

Casio Develops Bluetooth® Low Energy Watch That Communicates With Smart Phones

Prototype Features the Latest Wireless Technology with Very Low Power Consumption



Tokyo, January 2011 — Casio Computer Co., Ltd., announced that it has developed a watch equipped with Bluetooth® Low Energy Wireless Technology,*¹ a new technology for short-range communication. A prototype of the watch was exhibited at Casio's Booth at the International Consumer Electronics Show at the Las Vegas Convention Center on January 6, 2011.

*1: Designed in accordance with new Bluetooth® Core Specification Version 4.0 standards, Bluetooth® Low Energy is a new technology that enables wireless communications with very low power consumption. Casio participated in determining the standards for Bluetooth® Low Energy as a member of the Bluetooth® Special Interest Group (SIG), an association of companies that decides on Bluetooth® standards and authorizes certification.

Casio has been transforming the definition of the wristwatch for years by applying the latest technologies. Now, Casio's prototype Bluetooth® Low Energy Watch is poised to create new possibilities for the way people use their watches yet again. Taking advantage

of the low power consumption of the new Bluetooth® technology, the new watch powers Bluetooth® wireless communication functions with its single button-cell battery, the same kind used in small devices and watches. And it does this without losing any battery life^{*2} compared to conventional wristwatches. This makes the new Bluetooth® Low Energy Watch highly useful because users can wear it everyday just like they expect of a wristwatch, without the bother of the recharging required by typical mobile devices.

Casio's new prototype can communicate with smart phones equipped with Bluetooth® Low Energy Wireless Technology, which will be available in the near future and be able to connect to networks of various kinds of devices. The new prototype demonstrates how Casio hopes to expand the ways people use their watches, unlike anything ever seen before, as new applications are developed for smart phones to enable communication between watches through smart phones.

*2: The battery life is estimated at approximately two years based on the prototype model, assuming that the Bluetooth® wireless communication function is used for 12 hours per day.

Overview of Casio's prototype Bluetooth® Low Energy Watch

Main features:

- Wireless communication is powered by the button-cell battery used in small devices and watches
- Battery life with the communication functions is the same as previously released watches
- The size of the watch case is a comfortable 53.4 (D) x 44.4 (W) x 12.8 (T) millimeters

Main functions:

- Accurate time information can be transmitted from a smart phone to the watch to ensure correct time
- The watch includes an alert signal to notify of incoming calls and e-mail messages sent to the user's smart phone
- A smart phone's ring alerts and vibration can be stopped by tapping the watch
- Alarm and vibration functions of a smart phone can be activated using a watch button

Casio aims to produce its first Bluetooth® Low Energy Watch in 2011. Meanwhile, Casio will call for partner companies to develop applications compatible with smart phones and other household devices in such areas as sports, health, home entertainment, security, and communication with family members and friends. Casio expects its new watches to offer people around the world a wide range of new lifestyle options.

Main Specifications of the Prototype Bluetooth® Low Energy Watch

Communication Specifications	Data Transfer Rate	1 Mbps
	Signal Strength	0 dBm (1mW)
	Signal Range	2–5 m (may differ depending on surrounding conditions)
	Encryption Method	128-bit Advanced Encryption Standard (AES)
Communication Functions	Time Correction	The watch can be synchronized with time information transmitted from a smart phone
	Incoming Call and E-mail Alert	The watch alerts users of incoming calls and e-mail messages sent to a smart phone
	Finder Function	Alarm and vibration functions of a smart phone can be activated using a watch button
Watch Functions	Alarm	5 independent daily alarms; hourly time signal; vibration function
	Stopwatch	1/100-second; measuring capacity: 23:59'59.99"; split time
	Countdown Timer	Measuring unit: 1 second; Input range: 1 minute to 24 hours
	World Time	100 cities (35 time zones, daylight saving on/off) and Coordinated Universal Time
	Light Other	Electro-luminescent backlight with afterglow Full auto-calendar, 12/24-hour format; sleep mode
Power Source		CR2032
Approx. Battery Life (Based on the Prototype Model)		Approx. 2 years (assuming the communication function is used for 12 hours per day)
Size of Case		53.4 x 44.4 x 12.8 mm
Total Weight		Approx. 50g

Casio's demonstration of the Bluetooth® Low Energy Watch uses a prototype of a Bluetooth® Low Energy smart phone. The demonstration was conducted at Casio's Booth at 2011 International CES, in cooperation with NEC Casio Mobile Communications.

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About CASIO Computer Co., Ltd.

CASIO Computer Co., Ltd. is one of the world's leading manufacturers of consumer electronics products and business equipment solutions. Since its establishment in 1957, CASIO has strived to realise its corporate creed of "creativity and contribution" through the introduction of innovative and imaginative products. Today, CASIO's offerings include timepieces, digital cameras, electronic dictionaries, calculators, musical instruments, system equipment, and electronic components such as LCDs. The CASIO Group employs more than 12,000 people worldwide, shipping over 100 million products per year, with net sales of 427 billion yen (approx. US \$ 4.6 billion) in the fiscal year ended March 2010. News and product information from CASIO are available at <http://world.casio.com>