ANTI-DRONE SOLUTION PROVIDER

THE ULTIMATE IN DEFENSE TECHNOLOGY,
EXPERIENCE INNOVATION NOW.

DYMSTEC

CONTENTS

COMPANY SUMMARY

WE'RE COMMITTED TO GROWING TOGETHER INTO THE FUTURE.

DYMSTEC Co., Ltd., founded in December 1995, has dedicated 29 years to specializing in the SAR (Specific Absorption Rate) and OTA (Over The Air) measurement sectors for 3G/4G/LTE/5G mobile communication devices. We offer solutions capable of testing and evaluating the quality of radio waves, which are essential in modern life, including tests for electromagnetic absorption in humans and certifications, as well as assessments of wireless performance. Leveraging the electromagnetic wave technology expertise and experience accumulated over time, we have expanded our operations into defense sectors, including anti-drone, defense and EMP projects, delivering numerous anti-drone / terror systems to the Defense Acquisition Program Administration, military requirements, and key national facilities both in domestic and overseas.

Company Name	Dymstec. Co., Ltd.
Date of Establishment	1995. 12
Chairman / CEO Chief Executive Officer	Young-Bae Song / Seong-Jong Song
Number of Employees	92
Head Office Address	Kranztechno #1308, 388 Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, 13403, Korea
Factory Address	118 Yongsu-ro, Wonsam-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17176, Korea
Business Area	Anechoic EMC test chambers & RF shielding room construction / Information and communication engineering / Wireless communication equipment / Electronic communication device / SW Development
License	Management Innovation Business Certification / Technology Innovation Business Certification / Mechanical equipment and electric construction license / Information and communication construction license / ISO 9001: 2015 quality control certification / Software business license

BUSINESS AREA

DYMSTEC, A LEADER IN EM TOTAL SOLUTIONS, PLEDGES UNMATCHED VALUE ACROSS INDUSTRIES.

ANTI-DRONE / RF JAMMER

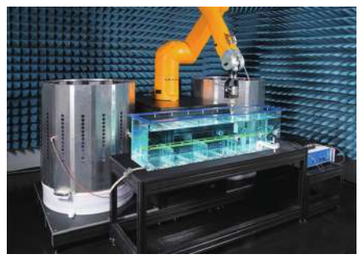
Provide an integrated anti-drone system for proactive response to drone reconnaissance, intrusion, terror threats, and a wide range of RF Jamming system : Portable, Vehicle EOD Jammer.

EMC/RF SHIELDING

Turnkey projects for RF shielding rooms and Anechoic EMC test chambers that meet international standards.

EMP PROTECTION

From high-altitude nuclear explosion and non-nuclear electromagnetic pulse attack threats, EMP Rack provides an environment that can protect and manage the major info-communications equipment.



ICT SOLUTION

Provide a wide range of solutions for evaluating SAR (Specific Absorption Rate) and OTA (Over the Air) performance forwireless communication compliance/ development test.

ANTENNA

Provide a high-quality, high-performance satellite and commercial antennas. Communication, monitoring, direction finding, mobile antennas, etc.

COMPANY HISTORY

AN UNWAVERING COMMITMENT TO CONTINUOUS IMPROVEMENT FOR SUSTAINED GROWTH.

1995 Foundation of Dymstec Co., Ltd. / Registered as a military security company

2004 Registered as a wireless communication device and broadcasting company

2009 Installed OTA chambers for Samsung Electronics, LG Electronics, SK Telecom, etc.

2010 Installed OTA chambers for Samsung Electronics in India, Brazil, China and Vietnam

2013 Established Dymstec R&D Center
Acquired a license for information and communication construction business

2014 Registered as a software development company
Acquired a license for mechanical equipment and electric construction business
Established an EMC/EMP factory

2015 Installed 3m EMC chambers and RF shielded rooms for KTR, BV Korea and KES
Developed a HVAC built-in protection rack
Installed an EMP protection facility for a Korean military project

2016 EMP protection facility construction service for government project

2017 Relocated and expanded the EMC/EMP factory Installed 10m and 3m EMC chambers and RF shielded rooms for Ntree and KES
Installed 5G OTA chambers for Samsung Electronics
Installed EMP protection racks for a Korean government project
Supplied RF jammers to the Korean Presidential Security Service
Supplied Drone Hunter to the Korean National Police Agency

2018 Installation service of EMP shielding rack for major financial institutions
Development of built-in-battery type anti-drone gun solutions
Installation service of EMP protection rack/mobile shelter solution for government project
Establishment of 5G SAR certification evaluation system for SAMSUNG/LG electronics
Received an award certificate from the Minister of Science recognized for its contribution to the National EMP protection related business

2019 Exported Drone Hunter X to Saudi Arabia
Designed EMP protection racks for a government 2nd project
Designed EMP protection of an airbase
Established 5G OTA performance evaluation system for Samsung Electronics and SKT

2020 Installed a 28 GHz band (5G mmWave) chamber to the National Radio Research Agency
Installed a RF shielded room for Radio Signal Playground of Korea Radio Promotion Association
Exported an IED jammer to the Polish Police Agency
Supplied Drone Hunter XR to the Korean Ministry of National Defense

2021 Exported Drone Hunter FD to Asian countries / Exported an IED jammer to the Polish Police Agency
Acquired the MAINBIZ certificate as a managerial innovation enterprise
Acquired the INNOBIZ certificate as a technological innovation enterprise

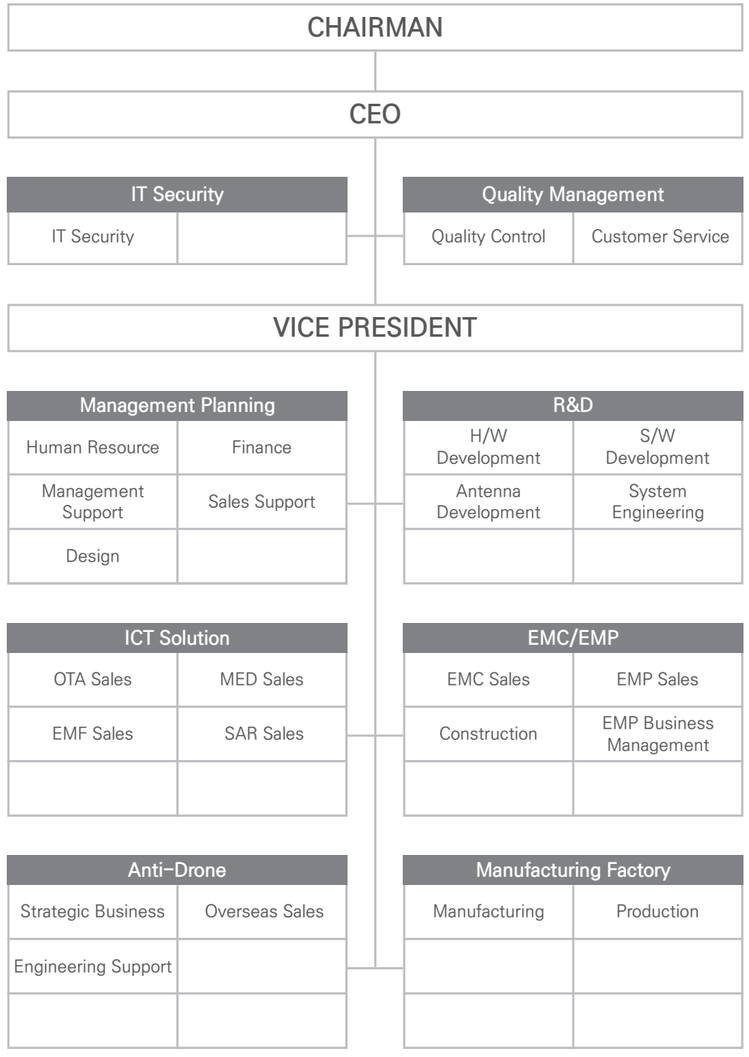
2022 Exported Vehicle jammer system to Indonesia / Exported Satellite Phone Jammer to ASEAN region
Battery-integrated anti-drone gun designated as Innovation Product and registered in the Procurement Service
Battery-integrated anti-drone gun designated for trial use of the military superior product

