# Compal Confidential

## Qiao Hong Schematics Document

### Intel Diamondville Processor with Calistoga(945GSE) + DDRII + ICH7M

2008-07-07

REV: 1.0

| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
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| Compal Electronics, Inc. | | |
| Title: Cover Page | | |
| Size: B | Document Number: LA-4421P | Rev: 0.2 |
| Date: Friday, August 08, 2008 | Sheet 1 of 40 | |

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**Model Name : KIZ00**
**File Name : LA-4421P**

ZZZ1 PCB DAZ@
ZZZ2 PCB DAZ@
ZZZ PCB

Diamondville SC
FCBGA8
437Pins
22x22mm
page 4,5

FSB
400/533MHz
H_A#(3..31)
H_D#(0..63)

Clock Generator
CK505
page 12

CRT Conn
page 19

RGB

Thermal Sensor
EMC1402
page 2

Calistoga GSE
FCBGA998
27x27mm
page 6,7,8,9,10

Memory BUS(DDRII)
1.8V DDRII 400/533

DDRII-SO-DIMM
page 11

LCD Conn.
page 18

LVDS

DMI
X2 mode

ICH7M
BGA652
31x31mm
page 15,16,17,18

PCI-Express

USB
HDA

USB Port X1
page 28

USB Port X1
page 28

USB Port X1
page 28

BlueTooth
page19

CMOS CAM
page22

New Card
JMB385
page 23

MINI Card x2
page 19

10/100 Ethernet
RTL8102EL
page 24

PATA

SSD CONTROL
SM223AC
W/S 2G/4G/8G/16G
NAND Flash
page 22

SD/MMC/MS
CONN
page 23

Transfermer
page 24

RJ45
page 24

LPC BUS

Aralia Codec
ALC268-VB-GR
page 22

Power ON/OFF
& LED CONN
page 26

DC/DC Interface
page 29

3VALW/5VALW
page 33

DC IN
page 31

1.5VS/0.9VS/
2.5VS
page 35

BATT IN
page 37

1.8V/VCCP
page 34

CHARGER
page 32

CPU_CORE
page 36

ENE KBC
KB926
page 25

SPI

AMP & INT
Speaker
page 23

INT MIC
page 23

HeadPhone &
MIC Jack
page 23

Int.KBD
page 27

Touch Pad
page 27

SPI ROM
page 25

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Title: Block Diagrams

Size: B | Document Number: LA-4421P | Rev: 0.1

Date: Friday, August 08, 2008 | Sheet 2 of 40

## Voltage Rails

| Power Plane | Description | S1 | S3 | S5 |
|---|---|---|---|---|
| VIN | Adapter power supply (19V) | N/A | N/A | N/A |
| B+ | AC or battery power rail for power circuit. | N/A | N/A | N/A |
| +CPU_CORE | Core voltage for CPU | ON | OFF | OFF |
| +0.9VS | 0.9V switched power rail for DDR terminator | ON | OFF | OFF |
| +VCCP | VCCP switched power rail | ON | OFF | OFF |
| +1.5VS | 1.5V switched power rail | ON | OFF | OFF |
| +1.8V | 1.8V power rail for DDR | ON | ON | OFF |
| +2.5VS | 2.5V switched power rail | ON | OFF | OFF |
| +3VALW | 3.3V always on power rail | ON | ON | ON* |
| +3VS | 3.3V switched power rail | ON | OFF | OFF |
| +5VALW | 5V always on power rail | ON | ON | ON* |
| +5VS | 5V switched power rail | ON | OFF | OFF |
| +VSB | VSB always on power rail | ON | ON | ON* |
| +RTCVCC | RTC power | ON | ON | ON |

Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.

| STATE \ SIGNAL | SLP_S3# | SLP_S4# | SLP_S5# | +VALW | +V | +VS | Clock |
|---|---|---|---|---|---|---|---|
| Full ON | HIGH | HIGH | HIGH | ON | ON | ON | ON |
| S1(Power On Suspend) | HIGH | HIGH | HIGH | ON | ON | ON | LOW |
| S3 (Suspend to RAM) | LOW | HIGH | HIGH | ON | ON | OFF | OFF |
| S4 (Suspend to Disk) | LOW | LOW | HIGH | ON | OFF | OFF | OFF |
| S5 (Soft OFF) | LOW | LOW | LOW | ON | OFF | OFF | OFF |

## BOARD ID Table(Page 25)

| ID | BRD ID | Ra | Rb | Vab |
|---|---|---|---|---|
| 0 | R01 (EVT) | NC | 0 | 0V |
| 1 | R02 (DVT) | 100K | 8.2K | 0.25V |
| 2 | R03 (PVT) | 100K | 18K | 0.50V |
| 3 | R10A (MP) | 100K | NC | 3.3V |

## External PCI Devices

| DEVICE | IDSEL # | REQ/GNT # | PIRQ |
|---|---|---|---|

**No PCI Device**

## EC SM Bus1 address

| Device | Address |
|---|---|
| Smart Battery | 0001 011X b |
| EEPROM(24C16/02) | 1010 000X b |

## EC SM Bus2 address

| Device | Address |
|---|---|
| EMC1402 | 1001 100X b |

## ICH7M SM Bus address

| Device | Address |
|---|---|
| Clock Generator (SLG8SP556VTR) | 1101 001Xb |
| DDR DIMMA | 1010 000Xb |



| | | | |
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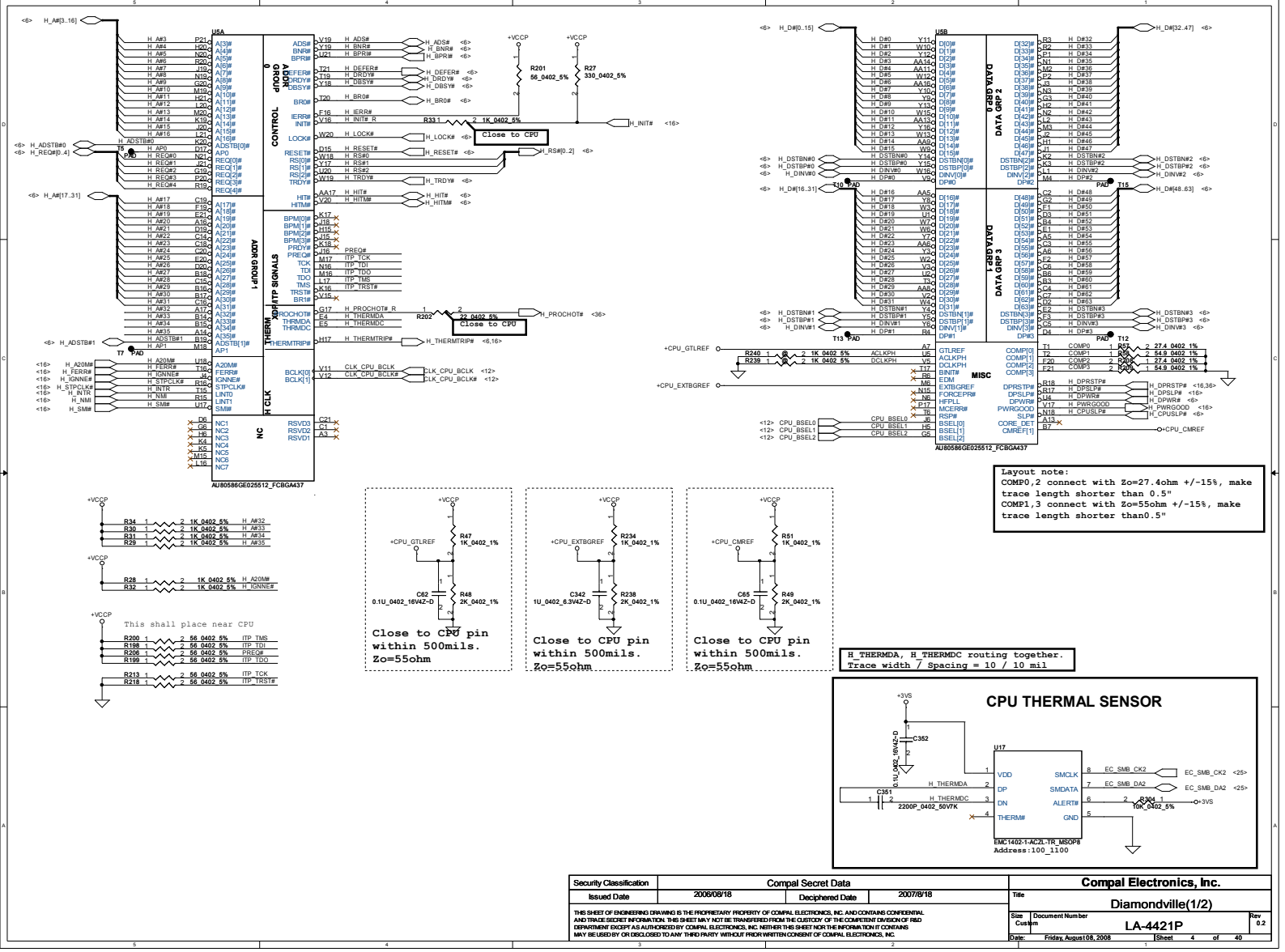
| Title | Notes List | | |
| Size B | Document Number LA-4421P | | Rev 0.2 |
| Date: Friday, August 08, 2008 | Sheet 3 of 40 | | |

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| Title | Diamondville(1/2) | | |
| Size: Custom | Document Number: LA-4421P | | Rev: 0.2 |
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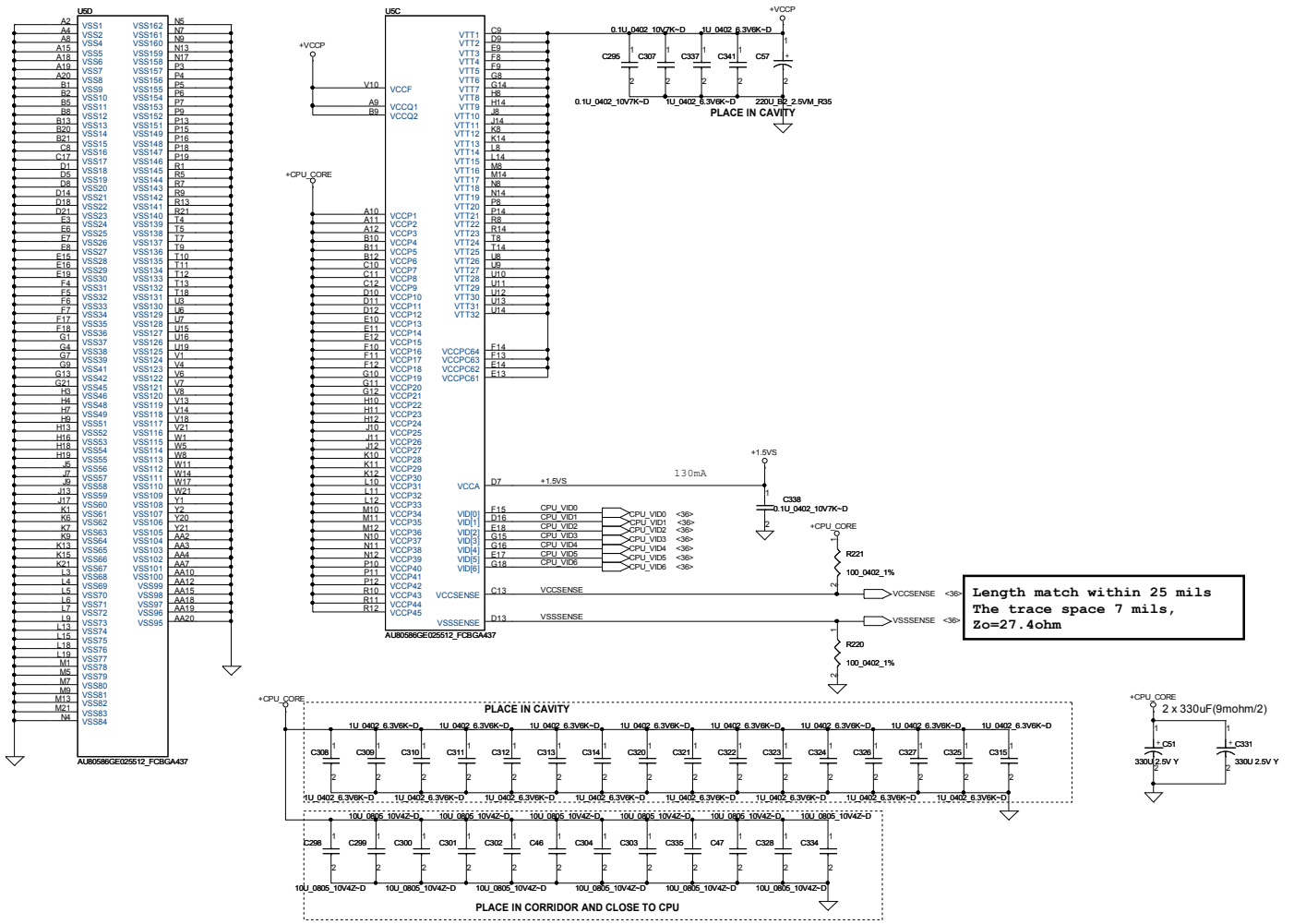


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Title: Diamondville(2/2)

| Size | Document Number | Rev |
|---|---|---|
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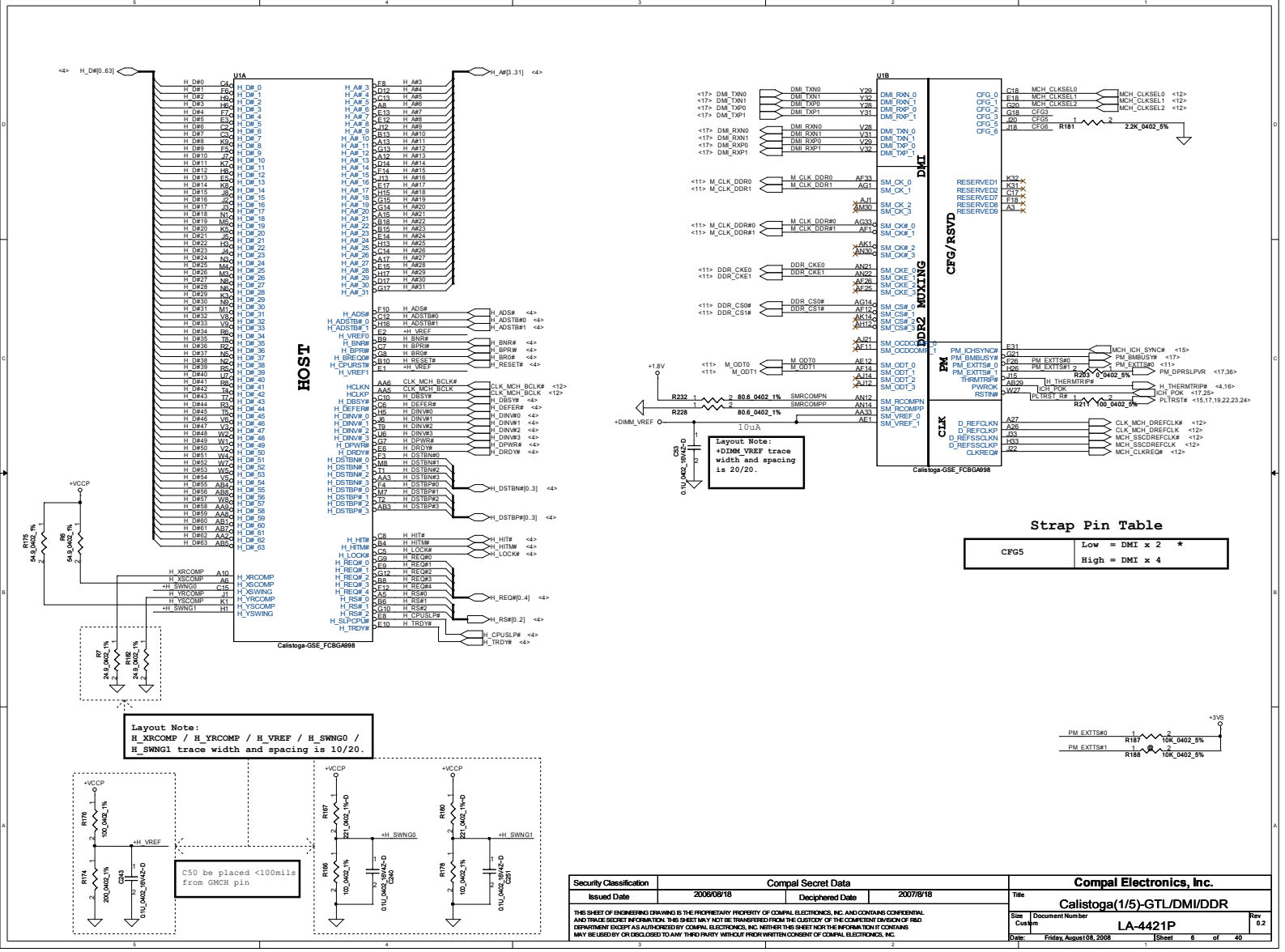
Date: Friday, August 08, 2008 Sheet 5 of 40




