

Kernel driver mp2888

Supported chips:

- MPS MP12254
- Prefix: 'mp2888'

Author:

Vadim Pasternak <vadimp@nvidia.com>

Description

This driver implements support for Monolithic Power Systems, Inc. (MPS) vendor dual-loop, digital, multi-phase controller MP2888.

This device: supports:

- One power rail.
- Programmable Multi-Phase up to 10 Phases.
- PWM-VID Interface
- One pages 0 for telemetry.
- Programmable pins for PMBus Address.
- Built-In EEPROM to Store Custom Configurations.

Device complaint with:

- PMBus rev 1.3 interface.

Device supports direct format for reading output current, output voltage, input and output power and temperature. Device supports linear format for reading input voltage and input power.

The driver provides the next attributes for the current:

- for current out input and maximum alarm;
- for phase current: input and label.

The driver exports the following attributes via the 'sysfs' files, where:

- 'n' is number of configured phases (from 1 to 10);
- index 1 for "iout";
- indexes 2 ... 1 + n for phases.

curr[1-{1+n}]_input

curr[1-{1+n}]_label

curr1_max

curr1_max_alarm

The driver provides the next attributes for the voltage:

- for voltage in: input, low and high critical thresholds, low and high critical alarms;
- for voltage out: input and high alarm;

The driver exports the following attributes via the 'sysfs' files, where

in1_crit

in1_crit_alarm

in1_input

in1_label

in1_min

in1_min_alarm

in2_alarm

in2_input

in2_label

The driver provides the next attributes for the power:

- for power in alarm and input.

- for power out: cap, cap alarm an input.

The driver exports the following attributes via the 'sysfs' files, where - indexes 1 for "pin"; - indexes 2 for "pout";

power1_alarm

power1_input

power1_label

power2_input

power2_label

power2_max

power2_max_alarm

The driver provides the next attributes for the temperature:

temp1_input

temp1_max

temp1_max_alarm