

MF-STAR

Multi-Function Digital AESA Radar
ELM-2248LB



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Digital Multi-Mission Radar - D-MMR (ELM-2248LB) is an innovative fully digital 4D radar implementing Active Electronically Scanning Array (AESA) technology (electronic steering both in azimuth and elevation) using Gallium Nitride (GaN) RF modules. The software-driven radar performs Digital Beam Forming (DBF) by digitally sampling the signal at the RF module level. Therefore, it offers more flexibility, advanced Electronic Counter Counter-Measure (ECCM) capabilities, the ability to better manage the beam forming at a higher resolution in complex cluttered and jamming environments, and can immediately adapt to new threat scenarios.

The radar detects high and low flying targets, tracks, classifies and generates a real-time Air Situation Picture of all aerial targets such as low Radar Cross Section platforms (e.g. UAVs, tactical aerial weapons, loitering munitions, cruise and Tactical Ballistic Missiles (TBM)) and Rockets, Artillery, and Mortars (RAM).

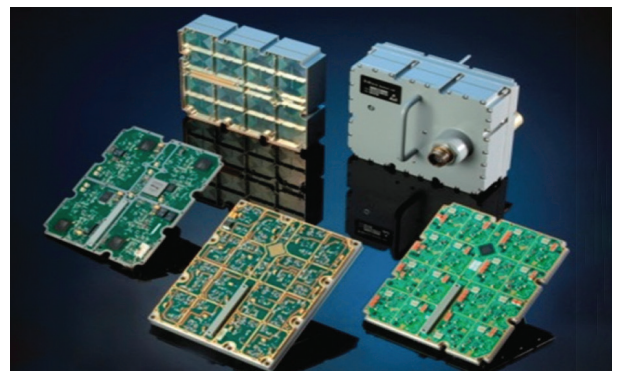
Even under severe environmental conditions, D-MMR delivers a high-quality situational awareness picture and weapons support for present and emerging threats. The combination of modular solid state AESA technology with full digital architecture enables high redundancy, graceful degradation, and low life cycle cost.

MISSION

- Air Surveillance
- Air Defence – as a Fire Control Radar (FCR)
- Early Warning Alerts (TBM & RAM)
- Artillery & C-RAM:
 - Hostile Weapon Locating by real-time calculation of Launch & Impact points (LP & IP)
 - Friendly fire ranging

FEATURES

- 4D, simultaneous multi-beam, full AESA, S/C Band radar with GaN
- High immunity due to advanced ECCM
- Modular and scalable to several sizes
- Highly sophisticated clutter rejection capabilities
- Fast threat alert response time and short and adaptive revisit time per target of interest
- Mid-course guidance of active/semi-active anti-air missiles
- Transportable, fast deployment, and operates remotely
- Member of the combat-proven Multi Mission Radar (MMR) – ELM-2084 family of ground-based radars



Digital T/R element

Parameter	Rotating Mode	Sector Mode
Operation Mode	Up to 30 RPM	Stop/Stare
Detection Range	215 NM (400 KM)	245 NM (450 KM)
Azimuth Coverage	360°	±45° Electronic Steering
Elevation Coverage	0 to 70°	0 to 70°
Height Coverage	>100k ft (30.5 KM)	

