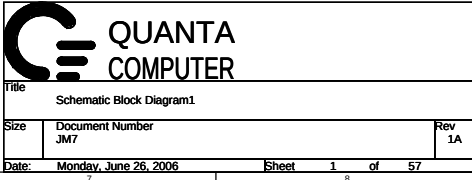




**PWA FP381, PWB DY483,  
SCHEM UW474.**

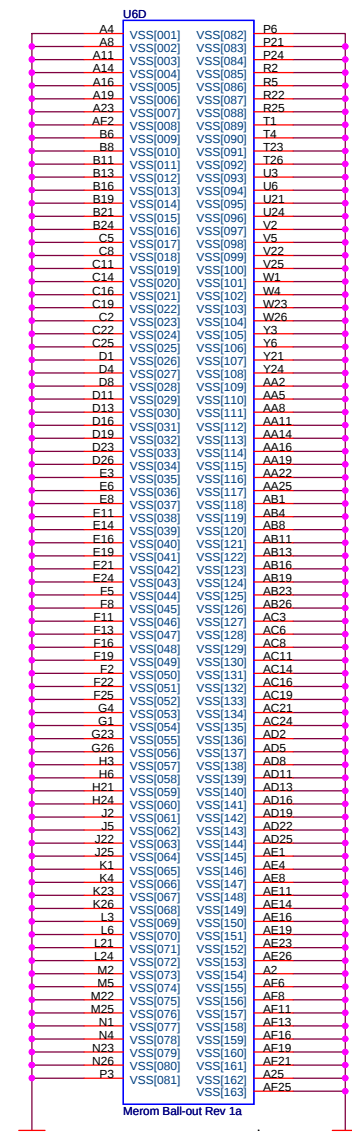
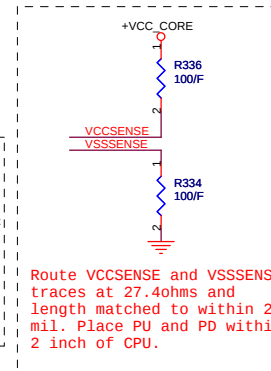
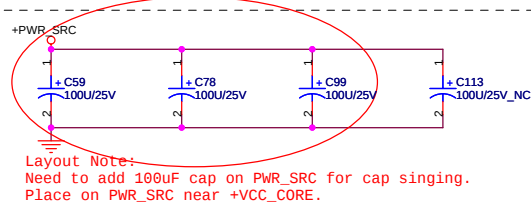
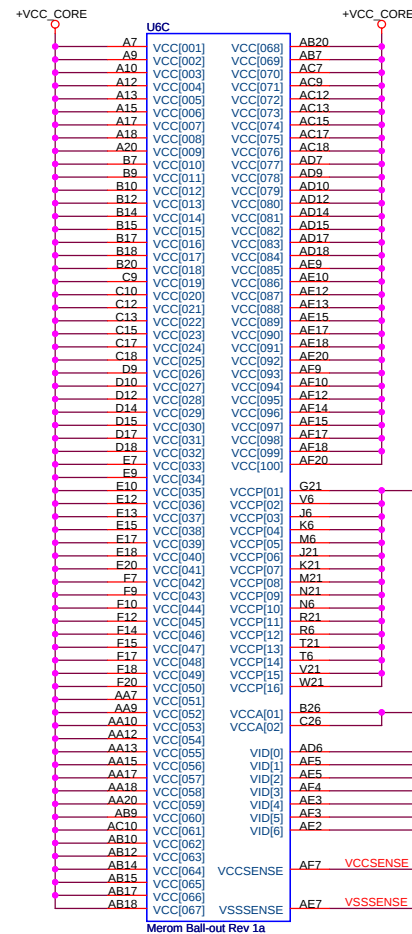
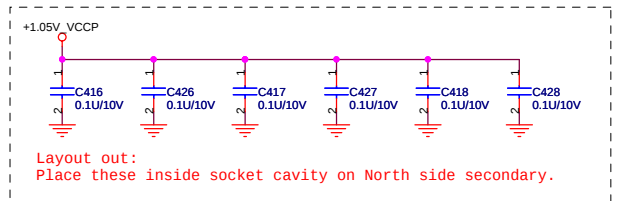
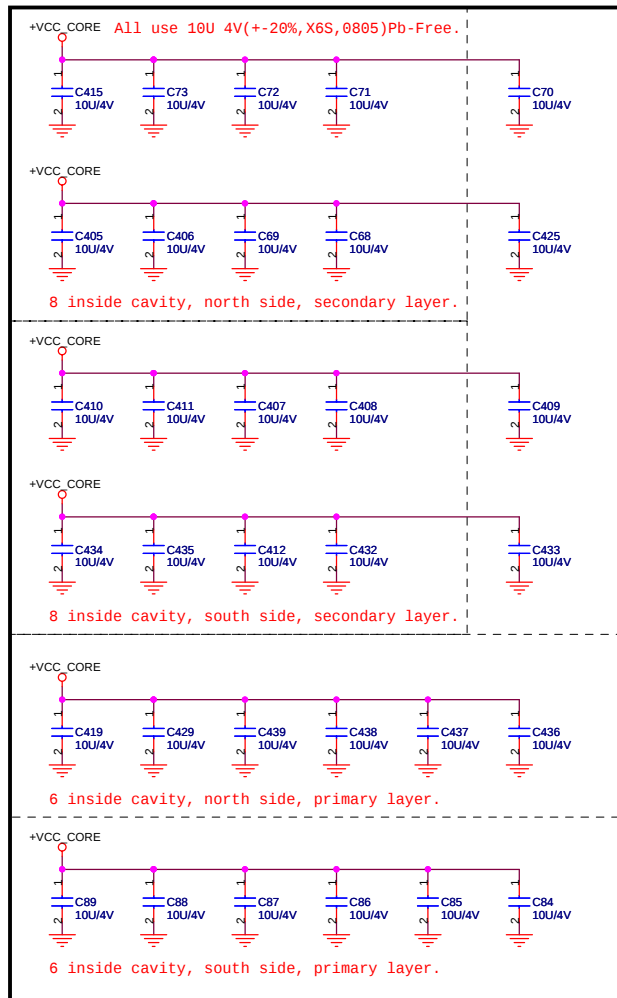
**VER : 1A**

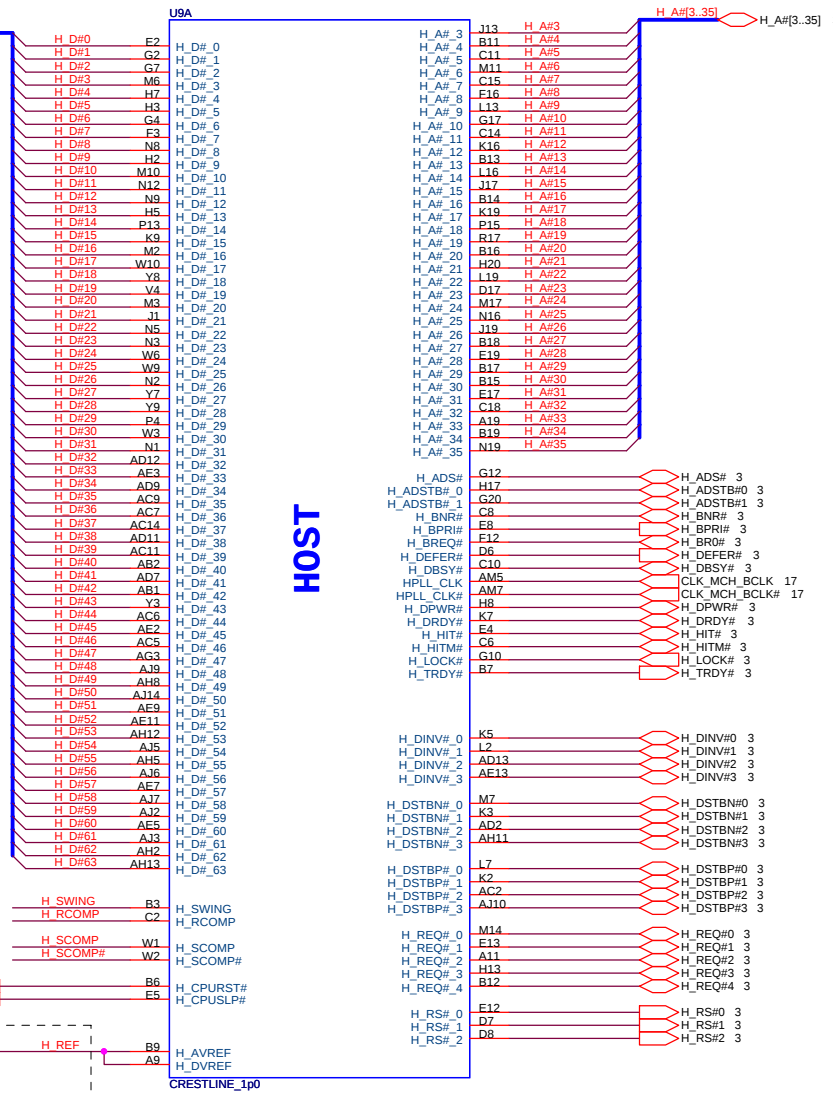
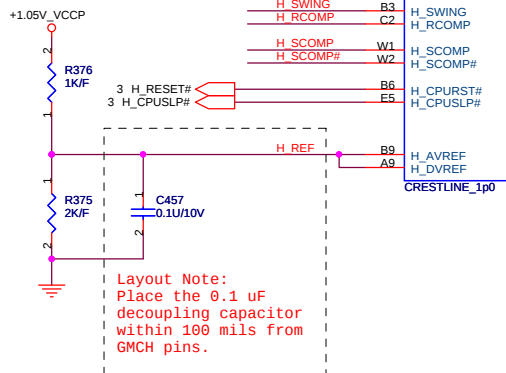
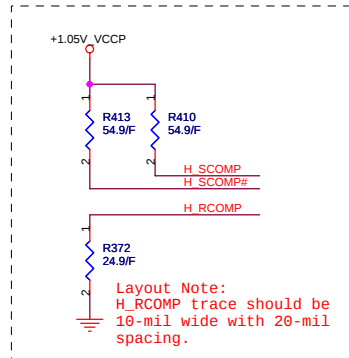
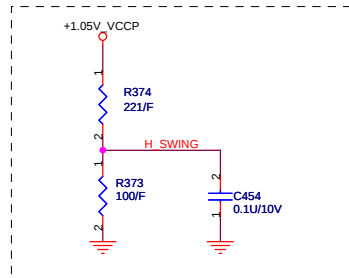


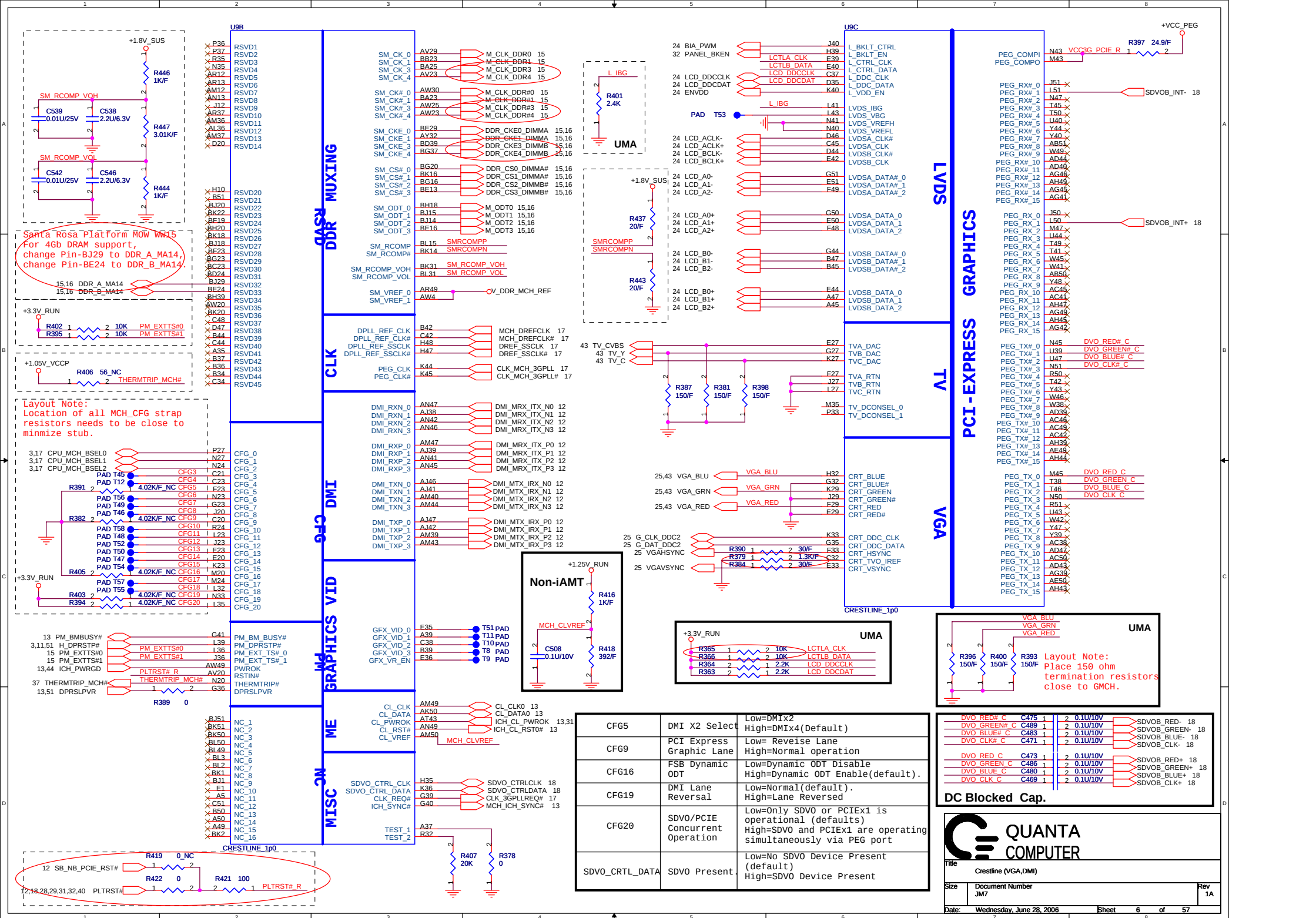
| INDEX |                                  |
|-------|----------------------------------|
| Pg#   | Description                      |
| 1     | Schematic Block Diagram          |
| 2     | Front Page                       |
| 3-4   | Merom                            |
| 5-10  | Crestline                        |
| 11-14 | ICH8M                            |
| 15-16 | DDRII SO-DIMM(200P)              |
| 17    | Clock Generator                  |
| 18-23 | VGA                              |
| 24    | LCD Conn. & SSP                  |
| 25    | CRT Conn                         |
| 26    | SATA & IDE Conn                  |
| 27    | PCCARD/Conn & 1394               |
| 28    | Express Card & Smart Card        |
| 29    | Mini Card                        |
| 30    | MDC Conn.                        |
| 31    | SIO (MEC5025)                    |
| 32    | SIO (MEC5018)                    |
| 33    | SERIAL PORT & USB                |
| 34    | Flash ROM, RTC & ECE1077         |
| 35    | TP,BT & FIR                      |
| 36    | Switch,Keyboard & LED            |
| 37    | FAN & Thermal                    |
| 38-39 | Audio CODEC(STAC9205)/Phone Jack |
| 40-41 | LOM (Nineveh)/Switch             |
| 42-43 | Docking Conn/Q-Switch            |
| 44    | System Reset Circuit             |
| 45-46 | Battery Selector & Charger       |
| 47    | DDR2_1.8VSUS, 0.9V               |
| 48    | 1.5VSUS,1.05V(VTT)               |
| 49    | VGA DC/DC,1.25V,1.05V            |
| 50    | CPU_MAX8786(3phase)              |
| 51    | D/D Power                        |
| 52    | RUN Power Switch                 |
| 53    | DCIN,Batt                        |
| 54    | PAD& SCREW                       |
| 55    | EMI CAP                          |
| 56    | SMBUS BLOCK                      |

| Power States  |                |       |       |       |       |          |          |          |
|---------------|----------------|-------|-------|-------|-------|----------|----------|----------|
| Power Rail    | Control Signal | S0/M0 | S3/M1 | S3/M1 | S4/M1 | S3/M-off | S4/M-off | S5/M-off |
| +3.3V_ALW     |                |       |       |       |       |          |          |          |
| +5V_ALW       |                |       |       |       |       |          |          |          |
| +3.3V_LAN     |                |       |       |       |       |          |          |          |
|               |                |       |       |       |       |          |          |          |
|               |                |       |       |       |       |          |          |          |
| +1.8V_SUS     |                |       |       |       |       |          |          |          |
| +0.9V_DDR_VTT |                |       |       |       |       |          |          |          |
| +5V_SUS       |                |       |       |       |       |          |          |          |
| +3.3V_SUS     |                |       |       |       |       |          |          |          |
| +5V_RUN       |                |       |       |       |       |          |          |          |
| +3.3V_RUN     |                |       |       |       |       |          |          |          |
| +1.8V_RUN     |                |       |       |       |       |          |          |          |
| +1.25V_RUN    |                |       |       |       |       |          |          |          |
| +1.5V_RUN     |                |       |       |       |       |          |          |          |
| +1.05V_VCCP   |                |       |       |       |       |          |          |          |
| VCC_VCRE      |                |       |       |       |       |          |          |          |
| +LCDVCC       |                |       |       |       |       |          |          |          |
| +5V_MOD       |                |       |       |       |       |          |          |          |
|               |                |       |       |       |       |          |          |          |
|               |                |       |       |       |       |          |          |          |
|               |                |       |       |       |       |          |          |          |

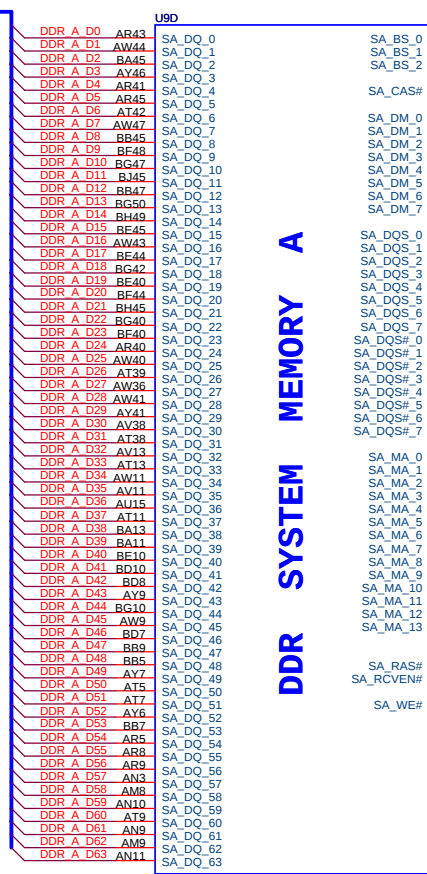




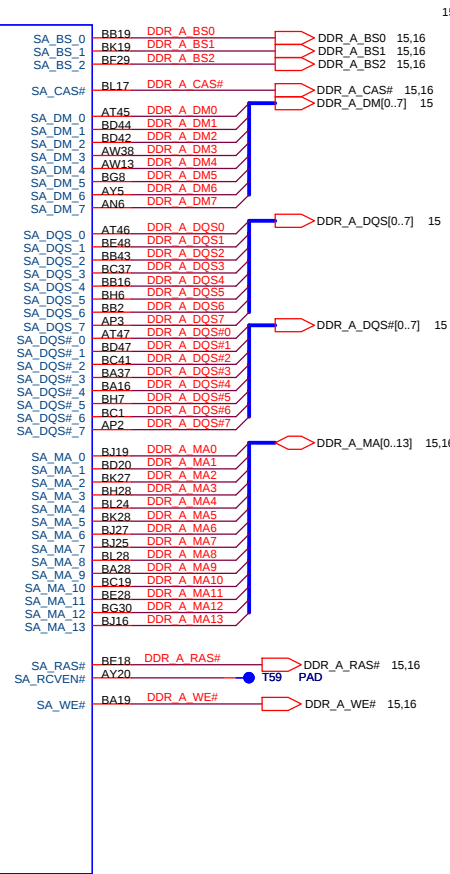




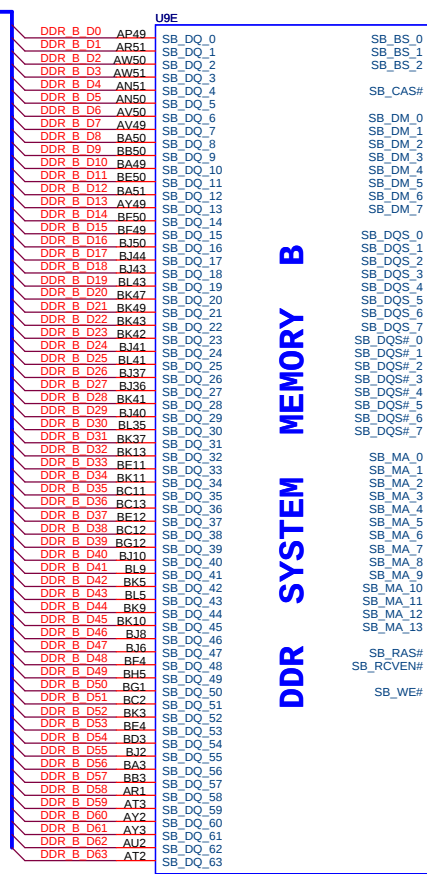
15 DDR\_A\_D[0..63]



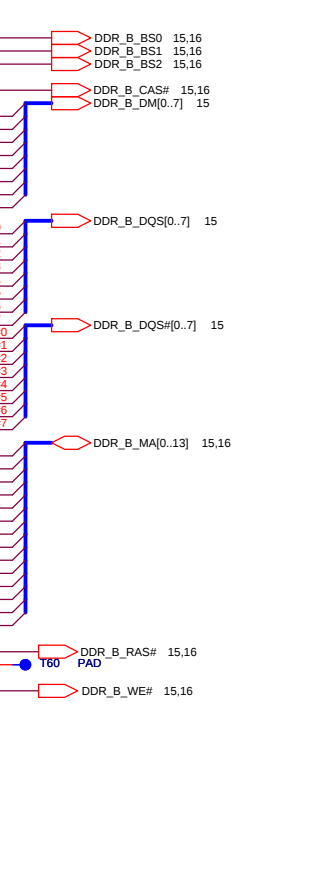
DDR SYSTEM MEMORY A



15 DDR\_B\_D[0..63]

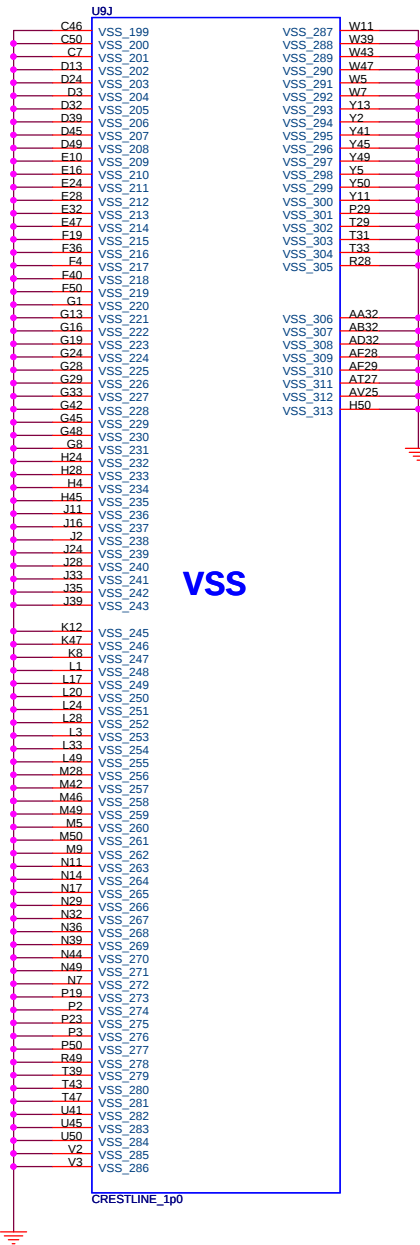
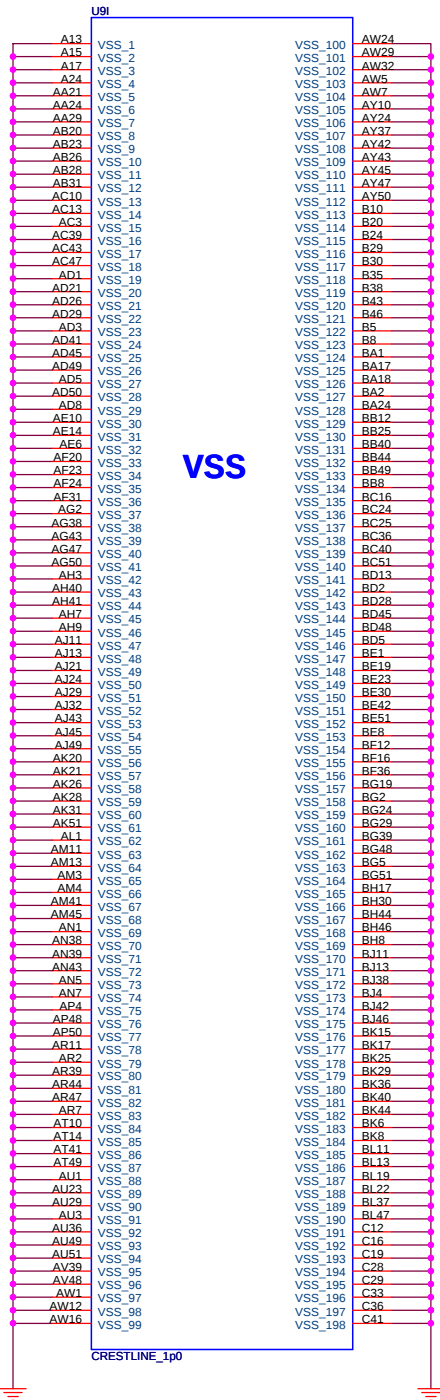


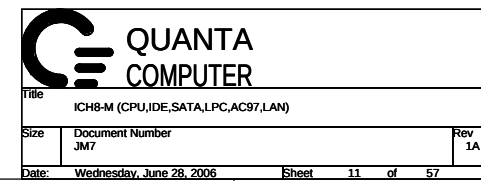
DDR SYSTEM MEMORY B



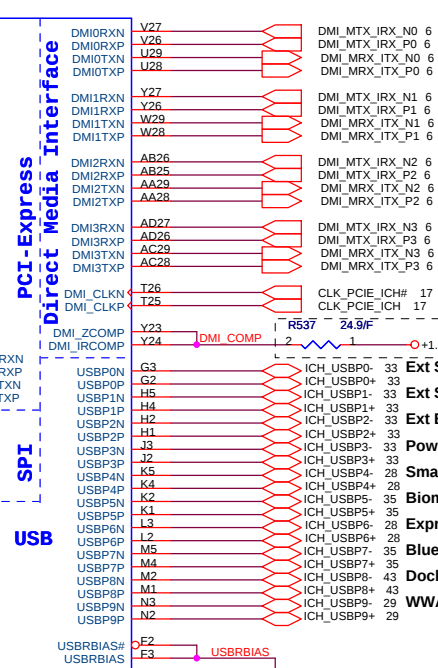
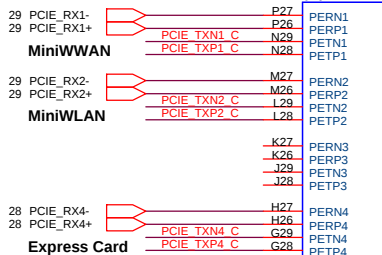
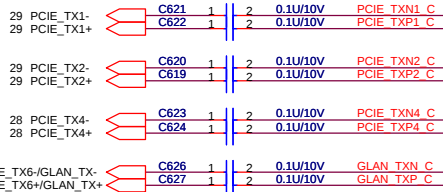






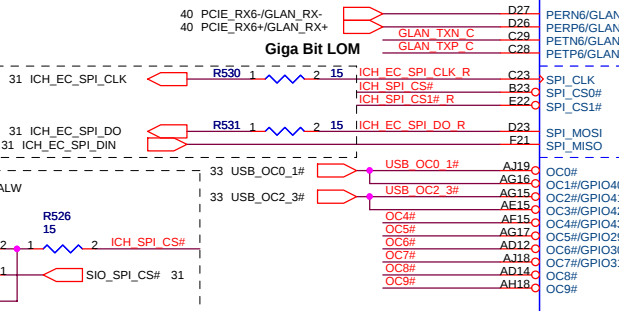


Place TX DC blocking caps close ICH8.

