

OCTOBOX® OB-MPE2

Broadband (DC – 7.5 GHz) multipath emulator

OCTOBOX multipath emulator (MPE) module uses innovative patented ([US9130667](#)) techniques to emulate indoor multipath in the RF domain keeping the signal pathwide-band and bi-directional. This low-cost yet powerful fader consists of passive circuitry and uses high grade cabling to accurately model the power delay profile (PDP) of IEEE 802.11n/ac model of a typical house, Model B.

The MPE stacks with OCTOBOXES and other testbed components to add realism to the testbed by emulating multipath reflections. Together with the OCTOBOX [quadAtten module](#), the MPE can accurately model the house or office wireless channel environments according to the standards based models.

- Broadband (DC – 7.5 GHz) multipath emulator
- Accurately emulates a home channel model (IEEE802.11 model B)

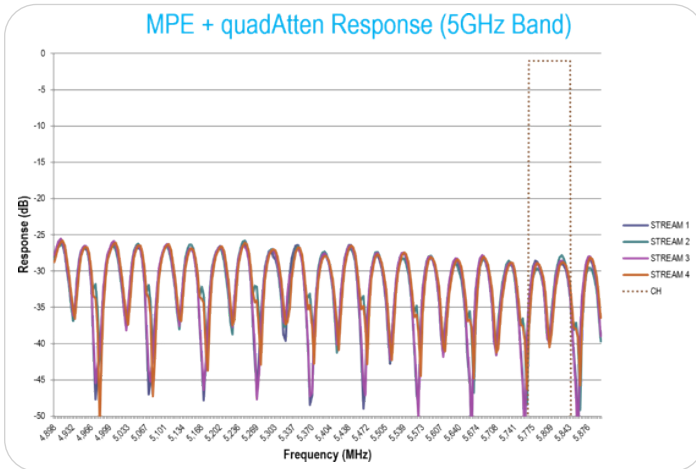


Applications

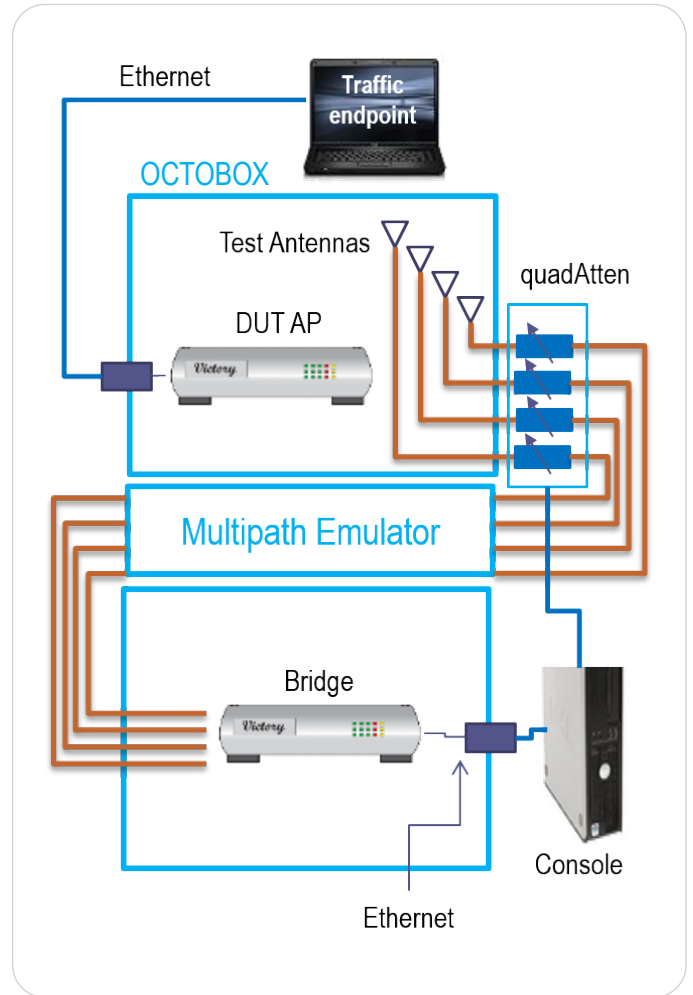
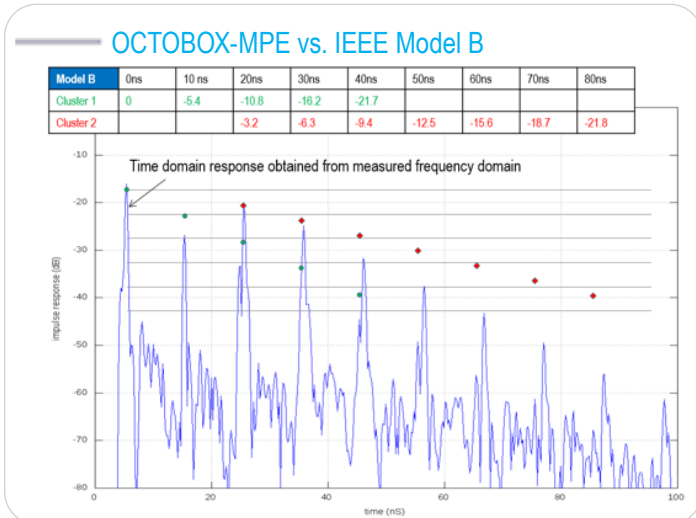
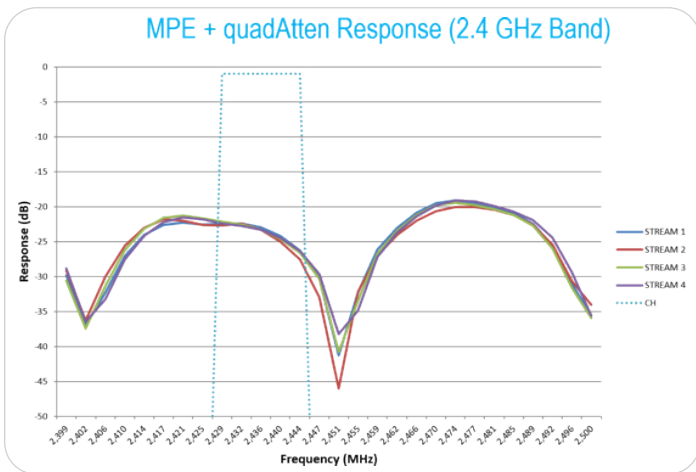
- Test any wireless devices including mobile phones and access points in a lab in conditions emulating a home

