Cisco Aironet 700W Series Access Point

KEY FEATURES
Performance with Investment Protection
● Six times faster than 802.11a/g networks
● Dual-radio, simultaneous 2.4GHz and 5GHz support
● Backward-compatible with 802.11a/b/g clients
Wired Access Support
● 4 x 10/100/1000BASE-T local Ethernet ports for wired device connectivity
● 1 local Ethernet port includes Power-over-Ethernet (PoE) out
● 1 x 10/100/1000BASE-T Power-over-Ethernet (PoE) Uplink port
Easy Installation and Power Efficient
● 802.11n performance with existing PoE switches
● Can be installed with single Ethernet cable powering the unit with PoE to save on additional cabling expenses
● Sleek compact design blends into a variety of indoor environments
Secure Interoperability
● 802.11n compliant
Simplified Network Management
● Controller-based deployment options
Secure Connections
● Supports rogue access point detection and denial of service attacks
Greater Network Capacity
● Dynamic frequency selection 2 (DFS-2) compliant
● U-NII-2 and U-NII-2 extended band support
Easy-to-Install, Small profile Mounting Bracket
● Small, compact form factor designed for easy installations for indoor deployments
● Included hidden Torx screw and Kensington lock for theft protection

The Cisco® Aironet® 700W Series offers a compact wall plate mountable access point for hospitality and education focused customers looking to modernize their networks to handle today's increasingly complex wireless access demands.

With 802.11n dual-radio 2 x 2 multiple-input multiple-output (MIMO) technology providing at least six times the throughput of existing 802.11a/g networks, the Cisco Aironet 700W Series offers the performance advantage of 802.11n quality at a competitive price.

As part of the Cisco Unified Wireless Network, the 700W Series Access Point provides low total cost of ownership and investment protection by integrating seamlessly with the existing network.

RF Excellence

Building on the Cisco Aironet heritage of RF excellence, the 700W Series Access Point delivers secure and reliable wireless connections with:

- Simultaneous dual band, dual radio with support for 2.4GHz and 5GHz in a compact form factor
- Optimized antenna and radio designs: Consistent network transmit and receive for optimized rate versus range
- Radio resource management (RRM): Automated self-healing optimizes the unpredictability of RF to reduce dead spots and help ensure high-availability client connections
- Cisco BandSelect improves 5-GHz client connections in mixed-client environments

- Advanced security features including Rogue Detection, wIPS and Context-Aware

Product Specifications

Table 1 lists the product specifications for Cisco Aironet 700W Series Access Points.

Table 1.   Product Specifications for Cisco Aironet 700W Series Access Points

Item	Specification
Part Numbers	**The Cisco Aironet 700W Wall Plate Access Point: Indoor environments, with internal antennas** ● AIR-CAP702W-x-K9 - Dual-band controller-based 802.11a/g/n ● AIR-CAP702W-xK910 - Eco-pack (dual-band controller-based 802.11a/g/n) 10 quantity access points **Cisco SMARTnet® Service for the Cisco Aironet 700W Series Access Point** ● CON-SNT-AIRCAP7x - SMARTnet 8x5xNBD 702w access point (dual-band 802.11 a/g/n) (e.g. CON-SNT-AIRCAP7A for 702w internal antenna for A Domain) **Cisco Wireless LAN Services** ● AS-WLAN-CNSLT - Cisco Wireless LAN Network Planning and Design Service ● AS-WLAN-CNSLT - Cisco Wireless LAN 802.11n Migration Service ● AS-WLAN-CNSLT - Cisco Wireless LAN Performance and Security Assessment Service **Regulatory domains: (x = regulatory domain)** Customers are responsible for verifying approval for use in their individual countries. To verify approval and to identify the regulatory domain that corresponds to a particular country, please visit: http://www.cisco.com/go/aironet/compliance. Not all regulatory domains have been approved. As they are approved, the part numbers will be available on the Global Price List.
Authentication & Security	● TKIP for WPA, AES for WPA2 ● 802.1X, Radius, AAA (authentication, authorization, accounting) ● 802.11i
Software	● Cisco Unified Wireless Network Software Release ● Cisco IOS® Software Release (future)
802.11n	● 2 x 2 multiple-input multiple-output (MIMO) with two spatial streams ● Maximal ratio combining (MRC) ● 20- and 40-MHz channels ● PHY data rates up to 300 Mbps ● Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (/Rx) ● 802.11 dynamic frequency selection (DFS)[4] ● Cyclic shift diversity (CSD) support ● Antenna Diversity

