

DIGAR™ GUARDIAN™

Advanced GPS anti-jamming for maritime platforms

In the highly-contested military PNT environment, maritime platforms require the highest levels of protection from GPS jamming threats to ensure precise GPS positioning and timing through jammed waters while maintaining adherence to international borders.

The BAE Systems DIGAR GUARDIAN GPS anti-jamming solution provides a fully integrated and compact secure receiving and GPS anti-jamming solution in one single environmentally protected and simple to install unit.

The DIGAR GUARDIAN GPS anti-jamming solution is comprised of an integrated Controlled Reception Pattern Antenna (CRPA) with a DIGAR-300 GPS Antenna Electronics Unit embedded inside a single enclosure. This allows the system to operate using Y-Code and M-Code nulling for all receivers, and provide Y-Code digital beamforming to SAASM receivers. DIGAR GUARDIAN's digital beamforming provides the highest level of anti-jamming possible.



Key features and benefits

- Superior digital beamforming provides more anti-jamming protection than nulling alone
- Up to 16 simultaneous beams for jamming immunity
- Simultaneous L1/L2 protection allows for dual frequency redundancy
- Supports Y-Code and M-Code anti-jamming to allow for flexibility of use
- Supports STAP beamforming to provide increase adaptability to threats
- Jammer direction estimates support situational awareness and mission planning
- Optional embedded GPS SAASM version available which provides a protected PVT solution
- Software defined radio architecture allows for future upgradeability and the ability to pace the threat
- 120+ dB J/S performance*

Superior protection against all known jamming threats

Superior anti-jamming performance

DIGAR's advanced, anti-jamming capabilities were specifically designed to meet the mission needs of airborne and maritime platforms. With technology proven at government test ranges and now fielded on multiple platforms, DIGAR provides superior protection against all known jamming threats.

Growth

- M-Code beamforming
- Enhanced situational awareness (e.g. jammer characterization and geo-location)
- GNSS multi-constellation compatibility

Interfaces

- Protected RF output (L1/L2)
- Digital multi-beam output
- RS-422 control/status interface
- RS-422 instrumentation

Physical characteristics

Power	115V/400 Hz
Power consumption	50W nominal, 85W max
Weight	25 lbs (11.34kg)
Size/volume	15 in. (381 mm) diameter x 5.62 in. (142.75 mm) height
Mount	NATO Mount Compliant

Environmental characteristics

Temperature range	-40° C to 71° C (continuous)
Cooling	Conduction/convection
EMI/EMC	MIL-STD-461
500 hour salt fog	MIL-STD-810H/1, 509.8 Procedure II
Ballistic shock	MIL-STD-810H/1, 522.2 Procedure III
Hail strike	ASTM E1038
Solar loading	MIL-STD-810H/1, 505.7 Procedure I, A1

* Actual performance for specific threat environments varies and is classified



DIGAR GUARDIAN



DIGAR GUARDIAN includes DIGAR-300 inside

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