

Kernel driver lm75

Supported chips:

- * National Semiconductor LM75
Prefix: 'lm75'
Addresses scanned: I2C 0x48 - 0x4f
Datasheet: Publicly available at the National Semiconductor website
<http://www.national.com/>
- * Dallas Semiconductor DS75
Prefix: 'lm75'
Addresses scanned: I2C 0x48 - 0x4f
Datasheet: Publicly available at the Dallas Semiconductor website
<http://www.maxim-ic.com/>
- * Dallas Semiconductor DS1775
Prefix: 'lm75'
Addresses scanned: I2C 0x48 - 0x4f
Datasheet: Publicly available at the Dallas Semiconductor website
<http://www.maxim-ic.com/>
- * Maxim MAX6625, MAX6626
Prefix: 'lm75'
Addresses scanned: I2C 0x48 - 0x4b
Datasheet: Publicly available at the Maxim website
<http://www.maxim-ic.com/>
- * Microchip (TelCom) TCN75
Prefix: 'lm75'
Addresses scanned: I2C 0x48 - 0x4f
Datasheet: Publicly available at the Microchip website
<http://www.microchip.com/>

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Description

The LM75 implements one temperature sensor. Limits can be set through the Overtemperature Shutdown register and Hysteresis register. Each value can be set and read to half-degree accuracy.

An alarm is issued (usually to a connected LM78) when the temperature gets higher then the Overtemperature Shutdown value; it stays on until the temperature falls below the Hysteresis value.

All temperatures are in degrees Celsius, and are guaranteed within a range of -55 to +125 degrees.

The LM75 only updates its values each 1.5 seconds; reading it more often will do no harm, but will return 'old' values.

The LM75 is usually used in combination with LM78-like chips, to measure the temperature of the processor(s).

The DS75, DS1775, MAX6625, and MAX6626 are supported as well. They are not distinguished from an LM75. While most of these chips have three additional bits of accuracy (12 vs. 9 for the LM75), the additional bits are not supported. Not only that, but these chips will not be detected if not in 9-bit precision mode (use the force parameter if needed).

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The TCN75 is supported as well, and is not distinguished from an LM75.

The LM75 is essentially an industry standard; there may be other LM75 clones not listed here, with or without various enhancements, that are supported.

The LM77 is not supported, contrary to what we pretended for a long time. Both chips are simply not compatible, value encoding differs.