



GUI User Manual

REVISION HISTORY

Revision	Description of Change	Release Date
V1.0	Initial released.	2026/06/18

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1. Supported Functions

- Support Select Specific Chip Testing
- Support General I²C Test
- Support General SPI Test (Todo List)
- Support SWIRE Test
- Support 100kHz, 400kHz, 1MHz Generic I²C
- Support 3.4MHz, High-Speed, 3.3V I²C
- Generic I²C Support Voltage: 0.9V to 5.5V
- Support up to 36MHz SPI
- Support 2-Channel SWIRE
- Support Multiple GPIO Output
- Support Automatic Firmware Upgrade

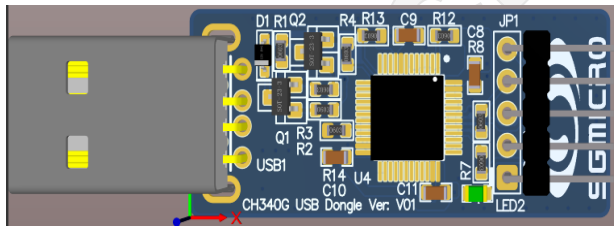
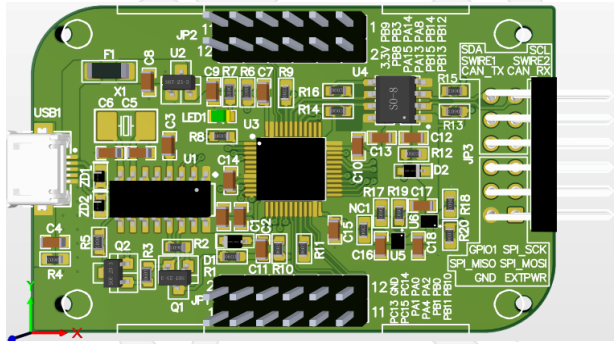


Figure 1. Main Page

2. Different Dongle Feature

Type	Shape	I ² C Voltage	I ² C Pull Up	I ² C Freq.	SPI	SWIRE	GPIO	Can	Driver
I		3.3V	2.2kΩ	100kHz/400kHz 1MHz/3.4MHz	X	√	√	X	CH340
II		3.3V 0.9~ 5.5V	2.2kΩ	100kHz/400kHz 1MHz 3.4MHz	√	√	√	√	CH340

3. Dongle Pin Introduce

Type	Board	Pin																								
I		<table><tr><td>1</td><td>SWIRE1</td></tr><tr><td>2</td><td>SWIRE2</td></tr><tr><td>3</td><td>SCL</td></tr><tr><td>4</td><td>SDA</td></tr><tr><td>5</td><td>GND</td></tr></table>	1	SWIRE1	2	SWIRE2	3	SCL	4	SDA	5	GND														
1	SWIRE1																									
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4	SDA																									
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II		<table><tr><td>1</td><td>SDA</td><td>2</td><td>SCL</td></tr><tr><td>3</td><td>SWIRE1</td><td>4</td><td>SWIRE2</td></tr><tr><td>5</td><td>CAN_TX/GPIO2</td><td>6</td><td>CAN_RX/GPIO3</td></tr><tr><td>7</td><td>GPIO1</td><td>8</td><td>SPI_SCK</td></tr><tr><td>9</td><td>SPI_MISO</td><td>10</td><td>SPI_MOSI</td></tr><tr><td>11</td><td>GND</td><td>12</td><td>ExtPwr</td></tr></table>	1	SDA	2	SCL	3	SWIRE1	4	SWIRE2	5	CAN_TX/GPIO2	6	CAN_RX/GPIO3	7	GPIO1	8	SPI_SCK	9	SPI_MISO	10	SPI_MOSI	11	GND	12	ExtPwr
1	SDA	2	SCL																							
3	SWIRE1	4	SWIRE2																							
5	CAN_TX/GPIO2	6	CAN_RX/GPIO3																							
7	GPIO1	8	SPI_SCK																							
9	SPI_MISO	10	SPI_MOSI																							
11	GND	12	ExtPwr																							

NOTE:

All Dongle's I²C pins are pull-up to internal 3.3V source with 2.2kΩ. If test different levels I²C communication, please use a type II Dongle and provide an external power supply to ExtPwr. Since there is a series diode on the ExtPwr pin, there will be a voltage drop on the I²C bus level from external power supply.



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4. First Using or Specific Chip Testing

- Click "Help" -> "Install Driver"; if failed, please click "SETUP.EXE" to install in folder.
- Click "USB Connect" to connected Dongle; if failed, please replug Dongle, and to retry after 5 seconds, more you can reopen "USB GUI.exe".
- Select the chip name you want to test: If it's blue Dongle on your hand, you should select "USB-Devices"; if the chip is UART communicate, you should select "USB-2-UART" and use "USB-2-TTL Small Board" to test.
- You can enter to chip test page only when the demo power on and communicate succeeded.

5. General I²C Test Modules

NOTE:

1. Select the slave address (7 Bit) and enter the hexadecimal register address.
2. Select the I2C Frequency
3. Select operation mode for block operation. Block: I2C continue read write, Single: I2C single read write
4. Click table or input Reg Address.
5. Input read length or write length according to your operation
6. The read data, or write data, would shown in right table.

