



# DRONESHIELD

## Product Brochure

DroneShield reserves the right to modify specifications without notice  
Purchase of this equipment is subject to export license approval.





# DroneGun MKIII

Lightweight Handheld Countermeasure

Item No. 500



Defeat Range  
Up to 1km



2.4Ghz, 5.8Ghz,  
433Mhz, 915Mhz



Weight  
2.1kg (4.7lb)



GPS, GLONASS, Galileo,  
BeiDou, NAVIC, QZSS

## APPLICATION

The DroneGun MKIII is a compact, lightweight drone countermeasure designed for one hand operation. It is highly effective against a wide range of commercially available drone models. The DroneGun MKIII is capable of intercepting and disrupting the control and navigation of multiple drones simultaneously. DroneGun MKIII covers all five major GNSS frequencies.

Activation of RF or optional navigation GNSS (GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS) signal disruption will either cause the drone to;

1. Automatically revert to an immediate vertical descent and engage in a controlled landing, or
2. Hover close to the ground until the drone's batteries are near depletion initiating a controlled vertical landing, or
3. Return to starting point or "home" which would assist in finding the operator

RF disruption activation can also be used to interfere with live video streaming (FPV) between the remote controller and the drone, halting the collection of video footage and intelligence by the drone operator.

Compact integration of the antenna with the device ensures effective directionality and a safe environment for the operator. The directional antenna focuses energy where it matters most, maintaining a targeted area of effect and reducing the potential for collateral disruption to friendly RF systems.

 View Product Video





## SPECIFICATIONS

Performance	
<b>Effective Range</b>	Up to 1km (0.62miles) Beyond Visible Line of Sight (BVS) Disruption on UAS operating on consumer and commercial ISM frequencies
<b>Effective Frequencies</b>	2.4GHz ISM, 5.8GHz ISM 433MHz (operator toggle), 915MHz (operator toggle) GNSS L1, GNSS L2 (operator toggle; GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS)

Product Specifications	
<b>Battery Nominal Voltage</b>	10.8VDC
<b>Unit Weight</b>	2.14kg (4.72lbs) including battery
<b>Colour Options</b>	Black, Desert Tan

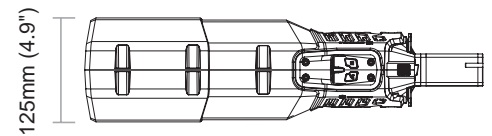
Battery Specifications	
<b>Features</b>	(AN/PRC 152) Rechargeable Lithium-Ion Battery Quick release and reload battery operation Cap Charger available for continued use
<b>Battery Life</b>	Up to 2 hours
<b>Start-up Time:</b>	< 3 secs

Environment	
<b>Operating Temperature</b>	-20°C to +55°C (-4°F to +131°F)
<b>Ingress Protection</b>	Designed to IP55

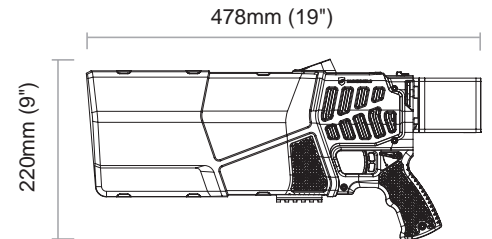
Compliance	
<b>Certifications</b>	TAA and Berry Compliance

Shipping & Warranty	
<b>Shipping</b>	Ships in a Rugged Carry Case (IP67)
<b>Dimensions</b>	640mm x 410mm x 220mm (25.20" x 16.14" x 8.66")
<b>Total Weight Shipped</b>	8.9kg (19.62 lbs) including carry case
<b>HS Code</b>	8543.70.9090
<b>Warranty Time Frame</b>	12 months from date of shipment

Contents	
<b>Carry Case Contents</b>	DroneGun MKIII Device Single Point Sling 1 x NATO-Grade Battery Battery Charger Quick Start Guide



TOP VIEW




SIDE VIEW



### Disclaimer:

Laws limiting the availability of DroneGun MKIII to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws. DroneGun MKIII affects only frequencies at 2.4Ghz, 5.8Ghz, 433Mhz, 915Mhz and GPS/ GLONASS/ Galileo/ BeiDou/ NAVIC/ QZSS. Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.



DISMOUNTED MOBILE FIXED DETECT DEFEAT SUPPORT 

# DroneGun Tactical

Long Range Countermeasure

Item No. 300



Defeat Range  
Up to 2km



2.4Ghz, 5.8Ghz,  
433Mhz, 915Mhz



Weight  
7.3kg (16.1lb)



GPS, GLONASS, Galileo,  
BeiDou, NAVIC, QZSS

## APPLICATION

The **DroneGun Tactical** is a fully integrated rifle style, safe countermeasure against a wide range of drone models. Its design allows it to be highly portable and is capable of disrupting multiple RF frequency bands simultaneously.

Activation of RF or optional navigation GNSS (GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS) signal disruption will either cause the drone to;

1. Automatically revert to an immediate vertical descent and engage in a controlled landing, or
2. Hover close to the ground until the drone's batteries are near depletion initiating a controlled vertical landing, or
3. Return to starting point or "home" which would assist in finding the operator

Drone remains intact and available for forensic investigation.

Intended disruption of the video transmission to drone operator. The product is packed in a rugged carry case.

### Certifications

The only drone countermeasure product on the market with the following safety Certifications:

**DRAM** (Dommages dus aux Rayonnements Electromagnetiques sue les Armes et Munitions): Safety standard on proximity to weapons and ammunition (Europe)

**DREC** (Dommage dus aux Rayonnements Electromagnetiques sue les Carburants): Safety Standard on proximity to fuels (Europe)

**DREP** (Dangers des Rayonnements Electromagnetiques non ionisants sue le Personnel): Personnel safety standard (Europe)

**SAR** (Specific Absorption Rate): Personnel safety standard (Australia/New Zealand)

[▶ View Product Video](#)



## SPECIFICATIONS

Disruption Performance	
<b>Effective Frequencies</b>	2.4GHz ISM, 5.8GHz ISM, 433MHz, 915MHz GNSS L1, GNSS L2 (operator toggle; GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS)

Product Specifications	
<b>Voltage</b>	14.4VDC
<b>Effective Range</b>	Up to 2kms (1.24 miles)
<b>Rifle Weight</b>	16.1lbs (7.3kg) (including 2 x batteries)
<b>Colour Options</b>	Black, Desert Tan
<b>NATO Stock Number</b>	5865661650137

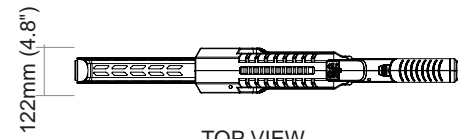
Scope (optional)	
<b>Options</b>	Shaded 30mm prismatic sight 11 brightness settings (4 night-vision, 7 daytime)

Battery Specifications	
<b>Battery</b>	Rechargeable Lithium-Ion Battery NATO-standard military grade or commercial options available Quick release and reload battery operation
<b>Safety</b>	Complies and tested against Australian and International SAR safety levels for occupational exposure to Radio Frequency Fields
<b>Battery Life</b>	2+ Hours (Aggregate operational time per charge)
<b>Start-up Time</b>	< 3 secs

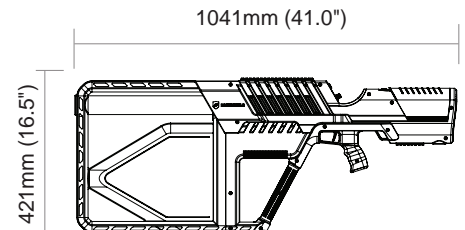
Environment & Operation	
<b>Operating Temperature</b>	-20°C to +55°C (-4°F to +131°F)
<b>Ingress Protection</b>	Designed to IP54

Shipping & Warranty	
<b>Packaging</b>	Ships in a rugged carry case (IP67)
<b>Dimensions</b>	1190mm x 530mm x 210mm (46.85" x 20.87" x 8.27")
<b>Total Shipped Weight</b>	18kg (39.7 lbs) - including carry case
<b>HS Code</b>	8543.70.9090
<b>Warranty Time Frame</b>	12 months from date of shipment

Contents	
<b>Carry Case Contents</b>	DroneGun Tactical Rifle Single Point Sling 2 x DroneGun Tactical NATO-Grade Batteries Battery Charger Quick Start Guide Scope (optional)



TOP VIEW



SIDE VIEW



### Disclaimer:

Laws limiting the availability of DroneGun Tactical to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws. DroneGun Tactical affects only frequencies at 2.4Ghz, 5.8Ghz, 433Mhz, 915Mhz and GPS/ GLONASS/ Galileo/ BeiDou/ NAVIC/ QZSS. Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.



- DISMOUNTED
- MOBILE
- FIXED
- DETECT
- DEFEAT
- SUPPORT

# RfPatrol MKII

Compact Wearable UAS Detection

Item No. 112

Subscription No. 112-1



Detection Range  
Up to 4km



2.4Ghz, 5.8Ghz,  
433Mhz, 868MHz, 915Mhz



AI/ML Engine  
Upgrades



Weight  
1.2kg (2.6lb)

## APPLICATION

The RfPatrol MKII is the next generation wearable drone detection device with improved durability, size and functionality.

The device offers the user real situational awareness without distraction or complex operation. RfPatrol MKII has been designed to be highly effective for a variety of operators in a range of demanding environments.

The RfPatrol MKII can be worn, deployed on the ground or in a vehicle. It can be operated in two modes, 'Stealth' and 'Glimpse', allowing the user to control how they receive alerts.

The device is supported by a device manager that allows operators to keep their device's database up to date with the changing threat environment as well as the ability to download logs and add filters.

