



Communication skills for ultra low powered objects



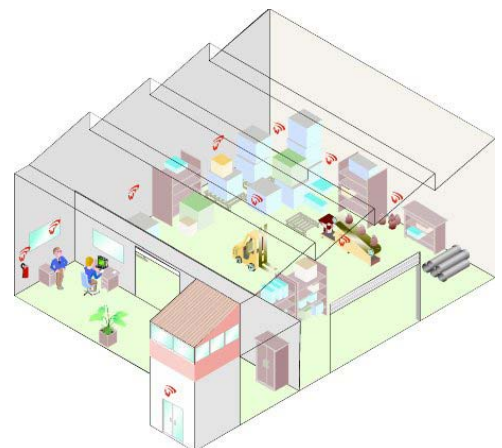
MONITORING SOLUTIONS FOR WIRELESS SENSOR NETWORKS

Wavesense is a wireless module that lets you monitor and control electronic sensors in a variety of today's emerging smart environments, including industrial, domestic, medical, and transportation applications. Data and sensor readings can now be distributed easily to your own back-end management applications and value added services through wireless networks with an unlimited number of nodes.

Compatible with a vast array of sensors offering 0-5V and 4-20mA analog interfaces, Wavesense makes it easy for you to establish two-way communications with remote sensors from any location and to build innovative smart environments. Wavesense uses Wavenis wireless technology from Coronis to offer unprecedented battery life, long-range, and reliable machine-to-machine connections for connections to sensors installed in remote, hard-to-reach places.

- Supports any 0-5V or 4-20 mA sensor
- Ideal for gas, humidity, strain, differential pressure sensors, health monitoring, home comfort and more
- Automated process control systems
- Remote data monitoring
- Programmable alarm functions
- Operates in 433 MHz, 868 MHz, or 915 MHz license-free ISM bands
- Easy installation

With compatible Wavenis-powered network accessories, you'll be able to build cost-effective wireless sensor networks that fit any environment perfectly, indoors or out.



Create wireless sensor networks using common industrial sensors and Wavesense transceivers



Wavesense Specifications

GENERAL FEATURES

- Autonomous battery powered unit (supports 1 sensor per Wavesense)
- Sensor data logging for all types of sensors with voltage (0-5V) or current (4-20mA) analog interface
- Immediate transmission or store-and-forward up to 48 readings
- Data monitoring and remote control via Wavenis wireless network
- Programmable logging, transmission, alerts, threshold signals, and error management
- Optional extension to store up to 4,500 readings
- Multi-year battery life depending on use
- Input impedance (voltage products): 10 K ohm
- 12-bit ADC voltage interface (resolution 1.25mV)
- Memory zone accessible in read and write mode via radio command (32 bytes)
- Interface: ground, sensor output signal
 - 2 wires per sensor
 - External sensor supply
- Protection class IP65 (IP68 optional)
- Operating temperature range:
 - -20° / +70°C
 - (-4° / +158°F)
- Dimensions: 12 x 4 x 3 cm (4.7 x 1.6 x 1.2 in.)
- Weight: 110 to 160 g (4 to 5.6 oz)

WIRELESS FEATURES

- Optimized Wavenis wireless technology for applications requiring ultra low-power consumption, long range, and reliability in hard-to-reach places
- Radio range up to 1 km in line of sight outdoors, up to 200 meters indoors
- Resistant to RF interference – sophisticated data handling: FHSS, data interleaving, BCH(31,21) mechanisms
- For flexible wireless mesh networks unlimited in size
- 2-way links with mobile and fixed network control points
- Programming via direct wireless or remote network connection
- Point-to-point, broadcast, polling, repeater modes
- Tree, star, and mesh network topologies
- License-free 433/868/915 MHz ISM bands
- EN300-220-1, FCC15-249, & FCC15-247 compliant
- EMC compliant with EN 300-683

OTHER SENSOR PRODUCTS FROM CORONIS SYSTEMS

Wavesense is compatible with all Wavenis-powered products from Coronis Systems, including:

- Wavetherm – temperature monitoring sensors
- Wavetank – tank and silo level monitor
- Wavelog – binary on-off monitor
- Wavenis CompactFlash, Waveport, Wavecard wireless add-ons and data monitoring tools for custom and off-the-shelf products
- Wavehub – data concentrator
- Wavecell – cellular network gateway

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