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27012075 Vehicle-Mounted 2.4 GHz & 5 GHz Single-Polarized Directional Antenna (H80 V40 G4 & H80 V40 G6)

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33.1 27012075 Technical Specifications

Appearance and Structure

Figure 33-1 Appearance of the 27012075 Vehicle-Mounted 2.4 GHz & 5 GHz Single-Polarized Directional Antenna (H80 V40 G4 & H80 V40 G6)



Technical Specifications

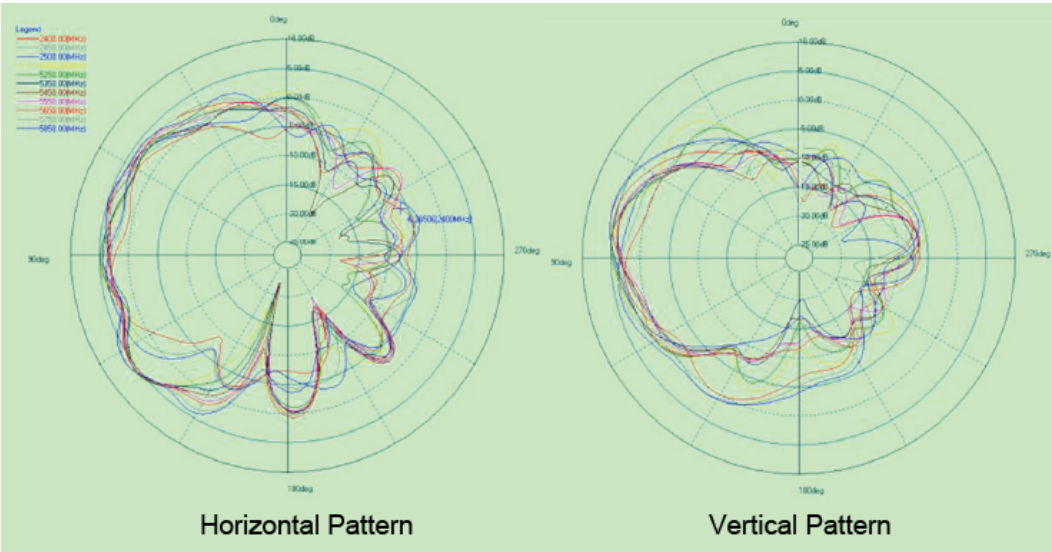
Table 33-1 Technical specifications of the 27012075 Vehicle-Mounted 2.4 GHz & 5 GHz Single-Polarized Directional Antenna (H80 V40 G4 & H80 V40 G6)

Item	Details
Part Number	27012075
Model	C15N15Z100DK
Description	Directional Antenna, 2400~2500&5150~5850MHz,4&6dBi, 80deg/40deg&80deg/40deg,SMA/ Female,1port,without mounting parts,used in carriage
Frequency [MHz]	2.4G: 2400 to 2500 5G: 5150 to 5850
Antenna gain [dBi]	2.4G: 4 5G: 6
Coverage distance [m(ft.)]	70 m(ft.)
Horizontal beamwidth [degrees]	80 degrees
Vertical beamwidth [degrees]	40 degrees
Standing wave ratio (SWR)	≤ 2
Polarization	Vertical polarization
Antenna connector	SMA-K
Antenna dimensions [mm(in.)]	H x W x D: 23 x 86 x 86
Weight without packaging [kg(lb)]	0.065 kg(lb)
Installation type	Wall
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. - 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's Radiation Pattern

Figure 33-2 Antenna Pattern1 of the 27012075 Vehicle-Mounted 2.4 GHz & 5 GHz Single-Polarized Directional Antenna (H80 V40 G4 & H80 V40 G6)



33.2 27012075 Antenna Installation

The 27012075 antenna is a vehicle-mounted directional antenna and applicable to wireless coverage on vehicles.

33.2.1 Accessories and Tools

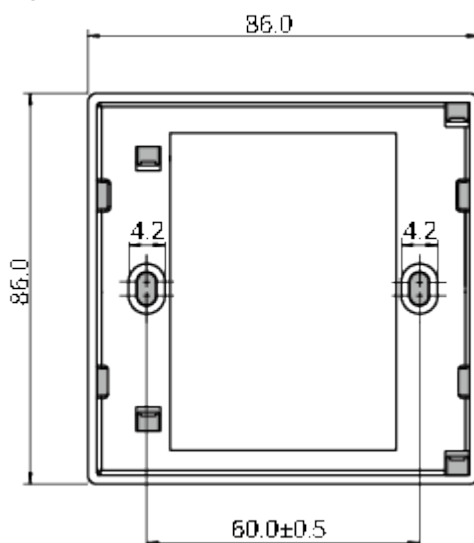
The following accessories and tools are required for installing the 27012075 antenna.