### Highly Ruggedised Design

Tested to IP67

Tested to MIL-STD-810G and MIL-STD-810H

Reinforced construction to withstand unforgiving environmental conditions

### DroneShield Advanced Technology

Integrated Software Defined Radio capability for compact application

Detects both custom protocol and Wi-Fi RF links

Device Manager - software upgrade tool allows for capability expansion

Future proofed hardware and software for product longevity



View Product Video



DRONESHIELD

v2.2 |

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## SPECIFICATIONS

Performance	
<b>Detection Range</b>	High RF Environment (Urban) - up to 1km (0.62 miles) Low RF Environment (Rural) - up to 4km (2.48 miles)
<b>Detection Type</b>	Line of Sight, Omni
<b>Detection Time</b>	<5secs (known frequency)
<b>Detects</b>	Drone Video & Control links

Product Specifications	
<b>Weight</b>	1.2kg (2.6lbs) (including battery)
<b>Colour Options</b>	Matte Black, Desert Sand
<b>User Feedback</b>	Visual, Haptic, Audio
<b>Technology</b>	Software Defined Radio

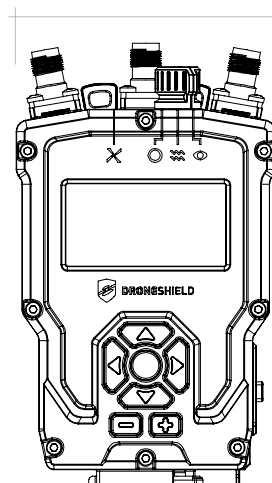
Battery & Power	
<b>Battery</b>	(AN/PRC 152) Rechargeable Lithium-Ion Battery, quick release and reload battery operation Common NATO-standard military grade
<b>Nominal Voltage</b>	10.8VDC
<b>Operating Time</b>	10+ Hours (Continuous operation) Pass through charger available for extended use
<b>Start-up Time</b>	< 3 secs
<b>Operating Temperature</b>	-30°C to +60°C (-22°F to +140°F)
<b>Battery Dimensions</b>	71mm x 41mm x 86mm (2.8" x 1.6" x 3.4")
<b>Battery Weight</b>	380g (0.83lbs)

Environment	
<b>Operating Temperature</b>	-20°C to +60°C (-4°F to +140°F)
<b>Ingress Protection</b>	Tested to IP67
<b>MIL-STD-810G</b>	High temp, Low temp, Temp shock, Vibration, Shock
<b>MIL-STD-810H</b>	Humidity

Shipping & Warranty	
<b>Packaging</b>	Ships in a Rugged Carry Case (IP67)
<b>Case Dimensions</b>	525mm x 430mm x 215mm (20.6" x 16.9" x 8.4")
<b>HS Code</b>	85269130
<b>Warranty Time Frame</b>	12 months from date of shipment

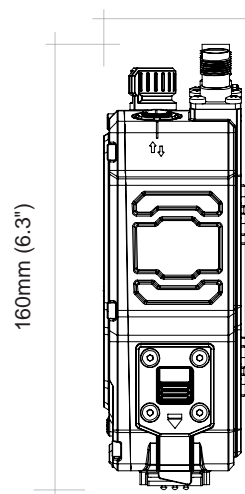
Contents	
<b>Carry Case Contents</b>	RfPatrol MKII Device 1 x BT-70716BG Battery Battery Charger (PT) 2.4/5.8GHz Omni Antenna 433MHz Omni Antenna 868-915MHz Omni Antenna Custom Carry Pouch Quick Start Guide Update Cable (7 pin to RJ45) RJ45 to USB Converter Audio Cable (3 pin to audio) Vehicle Power Cable 3 x TNC extension cables 3 x Antenna pouches

92mm (3.6")



FRONT VIEW

51mm (2")



160mm (6.3")

SIDE VIEW



# RfPatrol Magnetic Roof-Mount Antenna

Vehicle Mounted Wide-Band Antenna

Item No. 108-28



Rapidly  
Deployable



2.4Ghz, 5.8Ghz,  
433Mhz, 868MHz, 915Mhz



AI/ML Engine  
Upgrade



Weight  
1.4kg (3.1lbs)

## APPLICATION

The RfPatrol Magnetic Antenna kit provides full RfPatrol detection capability when it is mounted inside the vehicle.

The antenna attaches with strong magnets to the roof of a vehicle requiring no specialized installation. A single cable is routed inside the vehicle cab connecting to the V-Mount / Triplexer.

RfPatrol can stay active after the operator has left the vehicle utilizing the rapid detachment system for on-the-go situational awareness.

## SPECIFICATIONS

Magnetic Wide Band Antenna	
Frequencies	433MHz, 868MHz, 915MHz, 2.4GHz, 5.8GHz
Installation Requirement	Install on ferrous metal flat plane without obstructions
Weight	1450g (3.2lbs)
Dimensions	195mm x 195mm x 175mm (7.7" x 7.7" x 6.9")

Effective Frequencies	
Mounting System	VESA 75
Weight	340g (0.75lbs)
Dimensions	90mm x 90mm x 45mm





# RfPatrol DF Kit

Versatile Direction Finding

Item No. 086



Rapidly  
Deployable



2.4GHz, 5.8GHz



AI/ML Engine  
Upgrade



DAU Weight  
700g (1.54lbs)

## APPLICATION

The **RfPatrol DF** (Direction Finding) **Kit** significantly enhances the capabilities of the RfPatrol device. The products included with each DF kit provide a seamless transition between omni-directional UAS detections and direction finding via the **RfSwitch**.

For end users requiring the highest degree of accuracy and range, the **DAU** (Directional Antenna Unit) provides unrivalled range and certainty. For end users requiring the most compact and unobtrusive solution, the body-worn patch antenna keeps the hands free and weight down.

### RfSwitch

The **RfSwitch** allows the user to switch from omni-directional detection to directional detection without the need to disconnect any RF cables, effectively eliminating system downtime. The device is highly compact and is attached to the body via a MOLLE clip.

### RfPatrol DAU

The Directional Antenna Unit is a powerful direction finding tool, enabling users to determine a UAS direction with up to 45 degrees of certainty. The process of direction finding is quick with this product, taking less than 60 seconds from first detection to a confirmed direction.

### Directional Patch Antenna:

A body-worn directional patch antenna, placed in the front plate-carrier. The antenna is extremely compact at 80x80mm (3.1" x 3.1") and can connect to the RfPatrol directly or via the RfSwitch.



## SPECIFICATIONS

RfSwitch	
Item No.	108-29
Toggle Positions	2
Connector Type	TNC(f)
Mounting	MOLLE Clip (1.5")
Dimensions	110mm x 80mm x 40mm (4.3" x 3.14" x 1.57")
Weight	260g (0.57lbs)



DAU Antenna	
Item No.	108-31
Frequencies	2.4GHz, 5.8GHz
Connector Type	TNC(f)
Angular Accuracy	45°
Dimensions	400mm x 121mm x 121mm (15.7" x 4.8" x 4.8")
Weight	700g (1.54lbs)

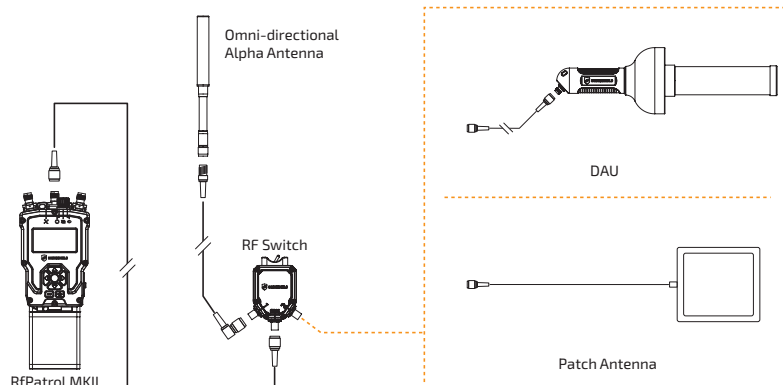


Body-Worn Patch Antenna	
Item No.	108-30
Frequencies	2.4GHz, 5.8GHz
Connector Type	TNC(f)
Angular Accuracy	45°
Dimensions	80mm x 80mm x 15mm (3.1" x 3.1" x 0.6")
Weight	30g (1oz)



Contents	
Carry Case Contents	RfSwitch DAU Antenna Body-Worn Patch Antenna 1m RF Cable 0.4m RF Cable Quick Start Guide Rugged Carry Case

## SYSTEM DIAGRAM







- DISMOUNTED
- MOBILE
- FIXED
- DETECT
- DEFEAT
- SUPPORT

# (IRK) Immediate Response Kit

Rapidly Deployable Detection and Defeat

Item No. 115

Up to 4km Detection Range	2.4Ghz, 5.8Ghz, 433Mhz, 868MHz 915Mhz	AI Detection Engine Software Updates	Weight 1.2kg (2.6lb)
<b>RfPatrol MKII</b>			
Up to 1km Defeat Range	2.4Ghz, 5.8Ghz, 433Mhz, 915Mhz	GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS	Weight 2.1kg (4.7lb)
<b>DroneGun MKIII</b>			

[View Product Video](#)

## APPLICATION

The **RfPatrol MKII** is a wearable detector that provides real time situational awareness without complex operation. The **RfPatrol MKII** integrates Software Defined Radio capabilities and utilises AI for advanced detection and classification. The device displays both detected custom protocol and Wi-Fi RF links to operators.

Designed to be highly effective in a range of demanding environments, the **RfPatrol MKII** can be body-worn, deployed on ground or used in vehicles. It can also be operated in 'Stealth' or 'Glimpse' mode, allowing users to control how they receive visual and audio alerts.

**RfPatrol MKII** is supported by a Device Manager (UI) that allows operators to add and enable detection filters, download detection logs and keep their device's database up to date with the changing threat environment via DroneShield's proprietary AI driven Detection Engine.

The **DroneGun MKIII** is a compact, lightweight drone countermeasure designed for one hand operation. It is highly effective against a wide range of commercially available drone models. The **DroneGun MKIII** is capable of intercepting and disrupting the control and navigation of multiple drones simultaneously. **DroneGun MKIII** covers all five major GNSS frequencies.

RF disruption activation can also be used to interfere with live video streaming (FPV) between the remote controller and the drone, halting the collection of video footage and intelligence by the drone operator.



## SPECIFICATIONS

DroneGun MKIII Performance	
<b>Effective Range</b>	Up to 1km (0.62miles) - Beyond Visible Line of Sight
<b>Effective Frequencies</b>	2.4GHz ISM, 5.8GHz ISM 433MHz (operator toggle), 915MHz (operator toggle) GNSS L1, GNSS L2 (operator toggle; GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS)

DroneGun MKIII Product Specifications	
<b>Unit Weight</b>	2.14kg (4.72lbs) including battery
<b>Colour Options</b>	Black, Desert Tan

DroneGun MKIII Battery Specifications	
<b>Voltage</b>	10.8VDC
<b>Battery</b>	(AN/PRC 152) Rechargeable Lithium-Ion Battery
<b>Battery life:</b>	Up to 2 hours
<b>Start-up Time:</b>	< 3 secs

DroneGun MKIII Environment	
<b>Operating Temperature</b>	-20°C to +55°C (-4°F to +131°F)
<b>Ingress Protection</b>	Designed to IP55

RfPatrol MKII Performance	
<b>Detection Range</b>	High RF Environment (Urban) - up to 1km (0.62 miles) Low RF Environment (Rural) - up to 4km (2.48 miles)
<b>Detection Type</b>	Line of Sight, Omni
<b>Detection Time</b>	<5secs (known frequency)
<b>Detects</b>	Drone Video & Control links

RfPatrol MKII Product Specifications	
<b>Weight</b>	1.2kg (2.6lbs) (including battery)
<b>Colour Options</b>	Matte Black, Desert Sand

RfPatrol MKII Battery & Power	
<b>Voltage</b>	10.8VDC
<b>Battery</b>	(AN/PRC 152) Rechargeable Lithium-Ion Battery
<b>Battery life:</b>	10+ Hrs (continuous operation)
<b>Start-up Time:</b>	< 3 secs

RfPatrol MKII Environment	
<b>Operating Temperature</b>	-20°C to +60°C (-4°F to +140°F)
<b>Ingress Protection</b>	Tested to IP67
<b>MIL-STD-810G</b>	High temp, Low temp, Temp shock, Vibration, Shock
<b>MIL-STD-810H</b>	Humidity

