GIDAS Portable

Analyse GNSS Quality anywhere and anytime

Global Navigation Satellite System (GNSS) positioning and timing services form the backbone of many applications and markets. Examples are tracking goods and vehicles, localising accident victims or rescue units, providing navigational means to aircraft, time synchronization of power grids, communication systems and stock exchanges. GNSS is relied on by many stakeholders. Civilian GNSS services are free of charge and globally available but insufficiently protected against unintentional and even intentional disturbances. To secure the GNSS-based operation of your system, regardless of the location, OHB offers a portable GNSS quality assurance system. OHB's **GNSS Interference Detection & Analysis System (GIDAS) Portable** lets you monitor the GNSS quality wherever needed.

Supported GNSS signals	GPS: L1 C/A, L2C, L5 Galileo: E1B/C, E5a, E5b GLONASS: G1, G2 BeiDou: B1 SBAS and regional systems on L1 (e.g. EGNOS, QZSS)
Bandwidth	up to 81 MHz
Dynamic range	up to 2 x 12 bit (complex)
Interference detection	Jamming, Spoofing
Monitoring features	Real-time monitoring and interference detection Classification of interference sources Angle of arrival estimation of interference sources Automatic alerting via multiple interfaces Detailed analysis in post-processing
Operating modes	Stand-alone monitoring (static / dynamic) for detection and classification Network monitoring (static) for detection, classification and localization
Outputs	Interference alert Interference detection details Interference classification details Interference localization Automatic reporting Standard GNSS output formats (e.g. RINEX, NMEA) Recording of signal snapshots (incl. metadata description according to ION's GNSS SDR metadata standard) Log-Files (proprietary formats)
Standards supported	ICAO Annex 10 - International Standards and Recommended Practices ICAO Doc. 8071 - Manual on Testing of Radio Navigation Aids RTCA DO-229D - Minimum Operational Performance Standards for Global Positioning System / Wide Area Augmentation System Airborne Equipment
Alerting	via GUI, TCP/IP, email, custom alert interface (e.g., alert device for air traffic controller)
Alarm latency	< 6 seconds (avg. < 3 seconds)
Detection thresholds	User definable as well as predefined (e.g., ICAO, RTCA) threshold masks
Output update rate	1 to 10 Hz (configurable)
Detection probability	> 99 % for ICAO thresholds
Jamming classification	Classification regarding the spectral characteristics (power, pulsed / non-pulsed, type, modulation index, sweep rate, etc.)
Supported jamming signal types	Pulsed and non-pulsed Amplitude modulated (AM) Frequency modulated (FM) Continuous wave (CW) Swept continuous wave (SCW)
Time / spectrum resolution	Configurable Frequency resolution typically 1 kHz Time resolution for classification typically 10 µs
Angle of arrival	The dual-module antenna supports angle of arrival measurements
Graphical user interface	Multi-user web client
Power supply	230 VAC, external battery solution available
Case	Peli 1535 Air, 558 x 355 x 228 mm, IP65 & MIL-SPEC certified
Operating environment	Temperature: - 20 ° to + 40 ° C
Connections	2 x TNC for GNSS antennas, 1 x power, WiFi IEEE 802.11b/g/n, 4G / LTE (Cat 4), 3G, 2G
Usability	Designed for fully autonomous , portable use

