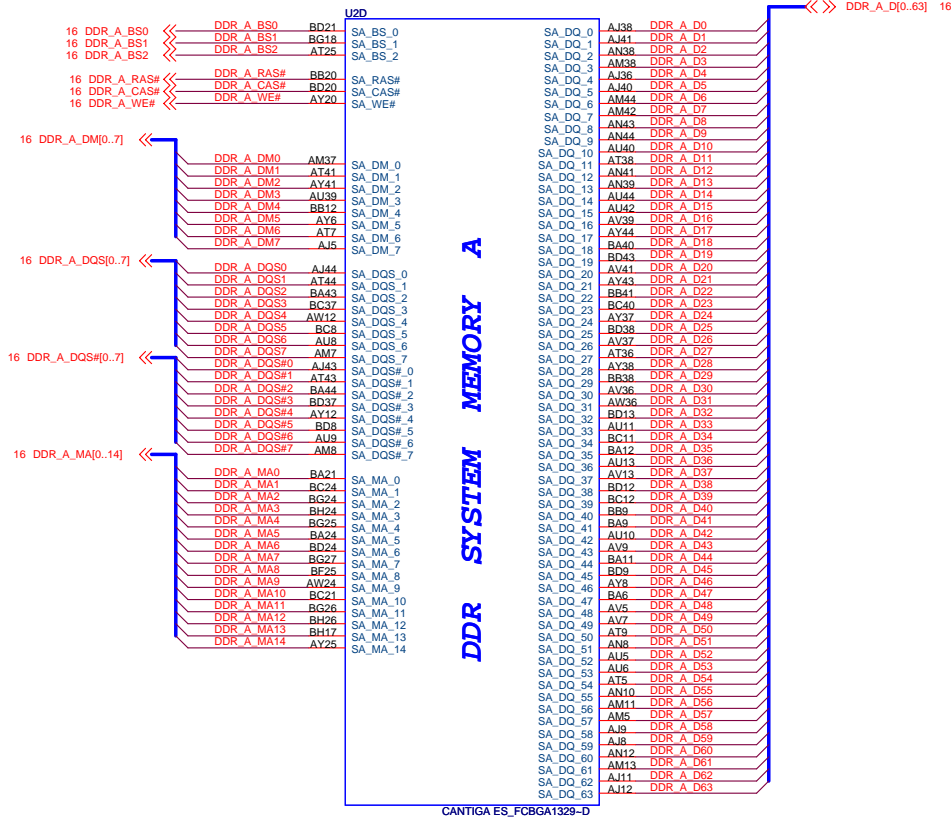
Compal Electronics, Inc.

| | | | | |
|---------------------------|--|-----------------|--|-----|
| Title | | SCHEMATIC,A4043 | | Rev |
| Size | | Document Number | | A |
| Date | | 401648 | | |
| Tuesday, October 28, 2008 | | Sheet 9 of 53 | | |

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.







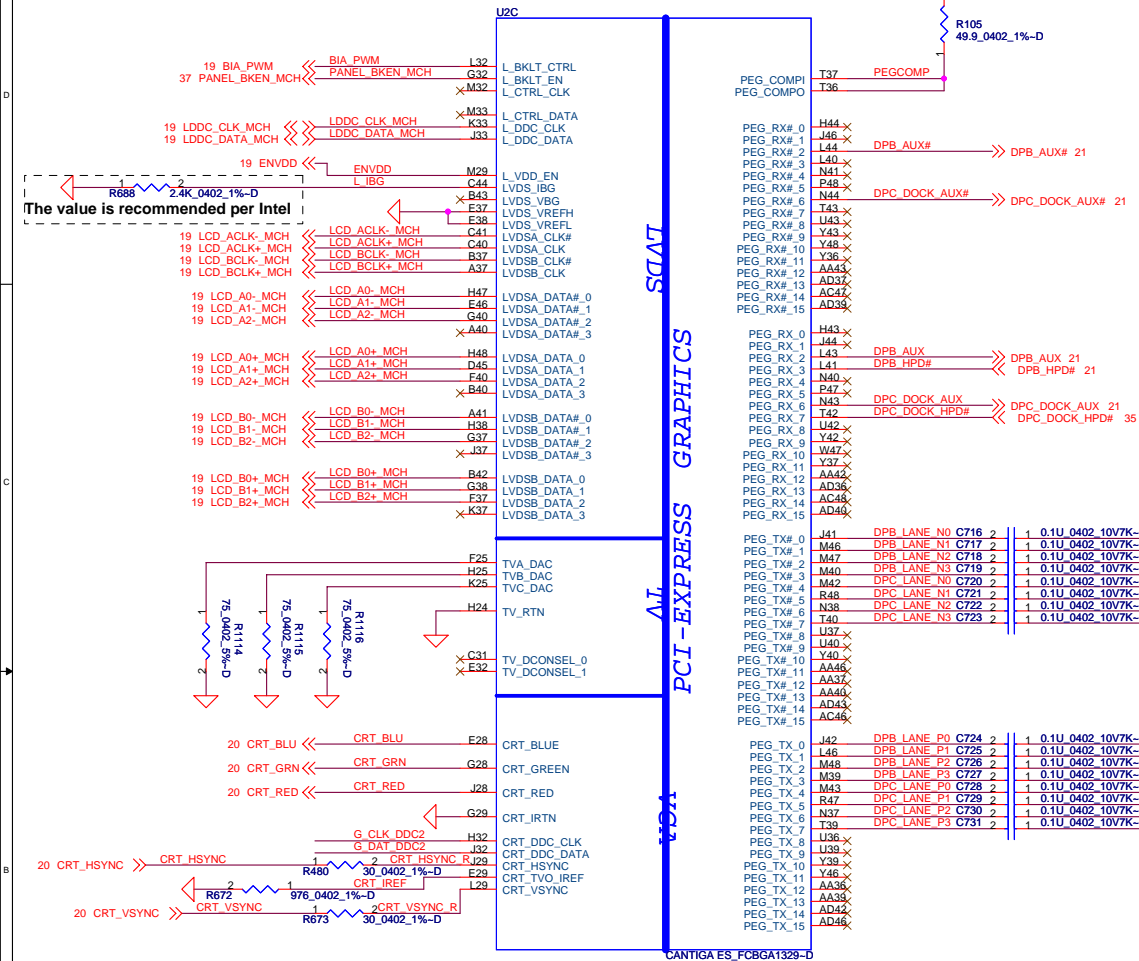
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

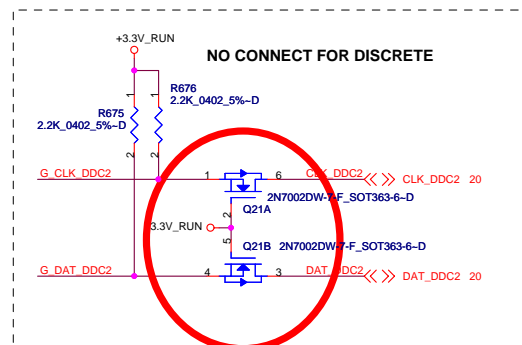
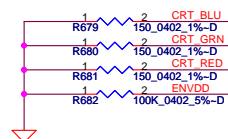
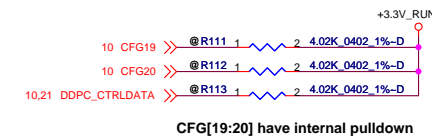
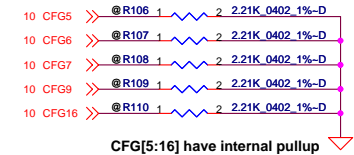
SCHEMATIC,A4043

| | | |
|-------|---------------------------|----------------|
| Title | Document Number | Rev |
| | 401648 | A |
| Date | Tuesday, October 28, 2008 | Sheet 11 of 53 |

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.



| Strap Pin Table | | |
|-----------------|--------------------------------|--|
| CFG5 | DMI X2 Select | Low = DMI x 2 High = DMI x 4 (Default) |
| CFG6 | ITPM Host Interface | Low = iTPM enable High = iTPM disable(Default) |
| CFG7 | Management Engine Crypto Strap | Low = TLS cipher suite with no confidentiality High = TLS cipher suite with confidentiality(Default) |
| CFG9 | PCI Express Graphic Lane | Low = Reverse Lane High = Normal Operation(Default) |
| CFG16 | FSB Dynamic ODT | Low=Dynamic ODT Disable High=Dynamic ODT Enable(default) |
| CFG19 | DMI Lane Reversal | Low=Normal (default) High=Lane Reversed |
| CFG20 | SDVO/PCIE Concurrent Operation | Low=Only SDVO or PCIe1 is operational (default) High=SDVO and PCIe1 are operating simultaneously via PEG port |
| SDVO_CTRL_DATA | | Low=No SDVO Device Present (default) High=SDVO Device Present |
| DDPC_CTRLDATA | | Low=DisplayPort disabled (default) High=DisplayPort device present |



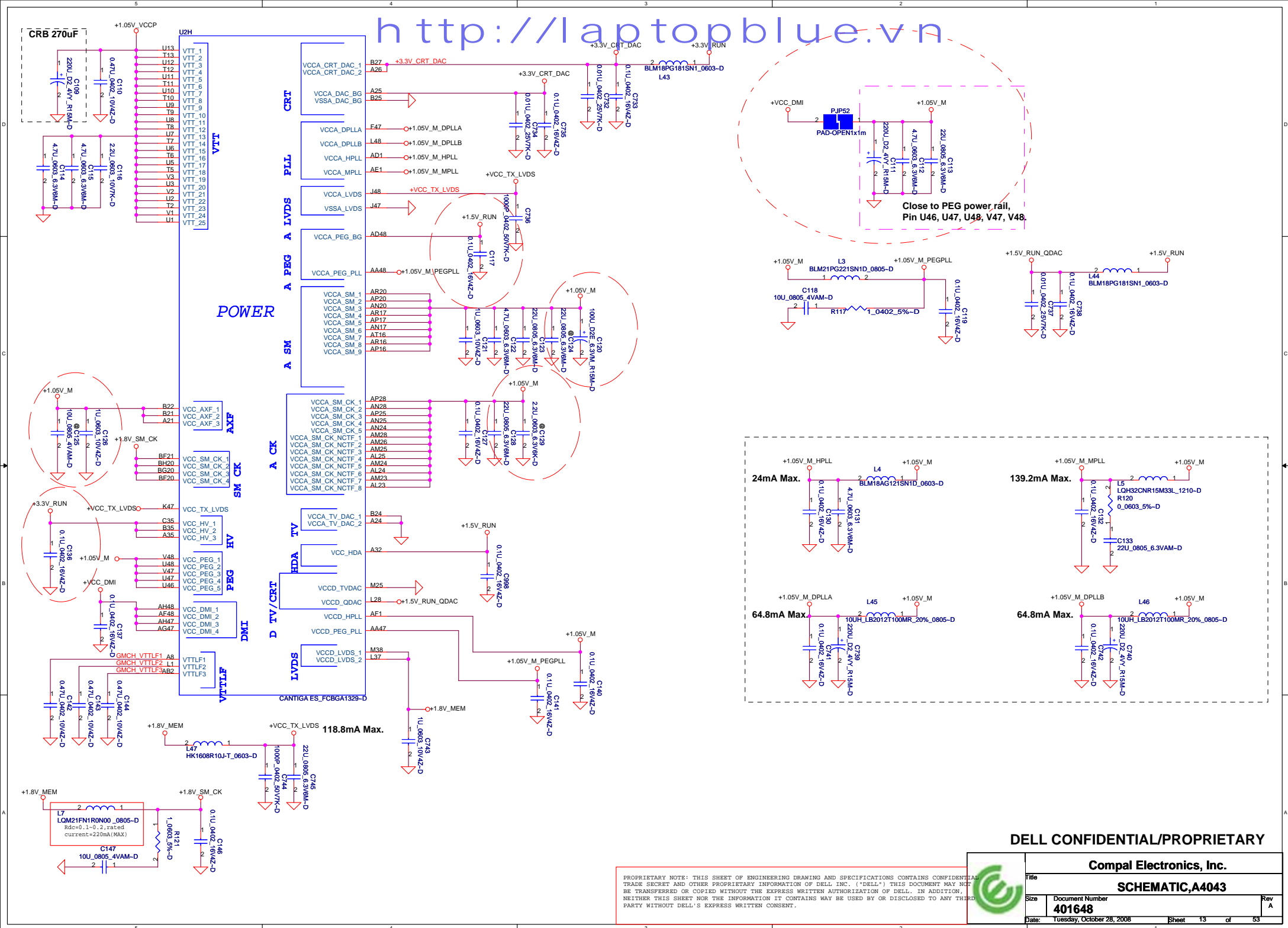
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE 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 | | | |
| SCHEMATIC,A4043 | | | |
| Size | Document Number | | Rev A |
| | 401648 | | |
| Date | Tuesday, October 28, 2008 | Sheet 12 of 53 | |

h t t p : / / l a p t o p b l u e . v . n

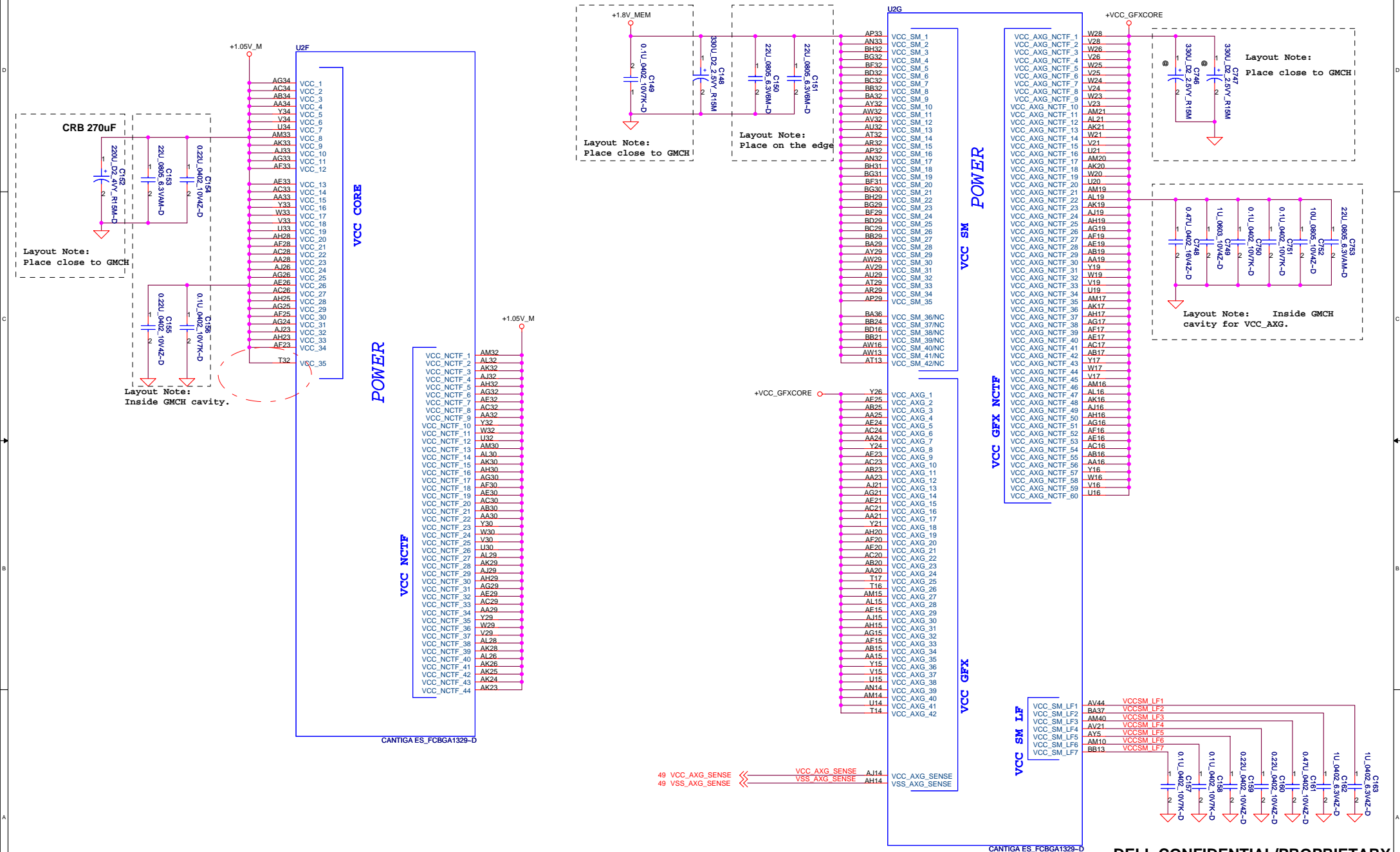


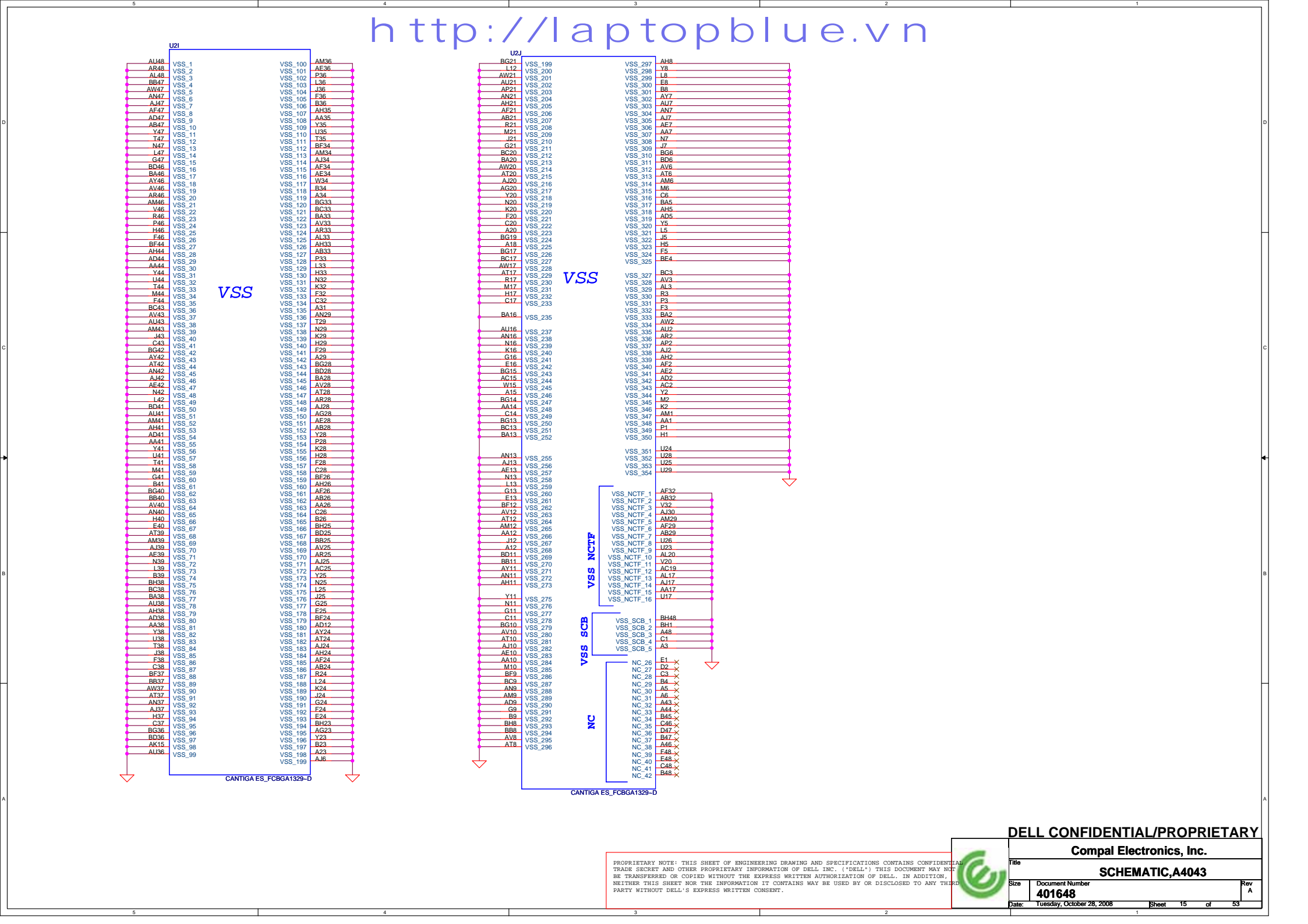
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

| | |
|-------|------------------------|
| Title | SCHEMATIC,A4043 |
|-------|------------------------|

| | | |
|-------|---------------------------|----------------|
| Size | Document Number | Rev |
| | 401648 | A |
| Date: | Tuesday, October 28, 2008 | Sheet 13 of 53 |





http://laptopblue.vn

U2I

U2J

VSS

VSS NCTF

VSS SCB

NC

CANTIGA ES_FCBGA1329-D

CANTIGA ES_FCBGA1329-D

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title

SCHEMATIC, A4043

Size

Document Number

401648

Date

Tuesday, October 28, 2008

Sheet

15

of

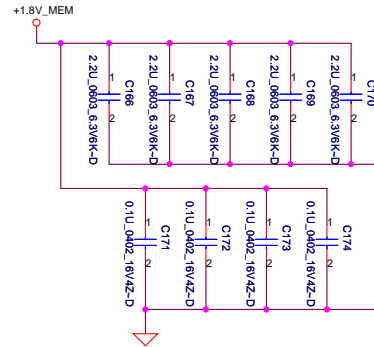
53

Rev

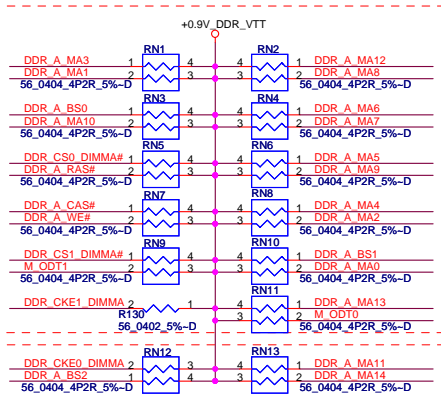
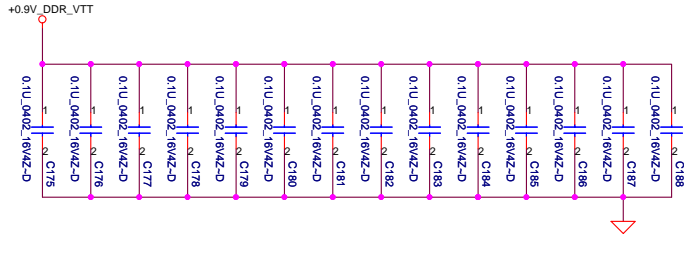
A

