NOVASKY

LOW ALTITUDE SECURITY

BUILDING 2025 A SAFE WORLD

Novasky Technology Company Limited by Shares

Official WeChat Account

Website

Web·Mail
www.novasky.cn
sales@novasky.cn

Tel·Fax
0731-8893 9908
0731-8893 9909

Add
B7 Lugu Compark,
No.27 Wenxuan Road,
Hi-tech District Changsha

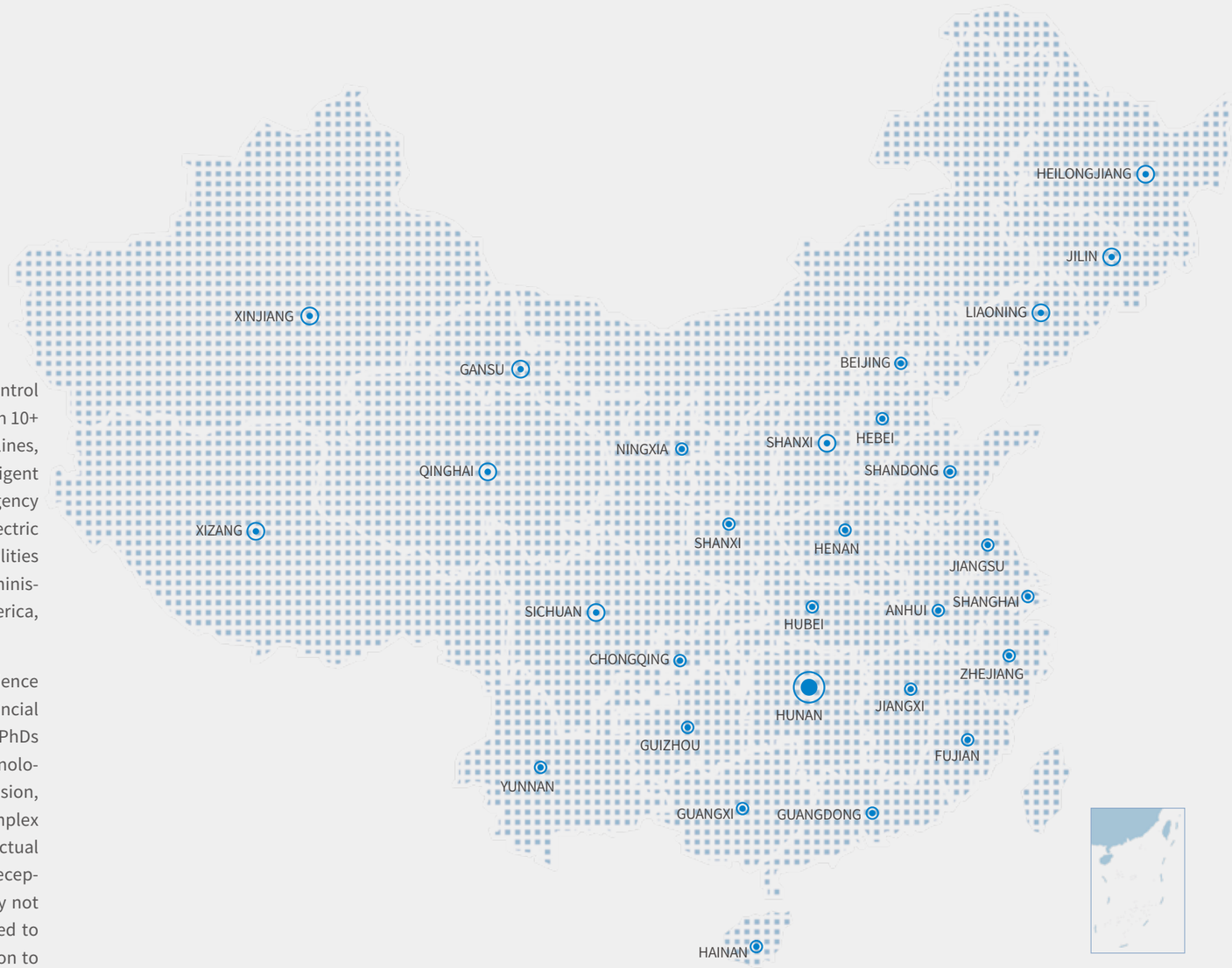
COMPANY PROFILE

Novasky Technology Company Limited by Shares (hereinafter referred to as “the Company”) was founded in 2006, is one of the first batch of “Specialized, Refinement, Differential, Innovation” Little Giants Enterprises, National Intellectual Property Demonstration Enterprises, the first batch of National Emergency Response Industry Key Contact Enterprises, the National Hard Science and Technology Top 100 Enterprises, the first New Hunan Contribution Award Advanced Collective Enterprise, and it is also the standard setter of public security industry and fire rescue industry. The company is headquartered in the beautiful star city of Changsha, with R&D centers in Changsha and Chengdu, and subsidiaries or offices in more than ten regions, including Beijing, Shanghai, Guangdong, Zhejiang, Shandong, Sichuan, Chongqing, Jiangxi, Shaanxi, and Malaysia.

With the vision of “building a safe world”, the company focuses on intelligent perception, cognition and control technologies to provide innovative products and services in the field of physical space security. After more than 10+ years of innovation and precipitation, the company has formed a product family with five major product lines, namely, whole area security, security and emergency, intelligent perception, unmanned systems, and intelligent transportation, and has continuously provided leading products and solutions for customers in the emergency response, judiciary, public security (including the armed police), human defense, airports, petrochemicals, electric power, transportation and other industries. The company's sales network covers 31 provinces and municipalities directly under the central government and autonomous regions, as well as Hong Kong and Macao Special Administrative Regions. Our products are exported to more than 60 countries and regions such as Europe, South America, the Middle East, Southeast Asia, Japan and Korea.

In the field of low altitude defense, the company has radar, radio, artificial intelligence and other fields of science and technology leaders and technical backbone, built “electromagnetic detection and perception” provincial innovation and entrepreneurship team. The company's R&D personnel accounted for about 50%, masters, PhDs accounted for more than 30%. With years of technical accumulation, the company has mastered the core technologies of new radar system, low-slow small target detection and tracking algorithms, multi-source perception fusion, electronic reconnaissance and countermeasures, and target detection and tracking algorithms for ground complex environment, and has overcome and mastered dozens of key technologies with complete independent intellectual property rights, including active and passive fusion detection technology, dexterous jamming technology, deceptive navigation jamming technology, and optoelectronic AI recognition technology, and so on. The company not only provides diversified anti-drone equipment, but also integrated system-level solutions, and is committed to continuously deepening its efforts in terms of technological advancement, practicability, and user satisfaction to set up industry benchmarks.

Novasky anti-drone equipment was recognized as “Hunan Provincial Manufacturing Industry Champion” by Hunan Provincial Department of Industry and Information Technology and Bureau of National Defense Science and Technology Industry in 2024, and ranked the first in Hunan Province in terms of market share for three consecutive years. The company has overcome the problem of controlling “low, slow and small” drones, successfully broken the technical blockade of international giants, and effectively strengthened China's competitiveness in the field of anti-drone technology and the ability of independent control. At the same time, we have also designed and developed the first “box-type drone countermeasures system” in China, which enhances our competitiveness and market influence in the field of multi-means, multi-level, intelligent, integrated, high-precision and high-efficiency countermeasures against drones. With the accelerated take-off of China's low-altitude economy, the company has participated in a number of low-altitude economic sensing infrastructure pilot construction projects, and continues to practice innovative development in the low-altitude field.



The journey is long, but the initial heart is the same. The era of artificial intelligence has come, and the grand blueprint of Novasky is opening up. In the future, we will continue to uphold the “customer-centered” business philosophy, shoulder the “building a safe world” mission, to form an industrial operation as the main body, technological innovation and capital management as two wings (one body two wings), “industry + technology + capital” symbiosis and benign integration. “With the wisdom and sweat of Novasky members, Novasky will forge a more magnificent and brilliant future on the journey of national renaissance and make unremitting efforts to realize the great Chinese dream.

QUALIFICATIONS AND HONORS

- National “SRDI” Little giants (first batch)
- National Emergency Industry Key Contact Enterprise (first batch)
- National Intellectual Property Demonstration Enterprise
- National High-tech Enterprise
- National Hard Science and Technology Enterprise Star TOP100 Award-winning Enterprises
- Top 10 Influential Brands in China Security Alarm Service
- Most Trusted Brand in Xinjiang Security Industry
- Xinjiang Security Innovative Product Supplier
- New Hunan Contribution Award Advanced Collective
- Recommended enterprises for smart city construction in Hunan Province
- Key Enterprises of Manufacturing Industry Chain Group in Hunan Province
- “Hunan Excellence” Small and Medium-sized Enterprises Brand Capacity Enhancement Benchmarking Enterprise
- International Industrial Design Innovation Award
- National Key New Product
- Products Selected by Ministry of Public Security Police Equipment Purchasing Center Purchasing Equipment Catalog
- Science and Technology Award of the Fire department of the Ministry of Public Security
- Ministry of Industry and Information Technology, National Defense Science and Industry Bureau of civilian participation in the military technology and product recommendation catalog products
- Silver Award of China Advanced Technology Transformation and Application Competition
- World Computing Congress Finalist
- Innovative products of China International Fire Equipment Technology Exchange Exhibition
- Key Invention Patent of Hunan Province
- Second Prize of Hunan Provincial Patent
- First Prize of Hunan Advanced Technology Transformation and Application Competition
- Hunan Province's first (set) of major technical equipment

R&D STRENGTH

INDUSTRY-ACADEMIA-RESEARCH COOPERATION:

The company has carried out in-depth cooperation with universities and research institutes such as University of Electronic Science and Technology, National University of Defense Technology, Institute of Electronics of Chinese Academy of Sciences, Zhijiang Laboratory, Central South University, Hunan University, Hunan Normal University, Changsha University of Science and Technology and so on.

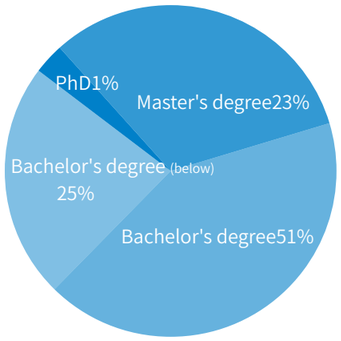
TEAM COMPOSITION

National “Ten Thousand People Program” Talent: 1
Hunan Province “three sharp” innovation talent project talent: 2
Hunan Province Industrial Emerging Advantageous Industry Chain Middle-level Backbone Talents: 2
Changsha Highly Accurate Talents Leading Project Talents: 1
Changsha City Shortage and Urgent Need Talents Gathering Project Talents: 3
Changsha High-level Talents: 9
Provincial Science and Technology Innovation and Entrepreneurship Team: 1
Municipal high-precision industry leading talent team: 1

