Cisco Aironet 1550 Series Outdoor Access Point

Contents

High-performance outdoor wireless

The Cisco® Aironet® 1550 Series Outdoor Access Point with Cisco CleanAir™ technology is the industry's first enterprise and carrier-grade 802.11n access point to create a self-healing and self-optimizing wireless network that mitigates the impact of wireless interference. It offers a flexible, secure, and scalable mesh network for high-performance mobility across large metropolitan-sized areas, enterprise campuses, manufacturing yards, and mining pits. The Cisco Aironet 1550 Series supports multiple-device and multiple-network application delivery such as real-time seamless mobility, video surveillance, 3rd Generation (3G) and 4G data offload, and public and private Wi-Fi access. Designed to meet customer needs in a broad range of industries, the Cisco Aironet 1550 Series offers the following benefits:

- Flexible deployment options: Access or mesh network, extension of an Ethernet network, and Ethernet, fiber, wireless, or cable backhaul.
- Service provider support: Wi-Fi for next-generation mobile data offload and personalized mobile services.
- Cisco CleanAir technology: Integrated spectrum intelligence to detect, classify, and mitigate RF interference from unauthorized wireless bridges or malicious devices.
- High-bandwidth video surveillance over Wi-Fi without the high cost of installing cables over long distances.
- High-performance, multipurpose network with low CapEx and OpEx.
- Integrated wired and wireless: The Cisco Borderless Network Architecture provides cost savings with end to-end network access solutions that include wireless, switching, routing, and security.

Next-generation outdoor wireless

- Cisco® CleanAir™ technology provides integrated spectrum intelligence for a self-configuring and self-healing network
- ClientLink improves reliability and coverage for legacy clients
- Improved 802.11n range and performance with 2x3 Multiple-Input Multiple-Output (MIMO) technology
- 300 Mbps data rates per radio
- Multiple-radio support (802.11a/n, 802.11b/g/n)
- DOCSIS 3.0/EuroDOCSIS 3.0, 8x4 Hybrid Fiber-Coaxial (HFC) cable modem option
- Improved 802.11n radio sensitivity and range performance with three antenna MIMO and two spatial streams
- Multiple uplink options (Gigabit Ethernet-10/100/1000 BaseT, Fiber SFP interface-cable (certain models)
- Internal battery backup power (certain models)
- GPS receiver (certain models)
- NEMA Type 4X certified enclosure

Cisco Aironet 1552C/1552CU

- Cable modem models

Cisco Aironet 1552E/1552EU

- External antenna models

Cisco Aironet 1552I

- Integrated antenna model

Cisco Aironet 1552H

- Hazardous location model

Flexible, high-performance mesh

The Cisco Aironet 1550 Series Outdoor Access Point offers a flexible, secure, and scalable mesh platform that is part of the Cisco Unified Wireless Network and the Cisco Service Provider Wi-Fi solution. It offers high-performance mobility across large metropolitan-sized areas and enterprise campuses, manufacturing yards, and mining pits. Carrier-grade design allows service providers to take advantage of Wi-Fi for next-generation mobile data offloads. The Cisco Aironet 1550 Series provides high-performance device access through improved radio sensitivity and range with 802.11a/b/g/n Multiple-Input Multiple-Output (MIMO) technology, with two spatial streams. Multiple uplink and power options are available. The 802.3af-compliant, Power-over-Ethernet (PoE) interface makes it easy to connect IP devices, such as IP video cameras. NEMA Type 4X enclosures help ensure a robust system that can withstand demanding environments. To help ensure uptime for mission-critical applications even in the event that electrical power becomes unavailable, the Cisco Aironet 1550 Series offers an internal battery for backup power.

Cisco CleanAir technology

The Cisco Aironet 1550 Series with Cisco CleanAir technology provides the highest-performance 802.11n connectivity for mission-critical outdoor networks by detecting interference from unauthorized devices, as well as common outdoor interference sources, such as WiMAX networks and wireless bridging products. The 1550 Series uses chip-level intelligence to create a spectrum-aware, self-healing, and self-optimizing wireless network that mitigates the impact of wireless interference. Cisco CleanAir technology is a systemwide feature of the Cisco Unified Wireless Network that improves wireless network quality by detecting RF interference that other systems can't recognize, identifying the source, locating it, and then making automatic adjustments to optimize wireless coverage.

