@DroneShield
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ABN 26 608 915 859

11 September 2017 **ASX RELEASE**

Market Update

- **Development of second generation of DroneShield® tactical drone jammer (DroneGun MKII) product completed**
- **Product has been released for testing to Australian and United States militaries**
- **DroneShield accepted to be part of Team Defence Australia, a join effort with the Australian Department of Defence and Austrade**

DroneShield Ltd (ASX:DRO) ("DroneShield" or the "Company") is pleased to provide an update on several significant developments.

DroneGun MKII
DroneShield is pleased to announce the launch of a DroneGun MkII drone countermeasure product, a second generation version of its DroneGun product.

The product is a rifle-style handheld jammer device, highly effective at the standard frequencies of consumer and commercial drones globally. An optional GPS-jamming capability is also available to customers where lawful.[1]

Image: DroneGun MKII and its backpack

The product was developed in response to feedback by sophisticated end-users. The product offers a number of improvements over the first generation of DroneGun, including a substantially ruggedised design, lighter weight, and improved jamming algorithms.

Testing by Australian and United States militaries
DroneShield remains the only company in the world offering both drone detection and handheld rifle-style tactical drone countermeasures, as its own product suite. Initial units of the product have been released for immediate testing and evaluation by several branches of the United States and Australian militaries.

1 DroneGun has not been authorized as required by the United States 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 DroneGun 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 DroneGun to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws.

Peter James, Chairman of the Company, has commented "DroneGun MkII is expected to continue to position DroneShield at the cutting edge of the counterdrone industry. The Company also continues to develop other innovative products being actively sought by end users, including the DroneSentinel and DroneSentry products, with initial customer demos for DroneSentinel and DroneSentry having been scheduled for early November."

DroneShield accepted to be part of Team Defence Australia
On the sales and marketing front, the Company has been undertaking a significant effort in building out its military and security global selling channels. Among other things, it is pleased to report that it has been accepted to be part of Team Defence Australia, a joint effort with the Australian Department of Defence and Austrade. As part of Team Defence Australia, DroneShield is participating at the Defence and Security Equipment International Conference in London this week and The Association of the United States Army Annual Meeting and Exposition in Washington, DC in early October.

Additional senior staff
The Company welcomes Mr. Casey Betzold as a new VP of Sales, focusing on US, European, and APAC Sales, as well as David Powers who will be focusing on the US federal and military market.


Image: Casey Betzold

Mr. Betzold brings over 15 years of experience in US and International business development and sales. He has extensive experience working with major market segments world-wide specific to the industry, to include government and law enforcement agencies, commercial, and OEM markets.

His career began as an officer in the United States Air Force where he attended pilot training and operated as an Acquisitions and Program Management Officer working with large prime defense contractors on programs including the Minuteman III Propulsion and GPS Metric Tracking programs.

After leaving the Air Force as a Captain, he spent time with well known members of the defense and outdoor industry to include working in business development and sales for ATK and as the Director of International Sales for Beretta.

Most recently, Mr. Betzold was CEO of Snake River Shooting Products and Consulting Inc, a manufacturing and distribution company focused on ammunition, components, and accessories.

David Powers is a former Federal Agent, Intelligence Officer and U.S. Special Operations Forces (SOF) leader, operator, combat training developer, and decorated combat veteran of Operations Desert Shield, Desert Storm and Provide Comfort, and the Enduring Freedom Campaign.


Image: David Powers

Annexed to this announcement is the Company's product brochure in relation to the Company's current product offering, including DroneGun MKII.

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.

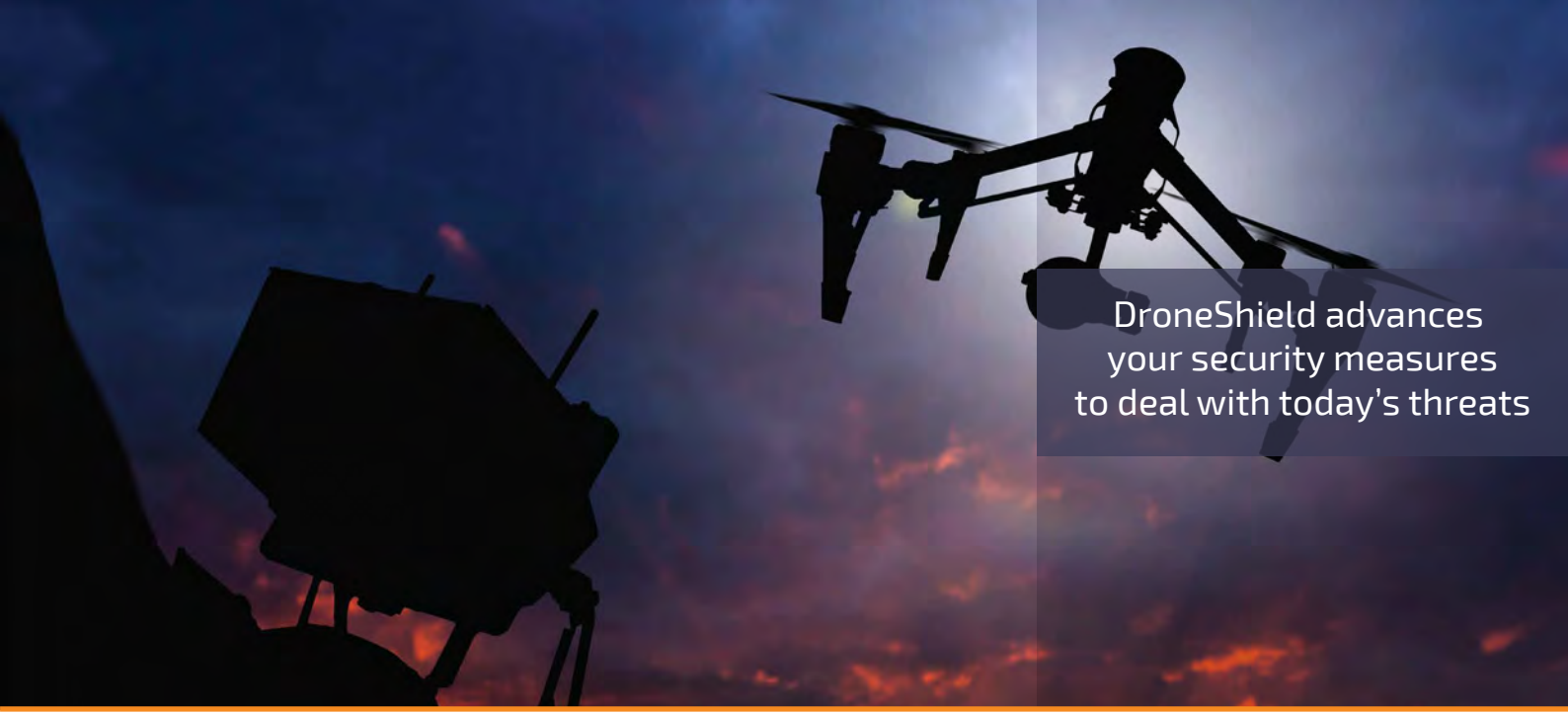
ENDS

The Appendix
Product Brochure

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 developed 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.

