Ruijie Reyee RG-RAP6262(G) Access Point

Installation Guide

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Disclaimer

Preface

Intended Audience

This document is intended for:

- Network engineers

- Technical support and servicing engineers

- Network administrators

Technical Support

- Ruijie Reyee website: https://reyee.ruijie.com

- Online support center: https://reyee.ruijie.com/en-global/support

- Case portal: https://www.ruijie.com/support/caseportal

- Community: https://community.ruijie.com

- Email support: service_rj@ruijie.com

- Live chat: https://reyee.ruijie.com/en-global/rita

Conventions

1. Signs

The signs used in this document are described as follows:

⚡ **Danger**
An alert that calls attention to safety instruction that if not understood or followed can result in personal injury.

❗ **Warning**

An alert that calls attention to important rules and information that if not understood or followed can result in data loss or equipment damage.

⚠️ **Caution**

An alert that calls attention to essential information that if not understood or followed can result in function failure or performance degradation.

ℹ️ **Note**

An alert that contains additional or supplementary information that if not understood or followed will not lead to serious consequences.

✅ **Specification**

An alert that contains a description of product or version support.

2. Notes

This manual provides installation steps, troubleshooting, technical specifications, and usage guidelines for cables and connectors. It is intended for users who want to understand the above and have extensive experience in network deployment and management, and assume that users are familiar with related terms and concepts.

Contents

1 Product Overview

The RG-RAP6262(G) is an outdoor wireless access point (AP) designed by Ruijie Networks for high-speed wireless networks. Adhering to the latest 802.11ax standard, the AP delivers an access rate of up to 573 Mbps in the 2.4 GHz frequency band and 1201 Mbps in the 5 GHz frequency band. RAP6262(G) features security, radio frequency (RF) control, mobile access, Quality of Service (QoS) and seamless roaming. In addition, it can be managed by RG-WS series wireless access controllers (ACs) to implement wireless data forwarding, security, and access control.

The IP68 design adapts to inclement outdoor environments such as the cold and humidity. This substantially simplifies installation and maintenance. RAP6262(G) supports PoE to take over challenges in a wide variety of deployment scenarios, including large-scaled campuses, enterprises, hospitals and Wi-Fi hotspots.

1.1 Package Contents

Table 1-1   Package Contents

No.	Item	Quantity
1	RG-RAP6262(G) access point	1
2	Pole clamps	2
3	Mounting bracket	1
4	Internal/External hex machine screws (M8 x 20 mm)	2
5	Expansion anchors (M8 x 60 mm)	4
6	Cable glands (pre-installed)	2
7	Connecting rod (pre-installed)	1
8	User Manual	1
9	Warranty Card	1

🛈 **Note**

The package contents are subject to the purchase contract, and actual delivery may vary. Please check the items carefully against the package contents or purchase contract. If you have any questions, please contact your distributor.

1.2 Technical Specifications

Table 1-2   Technical Specifications of RG-RAP6262(G)

System Specifications	Flash memory	16 MB
	RAM	256 MB DDR3
Wi-Fi Radio	5 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11a/n) Wi-Fi 5 (IEEE 802.11ac) Wi-Fi 6 (IEEE 802.11ax)
	2.4 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11b/g/n) Wi-Fi 6 (IEEE 802.11ax)
	Operating band	IEEE 802.11b/g/n/ax, 2.400 GHz to 2.4835 GHz IEEE 802.11a/n/ac/ax, 5.150 GHz to 5.350 GHz, 5.470 GHz to 5.725 GHz, 5.725 GHz to 5.850 GHz Note: Available bands vary with countries and regions. To use the preceding frequency bands, ensure that your country or region supports these frequency bands.
	Radio design	Dual-radio 4 spatial streams 2.4 GHz: 2 x 2, MU-MIMO 5 GHz: 2 x 2, MU-MIMO
	5 GHz channel width	Auto/20/40/80 MHz
	2.4 GHz channel width	Auto/20/40 MHz
	Maximum wireless data rate	1774 Mbps
	5 GHz wireless data rate	1201 Mbps
	2.4 GHz wireless data rate	573 Mbps
	Maximum transmit power (5 GHz)	Combined power: 28 dBm (single-stream power: 25 dBm) Note: The transmit power varies according to regulations in different countries and regions.
	Maximum transmit power (2.4 GHz)	Combined power: 29 dBm (single-stream power: 26 dBm) Note: The transmit power varies according to regulations in different countries and regions.

	Maximum transmit power	Frequency bands and maximum Effective Isotropic Radiated Power (EIRP):
		
		Note: Country specific restrictions apply.
		