## Strap Pin Table

| | |
|---|---|
| CFG5 | Low = DMI x 2 *<br>High = DMI x 4 |

| | | | |
|---|---|---|---|
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Title: Calistoga(1/5)-GTL/DMI/DDR

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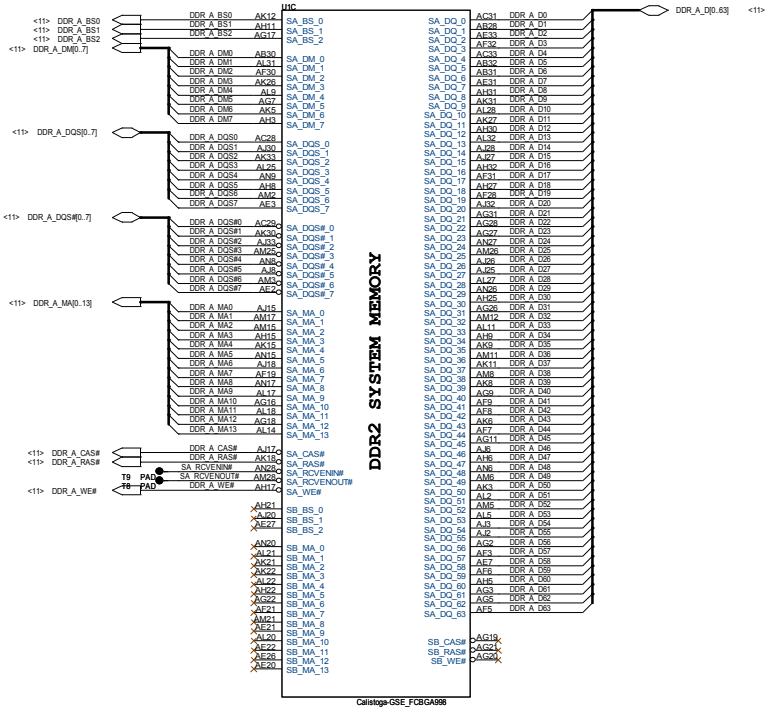


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Title: Calistoga(2/5)-DDR2

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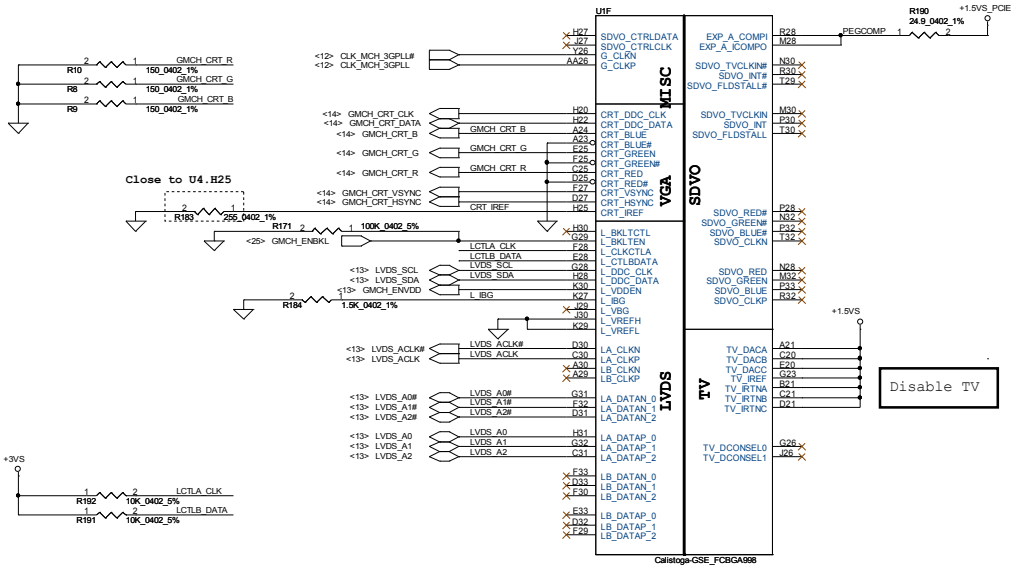
Date: Friday, August 08, 2008 Sheet 7 of 40

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Title: Calistoga(3/5)-VGA/LVDS/TV

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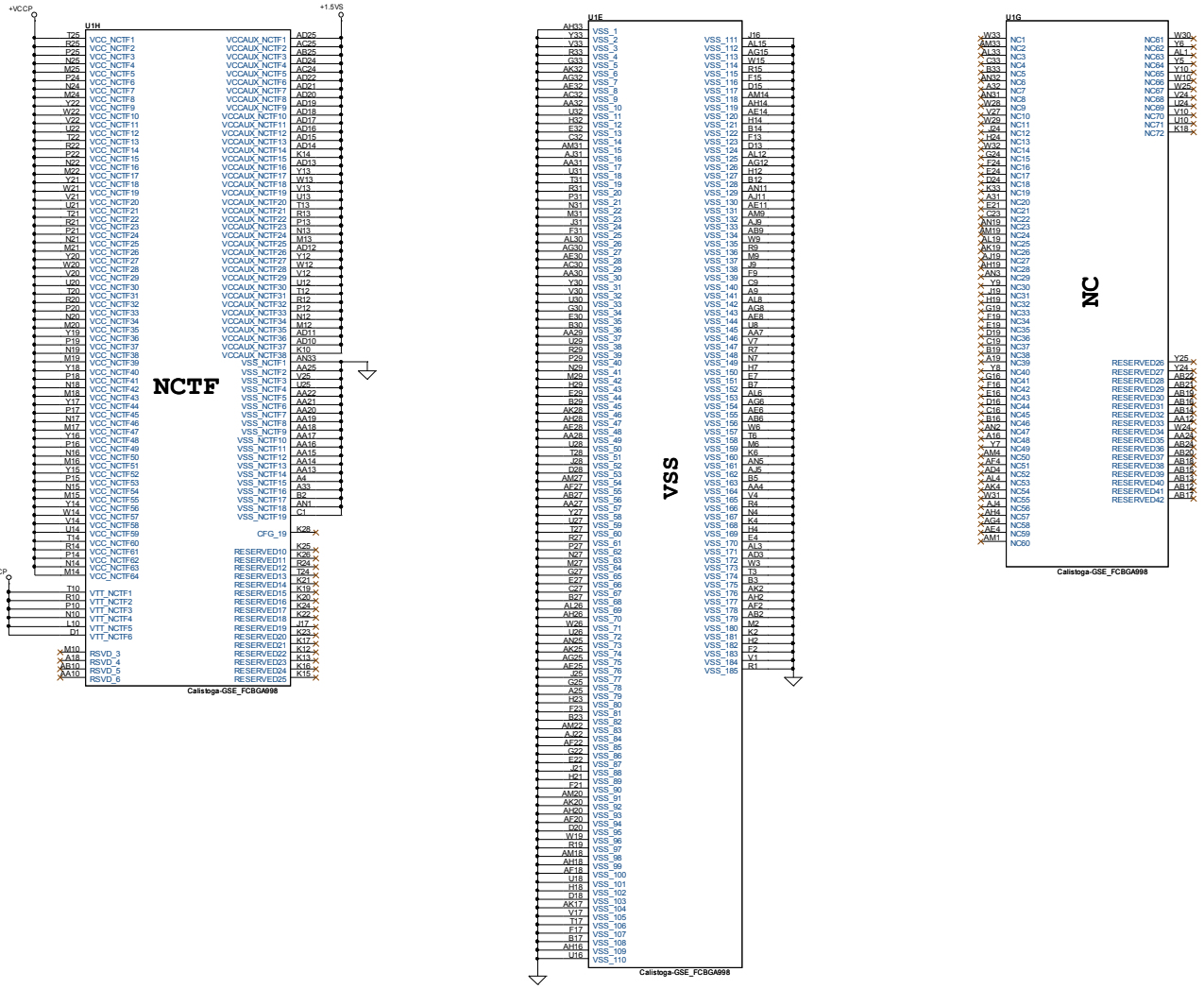
Date: Friday, August 08, 2008 Sheet 8 of 40

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|---|---|---|---|
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**Compal Electronics, Inc.**

Title: Calistoga(4/5)-PWR/GND

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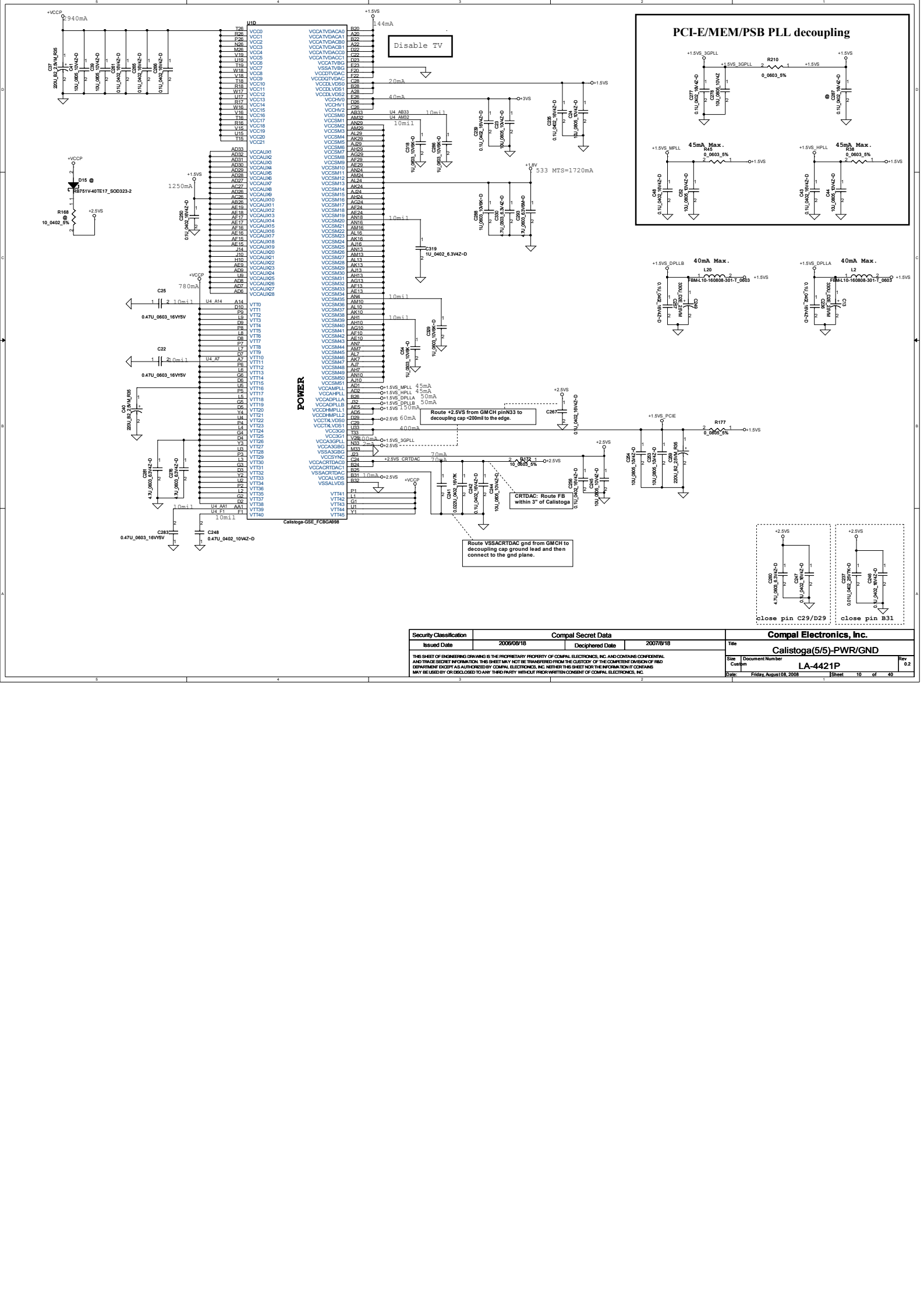
Date: Friday, August 08, 2008 | Sheet 9 of 40


PCI-E/MEM/PSB PLL decoupling
Disable TV
POWER
Calistoga-GSE_FCBGA698
Route +2.5VS from GMCH pinN33 to decoupling cap <200mil to the edge.
CRTDAC: Route FB within 3" of Calistoga
Route VSSACRTDAC gnd from GMCH to decoupling cap ground lead and then connect to the gnd plane.
close pin C29/D29
close pin B31
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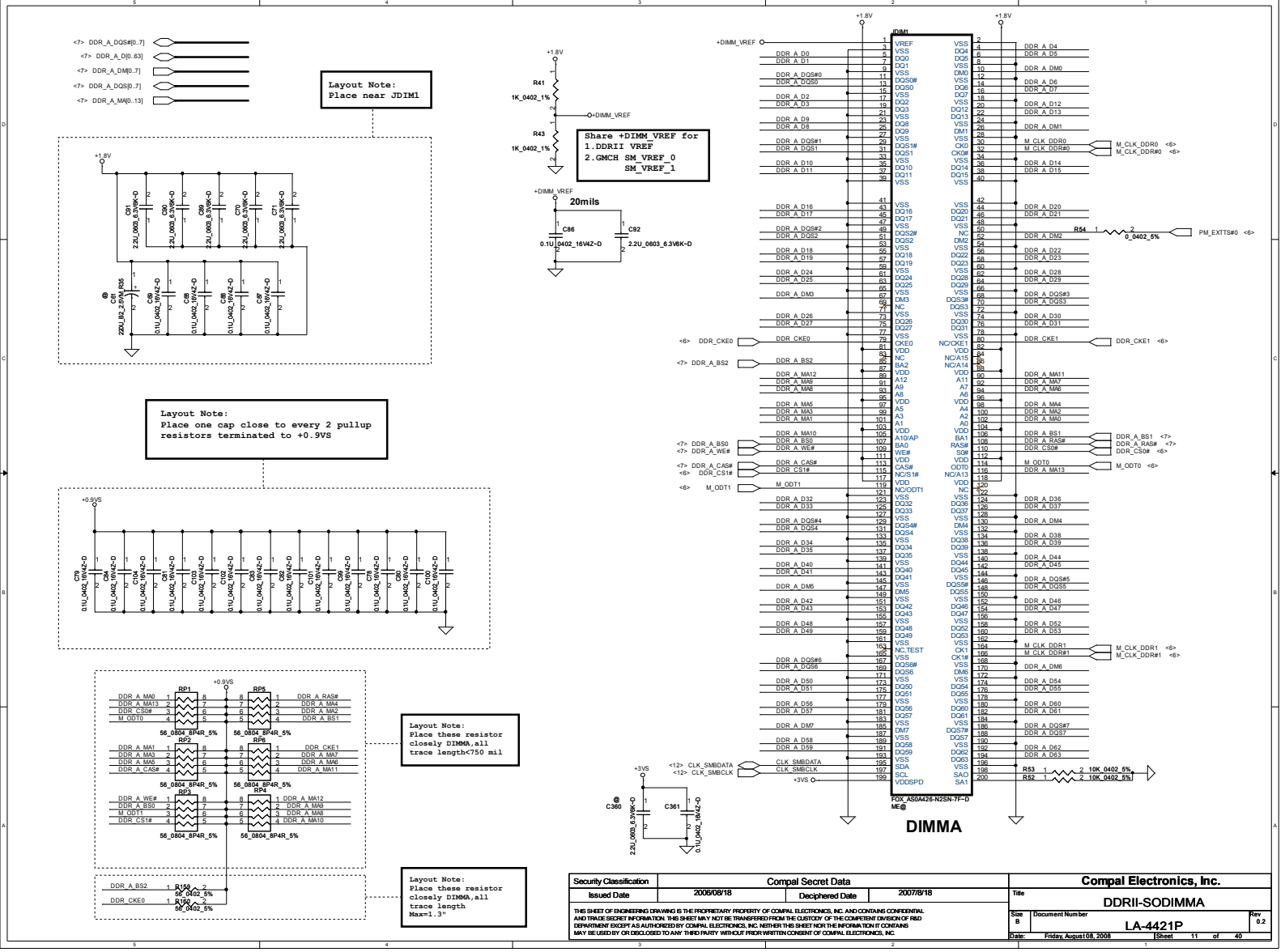
Sheet
10
of
40

