



High-Fidelity RF/Radar Test & Evaluation®

Powering Mission Success with Real-World Accuracy



Why Choose ISL?

ISL's HWIL solutions are trusted in demanding defense and aerospace environments where precision and reliability are non-negotiable. Our One-Channel HWIL System provides an ideal entry point for teams seeking high-fidelity RF testing without complexity.

The ISL Advantage



Unmatched Fidelity:

Simulate complex propagation effects—terrain scattering, multipath, interference—in real time.



Hardware-in-the-Loop (HWIL):

Generate high-fidelity IQ data at RF for seamless evaluation of RF hardware.



Maximized ROI:

Real-world testing that saves time, reduces cost, and ensures mission readiness.

RFView®: Next-Level Channel Modeling

- ✓ **Patented Technology:** Overcomes DRFM limitations for ultra-realistic radar scenes.
- ✓ **Millions of Scatterers:** Model terrain, ocean, multipath, and interference sources.
- ✓ **Full RF Bandwidth:** Calibrated signals from 0.1 to 20 GHz.
- ✓ **Supports Terrain and environmental databases:** Flexible and scalable for any environment.

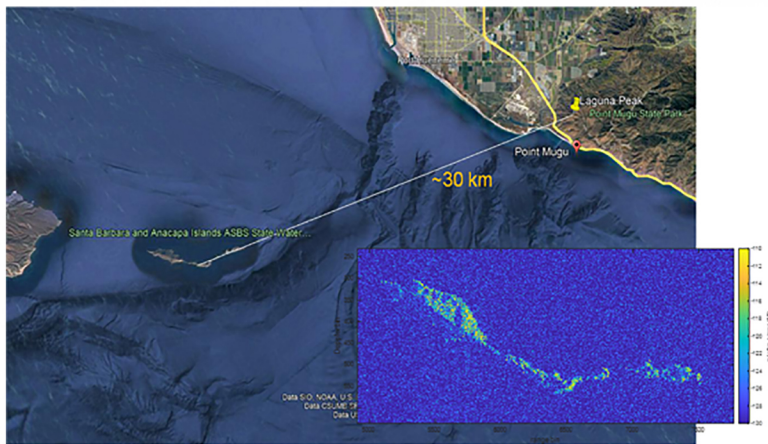


Figure 1 High-Fidelity Output with Terrain & Ocean Scattering

RFView® HWIL

ISL's HWIL One-Channel System delivers a compact, high-performance solution for real-time RF testing and validation. Designed for rapid integration and operational realism, it enables engineers to test radar, EW, and sensor systems against dynamic, high-fidelity signal environments—without the cost and risk of field trials.

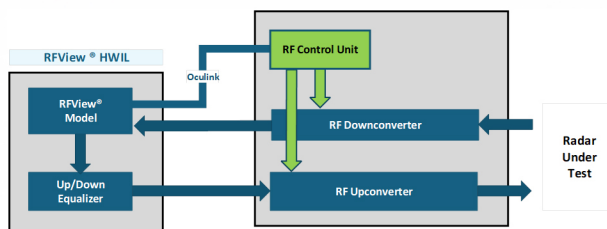
Applications

- Radar system validation and calibration
- Electronic warfare (EW) system testing
- RF seeker and sensor development
- Algorithm verification in realistic environments
- Pre-flight and pre-deployment system validation

Typical Specifications

Parameter	Min	Max	Units
Frequency Band of Interest	2	20	GHz
Instantaneous Bandwidth		1000	MHz
Simulated Target Range	120	Inf	m
Scene range swath	0	500	km

Figure 2 System Configuration



See it in action. Validate with confidence. Deploy with certainty.

Contact ISL today to schedule a demo or request a technical briefing.

www.islinc.com