

WATCHGUARD MULTI-MODE GROUND SURVEILLANCE RADAR

■ ELM-2180



ELTA NORTH
AMERICA

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General

IAI/ELTA's ELM-2180 WatchGuard is a fifth generation of movement detection tactical Ground Surveillance Radars (GSR), providing both staring and electronic steering search techniques.

Featuring a high update rate, the radar enables very high probability of target detection and tracking to support complex missions. Combination of staring and scanning allows to adapt and optimize the radar operation for any scenario.

The ELM-2180 WatchGuard is a solid-state, small size and low weight Active Electronically Scanning Phased-array (AESA), multi-beam all weather radar providing high accuracy detection data, either locally or to remote Command and Control (C&C) systems.

The radar covers 90° to 360° by employing 1 to 4 stationary (non rotating) phased array antennas, each covering a sector of 90°.

Features

- Simultaneous multi-mode operation combining staring and scanning programmable search regime
- Single Module Pulse Doppler Radar (SMPDR)
- Digital Beam Forming (DBF)
- Internal calibration with extensive BIT capabilities
- Flexible modular design to support different range and sector coverage
- Track-while-scan supporting up to 300 targets
- Independent operation or integrated with other surveillance systems and/or C&C
- Local or remote operation
- High reliability non-moving parts
- Event recording
- Very quick and easy deployment

Specifications*

■ Frequency	X band
■ Detection range	
- Walking person	Staring mode: 4Km Scanning mode: 7Km
- Vehicle	Staring mode: 8Km Scanning mode: 15Km
■ Azimuth coverage	90°
■ Min. detecting range	15m
■ Min. detecting velocity	0.6km/h
■ Range resolution	5m
■ Range accuracy	0.5m
■ Azimuth resolution	7.5°
■ Azimuth accuracy	0.5°
■ Elevation coverage	10°
■ Update rate	
- Staring mode	0.3 sec
- Scanning mode	0.3 - 4 sec (sector dependable)
■ Transmission power	
- Peak	32W
- Average	3.2W
■ MTBF	>18000Hr

Physical Characteristics

■ Weight	<10Kg
■ Dimensions	47cm (H) x 35cm (W) x 13/5cm (D)
■ Power consumption	90W
■ Power supply	18V to 32V DC

* Different detection ranges and performance level can be tailored to fit specific requirements



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