

Tsunami® MP-10100 CPE/CPA

Compact High Performance Customer Premises Equipment



Rugged outdoor Point-to-Multipoint CPE for high performance multi-point networks and mobility applications

The Tsunami® Multipoint 10100 CPE is an ideal solution for large-scale wireless deployments and provides an excellent price/performance for any organization in need of medium to high density point-to-multipoint networks.

Leveraging the advantages of OFDM, and MIMO radio innovations combined with Proxim's proprietary Wireless Outdoor Routing Protocol (WORP®), the Tsunami® Multipoint 10100 CPE provides excellent performance and throughput even in Non Line-of-Sight (NLOS) installations.

The MP-835-CPE enables seamless roaming up to 295 km/h (185 mph) for use in mobility applications such as provision of Internet access or video surveillance on trains, trams and busses.

This CPE also features a carrier-grade prioritization platform supporting multiple service classes and able to prioritize voice, video and data applications to enable granular management of customer service features.

High Value, Long Service Life

The combination of high reliability, license-free frequency bands, and guaranteed compatibility with past, current and future Proxim base station models, ensures a long service life, and an excellent return on investment.

- License-free frequency bands worldwide provide reliable wireless broadband without the high cost and delays associated with licensed frequencies
- Designed for harsh environments, the Tsunami® MP-10100-CPE/CPA is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature range

Flexible, Fast and Secure

- Allows flexible bandwidth allocation for service tiers
- Field upgradable 50, 100, 150 or 100 Mbps of throughput (license upgradeable) Provides flexible channel planning with support for 5.150 to 5.925 GHz
- Advanced encryption protects over-the-air transmission via AES-128
- Uses Proxim's Wireless Outdoor Routing Protocol (WORP®) to prevent snooping
- Radio mutual authentication eliminates unauthorized use of the system by rogue subscriber units and man-in-the-middle attacks

All-in-One CPE and Gateway

- Built-in network protocols for Bridging, Routing and Gateway functionality

- MAC, Ether type, IP address packet filtering provides granular network security Features highly-secure remote management via SSL, SSH and SNMPv3

Easy to Install

- Comes ready to install with a complete "bring-your-own-pole" installation kit that includes basic pole mount and grounding kits, connector weather proofing kit and a power injector
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
- Deployment tools include spectrum analyzer, antenna alignment and remote management configuration
- Connects to all existing Tsunami® MP-10200, MP10100, MP-8200, MP-820 and MP-830 product families
- Fully integrates within ProximVision® Advanced, Proxim's Cloud Based Carrier Management System and Controller

Enabling Technologies



Proxim WORP® - Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.



Proxim ClearConnect™, a suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.



Proxim FastConnect™, mobility technology that delivers rapid hand-off between fixed base stations and moving vehicles to ensure uninterrupted broadband at speeds up to 295 km/h (185 mph).

About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications.

With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.

PRODUCT MODELS		PART NUMBERS	
MP-10150-CPE-50	Tsunami® MP 10150 Customer Premise Equipment, 50 Mbps, MIMO 2x2, 15 dBi panel	901-00251	MP-10150-CPE-50-US
MP-10150-CPE-100	Tsunami® MP 10150 Customer Premise Equipment, 100 Mbps, MIMO 2x2, 15 dBi panel	901-00252	MP-10150-CPE-100-US
MP-10150-CPE-150	Tsunami® MP 10150 Customer Premise Equipment, 150 Mbps, MIMO 2x2, 15 dBi panel	901-00253	MP-10150-CPE-150-US
MP-10150-CPE-200	Tsunami® MP 10150 Customer Premise Equipment, 200 Mbps, MIMO 2x2, 15 dBi panel	901-00254	MP-10150-CPE-200-US
MP-10100-CPA-50	Tsunami® MP 10100 Customer Premise Equipment, 50 Mbps, MIMO 2x2, N-Type Connectors	901-00264	MP-10100-CPA-50-US
MP-10100-CPA-100	Tsunami® MP 10100 Customer Premise Equipment, 100 Mbps, MIMO 2x2, N-Type Connectors	901-00265	MP-10100-CPA-100-US
MP-10100-CPA-150	Tsunami® MP 10100 Customer Premise Equipment, 150 Mbps, MIMO 2x2, N-Type Connectors	901-00266	MP-10100-CPA-150-US
MP-10100-CPA-200	Tsunami® MP 10100 Customer Premise Equipment, 200 Mbps, MIMO 2x2, N-Type Connectors	901-00267	MP-10100-CPA-200-US
		901-00256	MP-10150-CPE-50-WD
		901-00257	MP-10150-CPE-100-WD
		901-00258	MP-10150-CPE-150-WD
		901-00259	MP-10150-CPE-200-WD
		901-00268	MP-10100-CPA-50-WD
		901-00269	MP-10100-CPA-100-WD
		901-00270	MP-10100-CPA-150-WD
		901-00271	MP-10100-CPA-200-WD

