

Radar for the Future Force

DETECT MORE.
DECIDE FASTER.
DOMINATE.







R2.2381
AGL: 173 m
Rng: 7295 m
RCS: -3 dBsm
Vel: 52 m/s
Class: UAV-FW
p(Class): 98.1%



Counter-UAS Radar Excellence

Rapidly Scale, Evolve, Maneuver

-  Sensor Vehicle
-  Weapon Vehicle
-  Targeted UAS
-  Tracked UAS



DETECT

Broad, customizable FoV. Optimized search pattern. Small beam interrogation for improved object separability. Rich data on every threat.

TRACK

Accurate 10 Hz track data optimizes sensor fusion and discriminates hundreds of targets for effectors. Ultra-precise tracking locks RWS on target and adds critical data to FCS.

IDENTIFY

High fidelity radar data locks optical sensors on enemy UAS faster, more consistently, and more accurately.

DECIDE

Decisions are built on situational awareness data from every echelon. High-speed, high fidelity data better informs decisions under compressed timelines.

ACT

Radar + RWS = effective drone threat mitigation. Radar provides high precision geolocation data, including range and range-rate, to correctly orient and lock FCS optics, cannons, missiles, directed energy, and other effectors on the target.

Trusted by Defense Forces Worldwide

Mission Ready. Combat Proven.

C-UAS
OTM
ISR
RWS

FORCE PROTECTION
BASE SECURITY
SPECIAL OPERATIONS
CONVOY SECURITY



Layered Force Protection. Ultra-low SWaP for all-domain ISR.

Multi-Mission. Multi-Domain. Multi-Modal.

