



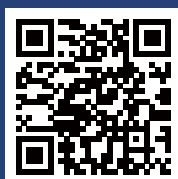
神州明达  
— SZMID —

# SZMID | 2024 C-UAS SERIES

## Drone Defense Series



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BeiJing SZMID High Technology Co., Ltd

**COMPANY  
PROFILE**

**2006** 18 YEARS OLD COMPANY

**65w+** SERVING GLOBAL CUSTOMERS 650,000+

The company was founded in 2006, is a comprehensive diversified high-tech product production and development company, research and development production, technical sales , engineering construction in one. To provide quality products and solutions for global customers.

Shenzhou Mingda has a technical research and development and professional service team of more than 100 people, with a special research and development center, a perfect R & D production system, support for hardware and software upgrade iteration, with a complete scientific research and development and technical support system. The main projects of Shenzhou Mingda are mainly for the research and development and production of high-end radio security equipment and system solutions for public security departments, state-owned enterprises, secret units, examination rooms, supervision places, military police and other fields. Products cover: UAV countermeasures, signal blocker/shield cabinet, frequency jammer, government and enterprise technology anti-theft, privacy protection, distributed signal detection and control, signal detection code, radar, microseismic life detector, intelligent security gate series, for the global market sale.

**100+** EXPORTED TO 100+ COUNTRIES

**1000+** 1000+ SERVICE PROVIDERS WORLDWIDE

The market share of SZMID has been steadily increasing. In addition, the company has achieved an average turnover growth of 280% for 6 consecutive years, established in-depth cooperative relations with more than 1,000 service providers in more than 100 countries and regions in the fields of anti-drone, privacy protection, radio signal control, etc., and provided customized solutions for customers in different fields. By 2023, the company's domestic market share has reached 39%. Won a wide range of customer recognition, become the industry leader.



Industry authority strength certification Has

More than 100 certificates  
Focus on building information security

We proceed from reality, adhere to quality control,It has passed  
a number of domestic and foreigncertifications to create  
information security



Received awards and media coverage

Beijing Shenzhou Mingda High -tech Co., Ltd. is a national high -tech enterprise focusing on the field of intelligent security. We mainly provide services for the government, national defense, military and secret units and other users. With excellent product quality and satisfactory service, we have won the Chinese famous Brand and the National Product Quality and Service Customer Satisfaction Brand Award, and have been recognized and commended by the government.

As of today, we have obtained more than 20 radio security related patents, and passed the ISO9001 quality management system, ISO14001 environmental management system, ISO27001 information security management system and ISO45001 occupational health and safety management system certification. In addition, we have also obtained 108 certificates such as specialized and special new enterprise certification, National military standard certification, Ministry of Public Security testing report, National Bureau of State Secrets Protection testing report, non-committee testing report, CDC report, CE certification, FCC certification.

Our innovation achievements and development achievements have been widely concerned and praised by national media such as People's Daily, CCTV and Hunan TV.





Professional R&D core strength

18 years of deep research and development production  
Science and technology cast the brand of SZMID

Our research and development team is composed of highly professional personnel with rich experience and deep expertise, and continuous innovation has made a great contribution to the success of the Shenzhou Mingda brand.



Product research and development

Our research and development team is constantly exploring new technologies and new applications, and is committed to developing more excellent and efficient products. Our product line includes not only hardware devices, but also software applications and Internet services to meet diverse customer needs.



Personnel training

We attach importance to the cultivation and development of talents, and provide our employees with a full range of career development opportunities and training resources. We believe that talent is the most valuable resource of the company, only with first-class talent, can ensure our R & D ability and innovation level.



Technological innovation

We pay attention to the investment in technology research and development, through the introduction and absorption of new technology, and constantly improve their own technical level and innovation ability. Our technological innovation capabilities allow us to quickly respond to market changes and lead the industry.



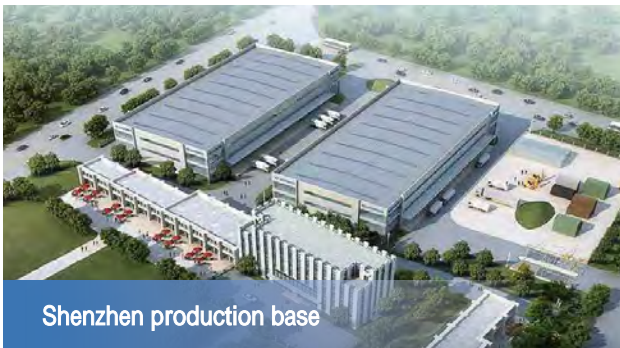
R&d management

We focus on the importance of R&D management and optimize our R&D process and management system by introducing modern R&D management concepts and methods. Our goal is to improve the efficiency and quality of R&D through scientific management, while maintaining our competitive edge.

Own factory quality assurance

Four production bases whole industry chain solution

From product project approval, research and development, packaging creative design, product innovation and development, and then to large-scale production, whether it is mass production or multi-variety small batch production, Shenzhou Mingda has a complete industrial chain advantages and integrated overall solutions.



Shenzhen production base



Dongguan production base



Wuhan production base



Chengdu production base







## RADIO DETECTION EQUIPMENT

### UAD-ZDN01 Radio detection equipment



Radius

1-3KM

The UAD-ZDN01 radio detection equipment uses a double frequency conversion structure and digital signal processing technology, and has a dual-channel low noise RF front end, which has a high sensitivity. Through the system feature matching, the UAV data communication signal can be detected and recognized effectively in the complex signal background.



#### Multidetector

Passive capture of the picture signal and remote control signal between the drone and the remote control, real-time detection of 2.4G, 5.8G signal frequency bands, covering more than 95% of the mainstream drones in the market.



#### High sensitivity

It adopts double frequency conversion structure and digital signal processing technology, and adopts dual-channel low noise RF front end, which has extremely high sensitivity.



#### Low false alarm detection rate

Modulation parameter identification and feature matching by digital processing technology can effectively detect and identify UAV downlink signals under complex signal background, and the false alarm rate is low.



#### Extensibility

Through the external power supply, antenna, control interface and other peripheral components, can achieve different types of applications, suitable for building fixed or portable UAV full/directional detection equipment.

Mode	Radio detection
Frequency	2400~2500MHz / 5150~5975MHz
Detect radius	1000m (2dBi antenna/DJI Genie 4Pro V2.0/50m high) 3000m (8dBi antenna/DJI Genie 4Pro V2.0/100m high)
Sweep cycle	The value ranges from 2.1 to 5.25 seconds
Burnout level	2+31dBm



### UAD-ZQY03 Radio detection equipment (full band)



Radius

5-7KM

The UAD-ZQY03 radio detection equipment is used for detection and early warning of over-the-horizon UAVs. The system passively intercepts the image transmission signal and the remote control signal to realize the passive detection, side, distance and recognition of the UAV. The real-time spectrum bandwidth of the UAV detection system is 30MHz~6GHz, and it can detect more than 95% of the mainstream UAVs on the market, and the detection radius can reach 5-7km. In addition, the device also has a black and white list function, which can add or remove the black/white list of detected drones.



#### Full band coverage

The device passively intercepts the image transmission signal and remote control signal between the drone and the remote control, and detects the spectrum bandwidth of 30MHz~6GHz, covering more than 99% of the mainstream drones in the market.



#### High detection accuracy

The Angle and distance measurement accuracy of the device is high, and it can also maintain high precision detection in complex electromagnetic environment. Data fusion processing technology is used to reduce the false alarm rate.



#### Long detection range

The equipment adopts omnidirectional 360 ° non-dead Angle detection, and the detection radius distance can reach 5-7km, and the detection range is ultra-wide.



#### High positioning accuracy

The device can calculate the real-time position of the UAV from the detected radio signal strength to an accuracy of ± 20 meters.



#### Conventional drone detection

The device can detect drones at 400MHz, 800MHz, 900MHz, 1.2GHz, 1.4GHz, 2.4GHz, 5.8GHz frequencies.



#### Modified drone detection

The device has the ability to detect unknown UAVs outside of the 400MHz, 800MHz, 900MHz, 2.4GHz, 5.8GHz band model library.




#### Multi-target orientation

The device can simultaneously detect 5 UAVs in 5 different directions at a distance of 15km and the azimuth Angle should be 1.0 ° (root mean square).




#### Multiple types of UAV detection

The equipment can detect 40 types of UAV and 35 types of UAV at the same time.




Detection alarm range adjustment function

The device can be set to different detection ranges, and the diameter distance can be set to 3km, 5km, 7km, 10km or 15km.



Full band adjustable fixed frequency

The device supports full frequency detection or preset fixed frequency for precise detection.




Complex trajectory detection

Multiple devices are combined online to display the flight trajectory of multi-target UAV, and lock the UAV flying at 20m/s speed.




Black and white list function

The device has the function of black and white list of UAV identity, and has the ability to identify friend or friend. The UAV included in the system white list will not trigger the alarm linkage work.




Multi-system interactivity

The device supports different development protocols, including but not limited to: rest api, http api, graphql api, soap api, xml-rpc.




Extensible

It can extend and integrate UAV radio jamming equipment and navigation decoy equipment to realize the integration of UAV detection, jamming countermeasures and navigation decoy, and support single machine work and multiple equipment networking work.



Continuous operation

The equipment can continuously monitor and record the airspace of the defense area throughout the day, and maintain stable operation even in severe weather conditions such as thick fog and thunderstorms.



No personnel required

The equipment supports remote control equipment start/close, one key automatic search, intelligent detection, after setting automatic detection, no personnel on duty can complete the defense area airspace detection.

Mode	Radio detection with black and white list function	
Frequency band	20MHz~6GHz (Adjustable to fixed frequency)	
Radius detection	5000-7000m (Depending on model/environment)	
Angle detection	360 °	
Multiorientation	5 UAVs at the same time, detecting the azimuth Angle at 15km in 5 directions should be	1.0 ° (root mean square)
Detectors	40 at a time	
Type detection	35	
-		

UAD-ZB01 Detection Portable 1 (Conventional)




Radius

1-3KM


Using self-developed low-power digital analog hybrid receiver technology and advanced power management technology, with external ultra-wideband antenna, it can accurately alarm the sound, light and vibration of common civil UAV (such as quadrotor, fixed wing, DIY, through aircraft, etc.) in complex electromagnetic environment, and the false alarm rate is very low.






Multiple detection models

Using self-developed low-power digital and analog hybrid receiving technology, it can detect and identify more than 90% of common civilian UAV models, and accurately realize sound, light and vibration alarm




Low detection false alarm rate

It can also maintain very low false alarm rate in complex electromagnetic environment, and the average false alarm rate is less than 1 / day.




Long distance

The internal antenna is 1 km, and the external overbandwidth antenna is 3 km. (There will be some differences depending on the environment and model.)




Flexible and convenient

The equipment is small in size and light in weight, which is only equivalent to the size of a walkie-talkie. It is very convenient for individual soldiers to carry and use when they are on duty.



Long battery life

Built-in high-quality battery, the battery life can reach more than 6 hours, one charge can meet the needs of all-day detection.



Combination with multiple devices

It can cooperate with portable UAV jamming equipment to make up for the problem that the UAV is not found in time in the work of the jamming equipment, and realize the detection and interference function of the UAV.

Mode	Radio detection
Object	Dji series, Daotong, Harberson, WIFI, through machine, all kinds of assembly machine and models
Frequency band	1000~1500MHz / 2400~2485MHz / 5150~5950MHz
Radius detection	1KM , External antenna up to 3KM (depending on model/environment)
Endurance time	6 hours
Alarm mode	Lights, sounds, vibrations
Water resistance	IP55





CONVENIENT COUNTERMEASURE EQUIPMENT

DZ01-Pro Three channel drone strike gun

Interference 1500M

The DZ01-Pro three-channel drone strike gun has a portable design for rapid deployment and can be operated by one person. It can effectively control the low-altitude multi-rotor UAV on the market, isolate the contact between the UAV and the remote control, force the UAV to hover, land or return, and ensure the safety of the low-altitude airspace.



Three-channel interference

It can interfere with 2.4G, 5.8G band and 1.5G (GPS/GLONASS/Beidou Global Satellite positioning System), covering more than 95% of the UAV models on the market.

Precision strike

High gain directional antenna, energy concentration, more accurate target.

Interference distance

The equipment emits high-power interference signal frequency band in the same frequency band to suppress the UAV control signal, and the interference distance can reach 1500m.

Multiple modes

The equipment can choose a variety of action modes, so that the UAV forced return, forced landing, hovering, picture transmission interference.

Mode	Radio interference
Frequency band	2.4GHz、5.8GHz、1.5GHz (GPS/GLONASS/Beidou)
Distance	1500m open land (depending on the model/environmental conditions)
Antenna type	High gain 9dB directional antenna
Antenna angle	60 degree
Working hours	Built-in battery: 12V10Ah, working time can reach 35-40 minutes
Extension	Equipped with standard guide rail, can be installed scope, night vision, law enforcement recorder, etc

DZ05-Pro Four channel drone strike gun

Interference 1500M

The DZ05-Pro four-channel UAV strike gun suppresses the UAV control signal by transmitting high-power interference signals in the same frequency band (900MHz, 1.5G, 2.4G, 5.8G frequency band and 1.5G (GPS/-GLONASS/Beidou), and interferes with the data link and positioning system. Cut off the communication and navigation signals between the drone and the remote control, forcing the drone to hover in place, land automatically or return.



Four-channel interference

It can interfere with 900MHz, 2.4G, 5.8G band and 1.5G (GPS/GLONASS/Beidou Global positioning System), covering more than 95% of the UAV models on the market.

Precision strike

High gain directional antenna, energy concentration, more accurate attack target.

Interference distance

The equipment transmits high-power interference signals in the same frequency band to suppress the UAV control signal, and the interference distance can reach 1000m.

Multiple modes

The device can choose a variety of action modes, so that the UAV forced return, forced landing, hovering, graph transmission interference.

Strong endurance

Use large capacity rechargeable battery and charging equipment, can work for more than 60 minutes to ensure long-term use.

Flexible and convenient

The device adopts portable design, high mobility, is not constrained by any terrain environment, and can be flexibly deployed to all fields that need to prevent UAV invasion.

Mode	Radio interference
Frequency band	900MHz (5.2Ghz)、2.4GHz、5.8GHz、1.5GHz (GPS/GLONASS/Beidou)
Distance	1500m open land (depending on the model/environmental conditions)
Antenna type	High gain 9dB directional antenna
Antenna angle	30 degree
Working hours	Built-in battery: 24V8Ah, working time up to 60 minutes
Extension	Equipped with standard guide rail, can be installed scope, night vision, law enforcement recorder, etc

DZ06-Pro Six channel drone strike gun



Interference 2000M

Dz6-pro six-channel UAV attack gun uses high-power interference signals in the same frequency band (800, 900M, 1.2G, 2.4G, 5.8G band and 1.5G (GPS/-GLONASS/ Beidong)) to launch to the UAV, suppress the control signal, interfere with the data link and positioning system. The communication and navigation signals between the UAV and the remote control were blocked, and the UAV was forced to hover in place, land automatically or return.

Six channel interference

It can interfere with 800, 900MHz, 1.2G, 2.4G, 5.8G band and 1.5G (GPS/GLONASS/ Beidou global positioning System), covering more than 99% of the UAV models on the market.

Precision strike

High gain directional antenna, single channel transmit power up to 20 watts, energy concentration, more accurate attack target.

Interference distance

The equipment transmits high-power interference signals in the same frequency band to suppress the UAV control signal, and the interference distance can reach 2000m.

Multiple modes of action

The device can choose a variety of action modes, so that the UAV forced return, forced landing, hovering, graph transmission interference.

Strong endurance

Use large capacity rechargeable battery and charging equipment, can work for more than 50 minutes to ensure long-term use.

