



Hardware Features

This chapter describes the hardware features of Cisco Catalyst Wireless 9166D1 Wi-Fi 6E Access Point and contains the following sections:

- [Access Point Views, Ports, and Connectors, on page 1](#)
- [CW9166D1 \(Integrated Directional Antenna\) Radiation Patterns, on page 3](#)

Access Point Views, Ports, and Connectors

Cisco Catalyst Wireless 9166D1 Wi-Fi 6E Access Point has multiple options that you can use to power the AP. For information about connectors and ports for the AP models, see [Connectors and Ports on the AP, on page 1](#).

Environment Sensors

The AP has inbuilt environment sensors that work with Cisco Spaces. There are two visible vents at the top of the AP. The sensors measure the following environment parameters:

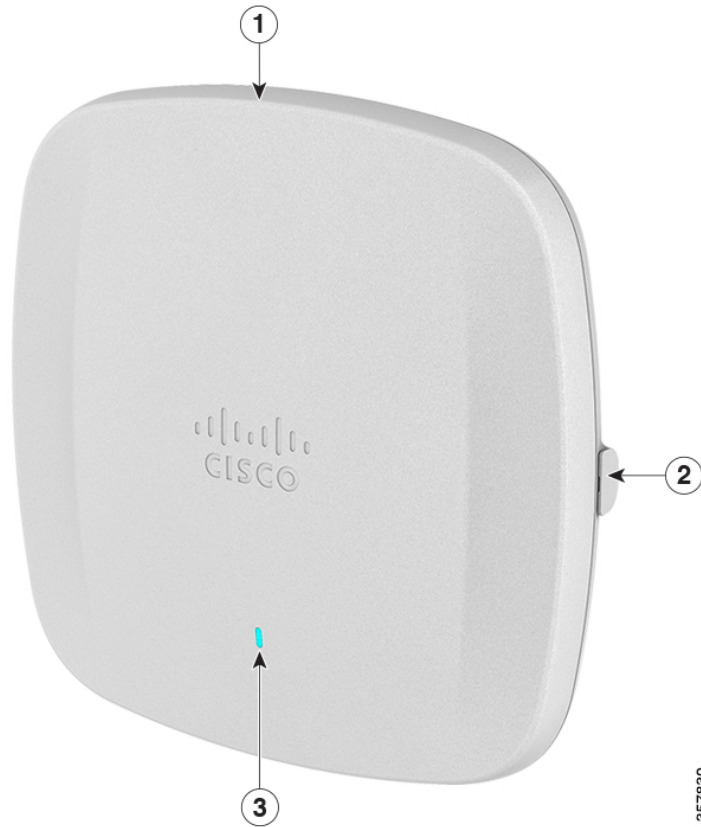
- Ambient air temperature sensor
- Air quality sensor (Total Volatile Organic Compounds [TVOC])
- Relative humidity sensor
- Accelerometer



Note For more information on how to configure the AP sensor in Cisco Spaces, see the [AP as a Sensor](#) section of the *Cisco Spaces: IoT Services Configuration Guide*.

Connectors and Ports on the AP

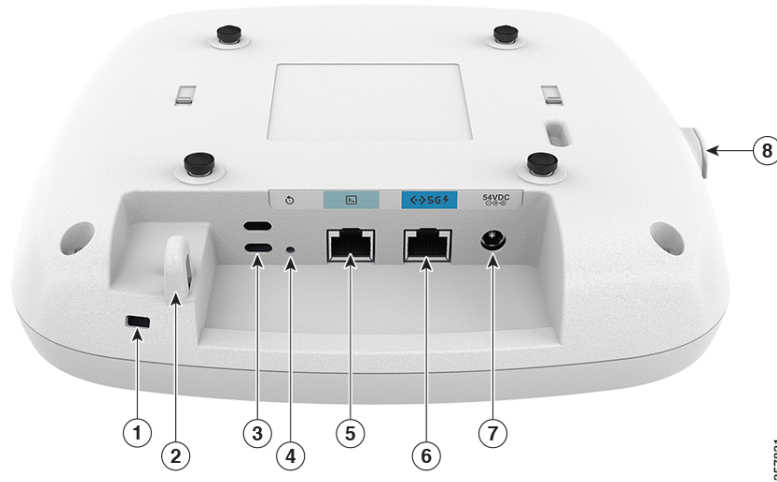
The following figures show the available ports on the AP:

CW9166D1 Face View*Figure 1: CW9166D1 Face View*

1	Location of the ports and connectors on the head of the AP.
2	USB 2.0 port
3	Status LED For information on the LEDs status, see LED Status Indications .

CW9166D1 Top View

Figure 2: CW9166D1 Top View with Connectors and Ports



1	Kensington lock slot	5	RJ-45 console port Default baud rate is 115200.
2	Security hasp for padlocking AP to mounting bracket	6	5GbE port
3	Environment Sensor vents	7	DC 54V power input port
4	Mode button For information on how to use the Mode button, see the Using the Mode Button section	8	USB 2.0 port

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CW9166D1 (Integrated Directional Antenna) Radiation Patterns

The following illustrations show the CW9166D1 model with internal antenna radiation patterns:

Table 1: Cisco Catalyst CW9166D1 AP Radiation Patterns

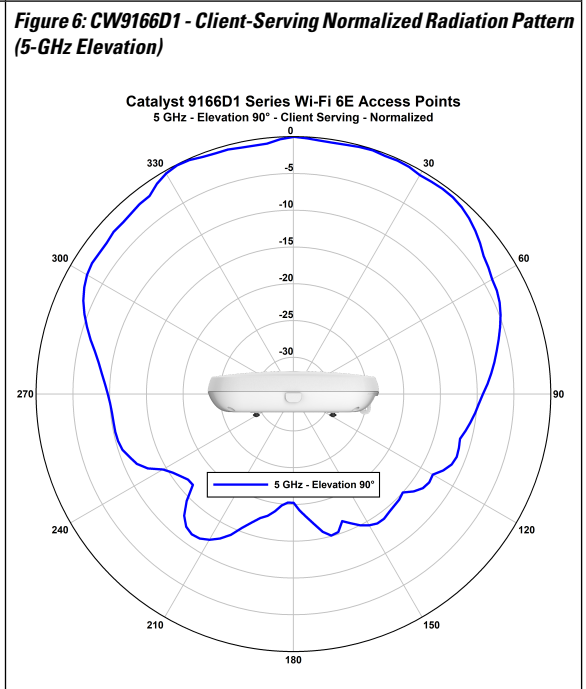
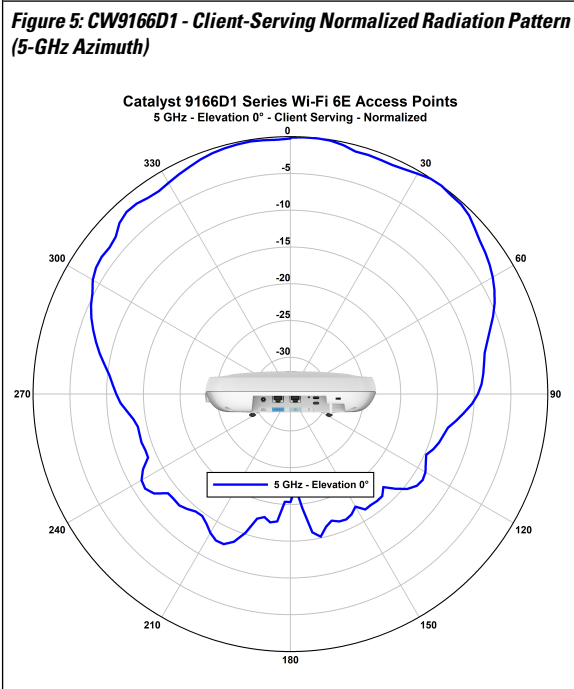
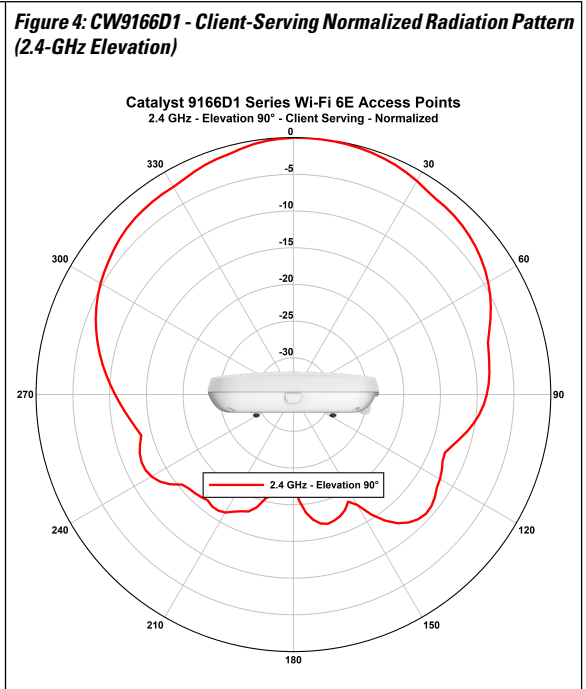
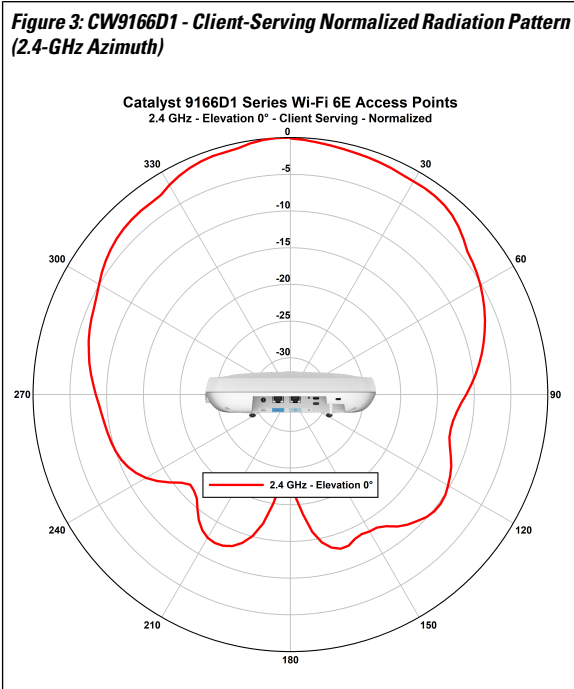


Figure 7: CW9166D1 - Client-Serving Normalized Radiation Pattern (6-GHz Azimuth)

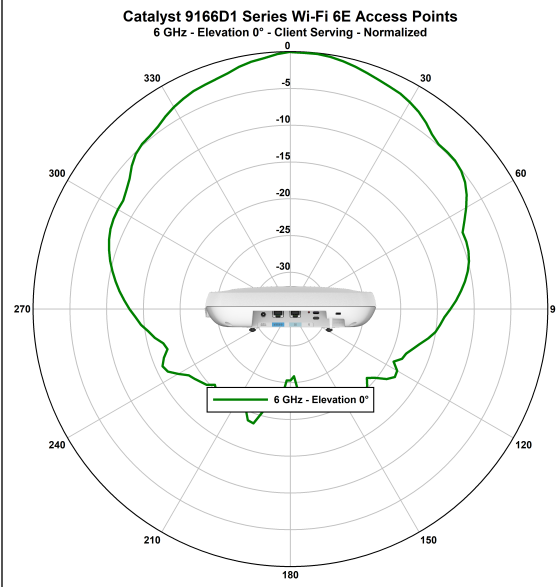


Figure 8: CW9166D1 - Client-Serving Normalized Radiation Pattern (6-GHz Elevation)

