octoBox-Stackable Datasheet

What does octoBox do? How is it used?

octoBox™ provides isolated anechoic RF environment for testing of conventional and MIMO wireless devices, including phones, pads, APs, PCs, sensors, Bluetooth devices, smart meters and other devices with one or more radios.

Tests include common radio measurements, such as receiver sensitivity, throughput vs. range, packet error rate vs. range, performance in the presence of noise and interference, transmitter spectrum and Error Vector Magnitude (EVM).

Antenna pattern and EMC measurements are also possible using EMSCAN near-field to far-field conversion technology (www.emscan.com).

How does octoBox differ from competing products?

octoBox is a modern design specifically optimized for over-the-air (OTA) signal coupling inside. OTA coupling demands superior isolation and anechoic (non-echoing) conditions for repeatable and accurate measurements.

Unlike competitors, octoScope specifies isolation with data and power cables attached through the walls of the chamber. Thus, the octoBox isolation spec reflects the quality of the feed-through filters that guide data and power cabling into the chamber.

octoBox provides feed-through data filters for connecting Ethernet (including gig Ethernet and PoE), USB and other interfaces to the devices placed inside the chamber.

Does it offer new capabilities, unavailable before now?

octoBoxes can be stacked on a base with casters, forming a stackable wireless testbed.

The ability to stack octoBoxes and attach RF modules on the side enables easy creation of wireless testbeds that can be effortlessly moved around a lab. octoScope offers wireless test solutions based on the octoBox testbed, including roaming, mesh and MIMO throughput measurements.

What are the product's three most important benefits?

1. octoBox supports repeatable and accurate OTA coupling by providing superior isolation, absorption and filtering of data and power lines entering the chamber.
2. The novel patent-pending octoBox filters maintain high isolation while conducting copper interfaces such as Ethernet, USB, power and other connections through the walls of the chamber to control and power the device under test (DUT). octoBox is the only enclosure to support gigabit Ethernet filters with PoE filtering capabilities.
3. Supporting a wide frequency range, from 700 MHz to 6 GHz, and flexible antenna mounting system, octoBox can accommodate almost all mainstream wireless devices and is ideal for testing multi-radio gadgets, such as smartphones and pads, that now incorporate 2G/3G/LTE, Wi-Fi, Bluetooth and GPS radios all in the same device, making OTA coupling a necessity.
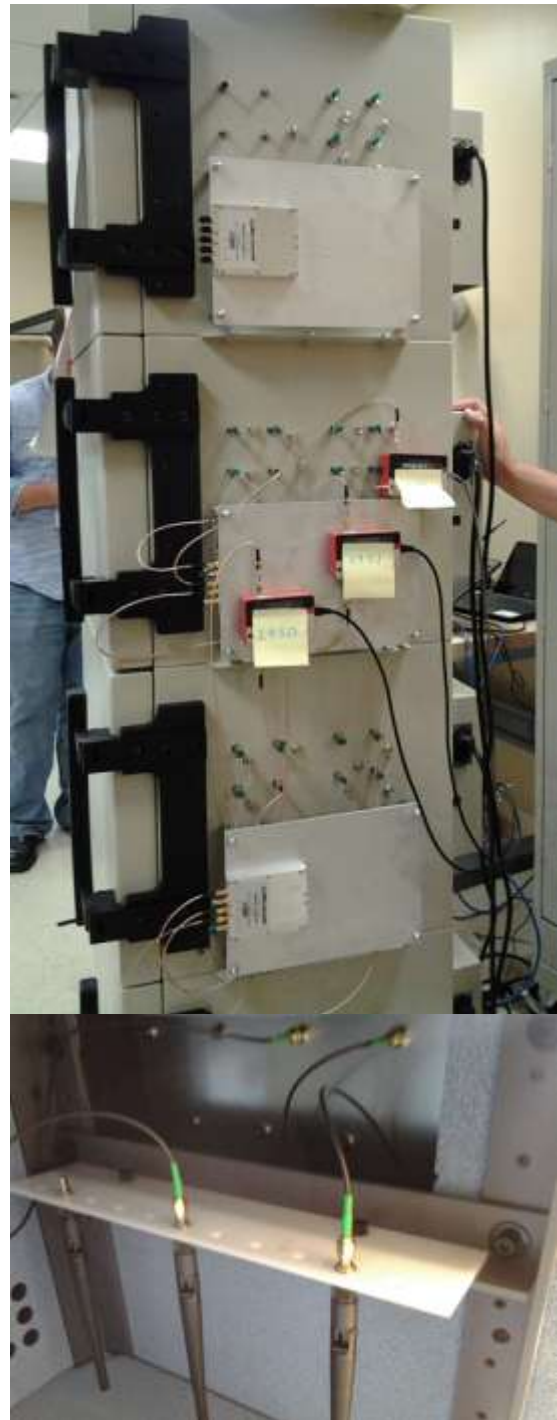
octoBox Stackable Specifications

Feature	Specification	Notes
AC power entry module	IEC-320 C14 inlet connector 120/240VAC 50/60Hz 6A 5x20mm fuse	With built-in RF filter for isolation
Cooling	80mm square axial fan 4" honeycomb filters over inlet and outlet for isolation	Honeycomb filters provide RF isolation on fan inlet and outlet
Filtered high speed data connections	gigEthernet (with PoE), USB, HDMI, DB9, DB25 or DC power ports	Standard configuration: dual Optional configuration: quad
RF ports	4 or 8 RF barrel connector ports	Standard configuration: SMA Optional configuration: N-connectors
Isolation	>80 dB, fully cabled setup, up to 6 GHz	
Absorption	>20 dB from 1.3 to 40 GHz >15 dB down to 700 MHz	
octoBox-26 dimensions	Outside: 18"H x 26.35"W x 25.2"D Inside: 13.35"H x 19.35"W x 13.35"D Weight: 50 LBS	Outside: 45.7cm H x 67cm W x 64cm D Inside: 34cm H x 49cm W x 34cm D Weight: 23 kg
octoBox-38 dimensions	Outside: 24" H x 38.35"W x 31.2"D Inside: 19.35"H x 31.5"W x 21. 5"D	Outside: 61cm H x 97 cm W x 79cm D Inside: 49cm H x 80cm W x 54.6cm D

Please contact sales@octoscope.com for further information.