

SkyWay-7000 Series

Powered by
SOLECTEK

Outdoor
SkyWay 7000
Series

5.8GHz

PTMP

PTP

Super A

OFDM

QoS

Near-LOS

TECHNOLOGY SUMMARY

Continuing WNI Global's tradition in high throughput, long distance, wireless networking, and the SkyWay 7000 Series builds upon the successful SkyWay Series products with a new, higher performance 5.8 GHz 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, non-overlapping 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 -30°C to +60°C, 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.

PRODUCT HIGHLIGHTS

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



SkyWay-7000 Series

SPECIFICATIONS

POINT TO POINT PERFORMANCE			
	SKYWAY 7101	SKYWAY 7301	SKYWAY 7501
Link Distance*	4 miles	15 Miles	30 Miles
RF Power Output	50 mW	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, 9M bps, 6 Mbps		
Modulation	OFDM – BPSK, QPSK, 16QAM, 64QAM		
Media Access	Prioritized CSMA/CA		
Frequency	5.440 – 5.875 GHz, country dependent		
DC Power	+48 VDC / 0.8A, via Power-over-Ethernet, indoor DC injector (included)		
NETWORKING			
Ethernet	10/100Base-T, Auto-negotiating, Full/Half duplex, up to 100 m separation between radio and network closet		
QoS	Line speed packet inspection of 802.1p, IP ToS, IP DiffServ tags		
Frame Aggregation	Dynamic, User enable/disable		
Protocol Support	Transparent MAC layer bridging, IP Static routing, RIP v1/v2 4 queue prioritization engine RF MAC prioritization		
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" 330 x 330 x 64 mm	13" x 13" x 2.5" 330 x 330 x 64 mm	18" x 18" x 3.5" 457 x 457 x 89 mm
Weight	7.5 lb; 3.4 Kg	8.0 lb; 3.6 Kg	14 lb; 6.4 Kg
Pole Mount Adapter	2-Axis Adjustment, Accommodates 1-3" (25-76 mm) pole diameter		
ENVIRONMENTAL			
Operating Temperature Range	-30°C 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 (201 kmh) survivability, 110 mph (177 kmh) operation		
Wind Load @125 mph (201 kmh)	83 lb (38 Kg)	83 lb (38 Kg)	128 lb (58 Kg)
REGULATORY			
Radio Compliance	FCC CFR47, 15.247 Industry 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		

* Note: System performance and link distance for 36 Mbps RF link rate setting. Throughput and link distance may be lower under NLOS conditions. Power and data rate setting are subject change according to the country of installation. All specifications are subject to change without notice.



WNI GLOBAL, Inc.

3064 Scott Blvd
Santa Clara, CA 95054

Tel: +1 408 982-9454

Fax: +1 408 982-9456

URL: www.wniglobal.com

Copyright © 2006-10 WNI Global, Inc. all rights reserved. No part of this publication may be reproduced, adapted, stored in a retrieval system. Specifications are subject to change without notice.