		● European Union & United Kingdom:
		  ○ 2400–2483.5 MHz, EIRP ≤ 20 dBm
		  ○ 5470–5725 MHz, EIRP ≤ 30 dBm
		● Myanmar:
		  ○ 2400–2483.5 MHz, EIRP ≤ 23 dBm
		  ○ 5725–5825 MHz, EIRP ≤ 30 dBm
		● Thailand:
		  ○ 2400–2483.5 MHz, EIRP ≤ 20 dBm
		  ○ 5470–5725 MHz, EIRP ≤ 30 dBm
		  ○ 5725–5825 MHz, EIRP ≤ 30 dBm
		● Indonesia:
		  ○ 2400–2483.5 MHz, EIRP ≤ 36 dBm
		  ○ 5725–5825 MHz, EIRP ≤ 36 dBm
		● Egypt:
		  ○ 2400–2483.5 MHz, EIRP ≤ 20 dBm
		  ○ 5150–5350 MHz, EIRP ≤ 23 dBm

	Coverage range	5 GHz max: 400 m (1312.34 ft.) 2.4 GHz max: 150 m (492.13 ft.) 5 GHz recommended: 200 m (656.17 ft.) 2.4 GHz recommended: 50 m (164.04 ft.) Note: The data is obtained in an ideal environment without obstruction. The signal coverage radius depends on client performance and environmental interference.
	Modulation	OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM and 1024-QAM OFDMA
	Receive sensitivity	11b: –91 dBm (1 Mbps), –88 dBm (5.5 Mbps), –85 dBm (11 Mbps) 11a/g: –89 dBm (6 Mbps), –80 dBm (24 Mbps), –76 dBm (36 Mbps), –71 dBm (54 Mbps)

		11n: –83 dBm (MCS0), –65 dBm (MCS7), –83 dBm (MCS8), –65 dBm (MCS15)
		11ac: 20 MHz: –83 dBm (MCS0), –57 dBm (MCS9)
		11ac: 40 MHz: –79 dBm (MCS0), –57 dBm (MCS9)
		11ac: 80 MHz: –76 dBm (MCS0), –51 dBm (MCS9)
		11ax: 20 MHz: –85 dBm (MCS0), –58 dBm (MCS11)
		11ax: 40 MHz: –82 dBm (MCS0), –54 dBm (MCS11)
		11ax: 80 MHz: –79 dBm (MCS0), –52 dBm (MCS11)
Antenna	Antenna	2.4 GHz: 2 built-in omnidirectional antennas 5 GHz: 2 built-in omnidirectional antennas
	Antenna gain (5 GHz)	3.00 dBi
	Antenna gain (2.4 GHz)	3.00 dBi
Port Specifications	Number of 10/100/1000BASE-T ports	2
	Maximum rate of the LAN port	1000 Mbps
	Reset button	1
	LEDs	1 x system status LED 1 x Wi-Fi LED 2 x Ethernet port LEDs
Power Supply and Consumption	Power supply	● DC power adapter ● PoE+ Note: If both the DC power adapter and PoE+ are available for power supply, the DC power adapter is preferred.
	Local power supply	Yes, one DC power connector (12 V, 2 A)
	Dimensions of the DC connector	Outer diameter: 5.5 mm (0.22 in.) Inner diameter: 2.1 mm (0.08 in.) Depth: 10 mm (0.39 in.)
	PoE In standard	IEEE 802.3at (PoE+)

	Maximum power consumption	18 W
Dimensions and Weight	Product dimensions (diameter x height)	Ø200 mm x 166 mm (Ø7.87 in. x 6.54 in.) (spherical device, excluding the mounting bracket)
	Package dimensions (W x D x H)	466 mm x 257 mm x 217 mm (18.35 in. x 10.12 in. x 8.54 in.)
	Color	White
	Weight	≤ 1.2 kg (2.65 lbs.) (without packaging materials)
	Shipping weight	≤ 2.94 kg (6.48 lbs.)
Environment and Reliability	Operating temperature	−30°C to +65°C (−22°F to +149°F)
	Storage temperature	−40°C to +85°C (−40°F to +185°F)
	Operating humidity	0% RH to 100% RH (non-condensing)
	Storage humidity	0% RH to 100% RH (non-condensing)
	Mounting options	Wall/Pole
	IP rating	IP68
	Surge protection	Ethernet port: ±4 kV for common mode
	MTBF	250,000 hours
Certification and Regulatory Compliance	RoHS	Yes
	Certification	CE, CB

Table 1-3   LEDs of RG-RAP6262(G)

Indicator	Status	Meaning
Wi-Fi (Green)	Blinking	Data is transmitted by Wi-Fi.
	Solid on	Wi-Fi is enabled and no data is transmitted.
	Off	Wi-Fi is disabled.
SYS(Blue)	Blinking	Fast blinking: The device is being initialized. Slow blinking (0.5 Hz): The device cannot access the Internet. Blinking twice*:

Indicator	Status	Meaning
		(1)　Restoring the factory settings.
		(2)　Upgrading the firmware.
		(3)　Restoring the image file.
		*In this case, please do not power off the device.
	Solid on	The device is working properly.
	Off	The device is powered off.
LAN 1(Green)	Blinking	The port is up and data is transmitted.
	Solid on	The port is up and no data is transmitted.
	Off	The port is not connected.
LAN 2(Green)	Blinking	The port is up and data is transmitted.
	Solid on	The port is up and no data is transmitted.
	Off	The port is not connected.

