

Cisco Aironet Hyperlocation Antenna (AIR-ANT-LOC-01=) Installation Guide

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This document outlines the specifications for the Cisco Aironet Hyperlocation Antenna (AIR-ANT-LOC-01=) and provides instructions for mounting it.

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Product Overview

The hyperlocation antenna is a 32 element antenna design that provides 360 degree coverage around supported access points — currently the 3600 and 3700 series APs. It is designed to integrate into the Cisco Aironet Hyperlocation Module with Advanced Security (RM3010L) providing precise RF Angle of Arrival (AoA) information, allowing the operating system a much more granular approach to the location of a client device.

The hyperlocation antenna along with RM3010L helps in providing a location accuracy of less than a meter for a wireless clients, using WiFi and Bluetooth technology.

The hyperlocation antenna operates in both the 2.4 GHz and 5 GHz frequency ranges and is designed for indoor use.

The hyperlocation antenna, together with the hyperlocation module provides the following monitoring and security services:

- Cisco Context-Aware
- Cisco CleanAir
- Radio Resource Management (RRM)
- wIDS/wIPS
- Rogue detection
- 802.11ac capability at 20, 40 and 80 MHz operation
- Integrated Bluetooth Low Energy (BLE) Beacon capability
- External DART connector for location capability with the use of the Hyper-Location antenna.

System Requirements

The hyperlocation antenna AIR-ANT-LOC-01= is designed for indoor use with Cisco Aironet 3600 and 3700 access point along with the Cisco Aironet Hyperlocation Module (AIR-RM3010L-UXK9=).

Installing the Hyperlocation Antenna and Module

Tools and Equipment Required

No specialized tools are required for this installation.

Mounting the modules

Step 1 Remove the modules from the packaging.

Step 2 Power down the access point.



Note If you install a module while the AP is powered on, the AP will reboot.

Step 3 Unmount the access point, in the reverse order of installing it.

See your AP's installation guide ([Related Documentation, page 8](#)) for related information.

Step 4 If you have an 802.11ac or a Wireless Security Module installed on the AP, remove it.

Step 5 Position the hyperlocation antenna to the back of the AP, as shown in [Figure 1](#). The radome of the antenna will surround the AP. The antenna is not fastened to the AP yet.

Note that the arrow on the module and the face of the AP with the logo and LED should be aligned as shown in [Figure 2](#).

