



5012-SUR Outdoor Subscriber Unit

END-to-END PRODUCT PORTFOLIO

Proxim Wireless offers the industry's most complete suite of outdoor broadband wireless access products. This portfolio includes:

- **Tsunami™MP.11** - our best selling Point-to-Multipoint product line for U.S. and global markets
- **MeshMAX** - Our Tsunami MP.11 and ORiNOCO access point all in one compact outdoor solution
- **ORiNOCO AP** - world-class performing enterprise 11n access points
- **Tsunami™MP.16** - WiMAX for the 3.5 - 3.65 GHz frequency band

APPLICATIONS

Business and Residential Last-Mile Access

Competitive broadband service alternative to DSL or cable modems for residences and T1 or Ethernet for businesses

Hot Spot

On-demand broadband access solutions for shops, restaurants and other retail establishments

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. Consisting of an outdoor form factor, the 5012-CPE 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.

The Tsunami 5012-CPE is a special version of the 5012-SUR, Proxim's standard point to multi-point subscriber unit, specifically created for the Wireless ISP market bundled in a 20 pack with power injectors included for each unit. The 5012-CPE provides maximum throughput performance set to 12 Mbps downlink and 1 Mbps uplink.

Reducing Costs for Wireless ISPs

Accelerating the break-even point for large-scale broadband wireless networks

- License-free frequency bands worldwide provide reliable wireless broadband without the high cost of securing licensed frequencies. Supports 5.15-5.35 GHz, 5.47-5.725 GHz and 5.725-6.08GHz all in one unit
- Low-cost bundles including both radios and power injectors provide the industry's most aggressive price point and reduce the cost barriers for wireless broadband
- Simple installation eliminates the need for truck rolls and the associated costs

Cable / DSL CPE Performance and Features

Wired network performance and security

- Throughput comparable to cable/DSL with maximum rates set to 12 Mbps downstream and 1 Mbps upstream with a maximum aggregate rate (UL+DL) of 12 Mbps
- Supports up to 8 QoS Classes; Supports up to 8 Service Flows per class
- Scheduled media access controller (MAC) enables a base station to hear all subscriber units, preventing nodes from interfering with each other and increasing system throughput
- Advanced encryption with AES protects over-the-air transmission, while intracell blocking forbids direct communication between subscriber units

Easy to Install

Easy installation and compatibility with existing Tsunami products

- Designed for quick, easy installation and compatible with Tsunami MP11 products; Outdoor unit contains a 18 dBi integrated flat panel antenna
- Deployment tools include antenna alignment and remote management configuration
- Orthogonal frequency division multiplexing (OFDM) enhances non-line-of-sight performance improving deployment in challenging areas

Tsunami MP.11 5012-CPE Technical Specifications

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 beyond standard outdoor Wi-Fi equipment
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	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
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		ENVIRONMENTAL	
5012-CPE-XX	Tsunami MP.11 5012-SUR, model 5012-CPE, 5 GHz - 20 pack	TEMPERATURE: OPERATING	33° to 60°C
RADIO & TRANSMISSION SPECIFICATIONS		STORAGE	-44° to 80°C
MODULATION METHOD	OFDM	HUMIDITY	100% (non-condensing)
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)	ELECTRICAL	
INTERFACES		POWER OVER ETHERNET	802.3af compliant PoE injector included
WIRED ETHERNET	Wired Ethernet 10/100Base-TX Ethernet (RJ-45)	MANAGEMENT	
ANTENNA CONNECTOR	N/A	LOCAL	RS-232 serial (RJ11 and DB-9)
ANTENNA GAIN	5012-CPE: 18 dBi integrated antenna	REMOTE	Telnet Web GUI, TFTP
DATA RATE	54, 48, 36, 24, 18, 12, 9, 6, 4.5, 3, 2.25, 1.5 Mbps	SNMP	SNMPv1/v2; MIB-II ; Ethernet-like MIB; BridgeMIB; 802.3MAU; 802.11 MIB; Private MIB; ORINOCO MIB; RFC 1157; RFC 213; RFC 1643; RFC 1493; RFC 2668
OVER-THE-AIR THROUGHPUT	Maximum 12 Mbps downlink Maximum 1 Mbps uplink Maximum 12 Mbps aggregate	LEDS	Power, Radio Activity, Ethernet Activity
TX POWER	Up to 18 dBm	MTBF & WARRANTY	>100,000 hours; 1 year parts and labor
UNIT PHYSICAL	Per 20 Pack	PACKAGE CONTENTS	5012-CPE Outdoor Customer Premises Equipment unit with 18 dBi integrated antenna, Power over Ethernet Injector, Band Clamps for pole mount, Quick Install Guide and CD with documentation and regulatory guide
DIMS:	22.9 x 14.7 x 31.6 in (58.2 x 37.3 x 80.3 cm)	ADDT'L ACCESSORIES	Universal Mounting Bracket for wall mounting (Part #1087-UMK),
WEIGHT:	50kg (110lbs)	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 ES NMS

For detailed technical specifications, please go to <http://www.proxim.com/products/>

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