RF excellence

Building on the Cisco Aironet heritage of RF excellence, the Cisco Aironet 1550 Series delivers industry-leading performance for secure and reliable wireless connections. Industrial-grade parts, enterprise-class silicon-level intelligence, and optimized radios deliver a robust mobility experience. The Cisco Aironet 1550 Series provides a set of tools that deliver the robust, scalable wireless foundation required to realize the true potential of outdoor wireless mobility:

- Cisco ClientLink technology to raise uplink and downlink performance of and coverage to existing 802.11a/g clients
- Radio Resource Management (RRM) for automated channel selection and power setting management of access points
- Advanced capabilities to select data rates, adjust power, and manage Quality of Service (QoS) for access points

GPS capability

Keeping track of where outdoor access points are located in the network is an increasingly difficult problem for operators as their networks expand. To assist with this, some models of the Cisco Aironet 1550 Series are available with a GPS receiver and antenna. The GPS coordinates of the access point can be read by the controller or management system and used to locate each device on the map.

Centrally managed mesh network

Central management and troubleshooting of the Cisco outdoor wireless access points prevent costly maintenance service calls to outdoor locations. The Cisco Prime Infrastructure (CPI) works in conjunction with the Cisco Aironet Access Points and Cisco Wireless LAN Controllers to configure and manage the wireless networks. With CPI, network administrators have a single solution for RF prediction, policy provisioning, network optimization, troubleshooting, security monitoring, and wireless LAN systems management. Cisco CleanAir technology is integrated into the CPI to provide real-time information on your outdoor network. Wireless network security is also a part of a unified wired and wireless solution. Cisco wireless network security offers the highest level of network security, which helps ensure that data remains private and secure and that the network is protected from unauthorized access.

Cisco Aironet 1552E/1552EU external antenna access points

The Cisco Aironet 1552E/1552EU Outdoor Access Points are the standard models, dual-radio system with external antenna ports that are compliant with IEEE 802.11b/g/n standards (2.4 GHz) and 802.11a/n (5-GHz). The 1552E has three external antenna connections for dual-band omni or directional antennas. The 1552EU has six external antenna connections, three for 2.4 GHz and three for 5 GHz antennas, that support omni or directional antennas. They have Ethernet and fiber Small Form-Factor Pluggable (SFP) backhaul options, along with the option of a battery backup. These models also have a PoE-out port that can power a video surveillance camera or other devices. Highly flexible models, the Cisco Aironet 1552E/1552EU are well equipped for municipal and campus deployments, video surveillance applications, mining environments, and data offload.

Cisco Aironet 1552C/1552CU cable modem access points

Where service providers have already invested in a broadband cable network, the Cisco next-generation outdoor wireless mesh can seamlessly extend network connectivity with the Cisco Aironet 1552C/1552CU access points by connecting to its integrated cable modem interface. The Cisco Aironet 1552C/1552CU Outdoor Mesh Access Points are dual-radio systems with DOCSIS 3.0/EuroDOCSIS 3.0 (8x4 HFC) compliant cable modem for power and backhaul. They have dual-band radios that are compliant with IEEE 802.11b/g/n (2.4 GHz) and 802.11a/n (5-GHz) standards. The 1552C has an integrated, three- element, dual-band antenna and easily fits within the 30 cm height restriction for service providers. The 1552CU has six external antenna connections, three for 2.4 GHz and three for 5 GHz that support omni and directional antennas. These models are perfect for 3G data offload applications and public Wi-Fi.

Cisco Aironet 1552I integrated antenna access point

The Cisco Aironet 1552I Outdoor Access Point is a low-profile, lighter-weight model in the 1550 Series. The smaller size and sleeker look helps it blend in with the surrounding environment. The smaller power supply also makes it a more energy-efficient product. The 1552I does not have PoE-out port, a fiber SFP port, or battery option.

Cisco Aironet 1552H hazardous location access point

This access point is designed for hazardous environments like oil and gas refineries, chemical plants, mining pits, and manufacturing factories. The Cisco Aironet 1552H Outdoor Access Point is Class 1, Div 2/Zone 2 hazardous location certified. It has options similar to the 1552E, with the exception of the battery backup.