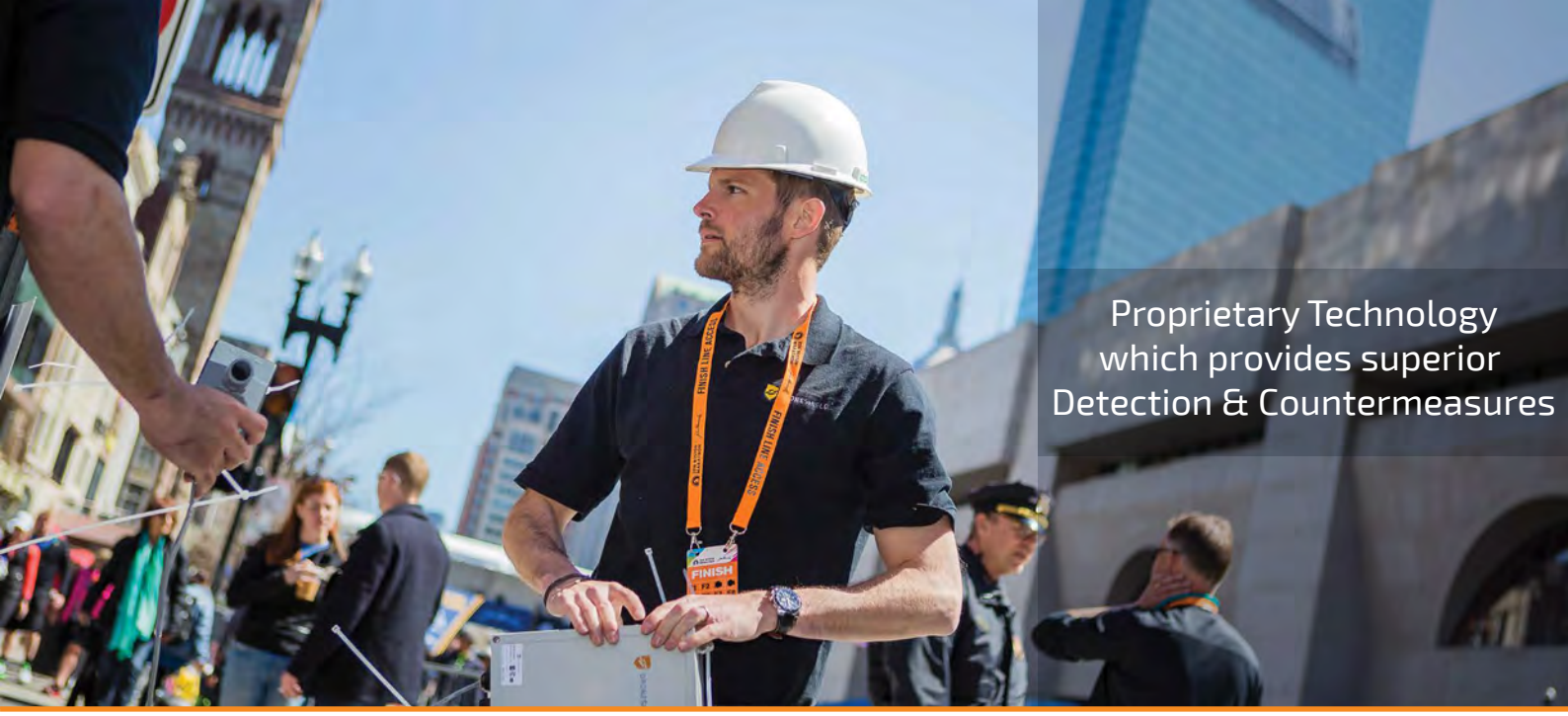
Privacy & Safety

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?



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 GNSS navigation capability), 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

RadarOne *(Radar)* and/or RfOne *(RF Detection)*

Secondary Detection Methods

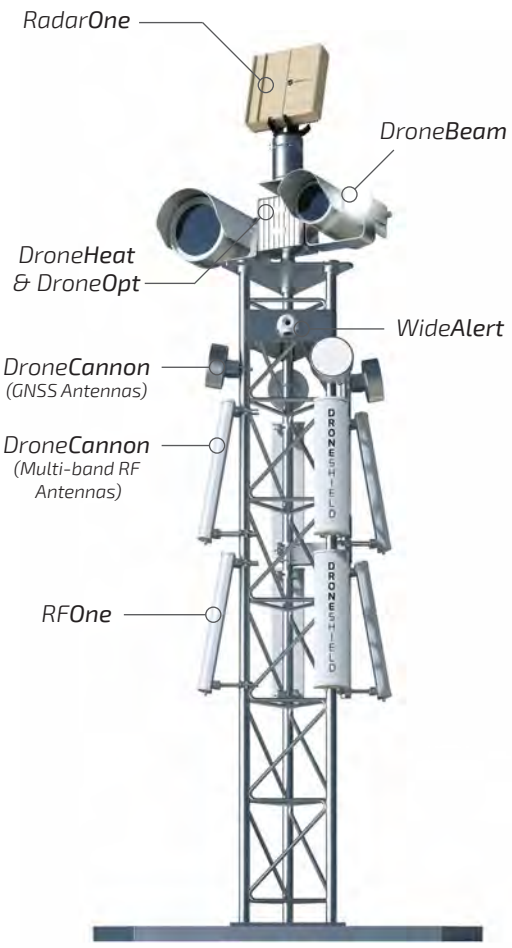
WideAlert *(Acoustics)* DroneHeat *(Thermal)* DroneOpt *(Optical Cam)*