11 DDR_A_DQS#[0..7] <<>>
 11 DDR_A_D[0..63] <<>>
 11 DDR_A_DM[0..7] <<>>
 11 DDR_A_DQS[0..7] <<>>
 11 DDR_A_MA[0..14] <<>>

Layout Note:
Place near JDIMMA

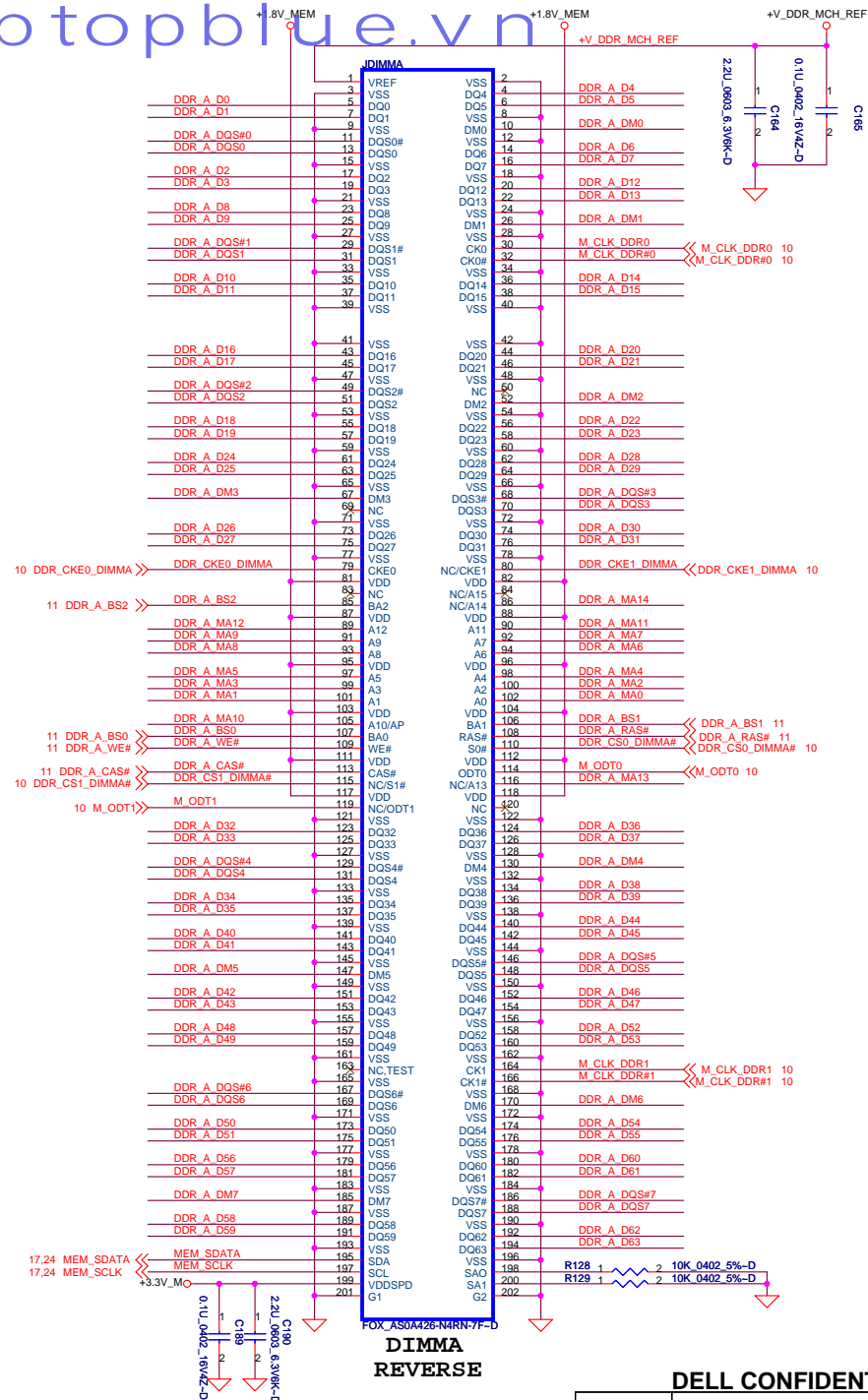


Layout Note:
Place one cap close to every 2 pullup resistors terminated to +0.9V_DDR_VTT



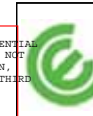
Layout Note:
Place these resistor closely JDIMMA, all trace length < 750 mil

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



DIMMA
REVERSE

DELL CONFIDENTIAL/PROPRIETARY

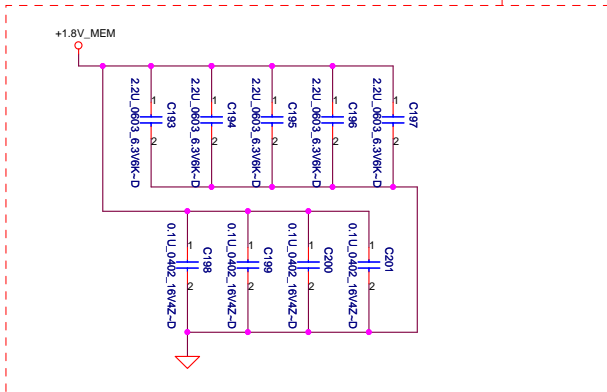


| | | |
|--------------------------|---------------------------|----------------|
| Compal Electronics, Inc. | | |
| SCHEMATIC, A4043 | | |
| File | Document Number | Rev |
| | 401648 | A |
| Date | Tuesday, October 28, 2008 | Sheet 16 of 53 |

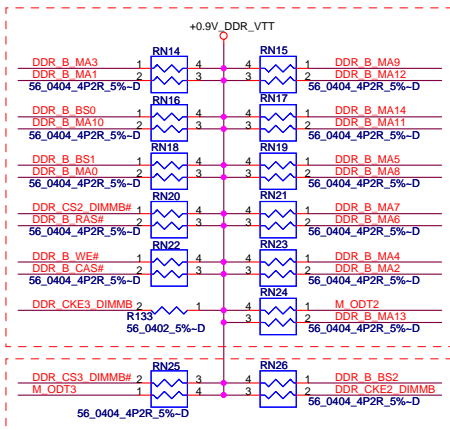
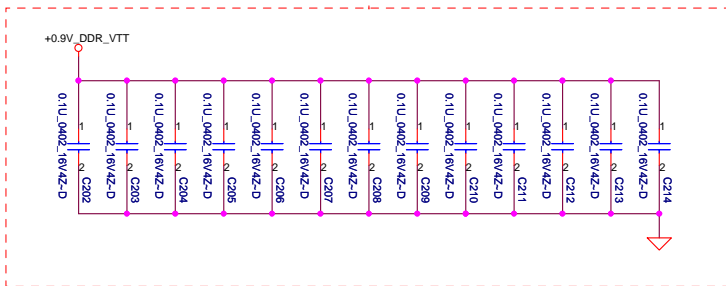
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

11 DDR_B_DQS#0[0..7] <<>>
11 DDR_B_D[0..63] <<>>
11 DDR_B_DM[0..7] <<>>
11 DDR_B_DQS#0[0..7] <<>>
11 DDR_B_MA[0..14] <<>>

Layout Note:
Place near JDIMMB

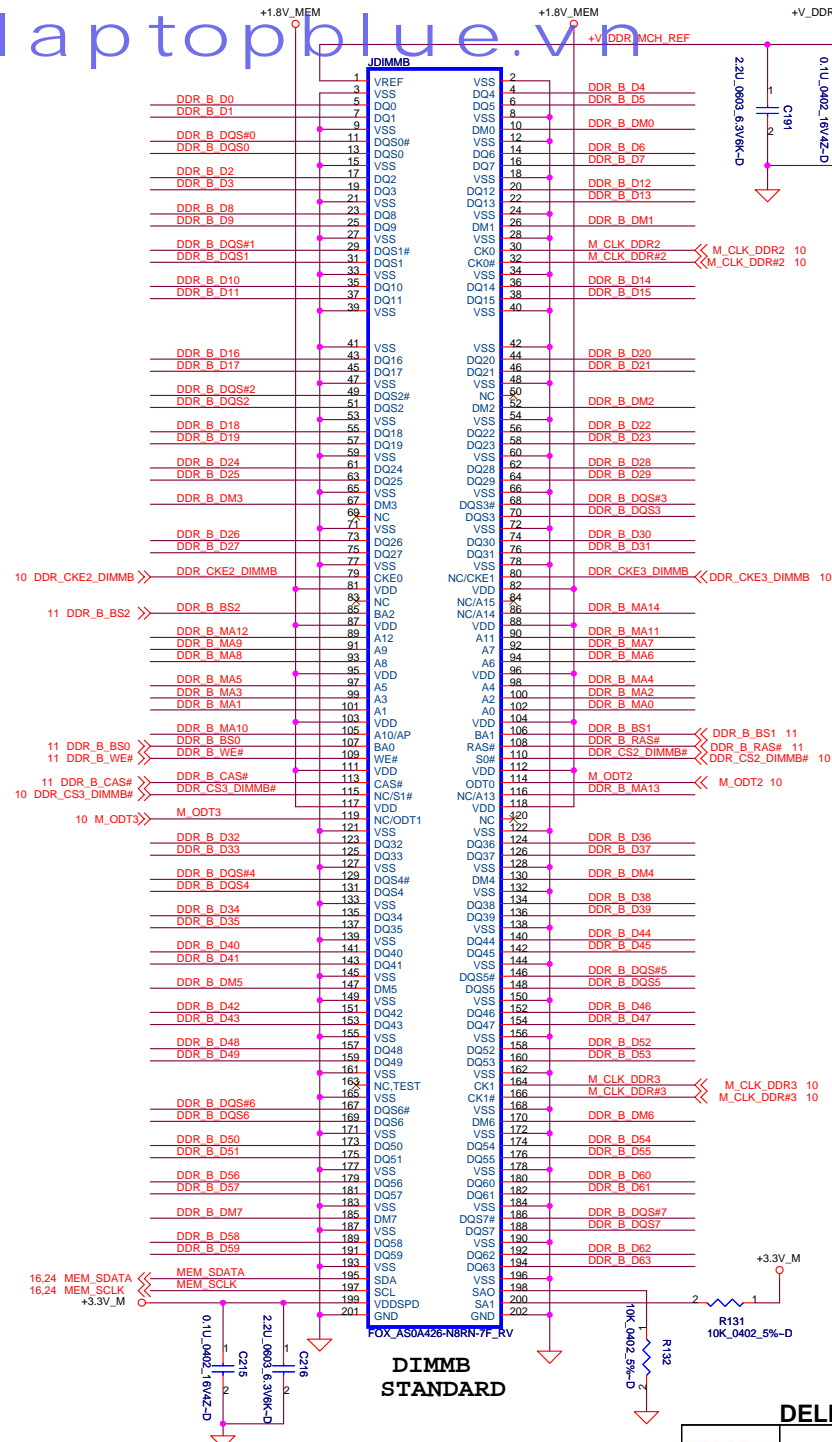


Layout Note:
Place one cap close to every 2 pullup
resistors terminated to +0.9V_DDR_VTT



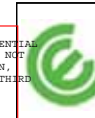
Layout Note:
Place these resistor
closely JDIMMB, all
trace length < 750 mil

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



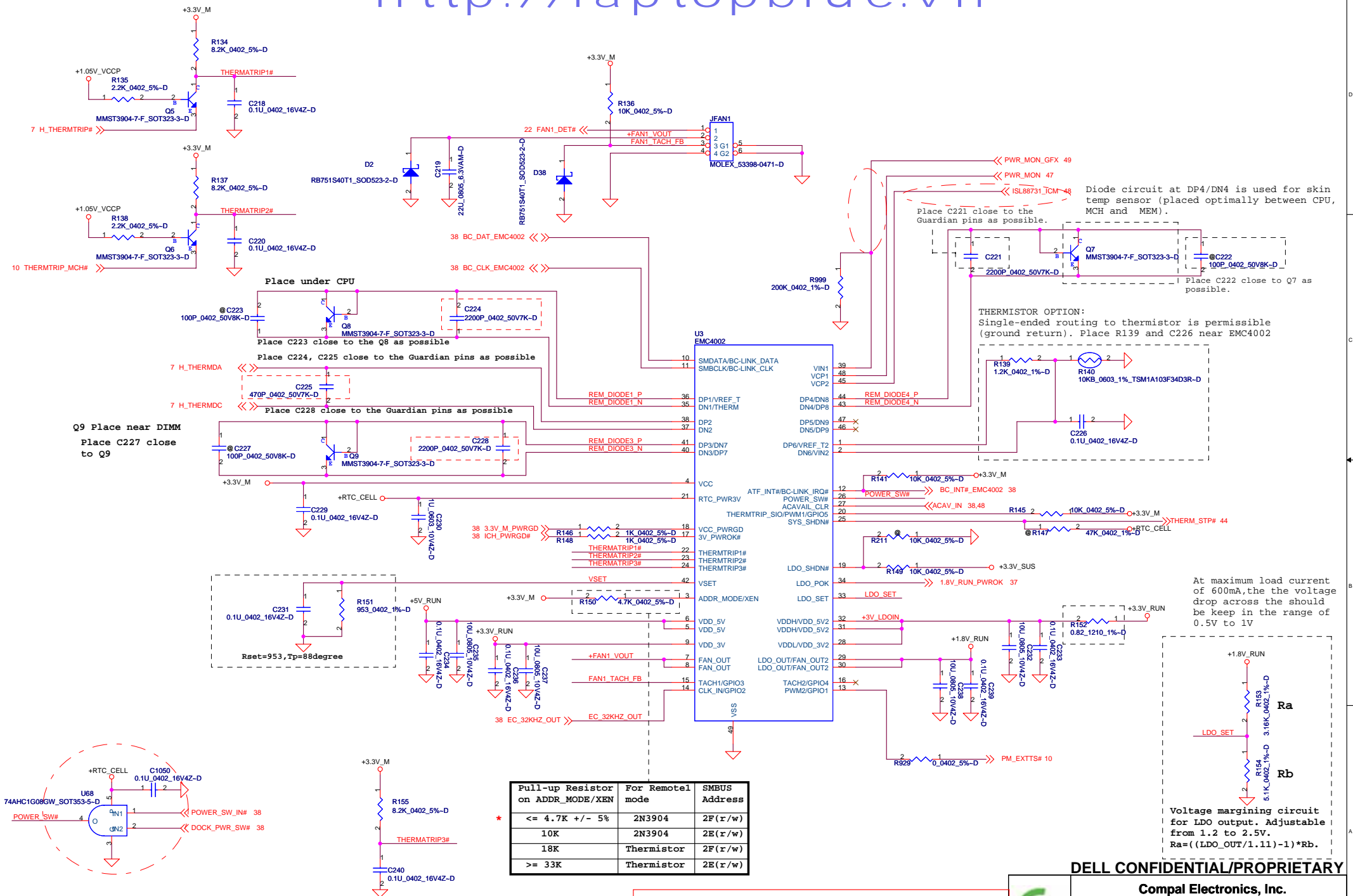
DIMMB
STANDARD

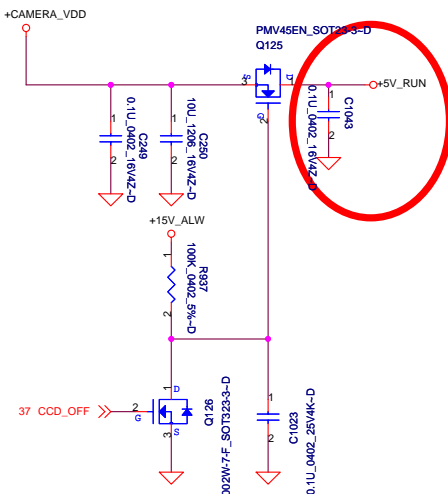
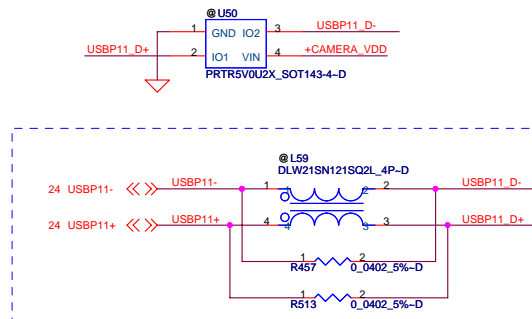
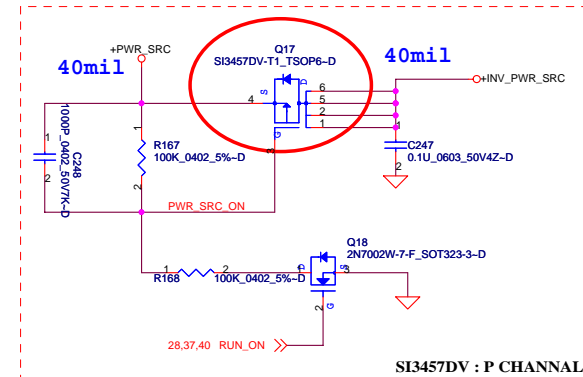
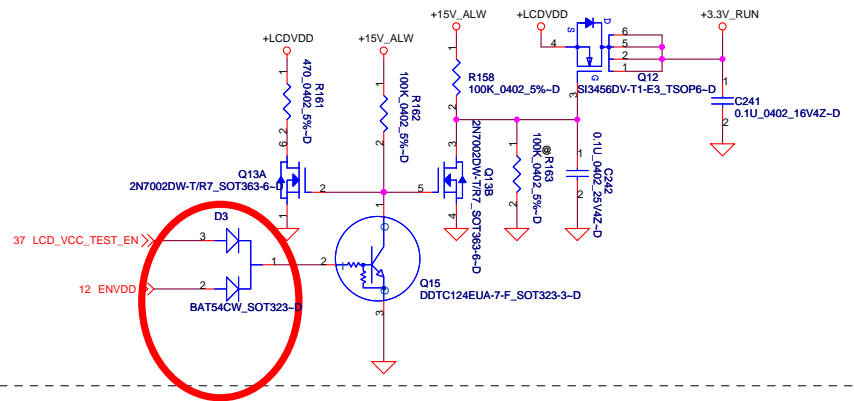
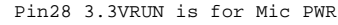
DELL CONFIDENTIAL/PROPRIETARY



| | | |
|--------------------------|---------------------------|-------|
| Compal Electronics, Inc. | | |
| SCHEMATIC, A4043 | | |
| Size | Document Number | Rev |
| | 401648 | A |
| Date | Tuesday, October 28, 2008 | |
| Sheet | 17 | of 53 |

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

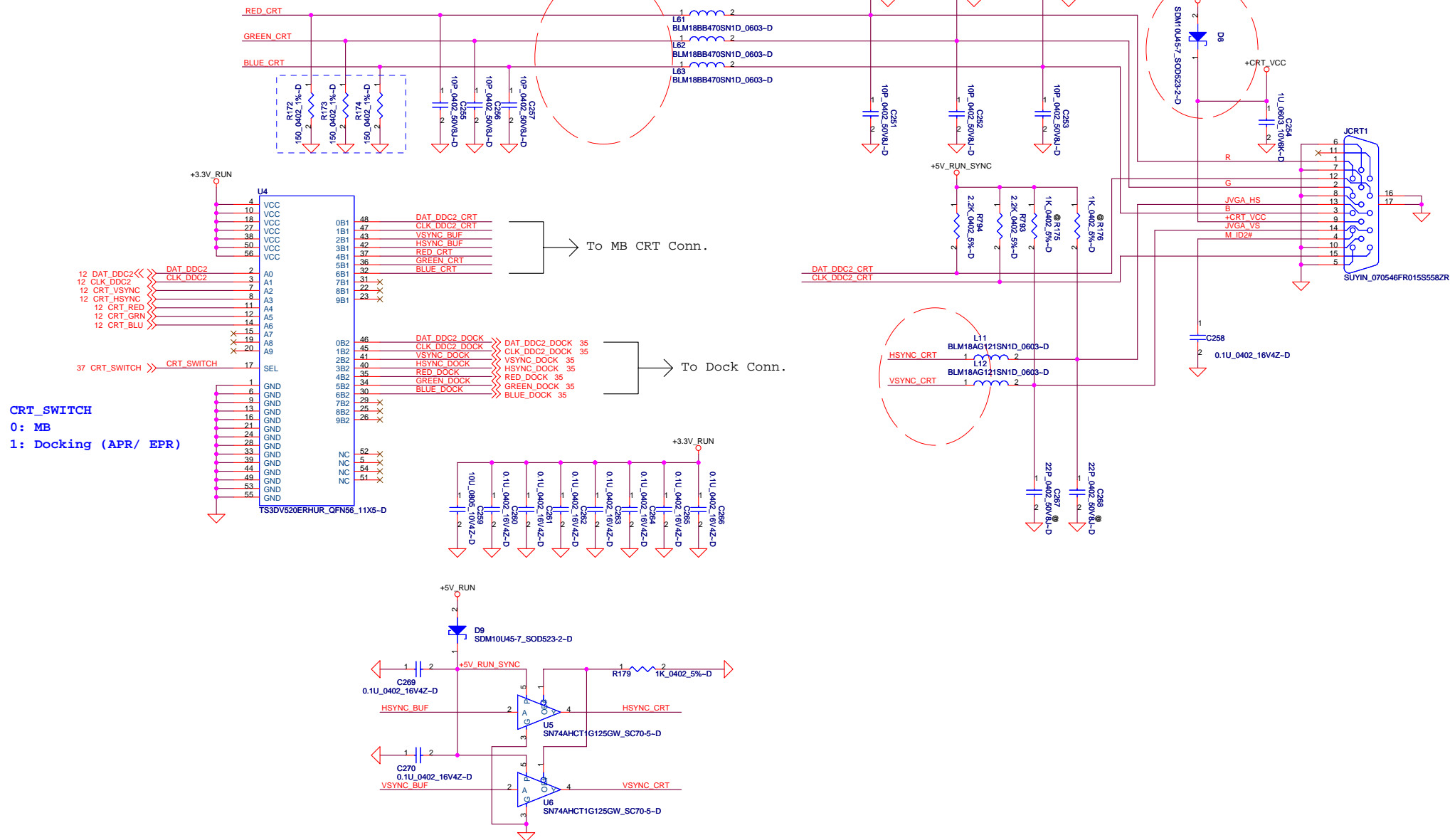
Compal Electronics, Inc.