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| Title | DDRII-SODIMMA | | |
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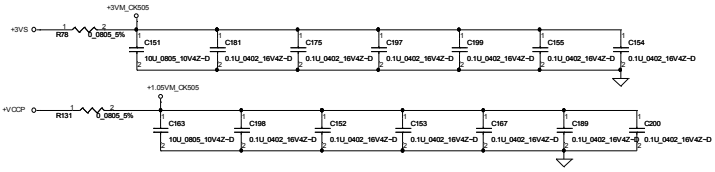
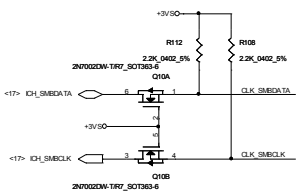
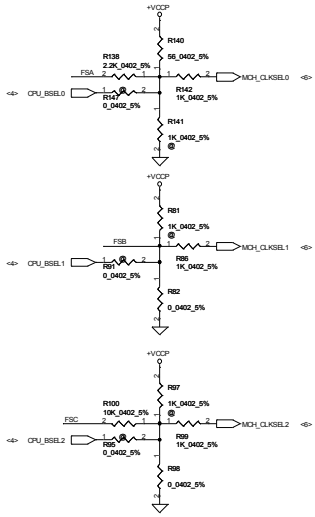
| Date: Friday, August 08, 2008 | Sheet 11 of 40 | | |

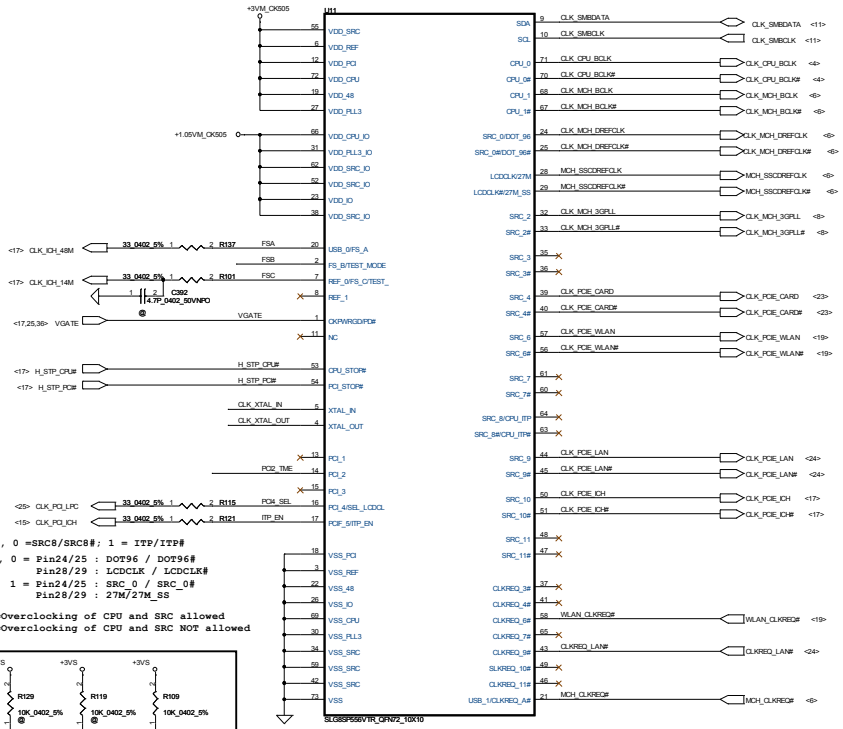
| FSC<br>CLKSEL2 | FSB<br>CLKSEL1 | FSA<br>CLKSEL0 | CPU<br>MHz | SRC<br>MHz | PCI<br>MHz | REF<br>MHz | DOT_96<br>MHz | USB<br>MHz |
|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 266 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 0 | 0 | 1 | 133 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 0 | 1 | 0 | 200 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 0 | 1 | 1 | 166 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 1 | 0 | 0 | 333 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 1 | 0 | 1 | 100 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 1 | 1 | 0 | 400 | 100 | 33.3 | 14.318 | 96.0 | 48.0 |
| 1 | 1 | 1 | Reserved | | | | | |



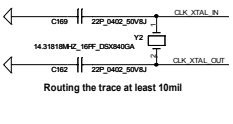

**SA000020K00 (Silego : SLG8SP556VTR )**
**SA000020H10 (ICS : ICS9LPRS387AKLFT)**



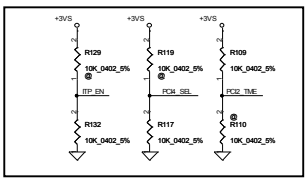



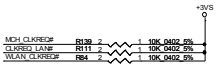

For ITP_EN, 0 =SRC8/SRC8#; 1 = ITP/ITP#
For PCI4_SEL, 0 = Pin24/25 : DOT96 / DOT96#
Pin28/29 : LCDCLK / LCDCLK#
1 = Pin24/25 : SRC_0 / SRC_0#
Pin28/29 : 27M/27M_SS

For PCI2_TME:0=Overclocking of CPU and SRC allowed
(ICS only) 1=Overclocking of CPU and SRC NOT allowed




Routing the trace at least 10mil




## SRC PORT LIST

| PORT | DEVICE |
|---|---|
| SRC0 | MCH_DREFCLK |
| SRC2 | MCH_3GPLL |
| SRC3 | |
| SRC4 | PCIE_CARDREADER |
| SRC6 | PCIE_WLAN |
| SRC7 | |
| SRC8 | |
| SRC9 | PCIE_LAN |
| SRC10 | PCIE_ICH |
| SRC11 | |

## REQ PORT LIST

| PORT | DEVICE |
|---|---|
| REQ_3# | |
| REQ_4# | |
| REQ_6# | PCIE_WLAN |
| REQ_7# | |
| REQ_9# | PCIE_LAN |
| REQ_10# | |
| REQ_11# | |
| REQ_A# | MCH_3GPLL |
| | |
| | |

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Title: Clock Generator CK505

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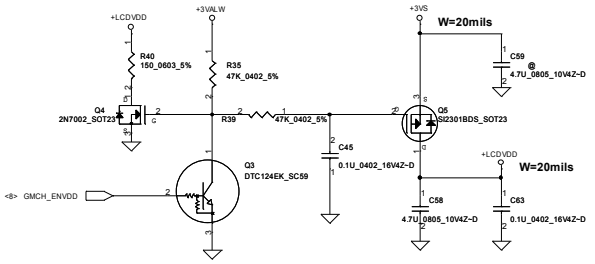
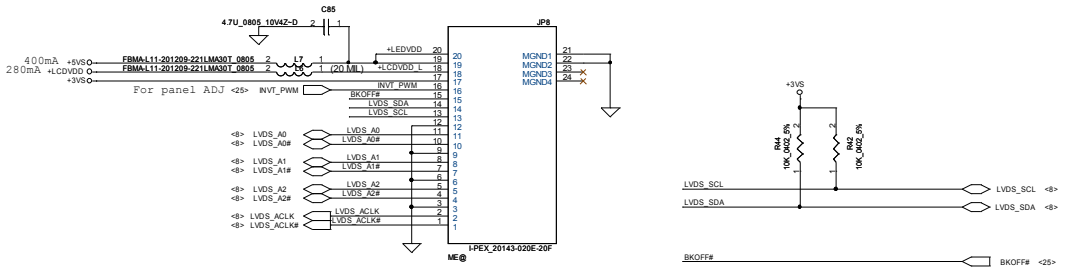
Date: Friday, August 08, 2008 | Sheet 12 of 40

## LCD POWER CIRCUIT




## LCD/PANEL BD. Conn.




## Coaxial LVDS Conn

| | | | |
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| Title | LVDS /INVERTER | | |
| Size B | Document Number LA-4421P | | Rev 0.2 |
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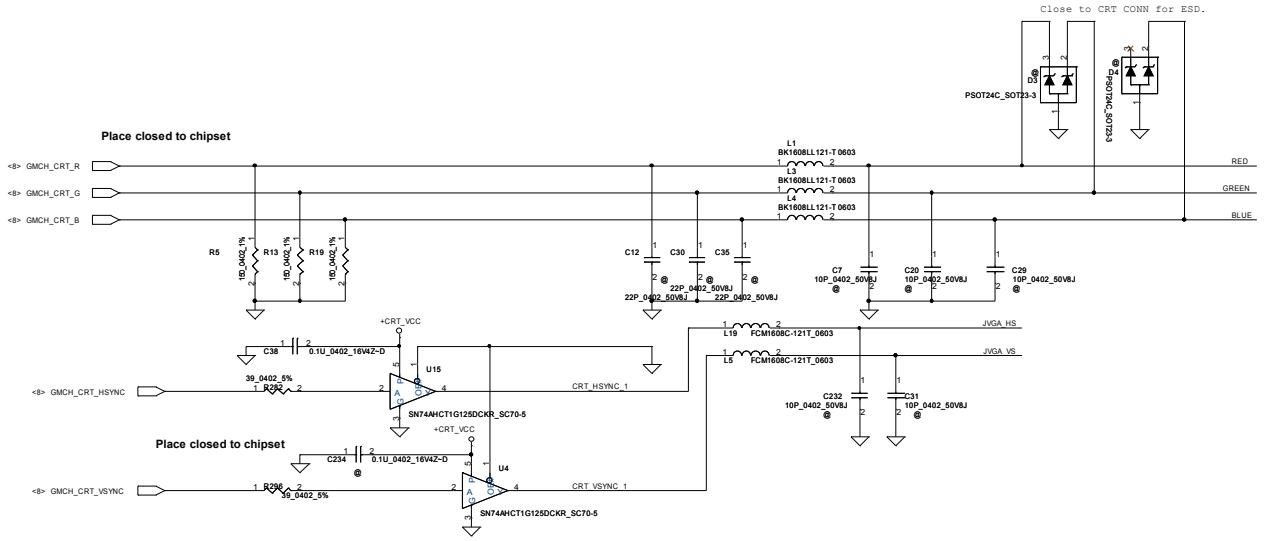
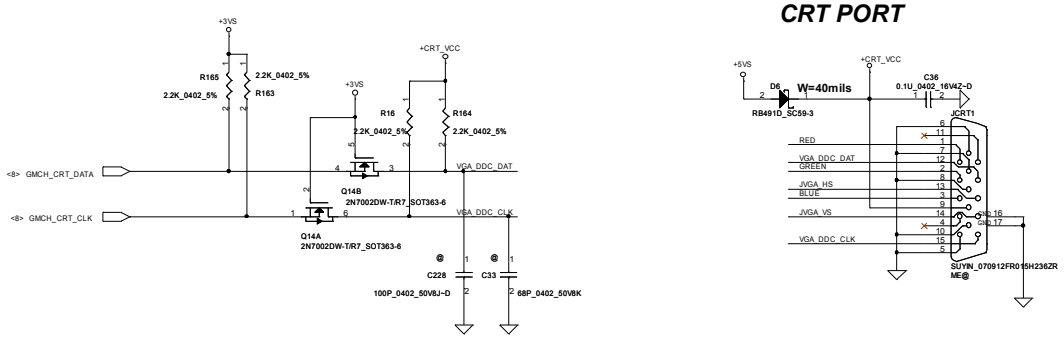



## CRT PORT

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| Title | CRT PORT | | |
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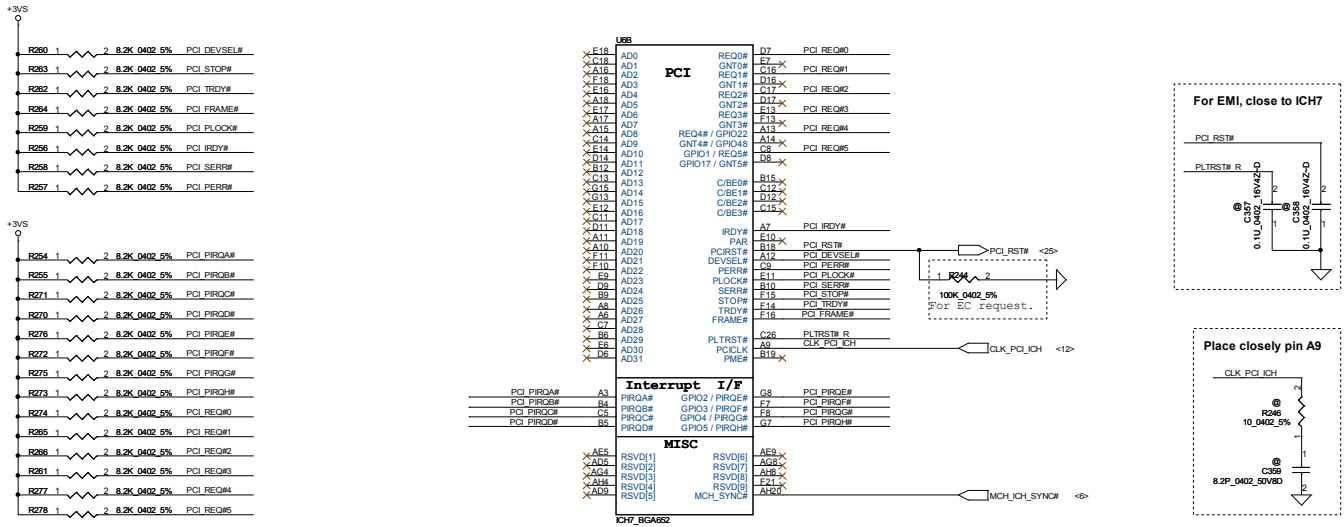
| Date: Friday, August 08, 2008 | Sheet 14 of 40 | | |



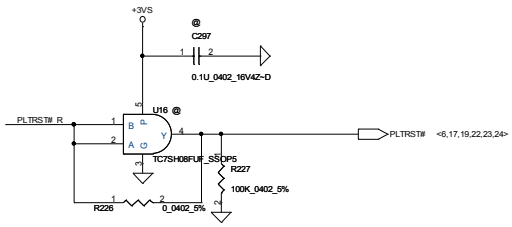










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**Compal Electronics, Inc.**

Title: ICH7M(1/4)HUB,PCI,HOST

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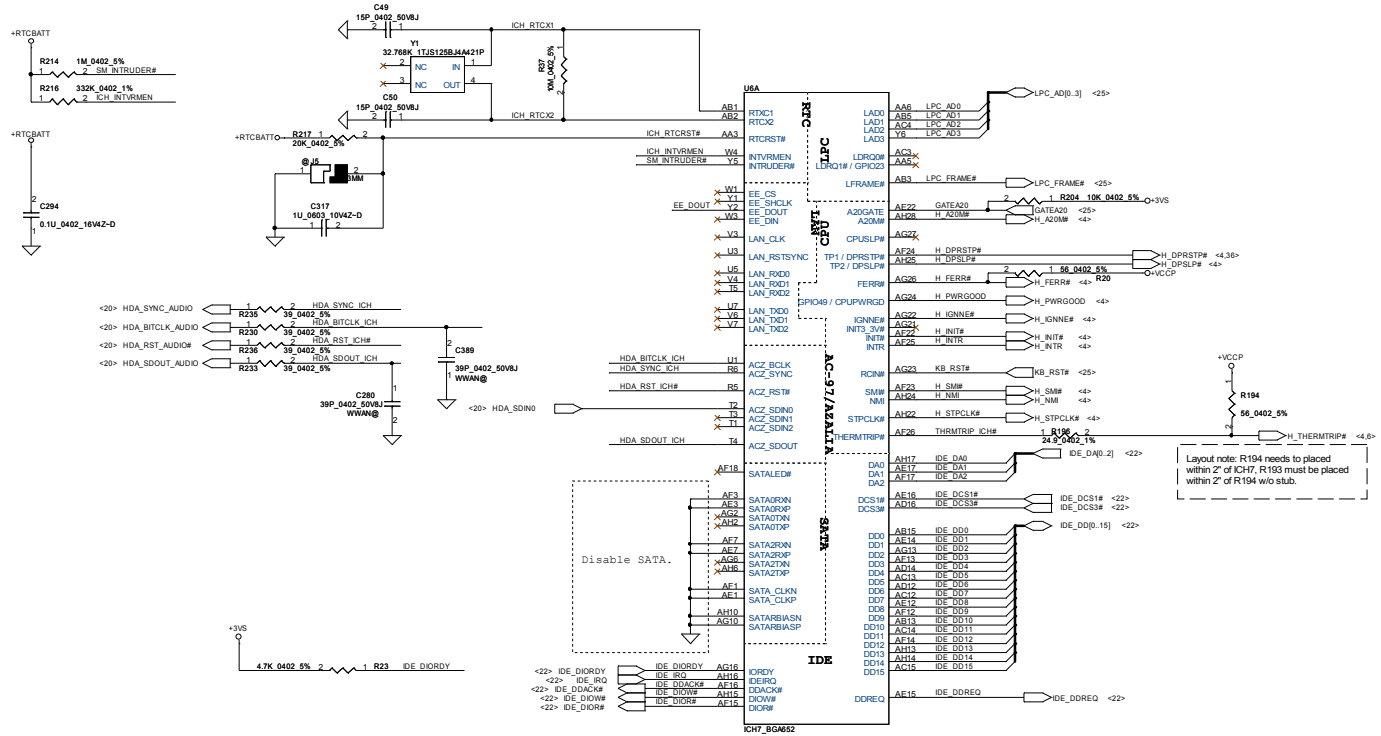
| | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 Sheet 15 of 40

