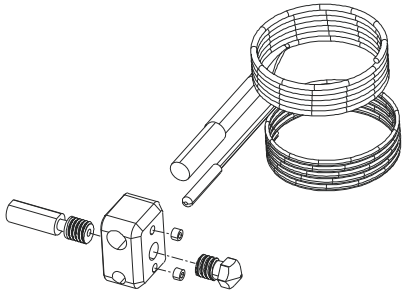


User Manual

Biqu

H2 500℃ Upgrade KIT

H2 500℃ upgrade kit, which works on H2 extruder, is developed by 3D printing R & D team of Shenzhen Big Tree Technology Co., Ltd. It is designed to meet geeks' demand.

Features:

☆ Maximum printing temperature: 500℃

☆ Titanium & copper heat break, lower thermal conductivity, thermal isolation

☆ For H2 extruder

☆ The nozzle is made of high temperature resistant hardened steel to ensure filament extrusion under high temperature

☆ Adopt red copper nickel-plated heating aluminum block, no color change at 500 ℃.

Note: The all-metal heat break is only compatible with H2 extruder. If you need to use other models, just replace the heat break.

Heating rod specification:

Size of Heating Rod head:5*20mm
Power:70W
Operating voltage:24V

Thermistor Specification:

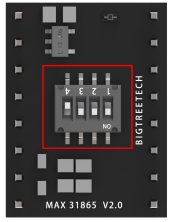
Size of thermistor head: ϕ4x30mm
Withstand high temperature: 500℃
Input：PT100

Fan specification:

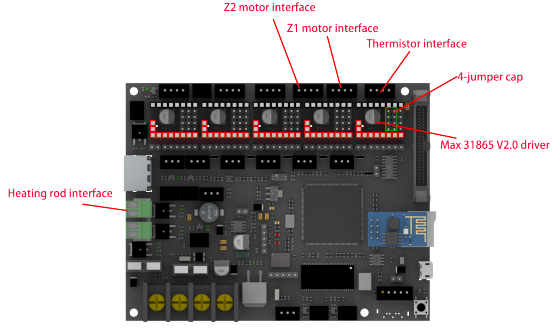
Size:35*35*10mm
Voltage:24v
Speed:9000rpm (±10%)
Cable length:1000mm
Terminal block:DuPont,2.54 pitch

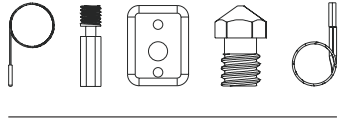
I. Hardware Configuration

Driver：MAX31865 V2.0
To select PT100 mode. Select ON for 1 to 3 and OFF for 4.



Cable connection:





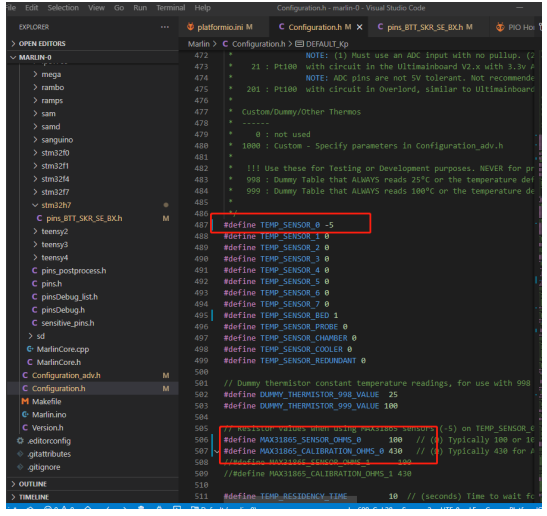
www.biqu3d.com

II. Firmware modification (marlin bugfix-2.0.x.2021.7.07)

Nozzle 0 as shown. Nozzle 1 is the same.

（1）Configuring the configuration.h file

```
#define TEMP_SENSOR_0 -5
#define MAX31865_SENSOR_OHMS_0      100   // (Ω) Typically 100 or 1000 (PT100 or PT1000)
#define MAX31865_CALIBRATION_OHMS_0 430   // (Ω) Typically 430 for Adafruit PT100; 4300 for Adafruit PT1000
```

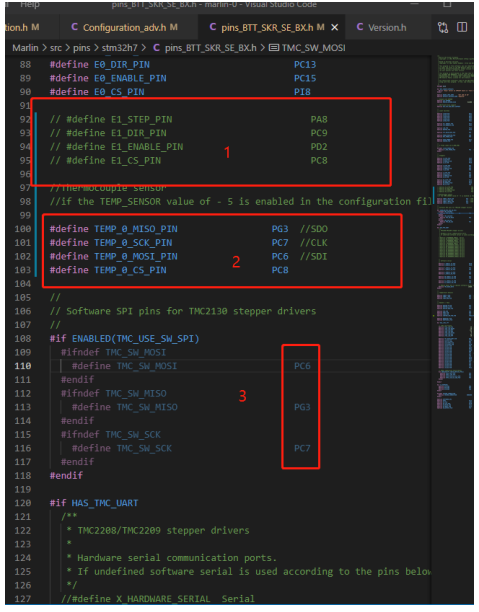


（2）Configure the configuration_adv.h file

Configure the following options:

```
#define THERMOCOUPLE_MAX_ERRORS       20
#define MAX_CONSECUTIVE_LOW_TEMPERATURE_ERROR_ALLOWED  10
#define SHOW_TEMP_ADC_VALUES
#define M115_GEOMETRY_REPORT
```

（3）PIN file configuration



1）Select the driver interface，delete the original driver definition，to avoid interference

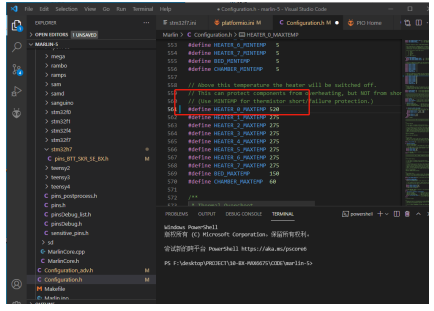
As shown, take BIQU BX motherboard as an example, select E1 driver interface to connect max31865V 2.0 module.

2）SPI pin of "#define "

```
//Thermocouple sensor
//if the TEMP_SENSOR value of - 5 is enabled in the configuration file, it will work
#define TEMP_0_MISO_PIN        PG3  //SDO
#define TEMP_0_SCK_PIN         PC7  //CLK
#define TEMP_0_MOSI_PIN        PC6  //SDI
#define TEMP_0_CS_PIN          PC8
```

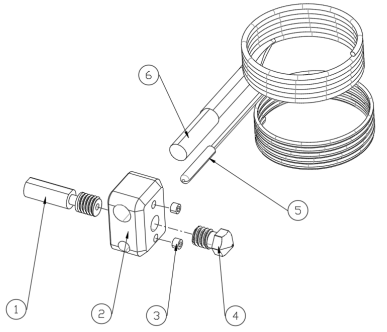
3）Please note that the SPI pins need to be the same as that used by the TMC driver.

（4）Modify the maximum temperature



```
#define HEATER_0_MAXTEMP 520
```

Maximum temperature over 500°C



1.All- metal heat break

2.Heating block

3.M3 set screw

4.Print nozzle

5.Thermistor

6. Heating rod