IRK Case Contents	
<b>Carry Case Contents</b>	<p><b>RfPatrol MKII Device</b>            1 x BT-70716BG Battery            Battery Charger (PT)            2.4/5.8GHz Omni Antenna            433MHz Omni Antenna            868-915MHz Omni Antenna            Custom Carry Pouch            Update Cable (7 pin to RJ45)            RJ45 to USB Converter            Audio Cable (3 pin to audio)            Vehicle Power Cable            MOLLE clips            3 x TNC extension cables            3 x Antenna pouches</p> <p><b>DroneGun MKIII Device</b>            1 x BT-70716BG Battery (NATO Approved) (attached to device)            Cap Battery Charger &amp; Lead            Universal Power Adapter            Single Point Sling            Inventory Sheet            Quick Start Guide (both products)</p>

IRK Shipping & Warranty	
<b>Packaging</b>	Ships in a Rugged Carry Case (IP67)
<b>Dimensions</b>	828x467x280mm (33"x18.4"x11")
<b>Total Weight Shipped</b>	25kg (37lbs)(Standard kit) including case
<b>HS Code</b>	DroneGun MKIII 8543.70.9090 RfPatrol MKII 85269130
<b>Warranty Time Frame</b>	12 months from date of shipment





DISMOUNTED MOBILE FIXED DETECT DEFEAT SUPPORT 

# DroneSentry-X

Mobile 360° Detect, Classify, Locate and Defeat

Item No. 207

Subscription No. 207-1



Up to 3km  
Detection Range



2.4Ghz, 5.8Ghz



AI Detection Engine  
Software Updates



Weight  
26kg (62lb)



500m  
Defeat Range



Non-lethal  
Jamming



GPS, GLONASS, Galileo,  
BeiDou, NAVIC, QZSS



Automatic  
Target Defeat

## APPLICATION

DroneSentry-X is a cross-vehicle compatible, automated 360° detect and defeat solution for on-the-move missions and base protection. It provides complete situational awareness and response to UAS threats (e.g. drones) moving at any speed. The DroneSentry-X is suitable for mobile operations, site patrol and fixed base protection. It is a cost effective solution with dual capability built into one unit.

Designed to be rugged and protected in harsh environments the compact sensor unit that can be mounted to standard vehicle roof racks. Alternatively it can be deployed at a fixed site or as a temporary pop-up solution to masts or towers, with on site or remote operator access.

The DroneSentry-X is supported by a Device Manager (UI) that allows operators to view real-time data and on-map feedback of local activity detected by the system and setup automatic or manually engage disruption capabilities within target defeat range.

The Device Manager also provides access to view active detection logs, add and enable detection filters, download logs for evidence collection and keep their devices database up to date with the changing threat environment via DroneShield's proprietary AI driven Detection Engine.

DroneShield supplies a digital control tablet and display that can be handheld or mounted in vehicle for quick operational access.

[View Product Video](#)





# SPECIFICATIONS

Performance	
<b>Detection Range</b>	3km
<b>Disruption Range</b>	500m

Effective Frequencies	
<b>Bands</b>	2.4GHz ISM 5.8GHz ISM GNSS L1 & GNSS L2 (GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS) (operator toggle)  Detects and disrupts UAS (e.g. drones) operating on consumer and commercial ISM frequencies

Alert Options	
<b>Outputs</b>	Audio and Visual alerts via Operator Control Module

Power	
<b>Input</b>	24VDC (optional 12VDC to 24VDC converter available) Utilizes auxiliary vehicle power supply

Device Communication	
<b>Connections</b>	Connects to supplied tablet or standard computer

Environment & Installation	
<b>Operating Temperature</b>	-20°C to +55°C ( -4°F to +131°F) External roof mounted pod tested to IP67
<b>Weight</b>	25.7kg (including sensor pod & brackets)
<b>Mounting Options</b>	Clamps to standard roof racks Tamper proof mounting options available Mast mounting available via Top Mounting System (TMS)
<b>Certifications</b>	MIL-STD-464: HERO, HERP, HERF IEC/AS 60529 Tested to IP67

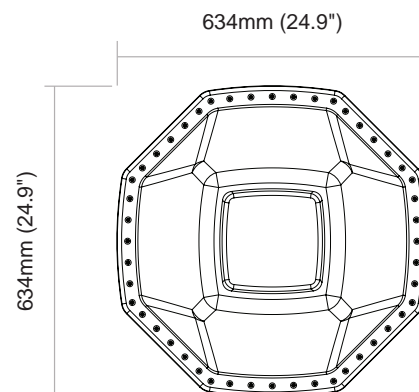
Colours	
<b>Options</b>	Desert Tan, White

Shipping & Warranty	
<b>Warrant</b>	12 months from date of shipment
<b>Packaging</b>	Ships in a rugged carry case
<b>HS Code</b>	8543.70.9090

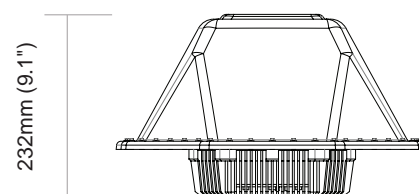
Contents	
<b>Carry Case Contents</b>	DroneSentry-X Device Rugged Control Tablet 15m Data Cable 15m Power Cable Power Supply 24V Mains Vehicle Power Supply Mounting Roof-Rack Bracket Plate Mounting Tablet Plate Square U-bolt Kit Long U-bolt Kit Quick Start Guide

## Disclaimer:

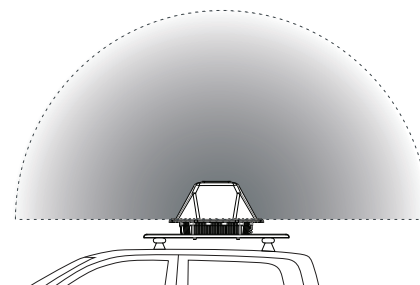
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TOP VIEW



SIDE VIEW



Hemispheric Coverage:  
Wide 360 degree direction with cardinal bearing



# DroneSentry-X (Detect Only)

Mobile 360° Detect, Classify and Locate

Item No. 208

Subscription No. 207-1



Up to 3km  
Detection Range



2.4Ghz, 5.8Ghz



AI Detection Engine  
Software Updates



Weight  
26kg (62lb)

## APPLICATION

DroneSentry-X (**Detect Only**) is a detection only version of the DroneSentry-X product. The Passive product features the same matched performance characteristics for UAS detection across ISM frequency bands, with defeat functionality omitted. The DroneSentry-X (**Detect Only**) suits end users who require an on-the-move directional solution, but are not permitted to operate a defeat device. The DroneSentry-X (**Detect Only**) will automatically detect, classify and locate UAS.

Equipping this device provides complete situational awareness to UAS threats in all directions (e.g. drones) moving at any speed. This includes directly above the sensor, with full hemispheric sensor coverage.

The device can be mounted to standard vehicle roof racks, or alternatively deployed at a fixed site or as a temporary pop-up solution to masts or towers, with on site or remote operator access.

The DroneSentry-X (**Detect Only**) is supported by a Device Manager (UI) that allows operators to view real-time data and on-map feedback of local activity detected by the system. The Device Manager also provides access to view active detection logs, add and enable detection filters, download logs for evidence collection and keep their devices database up to date with the changing threat environment via DroneShield's proprietary AI driven Detection Engine.

DroneShield supplies a digital control tablet and display that can be handheld or mounted in vehicle for quick operational access.

 View Product Video



## SPECIFICATIONS

Performance	
<b>Detection Range</b>	3km

Alert Options	
<b>Outputs</b>	Audio and Visual alerts via Operator Control Module

Power	
<b>Input</b>	24VDC (optional 12VDC to 24VDC converter available) Utilizes auxiliary vehicle power supply

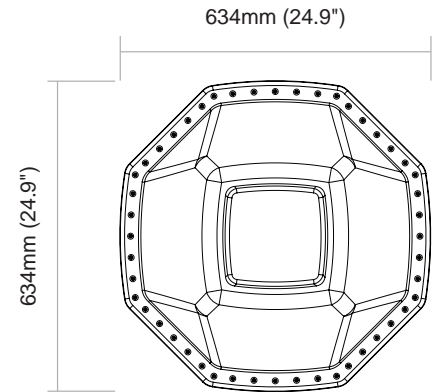
Device Communication	
<b>Connections</b>	Connects to device via supplied RJ45 cable Connects to supplied tablet or standard computer

Environment & Installation	
<b>Operating Temperature</b>	-20°C to +55°C ( -4°F to +131°F) External roof mounted pod tested to IP67
<b>Weight</b>	25.7kg (including sensor pod & brackets)
<b>Mounting Options</b>	Clamps to standard roof racks Tamper proof mounting options available Mast mounting available via Top Mounting System (TMS)
<b>Certifications</b>	MIL-STD-464: HERO, HERP, HERF IEC/AS 60529 Tested to IP67

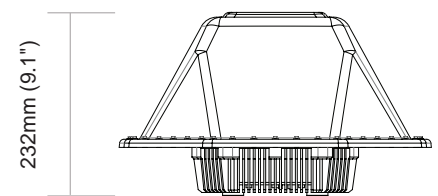
Colours	
<b>Options</b>	Desert Tan, White

Warranty & Shipping	
<b>Warranty</b>	12 months from date of shipment
<b>Packaging</b>	Ships in a rugged carry case
<b>HS Code</b>	8543.70.9090

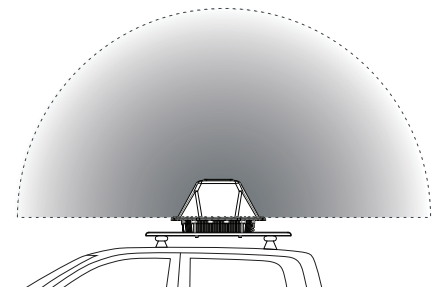
Contents	
<b>Carry Case Contents</b>	DroneSentry-X Device Rugged Control Tablet 15m Data Cable 15m Power Cable Power Supply 24V Mains Vehicle Power Supply Mounting Roof-Rack Bracket Plate Mounting Tablet Plate Square U-bolt Kit Long U-bolt Kit Quick Start Guide



TOP VIEW



SIDE VIEW



Hemispheric Coverage:  
Wide 360 degree direction with cardinal bearing





# DroneOpt1

Versatile and Compact Site Surveillance

Item No. 107

## APPLICATION

Drone**Opt1** is a compact, high definition PTZ camera designed to provide operators with Electro-Optical confirmation of targets up to 1km away (small UAS sized). The built-in PTZ mount allows continuous 360° coverage.

**Compact Design:** The Drone**Opt1** benefits situations where weight and size limitations apply. With a weight of only 10.7kg (23.6lbs) and total height under 530mm (20.8") the camera is extremely versatile in its deployment.

**Cost Effective:** Drone**Opt1** provides unrivaled performance at its price point, suiting end users with small to medium sized sites.

**Integrated:** The effectiveness of optical detection is greatly enhanced when combined with other sensor technologies, such as DroneShield radar and RF direction finding devices. Targets can be immediately tracked using slew to cue from radars and/or directional data from RF sensors.



