EWT22A-xxxBWL22S Product Datasheet



Chengdu Ebyte Electronic Technology Co.,Ltd.

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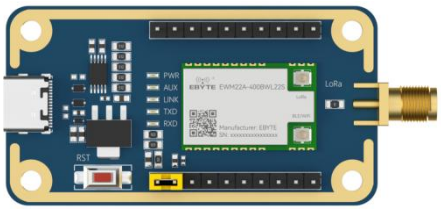
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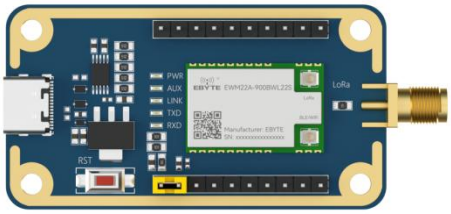
Chapter1 Overview

1.1 Product Introduction

The EWT22A -xxxBWL22S series is a test suite designed based on the EWM22A - xxxBWL22S module , significantly reducing the user's development cycle. For detailed information on the EWM22A -400BWL22S and EWM22A-900BWL22S, please visit the official website to download the relevant information for these models .



EWT22A- 400BWL22S



EWT22A-900BWL22S

1.2 Features

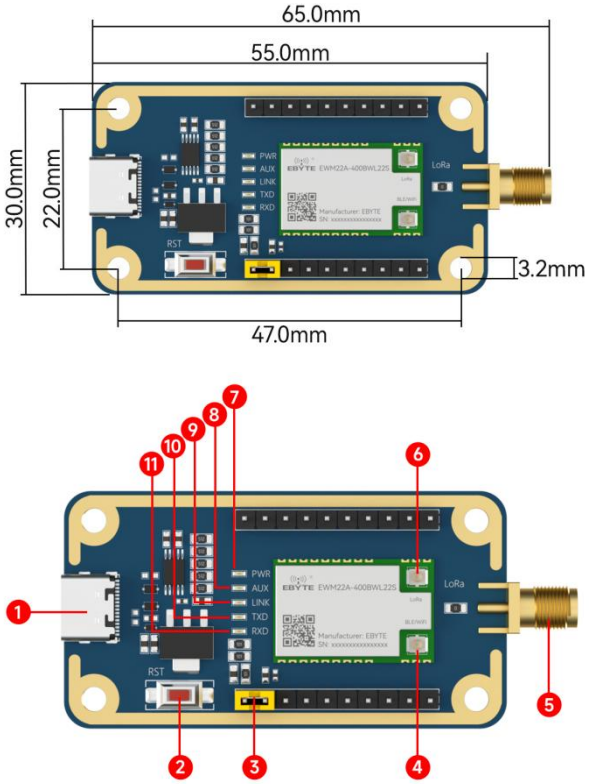
- Standard Type-C interface, plug and play;
- Rich peripherals and easy to use;
- Integrated high-performance CH340X chip;
- Support SMA-K and IPEX 1 generation antenna interface selection;
- Integrates EWM22A-400BWL22S and EWM22A-900BWL22S modules.

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Chapter2 Hardware Description

2.1 Product size and interface definition



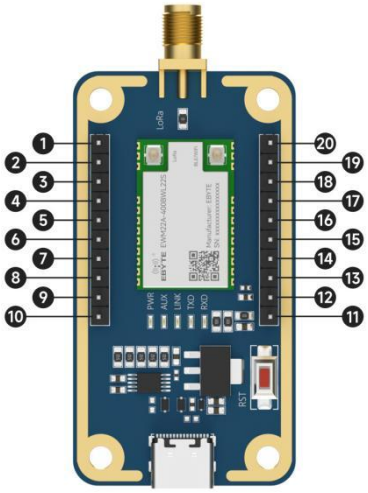
Serial number	definition	illustrate	Remark
1	Type-C	DC 5.0V power supply and communication interface	Standard Type-C interface, plug and play
2	RST	Reset button	-
3	jumper cap	Module power supply interface	Connect 3.3V and VCC pins
4	IPEX socket	IPEX 1st Generation	BLE/WiFi antenna interface
5	SMA-K	SMA-K antenna mount	LoRa antenna interface , select one of them to use, cannot use them at the same time
6	IPEX socket	IPEX 1st Generation	
7	PWR	Power indicator	-
8	AUX	LoRa working status indicator	LoRa transmit and receive buffer indication and self-test indication
9	LINK	Bluetooth/WIFI connection status indicator	BLE: Off by default, always on when BLE is connected; WIFI: Off by default, flashes at 1Hz when

