

Advanced Radar for UAS/AAM Operations.

SCALABLE. DEPENDABLE PERFORMANCE.



R1.4210
AGL: 89 m
Rng: 2680 m
RCS: -19 dBsm
Vel: 10 m/s
Class: UAV-MR
p(Class): 95.9%



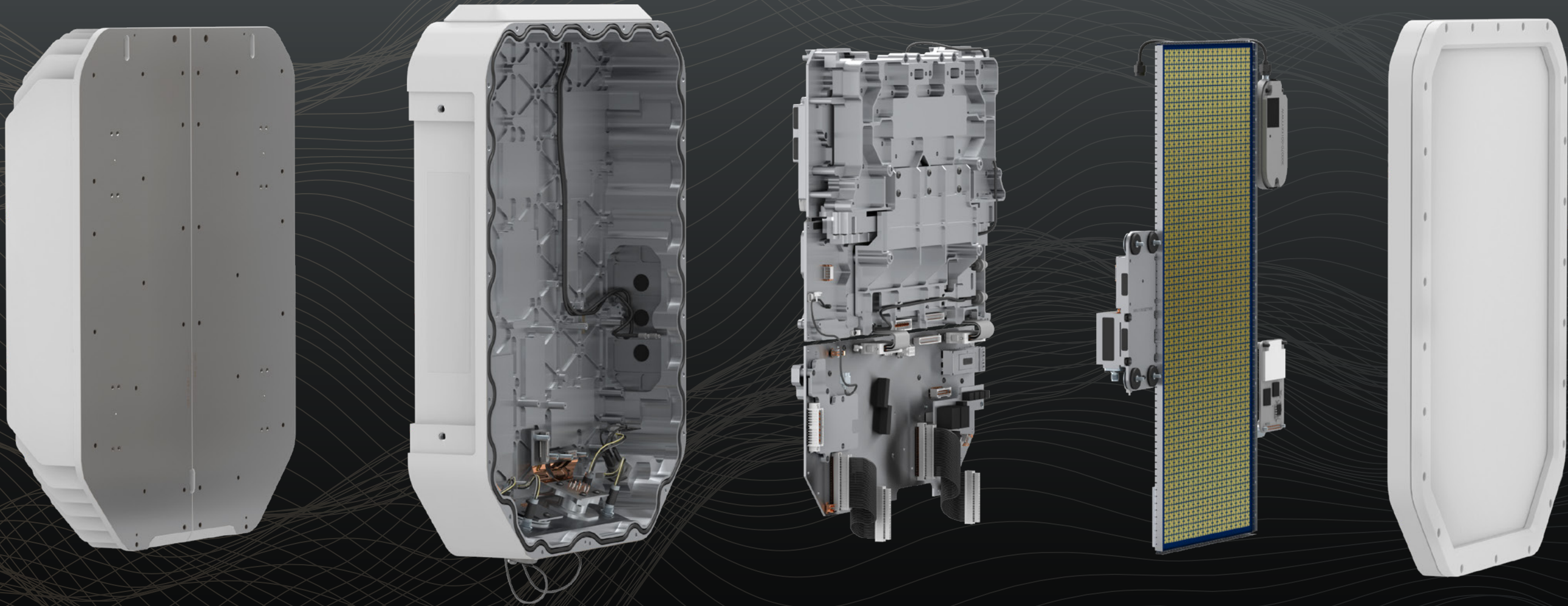
Better by Design

MESA®

Patented physics-design approach shatters design barriers to miniaturizing ESA radar. MESA creates industry-leading ultra-low SWaP ESA radars with commercial pricing and availability.

Software-defined

Software is the foundation for adaptable multi-mission, multi-domain, multi-modal radar. On-radar processing combined with off-radar networking and protocol conversion.



ACCURACY

Highest angular accuracy (azimuth and elevation). Consistently slews optical sensors, locks RWS effectors with 10 Hz precision track data, and pinpoints every object of interest.



