

3 July 2017

ASX RELEASE

DroneSentry and DroneSentinel Launched

- In response to user demand, DroneShield commences sales of its DroneSentry (integrated multi-method detect and defeat) and DroneSentinel (multi-method detection) products.
- Production expected to commence in Q4 2017.
- DroneShield's product offering has been streamlined into three product lines: DroneSentry, DroneSentinel, and DroneGun.
- DroneSentry includes and integrates the following modules – radar detection (RadarOne), radio frequency detection (RfOne), acoustic detection (FarAlert and WideAlert), thermal camera (DroneTherm), optical camera (DroneOpt), optical range extender (DroneBeam), and a fixed site jammer (DroneCannon).
- DroneSentinel includes all of the above detection modules (without the jammer countermeasure).

On 16 January 2017, **DroneShield Ltd (ASX:DRO)** ("DroneShield" or the "Company") announced that it commenced work on the development of DroneSentry, an integrated automated drone detection and countermeasure product with an anti-swarming capability. The Company is now pleased to announce that it has opened its order book for DroneSentry, and expects to commence production of DroneSentry in the fourth calendar quarter of 2017.

DroneSentry provides its users with a multi-method drone detection capability and includes and integrates radar, radio frequency, acoustic, thermal and optical (with a range extender) sensor detection, i.e. all the key technologically viable detection methods that currently exist. For interception, DroneSentry integrates these layered detection methods with a radio-frequency jamming system. This integrated detect-and-defeat functionality can be deployed either via a "man in the loop" function or in the automatic mode. DroneSentry will be available only to those customers who are legally able to deploy jamming in their relevant jurisdiction.



Image: DroneSentry (artist's rendering). Base model is shown.

DroneSentinel is aimed at those customers who are unable to deploy jamming because of regulatory restrictions. It contains DroneSentry's multi-sensor detection functionality, without the jamming capability.



Image: DroneSentinel (artist rendering). Base model is shown.

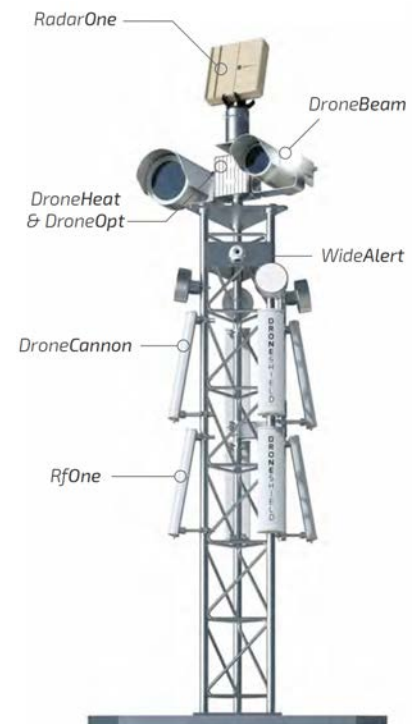
Both DroneSentry and DroneSentinel are highly modular and, depending on the customer's requirements can include or exclude any of the radar (RadarOne), radio frequency (RfOne), thermal camera (DroneHeat), optical camera (DroneOpt), acoustic (FarAlert and WideAlert), and optical range extender (DroneBeam) modules.

The Company will continue to offer these detection modules as stand-alone products where required by users, however, given the requirements expressed by users, going forward, DroneShield will focus its sales on the integrated systems (DroneSentry and DroneSentinel). In addition, DroneShield remains focused on DroneGun, the stand-alone portable rifle-style jammer that is currently undergoing multiple trials and governmental procurement processes globally.

Both DroneSentry and DroneSentinel can be deployed as fixed site and portable solutions.

The summary of the modules contained in each DroneSentry and DroneSentinel product is set out below. This summary represents the base configuration of each product, with customers able to either upgrade to meet their specs, or downgrade to match their budget requirements.

Component	Description
<i>DroneSentry and DroneSentinel</i>	
RadarOne	• Up to 1.5km radar-based detection • 360 degree horizontal coverage
RfOne	• Up to 1.5km radio frequency-based detection • 360 degree horizontal coverage (via 4 units)
WideAlert	• Up to 200m acoustics-based detection • 180 degree wide horizontal coverage • Low profile units
FarAlert	• Up to 1km acoustics-based detection • 30 degree coverage cone
DroneHeat	• Pan-tilt-zoom (PTZ)-mounted thermal camera • 600m-2km detection (by drone type)
DroneOpt	• PTZ-mounted optical camera
DroneBeam	• High powered light beam, extending the range of DroneOpt and acting as an optical disruptor for the drone operator
<i>Also, DroneSentry Only</i>	
DroneCannon	• Up to 2km jamming solution, 360 degree coverage • 4 units x 90 degree coverage per unit



Additional details on the products are contained in the brochure attached to this announcement.

Peter James, DroneShield’s chairman, commented: “The Company originally started with an acoustic drone detection product. The market has evolved, and customers are expressing substantial interest in integrated detect-and-defeat and multi-sensor detect products. Sophisticated users’ contracts will be won by those companies that are able to provide multi-layered, multi-method products. Therefore, responding to customer demand, the Company has rolled out DroneSentry and DroneSentinel. Together with DroneGun, this positions the Company to meet customer needs across the fixed site and mobile spectrum in the counterdrone space”.

The launch of the products comes against continued background of increasing deployment of drones for terrorism purposes by organisations such as ISIS, with recent reports of another ISIS weaponised drone factory discovered by the coalition forces in Mosul¹.

