

Industrial Workshop IW12

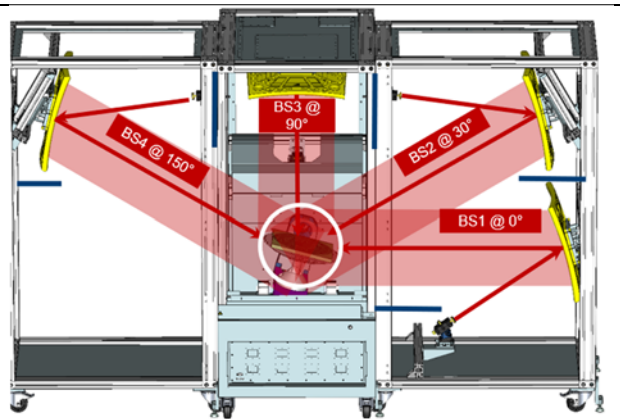
CATR Design for Compact 3GPP Conformance Systems (by Rohde & Schwarz)

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Abstract:

Bringing active beam-forming technologies to the mass-market application of mobile telecommunications, 5G millimeter-wave (mmW) is fostering R&D in over-the-air (OTA) testing techniques. At such high frequencies, wireless devices can be as large as several tens of wavelengths, therefore imposing large distances for far-field performance evaluation. In order to limit space and cost constraints, the industry has largely focused on testing methodologies based on compact antenna test range (CATR), because of its high quiet zone efficiency. Since its invention in the late sixties, CATR technology has been widely and successfully applied to the measurement of electrically large antennas. The test requirements in OTA and high accuracy antenna measurements are however quite different, and new CATR-based concepts are emerging which are breaking classical rules of compact range design. This workshop will introduce basic and intermediate CATR reflector design and aims at introducing the latest innovations in CATR technology which have been driven by solving 5G mmW OTA-related problems.



Workshop Program (Thursday, 25 March 2021, 11.40h -13.10 h)

The Workshop will include a 30 minutes presentation by Corbett Rowell

Corbett Rowell is a Senior Development Expert in OTA at Rohde & Schwarz. Prior to joining Rohde & Schwarz, Corbett was an electrical engineering professor; an R&D director at China Mobile Beijing, responsible for development of massive MIMO systems for 4.5G and 5G an R&D director at the Hong Kong Applied Science and Technology Research Institute for almost a decade, where he focused on advanced systems; and an entrepreneur who founded two successful startups. At Rohde & Schwarz, he was Inventor of the Year in 2018 and developed new portable CATR systems for 5G FR2. Prof. Dr. Rowell was a recipient of the IEEE Communications Fred Ellersick Award in 2018 for paper on hybrid millimeter arrays.



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