# Cisco Aironet 1570 Series Outdoor Access Point

**WiFi CERTIFIED®**

**Next-Generation Outdoor Wireless Access Points: Cisco Aironet 1572EAC, 1572IC, and 1572EC**

- Most advanced carrier-grade outdoor Wi-Fi AP
- 802.11ac dual-band (2.4 and 5 GHz) radios
- Maximum radiated RF power allowed by law
- Industry's only 4x4, 3-spatial-stream outdoor AP
- 1.3 Gbps (5 GHz) WLAN RF data rates
- Cisco Flexible Antenna Port technology
- Uplink: Fiber/SFP, GE, Cable Modem
- DOCSIS3.0 with 24x8 channel bonding
- Power: AC, DC, Cable, UPOE, PoE-Out (802.3at)
- 4G LTE coexistence
- Module option: Investment protection and future proofing
- Low visual profile design
- Controller-based or standalone operation
- **Cisco Aironet 1572EAC**
  - External antenna with AC-power model
- **Cisco Aironet 1572IC**
  - Internal antennas with cable modem model
- **Cisco Aironet 1572EC**
  - External antenna with cable modem model

## Product Overview

### Highest-Performing Outdoor Wireless AP

The Cisco Aironet 1570 Series outdoor access point is ideal for both enterprise and carrier-class network operators looking to extend Wi-Fi coverage outdoors. It's the industry's highest-performing outdoor AP and supports the latest Wi-Fi standard, 802.11ac, with data connection speeds up to 1.3 Gbps. This industrial-grade AP supports 4x4 multiple-input and multiple-output (MIMO) smart antenna technology and three spatial streams for optimum performance.

The Aironet 1570 provides higher throughput over a larger area with more pervasive coverage. The AP is also well suited to high-density environments where many users in close proximity generate RF interference that needs to be managed. Examples of environments that can benefit from the Aironet 1570 Series:

- Outdoor enterprise campuses
- Outdoor university and school campuses
- Public venues: stadiums, train stations, airports
- Service provider networks: Wi-Fi offload for mobile, fixed-line, and cable operators
- Mining operations
- Manufacturing yards
- Municipalities
- Large metropolitan areas

## Features and Benefits

The Cisco Aironet 1570 Series meets the demanding needs of customers across a broad range of industries spanning enterprises and service providers. It offers a scalable and secure mesh architecture for high-performance Wi-Fi services. It also addresses the expanding demand for Wi-Fi access services, network-to-network mobility, video surveillance, and cellular data offload to Wi-Fi.

The Cisco 1570 builds and expands on the successful 1550 series legacy of being the Wi-Fi outdoor AP of choice by service providers needing carrier-grade, ruggedized devices that are easy to deploy and maintain.

Table 1 describes the Aironet 1570's main features and benefits.

**Table 1.**     Primary Capabilities and How You Benefit

| Feature | Description/Benefit(s) |
|---|---|
| **802.11ac support with 4x4 MIMO, three spatial streams** | Delivers higher data rates over a greater area with pervasive coverage than any competing AP. Provides a data rate of up to 1.3 Gbps, roughly triple the rates offered by today's high-end 802.11n access points. |
| **Maximum RF radiated power allowable on both 2.4 and 5 GHz radios** | Lets you use the fewest number of APs to get the greatest possible area coverage and highest throughput rates. |
| **Cisco High-Density Experience (HDX)** | Helps maintain network performance as Wi-Fi clients, APs, and high-bandwidth applications join and roam the network. |
| **Cisco CleanAir® Technology** | Provides spectrum intelligence across 20-, 40-, and 80-MHz channels to combat performance problems caused by wireless interference. Also part of Cisco HDX technology. |
| **Cisco ClientLink 3.0** | Uses true beamforming smart-antenna technology to improve downlink performance by up to 6 dB to all mobile devices, including one-, two-, and three-spatial-stream devices on 802.11ac. Increases smartphone and tablet battery efficiency by up to 50 percent. Part of Cisco HDX technology. |
| **MIMO equalization** | Boosts performance and reliability by reducing the impact of signal fade and associated "dead zones" |
| **Cisco Flexible Antenna Port technology** | Makes the AP's external antenna ports software-configurable for either four dual-band (2.4 and 5 GHz) configuration or two pairs of single-band configuration with one pair operating at 2.4 GHz and the other at 5 GHz. This provides the operator with added flexibility in coverage options. |
| **Modular architecture design** | The architecture of the 1572E models provides the flexibility for a potential add-on module for future proofing and investment protection. For example, you could add external modules with technology options such as a 4G LTE picocell or a sensor. Such a module could be field-upgradeable to an existing 1570 network. |
| **GPS support** | Keeps track of the location of all outdoor APs deployed. With a built-in GPS receiver, the coordinates of the AP can be located by your WLAN controller or management system. |
| **Central management using Cisco Prime™ Infrastructure** | Network lifecycle management tool that integrates with Cisco Aironet APs and WLAN controllers to configure and manage your wireless networks. Helps prevent costly maintenance service calls to outdoor locations. Network administrators have a single solution for RF prediction, policy provisioning, network optimization, troubleshooting, security monitoring, and WLAN system management. |

