

ATS8102

SoundClear® 2-Microphone Speakerphone Solution for CSR 8670

Enabling the Clearest Speakerphone Calls

Enhanced Removal of Background Noise and Reverberation

The ATS8102 is the newest innovation in the renowned SoundClear family of DSP software solutions. It uses advanced dual microphone de-reverberation and noise reduction technology with 360-degree omnidirectional voice pickup to deliver natural sounding voice quality and high intelligibility for conference and speakerphone applications. Excessive reverberation makes speakerphone calls sound like its coming from inside a tunnel, and background noise makes speech harder to understand. The SoundClear 2-microphone speakerphone software reduces the unpleasant effect of room reverberation and removes unwanted background noise, resulting in natural voice quality and significant speech signal-to-noise ratio improvement. Combined with robust echo cancellation and full duplex controls, 360 degree voice pickup, and dynamic features including automatic volume control and level adjust, the ATS8102 brings unparalleled performance to any speakerphone applications.



SOUND CLEAR
FROM CIRRUS LOGIC

Optimized for the CSR 8670 processor and follow-on Kalimba platforms, ATS8102's patented DSP techniques are field proven in over 75 million units worldwide. Cirrus Logic brings together the superior SoundClear technology, real-time tuning and diagnostics with the RAPID2™ tool, and comprehensive audio support to reduce development cost, risk and time to market. ATS8102 enables Bluetooth speakerphones including portable stereo speakers to deliver remarkably loud and clear voice without the distraction of unwanted echo, noise, and room reverberation.

Key Features

- 2-mic speakerphone with 360° voice pickup
- Fast-adapting noise reduction eliminates up to 23 dB of unwanted background noise
- Robust echo cancellation removes up to 45 dB of echo
- Reverberation attenuation
- Full-duplex, echo free communication
- Wideband (16 kHz) and traditional narrowband (8 kHz) audio
- Non-linear residual echo suppressor
- 4-filter precision FlexEQ equalizer
- Natural sounding voice quality and high speech intelligibility
- Siri®/ASR mode ensures voice recognition engine is not disturbed by echo
- Rx path pre-speaker compander maximizes speaker loudness and minimizes distortion
- Simple yet comprehensive tuning with RAPID2™
- World-class support

Enabling the Highest Quality Communication for Speakerphone Calls Anywhere

ATS8102 SoundClear 2-Mic Bluetooth Speakerphone Solution

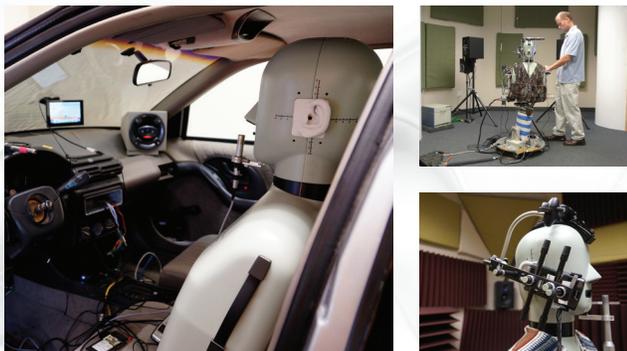


SoundClear[®] Technology

SoundClear utilizes patented intelligent speech tracking and adaptive processing to exploit speech patterns and environmental conditions. The result is self-adjusting algorithms that emphasize voice quality whether in a quiet room or the noisiest vehicle. The SoundClear algorithms deliver consistent audio performance with auto microphone calibration, automatic level control, and automatic volume control. Cirrus Logic provides breakthrough technology to solve our customer's audio problems. We leverage our extensive patent portfolio and over 10 years of experience producing the highest voice quality solution. The ATS7000 is highly optimized for CSR BlueCore5 and 8670 headset designs.

Comprehensive Support

Experienced software, hardware, systems and audio engineers utilize state-of-the-art audio equipment to assist with individual customer projects. These audio support services include test and measurement, electrical analysis, mechanical analysis and recommendations on transducers and plastics. Applications engineers prepare comprehensive reports citing the acoustic analysis results and detailed recommendations to help customers drive products to market quickly while achieving the highest quality audio performance and network compliance.



Tuning and Optimization

Cirrus Logic offers RAPID2 (Real-time Audio Perfection and Integration Diagnostics), a PC-based tool that allows developers to easily monitor and tune programmable parameters in real time via a simple Graphical User Interface (GUI).

- Fast and easy tuning
- Intuitive block diagram view
- Real time control and diagnostics
- System-level measurements and statistics