¹ <http://www.dailymail.co.uk/news/article-4655420/ISIS-drone-factory-seized-Iraqi-forces-Mosul.html>

Further Information

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About DroneShield Limited

Based in Sydney, Australia and Virginia, USA, DroneShield is a worldwide leader in drone security technology. The Company has developed the pre-eminent drone security solution that protects people, organisations and critical infrastructure from intrusion from drones. Its leadership brings world-class expertise in engineering and physics, combined with deep experience in defence, intelligence, and aerospace.

ENDS



DRONESHIELD

Product Information



droneshield.com



DroneShield advances
your security measures
to deal with today's threats

A New World

With 12 million drones expected to be operating by 2020, it's no surprise the number of drone incidents is growing by the day –intentional and unintentional.

Recreational and commercial drones generally range in cost between US\$30 and US\$30,000, are legally available at conventional retailers and online, and can be lawfully flown in most major countries.

Their remote based operation with GPS navigation, compact size, vertical mobility and exceptional agility affords them with a host of positive far-reaching applications from emergency response, surveying, photography, filmography, through to logistics. What was once virtually impossible to scale or otherwise difficult to commercialise due to high costs is now possible.

Almost as easy as they are to acquire, is their ability to directly or indirectly cause damage, death or loss; and with so many new drones entering the skies every day it's no surprise the volume of drone incidents is continuing to climb.

Privacy & Safety

Advancing your organisation's ground-based security capabilities into the skies has now become an essential part of an effective security strategy built for today's environment and into the future.

As consumer-grade drones have become extremely popular around the world, they're presenting both unique and frequent threats to privacy, physical security and public safety in a wide variety of environments, including industrial and critical infrastructure, prisons, government facilities, airports, outdoor events and venues, military, homeland security, border control, real assets and executive protection.

What was once protected by high elevations, guard towers, physical barriers or other ground-based preventative measures has now become exposed and penetrable. As such, drone security should be on top of any organisation's agenda that has a duty to protect the privacy and safety of others.

How safe are your skies?



Proprietary Technology
which provides superior
Detection & Countermeasures

The DroneShield Solution

DroneShield helps your security forces identify unauthorised drones using proprietary sensor technology, real-time alerts, digital evidence collection and provide a countermeasure (where legal for the user).

Powered by our proprietary multi-sensor detection technology, an enterprise-grade network and real-time alert system, DroneShield is the premier solution to passively sense drones ensuring your security forces are equipped to deal with this new & growing threat. DroneShield also offers a range of countermeasure solutions that are highly effective in deterring drone incidents.

Detection: DroneShield multi-sensor solutions recognise the unique properties of common drone types. This can be done by detecting moving objects by radar, intercepting radio frequency transmissions, listening for acoustic signatures, and visual recognition by thermal and optical cameras.

Analysis: DroneShield compares the recorded information to our database of references and signatures. If it finds a match, the system issues an alert and records identifying information about the aircraft.

Identification: By layering sensor technologies to detect in a single zone, DroneShield increases detection accuracy and decreases the false-alarm rate. We also offer thermal and optical cameras that allow security teams to visually confirm a drone presence.

Alerts: Instant alerts are delivered independently through a variety of methods, including SMS, email, cloud-based GUI or existing video or incident management systems. DroneShield easily integrates into your established security system.

Countermeasures: Once the drone is detected, the user is able to jam the link between the drone and the controller (and, optionally, the drone's GPS connection), which generally results in the drone either landing vertically on the spot in a controlled manner, or return back to the starting point. This countermeasure is subject to jamming laws applicable to the user.

Outright Purchase, Subscription or Rental Options

When you choose DroneShield® you get the convenience of receiving all software updates for the lifetime of your installation.

By selecting to purchase DroneShield equipment outright there are no ongoing cost commitments. It's the simplest structure that suits a lot of users.

Our subscription based pricing model provides you with immediate and ongoing benefits which include; Zero CapEx required with none of the upfront and ongoing hardware costs that are often associated with security systems.

DroneShield also offers rental options, ideal for short term installations or events.

DroneSentry

DETECT & DEFEAT

Technologies

Primary Detection Method



and/or



RadarOne
(Radar)

RfOne
(RF Detection)

Secondary Detection Methods



WideAlert
(Acoustics)



DroneHeat
(Thermal)



DroneOpt
(Optical Cam)

Primary Countermeasure



DroneCannon
(Multiband RF
Jamming)



DroneCannon
(GNSS
Jamming)

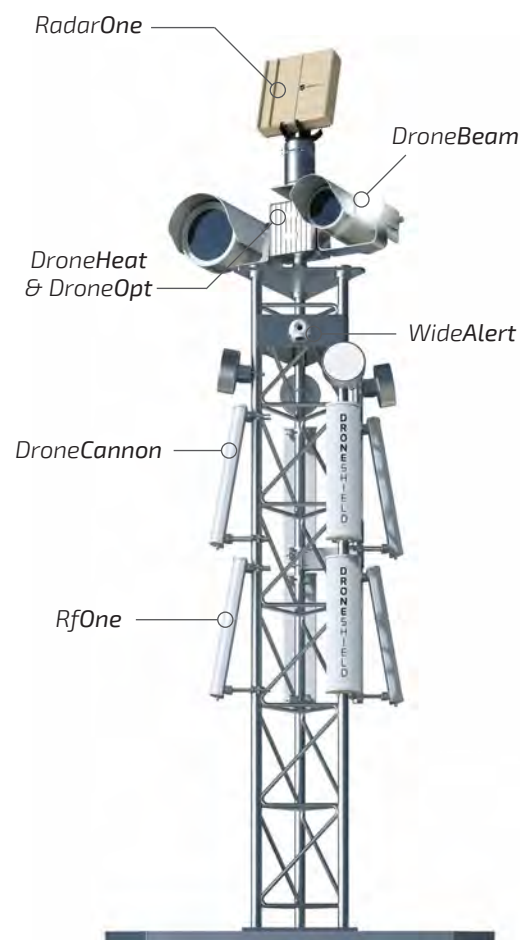


DroneBeam
(Optical Range
Extender & Disruptor)