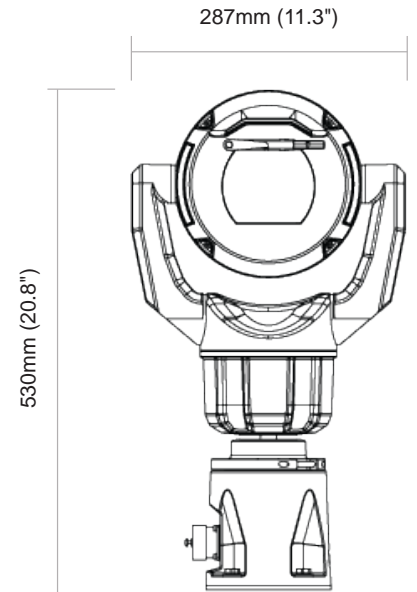
## SPECIFICATIONS

UAS Detection Range (EO)	
<b>Nano UAS</b>	Up to 500m
<b>Small UAS</b>	Up to 1km

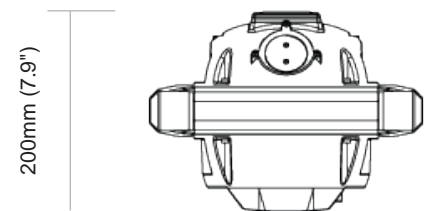
Video Specifications	
<b>Optical Zoom</b>	30x
<b>Digital Zoom</b>	12x
<b>Resolution</b>	1080p HD

Mechanical Specifications	
<b>Weight</b>	10.7kg (23.6lb)
<b>Dimensions</b>	530mm x 200mm x 287mm (20.8" x 7.9" x 11.3")
<b>Positional Accuracy</b>	+/-0.07°
<b>Temperature Range</b>	-40°C to +65°C (-40°F to +149°F)
<b>Power</b>	PoE (Power Over Ethernet)
<b>Power Consumption</b>	40W

Contents	
<b>Included with Product</b>	DroneOpt1 camera Rugged carry case Mounting hardware and fasteners: <ul style="list-style-type: none"> <li>Suits pole diameters 50-89mm (2-3.5")</li> <li>Suits top and offset mounting</li> </ul> PoE cable (15m) PoE injector and IEC adapter Quick start guide



FRONT VIEW



TOP VIEW



# DroneOpt2

MIL-SPEC Thermal & Optical Sensor

Item No. 107-2

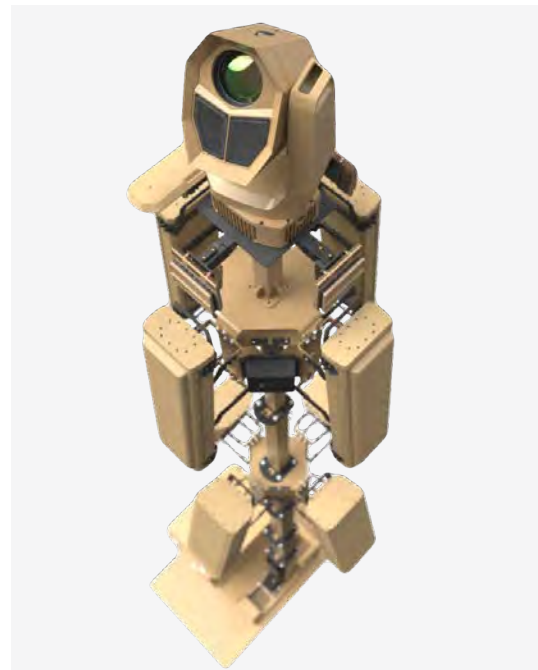
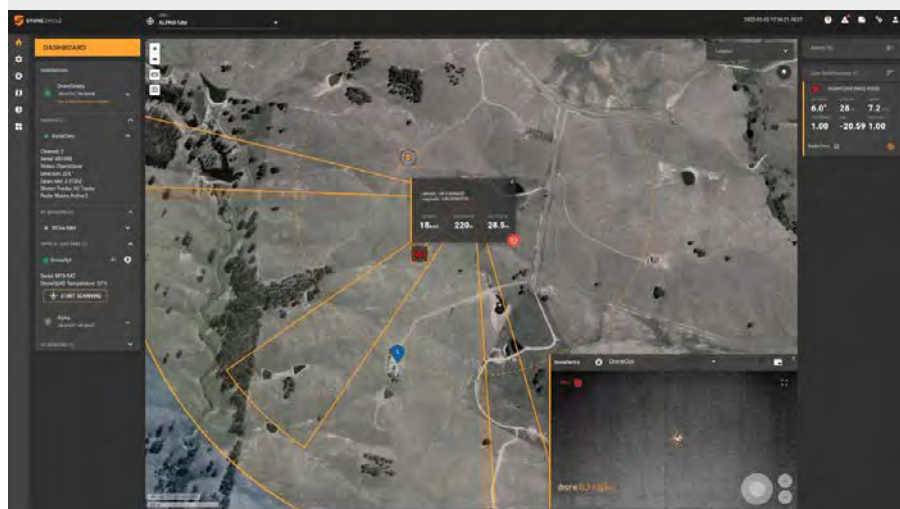
## APPLICATION

Drone**Opt2** is a performance oriented, high definition PTZ camera with built-in Infrared optics. The camera features an optical detection range of up to 1km and infrared detection range of up to 600m (based on small sized UAS).

**Superior Thermal Performance:** Drone**Opt2** excels in challenging environmental conditions, providing operators with clear and consistent images of aerial targets.

**Versatile optics:** Drone**Opt2** allows users to seamlessly switch between electro-optical and thermal streams within a single product.

**Integrated:** The effectiveness of optical detection is greatly enhanced when combined with other sensor technologies, such as DroneShield radar and RF direction finding devices. Targets can be immediately tracked using slew to cue from radars and/or directional data from RF sensors.





## SPECIFICATIONS

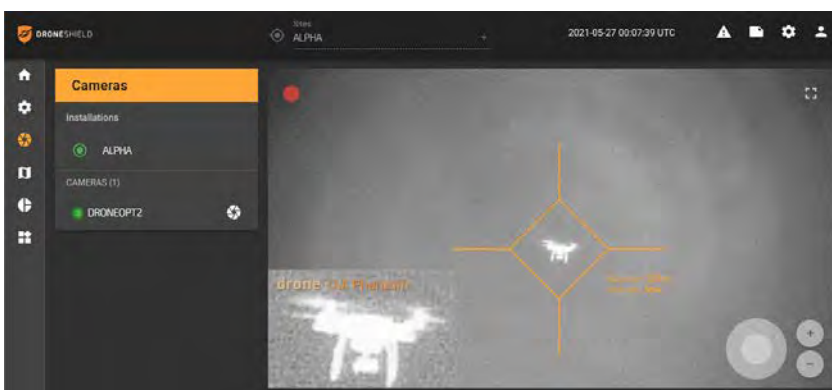
UAS Detection Range (EO)	
<b>Nano UAS</b>	Up to 500m
<b>Small UAS</b>	Up to 1km

UAS Detection Range (IR)	
<b>Nano UAS</b>	Up to 300m
<b>Small UAS</b>	Up to 600m

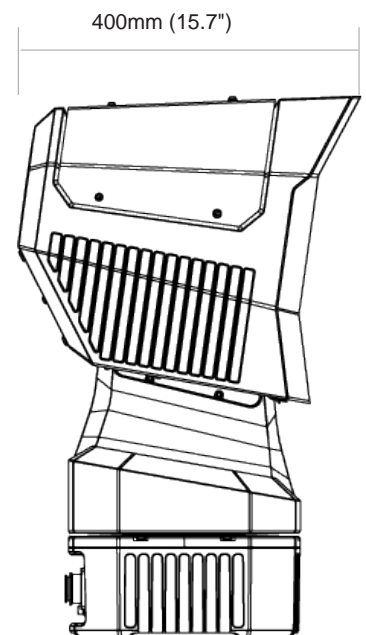
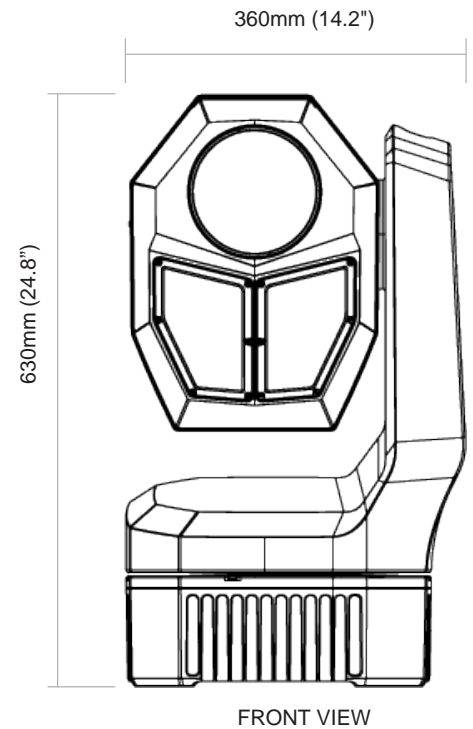
Video Specifications	
<b>Optical Zoom (EO)</b>	30x
<b>Digital Zoom (IR)</b>	16x
<b>Resolution</b>	1080p HD (EO), 1024 x 576 (IR)

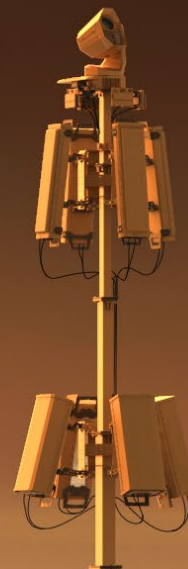
Mechanical Specifications	
<b>Weight</b>	25kg (55lb)
<b>Dimensions</b>	630mm x 400mm x 360mm (24.8" x 15.7" x 14.2")
<b>Positional Accuracy</b>	+/-0.03°
<b>Temperature Range</b>	-32°C to +60°C (-25°F to +140°F)
<b>Power Consumption</b>	500W

Contents	
<b>Included with Product</b>	DroneOpt2 camera Rugged carry case Mounting hardware and fasteners Power supply Power and data cables Quick start guide



The highlight of DroneOpt2 is its infrared data stream, capable of providing images of targets up to 600m away.





# DroneSentry

Autonomous Integrated Detection and Countermeasure

Sentry90 Detection	No. 203	Sentry90 Subscription	No. 204-1
Sentry90 Detect & Disrupt	No. 204	Sentry360 Subscription	No. 206-1
Sentry360 Detection	No. 205		
Sentry360 Detect & Disrupt	No. 206		



**RadarZero**  
(Radar Detect)



**RfOne**  
(Rf Detect)



**DroneOpt**  
(Optical & Infrared  
Detection)



**DroneCannon**  
(Multi-band RF Jamming,  
GNSS disruption)

## APPLICATION

DroneSentry is a modular solution that integrates DroneShield's suite of sensors and countermeasures in a unified platform that is deployable for both permanent and temporary installations. DroneSentry components can be adapted to suit local regulations. End users can start with detect, track and identify capabilities, adding mitigation via plug and play should laws permit.

DroneSentry is an autonomous C-UAS system that integrates Radar, RfOne RF detectors, and DroneOpt cameras. DroneSentry correlates situational data that provide maximum situational awareness for automatic identification and response to UAS intrusions or threats. DroneOpt (camera) sensors can also utilise DroneOptID, DroneShield's AI driven computer vision technology to detect, verify and track UAS (e.g. drones) in real time.

