

CX20708 Super Wideband Voice Input Processor SoC

Complies with Skype Certification requirements for TV solutions

Conexant's CX20708 is industry's first dedicated Super Wideband Voice Input Processor SoC for Telepresence and Speech Recognition applications. This highly integrated SoC features high-fidelity 16-bit ADC, microphone pre-amp, Asynchronous Sample Rate Converter, Sync Buffer, and our award-winning Digital Signal Processor.

The included advanced superwideband voice processing algorithms deliver a crisp clear, fullduplex, low-latency, audio experience, requiring as little as two matched high-sensitivity unidirectional microphones. The flexible USB and I²S/I²C interfaces are ideal for integration in the High Definition Camera module or directly inside the Television/ Set-Top-Box.

The CX20708 is a turnkey, singlechip solution that compensates for microphone self-noise, eliminates ambient noise, and maximizes long distance voice pick-up, all withoutloading the host CPU. This allows the system designer to achieve a consistent level of voice performance cross software applications and fast to market.

Conexant offers complete an Evaluation Kit (EVK), including the EVK board, data sheet, reference design schematics, AVL, and sample silicon.

Applications

- Telepresence/Unified Communication Device
- Speech Recognition applications

| Key Features | Benefits |
|--|--|
| I ² S/USB Interface | Flexible topology to match with the host system |
| Integrated Super Wideband Voice Processing | Higher performance voice quality |
| Far Field Pickup Microphone and Beam Forming | Only require minimum of 2 microphones for long range speakerphone and speech recognition usage |
| Integrated microphone pre-amp, ADC, and DSP | Single chip voice input |
| Sub-band Acoustic Echo Cancellation | Enable full duplex speech recognition. |

Part Number CX20708

Description Super Wideband Voice Input Processor SoC

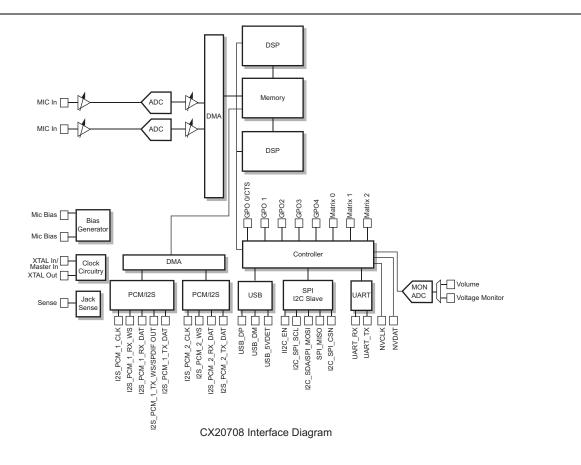
CX20708 Features CODEC

- ♦ High Fidelity 16-bit ADC
- Configurable Microphone Preamp, up to 40 dB
- Mic Bias
- On-chip, 50 MIPS, Dual Core Audio Processor

- Fractional SRC and Sync Buffers
- Serial Data Interface (I2S/PCM)
- I²C Control Interface
- USB 2.0. Full Speed UAC compliant interface, Slave
- Support Asynchronous USB Audio Data Transfer Mode
- Super Wideband Voice Processing Algorithms
- Sub-band Acoustic Echo

Canceller

- Beam Forming
- ◆ In-band Acoustic Noise Reduction
- Far Field Pickup Microphone Auto Gain Control
- Parametric Microphone EQ
- Audio sample rate: 8,16, 24, 32, 44.1, 48 kHz
- 9x9mm 76 QFN Package



Conexant Product Portfolio

Conexant's comprehensive product portfolio includes solutions for imaging, audio, video surveillance, and embedded modem applications.

© 2011 Conexant Systems, Inc. All Rights Reserved. Conexant and the Conexant logo are registered trademarks of Conexant Systems, Inc. All other trademarks are owned by their respective owners. Although Conexant strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. THIS MATERIAL IS PROVIDED AS IS AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANT ABILITY, FITNESS FOR A PAPARTICULAR PURPOSE AND NON-INFRINGEMENT. Conexant shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

www.conexant.com

General Information: U.S. and Canada: (888) 855-4562 International: 1+ (949) 483-3000 Headquarters

4000 MacArthur Blvd. Newport Beach, CA 92660

Doc# PBR-202748

