

## Mobility Point® MP-422B

### DATA SHEET

#### Mobility Point MP-422B

802.11a/b/g dual-radio indoor access point designed for entry-level deployments with high-performance requirements.



**The Mobility Point family provides access point, bridging and wireless mesh services for indoor and outdoor deployments of Smart Mobile wireless LANs.**

#### Mobility Point MP-422B

The MP-422B is an indoor access point that provides extended coverage for 802.11a/b/g wireless LANs. It has dual radios (802.11a and 802.11b/g) featuring dual diversity antennas on both 2.4 GHz and 5 GHz bands. The MP features two 10/100 Fast Ethernet ports for redundant connectivity and 802.3af Power-over-Ethernet (PoE). Its enclosure intentionally resembles a smoke detector to minimize visibility. With no obvious hallmarks of an access point, the MP-422B is less likely to be tampered with, but also features a built-in Kensington lock system for added physical security.

The MP-422B is simple to deploy, easy to manage, and supports any kind of service—data, voice, video and location—over Wi-Fi, automatically calculating the data integrity and RF signal strength of the wireless channel and continually tuning for optimal RF channel and transmit power, while enforcing the prioritization of delay-sensitive voice and other critical applications. Wi-Fi Multimedia (WMM) or SpectraLink Voice Priority (SVP) can be configured to ensure optimal QoS for voice traffic. Policies allow per user, protocol, or class-of-service (CoS) mapping.

In addition to traditional access point functionality, the MP-422B can also serve as Mesh AP, Mesh Portal, or WDS Bridge to extend the reach of enterprise WLANs. Furthermore, the MP-422B can support such functionality in

either point-to-point or point-to-multipoint topologies, allowing maximum flexibility within a mesh or bridged environment. In mesh portal mode, the MP-422B acts as the gateway node to the wired network, advertises services to mesh access point nodes, and enforces firewall, access and QoS policy, simultaneously performing broadcast suppression—all of which serve to optimize RF spectrum utilization in the mesh. The MP-422B can be configured with one radio for client services and the other for mesh service.

The MP-422B plays a key role in rogue and intrusion detection as well as denial-of-service (DoS) attack detection. ActiveScan allows MPs to fulfill a dual role. The system scans all 802.11 channels, while simultaneously providing wireless connectivity to mobile clients. SentryScan allows MPs or individual MP radios to act as dedicated sentries, providing nonstop scanning.

The MP-422B also supports location-based service applications that rely on Wi-Fi signal information for position location. Common usages include asset tracking or client location.

The MP-422B uses the same Mobility System Software™ as all other Trapeze Mobility Points. For more information about the security and networking capabilities of the MP-422B, please read the Mobility System Software datasheet.

## Key Features

Radios	
Dual radios	<ul style="list-style-type: none"> <li>• 802.11a (5 GHz) and 802.11 b/g (2.4 GHz) concurrent operation</li> </ul>
Internal Antenna	<ul style="list-style-type: none"> <li>• Optimized gain pattern for maximum radio coverage</li> <li>• True omni-directional antenna allows position-independent placement</li> </ul>
Radio transmit power setting	<ul style="list-style-type: none"> <li>• Granular Transmit Power Settings in one dBm increments</li> <li>• Configurable power setting support allows control of RF cell size</li> </ul>
Link and Power Resiliency	<ul style="list-style-type: none"> <li>• Dual attached Power-over-Ethernet with redundant network link</li> </ul>
Reliability	
RF Auto-Tuning	<ul style="list-style-type: none"> <li>• Self-tuning for optimal channel, data rate and transmit power</li> <li>• Eliminates dynamic and unplanned coverage holes</li> </ul>
Scalability	
Clients	<ul style="list-style-type: none"> <li>• Supports up to 500 simultaneous clients</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>• Dedicated hardware-based air rate encryption support for certified operation of WPA (TKIP), WPA2 (AES), 40-bit WEP, 128-bit WEP, Dynamic WEP with per session rotating keys</li> </ul>
Security	
Physical Security	<ul style="list-style-type: none"> <li>• Highly inconspicuous design, looks like a smoke detector</li> <li>• No data or security credentials stored locally</li> <li>• No console port; no local access is possible</li> <li>• If stolen, no secure configuration data goes with it</li> <li>• Stolen AP can be "blacklisted"</li> <li>• Integrated Kensington security lock feature</li> </ul>
Installation	
Mounting	<ul style="list-style-type: none"> <li>• One snap invisible ceiling grid attachment</li> </ul>
Powering	<ul style="list-style-type: none"> <li>• Any mobility exchange controller with PoE</li> <li>• Any PoE-enabled switch or PoE injector</li> </ul>
RF Planning	<ul style="list-style-type: none"> <li>• Outage resiliency planning for RF Auto-Tuning using RingMaster®</li> </ul>