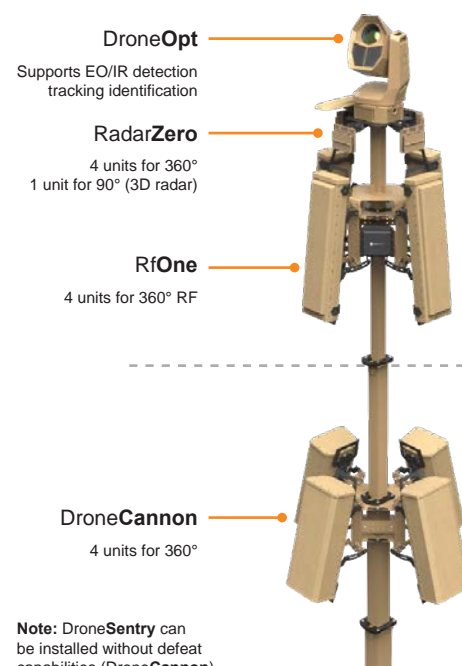
## DroneSentry-C2

DroneSentry-C2 is an enterprise grade software management tool. The platform includes a graphic user interface (GUI) that compiles live data to the user seamlessly. The DroneSentry-C2 system supports integration with existing, third party sensors.

Remote access to your DroneShield products allows you to check statuses, configure your system settings, monitor threat levels, and respond in real-time.



DroneSentry 360° Setup



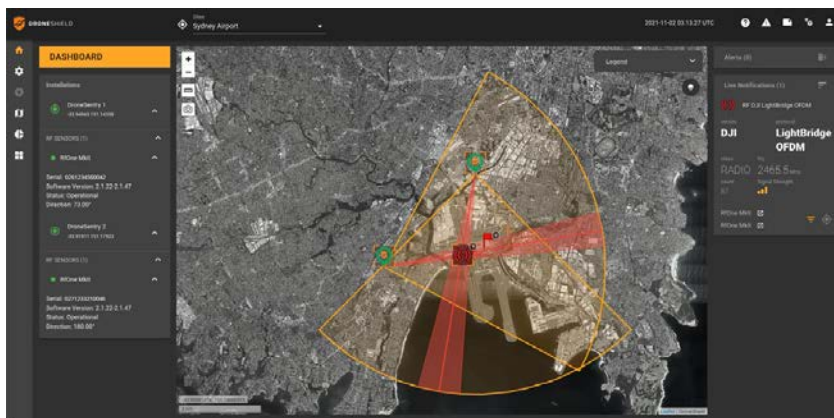
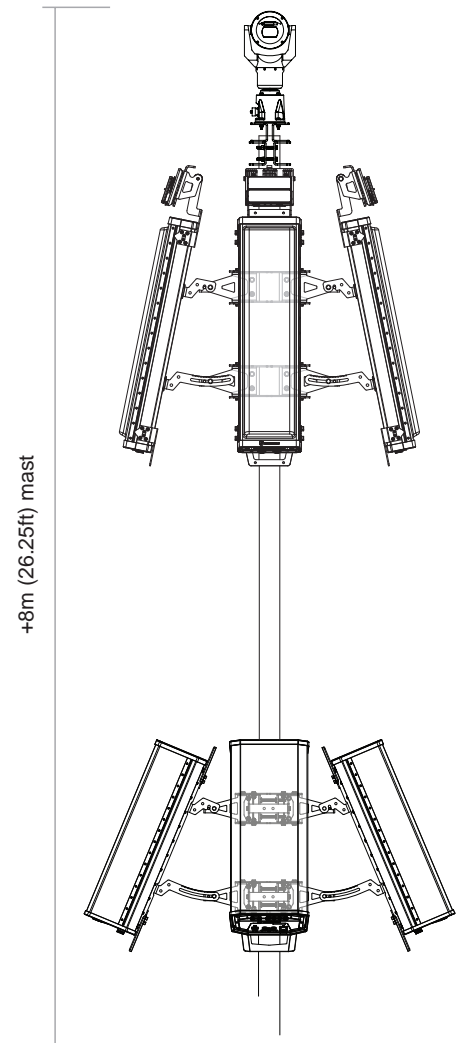
## SPECIFICATIONS

Performance	
<b>Nominal UAS Detection Range</b>	RadarZero: 1km RfOne MKII: 8km DroneOpt EO: up to 1km DroneOpt IR: up to 600m
	Dependant on camera and radar model
<b>Disruption Range</b>	DroneCannon MKII: up to 2km

Alert Options	
<b>Interface</b>	DroneSentry-C2 User Interface, audio and/or visual alerts.
<b>IP</b>	IP-based (email, SMS, XML/JSON)

Communication	
<b>Connection</b>	Wired Ethernet Connection

Installation	
<b>Installation Environment</b>	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



DroneSentry-C2 User Interface

### Disclaimer:

Laws limiting the availability of DroneCannon MKII to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws. DroneCannon MKII affects only frequencies at 2.4Ghz, 5.8Ghz, 433Mhz, 915Mhz and GPS/ GLONASS/ Galileo/ BeiDou/ NAVIC/ QZSS. Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.





# RfOne MKII

Highly Accurate Detection

Item No. 102

Subscription No. 102-1



Up to 8km  
Detection Range



2.4Ghz 5.8Ghz



AI/ML Engine  
Upgrade



Weight  
10kg (22lb)

## APPLICATION

**RfOne MKII** is the latest stationary RF detection product, delivering long range and highly accurate drone detection and tracking capabilities. The device assists authorities with prosecuting the pilot and safely recovering the drone.

### Fast Drone Identification

Can distinguish between drone manufacturer and protocol, providing a range of live data through DroneSentry-C2.

### Military Grade Hardware

Utilises military grade connectors for power and data, designed to operate in harsh environments.

### Scalable

Lightweight and modular, allowing four sensors to be combined for 360 degree coverage.

### Daisy Chain Cabling for Multiple Units

Power and data between multiple sensors are daisy chained, requiring only one set of cables to travel up the mast.

### Dual Purpose Carry Handles

Allow device to be hoisted up a mast during installation as well as being used as mounting points for RadarZero and GPS Compass. Handles can be easily replaced or removed to reduce weight & size.

### Durable Construction

Carry handles protect the device, with steel threaded mounting holes allowing greater torque to be applied to fasteners during installation.



## SPECIFICATIONS

Performance	
<b>Detection Range</b>	Up to 8km (5miles)
<b>Detection Frequency</b>	2.4GHz and 5.8GHz

Output Options	
<b>Interface</b>	Operates in real time when coupled with DroneSentry-C2 (DroneShield's Command-and-Control System) Integration into existing security systems
<b>Method</b>	Output via JSON, XML and gRPC

Power	
<b>Input Power</b>	24VDC 24W
<b>Output Power</b>	nil (passive system)

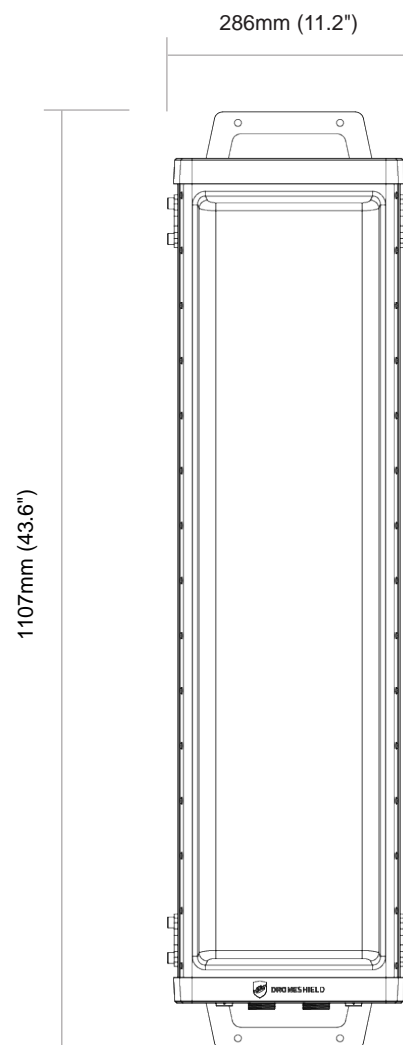
Environment & Installation	
<b>Operating Temperature</b>	-40°C to +60°C (-40°F to +140°F)
<b>Ingress Protection</b>	Tested to IP66
<b>Weight without packaging or brackets</b>	10kg (22.05lbs)
<b>Mounting Pole Diameter</b>	Mounts to pole diameter of 50-89mm (2.0-3.5") using supplied Universal Mounting System (UMS). Expandable to 50-110mm (2.0-4.33") with optional Multi Panel System (MPS).

Maintenance	
<b>Requirements</b>	No moving parts, routine inspection only.

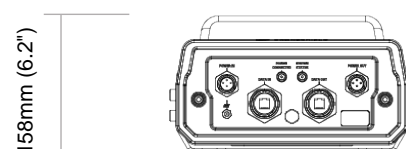
Warranty	
<b>Time Frame</b>	12 months from date of shipment

Shipping	
<b>HS Code</b>	85269130

Peripheral Equipment	
<b>SmartHub Requirement</b>	For DroneSentry installations where only RfOne devices are used, a SmartHub is not mandatory. However, a SmartHub allows RfOne device power and data connections to be fully weatherproofed to the network. Accommodating a SmartHub during early installation phases allows for additional devices (such as radars or cameras) to be installed at a later date.



FRONT VIEW



UNDERSIDE VIEW



# DroneCannon MKII

Base Protection Countermeasure

Item No. 105



Up to 2km  
Defeat Range



2.4Ghz, 5.8Ghz,  
433 Mhz, 915Mhz



GPS, GLONASS, Galileo,  
BeiDou, NAVIC, QZSS



Automatic  
Target Defeat



Non-lethal  
Disruption



Weight  
22kg (48.5lbs)

## APPLICATION

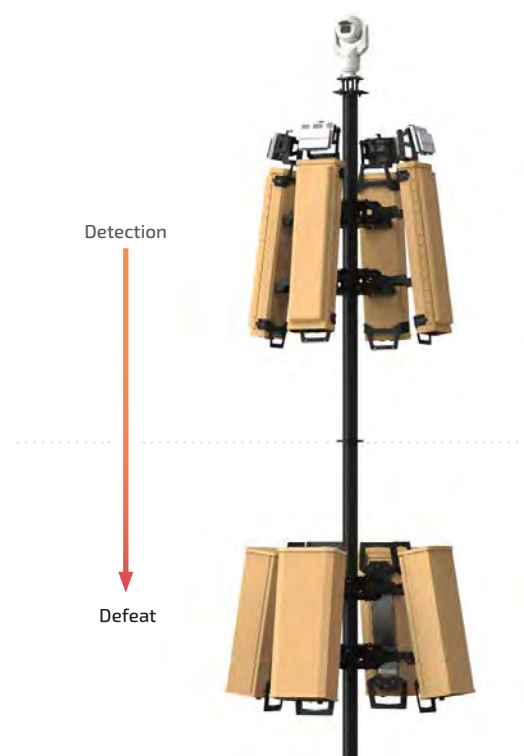
Drone**Cannon MKII** is the next generation fixed site countermeasure with improved disruption capabilities, size and durability. A single Drone**Cannon MKII** is capable of defeating threats at a distance of up to 2km (1.24miles) and is effective against multiple UAS targets or swarm attacks.

