

We will provide the high-quality
technologies to our customers.



Address #301, #311, #312, 361-17 Gapcheon-ro, Yuseong-gu, Daejeon, Republic of Korea
Tel +82-42-716-0006 | Fax +82-70-5096-5708
Email sjh@duta-rnd.com(Sales Manager), dklee@duta-rnd.com(CEO)
www.duta-rnd.com



www.duta-rnd.com

ANTI-DRONE SOLUTION

ANTI-DRONE SOLUTION



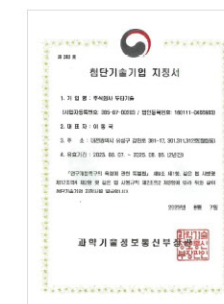
Contents

Company History	P 03
Business Areas	P 04
Product Overview	
• PORTABLE	
WILDCAT I · II	P 06
BLACKCAT I · II	P 07
WOLF I	P 08
• MOBILE	
WOLF II	P 09
WOLF III	P 10
LEOPARD	P 11
SKYCAT	P 12
PUMA	P 13
• STATIONARY	
JACKAL-P	P 14
JACKAL-S	P 15
• CUSTOMIZED	
Integrated Anti-Drone System	P 16
Vehicle-Based Integrated Anti-Drone System	P 17
Operational Deployment of Anti-Drone System in Military Operations	
• Protection of Critical Infrastructure	P 18
• Maneuver on Assigned Objectives, Seizing Key Terrain and Zones	P 19

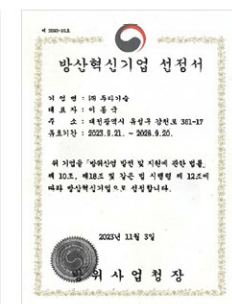


History

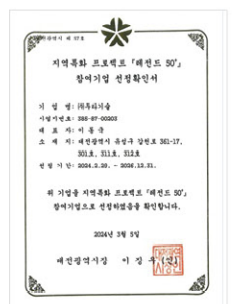
- 2015** — Establishment Of Company
 - 09 • DUTA Technology Co., Ltd Established
- 2016** — Certified as a Venture Business, Established an in-house R&D center
- 2017** — Signed a startup commercialization agreement with the Korea SMEs and Startups Agency (KOSME)
 - 12 • Project Agreement for the Commercialization of a Two-Seater Hybrid Light Aircraft (Manned/Unmanned Operation)
- 2019** — Registered as a Certified Defense Industry Contractor
 - 04 • Development of a One-Seater Class VTOL Aircraft Prototype System and Communication Equipment for Manned-Unmanned Operation
 - 05 • Defense Venture Support Program Agreement (Intelligent Vehicle-Mounted Jamming System)
- 2021** — Certified as an INNO-BIZ (Innovation-Oriented Small Business)
 - 04 • Initiated Development of Anti-Drone Technology-Drone-Mounted Jammer
- 2023** — Designated as a High-Tech Enterprise (Ministry of Trade, Industry and Energy / Ministry of Science and ICT) & One of the Defense Innovation Companies 100 (DAPA)
 - 03 • Selected for the Drone Commercialization Support Program
 - 08 • Selected for the Defense Innovation Cluster Support Program
 - 12 • Selected for the Defense Venture Innovative Technology Support Program
- 2024** — Selected for 2024 Legend 50+ Program (Daejeon Metropolitan City)
 - 05 • Development of Handheld Drone Controller
 - 10 • Development of Satellite Receiving Antenna for Space Launch Vehicles



Certificate of High-Tech Enterprise Designation (Data Link)



Certificate of Selection as a Defense Innovation Company (Anti-Drone)



