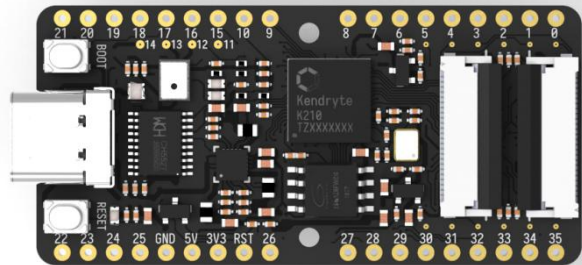
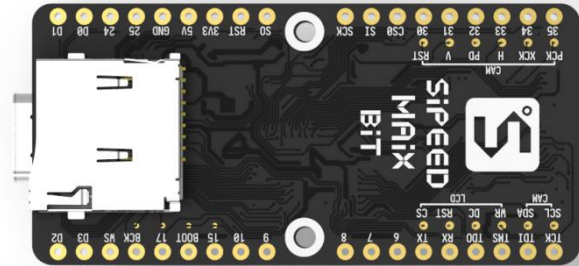


# Sipeed Maix-BIT Specifications v2.0

## Characteristic:

- CPU : RISC-V Dual Core  
64bit, with FPU, 400Mhz  
standard Frequency(Can be  
overclocked)
- 24P DVP connector
- 24P 8bit MCU LCD connector
- MEMS microphone :  
MSM261S4030H0  
Sensitivity : -26(dB,dBFS  
@1kHz 1Pa)
- Compact size:  
53.3\*25.4mm  
Can be connected to the  
breadboard directly
- Download circuit:  
Just connect the USB typeC  
cable to complete the  
download
- Onboard component:  
RGB LED \ RST button and USR  
button \ MicroSD card(TF card)  
slot



Version 2.0

Sipeed

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Update record	
V1.0	Edited on February 28, 2019 ; Original document
V2.0 (PCB was changed)	1、 Added MEMS microphone 2、 CH340 was changed to CH552 3、 24P connectors(Front lock) were changed to 24P connectors(rear lock) 4、 Added two LEDs to display serial state  Added the website of Sipeed model shop Updated "Overall description" Updated the picture of Outlook information

