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.
## Technical Specifications

**APPLICATIONS**

- **Security and Surveillance** - Wireless solutions for bandwidth-intensive and high-definition IP video surveillance for buildings, 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

### Tsunami MP.16 3650

**CONFIGURATIONS/MODELS**

- 3650-B00-AM0, 3650 – MP16 3650 Base Station
- 3650-S00-AM0, 3650 – MP16 3650 Subscriber Station - connectorized
- 3650-S00-AM1, 3650 – MP16 3650A Subscriber Station – integrated antenna

**WARRANTY**

1 Year Parts and Labor

**FREQUENCY**

3.65 GHz to 3.675 GHz

**AIR LINKING MODE**

TDG

**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**

RJ45 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

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

**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 CR Control "committed information rate" per service flow

Packet Classification Capabilities:

802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, 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

**OPERATING TEMPERATURE**

-40°C to +70°C

**WEIGHT**

5.3 lbs

**DIMENSIONS PACKAGED**

14.57 x 13.70 x 8.19 in

**SAFETY STANDARDS**


**EMI STANDARDS**

EN 55022 - 1998 (EMC), EN 10204 (CS), EN 55024 - 1998

**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

**ACCESSORY AND SPARE KITS**

- Spare Power DC Injector (69823) ; Surge Arrester 5 GHz - Standard-N female to female (5054-SURGE) PoE (Power Over Ethernet) Surge Arrester (70251), MP16 3.65 GHz Antenna

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