Flexible and convenient operation

The device adopts portable design, high mobility, is not constrained by any terrain environment, and can be flexibly deployed to all fields that need to prevent UAV invasion.

DZ08-Pro UAV integrated gun



Interference 2000M Detection 3000M

DZ08-Pro UAV detection and attack integrated gun integrates UAV detection and attack functions. The detection terminal uses the radio spectrum monitoring system to passively intercept the graph transmission signal and remote control signal between the UAV and the remote control to realize the passive detection of the UAV. The strike end mainly controls the UAV or model aircraft in flight, and intercepts the UAV for forced landing or forced return.

Integration

The device integrates UAV detection and attack functions into one, and a single device can detect and counter UAV, providing all-round low-altitude protection anytime and anywhere.

Multiple models

Dual-channel detection and six-channel interference can detect and interfere with most of the commonly used signal frequency bands of UAVs, covering more than 99% of UAV models on the market.

Interference distance

The device adopts high-gain directional antenna, and the detection distance can reach 3000m. Transmitting high-power interference signals in the same frequency band, the interference distance can reach 2000m.

Multiple modes of action

The device can choose to open the detection mode or interference mode. The interference mode can force the UAV to return, crash landing, hover, and graph interference, and a variety of action modes can be selected.

Strong endurance

Use large capacity rechargeable battery and charging equipment, can work for more than 50 minutes to ensure long-term use.

Flexible and convenient operation

The device adopts portable design, high mobility, is not constrained by any terrain environment, and can be flexibly deployed to all fields that need to prevent UAV invasion.

Mode	Radio interference
Frequency band	800MHz、900MHz、1.2GHz、2.4GHz、5.8GHz、1.5GHz ( GPS/GLONASS/Beidou )
Interference distance	2000m Open land (depending on model/environment)
Antenna	High gain 9dB directional antenna
Antenna angle	60 degree
Working hours	Built-in battery: 24V7.5Ah, working time up to 50 minutes
Extension	Equipped with standard guide rail, can be installed scope, night vision, law enforcement recorder, etc

Mode	Radio interference/detection
Frequency band	Interference terminal: 800MHz, 900MHz, 1.2GHz, 2.4GHz, 5.8GHz, 1.5GHz (GPS/GLONASS/ Beidou)
	Detection terminal: 2.4GHz, 5.8GHz
Distance of work	Interference distance: 2000m Detection distance: 3000m open ground (depending on the model/environmental conditions)
Type of antenna	High gain 9dB directional antenna antenna Angle: 60 degrees
Working hours	Built-in battery: 24V8Ah, working time up to 60 minutes (single battery)
Extension	Equipped with standard guide rail, can be installed scope, night vision, law enforcement recorder, etc



DZ09-Pro UAV integrated gun

Interference

2000M

Detection

3000M

The DZ09-Pro UAV Reconnaissance Integrated Gun is easy to use and flexible, and can be quickly deployed in various complex environments. The device can accurately determine the specific position of the drone, assist the operator, and take interference measures through the visual screen and audible alarm reminders. It can effectively defend more than 95% of the drone models on the market, isolate the connection between the drone and the remote control, force the drone to hover , land or return, and ensure the safety of low-altitude airspace.



Integration

The device integrates UAV detection and attack functions into one, and a single device can detect and counter UAV, providing all-round low-altitude protection anytime and anywhere.

Direction finding early warning

It can accurately determine the direction finding to assist the operator in judging the specific position of the drone, and carry out precise strikes through visual screens and sound alarm reminders

Wide detection range

The device adopts an omnidirectional 360° direction-finding antenna and a high-gain directional detection antenna, with an effective detection distance of up to 2000m, which can accurately lock and track the UAV at a long distance or in a complex electromagnetic environment.

Interference distance

Multi-channel high-gain directional antennas are used to transmit high-power interference signals in the same frequency band, and the interference distance can reach 2000m.

Multi-modal

You can choose to turn on the detection mode or jamming mode, and the jamming mode can make the drone force return, forced landing, hovering, and image transmission interference, and a variety of action modes can be selected.

Advance warning capabilities

Without the need for the drone to take off, the drone can be accurately detected when the ground is turned on, effectively preventing unauthorized or potentially risky drone activities

Visualization

By converting the detected signal into a visual image, you can understand the frequency, signal strength and flight azimuth dynamics of the drone by observing the waveform changes on the display

False positives are low

Using advanced signal processing technology and design to adapt to complex electromagnetic environment, it can maintain high-precision detection effect and extremely low false alarm rate in scenes with strong interference and complex signals.

Interference independent control

Each channel of the device can be controlled separately to carry out effective and accurate frequency interference according to the detected drone frequency information.

Strong battery life

The use of large-capacity rechargeable batteries and charging equipment can last for more than 50 minutes to ensure long-term use.

Operational flexibility

The equipment adopts a portable design, high mobility, and is not constrained by any terrain environment, and the detection and direction finding unit can also be deployed and operated independently to ensure seamless coverage of all-round three-dimensional protection.

Scalability

The equipment adopts a standard rail design, which is suitable for the installation of a variety of scopes, night vision devices and law enforcement recorders to meet the needs of different scenarios and hit targets more accurately and effectively.

Mode	DZ09-ProUAV integrated gun		
Frequency band	Interference terminal: 800MHz、900MHz、1.2GHz、1.5GHz、2.4GHz、5.8GHz		
Detection terminal:	1.0~1.5/2.4~2.5/5.15~5.95GHz	Direction finding : 2.4~2.5/5.15~5.95GHz	
Working distance:	Interference distance: 2000m	Detection/DF Range: 2000m in open areas	
Type of antenna	Interference side: high gain 9dB directional antenna Antenna angle: 60 degrees		
	Detection end: High gain directional antenna		
	Direction finding end: omnidirectional antenna 2.4~2.5GHz 3dB, 5.15~5.95GHz 4dB		
Direction finding accuracy :	20°		
Working hours	Built-in battery: 24V8Ah, working time up to 60 minutes (single battery)		
Extension	Equipped with standard guide rail, can be installed scope, night vision, law enforcement recorder, etc		



UAD-GD01 Radio Jammer  
(single array/groupable 3/4/5/6 array)

Radius 1-5KM

The UAD-GD01 jammer uses directional jamming technology to control UAV targets from a long distance. It is suitable for combination with other equipment systems, and can also be installed separately for interference. The device has the advantages of fast frequency scanning and high antenna energy density, which makes it suitable for a wide range of UAV signal jamming scenarios.



Multi-band interference

It can interfere with 1.5G, 2.4G, 5.8G frequency band, and has strong anti-external electromagnetic field ability and high scalability.

Precision strike

High gain directional flat antenna, single channel transmit power up to 25-30 watts, energy concentration, more accurate attack target.

Long distance

The equipment transmits high-power interference signals in the same frequency band of 1.5G, 2.4G and 5.8G bands to suppress the UAV control signal, and the radius distance can reach 1000-5000m.

Extensible

The equipment can be customized according to customer requirements, multi-module, multi-array combination, single device transmit antenna Angle can be customized 10° - 180°.

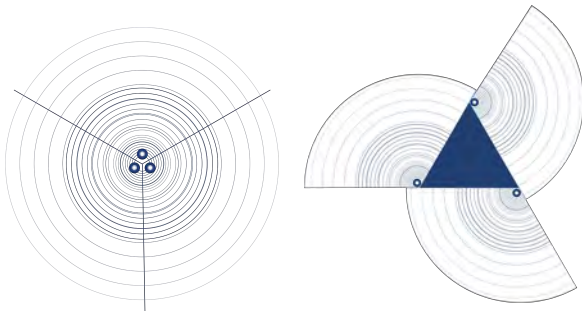
Continuous operation

The equipment can continuously monitor the strike and record the airspace of the defense area around the clock, and maintain stable operation even in severe weather conditions such as fog and thunderstorms.

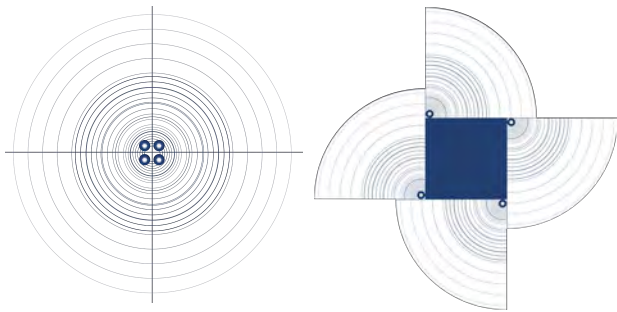
No human effort required

The system supports the setting of defense plans, and automatically and intelligently executes the preset plans. It can be used with the detection equipment, and can carry out linkage attacks outside defense area.

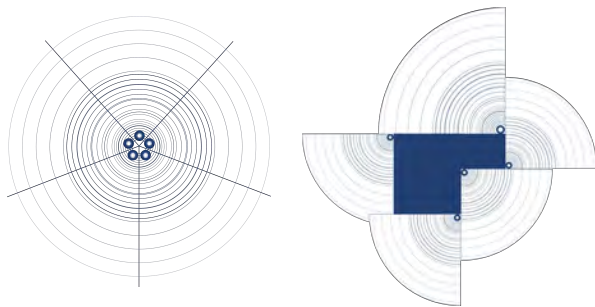
Three - plane array combination installation schematic  
The Angle of single-sided transmission is 120 ° and the interference radius is 3KM



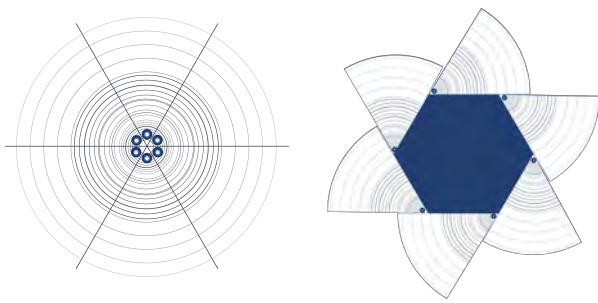
Installation diagram of four - sided array combination  
The Angle of single-sided transmission is 90 ° and the interference radius is 4KM



Installation diagram of five - plane array combination  
Transmitting Angle: 72 ° for combined single side, 30~90 ° for irregular, interference radius 4KM



Six - plane array combination installation schematic  
The Angle of single-sided transmission is 60 ° and the interference radius is 5KM



Mode	Radio interference
Frequency band	2.4GHz、5.8GHz、1.5GHz ( GPS/GLONASS/Beidou )
Radius detection	1000~5000m open land (depending on the model/environmental conditions)
Antenna	Built-in high-speed sweep source directional flat panel antenna (angle can be customized on demand)
Gain of antenna	8 ± 1~13 ± 1dBi
Power	Single channel 25W~30W
Extension	The three channels are independently powered, which can flexibly control



UAD-GD02 Radio interferometer

Radius 1-1.5KM

The UAD-GD02 radio jammer uses high-gain omnidirectional RF jamming technology, which can emit powerful RF jamming signals to interfere with suspicious targets, making them unable to use satellite navigation, wireless remote control and wireless image transmission links. This forces the drone to stay put, land, or return to its original path. Compared to omnidirectional jamming, it is more accurate to the target, has less impact on the surrounding environment, and is more reliable.



Eight-channel interference

It can simultaneously or independently carry out accurate counter-jamming to 900M, 2.4G, 5.8G frequency bands and 1.5G (GPS/GLONASS/ Beidou) and other common frequency bands of UAVs, with good jamming effect.

High-power strike

Using high-gain omnidirectional RF interference, 2.4G transmitting power 200 watts, 5.8G transmitting power 100 watts, high transmitting power, energy concentration, more accurate targeting.

Long distance

In the open area without shelter on the flat ground, the interference radius can reach 1.5 km, and the interference radius of the urban environment can reach 1 km.

Multi-mode

The equipment can choose a variety of action modes, so that the UAV forced return, forced landing, hovering, picture transmission interference.

Faster

The response time of disposal is less than 4 seconds, and the interference countermeasures are quickly carried out after detecting the UAV to protect the airspace safety.

Expansion

It can expand the integrated radio detection system, UAV detection radar and other detection systems to realize the integration of UAV and countermeasures, supporting single machine work and multi-device networking work.

Mode	Radio interference
Frequency band	900MHz、 2.4GHz、 5.8GHz、 1.5GHz ( GPS/GLONASS/Beidou )
Radius detection	1.5KM in open area and 1KM in urban environment (depending on the model/environment)
Antenna	High gain omnidirectional 8-channel antenna
Speed response	4 sec
Interference	Omnidirectional fixed frequency interference
Extension	Interference frequency band and power can be added according to customer requirements

UAD-GQ03 Radio interferometer

Radius 1-3KM

The UAD-GQ03 radio jammer uses high-gain omnidirectional RF jamming technology, which can cover the full frequency band of 20MHz~6GHz, and the frequency band can be written freely, which is suitable for more UAV models. After the suspicious target is detected in the 360 ° range, the high-power radio frequency interference signal is emitted to paralyze the satellite navigation, wireless remote control and wireless image transmission links of the UAV, forcing the UAV to hover, land or return to the original route.



All-band interference

The equipment adopts a full-band interference mode, covering 20MHz~6GHz, and the frequency band can be written freely, covering 99% of the UAV models.

360 ° omnidirectional interference

The equipment adopts omnidirectional high-gain antenna, which can handle the UAV in a full range of 360 ° and cover a wide range.

Long distance

The interference radius can reach 3 km in the open area without shelter, and the interference radius of urban environment can reach 1 km.

Multi-purpose

It can be used as drone strike equipment alone, and can also be used as EOD jammer, signal blocker and intercom blocker.

Integrated design

The device adopts an integrated design, and the system is integrated in the drawbar box, which is convenient for flexible deployment.

Expansion

It can increase the single-channel power according to customer requirements, integrate the UAV detection system, realize the integration of UAV detection and countermeasures, and support the equipment networking work.

Mode	Radio interference
Frequency band	Seamless coverage of full frequency from 20MHz to 6GHz
Radius detection	3KM in open area, 1KM in urban environment (depending on the model/environment)
Antenna	High gain 360 ° omnidirectional 8-channel antenna
Power	450W
Mode	Omnidirectional jamming is based on synthesizing jammers from all digital (DDS) signal sources
Extension	The power of single channel can be increased according to customer requirements.

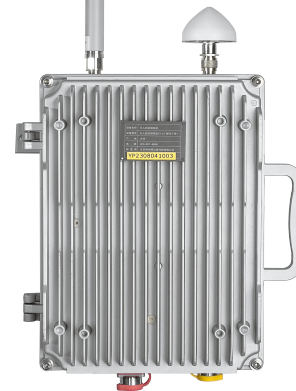


## NAVIGATIONAL DECEPTION DEVICES

### UAD-P01 Drone decoy equipment

Radius **0.5-1KM**

The UADS-P01 drone decoy system was developed in response to the security threat of "black flying" drones. By radiating low-power regenerative navigation satellite signals (power no more than 10dBm), invade the navigation system of the "black fly" UAV, so as to intercept and control the UAV that needs the navigation system for flight control, prevent it from entering the protected area, and ensure the low-altitude safety of the area.



#### Certified by the National Committee

The equipment meets the technical requirements of the anti-terrorism prevention documents GA 1551-2019 and GA 1800.1-2021/1800.6 of the Ministry of Public Security, and the equipment has passed the certification of the National Non-Security Committee.



#### Transmitting power 10mW

Meet the technical requirements of GA 1551-2019 and GA 1800.1-201/1800.6, and the signal transmission power of the equipment is less than 10mW.



#### Explosion/lightning/salt spray proof

The equipment meets the technical requirements of GA 1551-2019 and GA 1800.1-201/1800.6. The equipment is certified as explosion-proof, lightning-proof, and salt-spray proof.



