Kernel driver g760a

Supported chips:
  * Global Mixed-mode Technology Inc. G760A
    Prefix: 'g760a'
    Datasheet: Publicly available at the GMT website
      http://www.gmt.com.tw/datasheet/g760a.pdf

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Description

The GMT G760A Fan Speed PWM Controller is connected directly to a fan
and performs closed-loop control of the fan speed.

The fan speed is programmed by setting the period via 'pwm1' of two
consecutive speed pulses. The period is defined in terms of clock
cycle counts of an assumed 32kHz clock source.

Setting a period of 0 stops the fan; setting the period to 255 sets
fan to maximum speed.

The measured fan rotation speed returned via 'fan1_input' is derived
from the measured speed pulse period by assuming again a 32kHz clock
source and a 2 pulse-per-revolution fan.

The 'alarms' file provides access to the two alarm bits provided by
the G760A chip's status register: Bit 0 is set when the actual fan
speed differs more than 20% with respect to the programmed fan speed;
bit 1 is set when fan speed is below 1920 RPM.

The g760a driver will not update its values more frequently than every
other second; reading them more often will do no harm, but will return
'old' values.