



AP300 Access Port

Plug-n-play 802.11a/b/g Access Ports:
Securely mobilizing the Wireless Enterprise



FEATURES

Mobility

Supports Mobility at Layer 2 and Layer 3, working in conjunction with Motorola's enterprise wireless LAN switches

Security

This unique dual-function device can execute and enforce the IDS/IPS security policies configured in the Motorola wireless switch, and can also be utilized as a 24x7 dedicated sensor with Wireless IPS from Air Defense

Load balancing, pre-emptive roaming and rate scaling

Increases reliability and resilience of the wireless network to support mission critical applications

802.1x supplicant

Allows authentication to a RADIUS server to enable an 802.1x-protected Ethernet port

More functionality for a fraction of the cost of access points

Access ports are a key component of Motorola's award winning wireless switch system, the wireless LAN architecture that does more, yet costs less. Working in conjunction with Motorola's wireless switches, the AP300 Access Port (AP) delivers robust and feature rich IEEE 802.11a/b/g connectivity. It can also be used as a sensor in conjunction with Motorola's Wireless Intrusion Protection System (IPS). The AP300 can be adopted as either a Layer 2 or Layer 3 AP, supporting Layer 3 Mobility — substantially reducing the cost of deploying, implementing and managing a wireless LAN while significantly increasing features, functionality and the security of the wireless LAN infrastructure.

Virtual AP enables true Wireless VLANs for better device and network performance

With Virtual AP, each access port can support four separate wireless broadcast domains — functionality that would otherwise require the installation of four first-generation access points. These true wireless VLANs enable separation of mobile end-users, ensuring that broadcast traffic reaches only those recipients for whom it is intended. Overall network traffic is reduced, network and device performance is improved, and device battery life is increased —

at a fraction of the cost required to deliver the same functionality in a first generation access point-based network. Each AP300 supports four BSSIDs (Basic Service Set Identifiers) and 16 ESSIDs (Extended Service Set Identifiers) per radio, enabling granular segmentation of the wireless LAN into multiple broadcast domains to meet specific enterprise needs. Typical access points support only one BSSID, utilizing ESSIDs (instead of BSSIDs) to create wireless VLANs.

Dual-radio 802.11a and 802.11g design

Simultaneous service to 802.11a, 802.11b and 802.11g mobile devices provides high-bandwidth wireless connectivity at speeds of up to 54 Mbps in both the 2.4 GHz and 5.2 GHz ISM bands.

Thin AP design

The AP300 requires no configuration or manual firmware maintenance. The Motorola wireless switch discovers access ports on the network and automatically downloads all configuration parameters and firmware, greatly reducing installation, maintenance and troubleshooting costs for Layer 2 and Layer 3 deployments.

For more information, visit us on the Web at www.motorola.com/ap300 or access our global contact directory at www.motorola.com/enterprisemobility/contactus

SPECIFICATION SHEET

AP300 ACCESS PORT

Plug-n-play 802.11a/b/g Access Ports: Securely mobilizing the Wireless Enterprise

802.11i

Support for IEEE standards-based security protocols for strong Encryption (AES, TKIP), Authentication and Key Management (802.1x-EAP)

802.11h

Enables worldwide operation through support for standards-based dynamic frequency selection and power control

802.3af

Simplifies and reduces total cost of installation through support of standards-based Power-over-Ethernet (PoE)

Dual form-factors

Plenum-rated external antenna model with metal housing is ideal for installation above ceiling tiles; the plastic internal-antenna housing allows for installation within the "carpeted-space" and provides cost-effective coverage via the integrated 2.4 GHz and 5.2 GHz antennas

Flexible mounting options

Fast and easy installation with wall, ceiling and above-ceiling tile mounting options; internal antenna version snaps on to T-bars of suspended ceilings without the use of any hardware; external antenna version installs above ceiling tiles

AP300 Specifications

Physical Characteristics	AP300 (internal antenna)	AP300 (external antenna)
Dimensions:	9.5 in. L x 7.0 in. W x 2.0 in. H/24.1 cm L x 17.8 cm W x 5.1 cm H	9.25 in. L x 5.75 in. W x 1.0 in. H/23.5 cm L x 14.6 cm W x 2.54 cm H
Weight:	1.0 lbs./0.45 kg	1.6 lbs./0.73 kg
Part number:*	WSAP-5110-100-WWR; WSAP-5110-050-WWR	WSAP-5100-100-WWR; WSAP-5100-050-WWR
Available mounting configurations:	Ceiling-mount (to suspended ceiling T-bars, below tile); wall mount	Ceiling-mount (above tile); wall-mount
Plenum rated:	No	Yes, certified to UL 2043
LED indicators:	2 LED indicators with multiple modes indicating 802.11a/802.11g Activity, Power, Sensor, Adoption and Errors	