## Product Models and Antenna Options

The Cisco Aironet 1570 Series offers three model types. Table 2 lists the models and their respective antenna options.

**Table 2.**     Models and Antennas

| Model | Antenna Options |
|---|---|
| **1572EAC**<br>E      External antenna<br>AC    AC power | Uses Cisco Flexible Antenna Port technology. It has four (4) N-type female external antenna connectors that can be configured as a 2.4/5 GHz dual-band port or two (2) 2.4 GHz plus two (2) 5-GHz ports. The antenna options include single or dual-band and omnidirectional or directional. |
| **1572IC**<br>I       Internal antenna<br>C     Cable backhaul/power-over-cable | Combines four (4) dual-band, integrated antennas under a common radome. These antennas are omnidirectional with associated gains of 4 dBi and 6 dBi on the 2.4 GHz and 5 GHz bands, respectively. |
| **1572EC**<br>E      External antenna<br>C     Cable backhaul/power-over-cable | Uses Cisco Flexible Antenna Port technology. It has four (4) N-type female external antenna connectors that can be configured as a 2.4/5 GHz dual-band port or two (2) 2.4 GHz plus two (2) 5-GHz ports. The antenna options include single or dual-band and omnidirectional or directional. |

## Product Specifications

Table 3 lists specifications for the Cisco Aironet 1570 Series.

**Table 3.** Cisco Aironet 1570 Series Product Specifications

| Item | Specification | | | |
|---|---|---|---|---|
| **Part numbers** | **Cisco Aironet 1572EAC** (External Antenna, AC Power Model)<br>AIR-AP1572EAC-x-K9 | | | |
| | **Cisco Aironet 1572IC** (Internal Antenna, PoC Model) | | | |
| | AIR-AP1572IC1-x-K9 | North American DOCSIS3.0 with Diplex Filter split of: | 5-42/ | 88-1000 MHz |
| | AIR-AP1572IC2-x-K9 | North American DOCSIS3.0 with Diplex Filter split of: | 5-85/ | 108-1002 MHz |
| | AIR-AP1572IC3-x-K9 | Euro- DOCSIS3.0 with Diplex Filter split of: | 5-65/ | 108-1002 MHz |
| | AIR-AP1572IC4-x-K9 | Japan- DOCSIS3.0 with Diplex Filter split of: | 5-65/ | 108-1002 MHz |
| | **Cisco Aironet 1572EC** (External Antenna, PoC Model) | | | |
| | AIR-AP1572EC1-x-K9 | North American DOCSIS3.0 with Diplex Filter split of: | 5-42/ | 88-1000 MHz |
| | AIR-AP1572EC2-x-K9 | North American DOCSIS3.0 with Diplex Filter split of: | 5-85/ | 108-1002 MHz |
| | AIR-AP1572EC3-x-K9 | Euro- DOCSIS3.0 with Diplex Filter split of: | 5-65/ | 108-1002 MHz |
| | AIR-AP1572EC4-x-K9 | Japan- DOCSIS3.0 with Diplex Filter split of: | 5-65/ | 108-1002 MHz |
| | **Regulatory domains: (x = regulatory domain)**<br>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 https://www.cisco.com/go/aironet/compliance.<br>● Not all models available for all regulatory domains.<br>● Not all regulatory domains have been approved. As they are approved, the part numbers will be available on the Global Price List.<br><br>**Cisco SMARTnet® Service for the Cisco Aironet 1570 Series Access Points**<br>Refer to the Service part numbers available on Cisco Commerce Workspace for available service offerings. | | | |
| **802.11n Version 2.0 capabilities** | ● 4x4 MIMO with three spatial streams (3SS)<br>● Maximal ratio combining (MRC)<br>● 802.11n and 802.11a/g Beamforming<br>● 20- and 40-MHz channels<br>● PHY data rates up to 450 Mbps (40 MHz with 5 GHz)<br>● Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)<br>● 802.11 Dynamic Frequency Selection (DFS)<br>● Cyclic Shift Diversity (CSD) support | | | |
| **802.11ac Wave 1 capabilities** | ● 4x4 MIMO with three spatial streams (3SS)<br>● Maximum Ratio Combining (MRC)<br>● 802.11ac Beamforming<br>● 20-, 40-, and 80-MHz channels<br>● PHY data rates up to 1.3 Gbps (80 MHz with 5 GHz)<br>● Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)<br>● 802.11 Dynamic Frequency Selection (DFS)<br>● Cyclic Shift Diversity (CSD) support | | | |

