# AST-1000

## All-in-One RF Signal Source for Infotainment

The only RF solution designed for
Radio, Navigation, Video and Connectivity testing!

Powered by Averna's **RF signal and application expertise**, the **software-defined Averna Signal Tester** is ideal for validating **all** common infotainment **protocols** and easily **evolves** as your test needs change.

**Averna**

## All-in-One Power

Infotainment systems contain and must seamlessly interoperate with dozens of technologies – and many global standards – for entertainment, navigation, communication, and safety purposes. They also need to deliver an **excellent user experience.**

This creates many challenges for developers and OEMs. The AST-1000 provides them with a flexible, all-in-one solution for quick and comprehensive system validation, as well as tools for functional and EOL testing.

# Generate radio signals

The AST-1000 supports all common RF signals including AM/FM, DAB, DRM, HD Radio, RDS, and Sirius/XM. For each RF toolkit users can easily configure and test parameters such as RF power, frequency, power units, total deviation, phase, etc.
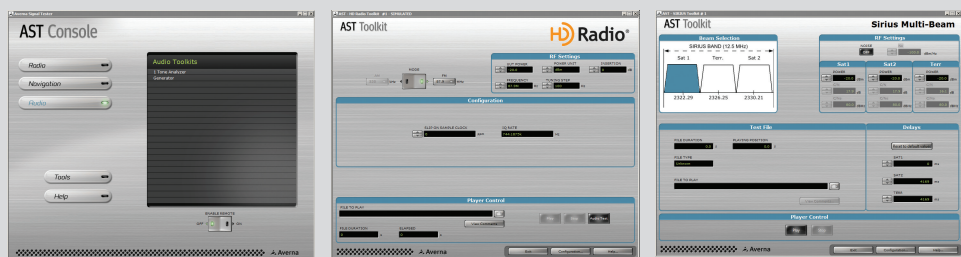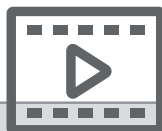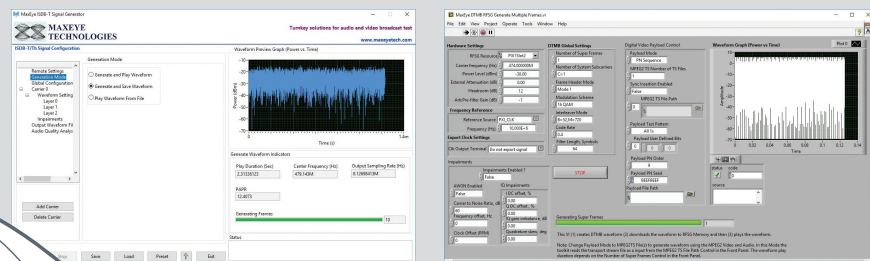
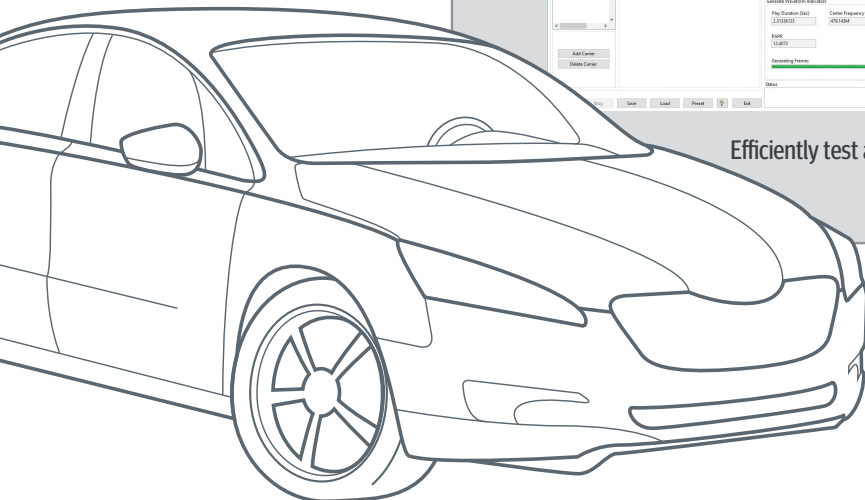The AST Console provides quick access to the radio toolkits.

# Generate video signals

The AST-1000 offers many digital video and audio toolkits for testing all major worldwide protocols such as ATSC, CMMB, DTMB, DVB, and ISDB-T.

Efficiently test all your digital video and audio features.

# Simulate GNSS signals

AST-1000's GNSS Simulator enables you to simulate and test all major navigation standards like BeiDou, Galileo, GLONASS, GPS, and QZSS, covering both standard performance and corner-case scenarios.



Simulate countless navigation scenarios to validate product performance.

## A Scalable, Future-Proof Solution

The AST-1000 is based on NI's PXI platform and can handle all of today's infotainment RF and non-RF test needs while also easily accommodating changing standards, new protocols and additional applications for wide-ranging product test and validation needs.

# Test connectivity protocols

By leveraging LabVIEW toolkits for module-level validation, the AST-1000 can generate various wireless connectivity signals such as Bluetooth, LTE, WCDMA, and WiFi.
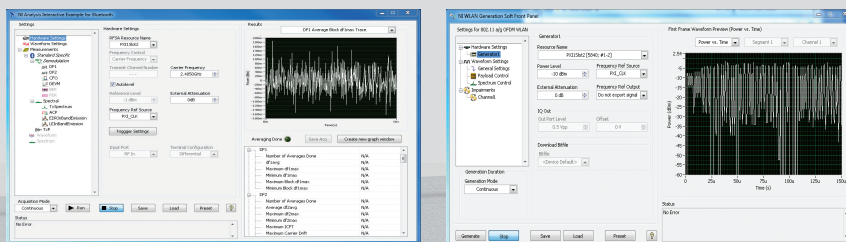


Generate and analyze the most common connectivity standards.

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→ **Key Features and Benefits**

- Supports all common broadcast radio, video and navigation protocols
- Multi-constellation and multi-frequency GNSS Simulator
- Software-defined framework saves on instrument costs
- Easy-to-use APIs and user interface for quick signal generation and easy test setups
- Flexible PXIe architecture allows integration of other applications/cards
- Handles lab validation as well as functional and EOL testing
- Easy calibration, simple maintenance, and global support
- Seamless upgrade from older Averna RF signal-source products
- Remotely control record and playback features using RF Studio

### Averna 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

**RF Studio: RF Record & Playback Software**
Easily record and analyze RF and audio signals

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 AST-1000 in compliance with all local and applicable laws and regulations governing the transmission and reception and/or recording of radio signals. Averna Technologies Inc. does not accept liability for such use of our products. Averna recommends that you determine what licenses may be required and what restrictions may apply prior to use.

→ **Available Toolkits**

| GENERAL | RF Studio Player |
|---|---|
| RADIO | AM/FM, DAB/DAB+/DMB, DRM, HD Radio (IBOC), RDS/RDBS (1 Channel or 3 Channels), TMC–RDS, Sirius and XM* |
| NAVIGATION | BeiDou, Galileo, GLONASS, GPS, QZSS |
| VIDEO | ATSC, ATSC-H/B, CMMB, DTMB, DVB-T, DVB-T2, ISDB-T |
| CONNECTIVITY | PXI framework supports NI waveforms such as Bluetooth, LTE, WCDMA, and WiFi |

*Sirius and XM (Pre - TA Part 2, Pre - OTA Change and Module Integration, including Sirius NGO)

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