

TTM's innovative, air cooled and modular designed MOSAIC® AESA radar provides operators and mission planners with a high performance, long range multi-mode and multi-domain capable system with low SWaP-C advantage. The system is optimized for maritime, littoral and overland surveillance missions and is designed for manned and unmanned rotary- and fixed-wing aircraft.

Advantage

MOSAIC represents a unique application of leading edge technology to meet current and future surveillance, imaging and tracking requirements for a wide range of environments and missions.

- Simultaneous MIMO Dual Beam for true persistent sensing
 - Maritime: ISAR-while-Search
 - Overland: SAR + Wide Area GMTI
- 3D scanning
- Modular design for increased flexibility of aircraft integration including podded systems
- Air-cooled design significantly reduces Size, Weight, Power and Cost (SWaP-C)
- Unique High Intensity Radiated Fields (HIRF) design meets MIL-STD-464
- Graphical User Interface (GUI) with high-resolution moving map
- Adaptive radar resource manager
- Rules-based track management

- All digital interfaces to facilitate platform integration
- Software-defined open architecture: compatible with FACE, OMS, MOSA, SOSA and COARPs

Multi-Mission, Multi-Domain

MOSAIC provides true multi-mission ISR functionality, while providing situational awareness across all domains.

- Air-to-air
- Anti-Surface Warfare (ASuW)
- Anti-Submarine Warfare (ASW)
- Overland surveillance (ISR)
- Long-range maritime patrol
- Search and rescue
- Target classification for enhanced situational awareness
- Maritime interdiction operations

MOSAIC Active Electronically Scanned Array Radar

MOSAIC Radar Modes

■ Maritime (Blue Water and Littoral)

- Inverse Synthetic Aperture Radar (ISAR) imaging with automatic target classification
- ISAR-while-Scan for autonomous ASuW
- Small target detection & tracking and periscope detection
- Long range search with reduced blind region
- Multi-channel Maritime Moving Target Indicator (MMTI)
- Beacon Detection (SART)
- Littoral ground mapping and land-mass discrimination
- Integrated Automatic Identification System (AIS)

■ Overland

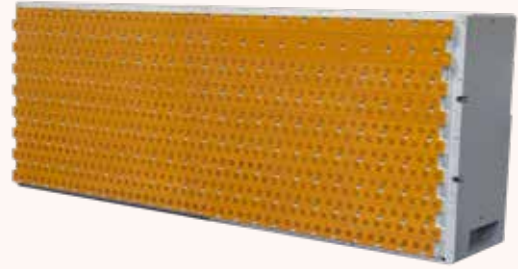
- Synthetic Aperture Radar (SAR) imaging (Spotlight and Stripmap)
- Multi-channel Ground Moving Target Indicator (GMTI)
- SAR-while-GMTI

■ Air

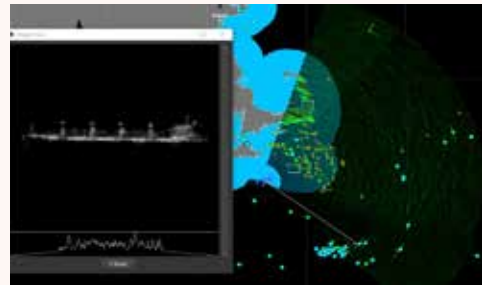
- Air Moving Target Indicator (AMTI) with height information
- Sense and Avoid (SAA)
- Weather mapping, including wind shear and turbulence detection

■ Electronic Support and Electronic Protection

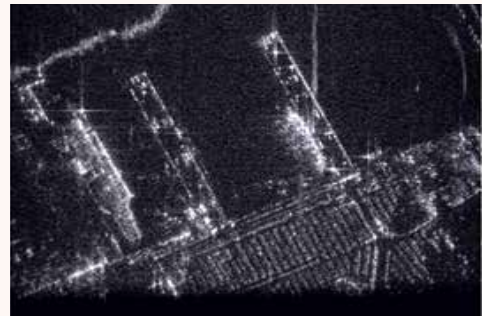
■ Integrated Identification Friend or Foe (IFF)



MOSAIC AESA Radar



ISAR While Search



Spotlight SAR



GMTI

Visit www.ttm.com for more information.

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