290+ R&D staff

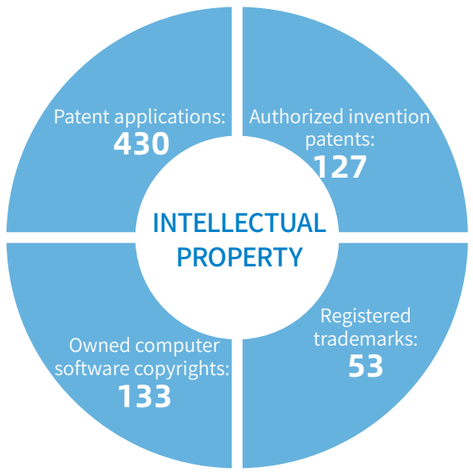
100+ Marketing staff

ACADEMIC COMPOSITION

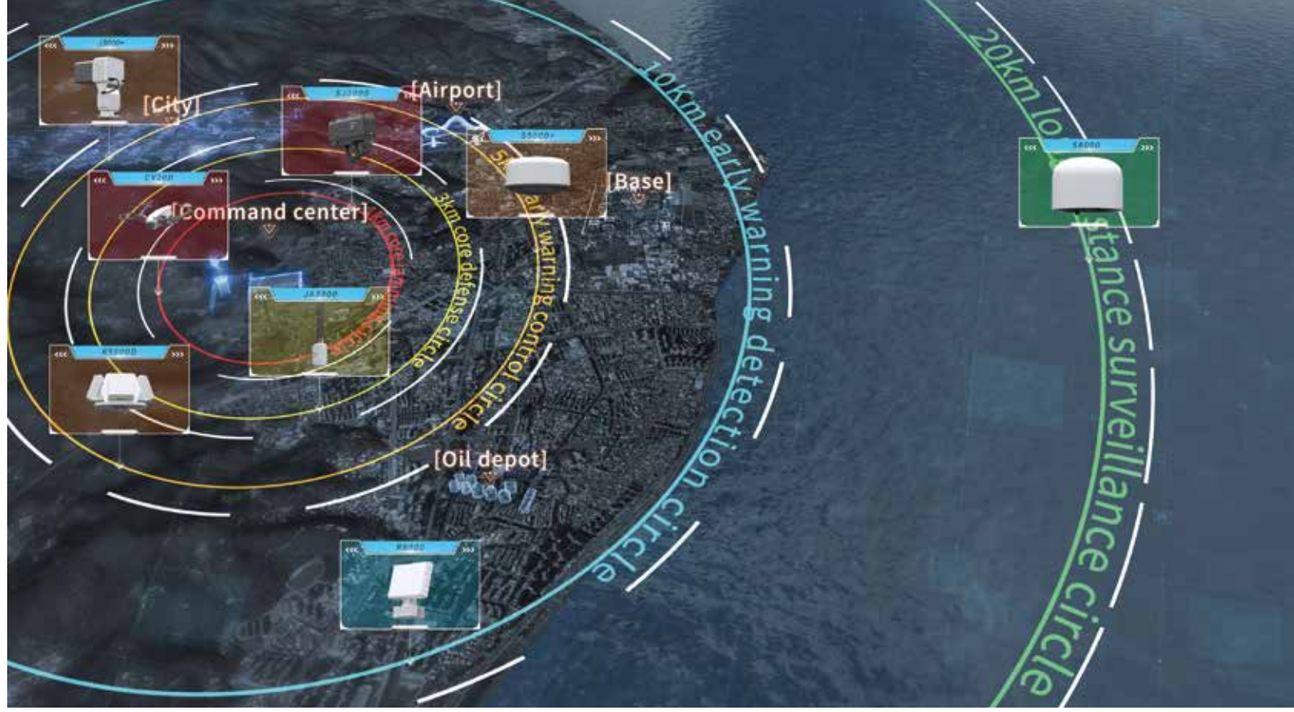


INTELLECTUAL PROPERTY

As of December 31, 2024
A total of 430 patents filed, of which 250 are for inventions;
Existing authorized patents 237 pieces, including 127 pieces of authorized inventions;
134 computer software copyrights and 53 registered trademarks.



CONTENTS



SYSTEM INTRODUCTION

The low-altitude defense system mainly realizes the detection, identification, tracking, positioning and countermeasure of invading "low, slow and small" drones. With radar and RF detector, the drone signal is detected and identified in real time, the alarm information is reported to the software platform, and the target information and flight trajectory are displayed; the drone is tracked and located by optoelectronic equipment and video evidence is obtained; the remote control signal, digital transmission signal, and navigation positioning signal between the invading drone and the remote control are interrupted by suppression interference equipment and navigation deception equipment, so as to drive away or force the invading drone to land. The system has independently developed command and control platform software. It is currently widely used in industries and scenarios such as the military, public security, airports, justice, electricity, petrochemicals, and industrial park.

SYSTEM ADVANTAGES

Systematic layered defense

The system is equipped with long-range radar detection, medium-range RF detection, short-range photoelectric detection, long-range communication link jamming, medium-range satellite navigation jamming and deception, and short-range handheld blind spot filling to achieve layered defense against different target types.

Precise collaboration

Utilize multi-station collaborative positioning and active and passive fusion positioning to guide optoelectronic tracking, jamming countermeasures, fixed-point deception to achieve accurate and rapid disposal of targets.

Intelligent feature recognition

Based on deep learning and rich data models, multi-sensor target feature fusion detection is realized, the detection distance in complex environments is increased by 100%, the accuracy is above 95%, and the model library covers more than 300 type.

Independent and controllable technology

The system software has completed localization adaptation, built a cross-platform and cross-operating system native application ecosystem, and realized closed-loop management from data collection, intelligent analysis to decision-making execution.

01

DETECTION EQUIPMENT

- Detection Equipment
- Electronic Interference Equipment
- Hand-held Portable Equipment
- Integrated Equipment
- AKinetic Energy Anti-UAV Equipment
- Anti-UAV Comprehensive Management Platform

DETECTION EQUIPMENT

RF Detector NI-S3000+

The RF detector is mainly composed of array antenna, RF circuit, multi-channel synchronous receiver, GNSS positioning module, etc., to detect and discover drones in a specific frequency band. Based on amplitude and phase detection technology, the equipment has the functions of drone detection and early warning, model identification and trajectory playback within a wide frequency band. Multiple sets of equipment expansion can achieve TDOA multi-station precise positioning. The equipment is a passive detection device that does not actively emit electromagnetic signals and is green and safe.

AOA+TDOA+Protocol Analysis

It can accurately identify more than 100 types of drones, including most consumer drones, WIFI toy drones, DIY flying drones, analog/digital image transmission, etc. It has a built-in protocol analysis channel and can accurately locate the location information of consumer drones and.

High real-time performance and low false alarm

Signal reception, RF processing, and signal processing are all completed at the detection front end, improving the real-time nature of information detection; unique micro-signal recognition technology ensures that the recognition results are accurate and reliable, greatly reducing the false alarm and missed alarm rates.

All-weather, all-day, all-round

Applicable to complex electromagnetic and climatic environments, not affected by lightning, haze weather, and nighttime visibility, and can achieve 7*24 hours 360° all-round real-time monitoring.

Good Scalability

With the deployment of detection equipment network-ing, cross-target positioning can be achieved, the defense area can be expanded and the positioning accuracy can be improved.

Detection of drone types	Conventional consumer drones, unconventional drones, fixed-wing drones, and FPV drone
Detection frequency band	Within 300MHz~6GHz
Detection distance	3km(Open environment, drone transmission power 0.1W)
Single-station direction finding accuracy	≤3°（RMS）
Detection range	Azimuth 0°~360°, Pitching 0°~90°
Detection altitude	≥1000m(Open environment, drone transmission power 0.1W)

RF Detector NI-S5000+

PRODUCT OVERVIEW

The RF Detector is mainly composed of array antenna, RF circuit, multi-channel synchronous receiver, GNSS positioning module, etc. The equipment supports amplitude and phase comparison + protocol analysis technology, and has the functions of drone detection and early warning, most consumer drone model identification, location analysis, positioning tracking and trajectory playback. At the same time, it supports multi-station TDOA accurate positioning, and can freely expand any number of detection equipment according to the scope of the monitoring area.

PRODUCT FEATURES

Long-distance detection

Covering the 300MHz~6GHz frequency band, it has the capabilities of long-distance detection of drones, high detection sensitivity and intelligent recognitio.

Good environmental adaptability

Applicable to complex electromagnetic and climatic environments, not affected by lightning, haze weather, and nighttime visibility, and can achieve 7*24 hours 360° all-round real-time monitoring.

TDOA+AOA+protocol analysis composite positioning technology

It can not only find the direction of drones at a single station, but also realize AOA+TDOA positioning by deploying multiple points, expanding the detection and warning area, and realizing real-time and accurate positioning of drones. At the same time, it can realize accurate detection and analysis for DJI drones and operator remote controllers, and obtain accurate identification of unique serial numbers.

Rich drone data base

The target recognition algorithm based on deep learning can accurately identify most consumer drones, WIFI tX`oy drones, DIY flying drones, analog/digital image transmission, etc. The number of brands in the model library is ⩾30, and the number of models is ⩾300.

SPECIFICATIONS

Detection of drone types	Conventional consumer drones, unconventional drones, fixed-wing drones, and FPV drone
Detection frequency band	Within 300MHz~6GHz
Detection distance	5km(Open environment, drone transmission power 0.1W)
Single-station direction finding accuracy	⩽3°（RMS）
Detection range	Azimuth 0°~360°
Detection altitude	⩾1000m(Open environment, drone transmission power 0.1W)
Protocol analysis	DJI drone GPS coordinates, flight altitude, speed, direction, model, SN code and other information, and accurately obtain the location of the drone remote controller (operator). The information can be reported to the back end in real time to display the detection situation

Active Radar NI-R5000

PRODUCT OVERVIEW

Radar detection equipment is a set of three-dimensional space surveillance radars with all-round and high-elevation coverage for low-altitude small targets, mainly used to detect and locate low-altitude aircraft. The radar can accurately detect the spatial position of the target, and can be connected to the optoelectronic system and cascaded with countermeasures such as jamming, laser weapons, and navigation decoys to provide accurate target position information.

PRODUCT FEATURES

Long-range detection

All-day, all-weather, large-scale regional reconnaissance and surveillance, effectively obtaining the azimuth, distance, height (pitch angle) three-dimensional position information of surrounding aircraft, birds and other targets, with the characteristics of long detection distance and high data rate.

High-precision location acquisition, high refresh rate

It can track the designated target at a high rate according to the user's selection, guide the high-precision angle measurement equipment, and update the target position regularly.

Intelligent target classification and recognition

The radar support fully automatic target classification and recognition, which can detect and identify low-altitude small targets with a high probability.

Various deployment

It can be quickly set up by tripod, fixed pole or vehicle mounted to meet the target detection needs in various application environments.

SPECIFICATIONS

Working frequency band	X band
Scanning mode	Azimuth mechanical scanning + pitch phased scanning
Detection angle	Azimuth: 0°~360° scanning, pitch angle 0°~40°
Detection radius	5km (micro-drone RCS=0.01㎡)
Detection accuracy	Distance accuracy: ⩽10m, azimuth accuracy: ⩽0.6°, pitch accuracy: ⩽0.6°
Resolution	Distance ⩽30m, azimuth : ⩽3°, pitch : ⩽9°

Array Radar NI-SR3000/NI-SR5000

PRODUCT OVERVIEW

The array radar equipment is a pulse Doppler three-coordinate radar with azimuth scanning and elevation scanning. It is an X-band phased array radar that adopts a fully solid-state, fully coherent system and can effectively detect and warn "low, small, and slow" targets . This radar can accurately detect the spatial position of the target, which can be linked with an opto-electronic system or cascaded with countermeasures such as jamming, laser weapons, and navigation deception.

SPECIFICATIONS

Working frequency band	X-band
Scanning mode	Phase scanning
Detection angle	Azimuth: 0°~360° scanning, pitch angle coverage range 0~60°
Detection radius	⩾3km /5km(RCS=0.01㎡)
Detection accuracy	Distance accuracy: <10m, azimuth accuracy: <0.6°, pitch accuracy: <0.6°
Tracking accuracy	Distance accuracy: <10m, azimuth accuracy: <0.5, pitch accuracy: <0.5
Refresh rate	3s~6s, depending on the pitch coverage

PRODUCT FEATURES

Advanced technical system

It has high detection capability, high recognition capability, high adaptability and low false alarm rate for low-altitude, ultra-low-altitude, slow-speed small targets.

Multi-dimensional precise detection

It can realize the multi-dimensional accurate detection of low-altitude and ultra-low-altitude targets in three coordinates (distance, azimuth, altitude) and speed.

Strong detection capability for low, slow and small targets

Realize long-distance detection and identification and classification of low-altitude, slow-moving, small targets such as birds, drones, helicopters, and balloons.

Continuous generation of low-altitude multi-target tracks

Realize continuous track generation, tracking and multi-mode display of multiple targets in low-altitude environment, including PPI/B display, point track, temporary track/stable track, etc.

Omnidirectional Array Radar NI-QR5000

PRODUCT OVERVIEW

The X-band Omnidirectional array radar is composed of four two-dimensional phased arrays and adopts a fully solid-state, fully coherent pulse Doppler system. It can effectively detect and warn "low, small and slow" targets in all weather conditions. The radar can search and track targets in the entire airspace at 360 degrees and has the function of tracking multiple targets at the same time. It has higher reliability than mechanical scanning radars.

PRODUCT FEATURES

Advanced technical system

It has high detection capability, high recognition capability, high adaptability and low false alarm rate for low-altitude, ultra-low-altitude, slow-speed small targets.

Multi-dimensional precise detection

It can realize the multi-dimensional accurate detection of low-altitude and ultra-low-altitude targets in three coordinates (distance, azimuth, altitude) and speed.