Secondary Countermeasures

DroneSentry integrates DroneShield's suite of sensors and countermeasures in a unified platform deployable in permanent or temporary installations. Incorporating RadarOne radar, WideAlert acoustic sensors, RfOne RF detectors, and DroneHeat and DroneOpt cameras (with integrated DroneBeam), DroneSentry correlates available data for users and provides maximum situational awareness and the quickest response to airborne threats. DroneSentry also includes the DroneCannon RF countermeasure, providing an end-to-end detection and response capability.

It is the ideal protection solution for critical locations and installations.



DroneSentry

DETECT & DEFEAT

Specifications

Performance:

Nominal UAS detection ranges:

- RadarOne: 1.5km
- WideAlert: 200m
- RfOne: 1km
- DroneHeat/DroneOpt: 600m for small drones
2km for large drones

DroneCannon Engagement Range: up to 2km

Optional Equipment Upgrades: FarAlert Acoustic Sensor Array

Output Options:

IP-based alerts (email, SMS, XML/JSON) indicating zone and any additional sensor evidence

Mobile (SMS, audible phone call)

Radio frequency audible alerts

DroneShield User Interface

Communications:

Wired ethernet connection

Environment and Installation:

System components suitable for permanent or temporary installation

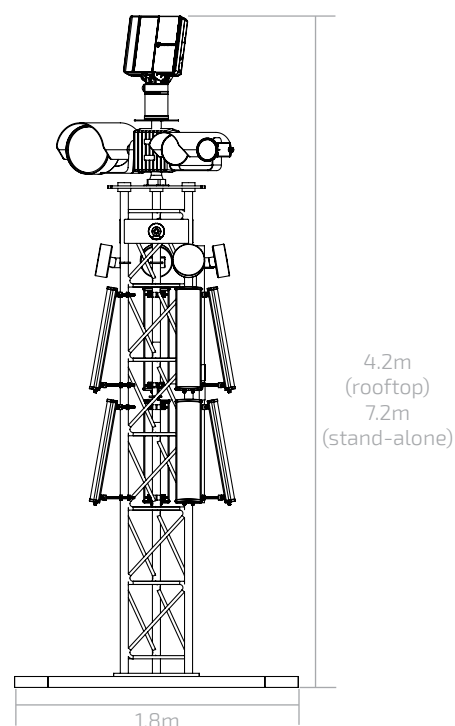
Sensor component mounting platform adaptable to suit installation environment.

Elevated mounting platform required for clear lines of sight onto horizon and over area to be monitored.

Sensor associated control, PSU and network electronic equipment to be installed indoors close to site or in suitable external weatherproof housing.

Maintenance:

Routine structural inspection, regular remote database updates, and sensor maintenance.



FRONT VIEW

Disclaimer:

DroneSentry has not been authorized as required by the federal communications commission ("FCC"). This device is not, and may not be, offered for sale or lease, or sold or leased, in the United States, other than to the United States government and its agencies, until such authorization is obtained. The use of DroneSentry in the United States by other persons or entities, including state or local government agencies, is prohibited by federal law. Laws limiting the availability of DroneSentry to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws. Jammer affects only frequencies at 2.4Ghz, 5.8Ghz and GPS/Glonass (optionally). Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.

DroneSentinel

INTEGRATED DETECTION

Technologies

Primary Detection Method



and/or



RadarOne
(Radar)

RfOne
(RF Detection)

Secondary Detection Methods



WideAlert
(Acoustics)



DroneHeat
(Thermal)



DroneOpt
(Optical Cam)

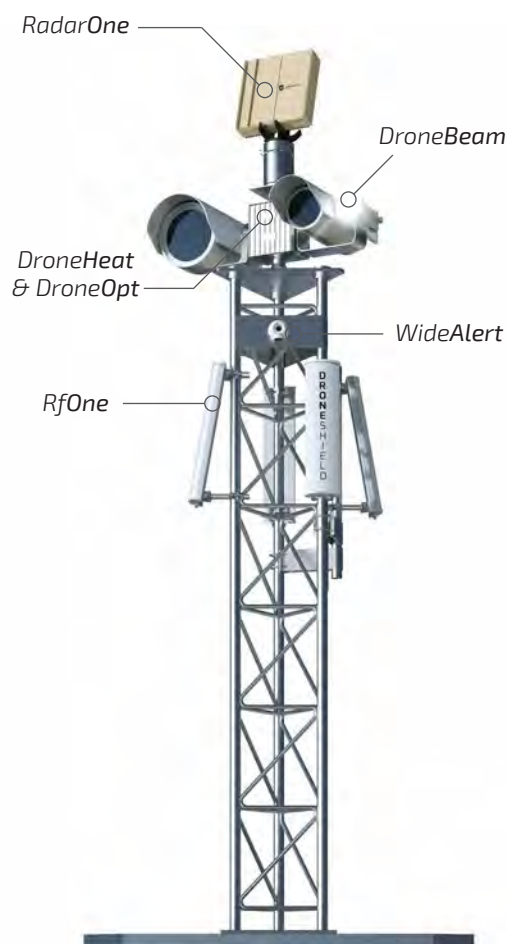
Range Extenders



DroneBeam
(Optical Range
Extender & Disruptor)

