Kernel driver amc6821

Supported chips:

Texas Instruments AMC6821

Prefix: 'amc6821'

Addresses scanned: 0x18, 0x19, 0x1a, 0x2c, 0x2d, 0x2e, 0x4c, 0x4d, 0x4e

Datasheet: http://focus.ti.com/docs/prod/folders/print/amc6821.html

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Description

This driver implements support for the Texas Instruments amc6821 chip. The chip has one on-chip and one remote temperature sensor and one pwm fan regulator. The pwm can be controlled either from software or automatically.

The driver provides the following sensor accesses in sysfs:

temp1_input	ro	on-chip temperature
temp1_min	rw	"
temp1_max	rw	"
temp1_crit	rw	"
temp1_min_alarm	ro	"
temp1_max_alarm	ro	"
temp1_crit_alarm	ro	"
temp2_input	ro	remote temperature
temp2_min	rw	"
temp2_max	rw	"
temp2_crit	rw	"
temp2_min_alarm	ro	"
temp2_max_alarm	ro	"
temp2_crit_alarm	ro	"
temp2_fault	ro	"
fan1_input	ro	tachometer speed
fan1_min	rw	"
fan1_max	rw	"
fan1_fault	ro	"
fan1_div	rw	Fan divisor can be either 2 or 4.
pwm1	rw	pwm1
pwm1_enable	rw	regulator mode, 1=open loop, 2=fan controlled by remote temperature, 3=fan controlled by combination of the on-chip temperature and remote-sensor temperature,
pwm1_auto_channels_temp	ro	1 if pwm_enable==2, 3 if pwm_enable==3
pwm1_auto_point1_pwm	ro	Hardwired to 0, shared for both temperature channels.
pwm1_auto_point2_pwm	rw	This value is shared for both temperature channels.
pwm1_auto_point3_pwm	rw	Hardwired to 255, shared for both temperature channels.
temp1_auto_point1_temp	ro	Hardwired to temp2_auto_point1_temp which is rw. Below this temperature fan stops.
temp1_auto_point2_temp	rw	The low-temperature limit of the proportional range. Below this temperature pwm1 = pwm1_auto_point2_pwm. It can go from 0 degree C to 124 degree C in steps of 4 degree C. Read it out after writing to get the actual value.
temp1_auto_point3_temp	rw	Above this temperature fan runs at maximum speed. It can go from temp1_auto_point2_temp. It can only have certain discrete values which depend on temp1_auto_point2_temp and pwm1_auto_point2_pwm. Read it out after writing to get the actual value.
temp2_auto_point1_temp	rw	Must be between 0 degree C and 63 degree C and it defines the passive cooling temperature. Below this temperature the fan stops in the closed loop mode.
temp2_auto_point2_temp	rw	The low-temperature limit of the proportional range. Below this temperature pwm1 = pwm1_auto_point2_pwm. It can go from 0 degree C to 124 degree C in steps of 4 degree C.

temp2_auto_point3_temp	rw	Above this temperature fan runs at maximum speed. It can only have certain discrete values which depend on temp2_auto_point2_temp and pwm1_auto_point2_pwm. Read it out after writing to get actual value.

Module parameters

If your board has a BIOS that initializes the amc6821 correctly, you should load the module with: init=0.

If your board BIOS doesn't initialize the chip, or you want different settings, you can set the following parameters:

- init=1,
- pwminv: 0 default pwm output, 1 inverts pwm output.