Title **SCHEMATIC,A4043**

| | |
|------|-----------------|
| Size | Document Number |
| | 401648 |

Date: Tuesday, October 28, 2008

Sheet 19 of 53

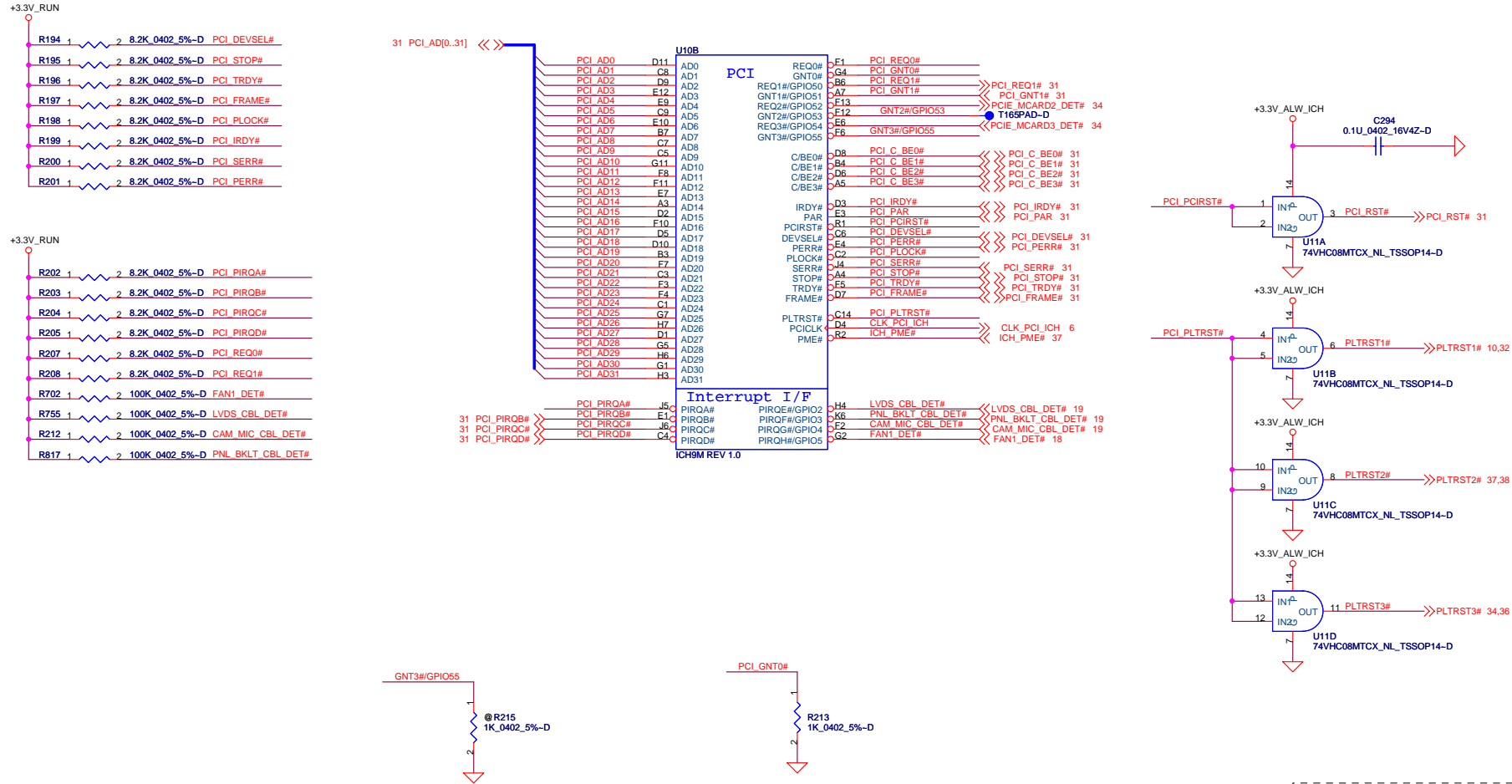


DELL CONFIDENTIAL/PROPRIETARY

| | | | |
|--------------------------|---------------------------|-------|----------|
| Compal Electronics, Inc. | | | |
| SCHEMATIC,A4043 | | | |
| Size | Document Number | Rev | |
| | 401648 | A | |
| Date: | Tuesday, October 28, 2008 | Sheet | 20 of 53 |

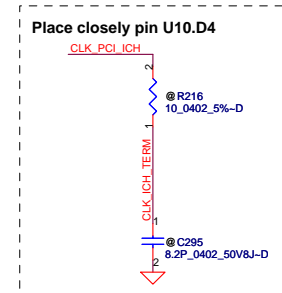
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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

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



| A16 away override strap. | |
|--------------------------|---|
| GNT3#/GPIO55 | Low = A16 swap override enabled. High = Default. |

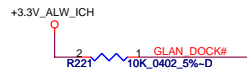
| Boot BIOS Strap | | |
|-----------------|----------|--------------------|
| PCI_GNT0# | SPI_CS1# | Boot BIOS Location |
| 0 | 1 | SPI |
| 1 | 0 | PCI |
| 1 | 1 | LPC |



DELL CONFIDENTIAL/PROPRIETARY

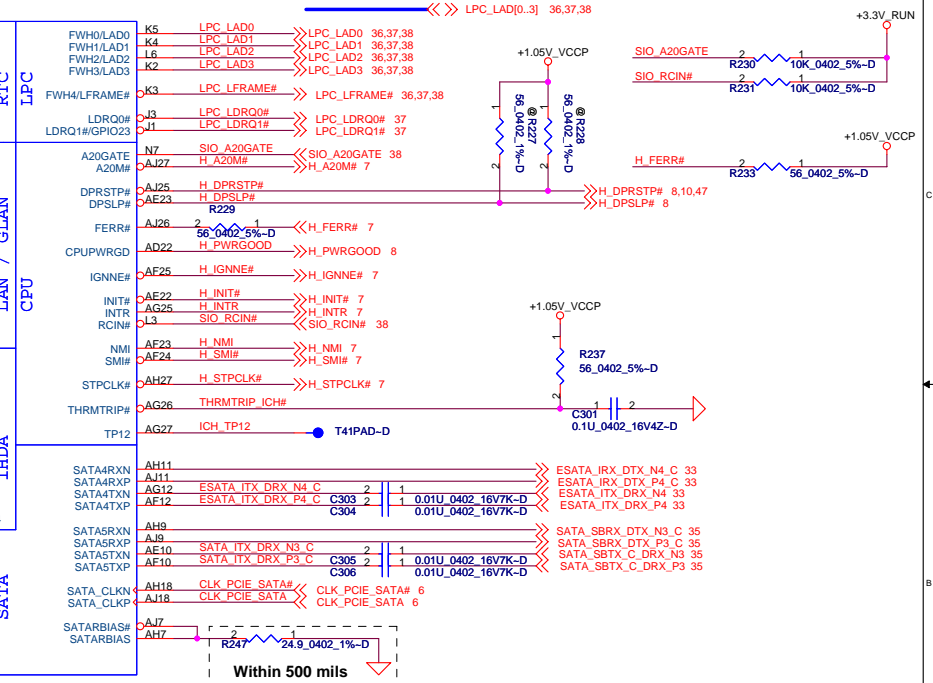
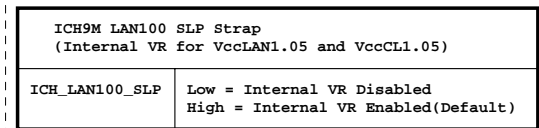
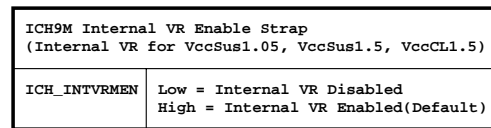
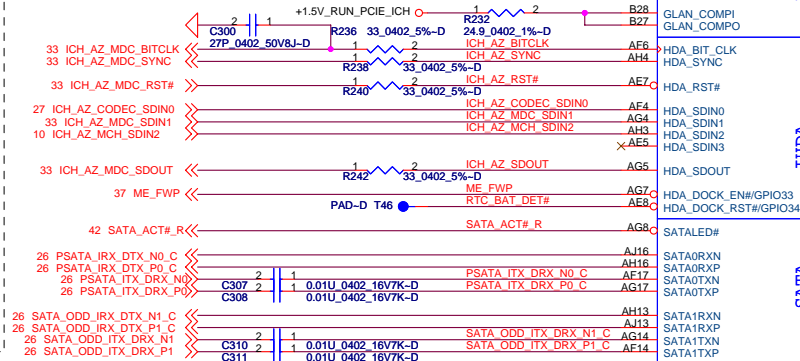
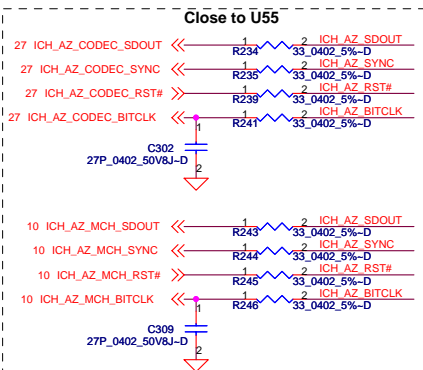
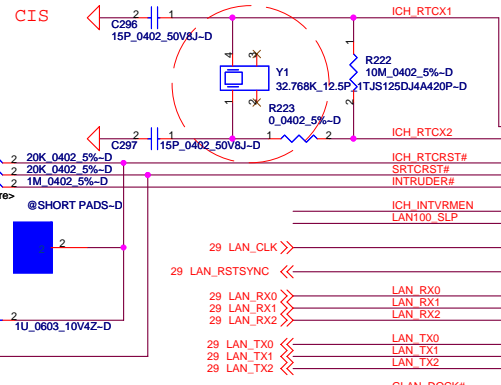
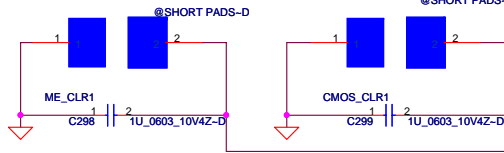
| | | |
|---------------------------------|---------------------------|----------------|
| Compal Electronics, Inc. | | |
| SCHEMATIC,A4043 | | |
| Size | Document Number | Rev |
| | 401648 | A |
| Date: | Tuesday, October 28, 2008 | Sheet 22 of 53 |

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.

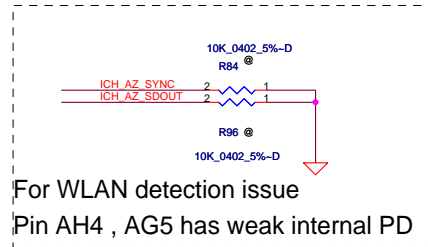
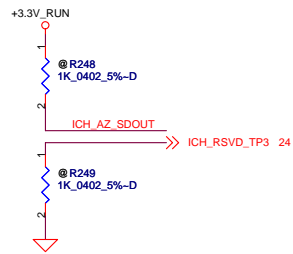


| | |
|-----------|--------------|
| CMOS_CLR1 | CMOS setting |
| Shunt | Clear CMOS |
| Open | Keep CMOS |

| | |
|---------|------------------------|
| ME_CLR1 | TPM setting |
| Shunt | Clear ME RTC Registers |
| Open | Keep ME RTC Registers |



| XOR Chain Entrance Strap | | |
|--------------------------|-----------|----------------------------|
| ICH_RSVD_TP3 | HDA SDOUT | Description |
| 0 | 0 | RSVD |
| 0 | 1 | Enter XOR Chain |
| 1 | 0 | Normal Operation (Default) |
| 1 | 1 | Set PCIE port config bit 1 |



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.

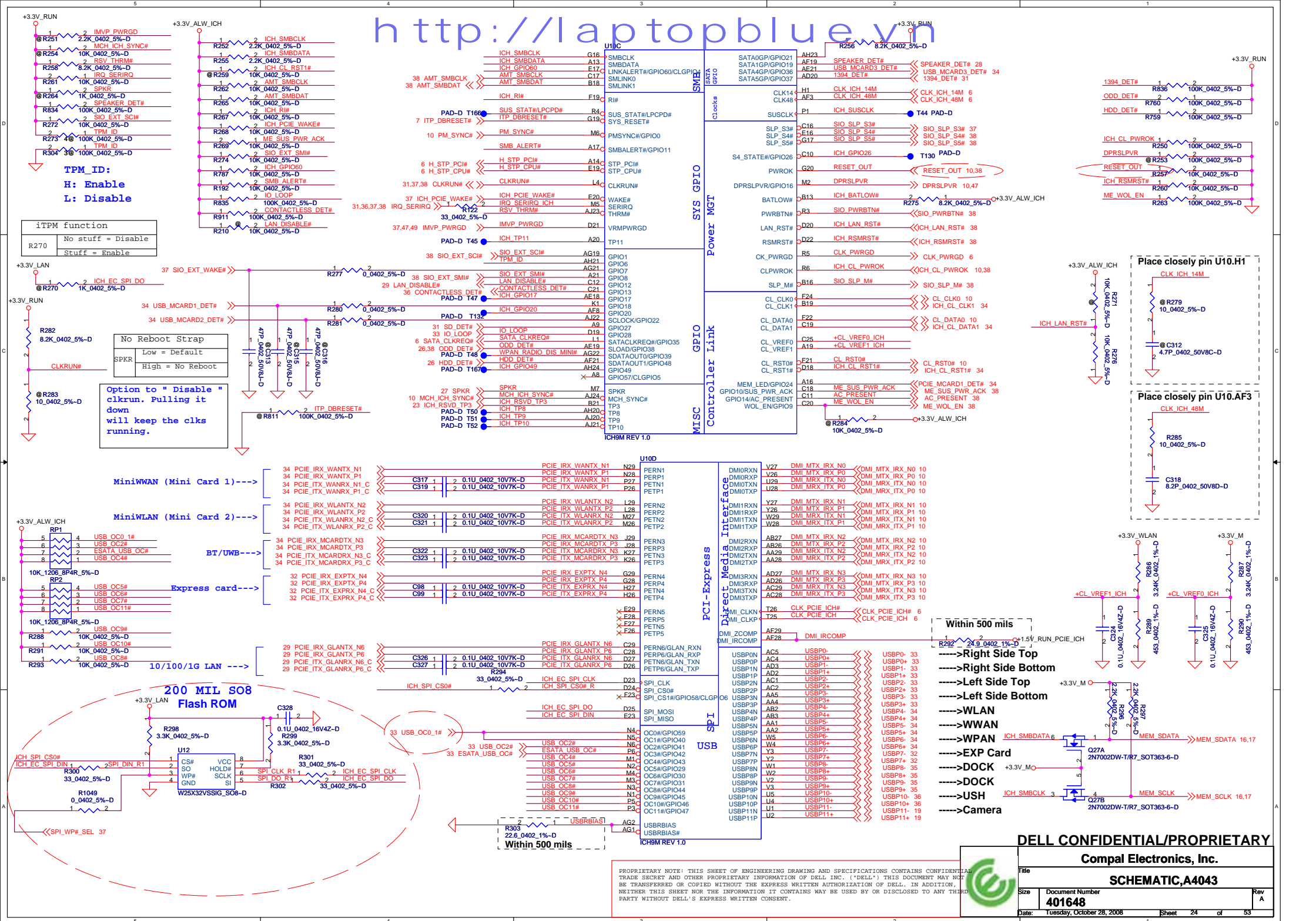


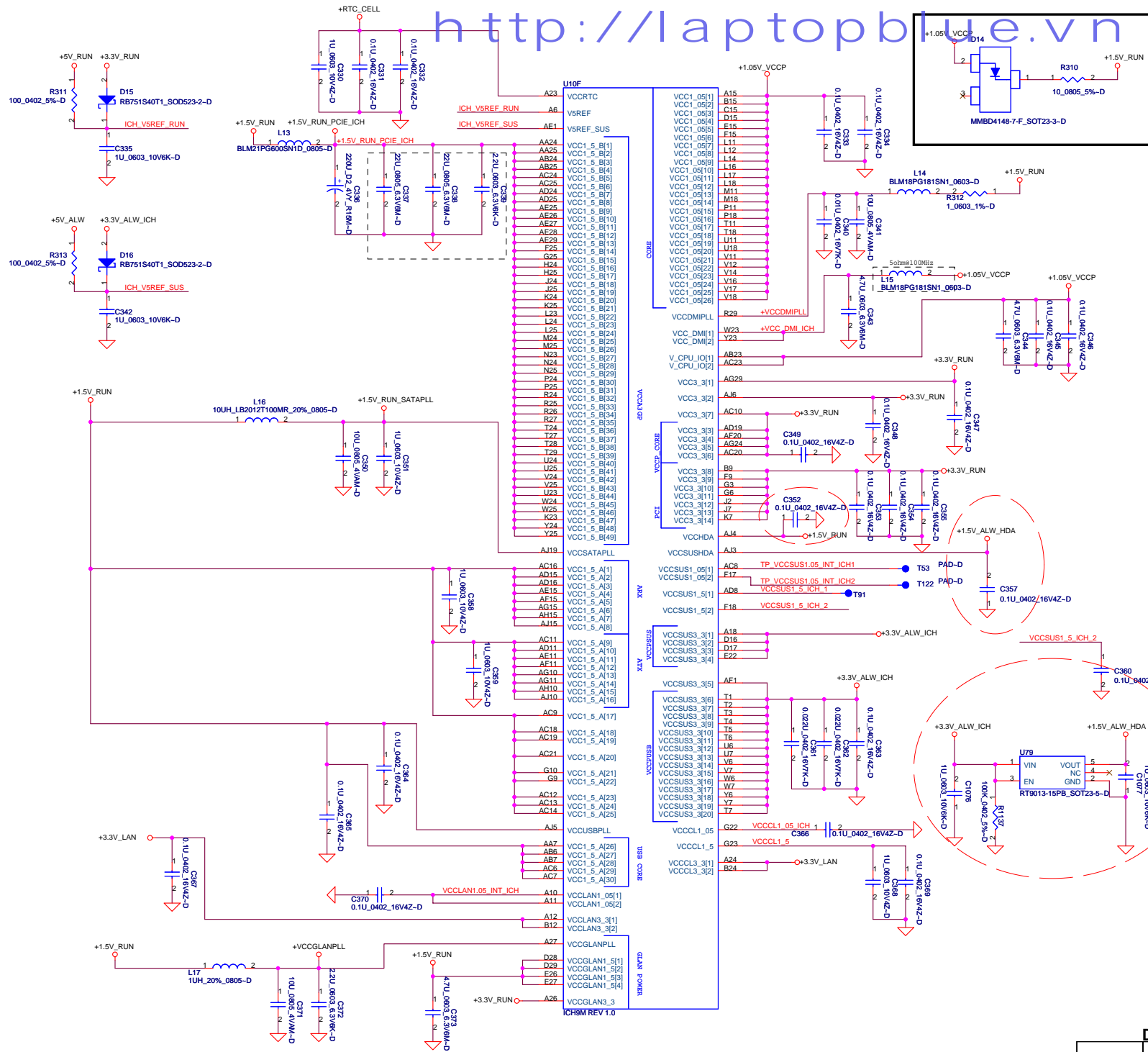
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC,A4043

| | | | |
|------------------------|---------------------------|-------|----------|
| Title | | | |
| SCHEMATIC,A4043 | | | |
| Size | Document Number | | Rev |
| | 401648 | | A |
| Date: | Tuesday, October 28, 2008 | Sheet | 23 of 53 |





