KyAir110-2GE1D-L5 Industrial Wireless Router

Quick Installation Guide

KYLAND

1 Product Overview

The KyAir110-2GE1D-L5 features rich functionality, high performance, and reliability, meeting the WLAN wireless application requirements of industrial scenarios. The KyAir110-2GE1D-L5 is suitable for AGVs, mobile access, wireless coverage, IoT, and other industrial automation scenarios.

When operating in AP mode, it supports simultaneous operation on the 2.4GHz and 5GHz bands, with support for IEEE802.11a, IEEE802.11b, IEEE802.11g, IEEE802.11n, and IEEE802.11ac modes, achieving a maximum access rate of 1167Mbps. The KyAir110-2GE1D-L5 can also operate in wireless terminal mode, installed on AGV carts, providing rapid wireless switching capabilities and allowing flexible selection of 2.4GHz or 5GHz access according to the needs of the scenario.

Basic Parameters

Attribute		KyAir110-2GE1D-L5
Dimensions		114mm * 98mm * 34mm (L*W*H)
Ports	Ethernet ports	2个1000M electrical ports
	Antenna ports	2*SMA ports，combined 2.4GHz and 5GHz
Operating Bands	2.4 G	802.11b/g/n：2.4GHz～2.483GHz（China）
	5G	802.11ac/n/a:5.150GHz～5.350GHz 5.725GHz～5.850GHz（China）
Maximum Transmit Power		23dBm
Transmit Frequency Step		1dBm
Operating/Storage Temperature		-40℃～70℃ /-40℃～70℃
Operating/Storage Humidity		5%～95%(non-condensing)
Power Supply		12～36V DC, Phoenix terminal power input Interface V
Total Power Consumption		≤14W
MTBF		>250000H

2 Structure and Interfaces
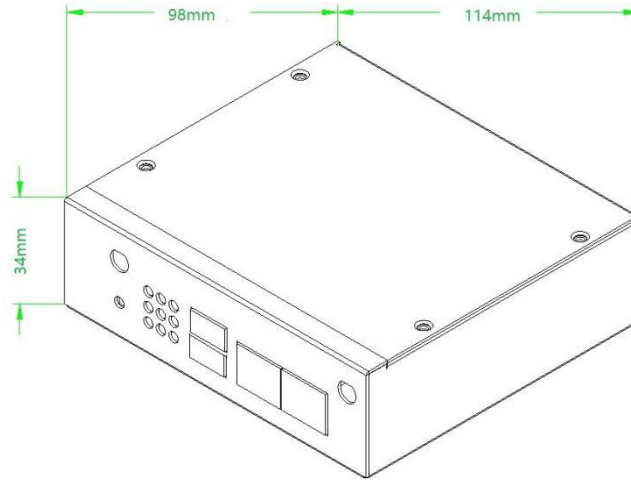
Dimensions Diagram

Figure 1: Dimensions Diagram

Front Panel Layout

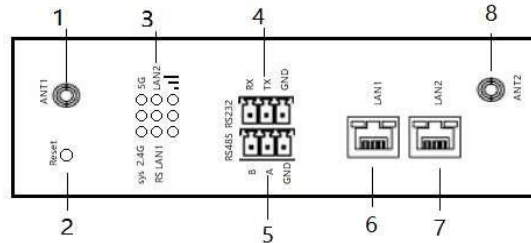Figure 2: Front Panel Layout

The front panel labels are explained in the table below:

Label No.	Panel Label	Description
1	ANT1	SMA connector, combined 2.4GHz and 5GHz
2	Reset	Press and hold for over 10 seconds to restore factory settings
3	Status Indicator Lights	Details on LED status indicators
4	RS232	RS232 Port Connects to RS232 devices
5	RS485	RS485 Port Connects to RS485 devices
6	LAN1	Gigabit Ethernet Port Connects to wired terminals
7	LAN2	Gigabit Ethernet Port Connects to wired terminals
8	ANT2	SMA connector, combined 2.4GHz and 5GHz

3 Hardware Installation

Installation Environment

This device supports DIN rail mounting. Before installation, confirm the following requirements:

1. Environmental Requirements: Operating temperature: -40°C~70°C; operating humidity: 5%~95% (non-condensing).

2. Power Requirements: Ensure the working voltage matches the voltage range marked on the device.

3. Avoid direct sunlight, and keep away from heat sources or areas with strong electromagnetic interference.

Installation Steps

The steps for DIN rail mounting are as follows:

1. Verify the availability of DIN rail mounting accessories.

2. Adjust the device to the correct installation direction, ensuring the power terminal faces upward.

3. Attach the upper part of the device's DIN rail clip (with the spring) to the DIN rail, then press the lower part into the rail with slight force.

