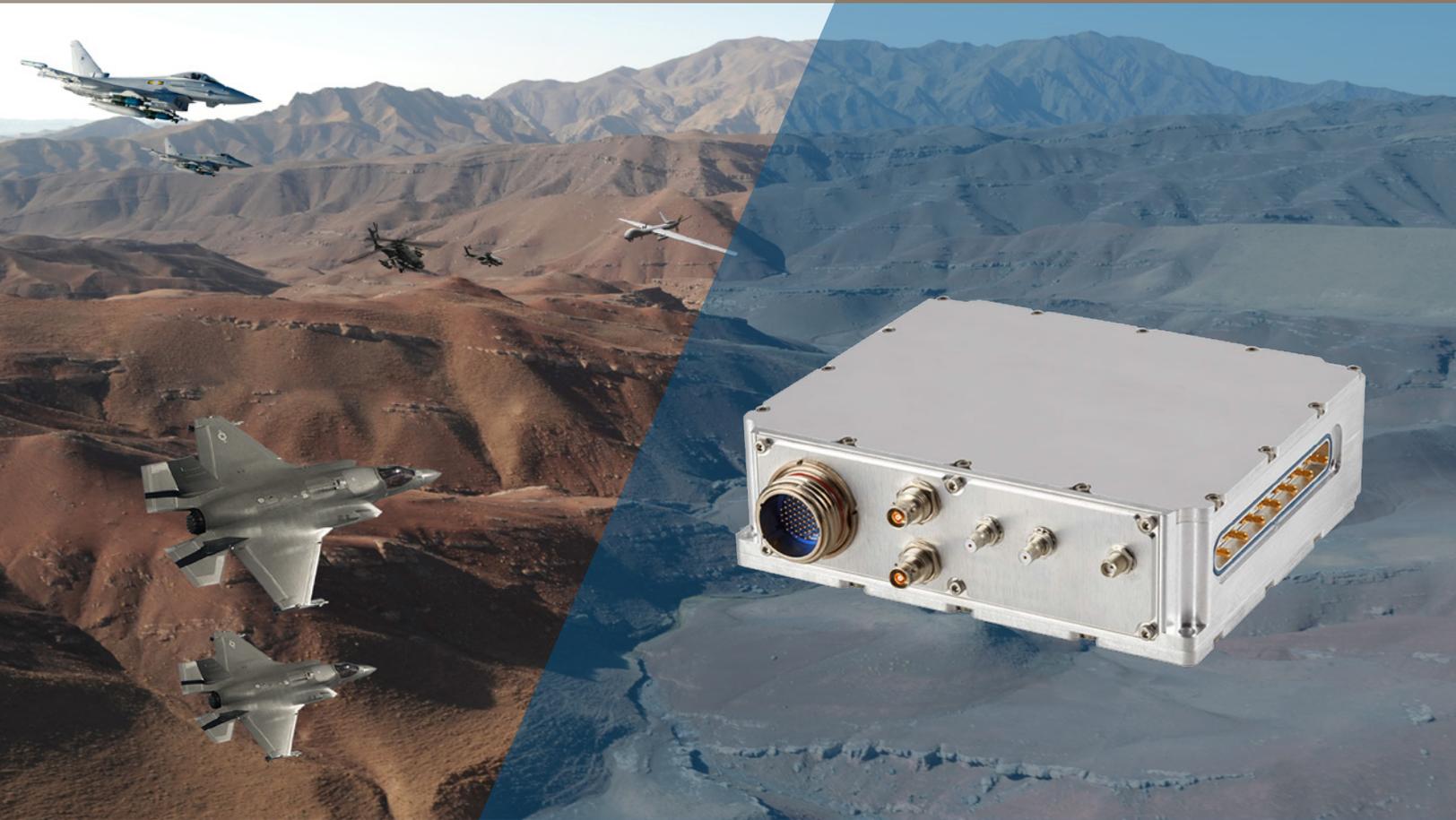


DIGAR-300 – GPS anti-jam antenna electronics



Superior beamforming GPS anti-jamming for airborne platforms

The U.S. military and close allies have used GPS on the battlefield for decades. Almost every piece of military electronic equipment – aircraft, vehicles, radios, computers and guided bombs – relies on GPS for accurate positioning, navigation and timing (PNT).

