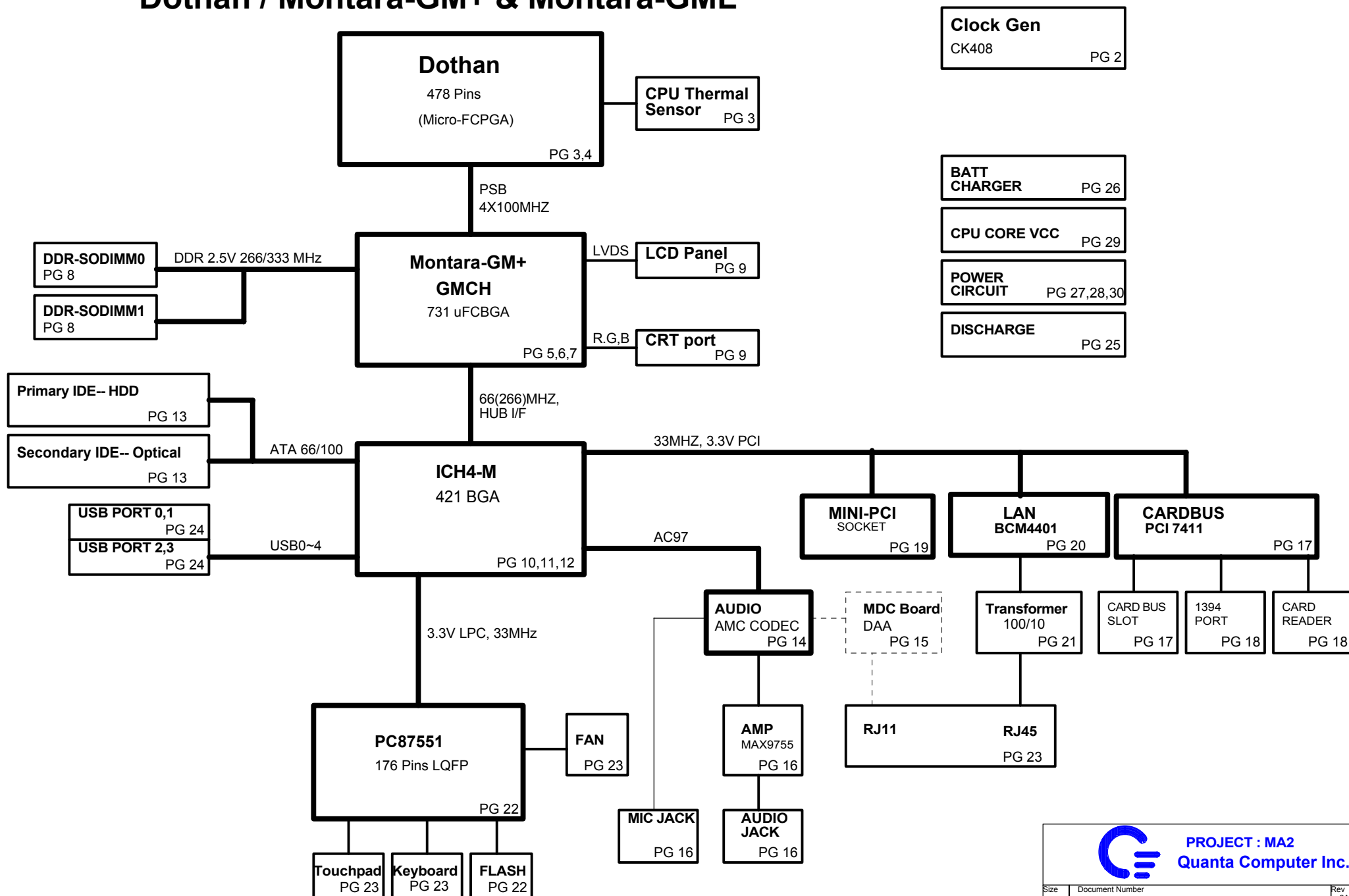
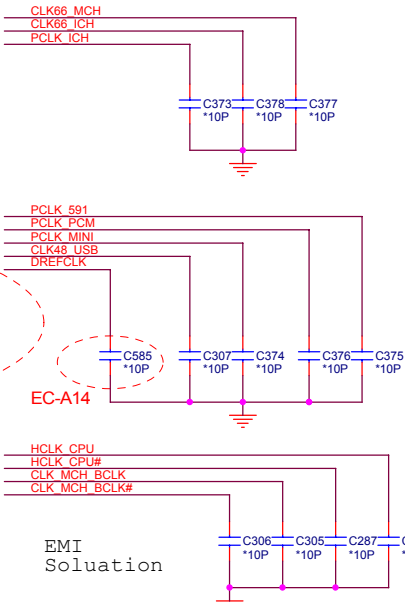
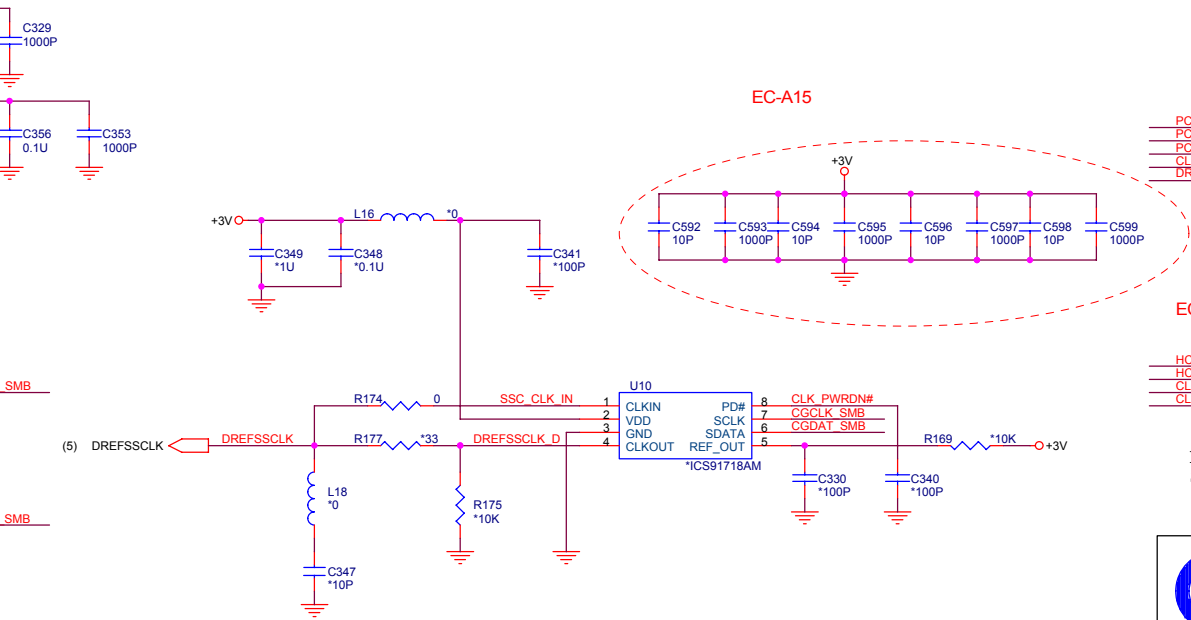
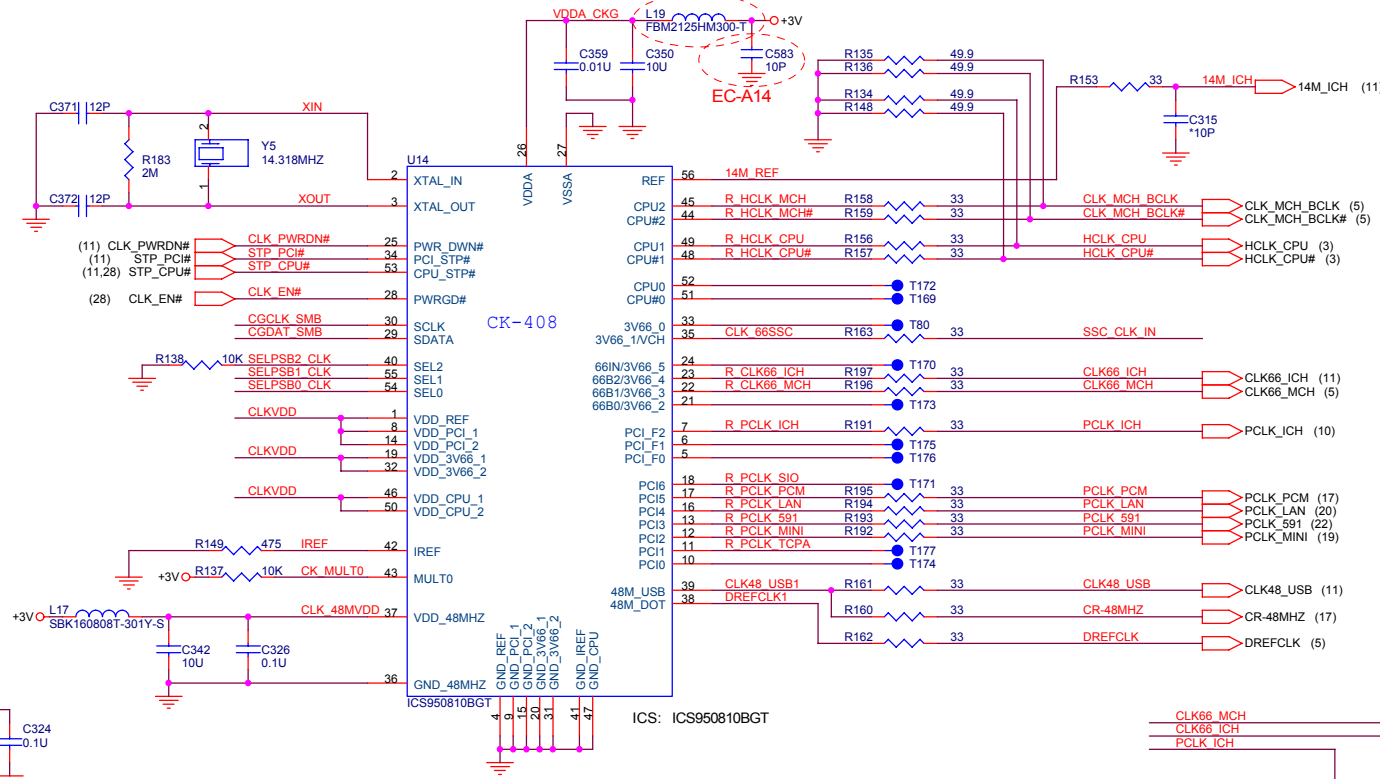
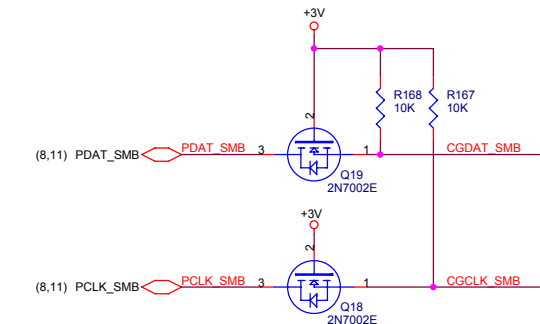
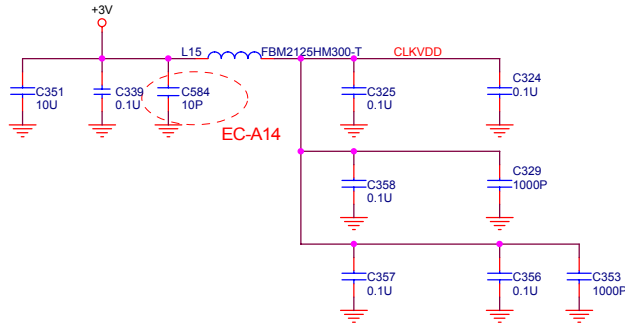
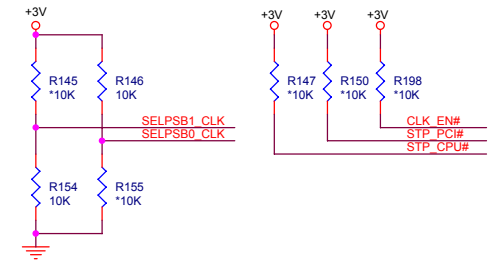


# MA2 BLOCK DIAGRAM

## Dothan / Montara-GM+ & Montara-GML



| S2 | S1 | S0 | CPU | 3V66[0..4] | 3V66_5/66IN |
|----|----|----|-----|------------|-------------|
| 1  | 0  | 0  | 66  | 66IN       | 66 Input    |
| 1  | 0  | 1  | 100 | 66IN       | 66 Input    |
| 1  | 1  | 0  | 200 | 66IN       | 66 Input    |
| 1  | 1  | 1  | 133 | 66IN       | 66 Input    |
| 0  | 0  | 0  | 66  | 66         | 66 Input    |
| 0  | 0  | 1  | 100 | 66         | 66 Input    |
| 0  | 1  | 0  | 200 | 66         | 66 Input    |
| 0  | 1  | 1  | 133 | 66         | 66 Input    |



# Dothan

1 OF 3

REQUEST  
PHASE  
SIGNALS

DATA  
PHASE  
SIGNALS

ERROR  
SIGNALS

ARBITRATION  
PHASE  
SIGNALS

SNOOP PHASE  
SIGNALS

RESPONSE  
PHASE  
SIGNALS

PC  
COMPATIBILITY  
SIGNALS

DIAGNOSTIC  
& TEST  
SIGNALS

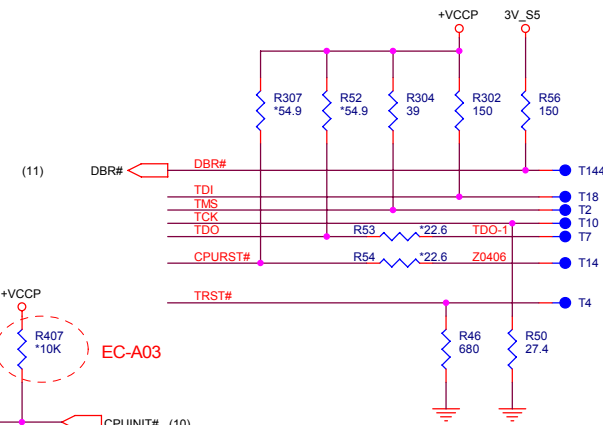
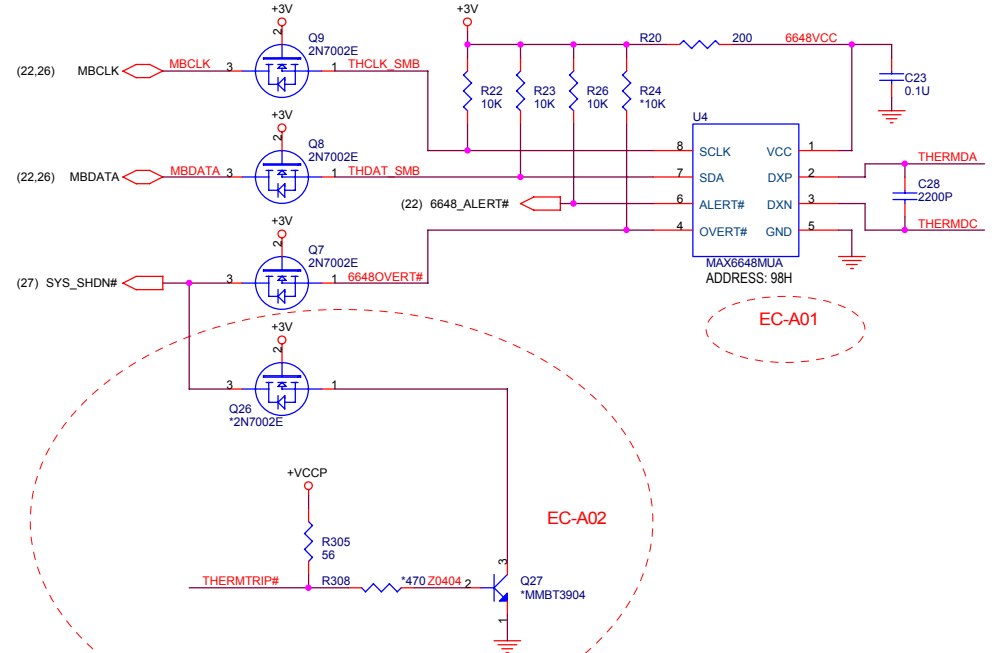
EXECUTION  
CONTROL  
SIGNALS

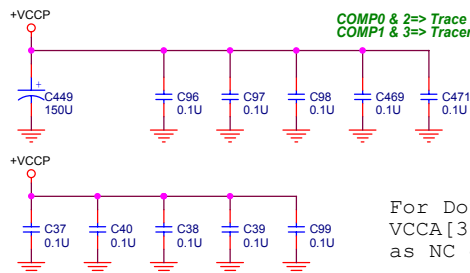
THERMAL  
DIODE

CPU-479P-UPGA

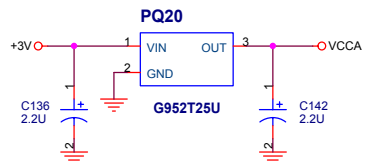
Co-layout uPGA and uBGA.