2023 Exported Vehicle jammer system to Malaysia / Exported Drone Hunter XRS to Indonesia
Installation of EMP shielded racks for Korea Securities Depository
Establishment of EMP protection facilities for customers

2024 Exported Drone Hunter XRS to Indonesia / Exported SDR-based Jammer to ASEAN region
Supplied an IED jammer to the military base

ORGANIZATION CHART

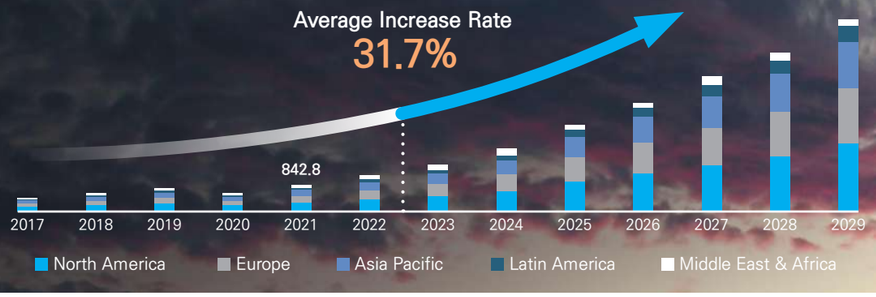
OUR CULTURE EMPHASIZES TEAMWORK AND OPEN COMMUNICATION TO DELIVER EXCEPTIONAL VALUE.



OUR MISSION

TO PROVIDE THE MOST ADVANCED AND RELIABLE COUNTER DRONE SYSTEM TO ENSURE PUBLIC SAFETY AGAINST THE DRONE THREATS.

- A great deal of drone threats are increasing worldwide such as terrorism, surveillance, reconnaissance, etc.
- Global demand for anti-drone systems for protecting critical infrastructure and civilians an average increase rate of 31.7% every year.
- Target markets : defense, security, and public sectors
- Mission : “Provision of defect-free jammers operating in any environments to our customers”



Anti-drone Market Size, By Region, 2017 ~ 2029 (USD Million)

MAIN TARGET MARKET

MAJOR DEMAND FOR ANTI-DRONE SOLUTIONS AND RF JAMMING SYSTEM

- Protect national critical infrastructure, including energy and key industrial infrastructure
- Protect vehicles and embassy facilities as a means of protecting VIPs
- Protect multi-use facilities exposed to threats such as airport and stadiums to prevent human casualties
- Protect border areas requiring security and protection, such as military bases, prisons, etc


Power Plant


Critical Infrastructure


VIP Protection


Embassy

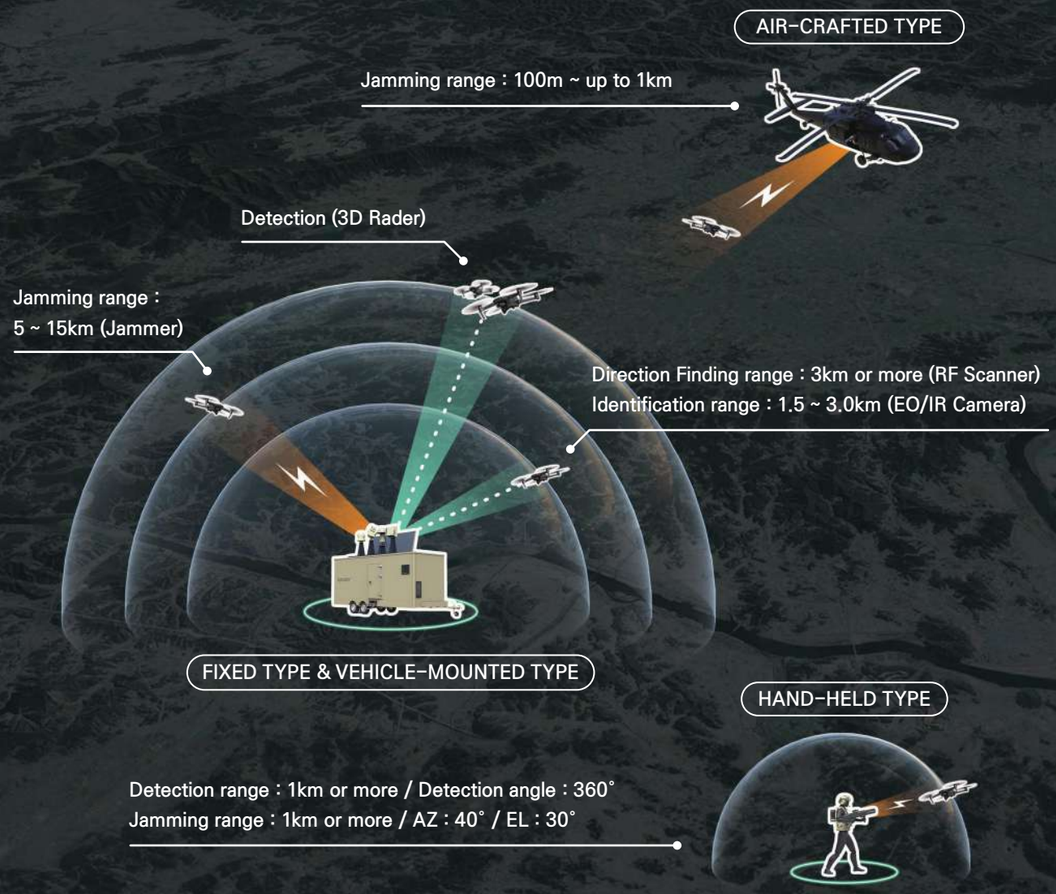

Airport


Arena

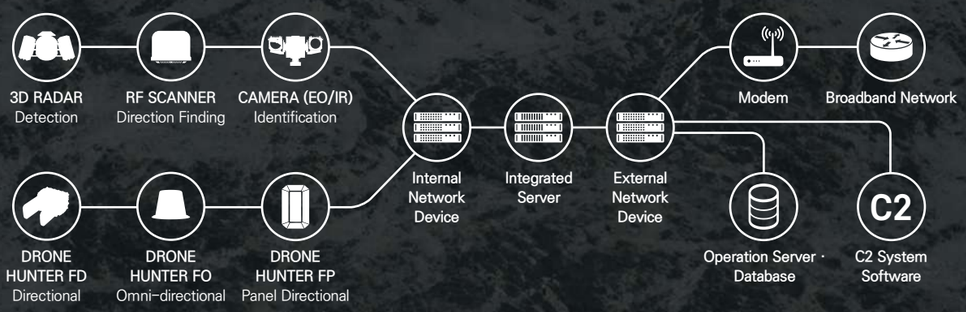

Correctional Facility


Military Base & Border

ANTI-DRONE SOLUTION



ANTI-DRONE SYSTEM CONFIGURATION



ANTI-DRONE PRODUCT LINE

FIXED TYPE

Drone Hunter FD-L

Drone Hunter FD-A

Drone Hunter LFD

Drone Hunter FP

Drone Hunter FO

HAND-HELD TYPE

Drone Hunter XR

Drone Hunter XRS

Drone Hunter XRM

Drone Hunter XD

AIRCRAFT-MOUNTED TYPE

Drone Hunter 5BQ

Drone Hunter M

VEHICLE-MOUNTED TYPE

OURANOS™ VEHICLE

OURANOS™ SHELTER

OURANOS™ C2 TRAILER

SOFTWARE

C2 SYSTEM SOFTWARE

HAND-HELD

DRONE HUNTER XR & XRS

HAND-HELD ANTI DRONE JAMMER GUN

OVERVIEW

Drone Hunter XR is a rifle-type drone jamming gun with an intuitive design for quick onsite responses to drone threats. Drone Hunter XR is capable of neutralizing commercial drone frequencies including ISM band and GNSS L1 & L2 up to 1km. With its highly efficient, rugged and compact product design for lightweight, easy-to-use operation, Drone Hunter XR is certified with IP65 and ensures the best performance from various application areas such as checkpoints, borders, military/police operations where users are supposed to move and patrol.

