

CH223 Demo Board Reference

Version: V1.1

<https://wch-ic.com>

1. Overview

This evaluation board is applied to demonstrate the development routines of CH223P chip, which is used with CH32V203RBT6 main control evaluation board. IDE uses MounRiver compiler, and you can choose to use the on-board or independent WCH-Link for emulation and download, the reference examples are in the EVT\EXAM\APPLICATION\ of CH32V203EVT. USBPD\I2C_OP_CH223 folder, you can download the relevant code from the official website.

2. Demo Board Hardware

For the schematic of the Demo board, please refer to the CH223P-R0-1v0.pdf documentation.

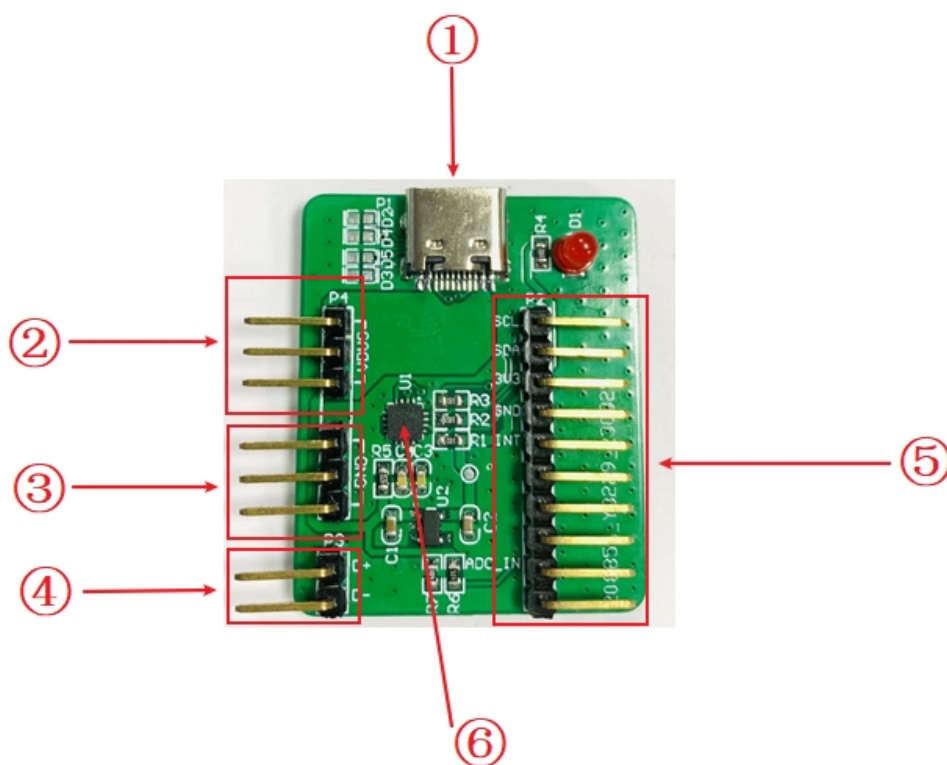


Figure 1 Physical diagram of CH223 Demo board

Description

- | | | |
|---------------------------------|-----------------------------|-----------------|
| 1. USB Type-C power supply port | 3. GND | 5. Drive socket |
| 2. VBUS output | 4. D+ D- communication port | 6. Main control |

The above CH223 Demo board is equipped with the following resources:

1. USB Type-C power supply port: Used to connect fast charging head and complete interactive power supply
2. VBUS output: For voltage output after electrification
3. GND: GND connection for receiving power
4. D+, D- communication port: For USB communication
5. Driver Jack: Interface connection for IIC and ADC and MCU
6. Main control: CH223 powered chip

3. Instructions

Compile the routine code, download the code to the CH32V203RBT6 main control evaluation board (For more information on the process of downloading the code, see *CH32V20x Evaluation Board Reference .pdf*), and complete the hardware plug shown in figure 2.

