Kernel driver lm25066

Supported chips:

- TI LM25056

  Prefix: 'lm25056'

  Addresses scanned: -

  Datasheets:

  > https://www.ti.com/lit/gpn/lm25056
  >
  > https://www.ti.com/lit/gpn/lm25056a

- National Semiconductor LM25066

  Prefix: 'lm25066'

  Addresses scanned: -

  Datasheets:

  > http://www.national.com/pf/LM/LM25066.html
  >
  > http://www.national.com/pf/LM/LM25066A.html

- National Semiconductor LM5064

  Prefix: 'lm5064'

  Addresses scanned: -

  Datasheet:

  > http://www.national.com/pf/LM/LM5064.html

- National Semiconductor LM5066

  Prefix: 'lm5066'

  Addresses scanned: -

  Datasheet:

  > http://www.national.com/pf/LM/LM5066.html

- Texas Instruments LM5066I

  Prefix: 'lm5066i'

  Addresses scanned: -

  > Datasheet:

  https://www.ti.com/product/LM5066I

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Description

This driver supports hardware monitoring for National Semiconductor / TI LM25056, LM25066, LM5064, and LM5066/LM5066I Power Management, Monitoring, Control, and Protection ICs.

The driver is a client driver to the core PMBus driver. Please see Documentation/hwmon/pmbus.rst for details on PMBus client drivers.

Usage Notes

This driver does not auto-detect devices. You will have to instantiate the devices explicitly. Please see Documentation/i2c/instantiating-devices.rst for details.

The shunt (sense) resistor value can be configured by a device tree property; see Documentation/devicetree/bindings/hwmon/pmbus/ti,lm25066.yaml for details.

Platform data support

The driver supports standard PMBus driver platform data.

Sysfs entries

The following attributes are supported. Limits are read-write; all other attributes are read-only.

in1_label	"vin"
in1_input	Measured input voltage.
in1_average	Average measured input voltage.
in1_min	Minimum input voltage.
in1_max	Maximum input voltage.
in1_min_alarm	Input voltage low alarm.
in1_max_alarm	Input voltage high alarm.
in2_label	"vmon"
in2_input	Measured voltage on VAUX pin
in2_min	Minimum VAUX voltage (LM25056 only).
in2_max	Maximum VAUX voltage (LM25056 only).
in2_min_alarm	VAUX voltage low alarm (LM25056 only).
in2_max_alarm	VAUX voltage high alarm (LM25056 only).
in3_label	"vout1" Not supported on LM25056.
in3_input	Measured output voltage.
in3_average	Average measured output voltage.
in3_min	Minimum output voltage.
in3_min_alarm	Output voltage low alarm.
curr1_label	"iin"
curr1_input	Measured input current.
curr1_average	Average measured input current.
curr1_max	Maximum input current.
curr1_max_alarm	Input current high alarm.
power1_label	"pin"
power1_input	Measured input power.
power1_average	Average measured input power.
power1_max	Maximum input power limit.
power1_alarm	Input power alarm
power1_input_highest	Historical maximum power.
power1_reset_history	Write any value to reset maximum power history.
temp1_input	Measured temperature.
temp1_max	Maximum temperature.
temp1_crit	Critical high temperature.
temp1_max_alarm	Chip temperature high alarm.
temp1_crit_alarm	Chip temperature critical high alarm.