

CX20703

- Mobile Internet Device
- Multimedia IP phone
- Portable Navigation Device
- Portable Media Player
- Intercom Systems



Distinguishing Features

- 24-bit DAC/ADC, SNR 102 dB, THD - 92 dB at 48 kHz 3.3 V
- Configurable on-chip proprietary DSP
 - Subband acoustic echo suppression and cancellation
 - Subband line echo cancellation
 - Array mic beam-forming
 - Noise reduction
 - Dynamic loudness adaptor
 - Mic auto gain control
 - Digital parametric equalizer (10 bands/channel)
 - Dynamic range compression
 - 3D Expander (Phantom mode and Immersion mode)
- 4-wire and 5-wire digital audio I/O (I²S/PCM/SPDIF), supporting full duplex independent sampling rates
- One 3-wire I²C or 4-wire SPI slave interface for external MCU
- 2.5 W x 2 BTL stereo Class-D speaker amplifier, also configurable as a PWM
- Flexible power management
- Audio sample rate: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 64, 88.2, 96 kHz

Part Number CX20703

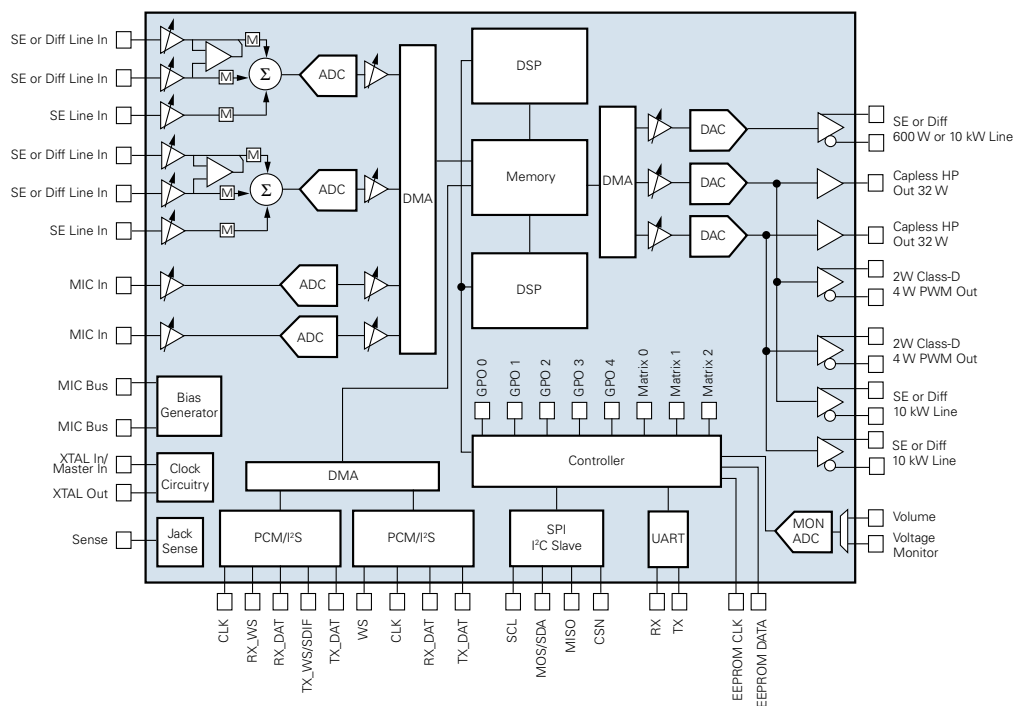
Description	Speakers-on-a-Chip Voice/Audio DSP, Integrated I ² S/I ² C Codec, and PWM Class-D Amplifier
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- 4-wire and 5-wire digital audio I/O (I²S/PCM/SPDIF), supporting full duplex independent sampling rates
- One 3-wire I²C or 4-wire SPI slave interface for external MCU
- Eight GPIO pins
- 2.5 W x 2 BTL stereo Class-D speaker amplifier, also configurable as a PWM
- Output for external feedback-less type Class-D amplifier
- Spread Spectrum for filter-less, low EMI output
- Up to three single-ended line in (convertible to one stereo differential line in and one single-end)
- Two microphones interfaces with on-chip bias supply
- Integrated 50 mW headphone driver with jack sense
- Differential line out
- 24-bit DAC/ADC, SNR 102 dB, THD - 92 dB at 48 kHz 3.3 V
- Audio sample rate: 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, 48, 64, 88.2, 96 kHz
- 90 dB dynamic range with 0.01percent THD+N at 4 Ω load
- 10-bit ADC multiplexed to support analog volume potentiometer and DC level detection

- Flexible power management
- Variable master clock rates
 - 7 mW stereo playback (1.8 V supply)
 - 14 mW record and playback (1.8 V supply)

- Subband acoustic echo suppression and cancellation
- Subband line echo cancellation
- Array mic beam-forming
- Noise reduction
- Dynamic loudness adaptor
- Mic auto gain control
- Digital parametric equalizer (10 bands/channel)
- Dynamic range compression
- 3D Expander (Phantom mode and Immersion mode)

- Fast configuration tool via USB-to-I²C from PC
- Device configuration and DSP parameter adjustment
- Output log for convenient MCU programming



The CX20703 is offered in a 76-pin QFN package and is compatible with Conexant's CX20709 SPoC

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