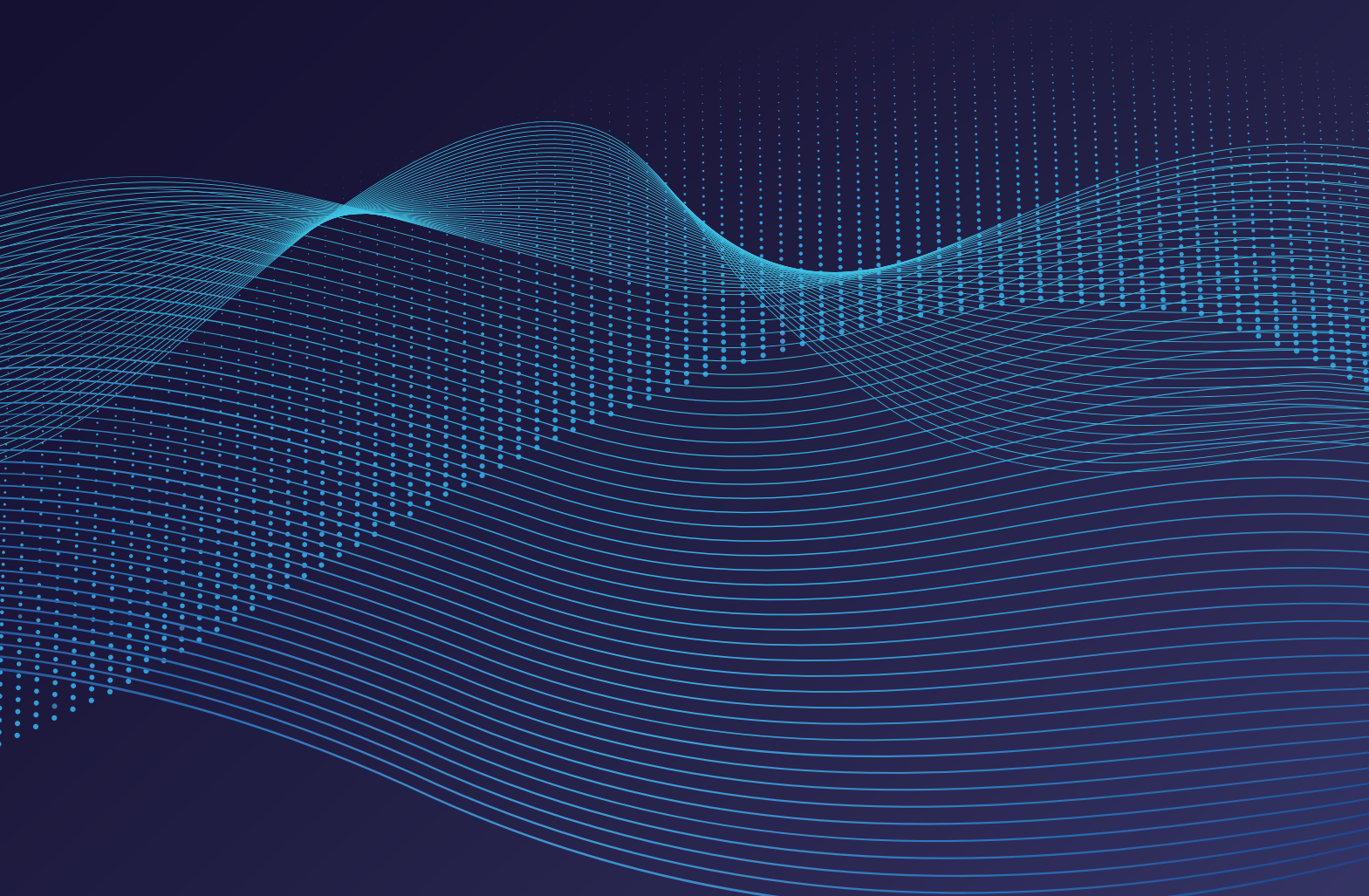


Masterpiece Waves for Humanity



From ClearSense Audio (Smart Listening App)
to Customized Voice Interface Solutions for Enterprises

✉ contact@mpwav.com

🏠 <https://mpwav.com/en>

Linktree





A Message from the CEO

Welcome to **mpWAV**. We create the finest human-oriented masterpiece waves.