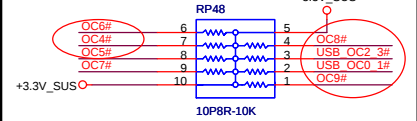


Place within 500mils of ICH8

Layout Note:  
Place R288, R324 and R282  
within 500 mils from ICH.



Non-iAMT

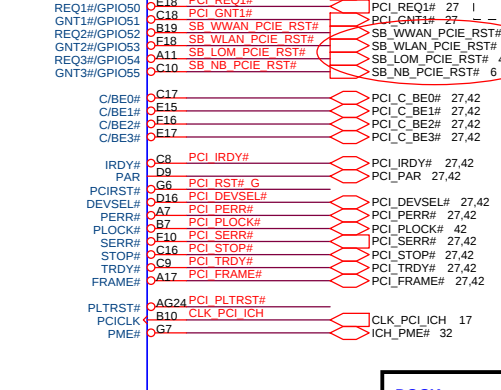


Short F2 and F3 at the package  
and keep length to less than  
500mils. Trace Impedance  
should be 60ohms +/- 15%.

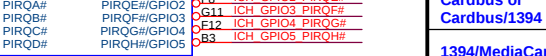
Boot BIOS Strap

|    | LPC      | GNT0#    | SPI_CS1# |
|----|----------|----------|----------|
| 11 | No stuff | No stuff | No stuff |
| 10 | No stuff | No stuff | Stuff    |
| 01 | Stuff    | Stuff    | No stuff |

PCI



Interrupt I/F



|                         | REQ0 | GNT0 | PIRQA |
|-------------------------|------|------|-------|
| Cardbus or Cardbus/1394 | REQ1 | GNT1 | PIRQB |
| 1394/MediaCard          | REQ2 | GNT2 | PIRQC |

Reserved for EMI.  
Place resistor and cap  
close to ICH.

Ext Side Top

Ext Side Bottom

Ext Back Bottom

Power USB

Smart Card

Biometric

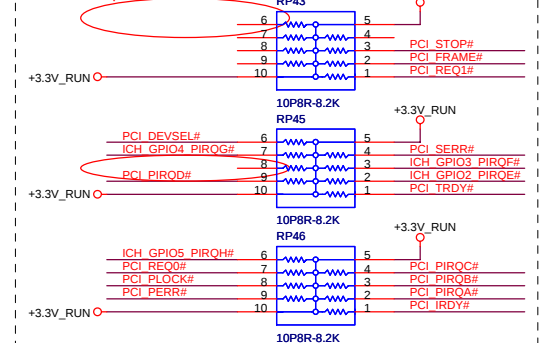
Express Card

Blue Tooth

Dock

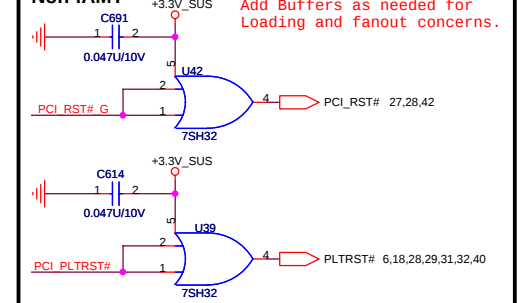
WWAN

PCI Pullups



BIOS should not enable the  
Internal GPIO pull up resistor.

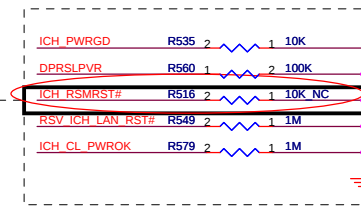
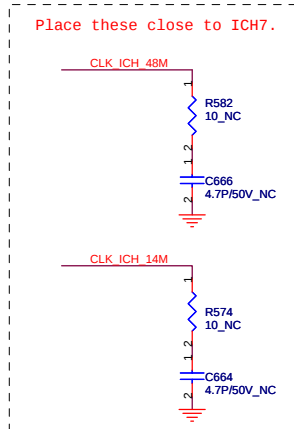
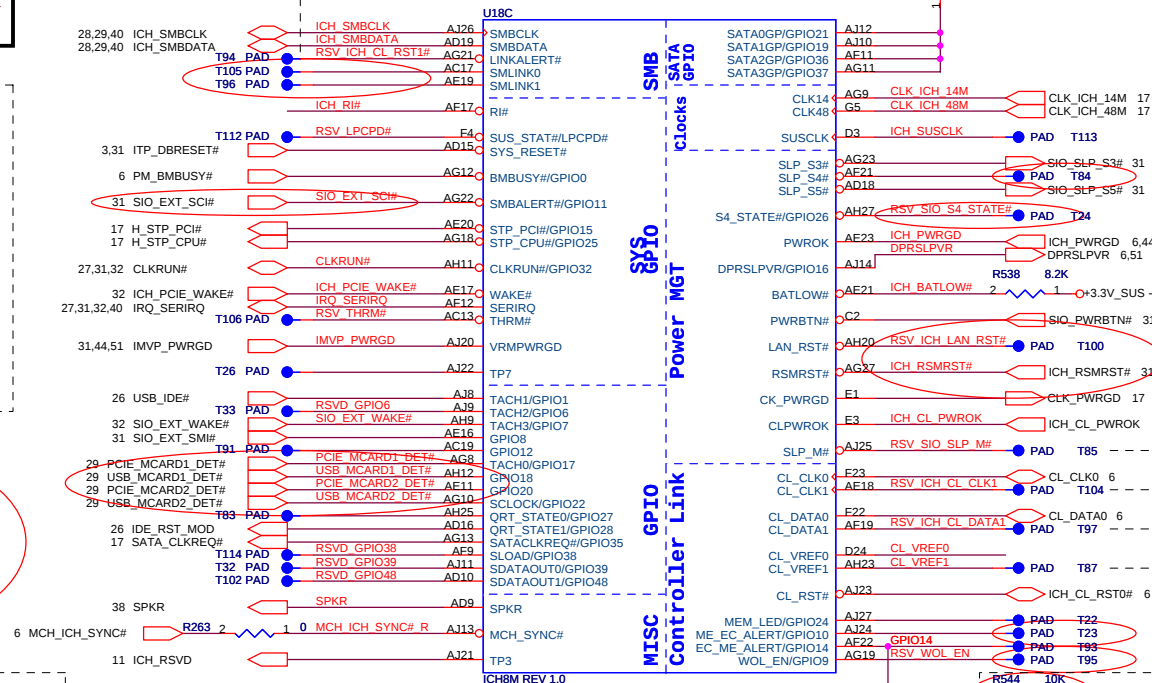
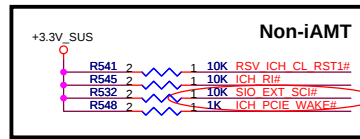
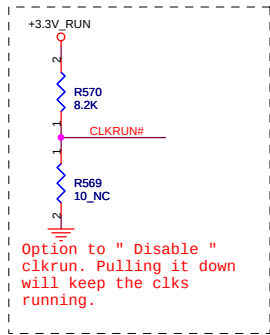
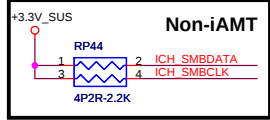
Non-iAMT



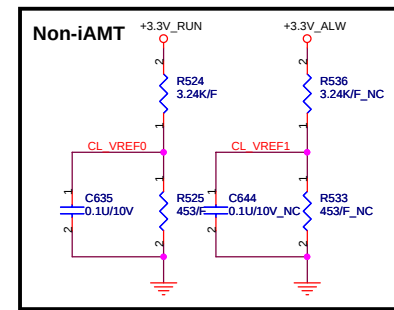
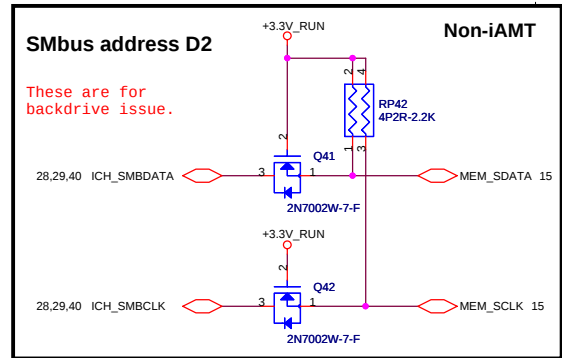
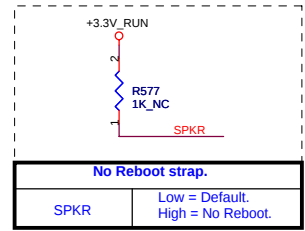
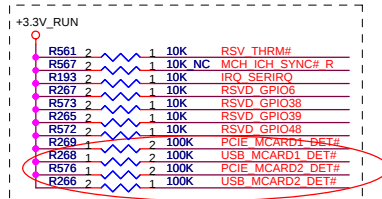
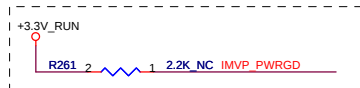
Add Buffers as needed for  
Loading and fanout concerns.

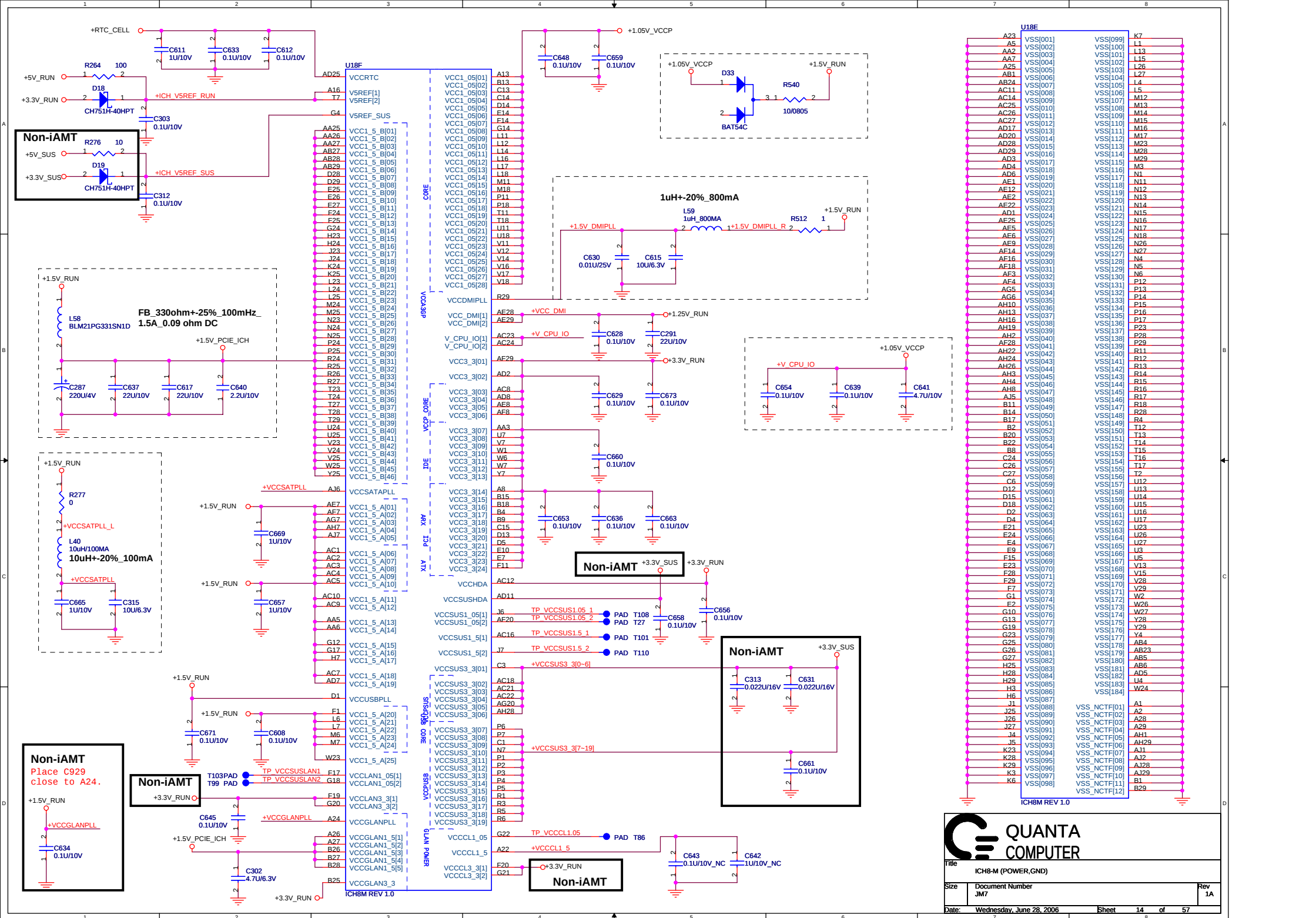


|                                       |                 |           |
|---------------------------------------|-----------------|-----------|
| Title<br>ICH8-M (USB, DMI, PCIE, PCI) |                 |           |
| Size<br>JM7                           | Document Number | Rev<br>1A |
| Date:<br>Wednesday, June 28, 2006     | Sheet<br>12     | of<br>57  |

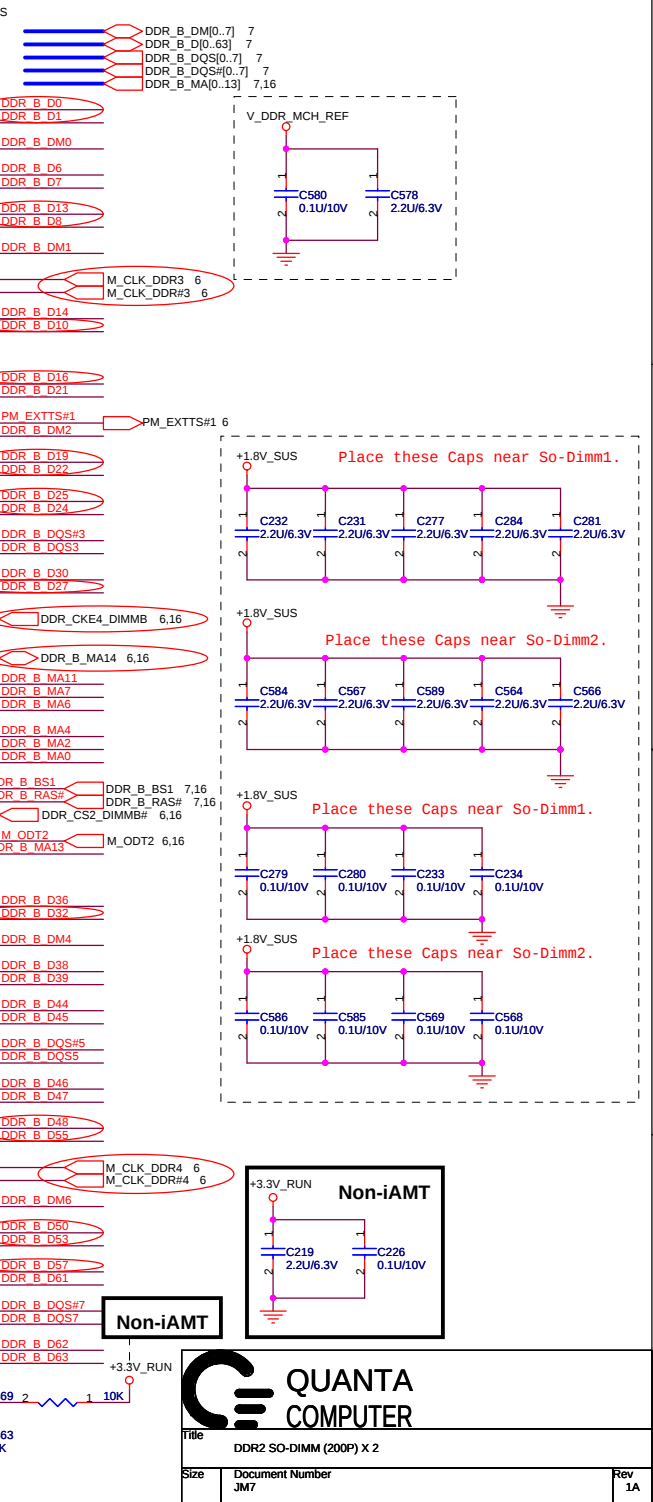
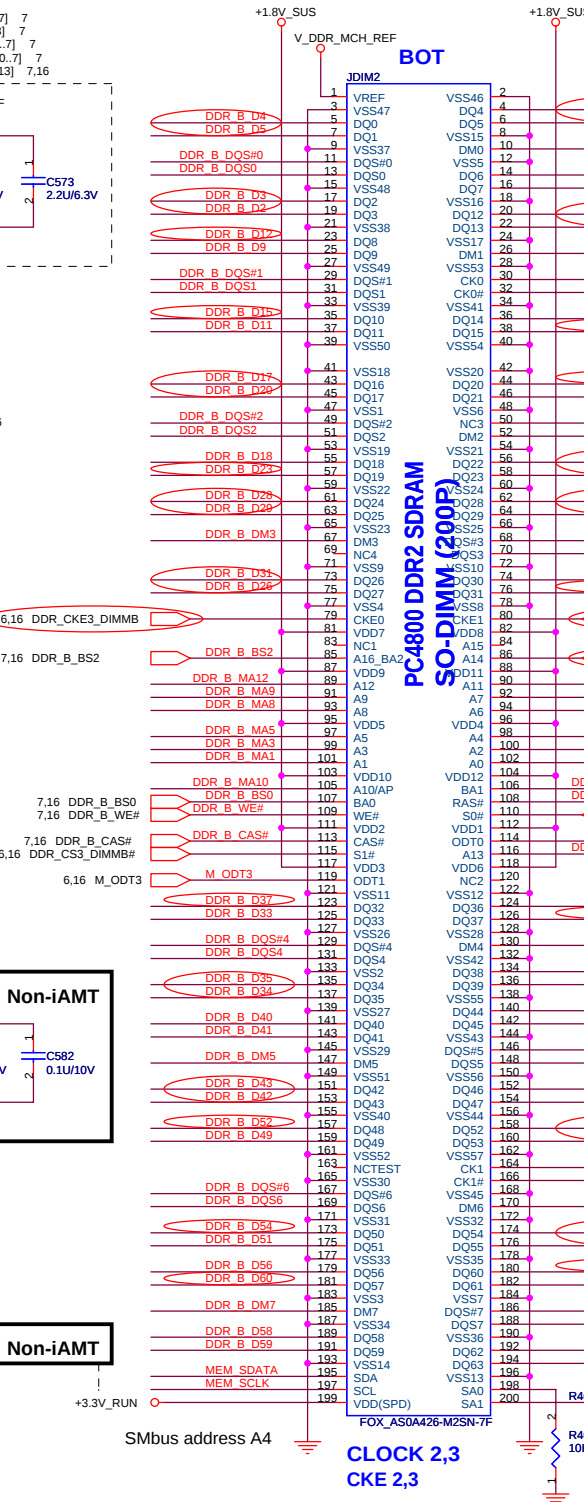
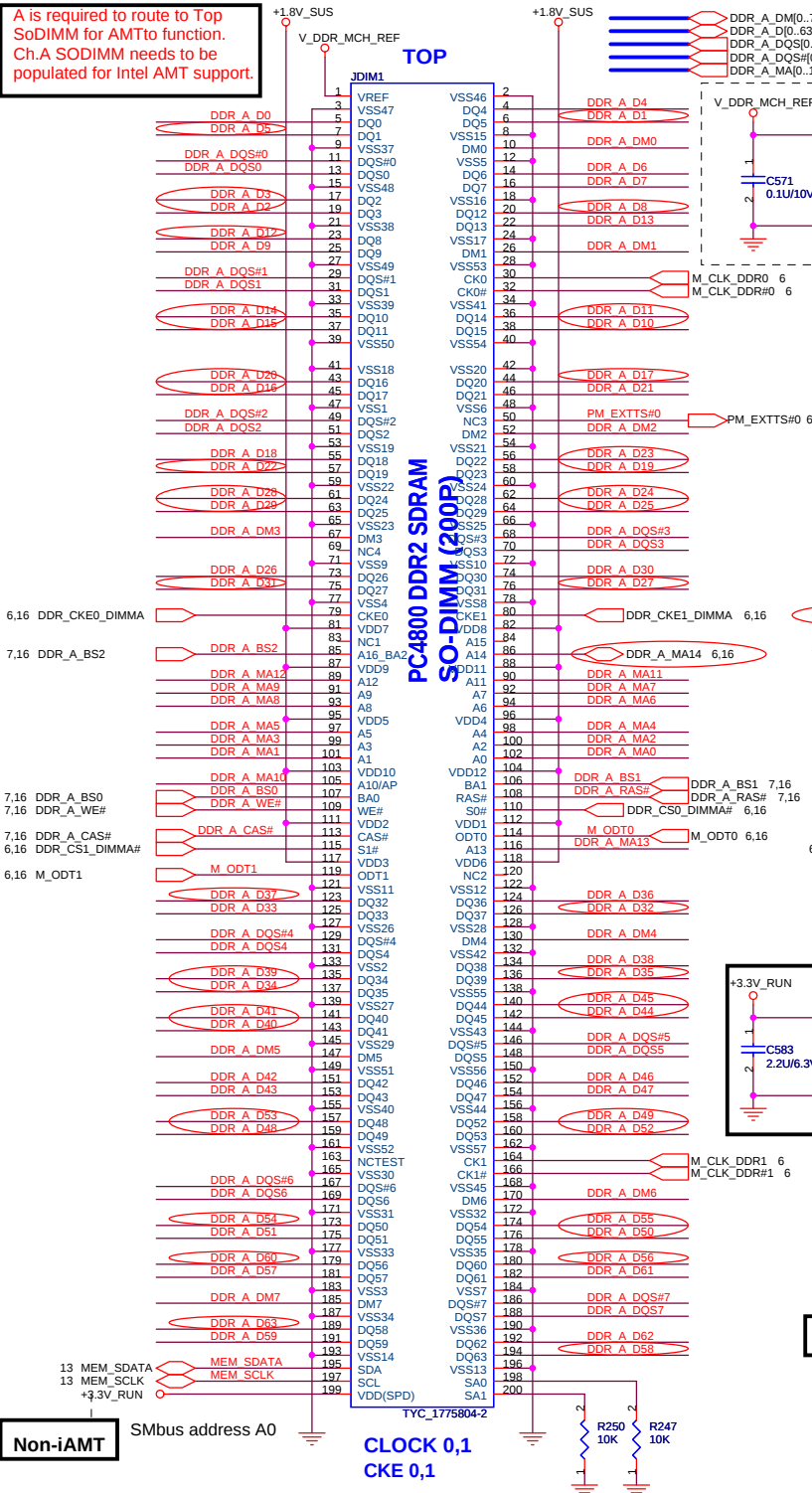


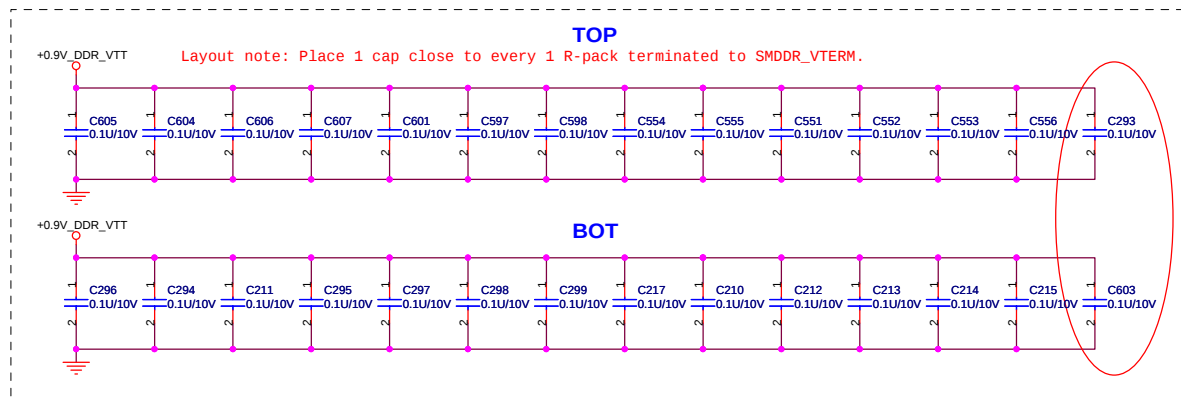
**Non-iAMT**





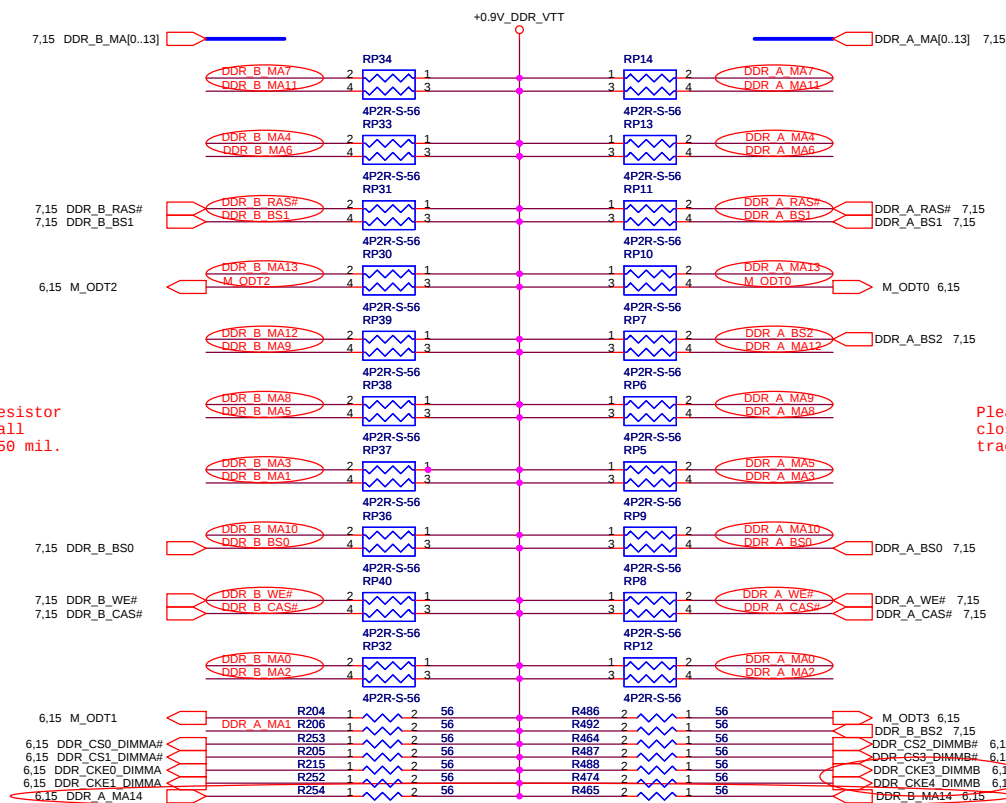
A is required to route to Top SoDIMM for AMT to function. Ch.A SODIMM needs to be populated for Intel AMT support.

