

NavGuard® 500 Small Antenna System (SAS)



Capabilities and Features

Developed for helicopters, its small size and feature set make it useful across a broad array of ground combat platforms, support platforms, light aircraft, UASs, Command and Control nodes with network management responsibilities or network timing dependent on GPS signals, it ensures that clean GPS timing signals are available when they are needed. The system is a cost effective alternative when systems must operate in GPS contested or denied environments. It can drive multiple GPS devices from a single antenna and provide all the benefits listed to all the devices it is connected to. It is C/A, SAASM and M-Code Compatible

High level Features

- 5 channel design, simultaneous dual frequency
- (L1 and L2) GPS protection
- Minimal group delay
- Compatible with any GPS receiver
- Ultra compact, low power, low cost
- Provides greater than 90 dB J/S anti-jam protection
- L-shaped design allows for cable bend

Performance Metrics

- Dynamics: Suitable for very high dynamics applications
- Designed specifically to counter Rotor Blade modulation
- Simultaneous dual frequency (L1 and L2)
- Mitigates multiple CW, partial band, broadband and pulsed jammers even under high dynamics
- Uses multiple element spatial temporal adaptive filtering (STAP)
- Greater than 40 dB of jamming suppression against multiple jammers

NavGuard® 500 Technical Specifications Summary

- External Interface:
 - Multiple ports, RS-232 and discretes
 - GPS RF output, dual L1/L2 outputs with adjustable power levels (primary and auxiliary)
 - Receiver: Compatible with C/A, SAASM, and M-Code Receivers
- Temperature: -40 to +85 C
- Codes/Frequencies: L1/L2 selectable, C/A and P(Y)

SWAP Metrics

- Size: AE: 6" x 4.5" x 3"
- s-CRPA: 3.5" Diameter
- Weight: <2.5 lbs (AE with s-CRPA)
- Power: <30 Watts

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• Sponsored by GPS Directorate and managed by Navy SPAWAR Systems Center, San Diego, CA.