#### Unmanned

Meet the technical requirements of GA 1551-2019 and GA 1800.1-201/1800.6, with all-weather operation, and can intelligently execute pre-set defense plans. No personnel are required.



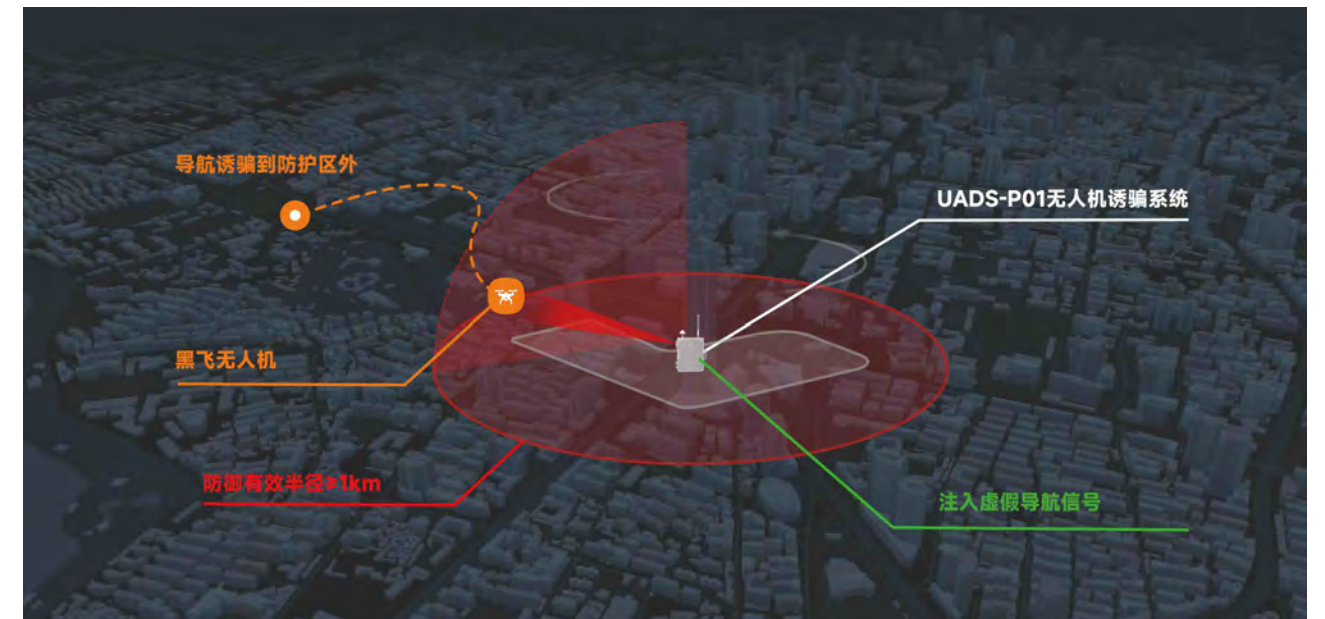
#### Active defense function

Signal type: GPS-L1 and GLONASS-L1 induction signals should be generated in real time. Signal synchronization: the simulated satellite navigation signals are synchronized in ephemeris and time synchronization accuracy is  $<1 \mu S$ .



#### Extension

Can work independently, but also can expand the integrated radio detection, suppression function, to achieve the detection and decoy integrated design, set the detection and decoy function in one, support single machine work and networking work.



### Scenarios for navigational decoys



Electric power system



Petroleum

Power	<10mW	
Frequency range	GPS : $1575.42 \pm 1.023\text{MHz}$ , GLONASS : $1602.0\text{MHz} + N \times 562.5\text{kHz} \pm 511\text{kHz}$ , (N-7-6)	
Defensive radius	500-1000m	
Frequency tolerance	$\pm 2 \times 10^{-6}$	
Occupied bandwidth	Not greater than the frequency range	
Emission	30MHz-1GHz ( RBW 100kHz ) < -36dBm ; 1GHz-18GHz (RBW 1MHz) -30dBm	
Timing	<10s	





## UADS-PB02 Convenient drone decoy system



Radius

0.5-1KM

The UADS-PB02 Convenient drone decoy system was developed in response to the security threat of "black flying" drones. The system uses low-power regenerative navigation satellite signals (power no more than 10dBm) to invade the navigation system of the "black fly" UAV, so as to intercept and control the UAV that needs the navigation system for flight control, prevent it from entering the protected area, and ensure the low-altitude safety of the area.



### National certification

In line with the national radio management conditions and the Ministry of Industry and Information Technology "micro-power radio equipment technical requirements", power adjustable, no blind area protection, can easily cope with cluster saturation attacks.



### Guard against multiple models

By sending false navigation satellite signals, it can deceive the navigation terminal of the drone and set up a no-fly zone, which can effectively prevent 99% of the drones with navigation on the market.



### Long distance

The equipment adopts omnidirectional column antenna, no protection blind area. Active defense radius distance is greater than 500 meters, less than 1000 meters and adjustable within 500 meters.



### Portable type

The device uses a portable pull-bar box design, high mobility, flexible deployment to all areas that cannot be fixed installation of decoy devices, but need to protect against drone intrusion.



### Continuous operation

The device can be powered by mains electricity or built-in lithium batteries, capable of all-weather operation, and is not affected by the environment, can work in thunderstorms, fog and bad weather.



### Integration

The system can be extended to integrate the radio detection function, set the detection and decoy function in one, and support the single machine work and networking work. A variety of countermeasures combine to easily cope with cluster saturation attacks.

Power	<10mW
Frequency band	GPS : 1575.42 ± 1.023MHz , GLONASS : 1602.0MHz+N × 562.5kHz ± 511kHz , (N-7-6)
Radius	500-1000m, and can be adjusted within 500 meters
Tolerance of frequency	$\pm 2 \times 10^{-6}$
Band	Not larger than the frequency range
Stray emission	30MHz-1GHz (RBW 100kHz)<-36dBm; 1GHz-18GHz (RBW 1MHz)<-30dBm
Time of onset	<10s

## UAD-P01SS Timing protection equipment



The UAD-P01SS timing protection device is compatible with the existing timing equipment of the power system. It can be installed between the timing equipment and the navigation satellite signal receiving antenna without replacing the original timing equipment to monitor the health and safety status of the received navigation satellite signals in real time, identify and isolate interference signals and deception signals. Improve the security, stability and anti-attack capability of the timing system.



### Automatic switch of working mode

Automatic switching between synchronous hold mode and deny hold mode according to the state of the input signal.



### Real-time interference and alerting

Real-time monitoring of timing equipment installation location satellite navigation signal, determine whether there is interference, and alarm when there is interference; When the interference disappears, clear the alarm in time.



### Interference signal isolation

Automatically isolate unsafe GPS L1 and BDS B1 signals to ensure proper operation of the timing device. It has static and dynamic user trajectory generation function.



### Data reporting and storage

It has the function of data reporting and log storage, and can record the alarm status, time status, running status, and input signal health status.



### Self-test and condition inspection

Monitor the output signal status, log alarm when the output signal is abnormal. Monitor the health status of input signals and record them in logs.



### Command and dispatch

It can receive command and dispatch commands remotely, configure output signals, and report working status in real time.

Output	GPS L1 : 1575.42 ± 1.023MHz ; BDS B1 : 1561.098 ± 2.046MHz。	
Input	GPS L1 : 1575.42 ± 1.023MHz ; BDS B1 : 1561.098 ± 2.046MHz ; BDS B3 : 1268.52 ± 10.23MHz	
Power	-125dBm ~ -90dBm	
Synchronization accuracy	In the synchronous hold mode, the output signal synchronization accuracy is	100ns
Alarm time	The time to judge and identify the abnormal signal and alarm is less than 15s	
Time of discharge	The time of signal abnormal alarm discharge is	180s



NAVIGATIONAL DECEPTION DEVICES

UADS-PZG03 Three-dimensional defense system

Defense

1-1.5KM

Detection

1-3KM

UADS-PZG03 three-dimensional defense system integrated product design, highly integrated, scientific radio spectrum detection, radar detection, navigation decoy, electromagnetic interference four types of anti-UAV system integration, can effectively control all low-altitude multi-rotor UAV on the market, to ensure the security of low-altitude airspace in the defense area.



Certified by the National Committee

The navigation decoy unit in the system meets the technical requirements of the anti-terrorism prevention documents GA 1551-2019 and GA 1800.1-202/1800.6 of the Ministry of Public Security, and has passed the certification of the National Non-Commission.



Integrated design

The equipment integrates radio spectrum monitoring, radar detection, radio interference and UAV navigation and decoy system in one, which can realize the detection, jamming and decoy functions of UAV.



Multiple defense models

The equipment integrates radio spectrum monitoring, radar detection, radio interference and UAV navigation and decoy system in one, which can realize the detection, jamming and decoy functions of UAV.



Long distance

The equipment adopts omnidirectional column antenna, no protection blind area. Detection radius 1500 meters, navigation decoy radius 1000 meters, electromagnetic interference radius 1500 meters.



Continuous operation

The equipment can continuously monitor strikes and record the air space of the defense area around the clock, and maintain stable operation even in severe weather conditions such as fog and thunderstorms.



No personnel are required

The system supports setting defense plans and automatically and intelligently executing preset plans. When the system detects blacklisted drones, it can strike or navigate to lure them outside the defense area.

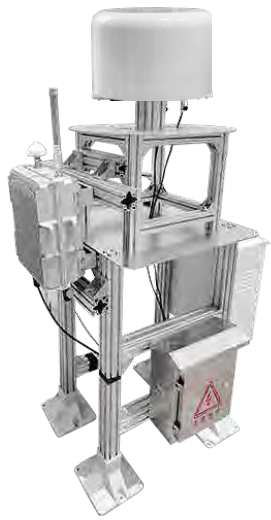


Hardware composition

- Radar detection module
- Radio detection and identification module
- Drone navigation decoy
- 4x signal jamming

Detection	Phased array system
	Mode: Pulse Doppler
	Frequency band: C
Frequency spectrum	Detection radius: 3km, for about 35cm RCS about 0.01m2 of the micro aircraft target
	Working frequency band:2400~2500MHz/5150~5975MHz
	Detection radius: 1km(2dBi antenna/DJI Genie 4Pro V2.0/50m high) 3km(8dBi antenna/DJI Genie 4Pro V2.0/100m height)
Interference	Working frequency band: 1550~1620MHz / 2300~2500MHz / 5725~5850MHz
	Interference radius:1-5km
Decoy	Frequency range: GPS : 1575.42+1.023MHz
	GLONASS : 1602.0MHZ+Nx562.5kHz ± 511kHz(N-7-6)
	Equivalent omnidirectional radiated power: 10mw
	Defense function: Signal type: GPS-L1 and GLONASS-L1 induction signals should be generated
	Signal synchronization: the simulated satellite navigation signal in ephemeris synchronization, time synchronization accuracy <1 μ S
	Defense radius: greater than 500 meters, less than 1000 meters and adjustable within 500 meters





## UADS-PZ04 UAV defense system

Defense 1-1.5KM Detection 3-5KM

The UADS-PZ04 UAV defense system is integrated by the radio spectrum monitoring system and the navigation decoy system. The radio spectrum monitoring system realizes the passive detection and identification of the UAV. The navigation decoy system spoofed the satellite navigation coordinate information received by the UAV using satellite navigation positioning, and realized the function of no-fly zone projection or area denial.



### Passed the national certification

The navigation deception unit in the system meets the technical requirements of the anti-terrorism and prevention documents GA 1551-2019 and GA 1800.1-201/1800.6 of the Ministry of Public Security, and has passed the certification of the National Commission without Commission.



### Integrated design

The device integrates radio spectrum monitoring and UAV navigation decoy system, which can realize two functions of UAV detection and navigation decoy.



### Many defense models

The spy and trap integrated UAV defense system adopts passive detection mode, which can deceive and confuse the navigation terminal of the UAV, and can effectively prevent 99% of the UAV with navigation on the market.



### Defensive distance

The equipment uses a high gain antenna and has no protective blind zone. The detection distance is 3000 meters and the trapping distance is 1000 meters.



### Continuous operation

The equipment can continuously monitor the strike and record the airspace of the defense area around the clock, and maintain stable operation even in severe weather conditions such as thick fog and thunderstorms.



### No human effort required

The system supports the setting of defense plans, and automatically and intelligently executes the preset plan. When the system detects the UAV, it can strike or guide and trap the UAV outside the defense area.

Power	10mW
Range of frequency	GPS : 1575.42 ± 1.023MHz , GLONASS : 1602.0MHz+N × 562.5kHz ± 511kHz , (N-7-6)
Distance of defense	Radius 500-1000m, and can be adjusted within 500 meters (depending on the model/environmental conditions)
Detection frequency band	2.4GHz、5.8GHz
Radius detection	Urban 3000 m, open 5000 m (depending on the model/environment)
Lateral mode	4-8 element antenna ratio amplitude direction finding
Lateral precision	± 25 °

## UADS-ZG12 Integrated system (fixed frequency)

Interference 1-1.5KM Detection 1-3KM

UADS-ZG12 reconnaissance and attack integrated system (fixed frequency) is composed of UAV detection system and radio jamming system, which can detect, identify and interfere with anti-UAV. It can make the UAV hover in place, crash landing or return, effectively protect the safety of low-altitude airspace and prevent the UAV from entering the defense zone. It has excellent detection and countermeasure performance, long-distance working ability, without personnel on duty, and can automatically detect and counter UAV.



### Integration

It can simultaneously or independently carry out accurate anti-jamming on 900M, 2.4G, 5.8G frequency bands and 1.5G (GPS/GLONASS/Beidou) and other common frequency bands of Uavs, and the jamming effect is good.



### Omnidirectional interference detection

A high-power omnidirectional and high-gain antenna is used to realize omnidirectional 360 ° space detection identification and interference suppression.



### Guard against multiple models

It can accurately detect and identify and interfere with DJI series, WIFI, through machine, analog image transmission, digital image transmission and other 200 kinds of models.



### Defensive distance

Radio detection range 3000 meters; Interference distance: 3000 m in open area and 1000 m in urban environment.



### Multi-target disposal

It supports multi-target detection and recognition at the same time, and displays the target trajectory in real time. And it can carry out interference countermeasures against multiple UAV targets.



### No human effort required

It can be set up in accordance with the plan to automatically detect and counter the weather, not affected by bad weather, and no personnel on duty.

Spectrum detection	Frequency band : 2400~2500MHz / 5150~5975MHz
	Radius : 1.5km(2dBi/DJI 4Pro V2.0/50m)
	3km(8dBi/DJI 4Pro V2.0/100m)
Radio interference	Frequency band : 900MHz , 2390MHz~2510MHz , 5708MHz~5872MHz , 1552MHz~1632MHz
	Interference radius: 3KM in open area, 1KM in urban environment (depending on the model and environment)
	Interference mode: omnidirectional 360 °
	Other functions: Multi-target disposal



UADS-ZG33 Integrated system (full frequency)

Interference

1-3KM

Detection

5-7KM

The UADS-ZG33 Detection integrated system (full frequency) consists of a drone detection system and a radio interference system, which can detect and identify (black and white list function) and interfere with counter-drones. It can make the UAV hover in place, crash land or return, effectively protect the safety of low-altitude airspace, and prevent the UAV from entering the defense area. It has excellent detection and countermeasures performance, long-distance working ability, no personnel need to be on duty, and can automatically carry out drone detection and countermeasures.

Integrated system

It can simultaneously or independently carry out accurate countermeasures to the common frequency bands such as 900M, 1.5G, 2.4G, 5.8GHz, etc., and the interference effect is good.

Omni-directional detection interference

The high-power omnidirectional high-gain antenna is used to realize the detection, identification and interference countermeasures in the omnidirectional 360 ° airspace.