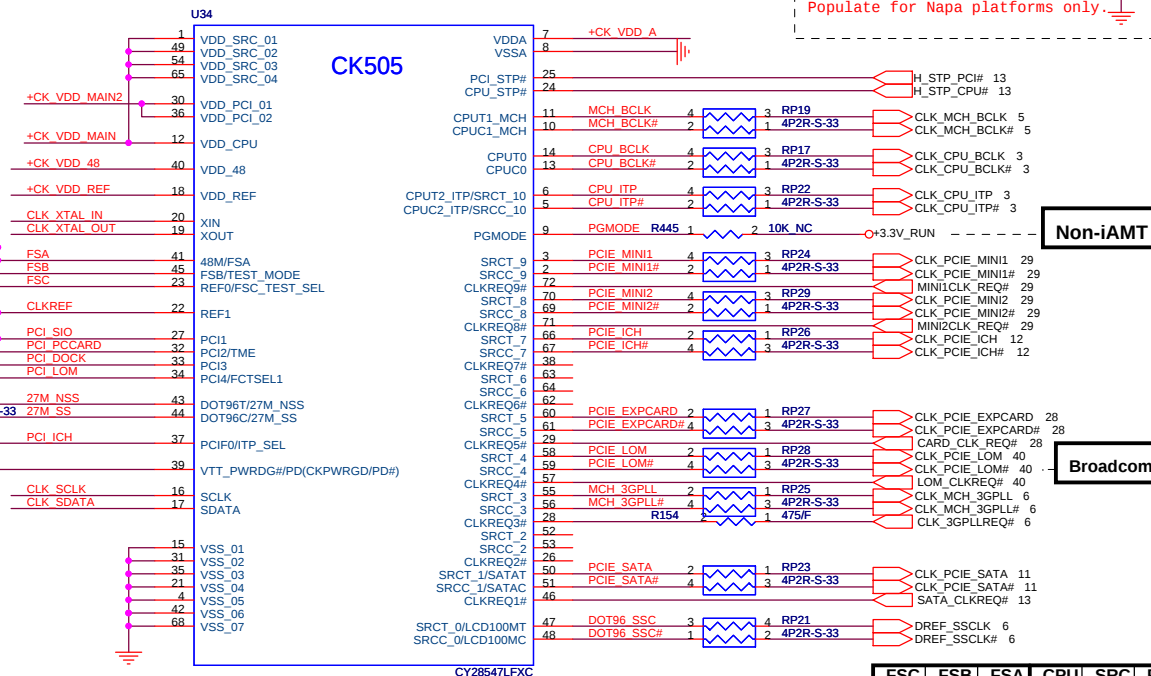
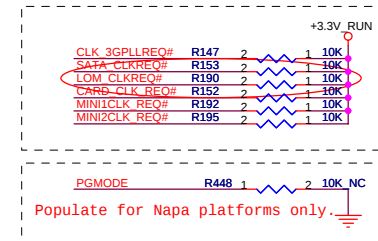
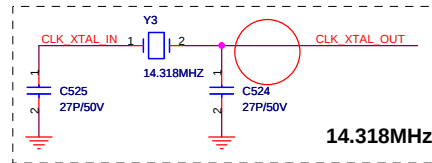
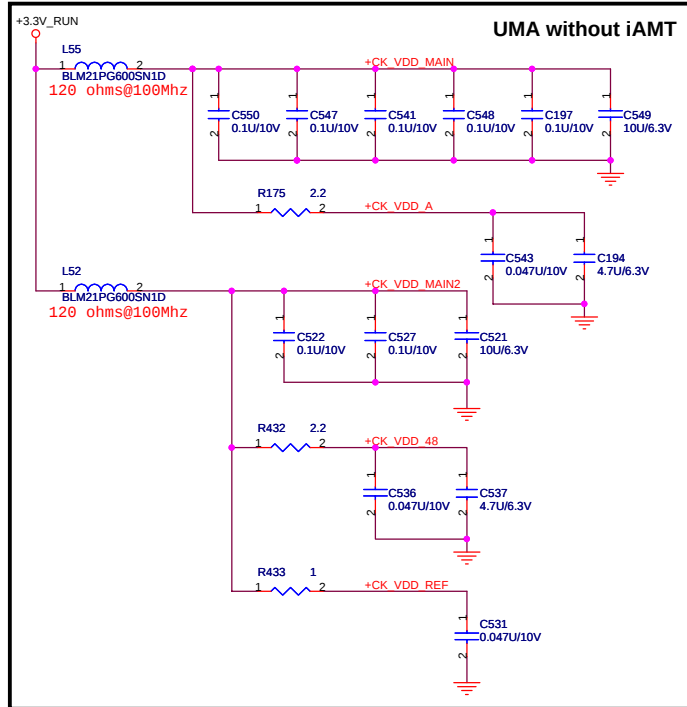
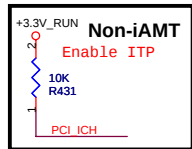
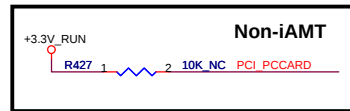
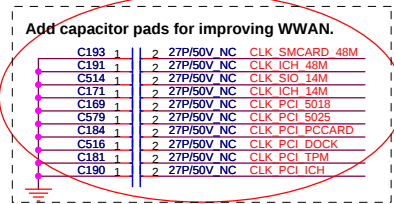
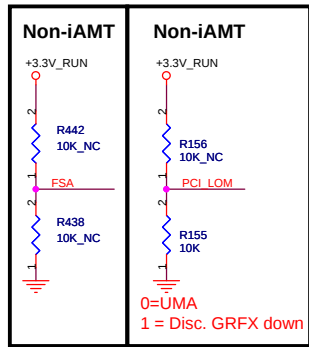




Please these resistor  
closely DIMMB,all  
trace length<750 mil.

Please these resistor  
closely DIMMA,all  
trace length<750 mil.

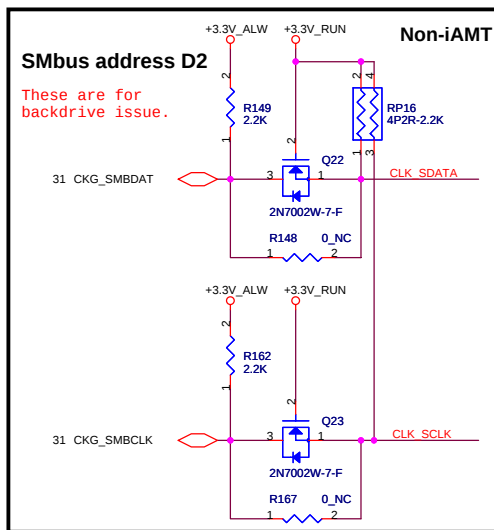




| FSC | FSB | FSA | CPU  | SRC | PCI |
|-----|-----|-----|------|-----|-----|
| 1   | 0   | 1   | 100  | 100 | 33  |
| 0   | 0   | 1   | 133  | 100 | 33  |
| 0   | 1   | 1   | 166  | 100 | 33  |
| 0   | 1   | 0   | 200  | 100 | 33  |
| 0   | 0   | 0   | 266  | 100 | 33  |
| 1   | 0   | 0   | 333  | 100 | 33  |
| 1   | 1   | 0   | 400  | 100 | 33  |
| 1   | 1   | 1   | RSVD | 100 | 33  |

PCI\_LOM = FCTSEL1

| FCTSEL1 (PIN34)     | PIN43  | PIN44    | PIN47     | PIN48     |
|---------------------|--------|----------|-----------|-----------|
| 0=UMA               | DOT96T | DOT96C   | 96/100M_T | 96/100M_C |
| 1 = Disc. GRFX down | 27Mout | 27MSSout | SRCT0     | SRCC0     |



**QUANTA COMPUTER**

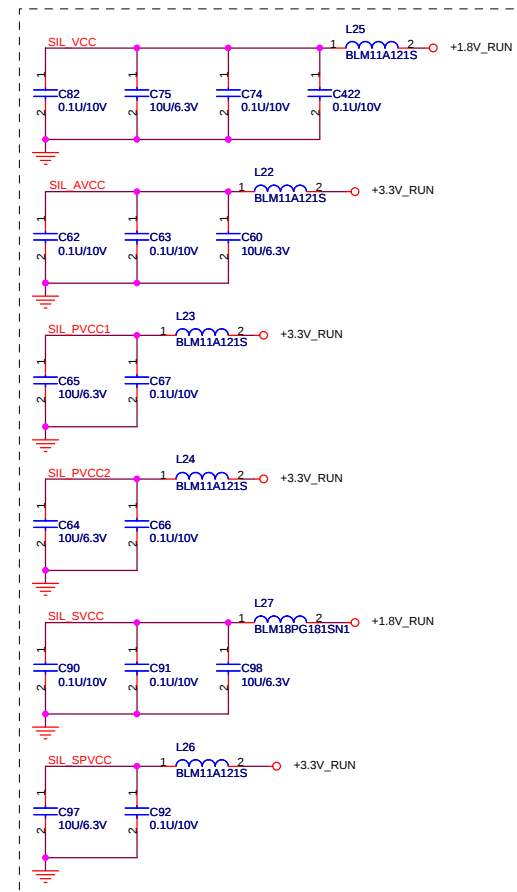
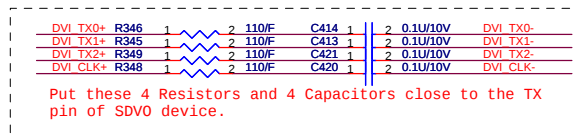
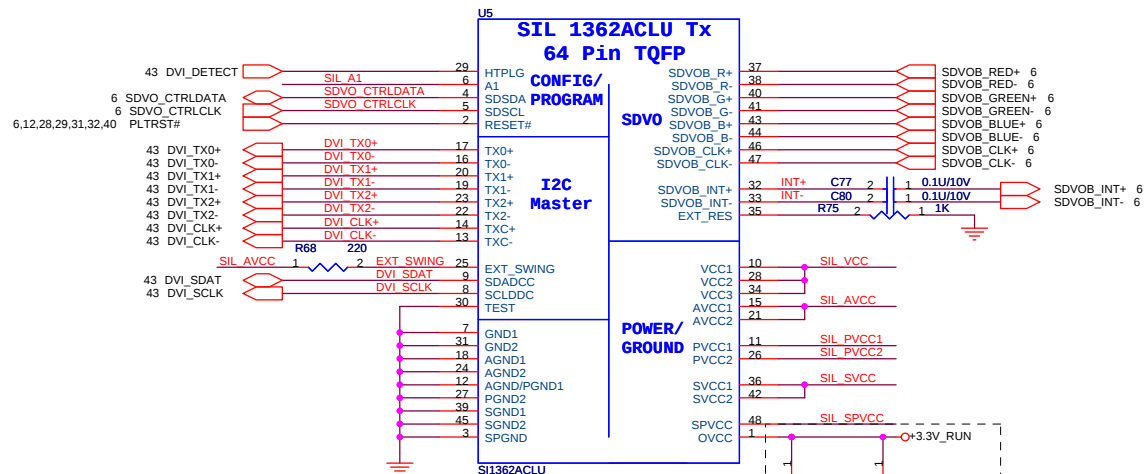
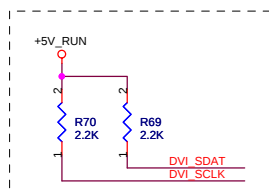
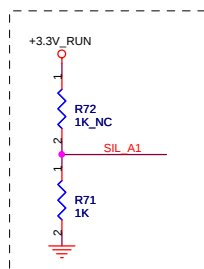
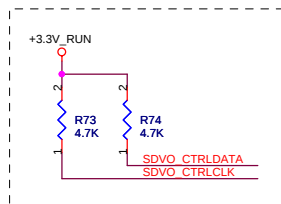
Title: CLOCK GENERATOR

Size: Document Number: JM7

Date: Wednesday, June 28, 2006

Sheet: 17 of 57

Rev: 1A



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|  <b>QUANTA<br/>COMPUTER</b> |                       |                |
| Title                                                                                                            |                       |                |
| Size                                                                                                             | Document Number       | Rev            |
|                                                                                                                  | JM7                   | 1A             |
| Date:                                                                                                            | Monday, June 26, 2006 | Sheet 20 of 57 |

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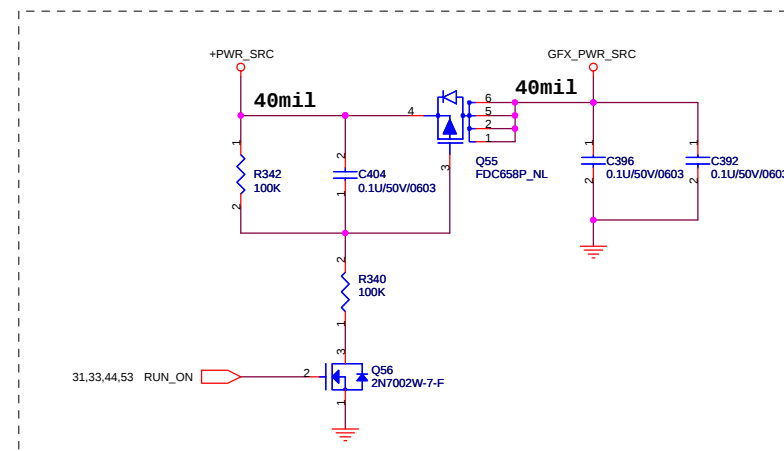
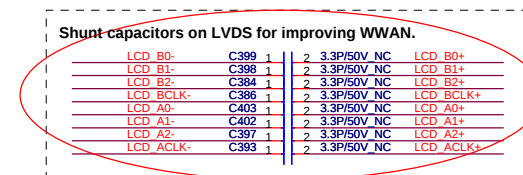
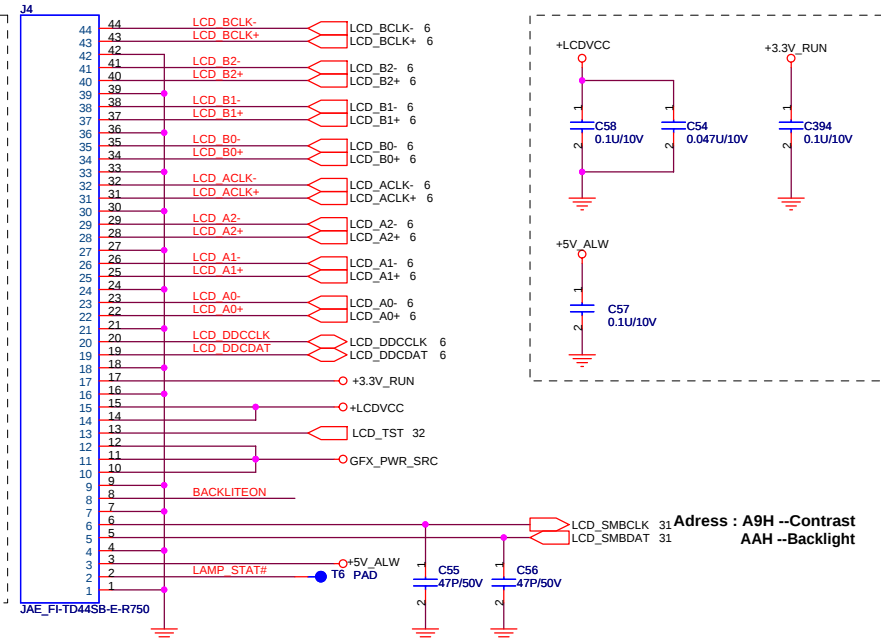
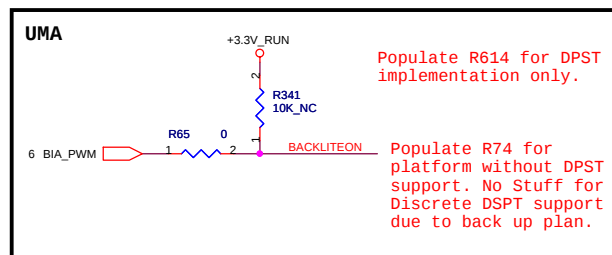
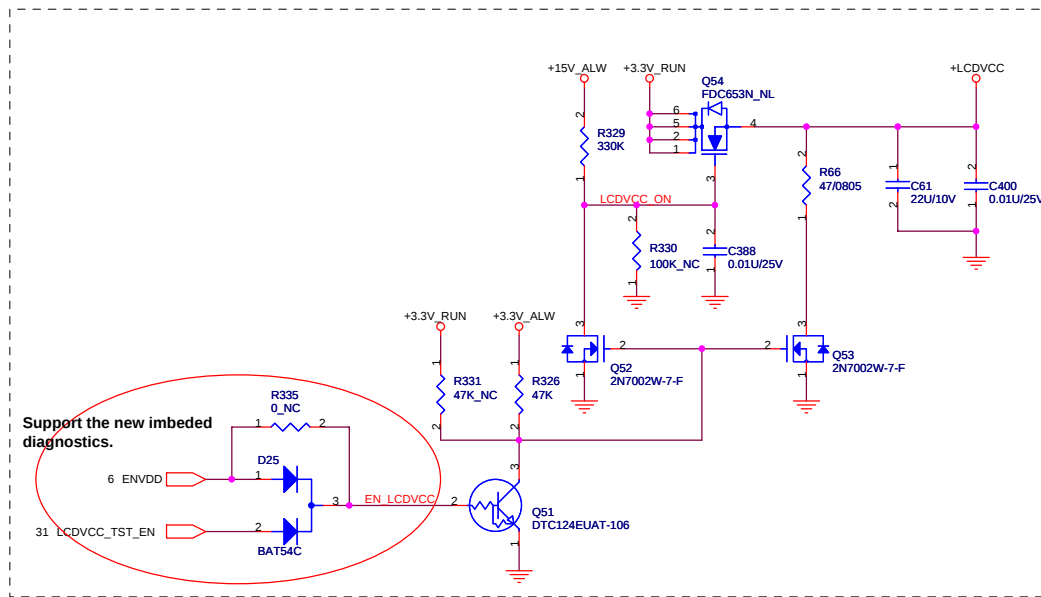
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| Title                                                                                                            |                 |                |
| Size                                                                                                             | Document Number | Rev            |
|                                                                                                                  | JM7             | 1A             |
| Date: Monday, June 26, 2006                                                                                      |                 | Sheet 21 of 57 |

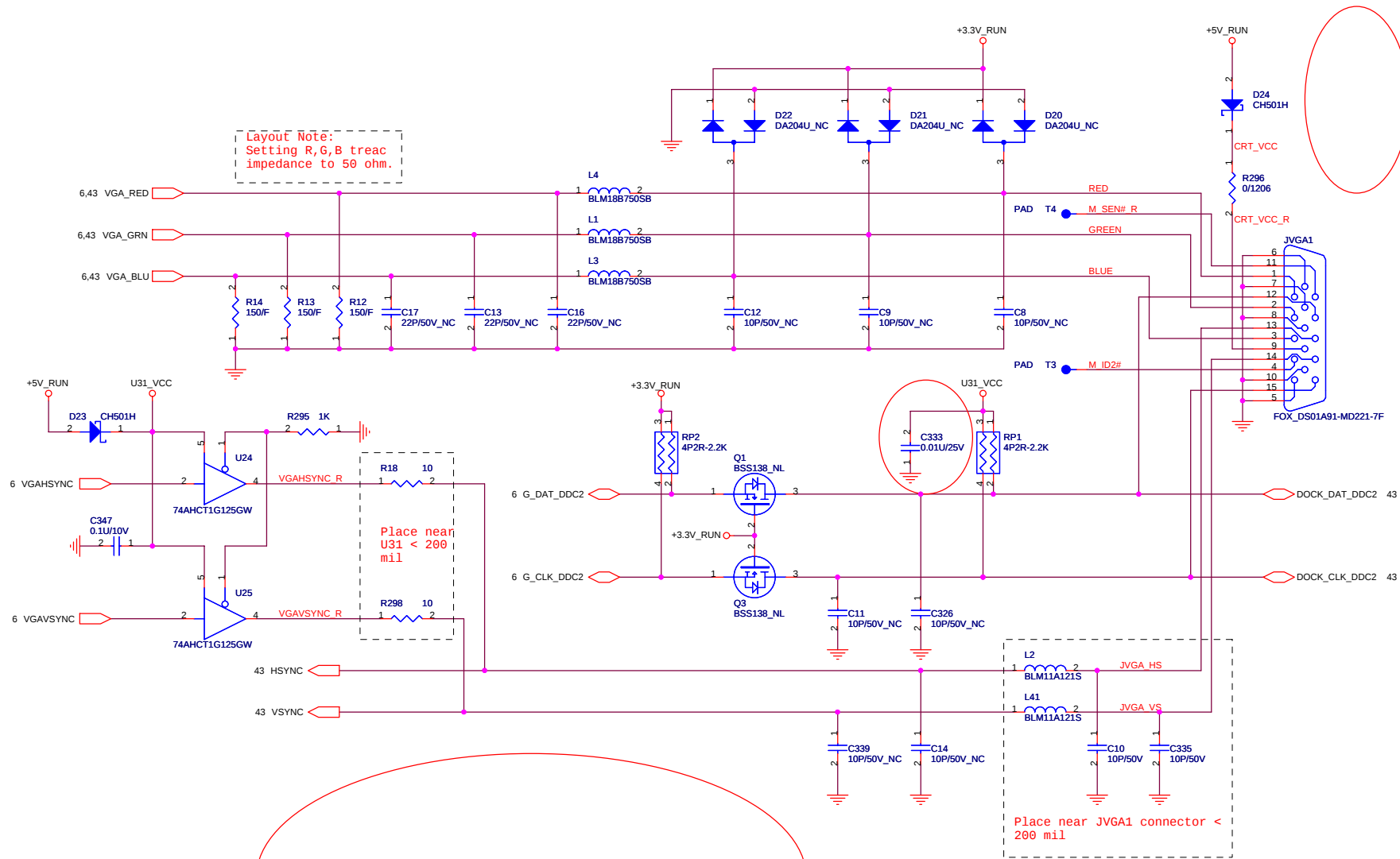
**BLANK PAGE FOR PAGE  
NUMBER SAME AS DISCRETE**

|                                                                                                                  |                       |                |
|------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
|  <b>QUANTA<br/>COMPUTER</b> |                       |                |
| Title                                                                                                            |                       |                |
| Size                                                                                                             | Document Number       | Rev            |
|                                                                                                                  | JM7                   | 1A             |
| Date:                                                                                                            | Monday, June 26, 2006 | Sheet 22 of 57 |

**BLANK PAGE FOR PAGE  
NUMBER SAME AS DISCRETE**

|                                                                                                                  |                       |                |
|------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
|  <b>QUANTA<br/>COMPUTER</b> |                       |                |
| Title                                                                                                            |                       |                |
| Size                                                                                                             | Document Number       | Rev            |
| JM7                                                                                                              |                       | 1A             |
| Date:                                                                                                            | Monday, June 26, 2006 | Sheet 23 of 57 |





+5V\_HDD

C318 0.1u/10V\_NC

C319 1000P/50V\_NC

Place caps close to connector.

MLX\_67492-1821

3.3V\_0  
3.3V\_1  
3.3V\_2  
GND4  
GND5  
GND6  
5V\_0  
5V\_1  
5V\_2  
GND7  
RSVD  
GND8  
12V\_0  
12V\_1  
12V\_2

GND1  
RXP  
RXN  
GND2  
TXN  
TXP  
GND3

SATA\_TX0+ 11  
SATA\_TX0- 11

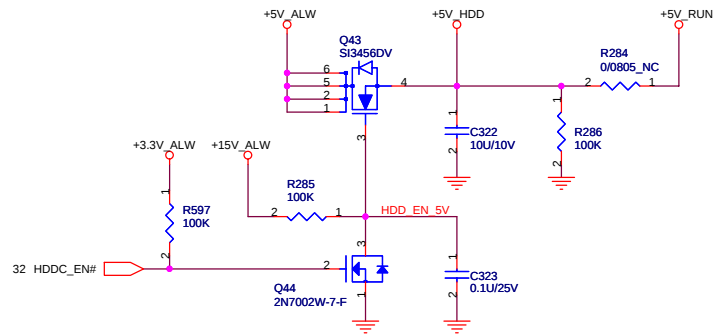
SATA\_RXN0\_C  
SATA\_RXP0\_C

+3.3V\_RUN

+5V\_HDD

SATA\_RXN0\_C C309 2 3900P/25V

SATA\_RXP0\_C C310 2 3900P/25V



The schematic diagram illustrates the JMOD1 module's connections. It features a power supply section with +5V\_MOD and +3.3V\_RUN inputs, and a signal section with DASP#, PDIAG#, and IDE signals. Key components include capacitors C96, C424, and C423, resistors R76, R81, and R103, and a connector JMOD1. A note indicates: "Place caps close to connector."

**Power Supply Connections:**

- +5V\_MOD: Connected to pin 1 of JMOD1.
- +3.3V\_RUN: Connected to pins 2 and 3 of JMOD1.

