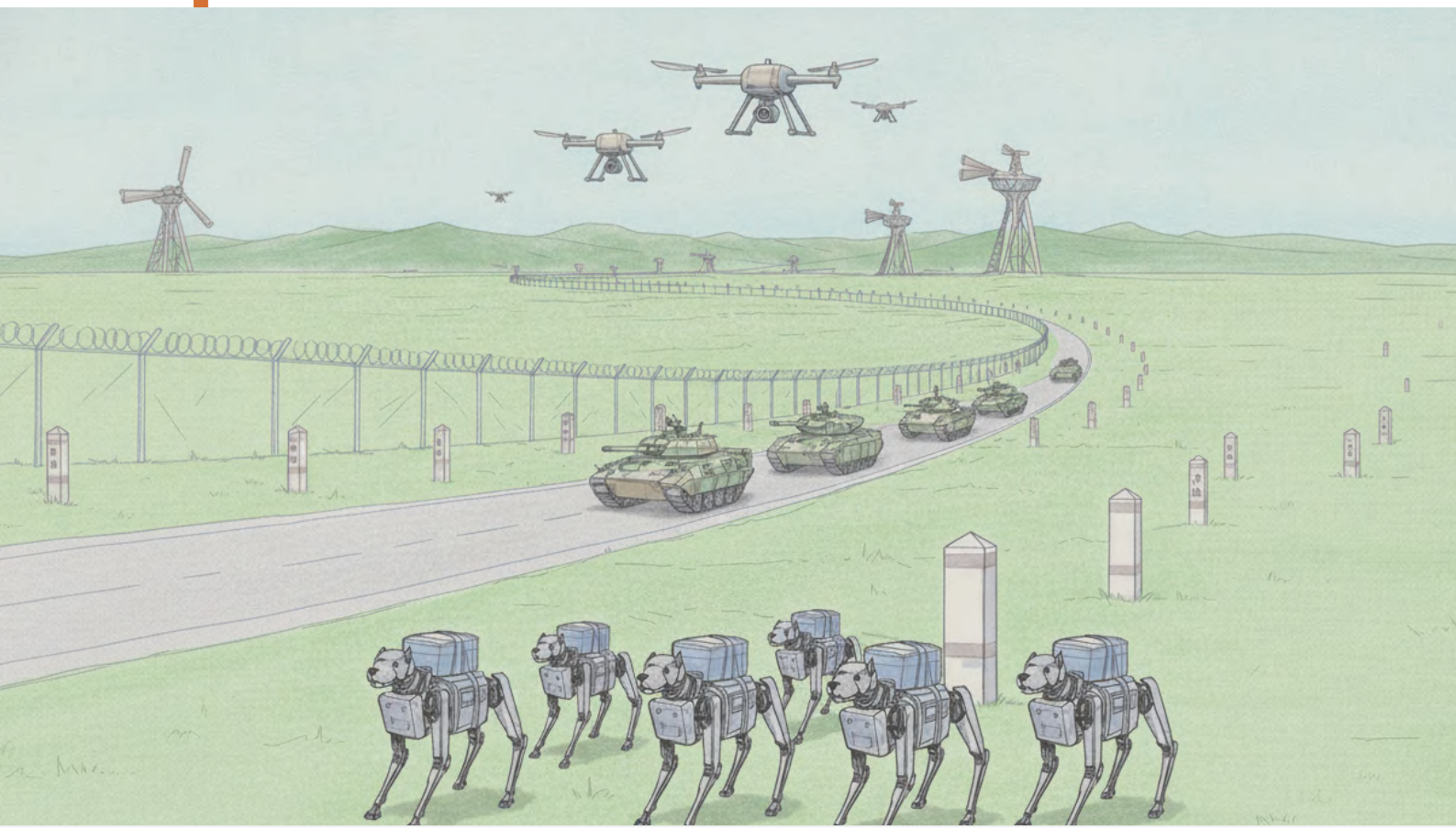
Unmaned System

Overview & Product Guide

In the Unmanned System scenario, we offer an integrated acoustic, optical, and sensing product system for robots, drones, and underwater vehicles. By combining acoustic devices, high-intensity lighting, and SAW sensing modules, the system enables sound amplification, environmental perception, data collection, and real-time transmission.

