



## HP MSM Controller Series

Data sheet

### Product overview

Working in conjunction with HP MSM access points, the HP MSM Controller Series delivers high-performance, scalable, wireless networks. The enhanced architecture scales to 802.11n with the required controller for enterprise, R&D, and other environments. The architecture features a Virtual Service Controller (VSC) with integrated, configurable Quality of Service (QoS), authentication, encryption, and VLAN support, delivering the wireless edge. Scalable for a large deployment, the MSM wireless controller supports a full range of capabilities. Wireless controllers integrate with the network for integration and extension of the network, authentication (AAA) services, built-in firewall, and VLAN support, and authentication.

### Key features

- Enterprise scalability and performance
- Enhanced architecture for flexible, wireless design
- IEEE 802.11a/b/g/n AP and access device support
- Configurable WLAN security
- Authentication and bandwidth management



## Feature: and benefit:

### Quality of Service (QoS)

- **Rate limiting:** limit the rate of traffic to specific destinations, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Diagnostic:** collect and analyze traffic, such as DHCP traffic, to identify and resolve network issues. (PCAP files, etc.), and the rate of traffic to specific destinations, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Centralized traffic:** Limit the rate of traffic to specific destinations, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.

### Firewall

- **Stateful firewall:** enforce firewall rules, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **NAT/PAT:** change the source and destination IP addresses of traffic, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Authenticated network access:** allow access to the network only for authenticated users, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.

## Management, etc.

### Automated work flows:

- **Initial controller settings:** define basic settings, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Wireless network for employees:** enable access to the network for employees, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Wireless network for guests:** enable access to the network for guests, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Remote configuration and management:** allow access to the network for remote users, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Management interface control:** allow access to the network for management, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Management VLAN:** create a management VLAN, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **RADIUS accounting support:** enable RADIUS accounting, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Logging:** enable logging, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Controller networking:** configure controller networking, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **DHCP support:** configure DHCP support, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.
- **Band steering:** configure band steering, such as the Internet, and the rate of traffic to specific destinations, such as the Internet.

## – Network management support:

- **HP PCM+ and Mobility Manager:** provides centralized management of the network, including configuration, monitoring, and troubleshooting of the network.
- **Controller management:** provides a single point of management for the network controllers, including configuration, monitoring, and troubleshooting of the controllers.

## – Unified network visibility:

provides a single point of visibility into the network, including configuration, monitoring, and troubleshooting of the network.

## – 10 GbE connections to the switch fabric (MSM765 zl Premium Mobility controller only):

- provides 10-GbE connections to the switch fabric, allowing for high-speed data transfer between the switch fabric and the network controllers.

## – IPv6 wireless client traffic forwarding:

allows for the forwarding of IPv6 traffic from wireless clients to the network controllers.

## – IEEE 802.3ad Link Aggregation Control Protocol (LACP) and HP port trunking (MSM720 controller only):

allows for the aggregation of multiple network links into a single logical link, increasing the bandwidth and availability of the network.

## – Performance, availability

## – High-performance processor system:

- **MSM720:** features a dual-core 800MHz P1020 processor with a 256 KB cache and a 100 MB DRAM, providing high performance and low power consumption.
- **MSM760:** features a dual-core 1.2 GHz P1020 processor with a 256 KB cache and a 100 MB DRAM, providing high performance and low power consumption.
- **MSM765 zl:** features a dual-core 1.2 GHz P1020 processor with a 256 KB cache and a 100 MB DRAM, providing high performance and low power consumption.

## – Memory subsystems:

4/2/1 GB of memory (MSM765 (DDR2)/MSM760 (DDR2)/MSM720 (DDR3)) for the network controllers.

## – Disk drive (MSM76x):

250 GB SATA II 7200 RPM hard disk drive for the network controllers.

## – Mobility

## – Solutions enhanced for businesses:

MSM7xx provides enhanced solutions for businesses, including support for multiple users, secure access, and high performance.

## – Powerful security capabilities:

provides powerful security capabilities, including support for secure access, secure data transfer, and secure management.

## – Solutions that cover the most important WLAN applications:

HP MSM provides solutions for the most important WLAN applications, including support for VoIP, video, and data.

## – Capacity that scales from small office to large campus:

provides capacity that scales from small office to large campus, allowing for the deployment of the network in a wide range of environments.

## – Premium Mobility scalability features:

- **Virtual controller:** allows for the virtualization of the network controllers, allowing for the deployment of the network in a wide range of environments.
- **N+1 redundancy:** provides N+1 redundancy for the network controllers, ensuring high availability and reliability.
- **Seamless failover:** provides seamless failover for the network controllers, ensuring high availability and reliability.
- **64 VSC profiles:** provides 64 VSC profiles for the network controllers, allowing for the deployment of the network in a wide range of environments.