Certificate of Selection as a Legend 50 Company

Business Areas

PORTABLE



WILDCAT



WOLF



BLACKCAT



SKYCAT



LEOPARD



PUMA

MOBILE



SKYCAT



LEOPARD



PUMA

STATIONARY



JACKAL-P



JACKAL-S

CUSTOMIZED

Integrated
Anti-Drone SystemOmni-directional
JammerDrone Defense
System

Data Link System for UAV, UAM, DRONE

Stratospheric Solar-Powered
Unmanned Aerial Vehicle EAV-4OPPAV Manned-Unmanned
Hybrid UAMUnmanned Conversion of
Manned AircraftIntegrated Spatial Information Visualization Data
Link for Underground/Tunnel Environments

Anti-Drone Solution

Business
02Business
01Business
03

Antennas For Aerospace

Antenna for Airborne
PlatformsMonopulse Tracking
AntennaAntenna for Satellite
Launch VehiclesAuto-Tracking Antenna for
Satellite Communication
(Disaster Network)

Aerospace RF Communications
Solutions Provider



PORTABLE

WILDCAT I · II



C2 Link (Command&Control)



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 900m or more - Scaling proportionally with distance

> WILDCAT

Category	Specifications
Weight	Approximately 1.5kg
Continuous Operation Time (Max)	1.5 hours
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz) - UHF-Band (902–928 MHz) *WILDCAT II
EIRP (Effective Isotropic Radiated Power)	L-Band (GNSS): 2W (Typical) S-Band: 6W (Typical) C-Band: 6W (Typical) UHF-Band: 1W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 900m (Distance between Jammer and drone pilot is 3km) GNSS: 500m (Based on standard operating conditions) Beam Angle: Azimuth 25°, Elevation 30°
Components	WILDCAT, 2 Batteries, Charger, Hard Case, Holster (Option)



Product Features

- ▷ Easy to operate for anyone, with lightweight design minimizing burden during movement.
- ▷ Depending on whether the drone is armed, users can choose to block only C2 signals or both C2 and GNSS simultaneously. (C2 Jamming = Return To Home / Simultaneous Jamming = Ground Landing)
- ▷ The follow-up model(WILDCATII) includes an added UHF band.

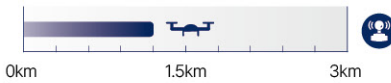


PORTABLE

BLACKCAT I · II



C2 Link (Command&Control)



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 1,200m or more - Scaling proportionally with distance

> BLACKCAT

Category	Specifications
Weight	Approximately 2.5kg
Continuous Operation Time (Max)	1.5 hours 1 hour *BLACKCAT II
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) (1,164–1,300 MHz) *BLACKCAT II Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz) - UHF-Band (902–928 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band (GNSS): 2W (Typical) S-Band: 6W (Typical) C-Band: 12W (Typical) UHF-Band: 1W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 1,200m (Distance between Jammer and drone pilot is 3km) GNSS: 500m (Based on standard operating conditions) Beam Angle: Azimuth 25°, Elevation 25°
Components	BLACKCAT, 2 Batteries, Charger, Hard Case, Holster (Option)



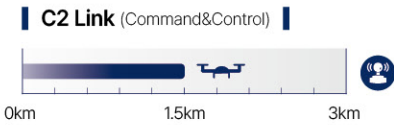
Product Features

- ▷ Maintains the advantages of the WILDCAT while being compact like a submachine gun, with extended suppression range and additional frequency bands applied.
- ▷ The follow-up model(BLACKCAT II) includes an added L2 band.



