

DAMITA

Air Defence System

كالدوس
CALIDUS

AI-integrated drone defence system 100% UAE-developed and manufactured

The DAMITA System unifies autonomous, layered C-UAS capabilities from detection to defeat through an AI-driven C2 software core, delivering comprehensive protection and time dominance for cities, borders, bases, and critical sites. Developed and manufactured entirely in the UAE, DAMITA integrates AI C2 software with 35mm AHEADÆ rounds and a High-power Microwave (HPM) to provide a single, layered air-defence solution that defeats large-scale and swarm drone attacks.





Calidus Group

TECHNOLOGY THAT GUARDS A NATION, CALIDUS



CALIDUS is the UAE's first developer of integrated counter-drone defence systems, redefining the industry with autonomous, layered air-defence solutions.

Founded in 2015 in Abu Dhabi, we are a 100% UAE-owned, vertically integrated defence technology company delivering consistent quality from concept design to serial production and in-service support. Built on world-class engineering and rigorous international compliance, our high-performance solutions protect nations and critical infrastructure with efficiency, reliability, and decisive mission advantage.

ABOUT COMPANY

Name	Calidus
Established	2015
CEO	Dr. Khalifa AlBlooshi
HQ	UAE Abu Dhabi
Core Business	Land Systems, Aircraft, Missiles and Air defence system
Affiliates	Calidus Aerospace LLC
	CLS Automotive Technologies LLC

MISSION

Advancing Defence Innovation for a Safer Future. Calidus is committed to delivering cutting-edge solutions that redefine modern defence capabilities while ensuring adaptability and excellence for evolving global security challenges.

VISION

To lead in advanced defence technologies, delivering innovative solutions for modern challenges. Calidus aims to ensure security and resilience with state-of-the-art systems.

VALUES

The foundations of our values are based on Quality, Integrity, Care and Responsibility.

Calidus as a leader in defence innovation, has pioneered the world's first fully integrated drone defence system. Our commitment to technological superiority ensures that we remain at the forefront of modern warfare and national security, delivering unmatched protection in an ever-changing global landscape.



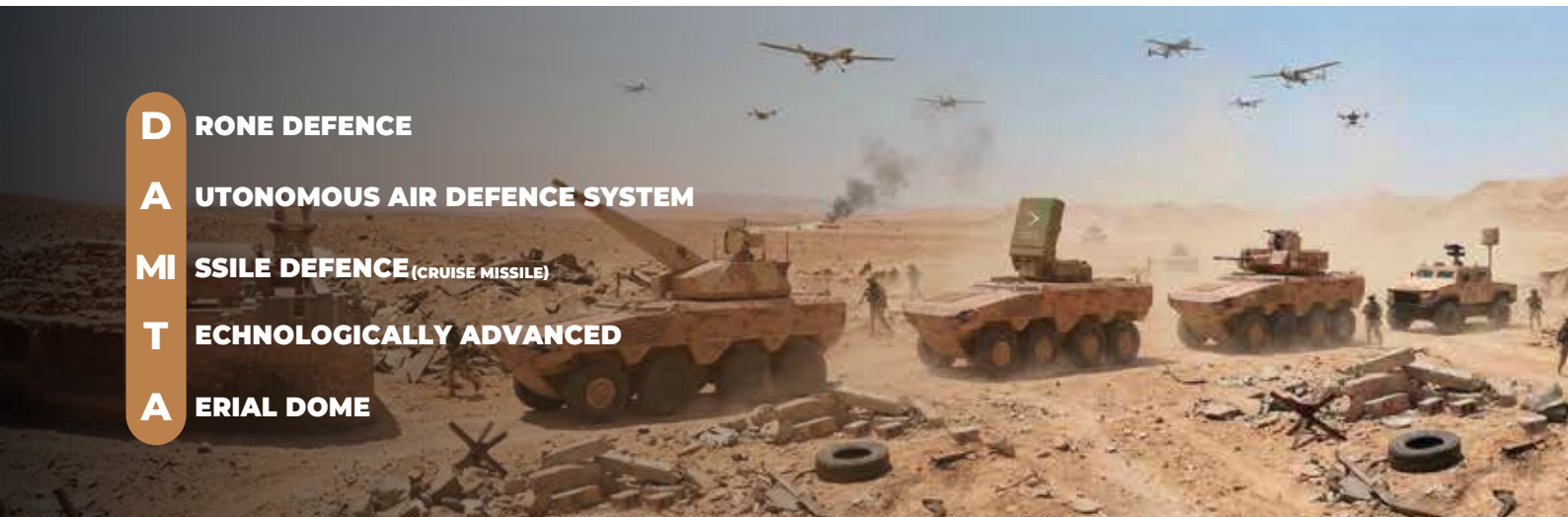


About DAMITA System

OPTIMAL SOLUTION FOR AI-DRONE AND SWARM-DRONE DEFENCE



D RONE DEFENCE
A UTONOMOUS AIR DEFENCE SYSTEM
M ISSILE DEFENCE (CRUISE MISSILE)
T ECHNOLOGICALLY ADVANCED
A ERIAL DOME



WHAT SETS DAMITA APART?

- Multi-layered defence system : simultaneous operation of 3 hard kill systems + 1 soft kill system
 - **Programmable, Airburst Amunition**
 - World-leading Kinetic Kill Systems for short-range
 - **The World's Premier High-Power Microwave (HPM) Counter-Swarm Solution**
 - Integrated Soft-kill System
 - State-of-the Art user-intuitive C2-System
- Battery-powered laser weapon for instant response, anytime, anywhere
- On-The-Move function (OTM): detection & engagement

CALIDUS developed the DAMITA System as a cutting-edge solution to protect against the threat posed by modern AI enabled drones and related technologies.

DAMITA is an autonomous, multi-layered attack and defence solution designed for modern battlefields. This next-generation system will be a critical asset in future warfare scenarios.

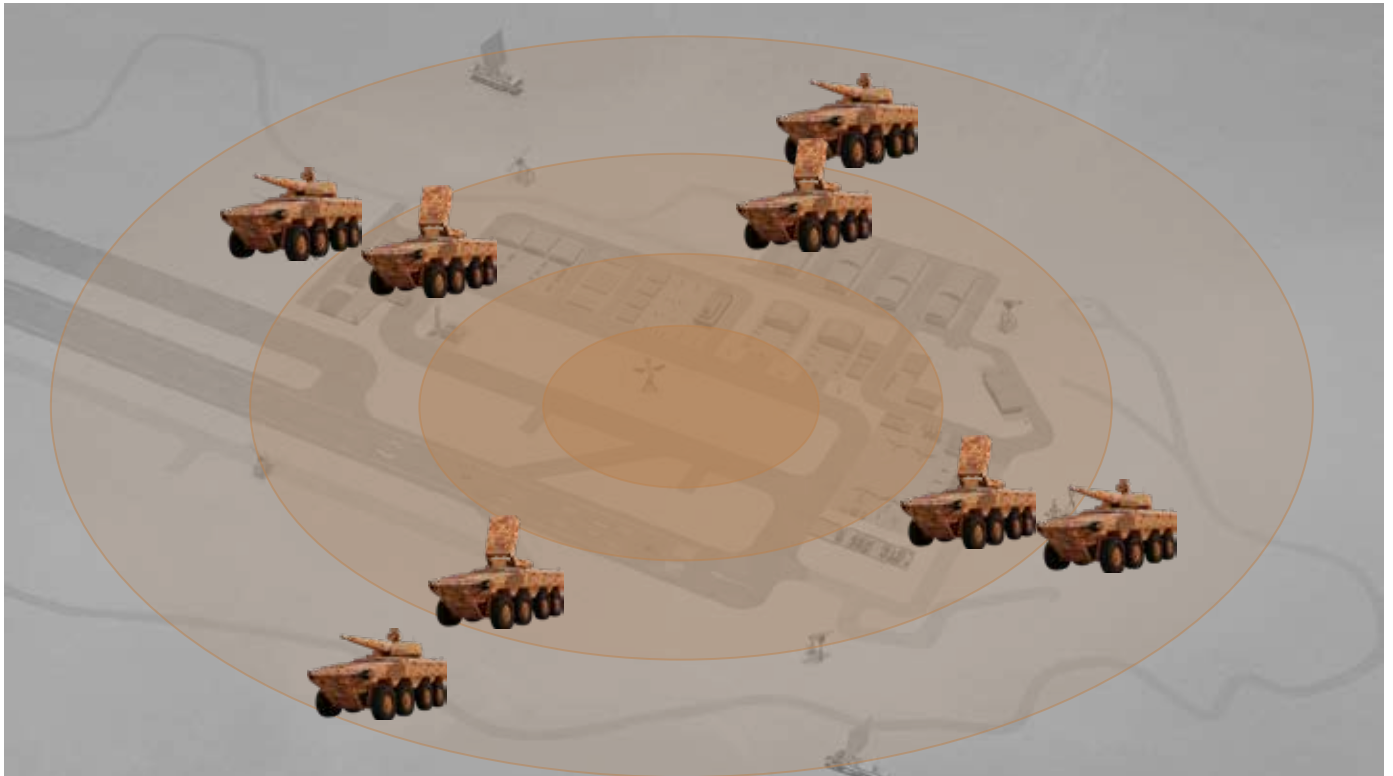
Drone Defence	<ul style="list-style-type: none"> • AI-based detection, tracking, and interception system • Autonomous target detection and identification using radar + EO/IR camera • Simultaneous operation of soft-kill (jamming) and hard-kill (kinetic & laser weapons)
Autonomous Air Defence	<ul style="list-style-type: none"> • On-the-move acquisition capability for detection and engagement while in motion • Real-time threat detection and automatic interception • AI-integrated EO/IR camera and radar synchronization
Cruise Missile Defence	<ul style="list-style-type: none"> • Rapid and integrated response for missile defence • Battery-powered laser system ensuring rapid deployment and response
Technologically Advanced	<ul style="list-style-type: none"> • Compatible with tanks and armored vehicles • Automated response system for detecting and neutralizing short-range threats • Radar-based detection for fast reaction shooting
Programmable, Airburst Ammunition	<ul style="list-style-type: none"> • Multi-fragmentation ammunition for effective drone and missile interception • Wide-area defence through airburst detonation • Equipped with 252 rounds for sustained operation



