

GNSS Recorder & Player

Echo

Putting the "real" to run efficient tests.



SYNTONY

GNSS

High Fidelity Record & Replay

Whether developing new components, improving algorithms or working on the integration of an entire receiver system, there comes a time when GNSS receivers must be tried in real world conditions.

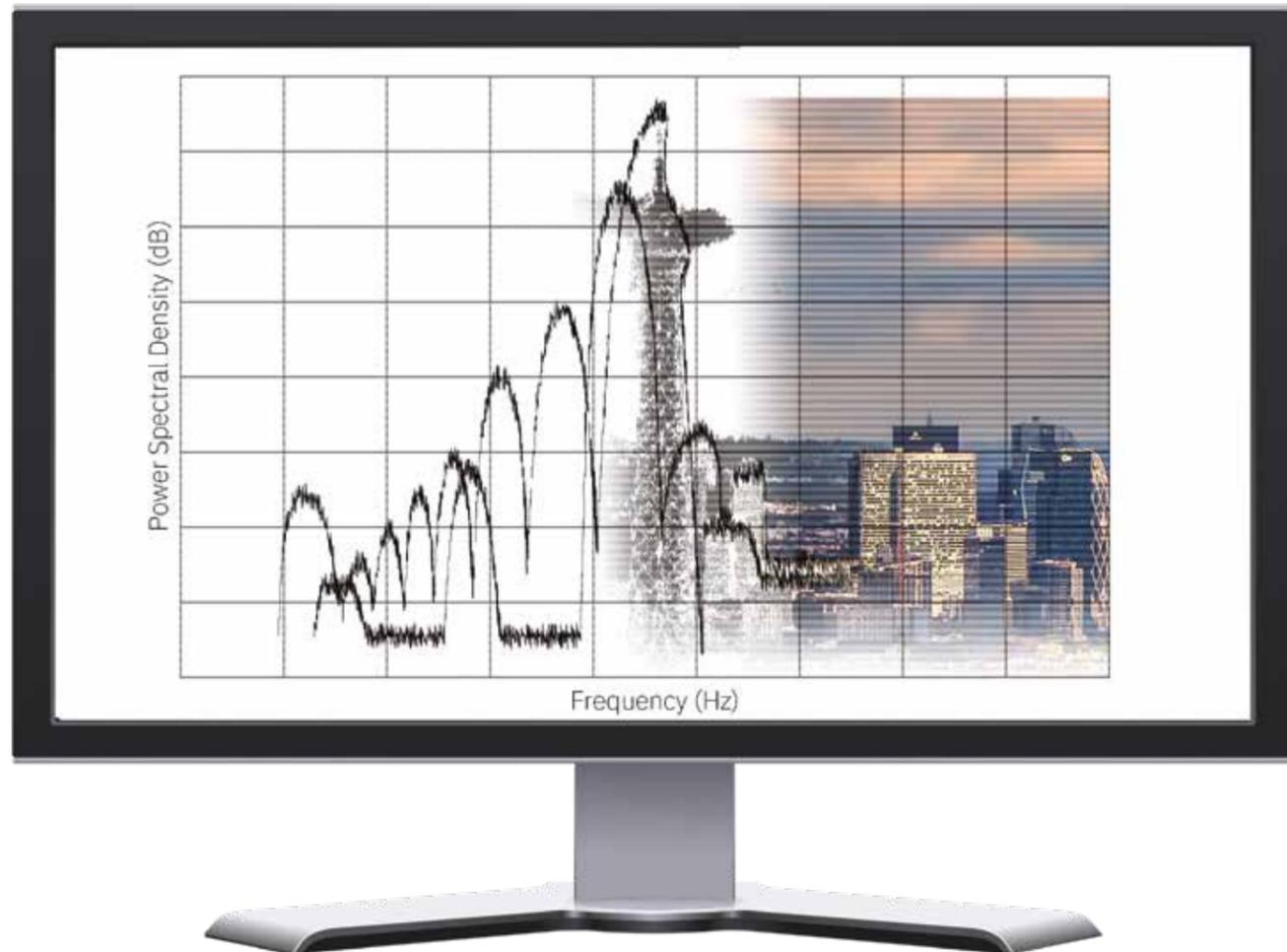
Only real environment tests can reveal how a receiver will react to the untidy RF environment, from background noise to signal reflection, interference, masking or loss...

The ability to replay the same set of real world conditions again and again allows monitoring and validation of receiver performance improvements.

Supporting this process is the job of GNSS record and playback equipment.

Performing so-called real world tests on a GNSS receiver with a coarse reproduction of reality misses the point entirely. Muffling noise or neglecting and flattening weak signals will mask potential issues and introduce significant risks into the receiver's performance during its service life.

Perfectly reproducing imperfections of the reality



Echo R&P

Extensions, features and advantages

2 separate machines : one for recording, one for playing

Highly configurable through powerful GUI

1.2 GB/s write speed

Up to 128TB storage (SSD) & 192TB and above thanks to NAS compatibility



3 RF channels of 100 MHz bandwidth each

from 7 to more than 1000 hours of recording depending on configuration



Best fidelity of replay worldwide

16 bit resolution (I&Q)



Echo R

Syntony's GNSS recorder has been designed for highly demanding clients in order to give them a GNSS environment that can be as close to reality as possible in order to test their equipments.

Versatile

Echo-R offers the finest recording of 3 tightly synchronized channels from all GNSS constellations.

Thanks to its performing RF stage, Echo-R guarantees high fidelity quality recordings at a 16bits rate.

It combines high quality and large capacity for data storage with 128TB

SSD cards capacity to record long sessions at a great quality (from 7 to more than 1000 hours, depending on configuration). On a server, those capacities rise up to 192TB, and above, thanks to NAS compatibility.

User friendly

Echo-R is equipped with a spectrum analyser enabling users to read and check the signals before recording and therefore making sure recordings will be efficient.

Thanks to its robustness, Syntony's GNSS recorder constellations can be embedded on very fast moving vehicles, like aircrafts or trains, without losing quality of recording at all.

Based on SDR technology (Software Defined Radio), Echo-R is versatile and upgradable.



Echo P

Perfectly reproduces imperfections of the real environment

Echo-P is the best equipment to play and repeat high quality recordings from Echo-R.

Thanks to its SSD readers, Echo-P can replay every recording with the best fidelity to test your equipments or to better understand GNSS environment.

To ensure this fidelity, Echo-P can be configured to play recorded signals from Echo-R with the same sensibility and level, offering the most accurate reproduction of reality.

Even more, while a team is on the field recording data with Echo-R, another one can play the very same data from Echo-P, thus saving precious time and helping targeting the right recording.



The future of navigation is **software**

Since 2015, Syntony has become a leader in the GNSS industry. Syntony offers unique location solutions to ensure safety and efficiency to its customers.

Syntony's solutions are competitive, exclusive and performant. Syntony know-how was inherited from 20 years of R&D and collaboration with industry leaders.

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