Guard against multiple models

It can accurately detect, identify and interfere with more than 200 models of DJI series, WIFI, time-passing machine, analog map transmission, digital map transmission, etc.

Defensive distance

Radio detection distance 15000 m;  
Interference radius distance: open area 3000 meters, urban environment 1000 meters.

Multiobjective processing

Support multi-target simultaneous detection and recognition, real-time display of each target trajectory. And can be used to interfere UAV targets.

No personnel required

Automatic detection and countermeasures can be set according to the plan, which not affected by weather and does not require personnel to be on duty.

Spectrum detection	Frequency band : 30-6000MHz
Detection distance: The farthest detection and positioning distance of DJI Spirit 4 in an open area reaches 15.0KM	
It takes off vertically to 100m above ground level, and the longest distance is 15.0KM	
Detection quantity: The number of UAV types can be detected at one time is 40	
Interference	Frequency band : 900MHz , 2390MHz~2510MHz , 5708MHz~5872MHz , 1552MHz~1632MHz
Radius detection: open area 3000M, urban environment 1000M(depending on the model and environment)	
Interference mode: omnidirectional fixed frequency 360 °	

UADS-CZGL01 Vehicle-mounted surveillance system

Interference

1-3KM

Detection

1-18KM

UADS-CZGL01 vehicle-mounted surveillance system consists of four parts: radio spectrum monitoring system, omnidirectional fixed strike, search radar and monitoring command center. The system is designed on the vehicle, which can realize the function of detecting, tracking and jamming countermeasures of UAV at the same time. It can allow the UAV to hover in place, crash land or return, so as to effectively prevent the UAV from entering the defense area and ensure the safety of low-altitude airspace.



Vehicle integrated design

The system uses a vehicle-mounted design, a set of equipment can complete the detection and countermeasures of drones, suitable for different types of vehicles, mild modification can be completed erection and installation.

Omni-directional detection interference

Four-sided phased array radar, full-band spectrum detection, photoelectric tracking system and full-band UAV jamming equipment are used to detect interference in the omnidirectional 360 ° airspace.

Guard against multiple models

Using 20-6000MHz radio interference to interfere with UAVs in multiple frequency bands, it can detect and defend 99% of UAVs.

Deployability

The system is integrated, can be flexibly deployed, and can work normally in high-speed mobile state. Detection distance >1.5 km, countermeasures distance >1 km.

Monitoring	Working system: phased array system + all digital transceiver, DBF technology system	
	Operation mode: Pulse Doppler	Frequency band : C
	Detection range azimuth: 1500m (RCS~0.01 square meters) 0 ° ~360 ° Target capacity: 40 flights	
Spectrum detection	Full frequency band coverage: 20MHz~6GHz	
	Detection range azimuth: radius 5-7km, 0 ° ~360 °	
	Positioning response time: 5s	Target capacity: 50 flights
Interference	20-6000MHz interference radius: open area 3000M, urban environment 1000M	
Photoelectric	Infrared thermal imager: vanadium oxide uncooled infrared focal plane detector	
	Response band: 8 ~ 14 μ m	
	Image size: 640 × 512	Noise equivalent temperature difference: 40mK@25 ,f#1.0
	Detector frame rate: 50Hz	Minimum object distance: 30m
	Visible camera: 1/2.8 inch CMOS, 2 megapixels	Image size: 1920 × 1280
	Lens: 30X photoelectric zoom; f=4.3mm(wide Angle end) to 129.0mm(distal end); F=1.6 to 4.7	
	Digital zoom: 12X (360x with photoelectric zoom)	





RADAR MONITORING EQUIPMENT

SZMD-BH216X
Border and coastal defense radar

SZMD-J3COEM module adopts advanced active phase control system to improve the detection effect of radar, 24h all-day working ability, can adapt to various adverse weather and environment, effective detection power up to 100m~1.8km (pedestrian) 100m~3.0km (vehicle) -- can also be used for UAV detection.



The DBF technique

Advanced DBF technology, transmit multiple beam technology can improve the anti-jamming ability, radar video fusion no blind zone active stereo defense.

Multiple types of monitoring

It can monitor pedestrians, vehicles, drones, ships, etc., and is also used for maritime defense to realize regional 3D control, and can give target orientation, distance, height and speed.

High monitoring accuracy

It can maintain high precision tracking for long-distance detection targets and provide effective judgment basis.

Monitoring distance is far

The effective detection range for ships can reach 15.0km, and the distance is far. It is an advanced sensor and has a very wide range of applications in the offshore field.

Mode	X-band phased array system (azimuth sweep + pitch sweep)			
Detection power	5.0km (drone)	8.0km (pedestrian)	10.0km (vehicle)	15.0km (ship)
Speed detection	0.3 ° (search)	0.3 ° (track)		
Azimuth	1.0 ° (search)	0.5 ° (track)		
Pitch accuracy	5s/circle			
Data rate	RJ45/mbs			
Power mode	AC 220V(input)	250W(output)		



SZMD-501C Individual security radar

SZMD-501C radar monitoring equipment is a portable charging mobile monitoring equipment, light and convenient, large battery capacity 42AH(single battery) can be optional spare battery, room temperature order battery can be used for 4 h, five minutes easily set up, is an ideal portable radar monitoring equipment products, weight only 18kg, Available at the applicable operating temperature of minus 20 degrees.

Integration

It is composed of radar array + tripod + portable backpack, adopts modular design, simple structure and convenient installation.

Convenience and simplicity

Individual soldier carries strong mobility, can be completed in five minutes to set up long battery life, the battery can be replaced.

High monitoring accuracy

Can provide the target's driving course, make an early warning.

Monitoring distance

Radar detection range of open area 100m~1.8km (pedestrians) 100m~3.0km (vehicles).

Strong environmental adaptability

Can work in bad weather, 7x24 hours of operation, can be set according to the plan intelligent work.

Networked remote control

Equipped with wireless transmission module can be controlled remotely, easy to operate, not limited by the site.

Mode	Phased array system (azimuth phase sweep)
Frequency band	C
Detection power	100m~1.8km (pedestrian) 100m~3.0km (vehicle)
Coverage	90 °
Elevation Angle	18 °
Speed detection	0.5m/s~30m/s
Azimuth	1.0 °

SZMD-DK223 Low altitude security radar

SZMD-DK223 radar monitoring equipment is mainly used for detection, warning and target indication of UAVs in key areas such as borders, airports and military bases, and can accurately give target track information. High real-time sensitivity target real-time detection, timely tracking display capability. The radar used for the detection of low and slow small aircraft is generally called low altitude warning radar. With the ability to work all day, adapt to the night, rain and snow, haze, dust and other harsh environment.



DBF techniques

Advanced DBF technology, can transmit multi-beam technology can improve anti-interference ability, radar video fusion without blind area active three-dimensional defense.

C、X、S band

According to different scenarios, C-band, X-band, S-band and other configurations can be selected to meet the use requirements.

High monitoring accuracy

Anti-clutter, continuous trajectory, high accuracy, real-time tracking target.

Long distance

For the effective detection distance of UAV up to 100m~2.0km, the distance is far, is an advanced principle of the sensor, in the land, sea and air fields have a very wide range of applications.

Strong environmental adaptability

Can work in bad weather, 7x24 hours of operation, can be set according to the plan intelligent work.

Convenience

Faster, more flexible, remote detection of targets, easy to set up, high flexibility.

Mode	Phased array system (azimuth phase sweep)		
Frequency band	C	X	S
Detection power	100m~1.5km(drone)	100m~2.0km(drone)	150m~5.0km(drone)
Coverage	0 ° -360 °		
Elevation Angle	0 ° -30 °	0 ° -40 °	0 ° -40 °
Speed detection	0.5m/s~30m/s	0.5m/s~30m/s	0.5m/s~45m/s
Azimuth	1.0 °		

SZMD-JH501 Offshore security radar



The SZMD-JH501 radar detection equipment is mainly composed of a single independent radar front, which is used to monitor the detection, warning and target indication of ships in offshore and inland areas, and can accurately give the track information of the target. Unique products and equipment advantages for sea detection to provide security. Compact and convenient to set up, light weight, easy to operate, is a very high price comparison of maritime radar detection equipment.

DBF techniques

Advanced DBF technology, transmit multiple beam technology can improve the anti-jamming ability, radar video fusion no blind zone active stereo defense .

Video forensics

It is easy to set up, light weight and simple to operate. The video forensics system of law enforcement process records the video of the intrusion target and the intrusion track

High monitoring accuracy

The tracking speed is fast, the accuracy is high, the data rate is high, and the trajectory tracking is obvious.

Monitoring distance

The effective detection range for ships can reach 100m~5.0km, and the distance is far. It is an advanced sensor and has a very wide range of applications in the offshore field.

Strong environmental adaptability

It can work in bad weather, 7x24 hours operation, and can set up intelligent work according to the plan.

Convenience

Portable, light weight, small size; Low requirements for the erection environment can be installed on the lamp pole or the original infrastructure to save resources.

Name	SZMD-JH501(A)	SZMD-JH501(B)	SZMD-JH501(C)
Mode	C-band Phased Array System (azimuth phase sweep)		
Range	30m~1.2km (ship)	100m~3.0km (ship)	100m~5.0km (ship)
Azimuth coverage	90 °	90 ° /180 ° /270 ° /360 °	90 ° /180 ° /270 ° /360 °
Elevation coverage	18 °		
Speed	0.5m/s~30m/s	0.5m/s~30m/s	0.5m/s~35m/s
Azimuth accuracy	1.0 °		



SZMD-DM101 Ground security radar

SZMD-DM101 radar is an active phased array radar using MIMO system and DBF technology. It is mainly used for the detection, warning and target indication of pedestrians and vehicles in key areas such as borders, perimeter, checkpoints, military bases, etc. It can accurately give the track information such as direction, distance and speed of the target.



DBF techniques

Advanced DBF technology, transmit multiple beam technology can improve the anti-jamming ability, radar video fusion no blind zone active stereo defense.

Multi-device linkage

It can transmit target information with multiple cameras at the same time, and realize multi-function and multi-direction simultaneous detection.

High monitoring accuracy

It can maintain high precision tracking for long-distance detection targets, and provide effective judgment basis for border soldiers.

Monitoring distance is far

The effective detection range for pedestrians is 100m~3.0km, and the effective detection range for vehicles is 100m~5.0km.

Strong environmental adaptability

It can work in bad weather, 7x24 hours operation, and can set up intelligent work according to the plan.

Convenience

Portable, light weight, small size; Low requirements for the erection environment can be installed on the lamp pole or the original infrastructure to save resources.

Name	SZMD-DM101(A)	SZMD-DM101((B)
Mode	C-band Phased Array System (azimuth phase sweep)	
Range	100m~1.5km (pedestrian)	100m~3.0km (pedestrian)
	100m~2.5km (ship)	100m~5.0km (ship)
Azimuth coverage	90 ° /180 ° /270 ° /360 °	
Elevation coverage	18 °	9 °
Speed	0.5m/s~40m/s	

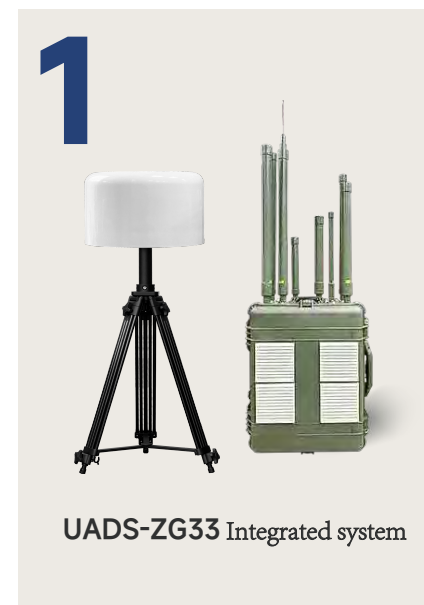


## MILITARY EXCLUSION ZONE SOLUTIONS

The UAV itself has a certain load, a little modification can become an offensive weapon, if the supervision is weak, it will pose a direct or potential threat to the national air defense security, important target security, confidentiality security, etc., and infringe on ground security.

“ The Law of the People’s Republic of China on the Protection of Military Facilities also has relevant provisions: Photography, videography, sound recording, reconnaissance, surveying, description and description of the military restricted zone are prohibited, and low-altitude flights of aircraft over the military restricted zone are prohibited. Any act that disturbs the administrative order of a military restricted zone or a military administrative zone or endangers the security of military installations, if it constitutes a crime, shall be investigated for criminal responsibility according to law.”

### Recommended matching products



Expansion capability: Multi-system joint networking can be upgraded for large regional military restricted zones and special-shaped environments. After connecting multiple devices through networking, multiple locations can be deployed to expand the defense scope.

### Solution

According to the characteristics of the military restricted zone, project construction opinions and the overall work requirements of UAV prevention and control in the military restricted zone, the anti-UAV three-dimensional security system is constructed to realize the whole-process prevention and control operations of "pre-plan, early warning, identification, positioning, tracking and disposal" of the UAV, which can support the black-and-white list function and does not affect the normal patrol of its own UAV. And in very special cases when conventional means can not achieve the defensive effect, the UAV and remote control can be accurately positioned and implemented.

**1**

UADS-ZG33 observation and attack integrated system is composed of UAV detection system and UAV omnidirectional jamming system. Full frequency detection and full frequency jamming are supported, and the system has a black and white list function, allowing its own drones to be added to the system’s drone identity list. When the own-owned drone flies, the system does not trigger alarms or conduct interference processing to ensure the normal passage of the own-owned drone.