PORTABLE

WOLF I



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 1,500m or more - Scaling proportionally with distance

> WOLF I

Category	Specifications
Weight	Approximately 4kg
Continuous Operation Time (Max)	1.5 hours
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band(GNSS): 6W (Typical) S-Band: 20W (Typical) C-Band: 20W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 1,500m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Components	WOLF I, 2 Batteries, Charger, Hard Case, Scope (3–9x magnification, 40 mm)

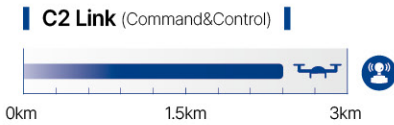
Product Features

- It is a rifle-sized model focused on extending the suppression range
- Depending on whether the drone is armed, users can choose to block only C2 signals or both C2 and GNSS simultaneously. (C2 Jamming = Return To Home / Simultaneous Jamming = Ground Landing)



MOBILE

WOLF II



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 2,400m or more - Scaling proportionally with distance

> WOLF II

Category	Specifications
Weight	Approximately 6kg
Continuous Operation Time (Max)	1.5 hours
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band(GNSS): 6W (Typical) S-Band: 120W (Typical) C-Band: 120W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 2,400m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Components	WOLF II, 2 Batteries, Charger, Hard Case, Tripod, Scope (3–9x magnification, 40 mm)

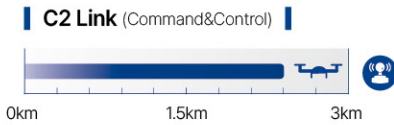
Product Features

- With significantly increased output, this model enables early neutralization and forced landing of drones through powerful jamming emissions.
- Depending on whether the drone is armed, users can choose to block only C2 signals or both C2 and GNSS simultaneously. (C2 Jamming = Return To Home / Simultaneous Jamming = Ground Landing)



MOBILE

WOLF III



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 2,400m or more - Scaling proportionally with distance

> WOLF III

Category	Specifications
Weight	Approximately 6.5kg
Continuous Operation Time (Max)	1 hour
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz) - UHF-Band (902–928 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band(GNSS): 6W (Typical) S-Band: 120W (Typical) C-Band: 120W (Typical) UHF-Band: 30W (Typical)
Environment	Operating Temperature: -32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 2,400m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Components	WOLF III, 2 Batteries, Charger, Hard Case, Tripod, Scope (3–9x magnification, 40 mm)

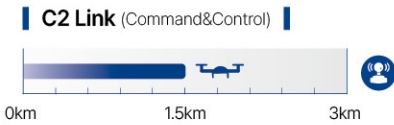


- ▷ The high-power model based on the WOLF II has been expanded with the addition of the UHF band.
- ▷ It is well-suited for operations in high-risk environments or scenarios requiring multi-band capabilities.
- ▷ Depending on whether the drone is armed, users can choose to block only C2 signals or both C2 and GNSS simultaneously. (C2 Jamming = Return To Home / Simultaneous Jamming = Ground Landing)



MOBILE

LEOPARD



With a 3km distance between the Jammer and the Pilot, the suppression range reaches 1,500m or more - Scaling proportionally with distance

> LEOPARD

Category	Specifications
Weight	Approximately 5kg
Continuous Operation Time (Max)	1 hour
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz), (1,164–1,300 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band(GNSS): 6W (Typical) S-Band: 50W (Typical) C-Band: 45W (Typical)
Environment	Operating Temperature: -32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 1,500m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Detection Range and Frequency	1km (S/C)
Components	LEOPARD, 2 Batteries, Charger, Hard Case, Tripod, Scope (3–9x magnification, 40 mm)

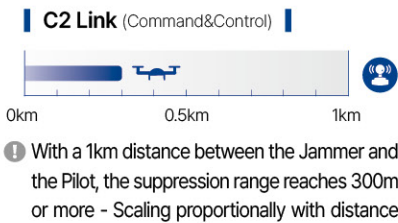


- ▷ It is an integrated system capable of both drone detection and suppression
- ▷ Drones within a 1 km radius can be detected in real time via the display.
- ▷ Depending on whether the drone is armed, users can choose to block only C2 signals or both C2 and GNSS simultaneously. (C2 Jamming = Return To Home / Simultaneous Jamming = Ground Landing)



