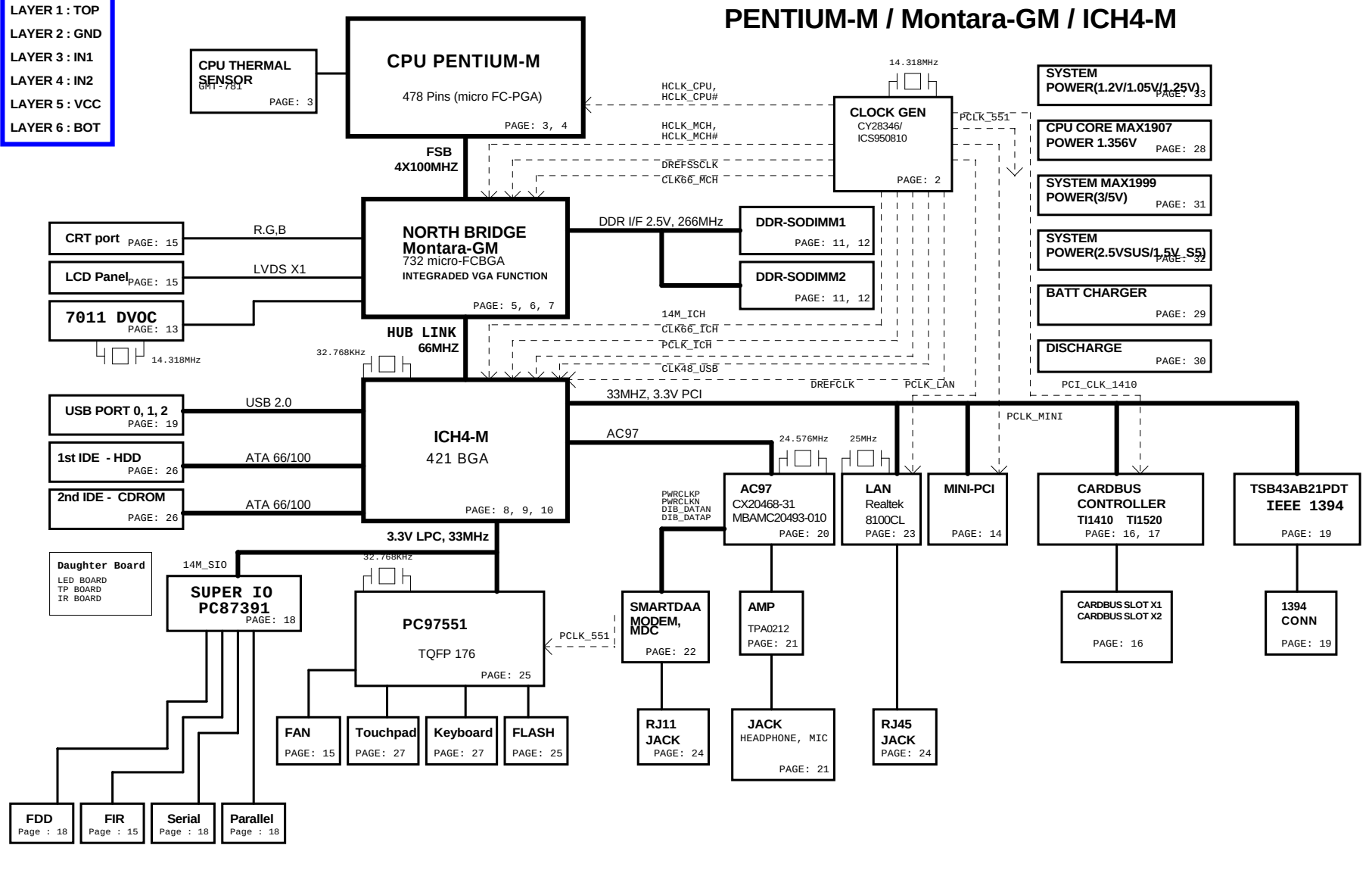
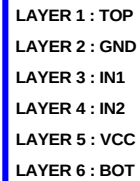


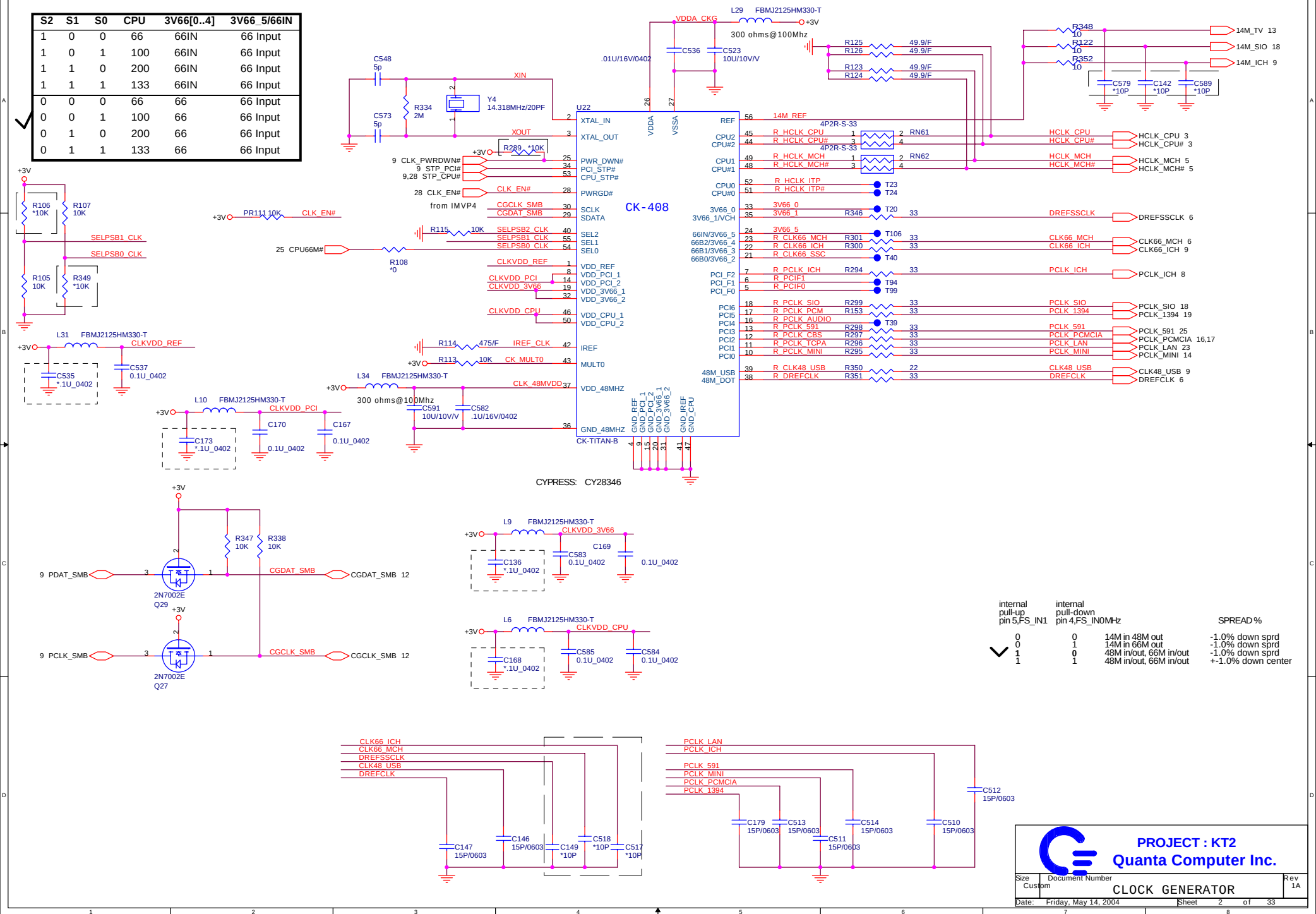
## KT2 BLOCK DIAGRAM (KT2 FF)