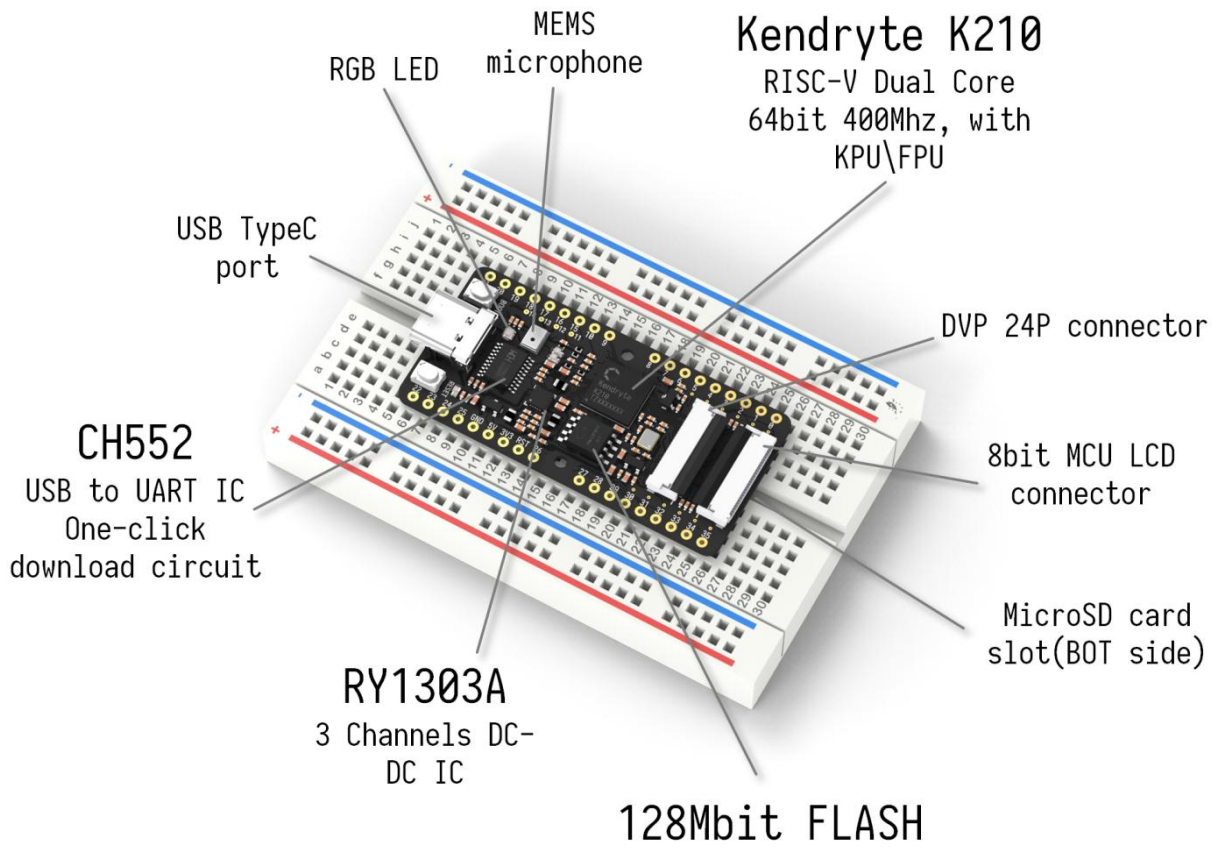
FEATURES OVERVIEW	
CPU : RISC-V Dual Core 64bit, 400Mh adjustable	Powerful dual-core 64-bit open architecture-based processor with rich community resources
Debugging Support	UART and JTAG interface for debugging
GPIO interface	All GPIOs were connected to 2.54mm pin header and pads
Micro SD card (TF card) slot	Support Self-elastic card holder
One-click Download circuit	Just connect the USB typeC cable to complete the download Onboard CH552T, which support Baudrate 1.5Mbps/750kbps/375kbps/187.5kbps/115200 bps and below
DVP Camera connector	24P 0.5mm FPC connector
LCD connector	8bit MCU LCD 24P 0.5mm FPC connector
Button	RST button and USR button
Onboard MEMS microphone	MSM261S4030H0 is an omnidirectional, Bottom-ported, I 2 S digital output MEMS Microphone. It has high performance and Reliability.

SOFTWARE FEATURES	
FreeRtos & Standard SDK	Support FreeRtos and Standrad development kit.
MicroPython Support	Support MicroPython on M1
Machine vision	Machine vision based on convolucional neural network
Machine hearing	High performance microphone array processor

