

# Compal Confidential

## KAV60 Schematics Document

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

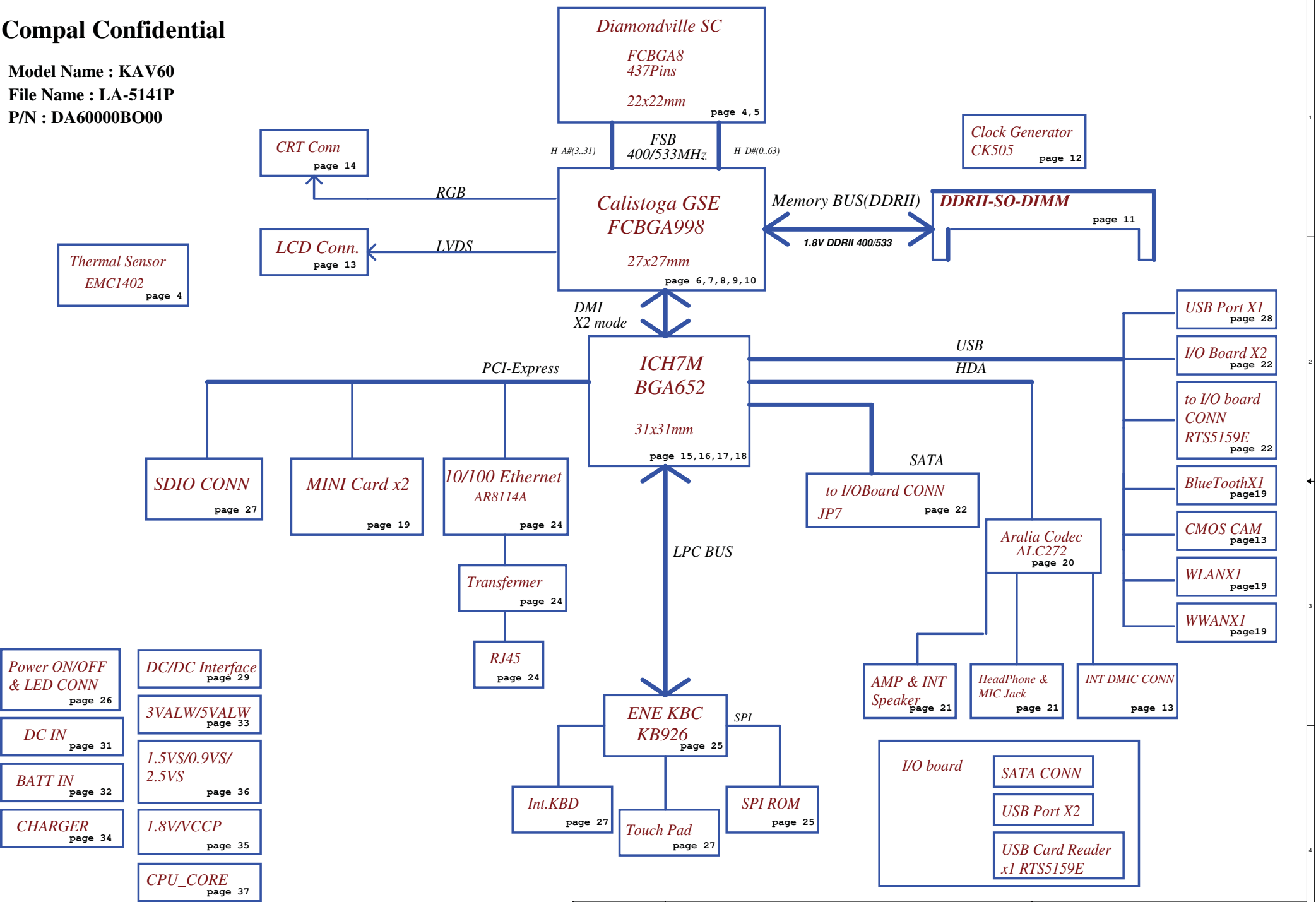
2009-02-22

REV: 1.0

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           |                          |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|-----------|--------------------------|-----------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |           | Compal Electronics, Inc. |                 |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | KAV60 LA-5141P           |                 |
| Date: Sunday, February 22, 2009                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Sheet 1                  | of 40           |
| Rev 0.2                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |           |                          |                 |

Compal Confidential

Model Name : KAV60  
File Name : LA-5141P  
P/N : DA60000BO00



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           |                                  |                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|-----------|----------------------------------|-----------------|
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Date: Thursday, January 22, 2009 | Rev 0.2         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | 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

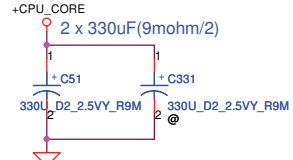
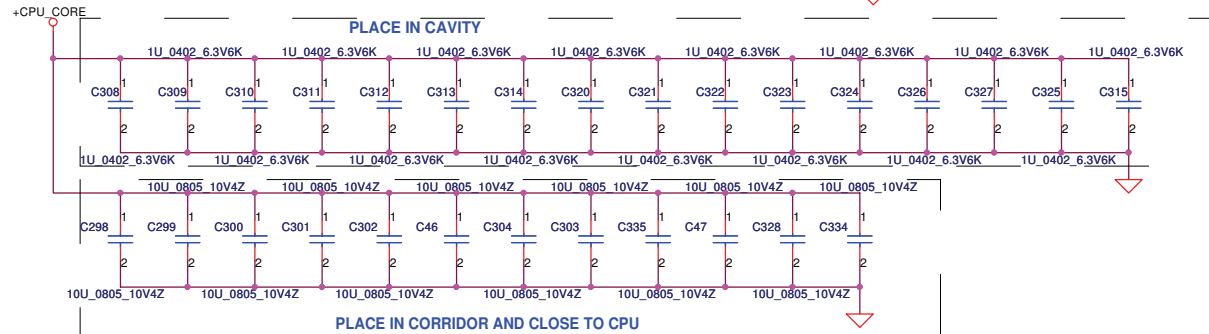
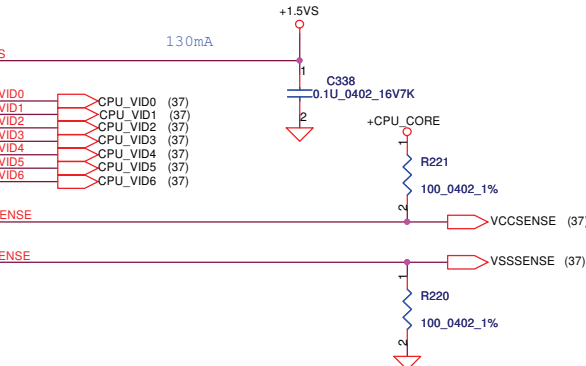
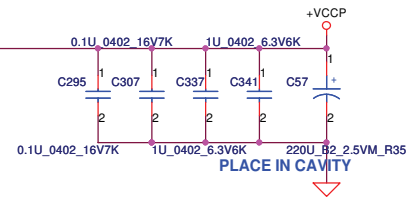
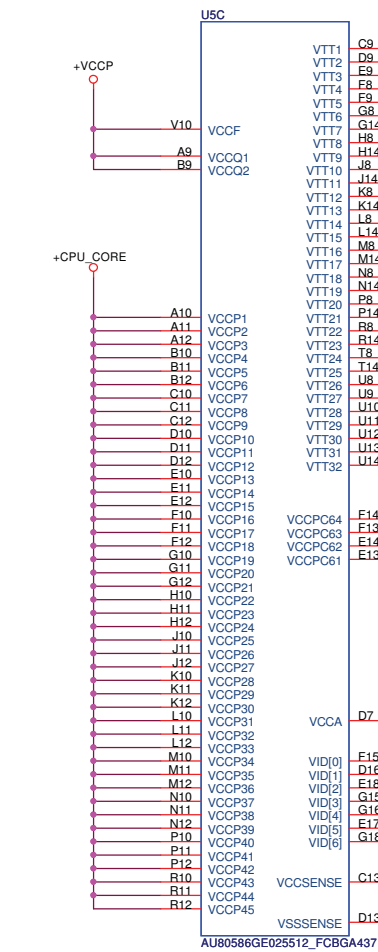
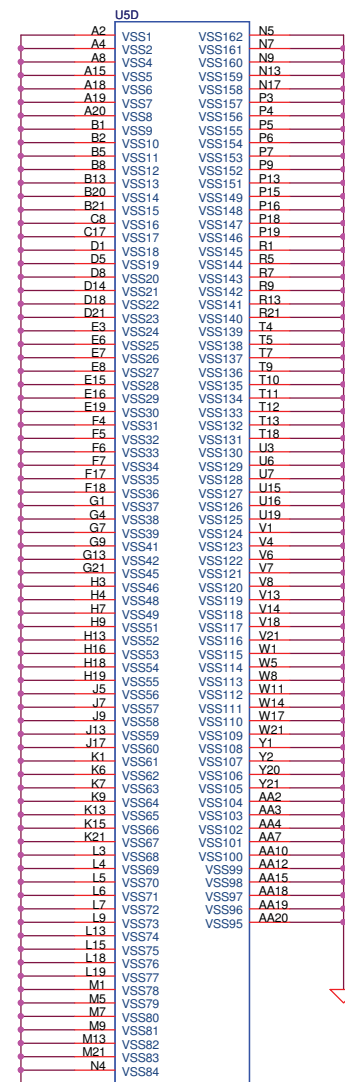
| Device  | Address     |
|---------|-------------|
| EMC1402 | 1001 100X b |

ICH7M SM Bus address

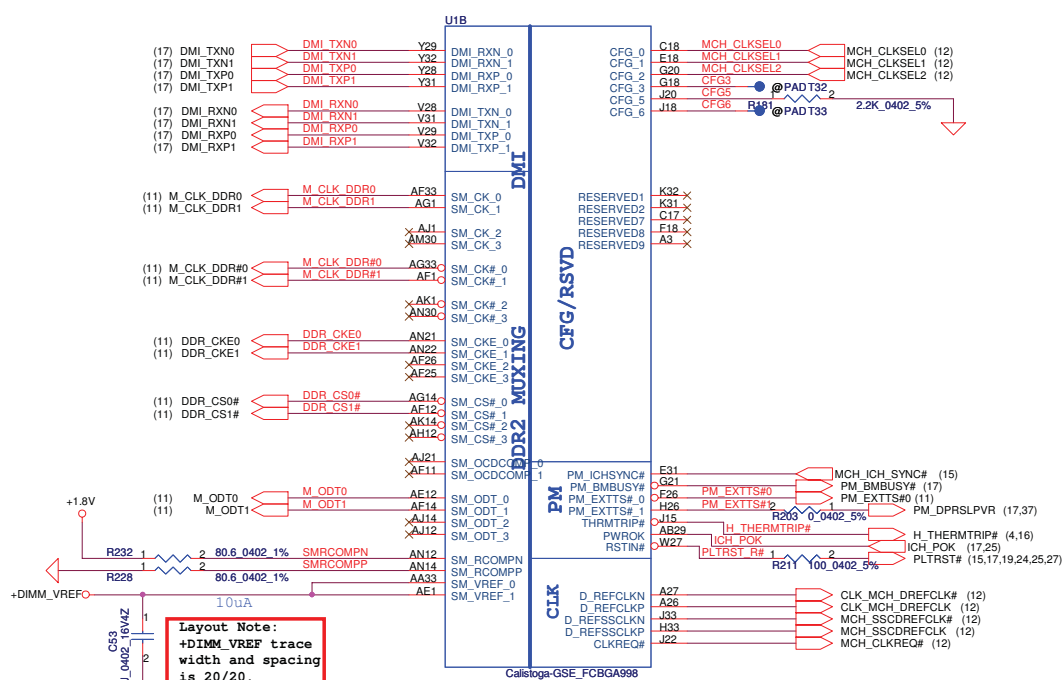
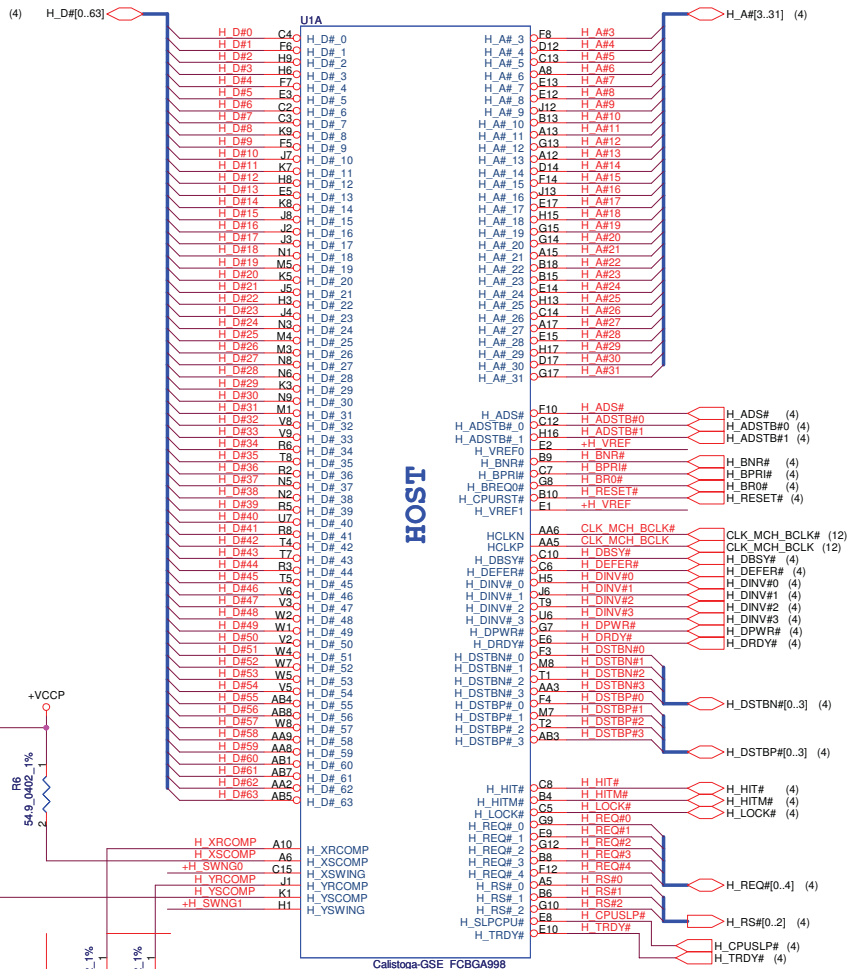
| Device                         | Address    |
|--------------------------------|------------|
| Clock Generator (SLG8SP556VTR) | 1101 001Xb |
| DDR DIMMA                      | 1010 000Xb |

| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |           | Compal Electronics, Inc.         |                 |       |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           | Sheet                            | 3               | of 40 |





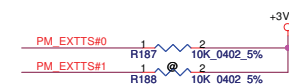
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Sunday, February 22, 2009 | 0.2             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Sheet                     | 5 of 40         |



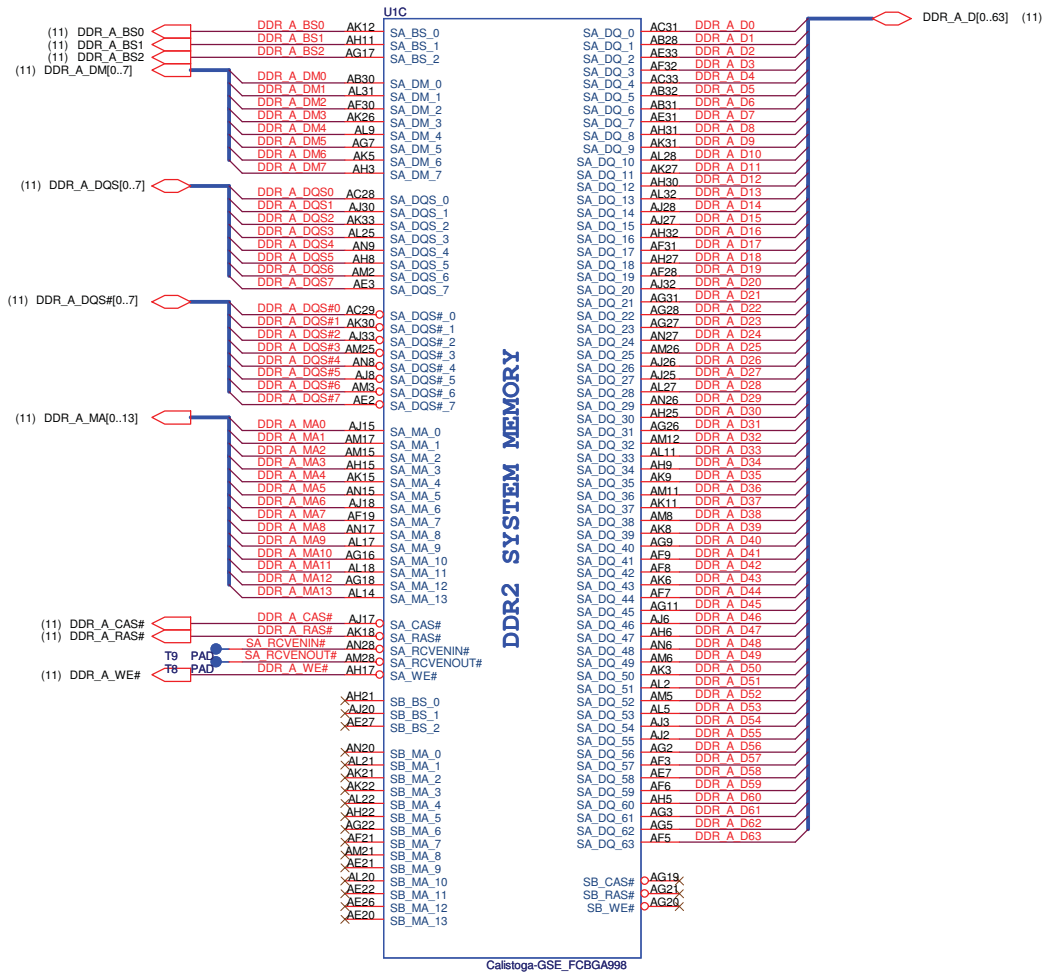
### Strap Pin Table

CFG5

Low = DMI x 2 \*  
High = DMI x 4



| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  | Compal Secret Data     |  |  |  | Compal Electronics, Inc.   |  |  |  |
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| Deciphered Date                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  | 2007/8/18              |  |  |  | Calistoga(1/5)-GTL/DMI/DDR |  |  |  |
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| Date: Sunday, February 22, 2009                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  | Rev 0.2                |  |  |  | 1 Sheet 6 of 40            |  |  |  |

