RFnest™
Channel Emulator

nxtRF

RF nest™

BLUEHALO

RFnest™ Channel Emulator

The Real World in a Box

RFnest™ is a state-of-the-art and cost-effective channel emulation solution that supports all RF applications including Hi-Fidelity automated RF testing for R&D, network design, military communications, radar, SATCOM, Electronic Warfare (EW), Avionics, 5G/4G, IoT, and others.

- Expandable and Modular Hardware with 8 or 16 Port Increments
- Hi-Fidelity Dynamic Full Mesh Wireless Channel Emulation
- Record and Replay Test Scenarios and Signals of Interest

RFnest™ provides a repeatable & controllable RF environment for a network of wireless nodes in a laboratory environment. RFnest™ is powered by RFview™ software which allows users to:

- Design channel emulation scenarios with mobility models
- Interface with 3rd party emulation tools including EMANE
- Diagnose hardware and calibrate RF path when necessary
- Play, Pause, Stop, Record, and Replay Wireless Scenarios
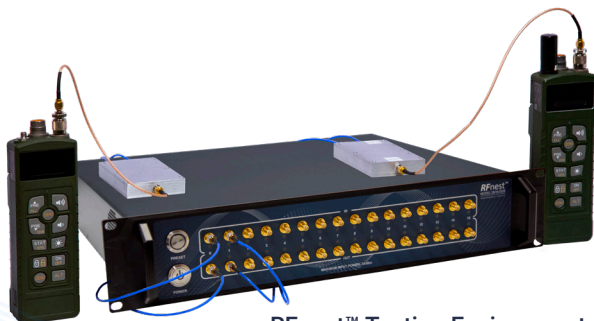
RFnest™ Testing Environment

Advanced Architecture

With an innovative channel emulation architecture, RFnest™ allows users to customize and integrate into other hardware in the loop emulation environment with following components:

- Powerful modular hardware platform
- 3D Geometric Channel Modelling
- RFview™ GUI based O&M
- Terrain Database

Testing Capabilities

With the integrated RF Record and Playback toolkit, users capture or playback snippets, or display signals in real time in two directions. Use this feature to generate desired signal to simulate a signal source, and to record and analyze the received signal through the emulated path using the recorder function.

Users connect real radios or simulate RF sources to fully replicate the operational and spectrum environment. Users can connect any test instruments such as function generator or spectrum analyzer.