| Item | Specification |
|---|---|
| **DOCSIS 3.0 Capabilities** | DOCSIS3.0 with up to 8x4, 16x8, and 24x8 Downstream (DS) x Upstream (US) channel bonding capability for Hybrid Fiber-Coaxial (HFC) cable modem (CM) options. The CM protocols include NA-DOCSIS3.0, Euro-DOCSIS3.0 and Japan-DOCSIS3.0. The NA-DOCSIS3.0 is offered with either (42/88 MHz or 85/108 MHz) diplexer split. The Euro and Japan DOCSIS are offered with (65/108 MHz) diplexer split.<br><br>NA-DOCSIS3.0, Euro-DOCSIS3.0 24x8 cable modem provides up to:<br><br>● Twenty four (24) bonded channels on the downstream with total throughput of up to 912 and 1200 Mbps respectively (maximum usable throughput without overhead)<br><br>● Eight (8) bonded channels on the upstream with total throughput of up to 216 Mbps (maximum usable throughput without overhead)<br><br>● Designed to meet DOCSIS 3.0 specifications as well as backward compatibility with existing DOCSIS2.0 networks.<br><br>● Enhanced packet processing technology to maximize performance.<br><br>Channel-bonded cable modems must be used in conjunction with a cable modem termination system (CMTS) that supports channel bonding per the DOCSIS3.0 specifications. When used with a non-channel-bonded CMTS, channel-bonded cable modems function as conventional DOCSIS2.0 cable modems. |
| **Data Rates Supported** | 2.4 GHz - 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps |

2.4 GHz - 802.11n:

| Spatial Streams | MCS Index[1] | GI[2] = 800 ns | | | GI = 400 ns | | |
|---|---|---|---|---|---|---|---|
| | | 20 MHz Rate (Mbps) | | | 20 MHz Rate (Mbps) | | |
| 1 | 0 | 6.5 | | | 7.2 | | |
| 1 | 1 | 13 | | | 14.4 | | |
| 1 | 2 | 19.5 | | | 21.7 | | |
| 1 | 3 | 26 | | | 28.9 | | |
| 1 | 4 | 39 | | | 43.3 | | |
| 1 | 5 | 52 | | | 57.8 | | |
| 1 | 6 | 58.5 | | | 65 | | |
| 1 | 7 | 65 | | | 72.2 | | |
| 2 | 8 | 13 | | | 14.4 | | |
| 2 | 9 | 26 | | | 28.9 | | |
| 2 | 10 | 39 | | | 43.3 | | |
| 2 | 11 | 52 | | | 57.8 | | |
| 2 | 12 | 78 | | | 86.7 | | |
| 2 | 13 | 104 | | | 115.6 | | |
| 2 | 14 | 117 | | | 130 | | |
| 2 | 15 | 130 | | | 144.4 | | |
| 3 | 16 | 19.5 | | | 21.7 | | |
| 3 | 17 | 39 | | | 43.3 | | |
| 3 | 18 | 58.5 | | | 65 | | |
| 3 | 19 | 78 | | | 86.7 | | |
| 3 | 20 | 117 | | | 130 | | |
| 3 | 21 | 156 | | | 173.3 | | |
| 3 | 22 | 175.5 | | | 195 | | |
| 3 | 23 | 195 | | | 216.7 | | |

