

# 37

## 27012545 Indoor 2.4 GHz and 5 GHz Linear-Polarized Omnidirectional Antenna (H360 V110 G4 and H360 V110 G5)

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### About This Chapter

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### 37.1 27012545 Technical Specifications

The 27012545 omnidirectional antenna is named ANTDG0404D4SR and applicable to indoor scenarios.

#### Antenna Appearance

**Figure 37-1** shows the appearance of the 27012545 antenna.

**Figure 37-1** Appearance of the 27012545 antenna



## Technical Specifications

**Table 37-1** lists technical specifications of the 27012545 antenna.

**Table 37-1** Technical specifications of the 27012545 antenna

Item	Value (2.4G)	Value (5G)
Frequency (MHz)	2400–2500	5150–5850
Gain (dBi)	4	5
Coverage distance (m)	70	60
Horizontal lobe width (degrees)	360	360
Vertical lobe width (degrees)	110	110
Standing wave ratio (SWR)	≤ 2	≤ 2
Polarization	Linear polarization	
Connector	RP-SMA-J*4	
Dimensions (mm)	H x W x D: 20 x 150 x 150	
Weight (g)	450	
Mounting mode	Ceiling mounting	
Grounding requirements	Same as the AP	

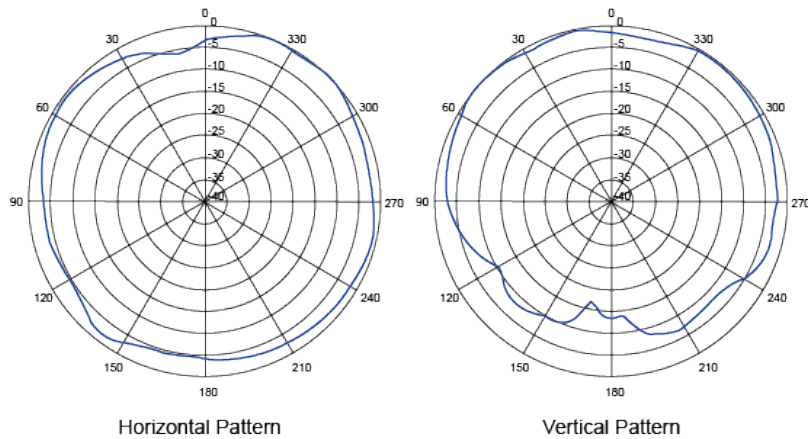
### NOTE

- The gains and lobe widths in this document are typical values. The actual values are within a range. For specifications, see the corresponding data sheet.
- There may be differences in the standards of different countries, so the mapping between antennas and APs shall comply with local standards. For details, refer to device access authentication information.
- The coverage distance is subject to the following constraints:
  - The default AP transmit power is 15 dBm.
  - The default STA type is mobile phone, and no obstacle exists.
  - 2.4 GHz: The uplink and downlink RSSIs are greater than or equal to -70 dBm.
  - 5 GHz: The uplink and downlink RSSIs are greater than or equal to -75 dBm.
 For any questions about the parameters above, contact Huawei technical support.

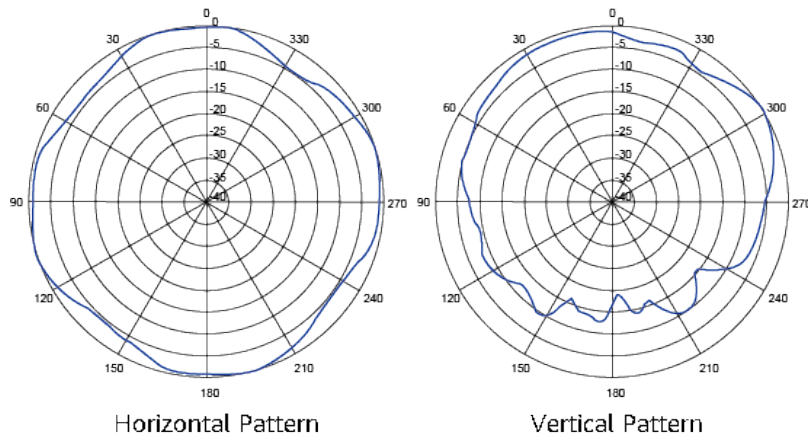
## Antenna Pattern

**Figure 37-2** and **Figure 37-3** show radiation patterns of the 27012545 antenna (2.4 GHz and 5 GHz) in the horizontal and vertical directions.