HD#10..631 HD#0..63] (5)





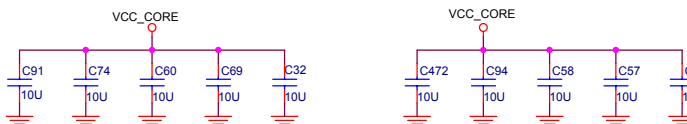
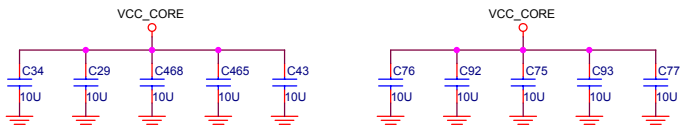
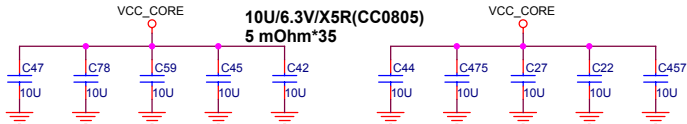
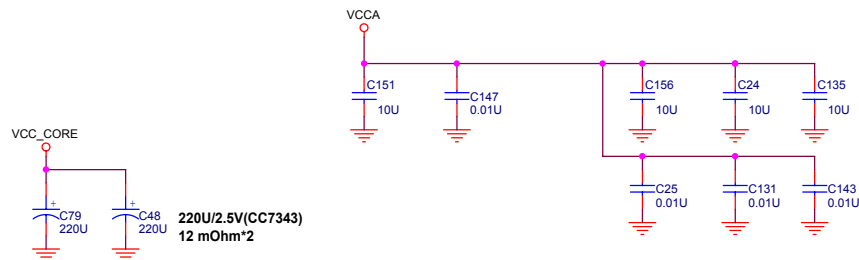
For Dothan processor  
VCCA[3:1] can be reserved  
as NC on one system.



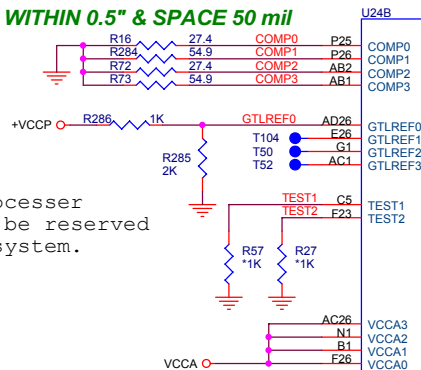
1.8V

S0-S1

0.3A

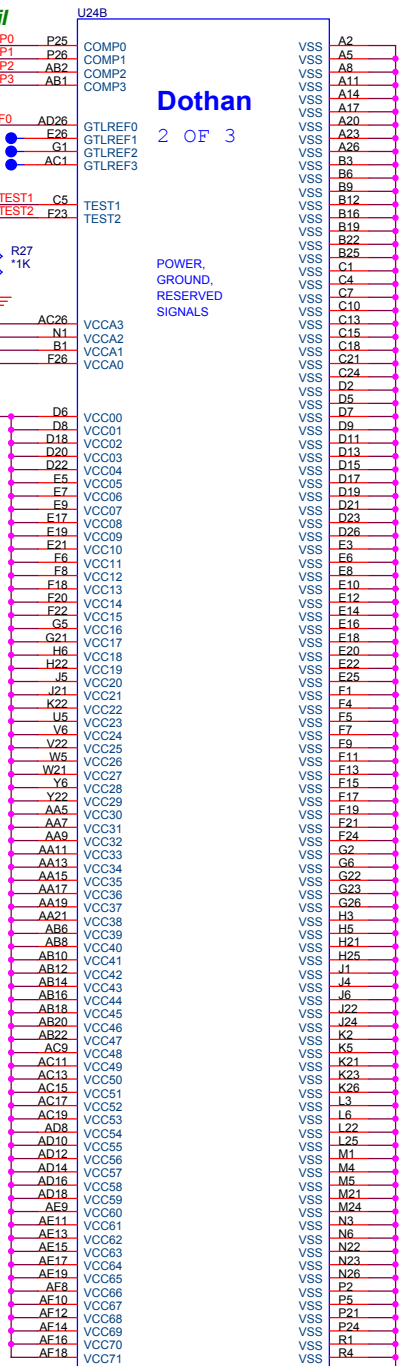


VCC CORE (25,28)  
+VCCP (3,7,10,11,12,25,29)