## – Mobility Traffic Manager:

provides a single point of management for the network traffic, including configuration, monitoring, and troubleshooting of the network.



– **Lifetime warranty:** f<sub>0</sub> ; the MSM720 a, d  
MSM765 , c<sub>0</sub> , l<sub>0</sub> e<sub>0</sub> (with the exce. l<sub>0</sub> , f the  
hard disk drive which has a 5- ea<sub>0</sub> i<sub>0</sub> , illed wa<sub>0</sub> a<sub>0</sub> , l<sub>0</sub> )  
f<sub>0</sub> ; at<sub>0</sub> , g at<sub>0</sub> , l<sub>0</sub> w<sub>0</sub> , the , d<sub>0</sub> ! c<sub>0</sub> ! , with  
 , ex<sub>0</sub> ! b<sub>0</sub> ! i<sub>0</sub> e<sub>0</sub> ! da<sub>0</sub> , ad<sub>0</sub> : a<sub>0</sub> , ce<sub>0</sub> ! e<sub>0</sub> . ace<sub>0</sub> , e<sub>0</sub> ! (a<sub>0</sub> : ai ab e i<sub>0</sub>  
 , , l<sub>0</sub> c<sub>0</sub> ! , l<sub>0</sub> ie<sub>0</sub> ) ~

- ^Ha: dwa: e wa: a: lie: e: ace, e, f, i: a: a: g a: a: i, w, the: i: d i: c, with, exi: b i: e: da: ad: a: ce: e: ace, e, f (a: a: i b e i: i: c, i: lie). The di: k d i: e i: c i: d e d with HP A i: a: ce O N e Ad: a: ced Se: i: ce: a: d Se: i: ce: M, d i: e, HP The a: Ma: age, e, f Se: i: ce: M, d i: e, HP Ex: e d Se: i: ce: M, d i: e with Ri: e b e d See head Ri: O S A: i: ca: i: , HP MSM765 P: e: i: l, M, bi: i: C, i: e: a: d HP S i: i: a b e B a: ch C, i: i: i: i: ca: i: M, d i: e, we e d b i: Mic: i: f i: L: c h a: a: f i: e: e a: ha: d wa: e wa: a: i: F: i: d e i: a: i: e f e: i: the S: fwa: e i: ce: a: d ha: d wa: e wa: a: i: a: e e i: a: [www.h-c.com/~ew.ikigawa/a](http://www.h-c.com/~ew.ikigawa/a)

HP MSM C, , , e, Se,ie:

S.ecifica,io, , :



HP MSM710 Mobility Controller (J9325A)



HP MSM710 Access Controller (J9328A)



HP MSM720 Premium Mobility Controller (WW) (J9694A)

