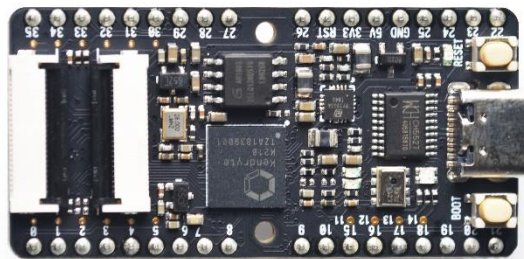


Sipeed MaixBit Datasheet

V2.0



Key Features:

- CPU : RISC-V Dual Core 64bit, with FPU , 400Mhz-500Mhz, Neural network processor
- 24P DVP Connector, 24P 8bit MCU LCD Connector
- MEMS Microphone: MSM261S4030H0
- Sensitivity: -26(dB, dBFS @1kHz 1Pa)
- Size: 53.3*25.4mm
- Download circuit: Complete download with USB Type-C cable
- Onboard component: RGB LED \ RST button and USR button \ MicroSD card(TF card) slot

UPDATE	
V1.0	2019/2/28 Published 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

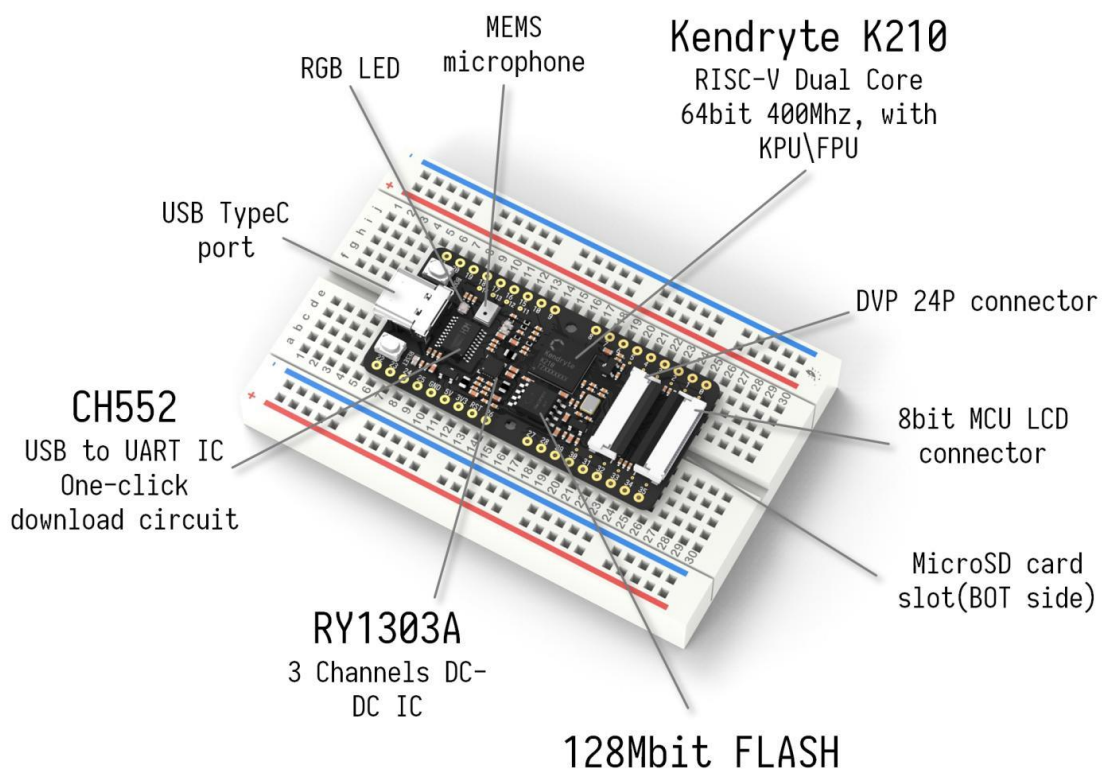
SPECIFICATION	
CPU	RISC-V Dual Core 64bit, 400Mh adjustable Powerful dual-core 64-bit open architecture-based processor with rich community resources
Debugging Support	UART and JTAG interface for debugging
GPIO interface	All GPIOs were connected to 2.54mm pin header and pads
Micro SD card (TF card) slot	Support Self-elastic card holder
One-click Download circuit	Use USB TypeC cable to complete the download Onborad CH552T, which support Baudrate 1.5Mbps/750kbps/375kbps/187.5kbps/115200 bps and below
DVP Camera connector	24P 0.5mm FPC connector(OV2640/OV7740/OV5640 Camera)
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, I2S digital output MEMS microphone with excellent performance and reliability.