**2**

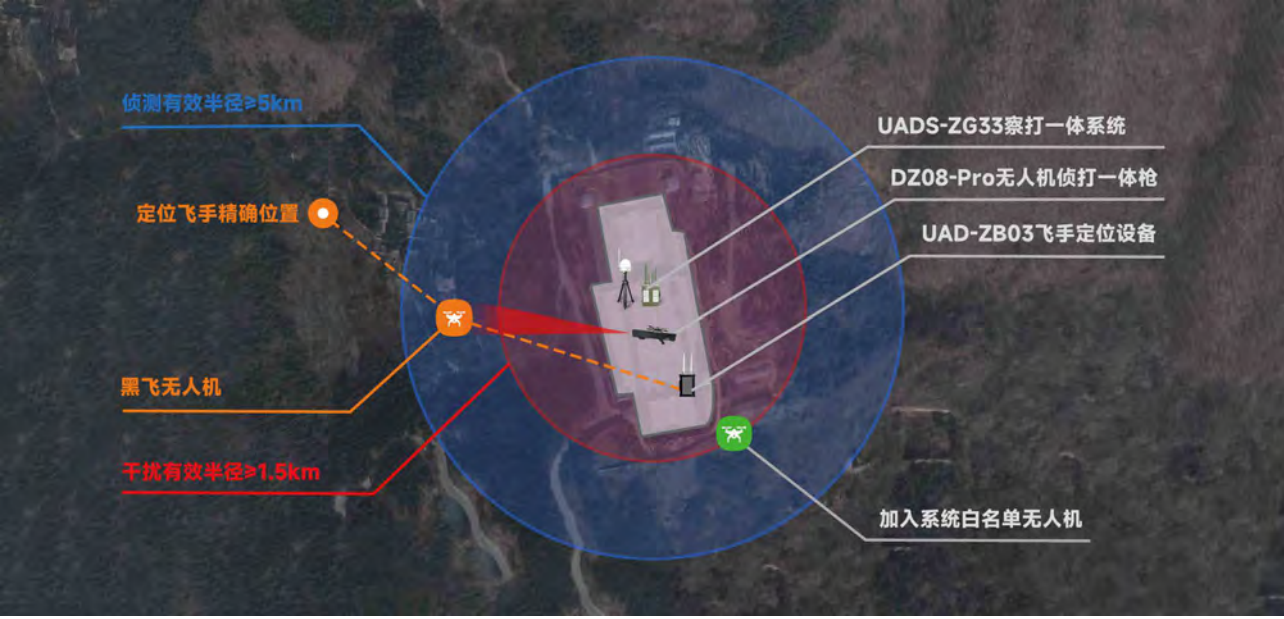
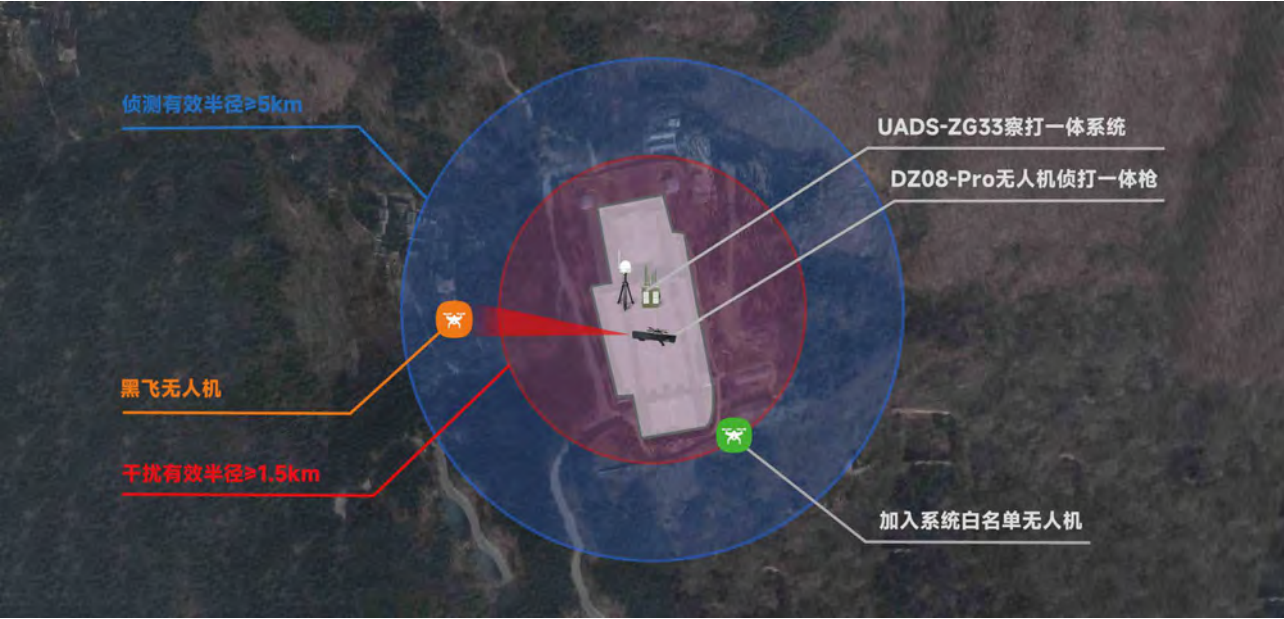
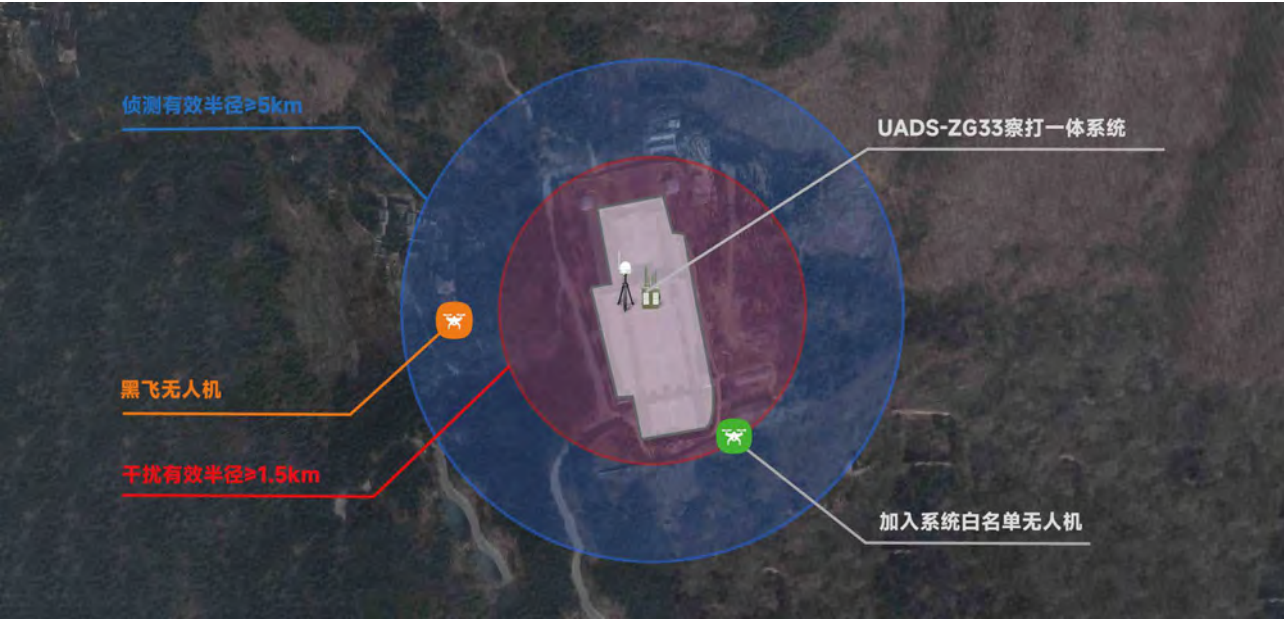
DZ08-Pro UAV detection and attack integrated gun adopts portable design, convenient for rapid deployment, single person can operate, equipment set detection and attack and one, detection distance up to 3KM, interference distance 2KM, when the enemy and I drones appear at the same time, the detection and attack integrated equipment can be used to flexibly deploy directional attack intrusion drones.

**3**

UAD-ZB04 flying hand positioning device can be used for very special situations, when the detection equipment is under maintenance or failure, the flying hand positioning device can accurately display the target UAV fuselage serial number, model, position, speed, altitude, track, remote control location and other information, integrating UAV detection and identification, early warning positioning, trajectory tracking functions in one, the implementation of arrest. Low altitude safety is ensured on all fronts.







### UADS-ZG33 Integrated system functions:

- Full band detection spectrum range: 30MHz-6GHz, interference band range: 20MHz-6GHz, while supporting custom frequency bands, to meet the needs of more than 95% of the mainstream UAVs in the market.
- The equipment adopts full-frequency detection mode, omnidirectional 360° no dead Angle detection, detection radius 5-7 kilometers, omnidirectional interference 360° interference, the interference distance in the flat and open area without shelter can reach 3 kilometers, and the interference distance in the urban environment can reach 1
- kilometers.Black and white list recognition: The device supports the black and white list function, which can add or remove detected drones. Our UAVs can be added to the whitelist of the system to ensure that our UAVs will not
- trigger alarms or interfere with processing during flight to ensure normal flight.Stable operation: The equipment can detect and record the air space of the defense area 24 hours a day without interruption, and can maintain normal
- operation even in bad weather conditions such as night, fog and thunderstorms.No personnel on duty: the system supports remote control equipment startup/shutdown, one-key automatic search, intelligent detection, automatic detection after setting, no personnel can complete the detection of the defense area airspace.

### DZ08-Pro Integrated system functions:

- The device is portable, highly maneuverable and is not constrained by any terrain environment, and can be flexibly deployed to all areas that need to be protected against drone intrusion.
- The device integrates the UAV detection and strike functions, and a single device can detect and counter the UAV, providing all-round low-altitude protection anytime and anywhere.
- Dual-channel detection and six-channel interference can detect and interfere with most of the commonly used signal bands of UAVs, covering more than 95% of UAVs on the market.
- The device adopts high-gain directional antenna, the detection distance can reach 3000 meters; Transmit high-power interference signals in the same frequency band, and the interference distance can reach 2000 meters.
- The device can choose to open the detection mode or interference mode, interference mode can make the UAV
- forced return, forced landing, hovering, picture transmission interference, a variety of action modes can be selected.

### UAD-ZB04 Controller positioning:

- Support to obtain mainstream UAV GPS coordinates, pilot GPS coordinates, return point GPS coordinates, UAV
- model and unique serial number distance from the detection equipment, azimuth Angle, etc.
- 70M-6G real-time spectrum, support real-time IQ data acquisition.
- Gigabit network transmission, 5V power supply, power consumption of 15W.
- Detection distance is not less than the UAV image transmission distance, detection distance: 1-18 km, UAV intrusion
- warning.
- It can be used for intrusion warning of non-mainstream drones.





Petroleum and petrochemical facilities are key protection units for national security management and anti-terrorism prevention, as well as key units for national production safety management, and their responsibility for UAV defense and low-altitude safety prevention is heavier than Mount Tai.

“ According to the provisions of Part 1, Part 2 and Part 3 of the Industry standard "Security Anti-Terrorism Prevention Requirements for Petroleum and Petrochemical Systems" issued by the Ministry of Public Security on March 28, 2019, numbered GA 1551-2019: Oil and gas field enterprises, refining and chemical enterprises, refined oil and natural gas sales enterprises need to be equipped with anti-UAV active defense systems, and put forward clear technical requirements for the system: signal transmission power should be less than 10mW; The system should be able to automatically work 24 hours continuously without personnel on duty; The system shall obtain the nationally recognized explosion-proof certificate. ”

### Recommended matching products

1

UADS-P01 UAV decoy

2

UAD-P01SS Protection device

Option

UAD-ZDN01  
UAD-ZDY02  
UAD-ZQY03

Expansion capability: The detection module is optional for large area factories and special-shaped factories, and the detection radius distance can be extended to 7KM. It can also work with multi-system joint networking. After networking multiple devices, it can be deployed in multiple positions to expand the defense range.

### Solution

According to the security and anti-terrorism prevention requirements of petroleum and petrochemical systems, the scheme constructs an anti-UAV active defense system to realize the navigation and deception of low-altitude small aircraft in the region and ensure the low-altitude safety of the region. This means is a defense means to meet the technical requirements of transmitting power  $\leq 10\text{mw}$  in anti-terrorism prevention.

The system can be extended with optional radio detection function, realize the integrated design of detection and detection, and support single computer work and network work.

- No. 1 detection: fixed frequency detection 2.4G, 5.8G, detection radius distance of 1-3km (optional with different antenna extension distance)
- No. 2 detection: fixed frequency detection 2.4G, 5.8G, detection radius distance 3-5KM, with UAV direction finding function
- No. 3 detection: full frequency detection 30MHz~6GHz, detection radius distance 5-7 km, can analyze UAV ID information, with black and white list

The timing protection device can be installed between the timing device and the navigation satellite signal receiving antenna without replacing the original timing device to monitor the health and safety status of the received navigation satellite signals in real time, identify and isolate interference signals and deception signals, and improve the security, stability and anti-attack capability of the timing system.



### Functional characteristics

- By regenerating no less than two frequencies of satellite navigation guidance signals, the satellite navigation coordinate information received by the UAV using satellite navigation positioning is spoofed, and the function of no-fly zone projection or area denial is realized.
- The intervention distance is greater than 500 meters and less than 1000 meters (adjustable within 500 meters).
- Meet the security requirements of anti-terrorism signal transmission power  $\leq 10\text{mW}$ , can work at night, thick fog and bad weather, all-weather operation and has the national approved explosion-proof certificate.





Proposed by the Office of the National Anti-Terrorism Leading Group, the Public Security Administration of the Ministry of Public Security, the Counter-Terrorism Bureau of the Ministry of Public Security, and the Science and Technology Information Bureau, The National Security and Alarm System Standardization Technical Committee (SAC/TC100) centralized industry standard "Electric Power System anti-terrorism prevention Requirements Part 1-6" (GA 1800.1-201/1800.6), was officially approved and released on April 25, 2021. It will be implemented from August 1, 2021.

“

Combined with the characteristics and actual needs of the industry, the standard regulates the security anti-terrorism prevention work of six enterprise fields, including power grid enterprises, thermal power enterprises, hydroelectric power enterprises, wind power enterprises, solar power enterprises, and nuclear power enterprises. The standard puts forward clear requirements for the establishment of anti-UAV defense systems in relevant enterprise fields:

- 1.The transmission power and frequency band used by the system shall comply with the relevant national regulations.
- 2.The system should be able to automatically work continuously for 24 hours without personnel on duty.
- 3.The application of the system shall not cause harmful interference to the surrounding important facilities.
- 4.The application of the system should have safeguards and should not affect the timing of the power system.
- 5.The system shall have the test report issued by the national radio detection and appraisal institution.

”

Recommended matching products

1

**UADS-P01**  
Drone decoy system

2

**UAD-P01SS**  
Protective equipment

Optional

UAD-ZDN01  
UAD-ZDY02  
UAD-ZQY03

Expansion capability: The detection module can be selected for large regional plants and special-shaped plants, the detection radius can be extended to 7KM, and the multi-system joint networking can also be deployed in multiple locations through the networking of multiple devices to expand the defense range.

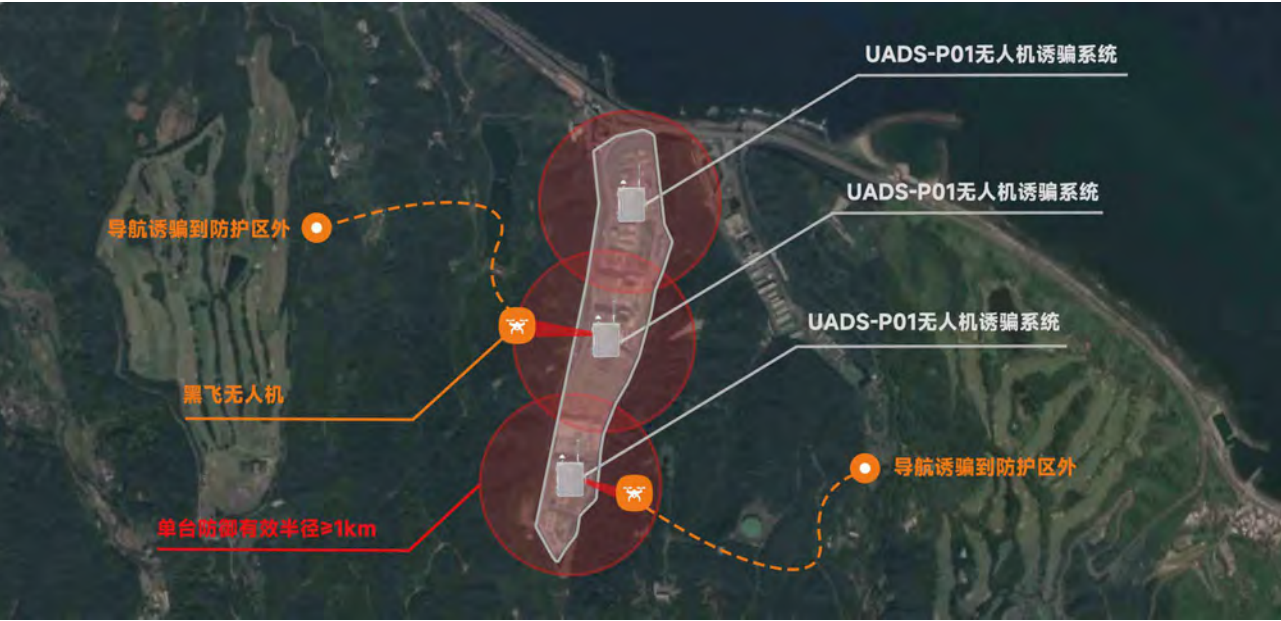
Solution

According to the anti-terrorism prevention requirements of the power system, the scheme constructs an anti-UAV active defense system to realize the navigation and deception of low-altitude small aircraft in the region and ensure the low-altitude safety of the region. This means is a defense means to meet the technical requirements of transmitting power ≤10mw in anti-terrorism prevention.