FEATURE

- Mitigate a wide range of drones : ISM 400 & 900MHz, ISM 2.4 & 5.8GHz, GNSS L1 & L2
- Jamming range : 1km
- Selectable frequency bands : ISM Low (400MHz & 900MHz), ISM High (2.4GHz & 5.8GHz), GNSS (L1 & L2) or All band jamming can be selectable.
- User-friendly design : Quick battery reload, power ON/OFF & operation with buttons
- LED Indicator for various alarms including Battery status, system errors, operation mode
- Meet international IEEE/IEC62705-1 & SAR (Specific Absorption Rate) standard
- IP65

SPECIFICATION (Drone Hunter XR)

Frequency Band	400MHz ISM : 433.05 ~ 434.79MHz / 900MHz ISM : 902 ~ 928MHz 2.4GHz ISM : 2,400 ~ 2,483.5MHz / 5.8GHz ISM : 5,725 ~ 5,850MHz GNSS L1 : 1,559 ~ 1,610MHz / GNSS L2 : 1,215 ~ 1,300MHz
Jamming Range	1km
Battery Specification	Rechargeable Lithium-ion Battery (7.0Ah)
Operation Time	1 hour (unlimited use with battery charger attached)
Operating Temperature	-20˚C ~ +50˚C
Ingress Protection	IP65
Weight	4.86kg
Dimension	900 x 250 x 101 mm

SPECIFICATION (Drone Hunter XRS)

Frequency Band	400MHz ISM : 433.05 ~ 434.79MHz / 900MHz ISM : 902 ~ 928MHz 2.4GHz ISM : 2,400 ~ 2,483.5MHz / 5.8GHz ISM : 5,725 ~ 5,850MHz GNSS L1 : 1,559 ~ 1,610MHz / GNSS L2 : 1,215 ~ 1,300MHz
Jamming Range	1km
Battery Specification	CE and UKCA Compliant, UN/DOT 38.3
Operation Time	1 hour (single battery pack)
Operating Temperature	-20˚C ~ +50˚C
Ingress Protection	IP65
Weight	5.9kg
Dimension	800 x 320 x 105 mm

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ANTENNA

- A directional radiation pattern, which enables the concentration of radiation power in a specific direction
- Electrical performance improvement through optimization of multi-band radiation characteristics
- Individual implementation of radiation components by frequency band(easy modification of electrical performance by frequency band, convenient response to customer requirements, excellent maintainability, and individual component interchangeability)

HAND-HELD

DRONE HUNTER XD

PORTABLE & INTEGRATED ANTI-DRONE SOLUTION

OVERVIEW

Drone Hunter XD is a handheld anti-drone solution that can quickly detect, identify, and track drones, providing swift onsite responses to drone threats within a 360-degree range of over 1km.

Drone Hunter XD effectively neutralizes the frequencies of either a single drone or multiple drones approaching the blind spots of a fixed-type jammer, due to its receiving real-time access to information on detected DJI Drones, including S/N, model number, frequency band, azimuth/altitude angle, speed, and location.

FAB

- Multi purpose RF spectrum drone decoder for quick response under multiple application
- Adopts the technology of cognitive protocol cracking and message protocol level analysis to detect, identify, locate and trace the drones
- It can be easily to be carried by one person on backpack, mounting on the vehicle or fixed on buildings as well as portable deployment on the field
- Fully passive solution without causing any interference to wireless communication systems
- Works with multiple or single RF Scanner to provide a comprehensive coverage of geolocating drones
- Customizable localize operating software with updatable GIS maps and setting of the designated areas
- Display drone trace, location, log report and so on with historic record, easy for signals replay and analysis in future
- Support integration with 3rd party countermeasures equipment and other detection requirement

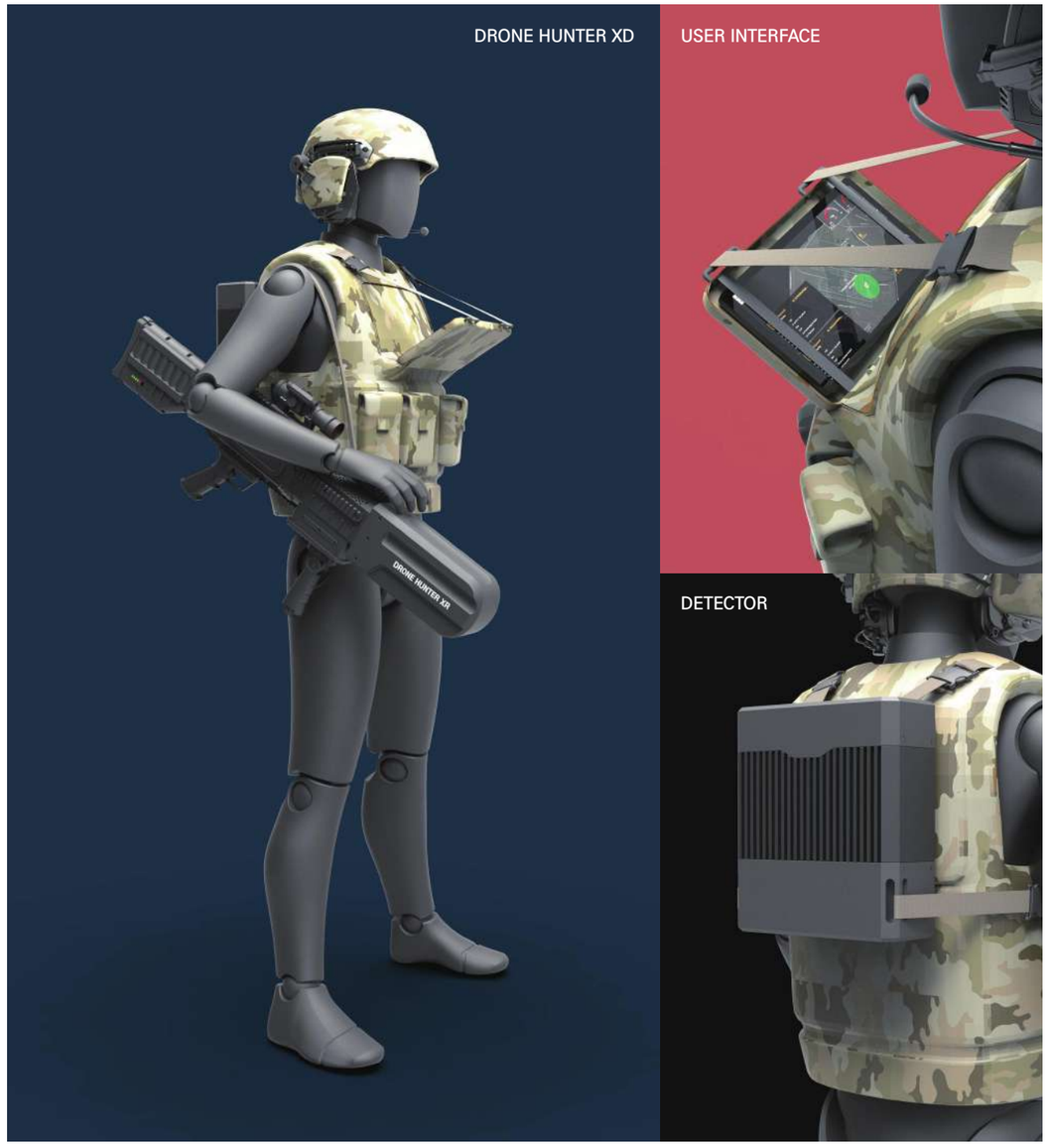
USER INTERFACE

①	Drone / Controller Detection Information
②	User Location and Facing
③	Location of Drone / Controller on map
④	Signal Strength of Detected Frequency Band
⑤	Configuration