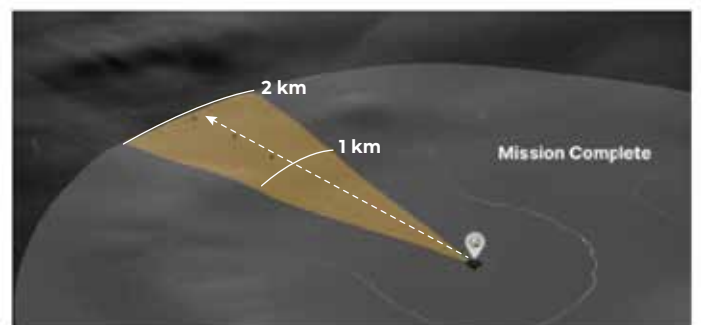
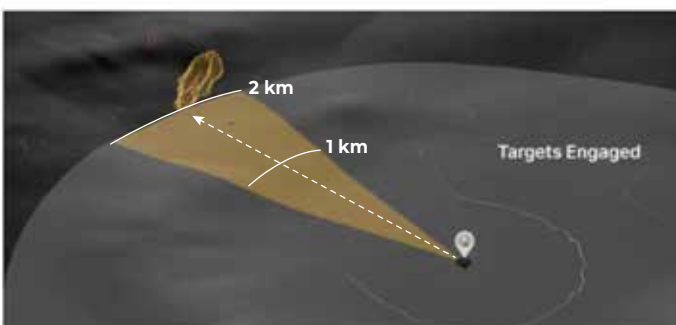
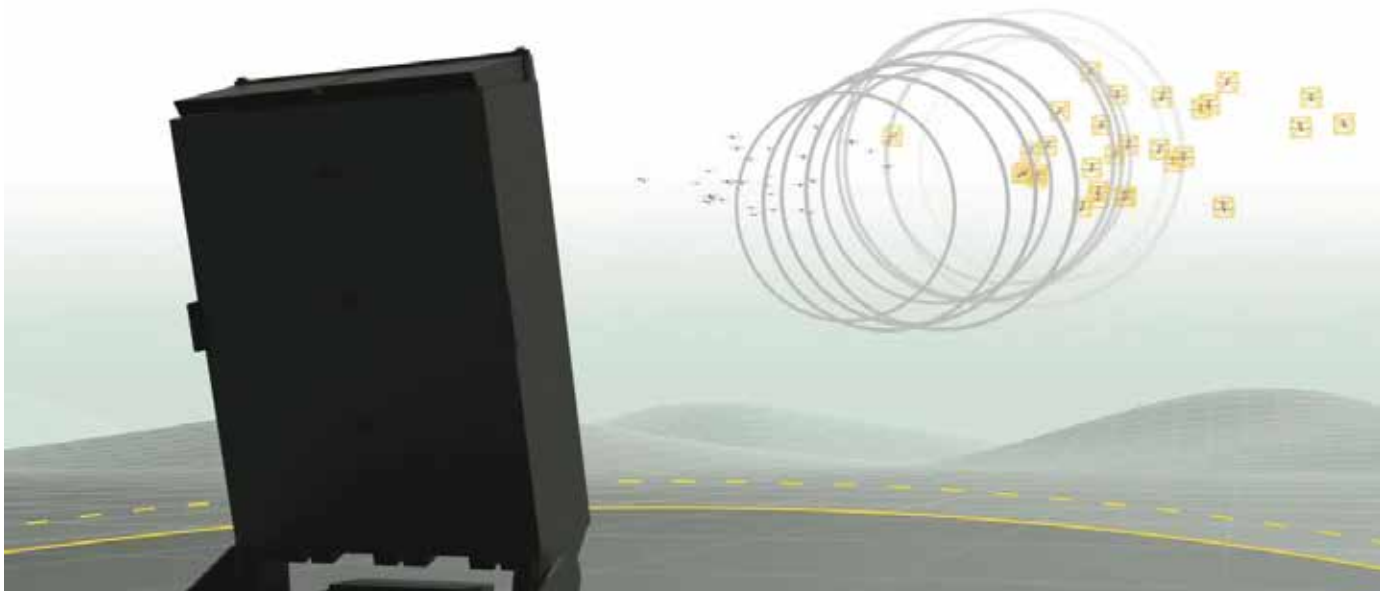
DAMITA System Configuration

THE WORLD'S FIRST INTEGRATED COUNTER-DRONE DEFENCE SOLUTION

SYSTEM CONFIGURATION EXAMPLE



HOW THE DAMITA SYSTEM OPERATES





AI-Driven Software Defined HPM System

The Invisible Shield: Dominating the Skies with Intelligent Electromagnetic Warfare



01 Software-Defined High-Power Microwave (HPM)

Beyond traditional hardware-centric defense, our software-defined architecture generates and optimizes electromagnetic waveforms in real-time.

Adaptive Waveform Control

Instantly modifies microwave patterns to match the specific frequency and characteristics of target drones, maximizing neutralization efficiency.

Real-time Lethality Updates

Stay ahead of evolving threats. Counter new drone models through instant software updates without the need for hardware replacement.



02 AI-Integrated Target Engagement

Our integrated Artificial Intelligence analyzes complex battlefield environments to support rapid, decisive commander intent.

Automated Multi-Target Prioritization

In the face of massive drone swarms, the AI evaluates threat levels and calculates the optimal engagement sequence and coverage.

Precision Beamforming

Software-controlled energy steering allows for surgical strikes on single targets or wide-sector denial for entire swarms simultaneously.



AI-Driven Software Defined HPM System

The Invisible Shield: Dominating the Skies with Intelligent Electromagnetic Warfare



03 Dynamic Safe Zones & Precision Control

Protect friendly assets and civilian infrastructure while neutralizing threats with pinpoint accuracy.

Software-Defined Exclusion Zones

With a simple "drag-and-drop" on the interface, operators can create "Safe Zones" where power is inhibited, protecting friendly communications and assets.

Intuitive HMI (Human-Machine Interface)

Replaces complex technical data with a streamlined graphical interface, ensuring error-free operation under high-pressure combat scenarios.



04 One-to-Many Dominance

Ensure sustainable defense with an inexhaustible magazine and superior cost-per-kill advantage.