External and integrated antennas

The Cisco Aironet 1552E and 1552H Outdoor Access Points use three Cisco AIR-ANT2547V-N Antennas. These dual-band, omnidirectional, stick antennas have a gain of 4 dBi (2.4 GHz) and 7 dBi (5 GHz). The Cisco Aironet 1552EU and 1552CU can utilize omni or directional antennas on each radio independently.

The Cisco Aironet 1552C and 1552I Outdoor Access Points include a dual-band, integrated antenna radome. This antenna has three omnidirectional antenna elements that have antenna gains of 2 dBi (2.4 GHz) and 4 dBi (5 GHz). More information, including antenna patterns, can be found in the Cisco Aironet Antennas and Accessories Guide: https://www.cisco.com/en/US/products/hw/wireless/ps469/index.html.

Product specifications

Table 1 lists specifications for the Cisco Aironet 1550 Series.

Table 1. Cisco Aironet 1550 Series product specifications

Item	Specification
Part numbers	**Cisco Aironet 1552E/1552EU Access Point** • AIR-CAP1552E-A-K9 AIR-CAP1552EU-A-K9 • AIR-CAP1552E-C-K9 AIR-CAP1552EU-C-K9 • AIR-CAP1552E-D-K9 AIR-CAP1552EU-D-K9 • AIR-CAP1552E-E-K9 AIR-CAP1552EU-E-K9 • AIR-CAP1552E-K-K9 AIR-CAP1552EU-K-K9 • AIR-CAP1552E-M-K9 AIR-CAP1552EU-M-K9 • AIR-CAP1552E-N-K9 AIR-CAP1552EU-N-K9 • AIR-CAP1552E-Q-K9 AIR-CAP1552EU-Q-K9 • AIR-CAP1552E-Q1-K9 AIR-CAP1552EU-Q1K9 • AIR-CAP1552E-R-K9 AIR-CAP1552EU-R-K9 • AIR-CAP1552E-S-K9 AIR-CAP1552EU-S-K9 • AIR-CAP1552E-T-K9 AIR-CAP1552EU-T-K9 AIR-CAP1552EU-Z-K9 **Cisco Aironet 1552C/1552CU Access Point with DOCSIS 3.0 Cable Modem** • AIR-CAP1552C-A-K9 AIR-CAP1552CU-A-K9 • AIR-CAP1552C-E-K9 AIR-CAP1552CU-C-K9 • AIR-CAP1552C-K-K9 AIR-CAP1552CU-CDK9 • AIR-CAP1552C-N-K9 AIR-CAP1552CU-D-K9 • AIR-CAP1552C-Q-K9 AIR-CAP1552CU-E-K9 • AIR-CAP1552C-T-K9 AIR-CAP1552CU-EDK9 AIR-CAP1552CU-K-K9 AIR-CAP1552CU-N-K9 AIR-CAP1552CU-Q-K9 AIR-CAP1552CU-T-K9 AIR-CAP1552CU-ZEK9 **Cisco Aironet 1552H Hazardous Location Access Point** • AIR-CAP1552H-A-K9 • AIR-CAP1552H-B-K9 • AIR-CAP1552H-C-K9 • AIR-CAP1552H-E-K9 • AIR-CAP1552H-M-K9 • AIR-CAP1552H-N-K9 • AIR-CAP1552H-S-K9 **Cisco Aironet 1552I Integrated Antenna Access Point** • AIR-CAP1552I-A-K9 • AIR-CAP1552I-C-K9 • AIR-CAP1552I-E-K9 • AIR-CAP1552I-K-K9 • AIR-CAP1552I-N-K9

