Consisting of an all-outdoor, single sector base station and multiple subscriber configurations (integrated antenna or N-Connector for external antenna), the Tsunami MP.16 family offers the most scalable, best value WiMAX certified system for the 3.5 GHz frequency band. Like all products, the MP.16 3500 continues to offer a comprehensive feature set to future-proof wireless networks.

- Housed in a ruggedized enclosure, the 3500 can be deployed in extreme weather conditions
- Frequency support for 3.5 GHz band
- Advanced revenue-enhancing features are standard – including flexible bandwidth provisioning for DSL, T1 or Ethernet-like tiered services

Scalable Networks

Proxim Wireless delivers a more scalable approach to system deployment, beginning with entry-level single-sector base stations and growing into six-sector macro base stations with GPS synchronization; this approach lowers the barrier to deploy WiMAX systems and enables a wider variety of service providers to use this technology, from rural providers requiring less dense configurations to metropolitan providers who need to support more nodes at closer range.

We are the only vendor in the world who can enable a truly scalable broadband wireless network. Only Proxim delivers a complete portfolio of additional technologies designed to augment WiMAX; Proxim also offers in-building enterprise Wi-Fi solutions, as well as Wi-Fi mesh for the outdoor edge of a network, connecting to WiMAX for infrastructure and even wireless Gigabit for backhaul.

Experienced in WiMAX Applications

Drawing on leadership in the point-to-multipoint arena, the 3500 products have been developed as platforms to leverage these applications. By leveraging the established Tsunami MP.11 product line, Proxim can evolve its expertise in serving the Service Provider markets with a product that is certified by the WiMAX forum.

- Leveraging existing software features, mechanical designs and customer channels poise Proxim Wireless to effectively address the WiMAX markets such as:
    - Cost-effective last mile access
    - Security and surveillance
    - Metropolitan networks
- Investment protection through common concept of network design and software feature sets, which includes rich management capabilities, most advanced encryption with AES and authentication via RADIUS, antenna alignment utility, and revenue-enhancing services with bandwidth control*

Advanced Security Protects Privacy

Multiple security mechanisms protect operator, residential customer and enterprise privacy.

- Weatherized enclosure allows co-location on rooftops – limiting physical access
- Advanced encryption protects over-the-air transmission*
- Client authentication with X.509 certificates*
- Password protection of all remote management methods
- Easy integration with existing RADIUS systems for subscriber provisioning*

Designed for Fast Installation and Lower Maintenance Cost

The 3500 incorporates hardware and software features that reduce labor costs associated with initial deployment and post-sales maintenance.

- Provides consistent deployment & user experience to Tsunami MP.11 product via an easy-to-use graphical interface
- Single UV-shielded CAT5 cable carries power and data
- Decrease Subscriber Unit configuration time with integrated and vertical/horizontal polarized antennas
- Eliminate guess work in locating the remote antennas with audible tone* and real-time signal strength measurements
- Support for both local and remote management, removing the need for expensive on-site supports

Intel Rosedale™-based SolutionGuarantees Interoperability

- End-to-end Intel based solution ensures maximum WiMAX compatibility

Requires v2.0 software upgrade

CONFIGURATIONS/ MODELS	3500-B00-EU0, 3500-B00-UK0, 3500-BOO-AMO – MP.16 3500 Base Station 3500-S00-EU0, 3500-S00-UK0, 3500-S00-AM0 – MP.16 3500 Subscriber Station 3500-S00-EU1, 3500-S00-UK1, 3500-S00-AM1 – MP.16 3500i Subscriber Station	
WIMAX COMPLIANCE	IEEE 802.16-2004 (WiMAX profile 3.5T1)	
WARRANTY	1 Year Parts and Labor	
FREQUENCY	3.400 GHz to 3.600 GHz	
DUPLEXING MODE	TDD	
CHANNEL BANDWIDTH	3.5 MHz and 7 MHz	
INTEGRATED ANTENNA	Gain	18 dBi (3500 dBi only)
ANTENNA PORT	Connector	N-Female, 50 ohms
DATA COMMUNICATION PORT	Standard Connector	10/100 Base-TX Ethernet, Manual/Auto Negotiate, Half/Full Duplex RJ-45
SERIAL PORT / GPS PORT	RJ-45 Connector	
NLOS & INTERFERENCE MITIGATION FEATURES	OFDM 256 FFT, Adaptive Modulation, FEC	
OUTPUT POWER (AT ANTENNA PORT)	Output Power User Attenuation Control	Up to 21 dBm* Maximum BS Output Power configurable to 5-21 in one dB steps
MODULATION	OFDM modulation, 256 FFT points; BPSK, QPSK, 16QAM, 64QAM	
FRAME DURATION	2, 10 and 20 ms	