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|---|---|---|---|
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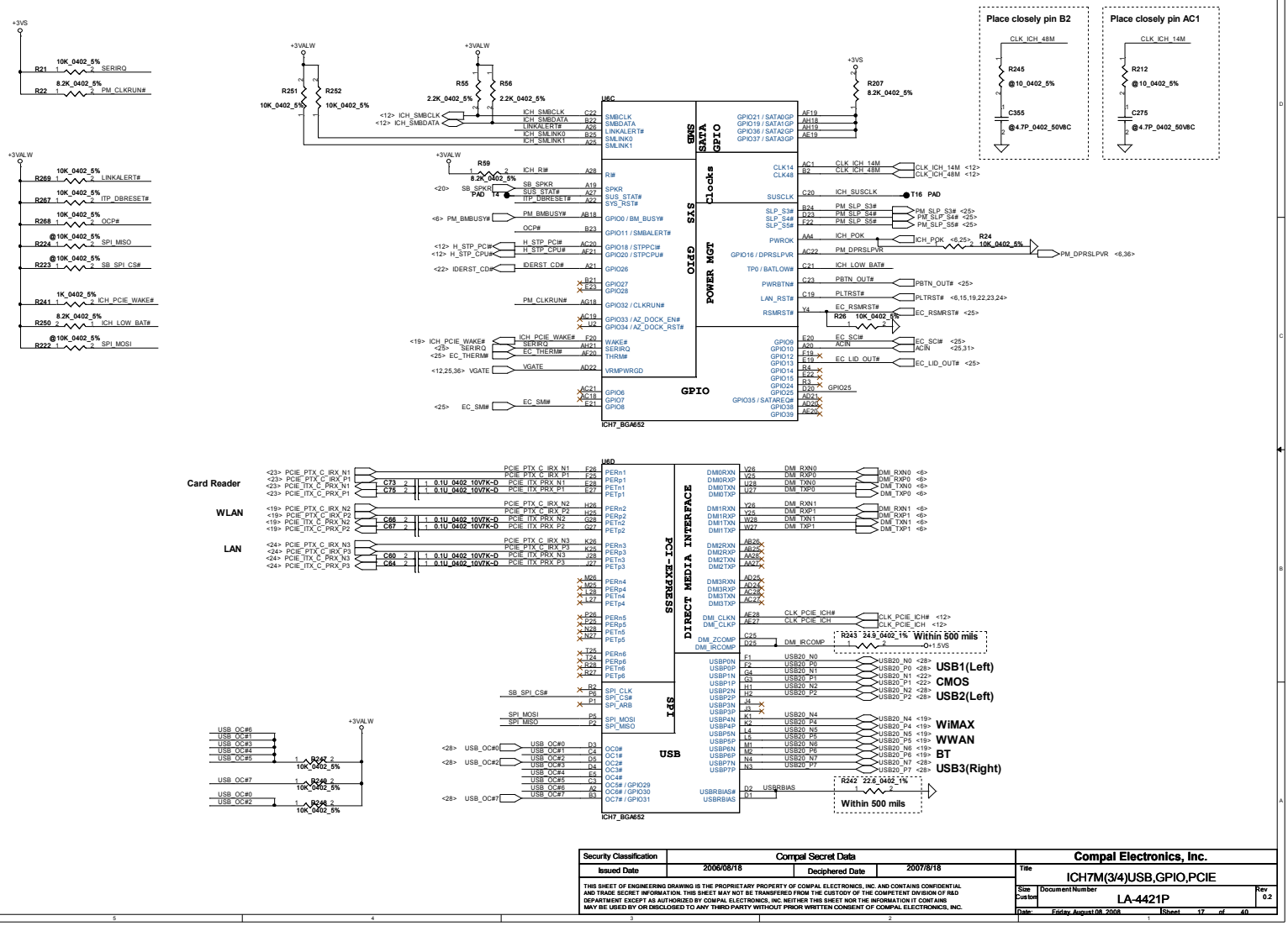
Compal Electronics, Inc.

Title: ICH7M(2/4)LAN,ATA,LPC,RTC

| Size | Document Number | Rev |
|---|---|---|
| Custom | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 | Sheet 16 of 40




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |

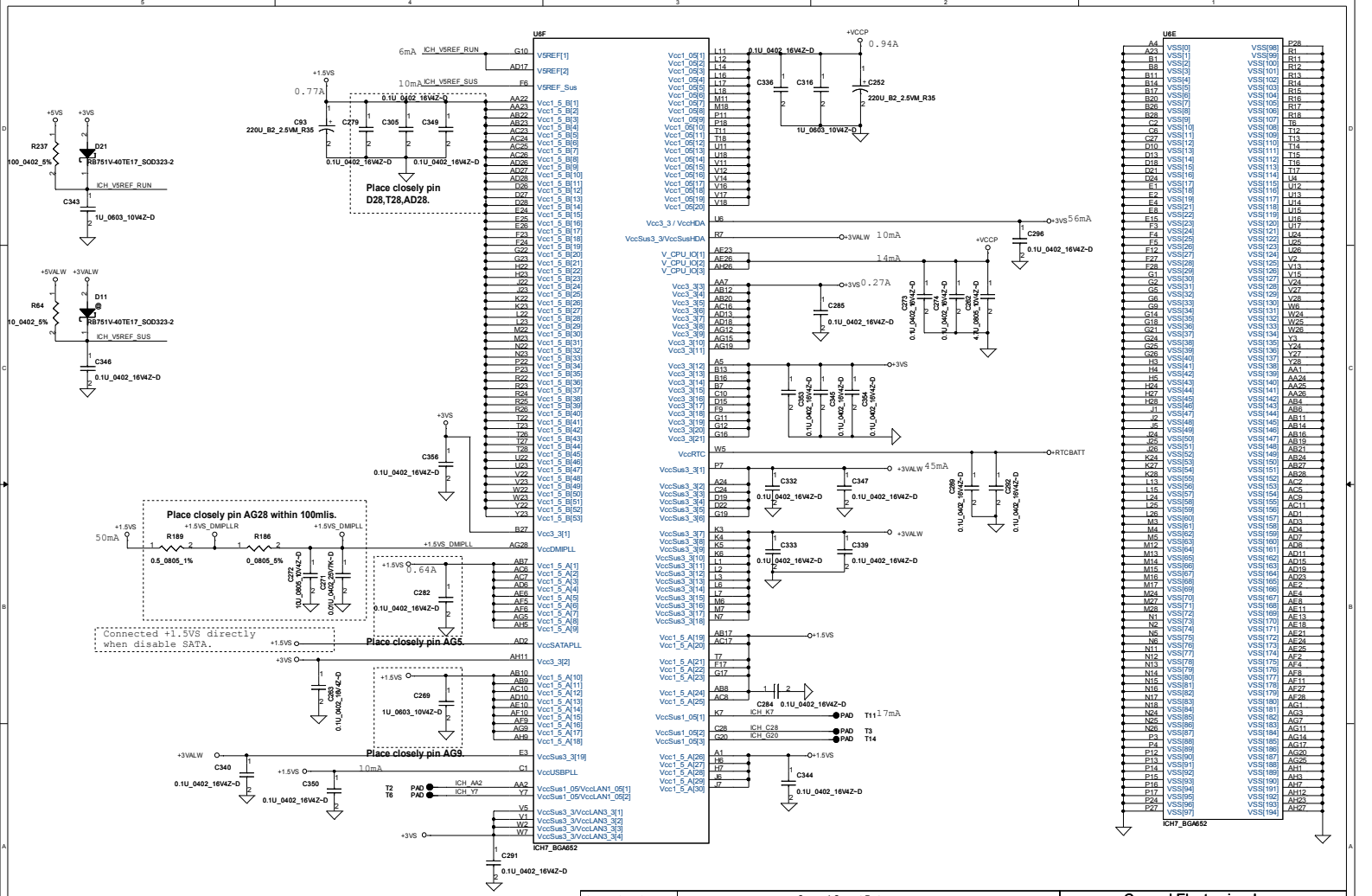


**Compal Electronics, Inc.**

Title: ICH7M(3/4)USB,GPIO,PCIE

| Size | Document Number | Rev |
|---|---|---|
| Custom | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 | Sheet 17 of 40




| | | | |
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| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |



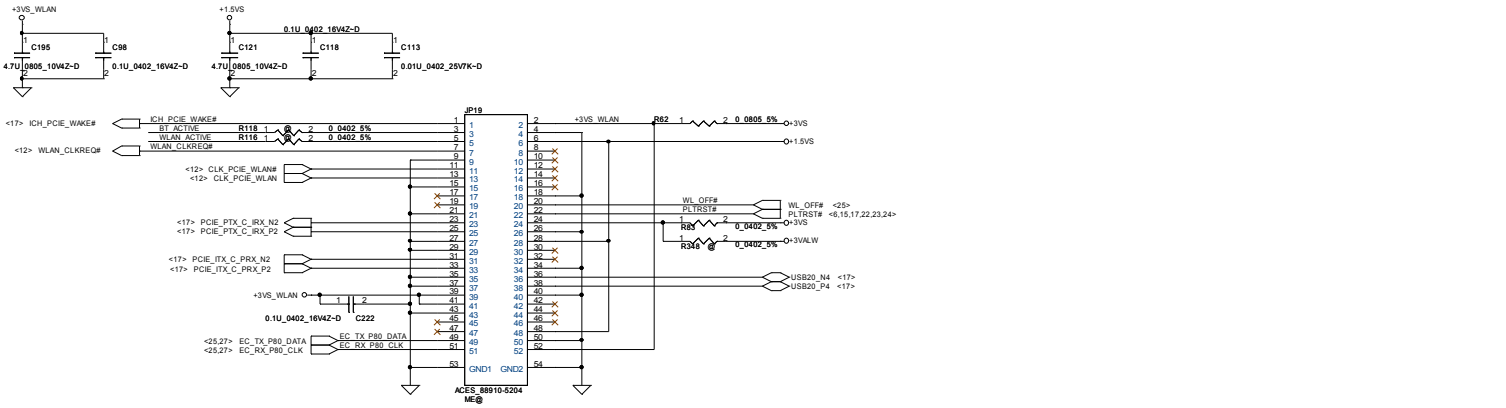
Compal Electronics, Inc.

Title: ICH7M(4/4)POWER/GND

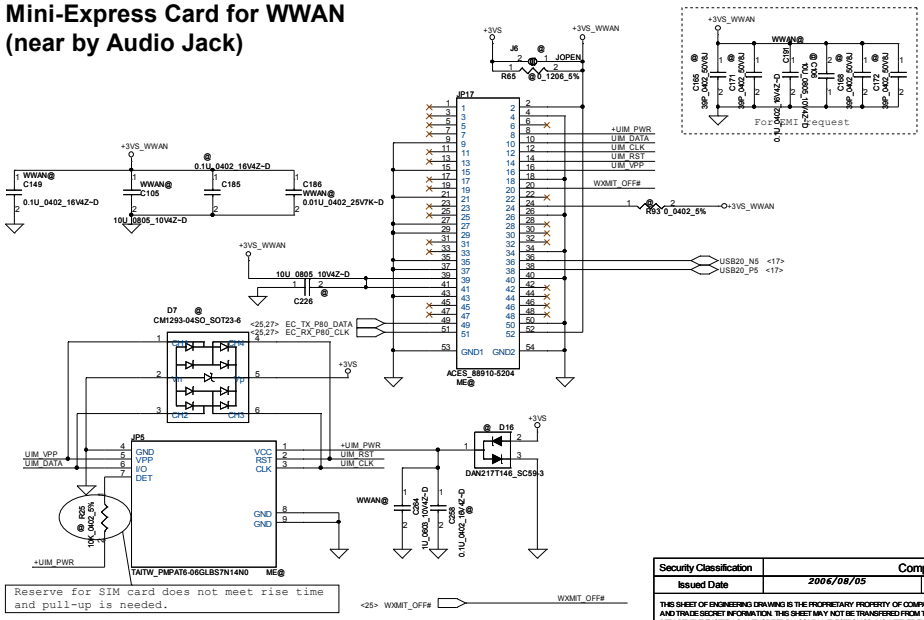
Size: Custom | Document Number: LA-4421P | Rev: 0.2

Date: Friday, August 08, 2008 | Sheet 18 of 40

## Mini-Express Card for WLAN(middle of M/B)

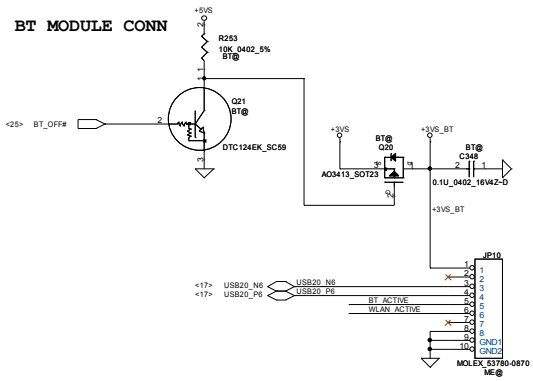



## Mini-Express Card for WWAN (near by Audio Jack)







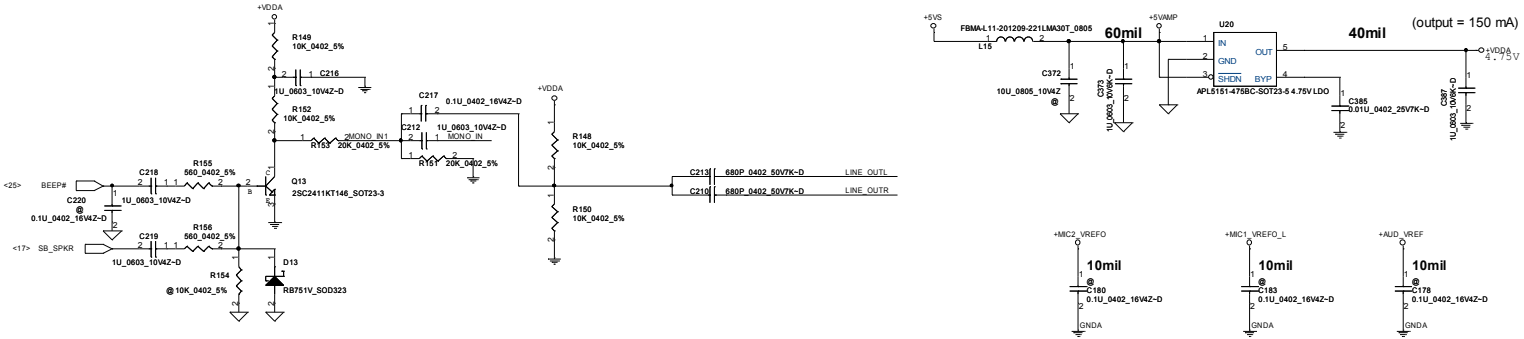



| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/05 | Deciphered Date | 2007/08/05 |

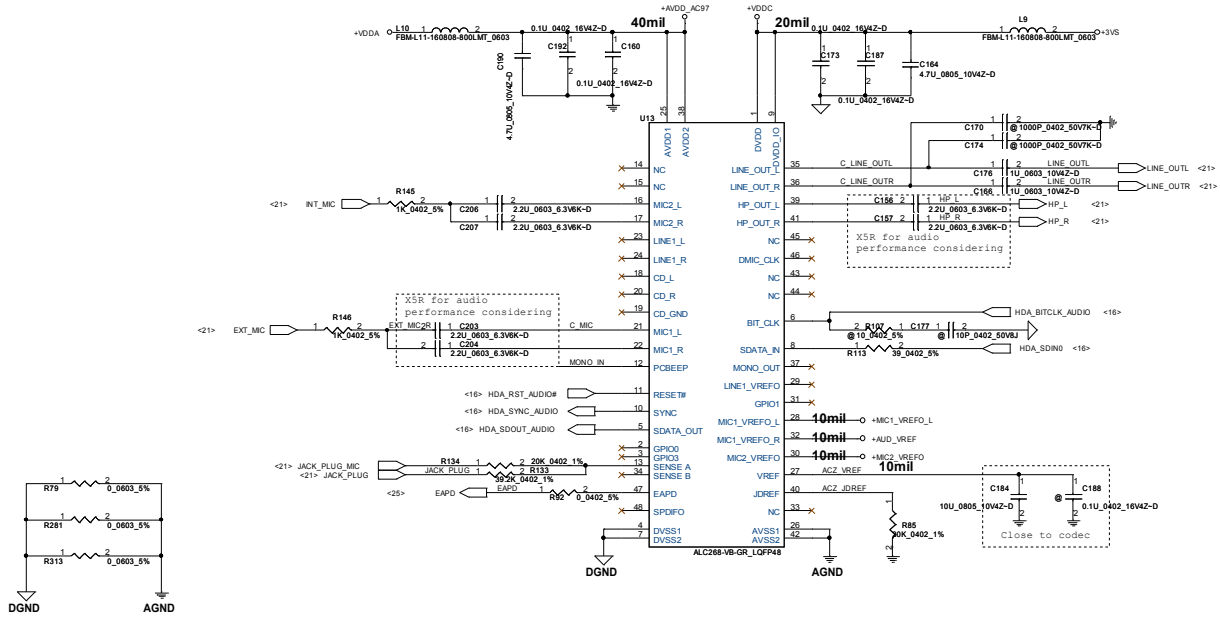


| | | | |
|---|---|---|---|
| Compal Electronics, Inc. | | | |
| Title | Mini-Card/BT CONN | | |
| Size | Document Number | | Rev |
| | LA-4421P | | 0.2 |
| Date: | Friday, August 08, 2008 | Sheet 19 of 40 | |

# AC97 Codec




# HD Audio Codec

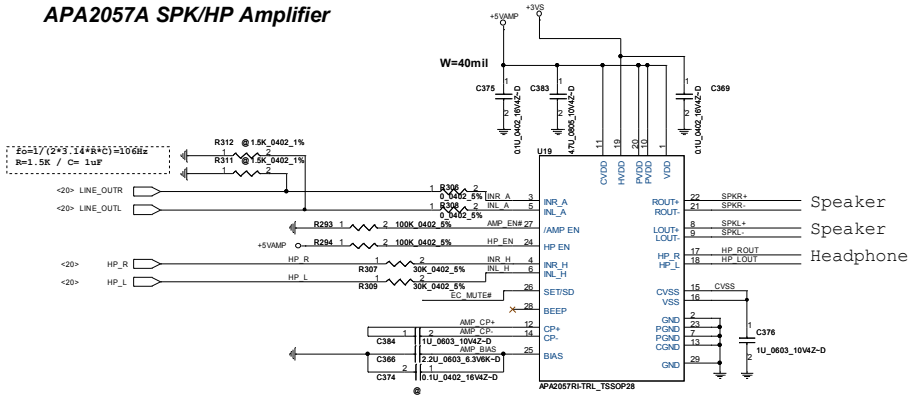



| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/04 | Deciphered Date | 2006/10/06 |

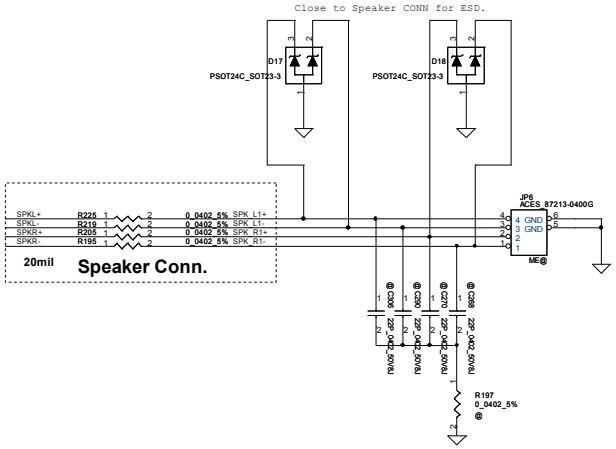


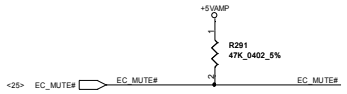
| | |
|---|---|
| Compal Electronics, Inc. | |
| Title | ALC268-VB-GR Codec |
| Size: Custom | Document Number: LA-4421P |
| Rev | 0.2 |
| Date: Friday, August 08, 2008 | Sheet 20 of 40 |

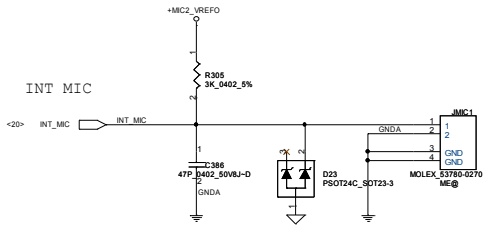
# APA2057A SPK/HP Amplifier



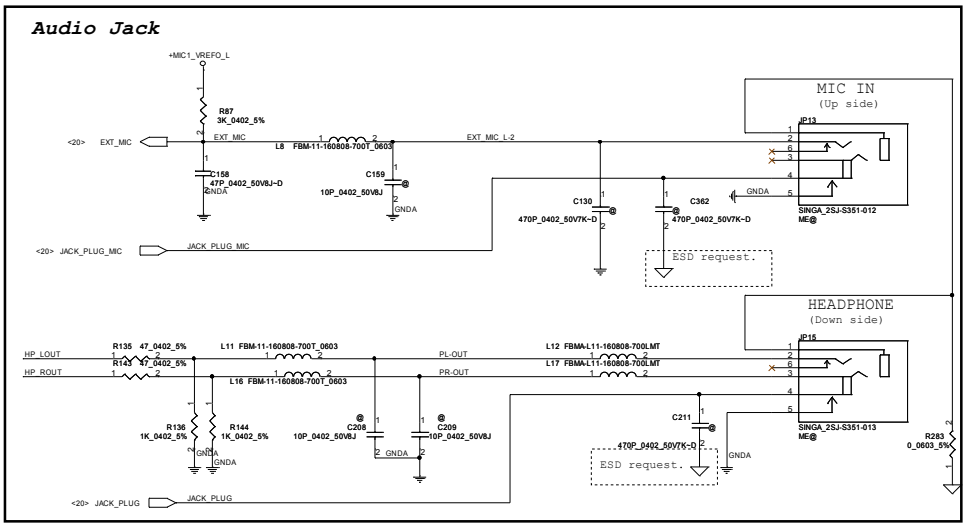

**IN_A Gain = 10dB (Internal Speaker)**
**IN_H Gain = 0dB (Headphone)**




## Audio Jack

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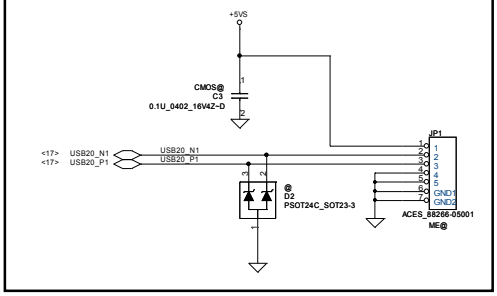
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/05 | Deciphered Date | 2007/08/05 |

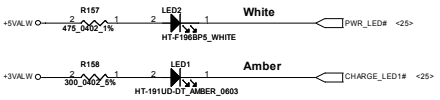


| | | | |
|---|---|---|---|
| Compal Electronics, Inc. | | | |
| Title | AMP/VR/Audio Jack/MIC | | |
| Size: Custom | Document Number: LA-4421P | | Rev: 0.2 |
| Date: Friday, August 08, 2008 | Sheet 21 of 40 | | |

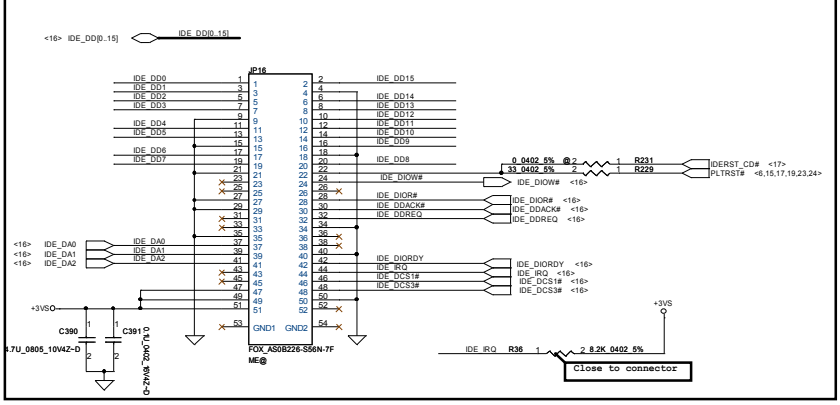
## CMOS Camera CONN




## LED



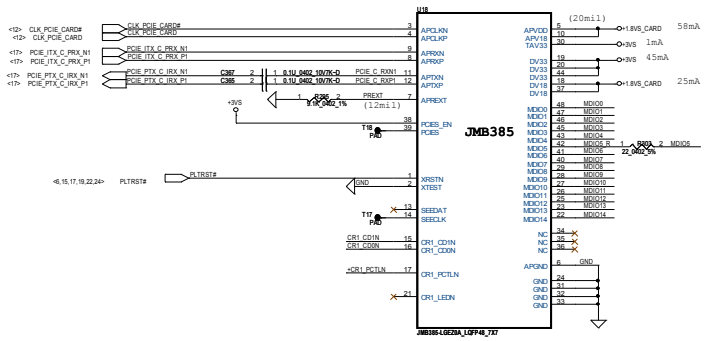

## SSD CONN (near by CRT)

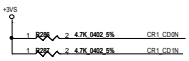



| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |



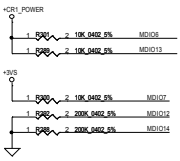
| | | | |
|---|---|---|---|
| Compal Electronics, Inc. | | | |
| Title | SSD,CMOS CONN\LED | | |
| Size B | Document Number LA-4421P | | Rev 0.2 |
| Date: Friday, August 08, 2008 | Sheet 22 of 40 | | |

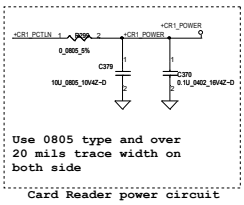



## JMB385 Operation Modes

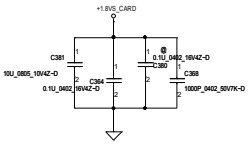
| | Normal |
|---|---|
| XTEST | 0 |
| CR1_CD0N | X |
| CR1_CD1N | X |

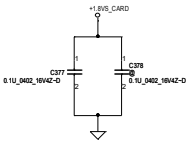


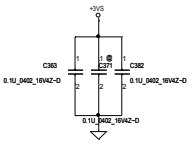




**Use 0805 type and over 20 mils trace width on both side**

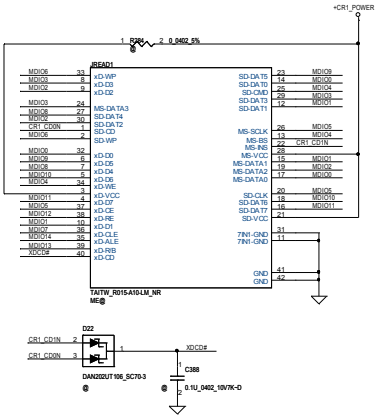
**Card Reader power circuit**




C377 place close to pin5 (Trace width/length: 20mil/ <120mil).




## SD,MMC,MS,XD muti-function pin define

| MDIO PIN Name | SD Card PIN Name | MMC Card PIN Name | MS Card PIN Name | XD Card PIN Name |
|---|---|---|---|---|
| MDIO00 | SD_DAT0 | MMC_DAT0 | MS_DAT0 | XD_DAT0 |
| MDIO01 | SD_DAT1 | MMC_DAT1 | MS_DAT1 | XD_DAT1 |
| MDIO02 | SD_DAT2 | MMC_DAT2 | MS_DAT2 | XD_DAT2 |
| MDIO03 | SD_DAT3 | MMC_DAT3 | MS_DAT3 | XD_DAT3 |
| MDIO04 | SD_CMD | MMC_CMD | MS_BS | XD_WE# |
| MDIO05 | SDCLK1 | MMCCLK | MSCCLK | XD_CE# |
| MDIO06 | SD_WP# | MMC_WP# | | XD_WP# |
| MDIO07 | | | | XD_CLE |
| MDIO08 | | MMC_DAT4 | MS_DAT4 | XD_DAT4 |
| MDIO09 | | MMC_DAT5 | MS_DAT5 | XD_DAT5 |
| MDIO10 | | MMC_DAT6 | MS_DAT6 | XD_DAT6 |
| MDIO11 | | MMC_DAT7 | MS_DAT7 | XD_DAT7 |
| MDIO12 | | | | XD_RE# |
| MDIO13 | | | | XD_R/B# |
| MDIO14 | | | | XD_ALE |

**Cardreader contactor not support MMC & MS Bit 4~7**

| Security Classification | Compal Secret Data | | |
|---|---|---|---|
| Issued Date | 2006/08/04 | Deciphered Date | 2006/10/06 |



**Compal Electronics, Inc.**

Title: Carder JMB385

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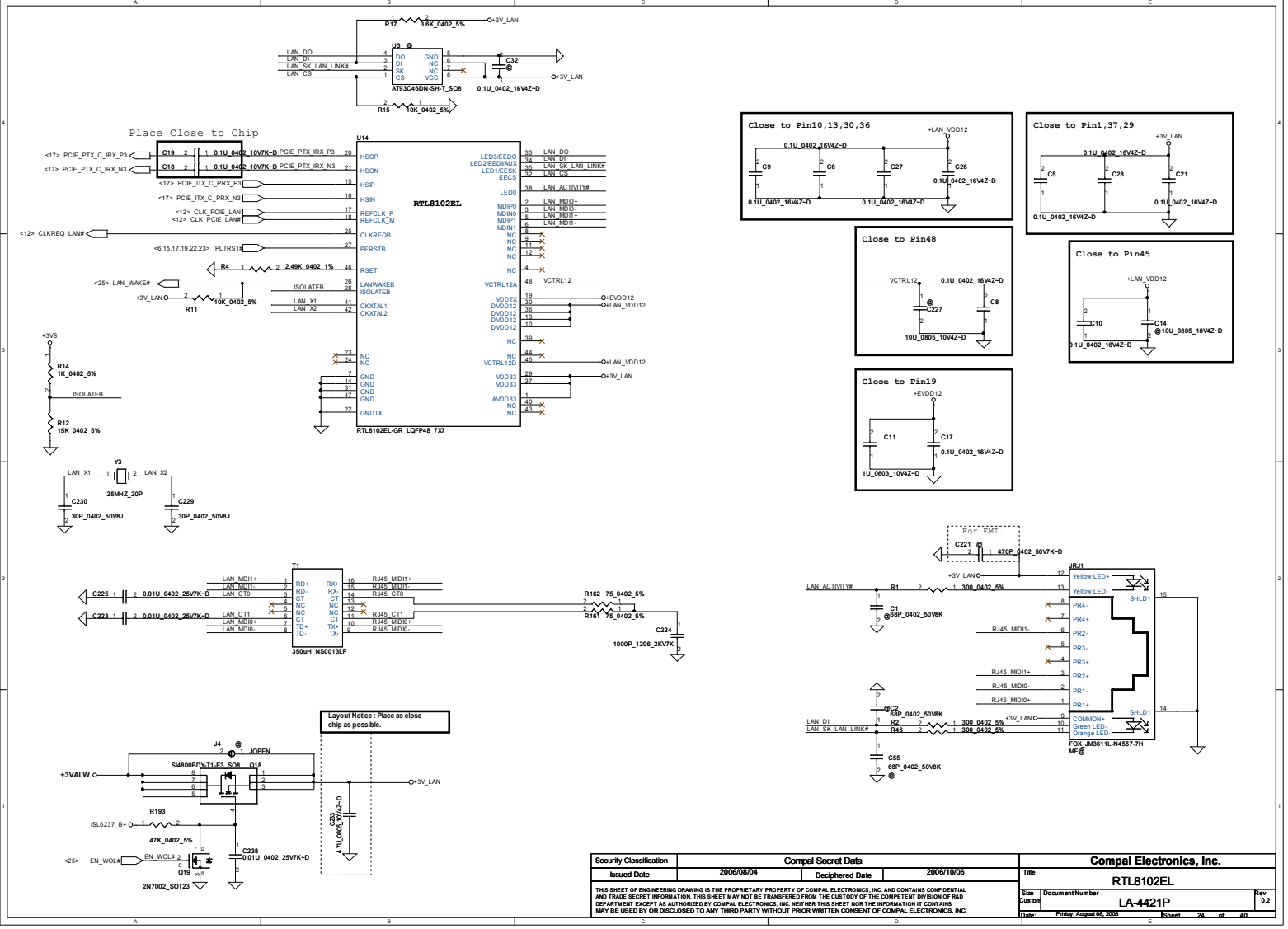
Date: Friday, August 08, 2008 | Sheet 23 of 40