Table 1-4　　Reset Button

| Button	Function	Operation
Reset	Reboot	Press the button for less than 2 seconds, and the device will be rebooted.
	Restore Factory Settings	Press the button for over 5 seconds, and the device will restore the factory settings.

1.3　Appearance

The RG-RAP6262(G) provides a Wi-Fi indicator, a SYS indicator, and two LAN port indicators. The label is located on the top of the mounting arm.

Figure 1-1   Appearance

1.4 Ports

Figure 1-2   Ports
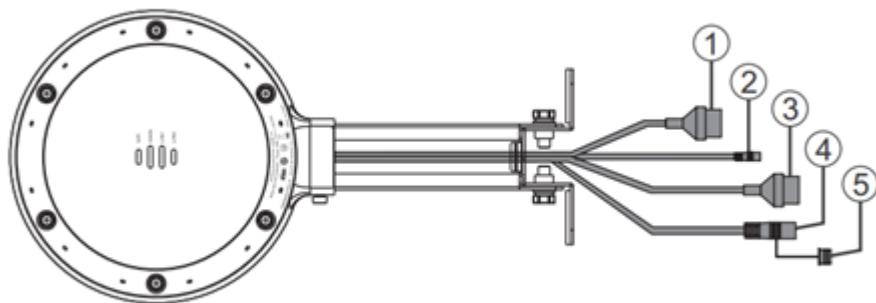
Note	
1. 10/100/1000BASE-T Ethernet port	4. Reset button
2. DC power supply port	5. Waterproof cap
3. 10/100/1000BASE-T Ethernet port/PoE port	

1.5 Power Supply

The AP supports 802.3at PoE (port LAN 1) or 12 V DC/2 A power supply (If needed, you can buy the adapter from Ruijie Networks).

2 Preparing for Installation

> ⚠ **Caution**
> ● To prevent device damage and physical injury, please read carefully the safety recommendations described in this chapter.
> ● The following safety suggestions do not cover all possible hazardous situations.

2.1 Grounding and Lightning Protection

● Keep the grounding connection within 30 m, and use a 40mm x 4mm or 50mm x 5mm grounding bar of hot-dip zinc-coated flat steel sheet.

● When the connection cable between the main grounding conductor and local equipotential earthing terminal board (LEB) on each floor is shorter than 2 meters, use a stranded copper wire with a sectional area not less than 1.318 mm^2 (16 AWG) for the connection cable.

● Use a shielded network cable if possible, ensure that devices connected to both ends of the shielded network cable are reliably grounded, and make sure that the sheath of the shielded network cable is also grounded if possible. If no shielded network cable is available, wire the network cable through a steel pipe and bury the steel pipe for lead-in, and properly ground both ends of the steel pipe.

● No additional lightning protector is required as a high-profile lightning protector is built in the RG-RAP6262(G), and the antenna port and power port support 6kV lightning protection. If a lightning protector of a higher profile is available, configure the lightning protector optionally. Before the configuration, connect the lightning protector to the ground cable.

● Use a power cable with the PE end to ground the power supply (AC). Ensure that the PE end is properly grounded, with a ground resistance less than 5 ohms. Do not use a two-wire power cable with only the live (L) wire and naught (N) wire. Do not connect the N wire to the protection ground cable of other communication devices, and ensure that the L wire and N wire are properly connected.

● Ensure that the ground resistance is less than 5 ohms. In areas with high soil resistivity, reduce the soil resistivity via measures such as spreading resistivity reduction mixture around the grounding conductor.

2.2 Preparing the Installation Site

● Do not expose the AP to high temperature, dust, or harmful gases.

● Do not install the AP in an area prone to fire or explosions.

● Keep the AP away from EMI sources such as large radar stations, radio stations, and substations.

● Do not subject the AP to unstable voltage, vibration, and noises.

● Keep the AP at least 500 meters away from the ocean and do not face it towards the sea breeze.

● The installation site should be protected from water and flooding, seepage, dripping, or condensation.

● The installation site should be selected according to network planning, communications equipment features and considerations such as climate, hydrology, geology, earthquake, electric power, and transportation.

2.2.1 Temperature and Humidity Requirements

Table 2-1   Temperature and Humidity Requirements

Operating Temperature	Operating Humidity:
-30°C to 65°C (-22°F to 149°F)	0% to 100% RH (non-condensing)

2.2.2 Outdoor Installation

The AP can be installed outdoors and mounted on a wall or a pole.

2.2.3 Waterproof

- Use waterproof caps to seal the unused ports.

- After using the reset button and DC power port, please ensure that the caps are put back.

- The network cable needs to be threaded through the cable gland before connecting to the AP. For details, see Chapter 3 *Installation*.

