

6 27010210 Indoor 2.4 GHz Single-Polarized Omnidirectional Antenna (H360 V45 G3)

About This Chapter

[6.1 27010210 Technical Specifications](#)

[6.2 27010210 Antenna Installation](#)

6.1 27010210 Technical Specifications

Appearance and Structure

Figure 6-1 Appearance of the 27010210 Indoor 2.4 GHz Single-Polarized Omnidirectional Antenna (H360 V45 G3)



Technical Specifications

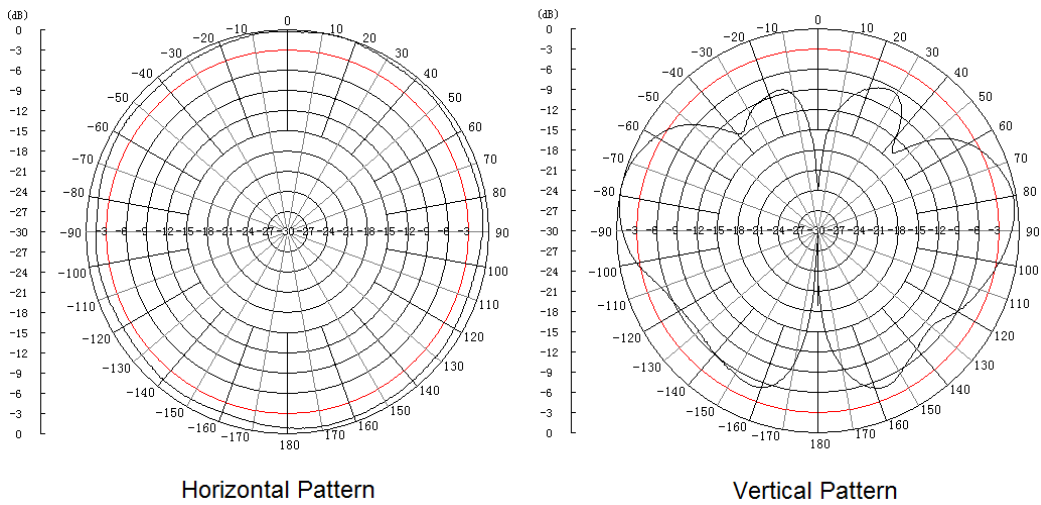
Table 6-1 Technical specifications of the 27010210 Indoor 2.4 GHz Single-Polarized Omnidirectional Antenna (H360 V45 G3)

Item	Details
Part Number	27010210
Model	TQJ-SA800/2500-3
Description	Omnidirectional Antenna, 824~960/1710~2500MHz,3dBi,Vertical Polarization,360DEG,50W,0r,N(F),Yes
Frequency [MHz]	824 to 960 1710 to 2500
Antenna gain [dBi]	3 dBi
Coverage distance [m(ft.)]	60 m(ft.)
Horizontal beamwidth [degrees]	360 degrees
Vertical beamwidth [degrees]	45 degrees
Standing wave ratio (SWR)	≤ 1.5
Polarization	Vertical polarization
Antenna connector	N-female
Antenna dimensions [mm(in.)]	φ186 x 85
Weight without packaging [kg(lb)]	0.275 kg(lb)
Installation type	Celling
Grounding requirements	Same as the AP

Item	Details
Antenna 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 sheets. 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. For any questions about the parameters above, contact Huawei technical support.

Antenna's Radiation Pattern

Figure 6-2 Antenna Pattern1 of the 27010210 Indoor 2.4 GHz Single-Polarized Omnidirectional Antenna (H360 V45 G3)



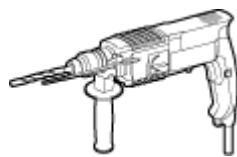
6.2 27010210 Antenna Installation

The 27010210 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.

