Cisco Aironet 1850 Series Access Points

Product Overview

Ideal for small and medium-sized networks, the Cisco® Aironet® 1850 Series delivers industry-leading performance for enterprise and service provider markets via enterprise-class 4x4 MIMO, four-spatial-stream access points that support the IEEE's new 802.11ac Wave 2 specification. The Aironet 1850 Series extends support to a new generation of Wi-Fi clients, such as smartphones, tablets, and high-performance laptops that have integrated 802.11ac Wave 1 or Wave 2 support.

Features and Benefits

With 802.11ac Wave 2, the Aironet 1850 Series provides a data rate of up to 1.7 Gbps on the 5-GHz radio, more than triple the rates offered by today's high-end 802.11n access points. It also enables a total aggregate dual-radio data rate of 2.0 Gbps, providing the necessary foundation for enterprise and service provider networks to stay ahead of the performance and bandwidth expectations and needs of their wireless users.

Due to its convenience, wireless access is increasingly the preferred form of network connectivity for corporate users. Along with this shift, there is an expectation that wireless should not slow down users' day-to-day work, but should enable a high-performance experience while allowing users to move freely. The 1850 Series delivers industry-leading performance for highly secure and reliable wireless connections and provides a robust mobility experience that includes:

- 802.11ac Wave 2 with 4x4 multiple-input multiple-output (MIMO) technology with four spatial streams when operating in single-user MIMO mode and three spatial streams while operating in multiuser MIMO mode, offering 1.7-Gbps rates for more capacity and reliability than competing access points.
- Multiuser MIMO, allowing transmission of data to multiple 802.11ac Wave 2 capable clients simultaneously to improve client experience. Prior to multiuser MIMO, 802.11n and 802.11ac Wave 1 access points could transmit data to only one client at a time, typically referred to as single-user MIMO.
- Transmit beamforming technology to improve downlink performance to mobile devices, including one-, two-, and three-spatial-stream devices on 802.11ac, while improving battery life on mobile devices such as smartphones and tablets.

- Flexible deployment mode through the Cisco Mobility Express Solution is ideal for small to medium-sized deployments that require multiple access points. Easy setup allows the 1850 Series to be deployed on networks without a physical controller.

All of these features help ensures the best possible end-user experience on the wireless network. Cisco also offers the industry's broadest selection of 802.11n and 802.11ac antennas, delivering optimal coverage for a variety of deployment scenarios.

Product Specifications

Table 1. Product Specifications

Feature	Specifications				
Software	Cisco Unified Wireless Network Software Release with AireOS wireless controllers: • 8.1 MR1 or later for the Cisco Aironet 1850 Series Access Points				
Deployment modes	Centralized local, Standalone*, Sniffer, Cisco FlexConnect™, Monitor**, OfficeExtend**, Mesh**				
Supported wireless LAN controllers	• Cisco 2500 Series Wireless Controllers, Cisco Wireless Controller Module for ISR G2, Cisco Wireless Services Module 2 (WiSM2) for Catalyst® 6500 Series Switches, Cisco 5500 Series Wireless Controllers, Cisco Flex® 7500 Series Wireless Controllers, Cisco 8500 Series Wireless Controllers, Cisco 5760 Series Wireless Controllers**, Cisco Catalyst 3650/3850 Series switch with integrated controller** • Cisco Mobility Express				
802.11n version 2.0 (and related) capabilities	• 4x4 MIMO with four spatial streams • Maximal ratio combining (MRC) • 20- and 40-MHz channels • PHY data rates up to 600 Mbps (40 MHz with 5 GHz) • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • 802.11 dynamic frequency selection (DFS) • Cyclic shift diversity (CSD) support				
802.11ac Wave 1 and 2 capabilities	• 4x4 MIMO with four spatial streams, single-user MIMO • 4x4 MIMO with three spatial streams, multiuser MIMO • MRC • 802.11ac beamforming (transmit beamforming) • 20-, 40-, and 80-MHz channels • PHY data rates up to 1.7 Gbps (80 MHz in 5 GHz) • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • 802.11 DFS • CSD support • Rogue device detection				
Data rates supported	**802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps**				
	802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps				
	802.11n data rates on 2.4 GHz (only 20 MHz and MCS 0 to MCS 23) and 5 GHz:				
	MCS Index[1]	**GI[2] = 800 ns**	**GI = 800 ns**	**GI = 400 ns**	**GI = 400 ns**
		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

