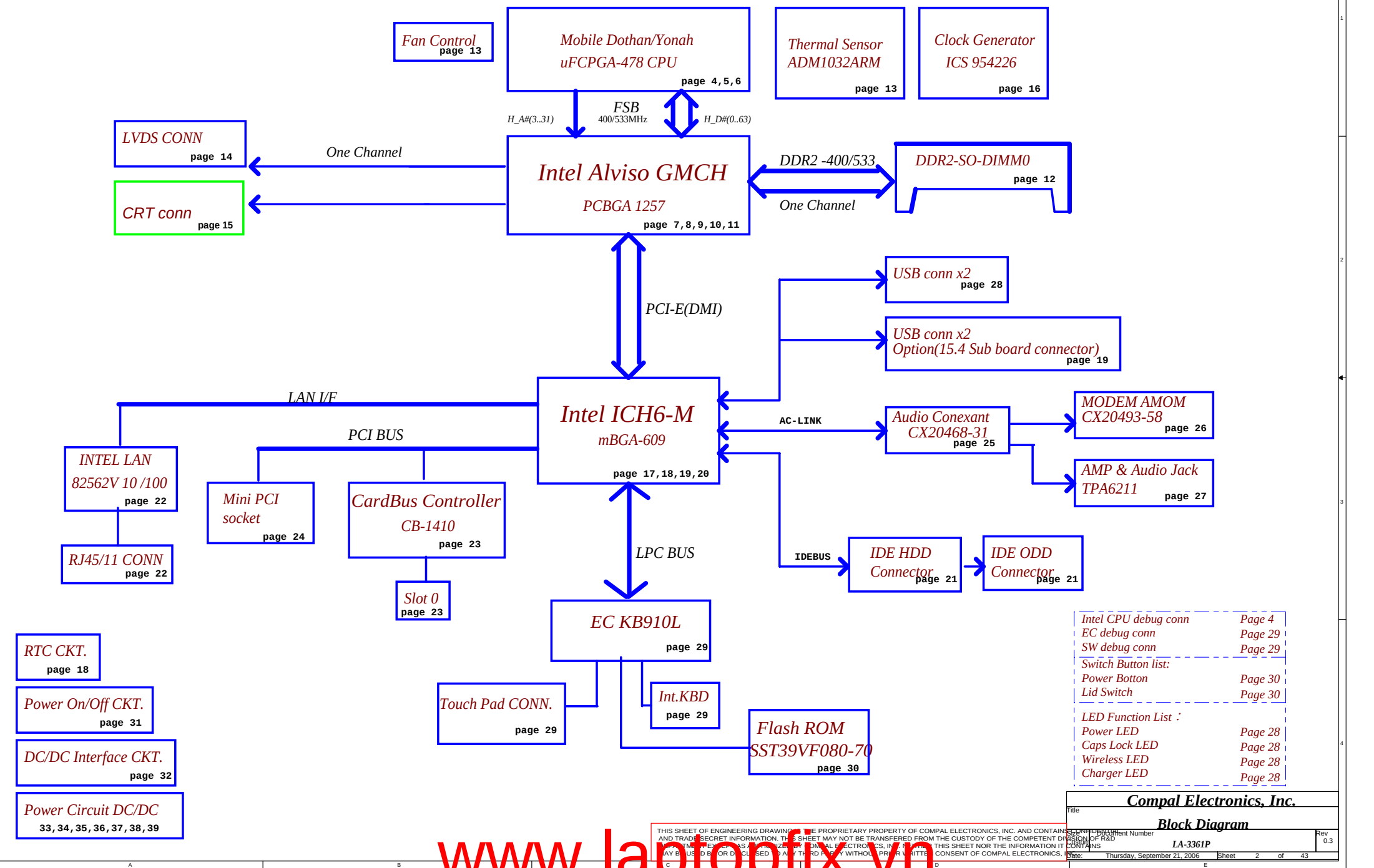


# Compal confidential

## Schematics Document Mobile Dothan uFCPGA with Intel Alviso\_GM+ICH6-M core logic

2006-09-15

REV:1.0



I2C / SMBUS ADDRESSING

External PCI Devices

| DEVICE                 | IDSEL # | REQ/GNT # | PIRQ |
|------------------------|---------|-----------|------|
| CARD BUS               | AD22    | 2         | C    |
| Wireless LAN(MINI PCI) | AD20    | 0         | E, F |

Power Managment table

| Signal<br>State      | +3VALW<br>+5VALW | +1.8V | +CPU CORE<br>+VCCP(1.05v)<br>+5VS<br>+3VS<br>+2.5VS<br>+1.5VS<br>+1.8VS<br>+0.9VS |
|----------------------|------------------|-------|-----------------------------------------------------------------------------------|
| S0                   | ON               | ON    | ON                                                                                |
| S1                   | ON               | ON    | ON                                                                                |
| S3                   | ON               | ON    | OFF                                                                               |
| S5 S4/AC             | ON               | OFF   | OFF                                                                               |
| S5 S4/AC don't exist | OFF              | OFF   | OFF                                                                               |

SMBUS Control Table

|                           | SOURCE          | INVERTER | BATT | SERIAL<br>EEPROM | THERMAL<br>SENSOR<br>(CPU)<br>ADM1032 | SODIMM | CLK CHIP | MINI PCI | LCD |
|---------------------------|-----------------|----------|------|------------------|---------------------------------------|--------|----------|----------|-----|
| SMB_EC_CK1<br>SMB_EC_DA1  | KB910L          | ×        | ✓    | ×                | ×                                     | ×      | ×        | ×        | ×   |
| SMB_EC_CK2<br>SMB_EC_DA2  | KB910L          | ×        | ×    | ×                | ✓                                     | ×      | ×        | ×        | ×   |
| ICH_SMBCLK<br>ICH_SMBDATA | ICH6-M          | ×        | ×    | ×                | ×                                     | ✓      | ✓        | ×        | ×   |
| LCD_DDCCLK<br>LCD_DDCDATA | Alviso<br>GM-GP | ×        | ×    | ×                | ×                                     | ×      | ×        | ×        | ✓   |
| I2CC_SCL<br>I2CC_SDA      | NV44M           | ×        | ×    | ×                | ×                                     | ×      | ×        | ×        | ✓   |

Alviso 915GM SA00000K040

Alviso 910GML SA00000K100

BOM

@ : not install

45@ : 45 level

14@ : 14"(IAT00) install

WLAN@ : with WLAN (mini PCI) install

AMOM@ : with AMOM install

BATT@ : 45 level

SPI@ : SPI ROM install

conn@ : ME part

IAT00 14"

46144232L01 915GM

46144232L02 910GML W/O WLAN

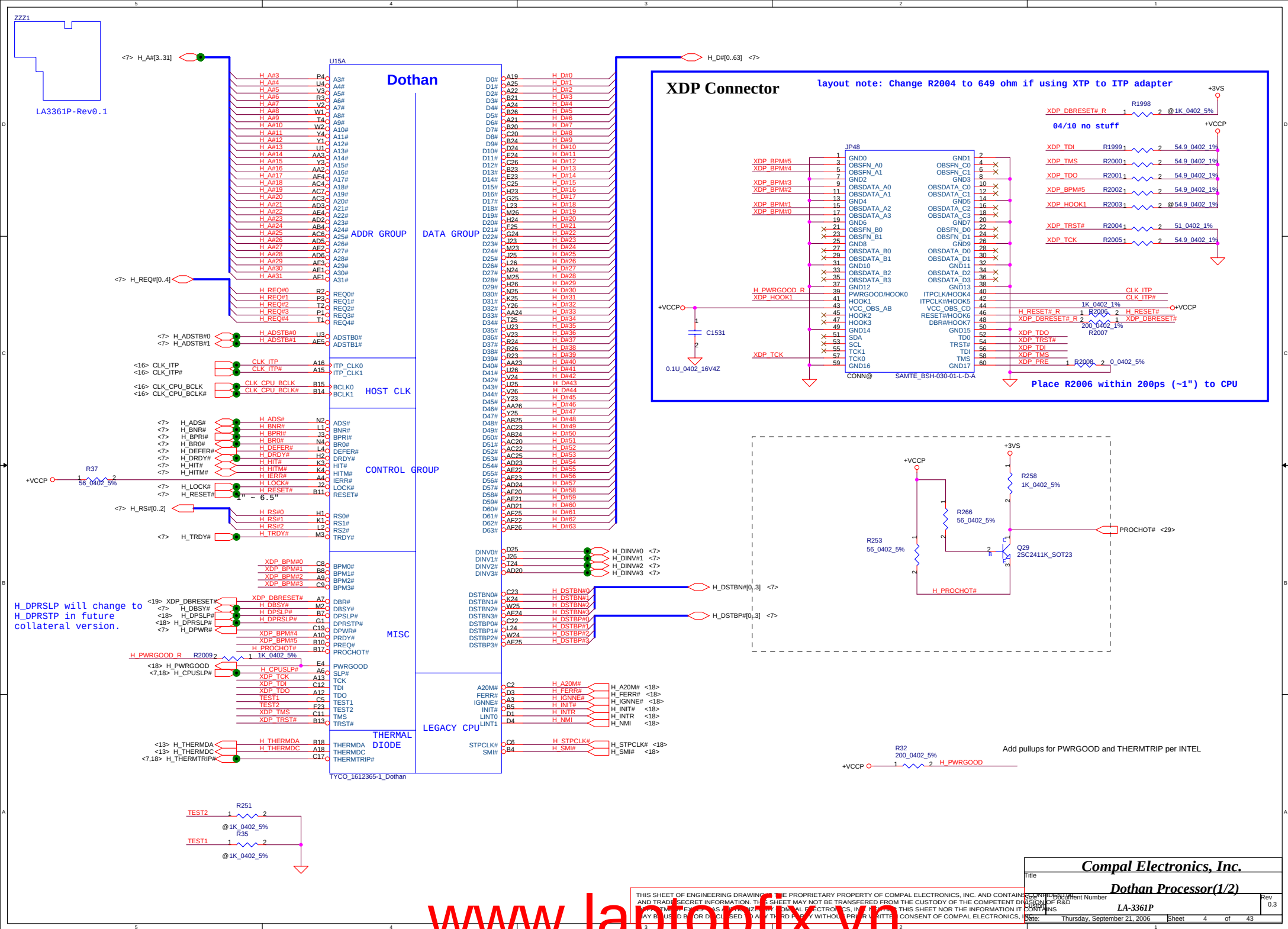
46144232L03 910GML

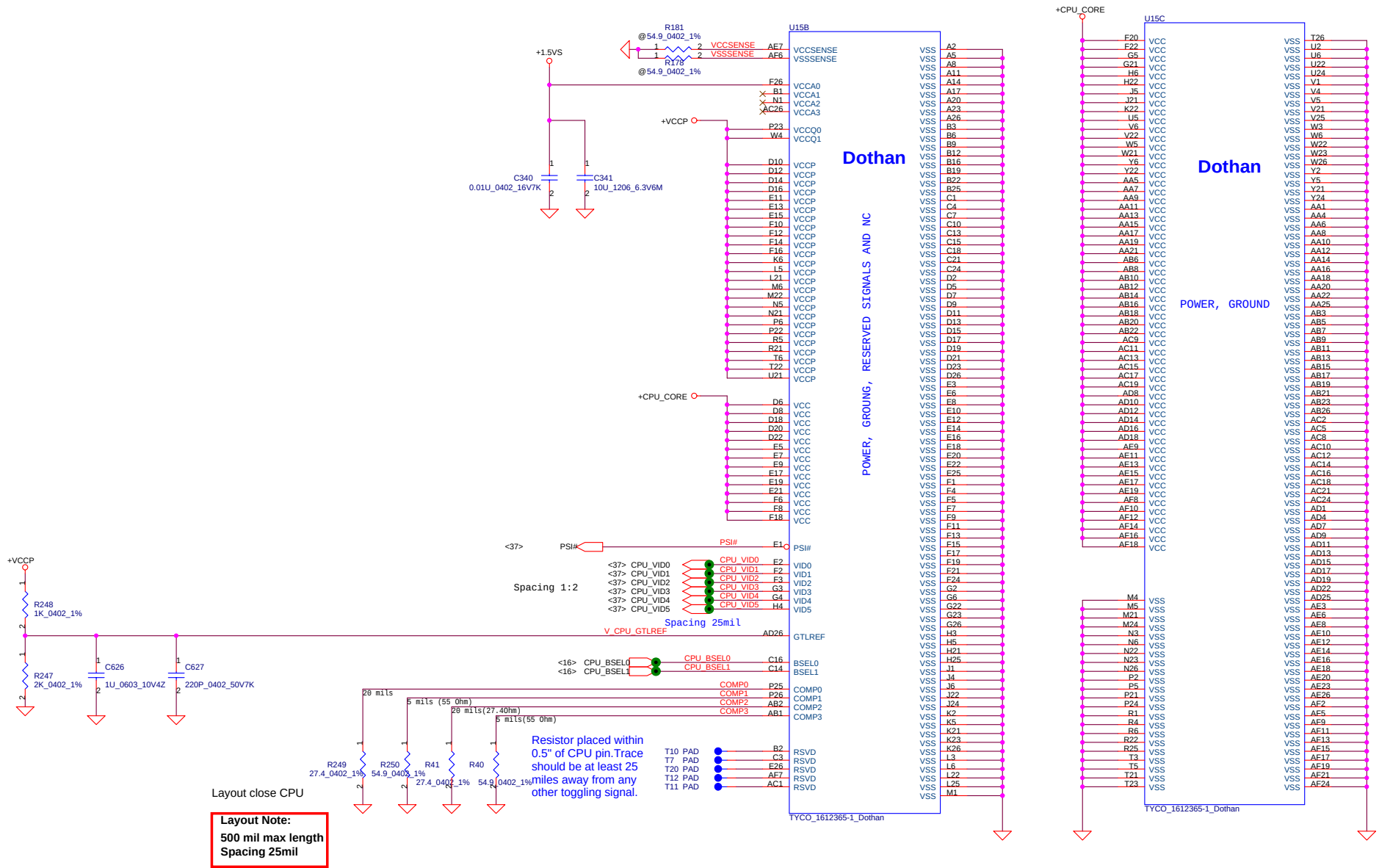
IAT10 15.4"

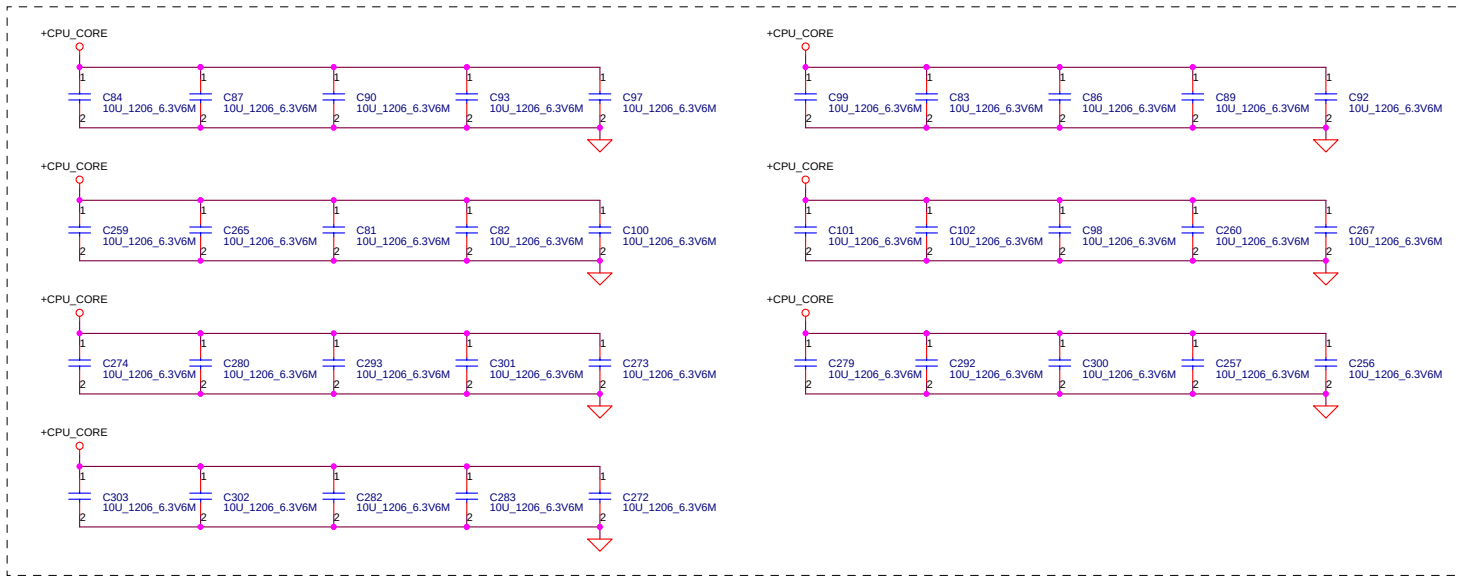
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46144232L12 915GM

46144232L13 910GML W/O WLAN

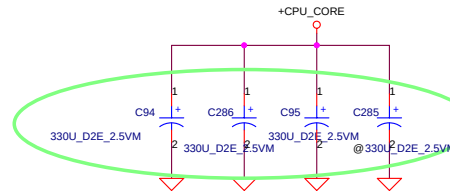






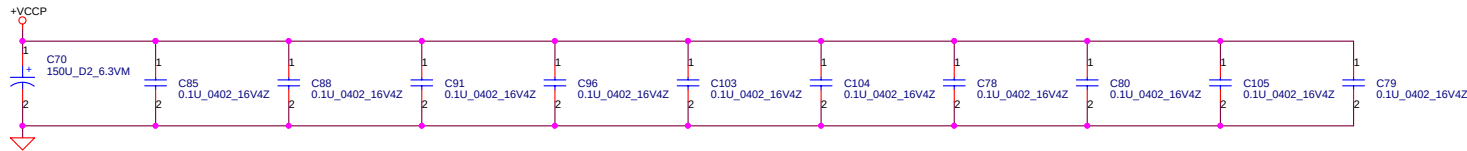
Near VCORE regulator.