Ports	2 RJ-45 a, , e, ,i, g 10/100/1000 , , , (IEEE 802.3 T, ,e 10BASE-T, IEEE 802.3! T, ,e 100BASE-TX, IEEE 802.3ab T, ,e 1000BASE-T); D! , ex: 10BASE-T/100BASE-TX: ha f , ; fl ; 1000BASE-T: fl , , ,  1 RS-232C DB-9 c, , , e , , ,	2 RJ-45 a, , e, ,i, g 10/100/1000 , , , (IEEE 802.3 T, ,e 10BASE-T, IEEE 802.3! T, ,e 100BASE-TX, IEEE 802.3ab T, ,e 1000BASE-T); D! , ex: 10BASE-T/100BASE-TX: ha f , ; fl ; 1000BASE-T: fl , , ,  1 RS-232C DB-9 c, , , e , , ,	4 RJ-45 a, , e, ,i, g 10/100/1000 , , , (IEEE 802.3 T, ,e 10BASE-T, IEEE 802.3! T, ,e 100BASE-TX, IEEE 802.3ab T, ,e 1000BASE-T); D! , ex: 10BASE-T/100BASE-TX: ha f , ; fl ; 1000BASE-T: fl , , ,  2 RJ-45 d! a , e, , , a, ,i, 10/100/1000 , , , (IEEE 802.3 T, ,e 10BASE-T, IEEE 802.3! T, ,e 100BASE-TX, IEEE 802.3ab T, ,e 1000BASE-T)  1 RJ-45 e,ia c, , , e , , ,
Physical characteristics			
Di, e, ,i, , :	7.5(d) x 10(w) x 1.74(h) i, . (19.05 x 25.4 x 4.42 c, )	7.52(d) x 10(w) x 1.73(h) i, . (19.1 x 25.4 x 4.4 c, )	10(d) x 6.28(w) x 1.75(h) i, . (25.4 x 15.95 x 4.45 c, )
Weigh!	6 b. (2.72 kg)	6 b. (2.72 kg)	3.62 b. (1.64 kg)
Mounting	1U rack , , , lab e with the HP MSM710 C, , , e; Rack M, , ,i, g Kit (J9404A)	1U rack , , , lab e with the HP MSM710 C, , , e; Rack M, , ,i, g Kit (J9404A)	MSM720 c, , , e: f! , , , the , , ,i, g , ,i, , , f! the 2520-8 , ,i, c! di, g EIA-31a, da d 19 i, . Te c, ,ack , , e, ,i, cabi, e! (ack , ,i, ,i, g kit i, c! ded); h, ,i, ,ia :! face , , wa , ,i, ,i, g.
Performance			
100 Mb La! e, c,			< 20.4 " (LIFO 64-b,ie ,ackel!)
1000 Mb La! e, c,			< 6.3 " (LIFO 64-b,ie ,ackel!)
Th, ,i, gh, !!			! , , 8.9 ,i i, , ,
Switch fabric :eed			12 Gb, :
MAC addre: : lab e ,i, e			12000 e, ,i, e:
Environment			
O, e, a, ,i, g ,e , ,e, a, ,i, e	41°F! , 104°F (5°C! , 40°C)	41°F! , 104°F (5°C! , 40°C)	41°F! , 113°F (5°C! , 45°C)
O, e, a, ,i, g ,e a, ,i, e h! , idi!	20%! , 90%, , , , c, , de, ,i, g	20%! , 90%, , , , c, , de, ,i, g	15%! , 95% @ 104°F (40°C)
N, , , ,e, a, ,i, g/S! , ,age ,e , ,e, a, ,i, e	-40°F! , 176°F (-40°C! , 80°C)	-40°F! , 176°F (-40°C! , 80°C)	-40°F! , 158°F (-40°C! , 70°C)
N, , , ,e, a, ,i, g/S! , ,age ,e a, ,i, e h! , idi!	5%! , 95%, , , , c, , de, ,i, g	5%! , 95%, , , , c, , de, ,i, g	15%! , 95% @ 149°F (65°C)
Electrical characteristics			
De, c, i, ,i, ,	IEEE 802.3af P, E c, , , ,ia, , , , 48 VDC i, ,i, f! , i, c! ded AC , , we: :! , , ,	IEEE 802.3af P, E c, , , ,ia, , , , 48 VDC i, ,i, f! , i, c! ded AC , , we: :! , , ,	
Maxi, ! , heal di: i, a, ,i, , V, ,age	100-240 VAC	100-240 VAC	70 BTU/h; (73.85 kJ/h); 100-240 VAC
C! , ,e, !	0.2/0.1 A	0.2/0.1 A	.2/.1 A
Maxi, ! , , , we: , a, ,i, g F,eq! e, c,	6 W 50/60 H,	6 W 50/60 H,	20 W 50/60 H,
Safety	UL 60950-1; CAN/CSA 22.2 N, . 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 N, . 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 N, . 60950-1
Emissions	FCC ,a, ,! 15 C a: : A; EN 55022 C a: : A; CISPR 22 C a: : A; ICES-003	FCC ,a, ,! 15 C a: : A; EN 55022 C a: : A; CISPR 22 C a: : A; ICES-003	FCC ,a, ,! 15 C a: : A; EN 55022 C a: : A; CISPR 22 C a: : A; ICES-003
Features	S! , , ,led: - IEEE 802.11 , /a/b/g accer: , ,i, : a, d/ , accer: de,ice: - 10 accer: , ,i, : a, d/ , accer: de,ice:  - 100 i, ,! ,a, e, ! , g! e, :! accer: ! ,e:  i, c! ded e,ice: : - P! ,ga, d- ,a, AP ,a, age, e, , a, d WLAN ,a, age, e, ! - G! e, :! accer: :  - Ca, ,i, e , , ,la - PCI DSS c, , , ,ia, ce f, , , wire e: : P, S! ,affic	S! , , ,led: - IEEE 802.11 , /a/b/g accer: , ,i, : , , accer: de,ice: - 10 accer: , ,i, : a, d/ , accer: de,ice:  - 100 i, ,! ,a, e, ! , g! e, :! accer: ! ,e:  i, c! ded e,ice: : - P! ,ga, d- ,a, AP ,a, age, e, , a, d WLAN ,a, age, e, ! - G! e, :! accer: :  - Ca, ,i, e , , ,la - PCI DSS c, , , ,ia, ce f, , , wire e: : P, S! ,affic	S! , , ,led: - IEEE 802.11 , /a/b/g accer: , ,i, : a, d/ , accer: de,ice: - 10 i, , 40 accer: , ,i, : a, d/ , accer: de,ice: (i, i, c! e, e, ,i, f 10) - IEEE 802.3ad Li, k Aggre, a, ,i, , C, , , , P, ,i, c, (LACP) - 250 i, ,! ,a, e, ! , g! e, :! accer: ! ,e: i, c! ded e,ice: : - P! ,ga, d- ,a, AP ,a, age, e, , a, d WLAN ,a, age, e, ! - G! e, :! accer: :  - P! ,ga, d- ,a, AP ,a, age, e, , a, d WLAN ,a, age, e, ! - G! e, :! accer: :  - Ca, ,i, e , , ,la - PCI DSS c, , , ,ia, ce f, , , wire e: : P, S! ,affic

