

# 模块引脚说明

## 引脚功能

P1

左列

引脚号	引脚名称	功能	注释
1	3.3V	电源供电引脚	
3	PH12	SDA.1	内置4.7K的3.3V上拉
5	PH11	SCL.1	内置4.7K的3.3V上拉
7	PA8	TIM1_CH1N, TIM3_CH2, TIM8_CH1N, SPI1_MOSI/I2S1_SDO, SPI6_MOSI, TIM14_CH1, ETH_MII_RX_DV/ETH_RMII_CRS_DV, FMC_SDNWE	
9	GND		
11	PA15	JTDI, TIM2_CH1/TIM2_ETR, HRTIM_FLT1, CEC, SPI1_NSS/I2S1_WS, SPI3_NSS/I2S3_WS, SPI6_NSS, UART4_RTS/UART4_DE, UART7_TX	
13	PH15	TIM8_CH3N, FDCAN1_TXFD_MODE, FMC_D23, DCMI_D11, LCD_G4	
15	PH13	TIM8_CH1N, UART4_TX, FDCAN1_TX, FMC_D21, LCD_G2	
17	3.3V		
19	PI3	TIM8_ETR, SPI2_MOSI/I2S2_SDO, FMC_D27, DCMI_D10	
21	PI2	TIM8_CH4, SPI2_MISO/I2S2_SDI, FMC_D26, DCMI_D9, LCD_G7	
23	PI1	TIM8_BKIN2, SPI2_SCK/I2S2_CK, TIM8_BKIN2_COMP12, FMC_D25, DCMI_D8, LCD_G6	
25	GND		
27	PD13	LPTIM1_OUT, TIM4_CH2, I2C4_SDA, QUADSPI_BK1_IO3, SAI2_SCK_A, FMC_A18	
29	PH7	I2C3_SCL, SPI5_MISO, ETH_MII_RXD3, FMC_SDCKE1, DCMI_D9	
31	PH9	TIM12_CH2, I2C3_SMBA, FMC_D17, DCMI_D0, LCD_R3	
33	PB13	TIM1_CH1N, LPTIM2_OUT, SPI2_SCK/I2S2_CK, DFSDM1_CKIN1, USART3_CTS/USART3_NSS, FDCAN2_TX, OTG_HS_ULPI_D6, ETH_MII_TXD1/ETH_RMII_TXD1, UART5_TX	
35	PI7	TIM8_CH3, SAI2_FS_A, FMC_D29, DCMI_D7, LCD_B7	
37	PI4	TIM8_BKIN, SAI2_MCLK_A, TIM8_BKIN_COMP12, FMC_NBL2, DCMI_D5, LCD_B4	
39	GND		

右列

引脚号	引脚名称	功能	注释
2	5V	电源供电引脚	
4	5V	电源供电引脚	
6	GND		
8	PA9	TIM1_CH2, HRTIM_CHC1,LPUART1_TX, I2C3_SMBA,SPI2_SCK/I2S2_CK,USART1_TX,FDCAN1_RXFD_MODE,DCMI_D0, LCD_R5	
10	PA10	TIM1_CH3, HRTIM_CHC2,LPUART1_RX, USART1_RX,FDCAN1_TXFD_MODE,OTG_FS_ID, MDIOS_MDIO,LCD_B4, DCMI_D1, LCD_B1	
12	PI5	TIM8_CH1, SAI2_SCK_A,FMC_NBL3, DCMI_VSYNC,LCD_B5	
14	GND		
16	PH14	TIM8_CH2N, UART4_RX,FDCAN1_RX, FMC_D22,DCMI_D4, LCD_G3	
18	PC7	TRGIO, HRTIM_CHA2,TIM3_CH2, TIM8_CH2,DFSDM1_DATIN3, I2S3_MCK,USART6_RX,SDMMC1_D123DIR, FMC_NE1,SDMMC2_D7, SWPMI_TX,SDMMC1_D7, DCMI_D1,LCD_G6	
20	GND		
22	PC6	HRTIM_CHA1, TIM3_CH1,TIM8_CH1, DFSDM1_CKIN3,I2S2_MCK, USART6_TX,SDMMC1_D0DIR, FMC_NWAIT,SDMMC2_D6, SDMMC1_D6,DCMI_D0, LCD_HSYNC	
24	PI0	TIM5_CH4, SPI2_NSS/I2S2_WS,FDCAN1_RXFD_MODE,FMC_D24, DCMI_D13, LCD_G5	
26	PG7	HRTIM_CHE2, SAI1_MCLK_A,USART6_CK, FMC_INT,DCMI_D13, LCD_CLK	
28	PH8	TIM5_ETR, I2C3_SDA, FMC_D16,DCMI_HSYNC, LCD_R2	
30	GND		
32	PH10	TIM5_CH1, I2C4_SMBA,FMC_D18, DCMI_D1, LCD_R4	ir_send
34	GND		
36	PB12	TIM1_BKIN, I2C2_SMBA,SPI2_NSS/I2S2_WS,DFSDM1_DATIN1, USART3_CK,FDCAN2_RX, OTG_HS_ULPI_D5,ETH_MII_TXD0/ETH_RMII_TXD0,OTG_HS_ID,TIM1_BKIN_COMP12,UART5_RX	
38	PG10	HRTIM_FLT5,SPI1_NSS/I2S1_WS, LCD_G3,SAI2_SD_B, FMC_NE3,DCMI_D2, LCD_B2	
40	PI6	TIM8_CH2, SAI2_SD_A,FMC_D28, DCMI_D6, LCD_B6	