6/21



ESR <= 3m ohm

Capacitor > 880 uF



Compal Electronics, Inc.

Dothan Bypass

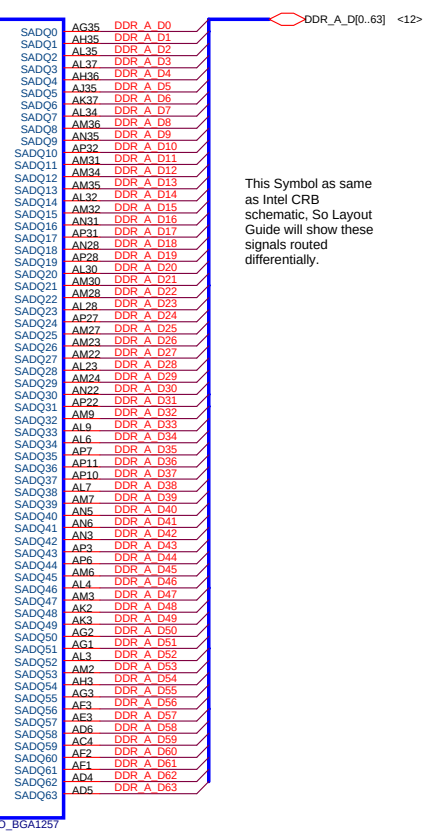
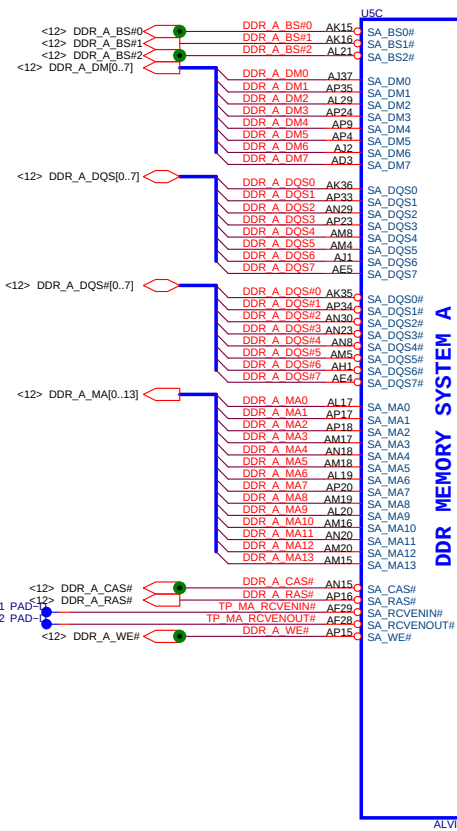
LA-3361P

|       |                              |               |
|-------|------------------------------|---------------|
| Title | Document Number              | Rev           |
|       |                              | 0.3           |
| Date  | Thursday, September 21, 2006 | Sheet 6 of 43 |

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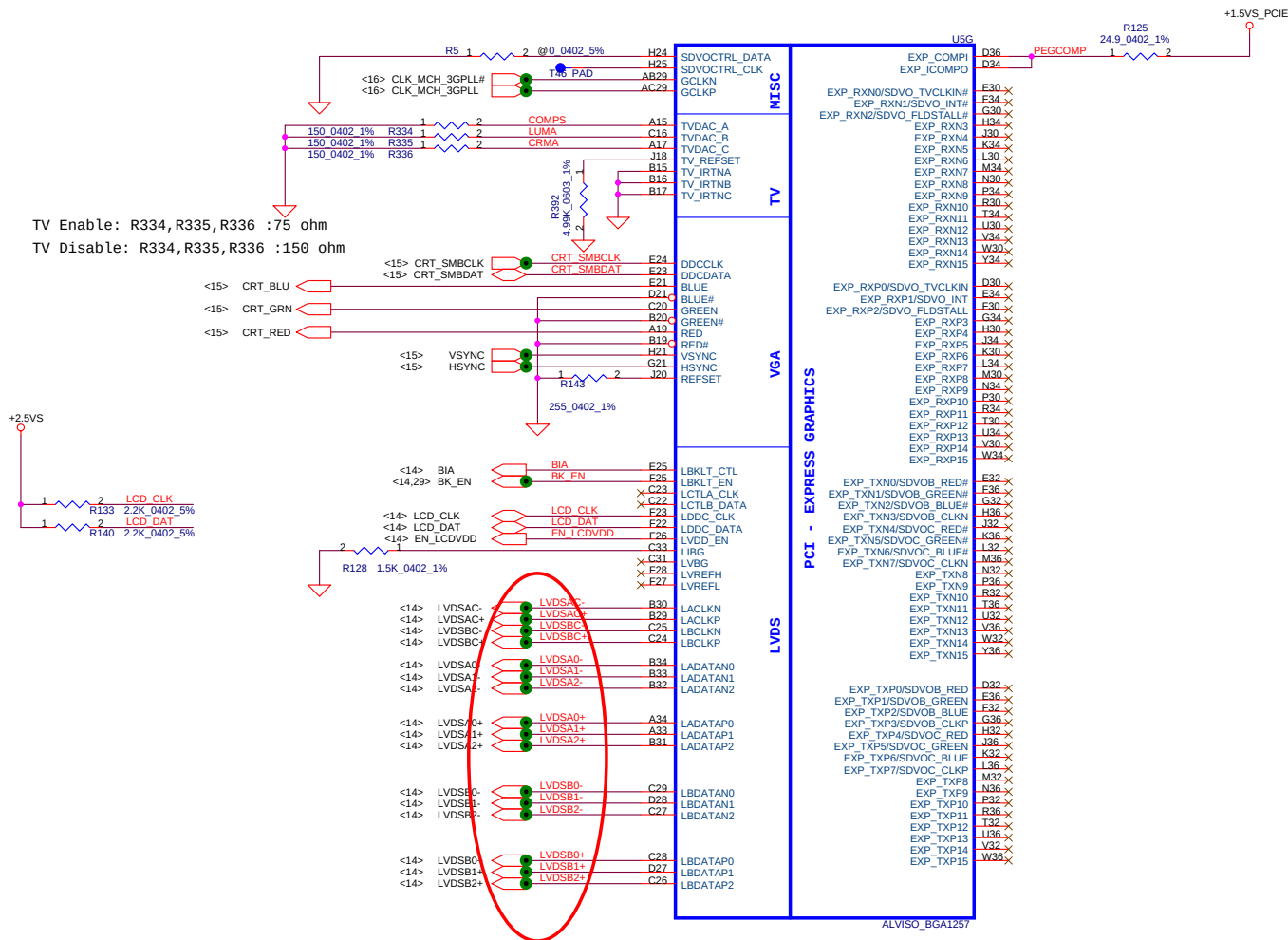




This Symbol as same as Intel CRB schematic, So Layout Guide will show these signals routed differentially.







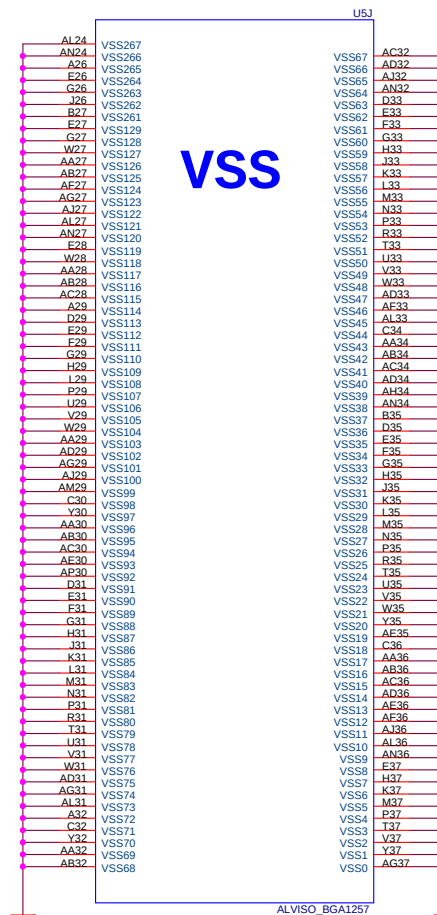
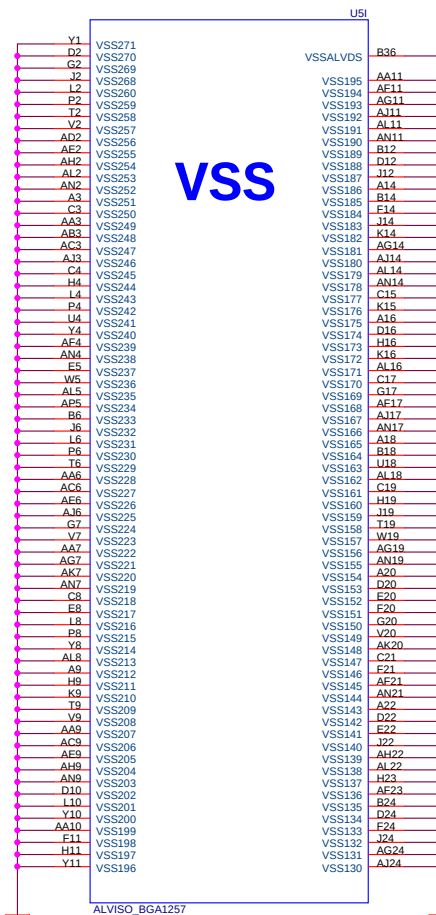
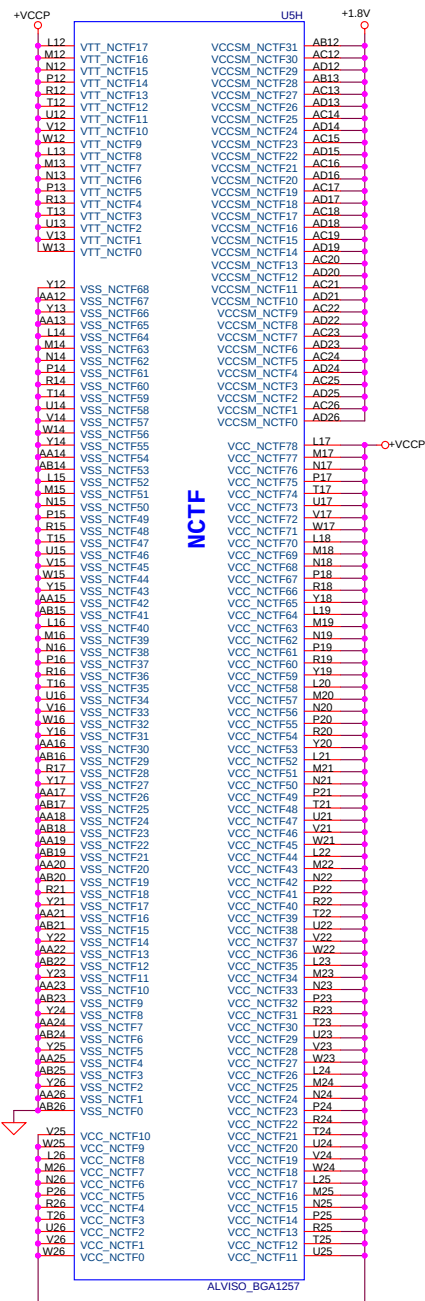
PCI - EXPRESS GRAPHICS

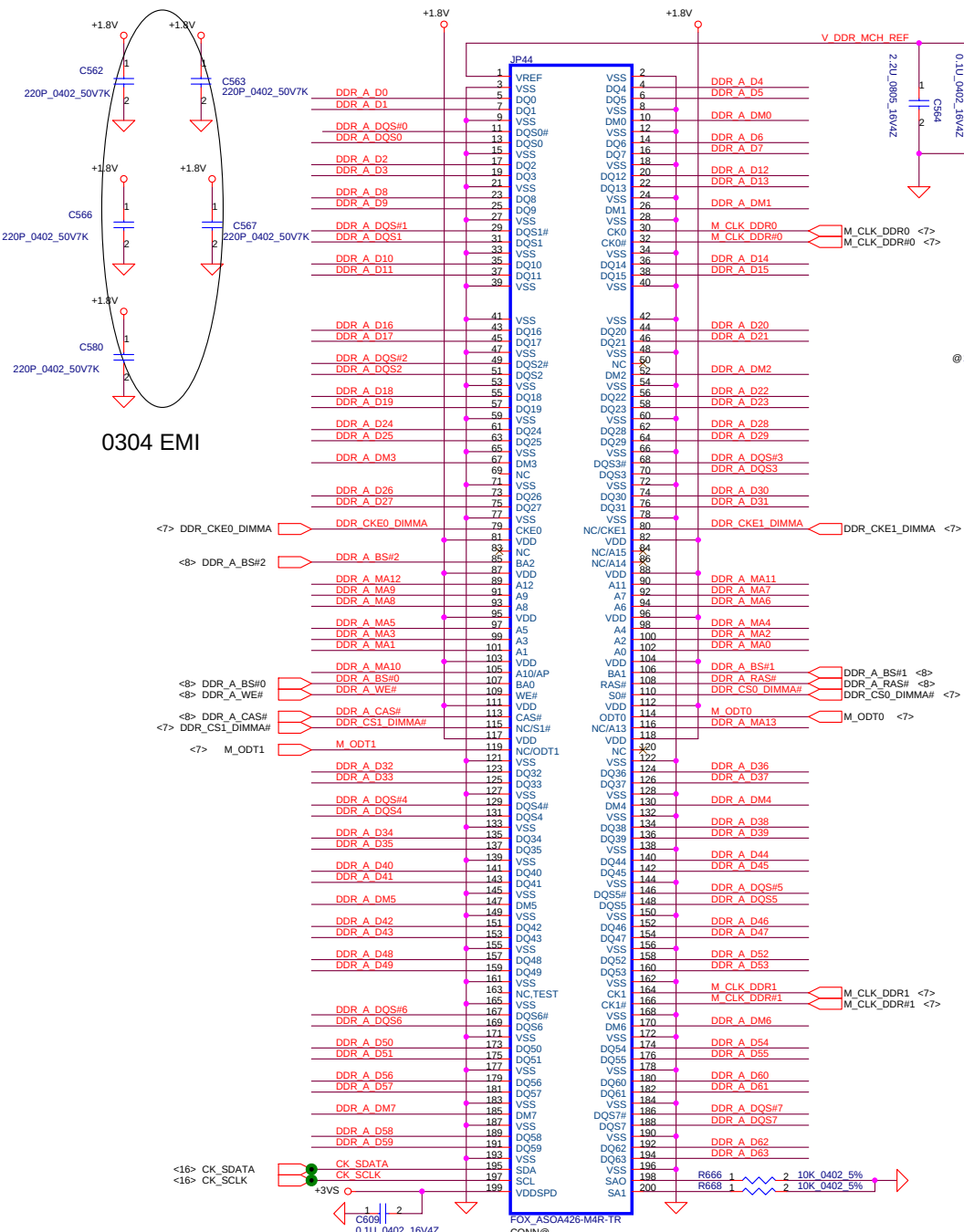
LVDS

ALVISO\_BGA1257

|                                                                        |                            |
|------------------------------------------------------------------------|----------------------------|
| <b>Compal Electronics, Inc.</b><br>Title: <b>Alviso(3 of 5)</b>        |                            |
| Document Number: <b>LA-3361P</b><br>Date: Thursday, September 21, 2006 | Rev: 0.3<br>Sheet: 9 of 43 |

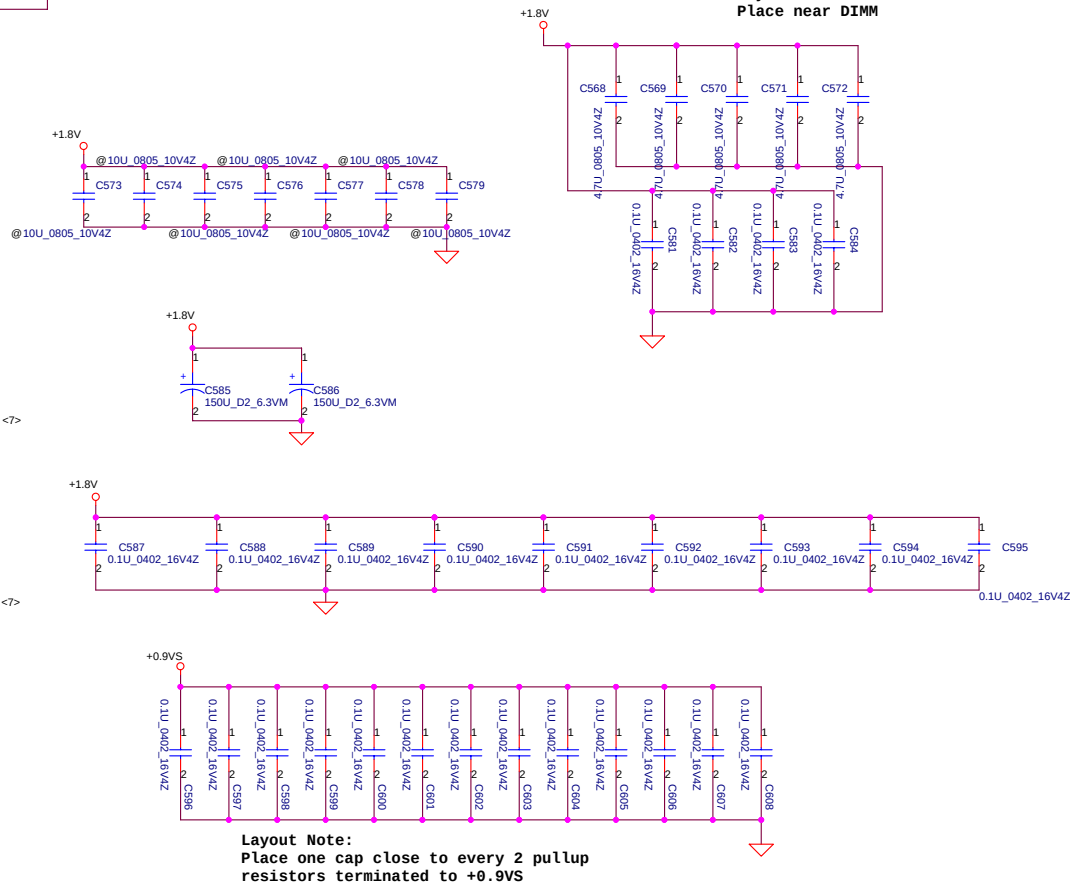






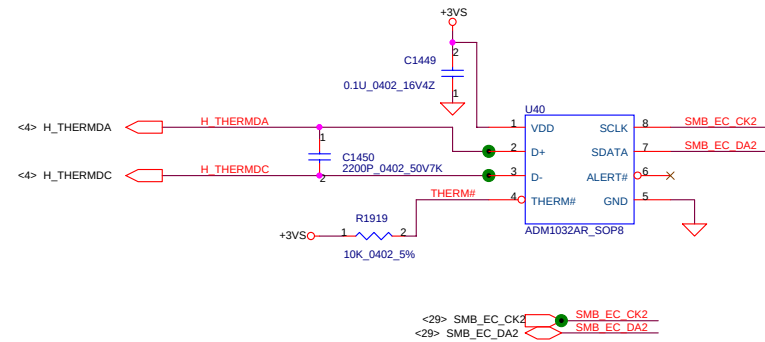
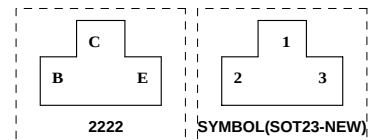
- <B> DDR\_A\_D[0..63] DDR A D[0..63]
- <B> DDR\_A\_DM[0..7] DDR A DM[0..7]
- <B> DDR\_A\_DQS[0..7] DDR A DQS[0..7]
- <B> DDR\_A\_MA[0..13] DDR A MA[0..13]
- <B> DDR\_A\_DQS#0..7 DDR A DQS#0..7

