

# EchoShield<sup>®</sup>

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<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

**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 + 49° 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)

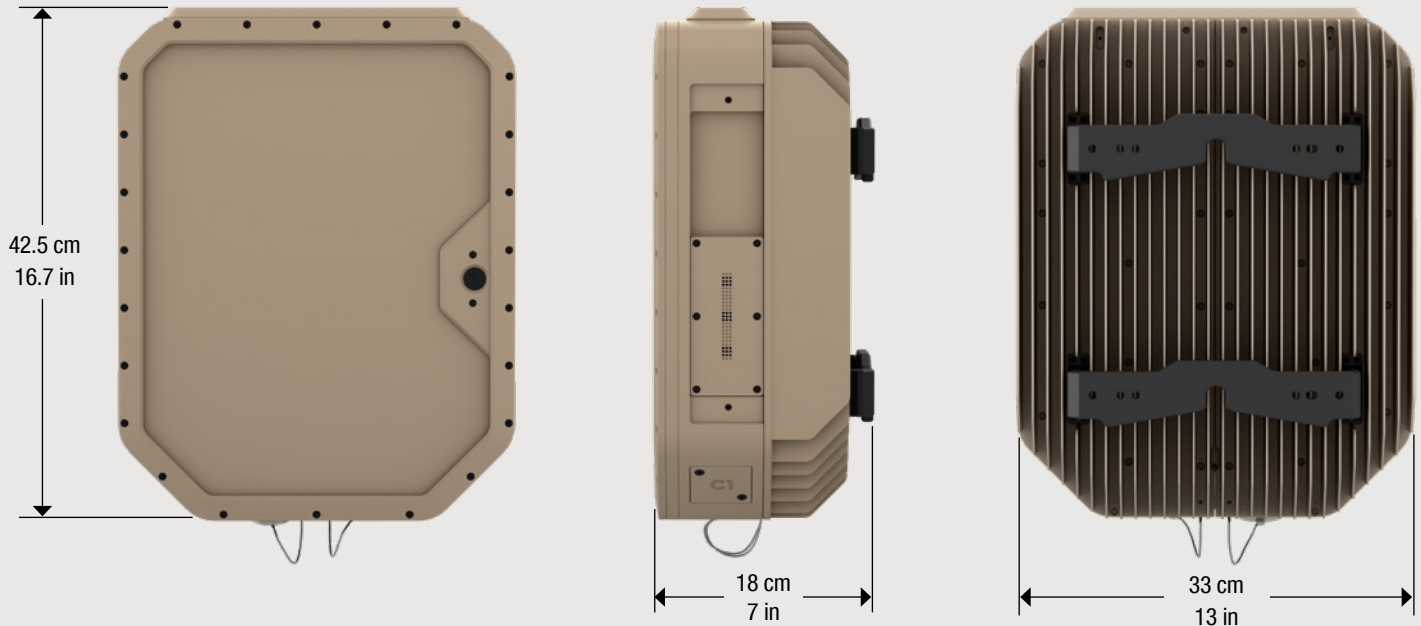
**Mission Set: Dismount****Perimeter Surveillance**

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**

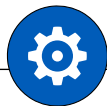
## Continuous Improvement from Software-Defined Radar

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

**TECHNICAL SUPPORT**

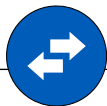
## Priority Access to Radar Support

- 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.