At mpWAV, our proprietary voice technologies enable clearer and more comfortable communication in noisy environments—from ClearSense Audio, our Smart Listening App, to customized enterprise voice solutions that make communication between people and machines more natural and seamless.

Our vision is to create voice interfaces that enhance everyday life and deliver meaningful social value.

We will continue to pursue technological excellence and create the finest Masterpiece Waves that exceed our customers' expectations.

Sound by mpWAV.



History

2026

- Jul. Priority-Purchase Intelligent Information Product designated (Unmanned Information Terminal – Ordering, Grade 1; Nos. 2026-444-445)
Public-Private Open Innovation Program awarded (Trigem Computer)
Venturium-Telecom Open Innovation Program awarded (SK Telecom)
- May Deep-Tech Startup Project (AX Consortium) awarded
- Mar. **ClearSense Audio designated as a Government Innovative Procurement Product**
Assistive Technology R&D Program awarded
Participated in MWC exhibition booth
- Jan. Bio & Medical Technology Development Program awarded (NRF)

2025

- Nov. **Winner of an Outstanding Company in the AIoT Innovation Awards – Technology Category**
Winner of an Outstanding Company in the On-Device AI Challenge
- Sep. **Winner of the Grand Prize at the AI Innovation Procurement Fair**
Participated in Reha-Homecare exhibition booth
Technology Development Support Program for the Underprivileged awarded
Defense Venture Support Program awarded
- Jul. Human-Centered Next-Generation Challenging AI Technology Development Project awarded
Participated in the exhibition booth of Alfresa Healthcare (Tokyo)
Korea-Japan IT Business Exchange Meeting attended (Sapporo)
- May. **NET(New Excellent Technology) Program certified**
- Apr. **Participated in World IT Show exhibition booth**
Deeptech Incubator Project for Startup 1000+ DIPS awarded
Deeptech Incubator Project for Startup 1000+ Micro DIPS (AX Program) awarded
Deeptech Incubator Project (On-Device AI Challenge) awarded

2024

- Dec. **Entry into the Venture Nara Marketplace**
- Nov. **Winner of the Excellence Award at the Investment Bridge IR Competition**
Plug-and-Play Silicon Valley Winter Summit invited
Winner of the Prime Minister's Prize at the Korea Invention Patent Exhibition
- Jul. **Selected for Weconomy Startup Challenge by Seoul Business Agency**

- Jul. **Winner of the 18th First-Half Korea Excellent Patent Awards**
Technology Development Support Program for the Underprivileged awarded
- May Global Corporate Collaboration (Google Play) Program awarded
- Feb. **Participated in MWC 2024 exhibition booth**
- Jan. **Participated in CES 2024 exhibition booth**

2023

- Dec. **Winner of AccessABILITY Awards for CES2024 by USA TODAY Reviewed**
- Nov. **Double winner of CES2024 Innovation Awards** in 'Mobile Devices, Accessories & Apps' and 'Digital Health'
- Sep. Korean Governmental (NRF – Future Promising Converging Technology Pioneer) project awarded
- May **Venture Enterprise certified**
- Apr. Korean Governmental (NRF – Next-Generation Promising Seed Technology Comm. Fast Track) project awarded
- Mar. ADD(Agency for Defense Development, Korea) service order awarded

2022

- Dec. **Winner (Minister Award) of the 2022 AI Grand Challenge 3rd Competition**
- May Korean Governmental (MSS – Startup Growth Technology Development – Stepping Stone) project awarded
- Mar. Korean Governmental (IITP) project awarded

2021

- Dec. **2nd place in the 2021 AI Grand Challenge 3rd Competition**
- Mar. Korean Governmental (IITP) project awarded

2020

- Dec. **Transferring 8 patents from Sogang University Industry-Academic Cooperation Foundation**
- Nov. Incorporated