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/04 | Deciphered Date | 2006/10/06 |

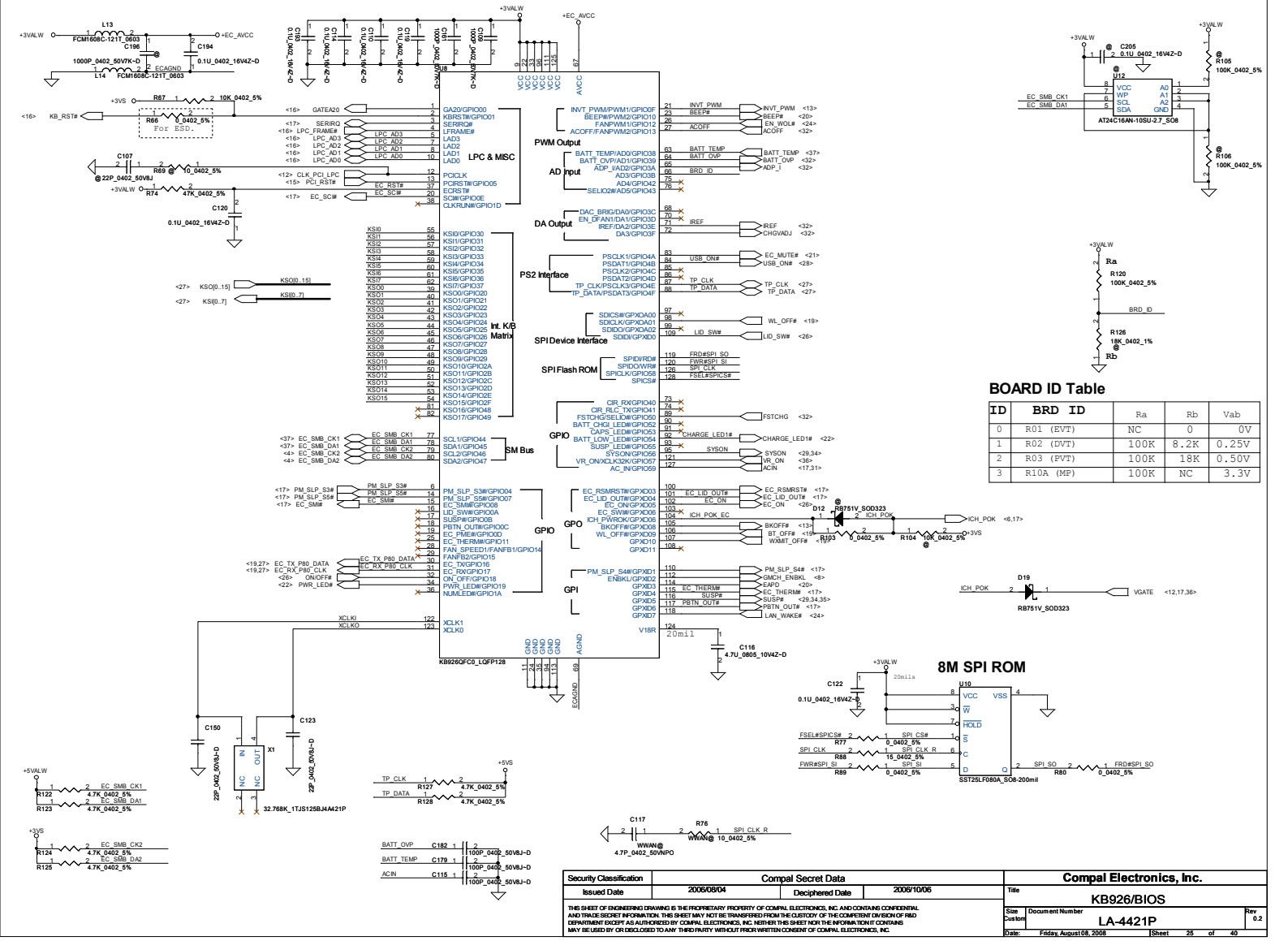


**Compal Electronics, Inc.**

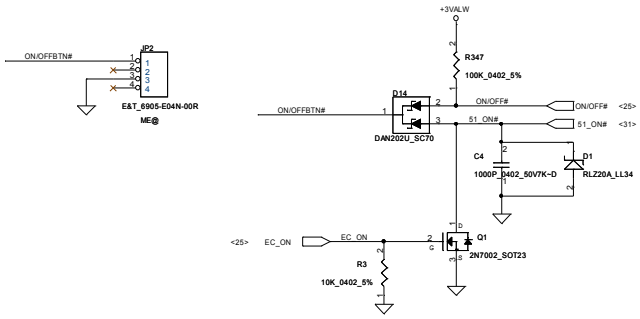
Title: RTL8102EL

| Size | Document Number | Rev |
|---|---|---|
| Custom | LA-4421P | 0.2 |

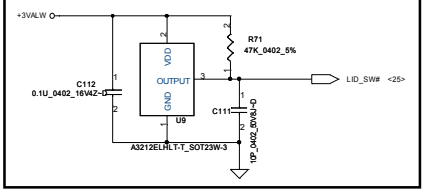
Date: Friday, August 08, 2008 | Sheet 24 of 40




| Security Classification | Compal Secret Data | | Compal Electronics, Inc. |
|---|---|---|---|
| Issued Date | 2006/08/04 | Deciphered Date 2006/10/06 | Title: KB926/BIOS |
| | | | Size: Custom; Document Number: LA-4421P; Rev: 0.2 |
| | | | Date: Friday, August 08, 2008; Sheet 25 of 40 |




## LID Switch




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |

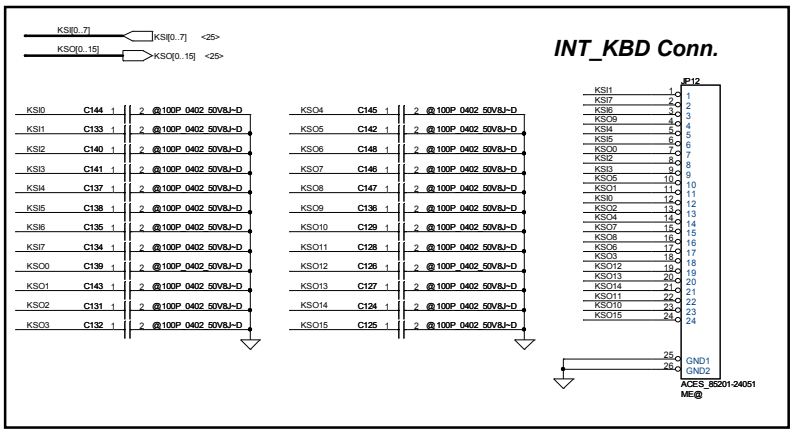


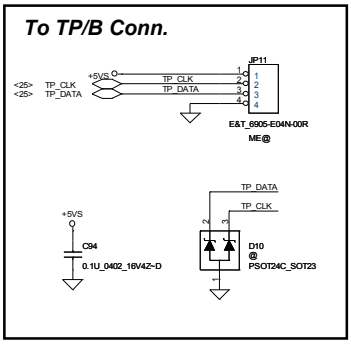
**Compal Electronics, Inc.**

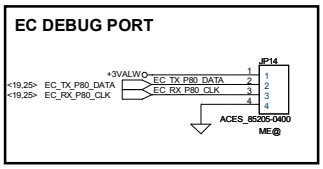
Title: LID SW

Size: B | Document Number: LA-4421P | Rev: 0.2

Date: Friday, August 08, 2008 | Sheet 26 of 40




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |



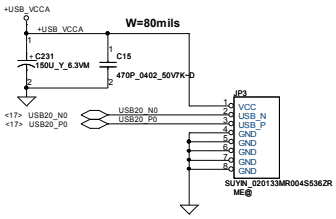
**Compal Electronics, Inc.**

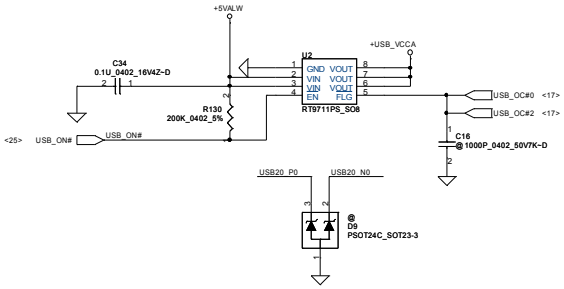
Title: KB/SW/TP/LPC Debug CONN

| Size | Document Number | Rev |
|---|---|---|
| B | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 Sheet 27 of 40

## USB CONN. 1

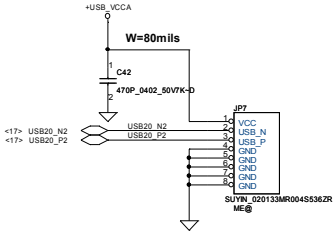


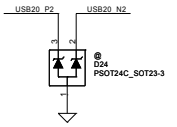



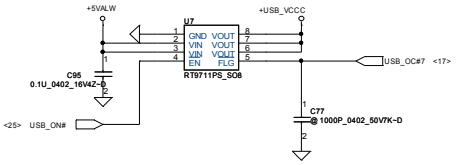




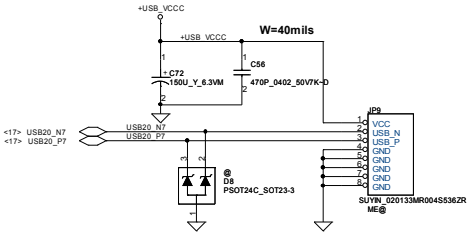
## USB CONN. 2




## USB CONN. 3

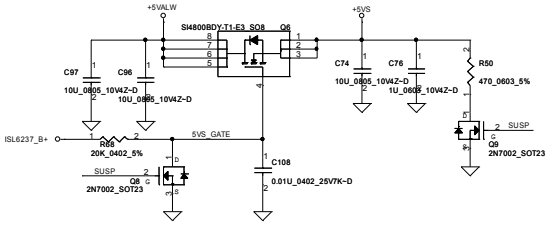



| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |

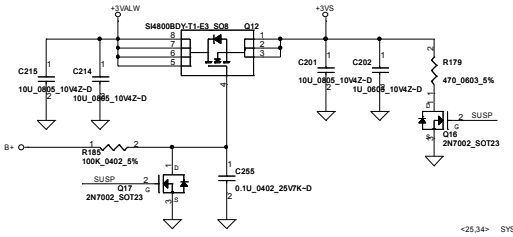


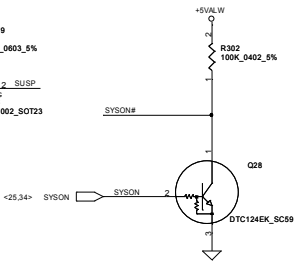
| | | | |
|---|---|---|---|
| Compal Electronics, Inc. | | | |
| Title | USB PORTS | | |
| Size B | Document Number LA-4421P | | Rev 0.2 |
| Date: Friday, August 08, 2008 | Sheet 28 of 40 | | |

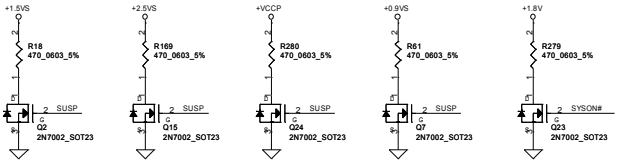
## +5VALW TO +5VS

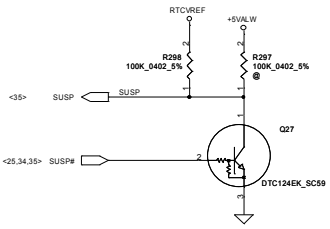



## +3VALW TO +3VS




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |



**Compal Electronics, Inc.**

Title: DC INTERFACE

| Size | Document Number | Rev |
|---|---|---|
| B | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 | Sheet 29 of 40


| Security Classification | Compal Secret Data | | |
|---|---|---|---|
| Issued Date | 2006/08/18 | Deciphered Date | 2007/8/18 |

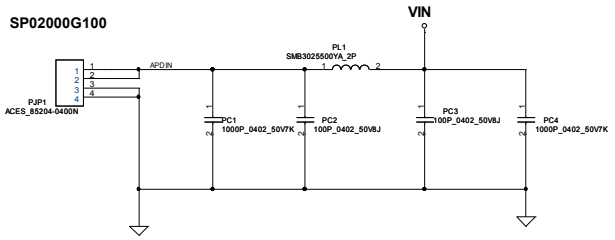


**Compal Electronics, Inc.**

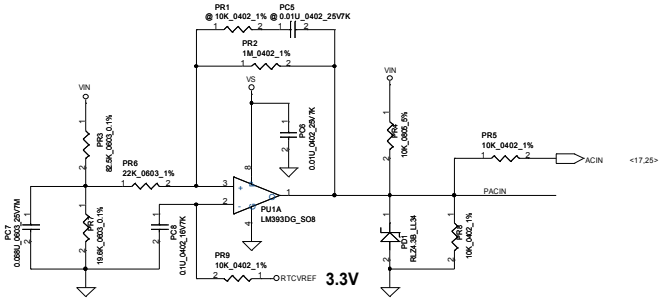
Title: Screw

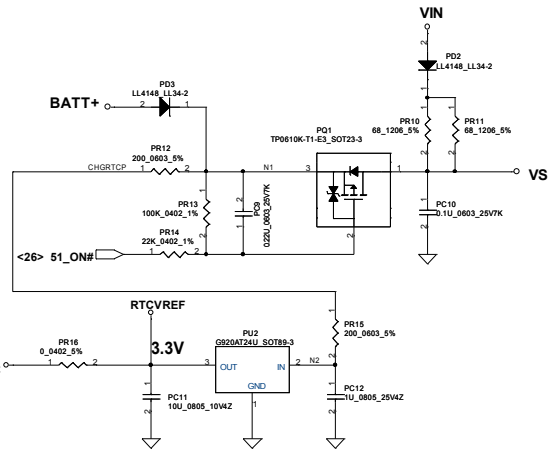
| Size | Document Number | Rev |
|---|---|---|
| B | LA-4421P | 0.2 |