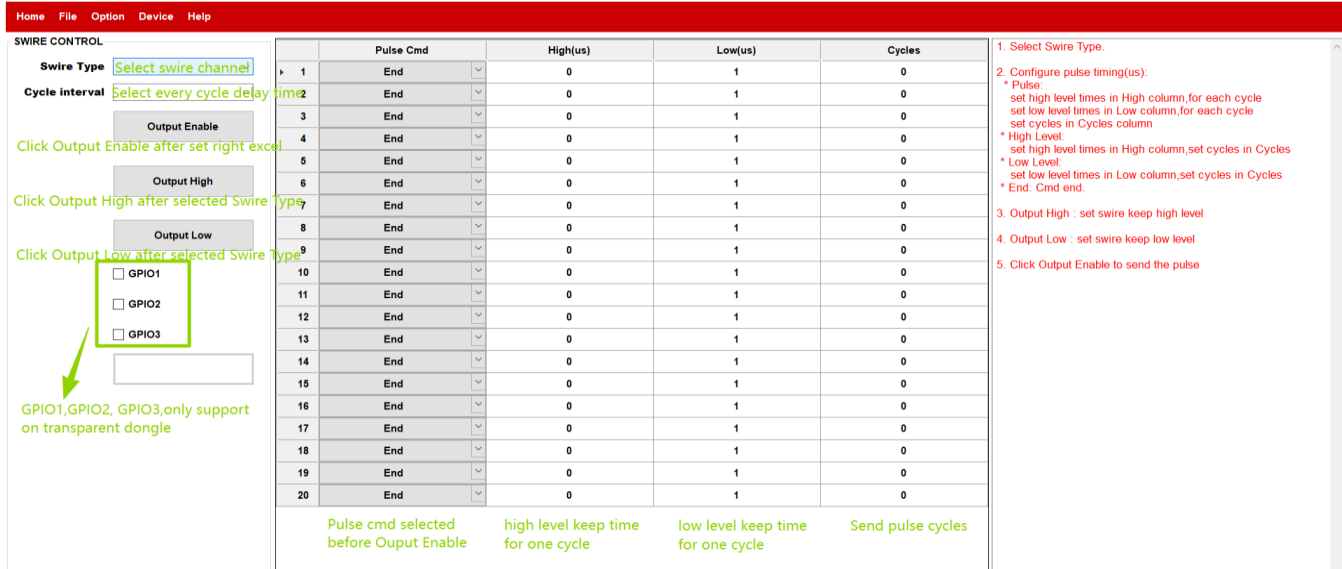
Register data display: read or write data display, if write data, you need to fill data into this excel

Figure 2. General I²C Page

6. General SPI Test

Todo List

7. Swire Test



SWIRE CONTROL

Swire Type:

Cycle interval:

Output Enable:

Output High:

Output Low:

☐ GPIO1
☐ GPIO2
☐ GPIO3

GPIO1,GPIO2, GPIO3,only support on transparent dongle

	Pulse Cmd	High(us)	Low(us)	Cycles
1	End	0	1	0
2	End	0	1	0
3	End	0	1	0
4	End	0	1	0
5	End	0	1	0
6	End	0	1	0
7	End	0	1	0
8	End	0	1	0
9	End	0	1	0
10	End	0	1	0
11	End	0	1	0
12	End	0	1	0
13	End	0	1	0
14	End	0	1	0
15	End	0	1	0
16	End	0	1	0
17	End	0	1	0
18	End	0	1	0
19	End	0	1	0
20	End	0	1	0

Pulse cmd selected before Output Enable high level keep time for one cycle low level keep time for one cycle Send pulse cycles

- Select Swire Type.
- Configure pulse timing(us):
 - * Pulse: set high level times in High column,for each cycle set low level times in Low column,for each cycle set cycles in Cycles column
 - * High Level: set high level times in High column,set cycles in Cycles
 - * Low Level: set low level times in Low column,set cycles in Cycles
 - * End: Cmd end.
- Output High : set swire keep high level
- Output Low : set swire keep low level
- Click Output Enable to send the pulse

Figure 3. Swire Page

8. Question List

- If click "USB Connect" no response;
If you see prompt as follows:

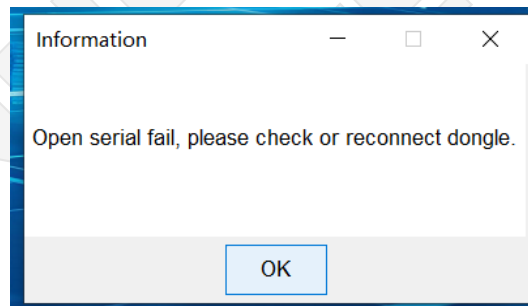


Figure 4

Replug the dongle: it may have been disconnected by Windows USB power-saving management, or damaged due to improper hot-plugging.



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2. If you see prompt as follows:

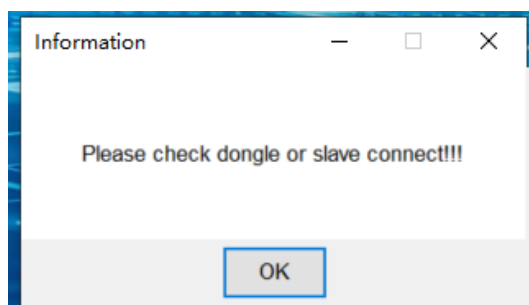


Figure 5

Replug the dongle or check slave device connection: confirm SDA/SCL wiring and normal power supply for the slave. If the problem remains, capture the waveform to verify the slave address. Contact me if there is an address mismatch.

3. If you Click "Read ALL" no response in some IC page.
Exit and restart "USB GUI.exe", then reinsert the dongle to reconnect. Windows may disable USB power automatically via its power-saving settings.

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