MOBILE

SKYCAT



> SKYCAT

Category	Specifications
Weight	Approximately 1.3kg
Continuous Operation Time (Max)	External Power Supply
Jamming Frequency	Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz) - UHF-Band (432–436 MHz, 902–928 MHz)
EIRP (Effective Isotropic Radiated Power)	S-Band: 6W (Typical) C-Band: 6W (Typical) UHF-Band: 1W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP43
Jamming Range	C2 Link: 300m (Distance between Jammer and drone pilot is 1km) Beam Angle: - S/C-Band: Azimuth 25°, Elevation 30° - UHF-Band: Azimuth 60°, Elevation 30°
Components	SKYCAT, Hard Case

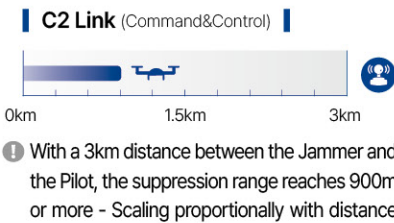
Product
Features

▷ Mounted on a drone, it enables both reconnaissance and counter-drone operations simultaneously.



MOBILE

PUMA



> PUMA

Category	Specifications
Weight	Approximately 7 kg
Continuous Operation Time (Max)	External Power Supply (12VDC / MAX 16A)
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band(GNSS): 3W (Typical) S-Band: 7W (Typical) C-Band: 7W (Typical)
Environment	Operating Temperature: –32°C ~ 55°C Dustproof/Waterproof: IP65
Jamming Range	C2 Link: 900m (Distance between Jammer and drone pilot is 3km) GNSS: 500m (Based on standard operating conditions) Beam Angle: Azimuth 360°, Elevation 55°
Components	PUMA, Remote Control Device, Power and Data Cable, Hard Case, Tripod (Option)

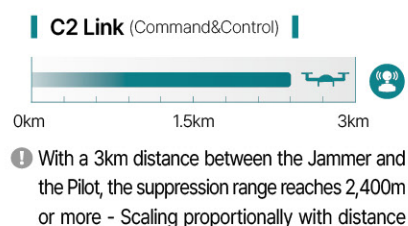
Product
Features

▷ Simultaneous jamming of L/S/C bands is selectively available in 60-degree increments, from a single direction up to six directions (full 360-degree coverage)
▷ A dedicated GUI (Graphical User Interface) is provided.
▷ When operated in overlapping zones at building corners, it provides a dome-shaped protection shield



STATIONARY

JACKAL-P



> JACKAL-P

Category	Specifications
Weight	Approximately 30kg
Continuous Operation Time (Max)	External Power Supply (24VDC / MAX 8A)
Interface	J1: 24VDC (Amp Power) J2: 10/100M Ethernet (Video & Control/Status)
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band (GNSS): 6W (Typical) S-Band: 120W (Typical) C-Band: 120W (Typical)
Jamming Range	C2 Link: 2,400m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Resolution	FHD (1,920×1,080)
Zoom	Optical 30x, Digital 12x
IR	Include ICR Function
Video Compression	H.264
Pan/Tilt	Pan-Axis: 360° / Tilt-Axis: 0°~85°
Environment	Operating Temperature: -20°C ~ 55°C Dustproof/Waterproof: IP65
Components	JACKAL-P, Power and Data Cable, AC-DC power supply (DC24V), Tripod (Option)

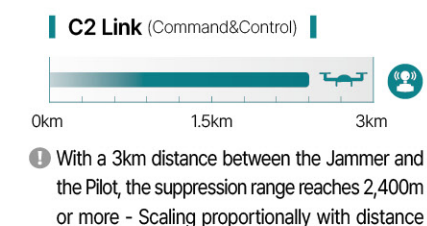
Product
Features

- ▶ Enables remote operation from the control center with real-time video integration
- ▶ Provides precise directional jamming based on a pan-tilt system
- ▶ Its structure is well-suited for integrated operation with detection systems such as radar and RF Scanner



