NEXT-GEN DRONE DETECTION FOR LAYERED BASE DEFENSE

SCANTER SPHERA – 3D C-UAS RADAR

The battlefield has changed – permanently. Drones are already a central part of modern warfare. Small, fast, and flying below traditional radar coverage, they're being used for surveillance, sabotage, and high-impact strikes against military bases, borders, and critical infrastructure.

Standard radar systems – built for larger, higher-flying targets – struggle to detect and track these new evasive threats. As drone technology becomes cheaper and more accessible, and with drone swarms entering the picture, your detection system must keep evolving. The challenge isn't just spotting one – it's spotting them all, in time to act.

The SCANTER Sphera 3D radar is built for that challenge. Delivering unmatched precision, it enables you to detect, classify, and respond – **before it's too late**.

Seconds Count. SCANTER Sphera Delivers.

In drone detection, reaction time is everything. The window between detection and impact can be measured in seconds. SCANTER Sphera gives you those seconds back.

Longer detection range
= Improved response time

Faster classification
= quicker decision-making

Real-time tracking
= timely action

Small target separation
= superior awareness

Whether it's a single quadcopter sneaking in low or a swarm converging from multiple angles, the SCANTER Sphera 3D radar ensures your operator sees the threat early – and responds before damage is done.

With its pulse-based architecture, the SCANTER Sphera is resilient to jamming and electromagnetic interference, ensuring reliable performance even in noisy, cluttered environments.

SECONDS MATTER. FULL SITUATIONAL AWARENESS IN REAL TIME.

Purpose-Built for Today's Threats

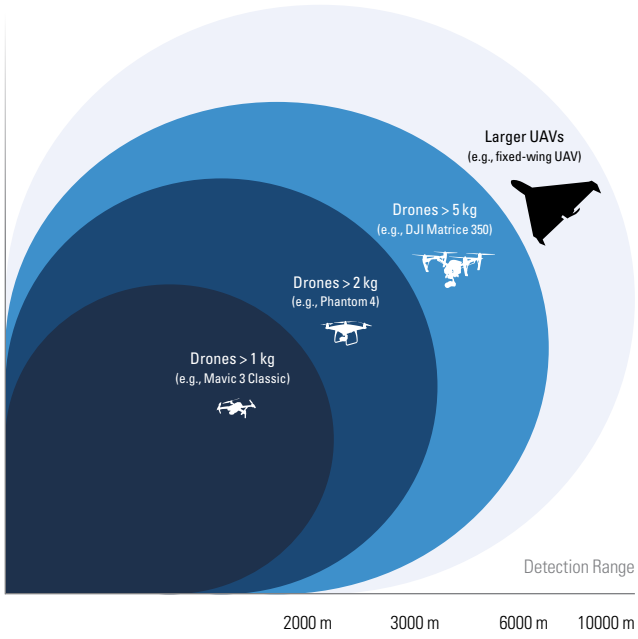
The SCANTER Sphera 3D C-UAS radar isn't adapted from an old battlefield. It's purpose-built to **address the drone challenge head-on with the latest learnings from zones of conflict:** nano, micro, and mini drones that operate close to the ground, under radar coverage, and in swarm formations.

At its core is a software-defined radar platform, enabling ongoing updates and mission-specific tuning. You can adjust mission sets and transmission profiles, load new threat models, and evolve your defense posture – without changing hardware.

The radar's **AI-based algorithms** are trained to detect and classify targets using micro-Doppler signatures and flight kinematics, ensuring **low false alarm rates** and high confidence in every detection.

- 360° seamless 3D coverage
- Simultaneous tracking of multiple drone types
- Micro-Doppler and kinematic-based AI classification
- Detection over land and sea, in all weather conditions

SCANTER Sphera extends your reaction window. With up to **50% longer detection range** than comparable systems and the ability to integrate multiple radar outputs into one fused data stream, command and control wins the time they need to neutralize the threat.



Deploy Fast. Scale Easily. Trust Completely.

SCANTER Sphera is built for real-world operation. Set it up quickly, get it running in minutes, and deploy it wherever it's needed – whether as a standalone sensor, with the TrackViewer display solution, or fully integrated into your C2 system, either the T.react CIP from Terma, or any other command and control solution.

The radar connects seamlessly using **industry-standard interfaces**, making it easy to integrate with existing C2 setups and effectors. You can deploy it in both **fixed and deployed military base configurations**, and **scale coverage** by linking an array of radars and other sensors in your C2 system for a full-area, **layered detection**.

With it's proven build quality, the SCANTER Sphera 3D radar is tough, reliable, and requires minimal maintenance – even in demanding environments. And because it's a software-defined system, you can update it over time, tune it to specific missions, and **adapt it as new threats emerge**.

With the SCANTER Sphera, you stay operational, flexible, and one step ahead.

Key Benefits of the SCANTER Sphera

Fast response time
Act in seconds, not minutes

High detection confidence
AI-powered tracking of even small, low-flying drones

Resilient performance
Built to resist jamming and harsh conditions

Full-area coverage
360° 3D awareness, scalable with up to 8 radars

Easy integration
Plug into your existing C2 system with minimal effort

Mission-tuned configuration
Tailor to your specific threat environments

Technical Specifications

Technology	3D pulsed Doppler radar advanced digital beamforming
Frequency band	X-band
Instrumented/Detection/ Classification range	10 km / 6 km/ 3 km (target size: NATO Mini) 10 km/ 3.1 km/ 1.9 km (target size: NATO Micro)
Update rate	Down to 1 sec.
Elevation coverage	> 65 deg
Classification method	Multi method classification employing AI based on Micro-Doppler and Kinematics
Tracking method	Multi Hypothesis Tracking
Number of concurrent tracks	250