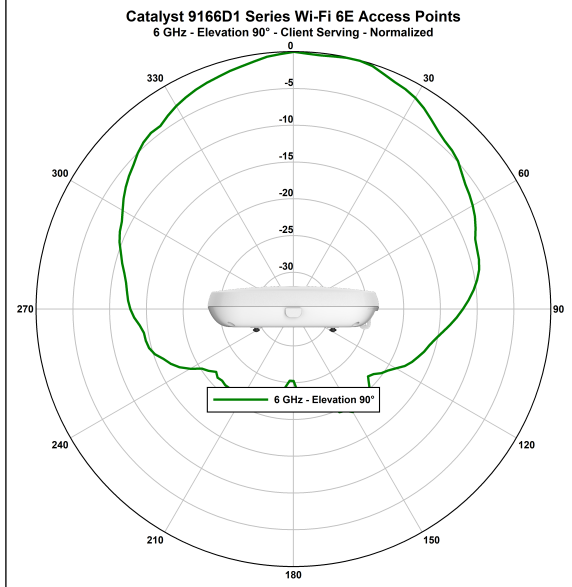


Figure 9: CW9166D1 - XOR Normalized Radiation Pattern (5-GHz Azimuth)

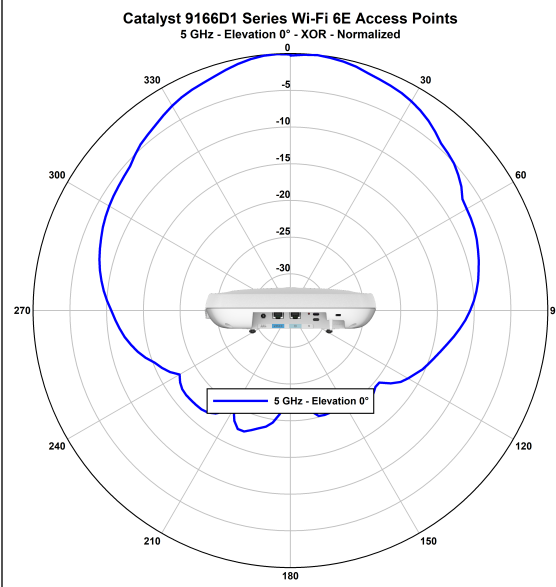


Figure 10: CW9166D1 - XOR Normalized Radiation Pattern (5-GHz Elevation)

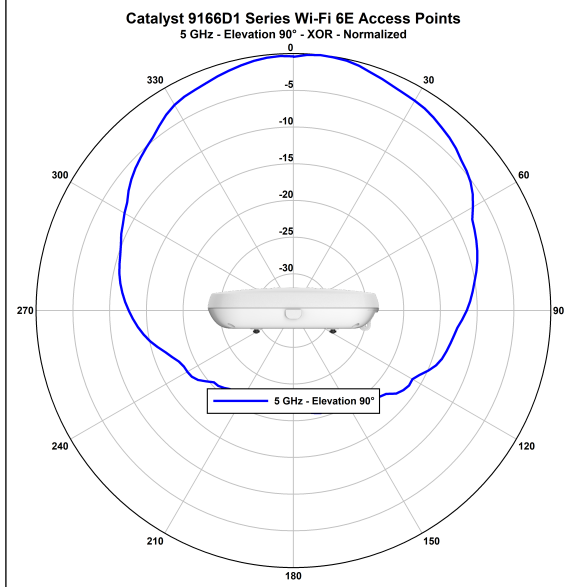


Figure 11: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (2.4-GHz Azimuth)