2.2.4 EMI

All interference sources (from outside or inside of the device or application system) affect the device by capacitive coupling, inductive coupling, or electromagnetic waves.

Electromagnetic interference (EMI) occurs due to electromagnetic radiation or conduction, depending on the transmission path.

Radiation interference occurs when energy (usually radio frequency energy) is emitted from a device and propagated through space to disrupt other devices. The interference source can be part of disrupted system or a fully electrically isolated unit. Conduction interference occurs when interference is transferred from one unit to another through cables, which are usually electromagnetic wires or signal cables connected between the source and the device(s) experiencing interference. Conduction interference often affects the power supply of the device. It is eliminated by using filters. Radiation interference can influence the path of any signal from the device and is difficult to shield.

- Take effective measures against interference from the power grid.

- Keep the AP far away from the grounding or lightning protection devices for power equipment.

- Keep the AP away from high-power radio stations, radar stations, and high-frequency high-current devices.

- Take electrostatic shielding measures.

2.2.5 Installation Tools

Table 2-2   Installation Tools

Tools	Marker, Phillips (crosshead) screwdriver, slotted screwdriver, drill, paper knife, crimping pliers, diagonal pliers, wire stripper, network cable tester, related power and fiber cables, wrench, hammer, cable ties, ESD tools, multimeter

> **Note**
>
> The tool kit and cables are customer-supplied.
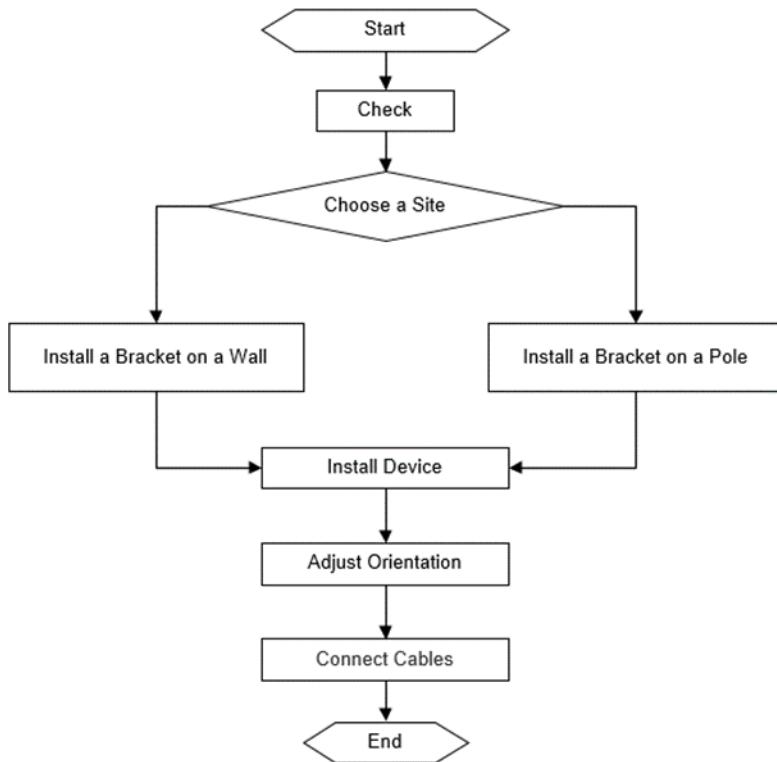
2.3   Checking before Installation

Please check your materials carefully against the package contents. If there are any errors, please contact your distributor.

3 Installing the Access Point

> ℹ️ **Note**
>
> Before installing the device, make sure you have carefully read the requirements described in Chapter 2.

3.1   Installation Flowchart

3.2   Before You Begin

Before you install the AP, verify that all the parts in the package contents are there and make sure that:

- The installation site meets temperature and humidity requirements.
- The installation site is equipped with a proper power supply.
- Network cables are in place.

3.3 Precautions

The outdoor AP can be mounted on a wall or a pole (diameter: 50 mm to 70 mm). If the diameter of the pole is out of the range, the hose clamp is customer-supplied. In this case, it is recommended that you use a hose clamp with a thickness of 2.5mm at least. The installation site varies due to on-the-spot surveys conducted by technical personnel.

Please make full preparations as described in Chapter 2 and observe the following precautions before installing the device.

● Before connecting the power supply, make sure the external power supply matches the power module of the AP.

● Before connecting the power cord, make sure the power module is turned off.

● When connecting the power cord to a binding post, make sure their colors are the same.

● Make sure the power supply is properly connected.

3.4 Installing the Device

3.4.1 Wall Mounting

Use the mounting bracket and expansion bolts to complete wall mounting.

(1) Attach the mounting bracket to the wall (ensure that the semicircle opening is downward vertically) and mark the locations of screw holes. Secure the mounting bracket on the wall with expansion anchors (M8 x 60 mm) .