[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 | | | | | | |
|---|---|---|---|---|---|---|---|
| | **5 GHz - 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps** | | | | | | |
| | **5 GHz - 802.11n:** | | | | | | |
| | **Spatial Streams** | **MCS Index** | **GI = 800 ns** | | | **GI = 400 ns** | |
| | | | **20 MHz Rate (Mbps)** | **40 MHz Rate (Mbps)** | | **20 MHz Rate (Mbps)** | **40 MHz Rate (Mbps)** |
| | 1 | 0 | 6.5 | 13.5 | | 7.2 | 15 |
| | 1 | 1 | 13 | 27 | | 14.4 | 30 |
| | 1 | 2 | 19.5 | 40.5 | | 21.7 | 45 |
| | 1 | 3 | 26 | 54 | | 28.9 | 60 |
| | 1 | 4 | 39 | 81 | | 43.3 | 90 |
| | 1 | 5 | 52 | 108 | | 57.8 | 120 |
| | 1 | 6 | 58.5 | 121.5 | | 65 | 135 |
| | 1 | 7 | 65 | 135 | | 72.2 | 150 |
| | 2 | 8 | 13 | 27 | | 14.4 | 30 |
| | 2 | 9 | 26 | 54 | | 28.9 | 60 |
| | 2 | 10 | 39 | 81 | | 43.3 | 90 |
| | 2 | 11 | 52 | 108 | | 57.8 | 120 |
| | 2 | 12 | 78 | 162 | | 86.7 | 180 |
| | 2 | 13 | 104 | 216 | | 115.6 | 240 |
| | 2 | 14 | 117 | 243 | | 130 | 270 |
| | 2 | 15 | 130 | 270 | | 144.4 | 300 |
| | 3 | 16 | 19.5 | 40.5 | | 21.7 | 45 |
| | 3 | 17 | 39 | 81 | | 43.3 | 90 |
| | 3 | 18 | 58.5 | 121.5 | | 65 | 135 |
| | 3 | 19 | 78 | 162 | | 86.7 | 180 |
| | 3 | 20 | 117 | 243 | | 130 | 270 |
| | 3 | 21 | 156 | 324 | | 173.3 | 360 |
| | 3 | 22 | 175.5 | 364.5 | | 195 | 405 |
| | 3 | 23 | 195 | 405 | | 216.7 | 450 |
| | **5 GHz - 802.11ac:** | | | | | | |

| Spatial Streams | MCS Index | GI = 800 ns | | | GI = 400 ns | | |
|---|---|---|---|---|---|---|---|
| | | **20 MHz Rate (Mbps)** | **40 MHz Rate (Mbps)** | **80 MHz Rate (Mbps)** | **20 MHz Rate (Mbps)** | **40 MHz Rate (Mbps)** | **80 MHz Rate (Mbps)** |
| 1 | 0 | 6.5 | 13.5 | 29.3 | 7.2 | 15 | 32.5 |
| 1 | 1 | 13 | 27 | 58.5 | 14.4 | 30 | 65 |
| 1 | 2 | 19.5 | 40.5 | 87.8 | 21.7 | 45 | 97.5 |
| 1 | 3 | 26 | 54 | 117 | 28.9 | 60 | 130 |
| 1 | 4 | 39 | 81 | 175.5 | 43.3 | 90 | 195 |
| 1 | 5 | 52 | 108 | 234 | 57.8 | 120 | 260 |
| 1 | 6 | 58.5 | 121.5 | 263.3 | 65 | 135 | 292.5 |
| 1 | 7 | 65 | 135 | 292.5 | 72.2 | 150 | 325 |
| 1 | 8 | 78 | 162 | 351 | 86.7 | 180 | 390 |
| 1 | 9 | - | 180 | 390 | - | 200 | 433.3 |