Unlimited Magazine

As long as there is power, the defense remains active. No physical ammunition limits means continuous protection against sustained attacks.

Cost-Efficient Defense

Near-zero cost per shot provides a superior economic advantage against low-cost, mass-produced drone threats.



Main Features

Hard Kill System DIRECT ENGAGEMENT AGAINST THREATS

DAMITA FULL CONFIGURATION



The DAMITA System, developed in the UAE, is the world's first AI-based integrated counter-drone solution, employing multi-sensor fusion technology for real-time detection, classification, and interception. By combining high-performance radar, RF scanners, EO/IR sensors, and AI algorithms, it enables precise threat analysis and autonomous engagement.

A single unit integrates four hard-kill systems, High-Power Microwave (HPM), and one soft-kill module, all connected via a unified C2 network to counter swarm and large-scale drone threats. Incorporating lessons from the Ukraine conflict, DAMITA defines a new standard for AI-driven, next-generation air defense, safeguarding cities and critical infrastructures.

1 Set



AHEAD® HARDKILL SYSTEM

+



Central Control Node (SWEIHAN)

+



High-Power Microwave (HPM)

+



Integrated Anti-drone soft-kill system

AHEAD® HARD KILL SYSTEM (V-SHORAD) - 35mm



Carry 252 rounds of ammunition

Skyranger® Turret

Mobile 35 mm air defence gun
Effective combat range: up to 4,000 m
35 mm Oerlikon Revolver Cannon® KDG
Nominal rate of fire: 1,000 rds/min
Rapid single shot mode: 200 rds/min
35 mm x 228 Ahead® air burst ammunition
Ku-band tracking radar
Fully stabilized electro-optical sensor unit
Daylight TV camera
Infrared camera
Laser rangefinder

Mobility

Engine Power	724 hp
Power to Weight Ratio	27 hp/ton
Transmission	Automatic, 7+2 speed
Max Speed	130 km/h
Fuel Range	700 km
Gradient	70%
Side Slope	40%
Approach Angle	45°
Departure Angle	45°
Verticle Obstacle	0.8 m
Trench Crossing	2 m

CENTRAL CONTROL NODE (SWEIHAN)



Core Capabilities

Design, Simulation and Integration according to latest standards
Manufacturing (Prototype and Low-Rate)
Testing and Evaluation (Mobility and Protection)
In - House Operational Experience
Leading Industry Experts Consultancy

Key Specifications

Height to Roof	2.4 m
Length	8 m
Width	3 m
Crew	3
Dismounts	8 (up to 10)
Kerb Mass	20,520 kg
Combat Mass	13,480 kg
Gross Vehicle Mass	34,000 kg

*The manufacturer may modify the product design through continuous performance improvements



Main Features : Hard Kill System

About AHEAD® (Airburst Ammunition)

AHEAD® AIRBURST HARDKILL SOLUTION

ABOUT AHEAD® AIRBURST (CLS-SR35)

AHEAD® is a specialized type of airburst ammunition. Engineered for superior lethality and precision. Unlike generic airburst rounds, AHEAD® uses advanced programming and a patented time-fuzing mechanism to eject hundreds of tungsten sub-projectiles at the optimal point in flight. This creates a dense, cone-shaped pattern that maximizes hit probability against small, fast-moving, or swarming targets. Its proven effectiveness, reliability, and widespread deployment make it the globally recognized benchmark in future-proof air defense.

Concept

Timing Programming	<ul style="list-style-type: none"> • AHEAD® rounds are programmed with precise detonation timing at the firing device just prior to firing. • The target's distance, speed, and position are calculated via radar or EO/IR sensors to set the detonation time.
Airborne Detonation	<ul style="list-style-type: none"> • The munition explodes in midair just before it reaches the target. • Currently, several metal fragments (such as tungsten) are ejected from inside the munition.
Shrapnel distribution	<ul style="list-style-type: none"> • The ejected fragments are concentrated in the direction of the target, hitting the target at a wide range, making it effective against small and fast-moving targets.



Features

Precision Strike	<ul style="list-style-type: none"> • Explodes near the target to hit it with high accuracy • Can be used against a variety of targets, including drones, missiles, mortar shells, etc.
Fragmentation capability	<ul style="list-style-type: none"> • 152 tungsten fragments are released from a single round of ammunition • Each fragment is designed with a size and density to have a lethal impact on the target
Against a wide range of threats	<ul style="list-style-type: none"> • Proven combat performance in live-fire trials. • Can be used against military threats (drones, cruise missiles, helicopters, etc.) as well as in the civilian domain (airport security, anti-terrorism)
Efficiency	<ul style="list-style-type: none"> • High impact over large areas with less ammunition than conventional explosive munitions • Effective against small targets that are difficult to detect and intercept due to jamming, stealth
Adaptive defence	<ul style="list-style-type: none"> • Designed to NATO standards, compatible with a wide range of air defence systems • Particularly effective against swarm drones due to simultaneous strikes on multiple targets



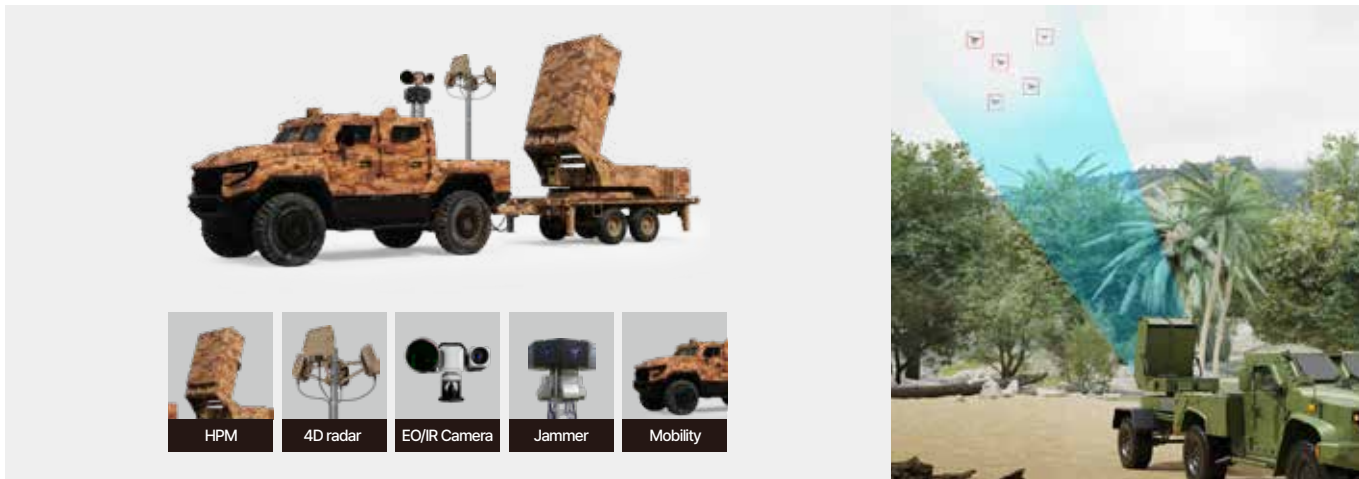


Main Features

ELECTRONIC WARFARE

Fixed or towed high-power HPM system

HIGH ENERGY POWER LASER SYSTEM



High-Power Microwave (HPM)

HPM System Specifications



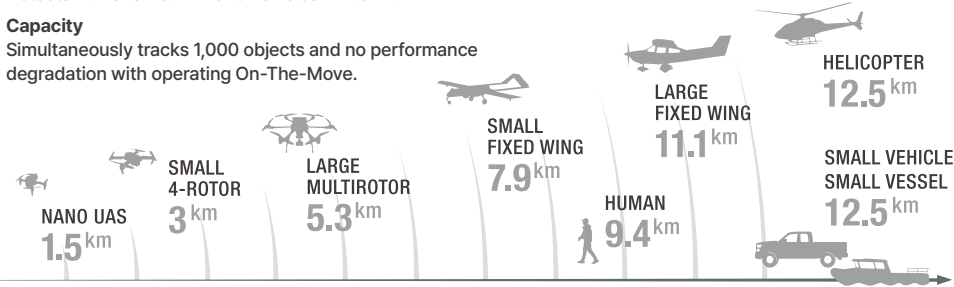
Core Technology Software-Defined	Utilizes Gallium Nitride (GaN) semiconductors: more compact and efficient than traditional vacuum tube-based HPM.
Operation Type Solid-state HPM	Real-time waveform optimization and lethality updates via software without hardware modifications.
Combat Capability Unlimited Magazine	Provides continuous defense with zero ammunition constraints and near-zero cost-per-shot.
Engagement Range Counter-Swarm	Capability to switch between a narrow beam for single targets and a wide beam to neutralize dozens of drones at once.
Safety Human Safe	Low-voltage operation with software-controlled "Safe Zones" to protect friendly assets and personnel.
Compatibility Open API	Open architecture for seamless integration with US and NATO C2 systems (e.g., FAAD C2).
Mobility Modular & Scalable	Modular design allows for integration into various platforms, including mobile vehicles and airborne pods.