Date: Friday, August 08, 2008 Sheet 30 of 40



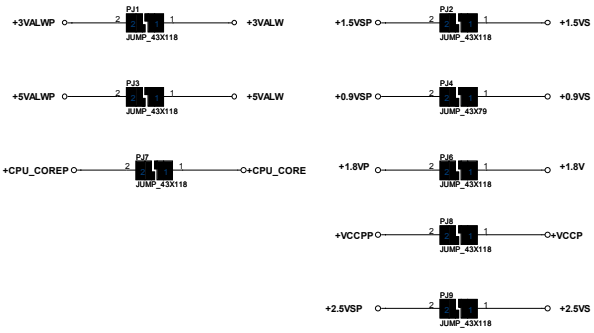

| Vin Detector | | | |
|---|---|---|---|
| High | 18.059 | 17.841 | 17.624 |
| Low | 17.418 | 17.210 | 16.998 |











SP02000D000

| Security Classification | Compal Secret Data | | |
|---|---|---|---|
| Issued Date | 2007/09/20 | Deciphered Date | 2008/09/20 |

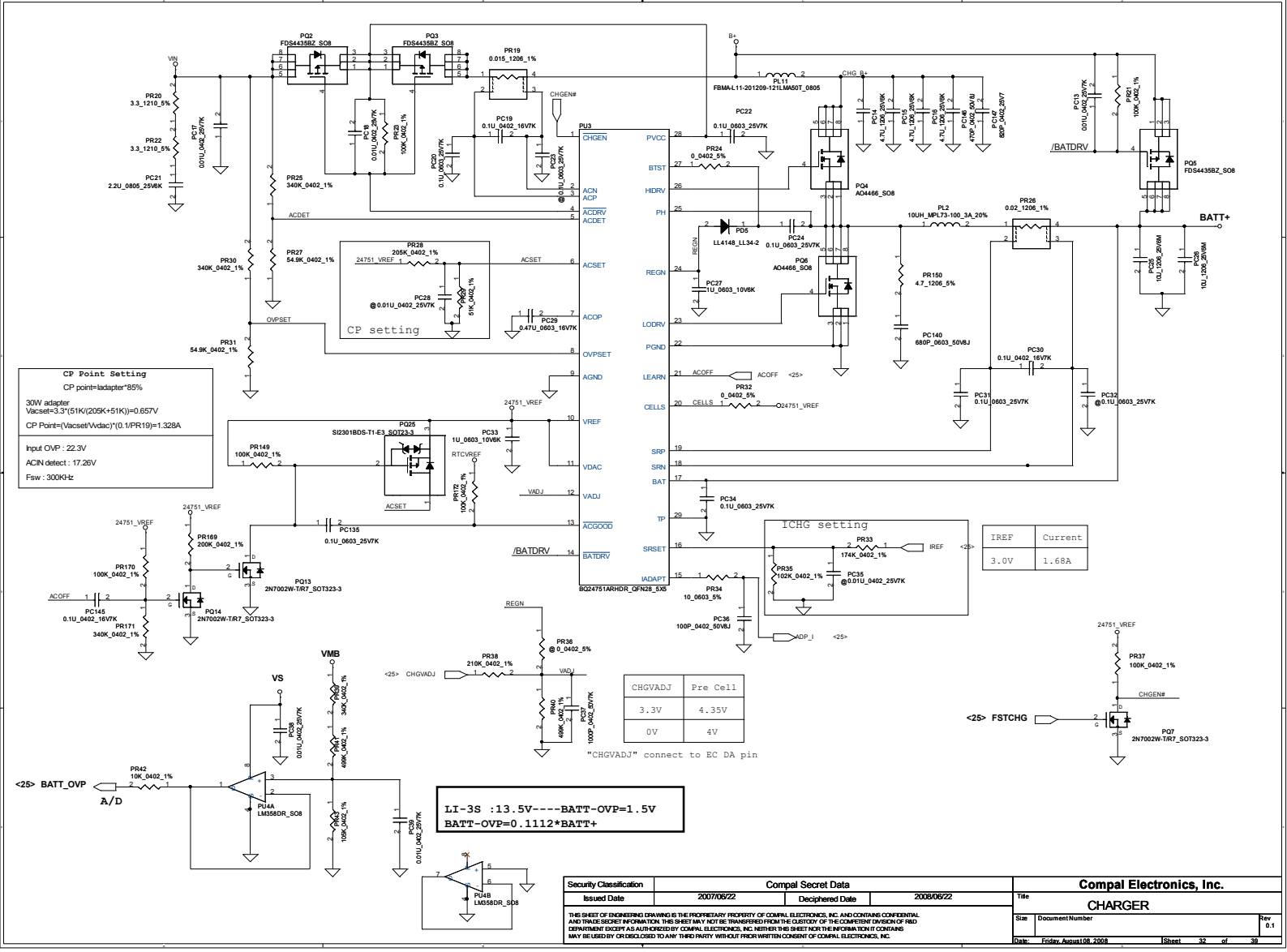


**Compal Electronics, Inc.**

Title: DCIN & DETECTOR

| Size | Document Number | Rev |
|---|---|---|
| Custom | | 0.1 |

Date: Friday, August 08, 2008 | Sheet 31 of 39




| | |
|---|---|
| Security Classification | Compal Secret Data |
| Issued Date | 2007/06/22 |
| Deciphered Date | 2008/06/22 |

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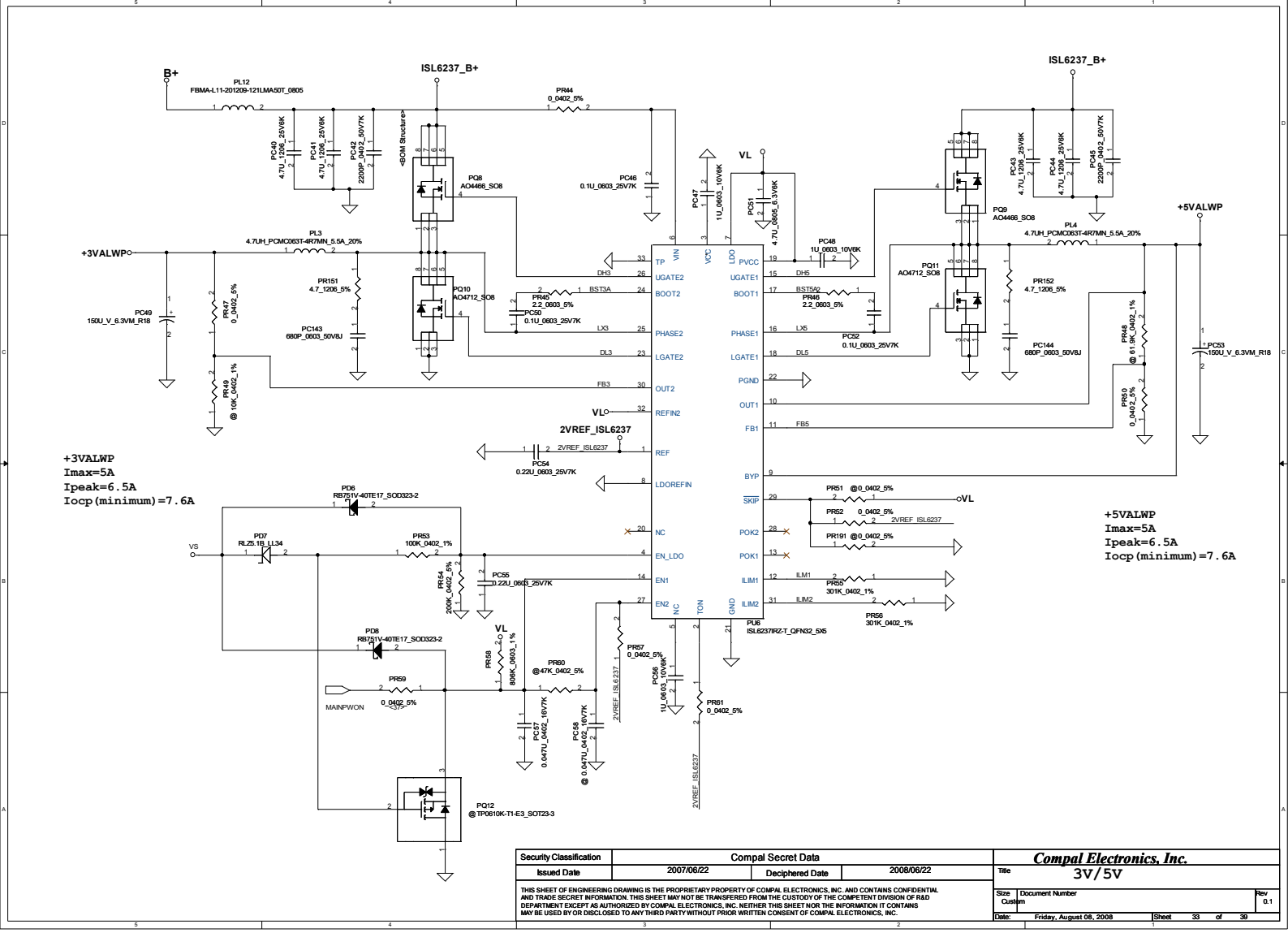
Title: CHARGER

Size | Document Number | Rev 0.1

Date: Friday, August 08, 2008 | Sheet 32 of 39




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | |
| Issued Date | 2007/06/22 | Deciphered Date | 2008/06/22 |

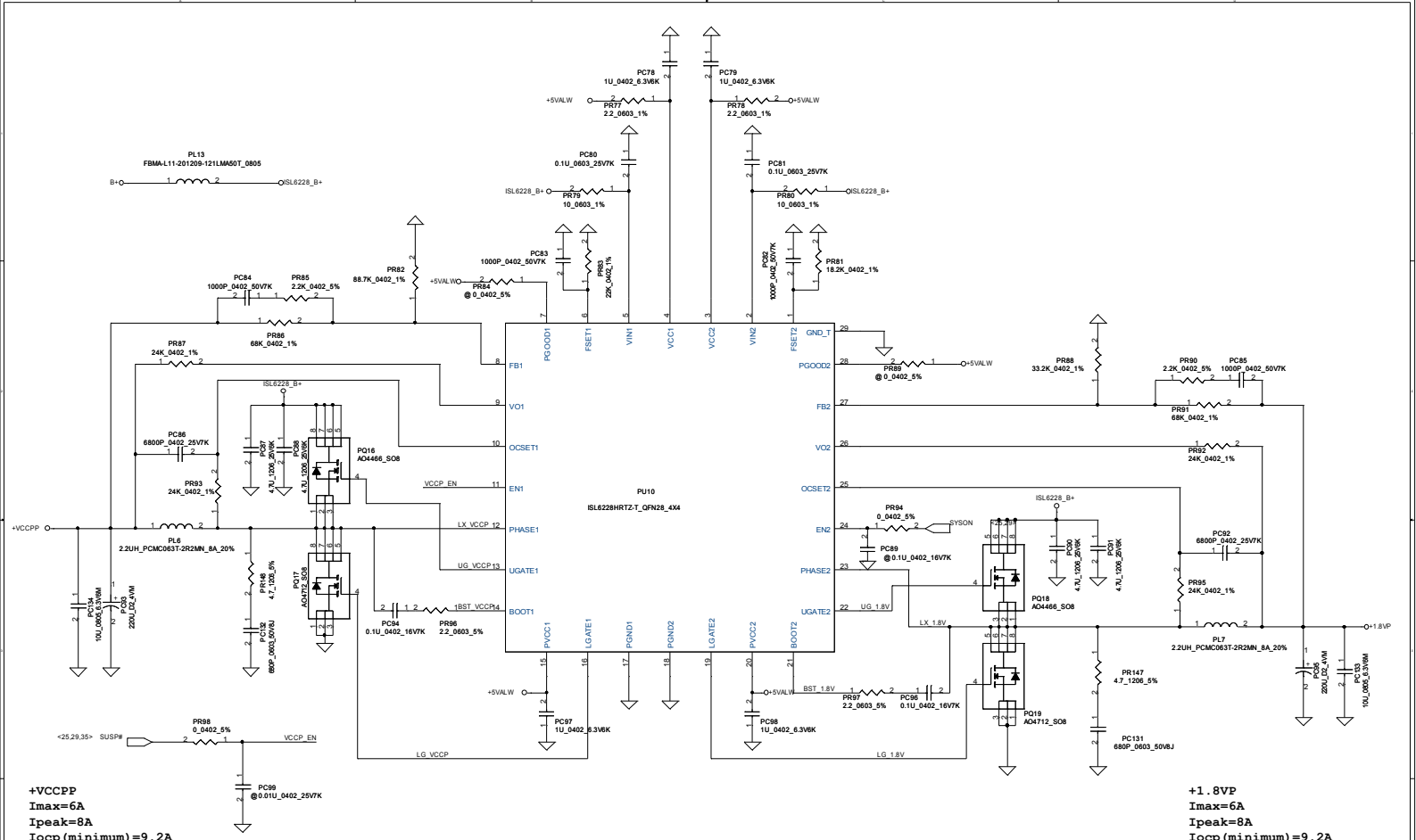


**Compal Electronics, Inc.**

Title: 3V/5V

| Size | Document Number | Rev |
|---|---|---|
| Custom | | 0.1 |

Date: Friday, August 08, 2008 Sheet 33 of 39




| | | | |
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| Security Classification | Compal Secret Data | | |
| Issued Date | 2007/06/22 | Deciphered Date | 2008/06/22 |



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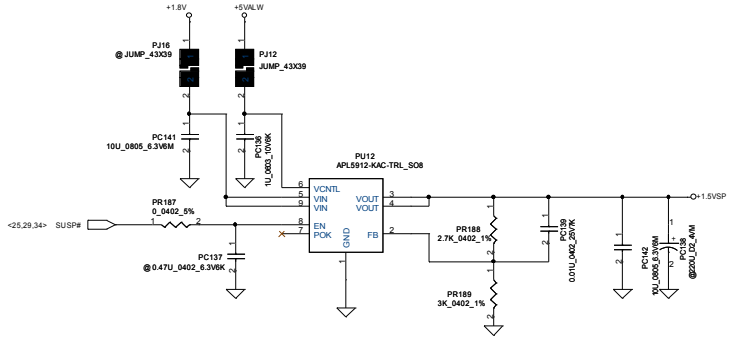
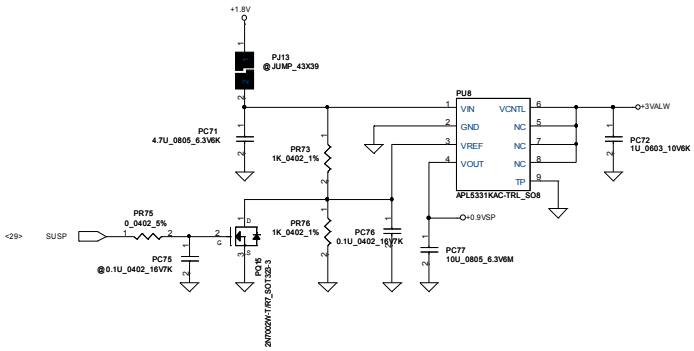
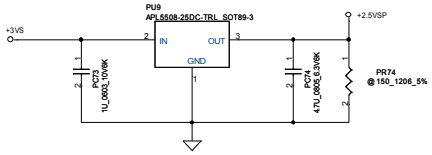
|---|---|
| Compal Electronics, Inc. | |
| Title | VCCP/1.8V |
| Size | Document Number |
| Rev | 0.1 |
| Date: Friday, August 08, 2008 | Sheet 34 of 38 |