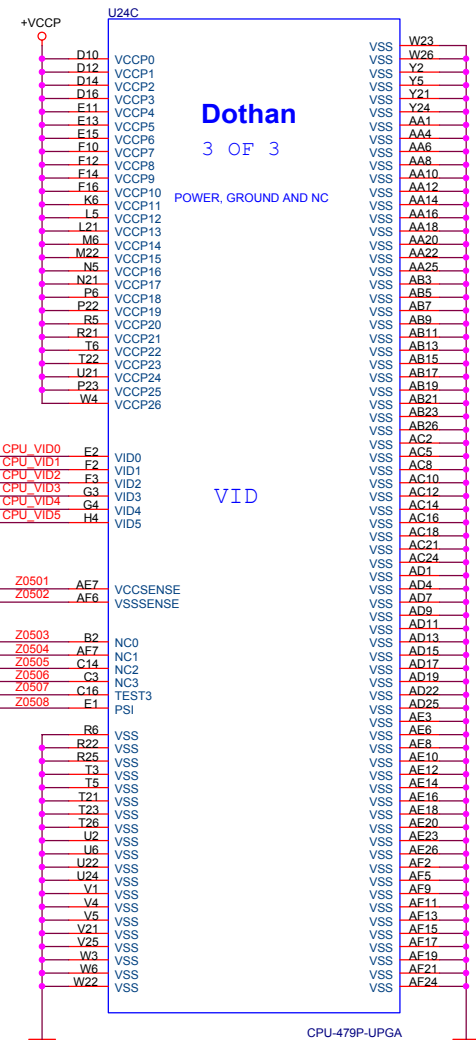


Dothan  
2 OF 3

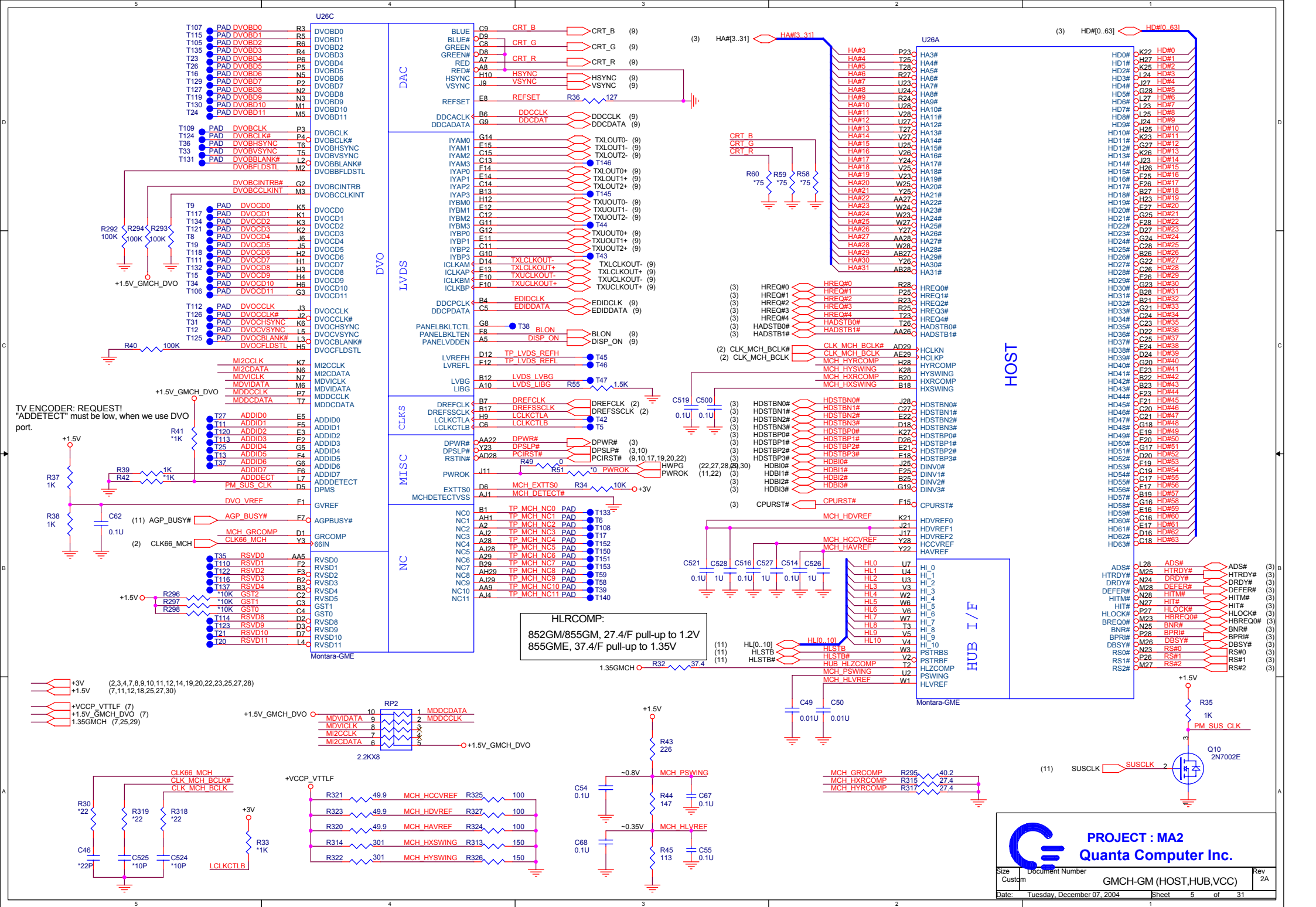
POWER,  
GROUND,  
RESERVED  
SIGNALS

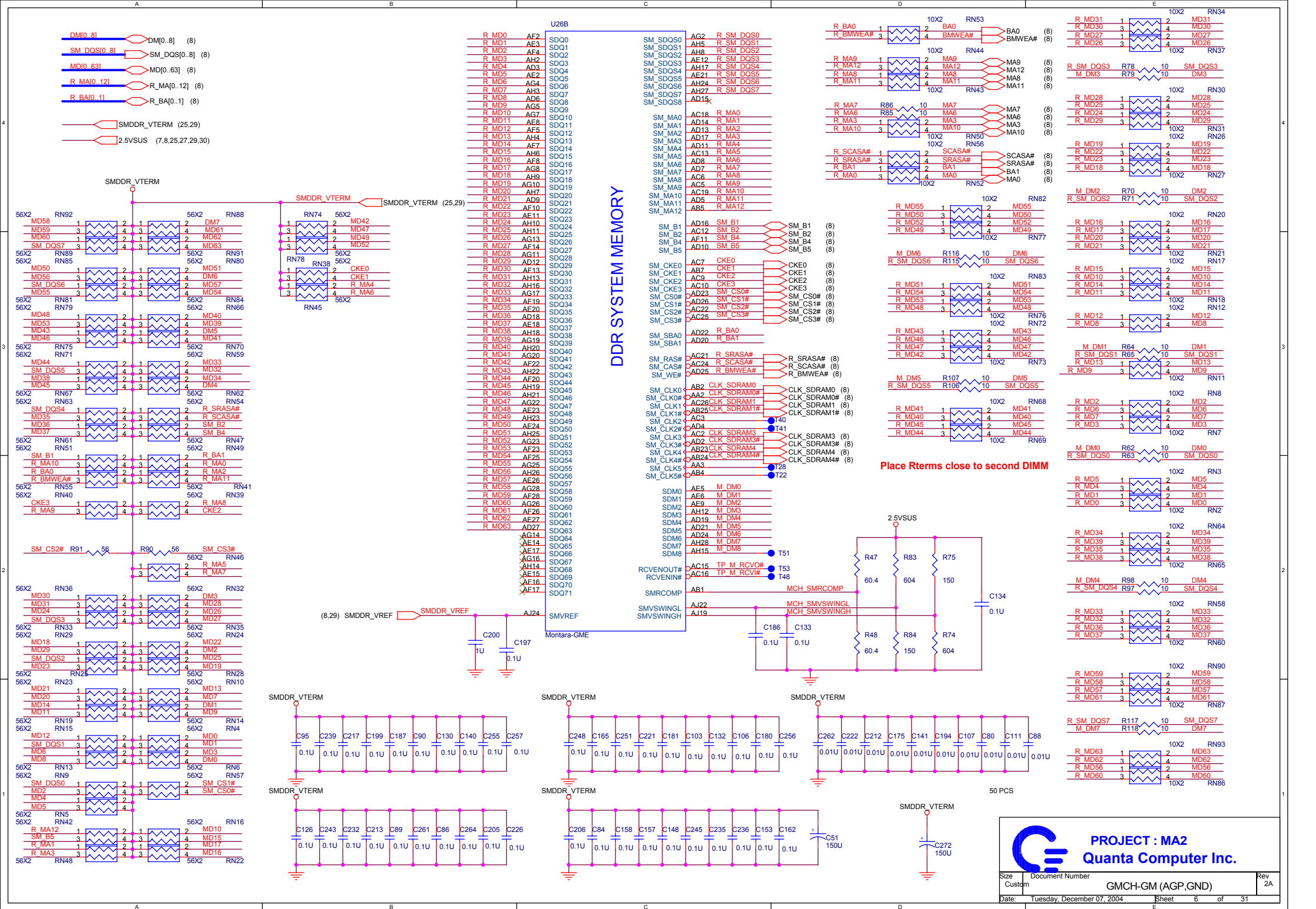


CPU-479P-UPGA

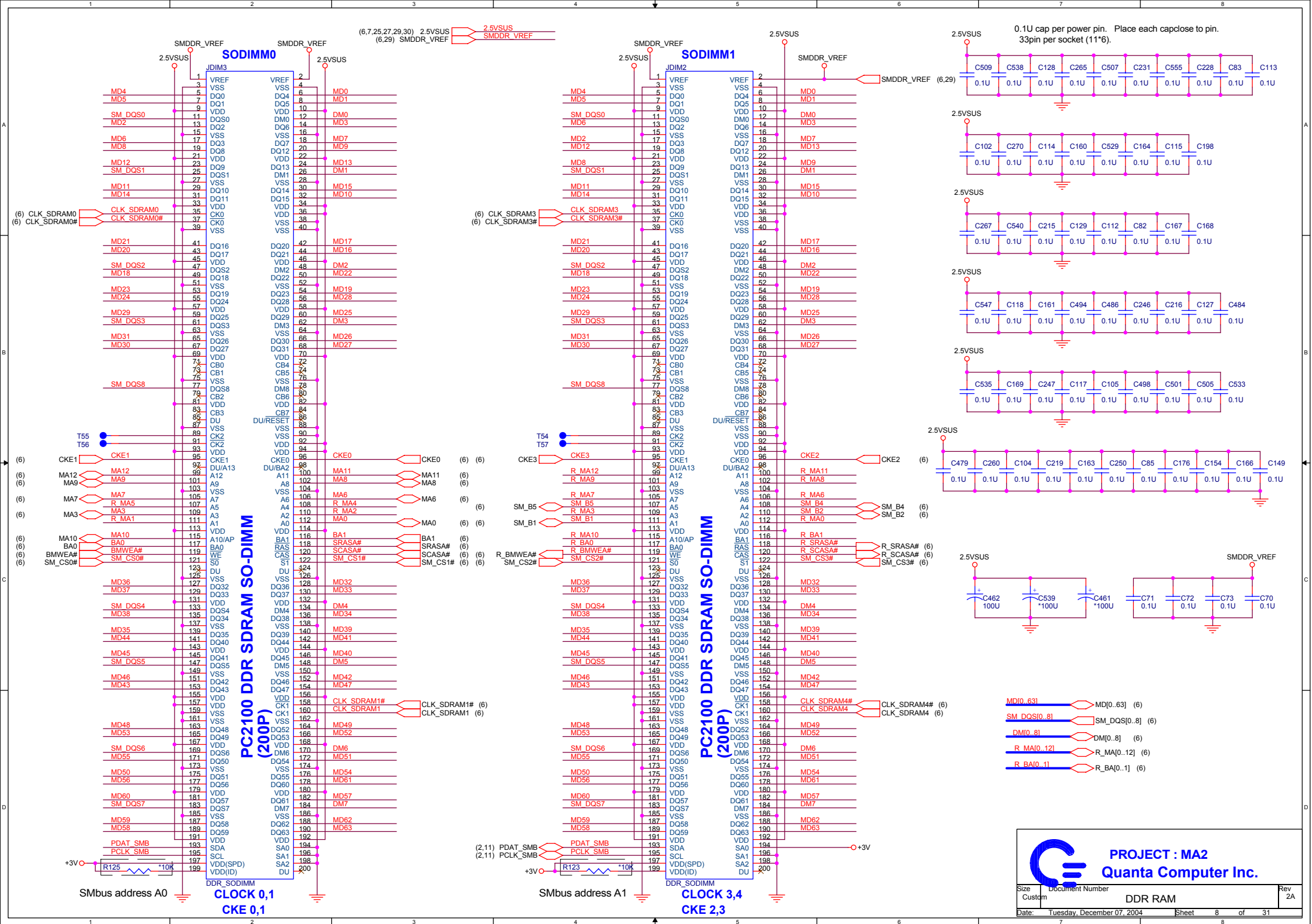


Dothan  
3 OF 3

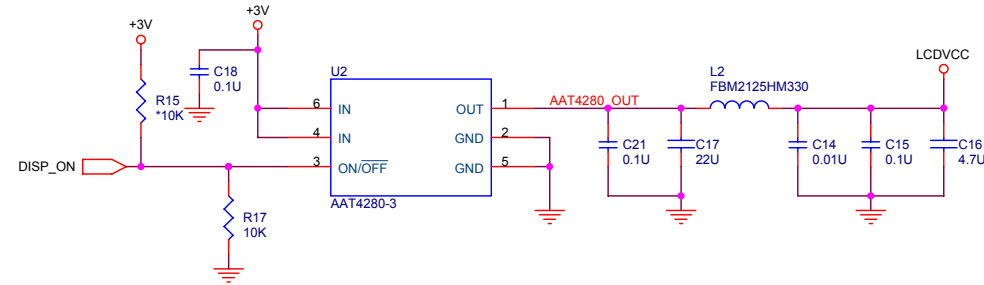




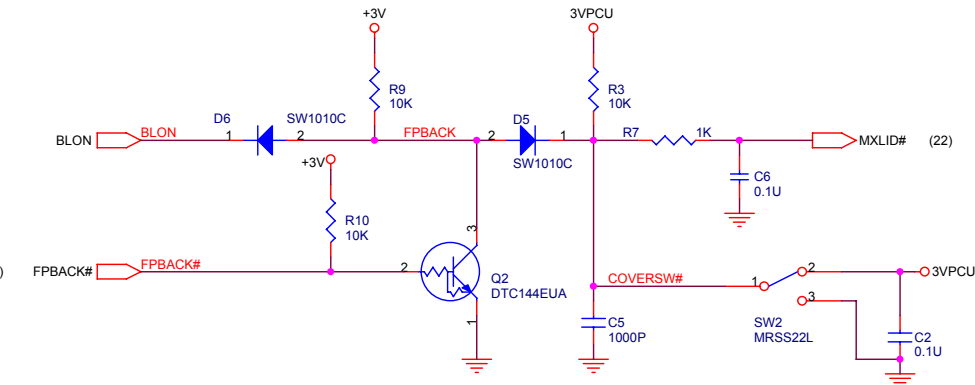




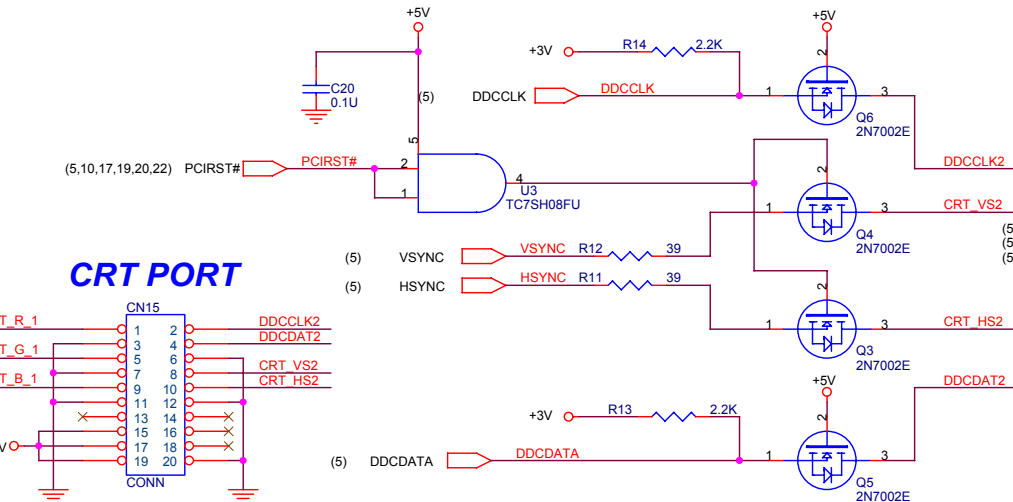
## PANEL VCC CONTROL



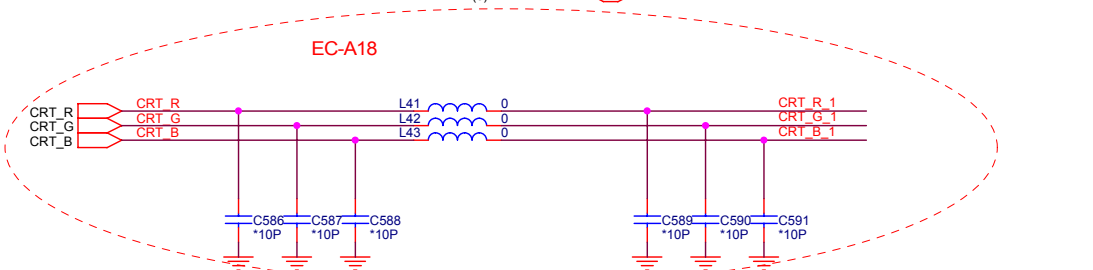
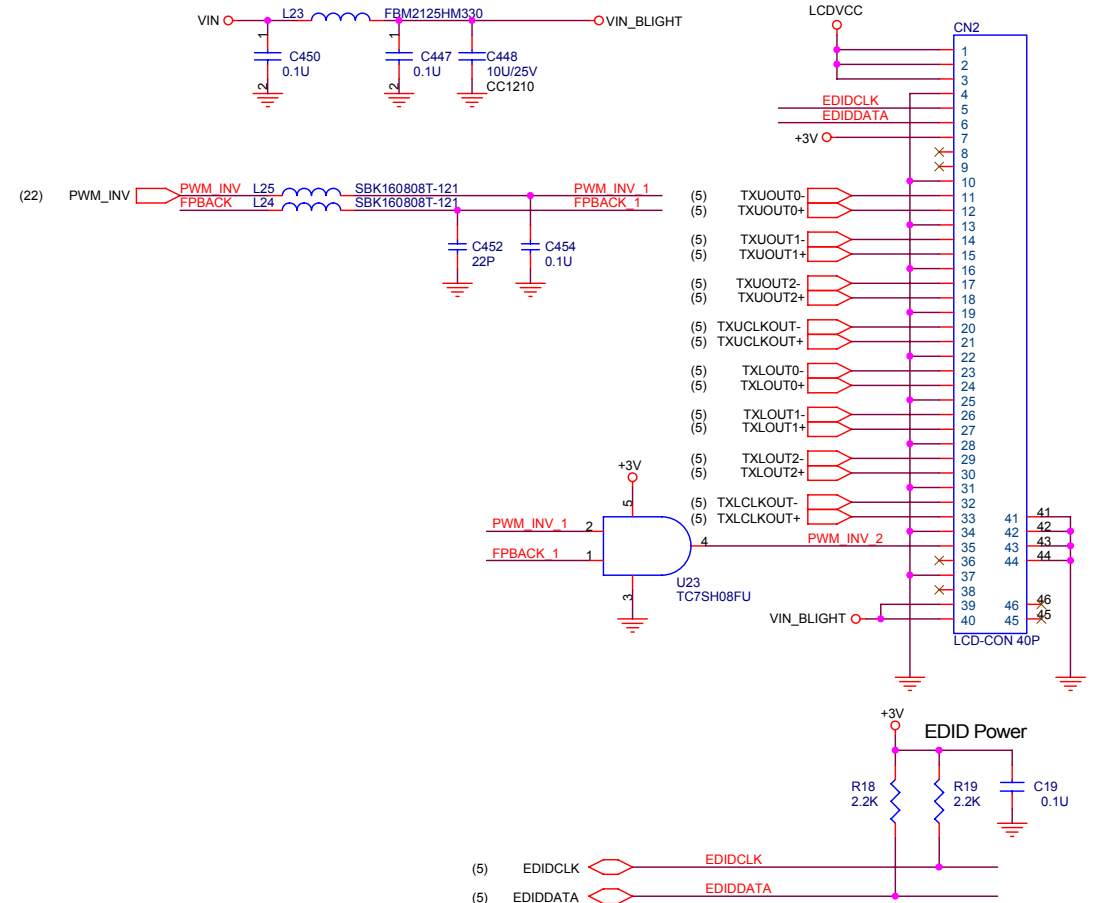
## BACKLIGHT CONTROL



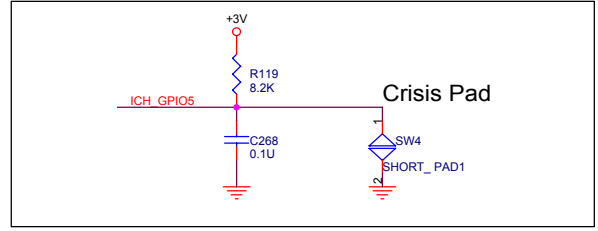
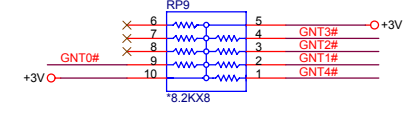
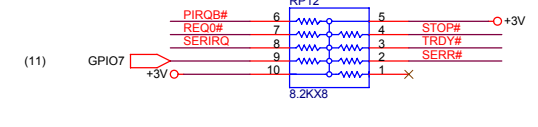
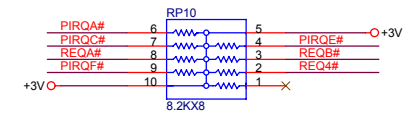
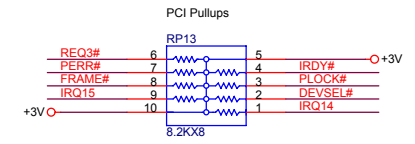
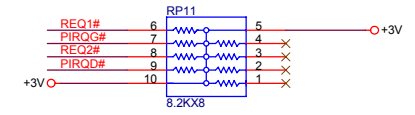
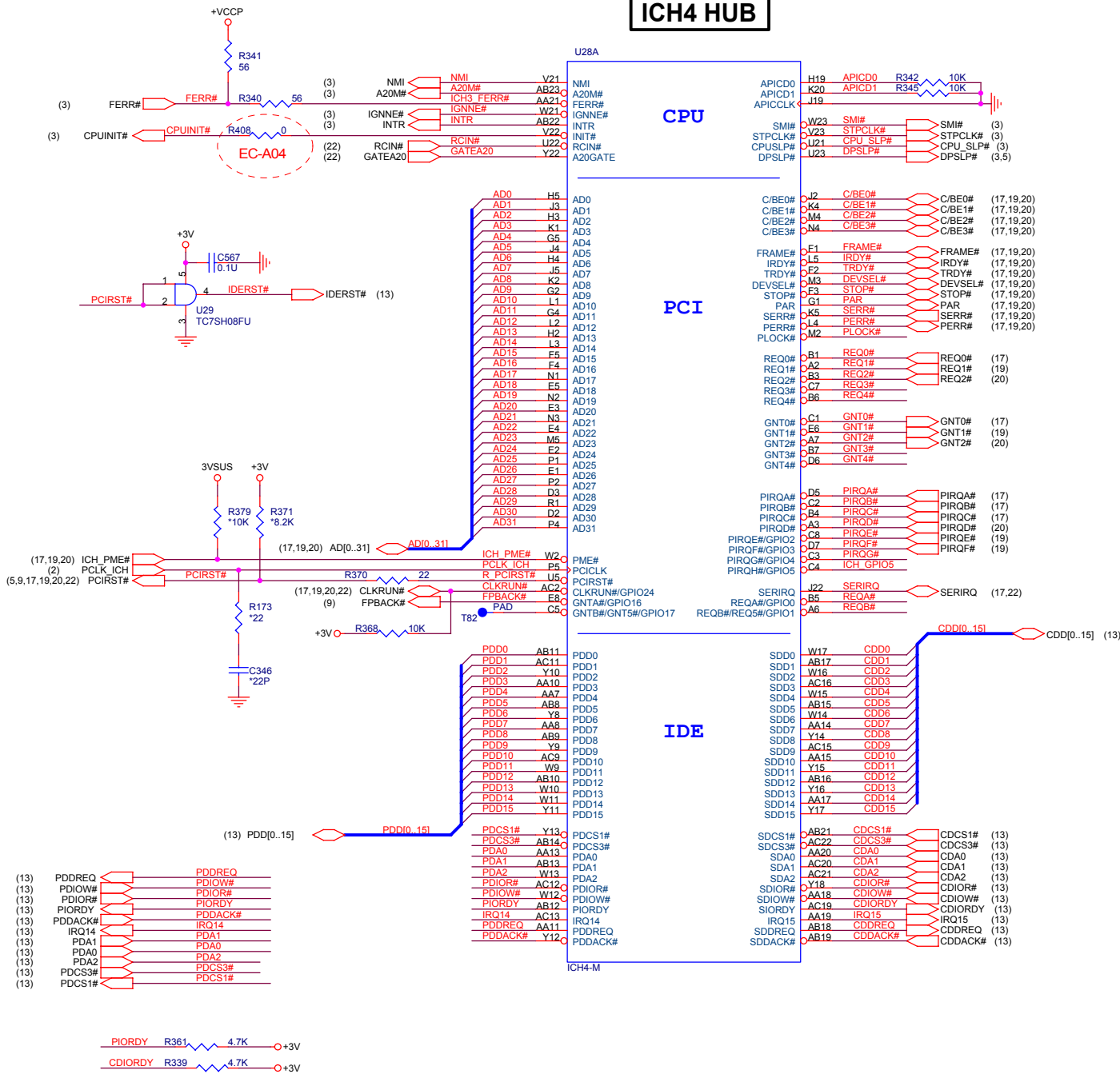
## CRT PORT