The Drone**Cannon MKII** forms a part of the Drone**Sentry** fixed site C-UAS system providing defeat with 90 degree coverage for a single unit to up to 360 degree coverage with four units mounted on the mast.

This fixed site C-UAS solution is ideal for complete site protection and fast response. It offers non-lethal, non-kinetic RF disruption, forcing UAS (e.g. drones) to land on the spot or return-to-home.

The device is controlled through Drone**Sentry-C2** 'Command-and-Control' Graphical User Interface. Operators can view live coverage, alerts and setup automatic or manual engagement for defeat of threats detected by the system; as well as setup of predefined UAS exclusion zones for early warning alerts and autonomous defeat.

Also available as a stand alone countermeasure, Drone**Cannon MKII** can operate without a detection system and easily integrates into existing security systems.





# SPECIFICATIONS

Performance	
<b>Effective Frequencies</b>	2.4GHz ISM, 5.8GHz ISM 433MHz (operator toggle), 915MHz (operator toggle) GNSS (operator toggle; GPS, GLONASS, Galileo, BeiDou, NAVIC, QZSS)
<b>Disruption Range</b>	Up to 2km (1.24 miles)
<b>Beamwidth</b>	90° Azimuth, 90° Elevation Autonomous disruption capabilities when paired with DroneShield detection technologies (DroneSentry)

Power	
<b>Input Power</b>	DC 30V Standby mode: <50W All frequency bands activated: 190W PSU provides power for up to 4 sensors

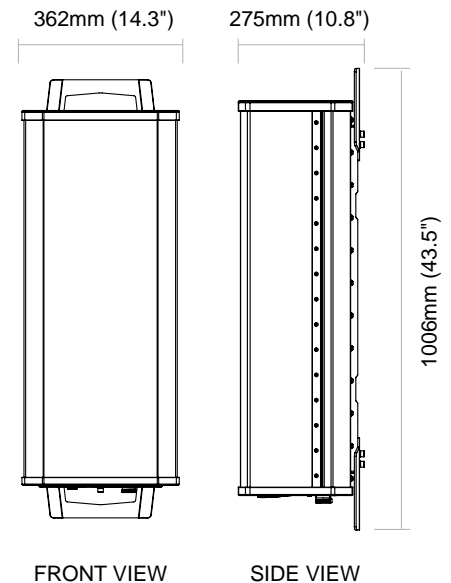
Communications	
<b>Connection Points</b>	RF disruption activation via weatherproof TCP/IP Ethernet RJ45 port for network connection DC Power via 15m power cables with MIL-Spec connectors to PSU Communication with devices and host network through IP67 RJ45 Ethernet

Environment & Installation	
<b>Installation Options</b>	Device unit tower or mast mountable Supplied with vertical pole 'up-tilt' mounting brackets
<b>Weight</b>	Sensor 22kg (48.5lbs) PSU 40kg (88lbs)
<b>Ingress Protection</b>	Tested to IP66
<b>Sensor Operating Temperature</b>	-20°C to +55°C ( -4°F to +131°F)
<b>Mounting Pole Diameter</b>	Mounts to pole diameter of 50-89mm (2.0-3.5") using supplied Universal Mounting System (UMS). Expandable to 50-110mm (2.0-4.33") with optional Multi Panel System (MPS).

Maintenance	
<b>Requirements</b>	No moving parts, routine inspection only.

Contents	
<b>Carry Case Contents</b>	DroneCannon MKII Antenna Panel DroneCannon PSU unit Mounting Hardware 15m Power Cable 15m Data Cable Quick Start Guide

Peripheral Equipment	
<b>Equipment</b>	DroneCannon MKII devices require a dedicated power supply, which is included as standard with the device. Each power supply supports up to 4x DroneCannon MKII devices simultaneously. A SmartHub MKII is required for each installation point where a DroneCannon MKII is located.



**Disclaimer:**  
Laws limiting the availability of DroneCannon MKII to certain types of users may apply in other jurisdictions, and any sales will be conducted only in compliance with the applicable laws. DroneCannon MKII affects only frequencies at 2.4Ghz, 5.8Ghz, 433Mhz, 915Mhz and GPS/ GLONASS/ Galileo/ BeiDou/ NAVIC/ QZSS. Emergency broadcasts, cellphone communication and other dedicated channels will not be affected.



# CompassOne

Ruggedised Accurate Navigation

Item No. 406-1



GPS, GLONASS, Galileo,  
BeiDou, NAVIC



0.16 Degrees  
Heading Accuracy



2.5m Position  
Accuracy



Weight  
2kg (4.4lb)

## APPLICATION

CompassOne is a self-contained navigation solution for fixed site, vehicle, and marine applications. Providing accurate location, orientation and heading data, the CompassOne provides users with consistent and clear data for static and mobile sites. Compatibility with various global navigation satellite systems ensures uninterrupted operation.

### Ruggedised Design

With a strong focus on durability and ruggedisation, CompassOne is suitable for installation and operation in harsh environments. Military standard connectors and high grade stainless steel hardware ensure uninterrupted connection and protection from the elements while the aluminum underside provides exceptional impact resistance and rigidity while keeping overall weight low.

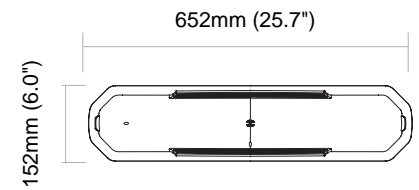
### Seamless Integration

CompassOne can operate stand alone or integrate seamlessly with DroneShield's DroneSentry system. Power over Ethernet reduces cable clutter and VESA compatibility makes CompassOne easy to integrate into new or existing systems. Installation is clear and fast with status LEDs, installation graphics and tool-less fasteners.

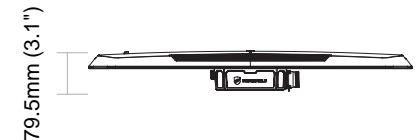


## SPECIFICATIONS

Performance	
Heading Accuracy	0.16 degrees
Positional Accuracy	2.5 meters
Pitch/Roll (RMS):	0.5 degrees
Heave (RMS)	30cm (DGNSS)
GPS Sensitivity	-142 dBm
Update Rate	10Hz
Timing (1 PPS) Accuracy	20 ns
Heading Fix	10 seconds typical (Hot Start)
Signals Received	GPS L1CA/L1P/L1C/L2P/L2C/L5 GLONASS G1/G2/G3, P1/P2 BeiDou B1i/B2i/B3i/B10C/B2A/B2B/ ACEBOC GALILEO E1BC/E5a/E5b/E6BC/ ALTBOC QZSS L1CA/L2C/L5/L1C/LEX IRNSS L5 Atlas



TOP VIEW



SIDE VIEW

Integration	
Integration	Plug and play with DroneShield Sentry-C2 system NMEA 0183 broadcast packets via UDP multi-cast

Power	
Input	PoE (Power over Ethernet) 10/100Mbit
Power Consumption	< 3 Watts

Installation	
Mounting	Tool-less and compatible with DroneShield brackets Universally accepted VESA 75x75 mounting pattern
Product Weight	2.0kg (4.4lbs)

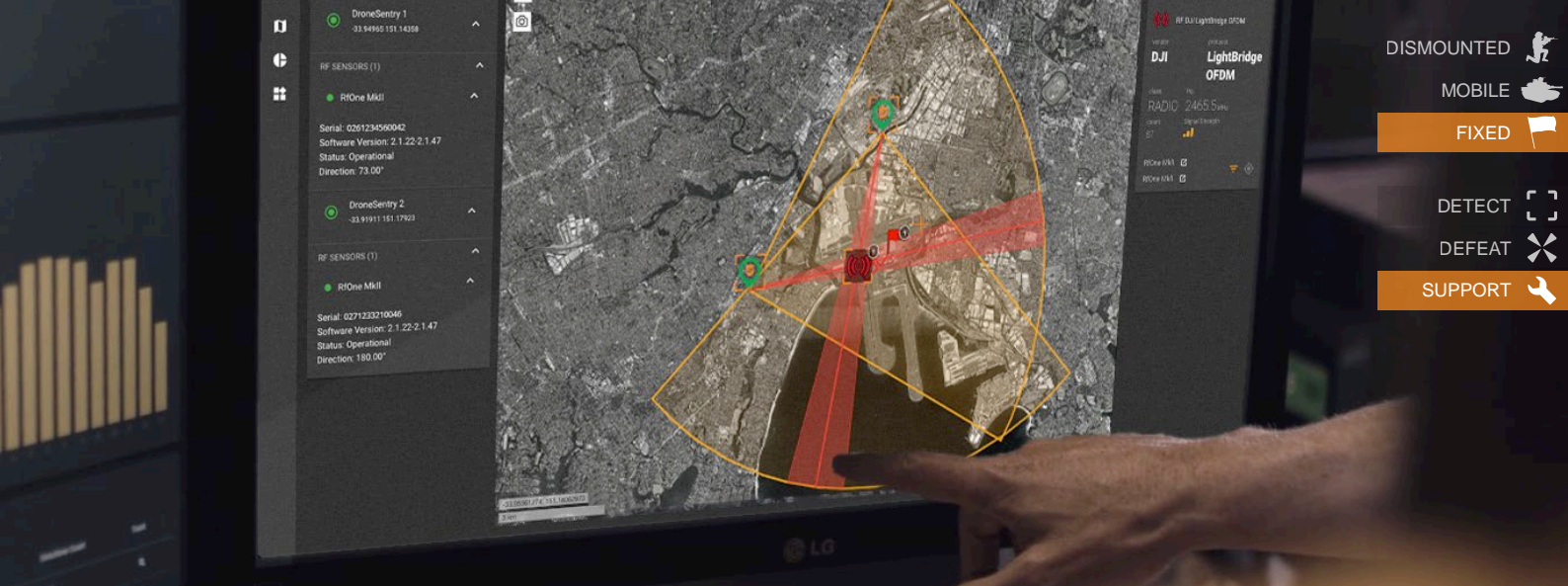
Environment	
Operating Temperature	-40°C to +85°C ( -40°F to +185°F)
Ingress Protection	Designed to IP67

Colours	
Options	Desert Tan, White on request

Shipping & Warranty	
Warranty Time Frame	12 months from date of shipment
Shipping	Optional rugged carry case available

Contents	
Carry Case Contents	CompassOne Device 15m (50ft) Data Cable Compass Mounting Fasteners Quick Start Guide





# DroneSentry-C2 (On-Prem)

On-Premises Command-and-Control

Subscription Item No. 206-2 (Enterprise version)

Subscription Item No. 206-3 (Defense version)



Utilises sensor fusion



Intuitive interface reduces training burden for operators

## APPLICATION

DroneSentry-C2 is a Command-and-Control system that performs sensor fusion on multiple sensor inputs from DroneShield and Third-Party sensors.

Each DroneSentry-C2 license includes a built-in mapping service. This enables end users to deploy an air-gapped system anywhere in the world with local, high resolution maps.

As a sensor agnostic, open architecture platform, DroneSentry-C2 brings advanced interoperability and flexibility to users. The platform is scalable, catering to smaller sites or several multi-sensor sites working together.