The system can be expanded and equipped with radio detection function to realize integrated detection and inductance design, and support single machine work and networking work.

- No. 1 detection: fixed frequency detection 2.4G, 5.8G, detection radius distance 1-3km (optional different antenna expansion distance)
- No. 2 detection: fixed frequency detection 2.4G, 5.8G, detection radius distance of 3-5KM, with drone direction finding function
- No. 3 detection: Full frequency detection 30MHz~6GHz, detection radius distance 5-7KM, can parse UAV ID information

The timing protection device can be installed between the timing device and the navigation satellite signal receiving antenna without replacing the original timing device to monitor the health and safety status of the received navigation satellite signals in real time, identify and isolate interference signals and deception signals, and improve the security, stability and anti-attack capability of the timing system.



Functional characteristics

- By regenerating at least two frequencies of satellite navigation induced signals, the satellite navigation coordinate information received by the UAV using satellite navigation positioning is spoofed to achieve the no-fly zone projection or area denial function. The intervention distance is greater than 500 meters, less than 1000 meters (adjustable within 500 meters).
- In line with the requirements of public security anti-terrorism prevention signal transmission power ≤10mW, can work at night,
- fog and bad weather, all-weather operation and has the national recognized explosion-proof certificate.





“

Illegal drones present certain potential threats and challenges in mining areas. When conducting aerial survey in mining areas, drones will collect a large amount of data, including aerial images, point cloud data, etc., which may be illegally obtained and used.

”

## Recommended matching products

1



**UADS-ZG12**  
Integrated system

## Upgrades

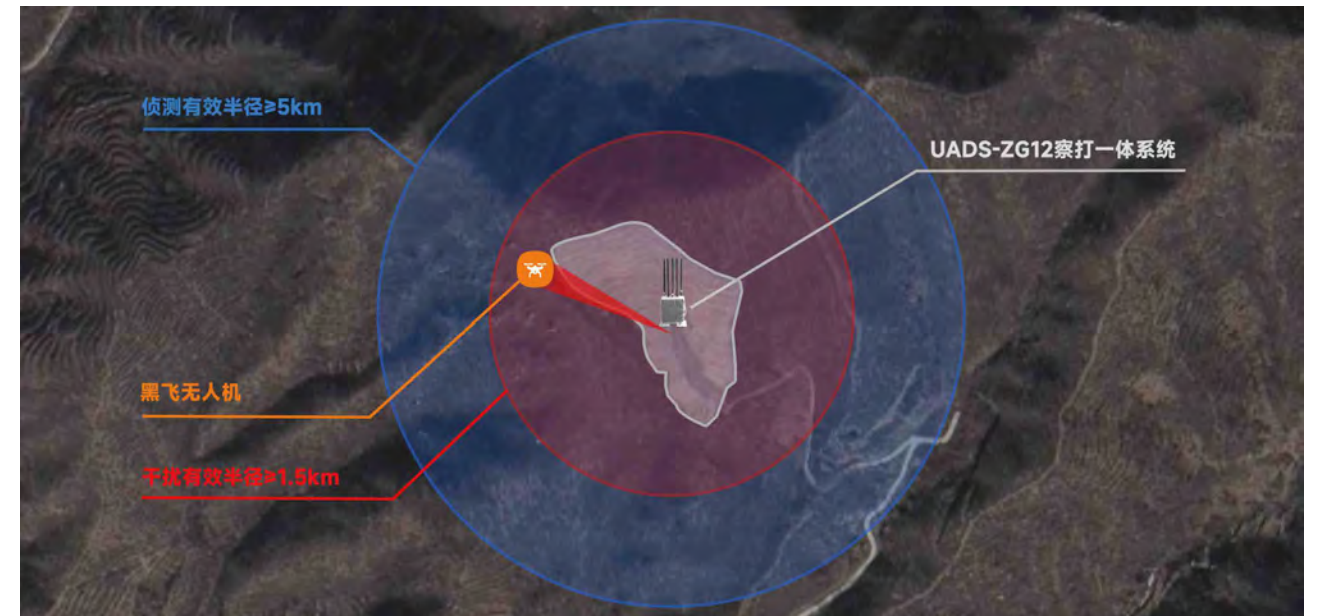
Radio detection  
**UAD-ZQY03**



Expansion capability: The system configuration can be upgraded for areas with higher security levels in mining areas to realize the full process of prevention and control operations of "pre-plan, early warning, identification, positioning, tracking and disposal" of drones. It can support the black and white list function, that is, the self-used drones in mining areas can be added to the drone identity list of the system as a whitelist drone. When the self-used drones fly, the system will not alarm. Interference disposal will not be carried out to ensure the normal passage of self-used drones.

## Solution

According to the environment of the mining area and the characteristics of prevention requirements, the system is equipped with an integrated system of UAV observation and attack. The system consists of front-end radio positioning detector (detection, identification and early warning) and linkage interference equipment. It can realize positioning, detection and early warning of UAV targets within a radius of 3KM (can be upgraded to 7KM), and realize directional electromagnetic interference attack on UAV targets within a radius of 1-3KM in the core area. The following figure shows the system deployment effect:



## Functional characteristics

- By combining the radio detection and radio interference system, a set of equipment can complete the detection, identification and interference countermeasures of UAVs.
- Radio detection distance  $\leq 3000$  meters; Interference distance: open area  $\leq 3000$  meters, urban environment  $\leq 1000$  meters.
- The display and control interface is simple, and the sensor information and device status are clear at a glance.
- All day, strong environmental adaptability, high reliability, can work stably day and night, effectively prevent night raids by drones;
- Work as usual under fog, light rain weather conditions, strong adaptability to the environment; Long time
- continuous operation, low maintenance cost.





“

The potential threat of drones to the aquaculture industry, and the malicious attack of drones: vandals can use light and small drones to carry out malicious damage to the aquaculture industry by using the cover of the night and the carrying ability of drones. According to the paper, in order to seek huge profits, a "fried pig group" has sent African swine fever virus to pig breeding enterprises by drone near Harbin, Heilongjiang province, such incidents seriously threatened the property and even personal safety of farmers. In view of the above security threats from drones, breeding bases urgently need to build drone prevention capabilities.

”

## Recommended matching products

1



**UADS-ZG12**

Integrated system

## Upgrades

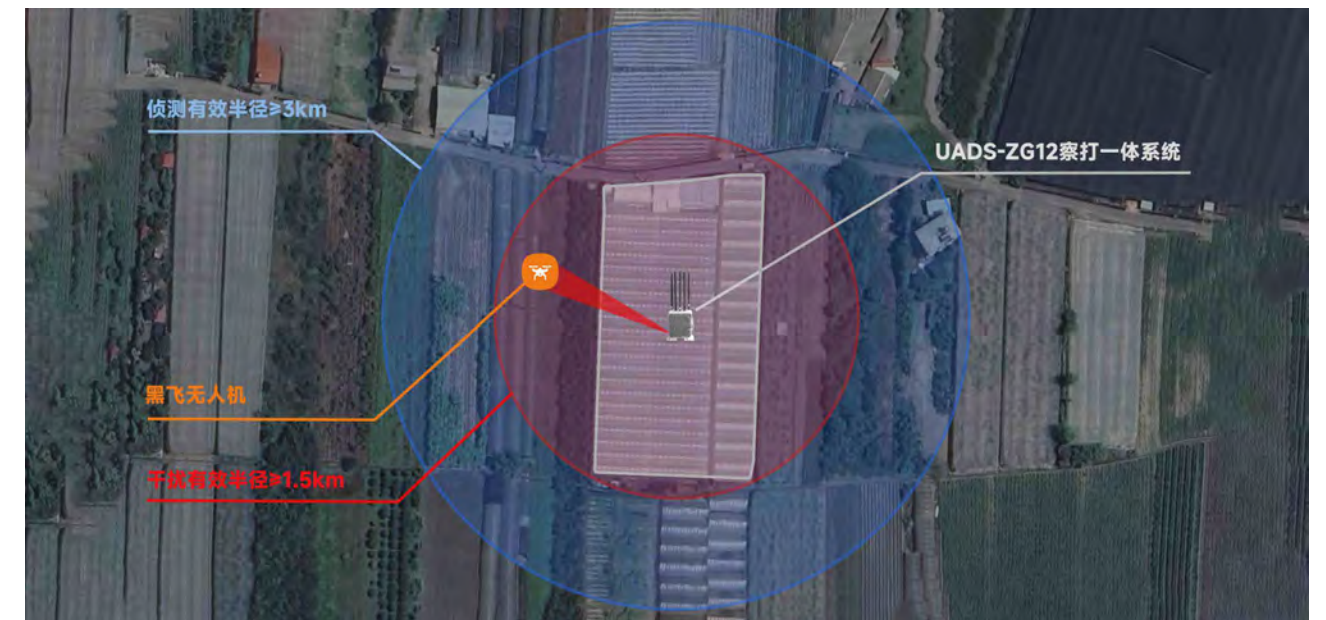
Radio detection  
**UAD-ZQY03**



Expansion capability: The system configuration can be upgraded for areas with higher security level of the breeding base to realize the full process of prevention and control operations of "pre-plan, early warning, identification, positioning, tracking and disposal" of the UAV. The whitelist function can be supported, that is, the UAV used by the base can be added to the UAV identity list of the system as a whitelist UAV. When the self-used UAV flies, the system will not alarm. Interference disposal will not be carried out to ensure the normal passage of self-used drones.

## Solution

According to the environment of the breeding base and the characteristics of the prevention needs, the scheme abandonsthe use of radar, GPS and other strong interference equipment to ensure that there is no interference to the life of surrounding residents. Unmanned aerial vehicle monitoring and shooting integrated equipment. After the equipment is installed in the area that needs prevention and control, the equipment will automatically operate 7x24 hours, without personnel on duty, and automatically monitor the surrounding airspace. Once a suspicious drone target is found to enter the monitoring area, the system will alarm and automatically link the countermeasures unit, emit interference suppression signals, drive the drone away or forced landing, protect the breeding base from drone attacks, and ensure that there is no interference with surrounding residents.



## Functional characteristics

- By combining the radio detection and radio interference system, a set of equipment can complete the detection, identification and interference countermeasures of UAVs.
- Radio detection distance  $\leq 3000$  meters; Interference distance: open area  $\leq 3000$  meters, urban environment  $\leq 1000$  meters.
- The display and control interface is simple, and the sensor information and device status are clear at a glance.
- All-day, environmental adaptability, high reliability
- Can work stably day and night, effectively prevent night raids by drones;
- Work as usual under fog, light rain weather conditions, strong adaptability to the environment;
- Long time continuous operation, low maintenance cost.



## MILITARY EXCLUSION ZONE SOLUTIONS

“ According to the Regulations on the Administration of Civil Airports, it is prohibited to fly birds, kites, drones, aircraft models and sky lanterns that affect flight safety in the airport clearance protection area; Set off fireworks and firecrackers. The disorderly flight and illegal use of UAVs have brought great hidden dangers to society and individuals, and it is urgent to establish anti-UAVS system. ”

### Recommended matching products



UAD-ZQY03 Radio detection



Photoelectric tracking



UAD-GD04 Radio interferometer



SZMD-DK223 Low-radar



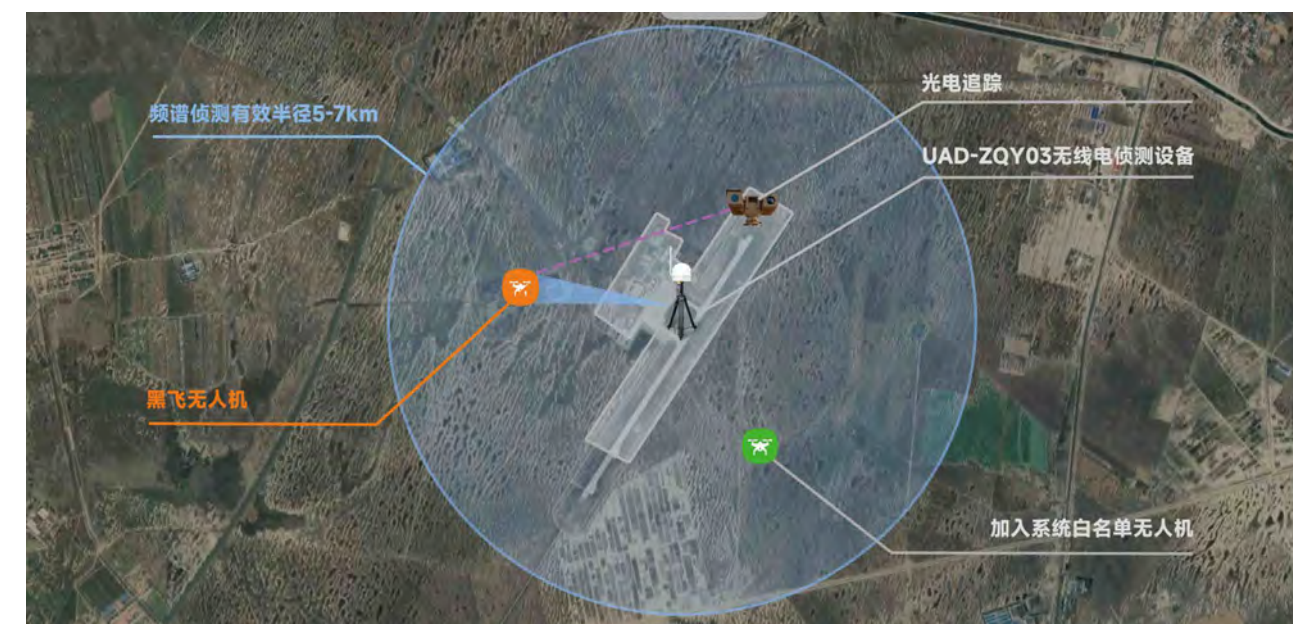
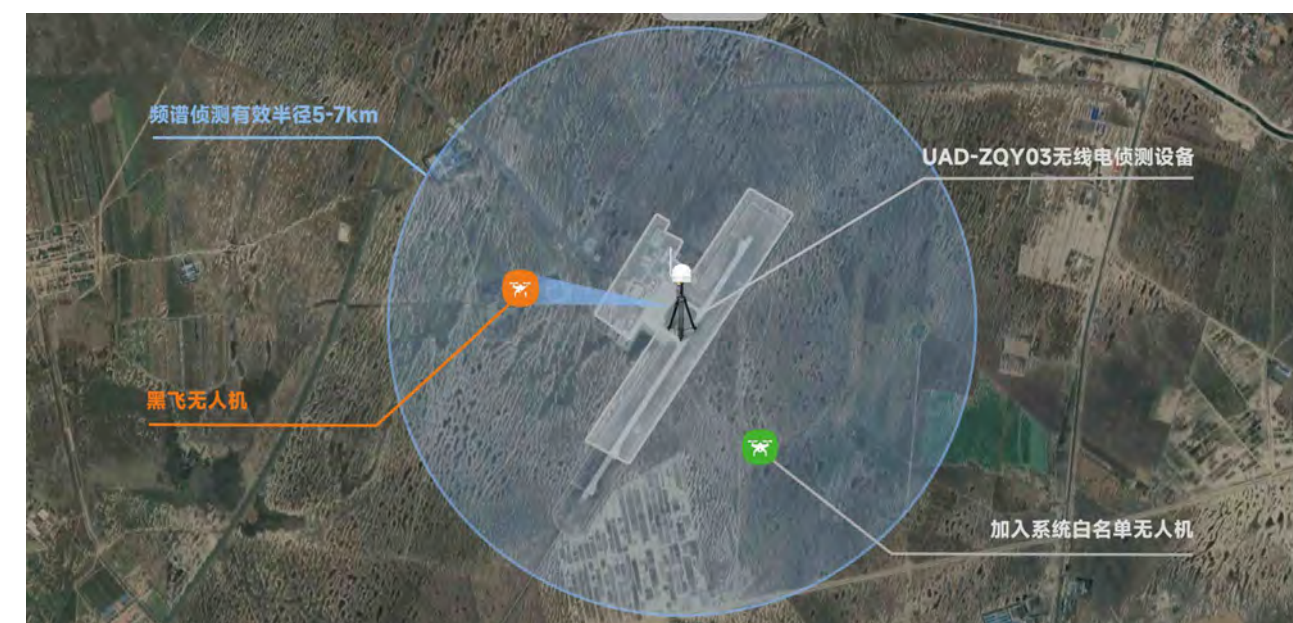
UAD-ZB03 controller positioning



