Low Energy Watch Wirelessly Communicates with Smartphones

Ultra low power (ULP) RF specialist Nordic Semiconductor ASA today announces that a Bluetooth Low Energy Watch prototype, developed by Casio Computer Co., is based on a Nordic µBlue™ nRF8001 Single-Chip-Connectivity Bluetooth low energy solution.

The nRF8001's class-leading ultra-low power performance enables Casio's prototype watch to benefit from the advantages of Bluetooth wireless technology while offering a similar battery life to a conventional Casio wristwatch. As such the Casio watch prototype can run from a single conventional CR2032 button-cell watch battery for up to two years, while providing up to 12-hours per day of continuous wireless communication with any Bluetooth v4.0-equipped smartphone or other device ? due to start arriving later this year.

Nordic has been at the forefront of the group that defined the Bluetooth low energy specification since becoming a foundation member of Nokia's Wibree Alliance in 2006 (the Alliance became part of the Bluetooth Special Interest Group (SIG) in June 2007). Nordic contributed decades of expertise - gained in producing successive generations of class-leading proprietary and interoperable (ANT/ANT+) ULP wireless connectivity solutions within a field it pioneered - to Bluetooth low energy wireless technology that is now a hallmark of the latest Bluetooth v4.0 specification.

Bluetooth low energy has been designed from the outset to extend Bluetooth wireless connectivity to compact, coin cell-powered devices such as watches. By ensuring interoperability with Bluetooth v4.0-equipped devices such as smartphones (which will start to appear on the market later this year), conventional wristwatches now have the potential to be equipped with an expanding range of brand new wireless features that could create a new growth segment within the traditional wristwatch market (especially among young people who have tended to favor their cell phones over watches to, for instance, tell the time).

Casio's Bluetooth Low Energy Watch prototype (recently shown at CES) demonstrated some of the new functionality that Bluetooth low energy will support, including:

* Incoming call and message (including e-mail) alerts on the watch

* The ability to stop ring alerts from the watch

* The ability to locate a misplaced phone by activating the alarm and vibration functions of a smartphone from a button-press on the watch

* Time and date-synchronization from smartphone to watch (ensuring the watch

always displays the correct date and time - even across different times zones).

“From 1974 when Casio released its very first digital wristwatch, we recognized that long battery life was crucial for end-user convenience and so commercial success,” explains Etsuro Nakajima, Senior Manager within the Timepiece Division of Casio. “Now, thanks to Nordic Semiconductor’s technology, our customers will soon be able to wear a Bluetooth low energy-enabled Watch every day like a regular wristwatch without having to worry about frequent recharging cycles."

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