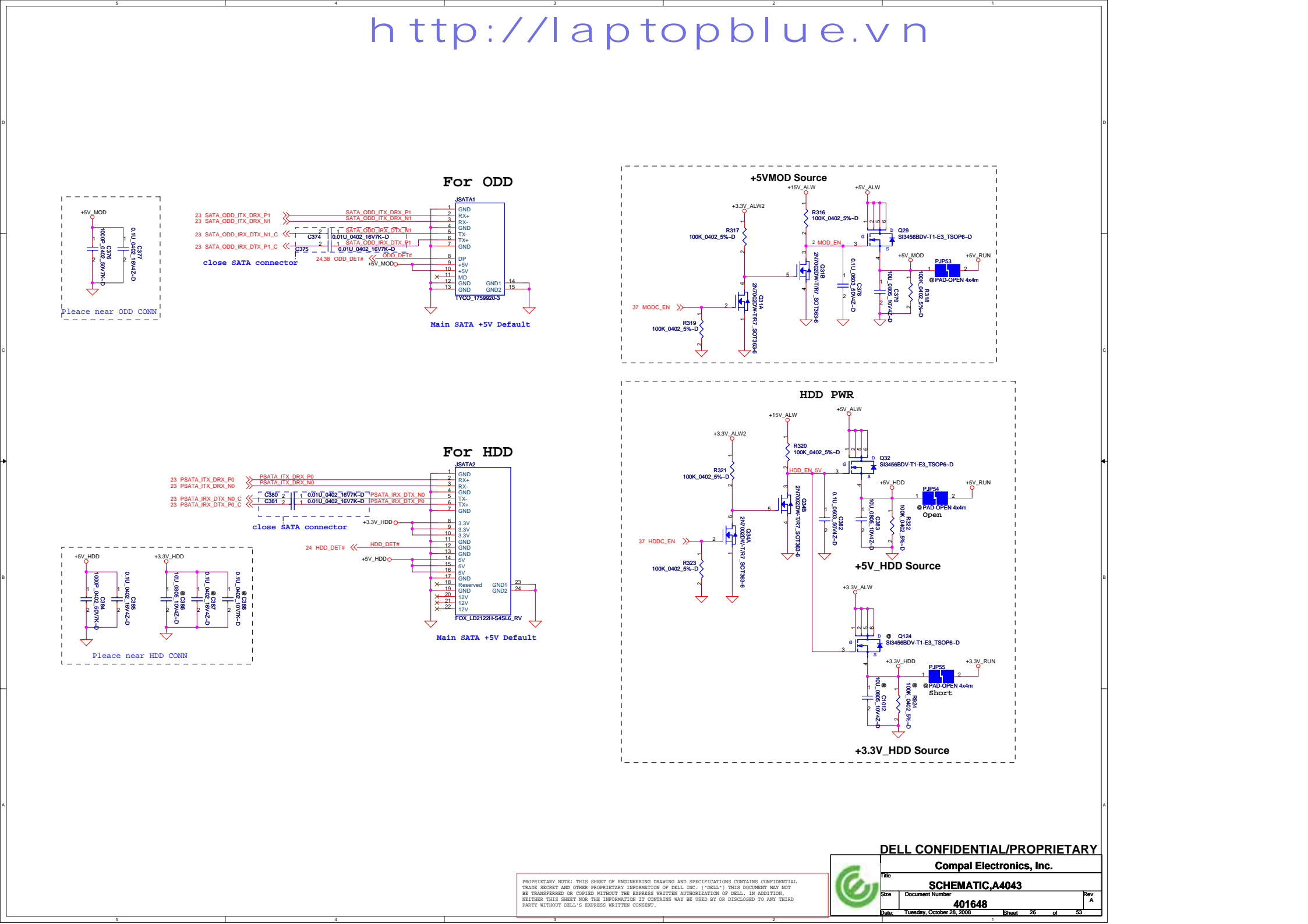
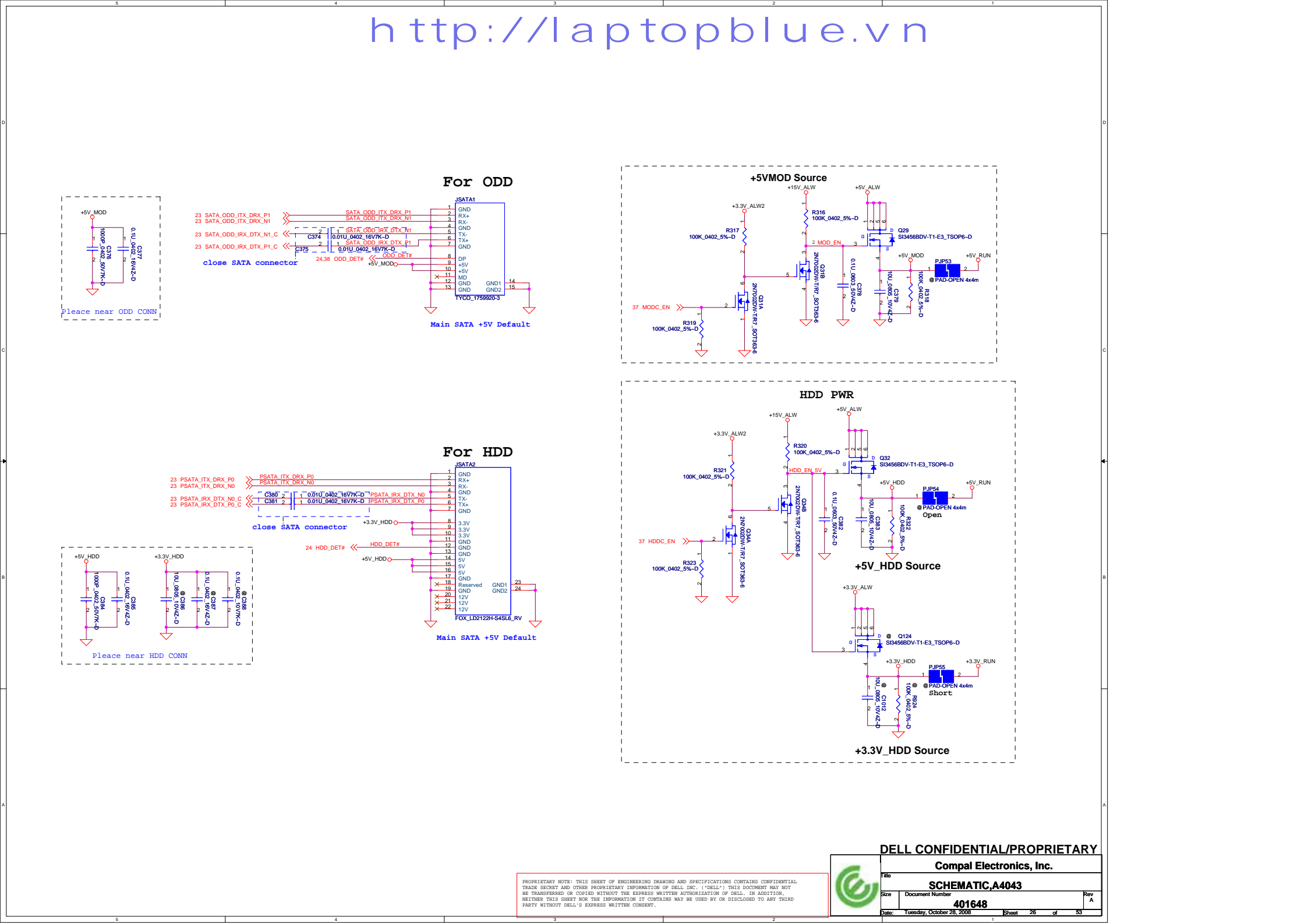
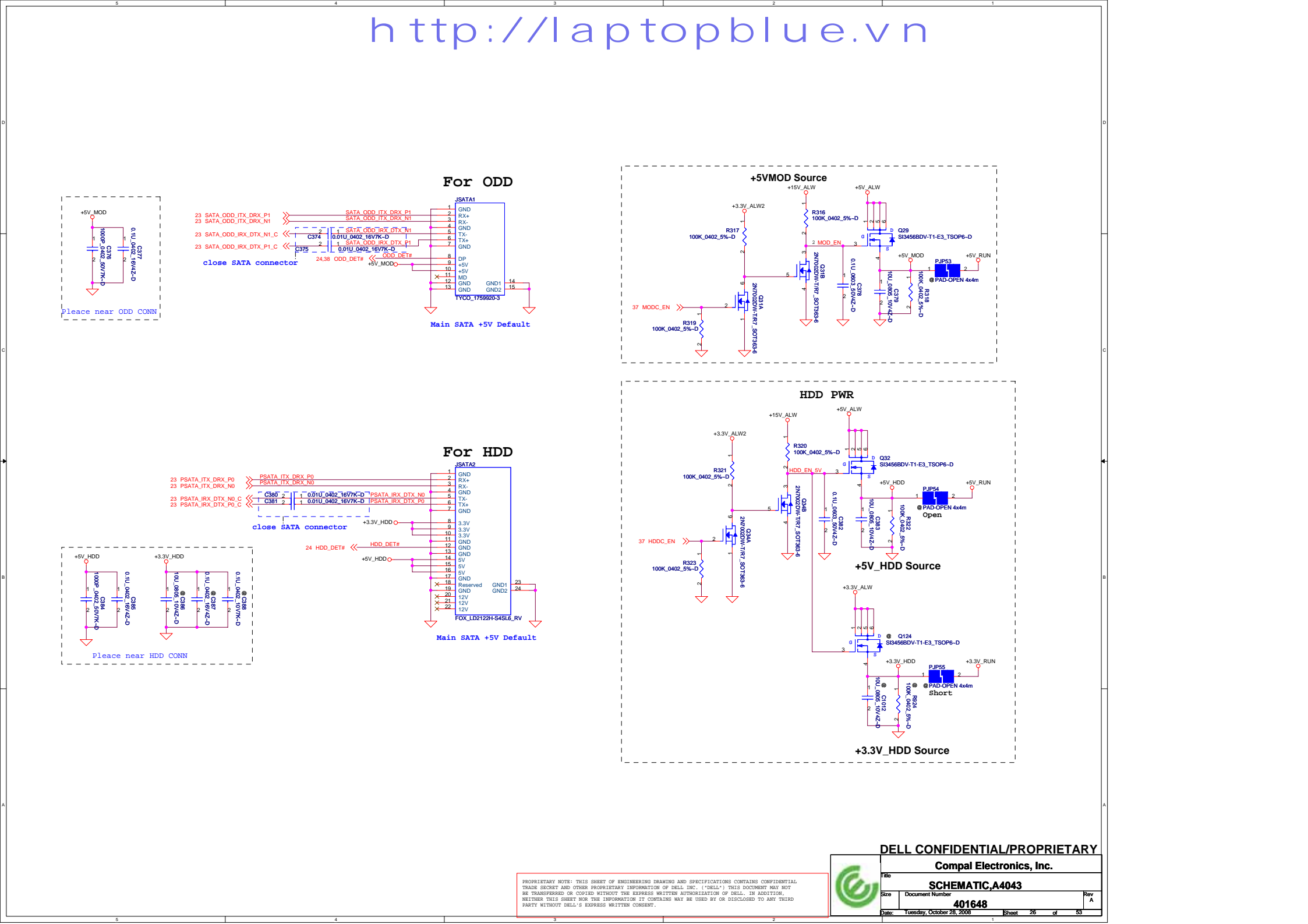
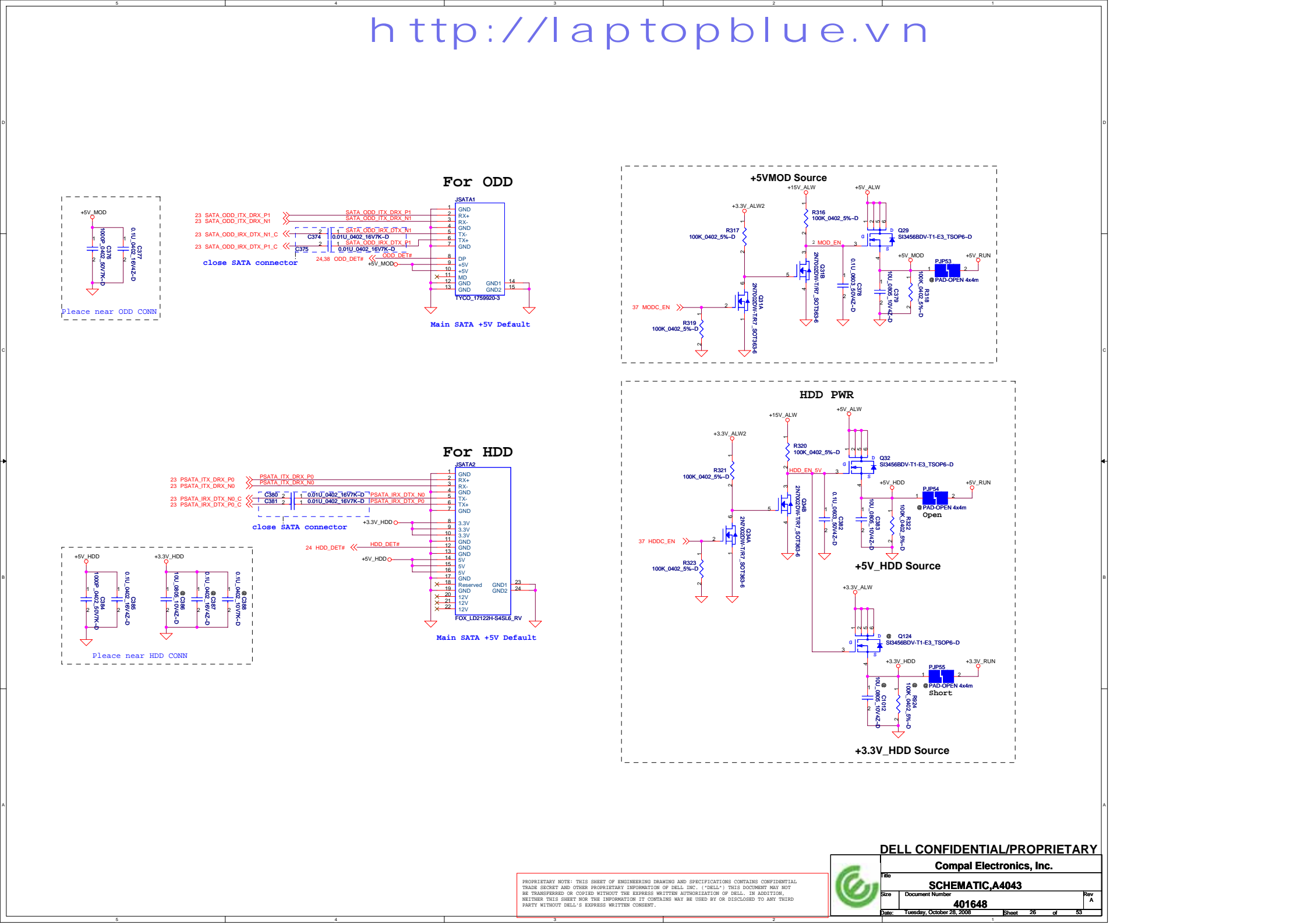
| U10E | | |
|------|----------|------|
| AA26 | VSS[107] | H5 |
| AA27 | VSS[108] | J23 |
| AA3 | VSS[109] | J26 |
| AA6 | VSS[110] | J27 |
| AB1 | VSS[111] | AC22 |
| AB28 | VSS[112] | K28 |
| AB29 | VSS[113] | K29 |
| AB4 | VSS[114] | L13 |
| AB5 | VSS[115] | L15 |
| AB5 | VSS[116] | L2 |
| AC17 | VSS[117] | L26 |
| AC26 | VSS[118] | L27 |
| AC27 | VSS[119] | L5 |
| AC3 | VSS[120] | L6 |
| AD1 | VSS[121] | M12 |
| AD10 | VSS[122] | M13 |
| AD12 | VSS[123] | M14 |
| AD13 | VSS[124] | M15 |
| AD14 | VSS[125] | M16 |
| AD17 | VSS[126] | M17 |
| AD18 | VSS[127] | M23 |
| AD21 | VSS[128] | M28 |
| AD22 | VSS[129] | M29 |
| AD29 | VSS[130] | N11 |
| AD4 | VSS[131] | N12 |
| AD6 | VSS[132] | N13 |
| AD7 | VSS[133] | N14 |
| AD9 | VSS[134] | N15 |
| AE12 | VSS[135] | N16 |
| AE13 | VSS[136] | N17 |
| AE16 | VSS[137] | N18 |
| AE17 | VSS[138] | N26 |
| AE2 | VSS[139] | N27 |
| AE24 | VSS[140] | P12 |
| AE3 | VSS[141] | P13 |
| AE4 | VSS[142] | P14 |
| AE9 | VSS[143] | P15 |
| AE10 | VSS[144] | P16 |
| AE11 | VSS[145] | P17 |
| AE13 | VSS[146] | P2 |
| AE16 | VSS[147] | P23 |
| AE18 | VSS[148] | P28 |
| AE19 | VSS[149] | P4 |
| AE26 | VSS[150] | P7 |
| AE27 | VSS[151] | P7 |
| AE28 | VSS[152] | R11 |
| AE29 | VSS[153] | R12 |
| AE3 | VSS[154] | R13 |
| AE4 | VSS[155] | R14 |
| AE5 | VSS[156] | R15 |
| AE6 | VSS[157] | R16 |
| AG13 | VSS[158] | R17 |
| AG16 | VSS[159] | R18 |
| AG18 | VSS[160] | R28 |
| AG20 | VSS[161] | T12 |
| AG23 | VSS[162] | T13 |
| AG6 | VSS[163] | T14 |
| AG9 | VSS[164] | T15 |
| AH12 | VSS[165] | T16 |
| AH14 | VSS[166] | T17 |
| AH17 | VSS[167] | T23 |
| AH19 | VSS[168] | T26 |
| AH2 | VSS[169] | U12 |
| AH22 | VSS[170] | U13 |
| AH25 | VSS[171] | U14 |
| AH28 | VSS[172] | U15 |
| AH5 | VSS[173] | U16 |
| AH8 | VSS[174] | AD23 |
| AH12 | VSS[175] | U26 |
| AH14 | VSS[176] | U27 |
| AH17 | VSS[177] | U5 |
| AH19 | VSS[178] | U7 |
| AH2 | VSS[179] | V1 |
| AH22 | VSS[180] | V14 |
| AH25 | VSS[181] | V15 |
| AH28 | VSS[182] | V23 |
| AH5 | VSS[183] | V28 |
| AH8 | VSS[184] | V29 |
| AH12 | VSS[185] | V4 |
| AH14 | VSS[186] | V5 |
| AH17 | VSS[187] | W26 |
| AH19 | VSS[188] | W27 |
| AH2 | VSS[189] | W3 |
| AH22 | VSS[190] | Y1 |
| AH25 | VSS[191] | Y29 |
| AH28 | VSS[192] | Y2 |
| E2 | VSS[193] | Y4 |
| E18 | VSS[194] | Y8 |
| E24 | VSS[195] | AG28 |
| E5 | VSS[196] | AH6 |
| E8 | VSS[197] | AH1 |
| F16 | VSS[198] | AH2 |
| F28 | VSS[199] | AJ1 |
| G26 | VSS[200] | AJ2 |
| G27 | VSS[201] | AJ28 |
| G8 | VSS[202] | AJ29 |
| H2 | VSS[203] | B1 |
| H23 | VSS[204] | B29 |
| H28 | VSS[205] | |
| H29 | VSS[206] | |

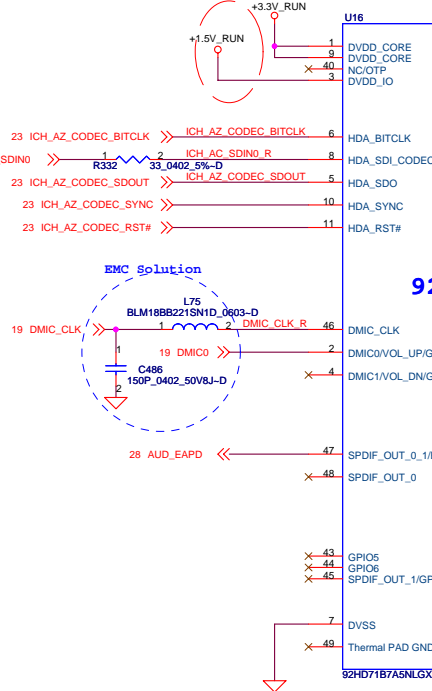
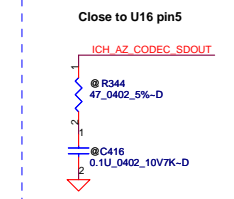
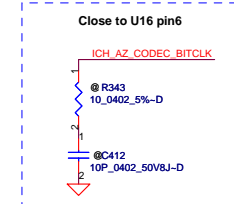
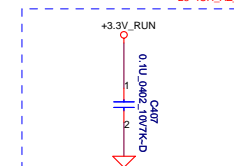
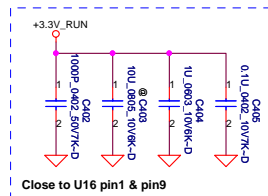
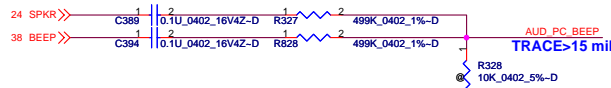
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