Layout Note:  
Place near DIMM

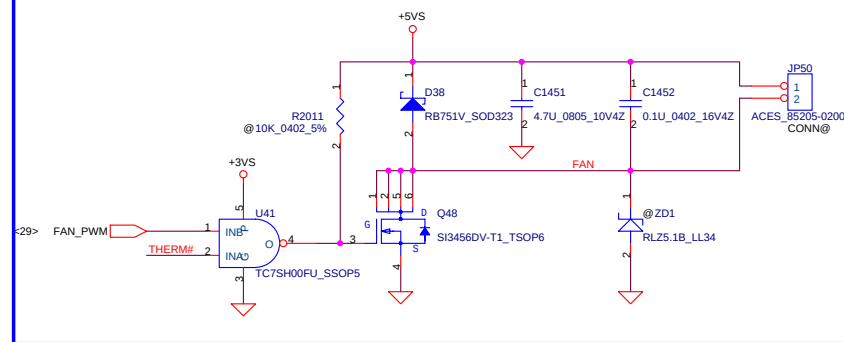


Layout Note:  
Place these resistor  
closely DIMM0,all  
trace length<750 mil

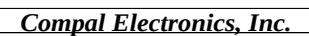
Layout Note:  
Place these resistor  
closely DIMM0,all  
trace length  
Max=1.3"



### PWM Fan Control circuit



|                              |       |     |       |
|------------------------------|-------|-----|-------|
| Compal Electronics, Inc.     |       |     |       |
| Thermal sensor and Fan       |       |     |       |
| LA-3361P                     | Rev   | 0.3 |       |
| Thursday, September 21, 2006 | Sheet | 13  | of 43 |



### LVDS connector

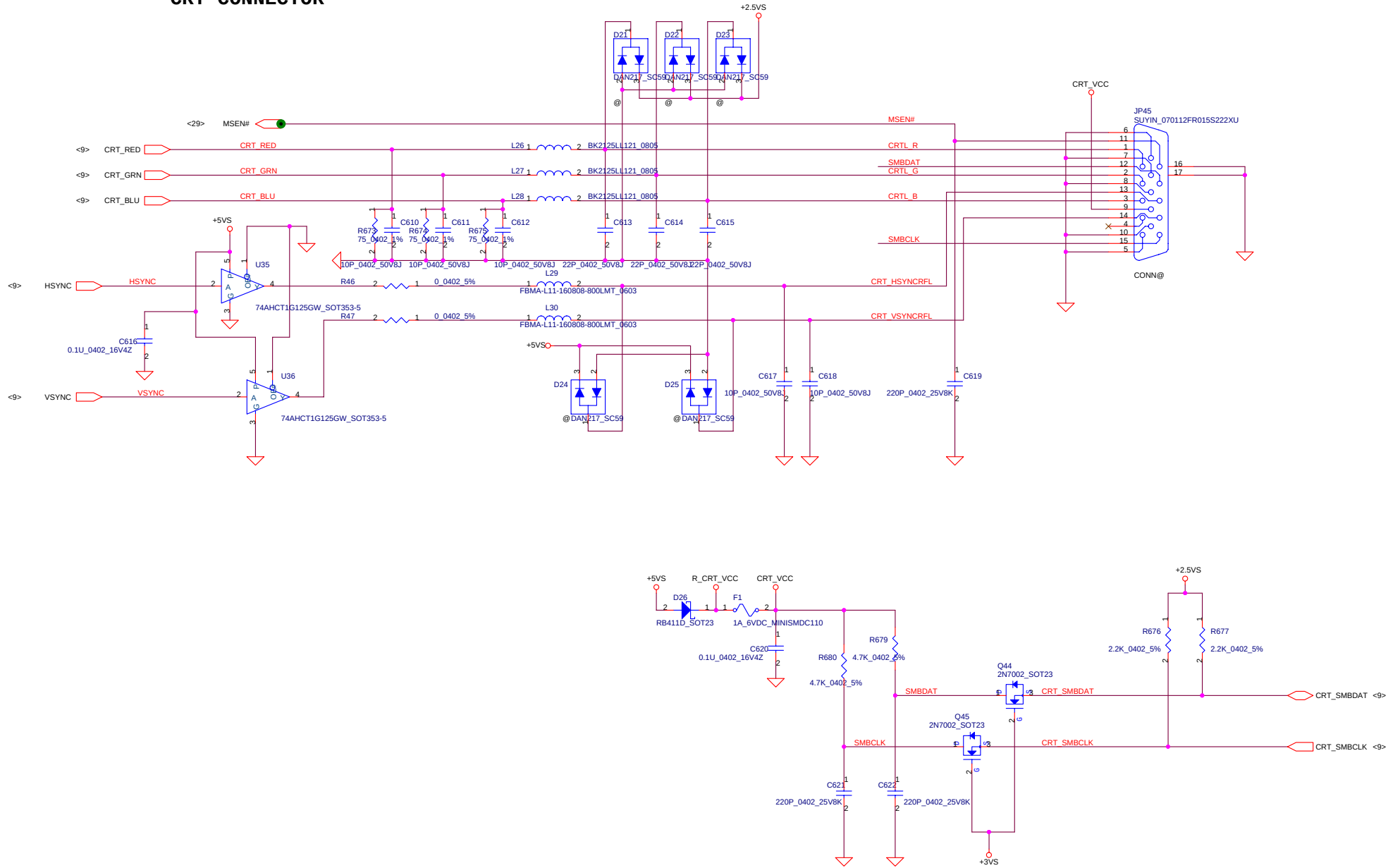
INS-CONFIDENTIAL  
Size Document Number

LA-3361P

|     |  |
|-----|--|
| Rev |  |
|-----|--|

Date: Thursday, September 21, 2006 Sheet 14 of 43

# CRT CONNECTOR



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

Table : ICS 954226

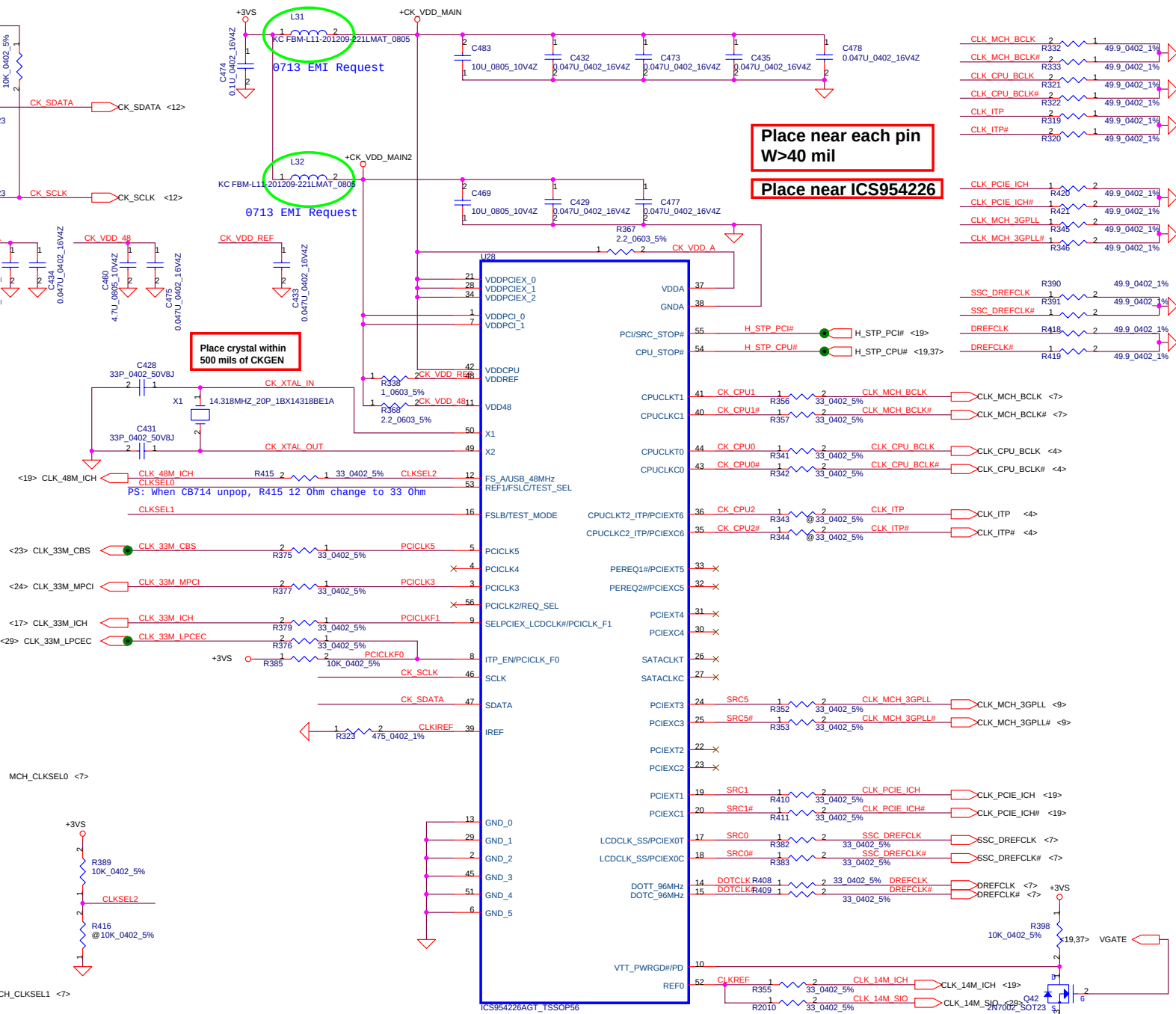
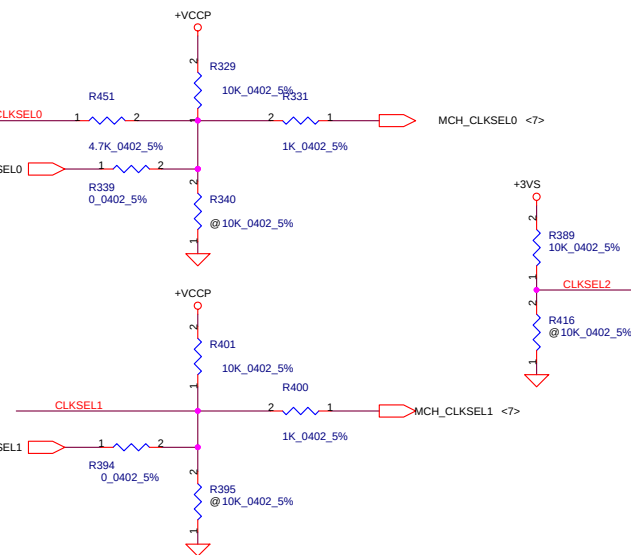
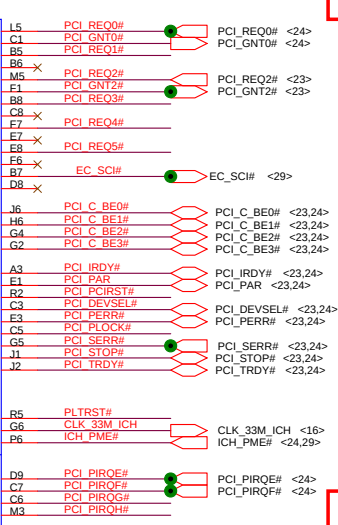
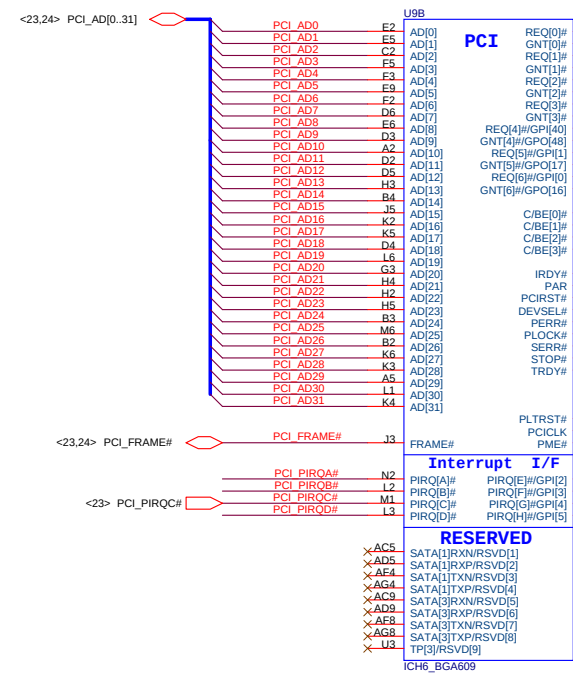
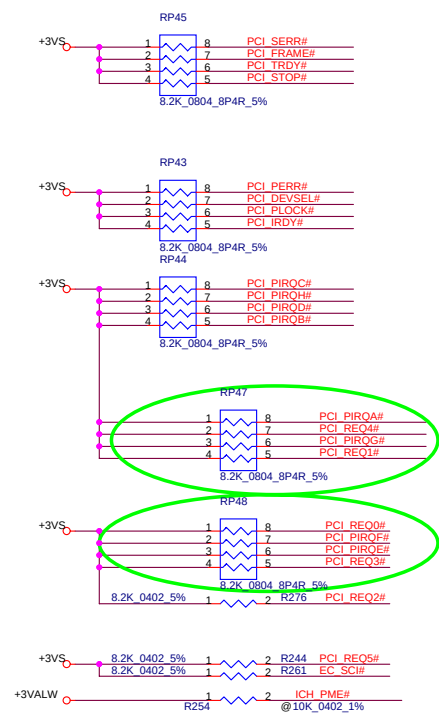