SPECIFICATION

Frequency Range	2.4GHz, 5.8GHz (Optional : 860 ~ 930MHz, 420 ~ 470MHz)
Detection Time	〈 3s
Quantity to detect the drone simultaneously	30 Units
Detection Range	1km or better
Detection Angle	360°
Location Accuracy	Within 3m
Weight (Detector)	5.5kg
Jamming Range	1km or better

All the data and appearance of the product are subject to change upon RF environments and customer's request.



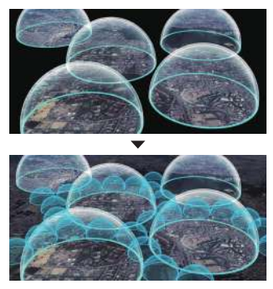
TYPE

- PM (Pole Mounted) / MP (Man Pack) / VM (Vehicle Mounted)

NATIVE PROTOCOL DECODING AND LIBRARY DETECTION

- Native Protocol Decoding Capability (Detect and identify the serial number, model number, frequency band, azimuth, speed, altitude, and location) : DJI Protocol Decoding

- Drone Detection Capability (Presence Only) : Library based, including Autel, Parrot, Skydio, PowerVision, HUBSAN, FIMI, 433MHz and 915MHz Telemetry *Drone library will be constantly updated *Depending on antenna configuration



FIXED

Hand-Held Type

Fixed Type

Aircraft-Mounted Type

Wide Band Scanner

Vehicle-Mounted Type

C2 System Software

DRONE HUNTER FD-L

C-UAS DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter FD-L is a powerful countermeasure against drone threats. Designed to cover ISM bands and GNSS L1, L2, L5 it effectively neutralizes a single drone or multiple drones approaching in a direction from a distance of 5km and operating within its antenna beam width. It is equipped with high-power amplifiers and signal generators to enable powerful multi-band continuous jamming.

This field-proven solution operates with a positioner that receives data from a seamlessly integrated detection/identification system by OURANOS™ C2 or third-party systems. In addition, it can be used as a stationary/mobile solution.

FEATURE

- Frequency Ranges : ISM 433 & 900MHz, ISM 2.4 & 5.8GHz, GNSS L1, L2, L5
- Jamming Range : FD3L : 3km, FD5L : 5km, FD8L : 8km
- Lightweight, efficient antennas
- Adjustable output power per band
- Optimum signal generators and amplifiers
- Stationary/mobile operation
- MIL-STD-810G

ADVANTAGE

- Design seamlessly integrates 6 bands into one compact unit
- Enhanced Usability : Integrated All-in-one antenna design
- Compact and lightweight design for improved output efficiency

SPECIFICATION

Frequency Band (3BAND)	2.4GHz ISM : 2,400 ~ 2,485MHz	(AZ : 40° / EL : 40°)
	5.8GHz ISM : 5,725 ~ 5,875MHz	(AZ : 20° / EL : 20°)
	GNSS L1 : 1,559 ~ 1,610MHz	(AZ : 80° / EL : 60°)
Frequency Band (6BAND)	433MHz ISM : 420 ~ 470MHz	(AZ : 120° / EL : 80°)
	915MHz ISM : 860 ~ 930MHz	(AZ : 70° / EL : 70°)
	2.4GHz ISM : 2,400 ~ 2,485MHz	(AZ : 40° / EL : 40°)
	5.8GHz ISM : 5,725 ~ 5,875MHz	(AZ : 20° / EL : 20°)
	GNSS L1 : 1,559 ~ 1,610MHz	(AZ : 80° / EL : 60°)
	GNSS L2, L5 : 1,164 ~ 1,300MHz	(AZ : 80° / EL : 60°)
Jamming Range	FD3L : 3km, FD5L : 5km, FD8L : 8km	
Jamming Signal Source	Linear FM with Noise Modulation	
Cooling Method	Forced Air Cooling	
Operating Temperature	-32°C ~ +50°C	
Storage Temperature	-33°C ~ +65°C	
Power Supply	28 VDC (A power supply unit will be supplied.)	
Ingress Protection	IP67	
Dimensions	FD3L & 5L : 614 x 480.1 x 350.5 mm	
Weight	FD3L & 5L : 27.0kg, FD8L : 32.0kg	

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ANTENNA

- A directional radiation pattern, which enables the concentration of radiation power in a specific direction
- Electrical performance improvement through optimization of multi-band radiation characteristics
- Possession of integrated component development technology and implementation of miniaturization
- Individual implementation of radiation components by frequency band (easy modification of electrical performance by frequency band, convenient response to customer requirements, excellent maintainability, and individual component interchangeability)

FIXED

DRONE HUNTER FD-A

C-UAS DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter FD-A is a powerful countermeasure against drone threats. Designed to cover ISM bands and GNSS L1, L2, L5 it effectively neutralizes a single drone or multiple drones approaching in a direction from a distance of 8km and operating within its antenna beam width. It is equipped with high-power amplifiers and signal generators to enable powerful multi-band continuous jamming.

This field-proven solution operates with a positioner that receives data from a seamlessly integrated detection/identification system by OURANOS™ C2 or third-party systems. In addition, it can be used as a stationary/mobile solution.

FEATURE

- Frequency Ranges : ISM 433 & 900MHz, ISM 2.4 & 5.8GHz, GNSS L1, L2, L5
- Jamming Range : FD3A : 3km, FD8A : 8km
- Lightweight, efficient antennas
- Adjustable output power per band
- Optimum signal generators and amplifiers
- Stationary/mobile operation
- MIL-STD-810G

ADVANTAGE

- Design seamlessly integrates 6 bands into one compact unit
- Enhanced Usability : Integrated All-in-one antenna design
- Compact and lightweight design for improved output efficiency

SPECIFICATION

Frequency Band (FD3A)	2.4GHz ISM : 2,400 ~ 2,485MHz	(AZ / EL : 30° ±10°)
	5.8GHz ISM : 5,725 ~ 5,875MHz	(AZ / EL : 30° ±10°)
	GNSS L1 : 1,559 ~ 1,610MHz	(AZ / EL : 30° ±10°)
	GNSS L2, L5 : 1,164 ~ 1,300MHz	(AZ / EL : 30° ±10°)
Frequency Band (FD8A)	2.4GHz ISM : 2,400 ~ 2,485MHz	(AZ / EL : 40° ±10°)
	5.8GHz ISM : 5,725 ~ 5,875MHz	(AZ / EL : 40° ±10°)
	GNSS L1 : 1,559 ~ 1,610MHz	(AZ / EL : 40° ±10°)
	GNSS L2, L5 : 1,164 ~ 1,300MHz	(AZ / EL : 40° ±10°)
Jamming Range	FD3A : 3km, FD8A : 8km	
Jamming Signal Source	Linear FM with Noise Modulation	
Cooling Method	Forced Air Cooling	
Operating Temperature	-32°C ~ +50°C	
Storage Temperature	-33°C ~ +65°C	
Power Supply	28 VDC (A power supply unit will be supplied.)	
Ingress Protection	IP67	
Dimensions	FD3A : 480 x 330 x 388 mm	
Weight	FD3A : 31.2kg	
Operating Range	AZ : ±180°, EL : -10° ~ 90°	
Operating Speed	AZ : 60° / sec, EL : 30° / sec	