Data Rates Supported

802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

802.11bg: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps

802.11n data rates (2.4 GHz[1] and 5 GHz):

MCS Index[2]	GI[3] = 800ns		GI = 400ns	
	20-MHz Rate (Mbps)	40-MHz Rate (Mbps)	20-MHz Rate (Mbps)	40-MHz Rate (Mbps)
0	6.5	13.5	7.2	15
1	13	27	14.4	30
2	19.5	40.5	21.7	45
3	26	54	28.9	60
4	39	81	43.3	90
5	52	108	57.8	120
6	58.5	121.5	65	135

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[1] 2.4 GHz does not support 40 MHz.
[2] MCS Index: The Modulation and Coding Scheme (MCS) index determines the number of spatial streams, the modulation, the coding rate, and data rate values.
[3] GI: A Guard Interval (GI) between symbols helps receivers overcome the effects of multipath delays.

Item	Specification				
	7	65	135	72.2	150
	8	13	27	14.4	30
	9	26	54	28.9	60
	10	39	81	43.3	90
	11	52	108	57.8	120
	12	78	162	86.7	180
	13	104	216	115.6	240
	14	117	243	130	270
	15	130	270	144.4	300

Item	Specification
Frequency Band and 20-MHz Operating Channels	**A Regulatory Domain:** ● 2.412 to 2.462 GHz; 11 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz) ● 5.745 to 5.825 GHz; 5 channels **C Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.745 to 5.825 GHz; 5 channels **D (D regulatory domain):** ● 2.412 to 2.462 GHz; 11 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **E Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz) **H (H regulatory domain):** ● 2.412 to 2.472 GHz; 13 channels ● 5.150 to 5.350 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **I Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels **K Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.620 GHz; 7 channels ● 5.745 to 5.805 GHz; 4 channels **N Regulatory Domain:** ● 2.412 to 2.462 GHz; 11 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **Q Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 11 channels **R Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.660 to 5.805 GHz; 7 channels **S Regulatory Domain:** ● 2.412 to 2.472 GHz; 13 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 11 channels ● 5.745 to 5.825 GHz; 5 channels **T Regulatory Domain:** ● 2.412 to 2.462 GHz; 11 channels ● 5.280 to 5.320 GHz; 3 channels ● 5.500 to 5.700 GHz; 11 channels ● 5.745 to 5.825 GHz; 5 channels **Z Regulatory Domain:** ● 2.412 to 2.462 GHz; 11 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 11 channels (excludes 5.600 to 5.640 GHz) ● 5.745 to 5.825 GHz; 5 channels

Maximum Number of Nonoverlapping Channels	**2.4 GHz**
	● 802.11b/g:
	  ◦ 20 MHz: 3
	● 802.11n:
	  ◦ 20 MHz: 3
	
	5 GHz
	● 802.11a:
	  ◦ 20 MHz: 21
	● 802.11n:
	  ◦ 20 MHz: 21
	  ◦ 40 MHz: 9

	Note: This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.
Receive sensitivity (Combined sensitivity)	**802.11b** -98 dBm @ 1 Mb/s -95 dBm @ 2 Mb/s -93 dBm @ 5.5 Mb/s -91 dBm @ 11 Mb/s **802.11g** -94dBm @ 6 Mb/s -92 dBm @ 9 Mb/s -91 dBm @ 12 Mb/s -89 dBm @ 18 Mb/s -85 dBm @ 24 Mb/s -82 dBm @ 36 Mb/s **802.11a** -93 dBm @ 6 Mb/s -91 dBm @ 9 Mb/s -90 dBm @ 12 Mb/s -87 dBm @ 18 Mb/s -84 dBm @ 24 Mb/s -81 dBm @ 36 Mb/s