INTERFACES	
WIRED ETHERNET	One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in & Data
WIRELESS PROTOCOL	WORP®

RADIO & TX SPECS																
MIMO	2x2:2															
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64, QAM256															
FREQUENCY	4.900 – 5.925 GHz (Subject to Country Regulations)															
CHANNEL SIZE	80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy)															
DATA RATE	MCS 0 to 9 with Dynamic Data Rate Selection															
TX POWER	Up to 28 dBm (dual chain)															
TX POWER CONTROL	0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit															
	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>80 MHz</th> <th>40 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>MCS0: 28</td> <td>MCS0: 28</td> <td>MCS0: 29</td> </tr> <tr> <td>MCS9: 21</td> <td>MCS9: 22</td> <td>MCS8: 25</td> </tr> <tr> <td>MCS0: -89</td> <td>MCS0: -93</td> <td>MCS0: -94</td> </tr> <tr> <td>MCS9: -68</td> <td>MCS9: -71</td> <td>MCS8: -74</td> </tr> </tbody> </table>	80 MHz	40 MHz	20 MHz	MCS0: 28	MCS0: 28	MCS0: 29	MCS9: 21	MCS9: 22	MCS8: 25	MCS0: -89	MCS0: -93	MCS0: -94	MCS9: -68	MCS9: -71	MCS8: -74
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TX POWER																
RX SENSITIVITY (PER=10%)																
THROUGHPUT	License controlled to 50, 100, 150 or 200 Mbps															
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	
MP-10150-CPE-xxx	Integrated 15 dBi dual Polarized (H+V) panel antenna (12 dBi before 5.000 GHz and 14 dBi beyond 5.850 GHz)
MP-10100-CPA-xxx	Two N-type Connectors with built-in Surge Protection

MANAGEMENT	
REMOTE	Telnet and SSH, Web GUI and SSL/TLS1.2, 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, SNMP and local time, Spectrum analyzer

SYNCHRONIZATION	
	Pass-through IEEE 1588v2 Ethernet Synchronization

SECURITY	
ENCRYPTION	AES 128
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

QoS	
Asymmetric Bandwidth Control	Asymmetric UL/DL committed and maximum information rate per service flow
Packet Classification Capabilities	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
Scheduling	Best Effort, Real Time Polling Services

NETWORK	
MODES	Bridging, Routing (RIP v2 and IP tunneling)
IP STACK	IPv4 and IPv6 simultaneously
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

POWER	INPUT	OUTPUT
	36 to 57 VDC via Ethernet port (Power over Ethernet) 12 VDC via Access port Power should not be provided simultaneously on both ports.	12 VDC on Access port

POWER CONSUMPTION	
	11.5 Watt typical, 15.5 Watt maximum

ENVIRONMENTAL SPECS			
OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY, WATER & DUST PROOF, WIND LOADING	
-40° to 60°C (-40° to 140° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity - IP67, 180 km/h (112.5 mph)	

PHYSICAL SPECS				
	DIMENSIONS (PACKAGED)	DIMENSIONS (UNPACKAGED)	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-10150-CPE-xxx	11.81x10.83x5.31 in (300x275x135 mm)	4.96x8.62x2.58 in (126x219x65.5 mm)	7.27 lbs (3.3 Kg)	2.10 lbs (0.950 kg)
MP-10100-CPA-xxx	11.81x10.83x5.31 in (300x275x135 mm)	5.02x8.68x2.85 in (127.5x220.5x72.5 mm)	6.39 lbs (2.9 kg)	2.75 lbs (1.250 kg)

SAFETY STANDARDS	
	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)

CERTIFICATIONS	
	USA: FCC 90Y + 15E (UNII 15.247); Canada: IC RSS 102 + RSS 111 + RSS 247 Europe: RED EN 301 489-17 + EN 301-489-17 + EN 301 893 + EN 302 502; Railway: EN 50155 + EN 50121 + EN

PACKAGE CONTENTS	
	<ul style="list-style-type: none"> • One Tsunami® MP-10150-CPE-xxx with integrated dual polarized antenna • Or One Tsunami® MP-10100-CPA-xxx with two N-type surge protected connectors • One power injector and country specific power cord • One Connector weatherproofing kit (Includes all recommended weatherproofing material) • One Wall / Pole mounting kit (MP-10150-CPE-xxx) Or One Pole mounting kit (MP-10100-CPA-xxx) • One Grounding kit • One Quick Installation Guide

MTBF & WARRANTY	
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available