| Item | Specification | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2 | 0 | 13 | 27 | 58.5 | 14.4 | 30 | 65 |
| | 2 | 1 | 26 | 54 | 117 | 28.9 | 60 | 130 |
| | 2 | 2 | 39 | 81 | 175.5 | 43.3 | 90 | 195 |
| | 2 | 3 | 52 | 108 | 234 | 57.8 | 120 | 260 |
| | 2 | 4 | 78 | 162 | 351 | 86.7 | 180 | 390 |
| | 2 | 5 | 104 | 216 | 468 | 115.6 | 240 | 520 |
| | 2 | 6 | 117 | 243 | 526.5 | 130 | 270 | 585 |
| | 2 | 7 | 130 | 270 | 585 | 144.4 | 300 | 650 |
| | 2 | 8 | 156 | 324 | 702 | 173.3 | 360 | 780 |
| | 2 | 9 | - | 360 | 780 | - | 400 | 866.7 |
| | 3 | 0 | 19.5 | 40.5 | 87.8 | 21.7 | 45 | 97.5 |
| | 3 | 1 | 39 | 81 | 175.5 | 43.3 | 90 | 195 |
| | 3 | 2 | 58.5 | 121.5 | 263.3 | 65 | 135 | 292.5 |
| | 3 | 3 | 78 | 162 | 351 | 86.7 | 180 | 390 |
| | 3 | 4 | 117 | 243 | 526.5 | 130 | 270 | 585 |
| | 3 | 5 | 156 | 324 | 702 | 173.3 | 360 | 780 |
| | 3 | 6 | 175.5 | 364.5 | - | 195 | 405 | - |
| | 3 | 7 | 195 | 405 | 877.5 | 216.7 | 450 | 975 |
| | 3 | 8 | 234 | 486 | 1053 | 260 | 540 | 1170 |
| | 3 | 9 | 260 | 540 | 1170 | 288.9 | 600 | 1300 |

**Frequency Band and 20-MHz Operating Channels (Regulatory Domains)**

A:
2.412 to 2.462 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:
2.412 to 2.462 GHz,   11 channels
5.180 to 5.240 GHz,   4 channels
5.260 to 5.320 GHz,   4 channels
5.500 to 5.560 GHz,   4 channels
5.680 to 5.720 GHz,   3 channels
5.745 to 5.825 GHz,   5 channels

C:
2.412 to 2.462 GHz,   11 channels
5.745 to 5.825 GHz,   5 channels

D:
2.412 to 2.462 GHz,   11 channels
5.745 to 5.865 GHz,   7 channels

E:
2.412 to 2.462 GHz,   11 channels
5.500 to 5.580 GHz,   5 channels
5.660 to 5.700 GHz,   3 channels

F:
2.412 to 2.462 GHz,   11 channels
5.745 to 5.805 GHz,   4 channels

-H:
2.412 to 2.462 GHz,   1 channels
5.745 to 5.825 GHz,   5 channels

| Item | Specification |
|---|---|
| | **-K:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.280 to 5.320 GHz,  3 channels<br>  5.500 to 5.620 GHz,  7 channels<br>  5.745 to 5.805 GHz,  4 channels<br>**-M:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.500 to 5.580 GHz,  5 channels<br>  5.660 to 5.700 GHz,  3 channels<br>  5.745 to 5.805 GHz,  4 channels<br>**-N:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.745 to 5.825 GHz,  5 channels<br>**-Q:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.500 to 5.700 GHz,  11 channels<br>**-R:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.260 to 5.320 GHz,  4 channels<br>  5.660 to 5.700 GHz,  3 channels<br>  5.745 to 5.825 GHz,  5 channels<br>**-S:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.500 to 5.700 GHz,  11 channels<br>  5.745 to 5.825 GHz,  5 channels<br>**-T:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.500 to 5.580 GHz,  5 channels<br>  5.660 to 5.700 GHz,  3 channels<br>  5.745 to 5.825 GHz,  5 channels<br>**-Z:**<br>  2.412 to 2.462 GHz,  11 channels<br>  5.500 to 5.580 GHz,  5 channels<br>  5.660 to 5.700 GHz,  3 channels<br>  5.745 to 5.825 GHz,  5 channels |

**Note:** This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.

| Item | 2.4 GHz | 5 GHz |
|---|---|---|
| **Maximum Number of Non-overlapping Channels** | ● 802.11b/g:<br>  ◦ 20 MHz:  3<br>● 802.11n:<br>  ◦ 20 MHz:  3 | ● 802.11a:<br>  ◦ 20 MHz:  27<br>● 802.11n:<br>  ◦ 20 MHz:  27<br>  ◦ 40 MHz:  13<br>● 802.11ac:<br>  ◦ 20 MHz:  27<br>  ◦ 40 MHz:  13<br>  ◦ 80 MHz:  6 |

**Note:** This varies by regulatory domain. Refer to the product documentation for specific details for each regulatory domain.

