Industry's First Full-Featured and Self-Contained Low-Power 802.11n Wi-Fi Module for M2M Markets

Redpine Signals announced the release of the industry's first self-contained low-power Wi-Fi module for M2M markets. Redpine's WiSeConnect is the first to implement advanced features like Wi-Fi Direct and Enterprise security required for 802.11n Wi-Fi based machine-to-machine (M2M) connectivity. With all the hardware and software required for not only standards compliant Wi-Fi operation but also for regulatory certification, the WiSeConnect module offers the easiest path to integrating advanced wireless connectivity for the entire range of emerging M2M applications.

The new module includes an embedded processor along with Redpine's ultra low power 802.11n Wi-Fi subsystem, as well as an antenna and frequency reference to be fully contained. Apart from SDIO and SPI interfaces, the module provides Ethernet and USB interfaces for universal applicability. The module provides Wi-Fi Direct functionality – that allows other Wi-Fi Direct devices as well as standard clients to connect to it. It includes a full implementation of the SEP 2.0 software stack that enables emerging smart energy applications. In addition, it supports embedded AP functionality and in both client and access point modes, it offers WLAN enterprise security features.

Though self-contained, the module does not limit the achievable Wi-Fi throughput, thus enabling a larger range of applications. For example, users would connect printers or projectors wirelessly with their tablets or laptops – and Redpine's WiSeConnect module enables integration of Wi-Fi Direct capability into such devices with no additional load on its processor. As another example, integrating a high-energy home appliance or an in-home display or thermostat into the smart grid is now made painless through the provision of SEP 2.0 communications in the WiSeConnect module. For the industrial and medical arena, any kind of equipment can be easily connected to the corporate or hospital network with full enterprise level security using the new module.

"The most important requirement for M2M markets is 'ease of system-integration'. Back in 2009, with the highly successful Connect-io-n™ modules, Redpine played a pioneering role in enabling Wi-Fi 802.11n integration into these markets. Today we continue to push the bar higher, with the WiSeConnect module and its advanced features like Wi-Fi Direct and Enterprise security," said Venkat Mattela, CEO of Redpine Signals.

The 35 mm x 22 mm WiSeConnect module operates with a single 3.3 V supply and offers SDIO, SPI, USB, and Ethernet interfaces. Variants include single band 2.4 GHz and dual-band 2.4/5 GHz operation. The module is accompanied by a small footprint

reference software running on the host system with examples that illustrate the simple-to-use wireless API. Evaluation boards are available now. The first demos of the WiSeConnect module are scheduled during the Arrow Electronics 2012 M2M Seminar Series starting on January 19th, 2012 in San Jose, CA.

For more information on Redpine products, visit http://www.redpinesignals.com/ [1].

Posted by Janine E. Mooney, Editor

January 18. 2012

Links:
[1] http://www.redpinesignals.com/