

Pine H64 Port Assignment

ver 1.0

Front:

- 2 x USB 2.0 type A port (top- OTG)
- 1x USB 3.0 type A port
- IR receiver (no need to staff IR connector, just reserved 3 pin connectors VCC, CIR_RX, GND)
- Head phone (with mic) jack
- 1x 90 degree angle small "Status" LED
- 2x push buttons – "RESET", "POWER"

Rear:

- 4K HDMI Type-A port
- Gigabit Ethernet port
- +5V 3A 3.5mm OD/1.35mm ID barrel type DC power jack

Right side:

- eMMC module connector (top)
- microSD card slot (bottom)

Connectors on board:

- 2 pin RTC battery port
- miniPCIe connector (full length)
- 20 x 2 dual in line pins Pi-2 bus
- 17 x 2 dual in line pins port Euler 'e' bus
- 5 x 2 dual in line pins port EXT bus
- Wifi+BT port

GPIO Pins usage:

- PC0 – 16 Used by eMMC module (SDC2)
- PD0 – 13 Used by Ethernet RGMII
- PD14 – 18 DMIC Ports
- PD19 -22 UART-2
- PD23 -26 UART-3
- PF0 – 5 Used by TF Card (SDC0)
- PF6 [Open to use]
- PG0 – 14 Used by Wifi+BT(SDC1-SDIO,UART1,PCM2)
- PH0 – 4 PCM0
- PH5-7 OWA
- PH8 –10 Used by HDMI
- PLO – 10 Used by system
- PM0–4 [Open to use]

Pin	Define	Pin	Define	Pin	Define
PC0	SPI0-CLK	PD0	RGMII-RXD3	PF0	SDcard-D1
PC1	eMMC-DS	PD1	RGMII-RXD2	PF1	SDcard-D0
PC2	SPI0-MOSI	PD2	RGMII-RXD1	PF2	SDcard-CLK
PC3	SPI0-MISO	PD3	RGMII-RXD0	PF3	SDcard-CMD
PC4	eMMC-CLK	PD4	RGMII-RXCLK	PF4	SDcard-D3
PC5	SPI0-CS	PD5	RGMII-RXCTL	PF5	SDcard-D2
PC6	eMMC-D0	PD6	MAC-RST	PF6	Pi2-PF6
PC7	eMMC-D1	PD7	RGMII-TXD3		
PC8	eMMC-D2	PD8	RGMII-TXD2	Wifi/BT SDIO/UART module:	
PC9	eMMC-D3	PD9	RGMII-TXD1	PG0	SDIO-CLK
PC10	eMMC-D4	PD10	RGMII-TXD0	PG1	SDIO-CMD
PC11	eMMC-D5	PD11	RGMII-TXCLK	PG2	SDIO-D0
PC12	eMMC-D6	PD12	RGMII-TXCTL	PG3	SDIO-D1
PC13	eMMC-D7	PD13	CLK125	PG4	SDIO-D2
PC14	eMMC-RST	PD14	Pi2-PD14	PG5	SDIO-D3
PC15	PCIe-RST	PD15	Pi2-PD15	PG6	UART1-TX
PC16	GMAC-EN	PD16	Pi2-PD16	PG7	UART1-RX
		PD17	Pi2-PD17	PG8	UART1-RTS
		PD18	Pi2-PD18	PG9	UART1-CTS
		PD19	Pi2-PD19(UART2_TX)	PG10	I2S2-SYNC
		PD20	Pi2-PD20(UART2_RX)	PG11	I2S2-CLK
		PD21	Pi2-PD21	PG12	I2S2-DOUT
		PD22	Pi2-PD22(PWM0)	PG13	I2S2-DIN
		PD23	Pi2-PD23	PG14	PCIe-RST
		PD24	Pi2-PD24		
		PD25	Pi2-PD25(I2C0_CLK)		
		PD26	Pi2-PD26(I2C0_DATA)		
PH0	Euler-PH0	PL0	Euler-PL0		
PH1	Euler-PH1	PL1	Euler-PL1		
PH2	Euler-PH2	PL2	Euler-PL2		
PH3	Pi/Euler-PH3	PL3	Euler-PL3		
PH4	Pi2/Euler-PH4	PL4	Euler-PL4		
PH5	Pi2/Euler-PH5	PL5	Euler-PL5		
PH6	Pi2/Euler-PH6	PL6	Euler-PL6	PM0	Pi2-PM0
PH7	Euler-PH7(SPDIF)	PL7	Euler-PL7	PM1	Pi2-PM1
PH8	Pi2-PH8(ID_SC)	PL8	Euler-PL8	PM2	Pi2-PM2
PH9	Pi2-PH9(ID_SD)	PL9	Euler-PL9(IR_RX)	PM3	Pi2-PM3
PH10	HDMI-CEC	PL10	PCIe-WAKE	PM4	Pi2-PM4