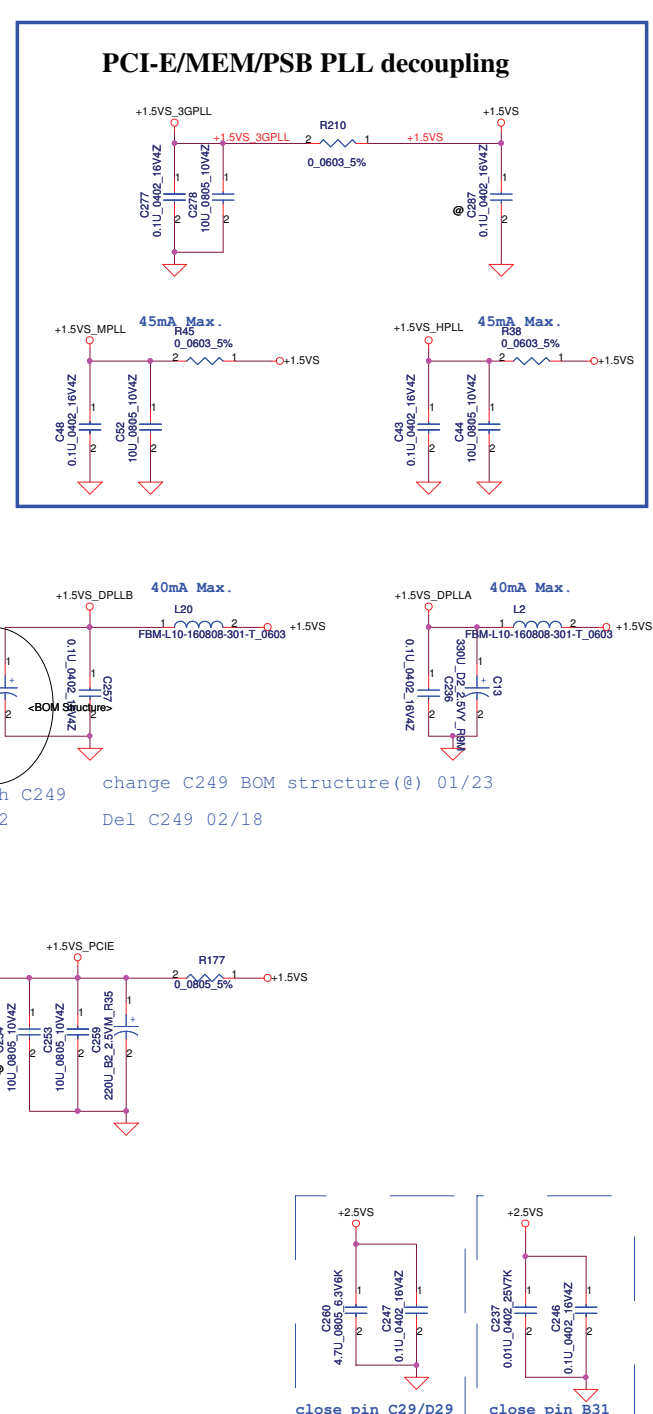


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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  | Size Custom              |  | Document Number           |                     | KAV60 LA-5141P |  | Rev 0.2 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  | Date:                    |  | Sunday, February 22, 2009 |                     | Sheet 7 of 40  |  |         |  |





|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           |                            |                 |            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Custpm                     | KAV60 LA-5141P  |            |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                    |           | Thursday, January 22, 2009 | Sheet 9 of 40   |            |

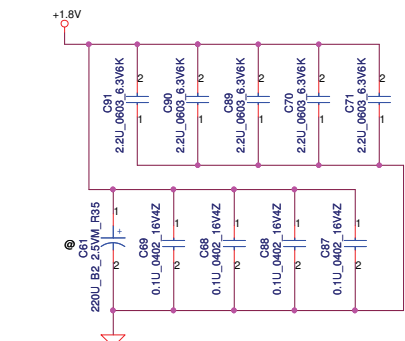


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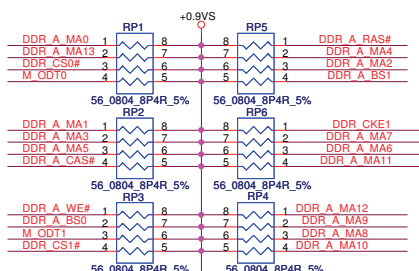
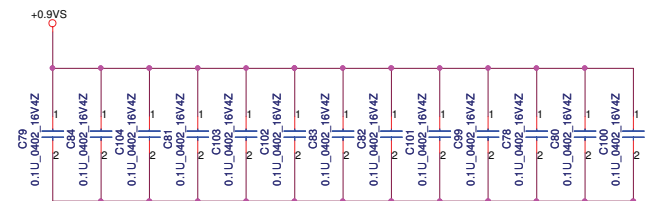
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| Size                            | Document Number              |                        | Rev   |
| Custom                          | KAV60 LA-5141P               |                        | 0.2   |
| Date:                           | Wednesday, February 18, 2009 | 16:41                  | of 40 |

- (7) DDR\_A\_DQS#[0..7]
- (7) DDR\_A\_D[0..63]
- (7) DDR\_A\_DM[0..7]
- (7) DDR\_A\_DQS[0..7]
- (7) DDR\_A\_MA[0..13]

Layout Note:  
Place near JDIM1



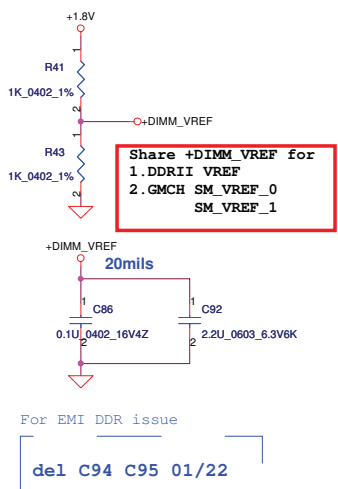
Layout Note:  
Place one cap close to every 2 pullup resistors terminated to +0.9VS



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



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



add JDIM1 pin 200 and pin 201 to GND 01/20

return the H5.2 footprint 11/24



change DIMMA from H5.2 to H4 11/17

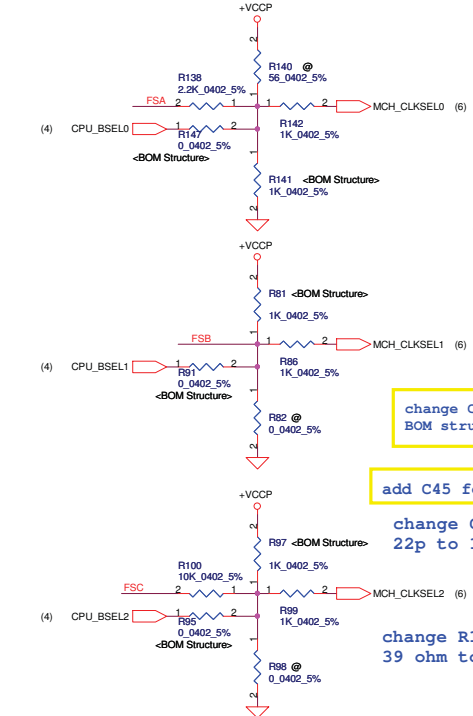


DIMMA

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|                         |  |            |  |                    |  |           |  | DDRII-SODIMMA                   |  |  |  |
|                         |  |            |  |                    |  |           |  | KAV60 LA-5141P                  |  |  |  |
|                         |  |            |  |                    |  |           |  | Date: Sunday, February 22, 2009 |  |  |  |
|                         |  |            |  |                    |  |           |  | Sheet 11 of 40                  |  |  |  |

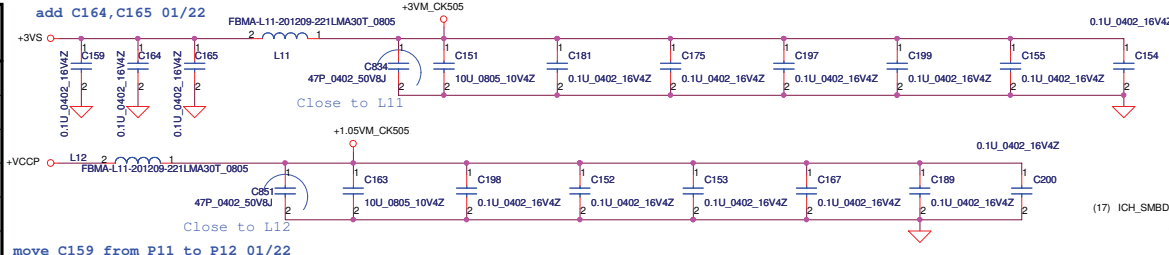
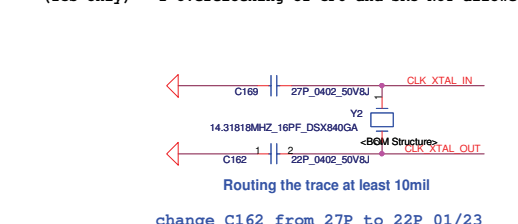
| FSC      | FSB     | FSA     | CPU | SRC | PCI  | REF    | DOT_96 | USB  |
|----------|---------|---------|-----|-----|------|--------|--------|------|
| CLKSEL2  | CLKSEL1 | CLKSEL0 | MHz | MHz | MHz  | MHz    | MHz    | MHz  |
| 0        | 0       | 0       | 266 | 100 | 33.3 | 14.318 | 96.0   | 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 |         |         |     |     |      |        |        |      |

change R141,R140,R147,R81,R91  
R82,R97,R95,R98 BOM structure 12/29  
change R141,R140,R147,R81,R91  
R82,R97,R95,R98 BOM structure 01/17

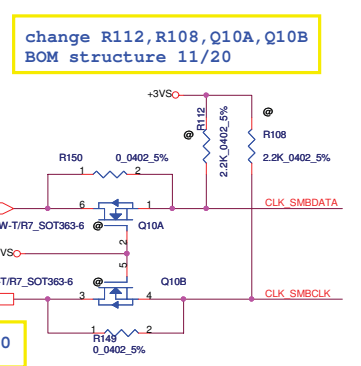
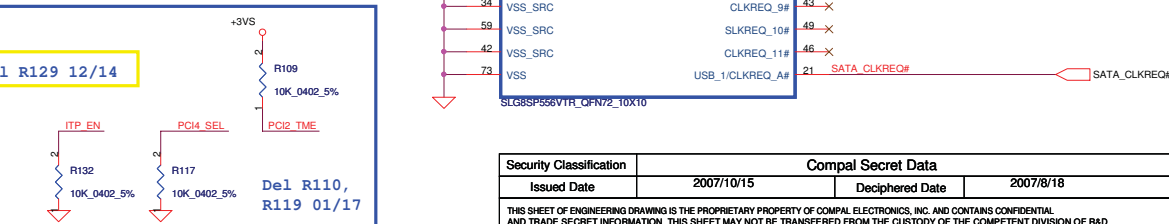
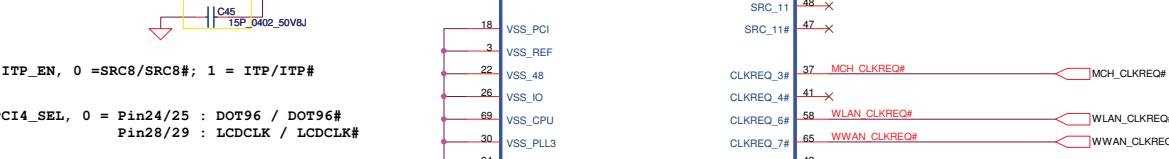
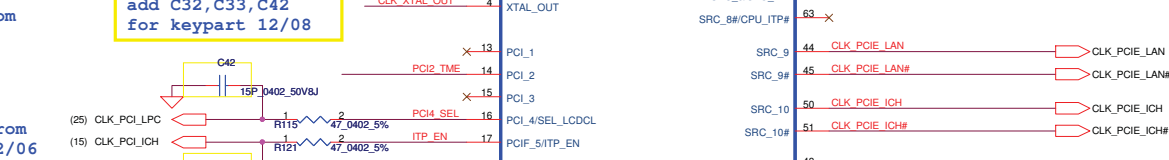
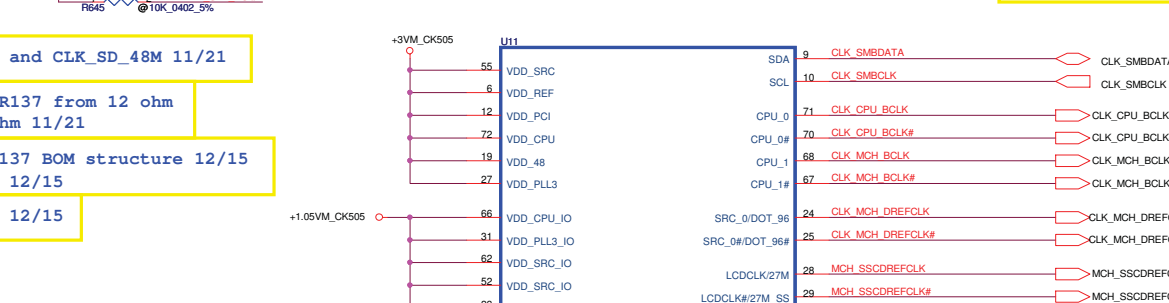


1 = Pin24/25 : SRC\_0 / SRC\_0#  
Pin28/29 : 27M/27M\_SS

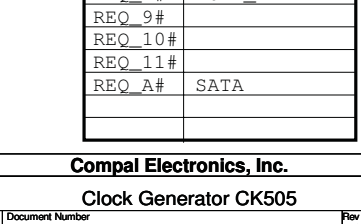
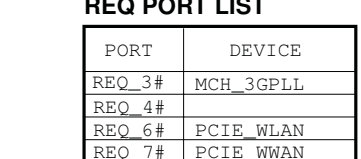
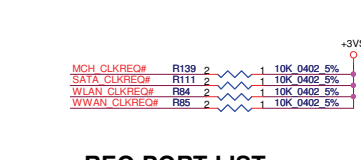
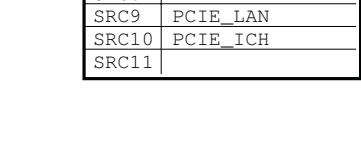
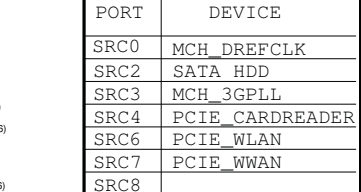
For PCI2\_TME:0=Overclocking of CPU and SRC allowed  
(ICS only) 1=Overclocking of CPU and SRC NOT allowed



add C164,C165 01/22  
move C159 from P11 to P12 01/22  
SA000020K00 (Silego : SLG8SP556VTR )  
SA000020H10 (ICS : ICS9LPRS387AKLFT)



