ECHODYNE

EchoShield®

Multi-Mission 4D Radar

Next-Gen ESA

Fixed, Portable, On-the-Move (OTM)

Extraordinary Accuracy

Medium-Range, Software-Defined, Pulse-Doppler, Cognitive Metamaterials ESA (MESA®) Radar.

RADAR PERFORMANCE

Frequency
Ku-band 15.4 – 16.6 GHz

Field of View
130° Azimuth x 90° Elevation

Track Accuracy
< 0.5° Azimuth x < 0.5° Elevation

Track Update Rate
10 Hz

Max Tracks
> 1,000 Objects of Interest

SWaP & ENVIRONMENTAL

Size
42.9 cm x 32.9 cm x 18.7 cm

Weight
19.2 kg

Power
+20 to +33 VDC
< 100 W (Hot Standby)
< 250 W (Operating)

Operating Temp
- 40° C to + 65° C

Weather Protection
IP67

Environmental
MIL-STD-810 H

INTEGRATION & DATA

Control I/O
Gigabit Ethernet

Power I/O
MIL-STD_38999 Style Bayonet

Data Output
10 Gbps Ethernet
    Range-Doppler Spectrograms
1 Gbps Ethernet
    Detections, Measurements
    Tracks, Radar Status

Mounting
4x M6 200 mm Bolt Pattern

ADVANCED ESA PERFORMANCE

EchoShield aligns advanced waveforms and agile beam schedules with cognitive functionality to build an ESA radar with outsized performance. Whether deployed in static, portable, or OTM configurations, EchoShield searches large volumes of airspace to deliver extraordinarily precise and actionable target data.

Counter-UAS Performance
UAS Typical Tracking Ranges
    Group 1: 3 km to 5.3 km (- 20 to - 10 dBsm)
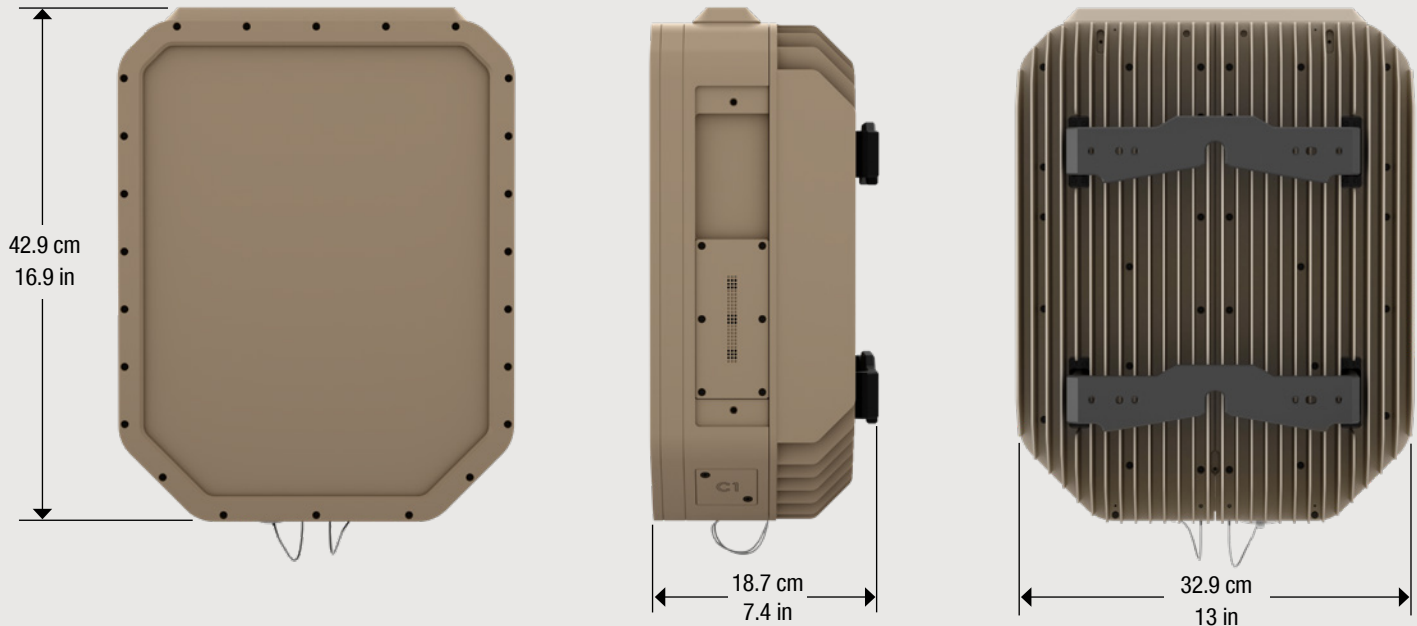   Group 2: 5.3 km to 7.2 km (- 10 to - 3 dBsm)
    Group 3: 7.2 km to 12.5 km (- 3 to 5 dBsm)

Perimeter Surveillance Performance
Human Movement: > 9.4 km
Vehicles: > 12.5 km

RADAR DIMENSIONS

42.9 cm
16.9 in

18.7 cm
7.4 in

C1

32.9 cm
13 in

ORDERING DETAILS

■ TAN (AMS 595a: 33446)	700025-300-200 (shown)	■ GREEN (AMS 595a: 34094) 70025-300-300
□ WHITE (BRIGHT)	70025-300-100	■ GRAY (AMS 595a: 36270) 70025-300-400

REGULATORY

FCC ID: 2ANLB-MESA00055
CE, RoHS 3, RED

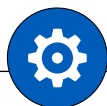# Software & Support

SOFTWARE UPDATES

Continuous Improvement from Software-Defined Radar

- Includes All Major and Minor Releases
- Improve Radar Operations
- Enhanced Classification
- Radar Data Visualization Tools
- Radar Support Tools
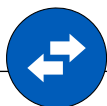
TECHNICAL SUPPORT

Priority Access to Radar Support

- Review and Training Sessions
- Systems Integration
- Troubleshooting
- Performance Review
- Planning

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.

ECHODYNE

12112 115th Ave NE, Ste. A
Kirkland, WA 98034

info@echodyne.com
+1 425.454.3246

echodyne.com

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