Primary Countermeasure

DroneCannon *(Multiband RF Jamming)* DroneCannon *(GNSS Jamming)*

Secondary Countermeasures

DroneBeam *(Optical Range Extender & Disruptor)*



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

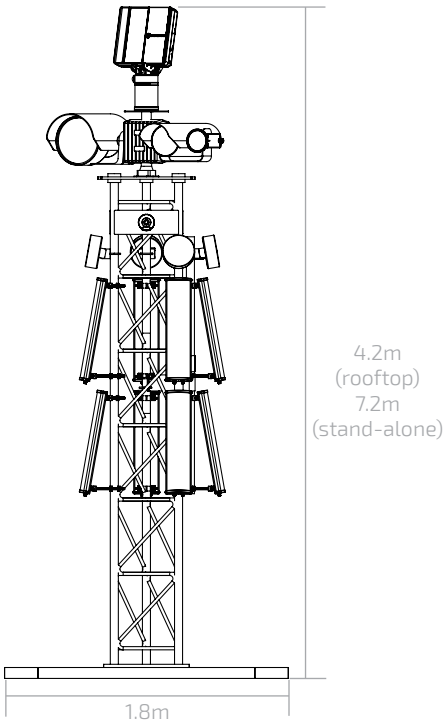
DroneCannon Engagement Range: up to 2km
Optional Equipment Upgrades: FarAlert Acoustic Sensor Array

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

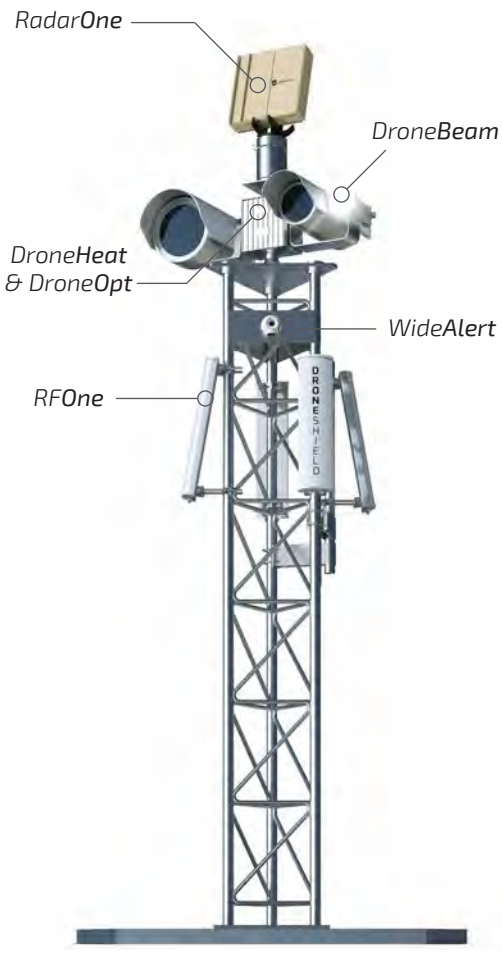
RadarOne *(Radar)* and/or RfOne *(RF Detection)*

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

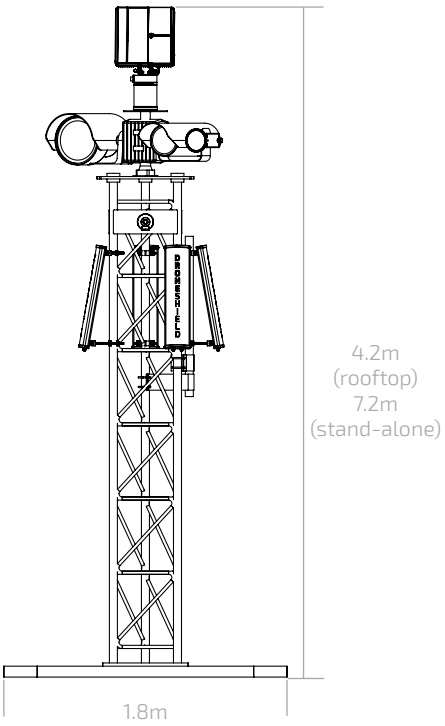
Performance:
Nominal UAS detection ranges:
- RadarOne: 1.5km
- WideAlert: 200m
- RfOne: 1km
- DroneHeat/DroneOpt: 600m for small drones, 2km for large drones.

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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info@droneshield.com

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 case.
One person operation.

DroneGun Military style Backpack

DroneShield DroneGun

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DroneGun 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

Features

Robust Rifle Style Design
Military Spec 12-way pin connectors
Full aluminum frame for strength and weight reduction
MIL-STD 1913 Rails for mounting scope
(supplied with red dot laser sight)
Polymer 16.5-inch handguard with M Lok for antenna mounting
Standard AR-15 type stock threads
Durable polymer foregrip with quick release bipod

Lightweight and Long-Range Antennas
Antennas matched for simultaneous use across RF bands
Black ABS Antenna Radomes with low carbon content
Balanced design for extended use
High strength RG142 RF cables for low loss and durability

Electronic Enclosure
Aluminum 6061 enclosure to mount and secure electronics
Individual electronic modules protected in their own case
Replaceable and readily available V-Mount Batteries
Fully custom heatsink and 4 stage thermal management system
Cable loom protected by monofilament nylon sheath

Military Style Backpack
Custom backpack provided by leading Australian military supplier
High quality, military grade fabrics, foams, zips and mesh
Additional ventilation for high temperature climates
Weight distribution frame & harness designed for special forces
Electronics enclosure secured & cross braced to reduce vibration during movement
Padded shoulder straps with 'quick release pull tabs' for combat
Additional pull-out weatherproof cover available

DroneGun

CONTROL THE THREAT

Specifications

DroneGun Specifications
Voltage: 28.8VDC
Charging time: 4 hrs
Max distance: Up to 2.0km
Jammer frequencies:
2.4GHz ISM (2400 ~ 2483.5GHz)
5.8GHz ISM (5725 ~ 5850GHz)
GNSS L2 (optional) 1227 ~ 1251 & GNSS L1 (optional) 1575 ~ 1605

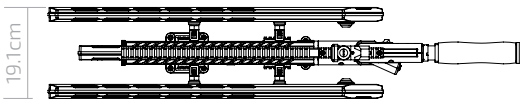
Battery Specifications
Lithium-Ion V-Mount Batteries (2 QTY)
0.8kg each

Antenna Spefiications
Mount: Picatinny Rails / MIL-STD 1913 Rails / M Lok
Type: directional antenna
V-Plane: 30 degrees
E-Plane: 30 degrees

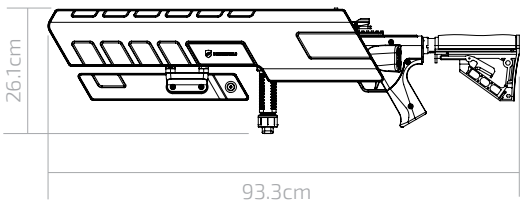
Environment
Operating temperature: -10°C to +55°C
No calibration required, "plug and play"
No reload time

