

## WaveBolt™ Subscriber Unit Series 9 Ethernet

The WaveBolt Product Family from Cirronet™ is a point-to-multipoint fixed broadband wireless system designed to break the price and deployment barriers for the small business and residential market. The system operates in the license-free 2.4 GHz band and provides data and voice services. WaveBolt's design is based on innovative technology and value engineering ideas.

The WaveBolt Subscriber Unit integrates a microwave antenna, radio and modem in a small, hand-size device. Placed up to 100 feet from the a network connection, the subscriber unit connects to a router in the subscriber's network and provides data rates up to 921Kbps. The number of PCs on the subscriber network that can share the WaveBolt connection is only limited by the capability of the subscriber's router.

The WaveBolt Subscriber Unit is designed for easy mounting and connection, without opening a PC. The unit is easily mounted to a home or building's exterior by the end user to obtain a near-line-of-sight range of two to five miles. The antenna can listen and transmit over more than a 90-degree arc (more than  $\frac{1}{4}$  of a circle), therefore it need only be aimed in the general direction of the access point. This single-unit design enables maintenance free installation, without the need for a truck roll, and is weatherproof and highly durable.

The WaveBolt Ethernet CPE looks like a bridge to the subscriber's network. Thus PCs with any operating system that can connect to the subscriber's network can access the WaveBolt connection. The WaveBolt connection will remain on as long as the router is powered.

WaveBolt uses Cirronet's proprietary frequency hopping spread spectrum technology. Spread spectrum is known for its excellent range, immunity to jamming and multipath fading. Frequency hopping allows the data to work around noise, eliminating the possibility of WaveBolt subscriber units interfering with each other or other spread spectrum modems. Cirronet's WaveBolt™ system delivers additional proprietary competitive market advantages through its media access controller (MAC), for which two patents have been filed.



### FEATURES & BENEFITS

- Affordable per-subscriber price point
- License-free, operating in the 2.4 GHz band
- Easily end-user installed
- Provides 921 Kbps data rate
- Connects network of PCs
- "Always-on" high-speed connection
- Built-in wide-beam antenna
- FCC and ETSI certified



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## SUBSCRIBER UNIT SPECIFICATIONS

| Model                   | WaveBolt™ Subscriber Unit                         |
|-------------------------|---|
| RF Frequency            | 2400 to 2483 MHz                                  |
| Radio Certification     | FCC 15.247 and ETSI 300.328 rules, license free   |
| Typical Range           | 3 to 8 kilometers (2 to 5 miles), line of site    |
| Radio Network Topology  | Star Network                                      |
| Radio Network Protocol  | Dynamically assigned TDMA with ARQ                |
| I/O Interface           | 10 BaseT  |
| I/O Data Rate           | 921 Kbps  |
| Over-the-Air Data Rate  | 1.2288 Mbps                                       |
| # of frequency channels | 43  |
| RF bandwidth            | 1.7 MHz   |
| Antenna                 | Built-in 6 dB patch                               |
| Transmit Power Output   | +16 dBm EIRP or +24 dBm EIRP, software selectable |
| Receiver Sensitivity    | -96 dBm   |
| Supply Voltage          | 100/240VAC 50/60 Hz                               |
| Power Consumption       | <2 W  |
| Size                    | 130 mm x 82 mm x 36 mm                            |
| Weight                  | 1.4 kg (including 31 meters (50 ft) cable)        |
| Case Material           | UV Stabilized Polycarbonate, IP 66, NEMA 4X rated |
| Operating Temperature   | -40° C to +70° C                                  |
| Humidity                | 20% to 90% non-condensing                         |
| <b>Connectors</b>       | Power – 2 Pin DIN    Data – RJ-45                 |
| <b>Indicators</b>       | Power, Carrier Detect                             |

## COMPONENTS

- Outdoor radio with mounting bracket and built-in antenna
- Ethernet Adapter Module with RJ-45 Jack and CAT5 pigtail
- 50 feet of SU to Adapter Module Cable
- 100VAC/240VAC 50Hz/60Hz Wall-mount Power Supply



Brought to you by:



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