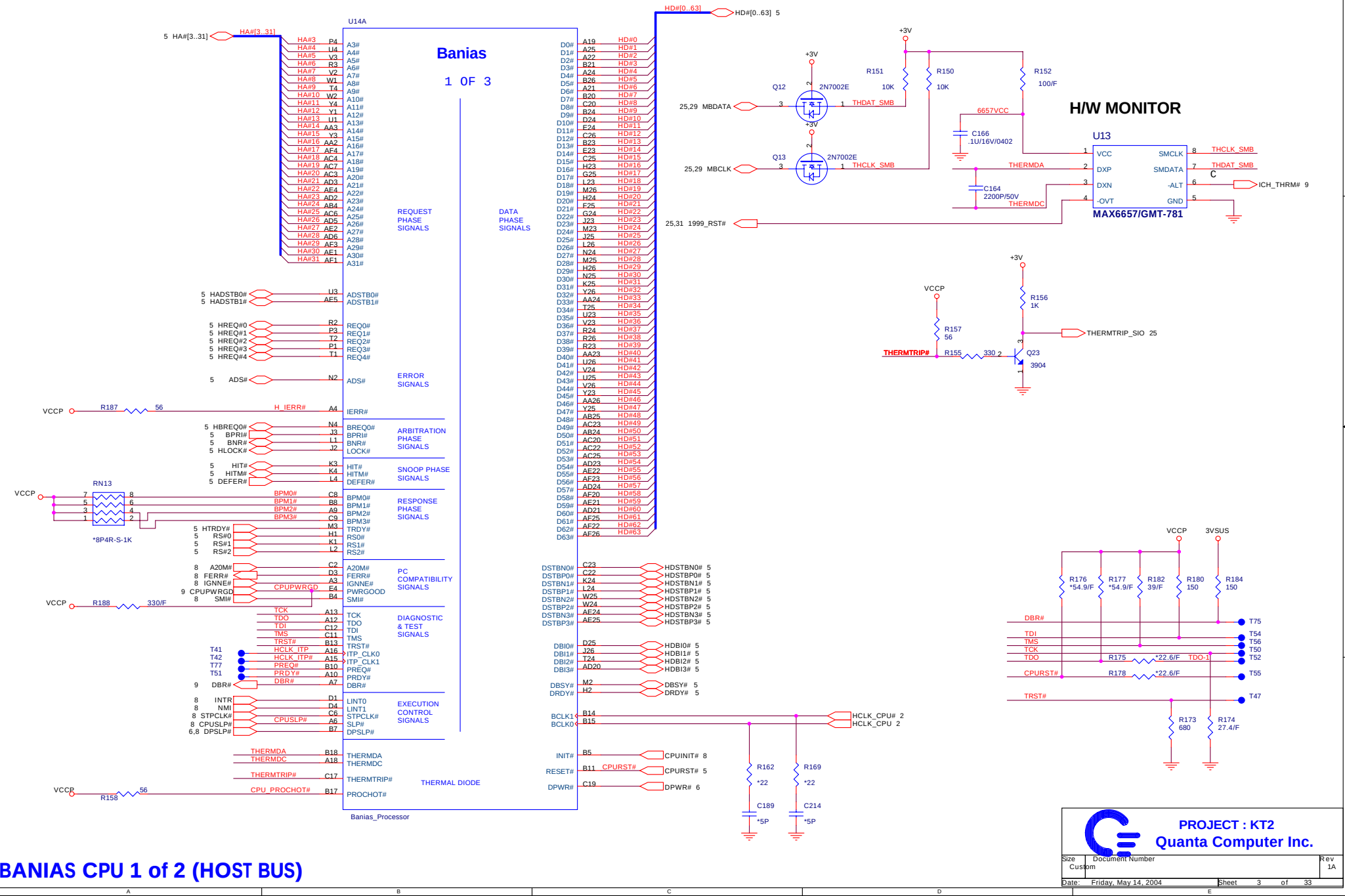
PENTIUM-M / Montara-GM / ICH4-M



## CLK GEN

| 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    |





COMP0 & 2=> Trace Z =27.4ohm  
COMP1 & 3=> Tracer Z =55ohm

CHANGE TO 0805

WITHIN 0.5" &  
SPACE 25 mil

A0 : STUFF  
A1 : NC

CC0402

10U/6.3V/X5R(CC0805) \*35

Banias  
2 OF 3

POWER,  
GROUND,  
RESERVED  
SIGNALS

Banias  
3 OF 3

POWER, GROUND AND NC

VID

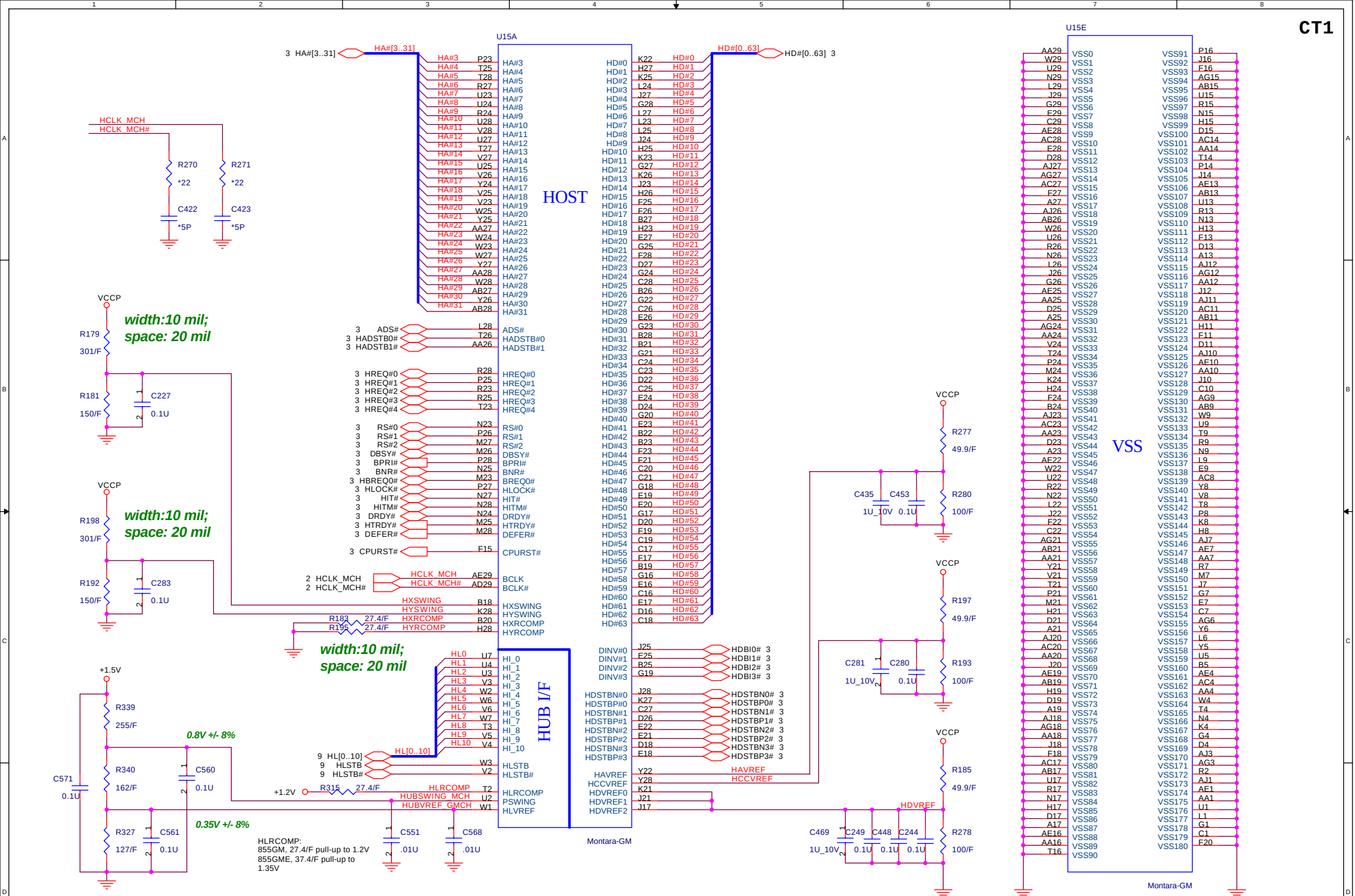
CT1

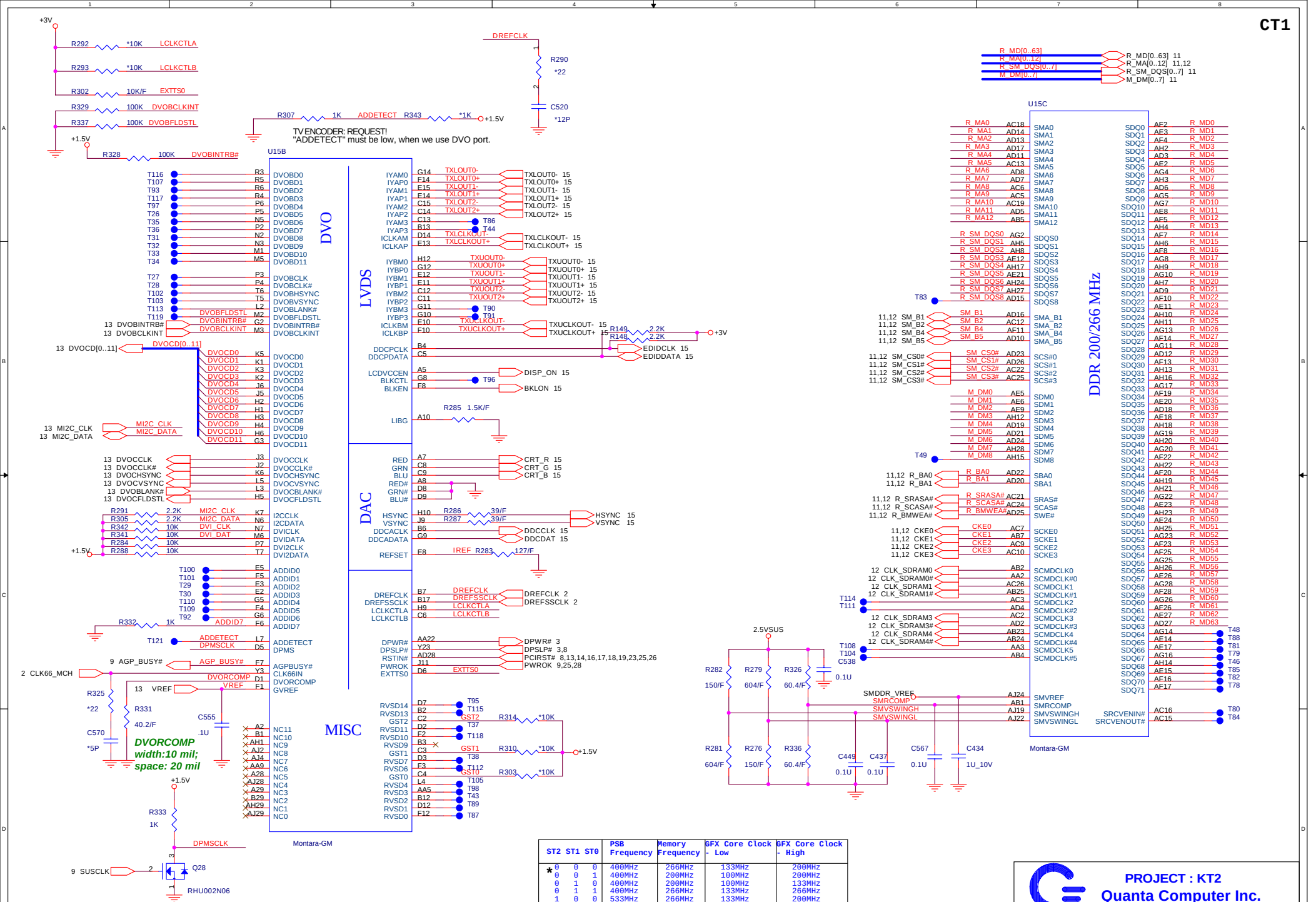


PROJECT : KT2  
Quanta Computer Inc.

| Size      | Document Number      | Rev           |
|-----------|----------------------|---------------|
| B         |                      | 1A            |
| CPU POWER |                      |               |
| Date:     | Friday, May 14, 2004 | Sheet 4 of 33 |

