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1 H3C ANT-2547V omnidirectional antenna user guide

About the antenna

The ANT-2547V dual-band antenna is used outdoors. It uses a type N male connector for connecting to a device.

Figure1-1 Antenna view



Table1-1 Technical specifications

Item	Specification
Frequency range	<ul style="list-style-type: none">• 2400 MHz to 2500 MHz• 5150 MHz to 5850 MHz
Polarization	Vertical
Gain	4/7 dBi
Horizontal beamwidth (HBW)	360 degrees
Vertical beamwidth (VBW)	35/17 degrees
Horizontal out of roundness (dB)	± 1.5 dB
Impedance	50 Ω
Voltage standing wave ratio (VSWR)	≤ 2.0
Maximum power	100 W
Connector	Type N male connector
Connector position	Bottom
Size (diameter x length)	28 x 400 mm (1.10 x 15.75 in)

Item	Specification
Antenna weight	0.2 kg (0.44 lb)
Radome material	Fiberglass
Radome color	White
Operating temperature	-40°C to +70°C (-40°F to +158°F)
Operating humidity	5 % to 95%
Waterproof level	IP65
Wind resistance	35 m/s (114.8 ft/s)
Salt spray resistance	Neutral salt spray resistance for 96 hours (GB/T 2423.17-2008)
Application scenario	Outdoor
Installation method	Direct mounting

Figure1-2 and Figure1-3 show the azimuth and elevation radiation patterns of the antenna operating in 2.4 GHz band.

Figure1-4 and Figure1-5 show the azimuth and elevation radiation patterns of the antenna operating in 5 GHz band.