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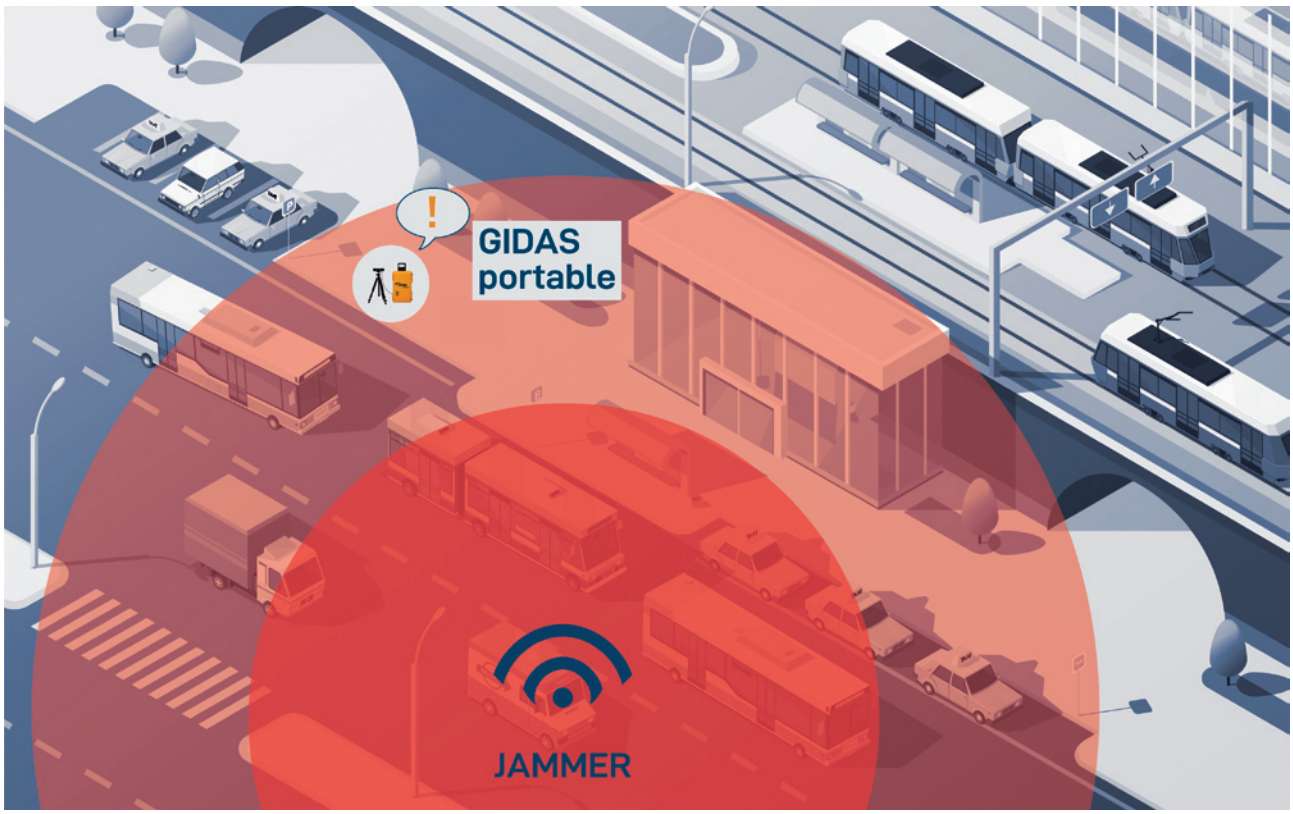

OHB's **GIDAS Portable** is a fully autonomous, portable, real-time system to monitor the GNSS services wherever needed. If any interference is detected, the user gets alerted either via the user interface, email or any custom interface. The system is operated via a web-based user interface, accessible by the included tablet. The user interface can be accessed from any web-enabled device with a data connection, even from distance. **GIDAS Portable** is powered by a 230V power supply and can also be powered by a portable battery, optionally supported by a solar power source.
GIDAS Portable's core is formed by multiple jamming and spoofing detection techniques developed in more than 20 years of research. The smart combination of different monitoring approaches makes for a robust statement of the current local integrity of the GNSS positioning and timing services. **GIDAS Portable** is specifically designed for temporary installation or fully portable use and can detect and classify a wide range of jamming and spoofing signals. Aside from fully autonomous operation, **GIDAS Portable** can be operated as a portable monitoring sensor within a static **GIDAS** installation.

- The complete **GIDAS** system is packed within a waterproof IP-rated, portable case.
- **GIDAS Portable** comes with a rugged and IP-rated operator tablet.
- Depending on customer needs, the dual-module GNSS antenna comes with a ma gnet mount for tripod-less application or with a standard mount for tripods.
- The dual-module GNSS antenna, the operator tablet, and all required cables can be stowed in the case.
- **GIDAS Portable** can be operated fully autonomously or can be used as a portable sensor within a stationary **GIDAS** system.




GIDAS Portable

GIDAS Portable is used to monitor the GNSS signals and services wherever needed. It is designed to be temporarily deployed at any site and any weather. OHB's **GIDAS Portable** is used by frequency regulation authorities, GNSS-based toll enforcement agencies and many more to detect GNSS interference. **GIDAS Portable** addresses private companies as well as public and governmental bodies.

The first step towards safe GNSS applications is the awareness of present threats - **GIDAS Portable** detects, classifies, and alerts if GNSS is about to be interrupted. OHB makes your GNSS-dependent application more robust and helps you to enforce law.

Get in touch with us to learn how we can make your GNSS-based operations safe!

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