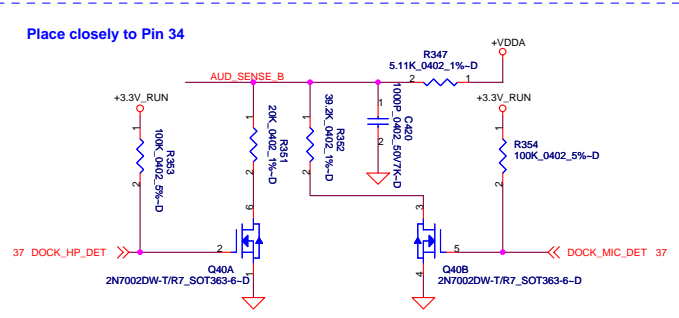
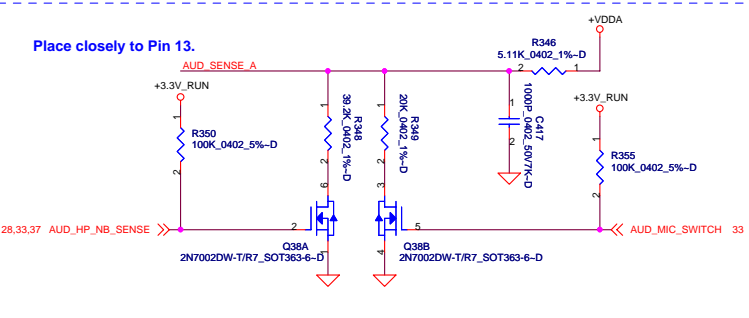
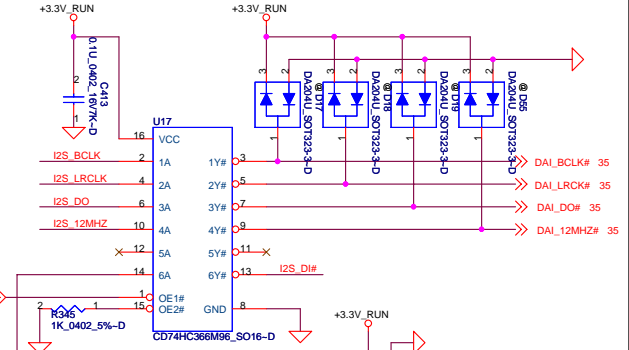
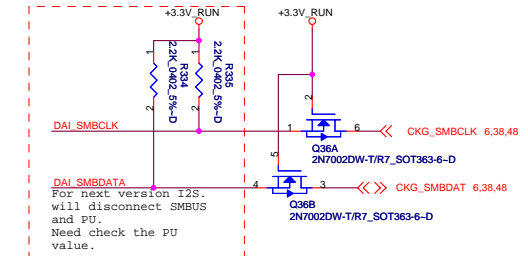
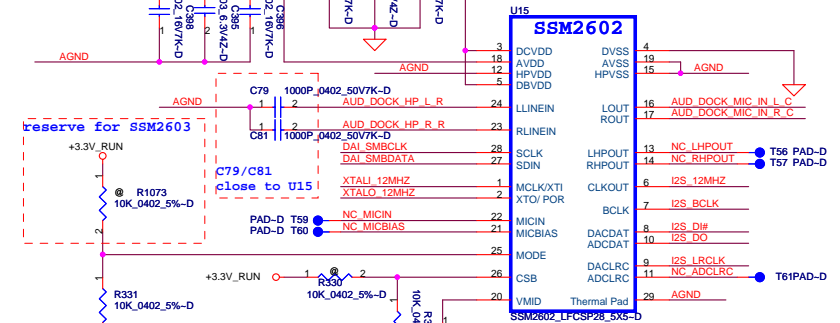
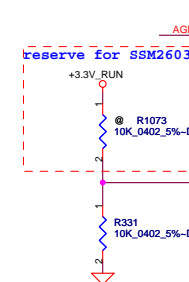
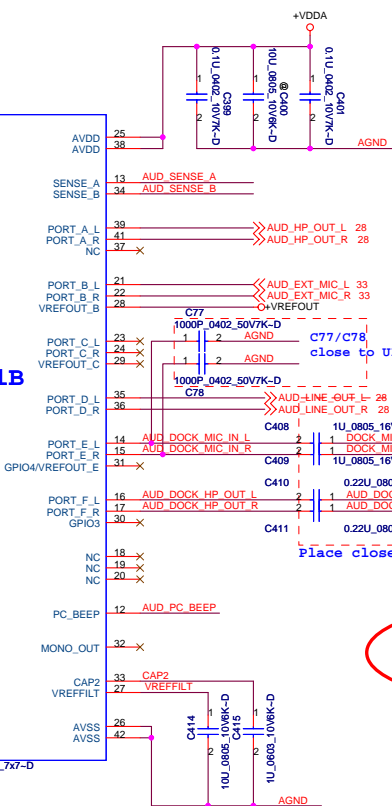
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL, TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE REPRODUCED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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

| | | | |
|------|---------------------------|-----------------|----------|
| File | | SCHEMATIC_A4043 | |
| Size | 401648 | Rev | A |
| Date | Tuesday, October 28, 2008 | Sheet | 25 of 53 |





| Part Number | Description |
|-------------|---------------------------|
| DA30000341L | PCB 03P LA-4051P REV0 M/B |



DELL CONFIDENTIAL/PROPRIETARY

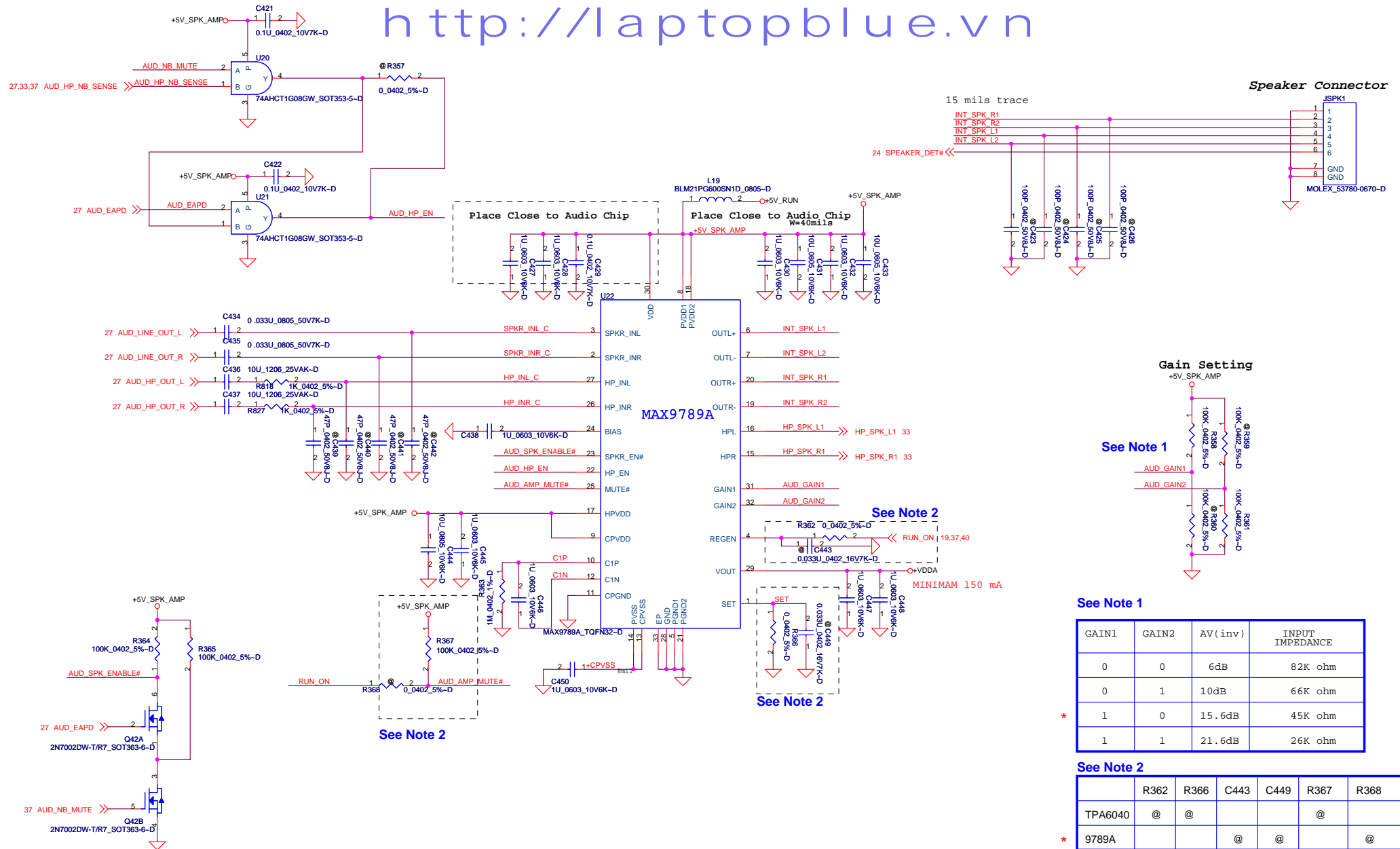
Compal Electronics, Inc.

SCHEMATIC,A4043

401648

Date: Tuesday, October 28, 2008 Sheet 27 of 53

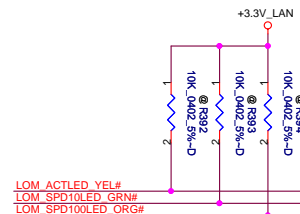
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ('DELL') THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

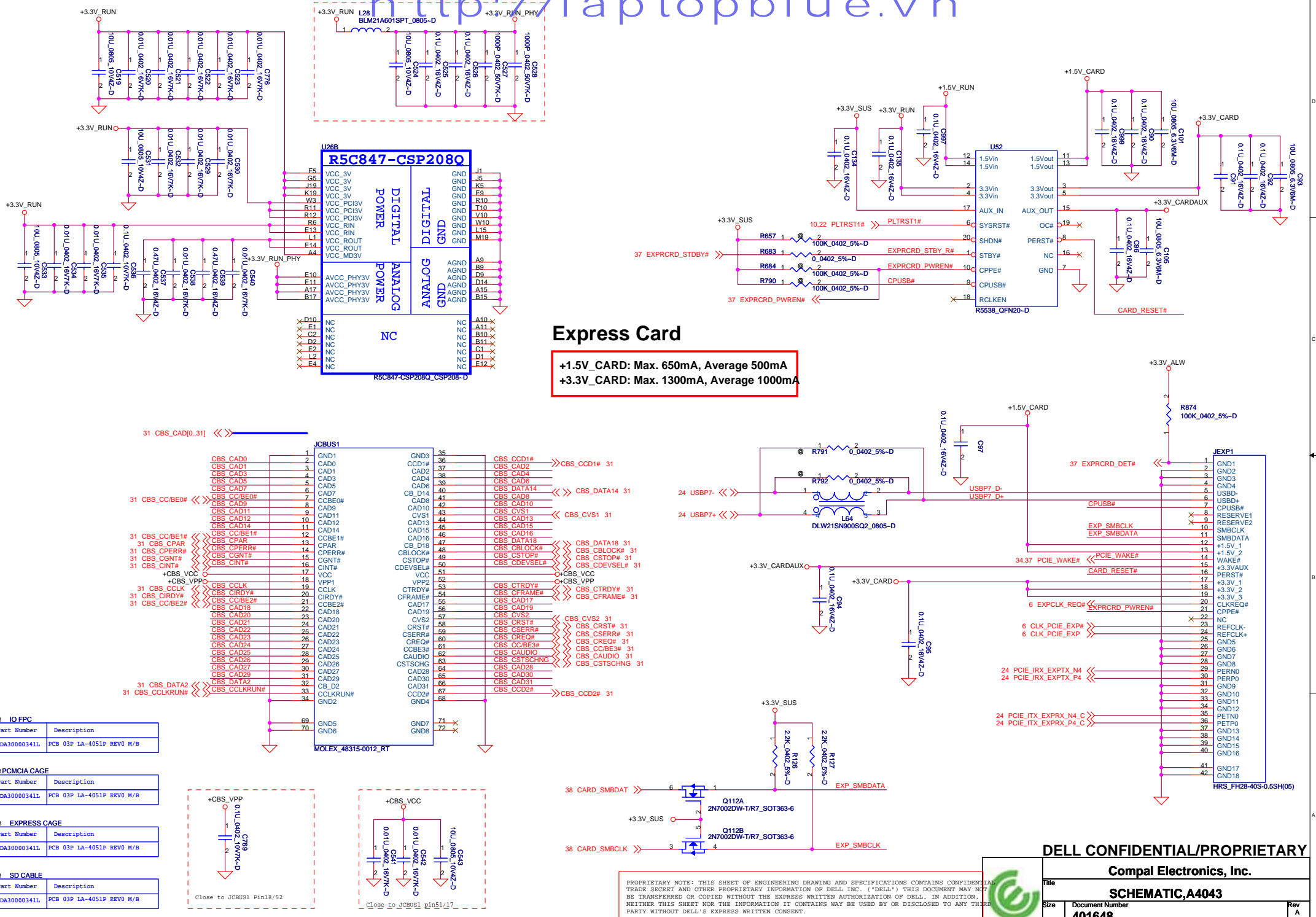


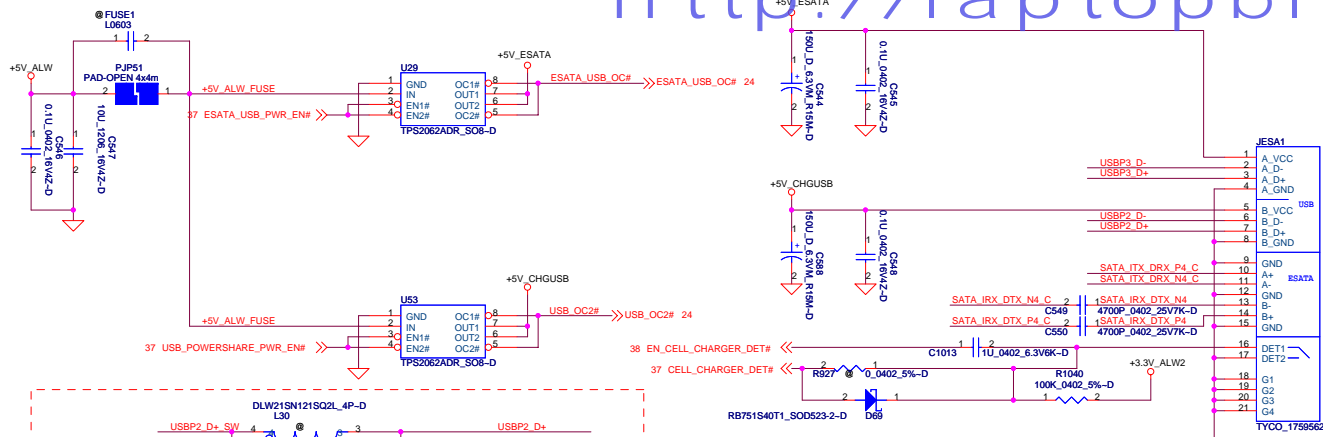
DELL CONFIDENTIAL/PROPRIETARY

| Compal Electronics, Inc. | | | |
|---------------------------|--|--|--|
| Title | | | |
| SCHEMATIC_A4043 | | | |
| Size | | | |
| Document Number | | | |
| 401648 | | | |
| Date | | | |
| Tuesday, October 28, 2008 | | | |
| Sheet | | | |
| 28 of 53 | | | |

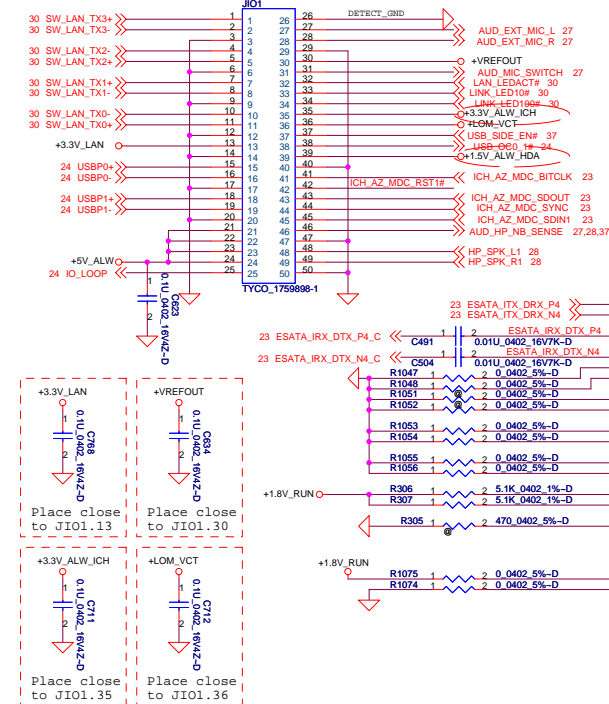
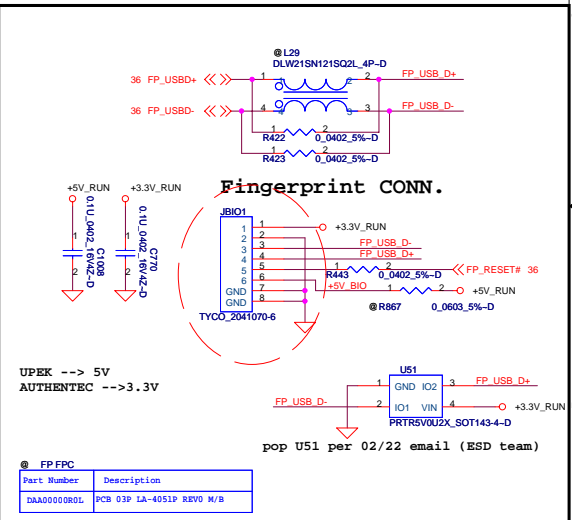
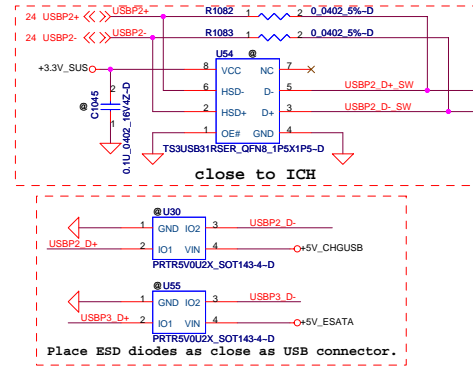
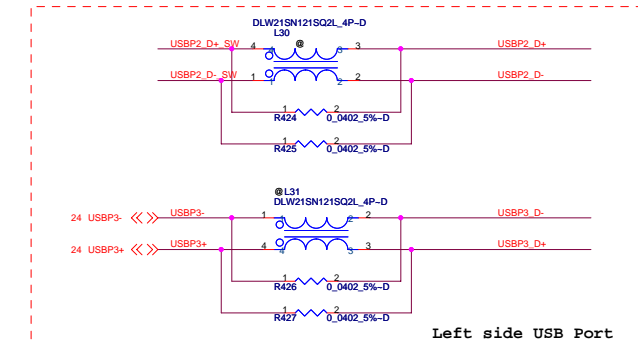
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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

Rev
A

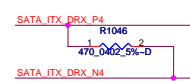




| USB PORT# | DESTINATION |
|-----------|-------------------------------|
| 0 | JUSB1 (Ext Right Side Top) |
| 1 | JUSB1 (Ext Right Side Bottom) |
| 2 | JESA1 (Ext Left Side Top) |
| 3 | JESA1 (Ext Left Side Bottom) |
| 4 | WLAN |
| 5 | WWAN |
| 6 | WPAN |
| 7 | Express card |
| 8 | DOCKING |
| 9 | DOCKING |
| 10 | USH->BIO |
| 11 | Camera |

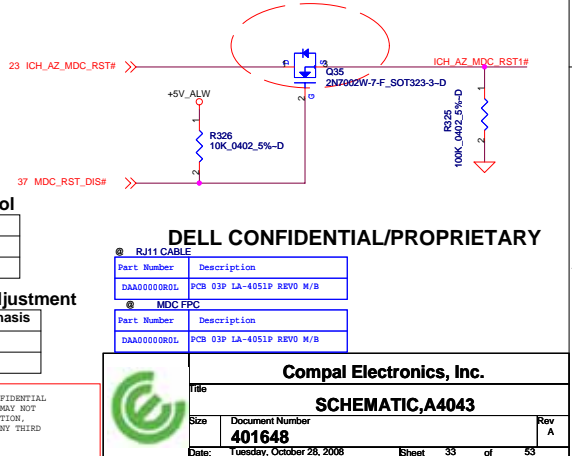


| SEL0_0 [A:B] | SEL1_0 [A:B] | Compliance Channel |
|--------------|--------------|-----------------------|
| 0 | 0 | no equalization |
| 0 | 1 | [0:2.5dB] @ 1.6 GHz |
| 1 | 0 | [2.5:4.5dB] @ 1.6 GHz |
| 1 | 1 | [4.5:6.5dB] @ 1.6 GHz |



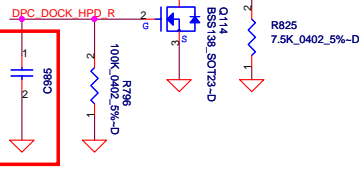
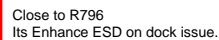
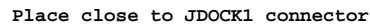
| SEL2_0 [A:B] | Swing |
|--------------|-------|
| 0 | 1x |
| 1 | 1.2x |


| SEL3_0 [A:B] | De-emphasis |
|--------------|-------------|
| 0 | 0dB |
| 1 | -3.5dB |