Warranty
12 months from date of shipment

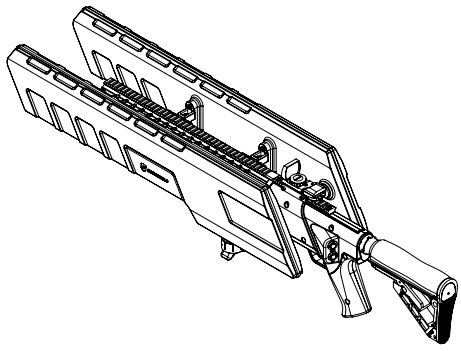
Shipping
Ships in a hard carry case



TOP VIEW

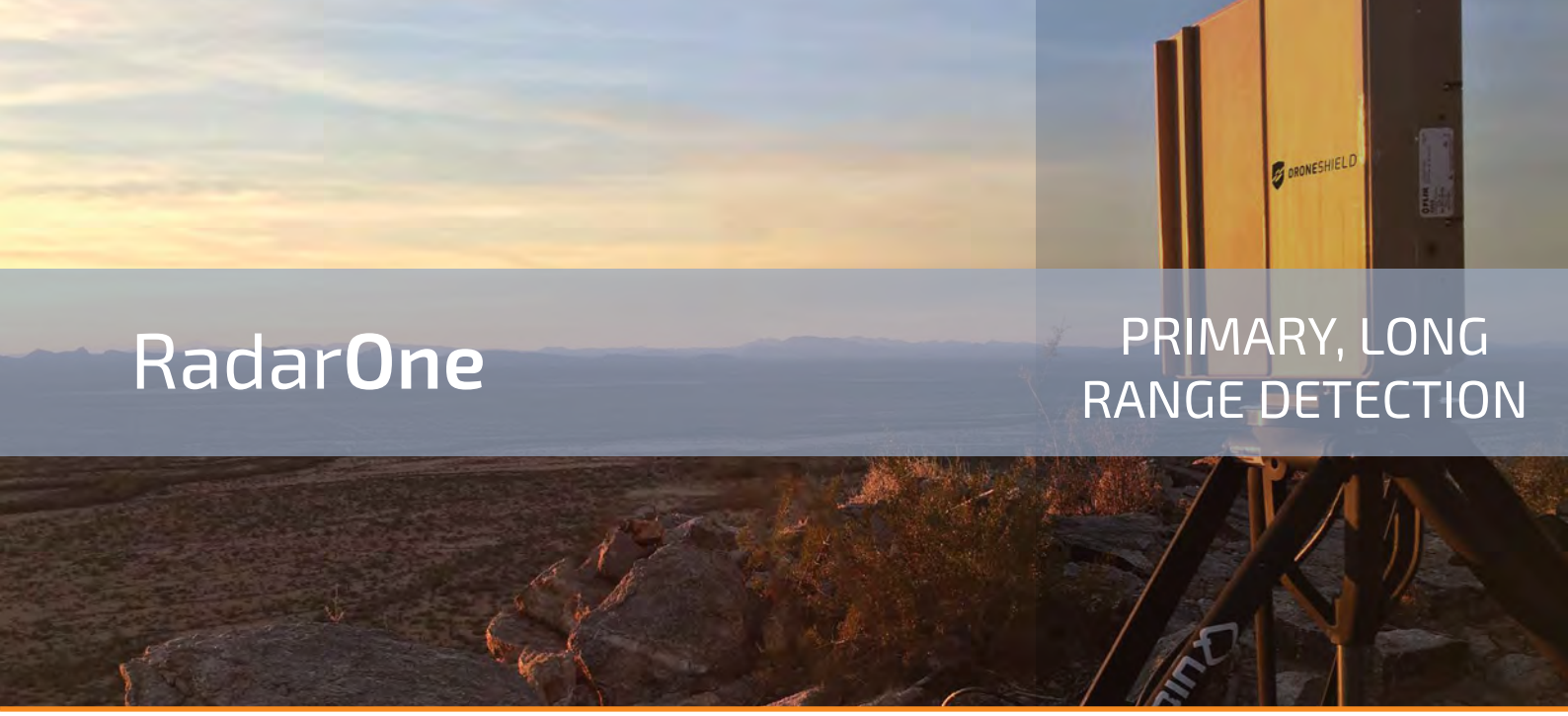


SIDE VIEW



PICTORIAL VIEW

Dimensions
DroneGun - 93.3cm x 26.1cm x 19.1cm
DroneGun Weight: 4.2kg
Backpack Weight: 12kg



RadarOne

PRIMARY, LONG RANGE DETECTION

Application

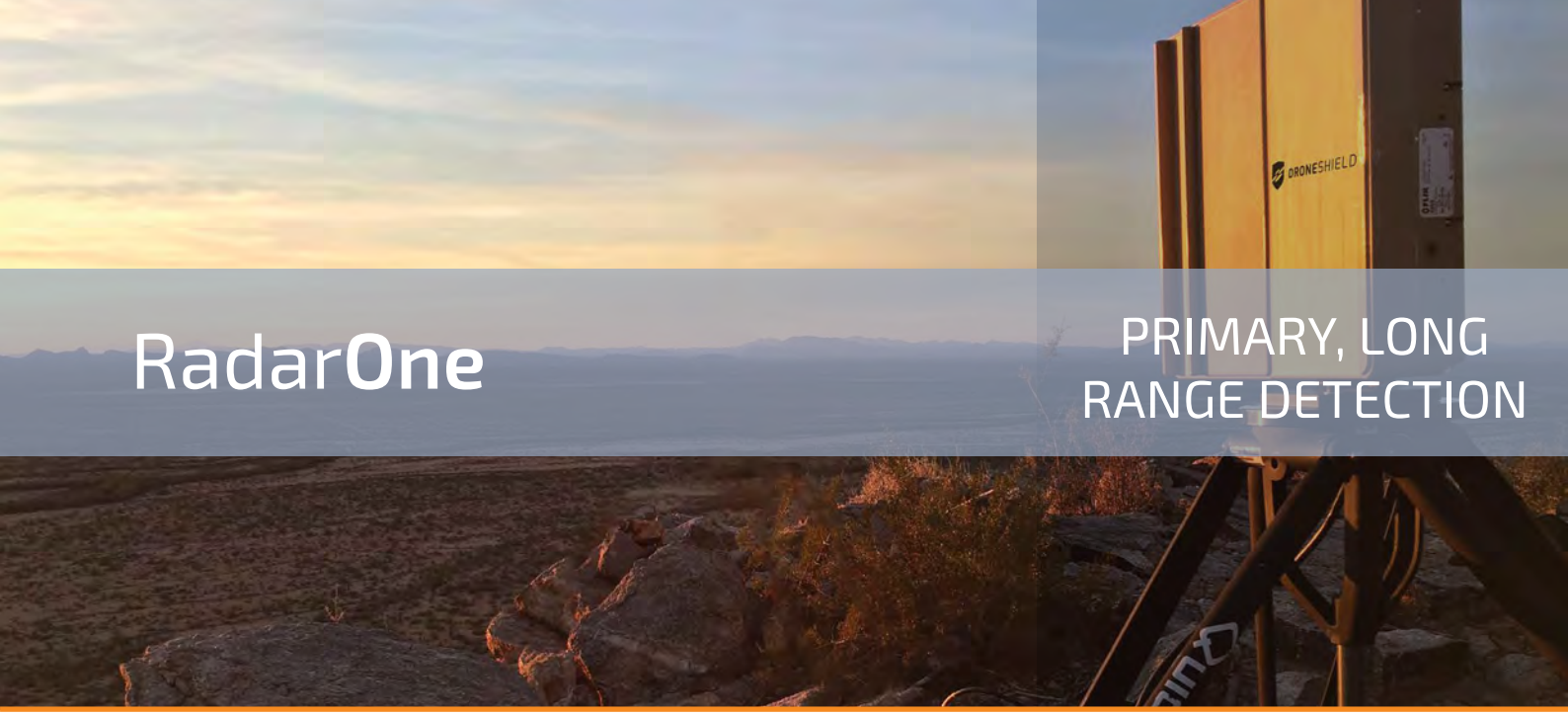
Long Range Tracking: Accurate tracking of airborne targets at ranges up to 1.5km.
Lightweight: Man-portable for mobile deployments.
Self-Positioning: Built-in GPS and compass eases deployment and ensures track accuracy.