DroneSentinel provides the fully integrated sensor suite of DroneSentry without the DroneCannon RF countermeasure capability. With integrated data from all available sensors, users can rapidly detect and assess potential threats. An intuitive user interface provides live and historical data from all sensors, and broadcasts configurable alerts based on user-defined criteria.

It is the ideal detection solution in any environment facing UAS threats.



DroneSentinel

INTEGRATED DETECTION

Specifications

Performance:

Nominal UAS detection ranges:

- RadarOne: 1.5km
- WideAlert: 200m
- RfOne: 1km
- DroneHeat/DroneOpt: 600m for small drones,
2km for large drones.

Output Options:

IP-based alerts (email, SMS, XML/JSON) indicating zone and any additional sensor evidence

Mobile (SMS, audible phone call)

Radio frequency audible alerts

DroneShield User Interface

Communications:

Wired ethernet connection

Environment and Installation:

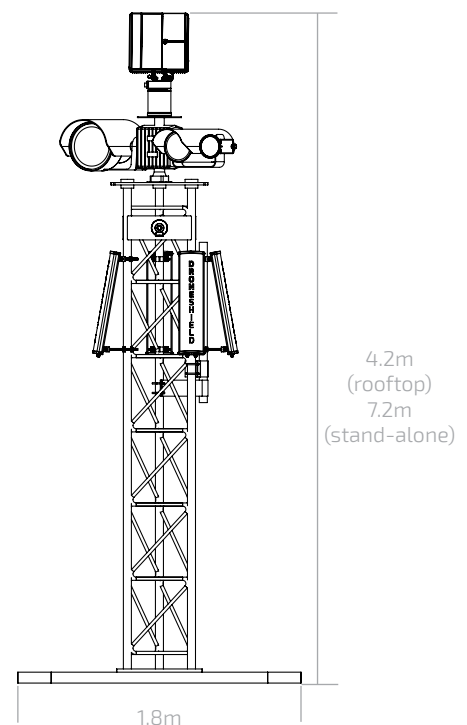
System components suitable for permanent or temporary installation
Sensor component mounting platform adaptable to suit installation environment.

Elevated mounting platform required for clear lines of sight onto horizon and over area to be monitored.

Sensor associated control, PSU and network electronic equipment to be installed indoors close to site or in suitable external weatherproof housing.

Maintenance:

Routine structural inspection, regular remote database updates, and sensor maintenance.



FRONT VIEW



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+61 (2) 9995 7280

DroneGun

CONTROL THE THREAT

Application

Safe countermeasure against a wide range of drone models.
Controlled management of drone payload such as explosives.
No damage to common drones models or surrounding environment due to:

- vertical controlled landing on the spot, or
return back to the starting point
(assisting to track the operator)

Drone remains intact and available for forensic investigation.
Immediate cease of the video transmission back to drone operator.
Rifle shape with a backpack.
Packed in a hard pelican case.
One person operation.

Disclaimer:

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Jammer affects only frequencies at 2.4Ghz, 5.8Ghz and GPS/Glonass (optionally). Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.



DroneGun

CONTROL THE
THREAT

Specifications

Jammer Specifications

Voltage: 16.8+/-0.1V

Runtime: 2hr

Charging time: 90min

Max distance: Up to 2km

Jammer frequencies:

2.38Ghz-2.483Ghz

5.725Ghz-5.825Ghz

GPS (optional) & GLONASS (optional) 1450-1650Mhz

Battery Specifications

Lithium-Ion

V-Mount Batteries

14.8V, 90wh

0.9kg

Antenna Specifications

Mount: Picatinny Rails / MIL-STD 1913 Rails

Type: directional antenna

V-Plane: 10 degrees

Environment

Operating temperature: -10°C to +60°C

No calibration required, "plug and play"

No reload time

Warranty

12 months from date of shipment

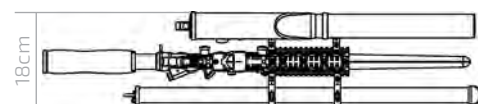
Maintenance

No specific maintenance required

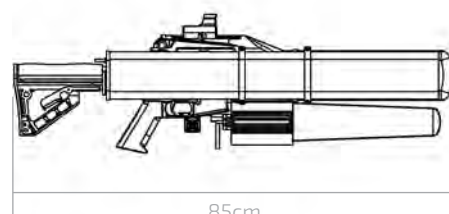
Shipping

Ships in a hard box with dimensions 92 x 70 x 49 cm,

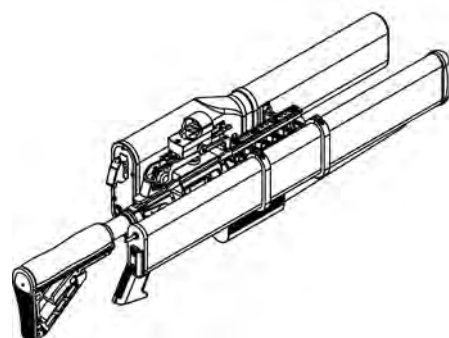
Total weight 36.5kg including the box packaging.



