

Wireless microcontroller technology from Jennic plays key role in ensuring greater energy efficiency

Submitted by: Napier

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Sheffield, UK, 09 June 2009: Jennic's JN5139 wireless microcontroller unit has shown its worth in the ongoing fight to protect the environment. These 16MHz MCU devices have been used by Gloucestershire based electronics consultancy firm MicroWatt to give its KnowWatt energy monitoring systems reliable RF data links.

The JN5139 is optimised for low power operation, and boasts a work rate of 3MIPS for every mA of current that it draws. The device has a 32-bit RISC core, 192kB of ROM and 96kB of RAM. It incorporates a 4-input 12-bit analogue-to-digital converter, two 11-bit digital-to-analogue converters, and a temperature sensor within its 8x8mm, 56-lead, QFN package. The integrated 2.4GHz transceiver is fully compliant with the IEEE 802.15.4 communications standard, with support for bi-directional data transfer at rates of up to 250kb/s over a choice of 16 different channels.

As a result of their contribution to the KnowWatt energy monitoring system Jennic microcontrollers are set to be featured in eco-village projects of the future. These villages aim to be the template for how communities will live, and will be able to fully conform with the government's goal that by the year 2016 all new homes built in the UK should be carbon neutral.

It is not just in the domestic environment that this technology can make a difference however. KnowWatt wireless monitoring systems are being installed in many commercial premises too. A system that was recently put into operation at the Retreat wine bar in Stroud has had a huge effect on reducing the business' heavy electricity consumption levels. It has allowed the management to do in depth analysis on the bar's electricity consumption throughout the day. This has led to the re-education of staff, making them aware of several uneconomical working practices, as well as identifying sources of wasted energy. By utilising the KnowWatt system (with its many Jennic JN5139 MCUs) it has been possible to cut the Retreat's overall power consumption by a figure of 1kW/hr (with a 40% reduction in the electricity needed for its cellar operations). The advantages of using an energy monitoring system are clear, and with households and enterprises throughout the country looking to keep spiralling utility bills in check, widespread proliferation is certain to follow. As Simon Clegg, MicroWatt's managing director, states, "With a greater number of installations of these monitoring systems taking place in the future, we expect most customers to be able to see a return on their investment within six to eight months."

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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 in the energy, environment, asset tracking and consumer markets. The company's products include state-of-the-art low power wireless microcontrollers, modules, development platforms, protocol and application software, with a focus on IEEE802.15.4, ZigBee and 6LoWPAN standards. Headquartered in Sheffield, UK, Jennic provides first-class

sales and support worldwide. For more information, visit www.jennic.com

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