RadarOne on PT

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

PRIMARY, LONG RANGE DETECTION

Specifications

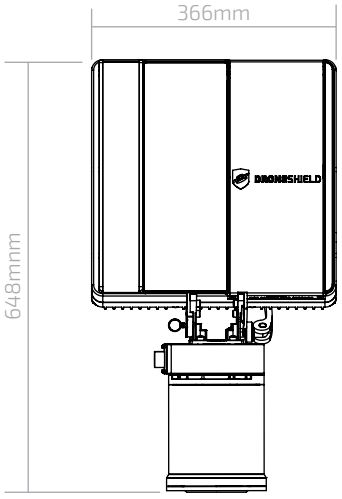
Performance:
Small drone tracking up to 1.5km
Simultaneous tracking of 500+ targets
"+/- 45° Fixed azimuth (horizontal) coverage and 360° with P/T

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

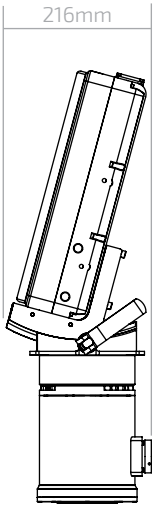
Power and Communications:
AC 20-48V
Wired ethernet interface with IP-based control/communications

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 antennas 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.

Multiband RF Detection Antenna

RfOne Configuration for 360° Detection

DroneShield RfOne provides reliable RF detection over 360° horizontal field of coverage using 4 x 90° sector antenna panels. RfOne is capable. 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.

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: ≤ 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)

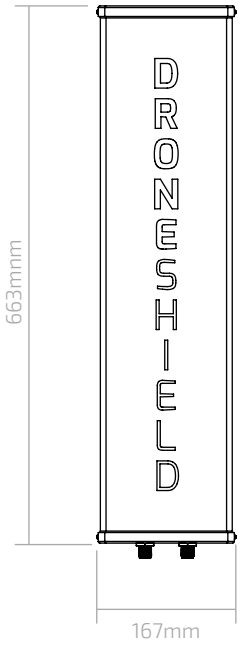
Power and Communications
AC 100-240V & DC 12 or 24V

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 Rf**One** 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 install 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

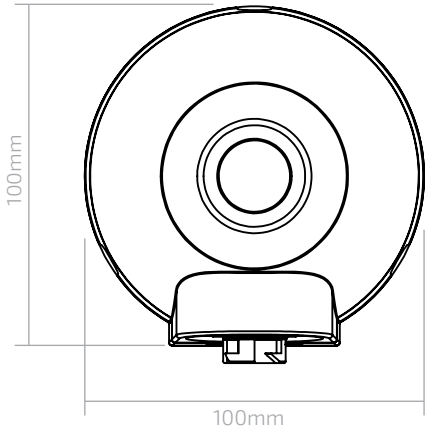
Power and Communications
12-48VDC, PoE, or 120v/240vAC power Wi-Fi, wired Ethernet, GSM/GPRS, dry contact relays, XML/JSON

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

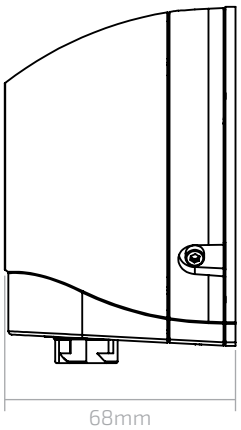
Maintenance
Routine inspection and regular remote database updates

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

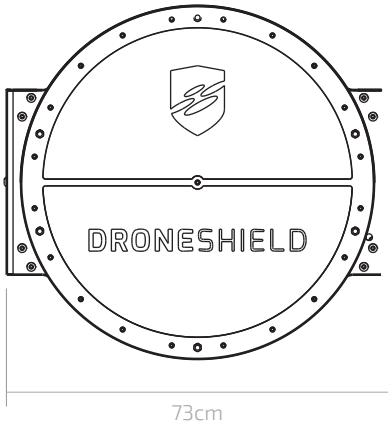
Output Options
IP-based alerts (email, SMS, XML/JSON) indicating zone, drone type, and digital evidence
Mobile (SMS, audible phone call)
Radio frequency audible alerts

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

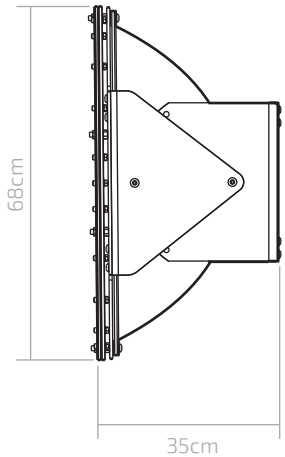
Environment and Installation
Designed to IP65 of IEC529
Mounts to standard cell tower base station antenna mounts

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)

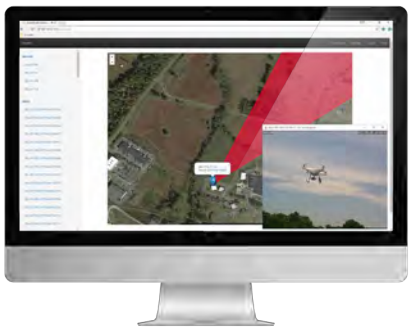
Pan Rotation: Continuous
Pan Speed: 0.005° to 50°/Sec*
Tilt Range: +90° to -90°
Tilt Speed: 0.005° to 50°/Sec*
Actuation: Stepper Motors
Position Encoders: Optical encoders on pan and tilt motors
Repeatability: 0.01°
Temperature Range: -40°C to +60°C
Power: 5.0Amps, 120/240VAC
Control: RS485/IP
Protocol: Pelco D
Housing Material: Cast Aluminum, Finish Xylan undercoat with epoxy powder coat finish

