



VSHORAD - Very Short
Range Air Defense Radar
ELM-2026B



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ELTA's ELM-2026B Very Short Range Air Defense Radar (VSHORAD) is designed for detection and tracking of airborne targets, including a wide variety of low RCS and low flying targets such as fighter aircraft, ultra-lights and UAVs. It is ELTA's fifth generation of 3D Tactical Air Defense Radars featuring a lightweight transportable, X-Band, pulse-Doppler solid-state electronically scanned array.

The radar employs multi-beam elevation coverage through Digital Beam Forming (DBF) and 360° azimuth coverage by antenna rotation, providing accurate target measurements of velocity, range, azimuth and elevation angles target detection and tracking and support of surface-to-air missile weapon systems.

Applications include local air defense, gap filler for complementing main air defense radar systems, border air space protection, and critical infrastructure air space protection. Installation of the radar can be either fixed on the ground or tower, or transportable on a vehicle.

FEATURES

- Track While Scan of more than 100 targets
- 3D radar with azimuth coverage of 360°
- Operated locally or by remote Command and Control system
- Standalone operation or integrated with additional Air-Defense radars integrated with IFF (option)
- Ethernet LAN communication (wire or wireless)
- High reliability - full solid-state design
- Extensive ECCM capabilities
- Digital technologies:
 - Digital Beam Forming (DBF)
 - Digital Pulse Compression
 - Digital Receivers
- Embedded GPS
- Extensive BIT
- Low power consumption

SPECIFICATIONS

- Instrumental detection range 25 km
- Detection range (fighter aircraft) 15 km
- Detected target velocity 0 - 600 m/sec
- Update Rate 2 sec (30 rpm)
- Range accuracy 30 m
- Azimuth accuracy 0.3°
- Elevation accuracy 0.5°
- Elevation coverage 60°
- Azimuth coverage 360°
- No. of tracked targets 100 by TWS
- Resolution Range: 60 m
- Azimuth: 3.6°
- Elevation: 7°
- Frequency X Band
- Weight (antenna + pedestal) 75 kg (approx.)
- Dimensions:
 - Antenna 200 (W) x 1100 (H) x 750 (D) mm
 - Pedestal 364 (W) x 223 (H) x 220 (D) mm
- Power Consumption 500 W (approx.)
- Operating voltage 28 Vdc (nominal)
- Operation temperature -30°C - +55°C



Air Defense Deployment

