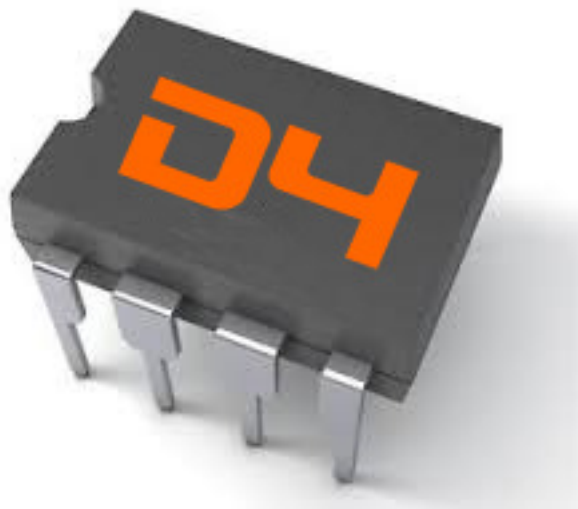


# The dsp-D4 Drum-Synthesizer Chip

The Tiny PCM Drum Synth



Application Manual v1.0



## The dsp-D4 Drum Synthesizer Chip

The dsp-D4 drum synthesizer is a chip that contains a PCM drumkit in a 8-pin DIP package.

The chip can be used as a voice chip for a drummachine or a drummodule

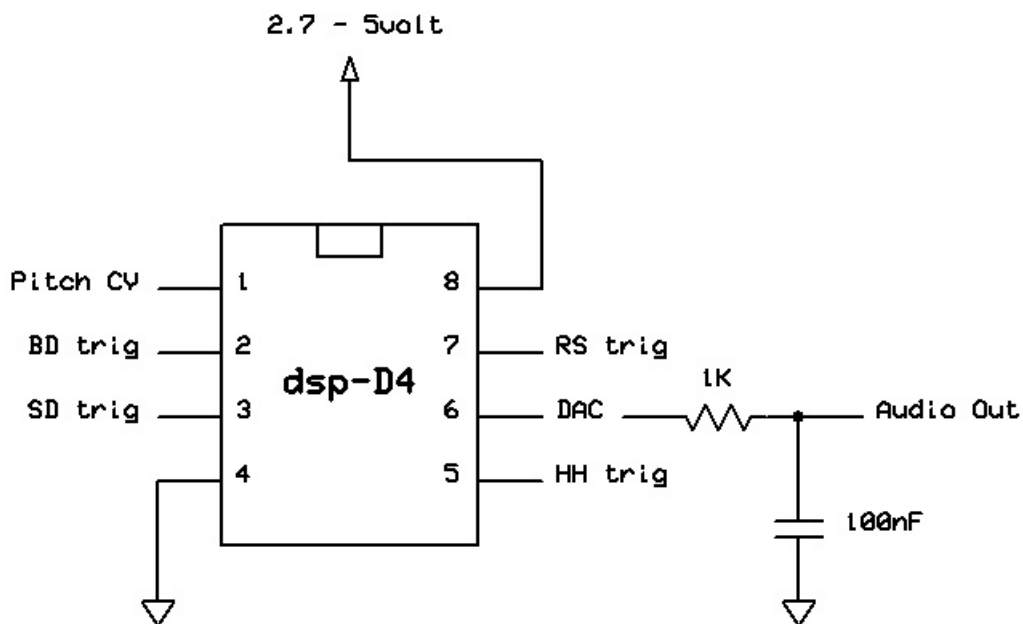
The chip is 4-voice fully polyphonic with 4 separate trig/gate inputs for each voice.

The drums can be tuned or modulated by an analog control voltage.

The output is 40KHz 10-bit Sigma-Delta PDM and the chip runs standalone from a 2.7-5 volt power source.

## Example application circuit for the dsp-D4 chip

This is the minimum application circuit for the chip. Input levels are allowed between Gnd and Vcc. The output is analog and swings between Gnd and Vcc.



## Technical Specifications

DSP platform	AVR ATmega 20 DMIPS
Supply power	2.7 – 5 volt
Supply current	~2.9mA
Input tolerance	2.7 – 5 volt depending on Vcc
Audio output	40 KHz 10-bit sigma-delta PDM, 1 channel mono audio
Synthesis method	PCM Wavetable playback
Control method	4 polyphonic trig/gate inputs, 1 analog monophonic tune

## Contact & Support

For support and questions please use these contact addresses:

Website: <http://www.dspsynth.eu>

Email: [contact@dspsynth.eu](mailto:contact@dspsynth.eu)