PROJECT: AT8
Quanta Computer Inc.

CPU THERMAL SENSOR & CONTROL

M6CBLK/M6DATA NEED PG TO 3VPCU

NEED TO CONFIRM NVIDIA FOR THE USAGE CONNECTION TO SB

OVER TEMP CONTROL

CPU THERM IC THERMTIP TO SHUTDOWN SYS FROM SB

CPU PROCHOT INPUT FROM THERMAL IC OR SODIUM SENSOR
TRACE FROM CAP TO CPU MUST BE LESS THAN 1200mS MAX NECKDOWN TO B FROM CAPS IS 500mS

Tolerance is +10%

C731 1.5P

C140 1.5P

C125 1.5P

18V SUS

VTERM_FB 37
<table>
<thead>
<tr>
<th></th>
<th>CS1D</th>
<th>CS1M</th>
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<tbody>
<tr>
<td>GPU...</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>PCI-E</td>
<td>1x1x1(PORT1,2)</td>
<td>2x1(PORT1,2)</td>
</tr>
<tr>
<td>PEG_PRESREV#</td>
<td>LOW</td>
<td>N/A</td>
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</tbody>
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### MINI CARD

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### C51D SUPPORT PCI-E LANE REVERSE

- **GPU...**
  - N/A
- **PCI-E**
  - 1x1x1(PORT1,2)
  - 2x1(PORT1,2)
- **PEG_PRESREV#**
  - LOW

**Notes:**
- only required for CS1M 5V-OUT

**Unused Power Rail Terminations**

- **CS1D Signal Name**
- **Termination**
  - +1.2V_PLLIFP
  - Leave NC
  - +2.5V_PLLIFP
  - Leave NC
  - +2.5V_PLLGPU
  - Leave NC
  - +3.3V_DAC
  - to GND directly
  - DAC_VREF
  - 0.01u to GND

**Track Width:**

- +1.2V_PLLIFP
- +1.2V_PLLGPU
- +2.5V_PLLIFP
- +2.5V_PLLGPU
- +2.5V_PLLCORE
- +1.2V_PLLCORE
- DAC_VREF
- DAC_REF

**Track Width:**

- 1240u to GND
In system, the pull-down resistor (R14) does not need to apply.

* TP/A/TP#/TPB/TP# pair trace: As close as possible.
* TP/A/TP#/TPB/TP# pair trace: Same length electrically. And layout with shields.

* NOT Use EEPROM:
  - Ra: ingaled
  - Rs, Ua, Ca: NOT installed

* Use EEPROM:
  - Rs, Ua, Ca: installed
  - Ra: NOT installed
4 IN1 CARD READER
XD, MMC/SD, MS/MSP

Note: Need to add WP# and CD# pad for Procon
R10 and C10 must be placed near pin 6 (RX1) and there should be no vias on the (RX1)net.

Just need to populate at CN side.
DC-DC (MAX8734A)

3VPCU
0.06A
Always
OCP=12A

5VPCU
0.01A
Always
OCP=12A

3V_S5
0.2A
80-85

3V_S5
0.2A
80-85

5V
4.69A
80-81

5VSUS
5A
80-83

5VSUS
5A
80-83

C: For Skip mode noise.

C: For system noise.

C: For battery low

C: For EMI.

C: For EMI.

C: For EMI.

C: For OCP.

C: For voltage drop.

C: For driver.
Vout = 0.7V (1 + Ra/Rb)

Fix 1.8V Output

Vcs = I_L(A) * L_DCR (mOHM) = V_ILIM (mV) / 10