SOFTWARE FEATURES	
FreeRtos & Standard SDK	Support FreeRtos and Standrad development kit.
MicroPython Support	Support MicroPython on M1

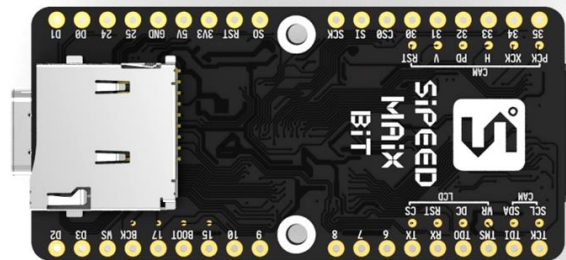
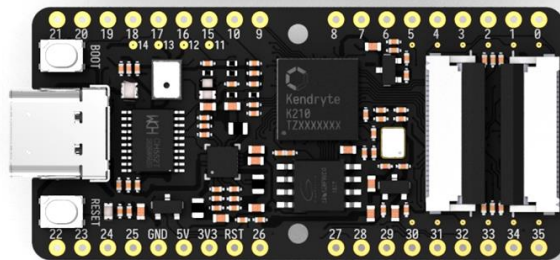
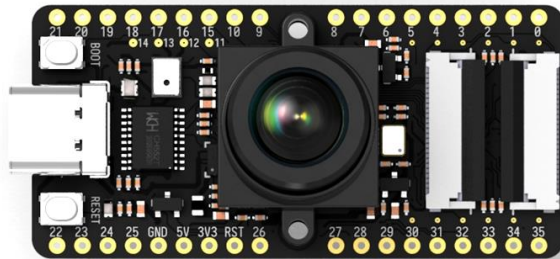
Machine vision	Machine vision based on convolutional neural network
Machine hearing	High performance microphone array processor

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

OVERVIEW



SIZE	
Length	53.3 mm
Width	25.4 mm
Height	13.0 mm



MaixBit V2.0(PIN ASSIGNMENT TABLE)				
MaixBit V2.0 Slik	K210 IO	Function	Remark	IO Voltage
RST	Dedicated pin	K210_RST	10K pull up	1.8V
0	IO0	JTAG_TCK		3.3V
1	IO1	JTAG_TDI		
2	IO2	JTAG_TMS		
3	IO3	JTAG_TDO		
4	IO4	K210_ISP_RX		
5	IO5	K210_ISP_TX		
6	IO6			
7	IO7			
8	IO8			
9	IO9			
10	IO10			
11	IO11			
12	IO12	LED_G		
13	IO13	LED_R		
14	IO14	LED_B		
15	IO15			
16	IO16	K210_BOOT	10K pull up	
17	IO17			
18	IO18	MIC_BCK	MEMS MIC	
19	IO19	MIC_WS		
20	IO20	MIC_DAT3		
21	IO21			
22	IO22			
23	IO23			
24	IO24			
25	IO25			
26	IO26	SPI0_MISO	TF card	
27	IO27	SPI0_SCLK		
28	IO28	SPI0_MOSI		
29	IO29	SPI0_CS0		
30	IO30			
31	IO31			
32	IO32			
33	IO33			
34	IO34			
35	IO35			
	IO36	LCD_CS		1.8V
	IO37	LCD_RST		
	IO38	LCD_DC		
	IO39	LCD_WR		
	IO40	DVP_SDA	4.7K pull up	
	IO41	DVP_SCL		
	IO42	DVP_RST		
	IO43	DVP_VSYNC		
	IO44	DVP_PWDN		
	IO45	DVP_HSYNC		
	IO46	DVP_XCLK		
	IO47	DVP_PCLK		

RESOURCES	
Official Website	www.sipeed.com
Github	https://github.com/Lichee-Pi
BBS	http://bbs.sipeed.com
Wiki	maixpy.sipeed.com
Sipeed Model Store	https://maixhub.com/
SDK Reference	dl.sipeed.com/MAIX/SDK
HDK Reference	dl.sipeed.com/MAIX/HDK
E-mail (Technical Support)	support@sipeed.com
Telegram Link	https://t.me/sipeed
QQ Group	878189804



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