



Toshiba Bluetooth® Low Energy Product Line-up Supports New Bluetooth Mesh Standard

Toshiba Mesh Solutions Enable Increased Range and Greater Reliability for Bluetooth Communication

Düsseldorf, Germany, 19th July 2017 – Toshiba Electronics Europe has announced that its line-up of Bluetooth® Low Energy products now offers support for the Bluetooth Mesh standard. This standard was ratified and launched today by the Bluetooth Special Interest Group (SIG). The combination of new Bluetooth Mesh standard 1.0 and Toshiba's application software enables Toshiba Bluetooth Low Energy products to simultaneously increase communication range, reliability and obstacle penetration capability while also extending battery life^[1].

By combining a non-proprietary mesh solution with Toshiba Bluetooth communication system solutions (which are capable of link budgets exceeding 100 decibels (dB) with external PA and LNA), Toshiba enables the world's leading communication technology to provide more reliable communication in consumer products and extend new support to rapidly growing segments such as factory automation and building management.

Previously, increasing the effective Bluetooth Low Energy communication range or sending a signal through many walls required higher power transmissions that would have a negative

impact on battery life. High-powered transmissions were typically the primary technique used to address issues such as radio interference in a factory environment or the transmission of signals through thick concrete walls. This approach had severe limitations, and has proven to be ineffective for power-constrained battery operated devices as well as in unfriendly RF environments.

Support for the new Bluetooth Mesh standard 1.0 now enables Toshiba Bluetooth Low Energy products to privately and securely relay messages via a mesh network rather than requiring a point-to-point connection between devices. This increases the range and reliability of Bluetooth Low Energy communication without increasing power requirements.

“As a Bluetooth SIG founder and current board member, Toshiba is excited to be among the first to support the organisation’s push to increase the effective range and robustness of Bluetooth through the introduction of a highly reliable mesh network,” said Heiner Tendency, System LSI marketing manager at Toshiba Electronics Europe GmbH. “This standards-based approach means that new untapped markets, such as industrial and commercial, can now leverage ever-present Bluetooth cell phones or tablets to easily control and monitor their systems.”

With the new Bluetooth Low Energy system solutions, Toshiba is able to deliver an increase in communication range and signal strength to deliver communications that exceed a 300m open-air range at low-power transmit and receive power levels. When combined with support for Bluetooth Mesh, Toshiba’s Bluetooth products offer a comprehensive solution for extended-range Bluetooth v4.2.

For more information on Toshiba’s Bluetooth products visit <https://toshiba.semicon-storage.com/eu/product/wireless-communication/bluetooth.html>

Notes:

[1] When compared to non-mesh products

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About Toshiba Electronics Europe

[Toshiba Electronics Europe](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers a broad IC and discrete product line including high-end memory, microcontrollers, ASICs and ASSPs for automotive, multimedia, industrial, telecoms and networking applications. The company also has a wide range of power semiconductor solutions as well as storage products including HDDs, SSDs, SD Cards and USB sticks.

TEE was formed in 1973 in Neuss, Germany, providing design, manufacturing, marketing and sales and now has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom. TEE employs approximately 300 people in Europe. Company president is Mr Akira Morinaga. For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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