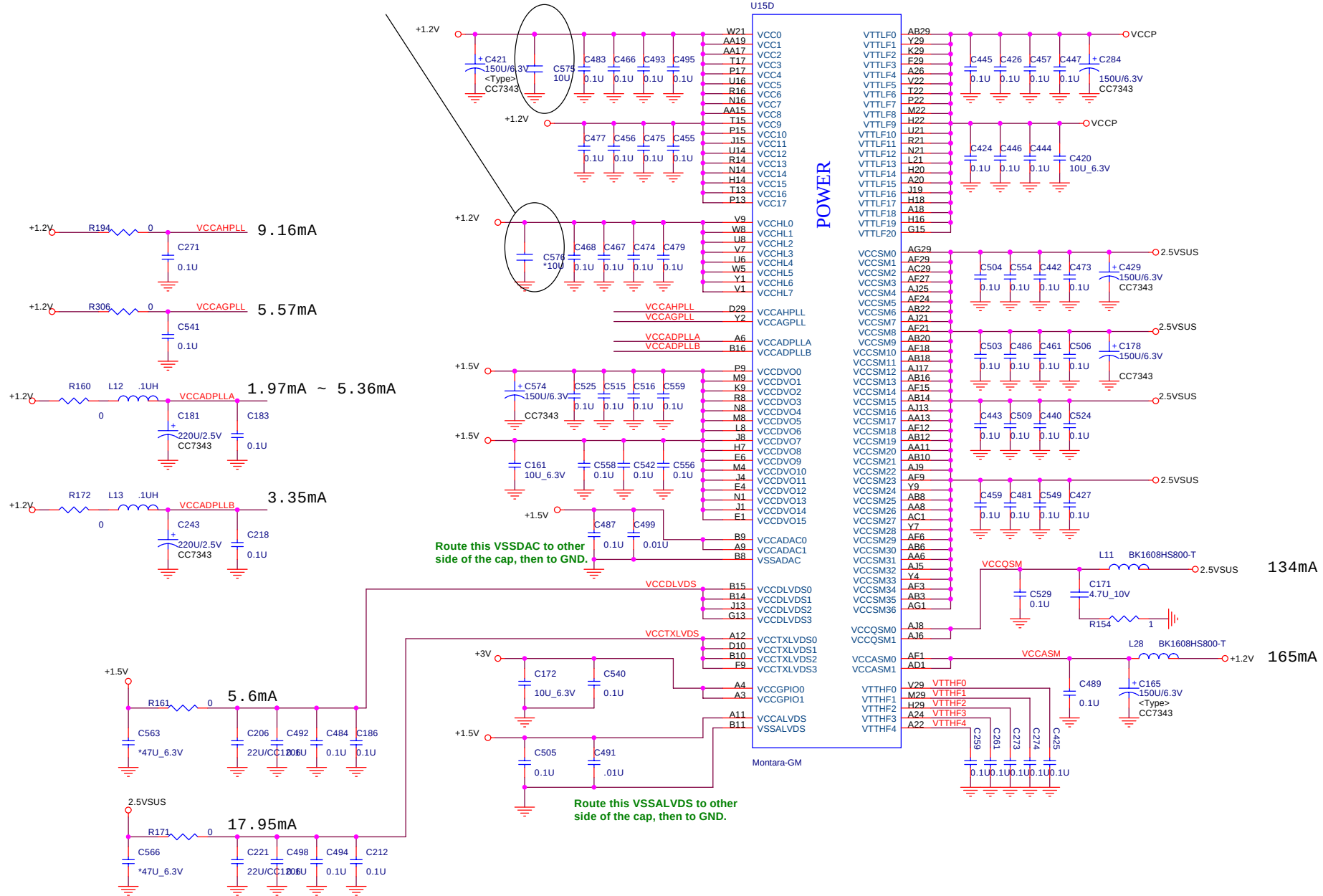
BANIAS CPU 2 of 2 (PWR)





|     |     |     | PSB       | Memory    | GFX Core Clock | GFX Core Clock |
|-----|-----|-----|-----------|-----------|----------------|----------------|
| ST2 | ST1 | ST0 | Frequency | Frequency | - Low          | - High         |
| *   | 0   | 0   | 400MHz    | 266MHz    | 133MHz         | 200MHz         |
|     | 0   | 1   | 400MHz    | 200MHz    | 100MHz         | 100MHz         |
|     | 0   | 1   | 400MHz    | 200MHz    | 100MHz         | 133MHz         |
|     | 0   | 1   | 400MHz    | 266MHz    | 133MHz         | 133MHz         |
|     | 0   | 0   | 533MHz    | 266MHz    | 133MHz         | 200MHz         |
|     | 1   | 0   | 533MHz    | 266MHz    | 133MHz         | 266MHz         |
|     | 1   | 1   | 533MHz    | 333MHz    | 166MHz         | 266MHz         |
|     |     |     |           | 400MHz    | 166MHz         | 266MHz         |

REV:C from 1206 size change to 0805 size



change +2.5v to 2.5vsus

MONTARA-GME/ 855GM+ 3 of 3 (POWER &amp; CAP.)

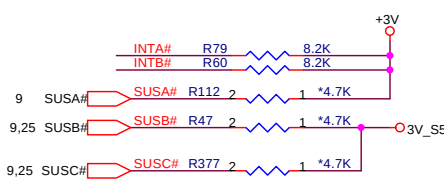
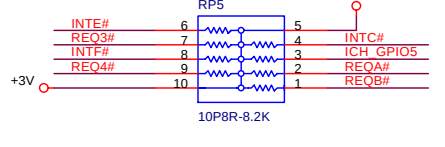
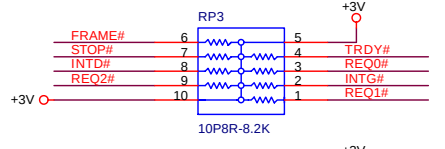
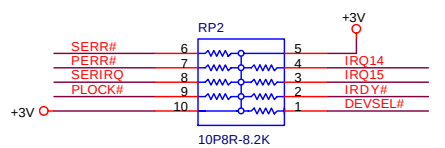
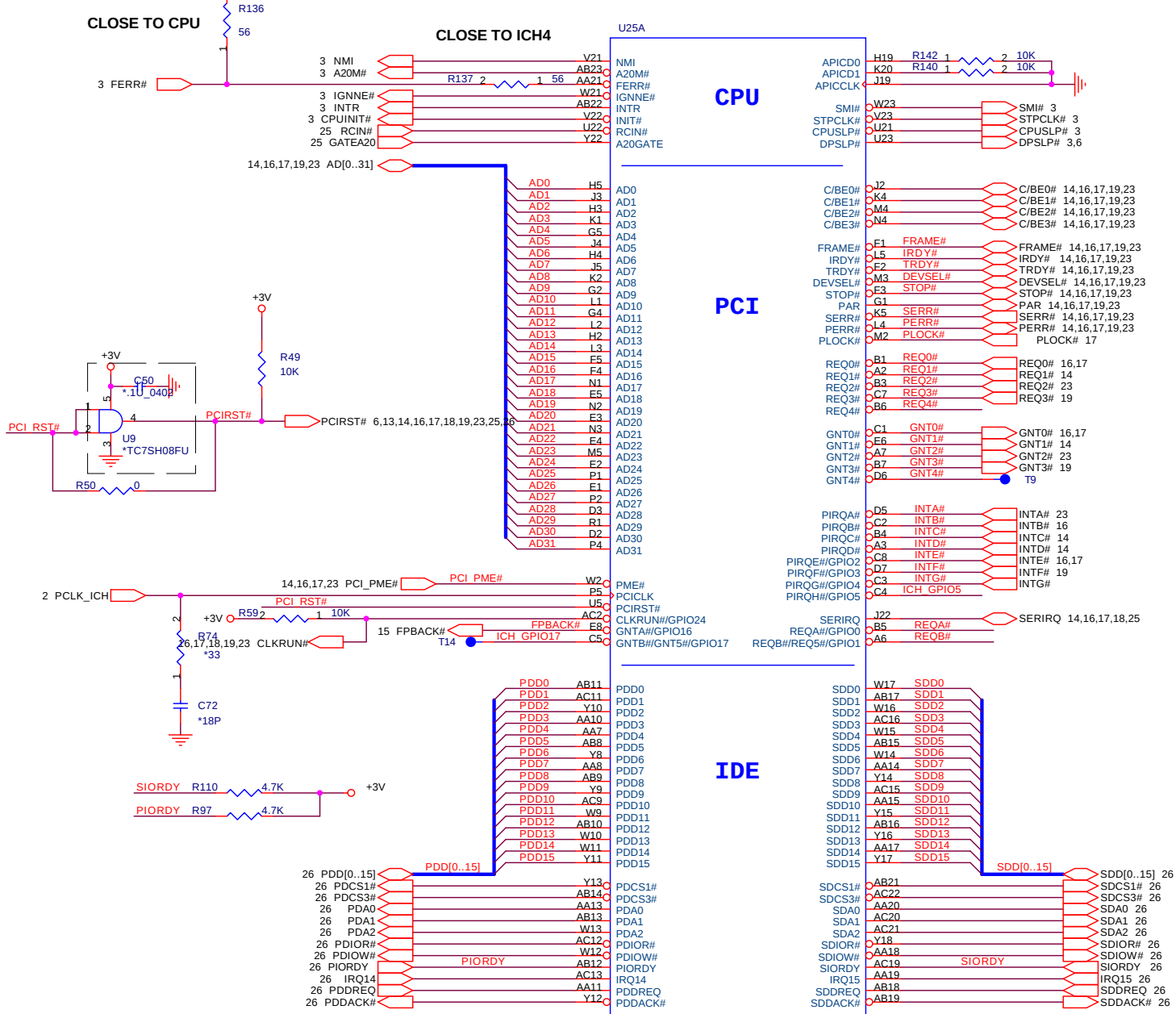


PROJECT : KT2  
Quanta Computer Inc.

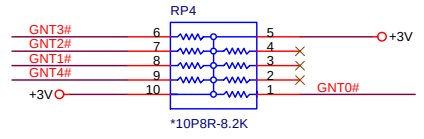
ICH4-M 1/3 (CPU, PCI, IDE)