[1] MCS Index: The Modulation and Coding Scheme (MCS) index determines the number of spatial streams, the modulation, the coding rate, and data rate values

Feature	Specifications					

[2] GI: A guard interval (GI) between symbols helps receivers overcome the effects of multipath delay spreads.

Data rates supported	**MCS Index[3]**	**GI[4] = 800 ns**	**GI = 800 ns**	**GI = 400 ns**	**GI = 400 ns**	
		20-MHz Rate (Mbps)	**40-MHz Rate (Mbps)**	**20-MHz Rate (Mbps)**	**40-MHz Rate (Mbps)**	
	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	
	16	19.5	40.5	21.7	45	
	17	39	81	43.3	90	
	18	58.5	121.5	65	135	
	19	78	162	86.7	180	
	20	117	243	130	270	
	21	156	324	173.3	360	
	22	175.5	364.5	195	405	
	23	195	405	216.7	450	
	24	26	54	28.9	60	
	25	52	108	57.8	120	
	26	78	162	86.7	180	
	27	104	216	115.6	240	
	28	156	324	173.3	360	
	29	208	432	231.1	480	
	30	234	486	260	540	
	31	260	540	288.9	600	

802.11ac data rates (5 GHz):

MCS Index	**Spatial Streams**	**GI = 800 ns**			**GI = 400 ns**		
		20-MHz Rate (Mbps)	**40-MHz Rate (Mbps)**	**80-MHz Rate (Mbps)**	**20-MHz Rate (Mbps)**	**40-MHz Rate (Mbps)**	**80-MHz Rate (Mbps)**
0	1	6.5	13.5	29.3	7.2	15	32.5
1	1	13	27	58.5	14.4	30	65
2	1	19.5	40.5	87.8	21.7	45	97.5
3	1	26	54	117	28.9	60	130
4	1	39	81	175.5	43.3	90	195
5	1	52	108	234	57.8	120	260
6	1	58.5	121.5	263.3	65	135	292.5
7	1	65	135	292.5	72.2	150	325
8	1	78	162	351	86.7	180	390

[3] MCS Index: The Modulation and Coding Scheme (MCS) index determines the number of spatial streams, the modulation, the coding rate, and data rate values.

Feature	Specifications

[4] GI: A guard interval (GI) between symbols helps receivers overcome the effects of multipath delay spreads.

MCS Index	Spatial Streams	GI = 800 ns			GI = 400 ns		
		20-MHz Rate (Mbps)	40-MHz Rate (Mbps)	80-MHz Rate (Mbps)	20-MHz Rate (Mbps)	40-MHz Rate (Mbps)	80-MHz Rate (Mbps)
9	1	-	180	390	-	200	433.3
0	2	13	27	58.5	14.4	30	65
1	2	26	54	117	28.9	60	130
2	2	39	81	175.5	43.3	90	195
3	2	52	108	234	57.8	120	260
4	2	78	162	351	86.7	180	390
5	2	104	216	468	115.6	240	520
6	2	117	243	526.5	130	270	585
7	2	130	270	585	144.4	300	650
8	2	156	324	702	173.3	360	780
9	2	-	360	780	-	400	866.7
0	3	19.5	40.5	87.8	21.7	45	97.5
1	3	39	81	175.5	43.3	90	195
2	3	58.5	121.5	263.3	65	135	292.5
3	3	78	162	351	86.7	180	390
4	3	117	243	526.5	130	270	585
5	3	156	324	702	173.3	360	780
6	3	175.5	364.5	-	195	405	-
7	3	195	405	877.5	216.7	450	975
8	3	234	486	1053	260	540	1170
9	3	260	540	1170	288.9	600	1300
0	4	26	54	117	28.9	60	130
1	4	52	108	234	57.8	120	260
2	4	78	162	351	86.7	180	390
3	4	104	216	468	115.6	240	520
4	4	156	324	702	173.3	360	780
5	4	208	432	936	231.1	480	1040
6	4	234	486	1053	260	540	1170
7	4	260	540	1170	288.9	600	1300
8	4	312	648	1404	346.7	720	1560
9	4	-	720	1560	-	800	1733.3

Feature	Specifications	
Maximum number of nonoverlapping channels	**A (A regulatory domain):** ● 2.412 to 2.462 GHz; 3 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 **B (B regulatory domain):** ● 2.412 to 2.462 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.720 GHz; 12 channels ● 5.745 to 5.825 GHz; 5 channels **C (C regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.745 to 5.825 GHz; 5 channels **D (D regulatory domain):** ● 2.412 to 2.462 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **E (E regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz) **F (F regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.745 to 5.825 GHz; 4 channels **H (H regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.150 to 5.350 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **I (I regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels	**K (K regulatory domain):** ● 2.412 to 2.472 GHz; 3 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 (N regulatory domain):** ● 2.412 to 2.462 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.745 to 5.825 GHz; 5 channels **Q (Q regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.500 to 5.700 GHz; 11 channels **R (R regulatory domain):** ● 2.412 to 2.472 GHz; 3 channels ● 5.180 to 5.320 GHz; 8 channels ● 5.660 to 5,805 GHz; 7 channels **S (S regulatory domain):** ● 2.412 to 2.472 GHz; 3 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 (T regulatory domain):** ● 2.412 to 2.462 GHz; 3 channels ● 5.280 to 5.320 GHz; 3 channels ● 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz) ● 5.745 to 5.825 GHz; 5 channels **Z (Z regulatory domain):** ● 2.412 to 2.462 GHz; 3 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
Note: Customers are responsible for verifying approval for use in their individual countries. To verify approval that corresponds to a particular country, visit http://www.cisco.com/go/aironet/compliance		
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: 25 ● 802.11n: ◦ 20 MHz: 25 ◦ 40 MHz: 12 ● 802.11ac: ◦ 20 MHz: 21 ◦ 40 MHz: 12 ◦ 80 MHz: 6
Note: This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.		