Strong detection capability for low, slow and small targets

Realize long-distance detection and identification and classification of low-altitude, slow-moving, small targets such as birds, drones, helicopters, and balloons.

Continuous generation of low-altitude multi-target tracks

Realize continuous track generation, tracking and multi-mode display of multiple targets in low-altitude environment, including PPI/B display, point track, temporary track/stable track, etc.

SPECIFICATIONS

Working frequency band	X-band
Scanning mode	Phase scanning
Detection angle	Azimuth: 0°~360° scanning, pitch angle 0~~30° (configurable, 60° range)
Detection radius	⩾5km (drone, RCS=0.01㎡)
Refresh rate	<3s (configurable, according to pitch coverage)
Tracking function	With TAS function

RemoteID Beacon Monitoring Equipment NI-P3000M

PRODUCT OVERVIEW

RemoteID beacon monitoring equipment is specially designed for remote broadcast identification information of drones, general aviation aircraft, and civil drones, and supports the remote ADS-B protocol. It supports the data format specified in GB42590-2023 "Safety Requirements for Civil Unmanned Aircraft Systems" and is compatible with the EU ASD STAN and US ASTM F3411 standards. The equipment uses four array antennas for signal reception, with a data refresh rate of up to 1s; it also supports optional omnidirectional detection antennas according to the deployment environment.

SPECIFICATIONS

Detection signal type	WIFI, BLUETOOTH, DJI Occusync protocol and other drone remote identification information signals, ADS-B signal (optional)
Detection coverage frequency band	1090MHz, 2.4GHz, 5.2GHz, 5.8GHz
Single station detection distance	1.5-3km (open environment), 500m-1000m (urban environment)
Power supply method	Solar panel/battery (optional), AC 220V, DC24V, power consumption 20W
Antenna type	Array antenna, high-gain omnidirectional antenna (optional)
Communication interface	RJ45 network port
Weight	⩽5kg

PRODUCT FEATURES

Long distance detection

It has the ability to detect drones at long distances, and can detect most consumer drones on the market. It is compatible with receiving and parsing EU and US standard remote identification information formats, and supports ADS-B information reception.

Low power consumption, easy communication

Extremely low power consumption design within 20W, external DC solar panel power supply, or optional standard battery power supply; built-in SIM card slot, support redcap or cat1 communication module technology.

ADS-B information reception

The ADS-B receiving function can be customized according to needs, supporting the reception of ADS-B signals and displaying the flight status of surrounding civil aircraft on the electronic map.

Various deployment

It can be installed on a fixed pole, suitable for large-scale regional deployment of protection, and supports solar energy + storage power supply; it can also be used as a tripod for temporary security activities.

IR Tracking Camera NI-C2000I

PRODUCT OVERVIEW

The IR Tracking Camera has a built-in high-definition visible light fog-penetrating network camera and thermal camera, and a built-in intelligent target detection and tracking algorithm, which can realize 24-hour uninterrupted target identification and tracking in visible light, low illumination, severe fog and haze weather, and night. The body adopts a high-strength shock-absorbing alloy die-cast shell, with overall three-proof spray coating, heat insulation, high temperature and severe cold resistance, impact resistance, corrosion resistance, and good wind resistance and shock absorption performance.

PRODUCT FEATURES

Long-range detection and target discovery

Integrates advanced synchronous auto-zoom and fast focus algorithms. According to the size of the target field of view, the lens quickly changes magnification to the specified multiple and focuses on the specified position at the same time, avoiding problems such as inaccurate system judgment, inadequate focus, long control delay, and target loss caused by manual focus when the drone is at a long distance.

LAutomatic tracking and identification

It can automatically lock and track the automatically identified target (drone), and can also guide tracking through radar or RF Detector. It can automatically identify various types of drones, civil airliners, birds and other low-altitude target aircraft (objects). The temporary anti-obstruction tracking function can lock and track the target without losing it even if it is temporarily obstructed by jungles, bushes, branches, etc.

Intelligent Edge Computing

The equipment has powerful computing power, uses deep learning algorithms to detect target shape and running posture, and uses intelligent algorithms such as long-term motion targets and inertial navigation algorithms to assist, and supports back-end platform docking to complete intelligent applications.

High precision gimbal

High-precision stepper motors are used to provide multiple high-precision preset positions and self-learning trajectories. Full digital control is adopted, which can quickly locate and continuously track and scan. The PTZ has a watch function and can return to the specified preset point after a specified idle time.

SPECIFICATIONS

Detection distance	For small drones (0.3*0.3m), thermal imaging ⩾1km, visible light ⩾2km
Tracking mode	Manual, automatic, radar linkage
Drone Type	Target identification alarm, area intrusion alarm, cross-border alarm, sensor linkage alarm upload
Range	Azimuth 0~360° continuous unlimited rotation, pitching -90°~+90°
Rotation speed	Horizontal keying speed 0°~60°/s, vertical keying speed 0°~60°/s
Power consumption	Normal working ⩽30W, startup peak ⩽40W
Protection level	IP66

IR Tracking Camera NI-C3000

PRODUCT OVERVIEW

The IR Tracking Camera has a built-in high-definition visible light fog-penetrating network camera and thermal imaging camera, and a built-in intelligent target detection and tracking algorithm, which can realize 24-hour uninterrupted target identification and tracking in visible light, low illumination, severe fog and haze weather, and night. The camera adopts a high-strength shock-absorbing alloy die-cast shell, with overall three-proof spray coating, heat insulation, high temperature and severe cold resistance, impact resistance, corrosion resistance, and good wind resistance and shock absorption performance.

PRODUCT FEATURES

All-day monitoring

Integrated high-definition visible light and uncooled thermal imaging, dual-band detection advantages complement each other, making the target invisible and meeting the monitoring needs in day and night and all-weather environments.

Built-in intelligent tracking and recognition algorithm

The camera has a built-in deep learning tracking algorithm, which can realize radar or rf detector guided rapid locking, automatic identification and tracking, and manual locking and tracking; it can automatically adjust the focal length and focus of the lens according to the size of the target in the video screen.

High control accuracy

It adopts worm gear transmission, high-precision servo motor control, high-precision preset position and self-learning trajectory, supports setting key areas of concern, and supports self-locking, which is suitable for equipment self-protection after the dynamic platform is powered off.

Stable and reliable, high protection level

The spherical design is resistant to strong winds, has low agitation, and provides stable and clear imaging. It also adopts a rainstorm and dust proof design, and has lightning protection, surge protection, and corrosion resistance.

SPECIFICATIONS

Detection distance	For small drones (0.3*0.3m), thermal imaging>1.5km, visible light>3km
Tracking mode	Supports target detection, identification and tracking functions, and can be linked to alarm and disposal; supports automatic classification and identification
Intelligent	Horizontal 0~360° continuous unlimited rotation, vertical -45°~+90°
Range	Horizontal keying speed 0°~80'/s, vertical keying speed 0°~60°/s
Rotation speed	Manual, automatic, radar linkage
Positioning accuracy	+0.02°
Preset position	256

ELECTRONIC INTERFERENCE EQUIPMENT

Directional Jammer NI-J3000+

The directional jammer NI-J3000+ is a software-defined jammer that can customize the jamming frequency and bandwidth according to the mainstream drone frequency bands, and supports independent or combined output of multiple jamming channels. The full-frequency jammer emits electromagnetic waves to interfere with the drone satellite navigation signal or block the communication link between the drone and the remote controller, causing the drone to make an emergency landing or return.

PRODUCT FEATURES

Software-defined jamming bands

It has 300MHZ-6GHz full-band jamming capability, covering most of the drone communication and navigation frequency bands on the market. The jamming equipment can configure important jamming parameters such as common drone frequencies, jamming scanning cycles, signal source styles, and jamming strike duration in real time.

Integrated design

The whole device consists of jammer, intelligent variable speed PTZ and mounting bracket, etc. It has compact structure and high integration. The power amplifier adopts fanless heat conduction and cooling design to improve the reliability of equipment operation.

Strong jamming capability

The digital jamming source supports various modulation forms, including FSK, BPS, QPSK, QAM, 16AQM, 64QAM, OFDM and other modulation signals, effectively dealing with various consumer-grade drones and unconventional drones. The power of each power amplifier exceeds 100W, ensuring excellent countermeasures against new drones with strong anti-jamming capabilities.

Easy installation and wide application

This device can be installed with a fixed pole, which is suitable for long-term deployment of regional protection. It can also be quickly set up with a tripod, which is suitable for temporary low-altitude protection tasks such as important meetings and large-scale security activities.

Specifications

Frequency Band	300MHz~6GHz software customized frequency band
Interference Distance	interference radius ⩾3km (0.1W radiation source)
I/C[I/C：Interference/Communication] Ratio	⩾10:1
Interference Angle	360°(depending on PTZ)
Interference Effective Time	⩽5s
PTZ Rotation Speed	Horizontal 0.02°～60°/s, Pitch 0.02°～30°/s
Connection Method	Ethernet Interface
Power Consumption	⩽900W
Power Supply Requirements	AC220V±10%, 50Hz
Size	⩽428mm × 285mm × 560mm
Weight	⩽28KG

Omnidirectional FPV Drone Jammer NI-JA500

PRODUCT OVERVIEW

The omnidirectional FPV drone jammer consists of a multi-channel digital signal source, a high-power broadband amplifier, a broadband omnidirectional antenna, a power module, etc. The device adopts an integrated design, which is compact and easy to install, and can be directly connected to a vehicle-mounted battery for power supply. The device supports the output of jamming signals in multiple FPV image transmission frequency bands, and the omnidirectional antenna realizes omnidirectional radiation, which can cause the image transmission signals of all incoming drones to be lost and fail to complete the attack mission.

PRODUCT FEATURES

360° whole area control

Adopt high-gain omnidirectional jamming antenna to effectively counter the black flying targets or swarm drones that take off nearby in the area.

Strong jamming capability

Supports three-way high-power broadband jamming signal output, which can effectively interfere with different types of FPV drone targets.

Easy installation, one-click start

The matching adapter plate can be quickly fixed to the front side of the car, and the ON/OFF switch is configured in the car, which can be turned on and off with one click.

Can work independently

Built-in battery, can work independently, ensuring long-term efficient output and high reliability of the equipment.

SPECIFICATIONS

Interference Effect	FPV drone image loss, FPV remote control signal loss
Interference Frequency Band	840MHz-930MHz、1160MHz-1280MHz、2400MHz-2480MHz、5100MHz-5950MHz
Interference Distance	⩾500m
Interference Angle	Horizontal direction: 360°, Pitch direction: 40°
Interference Effective Time	⩽3s
PTZ Rotation Speed	Horizontal 0.02°～60°/s, Pitch 0.02°～30°/s
Antenna Type	3 high-gain omnidirectional antennas (built-in)
Power Supply Requirements	On-board battery power supply/charging

Omnidirectional Jammer NI-JA3000

PRODUCT OVERVIEW

The omnidirectional jammer NI-JA3000 interferes with the satellite navigation signal of the drone by transmitting electromagnetic waves or blocks the communication link between the drone and the remote control, so as to make the drone produce the effect of forced landing or returning to the flight. It consists of multi-channel digital signal source, high-power broadband amplifier, broadband omni-directional antenna, power module and so on. The device supports a variety of modulated signal output, and the broadband omnidirectional antenna realizes omnidirectional radiation of high-power jamming signal.

PRODUCT FEATURES

Software-defined jamming bands

It has 300MHZ-6GHz full-band jamming capability, covering most of the drone communication and navigation frequency bands on the market. The jamming equipment can configure important jamming parameters such as common drone frequencies, jamming scanning cycles, signal source styles, and jamming strike duration in real time.

Strong jamming capability

The digital jamming source supports various modulation forms, including FSK, BPS, QPSK, QAM, 16AQM, 64QAM, OFDM and other modulation signals, effectively dealing with various consumer-grade drones and unconventional drones. The power of each power amplifier exceeds 100W, ensuring excellent countermeasures against new drones with strong anti-jamming capabilities.

Precision jamming

Based on radio cracking of the underlying protocol, using narrowband jamming, frequency hopping and following jamming and other technologies, point-to-point targeted cutting of the drone signal chain forces the drone to hover and return.

Active heat dissipation design

Fully consider the large power dissipation design, using active heat dissipation program to ensure high efficiency and reliability of the equipment.