CLASSIFICATION

Smarter radar leads to smarter systems. Superior AI-based classification models discriminate every detail in every scene.



MOBILITY

Same advanced radar performance for every modality: fixed, temporary, portable, or on-the-move (OTM), on land, sea, or in the sky.



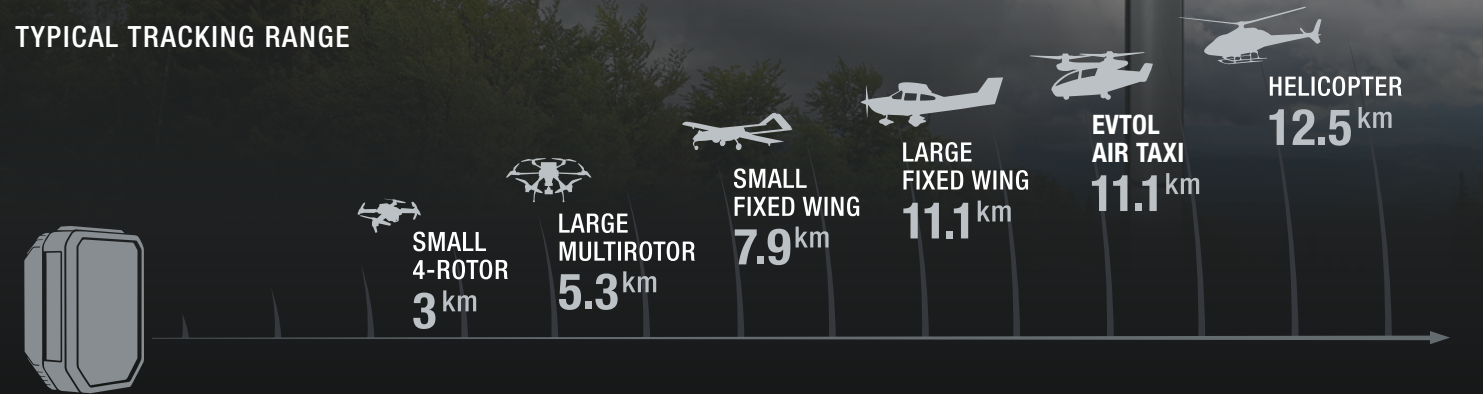
COGNITIVE/ NETWORKING

Seamless networks of radars. Waveform and beam scheduling adaptive to external sensors and systems. Future-ready.

EchoShield®

For ground stations assisting in flight navigation and safety, EchoShield's advanced cognitive capabilities and industry-standard interfaces enable rapid, data-rich integration of precision airspace data. Whether complying with detecting and tracking crewed aircraft or operating long-distance flights, EchoShield's accuracy and precision create the foundation for safe airspace.

TYPICAL TRACKING RANGE



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° El	TRACK ACCURACY <0.5° Az x <0.5° El	TRACK UPDATE RATE 10 Hz	MAX TRACKS >1,000 Objects of Interest