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ANTENNA

- A directional radiation pattern, which enables the concentration of radiation power in a specific direction
- Electrical performance improvement through optimization of multi-band radiation characteristics
- Possession of integrated component development technology and implementation of miniaturization
- Individual implementation of radiation components by frequency band (easy modification of electrical performance by frequency band, convenient response to customer requirements, excellent maintainability, and individual component interchangeability)

FIXED

DRONE HUNTER LFD

C-UAS DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter LFD is a powerful countermeasure against drone threats. Designed to cover ISM bands and GNSS L1, L2 it effectively neutralizes a single drone or multiple drones approaching in a direction from a distance of 15km and operating within its antenna beam width. It is equipped with high-power amplifiers and signal generators to enable powerful multi-band continuous jamming.
This field-proven solution operates with a positioner that receives data from a seamlessly integrated detection/identification system by OURANOS™ C2 or third-party systems. In addition, it can be used as a stationary/mobile solution.

FEATURE

- Frequency Ranges : ISM 400 & 900MHz, ISM 2.4 & 5.8GHz, GNSS L1 & L2
- Jamming Range : 15km
- Optimum directional 6band antenna
- Optimum signal generators and amplifiers
- Stationary/mobile operation
- MIL-STD-810G

SPECIFICATION

Frequency Band	400MHz ISM : 420 ~ 470MHz / 900MHz ISM : 860 ~ 928MHz 2.4GHz ISM : 2,400 ~ 2,483.5MHz / 5.8GHz ISM : 5,725 ~ 5,850MHz GNSS L1 : 1,550 ~ 1,610MHz / GNSS L2 : 1,215 ~ 1,300MHz
Jamming Range	15km
Jamming Signal Source	Linear FM with Noise Modulation
Cooling Method	Forced Air Cooling
Operating Temperature	-32˚C ~ +50˚C
Power Supply	+32 VDC (A power supply unit will be supplied.)
Dimensions	Main Equipment : 476 x 542 x 565 mm / Antenna : 732 x 627 x 456 mm
Weight	Main Equipment : 95kg / Antenna : 20kg

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ANTENNA

- Lightweight, efficient antennas
- A directional radiation pattern, which enables the concentration of radiation power in a specific direction
- Electrical performance improvement through optimization of multi-band radiation characteristics
- Possession of integrated component development technology and implementation of miniaturization
- Individual implementation of radiation components by frequency band
  (easy modification of electrical performance by frequency band, convenient response to customer requirements, excellent maintainability, and individual component interchangeability)

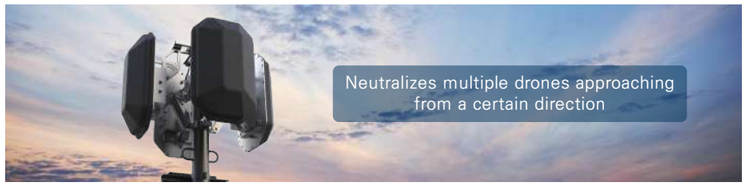
FIXED

DRONE HUNTER FP

C-UAS DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter FP is a powerful countermeasure against drone threats. Designed to cover ISM bands and GNSS L1 & L2, it effectively neutralizes a single drone or multiple drones approaching in a direction from a distance of 500m to 1km and operating within its antenna beam width. Its antenna beam width can be expanded to 360° if a total of 4 antennas are installed. It is equipped with high-power amplifiers, signal generators and panel antennas to enable powerful multi-band continuous jamming. This field-proven solution operates with a positioner that receives data from a seamlessly integrated detection/identification system by OURANOS™ C2 or third-party systems. In addition, it can be used as a stationary/mobile solution.



FEATURE

- Frequency Ranges : ISM 400 & 900MHz, ISM 2.4 & 5.8GHz, GNSS L1 & L2
- Jamming Range : 15km
- Optimum directional 6band antenna
- Optimum signal generators and amplifiers
- Stationary/mobile operation
- MIL-STD-810G

SPECIFICATION

Frequency Band	2.4GHz ISM : 2,400 ~ 2,500MHz / 5.8GHz ISM : 5,725 ~ 5,850MHz GNSS L1 : 1,550 ~ 1,610MHz / GNSS L2 : 1,208 ~ 1,254MHz *Optional 433MHz ISM : 420 ~ 450MHz / 915MHz ISM : 920 ~ 928MHz
Jamming Range	500m ~ 1km (5:1 Ratio)
Antenna Beam Width	Azimuth : 90°, Elevation : 45° (1Panel)
Jamming Signal Source	Linear FM with Noise Modulation
Cooling Method	Forced Air Cooling
Antenna Type	Multi-port directional panel antenna
Operating Temperature	-20°C ~ +60°C
Output Power	185W
Power Supply	28 VDC (A power supply unit will be supplied.)
Ingress Protection	IP65
Dimensions	Main Equipment : 237 x 480 x 310.5 mm / Antenna : 366 x 606 x 205.2 mm
Weight	Main Equipment : 30kg / Antenna : 10kg

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ADVANTAGE

- Ideal for sector protection
- Ensures omni-directional coverage by being installed on all four sides
- Designed to neutralize drones autonomously, eliminating the need for independent tracking systems

ANTENNA

- Directional radiation in a certain direction to focus on certain target drones
- Optimized multi-band radiation to improve jamming effectiveness

FIXED

Hand-Held Type
Fixed Type
Aircraft-Mounted Type
Wide Band Scanner
Vehicle-Mounted Type
C2 System Software

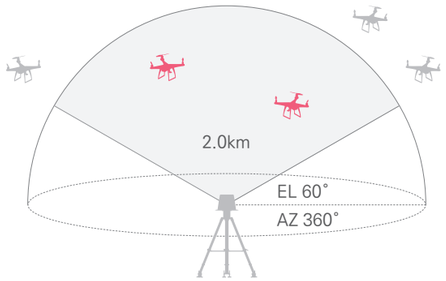
DRONE HUNTER FO

C-UAS OMNI-DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter FO is a powerful countermeasure against drone threats. Designed to cover ISM bands and GNSS L1 & L2, it effectively neutralizes a single drone or multiple drones approaching in all directions from a distance of 2km and operating within its antenna beam width. It is equipped with high-power amplifiers and signal generators to enable powerful multi-band continuous jamming.

This field-proven solution operates with a positioner that receives data from a seamlessly integrated detection/identification system by OURANOS™ C2 or third-party systems. In addition, it can be used as a stationary/mobile solution.



FEATURE

- Frequency Ranges : ISM 2.4 & 5.8GHz, GNSS L1 & L2, *ISM 433 & 900MHz (Optional)
- Jamming Range : 2km
- Lightweight, efficient antennas
- Adjustable output power per band
- Optimum signal generators and amplifiers
- Stationary/mobile operation
- MIL-STD-810G
- IP65

SPECIFICATION

Frequency Band	2.4GHz ISM : 2,400 ~ 2,485MHz / 5.8GHz ISM : 5,725 ~ 5,870MHz GNSS L1 : 1,550 ~ 1,610MHz / GNSS L2 : 1,215 ~ 1,300MHz *Optional 433MHz ISM : 420 ~ 470MHz / 915MHz ISM : 860 ~ 930MHz
Jamming Range	2km
Antenna Beam Width	Azimuth : 360°, Elevation : 60°
Jamming Signal Source	Linear FM with Noise Modulation
Cooling Method	Forced Air Cooling
Amplifier Operating Mode	Closed-Loop
Operating Temperature	-32°C ~ +50°C
Storage Temperature	-33°C ~ +65°C
Power Supply	28 VDC (A power supply unit will be supplied.)
Ingress Protection	IP65
Dimensions	540 x 400 x 300 mm
Weight	35.0kg

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ADVANTAGE

- Design seamlessly integrates 6 bands into one compact unit
- A Compact and Lightweight Design for Enhanced Usability : Integrated All-in-one antenna design
- Compact and lightweight design for improved output efficiency

ANTENNA

- Design seamlessly integrates 6 bands into one compact unit
- A Compact and Lightweight Design for Enhanced Usability : Integrated All-in-one antenna design-Compact and lightweight design for improved output efficiency

AIRCRAFT

DRONE HUNTER 5BQ

C-UAS DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter 5BQ is an aircraft-mounted type jammer with an intuitive design for quick on-site responses to drone threats. It effectively neutralizes the frequencies of either a single drone or multiple drones approaching controlled airspace, including the ISM band and GNSS L1 & L2, up to a distance of 1km.