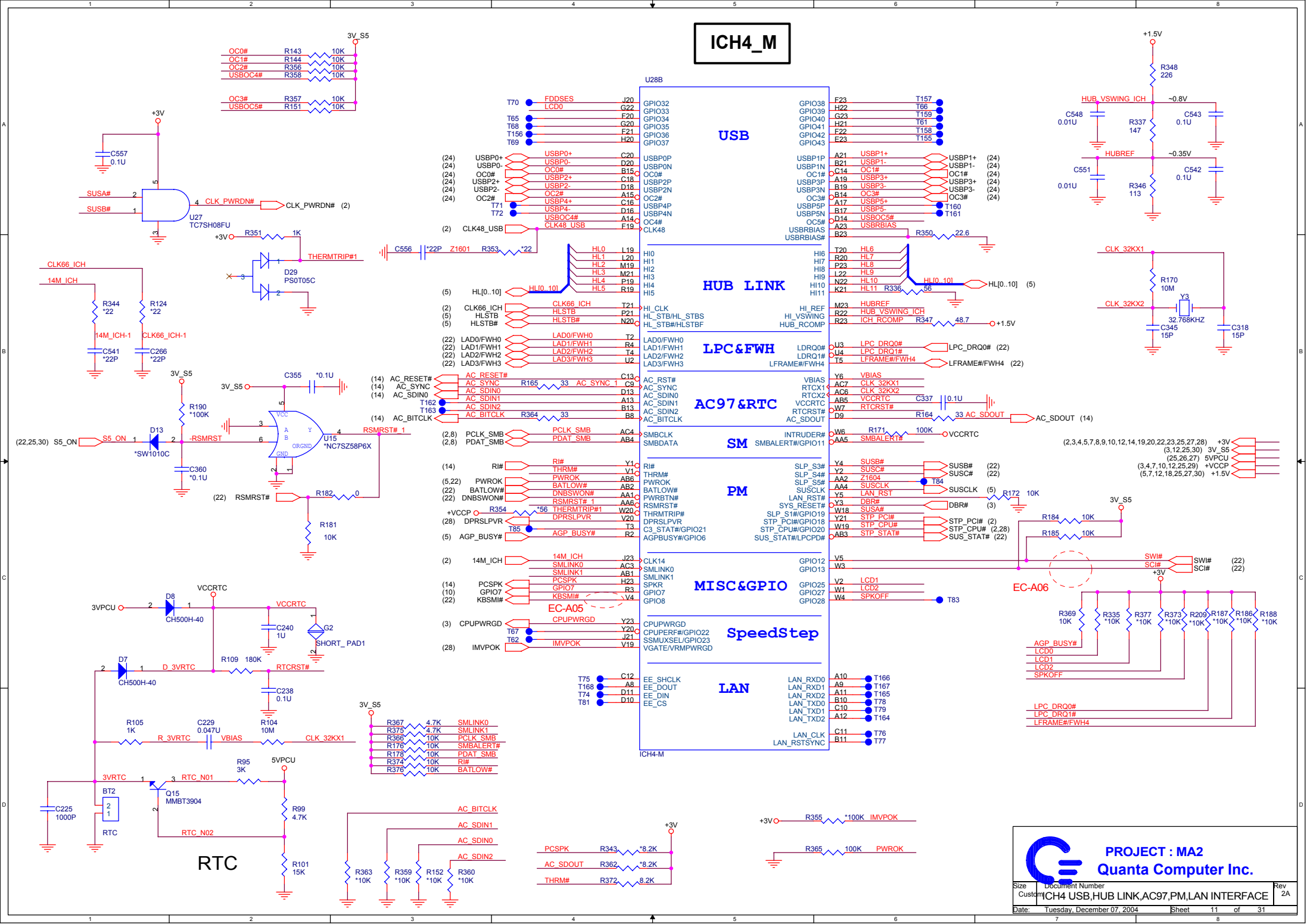


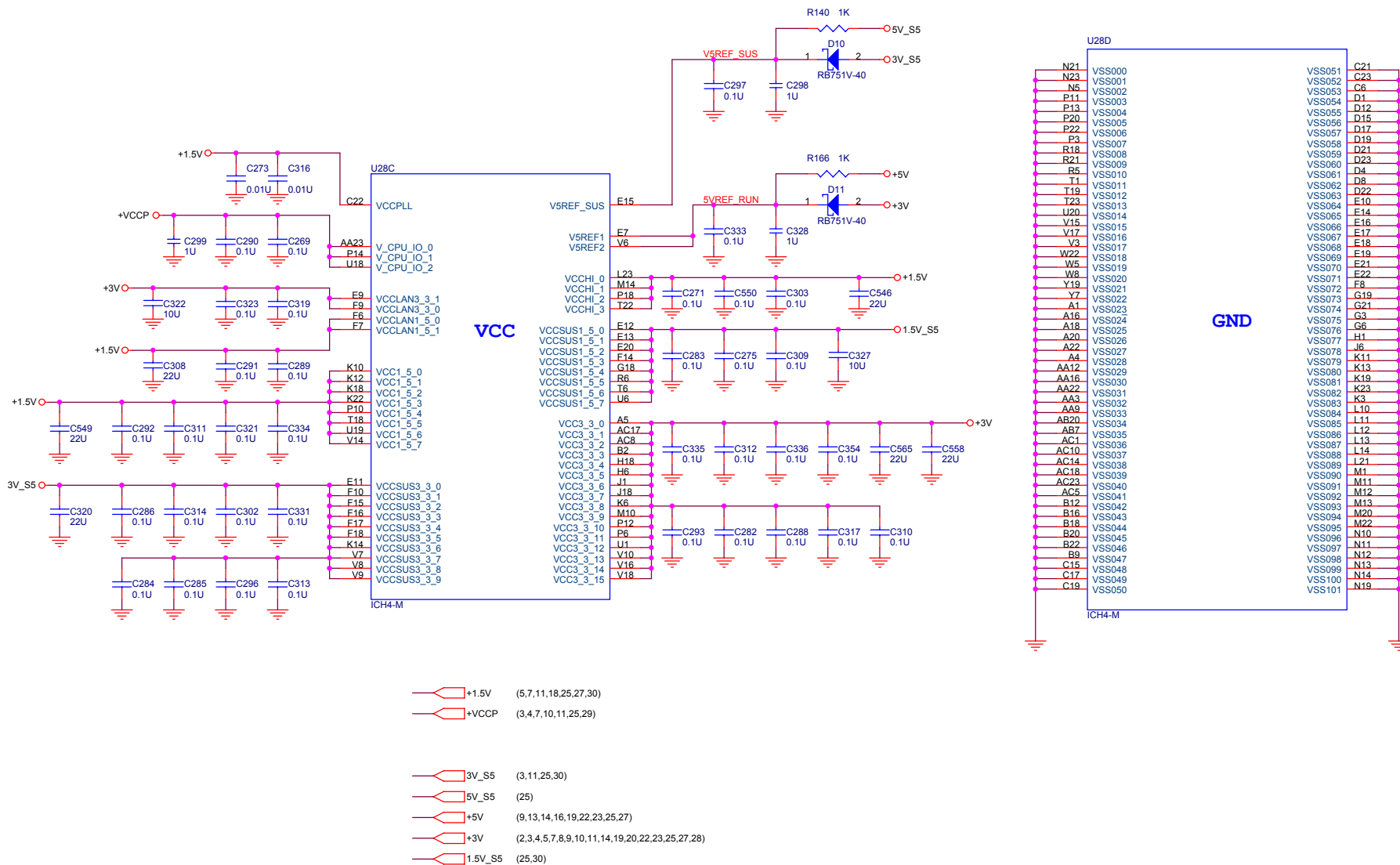
## LCD CONNECTOR

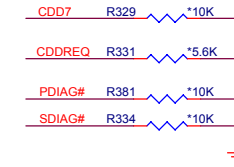


# ICH4 HUB





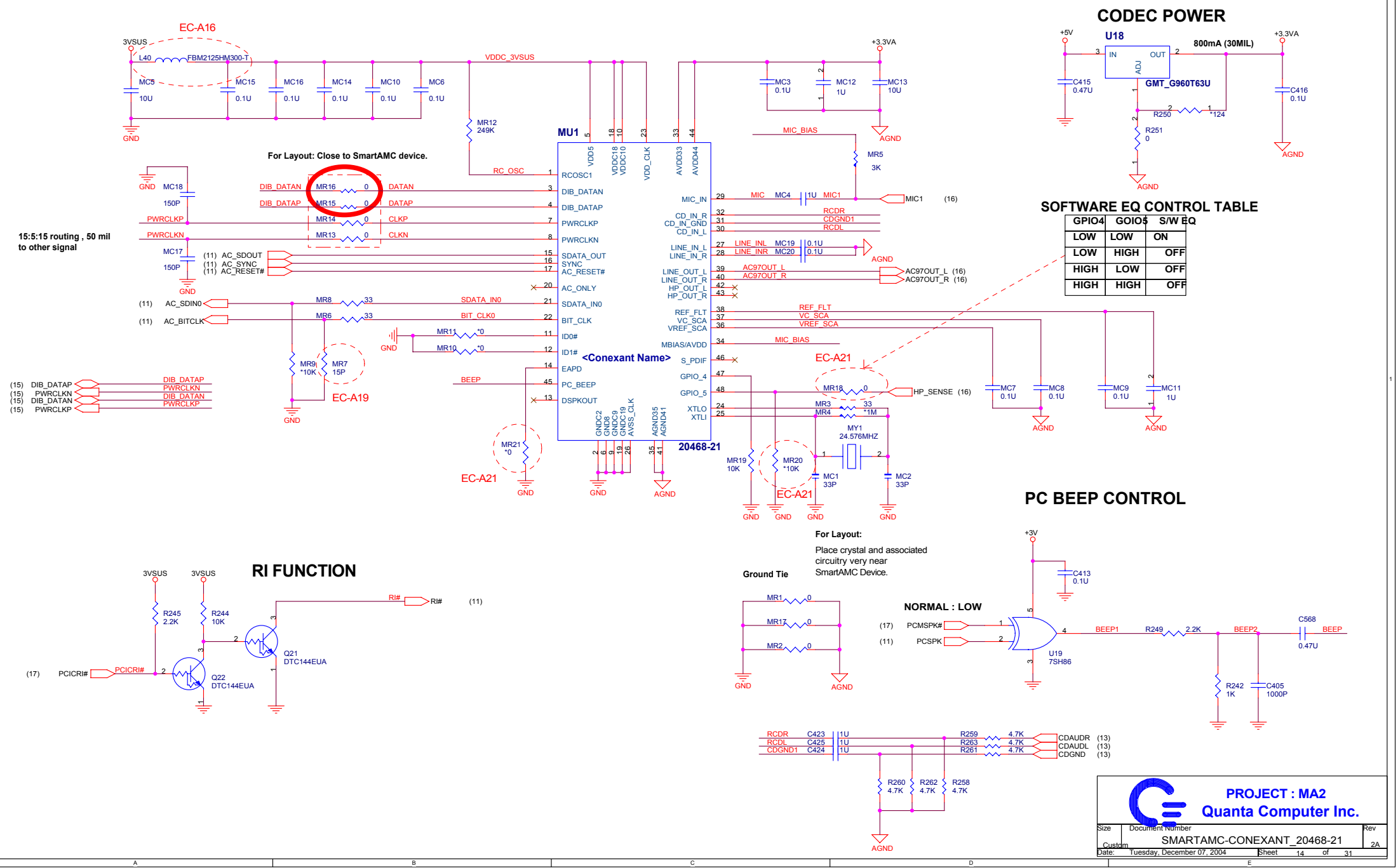




**PROJECT : MA2**  
**Quanta Computer Inc.**

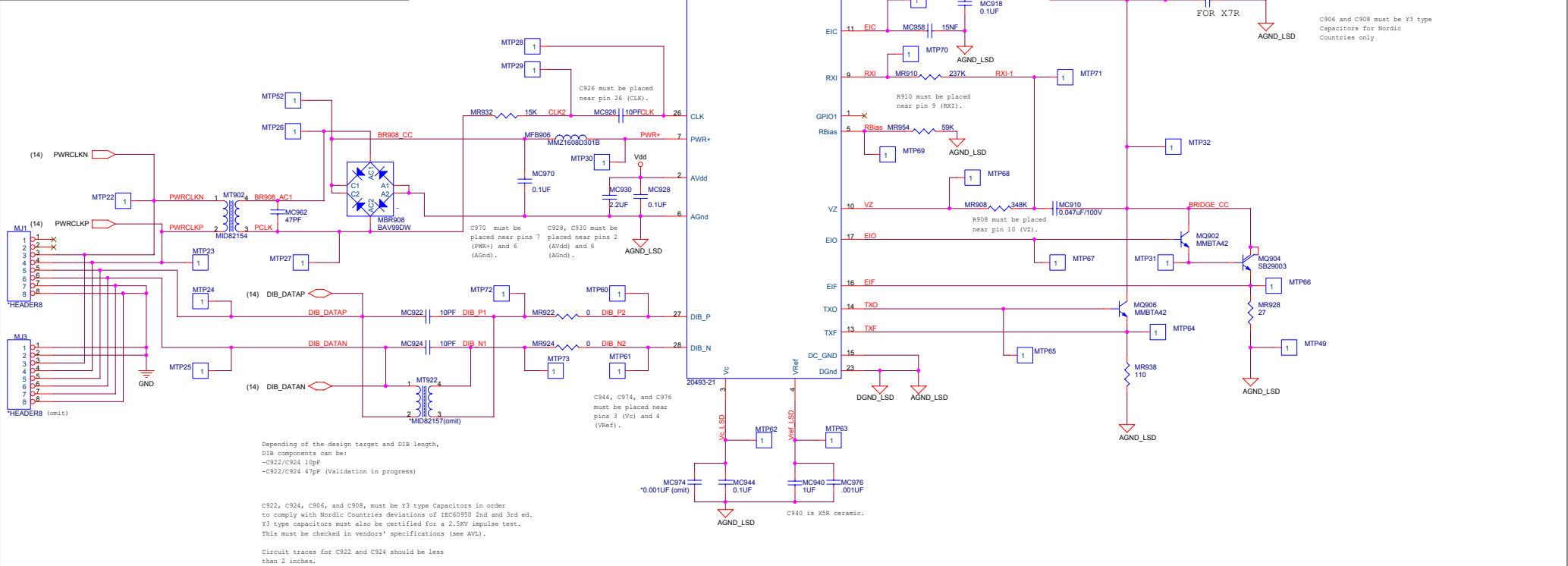
# SMARTAMC-CONEXANT\_20468-21

For Layout:  
Place decoupling caps near the power pins of  
SmartAMC device.

