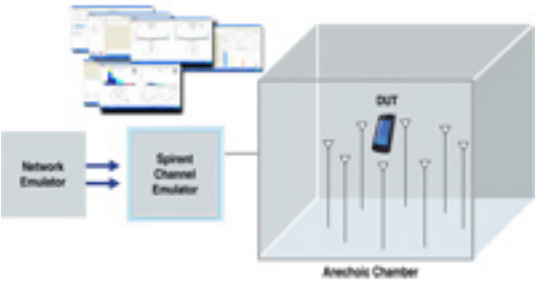
MIMO Over-the-Air Environment Builder Simplifies Complex LTE Device Testing



Spirent Communications today announced the addition of the MIMO Over-the-Air (OTA) Environment Builder software to its wireless channel emulation product line. When equipped with this new capability, Spirent's wireless channel emulators can be used to predict user experience of MIMO devices prior to deployment. The innovative new software reduces complexity and uncertainty of chamber-based MIMO OTA implementations for LTE device performance testing.

LTE mobile devices rely heavily on MIMO antenna technology to increase the theoretical maximum data speeds that can be delivered to mobile subscribers. The actual data speeds experienced by a user are highly dependent on how well a mobile device performs under the range of harsh Mobil environments it encounters in the real world. While a traditional conducted (cabled) approach can be used to test LTE device performance, only OTA test methods are able to fully characterize the effect of an LTE device's MIMO antenna design on user experience.

When MIMO OTA tests are performed using an anechoic method, wireless channel emulators apply real-world spatial channel models to the signals that are sent to antenna probes mounted in the chamber. This enables the user to precisely characterize how well a mobile device receives signals with these real-world spatial properties, which are arriving from a specific direction. Spirent's MIMO OTA Environment Builder software lets the test operator select the desired mobile environment, and then automatically configures a Spirent wireless channel emulator to correctly supply the multiple signals to the chamber. Unlike competitive approaches, the Spirent solution allows the mobile environment to be reconfigured in real time, increasing test coverage while reducing test time.

To learn more about Over-the-Air testing of LTE devices and Spirent's MIMO OTA Environment Builder visit: http://www.spirent.com/Networks-and-Applications/MIMO.aspx

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