TOP VIEW



SIDE VIEW



PICTORIAL VIEW

Dimensions

Sensor body: 85cm x 18cm x 27cm

Body Weight: 5.7kg

RadarOne

PRIMARY, LONG
RANGE DETECTION

Application

Long Range Tracking: Accurate tracking of airborne targets at ranges up to 1.5km.

Lightweight: Man-portable for mobile deployments.

Self-Positioning: Built-in GPS and compass eases deployment and ensures track accuracy.

DroneShield RadarOne provides rapid, precise tracking of airborne targets with 360 degrees of azimuth coverage at ranges of 1km or more. It is suitable for mobile and permanent installations, and deploys in minutes.

RadarOne supports automatic tracking of airborne targets and can display hundreds of track simultaneously. It is configurable through the DroneShield User Interface.

It's the ideal long-range detection solution for airborne targets.



RadarOne on PT

RadarOne

PRIMARY, LONG
RANGE DETECTION

Specifications

Performance:

Small drone tracking up to 1.5km
Simultaneous tracking of 500+ targets
360° horizontal coverage; 40° azimuth coverage

Output Options:

IP-Based alerts (email, SMS, XML) indicating Zone detected
Operators real time GUI (Graphical User Interface)

Power and Communications:

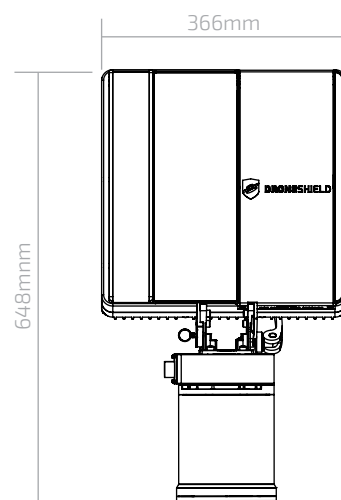
AC 20-48V
Wired ethernet interface with IP-based control/communications

Environment and Installation:

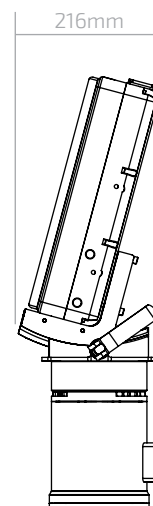
Tower, mast, or tripod mountable.
All weather design

Maintenance:

Annual manual inspection
Bi-annual vent membrane inspection



FRONT VIEW



SIDE VIEW

RfOne

PASSIVE, LONG RANGE UAS DETECTION

Application

Scalable: Lightweight and modular, allowing four units to be combined for 360 degree coverage.

Networkable: Integrates easily with other sensors to enable cuing and improved detection confidence.

Purpose-Built: Designed and optimized specifically for detection of drones.

DroneShield RfOne provides reliable RF detection in 90 degree horizontal field of coverage. RfOne is capable of passively detecting the radio frequency emissions from commercial drones and drone operators in excess of 1km.

RfOne detects through pre-conditioned identification and recognition of RF signatures between the controller and drone, detects FPV (First Person Video) RF signals from the drone to controller and listens out for Controller to Drone Telemetry in frequency bands used by commercially available drones

RfOne has the ability to distinguish non-drone RF activity within the frequency bands of interest.



Multiband RF
Detection Antenna



RfOne Configuration
for 360° Detection

RfOne

PASSIVE, LONG RANGE UAS DETECTION

Specifications

Performance

Rural environment, low RF band contention and noise detection range: > 1.5Kms

Suburban environment detection range estimate: >1km

Urban environment detection range estimate: $\leq$ 1km

Detects drones operating on 2.4GHz and 5.8Ghz bands

Output Options

IP-Based alerts (email, SMS,XML) indicating Zone detected
Operators real time GUI (Graphical User Interface)

Power and Communications

AC 100-240V & DC 12 or 24V

Environment and Installation

Antennas are tower or mast mountable (IP65),
Receiver and Processor (indoor)

Maintenance

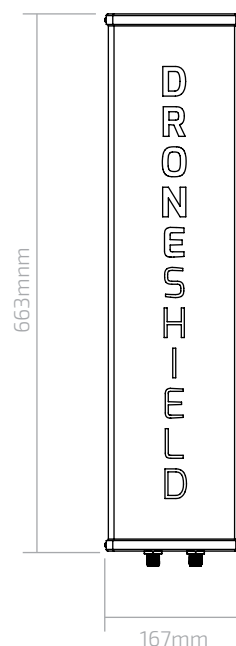
No moving parts, routine inspection only

Warranty

12 months from date of shipment



TOP VIEW



FRONT VIEW

Note:

4 RfOne Antennas are required for 360° detection

WideAlert

BROAD, FULL-RANGE
DETECTION

Application

Broad Coverage: 180 degree range of detection.

Inconspicuous: Simple compact design allows for discreet installation.

Designed For Outdoor Accuracy: Weather resistant and filters common environmental noise.

Simple to Install: Small and compact in size, the unit can be installed quickly and easily.

DroneShield® WideAlert

Sensors provide 180 degree coverage of local acoustic activity at close range. Small and compact in size, it is the perfect solution for inconspicuous installation.