**Signal Connections:**

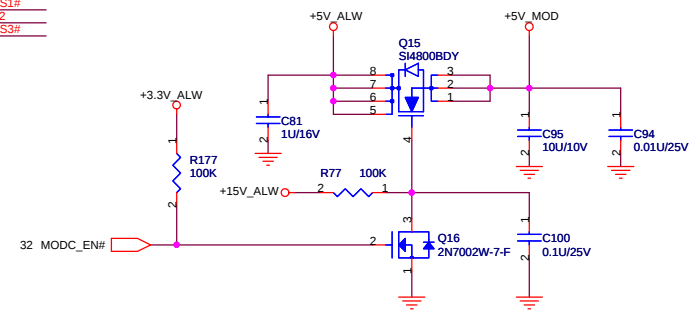
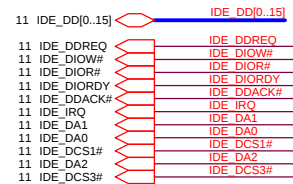
- DASP#: Connected to pin 25 of JMOD1.
- PDIAG#: Connected to pin 31 of JMOD1.
- IDE signals: Connected to pins 1 through 68 of JMOD1.

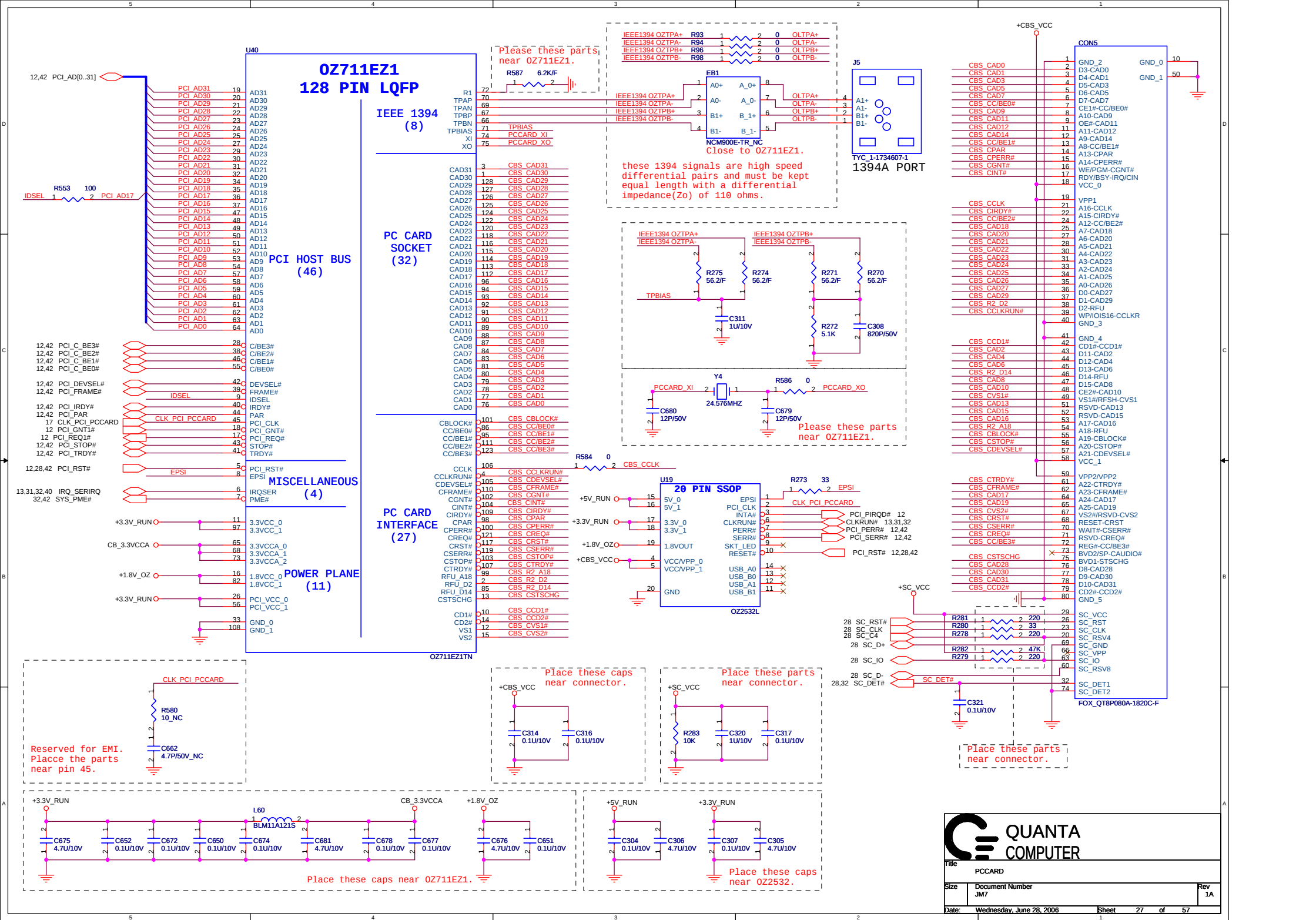
**Component Values:**

- C96: 10u/10V
- C424: 0.1u/10V
- C423: 0.1u/10V
- R76: 100K
- R81: 470
- R103: 56

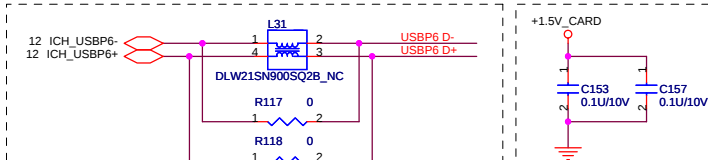
**Module Identification:**

- JMOD1
- JAE WM1F068NSD-R500

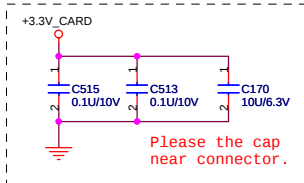




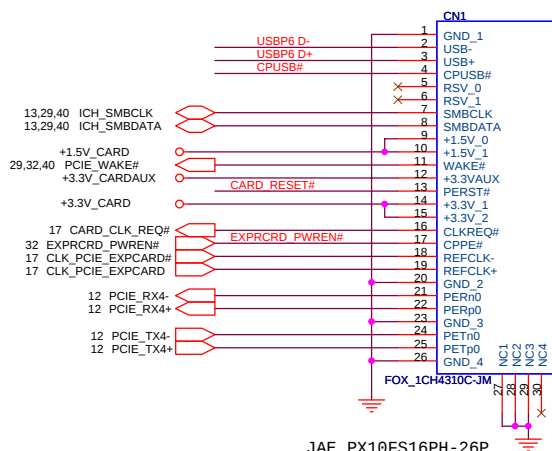
## Express Card



Please the cap  
near connector.

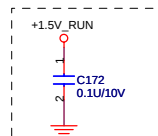
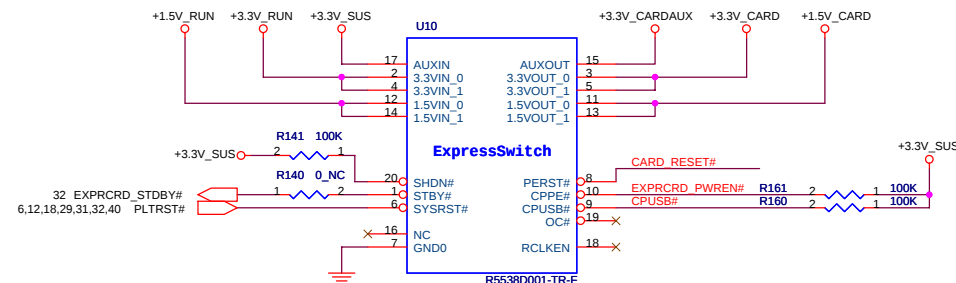


Please the cap  
near connector.

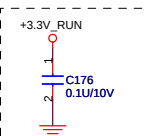


JAE PX10FS16PH-26P

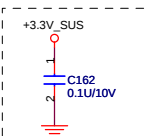
~~PCI-Express TX and RX direct to connector.~~



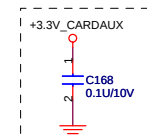
Please the cap near pin 12 & 14(1.5VIN).



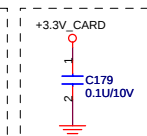
Please the cap near pin 2 & 4 (3.3VIN).



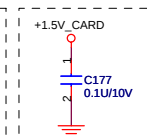
Please the cap  
near pin 17  
(AUXIN).



Please the cap  
near pin 15  
(AUXOUT).



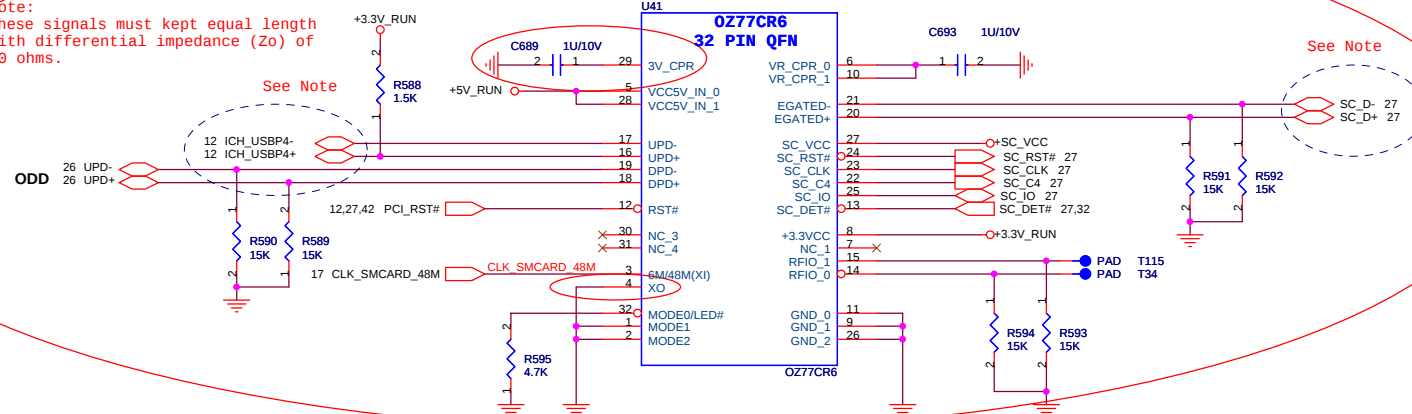
Please the cap  
near pin 3 & 5  
(3.3VOUT).



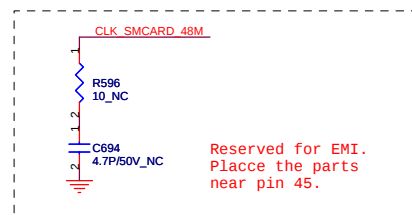
Please the cap  
near pin 11 &  
13(1.5VOUT).

## Smart Card

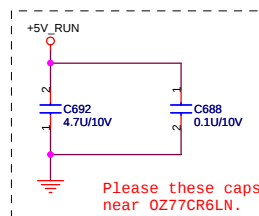
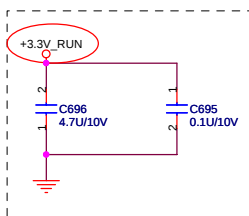
Note:  
These signals must kept equal length with differential impedance ( $Z_0$ ) of 90 ohms.



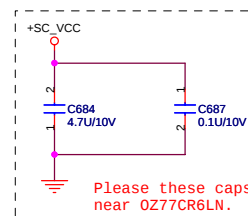
See Note



Reserved for EMI.  
Place the parts  
near pin 45.



Please these ca  
near 0Z77CR6LN.

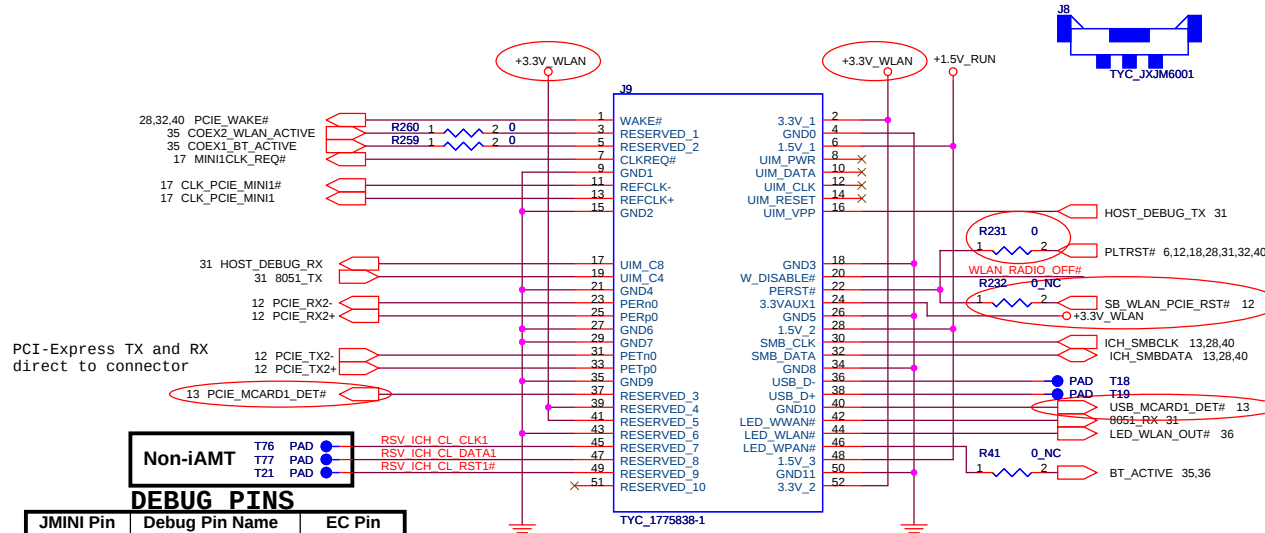


Please these ca  
near OZ77CR6LN.



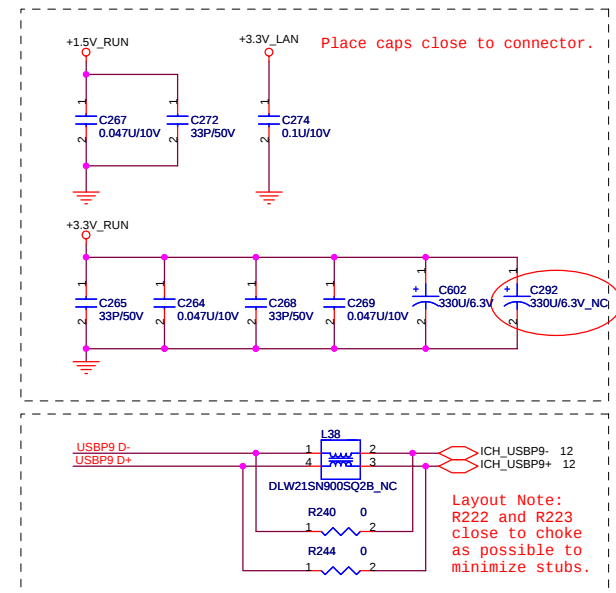
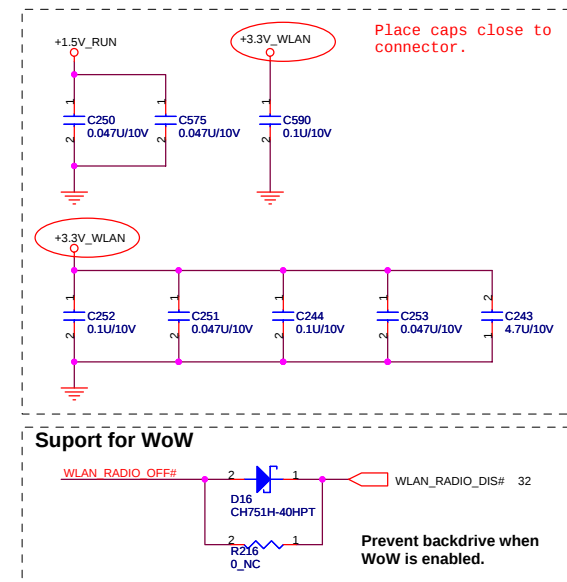
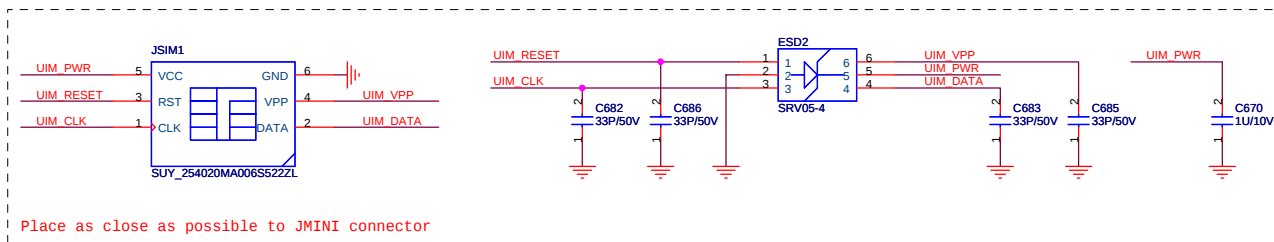
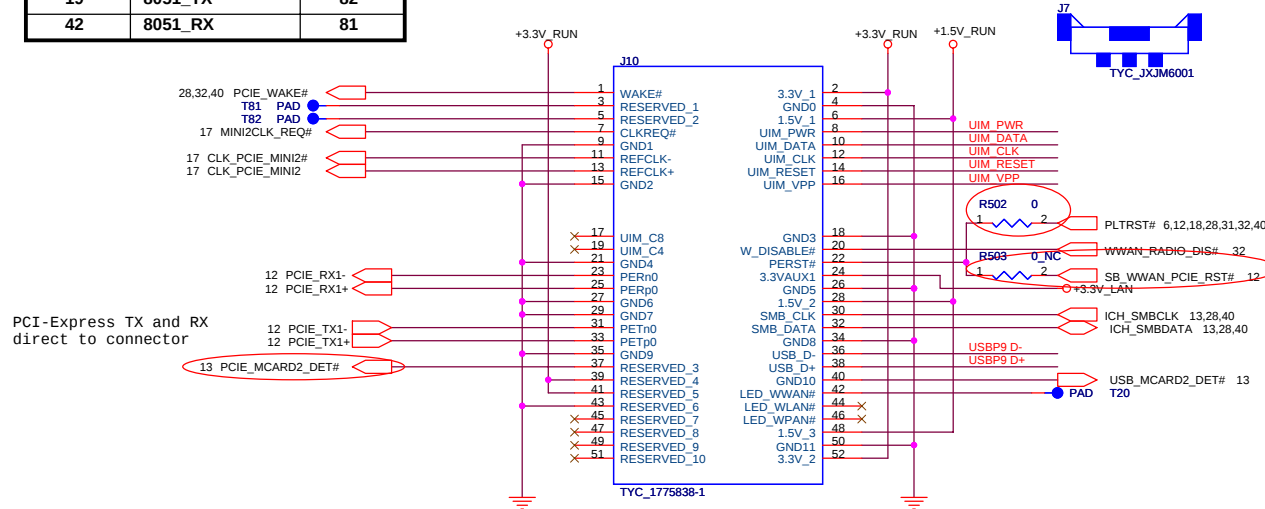
|       |                          |  |  |                       |    |    |     |
|-------|--------------------------|--|--|-----------------------|----|----|-----|
| Title |                          |  |  | ExpressCard/SmartCard |    |    |     |
| Size  | Document Number          |  |  |                       |    |    | Rev |
|       | JM7                      |  |  |                       |    |    | 1   |
| Date: | Wednesday, June 28, 2006 |  |  | Sheet                 | 28 | of | 57  |

## MiniCard WLAN connector

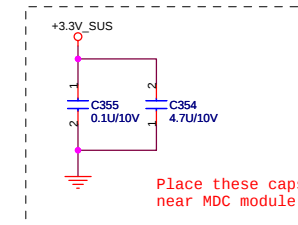
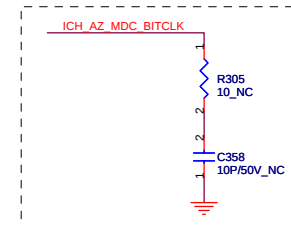
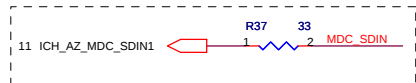
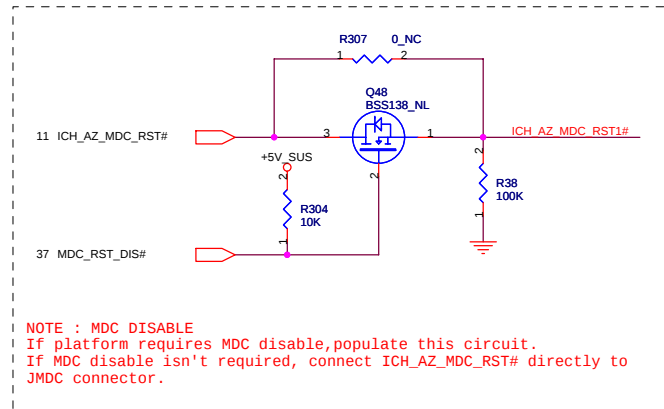
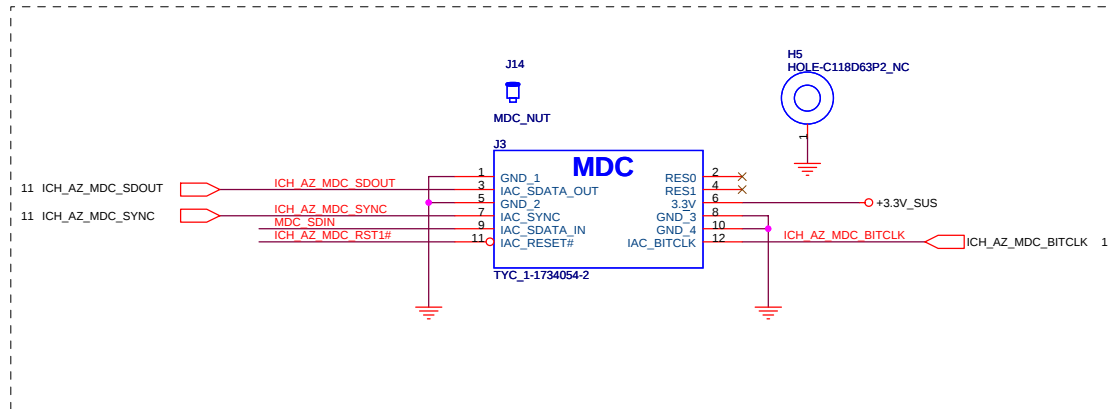
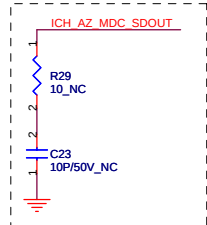
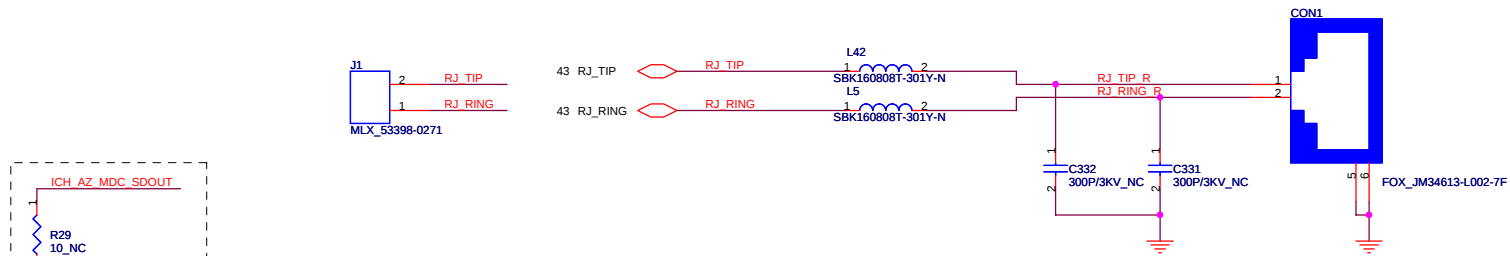


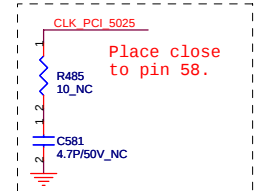
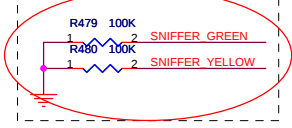
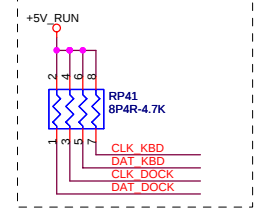
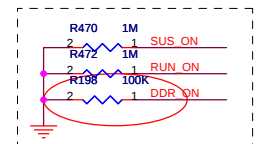
| JMINI Pin | Debug Pin Name | EC Pin |
|-----------|----------------|--------|
| 16        | HOST_DEBUG_TX  | 70     |
| 17        | HOST_DEBUG_RX  | 71     |
| 19        | 8051_TX        | 82     |
| 42        | 8051_RX        | 81     |

## MiniCard WWAN connector



|          |                          |       |          |
|----------|--------------------------|-------|----------|
| Title    |                          |       |          |
| MINI-PCI |                          |       |          |
| Size     | Document Number          |       | Rev      |
|          | JM7                      |       | 1A       |
| Date:    | Wednesday, June 28, 2006 | Sheet | 29 of 57 |



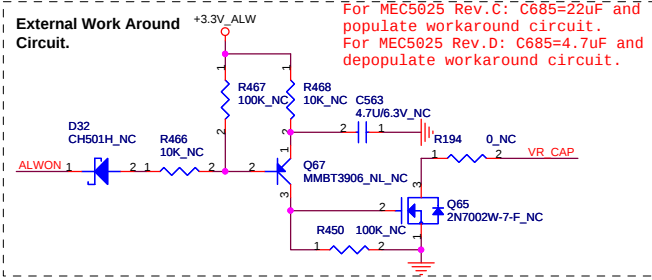
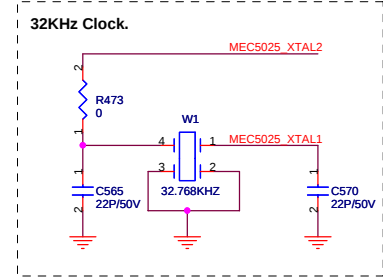
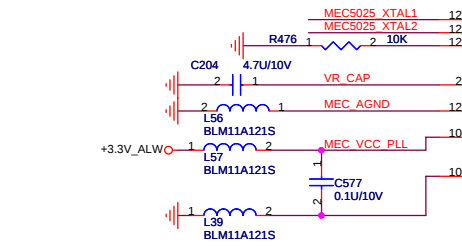


Non-iAMT

Non-iAMT

- 6,12,18,28,29,32,40 PLTRST#  
17 CLK\_PCI\_5025  
11,32,40 LPC\_LFRAME#  
11,32,40 LPC\_LAD0  
11,32,40 LPC\_LAD1  
11,32,40 LPC\_LAD2  
11,32,40 LPC\_LAD3  
13,27,32,40 CLKRUN#  
13,27,32,40 IRQ\_SERIRQ

- 12 ICH\_EC\_SPI\_CLK  
12 ICH\_EC\_SPI\_DIN  
12 ICH\_EC\_SPI\_DO  
34 EC\_FLASH\_SPI\_CLK  
34 EC\_FLASH\_SPI\_DIN  
34 EC\_FLASH\_SPI\_DO  
13 IO\_PWRBTN#  
36 SNIFFER\_YELLOW



For MEC5025 Rev.C: C685=22uF and populate workaround circuit.  
For MEC5025 Rev.D: C685=4.7uF and depopulate workaround circuit.