CT1

PCI Bus pull high resistor



PME CIRCUIT

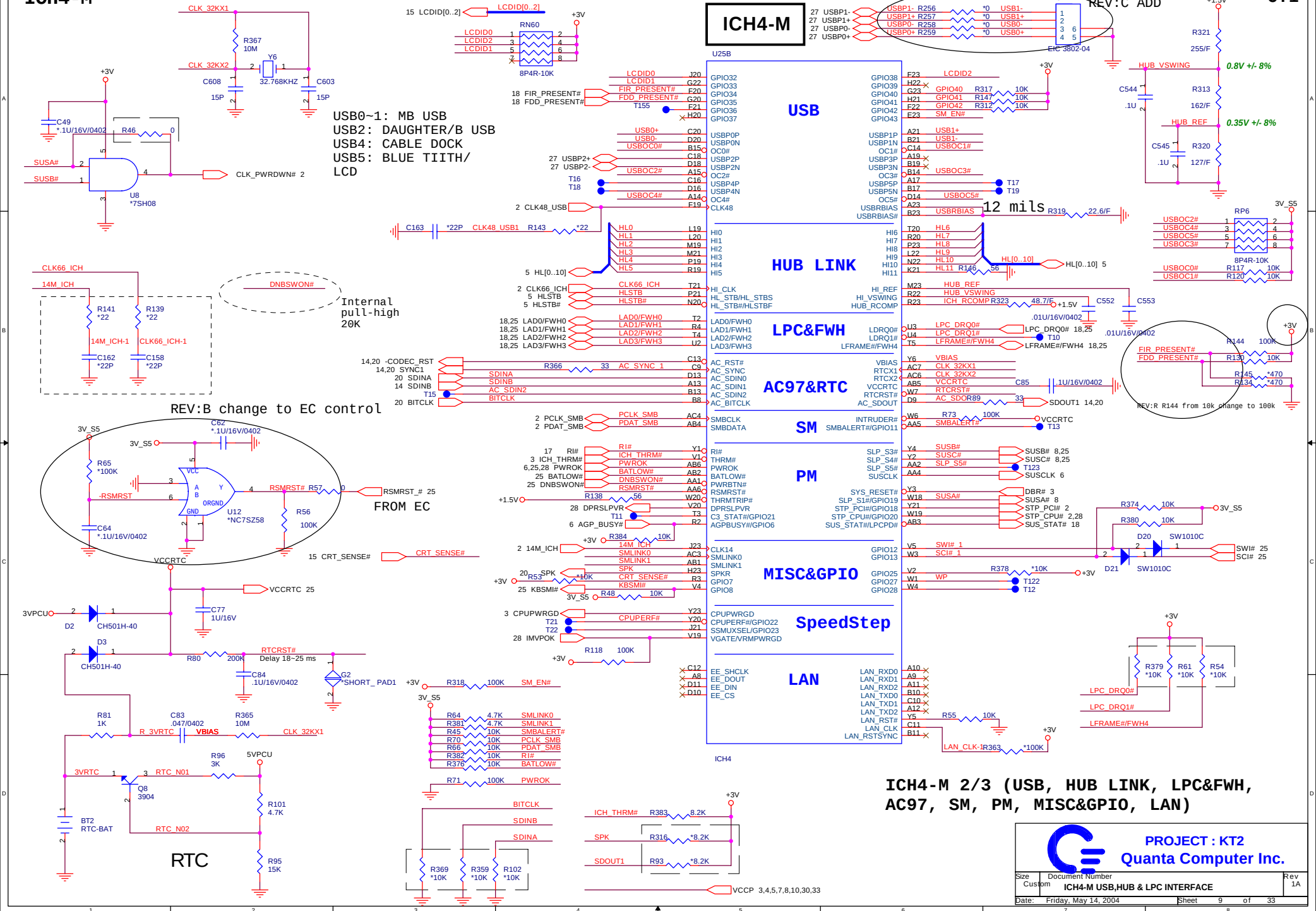




PROJECT : KT2  
Quanta Computer Inc.

|        |                      |               |
|--------|----------------------|---------------|
| Size   | Document Number      | Rev           |
| Custom | ICH4-M (CPU,PCI,IDE) | 1A            |
| Date:  | Friday, May 14, 2004 | Sheet 8 of 33 |