Product 1

Download

Google Play

App Store

ClearSense Audio

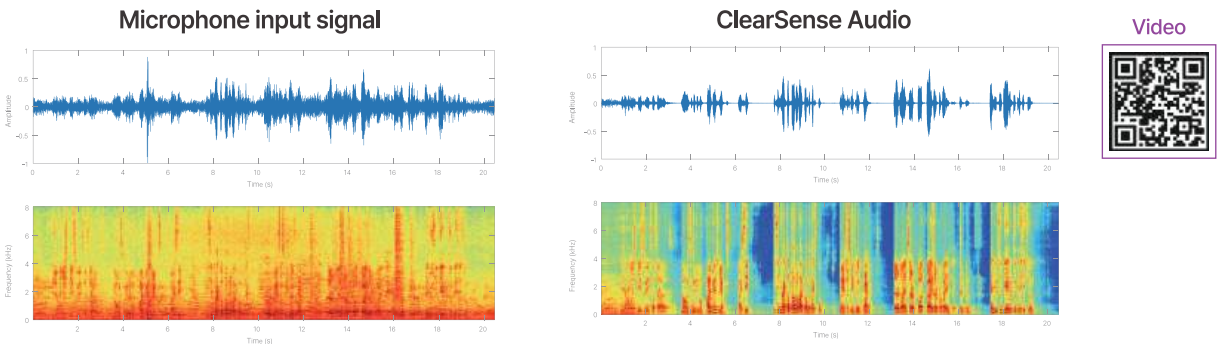
Comfortable and clean sounds without any reluctance

PSAPs

(Personal Sound Amplification Products)

ClearSense Audio

Yes	☐	Reluctance	No	☒
Necessary	☐	Adaptation training	Unnecessary	☒
Poor	☐	Performance	Excellent	☐



- Check Points
- ☒

Hearing aids amplify all surrounding sounds, requiring adaptation training. ClearSense Audio requires no training.
- ☒

Enjoy clear, comfortable sound through your everyday earphones with mpWAV's unique speech enhancement technology.

ClearSense Audio

Double winner of CES 2024 Innovation Awards

'Mobile Devices, Accessories & Apps' and 'Digital Health'

We promise the best masterpiece with mpWAV's distinctive technology.

Disclaimer
ClearSense Audio is not a hearing aid or medical device, and is not intended to diagnose, treat, cure, or prevent hearing loss or any disease. If you suspect hearing loss, please consult a hearing-care professional.

Product 2

Counter Communication Support Solution (ClearSense Audio+)

Integrated real-time AI speech enhancement and live captioning for face-to-face service counters

[Standard Mode]



For Seniors & People with Hearing Difficulties
Clear listening and accurate captions, even in noisy environments

[Interpretation Mode]



For International Visitors
Real-time translated captions & speech in noisy environments

Conventional Counter Service		ClearSense Audio+
Buried in noise, hard to hear	Conversation in noise	Only the voice, clearly heard
None	Captions	Real-time display
Interpreter required	International visitors	Translated captions & speech

[Applications]



Public Offices · Hospitals · Airports · Banks · Customer Service Centers, and More

Product 3

AI Conversational Kiosk Solution

Transform your existing kiosk into a barrier-free, AI conversational kiosk with our microphone array solution.





Check Point
✓ Order by voice, even in noisy stores—just like talking to a staff member.

Key Differentiators

Comparison	Microphone	Noise-robust ASR pre-processing	Barrier-free
Conventional kiosk	Pin microphone	×	×
Our solution	Mic array	○ (proprietary patents)	○ (conversational kiosk certified)

Product Features

- Automatic ordering based on accurate recognition of user utterances
- Achieved over 95% order success rate in noisy store environments (TTA-certified test report)
- High user satisfaction among seniors with low digital literacy: 5.51/7 (Field test at Nonhyeon Senior Welfare Center)

Check Point

✓ Conventional kiosks have to be purchased as a whole unit, while our solution requires only conversion hardware and software.