Device is certified with an IP65 rating, ensuring optimal performance even in dusty and rainy environments. Additionally, It can be easily mounted on various platforms, including helicopters, airplanes, and UAVs, offering exceptional ease of use.

FEATURE

- Jamming Frequency coverages : ISM 2.4 & 5.8GHz, GNSS L1, L2, L5
- Integrated Design : Main Module and Antenna
- Jamming Range : Up to 1km
- User-friendly design
- Meet international IEEE/IEC62705-1 & SAR (Specific Absorption Rate) standard
- IP65

SPECIFICATION

Frequency Band	2.4GHz ISM : 2,400 ~ 2,483.5MHz / 83.5MHz (B/W) 5.8GHz ISM : 5,725 ~ 5,850MHz / 125MHz (B/W) GNSS L1 : 1,559 ~ 1,610MHz / 51MHz (B/W) GNSS L2 : 1,215 ~ 1,300MHz / 85MHz (B/W) GNSS L5 : 1,164 ~ 1,215MHz / 51MHz (B/W)
Jamming Range	1km
Operating Temperature	-20˚C ~ +50˚C
Operation Time	1 hour (unlimited use with battery charger attached)
Battery Specification	Rechargeable Lithium-ion Battery (10.0Ah)
Ingress Protection	IP65
Dimensions	BACKPACK : 436 x 243 x 151mm / GUN : 880 x 153 x 187mm
Weight	BACKPACK : 20kg / GUN : 4kg
product composition	BACKPACK & GUN

All the data and appearance of the product are subject to change upon RF environments and customer's request.

ANTENNA

- A directional radiation pattern, which enables the concentration of radiation power in a specific direction
- Electrical performance improvement through optimization of multi-band radiation characteristics
- Possession of integrated component development technology and implementation of miniaturization
- Individual implementation of radiation components by frequency band (easy modification of electrical performance by frequency band, convenient response to customer requirements, excellent maintainability, and individual component interchangeability)

AIRCRAFT

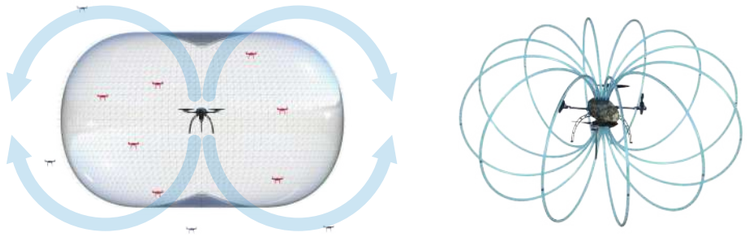
Hand-Held Type
Fixed Type
Aircraft-Mounted Type
Wide Band Scanner
Vehicle-Mounted Type
C2 System Software

DRONE HUNTER M

C-UAS OMNI-DIRECTIONAL RF JAMMER SYSTEM

OVERVIEW

Drone Hunter M is a drone equipped with a jammer module to mitigate drone threats. Designed to cover ISM bands, it neutralizes a single or multiple drones within a radius of 50m in an agile manner by flying to target drones and radiating jamming signals with omni-directional antennas. An EO/IR camera is installed in it to identify target drones before neutralizing them.



ANTENNA RADIATION PATTERNS

FEATURE

- Frequency Ranges : ISM 2.4 & 5.8GHz
- Jamming Range : 100m radius
- Omni-directional antenna
- Optimum signal generators and amplifiers
- Equipped with an EO/IR camera

SPECIFICATION

Frequency Band	2.4GHz ISM : 2,400 ~ 2,485MHz / 5.8GHz ISM : 5,725 ~ 5,875MHz
Jamming Range	100m
Antenna Beam Width	Azimuth : 360°, Elevation : 60°
Flight Distance	3km
Operating Time	30min
Flight Speed	36km/h
Drone Type	Multicopter
Identification	EO/IR camera
Weight	7.0kg
Dimensions	950 x 400(H) mm

All the data and appearance of the product are subject to change upon RF environments and customer's request.

DETECTION

WIDE BAND SCANNER

DRONE RF DIRECTION FINDING SYSTEM

OVERVIEW

OURANOS™ RFDF is designed to detect and direction-find commercially available drones and control signals. RFDF has dedicated processing resources and proven operation references in the urban environment. RFDF provides user-friendly control interface and available to deploy in various configuration such as mobile / stationary / portable. It is an integrated feature for detecting, classifying and tracking drones, locating the controller and classifying the drone manufacturers and model numbers.

The location of drone and remote control can be determined with multiple sensors through triangulation. Automatic operation and remote notification are available through the OURANOS™ C2 system

FEATURE

- Proven operation references in urban environment
- Geolocation estimation of drone and controller with multiple sensors
- Drone classification function and continuous drone library update
- User-friendly, simple operation and easy to deploy

SPECIFICATION

Frequency Operating Range	300MHz ~ 6GHz
Detection Range	3km or better
Detection Angle	360°
Detection Accuracy	Less than 5 rms (+/-5 degree) (Environment Dependent)
First Time UAV Detection Time	Less than 5s
Receiver Noise	3 ~ 5dbi
System Weight	Below 20kg – Standard System Setup
Power Consumption	150W
Power Supply Requirement	100V / 240V
Humidity	Up to 85%, non-condensing
Ingress Protection	IP65
Operating Temperature	-35°C ~ +55°C
Storage Temperature	-20°C ~ +70°C
Quantity to be detected simultaneously	20 Units

USER INTERFACE

System Deployment Options	Stand-Alone / Multi-nodes remotely controlled via network or cloud
Drone Protocol Communication library	DJI(Lightbridge, Ocusync 1, 2, 3, 4), Autel, Gopro, Parrot, Hubsan, Holy Stone, Yuneec, Syma, Futaba remote controls, FPV drones, 433MHz and 915MHz telemetry, other WI-FI communication based drones library DB and Firmware Update features
Information Providing	1) Single unit deployment specifically for direction finding, while multiple sensors provide information on direction finding + drone location. 2) When installing the decoding module in the system, system provides information of detected DJI drones S/N #, Frequency band, azimuth/ altitude angle, speed, location.

VEHICLE

OURANOS™ VEHICLE

VEHICLE ANTI-DRONE TOTAL SOLUTION

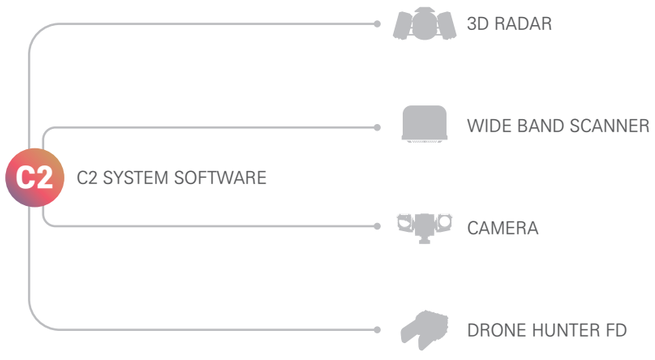
OVERVIEW

OURANOS™ VEHICLE is a mobile counter-drone solution to protect critical infrastructure, border areas, and public places against drone threats. Consisting of detection, identification, and mounted neutralization systems, it is designed to swiftly respond to drone threats by patrolling areas where hostile drones may conduct a reconnaissance or strike mission.