SPECIFICATIONS

Frequency Band	300MHz-6000Mhz
Typical jamming frequency band	Target identification alarm, area intrusion alarm, cross-border alarm, sensor linkage alarm upload
Interference Distance	⩾3km (0.1W radiation source)
Transmit Power	around 100W per band
I/C Ratio	⩾10:1
Interference Angle	Horizontal direction: 360°, Pitch direction: -90°～90°
Interference Effective Time	⩽3s
Power Consumption	⩽1600W
Power Supply Requirements	AC220V±10%, 50Hz
Size	⩽470mm×400mm×170mm（without antenna）
Weight	⩽20KG

Radio Jammer & Spoofer NI-JG5000

PRODUCT OVERVIEW

Radio Jammer & Spoofer NI-JG5000 integrates radio suppression jamming and navigation spoofing jamming. Among them, the radio suppression jamming unit can software define the jamming source, customize the configuration of jamming frequency points and jamming bandwidth according to the mainstream drone frequency bands, and support the independent or combined output of multiple jamming channels, so as to make the drone link signal lost and produce the effect of driving away or forced landing. The navigation spoofing unit is based on the pseudo-satellite technology radio system, which sends strong satellite signals with false position information to the drone, so that the drone position system is deceived and cannot locate its real position by competing with the satellite signals in orbit.

PRODUCT FEATURES

Software-defined jamming bands

It has 300MHZ-6GHz full-band jamming capability, covering most of the drone communication and navigation frequency bands on the market. The jamming equipment can configure important jamming parameters such as common drone frequencies, jamming scanning cycles, signal source styles, and jamming strike duration in real time.

Strong jamming capability

The digital jamming source supports various modulation forms, including FSK, BPS, QPSK, QAM, 16AQM, 64QAM, OFDM and other modulation signals, effectively dealing with various consumer-grade drones and unconventional drones. The power of each power amplifier exceeds 100W, ensuring excellent countermeasures against new drones with strong anti-jamming capabilities.

Integrated decoy function

It supports GPS, BDS, GLONASS and other navigation decoy signal output. It can be linked with the radar system to realize the decoy function for the drone according to the target guidance information sent by the radar, and decoy the drone to land in the designated area.

Integrated design

It consists of radio jammer, directional decoy jamming equipment, intelligent variable speed PTZ and mounting bracket, etc. Its structure is compact and highly integrated.

SPECIFICATIONS

Interference Effect	evacuation, forced landing
Interference Frequency Range	interference channel output can be set arbitrarily in the 300MHz-6GHz frequency band
Interference Distance	⩾5km (0.1W radiation source)
Interference Beam Range	Horizontal 360° (achieved by intelligent PTZ), pitch ⩾70°
Directional Spoofing Frequency	GPS：1574.9～1575.9±5MHz、BDS：1560.9～1562.8±5MHz、GLONASS：1601.9～1602.2±5MHz
Spoofing DistancePower Consumption	⩾5km⩽1200W
Power Supply Requirements	AC220V±10%, 50Hz
Size	⩽530mm × 360mm × 580mm
Weight	⩽30KG

Radio Jammer & Spoofer NI-J8000+

PRODUCT OVERVIEW

The fixed radio jammer & spoofer NI-J8000+ integrates directional, omnidirectional suppression jammer and navigation spoofing jammer. The equipment uses digital jamming sources and spatial power synthesis, and can implement directional and omnidirectional jamming on consumer-grade drones, non-standard drones, and measurement and control links of cross-country drones and satellite navigation signals. It also supports directional/omnidirectional deception of drone targets, and can work with anti-drone radar detector and RF detector equipment to achieve low-altitude defense in key areas.

PRODUCT FEATURES

Long-distance, large-scale jamming

It has the function of ultra-long-distance jamming and 360° all-round control of drones, supports the adjustment of jamming transmission power and effective area through the software platform, and the equipment adopts directional and omnidirectional integrated design to achieve full coverage of jamming.

Omnidirectional and directional jamming capabilities

It has omnidirectional and directional jamming capabilities. The directional mode can achieve long-range precision strikes on a small area, and the omnidirectional mode can effectively counter the target or swarm drones that take off locally in the 360° area.

Comprehensive countermeasure functions

Integrate directional, omnidirectional suppression jamming and navigation deception jamming into one, effectively dealing with various types of consumer drones and unconventional drones, and has excellent countermeasure capabilities for FPV drones and drones with strong jamming capabilities.

Good spoofing effect

Supports jamming with the navigation signal of the drone, realizing navigation forced landing, directional expulsion, and fixed-point forced landing of the drone.

SPECIFICATIONS

Interference Function	radio suppression + navigation deception
Interference Frequency Range	27MHz-6GHz frequency band
Interference Distance	Omnidirectional: ⩾3km, directional: ⩾10km (0.1W radiation source)
Interference Range	Horizontal 360°, pitch: omnidirectional 0°~20°, directional 0°~40°
Types of Spoofing Signals	GPS, GLONASS, BDS, Galileo and other commonly used navigation frequency bands
Spoofing Defense Distance	Omnidirectional: ⩾10km, directional: ⩾20km (0.1W radiation source)

Spoofer NI-G1000

PRODUCT OVERVIEW

Spoofer NI-G1000 competes with on-orbit satellite signals by emulating and transmitting simulated satellite navigation signals. It utilizes its power advantage to cause the drone navigation system to receive simulated navigation signals with false position information, causing drones entering the control area to become "lost" and unable to follow the intended trajectory, which can have the effect of driving the drone away, forcing it to land, or preventing it from taking off.

PRODUCT FEATURES

Integrated design

Signal simulation generator, transceiver antenna, control board, power supply unit and other functional units are all integrated in one cavity to realize spoof control.

All-round control

360° omnidirectional spoofing, achieving full coverage, and directional control of key areas can also be achieved by configuring directional antennas.

Small secondary impact

The signal transmission power is milliwatt level, and the equivalent omnidirectional transmission power is ⩽10mW, which has little impact on personnel and electromagnetic environment. It has obtained the radio transmission equipment type approval certificate issued by China.

Easy installation

It is fixedly installed by pole or wall mounting, with regular appearance and good concealment.

SPECIFICATIONS

Types of Spoofing Signals	GPS, GLONASS, BDS, Galileo and other commonly used navigation frequency bands
Spoofing Distance	500-1000m, and the distance is adjustable
Orientation	360°
Spoofing Effect	dispersion, forced landing, flying according to the set trajectory
Equivalent Omnidirectional Radiated Power	⩽10mW
Effective Time of Spoofing	＜10s
Activation Time	⩽5min
Power Consumption	⩽40W
Power Supply Requirements	AC220V±10%, 50Hz
Size	ϕ430mm × 330mm
Weight	⩽12KG

Spoofer NI-G3000

PRODUCT OVERVIEW

Spoofer NI-G3000 competes with on-orbit satellite signals by emulating and transmitting simulated satellite navigation signals. It utilizes its power advantage to cause the drone navigation system to receive simulated navigation signals with false position information, causing drones entering the control area to become "lost" and unable to follow the intended trajectory, which can have the effect of driving the drone away, forcing it to land, or preventing it from taking off.

PRODUCT FEATURES

Integrated design

Signal simulation generator, transceiver antenna, control board, power supply unit and other functional units are all integrated in one cavity to realize spoof control.

Zoning control

360° omnidirectional spoofing, and long-distance spoofing and expulsion of more than 3km can also be achieved by configuring omnidirectional/directional antennas.

Adjustable jamming distance

The navigation spoofing range is software-controllable within 3km, and can be flexibly adjusted according to the construction scenario.

Easy installation and wide application

Fixed installation by pole or wall mounting, with regular appearance and good concealment.

SPECIFICATIONS

Types of Spoofing Signals	GPS, GLONASS, BDS, Galileo and other commonly used navigation frequency bands
Spoofing Distance	⩾3km, and the distance is adjustable
Orientation	360°
Spoofing Effect	dispersion, forced landing, flying according to the set trajectory
Equivalent Omnidirectional Radiated Power	⩽50W, power is adjustable
Effective Time of Spoofing	＜15s
Activation Time	⩽5min

HAND-HELD PORTABLE EQUIPMENT

Handheld Drone Jammer NI-SJ1000M

NI-SJ1000M handheld drone jammer can detect and attack drones. The device integrates detection, evidence collection, countermeasures, display and control, power supply, and networking. It solves the problems of traditional handheld jammers that can only detect drones by visual means, heavy workload, and prone to missed alarms and false alarms. The device is small in size, light in weight, and has good mobility. It is suitable for low-altitude protection needs such as important meetings, large-scale events, and daily patrols in fixed places. The device supports multi-level interconnection with the anti-drone mobile terminal APP and the back-end command and management platform, and is deployed in a distributed manner in combination with other drone countermeasure devices.

PRODUCT FEATURES

Passive detection, directional control

The radio detection system is used to detect and discover mainstream drones on the market; the directional jamming antenna design can fulfill long jamming distance requirement.

Software-defined jamming frequency band

The software can configure the jamming parameters such as the commonly used jamming frequency band of drones, jamming scanning cycle, signal source style, and jamming attack duration.

Approximate direction finding, timely warning

After identifying the drone target, it will warn through sound and light, and the drone model, direction, distance and other information can be displayed on the LED screen of the jammer device.

Extremely light weight

The device is small in size and the lightest in weight among similar products, suitable for most mobile duty scenarios.

Specifications

Working Mode	detection, tracking, forensics, visible control, countermeasures, networking multi-functional integration
Detection Band	800MHz-1400MHz、2.4GHz、5.2GHz、5.8GHz
Interference Band	basic frequency band: 400MHz、600MHz、800MHz、900MHz、1.1GHz、1.2GHz、1.4GHz、1.5GHz、2.4GHz、5.2GHz、5.8GHz, software-defined band: 300MHz～2.5GHz, customized configuration of interference band and bandwidth
Effective Distance	detection distance 2km, interference distance 1km
Information Display	supports LED screen display/mobile terminal (APP) interconnection, which can display self-check status, drone model, frequency band, signal amplitude, interference duration, location and other information
Networking Function	support multiple sets of equipment to access the back-end command platform through mobile terminals to achieve multi-point collaborative tasks Support multiple sets of equipment to access the back-end command platform through mobile terminals to achieve multi-point collaborative tasks

Handheld Drone Locator NI-S2000H

PRODUCT OVERVIEW

The handheld drone detection and positioning device is mainly used for drone detection and early warning, precise positioning, trajectory tracking and operator positioning. The device supports 0.3GHz-6GHz full-band detection capabilities, can achieve fast frequency scanning in the full frequency range, suspected target energy detection, and has the ability to crack the protocol of branded drones, and can identify the branded drone's ID, location, altitude and other information. At the same time, the device also supports the image analysis capability of simulating image transmission drones. The device is suitable for major event security and guard low-altitude security tasks, important area patrols, and the accompanying protection of dignitaries.

SPECIFICATIONS

Detected signal type	Target identification alarm, area intrusion alarm, cross-border alarm, sensor linkage alarm upload
Detection Frequency Bands	300MHz~6GHz
Key Detection Frequency Bands	800MHz、900MHz、1.2GHz、1.4GHz、2.4GHz、5.2GHz、5.8GHz
Detection Range	⩾2km (open environment), 0.5km-1km (suburban environment)
Screen display content	device self-check status, drone model, frequency band, location, serial number ID, trajectory, etc.
Weight	⩽600g

PRODUCT FEATURES

Omnidirectional and directional detection capabilities

The device has omnidirectional and directional detection capabilities. The omnidirectional mode can detect medium-distance targets in all directions. The omnidirectional mode mainly realizes the rearward detection blind area during single-soldier combat and realizes the early warning function. The directional mode realizes long-distance detection and target direction finding functions in a small area.

Protocol cracking capability

It has the protocol cracking capability of DJI drones, and can identify the ID, location, altitude and other information of DJI drones; it has the protocol cracking capability of drones with WIFI RemoteID protocol, and can identify the MAC address and other information of drones. It has the image parsing capability of simulating image transmission drones.

Single-machine positioning

A single device can realize the location positioning and trajectory display of drone targets and pilots (remote controllers).

Portable and easy to operate

The device is light and easy to carry. It can work offline and respond flexibly. It can also be networked with multiple sets of NI-SJ1000M to meet the needs of various application scenarios.

