A²DSG™

TEST, TRAINING & SIMULATION

GENERATING COMPLEX EMITTER SIMULATIONS FOR NUMEROUS PLATFORMS

Our Advanced Architecture Desktop Signal Generator (A²DSG) is designed to provide a small, affordable, portable signal generation capability for signal development, signal test and signal verification and validation (V&V) of ground-based, air-to-air and surface-to-air missile (SAM) threats. Our unique, plug-and-play, uses direct digital Synthetic Stimulus Instruments (SSIs) as the radio frequency (RF) source for all signals. The configurable A²DSG and Intuitive 3D graphical user interface with enhanced visualization provides all the capability sized for your needs and affordably priced to complement any budget.

TextronSystems.com

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TEXTRON Systems

▶ PUSHING PAST POSSIBLE

A²DSG ADVANCED ARCHITECTURE DIGITAL SIGNAL GENERATOR

SPECIFICATIONS

PULSE DENSITY
Up to 4MPPS
(expandable to 8MPPS)

RF SOURCE
Textron Systems SSIs
Up to 4 SSIs

NOISE FLOOR
<90 dBm/MHz
(No signal present)

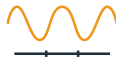**FREQUENCY RESOLUTION/ ACCURACY**
0.1 Hz/+- 1Hz

SPURS & HARMONICS
-60 dBc (typ)/-55 dBc (max)

PULSE WIDTH RANGE
24 ns to 1.0 s
20 ps (resolution)
+/- 1.0 ns (accuracy)

PULSE REPETITION INTERVAL
512 ns to 1.0 s
20 ps (resolution)
+/- 1.0 ns (accuracy)

OPERATING FREQUENCY RANGE
Standard 20 MHz - 22 GHz continuous

KEY FEATURES & BENEFITS

> Designed for easy system expansion through addition of identical catalog commercial, off-the-shelf SSI modules

> Allows for long-periods of simulation time with no external calibration procedures

> Simultaneous, amplitude and time angle of arrival simulation

> Varying numbers of identical SSIs in each port enable stringent testing scenarios

> Reconfigurable architecture meets test requirements

> Easy setup, installation and relocation

> Combining synthesizers enables pulse densities exceeding eight million pulses per second for complex signals and scenarios

COMMERCIAL APPLICATIONS

> Cell phone signal testing

  - Tower communications/handoffs

  - Cell phone communications/handoffs

> Automated Identification System (AIS) – The Automatic Identification System (AIS) is an automatic tracking system used on ships and by vessel traffic services (VTS) for identifying and locating vessels by electronically exchanging data with other nearby ships, AIS base stations and satellites

> Commercial Radar Test and Evaluation

  - Used to test commercial aviation radar receivers for airports/aircraft

> MODE S/ATCRBS generation - Air traffic control radar beacon system (ATCRBS) is used in commercial air traffic control to enhance surveillance radar monitoring, separation and collision avoidance of air traffic. ATCRBS assists ATC surveillance radars by acquiring information about the aircraft being monitored, and providing this information to the radar controllers