Figure 3-1   Installing the Mounting Bracket
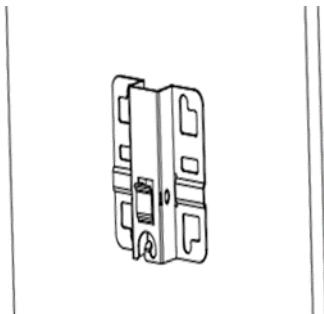
(2) Install the access point and the connecting rod to the mounting bracket on the wall, and tighten the internal/external hex machine screws (M8 x 20 mm) to complete installation.

Figure 3-2   Wall Mounting
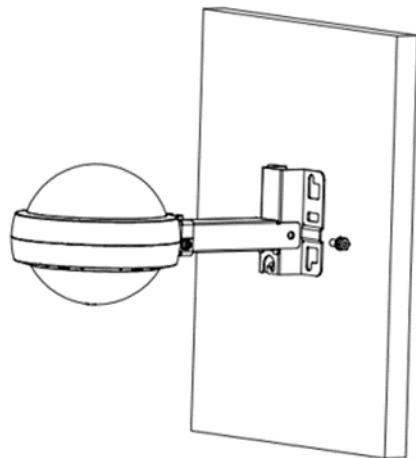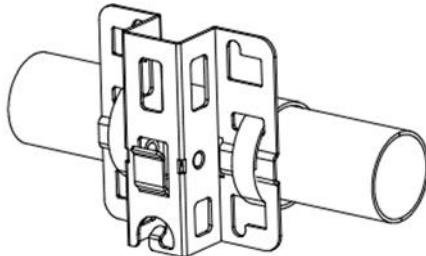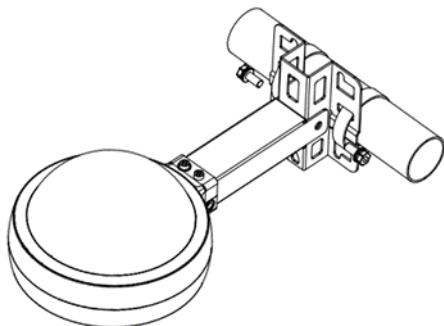

3.4.2 Vertical Pole Mounting

(1) Secure the mounting bracket to the vertical pole by threading two clamps through the mounting bracket, and fasten the clamps with screws.

Figure 3-3   Mounting the Plate on a Pole

(2) Install the access point and the connecting rod to the mounting bracket with internal/external hex machine screws (M8 x 20 mm).

Figure 3-4   Vertical Pole Mounting
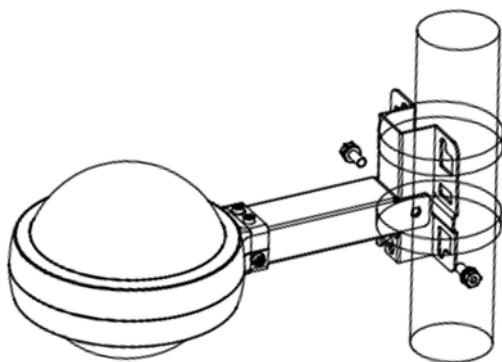
3.4.3 Horizontal Pole Mounting

Figure 3-5   Mounting the Plate on a Pole

**Figure 3-6   Horizontal Pole Mounting**

> **ⓘ Note**
>
> The procedures of horizontal pole mounting are similar to that of vertical pole mounting.

3.5 Connecting Cables

> **⚠ Caution**
>
> The waterproof materials are customer-supplied.

(1) Trim an Ethernet cable according to the distance between the access point and the power supply.

(2) Insert the unterminated end of the Ethernet cable through part D, C and B in sequence.
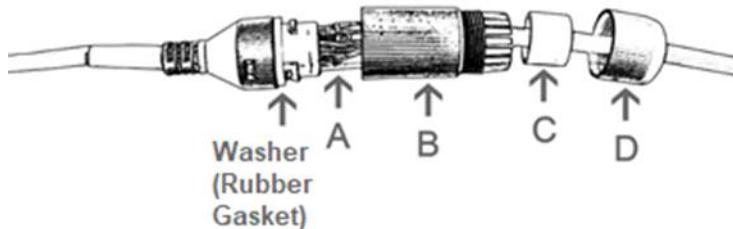
(3) Install an RJ45 connector on the unterminated end of the Ethernet cable with an Ethernet cable installation tool.

(4) Insert the RJ45 connector into the LAN 1/PoE/uplink port of the access point, and tighten part B, C and D in sequence.

(5) If you want to install the cable gland without an Ethernet cable threaded through it, insert the waterproof rubber rod into the washer (rubber gasket), and tighten part B, C and D in sequence.
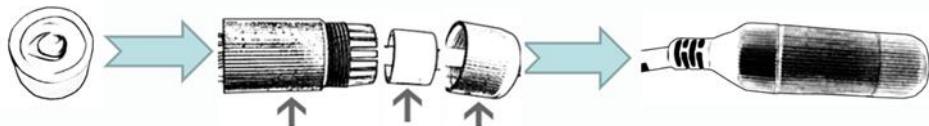
⚠ **Caution**

Please ensure that the RJ45 connector is properly inserted. Otherwise, the connector may be damaged when the waterproof cap is tightened. Before removing the network cable, please remove the waterproof cap first and then the RJ45 connector.

