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Mobility Point® MP-422A

DATA SHEET

Mobility Point MP-422A

Dual-radio Indoor Wireless Access Point for 802.11a and 802.11b/g

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-422A

The Trapeze Mobility Point (MP®) family of multi-function access points provides access point wireless services for Trapeze Smart Mobile® wireless networks. Smart Mobile is the only WLAN architecture with intelligent switching, which combines both centralized and distributed data forwarding based on the requirements of the underlying application. Configured and controlled by Trapeze Mobility Exchange® (MX®) controllers, MPs perform encryption and can also enforce policy and forward data, depending on the application needs. Smart Mobile WLANs can support the most demanding wireless applications indoors and outdoors, including voice over Wi-Fi for thousands of users, and are 802.11n ready without the need for expensive controller upgrades.

The Trapeze Networks indoor MP-422A is a new generation of intelligent access point that provides extended wireless coverage. 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-422A is less likely to be tampered with, but also features a built-in Kensington lock system for added physical security.

Distributed forwarding can be enabled in the MP-422A, resulting in optimized traffic flow, radically reduced latency, ultra high performance, and massive scalability. The MP-422A is simple to deploy, easy to manage, and supports any kind of service—data, voice and video—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-422A can also serve as an 802.11s Mesh AP, Mesh Point, Mesh Portal, or WDS Bridge to extend the reach of enterprise WLANs. Furthermore, the MP-422A 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-422A acts as the gateway node to the wired network, advertises services to mesh access point nodes, and enforces firewall, access and quality of service (QoS) policy, simultaneously performing broadcast suppression—all of which serve to optimize RF spectrum utilization in the mesh.

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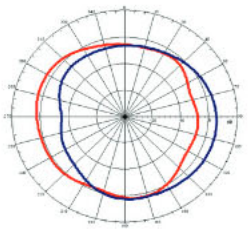
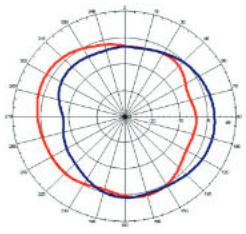
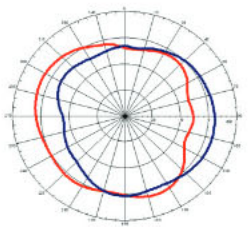
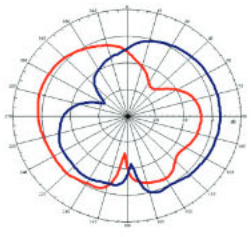
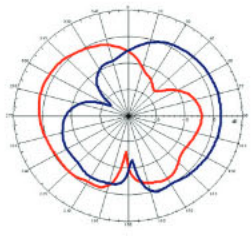
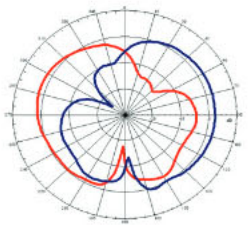
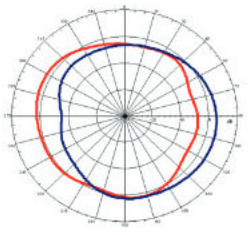
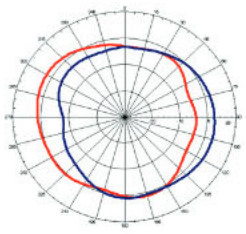
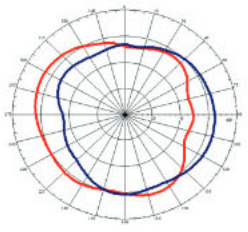
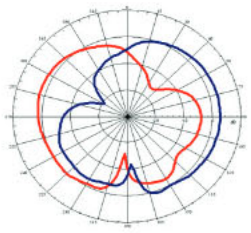
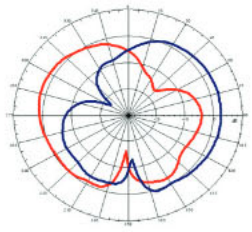
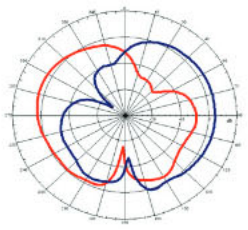
Mobility Point MP-422A (continued)

The MP-422A can be configured with one radio for client services and the other for mesh service. Smart Mobile intelligent switching is supported in all mesh modes, enabling each mesh node to provide the shortest, least congested path to the destination over encrypted secure mesh links. The MP-422A can also be used in a dedicated bridging mode, to provide seamless connectivity between buildings without the expense of laying new cable.

