E103-RTL8711 Series Development Board
User Manual



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1. Module Introduction

1.1 Features Introduction

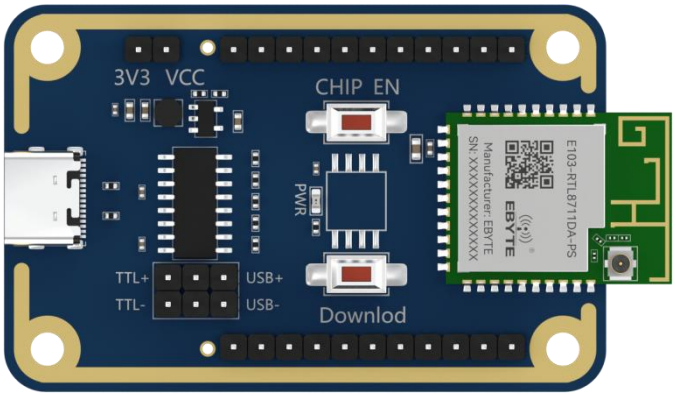


Figure 1. Actual picture of the test board.

E103-RTL8711 DA -PS -TB is an entry-level development board featuring a high-performance 2.4 & 5GHz dual-band WiFi module — E103 -RTL8711DA-PS. This development board offers full Wi-Fi and Bluetooth Low Energy functionality , and most of the module's pins are routed to header pins on both sides, allowing developers to easily connect various peripheral devices via jumpers. The board can also be used on a breadboard.

1.2 Parameter Introduction

Serial Number	Parameter name	Parameter value	Notes
1	Support Module	E103-RTL8711DA-PS E103-RTL8711DA -XS	WiFi serial port module
2	Module size	56.5 * 36.0 mm	Includes USB connector , excludes module antenna size
3	Production process	Lead-free process, machine mounting	Wireless products must be machine-mounted to ensure batch consistency and reliability.
4	Power interface	USB	-
5	Communication interface	TTL	-
6	Operating temperature	-20 to + 70 ℃	-
7	Storage temperature	-40 to +95 ℃	-

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2. Functional Overview

2.1 Component Introduction

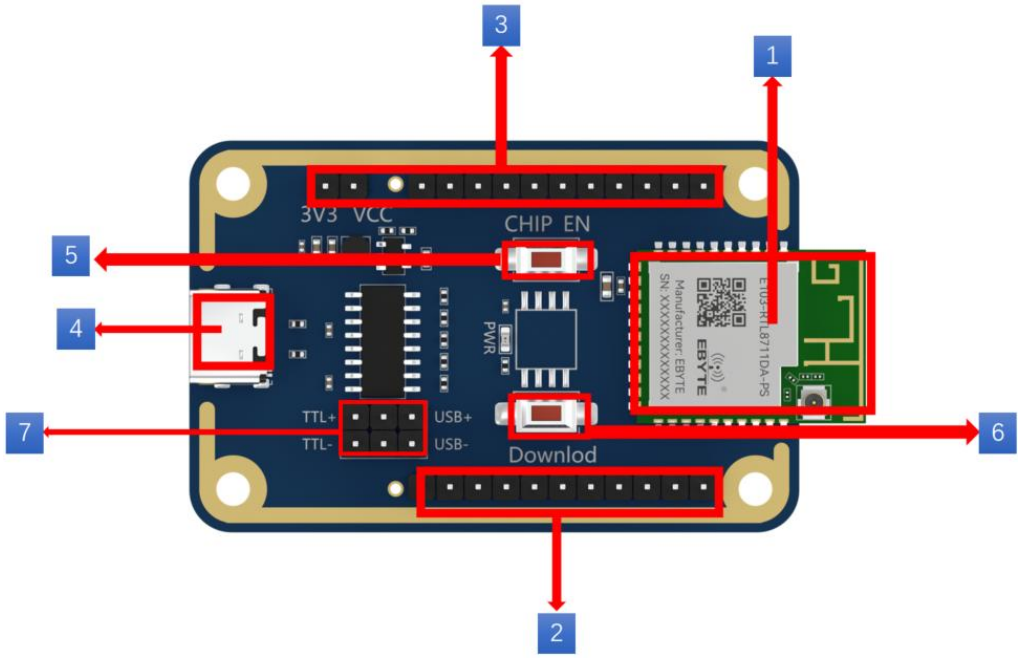


Figure 2 Main Component Diagram

Serial Number	Main firmware	Description
1	E103-RTL8711DA-PS & E103-RTL8711DA-XS	The E103-RTL8711DA-PS is a general-purpose module supporting 2.4 & 5 GHz dual-band operation , compliant with BLE 5.0 and IEEE 802.11b/g/n standard protocols , and uses an onboard PCB antenna. Users can also contact EBITE staff to replace it with the IPEX-1 antenna version module—E103-RTL8711DA-XS.
2	Pin Header	All available GPIO pins are brought out to the development board's header.
3	Pin Header	All available GPIO pins are brought out to the development board's header.
4	USB Type-C to UART interface	the E103-RTL8711DA-PS via the onboard USB to UART bridge .
5	CHIP_EN button	Reset button .
6	Download button	Download button. Press and hold the Download button while pressing the CHIP_EN button to enter "Firmware Download" mode and download the firmware via serial port.