Item	Specification
	• AIR-CAP1552I-Q-K9 • AIR-CAP1552I-Q1-K9 **Cisco Aironet 1552E/1552EU Access Point with GPS** • AIR-CAP1552E-A-K9G • AIR-CAP1552E-C-K9G • AIR-CAP1552E-D-K9G • AIR-CAP1552E-E-K9G • AIR-CAP1552E-K-K9G • AIR-CAP1552E-M-K9G • AIR-CAP1552E-N-K9G • AIR-CAP1552E-Q-K9G • AIR-CAP1552E-Q1K9G • AIR-CAP1552E-R-K9G • AIR-CAP1552E-S-K9G • AIR-CAP1552E-T-K9G • AIR-CAP1552EU-AK9G • AIR-CAP1552EU-CK9G • AIR-CAP1552EU-DK9G • AIR-CAP1552EU-EK9G • AIR-CAP1552EU-KK9G • AIR-CAP1552EU-MK9G • AIR-CAP1552EU-NK9G • AIR-CAP1552EU-QK9G • AIR-CAP1552EUQ1K9G • AIR-CAP1552EU-RK9G • AIR-CAP1552EU-SK9G • AIR-CAP1552EU-TK9G • AIR-CAP1552EU-ZK9G **Cisco Aironet 1552C/1552CU Access Point with DOCSIS 3.0 Cable Modem and GPS** • AIR-CAP1552C-A-K9 • AIR-CAP1552C-E-K9 • AIR-CAP1552C-K-K9 • AIR-CAP1552C-N-K9 • AIR-CAP1552C-Q-K9 • AIR-CAP1552C-T-K9 • AIR-CAP1552CU-A-K9G • AIR-CAP1552CU-C-K9G • AIR-CAP1552CUCDK9G • AIR-CAP1552CU-D-K9G • AIR-CAP1552CU-E-K9G • AIR-CAP1552CUEDK9G • AIR-CAP1552CU-K-K9G • AIR-CAP1552CU-N-K9G • AIR-CAP1552CU-Q-K9G • AIR-CAP1552CU-T-K9G • AIR-CAP1552CUZEK9G **Cisco Aironet 1552I Integrated Antenna Access Point with GPS** • AIR-CAP1552I-A-K9G • AIR-CAP1552I-C-K9G • AIR-CAP1552I-E-K9G • AIR-CAP1552I-K-K9G • AIR-CAP1552I-N-K9G • AIR-CAP1552I-Q-K9G • AIR-CAP1552I-Q1K9G **Cisco SMARTnet® Service for the Cisco Aironet 1550 Series Access Points** • CON-SNT-CAP1552Ex - SMARTnet 8x5xNBD 1552E Access Point • CON-SNT-CAP1552Cx - SMARTnet 8x5xNBD 1552C Access Point with Cable Modem • CON-SNT-CAP1552Hx - SMARTnet 8x5xNBD 1552H Hazardous Location Access Point • CON-SNT-CAP1552Ix - SMARTnet 8x5xNBD 1552I* Integrated Antenna Access Point Not all regulatory domains have been approved. As they are approved, the part numbers will be available on the Global Price List.

<table>
<tr><th>Item</th><th>Specification</th></tr>
<tr><td>802.11n Version 2.0 (and Related) Capabilities</td><td>• 2x3 Multiple-Input Multiple-Output (MIMO) with two spatial streams
• Legacy beamforming
• 20- and 40-MHz channels
• PHY data rates up to 300 Mbps
• Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)
• 802.11 Dynamic Frequency Selection (DFS)
• Cyclic Shift Diversity (CSD) support</td></tr>
<tr><td>DOCSIS 3.0 Capabilities</td><td>DOCSIS and EuroDOCSIS 3.0 8x4 cable modem provides:
• Eight (8) bonded channels on the downstream with total throughput in excess of 300 Mbps
• Designed to meet DOCSIS 3.0 specifications as well as backward compatibility with existing DOCSIS 2.0, 1.1 and 1.0 networks
• Enhanced packet processing technology to maximize performance
• Downstream data rates in excess of 300 Mbps (without overhead)
• Upstream data rates up to 100 Mbps (without overhead)
Channel-bonded cable modems must be used in conjunction with a Cable Modem Termination System (CMTS) that supports channel bonding per the DOCSIS 3.0 specifications. When used with a non-channel-bonded CMTS, channel-bonded cable modems function as conventional DOCSIS 2.0 cable modems.</td></tr>
<tr><td rowspan="12">Data Rates Supported</td><td>802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps</td></tr>
<tr><td>802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps</td></tr>
<tr><td>802.11n data rates (2.4 GHz and 5 GHz):</td></tr>
<tr><td>MCS Index[1]</td><td colspan="2">GI[2] = 800 ns</td><td colspan="2">GI = 400 ns</td></tr>
<tr><td></td><td>20-MHz Rate (Mbps)</td><td>40-MHz Rate (Mbps)</td><td>20-MHz Rate (Mbps)</td><td>40-MHz Rate (Mbps)</td></tr>
<tr><td>0</td><td>6.5</td><td>13.5</td><td>7.2</td><td>15</td></tr>
<tr><td>1</td><td>13</td><td>27</td><td>14.4</td><td>30</td></tr>
<tr><td>2</td><td>19.5</td><td>40.5</td><td>21.7</td><td>45</td></tr>
<tr><td>3</td><td>26</td><td>54</td><td>28.9</td><td>60</td></tr>
<tr><td>4</td><td>39</td><td>81</td><td>43.3</td><td>90</td></tr>
<tr><td>5</td><td>52</td><td>108</td><td>57.8</td><td>120</td></tr>
<tr><td>6</td><td>58.5</td><td>121.5</td><td>65</td><td>135</td></tr>
<tr><td>7</td><td>65</td><td>135</td><td>72.2</td><td>150</td></tr>
<tr><td>8</td><td>13</td><td>27</td><td>14.4</td><td>30</td></tr>
<tr><td>9</td><td>26</td><td>54</td><td>28.9</td><td>60</td></tr>
</table>

