

SKYWAY 7000 SERIES

5.8GHZ BROADBAND WIRELESS



THE SKYWAY 7000 HIGH POWERED BRIDGE/ROUTER IS EQUIPPED WITH A 400MW OFDM RADIO THAT PROVIDES A DISTINCT ADVANTAGE BEYOND WHAT MAY BE EXPECTED FROM OTHER 5.8GHZ PRODUCTS. SOLECTEK, CONTINUING TO MAXIMIZE THE POTENTIAL OF WIRELESS, OFFERS THE SKYWAY 7000, AN ENTERPRISE-CLASS SOLUTION FOR SUPERIOR RANGE, THROUGHPUT AND FUNCTIONALITY.

TECHNOLOGY SUMMARY

Continuing Solectek's tradition in high throughput, long distance wireless networking, the SkyWay 7000 Series builds upon the successful SkyWay Series products with a new, higher performance 5.8GHz wireless system.

With data rates to **108 Mbps and up to 400 mW of RF power**, SkyWay 7000 delivers more capacity, farther than ever before. Such capability allows end-users to download large data files, high resolution images, video clips, and MP3 files within a matter of seconds. Streaming video and multiple VoIP connections can now be delivered or backhauled seamlessly.

Orthogonal Frequency Division Multiplexing (OFDM) technology delivers a wealth of benefits: high spectral efficiency supports class leading data rates while allowing multiple, nonoverlapping channels. OFDM is also capable of robust operation in **near or non-line-of-sight (NLOS)** link conditions, relaxing the stringent installation requirements associated with more traditional fixed wireless equipment.

Quality of Service (QoS) features within the SkyWay 7000 architecture allow tagged voice and video traffic to take priority over general data packet transfer, providing reliable, real-time capability even under congested link conditions. Priority privileges for marked frames are maintained from port to port: Ethernet through RF.

With **security** remaining a key consideration in many applications, the SkyWay 7000 delivers **128 bit AES encryption / decryption at full line speed**. The AES algorithm was selected to be the standard encryption method of the US Government by the National Institute of Standards and Technology (NIST)

Physically, the SkyWay 7000 Series is fully integrated. The network engine, digital baseband, radio and antenna are all combined into a single, weatherized outdoor chassis, complete with **Power over Ethernet (PoE)** support. Guaranteed operational from -30C to +60C, the product can be installed at any convenient outdoor location needing only inexpensive Ethernet CAT5 cable for connection to an indoor network switch. To further assist installation, an **integrated spectrum analyzer** and **audible antenna alignment function** are provided as standard features.

The SkyWay 7000 is truly an enterprise class system that comes complete with full function bridge/router software and extensive network protocol and network management support.

Combining a high power, 108 Mbps OFDM radio with a high performance, QoS based bridge/router engine, the SkyWay 7000 Series is a powerful, yet easy-to-use product for all of your point-to-point and multipoint broadband wireless needs.

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SKYWAY 7000 SERIES SPECIFICATIONS

5.8GHZ BROADBAND WIRELESS

POINT TO POINT PERFORMANCE	SkyWay 7101	SkyWay 7301	SkyWay 7501
Link Distance*	4 Miles	15 Miles	30 Miles
Radio Power*	50mW	400 mW	400 mW

MULTIPOINT PERFORMANCE	SkyWay 7100	SkyWay 7300	SkyWay 7500
Link Distance*			
using sectoral base station (SkyWay 7600)	2 Miles	5 Miles	8 Miles
using omni base station	1 Mile	3 Miles	4.5 Miles

RADIO	
Data Rate*	108 Mbps, 72 Mbps, 54 Mbps, 36 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps
Modulation	OFDM - BPSK, QPSK, 16QAM, 64QAM
Media Access	Prioritized CSMA/CA
Frequency	5.470 - 5.875 GHz, country dependent
DC Power	+48Vdc / 0.8A, via Power-over-Ethernet, indoor DC injector (included)

NETWORKING	
Ethernet	10/100Base-T, Auto-negotiating, Full/Half duplex, up to 100m separation between radio and network closet
QoS	Line speed packet inspection of 802.1p, IP ToS, IP DiffServ tags 4 queue prioritization engine RF MAC prioritization
Frame Aggregation	Dynamic, User enable/disable
Protocol Support	Transparent MAC layer bridging, IP Static Routing, RIP v1/v2 Transparent VLAN (802.1q)
Management	HTTP Web Server, FTP, VLAN, SNMP v1/v2 with trap support and custom MIB, custom Event Log, Integrated Spectrum Analyzer, Audible Tone Alignment Function
Security	
Encryption	Hardware accelerated, line speed 128-bit AES & 64, 128, 152-bit WEP
Authentication	MAC address-based access control
Channel Plan	Non-standard

MECHANICAL			
Configuration	Outdoor, Integrated Unit	Outdoor, Integrated Unit	Outdoor Integrated Unit
Size	13" x 13" x 2.5"	13" x 13" x 2.5"	18" x 18" x 3.5"
Weight	7.5 lbs	8.0 lbs.	14 lbs.
Pole Mount Adapter	2-Axis Adjustment, Accommodates 1-3" pole diameter		

ENVIRONMENTAL			
Temperature	-30° to +60° C		
Humidity	0-100% condensing		
Water/Dust	Meets IP67 requirements		
Lightning Suppression	Integrated, IEC 61000-4-5 Class 5 compliant		
Wind	125 MPH survivability, 110 MPH operation		
Wind Load @ 125 MPH	83 lbs.	83 lbs.	128 lbs.

REGULATORY	
Radio Compliance	FCC CFR47, 15.247 Industrie Canada RSS 210 China MII [2002] 277 EU: EN 60950-1, EN 61000-3-2, EN 61000-3-3, EN 301 489-1, EN 301 893 Mexico NOM; Cofetel (pending)

* Note: System performance and link distance for 36 Mbits/sec RF link rate setting. Throughput and link distance may be lower under NLOS conditions. Radio Power and data rate settings are subject to changes according to the country of installation.