



# SkyWay™ Series

High Speed/Long Range Wireless Bridge/Router  
Version 1.0

## SkyWay – The Long Distance Connection

*SkyWay is a series of wireless products that allow you to set up high-speed, wide area networks over unprecedented long distances. Unlike any other bridge/router on the market today, SkyWay gives you the power to establish LAN-to-LAN connections over distances of up to 30 miles (48 Km) – with superior performance. Moreover, each SkyWay product is a compact, single, integrated outdoor unit designed to withstand harsh environments. No more indoor boxes and outdoor radio transmitters. SkyWay can be mounted up to 4000 feet (1200m) away from the LAN. These and other features now allow you to quickly enjoy money by having to deploy far less equipment to cover your service area. Service providers can enjoy SkyWay's flexible management of network resources to offer their customers superior services at less cost.*

## Point-to-Point or Multi-Point Applications

*SkyWay products can be used anywhere high speed data transfer or internet access is required including corporate offices, educational campuses, healthcare facilities, manufacturing, or retail. Configurations can be set for Point-to-Point or Multi-Point applications.*

*Each SkyWay unit can function as a base station (central site), a substation (remote site), or either end of a point-to-point link. Solectek's broad selection of antennas ensures that desired radio coverage can be obtained.*

## Remote Operations

*With SkyWay Series Products, all management functions, monitoring, and software updates can be performed remotely from any desired location.*

## Support

*Solectek offers a world-wide network of factory trained resellers as well as on-site and on-line technical assistance programs.*

## NOTICE:

**We are already working on exciting upgrade features that can be uploaded / downloaded remotely. Please refer to the document titled "SkyWay's Upcoming Features" for further details.**

(3/13/00)

## PRODUCT FEATURES

- Up to 11 Mbps Wireless Data Rate (up to 64 Sub-Stations)
- Links of Distances up to 30 Miles (48 Km)
- Single, ruggedized, mast-mounted unit (UL Outdoor rated)
- Optional Fiber Link for Extra Long Distances or EMI Protection
- Bridging and Static IP Routing
- SNMP Compliant
- Fiber and Copper Ethernet Options
- Remote Software Updates via TFTP, X-modem, or Y-modem
- FCC, Industrie Canada, ETSI, and UL certified
- Milspec Connectors / Industrial Components for ultra-reliable service
- Supports AC or 48 DC Voltage