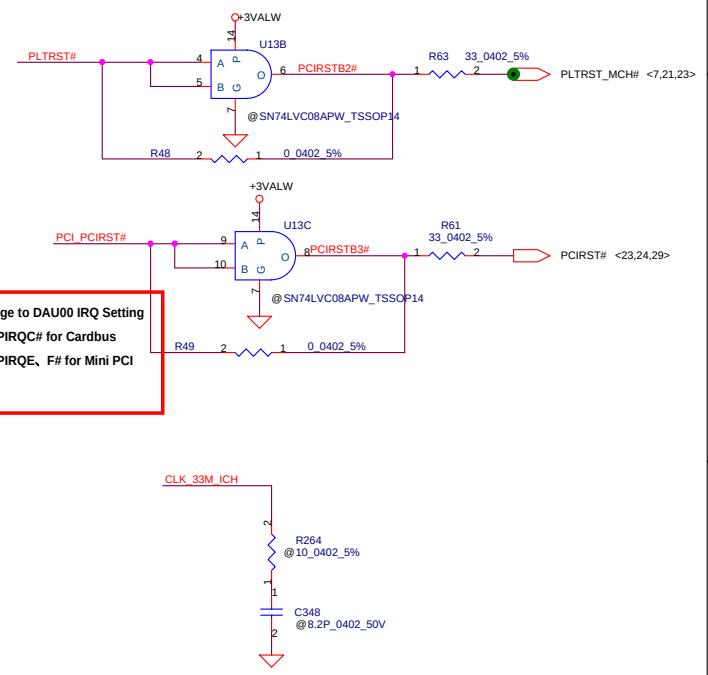
Table : ICS 954226





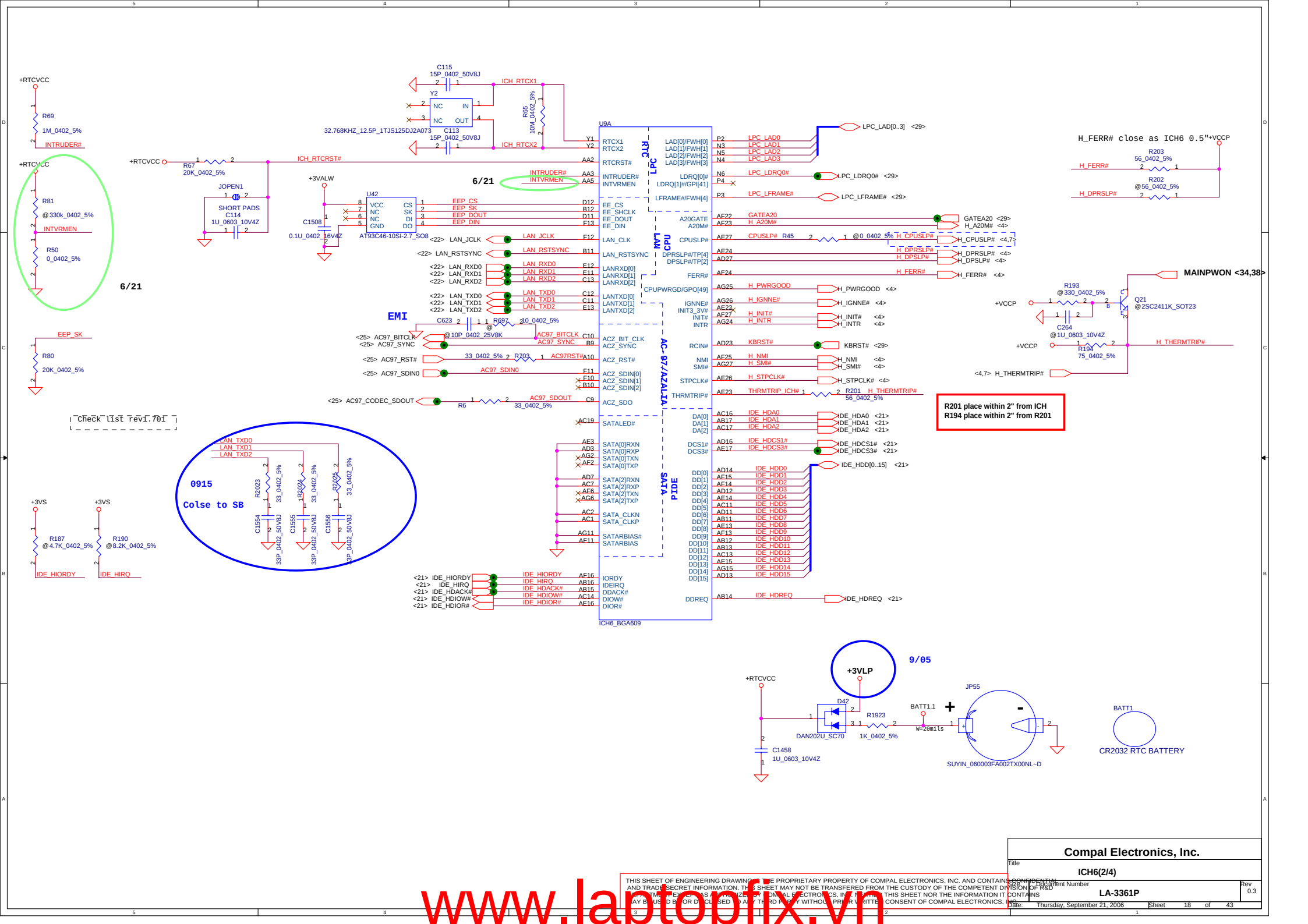
Change to DAU00 REQ/GNT# Setting  
REQ/GNT#0 for MINI PCI  
REQ/GNT#2 for Cardbus

Change to DAU00 IRQ Setting  
PCI\_PIRQ# for Cardbus  
PCI\_PIRQE, F# for Mini PCI

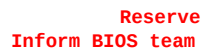


PME# signal has an integrated pull-up of 18 k to 42 k

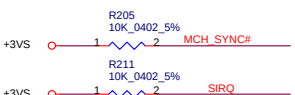
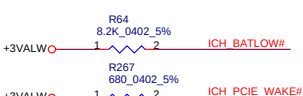
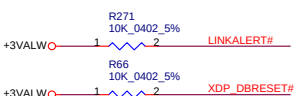
SA8280108G0 S IC 030 FW82801FBM B2 BGA 609P ICH6-M ->  
SA8280108E0(R3)/SA8280108D0(R1) S IC 030 FW82801FBM QS ICH6-M BGA 609P



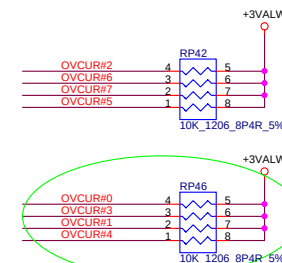
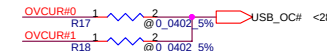
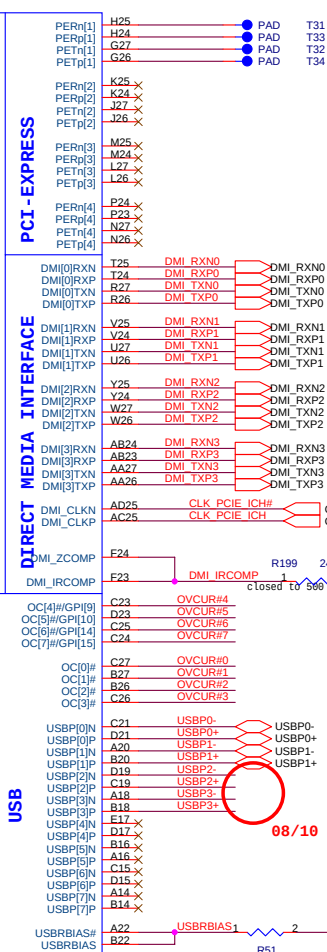
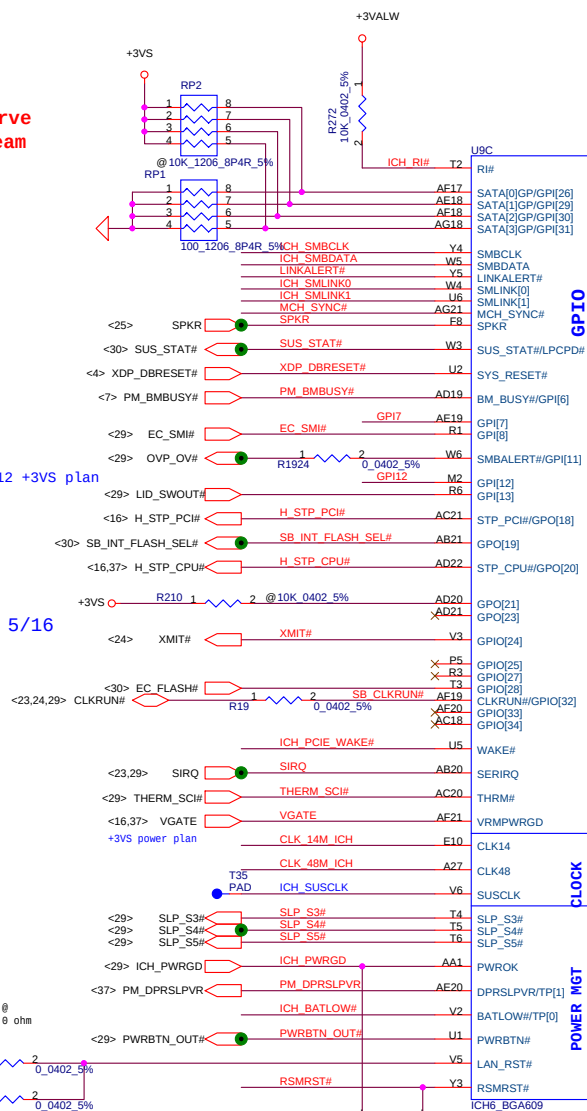
R201 place within 2" from ICH  
R194 place within 2" from R201



ICH6 VER1.5 GPI12 +3VS plan

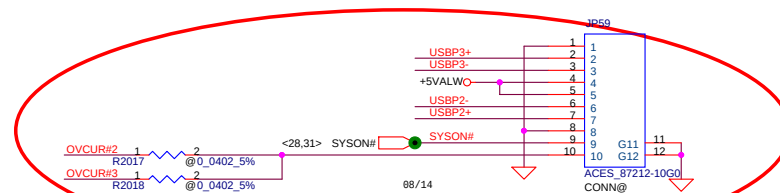


Signal has integrated pull-down in ICH  
May need pulldown for DPRSPLPVR in case  
the ICH6m does not set this value in time  
for boot.



06/23 change R to RP

USBPN/USBPP impedance 45 Ohm

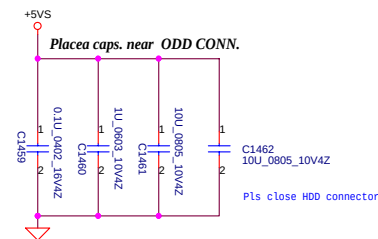
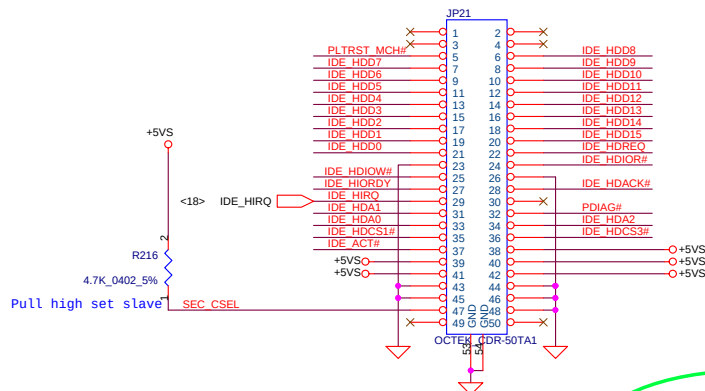


### 08/10 Add two USB port to subboard



IDE\_HDD[0..15] <18>

### ROM Connector



06/23

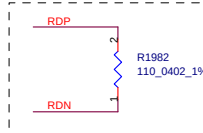
R27

IDE ACT#

1 2

+5VS

10K\_0402\_5%

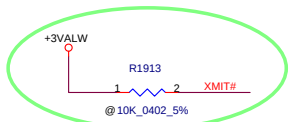


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                    |            |                                                       |                              |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | Compal Secret Data |            | <b>Compal Electronics, Inc.</b><br><b>82562EZ LAN</b> |                              |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2005/03/10 | Deciphered Date    | 2006/03/10 | Title                                                 | Rev 0.3                      |
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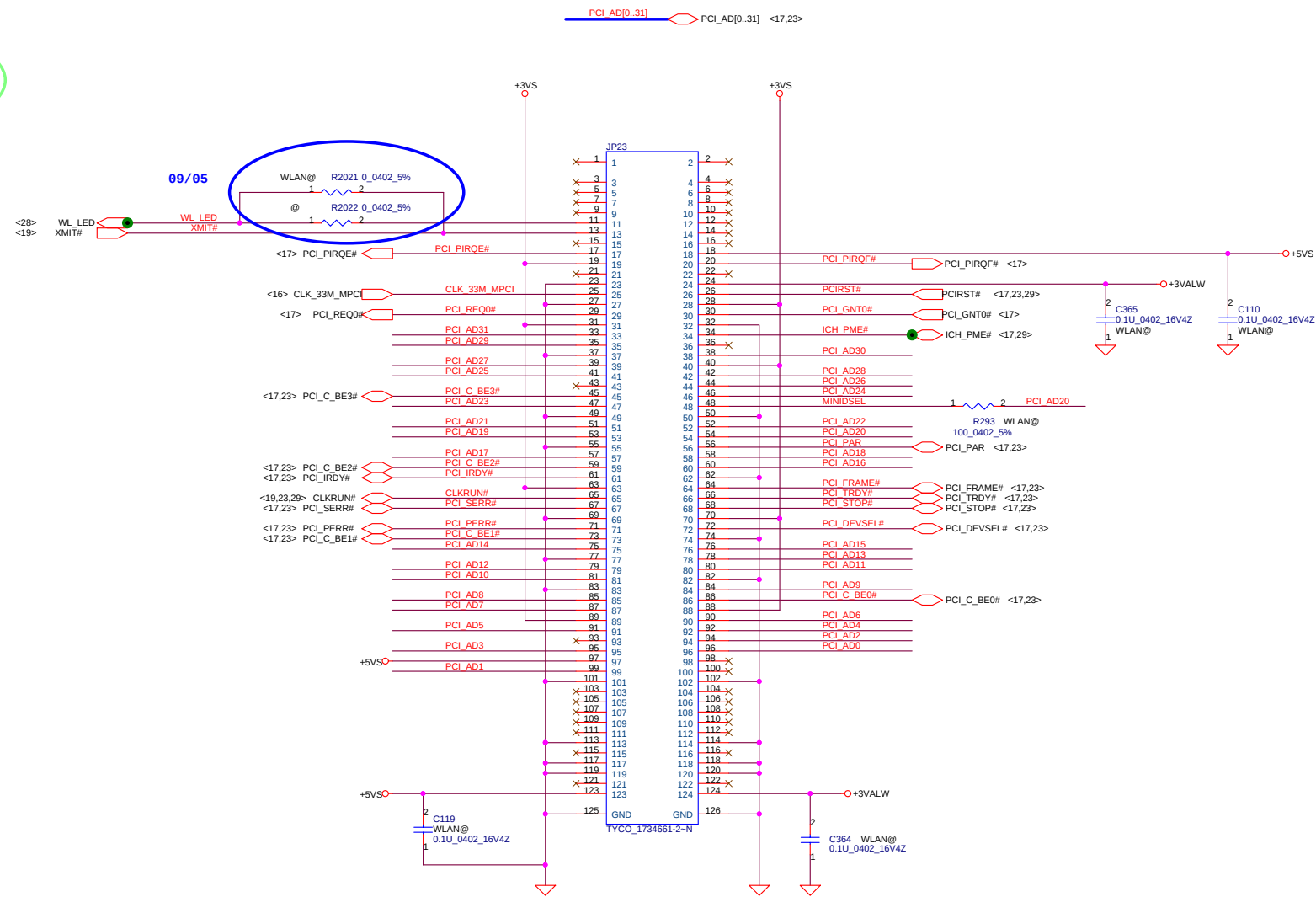
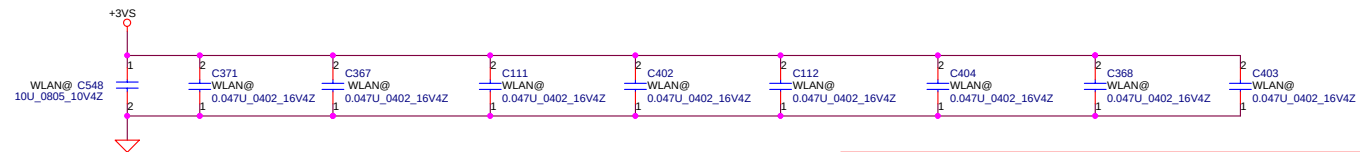
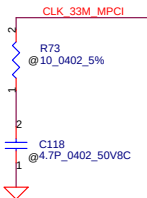






6/23

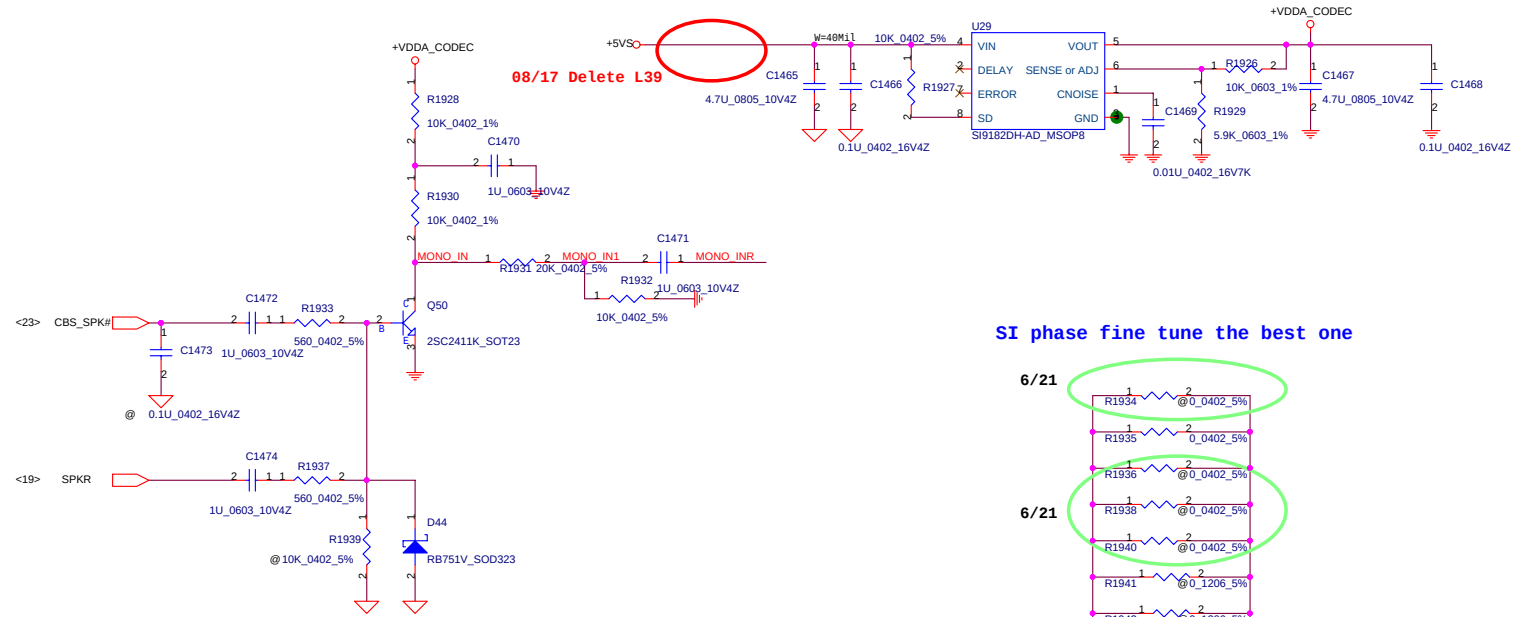
09/05



| Compal Electronics, Inc. |                              |       |          |
|--------------------------|------------------------------|-------|----------|
| MINIPCI                  |                              |       |          |
| Document Number          | LA-3361P                     | Rev   | 0.3      |
| Date                     | Thursday, September 21, 2006 | Sheet | 24 of 43 |

