Kernel driver coretemp
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Supported chips:
  * All Intel Core family
    Prefix: 'coretemp'
    CPUID: family 0x6, models 0xe (Pentium M DC), 0xf (Core 2 DC 65nm),
                             0x16 (Core 2 SC 65nm), 0x17 (Penryn 45nm),
                             0x1a (Nehalem), 0x1c (Atom), 0x1e (Lynnfield)
    Datasheet: Intel 64 and IA-32 Architectures Software Developer's Manual
               Volume 3A: System Programming Guide
               http://softwarecommunity.intel.com/Wiki/Mobility/720.htm

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Description

This driver permits reading temperature sensor embedded inside Intel Core CPU.
Temperature is measured in degrees Celsius and measurement resolution is
1 degree C. Valid temperatures are from 0 to TjMax degrees C, because
the actual value of temperature register is in fact a delta from TjMax.

Temperature known as TjMax is the maximum junction temperature of processor.
Intel defines this temperature as 85C or 100C. At this temperature, protection
mechanism will perform actions to forcibly cool down the processor. Alarm
may be raised, if the temperature grows enough (more than TjMax) to trigger
the Out-Of-Spec bit. Following table summarizes the exported sysfs files:

temp1_input   - Core temperature (in millidegrees Celsius).
temp1_max   - All cooling devices should be turned on (on Core2).
temp1_crit   - Maximum junction temperature (in millidegrees Celsius).
temp1_crit_alarm - Set when Out-of-spec bit is set, never clears.
                     Correct CPU operation is no longer guaranteed.
temp1_label   - Contains string "Core X", where X is processor
                     number.

The TjMax temperature is set to 85 degrees C if undocumented model specific
register (UMSR) 0xee has bit 30 set. If not the TjMax is 100 degrees C as
(sometimes) documented in processor datasheet.