Errata: CS4228A Rev D

(Reference CS4228A Data Sheet revision DS511PP1 dated Oct '00)

The CS4228A DAC outputs can assume one of two states following an initial application of power or a hardware reset. The first state, corresponding to normal operation, is the dominant state. The second state is a conditionally stable state that can exist only in the absence of large scale audio signals. It can appear in one or two output channels in less than 10% of the devices. Attenuation of the audio signal by 40dB or more and a noise floor increased by about 20dB characterize the second state.

There are two ways to correct this behavior. The first way, which is 100% effective, is to momentarily drive the outputs to full scale with a 0dBFS digital audio input, with the digital filters set for 0dB of attenuation. Holding the outputs at positive or negative full scale for 100 microseconds will be sufficient to switch the device to the first state. Normal operation will then be resumed, regardless of signal level, until power is removed and reapplied or a hardware reset is performed. The MUTEC pin should be used when the signal is applied to prevent a pop at the speakers.

The second method to correct this behavior involves toggling bits in the device's Device Control Register 02. This method is 95% effective in changing the device from the second state to the first normal state. Use of the MUTEC pin is also recommended with this method. To use this second method follow this procedure:

1. Write the value 0x8E to register 02.
2. Wait 1 to 10 milliseconds.
3. Write the value 0x80 to register 02.

The next revision of the CS4228A will eliminate this problem.

If there are any questions concerning this information,
please contact Cirrus Logic Inc., Applications Engineering via E-mail: proaudio@crystal.com

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