change R112,R108,Q10A,Q10B  
BOM structure 11/20



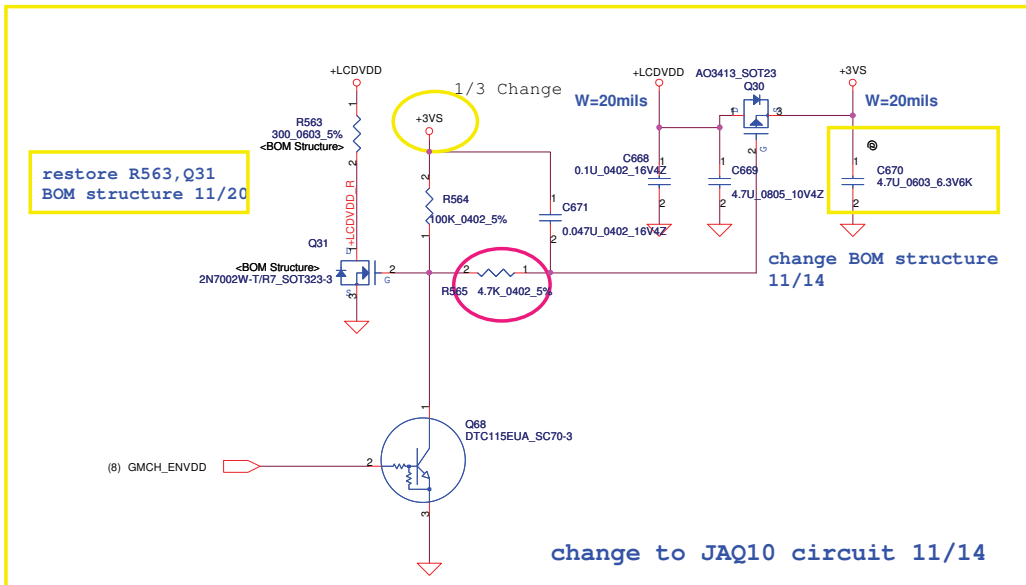
## SRC PORT LIST

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

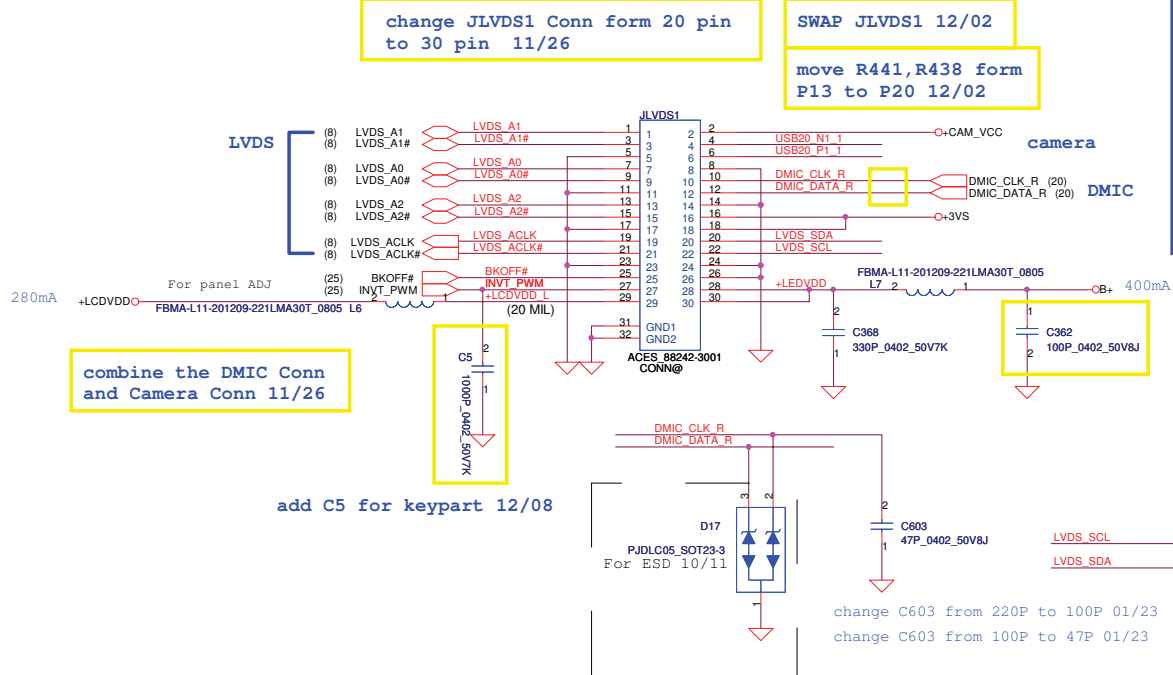
## REQ PORT LIST

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

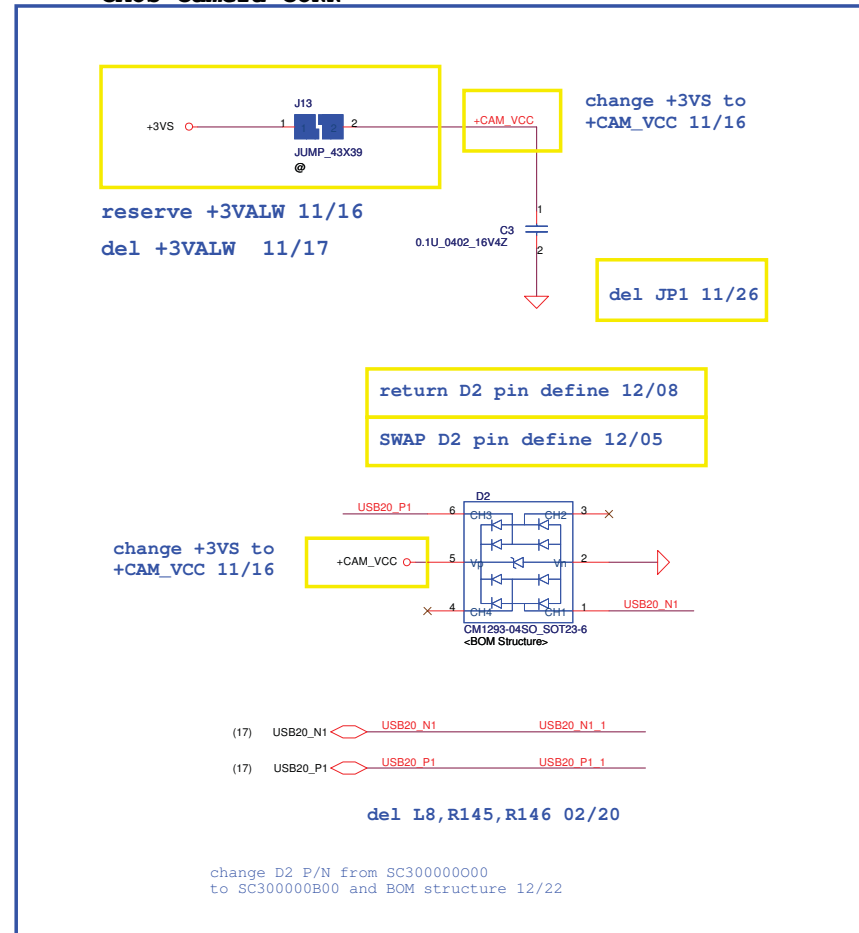
## LCD POWER CIRCUIT



## LCD/PANEL BD. Conn.

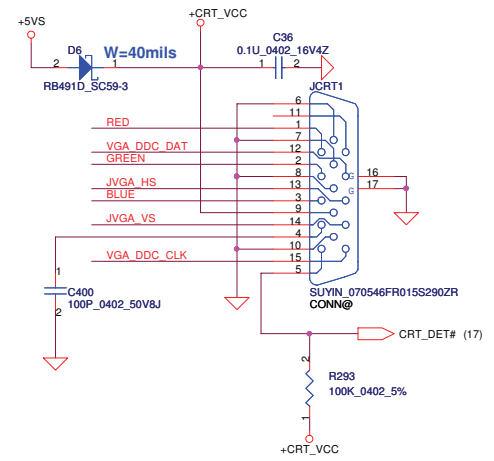
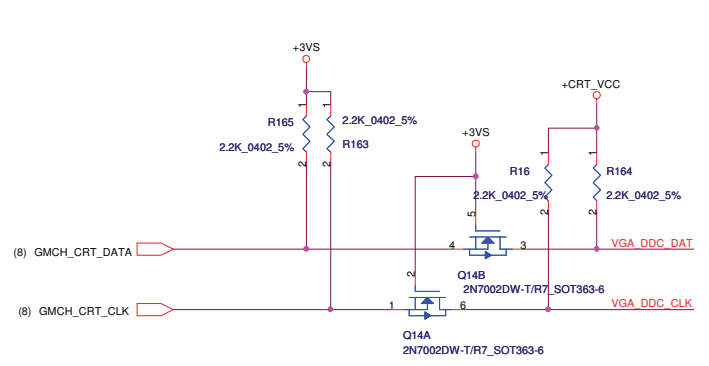
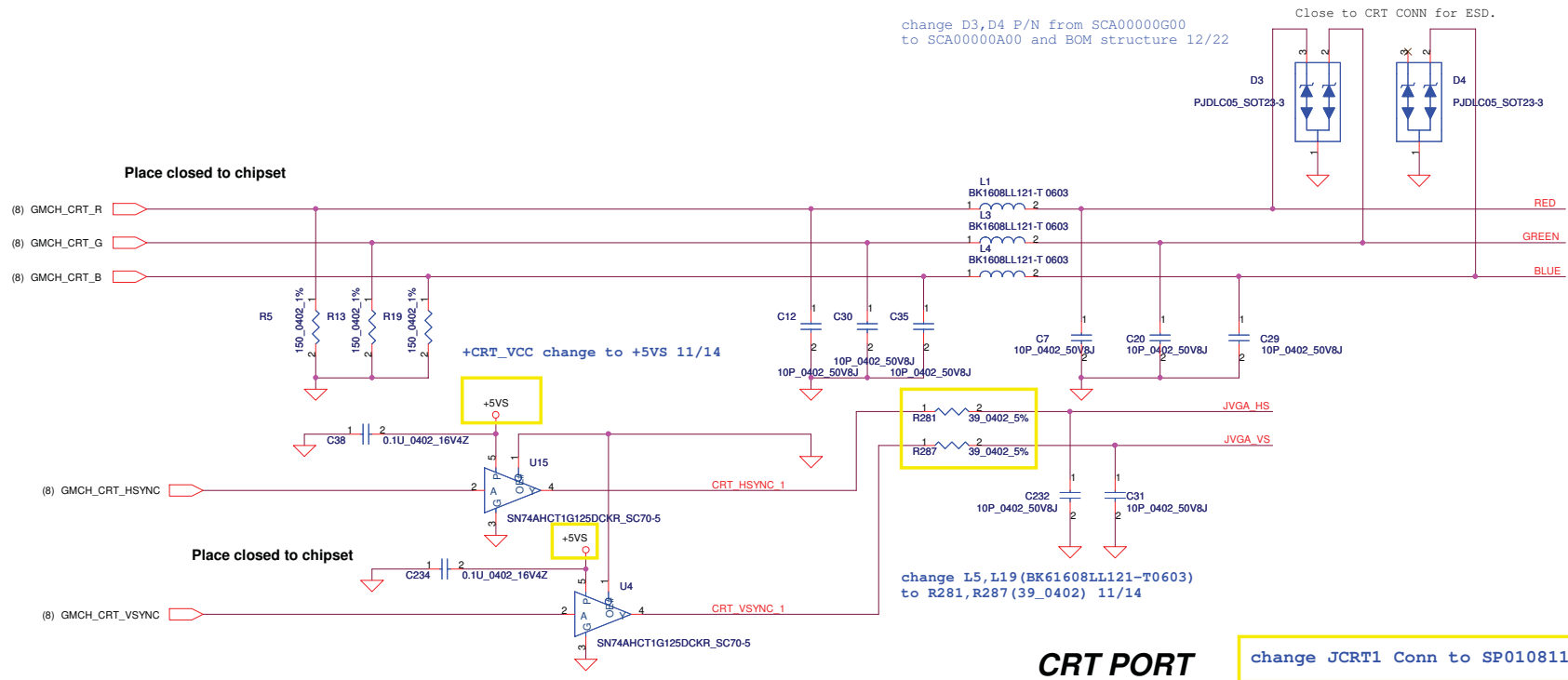


## CMOS Camera CONN

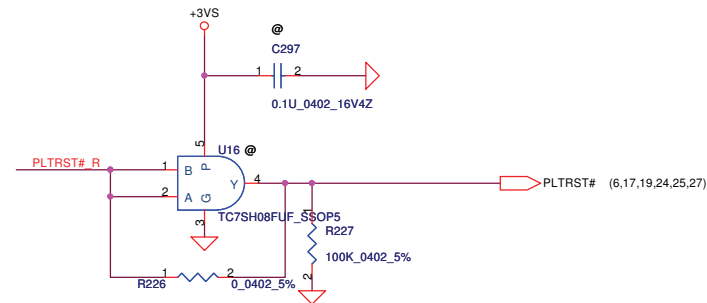
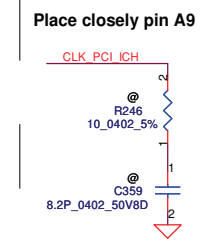
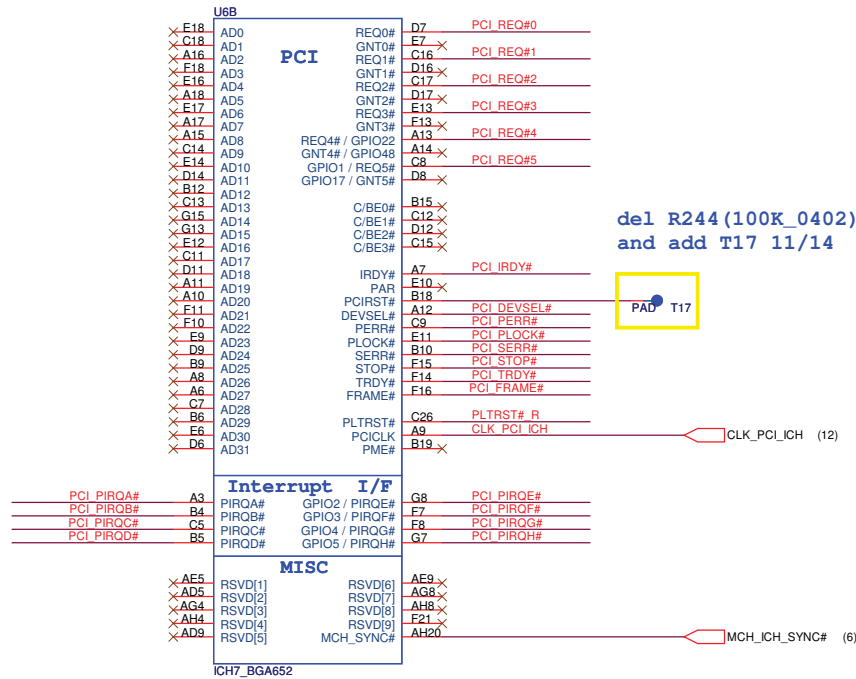
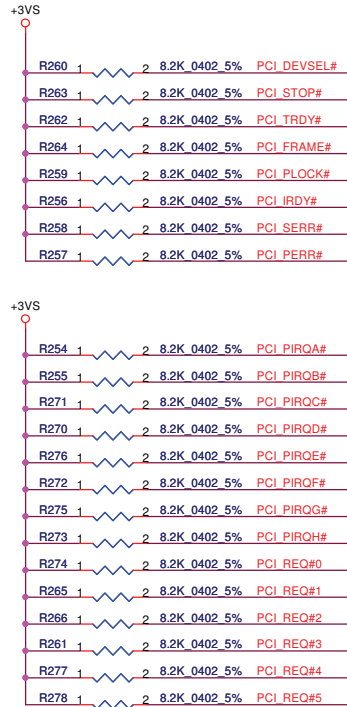


| Security Classification |  |            |  | Compal Secret Data |  |           |  | Compal Electronics, Inc. |  |                           |  |
|-------------------------|--|------------|--|--------------------|--|-----------|--|--------------------------|--|---------------------------|--|
| Issued Date             |  | 2006/08/18 |  | Deciphered Date    |  | 2007/8/18 |  | Title                    |  |                           |  |
|                         |  |            |  |                    |  |           |  | LVDS/Camera/DMIC conn    |  |                           |  |
|                         |  |            |  |                    |  |           |  | Size B                   |  | Document Number           |  |
|                         |  |            |  |                    |  |           |  |                          |  | KAV60 LA-5141P            |  |
|                         |  |            |  |                    |  |           |  |                          |  | Rev 0.2                   |  |
|                         |  |            |  |                    |  |           |  | Date:                    |  | Sunday, February 22, 2009 |  |
|                         |  |            |  |                    |  |           |  | Sheet                    |  | 13 of 40                  |  |

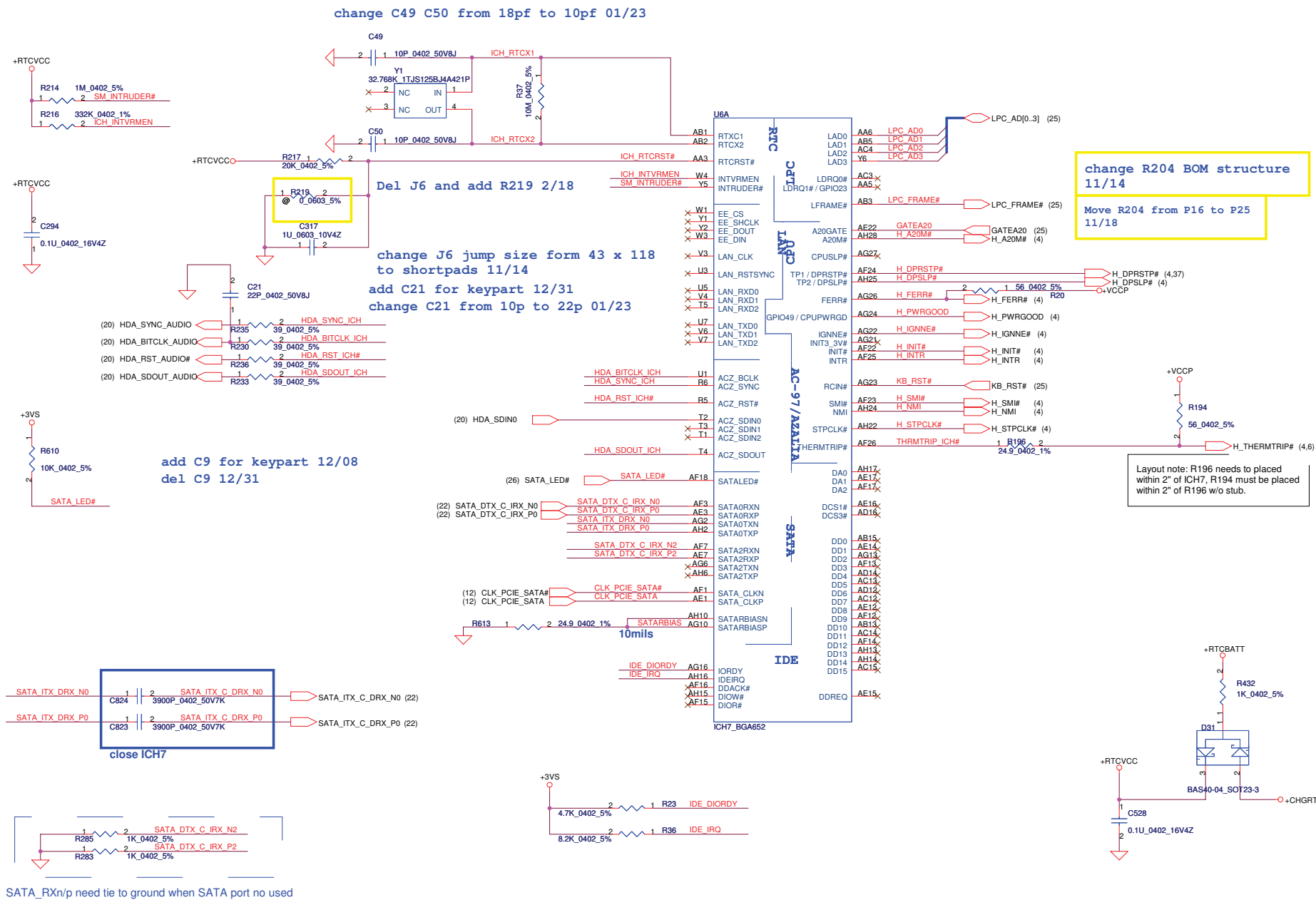
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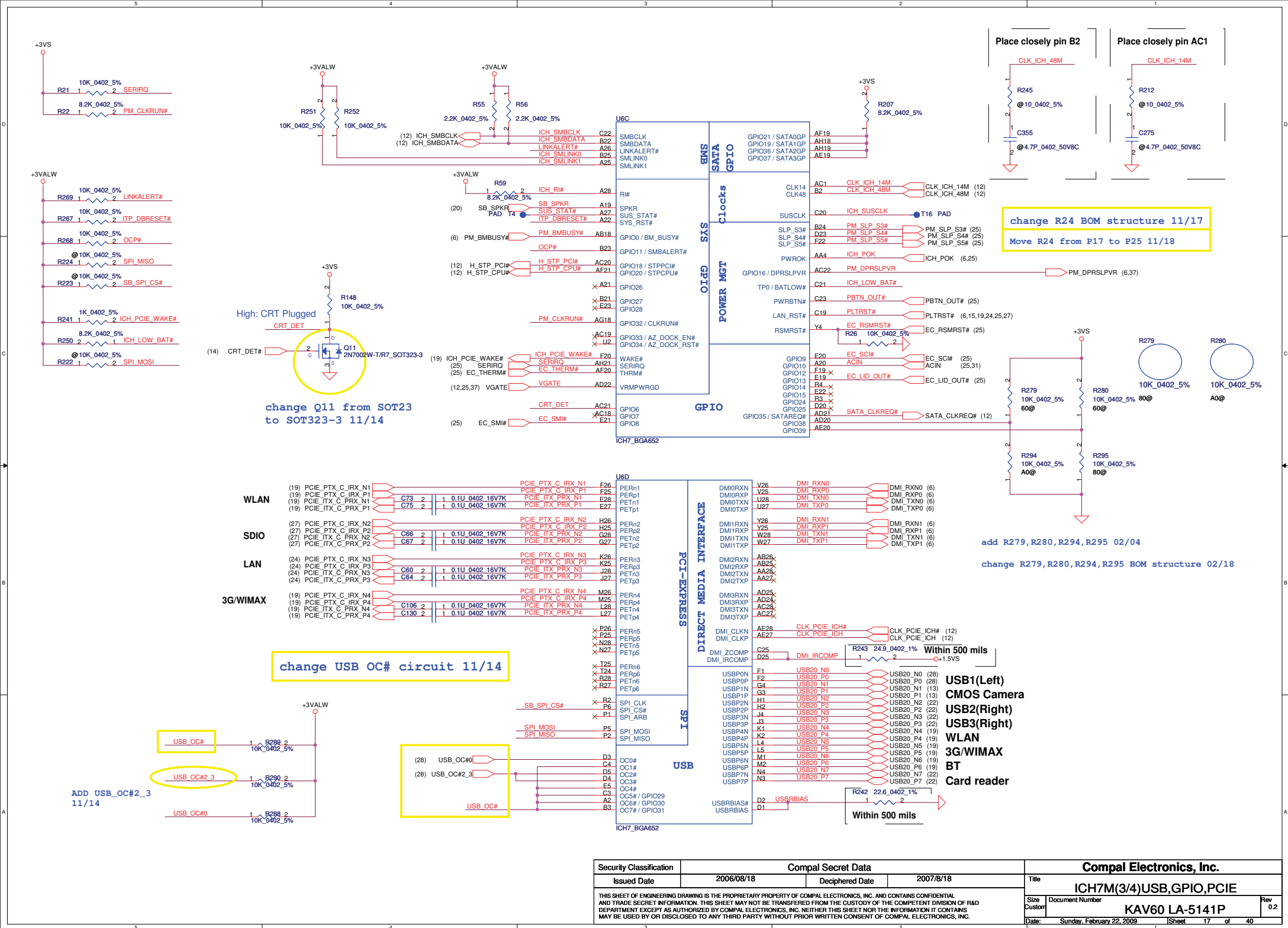


