

Kernel driver ltc4261

Supported chips:

- Linear Technology LTC4261

Prefix: 'ltc4261'

Addresses scanned: -

Datasheet:

<http://cds.linear.com/docs/Datasheet/42612fb.pdf>

Author: Guenter Roeck <linux@roeck-us.net>

Description

The LTC4261/LTC4261-2 negative voltage Hot Swap controllers allow a board to be safely inserted and removed from a live backplane.

Usage Notes

This driver does not probe for LTC4261 devices, since there is no register which can be safely used to identify the chip. You will have to instantiate the devices explicitly.

Example: the following will load the driver for an LTC4261 at address 0x10 on I2C bus #1:

```
$ modprobe ltc4261
$ echo ltc4261 0x10 > /sys/bus/i2c/devices/i2c-1/new_device
```

Sysfs entries

Voltage readings provided by this driver are reported as obtained from the ADC registers. If a set of voltage divider resistors is installed, calculate the real voltage by multiplying the reported value with $(R1+R2)/R2$, where $R1$ is the value of the divider resistor against the measured voltage and $R2$ is the value of the divider resistor against Ground.

Current reading provided by this driver is reported as obtained from the ADC Current Sense register. The reported value assumes that a 1 mOhm sense resistor is installed. If a different sense resistor is installed, calculate the real current by dividing the reported value by the sense resistor value in mOhm.

The chip has two voltage sensors, but only one set of voltage alarm status bits. In many many designs, those alarms are associated with the ADIN2 sensor, due to the proximity of the ADIN2 pin to the OV pin. ADIN2 is, however, not available on all chip variants. To ensure that the alarm condition is reported to the user, report it with both voltage sensors.

in1_input	ADIN2 voltage (mV)
in1_min_alarm	ADIN/ADIN2 Undervoltage alarm
in1_max_alarm	ADIN/ADIN2 Overvoltage alarm
in2_input	ADIN voltage (mV)
in2_min_alarm	ADIN/ADIN2 Undervoltage alarm
in2_max_alarm	ADIN/ADIN2 Overvoltage alarm
curr1_input	SENSE current (mA)
curr1_alarm	SENSE overcurrent alarm