| Item | Specification | | | | |
|---|---|---|---|---|---|
| **Receive Sensitivity** | **2.4 GHz**<br>**802.11, 802.11b (DSSS, CCK)**<br>-103 dBm @ 1 Mbps<br>-101 dBm @ 2 Mbps<br>-93 dBm @ 5.5 Mbps<br>-90 dBm @ 11 Mbps | | | | |
| | **2.4 GHz**<br>**802.11g (non HT20)**<br>-93 dBm @ 6 Mbps<br>-93 dBm @ 9 Mbps<br>-93 dBm @ 12 Mbps<br>-92 dBm @ 18 Mbps<br>-89 dBm @ 24 Mbps<br>-87 dBm @ 36 Mbps<br>-82 dBm @ 48 Mbps<br>-81 dBm @ 54 Mbps | | **5 GHz**<br>**802.11a (non HT20)**<br>-92 dBm @ 6 Mbps<br>-92 dBm @ 9 Mbps<br>-92 dBm @ 12 Mbps<br>-91 dBm @ 18 Mbps<br>-89 dBm @ 24 Mbps<br>-86 dBm @ 36 Mbps<br>-81 dBm @ 48 Mbps<br>-80 dBm @ 54 Mbps | | |
| | **2.4-GHz**<br>**802.11n (HT20)**<br>-93 dBm @ MCS0<br>-93 dBm @ MCS1<br>-91 dBm @ MCS2<br>-88 dBm @ MCS3<br>-85 dBm @ MCS4<br>-80 dBm @ MCS5<br>-79 dBm @ MCS6<br>-78 dBm @ MCS7<br>-93 dBm @ MCS8<br>-91 dBm @ MCS9<br>-89 dBm @ MCS10<br>-86 dBm @ MCS11<br>-82 dBm @ MCS12<br>-78 dBm @ MCS13<br>-77 dBm @ MCS14<br>-76 dBm @ MCS15<br>-93 dBm @ MCS16<br>-90 dBm @ MCS17<br>-88 dBm @ MCS18<br>-84 dBm @ MCS19<br>-81 dBm @ MCS20<br>-77 dBm @ MCS21<br>-75 dBm @ MCS22<br>-74 dBm @ MCS23 | | **5-GHz**<br>**802.11n (HT20)**<br>-92 dBm @ MCS0<br>-91 dBm @ MCS1<br>-90 dBm @ MCS2<br>-87 dBm @ MCS3<br>-84 dBm @ MCS4<br>-79 dBm @ MCS5<br>-78 dBm @ MCS6<br>-77 dBm @ MCS7<br>-92 dBm @ MCS8<br>-90 dBm @ MCS9<br>-87 dBm @ MCS10<br>-85 dBm @ MCS11<br>-81 dBm @ MCS12<br>-77 dBm @ MCS13<br>-76 dBm @ MCS14<br>-74 dBm @ MCS15<br>-91 dBm @ MCS16<br>-89 dBm @ MCS17<br>-87 dBm @ MCS18<br>-84 dBm @ MCS19<br>-80 dBm @ MCS20<br>-76 dBm @ MCS21<br>-75 dBm @ MCS22<br>-73 dBm @ MCS23 | | **5-GHz**<br>**802.11n (HT40)**<br>-88 dBm @ MCS0<br>-88 dBm @ MCS1<br>-87 dBm @ MCS2<br>-84 dBm @ MCS3<br>-81 dBm @ MCS4<br>-76 dBm @ MCS5<br>-75 dBm @ MCS6<br>-74 dBm @ MCS7<br>-89 dBm @ MCS8<br>-87 dBm @ MCS9<br>-85 dBm @ MCS10<br>-82 dBm @ MCS11<br>-79 dBm @ MCS12<br>-74 dBm @ MCS13<br>-73 dBm @ MCS14<br>-71 dBm @ MCS15<br>-88 dBm @ MCS16<br>-86 dBm @ MCS17<br>-84 dBm @ MCS18<br>-80 dBm @ MCS19<br>-78 dBm @ MCS20<br>-73 dBm @ MCS21<br>-71 dBm @ MCS22<br>-70 dBm @ MCS23 |

| Spatial Streams | MCS Index | 5 GHz 802.11ac (VHT20) | 5 GHz 802.11ac (VHT40) | 5 GHz 802.11ac (VHT80) |
|---|---|---|---|---|
| 1 | 0 | -92 | -89 | -85 |
| 1 | 4 | -86 | -83 | -80 |
| 1 | 7 | -79 | -75 | -73 |
| 1 | 8 | -74 | -71 | -68 |
| 1 | 9 | NA | -69 | -66 |
| 2 | 0 | -92 | -89 | -85 |
| 2 | 4 | -83 | -81 | -77 |
| 2 | 7 | -76 | -74 | -70 |