An all-weather design withstands extreme outdoor conditions, allowing it to distinguish common environmental noise sources from drone activity. Sensors can be configured remotely using the DroneShield® User Interface.

Perfect for suburban and urban environments.



WideAlert

BROAD, FULL-RANGE
DETECTION

Specifications

Performance

Microphone: suburban environment: up to 200m
Warning times are dependent on distance to perimeter

Output Options

IP-based alerts (email, SMS, XML/JSON) indicating zone, drone type, and digital evidence
Mobile (SMS, audible phone call)
Radio frequency audible alerts

Power and Communications

12-48VDC, PoE, or 120v/240vAC power Wi-Fi, wired Ethernet, GSM/GPRS, dry contact relays, XML/JSON

Environment and Installation

Designed to IP65 of IEC529 and NEMA 1, 2, 4, 4x, 12, and 13 specifications
Wall Mount bracket customisable to suit installation requirements
Connects with custom XLR connector (provided)
1.5 inch or 40mm diameter conduit can be inserted into the unit for security and extra environmental protection
CE FCC and RHoS compliant

Maintenance

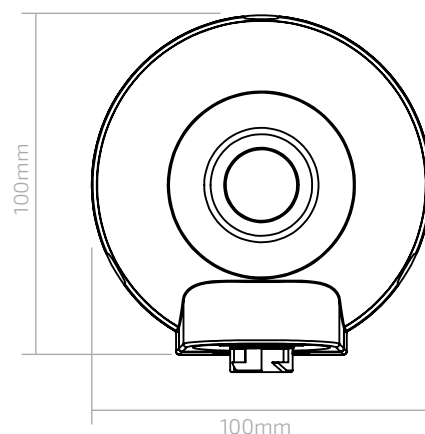
Routine inspection and regular remote database updates

Warranty

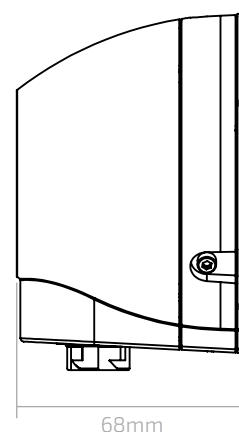
12 months from date of shipment

Colour Options

Midnight Black Cool Grey Pearl White



FRONT VIEW



SIDE VIEW

Dimensions

Sensor: 100mm x 100mm x 68mm

FarAlert

FAR REACHING DRONE DETECTION

Application

Far Reaching: Detect up to 1km.

Convenient: Remotely configurable using the DroneShield User Interface.

Durable: Weather resistant.

Accurate: Able to distinguish drone activity from common environmental noise sources at superior distances.

DroneShield FarAlert Sensors ensure your drone surveillance capabilities are maximised with an extended-area drone detection reach of up to a 1km radius. Sensors can be configured remotely using the DroneShield® User Interface.

It's the ideal first-line detection solution, affording your security force with time to react.



FarAlert

FAR REACHING DRONE DETECTION

Specifications

Performance

Rural environment, medium drone: 500-1000m
Suburban environment, small drone: 250-500m
Urban environment, small drone: 100-250m
Warning times are dependent on distance to perimeter

Output Options

IP-based alerts (email, SMS, XML/JSON) indicating zone, drone type, and digital evidence
Mobile (SMS, audible phone call)
Radio frequency audible alerts

Power and Communications

12-48VDC, PoE, or 120v/240vAC power
Wi-Fi, wired Ethernet, GSM/GPRS, dry contact relays, XML/JSON

Environment and Installation

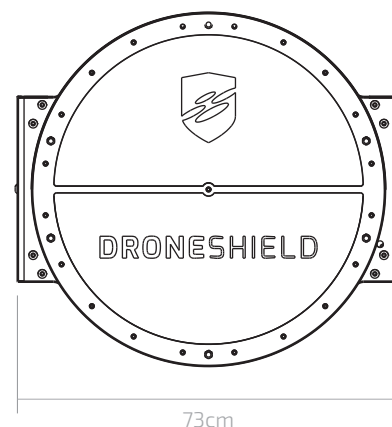
Designed to IP65 of IEC529
Mounts to standard cell tower base station antenna mounts

Maintenance

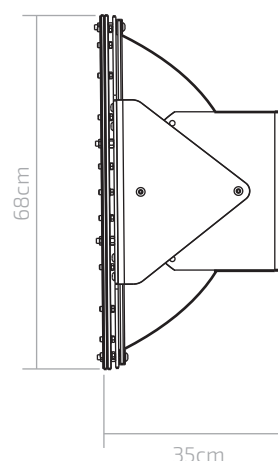
Routine inspection and regular remote database updates

Warranty

12 months from date of shipment



FRONT VIEW



SIDE VIEW

Dimensions

Parabolic microphone:
66cm diameter x 26cm
Weight: 15kg

DroneOpt & DroneHeat

HIGH DEFINITION,
360° MONITORING

Application

Long Range Verification: Enables security teams to visually verify the existence of a drone up to 2km away.

Thermal & Video: High definition video and advanced thermal feeds allow the human to identify and zoom in on the threat.

Robust Design: IP 67 rated, rugged design and construction.

Integrated: The effectiveness of the unit is greatly enhanced when integrated with existing DroneShield detection products.