DroneHeat & DroneOpt

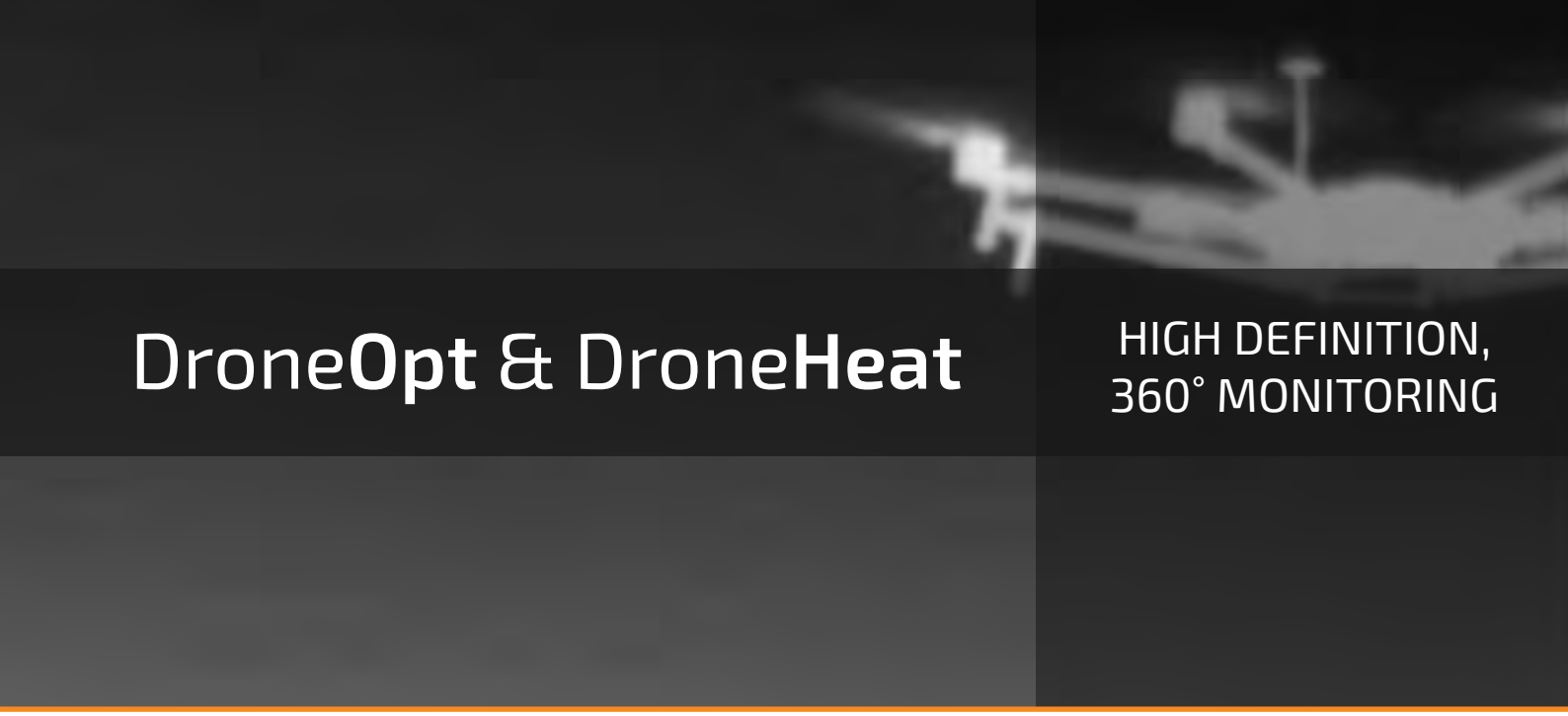
DroneHeat & DroneOpt offer thermal video feed with 10x optical zoom and HD colour video with 30x optical zoom enabling the human to both detect and verify drone threat events. Both thermal and video outputs are provided simultaneously.

