

# Kernel driver nct7904

Supported chip:

- Nuvoton NCT7904D

Prefix: nct7904

Addresses: I2C 0x2d, 0x2e

Datasheet: Publicly available at Nuvoton website

<http://www.nuvoton.com/>

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## Description

The NCT7904D is a hardware monitor supporting up to 20 voltage sensors, internal temperature sensor, Intel PECI and AMD SB-TSI CPU temperature interface, up to 12 fan tachometer inputs, up to 4 fan control channels with SmartFan.

## Sysfs entries

Currently, the driver supports only the following features:

in[1-20]_input	Input voltage measurements (mV)
fan[1-12]_input	Fan tachometer measurements (rpm)
temp1_input	Local temperature (1/1000 degree, 0.125 degree resolution)
temp[2-9]_input	CPU temperatures (1/1000 degree, 0.125 degree resolution)
pwm[1-4]_enable	R/W, 1/2 for manual or SmartFan mode Setting SmartFan mode is supported only if it has been previously configured by BIOS (or configuration EEPROM)
pwm[1-4]	R/O in SmartFan mode, R/W in manual control mode

The driver checks sensor control registers and does not export the sensors that are not enabled. Anyway, a sensor that is enabled may actually be not connected and thus provide zero readings.

## Limitations

The following features are not supported in current version:

- SmartFan control
- Watchdog
- GPIO
- external temperature sensors
- SMI
- min/max values
- many other...