

# MAR

AIR DEFENCE WEAPON SYSTEMS  
MOBILE SEARCH RADAR





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## AIR DEFENCE WEAPON SYSTEMS MOBILE SEARCH RADAR

ASELSAN Mobile Search Radar is a mobile X band short range 3D search and track radar for point air defense of critical assets. MAR offers an instrumented range of 70km and can track multiple targets accurately, adding classification and identification information to each target track.

MAR is an active phased array radar with digital beamforming architecture. The system employs advanced electronic protection measures; it uses digital pulse compression for high range resolution, low transmission power and pulse coding.

MAR is a compact and easy-to-use mobile radar system to be integrated on military vehicles with search on move capability. The system includes built-in IFF interface and IFF antenna. MAR can send target and jammer reports to Vehicle Command Control System over its system interface and can receive commands from the C2 system. MAR is currently the main radar of the Turkish Armed Forces' mobile Air Defense Gun Systems and Low Altitude Air Defense Missile System.

### Applications

- Air Defense Weapon Systems
- Protection of Critical Sites
- Integration to Command Control Systems
- Low Altitude Air Defense Missile Systems

### Operational Targets

- High Speed Fighter Aircraft
- Helicopters and Hovering Helicopters
- Unmanned Air Vehicles
- Air to Surface Missiles

### Performance/Main Features

- Active Phased Array Antenna
- Solid State Transmit/Receive Modules
- Digital Beamforming
- Low Sidelobe Level
- Digital Pulse Compression
- Integrated IFF Antenna
- Jammer Detection
- 3-D Target Acquisition and Tracking
- Multiple Target Tracking
- Electronic Beam Stabilization
- Classification of Targets
- Identification of Targets with IFF
- Advanced ECCM Capabilities

### Technical Specifications

- |                         |                                    |
|-------------------------|------------------------------------|
| • Operating Frequency   | : X-Band                           |
| • Instrumented Range    | : 70+ km                           |
| • Operating Temperature | : -32 / +44 °C                     |
| • Storage Temperature   | : -40 / +63 °C                     |
| • Antenna Dimensions    | : (W)1700mm x (D)700mm x (H)1000mm |
| • Environmental Spec    | : MIL-STD-810G                     |

