

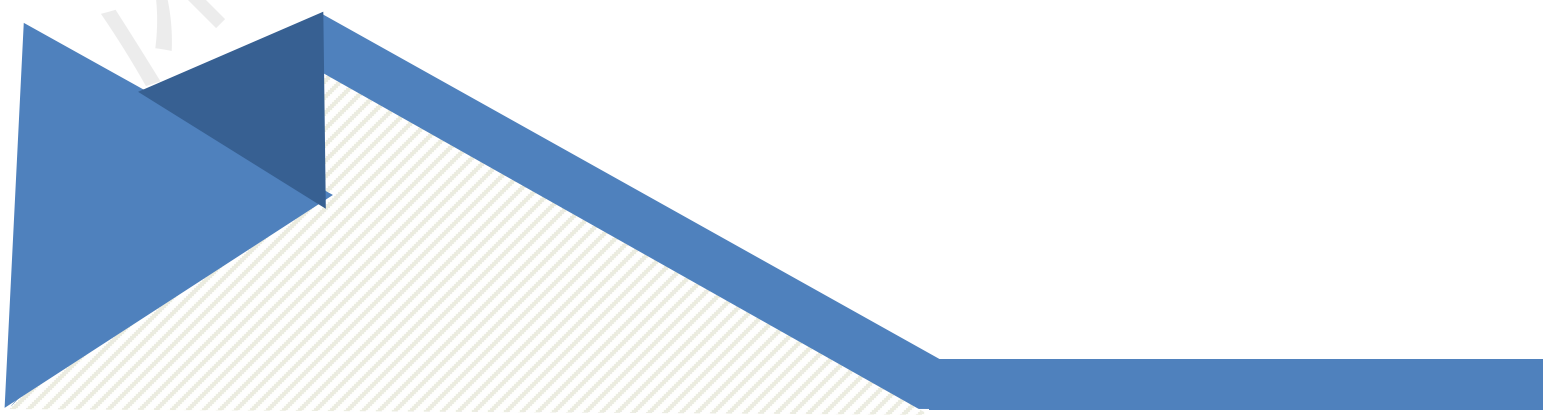


DX-WF25-A

Development board user manual

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Update Record

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1. Introduction

1.1. Component introduction

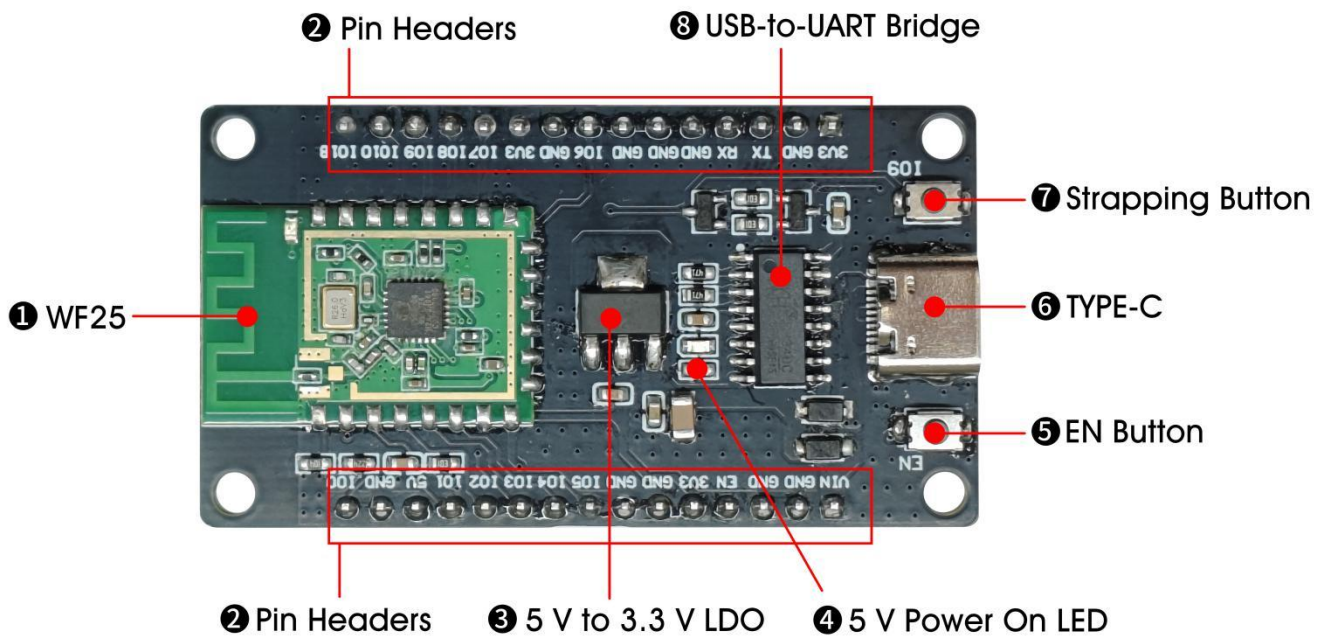


Fig. 1 Front view for DX-WF25-A

The following describes the main components on the development board in counterclockwise order:

Table. 1 Main component

Num.	Major component	Description
1	WF25	The WF25 is a versatile Wi-Fi and Bluetooth Low Energy dual-mode module with powerful features. The module uses PCB onboard antenna and is configured with 1 MB/2 MB/4 MB SPI flash
2	Pin Headers	All available GPIO pins have been drawn to the development board's row pins. See Fig.1 for more information



3	5 V to 3.3 V LDO	Power converter, input 5 V, output 3.3V
4	5 V Power On LED	After the development board is connected to the TYPE-C power supply, the indicator lights up
5	EN Button	Enable/reset button
6	TYPE-C	TYPE-C Indicates the interface. It can be used as the power supply of the development board or the communication interface between PC and ESP8684 chip
7	Strapping Button	Download button. The Firmware Download mode is displayed, and the firmware is downloaded through the serial port
8	USB-to-UART Bridge	Single chip USB to UART bridge

2. Hardware overview

2.1. Functional block diagram

The main components and connection modes of the DX-WF25-A are shown in the following figure:

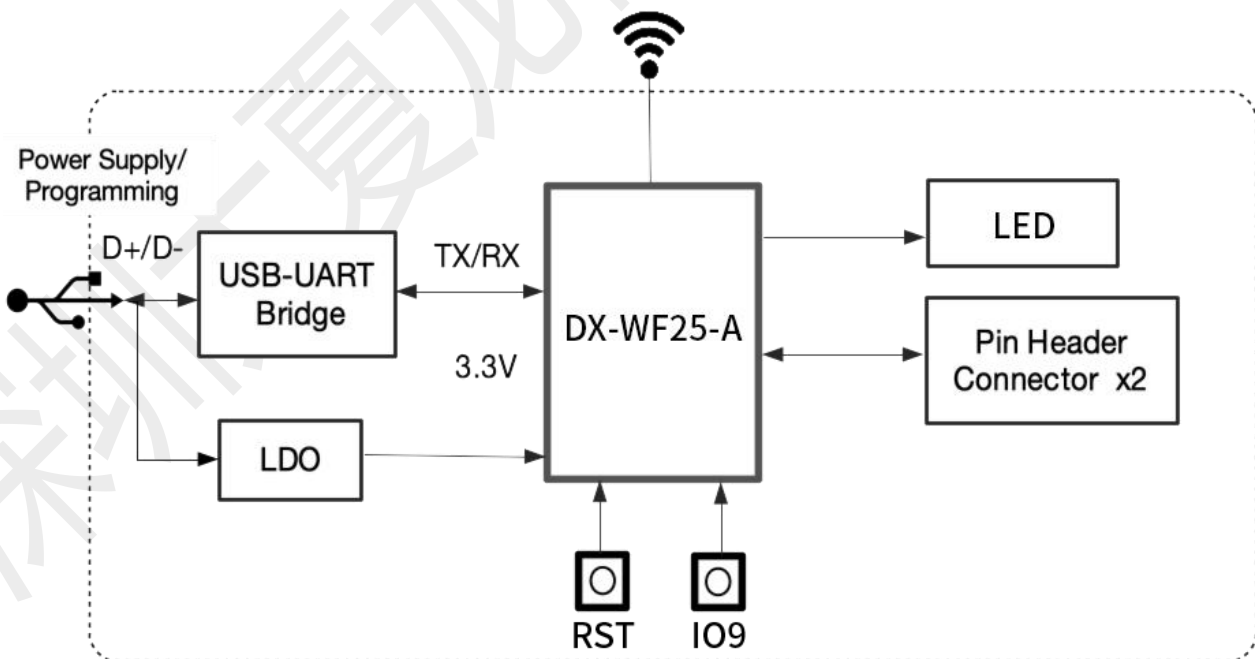


Fig. 2 DX-WF25-A



2.1.1. Power options

You can power the board in one of the following three ways:

- TYPE-C port power supply, Default power supply mode (recommended)
- 5V and G (GND) bar pin power supply
- 3V3 and G (GND) bar pin power supply

2.2. Module interface definition

The following table lists the names and functions of the pins (J1 and J2) on both sides of the development board. The names of the pins are shown on **Fig.1** and the serial numbers of the pins are consistent with the schematic diagram of the development board.

Table. 2 J1

Num.	Pin Name	Type	Function
1	VIN	P	5V POWER SUPPLY
2	GND	G	GND
3	GND	G	GND
4	EN	I	Reset ; High: Enable ; Low: Off
5	3V3	P	3.3V POWER SUPPLY
6	GND	G	GND
7	GND	G	GND
8	IO5	I/O/T	GPIO5,MTDI, FSPIWP
9	IO4	I/O/T	GPIO4, ADC1_CH4, MTMS, FSPIHD
10	IO3	I/O/T	GPIO3, ADC1_CH3
11	IO2	I/O/T	GPIO2, ADC1_CH2, FSPIQ
12	IO1	I/O/T	GPIO1, ADC1_CH1
13	5V	P	5V POWER SUPPLY
14	GND	G	GND
15	ADC	I/O/T	GPIO0, ADC1_CH0



Table. 3 J2

Num.	Pin Name	Type	Function
1	3V3	P	3.3V POWER SUPPLY
2	GND	G	GND
3	TX	I/O/T	GPIO20
4	RX	I/O/T	GPIO19
5	GND	G	GND
6	GND	G	GND
7	GND	G	GND
8	IO6	I/O/T	GPIO6, MTCK, FSPICLK
9	GND	G	GND
10	3V3	P	3.3V POWER SUPPLY
11	IO7	I/O/T	GPIO7, MTDO, FSPID
12	IO8	I/O/T	GPIO8
13	IO9	I/O/T	GPIO9
14	IO10	I/O/T	GPIO10, FSPICS0
15	IO18	I/O/T	GPIO18

Remarks:

- 1.P: power supply I: input; O: Output; T: Can be set to high resistance.
- 2.GPIO8 and GPIO9 are Strapping pins of the ESP8684 chip. During chip power-on and system reset, the Strapping pin controls the chip function according to the binary voltage value of the pin.



