



Belgian Advanced Technology Systems

Ground and Coastal Radar

GR12/15



GR12/15 persistent ground and coastal surveillance radar is a new advanced high resolution radar with unique and outstanding capabilities. Featuring simultaneous multibeam technology, the radar provides persistent surveillance and instantaneous target tracking over a wide area.

Operational in all weather conditions, the radar immediately detects, monitors and tracks all ground moving targets and all sea targets (moving and stationary) in the Region Of Interest (ROI), such as a walking person, a moving vehicle and various vessels and boats at sea.

The radar features one stationary (non-rotating) planar array antennas, covering a sector of 90°. Full 360° coverage is achieved either by adding more antennas or by placing the radar on a positioner.

The GR12/15 radar detection range is 15Km for a rubber boat or a moving person and 30Km for a small sailboat or a moving vehicle.

One of this radar's most unique capability is its simultaneous detection and tracking targets, both on ground and on sea surface.

Features

- Instantaneous and continuous multi-beam coverage of the entire Region of Interest
- High probability of target interception, in all weather conditions, even if the target is not persistent
- Automatic and continuous detection and tracking with high accuracy
- Dual mode simultaneous operation both on ground and on the sea surface
- Multi-target automatic tracking
- Unparallel performance for small and slow moving targets
- Very low false alarm rate
- Easily deployed and operated
- Interoperability with Electro-Optic sensor
- Several radars can be networked, providing an integrated picture on a C4ISR console display
- Solid state radar with very high MTBF
- Very low Life Cycle Cost (LCC)
- Multi-beam Solid State FMCW Radar
- Non-moving parts
- Each target is continuously monitored and its track is updated multiple times per second
- 360° coverage can be achieved by employing 4 planar stationary antennas of 90° each
- Locally or remotely controlled and operated

Applications

- Border surveillance and protection
- Critical infrastructure protection
- Harbor surveillance

Specifications

Radar type:	High resolution FMCW radar
Frequency:	X-Band
Detection range:	Up to 15km for rubber boat / moving person Up to 30km for sailboat / moving vehicle Up to 96 km for medium size ships
Azimuth coverage:	Instantaneous 90°/180°/270°/360° (acc. model)
Range accuracy:	Less than 10m
Azimuth accuracy:	0.25°
Interface connection:	Ethernet TCP/IP
Power:	28VDC
Power consumption:	550W (90°), 740W (180°)
Radiated power:	50W
Radar weight:	55Kg (90°), 94Kg (180°)
Max number of tracks:	500
Track update rate:	Few times per second