The worldwide rise of COVID -19 leads to significant changes in working environments, affecting all professions and industries. Working from home, virtual meetings, and new hygiene regulations require a redesign of "used-to" workflows and routines. What about the work in an EMC measurement laboratory? Can a measurement be done remotely?

YES, we can! - The TDEMI® Ultra and the associated EMI64k Software Suite offers precisely that.

Due to its very low weight (<10kg), the TDEMI® ULTRA measurement system is perfect for mobile use (e.g., outdoors), as well as for the measurement in test labs. Thanks to the standard power supply of 12 Volts, the very compact device can be easily operated on board of motor vehicles, airplanes, or similar environments. Due to a large number of functions and operating modes, the TDEMI® Ultra outperforms in almost every application - providing a fully gapless instantaneous bandwidth of 685 MHz, e. g. measurements according to ETSI or FCC standards as well as signal analysis, pose no problem. The instrument is operated via a solid touchscreen, which makes it easier to comply with the new hygienic requirements. Thus performing safe and reliable emission measurements at an unrivaled high speed and outstanding performance, anytime and anywhere are enabled.

Fig 1.: **EMI64k® and TDEMI® ULTRA**

Either controlled by any external PC or your in-house workstation, the additionally available EMI64k software suite enables the user to perform fully automated remote measurements at the TDEMI®. All the features can be remotely controlled and fully automated via Ethernet (TCP/IP) through any standard network connection. The EMI64k Software Suite offers the user the possibility of complete automation of all EMC tests, according to

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commercial as well as military standards. The operator can fully track the test object's emissions, control the turntable, antenna mast, and many other peripherals in real-time and perform live evaluations, identify any critical frequencies or emission caused by the DUT's behaviour. For sure also the documentation of the results and creating test reports can be done remotely.

This fully automated remote EMC measurement opens up completely new possibilities for the cooperation of test laboratory and its customers. Using the EMI64k software, the test engineer can initiate the analysis at the TDEMI® from anywhere and provide it to the customer – in real-time - with the resulting reports and evaluations. The test engineer can directly address arising questions or necessary recalculations, offering the service without additional organization of meetings or additional travel expenses.

The TDEMI® ULTRA, in combination with the EMI64k software, is, therefore, very versatile. The TDEMI® ULTRA fulfills all requirements to perform measurements according to all common standards like CISPR, ANSI, FCC, DO160, MIL461, VG, DEF, OEM standards, and many more.

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