## Specifications

Hardware Specifications	
Dimensions	<ul style="list-style-type: none"> <li>• Diameter: 6.75 in (17.15 cm) Height: 2.09 in (5.30 cm)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 12.9 oz (366 g)</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>• Two RJ-45 ports for 10/100Mbps Ethernet and Power-over-Ethernet (PoE)</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• Operating temperature: 0°C to 50°C (32°F to 122°F)</li> <li>• Storage temperature: -25°C to 70°C (-4°F to 158°F)</li> <li>• Humidity: 10% - 95% (non-condensing)</li> </ul>
Power	<ul style="list-style-type: none"> <li>• 9.3W peak during dual radio operation</li> </ul>
Status Indicators	<ul style="list-style-type: none"> <li>• Radio 1 and Radio 2 LEDs indicate a variety of conditions at-a-glance</li> </ul>
802.11a Radio Specifications	
Operating Frequency	<ul style="list-style-type: none"> <li>• 5.15 GHz to 5.85 GHz</li> </ul>
Modulation	<ul style="list-style-type: none"> <li>• Orthogonal Frequency Division Multiplexing (OFDM)</li> </ul>
Transmit Power	<ul style="list-style-type: none"> <li>• Based on regulatory domain, up to 23 dBm</li> </ul>
Configurable Association Rates	<ul style="list-style-type: none"> <li>• 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps and 6 Mbps with automatic fallback</li> </ul>



802.11b Radio Specifications	
Operating Frequency	• 2.4 GHz to 2.484 GHz
Modulation	• Direct-Sequence-Spread-Spectrum (DSSS)
Transmit Power	• Based on regulatory domain, up to 23 dBm
Configurable Association Rates	• 11 Mbps, 5.5 Mbps, 2 Mbps, and 1 Mbps with automatic fallback
802.11g Radio Specifications	
Operating Frequency	• 2.4 GHz to 2.484 GHz
Modulation	• Orthogonal Frequency Division Multiplexing (OFDM)
Transmit Power	• Based on regulatory domain, up to 23 dBm
Configurable Association Rates	• 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps and 6 Mbps with automatic fallback
Radio Approvals	
Operating Channels	• Based on regulatory domain
2.4 GHz Radio Approvals	<ul style="list-style-type: none"> <li>• USA: 47CFR (FCC) Part 15.247</li> <li>• Canada: IC RSS-210, 1 Issue 6</li> <li>• EU: ETSI EN300 328-2, EN301 489-1 and -17</li> <li>• Japan: TELEC RCR STD 33B, ARID STD-T66</li> </ul>
5 GHz Radio Approvals	<ul style="list-style-type: none"> <li>• USA: 47CFR (FCC) Part 15.407</li> <li>• Canada: IC RSS-210, Issue 6</li> <li>• EU: ETSI EN301 893, EN301 489-1 and -17, EN301 893 v1.3.1</li> <li>• Japan: TELEC ARIB STD-70 (per the new W52/W53 requirements)</li> </ul>
Standards Compliance	
IEEE	<ul style="list-style-type: none"> <li>• 802.3i 10BASE-T Ethernet</li> <li>• 802.3u 100BASE-TX Fast Ethernet</li> <li>• 802.3af Power over Ethernet</li> <li>• 802.11 a/b/g, 802.11d, 802.11e, 802.11h, 802.11i</li> <li>• 802.1X Network Access Control and Mutual Authentication</li> <li>• 802.11a, 802.11b, and 802.11g Wireless LAN</li> <li>• 802.11e quality of service (QoS) (WMM), call admission control (TSPEC), Unscheduled Automatic Power Save Delivery (U-APSD)</li> <li>• 802.11i Fast Roaming (PMK Cache), encryption (AES/CCMP and TKIP)</li> </ul>
Wi-Fi Alliance	<ul style="list-style-type: none"> <li>• Wi-Fi Certified for 802.11 a/b/g</li> <li>• Wi-Fi Protected Access (WPA) and Wi-Fi Protected Access 2 (WPA2)</li> <li>• Wi-Fi Multimedia (WMM)</li> </ul>
IETF	• IETF CAPWAP WG Taxonomy and Architecture compatibility
Regulatory Compliance	
Safety	<ul style="list-style-type: none"> <li>• UL 60950-1, 1st Edition</li> <li>• CAN/CSA C22-2 No. 60950-1-03</li> <li>• CB Scheme to IEC 60950-1 1st Edition</li> <li>• EU Low Voltage Directive 2002/95/EC</li> <li>• UL-2043 Plenum Rated for Commercial Installation</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• WEEE: EU Directive 2002/96/EC</li> <li>• ROHS: EU Directive 2003/95/EC</li> <li>• EN60601-1-2 (2001): EU Medical Directive</li> </ul>
Other	<ul style="list-style-type: none"> <li>• EU EMC Directive 89/336/EC</li> <li>• ROHS: EU Directive 1999/5/EC, 2006/122/EC</li> <li>• FCC Part 15, Class B</li> <li>• ICES-003, Class B</li> </ul>
DFS-2 and DFS-3 Compliant	• EN 301 893 v1.5.1