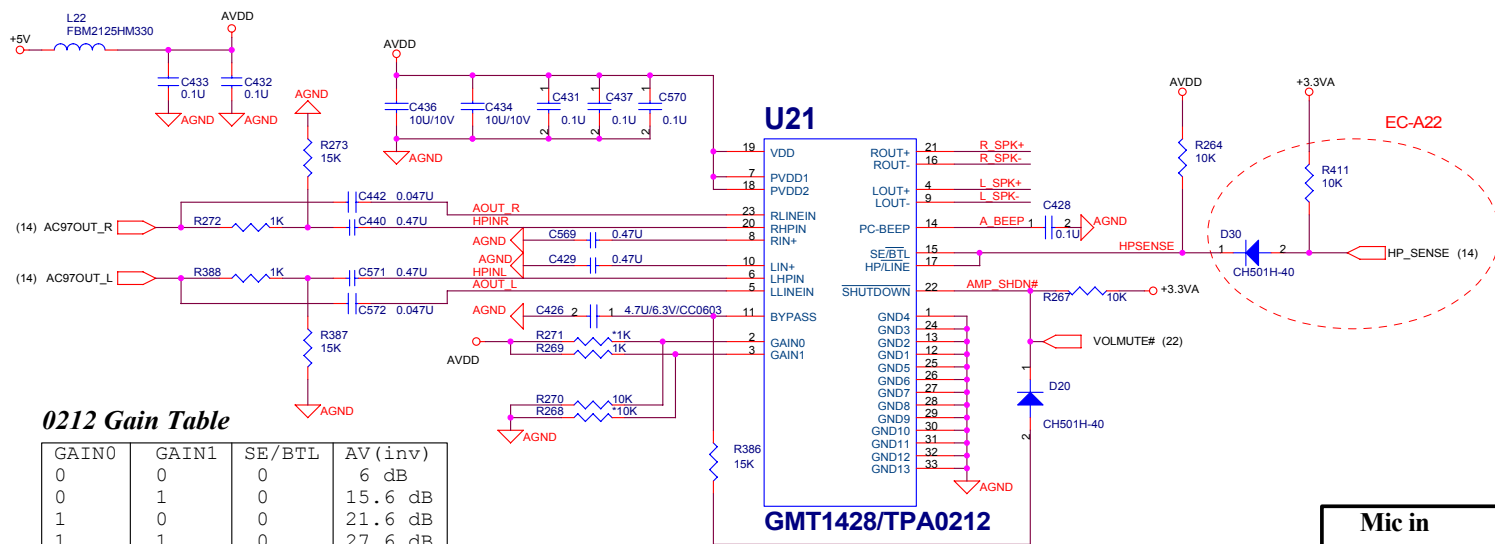


SMARTDAA\_20493-21

| Revision History |                                                                                                                                                   |                    |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| REV              | Description                                                                                                                                       | Date               |
| 00               | Initial Release                                                                                                                                   | February 14, 2002  |
| 01               | 27mmx27mm form factor.                                                                                                                            | July 5, 2002       |
| 02               | 6 pins J1 connector-T/R traces for specific uses-100V C902/C904                                                                                   | September 24, 2002 |
| 03               | add J1B - remove T903                                                                                                                             | October 9, 2002    |
| 04               | Change J1 & J1B. Change R938 size, Add TP60 to TP71.                                                                                              | November 12, 2002  |
| 05               | Removed J1B. Change size for C978, C984, R902, R904, R906, R908, R910 and R978. Changed BR904 and BR906 to different manufacture.                 | November 26, 2002  |
| 06               | Corrected error in Q904 PCB footprint.                                                                                                            | January 3, 2003    |
| 07               | Added DIB data transformer footprint, added MC966, deleted ring impedance circuit. Added the letter "MF" prefix to all reference designators.     | September 24, 2003 |
| 08               | Changed value for MC966 from 3.3nF to 10nF, 100V, +/-20%, Y5V. By default, MC966 will be populated. Also, changed CX20493 revision from 11 to 21. | November 06, 2003  |



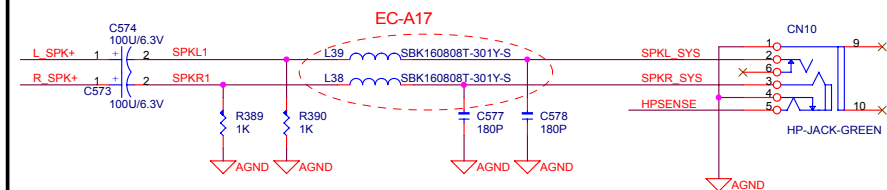
# AUDIO AMPLIFIER



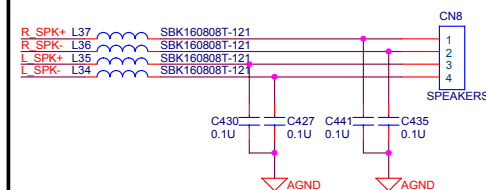
### 0212 Gain Table

| GAIN0 | GAIN1 | SE/BTL | AV (inv) |
|-------|-------|--------|----------|
| 0     | 0     | 0      | 6 dB     |
| 0     | 1     | 0      | 15.6 dB  |
| 1     | 0     | 0      | 21.6 dB  |
| 1     | 1     | 0      | 27.6 dB  |
| X     | X     | 1      | 0 dB     |

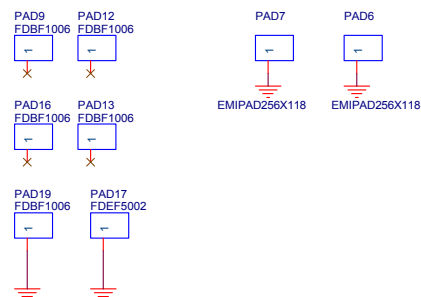
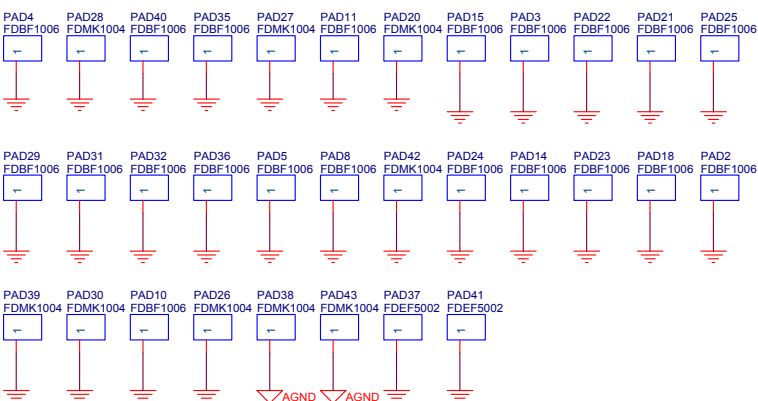
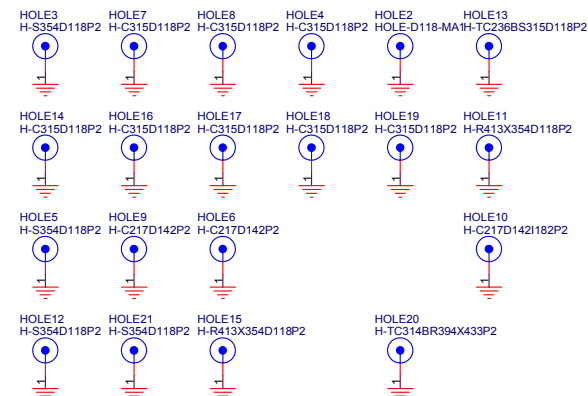
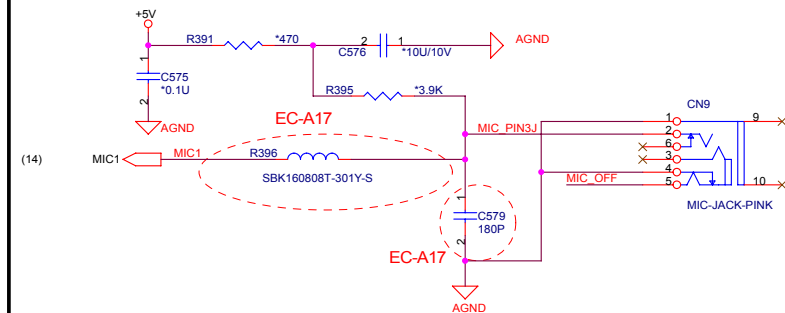
## Headphone out



INT. SPEAKER

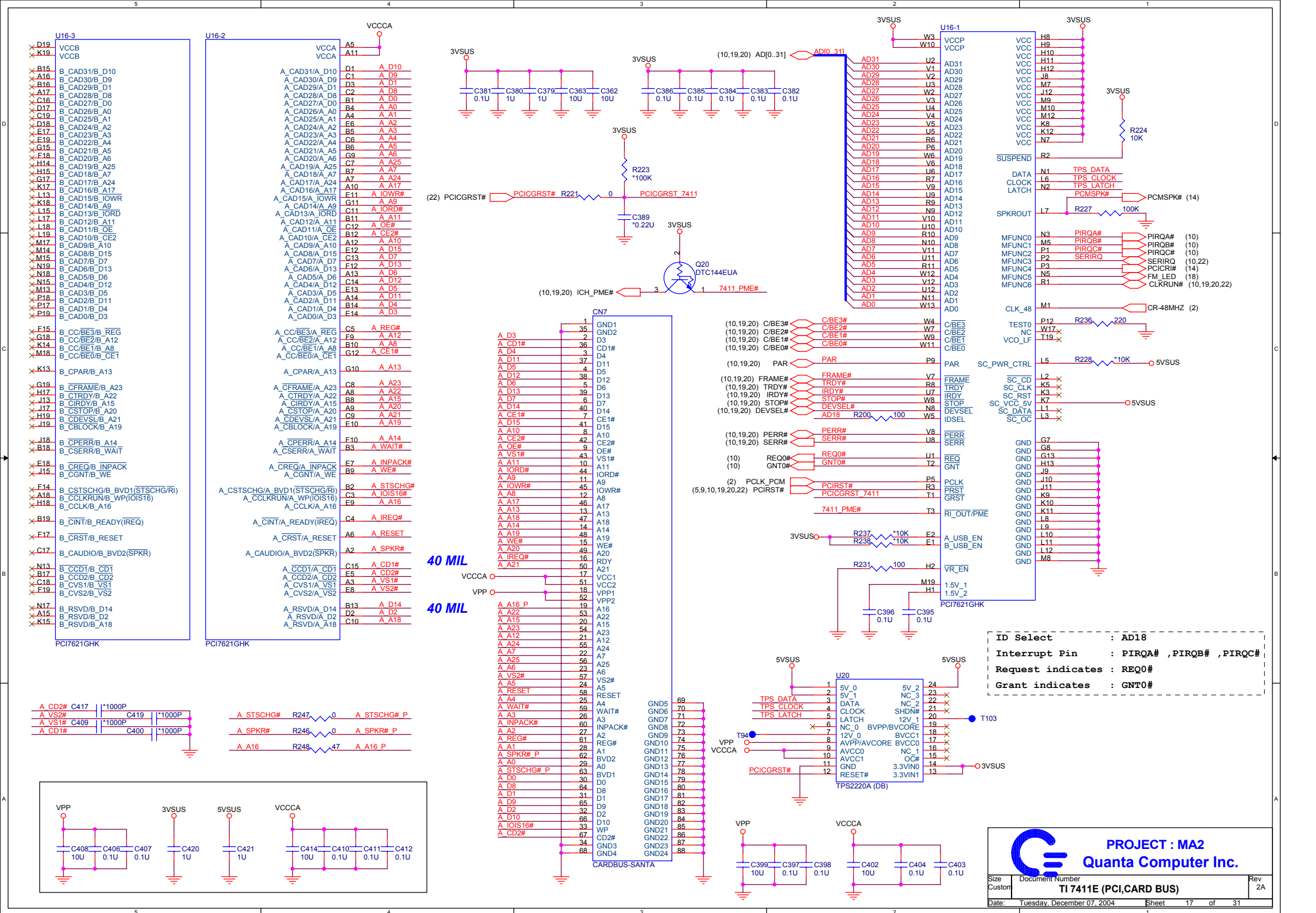


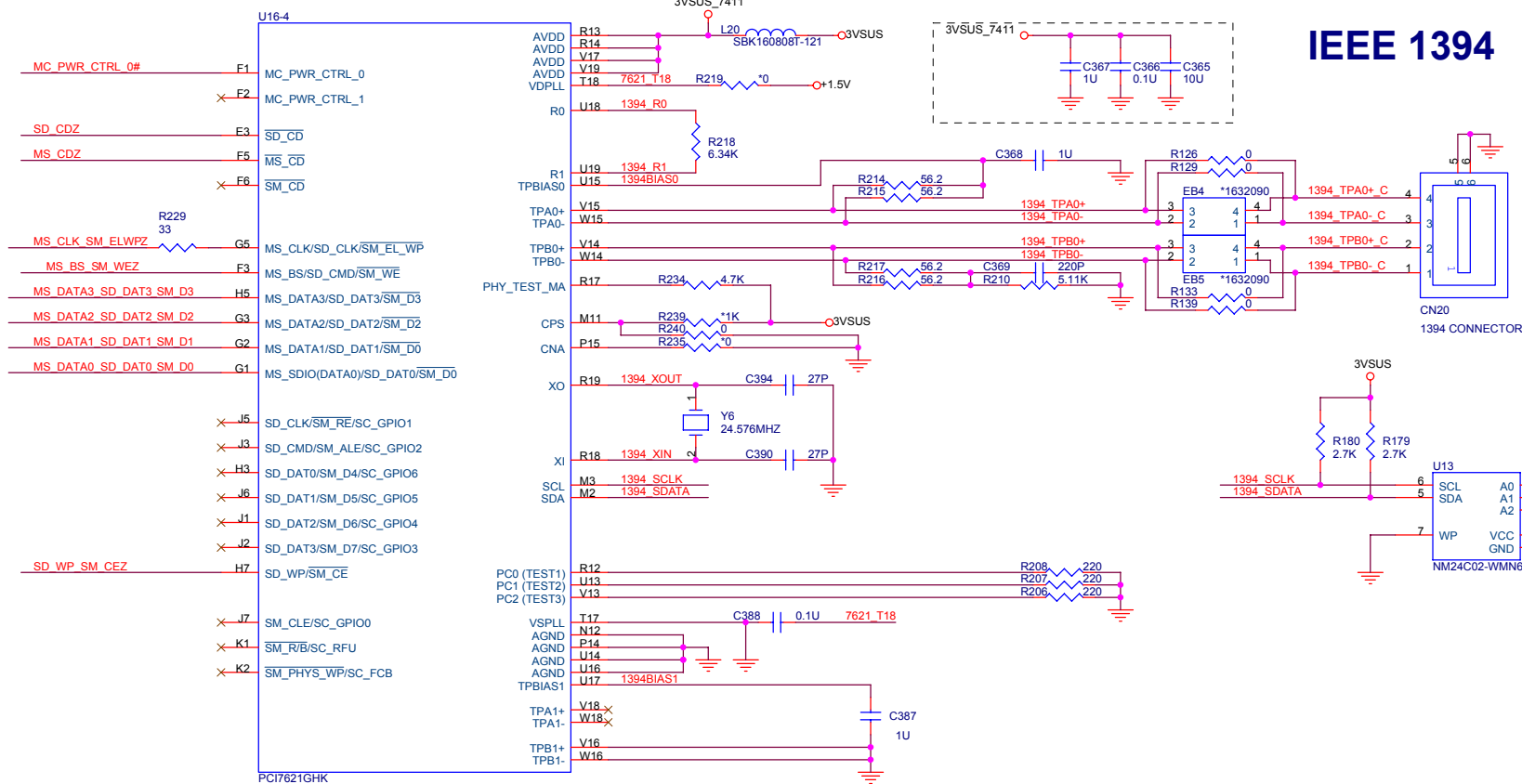
**Mic in**



PROJECT : MA2  
Quanta Computer Inc.

