

FOR IMMEDIATE RELEASE

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Ellisys Enables Day One Qualification of Bluetooth® 5.1 Radio Controllers

Industry-Leading Tools Ready to Support Enhanced Bluetooth Location Services

Geneva, Switzerland — January 28, 2019 — Ellisys, a leading worldwide provider of test and analysis solutions for Bluetooth, Wi-Fi®, Universal Serial Bus (USB), and other wired and wireless communications technologies, today announced the availability of comprehensive qualification testing and analysis features supporting version 5.1 of the Bluetooth Core Specification, released today by the Bluetooth Special Interest Group (SIG). Consumer products using the enhanced location services defined by therein could be available later this year. This update enables and enhances a multitude of positioning and proximity applications, such as POI, item finding, beaconing services, and indoor positioning. Pertinent Bluetooth SIG-defined product qualification test cases were released in parallel with the updated specification, and these are fully supported by the Ellisys Bluetooth Qualifier™ test system and the widely adopted suite of Ellisys Bluetooth protocol analyzers.

"We make it a priority to provide our customers with updates to our Bluetooth qualification and analysis tools that support emerging capabilities at a very early stage to better enable them to confidently and efficiently roll out new and updated products," said Mario Pasquali, Ellisys president and CEO. "Much of our IP supporting this specification update has been available to our early adopter customers for several months, and here on day one of the public release from the Bluetooth SIG, we are pleased to announce that we have full coverage on all our products."

"The Bluetooth community continues to find ways to meet evolving market needs and open new opportunities," said Mark Powell, Bluetooth SIG executive director. "The addition of Bluetooth direction finding demonstrates this commitment to drive innovation and support the incredible growth opportunity within the location services market."

Ellisys Bluetooth Solutions Support

Ellisys test and analysis solutions are used by Bluetooth developers worldwide, including radio and controller manufacturers, IP developers of various types, including software stack creators, makers of consumer electronics, cyber security services, automotive companies, and test labs. The company's solutions include the Ellisys Bluetooth Qualifier (EBQ™) platform, and several protocol analyzer tools supporting both Bluetooth radio types − Low Energy and Classic (BR/EDR). EBQ is a comprehensive compliance, validation, and development system for Bluetooth technology, targeting the behaviors of the lower communications layers, including implementation of approximately one-thousand test cases defined by the Bluetooth SIG. Ellisys protocol analyzers include the ubiquitous Tracker™, Explorer™, and Vanguard™ systems, offering deep features sets designed to meet a variety of customer requirements.

Bluetooth 5.1 Adds Enhanced Location Services and Other Updates

Bluetooth 5, released in late 2016, added definitions for two new PHY variants to the Bluetooth Low Energy (BLE) radio, designed to significantly increase range and speed (exclusively). Speed was increased from 1Mbps to 2Mbps using a doubled symbol rate, and range was extended up to 4x using forward error correction. In addition, Bluetooth



5 defined new capabilities for broadcast topologies, which are fundamental to location services that are now enhanced by the 5.1 update. The primary driver behind these enhancements is the addition of direction finding, which uses trilateration and triangulation techniques to improve Bluetooth location services to centimeter-level accuracy. These services are refined using antenna arrays and well-known positioning and distance techniques to improve accuracies from meter-level to centimeter-level. Several other improvements are added with this update, including GATT caching for unbonded devices (clients can store server attributes to avoid unnecessary discoveries), randomization of the primary advertising channels sequences (for avoiding packet collisions in dense mesh environments), and advertising synchronization improvements (aimed at future audio implementations over BLE).

Availability, Product Photos, and Information

The EBQ is available from stock to Bluetooth SIG-recognized test labs, known as Bluetooth Qualification Test Facilities (BQTF) and Bluetooth Recognized Test Facilities (BRTF), and to Bluetooth SIG member companies involved with radio, controller, or IP development. Ellisys protocol analyzer systems are also available from stock either direct from Ellisys or from authorized distributors worldwide. For more information, visit www.ellisys.com/ebq for EBQ, www.ellisys.com/products/btcompare.php for our Bluetooth analyzers, or contact Ellisys at sales@ellisys.com.

About Ellisys

Ellisys is a leading worldwide supplier of advanced protocol test solutions for Bluetooth, Wi-Fi®, USB 2.0, SuperSpeed USB 3.1, USB Power Delivery, USB Type-C™, DisplayPort™, and Thunderbolt™. More information is available on www.ellisys.com.

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