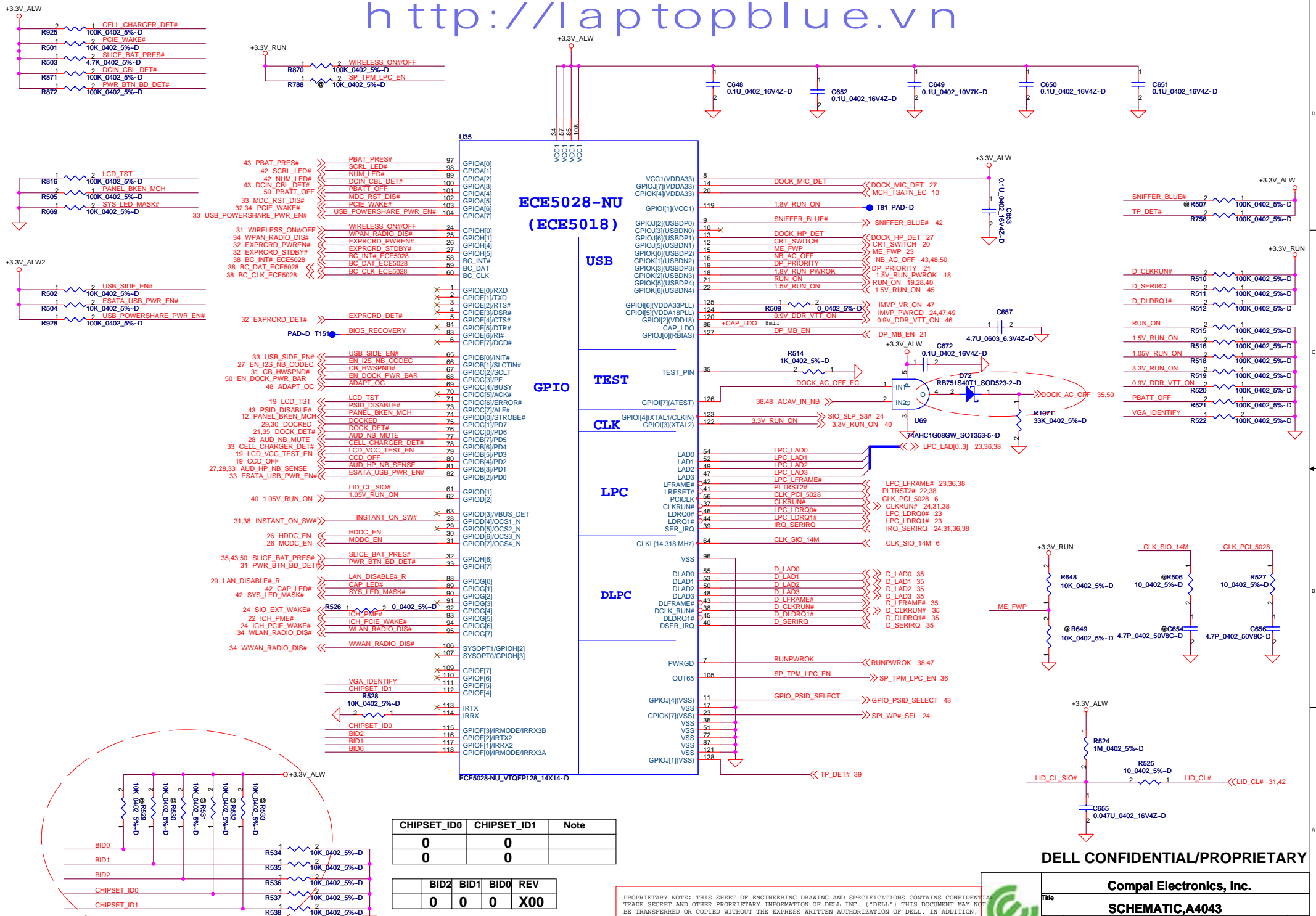


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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





| | | | | |
|---|---------------------------------|-----------------|----|----------|
|  | Compal Electronics, Inc. | | | |
| | Title | | | |
| | SCHEMATIC_A4043 | | | |
| | Size | Document Number | | Rev |
| | | 401648 | | A |
| Date: | Tuesday, October 28, 2008 | Sheet | 35 | of 53 |



DELL CONFIDENTIAL/PROPRIETARY

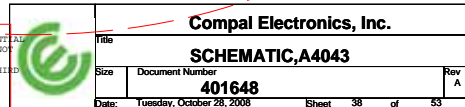
Compal Electronics, Inc.

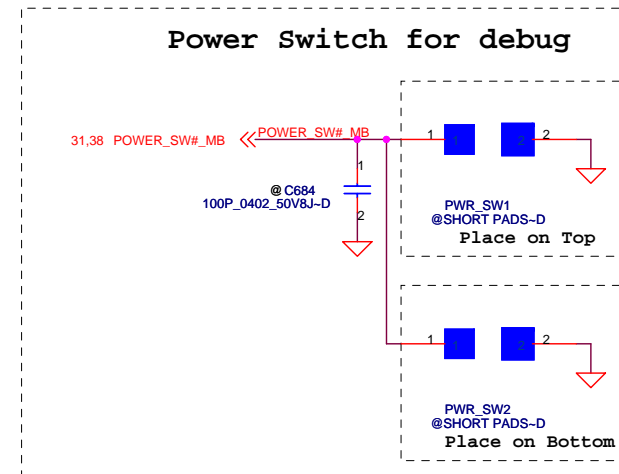
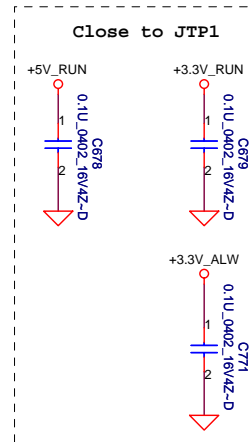
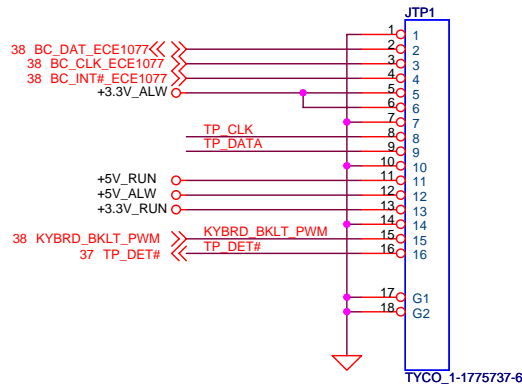
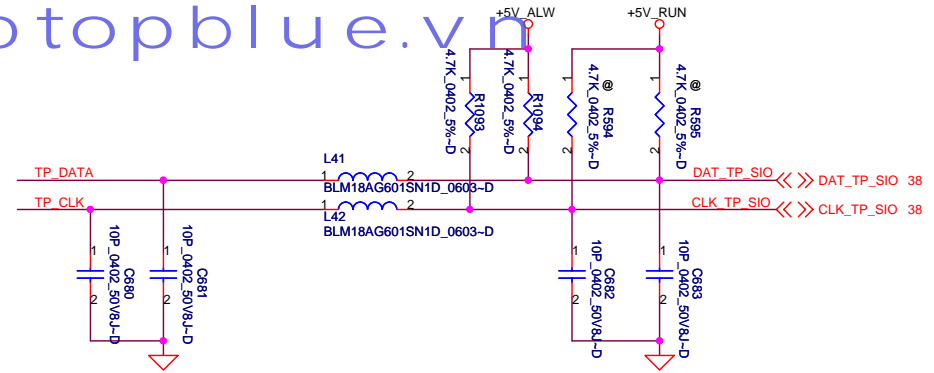
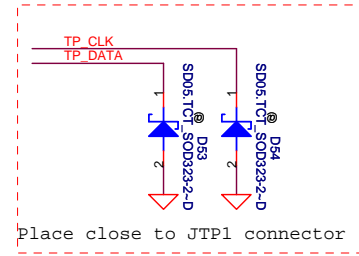
SCHEMATIC,A4043

401648

| | |
|------|-----------------|
| Size | Document Number |
| | 401648 |

A





DELL CONFIDENTIAL/PROPRIETARY

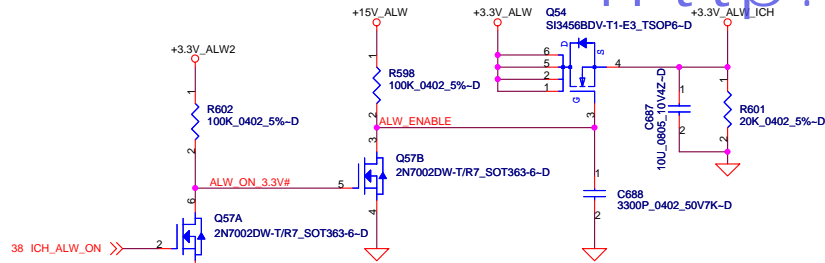
Compal Electronics, Inc.

| | | | |
|-------|---------------------------|-----------------|----------|
| Title | | SCHEMATIC,A4043 | |
| Size | Document Number | 401648 | |
| Date: | Tuesday, October 28, 2008 | Sheet | 39 of 53 |
| | | Rev | A |

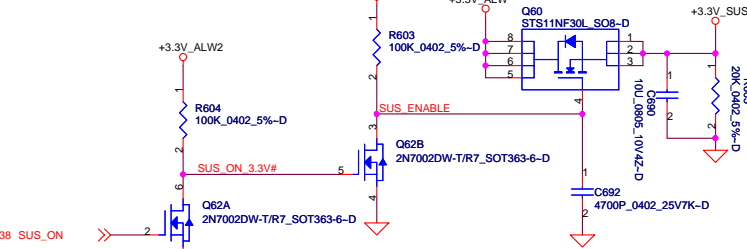
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

DC/DC Interface

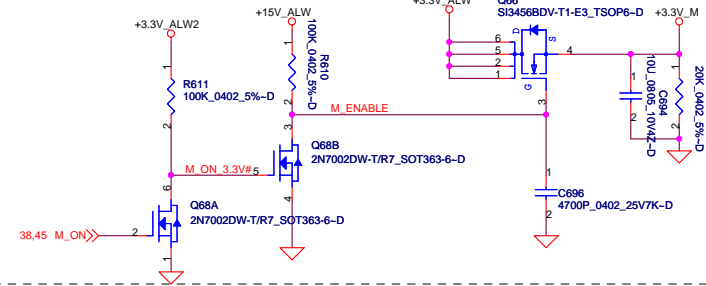
+3.3V_ALW_CH Source



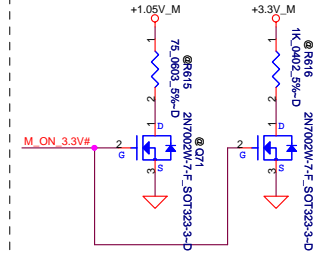
+3.3V_SUS Source



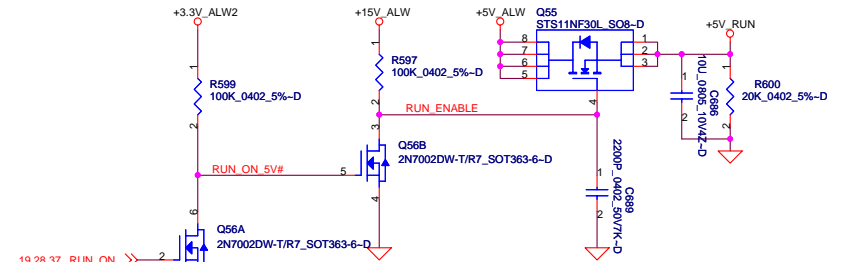
+3.3VM Source



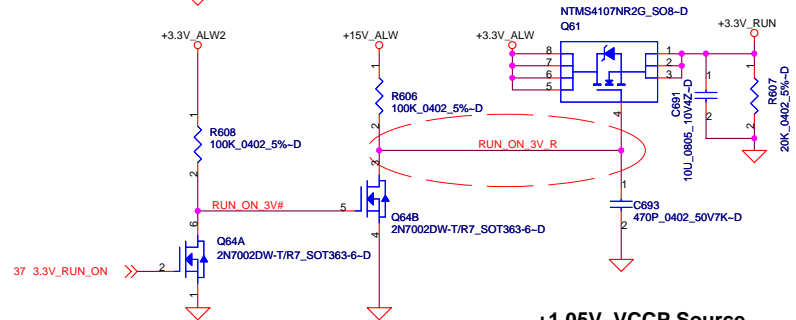
Discharge Circuit



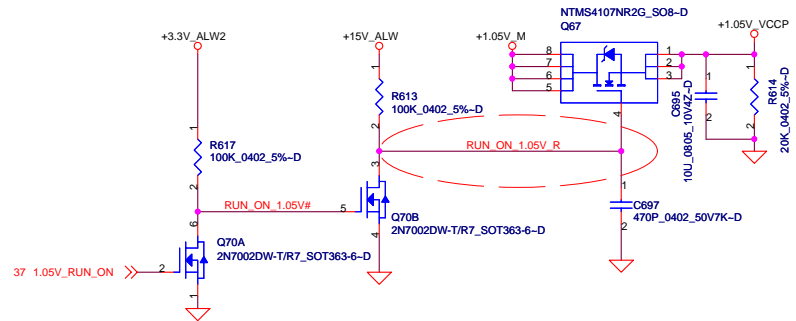
+5VRUN Source



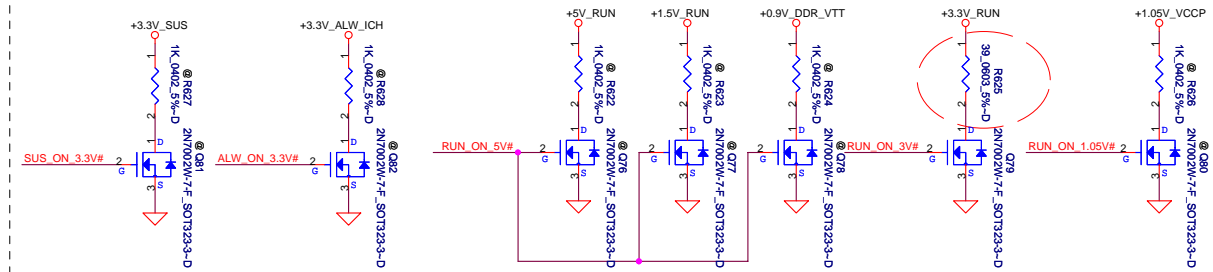
+3.3V_RUN Source



+1.05V_VCCP Source



Discharge Circuit



DELL CONFIDENTIAL/PROPRIETARY

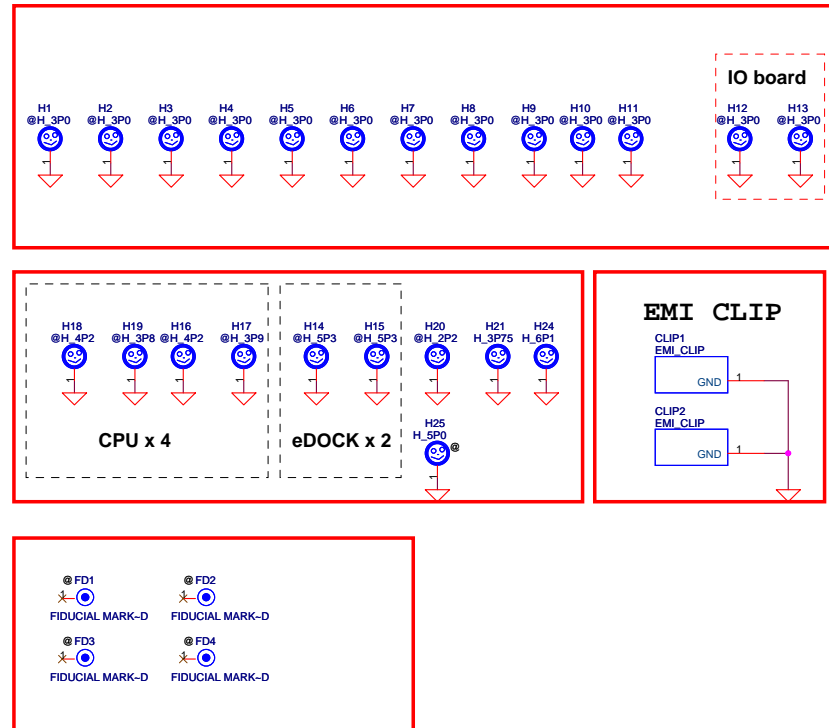
Compal Electronics, Inc.

SCHEMATIC,A4043

401648

Date: Tuesday, October 28, 2008 Sheet 40 of 53

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

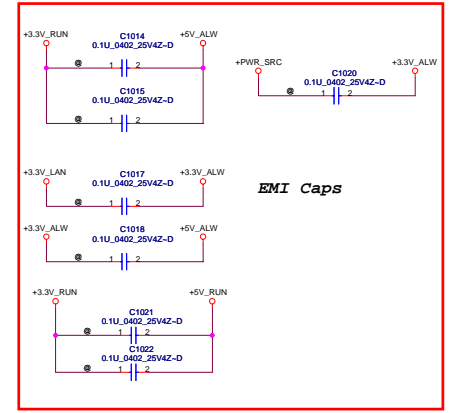
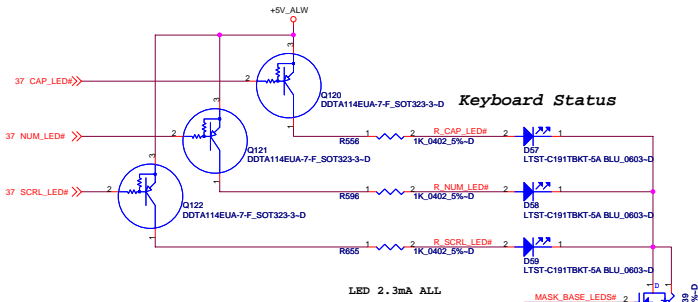
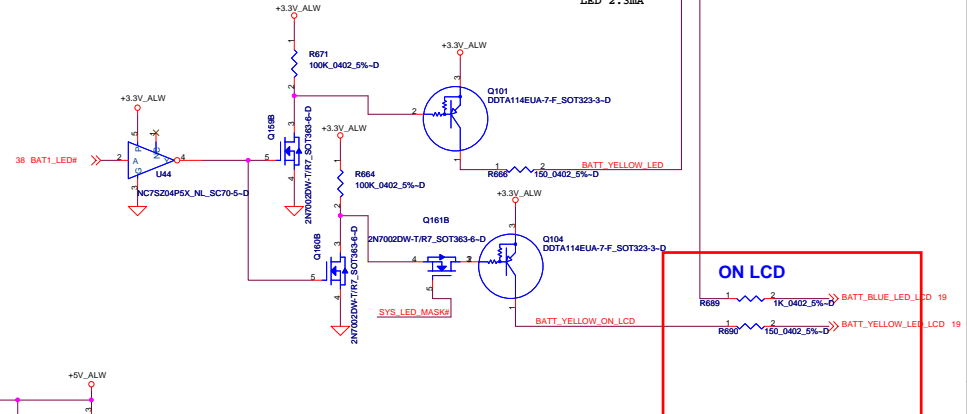
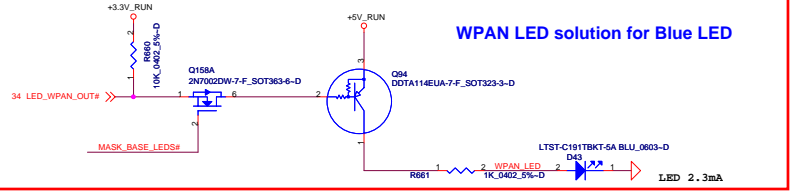
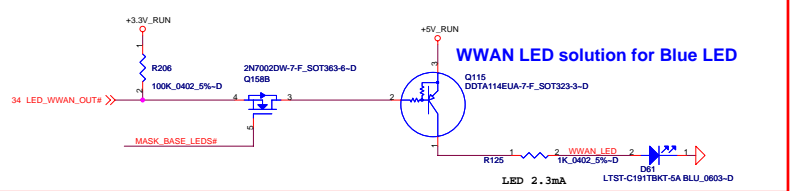
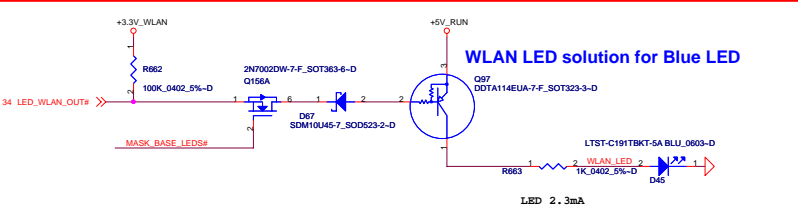
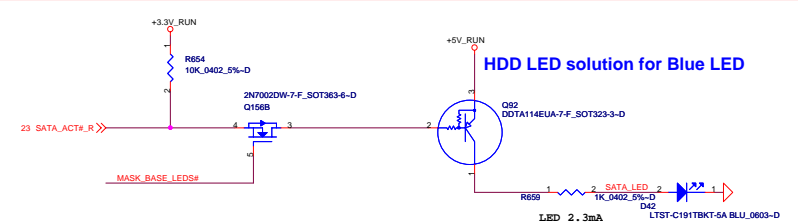
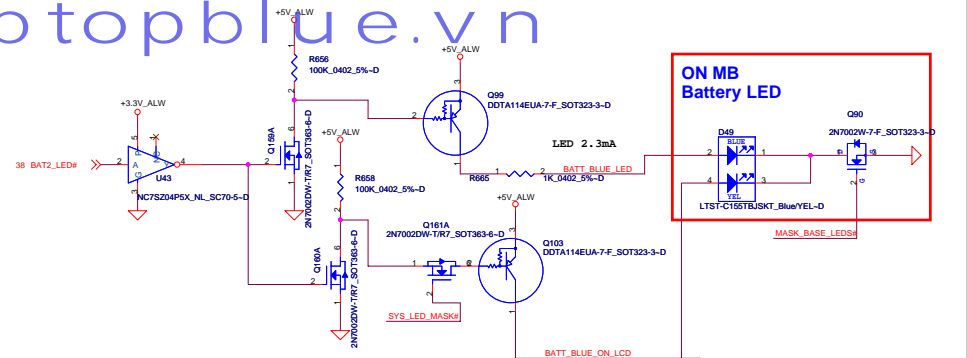
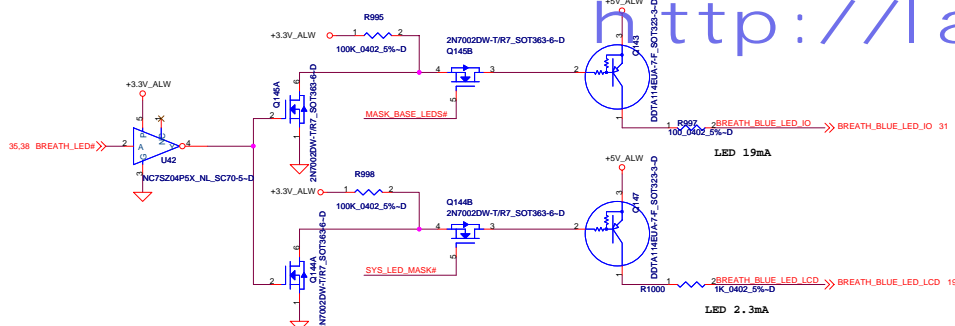


