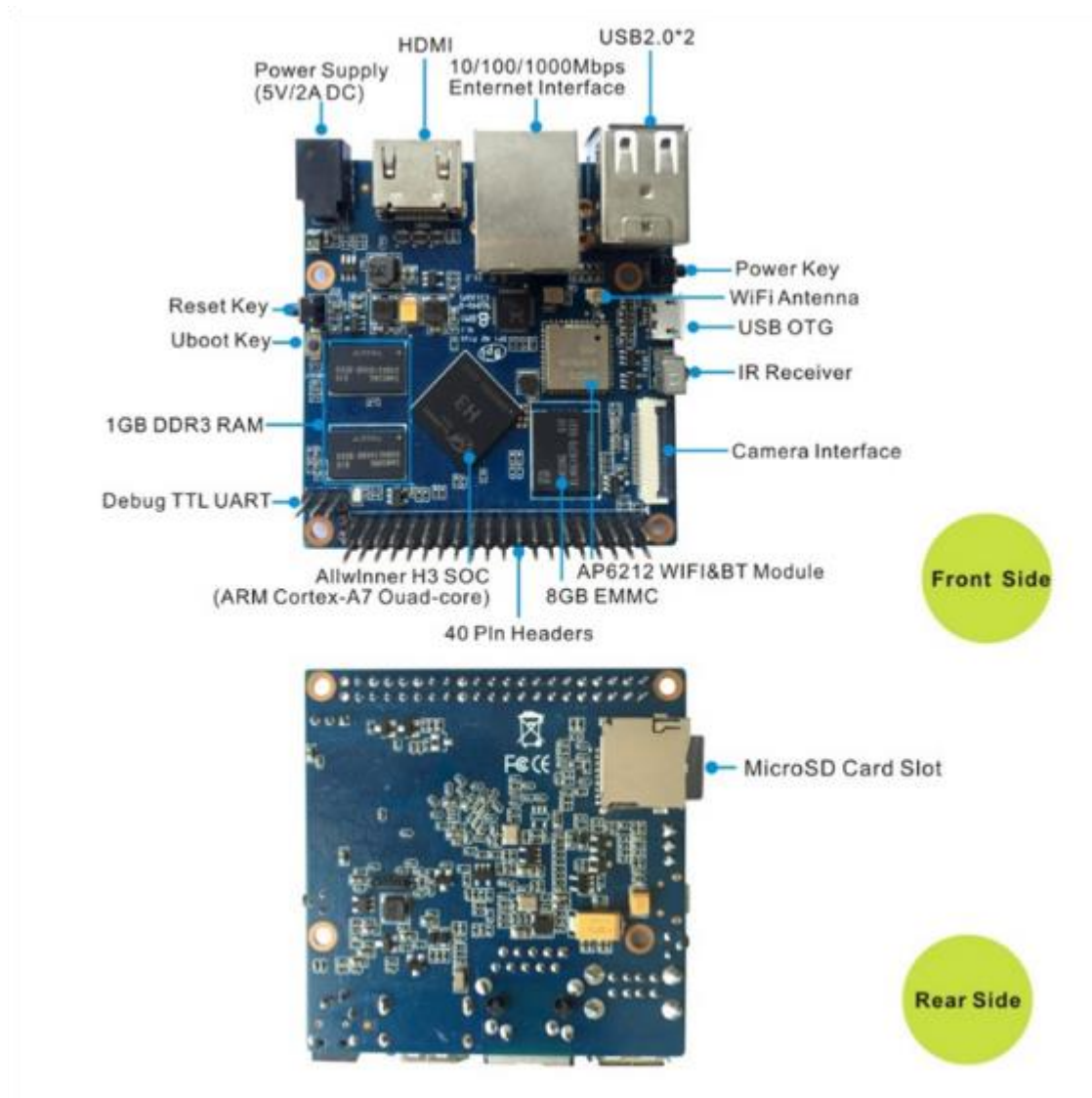


Banana PI BPI-M2+



Hardware spec

HardWare Specification of Banana Pi M2+(Plus)	
CPU	H3 Quad-core Cortex-A7 H.265/HEVC 4K
GPU	Mali400MP2 GPU @600 MHz,Supports OpenGL ES 2.0
Memory	1GB DDR3 (shared with GPU)
Flash	8GB eMMC flash onboard
Network	10/100/1000 Ethernet

WIFI&BT	SDIO AP6212 for Wifi & BT 4.0 (option AP6181 AP6335)
Video Input	A CSI input connector Camera:1 Supports 8-bit YUV422 CMOS sensor interface,2 Supports CCIR656 protocol for NTSC and PAL, 3 Supports SM pixel camera sensor, 4 Supports video capture solution up to 1080p@30fps
Video Outputs	Supports HDMI output with HDCP, Supports HDMI CEC, Supports HDMI 3D function, Integrated CVBS, Supports simultaneous output of HDMI and CVBS
Audio Outputs	HDMI
Power	5V/2A DC input can supply power, but USB OTG input don't supply power
USB 2.0 ports	two USB 2.0 HOST, one USB 2.0 OTG
GPIO	40 Pins Header, compatible with Raspberry Pi B+
LED	Power led & Status led
IR	IR input on board
OS	Android, Ubuntu, Debian, Raspberry Pi Image