DroneSentry-C2 utilises RESTful API allowing easy integration into existing security systems and infrastructure.

## BENEFITS

### Increased Security

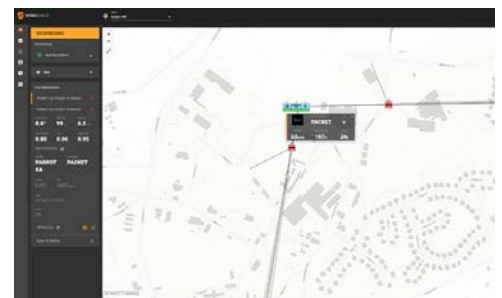
On-premises server allows for increased site security and control via an air-gapped network between sensors and processor.

### TAA Compliant Option Available

TAA compliant server available for end users with federal procurement requirements



Extensive analytics features to review and export sensor information



Available in a MIL-STD-2525 version with industry leading enterprise features

## SPECIFICATIONS

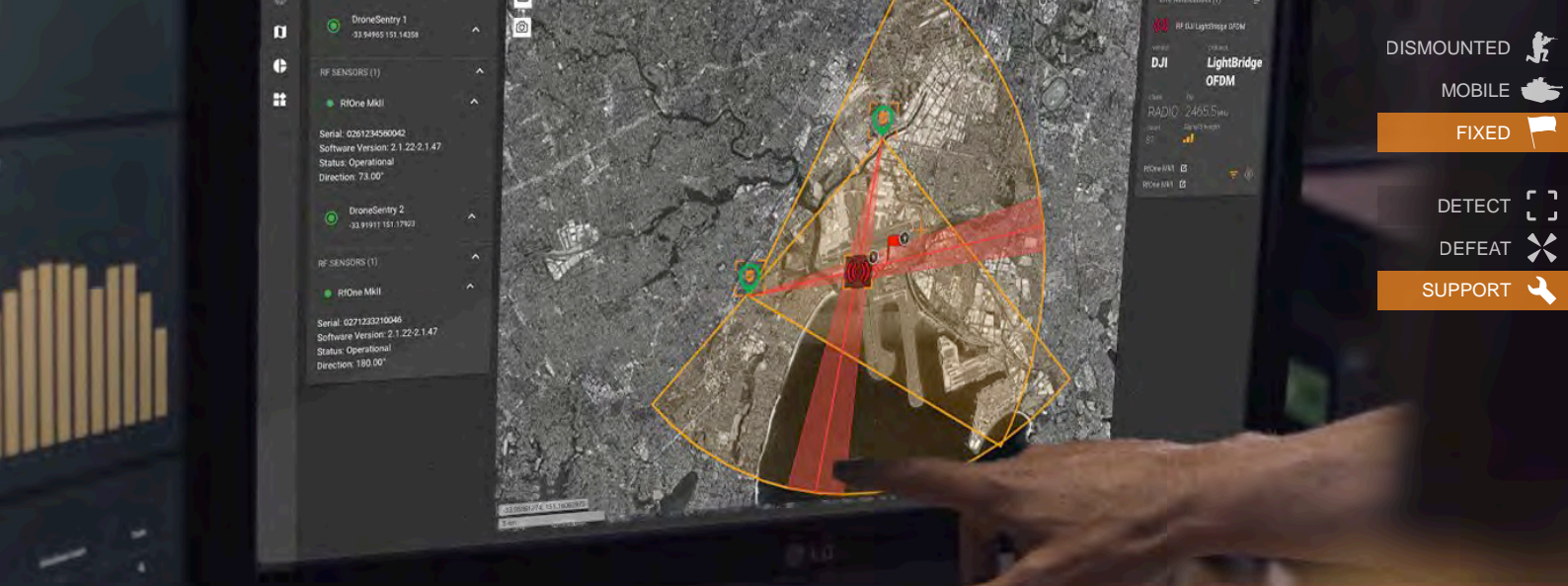
Server Specifications	
<b>Processor</b>	Intel Xeon Bronze 3204
<b>RAM</b>	32GB
<b>HDD</b>	3.84TB SSD
<b>Network</b>	4 Port 1GbE Adapter

Shipping and Installation	
<b>Mounting</b>	Compatible with standard 19" rack systems
<b>Rack Height</b>	1RU
<b>Dimensions</b>	714.6mm x 434mm x 42.8mm (28.13" x 17.08" x 1.68")
<b>Weight</b>	17.6kg (38.9lbs)

Contents	
<b>Package Includes</b>	<ul style="list-style-type: none"> <li>- DroneSentry-C2 software</li> <li>- Mapping data</li> <li>- 1RU server</li> <li>- Quarterly software updates</li> </ul>



On-Premises Server Unit (1RU)



# DroneSentry-C2 (Cloud)

Cloud Hosted Command-and-Control

Subscription Item No. 206-2 (Enterprise version)

Subscription Item No. 206-3 (Defense version)



Utilises sensor fusion



Intuitive interface reduces training burden for operators

## APPLICATION

DroneSentry-C2 is a Command-and-Control system that performs sensor fusion on multiple sensor inputs from DroneShield and Third-Party sensors.

Each DroneSentry-C2 license includes a built-in mapping service with standard, terrain and satellite formats. Cloud-based mapping services are updated regularly so that geospatial data is up-to-date. For on-premises solutions, high resolution maps are available for offline use.

As a sensor agnostic, open architecture platform, DroneSentry-C2 brings advanced interoperability and flexibility to users. The platform is scalable, catering to smaller sites or several multi-sensor sites working together.

DroneSentry-C2 utilizes RESTful API allowing easy integration into existing security systems and infrastructure.

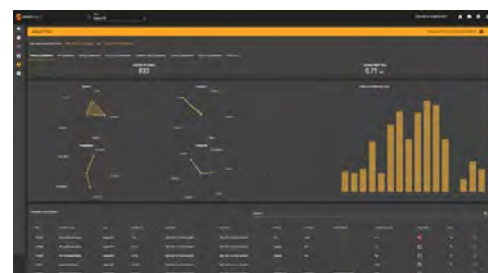
## BENEFITS

### Increased Flexibility

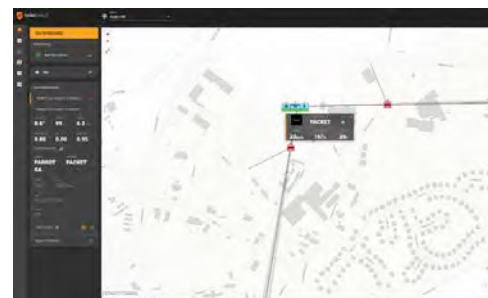
Cloud hosting caters to flexible deployment scenarios where internet accessibility is readily available. Not requiring physical hardware means setup time and complexity is reduced.

### Secure Site Management from Anywhere

Cloud-based processing allows operators to securely access their sites from anywhere, anytime.



Extensive analytics features to review and export sensor information



Available in a MIL-STD-2525 version with industry leading enterprise features

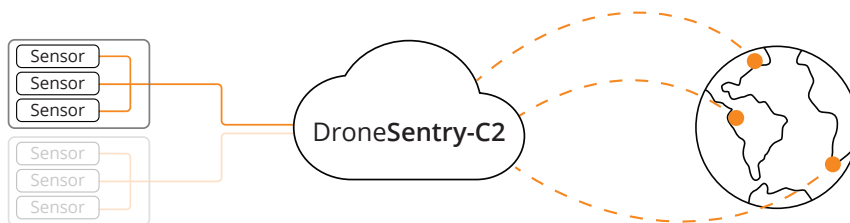


## SPECIFICATIONS

Contents	
<b>Package Includes</b>	<ul style="list-style-type: none"><li>- DroneSentry-C2 software</li><li>- Mapping data</li><li>- 1RU server</li><li>- Quarterly software updates</li></ul>

## SYSTEM DIAGRAM

Multiple sites connect seamlessly to the cloud, where the user interface is completely detached from the physical site. Users can access and monitor multiple sites from any location.



# Nearmap Mapping Upgrade

## High Fidelity Mapping Service

Subscription Item No. 206-4 (Enterprise version)

Subscription Item No. 206-5 (Defense version)

End users requiring the highest levels of precision and quality benefit from the optional Nearmap mapping upgrade. The upgrade supplements the existing mapping service provided with each DroneSentry-C2 license. Nearmap provides users with high-resolution aerial imagery in Australia, New Zealand and North America. Nearmap offers numerous capability increases that are not possible with standard satellite imagery.

### High Resolution Imagery

Map resolution is several times higher than standard satellite imagery, providing increased precision when responding to C-UAS threats.

### Regular Updates

Nearmap mapping data is regularly updated, ensuring sites reflect the latest geospatial data for operators.

### Scalable Mapping Subscription

Nearmap mapping data is scalable to suit the end-user's spatial requirements, the subscription being flexible to evolving sites and coverage.

### Available for On-Prem and Cloud

On-premises DroneSentry-C2 subscriptions are enhanced by the Nearmap mapping upgrade to provide high resolution offline imagery for intelligence, Homeland Security and defence users.

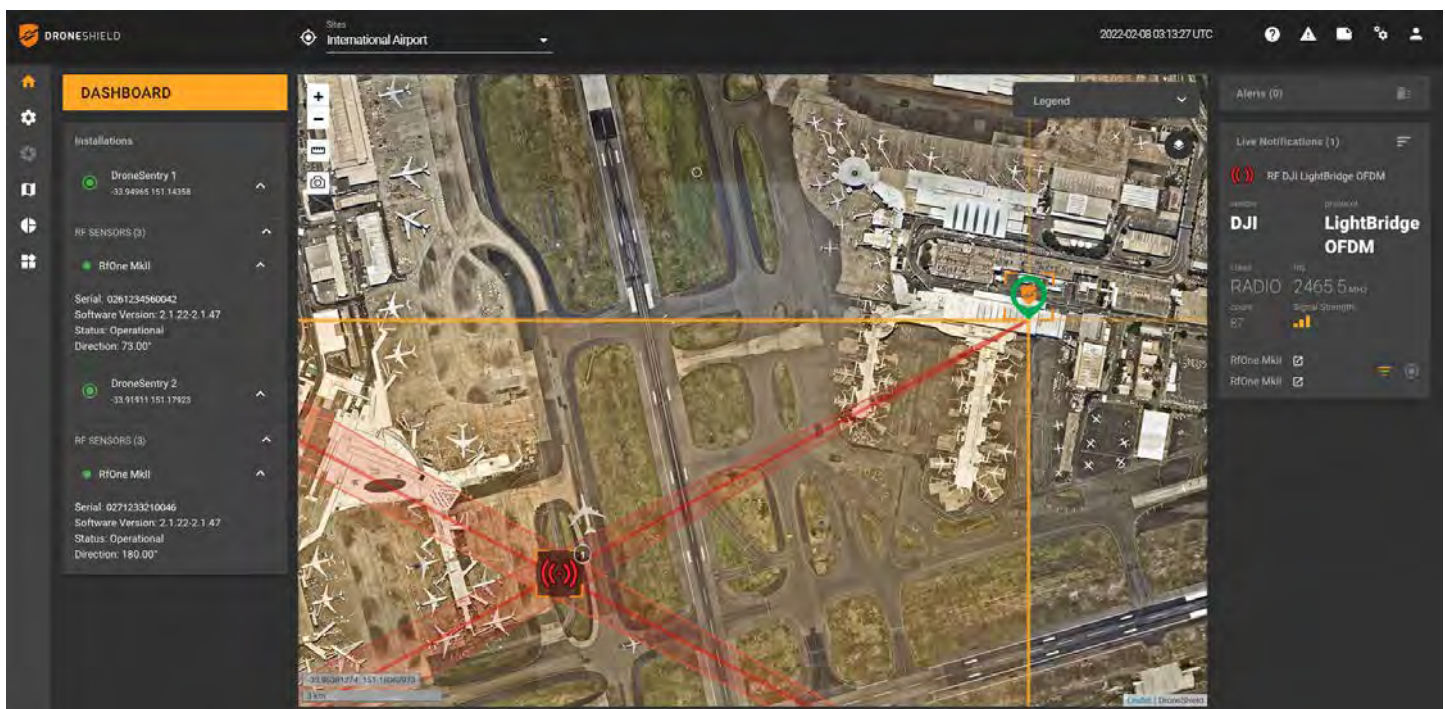
Secure cloud hosted DroneSentry-C2 subscriptions benefit from Nearmap's regularly updated database, ensuring sites operate with the latest geospatial data available.



