Microchip Introduces Compact, Integrated RF Front-End Module for Wi-Fi Applications

Microchip Technology announced its complete, integrated RF front-end module for WLAN IEEE 802.11b/g/n and Bluetooth systems—the SST12LF03. This device features a transmitter power amplifier, a receiver low-noise amplifier (LNA) and a low-loss antenna switch—in one integrated, compact package. It is Microchip's smallest 802.11b/g/n-compliant front-end module. The device's RF ports are impedance-matched to 50 Ohms, and the module requires only two external components to achieve optimum performance. It offers a high linear-transmission power of 19 dBm at 3 percent EVM, using 802.11g OFDM at 54 Mbps, and 22 dBm for IEEE 802.11b operation. The device supports Wi-Fi and Bluetooth Tx/Rx, and enables simultaneous Wi-Fi and Bluetooth operation. The SST12LF03 is ideal for embedded applications in which small size and high performance are required, such as notebooks or other portable-electronic devices.

Many battery-powered, handheld designs require small size and high performance, and the SST12LF03 meets those needs. By integrating three RF functions into one

compact, simple-to-use package, this front-end module makes designing easier and reduces board size. The device features a Bluetooth port, which allows simultaneous 802.11b/g/n WLAN and Bluetooth operation, with optimum performance for both.

“Microchip already offers a broad portfolio of high-efficiency RF power amps with an integrated power detector,” said Daniel Chow, vice president of Microchip’s Radio Frequency Division. “With the addition of the SST12LF03, Microchip now provides the same reliable power-amplifier performance, combined with a LNA that features bypass mode and a low-loss antenna switch, in a very compact package. This highly integrated module is easy to use, with all of the RF matching circuitry included in the package. This high level of integration simplifies board design and extends the range of wireless systems.”

Development Support
Developers can begin designing today with the SST12LF03 Evaluation Board (part # SST12LF03-Q3DE-K). This Evaluation Board is available now for purchase, by contacting your local Microchip sales office or authorized distributor.

Pricing & Availability
The SST12LF03 is available in a 20-pin, 3mm x 3mm UQFN package for $0.61 each, in 10,000-unit quantities. Samples are available today at http://www.microchip.com/get/H5RP [1], and volume-production quantities can be ordered today at http://www.microchip.com/get/548G [2]. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip’s website at http://www.microchip.com/get/E2PB [3]. To purchase products mentioned in this press release, go to microchipDIRECT or contact one of Microchip’s authorized distribution partners.

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