|                                  |                  |     |
|----------------------------------|------------------|-----|
| Size                             | Document Number  | Rev |
| Custom                           | AUDIO AMP & JACK | 2A  |
| Date: Tuesday, December 07, 2004 | Sheet 16 of 31   |     |





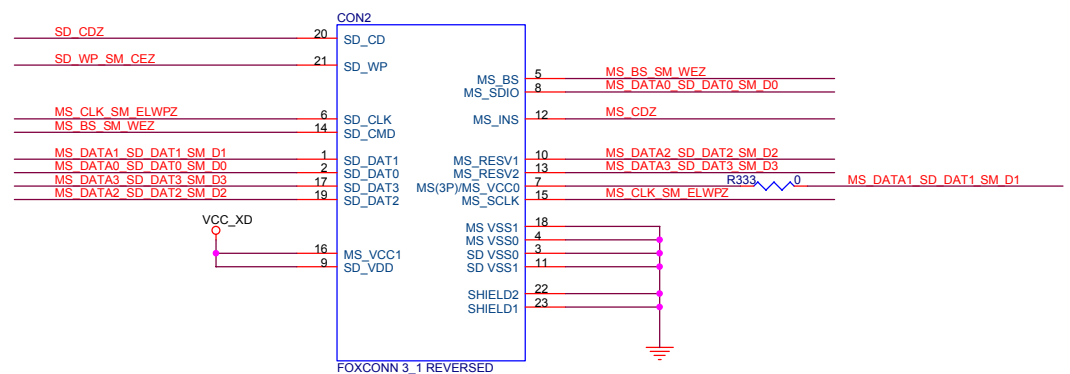
## IEEE 1394



PROJECT : MA2  
Quanta Computer Inc.

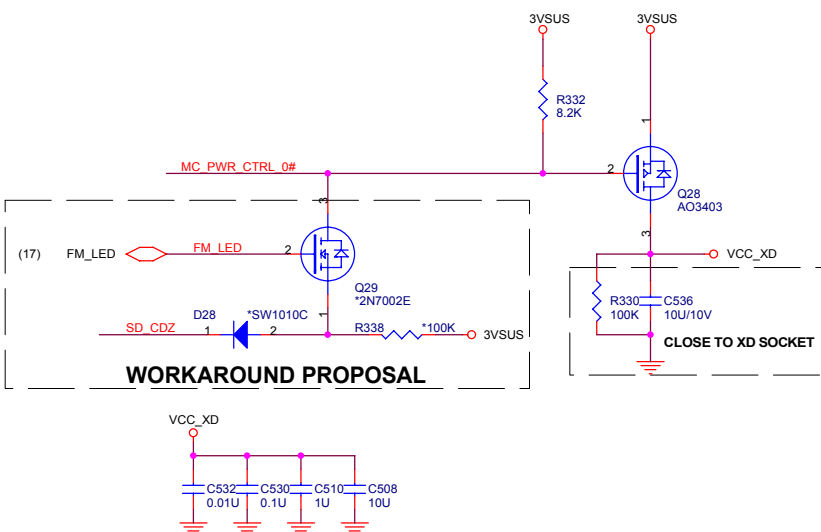
|        |                               |                |
|--------|-------------------------------|----------------|
| Size   | Document Number               | Rev            |
| Custom | TI 7411E (1394 & CARD_READER) | 2A             |
| Date:  | Tuesday, December 07, 2004    | Sheet 18 of 31 |

## 4 IN1 CARD READER



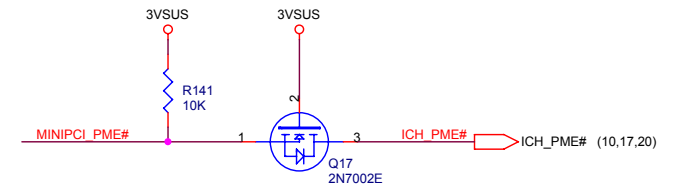
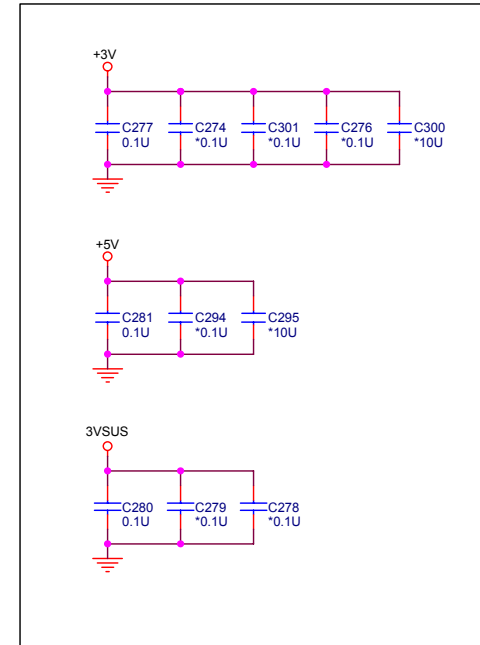
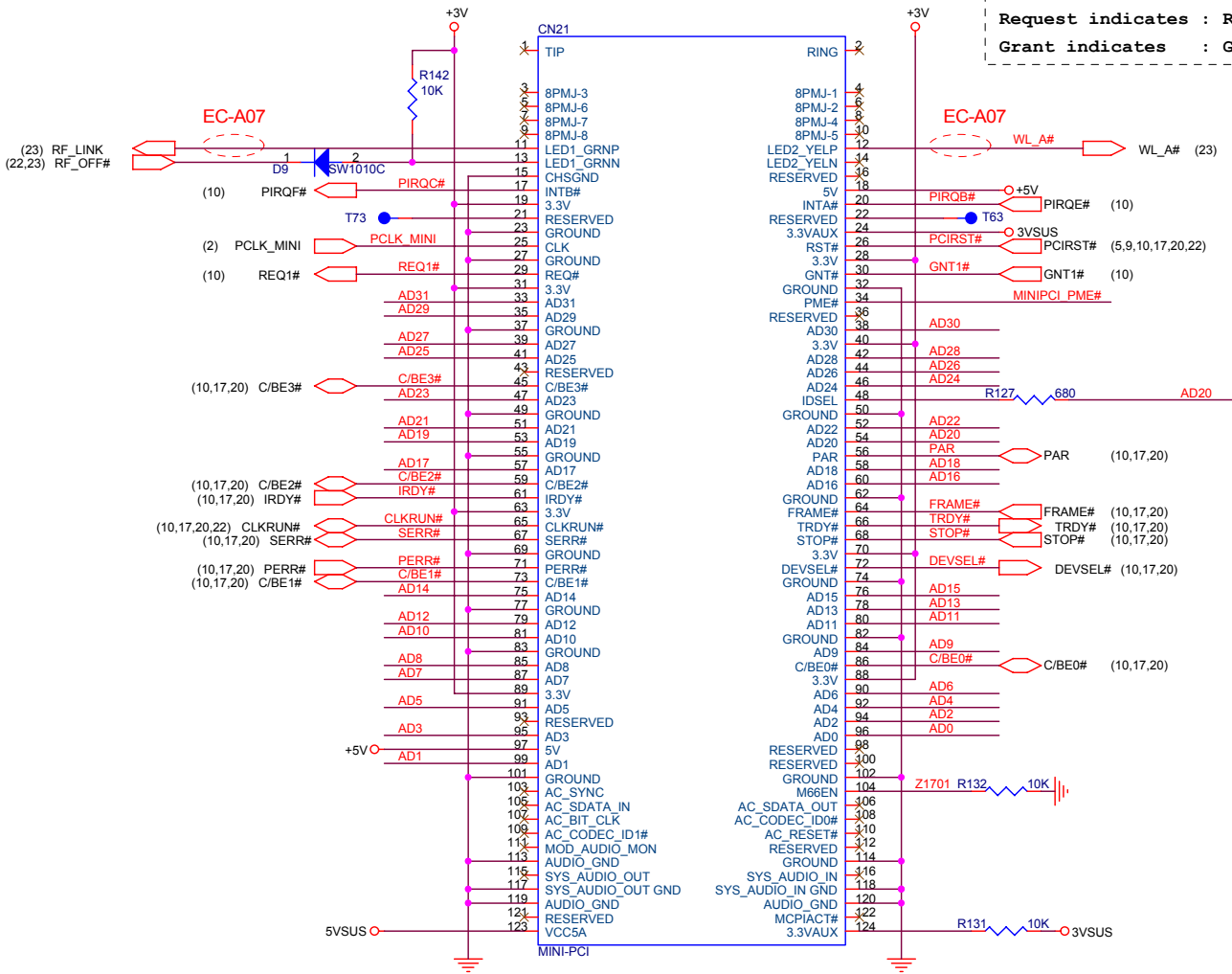
Supporting MMC/SD/MS Cards

## WORKAROUND PROPOSAL



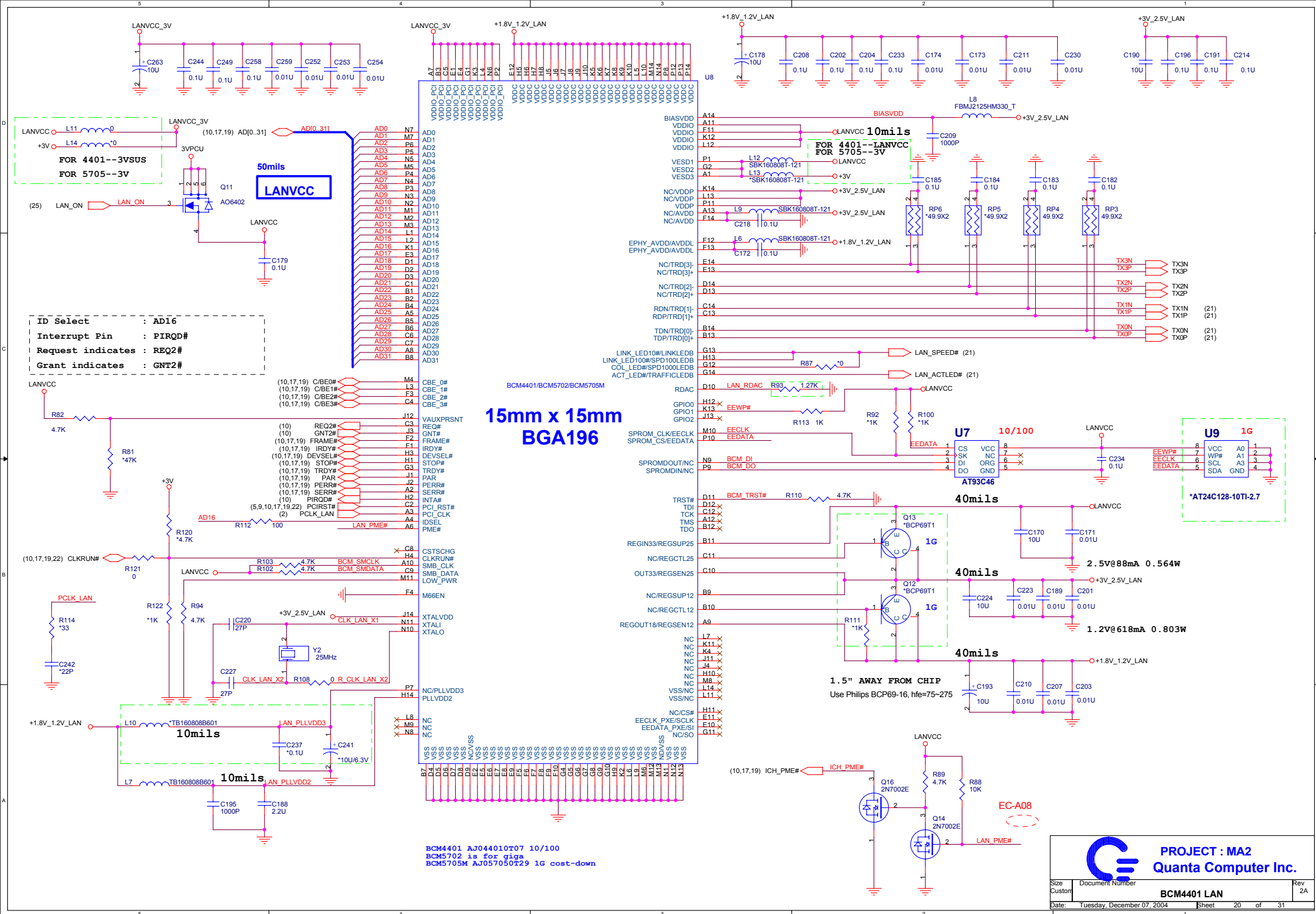
# TYPE III MINI PCI SOCKET

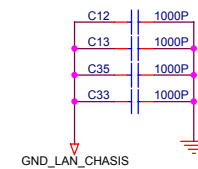
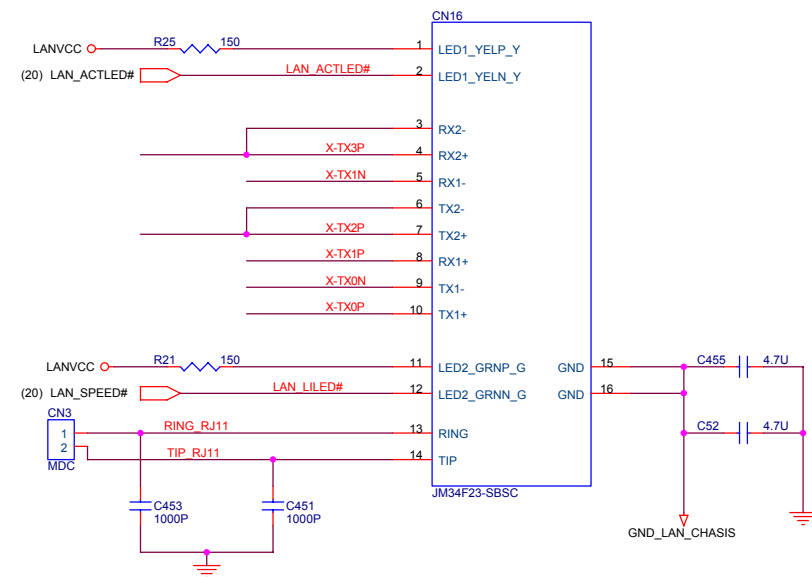
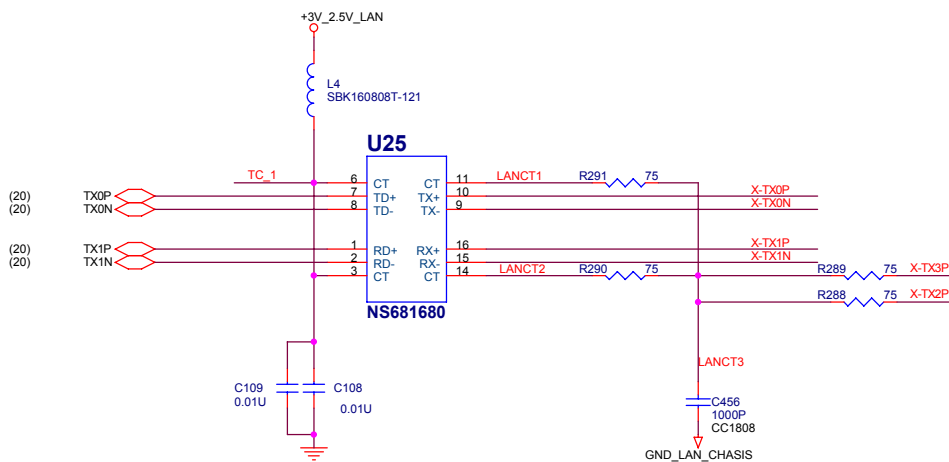
ID Select : AD20  
Interrupt Pin : PIRQ# , PIRQF#  
Request indicates : REQ1#  
Grant indicates : GNT1#