4. After attaching the clip to the rail, check and confirm that the device is stably and securely fixed.
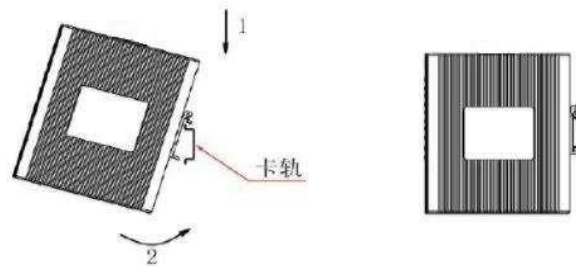
Figure 3: DIN Rail Mounting Diagram

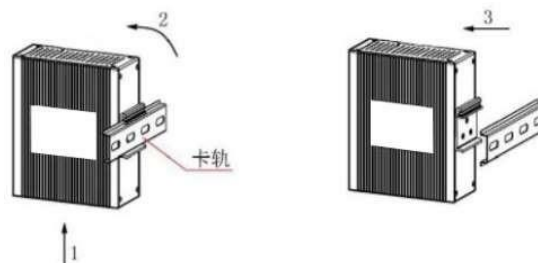The rail-mount disassembly diagram is as follows:

Figure 4: DIN Rail Removal Diagram

4 Wiring

Grounding Connection

Proper grounding of the device is essential for lightning protection and interference prevention. Users must correctly connect the ground wire, ensuring grounding before powering on the device, and disconnecting it after powering off.

The side panel of the device is equipped with a grounding terminal. Press the grounding wire onto the terminal using a grounding screw, and securely connect the other end to the earth.
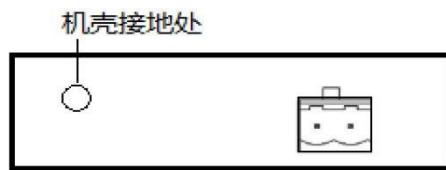

Figure 5: Device Grounding Diagram

Power Terminal

The power terminal is located on the device's side panel. Connect the power wire to the power terminal to supply power. This device uses a 2-pin 5.08mm pitch pluggable terminal block.
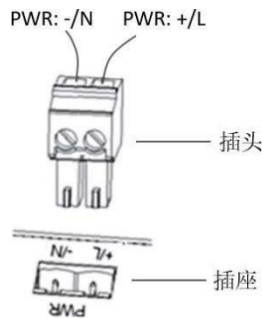
Figure 6: 2-Pin 5.08mm Power Terminal Wiring Diagram

5 LED Indicator Status

Indicator	Status	Description
System(sys)	Solid	Device powered on
2.4G Indicator (2.4G)	Flashing	Data transmission
	Solid	2.4G RF enabled
	Off	2.4G RF disabled
	Flashing	Updating firmware

5G Indicator (5G)	Flashing	Data transmission
	Solid	5G RF enabled
	Off	5G RF disabled
	Flashing	Updating firmware
Serial Port Indicator (RS)	Flashing	Data transmission
	Off	No data transmission
Ethernet LAN1 indicator (LAN1)	Flashing	Data transmission
	Solid	Ethernet link up
	Off	Ethernet link down
Ethernet LAN1 Indicator (LAN2)	Flashlight	Data transmission
	Solid	Ethernet link up
	Off	Ethernet link down
Low signal strength indicator Lower left indicator	Solid	RSSI ≥ -90dbm
	Off	RSSI < -90dbm
Signal Strength Medium Indicator Medium-low indicator	Solid	RSSI ≥ -65dbm
	Off	RSSI < -65dbm
High signal strength indicator Lower right indicator	Solid	RSSI ≥ -35dbm
	Off	RSSI < -35dbm

6 First Access

Router System Overview

To facilitate router maintenance and usage, the router includes a built-in web server.

Users can access it through a web browser on a terminal device (e.g., PC).

Login to the Device

1.Access the device through the following steps:Connect the PC terminal to the router's

LAN port.Access the router using the default address 172.16.10.10.

●Ensure network communication between the PC terminal and the router device.
●Configure the PC terminal to use DHCP or a static IP address 172.16.10.100.
●Install browser software on the PC terminal.

2.Login steps:

1)Open a browser (e.g., Google Chrome) on the PC, input the router's IP address in the

address bar, and press Enter to navigate to the web login page.

2)Enter the default username and password (admin/admin).

3)Click "Login" to access the operation interface.

4)On the first login, to ensure web system security, modify the password and log in

again.

Note: If login fails, a message will display: "Login failed. Please confirm username

and password are correct." Re-enter the correct username and password.