4D Radar - EchoShield®

TYPICAL TRACKING RANGE

Range
Detects UAS targets typically from Group 1(3-5km) to Group 3 (7-12km).
Detects humans >9.4km and vehicles >12.5km.

Capacity
Simultaneously tracks 1,000 objects and no performance degradation with operating On-The-Move.





Size	42.9 x 32.9 x 18.7 cm / 16.9 x 12.9 x 7.4 in
Weight	19.2 kg / 42.3 lbs
Power	+20 to +33 VDC (+28 V nominal) < 250 W Operating
Frequency	15.4 – 16.6 GHz

Field of View	130° Az x 90° EI
Track Accuracy	< 0.5° Az x < 0.5° EI
Track Update Rate	10 Hz
Max Tracks	> 1,000 Objects of Interest



HPM Platform Specifications: Mobile&Pod

HPM Platform Specifications		
Product Type	HPM Mobile	HPM Pod
Product Appearance		
Value Proposition	Mobile counter-electronics for enhanced short-range and ground-based air defense; proven in partnership with GDLS Stryker, scalable to fit on anything.	Mobile and compact HPM system with multiple mount options for counter-electronics and electronic attack missions.
Target Platform	Tactical vehicles (ground platforms), hitch-mounted setups	Fixed-wing/rotary-wing aircraft, UAVs (aerial platforms)
Core Mission	Maneuver force protection, ground-based Counter-UAS and swarm defense	Airborne electronic warfare, multi-domain counter-electronics missions
Cooling System	Integrated high-capacity liquid/air cooling (optimized for ground mobility)	Passive/active hybrid cooling leveraging airflow (optimized for SWaP)
Power Source	Vehicle-integrated power or external generator units	Aircraft onboard power systems or standalone battery packs
Key Features	Software-defined weaponry, GaN-based semiconductors, high maneuverability	Ultra-lightweight design, modular mounting options, open API architecture
Operation Type	Ground-mobile and point defense (Full Spectrum Maneuver Force Protection)	Airborne-mounted and expeditionary (Airborne Directed Energy)





Main Features: Soft Kill System

DETECT, DISRUPT, CONTROL – THE FIRST LAYER OF DEFENCE

INTEGRATED SOFT-KILL SYSTEM



OTM / 100km/h

Mobility

Engine Power	360 hp
Power to Weight Ratio	26 hp/ton
Transmission	Automatic, 6 speed
Max Speed	120 km/h
Fuel Range	700 km
Gradient	70%
Side Slope	40%
Approach Angle	38°
Departure Angle	38°

3D RADAR (360° Detection)

	100% Differentiation Between Birds and Drones using Micro-Doppler (Birds: Green, Drones: Red): low false alarm rates
	Real-Time Detection On-the-Move (OTM): Radar operates effectively at speeds up to 100 km/h
	Detection of objects with velocity up to 100m/s: 5km instrumented range / DJI Inspire (3kg) : 4km / DJI Phantom (1.4 kg) : 3.4km
	Low SWaP, (re)deployable within 15 minutes and built to be integrated.

EO/IR CAMERA

	Embedded twin-AI modules running EO and IR units allows simultaneous Edge-AI processing
	Detection/Identification Range: 8 km / 3 km (Night: 3.0 km based on Phantom 4)
	Consistent performance in both day and night conditions

JAMMER

	Neutralizes targets within 5-10 km (Distance may vary by environment, based on open areas)
	High-precision selective jamming
	Capable of countering all RF signals
	Continuous frequency coverage from 400MHz to 6GHz
	Selectable directivity; capable of jamming in the same direction as the camera

RF SCANNER

	Single system capable of detecting and identifying all types of drones across the full RF spectrum
	Detection range up to 20–80 km when equipped with long-range antenna (range varies depending on environment and terrain)
	Real-time RF monitoring and tracking across 20 MHz to 8 GHz frequency bands
	Capable of detecting pulses as short as 8 microseconds (8 μs)

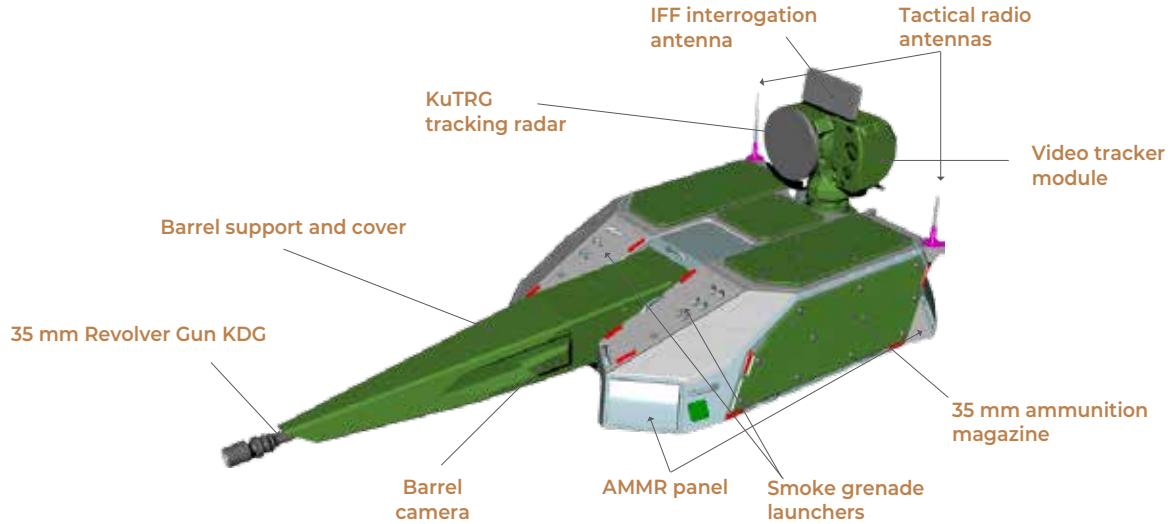
* The manufacturer may modify the product design through continuous performance improvements



Major components of the CLS-SR35 turret

EQUIPPED FOR AHEAD® ROUNDS

TECHNICAL CHARACTERISTICS



Cannon

Calibre	35 mm x 228
Nominal rate of fire	1,000 rounds/min
Rapid single shot	200 rounds/min
Mean muzzle velocity Ahead® (Vo)	1,050 m/s
Mean muzzle velocity full calibre (Vo)	1,075 m/s
Length of cannon with muzzle brake	4,206 mm
Barrel length (90 cal.)	3,150 mm

Gun turret

Weight of gun turret w/o ammunition	4,650 kg
Weight of gun turret with ammunition	5,150 kg
Swept radius (barrel 0°)	3,950mm
Traverse arc	n × 360°
Elevation arc	-5° to +85°
Traverse speed	115%/s
Elevation speed	57°/s

Ammunition

Types (NATO Code)	
Programmable	35 mm x 228
Standard full calibre	HEI, HEI-T, FAP, TP-T
No. of rounds ready to fire	252

Integrated search radar (option)

Search radar (SR)	AESA, S-band or X-band
Instrumented range	50 km
Spatial coverage	150°/360°, -15°... +85°

Operation

Unmanned during operation, set up with 2 operators	4,650 kg
Engagement supervision from remote gun console	5,150 kg

Gun on hook-liftable platform (HLP)

Weight of gun with hook-liftable platform	6,500 kg
Weight of gun with platform and 504 rounds	7,400 kg

