

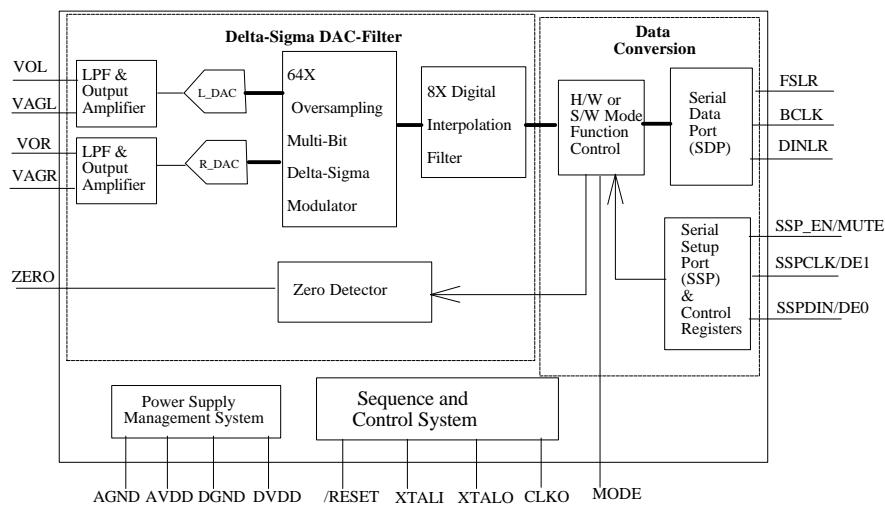
### GENERAL DESCRIPTION

The W6630CR is a stereo audio DAC chip incorporating 8X digital interpolation filters, 64X multi-level oversampling delta-sigma modulators, analog low-pass filter and output amplifiers. The 16 or 18 Bit linear input data for DAC consists of two formats, normal format and I<sup>2</sup>S format. In addition, the device includes two control modes. One is hardware mode which can control mute and digital de-emphasis. The other one is software mode, where 4x9 bits internal control registers can be controlled by the serial setup port (SSP). Many functions such as 256 step attenuation, DAC mute, digital de-emphasis and format conversions can be set up through these registers.

### FEATURES

- Power Supply: from +2.7 to +5.25 Volt, typically +5 Volt, for Analog and Digital Power
- Sampling Clock Rate: 32 K, 44.1 K, and 48 K Hz
- Master Clock Rate: 384 or 256 times of Sampling Clock Rate
- Stereo 16 or 18 Bits Linear PCM Data Input
- Two Types Linear PCM Data Input Format: Normal

### Functional Block



and I<sup>2</sup>S Format

- Delta-Sigma DAC built-in digital De-emphasis filter, 8X Interpolator, 64X Oversampling Multi-Bit Modulator
- Stereo DAC Output built-in Analog Low Pass Filter and Output Amplifier with 5K Ω Load
- High Performance Audio Output: 100 dB SNR, 96 dB Dynamic Range and -90 dB THD+N typically
- Two Control Function Modes: Hardware Mode and Software Mode Selected by Mode Pin
- Software Mode controlled by 4x9 bits Registers via Serial Setup Port (SSP)
- Main Control Functions: De-emphasis, Mute, 256 Step Attenuation, Channel Output Combination, Input Format Select such as 16 or 18 Bit, I<sup>2</sup>S or Normal
- 20 pin SSOP Package

### APPLICATIONS

W6630CR is for digital audio applications, such as Audio CD, Video CD, DVD, MP-3 player, STB, Multimedia PC and other digital audio/video equipment.

### Pin Configuration

XTALI	1	20	XTALO
DGND	2	19	CLKO
DVDD	3	18	SSP_EN/MUTE
FSLR	4	17	SSPCLK/DE1
DINLR	5	16	SSPDIN/DE0
BCLK	6	15	/RESET
ZERO	7	14	MODE
VAGR	8	13	VAGL
VOR	9	12	VOL
AGND	10	11	AVDD

(TOP VIEW)