



Tsunami[®] MP.11 Subscriber Unit

Wireless Product Portfolio

- **Tsunami[®] 8000 Series** – PtP & PtMP product line delivering 300 Mbps plus data rate
- **Tsunami[®] .11 Series** – Our best selling Point-to-point and multipoint product line
- **Tsunami[®] GX800**– Carrier-class IP Ethernet bridge for voice and data backhaul for service providers and enterprise applications
- **Tsunami[®] QB 62000**– High capacity, small footprint PtP backhaul solution with 1Gbps throughput
- **ORiNOCO[®] AP** - The industry's highest performance 802.11a/b/g/n access points

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

The industry-leading Tsunami[®]MP.11 product line – providing the capabilities of fixed and mobile WiMAX for license-free frequency bands worldwide – has been extended to include an economical series of subscriber units ideal for large scale wireless deployments.

Proxim Wireless is a leader and an early innovator in wireless technology for providing high-speed, long-range broadband wireless access to complement Wi-Fi[®] networks. The MP.11 product line has enabled municipalities and service providers to bridge the digital divide, increase productivity, cut network costs, and create new business opportunities — all through features for license-free frequency bands worldwide. Consisting of an outdoor form factor, the 5012 series of subscriber units is designed specifically for the residential market and accelerates the service provider's break-even point, making this product ideal for large-scale wireless deployments.

MP.11 5012 Subscriber Unit Features:

- Throughput comparable to or better than cable/DSL: 12 Mbps aggregate throughput
- Aggressive ROI and fast payback for large-scale deployments
- Power over Ethernet support
- Designed for quick and easy installation – Unit contains 18 dBi integrated antenna
- Compatible with existing MP.11 5054, 5054-R, and 5054-R-LR Base Station Units. Use the 5054-RLR for extended frequencies above 5.95 GHz

MP.11 System Features:

- License-free and licensed frequency bands worldwide: supports 5.15-5.35 GHz, 5.47-5.725 GHz, 5.725-6.08 GHz frequency bands.
- Scheduled media access controller (MAC), also known as polling: enables a base station to hear all subscriber units, preventing nodes from interfering with each other and increasing system throughput
- Orthogonal frequency division multiplexing (OFDM): enhances non-line-of-sight performance improving deployment in challenging areas
- Quality of Service (QoS): supports voice, video and data converged networking
- RADIUS-based bandwidth management: deliver multiple service plans
- Asymmetric bandwidth management: increases service provider revenue through creation of uplink bandwidth tiers
- Dynamic Data Rate Selection (DDRS): maximizes subscriber coverage by allowing each subscriber to receive the maximum data rate possible
- Dynamic Frequency Selection (DFS): prevents interference with other systems; for 5.4 GHz, MP.11 has achieved ETSI EN 301-893 v1.3.1 certification
- Security: advanced encryption with AES protects over-the-air transmission; intracell blocking forbids direct communication between subscriber units
- Deployment tools: antenna alignment and remote management and configuration eliminate the need for truck rolls

