



Datasheet



Wavenis™ technology

An optimized ultra-low-power and long-range wireless solution

The wireless industry is evolving in giant steps, with ever-growing numbers of devices connected to each other in all types of industrial and domestic environments. Many technologies focus on providing high-speed connections for multimedia, information, and entertainment applications. At the other end of the spectrum, a new breed of smart devices based on wireless sensors have a very different set of requirements, namely:

- Multiple year battery life
- Connections to up hundreds of yards
- Deployment in hard-to-reach places
- Low traffic, small amounts of data

Wavenis wireless technology is the first solution on the market to offer the optimal compromise of these key features, providing unprecedented convenience and connectivity for consumers and service operators.

Over 3 million Wavenis products deployed¹

Wavenis technology was designed and developed by wireless experts to meet the needs of the utility industry as well as to provide a wireless standard for a variety of other sensor-related fields with similar cost-performance requirements.

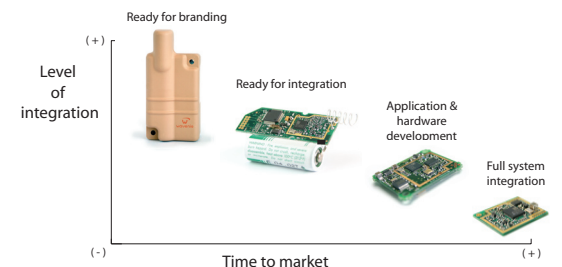
This includes home comfort, alarms, home healthcare, centralized building management, access control, cold-chain monitoring, plus long-range UHF RFID

applications for identifying, tracking, and locating people and objects.

Robust 2-way communications give Wavenis customers a unique way to create applications that meet their exact expectations in all these areas.

OEM platforms that meet your time-to-market needs

Wavenis allows integrators and OEMs to innovate in their markets with a wireless solution that has been proven effective around the world. Several Wavenis platform options are available depending on your time-to-market and volume constraints:



Wavenis OEM platforms

The pervasiveness of wireless devices in the coming years is undisputable, and even though no single technology can be used in all situations, Wavenis is the only technology in the ultra-low-power market that supports such a wide variety of application-oriented standards and wireless applications and services reliably.

	Wavefront	Wavecard	Vertical solutions
Wavenis transceiver	✓	✓	✓
Microcontroller		✓	✓
Casing, battery, antenna ²			✓

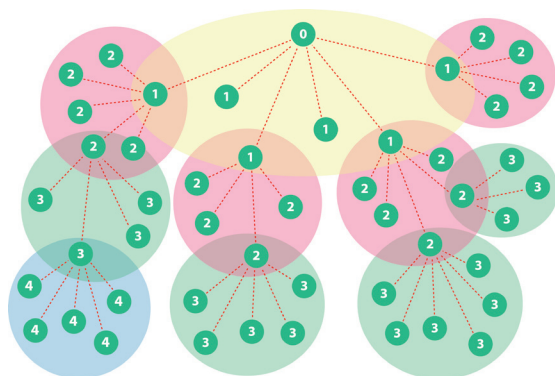
Flexible product options to match solution integration requirements

Wavenis technology

Scalable wireless mesh networking

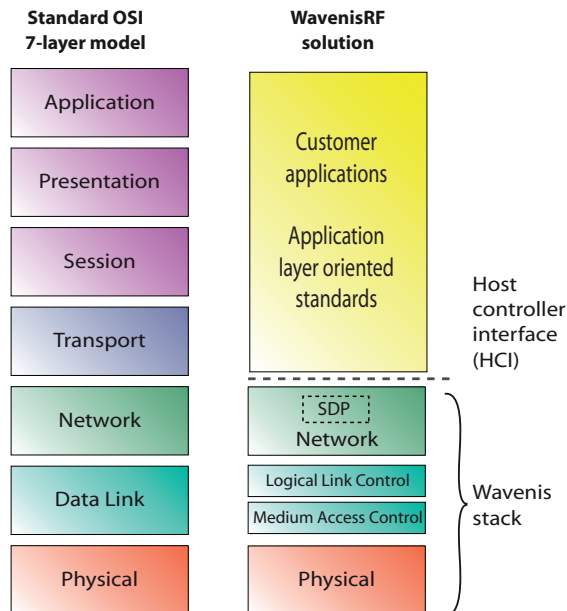
Wavenis-powered wireless products support mesh network configurations scalable up to any size. Data exchange can be partially or entirely automated, depending on the application. Wavenis wireless technology provides the ultra-low-power and long-range connections required by today's most demanding networked devices, including:

- Ultra-low power consumption
- Long wireless range capability
- Robustness against physical and electrical interference
- Openness to WAN and complementary wireless technologies
- Developer APIs and product development toolkit



Flexible machine-to-machine networks of any size

Evaluation kits available!
 Contact your Coronis representative
 for more details.
www.coronis.com



Wavenis provides a highly specialized ultra-low-power and long range RF solution

General Wavenis features

- Ultra-low-power and long-range wireless sensor network solutions
- Multiple-year battery life
- Platforms to meet time-to-market needs
- Small footprint and low cost for mobile and fixed embedded devices
- ETS300-220 / FCC15.247 certified
- Scalable wireless mesh network topologies
- Resistant to physical and electrical interference
- Point-to-Point, Point-to-Multipoint (broadcast, polling), and repeater modes
- Tree, star, and mesh network topologies
- Self-configuration and dynamic routing algorithm optimized for ULP networks
- Programmable access time
- Relaxed synchronization schemes
- Complete Wavenis API - Host Controller Interface (HCI)
- Operates in license-free ISM 433 MHz, 868 MHz, 915 MHz frequency bands
- Designed for reliability, power savings, network coexistence, robustness against interference

¹ 1.5 million Wavenis devices deployed as of March 2008.

² Options vary with configuration. Please check with your Coronis representative for more details.