Regularly updated mapping ensures operators always have the latest information available to them when responding to C-UAS threats.



The Nearmap upgrade provides detail and resolution several times higher than standard satellite imagery.







# DroneOptID

AI Powered Detection, Identification and Tracking

Item No. 409-1

Subscription No. 107-1



Autonomous Motion  
Tracking



Quarterly AI/ML  
Upgrades



Camera Hardware  
Agnostic



6.7kg (14.87lbs)  
Server weight

## APPLICATION

Drone**OptID** is an AI/ML powered software system hosted on a dedicated hardware platform. The server unit is a standard 19inch rack server (2 rack units) which can be installed into existing rack infrastructure or in a weatherproofed case.

Drone**OptID** offers the latest in Computer Vision technology to detect, verify and track UAS targets in real time. The AI model has been developed specifically for UAS detection and works seamlessly with DroneShield's range of best in class UAS detection and countermeasure devices. Drone**OptID** supplements the **SmartHub MKII** to provide a self enclosed hardware and software solution for UAS detection.

### Camera Hardware Agnostic:

Drone**OptID** is not limited to specific hardware and has been integrated with a range of Electro-Optical and Thermal imaging systems.

### Active Tracking:

Drone**OptID** uses motion tracking and machine learning techniques to autonomously identify and track the target.

### Ruggedised and Portable:

Pre-installed in a weatherproof and portable 19" rack server case, built to withstand extended exposure to the elements.

### Quarterly Enhancements

Computer Vision model is trained on close to 100,000 samples, with ongoing enhancements via subscription.





# SPECIFICATIONS

Electro-Optical Performance	
<b>Nano UAS Range</b> e.g. DJI Mavic	Up to 500m (DroneOpt1 & DroneOpt2)
<b>Small UAS Range</b> e.g. DJI M600	Up to 1km (DroneOpt1 & DroneOpt2)

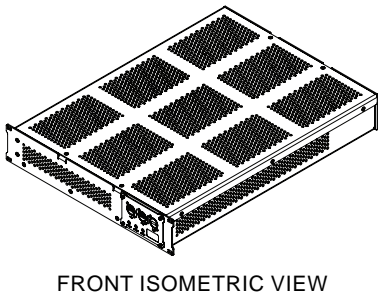
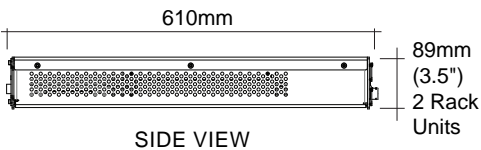
Infrared Performance	
<b>Nano UAS Range</b> e.g. DJI Mavic	Up to 300m (DroneOpt2)
<b>Small UAS Range</b> e.g. DJI M600	Up to 600m (DroneOpt2)

Hardware Requirements	
<b>Hardware</b>	Must be paired with the SmartHub MKII, supporting hardware (such as Cameras and Radars) may require additional power and data
<b>Camera Requirements</b>	Recommend ONVIF compliant and uses RTSP

Environment and Installation	
<b>Server Height</b>	2RU
<b>Dimensions</b>	610mm x 483mm x 89mm (24" x 19" x 3.5")
<b>Weight*</b>	6.7kg (14.7lbs) *Server weight only, not including SmartHub MKII
<b>Operating Temperature</b>	-10°C to +40°C (14°F to +104°F)
<b>Case Colour*</b>	Black *Based on SmartHub MKII rugged case

Maintenance & Warranty	
<b>Upgrades</b>	Quarterly AI Upgrades available via subscription
<b>Warranty</b>	12 months warranty from date of shipment

Shipping	
<b>Shipping Size</b>	Refer to SmartHub MKII shipping case
<b>HS Code:</b>	85369030





# SmartHub MKII

Intelligent Edge Processor

Item No. 406



Rapidly Deployable



43.2kg (95lbs)

## APPLICATION

SmartHub MKII is a multi-sensor fusion network device that enables multiple DroneShield sensors and countermeasures to be seamlessly networked together. The SmartHub MKII acts as a data gateway and pre-processor, optimizing large amounts of data for complex and comprehensive sites. Each SmartHub MKII provides consistent connectivity from a range of power and data sources, built to withstand harsh environmental conditions. The device allows end users to take advantage of DroneShield multi-sensor technologies, such as radars, cameras and countermeasures.

### Sensor Fusion:

The SmartHub congregates large volumes of sensor data about its local environment, consistently relaying this information to the ComputeNode. This structured and prioritised based process enables smart 'Sensor Fusion' techniques to be implemented by the ComputeNode. This reduces data storage and bandwidth requirements, improves latency and response time.

### Automatic Device Detection:

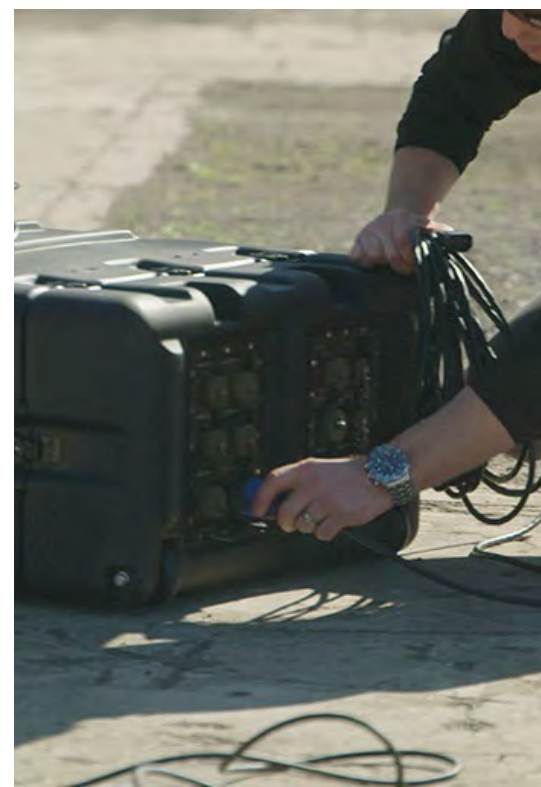
The SmartHub scans its local network for new sensors, once found these sensors are automatically installed and configured.

### Enables AI Processing:

The SmartHub acts as the data gateway and preprocessor, enabling the edge GPU-based processor and ComputeNode system to conduct AI driven decision making.

### High Quality Power and Data

The SmartHub provides consistent, high quality connection from a variety of power and data sources. Military grade connectors ensures uninterrupted operation and environmental protection in all environments.



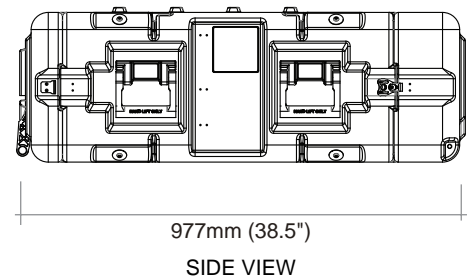
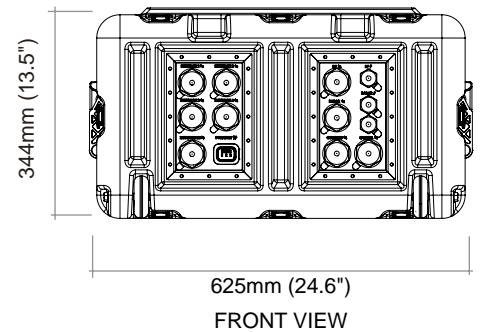
## SPECIFICATIONS

Supported Devices		
DroneOpt1	1	Full PoE solution with DroneOptID server
DroneOpt2	1	Power provided separately
RadarZero	Up to 4	
RadarOne	1	Power provided separately
RfOne MKII	Up to 4	
DroneCannon MKII	Up to 4	Power provided via DroneCannon PSU
CompassOne	1	

Power & Communications	
Input Power	110-240VAC (IEC 320-2-2E connector)
Communication	RJ45 (Ingress Protected on SmartHub)

Environment & Installation	
Ingress Rating	IP45 when in case
Weight	43.2kg (95lbs) *not including optional DroneOptID server
Operating Temperature	-20°C to +55°C (-4°F to +131°F)
Dimensions	977mm x 625mm x 344mm (38.5" x 24.6" x 13.5")
Compliance	TAA and Berry Compliant

Maintenance & Warranty	
Maintenance	Routine inspection of cooling fans
Warranty	12 months from date of shipment





# Mounting Brackets

## UMS MKII (Universal Mounting System)

Specifications	
Item No.	045
Pole Diameter	50-89mm (2-3.5")
Included with kit	UMS MKII Upper Clamp Assembly UMS MKII Lower Clamp Assembly Temporary & Permanent fasteners Quick start guide
Temporary Installations	Tool-less via supplied thumb-nuts
Permanent Installations	Permanent fasteners supplied as standard with each kit, tools and torque wrench to suit M10 nut and hex bolt
Weight	Each Clamp Assembly: 1.75kg (3.85lb) Full Mounting Kit: 3.5kg (7.7lb)
Use Case	Supports single sensor, 90 degree sector installations


[View Installation Video](#)

## MPS MKII (Multi Panel System)

Specifications	
Item No.	051
Pole Diameter	50-110mm (2-4.3")
Included with kit	MPS MKII Upper Clamp Assembly MPS MKII Lower Clamp Assembly 8x Sensor Brackets (2 shown in image) Temporary & Permanent fasteners Quick start guide
Weight	Each Clamp Assembly: 9.5kg (20.9lb) Full Mounting Kit: 19kg (41.8lb)
Use Case	When between 2 and 4 of the same sensor are installed on the same mounting pole.



## TMS (Top Mount System)

Specifications	
Item No.	054
Pole Diameter	50-89mm (2-3.5")
Included with kit	TMS Pole Clamp Temporary & Permanent fasteners Quick start guide
Weight	7.0kg (15.4lb)
Use Case	For pole mounting the DroneSentry-X device