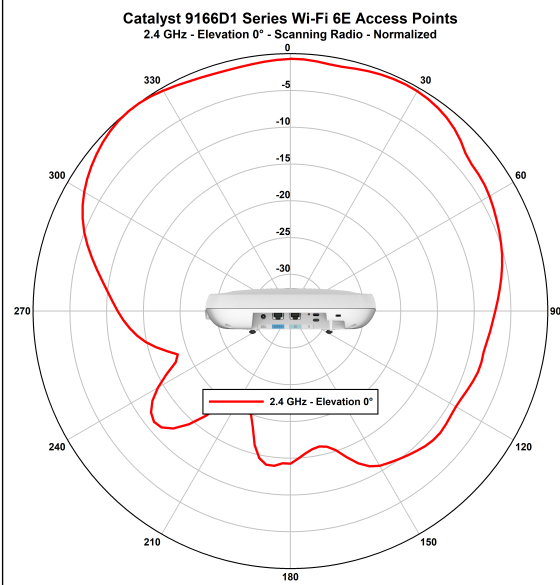


Figure 12: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (2.4-GHz Elevation)

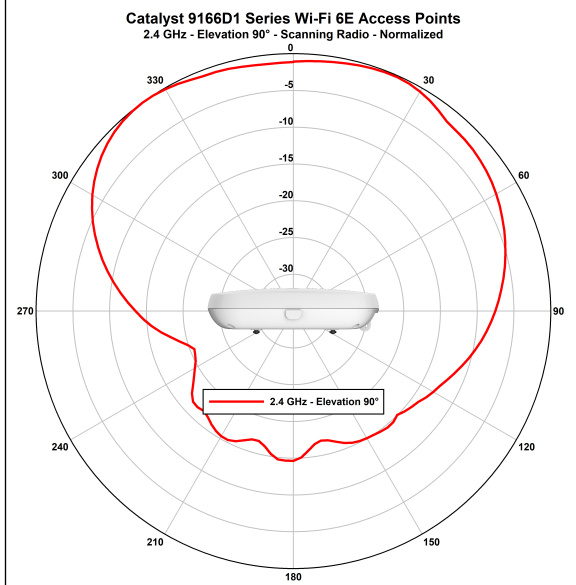


Figure 13: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (5-GHz Azimuth)

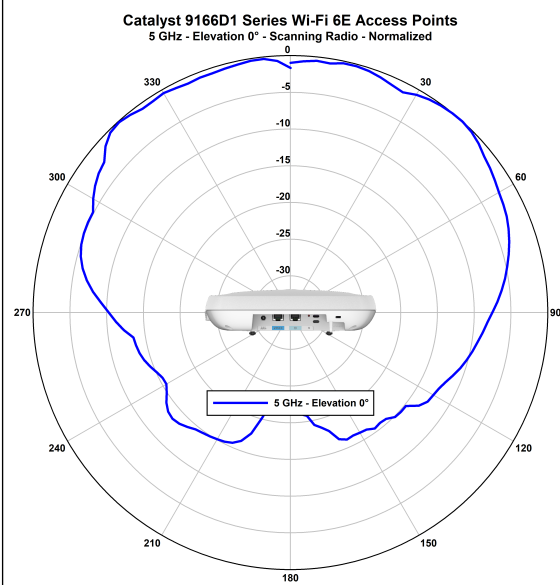


Figure 14: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (5-GHz Elevation)

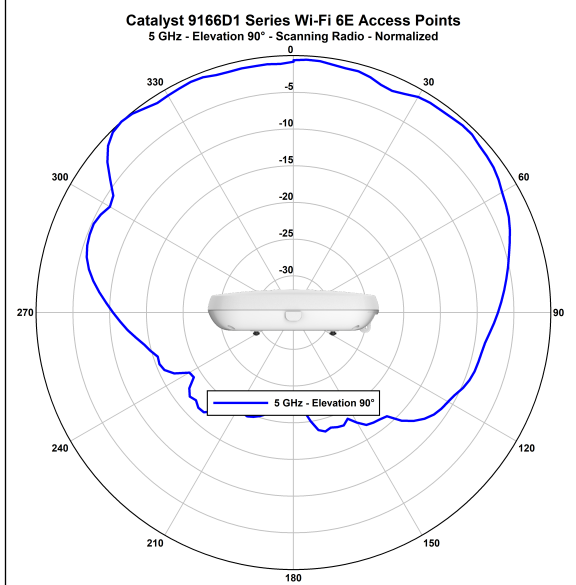


Figure 15: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (6-GHz Azimuth)