Pi-2 Connector

	3.3V	1	2	5V	
[PD26-TWI0_SDA]	GPIO 2 (I2C_SDA)	3	4	5V	
[PD25-TWI0_SCK]	GPIO 3 (I2C_SCL)	5	6	GND	
[PD22_PWM0]	GPIO 4 (GPCLK0)	7	8	GPIO 14 (UART_TXD)	[PD19-UART2_TX]
	GND	9	10	GPIO 15 (UART_RXD)	[PD20-UART2_RX]
[PD21]	GPIO 17	11	12	GPIO 18 (PCM_BCLK)	[PH1-I2S0_BCK]
[PD14/DMIC_CLK]	GPIO 27	13	14	GND	
[PD15/DMIC_DATA0]	GPIO 22	15	16	GPIO 23	[PD16/ DMIC_DATA1]
	3.3V	17	18	GPIO 24	[PD17/ DMIC_DATA2]
[PH5-SPI1_MOSI]	GPIO 10 (SPI_MOSI)	19	20	GND	
[PH6-SPI1_MISO]	GPIO 9 (SPI_MISO)	21	22	GPIO 25	[PD18/ DMIC_DATA3]
[PH4-SPI1_CLK]	GPIO 11 (SPI_SCLK)	23	24	GPIO 8 (SPI_CE0)	[PH3-SPI1_CS]
	GND	25	26	GPIO 7 (SPI_CE1)	[PF6]
[PH9-HSDA]	ID_SD	27	28	ID_SC	[PH8-HSCL]
[PM0]	GPIO 5	29	30	GND	
[PM1]	GPIO 6	31	32	GPIO 12	[PM2]
[PM3]	GPIO 13	33	34	GND	
[PH0-I2S0_SYNC]	GPIO 19 (PCM_LRCK)	35	36	GPIO 16	[PM4]
[PD23- TWI2_SCL/UART3_TX]	GPIO 26	37	38	GPIO 20 [PD24- TWI2_SDA/UART3_RX]	
	GND	39	40	GPIO 21 (PCM_DO)	[PH2-I2S0_DOUT]

Euler “e” Connector

3.3V	1	2	DC IN
N.C.	3	4	DC IN
N.C.	5	6	GND
[PL9-IR_RX]	7	8	5V
GND	9	10	[PH7-OWA_OUT] (SPDIF)
[PH4-I2S0_MCK/ SPI1_CLK]	11	12	[PH0-I2S0_SYNC]
[PH1-I2S0_BCK]	13	14	GND
[PH2-I2S0_DOUT]	15	16	[PH3-I2S0_DIN/ SPI1_CS]
3.3V	17	18	[PL8-S_PWM0]
[PL2-S_UART_TX]	19	20	GND
[PL3-S_UART_RX]	21	22	[PL4-S_JTAG_MS]
[PL0-S_TWI_SCK]	23	24	[PL1-S_TWI_SDA]
GND	25	26	[PL5-S_JTAG_CK]
[PL6-S_JTAG_DO]	27	28	[PL7-S_JTAG_DI]
[MIC2P]	29	30	[MIC2N]
[EAROUTP]	31	32	[EAROUTN]
[TVOUT]	33	34	GND

EXT Connector

5V	1	2	HeartBeat LED
UBOOT	3	4	Reset Switch
Power Switch	5	6	GND
[PH0-UART0_TX]	7	8	[PH1-UART0_RX]
GND	9	10	KeyADC