

# Advanced Multifunction AESA Radar (AMAR)



Advanced Multifunction AESA Radar (AMAR) is a state-of-the-art, cutting-edge, ground-based radar system designed for Fire Control and Surveillance operations. This fully software-defined X-band radar integrates GaN amplifiers with an advanced-array antenna design, enhanced by sophisticated digital processing, to provide precise tracking, superior clutter rejection, efficient multipath handling, and exceptional situational awareness. Its operational versatility ensuring reliable performance in challenging combat conditions.

Designed for mobile, on-the-move deployment, the AMAR offers minimal size, weight, and power consumption. Additionally, it can be configured for Counter Unmanned Aircraft System (C-UAS) as well as Counter Rocket, Artillery, and Mortar (C-RAM) operations through optimized software-defined configurations

## Key Features

- ◆ Next Generation, Advanced Active Electronically Scanned Array (AESA) Antenna
- ◆ X-Band Direct Sampling with Zero-IF Technology
- ◆ High Resolution, Accurate Threat Detection and Classification with Advanced DSP for Clutter Handling
- ◆ Electronic Counter-Countermeasures (ECCM) Capabilities
- ◆ Optimized Size, Weight, and Power (SWaP)
- ◆ Scalable, Fully Integrated Radar System

## Advantages

- ◆ Provides a comprehensive Air Situational Picture (ASP) in static and on-the-move platforms
- ◆ Exceptional performance in detecting targets of various signatures
- ◆ Multi-mission capability – Fire Control, Surveillance, C-RAM and C-UAS
- ◆ Software-defined, automated operation powered by advanced signal processing algorithms
- ◆ Superior SWaP-C efficiency, offering exceptional affordability
- ◆ Enhanced fire-control tracking accuracy with advanced antenna topology

## Specifications

Frequency	: X-Band (9-10GHz)
Range	: 120 km
Coverage	: Elevation 60° Azimuth: 360° with Single panel rotation or 4 Panel configuration
Interface	: Ethernet , RoTM
Power	: Powered by On-vehicle Diesel generator
Weight	: 3T

## Applications

- ◆ **Multifunction and Fire-Control Radar:** Combines surveillance, tracking, and rapid response with high accuracy for defence operations.
- ◆ **Next-Generation AESA Radar:** Ideal for future-proof radar systems, offering advanced performance and scalability.
- ◆ **Multi-Tier Defence System:** Enables integrated defence systems with a weapon on single platform for enhanced protection.

PLEASE CONTACT

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