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  |                          |  |                           |  |                |  |         |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|-----------------|--|--------------------------|--|---------------------------|--|----------------|--|---------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Compal Secret Data |  |                 |  | Compal Electronics, Inc. |  |                           |  |                |  |         |  |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 2006/08/18         |  | Deciphered Date |  | 2007/8/18                |  | Title                     |  |                |  |         |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  | Size B                   |  | Document Number           |  | KAV60 LA-5141P |  | Rev 0.2 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  | Date:                    |  | Sunday, February 22, 2009 |  | Sheet 14       |  | of 40   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  | C                        |  | D                         |  | E              |  | F       |  |

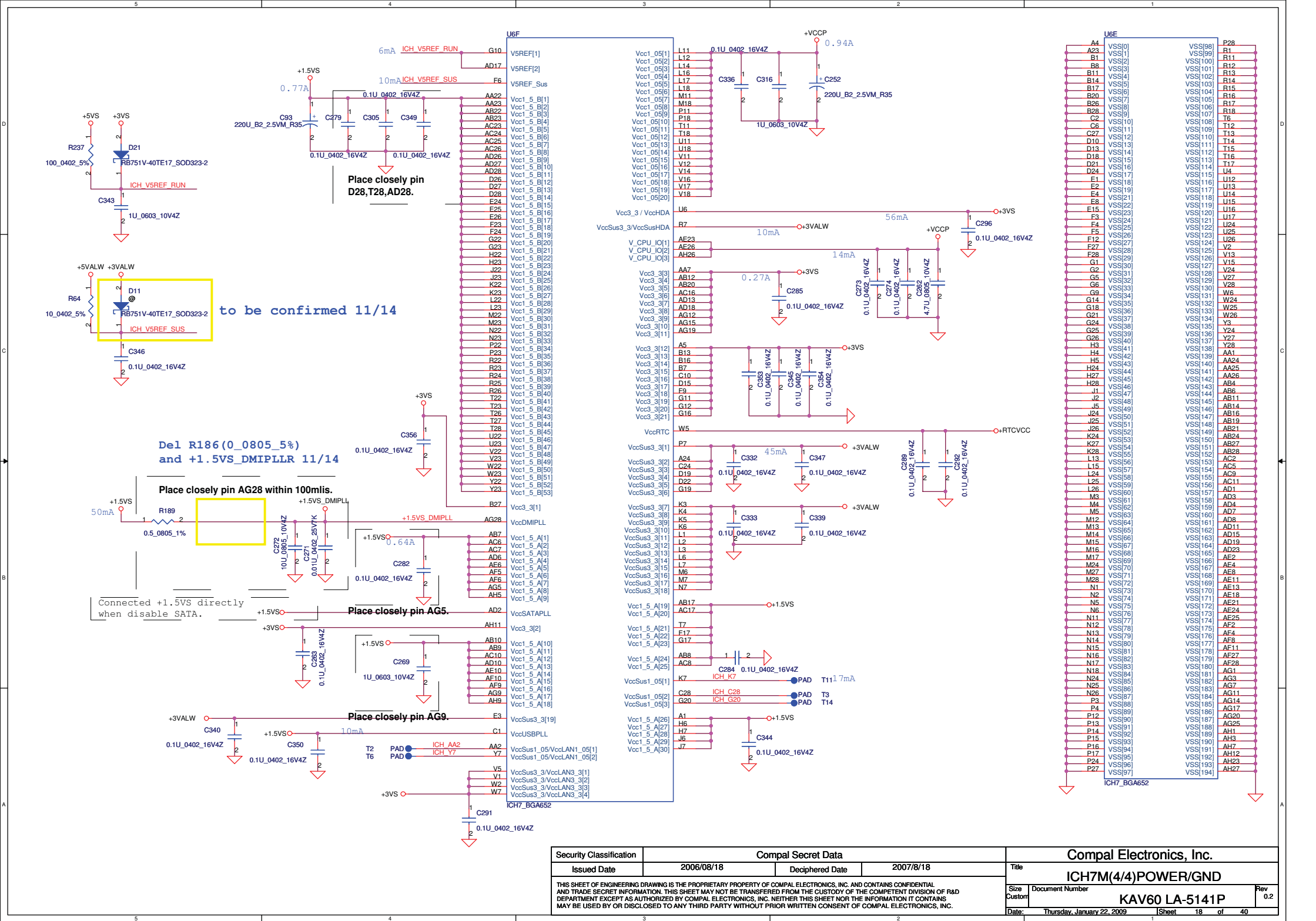


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                           |           |                          |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|-----------|--------------------------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data        |           | Compal Electronics, Inc. |  |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2006/08/18 | Deciphered Date           | 2007/8/18 | Title                    |  |
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| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Document Number           |           | Rev                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | KAV60 LA-5141P            |           | 0.2                      |  |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Sunday, February 22, 2009 |           | Sheet 15 of 40           |  |

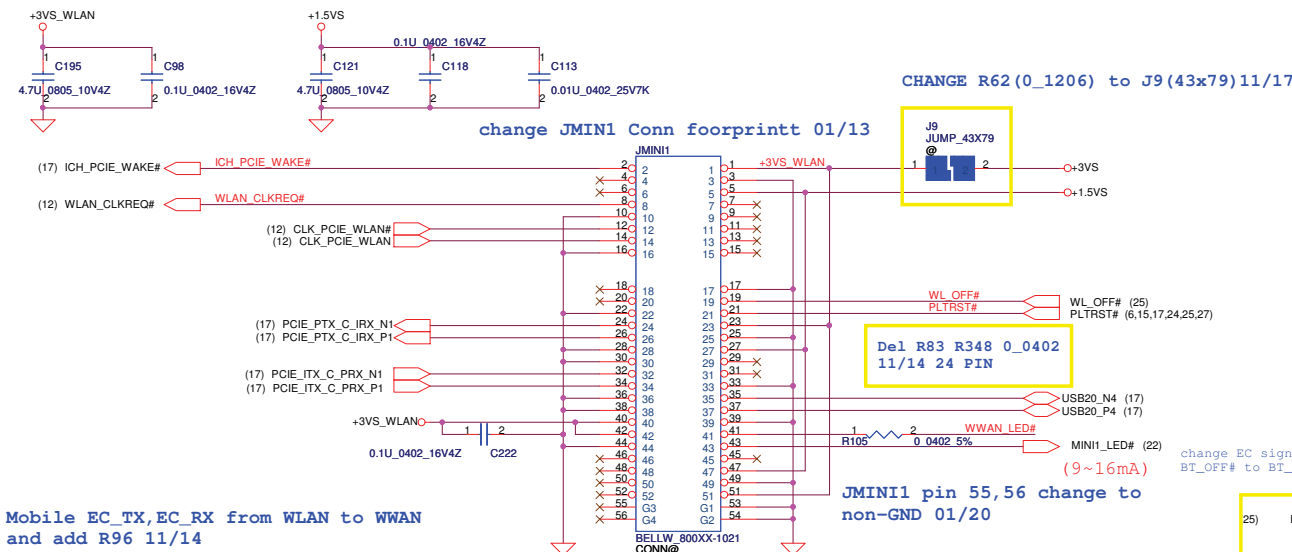




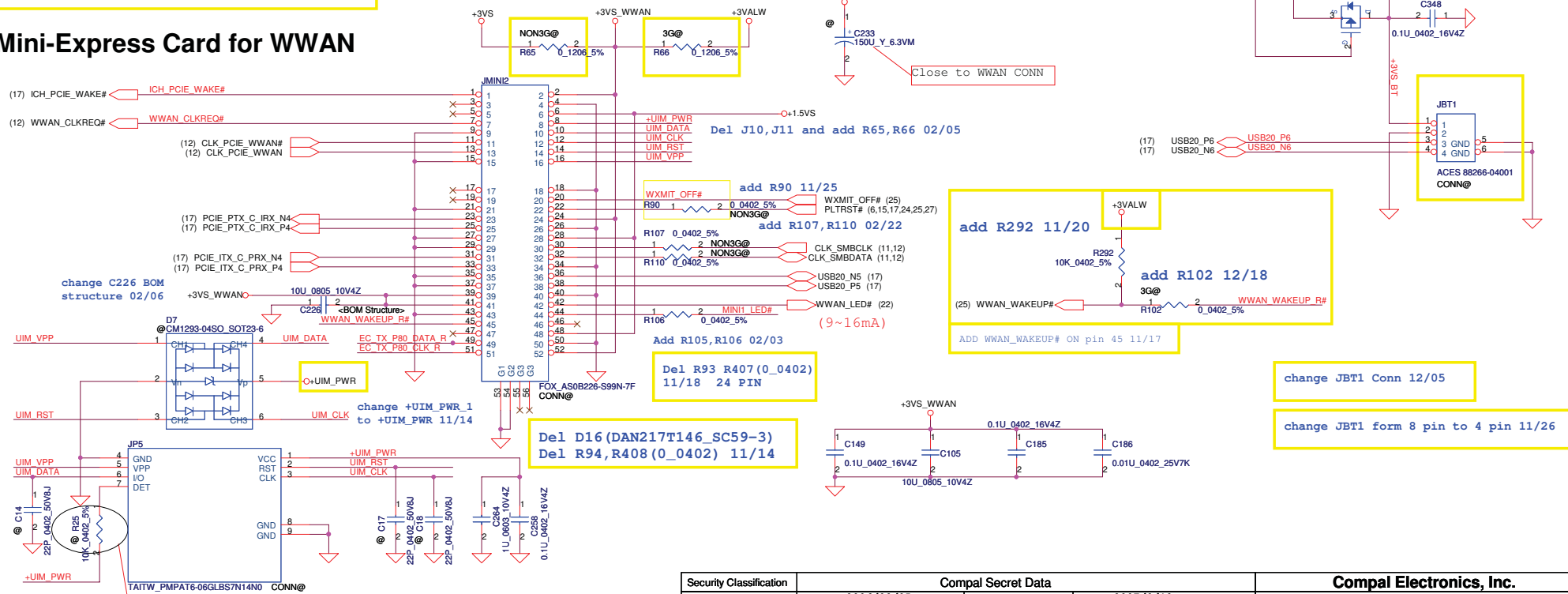
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           |                          |                           |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|-----------|--------------------------|---------------------------|----------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |           | Compal Electronics, Inc. |                           |                |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2006/08/18 | Deciphered Date    | 2007/8/18 | Title                    | ICH7M(3/4)USB,GPIO,PCIE   |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Custord                  | KAV60 LA-5141P            | 0.2            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Date:                    | Sunday, February 22, 2009 | Sheet 17 of 40 |



## Mini-Express Card for WLAN



## Mini-Express Card for WWAN

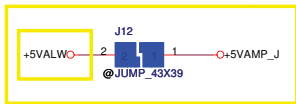


Reserve for SIM card does not meet rise time and pull-up is needed.

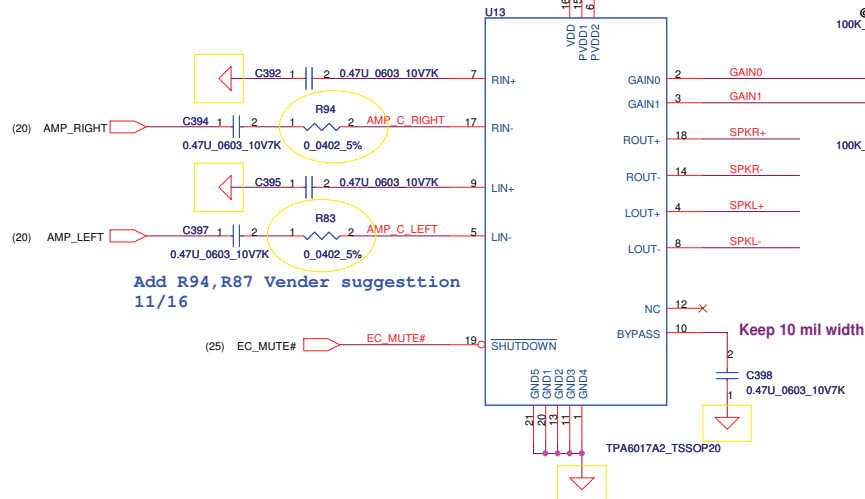
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                 |                          |           |       |                   |                           |                |       |     |     |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-----------------|--------------------------|-----------|-------|-------------------|---------------------------|----------------|-------|-----|-----|----|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Compal Secret Data |                 | Compal Electronics, Inc. |           |       |                   |                           |                |       |     |     |    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 2006/08/05         | Deciphered Date |                          | 2007/6/18 |       |                   |                           |                |       |     |     |    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                 |                          |           | Size  | Document Number   |                           | KAV60 LA-5141P |       | Rev | 0.2 |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                 |                          |           | Date: |                   | Sunday, February 22, 2009 |                | Sheet | 19  | of  | 40 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |                 |                          |           |       |                   |                           |                |       |     |     |    |



add J12 12/04

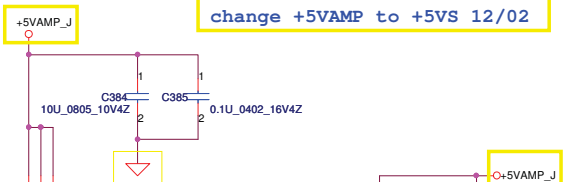


+5VS change to +5VALW 12/11



Add R94,R87 Vender suggestion 11/16

change +5VAMP to +5VS 12/02



Int. Speaker Conn.

20mil



Left  
Right

change JP20 Conn and pin design 11/26

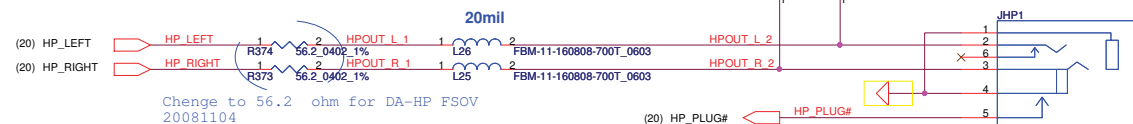
del R388,R387,R386,R385,D10,D13 12/11

change JP20 Conn 01/16

SWAP JP20 01/20

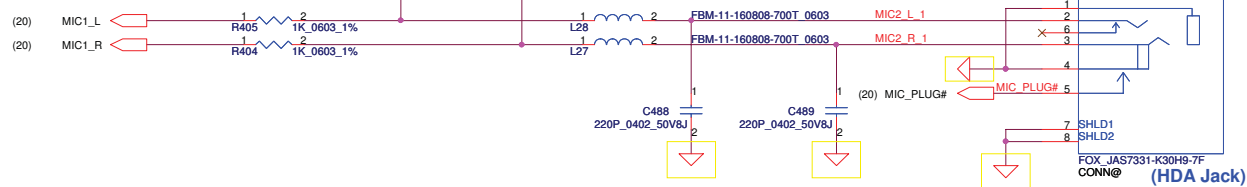
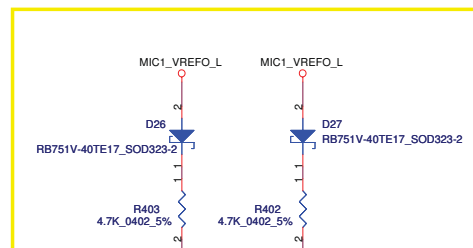
20081029 Update to 6dB

Analog ground change to digital ground 08/11/16



LINE Out/Headphone Out

11/16



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  |                        |                           |                |         |    |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|--------------------------|--|-----------|--|------------------------|---------------------------|----------------|---------|----|----|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Compal Secret Data |  | Compal Electronics, Inc. |  |           |  |                        |                           |                |         |    |    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 2006/12/25         |  | Deciphered Date          |  | 2007/8/18 |  | Title                  |                           |                |         |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  | Amplifier & Audio Jack |                           |                |         |    |    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  |                        |                           |                |         |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  |                        |                           |                |         |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  |                        |                           |                |         |    |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                          |  |           |  | Date:                  | Sunday, February 22, 2009 | Sheet          | 21      | of | 40 |

Move SATA HDD Conn to small board 11/21

SWAP JP7 pin define 12/03

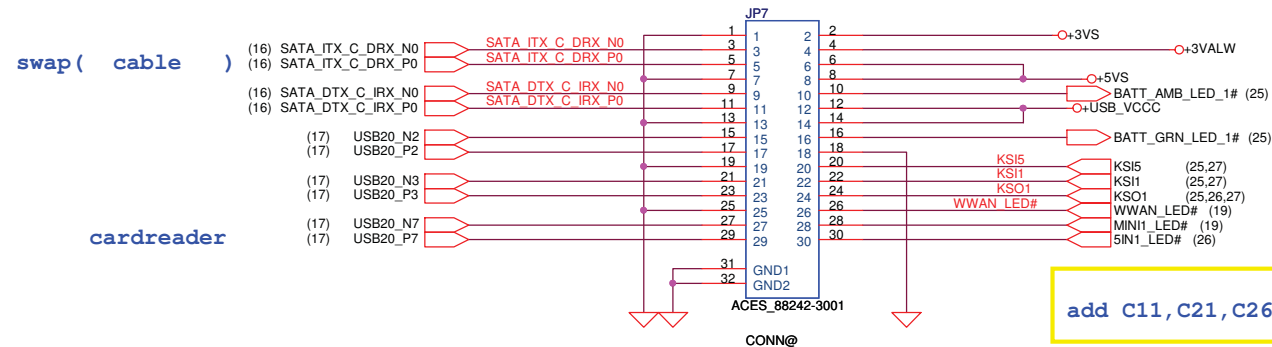
To cardreader/B Conn.

|      |         |
|------|---------|
|      | KSO1    |
| KSI1 | WL_BTN# |
| KSI5 | 3G_BTN# |

+3VS\_READER change to +3VALW 12/15

add net name BATT\_AMB\_LED#  
BATT\_GRN\_LED# 12/15

## SATA&CARDREADER&USB Conn



add J15 J16 12/08

del J15,J16,C21 12/15

add C11,C21,C26,C27 for keypart 12/08

add C28 for keypart 01/14

del C11,C28,C26 01/21

del C26 02/03

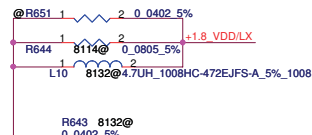
ADD SATA&CARDREADER&USB Conn(JP7) 11/26

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                           |                |                          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|----------------|--------------------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data        |                | Compal Electronics, Inc. |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2006/08/18 | Deciphered Date           | 2007/8/18      | Title                    |          |
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| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B          | Document Number           | KAV60 LA-5141P |                          | Rev      |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | Sunday, February 22, 2009 |                | Sheet                    | 22 of 40 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                           |                |                          | 0.2      |

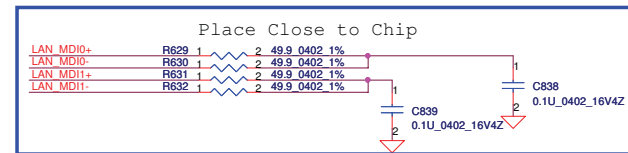
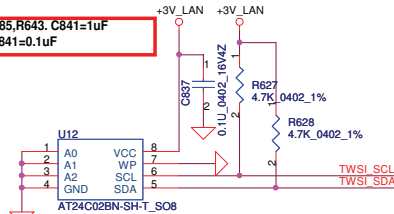
Move Card Reader to small board 11/21

