

# RF Studio™

## Software Solution



Visualize, capture and play back the entire real-world RF spectrum to accelerate receiver designs and get to market fast.



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## Software Solution

### → Need an all-in-one solution to record RF signals?



Today's RF experts, engineers and scientists need a comprehensive RF record-and-playback solution to accelerate their product design, validation and research projects. That's because there's no substitute for working with real-world RF signals and impairments. They provide the accuracy and repeatability that are impossible to achieve with drive tests or simulations.

RF Studio features smart RF-chain configuration, signal templates, and a handy noise figure to visualize signals and optimize gain. Within minutes you'll be recording and storing radio, video, connectivity and/or navigation signals for in-depth, repeatable analysis and testing.

The screenshot shows the RF Studio interface with several callouts:

- Live Playback Timing**: Points to the top center of the interface showing a timer at 00:00:00:04.
- Currently Selected RF Channels**: Points to the 'Channels in Session' panel on the left, which lists RF 1, RF 2, and RF 3.
- Currently Selected Files**: Points to the 'Associate Recordings' panel on the left, which lists RF 1, RF 2, and RF 3.
- Playback Options include: run once, loop, or play for a pre-selected time**: Points to the 'Playback Modes' panel on the right, which includes 'Run Once', 'Loop', and 'Pre-selected Time' options.
- Real-Time Buffer Health**: Points to the 'Playback Status' panel on the right, which shows 'VBT buffer health' and 'Stop Playback' button.
- Playback only a Selected Section of a Recording**: Points to the 'Playback Channel Trimming' panel at the bottom, which shows time sliders for RF 1, RF 2, and RF 3.
- Advanced Playback Selection for each Selected Channel and File**: Points to the 'Playback Channel Trimming' panel at the bottom, which shows time sliders for RF 1, RF 2, and RF 3.

### → Build a Complete Signal Library with RF Studio

By saving recording configurations, you can quickly setup and start recording immediately. With the **noise figure** feature you can record weak signals and optimize gain. The **spectrum**, **power**, and **histogram** views offer the ability to visualize all signals of interest.

## → Validate Your RF Receiver Designs Faster Than Ever

If you're doing traditional field testing of RF receivers, you know how time-consuming and costly that can be. Environmental conditions, satellite positions, solar events and interference are highly variable and almost impossible to reproduce.

With RF Studio on one of Avera's RF record and playback systems, capture hours of real-world RF signals. Accurately and consistently validate receiver design changes, and accelerate product-development. This saves the high costs and inconveniences of repeated trips to the field while providing reliable and repeatable data.



Visualize real-world signals with the noise figure, spectrum, power, and histogram views.



Perfect for capturing RF and impairments in urban canyons, tunnels, forest canopies and mountains.

## → Key Features

Powerful RF record-and-playback software for capturing real-world RF spectrum, including GNSS, radio, video and location data; LabVIEW plug-in support, noise figure, spectrum, power and histogram views, available on Avera's AST-1000 and RP-6500. With a simple-to-use UI for easy workflow and efficient workload management, you can remotely control your hardware and share with your team to increase your ROI.

## → Powerful RF Workflow and Productivity Tools

### Avera RF Instruments



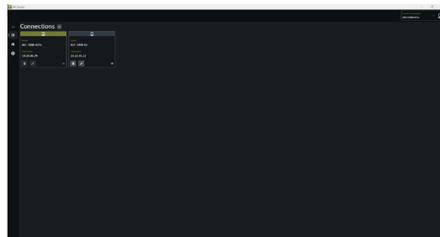
#### RP-6500: Wideband Record and Playback

All-in-one RP Solution with Real-Time GNSS Simulation and SATCOM signal generator for advanced Satellite Navigation applications.

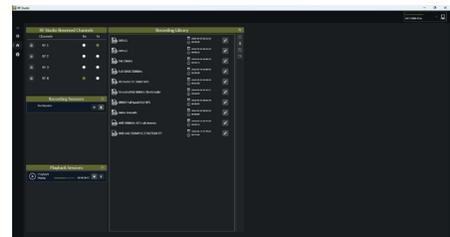


#### AST-1000: Infotainment Signal Source

All-in-one RF signal source designed for flexible infotainment testing.



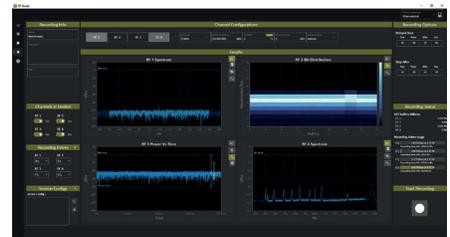
Connections Panel: View of RF Studio's Connection Panel



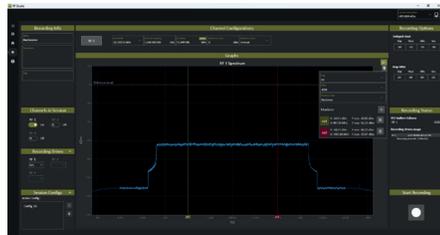
Dashboard: Example of the simplified dashboard for record & playback.



Playback Panel: Easily monitor up to 4 channels of simultaneous playback.



Recorder Panel: Clear Visual Representation of each Recording



Recorder Panel: Clear View of the RF Signal Spectrum



Recorder Panel: Compare Signal Recordings Power vs Time

**IMPORTANT LEGAL NOTE:** Every country has different laws governing the transmission and reception and/or recording of radio signals. Users are solely responsible for using their R&P/URT in compliance with all local and applicable laws and regulations governing the transmission and reception and/or recording of radio signals. Avera Technologies Inc. does not accept liability for such use of our products. Avera recommends that you determine what licenses may be required and what restrictions may apply prior to use.



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