LabSat 3 Wideband

GNSS Record and Replay with a recording bandwidth of up to 50MHz

LabSat is recognised as the most cost effective and intuitive GNSS simulator available. New to the **LabSat** range of GNSS Record and Replay devices is **LabSat 3 Wideband**, which continues with the established reliability, cost-effectiveness, and simplicity of operation that are the benchmarks of the **LabSat** system.

LabSat 3 Wideband greatly increases GNSS Record and Replay capabilities

A 50MHz recording bandwidth at 4 or 6 bit allows for the capture of a very wide range of live-sky satellite signals:

- GPS: L1 / L2 / L5
- GLONASS: L1 / L2 / L3
- BeiDou: B1 / B2 / B3
- QZSS: L1 / L2 / L5
- Galileo: E1 / E1a / E5a / E5b / E6
- SBAS: WAAS, EGNOS, GAGAN, MSAS, SDCM
- IRNSS

LabSat Wideband is housed in a conveniently small enclosure measuring 167mm x 128mm x 46mm and weighing only 1.2kg, so it can be used to record GNSS signals anywhere. Subsequent replay is entirely realistic to allow for robust product development and testing.

The system is simple to use with one touch record and replay and SSD logging, and no requirement for a connected computer. An inbuilt battery pack gives two hours of use, and a 2TB solid-state hard drive is supplied as standard.

Standard Features

- Wide bandwidth recording at 10MHz, 30MHz, or 50MHz across all constellations
- Three frequency sets / channels
- 4 or 6 bit resolution
- One touch record and replay
- 2TB SSD hard drive
- SD card interface
- Internal battery - up to two hours of use
- Standalone operation, or via external control
- Compact form factor; only 1.2kg

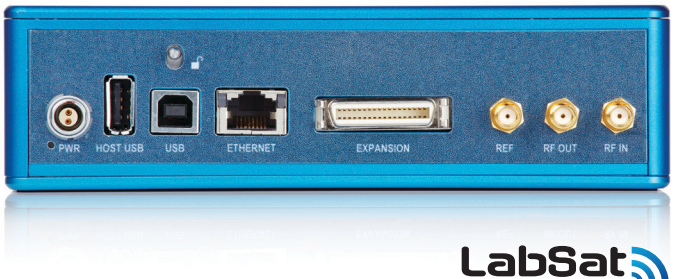
Applications

LabSat 3 Wideband is suitable for the testing and development of a whole host of products within a wide variety of applications:

- Drones
- Autonomous vehicles
- Surveying equipment
- Personal monitoring devices
- Aerospace
- End of line product testing

Recording and Replay of Additional Signals

LabSat 3 Wideband can record a range of additional signals, synchronised to the GNSS input: dual-CAN, RS232, and digital inputs are simultaneously captured increasing the level of playback realism and allowing for a wider range of testing. This flexibility means that the development of products incorporating this variety of signal streams can be conducted with absolute convenience on the bench, without the need for costly and time consuming field trials. NMEA data is also recorded via the inbuilt GNSS receiver.



LabSat WIDEBAND

Future-Proofing Your Products

With **LabSat 3 Wideband**, you are able to develop your products and systems in readiness for new GNSS receivers capable of using the signals that will start to broadcast within the next few years. With the advent of L2C, L5, and L1C, the next generation of GNSS devices will have increased accuracy and capabilities – **LabSat 3 Wideband** gives you the opportunity to develop your products to be compatible with new receivers as they come to market.

	LabSat 3 Wideband
Constellations	GPS L1, L2, L5; Galileo E1, E5a/b, E6; GLONASS L1, L2, L3; BeiDou B1, B2, B3; QZSS L1, L2; IRNSS L5; In Band SBAS, user defined frequency bands like Iridium & SiriusXM radio
Output Signal Level	Adjustable -73dBm to -133dBm
RF Channels	3
RF Channel 1 Centre Frequency	Selectable
RF Channel 2 Centre Frequency	Selectable
RF Channel 3 Centre Frequency	Selectable
Number of Satellites Observed	All in view
Sampling Frequency	10, 30, 50 MHz
Bandwidth	30 MHz (3 Channels) 50 MHz (2 channels)
Quantisation	2 or 3 bit
Data Format	I & Q
Additional Logging	2 channels of CAN, RS232 or Digital
Removable Battery Pack	Yes
Media Storage Included	32GB SD card & 2TB Solid State HDD
Active Antenna Voltage Supply	2.85 v
Reference Oscillator	10 MHz OCXO +/- 0.3 ppm
Operating Voltage	8v to 30 VDC
Size	167mm x 128mm x 46mm
Weight	1.2 Kg

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