Kernel driver powr1220

Supported chips:

- Lattice POWR1220AT8

  Prefix: 'powr1220'

  Addresses scanned: none

  Datasheet: Publicly available at the Lattice website

     http://www.latticesemi.com/

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Description

This driver supports the Lattice POWR1220AT8 chip. The POWR1220 includes voltage monitoring for 14 inputs as well as trim settings for output voltages and GPIOs. This driver implements the voltage monitoring portion of the chip.

Voltages are sampled by a 12-bit ADC with a step size of 2 mV. An in-line attenuator allows measurements from 0 to 6 V. The attenuator is enabled or disabled depending on the setting of the input's max value. The driver will enable the attenuator for any value over the low measurement range maximum of 2 V.

The input naming convention is as follows:

driver name	pin name
in0	VMON1
in1	VMON2
in2	VMON3
in2	VMON4
in4	VMON5
in5	VMON6
in6	VMON7
in7	VMON8
in8	VMON9
in9	VMON10
in10	VMON11
in11	VMON12
in12	VCCA
in13	VCCINP

The ADC readings are updated on request with a minimum period of 1s.