LabSat Real-Time

Generate real-time GNSS RF signals for your test regime with a current time stamp anywhere in the world.

- GPS/Galileo, GLONASS or BeiDou
- Real-time generation of RF signals
- SatGen software included
- Realistic carrier to noise levels
- Single or dual constellation
- Configurable noise levels and signals

Why use a real-time GNSS simulator?

By connecting a real-time simulator to your device it allows you to test GNSS RF signals with a current time stamp simulated from anywhere in the world. You can test specific trajectories and geographical locations with realistic carrier to noise levels and signals all in real-time.

By using a powerful PC with **SatGen** simulation software installed you can generate GPS/Galileo, GLONASS, BeiDou L1 signals in single constellation (1 or 2 bit) or dual constellation signals at 1 bit each.

How does it work?

SatGen software generates a live signal stream to a **LabSat Real-Time** unit. The unit then converts the RF data from digital to analogue with less than 1 second latency.

If you have an NMEA or KML file of your route, you can simply import this directly into your software. You can also create a scenario either by creating a route in Google Maps, or by building a unique trajectory using simple user-defined commands.

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LabSat Real-Time variants

The **LabSat Real-Time** comes in two variants to suit different user requirements:

- **LabSat Real-Time - Record and Replay**
  Dual constellation (GPS/Galileo, GLONASS, BeiDou)

- **LabSat Real-Time - Replay only**
  Dual constellation (GPS/Galileo, GLONASS, BeiDou)

Product Specifications

Constellations	GPS L1, GLONASS L1, BeiDou B1, Galileo E1
Output Signal Level	Fixed -83 dBm Ability to vary the C/No levels for all or individual satellites during simulation
RF Channels	2
RF Channel Centre Frequencies	Selectable
Number of Satellites Observed	All in view
Sampling Frequency	16.368 MHz
Quantisation	1 or 2 bit (I & Q)
Data Format	I & Q
Media Storage Included	External hard disk only
Active Antenna Voltage Supply	3.3V
Reference Oscillator	10 MHz OCXO Temperature Stability +/- 0.05 ppm Frequency Stability +/- 0.3 ppm over first year
Operating Voltage	8V to 30 VDC

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