

Tsunami® Multipoint 820 series

Point to Multipoint solution for Video Protection



Tsunami® Multipoint 820 series

Wireless Product Portfolio

- Tsunami® 8000 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® GX800- 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. 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.

Presenting Proxim's next generation video protection wireless solution

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 820 series is a feature rich evolving equipment specifically designed to address video protection market

The compact and robust form factor of Tsunami® Multipoint 820 series is an ideal solution for urban wireless deployments. It is suitable for pole mounting, next to video camera, in order to ensure citizen protection.

Tsunami[®] Multipoint 820 series is also adapted for in vehicle mounting and supports seamless roaming at very high speed.

World-class Performance

- Features a very small form factor and an outdoor rated IP67 Metal enclosure
- 50Mbps of throughput, license upgradable to 100Mbps, with maximum data rates of 300Mbps
- Provides flexible channel planning with support for 4.900 to 5.925 GHz
- Comes with a 2x2 MIMO high power radio capable of 26 dBm transmit power
- Dynamic bandwidth allocation for service tiers
- Seamless roaming up to 285 km/h (196 mph)
- Powered via 802.3at PoE or directly from 12 VDC source for in-vehicle installation

Video Ready and Highly Secure

- Service flow based Quality of Service with advanced packet recognition (layer 2, 3 or 4)
- Multi-cast traffic compliant (no performance reduction) and built in IGMP snooping
- 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 eavesdropping
- 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
- Collocated Base Station synchronization ready (enabled via software upgrade in Q1-14)
- Connects to all existing Tsunami® MP.11, Tsunami® 8100 and Tsunami® 8200