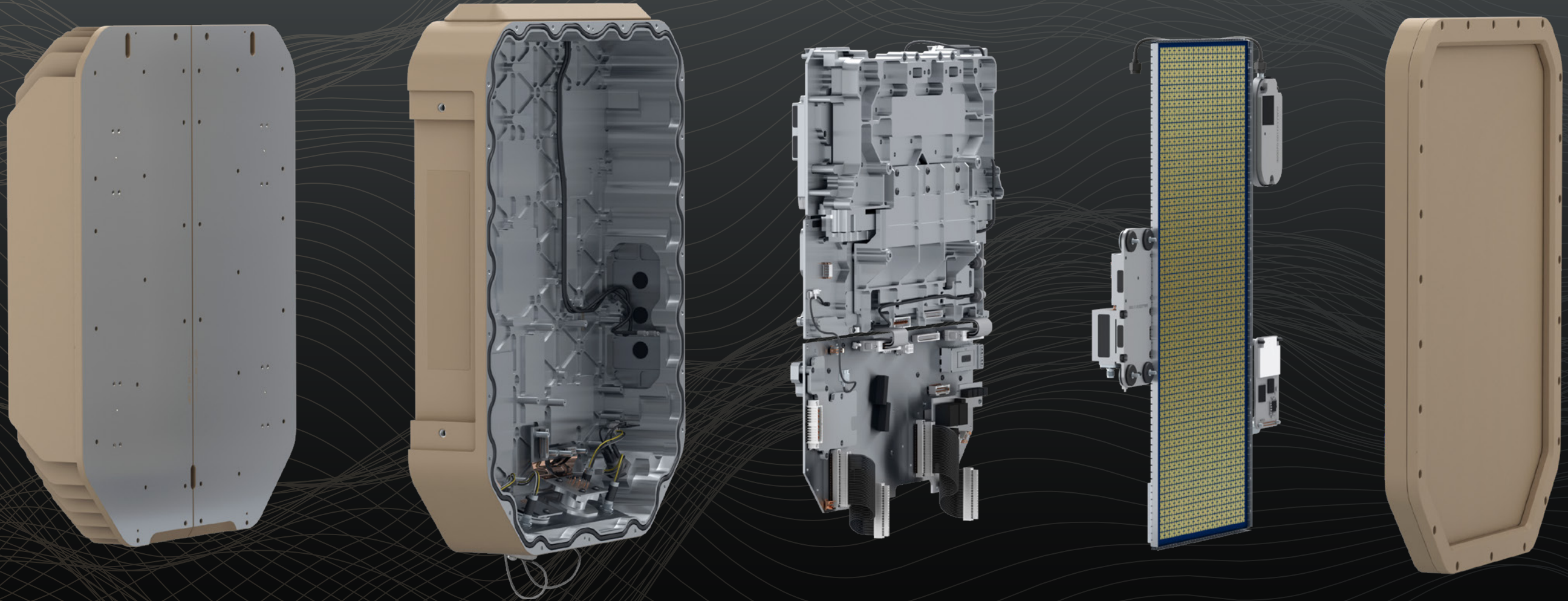
Better by Design

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

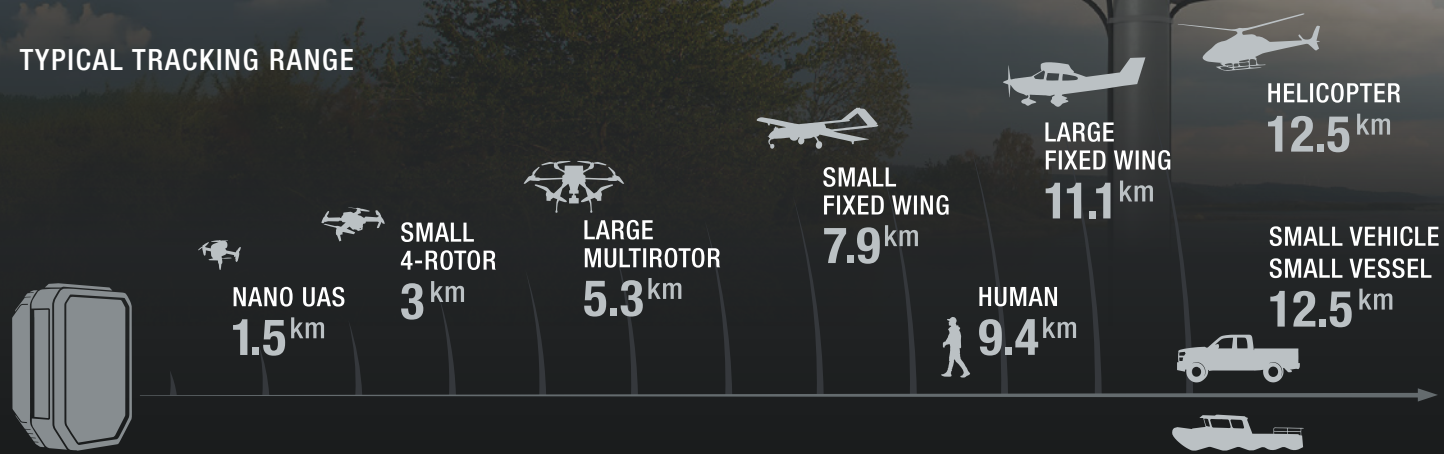
Seamless networks of radars. Waveform and beam scheduling adaptive to external sensors and systems. Future-ready.

EchoShield®

Medium-Range Superiority



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

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.

EchoGuard[®]

Short-Range Dominance

TYPICAL TRACKING RANGE

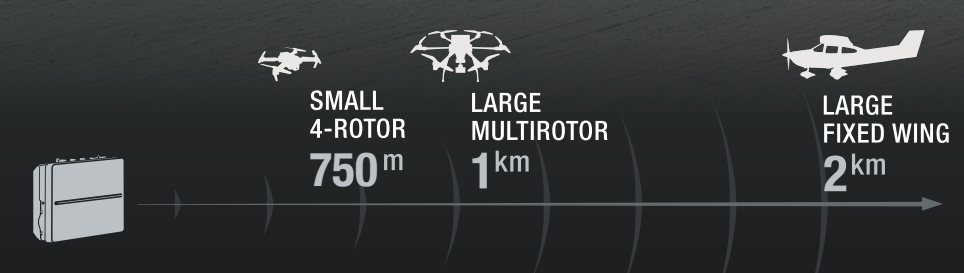


SIZE 16.3 x 20.3 x 5.7 cm 6.4 x 8 x 2.3 in	WEIGHT 1.25 kg 2.8 lbs	POWER +15 to +28 VDC 50 W Operating	FREQUENCY 24.45 - 24.65 GHz (USA) 24.05 - 24.25 GHz (INTL)
FIELD OF VIEW 120° Az x 80° El	TRACK ACCURACY < 1° Az x < 1.5° El	TRACK UPDATE RATE 10 Hz	MAX TRACKS Up to 20 Simultaneous

EchoFlight[®]

Lightweight Airborne CUAS

TYPICAL TRACKING RANGE



SIZE 12.1 x 18.7 x 4.1 cm 4.8 x 7.3 x 1.6 in	WEIGHT 819 g 1.8 lbs	POWER +12 to +28 VDC 45 W Operating	FREQUENCY 24.45 - 24.65 GHz
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



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- CUSTOMER PORTAL**
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- PERFORMANCE ENHANCEMENT**
 Continuous improvements through software development.
- USER COMMUNITY**
 Submit requests for features and functionality.



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).