Handheld Drone Jammer NI-SJ2000M

PRODUCT OVERVIEW

The new generation of portable drone control device is a newly upgraded handheld jammer. The equipment integrates detection, countermeasures, navigation spoofing (optional), command display and control, and can effectively strike new 4G and 5G drone on the market from a long distance, forcing drones to hover, return and drive away, and realize pre-warning, in-process disposal and post-event evidence collection of invading drone targets. The equipment is small in size, light in weight, has good maneuverability, and supports multiple devices to form a self-organizing network, and is interconnected with the anti-drone system command and control terminal (APP) and the back-end command and management platform at multiple levels.

PRODUCT FEATURES

Passive detection, long-range strike

300MHz-6GHz full-band detection, can accurately identify most consumer drones, WIFI toy drones, DIY flying drones, analog/digital image transmission and more than 100 other models. The directional jamming antenna design make it has long jamming distance ability.

Protocol analysis and positioning

It has the function of protocol analysis for a series of drones using OcuSync, WIFI, Bluetooth and other communication protocols detected and found, and can analyze the model, location and pilot's location of the drone.

Integrate the function of detection, jamming and spoofing in one

The device integrates radio detection, suppression jamming, navigation spoofing (optional), and has 300MHz-6GHz full-band jamming capability, effectively dealing with various types of consumer drones and unconventional drones, forcing drones to hover, return and drive away.

Smart touch, easy operation

The device is equipped with a touch screen that can display information such as drone model, direction, reference distance, target screen, etc. Users can adjust device parameters, black and white lists, historical data, version updates and other system settings through the touch screen.

SPECIFICATIONS

Detection Band	300MHz~6GHz
Detection Distance	⩾3km
Interference Frequency Range	It has a built-in 4-inch touch screen display and an extended mobile terminal APP display, which can display target direction, angle, coordinates, frequency band, model, map, interference duration and other information.
Interference Band	300MHz~6GHz frequency band can customize interference channel by software
Interference Distance	⩾2km (I/C Ratio 3: 1)
Types of Spoofing Signals	GPS, GLONASS, BDS, Galileo and other commonly used navigation frequency bands
Signals	navigation frequency bands
Spoofing Distance	⩾1.5km

Backpack Drone Jammer NI-SJG2000B

PRODUCT OVERVIEW

Backpack drone countermeasure equipment mainly realizes the detection and jamming of drones in the entire frequency band. It adopts a backpack + handheld design. The backpack part can achieve 360° all-round detection and spoofing coverage. The handheld part adopts a directional high-gain antenna design with a strong jamming effect. The equipment detection adopts AI deep learning algorithm and signal layer feature extraction to achieve the detection effect of drones with low false alarm rate and high detection rate. Drone countermeasure equipment can effectively ensure the protection of troops and camps in multiple scenarios, mission patrol, and important mission guarantee.

PRODUCT FEATURES

Full-band detection and jamming design

The device can effectively detect and interfere with drones with narrowband and broadband communication bandwidths. Both detection and jamming support the 300MHz-6GHz frequency band.

AI-based drone signal detection

Based on the deep learning method, it can better extract drone signal features in low signal-to-noise ratio environments or weak signal environments, improving detection accuracy and detection performance.

Precise jamming, portable and easy to use

The device automatically selects smart interference signals for precise interference based on the detected drone model, frequency and other information, without manual settings, to achieve more efficient target strikes.

Information visualization

You can directly read and display target detection, interference signal transmission/stop, battery power, electronic map and other information on the device screen, and can parse the real-time picture for FPV using analog image transmission.

SPECIFICATIONS

Detection Band	300MHz~6GHz
Detection Distance	⩾3km
Interference Band	300MHz~6GHz frequency band can customize interference channel by software. It can interfere with the 902MHz~928MHz, 1430MHz~1450MHz, 2.4GHz~2.4835GHz, 5.15GHz~5.25GHz, 5.725GHz~5.875GHz frequency bands at the same time
Interference Distance	⩾2km (0.1W radiation source)
Types of Spoofing Signals	GPS, GLONASS, BDS, Galileo and other commonly used navigation frequency bands
Spoofing Distance	⩾2km (0.1W radiation source)
Power Supply	rechargeable battery power supply, AC220V/50Hz mains power supply
Weight	⩽12kg

Box Packed Drone Defense System NI-SJG2000M

PRODUCT OVERVIEW

The box packed drone defense system mainly realizes omnidirectional detection and jamming countermeasures against drones. The device covers the mainstream drone communication frequency bands, analyzes the communication frequency information of drones, and simultaneously transmits jamming signals corresponding to the drone frequency for precise jamming. The device adopts an omnidirectional antenna design, and detection and jamming share a set of antennas through the switch matrix module. The device starts with one button and enters the unattended mode.

PRODUCT FEATURES

Integrate the function of detection and jamming in one

The device has omnidirectional radio detection and omnidirectional interference functions for drones. Both detection and countermeasure cover the mainstream drone communication frequency bands, can analyze the communication frequency information of drones, and simultaneously transmit interference signals of the same drone frequency for linkage interference.

Unattended

With a large-capacity lithium battery inside, it can enter the unattended mode and work autonomously with one click. It can cover a protection area with a radius of 1km. After the device detects a drone, it triggers an alarm and automatically selects the frequency band to interfere with the invading drone, working in a cycle.

Scalability

The device has strong scalability. It can increase detection and interference channels according to usage needs, and can also increase decoy interference functions to effectively deal with more types of drone targets.

High protection level

The device has an IP66 protection level and is suitable for various outdoor environments.

SPECIFICATIONS

IDetection Band	300MHz~6GHz
Detection Distance	⩾1000m (Open environment)
Detection Band Range	300~500MHz, 830~930MHz, 1000~1850MHz, 2400~2700MHz, 3300-3700MHz (reserved)
Interference Distance	⩾1000m (0.1W radiation source)
Interference Band	315~450MHz、830~930MHz、1000~1850MHz、2400~2700MHz、5100~5900MHz
Spoofing Distance	⩾2km (0.1W radiation source)
Power Supply	battery 24V power supply, external DC power supply
Weight	⩽10kg

INTEGRATED EQUIPMENT

Drone Defense System NI-SJA3000

The detection and jamming equipment integrates the function of detection and jamming and can be quickly installed. The detection unit uses radio detection technology to detect, identify and locate the uplink and downlink remote control signals and data transmission signals of the drone aircraft, thereby realizing the detection and early warning of the drone. The jamming unit transmits electromagnetic waves to interfere with the satellite navigation signal of the drone or block the communication link between the drone and the remote control, causing the drone to make an emergency landing or return.

PRODUCT FEATURES

Integrate the function of detection and jamming in one

Integrates detection and jamming functions. It can identify most conventional consumer drones, some unconventional drones, fixed-wing drones and flying drones in the 300MHz-6GHz frequency band, and can automatically transmit jamming signals after finding the target.

Software-defined jamming frequency band

With 300MHz-6GHz full-band interference capability, the interference device can configure important interference parameters such as common frequencies of drones, interference scanning cycles, signal source styles, and interference strike duration in real time.

Strong countermeasure capability

The digital interference source supports multiple modulation signals such as FSK, BPSK, QPSK, QAM, 16AQM, 64QAM, OFDM, etc., which can effectively deal with various types of consumer drones and unconventional drones. The power of each power amplifier exceeds 100W, ensuring excellent countermeasure capability against new drones with strong anti-interference capabilities.

Active heat dissipation design

Adopts active air cooling heat dissipation design and uses active heat dissipation solutions to ensure high working efficiency and high reliability of the equipment.

Specifications

Detection Band	300MHz~6GHz
Detection Range	360° horizontal
Detection Distance	⩾3km (Open environment, drone transmission power 0.1W)
Interference Band Range	interference channel output can be set arbitrarily within the 300MHz~6GHz frequency band
Interference Distance	⩾3km (0.1W radiation source)
I/C Ratio	⩾10:1
Jamming Angle	horizontal direction: 360°, pitch direction: -90°～90°

Mast-type Drone Defense System NI-SJG5000

PRODUCT OVERVIEW

The mast-type drone defense system integrates two-dimensional phased array radar, radio detection, optoelectronic tracking, electronic jamming and navigation deception. The modules are not simply combined and operated in isolation, but utilizing a set of highly intelligent information fusion algorithms to achieve accurate detection, tracking and attack, mutual sensing and communication. The system adopts a mast-type design and has the advantages of multi-functional integration, integrated design and efficient response. The mast-type integrated comprehensive defense system is suitable for deployment in core areas such as camps, bases, ports, and ships. It can be directly installed on the roof or used in a fixed manner to build a high-level drone air defense network and improve defense effectiveness in all aspects.

PRODUCT FEATURES

Precise situational awareness

The system integrates radar, radio detection, and optoelectronic tracking fusion detection functions to effectively reduce false alarms and missed alarms, and accurately identify threat targets in the airspace.

Customizable and expandable

The functional indicator configuration of each module can be flexibly adjusted according to the special needs of customers, and expansion and upgrading are also supported in the later stage to fit different combat plans.

Wide range of application scenarios

The system adapts to restrictions such as severe weather and complex terrain, and the integrated design solves a variety of defense problems to meet the needs of different scenarios.

Timely and efficient early warning

The two-dimensional phased array radar scans quickly at high frequency to capture drone targets at the first time, warn in advance, and reserve sufficient response time.

Diverse deployment methods

The system adopts a mast-type design, which can be directly installed on the roof for use, or can be deployed in a fixed manner to achieve all-round three-dimensional protection.

All-weather unmanned

Active and passive detection linkage tracking and precise countermeasures are all completed by the command and control platform to build an unmanned defense system.

SPECIFICATIONS

Radar Detector	Radar type: four-sided array radar
	Detection distance: ⩾5km
	Detection accuracy: distance: ⩽10m; azimuth: ⩽0.5°; pitch: ⩽0.5°
RF Detector	Detection method: RF detection + protocol analysis + RID remote identification
	Detection radius: ⩾5km
	Direction finding accuracy: ⩽3°
Photoelectric Tracking Camera	Tracking distance: visible light ⩾3km, thermal imaging ⩾1km
Radio Jammer	Interference frequency band: The interference channel output can be set within the 300MHz-6GHz frequency band
	Interference distance: ⩾5km
Spoofer	Spoofing signal type: GPS, GLONASS, BDS and other commonly used navigation frequency bands
	Spoofing effect: Active expulsion and fixed-point forced landing within a 3km range

Drone Defense Vehicle System

The Drone Defense Vehicle System is mainly composed of vehicle-mounted anti-drone system, vehicle-mounted command platform, vehicle-mounted chassis and other parts. It can be equipped with radar detection equipment/spectrum detection equipment, suppression and jamming equipment/spoofing and countermeasure equipment, and has the capability of detecting and fighting as a whole, which is applicable to the protection of VIPs and the patrol tasks of major activities. The chassis of the vehicle can be modified into a high-performance pickup truck/SUV/van with good maneuverability. It can be extended with a vehicle-mounted drone, which can perform tasks such as high-definition reconnaissance, high-altitude shouting, and flyer searching and positioning by carrying different task payloads.

Pick-up truck

SUV

Van

PRODUCT FEATURES

Self-contained system

Integrating detection, identification, countermeasures and accusation, realizing full functions of discovery, disposal and retracement, and can be used as a complete system for independent combat.

Mobile command

Used as a mobile command vehicle for anti drone systems in large-scale missions.

Accompanying protection

The convoy is accompanied by protection to ensure low altitude safety, suitable for various application scenarios, and not affected by climate and site conditions.

Lightweight and maneuverable

Based on vehicle platform, it is suitable for rapid arrival at the scene in emergency situations, free of installation and easy to deploy.

Patrol and response

Patrol in important areas and sections of roads in large and medium-sized missions to respond to unexpected situations at any time.