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE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

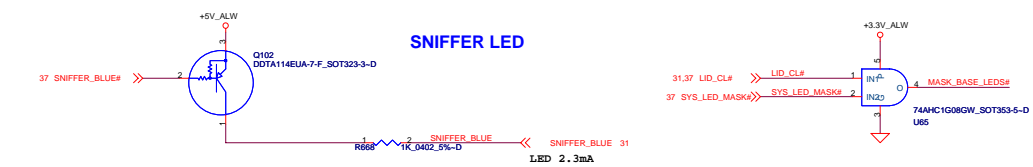


DELL CONFIDENTIAL/PROPRIETARY

| | | | |
|---------------------------------|---------------------------|----------------|----------|
| Compal Electronics, Inc. | | | |
| Title | | | |
| SCHEMATIC,A4043 | | | |
| Size | Document Number | | Rev |
| | 401648 | | A |
| Date: | Tuesday, October 28, 2008 | Sheet 41 of 53 | |




| LED Circuit Control Table | | |
|----------------------------------|---------------|---------|
| | SYS_LED_MASK# | LID_CL# |
| Mask All LEDs (Sniffer Function) | 0 | X |
| Mask Base MB LEDs (Lid Closed) | 1 | 0 |
| Do not Mask LEDs (Lid Opened) | 1 | 1 |

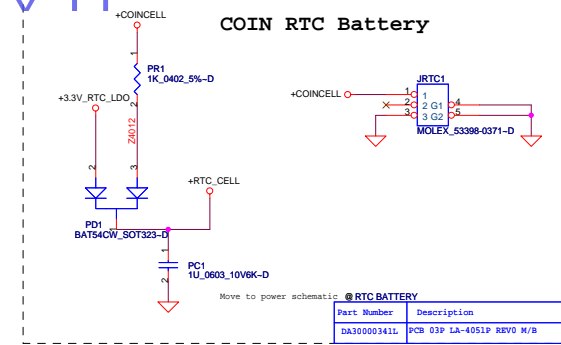
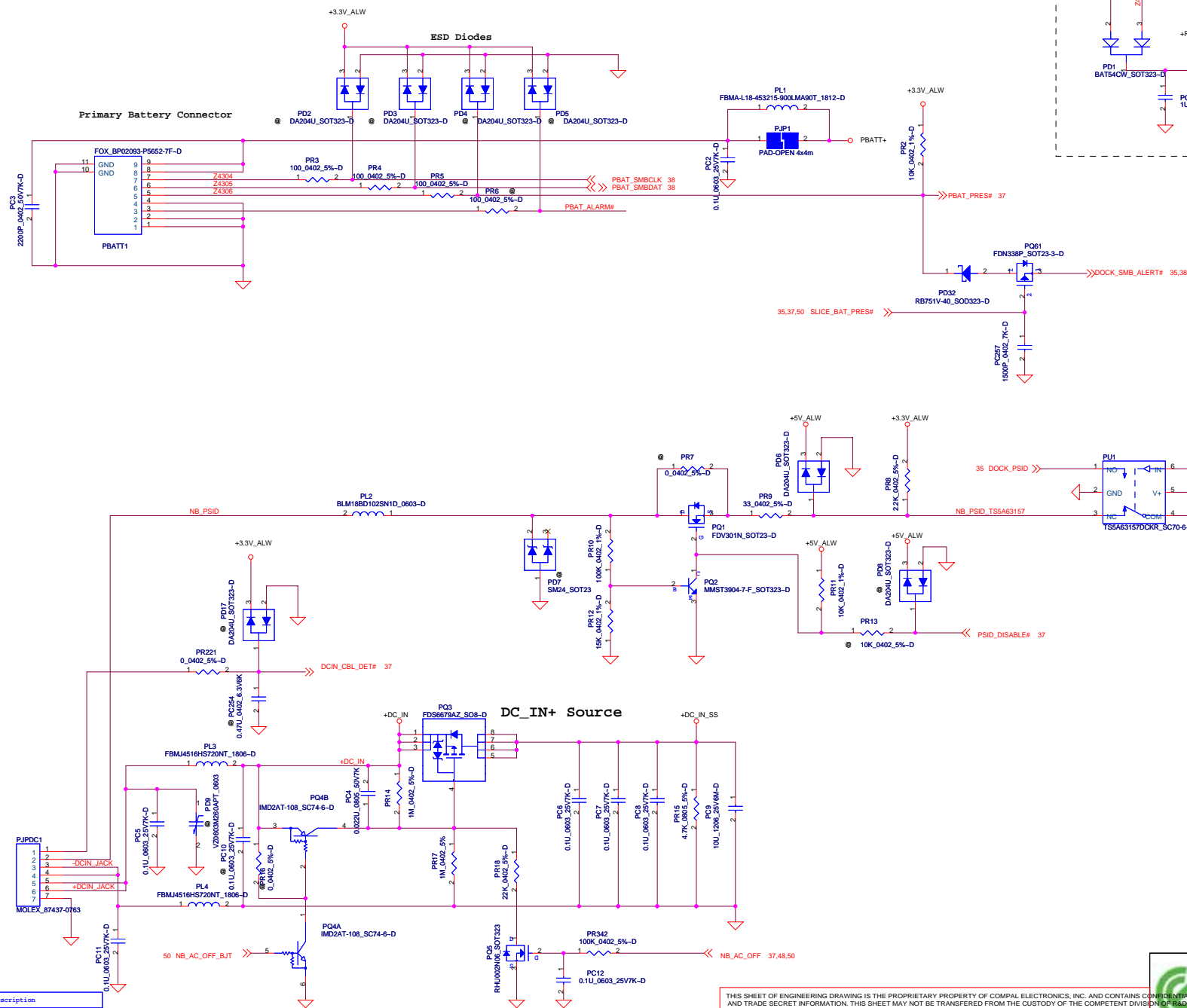


PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSMITTED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE 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 | | | |
| | SCHEMATIC,A4043 | | | |
| | Size | Document Number | | Rev |
| | | 401648 | A | |
| Date: | Tuesday, October 28, 2008 | | Sheet 42 of 53 | |

http://laptopblue.vn



| Part Number | Description |
|-------------|---------------------------|
| DA30000341L | PCB 03P LA-4051P REV0 M/B |

DELL CONFIDENTIAL/PROPRIETARY

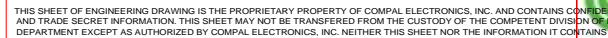
Compal Electronics, Inc.

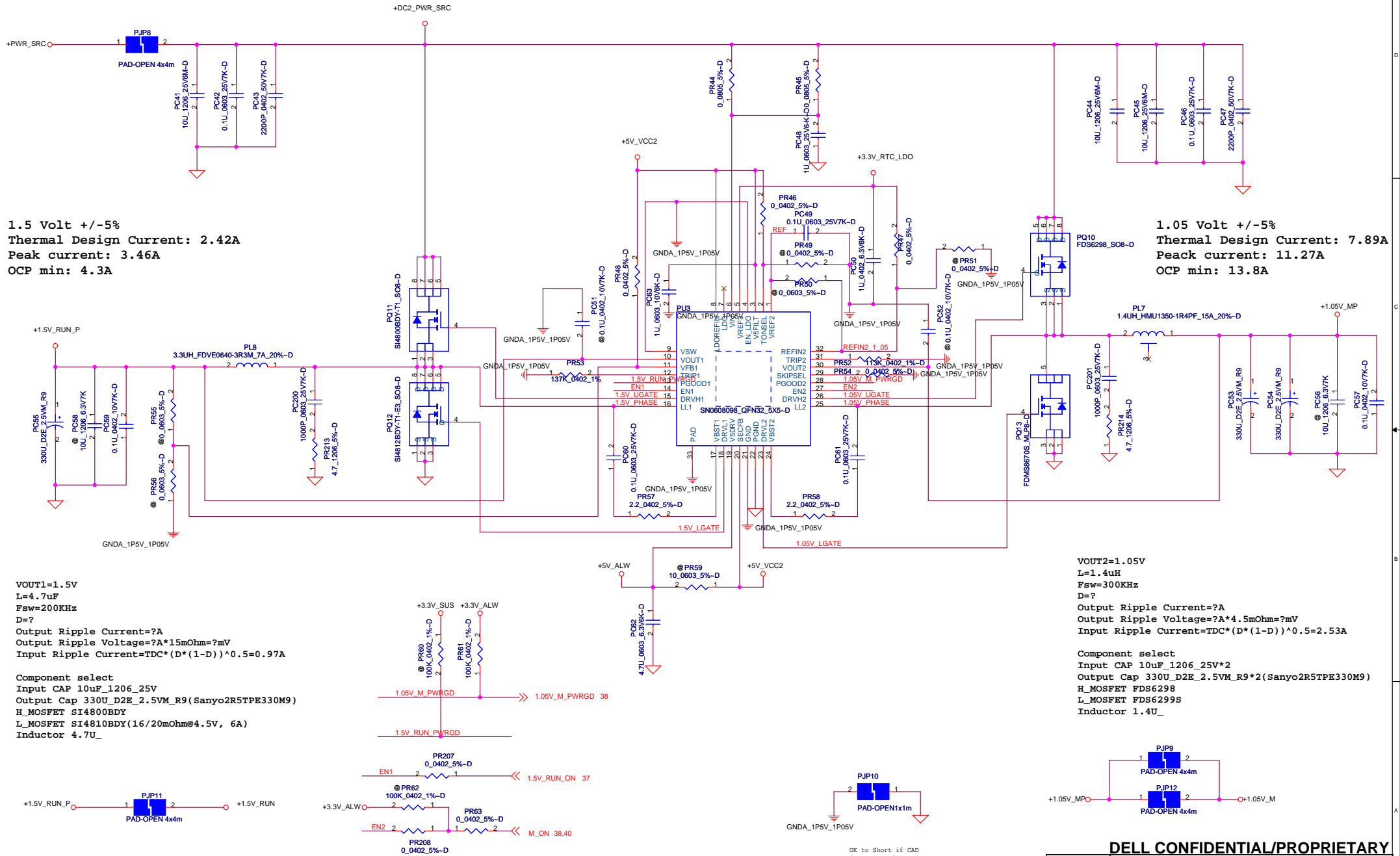
SCHEMATIC,A4043

401648

Date: Tuesday, October 28, 2008 Sheet 43 of 53

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





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.

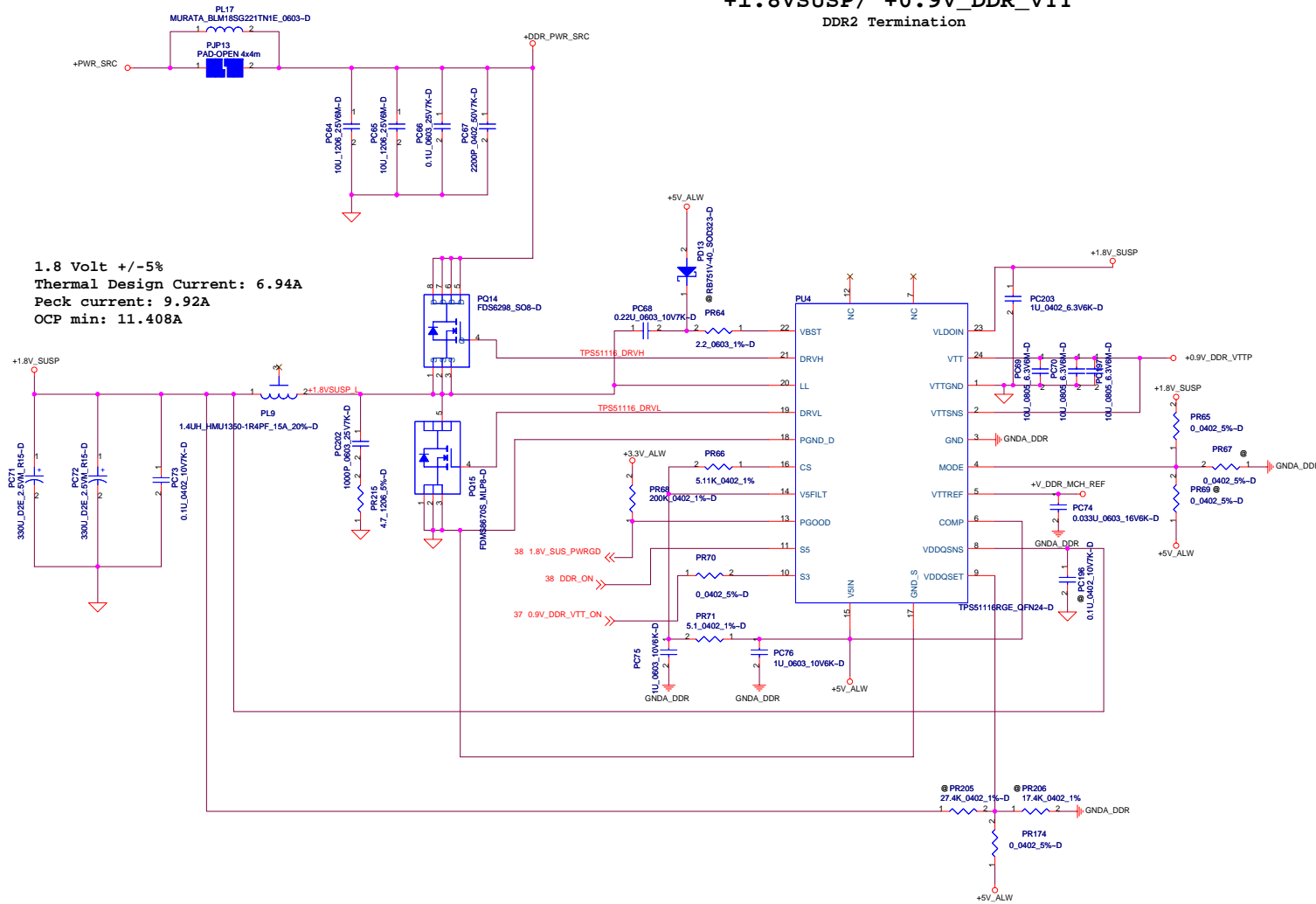
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

| | | | | |
|-----------------|---------------------------|-------|----|----------|
| Title | | | | |
| SCHEMATIC,A4043 | | | | |
| Size | Document Number | | | Rev A |
| | 401648 | | | |
| Date: | Tuesday, October 28, 2008 | Sheet | 45 | of 53 |

+1.8VSUSP/ +0.9V_DDR_VTT DDR2 Termination



1.8 Volt +/-5%
Thermal Design Current: 6.94A
Peck current: 9.92A
OCP min: 11.408A

Design current 0.7A for +0.9V_DDR_VTTP
Peak current 1A for +0.9V_DDR_VTTP

VOUT1=1.8V
L=1.4uH
Fsw=400KHz
D=?
Output Ripple Current=?A
Output Ripple Voltage=?A*15mOhm=?mV
Input Ripple Current=IDC*(D*(1-D))^0.5=0.97A

Component select
Input CAP 10uF_1206_25V
Output Cap 330U_D2E_2.5VM_R9*2(Sanyo2R5TPE330M9)
H_MOSFET FDS6298
L_MOSFET FDS6299S
Inductor 1.4U_

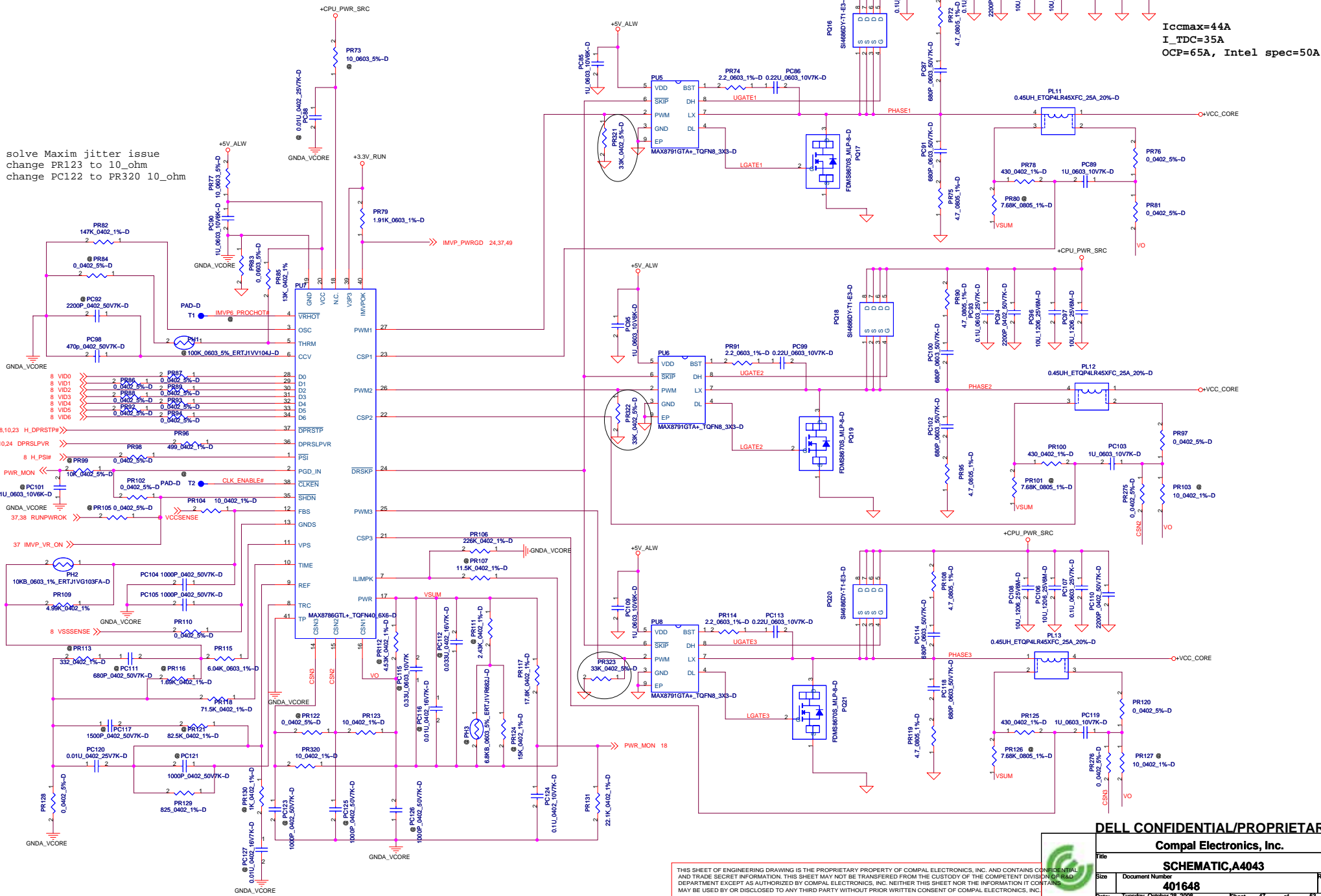
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

| | | | |
|-------|---------------------------|-----------------|-------|
| Title | | SCHEMATIC_A4043 | |
| Size | Document Number | 401648 | Rev A |
| Date: | Tuesday, October 28, 2008 | Sheet 46 of 53 | |

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.

