

# Playing Sound on a Mac Mini Running FreeBSD 13.2

This project did take me some time but thanks to the many helpful FreeBSD users out there, I was able to hear a sound through the Mac Mini's **internal** speaker upon a successful boot. The Mac Mini I'm using is a **late 2014** model.

First of all, install **sox**:

```
# pkg install sox
```

I'm not sure that **sox** has anything to do with enabling a certain device or other, I think it just provides a handy **play** command and an absolute shed-load of other sound manipulation options and features.

In **/boot/loader.conf**:

```
boot_verbose="YES"
speaker_load="YES"
```

After a **reboot**, finding information in the boot log is easier thanks to the **boot\_verbose="YES"** line shown above.

```
# dmesg | grep -i pcm

[...]

pcm0: Playback channel matrix is: unknown, assuming 7.1 (disconnected)
pcm1: <Cirrus Logic (0x4208)> at nid 18 and 24 on hdaa1

[...]
```

Note the **24** in the **dmesg** output above. I've found that whilst **18** also worked for me, it didn't show the device later on in **/dev/sndstat**.

In **/boot/device.hints**:

```
hint.hdaa.1.nid24.config="as=1 seq=0 device=Speaker conn=Fixed loc=Onboard color=Unknown"
```

In **/etc/sysctl.conf**:

```
dev.hdaa.1.gpio_config="0=set 1=set"
hw.snd.default_unit=1
```

**Reboot.**

```
$ cat /dev/sndstat

Installed devices:
pcm0: <Intel Haswell (HDMI/DP 8ch)> (play)
pcm1: <Cirrus Logic (0x4208) (Internal Analog Speaker)> (play) default
pcm2: <Cirrus Logic (0x4208) (Analog Headphones)> (play)
pcm3: <Cirrus Logic= (0x4208) (Digital)> (play)
```

Try playing a beep or a sound:

```
$ beep -g 90
$ play sound.wav
```

If this works then create a cronjob as root:

```
@reboot    /root/scripts/play_boot_sound.sh > /dev/null 2>&1;
```

.. where the script uses either beep or play.

Thanks for reading.

**Updated:** 2023-09-23  
**Chosen OS:** FreeBSD 13.2 RELEASE