S.ecifica'i, , : (c, , i, led)

	HP MSM710 Mobility Controller (J9325A)	HP MSM710 Access Controller (J9328A)	HP MSM720 Premium Mobility Controller (WW) (J9694A)
Notes			<p>-Vill a c, , e, (l, l, w, MSM720 c, , e, a d 40 AP: with e,ie, c.)</p> <p>La'e, c, : a le: e,ie, l, c,ie, l, affic b, idged , ca , al the AP.</p> <p>F, : U.S. g, e, , e, l, a, l fac'led : a e, : e, q, l, e, e, l, , de: the TAA MSM720 c, , e, , , de: F, : a, l, the AMS a, d WW , de: , the WW , de: .</p>
Services	<p>3-ear, : a, l, , , g, ba , ex' -da, ad: a, ce excha, ge (UN535E)</p> <p>3-ear, 4-h, l, , tile, 13x5 c, : e, age f, : ha, d, wa, e (UN536E)</p> <p>3-ear, 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e (UN537E)</p> <p>3-ear, 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e, 24x7 SW , h, , e, l, , , a, d SW l, : da'e: (UN538E)</p> <p>3-Yea, , 9x5 SW , h, , e, l, , , , fiwa, e l, : da'e: (UQ581E)</p> <p>3-ear, , 24x7 SW , h, , e, l, , , , , fiwa, e l, : da'e: (UQ582E)</p> <p>1-ear, , : hwa, a, l, , : a, l, , , , g, ba , ex' -da, ad: a, ce excha, ge (UN539PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 13x5 c, : e, age f, : ha, d, wa, e (UN540PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e (UN541PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e, 24x7 , fiwa, e , h, , e, l, , , (UN542PE)</p> <p>3 Y; 6 h; Ca -l, -Re. ai; O, tile (UW328E)</p> <p>Refe: l, the HP web: ile a l <a href="http://www.hp.com/go/ew/ki/g/etice">www.hp.com/go/ew/ki/g/etice</a>: f, : de' ai : , the e, : e, e, e, de: c, i, l, , a, d , d, d, c, l, , be: l, F, : de' ai : ab, l, l, e, : e, : a, d , e, : , e, l, , e, l, , : a, e, a, , e, a, e c, , l, a, c, l, , l, : , ca HP : a e, : ffice.</p>	<p>3-ear, : a, l, , , g, ba , ex' -da, ad: a, ce excha, ge (UN639E)</p> <p>3-ear, 4-h, l, , tile, 13x5 c, : e, age f, : ha, d, wa, e (UN640E)</p> <p>3-ear, 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e (UN641E)</p> <p>3-ear, 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e, 24x7 SW , h, , e, l, , , , a, d SW l, : da'e: (UN642E)</p> <p>3-Yea, , 9x5 SW , h, , e, l, , , , , fiwa, e l, : da'e: (UQ583E)</p> <p>3-ear, , 24x7 SW , h, , e, l, , , , , fiwa, e l, : da'e: (UQ584E)</p> <p>1-ear, , : hwa, a, l, , : a, l, , , , g, ba , ex' -da, ad: a, ce excha, ge (UN643PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 13x5 c, : e, age f, : ha, d, wa, e (UN644PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e (UN645PE)</p> <p>1-ear, , : hwa, a, l, , 4-h, l, , tile, 24x7 c, : e, age f, : ha, d, wa, e, 24x7 , fiwa, e , h, , e, l, , , (UN646PE)</p> <p>3 Y; 6 h; Ca -l, -Re. ai; O, tile (UW331E)</p> <p>Refe: l, the HP web: ile a l <a href="http://www.hp.com/go/ew/ki/g/etice">www.hp.com/go/ew/ki/g/etice</a>: f, : de' ai : , the e, : e, e, e, de: c, i, l, , a, d , d, d, c, l, , be: l, F, : de' ai : ab, l, l, e, : e, : a, d , e, : , e, l, , e, l, , : a, e, a, , e, a, e c, , l, a, c, l, , l, : , ca HP : a e, : ffice.</p>	<p>Refe: l, the HP web: ile a l <a href="http://www.hp.com/go/ew/ki/g/etice">www.hp.com/go/ew/ki/g/etice</a>: f, : de' ai : , the e, : e, e, e, de: c, i, l, , a, d , d, d, c, l, , be: l, F, : de' ai : ab, l, l, e, : e, : a, d , e, : , e, l, , e, l, , : a, e, a, , e, a, e c, , l, a, c, l, , l, : , ca HP : a e, : ffice.</p>