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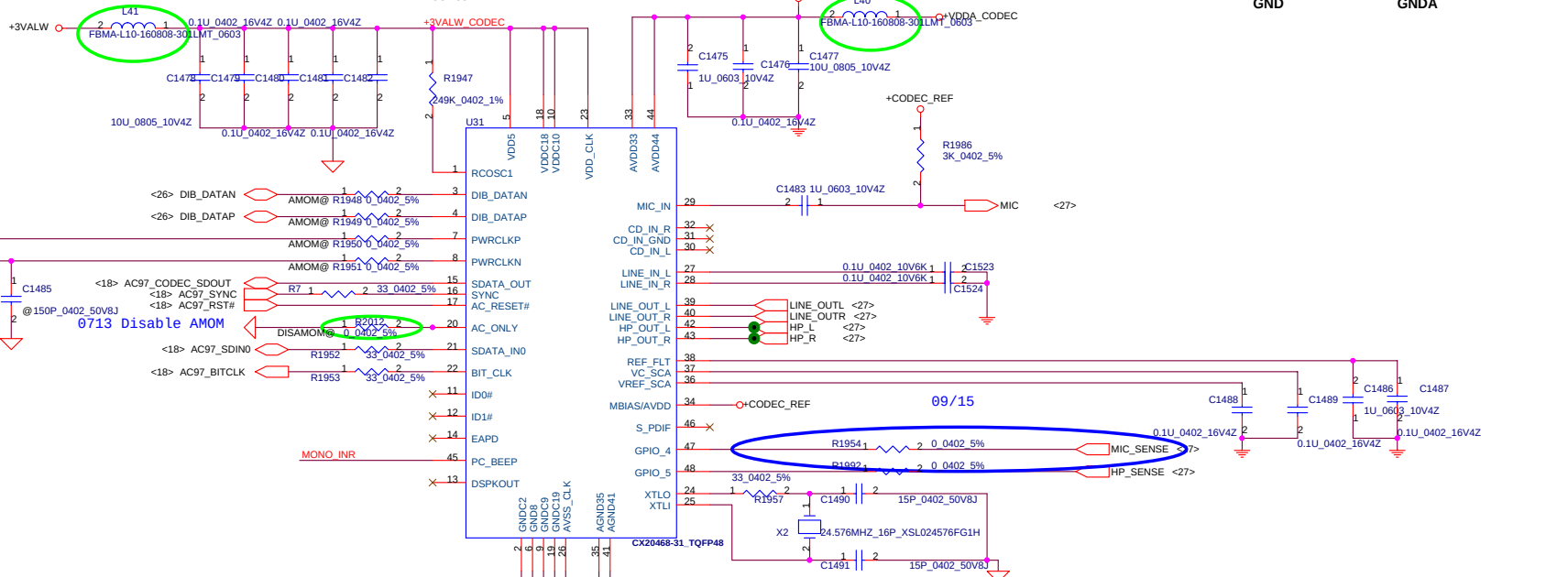


#### For Layout:

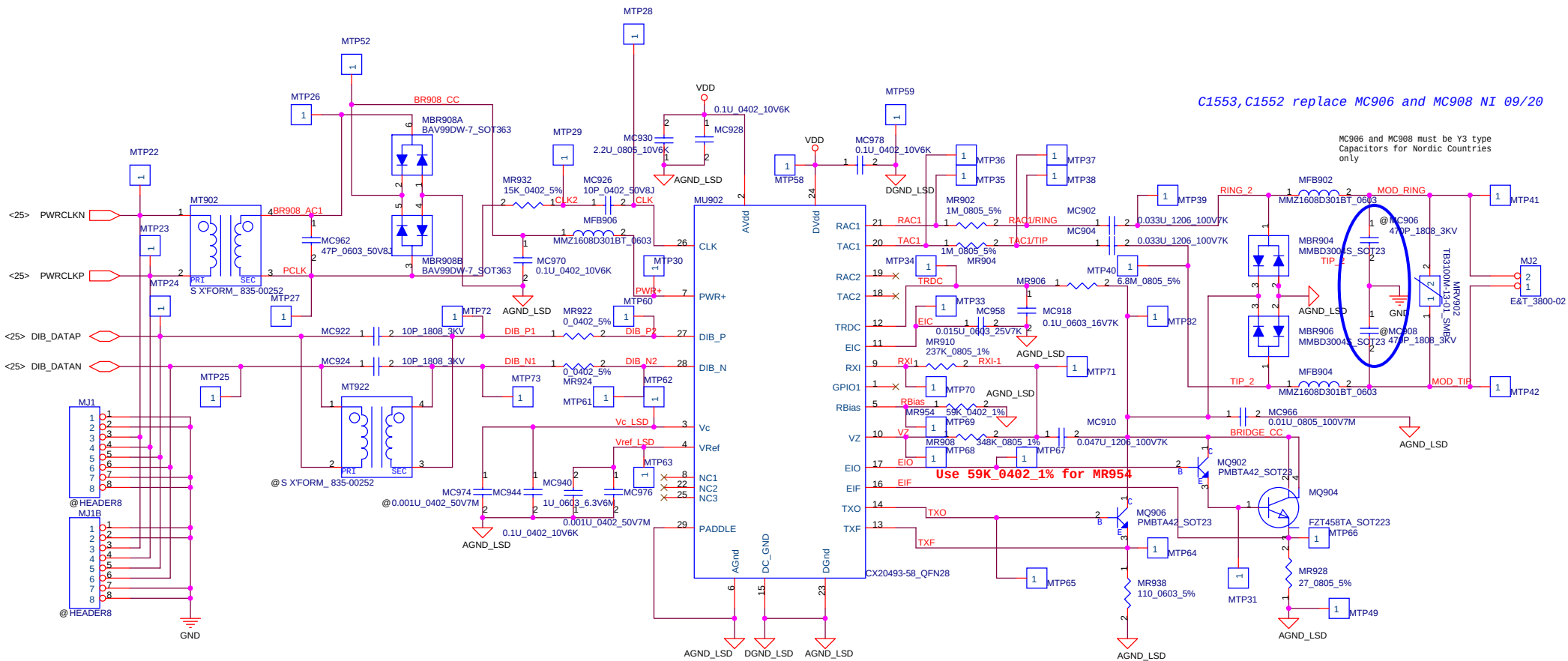
Place decoupling caps near the power pins of SmartAMC device.

0711 EMI request

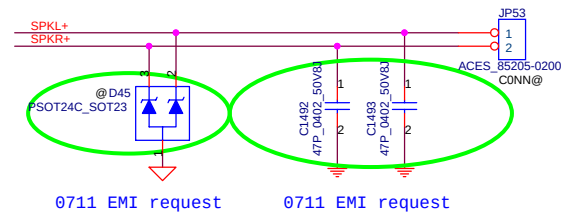
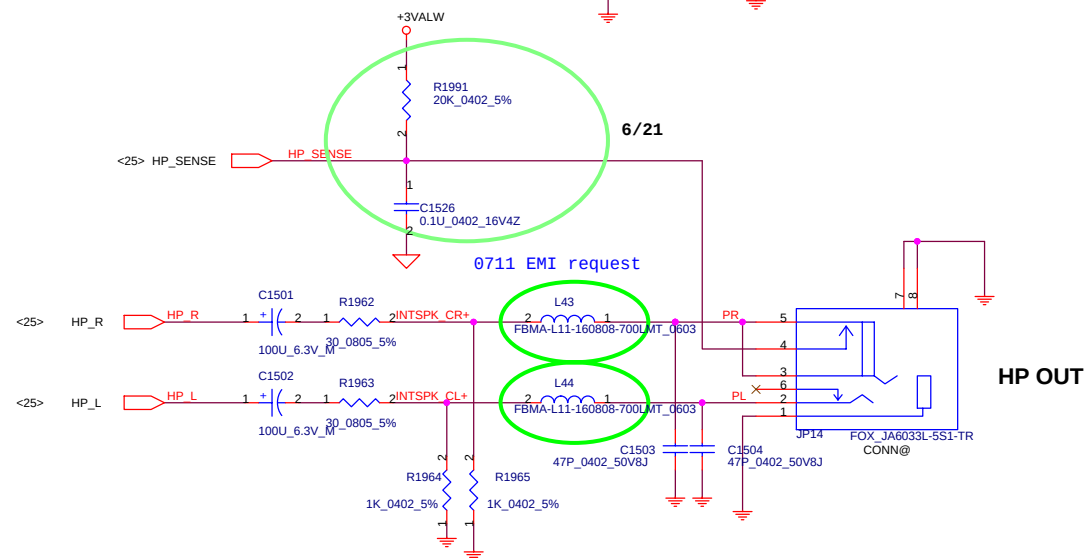
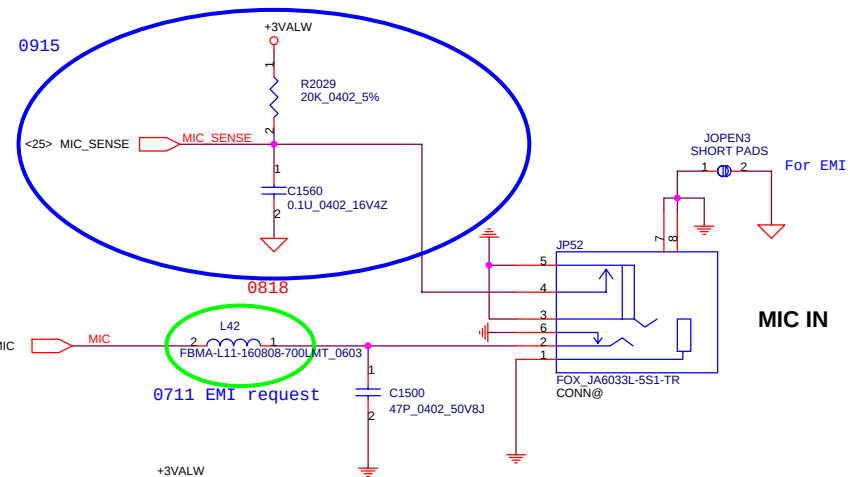
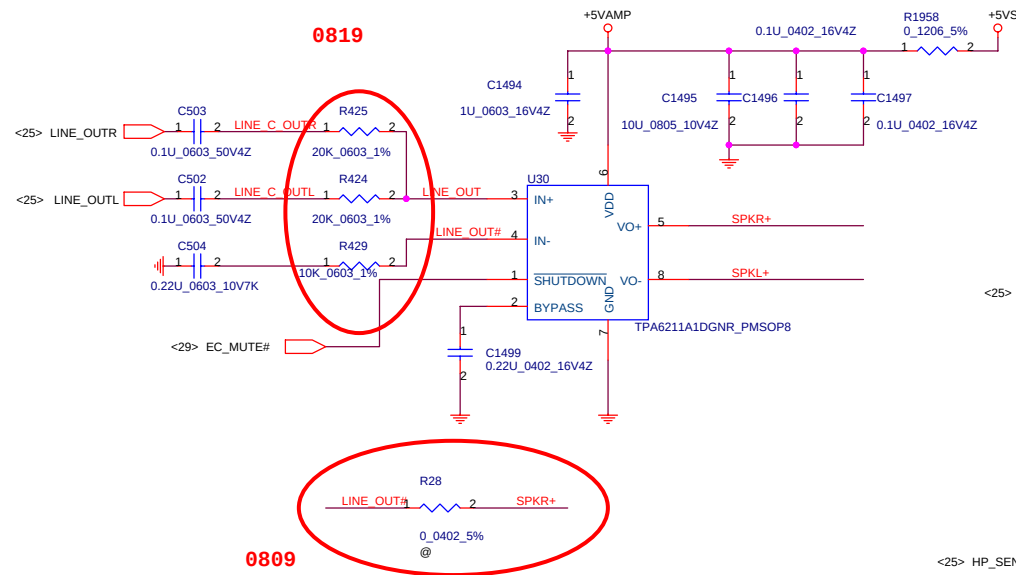
0711 EMI request



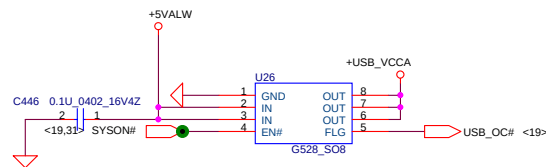
| Security Classification                                                                                                                                                                                                                                                             |            | Compal Secret Data |            | Title                              |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|------------------------------------|----------------|
| Issued Date                                                                                                                                                                                                                                                                         | 2005/05/18 | Deciphered Date    | 2006/05/18 | CODEC CX20468-31                   |                |
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|                                                                                                                                                                                                                                                                                     |            |                    |            | Date: Thursday, September 21, 2006 | Sheet 25 of 43 |



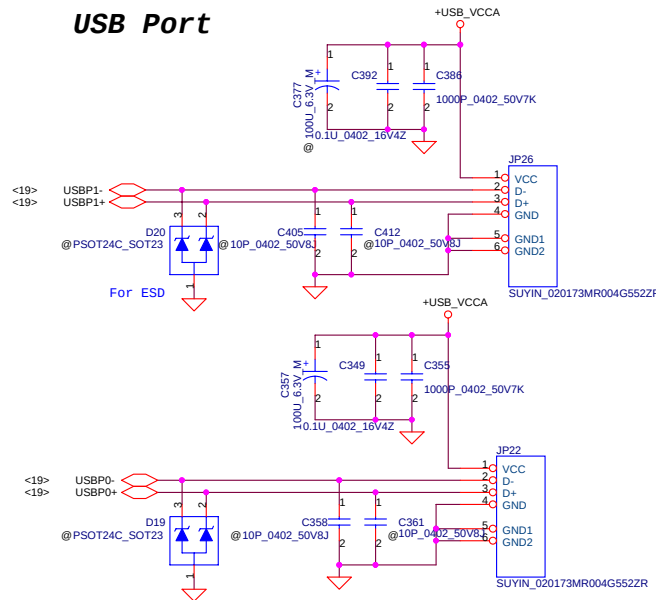
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                 |            |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------|------------|---------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data           |                 | Title      |         |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2005/05/18                   | Deciphered Date | AMOM_modem |         |
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| Size Custom                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Document Number              | LA-3361P        |            |         |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, September 21, 2006 | Sheet           | 26         | of 43   |



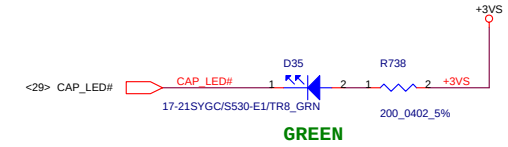
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            |                    |                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------|------------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Compal Secret Data |            | Title              |                              |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2005/05/18 | Deciphered Date    | 2006/05/18 | AMP and Audio Jack |                              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            | Custom             | 0.3                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            | Document Number    | LA-3361P                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            | Date               | Thursday, September 21, 2006 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |                    |            | Sheet              | 27 of 43                     |



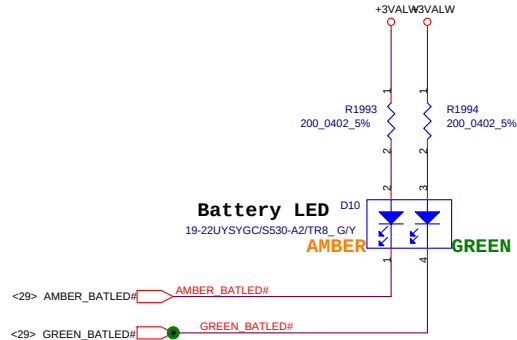
## USB Port



## CAP LED



## Charge LED

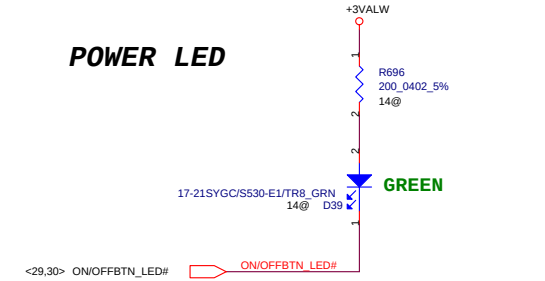


## Battery LED

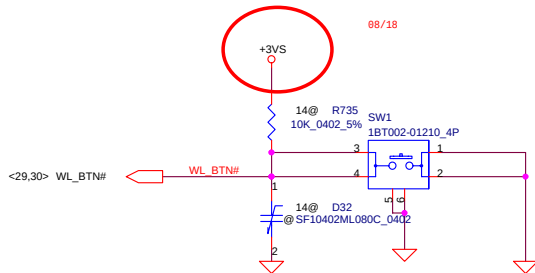
19-22UYSYGC/S530-A2/TR8\_G/Y

AMBER GREEN

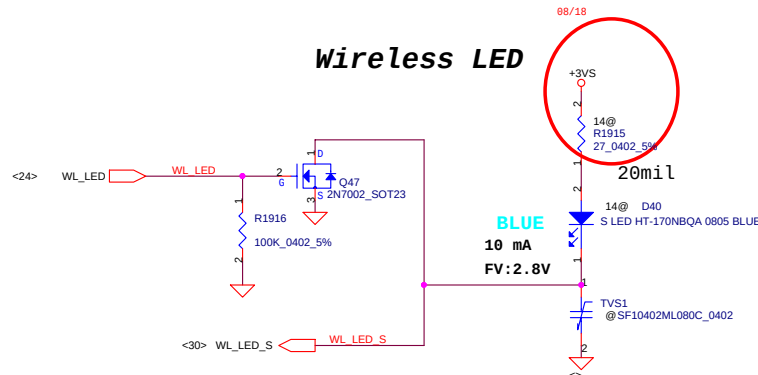
## POWER LED



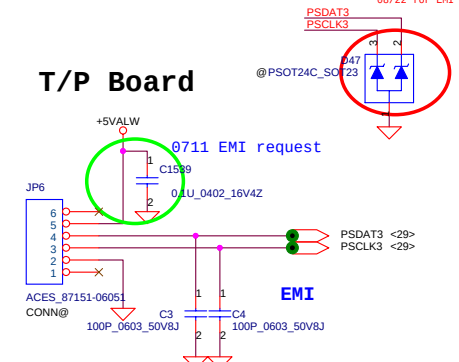
## WL ON/OFF



## Wireless LED



## T/P Board

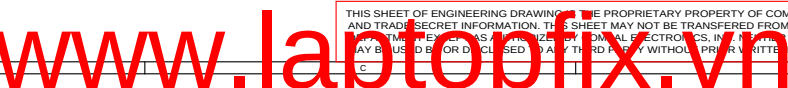


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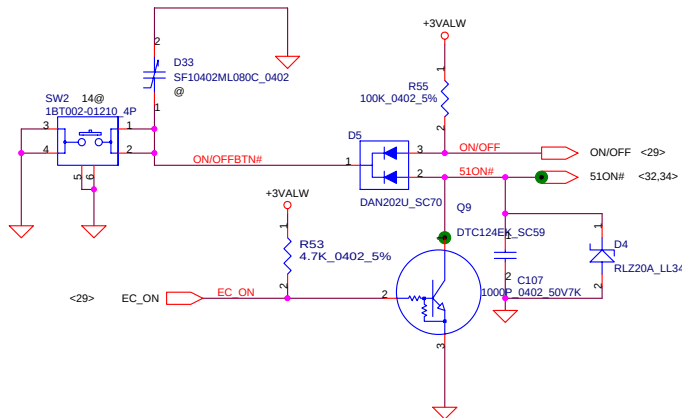
### USB Port