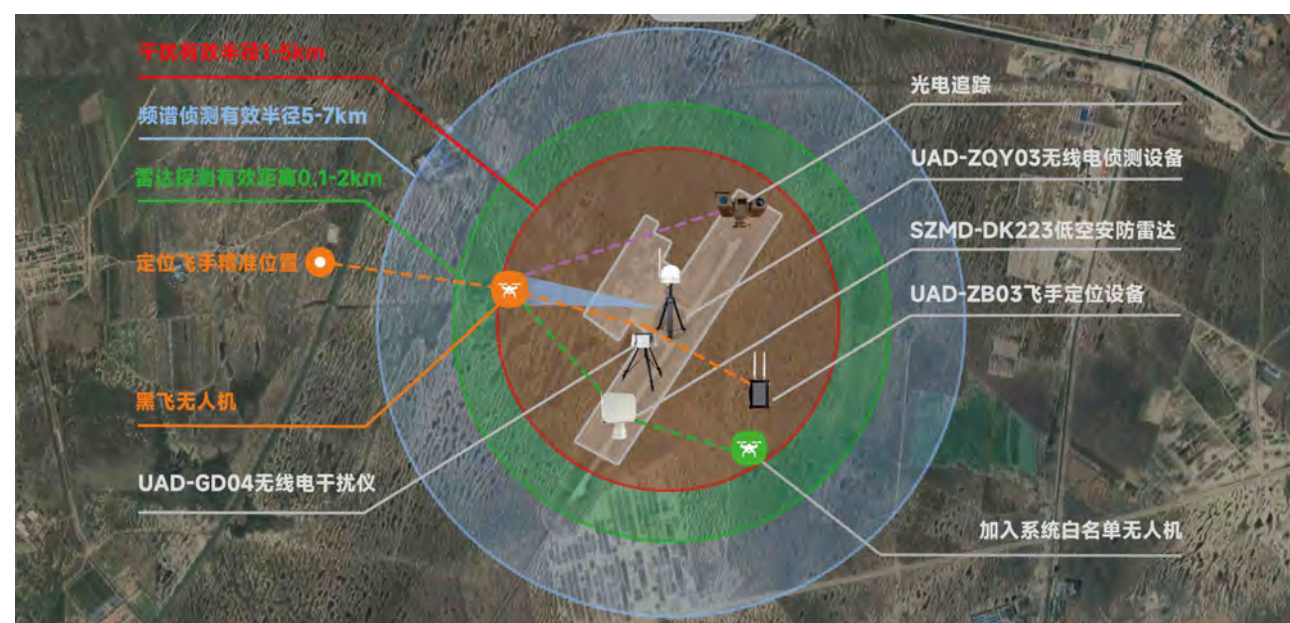
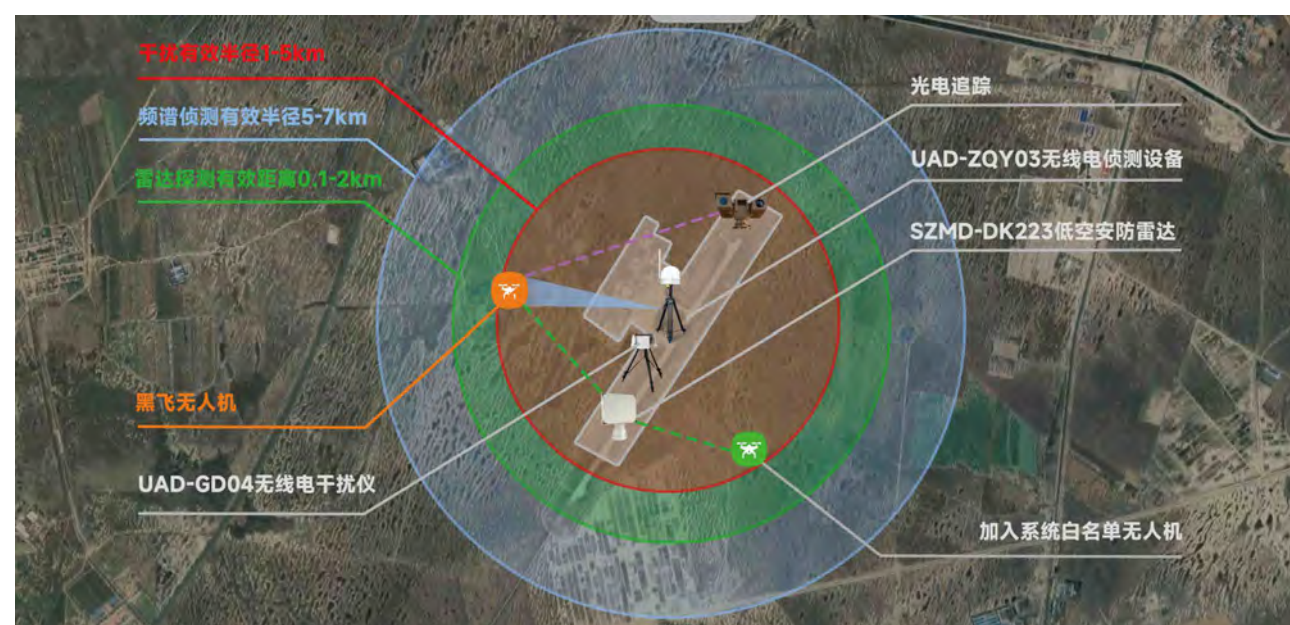
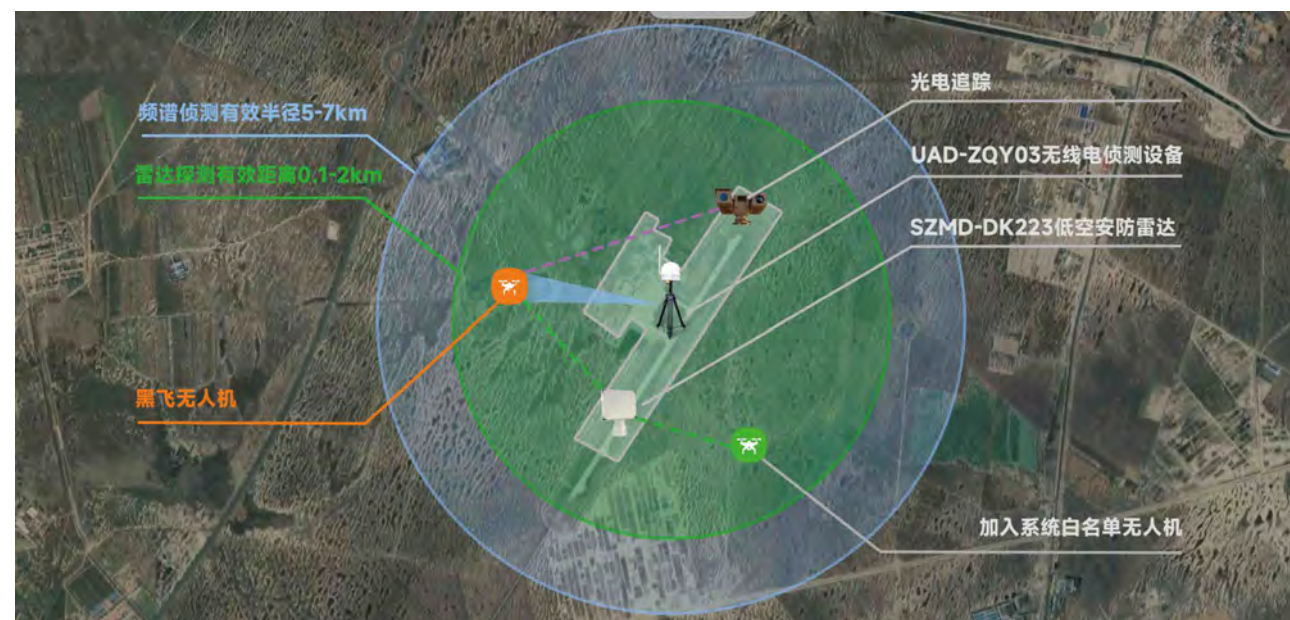
UADS-CZGL01 Vehicle-mounted surveillance system

## Solution

The solution sets up a detection and early warning area and a countermeasures core area for the controlled area of the airport. The system adopts a multi-source integrated UAV defense system, including: Detection module (spectrum + radar), photoelectric module, countermeasures module, unified communication module and system brain command center module, each module is supported by different kinds of different amounts of hardware equipment and system software, detection module 7\*24 hours automatic operation. For the automatic detection and identification of UAV targets entering the detection and early warning area, the system will display the flight trajectory in real time through sound, light and short message alarm, and remind the duty personnel to pay attention to the processing. The system can identify and track multiple unmanned aerial vehicles at the same time. When the unmanned aerial vehicles enter the core countermeasures area, the duty personnel can turn on the countermeasure equipment for a short time, and carry out "drive away" or "forced landing" of the invading unmanned aerial vehicles. The system will continue to track and display the return trajectory until the invading UAV is completely driven away from the protected area. The duty personnel can locate the UAV by flying hand, and cooperate with the airport public security to use the strategy of combining directional interference disposal equipment and portable interference gun to conduct directional electronic interference on the UAV target, block the signal transmission link, and make the disturbed UAV return or forced landing. To arrest the pilot and confiscate the aircraft.







## Functional characteristics

- Omnidirectional 360° detection, the farthest detection and positioning horizontal diameter of 15KM, the full band detection spectrum bandwidth of 30MHz~6GHz, covering more than 95% of the mainstream drones in the market.
- It can analyze the UAV ID and identify the brand, model, working frequency, ID number, direction, distance and other information of the UAV. With the blacklist function, detected drones can be added to (black) whitelist or removed from (black) whitelist. High-precision infrared optical tracking ability, under ordinary weather conditions, the target stable tracking distance of more than 3km during the day, more than 2km at night;
- Diversified strike means, can be targeted at any frequency of UAVs in the 400MHz-6GHz band communication
- interference and navigation decoy, can be directed or omnidirectional interference, driven away and forced landing
- Diversified strike means, when the UAV enters the core area of the countermeasure, the duty personnel can turn on the countermeasure equipment for a short time, "drive away" or "forced landing" of the invading UAV, and cooperate with the airport public security to use the strategy of combining the pilot positioning equipment and portable jamming gun to conduct directional countermeasures against the UAV target, make the UAV return or forced landing, arrest the pilot and confiscate the flight tools. Multi-source integrated UAV defense, including fixed deployment class, vehicle system class, modular movable class and other defense means.

Expansion capability: For a wide area, multiple systems can work in joint networking. After networking multiple devices, multiple locations can be deployed to expand the defense scope. It is suitable for the situation that the protection range is wide and the whole airport "clearance" protection area needs to be protected. For an area with a wide protection area, multiple systems can be deployed in a joint network. After multiple devices are deployed, the defense area can be expanded.





The custody place is a special area of high danger and high seriousness. With the popularity of civilian drones, the problems brought by domestic and foreign drones to the security management of the custody place have become more and more prominent. It is not uncommon for drones to break into the airspace over the prison and be used for prison smuggling, communication between prisoners inside and outside, and secretly taking photos inside the prison, etc. The main risks of the invasion of the prison by drones are as follows:

- “
1. Criminals use drones to steal specific information inside prisons, causing leaks, and even being used by people with ulterior motives as a means of investigation to escape or rob prisoners;

2. Criminals use drones to smuggle contraband such as tobacco, drugs and even murder weapons into prisons.
- ”

Recommended matching products



Upgrades

Radio detection  
UAD-ZDY02  
UAD-ZQY03



Expansion capability: Detection module can be added for large area surveillance area and irregular surveillance area, the detection radius distance can be extended to 7KM, and multi-system joint networking can also be deployed after connecting multiple devices through network cables to expand the defense range.

Solution

According to the characteristics of the prison area, the project construction opinions and the overall work requirements of the UAV prevention and control in the prison area, the anti-UAV three-dimensional security system is constructed. To realize the detection, countermeasures, decoy, display control and internal interconnection of the prevention and control system of low-altitude small aircraft in key areas, and meet the requirements of perception, identification, disposal and notification of low-altitude small aircraft in the mode of multi-point deployment control and multi-station networking. Finally, a drone control platform for the prison industry was built. According to the strict requirements for UAV defense against low-altitude UAV intrusion, the UADS-PZG03 three-dimensional defense system is designed by integrating radar detection module unit + radio detection and identification module unit + omnidirectional interference module unit + UAV navigation and decoy module unit.



Functional characteristics

- Integrated design: no construction and erection, convenient structured design, equipment erection and power connection terminal within 20 minutes, can be put into use; Highly integrated, scientific integration of anti-UAV system equipment to ensure stable and reliable equipment; One platform, four units, a comprehensive solution to low-altitude slow small UAV problem, system detection using radar detection unit and radio detection fusion detection scheme.
- Radar detection: For multi-form and multi-brand unmanned aerial vehicles, the combination of navigation decoy and electromagnetic interference detection scheme is adopted to effectively solve the detection problem. Spectrum detection: According to the current level of technology can detect DJI (80%) and other mainstream unmanned aerial vehicles;
- Navigation decoy: The use of more advanced navigation decoy scheme to deceive the UAV control, as far as possible in the case of no damage to the UAV disposal, while effectively solving problems such as interference;
- Electromagnetic interference: As the last means of protection within 500-800 meters of the system, the end protection is carried out under the premise of transmitting power without disturbing navigation.
- PC control system: the main functions of the command center control system are detection unit target output, multi-target fusion, target display, situation analysis, command and decision, and event storage.
- APP operating software: The main functions of handheld terminal APP, such as detection unit target output, target display, command and decision making, map navigation, are more convenient and flexible than pc terminal operation on mobile phone.





The potential threats that drones may bring to business parks are mainly reflected in the following aspects:

1. Disclosure of trade secrets: Drones can easily capture high-definition pictures and videos, and if they are used to shoot sensitive facilities, warehouses, production lines, etc., in business parks, it may cause the disclosure of trade secrets.
2. Data security risks: When collecting data, drones may collect some sensitive data, such as operation data and customer information of the park, etc. If these data is improperly used or leaked, it may bring data security risks.
- 3, physical facility damage: If the drone accidentally or deliberately hit a building or other facilities, it may cause damage to the building or facility, and may even cause a major security accident.



