

EchoShield[®]

Multi-Mission 4D Radar

Next-Gen ESA

Intelligent Search

Multi-Domain, Multi-Mode



A Medium-Range, Software-Defined, Pulse-Doppler, Cognitive 4D 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

Instrumented Range

30 km (Mission Defined)

SWaP & ENVIRONMENTAL

Size

42.5 cm x 33 cm x 18 cm

Weight

17.8 kg

Power

+ 21.5 to + 33 VDC
< 250 W (Operating)
< 100 W (Hot Standby)

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

ECHOSHIELD MISSION SETS

Each Mission Set utilizes waveforms and agile beam schedules to rapidly deliver performance tuned to mission needs. Moving between Mission Sets is only a few steps in the software interface, with radar resources tailored to the selected mission snapping into the user foreground.

Mission Set: Counter-UAS

UAS Mean Tracking Ranges

Group 1: 2.7 km to 4.8 km (-20 to -10 dBsm)
Group 2: 4.8 km to 6.4 km (-10 to -5 dBsm)
Group 3: 6.4 km to 11.4 km (-5 to 5 dBsm)

Mission Set: Dismount

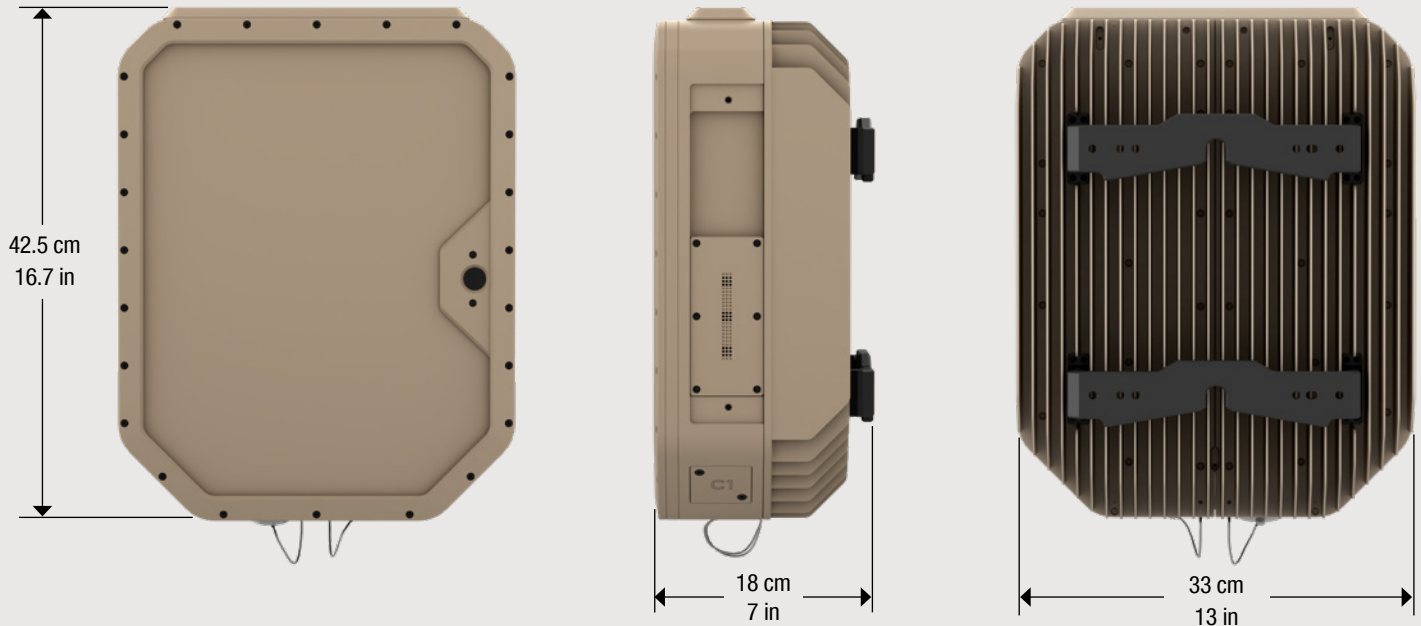
Perimeter Surveillance

Human Movement: > 8 km
Vehicles: > 11 km

Additional Mission Sets

C-UAS 2 (Larger UAVs)
Coastal Surveillance
Airspace Management
On-the-move (OTM)

RADAR DIMENSIONS



ORDERING DETAILS

■ TAN 686A CAMO 700025-200-200

REGULATORY

FCC ID: 2ANLB-MESA00054
CE, RoHS 3, RED

Software & Support

SOFTWARE UPDATES

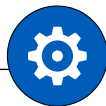
Continuous Improvement from Software-Defined Radar

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

TECHNICAL SUPPORT

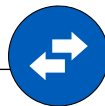
Priority Access to Radar Support

- 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.