

Tsunami™ MP-8160-CPE

High Performance Customer Premises Equipment for WISPs Supporting 6.4 GHz Frequencies

Presenting a 100Mbps high performance cost optimized customer premises equipment in a compact form factor operating in the $5.900-6.425~\mathrm{GHz}$ Frequency Range!

Proxim Wireless is a leader and an early innovator in wireless technology for providing high-speed, long-range broadband wireless access solutions. The Tsunami™ MP-8160-CPE is Proxim's next generation point-to-multi-point subscriber unit. The MP-8160-CPE provides maximum throughput performance tuned for WISP and Video Surveillance markets. The 8160 CPE comes in an outdoor IP67 rated form factor, and it is designed specifically for the WISP and Video Surveillance market to accelerate the service provider's break-even point, making this product ideal for large-scale wireless deployments.

World-class Performance

- Supports the frequency bands from 5.900 6.425 GHz
- Features an integrated dual polarity panel antenna and a 2x2 MIMO high power radio capable of up to 26dBm transmit power
- Carrier grade advanced security with AES-128 bit encryption and built-in feature-rich network protocols for bridging, routing and gateway functionality
- Supports up to 8 QoS Classes; and 8 Service Flows per class
- Enables flexible bandwidth allocation for tiered services with aggregate throughput of up to 100Mbps
- Features a very small form factor and an outdoor rated IP67 Metal enclosure

End-to-End Broadband Wireless Product Portfolio

Tsunami™ MP-8160-CPE

- Tsunami™ MP-8100 Wireless Point-to-Multipoint System Delivering 300Mbps Bandwidth
- Tsunami™ MP.11 Our best selling Point-to- Multipoint product line
- ORINOCO® AP The industry's Highest performance 802.11a/b/g/n access points

Proxim Wireless is a global pioneer of end-toend broadband wireless systems that deliver the quadruple play of video, voice, data and mobility. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, Wi-Fi Mesh, WiMAX and point-to-point wireless backhaul products are available through our extensive global channel networks.

Reducing Costs for Wireless ISPs

- Flexible frequency bands (both licensed and unlicensed) worldwide provide reliable wireless broadband
- Low-cost bundle including both radio and mounting kit provides the industry's most aggressive price point and reduces the cost barriers for wireless broadband

Easy to Install

- Designed for quick, easy installation and compatible with Tsunami™ MP-8160 Series products
- Deployment tools include antenna alignment and remote configuration management
- MIMO & Advanced Orthogonal Frequency Division Multiplexing techniques enhances non-line of-sight performance improving deployment in challenging areas

All-in-One CPE with Security & Gateway Features

- Built-in feature rich network protocols for Bridging, Routing and Gateway functionality
- Advanced AES-128 bit encryption protects over-the-air transmission
- 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
- Highly secured remote management access via SSL, SSH and SNMPv3
- Proxim's proprietary Wireless Outdoor Routing Protocol (WORP) prevents snooping

PRODUCT MODELS	
MP-8160-CPE-A100	Tsunami MP 8160 Customer Premises Equipment , 100Mbps, MIMO 2x2, 15dBi Integrated antenna
INTERFACES	Isunanii MP 8100 Customer Premises Equipment , 100Mbps, MilMO 2x2, 150bi integrated antenna
WIRED ETHERNET	One Auto MDI-X RJ45 100Mbps Ethernet port
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WIRELSS PROTOCOL	WORP (Wireless Outdoor Router Protocol)
RADIO & TX SPECS	
MIMO	2x2 MIMO
MODULATION	OFDM with BPSK, QPSK, 16QAM, 64QAM
FREQUENCY	5.900 – 6.425 GHz (Subject to Country Regulations)
CHANNEL SIZE	5MHz, 10MHz, 20MHz and 40MHz
DATA RATE	Up to 300Mbps
TX POWER	Up to 26dBm
TX POWER CONTROL	0.5 dB steps
LATENCY	< 3ms (typical)
WIRELESS SECURITY	AES-128 bit encryption
ANTENNA	Integrated 15dBi dual Polarized (H+V) panel antenna
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
NETWORK	
THROUGHPUT	100Mbps
GATEWAY FEATURES	DHCP Client, Server and Relay,
	NAT with Std ALGs,
	Bridging,
	Routing & Syslog
	Asymmetric Bandwidth Control,
QoS	Packet Classification Capabilities,
	Packet Scheduling
10.44	802.1Q: Management VLAN.
VLAN	Transparent, Access and Trunk modes
ENVIRONMENTAL SPECS	
TEMPERATURE	
OPERATING	-40º to 55ºC (-40º to 131º Fahrenheit)
STORAGE	-45º to 70ºC (-49º to 158º Fahrenheit)
HUMIDITY	
OPERATING	Max 95% relative humidity (non-condensing)
STORAGE	Max 95% relative humidity (non-condensing)
WATER & DUST PROOF	IP67
PHYSICAL SPECS	Per 1 Unit
DIMENSIONS (LxWxH)	Packaged: 13.58 x 7.17 x 3.43 in (345 x 182 x 87 mm)
DIMENSIONS (EXWAIT)	Unpackaged: 8.46 x 4.78 x 2.56 in (215 x 121.5 x 65 mm)
WEIGHT	Packaged: 3.75 lbs (1.70 Kg)
WEIGHT	Unpackaged: 1.93 lbs (0.88 kg)
ELECTRICAL	Onputaged. 133 to (6:00 kg)
POWER RATING	7 watts (typical), 13.8 watts (max)
POWER	via PoE Power Injector, 48V-DC 0.40A (included in the package)
MTBF	> 75,000 hours
WARRANTY	1 year parts and labor
PACKAGE CONTENTS	One CPE unit with 15 dBi integrated antenna,
PACKAGE CONTENTS	
	One PoE Injector,
	One pole mount kit,
	One Grounding Kit,
	One Connector Weather proofing Kit, One Printed Quick Install Guide
BELATED BRODUETS	
RELATED PRODUCTS	Tsunami MP-8160 Series, ServPak for enhanced support, ProximVision ES NMS

APPLICATIONS

• 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

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