PTZ (Pan, Tilt, Zoom)

Pan Rotation: Continuous

Pan Speed: 0.005° to 50°/Sec*

Tilt Range: +90° to -90°

Tilt Speed: 0.005° to 50°/Sec*

Actuation: Stepper Motors

Position Encoders: Optical encoders on pan and tilt motors

Repeatability: 0.01°

Temperature Range: -40°C to +60°C

Power: 5.0Amps, 120/240VAC

Control: RS485/IP

Protocol: Pelco D

Housing Material: Cast Aluminum,

Finish Xylan undercoat with epoxy powder coat finish



DroneHeat & DroneOpt

DroneHeat & DroneOpt offer thermal video feed with 10x optical zoom and HD colour video with 30x optical zoom enabling the human to both detect and verify drone threat events. Both thermal and video outputs are provided simultaneously.

The design of the unit allows for it be operated in extremely harsh environments.

It's the ideal solution for human verification of a drone threat.



DroneOpt GUI Example

DroneOpt & DroneHeat

HIGH DEFINITION,
360° MONITORING

DroneHeat Specifications

Thermal Camera

Uncooled Vanadium Oxide Microbolometer
LWIR
25mm - 225mm continuous zoom lens
FOV: 24.5 deg - 2.7 deg
Optical Zoom: 10x
F1.5
Digital Zoom

DroneOpt (Video) Specifications

HD Color Camera with 30x Optical Zoom

Image sensor 1/2.8-type 'Exmor' CMOS
Signal system: HD: 1080p
Number of total pixels: Approx. 2.13 Megapixels
Lens: 30x optical zoom,
f=4.3 mm (wide) to 129.0 mm (tele),
F1.6 to F4.7
Digital zoom: 12x
(360x with optical zoom)
Angle of view: (H) 1080p/30 mode:
63.7° (wide end) to 2.3° (tele end)
Minimum illumination:
High sensitivity mode: 0.01 lx (F1.6, 50 IRE)
Image Stabilizer

Environment & Installation

IP67 Rated

Warranty

24 months from date of shipment

Performance

Manual Verification Range

Small drone (DJI Phantom or equivalent): 600m

Large drone (DJI M600 or equivalent): 2.0km

DroneBeam

OPTICAL RANGE
EXTENDER & DISRUPTOR

Application

Optical Range Extension: With a powerful, focused beam projecting up to 3500m, DroneBeam greatly extends the range of DroneOpt in low light conditions.

Effective Countermeasure: At closer ranges, DroneBeam effectively blinds optical sensors in its path.

Easy to Aim: DroneBeam is tethered to DroneOpt and automatically points at the camera's target.

DroneBeam offers a 12,000,000 candle power remotely enabled spotlight that greatly extends the engagement range of the attached DroneOpt camera. In addition, its powerful beam is an effective optical countermeasure, overpowering optical sensors in the path of the beam. Featuring adjustable beam width and intensity, DroneBeam is the perfect complement to DroneOpt for operator verification of potential threats.

Perfect for the long range visual identification of targets.



DroneBeam

OPTICAL RANGE
EXTENDER & DISRUPTOR

Specifications

Performance

Output: 12,000,000 Peak Beam CandlePower
(-10% minimum threshold; no maximum threshold)
Range: 3,500 meters (1 lux on target)
Beam Width: 1° Spot to 40° Flood
Beam Intensity: 3 Levels: 85W, 45W, 35W
Strobe: User-Adjustable Rate (1-31Hz) and Duty Cycle (3-63%)

Power and Communications

Control Method: RS-232 Protocol (Serial Communication)

Environment and Installation

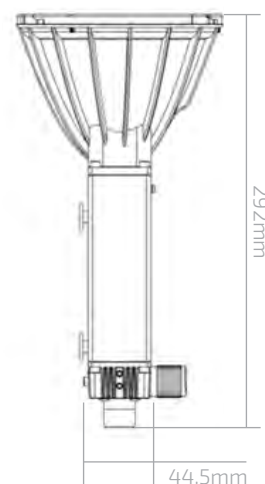
Ingress Protection: IP67 as per CEI/IEC 60529:2001
Operating Temperature: -15°C to +60°C
Housing: Alodined Aluminum per MIL-DTL-5541F Type 1, Class 3
with Polyester Powder-Coat Finish

Maintenance

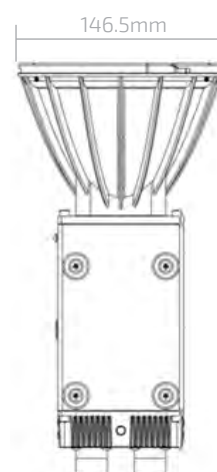
Lamp: Field Replaceable Xenon Short Arc Lamp (Kit #MBA-2400)
MTBF: 1500 hours (lamp); maintenance/replacement
recommended at 1000 hours

Warranty

Lamp - 90 days
All other components - 1 year



SIDE VIEW



UNDERSIDE VIEW

DroneCannon

SECURE THE
SITE

Application

Fast Response: Instant activation.

Non-lethal Countermeasure: drones are either forced to ground at the point of jamming or return-to home (back to the controllers pre-designated position).

GNSS Jamming: option to interrupt the drone's navigation capability, normally forcing it to ground in a controlled descent and landing.