## ICH4-M



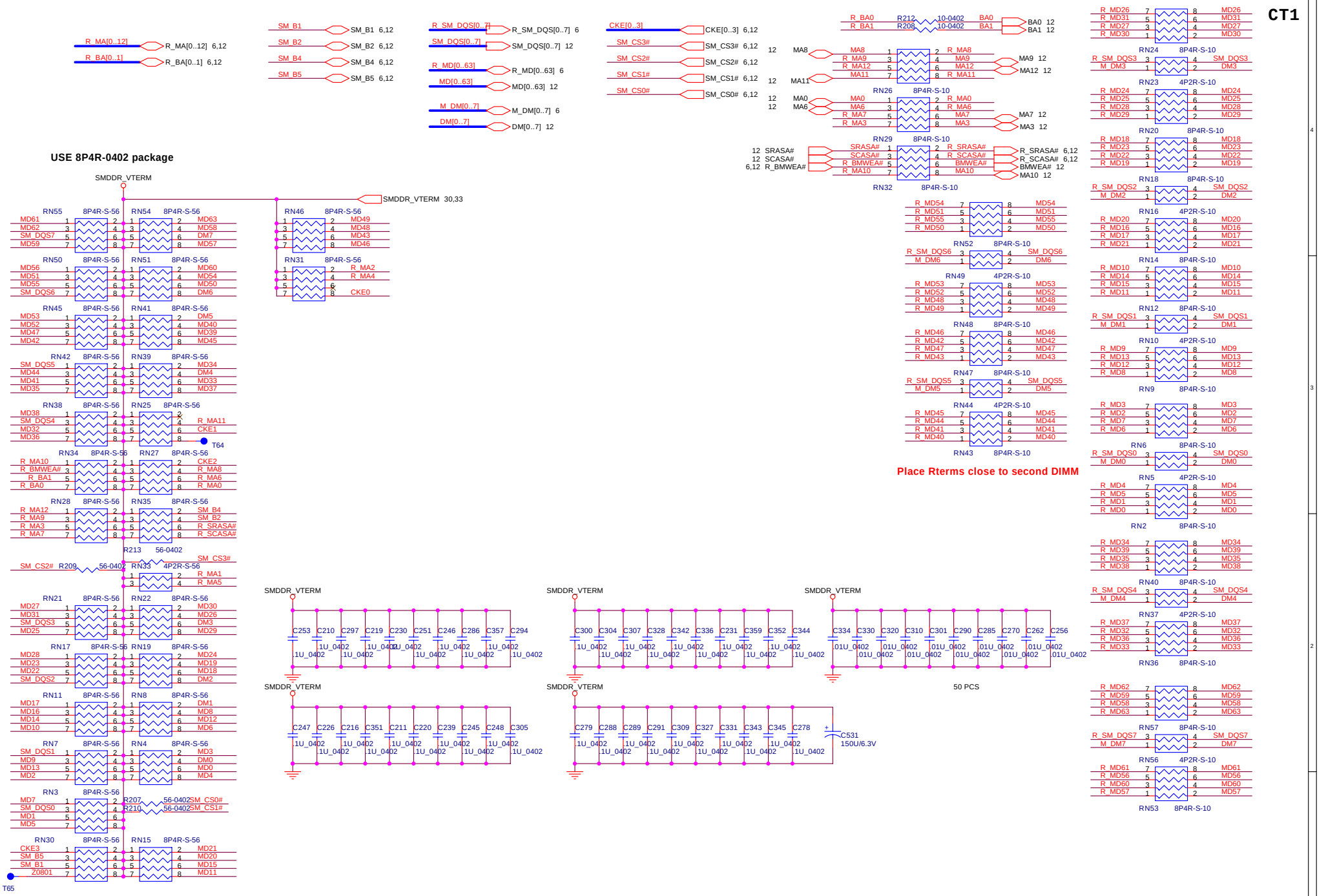
**ICH4-M 2/3 (USB, HUB LINK, LPC&FWH,  
AC97, SM, PM, MISC&GPIO, LAN)**

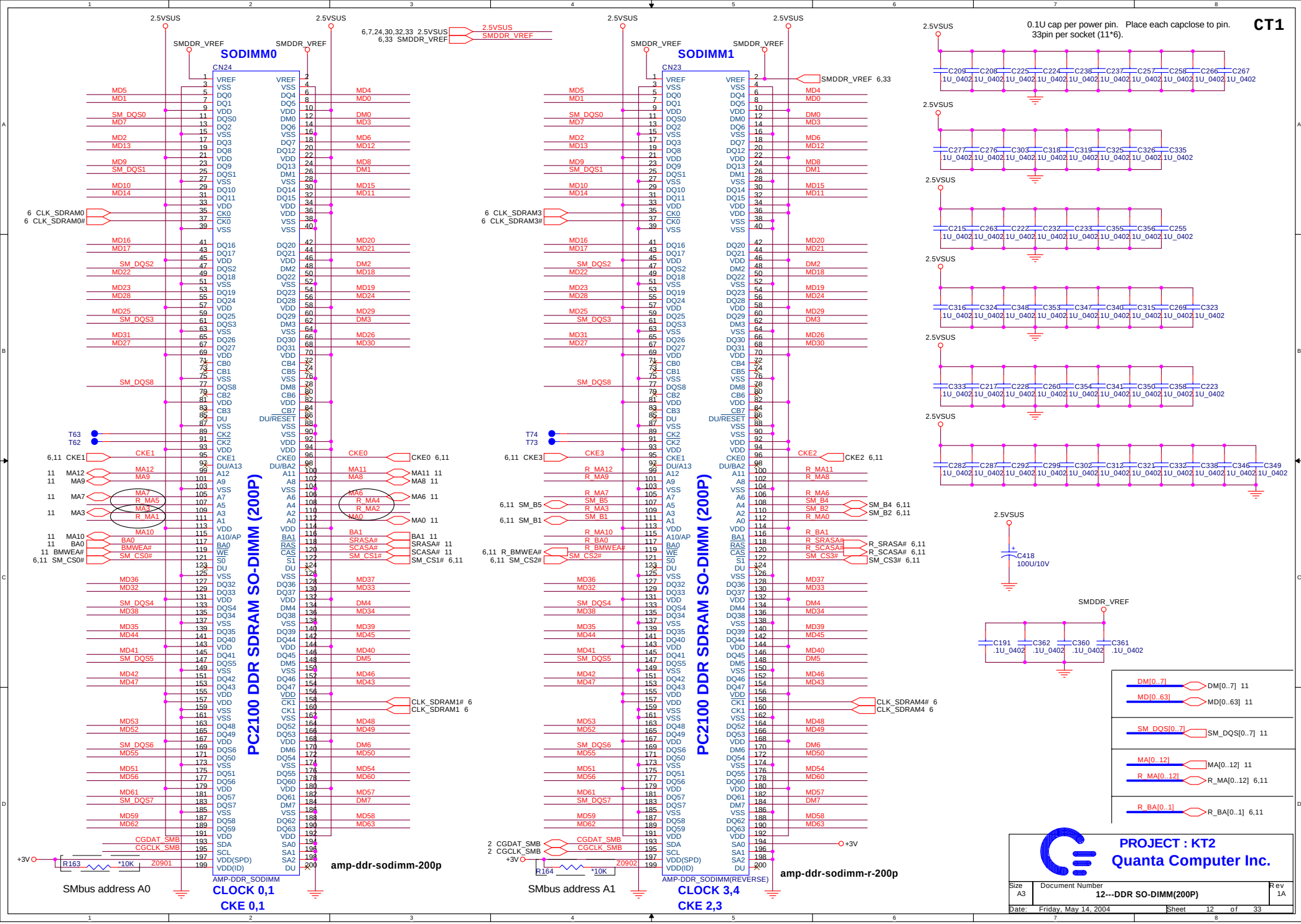


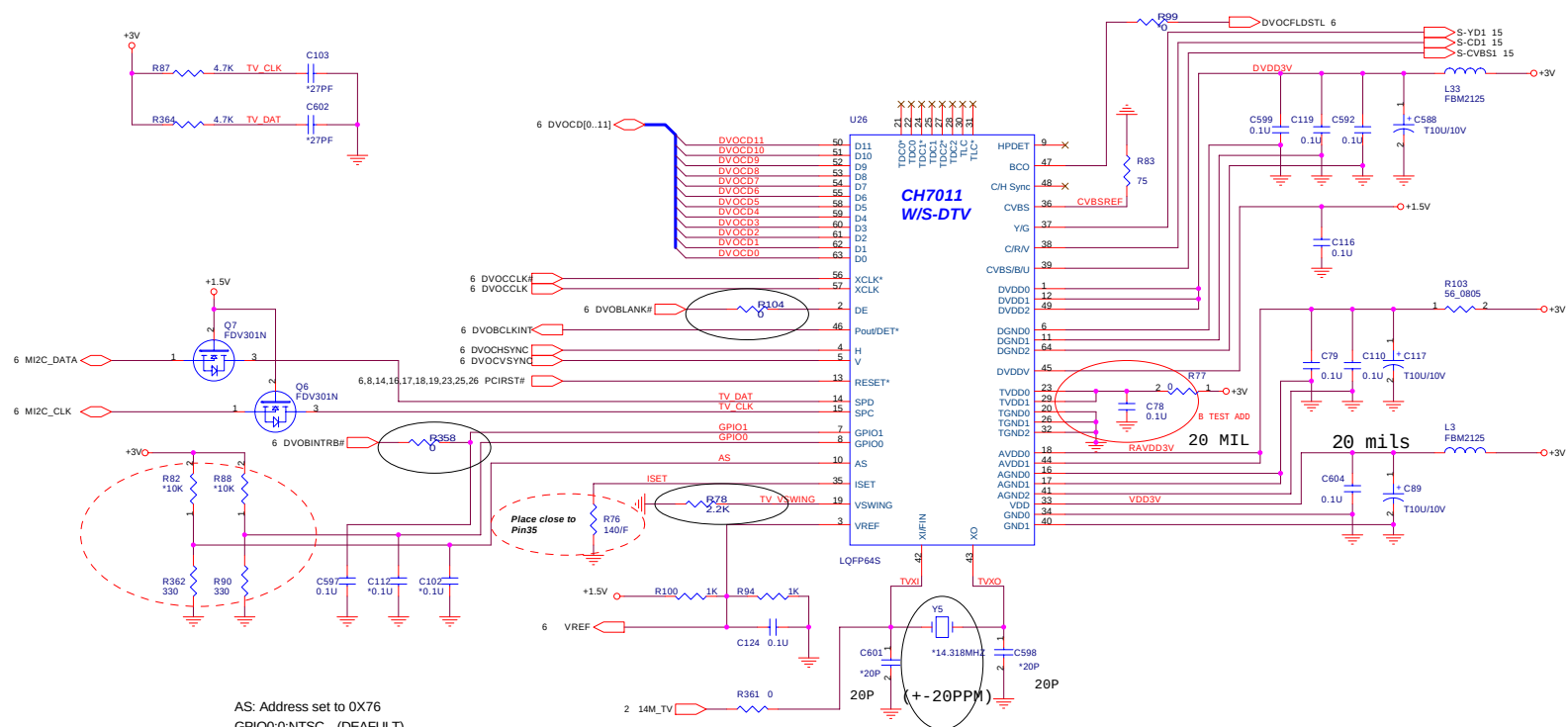
PROJECT : KT2  
Quanta Computer Inc.

|                |                                                              |               |
|----------------|--------------------------------------------------------------|---------------|
| Size<br>Custom | Document Number<br><b>ICH4-M USB,HUB &amp; LPC INTERFACE</b> | Rev<br>1A     |
| Date:          | Friday, May 14, 2004                                         | Sheet 9 of 33 |



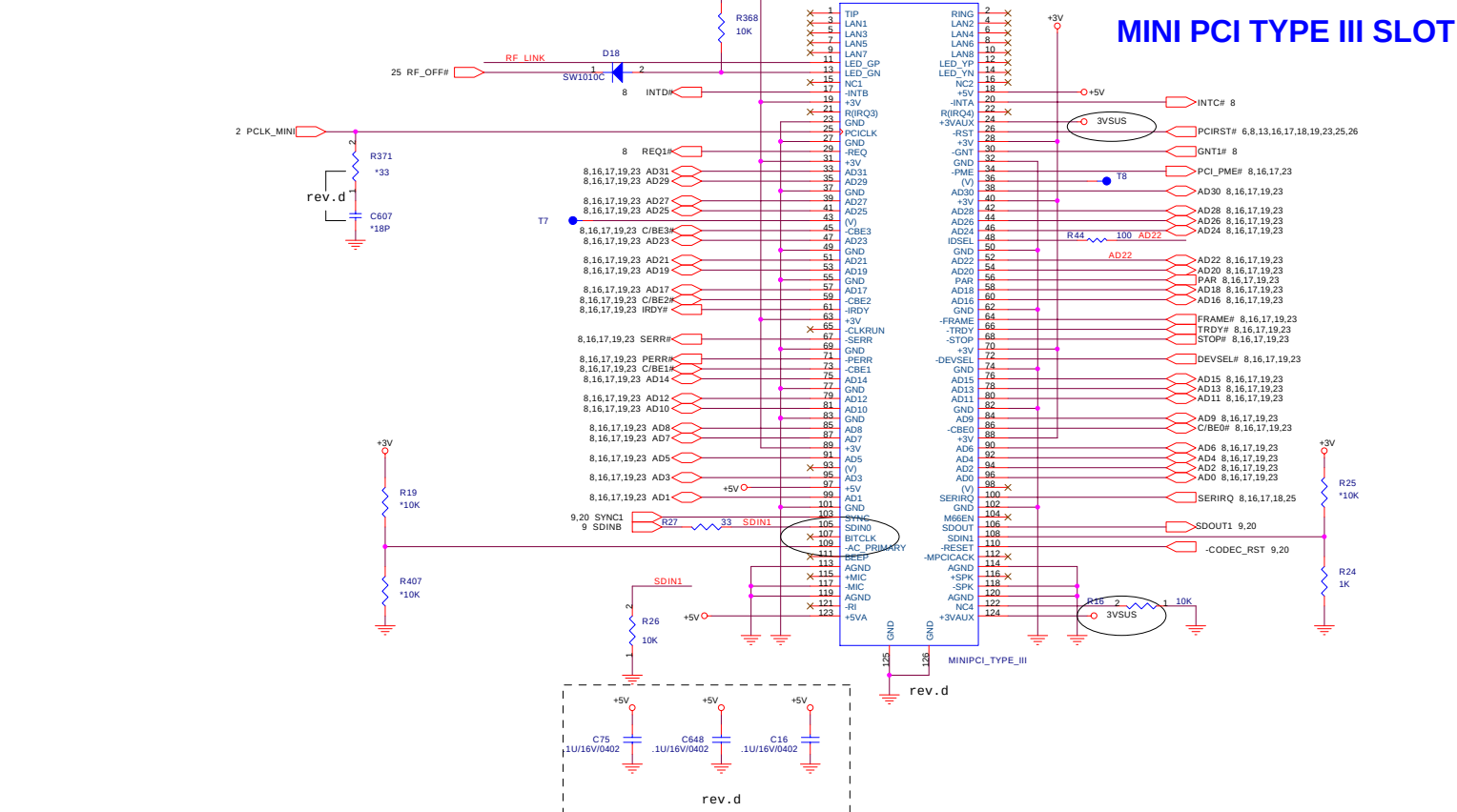




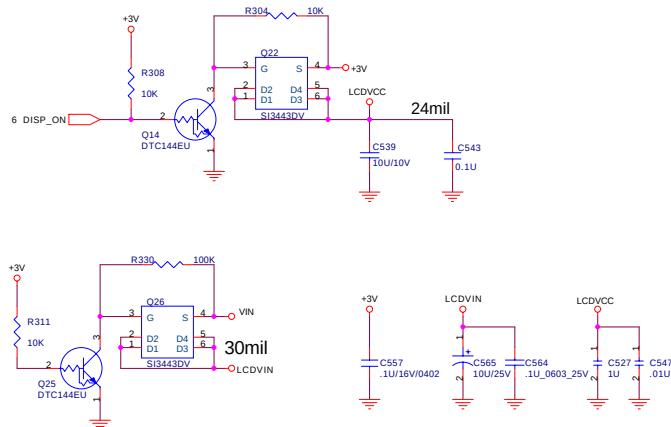
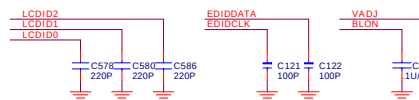
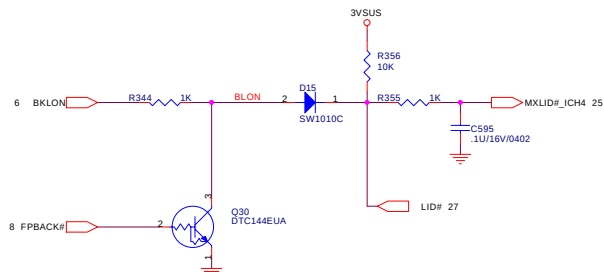
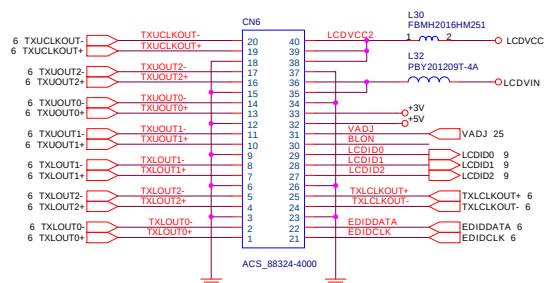


AS: Address set to 0X76  
GPIO0:0:NTSC (DEAFULT)  
1: PAL

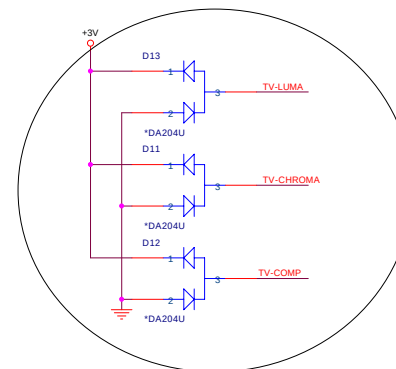
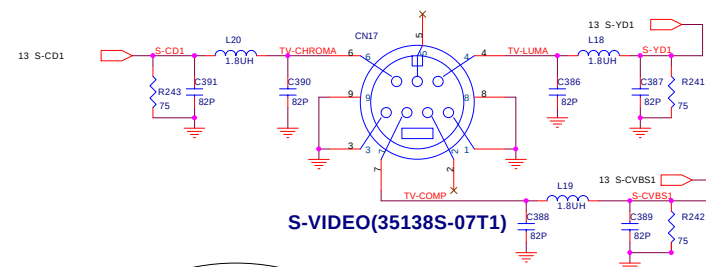
**FOOTPRINT**