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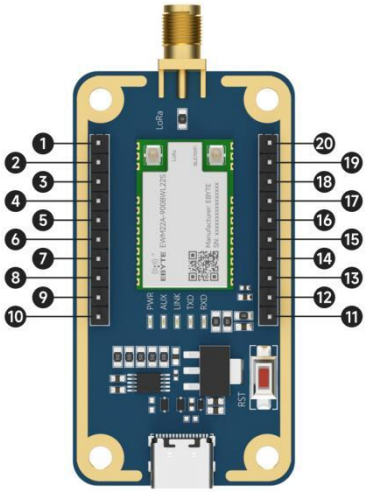
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			WIFI is connected and TCP is not connected, and stays on when TCP is connected.
10	TXD	Serial port sending indicator	-
11	RXD	Serial port receiving indicator	-

2.2 Kit Pin Definition



EWT22A-400BWL22S



EWT22A-900BWL22S

Pin number	Pin Name	Pin direction	Pin Purpose
1	NC	-	Reserved pins
2	TX_EN	-	Reserved pins
3	RX_EN	-	Reserved pins
4	LINK	Output	Bluetooth/WIFI connection status indication pin: BLE: Default high level, BLE is connected to low level; WIFI: Default high level, WIFI is connected, TCP is not connected, output 1Hz high and low level changes, TCP is connected, output low level.
5	WAKE	enter	Deep sleep wake-up pin, low level wake-up
6	NC	Input/Output	Reserved pins
7	NC	Input/Output	Reserved pins
8	NC	Input/Output	Reserved pins
9	NC	Input/Output	Reserved pins
10	GND	-	Power ground
11	3.3V	Output	3.3V power supply, output DC 3.3V, can be connected to the VCC pin with a jumper cap for module power supply
12	VCC	enter	Module power supply pin , DC 3.0~3.6V
13	GND	-	Power ground
14	TXD	Output	TTL serial port output, connected to external RXD input pin
15	RXD	enter	TTL serial port input, connected to external TXD output pin
16	NC	-	Reserved pins

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17	NC	-	Reserved pins
18	AUX	Output	LoRa transceiver buffer indication and self-test indication , low level is valid
19	NC	-	Reserved pins
20	RST	enter	Reset pin, low level reset

Chapter 3 Frequently Asked Questions

3.1 The transmission distance is not ideal

- When there is a straight-line communication obstacle, the communication distance will be reduced accordingly ;
- Temperature, humidity, and co-channel interference can increase the communication packet loss rate ;
- The ground absorbs and reflects radio waves, so the test results are poor when close to the ground ;
- Seawater has a strong ability to absorb radio waves, so the test results at the seaside are poor ;
- If there are metal objects near the antenna, or if it is placed in a metal shell, the signal attenuation will be very serious ;
- The power register is set incorrectly, or the air rate is set too high (the higher the air rate, the closer the distance) ;
- The power supply voltage is lower than the recommended value at room temperature. The lower the voltage, the lower the power output .
- The antenna used does not match the module well or the antenna itself may have quality issues.

3.2 Module is easily damaged

- Please check the power supply to ensure that it is within the recommended power supply voltage. Exceeding the maximum value may cause permanent damage to the module .
- Please check the power supply stability, the voltage should not fluctuate greatly or frequently ;
- Please ensure anti-static operation during installation and use, as high-frequency components are sensitive to static electricity ;
- Please ensure that the humidity is not too high during installation and use, as some components are humidity sensitive .
- If there is no special requirement, it is not recommended to use it at too high or too low temperatures.

3.3 Bit error rate is too high

- There is interference from the same frequency signal nearby. Move away from the interference source or change the frequency or channel to avoid interference.
- An unsatisfactory power supply may also cause garbled characters, so the reliability of the power supply must be ensured;
- Poor quality or excessive length of extension cables or feeders can also cause high bit error rates.

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Revision History

Version	Revision Date	Revision Notes	Maintainer
1.0	2025-09-05	Initial version	Bin

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