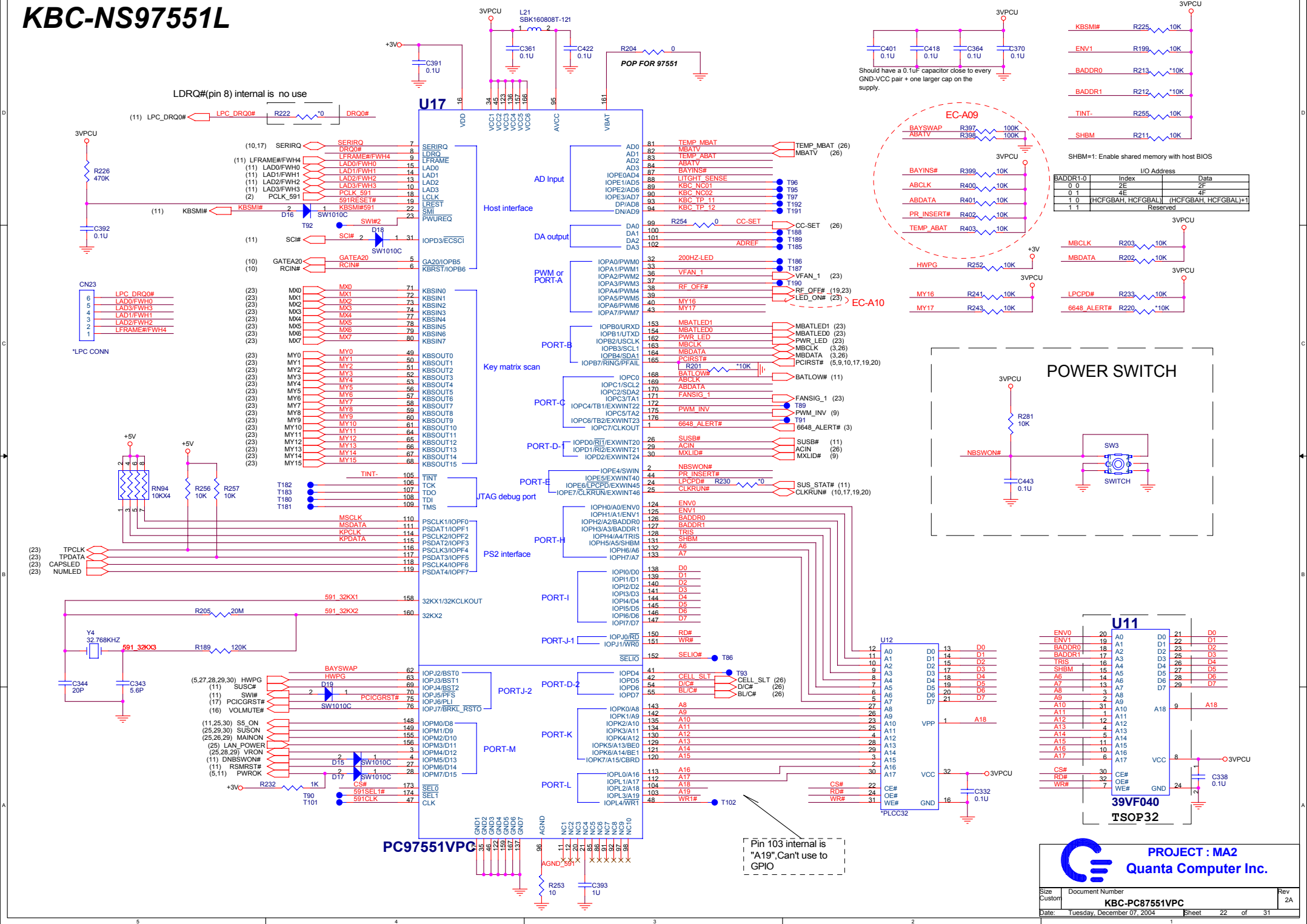
PROJECT : MA2  
Quanta Computer Inc.

Size B Document Number MINI PCI Socket & MDC Rev 2A  
Date: Tuesday, December 07, 2004 Sheet 19 of 31

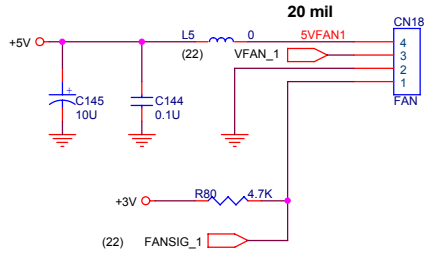




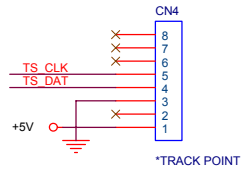
***KBC-NS97551L***



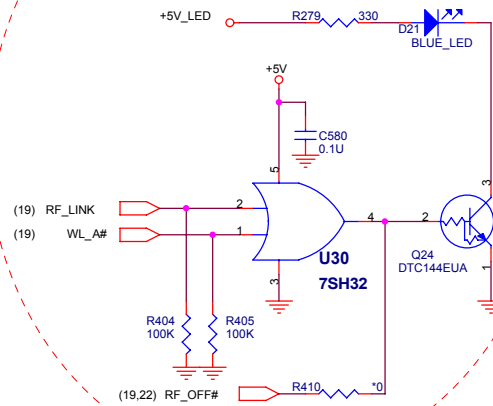
## FAN OUT PWM CONNECTOR



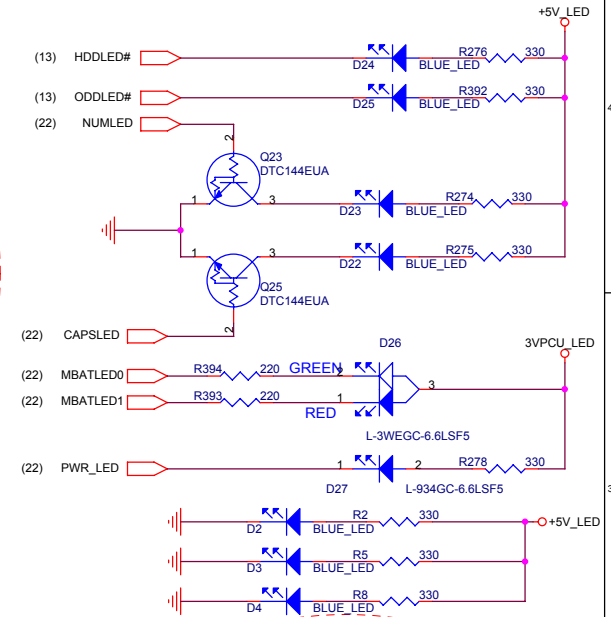
## TRACK POINT



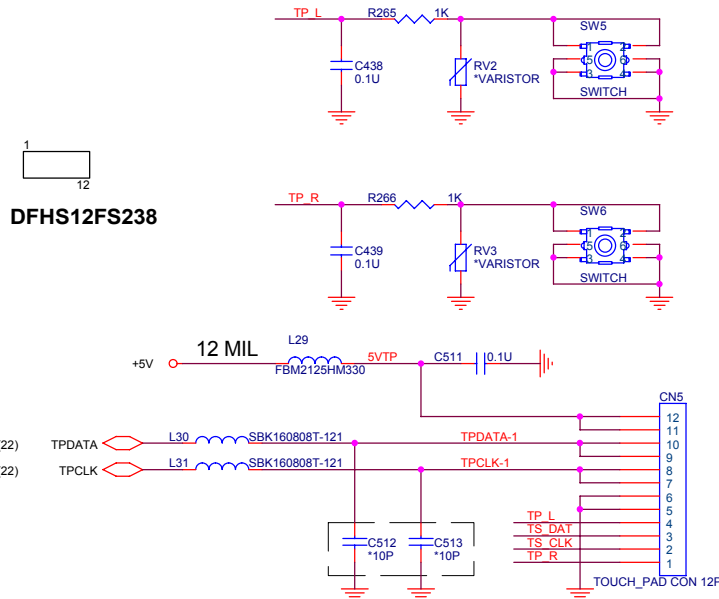
## WIRELESS LED



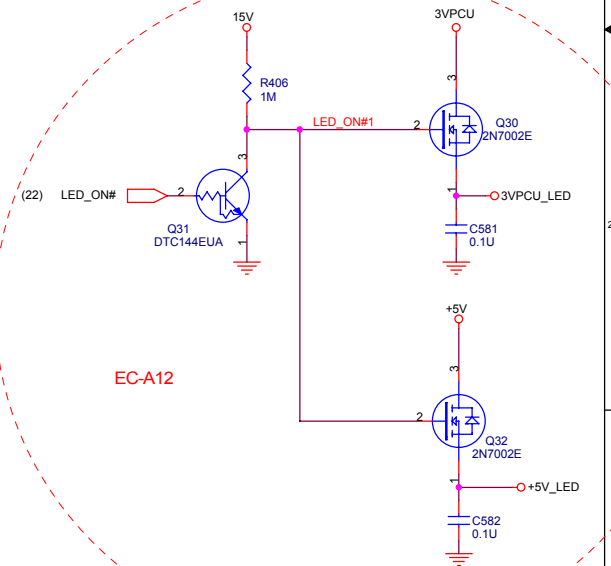
## LED INDIATOR



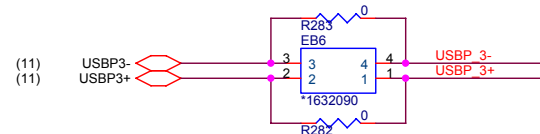
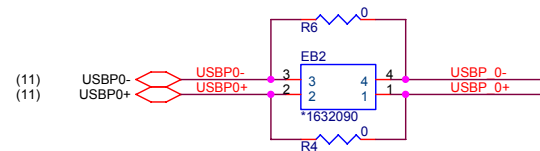
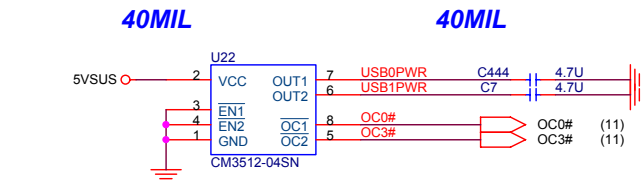
## TOUCHPAD



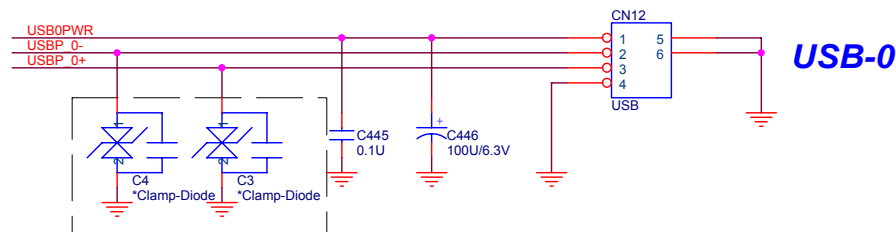
## EC-A12



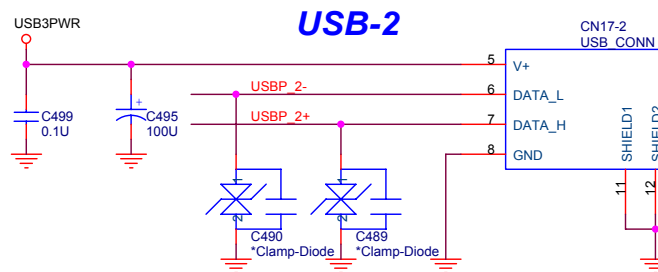
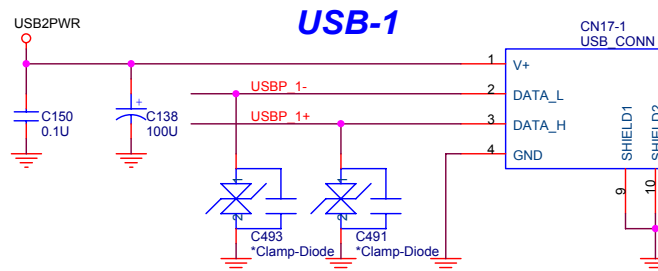
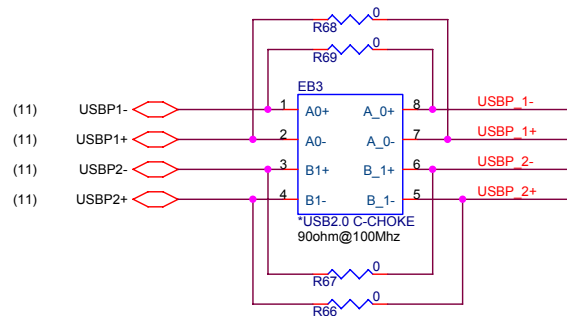
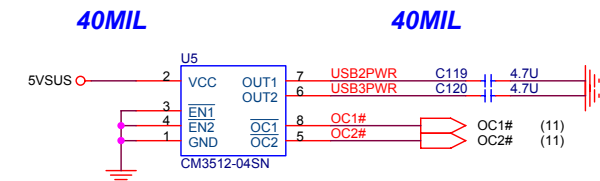
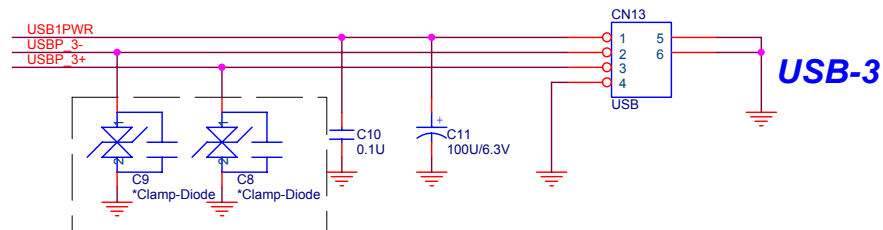
PROJECT : MA2  
Quanta Computer Inc.



