ELTA Systems Ltd.
Group & Subsidiary of ISRAEL AIRCRAFT INDUSTRIES LTD.

DEFENSE
& SELF-PROTECTION

MF-STAR - Multi-Function Surveillance, Track and Guidance Radar

EL/M-2248

General

The MF-STAR (EL/M-2248) is a multi-function solid-state active conformal phased array radar system for the new generation of military ships. The radar system delivers high quality arena situation picture and weapons support, under the toughest target/environmental conditions in the existing and future naval arena.

Incorporating advanced technology and robust system architecture, the MF-STAR employs multi-beam and pulse Doppler techniques as-well-as robust ECCM techniques to extract fast, low RCS targets from complex clutter and jamming environments.

The MF-STAR antenna includes 4 faces of active array in S-band frequency. The hardware architecture and technology ensure high system availability, low maintenance and low life cycle cost.

The EL/M-2248 incorporates a lightweight antenna that can be tailored to fit even relatively small ship sizes (corvettes and above).

Features

- Fast threat alert response time
- Very high tracking update rate and accuracy for priority targets
- Short Search frame/TWS revisit time
- Mid-course guidance of active/semi-active anti-air missiles
- Illuminator enslavement for semi-active missiles
- Automatic splash detection and measurement for gunnery support
- Instantaneous multi-beam
- Advanced beam forming techniques for ECCM
- Lightweight antenna
- Scalable, modular active solid-state phased array
- High reliability and high availability

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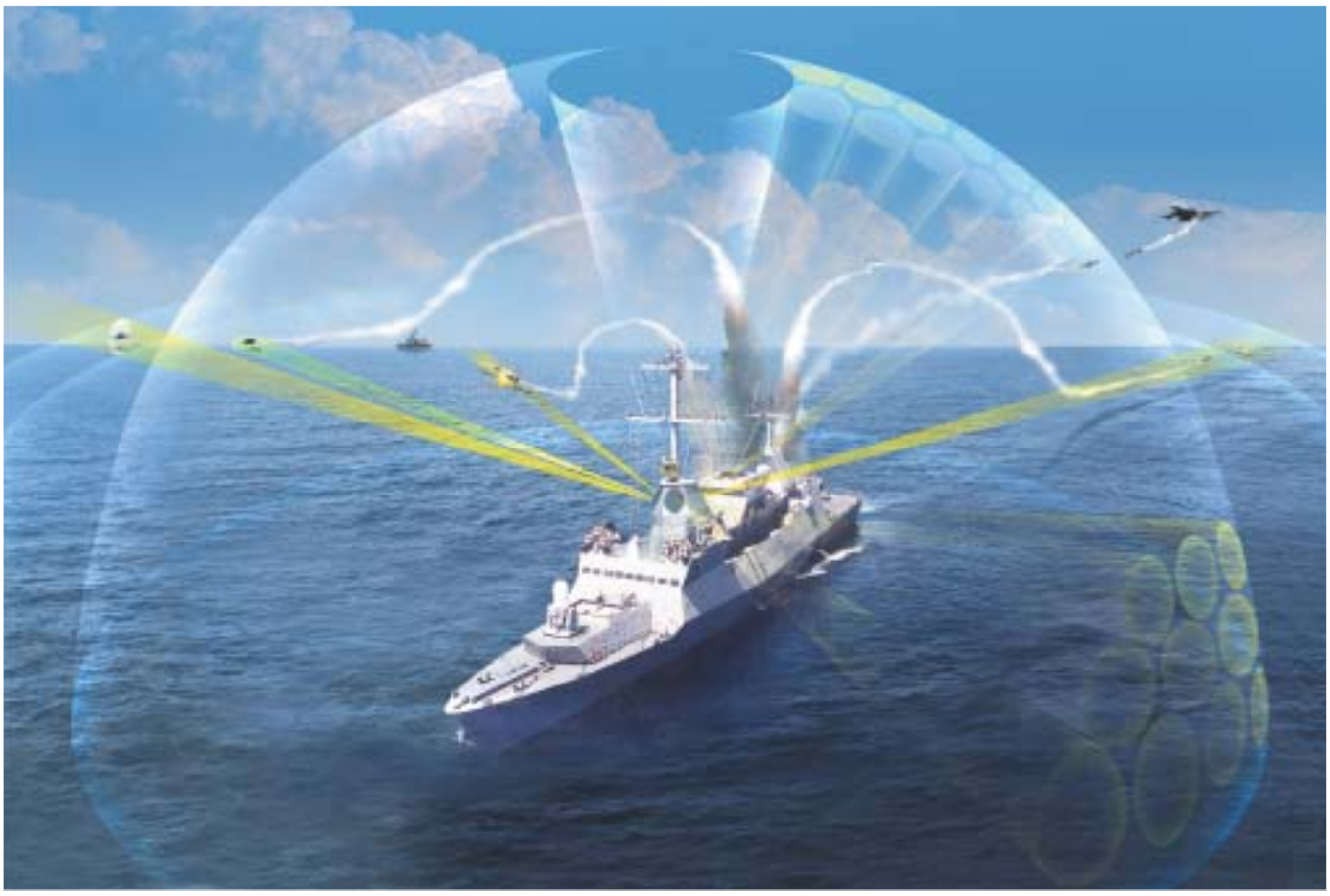
Operational Capabilities

- Blue water and Littoral warfare support
- Simultaneous multi-engagement support
- Active and Semi active missile support
- 3D long-range air surveillance
- 3D medium range automatic threat alert
- Missile horizon search and threat alert
- Maritime surface surveillance
- Target classification (including Helo)
- Gunnery control and splash spotting

Performances and Parameters

- Automatic track initiation:
  - Low flying attacking missile >25 km
  - High flying fighter aircraft >250 km
- Rx/Tx: S-band solid state
- Antenna: 4 static faces
- Spatial coverage:
  - Azimuth: 360°
  - Elevation: -20° - +85°
- Weight: 1500 kg per face
  900 kg below deck



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Innovation. Solutions. Control.

INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE | EARLY WARNING & CONTROL | DEFENCE & SELF-PROTECTION | TARGET ACQUISITION & FIRE CONTROL