2.4 GHz RF Transceiver for ZigBee/IEEE 802.15.4 and Proprietary Low-Power Wireless Applications

Texas Instruments introduced a second-generation ZigBee/IEEE 802.15.4 radio-frequency (RF) transceiver designed for the 2.4 GHz unlicensed ISM frequency band. Featuring desirable selectivity/co-existence and link budget, the CC2520 targets a variety of ZigBee/IEEE 802.15.4 and proprietary wireless systems used in industrial monitoring and control, home and building automation, set-top boxes, remote controls and wireless sensor networks. In a typical system, the transceiver will be used together with a microcontroller and a few additional passive components. The CC2520 provides hardware support for packet handling, data buffering, burst transmissions, data encryption, data authentication, clear channel assessment, link quality indication and packet timing information. The company' MSP430 MCU Series is appropriate for ZigBee-based applications due to its integrated peripherals such as dynamic memory access (DMA) and digital-to-analog (DAC) and analog-to-digital converters (ADC) that consume little power. Key CC2520 specifications include 1.8V to 3.8V supply range, -40°C to +125°C temperature range, 103 dB link budget (400m line-of-sight range with the development kit), and 50 dB adjacent channel rejection. The CC2520 is available in a 5 mm × 5 mm QFN-28 package and is priced starting at $3.10 each in 100-unit quantities.

Texas Instruments
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