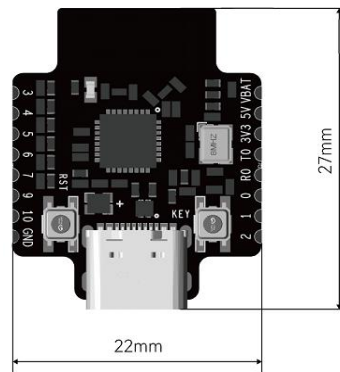


# 1.CyberBrick Module Specifications

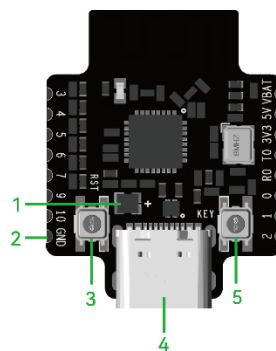
This is an early preview version created on 2025/03/19. Content is subject to change.

## 1.1. Multi-Function Controller Core-XA003

Integrated Bluetooth & WiFi, Support MicroPython Programming



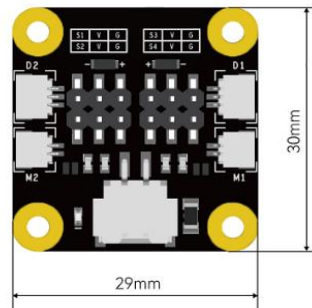
Parameter	Value
Type-C Input Voltage	DC 5V
VBAT Input Voltage	3.7V~12.6V
Antenna Type	PCB Antenna
Weight	6g



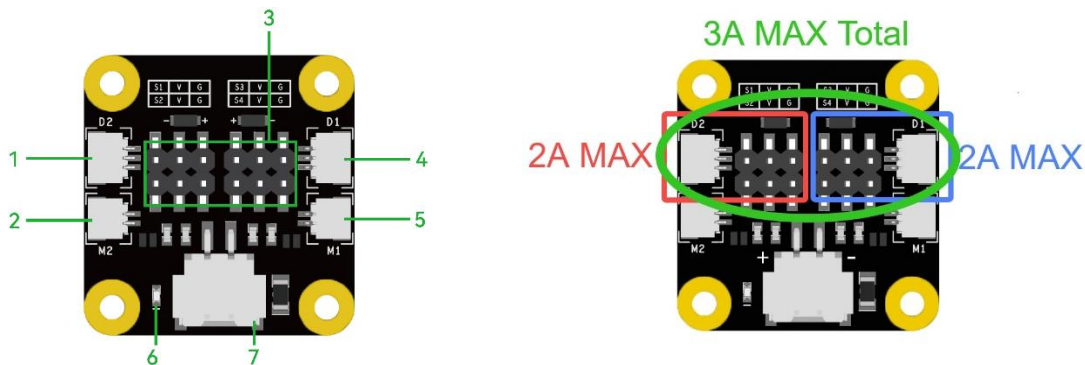
Item	Function
1	WS2812LED - RGB System Status Indicator
2	Stamp Cut - Solderable pinout (for integrating non-CyberBrick parts)
3	Reset Button - Reset Main Program
4	Type-C Port - Burning Firmware& Programming
5	User Button - Custom Function

## 1.2. Remote Control Receiver Shield -XA004

2CH DC Motor Driver, 4CH PWM Driver, 2CH WS2812 LED output.



Parameter	Value
Input Voltage	DC 7.4V – 12.6V
Current	Standby current 60mA, Working current 200~300mA, Maximum current 3A
Output	4CH PWM, 2CH MOTOR, 2CH LED
Weight	6g



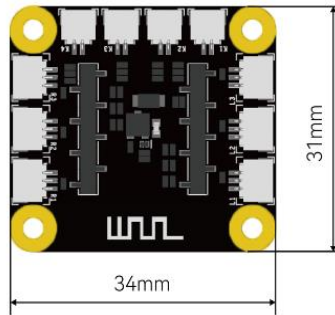
Each of Left/Right side PWM&LED ports share a maximum current of 2A.

Total PWM&LED maximum current is 3A.

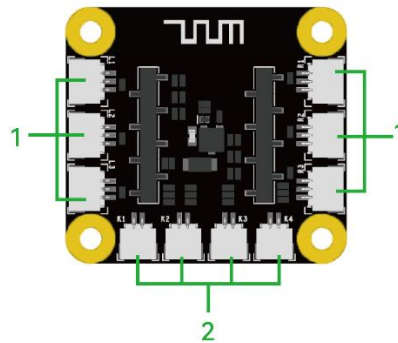
Port	Function
1	WS2812 Port 1 - SH1.0 3P LED port for WS2812LED strip
2	DC Motor Port 1 - SH1.0 2P DC motor port. Output voltage equal to power input voltage. Maximum current 1A.
3	4 Servo Ports -PWM output for servos. 5V VCC.
4	WS2812 Port 2 - SH1.0 3P LED port for WS2812LED strip
5	DC Motor Port 2 - SH1.0 2P DC motor port. Output voltage equal to power input voltage. Maximum current 1A.
6	Power Indicator - White light means power on.
7	Power Input - XH2.54 2P DC power input.