[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.

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

Item	Specification				
	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
Frequency Band and 20-MHz Operating Channels	-A Domain: • 2.400 to 2.4835 GHz, 11 channels • 5.280 to 5.320 GHz; 3 channels • 5.500 to 5.560 GHz, 4 channels • 5.680 to 5.700 GHz, 2 channels • 5.745 to 5.825 GHz, 5 channels -B Domain: • 2.400 to 2.4835 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 -C Domain: • 2.400 to 2.4835 GHz; 13 channels • 5.725 to 5.850 GHz; 5 channels -D Domain: • 2.401 to 2.4835 GHz; 11 channels • 5.725 to 5.875 GHz; 7 channels -E Domain: • 2.401 to 2.4835 GHz; 13 channels • 5.470 to 5.725 GHz; 8 channels -K Domain: • 2.400 to 2.4835 GHz; 11 channels • 5.250 to 5.825 GHz; 14 channels -M Domain • 2.400 to 2.4835 GHz; 13 channels • 5.470 to 5.850 GHz; 12 channels -N Domain: • 2.400 to 2.4835 GHz; 11 channels • 5.725 to 5.850 GHz; 5 channels -Q Domain: • 2.400 to 2.4835 GHz; 13 channels • 5.470 to 5.725 GHz; 11 channels				

Item	Specification		
	-R Domain: • 2.400 to 2.4835 GHz; 13 channels • 5.250 to 5.725 GHz; 11 channels -S Domain: • 2.400 to 2.4835 GHz; 13 channels • 5.725 to 5.850 GHz; 5 channels -T Domain: • 2.400 to 2.4835 GHz; 11 channels • 5.470 to 5.850 GHz; 16 channels -Z Domain: • 2.400 to 2.4835 GHz; 11 channels • 5.470 to 5.850 GHz; 12 channels		
Note: This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.			
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: 19 • 802.11n: ◦ 20 MHz: 19 ◦ 40 MHz: 11	
Note: This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.			
Receive Sensitivity	**802.11b (Complementary Code Keying [CCK])** -101 dBm @ 1 Mbps -98 dBm @ 2 Mbps -92 dBm @ 5.5 Mbps -89 dBm @ 11 Mbps	**802.11g (non HT20)** -94 dBm @ 6 Mbps -93 dBm @ 9 Mbps -92 dBm @ 12 Mbps -90 dBm @ 18 Mbps -86 dBm @ 24 Mbps -84 dBm @ 36 Mbps -79 dBm @ 48 Mbps -78 dBm @ 54 Mbps	**802.11a (non HT20)** -92 dBm @ 6 Mbps -91 dBm @ 9 Mbps -89 dBm @ 12 Mbps -87 dBm @ 18 Mbps -85 dBm @ 24 Mbps -81 dBm @ 36 Mbps -77 dBm @ 48 Mbps -76 dBm @ 54 Mbps
	2.4-GHz **802.11n (HT20)** -93 dBm @ MCS0 -91 dBm @ MCS1 -89 dBm @ MCS2 -86 dBm @ MCS3 -82 dBm @ MCS4 -78 dBm @ MCS5 -77 dBm @ MCS6 -75 dBm @ MCS7	**5-GHz** **802.11n (HT20)** -92 dBm @ MCS0 -89 dBm @ MCS1 -87 dBm @ MCS2 -85 dBm @ MCS3 -81 dBm @ MCS4 -77 dBm @ MCS5 -76 dBm @ MCS6 -75 dBm @ MCS7	**5-GHz** **802.11n (HT40)** -89 dBm @ MCS0 -86 dBm @ MCS1 -84 dBm @ MCS2 -82 dBm @ MCS3 -78 dBm @ MCS4 -74 dBm @ MCS5 -73 dBm @ MCS6 -72 dBm @ MCS7