Benefits

- Allows emulation of multipath conditions typical of a home
- Shortens test time because product can be tested in a lab instead of in a real home

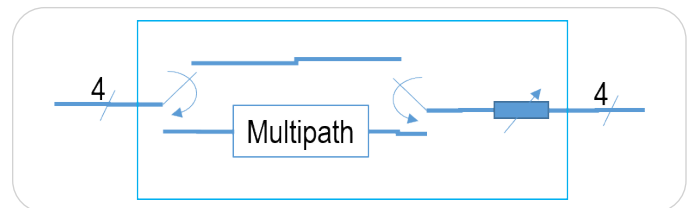


- Built-in bypass switch for LOS conditions
- Built-in programmable quadAtten programmable attenuators for range testing
- 4x4 MIMO link



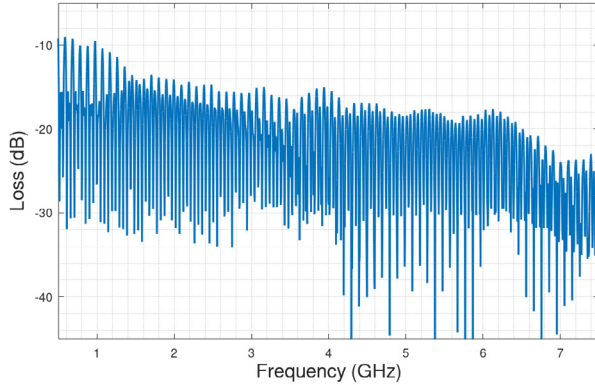
The OCTOBOX testbed frequency response measurements shown above are for the four conducted paths between the RF connectors in the lower chamber and the RF connectors in the upper chamber.

The path over which path loss is measured is represented by the red lines in the STACK-TT-MPE diagram on the left. The path includes the MPE and quadAtten modules.

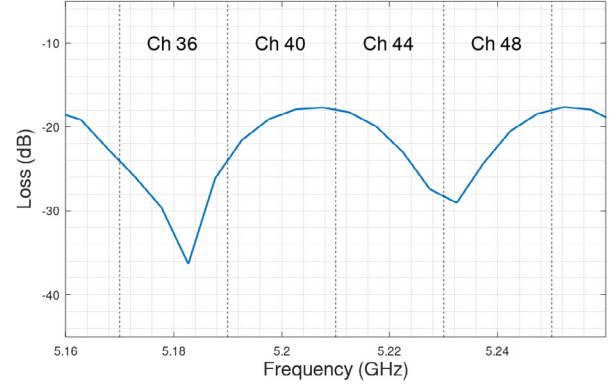


Frequency Charts

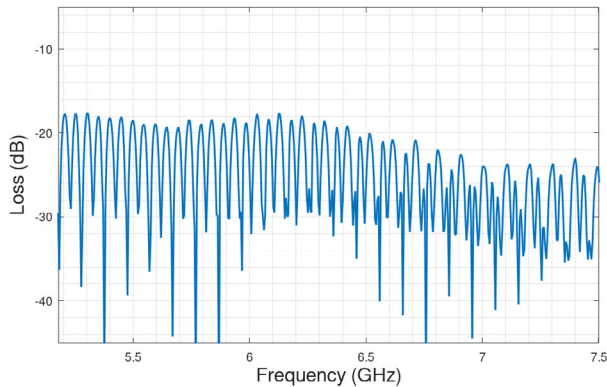
**Typical channel response for MPE NLOS
IEEE channel model B - full bandwidth**



