

# Kernel driver wm831x-hwmon

Supported chips:

- Wolfson Microelectronics WM831x PMICs

Prefix: 'wm831x'

Datasheet:

- <http://www.wolfsonmicro.com/products/WM8310>
- <http://www.wolfsonmicro.com/products/WM8311>
- <http://www.wolfsonmicro.com/products/WM8312>

Authors: Mark Brown <[broonie@opensource.wolfsonmicro.com](mailto:broonie@opensource.wolfsonmicro.com)>

## Description

The WM831x series of PMICs include an AUXADC which can be used to monitor a range of system operating parameters, including the voltages of the major supplies within the system. Currently the driver provides reporting of all the input values but does not provide any alarms.

## Voltage Monitoring

Voltages are sampled by a 12 bit ADC. Voltages in millivolts are 1.465 times the ADC value.

## Temperature Monitoring

Temperatures are sampled by a 12 bit ADC. Chip and battery temperatures are available. The chip temperature is calculated as:

$$\text{Degrees celsius} = (512.18 - \text{data}) / 1.0983$$

while the battery temperature calculation will depend on the NTC thermistor component.