Item	Specification		
	-93 dBm @ MCS8 -91 dBm @ MCS9 -89 dBm @ MCS10 -86 dBm @ MCS11 -82 dBm @ MCS12 -78 dBm @ MCS13 -77 dBm @ MCS14 -75 dBm @ MCS15	-90 dBm @ MCS8 -87 dBm @ MCS9 -85 dBm @ MCS10 -82 dBm @ MCS11 -78 dBm @ MCS12 -74 dBm @ MCS13 -73 dBm @ MCS14 -72 dBm @ MCS15	-87 dBm @ MCS8 -84 dBm @ MCS9 -82 dBm @ MCS10 -79 dBm @ MCS11 -75 dBm @ MCS12 -71 dBm @ MCS13 -70 dBm @ MCS14 -69 dBm @ MCS15
Maximum Transmit Power	**2.4 GHz** • 802.11b (CCK) ◦ 28 dBm with 2 antennas • 802.11g (non HT duplicate mode) ◦ 28 dBm with 2 antennas • 802.11n (HT20) ◦ 28 dBm with 2 antennas	**5 GHz** • 802.11a ◦ 28 dBm with 2 antennas • 802.11n non-HT duplicate (802.11a duplicate) mode ◦ 28 dBm with 2 antennas • 802.11n (HT20) ◦ 27 dBm with 2 antennas • 802.11n (HT40) ◦ 27 dBm with 2 antennas	
Note: The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.			
Network Interface	• 10/100/1000BASE-T Ethernet, autosensing (RJ-45) • Fiber SFP (1552E/EU/H) • DOCSIS/EuroDOCSIS 3.0 (8x4) Cable modem interface (1552C/CU)		
Dimensions (W x L x H)	1552C/1552I: 12.3 x 8.6 x 5.6 in. (31.2 x 22.9 x 14.2 cm) 1552E/EU/CU/H: 12.3 x 8.6 x 6.1 in. (31.2 x 22.9 x 16.3 cm)		
Weight	1552E/EU: 17.3 lbs (7.8 kg) 1552C/CU: 14 lbs (6.4 kg) 1552H: 17.6 lbs (8 kg) 1552I: 14 lbs (6.4 kg) Battery backup: 1.5 lbs (0.7 kg) Pole mounting bracket: 6.1 lbs (2.8 kg) Cable strand mounting bracket: 1.3 lbs (0.6 kg)		
Environmental	Operating temperature: -40 to 55° C (-40 to 131° F) plus Solar Loading Storage temperature: -50 to 85° C (-58 to 185° F) Wind resistance: • Up to 100-MPH sustained winds • Up to 165-MPH wind gusts		
Environmental Ratings	• IP67 • NEMA Type 4X		

