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Press Releases

Bluetooth range exceeds 1km

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It's the size of a postage stamp, includes an omni-directional antenna, consumes less than 700mW and can reliably transfer data at open field ranges in excess of 1km using it's own antenna and still further when used with higher gain and directional external antennas.

"It has long been a cause of frustration that so many commentators and engineers have looked upon Bluetooth as a short range technology", said Nick Hunn, CTO of EZURiO. "Simply because some applications, such as headsets, deliberately restrain their range, Bluetooth is considered to have limited application. We have already supplied hundreds of thousands of Bluetooth modules to customers who require ranges of over 100 metres. They're embedded into a wide range of applications that need the robust performance and security that Bluetooth can offer, such as credit card readers, where over 5 million secure financial transactions are handled by Bluetooth every day."

Although a range of 1,000 metres may greatly exceed a customer's application needs, it translates to a highly tolerant and robust connection when used inside a building. Even with dynamically changing environment such as offices, restaurants or factory floors, the connection remains stable. "Many of the usages of Bluetooth are within buildings or constrained sites, where the environment changes rapidly and normally causing attenuation and reflection of the radio signal", said Chris Shannon - CEO of Ezurio. "The extra range we can offer helps eliminating black spots in these environments and is one of the key reasons that integrators are coming to us to solve their wireless connectivity problems."

EZURiO's new high power Bluetooth BISM2PA module is pin and footprint compatible with their existing range of modules, but includes a Radio Frequency (RF) matched and optimised RF Power Amplifier boosting the transmit power to +18dBm and an additional Low

Noise Amplifier at the receiver input that enhances the receive sensitivity.

The module is a fully integrated, pre-approved solution supporting Version 2.0 of the Bluetooth standard. As well as a high performance ceramic antenna, it includes a complete Bluetooth protocol stack with an extensive AT command set within its firmware. This removes the need for a designer to understand the Bluetooth specification, but provides simple, high level commands to discover other Bluetooth devices, make connections and control the Bluetooth environment for both data and voice applications. It allows fast integration with any application or host processor which has an RS-232 interface.

EZURiO supply a single development kit for there entire product range, which provides access to all modules GPIO and Analogue peripheral lines, a codec and headset socket for audio applications and level shifters with an RS-232 connector. A software development environment is included with a Windows based terminal emulator for prototyping. The combination of AT interface, Development Kit and full Bluetooth approvals can reduce the integration time from months to days.

The Modules are fully Bluetooth approved as end products, saving time and money for integrators. They are also lead-free and comply with the RoHS (Restrictions of Hazardous Substances) directive for Electrical and Electronic Equipment.