Platform management

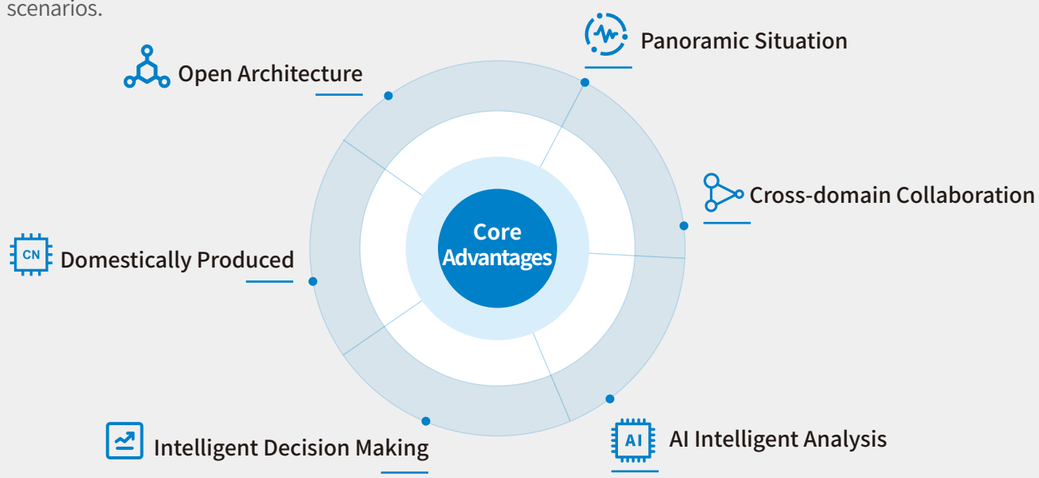
The front-end of the control vehicle, regional command platform, and monitoring center share data globally and collaborate with the whole network, which can enhance the level of protection.

SPECIFICATIONS

Standard Configuration	Anti-drone (RF detector, photoelectric tracking camera, jammer)
	Control vehicle (including modification)
	Vehicle-mounted command platform
	Detection 3km/5km/10km (Optional)
Control Range	Jamming 1km/3km/5km (Optional)
	Photoelectric tracking 1km/2km/3km (Optional)
	Supports modifications of pickup trucks, SUVs, vans, military vehicles, etc.
	Spoofer
Chassis Type	Handheld Drone Jammer
Extension	Vehicle-mounted drones and drone airports

ANTI-UAV COMPREHENSIVE MANAGEMENT PLATFORM

The Anti-drone comprehensive management platform integrates cutting-edge technical means and diversified management functions, and relies on advanced software and hardware architecture to deeply integrate multiple technical means, fully realizing the data collection, analysis, early warning, decision-making and other functions of low-altitude aircraft such as drones. With the platform, users can grasp the low-altitude situation in real time, respond quickly to various security incidents, and mobilize various countermeasure modules for coordinated operations as needed, build a full-scene low-altitude perception and defense network, and provide users with full-process, all-round, and 360°monitoring and countermeasure application scenarios.



Intelligent Sensing Low-altitude Defense Platform(IRVMS-8200)

The intelligent sensing low-altitude defense platform relies on the advanced B/S Internet of Things platform architecture and adheres to the innovative design concept of "one network, one platform" to build a powerful functional system covering the entire process. From the equipment's accurate detection of targets, target tracking, accurate identification, real-time warning, comprehensive disposal, data analysis, effect evaluation and decision analysis, each link is closely linked to achieve efficient operation of the entire link. The system highly integrates a variety of sensor equipment such as radar, RF scanner, photoelectric tracking, spoofer and jammer, and can detect, search and track invading drones all-weather and in all directions. The system can control and capture invading drones by electronic interference or navigation deception, which can effectively improve the efficiency and accuracy of drone defense and control, and provide all-round and reliable low-altitude safety protection. In addition, after configuring the mobile terminal (mobile phone), the portable drone control device also supports wireless (4G/5G) access to the platform to achieve multi-point collaborative tasks.

PRODUCT FEATURES

Deep integration of multiple businesses

Seamlessly connected with the city security monitoring system, a city-level low-altitude security system is built to achieve normalized monitoring and management of the entire city's low-altitude area.

Hierarchical management and control

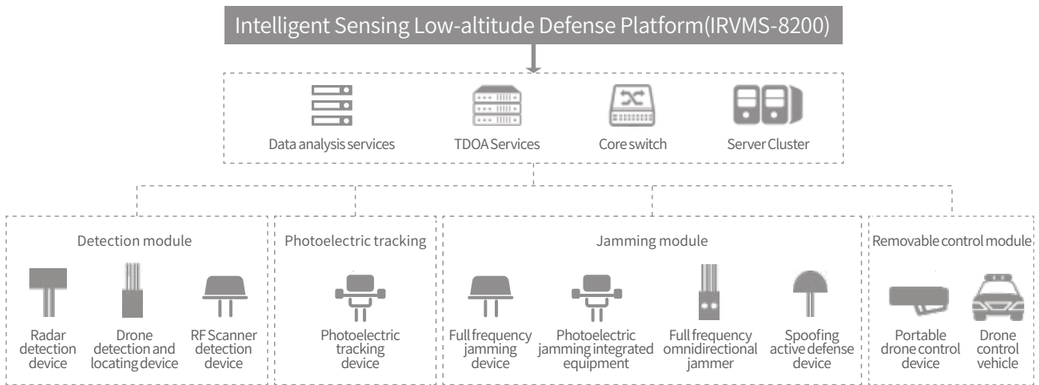
Supports multi-level monitoring at the central, provincial, municipal, district, county, and site levels, enabling managers in different regions and at different levels to share information, coordinate management, and control.

Intelligent decision support

Automatically identify the type, model and enemy attributes of drones, analyze the threat level, and automatically initiate corresponding countermeasures according to preset rules and strategies, reducing manual intervention and improving response speed and prevention and control efficiency.

Scalability and compatibility

The platform supports various anti-drone equipment and third-party platform access, facilitating future technology upgrades and expansions.



Anti-drone defense system command and control software (V1.0.0)

The command and control software of the anti-drone defense system is the display and control center of the low-altitude defense system, which communicates with various devices by a wired network. The platform realizes operational functions such as data integration, solution, strategy analysis, and signaling control. As an interactive window between the system and the user, the application software can transmit the device status and alarm information to the control center, facilitating the management of system equipment and the handling of current alarm situations. At present, the system software supports the simultaneous access of multiple RF scanner detection device, protocol cracking device, radar detection device , photoelectric tracking device, directional jammer, omnidirectional jammer, spoofer and other device.

PRODUCT FEATURES

Anti-drone Security Command Center

Capable of commanding and monitoring the security situation of drones for all day. It can generate drone security situation based on illegal drone intrusion events, and handle intrusion events with rapid response and processing capabilities.

Flexible configuration, high reliability

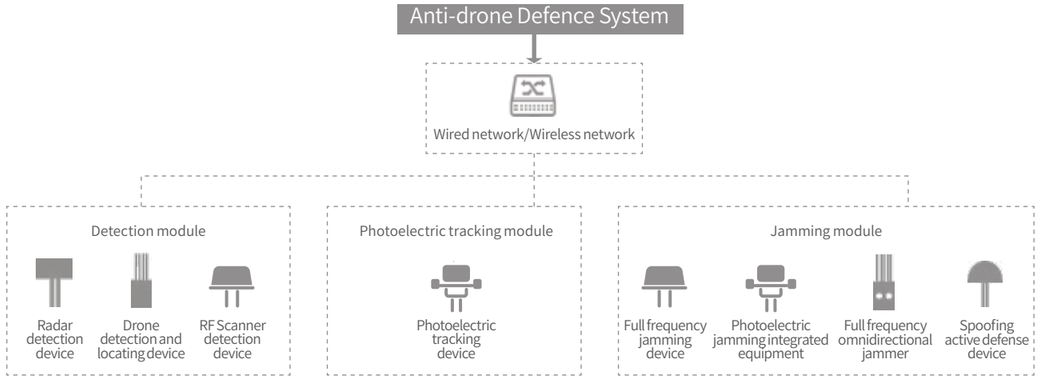
It can flexibly select product configurations according to the environmental scenarios and defense requirements of a single defense node, and has the characteristics of high security reliability, strong scenario adaptability, and low environmental impact. It is mainly aimed at the fields of anti-terrorism and security.

Complete functions and unified management

It realizes the full functions of detection, discovery, tracking, identification and disposal, reducing the burden of manpower. At the same time, the software uniformly manages the detection and countermeasure data, and efficiently and conveniently performs situation display and command operations.

Open interface

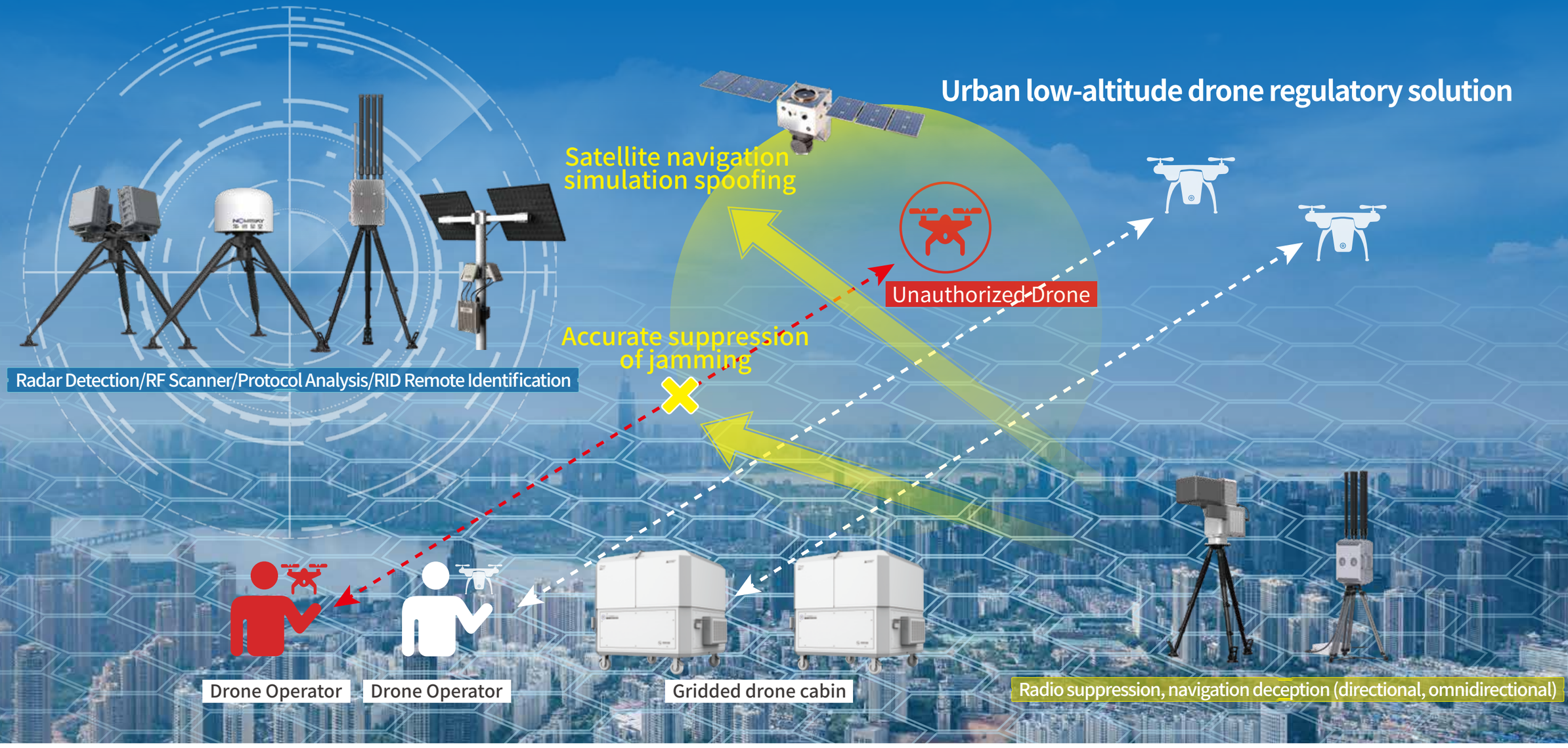
Supports access to standard equipment and standard protocols, and can also provide standard protocols to access existing security platforms, with strong expansion capabilities.



02

SOLUTION

- Urban Low-altitude UAV Regulatory Solutions
- Key Sites Low-altitude UAV Defense Solutions
- IIndividual and Squad UAV Defense Solutions
- Counter-Terrorism Key Units Solutions
- Mobile Platform UAV Defense Solutions



SOLUTION OVERVIEW

The urban low-altitude drone regulatory solution consists of radar detection, RF Scanner, protocol analysis, RID remote identification, drone suppression deception, drone cabin and other equipment. The system provides real-time intrusion drone detection data and advanced and timely countermeasures for urban environment scenes, and builds a grid-based low-altitude perception and defense network.

