

The CZ1 Phase Distortion OSC Chip



Application Manual v1.0



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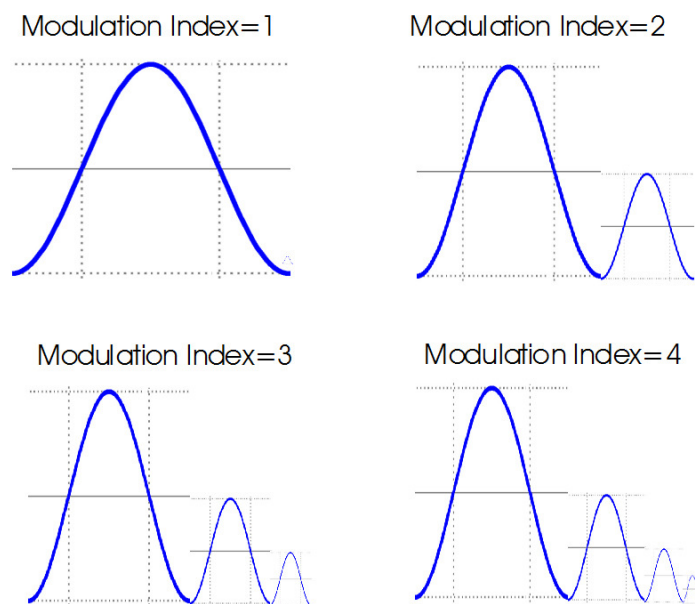
The CZ1 is a chip that contains a single PD oscillator in a 8-pin DIP package.

It has a range of 8 – 261Hz with a CV input 1v/oct.

The PDmod input CV is the modulation index ranging from 0.125 – 16.

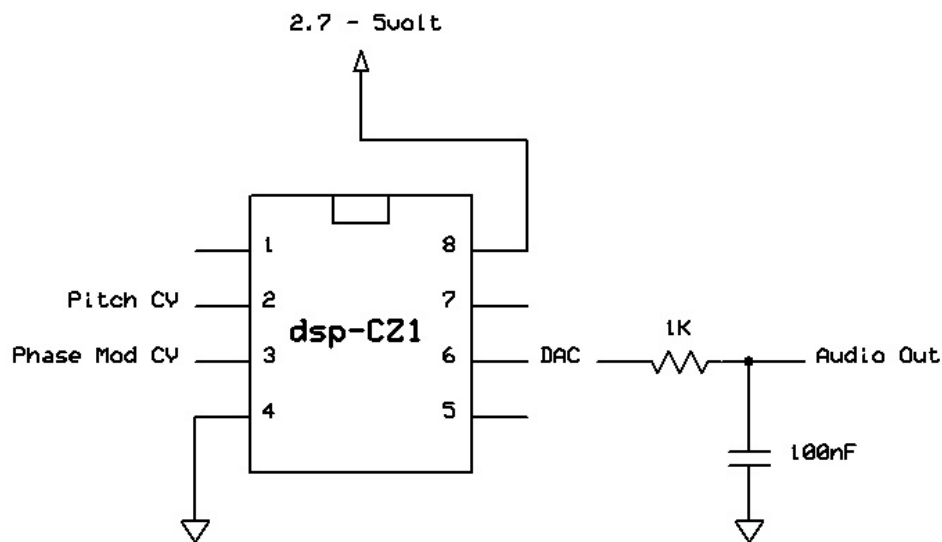
This enables the synthesis of complex waveforms without using a filter.
Modulation indexes larger than 2 simulates resonant filter waveforms.

The output is 66.9KHz 8-bit PWM and the chip runs standalone from a 2.7-5 volt power source.



Example application circuit for the CZ1 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	66.9 KHz 8-bit PWM DAC, 1 channel mono audio
Synthesis method	PCM Wavetable playback
Control method	1 Analog monophonic tune CV 1v/oct 1 Analog modulation index CV input.

Contact & Support

For support and questions please use these contact addresses:

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

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