Tsunami® Multipoint 820 series

Technical Specifications

PRODUCT MODELS						
MP-820-BSU-100	Tsunami® MP 820 Base Station Unit, 100 Mbps, MIMO 2x2, N-Type Connectors					
MP-820-SUA-50 ⁺	Tsunami® MP 820 Subscriber Unit , 50 Mbps (upgradable to 100 Mbps), MIMO 2x2, N-Type Connectors					
MP-825-SUR-50 ⁺	Tsunami® MP 825 Subscriber Unit , 50 Mbps (upgradable to 100 Mbps), MIMO 2x2, 15 dBi Antenna					
INTERFACES						
WIRED ETHERNET	One auto MDI-X RJ45 10/2	100/1000Mbps Etherr	et with PoE in			
WIRELSS PROTOCOL	WORP® (Wireless Outdoor	Router Protocol)				
RADIO & TX SPECS	,	, , , , , , , , , , , , , , , , , , ,				
MIMO	2x2 MIMO					
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64					
FREQUENCY	4.900 – 5.925 GHz (Subject to Country Regulations)					
CHANNEL SIZE	4.900 – 5.925 GHz (Subject to Country Regulations) 40 MHz, 20 MHz, 10 MHz*, 5 MHz* channel bandwidths * Not applicable for DFS Band					
CHAINNEL SIZE						
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)					
		64-QAM for legacy mo	de (6Mbps - 54Mbps)			
TX POWER	Up to 26 dBm (dual chain)					
TX POWER CONTROL	0 – 15 dB, in 0.5 dB steps.				1	
	Channel size	40 MHz	20 MHz	10 MHz	5 MHz	
RX SENSITIVITY	MCS 0	-88 dBm	-92 dBm	-93 dBm	-94 dBm	
(PER=10%)	MCS 7	-72 dBm	-74 dBm	-75 dBm	-77 dBm	
(1 EN=1070)	MCS 8	-88 dBm	-91 dBm	-93 dBm	-94 dBm	
	MCS 15	-69 dBm	-71 dBm	-72 dBm	-75 dBm	
OTHER	Dynamic Channel Selection					
	Dynamic Frequency Selection (DFS) based on radar signature					
	Automatic Transmit Power Control (ATPC) with EIRP limit support					
SYNCHRONIZATION	Synchronize internal clock to Pulse Per Second signal recieved from either GPS module connected to RJ11					
	serial port or Ethernet Synchronization module connected to RJ45 ethernet port					
	MP-820-BSU-100 or			роге		
ANTENNA	MP-820-SUA-50 ⁺	Two N-type connec	ctors			
	MP-825-SUR-50 ⁺	Integrated 15 dp: o	lual Polarized (H+V) pane	al antenna /14	dRi hayand 5 950 GU-1	
NAANA CENAENT	IVIF-02J-JUR-JU	integrated 15 dBI 0	iuai ruiai izeu (n+v) pane	antenna (14	עט טפעטווע 3.000 טחב)	
MANAGEMENT	DC 222 comint /D144 + - D2 4) donglo ====:::-!:				
LOCAL	RS-232 serial (RJ11 to DB-9					
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, SNT	Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer				
SECURITY						
ENCRYPTION	AES-CCM 128 bits					
AUTHENTICATION	Internal MAC Address Con	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)				
NETWORK		· · · · · · · · · · · · · · · · · · ·	,		O,	
MODES	Bridging, Routing (RIP v2 a	nd IP tunneling)				
IP STACK	IPv4 and IPv6 simultaneou					
THROUGHPUT	MP-820-BSU-100	Up to 100 Mbps, 10) subscriber may			
	MP-820-SUA-50 ⁺ or	Ор tо 100 міррз, 1	J Subscriber max			
		Up to 50 Mbps (lice	ance ungradable to 100 l	Mbns)		
	MID 925 CLID EO [†]	ale se an imales (mai	inse upgradable to 100 i			
CATEMAY FEATURES	MP-825-SUR-50*					
GATEWAY FEATURES	DHCP Server & relay, NAT	with Std ALGs, PPPoE	end point with Proxy DN	IS	antell non comics flour	
GATEWAY FEATURES	DHCP Server & relay, NAT Asymmetric Bandwidth	with Std ALGs, PPPoE Uplink and Downlin	end point with Proxy DN	IS ed information		
GATEWAY FEATURES	DHCP Server & relay, NAT	with Std ALGs, PPPoE Uplink and Downlin Uplink and Downlin	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu	IS ed information m information	rate" per service flow	
GATEWAY FEATURES QoS	DHCP Server & relay, NAT Asymmetric Bandwidth	with Std ALGs, PPPoE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA	IS ed information m information IN ID, IP source	rate" per service flow e/destination address,	
	DHCP Server & relay, NAT Asymmetric Bandwidth Control	with Std ALGs, PPPoE Uplink and Downlii Uplink and Downlii 802.1D/802.1Q/80 source/destination	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu	IS ed information m information IN ID, IP source	rate" per service flow e/destination address,	
	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype	end point with Proxy DN nk CIR Control "committe nk MIR Control "naximu 2.1p priority, IPTOS, VLA port, Ethernet source/d	IS ed information m information IN ID, IP source	rate" per service flow e/destination address,	
QoS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling	with Std ALGs, PPPoE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tir	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services	IS ed information m information N ID, IP source estination add	rate" per service flow e/destination address, dress, IP protocol, and	
QoS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QoS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tii N. Transparent, Acces or directly from 12 VD	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tii N. Transparent, Acces or directly from 12 VD	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
