

Medium Range 3D Tactical Air Defense Radar ■ ELM-2106 ATAR



■ DEFENSE & SELF-PROTECTION

General

The ELM-2106 ATAR (Advanced Tactical Acquisition Radar) is ELTA's fourth generation of 3D Tactical Air Defense Radars. It reflects ELTA's 35 years of experience in tactical military radars.

The ELM-2106 ATAR System is a 3D, solid state L-band medium range tactical radar with Active Electronically Steering Array (AESA) in elevation. The radar detects a wide variety of low RCS targets such as: low flying fighter aircraft, hovering helicopters, low velocity ultra-lights and UAVs.

The radar provides accurate target measurements of range, azimuth and elevation angles, differentiating between aircraft and helicopters and classifying the helicopter type according to its blade returns.

The ELM-2106 ATAR can be deployed as a local Air Defense system providing warning and target designation to Surface-to-Air weapon systems, including MANPADS. The system can be also deployed as gap fillers for supporting C3I centers for Air Traffic Control (ATC).

The ELM-2106 ATAR has been field proven, operating in noisy and high clutter environment.

Features

- Automatic detection of airborne targets
- Track While Scan of up to 100 targets
- Target differentiation and classification
- Interoperability with Surface-to-Air weapon system
- Integration with IFF
- Several radars can be combined to provide an integrated air surveillance picture
- Low power consumption (2500 W Typ.)
- Extensive BIT
- High MTBF (2500 Hr) and low MTTR (20 Minutes)
- Technologies:
 - Solid State T/R Module
 - Elevation Multi-beam by Phased Array Technology
- Extensive ECCM capabilities
- Digital technologies:
 - Digital beam forming
 - Digital Pulse Compression
 - Digital receivers



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ELM-2106 ATAR transported by a truck



ELM-2106 ATAR antenna face

Installations

- Fixed, on the ground or on a tower
- Transportable on a truck

Specifications

<i>Detection Range:</i>	
- Instrumental:	180Km
- Fighter Aircraft:	70 - 110 Km
- Hovering Helicopters:	40 Km
- UAVs and Ultra Lights:	40 - 60Km
Range Accuracy:	30 meters
Azimuth Accuracy:	0.5°
Elevation Accuracy:	1°
Elevation Coverage:	60°
Target Detection:	Radial velocity of more than 36km/h
Transmission:	1600 W Peak, L-Band, Solid State.
Interface Protocol:	Asterix
IFF Modes:	1, 2, 3/A, C (mode 4 optional)
Environmental Conditions:	MIL-STD-810F
EMC/EMI:	MIL-STD-461C
Operation Temperatures:	(-30°C, +50°C)



ELM-2106 ATAR antenna back side with T/R units and IFF

Applications

- Search radar for supporting surface-to-air weapon system
- Medium range air surveillance (up to 180Km)
- Gap filler for main air defense radar systems
- Local air defense C³ system
- Protection of sensitive sites

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