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

	2400 MHz	2450 MHz	2500 MHz
Horizontal Gain Diversity Antenna 1 Diversity Antenna 2			
Vertical Gain Diversity Antenna 1 Diversity Antenna 2			

	5250 MHz	5470 MHz	5725 MHz
Horizontal Gain Diversity Antenna 1 Diversity Antenna 2			
Vertical Gain Diversity Antenna 1 Diversity Antenna 2			

Key Features

Radios	
Dual radios	• 802.11a (5 GHz) and 802.11 b/g (2.4 GHz) concurrent operation
Radio transmit power setting	• Granular Transmit Power Settings in one dBm increments • Configurable power setting support allows control of RF cell size
RF Auto-Tuning	• Continuous self-tuning for optimal channel, data rate and transmit power • Eliminates dynamic and unplanned coverage holes
Internal Antenna	• Optimized gain pattern for maximum radio coverage
Mobility Services	
Voice with Quality of Service	• Prioritized per user and per session priority queuing • Wi-Fi Multimedia (WMM) QoS • SpectraLink Voice Priority (SVP) QoS • Voice qualified seamless handoff with 802.11i PMK cached roaming • Session-based bandwidth reservation with 802.11e TSPEC CAC • Neighbor Report advertisement with 802.11k • WMM Power Save • Unscheduled Automatic Power Save delivery with 802.11e U-APSD
Virtual Service Sets	• Up to 64 SSIDs per Mobility Point • Any combination of encryption and authentication type per SSID • Any VLAN topology per SSID • Unique Web Access Portal per SSID • Private or shared authentication
Security	
Physical Security	• Highly inconspicuous design, looks like a smoke detector • No data or security credentials stored locally • No console port; no local access is possible • If stolen, no secure configuration data goes with it • Stolen AP can be "blacklisted" • Integrated Kensington security lock feature
Encryption	• 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
Intrusion Detection and Protection	• ActiveScan rogue access point and denial-of-service (DoS) attack detection, alarming, and mitigation - simultaneous with MP operation • SentryScan dedicated rogue access point and denial-of-service (DoS) attack detection, alarming and mitigation - dedicated sensor operation
Management and Control	
Scalability and Resiliency	• Supports up to 500 simultaneous clients • Smart Mobile Intelligent switching enables distributed forwarding of user traffic through the Mobility Point • Dual attached Power-over-Ethernet with redundant network link • Outage resiliency planning for RF Auto-Tune using RingMaster™
Installation and Configuration	• One snap invisible ceiling grid attachment • Powered by any Trapeze Networks Mobility Exchange WLAN Controller, POE-enabled switch or mid-span power injector • True omni-directional antenna allows position-independent placement
Client Load Balancing	• Client steering across 802.11 a/b/g bands to maximize usage and consistently balance load over the available spectrum • Equalize client sessions across groups of Mobility Points with like Service Policies • Restore equality of session load across groups of Mobility Points with like Service Profiles when new Mobility Points are added or a Mobility Point returns from a transient outage • Equalize balanced groups of Mobility Points across multiple Mobility Exchange WLAN Controllers in a Mobility Domain