- One screwdriver

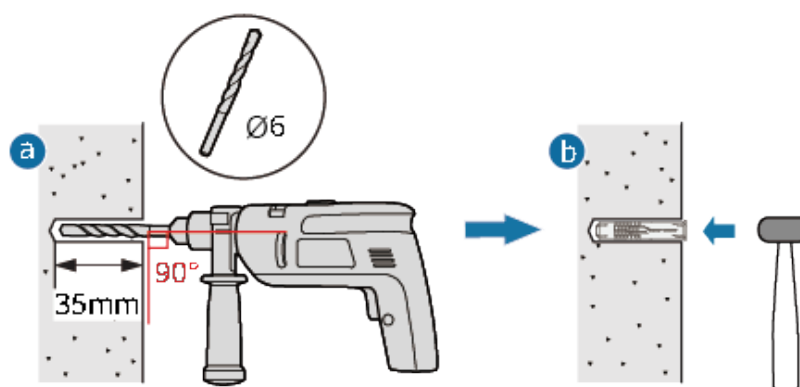
33.2.2 Wall Mounting

The 27012075 antenna can be mounted on a wall indoors or in a vehicle. The following describes how to mount the antenna to a wall indoors. The method of mounting the antenna in a vehicle is determined according to onsite situations.

1. Select a suitable mounting position on the wall based on the positions and dimensions of mounting holes of the antenna, as shown in the following figure (unit: mm).

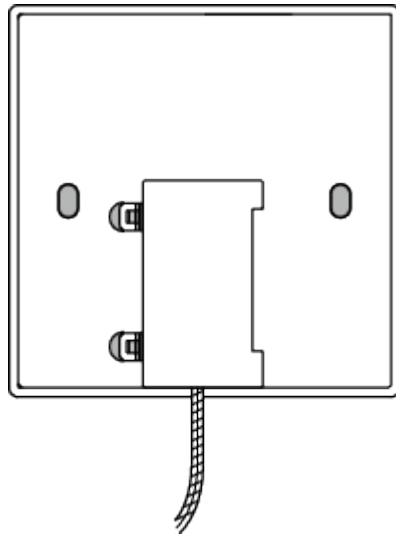


2. Drill holes at the marked positions and install the plastic expansion tubes.

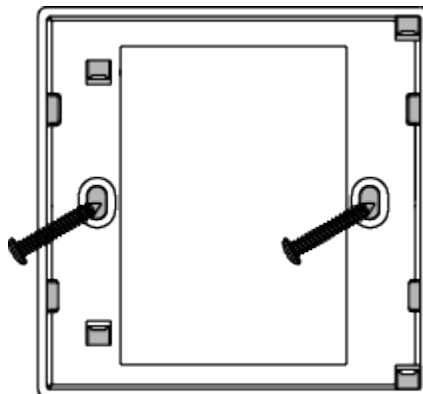


- a. Use a 6 mm drill bit to drill holes at the marked positions.

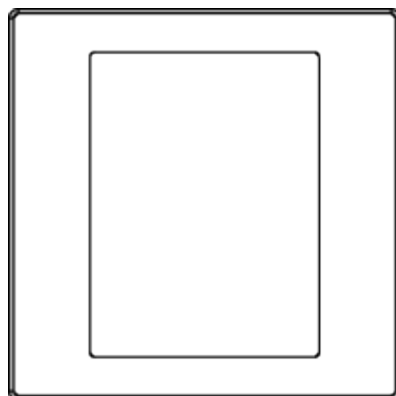
- b. Hammer the plastic expansion tubes into the holes.
3. Connect the RF cable and close the rear cover of the antenna. For details, see [33.2.3 Connecting RF Cables](#).



4. Use screws to fix the antenna to plastic expansion tubes on the wall (with a torque of 0.3 N m).



5. Close the front cover.

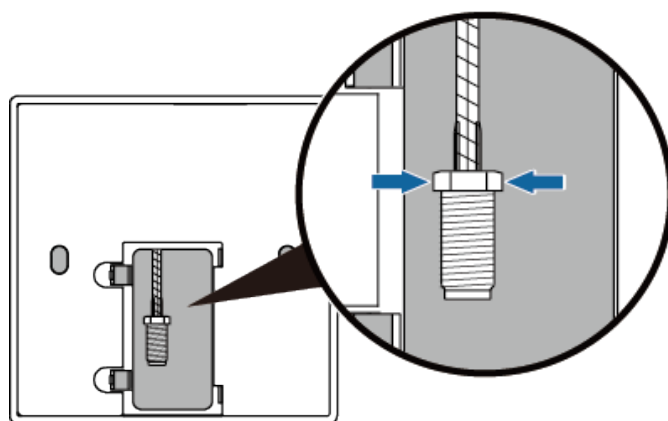


33.2.3 Connecting RF Cables

RF Cable Connections

Connect the feeder connector to the radio interface of an AP using an RF transit cable (sold separately) and tighten the connector to the interface. The recommended tightening torque is 1 N·m.

Tighten the connector according to the following figure. Avoid rotating the cable with the connector; otherwise, the core wires of the cable may be damaged.



The following table lists RF transit cables.

Transit Cable	Cable Length	Interface Description
04130713	5 m	SMA-J / QMA-J
04130713-001	10 m	
04130713-002	15 m	

NOTE

The longer the feeder, the weaker the signal strength within the antenna coverage range. You are advised to use short feeders based on the actual situation. The 15-meter feeder cable is not recommended.

RF Cable Deployment Requirements

- A 50-ohm RF load must be connected to an idle RF port on an AP.
- The bending radius of RF cables must be no smaller than 30 mm.
- The grounding requirements of antennas are the same as those of APs.