Tracking sensor unit

Tracking radar (TR)	X-band or Ku-band
Instrumented range	30 km
Update rate	50 Hz
EO sensor package	
TV camera	HD colour CMOS, 2° -45°
IR camera	Cooled MWIR, 640 x 512 pixels
Laser rangefinder	Eye safe class 1M, 6-10 Hz
Video tracker	Adapted for air and ground targets
Sensor unit motion vs. gun turret:	+150°, -15°... +85°

TARGETS

	Skyranger 35	Keep off Range [m]
Micro UAV	Green	1000
Mini UAV	Green	2000
Combat Aircraft	Green	2500
Combat Helicopter	Green	2500
Cruise Missile	Green	2000
Harpy	Green	1000
Micro Ammunition	Green	1000
Small Micro Ammunition	Green	1000
Air to Ground Missile	Green	2000
C-RAM	Light Green	500

* Legend Kill Performance at Keep off Range : ■ < 20% ■ 20...50% ■ 50...80% ■ > 80%



Central Control Node (SWEIHAN)

EQUIPPED WITH AIRBURST/PROMIMITY ROUNDS AND 70MM ROCKET LAUNCHERS

SWEIHAN CHARACTERISTICS



An 8x8 armoured fighting vehicle equipped with the latest equipment and systems, capable of transporting eight soldiers and its crew, with all their equipment, to the battlefield through various types of terrain and ground obstacles.

It provides a high-level armoured protection, as well as protection against chemical and biological threats, while ensuring crew comfort for maximum combat readiness.

Mobility			
Engine Power	724 hp	Ground Clearance	450 mm
Power to Weight Ratio	24.5 hp/ton	Turning Diameter	22 m
Transmission	Automatic, 7+2 speed	Fording Depth	1.5 m
Max Speed	130 km/h	Suspension System	Independent, double wishbone
Fuel Range	700 km	Tyres	16R20
Gradient	70%	Number of Axles	4
Side Slope	40%	Drive	8WD
Approach Angle	45°	Steered Axles	1st and 2nd
Departure Angle	45°	Drive	Two Dpeed with Neutral
Verticle Obstacle	0.8 m	Steered Axles	Pneumatic
Trench Crossing	2 m	Transfer Case	Pneumatic, spring activated

Armament			
Turret Type	Remote Controlled Air Defence	Sensors on turret	Integrated 3D AESA search radar Ku-band tracking radar fully-stabilized EO/IR
Model	SK35		
Gun / Caliber	35 x 228 mm		
Primary anti-air Ammo	AHEAD (KETF/ABM) airburst	Radar Range	35 km (search & tracking radars)
Rate of fire (max)	1,000 rds / min (Rapid Single Shot 200 rds / min)	Traverse	n×360°
Ready-to-fire ammo (turret)	252	Elevation	-7° / +80°
Effective range vs air targets	4000 m	Missile	Optional VSHORAD missiles

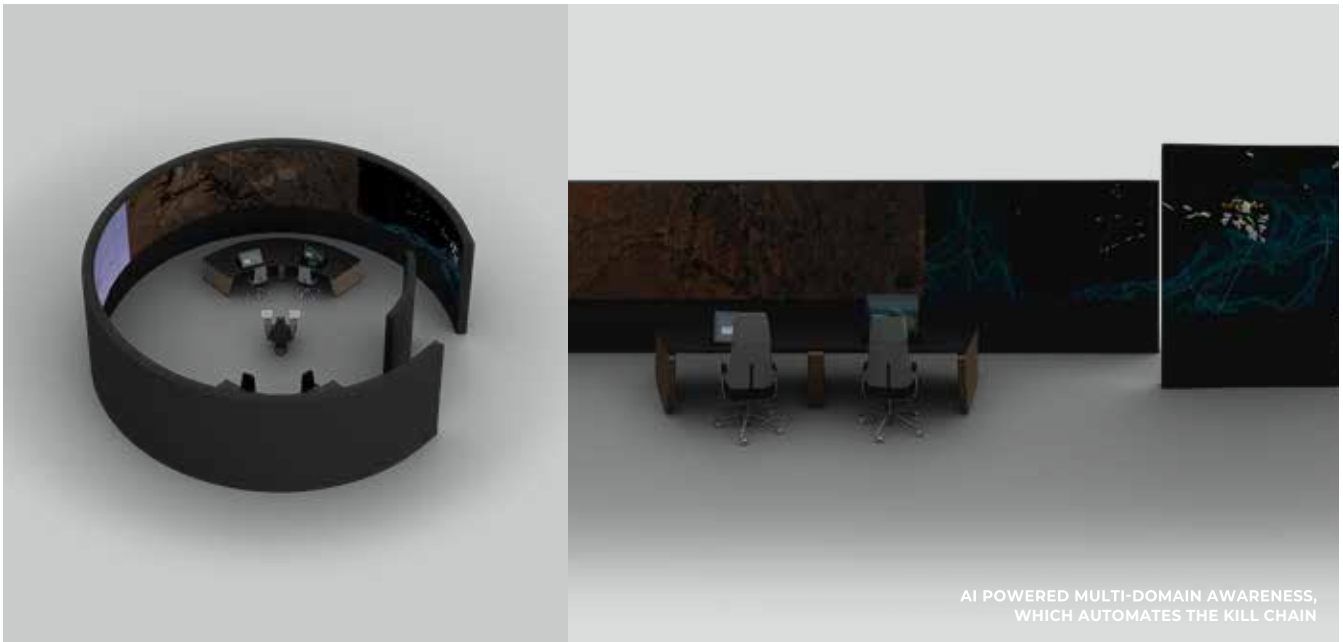


DAMITA Command & Control (C2)

AI POWERED COMMAND FOR MODERN OPERATIONS

ALL-DOMAIN SENSOR FUSION

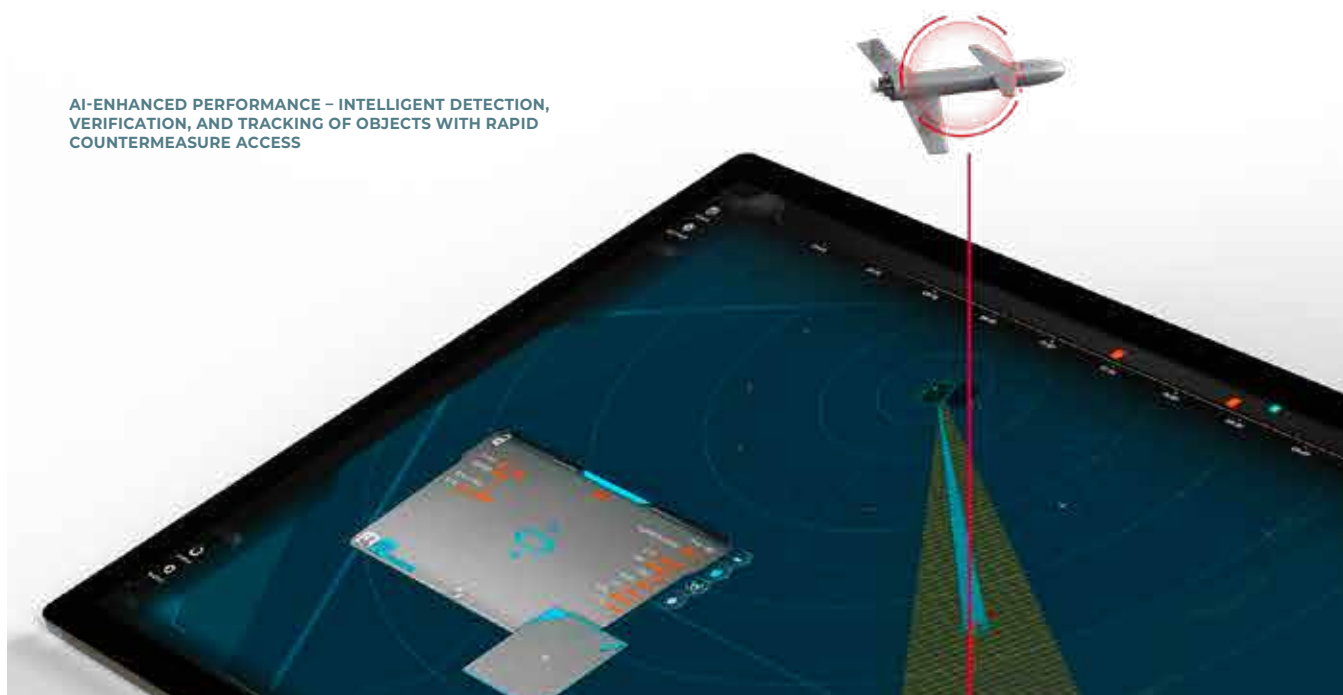
The DAMITA C2 System fuses multi domain sensors and effectors into a single tactical picture, giving operators complete view and control of the battlespace. From urban environment to a hostile border, the C2 detects, tracks and classifies threats to automate the kill chain in machine speed.