Figure1-2 Azimuth radiation pattern of the 2.4 GHz band

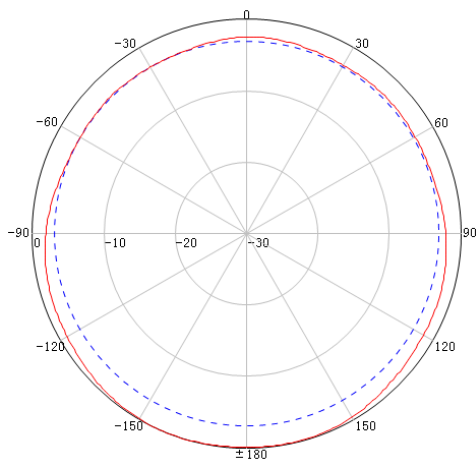


Figure1-3 Elevation radiation pattern of the 2.4 GHz band

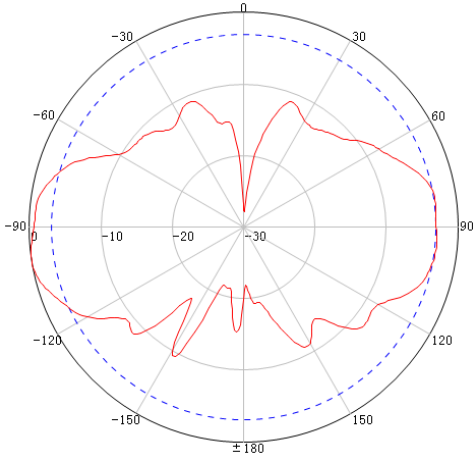


Figure1-4 Azimuth radiation pattern of the 5 GHz band

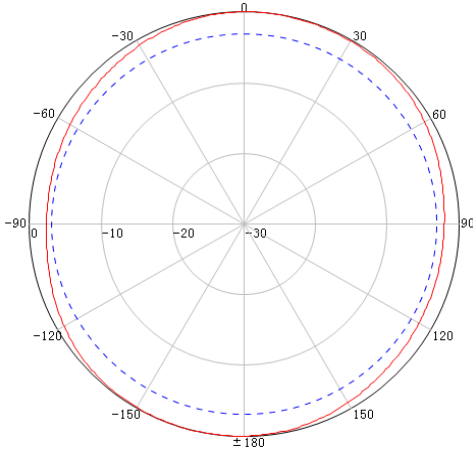
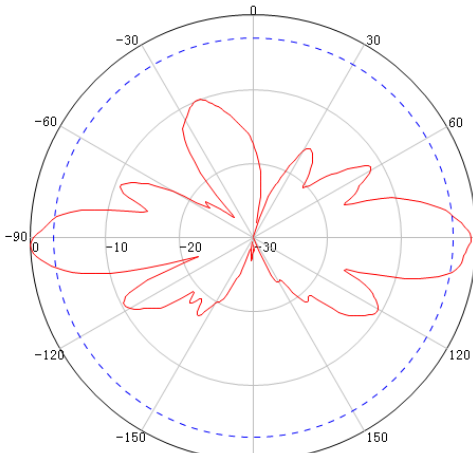


Figure1-5 Elevation radiation pattern of the 5 GHz band



Safety precautions

WARNING!

- Misoperations in antenna installation might cause serious injury or even death. Read the following safety precautions carefully before installing an antenna.
- Do not install the antenna near power sources, street lights, power supply boxes, or other places that might cause electric shock. Be careful not to touch electric wires when installing the antenna.

Read the following safety precautions carefully before installing the antenna:

- To avoid electric shock or being tangled by cables, select an installation location for the antenna away from electric power lines and other lines.
- Do not work alone. Determine the installation location and procedure with other installers in advance.
- To avoid bodily injury, use multiple people to raise and secure a pole.
- Do not stand on a metal ladder to install the antenna. Do not install the antenna in wet or windy weather.
- Wear clothing suitable for antenna installation. Wear rubber gloves and shoes with rubber soles.
- Be careful to avoid any objects falling from a high place, such as the antenna, RF cable, or other mounting accessories.
- When it is required to connect a power source, do not connect it yourself. Ask professionals to handle it.
- Call for help immediately when an emergency such as an electric shock occurs.

Installation guidelines

To ensure optimal performance of the antenna, follow these guidelines:

- Install the antenna vertically with the connector side facing downwards.
- Keep the antenna away from metal obstacles, such as heating pipes and air conditioners.
- The material and thickness of walls determine the number of walls that the RF signal can penetrate. 5 GHz signal attenuation is large. Avoid signal penetration through solid walls.

Selecting an installation location

To ensure optimal coverage, follow these guidelines when selecting an installation location for the antenna:

- Perform site surveys to determine the antenna installation location and height. Make sure no obstruction, especially no solid walls and metal plates, exists between the antenna and the target coverage area.
- The antenna installation location must be as close as possible to the AP to reduce the RF cable length and signal loss.
- The AP must be installed at a location where wires (cables or fibers) and power (local power supply or PoE) can reach.

Mounting the antenna and lightning arrester

ⓘ **IMPORTANT:**

When you apply weatherproof tape to a cable connection, follow these restrictions and guidelines:

- Make sure you attach the adhesive side of the tape to the connector.
 - Pull the tape as needed for overlap.
 - Start wrapping at the top of the connector, and overlap the tape to half-width. Avoid creases or wrinkles and press the tape against the connection so that there are no gaps. Smooth each wrapped layer with your hands to ensure full adhesion.
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The antenna is installed outdoors. You must install a lightning arrester for it. The lightning arrester can be installed on the AP or on the antenna connector. No lightning arrester is provided with the antenna. Purchase one yourself.

To mount the antenna and lightning arrester:

1. Remove the weatherproof cap from the antenna connector on the AP.
2. Connect a lightning arrester to the antenna connector.
3. Connect the antenna to the lightning arrester.
4. Wrap each connection with weatherproof tape until the entire connection is wrapped. Smooth the tape edges to ensure full adhesion.
5. Ground the lightning arrester.
Make sure the grounding terminal is reliably grounded.

Figure1-6 Mounting the antenna and lightning arrester

