



Wireless Sensing for Commercial Building Automation

## FOR IMMEDIATE RELEASE

### **Spinwave Systems Standardizes on High Powered RF Radios for All Full Function Nodes in its Wireless Sensor Networks**

*Spinwave Systems' Wireless Transceivers and Mesh Router/Repeaters Offer 100 Times Greater Transmit Power*

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Westford, MA – May 18, 2007 – Spinwave Systems, a leading provider of wireless sensing products for the commercial building controls and industrial automation markets, announces that it has standardized on high powered RF radios for all full-function nodes in its Wireless Sensor Networks.

#### **High Powered Radios Increase Range & Offer Better Permeation of Construction Materials**

All Spinwave wireless transceivers and mesh routers/repeaters include high powered radios that provide RF transmit power of 100mW (+20dBm.) These high powered wireless transceivers and router/repeaters offer 100 times more transmit power than standard 2.4GHz radios which offer a transmit power of 1mW (0dBm.)

The units' higher transmit power dramatically increases RF range and coverage area resulting in greater application flexibility. In addition, the use of high powered radios in all Spinwave transceivers and router/repeaters provides for better horizontal and vertical (between floor) permeation of a wide variety of construction materials.

#### **A<sup>3</sup> Technology Solves RF Interference Issues & Ensures Data Throughput in Harsh RF Environments**

Spinwave's A<sup>3</sup> technology eliminates the common problem of poor reliability in sensor data transmission caused by other RF devices. A<sup>3</sup> technology is comprised of three leading-edge techniques designed to dynamically switch RF channels and hop or "spin" around detected RF interference on a time-specific basis.

These three techniques, known as *Temporal Agility, Spatial Agility and Density Agility*, collectively perform dynamic adaptive channel hopping in multiple dimensions, resulting in a wireless sensor network that possesses superior network throughput, reliability, scalability, and battery life, even in the harshest of RF environments. With A<sup>3</sup> technology, broad geographical areas, with numerous, varied sources of RF interference, can be effectively serviced with a wireless sensor network.

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**Spinwave Systems, Inc.**  
235 Littleton Road  
Westford, MA 01886 USA

Phone 978-392-9000  
Fax 978-692-8400  
[www.spinwavesystems.com](http://www.spinwavesystems.com)

### **Mix of High & Low Powered RF Devices Ideal for Building Automation Applications**

For building automation applications, the ideal wireless network combines "low powered" sensors (1mW RF power) with "high powered" transceivers and routers/repeaters (100mW RF power.)

A typical Spinwave wireless sensor network is comprised of "low powered" sensors that are used to measure a variety of environmental variables (e.g. temperature, humidity, etc.) The sensors spend the majority of their time in "sleep mode" which conserves battery life. They periodically "wake up" to take a measurement and transmit the data to a building automation system via "high powered" transceivers and/or routers/repeaters.

The mixing of high and low powered radios optimizes the price/performance of a wireless sensor solution. It eliminates the unnecessary expense of the higher powered radio in your sensors; sensor battery life is optimized; and, due to the extended range of the high powered radio, less router/repeaters are necessary to effectively service large geographic areas. The combination of low power sensors and high power transceivers and routers/repeaters delivers outstanding reliability, superior range, greater penetrability and long sensor battery life.

For more information on Spinwave's wireless sensor networks, download the System Overview datasheet at:

<http://www.spinwavesystems.com/DataSheets/Spinwave%20System%20Overview.pdf>

### **About Spinwave Systems**

Spinwave Systems is a technology rich company focused on developing state-of-the-art wireless sensors and wireless mesh networks for the industrial automation and the commercial building controls markets. Spinwave's products and systems enable operations personnel to easily generate data about their buildings and processes enabling them to reduce costs and improve productivity. Spinwave's unique system architecture enables seamless integration of wireless sensors to automation systems from all major manufacturers. To learn more about Spinwave's products, please visit [www.spinwavesystems.com](http://www.spinwavesystems.com).

### **Contact:**

Julie Desrosiers  
Director of Marketing  
Spinwave Systems, Inc.  
235 Littleton Road  
Westford, MA 01886  
978-392-9000, ext 225  
[jdesrosiers@spinwavesystems.com](mailto:jdesrosiers@spinwavesystems.com)

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