| Item | Specification | | | | |
|------|------|------|------|------|------|
| | 2 | 8 | -72 | -68 | -66 |
| | 2 | 9 | NA | -67 | -63 |
| | 3 | 0 | -91 | -89 | -85 |
| | 3 | 4 | -82 | -79 | -76 |
| | 3 | 7 | -75 | -72 | -69 |
| | 3 | 8 | -69 | -66 | -64 |
| | 3 | 9 | -66 | -64 | -60 |
| **Maximum Conducted Transmit Power** | **2.4 GHz**<br>● 802.11, 802.11b (DSSS, CCK)<br>  ◦ 30 dBm with 4 antennas<br>● 802.11g (non HT20)<br>  ◦ 30 dBm with 4 antennas<br>● 802.11n (HT20)<br>  ◦ 30 dBm with 4 antennas | | | **5 GHz**<br>● 802.11a (non HT20)<br>  ◦ 30 dBm with 4 antennas<br>● 802.11n non-HT duplicate (802.11a duplicate) mode<br>  ◦ 30 dBm with 4 antennas<br>● 802.11n (HT20)<br>  ◦ 30 dBm with 4 antennas<br>● 802.11n (HT40)<br>  ◦ 30 dBm with 4 antennas<br>● 802.11ac<br>  ◦ non-HT80:　　30 dBm, 4 antennas<br>  ◦ VHT20:　　　30 dBm, 4 antennas<br>  ◦ VHT40:　　　30 dBm, 4 antennas<br>  ◦ VHT80:　　　30 dBm, 4 antennas<br>  ◦ VHT20-STBC:  30 dBm, 4 antennas<br>  ◦ VHT40-STBC:  30 dBm, 4 antennas<br>  ◦ VHT80-STBC:  30 dBm, 4 antennas | | |

**Note:** The maximum power setting will vary by channel and according to individual country regulations. Refer to the product documentation for specific details.

| Item | Specification | | | | |
|------|------|------|------|------|------|
| **Interface** | ● WAN port　　　　10/100/1000BASE-T Ethernet, autosensing (RJ-45)<br>● LAN port　　　　10/100/1000BASE-T Ethernet, autosensing (RJ-45)<br>● Fiber SFP<br>● Cable modem: NA-DOCSIS3.0/Euro-DOCSIS3.0/Japan-DOCSIS3.0 (8x4, 16x8, or 24x8)<br>● Management console port (RJ-45)<br>● Four multicolor LEDs<br>● Reset button | | | | |
| **Uplink options** | 1572EAC　　　　　　Ethernet, Fiber SFP, Wireless Mesh<br>1572IC　　　　　　Ethernet, Fiber SFP, Wireless Mesh, Cable Modem<br>1572EC　　　　　　Ethernet, Fiber SFP, Wireless Mesh, Cable Modem | | | | |
| **Dimensions (L x W x D)** | 1572EAC/1572EC　　11.8 x 7.9 x 6.3 in.　(30.0 x 20.1 x 16.0 cm)<br>1572IC　　　　　　11.8 x 7.9 x 7.9 in.　(30.0 x 20.1 x 20.1 cm) | | | | |
| **Weight** | 1572EAC/1572EC　　13.5 lbs.　(6.1 kg)<br>1572IC　　　　　　11.5 lbs.　(5.2 kg)<br><br>Pole mounting Kit 1 (PMK1):　2.2 lbs.　(1.0 kg)<br>Pole mounting Kit 2 (PMK2):　4.4 lbs.　(2.0 kg)<br>Pole mounting Kit 3 (PMK3):　6.1 lbs.　(2.8 kg)<br><br>Cable strand mounting bracket 1 (SMK1):　0.3 lbs.　(0.2 kg)<br>Cable strand mounting bracket 2 (SMK2):　0.7 lbs.　(0.3 kg)<br>Cable strand mounting bracket 2 (SMK3):　1.2 lbs.　(0.5 kg) | | | | |