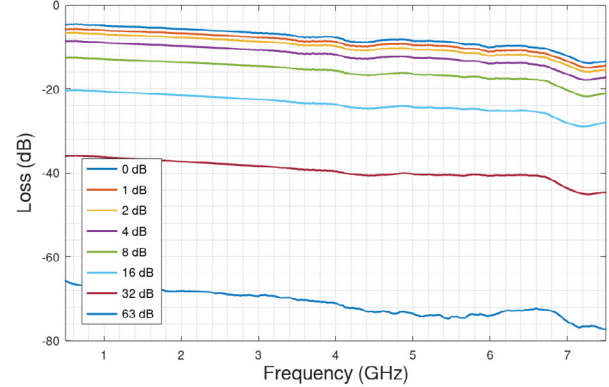
**Typical channel response for MPE NLOS
IEEE channel model B - channel 36 - 48**



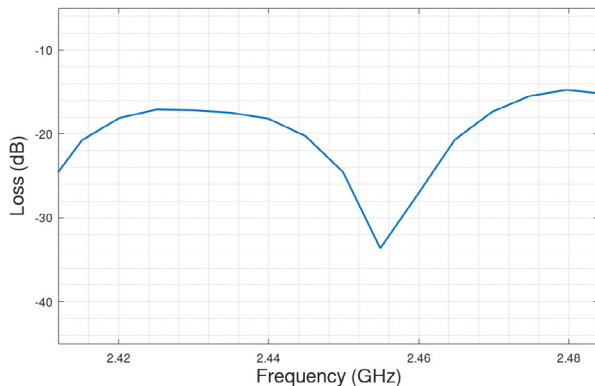
**Typical channel response for MPE NLOS
IEEE channel model B - 5 & 6 GHz bands**



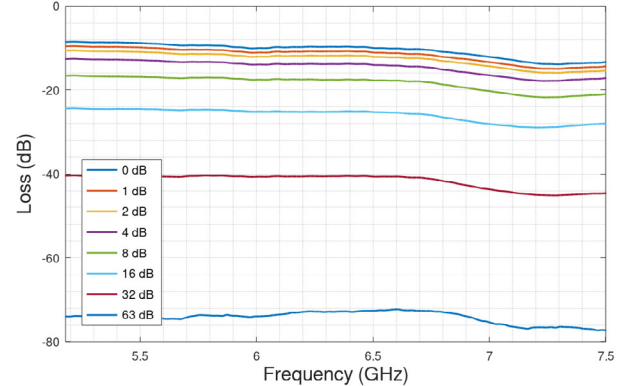
**Typical Insertion loss for MPE LOS mode
IEEE Channel model A - full bandwidth**



**Typical channel response for MPE NLOS
IEEE channel model B - 2.4 GHz ISM Band**



**Typical Insertion loss for MPE LOS mode
IEEE Channel model A - 5 & 6 GHz bands**

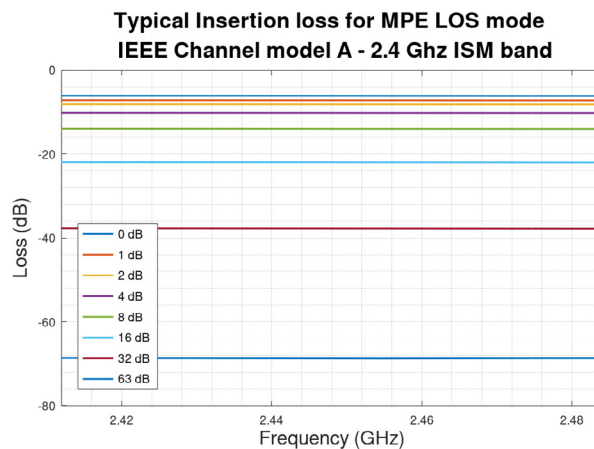


About Spirent

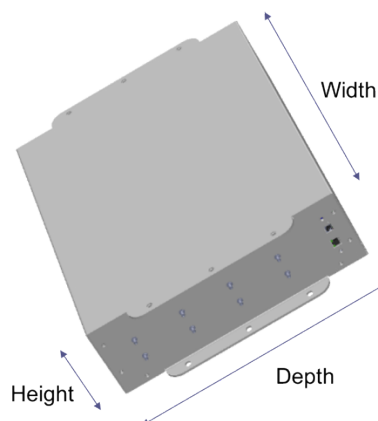
Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks. We help bring clarity to increasingly complex technological and business challenges. Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

For more information visit:
www.spirent.com

Frequency Charts (cont'd)



Dimensions



	American	Metric
OB-MPE2-26	26"W x 18"D x 5.5"H	66 x 46 x 14 cm
OB-MPE2-38	38"W x 24"D x 5.5"H	96 x 61 x 14 cm

Americas 1-800-SPIRENT

+1-800-774-7368 | sales@spirent.com

Europe and the Middle East

+44 (0) 1293 767979 | emeainfo@spirent.com

Asia and the Pacific

+86-10-8518-2539 | salesasia@spirent.com