

Fuente Álamo de Murcia, Spain

EMITE finds up to 5dB performance differences in 5G devices

A number of 5G devices have been benchmarked in two different continents with less than 0.5 dB STD differences.

The benchmarking tests used different 5G signal generation and analysis instruments with the state-of-the-art H-Series CATR OTA Test System by EMITE. With excellent 15 μm peak-to-peak manufacturing accuracies, the modified-design serrated-edges reflector and hybrid feed-source, the H-Series can provide simultaneous operation for Sub-6 GHz and mm-Wave frequencies using three different test methods, Direct Far Field, Near to Far Field Transformation and Indirect Far Field Compact Antenna Test Range from 0.6 to 110 GHz within a 30 or 60 cm Quiet Zone.

Layer-2 OTA throughputs for a 20 MHz 2x2 NR channel achieved 846 Mbps for some devices, representing 99% of the maximum expected throughput. Tx RF power OTA tests have revealed that 5G devices can attain some 5 dB differences in performance.

The integration of different 5G-based network emulation solutions with EMITE unique 5G OTA test systems enables the 5G mobile device ecosystem to verify 5G key performance indicators of 5G NR devices in an independent manner, which makes the H-Series the most flexible and independent 5G OTA Test Platform in the market.

“The 5G H-Series inter-chamber repeatability and accuracy deviation has demonstrated astonishingly small, E2E test have demonstrated that maximum expected throughputs are achieved and Tx and Rx RF OTA tests have shown that 5G devices can behave very differently, some 5 dB apart, leaving quite an important room for device selection. Being capable of verifying all this in an independent manner is a must for carriers and OEMs, and we have open a very interesting door here”, said Prof. David A. Sanchez-Hernandez, CEO of EMITE.

About EMITE

EMITE Ingeniería S.L. is a high-tech company, spin-out from the Technical University of Cartagena (Spain). EMITE designs, develops, manufactures and commercializes OTA Test Systems for performance, compliance and pre-compliance testing of any 2G to 5G standards and pre-standards worldwide, including 5G, LTE-A and WiFi. Headquartered at the Fuente Álamo High Tech Park in the Region of Murcia (Spain) and with distributors in 25 countries, test house show rooms in America, Asia and Europe, and both national and international awards, EMITE OTA Test Systems are being used worldwide by carriers, OEMs, test labs, regulatory authorities and many others around the wireless ecosystem. With a customer-driven roadmap and a vision of changing the way technology gets through our life, EMITE OTA Test Systems are more than just chambers, bringing OTA testing into a new era of capabilities and easiness. EMITE's MIMO OTA Test Systems were selected by 3GPP and CTIA as candidate methodology for the study and work items through standardization of LTE MIMO OTA test methods.