| Item | Specification | |
|---|---|---|
| **Environmental** | Operating temperature: <br>• -40 to 65°C (-40 to 149°F) ambient air with no solar loading <br>• -40 to 55°C (-40 to 131°F) ambient air with solar loading 743W/m$^2$ (details in HW installation guide) <br>Storage temperature: -50 to 70°C (-58 to 158°F) <br>Humidity: 5 - 95%, non-condensing <br>Wind resistance: <br>• Up to 100-MPH sustained winds <br>• Up to 165-MPH wind gusts | |
| **Environmental Ratings** | IP67 <br>NEMA Type 4X | |
| **Antennas** | 1572EAC/1572EC/1572IC <br>• GPS Antenna: AIR-ANT-GPS-1 <br><br>1572EAC/1572EC (external antennas) <br>• **Dual-Band** <br>  ◦ AIR-ANT2568VG-N  6 dBi (2.4 GHz),  8 dBi (5 GHz)  Omni <br>  ◦ AIR-ANT2547VG-N  4 dBi (2.4 GHz),  7 dBi (5 GHz)  Omni <br>  ◦ AIR-ANT2547V-N  4 dBi (2.4 GHz),  7 dBi (5 GHz)  Omni <br>  ◦ AIR-ANT2588P3M-N=  8 dBi (2.4 GHz),  8 dBi (5 GHz)  Directional <br>  ◦ AIR-ANT2513P4M-N=  13 dBi (2.4 GHz),  13 dBi (5 GHz)  Directional <br>• **Single Band** <br>  ◦ AIR-ANT2420V-N=  2 dBi (2.4 GHz),  Omni, right-angle <br>  ◦ AIR-ANT2450V-N=  5 dBi (2.4GHz),  Omni <br>  ◦ AIR-ANT2480V-N=  8 dBi(2.4 GHz),  Omni <br>  ◦ AIR-ANT2413P2M-N=  13 dBi (2.4 GHz),  Directional, dual polarized <br>**5 GHz** <br>• AIR-ANT5140V-N=  4 dBi (5 GHz),  Omni, right-angle <br>• AIR-ANT5180V-N=  8 dBi (5GHz),  Omni <br>• AIR-ANT5114P2M-N=  14 dBi (5GHz),  Directional, dual polarized <br><br>1572IC (internal antennas) <br>• Integrated Dual Band Omnidirectional Antenna Radome: 4 dBi (2.4 GHz), 6 dBi (5 GHz) | |
| **Powering Options** | **1572EAC** <br>AC:  100-277 VAC, 50/60 Hz <br>DC:  10 to 16 VDC <br>PoE-Input: <br>• UPOE compliant PSE <br>• Cisco AIR-PWRINJ1500-2= <br><br>PoE-out:  PoE+ (802.3at) | **1572IC/1572EC** <br>PoC:  40-90 VAC, 50/60 Hz, quasi-square wave, Power over Cable (PoC) <br>DC:  10 to 16 VDC <br><br>PoE-out:  PoE+ (802.3at), 1572EC only |
| **Compliance** | **Safety** <br>• UL/cUL 60950,  2$^{nd}$ Edition <br>• IEC 60950,  2$^{nd}$ Edition <br>• EN 60950,  2$^{nd}$ Edition <br>• ARIB-STD 66  (Japan) <br>• ARIB-STD T71  (Japan) <br>**Immunity** <br>• <= 5 mJ for 6kV/3kA @ 8/20 ms waveform <br>• ANSI/IEEE C62.41 <br>• EN61000-4-5 Level 4 AC Surge Immunity <br>• EN61000-4-4 Level 4 Electrical Fast Transient Burst Immunity <br>• EN61000-4-3 Level 4 EMC Field Immunity <br>• EN61000-4-2 Level 4 ESD Immunity <br>• EN60950 Overvoltage Category IV <br>**Radio approvals** | |

| Item | Specification |
|---|---|
| | ● FCC Part 15.247, 15.407 |
| | ● FCC Bulletin OET-65C |
| | ● RSS-210 |
| | ● RSS-102 |
| | ● AS/NZS 4268.2003 |
| | ● 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), 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 |
| **Configuration Options** | Flexible deployment configurations include:<br>● Controller-based<br>● Standalone (future)<br>● Mesh<br>● Point-to-point or point-to-multipoint campus bridge<br>● Serial backhaul (linear mesh)<br>● Workgroup bridge |
| **Warranty** | Hardware: 1 year limited warranty |

## 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 wired and indoor wireless networks. We have proven methodologies for planning and deploying end-to-end solutions with secure voice, video, and data technologies. Our specialists have years of experience designing and implementing some of the world's most complex wireless networks that they can draw on to 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 next-generation, outdoor wireless solution with the high performance of the 802.11ac standard.

## Ordering Information

To place an order, visit the Cisco Ordering Home Page.

## Next Steps

For more information about the Cisco 1570 solution, visit: https://www.cisco.com/go/ap1570.

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

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