



# PRODUCT BRIEF

## TEN CHANNEL HD AUDIO CODEC

Low Power Optimized for ECR15b and EuP

92HD89E

### DESCRIPTION

The 92HD89E is a low power optimized, high fidelity, 10-channel audio codec compatible with Intel's High Definition (HD) Audio Interface.

The 92HD89E provides stereo 24-bit resolution with sample rates up to 192kHz.

The 92HD89E provides high quality, HD Audio capability to notebook and desktop PC applications.

### FEATURES

- **10 Channels (5 stereo DACs and 2 stereo ADCs) with 24-bit resolution**
  - ◆ Supports full-duplex 7.1 audio and simultaneous VoIP
- **ECR15b and EuP low power support**
- **Microsoft WLP premium logo compliant, per Logo Point**
- **8 analog ports with port presence detect + CD In**
- **3 integrated headphone amps**
- **4 adjustable VREF Out pins for microphone bias**
- **Dual SPDIF for WLP compliant support of simultaneous HDMI and SPDIF output**
- **SPDIF Input**
- **Digital microphone input (mono or stereo)**
- **High performance analog mixer**
- **Support for 1.5V and 3.3V HDA signaling**
- **+5 V analog power supply**
- **Digital and Analog PC Beep to all outputs**
- **48-pin QFP and 40-pad QFN RoHS packages**

### SOFTWARE SUPPORT

- **Intuitive IDT HD Sound graphical user interface that allows configurability and preference settings**
- **12 band fully parametric equalizer**
  - ◆ 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**
  - ◆ Enables improved voice articulation
  - ◆ Compressor/limiter allows higher average volume level without resonances or damage to speakers.
- **IDT Vista APO wrapper**
  - ◆ Enables multiple APOs to be used with the IDT Driver
- **Microphone Beam Forming, Acoustic Echo Cancellation, and Noise Suppression**
- **Dynamic Stream Switching**
  - ◆ Improved multi-streaming user experience with less support calls
- **Broad 3<sup>rd</sup> party branded software including Creative, Dolby, DTS, and SRS**
- **Smart Configuration Suite (SCS) improves time to market and software quality**
  - ◆ Online pin and feature configuration tool generates BIOS verb table for Windows and Linux.
  - ◆ Downloadable WHQL compliant, self configurable driver for XP, Vista and Win7 based on verb table and test files generated.
  - ◆ BIOS verb tables can be tested with the self configurable driver prior to flashing into BIOS.

### PART NUMBERS

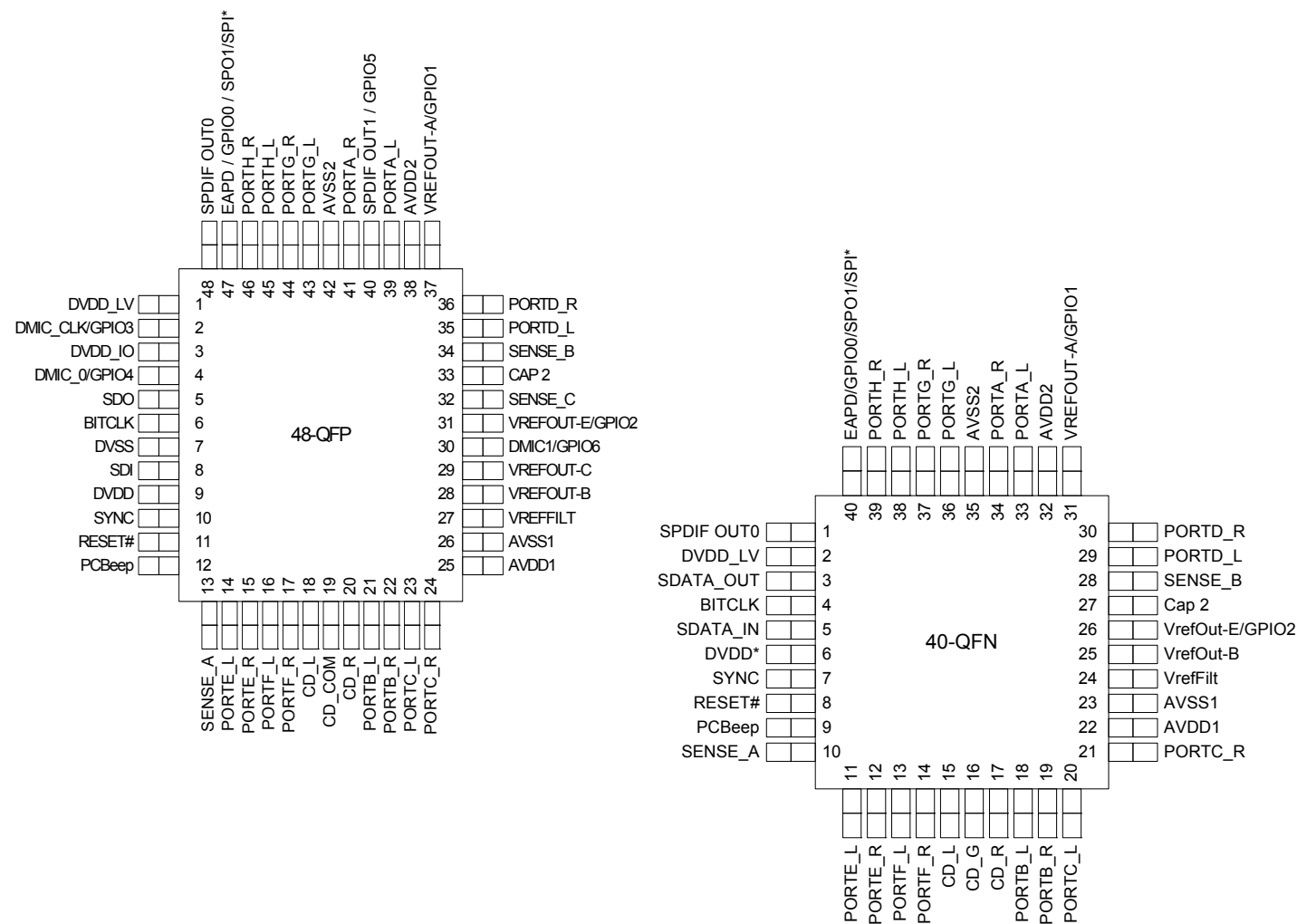
92HD89E1X5NDGXyyX	5V Analog, 40QFN, 1.5V HDA Signaling
92HD89E2X5NDGXyyX	5V Analog, 40QFN, 3.3V HDA Signaling
92HD89E3X5PRGXyyX	5V Analog, 48QFP, switchable 1.5V or 3.3V HDA Signaling

yy = silicon stepping/revision, contact sales for current data.  
Add an "8" to the end for tape and reel delivery.

92HD89E

Ten channel HD Audio codec optimized for low power

PINOUT



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