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Specifications

Hardware Specifications	
Dimensions (W x D x H)	• Diameter: 6.75 in (17.15 cm) Height: 2.09 in (5.30 cm)
Weight	• 12.9 oz (366 g)
Interfaces	• Two RJ-45 ports for 10/100Mbps Ethernet and Power-over-Ethernet (PoE)
Environmental	• Operating temperature: 0°C to 50°C (32oF to 122oF) • Storage temperature: -25°C to 70°C (-4oF to 158oF) • Humidity: 10% - 95% (non-condensing)
Power	• 9.3W peak during dual radio operation
Status Indicators	• Radio 1 and Radio 2 LEDs indicate a variety of conditions at-a-glance
802.11a Radio Specifications	
Operating Frequency	• 5.15 GHz to 5.85 GHz
Operating Channels	• Based on regulatory domain
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	• USA: 47CFR(FCC) Part 15.407 • Canada: IC RSS-210, Issue 6 • EU: ETSI EN301 893, EN301 489-1 and -17, EN301 893 v1.3.1 • Japan: TELEC ARIB STD-70 (per the new W52/W53 requirements)
802.11b Radio Specifications	
Operating Frequency	• 2.4 GHz to 2.484 GHz
Operating Channels	• Based on regulatory domain
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
Radio Approvals	• USA: 47CFR(FCC) Part 15.247 • Canada: IC RSS-210, Issue 6 • EU: ETSI EN300 328-2, EN301 489-1 and -17 • Japan: TELEC RCR STD 33B, ARID STD-T66
802.11g Radio Specifications	
Operating Frequency	• 2.4 GHz to 2.484 GHz
Operating Channels	• Based on regulatory domain
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	• USA: 47CFR(FCC) Part 15.247 • Canada: IC RSS-210, 1ssue 6 • EU: ETSI EN300 328-2, EN301 489-1 and -17 • Japan: TELEC RCR STD 33B, ARID STD-T66
Standards Compliance	
IEEE	• 802.3i 10BASE-T Ethernet • 802.3u 100BASE-TX Fast Ethernet • 802.3af Power over Ethernet • 802.11 a/b/g, 802.11d, 802.11e, 802.11h, 802.11i • 802.1X Network Access Control and Mutual Authentication • 802.11a, 802.11b, and 802.11g Wireless LAN • 802.11e quality of service (QoS) (WMM), call admission control (TSPEC), Unscheduled Automatic Power Save Delivery (U-APSD) • 802.11i Fast Roaming (PMK Cache), encryption (AES/CCMP and TKIP)

Wi-Fi Alliance	• Wi-Fi Certified for 802.11 a/b/g • Wi-Fi Protected Access (WPA) and Wi-Fi Protected Access 2 (WPA2) • Wi-Fi Multimedia (WMM)
IETF	• IETF CAPWAP WG Taxonomy and Architecture compatibility
Regulatory Compliance	
Safety	• UL 60950-1, 1st Edition • CAN/CSA C22-2 No. 60950-1-03 • CB Scheme to IEC 60950-1 1st Edition • EU Low Voltage Directive 2002/95/EC • UL-2043 Plenum Rated for Commercial Installation
Environmental	• WEEE: EU Directive 2002/96/EC • ROHS: EU Directive 2003/95/EC • EN60601-1-2 (2001): EU Medical Directive
Other	• EU EMC Directive 89/336/EC • ROHS: EU Directive 1999/5/EC, 2006/122/EC • FCC Part 15, Class B • ICES-003, Class B
Dynamic Frequency Selection	• EN 301 893 v1.3.1

Ordering Information

Ordering Information	
MP-422A	• 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)
Optional MP-422A Accessories	
ANT-1060R	• 60° indoor/outdoor 802.11b/g sector antenna with 10dB gain, includes a 1meter SMA cable, mounting hardware
ANT-1120R	• 120° indoor/outdoor 802.11b/g sector antenna with 7dB gain, includes a 1meter SMA cable, mounting hardware
ANT-1180R	• 180° indoor/outdoor 802.11b/g sector antenna with 6dB gain, includes a 1meter SMA cable, mounting hardware
ANT-5060R	• 60° indoor/outdoor 802.11a sector antenna with 14dB gain, includes a 1meter SMA cable, mounting hardware
ANT-5120R	• 120° indoor/outdoor 802.11a sector antenna with 12dB gain, includes a 1meter SMA cable, mounting hardware
ANT-5180R	• 180° indoor/outdoor 802.11 a sector antenna for 10dB gain, includes a 1meter M/M SMA cable, mounting hardware
PD-3001-xx	• PowerDsine PD-3001, single port 802.3af midspan PoE injector (PD Note)
PD-6006-xx	• PowerDsine PD-6006/AC/M, managed 6-port 802.3af midspan PoE injector (PD Note)
PD-6012-xx	• PowerDsine PD-6012, managed 12-port 802.3af midspan PoE injector (PD Note)
PD NOTE	• 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)

