Bluetooth SoC and ANT Processor Combo Enables Year-Long Coin-Cell Operation

Texas Instruments introduced two ultra-low power, short-range wireless connectivity solutions for consumer medical, mobile accessories, and sports and wellness applications. The CC2540 single-mode Bluetooth low energy system-on-chip and the CC257x ANT network processor can enable target applications to operate on a coin cell for more than a year. As the only supplier of solutions for both sides of Bluetooth low energy (single and dual mode) and ANT links, TI provides customers with fully tested, robust ecosystems for sensor applications and mobile handheld peripherals. To order samples and development kits, see www.ti.com/cc2540cc2570-pr [1].

"By operating on a fraction of the power used by traditional wireless connectivity technologies, engineers can now develop smaller devices with batteries that last for years," said Volker Prueller, marketing manager for TI's Low-Power RF products. "The CC2540 and CC257x, combined with our existing low-power RF, WiLink, BlueLink and MSP430 MCU portfolios, solidify TI's position as the industry leader in complete, highly integrated short-range wireless connectivity solutions that bridge the gap between the mobile and sensor worlds."

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CC2540 Bluetooth low energy system-on-chip: features and benefits

• One chip device: integrated controller, host and application in 6 mm x 6 mm package reduces physical size and cost.
• Flash-based: device firmware can be updated in the field and data can be stored on-chip, increasing flexibility for developers.
• Complete solution from TI: low-power RF IC, fully embedded single-mode protocol stack, profile software and applications support.
• RF performance: excellent link budget for long range (up to +97 dB) and coexistence with other 2.4-GHz devices.
• Interoperability/compatibility: Bluetooth specification version 4.0 compliant with single-mode (CC2540) and dual-mode devices (BlueLink 7.0 Bluetooth/FM single chip solution, WiLink 7.0 WLAN/GPS/Bluetooth/FM single chip solution, and WiLink

6.0 WLAN/Bluetooth/FM single chip solution), allowing full link testing and development.

CC257x ANT network processor: features and benefits
• Turnkey sensor solution: 2.4-GHz CC257x network processor, MSP430 host microcontroller, software and application support.
• Optimized hardware and software: integration of ANT-FS function and AES encryption support reduces components and bill-of-materials (BOM) cost.
• RF performance: highest link budget (+95 dB) compared to competitive devices and excellent selectivity for coexistence with other 2.4-GHz devices.
• Interoperability/compatibility: TI supports ANT with sensor (CC257x) and mobile devices (WiLink 7.0 and WiLink 6.0 solutions) for a full system solution.

Pricing and availability
The CC2540 Bluetooth low energy SoC is in volume production and available in a QFN-40 package. Pricing starts at $2.95 in quantities of 1,000 units.

Start your development today with a $99 development kit (CC2540MINI-DK), which includes a key fob with the CC2540 running the complete Bluetooth low energy demo application.

The CC2570 (single channel) and CC2571 (eight channel) ANT network processors are sampling with lead customers now in QFN-40 packages, with volume production in December 2010. Pricing starts at $2.75 in quantities of 1,000 units.

Find out more about TI’s wireless connectivity solutions:
• TI’s Bluetooth low energy and ANT solutions: www.ti.com/cc2540cc2570-pr.
• TI’s wireless connectivity solutions: www.ti.com/wireless
• TI’s wireless connectivity Wiki: www.ti.com/connectivitywiki
• TI E2E Low-Power RF community: www.ti.com/lprf-forum.

For more information, go to www.ti.com [2].

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Links:
[1] http://www.ti.com/cc2540cc2570-pr
[2] http://www.ti.com