LA-3361P

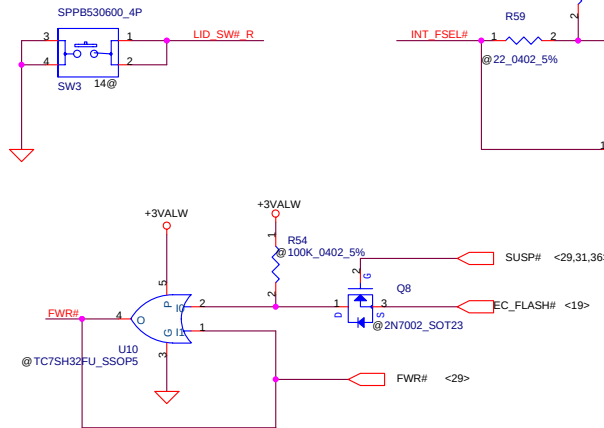
Rev 0.3



## Power BTN ON/OFF Button



## LID\_SW

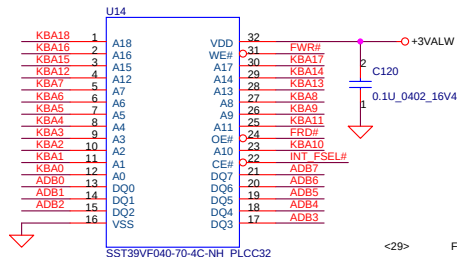


## 1MB FLASH ROM

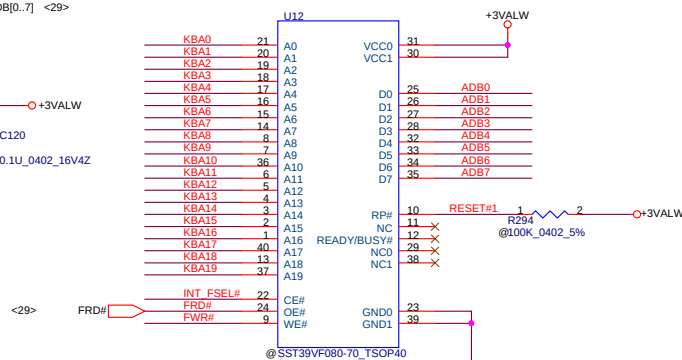
Alternative SA290080100

KBA[0..19] KBA[0..19] <29> ADB[0..7] ADB[0..7] <29>

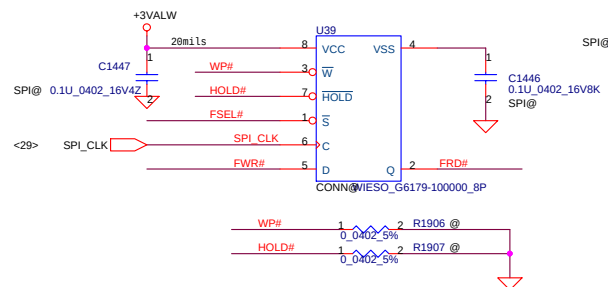
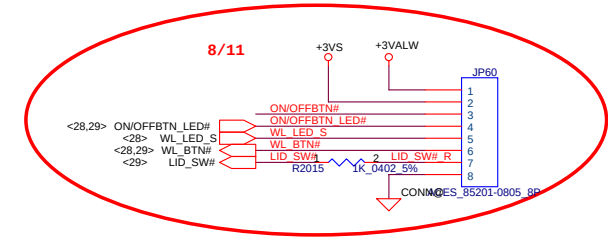
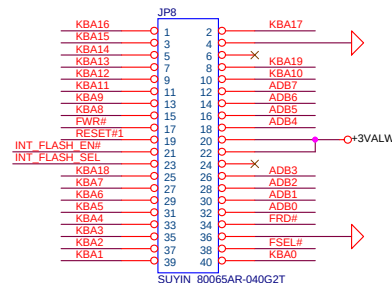
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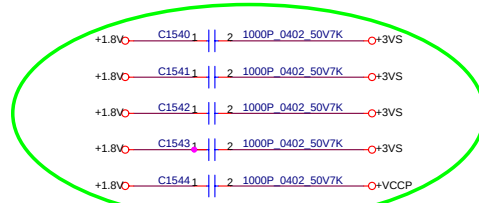
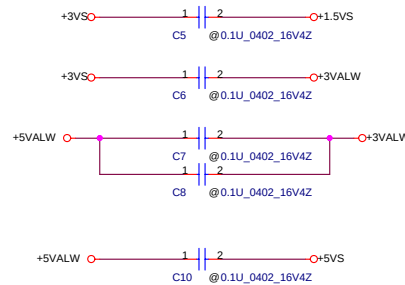
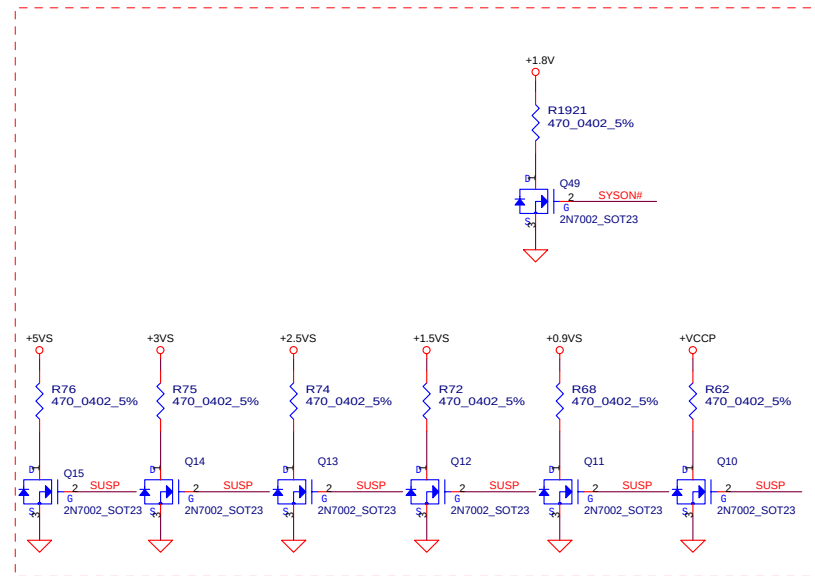
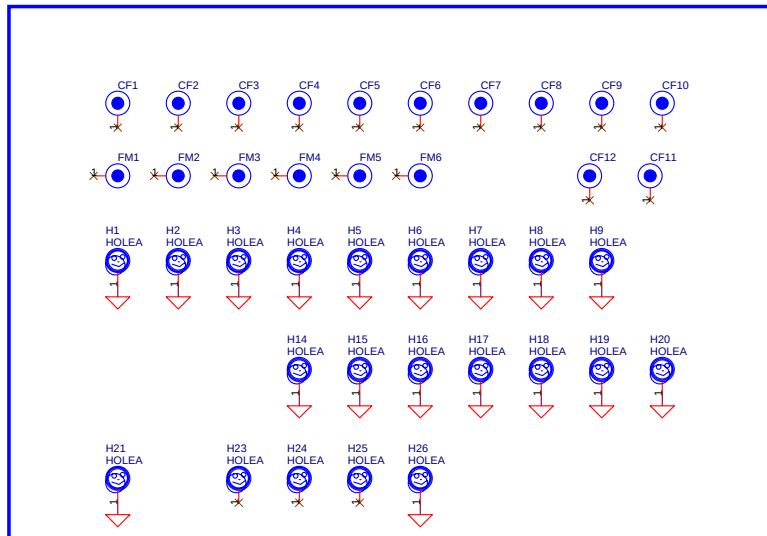
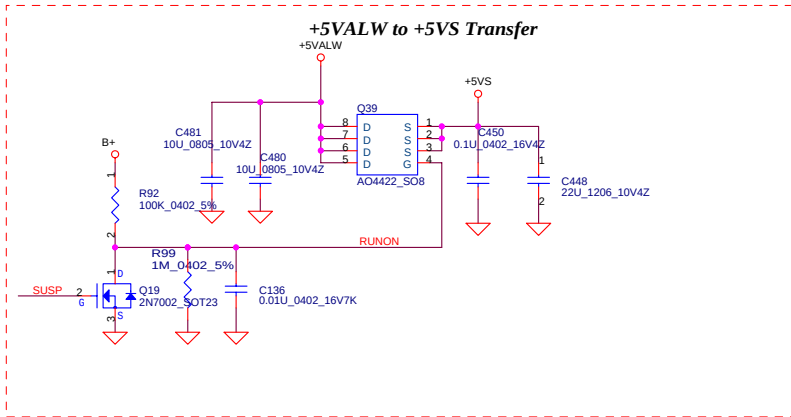
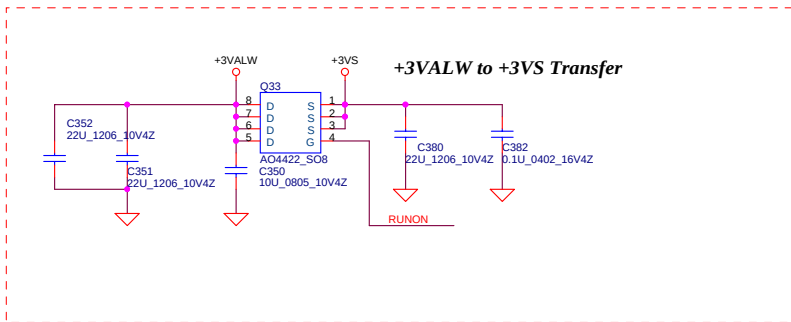


BIOS SOCKET-DC040043905

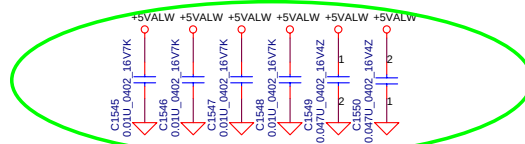


## 1MB ROM SOCKET

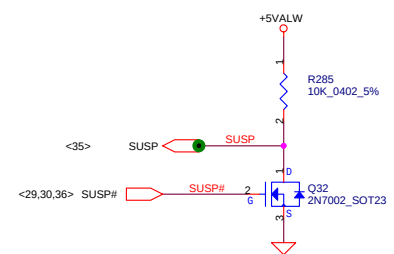
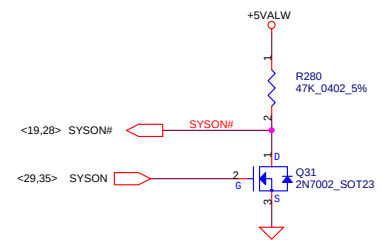
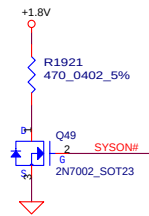




7/11 EMI request

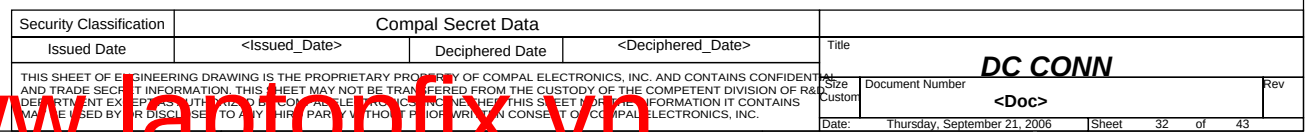


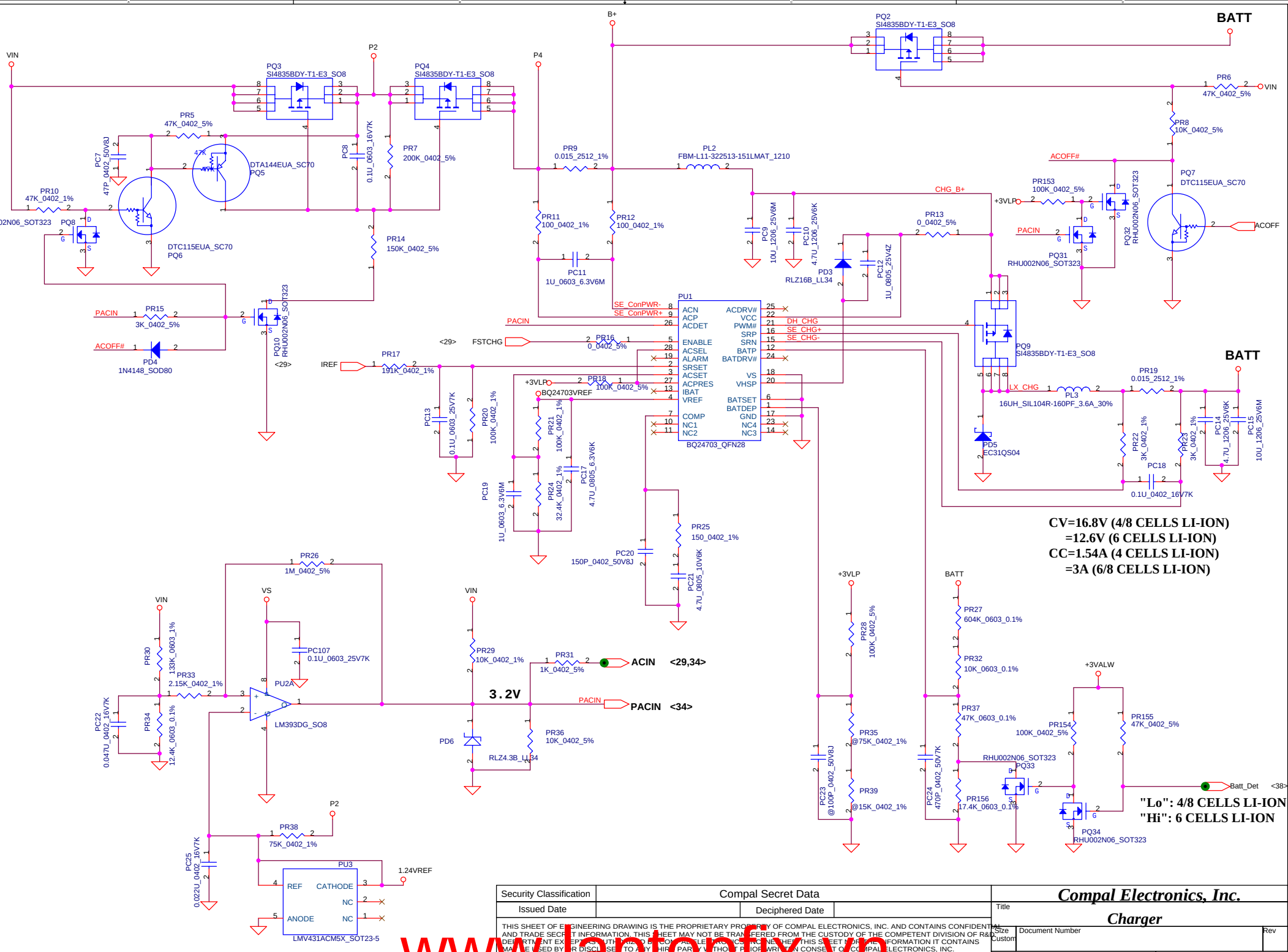
7/11 EMI request

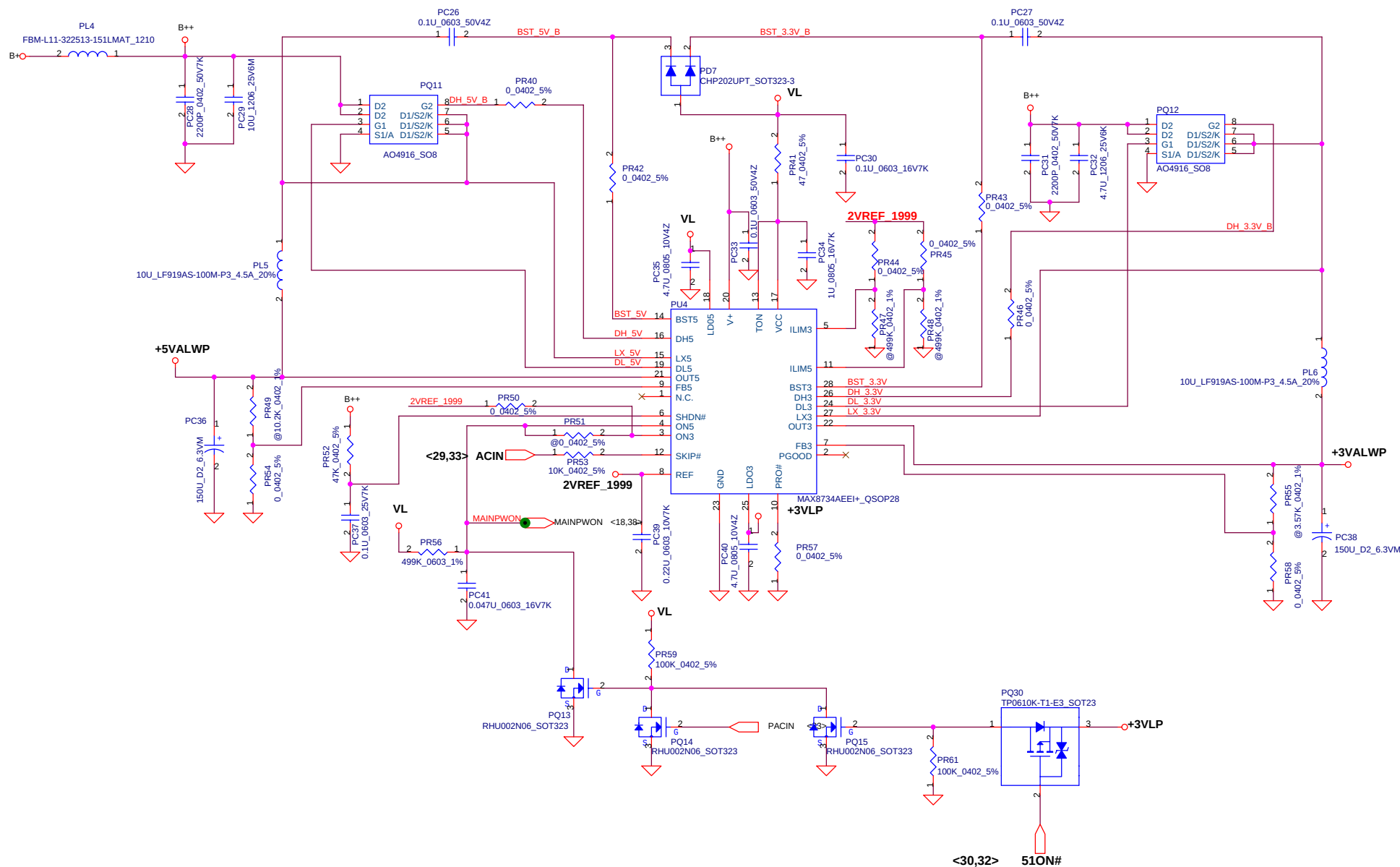


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|--------------------------|------------------------------|-------|----------|
| POWER CONTROL            |                              |       |          |
| File                     | Document Number              | Rev   | 0.3      |
| LA-3361P                 |                              |       |          |
| Date                     | Thursday, September 21, 2006 | Sheet | 31 of 43 |

