

EIGHT CHANNEL THEATER QUALITY HIGH DEFINITION AUDIO CODECS WITH DIGITAL MICROPHONE INTERFACE

STAC9227/9228

DESCRIPTION

The STAC9227/9228 are a family of Theater Quality 8-channel audio CODECs that enable systems with 7.1 Audio or with 5.1 Audio playing simultaneously with VoIP or another stereo audio stream. IDT's proprietary $\Sigma\Delta$ technology provides high fidelity with an estimated DAC SNR up to 105dB. Up to four digital microphones are supported enabling high quality voice input for increased usability of voice applications.

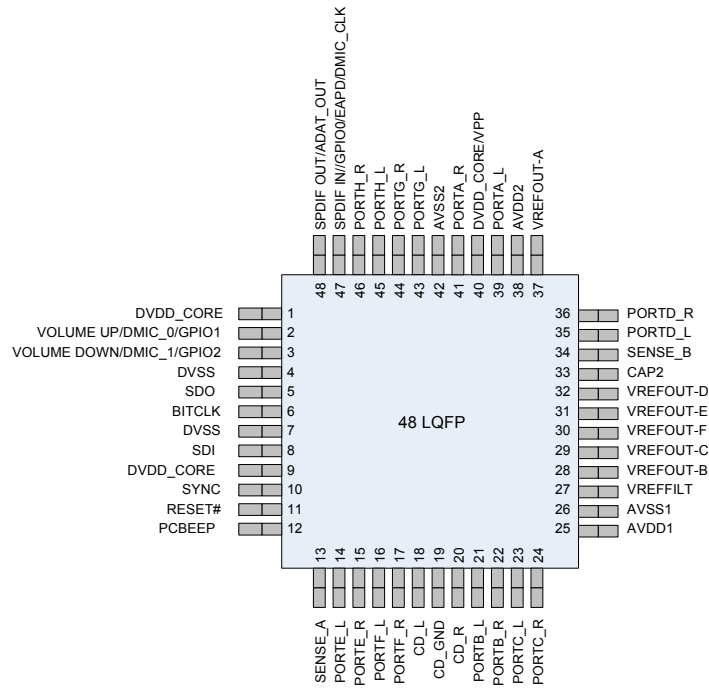
FEATURES

- **High performance HD Audio CODEC provides Theater Quality Audio**
- **High Fidelity $\Sigma\Delta$ technology**
 - ◆ 105dB DAC SNR (See Table)
 - ◆ 90dB ADC SNR
- **Four stereo DACs and three stereo ADCs**
 - ◆ Supports 7.1 channel Audio
 - ◆ Supports 5.1 Audio with simultaneous Real Time Communication (RTC) channel such as VoIP or separate stereo audio stream
- **24-bit resolution with up to 192 kHz sample rates**
- **Digital Microphone Interface**
 - ◆ Direct interface up to four Digital Microphones
- **Analog Stereo Microphone**
 - ◆ Microphone Boost 0, 10, 20, 30, 40dB
 - ◆ Six adjustable Vref outputs for microphone bias
- **Integrated Headphone Amps (3)**
- **S/PDIF In and Out**
- **Volume Up/Down Control**
- **Jack Insertion Detect and Impedance Sensing Supports Jack Retasking and Universal Jacks™**
- **Digital PC Beep to all outputs**
- **+3.3 V to +5 V analog power supply options (See Table)**
- **Environmental 48-pin LQFP package**

SOFTWARE SUPPORT

- **Kernel Processing Interface (SKPI)**
 - ◆ Enables plug-ins that can operate globally on all audio streams of the system
- **12 band parametric equalizer SKPI plug-in**
 - ◆ Constant, system-level effects tuned to optimize a particular platform can be combined with user-mode "presets" tailored for specific acoustical environments and applications
 - ◆ System-level effects automatically disabled when external audio connections made
- **Dynamics Processing SKPI plug-in**
 - ◆ Enables improved voice articulation
 - ◆ Compressor/limiter allows higher average noise level without resonances
- **Dolby PC Entertainment Experience Logo Program**
 - ◆ Dolby Home Theater™ (STAC9228D)
 - ◆ Dolby Sound Room™ (STAC9228D)
- **Dolby Technologies**
 - ◆ Dolby Headphone™, Dolby Virtual Speaker™
 - ◆ Dolby ProLogic II™, Dolby ProLogic IIx™
 - ◆ Dolby Digital Live™
- **Intel Audio Studio™ from Sonic Focus**
- **Maxx Player™ from Waves**
- **Microphone Beam Forming, Acoustic Echo Cancellation & Noise Suppression from Knowles™**
- **WOW™ and Tru Surround™ from SRS**

48-PIN LQFP



Part number Table

Part Order Number	Voltage	SNR	DigMic	Dolby
STAC9228X5TAEyyX	5	95dB	Yes (Muxed)	No
STAC9228D5TAEyyX	5	95dB	Yes (Muxed)	Home Theater/Sound Room
STAC9228X3TAEyyX	3.3	95dB	Yes (Muxed)	No
STAC9228D3TAEyyX	3.3	95dB	Yes (Muxed)	Home Theater/Sound Room
STAC9227X5TAEyyX	5	95dB	No	No
STAC9227X3TAEyyX	3.3	95dB	No	No

NOTE: When ordering these parts the “yy” will be replaced with the CODEC revision. Add an “R” to the end of any of these part numbers for delivery on Tape and Reel. The minimum order quantity for Tape and Reel is 2,000 units for both package options.

Innovate with IDT audio for high fidelity. Contact:

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