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7	Serial port pin header	A jumper cap is installed by default at the factory.

Note:

1. The official website provides corresponding schematic diagrams, which users can download and view.
2. For specific function instructions, please refer to the E103-RTL8711 user manual.

2.2 Pin Distribution

The image below shows the back of the E103-RTL8711DA-PS-TB:

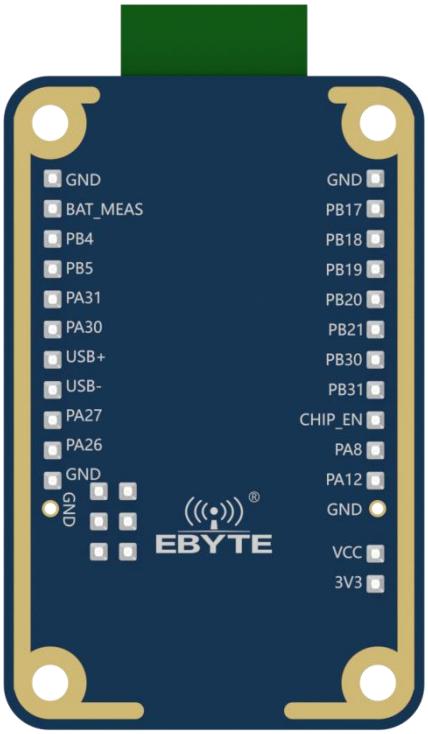


Figure 3 Current test interface diagram

Note:

1. The official website provides corresponding schematic diagrams, which users can download and view.
2. AT commands use UART for communication by default, and the pin functions are defined as follows:

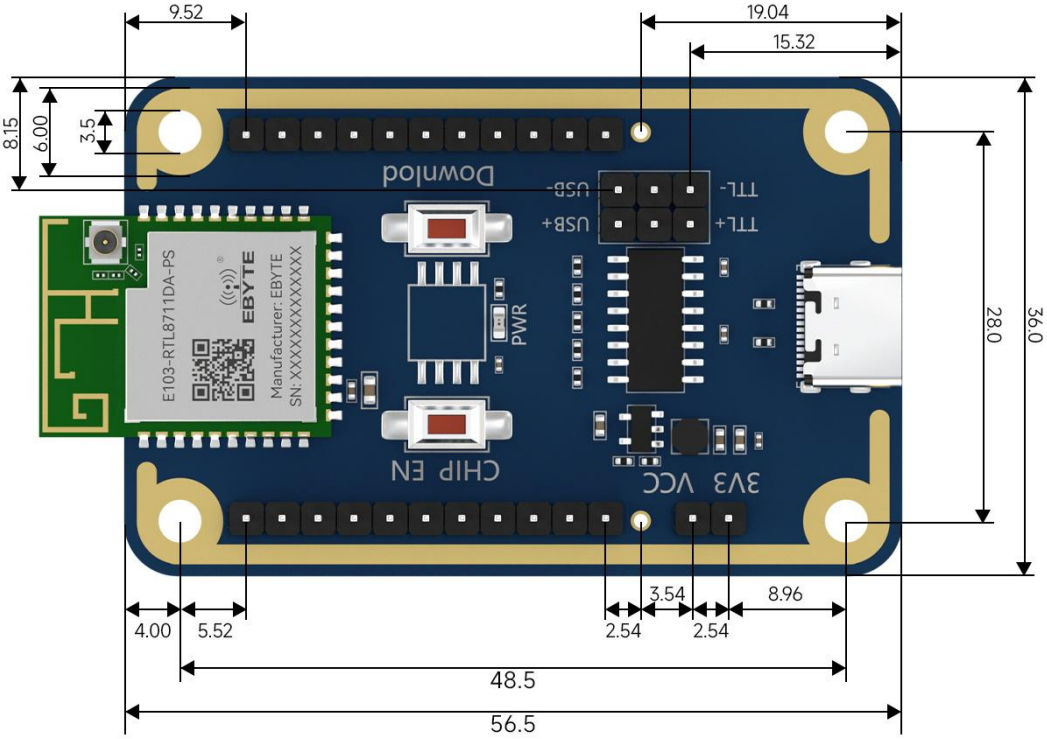
pin	Function	Remark
PB30	RX	● Baud rate: 115200 ● Data bits: 8 bits ● Stop bit: 1 bit

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pin	Function	Remark
PB31	TX	● Check digit: None ● Command suffix: Carriage Return/Line Feed (CRLF) ● For detailed instructions, please refer to the "AT Command Manual".

2.3 Mechanical Dimensions Drawing



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4. Version Information

Version	Revision Date	Revision Notes	maintainer
1.0	2026-06-12	Initial version	ALL

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