**HARDWARE FEATURES**

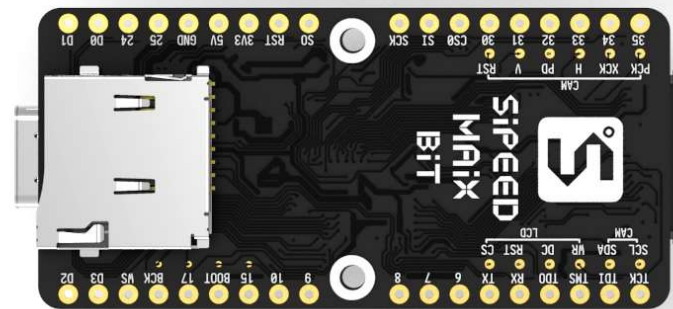
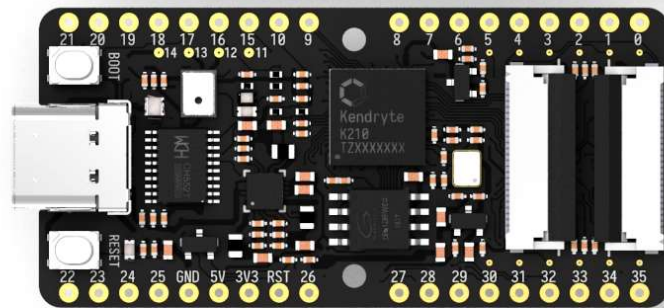
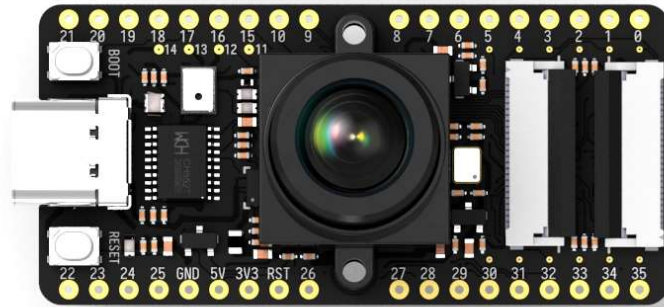
Supply voltage of external power supply	4.8V ~ 5.2V
Supply current of external power supply	>600mA
Temperature rise	<30K
Range of working temperature	-30°C ~ 85°C

**Overall description**



**Outlook information**

Size: 53.3x 25.4 x 13.0 mm



Maix-Bit-V2.0(Pin assignment table)				
Maix-Bit V2.0 silk	K210 IO	Function	Remark	IO Voltage
RST	Dedicated pin	K210_RST	10K pull up	1.8V
0	I00	JTAG_TCK		3.3V
1	I01	JTAG_TDI		
2	I02	JTAG_TMS		
3	I03	JTAG_TDO		
4	I04	K210_ISP_RX		
5	I05	K210_ISP_TX		
6	I06			
7	I07			
8	I08			
9	I09			
10	I010			
11	I011			
12	I012	LED_G		
13	I013	LED_R		
14	I014	LED_B		
15	I015			
16	I016	K210_BOOT	10K pull up	
17	I017			
18	I018	MIC_BCK	MEMS microphone	
19	I019	MIC_WS		
20	I020	MIC_DAT3		
21	I021			
22	I022			
23	I023			
24	I024			
25	I025			
26	I026	SPI0_MISO	TF card	
27	I027	SPI0_SCLK		
28	I028	SPI0_MOSI		
29	I029	SPI0_CS0		
30	I030			
31	I031			
32	I032			
33	I033			
34	I034			
35	I035			
	I036	LCD_CS		1.8V
	I037	LCD_RST		
	I038	LCD_DC		
	I039	LCD_WR		
	I040	DVP_SDA	4.7K pull up	
	I041	DVP_SCL		
	I042	DVP_RST		
	I043	DVP_VSYNC		
	I044	DVP_PWDN		
	I045	DVP_HSYNC		
	I046	DVP_XCLK		
	I047	DVP_PCLK		

Resource	
Website	<a href="http://www.sipeed.com">www.sipeed.com</a>
Github	<a href="https://github.com/Lichee-Pi">https://github.com/Lichee-Pi</a>
BBS	<a href="http://bbs.sipeed.com">http://bbs.sipeed.com</a>
Wiki	<a href="http://maixpy.sipeed.com">maixpy.sipeed.com</a>
Sipeed model shop	<a href="https://maixhub.com/">https://maixhub.com/</a>
SDK Relevant information	<a href="http://dl.sipeed.com/MAIX/SDK">dl.sipeed.com/MAIX/SDK</a>
HDK Relevant information	<a href="http://dl.sipeed.com/MAIX/HDK">dl.sipeed.com/MAIX/HDK</a>
E-mail(Technical Support and Business Cooperation)	<a href="mailto:support@sipeed.com">support@sipeed.com</a>
telgram link	<a href="https://t.me/sipeed">https://t.me/sipeed</a>



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