

ETS-Lindgren Software Bulletin

Date July 30, 2020

Issue Highlights

- EMQuest certified for 5G FR1 test plan
- StarPoint SP9500 new instrument support
- TILE! version latest info
- TILE! Users Group – virtual session on August 10, 2020
- TILE! Basics University – virtual training opportunities
- EMQuest User Group planned

EMQuest Test Plan Certification

EMQuest version 1.13 build 16759 was approved by a major US Carrier for 5G NR FR1 testing. A full ETS-Lindgren system installed at SGS Test Labs in Branchburg New Jersey, USA received 5G FR1 Supplementary RF Test Plan approval in June, 2020. The certified system utilized a dual ring [AMS-8923](#) far field anechoic chamber and the Anritsu MT8000A network emulator set. Industry leading EMQuest EMQ-100 software controls the overall test sequence. TRP and TIS tests were certified using US carrier specific network combinations for EN-DC and carrier band aggregation.

EMQuest test capability for 5G FR2 band TRP and TIS is available using Anritsu's MT8000A and associated remote radio heads. Expansion to other vendor 5G network emulators is in progress as FR2 remote radio heads become available. Test sequences for bands n257 (28 GHz) and n260 (39 GHz) in non-stand-alone (NSA) mode will be certified as standards form around this new frequency band. Currently both 3GPP and CTIA standards are thin regarding FR2, some carriers have issued guidance to use in the interim. ETS-Lindgren's engineering team utilizes customer inputs to prioritize the certification efforts, so feedback is appreciated. Work in FR2 is a high priority and the latest capability and instrument support changes monthly. Feel free to contact your sales representative for the latest 5G information.

StarPoint SP9500 5G Network Emulator

ETS-Lindgren's global software team showed successful UE tests using 5G network emulation provided by the StarPoint SP9500. Local project demand was high for this instrument, so the China and Taiwan team combined efforts to build and test the EMQuest SP9500 driver. This instrument supports 5G FR1 stand-alone and non-stand-alone tests and gives project flexibility to customers in Asia who seek to avoid restrictions and tariffs associated with US or EU based instrumentation. Four 5G network emulators have driver support in EMQuest available as of this date with band and mode support according to the following table.

Brand	Model	Bands Supported	Modes Supported
Rohde & Schwarz	CMW500 + CMX500	FR1	NSA
Keysight	UXM-5G	FR1	NSA & SA
Anritsu	MT8821C + MT8000A	FR1 & FR2	NSA & SA
StarPoint*	SP9500	FR1	NSA & SA
*available only for Asia based projects currently			

TILE! Version 7

The latest TILE! version is 7.5.6.4 and the change log is always available on our support portal.
<https://support.ets-lindgren.com/tile/downloads?Page=downloads>

Two version drops have occurred since the last Software Bulletin in February; 7.5.6.4 in July and version 7.5.6.1 in June. Both versions contain fixes to spectrum analyzer drivers as well as support for new instruments. Since instrument life spans are sometimes longer than the naming of the companies that produce them, a new scheme for association of drivers from Hewlett Packard / Agilent / Keysight has been implemented to help sort the Instrument Database. Driver names starting with "hp" will be listed with vendors Hewlett Packard and Agilent. Driver names starting with "ag" will be listed with vendors Agilent, Keysight, and Hewlett Packard. Driver names starting with "ks" will be listed with vendors Keysight and Agilent.

For example, selecting Keysight in the Vendor selection list will list all drivers starting with "ag" and "ks".

Note that these changes will not take effect until the Instrument Database is rebuilt. Other improvements in the Instrument Database can also be found in version 7.5.6.4.

The June 2020 drop of version 7.5.6.1 added improvements to math equation functions, the remote SCPI server, current position indicator and immunity test action buttons. Driver updates for the ETS_EMGen added FM modulation and an expanded frequency range mapped to the HF and LF ports. Antenna tower action improvements make additional approaches to the radiated emissions test possible, especially when dual antenna towers are in use. New drivers for MicroLamda, AnaPico, Innco, and other instruments and probes have been made available in this version.

The annual TILE!™ User Group goes virtual for 2020!

To open up the User Group meeting experience to more of the TUG community, ETS-Lindgren is providing a virtual venue to host the 2020 TUG meeting. Planned for August 10, 2020 10:00am Center Time Zone, the TUG meeting is open to existing users and others interested in the latest version of TILE!™ - the popular EMC lab management software - and VisionTRX™, a visual monitoring system that redefines automated failure based analysis of equipment under test during EMC and many other testing scenarios.

The purpose of this User Group event is to provide an open forum to share user experiences and discuss how to maximize the benefits of TILE! as well as suggest future enhancements. Included in the

presentations will be ETS-Lindgren's EMC Test Road Map, where we will share our knowledge of future EMC standards, RSE testing, updates for VisionTRX, the new implications of a 5G world, as well as other requirements and test methods that we are preparing for now. Register for the 2020 [TUG Virtual Session](#)

TILE!™ Basics University

Due to customer demand, our TILE! experts are preparing an on-demand TILE! Software Basics Training Series that is 100% free and online! This course, served up in 10 easy-to-view modules, is perfect for any beginner as well as those looking for a refresher of the basics. More information on detailed module content, and how to access will be available by September.

EMQuest™ User Group

Plans are in the works for a virtual EMQuest User Group meeting as well. This new virtual meeting format for the annual User Group meeting will debut this fall. More details to come in September.

For those times when you just need to speak to someone, Technical Support can be reached at +1.512.531.2609 or by email.

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