



PRESS INFORMATION

Jennic stack enables low-power IP communications for wireless applications

- **Provides first single-chip implementation for 6LoWPAN low-power wireless IP**
- **Extends IP services into low power wireless applications**
- **Based on IEEE802.15.4 standard as used by ZigBee**
- **Facilitates multi-year battery life in IP-enabled wireless appliances**
- **Compatible with Jennic wireless microcontrollers and wireless modules**

Sheffield, UK, 19 May 2008: Jennic announces the industry's first networking stack to enable a single-chip implementation for next-generation low-power wireless IP in embedded devices. By extending the widely understood IP protocol into the low power wireless domain, applications may leverage existing IP infrastructure and knowledge base, reducing development costs and time to market.

Based on the familiar IEEE802.15.4 standard as used by ZigBee, Jennic's 6LoWPAN networking stack runs on their feature-rich JN5139 wireless microcontroller, which integrates a 2.4GHz IEEE802.15.4 transceiver and a 32-bit processor core, with sufficient memory remaining to run application software.

The Jennic 6LoWPAN stack supports simple star networks, or can be run on top of the stable and field-proven JenNet stack that provides self-healing cluster tree networking capability, with automatic route formation and repair. The power consumption of 6LoWPAN is a fraction of Wi-Fi, meaning that products such as heating controls, security sensors, patient monitoring equipment, process controllers and sensors, can be IP-enabled with multi-year battery life expectancy.

According to Jennic's CEO, Jim Lindop, "6LoWPAN will have widespread appeal to companies in building control, industrial automation, medical and consumer markets where they have pre-existing IP systems. Developers will be able to use their knowledge of IP to build low power wireless products that seamlessly integrate into existing IP networks. The extension into low power wireless is a logical progression, and will undoubtedly give rise to a wealth of applications that were previously unrealizable".

"It is fantastic to see Jennic offering a stack supporting the 6LoWPAN Internet standard." said Geoff Mulligan, Chair of the 6LoWPAN Working Group. "This software and their support brings great benefits to the emerging market for the "Internet of Things" and shows that the concept of Embedded IP and IP based wireless sensors and controllers is here and available now. I look forward to Jennic's further participation in and support of true open and international standards such as the IETF 6LoWPAN protocol."

Jennic's 6LoWPAN stack runs on their JN5139 32-bit wireless microcontroller and wireless modules. The competitively priced microcontroller features large memory resources of 192kBytes of ROM and 96kBytes of RAM for the IEEE802.15.4 MAC; 6LoWPAN and JenNet stacks; and application software. It also integrates UARTs, SPI and 2-wire serial (I²C) interfaces, general purpose I/O (GPIO), timers, a 12-bit ADC, DAC and comparators, whilst maintaining power consumption below 5uA in low-power sleep mode. The integrated 2.4GHz, IEEE802.15.4-based transceiver supports a 100dB link for communication over 30-50m distances indoors as well as secure 128-bit AES encryption. As the first single-chip implementation for 6LoWPAN, the Jennic solution allows engineers to create compact, cost-effective systems that leverage IP communications to enhance functionality whilst reducing development costs.

The Jennic 6LoWPAN stack is sampling now, with general availability of a 6LoWPAN evaluation kit planned for the third quarter CY2008.

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Editor's note:

About Jennic

Jennic is a fabless semiconductor company leading the wireless connectivity revolution by providing wireless microcontrollers for a broad range of applications. Its expertise in systems and software combined with world class RF and digital chip design provides low cost, highly integrated wireless microcontrollers with a focus on the IEEE802.15.4 and ZigBee standards. The company's products include state-of-the-art low power wireless microcontrollers, modules, development platforms, protocol and application software. Headquartered in Sheffield, UK, Jennic also has offices in China, Japan, Korea, Taiwan and the USA. For more information, visit www.jennic.com.

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