STATIONARY

JACKAL-S



> JACKAL-S

Category	Specifications
Weight	Approximately 30 kg
Continuous Operation Time (Max)	External Power Supply (24VDC / MAX 8A)
Interface	J1: 24VDC (Amp Power) J2: 10/100M Ethernet (Video & Control/Status)
Jamming Frequency	GNSS: L-Band (1,559–1,610 MHz) Command & Control: - S-Band (2,400–2,483.5 MHz) - C-Band (5,725–5,850 MHz) - UHF-Band (432–436 MHz, 902–928 MHz)
EIRP (Effective Isotropic Radiated Power)	L-Band (GNSS): 6W (Typical) S-Band: 120W (Typical) C-Band: 120W (Typical) UHF-Band: - 432-436 MHz: 13W (Typical) - 902-928 MHz: 20W (Typical)
Jamming Range	C2 Link: 2,400m (Distance between Jammer and drone pilot is 3km) GNSS: 1,000m (Based on standard operating conditions) Beam Angle: Azimuth 20°, Elevation 15°
Pan/Tilt	Pan-Axis: 360° / Tilt-Axis: 0°~ 85°
Environment	Operating Temperature: -20°C ~ 55°C Dustproof/Waterproof: IP65
Components	JACKAL-S, Power and Data Cable, AC-DC power supply (DC24V), Tripod (Option)

Product
Features

- ▶ As a successor model, the video equipment has been removed and the UHF band has been added
- ▶ Provides precise directional jamming based on a pan-tilt system
- ▶ Its structure is well-suited for integrated operation with detection systems such as radar and scanners
- ▶ By being fixed in place on-site, it can stably cover and respond to wide areas



Integrated Anti-Drone System

Customizable system upon customer request

This is an all-directional response system integrating detection, identification, and suppression capabilities. Modular components such as EO/IR cameras, radar, GNSS, pan-tilt units, and laser range finders (LRFs) are combined to detect drone approach paths, enabling automatic tracking and target-centered suppression within a single platform. Depending on the mission environment, components can be flexibly configured, and the system can also be integrated with external equipment for coordinated operation.

