

ECHO

High Fidelity Record & Replay



Putting the “real” into Real World Tests

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 world conditions tests can reveal how a receiver will react to the untidy RF environment awaiting it during its service life**, 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 that 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 out noise or neglecting and flattening weak signals will mask potential issues and introduce significant risks into the receiver’s performance during its service life.

That is why we built ECHO R&P. From its RF components through its software, Syntony built ECHO R&P to provide the most accurate recording and reproduction of reality available, and to give testers enough space to store a large sample of the real world. In particular, ECHO R&P is used to test very demanding and mission critical GNSS receivers for the aerospace industry.

- ✂ 2 separate machines: one for recording, one for replaying
- ✂ Robust design
- ✂ Best fidelity world-wide of replay
- ✂ 3 tightly synchronized channels
- ✂ 14bit resolution (I&Q)
- ✂ Up to 100MHz sampling rate
- ✂ Up to 32TB storage and 600MB/s write speeds
- ✂ Highly configurable through powerful GUI



Perfectly reproducing reality’s imperfections