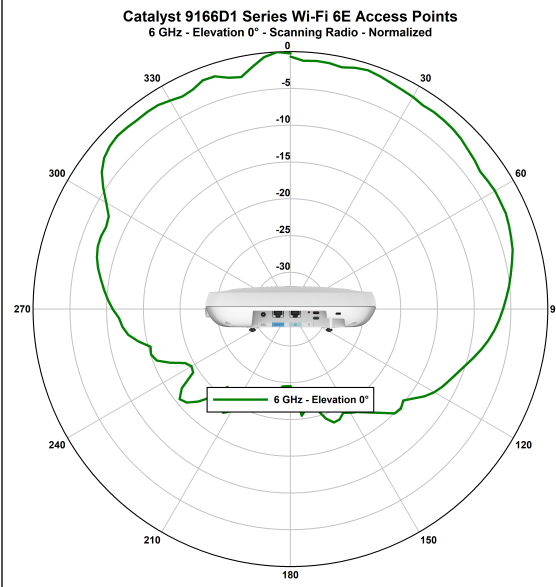


Figure 16: CW9166D1 - Scanning Radio-Normalized Radiation Pattern (6-GHz Elevation)

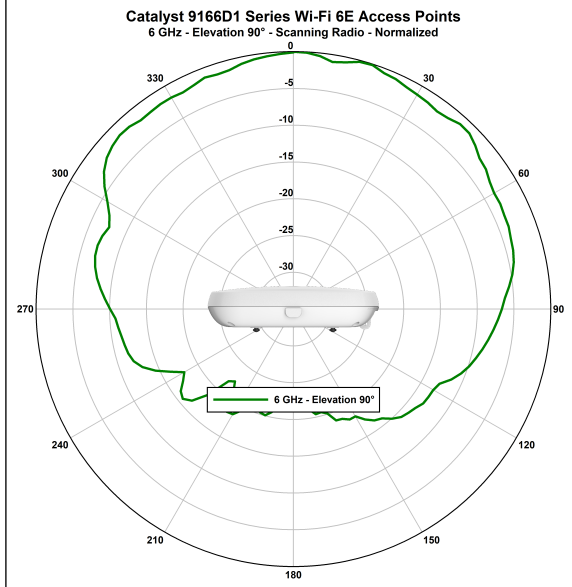


Figure 17: CW9166D1 - IoT (BLE) Antenna-Normalized Radiation Pattern (2.4-GHz Azimuth)

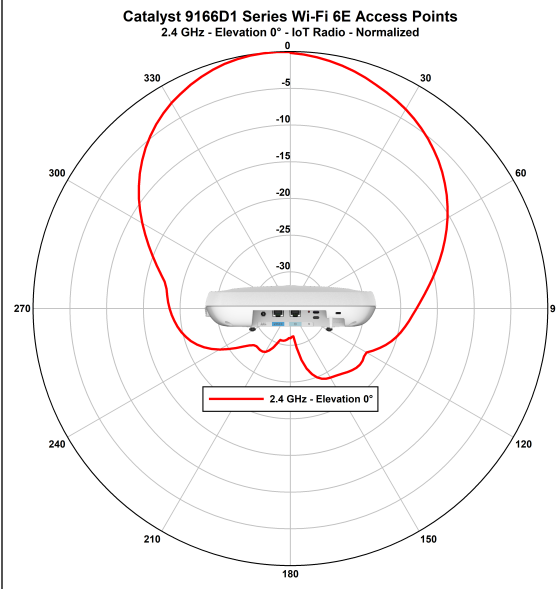


Figure 18: CW9166D1 - IoT (BLE) Antenna-Normalized Radiation Pattern (2.4-GHz Elevation)

