

DVB: tda10086: make the 22kHz tone for DISEQC a config option

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2008-04/msg06459.html>

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-

-stable review patch. If anyone has any objections, please let us know.

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(backported from commit ea75baf4b0f117564bd50827a49c4b14d61d24e9)

Some cards need the diseqc signal modulated, while some just need the envelope to control the LNB supply.

This fixes Bug 9887

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drivers/media/dvb/dvb-usb/ttusb2.c | 1 +
drivers/media/dvb/frontends/tda10086.c | 28 ++++++-----
drivers/media/dvb/frontends/tda10086.h | 3 +++
drivers/media/dvb/tpci/budget.c | 1 +
drivers/media/video/saa7134/saa7134-dvb.c | 1 +
5 files changed, 28 insertions(+), 6 deletions(-)

```
--- a/drivers/media/dvb/dvb-usb/ttusb2.c
+++ b/drivers/media/dvb/dvb-usb/ttusb2.c
@@ -144,6 +144,7 @@ static int ttusb2_power_ctrl(struct dvb_
static struct tda10086_config tda10086_config = {
    .demod_address = 0x0e,
    .invert = 0,
    + .diseqc_tone = 1,
};
```

```
static int ttusb2_frontend_attach(struct dvb_usb_adapter *adap)
--- a/drivers/media/dvb/frontends/tda10086.c
+++ b/drivers/media/dvb/frontends/tda10086.c
```

DVB: tda10086: make the 22kHz tone for DISEQC a config option

```
@@ -106,9 +106,12 @@ static int tda10086_write_mask(struct td
static int tda10086_init(struct dvb_frontend* fe)
{
struct tda10086_state* state = fe->demodulator_priv;
+ u8 t22k_off = 0x80;

dprintk ("%s\n", __FUNCTION__);

+ if (state->config->diseqc_tone)
+ t22k_off = 0;
// reset
tda10086_write_byte(state, 0x00, 0x00);
msleep(10);
@@ -158,7 +161,7 @@ static int tda10086_init(struct dvb_fron
tda10086_write_byte(state, 0x3d, 0x80);

// setup SEC
- tda10086_write_byte(state, 0x36, 0x80); // all SEC off, no 22k tone
+ tda10086_write_byte(state, 0x36, t22k_off); // all SEC off, 22k tone
tda10086_write_byte(state, 0x34, (((1<<19) * (22000/1000)) / (SACLK/1000))); // } tone frequency
tda10086_write_byte(state, 0x35, (((1<<19) * (22000/1000)) / (SACLK/1000)) >> 8); // }

@@ -180,16 +183,20 @@ static void tda10086_diseqc_wait(struct
static int tda10086_set_tone (struct dvb_frontend* fe, fe_sec_tone_mode_t tone)
{
struct tda10086_state* state = fe->demodulator_priv;
+ u8 t22k_off = 0x80;

dprintk ("%s\n", __FUNCTION__);

+ if (state->config->diseqc_tone)
+ t22k_off = 0;
+
switch (tone) {
case SEC_TONE_OFF:
- tda10086_write_byte(state, 0x36, 0x80);
+ tda10086_write_byte(state, 0x36, t22k_off);
break;

case SEC_TONE_ON:
- tda10086_write_byte(state, 0x36, 0x81);
+ tda10086_write_byte(state, 0x36, 0x01 + t22k_off);
break;
}

@@ -202,9 +209,13 @@ static int tda10086_send_master_cmd (str
struct tda10086_state* state = fe->demodulator_priv;
int i;
u8 oldval;
+ u8 t22k_off = 0x80;
```

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```
dprintk ("%s\n", __FUNCTION__);

+ if (state->config->diseqc_tone)
+ t22k_off = 0;
+
if (cmd->msg_len > 6)
return -EINVAL;
oldval = tda10086_read_byte(state, 0x36);
@@ -212,7 +223,8 @@ static int tda10086_send_master_cmd (str
for(i=0; i< cmd->msg_len; i++) {
tda10086_write_byte(state, 0x48+i, cmd->msg[i]);
}
- tda10086_write_byte(state, 0x36, 0x88 | ((cmd->msg_len - 1) << 4));
+ tda10086_write_byte(state, 0x36, (0x08 + t22k_off
+ | ((cmd->msg_len - 1) << 4));

tda10086_diseqc_wait(state);

@@ -225,16 +237,20 @@ static int tda10086_send_burst (struct d
{
struct tda10086_state* state = fe->demodulator_priv;
u8 oldval = tda10086_read_byte(state, 0x36);
+ u8 t22k_off = 0x80;

dprintk ("%s\n", __FUNCTION__);

+ if (state->config->diseqc_tone)
+ t22k_off = 0;
+
switch(minicmd) {
case SEC_MINI_A:
- tda10086_write_byte(state, 0x36, 0x84);
+ tda10086_write_byte(state, 0x36, 0x04 + t22k_off);
break;

case SEC_MINI_B:
- tda10086_write_byte(state, 0x36, 0x86);
+ tda10086_write_byte(state, 0x36, 0x06 + t22k_off);
break;
}

--- a/drivers/media/dvb/frontends/tda10086.h
+++ b/drivers/media/dvb/frontends/tda10086.h
@@ -33,6 +33,9 @@ struct tda10086_config

/* does the "inversion" need inverted? */
u8 invert;
+
+ /* do we need the diseqc signal with carrier? */
+ u8 diseqc_tone;
};
```

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```
#if defined(CONFIG_DVB_TDA10086) || (defined(CONFIG_DVB_TDA10086_MODULE) &&
defined(MODULE))
--- a/drivers/media/dvb/ttpci/budget.c
+++ b/drivers/media/dvb/ttpci/budget.c
@@ -351,6 +351,7 @@ static struct s5h1420_config s5h1420_con
static struct tda10086_config tda10086_config = {
    .demod_address = 0x0e,
    .invert = 0,
    + .diseqc_tone = 1,
};

static u8 read_pwm(struct budget* budget)
--- a/drivers/media/video/saa7134/saa7134-dvb.c
+++ b/drivers/media/video/saa7134/saa7134-dvb.c
@@ -826,6 +826,7 @@ static struct tda1004x_config ads_tech_d
static struct tda10086_config flydvbs = {
    .demod_address = 0x0e,
    .invert = 0,
    + .diseqc_tone = 0,
};

/* =====
```


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