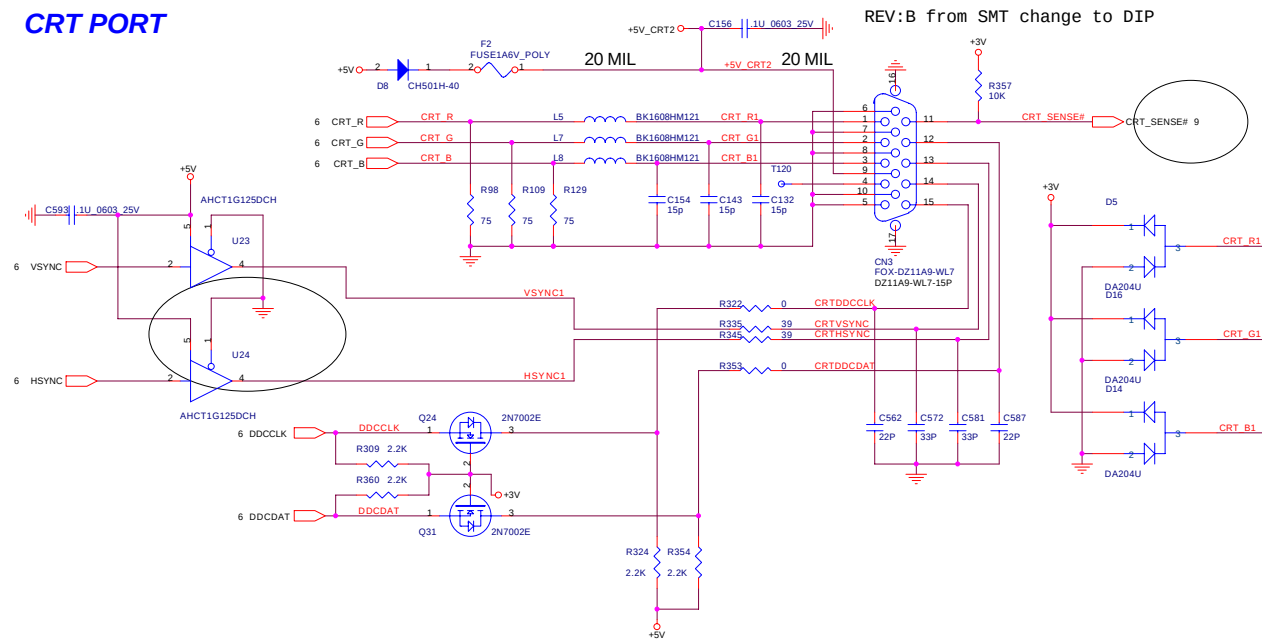
## LCD INTERFACE



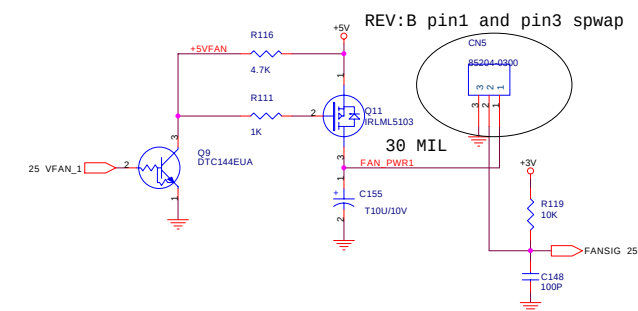
## S-VIDEO CONNECTOR



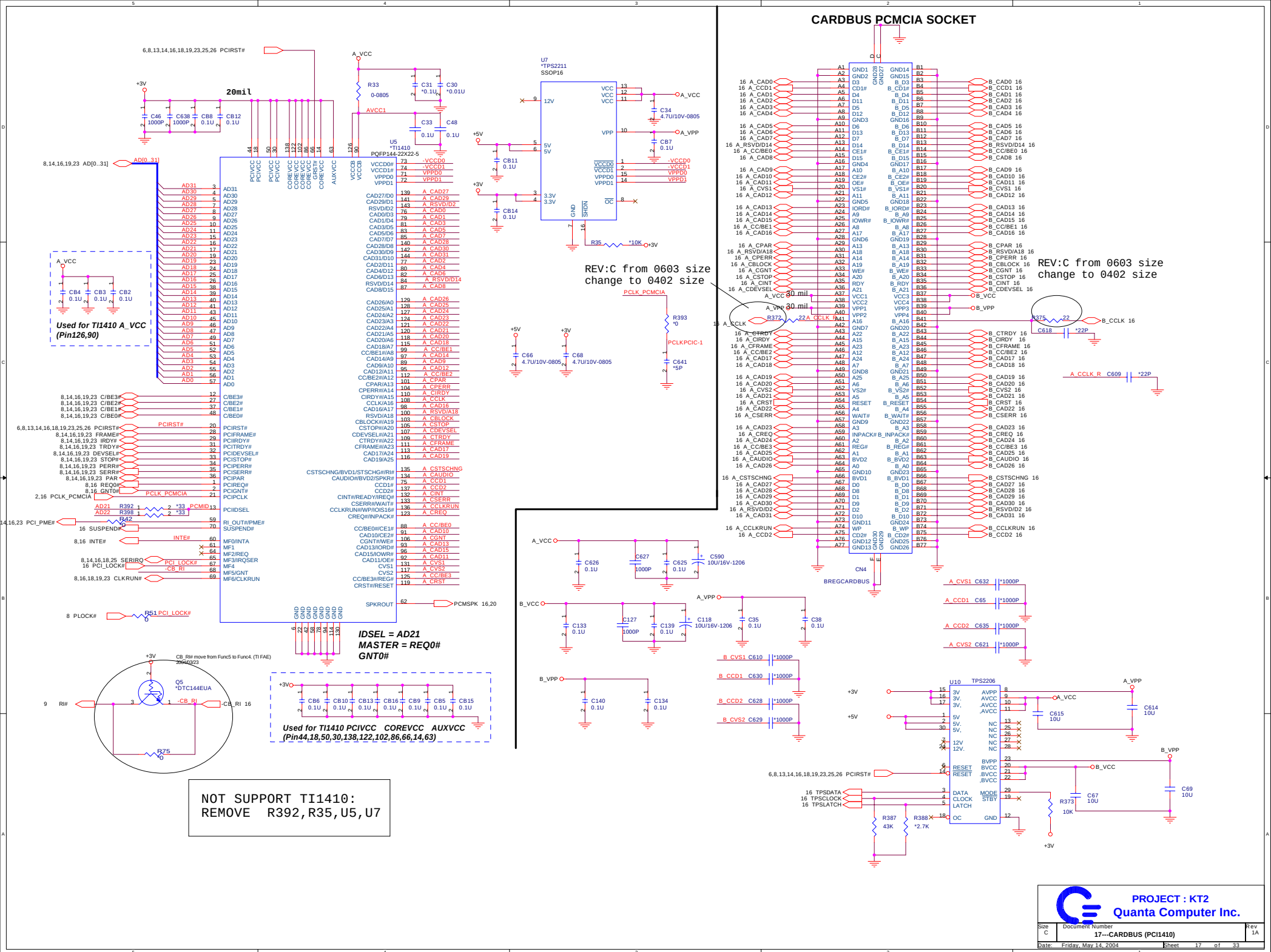
## CRT PORT



## FAN CONTROL

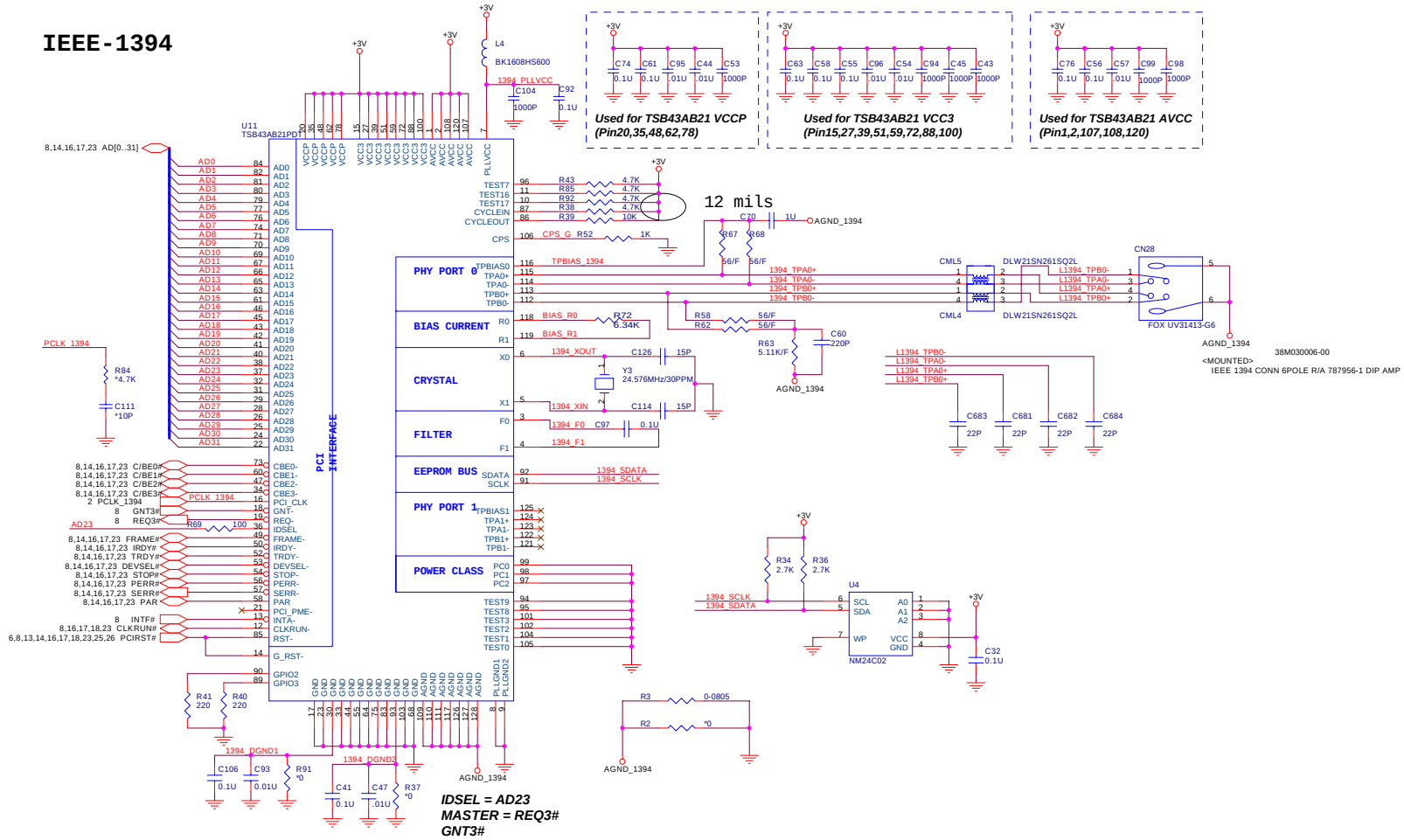


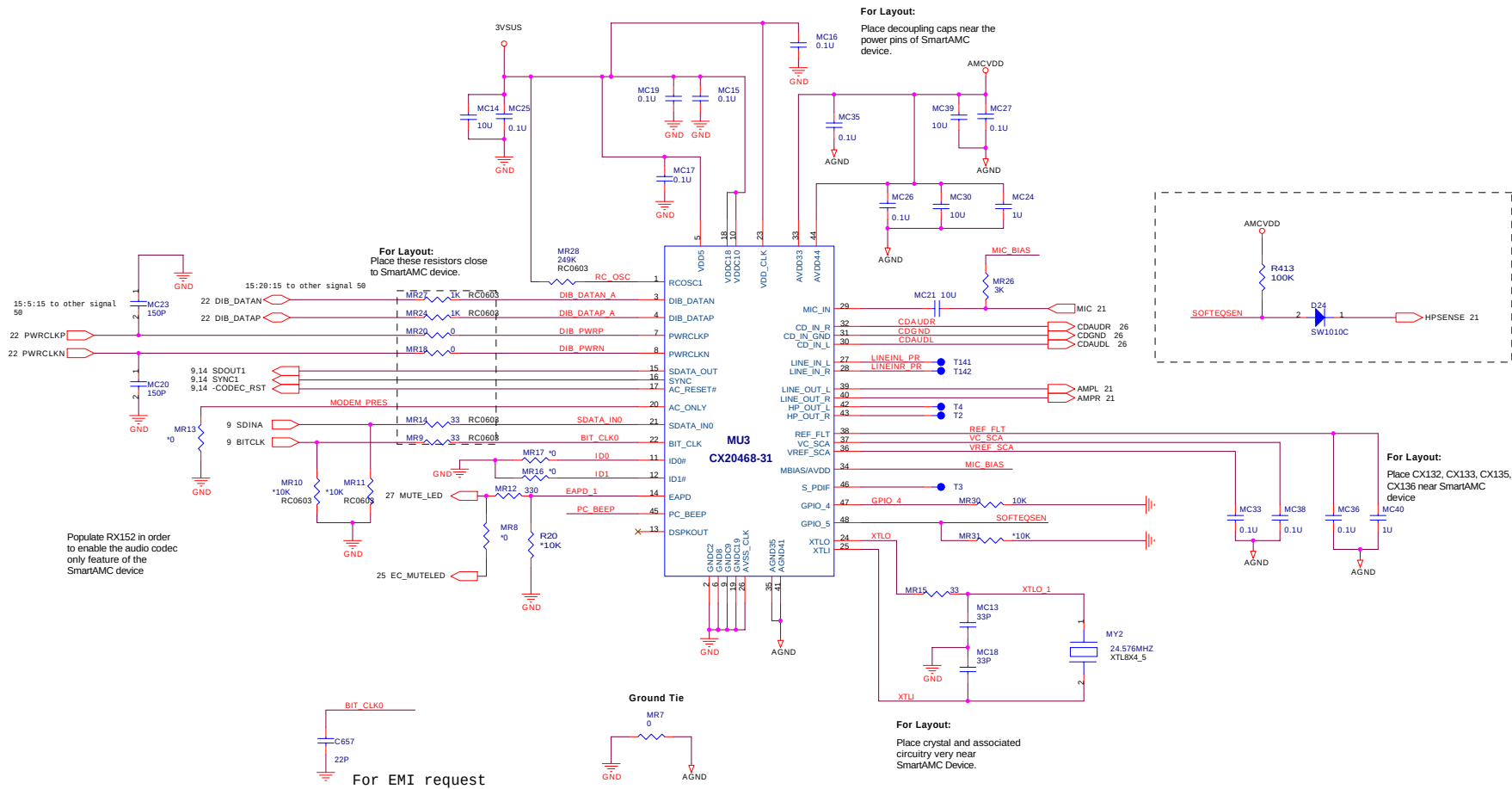




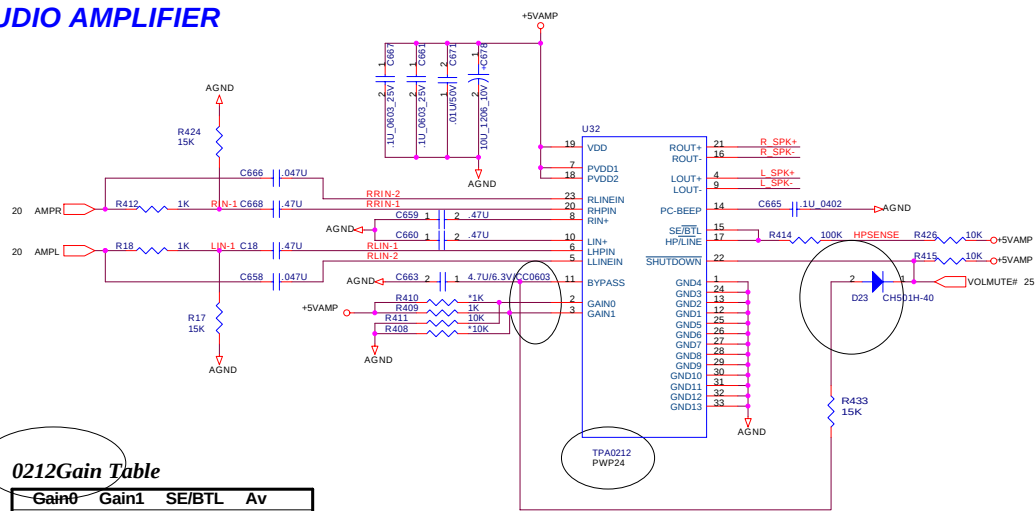


**IEEE-1394**





## AUDIO AMPLIFIER



### 0212Gain Table

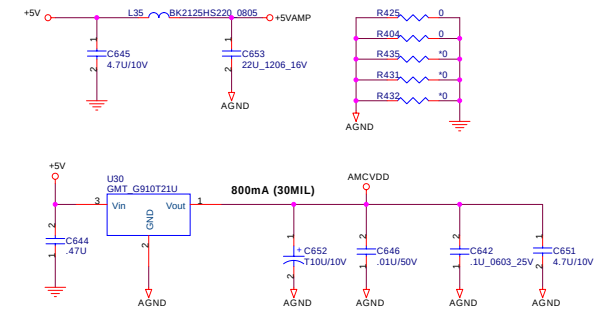
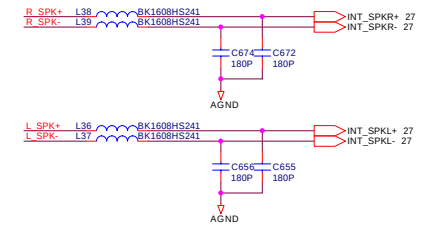
| Gain0 | Gain1 | SE/BTL | Av     |
|-------|-------|--------|--------|