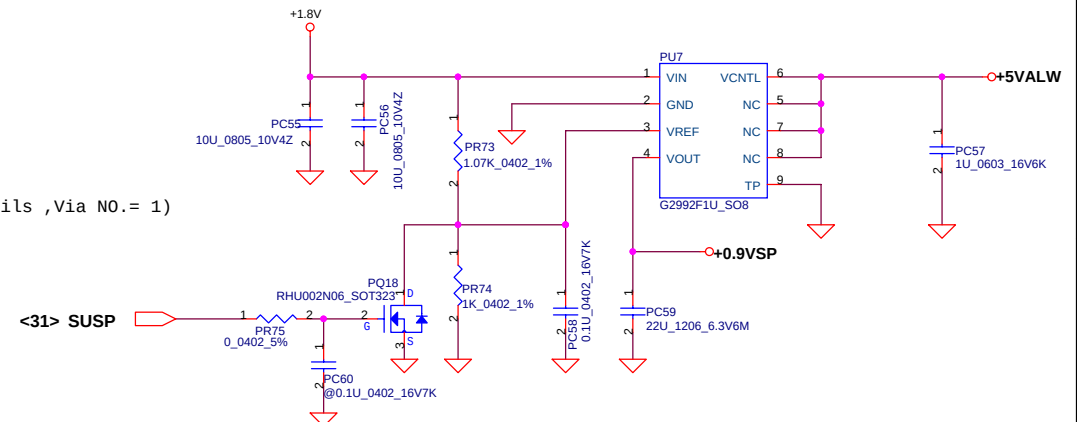
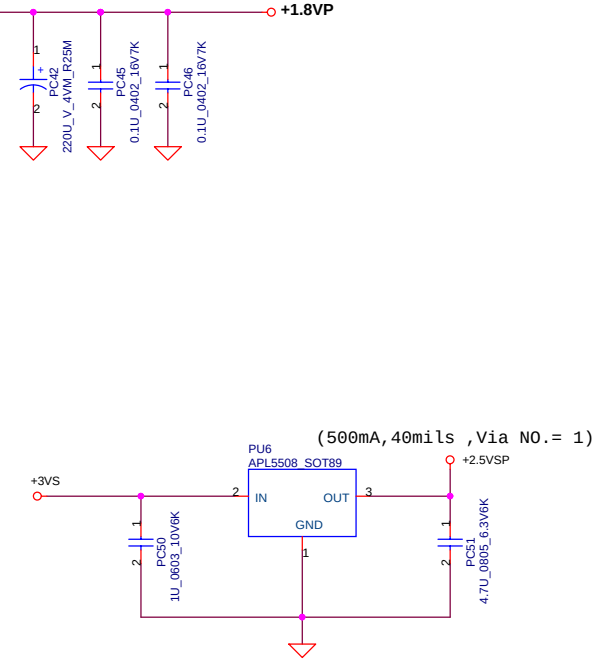




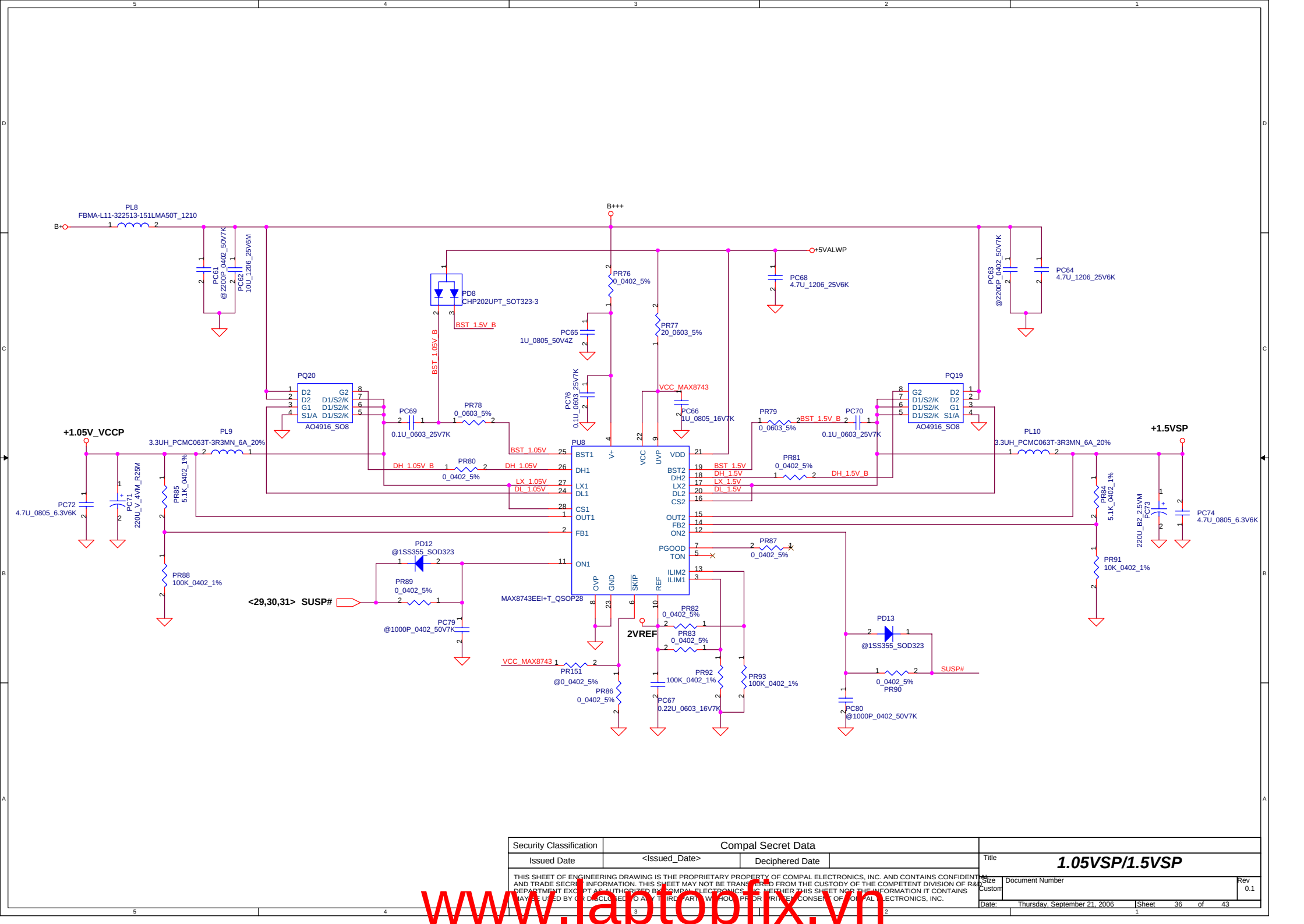




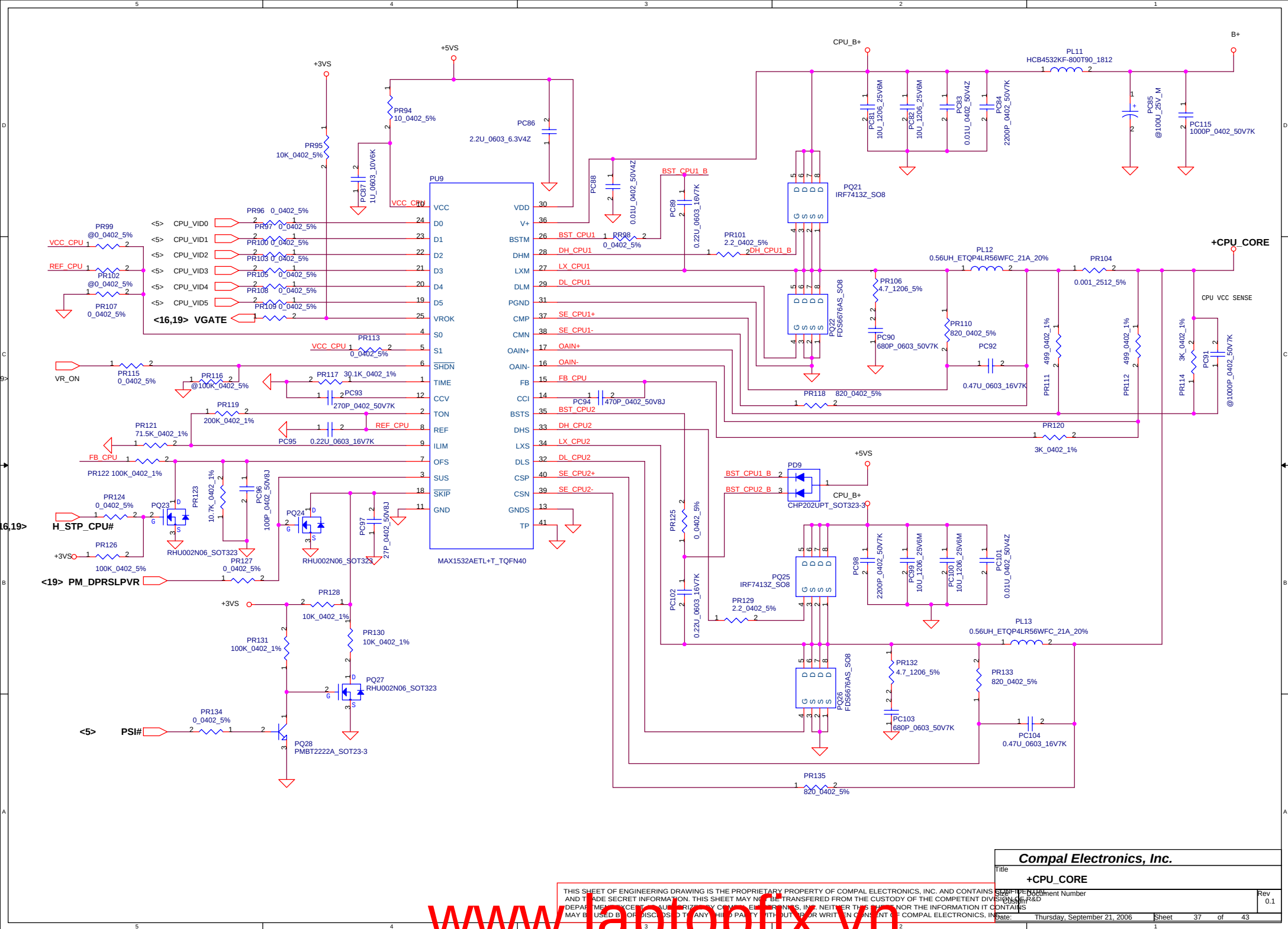
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|-----------------|--|--------------------------|--|-----------------|--|-------------------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | Compal Secret Data |  |                 |  | Compal Electronics, Inc. |  |                 |  |                   |  |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <Issued_Date>      |  | Deciphered Date |  | <Deciphered_Date>        |  | Title           |  | 3.3VALWP / 5VALWP |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                    |  |                 |  |                          |  | Document Number |  | Rev               |  |
| Date: Thursday, September 21, 2006                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                    |  |                 |  |                          |  | Sheet 34 of 43  |  |                   |  |

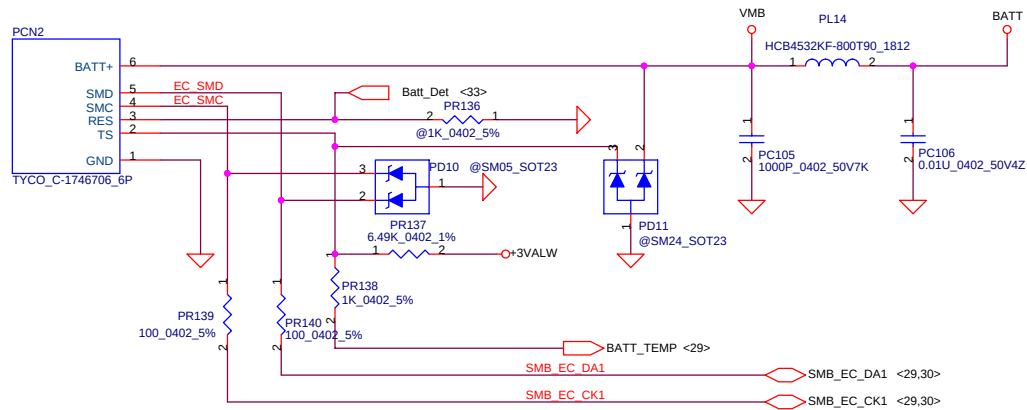


AND TRADE SECRET INFORMATION, THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE DEPARTMENT EXCEPTS WITH THE DIRECTION OF ALE AND DISCLOSURE OF THIS SHEET IS NOT TO BE MADE BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPA

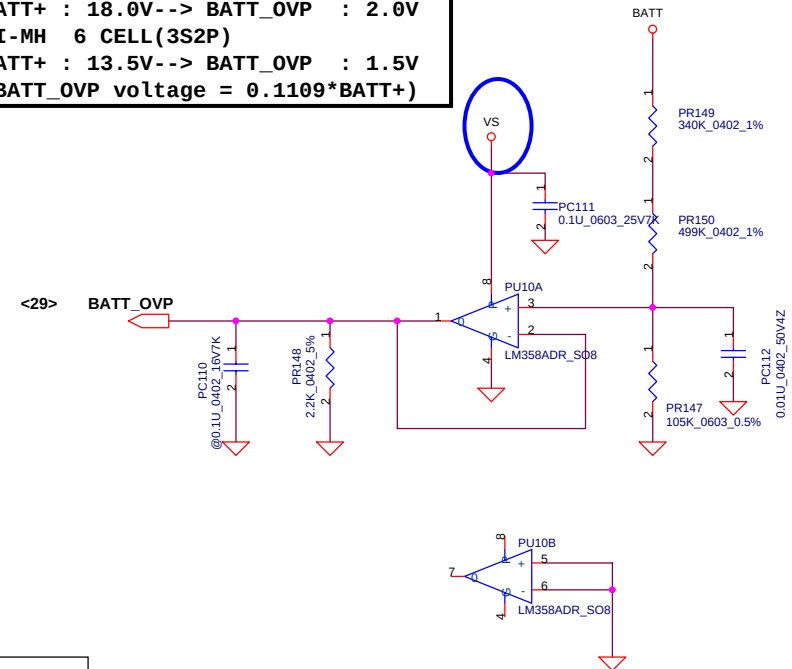


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                    |  |                |                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|--|----------------|------------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                         |               | Compal Secret Data |  | Title          |                              |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <Issued_Date> | Deciphered Date    |  | 1.05VSP/1.5VSP |                              |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                    |  | Date           | Thursday, September 21, 2006 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                    |  | Sheet          | 36 of 43                     |

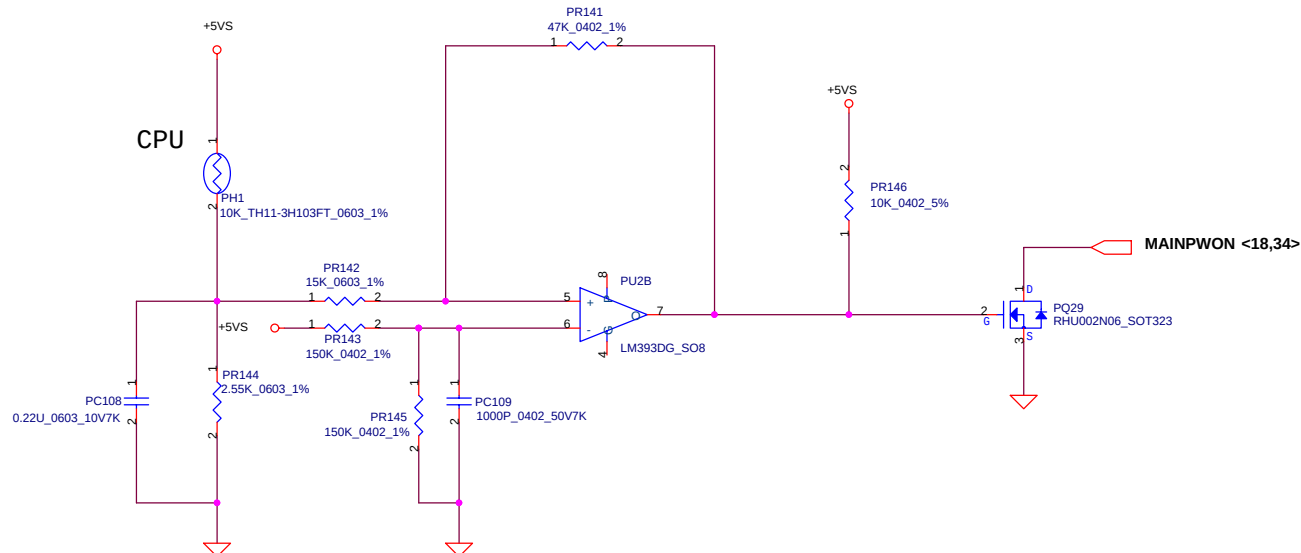




**OVP voltage :**  
 LI-MH 4 CELL(4S1P)/ 8 CELL (4S2P)  
 BATT+ : 18.0V--> BATT\_OVP : 2.0V  
 LI-MH 6 CELL(3S2P)  
 BATT+ : 13.5V--> BATT\_OVP : 1.5V  
 (BATT\_OVP voltage = 0.1109\*BATT+)