Specifically,  $(c_0, i, l)$  is



HP MSM720 TAA Access Controller (J9695A)

8



HP MSM C<sub>0</sub> \ ?<sub>0</sub> e; Se;ie;

Specificity:  $(c_0, i, led)$

	HP MSM720 Access Controller (WW) (J9693A)	HP MSM720 TAA Premium Mobility Controller (J9696A)	HP MSM720 TAA Access Controller (J9695A)
Notes	<p>La'e, c, a le: efe; l, cie; l; affic b idged, ca, a l the AP.</p> <p>F; U.S. g, te; , e; l, a, l fac l l ed: a e: eq l i e, e; l, , de; the TAA MSM720 c, l, e; , de; l; F; a, the AMS a, d WW, de; l; the WW, de; l.</p>		
Services	<p>Refe; l, the HP web i e a l</p> <p><a href="http://www.hp.com/go/efice">www.hp.com/go/efice</a>; f; de l a i t, , the e; i ce e e de c i l i, a, d, d i c l, l, be; l; F; de l a i t ab, l l e; i ce; a, d e; e; e l i, e; i; l, l; a, ea, e, ea e c, l a c l, l, ca HP a e; e, ffice.</p>	<p>Refe; l, the HP web i e a l</p> <p><a href="http://www.hp.com/go/efice">www.hp.com/go/efice</a>; f; de l a i t, , the e; i ce e e de c i l i, a, d, d i c l, l, be; l; F; de l a i t ab, l l e; i ce; a, d e; e; e l i, e; i; l, l; a, ea, e, ea e c, l a c l, l, ca HP a e; e, ffice.</p>	<p>Refe; l, the HP web i e a l</p> <p><a href="http://www.hp.com/go/efice">www.hp.com/go/efice</a>; f; de l a i t, , the e; i ce e e de c i l i, a, d, d i c l, l, be; l; F; de l a i t ab, l l e; i ce; a, d e; e; e l i, e; i; l, l; a, ea, e, ea e c, l a c l, l, ca HP a e; e, ffice.</p>

HP MSM C Series

Specifications (continued)

