

SMART -L Multi Mission (MM/N), is a next generation Long Range Multi Mission Radar for Air and Space Surveillance and Ballistic Missile Detection. The fully digitally controlled Active Electronically Scanned Array (AESA) type of radar, applying GaN transmitter and Dual Axis Multibeam receiver technology, is capable of detecting a very wide variety of air and space objects including stealth, short up to long range ballistic missiles and space objects. The applied high-end techniques result in a radar with an unrivalled long range performance of up to 2000 km.

3D LONG RANGE AIR, SPACE AND MISSILE DEFENSE RADAR

- Simultaneous multi mission mode and multi function
- Unrivalled long range performance
- Autonomous Ballistic Missile Search and Track capabilities
- Easily upgradable



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Long Range Multi Mission Radar





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SIMULTANEOUS MULTI MISSION MODE AND MULTI FUNCTIONS

The SMART-L MM/N combines Anti Air Warfare (AAW) and Ballistic Missile (BM) defence in one mode by adaptable radar wave-forms for the various tasks in a single rotation.

UNRIVALLED LONG RANGE PERFORMANCE

The unique and patented extended long range waveform and matched processing and flexible scan time results in very long range performance. It covers an instrumented range of maximum 2000 km against space objects and ballistic missile targets.

AUTONOMOUS BALLISTIC MISSILE SEARCH AND TRACK CAPABILITIES

SMART-L MM/N independently finds Ballistic Missile type targets. Following fast track initiation, the ballistic target track is maintained up to zenith. The Ballistic Missile defence capability is based on the extended long range waveform functionality proven in ballistic missile trails in Hawaii (2006) and the "At Sea Demonstration" in the North Sea (2015). Thanks to AESA, Ballistic Missile detection range is even improved significantly by applying forward/backward scanning and staring modes.

EASILY UPGRADABLE AND PREPARED FOR FUTURE

In traditional radar systems the functionality remains unchanged through its lifespan. However SMART-L MM/N is an AESA programmable radar which is characterized by full flexibility. Additional capabilities can be introduced during lifetime according to customer needs. This makes the radar future proof in case of evolving requirements.

MAIN FEATURES

- D-band AESA and GaN technology
- Dual axis multi-beam with instantaneous monopulse accuracy in azimuth and elevation
- Extended Long Range waveform and processing
- Instantaneous Doppler processing for the full range, azimuth and elevation coverage
- Proven BMD detection and cueing capability (At Sea Demonstration 2015)
- Wide elevation coverage
- Fast track initiation and active tracking (up to zenith)
- Dedicated ECCM techniques
- Multipath suppression
- Status: under contract

Instrumented limits	
Ballistic missile defence	Up to 2000 km instrumented
Air targets	480 km instrumented
Surface targets	60 km instrumented
Minimum range	5 km
Tracking capacity	1000 tracks

Installation data	
Antenna weight	9 tons

Technical Characteristics	
Frequency band	D-band
Update time	5 sec. or shorter (in staring mode)
IFF antenna	Integrated and fit for mode 5 and S