3. Size and Layout

3.1. Size and Pin definition

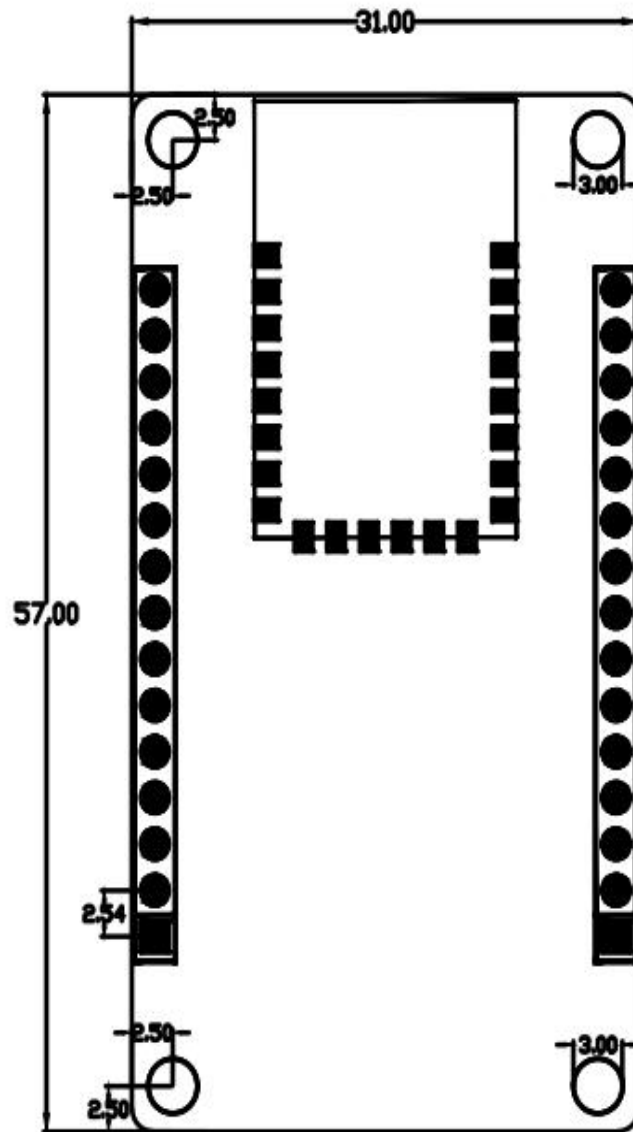


Fig. 3 Size for development board

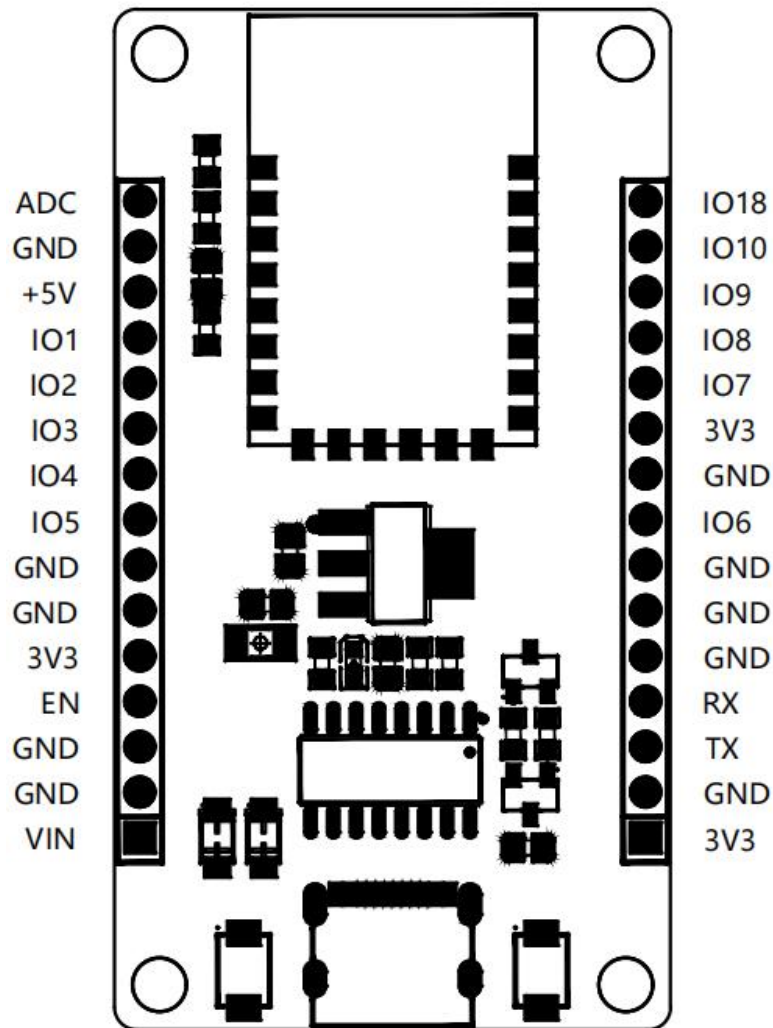


Fig. 4 Development board pins definition