Immediately interrupts FPV transmissions back to the controller

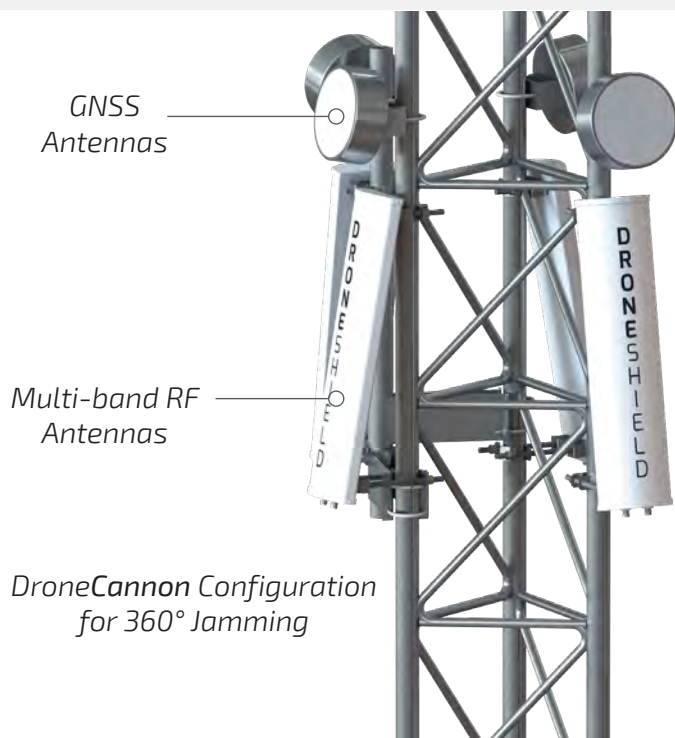
Ability to jam both 2.4GHz and 5.8GHz ISM bands simultaneously

360° Jamming: capability in 4 x 90 degree sectors.

Disclaimer:

DroneCannon has not been authorized as required by the federal communications commission ("FCC"). This device is not, and may not be, offered for sale or lease, or sold or leased, in the United States, other than to the United States government and its agencies, until such authorization is obtained. The use of DroneCannon in the United States by other persons or entities, including state or local government agencies, is prohibited by federal law. Laws limiting the availability of DroneCannon to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws.

Jammer affects only frequencies at 2.4Ghz, 5.8Ghz and GPS/Glonass (optionally). Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.



DroneCannon

SECURE THE
SITE

Specifications

Performance

Effective drone jamming distance with a controller to drone distance ratio of $\leq 3:1$ will be up to 2km

Power and Communications

AC 100-240V & DC 28V

Environment and Installation

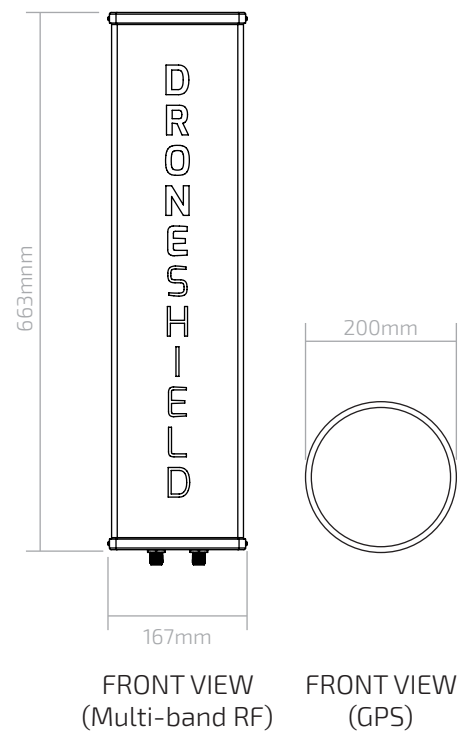
Antennas are tower or mast mountable (IP65),
Controller and Transmitter equipment (indoor)

Maintenance

No moving parts, routine inspection only

Warranty

12 months from date of shipment



Note:

4 sets DroneCannon RF Antennas
are required for 360° Jamming

BaseProcessor

DETECTION WITHOUT
INTERNET CONNECTION

Application

Versatile: Does not require internet connection (note: optional internet connection may be activated by the user for technical support and periodic drone database updates). Ideal for situations where internet connection is not possible or desired.

Accurate: Precise identification of drone detection events from multi-sensor data streams.

Real Time: Instantly notifies you of drone activity.

The BaseProcessor collects information from multi-sensor data streams to identify drone threats.

When it identifies a likely threat, the BaseProcessor issues instant alerts via email, GUI or alarm systems through JSON, XML, or dry contact relays.

Perfect for facilities requiring an 'air-gapped' solution.



Monitoring & Alerts

CONTINUOUS, ONLINE
MONITORING OF
LOCAL DRONE ACTIVITY

Application

Scalable: Platform is built on a back-end infrastructure that scales to any size.

Immediate: Reports live, ongoing activity.

Flexible: Can be used for single multi-sensor sites or several multi-sensor nodes working together.

Convenient: Can be accessed and configured remotely from any web browser, wherever there is Internet connectivity.

Compatible: Easily integrates into existing security systems.

User Interface is included with purchase of any DroneShield detection system.

The DroneShield User Interface displays alert information and other critical sound and system data. A visual interface delivers live readings from DroneShield sensors, providing real-time visibility to surrounding drone detection activity. Remote access to your DroneShield sensors allows you to check statuses, monitor threat levels, respond to real-time alerts, and configure your system settings.

The convenient browser-based monitoring application lets you view and control your DroneShield detection activity from anywhere.



DroneShield® User Interface



DroneShield® SMS Alerts



DRONESHIELD

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Purchase of this equipment is subject to export licence approval.

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