Tsunami® Multipoint 825 CPE

Wireless Product Portfolio

• *Tsunami® 8200 Series – PtP & PtMP product line delivering 300 Mbps plus data rate*

• *Tsunami® 800 Series*
Compact and robust, high performance, PtP & PtMP product line

• *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.

Presenting Proxim's next generation Point-to-Multipoint Customer Premises Equipment

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range broadband wireless solutions. Leveraging the advantages of OFDM, MIMO radio innovations along with Proxim's proprietary Wireless Outdoor Routing Protocol (WORP®), the Tsunami® Multipoint 825 CPE is a feature rich customer premises equipment specifically designed for the carrier, service provider and WISP market.

The low cost outdoor form factor of the Tsunami® Multipoint 825 CPE is an ideal solution for large-scale wireless deployments suitable for all last-mile broadband wireless access deployments.

This CPE is also feature rich with a carrier-grade prioritization platform supporting multiple service classes that can prioritize voice, video and data applications over the widest range of operating frequencies.

World-class Performance

- Features a very small form factor and an outdoor rated IP67 Metal enclosure
- Available with 15 dBi integrated antenna
- 50Mbps or 100Mbps of throughput with maximum data rates of 300Mbps
- Provides flexible channel planning with support for 5.150 to 5.925 GHz
- Comes with a 2x2 MIMO high power radio capable of 26 dBm transmit power
- Allows flexible bandwidth allocation for service tiers
- Seamless roaming up to 285 km/h (196 mph)

All-in-One CPE with Security & Gateway Features

- Built-in feature rich network protocols for Bridging, Routing and Gateway functionality
- Advanced encryption protects over-the-air transmission via AES-128
- Radio mutual authentication eliminates unauthorized use of the system by rogue subscriber units and man-in-the middle attacks
- MAC, Ether type, IP address packet filtering provides granular network security
- Uses Proxim's Wireless Outdoor Routing Protocol (WORP®) to prevent snooping
- Features highly-secure remote management via SSL, SSH and SNMPv3

Reducing Costs for Wireless ISPs

- License-free frequency bands worldwide provide reliable wireless broadband without the high cost of licensed frequencies
- Low-cost bundle including both radio and mounting kit provides the industry's most aggressive price point , enabling any deployment to enjoy a quick return on investment

Easy to Install

- Comes as a complete compact outdoor form factor offering unprecedented ease of installation
- Deployment tools include spectrum analyzer, antenna alignment and remote management configuration
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
- Connects to all existing Tsunami® MP.11, Tsunami® 8100 and Tsunami® 8200

PRODUCT MODELS					
MP-825-CPE-50	Tsunami® MP 825 Customer Premise Equipment , 50 Mbps, MIMO 2x2, 15 dBi integrated antenna				
MP-825-CPE-100	Tsunami® MP 825 Customer Premise Equipment , 100 Mbps, MIMO 2x2, 15 dBi integrated antenna				
INTERFACES					
WIRED ETHERNET	One auto MDI-X RJ45 10/100Mbps Ethernet with PoE in				
WIRELSS PROTOCOL	WORP® (Wireless Outdoor Router Protocol)				
RADIO & TX SPECS					
MIMO	2x2 MIMO				
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64				
FREQUENCY	5.150 – 5.925 GHz (Subject to Country Regulations)				
CHANNEL SIZE	40 MHz, 20 MHz, 10 MHz*, 5 MHz* channel bandwidths * Not applicable for DFS Band				
DATA RATE	MCS 0 to 15 for High Throuput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)				
TX POWER	Up to 26 dBm (dual chain)				
TX POWER CONTROL	0 – 15 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
RX SENSITIVITY (PER=10%)	Channel size	40 MHz	20 MHz	10 MHz	5 MHz
	MCS 0	-88 dBm	-92 dBm	-93 dBm	-94 dBm
	MCS 7	-72 dBm	-74 dBm	-75 dBm	-77 dBm
	MCS 8	-88 dBm	-91 dBm	-93 dBm	-94 dBm
	MCS 15	-69 dBm	-71 dBm	-72 dBm	-75dBm
OTHER	Dynamic Channel Selection (DCS) based on interference detection Dynamic Frequency Selection (DFS) based on radar signature Automatic Transmit Power Control (ATPC) with EIRP limit support				
ANTENNA	Integrated 15 dBi dual Polarized (H+V) panel antenna (14 dBi beyond 5.850 GHz)				
MANAGEMENT					
REMOTE	Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3				
SNMP	SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB				
OTHER	Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer				
SECURITY					
ENCRYPTION	AES-CCM 128 bits				
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)				
NETWORK					
MODES	Bridging, Routing (RIP v2 and IP tunneling)				
THROUGHPUT	MP-825-CPE-50	Up to 50 Mbps			
	MP-825-CPE-100	Up to 100 Mbps			
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS				
QoS	Asymmetric Bandwidth Control	Uplink and Downlink CIR Control "committed information rate" per service flow Uplink and Downlink MIR Control "maximum information rate" per service flow			
	Packet Classification Capabilities	802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/destination address, IP protocol, and Ethertype			
	Scheduling	Best Effort, Real Time Polling Services			
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging				
POWER CONSUMPTION	6 Watt typical (15 Watt max)				
ENVIRONMENTAL SPECS					
TEMPERATURE					
OPERATING	-40º to 55ºC (-40º to 131º Fahrenheit)				
STORAGE	-55º to 70ºC (-67º to 158º Fahrenheit)				
HUMIDITY	Max 100% relative humidity (non-condensing)				
WIND LOADING	180 km/h (112 mph)				
WATER & DUST PROOF	IP67				
PHYSICAL SPECS					
DIMENSIONS					
PACKAGED	13.97 x 8.86 x 3.46 in (355 x 225 x 88 mm)				
UNPACKAGED	4.96 x 8.62 x 2.58 in (126 x 219 x 65.5 mm)				
WEIGHT					
PACKAGED	4.9 lbs (2.225 Kg)				
UNPACKAGED	2.1 lbs (0.950 kg)				
SAFETY STANDARDS	UL 60950-1/22				
PACKAGE CONTENTS	■ One Tsunami® MP-825-CPE-50 with integrated antenna Or One Tsunami® MP-825-CPE-100 with integrated antenna ■ One 20 W power injector and country specific power cord ■ One basic Pole mounting kit ■ One Connector weatherproofing kit (Includes all recommended weatherproofing material) ■ One Grounding kit ■ One Quick Installation Guide				
MTBF & WARRANTY	>350,000 hours & 1-year on parts and labor; ServPak Extended Support available.				

APPLICATIONS

- **Wireless Broadband/ISP**
  High service availability, superior subscriber per sector support and ultrafast 4G connectivity help ISPs to quickly scale their network coverage as well as meet the rising demand for high-bandwidth, multimedia services effortlessly

- **Last Mile Access**
  Competitive broadband service access alternative to DSL or cable for residences and T1 or Ethernet for businesses

- **Security and Surveillance**
  High definition IP-surveillance cameras for monitoring city streets, airports, bridges, seaports, transportation hubs, offices and warehouses

- **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-mp-820-series