



# Wavegate™ 320

## Smart data concentrator-gateway for Wavenis®/GPRS/Ethernet networks



Expand your Wavenis® wireless network with a Wavegate 320 smart concentrator-gateway and benefit from advanced remote data monitoring and network management features alongside the market's most effective last-mile ultra-low-power wireless connectivity solution. As the cornerstone of your remote Wavenis wireless sensor network, Wavegate 320 relays information efficiently between your office or data center and Wavenis-enabled devices in the field.

- Provides 2-way Wavenis / GPRS / Ethernet connectivity between field networks and a communication platform
- Manages up to 2,000 Wavenis-enabled modules<sup>(2)</sup>
- Controls all data collection, communication and network configuration features
- Robust weatherproof design with backup battery

### Advanced data monitoring solution



With its embedded PC card, Wavegate 320 offers a flexible, ready-to-use gateway and data collection solution to meet your specific business requirements for advanced utility metering, M2M and

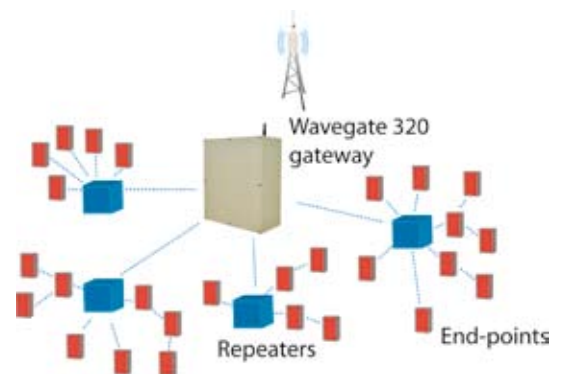
telemetry applications.

- Enables 2-way end-to-end wireless communications both for scheduled bubble-up (in synchronous mode) and on-demand reads (synchronous or asynchronous mode)
- Collects and transmits data and alarms from all network devices
- Offers seamless integration with Wavenet

### Remote network management and configuration made easy

In addition to providing a smooth data path to and from remote Wavenis-enabled devices, Wavegate 320 also manages many aspects of your Wavenis wireless network, in particular optimizing device installation and end-module battery life. Wavegate 320 communicates directly with back-end administration tools to provide a visual interface for managing and monitoring your network remotely.

- Enables you to configure end-points and create bubble-up data transmission schedules
- Maintains network availability and handles addition/removal of modules within the Wavenis network
- Synchronizes all modules in Wavenis v2 networks; compatible with Wavenis v1 networks
- Connects automatically to Coronis communications platform and Wavenet Manager upon startup<sup>(3)</sup>



*Wavegate 320: the cornerstone of remote Wavenis wireless network clusters*



# Wavegate 320



### Connectivity

- Wavenis wireless technology: synchronous or asynchronous modes
- GPRS connection with communication platform
- Ethernet for use in LAN environment
- Secure link with head-end client/server platform
- Stores data locally as safeguard for GPRS connection
- 2-way end-to-end communications

### Business data management

- Scheduled daily data bubble-up<sup>(4)</sup> from end-points (allocated time-slots), programmable on-demand reads
- Data concatenation or on-the-fly transmission
- System management coordinated with Wavenet Manager
- Priority transmission of alarms from network devices
- Secure interface with RDBMS systems

### Maintenance and network management

- Automatic routing for new modules<sup>(5)</sup> using Self-Discovery Protocol (SDP)
- Handles Wavenis network synchronization<sup>(6)</sup>
- Device reconnection in case of transmission error<sup>(5)</sup>
- Remote network maintenance and software upgrades
- Maintains database of all “child” nodes (up to 2,000)
- Notifies administrator of events and network alerts

### Product information

- Wavenis® 868 MHz: auto-switching 25 mW mode with range up to 600 m/0.4 mi (line of sight), and 500 mW mode with range up to 2.5 km/1.5 mi (line of sight), external antenna with 10 m cable
- GPRS: quad band 850 / 900 / 1800 / 1900 MHz, external antenna mounted on casing
- Embedded PC: Windows CE, 256 MB storage buffer (thousands of readings)
- Ethernet 10/100
- EN 300-220 compliant
- Mains-powered (110-250Vac, 50-60Hz)
- Backup battery (7 or 12 Ah) runs all Wavegate 320 features for up to 2 hours; network synchronization maintained up to 6 days without mains power
- Typical average power consumption: 20 W (with both GPRS and Wavenis communication)
- Casing: 36 x 40 x 15 cm (14 x 15.7 x 6 in., wall-mountable, IP66 protection, lockable (optional)
- Operating temperature: -20° to 70° C (-4° to 158° F)
- Relative humidity: 0 to 90%

### Related Coronis products

- Waveflow wireless monitoring modules
- Wavetalk Wavenis range extenders
- Wavegate 310 GPRS/Ethernet data collectors
- Wavenet Suite for data monitoring and network management

### Product code

868 MHz, 230 Vac, external antenna (ref. WGA868-500MW-320)

<sup>(1)</sup> Integration with Coronis communications platform and back-end applications (Wavenet Suite).  
<sup>(2)</sup> Up to 2,000 modules can be connected to Wavegate 320, including end-points and repeaters.  
<sup>(3)</sup> Wavenet Manager and communications platform software (Wavenet Suite) sold separately.  
<sup>(4)</sup> Bubble-up: automatic daily transmission of module data. On available in synchronous mode.  
<sup>(5)</sup> Only available on fixed Wavenis networks in synchronous mode.  
<sup>(6)</sup> Module synchronization is implemented to optimize battery life and network communications.

