# NoizzOff

the ultimate noise filter
*for strategic transmissions*

DSP

*powered by*

CandyVoice
GLOBAL VOICE SOLUTIONS

## Protect your communications against voice deception

### CandyVoice

- Expertise in digital voice processing
- Innovative Voice Technologies provider

### Envisioned Modes of Collaboration

- Provider of innovative voice-technology components
- Specialized subcontracting
- Collaboration with operational units
- Partnership within the ecosystem

### Military Credentials

- TRT: development of a military digital radio modem with frequency hopping
- Thales: integration of the TETRA vocoder
- Past clearances: *Secret Défense* and NATO security clearance

### Common features of the technological building blocks

- Proprietary technologies with high TRL (Technology Readiness Level)
- Operate locally (no cloud dependency)
- Real-time performance
- Low computational requirements
- Can operate independently or in synergy
- Simple and intuitive interfaces
- Technologies adaptable to specific needs or use cases (customization options available)
- ITAR-free technology
- Technology demonstrations available upon request

### Integration options

- Locally or on a server
- In a Docker container
- Cross-platform support (all major operating systems)
- Compatible with ARM processors (easily integrable into any hardware, e.g., digital radios)
- Runs on embedded processors (no need for GPU cards)

### Value proposition

Optimizes clarity, fluidity, and communication duration, while also contributing to the protection of users' hearing health.

### Innovation / Competitive advantages

- Eliminates all ambient noise and distant human voices
- Preserves the natural character of the voice
- Automatic Gain Control (AGC): 18 dB
  (stable, controlled signal level despite sudden variations in energy)
- Functionality for separating nearby voices, distant voices, and surrounding noise

### Technical Specifications

- Single-microphone filter
- Noise reduction: > 36 dB / Mute
- Sampling frequencies: 8 kHz, 16 kHz, 32 kHz
- Latency: 50 ms (imperceptible to the user)
- Approx. 10 dB improvement on MOS curve (intelligibility)
- Low computational requirements: 60 MIPS DSP (16-bit integer) at 8 kHz
- Uses only 1% of CPU / ARM (2.4 GHz) at a 16 kHz sampling rate

### Competing Solutions

- Only remove certain types of noise
- Single-microphone filters remove some vocal harmonics, degrading voice quality
- AI-only solutions require high computational power

### KPI

Integrated into 30,000+ radio systems used by sports referees worldwide

**Performance demo :** www.noizzoff.com

### Technology Readiness Level (TRL) : 8

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