Defense GAJT-410ML™

GPS ANTI-JAM TECHNOLOGY (GAJT®) FOR SMALLER PLATFORMS

JAMMING AND INTERFERENCE ARE HERE TO STAY

Jamming and interference, whether intentional or unintentional, can seriously degrade GPS position, navigation and timing availability—even to the point of total solution denial. Jammers create excessive noise, overpowering the low power GPS signals and saturating the electronics in a GPS receiver front end. Methods are needed to suppress this interference so your GPS receiver continues to operate.

BATTLE PROVEN IN SMALLER AND LIGHTER ENCLOSURE

The GAJT-410ML is a new design that builds on our legacy, battle-proven anti-jam technology in a smaller enclosure. It combines an antenna array and null forming electronics into an enclosure that is suitable for installation on a wide range of land vehicles.

EASY TO INTEGRATE

GAJT-410ML is designed for size constrained applications where it is preferable to mount the combined antenna and electronics outside the vehicle. The GAJT-410ML utilizes the existing Radio Frequency (RF) cable to supply data and power directly to the unit to reduce the need for costly platform modifications.

SITUATIONAL AWARENESS

By installing the Power Injector Data Converter (PIDC™), users can access the jammer status and direction finding capabilities of the GAJT-410ML across the single RF cable. The PIDC is supplied in an enclosure and can be easily installed inside land vehicles. It is available to license for installation into third-party equipment.

HOW IT WORKS

GAJT mitigates interference by creating nulls in the antenna gain pattern in the direction of jammers, providing significant anti-jam protection even in dynamic multi-jammer scenarios. The output of the GAJT-410ML is a standard Radio Frequency (RF) feed, suitable for input to legacy GPS receivers. Clean DC power is supplied via the single RF cable when using the PIDC. Integration to your GPS receiver is seamless.

BUILT FOR THE FUTURE

The wide bandwidth ensures compatibility with M-Code GPS.

BENEFITS

+ Low cost anti-jam protection designed for smaller platforms
+ Easy to integrate
+ High performance anti-jam protection in dynamic multi-jammer scenarios
+ Compatible with legacy and modern GPS receivers
+ Provides situational awareness through the PIDC

FEATURES

+ Affordable protection for GPS position, velocity and time
+ Up to 40 dB of additional anti-jamming protection
+ Simultaneous L1 and L2 protection
+ Adaptive digital nulling

PRELIMINARY

For more information about GAJT, visit www.novatel.com/GAJT or email GAJT@novatel.com

GAJT-410ML™

PERFORMANCE

GNSS Signals

GPS L1/Galileo E1	1575.42 MHz ±12 MHz
GPS L2	1227.6 MHz ±12 MHz

INTERFERENCE REJECTION

Simultaneous L1 and L2

Typical Wideband Suppression	40 dB
Number of Simultaneous Nulling Directions	3

ANTENNA ARRAY

Built in 4 Element CRPA

GAJT-410 CRPA PORTS

1 x SMA (50 Ω) female	RF/Data/Power

PIDC PORTS

1 x ODU 12 pin female	Data/Power
1 x SMA (50 Ω) female	RF
1 x SMA (50 Ω) female	RF/Data/Power

PHYSICAL AND ELECTRICAL

Power (system)

Power Consumption	18 W
Input Voltage	+10 to +32 VDC

GAJT-410ML CRPA

» Dimensions	139.8 diameter × 95 mm
» Weight	1.7 kg

GAJT-410ML Hardware Color Options

» Green Chemical Agent Resistant Coating (CARC)
» Tan Chemical Agent Resistant Coating (CARC)

PIDC

» Dimensions	85.5 W × 85 L × 31.5 H mm
» Weight	450 g

ENVIRONMENTAL

Temperature

Operating	-40°C to +71°C
Storage	-55°C to +85°C

Humidity	MIL-STD-810G(CH1) 507.6, Proc. II
Altitude	MIL-STD-810G(CH1), 500.6
Corrosion	MIL-STD-810G(CH1), 509.6 MIL-STD-810G(CH1), 518.2 MIL-STD-810G(CH1), 504.2
Vibration	MIL-STD-810G(CH1), 514.7
Shock	MIL-STD-810G(CH1), 516.7 IEC 60068-2-27 Ea
Water	MIL-STD-810G(CH1), 512.6 IEC 60529 IPX9K IEC 60529 IPX7
Sand & Dust	MIL-STD-810G(CH1), 510.6 IEC 60529 IP6X
Solar Radiation	MIL-STD-810G(CH1), 505.6
Electromagnetic Compatibility	MIL-STD-461G

COMPLIANCE

FCC, ISED, CE

ACCESSORIES

» Combined data and power cable
» NATO Mount Adapter
» Pole Mount Adapter

EXPORT APPROVALS

Canadian Controlled Goods

For more information about GAJT, visit www.novatel.com/GAJT or email GAJT@novatel.com

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