🛑 **Warning**

The device should not be installed in the place prone to water accumulation, seepage, dripping, and condensation.

It is recommended to install the device horizontally.

If any requirement above cannot be fulfilled, please use waterproof duct tape and waterproof plaster.
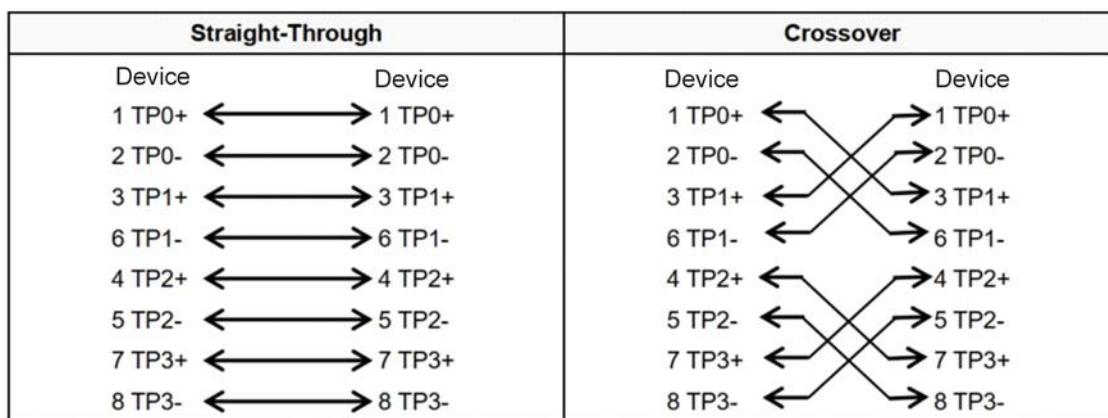
4 Appendix

4.1 1000BASE-T/100BASE-TX/10BASE-T

The 1000BASE-T/100BASE-TX/10BASE-T is a 10/100/1000 Mbps auto-negotiation port that supports auto MDI/MDIX.

Compliant with IEEE 802.3ab, 1000BASE-T requires Category 5e 100-ohm UTP or STP (STP is recommended) with a maximum distance of 100 meters (328 feet).

1000BASE-T requires all four pairs of wires be connected for data transmission, as shown in Figure 7-1.

Figure 4-1   1000BASE-T Connection

| Straight-Through		Crossover	
Device	Device	Device	Device
1 TP0+ ⟷ 1 TP0+		1 TP0+ ⤫ 1 TP0+	
2 TP0- ⟷ 2 TP0-		2 TP0- ⤫ 2 TP0-	
3 TP1+ ⟷ 3 TP1+		3 TP1+ ⤫ 3 TP1+	
6 TP1- ⟷ 6 TP1-		6 TP1- ⤫ 6 TP1-	
4 TP2+ ⟷ 4 TP2+		4 TP2+ ⤫ 4 TP2+	
5 TP2- ⟷ 5 TP2-		5 TP2- ⤫ 5 TP2-	
7 TP3+ ⟷ 7 TP3+		7 TP3+ ⤫ 7 TP3+	
8 TP3- ⟷ 8 TP3-		8 TP3- ⤫ 8 TP3-	

10BASE-T uses Category 3, 4, 5 100-ohm UTP/STP and 1000BASE-T uses Category 5 100-ohm UTP/STP for connections. Both support a maximum length of 100 meters. Figure A-2 shows100BASE-TX/10BASE-T pin assignments.

Figure 4-2   100BASE-TX/10BASE-T Pin Assignments

Pin	Socket	Plug
1	Input Receive Data+	Output Transmit Data+
2	Input Receive Data-	Output Transmit Data-
3	Output Transmit Data+	Input Receive Data+
6	Output Transmit Data-	Input Receive Data-
4,5,7,8	Not used	Not used

Figure 4-3 shows wiring of straight-through and crossover cables for 100BASE-TX/10BASE-T.