### 1.3. Remote Control Transmitter Shield -XA005

6CH ADC Input, 4CH Digital input



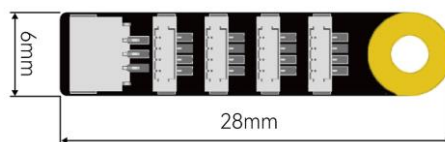
Parameter	Value
Input Voltage	DC 4.5 – 12.6V
Working Current	65mA
Input Channel	6CH ADC, 4CH Digital
Weight	5.5g



Port	Function
1	ADC input port – Connecting ADC modules such as joystick
2	Digital input port - Connecting binary-input modules such as momentary button

## 1.4. WS2812 LED Hub-XA006

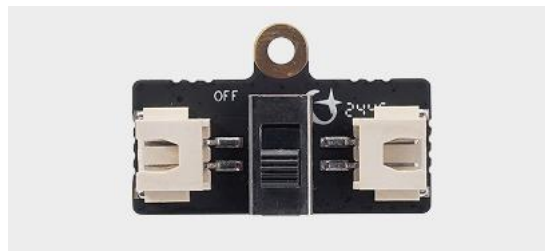
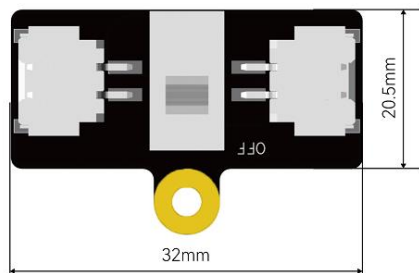
Connect up to four WS2812 RGB LED



port	Function
1	Input port – 3P SH1.0, 5V
2	Output port – IDC 0.8 4P

## 1.5. Power Switch Module-XA007

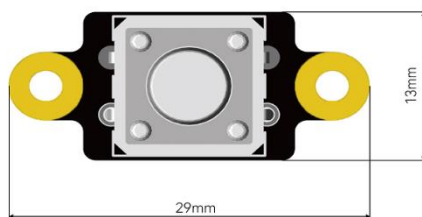
Battery On/Off Switch



Parameter	Value
Input Voltage	Maximum 12.7V
Weight	4.1g
Connector	XH2.54 2P

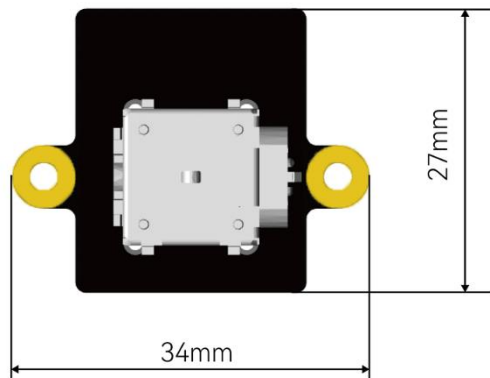
## 1.6. Momentary Button Module-XA008

Digital Input Module



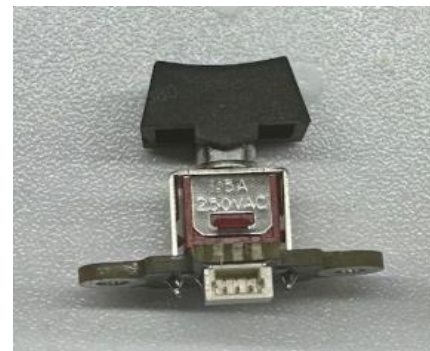
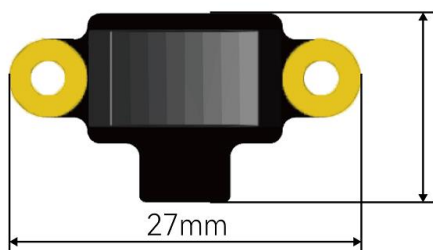
## 1.7. Single-Axis Joystick Module- XA009

Single Channel ADC Input Module



Parameter	Value
Input Voltage	3.3V
Output Signal Type	ADC
Output Channel	1CH
Sensor Type	Potentiometer
Electrical resistance	10kΩ
Weight	6.15g
Connector	3-pin SH1.0

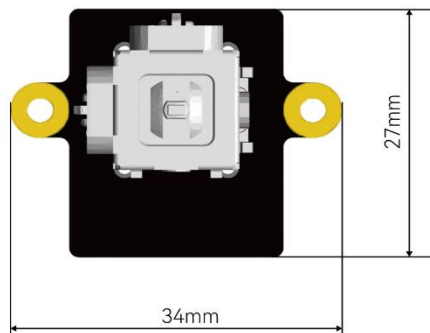
## 1.8. Three-Position Rocker Switch Module-XA010



Parameter	Value
Input Voltage	3.3V
Output Signal Type	ADC
Position	3
Weight	2.73g
Connector	3-pin SH1.0

## 1.9. Dual-Axis Joystick Module - XA011

2CH ADC Output



Parameter	Value
Output Signal Type	ADC
Output Channel	2CH
Sensor Type	Potentiometer
Electrical resistance	10k $\Omega$
Connector	3-pin SH1.0 * 2
Weight	6.6g

## 1.10. WS2812 RGB LED - KB003



Parameter	Value
Input Voltage	3.5~5.3V
Connector	IDC 0.8mm 4P

## 1.11. Li-on Battery

2S 700mAh Li-on Battery with XH2.54 2P Connector

