

# EchoShield<sup>®</sup>

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<sup>®</sup>) 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)

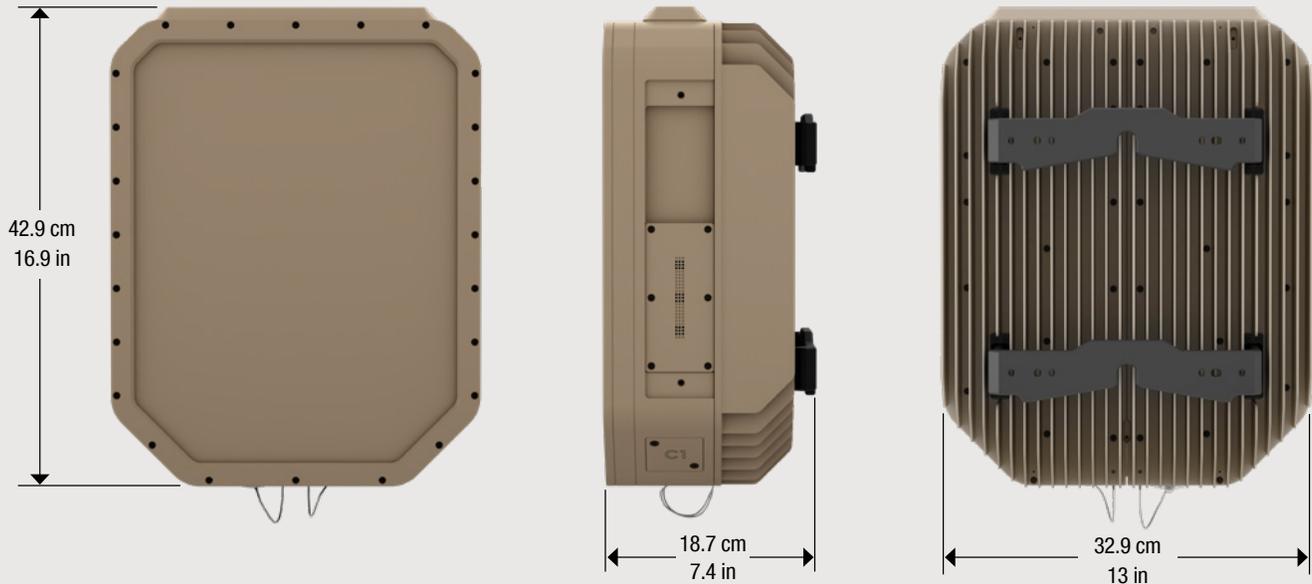
Group 3: 7.2 km to 12.5 km (-3 to 5 dBsm)

### Perimeter Surveillance Performance

Human Movement: > 9.4 km

Vehicles: > 12.5 km

**RADAR DIMENSIONS**



**ORDERING DETAILS**

WHITE	Bright White	700025-300-100
TAN	AMS-STD-595A: 33446 (shown)	700025-300-200 (shown)
GREEN	AMS-STD-595A: 34094	700025-300-300
GRAY	AMS-STD-595A: 36270	700025-300-400

**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.