



Linux Ubuntu 26.04 Manual Pages on command 'speaker-test.1'

\$ man speaker-test.1

SPEAKER-TEST(1) General Commands Manual SPEAKER-TEST(1)

NAME

speaker-test - command-line speaker test tone generator for ALSA

SYNOPSIS

speaker-test [-options]

DESCRIPTION

speaker-test generates a tone that can be used to test the speakers of a computer.

speaker-test by default will test the default device. If you want to test another sound de?

vice you will have first to get a list of all of the sound cards in your system and the de?

vices associated with those cards. Notice that there might be for example, one device for

analog sound, one for digital sound and one for HDMI sound. To get the list of available

cards and devices you can run aplay -L.

\$ aplay -L

null

Discard all samples (playback) or generate zero samples (capture)

default:CARD=ICH5

Intel ICH5, Intel ICH5

Default Audio Device

front:CARD=ICH5,DEV=0

Intel ICH5, Intel ICH5

Front speakers

surround40:CARD=ICH5,DEV=0

Intel ICH5, Intel ICH5

4.0 Surround output to Front and Rear speakers

(...)

in the above example, there are four devices listed: null, default, front and surround40.

So, if you want to test the last device you can run `speaker-test -Dsurround40:ICH5 -c 6`. The

`-c` option will indicate that the six audio channels in the device have to be tested.

OPTIONS

`-c | --channels NUM`

NUM channels in stream

`-D | --device NAME`

PCM device name NAME

`-f | --frequency FREQ`

sine wave of FREQ Hz

`--help` Print usage help

`-b | --buffer TIME`

Use buffer size of TIME microseconds. When 0 is given, use the maximal buffer size.

The default value is 0.

`-p | --period TIME`

Use period size of TIME microseconds. When 0 is given, the periods given by `-P` option

is used. The default value is 0.

`-P | --nperiods PERIODS`

Use number of periods. The default value is 4.

`-r | --rate RATE`

stream of RATE Hz

`-t | --test pink|st2095|sine|wav`

`-t pink` means use pink noise (default).

Pink noise is perceptually uniform noise -- that is, it sounds like every frequency at once. If you can hear any tone it may indicate resonances in your speaker system or room.

`-t st2095` means use bandlimited pink noise at -18.5dB AES FS, generated according to SMPTE ST-2095:1-2015. In addition to speaker localization it may be used for system calibration, for example 85dB for theater drivers, with an extra +10dB for subwoofers.

Per the spec, it is intended "to be used in calibrating the sound pressure level and electroacoustic response of a cinema B-chain system." Note that sampling rates less

than 48KHz are outside the scope of the spec, and an attempt will be made to construct a reduced rate filter.

-t sine means to use sine wave.

-t wav means to play WAV files, either pre-defined files or given via -w option.

You can pass the number from 1 to 3 as a backward compatibility.

-l | --nloops COUNT

Specifies the number of loops. Zero means to run infinitely.

When -s option below with a valid channel is given, speaker-test will perform always a single-shot without looping.

-s | --speaker CHANNEL

Do a single-shot speaker test for the given channel. The channel number starts from

1. The channel number corresponds to left, right, rear-left, rear-right, center,

LFE, side-left, side-right, and so on.

For example, when 1 is passed, it tests the left channel only once rather than both channels with looping.

-w | --wavfile FILE

Use the given WAV file for the playback instead of pre-defined WAV files.

-W | --wavdir DIRECTORY

Specify the directory containing WAV files for playback. The default path is

/usr/share/sounds/alsa.

-m | --chmap MAP

Pass the channel map to override. If the playback in a specific channel order or

channel positions is required, pass the channel position strings to this option.

-X | --force-frequency

Allow supplied FREQ to be outside the default range of 30-8000Hz. A minimum of 1Hz is still enforced.

USAGE EXAMPLES

Produce stereo sound from one stereo jack:

```
speaker-test -Dplug:front -c2
```

Produce 4 speaker sound from two stereo jacks:

```
speaker-test -Dplug:surround40 -c4
```

Produce 5.1 speaker sound from three stereo jacks:

```
speaker-test -Dplug:surround51 -c6
```

To send a nice low 75Hz tone to the Woofer and then exit without touching any other speak?

ers:

```
speaker-test -Dplug:surround51 -c6 -s1 -f75
```

To do a 2-speaker test using the spdif (coax or optical) output:

```
speaker-test -Dplug:spdif -c2
```

Play in the order of front-right and front-left from the front PCM

```
speaker-test -Dplug:front -c2 -mFR,FL
```

SEE ALSO

```
aplay(1)
```

AUTHOR

The speaker-test program was written by James Courtier-Dutton. Pink noise support was added by Nathan Hurst. Further extensions by Takashi Iwai. SMPTE ST-2095:1 band-limited pink noise added by Rick Sayre.

speaker-test

April 2nd, 2011

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