Tsunami® Multipoint 8200-BSU-G
Wireless Point-to-Multipoint Systems Delivering 300Mbps Data Rate

Simplifying dense network deployment with multiple Base Station synchronization

With the increase of wireless network using the 5 GHz band, finding interference free channel is becoming a challenge. To simplify channel planning task, Proxim wireless introduces Tsunami® MP-8200-BSU-G which adds multiple Base Station synchronization to the versatile and high performance Tsunami® 8200 series.

Tsunami® MP-8200-BSU-G includes the capability to synchronize its internal clock to the one pulse per second signal of an external GPS receiver or an Ethernet based synchronization module. When loaded with Proxim’s optional WORP® Sync software, multiple MP-8200-BSU-G start following the same transmit/receive pattern and avoid interfering with each other even when using adjacent channels. Tsunami® MP-8200-BSU-G synchronization mechanism added to MIMO 3x3 nLOS functionality, advanced channel management capability and cutting edge QoS class of service ensures optimal delivery of voice, video and data applications

With supreme throughput, high power radio, flexible channel features and dual Gigabit Ethernet ports with PoE out, for powering additional devices, Tsunami® MP-8200 series is an ideal solution for service providers and government organizations with requirements of all kinds, from last mile broadband wireless access (BWA) to wireless video surveillance and more.

World Class Performance

- Point to Multipoint solution that can deliver 300 Mbps data rates
- High power radio capable of up to 25.8 dBm Tx power to extend the range and coverage
- Dual IPv4 and IPv6 stack for transparent evolution to tomorrow networks

Optimal RF Management

- Multiple Base Station synchronization based on PPS signal from GPS of Ethernet based Synchronization Module
- Non-line-of-sight capable, utilizing OFDM and 3x3 MIMO techniques to improve link performance and penetrate through or around obstructions better

Enhanced Feature set

- Spectrum analysis feature helps to study frequency bands for interference, and select a relatively low interference channel
- Operates in licensed and unlicensed frequency bands from 4.900 to 5.925 GHz with support for 5, 10, 20 and 40MHz channel size
- Choice of WORP® or WORP® Sync protocol based on application requirements
- Dual Gigabit Ethernet ports with PoE in/out to power other devices like surveillance cameras and wireless access points
- Service flow based QoS with comprehensive packet identification to create unique and sophisticated service rules and tiered service classes with ease
- Bridging mode with full VLAN capabilities or Routing mode with gateway features

Carrier-Grade Security

- Implements tiered security layers for the most secure outdoor wireless communications in the unlicensed frequency spectrum
- Utilizes Proxim’s Wireless Outdoor Routing Protocol, which prevents snooping, and features highly-secure remote management via SSL, SSH and SNMPv3
- Provides military-grade security with AES encryption technology, prevents unsecure client-to-client communications and leverages MAC, Ethertype and IP address packet filtering for granular network security

Product Line Compatibility

- Connects to all existing Tsunami® MP-820, MP-8200, MP-8100 and Tsunami® MP11
Specifications: Tsunami® Multipoint 8200-BSU-G

PRODUCT MODELS
- MP-8200-BSU-G
- MP-8250-BS1-G
- MP-8250-BS9-G

MP-8200-BSU-G: Tsunami® MP 8200 Base Station Unit, 300 Mbps, MIMO 3x3, GPS Sync ready, Type-N Connectors
MP-8250-BS1-G: Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, GPS Sync ready, 23 dB, 10° panel antenna
MP-8250-BS9-G: Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, GPS Sync ready, 16 dB, 90° sector antenna

INTERFACES
WIRED ETHERNET
- Two auto MDI-X RJ45 10/100/1000 Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out (B02.3 pin out) & Data)
- WORP® (Wireless Outdoor Router Protocol) or WORP sync

WIRELESS PROTOCOL
- 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging
- 40 MHz: Best Effort, Real Time Polling Services
- UL and DL CIR Control "committed information rate" per service flow

RF & TX SPECS
- AVAILABLE CHANNEL BANDWIDTHS:
  - 40 MHz, 20 MHz, 10 MHz*, 5 MHz*
  - * Not applicable for DFS Band
- FREQUENCY: 4.900 – 5.925 GHz (Subject to Country Regulations)
- MODULATION: OFDM with BPSK, QPSK, QAM16, QAM64
- MIMO: 3x3 MIMO with 2 data streams
- DATA RATE: Up to 2.5 Gbps (Triple chain)
- CHANNEL SIZE: 40 MHz, 20 MHz, 10 MHz*, 5 MHz*
- DATA RATE SINCE: 0 – 25 dB
- RX POWER CONTROL: 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
- SDKS/OTHER: Synchronize internal clock to Pulse Per Second signal received from either GPS module connected to RJ45 serial port or Ethernet Synchronization module connected to RJ45 Ethernet port

LAN
- 12 Watts (max)
- Surge protected connectors

LOCAL
- RS-232 serial (RJ-11 to DB-9 dongle provided)
- Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3

OTHER
- Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)
- Scheduling, 802.1Q VLAN, Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

SECURITY
- AES-CCM 128 bits

MANAGEMENT
- Three N-type Connectors with built-in Surge Protection
- Integrated 2x2 MIMO 23dBi Dual Polarized Panel Antenna
- Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna

NODES
- Bridging, Routing (RIP v2 and IP tunneling)
- DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS

CONNECTORS
- RJ-11 serial (RJ11 to DB-9 dongle provided)
- Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out (802.3af pin out) & Data)
- WORP® (Wireless Outdoor Router Protocol)

WIRELESS PROTOCOL
- WORP® (Wireless Outdoor Router Protocol) or WORP sync

POWER CONSUMPTION
- 12 Watt typical (22 Watt max)

ENVIRONMENTAL SPECS
- OPERATING TEMPERATURE:
  - -40º to 60ºC (-40º to 140º Fahrenheit)
  - Will continue operating if temperature temporarily varies between -50º and 70º C (-58º and 158º Fahrenheit)

- STORAGE TEMPERATURE:
  - -55º to 80ºC (-67º to 176º Fahrenheit)

- HUMIDITY:
  - 100% relative humidity, IP67, 200 km/h (125 mph)

PHYSICAL SPECS
- WEIGHT (PACKAGED):
  - MP-8200-BSU-G: 15 lbs (6.8 kg)
  - MP-8250-BS1-G or BS9-G: 16.31 lbs (7.4 kg)
  - MP-8200-BSU-G: 16 lbs (7.4 kg)
  - MP-8250-BS1-G or BS9-G: 9.0 lbs (4.1 kg)

- WEIGHT (UNPACKAGED):
  - MP-8200-BSU-G: 15 lbs (6.8 kg)
  - MP-8250-BS1-G or BS9-G: 16.31 lbs (7.4 kg)
  - MP-8200-BSU-G: 16 lbs (7.4 kg)
  - MP-8250-BS1-G or BS9-G: 9.0 lbs (4.1 kg)

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

PACKAGE CONTENTS
- One Tsunami® MP-8200-BSU-G with three N-type surge protected connectors Or One Tsunami® MP-8250-BS1-G or BS9-G with integrated dual polarized antenna
- One Gigabit PoE Surge Arrestor
- One power injector and country specific power cord
- One Wall / Pole mount kit
- One Connector weatherproofing kit (includes all recommended weatherproofing material)
- One Serial (RJ-45 to DB9) dongle
- One Quick Installation Guide

MTBF & WARRANTY
- >250,000 hours & 1-year on parts and labor, ServPak Extended Support available.