Kernel driver stpddc60

Supported chips:

- ST STPDDC60

  Prefix: 'stpddc60', 'bmr481'

  Addresses scanned: -

  Datasheet: https://flexpowermodules.com/documents/fpm-techspec-bmr481

Author: Erik Rosen <erik.rosen@metormote.com>

Description

This driver supports hardware monitoring for ST STPDDC60 controller chip and compatible modules.

The driver is a client driver to the core PMBus driver. Please see Documentation/hwmon/pmbus.rst and Documentation.hwmon/pmbus-core 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 vout under- and over-voltage limits are set in relation to the commanded output voltage as a positive or negative offset in the interval 50mV to 400mV in 50mV steps. This means that the absolute values of the limits will change when the commanded output voltage changes. Also, care should be taken when writing to those limits since in the worst case the commanded output voltage could change at the same time as the limit is written to, wich will lead to unpredictable results.

Platform data support

The driver supports standard PMBus driver platform data.

Sysfs entries

The following attributes are supported. Vin, iout, pout and temp limits are read-write; all other attributes are read-only.

in1_label	"vin"
in1_input	Measured input voltage.
in1_lcrit	Critical minimum input voltage.
in1_crit	Critical maximum input voltage.
in1_lcrit_alarm	Input voltage critical low alarm.
in1_crit_alarm	Input voltage critical high alarm.
in2_label	"vout1"
in2_input	Measured output voltage.
in2_lcrit	Critical minimum output voltage.
in2_crit	Critical maximum output voltage.
in2_lcrit_alarm	Critical output voltage critical low alarm.
in2_crit_alarm	Critical output voltage critical high alarm.
curr1_label	"iout1"
curr1_input	Measured output current.
curr1_max	Maximum output current.
curr1_max_alarm	Output current high alarm.
curr1_crit	Critical maximum output current.
curr1_crit_alarm	Output current critical high alarm.
power1_label	"pout1"
power1_input	Measured output power.
power1_crit	Critical maximum output power.
power1_crit_alarm	Output power critical high alarm.
temp1_input	Measured maximum temperature of all phases.
temp1_max	Maximum temperature limit.
temp1_max_alarm	High temperature alarm.
temp1_crit	Critical maximum temperature limit.

temp1_crit_alarm	Critical maximum temperature alarm.