Threats are increasing, however, and adversaries now can jam and spoof GPS signals. To defend against increasingly available counter-GPS capabilities, the military is requiring GPS protection, augmentation and alternatives that are more resilient and less vulnerable.

High-performance GPS anti-jam protection is available today and should be the foundation of any high-assurance PNT strategy in this evolving anti-access/area denial (A2/AD) environment.

Leveraging more than 30 years of military GPS experience and advanced technical expertise in anti-jamming technology, Rockwell Collins now provides digital beamforming GPS anti-jamming in a small form factor suitable for all your military needs.

DIGAR-300 is the best airborne GPS anti-jam antenna electronics (AE) available. It supports 24 simultaneous steered beams to provide superior jamming immunity in the most severe GPS-challenged environments.

The AE build upon field-proven GPS anti-jam weapons technology and state-of-the-art signal processing techniques. As the premier military GPS and anti-jam provider for weapons such as the Joint Direct Attack Munition (JDAM), Massive Ordnance Penetrator (MOP), Excalibur and others, Rockwell Collins now offers this superior digital beamforming anti-jam capability to airborne users.

KEY FEATURES/ BENEFITS

- › Superior digital beamforming
- › Up to 24 simultaneous beams for superior jamming immunity
- › 125+ dB J/S performance*
- › Two- to seven-element CRPA compatible
- › Simultaneous L1/L2 protection
- › Supports STAP/SFAP beamforming
- › Small form factor (69 cubic inches)
- › Lightweight (<5 lbs)
- › M-Code and GNSS compatible
- › JPALS compatible
- › Integrated AE/GPS option
- › Power consumption options

**Beamsteering mode. Actual performance is classified.*

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SMALL SIZE, SUPERIOR ANTI-JAMMING PERFORMANCE

The DIGAR-300 is an advanced, anti-jam AE specifically designed to meet the mission needs of all airborne platforms, including unmanned and rotary wing. It's been tested head-to-head with the industry's leading solutions and outperformed them all.

With technology proven at government test ranges and now fielded on direct attack weapons, the DIGAR-300 provides superior protection against all known jamming threats.

GROWTH

- A wideband, reconfigurable AE system suitable for modernized and legacy applications
- Programmable for optimized performance with P(Y) and M-Code GPS
- Auxiliary processor for jammer detection, characterization and a geolocation growth option
- JPALS compatible

INTERFACES

- 2X protected RF output (L1/L2)
- 1X digital multi-beam output
- RS-422 control/status interface
- RS-422 instrumentation

SYSTEM CHARACTERISTICS

Anti-jamming performance	(20 MHz broadband jammer) State 5 tracking >105 dB J/S** State 3 tracking >120 dB J/S**
Other	Compatible with GEM VII and ASR embedded receivers
Small size	The best available anti-jamming in a package suitable for UAS and rotary wing
Array compatibility	Can be configured for beamsteering with any array
Platform versatility	Tested on both fixed wing and rotorcraft; UAS capable
GPS flexibility	Programmable for optimized Y and M-code anti-jamming

**Beamsteering mode. Actual performance is classified.

PHYSICAL CHARACTERISTICS

Power	28 volts DC
Nominal power consumption	40-45 W (depending on configuration)
Weight	<5 lbs
Size/volume	6.5" D x 5.6" W x 1.9" H (16.51 cm D x 14.22 cm W x 4.83 cm H)
Temperature range	-55° C to 71° C (continuous)
Cooling	Conduction/convection
Shock operating	20 g
Shock crash	40 g
Random vibration	20-1000 Hz, 0.32 G2/Hz 1000-2000 Hz, -6 dB per octave decrease

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

The DIGAR-300 is one-third the size of the DIGAR-200 (AE-1, GAS-1, ADAP form factor).



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Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

For more information, contact:

Rockwell Collins
400 Collins Road NE
Cedar Rapids, Iowa 52498
800.321.2223
+1.319.295.5100
fax: +1.319.378.1172
email: learnmore@rockwellcollins.com
www.rockwellcollins.com

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