Item	Specification
Antenna Gain	• Integrated Dual Band Omnidirectional Antenna Radome (1552C/1552I) ◦ 2 dBi (2.4 GHz), 4 dBi (5 GHz) • External Dual-Band Omnidirectional Antennas (1552E/1552H) ◦ AIR-ANT2547V-N (4 dBi (2.4 GHz), 7 dBi (5 GHz)) • External Dual-Band Directional Antennas (1552E/1552H) ◦ AIR-ANT2588P3M-N= (8 dBi (2.4 GHz), 8 dBi (5 GHz)) • External Single Band Antennas (for 1552EU/1552CU) ◦ 2.4 GHz ◦ AIR-ANT2420V-N (2 dBi, omni) ◦ AIR-ANT2450V-N (5 dBi, omni) ◦ AIR-ANT2480V-N (8 dBi, omni) ◦ AIR-ANT2413P2M-N= (13 dBi, dual polarized patch) ◦ 5 GHz ◦ AIR-ANT5140V-N (4 dBi, omni) ◦ AIR-ANT5175V-N (7.5 dBi, omni) ◦ AIR-ANT5180V-N (8 dBi, omni) ◦ AIR-ANT5114P-N= (14 dBi, patch) ◦ AIR-ANT5114P2M-N= (14 dBi, dual polarized patch)
Powering Options	**1552E/1552EU** • 90-480 VAC, 50-60 Hz • 12 VDC • PoE with power injector **1552C/1552CU** • 40-90 VAC, 50-60 Hz, quasi-square wave, Power over Cable • 12 VDC **1552H** • 100-240 VAC, 50-60 Hz • 12 VDC • PoE with power injector **1552I** • 110-277 VAC, 50-60 Hz • 12 VDC
Warranty	1 year
Compliance	**Safety** • UL 60950, 2nd Edition • CAN/CSA-C22.2 No. 60950, 2nd Edition • IEC 60950, 2nd Edition • EN 60950, 2nd Edition **Immunity** • <= 5 mJ for 6kV/3kA @ 8/20 ms waveform • ANSI/IEEE C62.41 • EN61000-4-5 Level 4 AC Surge Immunity • EN61000-4-4 Level 4 Electrical Fast Transient Burst Immunity • EN61000-4-3 Level 4 EMC Field Immunity • EN61000-4-2 Level 4 ESD Immunity • EN60950 Overvoltage Category IV **Radio approvals** • FCC Part 15.247, 15.407 • FCC Bulletin OET-65C • RSS-210

Item	Specification
	• RSS-102 • AS/NZS 4268.2003 • ARIB-STD 66 (Japan) • ARIB-STD T71 (Japan) • EN 300 328 • EN 301 893 **EMI and susceptibility** • FCC part 15.107, 15.109 • ICES-003 • EN 301 489-1, -17 **Security** • Wireless bridging/mesh ◦ X.509 digital certificates ◦ MAC address authentication ◦ Advanced Encryption Standards (AES), Temporal Key Integrity Protocol (TKIP) • Wireless access ◦ 802.11i, Wi-Fi Protected Access (WPA2), WPA ◦ 802.1X authentication, including Extensible Authentication Protocol and Protected EAP (EAP-PEAP), EAP Transport Layer Security (EAP-TLS), EAP-Tunneled TLS (EAP-TTLS), EAP-Subscriber Identity Module (EAP-SIM), and Cisco LEAP ◦ Advanced Encryption Standards (AES), Temporal Key Integrity Protocol (TKIP) ◦ VPN pass-through ◦ IP Security (IPsec) ◦ Layer 2 Tunneling Protocol (L2TP) • MAC address filtering **Other (AIR-CAP1552H-x-K9 only)** • NRTL/CSA: Class I, Division 2; Groups A, B, C, and D • ATEX: Class I, Zone 2; Ex nA IIC T5 Gc • IECEx: Class I, Zone 2, Ex nA IIC T5 Gc

Plan, build, and run services for a seamless outdoor experience

Professional services from Cisco and Cisco Advanced Wireless LAN Specialized Partners facilitate a smooth deployment of the next-generation wireless outdoor solution, while tightly integrating it with the wired and indoor wireless networks. Based on proven methodologies for planning and deploying end-to-end solutions with secure voice, video, and data technologies and years of experience designing and implementing some of the world's most complex enterprise-class wireless networks, our specialists can help you optimize mobile connectivity to transform your business operations.

We work with your IT staff to see that your architecture, physical sites, and operational staff are ready to support Cisco's integrated, next-generation, outdoor wireless solution that combines the high performance of the 802.11n standard and Cisco CleanAir technology.

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. Learn more.

For more information

For more information about Cisco wireless mesh, contact your local account representative or visit: https://www.cisco.com/go/outdoorwireless.

For more information about the Cisco Unified Wireless Network framework, visit: https://www.cisco.com/go/unifiedwireless.

For more information about the Cisco service provider Wi-Fi solution, visit: https://www.cisco.com/go/ap1550.

For more information about the Cisco Wireless LAN Services, visit: https://www.cisco.com/c/en/us/products/wireless/service-listing.html.

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Printed in USA C78-641373-10 09/19