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 MP11 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 WiMAX features for license-free frequency bands worldwide. Consisting of an indoor and 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:**
- Indoor, self-installable form factor and outdoor, ruggedized form factor
- 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 – Indoor subscriber unit bundled with 15 dBi window antenna and outdoor unit contains 18 dBi integrated antenna
- Compatible with existing MP11 5054, 5054-R, and 5054-R-LR Base Station Units. Use the 5054-R-LR 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, MP11 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

**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 3.5 GHz frequency band
- ORiNOCO Wi-Fi Mesh – Outdoor and indoor Wi-Fi mesh for service providers and municipalities

Proxim Wireless is a global pioneer in scalable broadband wireless networking. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, point-to-multipoint and point-to-point products are available through our extensive global channel network.
FEATURES

PERFORMANCE AND SCALABILITY
Best-in-class Performance with WORP
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 Capable
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
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 (CIR)
Users can set CIR for each Subscriber Unit

Minimum Information Rate (MIR) Support
User defined MIR

SECURITY

Unicast, Multicast and Broadcast Storm
User definable threshold levels prevent excessive bandwidth consumptions from degrading network control performance

Packet Filtering
MAC, Ethertype, 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

Secure Encryption and Authentication
Support for WEP, WEP+ and AES 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 (DDRS)
Automatically optimizes throughput as link conditions change or as subscribers roam; connectivity is automatically maintained when link quality degrades

Flexible and Secure Remote Management
Supports remote management via Telnet, SNMP and web interfaces with password protections

Antenna Alignment Tool
Provides running statistics with real time signal strength to aid antenna installation

Comprehensive Station Statistics
Unit and group statistics are available for monitoring, planning and management of a wireless network

PRODUCT MODELS

Tsunami MP.11 Model 5012 Indoor Subscriber Unit bundled with 15 dBi Window Antenna

Tsunami MP.11 Model 5012 Outdoor Subscriber Unit with 18 dBi Integrated Antenna

RADIO & TRANSMISSION SPECIFICATIONS

MODULATION METHOD
OFDM

FREQUENCY BANDS
Americas (FCC): 5.25-5.35 GHz (15 channels)
Americas (FCC): 5.725-5.85 GHz (21 channels)
Europe (ETSI): 5.475-5.725 GHz (46 channels)
Europe (Russia): 5.15-6.08 GHz (185 channels)
Europe (Licensed in the UK): 5.725-5.850 GHz (21 channels)

INTERFACES

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

ANTENNA CONNECTOR
5012-SU: N-Male terminated pigtail; 5012-SUR: N/A

ANTENNA GAIN
5012-SU: 15 dBi external window antenna; 5012-SUR: 18 dBi integrated antenna

DATA RATE
54, 48, 36, 24, 18, 12, 9, 6, 4.5, 3, 2.25, 1.5 Mbps

OVER-THE-AIR THROUGHPUT
Maximum 12 Mbps

TX POWER
Up to 18 dBm

UNIT PHYSICAL

DIMENSIONS

PACKAGED
14.3 x 7.6 x 4.4 in (363 x 193 x 112 mm)
7.8 x 4.75 x 1.0 in (198 x 121 x 25 mm)
3.52 lbs (1.6 kg)
0.65 lbs (0.29 kg)

UNPACKAGED
13.9 x 11.1 x 6.1 in (353 x 282 x 155 mm)
4.0 x 8.5 x 10.2 in (98 x 215 x 259 mm)
3.3 lbs (1.5 kg)
2.4 lbs (1.02 kg)

WEIGHT

PACKAGE CONTENTS

5012-SU-WA
5012-SUR
5012-SU R 5012-SUR
5012-SU I 5012-SU R

ENVIRONMENTAL

TEMPERATURE:
OPERATING
-10° to 50°C (-44° to 80°C)

STORAGE
-40° to 60°C (-40° to 80°C)

HUMIDITY
95% (non-condensing) 100% (non-condensing)

ELECTRICAL

INPUT
110 to 240 VAC power 5V (SU Only)

POWER OVER ETHERNET
Via RJ-45 Ethernet interface port 802.3af compliant

MANAGEMENT

LOCAL
RS-232 serial (RJ11 and DB-9)

REMOTE
Telnet Web GUI, TFTP

SNMP
SNMPv1/v2; MIB-II; Ethernet-like MIB; BridgeMIB; 802.3MAU; 802.11 MIB; Private MIB; ORINOCO MIB; RFC 1157, RFC 1213; RFC 1493; RFC 2668

LEDS
Power, Radio Activity, Ethernet Activity

MTBF & WARRANTY

100,000 hours; 1 year parts and labor

ADD' L ACCESSORIES

Universal Mounting Bracket for wall mounting (Part #1087-UMK, Active Ethernet Injector (4301-XX)

RELATED PRODUCTS

Tsunami MP.11 5054 Base Station (5054-BSU, 5054-BSUR-LB), Tsunami MP.11 5054 Subscriber Station (5054-SU, 5054-SUR or 5054-SU-A), 5 GHz Window or Panel Antennas, ServPak for enhanced support, ProximVision™ NMS