| | | | |
|---|---|---|---|
| Security Classification | Compal Secret Data | | Compal Electronics, Inc. |
| Issued Date | 2007/6/22 | Deciphered Date | 2008/6/22 |
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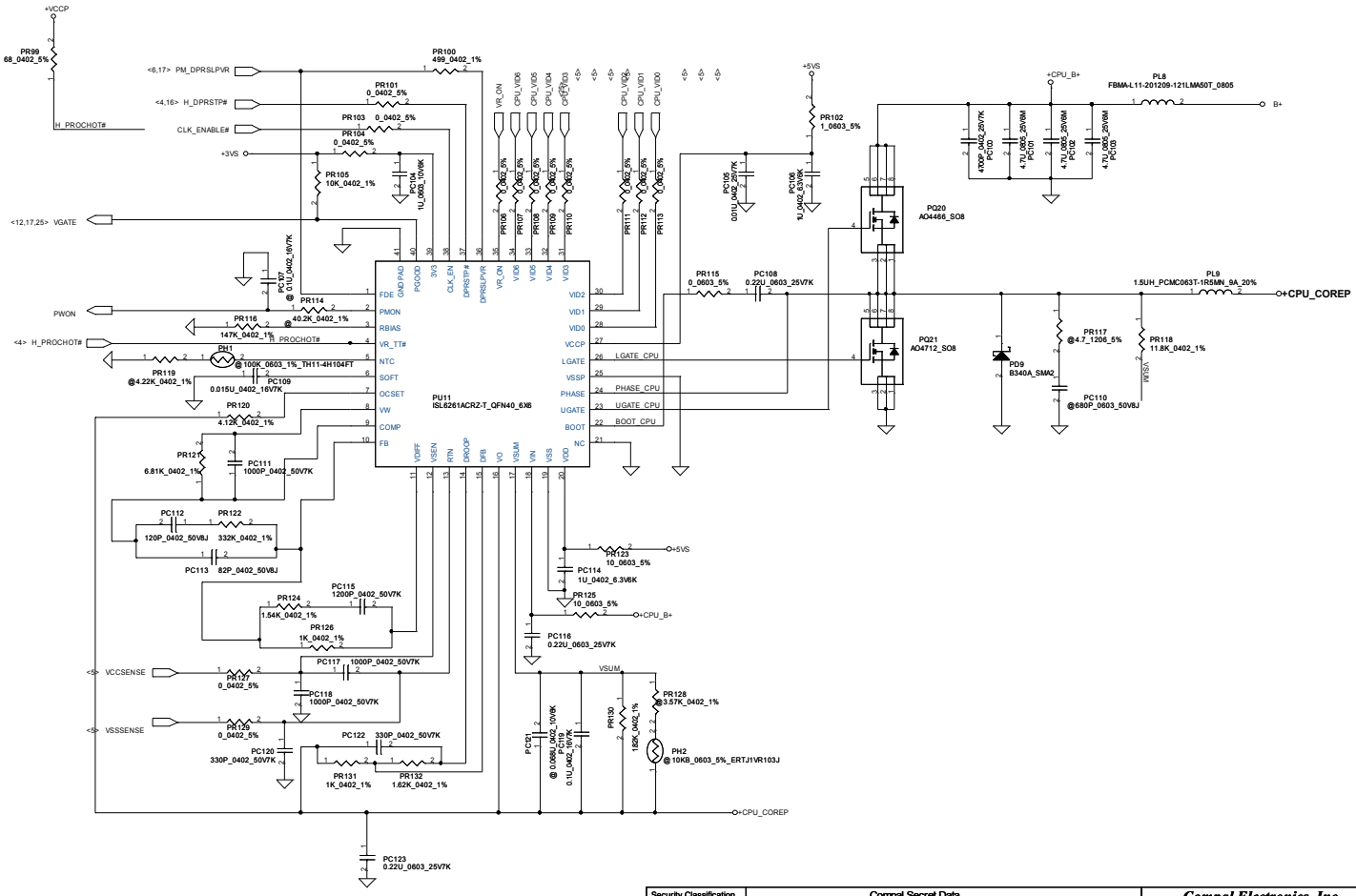
| | | | Size: Document Number: Rev: 0.1 |
| | | | Date: Friday, August 08, 2008 Sheet 35 of 39 |




| Security Classification | Compal Secret Data | | |
|---|---|---|---|
| Issued Date | 2005/06/23 | Deciphered Date | 2006/10/22 |



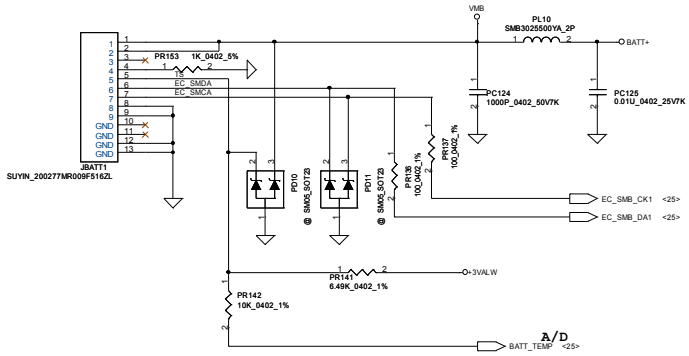
**Compal Electronics, Inc.**

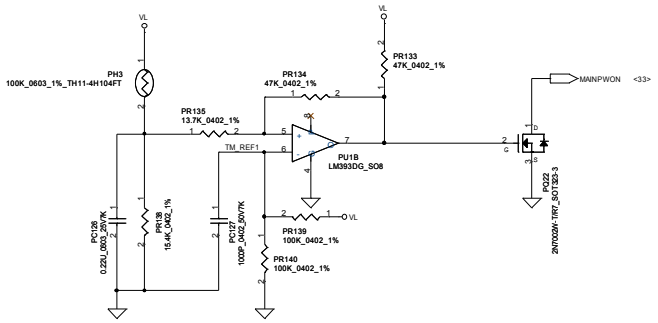
Title: +CPU_CORE

| Size | Document Number | Rev |
|---|---|---|
| Custom | | 0.1 |

Date: Friday, August 08, 2008 Sheet 36 of 39

**PH3 under CPU botten side :**
CPU thermal protection at 92 degree C
Recovery at 56 degree C

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| Security Classification | Compal Secret Data | | |
| Issued Date | 2007/6/22 | Deciphered Date | 2008/6/22 |



| | | | |
|---|---|---|---|
| Compal Electronics, Inc. | | | |
| Title | BATTERY CONN / OTP | | |
| Size | Document Number | | Rev 0.1 |
| Date: Friday, August 08, 2008 | | Sheet 37 of 38 | |

| Item | Fixed Issue | Rev. | PG# | Modify List |
|---|---|---|---|---|
| 1 | Deleted Kill switch circuit. | 0.2 | P26 | 1.Deleted R60,C85,SW2 |
| 2 | Changed to Dell PN. | 0.2 | -- | 1.Change C308,309,310,311,312,313,314,315,320,321,322,323,324,325,326,327,337,341 from SE000000K80(0402) to SE000000K8L(0402)<br>2.Change C46,47,298,299,300,301,302,303,304,328,334,335 from SE000005TM8(0603) to SE00000480L(0805)<br>3.Change C22,25,248,283 from SE1244748K0(0402) to SE027474Z8L(0603)<br>4.Change C108,255,238 from SE042104K80(0603) to SE068103K8L(0402)<br>5.Change C11,369,376,384 from SE100105Z80(0402) to SE052105Z8L(0603)<br>6.Change C44,52 from SE077106M80(1206) to SE053106Z8L(0805)<br>7.Change C373 from SE054106Z80(1206) to SE053106Z8L(0805)<br>8.Change C260,276,281,293,330 from SE107475K80(0603) to SE053475Z8L(0805)<br>9.Change C92 from SE064225K80(0805) to SE107225K8L(0603)<br>9.Change C54,286,288,318,319,329 from SE100105Z80(0402) to SE080105K8L(0603) |
| 3 | Use LAN internal EEPROM and CLKREQ | 0.2 | P24 | Unstuff U3 C32 R173 stuff R170 R111 |
| 4 | LCD squence | 0.2 | P13 | Change R35,39 to 47K ohm and C45 to 0.1u |
| 5 | Changed to Dell PN. | 0.2 | P28 | U2,7 change from SA00001H600(Dell not approve) to SA000017B00 part |
| 6 | Add C390 and 391 for SSD | 0.2 | P22 | Add C390 and 391 and udstuff C59 for SSD |
| 7 | Follow LAN report | 0.2 | P24 | Short C222,226, C229,230 change from 27p to 30p |
| 8 | Follow checklist | 0.2 | P10 | Delete C280 |
| 9 | Changed to Dell PN. | 0.2 | P6 | Change R167,180 to SD00000680L |
| 10 | Follow power squence | 0.2 | -- | Unstuff D11 D15 R168 SW1 |
| 11 | Change symbol | 0.2 | P11 | Update DIMM termination to 8P4R |
| 12 | Remove LED function | 0.2 | -- | Delete Q25,26,11,22,LED3,R159,JP4 Change LED2 to white |
| 13 | EC code for B phase | 0.2 | P25 | R126 change 0ohm to 8.2k ohm and stuff R120 |
| 14 | For derating report | 0.2 | P20 | Change R148,149,150,152 to 10k ohm |
| 15 | EA test | 0.2 | P25 | C123,150 change from 15p to 22p |
| 16 | EA test | 0.2 | P23 | Change R295 to 9.1k ohm |
| 17 | EA test | 0.2 | P14 | GMCH_CRT_VSYNC and GMCH_CRT_HSYNC add R282,296 39ohm |
| 18 | single part | 0.2 | P24 | R193 change to 47k ohm |
| 19 | SPEC change | 0.2 | P19 | Change BT pin define |
| 20 | improve power consumption | 0.2 | P29 | Change R298 to 100K |
| 21 | | 0.2 | P25 | Unstuff C194 |
| 22 | ME change | 0.2 | P13 | Change LVDS connect to 20pin |
| 23 | Dell request | 0.2 | | Change M/B to OSP |
| 24 | | 0.2 | P22 | Delete LPC debug connect (JP20,R102,296) |
| 25 | | 0.2 | P13 | Add C85 for +LEDVDD, Delete R46,C55 |
| 26 | | 0.2 | P21 | Delete L21,C383 change to 4.7u,unstuffy C374,R291 change to 47k ohm |
| 27 | | 0.2 | P20 | Change U20 to Anpec and Delete R304,310 change C373,387 to 1u Delete L18,unstuff C372,Change C369 to 0.1u |
| 28 | Change EC susp# to 116 pin PBTN_out# to 117 pin LID_SW# to 109 pin EC_PME# to 118 pin | | | Change EC_Therm# 25 to 115 pin BT_OFF# 98 to 106 pin WL_OFF# 106 to 98 pin |
| 29 | | | | Delete R290,285 |
| 30 | DFX request | 0.3 | P21 | Change JP13,15 PCB footprint from SINGA_25J-S351-012_6P to FOX_JA6333L-B3S0-7F_6P |
| 31 | EC code for C phase | 0.3 | P25 | R126 change 18Kohm |
| 32 | ENE request | 0.3 | P25 | C116 change to 1u |
| 33 | | 0.3 | | Delete R215, Change netname +RTCVCC to +RTCBATT ,Add J6 D19, C191 with C185 switch, |
| 34 | EMI request | 0.3 | | Add C389 |
| 35 | LAN LED | 0.3 | | Add R46 and C55 LAN LED add orange |
| 36 | ENE request | 1.0 | P25 | C116 change to 4.7u |
| 37 | | 1.0 | | Delete J1,J3,SW1,JP18 |
| 38 | | 1.0 | | C127 change to 1000p |

## *Version change list (P.I.R. List)*



| Item | Fixed Issue | Reason for change | Rev. | PG# | Modify List | Date | Phase |
|---|---|---|---|---|---|---|---|
| 1 | Cahnge RTC battery to CR2032. | To meet customer specification (3 years). | R.02 | 31 | Add PD12 (RB751) and PR190 (1K). | 20080428 | DVT |
| 2 | Adjust Vin detector setting. | Change Vin "High==>Low" voltage from 14.355V to 17.210V. | R.02 | 31 | Change PR6 to 22K and PR7 to 19.6K. | 20080428 | DVT |
| 3 | Adjust VCCP OCP setting. | Change VCCP OCP to 9A. | R.02 | 34 | Cahnge PR87 and PR93 to 24K and PC86 to 6800P. | 20080428 | DVT |
| 4 | Adjust 1.8V output voltage. | Change 1.8V power rail voltage from 1.8V to 1.828V. | R.02 | 34 | Change PR88 from 34K to 33.2K. | 20080428 | DVT |
| 5 | Change Vin and battery discharge MOSFET. | Due to SI4835BDY will EOL, so, we change to Compal standard 2nd source, FDS4435BZ. | R.02 | 32 | Change PQ2, PQ3 and PQ5 from SI4835BDY to FDS4435BZ. | 20080428 | DVT |
| 6 | Change battery connector. | The new battery connector has screw hole. | R.02 | 32 | Change battery connector. | 20080430 | DVT |
| 7 | Power board-band. | EMI requests to add soltion to reduce power board-band. | R.02 | 32<br>33<br>34 | Change PJ10,PJ11 and PJ14 from Jump to bead.<br>Change PR45,PR46,PR96 and PR97 from 0 ohm to 2.2 ohm.<br>Add PR151,PR152,PC143,PC144,PR147,PR148,PC131,PC132,PC146,PC147, PR150 AND PC140. | 20080506 | DVT |
| 8 | Modify CPU CORE OCP. | Change CPU CORE OCP from 10A to 7A. | R.02 | 36 | Change PR120 from 5.9K to 4.12K. | 20080514 | DVT |
| 9 | Remove PR16 and PR17. | Change RTC battery, so, remove PR17 and PR16. | R.03 | 31 | Delete PR17 and change PR16 to 0 Ohm. | 20080605 | PVT |
| 10 | | | | | | | |
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**Compal Electronics, Inc.**

Title: PIR (PWR)

| Size | Document Number | Rev |
|---|---|---|
| Custom | <Doc> | 0.1 |

Date: Friday, August 08, 2008 Sheet 39 of 39

# *Version change list (P.I.R. List)*



| Item | Fixed Issue | Rev. | PG# | Modify List |
|---|---|---|---|---|
| 1 | Deleted Kill switch circuit. | 0.2 | P26 | 1.Deleted R60,C85,SW2 |
| 2 | Changed to Dell PN. | 0.2 | -- | 1.Change C308,309,310,311,312,313,314,315,320,321,322,323,324,325,326,327,337,341 from SE000000K80(0402) to SE000000K8L(0402)<br>2.Change C46,47,298,299,300,301,302,303,304,328,334,335 from SE000005TM8(0603) to SE00000480L(0805)<br>3.Change C22,25,248,283 from SE1244748K0(0402) to SE027474Z8L(0603)<br>4.Change C108,255,238 from SE042104K80(0603) to SE068103K8L(0402)<br>5.Change C11,369,376,384 from SE100105Z80(0402) to SE052105Z8L(0603)<br>6.Change C44,52 from SE077106M80(1206) to SE053106Z8L(0805)<br>7.Change C373 from SE054106Z80(1206) to SE053106Z8L(0805)<br>8.Change C260,276,281,293,330 from SE107475K80(0603) to SE053475Z8L(0805)<br>9.Change C92 from SE064225K80(0805) to SE107225K8L(0603)<br>9.Change C54,286,288,318,319,329 from SE100105Z80(0402) to SE080105K8L(0603) |
| 3 | Use LAN internal EEPROM and CLKREQ | 0.2 | P24 | Unstuff U3 C32 R173 stuff R170 R111 |
| 4 | LCD squence | 0.2 | P13 | Change R35,39 to 47K ohm and C45 to 0.1u |
| 5 | LVDS connect | 0.2 | P13 | LVDS connector change to 20 pins |
| 6 | Changed to Dell PN. | 0.2 | P28 | U2,7 change from SA00001H600(Dell not approve) to SA000017B00 part |
| 7 | EA test | 0.2 | P23 | Change R295 to 9.1k ohm |
| 8 | Follow LAN report | 0.2 | P24 | Short C222,226, C229,230 change from 27p to 30p |
| 9 | Delete A -phase reserve | 0.2 | P20 | Delete L18, |
| 10 | Changed to Dell PN. | 0.2 | P6 | Change R167,180 to SD00000680L |
| 11<br>12 | | 0.2 | | Change M/B to OSP |
| 13 | Remove LED function | 0.2 | -- | Delete Q25,26,11,22,LED3,R159 Change LED2 to white |
| 14 | EC code for B phase | 0.2 | P25 | R126 change 0ohm to 8.2k ohm and stuff R120 |
| 15 | For derating report | 0.2 | P20 | Change R148,149,150,152 to 10k ohm |
| 16 | EA test | 0.2 | P25 | C123,150 change from 15p to 22p |
| 17 | | 0.2 | P13 | Add C85 for +LEDVDD |
| 18 | | 0.2 | P22 | Delete LPC debug connect (JP20,R102,296) |
| 19 | ENE | 0.2 | P25 | change SUSP# to U8.116 due to KB926 C0 bug |
| 20 | SSD | 0.2 | P22 | add C390&C391 for Dell consign SSD |
| 21 | LED | 0.2 | P22 | add white LED |
| 22 | | 0.2 | | |
| 23 | | 0.2 | | |
| 24 | | | | |



**Compal Electronics, Inc.**

Title: HW PIR

Size | Document Number: LA-4421P | Rev

Date: Friday, August 08, 2008 | Sheet 40 of 40