	HP MSM760 Premium Mobility Controller (J9420A)	HP MSM760 Access Controller (J9421A)	HP MSM765 zl Premium Mobility Controller (J9370A)
Ports	2 RJ-45 all-purpose 10/100/1000 Mbps (IEEE 802.3 T, IEEE 10BASE-T, IEEE 802.3z T, IEEE 100BASE-TX, IEEE 802.3ab T, IEEE 1000BASE-T); D1: ex: 10BASE-T/100BASE-TX: half/full; 1000BASE-T: full	2 RJ-45 all-purpose 10/100/1000 Mbps (IEEE 802.3 T, IEEE 10BASE-T, IEEE 802.3z T, IEEE 100BASE-TX, IEEE 802.3ab T, IEEE 1000BASE-T); D1: ex: 10BASE-T/100BASE-TX: half/full; 1000BASE-T: full	
	1 RJ-45 media converter port	1 RJ-45 media converter port	
Physical characteristics			
Dimensions	15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm.) (1U height)	15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm.) (1U height)	10.3(d) x 8.13(w) x 1.75(h) in. (26.16 x 20.65 x 4.45 cm.)
Weight	13.45 lb. (6.1 kg)	13.45 lb. (6.1 kg)	2.05 lb. (0.93 kg)
Mounting	Mountable in a 19-in. rack, or in a cabinet (half-width, 1U); face forward	Mountable in a 19-in. rack, or in a cabinet (half-width, 1U); face forward	Cabinet-mounted, or wall-mounted; HP 5406 (J8697A), 5412 (J8698A), and 8212 (J8715A)
Environment			
Operating temperature	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)	32°F to 113°F (0°C to 45°C)
Operating relative humidity	15% to 80%, non-condensing	15% to 80%, non-condensing	15% to 95% @ 131°F (55°C), non-condensing
Non-operating storage temperature	-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)	-40°F to 158°F (-40°C to 70°C)
Non-operating storage relative humidity			15% to 95%, non-condensing
Electrical characteristics			
Maximum heat dissipation	434 BTU/h; (457.87 kJ/h.)	434 BTU/h; (457.87 kJ/h.)	272 BTU/h; (287 kJ/h.)
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	2/1 A	2/1 A	1.0/0.4 A
Maximum power	127 W		80 W
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Safety	UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1; CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1
Emissions	FCC Part 15 Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003	FCC Part 15 Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003	FCC Part 15 Class A; EN 55022 Class A; CISPR 22 Class A; ICES-003
Features	Supported: - IEEE 802.11 a/b/g access points, a/d, access device - 40 to 200 access points, a/d, access device (10, 20, 40) - MSM fit, wave rate: 10, 20, 40, 80, 160, 320, 640, 1280, 2560, 5120, 10240, 20480, 40960, 81920, 163840, 327680, 655360, 1310720, 2621440, 5242880, 10485760, 20971520, 41943040, 83886080, 167772160, 335544320, 671088640, 1342177280, 2684354560, 5368709120, 10737418240, 21474836480, 42949672960, 85899345920, 171798691840, 343597383680, 687194767360, 1374389534720, 2748779069440, 5497558138880, 10995116277760, 21990232555520, 43980465111040, 87960930222080, 175921860444160, 351843720888320, 703687441776640, 1407374883553280, 2814749767106560, 5629499534213120, 11258999068426240, 22517998136852480, 45035996273704960, 90071992547409920, 180143985094819840, 360287970189639680, 720575940379279360, 1441151880758558720, 2882303761517117440, 5764607523034234880, 11529215046068469760, 23058430092136939520, 46116860184273879040, 92233720368547758080, 184467440737095516160, 368934881474191032320, 737869762948382064640, 1475739525896764129280, 2951479051793528258560, 5902958103587056517120, 11805916207174113034240, 23611832414348226068480, 47223664828696452136960, 94447329657392904273920, 188894659314785808547840, 377789318629571617095680, 755578637259143234191360, 1511157274518286468382720, 3022314549036572936765440, 6044629098073145873530880, 12089258196146291747061760, 24178516392292583494123520, 48357032784585166988247040, 96714065569170333976494080, 193428131138340667952988160, 386856262276681335905976320, 773712524553362671811952640, 1547425049106725343623905280, 3094850098213450687247810560, 6189700196426901374495621120, 12379400392853802748991242240, 24758800785707605497982484480, 49517601571415210995964968960, 99035203142830421991929937920, 198070406285660843983859875840, 396140812571321687967719751680, 792281625142643375935439503360, 1584563250285286751870879006720, 3169126500570573503741758013440, 6338253001141147007483516026880, 12676506002282294014967032053760, 25353012004564588029934064107520, 50706024009129176059868128215040, 101412048018258352119736256430080, 202824096036516704239472512860160, 405648192073033408478945025720320, 811296384146066816957890051440640, 1622592768292133633915780102881280, 3245185536584267267831560205762560, 6490371073168534535663120411525120, 12980742146337069071326240823050240, 25961484292674138142652481646100480, 51922968585348276285304963292200960, 103845937170696552570609926584401920, 207691874341393105141219853168803840, 415383748682786210282439706337607680, 830767497365572420564879412675215360, 1661534994731144841129758825350430720, 3323069989462289682259517650700861440, 6646139978924579364519035301401722880, 13292279957849158729038070602803445760, 26584559915698317458076141205606891520, 53169119831396634916152282411213783040, 106338239662793269832304564822427566080, 212676479325586539664609129644855132160, 425352958651173079329218259289710264320, 850705917302346158658436518579420528640, 1701411834604692317316873037158841057280, 3402823669209384634633746074317682114560, 6805647338418769269267492148635364229120, 13611294676837538538534984297270728458240, 27222589353675077077069968594541456916480, 54445178707350154154139937189082913832960, 108890357414700308308279874378165827665920, 217780714829400616616559748756331655331840, 435561429658801233233119497512663310663680, 8711228593176024664509212081790705871418231357440, 1742245718635204932932477990050652442654720, 3484491437270409865864955980101304885309440, 6968982874540819731729911960202609770618880, 13937965749081639463459823920405219541237760, 27875931498163278926919647840810439082475520, 55751862996326557853839295681620878164951040, 111503725992653115707678591363241756329902080, 223007451985306231415357182726483512659804160, 446014903970612462830714365452967025319608320, 