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



Drone**Opt** & Drone**Heat**

HIGH DEFINITION,
360° MONITORING

*Drone**Heat** 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

*Drone**Opt** (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

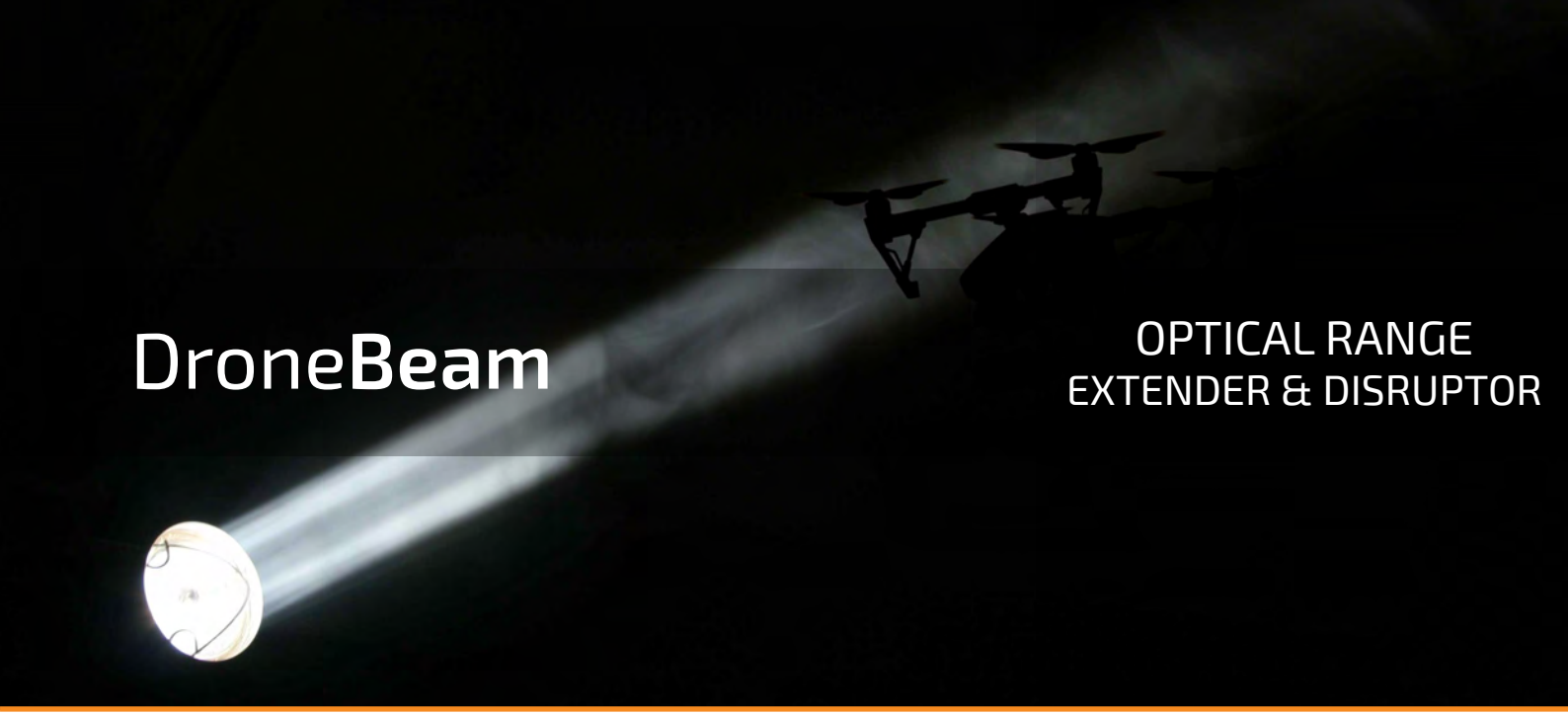
Environment & Installation
IP67 Rated

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

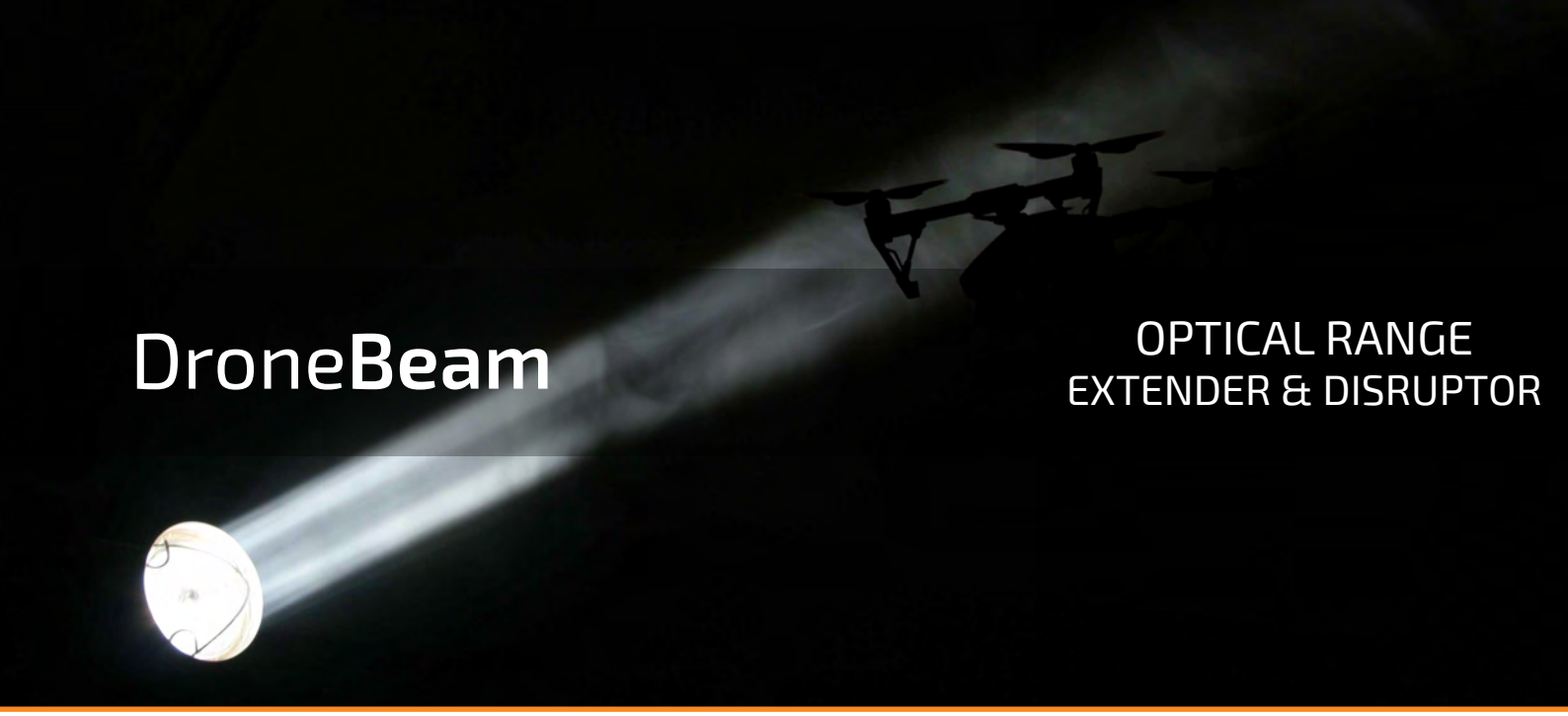
OPTICAL RANGE EXTENDER & DISRUPTOR

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 cameras 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

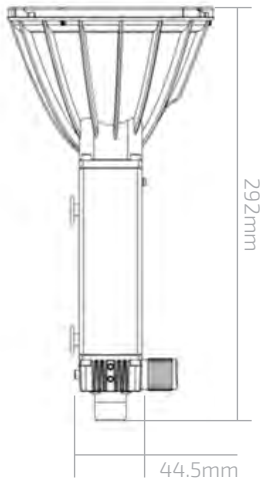
Performance
Output: 12,000,000 Peak Beam CandlePower
(-10% minimum threshold; no maximum threshold)
Range: 3,500 meters (1 lux on target)
Beam Width: 1° Spot to 40° Flood
Beam Intensity: 3 Levels: 85W, 45W, 35W
Strobe: User-Adjustable Rate (1-31Hz) and Duty Cycle (3-63%)

Power and Communications
Control Method: RS-232 Protocol (Serial Communication)

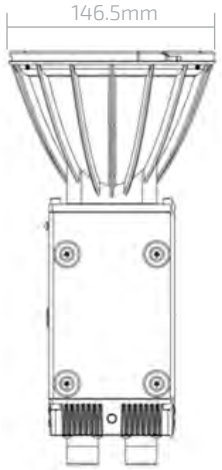
Environment and Installation
Ingress Protection: IP67 as per CEI/IEC 60529:2001
Operating Temperature: –15°C to +60°C
Housing: Alodined Aluminum per MIL-DTL-5541F Type 1, Class 3 with Polyester Powder-Coat Finish