AI POWERED MULTI-DOMAIN AWARENESS, WHICH AUTOMATES THE KILL CHAIN

AI TARGET CLASSIFICATION

Powered by AI, the DAMITA C2 autonomously differentiates threats from other objects and background noise even in cluttered, active environments. Its machine-learning analyse behaviour, trajectory, and signature patterns to classify threats including types of drones and UAS with precision, reducing false alarms and accelerating decision-making across CUAS and integrated air defence operations.



AI-ENHANCED PERFORMANCE - INTELLIGENT DETECTION, VERIFICATION, AND TRACKING OF OBJECTS WITH RAPID COUNTERMEASURE ACCESS

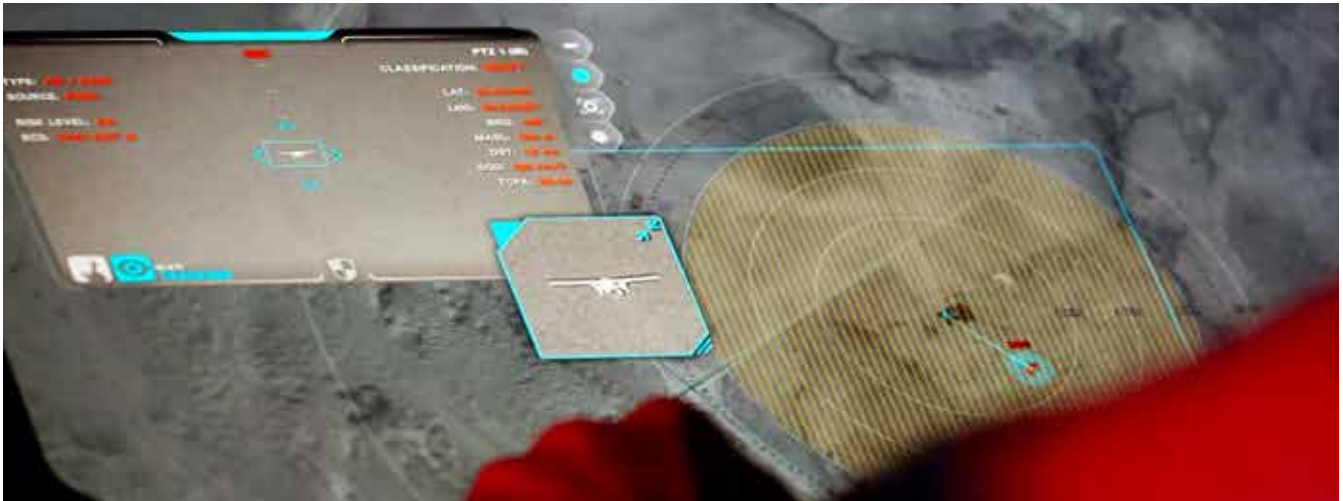


DAMITA Command & Control (C2)

UNIFIED SITUATIONAL AWARENESS

AUTONOMOUS KILL-CHAIN, HUMAN IN THE LOOP

Automate decision making from detect to defeat, while maintaining operator authority. Once a threat is verified, the system recommends and readies countermeasure options ensuring rapid, accountable, and coordinated action across the full kill chain.



- **SMART, INTUITIVE USER INTERFACE**

Designed for mission-critical operations, the DAMITA C2 interface delivers real-time CUAS situational awareness through a streamlined, multi-touch display. Operators gain rapid insight, control, and coordination across assets transforming complex drone engagements into intuitive, data-driven decisions that minimise cognitive burden and response time.

- **CENTRAL C2 - READY TO MOVE**

From command hubs to mobile platforms, our C2 connects every sensor and effector within a unified network. Secure and scalable, meshed and managed as one complete solution, it delivers the same, unmatched operational clarity on the move as it does at fixed sites ensuring continuous protection, anywhere the mission demands.

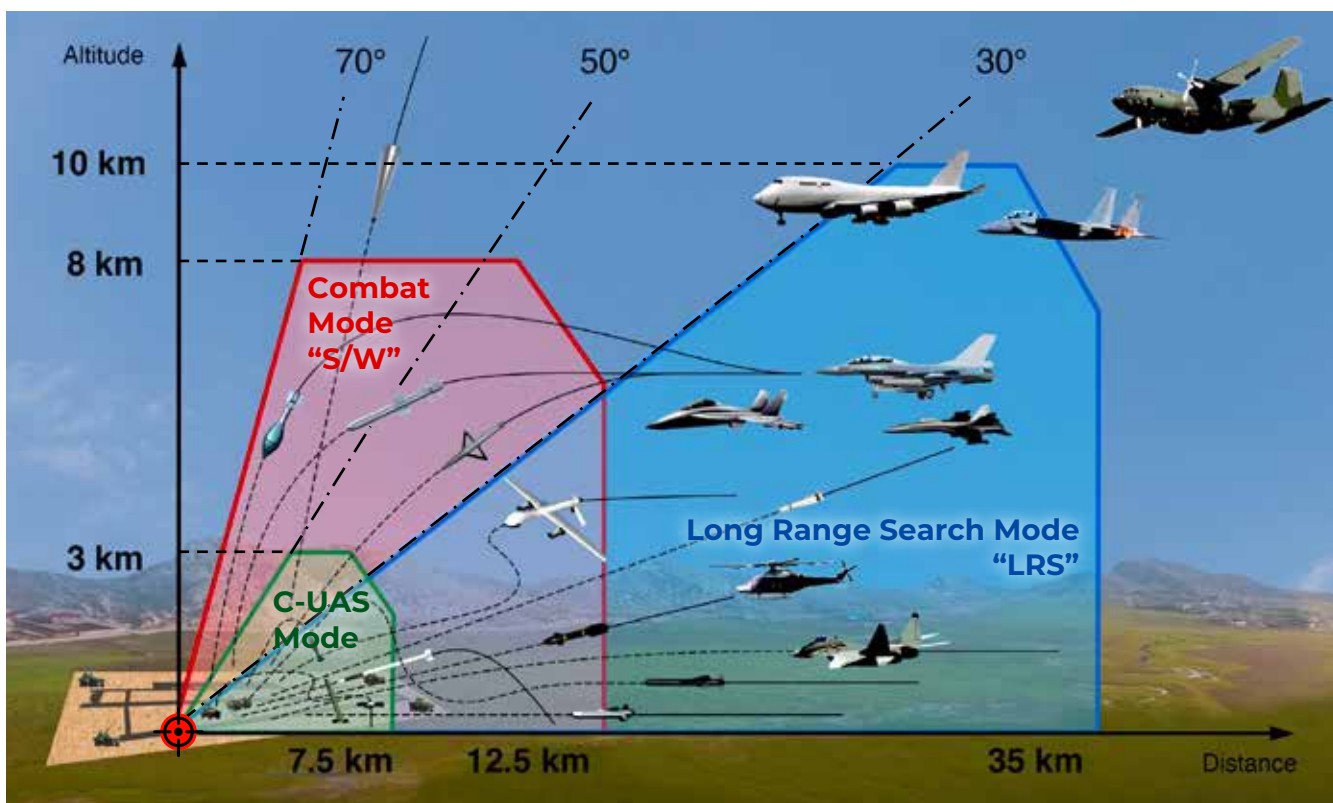




System Configuration Stages

DETAIL STAGE OF THE SYSTEM AND DETAILS OF DETECTION CAPABILITY

DAMITA ENGAGEMENT PROCESS



DETECTION CAPABILITY OF THE RADAR

UAS - Class 1	The maximum distance for detecting	Size of drones
Category 1	1.0 km	Nano (up to 250 g)
Category 2	2.6 km	Micro (250 g - 2 kg)
Category 3	4.5 km	Mini (2-25 kg)
Category 4	6.0 km	Medium (25-150 KG)
Category 5	7.2 km	Large (Over 150kg)