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           |                          |                            |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-----------|--------------------------|----------------------------|----------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |           | Compal Electronics, Inc. |                            |                |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2006/08/04         | Deciphered Date | 2007/8/18 | Title                    | 5 in 1 Card reader         |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           | B                        | KAV60 LA-5141P             | 0.2            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           | Date:                    | Thursday, January 22, 2009 | Sheet 23 of 40 |

change R644 from 0603 to 0805 12/31  
change R643 from 0603 to 0402 12/31  
change C841 from 0603 to 0402 12/31  
add R651 0\_0402 02/03  
change C841 from 0402 1U to 0603 1U 02/03

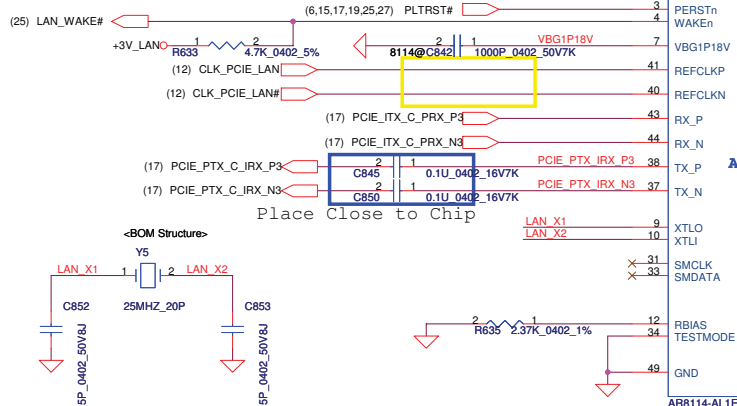


AR8114A: remove L1,C881,C885,R643. C841=1uF  
AR8132:remove R644,R645. C841=0.1uF



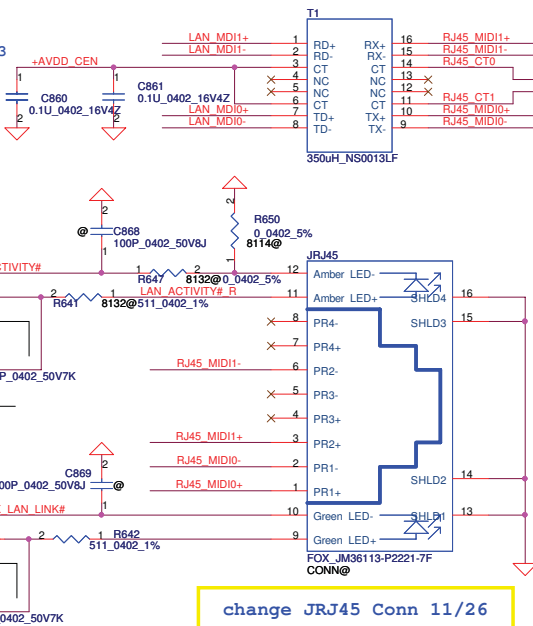
Chang C855 form 4.7U to 10U 11/16 vendor suggest

del C843,C844 12/02



change C852,C853,Y5 BOM structure 12/15  
add C55 on page 24 12/15

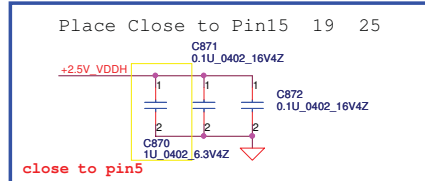
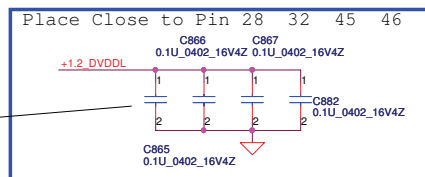
del C55 12/16  
change C852,C853 from 27p to 15p 01/23



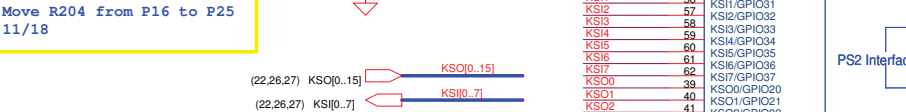
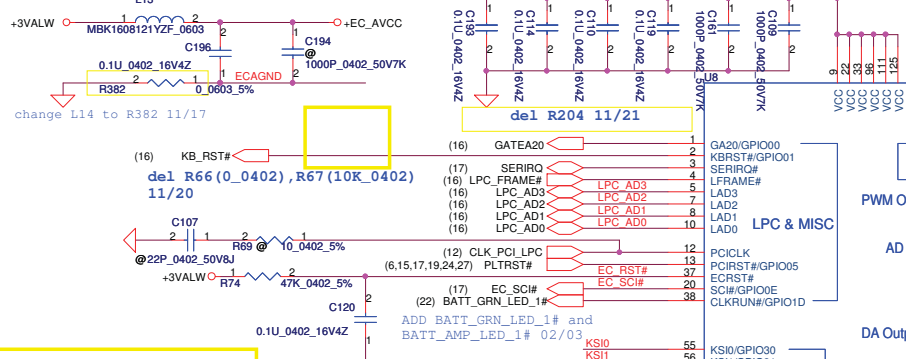
change JRJ45 Conn 11/26

close to pin5

C865 close to Pin46  
AR8114A: C865=0.1uF  
AR8132:C865=1uF

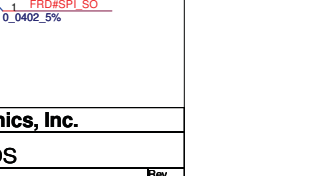
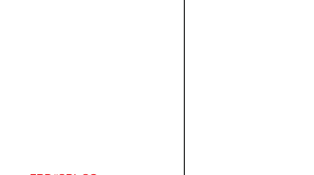
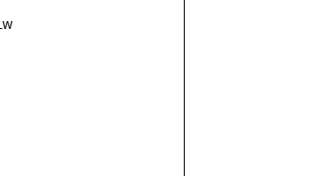
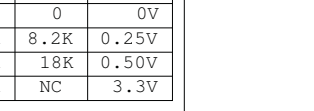
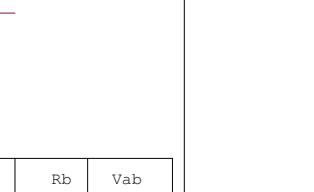
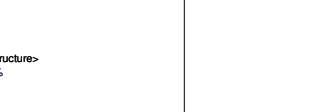
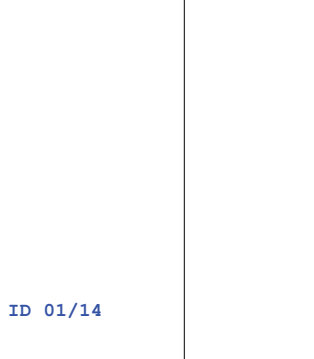
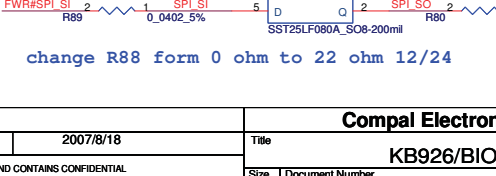
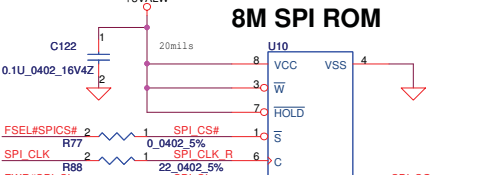
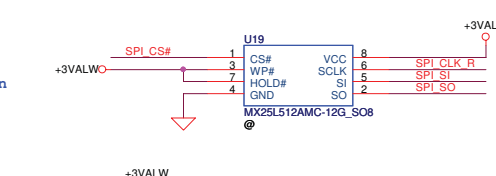
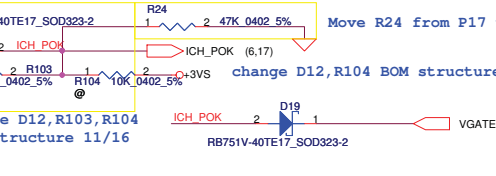
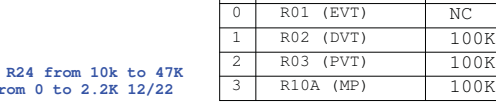
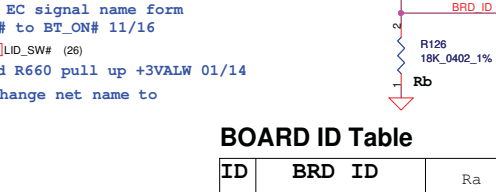
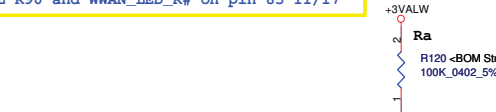
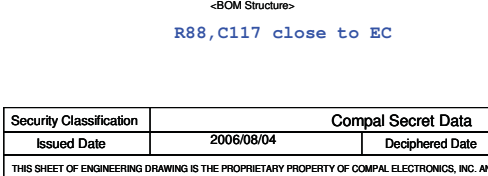
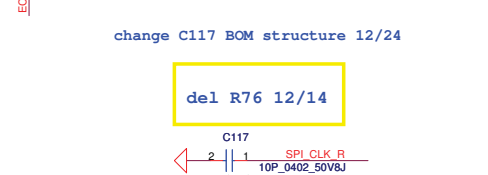
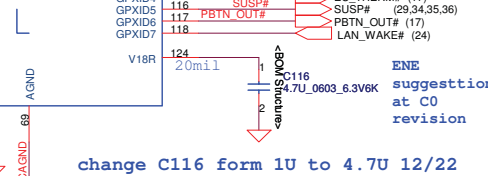
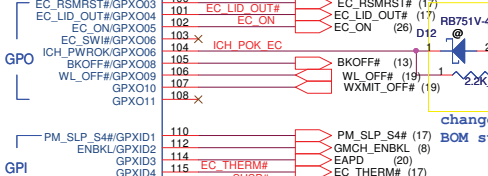
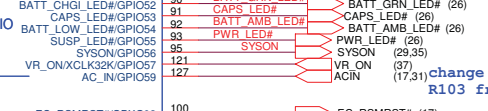
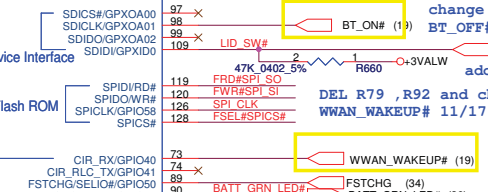
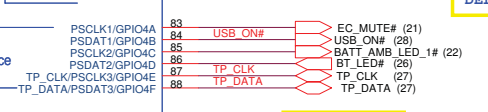
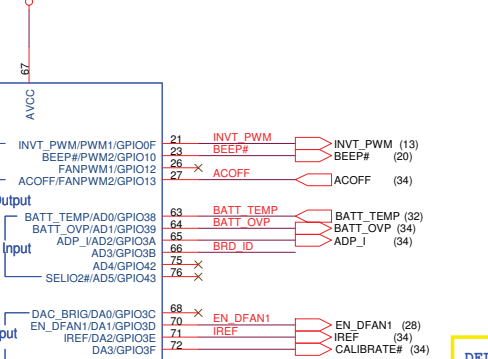
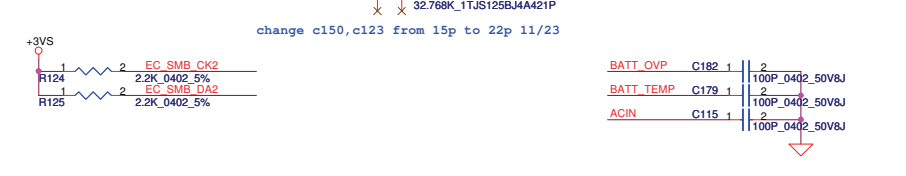
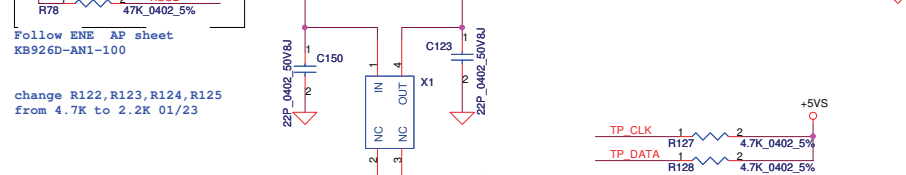
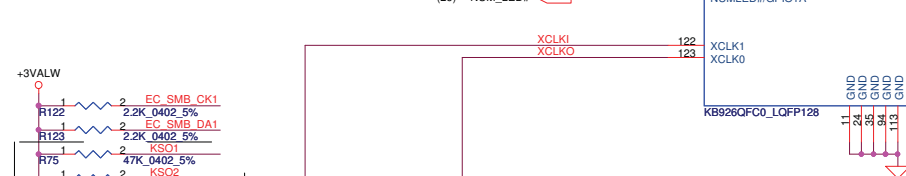
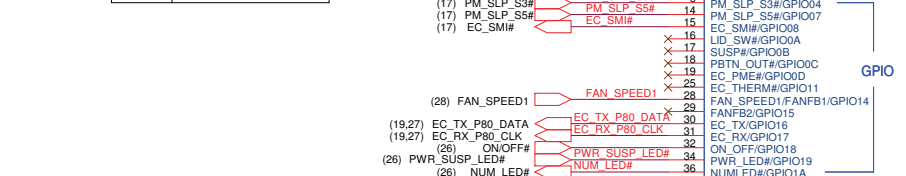


change L13 from SM010004010 to SM010003200  
02/18



|                            | KSO1 | KSI1 | KSI5 | GPIO15 |
|----------------------------|------|------|------|--------|
| WLAN_OFF#                  | v    | v    |      | High   |
| WXMIT_OFF#                 | v    |      | v    | High   |
| WXMIT_OFF#<br>Swap to WLAN | v    | v    |      | Low    |

|      | KSO1    |
|------|---------|
| KSI1 | WL_BTN# |
| KSI5 | 3G_BTN# |



change R120 and R126 to PVT ID 01/14

DEL R90 and WWAN\_LED\_R# on pin 85 11/17

change EC signal name form  
BT\_OFF# to BT\_ON# 11/16

add R660 pull up +3VALW 01/14

DEL R79 ,R92 and change net name to  
WWAN\_WAKEUP# 11/17

WWAN\_WAKEUP# (19)

change R24 from 10k to 47K  
R103 from 0 to 2.2K 12/22

Move R24 from P17 to P25 11/18

change D12,R104 BOM structure 12/22

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

change D12,R103,R104  
BOM structure 11/16

## BOARD ID Table

| 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  |

ENE  
suggestion  
at C0  
revision

change C116 form 1U to 4.7U 12/22

change C117 BOM structure 12/24

del R76 12/14

del R76 12/14

del R76 12/14

del R76 12/14

del R76 12/14

del R76 12/14

del R76 12/14

del R76 12/14

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del R76 12/14

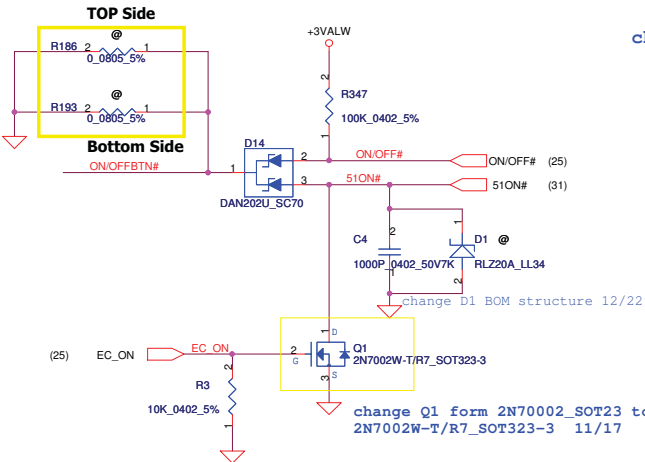
del R76 12/14

del R76 12/14

del R76 12/14

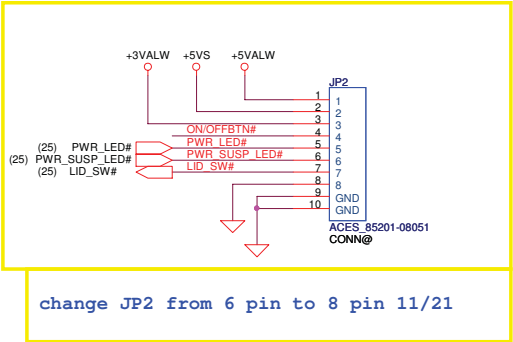
ON/OFF switch

change J1,J3(43 x 79) to R186,R193(0\_0805) 11/16



change JP2 Conn 12/01

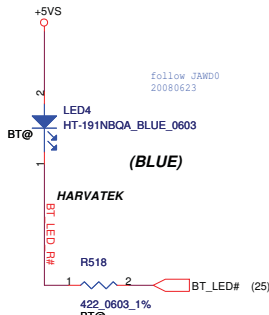
change JP2 Conn 11/25 To PWR/B Conn.



