Reduce Cost Barrier for Broadband Wireless Access

Tsunami® MP.11 5012 Subscriber Unit

**Wireless Product Portfolio**

- **Tsunami® 8200 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® GX-810** – Carrier-class IP Ethernet bridge for voice and data backhaul for service providers and enterprise applications
- **ORiNOCO® AP** - The industry’s highest performance 802.11a/b/g/n access points

Proxim Wireless is a global pioneer of broadband wireless systems that deliver the quadruple play of video, voice, data and mobility. Regardless of the application, our end-to-end product portfolio enables partners to custom-build the wireless solution that fits customer’s specific needs. Our 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 ideally suited 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
For detailed technical specifications, please go to http://www.proxim.com/products/point-to-multipoint/tsunamir-mp11-5012

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<th>PRODUCT MODELS</th>
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**INTERFACES**
- Wired Ethernet 10/100Base-TX Ethernet (RJ-45)

**PHYSICAL SPECS**
- Dimensions: LxWxH = 13.9 x 11.1 x 6.1 in (353 x 282 x 155 mm)
- Weight: 4.0 x 8.5 x 10.2 in (98 x 215 x 259 mm)
- Unpackaged: 3.3 lbs (1.5 kg)
- Packaged: 4.6 lbs (2.1 kg)
- Warranty: 1 year parts and labor; ServPak Extended Support available

**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

**PRODUCT MODELS**

**INTERFACE**
- Wired Ethernet: 10/100Base-TX Ethernet (RJ-45)

**MODULATION & TX SPECS**
- Frequency: Americas (FCC): 5.15-5.35 GHz (15 channels), 5.725-5.850 GHz (21 channels)
  - Europe (ETSI): 5.47-5.725 GHz (46 channels), 5.15-5.6 GHz (115 channels)
  - Europe (Russia): 5.15-5.6 GHz (115 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**
- SD12-SUR: 18 dB integrated antenna

**MANAGEMENT**
- RS-232 serial (RJ11 to DB-9 dongle provided)

**TENDRIL**
- Telnet WebGUI, TFTP

**SNMP**
- SNMPv1/v2, MIB II, EtherType, BridgeMIB, B02.1MAU, B02.11 MI, Private MIB, ORINOCO MIB, RFC 1157, RFC 1213, RFC 1493, RFC 268

**ELECTRICAL**
- Input: 110 to 240 VDC power 5V (SU Only)

**POWER OVER ETHERNET**
- Via RJ-45 Ethernet interface port B02.4af compliant

**ENVIRONMENTAL SPECS**
- Temperature: –40ºC to +80ºC
- Storage: –33ºC to 60ºC
- Humidity: Max 100% (non-condensing)

**PERFORMANCE AND SCALABILITY**
- By eliminating in-the-air collisions and maximizing data content for each transmission, Wireless Outdoor Router Protocol (WORP) significantly improves performance

**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

**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)**
- Supports up to 8 QoS Classes, Supports up to 8 Service Flows per class
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**TRAFFIC PRIORITIZATION PARAMETERS SUPPORTED**
- IP ToS (Layer 3 QoS identification), IP Protocol List, B02.1p 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**
- User can set CIR for each Subscriber Unit

**MINIMUM INFORMATION RATE**
- User defined MIR

**SECURITY**
- User definable threshold levels prevent excessive bandwidth consumptions from degrading network control performance
- MAC, Ether type: IP address filtering provides very granular network security
- Allows the BSU to act as the central policy enforcer for SU to SU communications, further enhancing subscriber units privilege
- Un-snoopy able by wireless decryptors, WORP provides critical feature support for secure long-range wireless deployments in unlicensed frequency spectrum
- Supports for WEP, WEP+ and AES 128 bit for over the air encryption and Radius for user authentication

**MULTIPLE ACCESS TECHNOLOGIES TOOLS**
- Variable Receive Threshold, Transmit Power Control and Dynamic Frequency Selection

**LOWER COST OF OWNERSHIP**
- Automatically optimizes throughput as link conditions change or as subscribers roam, connectivity is automatically maintained when link quality degrades
- Supports remote management via Telnet, SNMP and web interfaces with password protections
- Audible tone and CLI with running statistics displaying real-time signal strength ease antenna system installation
- Unit and group statistics are available for monitoring, planning and management of a wireless network

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

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