

HEAD acoustics and Rohde & Schwarz demonstrate test solution for communication quality of 5G (VoNR)-capable telecommunications devices

Together with Rohde & Schwarz, HEAD acoustics has successfully verified communication quality of 5G (VoNR)-capable devices. For the test solution, the interoperability between the hardware platform *labCORE*, the measurement and analysis software ACQUA and the latest generation of the R&S CMX500 wideband radio communication tester was verified. The setup allows simulation of a voice connection in both 5G (VoNR) and 4G (VoLTE) networks. This enables manufacturers of 5G-capable telecommunications devices to test the voice quality of their devices at an early stage before market introduction. The solution was presented at the Mobile World Congress in Shanghai in February 2021 for the first time.

Connection establishment in a 5G mobile network

Mobile phones under test can register with the integrated IP multimedia subsystem (IMS) server of the R&S CMX500 platform via the simulated 4G or 5G mobile network, depending on the use case. *labCORE* is connected through wired Ethernet using the integrated IP forward mode of the IMS server, specifically developed for this use case. This allows users to forward the voice data of a call established with the R&S CMX500 directly to *labCORE* for detailed voice quality analysis. In this mode, the system fully supports the 5G speech codecs EVS (Enhanced Voice Service), AMR-WB and AMR-NB. Using the test suite TS 26 131-32 for use with the measurement and analysis software ACQUA developed by HEAD acoustics, the system fully covers all significant acoustical requirements. This reliable solution enables manufacturers of 5G-capable telecommunications devices to test the voice quality of their devices at an early stage and prepare for rollout of 5G voice services.

Christoph Pointner, Senior Vice President Mobile Radio Testers at Rohde & Schwarz, says: "The successful collaboration between the two companies in the field of voice quality analysis for 2G, 3G and 4G, based on the R&S CMW500 platform, is extended to 5G with our R&S CMX500. The jointly verified test solution enables reproducible test results and allows device manufacturers and network operators to ensure an optimized 5G voice experience at an early stage."

"With the interoperability to the Rohde & Schwarz solution, we can provide our customers with a crucial supplier we are compatible with in shortest time," adds Christian Schüring, Head of Sales Department Telecom at HEAD acoustics GmbH. "This is an important step to measure and optimize the communication quality of 5G-enabled devices."

As a world's leading provider of holistic solutions for measuring, analyzing and optimizing communication quality, HEAD acoustics is addressing the challenges of future 5G and 6G functions with industry partners early on to offer customers in the entire communications industry even more comprehensive test solutions.

About HEAD acoustics

HEAD acoustics GmbH is one of the world's leading companies offering holistic solutions for sound and vibration analysis. In the telecom sector, the company enjoys global recognition due to the expertise and pioneering role in the development of hardware and software for the measurement, analysis and optimization of voice and audio quality as well as customer-specific solutions and services. HEAD acoustics' range of services covers sound engineering for technical products, investigation of environmental noise, speech quality engineering as well as consulting, training and support. The medium-sized company from Herzogenrath near Aachen has subsidiaries in China, France, Italy, Japan, South Korea, the UK and the USA as well as numerous sales partners worldwide.

Rohde & Schwarz

Rohde & Schwarz is a leading supplier of solutions in the fields of test and measurement, broadcast and media, aerospace | defense | security and networks and cybersecurity. The technology group's innovative communications, information and security products help industry and government customers ensure a safer and connected world. On June 30, 2020, Rohde & Schwarz had about 12,300 employees worldwide. The independent group achieved a net revenue of EUR 2.58 billion in the 2019/2020 fiscal year (July to June). The company is headquartered in Munich, Germany, and has subsidiaries in more than 70 countries, with regional hubs in Asia and America.

Image



HEAD acoustics solutions are now compatible with the latest generation of the Rohde & Schwarz wideband radio communication tester to test the voice quality of 5G-capable devices.