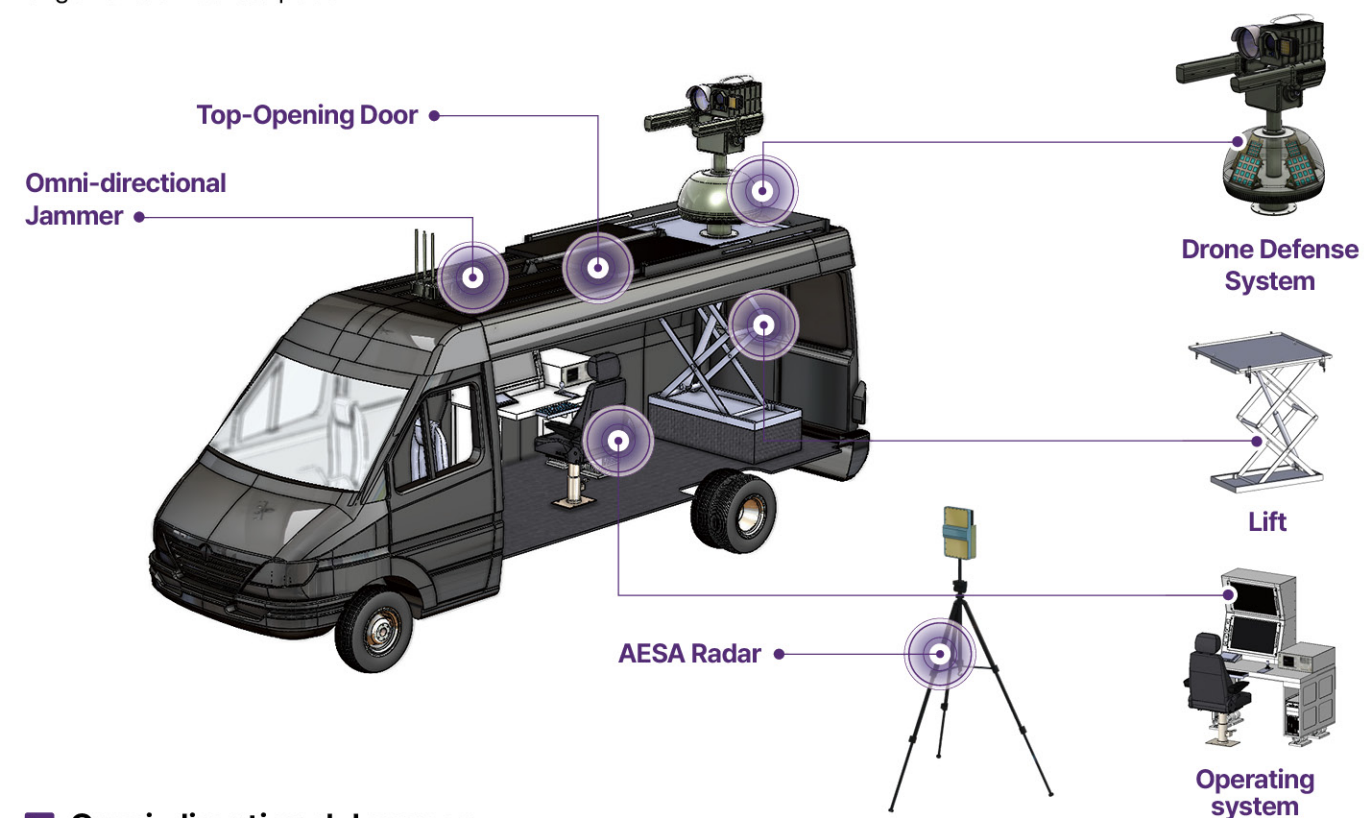


CUSTOMIZED

Vehicle-Based Integrated Anti-Drone System

Customizable system upon customer request

This is a response system in which detection, identification, and suppression capabilities are integrated into a single vehicle-mounted platform

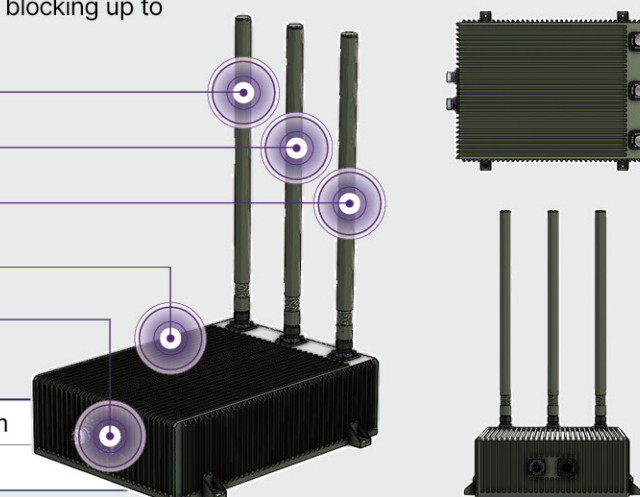


Omni-directional Jammer

A high-power jammer capable of simultaneously blocking up to three frequency bands (S, C, and L bands).

- S-Band ANT
- C-Band ANT
- L-Band ANT
- Housing
- PWR/Data Connector

Size	W300mm × L380mm × H513mm
Weight	10kg



ANTI-DRONE SOLUTION

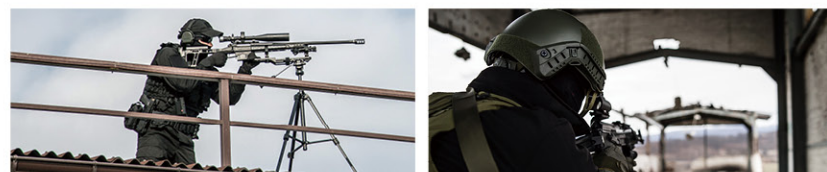
Operational Deployment of Anti-Drone System in Military Operations

01

Protection of Critical Infrastructure
(power plants, gas facilities, nuclear power stations, etc.)

