

## 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 one 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.



## 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