**Figure 37-2** Radiation pattern of the 27012545 antenna (2.4 GHz)



**Figure 37-3** Radiation pattern of the 27012545 antenna (5 GHz)



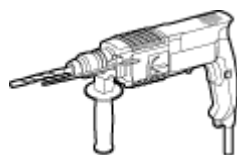
## 37.2 27012545 Antenna Installation

The 27012545 antenna is an indoor omnidirectional antenna. The antenna is best applied to indoor omnidirectional coverage scenarios, such as open office areas, meeting rooms, and lecture halls.

### 37.2.1 Accessories and Tools

Tools:

- Open-end wrench
- Hammer drill (used to drill holes in ceilings)



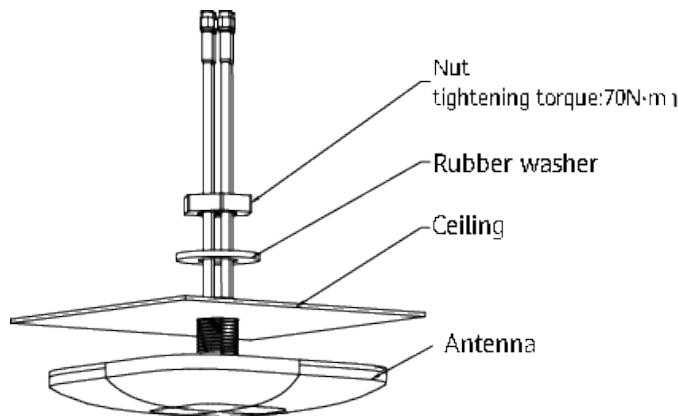
Other accessories:

- Nut: 1 PCS
- Rubber washer: 1 PCS

## 37.2.2 Ceiling Mounting

The 27012545 antenna can be mounted on a removable ceiling.

1. Drill one  $\phi 23 \pm 0.5$  mm hole into the ceiling.
2. Insert the antenna into the hole and secure it using the nut.



### NOTE

- The size of the hole in the ceiling must be slightly greater than that of the flange on the antenna connector and the bottom plate of the antenna must be flattened against the ceiling. Otherwise, electrical performance of the antenna will be affected.
- The ceiling must be no greater than 20 mm thick and can bear the weight of four times the weight of the antenna without damage.

## 37.2.3 Connecting RF Cables

### RF Cable Deployment Requirements

- The 27012545 antenna has four 1 m RF cables delivered. For longer RF cables, purchase them separately.
- It is recommended that you connect a 50 ohm RF load to an idle RF port.
- Bend radius requirements: RG-8U RF cable: > 150 mm; 1/2" RF cable: > 50 mm; 7/8" RF cable: > 250 mm. One inch (1") equals 25.4 mm.
- The grounding requirements of antennas are the same as those of APs.

### RF Cable Connections

1. Remove covers on external antenna ports of APs to expose RP-SMA female connectors.
2. Connect the RP-SMA male connector on the feeder to the RP-SMA female connector on the AP.

### NOTE

Feeder cables on an antenna must be connected to the local AP's radio ports on the correct frequency band. There are no other requirements regarding the connection between the feeder cables and radio ports.

## RF Cable Appearance

Figure 37-4 Rear view of the antenna (27012545)



Table 37-2 lists the SMA connector types.

Table 37-2 SMA connector types

Connector Type	Polarity	Male or Female	Shape
SMA-J	Positive polarity	Male	Internal thread, inner pin
SMA-K	Positive polarity	Female	External thread, inner hole
RP-SMA-J	Reverse polarity	Male	Internal thread, inner hole
RP-SMA-k	Reverse polarity	Female	External thread, inner pin