solve Maxim jitter issue
change PR123 to 10_ohm
change PC122 to PR320 10_ohm

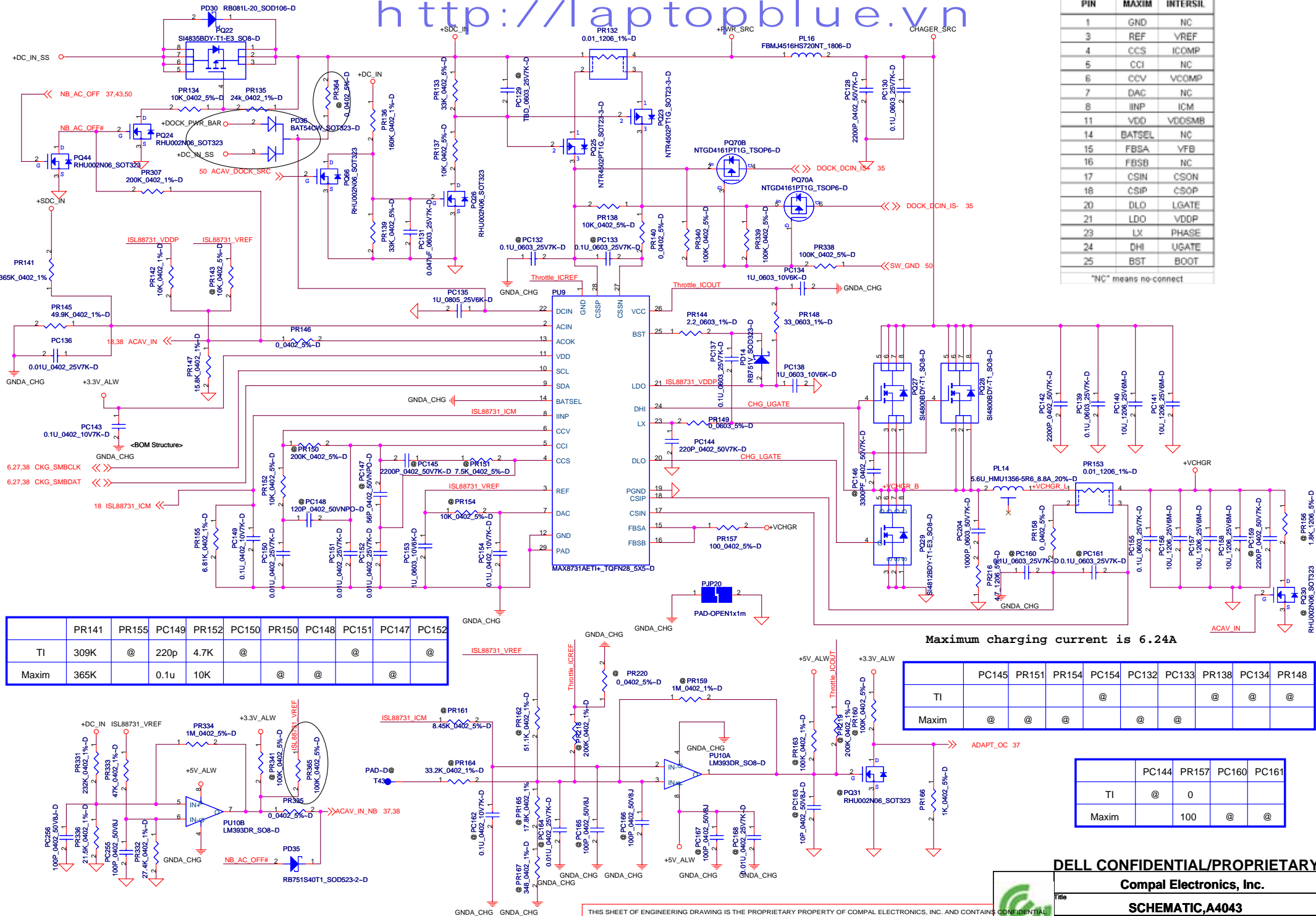


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS,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

TABLE 3. PIN NAME DIFFERENCES

| PIN | MAXIM | INTERSIL |
|-----|--------|----------|
| 1 | GND | NC |
| 3 | REF | VREF |
| 4 | CCS | ICOMP |
| 5 | CCI | NC |
| 6 | CCV | VCOMP |
| 7 | DAC | NC |
| 8 | IINP | ICM |
| 11 | VDD | VDDSMR |
| 14 | BATSEL | NC |
| 15 | FBSA | VFB |
| 16 | FBSB | NC |
| 17 | CSIN | CSOP |
| 18 | CSIP | CSOP |
| 20 | DLO | LGATE |
| 21 | LDO | VDDP |
| 23 | LX | PHASE |
| 24 | DHI | UGATE |
| 25 | BST | BOOT |

"NC" means no-connect



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

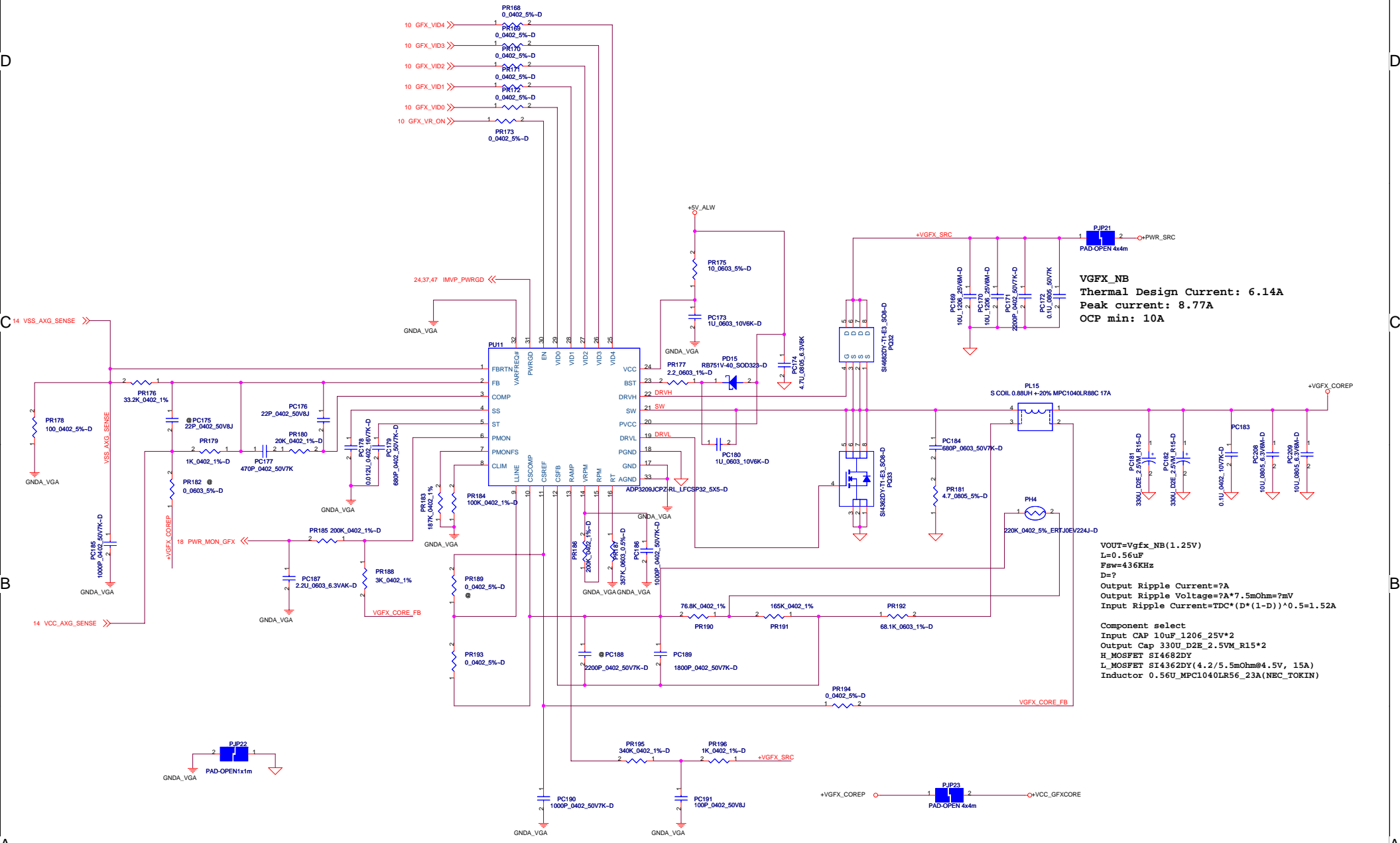
DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

SCHEMATIC_A4043

401648

Tuesday, October 28, 2008 Sheet 48 of 53

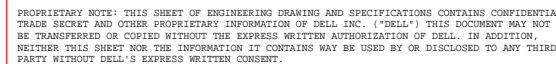


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

| | | | |
|------|-----------------|------------------|----------------|
| File | | SCHEMATIC_A4043 | |
| Size | Document Number | 401648 | Rev A |
| Date | Issued | October 24, 2008 | Sheet 48 of 53 |

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



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

<http://laptopblue.vn>

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|-------|--------------|------------|---------------|---|--|------|
| 1 | 10 | MCH HDA | 09/23/2008 | Compal | Support 1.5V MDC module. Delete bi-derectional level shift circuit. | Delete U67 and enable circuit, delete R42, R44, R686, R687 and change R685 to 33ohm. | X00 |
| 2 | 10 | MCH | 09/23/2008 | Compal | Eliminate Power Sequence circuit, ICH_PWRGD change to RESET_OUT | Change U2.AT40 (Cantiga PWROK) to RESET_OUT | X00 |
| 3 | 18 | Thermal | 09/23/2008 | Compal | Eliminate 2.5V_RUN_PWRGD. System do not use +2.5V_RUN power plan. | Delete U3 Pin 34 (4002 LDO_POK). | X00 |
| 4 | 24 | ICH | 09/23/2008 | Compal | Eliminate Power Sequence circuit, ICH_PWRGD change to RESET_OUT | Change U10.G20 (ICH9M PWROK) to RESET_OUT | X00 |
| 5 | 25 | MDC | 09/23/2008 | Compal | Support 1.5V MDC module. Delete bi-derectional level shift circuit. | Delete R314 R315, change +3.3V/1.5V_RUN_HDA to +1.5V_RUN, add U79 RICHTEK RT9013-15PB SOT23-5 to transfer +3.3V_ALW to +1.5V_ALW_HDA | X00 |
| 6 | 38 | EC | 09/23/2008 | Compal | Eliminate Power Sequence circuit. RUNPWROK, SUSPWROK, 3.3V_M_PWRGD, 3.3V_LAN_PWRGD become floating. | RUNPWROK add R1131 10K and pull high to +3.3V_RUN SUSPWROK add R1132 10K and pull high to +3.3V_SUS 3.3V_M_PWRGD add R1133 10K and pull high to +3.3V_M 3.3V_LAN_PWRGD add R1134 10K and pull high to +3.3V_LAN | X00 |
| 7 | 37 | SIO | 09/23/2008 | Compal | Delete sniffer yellow circuit | Delete U35 Pin 10 sniffer yellow since don't used yellow LED. | X00 |
| 8 | 37 | SIO | 09/23/2008 | Compal | Eliminate Power Sequence circuit, 2.5V_RUN_PWRGD change to 1.8V_RUN_PWRGD. | Change U3.34 (LDO_POK) and U35.18 to 1.8V_RUN_PWRGD. | X00 |
| 9 | 34 | Mini Card | 09/25/2008 | Dell | By Dell comment , remove SM bus circuit of Mini card.To reach cost down. | Remove R429 R430 Q48 R433 R434 Q49. | X00 |
| 10 | 21 | Display Port | 09/25/2008 | Compal | Change DP switch to Pericom PI2VDP8100. | Change U9 to PI2VDP8100, delete switch on mother board side (U75, U76 and circuit around). | X00 |
| 11 | 33 | ESATA | 09/25/2008 | Compal | For cost down consideration.Change cheaper ESATA reapter. | Change ESATA reapter from SA00002D80L to SA00002YQ0L. | X00 |
| 12 | 38 | EC | 09/25/2008 | Compal | Follow MINICOOPER named RESET_OUT# as RESET_OUT | Rename RESET_OUT# to RESET_OUT | X00 |
| 13 | 27 | Codec | 09/25/2008 | Compal | Support 1.5V MDC module. Delete bi-derectional level shift circuit. | Change U16 Pin3 (DVDD_IO) from +3.3V_RUN to +1.5V_RUN. | X00 |
| 14 | 25 | ICH | 09/26/2008 | Compal | Change +1.5V_ALW_HDA source plane. | Change U79 Pin1 to +3.3V_ALW_ICH. | X00 |
| 15 | 33 | MDC | 09/26/2008 | Compal | Support 1.5V MDC module. | Change J101 Pin 35 from +3.3V_SUS to +3.3V_ALW_ICH. Add Pin 39 +1.5V_ALW_HDA. | X00 |
| 16 | 24 | Flash ROM | 10/02/2008 | Compal | Depop 2nd SPI flash ROM | Depop R214,R387,R386,R1060,R375,R383,C392,R384,U13 | X00 |
| 17 | 23 | SB | 10/02/2008 | Compal | For low cost consideration, change Y1 for cheaper crystal. | Change Y1 form 32.768KHZ 12.5PF 1TJE125DP1 to 32.768KHZ 12.5PF 1TJS125DJ2A07 | X00 |
| 18 | 36 | USH I/F | 10/03/2008 | Compal | By Broadcom require to reserve location for RFID performance tuning. | Add R1138, R1139,R1140 but depop. | X00 |
| 19 | 33 37 | BIO RFID | 10/07/2008 | Compal | Change connector type | Change JBI01 to TYCO_2041070-6_6P-T. Chnage JCS1 to TYCO_2041084-6_6P-T | X00 |
| 20 | 34 | SIM CARD | 09/23/2008 | Compal | Change SIM card slot. | Change JSIM1 to cost down SIM slot LTCX000EZ0L (TEMP: SP070711300) | X00 |

DELL CONFIDENTIAL/PROPRIETARY

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.



| | | |
|-----------------------------------|----------------------------------|-----------------|
| Compal Electronics, Inc. | | |
| Title SCHEMATIC,A4043 | | |
| Size | Document Number 401648 | Rev A |
| Date Tuesday, October 28, 2008 | Sheet 51 | of 53 |

Version Change List (P. I. R. List) <http://laptopblue.vn>

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|----------|---------------------|-------|-------------------|---|---|------|
| 1 | 43 | +DC_IN | 11/17 | leverage Roush | Battery slice need detect NB battery is insert or not. | Add PQ61 NTR4502PT1G, and PD32 RB751_SOD323 Connect to DOCK_SMB_ALERT# and SLICE_BAT_PRES# | X01 |
| 2 | 43 | +DC_IN | 11/17 | leverage Roush | DCIN_CBL_DET# damage ECE5028 | Add ESD diode PD17 DA204U_SOT323 at DCIN_CBL_DET# Series PR221 1K_0402_5% between PJPC1, PIN1 and DCIN_CBL_DET# Parallel PC254 0.47uF_0402_6.3V on DCIN_CBL_DET# | X01 |
| 3 | 43 | +DC_IN | 11/17 | leverage Roush | Roush component and rework changes for Docking test | PC4 change form 0.47uF_0805_25V to 0.1uF_0805_25V PR14 change form 240K_0402_5% to 1M_0402_5% PR17 change form 47K_0402_1% to 220K_0402_5% PR18 change form 47K_0402_1% to 22K_0402_5% PR342 change form 0_0402_1% to 100K_0402_5% | X01 |
| 4 | 48 | Charger | 11/17 | leverage Roush | NB DC blocking MOSFET won't turn off when Dock AC insert. | Add PQ44 RHU002N06 control NB DC blocking MOSFET. Control signal is NB_AC_OFF Series PR284 200K_0402_1% between PQ44 PIN1 and ACAV_IN Add PD30 B540C parallel PQ34 | X01 |
| 5 | 48 | Charger | 11/17 | leverage Roush | Charger of ISL88731 will turn off When ACIN is no power | Add LM393 to replace ISL88731 ACOK function(PU11B) | X01 |
| 6 | 48 50 | Charger Selector | 11/17 | leverage Roush | +PWR_SRC exist on Docking connector through the DOCK_DCIN_IS+ and - | Add PQ62 NTGD4161PT1G series DOCK_DCIN_IS+ and - Add PQ63 RHU002N06 to control PQ62 on/off | X01 |
| 7 | 48 50 | Charger Selector | 11/17 | leverage Roush | A global signal name change for all notebooks | From "ACAV_IN_DOCK" to "ACAV_DOCK_SRC" From "ACAV_IN_DOCK#" to "ACAV_DOCK_SRC#" | X01 |
| 8 | 48 | Charger | 11/17 | leverage Roush | SCH165050: Validate EMC4002 VIN1/VCP1/VCP2 for UMA & Discrete for PT1 SMT | Depop UL circuit. | X01 |
| 9 | 50 | Selector | 11/17 | leverage Roush | PBATT DC blocking MOSFET won't turn off when Docking AC insert. It will cause Battery or adapter protect. | Add PD18 RB715F_SOT323, PD20 and PD19 RB751V_SOD323, PR329 100K_0402_5% PR328 and PR327 47K_0402_5%, PR326 and PR325 240K_0402_5% PQ69 2N7002DW-7-F_SOT363-6, PQ59 NTG6161PT1G_TSOP6 Extra net name add +NBDCK_DC_IN_SS from Docking connector | X01 |
| 10 | 43 | +DCIN | 11/20 | EE / SCH165224 | follow HW change | To delete the RTC detection circuit | X01 |
| 11 | 48 50 | Selector charger | 11/30 | Dell | for slice function implement | change charger output to FB pin15 net name from PBATT+ to +VCHGR Add PQ41 PQ70 PR351 PR352 PR353 between +VCHGR and PBATT+ | X01 |
| 12 | 43 | +DCIN | 12/17 | Dell | change DCIN connector for ESD issue of "DCIN_CBL_DET#" | from Molex_87437_0663 to MOLEX_87437-0763 | X02 |
| 13 | 50 | Selector | 12/28 | leverage Roush | follow Roush | change PQ63 from RHU002N06 to 2N7002DW ADD PD33 RB751V ADD PR354 ADD PQ77 RHU002N06 and PR355 0 ohm | X02 |
| 14 | 48 | Charger | 12/28 | leverage Roush | follow Roush | Change PC131 from TBD to 0.047uF | X02 |

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|-------|--------------------|-------|-----------------|---|---|------|
| 15 | 47 | +Vcore | 02/18 | Dell / Maxim | Reduce Ring-backwithin 20mV when change bulk caps from 4*220uF to 3*270uF | PR129 change from 909 ohm to 825 ohm | |
| 16 | 50 | Selector | 02/18 | Merle DELL | Fix BITS CR196131 and CR196130 | Add PR363 1K_1206 and PC262 1U_0603_25V from +NBDOCK_DC_IN_SS to ground Add PD35 RB751S40T1_SOD523-2 from NB_AC_OFF# to ACAV_IN_NB | |
| 17 | 47 | +Vcore | 02/18 | Maxim | Fix Jitter issue | change PR123 to 10_ohm change PC122 to PR320 10_ohm | |
| 18 | 48/50 | charger / selector | 02/26 | Compal | location change for Charger 2nd source X76 BOM control | change PR141 to PR217 change PR217 to PR141 change PR228 to PR218 change PR218 to PR351 change PR230 to PR219 change PR219 to PR352 change PR229 to PR220 change PR220 to PR353 change PR284 to PR307 change PQ62 to PQ70 change PQ70 to PQ76 | |
| 19 | 48 | Charger | 03/06 | Compal | Delete non-use circuit | delete +DC_IN_SS to PR217 and PR217. | |
| 20 | 50 | Selector | 03/06 | Compal | For slice battery hot docking issue | Change PQ40 from IMD2AT to 2N7002DW change PR202 from240K_ohm ot 620k_ohm change PR204 from 47K_ohm to 33_ohm add PR222 390K_ohm and PR223 390K_ohm add PD34 RB751S40T1 | |
| 21 | 47 | +Vcore | 03/11 | Maxim | For driver IC power down issue | Add PR321 PR322 PR323 from IC pin 2 to GND | |
| 22 | 44-50 | All | 03/19 | Compal | EMI solution | Change PR32 PR33 PR57 PR58 PR64 PR74 PR91 PR144 PR177 to 2.2_ohm Add PC198 PR211 PC199 PR212 PC200 PR213 PC201 PR214 PC202 PR215 PC87 PR72 PC91 PR75 PC100 PR90 PC102 PR95 PC114 PR108 PC118 PR119 PC204 PR216 PC184 PR181 PC128 PC130 | |
| 23 | 45 | 1.5V/1.05v | 4/23 | Compal | change non-lead free part to lead free part | PR47 change from SD03415830L to SD03415838L | |
| 24 | 47 | Vcore | 4/23 | Maxim | Driver IC power down issue need change resistor value | change PR321 PR322 PR323 to 33K | |
| 25 | 49 | ADP3209 | 4/23 | Intel Compal | Follow Roush VGFX DC load line slope change to -7.5mOhm | Change PR192 from 75K_0603 to 68.1K_0603 | |
| 26 | 43 | DC-IN | 6/3 | Compal | Glitch issue on SLICE_BAT_PRES# | Add PC257:SE074152K8L(S CER CAP 1500P 50V +-10% X7R 0402) between pin2 of PQ61 and GND. | |
| 27 | 50 | Selector | 6/4 | Compal | Reserve a pull high resistor between +3.3V_ALW2 and SLICE_BAT_PRES# | Add un-pop PR330:SD02847018L(S RES 1/16W 4.7K +-5% 0402) between +3.3V_ALW2 and PQ40B.5. | |
| 28 | 48 | Charger | 9/11 | Dell | reduce charger IC power consumption when battery mode | Add location PD36, PR364, PR365. Pop PD36 PR365. Un-pop PR364 | |
| 29 | 48 | Charger | 9/11 | Dell / Compal | De-pop UL circuit | De-pop PR161 PR162 PR220 PR159 PR163 PR160 PC162 PR165 PR167 PC164 PC165 PC166 PC167 PC168 PC163 PQ31 Pop PR166 | |
| 30 | 48 | Charger | 10/22 | Dell | using Guardian for UL compliance need to change PR155 | change PR155 from 8.45K to 6.81K | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |