

# Cisco Aironet 3700 Series Access Points



**Dual-band 2.4 GHz and 5 GHz with 802.11ac Wave 1 support on the integrated 5-GHz radio**

**Cisco Aironet 3700i Access Point**

- Sleek design with internal antennas
- Ideal for office environments

**Cisco Aironet 3700e and 3700p 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
- Classify over 20 different types of interference, including non-Wi-Fi interference, within 5 to 30 seconds
- Automatic remedial action and less manual intervention

**Investment Protection with Flexible Modular Architecture Design**

- Cisco Aironet Wireless Security Module now shipping
- Cisco 3G Small Cell Module (available 2HCY13)
- Cisco Aironet 802.11ac Wave 2 Module (target CY2015)

**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 reduces travel and speeds resolution
- Cisco Spectrum Expert Connect provides real-time, raw spectrum data to help with difficult-to-diagnose interference problems
- 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 access point with non-Wi-Fi detection for off-channel rogues
- Supports rogue access point 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 only



With the industry's only enterprise class 4x4 MIMO, three-spatial-stream access points that support the IEEE's new 802.11ac specification, the Cisco® Aironet® 3700 Series delivers industry-leading performance and a High Density Experience (HD Experience) for both the enterprise and service provider markets. The Aironet 3700 Series extends support to a new generation of Wi-Fi clients, such as smartphones, tablets, and high-performance laptops that have integrating 802.11ac support.

In its first implementation, 802.11ac wave 1 provides a rate of up to 1.3 Gbps, roughly triple the rates offered by today's high-end 802.11n access points. This provides the necessary foundation for enterprise and service provider networks alike 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 around the corporate environment.

By Utilizing a Purpose-built Innovative Chipset with the Best-in-class RF Architecture for a High Density Experience (HD Experience).

---

## High Density Experience (HD Experience)

Building on the Cisco Aironet heritage of RF excellence, the 3700 Series utilizes a Purpose-built Innovative Chipset with the Best-in-class RF Architecture. This chipset provides a High Density Experience for enterprise network designed for mission critical, high performance applications. The 3700 is a series of flagship access points, delivering industry-leading performance for highly secure and reliable [wireless](#) connections and delivers a robust mobility experience that includes:

- 802.11ac with 4x4 multiple-input multiple-output (MIMO) technology with three spatial streams, offering sustained 1.3-Gbps rates over a greater range for more capacity and reliability than competing access points.
- Cross AP Noise Reduction is a Cisco innovation that enables Access Points to intelligently collaborate in real-time to allow more users to connect with optimized signal quality and performance.
- Optimized AP Roaming ensures clients will associate with the best AP offering the best 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 while improving battery life on mobile devices such as smartphones and tablets.
- Cisco CleanAir technology enhanced with 80MHz Channel Support, provides proactive, high-speed spectrum intelligence across 20-, 40-, and 80-MHz-wide channels to combat performance problems due to wireless interference.
- Modular architecture design that is carried forward from the [Cisco Aironet 3600](#), enabling flexible add-on options in the form of the Cisco Aironet [Wireless Security Module](#), the upcoming [Cisco 3G Small Cell Module](#), and the future Cisco Aironet 802.11ac Wave 2 Module, which are tightly integrated with the Aironet 3700 Series Access Point platform and are completely field-upgradable.
- MIMO equalization optimizes uplink performance and reliability by reducing the impact of signal fade.

The new Cisco Aironet 3700 Series sustains reliable connections at higher speeds farther from the access point than competing solutions, resulting in up to three times more availability of 1.3-Gbps rates and optimizing the performance of more mobile devices. The 3700 Series carries forward the modular architecture first introduced with the Aironet 3600 Series and offers unparalleled investment protection, with support for the Cisco Aironet Wireless Security Module and the upcoming Cisco 3G Small Cell Module.

All of these features help ensure 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.

## Scalability

The Cisco Aironet 3700 Series is a component of the Cisco Unified Wireless Network, which can scale to as many as 18,000 access points with full Layer 3 mobility across central or remote locations on the enterprise campus, in branch offices, and at remote sites. The Cisco Unified Wireless Network is the industry's most flexible, resilient, and scalable architecture, delivering highly secure access to mobility services and applications and offering the lowest total cost of ownership and investment protection by integrating smoothly with the existing wired network.

## Product Specifications

Table 1 lists the specifications for the Cisco Aironet 3700 Series Access Points.

**Table 1.** Product Specifications

Item	Specification
<b>Part numbers</b>	<p><b>Cisco Aironet 3700i Access Point: Indoor environments, with internal antennas</b></p> <ul style="list-style-type: none"> <li>AIR-CAP3702I-x-K9: Dual-band, controller-based 802.11a/g/n/ac</li> <li>AIR-CAP3702I-xK910: Eco-pack (dual-band 802.11a/g/n/ac) 10 quantity access points</li> </ul> <p><b>Cisco Aironet 3700e Access Point: Indoor, challenging environments, with external antennas</b></p> <ul style="list-style-type: none"> <li>AIR-CAP3702E-x-K9: Dual-band controller-based 802.11a/g/n/ac</li> <li>AIR-CAP3702E-xK910: Eco-pack (dual-band 802.11a/g/n/ac) 10 quantity access points</li> </ul> <p><b>Cisco Aironet 3700p Access Point: high-density environments, with narrow-beamwidth, high-gain, antennas</b></p> <ul style="list-style-type: none"> <li>AIR-CAP3702P-x-K9: Dual-band controller-based 802.11a/g/n/ac</li> <li>AIR-CAP3702P-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 3700i Access Point with internal antennas</b></p> <ul style="list-style-type: none"> <li>CON-SNT-CAP3702x: SMARTnet 8x5xNBD for 3700i access point (dual-band 802.11a/g/n/ac)</li> <li>Qty(10) CON-SNT-CAP372Ix: SMARTnet 8x5xNBD for 10 quantity eco-pack 3700i access point (dual-band 802.11a/g/n/ac)</li> </ul> <p><b>Cisco SMARTnet Service for the Cisco Aironet 3700e Access Point with external antennas</b></p> <ul style="list-style-type: none"> <li>CON-SNT-CAP3702x: SMARTnet 8x5xNBD for 3700e access point (dual-band 802.11a/g/n/ac)</li> <li>Qty(10) CON-SNT-CAP372Ex: SMARTnet 8x5xNBD for 10 quantity eco-pack 3700e access point (dual-band 802.11a/g/n/ac)</li> </ul> <p><b>Cisco SMARTnet Service for the Cisco Aironet 3700p Access Point with external antennas</b></p> <ul style="list-style-type: none"> <li>CON-SNT-CAP3702x: SMARTnet 8x5xNBD for 3700p access point (dual-band 802.11a/g/n/ac)</li> <li>Qty(10) CON-SNT-CAP372Px: SMARTnet 8x5xNBD for 10 quantity eco-pack 3700p access point (dual-band 802.11a/g/n/ac)</li> </ul> <p><b>Cisco Wireless LAN Services</b></p> <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> <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>
<b>Software</b>	Cisco Unified Wireless Network Software Release 7.6 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<sup>®</sup> 6500 Series Switches, Cisco 5500 Series Wireless Controllers, Cisco Flex<sup>®</sup> 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</li> </ul>
<b>Module options</b>	<p>Cisco Aironet Wireless Security Module - now shipping</p> <ul style="list-style-type: none"> <li>Provides full-spectrum, off-channel scanning for a comprehensive wireless intrusion prevention system (WIPS), including Cisco CleanAir technology, rogue detection, context awareness, and radio resource management (RRM) solutions. Scans 2.4- and 5-GHz channels while serving data clients on the base dual-band access point platform</li> </ul> <p>Cisco 3G Small Cell Module (available 2HCY13)</p> <ul style="list-style-type: none"> <li>3GPP band 1 (2100 MHz), 16 users, voice (R99), packet data (HSPA/HSDPA+)</li> </ul> <p>Cisco Aironet Access Point 802.11ac Wave 2 Module (target CY2015)</p>

Item	Specification																																																																																																			
<b>802.11n version 2.0 (and related) capabilities</b>	<ul style="list-style-type: none"> <li>• 4x4 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>• 4x4 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 with 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>	<p><b>802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps</b></p> <p><b>802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps</b></p> <p><b>802.11n data rates on 2.4 GHz:</b></p> <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> <tr><td>16</td><td>19.5</td><td>21.7</td><td></td></tr> <tr><td>17</td><td>39</td><td>43.3</td><td></td></tr> <tr><td>18</td><td>58.5</td><td>65</td><td></td></tr> <tr><td>19</td><td>78</td><td>86.7</td><td></td></tr> <tr><td>20</td><td>117</td><td>130</td><td></td></tr> <tr><td>21</td><td>156</td><td>173.3</td><td></td></tr> <tr><td>22</td><td>175.5</td><td>195</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		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	
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																																																																																																		
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																																																																																																		

<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							
	23	195	216.7					
	<b>802.11ac data rates (5 GHz):</b>							
	<b>MCS Index<sup>3</sup></b>	<b>Spatial Streams</b>	<b>GI<sup>4</sup> = 800ns</b>			<b>GI = 400ns</b>		
			<b>20-MHz Rate (Mbps)</b>	<b>40-MHz Rate (Mbps)</b>	<b>80-MHz Rate (Mbps)</b>	<b>20-MHz Rate (Mbps)</b>	<b>40-MHz Rate (Mbps)</b>	<b>80-MHz Rate (Mbps)</b>
	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
	8	3	234	486	1053	260	540	1170
	9	3	260	540	1170	288.9	600	1300

<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		
<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>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.			
<b>Receive sensitivity</b>	<ul style="list-style-type: none"> <li>• 802.11b (CCK) <ul style="list-style-type: none"> <li>◦ -101 dBm @ 1 Mbps</li> <li>◦ -98 dBm @ 2 Mbps</li> <li>◦ -92 dBm @ 5.5 Mbps</li> <li>◦ -89 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>◦ -91 dBm @ 6 Mbps</li> <li>◦ -91 dBm @ 9 Mbps</li> <li>◦ -91 dBm @ 12 Mbps</li> <li>◦ -90 dBm @ 18 Mbps</li> <li>◦ -87 dBm @ 24 Mbps</li> <li>◦ -85 dBm @ 36 Mbps</li> <li>◦ -80 dBm @ 48 Mbps</li> <li>◦ -79 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>◦ -90 dBm @ 6 Mbps</li> <li>◦ -90 dBm @ 9 Mbps</li> <li>◦ -90 dBm @ 12 Mbps</li> <li>◦ -89 dBm @ 18 Mbps</li> <li>◦ -86 dBm @ 24 Mbps</li> <li>◦ -83 dBm @ 36 Mbps</li> <li>◦ -78 dBm @ 48 Mbps</li> <li>◦ -77 dBm @ 54 Mbps</li> </ul> </li> </ul>

Item	Specification																																																																																				
	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>802.11n (HT20) <ul style="list-style-type: none"> <li>-90 dBm @ MCS0</li> <li>-90 dBm @ MCS1</li> <li>-90 dBm @ MCS2</li> <li>-88 dBm @ MCS3</li> <li>-85 dBm @ MCS4</li> <li>-80 dBm @ MCS5</li> <li>-78 dBm @ MCS6</li> <li>-77 dBm @ MCS7</li> <li>-90 dBm @ MCS8</li> <li>-90 dBm @ MCS9</li> <li>-89 dBm @ MCS10</li> <li>-86 dBm @ MCS11</li> <li>-82 dBm @ MCS12</li> <li>-78 dBm @ MCS13</li> <li>-77 dBm @ MCS14</li> <li>-75 dBm @ MCS15</li> <li>-90 dBm @ MCS16</li> <li>-89 dBm @ MCS17</li> <li>-87 dBm @ MCS18</li> <li>-84 dBm @ MCS19</li> <li>-81 dBm @ MCS20</li> <li>-76 dBm @ MCS21</li> <li>-75 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>-91 dBm @ MCS0</li> <li>-90 dBm @ MCS1</li> <li>-89 dBm @ MCS2</li> <li>-86 dBm @ MCS3</li> <li>-83 dBm @ MCS4</li> <li>-78 dBm @ MCS5</li> <li>-77 dBm @ MCS6</li> <li>-75 dBm @ MCS7</li> <li>-91 dBm @ MCS8</li> <li>-89 dBm @ MCS9</li> <li>-87 dBm @ MCS10</li> <li>-84 dBm @ MCS11</li> <li>-80 dBm @ MCS12</li> <li>-76 dBm @ MCS13</li> <li>-75 dBm @ MCS14</li> <li>-73 dBm @ MCS15</li> <li>-90 dBm @ MCS16</li> <li>-88 dBm @ MCS17</li> <li>-85 dBm @ MCS18</li> <li>-82 dBm @ MCS19</li> <li>-79 dBm @ MCS20</li> <li>-74 dBm @ MCS21</li> <li>-73 dBm @ MCS22</li> <li>-72 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>-88 dBm @ MCS0</li> <li>-87 dBm @ MCS1</li> <li>-86 dBm @ MCS2</li> <li>-82 dBm @ MCS3</li> <li>-80 dBm @ MCS4</li> <li>-75 dBm @ MCS5</li> <li>-73 dBm @ MCS6</li> <li>-72 dBm @ MCS7</li> <li>-88 dBm @ MCS8</li> <li>-86 dBm @ MCS9</li> <li>-84 dBm @ MCS10</li> <li>-80 dBm @ MCS11</li> <li>-77 dBm @ MCS12</li> <li>-73 dBm @ MCS13</li> <li>-71 dBm @ MCS14</li> <li>-70 dBm @ MCS15</li> <li>-87 dBm @ MCS16</li> <li>-84 dBm @ MCS17</li> <li>-82 dBm @ MCS18</li> <li>-78 dBm @ MCS19</li> <li>-75 dBm @ MCS20</li> <li>-71 dBm @ MCS21</li> <li>-69 dBm @ MCS22</li> <li>-68 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>-87 dBm @ 6 Mbps</li> <li>-73 dBm @ 54 Mbps</li> </ul>																																																																																				
	<table border="1"> <thead> <tr> <th rowspan="2">MCS Index<sup>5</sup></th> <th rowspan="2">Spatial Streams</th> <th colspan="6"></th> </tr> <tr> <th>VHT20</th> <th>VHT40</th> <th>VHT80</th> <th>VTH20-STBC</th> <th>VHT40-STBC</th> <th>VHT80-STBC</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>-92 dBm</td> <td>-89 dBm</td> <td>-86 dBm</td> <td>-92 dBm</td> <td>-89 dBm</td> <td>-86 dBm</td> </tr> <tr> <td>8</td> <td>1</td> <td>-70 dBm</td> <td></td> <td></td> <td>-70 dBm</td> <td></td> <td></td> </tr> <tr> <td>9</td> <td>1</td> <td></td> <td>-66 dBm</td> <td>-63 dBm</td> <td></td> <td>-66 dBm</td> <td>-63 dBm</td> </tr> <tr> <td>0</td> <td>2</td> <td>-91 dBm</td> <td>-88 dBm</td> <td>-85 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td>2</td> <td>-69 dBm</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td>2</td> <td></td> <td>-65 dBm</td> <td>-62 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>0</td> <td>3</td> <td>-90 dBm</td> <td>-87 dBm</td> <td>-84 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td>3</td> <td>-67 dBm</td> <td>-64 dBm</td> <td>-61 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MCS Index <sup>5</sup>	Spatial Streams							VHT20	VHT40	VHT80	VTH20-STBC	VHT40-STBC	VHT80-STBC	0	1	-92 dBm	-89 dBm	-86 dBm	-92 dBm	-89 dBm	-86 dBm	8	1	-70 dBm			-70 dBm			9	1		-66 dBm	-63 dBm		-66 dBm	-63 dBm	0	2	-91 dBm	-88 dBm	-85 dBm				8	2	-69 dBm						9	2		-65 dBm	-62 dBm				0	3	-90 dBm	-87 dBm	-84 dBm				9	3	-67 dBm	-64 dBm	-61 dBm									
MCS Index <sup>5</sup>	Spatial Streams																																																																																				
		VHT20	VHT40	VHT80	VTH20-STBC	VHT40-STBC	VHT80-STBC																																																																														
0	1	-92 dBm	-89 dBm	-86 dBm	-92 dBm	-89 dBm	-86 dBm																																																																														
8	1	-70 dBm			-70 dBm																																																																																
9	1		-66 dBm	-63 dBm		-66 dBm	-63 dBm																																																																														
0	2	-91 dBm	-88 dBm	-85 dBm																																																																																	
8	2	-69 dBm																																																																																			
9	2		-65 dBm	-62 dBm																																																																																	
0	3	-90 dBm	-87 dBm	-84 dBm																																																																																	
9	3	-67 dBm	-64 dBm	-61 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>	<b>2.4 GHz</b> <ul style="list-style-type: none"> <li>• 802.11b <ul style="list-style-type: none"> <li>◦ 23 dBm, 4 antennas</li> </ul> </li> <li>• 802.11g <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> </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>
<p><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.</p>		
<b>Available transmit power settings</b>	<b>2.4 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>	<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>
<p><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.</p>		
<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>• 10/100/1000BASE-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): 8.7 x 8.7 x 2.11 in. (22.1 x 22.1 x 5.4 cm)</li> </ul>	
<b>Weight</b>	<ul style="list-style-type: none"> <li>• 2.5 lb (1.13 kg)</li> </ul>	
<b>Environmental</b>	<p><b>Cisco Aironet 3700i</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 3700e/3700p</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>• AP3700: 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>• AP3700: 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>	<p>Aironet 3700 without an add-on module</p> <ul style="list-style-type: none"> <li>• 802.3at PoE+</li> <li>• Enhanced PoE</li> <li>• Cisco AP3700 power injectors (AIR-PWRINJ4=)</li> <li>• Cisco AP3700 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 4x4 to 3x3 and come up under PoE.</p> <p>Aironet 3700 with an add-on module</p> <ul style="list-style-type: none"> <li>• 802.3at PoE+</li> <li>• Enhanced PoE</li> <li>• Cisco AP3700 power injectors (AIR-PWRINJ4=)</li> <li>• Cisco AP3700 local power supply (AIR-PWR-B=)</li> </ul> <p><b>Note:</b> If 802.3af PoE is the source of power, the access point with module will dynamically shift from 4x4 to 2x2 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 3700 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>.

## 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>.

## For More Information

For more information about the Cisco Aironet 3700 Series, visit <http://www.cisco.com/go/wireless> or contact your local account representative.



---

Americas Headquarters  
Cisco Systems, Inc.  
San Jose, CA

Asia Pacific Headquarters  
Cisco Systems (USA) Pte. Ltd.  
Singapore

Europe Headquarters  
Cisco Systems International BV Amsterdam,  
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: [www.cisco.com/go/trademarks](http://www.cisco.com/go/trademarks). Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)