## Recommended matching products

1



UADS-ZG12 Integrated system

## Upgrades

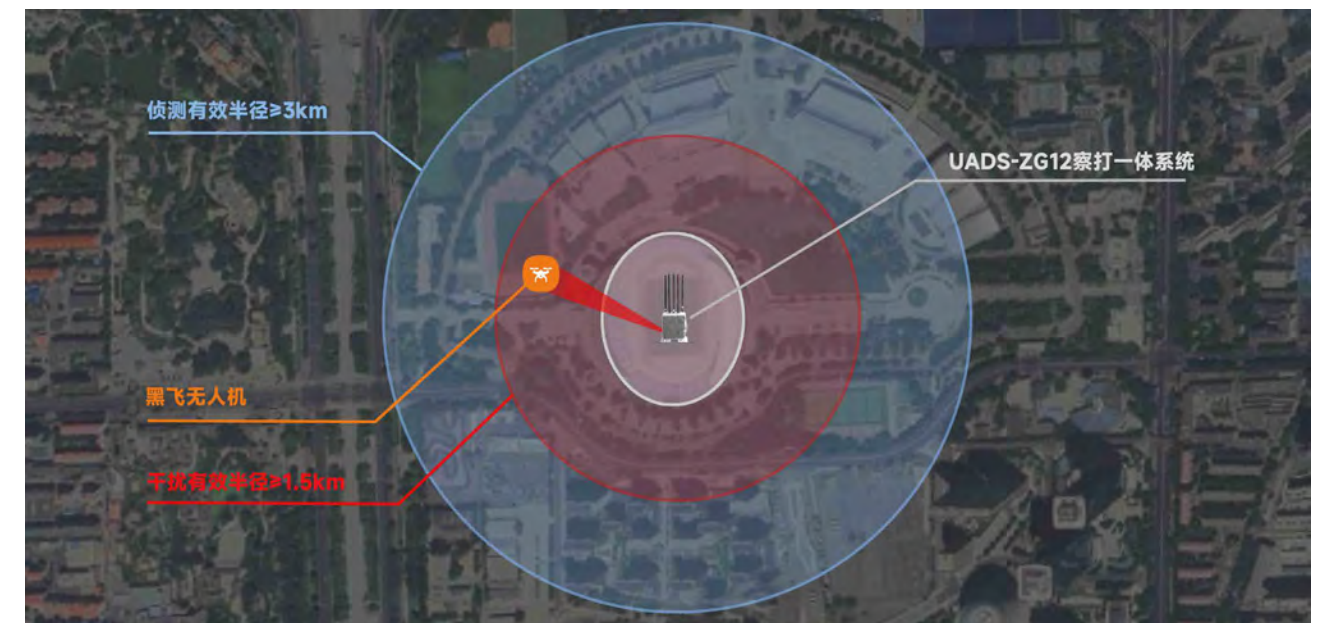
Radio detection  
UAD-ZQY03



Expansion capability: The system configuration can be upgraded for areas with higher security levels in the business park to realize the whole-process prevention and control operations of "pre-plan, early warning, identification, positioning, tracking and disposal" of drones. The whitelist function can be supported, that is, the drones used by the park can be added to the drone identity list of the system as whitelist drones, and the system will not alarm when the self-used drones fly. Interference disposal will not be carried out to ensure the normal passage of self-used drones.

## Solution

According to the environment of the business park and the characteristics of prevention needs, the scheme abandons the use of radar, GPS and other strong interference equipment to ensure that there is no interference to the life of surrounding residents. Equipped with unmanned aerial vehicle observation and attack integrated equipment. After the equipment is installed in the area that needs prevention and control, the equipment will automatically operate 7x24 hours, without personnel on duty, and automatically monitor the surrounding airspace. Once a suspicious drone target is found to enter the monitoring area, the system will alarm and automatically link the countermeasures unit, emit interference suppression signals, drive the drone away or forced landing, protect the breeding base from drone attacks, and ensure that there is no interference with surrounding residents.



## Functional characteristics

- By combining the radio detection and radio interference system, a set of equipment can complete the detection, identification and interference countermeasures of UAVs.
- Radio detection radius distance  $\leq 3000$  meters; Interference radius distance: open area  $\leq 3000$  meters, urban environment  $\leq 1000$  meters.
- The display and control interface is simple, and the sensor information and device status are clear at a glance.
- All-day, environmental adaptability, high reliability
- Can work stably day and night, effectively prevent night raids by drones;
- Work as usual under fog, light rain weather conditions, strong adaptability to the environment;
- Long time continuous operation, low maintenance cost.





This system can be used as a new infrastructure for urban airspace management, to achieve 7\*24 hours all-weather monitoring and fine management of large urban areas through smooth expansion, and to ensure the safety and order of low-altitude airspace. Multiple omnidirectional detection sensor nodes are deployed in a large area, and any adjacent nodes can be networked to form a grid unit, so as to form a low-altitude sensing network covering a large area of the city. The system can flexibly set up multiple key protected areas.

“ The system realizes the detection and identification of the UAV and remote early warning through the sensing node, realizes the accurate positioning of the target based on the algorithm, and supports the continuous tracking and locking of the target across the region. In response to "black flying" drones that try to break into key protected areas, the system will quickly handle the intelligent linkage countermeasure unit to achieve efficient control of large areas. ”

## Recommended matching products



### Multiple detection models

The system passively detects signals, covering more than 90% of mainstream UAVs.

### Long detection range

The equipment adopts omnidirectional detection mode, with a detection radius of 2 km.

### Distributed networking

Distributed installation, cross coverage, using wired or wireless multi-device networking.

### Remote cloud alarm

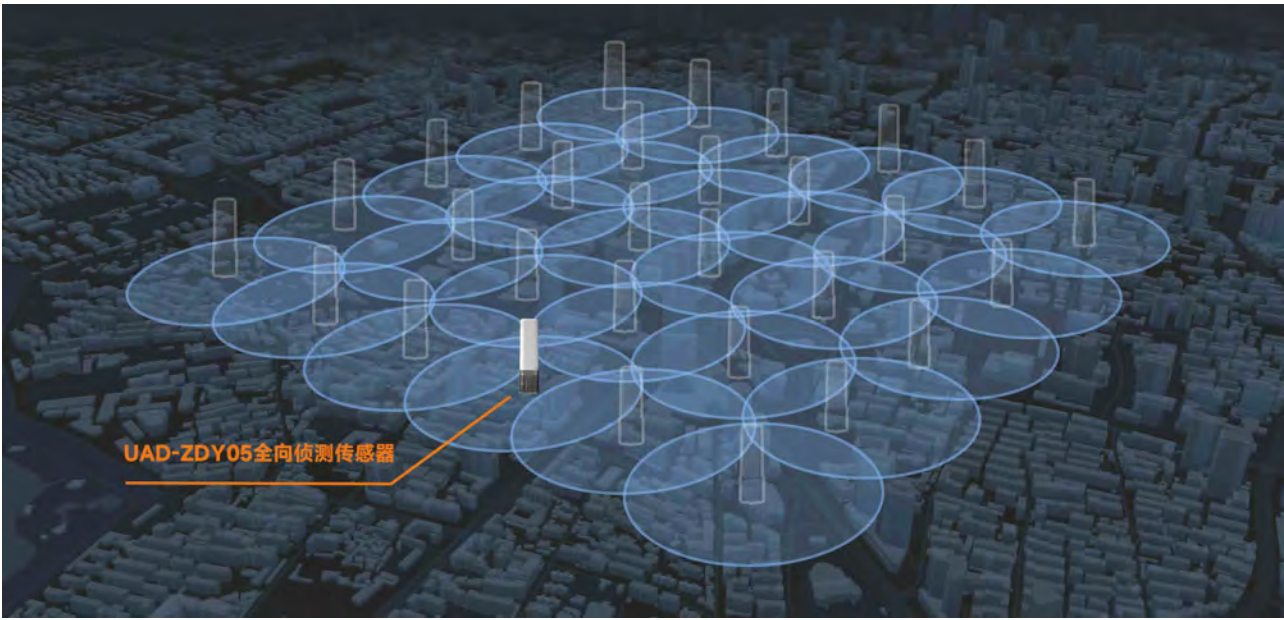
Equipped with terminal remote operation cloud platform, alarm function can be set.

Expansion capability:

Multiple systems can work in joint networking. After multiple devices are connected, multiple locations can be deployed to expand the defense scope.

## Solution

This scheme is mainly aimed at the city-level three-dimensional defense of major event security, and the omnidirectional detection sensor nodes are mainly composed of: equipment host + terminal operating system. It is mainly used for the detection of UAVs beyond visual range, which solves the disadvantages of the current UAVS detection equipment, such as large volume, large weight, high cost and large power consumption. The equipment has the advantages of high cost performance, long-term stability and reliability, no electrical radiation, low power consumption, small size, light weight, convenient installation and high cost performance. Grid detection and early warning areas are set up in the urban control area, and detection sensor nodes are deployed at intervals of 1-2KM. Any adjacent nodes can be networked to form grid units, thus forming a low-altitude perception network covering a large area of the city.



## Functional characteristics

- Grid deployment in large areas to achieve fine control and avoid repeated construction.
- The system can achieve smooth expansion, independently select the defense scope, and achieve seamless coverage.
- Passive detection technology, does not emit electromagnetic signals, high concealment.
- It can accurately identify 200+ models of DJI series, WIFI, time-travel machine, analog map transmission, digital map transmission, etc. Support multi-target tracking and positioning, real-time trajectory display, collaborative law enforcement.



# PROJECT CASES

PARTLY



中华人民共和国成立70周年  
The 70th Anniversary of the Founding of  
The People's Republic of China

## Securing the 70th Anniversary



### 成 交 通 知 书

致：北京神州明达科技有限公司

根据“购买阳坊地区某重点区域无人机防御反制设备项目”单一来源采购文件（项目编号：ZTX-2019-H39762）和贵单位于2019年8月28日提交的响应文件；经评审委员会评审，现确定贵单位为上述项目的成交供应商，成交金额为人民币陆佰柒拾陆万肆仟元柒角（¥6764000）。

请在接到本通知后30日内，持本通知与北京市公安局昌平分局（项目单位）签订该项目合同，其中一份合同送中天信远国际招投标咨询有限公司（北京）有限公司备案。

特此通知

中天信远国际招投标咨询有限公司（北京）有限公司

2019年8月28日

地址：朝阳区东三环南路31号中商国际商务中心1108室

邮政编码：100022

联系人：张鹏

电话：010-51604168

邮箱：ztx@ztx.com

### Case description

Our company cooperated closely with Beijing Changping Public Security Bureau, coordinated with Beijing No Commission Office, Air traffic Control Bureau and other relevant units, proposed perfect solutions and support equipment for the air traffic control support problems during the 70th anniversary of the Daqing activities in 2019, and successfully completed the support task of the Daqing activities.



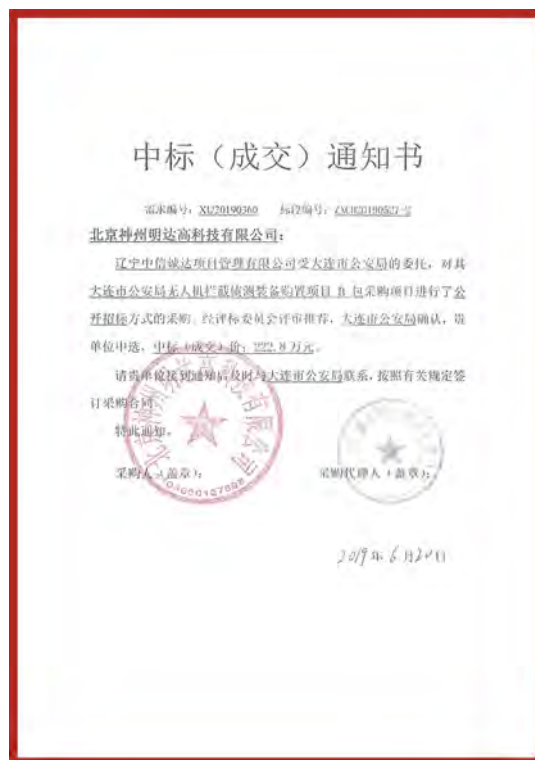




## Securing World Economic Forum 2019

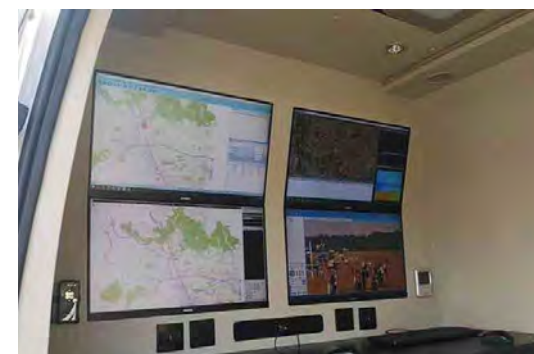
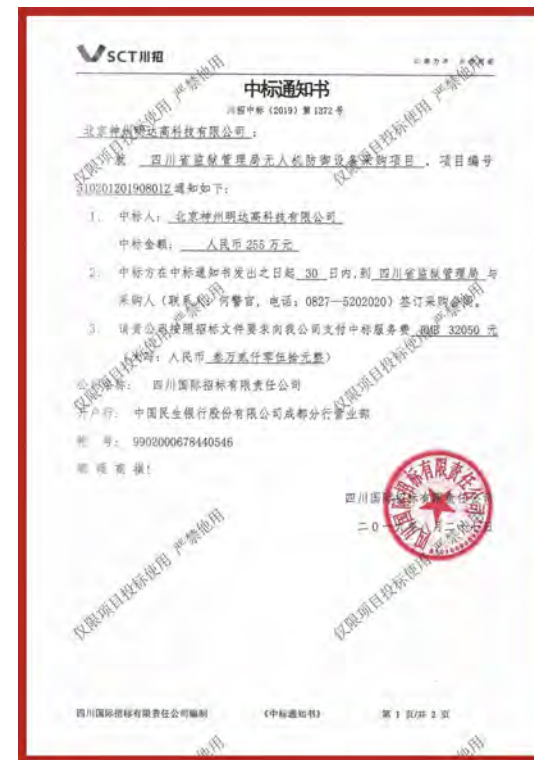


## Awarded Sichuan Prison Administration



### Case description

Our company was invited by Dalian Public Security Bureau to participate in the security work of 2019 Summer Davos Forum. At the same time, we conducted field exploration of the surrounding environment of Dalian International Convention Center, proposed comprehensive airspace security solutions and support equipment, and successfully completed the security task of this event.





## PLA unit security in a theater of operations



## Grid Power Applications Program



Drone defense project of a hydropower station in Sichuan



UAV defense hydropower station in Xizang



Guangxi power station UAV defense project



Gansu power station UAV defense project



A power station UAV defense project in Shaanxi province



# Airports Application Program



Anhui airport UAV defense project



Jiangsu airport UAV defense project



Liaoning airport UAV defense project



Drone defense at airport in Hubei province



Shandong airport UAV defense project

# Campus Applications Program



Drone defense project in a commercial area of Beijing



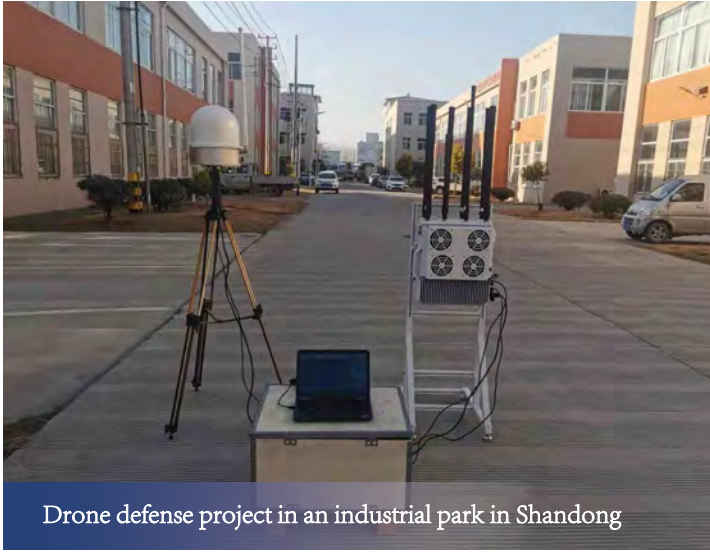
A sports stadium drone defense project



A commercial drone defense project in Tianjin



UAV defense project of a tourist attraction



Drone defense project in an industrial park in Shandong



# More Application Program