RADIO PERFORMANCE	3.5 MHz	Modulation & FEC	Rx Sensitivity (10^6)	Minimum C/I	Spectral Efficiency	Burst Data Rate, Mbps Tg/Tb = $1/16$
		BPSK- $1/2$	-95 dBm	4.5 dB	0.5 bps/Hz	1.4 Mbps
		QPSK- $1/2$	-92 dBm	6.6 dB	1 bps/Hz	2.8 Mbps
		QPSK- $3/4$	-90 dBm	8.9 dB	1.5 bps/Hz	4.2 Mbps
		16QAM- $1/2$	-87 dBm	11.9 dB	2 bps/Hz	5.6 Mbps
		16QAM- $3/4$	-84 dBm	15.2 dB	3 bps/Hz	8.5 Mbps
		64QAM- $2/3$	-80 dBm	19.3 dB	4 bps/Hz	11.3 Mbps
		64QAM- $3/4$	-78 dBm	21.3 dB	4.5 bps/Hz	12.7 Mbps
	7 MHz	BPSK- $1/2$	-92 dBm	4.5 dB	0.5 bps/Hz	2.8 Mbps
		QPSK-$1/2$	-89 dBm	6.6 dB	1 bps/Hz	6.6 Mbps
		QPSK- $3/4$	-87 dBm	8.9 dB	1.5 bps/Hz	8.5 Mbps
		16QAM- $1/2$	-84 dBm	11.9 dB	2 bps/Hz	11.3 Mbps
		16QAM- $3/4$	-81 dBm	15.2 dB	3 bps/Hz	16.9 Mbps
		64QAM- $2/3$	-77 dBm	19.3 dB	4 bps/Hz	22.6 Mbps
		64QAM- $3/4$	-75 dBm	21.3 dB	4.5 bps/Hz	25.4 Mbps

LOCAL MONITORING	Serial/CLI RJ45 Port; Logging feature which logs to serial port, flash, RAM, or a syslog server	
REMOTE MONITORING	Telnet/CLI, HTTP, TFTP; SNMP v1, v2 (MIBII, Proxim MIBs, Bridge MIB, RIPv2 MPB, 802.16 MIB, Etherlike MIB)	
REMOTE MGMT ACCESS	Wired-LAN or over-the-air	
PASSWORD	Multi-Level Password (user, administrator, installer, factory, engineering)	
SUBSCRIBER AUTHENT.	X509v3 digital certificate; Radius Authentication and Provisioning; MAC Address Table	
VLAN	Support for 802.1Q VLAN tagging and filtering; Support for transparent passing of 802.1Q-compliant VLAN tagged frames	
QOS	Asymmetric Bandwidth Control:	Uplink and Downlink CIR Control "committed information rate" per service flow Uplink and Downlink MIR Control "maximum information rate" per service flow
	Packet Classification Capabilities:	802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/destination address,IP protocol, and Ethertype
	Scheduling:	Best Effort, Universal Grant Services, Traffic is scheduled per service flow, enabling min/max bandwidth, priority, jitter and latency control for voice, video and data

	Outdoor Radio Unit (SS and BS)	Indoor Power Injector
OPERATING TEMPERATURE	-40 to +60 C	0 to +40 C
WEIGHT	5.3 lbs	2.7 lbs
DIMENSIONS	Packaged (BS, SSR): 14.57 x 13.70 x 8.19 in	5.12 x 3.62 x 2.64 in
SAFETY STANDARDS	EN 60950 (CE)	UL 1950 D3; CSA 22.2 No.950 or CUL; VDE EN60950 or TUV
EMI STANDARDS	RSS-210 (Canada), ETS EN 301 489-1, ETS 301 021, TS2 (SS), ETS 302 085 CS2 (BS)	Conduction: FCC docket 20780 curve "B"ETS 302 085 VDE 0871 curve" B Radiation: FCC class "B"
STATIONS	**BASE STATION:** Tsunami MP.16 Base Station Radio Indoor Subscriber Station Power Injector 4" Pole Mount Bracket Serial Dongle for Antenna Alignment Cable Termination Kit Quick Installation Guide CD-ROM containing User Documentation Indoor Base Station Power Injector	**SUBSCRIBER STATION:** Tsunami MP.16 Subscriber Radio (either with Type-N or Integrated Antenna) 4" Pole Mount Bracket Cable Termination Kit Power Cord (for Indoor Power Injector) Printed Quick Installation Guide
ACCESSORY AND SPARE KITS	Spare Power DC Injector (69823) ; Surge Arrestor 5 GHz - Standard-N Female to Female (5054-SURGE) PoE (Power Over Ethernet) Surge Arrestor (70251); MP.16 3.5 GHz Antenna	

* May have to be adjusted to comply with regulatory requirements of different countries. Please refer to user documentation for more information.

APPLICATIONS

- *Security and Surveillance Wireless solutions for bandwidth-intensive and high-definition IP-surveillance cameras located at important city and transportation infrastructure such as airports, bridges and trains*

- *Business and Residential Last-Mile Access Competitive broadband service access alternative to DSL or cable modems for residences and business*

- *Broadband service access for businesses and residences in developing countries and regions where cable infrastructure is not an option*

- *Metropolitan Area Networks Secure and reliable backhaul of Wi-Fi Mesh cells*