<table>
<tr><th>Feature</th><th colspan="4">Specifications</th></tr>
<tr><td>Receive sensitivity</td><td>● 802.11b (CCK)
◦ -101 dBm @ 1 Mbps
◦ -98 dBm @ 2 Mbps
◦ -92 dBm @ 5.5 Mbps
◦ -89 dBm @ 11 Mbps</td><td>● 802.11g (non HT20)
◦ -96 dBm @ 6 Mbps
◦ -95 dBm @ 9 Mbps
◦ -94 dBm @ 12 Mbps
◦ -92 dBm @ 18 Mbps
◦ -88 dBm @ 24 Mbps
◦ -85 dBm @ 36 Mbps
◦ -81 dBm @ 48 Mbps
◦ -79 dBm @ 54 Mbps</td><td>● 802.11a (non HT20)
◦ -96 dBm @ 6 Mbps
◦ -95 dBm @ 9 Mbps
◦ -94 dBm @ 12 Mbps
◦ -92 dBm @ 18 Mbps
◦ -88 dBm @ 24 Mbps
◦ -85 dBm @ 36 Mbps
◦ -80 dBm @ 48 Mbps
◦ -79 dBm @ 54 Mbps</td><td></td></tr>
<tr><td></td><td>2.4 GHz
● 802.11n (HT20)
◦ -96 dBm @ MCS0
◦ -93 dBm @ MCS1
◦ -90 dBm @ MCS2
◦ -87 dBm @ MCS3
◦ -84 dBm @ MCS4
◦ -79 dBm @ MCS5
◦ -78 dBm @ MCS6
◦ -76 dBm @ MCS7
◦ -93 dBm @ MCS8
◦ -90 dBm @ MCS9
◦ -87 dBm @ MCS10
◦ -84 dBm @ MCS11
◦ -81 dBm @ MCS12
◦ -76 dBm @ MCS13
◦ -75 dBm @ MCS14
◦ -73 dBm @ MCS15
◦ -91 dBm @ MCS16
◦ -88 dBm @ MCS17
◦ -85 dBm @ MCS18
◦ -82 dBm @ MCS19
◦ -79 dBm @ MCS20
◦ -74 dBm @ MCS21
◦ -73 dBm @ MCS22
◦ -71 dBm @ MCS23</td><td></td><td>5 GHz
● 802.11n (HT20)
◦ -96 dBm @ MCS0
◦ -92 dBm @ MCS1
◦ -90 dBm @ MCS2
◦ -86 dBm @ MCS3
◦ -83 dBm @ MCS4
◦ -79 dBm @ MCS5
◦ -77 dBm @ MCS6
◦ -76 dBm @ MCS7
◦ -93 dBm @ MCS8
◦ -89 dBm @ MCS9
◦ -87 dBm @ MCS10
◦ -83 dBm @ MCS11
◦ -80 dBm @ MCS12
◦ -76 dBm @ MCS13
◦ -74 dBm @ MCS14
◦ -73 dBm @ MCS15
◦ -91 dBm @ MCS16
◦ -87 dBm @ MCS17
◦ -85 dBm @ MCS18
◦ -81 dBm @ MCS19
◦ -78 dBm @ MCS20
◦ -74 dBm @ MCS21
◦ -72 dBm @ MCS22
◦ -71 dBm @ MCS23
◦ -89 dBm @ MCS24
◦ -85 dBm @ MCS25
◦ -83 dBm @ MCS26
◦ -79 dBm @ MCS27
◦ -76 dBm @ MCS28
◦ -72 dBm @ MCS29
◦ -70 dBm @ MCS30
◦ -69 dBm @ MCS31</td><td>5 GHz
● 802.11n (HT40)
◦ -93 dBm @ MCS0
◦ -90 dBm @ MCS1
◦ -87 dBm @ MCS2
◦ -84 dBm @ MCS3
◦ -80 dBm @ MCS4
◦ -76 dBm @ MCS5
◦ -75 dBm @ MCS6
◦ -73 dBm @ MCS7
◦ -90 dBm @ MCS8
◦ -87 dBm @ MCS9
◦ -84 dBm @ MCS10
◦ -81 dBm @ MCS11
◦ -77 dBm @ MCS12
◦ -73 dBm @ MCS13
◦ -72 dBm @ MCS14
◦ -70 dBm @ MCS15
◦ -88 dBm @ MCS16
◦ -85 dBm @ MCS17
◦ -82 dBm @ MCS18
◦ -79 dBm @ MCS19
◦ -75 dBm @ MCS20
◦ -71 dBm @ MCS21
◦ -70 dBm @ MCS22
◦ -68 dBm @ MCS23
◦ -86 dBm @ MCS24
◦ -83 dBm @ MCS25
◦ -80 dBm @ MCS26
◦ -77 dBm @ MCS27
◦ -73 dBm @ MCS28
◦ -69 dBm @ MCS29
◦ -68 dBm @ MCS30
◦ -66 dBm @ MCS31</td></tr>
<tr><td></td><td colspan="4">802.11ac Receive Sensitivity</td></tr>
<tr><td></td><td colspan="4">802.11ac (non HT80)
● -89 dBm @ 6 Mbps
● -73 dBm @ 54 Mbps</td></tr>
<tr><td></td><td colspan="4"><table>
<tr><th>MCS Index</th><th>Spatial Streams</th><th colspan="3"></th></tr>
<tr><td></td><td></td><td>VHT20</td><td>VHT40</td><td>VHT80</td></tr>
<tr><td>0</td><td>1</td><td>-96 dBm</td><td>-93 dBm</td><td>-89 dBm</td></tr>
<tr><td>7</td><td>1</td><td>-76 dBm</td><td>-73 dBm</td><td>-70 dBm</td></tr>
<tr><td>8</td><td>1</td><td>-71 dBm</td><td>-69 dBm</td><td>-66 dBm</td></tr>
<tr><td>9</td><td>1</td><td>NA</td><td>-67 dBm</td><td>-64 dBm</td></tr>
<tr><td>0</td><td>2</td><td>-93 dBm</td><td>-90 dBm</td><td>-86 dBm</td></tr>
</table></td></tr>
</table>

