Legacy audio driver for YMF7xx PCI cards.

FIRST OF ALL

This code references YAMAHA's sample codes and data sheets.
I respect and thank for all people they made open the informations
about YMF7xx cards.

And this codes heavily based on Jeff Garzik <jgarzik@pobox.com>'s
old VIA 82Cxxx driver (via82cxxx.c). I also respect him.

DISCLIMER

This driver is currently at early ALPHA stage. It may cause serious
damage to your computer when used.
PLEASE USE IT AT YOUR OWN RISK.

ABOUT THIS DRIVER

This code enables you to use your YMF724[A-F], YMF740[A-C], YMF744, YMF754
cards. When enabled, your card acts as "SoundBlaster Pro" compatible card.
It can only play 22.05kHz / 8bit / Stereo samples, control external MIDI
port.
If you want to use your card as recent "16-bit" card, you should use
Alsa or OSS/Linux driver. Of course you can write native PCI driver for
your cards :)

USAGE

```
# modprobe ymfsb (options)
```

OPTIONS FOR MODULE

```
io            : SB base address     (0x220, 0x240, 0x260, 0x280)
synth_io      : OPL3 base address   (0x388, 0x398, 0x3a0, 0x3a8)
dma           : DMA number          (0,1,3)
master_volume: AC'97 PCM out Vol    (0-100)
spdif_out     : SPDIF-out flag      (0:disable 1:enable)
```

These options will change in future...

FREQUENCY

When playing sounds via this driver, you will hear its pitch is slightly

lower than original sounds. Since this driver recognizes your card acts with 21.739kHz sample rates rather than 22.050kHz (I think it must be hardware restriction). So many players become tone deafness.
To prevent this, you should express some options to your sound player that specify correct sample frequency. For example, to play your MP3 file correctly with mpg123, specify the frequency like following:

```
 %  mpg123 -r 21739 foo.mp3
```

SPDIF OUT

With installing modules with option 'spdif_out=1', you can enjoy your sounds from SPDIF-out of your card (if it had).
Its Fs is fixed to 48kHz (It never means the sample frequency become up to 48kHz. All sounds via SPDIF-out also 22kHz samples). So your digital-in capable components has to be able to handle 48kHz Fs.

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TODO

* support for multiple cards
  (set the different SB_IO,MPU_IO,OPL_IO for each cards)

* support for OPL (dmfm) : There will be no requirements... :-<

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