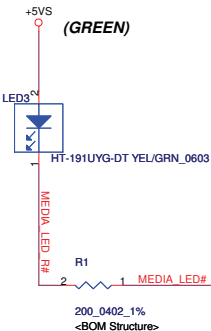
Change PWR\_LED and PWR\_SUSP\_LED Net name 01/13

change R518 from 300 to 422 ohm 02/06

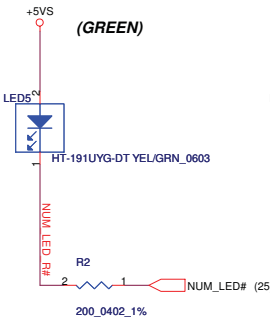
Bluetooth LED



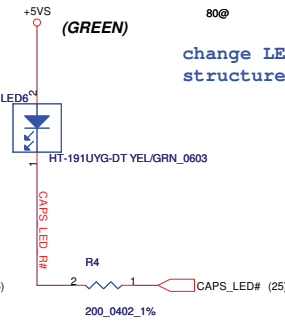
MEDIA\_LED



NUM\_LED



CAPS\_LED

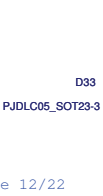
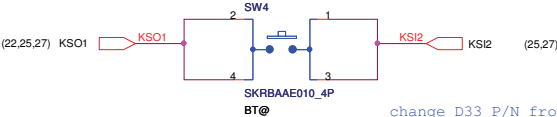


DEL LID Switch 11/21

|      |         |
|------|---------|
| KSO1 |         |
| KSI2 | BT_BTN# |

Change SW4 P/N to SN111005800 01/13

Bluetooth Button



R2,R4,R518 close to EC 12/03

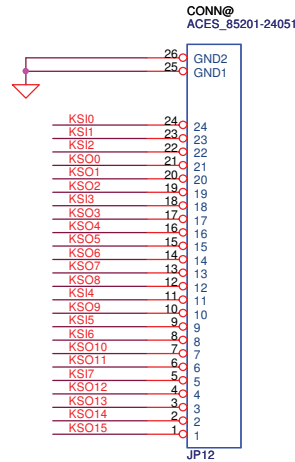
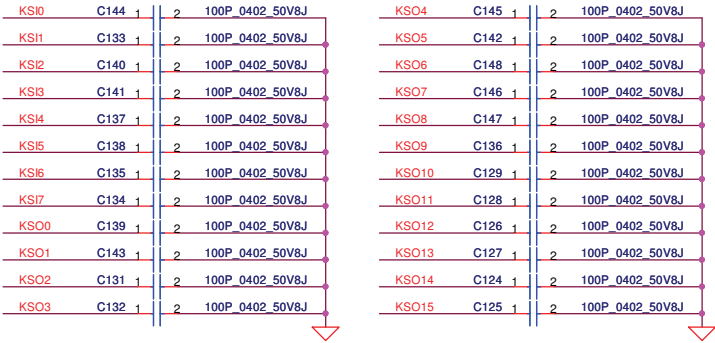
R1 close to Q3 12/03

change R1,R2,R4 from 300 to 200 ohm 02/06

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                 |                |                          |         |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------|----------------|--------------------------|---------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data        |                 |                | Compal Electronics, Inc. |         |  |
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| Size B                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Document Number           |                 | KAV60 LA-5141P |                          | Rev 0.2 |  |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sunday, February 22, 2009 |                 | Sheet          | 26                       | of 40   |  |

SWAP JP12 11/26

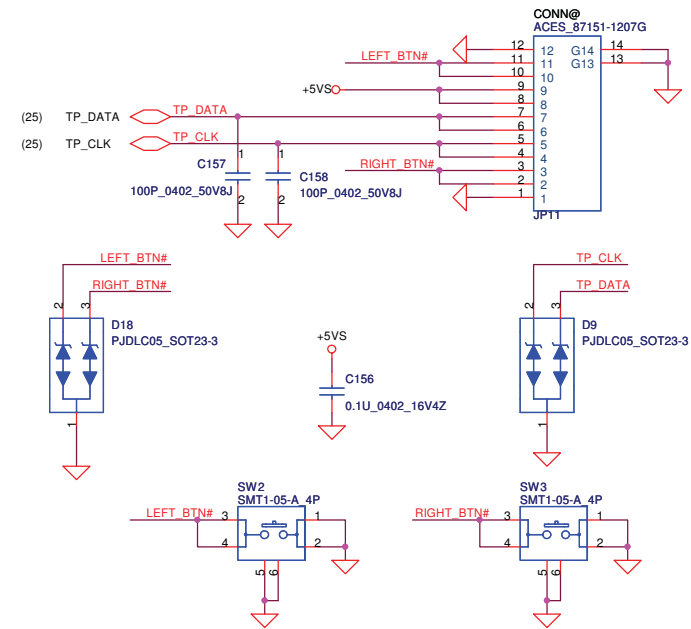
KS[0..7] KS[0..7] (22,25,26)  
KSO[0..15] KSO[0..15] (22,25,26)



INT\_KBD Conn.

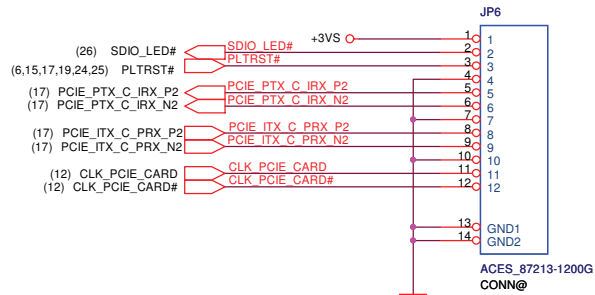
To TP/B Conn.

SWAP JP11 01/13



change D18 P/N from SC10T24C010 to SCA00000A00 and BOM structure 12/22  
change D9 P/N from SC10T24C010 to SCA00000A00 and BOM structure 12/22

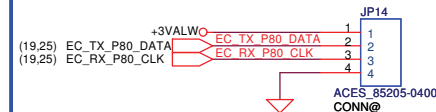
To SDIO Conn.



swap JP6 pin define 12/08

swap CLK\_PCIE\_CARD and CLK\_PCIE\_CARD# 12/16

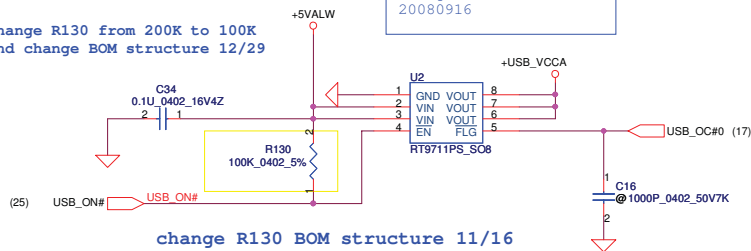
EC DEBUG PORT



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                    |           |                           |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------|-----------|---------------------------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Compal Secret Data |           | Compal Electronics, Inc.  |  |
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| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Document Number           | KAV60 LA-5141P     |           | Rev                       |  |
| B                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                    |           | 0.2                       |  |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sunday, February 22, 2009 | Sheet              | 27        | of 40                     |  |

U2 Change to SA000033H00  
12/24

Change R130 from 200K to 100K  
and change BOM structure 12/29

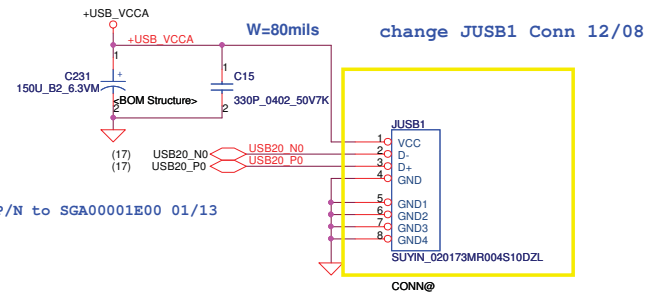


change D29 P/N from SC300000000  
to SC300000B00 and BOM structure 12/22

SWAP D29 Pin Define 12/10

del D29 ,L9,R144,R136 01/16

## USB CONN. 1



Change C231 P/N to SGA00001E00 01/13

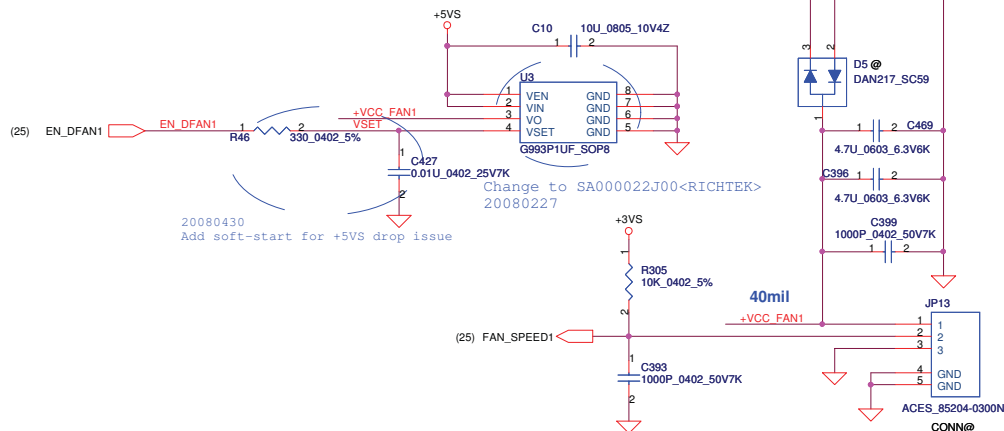
U3 Change to SA000035G00  
12/31

Change U3 from SA000035G00  
to SA000022J00 02/06

change D5 BOM  
structure 01/23

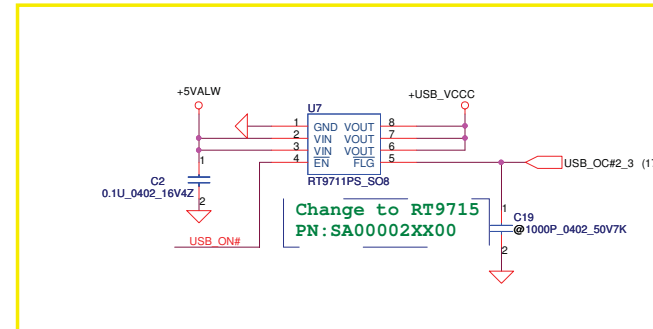
del D8 and change  
D5 P/N 12/05

## FAN1 Conn



change C396 from 10U/0806 to 4.7U/0603 01/22  
add C469 01/22

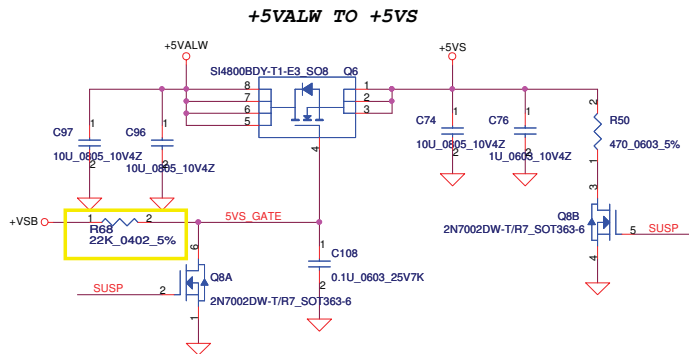
del JP3 11/26



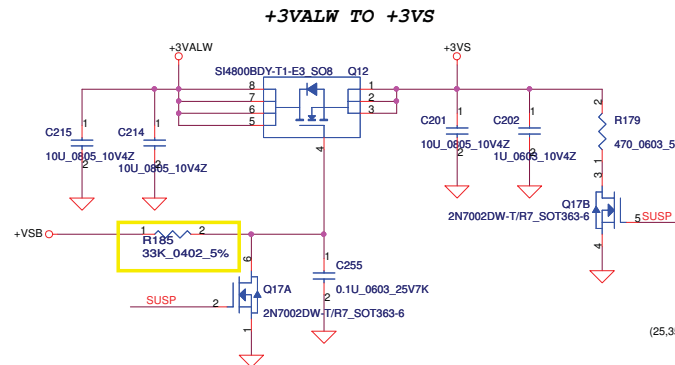
add U7 11/26

U7 Change to SA000033H00  
12/24

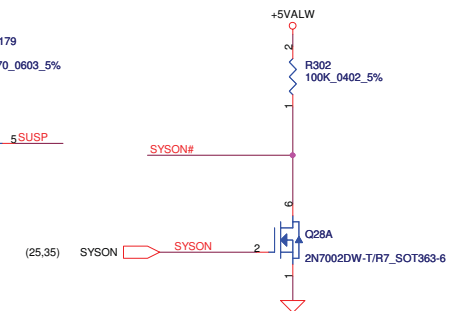
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |           | Compal Electronics, Inc. |                           |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           | Date:                    | Sunday, February 22, 2009 | Sheet 28 of 40 |



change R68 from 200K to 22K 12/10



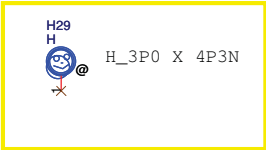
change R185 from 200K to 33K 12/10



change Q2, Q15, Q24, Q7, Q23 form 2N70002\_SOT23 to 2N7002W-T/R7\_SOT323-3 11/17

change R18, R169, R280, R61, R279 Q2, Q15, Q24, Q7, Q7, Q23 BOM structure 11/16

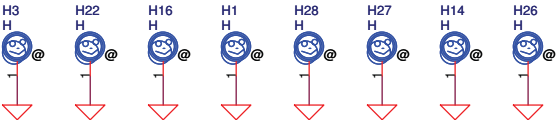
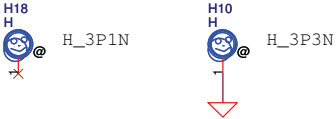
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |           | Compal Electronics, Inc. |                 |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Size B                   | Document Number |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | KAV60 LA-5141P           |                 |
| Date: Sunday, February 22, 2009                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |           | Sheet 29                 | of 40           |



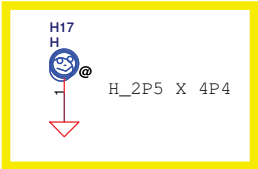
update Screw 12/04

del H11 H\_3P0N 12/10

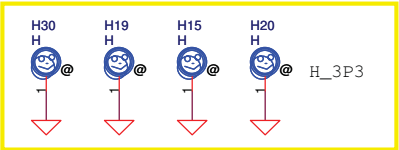
change H18 from 3P2N to 3P1N 02/22



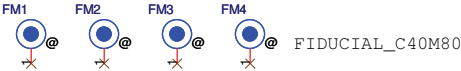
del H31 01/16



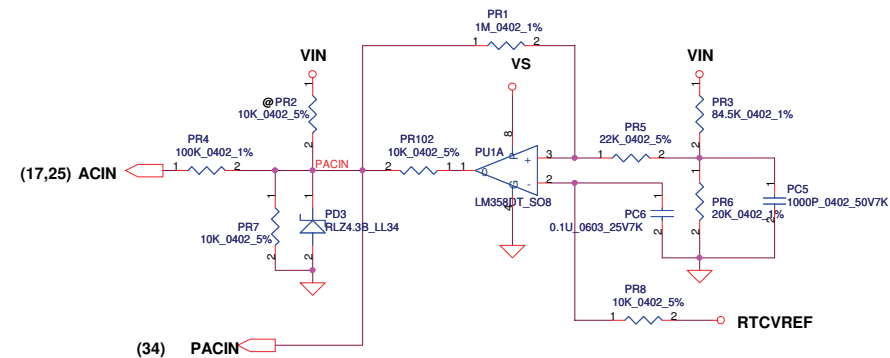
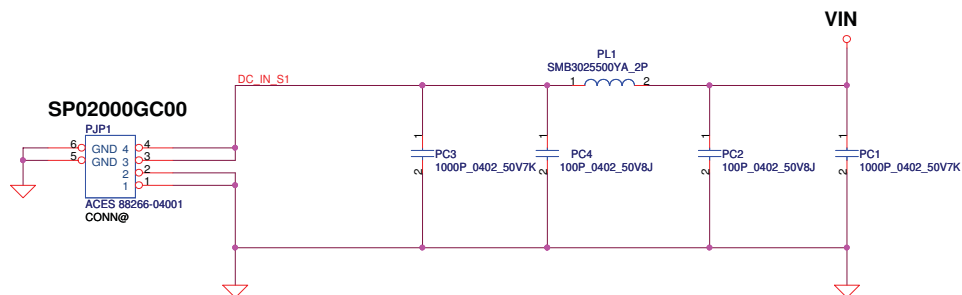
change H17 from H\_2P5 to H\_2P5 X 4P4



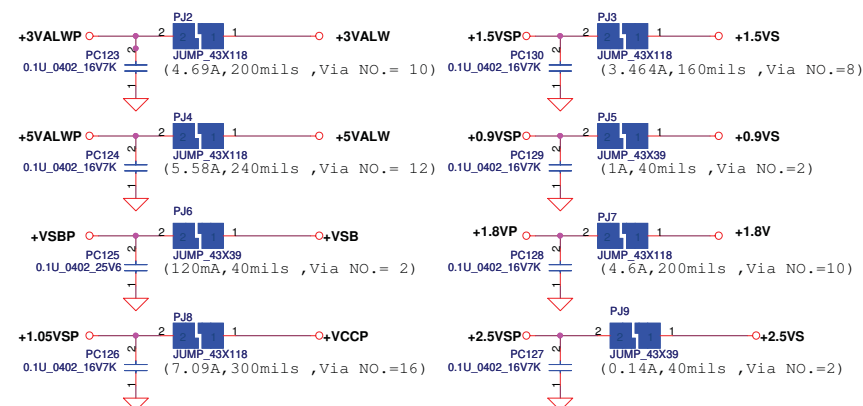
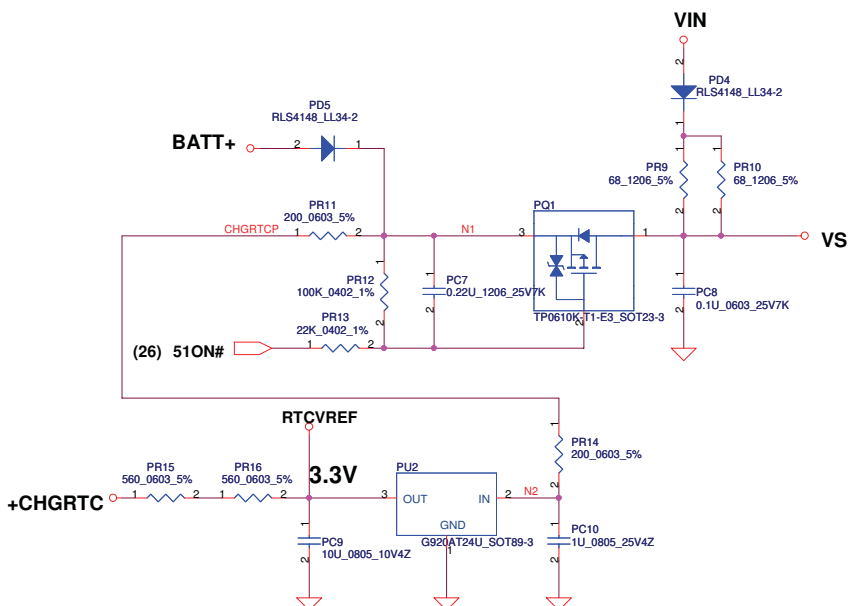
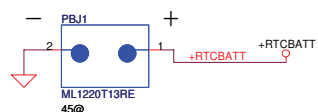
add H32 12/17  
modify H15,H19,H20,H29,H30 12/17  
update H15,H19,H20,H30 from 3P8 to 3P6 01/22  
update H15,H19,H20,H30 from 3P6 to 3P3 02/22