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



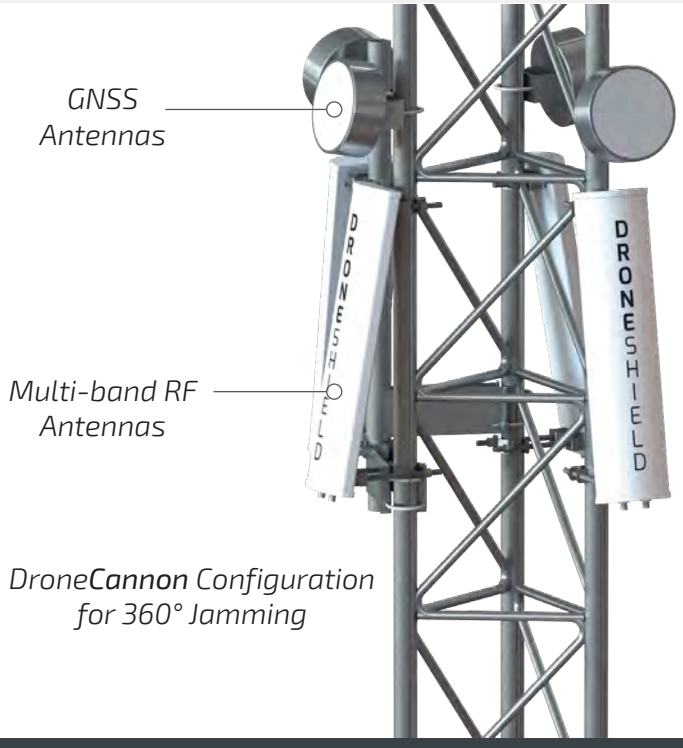
UNDERSIDE VIEW

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



DroneCannon Configuration for 360° Jamming

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

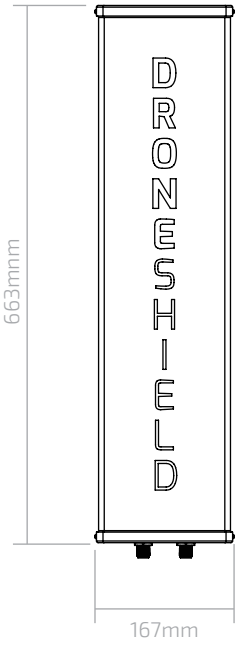
Performance
Effective drone jamming distance with a controller to drone distance ratio of ≤ 3:1 will be up to 2km

Power and Communications
AC 100-240V & DC 28V

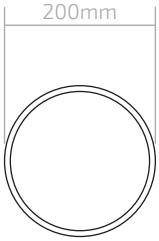
Environment and Installation
Antennas are tower or mast mountable (IP65),
Controller and Transmitter equipment (indoor)

Maintenance
No moving parts, routine inspection only

Warranty
12 months from date of shipment

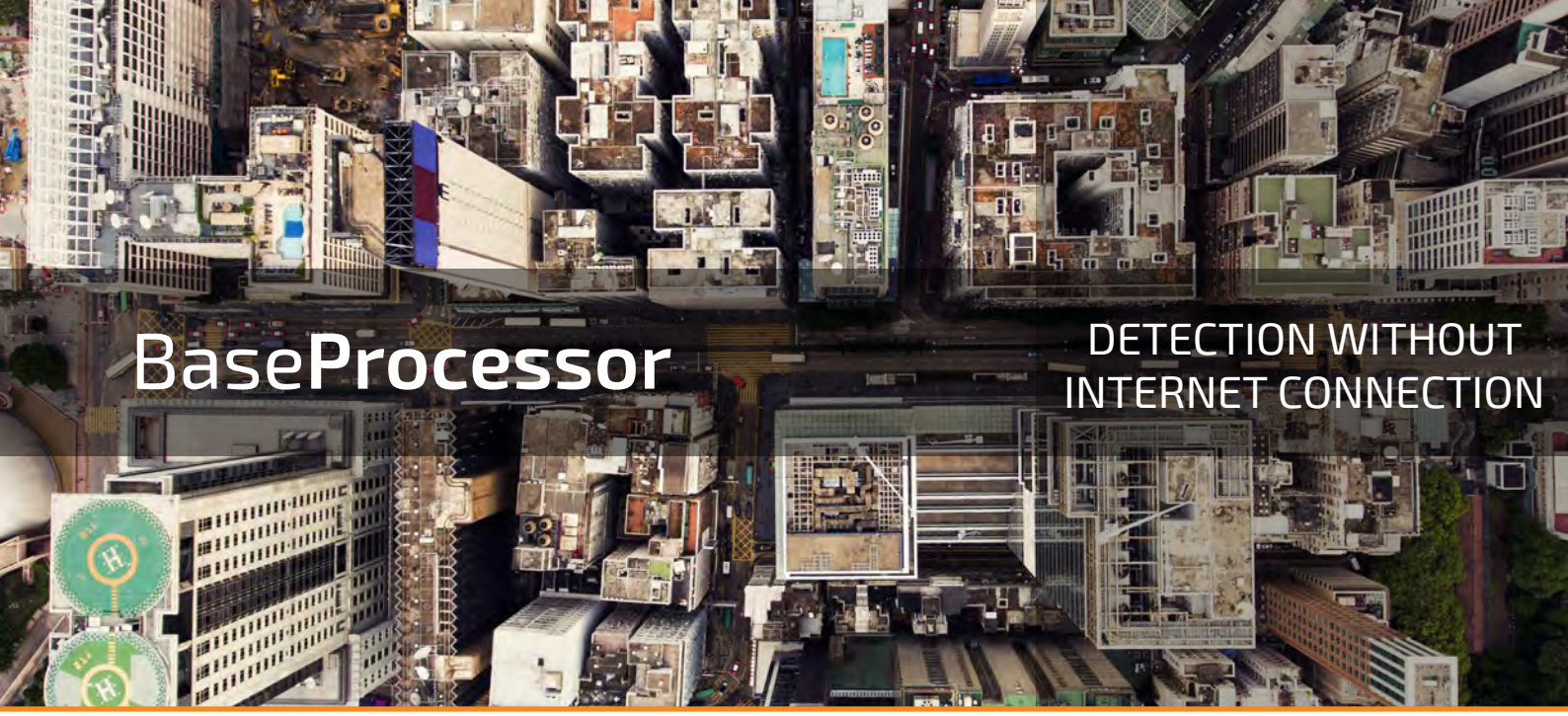


FRONT VIEW
(Multi-band RF)



FRONT VIEW
(GPS)

Note:
4 sets Drone**Cannon** 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.

DroneShield® User Interface

DroneShield® SMS Alerts

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

For Further Information

info@droneshield.com