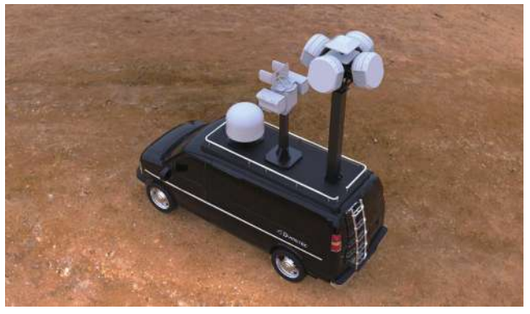
FEATURE

- Swift response to various drone threats with its mobility
- Detection, identification and neutralization of hostile drones
- Automatic operation from detection and identification to neutralization
- Monitoring and operating of each system with its C2 system
- Ingress Protection : IP65
- Customizable according to customer requirements

SYSTEM CONFIGURATION



APPLICATION AREA



VEHICLE

ANTI DRONE & EMP PROTECTION SHELTER

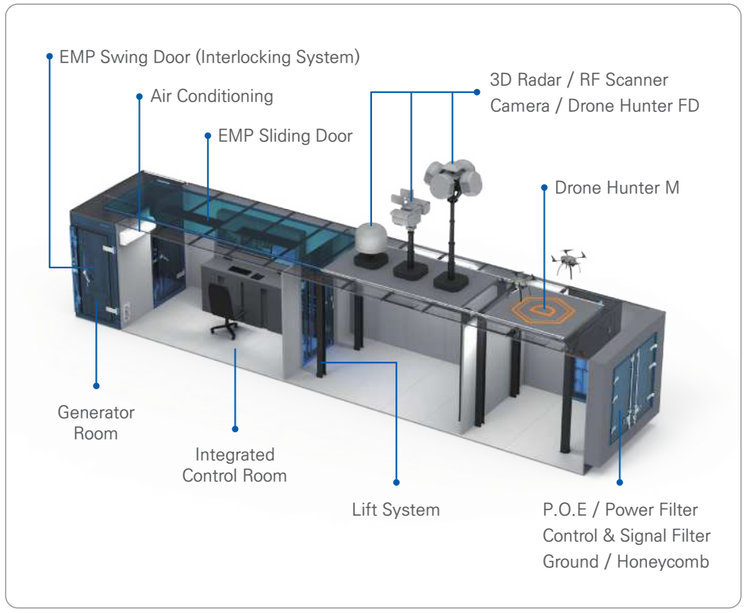
ANTI DRONE SOLUTION & EMP PROTECTION TECHNOLOGY

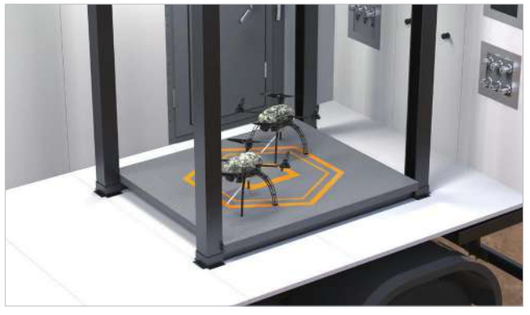
OVERVIEW

The Anti-Drone + EMP Protection Integrated System is a next-generation anti-drone solution that incorporates detection, identification, and neutralization equipment and control systems to reliably protect and maintain drone defense systems against nuclear and non-nuclear EMP attacks and related situations with electronic countermeasures.

FEATURE

- Construction of protective equipment that is safe from nuclear and non-nuclear EMP threats
- Detection, identification, and neutralization equipment that enables preemptive response to various drone threats
- Capability of carrying on-board reconnaissance and attack equipment, including armed drones
- Fixed Type/Vehicle Type





VEHICLE

OURANOS™ C2 TRAILER

ANTI DRONE SOLUTION & EMP PROTECTION TECHNOLOGY

OVERVIEW

OURANOS™ C2 TRAILER is a next-generation anti-drone solution that incorporates detection, identification, and neutralization equipment and control systems to reliably protect and maintain drone defense systems against nuclear and non-nuclear EMP attacks and related situations with electronic countermeasures.

FEATURE

- Detection, identification, and neutralization equipment that enables preemptive response to various drone threats
- Automatic or manual monitoring and operation of all OURANOS™ C-UAS equipment integrated on C2 system (Laser·EO/IR Camera-Drone Hunter FD-A·RF Scanner·3D Radar)
- Construction of protective equipment that is safe from nuclear and non-nuclear EMP threats
- Fixed Type/Vehicle Type

SOFTWARE

OURANOS™ C2 SYSTEM SOFTWARE

COMMAND & CONTROL C2 FOR OURANOS™ C-UAS SYSTEM

OVERVIEW

OURANOS™ C2 is a command and control system integrating detection, identification and neutralization systems. Users can easily configure an entire system, check each system and monitor drone threats in real time with automatic alarms.

All data received by detection and identification systems are recorded in the software and displayed on the screen, and users can operate neutralization systems with its user-friendly GUIs. As an open architecture, this C2 system can integrate third-party systems by applying their APIs to it

FEATURE

- Configuration of an entire system consisting of detection, identification and neutralization systems
- Monitoring of all detection, identification and neutralization systems in real time
- Automatic jamming of detected/identified drones by transmitting drone data to neutralization systems
- Display of detected and identified drones on the screen
- Records of the models, locations and flight timelines of detected drones
- Automatic alarms when detecting hostile drones
- User-friendly GUIs
- Automatic/manual operation
- Integration of third-party systems

ADVANTAGE

- User-friendly software designed for drone detection, identification, and neutralization
- In addition to OURANOS™ system devices, integration with third-party equipment is possible.
- Offers an automatic operation mode for neutralization capabilities
- Seamlessly integrates with vehicle-mounted anti-drone systems

RF JAMMER

MANPACK JAMMER

SPECIALLY CUSTOMIZED TO RF JAMMING SYSTEM

OVERVIEW

This manpack RCIED jammer can block remote trigger signals activating bombs by radiating a wide range of jamming signals. Its jamming performance and mobility are enhanced by reducing the size and weight of the existing jammer to satisfy customer requirements.

It is comprised of a total of 2 main devices which have different frequency ranges, and each device is powered by a detachable battery to main its stable operation.

A Type B Type DETACHABLE BATTERIES

FEATURE

- Jamming Range : 30m radius
- Light weight and small size so easy to carry
- A total of 2 main devices having different frequency ranges
- Detachable batteries
- Individual jamming switches for each band
- LEDs indicating the operation status of each band

SPECIFICATION

Frequency Band	20 ~ 6,000MHz
Output Power	10W for each band
Main Devices	1 set (A type and B type)
Operating Time	1 hour
Operating Channel	6 bands for each device
Power Supply	AC 220V, DC 24V ~ 42V
Battery Type	Lithium-ion batteries
Antenna Type	Detachable, omni-directional, N type
Operating Temperature	-20˚C ~ +50˚C
Operation Method	Individual switches for each band
Weight	25kg (including the main device, batteries and antennas)
Dimensions	450 x 340 x 165 mm (excluding the antennas)
Ingress Protection	IP65

RF JAMMER

RCIED JAMMER

SPECIALLY CUSTOMIZED RCIED JAMMER

OVERVIEW

Dymstec's RCIED Jammer is professionally designed to block emitted radio signals used for remote activation of explosive devices controlled by specific radio frequencies and protect VIPs, Military/Security staff/EOD teams from RCIEDs used by terrorists. The main objective of this product is to design and construct an advanced radio frequency Jammer device used to disrupt or prevent unauthorized communication for security application. Dymstec RCIED Jammer product adopts the cutting-edge jamming technique in one compact briefcase. The system contains Jammer modules, antennas, battery, power supply and optional remote control. Jamming modules can be selected to provide high power targeted jamming or wide band with modules available in bands from 20 ~ 6,000 MHz. The product is supplied with both directional antennas and omni antennas to maximize the jamming area in different scenarios.