6.2.1 Accessories and Tools

Tools:

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



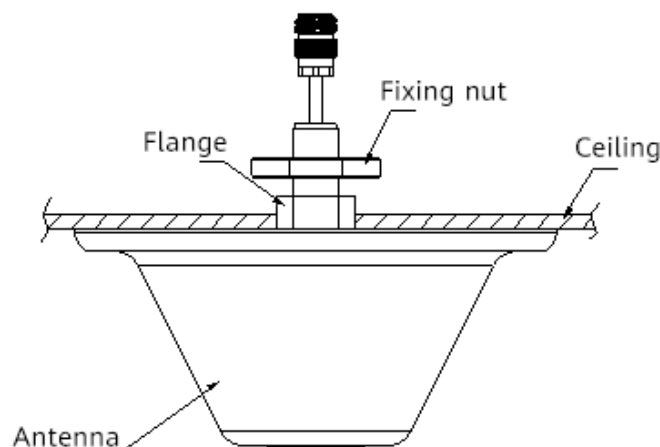
Other accessories:

- Nut: 1 PCS

6.2.2 Ceiling Mounting

The 27010210 antenna can be mounted on a ceiling.

1. Drill one $\phi 33$ mm - $\phi 35$ 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.
- To achieve the optimal coverage effect, it is recommended that you install the omnidirectional antenna six to eight meters above ground.

6.2.3 Connecting RF Cables

RF Cable Deployment Requirements

- Use a short feeder cable to connect the antenna to an AP.
- It is recommended that you connect a 50 ohm RF load to an idle antenna interface.
- 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

Connect the RF cables directly to the antenna interfaces.



Instructions on Making RF Cables

When making RF cables onsite, ensure that the coaxial cables and connectors in use comply with the mappings described in Table [Coaxial cables and connectors](#).

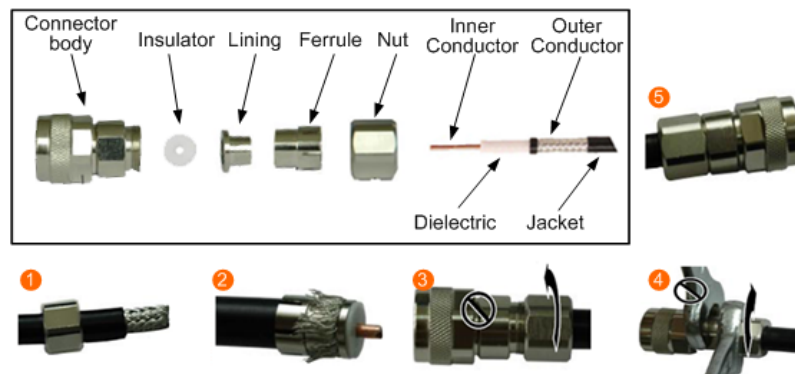
Table 6-2 Coaxial cables and connectors

Coaxial Cable	Coaxial Connector	Cable Loss	Appearance
RG-8U(25070009)	Type-N male connector (14040184)	• 2400MHz ~2483.5 MHz: 26.8dB/100m • 4920Mhz ~5825Mhz: 41.8dB/100m	

Coaxial Cable	Coaxial Connector	Cable Loss	Appearance
1/2" (inch) super-flexible cable (25070076)	Type-N male connector (14040150)	2400MHz ~2483.5 MHz: 18.1dB/100m 4920Mhz ~5825Mhz: 30dB/100m	

Connecting the type-N male coaxial connector to the RG-8U feeder cable

1. Peel the cable.
2. Install accessories, such as the nut.
3. Install the connector body.
4. Tighten the connector on the cable.
5. After assembly is complete, verify that cable attenuation is within the proper range. Take waterproof measures during the operation.



Connecting the type-N male coaxial connector to the 1/2" feeder cable

1. Peel the cable.
2. Install the back nut.
3. Install the front nut.
4. Put the cable through the heat-shrink tubing.
5. After assembly is complete, verify that cable attenuation is within the proper range. Take waterproof measures during the operation.