## MEC5025 EC-08 128 PIN VTQFP

POWER PLANES  
(6)

POWER SWITCH  
(6)

ACCESS BUS  
(4)

GPIO  
(36)

MISCELLANEOUS  
(8)

POWER PLANES  
(9)

KEYBOARD/MOUSE  
(26)

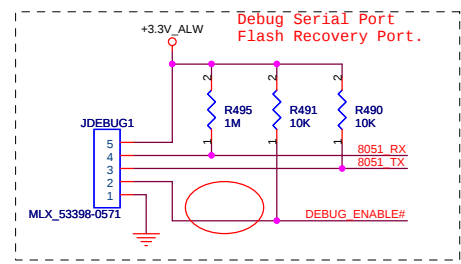
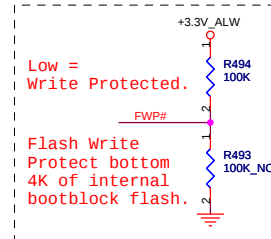
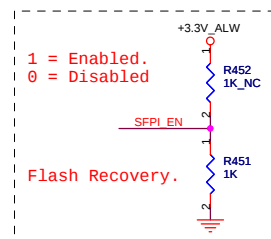
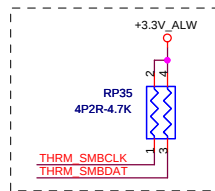
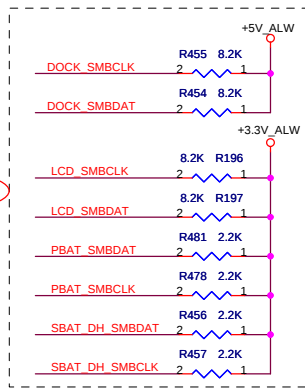
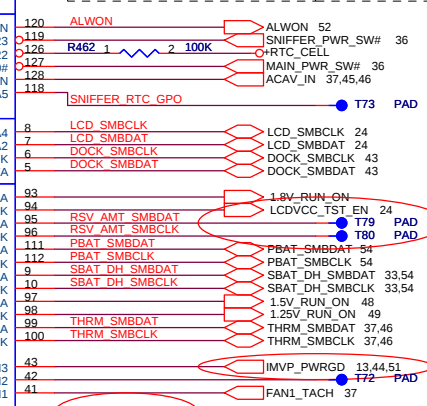
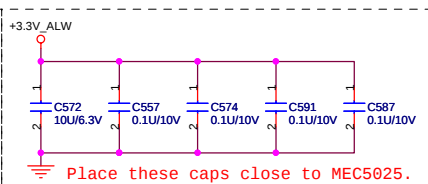
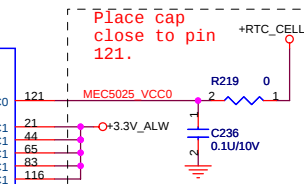
(10)

PCI POWER/LPC BUS  
(9)

HOST/8051 SPI  
(8)

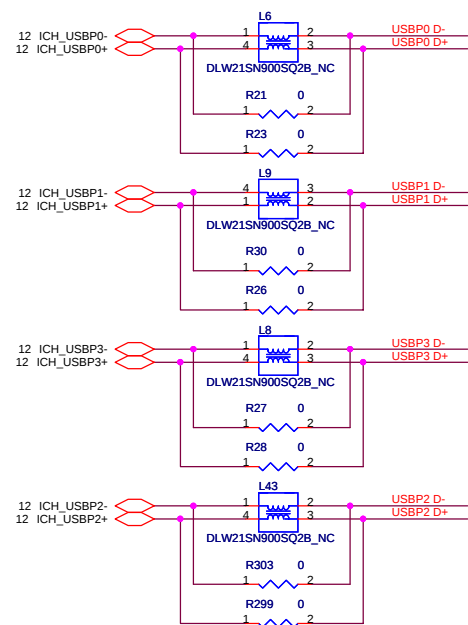
BC  
(3)

CLOCK  
(3)

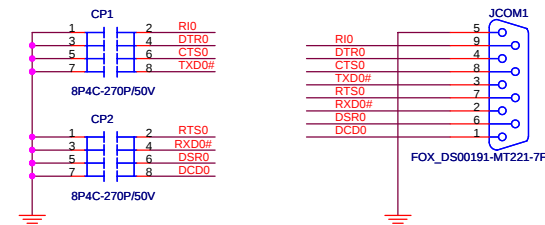
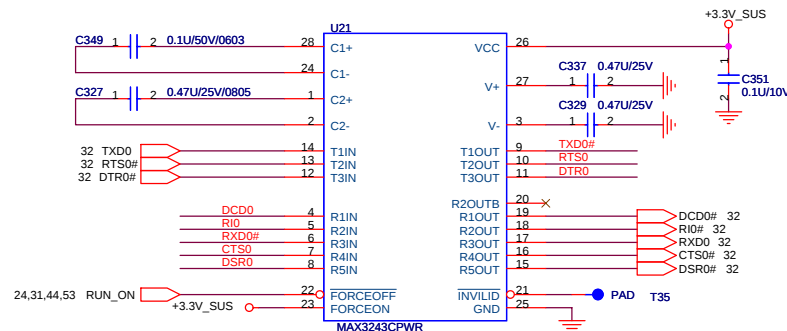
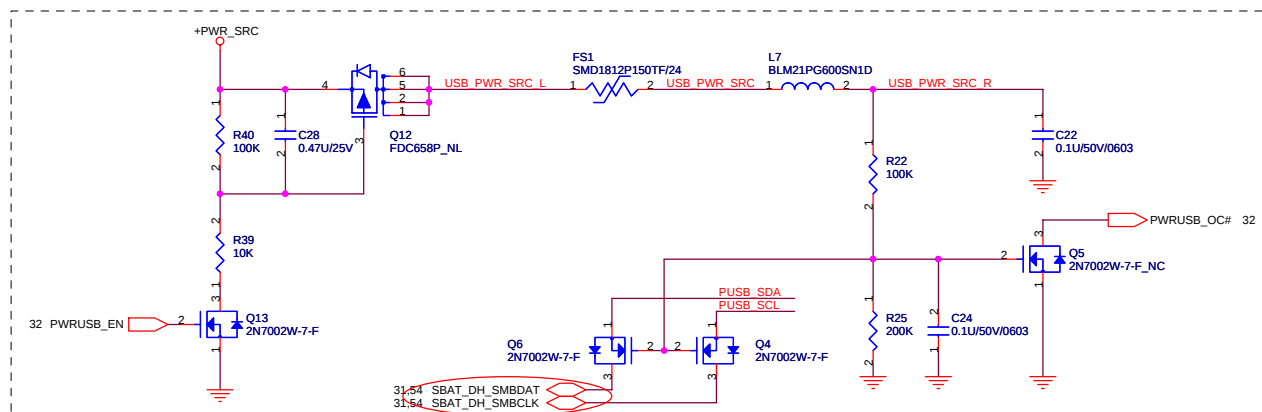
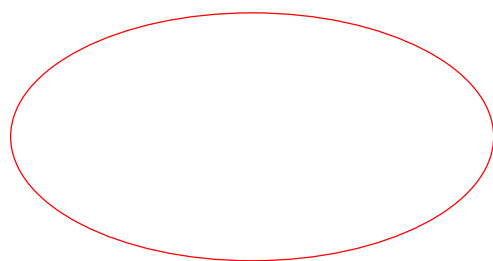




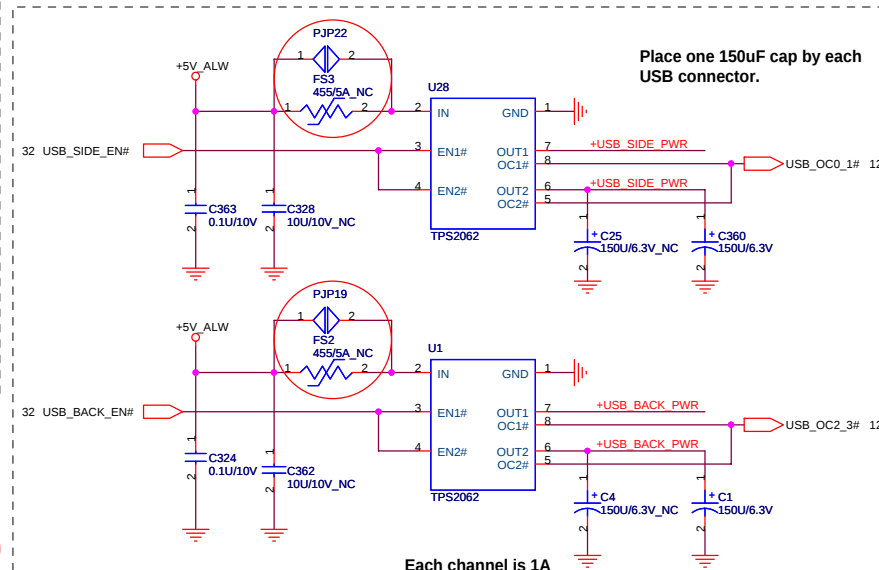
External USB PORT hookup reference. Your design may need more or less external ports and may be mapped differently



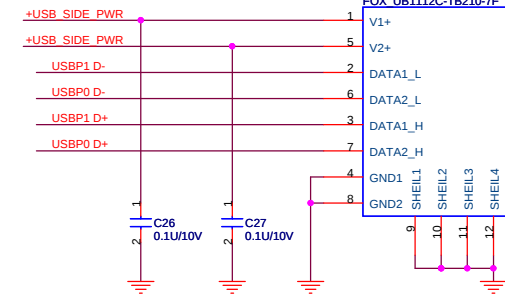
Platforms should put in PADS for the USB chokes if they have the room. Chokes should be NOPOP.



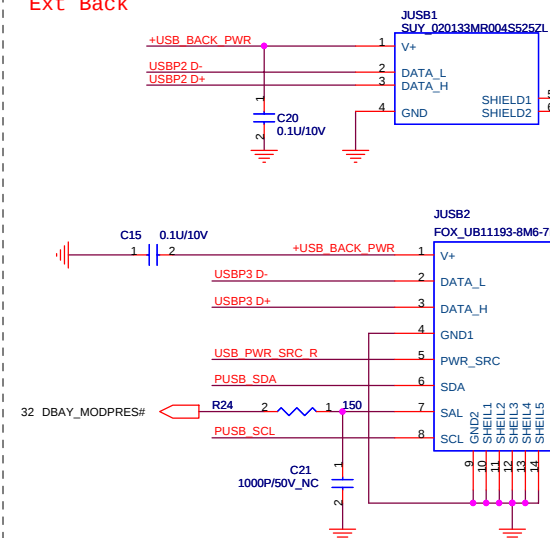
Place these beads close to JCOM1 as soon as possible  
If MAX3243 pin 22 tied to RUN\_ON, then it can not support Ring Out



Ext Side

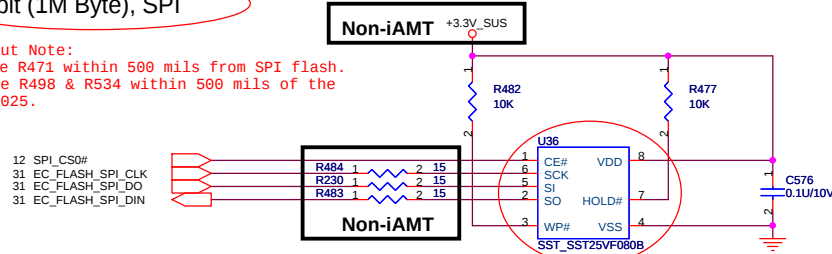


Ext Back

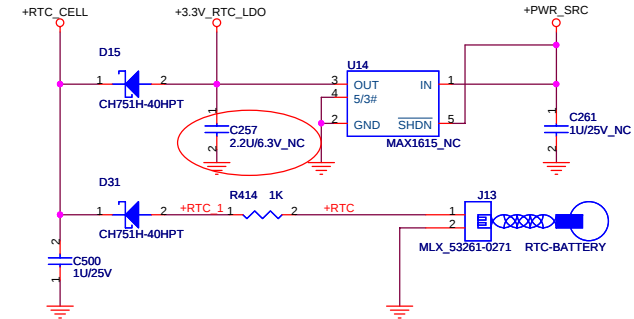


## 8Mbit (1M Byte), SPI

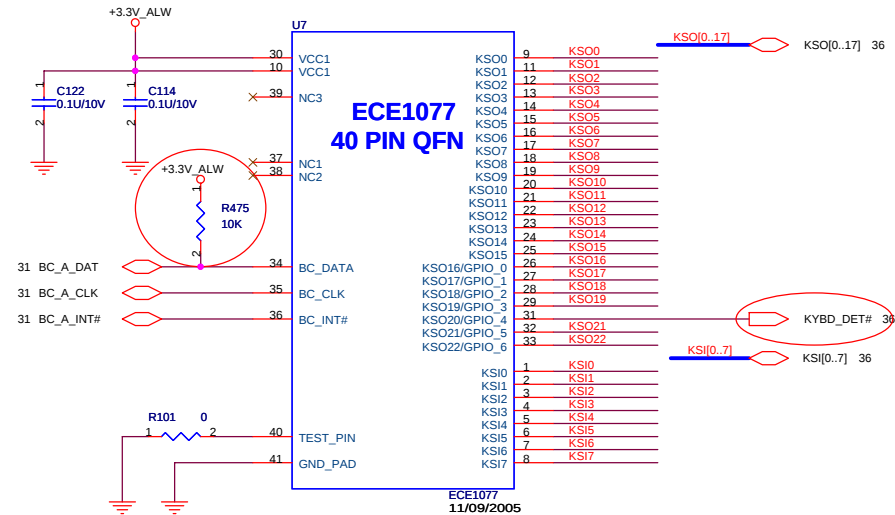
Layout Note:  
Place R471 within 500 mils from SPI flash.  
Place R498 & R534 within 500 mils of the MEC5025.



## RTC BATTERY



## Keyboard Scan Extension



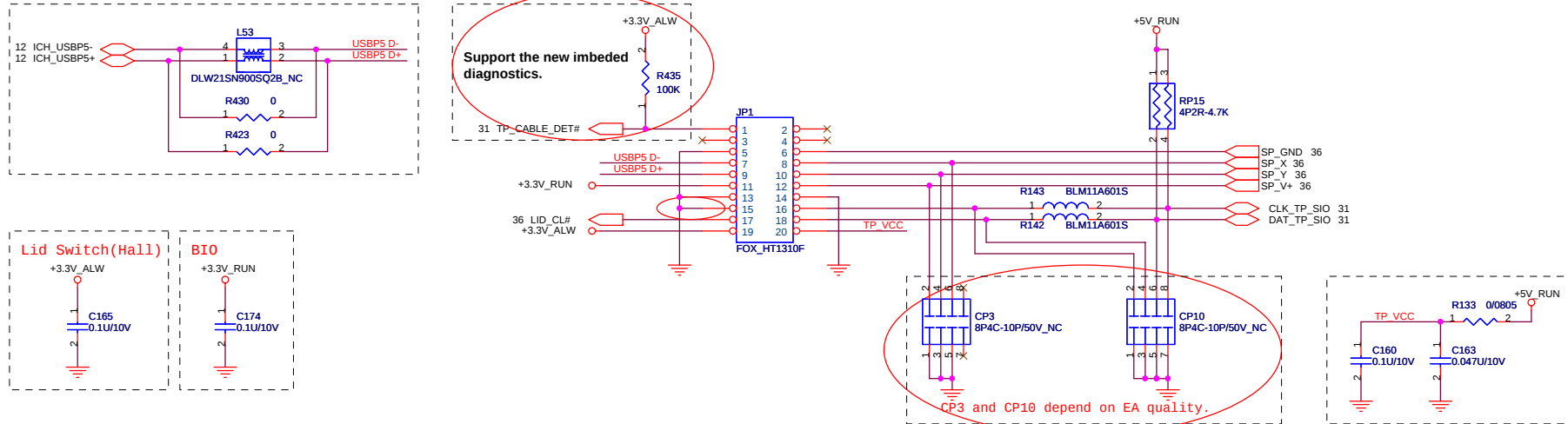
Title: FLASH, RTC & KC

Size: Document Number: Rev 1A

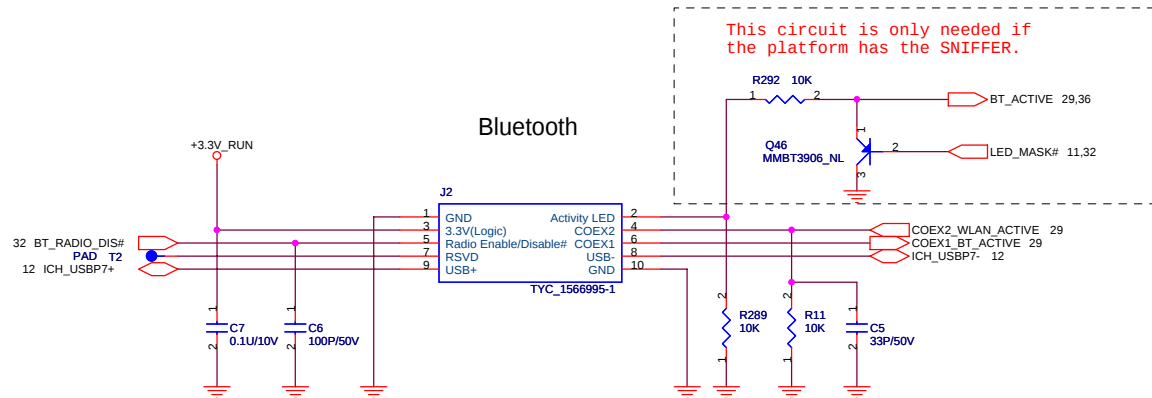
Date: Wednesday, June 28, 2006

Sheet 34 of 57

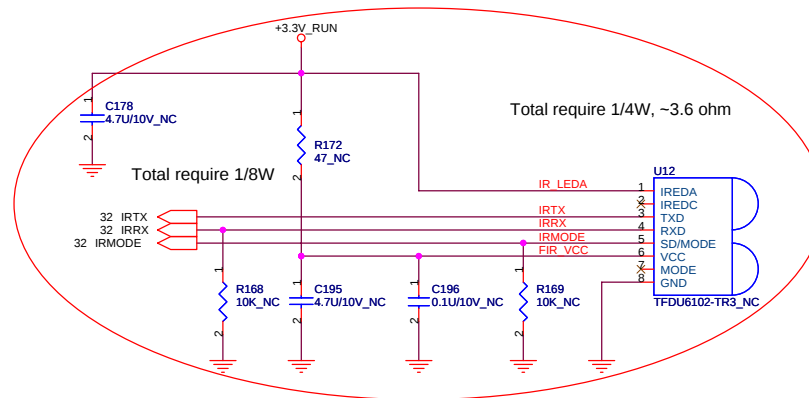
## Touch Pad

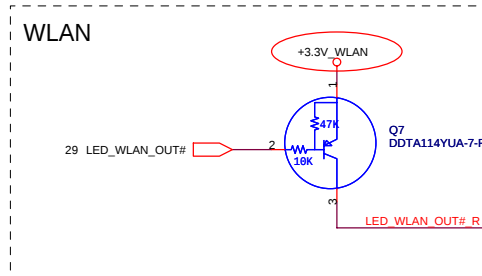
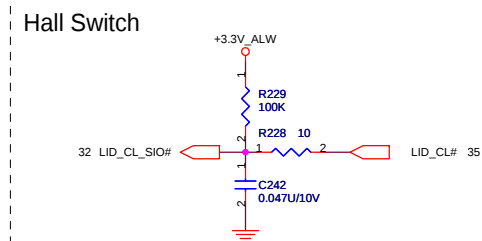
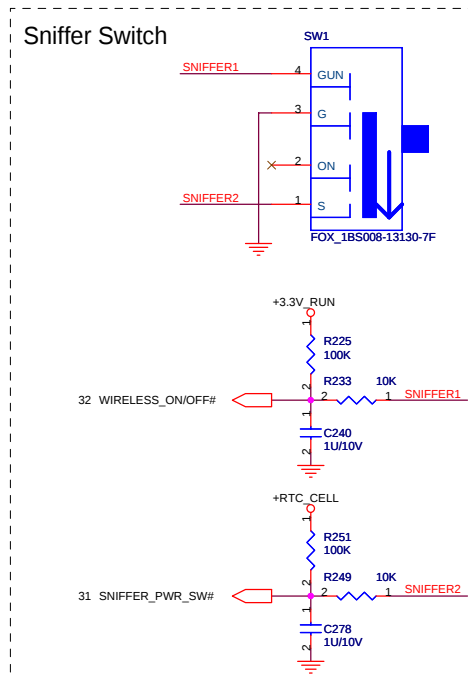
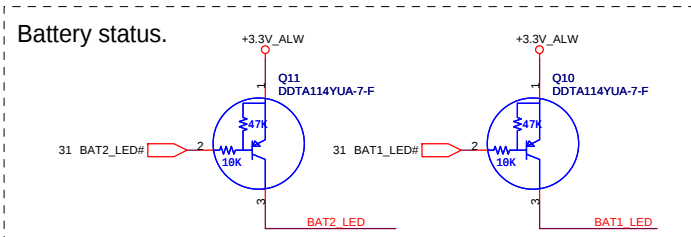
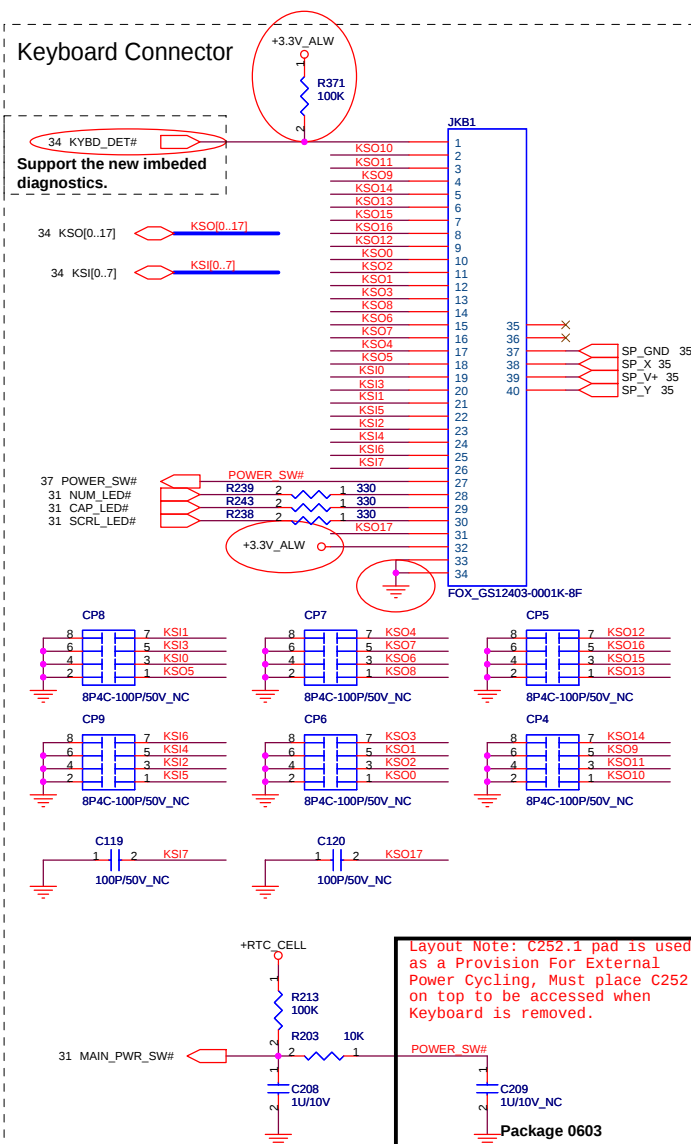
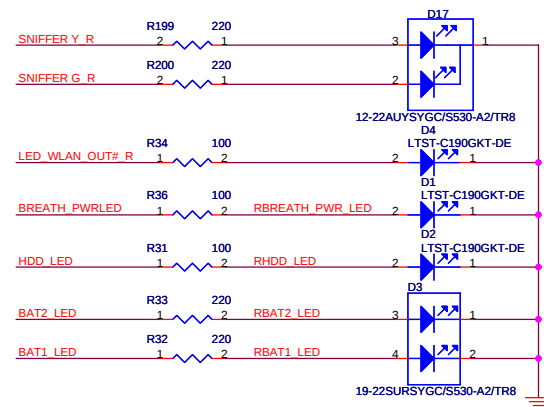
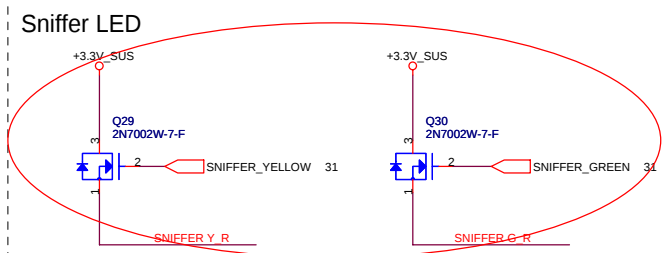
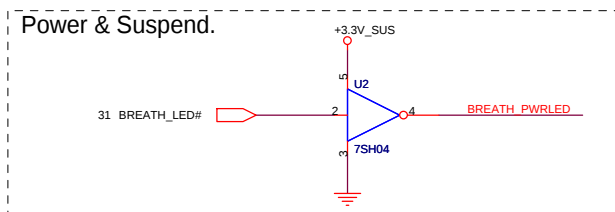
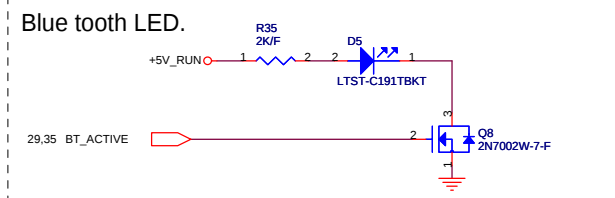
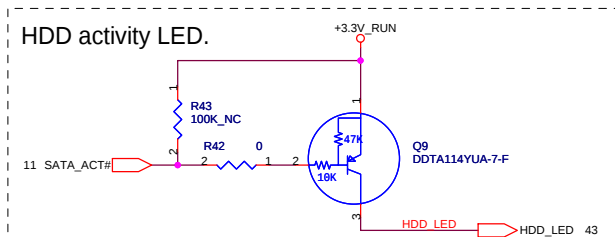


## Bluetooth



## FIR



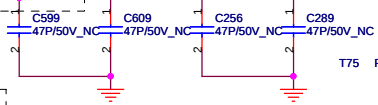




## INTERNAL SPEAKER AMP

Package 1206 for THD+N performance and Vista Logo requirements.

