

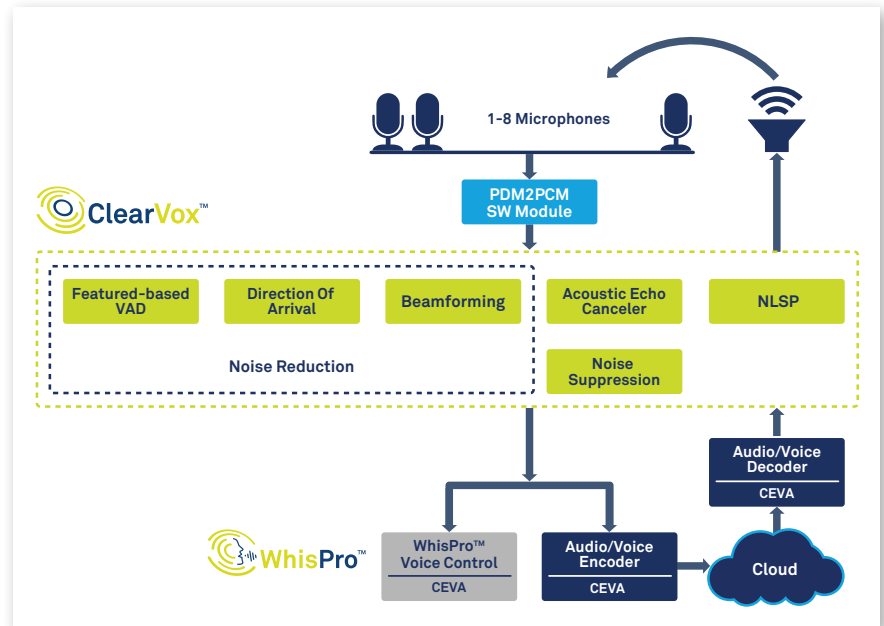
# CEVA ClearVox™ Solution is an Advanced Software Package Providing Enhanced Speech Intelligibility for Voice-Enabled Devices

**ClearVox** extends CEVA Sound portfolio with voice input processing software package that includes multi-mic beamforming, speaker direction of arrival, noise suppression and echo cancellation. ClearVox is licensed exclusively for the CEVA-BX1, CEVA-BX2 and SensPro family, as well as Arm CPUs.

## Key Benefits

- **Enables speech recognition applications to be used anywhere**
  - Far field voice pick-up, up to 10 meters
  - Typically provides 12dB SNR improvement
  - Speech recognition rate improvement in noisy conditions
  - Barge-in during music and prompt playback
  - Applicable for embedded and cloud based speech recognition systems
- **Allows high quality voice communication in noisy environments**
  - From wireless headsets through conference phones to automotive hands free voice systems
- **Optimized and efficient workload**
  - Unique Software architecture to minimize workload for efficient cost & power
- **Less than 150MHz for 8-mic smart speaker use-case, including SW VAD, Beamforming, and Stereo AEC.**

## ClearVox System Architecture



## Target Markets

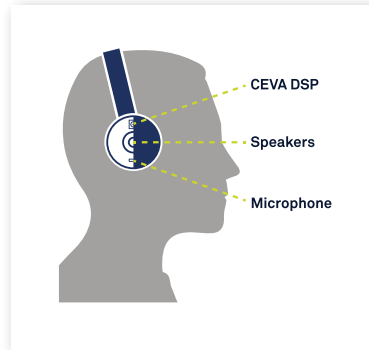


## Availability

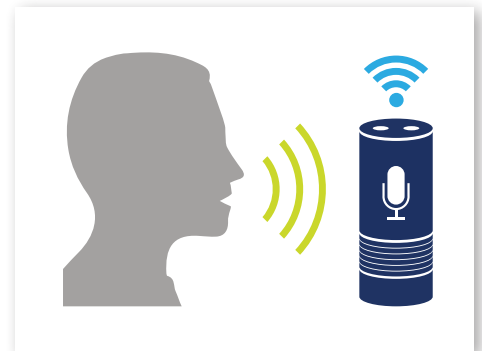
ClearVox is offered in two pre-packaged software form factors; one for near-field applications including headsets and wearables, and the other for far-field applications targeting the emerging smart speaker, infotainment and other advanced voice-enabled applications.

- > **ClearVox Universal** – targeted for smarthome, wearables and automotive applications
- > **ClearVox Headset** – optimized for headset applications

### ClearVox Headset



### ClearVox



## ClearVox Reference Design

- > **Combined input and output processing:**
  - Speech recognition – using a configurable number of mics from 1 to 8
  - Audio playback – decode and post-processing
- > **A full set of drivers and add-on software such as:**
  - Beamforming
  - Acoustic Echo Cancellation
  - Direction of Arrival
  - Voice Activity Detection
  - Codecs

### CEVA ClearVox demo board



#### USA (HQ)

1174 Castro Street  
Suite 210  
Mountain View  
CA, 94040  
Tel: +1 (650) 417 7900

#### Israel

2 Maskit Street  
POBox 2068  
Herzeliya 46120  
Tel: +972 9 961 3700

#### Ireland

18/19 South William  
Street, 2nd Floor  
Dublin 2  
Tel: +353 1 237 3900

#### France

RivieraWaves S.A.S  
Les Bureaux Green Side 5, Bat 6  
400, avenue Roumanille, 06410  
Biot, Sophia Antipolis, France  
Tel: +33 4 83 76 06 00

#### USA (East)

CEVA Technologies, Inc.  
15245 Shady Grove Road  
Suite 400  
Rockville, MD 20850  
Tel: +1 650 417 7900

For more information:

