

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)

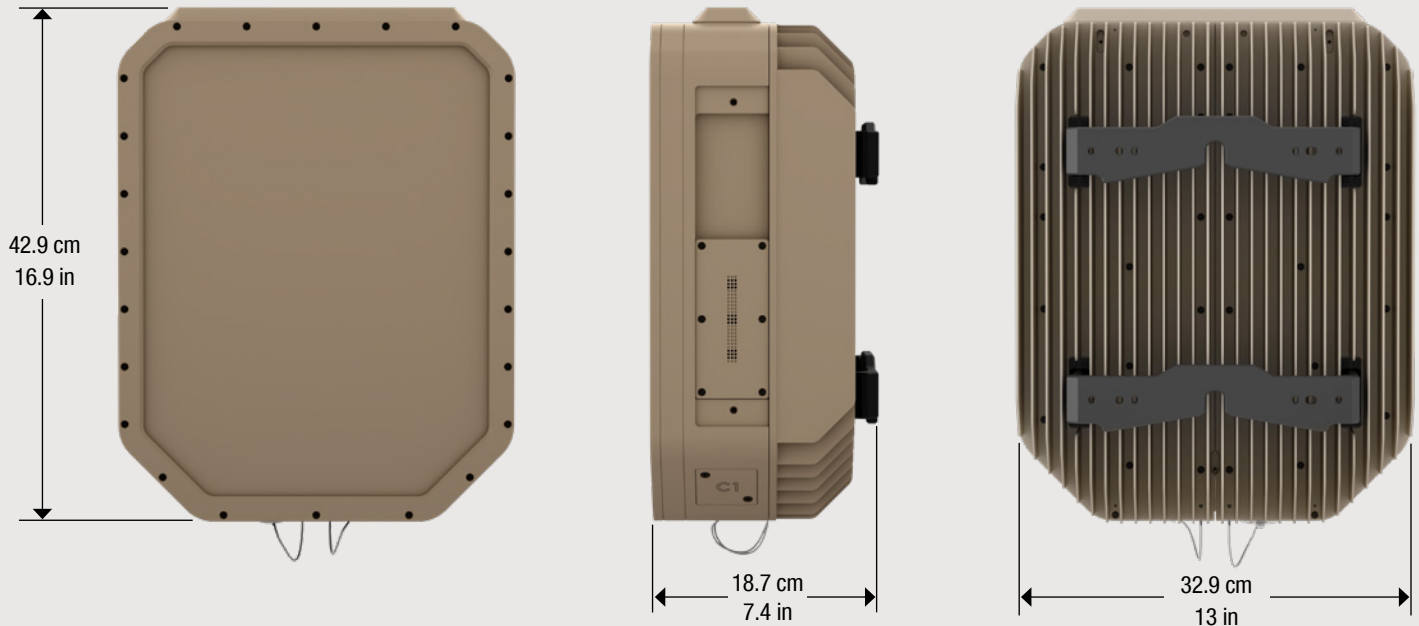
Group 3: 7.2 km to 12.5 km (- 3 to 5 dBsm)

Perimeter Surveillance Performance

Human Movement: > 9.4 km

Vehicles: > 12.5 km

RADAR DIMENSIONS



ORDERING DETAILS

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

REGULATORY

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

Software & Support

SOFTWARE UPDATES

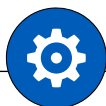
Continuous Improvement from Software-Defined Radar

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

TECHNICAL SUPPORT

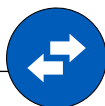
Priority Access to Radar Support

- 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.