VLAN POWER SUPPLY POWER CONSUMPTION	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tii N. Transparent, Acces or directly from 12 VD	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tin N. Transparent, Access or directly from 12 VD ax)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Accesor directly from 12 VD ax) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt material) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158°	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt m: -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt m) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph)	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QoS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt m: -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p	ed information m information N ID, IP source lestination add	e rate" per service flow e/destination address, dress, IP protocol, and e tagging	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.10: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod	ed information m information N ID, IP source lestination add	rate" per service flow e/destination address, dress, IP protocol, and	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p	is ed information m information M ID, IP source estination additional control of the control of	e rate" per service flow e/destination address, dress, IP protocol, and e tagging	
QoS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of Watt typical (15 Watt material) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50°	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p	ed information m information N ID, IP source testination add e. QinQ doubl bort	weight 7.93 lbs (3.6 kg)	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided POE injector of 6 Watt typical (15 Watt m: -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidit 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50° MP-825-SUR-50°	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p	ed information m information N ID, IP source testination add e. QinQ doubl bort	e rate" per service flow e/destination address, fress, IP protocol, and e tagging	
QoS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS PACKAGED	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50° MP-820-BSU-100 or	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Accesor directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing)	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p	ed information m information N ID, IP source testination add e. QinQ doubl port	weight 7.93 lbs (3.6 kg) 7.27 lbs (3.3 Kg)	
QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.10: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50° MP-820-SUA-50° MP-820-SUA-50° MP-820-SU-100 or MP-820-SU-100 or MP-820-SU-100 or MP-820-SU-100 or MP-820-SU-100 or	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Accesor directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing) 11.81 x 10.83 x 5.3 5.02 x 8.68 x 2.85 i	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p DIMENSIONS 1 in (300 x 275 x 135 mn 1 in (300 x 275 x 135 mn n (127.5 x 220.5 x 72.5 n	ed information m information N ID, IP source testination add e. QinQ doubl port	weight 7.27 lbs (3.3 Kg) 2.75 lbs (1.250 kg)	
QoS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS PACKAGED	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt mi) -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50° MP-820-SUA-50° MP-820-SUA-50° MP-820-SUA-50° MP-825-SUR-50°	with Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Til N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing) 11.81 x 10.83 x 5.3 1.181 x 10.83 x 5.3 5.02 x 8.68 x 2.85 i 4.96 x 8.62 x 2.58 i	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p DIMENSIONS 1 in (300 x 275 x 135 mm n (127.5 x 220.5 x 72.5 mm) n (126 x 219 x 65.5 mm)	ed information m information m information N ID, IP source testination add e. QinQ double toort n) n) n)	weight 7.93 lbs (3.6 kg) 7.27 lbs (3.3 Kg)	
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QOS VLAN POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL SPECS TEMPERATURE OPERATING STORAGE HUMIDITY WIND LOADING WATER & DUST PROOF PHYSICAL SPECS PACKAGED UNPACKAGED SAFETY STANDARDS	DHCP Server & relay, NAT Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling 802.1Q: Management VLA Via provided PoE injector of 6 Watt typical (15 Watt m: -40° to 55°C (-40° to 131° -55° to 70°C (-67° to 158° Max 100% relative humidi 180 km/h (112 mph) IP67 MP-820-BSU-100 or MP-820-SUA-50* MP-825-SUR-50* MP-825-SUR-50* UE 60950-1/22, CAN/CSA- One Tsunami® MP-820 Or One Mall / Pole mount One Connector weathe	With Std ALGs, PPPOE Uplink and Downlin Uplink and Downlin 802.1D/802.1Q/80 source/destination Ethertype Best Effort, Real Tin N. Transparent, Acces or directly from 12 VD ax) Fahrenheit) Fahrenheit) ty (non-condensing) 11.81 x 10.83 x 5.3 11.81 x 10.83 x 5.3 5.02 x 8.68 x 2.85 i 4.96 x 8.62 x 2.58 i 622.2 No. 60950-1/22 BSU-100 with two NSUA-50* with two NSUA-50* with 15 dBi ior with reload button cing kit rproofing kit (Includes	end point with Proxy DN nk CIR Control "committe nk MIR Control "maximu 2.1p priority, IPTOS, VLA port, Ethernet source/d me Polling Services s, Trunk and Mixed mod C source through serial p DIMENSIONS 1 in (300 x 275 x 135 mm n (127.5 x 220.5 x 72.5 m n (126 x 219 x 65.5 mm) n IEC 60950-1/22, EN 605 type surge protected con tegrated antenna and country specific pox	e. QinQ double ort	WEIGHT 7.93 lbs (3.6 kg) 2.10 lbs (0.950 kg)	
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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 $\underline{\text{http://proxim.com/products/point-to-multipoint/tsunamir-mp-820-series}}$