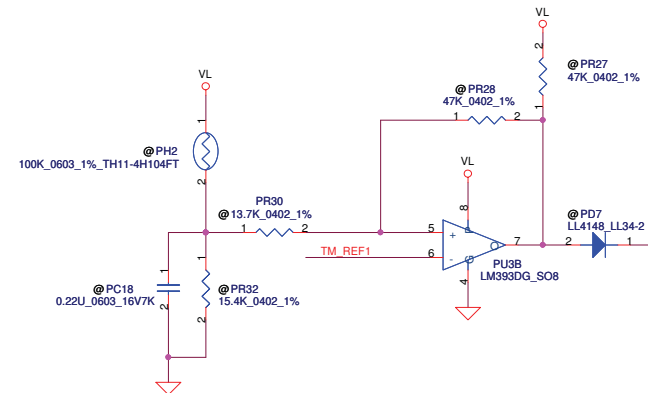
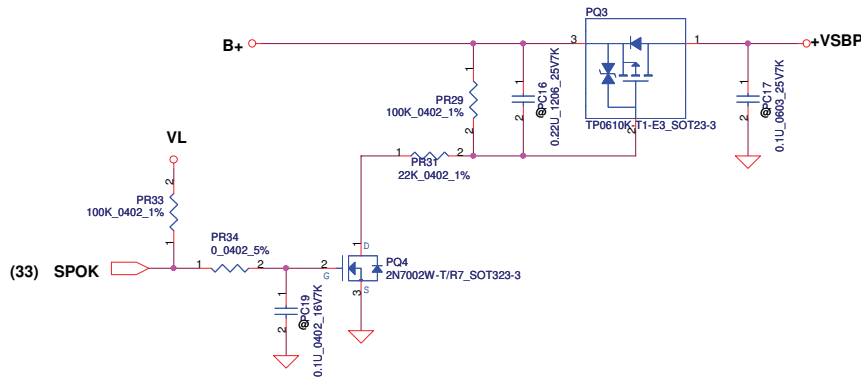
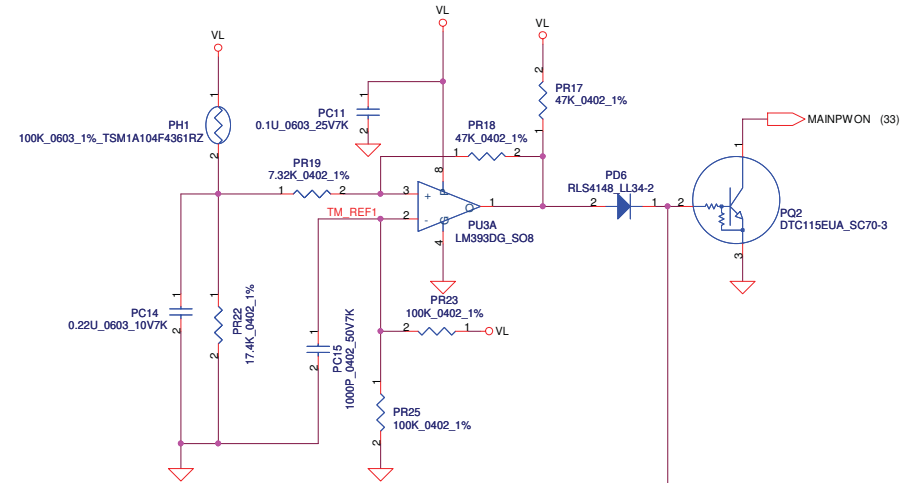
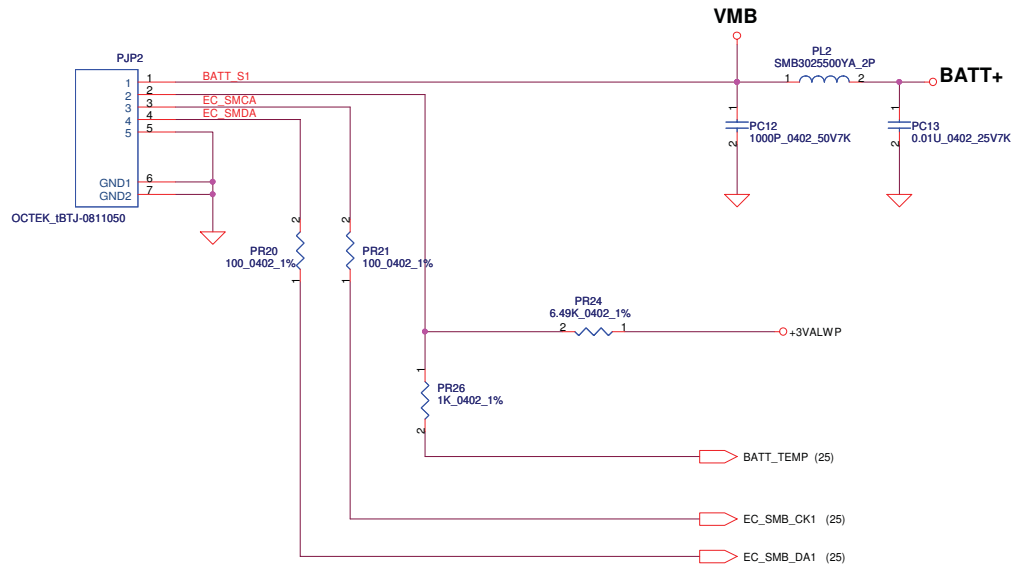
|                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                    |                 |                                 |         |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Compal Secret Data |                 | Compal Electronics, Inc.        |         |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                    |                 | Screw                           |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                    |                 | Size B                          | Rev 0.2 |
| Document Number                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | KAV60 LA-5141P     |                 | Date: Sunday, February 22, 2009 |         |
| Sheet                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 30                 |                 | of 40                           |         |



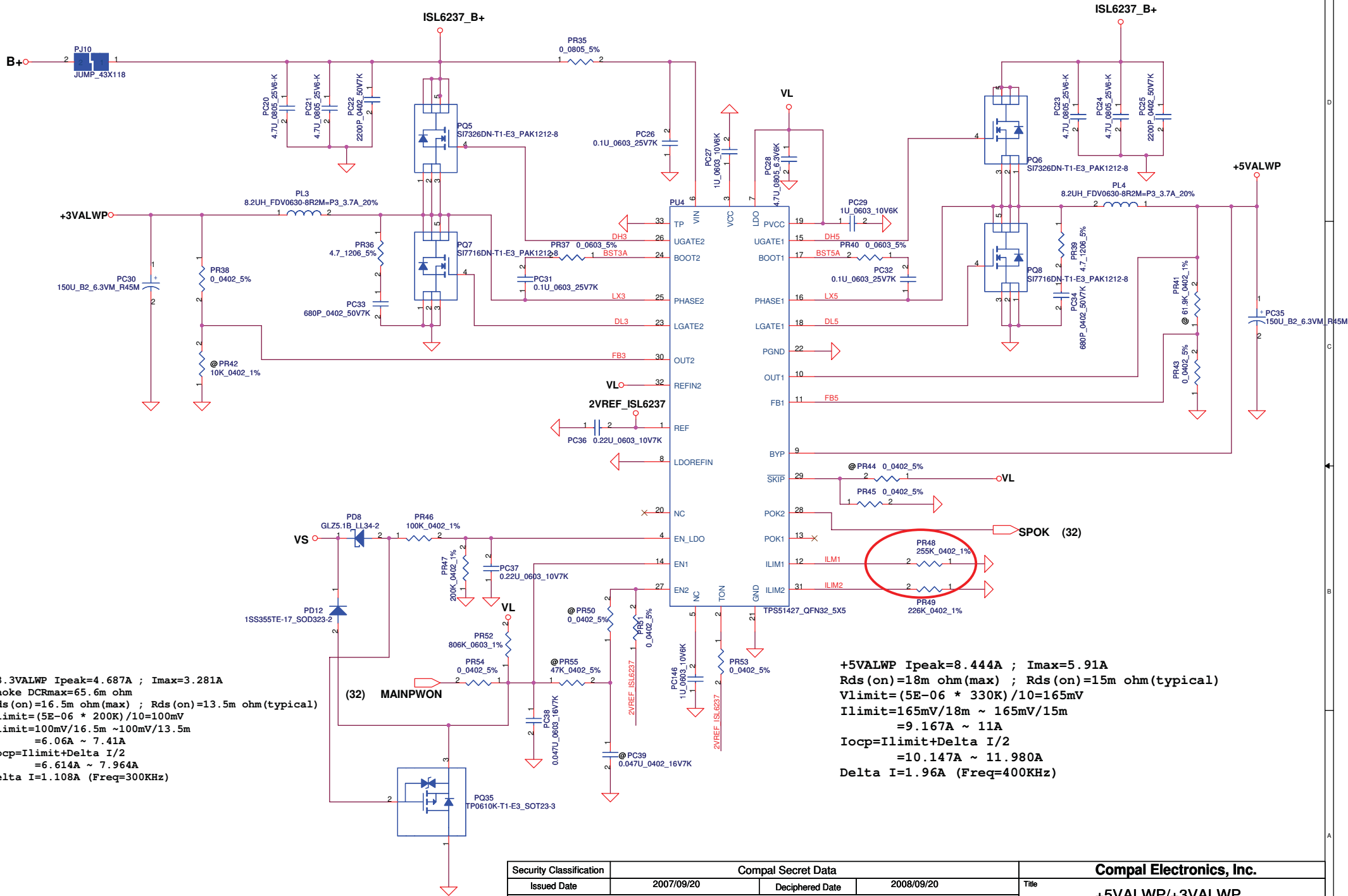
| Vin Detector |         |         |         |  |
|--------------|---------|---------|---------|--|
|              | Min.    | Typ     | Max.    |  |
| H-->L        | 16.976V | 17.525V | 17.728V |  |
| L-->H        | 17.430V | 17.901V | 18.384V |  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                    |            |                          |     |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Compal Secret Data |            | Compal Electronics, Inc. |     |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/09/20                | Deciphered Date    | 2008/09/20 | Title                    |     |
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| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Custom                    | Document Number    | KAV60      | Rev                      | 0.1 |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sunday, February 22, 2009 | Sheet              | 31         | of                       | 40  |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                           |                 |                          |  |                    |                 |  |       |  |     |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                           |                 |                          |  | Size               | Document Number |  | KAV60 |  | Rev |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                           |                 |                          |  | Custom             |                 |  |       |  | 0.1 |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Sunday, February 22, 2009 |                 | Sheet                    |  | 32 of 40           |                 |  |       |  |     |



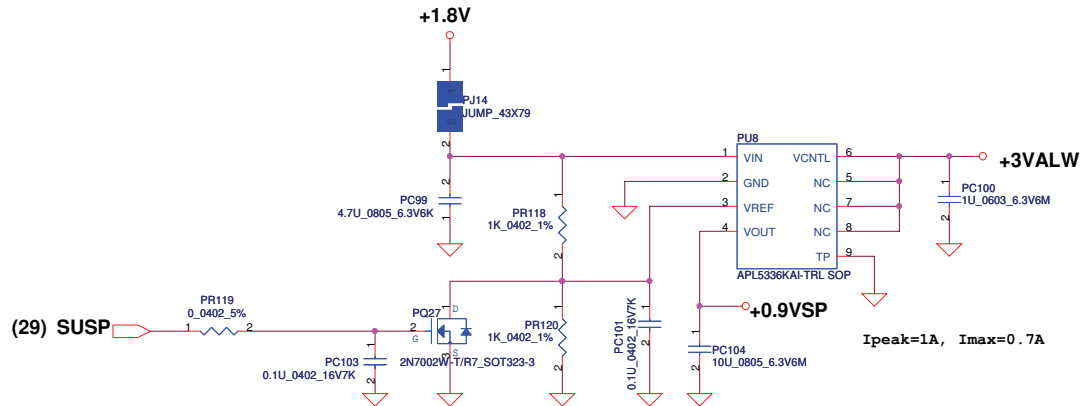
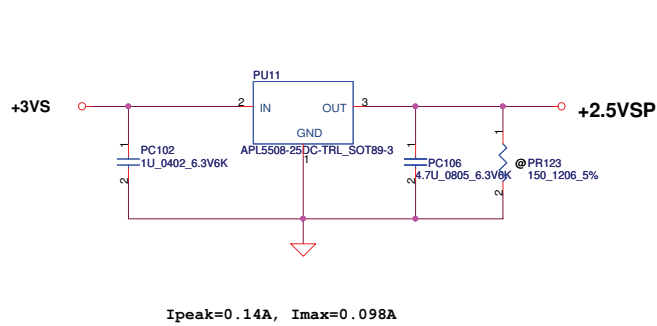
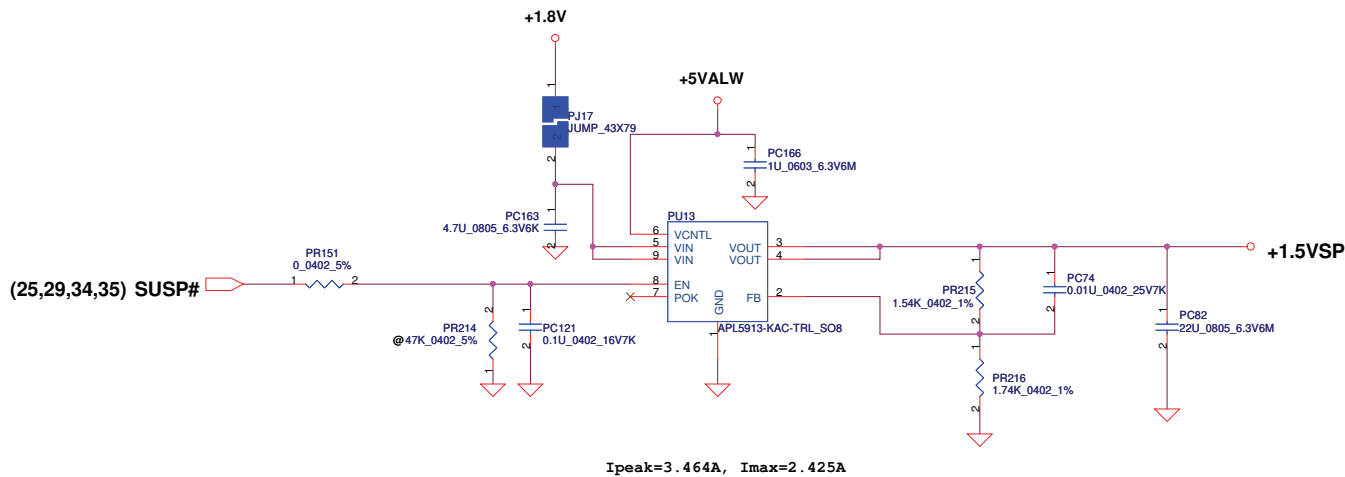
+3.3VALWP Ipeak=4.687A ; Imax=3.281A  
 Choke DCRmax=65.6m ohm  
 Rds(on)=16.5m ohm(max) ; Rds(on)=13.5m ohm(typical)  
 Vlimit=(5E-06 \* 200K)/10=100mV  
 Ilimit=100mV/16.5m ~100mV/13.5m  
 =6.06A ~ 7.41A  
 Iocp=Ilimit+Delta I/2  
 =6.614A ~ 7.964A  
 Delta I=1.108A (Freq=300KHz)

+5VALWP Ipeak=8.444A ; Imax=5.91A  
 Rds(on)=18m ohm(max) ; Rds(on)=15m ohm(typical)  
 Vlimit=(5E-06 \* 330K)/10=165mV  
 Ilimit=165mV/18m ~ 165mV/15m  
 =9.167A ~ 11A  
 Iocp=Ilimit+Delta I/2  
 =10.147A ~ 11.980A  
 Delta I=1.96A (Freq=400KHz)

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Size Custom               | Document Number |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | KAV60                     |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date:                     | Rev             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sunday, February 22, 2009 | 0.1             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                     | 33 of 40        |

|                                 |                       |  |  |  |       |    |    |    |            |
|---------------------------------|-----------------------|--|--|--|-------|----|----|----|------------|
| <b>Compal Electronics, Inc.</b> |                       |  |  |  |       |    |    |    |            |
| Title                           |                       |  |  |  |       |    |    |    |            |
| <b>CHARGER</b>                  |                       |  |  |  |       |    |    |    |            |
| Size Custom                     | Document Number       |  |  |  |       |    |    |    | Rev        |
|                                 | <b>KAV60</b>          |  |  |  |       |    |    |    | <b>0.1</b> |
| Part#                           | Sunway E48000 22 2000 |  |  |  | Sheet | 34 | of | 40 |            |





| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                           |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Custom                   | KAV60                     | 0.1            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date:                    | Sunday, February 22, 2009 | Sheet 36 of 40 |



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

Page 1 of 2  
for PWR

| Item | Fixed Issue                     | Reason for change            | Rev. | PG# | Modify List                                                                                                                                      | Date     | Phase |
|------|---------------------------------|------------------------------|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|
| 1    | Modify CPU OTP circuit          | For thermal team request     | 0.1  | 31  | Cahnge PR19 to SD034732180 (S RES 1/16W 7.32K +-1% 0402)<br>Cahnge PR22 to SD034174280 (S RES 1/16W 17.4K +-1% 0402)                             | 09/01/14 | DVT   |
| 2    | Modify 3/5V output cap          | design change                | 0.1  | 32  | Cahnge PC30 to SGA00004H00 (S POLY C 150U 6.3V M B2 LESR25M PSL H1.9 )<br>Cahnge PC35 to SGA00004H00 (S POLY C 150U 6.3V M B2 LESR25M PSL H1.9 ) | 09/01/14 | DVT   |
| 3    | Modify Charger modify           | redulate charger ADJ voltage | 0.1  | 33  | add PR211 to SD034301380 (S RES 1/16W 301K +-1% 0402 )<br>add PR220 to SD034499380 (S RES 1/16W 499K +-1% 0402 )                                 | 09/01/14 | DVT   |
| 4    | Modify 1.8v/1.05v boost circuit | for APW7141 issue            | 0.1  | 34  | Cahnge PR226 to SD013220B80 (S RES 1/10W 2.2 +-5% 0603 )<br>Cahnge PR109 to SD013220B80 (S RES 1/10W 2.2 +-5% 0603 )                             | 09/01/14 | DVT   |
| 5    | add all sunbber                 | for 3G and EMI team request  | 0.1  | 34  | add all sunbber                                                                                                                                  | 09/01/14 | DVT   |
| 6    | Modify HMOS and LMOS            | for cost down                | 0.1  | 34  | H-side to SB00000IA00 (S TR SI5412DN-T1-GE3 1N POWERPAK1212-8 )<br>L-side to SB00000IA00 (S TR IRFH3707TRPBF 1N PQFN )                           | 09/01/14 | DVT   |
| 7    | add input capacitance           | for 3G solution              | 0.1  | 34  | add PC41 PC46 SE074222K80 (S CER CAP 2200P 50V K X7R 0402)                                                                                       | 09/01/21 | DVT   |
| 8    | modify 1.05v TRIP R             | modify ocp point             | 0.1  | 34  | modify PR105 to SD034140280 ( S RES 1/16W 14K +-1% 0402)                                                                                         | 09/02/02 | DVT   |
| 9    | modify 3V/5V OCP point          | design change                | 0.1  | 34  | Cahnge PR48 SD034255380 (S RES 1/16W 255K +-1% 0402 )                                                                                            | 09/02/02 | DVT   |
| 10   | modify 3V/5V OCP point          | design change                | 0.1  | 34  | Cahnge PR49 SD034226380 (S RES 1/16W 226K +-1% 0402)                                                                                             | 09/02/18 | PVT   |
| 11   | modify chager circuit           | design change                | 0.1  | 34  | Add PQ44 SB000006800 S TR 2N7002W T/R7 1N SOT-323                                                                                                | 09/02/18 | PVT   |
| 12   | modify chager circuit           | design change                | 0.1  | 34  | Add PQ34 SB301150000 S TR DTC115EUA NPN (UMT3)                                                                                                   | 09/02/18 | PVT   |
| 13   | modify chager circuit           | design change                | 0.1  | 34  | Add PR152 SD034470280 S RES 1/16W 47K +-1% 0402                                                                                                  | 09/02/18 | PVT   |
| 14   | modify chager circuit           | design change                | 0.1  | 34  | Add PQ33 SB101440200 S TR DTA144EUA PNP UMT3                                                                                                     | 09/02/18 | PVT   |
| 15   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 16   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 17   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 18   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 19   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 20   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 21   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 22   |                                 |                              |      |     |                                                                                                                                                  |          |       |
| 23   |                                 |                              |      |     |                                                                                                                                                  |          |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                           |                 |     |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Size                      | Document Number | Rev |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Custom                    | KAV60           | 0.1 |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                    |            | Sunday, February 22, 2009 | Sheet 38 of 40  |     |

KAV10

A-TEST Change

<8/25>  
1. Update Power SCH  
<8/26>  
1. Update Power SCH  
2. Change  
D7 SC300000D00 to SC300000000  
3.Change  
C49・C50 SE071180K80 to SE071180J80  
<8/27>  
1. Updata Power SCH  
2. Modify  
RJ45 temp footprint FOX\_JM3611A-R4122-7F\_12P-T  
<8/28>  
1. Updata Power SCH  
<9/1>  
1. Updata Screw  
<9/5>  
1. SWAP USB20\_1 Signal.  
<9/10>  
1. Remove Mini card pin55・pin56 GND  
2. Change JREAD1.42 H26 to GNDA  
<9/12>  
1. Swap 3G ESD pin neme  
<9/15>  
1. Update Audio Jack footprint  
2. Chngce R641・R642 300ohm to 511ohm for Arthros  
3. Update L footprint  
<9/16>  
1. Update POWER SCH.  
<9/17>  
1. Update POWER SCH.  
2. ADD R380・R383 for ESD.  
<9/18>  
1. Update ATHEROS 10/100 LAN <AR8132/AR8114>  
<9/24>  
1. Change C870 0.1u to 1u.  
<9/26>  
1. R88 change to 0ohm.

