AP300 Access Port

Next-generation access ports: more functionality at a lower cost

FEATURES

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

Interoperability
Standards-based wireless, wired and security protocols ensure interoperability with third-party hardware

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

802.11h
Enables worldwide operation through support for standards-based dynamic frequency selection and power control

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 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). Access ports substantially reduce the cost of deploying, implementing and managing a wireless LAN, while significantly increasing features, functionality and security of the wireless LAN infrastructure.

Virtual AP enables true RF Virtual LANs (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, as all other Motorola access ports, 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 more information, contact Motorola at +1.800.722.6234 or +1.631.738.2400, or visit us on the web at: motorola.com/ap300

802.11i
Support for IEEE standards-based security protocols for strong Encryption (AES, TKIP), Authentication and Key Management (802.1x-EAP)

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

802.3af
Simplifies and reduces total cost of installation through support of standards-based Power-over-Ethernet (PoE)

Load balancing, pre-emptive roaming and rate scaling
Increases reliability and resilience of the wireless network to support mission critical applications

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
LEDs Indicators:	2 LED indicators with multiple modes indicating 802.11a/802.11g Activity, Power, Adoption and Errors	
Wireless Data Communications		
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)	
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 GHz to 2.462 GHz; 5.150 GHz to 5.250 GHz (UNII -1); 5.250 GHz to 5.350 GHz (UNII -2); 5.725 GHz to 5.825 GHz (UNII -3); 5.825 GHz to 5.850 GHz (ISM)	
EU:	2.412 GHz to 2.472 GHz; 5.150 GHz to 5.250 GHz; 5.150 GHz to 5.350 GHz; 5.470 GHz to 5.725 GHz; (Country Specific)	
Japan:	2.412 GHz to 2.484 GHz; 4.900 GHz to 5.000 GHz; 5.150 GHz to 5.250 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	
Nominal Transmitter Power:	802.11b/g: 17.5 dBm +/- 1 dBm @ 1, 2, 5.5, 11 Mbps; 17.0 dBm +/- 1 dBm @ 6 and 9 Mbps; 16.5 dBm +/- 1 dBm @ 12 and 18 Mbps; 14.0 dBm +/- 1 dBm @ 24 and 36 Mbps; 12.5 dBm +/- 1 dBm @ 48 and 54 Mbps 802.11a: 17.5 dBm +/- 1 dBm @ 6 and 9 Mbps; 16.0 dBm +/- 1 dBm @ 12 and 19 Mbps; 14.0 dBm +/- 1 dBm @ 24 and 36 Mbps; 12.0 dBm +/- 1 dBm @ 48 and 54 Mbps	
Receiver Sensitivity:	802.11b: 11 Mbps @ -84dBm; 5.5 Mbps @ -87dBm; 2 Mbps @ -88dBm; 1 Mbps @ -90dBm 802.11g: 54 Mbps @-68 dBm; 48 Mbps @ -70 dBm; 36 Mbps @ -75 dBm; 24 Mbps @-79 dBm; 18 Mbps @ -81 dBm; 12 Mbps @-85 dBm; 9 Mbps @ -87 dBm; 6 Mbps @-88 dBm 802.11a: 54 Mbps @-68 dBm; 48 Mbps @ -70 dBm; 36 Mbps @ -75 dBm; 24 Mbps @-79 dBm; 18 Mbps @ -81 dBm; 12 Mbps @-85 dBm; 9 Mbps @ -87 dBm; 6 Mbps @-88 dBm	
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: 0.0 dBi; 5.2 GHz: 3.0 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)	

R (WS2000 and 1-AP300 (802.11a/b/g) bundle); WS-2000-2C-BG-WWR (WS2000 and 2 AP300 (802.11a/b/g) bundle); WS-2000-2C-BG-WWR (WS2000 and 2 AP300 (802.11b/g) bundle)

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