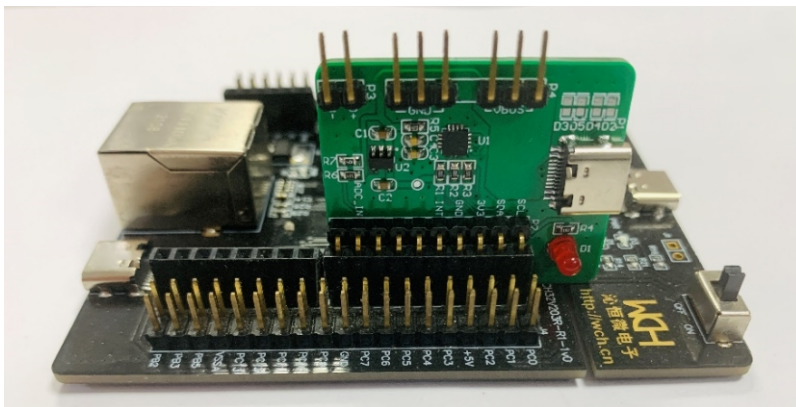


Figure 2 physical diagram of hardware patch

Use the WCH-Link, CH32V203RBT6 main control evaluation board connects the PA9 to the WCH-Link RX side, and connects the GND to the WCH-Link GND side, connects the host computer. The host computer opens the COMTransmit software (can be downloaded from WCH official website), and the configuration is shown in figure 3. Refresh the serial port number and configure the baud rate as 115200.



Figure 3 Serial Port configuration Diagram

Use the quick charging head to directly power the USB of the Demo board, and do not supply power to the CH32V203RBT6 main control evaluation board alone, and the Demo board supplies power to the main control evaluation board as shown in figure 4.

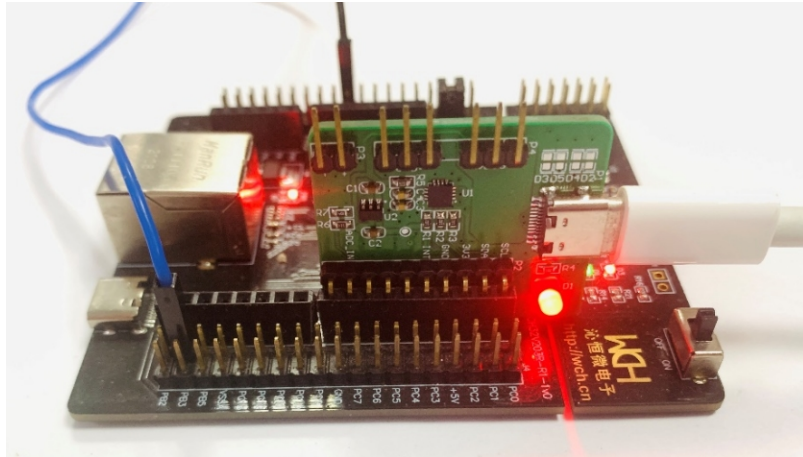


Figure 4 Physical diagram of power supply

View the data printed by the serial port, as shown in figure 5. You can also use the multimeter to measure the VBUS output for verification.

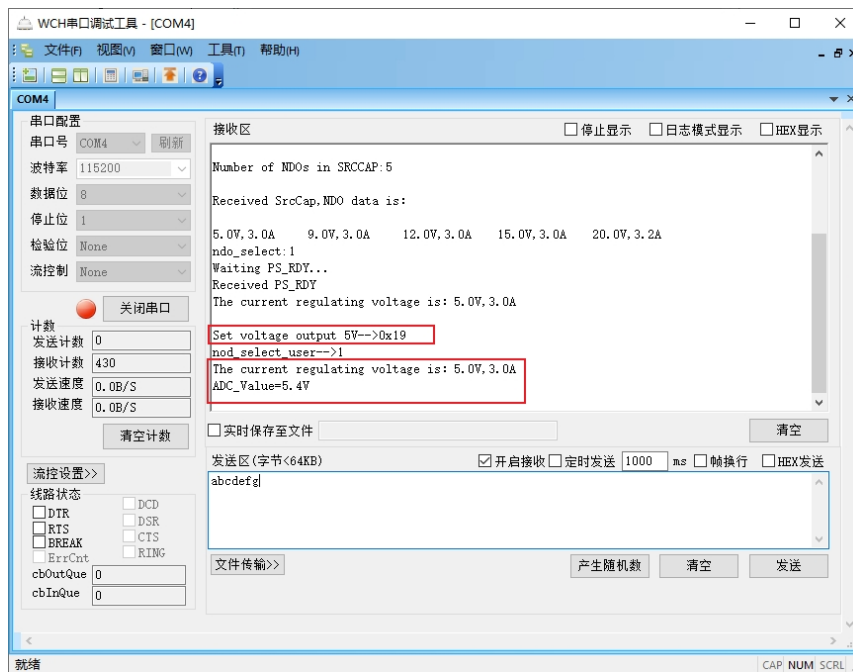


Figure 5 Serial port print diagram