## Ordering Information

### Ordering Information

- |         |  |
|---------|--|
| MP-422B | <ul style="list-style-type: none"> <li>• AP with dual radios: 802.11a and 802.11b/g, dual Ethernet port, internal dual-band diversity antennas, external R-SMA jacks for 802.11a and 802.11b/g antennas (optional - ordered separately)</li> </ul> |
|---------|--|

### Optional MP-422A Accessories

- |            |   |
|------------|---|
| ANT-1060R  | <ul style="list-style-type: none"> <li>• 60° indoor/outdoor 802.11b/g sector antenna with 10dB gain, includes a 1meter SMA cable, mounting hardware</li> </ul>  |
| ANT-1120R  | <ul style="list-style-type: none"> <li>• 120° indoor/outdoor 802.11b/g sector antenna with 7dB gain, includes a 1meter SMA cable, mounting hardware</li> </ul>  |
| ANT-1180R  | <ul style="list-style-type: none"> <li>• 180° indoor/outdoor 802.11b/g sector antenna with 6dB gain, includes a 1meter SMA cable, mounting hardware</li> </ul>  |
| ANT-5060R  | <ul style="list-style-type: none"> <li>• 60° indoor/outdoor 802.11a sector antenna with 14dB gain, includes a 1meter SMA cable, mounting hardware</li> </ul>  |
| ANT-5120R  | <ul style="list-style-type: none"> <li>• 120° indoor/outdoor 802.11a sector antenna with 12dB gain, includes a 1meter SMA cable, mounting hardware</li> </ul>   |
| ANT-5180R  | <ul style="list-style-type: none"> <li>• 180° indoor/outdoor 802.11 a sector antenna for 10dB gain, includes a 1meter M/M SMA cable, mounting hardware</li> </ul>   |
| PD-3001-xx | <ul style="list-style-type: none"> <li>• PowerDsine PD-3001, single port 802.3af midspan PoE injector (PD Note)</li> </ul>  |
| PD-6006-xx | <ul style="list-style-type: none"> <li>• PowerDsine PD-6006/AC/M, managed 6-port 802.3af midspan PoE injector (PD Note)</li> </ul>  |
| PD-6012-xx | <ul style="list-style-type: none"> <li>• PowerDsine PD-6012, managed 12-port 802.3af midspan PoE injector (PD Note)</li> </ul>  |
| PD NOTE    | <ul style="list-style-type: none"> <li>• Please specify the appropriate region code for included power cord type in place of the XX: North America (NA), Europe (EU), United Kingdom (UK), Japan (JP), or Australia (AU)</li> </ul> |