I. Scenario (Assumption)

- A drone is spotted over the XX Corporation's XX production site (450m x 220m).
- The identity and scale of the drone operator are unknown.
- One LEOPARD unit is deployed at the air defense guard post, and the rapid response team is equipped with one unit each of SKYCAT and WILDCAT.



II. Operational Plan (Case Example)

➤ Early Detection of Approaching Drones

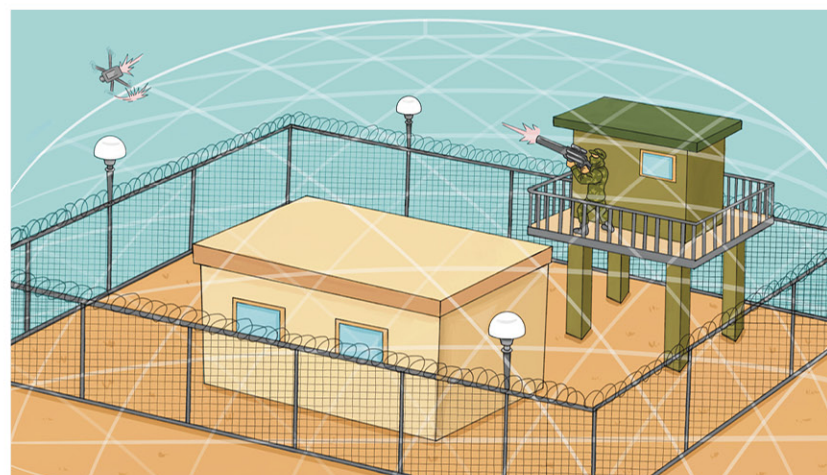
- One LEOPARD unit is operated continuously at the guard post to monitor for drone approach within a 1 km radius.
- Direction is determined using a directional antenna, followed by friend-or-foe identification through optical zoom, enabling early neutralization.

➤ Activation of Jamming Zone

- If a drone is large in scale or has already approached the facility area, three PUMA units are remotely activated to establish a jamming dome.

➤ Search for Drone Operator

- The guard post provides azimuth information to the rapid response team and requests reinforcements to block potential escape routes.
- The rapid response team uses SKYCAT to assess the situation (e.g., scale of threat, operator location). In the event of another drone incursion, immediate neutralization is carried out.



02

Maneuver on Assigned Objectives, Seizing Key Terrain and Zones

I. Scenario (Assumption)

- While on maneuver, a small unit hears the sound of a drone propeller nearby.
- The target consists of 1 to 2 guard posts, equipped with an early warning network based on communication systems.
- One WILDCAT unit (holster-mounted) is carried by the team, and one LEOPARD unit is held at headquarters.



II. Operational Plan (Case Example)

➤ Minimizing Exposure and Response While Maneuvering Toward the Objective

- Establish reference points along primary and alternate movement routes.
- The command unit uses LEOPARD at reference points to check for surveillance drones.
- If a drone is detected, determine the distance between the current location and the objective, then either avoid the flight corridor or neutralize the threat before resuming movement.

➤ Ensuring Survivability Upon Exposure

- Upon hearing drone propeller noise during movement, the unit disperses immediately and uses WILDCAT to neutralize the drone. *Based on whether the drone is armed, the system either forces ground landing or triggers RTH (Return To Home).
- In case of forced landing, the drone's battery is removed, and the unit switches to an alternate route.

➤ Simultaneous Fire Support and Jamming During Securing of Critical Area

- During decisive operations, the support element provides simultaneous fire support and electronic jamming to disrupt enemy command and control systems.