The framework supports flexible configurations, allowing one or multiple modules to meet different operational needs, forming collaborative, synergistic systems.

All products feature standardized interfaces and protocols, enabling intelligent unmanned systems with opto-acoustic coordination, multi-source perception, and autonomous response capabilities.



RB21H:

- All-terrain mobility: Uses a spherical pendulum drive with amphibious capability, adaptable to complex terrains and aquatic environments, supporting all-weather operation.
- Intelligent autonomous operation: Equipped with a panoramic perception system for real-time route planning and adaptive motion control.
- Multimodal acoustic capability: Integrates strong sound dispersion, auditory enhancement, and underwater sonar detection modules for multi-scenario perception and interaction.

RA21Z:

- High mobility and wide-area coverage: UAV-mounted design allows rapid access to target airspace, enabling large-area, long-range acoustic coverage.
- Remote control and integration: Supports UAV flight control platforms and 4G/5G or wireless modules for remote operation and system integration.
- Multi-functional adaptability: Combines alarm, broadcasting, and dispersal functions, suitable for diverse mission scenarios.

RB12C:

- High all-terrain mobility: Automatically adapts to various complex terrains, meeting field operation requirements.
- High-reliability design: Features 360° anti-collision structure and IP54 protection rating, resistant to extreme temperatures.
- Modular integration: Can be equipped with acoustic, lighting, and chemical detection devices for flexible system expansion.

QS47:

- High-precision forward imaging: Provides 2D forward-looking multibeam detection and front-view acoustic imaging, enhancing autonomous operation and mission reliability.
- Excellent detection performance: Operates at depths up to 300 m with a detection range of 150 m, suitable for complex underwater environments.

RD500:

- Lightweight and easy to integrate: Compact and lightweight design allows easy integration into unmanned platforms for mobile deployment.
- Rapid and accurate detection: Simultaneously detects multiple chemical warfare agents quickly and precisely.

RA21Z

Peak dB	154
Continuous dB	144
Max Range m	1585

RA21Z can flexibly shuttle with the drone. It combines the convenience of real-time intercom and the stability of pre-recorded playback. It can be used for farmland broadcasts and public safety guidance, easily meeting the needs of long-distance sound transmission.

RB12D

Peak dB	147
Continuous dB	138
Max Range m	794

The unmanned intelligent device RB12D features strong-sound pressure level,enabling it to transmit sound clearly ovelong distances in noisy environments.It can autonomouslypatrol and guard,deliver warning or dispatch informationthrough high-penetration voice,and is suitable for scenariossuch as security and emergency command,providing reliablesound and light linkage support for unmanned management.

RB21H

Peak dB	142
Continuous dB	134
Max Range m	501

The RB21H spherical robot integrates a high-performanceacoustic module with a high sound pressure level,enabling itto transmit sound clearly through noisy environments.Itachieves efficient voice warnings and remote communicationin security patrols and monitoring inspections,ensuring thesmooth progress of tasks.

RD500

Type	4
Accuracy %	≥90
Duration s	≤20

RD500 is a chemical reagent detection device based on Surface Acoustic Wave (SAW) technology, integrating simultaneous detection of four typical chemical warfare agents.It features ultra-fast response speed and high sensitivity, suitable for handheld, wearable, and integrated deployment on UAVs, robots, and other platforms.

QS47

Depth m	≥300
Distance m	≥150
Angle °	150(H)\30(V)

QS47 Miniature Forward-Looking Sonar provides acoustic vision for underwater vehicles in various aquatic environments, supporting target detection, identification, collision avoidance, and obstacle detection.It offers dual operating frequencies (400 kHz / 700 kHz) and supports both CW and CHIRP signal modes.

Sound the Victory Horn

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