Product 4

On-Device Voice Interface Mic Array Module

Built-in far-field voice interface for robots and other devices
- an on-device solution module with built-in DSP for noise suppression and sound source localization

[Linear Module]	[Circular Module]	[Far-Field Voice Interface Module for Robots and Devices - On-Device Noise Suppression and Sound Source Localization] Video
42.09 dB Echo and noise suppression	46.55 % Relative WER improvement in noise	~1 MB DSP Real-time standalone operation, no AP required

Key Adoption Points

- Upgrade recognition performance without retuning the existing recognition engine—simply replace the existing microphone with our module
- Algorithm, firmware, and board all developed in-house
- Real-time on-device processing by the module alone, no AP required
- Proven supply record: mic array modules for voice interfaces to multiple enterprises, including major corporations and robotics companies

Hardware Specifications (common to Product 4 · 5)

Mic input	16 kHz / 16-bit · MEMS, 2 to 6 channels
Echo input	48 kHz / 16-bit mono/stereo references
Output	16 kHz / 16-bit, 1-channel enhanced speech stream 48 kHz / 16-bit mono/stereo echo, digital amplifier
Interface	USB Full Speed Audio Class
Layout	Linear / circular (custom layouts supported)
Processor	Built-in DSP, on-device processing (no AP required)
Solution	mpABL (echo cancellation + beamforming + localization)



NET (New Excellent Technology) Certification
· Prime Minister's Award, Korea Invention Patent Competition
Microphone Array Modules Supplied to Multiple Companies, Including Major Enterprises

Product 5

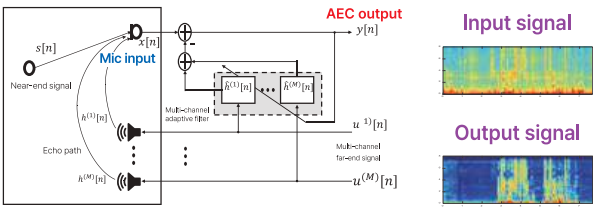
Table-Top Microphone USB microphone with built-in noise suppression & speech enhancement

Table-Top Microphone (USB) Top Side	Product Features · Same specifications as the Product 04 circular module (see the hardware specification table above) · Accurately picks up the human voice even in noisy environments - on-device echo cancellation, beamforming and localization (mpABL) · Plug-and-play functional microphone via USB (USB Full Speed Audio Class) · Easy replacement for existing microphones to enhance speech quality and recognition performance · Table-top use as a clear-listening microphone with noise suppression, replacing conventional microphones
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Technologies

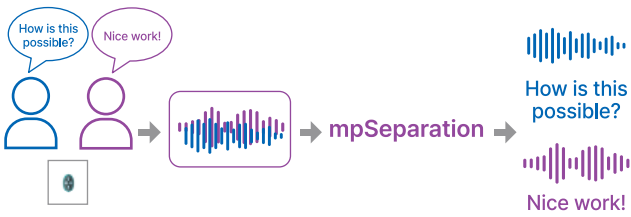
1 mpWAV's Key Technologies

[Multi-Channel Echo Cancellation]



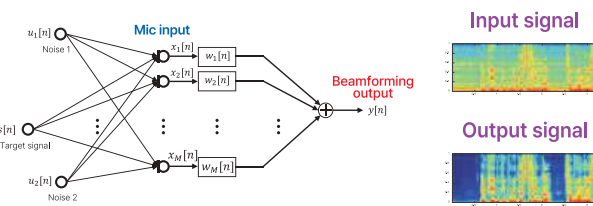
- Removes music and voice prompts from a wide range of devices, including smart TVs, home appliances, smart cars, robots, kiosks, and IoT devices
- Seamless barge-in voice interaction — talk naturally without muting music or voice prompts

[Sound Source Separation]



- Separates individual speech signals from multiple speakers
- Minimizes distortion in each separated speech signal
- Enables automatic meeting minutes generation and conversation transcription

[Beamforming]



- Automatically optimized beamforming for each microphone configuration, with noise and reverberation suppression and minimal speech distortion
- Enhances speech recognition performance without tuning the recognition model

[Hardware Design for Voice Interface]



- MEMS microphone array and multi-channel echo reference audio I/O design
- Full-digital FPGA implementation for speech processing
- Embedded DSP porting and enhanced speech streaming output

2 Applications



Smart Listening App · Hearing Aids · Earbuds



Smart Home (TVs/Home Appliances)



Car Infotainment



Conference System & Meeting Note



Barrier-Free Kiosks



Voice Chat (Games)



Robots

We introduce a new level of solutions with over 28 domestic and international patents.