Item	Specification		
		-78 dBm @ 48 Mb/s	-76 dBm @ 48 Mb/s
		-76 dBm @ 54 Mb/s	-75 dBm @ 54 Mb/s
	2.4-GHz **802.11n (HT20)**	**5-GHz** **802.11n (HT20)**	**5-GHz** **802.11n (HT40)**
	-93 dBm @ MCS0	-93 dBm @ MCS0	-89 dBm @ MCS0
	-90 dBm @ MCS1	-90 dBm @ MCS1	-86 dBm @ MCS1
	-88 dBm @ MCS2	-87 dBm @ MCS2	-83 dBm @ MCS2
	-85 dBm @ MCS3	-83 dBm @ MCS3	-79 dBm @ MCS3
	-81 dBm @ MCS4	-80 dBm @ MCS4	-76 dBm @ MCS4
	-77 dBm @ MCS5	-75 dBm @ MCS5	-72 dBm @ MCS5
	-75 dBm @ MCS6	-74 dBm @ MCS6	-71 dBm @ MCS6
	-74 dBm @ MCS7	-72 dBm @ MCS7	-70 dBm @ MCS7
	-91dBm @ MCS8	-91 dBm @ MCS8	-88 dBm @ MCS8
	-88 dBm @ MCS9	-88 dBm @ MCS9	-84 dBm @ MCS9
	-86 dBm @ MCS10	-85 dBm @ MCS10	-81 dBm @ MCS10
	-83 dBm @ MCS11	-81 dBm @ MCS11	-77 dBm @ MCS11
	-79 dBm @ MCS12	-78 dBm @ MCS12	-74 dBm @ MCS12
	-75 dBm @ MCS13	-73 dBm @ MCS13	-70 dBm @ MCS13
	-73 dBm @ MCS14	-72 dBm @ MCS14	-69 dBm @ MCS14
	-72 dBm @ MCS15	-70 dBm @ MCS15	-68 dBm @ MCS15

Maximum Transmit Power	**2.4 GHz**
	● 802.11b
	  ◦ 20 dBm with one antenna
	● 802.11g
	  ◦ 20 dBm with two antennas
	● 802.11n (HT20)
	  ◦ 20 dBm with two antennas
		5 GHz
		● 802.11a
		  ◦ 20 dBm with one antenna
		● 802.11n non-HT duplicate mode
		  ◦ 20 dBm with two antennas
		● 802.11n (HT20)
		  ◦ 20 dBm with two antennas
		● 802.11n (HT40)
		  ◦ 20 dBm with two antennas	

	Note: The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.		
Available Transmit Power Settings	**2.4 GHz** 20 dBm (100 mW) 17 dBm (50 mW) 14 dBm (25 mW) 11 dBm (12.5 mW) 8 dBm (6.25 mW) 5 dBm (3.13 mW) 2 dBm (1.56 mW) -1 dBm (0.78 mW)	**5 GHz** 20 dBm (100 mW) 17 dBm (50 mW) 14 dBm (25 mW) 11 dBm (12.5 mW) 8 dBm (6.25 mW) 5 dBm (3.13 mW) 2 dBm (1.56 mW) -1 dBm (0.78mW)	
	Note: The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.		
Integrated Antennas	● 2.4 GHz, gain 2.0 dBi ● 5 GHz, gain 4.0 dBi		
Interfaces	● 10/100/1000BASE-T PoE Uplink port ● Management console port (RJ-45) ● 4 x 10/100/1000BASE-T ports (RJ-45) (local Ethernet ports) ● 1 PoE out port (when powered by 802.3at Ethernet switch, or Cisco power injector AIR-PWRJ4=, or Cisco Local Power Supply) ● DC power connector		