AUD LINE OUT L C301 1 2 0.033U/200V  
AUD LINE OUT R C259 1 2 0.033U/200V  
AUD HP OUT L C613 2 1 1U/100V  
AUD HP OUT R C594 2 1 1U/100V



AUD SPK ENABLE#  
AUD HP NB SENSE  
AUD AMP MUTE#  
AUD AMP GAIN1  
AUD AMP GAIN2

HP OUT L  
HP OUT R  
AUD SPK L1  
AUD SPK L2

MAX9789A  
TQFN 32PIN

OUTL+  
OUTL-  
OUTR+  
OUTR-  
HPL  
HPR  
REGEN  
SET  
VOUT  
VDD  
PVDD\_8  
PVDD\_18  
GND\_28  
PGND\_5  
PGND\_21

SPKR\_INL  
SPKR\_INR  
HP\_INL  
HP\_INR  
BIAS  
SPKR\_EN#  
HP\_EN  
MUTE#  
GAIN1  
GAIN2

HPVDD  
CPVDD  
C1P  
C1N  
CPGND  
PVSS  
CPVSS

AUD SPK R1  
AUD SPK R2  
AUD SPK L1  
AUD SPK L2

C559 100P/50V  
C560 100P/50V  
C561 100P/50V  
C562 100P/50V

JSPK1  
MLX\_53398-0471

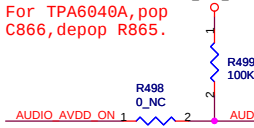
AUD\_HP\_JACK\_L  
AUD\_HP\_JACK\_R

REGEN  
SET

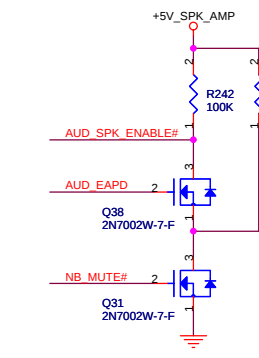
VDDA  
VDD  
VDD\_8  
VDD\_18  
GND\_28  
PGND\_5  
PGND\_21

HPVDD  
CPVDD  
C1P  
C1N  
CPGND  
PVSS  
CPVSS

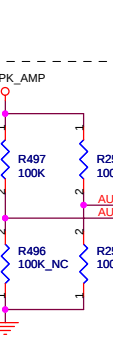
For TPA6040A, pop C866, depop R865.



AUD AMP MUTE#

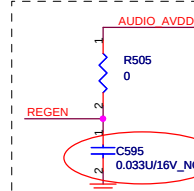


AUD SPK\_ENABLE#  
AUD EAPD  
NB MUTE#



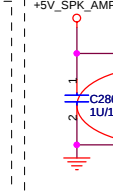
AUD AMP\_GAIN1  
AUD AMP\_GAIN2

| GAIN2 | GAIN1 | GAIN   |
|-------|-------|--------|
| 0     | 0     | 6dB    |
| 0     | 1     | 10dB   |
| 1     | 0     | 15.6dB |
| 1     | 1     | 21.6dB |

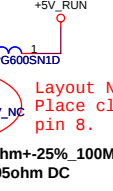


AUDIO AVDD\_ON  
REGEN

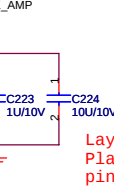
For TPA6040A, pop C1425, depop R409.



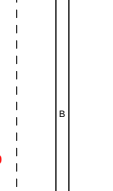
FB\_60ohm+-25%\_100MHz  
\_3A\_0.05ohm DC



Layout Note: Place close to pin 18.



For TPA6040A, pop C331, depop R406.



Layout Note: Place close to pin 18.

## AZALIA (HD) CODEC

11 ICH\_AZ\_CODEC\_BITCLK  
11 ICH\_AZ\_CODEC\_SDI#  
11 ICH\_AZ\_CODEC\_SDO#  
11 ICH\_AZ\_CODEC\_SYNC  
11 ICH\_AZ\_CODEC\_RST#

ICH\_AZ\_CODEC\_BITCLK  
R237 2 1 33 SDIN  
ICH\_AZ\_CODEC\_SDO#  
ICH\_AZ\_CODEC\_SYNC  
ICH\_AZ\_CODEC\_RST#

DMIC\_CLK  
DMIC0/VOL-/GPIO1  
DMIC1/VOL-/DNGPIO2

SPDIF\_IN/EAPD/GPIO0  
SPDIF\_OUT

NC\_43  
NC\_44  
NC\_45

DVDD\_CORE\_1  
DVDD\_CORE\_9  
DVDD\_CORE\_40  
DVDD\_IO

AVDD\_25  
AVDD\_38  
DVSS  
AVSS\_26  
AVSS\_42

PORT\_A\_L  
PORT\_A\_R  
VREFOUT\_A

PORT\_B\_L  
PORT\_B\_R  
VREFOUT\_B

PORT\_C\_L  
PORT\_C\_R  
VREFOUT\_C

PORT\_D\_L  
PORT\_D\_R

PORT\_E\_L  
PORT\_E\_R  
GPIO4/VREFOUT\_E

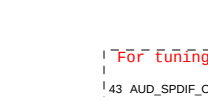
PORT\_F\_L  
PORT\_F\_R  
GPIO3/VREFOUT\_F

CD\_L  
CD\_GND  
CD\_R

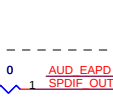
PC\_BEEP  
MONO\_OUT

VREFILT  
CAP2

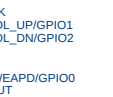
STAC9205



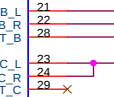
Close to pin 6.



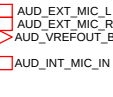
Close to pin 5.



For Tuning.



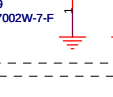
AUD EAPD  
SPDIF\_OUT



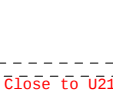
AUD AMP\_GAIN1  
AUD AMP\_GAIN2



AUD AMP\_GAIN1  
AUD AMP\_GAIN2



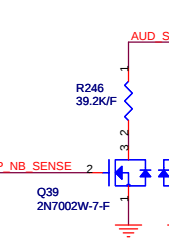
AUD AMP\_GAIN1  
AUD AMP\_GAIN2



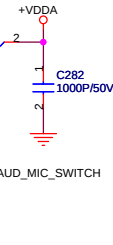
AUD AMP\_GAIN1  
AUD AMP\_GAIN2



Layout Note: Close to Pin 13.



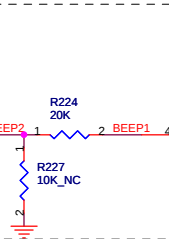
AUD\_SENSE\_A  
AUD\_SENSE\_B  
AUD\_HP\_OUT\_L  
AUD\_HP\_OUT\_R



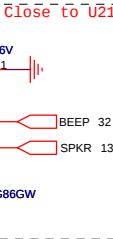
AUD\_SENSE\_A  
AUD\_SENSE\_B  
AUD\_HP\_OUT\_L  
AUD\_HP\_OUT\_R



Layout Note: Close to U21.



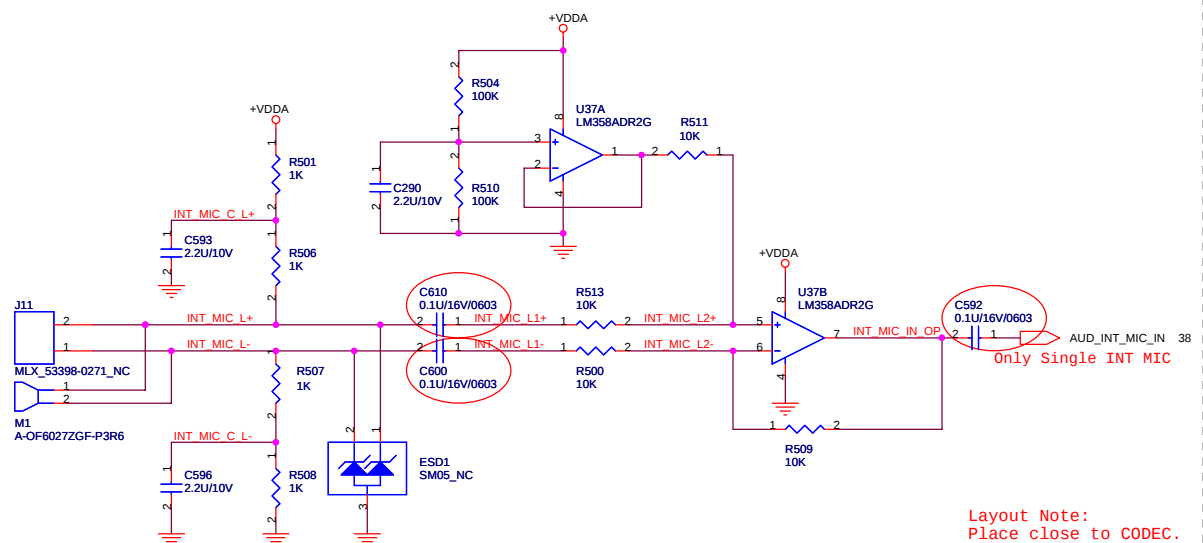
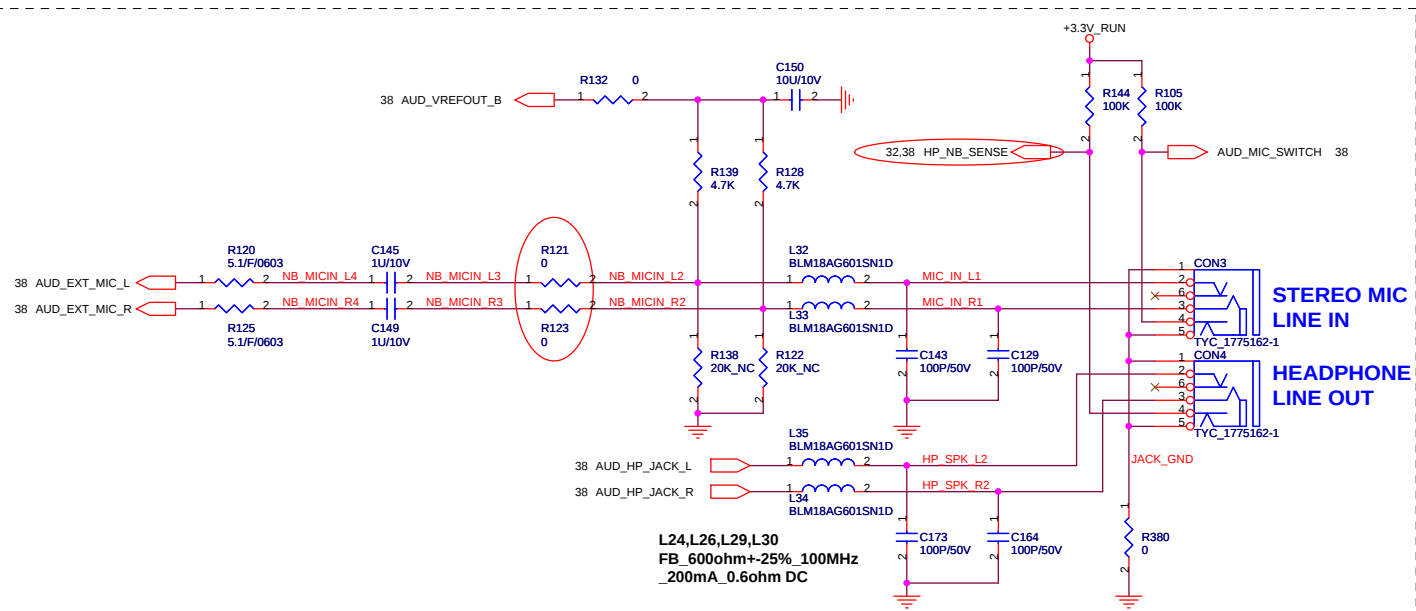
AUD\_PC\_BEEP  
MONO\_OUT

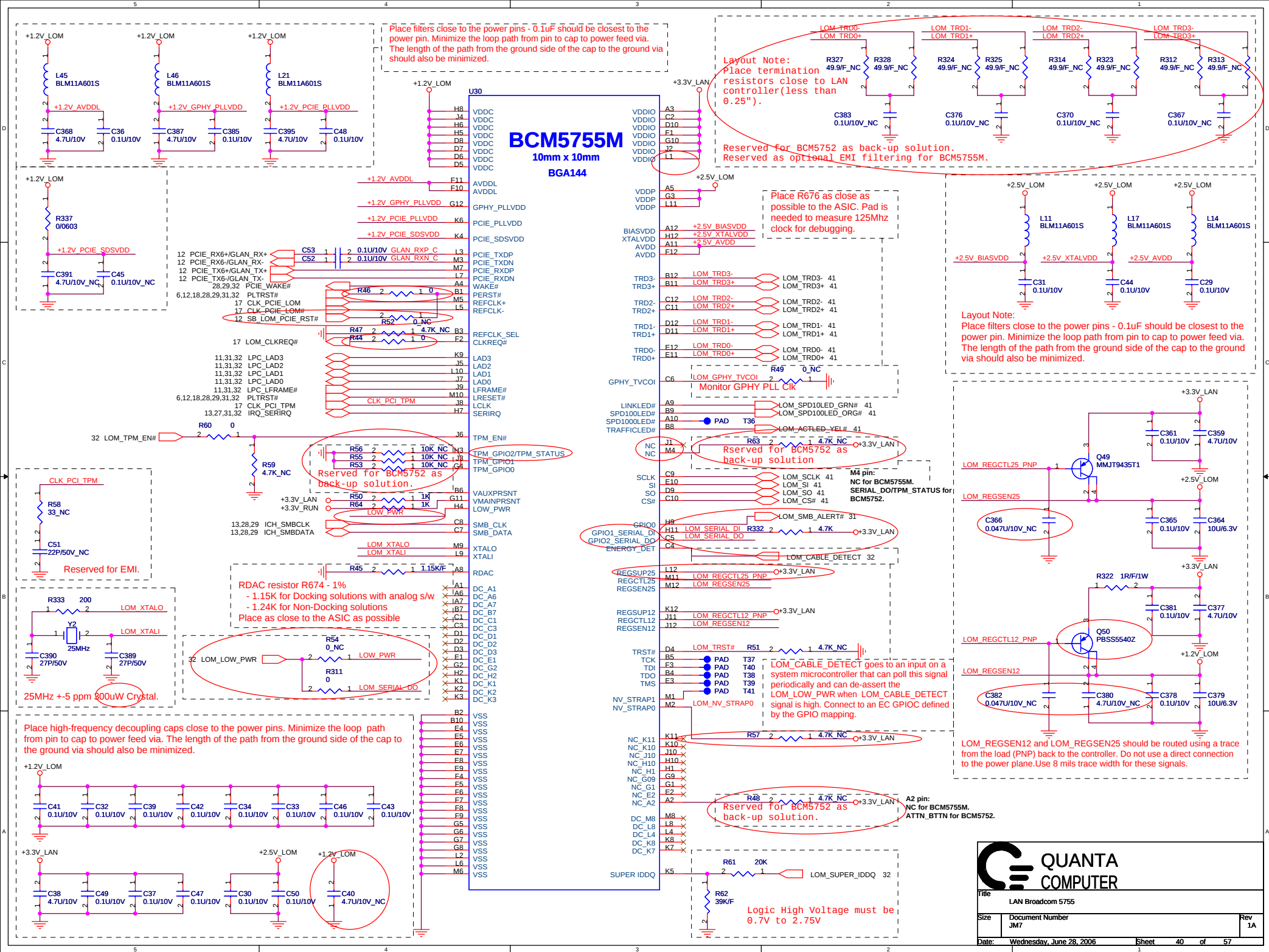


AUD\_PC\_BEEP  
MONO\_OUT



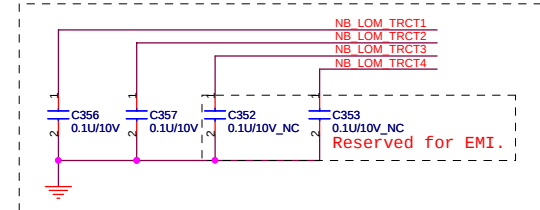
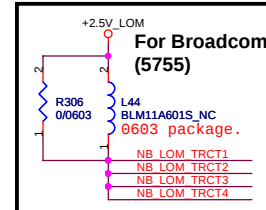
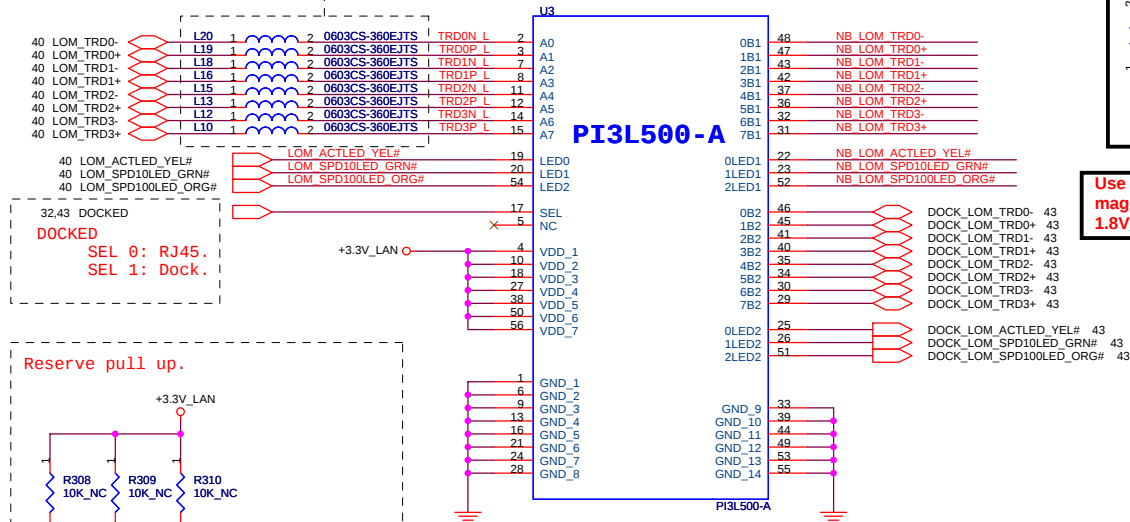
|       |                          |       |          |
|-------|--------------------------|-------|----------|
| Title | Azella CODEC             | Rev   | 1A       |
| Size  | Document Number          |       |          |
|       | JM7                      |       |          |
| Date: | Wednesday, June 28, 2006 | Sheet | 38 of 57 |



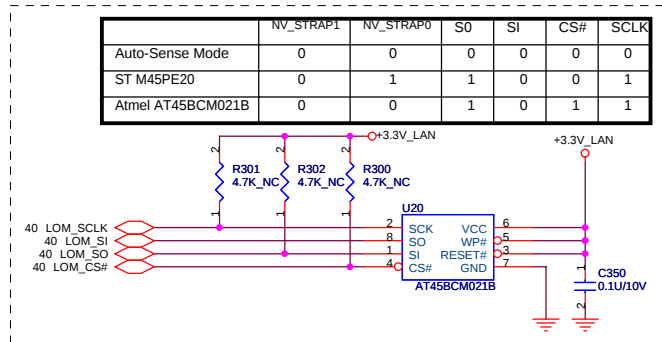
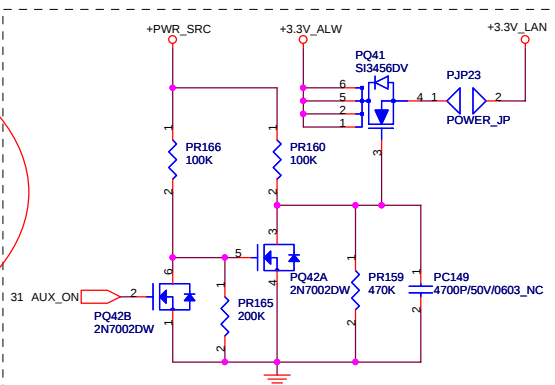
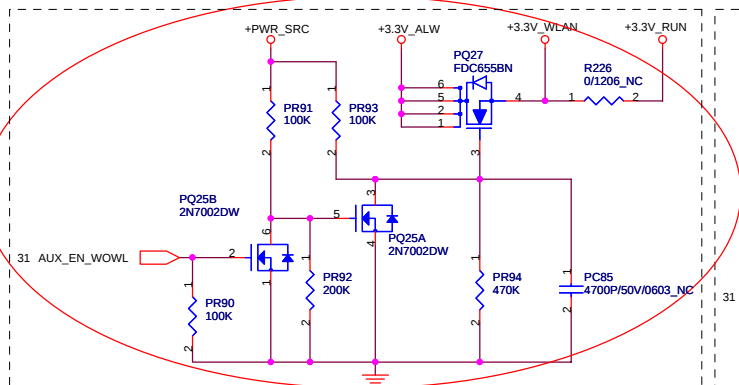
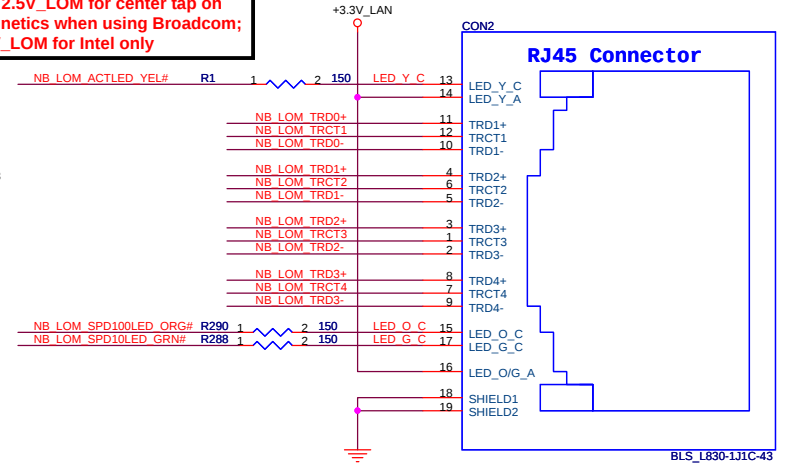


# TRANSFORM+RJ45

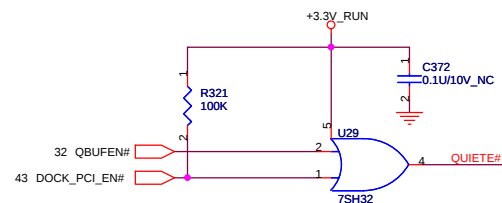
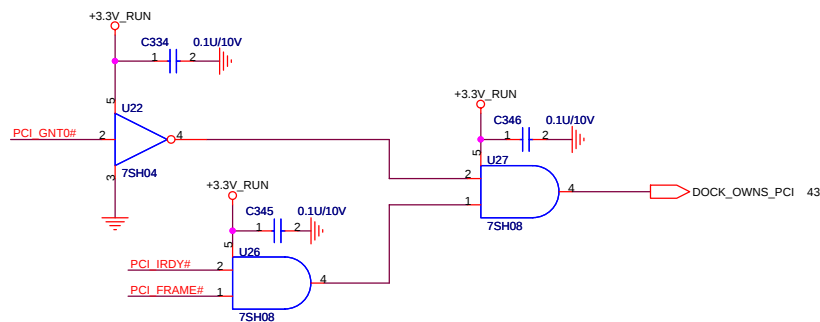
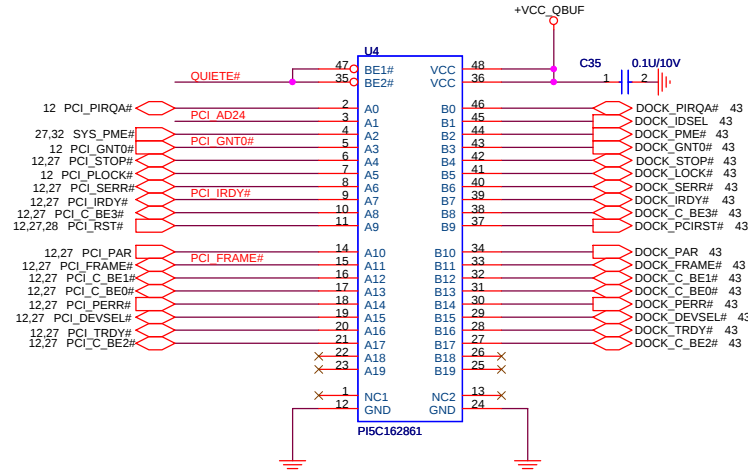
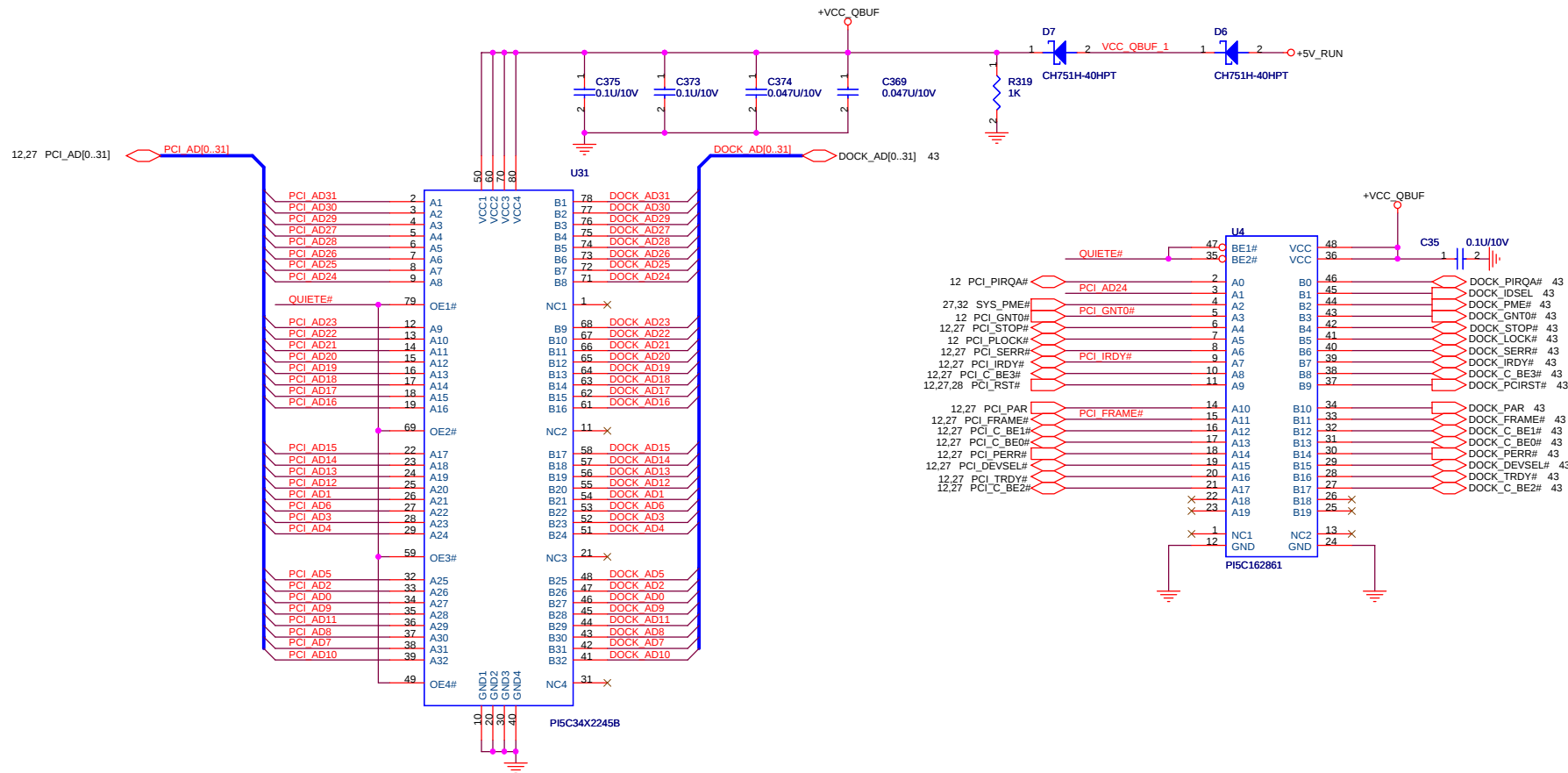
36nH is a suggested value.  
Actual value will be system dependent.  
Must use 0603 package for lower DC resistance.

