



## PRODUCTS

**Newsteo taps Nordic transceiver for monitoring system**

By Jack Shandle

Courtesy of [Wireless Net DesignLine](#)

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Newsteo, a French wireless voice and data company, has opted for with a proprietary silicon solution for its latest monitoring system.

Newsteo will integrate [Nordic Semiconductor's](#) nRF9E5 family of 433/868/915-MHz ISM band transceivers in its hardware.

The system, which addresses applications such as temperature and humidity sensing in commercial greenhouses, cold chain logging and control and automation, has three parts:

- RF tokens
- RF-to-PC [USB](#) key transceiver
- RF Monitor software used to configure, control and collate data

Newsteo's RF systems allow customers to switch cost effectively from hard-wired to wireless sensing.

Each transceiver responds to a unique ID code to avoid communication clashes, and incorporates on-board security to prevent unauthorized access. Each RF token can simultaneously host several different types sensor (for example, temperature, pressure, force, constraint, acceleration, flow, current and light), while an on-board Flash memory stores from 2,000 to 2 million measurements.

The 12-gram RF tokens can run for up to 5 years from a single CR2450 3-V lithium coin cell and come pre-certified eliminating the need for lengthy certification approval. Tokens are supplied in a 44 by 30 by 10 mm cuboid form factor for discrete mounting on target equipment, walls or pipes.

The RF-to-USB Key simultaneously controls and collects data from up to 500 Tokens at around 300 measurements per second over a range of 10 to 50 m for the standard antenna-on-PCB version (including transmission through two concrete walls).

Range is boosted to 25 to 800 m with an enhanced 14-wave antenna (including transmission through five concrete walls), and up to several kilometers if used in conjunction with a Yagi antenna.

Nordic's nRF9E5 is a true system-on-chip (SoC) comprising a fully integrated RF transceiver, 8051-compatible microcontroller (MCU) and a 4-input, 10-bit 80-kS/s (kSample per second) analog-to-digital converter (ADC).

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