



## **octoScope octoBox™ Stackable Wireless Testbed With Integrated Turntable Adds New Dimension to Accurate MIMO Over-the-Air Testing**

***The octoBox STACK is a new small form-factor anechoic testbed that comes fully integrated with a built-in turn table, multipath emulator, interference generator and programmable RF attenuators and arrives ready to test MIMO (multiple input multiple output) throughput, roaming and other aspects of wireless performance.***

LITTLETON, Mass., Oct 27, 2014 - - octoScope, Inc. is exhibiting its new STACK series of [octoBox™ wireless testbeds](#) at the Wi-Fi World Summit in Barcelona, Spain. The octoBox STACK is a new small form-factor anechoic testbed that comes fully integrated with a built-in turn table, multipath emulator, interference generator and programmable RF attenuators and arrives ready to test MIMO (multiple input multiple output) throughput, roaming and other wireless performance parameters. It is the newest addition to the company's wireless testbeds that enable network operators, device manufacturers and chipset vendors to optimize wireless service reliability and capacity thanks to the ease and speed of automated repeatable testing.

"Large chipset and device vendors, such as Qualcomm, Broadcom, Google, Netgear and others have a global presence with development labs in the US, India, China and various locations around the world.", says Jim Alnwick, octoScope's SVP of Sales. "These laboratories are experiencing considerable challenges in achieving consistent performance measurements of modern smartphones, access points and base stations. The challenges of testing these sophisticated 21st century devices with MIMO capabilities and internal antennas has been holding the wireless industry back both in terms of device performance issues and time to market delays," Alnwick adds. "A small, completely isolated, anechoic (non-echoing) testbed that provides consistent results in different labs around the world is what the wireless industry needs to expedite the deployment of well-tested wireless services."

It is widely acknowledged that vendors need to obtain meaningful and repeatable measurements in numerous labs around the world and would welcome the octoBox test bed that brings this about. Koen Gielen, CEO of Tucana, a major European test solutions and services distributor believes that "The wireless market and especially network operators need reliable, accurate and expedient testing of the latest devices to ensure that Wi-Fi and 2G/3G/LTE networks continue to meet service level expectations, as mobile devices, services and traffic proliferate and as wireless operators accelerate Wi-Fi offloading,"

The octoBox STACK is currently in use at wireless operators, device manufacturers and chipset vendors in markets including Wi-Fi, 2G/3G/LTE mobile communications, medical devices and robotics. The octoBox test solution is [highly praised](#) by its diverse users.

The octoBox wireless testbed is a compact and inexpensive alternative to conventional anechoic chambers and screen rooms. It is delivered ready to use and tests throughput vs. range in the presence of realistic yet controlled wireless path loss and multipath conditions. It helps development and QA engineers shorten the test cycle and improve testing productivity.

"With wireless LANs today being the default and even only access for so many users everywhere, understanding the many dimensions of the performance of Wi-Fi solutions is critical at all stages of the product-development process," said Craig Mathias, Principal at Farpoint Group. "octoScope is building sophisticated and yet easy-to-use solutions that give vendors at all points in the Wi-Fi value chain the tools they need to build products that really stand apart. "

Some wireless network operators use a large-scale octoBox testbed to test and optimize the performance of [video-over-Wi-Fi](#) distribution from a video gateway to Wi-Fi enabled set top boxes. The testbed enables engineers to connect real set top boxes, access points and gateways into a controlled realistic environment where they can emulate multipath, path loss and interference to validate quality of the video delivery under challenging conditions. The octoBox even lets engineers observe video quality on integrated monitors as the conditions are varied under automated control.

The octoBox anechoic chambers enclose devices under test and enable high speed data and power for these devices to enter the chamber through filters. State-of-the-art patent-pending octoBox filters for high speed interfaces, such as HDMI, USB, gigabit Ethernet and fiber optic links enable a variety of devices to be tested while still maintaining the highest level of isolation from outside interference.

The built-in turntable inside the octoBox-TT model is software-controlled to perform measurements at varying orientations of the device, which is important for understanding the non-uniform antenna radiation patterns. By enabling precise positioning of devices during tests, the turn table eliminates a key point of ambiguity for operators comparing competing Wi-Fi (802.11 a/b/g/n/ac) and cellular (GSM, UTMS, LTE, FDD, TD-LTE and LTE-Advanced) solutions. It measures MIMO throughput in the presence of multipath and path loss when used with the octoBox [MPE \(multipath emulator\)](#) and [quadAtten™ programmable attenuators](#).

Additionally, the octoBox STACK comes with powerful automation software that controls traffic generation, quadAtten programmable attenuators, turn tables, interference generation and devices under test. The test sequences can run for extended periods of time, even over a number of days, to test a range of device orientations, signal levels and interference patterns.

“The octoBox STACK-38-TT-MPE testbed is a great solution that has helped SmallNetBuilder to do more - and more advanced - testing in less time. We're reviewing a greater array of devices, which has helped drive our growth in readership,” says Tim Higgins, principal of SmallNetBuilder.com, the benchmark test leader of the Wi-Fi industry.

octoScope's President, Fanny Mlinarsky, concludes: “Staying productive while mobile depends on the performance of the Wi-Fi and cellular networks that keep us connected. octoScope's wireless test solutions enable operators and their suppliers to verify performance, ensure high quality of experience, consistency of service and expedient delivery of new technologies and products to the market.”

## **About octoScope**

[octoScope](#) is the leading supplier of wireless test solutions and services to companies building or deploying wireless communications devices and networks, including LTE, Wi-Fi and Bluetooth. octoScope is the market leader in accurate and repeatable automated testing solutions, and is the recipient of a National Science Foundation grant. Our patent-pending architecture redefines the accuracy, stability, economics and value of over-the-air wireless testing and includes octoBox throughput, roaming, mesh and Wi-Fi Alliance testbeds.

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