Intro

You might have noticed that the bt878 grabber cards have actually _two_ PCI functions:

```
$ lspci
[ ... ]
00:0a.0 Multimedia video controller: Brooktree Corporation Bt878 (rev 02)
00:0a.1 Multimedia controller: Brooktree Corporation Bt878 (rev 02)
[ ... ]
```

The first does video, it is backward compatible to the bt848. The second does audio. snd-bt87x is a driver for the second function. It's a sound driver which can be used for recording sound (and _only_ recording, no playback). As most TV cards come with a short cable which can be plugged into your sound card's line-in you probably don't need this driver if all you want to do is just watching TV...

Some cards do not bother to connect anything to the audio input pins of the chip, and some other cards use the audio function to transport MPEG video data, so it's quite possible that audio recording may not work with your card.

Driver Status

The driver is now stable. However, it doesn't know about many TV cards, and it refuses to load for cards it doesn't know.

If the driver complains ("Unknown TV card found, the audio driver will not load"), you can specify the load_all=1 option to force the driver to try to use the audio capture function of your card. If the frequency of recorded data is not right, try to specify the digital_rate option with other values than the default 32000 (often it's 44100 or 64000).

If you have an unknown card, please mail the ID and board name to <alsa-devel@alsa-project.org>, regardless of whether audio capture works or not, so that future versions of this driver know about your card.

Audio modes

The chip knows two different modes (digital/analog). snd-bt87x registers two PCM devices, one for each mode. They cannot be used at the same time.

Digital audio mode

The first device (hw:X,0) gives you 16 bit stereo sound. The sample rate depends on the external source which feeds the Bt87x with digital sound via I2S interface.

Analog audio mode (A/D)

The second device (hw:X,1) gives you 8 or 16 bit mono sound. Supported sample rates are between 119466 and 448000 Hz (yes, these numbers are that high). If you've set the CONFIG_SND_BT87X_OVERCLOCK option, the maximum sample rate is 1792000 Hz, but audio data becomes unusable beyond 896000 Hz on my card.

The chip has three analog inputs. Consequently you'll get a mixer device to control these.

Have fun,

  Clemens

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