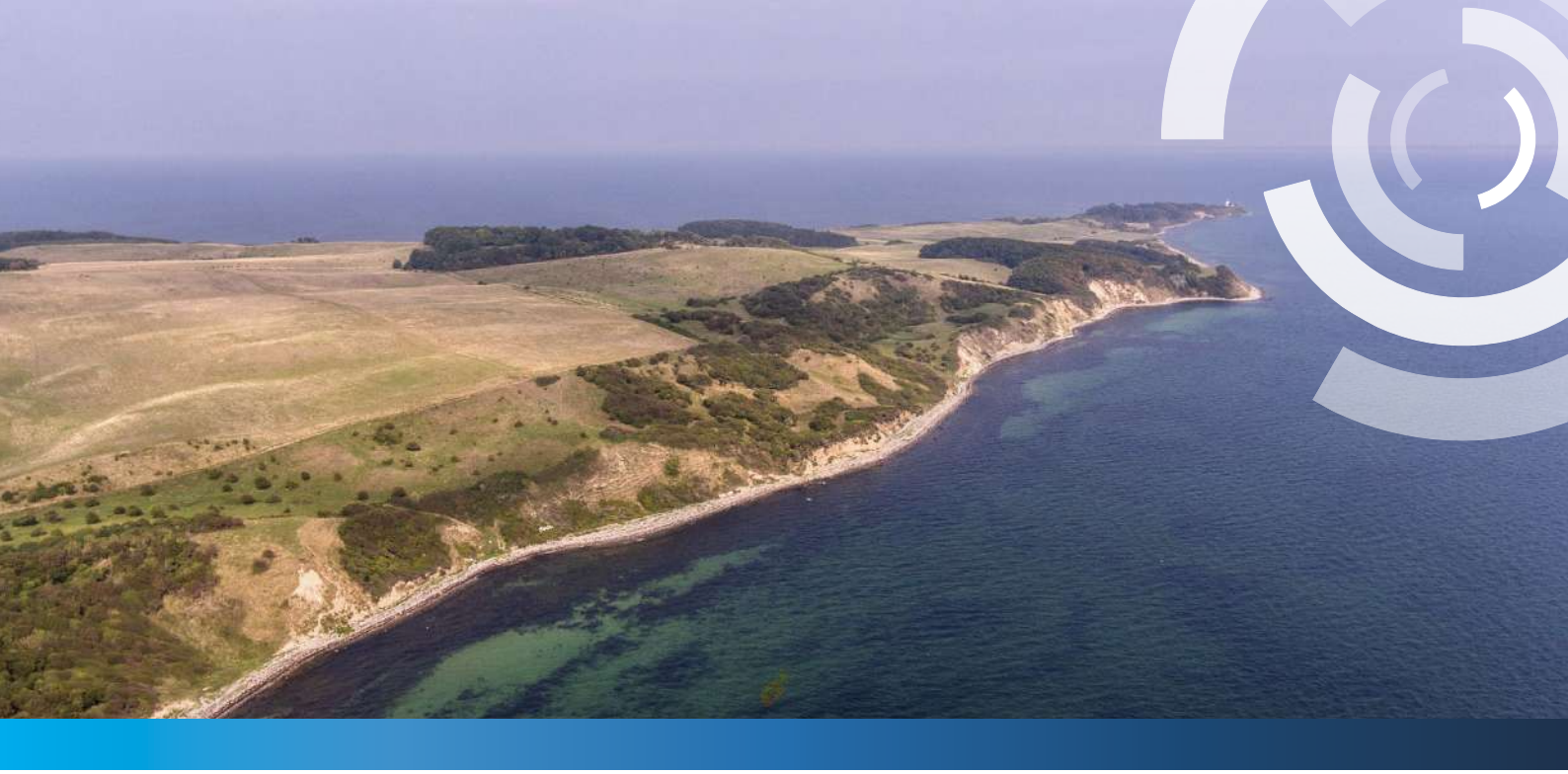
Data interface	ASTERIX CAT48 (extended with classification)
Physical dimensions	600 mm x 750 mm (upmast equipment)
Weight	40 kg (upmast)
Ambient temperature	-32 deg. to +60 deg. (upmast)
Power consumption	200 W (upmast equipment)
Situational display	Terma TrackViewer • 20 GIS • Target tracking • Alarm Zones • Record/ replay
Multi-radar setup	Up to 8 fused radars

Stay Ahead, Stay Operational

When drones approach your base, the clock is already ticking. Our SCANTER Sphera 3D radar gives you the seconds you need to make the right decision – and the confidence that your system won't let you down.

It's not just about seeing the threat.
It's about responding in time.

SCANTER Sphera. Fast, reliable, ready.



Operating in the aerospace, defense, and security sector, Terma supports customers and partners all over the world. With more than 1,900 committed employees globally, we develop and manufacture mission-critical products and solutions that meet rigorous customer requirements.

At Terma, we believe in the premise that creating customer value is not just about strong engineering and manufacturing skills. It is also about being able to apply these skills in the context of our customers' specific needs. Only through close collaboration and dialog can we deliver a level of partnership and integration unmatched in the industry.

Our business activities, products, and systems include: command and control systems; radar systems; self-protection systems for ships and aircraft; space technology; and advanced aerostructures for the aircraft industry.

Terma has decades of hands-on know-how in supporting and maintaining mission-critical systems in some of the world's most hostile areas. Terma Support & Services offers through-life support of all our products to maximize operational availability, enhance platform lifetime, and ensure the best possible cost of ownership.

Headquartered in Aarhus, Denmark, Terma has subsidiaries and operations across Europe, in the Middle East, in Asia Pacific as well as a wholly-owned U.S. subsidiary, Terma Inc., with offices in Washington D.C., Georgia and Texas.

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