SOLUTION VALUE

- Assist in the construction of grid management of urban airspace
- Meet the needs of real-time positioning of drones in all directions
- Achieve intelligent "sensible, knowable, visible and controllable" low-altitude urban areas

SOLUTION FEATURES

Intelligent Sensing

Using deep learning algorithms, can detect, identify and analyze drone signals to achieve accurate early warning of targets.

Precise Collaboration

Utilize multi-station coordination, active and passive fusion positioning, guide jamming countermeasures, and fixed-point spoofing to achieve accurate and rapid disposal of targets.

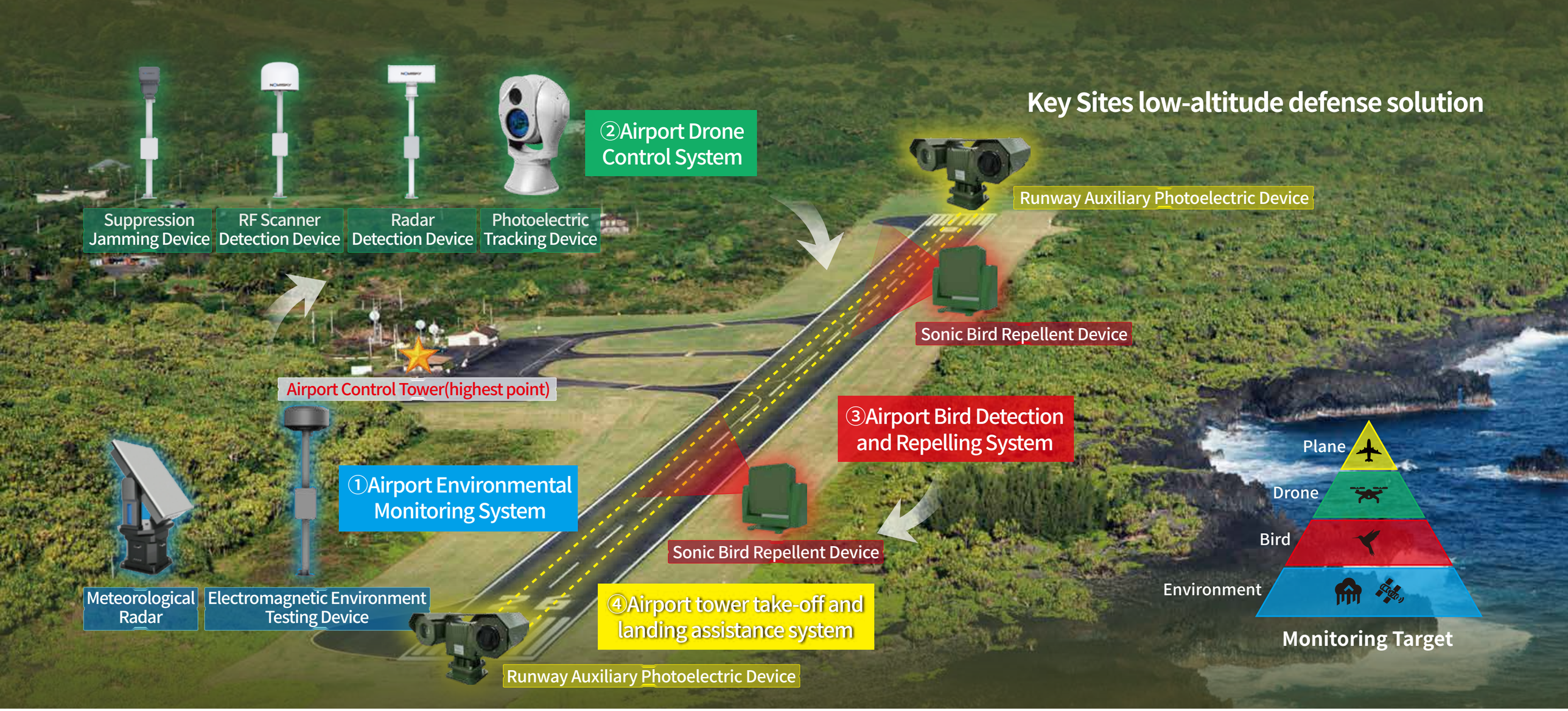
Support 5G-A Integration

The system supports 5G-A synaesthesia integrated device fusion detection, distributed joint networking deployment, and achieves detection without blind spots.

General Management

Based on situation display, timely feedback of front-end information, rapid linkage of platform warning, and coordinated disposal of dispatch terminals.

Key Sites low-altitude defense solution



SOLUTION OVERVIEW

The important protected area low-altitude defense solution is mainly used in important regulatory places such as airports, camps, ports, etc. In the airport protection scenario, it consists of an airport drone control system, a bird detection and repelling system, an environmental monitoring system, and an airport control tower take-off and landing auxiliary system. The system has multiple functions of detecting, identifying, tracking, and quickly countering drones and birds, while taking into account the aircraft take-off and landing auxiliary and electromagnetic environment monitoring functions, forming an integrated airspace safety supervision capability.

SOLUTION VALUE

- Meet the comprehensive monitoring and early warning requirement of important protected place airspace safety
- Ensure airport flight safety and strictly control the risk of sudden accidents
- Systematic management improves operation and maintenance efficiency

SOLUTION FEATURES

Active and Passive Fusion

The system integrates radar, radio detection, photoelectric tracking and other detection methods, with high detection accuracy and few missed alarms and false alarms.

Accurate identification

Realize long-distance detection identification and classification of low, slow and small targets such as drones and birds.

Efficient repelling measures

Intelligent linkage of radio jamming or bird repelling measures based on the target type detected and identified by the front-end.

Real-time environmental monitoring

Real-time monitoring of surrounding climate, meteorology and electromagnetic environment to ensure the normal operation of airport aircraft.

Individual soldier and squad anti-drone solution

Handheld Drone Locator/Handheld Drone Jammer/Backpack Drone Jammer

Handheld Countermeasures Device

Backpack Countermeasures Device

SOLUTION OVERVIEW

The anti-drone solution for individual soldiers and teams consists of handheld drone locator, handheld drone jammer, and backpack drone jammer. The system has multiple functions such as detection, direction finding and positioning, and rapid countermeasures. The system is lightweight and portable, and can be quickly moved and set up to form combat effectiveness. The system can meet the low-altitude security needs of individual soldiers and teams to quickly deploy, discover, warn, track, and counter harassing drones in complex environments.

SOLUTION VALUE

- Meet the requirement of limited carrying capacity of individual soldiers in complex environments
- Improve the combat effectiveness of individual soldiers and quickly form combat effectiveness
- Ensure the personal safety of individual soldiers in emergency tasks

SOLUTION FEATURES

Passive Sensing

The system can integrate radio detection, protocol analysis, RID reception and other detection methods, and realize passive detection of drone targets with strong concealment.

Software-defined

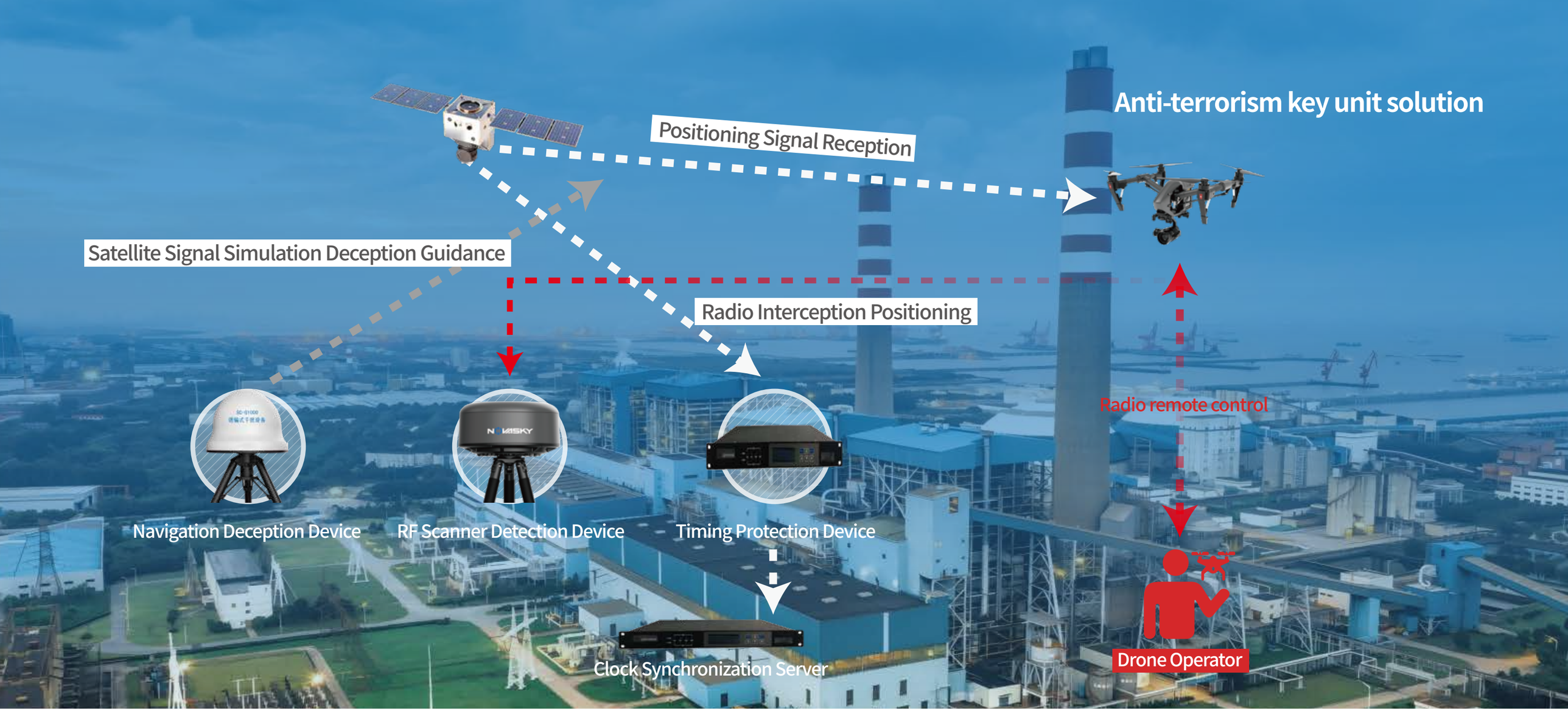
It has multi-band jamming capability, covers the traditional Drone data transmission frequency band, and can customize the output interference frequency band by software.

Efficient Control

Developed and designed for mainstream drones, with drones with strong anti-interference capabilities.

Easy to carry

The whole device can be carried by one person, and the system has a one-button power on and off function, which can be quickly set up.



SOLUTION OVERVIEW

The solution for Anti-terrorism key unit consists of RF scanner detection device, spoofing countermeasure device, and timing protection devices. The system has the functions of detecting, identifying, denying, and forcing drone. By deploying an integrated anti-drone defense system on the roof of the factory control building, it can achieve full-area detection and early warning, target heading guidance, and 24-hour unmanned operation.

SOLUTION VALUE

- Meet the requirement of key anti-terrorism units such as electricity and energy for routine prevention
- Ensure the production safety of core facilities and pipelines

SOLUTION FEATURES

Passive Sensing

The system can integrate radio detection, protocol analysis, RID reception and other detection methods, and realize passive detection of drone targets with strong concealment.

Navigation Deception

Use navigation deception countermeasures to achieve directional expulsion, prohibition of takeoff and other functions.

