The Tsunami MP.16 3650 offers WISPs and service providers the most scalable and cost-effective system for taking advantage of the 3.65 GHz frequency band. The MP.16 3650 consists of an all-outdoor, single sector base station and multiple subscriber configurations (integrated antenna or N-Connector for external antenna). And like all Proxim products, the MP.16 3650 continues to offer a comprehensive feature set to future-proof wireless networks, including:

- Ruggedized enclosure, enabling the 3650 to be deployed outdoors at any customer location, without requiring a temperature controlled environment

- Frequency support for 3.65 GHz band

- AES Security

- Advanced revenue-enhancing features are standard – including flexible bandwidth provisioning for DSL, E1 or Ethernet-like tiered services

Outdoor Broadband Wireless Access
Proxim Wireless offers the industry's most complete suite of outdoor broadband wireless access products. This portfolio includes:

- **Tsunami™ MP.11 –**
  Capabilities of fixed and mobile WiMAX for U.S. and global markets

- **Tsunami™ MP.16 –**
  WiMAX for the 3.3, 3.5, and 3.65 GHz frequency band

- **ORiNOCO® AP-4000MR –**
  Outdoor Wi-Fi mesh for service providers and municipalities

Proxim Wireless is a global pioneer of end-to-end broadband wireless systems that deliver the quadruple play. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, WiMAX and point-to-point products are available through our extensive global channel networks.

Advanced Security Protects Privacy

Proxim's MP.16 3650 utilizes multiple advanced security features to protect operator, residential customer and enterprise privacy.

- AES 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

Quick Installation and Reduced Maintenance Cost

The MP.16 3650 incorporates hardware and software features that reduce labor costs associated with initial deployment and post-sales maintenance.

- Provides consistent deployment & user experience to existing Tsunami MP.16 products via an easy-to-use graphical interface

- Single UV-protected 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

- Supports for both local and remote management, removing the need for expensive on-site supports

Scalable, End-to-End Wireless Networks

Proxim 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 – combined with the support for the open 3.65 GHz range of spectrum – lowers the barrier to deploy WiMAX systems and enables a wider variety of service providers to use this technology. Regardless of whether a provider is deploying in a rural area or a densely populated metropolitan area, Proxim's MP.16 3650 solutions provide the optimal solution for licensed 3.65 GHz networks.

In addition to the MP.16 3650 equipment, Proxim delivers a complete portfolio of additional technologies designed to augment WiMAX networks. Proxim also offers enterprise WLAN, Wi-Fi mesh and point-to-point technologies, enabling the connection of 3.65 GHz WiMAX networks to in-building or outdoor Wi-Fi as well as enabling the use of either WiMAX or even Gigabit wireless point-to-point for backhaul.

CONFIGURATIONS/ MODELS	3650-B00-AM0, 3650 – MP.16 3650 Base Station 3650-S00-AM0, 3650 – MP.16 3650 Subscriber Station - connectorized 3650-S00-AM1, 3650 – MP.16 3650i Subscriber Station – integrated antenna
WARRANTY	1 Year Parts and Labor
FREQUENCY	3.65 GHz to 3.675 GHz
DUPLEXING MODE	TDD
CHANNEL BANDWIDTH	3.5 MHz and 7 MHz
INTEGRATED ANTENNA GAIN	18 dBi
ANTENNA PORT CONNECTOR	N-Female, 50 ohms
DATA COMMUNICATION PORT CONNECTOR	RJ45 - 10/100 Base-Tx Ethernet, Manual/Auto Negotiate, Half/Full Duplex
SERIAL PORT / GPS PORT	RJ-45 Connector
NLOS & INTERFERENCE MITIGATION FEATURES	OFDM 256 FFT, Adaptive Modulation, FEC
OUTPUT POWER (AT ANTENNA PORT)	Up to 21 dBm
USER ATTENUATION CONTROL	Maximum BS Output Power configurable to 5-21 in one dB steps
MODULATION	OFDM modulation, 256 FFT points; BPSK, QPSK, 16QAM, 64QAM
FRAME DURATION	5, 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 or a syslog server
REMOTE MONITORING	SSH/CLI, HTTPS, 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
SUBSCRIBER AUTHENT.	X509v3 digital certificate; 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	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 Base Station Power Injector with power cord 4" Pole Mount Bracket Cable Termination Kit Quick Installation Guide Serial Dongle for Antenna Alignment CD-ROM containing User Documentation	SUBSCRIBER STATION: Tsunami MP.16 Subscriber Radio (Type-N or Integrated Antenna) Indoor Subscriber Station Power Injector with power cord 4" Pole Mount Bracket Cable Termination Kit 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 3.65 GHz Antenna	

APPLICATIONS

- **Security and Surveillance -** Wireless solutions for bandwidth-intensive and high-definition IP video surveillance for building, cities or important 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 networks

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