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.

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 WiMAX 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:**

- 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 – 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
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, 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 (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
Audible tone and CLI with running statistics displaying real-time signal strength ease antenna system installation.

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

PRODUCT MODELS

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

ENVIRONMENTAL

TEMP.: -33° to 60°C
HUMIDITY: -44° to 80°C

RADIO & TRANSMISSION SPECIFICATIONS

MODULATION METHOD
DFDM

FREQUENCY BANDS
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)

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

ANTENNA CONNECTOR
N/A

ANTENNA GAIN
5012-SUR: 18 dBi integrated antenna

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

Maximum 12 Mbps
Up to 18 dBm

OVER-THE-AIR THROUGHPUT
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)

PACKAGE CONTENTS
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.

RELATED PRODUCTS
Tsunami MP.11 5054 Base Station (5054-BSU, 5054-BSUR or 5054-BSUR-LR), Tsunami MP.11 5054 Subscriber Station (5054-SU, 5054-SUR or 5054-SUA), 5 GHz Window or Panel Antennas, ServPak for enhanced support, ProximVision® NMS

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

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# About BarcodesInc

## Who We Are
BarcodesInc is North America's leading provider of specialized digital data hardware and software solutions. Our products include barcode scanners, mobile computing devices, identification card equipment, point-of-sale systems, barcode label and receipt printers, and consumables, all of which help customers improve productivity and profitability. Our product and solution experts have been serving both small businesses and large enterprises since 1994.

## We Owe Our Success To You
It's true that data tracking is our expertise - but customer satisfaction is our true passion. We have one overriding objective: focus on you, the customer. We understand that each customer's need is unique. That's why we listen carefully and tailor our solutions to meet your needs. We appreciate the opportunity to serve you and strive to exceed your expectations!

# Why Choose BarcodesInc?

## Dedicated Account Manager
Our Account Managers will not compromise when it comes to providing you top-notch service. Your Account Manager is the primary point of contact for your business and makes it a priority to get to know you, your company and all your needs.

## Highly-Trained Technical Support
Our technical staff has the broadest knowledge and every significant certification in the industry. One of our friendly experts is always available to suggest products and solutions for any situation.

## Incredible Value
Our purchasing power means big savings for you. Whatever your project, our team will work hard to deliver a solution that fits your budget.

## Largest Inventory in the Industry and Same-Day Shipping
Whatever your barcoding, mobile computing, or printing needs, we will fill your order and ship it the same day.

## Premier Access to Top Manufacturers
BarcodesInc maintains strong strategic partnerships with the leading manufacturers in barcoding, mobile computing, printing and RFID.

## Responsive Customer Service
Every phone call and email is responded to promptly, completely and accurately by our customer service team.

## Easy Returns
Damaged, defective or incorrectly ordered goods may be returned without hassle.