## LEFT SIDE



## LEFT SIDE

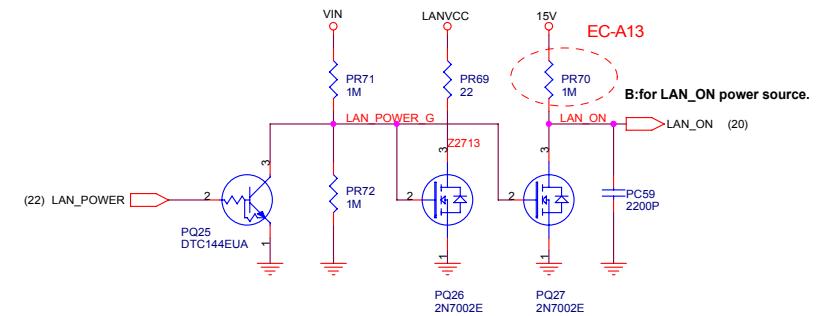
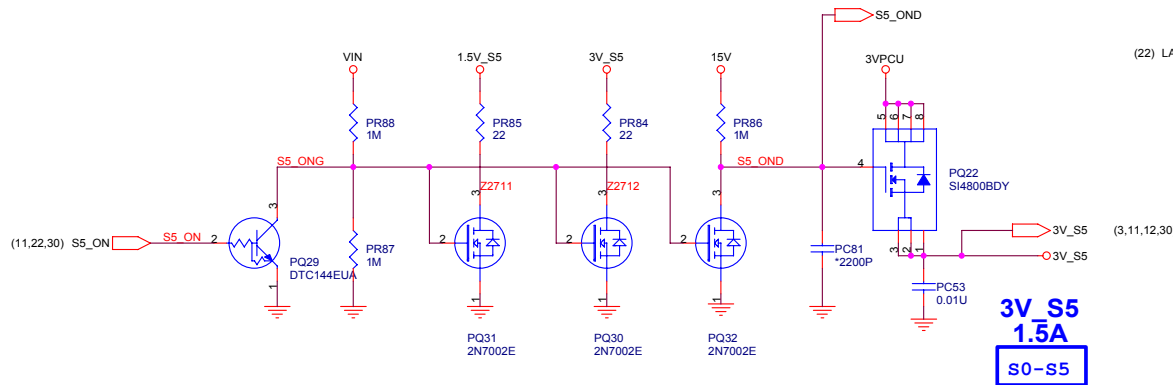
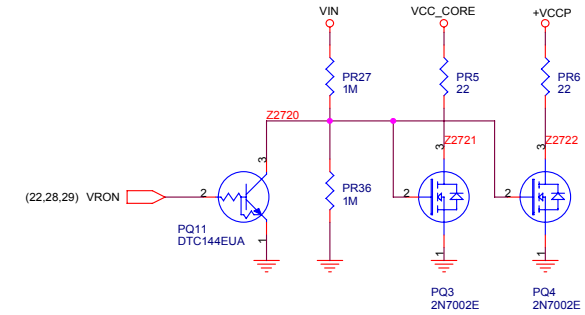
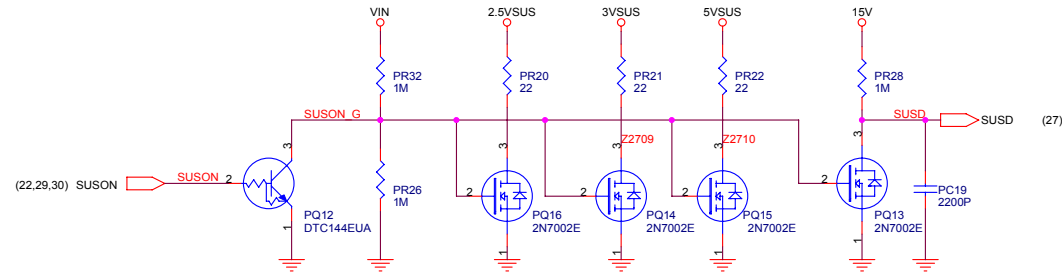
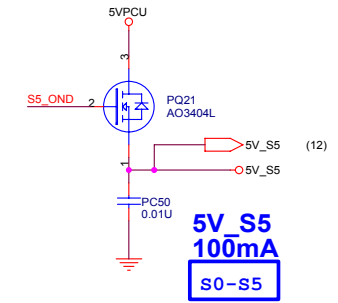
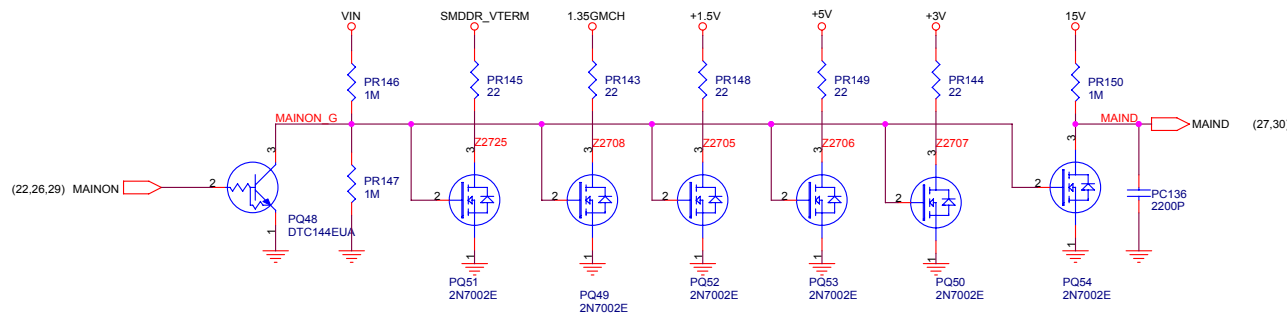


(17,19,25,27,28,29,30) 5VSUS



PROJECT : MA2  
Quanta Computer Inc.

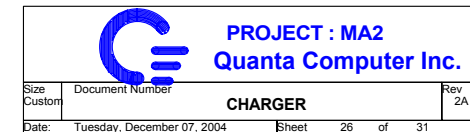
| Size   | Document Number            | Rev            |
|--------|----------------------------|----------------|
| Custom | USB Ports                  | 2A             |
| Date:  | Tuesday, December 07, 2004 | Sheet 24 of 31 |



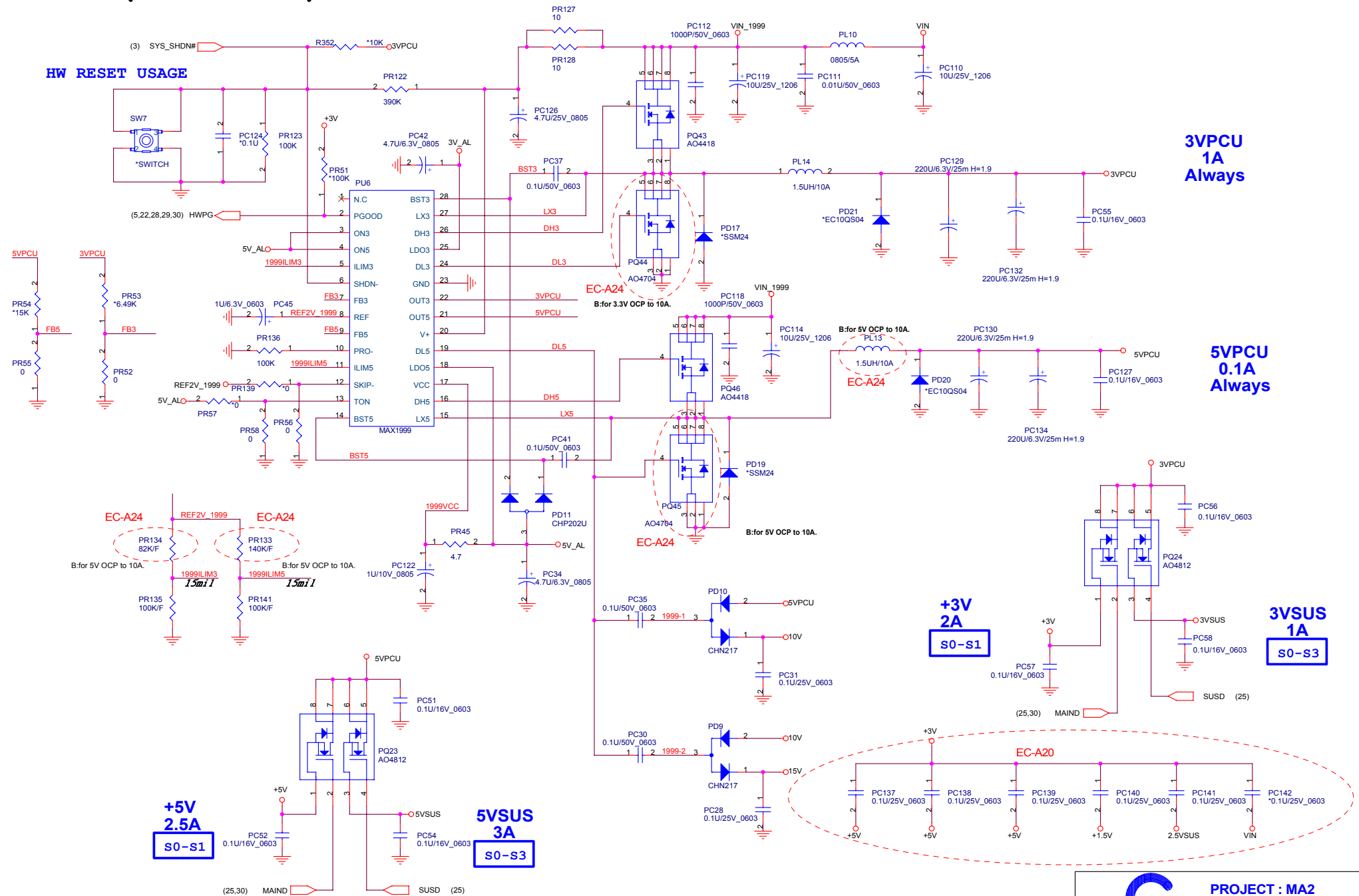
PROJECT : MA2  
Quanta Computer Inc.

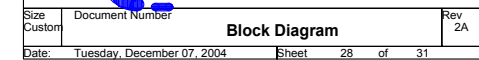
|                                  |                 |           |
|----------------------------------|-----------------|-----------|
| Size<br>Custom                   | Document Number | Rev<br>2A |
| Date: Tuesday, December 07, 2004 | Sheet 25 of 31  |           |

ADAPTER 19V 65W 3.42A  
BATTERY 6cell/53W@2.4A  
8cell/71W@2.4A 12cell/106W@2.2A

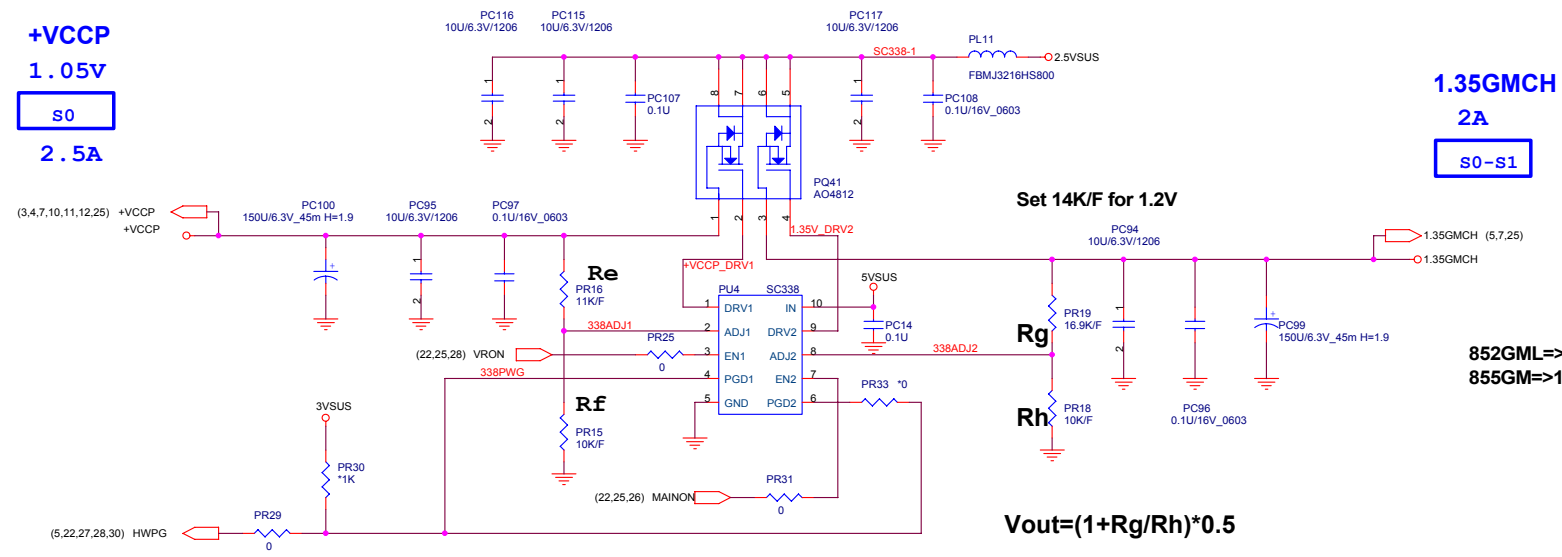


## DC-DC (MAX1999)





**+VCCP**  
**1.05V**  
**S0**  
**2.5A**



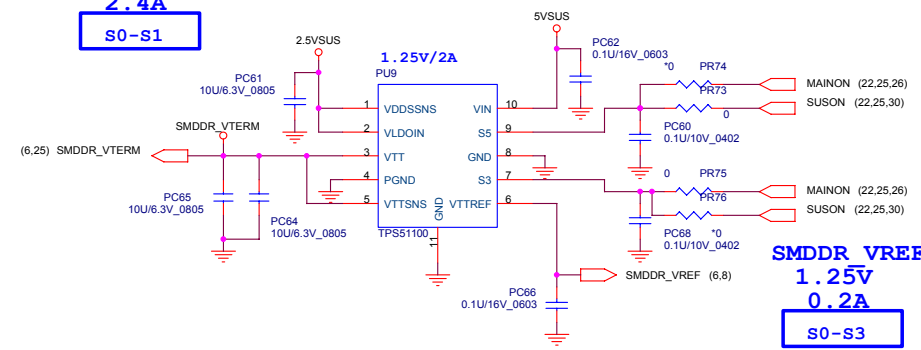
**1.35GMCH**  
**2A**  
**S0-S1**

Set 14K/F for 1.2V

852GML=>1.2V  
 855GM=>1.35V

$$V_{out} = (1 + R_g/R_h) * 0.5$$

**SMDDR VTERM**  
**1.25V**  
**2.4A**  
**S0-S1**



**SMDDR VREF**  
**1.25V**  
**0.2A**  
**S0-S3**



[illegible]