**PH1 under CPU bottom side :**  
 CPU thermal protection at 90 +-3 degree C  
 Recovery at 47 +-3 degree C



| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | Compal Secret Data |                   | Compal Electronics, Inc. |                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|-------------------|--------------------------|------------------------------|
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <Issued_Date> | Deciphered Date    | <Deciphered_Date> | Title                    | BATTERY CONN                 |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                    |                   | Custom                   | <Doc>                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                    |                   | Date:                    | Thursday, September 21, 2006 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                    |                   | Sheet                    | 43 of 38                     |

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

| Item | Fixed Issue | Reason for change                            | Rev. | PG# | Modify List                                                                     | Note     | Phase |
|------|-------------|----------------------------------------------|------|-----|---------------------------------------------------------------------------------|----------|-------|
| 1    |             |                                              | 0.2  | 6   | Change C94,C95,C286 from SGA20331D80 to SGA20331D20                             | Debug DB |       |
| 2    |             | Change U31 to LF parts                       | 0.2  | 25  | Change U31 from SA204680000 to SA204680010                                      | Debug DB |       |
| 3    |             | LID switch material error                    | 0.2  | 30  | Change SW3 from SN511000300 to SN111000207                                      | Debug DB |       |
| 4    |             | CardBus controller material error            | 0.2  | 23  | Change U38 from SA014100310 to SA014100130                                      | Debug DB |       |
| 5    |             | Un-install some bridge between AGND and DGND | 0.2  | 25  | Un-install R1934,R1936,R1938,R1940                                              | Debug DB |       |
| 6    |             | Let XMIT# match SW's GPIO definition         | 0.2  | 24  | Delete Q46,R1913,R1914                                                          | Debug DB |       |
| 7    |             | Modify Head phone sense's level              | 0.2  | 27  | Delete R1990 ; Change C1526 to 0.1u 0402 cap ;<br>Change R1991 to 20K resistor. | Debug DB |       |
| 8    |             | Reserve for SB internal +1.5VALW regulator   | 0.2  | 18  | Add R81 and R50                                                                 | Debug DB |       |
| 9    |             | HDD and ODD can't work at same time          | 0.2  | 21  | Add R27 pull high                                                               | Debug DB |       |
| 10   |             |                                              |      |     |                                                                                 |          |       |
| 11   |             | DB phase loss                                | 0.2  | 23  | JP54(PCMCIA connector) pin 71, pin72 connect to GND                             | Debug DB |       |
| 12   |             | XMIT# Reserved pull high                     | 0.2  | 24  | Reserve R1913 pull high +3VALW                                                  |          |       |
| 13   |             | DB phase error                               | 0.2  | 17  | Change RP43, RP44, RP45 package SIZE from 0804 to1206                           |          |       |
| 14   |             | Cost down                                    | 0.2  | 19  | ChangeR732, R733, R737, R739 to RP46                                            |          |       |
| 15   |             | Cost down                                    | 0.2  | 17  | ChangeR277, R274, R265, R279 to RP47                                            |          |       |
| 16   |             | Cost down                                    | 0.2  | 17  | ChangeR269, R268, R245, R262 to RP48                                            |          |       |
| 17   |             | Reserver a resistor for 2nd source Amp       | 0.2  | 27  | Add R28 for 2nd source Amp                                                      |          |       |
| 18   |             | Avoid DISPLAYOFF# error status to high       | 0.2  | 14  | Change R120 to 47K and R9 to 4.7K                                               |          |       |
| 19   |             | Avoid DISPLAYOFF# error status to high       | 0.2  | 14  | Remove R4, C1 and Add C2. Change pull-up RES R8 with<br>+3VALW to Q1 gate net   |          |       |
| 20   |             | EMI Request                                  | 0.2  | 23  | Change C641 from 0.1u to 680P, Add C1538(680p) for +3V_CB                       |          |       |
| 21   |             | EMI Request                                  | 0.2  | 23  | Change J4, J6 to bead L37, L38(SM010016810)                                     |          |       |
| 22   |             | EMI Request                                  | 0.2  | 31  | Add C1540, C1541, C1542, C1543, C1544 for +1.8V cross plane                     |          |       |
| 23   |             | EMI Request                                  | 0.2  | 14  | Add C1533, C1534, C1535, C1536, C1537 for LVDS EMI Solution                     |          |       |
| 24   |             | EMI Request                                  | 0.2  | 14  | Change L35 from R to Bead                                                       |          |       |
| 25   |             | EMI Request                                  | 0.2  | 25  | Change R1946, R1945 to Bead L40, L41 and Add L39 For codec regulator            |          |       |
| 26   |             | EMI Request                                  | 0.2  | 27  | Add C1492, C1493                                                                |          |       |
| 27   |             | EMI Request                                  | 0.2  | 27  | Change R1982, R1987, R1989 to Bead L42, L43, L44                                |          |       |
| 28   |             |                                              |      |     |                                                                                 |          |       |



| Item | Fixed Issue | Reason for change                                      | Rev. | PG# | Modify List                                                                                  | B.Ver# | Phase |
|------|-------------|--------------------------------------------------------|------|-----|----------------------------------------------------------------------------------------------|--------|-------|
| 1    |             | EMI Request                                            | 0.2  | 28  | Add C1539(0.1u) for Touch Pad +5VALW                                                         |        |       |
| 2    |             | EMI Request                                            | 0.2  | 22  | Add C1516、 C1517 for LAN Transformer                                                         |        |       |
| 3    |             | EMI Request                                            | 0.2  | 30  | Add C1545、 C1546、 C1547、 C1548、 C1549、 C1550 for Cardbus reference +5VALW power plane to GND |        |       |
| 4    |             | Change LCD pin define                                  | 0.2  | 14  | Change LCD pin define                                                                        |        |       |
| 5    |             | Reserve ESD diode for SPEAKER                          | 0.2  | 27  | Reserve D45                                                                                  |        |       |
| 6    |             | EMI Request                                            | 0.2  | 16  | Change PJP14、 PJP15 to Bead                                                                  |        |       |
| 7    |             | Reserve a resistor to disable AMOM                     | 0.2  | 25  | Add R2012                                                                                    |        |       |
| 8    |             | Place JKCLK series resistor with 2 inches of the 82560 | 0.2  | 22  | Add R2013 The 33 ohm series resistor is required for signal integrity                        |        |       |
| 9    |             | Add B channel from compatible with Others              | 0.3  | 9   | Connect NB LVDS B Channel to LVDS connector                                                  |        |       |
| 10   |             | Modify DISPLAYOFF# circuit                             | 0.3  | 14  | Connect BK_EN and BKOFF# to U13A gate to generate DISPLAYOFF#                                |        |       |
| 11   |             | Let EC control BK_EN                                   | 0.3  | 29  | Remove D28,D13 add R2014, Change R9 from 4.7Kohm to 100Kohm                                  |        |       |
| 12   |             | EC Reset dis-charge                                    | 0.3  | 29  | Connect BK_EN from NB to EC pin33(GPIO15)                                                    |        |       |
| 13   |             | EC Reset dis-charge                                    | 0.3  | 29  | Add a DIODE D46 for EC reset discharge                                                       |        |       |
| 14   |             | MotherBoard ID change to PV                            | 0.3  | 29  | R1996 install 1Kohm,R1997 install 2Kohm                                                      |        |       |
| 15   |             | Change LVDS CONN pin assignment for compatible         | 0.3  | 14  | Add LVDS Channel B from NB and change pin assignment                                         |        |       |
| 16   |             | Reserve two USB port connector                         | 0.3  | 19  | Add JP59,R2017,R2018                                                                         |        |       |
| 17   |             | Reserve bottom board connector                         | 0.3  | 30  | Add JP60,R2015                                                                               |        |       |
| 18   |             | Modify LVDS power circuit                              | 0.3  | 14  | Change Q3 pull high from +3VAL to +5VAL,Add R2016,C1551                                      |        |       |
| 19   |             | Delete MB standoff                                     | 0.3  | 31  | Change C1532 from 0.01U to 0.047U                                                            |        |       |
| 20   |             | Delete L39                                             | 0.3  | 25  | Delete H22                                                                                   |        |       |
| 21   |             | Delete L39                                             | 0.3  | 25  | Delete L39                                                                                   |        |       |
| 22   |             | WL ON/OFF & Wireless LED pull high voltage             | 0.3  | 28  | Change pull high voltage form +5VS to +3VS;R1915 from 200 ohm to 27ohm                       |        |       |
| 23   |             | EMI Request                                            | 0.3  | 22  | Add C1552,C1553                                                                              |        |       |
| 24   |             | Change amplifier gain                                  | 0.3  | 27  | Change R425,R424 from 34.8k to 20k; R429 from 16.2k to 10k                                   |        |       |
| 25   |             | Change value of RTC capacitor                          | 0.3  | 18  | Change C115,C113 from 18P to 15P                                                             |        |       |
| 26   |             | EMI Request                                            | 0.3  | 28  | Reserve D47                                                                                  |        |       |
| 27   |             | Reserve +3VS for LAN connector LED                     | 0.3  | 22  | Add R2019,R2020                                                                              |        |       |
| 28   |             | EMI Request                                            | 0.3  | 12  | Change C562,C563,C566,C567,C568 from 680P to 220P                                            |        |       |

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| Item | Fixed Issue                           | Reason for change                             | Rev. | PG#      | Modify List                                                  | B.Ver# | Phase |
|------|---------------------------------------|-----------------------------------------------|------|----------|--------------------------------------------------------------|--------|-------|
| 1    | LAN signal measure fail on Intel site | Delete EMI capacitor                          | 1.0  | 22       | Change C1516,C1517 to NI                                     |        |       |
| 2    | WLAN LED work wrong                   | Add two resister to select WL_LED and XMIT#   | 1.0  | 24       | Add R2021,R2022 ; R2022 NI ,R2021 0 ohm                      |        |       |
| 3    |                                       | increase RTC battery life                     | 1.0  | 18       | D42 pin2 change power form +3VALW to +3VLP                   |        |       |
| 4    | EMITest fail from LAN                 | Follow intel reference design                 | 1.0  | 22       | C1517 change form 0.01u to 0.1U and C1516 NI                 |        |       |
| 5    | EMITest fail from LAN                 | Add parallel damping test is PASS but marging | 1.0  | 18、 22   |                                                              |        |       |
| 6    | MIC always on have noise              | Add MIC_Sense pin to detect MIC plug in       | 1.0  | 25       | R1954 change from 10k to 0 ohm                               |        |       |
| 7    | MIC always on have noise              | Add MIC_Sense pin to detect MIC plug in       | 1.0  | 27       | Add R ? and C ? , MIC connector pin 3、 pin 5 connect to AGND |        |       |
| 8    | M/B ID                                | Change to 3.3V for MV                         | 1.0  | 29       | R1997 Change to NI                                           |        |       |
| 9    | reduce S3 power consumption           | Disable wake on LAN function                  | 1.0  | 19 20 22 | Change R16,R11R70 to NI;R15,R12,R71 0 hom                    |        |       |
| 10   | AMON capacitor duplication            | C1533,C1552 replace with MC906,MC908          | 1.0  | 26       | Change MC906,MC908 NI                                        |        |       |
| 11   |                                       |                                               |      |          |                                                              |        |       |
| 12   |                                       |                                               |      |          |                                                              |        |       |
| 13   |                                       |                                               |      |          |                                                              |        |       |
| 14   |                                       |                                               |      |          |                                                              |        |       |
| 15   |                                       |                                               |      |          |                                                              |        |       |
| 16   |                                       |                                               |      |          |                                                              |        |       |
| 17   |                                       |                                               |      |          |                                                              |        |       |
| 18   |                                       |                                               |      |          |                                                              |        |       |
| 19   |                                       |                                               |      |          |                                                              |        |       |
| 20   |                                       |                                               |      |          |                                                              |        |       |
| 21   |                                       |                                               |      |          |                                                              |        |       |
| 22   |                                       |                                               |      |          |                                                              |        |       |
| 23   |                                       |                                               |      |          |                                                              |        |       |
| 24   |                                       |                                               |      |          |                                                              |        |       |
| 25   |                                       |                                               |      |          |                                                              |        |       |
| 26   |                                       |                                               |      |          |                                                              |        |       |
| 27   |                                       |                                               |      |          |                                                              |        |       |
| 28   |                                       |                                               |      |          |                                                              |        |       |

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

## Power section

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| Item | Reason for change                                                                                                               | PG# | Modify List                                                                                                                                                                                                                    | Date                         | Phase     |
|------|---------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------|
| 1    | Fine tune the 1.8V OCP set-point as 7.5A (minimum continue load)                                                                | 35  | Change PR68<br>From SD034182280 (S RES 1/16W 18.2K +-1% 0402)<br>To SD034154280 (S RES 1/16W 15.4K +-1% 0402)                                                                                                                  | 2006/05/26                   | Before DB |
| 2    | Fine tune the charge current as 3A (maximum)                                                                                    | 33  | Change PR20<br>From SD034137380 (S RES 1/16W 137K +-1% 0402)<br>To SD034100380 (S RES 1/16W 100K +-1% 0402)                                                                                                                    | 2006/05/30                   | Before DB |
| 3    | Fine tune the AC detector set-point                                                                                             | 33  | Change PR26<br>From SD034681380 (S RES 1/16W 681K +-1% 0402)<br>To SD028100480 (S RES 1/16W 1M +-5% 0402)                                                                                                                      | 2006/05/30                   | Before DB |
| 4    | Fine tune the 1.05V OCP set-point as 8.125A (minimum continue load)                                                             | 36  | Change PR82<br>From SD034274180 (S RES 1/16W 2.74K +-1% 0402)<br>To SD000009480 (S RES 1/16W 1.47K +-1% 0402)<br>Change PR92<br>From SD034909280 (S RES 1/16W 90.9K +-1% 0402)<br>To SD034499280 (S RES 1/16W 49.9K +-1% 0402) | 2006/05/30                   | Before DB |
| 5    | Fine tune the 1.5V OCP set-point as 5A (minimum continue load)                                                                  | 36  | Change PR83<br>From SD034274180 (S RES 1/16W 2.74K +-1% 0402)<br>To SD000009480 (S RES 1/16W 1.47K +-1% 0402)<br>Change PR93<br>From SD034909280 (S RES 1/16W 90.9K +-1% 0402)<br>To SD034715280 (S RES 1/16W 71.5K +-1% 0402) | 2006/05/30                   | Before DB |
| 6    | ID pin for 4 cells battery                                                                                                      | 38  | Add PR136<br>SD028100180 (S RES 1/16W 1K +-5% 0402)                                                                                                                                                                            | 2006/05/30                   | Before DB |
| 7    | PL1 crack issue                                                                                                                 | 32  | As manufactory's comments,<br>change the PL1 from multi-layer bead to<br>beadcore                                                                                                                                              | 2006/07/13                   | DB        |
| 8    | Modify the sequence of 3V/5V when DC mode                                                                                       | 34  | Connect the PQ30.1 from VS to +3VLP<br>Change PC41 from 0.1u to 0.047u                                                                                                                                                         | 2006/07/10                   | DB        |
| 9    | The transient of +1.8V is fail                                                                                                  | 35  | Change PR69 from 49.9K to 90.9K for transient                                                                                                                                                                                  | 2006/07/12                   | DB        |
| 10   | Due to the unstable of ISL6227,<br>change the +1.5V/ +1.05V solution to MAX8743                                                 | 36  | Change the +1.5V/ +1.05V solution<br>from ISL6227 to MAX8743,<br>included all the related components.                                                                                                                          | 2006/07/7                    | DB        |
| 11   | For EMI's concern                                                                                                               | 35  | Add PC116 (680pf)                                                                                                                                                                                                              | 2006/07/17                   | DB        |
| 12   | For EMI's concern                                                                                                               | 37  | PC115 (1000pf), PR106/PR132 (4.7ohm),<br>and PC90/ PC103 (680pf)                                                                                                                                                               | 2006/07/17                   | DB        |
| 13   | Modify the sequence of 1.8V for S3 can't<br>resume issue                                                                        | 35  | Change connection of PR64.1 from +5VS to<br>+5VALW                                                                                                                                                                             | 2006/08/02                   | SI        |
| 14   | For 4 series/ 3 series battery selection,<br>add circuit for changing charge voltage<br>as 16.8V (4 series) or 12.6V (3 series) | 33  | Add PQ33, PQ34, PR154, PR155 and PR156                                                                                                                                                                                         | 2006/08/10                   | SI        |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Compal Electronics, Inc.     |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Title                        |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | PWR PIR                      |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Revision Number              |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | LA-3361                      |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Rev                          |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | 0.1                          |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Date                         |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Thursday, September 21, 2006 |           |
|      |                                                                                                                                 |     |                                                                                                                                                                                                                                | Sheet                        |           |
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