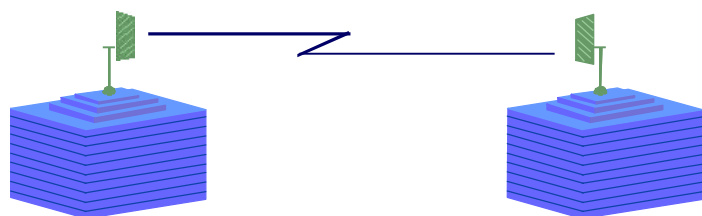


# SkyWay Specifications:

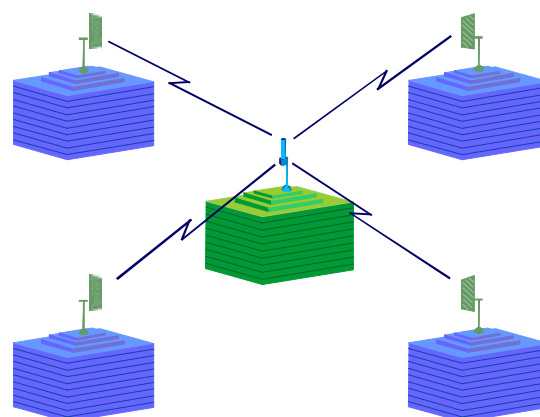
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| <b>Features and Interfaces:</b>                           |  |
|---|--|
| <b>RF Modem Speeds:</b>                                   | 11 Mbps, 5.5 Mbps and 2 Mbps (by menu selection).  |
| <b>RF Protocol:</b>                                       | Solectek polling protocol for reliable links of any distance without RF "signal capture" or "hidden node" effects.   |
| <b>Wide Area Network Architectures:</b>                   | Point-to-Point (one-to-one) and/or Multi-Point (one-to-many), 64 substations max, standard with all SkyWay models. Multiple systems may be co-located and run back-to-back to extend link distances and/or cover multiple sectors from the same mast.  |
| <b>Wireless Link Distance:</b>                            | Up to 30 miles (48 Km) per pair with clear radio line of sight depending on antenna selected. All equipment ( <i>except antennas and cables</i> ) included with standard system. No additional amplifiers required.  |
| <b>Media Interfaces, Bridging, and Routing Protocols:</b> | IEEE 802.3 Ethernet; IEEE 802.1D Spanning Tree, transparent MAC layer bridging, IP static routing.   |
| <b>LAN Operating System Compatibility:</b>                | Compatible with all major Ethernet LAN operating systems including Novell Netware, Microsoft NT, DEC Pathworks, Banyan Vines, LAN Manager, and UNIX Systems.   |
| <b>LAN Interfaces:</b>                                    | Ethernet: 10/100 Mbps twisted-pair [Option: 100 Mbps multi-mode fiber.]  |
| <b>Management Capabilities:</b>                           | <ul style="list-style-type: none"> <li>– SNMP MIB II, Custom MIB in-band</li> <li>– TFTP in-band</li> <li>– RS-422, ANSI Console, X-modem, Y-modem</li> </ul>  |
| <b>Radio Characteristics:</b>                             |  |
| <b>Frequency:</b>   | 2.4 to 2.4835 GHz  |
| <b>Radio Channels:</b>                                    | Center Frequency : from 2408 to 2468 MHz @ 6 MHz intervals – 11 channels   |
| <b>RF Coding:</b>   | Direct Sequence Spread Spectrum (DSSS)   |
| <b>Bit Error Rate (BER):</b>                              | <ul style="list-style-type: none"> <li>– 11 Mbps – <math>1 \times 10^{-8}</math> @ -83 dBm</li> <li>– 5.5 Mbps – <math>1 \times 10^{-8}</math> @ -86 dBm</li> <li>– 2 Mbps – <math>1 \times 10^{-8}</math> @ -90 dBm</li> </ul>  |
| <b>RF Security Codes:</b>                                 | 128 variations available   |
| <b>Radio License Required:</b>                            | No user license required   |
|   | Certified for user installation and unlicensed operation per FCC 15.247 and FCC 15.203   |
| <b>Hardware:</b>  |  |
| <b>Chassis Type:</b>                                      | Single, sealed, mast-mounted unit. UL Outdoor certifications   |
| <b>Chassis Specifications:</b>                            | 8.5" W x 14" L x 3.5" H (.21m W x .35m L x .08m)   |
| <b>Chassis Environmental:</b>                             | -30C to +70C   |
| <b>Power Supply:</b>                                      | Input: Autosensing 100-250 VAC / Output: +48 VDC   |
| <b>Power Consumption:</b>                                 | .5 amps @ 48 VDC   |
| <b>Certifications:</b>                                    | FCC Class A, UL Outdoor  |
| <b>SkyWay to Antenna Cable:</b>                           | 8 foot (2.4 m) chassis-to-antenna cable supplied.  |
| <b>SkyWay to Hub/Router Cable:</b>                        | Standard cable available in lengths of 100 ft., 200 ft. and 300 ft. (30m, 60m and 90m)   |
| <b>Antennas:</b>  | SkyWay is FCC certified and can be configured for point-to-point or multipoint applications with various types of grid, flat panel, sectoral, and omni directional antennas. Specific configurations are dependant on wireless link distance and application requirements. Antennas sold separately. |
| <b>Options:</b>   | 100 Base-FX fiber, or country-specific RF power levels (e.g. ETSI for Europe).   |

## Configuration Examples:



Point-to-Point Configuration



Multi-Point Configuration

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*"The Wireless Networking Company"*