DATA CONCENTRATOR FOR WAVENIS™ METERING AND WIRELESS SENSOR NETWORKS

The latest addition to the Coronis line of Wavenis-powered ULP networking tools, Wavehub is a wireless data concentrator for Wavenis metering and sensor networks. Its role is to gather data from surrounding Wavenis devices automatically and thereby make it possible for you to read data from large groups of devices in a single click.

Wavehub can be programmed to collect data wirelessly and automatically, and to store it until downloaded by mobile data monitoring tools such as handheld computers, tablet PC, or PDAs running Wavenis, or following remote requests sent over fixed or cellular telephone networks. Wavehub responds quickly and sends you back all the data from devices in its area.

Since long battery life is critical for autonomous devices in large or hard-to-reach networks, Wavehub implements the same Wavenis power-saving wireless technology as other Coronis products, resulting in reliable, intervention-free operation for several years. Flexible Wavenis topology allows you to install just the right number of Wavehub units to gather data from all installed end-points and to optimize your network based on the environment and network density.

Ideally suited for dense automatic metering solutions in very large buildings, Wavehub data concentrators can be installed on the ground floor of apartment buildings or at elevated points outdoors, thus making data monitoring significantly easier.

- Data concentrator collects data from 100 end-points in under one minute
- Scheduler operating mode with data record update and date/time stamp
- Battery life up to 7 years
- Forwards spontaneous alerts from network devices (including Wavehub itself)
- Increases efficiency of mobile data monitoring rounds
- Fully wireless configuration
Wavehub Specifications

**GENERAL FEATURES**

- Programmable operation, with stand-by mode, scheduling, and day/night modes
- Data record update with date/time stamp
- Supports up to 100 end-points (full reading under one minute)
- 7 years autonomy (based on one reading/week)
- Spontaneous alerts from end-points (tampering, low battery, backflow, alarm detection) and from Wavehub (tampering, low battery, backflow)
- Records data and alarms with date/time stamp for mobile reading
- Battery level monitoring
- Replaceable battery
- Convenient multi-surface mounting system
- Available with IP65 or IP68 protection
- Wireless programming of network routing for network end-points
- Up to three repeaters per route
- Supports mobile and fixed network data monitoring schemes
- Line-of-sight range up to 1 km with ultra low power unit (25mW-25mW)
- Line-of-sight range up to 4 km with long range unit (25mW/500mW)
- Sensitivity: -110 dBm @ 9.6 kbps Frame Error rate: 0.1% with Wavenis protocol
- Temperature range:
  - Operating: -20°C / +70°C (-4°F / –158°F)
  - Storage: -40°C +85°C (-40°F / –185°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)

**WAVENIS WIRELESS FEATURES**

- Optimized Wavenis wireless technology for demanding applications requiring ultra low-power consumption, long range, and reliability in hard-to-reach places
- Resistant to RF interference
- Build flexible wireless mesh networks of unlimited in size
- 2-way links with mobile and fixed network control points
- Programming via direct wireless or remote network connection
- Peer-to-peer, polling, repeater modes
- Tree, star, and mesh network topologies
- 433/868/915 MHz ISM bands
- EN300-220-1 & FCC15-249 compliant
- EMC compliant with EN 300-683

**COMPATIBLE PRODUCTS**

Wavehub modules are completely compatible with all Wavenis-based products from Coronis Systems

- Waveflow, Wavetherm, Wavetank, Wavensense
- Wavenis-powered mobile data collection tools (Tablet PC, PDA, HHC)
- Wavenis Compact Flash, Waveport serial/USB cards, and Wavecard OEM wireless cards
- Wavecell GSM/Wavenis gateway
- Wavetalk repeater
- Data management and module configuration software

Training, support, and product customization are available from Coronis Systems. Please check with us directly for details. Write to info@coronis-systems.com.