

AIRBORNE AESA FIRE CONTROL RADAR

ELM-2052



Creating a Difference



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The ELM-2052 is an advanced Fire Control Radar (FCR) designed for air-to-air superiority and strike missions, based on fully solid-state Active Electronically Scanning Array (AESA) technology, enabling the radar to achieve long detection ranges, high mission reliability and multi-target tracking capabilities.

The ELM-2052 radar provides simultaneous modes of operation supporting multi-mission capabilities for air-to-air, air-to-ground and air-to-sea operation modes, and weapon deployment. In the air-to-air mode, the radar delivers very long-range multi target detection and enables several simultaneous weapon deliveries in combat engagements. In air-to-ground missions, the radar provides very high resolution SAR mapping, surface moving target detection and tracking over RBM and SAR maps in addition to A/G ranging. In air-to-sea missions the radar provides long-range target detection and tracking, including target classification capabilities (RS, ISAR).

The ELM-2052 radar design reflects ELTA's vast field-proven radar experience and operational feedback received from Israeli Air Force fighter pilots.

Features

- Solid-state, active phased array technology
- Pulse Doppler, all aspect, shoot down capabilities
- Simultaneous multi-target tracking and engaging
- Simultaneous multi-mode operation
- High ECM immunity
- Ultra-low side-lobe antenna
- Sigma, two axis monopulse and guard channels
- Flexible interfaces and growth potential:
 - Modular hardware and software
 - Spare memory and computing power
- High mission reliability (built with redundancy)

Specifications

- Antenna size : adapted to aircraft nose limitations
- Weight : 80-180 kg, depending on antenna size
- Power : 3-10 kVA, depending on antenna size

Operational Modes

Air-to-Air

- TWS/Multi-target detection and tracking
- Multi-target ACM
- High resolution raid assessment

Air-to-Ground

- High resolution mapping (SAR Mode)
- AGR - Air-to-Ground Ranging
- RBM - Real Beam Map
- DBS - Doppler Beam Sharpening
- GMTI on RBM, SAR
- GMTT on RBM, SAR
- Beacon
- Weather

Air-to-Sea

- Sea search and multi-target tracking
- RS and ISAR classification modes