Feature	Specifications				
	7	2	-73 dBm	-70 dBm	-67 dBm
	8	2	-68 dBm	-66 dBm	-63 dBm
	9	2	NA	-64 dBm	-61 dBm
	0	3	-91 dBm	-88 dBm	-84 dBm
	7	3	-71 dBm	-68 dBm	-65 dBm
	8	3	-66 dBm	-64 dBm	-61 dBm
	9	3	-64 dBm	-62 dBm	-59 dBm
	MCS Index	**Spatial Streams**			
			VHT20	**VHT40**	**VHT80**
	0	4	-89 dBm	-86 dBm	-82 dBm
	7	4	-69 dBm	-66 dBm	-63 dBm
	8	4	-64 dBm	-62 dBm	-59 dBm
	9	4	NA	-60 dBm	-57 dBm
Maximum transmit power	**2.4 GHz** ● 802.11b ◦ 22 dBm, 3 antennas ● 802.11g ◦ 22 dBm, 3 antennas ● 802.11n (HT20) ◦ 22 dBm, 3 antennas			**5 GHz** ● 802.11a ◦ 23 dBm, 4 antennas ● 802.11n (HT20) ◦ 23 dBm, 4 antennas ● 802.11n (HT40) ◦ 23 dBm, 4 antennas ● 802.11ac ◦ non-HT80: 23 dBm, 4 antennas ◦ VHT20: 23 dBm, 4 antennas ◦ VHT40: 23 dBm, 4 antennas ◦ VHT80: 23 dBm, 4 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** ● 22 dBm ● 19 dBm ● 16 dBm ● 13 dBm ● 10 dBm ● 7 dBm ● 4 dBm ● 1 dBm			**5 GHz** ● 23 dBm ● 20 dBm ● 17 dBm ● 14 dBm ● 11 dBm ● 8 dBm ● 5 dBm ● 2 dBm	
Note: The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.					
Integrated antenna	● 2.4 GHz, gain 3 dBi, internal omni, horizontal beamwidth 360° ● 5 GHz, gain 5 dBi, internal omni, horizontal beamwidth 360°				
External antenna (sold separately)	● Certified for use with antenna gains up to 6 dBi (2.4 GHz and 5 GHz) ● Cisco offers the industry's broadest selection of antennas, delivering optimal coverage for a variety of deployment scenarios				
Interfaces	● 1 x 10/100/1000BASE-T autosensing (RJ-45), Power over Ethernet (PoE) ● 1 x 10/100/1000BASE-T autosensing (RJ-45), AUX (used for Link Aggregation) ● Management console port (RJ-45) ● USB 2.0 (enabled via future software)				
Indicators	● Status LED indicates boot loader status, association status, operating status, boot loader warnings, boot loader errors				
Dimensions (W x L x H)	● Access point (without mounting bracket): 8.3 x 8.3 x 2 in. (210.8 x 210.8 x 50.8 mm)				

