NCT6791D Application Note 1 Revision V1.1

Feature Brief

NCT6779D: LPC + UART*2 + Parallel Port + KBC + ACPI + PECI Host + AMDTSI + AMD power seq + Erp + DSW logic + Hardware Monitor + GPIOs

Subject

- This application note is for the NCT6791D all version

Description

1. Since the NCT6791D supports remote diode temperature sensing through Current Mode, the layout is one of the important factors. The following items should be handled with care, please pay attention to the following steps.

   1) Place the NCT6791D closely to the thermal diode of the processor. The traces of D+ and D- should be as short and parallel as possible.

   2) Put the recommended 2200pF capacitor between NCT6791D's TINX and CPUD-/AGND (pin117) as close as possible when current mode application.

   3) Pin117 of the NCT6791D is also an analog GND for ADC of H/W Monitor block; therefore, please separate it from normal power GND.

   4) Add a 0.1uF~4.7uF cap on VREF (pin 110).

2. To save the battery power, please connect CASEOPEN# (pin100 / pin72) and SKTOCC (pin102) to GND if CASEOPEN# and SKTOCC are not in use.

3. Deal with unused input pins to inactive state. The PECI pin could be floating when not in use.

4. PCHVSB(pin 97) and PSOUT#(pin 60) need pull up to SYS3VSB by 1K 1% resister for RSMRST# active/inactive detection.

5. RSMRST# / PWROK / KBRST#

   Please reserve a proper capacitor for these pins to reduce undershooting to ensure signal quality.

6. Pull up KBC interface(CLK/DAT) if PS/2 useless to avoid KBC abnormal.

7. Pin 92 is not 5 V tolerance, please divide to 3V then connect to SIO when DSW enable or GPIO.

8. Watch Dog Timer Accuracy

When the Watch Dog Timer setting is less than 15 sec, it is suggested that BIOS compensate 1~2 sec for more accuracy. For example, if the target Watch Dog Timer is 10 sec, BIOS needs to set it as 8 sec to compensate for the accuracy.

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DATE	DOCUMENT	REVISION	REMARK
05/03/2013	APN1	1.0	First release.
07/27/2015	APN1	1.1	Add Watch Dog Timer accuracy