GPIO PIN define

Banana Pi BPI-M2+ (BPI-M2 Plus) has a 40-pin GPIO header that matches that of the Model Raspberry Pi 3. Following is the Banana Pi GPIO Pinout:

40 PIN GPIO of Banana pi BPI-M2+			
GPIO Pin Name	Default Function	Function2 : GPIO	Function3
CON2-P01	VCC-3V3		
CON2-P02	VCC-5V		

CON2-P03	TWI0-SDA	PA12-EINT12	
CON2-P04	VCC-5V		
CON2-P05	TWI0-SCK	PA11-EINT11	
CON2-P06	GND		
CON2-P07	PWM1	PA6-EINT6	
CON2-P08	UART3-TX	PA13-EINT13	SPI1-CS
CON2-P09	GND		
CON2-P10	UART3-RX	PA14-EINT14	SPI1-CLK
CON2-P11	UART2-RX	PA1-EINT1	
CON2-P12	UART3-CTS	PA16-EINT16	SPI1-MISO
CON2-P13	UART2-TX	PA0-EINT0	
CON2-P14	GND		
CON2-P15	UART2-CTS	PA3-EINT3	
CON2-P16	UART3-RTS	PA15-EINT15	SPI1-MOSI
CON2-P17	VCC-3V3		
CON2-P18	PC4	PC4	
CON2-P19	SPI0-MOSI	PC0	

CON2-P20	GND		
CON2-P21	SPI0-MISO	PC1	
CON2-P22	UART2-RTS	PA2-EINT2	
CON2-P23	SPI0-CLK	PC2	
CON2-P24	SPI0-CS	PC3	
CON2-P25	GND		
CON2-P26	PC7	PC7	
CON2-P27	TWI1-SDA	PA19-EINT19	
CON2-P28	TWI1-SCK	PA18-EINT18	
CON2-P29	PA7-EINT7	PA7-EINT7	
CON2-P30	GND		
CON2-P31	PA8-EINT8	PA8-EINT8	
CON2-P32	PL2-S-EINT2	PL2-S-EINT2	
CON2-P33	PA9-EINT9	PA9-EINT9	
CON2-P34	GND		
CON2-P35	PA10-EINT10	PA10-EINT10	
CON2-P36	PL4-S-EINT4	PL4-S-EINT4	

CON2-P37	PA17-EINT17	PA17-EINT17	SPDIF-OUT
CON2-P38	PA21-EINT21	PA21-EINT21	
CON2-P39	GND		
CON2-P40	PA20-EINT20	PA20-EINT20	

CSI Camera Connector specification:

The CSI Camera Connector is a 24-pin FPC connector which can connect external camera module with proper signal pin mappings. The pin definitions of the CSI interface are shown as below. This is marked on the Banana Pi board as "CSI".

CSI Camera PIN of Banana pi BPI-M2+		
CSI Pin Name	Default Function	Function2 : GPIO
CN3-P01	NC	
CN3-P02	GND	
CN3-P03	CSI0-SDA	PE13
CN3-P04	CSI0-AVDD	
CN3-P05	CSI0-SCK	PE12
CN3-P06	CSI0-Reset	PE14
CN3-P07	CSI0-VSYNC	PE3
CN3-P08	CSI0-PWDN	PE15
CN3-P09	CSI0-HSYNC	PE2

CN3-P10	CSI0-DVDD	
CN3-P11	CSI0-DOVDD	
CN3-P12	CSI0-D7	PE11
CN3-P13	CSI0-MCLK	PE1
CN3-P14	CSI0-D6	PE10
CN3-P15	GND	
CN3-P16	CSI0-D5	PE9
CN3-P17	CSI0-PCLK	PE0
CN3-P18	CSI0-D4	PE8
CN3-P19	CSI0-D0	PE4
CN3-P20	CSI0-D3	PE7
CN3-P21	CSI0-D1	PE5
CN3-P22	CSI0-D2	PE6
CN3-P23	GND	
CN3-P24	CSI0-DOVDD	

UART specification:

The jumper CON3 is the UART interface. For developers of Banana Pi, this is an easy way to get the UART console output to check the system status and log message.

Uart PIN of Banana pi BPI-M2+		
CON3 Pin Name	Default Function	GPIO
CON3 P03	UART0-TXD	PA4
CON3 P02	UART0-RXD	PA5
CON3 P01	GND	