- NB: Detection range depends on varying factors such as RCS, heading, speed, etc.)
- Two MSU Light a typical single runway airbase can be protected against

LSS low slow small	CLASS 1 < 150 kg	Micro	BLACK HORNET OCTOCOPTER	
			Weight: < 2 kg Op. Alt: 100 m Radius: 5 km Payload: 0,2 - 0,5 kg	
		Mini	SKYLARK SCAN EAGLE RAVEN	
		Weight: 2 - 20 kg Op. Alt: 1000 m Radius: 25 km Payload: < 10 kg		
		Small	SKELDAR HARPY NG BEE	
		Weight: < 150 kg Op. Alt: 1500 m Radius: 50 - 100 km Payload: < 50 kg		
	CLASS 2 > 150 kg	Tactical	DOZOR 600 HERMES 900 HERMES 450	
		Weight: 150 - 600 kg Op. Alt: 3000 m Radius: 100 km Payload: < 200 kg		

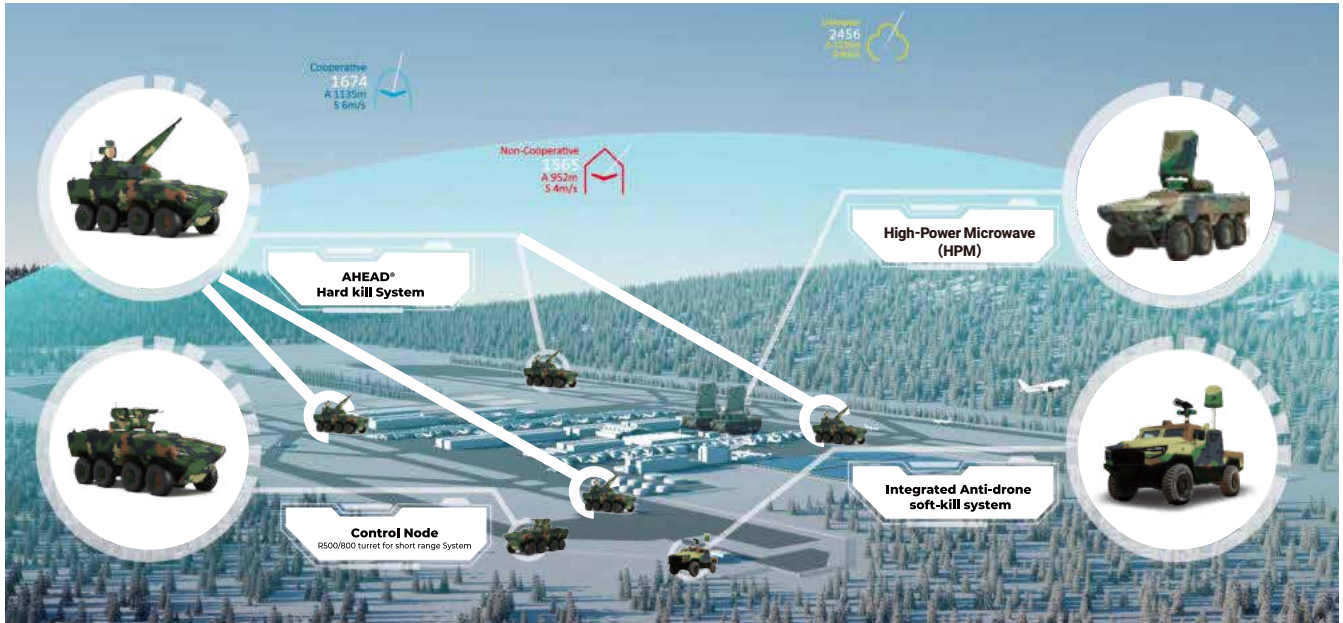


System deployment examples

UNIVERSAL READINESS FOR A BORDERLESS THREAT

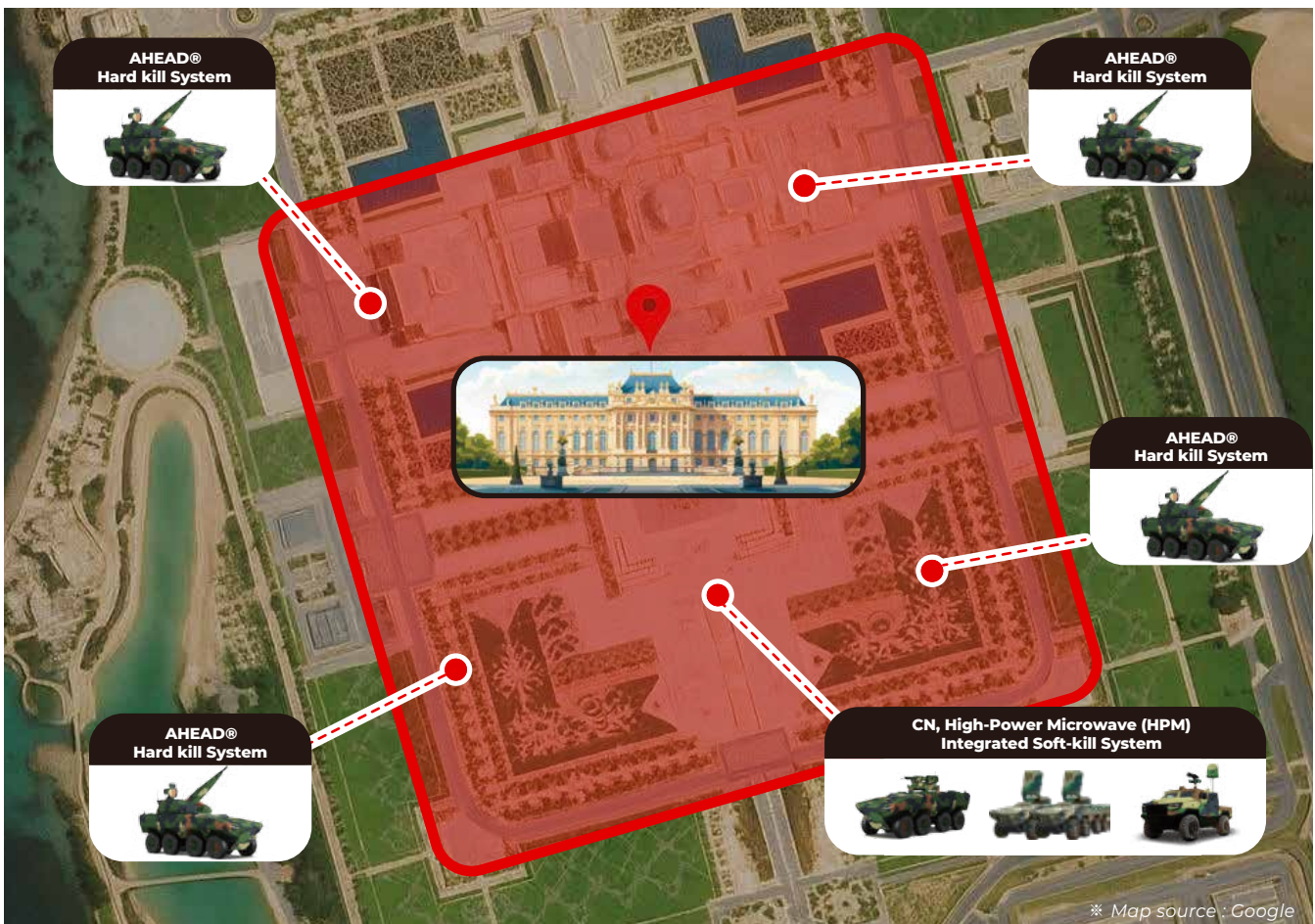
DEPLOYABLE ANYWHERE

Adaptable to any nation, terrain, or mission. In drone warfare, no country is an exception.



EXAMPLE OF DAMITA SYSTEM DEPLOYMENT

Presidential Palace Deployment Example





The New Era of Naval Defense: Maritime HPM

ADVANCED ELECTRONIC SHIELDING FOR AIRCRAFT CARRIERS AND SURFACE COMBATANTS

Key Features

Integrated Maritime Protection

Seamlessly integrates with existing naval Command and Control (C2) networks (e.g., Aegis or NATO standards) for autonomous, real-time engagement.