Figure 4-3   100BASE-TX/10BASE-T Connection
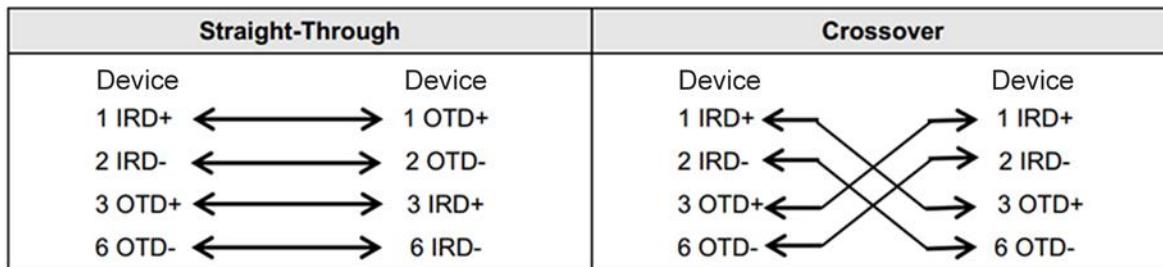
4.2 Cabling Recommendations

When installing the device, route the cables through the cable management brackets. Top cabling or bottom cabling is adopted according to the actual situation in the equipment room. All adapted connectors should be placed at the bottom of the rack in an orderly manner instead of outside the rack that is easy to touch. Power cords are routed beside the rack. Top cabling or bottom cabling is adopted according to the actual situation in the equipment room, such as the positions of the DC power distribution box, AC socket, or lightning protection box.

Requirements for the Minimum Cable Bending Radius

● The bend radius of a fixed power cord, Ethernet cable, or flat cable should be over five times greater than their respective external diameters. The bend radius of these cables that are often bent or plugged should be over seven times greater than their respective external diameters.

● The bend radius of a fixed common coaxial cable should be over seven times greater than its external diameter. The bend radius of these cables that are often bent or plugged should be over 10 times greater than their respective external diameters.

● The minimum bend radius of a high-speed cable, such as an SFP+ cable, should be over five times greater than its external diameter. The bend radius of these cables that are often bent or plugged should be over 10 times greater than their respective external diameters.

### Requirement for the Minimum Bend Radius of Optical Cables

● The diameter of the optical cable tray should be over 25 times greater than that of the optical cable.

● When an optical cable is moved, the bend radius of the optical cable should be over 20 times greater than the diameter of the optical cable.

● During cabling of an optical cable, its bend radius should be over 10 times greater than its diameter.

Precautions for Cable Binding

● Before cables are bundled, mark labels and stick the labels to cables wherever appropriate.

● Cables should be neatly and properly bundled in the rack without twisting or bending, as shown in Figure 4-4.

Figure 4-4   Bundling Cables (1)
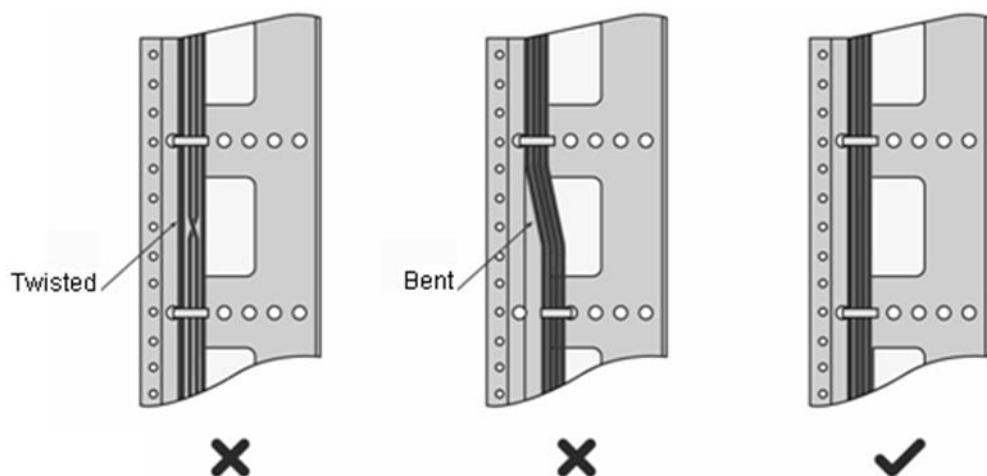
- Cables of different types (such as power cords, signal cables, and grounding wires) should be separated into cabling and bundling. Mixed bundling is disallowed. When they are close to each other, you are advised to adopt crossover cabling. In the case of parallel cabling, maintain a minimum distance of 30 mm (1.18 in.) between power cords and signal cables.
- The cable management brackets and cabling troughs inside and outside the rack should be smooth without sharp corners.
- The metal holes traversed by cables should have a smooth and fully rounded surface or an insulated lining.
- Use cable ties to bundle up cables properly. Please do not connect two or more cable ties to bundle up cables.
- After bundling up cables with cable ties, cut off the remaining part. The cut should be smooth and trim without sharp corners, as shown in Figure 4-5.