■ **Installing the Hyperlocation Antenna and Module**

Figure 1 *Putting the Hyperlocation Antenna behind the AP*

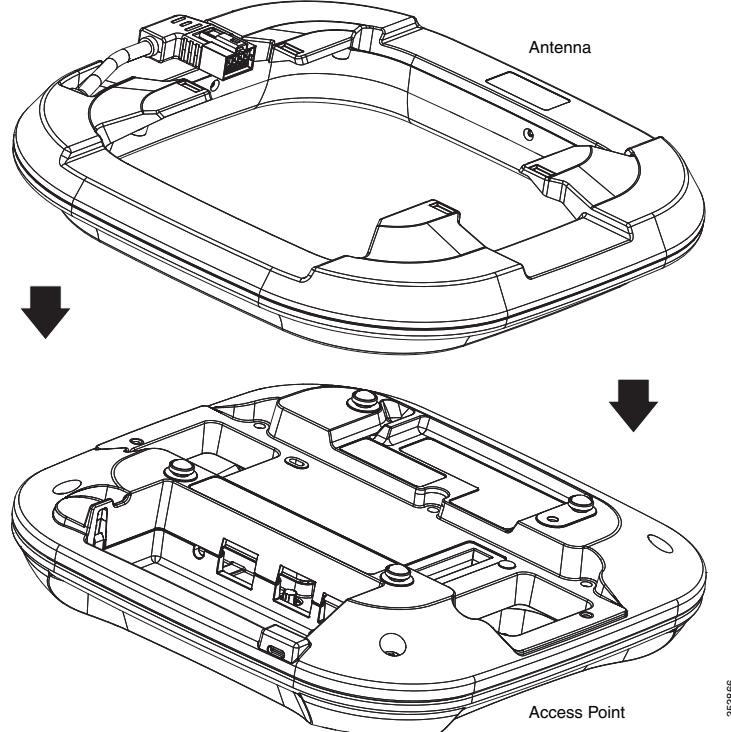
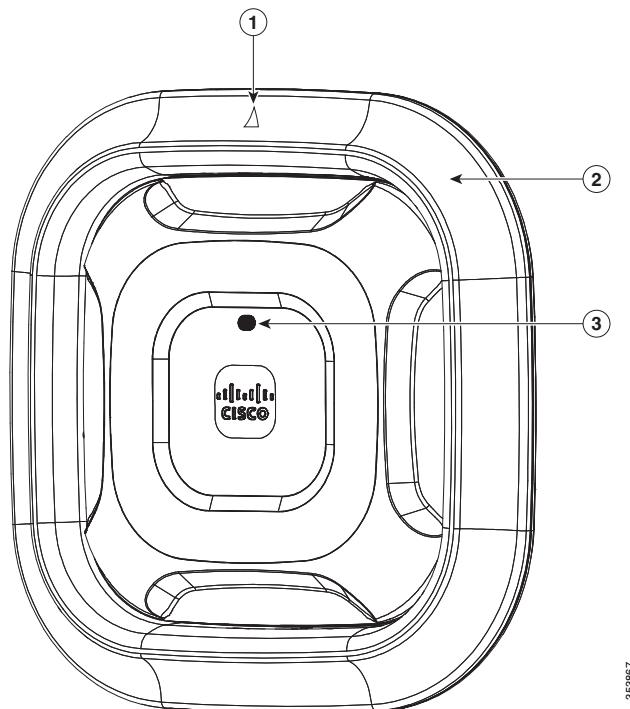


Figure 2 Arrow on the Hyperlocation antenna with respect to the AP LED

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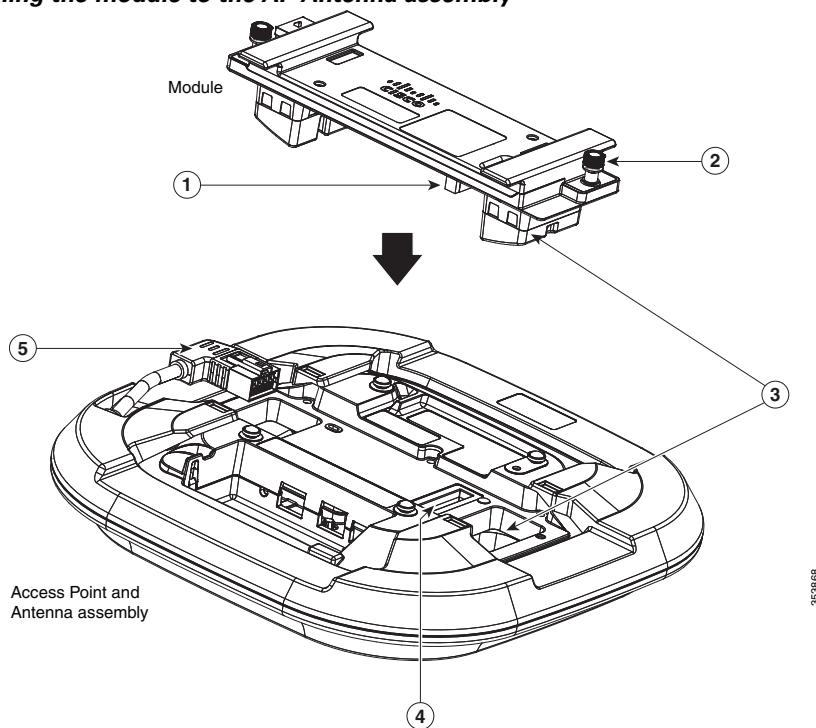
1	Arrow on hyperlocation antenna. You can add a triangular arrow sticker in this arrow indentation to make it more visible. Two such stickers are factory-shipped in the package with the antenna.	3	The position of the LED and the logo on the face of the AP.
2	Hyperlocation antenna		

Step 6 Peel off the Module Port protective cover (if present) from the back of the access point to reveal the Module Port connector (see [Figure 3](#) for its location).