Wireless Data Communications and Networking

Data rates supported:	802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps; 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps		
Network standard:	802.11a, 802.11b, 802.11g		
Wireless medium:	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM)		
VLANs/WLANs supported:	WS2000 — 4 VLANs/8 WLANs; WS5100 — 32 VLANs/32 WLANs; RFS6000 — 32 VLANs/32 WLANs; RFS7000 — 256 VLANs/256 WLANs		
Uplink:	Auto-sensing 10/100Base-T Ethernet		

Radio Characteristics

Frequency:	802.11b/g: 2.412 GHz to 2.484 GHz; 802.11a: 4.9 GHz to 5.875 GHz		
FCC (US and Canada):	2.412 to 2.462 GHz; 5.150 to 5.250 (UNII -1); 5.725 to 5.850 (ISM)		
EU:	2.412 GHz to 2.472 GHz; 5.250 to 5.350 GHz (Country Specific)		
Japan:	2.400 to 2.484 GHz; 5.150 to 5.250 GHz; 5.250 to 5.350 GHz		
China:	2.412 GHz to 2.472 GHz	5.725 GHz to 5.850 GHz	
Operating channels:	802.11b/g: ETSI: 13; North America: 11; TELEC (Japan): 13 802.11a: ETSI: Country Specific; North America: 12; UNII I, II, III; (approval for 5.4-5.7 GHz pending); TELEC (Japan): 8		
Available transmit power settings for 802.11a/b/g:	4-20 dBm		

Receiver sensitivity:	802.11b (-dBm)	802.11g (-dBm)	802.11a (-dBm)
1	-96	6	-92
2	-93	9	-89
5.5	-92	12	-87
11	-87	18	-86
		24	-83
		36	-77
		48	-74
		54	-72

User environment

Operating temperature:	32°F to 104°F/0°C to 40°C	-4°F to 122°F/-20°C to 50°C
Storage temperature:	-40°F to 158°F/-40°C to 70°C	
Operating humidity:	5%-95% (non-condensing)	
Operating altitude:	8,000 ft./2438 m	
Storage altitude:	15,000 ft./4572 m	
Electrostatic discharge:	+/- 15 kV (Air), +/- 8 kV (contact)	

Power Specifications

Operating voltage:	48 VDC @ 7W (typical), 36 VDC to 57 VDC (range)
Operating current:	145mA @ 48VDC (typical)
Integrated Power-over-Ethernet support:	Standards-based IEEE 802.3af

Antenna Specifications

Type:	Integrated 2.4 GHz and 5.2 GHz Dual-Antenna; elements with diversity	Two RSMA and two RBNC connectors for external antennas (not included)
Band:	2.4 GHz to 2.5 GHz; 4.9 GHz to 5.850 GHz (actual operating frequencies depend on regulatory rules and certification agency)	
VSWR:	2.4 GHz: Less than 2:1; 5.2 GHz: Less than 1.5:1	Antenna-specific
Gain:	2.4 GHz: 2 dBi; 5.2 GHz: 3.8 dBi	Antenna-specific

Regulatory

Product safety certifications:	UL 60950, cUL, EU EN 60950, TUV and UL 2043 (external antenna)
Radio approvals:	FCC (USA), Industry Canada, CE (Europe) and TELEC (Japan)
*WS-2000-1C-ABG-WWR (WS2000 and 1 AP300 (802.11a/b/g) bundle); WS-2000-2C-ABG-WWR (WS2000 and 2 AP300 (802.11a/b/g) bundle); WS-2000-2C-BG-WWR (WS2000 and 2 AP300 (802.11b/g) bundle); WS-2000-1ES-ABG-WR; WS-2000-2ES-ABG-WR; WS-2000-2ES-BG-WR	



MOTOROLA

motorola.com

Part number SS-AP300. Printed in USA 11/08. MOTOROLA and the Stylized M Logo are registered in the US Patent & Trademark Office. All other product or service names are the property of their respective owners. ©2008 Motorola, Inc. All rights reserved. For system, product or services availability and specific information within your country, please contact your local Motorola office or Business Partner. Specifications are subject to change without notice.