892029807941224925661428730905934050639216640, 1784059615882449851322857461811868101278433280, 3568119231764899702645714923623736202556866560, 7136238463529799405291429847247472405113733120, 14272476927059598810582859694494944810227466240, 28544953854119197621165719388989889620454932480, 57089907708238395242331438777979779240909864960, 114179815416476790484662877555959558481819729920, 228359630832953580969325755111919116963639459840, 456719261665907161938651510223838233927278919680, 913438523331814323877303020447676467854557839360, 1826877046663628647754606040895352935709115678720, 365375409332944466912589573234605175770766806876160, 7307508186654514591018424163581411742836462714880, 14615016373309029182036848327162823485672925429760, 29230032746618058364073696654325646971345850859520, 58460065493236116728147393308651293942691701719040, 116920130986472233456294786617302587885383403438080, 233840261972944466912589573234605175770766806876160, 467680523945888933825179146469210351541533613752320, 935361047891777867650358292938420703083067227504640, 1870722095783555735300716585876841406166134455009280, 3741444191567111470601433171753682812332268910018560, 7482888383134222941202866343507365624664537820037120, 14965776766268445882405732687014731249329075640074240, 29931553532536891764811465374029462498658151280148480, 59863107708238395242331438777979779240909864960, 119726214130147567059245861496117849994632605120593920, 239452428260295134118491722992235699989265210241187840, 478904856520590268236983445984471399978530420482375680, 957809713041180536473966891968942799957060840964751360, 1915619426082361072947933783937885599914121681929502720, 3831238852164722145895867567875771199828243363859005440, 7662477704329444291791735135751542399656486727718010880, 15324955408658888583583470271503084799312973455436021760, 30649910817317777167166940543006169598625946910872043520, 61299821634635554334333881086012339197251893821744087040, 122599643269271108668667762172024678394503787643488175360, 245199286538542217337335524344049356789007575286976350720, 490398573077084434674671048688098713578015150573952701440, 980797146154168869349342097376197427156030301147905402880, 1961594292308337738698684194752394854312060602295810805760, 3923188584616675477397368389504789708624121204591621611520, 7846377169233350954794736779009579417248242409183243223040, 1569275433372051183573361206961569463538940125499025901706907556789760, 3138550866744102367146722413923138927077880250998051803413815113579520, 627710173348820473429344482787549045735591878921844559428340867399680, 125542034669691498716668844293872614338979697304611398570852168499360, 25108406933938299743333768858774522867795939460922279714170433699840, 50216813867876599486667537717549045735591878921844559428340867399680, 10043362735753198973335075435098091471183757843689118856681734799360, 200867254715063979466670150870196182942367515687378237713363469598720, 401734509430127958933340301740392365884735031374756475426726939197440, 803469018860255917866680603480784731769470062749512950853453878394880, 1606938037720511541106863153856613082703887514187727566274560, 3213876075441023082213726307713226165407775028375455132549120, 642775215088204614427452615426452330815550056750910265098240, 128555043017640922844795069209175959904655777038455310266956513280, 257110086035281845689590138418351919809311554076910620533913026560, 514220172070563691786680276836703839618623108153821241067826053120, 1028440340351127383573361206961569463538940125499025901706907556789760, 2056880680702254767146722413923138927077880250998051803413815113579520, 411376136140450953429344482787549045735591878921844559428340867399680, 822752272280901906858684194752394854312060602295810805760, 16455045445618038137166940543006169598625946910872043520, 32910090891236076274333768858774522867795939460922279714170433699840, 65820181782472152548667537717549045735591878921844559428340867399680, 13164036364494430509589473558019158834496484818366486446080, 26328072728988861019178947116038317668992969636732972892160, 52656145457977722038357894232076635337985939273465945784320, 105312290915955444076715788464153270675971878546931891568640, 210624581831910888153431576928306541351943757093863783137280, 421249163663821776306863153856613082703887514187727566274560, 842498327327643552613726307713226165407775028375455132549120, 1684996654655287105227452615426452330815550056750910265098240, 3369993309310574210454905230852904661631100113501820530196480, 6739986618621148420909810461705809323262200227003641060392960, 13479973237242296818218020923411618646524400454007282120785920, 26959946474484593636436041846823237293048800908014564241571840, 53919892948969187272872083693646474586097601816029128483143680, 107839785897938374545744167302293989976163944259613827566739128320, 215679571795876749091488324604587979952327888519227655133478256640, 431359143591753498182976649209175959904655777038455310266956513280, 862718287183506996365953394418351919809311554076910620533913026560, 1725436574367013992731906788836703839618623108153821241067826053120, 3450873148734027985463813577673407679237246216307642482135652106240, 6901746297468055970927627155346815358474492432615284964271304212480, 13803492594936111941855254310693630716948984865230569928542608424960, 276069851898722238837105086213872614338979697304611398570852168499360, 55213970379744447767421017242775362867795939460922279714170433699840, 110427940759488895534842034485549045735591878921844559428340867399680, 220855881518977791069684068971098091471183757843689118856681734799360, 441711763037955582139368137942196182942367515687378237713363469598720, 883423526075911164278736275884392365884735031374756475426726939197440, 1766847052151822328557472551768784731769470062749512950853453878394880, 3533694104303644657114945103537569463538940125499025901706907556789760, 7067388208607289314229890207075138927077880250998051803413815113579520, 14134776417214578628459780414153270675971878546931891568640, 2826955283442		