Step 7 Fix the hyperlocation module (RM3010L) to the back of the AP-antenna assembly, as shown in [Figure 3](#), such that the antenna is sandwiched between the AP and the hyperlocation module.

The PCIe connector on the hyperlocation module will go into the AP's module port connector. Align the PCIe connector with the module port connector on the back of the access point and click the module down into place. Press firmly on the center of the module to properly seat the PCIe connector into the AP's module port connector.

Figure 3 *Attaching the module to the AP-Antenna assembly*



1	PCIe connector on Hyperlocation Module	4	Module Port connector on the AP for the PCIe connector of the Hyperlocation Module
2	Thumb screw (one of two) for fastening the module to the AP. Hand-tighten only!	5	DART connector on the Hyperlocation antenna
3	Module's BLE Beacon pod, and the corresponding recess for it on the AP's back		

Step 8 Screw down the two thumb screws on the module, by hand only. Tighten each screw until the resistance is obvious and you know you cannot further tighten the screws.

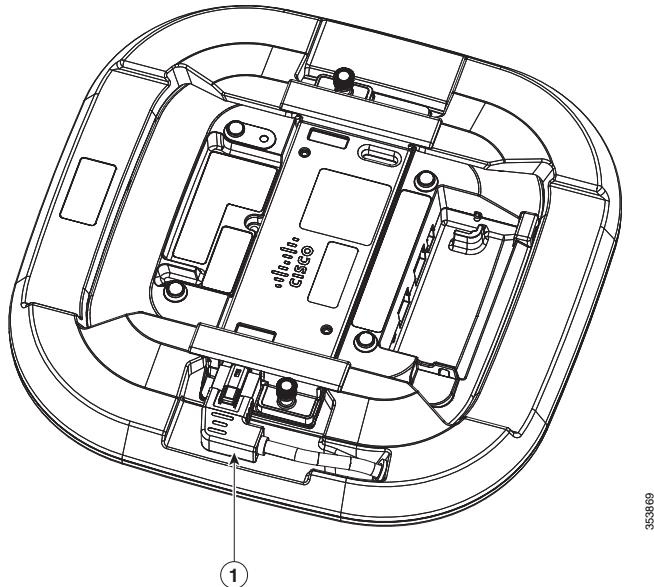


Caution Do not use any mechanical tool or device such as pliers or a torque wrench to tighten the screws.

Step 9 Plug in the DART connector of the hyperlocation antenna in to the DART port on the hyperlocation module. The final assembly is as shown in [Figure 4](#).

Figure 4

Final view of the AP-Antenna-Module assembly with the DART connector plugged in



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- 1** DART connector plugged into the DART port of the module.
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Step 10 Re-mount the access point, while paying special attention to the direction in which you orient the AP. For information in how to orient the AP for deploying the Cisco Hyperlocation solution, see the deployment guide.

Step 11 Ensure that the AP is properly grounded.

See your AP's installation guide ([Related Documentation, page 8](#)) for information on mounting and grounding the AP.

Step 12 Power up the access point.

When the access point boots up, it detects the modules.

Related Documentation

- Cisco Aironet 3600 Series Install and Upgrade Guides:
<http://www.cisco.com/c/en/us/support/wireless/aironet-3600-series/products-installation-guides-list.html>
- Cisco Aironet 3700 Series Install and Upgrade Guides
<http://www.cisco.com/c/en/us/support/wireless/aironet-3700-series/products-installation-guides-list.html>
- Cisco Connected Mobile Experiences Configuration Guide, Release 10.2
http://www.cisco.com/c/en/us/td/docs/wireless/mse/10-2/cmxi_config/b_cg_cmxi102.html
The Cisco Hyperlocation Module with Advanced Security is supported starting with Cisco Connected Mobile Experiences Release 10.2.1.
- Cisco Wireless Controller Configuration Guide, Release 8.1
http://www.cisco.com/c/en/us/td/docs/wireless/controller/8-1/configuration-guide/b_cg81.html
The Cisco Hyperlocation Module with Advanced Security is supported starting with Cisco Unified Wireless Network Software Release 8.1.131.0.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: <http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>.

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