orolia
DEFENSE & SECURITY

Your Resilient PNT
Mission Partner

BroadSim Anechoic

Revolutionary Anechoic Chamber Simulator System

What is BroadSim Anechoic?

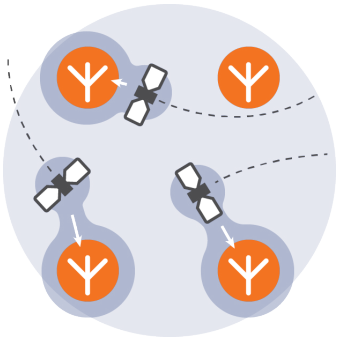
Built on our proven BroadSim platform, BroadSim Anechoic allows users to accurately simulate real-world GNSS environments in their Anechoic Chambers. BroadSim Anechoic has 32 individual RF outputs, enabling the system to drive 16 dual-frequency antennas.

Why Choose BroadSim Anechoic?

Revolutionary features like automatic antenna mapping, automatic time delay calibration, and automatic power loss calibration are what make BroadSim Anechoic the most advanced Anechoic Chamber simulator on the market today. BroadSim Anechoic was designed from the ground up for the user, by users. An easy to use software environment and thoughtful hardware supports engineers during all phases of their testing. The built-in spectrum analyzer can be connected to any one of the 16 RF output chains through a quick connect RF connector, allowing the user to verify the signals going to the antenna. The 48dB transmit chain amplifier and 80dB transmit chain dial attenuator allow for complete signal control and high dynamic range. The software calibration cuts calibration times from days to minutes. All aspects of the BroadSim Anechoic system were made to enable better, faster, and lower cost testing.

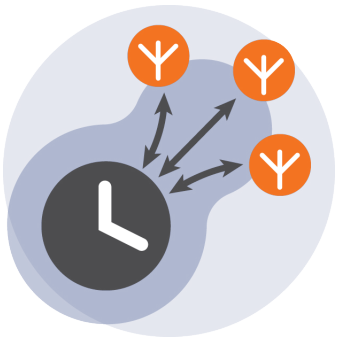
FRONT

BACK



Automatic Antenna Mapping

Signals are automatically mapped to the correct transmit chain based on user specified antenna locations.

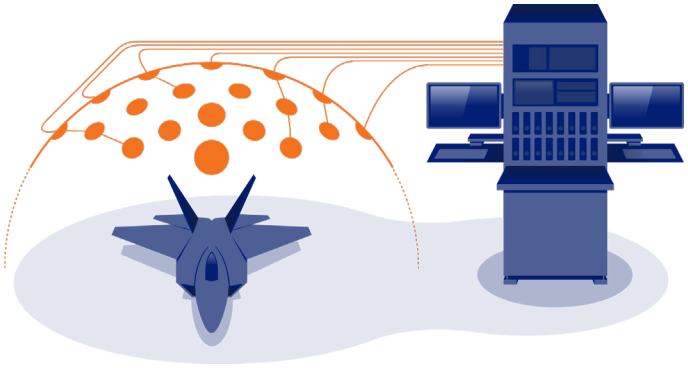


Automatic Time Delay Calibration

Automatically calibrates the time delay of each transmit chain.

Automatic Power Loss Calibration

Automatically calibrates the power loss of each transmit chain.



Software-Defined Architecture

BroadSim Anechoic takes advantage of state-of-the-art software defined radios (SDR) for RF up-converting while signal IQ generation uses high performance commercial-off-the-shelf (COTS) graphics-processing units (GPU). The ability to generate the IQ data in software (using the GPU) as opposed to hardware (FPGA) significantly reduces the cost while maximizing capability, value and time to market.

32 RF Outputs	
GPS Open: L1-C/A, L1C, L1-P, L2-P, L2C, L5	
GPS Encrypted: L1-M-AES, L2-M-AES, L1-MNSA, L2-MNSA	
Galileo: E1, E5A, E5B, E5 AltBOC, E6	GLONASS: G1 and G2
BeiDou: B1, B1C, B2, B2A	SBAS: L1 and L5
QZSS: L1-C/A, L1C, L1S, L5, L5S	NavIC: L5
Alternative RF Navigation	
50 MHz Bandwidth	16 bit IQ

16 Transmit Chains
48 dB Amplifier
80 dB Variable Attenuator
-18 dB Monitor Port

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