

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

The Multipoint 10100 CPE/CPA 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.

• Designed for harsh environments, the Multipoint 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 200 Mbps of throughput (license upgradeable)
- Provides flexible channel planning with support for 4.900 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/TLS1.2, 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, MP-10100, MP-8200, MP-820 and MP-830 product families
- Fully integrates within ProximVision® Advanced, Proxim's Cloud Based Carrier Management System and Controller

## **About Proxim Wireless**

Proxim Wireless is a global leader in advanced wireless broadband and WiFi solutions that deliver high performance and high availability communications.

Celebrating 40 years of pioneering wireless solutions, Proxim is recognized for unparalleled reliability, superior performance, and drive for innovation.

### **Key Technologies**

#### Proxim WORP®

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

#### Proxim ClearConnect<sup>™</sup>

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).

#### **Multi-Language Support**

Web Interface available in English, French, Spanish and Chinese

# **Specifications**

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-           901-00256 MP-10150-         901-00256 MP-10150-					
MP-10150-CPE-100	Tsunami® MP 10150 Customer Premise Equipment, 100 Mbps, MIMO 2x2, 15 dBi panel         901-00252 MP-10150-CPE-100-US           901-00257 MP-10150-CPE-100-WD         901-00257 MP-10150-CPE-100-WD					
MP-10100-CPA-50	Tsunami® MP 10100 Customer Premise Equipment, 50 Mbps, MIMO 2x2, N-Type Connectors 901-00264 MP-10100-CPA-50-US 901-00268 MP-10100-CPA-50-WD					
MP-10100-CPA-100	Tsunami® MP 10100 Customer Premise Equipr	ors 901-00265 MP-10100-CPA-100-US 901-00269 MP-10100-CPA-100-WD				
INTERFACES						
WIRED ETHERNET	One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in & Data					
WIRELESS PROTOCOL	WORP® (Wireless Outdoor Router Protocol)					
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 DATA RATE	80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy)					
TX POWER	MCS 0 to 9 with Dynamic Data Rate Selection Up to 28 dBm (dual chain)					
TX POWER CONTROL						
	80 MHz	40 MHz	20 MHz			
TX POWER (dual RF)	MCS0: 28	MCS0: 28	MCS0: 29			
	MCS9: 21	MCS9: 22	MCS8: 25			
RX SENSITIVITY (Per=10%)	MCS0: -89	MCS0: -93	MCS0: -94			
	MCS9: -68	MCS9: -71	MCS8: -74			
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)					
	Two N-type Connectors					
MP-10100-CPA-xxx	Iwo N-type Connectors					
MP-10100-CPA-xxx MANAGEMENT	Two N-type Connectors					
	Telnet and SSH, Web GUI and SSL/TLS1.2, TF	TP, SNMPv3				
MANAGEMENT REMOTE SNMP	Telnet and SSH, Web GUI and SSL/TLS1.2, TF SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-279	90, RFC-2571, RFC-3412, RFC-3414, Private M	IB			
MANAGEMENT REMOTE SNMP OTHER	Telnet and SSH, Web GUI and SSL/TLS1.2, TF SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-279 Syslog, sFlow™ agent, SNTP and local time, Sp	90, RFC-2571, RFC-3412, RFC-3414, Private M bectrum analyzer	IB			
MANAGEMENT REMOTE SNMP OTHER Multi-Language Support	Telnet and SSH, Web GUI and SSL/TLS1.2, TF SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-279	90, RFC-2571, RFC-3412, RFC-3414, Private M bectrum analyzer	IB			
MANAGEMENT REMOTE SNMP OTHER	Telnet and SSH, Web GUI and SSL/TLS1.2, TF SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-279 Syslog, sFlow™ agent, SNTP and local time, Sp	90, RFC-2571, RFC-3412, RFC-3414, Private M bectrum analyzer anish and Chinese	IB			

SECURITY							
ENCRYPTION AUTHENTICATION	AES 128 Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)						
QoS							
Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling	Asymmetric UL/DL committed and maximum information rate per service flow 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType Best Effort, Real Time Polling Services						
NETWORK	rwork						
MODES IP STACK GATEWAY FEATURES VLAN	Bridging, Routing (RIP v2 and IP tunneling) IPv4 and IPv6 simultaneously DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging						
POWER	INPU	т	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 - IP RATING	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							
	IEC 62368-1:2016 & 60950-22:2016 UL 62368-1 2nd edition & 60950-22 2nd edition CAN/CSA C22.2 No 62368-1:14 & No 60950-22:17 EN 62368-1:2014 + A11:2017 & 60950-22:2017						
CERTIFICATIONS	1						
	USA: FCC 90Y + 15E (UNII 15.247), Canada: IC RSS 102 + RSS 111 + RSS 247, Europe: RED EN 301 489-1 + EN 301-489-17 + EN 301 893 + EN 302 502, Railway: EN 50155 + EN 50121 + EN 61373						
PACKAGE CONTENTS							
	<ul> <li>One Tsunami® MP-10150-CPE-xxx with integrated dual polarized antenna Or One Tsunami® MP-10100-CPA-xxx with two N-type connectors</li> <li>One power injector and country specific power cord</li> <li>One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>One Wall / Pole mounting kit (MP-10150-CPE-xxx) Or One Pole mounting kit (MP-10100-CPA-xxx)</li> <li>One Grounding kit</li> <li>One Quick Installation Guide</li> </ul>						
MTBF & WARRANTY							
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available						

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