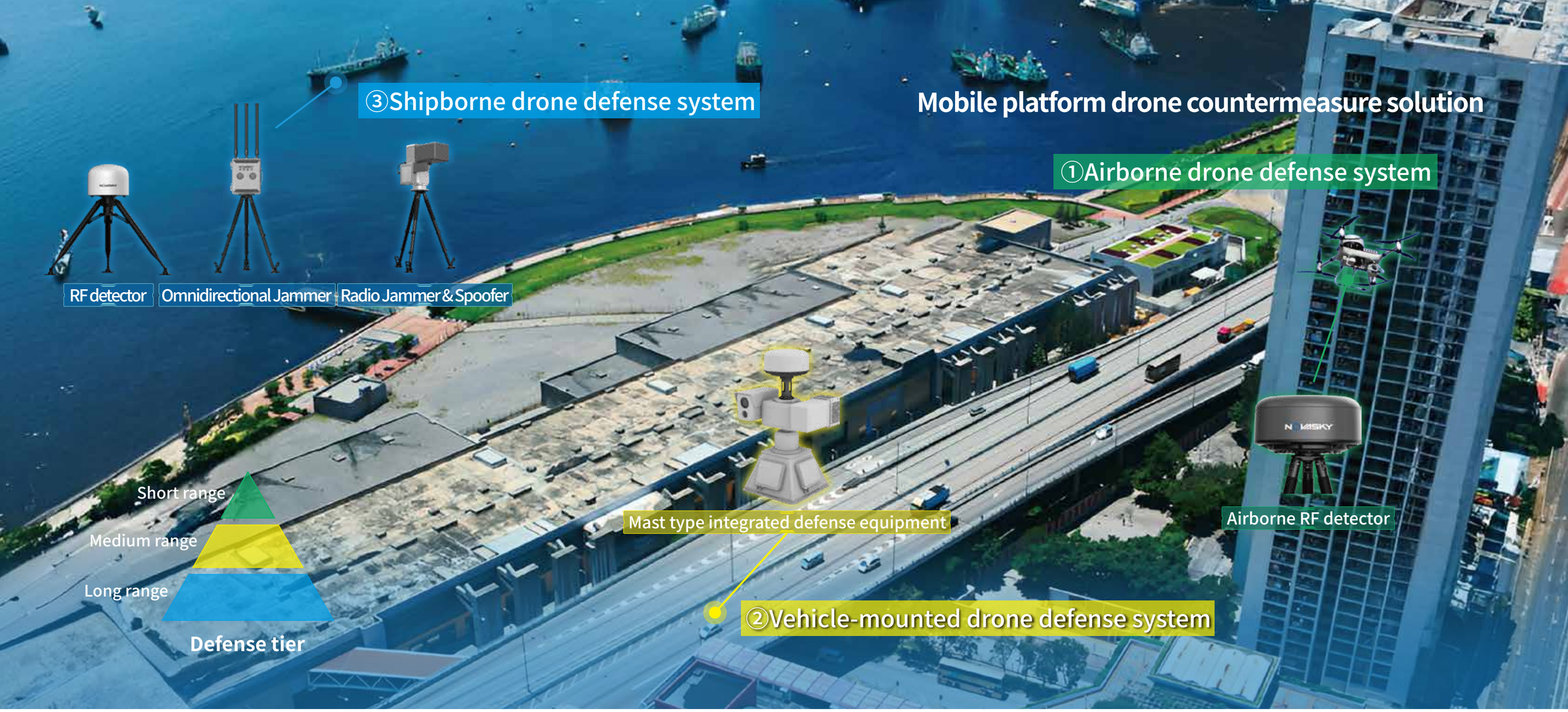
Black and White List

Differentiate drone targets by whitelist settings, and only generate alarms for non-cooperative drones, realizing the friend-or-foe identification function.

Small secondary impact

Signal transmission power is in milliwatt level, and the radio transmission equipment type approval certificate has been obtained.

Mobile platform drone countermeasure solution



SOLUTION OVERVIEW

The mobile platform solution is composed of airborne drone anti-bending system, vehicle-mounted drone anti-bending system and ship-borne drone anti-bending system. The system is suitable for deployment in airborne, vehicle-mounted and ship-borne scenarios, with multiple functions of drone detection, identification and tracking, and rapid countermeasures, meeting the needs of drone prevention and control in different regional dimensions of sea, land and air, and forming a set of three-dimensional defense network.

SOLUTION VALUE

- provide strong support for diversified prevention and control tasks by sea, land and air
- Meet the drone defense requirements in different geographical dimensions
- Improve operational flexibility and ensure the safety of important places and important people

SOLUTION FEATURES

Good maneuverability

It can quickly reach important protected areas and quickly search and detect large areas.

Steady operation

It is suitable for complex scenarios and geographical environments, and can achieve stable operation 7*24 hours a day.

Multi-function integration

With a variety of drone detection means, guide radio interference countermeasures,decoy, to achieve accurate and rapid disposal of targets.

Integrated management

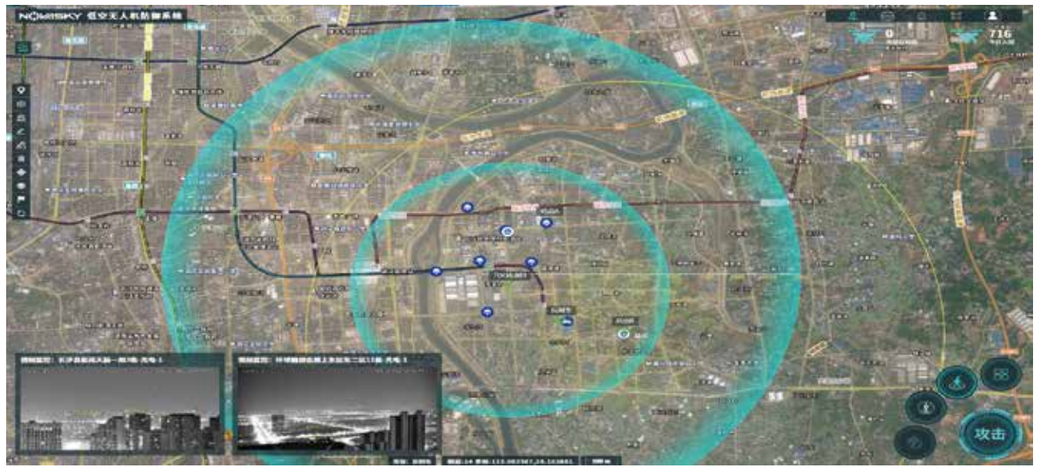
Share data with back-end command center/ground command station/remote monitoring and control center to achieve situation feedback, mission coordination, and unified scheduling.

03

APPLICATION CASES

- Urban Low-altitude UAV Regulatory Cases
- Key Sites Protection Fixed/Portable Cases
- Individual and Squad Combat UAV Defense Cases
- Counter-Terrorism Key Units Cases
- Mobile Platform UAV Defense Cases

Urban low-altitude drone regulatory case



Participated in the construction of Changsha Airport Free Trade Zone low-altitude pilot project, covering Changsha International Convention and Exhibition Center, Huang Xing former residence, Huangxing Town government and other important scenes, where metro Line 2 and Line 4 meet, covering a total area of about 6 square kilometers around Changsha International Convention and Exhibition Center. By deploying 2 sets of area array radars, 2 sets of photoelectric tracking equipment, 6 sets of TDOA+ protocol parsing equipment, and 1 set of RID monitoring and receiving equipment, urban grid low-altitude drone control is realized.

Urban low-altitude drone regulatory case

Participate in the construction of Wuhan East Lake High-tech Zone grid low-altitude defense project, and cooperate with the East Lake High-tech Zone 100+ drone hangars in accordance with grid management principles. A set of low-altitude defense system is deployed in each of the two key protection areas, and each system consists of a set of TDOA spectrum detection system (4 spectrum detection devices) +1 directional suppression jamming device. The system supports the black and white list function, which can distinguish between our cooperative drones and black flight intrusion drones. The system supports smooth expansion, realizes multi-node distributed management and control of the city, and ensures the smooth and safe progress of the Optical Valley Marathon.

Critical site protection fixed application case

Low altitude protection of the army camp

Low altitude protection of the army camp

Low altitude protection of the army camp

Low altitude protection of the army camp

Judicial prison protection

Low altitude protection of important scenic spots

Airport low altitude protection

Low altitude protection of high-speed railway

Critical site protection fixed/portable application case


Low altitude security for important events


Low altitude security for important events


Low altitude security for important events


Low altitude security for important events


Hangzhou Asian Games main venue protection


Chengdu Universiade accusation center

It has been applied to low-altitude security tasks in military, public security, judicial, airport, large-scale events, political forums and other scenes. In 2023, more than 250 sets of research and purchase integrated projects for a military were delivered, with a total amount of more than 200 million yuan, which is the largest electronic anti-equipment project in China. In recent years, it has participated in nearly 100 low-altitude support missions across the country, so as to find and dispose of black flight targets quickly and ensure the low-altitude safety of key defense areas.

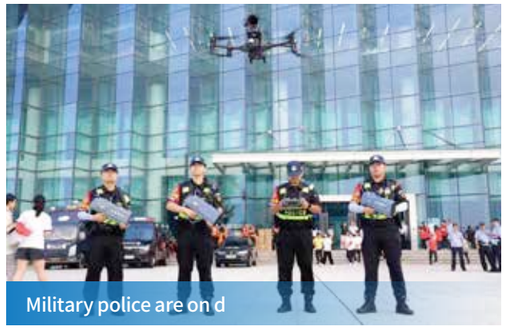
Individual soldier portable application case


Military police are on d


Military police are on d


Military police are on d


Military police are on d


Military police are on d

Military police are on d

Military police are on d


Military police are on d

Anti-terrorism key units drone defense application case


Substation protection


Substation protection


Substation protection


Substation protection


Large oil depot protection


Photovoltaic Power Plant protection


Substation protection


Large oil depot protection

Anti-terrorism key units drone defense application case


Energy facility protection


Energy facility protection


Energy facility protection


Energy facility protection

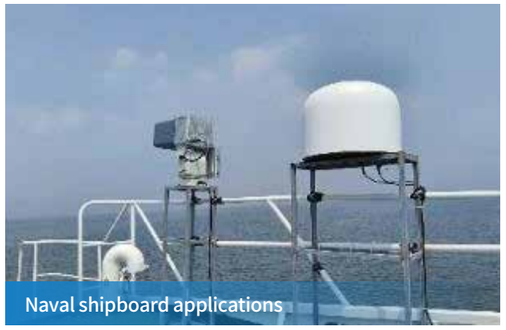

Energy facility protection

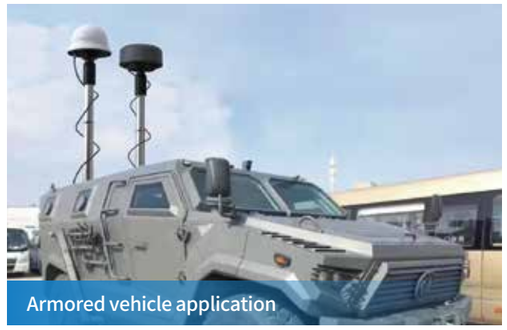

Energy facility protection

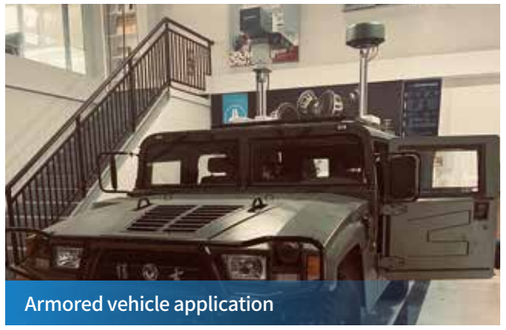
Using the fixed deployment of navigation decoy equipment in key units such as power, energy, oil depots, chemical plants, and water plants, it provides a strong security guarantee for the low-altitude defense construction of anti-terrorism units. Typical batch delivery cases include the delivery of more than 50 sets of low-altitude defense systems in Jiangxi power grid and more than 30 sets of substations in Shanxi power grid.

Mobile platform drone defense application case

Naval shipboard applications


Naval shipboard applications


Armored vehicle application


Armored vehicle application


Special vehicle application


Special vehicle application

Special vehicle application

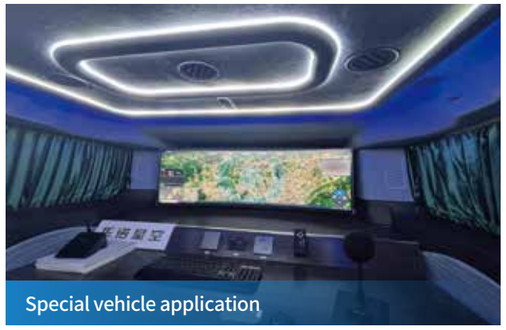

Special vehicle application

Mobile platform drone defense application case

Special vehicle application

Special vehicle application


Special vehicle application


Special vehicle application


Airborne application


Airborne application

The drone countermeasure system is combined with ship-borne, vehicle-borne, airborne and other mobile platforms to improve mobile defense capabilities against "low, slow and small" targets, and the first domestic ship-borne electronic anti-zero system will be delivered in 2024, which is honored on the National Defense Military report. Vehicle-mounted application cases cover military armored vehicles, fierce vehicles, public security vans, SUVs, pickup trucks, Ford, Iveco and other models, fully demonstrating its diversified adaptation and powerful customization functions.