

Nordic Semi and Broadcom collaborate on Bluetooth proximity fob prototype

ECN Europe

Oslo, Norway based ultra-low power RF specialist [Nordic Semiconductor](#) [1] has created a prototype design for a small, low-cost Bluetooth low energy proximity fob, and has successfully tested wireless communications between the prototype fob and Broadcom's BCM4330, the industry's first combo chip solution certified to Bluetooth 4.0.

The recently released Bluetooth v4.0 Proximity Profile enables the communication between the fob and next generation host devices like laptops (using the Broadcom BCM20702) and mobile phones (using the BCM4330).

The fob is designed to prevent a device such as a laptop being accessed in the owner's absence. After 'pairing' with the chip in the mobile device, the user carries the fob on their person. If the distance between the user and the mobile device exceeds a pre-set threshold (as may occur, for example if the mobile device is left behind or stolen), the pairing is broken and the mobile device automatically locks.

The fob is based on a Nordic μ Blue™ nRF8001 single chip Bluetooth low energy solution expected to be ready for volume production from early third quarter of this year. The power consumption of the nRF8001 maximises the battery life of the CR2032 coin-cell powered fob. The nRF8001 is a fully-tested and -compliant Bluetooth v4.0 peripheral solution.

Broadcom's BCM4330, the successor to the company's successful BCM4329, is the industry's first combo chip solution certified with the Bluetooth 4.0 standard (that includes Bluetooth low energy as a hallmark feature). The successful demonstration of interoperability between Broadcom's host solutions and the μ Blue nRF8001-based proximity fob makes for a great solution for systems that require proximity based security solutions for mobile devices – such as smartphones and laptop computers – and Bluetooth low energy proximity fobs which use coin-cell batteries.

[SOURCE](#) [2]

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<http://www.ecnmag.com/blogs/2011/08/nordic-semi-and-broadcom-collaborate-bluetooth-proximity-fob-prototype>

Links:

[1] <http://www.nordicsemi.com/>

[2] <http://ecneurope.wordpress.com/2011/08/08/nordic-semi-and-broadcom->

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Published on Electronic Component News (<http://www.ecnmag.com>)

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