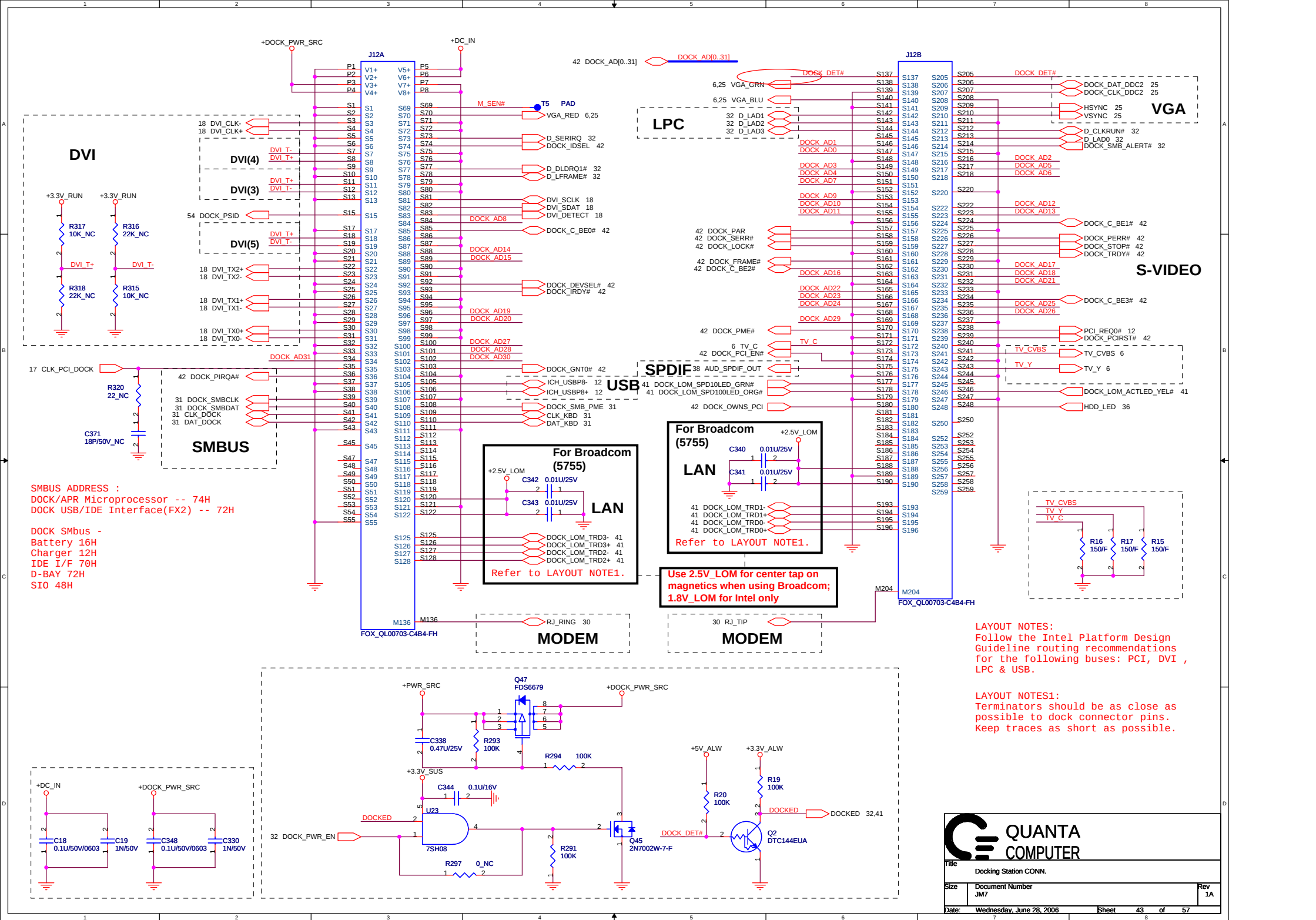


**Use 2.5V\_LOM for center tap on magnetics when using Broadcom; 1.8V\_LOM for Intel only**

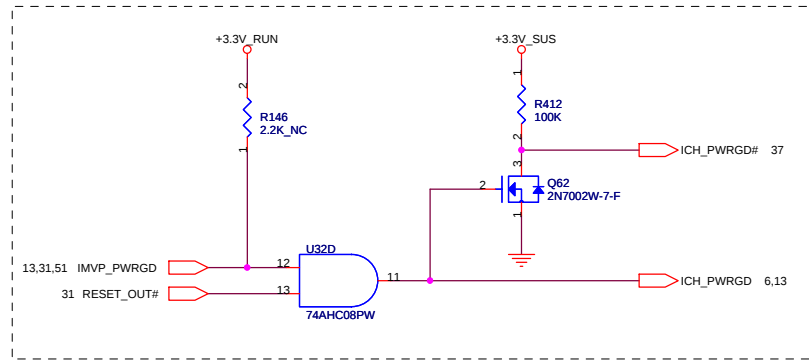
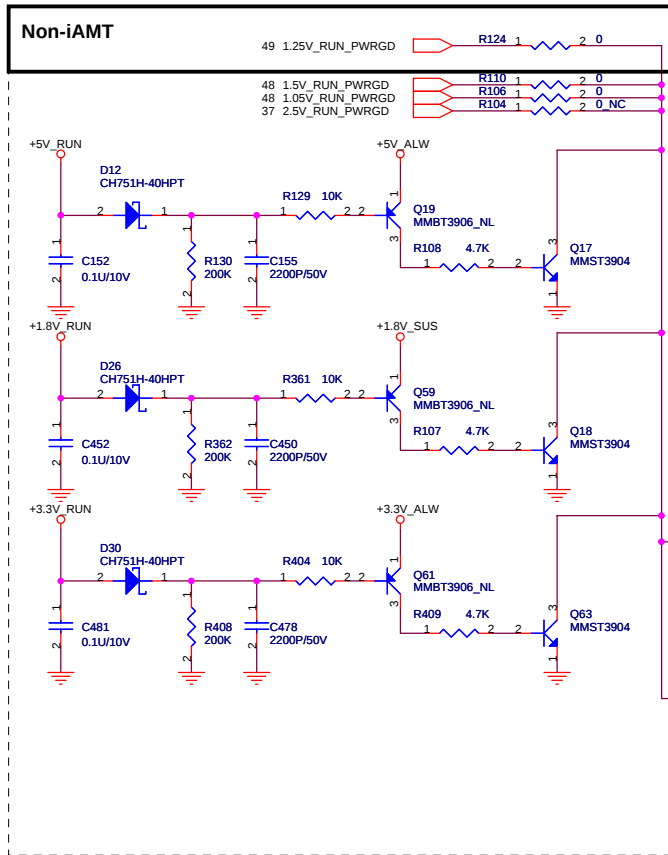


|       |                          |            |          |
|-------|--------------------------|------------|----------|
| Title |                          | LAN SWITCH |          |
| Size  | Document Number          | Rev 1A     |          |
| Date: | Wednesday, June 28, 2006 | Sheet      | 41 of 57 |

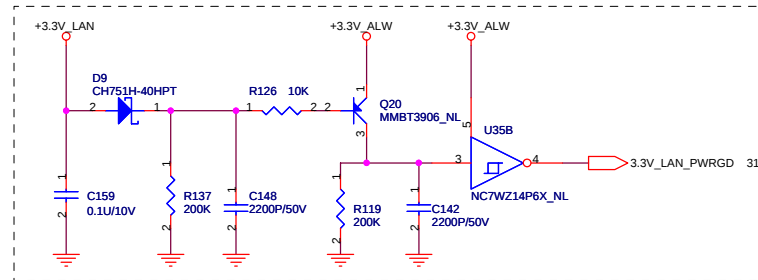
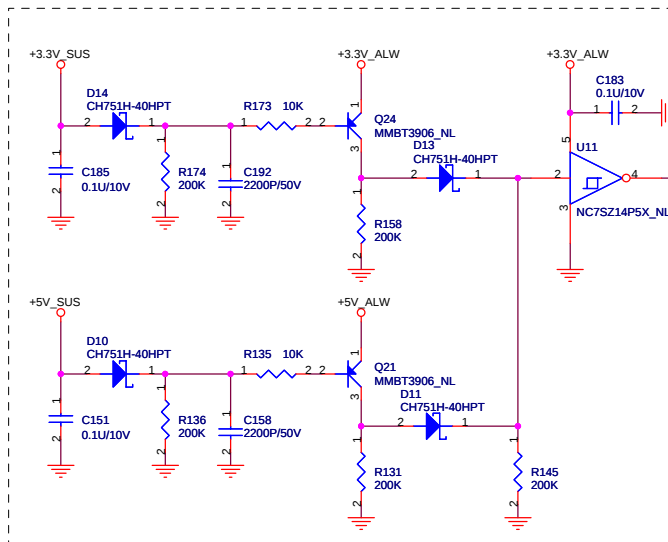
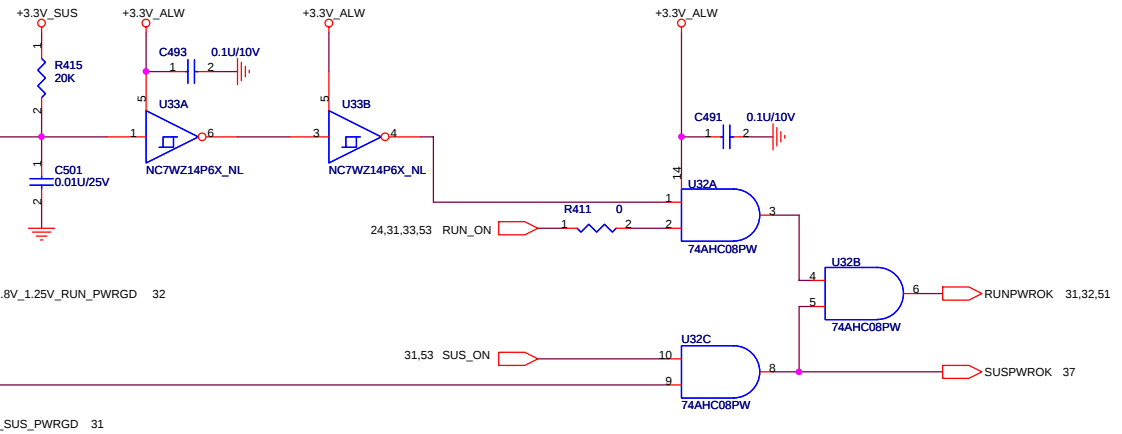


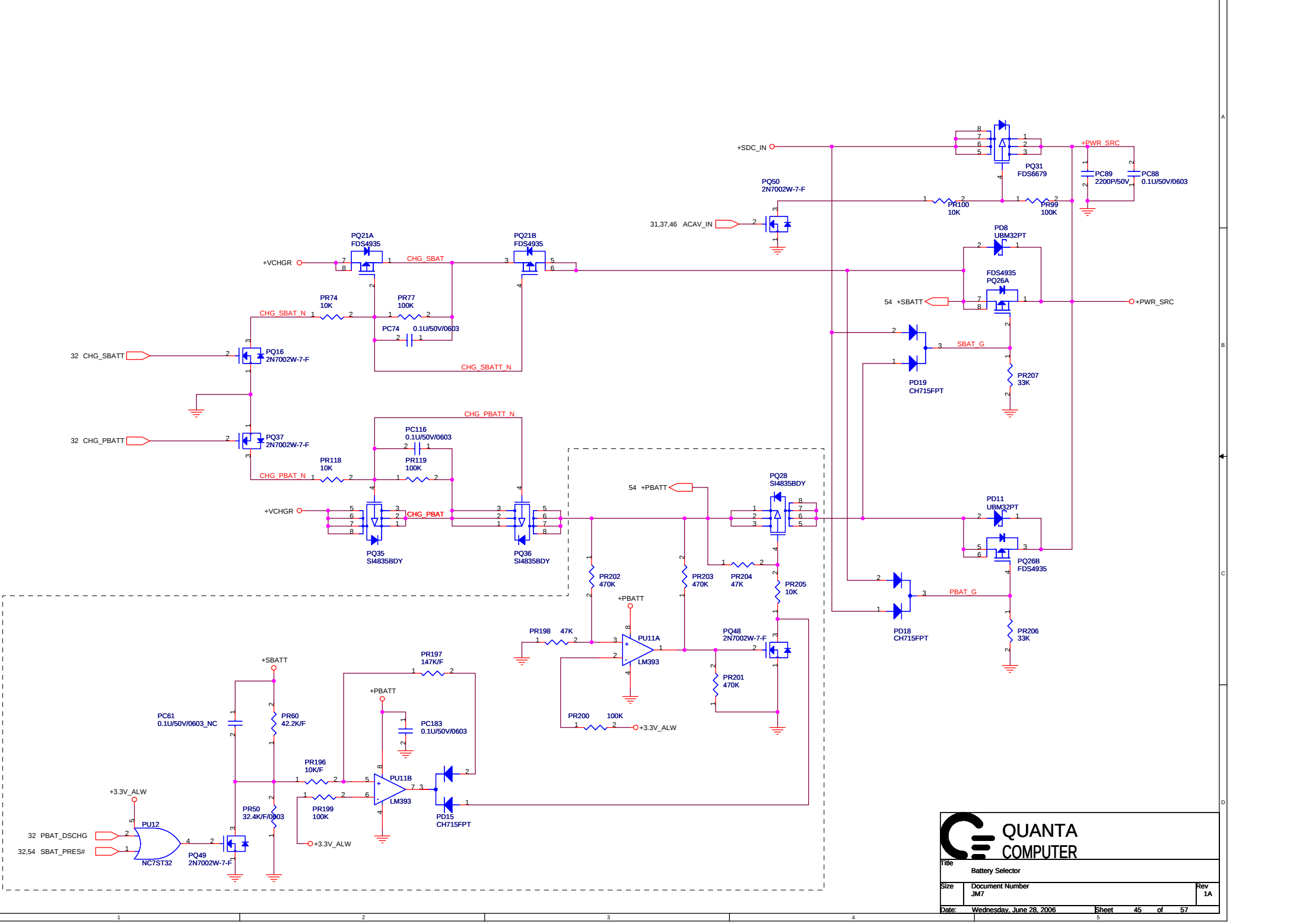


# Non-iAMT



Keep Away from high speed buses







QUANTA  
COMPUTER

|                                  |                 |           |
|----------------------------------|-----------------|-----------|
| Title<br>Battery Selector        |                 |           |
| Size<br>JM7                      | Document Number | Rev<br>1A |
| Date<br>Wednesday, June 28, 2006 | Sheet<br>45     | of<br>57  |

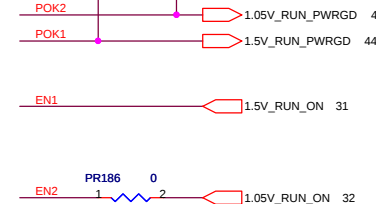
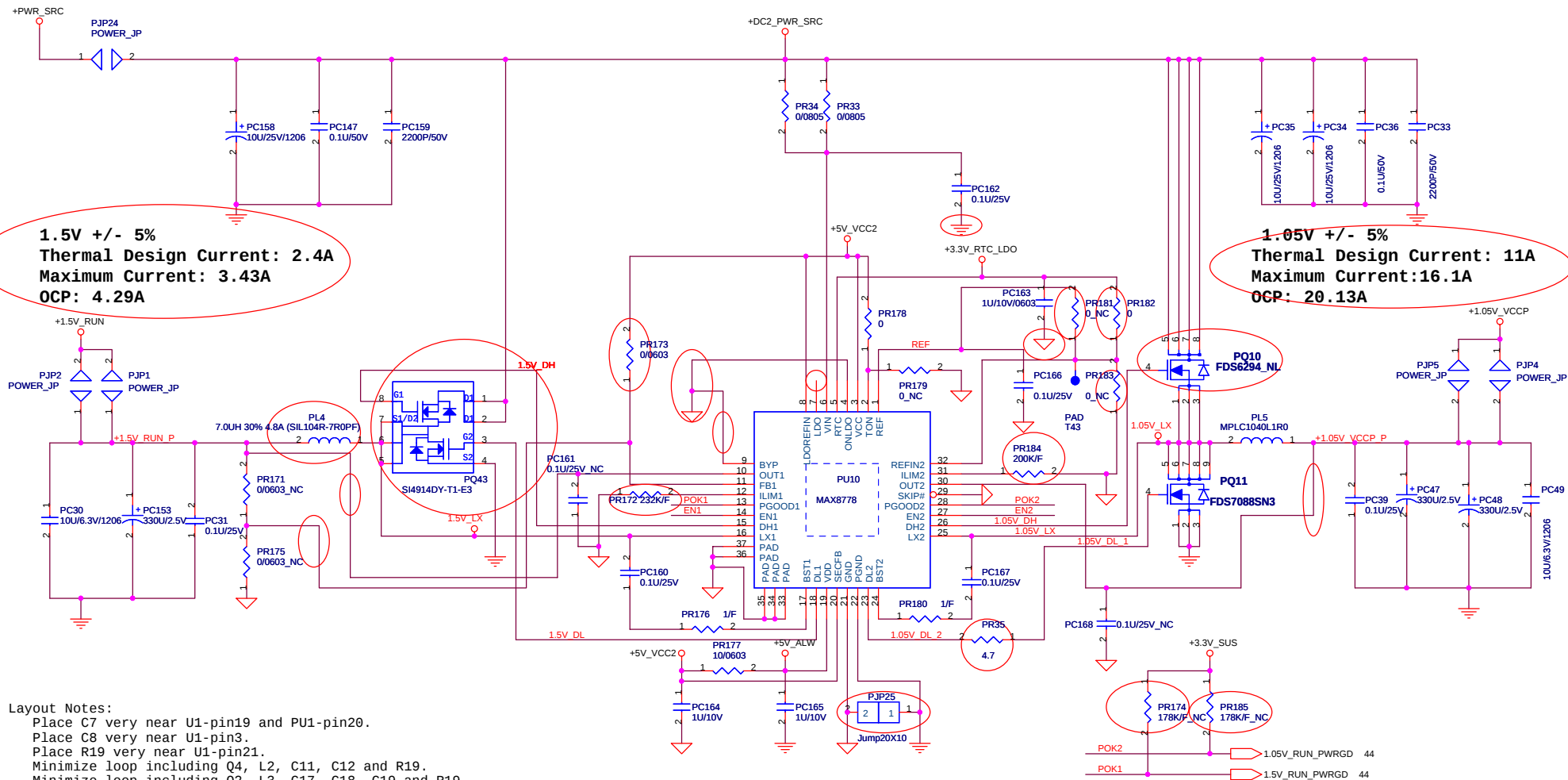


**BLANK PAGE FOR PAGE  
NUMBER SAME AS DISCRETE**

|                                                                                                                  |                       |                |
|------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
|  <b>QUANTA<br/>COMPUTER</b> |                       |                |
| Title                                                                                                            |                       |                |
| Size                                                                                                             | Document Number       | Rev            |
|                                                                                                                  | JM7                   | 1A             |
| Date:                                                                                                            | Monday, June 26, 2006 | Sheet 47 of 57 |

# M'08

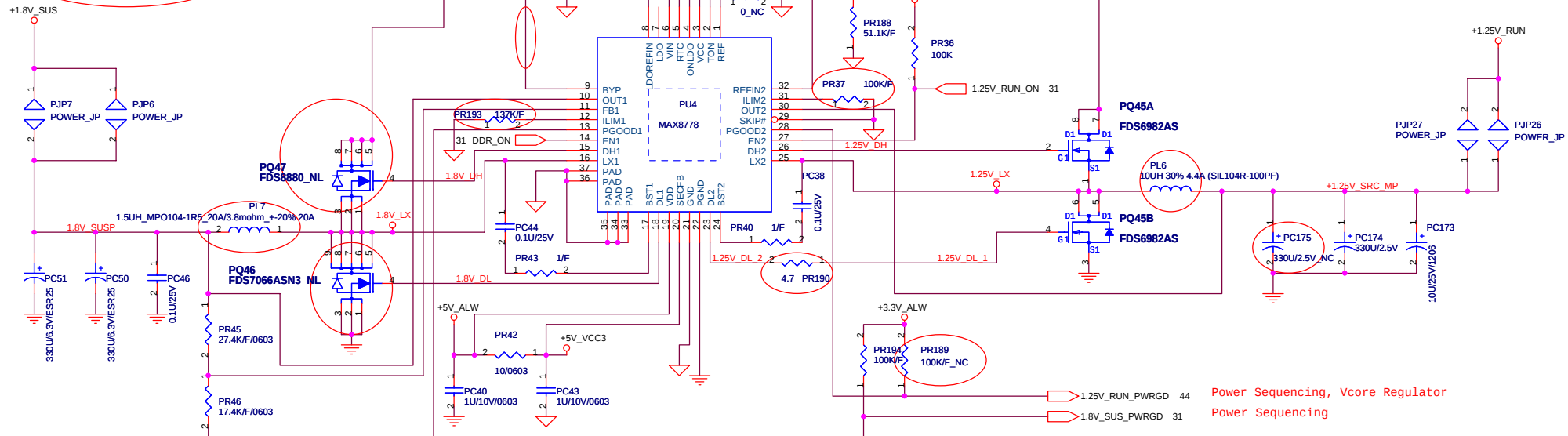
## +1.5V\_RUN /+1.05V\_VCCP /+3.3V\_ALW /+3.3\_RTC\_LDO



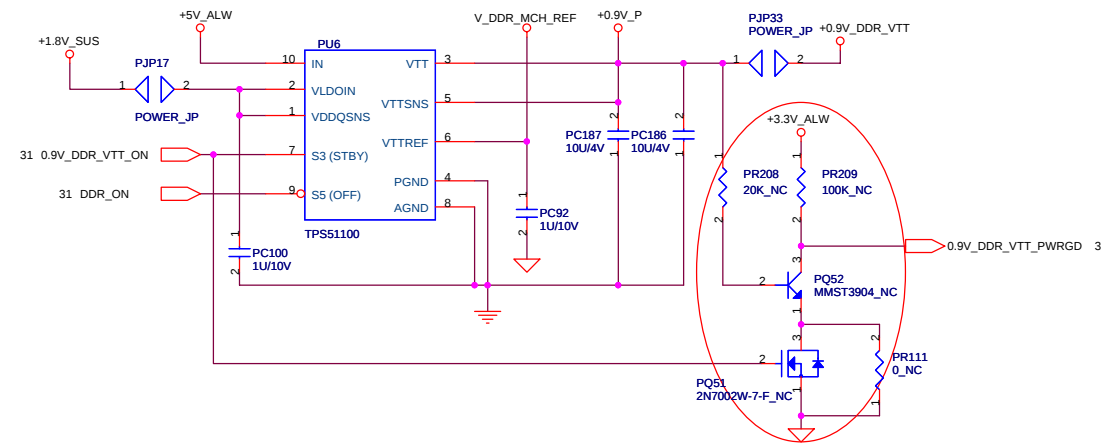
|            |                          |                |
|------------|--------------------------|----------------|
| Title      |                          |                |
| 1.5V,1.05V |                          |                |
| Size       | Document Number          | Rev            |
| JM7        |                          | 1A             |
| Date:      | Wednesday, June 28, 2006 | Sheet 48 of 57 |

1.8 Volt +/- 5%  
 Design current 6.5A  
 Maximum current 9.2A  
 OCP: 11.5A

1.25V +/- 5%  
 Thermal Design Current: 0.92A  
 Maximum Current: 1.32A  
 OCP: 1.65A



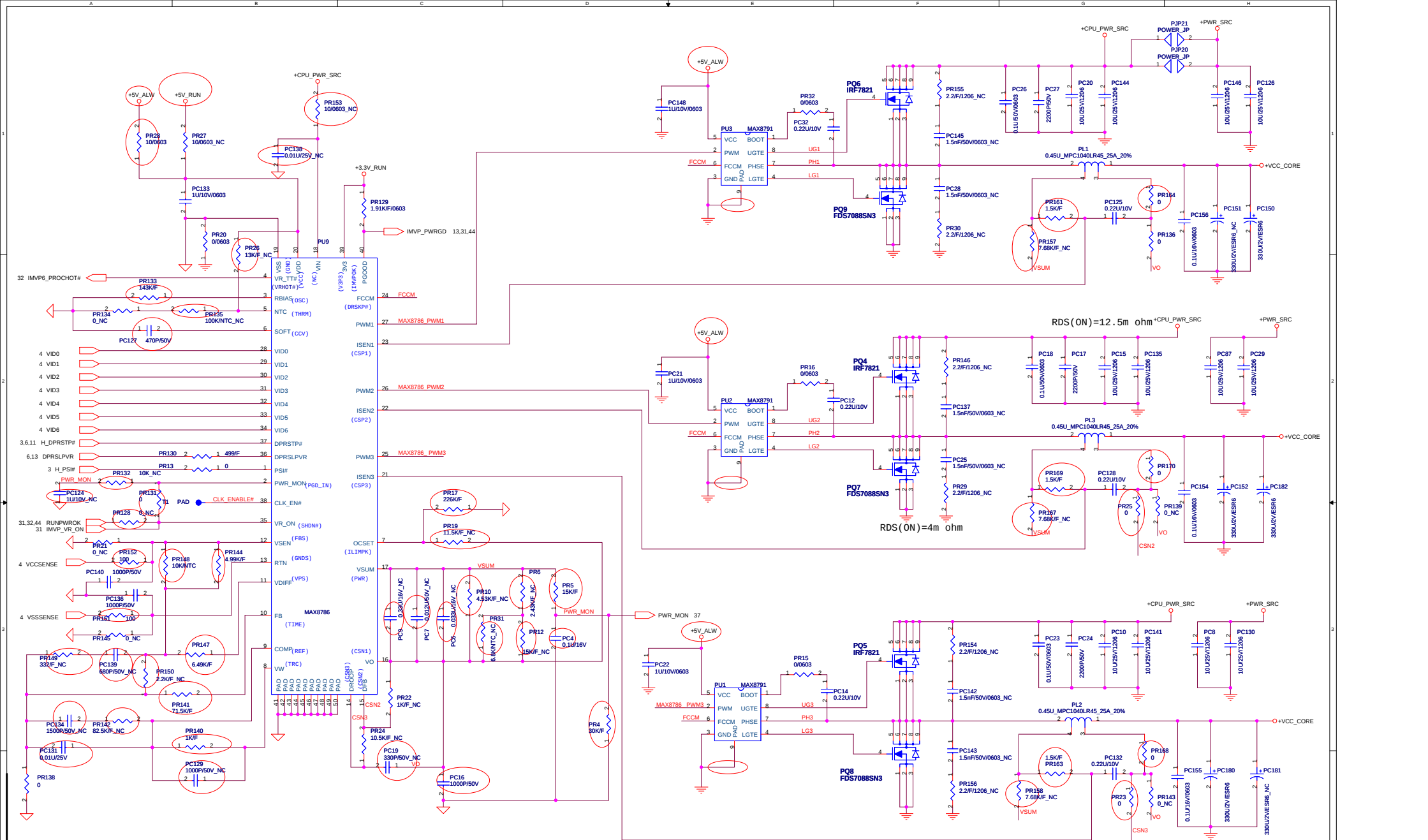
0.9V +/- 5%  
 Design current 1.05 A  
 Peak Current 1.5 A



Power Sequencing, Vcore Regulator  
 Power Sequencing

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|                                                                                                                  |                       |                |
|------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
|  <b>QUANTA<br/>COMPUTER</b> |                       |                |
| Title                                                                                                            |                       |                |
| Size                                                                                                             | Document Number       | Rev            |
|                                                                                                                  | JM7                   | 1A             |
| Date:                                                                                                            | Monday, June 26, 2006 | Sheet 50 of 57 |



If use ISL6260C:PR34 and PR38 are 0 ohm , PR37 and PR41 no stuff.  
If use MAX8786:PR34,PR38,PR326 and PR327 no stuff , PR37 and PR41 are 0 ohm.