| 0     | 0     | 0      | 6dB    |
| 0     | 1     | 0      | 15.6dB |
| 1     | 0     | 0      | 21.6dB |
| 1     | 1     | 0      | 27.6dB |
| X     | X     | 1      | 4.1dB  |

Priority :

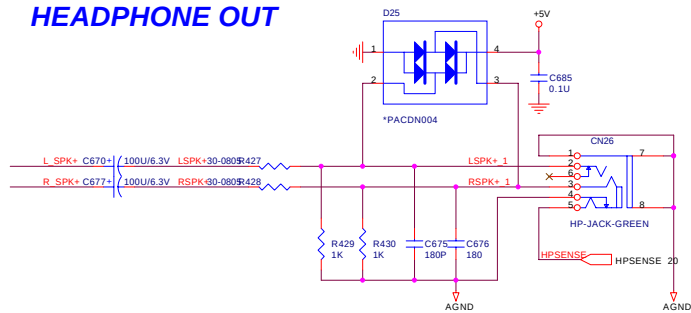
1. Port-replicator headphone is 1st priority
2. Notebook headphone is 2nd priority
3. Notebook internal speaker is 3rd priority

2004/03/20

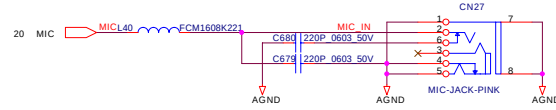
**INTERNAL SPK**



## HEADPHONE OUT

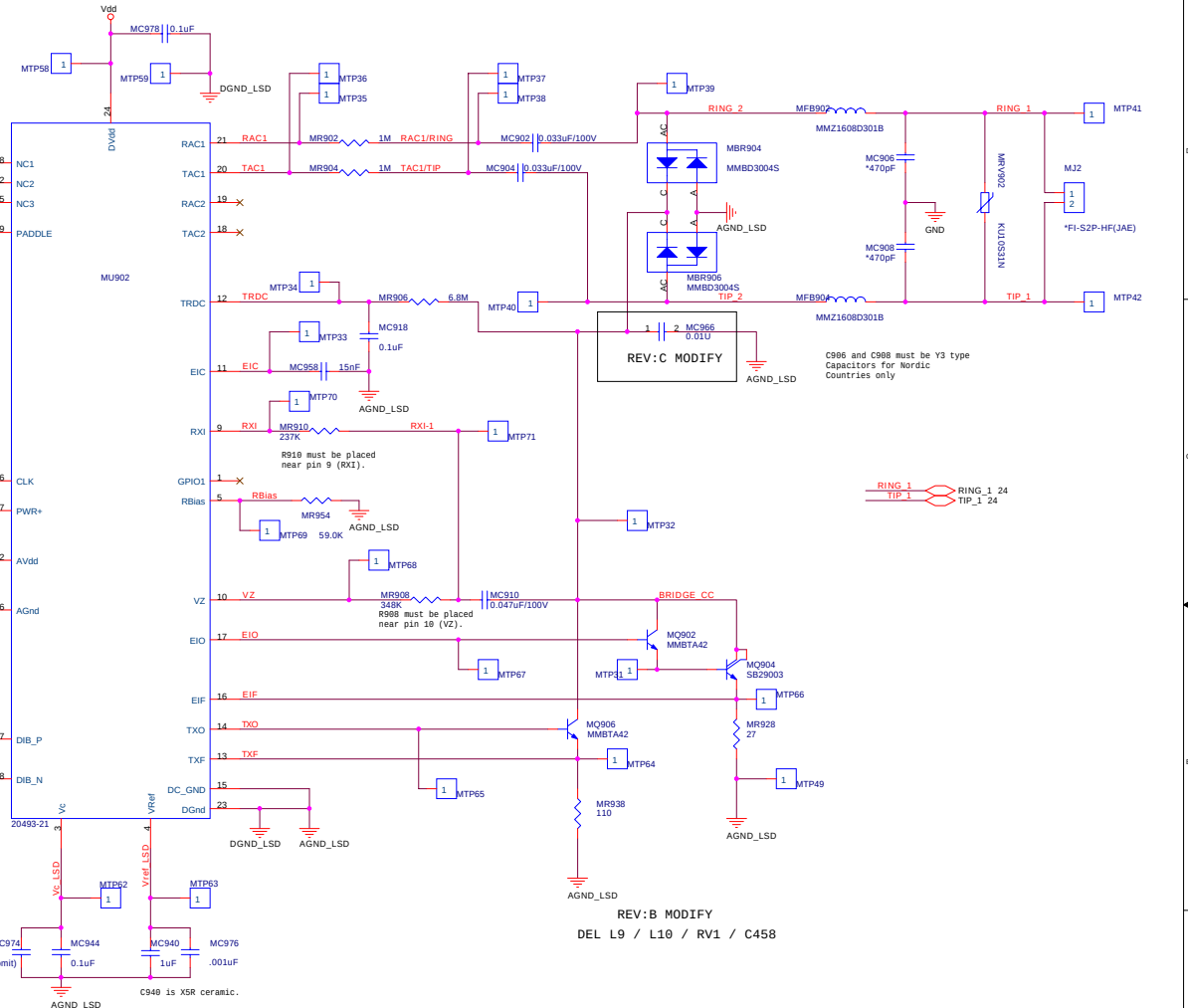
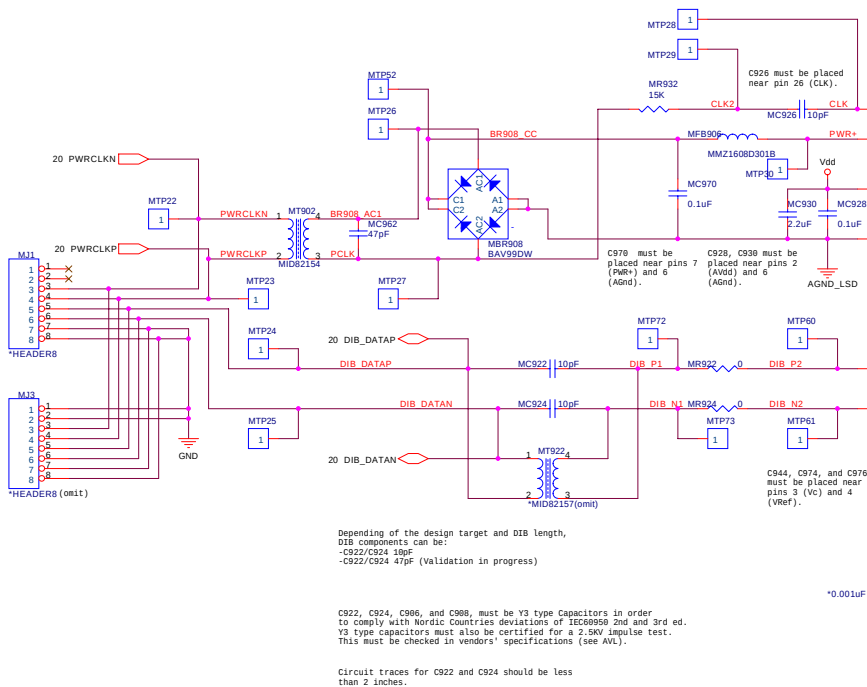


