

# Cisco Aironet 2700 Series Access Points



**Dual-band 2.4 GHz and 5 GHz access points (APs) with 802.11ac Wave 1 support on the integrated 5-GHz radio**

**Cisco Aironet 2702i Access Point**

- Sleek design with internal antennas
- Ideal for office environments
- Classify over 20 different types of interference, including non-Wi-Fi interference, within 5 to 30 seconds
- Automatic remedial action and less manual intervention
- UL 2043 plenum-rated for above-ceiling installation or for suspending from drop ceilings

**Cisco Aironet 2702e Access Points**

- Rugged metal housing and extended operating temperature
- Ideal for factories, warehouses, and other indoor industrial environments
- Versatile RF coverage with external antennas
- UL 2043 plenum-rated for above-ceiling installation or for suspending from drop ceilings
- Classification of over 20 different types of interference, including non-Wi-Fi interference, within 5 to 30 seconds
- Automatic remedial action and less manual intervention

**Troubleshooting Forensics for Faster Interference Resolution and Proactive Action**

- Historic interference information for back-in-time analysis and faster problem solving
- 24x7 monitoring with remote access for reduced travel and speedier resolution
- Air quality index in Cisco CleanAir® technology provides a snapshot of network performance and the impact of interference

**Robust Security and Policy Enforcement**

- Industry's first AP with non-Wi-Fi detection for off-channel rogues
- Supports rogue AP detection and detection of denial-of-service attacks
- Management frame protection detects malicious users and alerts network administrators
- Enables policies to prohibit devices that interfere with the Wi-Fi network or jeopardize network security

**Secure Interoperability**

- Controller-based deployment and standalone deployments



The Cisco® Aironet® 2700 Series of Wi-Fi access points (APs) delivers industry-leading 802.11ac performance at a price point ideal for plugging capacity and coverage gaps in dense indoor environments. The Aironet 2700 Series extends 802.11ac speed and features to a new generation of smartphones, tablets, and high-performance laptops now shipping with the faster, 802.11ac Wi-Fi radios.

The Aironet 2700 series supports 802.11ac “Wave 1” In its first implementation, providing a theoretical connection rate of up to 1.3 Gbps. That’s roughly triple the rates offered by today’s high-end 802.11n APs. The boost helps you stay ahead of the performance and bandwidth expectations of today’s mobile worker, who usually uses multiple Wi-Fi devices instead of just one. As such, users are adding proportionally larger traffic loads to the wireless LAN, which has outpaced Ethernet as the default enterprise access network.

## High Density Experience (HD Experience)

Building on the Cisco Aironet heritage of RF excellence, the 2700 Series APs run on a purpose-built, innovative chipset with a best-in-class RF architecture. This chipset provides a high-density experience for enterprise networks designed for mission-critical, high-performance applications. The 2700 is a component of a Cisco series of flagship, 802.11ac-enabled APs that delivers a robust mobility experience based on the following product features:

- 802.11ac with 3x4 multiple-input multiple-output (MIMO) technology supporting three spatial streams. This architecture offers a sustained 1.3-Gbps rates over a greater range for more capacity and reliability than competing APs.

- **Cross-AP Noise Reduction**, a Cisco innovation that enables APs to intelligently collaborate in real time about RF conditions so that users connect with optimized signal quality and performance.
- **Optimized AP Roaming** to ensure that client devices associate with the AP in their coverage range that offers the fastest data rate available.
- **Cisco ClientLink 3.0** technology to improve downlink performance to all mobile devices, including one-, two-, and three-spatial-stream devices on 802.11ac. At the same time, the technology improves battery life on mobile devices.
- **Cisco CleanAir** technology enhanced with 80MHz channel support. CleanAir delivers proactive, high-speed spectrum intelligence across 20-, 40-, and 80-MHz-wide channels to combat performance problems due to wireless interference.
- **MIMO equalization** capabilities, which optimize uplink performance and reliability by reducing the impact of signal fade.

The Cisco Aironet 2700 Series sustains higher-speed connections farther from the AP than competing solutions. The result is up to three times greater availability of 1.3-Gbps rates in the Cisco environment for optimum mobile device performance and user experiences.

Cisco also offers the industry’s broadest selection of [802.11n and 802.11ac antennas](#), delivering optimal coverage to different deployment scenarios.

## Scalability

The Cisco Aironet 2700 Series is a component of the Cisco Unified Wireless Network, a foundation for operating both wired and wireless LANs in an integrated manner. The Unified Wireless Network can scale to as many as 18,000 APs with full Layer-3 mobility across locations on the enterprise campus, in branch offices, and at remote sites. The Cisco Unified Wireless Network delivers highly secure access to mobility services and applications. It offers the lowest total cost of ownership (TCO) and investment protection by integrating smoothly with existing wired networks.

## Product Specifications

Table 1 lists the specifications for the Cisco Aironet 2700 Series Access Points.

**Table 1.** Aironet 2700 Access Point Product Specifications

Item	Specification
<b>Part numbers</b>	<p><b>Cisco Aironet 2700i Access Point: Indoor environments, with internal antennas</b></p> <ul style="list-style-type: none"> <li>• AIR-CAP2702I-x-K9: Dual-band, controller-based 802.11a/g/n/ac</li> <li>• AIR-CAP2702I-xK910: Eco-pack (dual-band 802.11a/g/n/ac) 10 quantity access points</li> </ul> <p><b>Cisco Aironet 2700e Access Point: Indoor, challenging environments, with external antennas</b></p> <ul style="list-style-type: none"> <li>• AIR-CAP2702E-x-K9: Dual-band controller-based 802.11a/g/n/ac</li> <li>• AIR-CAP2702E-xK910: Eco-pack (dual-band 802.11a/g/n/ac), 10 quantity access points</li> </ul> <p><b>Cisco SMARTnet<sup>®</sup> Service for the Cisco Aironet 2700i Access Point with internal antennas</b></p> <ul style="list-style-type: none"> <li>• CON-SNT-C272Ix: SMARTnet 8x5xNBD for 2700i access point (dual-band 802.11a/g/n/ac)</li> <li>• CON-SNT-C272Ix10: SMARTnet 8x5xNBD for 10-quantity eco-pack 2700i access point (dual-band 802.11a/g/n/ac)</li> </ul> <p><b>Cisco SMARTnet Service for the Cisco Aironet 2700e Access Point with external antennas</b></p> <ul style="list-style-type: none"> <li>• CON-SNT-C272Ex: SMARTnet 8x5xNBD for 2700e access point (dual-band 802.11a/g/n/ac)</li> <li>• QCON-SNT-C272Ex10: SMARTnet 8x5xNBD for 1- quantity eco-pack 2700e access point (dual-band 802.11a/g/n/ac)</li> </ul> <p><b>Regulatory domains: (x = regulatory domain)</b></p> <p>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, visit <a href="http://www.cisco.com/go/aironet/compliance">http://www.cisco.com/go/aironet/compliance</a>.</p> <p>Not all regulatory domains have been approved. As they are approved, the part numbers will be available on the Global Price List.</p>

Item	Specification																																																																							
	<b>Cisco Wireless LAN Services</b> <ul style="list-style-type: none"> <li>AS-WLAN-CNSLT: <a href="#">Cisco Wireless LAN Network Planning and Design Service</a></li> <li>AS-WLAN-CNSLT: <a href="#">Cisco Wireless LAN 802.11n Migration Service</a></li> <li>AS-WLAN-CNSLT: <a href="#">Cisco Wireless LAN Performance and Security Assessment Service</a></li> </ul>																																																																							
<b>Software</b>	Cisco Unified Wireless Network Software Release 7.6MR2 or later																																																																							
<b>Supported wireless LAN controllers</b>	<ul style="list-style-type: none"> <li>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 Virtual Wireless Controller</li> <li>Cisco 5760 Wireless LAN Controller, Cisco Catalyst 3850 Series Switches, Cisco Catalyst 3650 Series Switches</li> </ul>																																																																							
<b>802.11n version 2.0 (and related) capabilities</b>	<ul style="list-style-type: none"> <li>3x4 MIMO with three spatial streams</li> <li>Maximal ratio combining (MRC)</li> <li>802.11n and 802.11a/g beamforming</li> <li>20- and 40-MHz channels</li> <li>PHY data rates up to 450 Mbps (40 MHz with 5 GHz)</li> <li>Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)</li> <li>802.11 dynamic frequency selection (DFS)</li> <li>Cyclic shift diversity (CSD) support</li> </ul>																																																																							
<b>802.11ac Wave 1 capabilities</b>	<ul style="list-style-type: none"> <li>3x4 MIMO with three spatial streams</li> <li>MRC</li> <li>802.11ac beamforming</li> <li>20-, 40-, and 80-MHz channels</li> <li>PHY data rates up to 1.3 Gbps (80 MHz in 5 GHz)</li> <li>Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)</li> <li>802.11 DFS</li> <li>CSD support</li> </ul>																																																																							
<b>Data rates supported</b>	<b>802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps</b> <b>802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps</b> <b>802.11n data rates on 2.4 GHz:</b> <table border="1"> <thead> <tr> <th rowspan="2">MCS Index<sup>1</sup></th> <th>GI<sup>2</sup> = 800 ns</th> <th>GI = 400 ns</th> <th></th> </tr> <tr> <th>20-MHz Rate (Mbps)</th> <th>20-MHz Rate (Mbps)</th> <th></th> </tr> </thead> <tbody> <tr><td>0</td><td>6.5</td><td>7.2</td><td></td></tr> <tr><td>1</td><td>13</td><td>14.4</td><td></td></tr> <tr><td>2</td><td>19.5</td><td>21.7</td><td></td></tr> <tr><td>3</td><td>26</td><td>28.9</td><td></td></tr> <tr><td>4</td><td>39</td><td>43.3</td><td></td></tr> <tr><td>5</td><td>52</td><td>57.8</td><td></td></tr> <tr><td>6</td><td>58.5</td><td>65</td><td></td></tr> <tr><td>7</td><td>65</td><td>72.2</td><td></td></tr> <tr><td>8</td><td>13</td><td>14.4</td><td></td></tr> <tr><td>9</td><td>26</td><td>28.9</td><td></td></tr> <tr><td>10</td><td>39</td><td>43.3</td><td></td></tr> <tr><td>11</td><td>52</td><td>57.8</td><td></td></tr> <tr><td>12</td><td>78</td><td>86.7</td><td></td></tr> <tr><td>13</td><td>104</td><td>115.6</td><td></td></tr> <tr><td>14</td><td>117</td><td>130</td><td></td></tr> <tr><td>15</td><td>130</td><td>144.4</td><td></td></tr> </tbody> </table>	MCS Index <sup>1</sup>	GI <sup>2</sup> = 800 ns	GI = 400 ns		20-MHz Rate (Mbps)	20-MHz Rate (Mbps)		0	6.5	7.2		1	13	14.4		2	19.5	21.7		3	26	28.9		4	39	43.3		5	52	57.8		6	58.5	65		7	65	72.2		8	13	14.4		9	26	28.9		10	39	43.3		11	52	57.8		12	78	86.7		13	104	115.6		14	117	130		15	130	144.4	
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<sup>1</sup> MCS Index: The Modulation and Coding Scheme (MCS) index determines the number of spatial streams, the modulation, the coding rate, and data rate values.

<sup>2</sup> GI: A guard interval (GI) between symbols helps receivers overcome the effects of multipath delays.

Item	Specification						
	16	19.5	21.7				
	17	39	43.3				
	18	58.5	65				
	19	78	86.7				
	20	117	130				
	21	156	173.3				
	22	175.5	195				
	23	195	216.7				
<b>802.11ac data rates (5 GHz):</b>							
MCS Index <sup>3</sup>	Spatial Streams	GI <sup>4</sup> = 800ns			GI = 400ns		
		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
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	78	780	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

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

<sup>4</sup> GI: A guard interval (GI) between symbols helps receivers overcome the effects of multipath delays.

Item	Specification							
	8	3	234	486	1053	260	540	1170
	9	3	260	540	1170	288.9	600	1300
<b>Frequency band and 20-MHz operating channels</b>	<b>A (A regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.462 GHz; 11 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>C (C regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>D (D regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.462 GHz; 11 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.745 to 5.865 GHz; 7 channels</li> </ul> <b>E (E regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)</li> </ul> <b>F (F regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)</li> </ul> <b>H (H regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.150 to 5.350 GHz; 8 channels</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>I (I regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> </ul> <b>K (K regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.620 GHz; 7 channels</li> <li>• 5.745 to 5.805 GHz; 4 channels</li> </ul>				<b>N (N regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.462 GHz; 11 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>Q (Q regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 11 channels</li> </ul> <b>R (R regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.660 to 5.805 GHz; 7 channels</li> </ul> <b>S (S regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.472 GHz; 13 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 11 channels</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>T (T regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.462 GHz; 11 channels</li> <li>• 5.280 to 5.320 GHz; 3 channels</li> <li>• 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul> <b>Z (Z regulatory domain):</b> <ul style="list-style-type: none"> <li>• 2.412 to 2.462 GHz; 11 channels</li> <li>• 5.180 to 5.320 GHz; 8 channels</li> <li>• 5.500 to 5.700 GHz; 8 channels (excludes 5.600 to 5.640 GHz)</li> <li>• 5.745 to 5.825 GHz; 5 channels</li> </ul>			
<b>Note:</b> 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, visit <a href="http://www.cisco.com/go/aironet/compliance">http://www.cisco.com/go/aironet/compliance</a> .								
<b>Maximum number of nonoverlapping channels</b>	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 802.11b/g: <ul style="list-style-type: none"> <li>◦ 20 MHz: 3</li> </ul> </li> <li>• 802.11n: <ul style="list-style-type: none"> <li>◦ 20 MHz: 3</li> </ul> </li> </ul>				<b>5 GHz</b> <ul style="list-style-type: none"> <li>• 802.11a: <ul style="list-style-type: none"> <li>◦ 20 MHz: 21</li> </ul> </li> <li>• 802.11n: <ul style="list-style-type: none"> <li>◦ 20 MHz: 21</li> <li>◦ 40 MHz: 9</li> </ul> </li> <li>• 802.11ac: <ul style="list-style-type: none"> <li>◦ 20 MHz: 21</li> <li>◦ 40 MHz: 9</li> <li>◦ 80 MHz: 5</li> </ul> </li> </ul>			
<b>Note:</b> This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.								

Item	Specification						
Receive sensitivity	<ul style="list-style-type: none"> <li>802.11b (CCK) <ul style="list-style-type: none"> <li>-102 dBm @ 1 Mbps</li> <li>-100 dBm @ 2 Mbps</li> <li>-93 dBm @ 5.5 Mbps</li> <li>-90 dBm @ 11 Mbps</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>802.11g (non HT20) <ul style="list-style-type: none"> <li>-93 dBm @ 6 Mbps</li> <li>-93 dBm @ 9 Mbps</li> <li>-93 dBm @ 12 Mbps</li> <li>-92 dBm @ 18 Mbps</li> <li>-89 dBm @ 24 Mbps</li> <li>-86 dBm @ 36 Mbps</li> <li>-81 dBm @ 48 Mbps</li> <li>-80 dBm @ 54 Mbps</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>802.11a (non HT20) <ul style="list-style-type: none"> <li>-93 dBm @ 6 Mbps</li> <li>-93 dBm @ 9 Mbps</li> <li>-93 dBm @ 12 Mbps</li> <li>-92 dBm @ 18 Mbps</li> <li>-89 dBm @ 24 Mbps</li> <li>-86 dBm @ 36 Mbps</li> <li>-81 dBm @ 48 Mbps</li> <li>-80 dBm @ 54 Mbps</li> </ul> </li> </ul>		
	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>802.11n (HT20) <ul style="list-style-type: none"> <li>-93 dBm @ MCS0</li> <li>-93 dBm @ MCS1</li> <li>-91 dBm @ MCS2</li> <li>-88 dBm @ MCS3</li> <li>-85 dBm @ MCS4</li> <li>-80 dBm @ MCS5</li> <li>-79 dBm @ MCS6</li> <li>-78 dBm @ MCS7</li> <li>-93 dBm @ MCS8</li> <li>-91 dBm @ MCS9</li> <li>-89 dBm @ MCS10</li> <li>-86 dBm @ MCS11</li> <li>-83 dBm @ MCS12</li> <li>-79 dBm @ MCS13</li> <li>-77 dBm @ MCS14</li> <li>-76 dBm @ MCS15</li> <li>-93 dBm @ MCS16</li> <li>-90 dBm @ MCS17</li> <li>-88 dBm @ MCS18</li> <li>-84 dBm @ MCS19</li> <li>-82 dBm @ MCS20</li> <li>-77 dBm @ MCS21</li> <li>-76 dBm @ MCS22</li> <li>-74 dBm @ MCS23</li> </ul> </li> </ul>		<b>5 GHz</b> <ul style="list-style-type: none"> <li>802.11n (HT20) <ul style="list-style-type: none"> <li>-93 dBm @ MCS0</li> <li>-93 dBm @ MCS1</li> <li>-91 dBm @ MCS2</li> <li>-88 dBm @ MCS3</li> <li>-85 dBm @ MCS4</li> <li>-81 dBm @ MCS5</li> <li>-79 dBm @ MCS6</li> <li>-78 dBm @ MCS7</li> <li>-93 dBm @ MCS8</li> <li>-91 dBm @ MCS9</li> <li>-89 dBm @ MCS10</li> <li>-86 dBm @ MCS11</li> <li>-83 dBm @ MCS12</li> <li>-78 dBm @ MCS13</li> <li>-77 dBm @ MCS14</li> <li>-75 dBm @ MCS15</li> <li>-93 dBm @ MCS16</li> <li>-90 dBm @ MCS17</li> <li>-88 dBm @ MCS18</li> <li>-85 dBm @ MCS19</li> <li>-82 dBm @ MCS20</li> <li>-77 dBm @ MCS21</li> <li>-76 dBm @ MCS22</li> <li>-75 dBm @ MCS23</li> </ul> </li> </ul>		<b>5 GHz</b> <ul style="list-style-type: none"> <li>802.11n (HT40) <ul style="list-style-type: none"> <li>-90 dBm @ MCS0</li> <li>-89 dBm @ MCS1</li> <li>-88 dBm @ MCS2</li> <li>-85 dBm @ MCS3</li> <li>-82 dBm @ MCS4</li> <li>-77 dBm @ MCS5</li> <li>-76 dBm @ MCS6</li> <li>-75 dBm @ MCS7</li> <li>-90 dBm @ MCS8</li> <li>-88 dBm @ MCS9</li> <li>-86 dBm @ MCS10</li> <li>-83 dBm @ MCS11</li> <li>-79 dBm @ MCS12</li> <li>-75 dBm @ MCS13</li> <li>-74 dBm @ MCS14</li> <li>-72 dBm @ MCS15</li> <li>-89 dBm @ MCS16</li> <li>-87 dBm @ MCS17</li> <li>-85 dBm @ MCS18</li> <li>-81 dBm @ MCS19</li> <li>-79 dBm @ MCS20</li> <li>-74 dBm @ MCS21</li> <li>-73 dBm @ MCS22</li> <li>-71 dBm @ MCS23</li> </ul> </li> </ul>		
<b>802.11ac Receive Sensitivity</b>							
<b>802.11ac (non HT80)</b> <ul style="list-style-type: none"> <li>-86 dBm @ 6 Mbps</li> <li>-75 dBm @ 54 Mbps</li> </ul>							
<b>MCS Index<sup>5</sup></b>		<b>Spatial Streams</b>					
		<b>VHT20</b>	<b>VHT40</b>	<b>VHT80</b>	<b>VTH20-STBC</b>	<b>VHT40-STBC</b>	<b>VHT80-STBC</b>
0	1	-92 dBm	-89 dBm	-85 dBm	-92 dBm	-89 dBm	-85 dBm
8	1	-74 dBm			-74 dBm		
9	1		-69 dBm	-66 dBm		-69 dBm	-66 dBm
0	2	-92 dBm	-88 dBm	-85 dBm			
8	2	-72 dBm					
9	2		-67 dBm	-63 dBm			
0	3	-92 dBm	-88 dBm	-84 dBm			
9	3	-68 dBm	-66 dBm	-62 dBm			

<sup>5</sup> MCS Index: The Modulation and Coding Scheme (MCS) index determines the number of spatial streams, the modulation, the coding rate, and data rate values.

Item	Specification		
<b>Maximum transmit power</b>	<table border="0"> <tr> <td style="vertical-align: top;"> <b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 802.11b <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11g <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> </ul> </td> <td style="vertical-align: top; padding-left: 20px;"> <b>5 GHz</b> <ul style="list-style-type: none"> <li>• 802.11a <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT40) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11ac <ul style="list-style-type: none"> <li>◦ non-HT80: 23 dBm, 4 antennas</li> <li>◦ VHT20 23 dBm, 4 antennas</li> <li>◦ VHT40: 23 dBm, 4 antennas</li> <li>◦ VHT80: 23 dBm, 4 antennas</li> <li>◦ VHT20-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT40-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT80-STBC: 23 dBm, 4 antennas</li> </ul> </li> </ul> </td> </tr> </table>	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 802.11b <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11g <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> </ul>	<b>5 GHz</b> <ul style="list-style-type: none"> <li>• 802.11a <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT40) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11ac <ul style="list-style-type: none"> <li>◦ non-HT80: 23 dBm, 4 antennas</li> <li>◦ VHT20 23 dBm, 4 antennas</li> <li>◦ VHT40: 23 dBm, 4 antennas</li> <li>◦ VHT80: 23 dBm, 4 antennas</li> <li>◦ VHT20-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT40-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT80-STBC: 23 dBm, 4 antennas</li> </ul> </li> </ul>
<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 802.11b <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11g <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 22 dBm, 3 antennas</li> </ul> </li> </ul>	<b>5 GHz</b> <ul style="list-style-type: none"> <li>• 802.11a <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT20) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11n (HT40) <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11ac <ul style="list-style-type: none"> <li>◦ non-HT80: 23 dBm, 4 antennas</li> <li>◦ VHT20 23 dBm, 4 antennas</li> <li>◦ VHT40: 23 dBm, 4 antennas</li> <li>◦ VHT80: 23 dBm, 4 antennas</li> <li>◦ VHT20-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT40-STBC: 23 dBm, 4 antennas</li> <li>◦ VHT80-STBC: 23 dBm, 4 antennas</li> </ul> </li> </ul>		
<b>Note:</b> The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.			
<b>Available transmit power settings</b>	<table border="0"> <tr> <td style="vertical-align: top;"> <b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 22 dBm (160 mW)</li> <li>• 19 dBm (80 mW)</li> <li>• 16 dBm (40 mW)</li> <li>• 13 dBm (20 mW)</li> <li>• 10 dBm (10 mW)</li> <li>• 7 dBm (5 mW)</li> <li>• 4 dBm (2.5 mW)</li> <li>• 2 dBm (1.25 mW)</li> </ul> </td> <td style="vertical-align: top; padding-left: 20px;"> <b>5 GHz</b> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• 20 dBm (100 mW)</li> <li>• 17 dBm (50 mW)</li> <li>• 14 dBm (25 mW)</li> <li>• 11 dBm (12.5 mW)</li> <li>• 8 dBm (6.25 mW)</li> <li>• 5 dBm (3.13 mW)</li> <li>• 2 dBm (1.56 mW)</li> </ul> </td> </tr> </table>	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 22 dBm (160 mW)</li> <li>• 19 dBm (80 mW)</li> <li>• 16 dBm (40 mW)</li> <li>• 13 dBm (20 mW)</li> <li>• 10 dBm (10 mW)</li> <li>• 7 dBm (5 mW)</li> <li>• 4 dBm (2.5 mW)</li> <li>• 2 dBm (1.25 mW)</li> </ul>	<b>5 GHz</b> <ul style="list-style-type: none"> <li>• 23 dBm (200 mW)</li> <li>• 20 dBm (100 mW)</li> <li>• 17 dBm (50 mW)</li> <li>• 14 dBm (25 mW)</li> <li>• 11 dBm (12.5 mW)</li> <li>• 8 dBm (6.25 mW)</li> <li>• 5 dBm (3.13 mW)</li> <li>• 2 dBm (1.56 mW)</li> </ul>
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<b>Note:</b> The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.			
<b>Integrated antenna</b>	<ul style="list-style-type: none"> <li>• 2.4 GHz, gain 4 dBi, internal omni, horizontal beamwidth 360°</li> <li>• 5 GHz, gain 6 dBi, internal omni, horizontal beamwidth 360°</li> </ul>		
<b>External antenna (sold separately)</b>	<ul style="list-style-type: none"> <li>• Certified for use with antenna gains up to 6 dBi (2.4 GHz and 5 GHz)</li> <li>• Cisco offers the industry's broadest selection of <a href="#">antennas</a>, delivering optimal coverage for a variety of deployment scenarios</li> </ul>		
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>• 2x10/100/1000BASE-T autosensing (RJ-45)</li> <li>• Management console port (RJ-45)</li> </ul>		
<b>Indicators</b>	<ul style="list-style-type: none"> <li>• Status LED indicates boot loader status, association status, operating status, boot loader warnings, boot loader errors</li> </ul>		
<b>Dimensions (W x L x H)</b>	<ul style="list-style-type: none"> <li>• Access point (without mounting bracket): 8.69 x 8.69 x 1.99 in. (22.1 x 22.1 x 5.1 cm)</li> </ul>		
<b>Weight</b>	<ul style="list-style-type: none"> <li>• 2.2 lb (1.0 kg)</li> </ul>		
<b>Environmental</b>	<p><b>Cisco Aironet 2702i</b></p> <ul style="list-style-type: none"> <li>• Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C)</li> <li>• Nonoperating (storage) altitude test: 25°C, 15,000 ft.</li> <li>• Operating temperature: 32° to 104°F (0° to 40°C)</li> <li>• Operating humidity: 10% to 90% percent (noncondensing)</li> <li>• Operating altitude test: 40°C, 9843 ft.</li> </ul> <p><b>Cisco Aironet 2700e</b></p> <ul style="list-style-type: none"> <li>• Nonoperating (storage) temperature: -22° to 158°F (-30° to 70°C)</li> <li>• Nonoperating (storage) altitude test: 25°C, 15,000 ft.</li> <li>• Operating temperature: -4° to 122°F (-20° to 50°C)</li> <li>• Operating humidity: 10% to 90% (noncondensing)</li> <li>• Operating altitude test: 40°C, 9843 ft.</li> </ul>		
<b>System memory</b>	<ul style="list-style-type: none"> <li>• 512 MB DRAM</li> <li>• 64 MB flash</li> </ul>		

Item	Specification
<b>Input power requirements</b>	<ul style="list-style-type: none"> <li>• AP2700: 44 to 57 VDC</li> <li>• Power supply and power injector: 100 to 240 VAC; 50 to 60 Hz</li> </ul>
<b>Power draw</b>	<ul style="list-style-type: none"> <li>• AP2700: 15W</li> </ul> <p><b>Note:</b> When deployed using a Power over Ethernet (PoE) specification, the power drawn from the power sourcing equipment will be higher by some amount dependent on the length of the interconnecting cable.</p>
<b>Powering options</b>	<ul style="list-style-type: none"> <li>• 802.3at PoE+</li> <li>• Enhanced PoE</li> <li>• Cisco AP2700 power injectors (AIR-PWRINJ4=)</li> <li>• Cisco AP2700 local power supply (AIR-PWR-B=)</li> </ul> <p><b>Note:</b> If 802.3af PoE is the source of power, the access point will dynamically shift from 3x4 to 3x3 and come up under PoE.</p>
<b>Warranty</b>	Limited lifetime hardware warranty
<b>Compliance standards</b>	<ul style="list-style-type: none"> <li>◦ UL 60950-1</li> <li>◦ CAN/CSA-C22.2 No. 60950-1</li> <li>◦ UL 2043</li> <li>◦ IEC 60950-1</li> <li>◦ EN 60950-1</li> <li>◦ EN 50155</li> <li>• Radio approvals: <ul style="list-style-type: none"> <li>◦ FCC Part 15.247, 15.407</li> <li>◦ RSS-210 (Canada)</li> <li>◦ EN 300.328, EN 301.893 (Europe)</li> <li>◦ ARIB-STD 66 (Japan)</li> <li>◦ ARIB-STD T71 (Japan)</li> <li>◦ EMI and susceptibility (Class B)</li> <li>◦ FCC Part 15.107 and 15.109</li> <li>◦ ICES-003 (Canada)</li> <li>◦ VCCI (Japan)</li> <li>◦ EN 301.489-1 and -17 (Europe)</li> <li>◦ EN 60601-1-2 EMC requirements for the Medical Directive 93/42/EEC</li> </ul> </li> <li>• IEEE standards: <ul style="list-style-type: none"> <li>◦ IEEE 802.11a/b/g, 802.11n, 802.11h, 802.11d</li> <li>◦ IEEE 802.11ac Draft 5</li> </ul> </li> <li>• Security: <ul style="list-style-type: none"> <li>◦ 802.11i, Wi-Fi Protected Access 2 (WPA2), WPA</li> <li>◦ 802.1X</li> <li>◦ Advanced Encryption Standards (AES), Temporal Key Integrity Protocol (TKIP)</li> </ul> </li> <li>• Extensible Authentication Protocol (EAP) types: <ul style="list-style-type: none"> <li>◦ EAP-Transport Layer Security (TLS)</li> <li>◦ EAP-Tunneled TLS (TTLS) or Microsoft Challenge Handshake Authentication Protocol Version 2 (MSCHAPv2)</li> <li>◦ Protected EAP (PEAP) v0 or EAP-MSCHAPv2</li> <li>◦ EAP-Flexible Authentication via Secure Tunneling (FAST)</li> <li>◦ PEAP v1 or EAP-Generic Token Card (GTC)</li> <li>◦ EAP-Subscriber Identity Module (SIM)</li> </ul> </li> <li>• Multimedia: <ul style="list-style-type: none"> <li>◦ Wi-Fi Multimedia (WMM)</li> </ul> </li> <li>• Other: <ul style="list-style-type: none"> <li>◦ FCC Bulletin OET-65C</li> <li>◦ RSS-102</li> </ul> </li> </ul>

## Limited Lifetime Hardware Warranty

The Cisco Aironet 2700 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>.



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### For More Information

For more information about the Cisco Aironet 2700 Series, visit <http://www.cisco.com/go/wireless> or contact your local account representative.



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