



CONEXANT



# USB Speakers-on-a-Chip with Hardware Acoustic Echo Cancellation DSP

## CX20562-EVK Evaluation Kit

Conexant's portfolio includes a comprehensive suite of semiconductor solutions for communications and consumer applications.

Conexant's CX20562-EVK evaluation kit contains everything to design convergence products for today's high definition audio and voice applications.

The CX20562 is the first Speakers-on-a-Chip (SPoC) single chip solution with a hardware Acoustic Echo Cancellation (AEC) Digital Signal Processor (DSP).

The chip provides superior audio and voice performance and USB bus powered or external powered option.

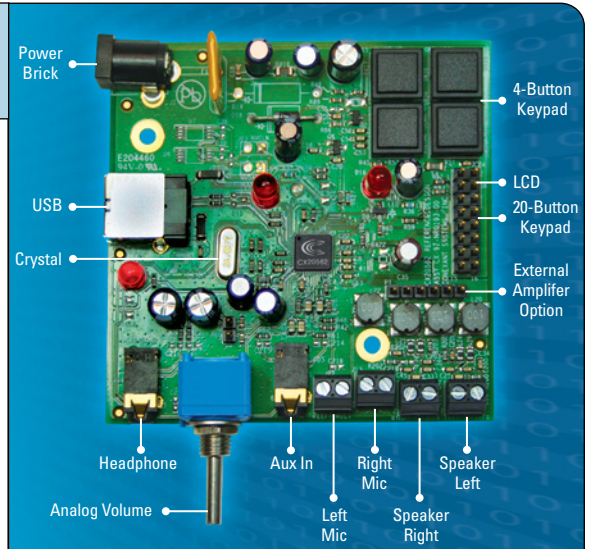
The CX20562 has the highest level of Bill of Materials (BOM) integration of Class-D amplifier, USB CODEC, and DSP (No NV-RAM required).

### Distinguishing Features

- Wideband Acoustic Echo Cancellation DSP engine exceeding TIA 920 requirement
- Integrated 1.2 W Class-D amplifier, higher output reference design available
- 24-bit DAC/ 16-bit ADC
- USB 2.0 full speed compliant
- Auxiliary line in input with jack sense
- Music-On-Hold
- Aux Fade-in/ Fade-out
- DSP Array Microphone
- BrightSound™
- USB bus powered or external powered option

### Applications

- All-in-One PC speakers, MP3 player dock, speakerphone
- USB VoIP speakerphone
- LCD monitor with built-in speakers and speakerphone
- Notebook PC docking station
- Embedded USB audio applications



### Evaluation Kit and Software CD Content

- Reference Board - CX-9Z-NR0193-00
- Datasheet - DO-428988-DS-2
- Schematic - SCH-NR0193-00, BOM-NR0193-00
- Layout - G600Z-NR0193-01 (4-layer board)
- Layout - G600Z-NR0193-02 (2-layer board)
- Subwoofer Schematic - CX-9Z-NR0193-SUB
- 5-Watt Amplifier Schematic - CX-9Z-NR0193-EXTAMP
- AEC Turning via One-Time Programmable (OTP) Document - APP-NOTE5
- Electromagnetic Interference (EMI) Filtering Recommendation APP-NOTE2
- USB OTP Programming Tool - APP-NOTE1
- Microphone Installation Guidelines - APP-NOTE4
- Human Interface Devices (HID) Document - APP-NOTE3
- Driver, VM Central Software CD, and Software Development Kit

**Part Number** CX20562-EVK  
**Description** USB Speakers-on-a-Chip with Hardware Acoustic Echo Cancellation DSP