PHASE 3 populate



|                          |  |                 |  |
|--------------------------|--|-----------------|--|
| File                     |  |                 |  |
| CPU Power                |  |                 |  |
| Size                     |  | Document Number |  |
| Date                     |  | Rev             |  |
| Wednesday, June 28, 2006 |  | 1A              |  |
| Sheet                    |  | 51 of 57        |  |

# DC/DC +3V\_ALW/+5V\_ALW/+5V\_ALW2 /+15V\_ALW

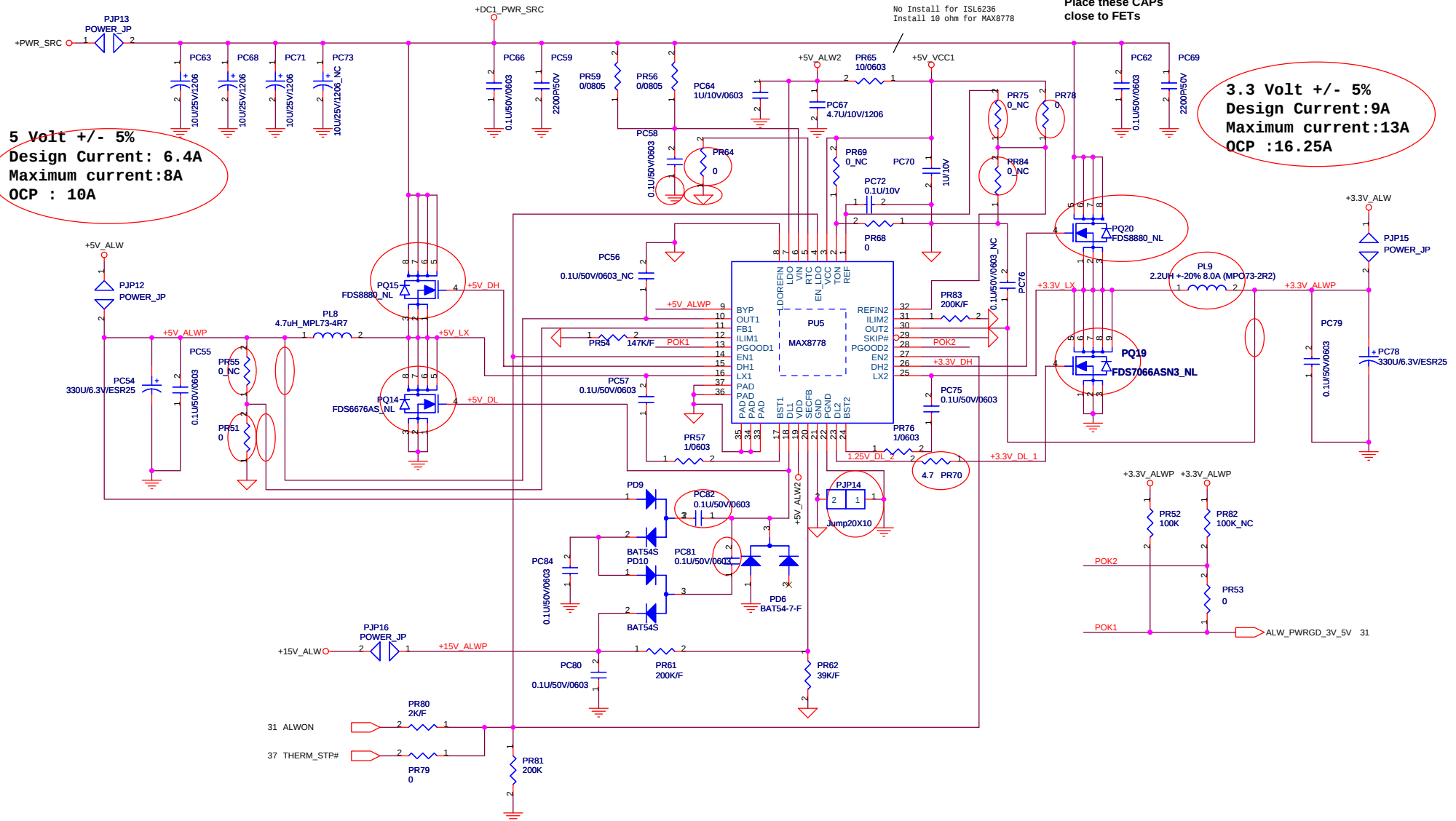
Place these CAPS  
close to FETs

No Install for ISL6236  
Install 10 ohm for MAX8778

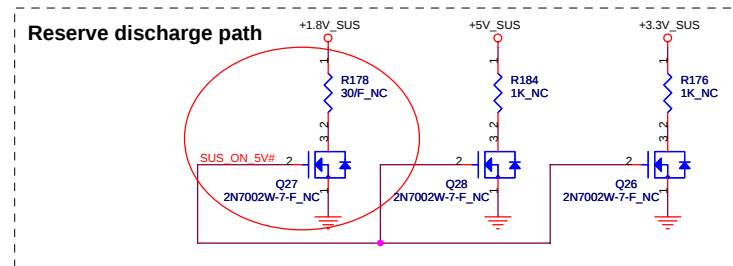
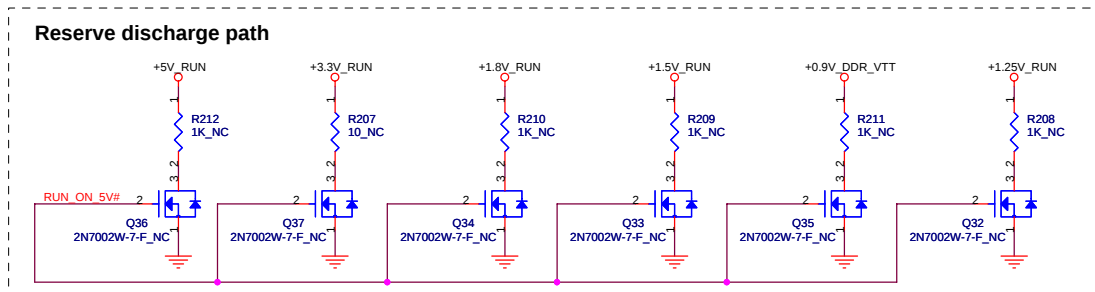
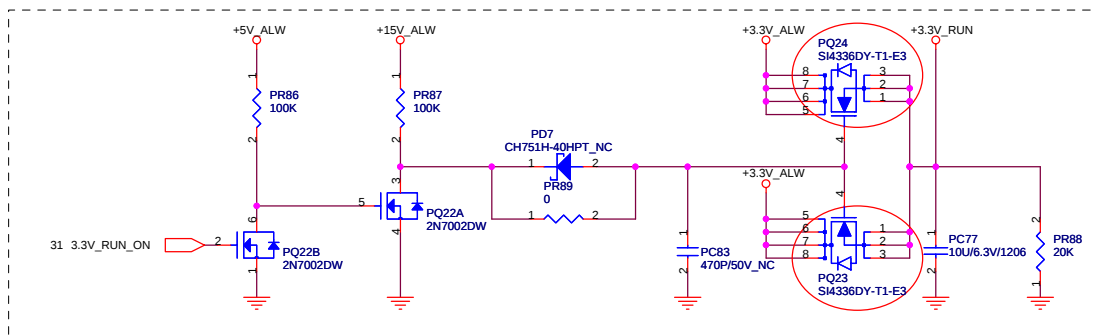
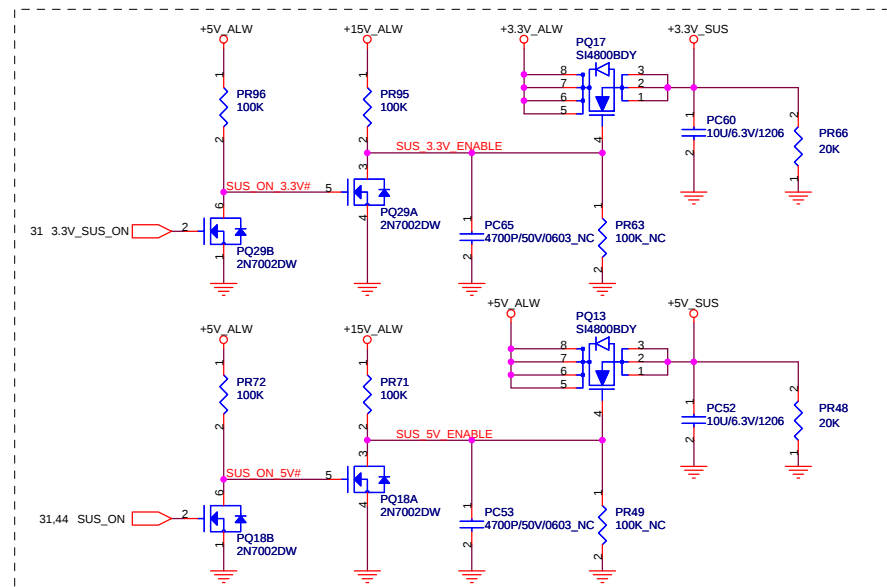
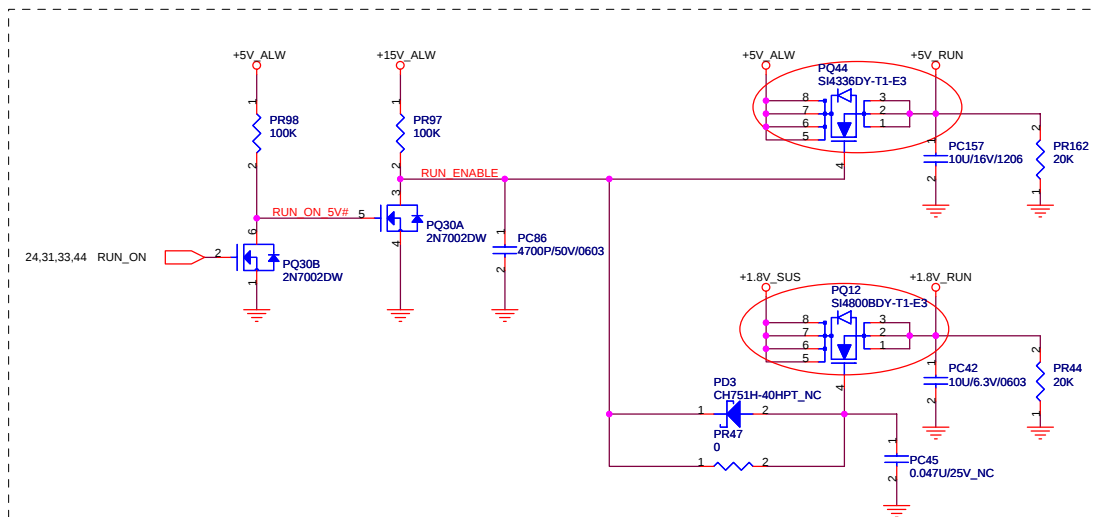
Place these CAPS  
close to FETs

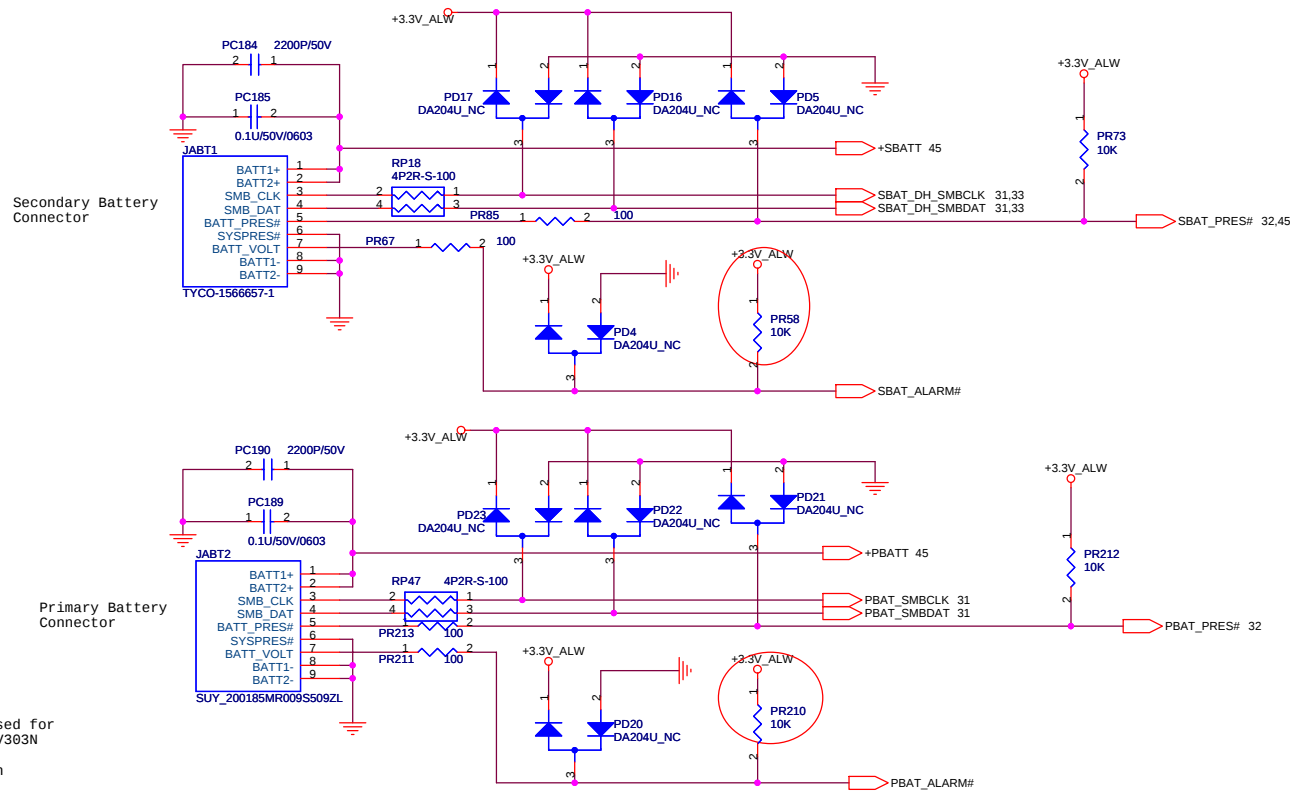
**5 Volt +/- 5%**  
**Design Current: 6.4A**  
**Maximum current:8A**  
**OCF : 10A**

**3.3 Volt +/- 5%**  
**Design Current:9A**  
**Maximum current:13A**  
**OCF :16.25A**



|                                   |                 |           |
|-----------------------------------|-----------------|-----------|
| Title<br>3VALW.5V.3V, Power On    |                 |           |
| Size<br>JM7                       | Document Number | Rev<br>1A |
| Date:<br>Wednesday, June 28, 2006 | Sheet<br>52     | of<br>57  |





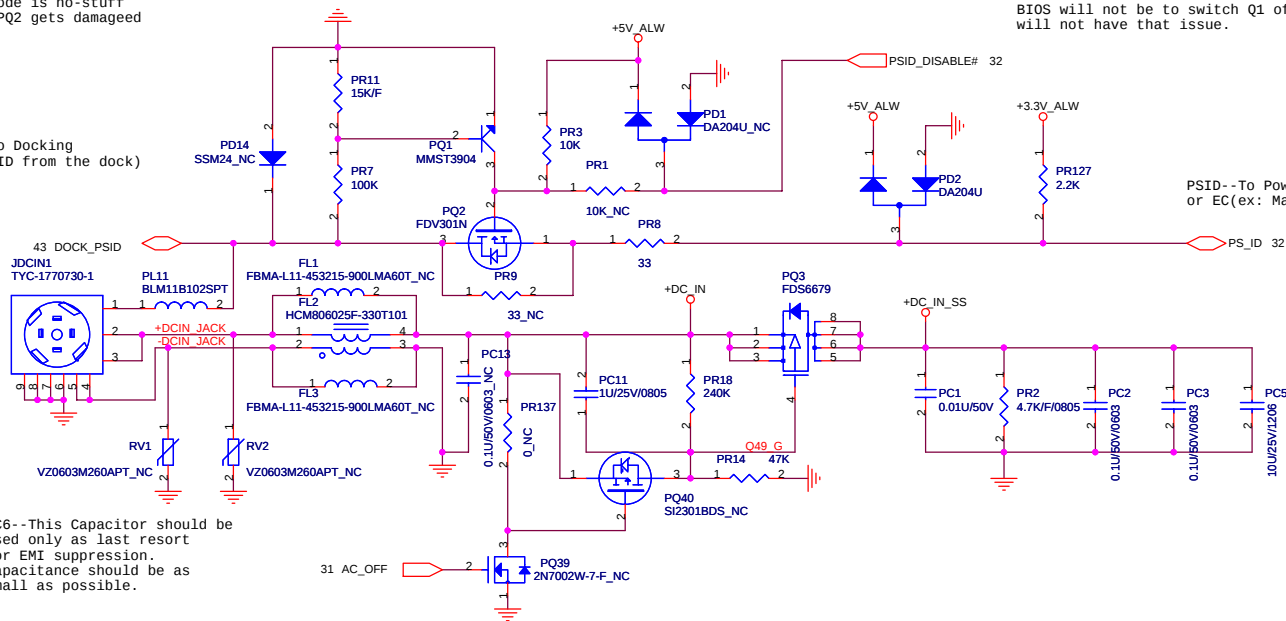
PQ2--Three transistor can be used for PQ2(pin compatible):FDV301N/FDV303N has low Vgs\_on w/built-in ESD protection.MMBT100 BJT works in reverse conduction mode.

D12--This diode is no-stuff populate if PQ2 gets damaged by ESD.

PR1--This resistor must be depopulated if FDV301N/FDV303 are used to avoid a 1.36mA constant current drain from +3VALW. Thus, BIOS will not be to switch Q1 off. MMBT100 will not have that issue.

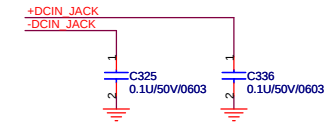
DOCK\_PSID--To Docking connector(PSID from the dock)

PSID--To Power Management Controller or EC(ex: Macallan3)

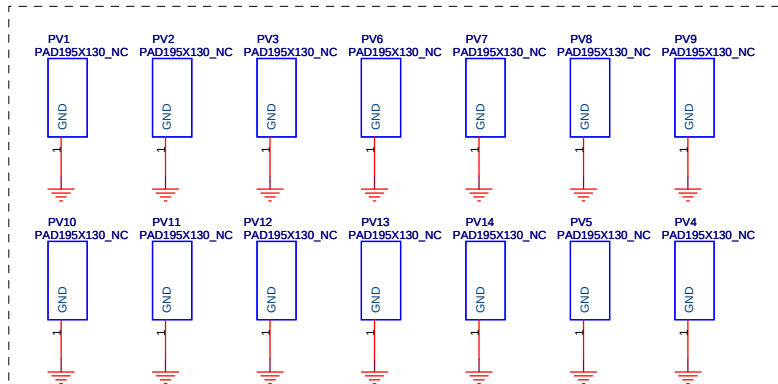


PC6--This Capacitor should be used only as last resort for EMI suppression. Capacitance should be as small as possible.

**Reserved for EMI.**

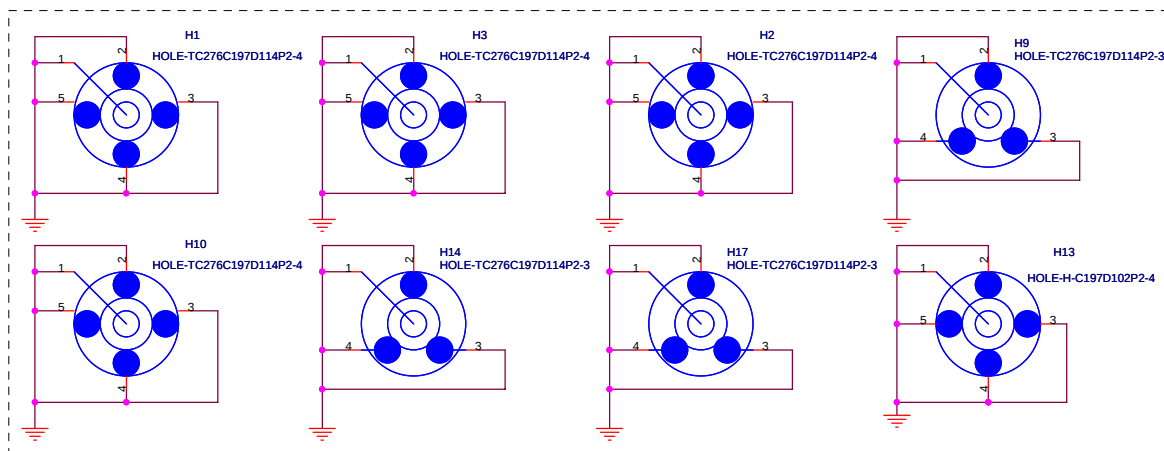
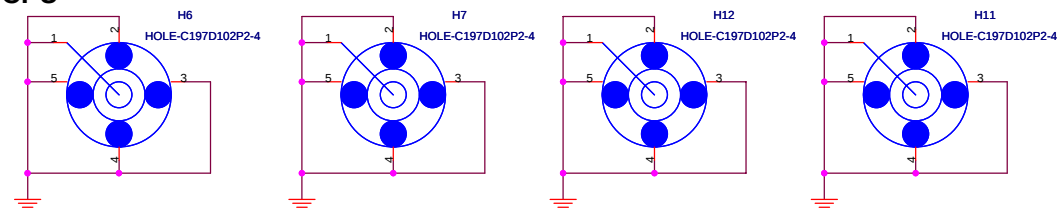


|       |                          |       |                 |
|-------|--------------------------|-------|-----------------|
| Title |                          |       | DCIN,BATT CONN. |
| Size  | Document Number          | Rev   |                 |
|       | JM7                      | 1A    |                 |
| Date: | Wednesday, June 28, 2006 | Sheet | 54 of 57        |

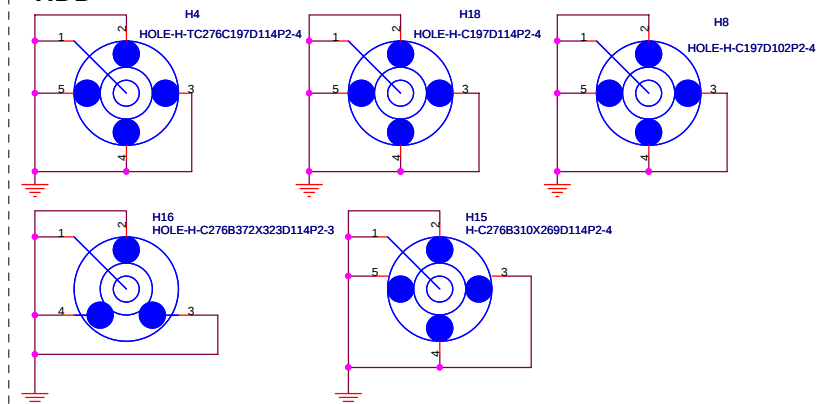


Reserved for EMI.

## CPU

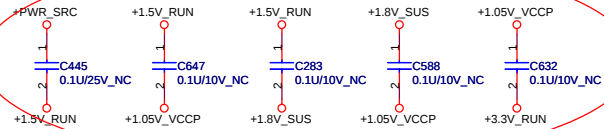


## HDD



Reserved for EMI.

### Stitching caps



Page 26  
SATA (HDD&CD\_ROM)

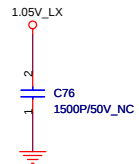
Page 27  
PCCARD /CONN

Page 31  
SIO(MEC5025)

Page 38  
Azelia CODEC

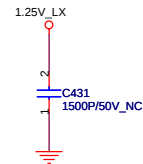
Page 40  
LAN(BCM5755M)

Page 48  
1.5VRUN,1.05V(VTT)



Place C860,C216,C1426 close to PQ33.  
Place C862,C222,C1427 close to PQ73.

Page 49  
1.25V,1.8V,0.9V



Place C867,C254,C1428 close to PQ91.  
Place C863,C253,C1429 close to PQ92.

Page 51  
CPU\_MAX8786(3phase)

Page 52  
D/D Power



|                                   |                 |           |
|-----------------------------------|-----------------|-----------|
| Title<br>EMI CAP                  |                 |           |
| Size<br>JM7                       | Document Number | Rev<br>1A |
| Date:<br>Wednesday, June 28, 2006 | Sheet<br>56     | of<br>57  |