11

## HP MSM C, \, e; Serie: acc:, ie:

### HP MSM710 M, bi il, C, \, e; (J9325A)

HP 1-, il P, we; l, jec:, (J9407B)

HP MSM710 C, \, e; Rack M, l, il, g Kil (J9404A)

### HP MSM710 Acc:, C, \, e; (J9328A)

HP 1-, il P, we; l, jec:, (J9407B)

HP MSM710 C, \, e; Rack M, l, il, g Kil (J9404A)

HP MSM710 M, bi il, Se:,ice: U, g:,ade Lice, :e (J9331A)

### HP MSM720 P,e, il, M, bi il, C, \, e; (WW) (J9694A)

HP X121 1G SFP LC SX T;a, :cei:e; (J4858C)

HP X121 1G SFP LC LX T;a, :cei:e; (J4859C)

HP X121 1G SFP LC LH T;a, :cei:e; (J4860C)

HP X111 100M SFP LC FX T;a, :cei:e; (J9054C)

HP X112 100M SFP LC BX-D T;a, :cei:e; (J9099B)

HP X112 100M SFP LC BX-U T;a, :cei:e; (J9100B)

HP X122 1G SFP LC BX-D T;a, :cei:e; (J9142B)

HP X122 1G SFP LC BX-U T;a, :cei:e; (J9143B)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

### HP MSM720 Acc:, C, \, e; (WW) (J9693A)

HP X121 1G SFP LC SX T;a, :cei:e; (J4858C)

HP X121 1G SFP LC LX T;a, :cei:e; (J4859C)

HP X121 1G SFP LC LH T;a, :cei:e; (J4860C)

HP X111 100M SFP LC FX T;a, :cei:e; (J9054C)

HP X112 100M SFP LC BX-D T;a, :cei:e; (J9099B)

HP X112 100M SFP LC BX-U T;a, :cei:e; (J9100B)

HP X122 1G SFP LC BX-D T;a, :cei:e; (J9142B)

HP X122 1G SFP LC BX-U T;a, :cei:e; (J9143B)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

**NEW** HP MSM720 P,e, il, M, bi il, Lice, :e (J9698A)

### HP MSM720 TAA P,e, il, M, bi il, C, \, e; (J9696A)

HP X121 1G SFP LC SX T;a, :cei:e; (J4858C)

HP X121 1G SFP LC LX T;a, :cei:e; (J4859C)

HP X121 1G SFP LC LH T;a, :cei:e; (J4860C)

HP X121 1G SFP RJ45 T T;a, :cei:e; (J8177C)

HP X111 100M SFP LC FX T;a, :cei:e; (J9054C)

HP X112 100M SFP LC BX-D T;a, :cei:e; (J9099B)

HP X112 100M SFP LC BX-U T;a, :cei:e; (J9100B)

HP X122 1G SFP LC BX-D T;a, :cei:e; (J9142B)

HP X122 1G SFP LC BX-U T;a, :cei:e; (J9143B)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

### HP MSM720 TAA Acc:, C, \, e; (J9695A)

HP X121 1G SFP LC SX T;a, :cei:e; (J4858C)

HP X121 1G SFP LC LX T;a, :cei:e; (J4859C)

HP X121 1G SFP LC LH T;a, :cei:e; (J4860C)

HP X121 1G SFP RJ45 T T;a, :cei:e; (J8177C)

HP X111 100M SFP LC FX T;a, :cei:e; (J9054C)

HP X112 100M SFP LC BX-D T;a, :cei:e; (J9099B)

HP X112 100M SFP LC BX-U T;a, :cei:e; (J9100B)

HP X122 1G SFP LC BX-D T;a, :cei:e; (J9142B)

HP X122 1G SFP LC BX-U T;a, :cei:e; (J9143B)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

**NEW** HP MSM720 P,e, il, M, bi il, Lice, :e (J9698A)

### HP MSM760 P,e, il, M, bi il, C, \, e; (J9420A)

HP MSM760/765 Addil:, a 40 Acc:, P, i, ? Lice, :e (J9371A)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

### HP MSM760 Acc:, C, \, e; (J9421A)

HP MSM760 P,e, il, M, bi il, Lice, :e (J9491A)

HP MSM760/765 Addil:, a 40 Acc:, P, i, ? Lice, :e (J9371A)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

### HP MSM765, P,e, il, M, bi il, C, \, e; (J9370A)

HP MSM760/765 Addil:, a 40 Acc:, P, i, ? Lice, :e (J9371A)

**NEW** HP MSM720/760/765 Addil:, a 10 Acc:, P, i, ? Lice, :e (J9697A)

To learn more, visit [www.hp.com/go/ewrking](http://www.hp.com/go/ewrking)

© Copyright 2008-2012 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The trademarks and logos of HP and other companies are the property of their respective owners. All other trademarks are the property of their respective owners. No other trademarks are used herein without the permission of their respective owners. All other trademarks are the property of their respective owners. All other trademarks are the property of their respective owners.

The trademarks and logos of HP and other companies are the property of their respective owners. All other trademarks are the property of their respective owners. All other trademarks are the property of their respective owners.

4AA2-3153ENW, Created November 2008; Updated January 2012; Revision 9

