



wavetalk™

Wireless Range Extender

Communication skills for ultra low powered objects



WAVENIS NETWORK REPEATERS

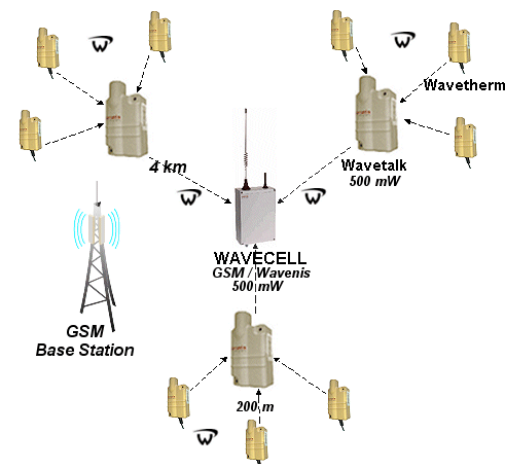
With its Wavenis™ wireless technology, Coronis Systems products offer some of the farthest network connections in the industry. Still, some real-world scenarios require longer range than individual end-points can achieve. In order to connect the most remote devices back to a network's main concentrator or gateway, you may have to use range extenders (repeaters).

Wavetalk™ is a line of autonomous wireless repeaters designed to extend the operating range of Wavenis-powered devices in ultra low-power (ULP) networks.

Depending on the distance between end-points, Wavetalk offers either a 25mW base transceiver to communicate with ULP devices or a 500mW transceiver for longer-range coverage. Wavetalk range extenders help reduce overall costs by limiting the number of gateways and concentrators needed in a network.

OPTIMIZING WIRELESS NETWORKS

Wavetalk gives you the flexibility to deploy data collection and monitoring networks to suit any topology. With its 500mW transmitter, the long-range version of Wavetalk provides reliable data connections over distances of up to several kilometers, allowing you to benefit both from ultra low-power end-points and low overall equipment cost.



Wavetalk repeaters are often used to forward data via cellular network gateways



Wavetalk Specifications

TECHNICAL FEATURES

- Autonomous battery supply
 - 25mW device uses 3.3 A.h (size A)
 - 7.6 A.h (size C) for 500mW Long Range version
- Radio transmission range
 - 25mW output: up to 1 km LOS
 - 500mW output: up to 4 km LOS
- 868 MHz - 915 MHz ISM bands
 - 868-25mW band: fixed (alarm band) or frequency hopping spread spectrum (FHSS) on 16 channel @ 9.6 kbps
 - 868-500mW band: fixed frequency (selection out of 3 channels) @ 32 kbps
 - 915 MHz band: frequency hopping spread spectrum (FHSS) @ 9,6kbps
- Digital frequency modulation (GFSK)
- Receiver sensitivity
 - 110dBm @ 0.1% Frame Error Rate @ 9.6kbps)
- Dual-level transmission with automatic switching
 - 25mW band: +12dBm
 - 500mW band: +27dBm
- Approvals
 - ETS 300-220
 - FCC 15-247
 - RTTE 99/5/EC Directive
 - Electrical safety: EN60 950
 - EMC: EN 301 489
- Protection class IP65 or IP68
- Operating temperature: -4° to 158° F (-20° to +70°C)
- Dimensions: 4.3 x 2 x 1.2 in. (11 x 5 x 3 cm)
- Weight: 5.3 to 7 oz. (150 to 200 g)

FUNCTIONAL CHARACTERISTICS

- Extends wireless range of Wavenis-powered end-points
- Uses secure Wavenis communication protocol
- Several years battery life depending on usage
- Resistant to RF interference – sophisticated FHSS, data interleaving, BCH(31,21) mechanisms
- Build flexible wireless mesh networks of unlimited in size
- Tree, star, and mesh network topologies
- 433/868/915 MHz ISM Bands
- EN300-220-1, FCC15-249, & FCC15-247 compliant
- EMC compliant with EN 300-683
- Programmable polling frequency to optimize radio traffic.
- Available in 25mW-25mW, 25mW-500mW, 500mW-500mW
- All Wavenis products are designed with Bluetooth extension capabilities

PRODUCT COMPATIBILITY

Wavetalk is compatible with all Wavenis devices from Coronis Systems:

- Waveflow, Wavetherm, Wavesense, Wavelog, & Wavetank wireless monitors
- Wavecell Cellular/Wavenis gateway
- Wavenis Compact Flash and Wavetank OEM wireless cards for mobile metering using industrial handheld computers and tablet PCs
- Wavehub concentrator
- Waveport – serial / USB wireless modem

Ordering information

Wavetalk products are available with various configurations according to your needs. Reference numbers are based on the following options (i.e. WAVETALK-868-L-65).

Product	Carrier frequency band	Power class	Protection class
WAVETALK	868=868 MHz band	U = Ultra Low Power	65 = IP65
	915=915 MHz band (on request)	L = Long Range 500mW	68 = IP68