Superior Counter-Swarm Capability

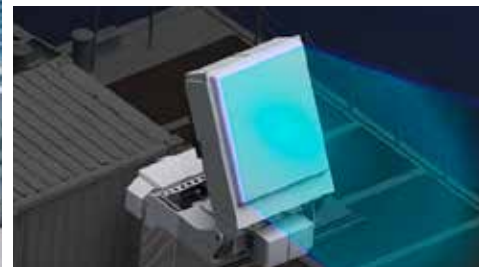
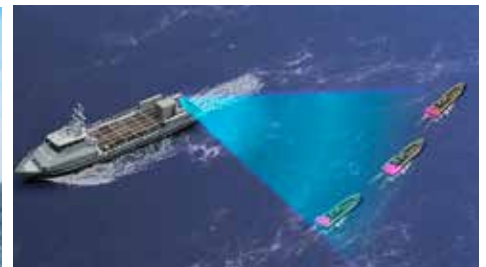
Neutralizes dozens of incoming hostile UAVs and suicide boat swarms simultaneously using a wide-beam energy field.

Unlimited Defensive Magazine

Leverages shipboard power to provide continuous defense with an infinite magazine and near-zero cost-per-shot.

Software-Defined Safe Zones

Precision software control creates "Safe Zones" to protect friendly aircraft and shipboard electronics while engaging threats.



Maritime Platform Specifications

Target Platform	Core Mission	Cooling System
Aircraft Carriers, Destroyers, Frigates, and Coastal Sites	Fleet Air Defense, Counter-Swarm (C-UAS), and A2/AD	Integrated high-efficiency liquid cooling optimized for saline environments
Power Source	Operation Type	
Direct integration with shipboard onboard power systems	All-weather maritime operation and multi-domain directed energy defense	





Option : APOLLO HIGH ENERGY LASER WEAPON

Advancing a joint development program for a 100 kW-class high-energy laser system to safeguard critical assets with speed-of-light precision, with the objective of enabling export to third countries.

Key Features



- Laser power 50-150 kW

- 50 m to 3 km CUAS hard kill range

- 50 m to 15 km optical sensor denial

- >20 drone kills per minute (Group 1 UAS)

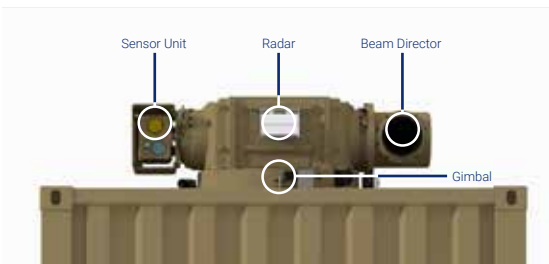
- <1.5 second (60°) slew to cue and engage

- Unlimited engagement with external electrical power

- >200 stowed kills in magazine if fully isolated

- Integrates with all NATO fielded C2 and IADS

- 20'ISO container packaging for rapid relocation



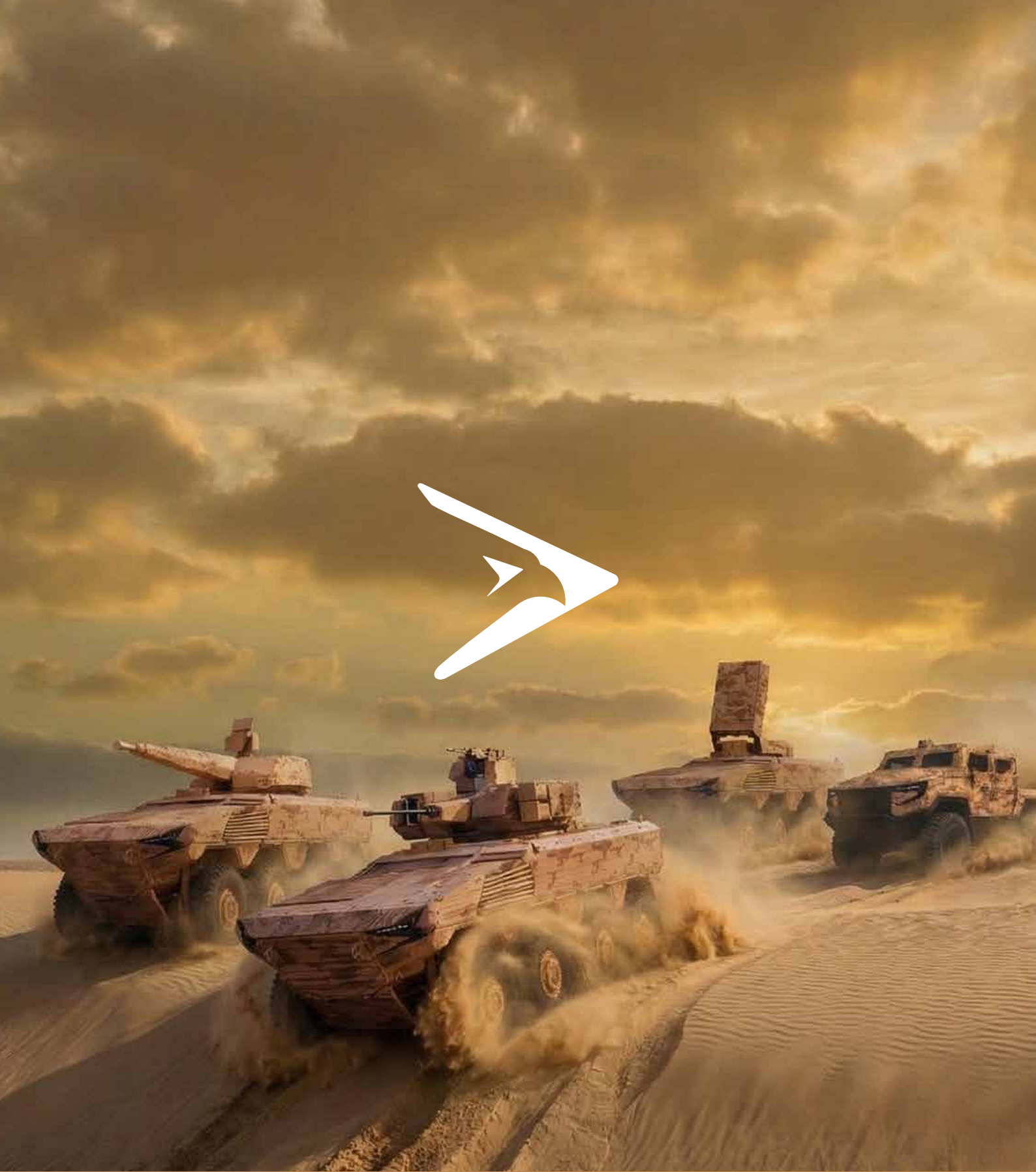
LASER	CONFIGURATION
Power	50 - 150 kW
Duty cycle	100% subject to electrical power
Number of stored engagements	200
Number of engagements with continuous power	Unlimited
Beam elevation	+110° to -10°
Beam direction	n x 360°

TARGET ACQUISITION SYSTEM	CONFIGURATION
FOV (visible)	Scalable from <1.2° to >33°
FOV (IR)	Scalable from <1.4° to >27°
Radar threat detection	Included, or third-party via standard interface
IR passive threat detection	Included, or third-party via standard interface
C2 interface	Multiple C2 systems integrated

ENGAGEMENT	CONFIGURATION
Slew to cue	700 msec (60°)
Target lock	600 msec
Target neutralisation (Group 1 UAS)	1.3 sec (50 kW)
Target neutralisation (Group 2 UAS)	4.4 sec (50 kW)
Engagement range	50 m to 3 km (typical)

DEPLOYMENT
20' transportable shipping container
8 x 8 custom installation

SENSOR UNIT	DAY CAMERA	THERMAL IMAGER
Detection range	> 12,000 m	> 13,700 m
Recognition range	> 5600 m	> 5100 m
	> 4700 m	> 4000 m



Contact us

CALIDUS Land System
P.O. Box: 6610 Abu Dhabi, U.A.E.

Email: info@calidus.ae

www.calidus.ae | www.damita.ae