FEATURE

- Blocking of wireless communication channels including cell phones, WiFi, Bluetooth, etc.
- Battery Run Time : 60min each for an internal battery and an external battery
- Individual On/Off switches for each band
- AC/DC converter embedded in the external battery
- Remote control (optional)
- A total of 6 external antennas

A Type Model B Type Model C Type Model

SPECIFICATION

Frequency Band	25MHz ~ 5,850MHz
Jamming Range	30m
Output Power	140W
Power Supply	230V / AC, 12V / DC
Battery Type	Lithium polymer battery (1Internal battery and 1external battery)
Cooling Method	Forced convection
Weight	45kg (excluding the external battery)
Operating Temperature	-10˚C ~ +50˚C
Operating Humidity	5% ~ 95%

ADVANTAGE

- Built-in battery, auxiliary battery
- AC power compatibility
- Optional use of directional antenna for improved jamming performance in Cellular Band

COMMUNICATION JAMMER

DESIGNED FOR FLEXIBLE & VERSATILE USE

OVERVIEW

Communication jammer is a tactical jammer device which is designed to disrupt, neutralize all types of radio communication equipment including cellular, Wi-fi, Bluetooth frequency bands.

FEATURE

- Blocking of cellular frequency bands
- Individual On/Off switches for each band
- Adjustable output power levels (high or low)
- Power Supply : AC input
- Remote control (optional)
- Internal patch antennas

SPECIFICATION

Output Power	230W
Jamming Range	50m
Internal Modulation	PLL VCO & digital synthesizer
Operation Method	Individual On/Off switches for each band
Antenna Type	Internal patch antennas
Battery Type	Lithium polymer battery 220 VAC, 28 VDC
Weight	38kg (excluding the external battery)
Operating Temperature	-10˚C ~ +65˚C
Operating Humidity	5% ~ 95%

VEHICLE-MOUNTED JAMMER

DESIGNED FOR MOBILE COUNTERMEASURE AGAINST TERRORISM

OVERVIEW

Dymstec's vehicle-mounted jammer is specially designed to be used in vehicle-based units. Users can apply the system in wide range of vehicles from armored military vehicle to SUV, limousine for VIP Protection, Vehicle Convoy missions.
Dymstec's vehicle-mounted jammer offers a user maximum jamming effectiveness with its DDS based signal source and can block in different frequencies simultaneously or separately. Jamming signal sources are customer-configurable to suit the local signal environment and allow the system to be programmed to neutralize signal including VHF/UHF and public communications systems (such as 2G, 3G, 4G, LTE, 5G and WiFi).

FEATURE

- Individual On/Off switches for each band
- Adjustable output power
- Automatic Level Control (ALC)
- Alarms : Overheating and output power overload (automatic shutdown of the jammer)
- Real-time remote monitoring of jammer Operation

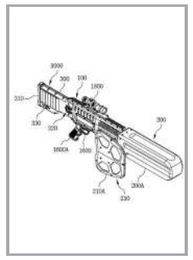
SPECIFICATION

Frequency Band	2G, 3G, 4G, LTE, 5G, VHF, UHF, WiFi
Jamming Range	100m
Output Power	550W
Antenna Type	Omni-directional antennas
Cooling Method	Forced convection
Weight	Main : 75kg (A total of 3units) Jammer Mounting Tray : 50kg
Operating Temperature	-20˚C ~ +50˚C
Operating Humidity	5% ~ 95%

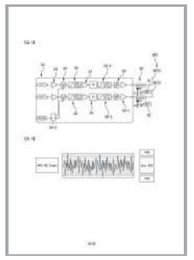
INTELLECTUAL PROPERTY RIGHTS AND AWARDS

CERTIFICATES

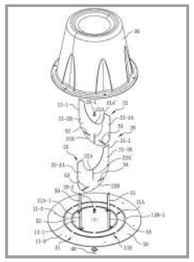
INTELLECTUAL PROPERTY RIGHTS



Rifle-shaped counter-drone jammer with a detachable battery



Counter-drone jamming system using white noise



Counter-drone omni-directional broadband monopole antenna

AWARDS AND CERTIFICATES

Minister of Science and ICT's Emergency Network Contribution Award

Certificate of Management Innovation Small Business (Main-Biz)

Certificate of Technology Innovation Small Business (Inno-Biz)

Certificate of Innovative Product designated by the Public Procurement Service

Certificate of Venture Enterprise (K-Venture)

PATENT / DESIGN / TRADEMARK

2024

	CLASSIFICATION	APPLY
PATENT	25	5
DESIGN	5	-
TRADEMARK	5	1
TOTAL	35	6

MAJOR CUSTOMERS

CUSTOMER-CENTRIC GROWTH COMPANY

ELECTRONIC MANUFACTURERS

SAMSUNG, LG

MOBILE SERVICE PROVIDER

SK telecom, olleh kt, LG U+

AUTOMOBILE MANUFACTURES

HYUNDAI, KIA, SAMSUNG 르노삼성자동차, CHEVROLET, 쌍용자동차

GOVERNMENT & MILITARY AGENCIES

국립전파연구원 National Radio Research Agency, nipa 정보통신산업진흥원, 한국자동차연구원, KCA 한국방송통신전파진흥원, 국방과학연구소 Agency for Defense Development, 한국에너지기술연구원 KOREA INSTITUTE OF ENERGY RESEARCH, 중앙전파관리소, ETRI 한국전자통신연구원, KRISS 한국표준과학연구원, KBIOHEALTH, 경찰청, 대한민국육군 Republic of Korea Army

CERTIFICATION AUTHORITIES

HCT (주)에이치시티, ktl Korea Testing Laboratory, Dt&C, SGS, eurofins KCTL, ONETECH, KTR 한국화학융합시험연구원, NTREE, EST, UL, NCT, Nemko

UNIVERSITY

한양대학교 HANYANG UNIVERSITY, KAIST, 인하대학교 INHA UNIVERSITY, 충남대학교 CHUNGNAM NATIONAL UNIVERSITY, 충북대학교, 경운대학교 www.ikw.ac.kr, 숭실대학교 Soongsil University, 서울대학교 SEOUL NATIONAL UNIVERSITY, 연세대학교 YONSEI UNIVERSITY, 고려대학교 KOREA UNIVERSITY, 가천대학교 Gachon University, 인천대학교 INCHEON NATIONAL UNIVERSITY

OVERSEAS

Saudi Arabia 2019

Poland 2020

Singapore 2021

Indonesia 2022

Malaysia 2023

DYMSTEC

Venture Enterprise 벤처확인기업

MAINBiz 경영혁신형 중소기업

INNOBIZ 기술혁신형중소기업

Address : Kranztechno #1308, 388 Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeoggi-do, 13403 Republic of Korea
Factory Address : 118 Yongsu-ro, Wonsam-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17176 Republic of Korea
www.dynamicshielding.com / Email. marketing@dymstec.com / Tel. +82 31 777 8450 / Fax. +82 31 777 8933