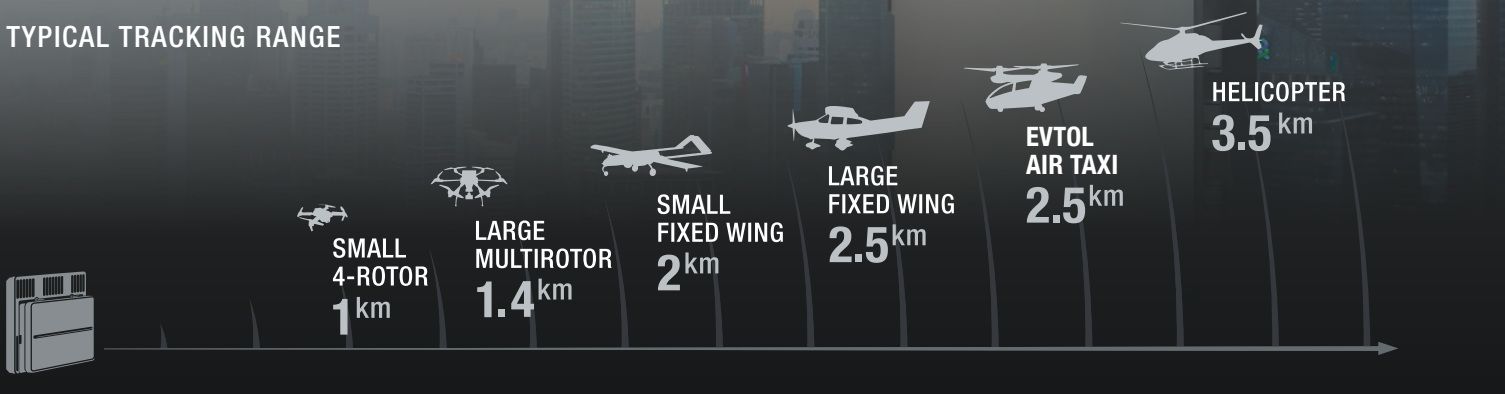
Kits & Accessories

Quick Start Kit
Tower Mount Kit
Rapid Deployment Kit

EchoGuard®

EchoGuard's unique size, weight, and power advantages are ideal for filling coverage gaps created by natural and manmade line-of-sight obstacles. With range and unbeatable accuracy, EchoGuard delivers airspace awareness.

TYPICAL TRACKING RANGE



SIZE 16.3 x 20.3 x 5.7 cm 6.4 x 8 x 2.3 in	WEIGHT 1.25 kg 2.8 lbs	POWER +15 to +28 VDC 50 W Operating	FREQUENCY 24.45 - 24.65 GHz (USA) 24.05 - 24.25 GHz (INTL)
FIELD OF VIEW 120° Az x 80° El	TRACK ACCURACY <1° Az x <1.5° El	TRACK UPDATE RATE 10 Hz	MAX TRACKS Up to 20 Simultaneous



Kits & Accessories

Quick Start Kit
Tower Mount Kit
Radar Hub
Lightweight Deployment Kit

EchoWare

Advanced Software for MESA Radar

Intuitive UI
Seamless Radar
Single Track ID
Fixed, Temporary, OTM

Powerful Software Platform Enabling Enhanced Cognitive Radar Capabilities



EchoWare combines advanced MESA capabilities with powerful off-radar software to deliver an abstraction layer that seamlessly integrates multiple (n) Echodyne radars into a single radar instance.

One interface to the radar network. A single interface to manage all radars. A single Track ID for each object, regardless of number of radars in the network. One software platform for every modality – fixed, portable, temporary, or on-the-move (OTM).

Technical & Software Support

Companion package with dedicated tech support and continuous software improvements.



PRIORITY TECHNICAL SUPPORT

Priority queuing via company match when using support@echodyne.com.



CUSTOMER PORTAL

24/7 access to all tools, manuals, and materials.



PERFORMANCE ENHANCEMENT

Continuous improvements through software development.



USER COMMUNITY

Submit requests for features and functionality.

Precision Airspace Awareness.

Unbeatable accuracy for safer UAS/AAM operations.



DFR • GROUND STATIONS • AIRBORNE RADAR • ADLS



Echodyne, the radar platform company, is a U.S. designer and manufacturer of advanced commercial radar systems for defense, government, and commercial market applications. The company combines patented metamaterials electronically scanned array (MESA) architecture with powerful software and machine learning to deliver high fidelity situational awareness data pinpointing activity in air and surface domains with unrivalled speed, accuracy, and precision. Proven and trusted by militaries, agencies, integrators, and critical infrastructure across the globe, Echodyne's products set a new standard for radar excellence. Privately held, the company is headquartered in Kirkland, WA, USA and backed by Bill Gates, NEA, Madrona Venture Group, Baillie Gifford, Northrop Grumman, and Supernal, among others.

See radar in action at [Echodyne.com](https://echodyne.com).