Item	Specification
Indicators	• Status LED indicates boot loader status, association status, operating status, boot loader warnings, boot loader errors • Per-port status for local Ethernet ports
Dimensions (W x L x H)	• Access point (without mounting bracket): 6 x 4 x 1.6 inches (152.4 x 101.6 x 40.6 mm)
Weight	• Access point (without mounting bracket): 0.86 lb (0.39 Kg)
Environmental	**Cisco Aironet 700W** • Non-operating (storage) temperature: -22 to 158°F (-30 to +70°C) • Non-operating (storage) maximum altitude: 25°C, 15,000 ft. • Operating temperature: 32 to 104°F (0 to 40°C) • Operating humidity: 10 to 90% percent (noncondensing) • Operating maximum altitude: 40°C, 9843 ft.
System	• 128 MB DRAM • 128 MB flash • 560MHz System CPU
Input Power Requirements	• 44 to 57 VDC • Optional - Power Supply and Power Injector: 100 to 240 VAC; 49 to 60 Hz
Powering Options	• 802.3af/at Ethernet Switch • Optional - Cisco Power Injectors (AIR-PWRINJ5=, AIR-PWRINJ4=) • Optional - Cisco Local Power Supply (AIR-PWR-C=)
Power Draw	• Maximum values: 11.6W with no PoE out, 22.1W with PoE Class 2 out, and 29.2W with PoE Class 0 out • **Note:** When deployed using PoE, the power draw numbers listed above include the power loss in 100m of cabling on the Uplink port and the 100m of cabling on the PoE Out port.
Accessories	• Mounting brackets: AIR-AP-BRACKET-W • Cisco Local Power Supply: AIR-PWR-C= (sold separately)
Warranty	Limited Lifetime Hardware Warranty

Compliance	**Standards**
	• **Safety:**
	  ◦ UL 60950-1
	  ◦ CAN/CSA-C22.2 No. 60950-1
	  ◦ IEC 60950-1
	  ◦ EN 60950-1
	• **Radio approvals:**
	  ◦ FCC Part 15.247, 15.407
	  ◦ RSS-210 (Canada)
	  ◦ EN 300.328, EN 301.893 (Europe)
	  ◦ ARIB-STD 33 (Japan)
	  ◦ ARIB-STD 66 (Japan)
	  ◦ ARIB-STD T71 (Japan)
	  ◦ AS/NZS 4268.2003 (Australia and New Zealand)
	  ◦ EMI and susceptibility (Class B)
	  ◦ FCC Part 15.107 and 15.109
	  ◦ ICES-003 (Canada)
	  ◦ VCCI (Japan)
	  ◦ SRRC (China)
	  ◦ EN 301.489-1 and -17 (Europe)
	  ◦ EN 60601-1-2 EMC requirements for the Medical Directive 93/42/EEC
	• **IEEE Standard:**
	  ◦ IEEE 802.11a/b/g, IEEE 802.11n, IEEE 802.11h, IEEE 802.11d
	• **Security:**
	  ◦ 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA
	  ◦ 802.1X
	  ◦ Advanced Encryption Standards (AES), Temporal Key Integrity Protocol (TKIP)

Item	Specification
	● **EAP Type(s):** ◦ Extensible Authentication Protocol-Transport Layer Security (EAP-TLS) ◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2) ◦ Protected EAP (PEAP) v0 or EAP-MSCHAPv2 ◦ Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) ◦ PEAPv1 or EAP-Generic Token Card (GTC) ◦ EAP-Subscriber Identity Module (SIM) ● **Multimedia:** ◦ Wi-Fi Multimedia (WMM™) ● **Other:** ◦ FCC Bulletin OET-65C ◦ RSS-102

Limited Lifetime Hardware Warranty

The Cisco Aironet 700W Series Access Point comes with a Limited Lifetime Warranty that provides full warranty coverage of the hardware for as long as the original end user continues to own or use the product. The warranty includes 10-day advance hardware replacement and ensures that software media is defect-free for 90 days. For more details, visit: http://www.cisco.com/go/warranty.

Cisco Wireless LAN Services

Realize the full business value of your technology investments faster with intelligent, customized services from Cisco and our partners. Backed by deep networking expertise and a broad ecosystem of partners, Cisco Wireless LAN Services enable you to deploy a sound, scalable mobility network that enables rich media collaboration while improving the operational efficiency gained from a converged wired and wireless network infrastructure based on the Cisco Unified Wireless Network. Together with partners, we offer expert plan, build, and run services to accelerate your transition to advanced mobility services while continuously optimizing the performance, reliability, and security of that architecture after it is deployed. For more details, visit: http://www.cisco.com/go/wirelesslanservices.