Feature	Specifications
Weight	● 3.12 lb (1.41 kg)
Environmental	**Cisco Aironet 1850i** ● Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C) ● Nonoperating (storage) altitude test: 25˚C, 15,000 ft. ● Operating temperature: 32° to 104°F (0° to 40°C) ● Operating humidity: 10% to 90% (noncondensing) ● Operating altitude test: 40˚C, 9843 ft. **Cisco Aironet 1850e** ● Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C) ● Nonoperating (storage) altitude test: 25˚C, 15,000 ft. ● Operating temperature: -4° to 122°F (-20° to 50°C) ● Operating humidity: 10% to 90% (noncondensing) ● Operating altitude test: 40˚C, 9843 ft.
System memory	● 1 GB DRAM ● 256 MB flash
Input power requirements	● AP1850: 44 to 57 VDC ● Power supply and power injector: 100 to 240 VAC; 50 to 60 Hz
Power draw	● 20.9W **Note:** When deployed using a Power over Ethernet (PoE) specification, the power drawn from the power sourcing equipment will be higher by some amount, depending on the length of the interconnecting cable.
Powering options	● 802.3at ● Enhanced PoE ● Cisco power injector, AIR-PWRINJ4= ● Cisco local power supply, AIR-PWR-C= ● Cisco power injector, AIR-PWRINJ5= (**Note:** this injector supports 802.3af only) ● 802.3af **Note:** If 802.3af PoE is the source of power, (1) the 1852e 2.4-GHz radio will shift to 2x3 from 3x4, (2) The USB port and AUX Ethernet port are disabled on both the 1852i and 1852e.
Warranty	Limited lifetime hardware warranty
Compliance standards	◦ UL 60950-1 ◦ CAN/CSA-C22.2 No. 60950-1 ◦ UL 2043 ◦ IEC 60950-1 ◦ EN 60950-1 ◦ EN 50155 ● Radio approvals: ◦ FCC Part 15.247, 15.407* ◦ RSS-210 (Canada) ◦ EN 300.328, EN 301.893 (Europe) ◦ ARIB-STD 66 (Japan) ◦ ARIB-STD T71 (Japan) ◦ EMI and susceptibility (Class B) ◦ FCC Part 15.107 and 15.109* ◦ ICES-003 (Canada) ◦ VCCI (Japan) ◦ EN 301.489-1 and -17 (Europe) ◦ EN 60601-1-2 EMC requirements for the Medical Directive 93/42/EEC ● IEEE standards: ◦ IEEE 802.11a/b/g, 802.11n, 802.11h, 802.11d ◦ IEEE 802.11ac Draft 5 ● Security: ◦ 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA ◦ 802.1X ◦ Advanced Encryption Standard (AES) ◦ ● Extensible Authentication Protocol (EAP) types:

Feature	Specifications
	◦ EAP-Transport Layer Security (TLS) ◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2) ◦ Protected EAP (PEAP) v0 or EAP-MSCHAPv2 ◦ EAP-Flexible Authentication via Secure Tunneling (FAST) ◦ PEAP v1 or EAP-Generic Token Card (GTC) ◦ EAP-Subscriber Identity Module (SIM) ● Multimedia: ◦ Wi-Fi Multimedia (WMM) ● Other: ◦ FCC Bulletin OET-65C ◦ RSS-102

* Supported via Cisco Mobility Express with controller function running on the access point - not Cisco IOS® Software Autonomous based.

** Future.

Warranty Information

The Cisco Aironet 1850 Series Access Points come 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 are defect-free for 90 days. For more details, visit http://www.cisco.com/go/warranty.

Ordering Information

To place an order, visit the Cisco How to Buy page. To download software, visit the Cisco Software Center.

Table 2. Ordering Information

Product Name	Part Number
Aironet 1850 Series	**Cisco Aironet 1852i Access Point: Indoor environments, with internal antennas** ● AIR-AP1852I-x-K9: Dual-band, controller-based 802.11a/g/n/ac, Wave 2 ● AIR-AP1852I-x-K9C: Dual-band, controller-based 802.11a/g/n/ac, Wave 2, configurable ● Regulatory domains: (x = regulatory domain) **Cisco Aironet 1852e Access Point: Indoor, challenging environments, with external antennas** ● AIR-AP1852E-x-K9: Dual-band, controller-based 802.11a/g/n/ac, Wave 2 ● AIR-AP1852E-x-K9C: Dual-band, controller-based 802.11a/g/n/ac, Wave 2, configurable ● Regulatory domains: (x = regulatory domain) Customers are responsible for verifying approval for use in their individual countries. To verify approval that corresponds to a particular country or the regulatory domain used in a specific country, 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.

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