**MICROPHONE**



| 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 "M" prefix to all reference                   | 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  |

REV:B MODIFY FOR USE  
NEW MODEM MODULE



Depending of the design target and DIB length,  
DIB components can be:  
-C922/C924 10pF  
-C922/C924 47pF (Validation in progress)

C922, C924, C906, and C908, must be Y3 type Capacitors in order  
to comply with Nordic Countries deviations of IEC60950 2nd and 3rd ed.  
Y3 type capacitors must also be certified for a 2.5kV impulse test.  
This must be checked in vendors' specifications (see AVL).

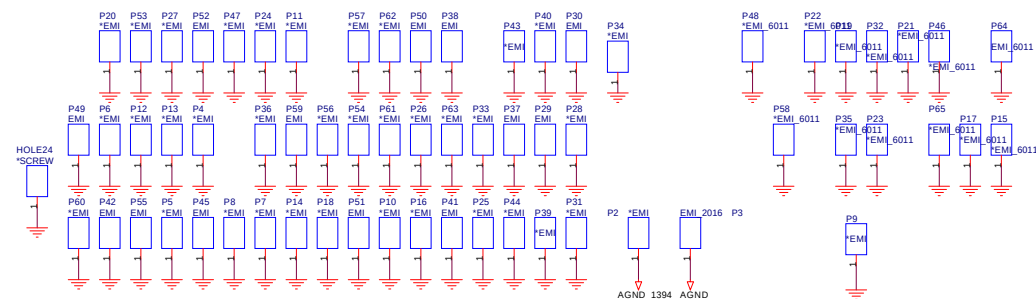
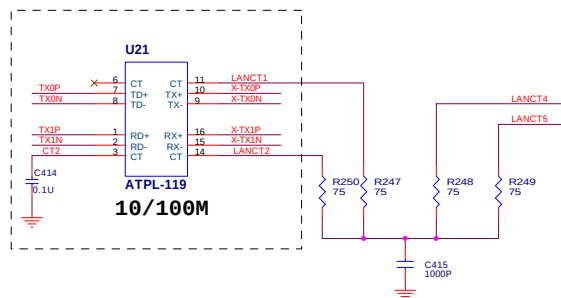
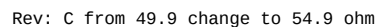
Circuit traces for C922 and C924 should be less  
than 2 inches.

REV:C MODIFY

C986 and C988 must be Y3 type  
Capacitors for Nordic  
Countries only

REV:B MODIFY  
DEL L9 / L10 / RV1 / C458











4ms delay to ICH4-M.

0.748V for suspend mode  
(Deeper sleep)

SUSPEND MODE (SUS=HIGH)

| S2     | S1  | S0  | Output |
|--------|-----|-----|--------|
| ✓ OPEN | VCC | GND | 0.748V |

VCC\_BOOT

| B2   | B1   | B0   | Output |
|------|------|------|--------|
| GND  | GND  | GND  | 1.708V |
| REF  | REF  | REF  | 1.372V |
| OPEN | OPEN | OPEN | 1.036V |
| VCC  | VCC  | VCC  | 0.700V |
| REF  | VCC  | VCC  | 1.212V |

1.356V

25A

VCC\_CORE 4

SP-CAP H:2.8mm

| D5 | D4 | D3 | D2 | D1 | D0 | Output | D5 | D4 | D3 | D2 | D1 | D0 | Output |
|----|----|----|----|----|----|--------|----|----|----|----|----|----|--------|
| 1  | 0  | 0  | 0  | 0  | 0  | 1.196V | 0  | 0  | 0  | 0  | 0  | 0  | 1.708V |
| 1  | 0  | 0  | 0  | 0  | 1  | 1.180V | 0  | 0  | 0  | 0  | 0  | 1  | 1.692V |
| 1  | 0  | 0  | 0  | 1  | 0  | 1.164V | 0  | 0  | 0  | 0  | 1  | 0  | 1.676V |
| 1  | 0  | 0  | 0  | 1  | 1  | 1.148V | 0  | 0  | 0  | 0  | 1  | 1  | 1.660V |
| 1  | 0  | 0  | 1  | 0  | 0  | 1.132V | 0  | 0  | 0  | 0  | 1  | 0  | 1.644V |
| 1  | 0  | 0  | 1  | 0  | 1  | 1.116V | 0  | 0  | 0  | 0  | 1  | 1  | 1.628V |
| 1  | 0  | 0  | 1  | 1  | 0  | 1.100V | 0  | 0  | 0  | 0  | 1  | 1  | 1.612V |
| 1  | 0  | 0  | 1  | 1  | 1  | 1.084V | 0  | 0  | 0  | 0  | 1  | 1  | 1.596V |
| 1  | 0  | 1  | 0  | 0  | 0  | 1.068V | 0  | 0  | 0  | 1  | 0  | 0  | 1.580V |
| 1  | 0  | 1  | 0  | 0  | 1  | 1.052V | 0  | 0  | 0  | 1  | 0  | 1  | 1.564V |
| 1  | 0  | 1  | 0  | 1  | 0  | 1.036V | 0  | 0  | 0  | 1  | 0  | 1  | 1.548V |
| 1  | 0  | 1  | 0  | 1  | 1  | 1.020V | 0  | 0  | 0  | 1  | 0  | 1  | 1.532V |
| 1  | 0  | 1  | 1  | 0  | 0  | 1.004V | 0  | 0  | 0  | 1  | 1  | 0  | 1.516V |
| 1  | 0  | 1  | 1  | 0  | 1  | 0.988V | 0  | 0  | 0  | 1  | 1  | 0  | 1.500V |
| 1  | 0  | 1  | 1  | 1  | 0  | 0.972V | 0  | 0  | 0  | 1  | 1  | 1  | 1.484V |
| 1  | 0  | 1  | 1  | 1  | 1  | 0.956V | 0  | 0  | 0  | 1  | 1  | 1  | 1.468V |
| 1  | 1  | 0  | 0  | 0  | 0  | 0.940V | 0  | 1  | 0  | 0  | 0  | 0  | 1.452V |
| 1  | 1  | 0  | 0  | 0  | 1  | 0.924V | 0  | 1  | 0  | 0  | 0  | 1  | 1.436V |
| 1  | 1  | 0  | 0  | 1  | 0  | 0.908V | 0  | 1  | 0  | 0  | 0  | 1  | 1.420V |
| 1  | 1  | 0  | 0  | 1  | 1  | 0.892V | 0  | 1  | 0  | 0  | 1  | 1  | 1.404V |
| 1  | 1  | 0  | 1  | 0  | 0  | 0.876V | 0  | 1  | 0  | 1  | 0  | 0  | 1.388V |
| 1  | 1  | 0  | 1  | 0  | 1  | 0.860V | 0  | 1  | 0  | 1  | 0  | 1  | 1.372V |
| 1  | 1  | 0  | 1  | 1  | 0  | 0.844V | 0  | 1  | 0  | 1  | 1  | 0  | 1.356V |
| 1  | 1  | 0  | 1  | 1  | 1  | 0.828V | 0  | 1  | 0  | 1  | 1  | 1  | 1.340V |
| 1  | 1  | 1  | 0  | 0  | 0  | 0.812V | 0  | 1  | 1  | 0  | 0  | 0  | 1.324V |
| 1  | 1  | 1  | 0  | 0  | 1  | 0.796V | 0  | 1  | 1  | 0  | 0  | 1  | 1.308V |
| 1  | 1  | 1  | 0  | 1  | 0  | 0.780V | 0  | 1  | 1  | 0  | 1  | 0  | 1.292V |
| 1  | 1  | 1  | 0  | 1  | 1  | 0.764V | 0  | 1  | 1  | 0  | 1  | 1  | 1.276V |
| 1  | 1  | 1  | 1  | 0  | 0  | 0.748V | 0  | 1  | 1  | 1  | 0  | 0  | 1.260V |
| 1  | 1  | 1  | 1  | 0  | 1  | 0.732V | 0  | 1  | 1  | 1  | 0  | 1  | 1.244V |
| 1  | 1  | 1  | 1  | 1  | 0  | 0.716V | 0  | 1  | 1  | 1  | 1  | 0  | 1.228V |
| 1  | 1  | 1  | 1  | 1  | 1  | 0.700V | 0  | 1  | 1  | 1  | 1  | 1  | 1.212V |



PROJECT : KT2  
Quanta Computer Inc.

|        |                         |                |
|--------|-------------------------|----------------|
| Size   | Document Number         | Rev            |
| Custom | 28---CPU CORE (MAX1907) | 1A             |
| Date   | Friday, May 14, 2004    | Sheet 28 of 33 |

# BATTERY CHARGER

ADAPTER 18.5V 65W 3.51A