Figure 4-5   Bundling Cables (2)
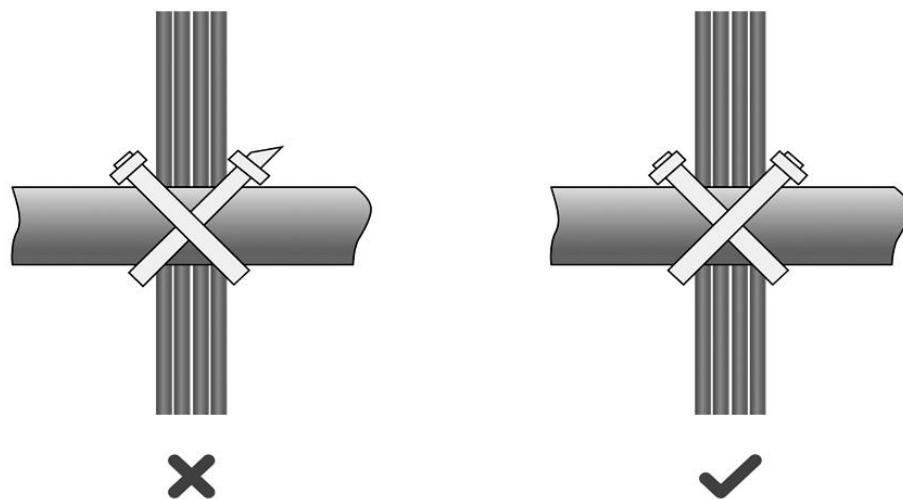
- When cables need to be bent, bundle them first but do not tie cables within the bend. Otherwise, stress may be generated on the cables and cause the wires inside to break, as shown in Figure 4-6.

Figure 4-6   Bundling Cables (3)
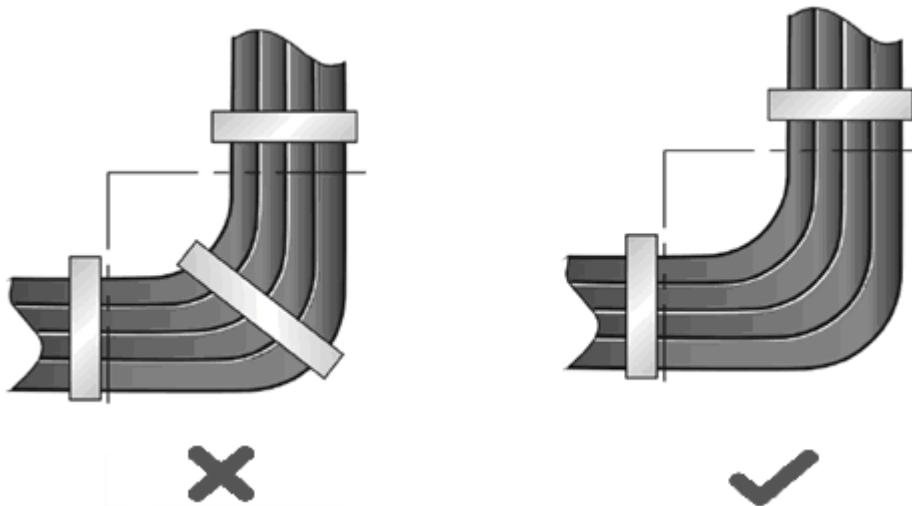
- Cables not to be assembled or the remaining parts of cables should be folded and placed in a proper position of the rack or cable trough. The proper position refers to a position that does not affect the equipment running or damage the equipment or cables.

- Do not bind power cords to the guide rails of moving parts.

- The power cords connecting moving parts such as door grounding wires should be reserved with some excess after being assembled. This can avoid tension or stress on power cords. After the moving part is installed, the remaining cable part should not touch heat sources, sharp corners, or sharp edges. If heat sources must be touched, high-temperature cables should be used.

- When using screw threads to secure a cable lug, ensure that the bolt or screw is properly tightened and take measures to prevent it from loosening, as shown in .

Figure 4-7   Cable Fastening
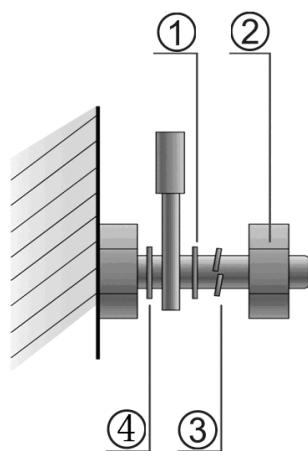
1. Flat washer	3. Spring washer
2. Nut	4. Flat washer

- Hard power cords should be fastened in the terminal connection area to prevent stress on the terminal

connection and cable.

- Do not use tapping screws to secure cable lugs.

- Power cords of the same type and in the same cabling direction should be bundled up into cable bunches, with cables in cable bunches clean and straight.

- Bundle up cables by using cable tie according to Table 4-1.

Table 4-1   Cable Bunch

Cable Bunch Diameter	Binding Space
10 mm (0.39 in.)	80–150 mm (3.15–5.91 in.)
10–30 mm (0.39–1.18 in.)	150–200 (5.91–7.87 in.)
30 mm (1.18 in.)	200–300 (7.87–11.81 in.)

- Do not tie cables or bundles in a knot.

- For wiring terminal blocks (such as circuit breakers) with cord end terminals, the metal part of the cord end terminal should not be exposed outside the terminal block during assembly.