B-TEST Change

<10/21>  
1.Remove C389 for Audio can't detect issue on page 16  
2.Add KSO1/KSO2 PU +3VALW on page25  
3.Add R205 for schematic mistake on page 04  
4.Change EC RST to PLTRST on page 25  
5.Add J8 to cost down Audio LDO on page 20  
6.Add R72 to reserve +3VALW for 3G on page 19  
7.Reserve C238 for CRTDAC on page 10  
8.Add R87 for Debug card on page 19  
9.Change C108/C255 to 0.1uF for random hang issue  
10.Change JP3 pin assignment on page 28  
<10/21>  
1. Update Power SCH  
<10/29>  
1. Audio AMP 10dB update to 6dB  
<11/3>  
1. Update Power SCH  
<11/4>  
1. Change R373・R374 to 56.2 ohm for DA-HP FSOV  
2. Add C834 C851 for 3G noise  
3. Change KB926 C1 to D2  
4. Card reader RT5158E change to RT5159-GR  
<11/5>  
1. Swap D7 pin define  
<11/10>  
1. EC add R79・R90 R92 for SMS wakeup

KAV60

A-TEST Change

<2008/11/14>  
1. change R28,R32 BOM structure on page 4  
2. change LCD POWER CIRCUIT form KAW10 to JAQ10 on page 13  
3. change C670 BOM structure on page 13  
4. change L5,L19(BK61608LL121-T0603) to R281,R287(39\_0402) on page 14  
5. change +CRT\_VCC to +5VS on page 14  
6. del R244(100K\_0402) and add T17 on page 15  
7. change J6 jump size form 43 x 118 to shortpads on page 16  
8. change R204 BOM structure on page 16  
9. change Q11 from SOT23 to SOT323-3 on page 17  
10.change USB OC# circuit on page 17  
11.Del R186(0\_0805\_5%) and +1.5VS\_DMIPLLR on page 18  
12.CHANGE R62(0\_1206) to J9(43x39) on page 19  
13.Del R83 R348 0\_0402 on page 19  
14.Mobile EC\_TX,EC\_RX from WLAN to WWAN and add R96 on page 19  
15.CHANGE R65,R70(0\_1206) to J10,J11(43x39) on page 19  
16.change +UIM\_PWR\_1 to +UIM\_PWR on page 19  
17.Del D16(DAN217T146\_SC59-3),R94,R408(0\_0402) on page 19  
18.change +5VS to +3VS on page 19  
19.change EC signal name form BT\_OFF# to BT\_ON# on page 19  
20.del Q21 on page 19  
21.ADD PMOS SOFT START on page 19

<2008/11/16>  
1. +VDDA CHANGE TO +5VS on page 20  
2. Analog ground change to digital ground on page 20  
3. Del L22 on page 20  
4. DEL R383 R382 R384 GNDA & GND on page 20  
5. change R380,R379,R381 form 0805 to 0603 page 20  
6. Add R94,R87 Vender suggesttition on page 21  
7. Analog ground change to digital ground on page 21  
8. reserve C5,C6,C883,C884 on page 22  
9. reserve +3VALW on page 22  
10.change +3VS to +CAM\_VCC on page 22  
11.change R651,R634 form (0\_0603) to 43 x 39 jump on page 23  
12.add net name +3VS\_READER on page 23  
13.add net name AV\_PLL on page 23  
14.add net name VREG on page 23  
15.+3VS change to +3VS\_READER on page 23  
16.change R619 BOM structure on page 23  
17.add net name RREF on page 23  
18.del R623(0\_0402) on page 23  
19.Chang C855 form 4.7U to 10U on page 24 vendor suggest  
20.Chang C846 form 4.7U to 10U on page 24 vendor suggest  
21.change BJT form MMJT9435T1G to MBT35200 on page 24  
22.change EC signal name form BT\_OFF# to BT\_ON# on page 25  
23.change D12,R103,R104 BOM structure on page 25  
24.change J1,J3(43 x 79) to R186,R193(0\_0805) on page 26  
25.change Q3 from 2N70002\_SOT23 to 2N7002W-T/R7\_SOT323-3 on page 26  
26.change Q1 form 2N70002\_SOT23 to 2N7002W-T/R7\_SOT323-3 on page 26  
27.change net name form WWAN\_LED# to WWAN\_LED\_R# on page 28  
28.change R130 BOM structure on page 28  
29.change JP3 pin assignment on page 28  
30.change Q2,Q15,Q24,Q7,Q23 form 2N70002\_SOT23 to 2N7002W-T/R7\_SOT323-3 on P29  
31.change R18,R169,R280,R61,R279,Q2,Q15,Q24,Q7,Q23 BOM structure on age 29  
32.+5VALW CHANG TO VL on page 29

<2008/11/17>  
1. update POW SCH  
2. change DIMMA from H5.2 to H4 on page 11  
3. change +3VS to +5VS on page 14  
4. change J9,J10,J11 from 43x39 to 43x79 on page 19  
5. change R563,Q31 BOM structure on page 13  
6. del +3VALW on page 22  
7. del +1.5VS,+VCCP,+0.9VS,+1.8V Discharge  
path R18,R280,R61,R279 Q2,Q24,Q7,Q23 on page 29  
8. change R24 BOM structure on page 17  
9. del R253 on page 19  
10.change L14 to R382 on page 25

<2008/11/17>  
1. ADD WWAN\_WAKEUP# ON pin 45 on page 19  
2. DEL R79 ,R92 and change net name to WWAN\_WAKEUP# on page 25  
3. DEL R90 and WWAN\_LED\_R# on pin 85 on page 25  
4. change net name form WWAN\_LED\_R# to WWAN\_LED# on page 28

<2008/11/18>  
1. Place R282,R296 close to F27,D27 on page 8  
2. Del R93 R407(0\_0402) on page 19  
3. Move R204 from P16 to P25  
4. Move R24 from P17 to P25  
5. change Q10A,Q10B to 0 ohm on page 12  
6. del pull up resistance (R112,R108) on page 12  
7. change C883 from 4.7u to 10u on page 22

<2008/11/20>  
1. change R112,R108,Q10A,Q10B BOM structure on page 12  
2. add R149,R150 on page 12  
3. add pull up resistance R292 on page 19  
4. del R66(0\_0402),R67(10K\_0402) on page 25  
5. restore R563,Q31 BOM structure on page 13  
6. change D25 BOM structure on page 20

<2008/11/21>  
1. Change +3VS to +3VALW on page 19  
2. del R204 on page 25  
3. del R143 and CLK\_SD\_48M on page 12  
4. Change R137 from 12 ohm to 33 ohm on page 12  
5. Move Card Reader to small board on page 23  
6. Move SATA HDD Conn to small board on page 22  
7. ADD JP7 on page 22  
8. change JP2 from 6 pin to 8 pin on page 26  
9. DEL LID Switch on page 26

<2008/11/24>  
1. return the H5.2 pootprint on page 11

<2008/11/25>  
1. add add R90 on page 19  
2. change JMIN1 Conn printfoot on page 19  
3. change JP2 Conn on page 26  
4. change JP13 Conn on page 28  
5. update power SCH

<2008/11/26>  
1. change JP20 Conn and pin design on page 21  
2. change JBT1 form 8 pin to 4 pin on page 19  
3. del JP1 on page 13  
4. SWAP JP12 on page 27  
5. change JLVDS1 Conn form 20 pin to 30 pin on page 13  
6. Del JP4 on page 20  
7. combine the DMIC Conn and Camera Conn on page 13  
8. add U7 on page 28  
9. del JP3 on page 28  
10.ADD SATA&CARDREADER&USB Conn(JP7) on page 22  
11.update Power SCH  
12.change C233 BOM structure on page 19  
13.change JRJ45 Conn on page 24

<2008/11/28>  
1. update Power SCH

<2008/12/01>  
1. chang JP2 Conn on page 26  
2. udate Power SCH

<2008/12/02>  
1. SWAP JLVDS1 on page 13  
2. del C843,C844 on page 24  
3. change C847 from 0.1u to 1u on page 24  
4. change C873 from 0.1u to 1u on page 24  
5. move R441,R438 form P13 to P20 on page 20  
6. change +5VAMP to +5VS on page 21  
7. R2,R4,R518 close to EC on page 26  
8. R1 close to Q3 on page 26

| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |           | Compal Electronics, Inc. |                           |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |           | Date:                    | Sunday, February 22, 2009 | Sheet 39 of 40 |

<2008/12/03>  
1. SWAP JP7 pin define on page 22  
2. change PJP2 connector on page 32

<2008/12/04>  
1. update Screw on page 30  
2. change JCR71 Conn to SP010811273 on page 14  
3. SWAP PJP2 pin define on page 32  
4. add J12 on page 21

<2008/12/05>  
1. del D8 and change D5 P/N on page 28  
2. SWAP D2 pin define on page 13  
3. change JBT1 Conn on page 19  
4. update POWER SCH

<2008/12/08>  
1. add J15 J16 on page 22  
2. return D2 pin define on page 13  
3. change JUSB1 Conn on page 28  
4. swap JP6 pin define on page 27  
5. add C32,C33,C42 for keypart on page 12  
6. add C5 for keypart on page 13  
7. add C9 for keypart on page 16  
8. add C11,C21,C26,C27 for keypart on page 22

<2008/12/10>  
1. del H11 H\_3P0N on page 30  
2. Change to SA00002CI10 to SA00002CI20  
S IC ALC272X-GR LQFP 48P CODEC on page 20  
3. add net name(+VCCP\_D) 20mil on page 10  
4. SWAP D29 Pin Define on page 28  
5. change R185 from 200K to 33K on page 29  
6. change R68 from 200K to 22K on page 29

<2008/12/11>  
1. change H17 from H\_2P5 to H\_2P5x4P4 on page 30  
2. del R388,R387,R386,R385,D10,D13 on page 21  
3. update Power SCH  
4. +5VS change to +5VALW on page 21

<2008/12/14>  
1. Del R129 on page 12  
2. add C45 for keypart on page 12  
3. del R76 on page 25

<2008/12/15>  
1. change R137 BOM structure  
and add R143 on page 12  
2. change C852,C853,Y5 BOM structure on page 24  
3. add C55 on page 24  
4. change C842 BOM structure on page 24  
5. del J15,J16,C21 on page 22  
6. add net name BATT\_AMB\_LED#  
BATT\_GRN\_LED# on page 22  
7. +3VS\_READER change to +3VALW on page 22

<2008/12/16>  
1. del R143 on page 12  
2. del C55 on page 24  
3. swap CLK\_PCIE\_CARD and CLK\_PCIE\_CARD# on page 27

<2008/12/17>  
1. modify H15,H19,H20,H29,H30 on page 30  
2. add H32 on page 30  
3. +5VALW change to +3VALW on page 26

<2008/12/18>  
1. add R102 on page 19

<2008/12/19>  
1. change R284 from 453 ohm to 150 ohm  
R286 from 300 ohm to 120 ohm on page 26  
2. change R132 P/N to SA000033N00 on page 40

<2008/12/22>  
1. change D1 BOM structure on page 26  
2. change C116 form 1U to 4.7U on page 25  
3. change R24 from 10k to 47K  
R103 from 0 to 2.2K on page 25  
4. change D12,R104 BOM structure on paage 25  
5. change L30,C856,C857 BOM structure on page 24  
6. change D17 P/N from SCA00000700  
to SCA00000A00 and BOM structure on page 13  
7. change D2 P/N from SC300000000  
to SC300000B00 and BOM structure on page 13  
8. change D3,D4 P/N from SCA00000G00  
to SCA00000A00 and BOM structure on page 14  
9. change D33 P/N from SC10T24C000  
to SCA00000A00 and BOM structure on page 26  
10. change D18 P/N from SC10T24C010  
to SCA00000A00 and BOM structure on page 27  
11. change D9 P/N from SC10T24C010  
to SCA00000A00 and BOM structure on page 27  
12. change D29 P/N from SC300000000  
to SC300000B00 and BOM structure on page 28

<2008/12/24>  
1. change C32 C33 C42 C45  
BOM structre on page 12  
2. change C117 BOM structure on page 25  
3. change R88 from 0 ohm to 22 ohm on page 25  
4. U2 Change to SA000033H00 on page 28  
5. U7 Change to SA000033H00 on page 28

Pre C-TEST Change

<2008/12/29>  
1. change R141,R140,R147,R81,R91  
R82,R97,R95,R98 BOM structure on page 12  
2. Change R130 from 200K to 100K  
and change BOM structure on page 28  
3. change D5 BOM structure on page 28

<2008/12/231>  
1. change R371 from 0 ohm to 22 ohm on page 20  
2. U3 Change to SA000035G00 on page 28

Memo control

<2008/12/31>  
1. del C9 on page 16  
2. add C21 for keypart on page 16  
3. change R644 from 0603 to 0805 on page 24  
4. change R643 from 0603 to 0402 on page 24  
5. change C841 from 0603 to 0402 on page 24  
6. change L29,L30 from 0805 to 0603 on page 24  
7. del R637 R638 on page 24

<2009/01/13>  
1. SWAP JP11 on page 27  
2. change SW4 P/N to SN111005800 on page 26  
3. ADD C160 on page 24  
4. change JMINI Conn foorprintt on page 19  
5. Change PWR\_LED and PWR\_SUSP\_LED#  
Net name on page 26  
6. Change C231 P/N to SGA00001E00 on page 28

<2009/01/14>  
1. add R660 pull up +3VALW on page 25  
2. change R120 and R126 to PVT ID on page 25  
3. update Screr  
4. add C28 for keypart on page 22

<2009/01/16>  
1. del H31 on page 30  
2. change JP20 Conn on page 21  
3. del D29,L9,R144,R136 on page 28

<2009/01/17>  
1. Del R110,R119 on page 12  
2. change R141,R140,R147,R81,R91,R82,R97,  
R95,R98 BOM structure on page 12

<2009/01/20>  
1. add JDIMI pin 200 and pin 201 to GND  
on page 11  
2. JMINI1 pin 55,56 change to  
non-GND on page 19  
3. SWAP JP20 on page 21  
4. change H18 to non-GND on page 30  
5. Chang C160 from 0603(4.7u) to 0402(2.2u) on page 24

<2009/01/21 Ivan>  
1. change R441 from 0ohm/0603 to 33ohm/0402  
2. change C459 from 0.01uF/0402 to 4.7uF/0603  
3. change R438 from 0ohm/0603 to 0ohm/0402

<2009/01/21-1>  
1. change U26 BOM structure on page 20  
2. del C11,C28,C26 on page 22  
3. Update Power SCH

<2009/01/22>  
1. update H15,H19,H20,H30 from 3P8 to 3P6  
01/22

<2009/01/22-1>  
1. del C94 C95 on page 11  
2. add C164,C165 01/22  
3. move C159 from page 11 to page 12  
4. add R383 on page 20

<2009/01/22-2>  
1. change C396 from 10U/0806 to 4.7U/0603 on page 28  
2. add C469 on page 28

<2009/01/22-3>  
1.add C268 01/22

<2009/01/23>  
1. change C249 BOM structure(0) on page 10  
2. change C603 from 220P to 100P on page 13  
3. change C21 from 10p to 22p on page 16  
4. change C459 from 4.7uF to 1uF on page 20  
5. change R371,C470 BOM structure(0) on page 20  
6. change C604 from 220P to 18P on page 20  
7. change R122,R123,R124,R125  
from 4.7K to 2.2K on page 25  
8. change R284 from 150 ohm to 300 ohm  
R286 from 120 ohm to 100 ohm on page 26  
9. change D5 BOM structure(0) on page 28  
10. change C162 from 27P to 22P on page 12  
11. change C852,C853 from 27p to 15p on page 24  
12. change C49 C50 from 18pf to 10pf on page 16  
13. change c150,c123 from 15p to 22p on page 25

<2009/01/23-1>  
1. change C42,C45 from 10p to 22p on page 12  
2. R115,R121 from 33 ohm to 39 ohm on page 12  
3. change C603 from 100P to 47P on page 13  
4. change R441 from 33 ohm to 39 ohm on page 20  
5. change C604 Bom structure(0) on page 20

C-TEST Change

<2009/02/03>  
1. Add R105,R106 on page 19  
2. ADD BATT\_GRN\_LED\_1# and  
BATT\_AMP\_LED\_1# on page 25  
3. add R651 O\_0402 on page 24

<2009/02/04>  
1. add R279,R280,R294,R295 on page 17  
2. del C26 on page 22  
3. change C841 from 0402 1U to 0603 1U  
on page 24

<2009/02/05>  
1.Del J10,J11 and add R65,R66 on page 19

<2009/02/06>  
1. change C226 BOM structure on page 19  
2. Change U3 from SA000035G00  
to SA000022J00 on page 28  
3. change L13 from SM01000AL00 to SM010004010  
on page 25  
4. change L23 from SM010032020 to SM010004010  
on page 20  
5. change U26,C459 BOM structure(0) on page 20  
6. change R1,R2,R4 from 300 to 200 ohm on page 26  
7. change R518 from 300 to 422 ohm on page 26  
8. change R137 from 33 to 39 ohm on page 12  
9. change C32 from 10P to 15p ohm on page 12  
10. change C42,C45 from 22p to 15p on page 12  
11. change R115,R121 from 39 ohm to 47 ohm on page 12

<2009/02/18>  
1. change R279,R280,R294,R295 BOM structure  
on page 17  
2. change U26,C459 BOM structure  
on page 20  
3. change L13 from SM010004010 to SM010032020  
on page 25  
4. change L23,L24 from SM010004010 to  
SM010032020 on page 20

Pre MP-TEST Change

<2009/02/18>  
1. Del J6 and add R219 on page 16  
2. Del C249 on page 10  
3. change LED2 BOM structure on page 26

<2009/02/20>  
1. update Power SCH  
2. del L8,R145,R146 on page 13

<2009/02/22>  
1. update H15,H19,H20,H30 from 3P6 to 3P3  
on page 30  
2. change H18 from 3P2N to 3P1N on page 30  
3. add R107,R110 on page 19