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| PRODUCT MODELS | |
| 5012-SUR-XX | Tsunami MP.11 Model 5012 Outdoor Subscriber Unit with 18 dBi Integrated Antenna |
| INTERFACES | |
| WIRED ETHERNET | Wired Ethernet 10/100Base-TX Ethernet (RJ-45) |
| RADIO & TX SPECS | |
| MODULATION | OFDM |
| FREQUENCY | Americas (FCC): 5.25-5.35 GHz (15 channels) Americas (FCC): 5.725-5.850 GHz (21 channels) Europe (ETSI): 5.47-5.725 GHz (46 channels) Europe (Russia): 5.15-6.08 GHz (185 channels) Europe (Licensed in the UK): 5.725- 5.850 GHz (21 channels) |
| DATA RATE | 54, 48, 36, 24, 18, 12, 9, 6, 4.5, 3, 2.25, 1.5 Mbps |
| TX POWER | Up to 18 dBm |
| THROUGHPUT | Maximum 12Mbps |
| ANTENNA | 5012-SUR: 18 dBi integrated antenna |
| MANAGEMENT | |
| LOCAL | RS-232 serial (RJ11 to DB-9 dongle provided) |
| REMOTE | Telnet WebGUI , TFTP |
| SNMP | SNMPv1/v2; MIB-II ; Ethernet-like MIB; BridgeMIB; 802.3MAU; 802.11 MIB; Private MIB; ORINOCO MIB; RFC 1157; RFC 1213; RFC 1643; RFC 1493; RFC 2668 |
| ELECTRICAL | |
| INPUT | 110 to 240 VDC power 5V (SUI Only) |
| POWER OVER ETHERNET | Via RJ-45 Ethernet interface port 802.3af compliant |
| ENVIRONMENTAL SPECS | |
| TEMPERATURE | |
| OPERATING | -44° to 80°C |
| STORAGE | -33° to 60°C |
| HUMIDITY | Max 100% (non-condensing) |
| PHYSICAL SPECS | |
| DIMENSIONS | |
| LxWxH | PACKAGED 13.9 x 11.1 x 6.1 in (353 x 282 x 155 mm) UNPACKAGED 4.0 x 8.5 x 10.2 in (98 x 215 x 259 mm) |
| WEIGHT | |
| | UNPACKAGED 3.3 lbs (1.5 kg) PACKAGED 2.4 lbs (1.02 kg) |
| MTBF & WARRANTY | >100,000 hours; 1 year parts and labor |
| LED | Power, Radio Activity, Ethernet Activity |
| ADDT'L ACCESSORIES | Universal Mount Bracket for wall mount(1087-UMK), Active Ethernet Injector (4301-XX) |
| PACKAGE CONTENTS | <ul style="list-style-type: none"> ■ 5012-SUR Outdoor Subscriber unit with 18 dBi ■ integrated antenna, Band Clamps for pole mount, Quick ■ Install Guide and CD with documentation and regulatory guide |
| WARRANTY | 1-year on parts and labor; ServPak Extended Support available |
| PERFORMANCE AND SCALABILITY | |
| BEST-IN-CLASS PERFORMANCE | By eliminating in-the-air collisions and maximizing data content for each transmission, Wireless Outdoor Router Protocol (WORP) significantly improves performance |
| NEAR LINE OF SIGHT | Line of sight and near line of sight connectivity extends deployment flexibility in rural as well as high-density urban areas |
| QUALITY OF SERVICE (QoS) | |
| WiMAX 802.16 QoS | Supports up to 8 QoS Classes; Supports up to 8 Service Flows per class |
| TRAFFIC PRIORITIZATION PARAMETERS SUPPORTED | <ul style="list-style-type: none"> ■ IP ToS (Layer 3 QoS identification), IP Protocol List, 802.1p tag (Layer 2 QoS identification), Source IP Address+Mask, ■ Destination IP Address+Mask, Source TCP/UDP port ranges, Destination TCP/UDP port ranges, Source MAC addresses, ■ Destination MAC address, VLAN ID, Ether type |
| COMMITTED INFORMATION RATE | Users can set CIR for each Subscriber Unit |
| MINIMUM INFORMATION RATE (MIR) Support | User defined MIR |
| SECURITY | |
| UNICAST,MULTICAST ,BROADCAST STORM | User definable threshold levels prevent excessive bandwidth consumptions from degrading network control performance |
| PACKET FILTERING | MAC, Ether type, IP address filtering provides very granular network security |
| INTRACELL BLOCKING | Allows the BSU to act as the central policy enforcer for SU to SU communications, further enhancing subscriber units' privacy |
| WORP AS A SECURE PROTOCOL | Un-snoop able by wireless decryptors, WORP provides critical feature support for secure long-range wireless deployments in unlicensed frequency spectrum |
| SECURE ENCRYPTION AND AUTHENTICATION | Supports for WEP,WEP+ and AES 128 bit for over the air encryption and Radius for user authentication |
| INTERFERENCE MITIGATION TOOL | Variable Receive Threshold, Transmit Power Control and Dynamic Frequency Selection |
| LOWER COST OF OWNERSHIP | |
| DYNAMIC DATA RATE SELECTION | Automatically optimizes throughput as link conditions change or as subscribers roam;connectivity is automatically maintained when link quality degrades |
| REMOTE MANAGEMENT | Supports remote management via Telnet, SNMP and web interfaces with password protections |
| ANTENNA ALIGNMENT TOOL | Audible tone and CLI with running statistics displaying real-time signal strength ease antenna system installation |
| COMPREHENSIVE STATION STATISTICS NETWORK | Unit and group statistics are available for monitoring, planning and management of a wireless |

APPLICATIONS

- Last Mile Access**
 Competitive broadband service access alternative to DSL or cable for residences and T1 or Ethernet for businesses
- Metropolitan Area Networks**
 Secure and reliable connectivity between city buildings
- Emergency First Responders**
 Critical information delivery such as medical data and video feeds during in-progress events
- Enterprise Campus Connectivity**
 Extend the main network to remote offices, warehouses or other buildings without leased lines

For detailed technical specifications, please go to <http://proxim.com/products/point-to-multipoint/tsunami-mp11-5012>

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