P2

左列

引脚号	引脚名称	功能	注释
1	3.3V		
3	PG11	LPTIM1_IN2, HRTIM_EEV4, SPI1_SCK/I2S1_CK, SPDIFRX1_IN1, SDMMC2_D2, ETH_MII_TX_EN/ETH_RMII_TX_EN, DCMI_D3, LCD_B3	
5	PG13	TRACED0, LPTIM1_OUT, HRTIM_EEV10, SPI6_SCK, USART6_CTS/USART6_NSS, ETH_MII_TXD0/ETH_RMII_TXD0, FMC_A24, LCD_R0	
7	PB9	TIM17_CH1, TIM4_CH4, DFSDM1_DATIN7, I2C1_SDA, SPI2_NSS/I2S2_WS, I2C4_SDA, SDMMC1_CD1R, UART4_TX, FDCAN1_TX, SDMMC2_D5, I2C4_SMBA, SDMMC1_D5, DCMI_D7, LCD_B7	
9	GND		
11	PC2_C	CDSLEEP, DFSDM1_CKIN1, SPI2_MISO/I2S2_SDI, DFSDM1_CKOUT, OTG_HS_ULPI_DIR, ETH_MII_TXD2, FMC_SDNE0	
13	PC3_C	CSLEEP, DFSDM1_DATIN1, SPI2_MOSI/I2S2_SDO, OTG_HS_ULPI_NXT, ETH_MII_TX_CLK, FMC_SDCKE0	
15	PA0_C	TIM2_CH1/TIM2_ETR, TIM5_CH1, TIM8_ETR, TIM15_BKIN, USART2_CTS/USART2_NSS, UART4_TX, SDMMC2_CMD, SAI2_SD_B, ETH_MII_CRS	
17	3.3V		
19	PC5	SAI1_D3, DFSDM1_DATIN2, SPDIFRX1_IN4, SAI4_D3, ETH_MII_RXD1/ETH_RMII_RXD1, FMC_SDCKE0, COMP1_OUT	
21	PA7	TIM1_CH1N, TIM3_CH2, TIM8_CH1N, SPI1_MOSI/I2S1_SDO, SPI6_MOSI, TIM14_CH1, ETH_MII_RX_DV/ETH_RMII_CRS_DV, FMC_SDNWE, EVENTOUT	
23	PA6	TIM1_BKIN, TIM3_CH1, TIM8_BKIN, SPI1_MISO/I2S1_SDI, SPI6_MISO, TIM13_CH1, TIM8_BKIN_COMP12, MDIOS_MDC, TIM1_BKIN_COMP12, DCMI_PIXCLK, LCD_G2	
25	GND		
27	PA12	TIM1_ETR, HRTIM_CHD2, LPUART1_RTS/LPUART1_DE, SPI2_SCK/I2S2_CK, UART4_TX, USART1_RTS/USART1_DE, SAI2_FS_B, FDCAN1_TX, OTG_FS_DP, LCD_R5	
29	PE4	TRACED1, SAI1_D2, DFSDM1_DATIN3, TIM15_CH1N, SPI4_NSS, SAI1_FS_A, SAI4_FS_A, SAI4_D2, FMC_A20, DCMI_D4, LCD_B0	LD3320_CS
31	PE5	TRACED2, SAI1_CK2, DFSDM1_CKIN3, TIM15_CH1, SPI4_MISO, SAI1_SCK_A, SAI4_SCK_A, SAI4_CK2, FMC_A21, DCMI_D6, LCD_G0,	SPI4
33	PE6	TRACED3, TIM1_BKIN2, SAI1_D1, TIM15_CH2, SPI4_MOSI, SAI1_SD_A, SAI4_SD_A, SAI4_D1, SAI2_MCLK_B, TIM1_BKIN2_COMP12, FMC_A22, DCMI_D7, LCD_G1,	SPI4
35	PH2	LPTIM1_IN2, QUADSPI_BK2_IO0, SAI2_SCK_B, ETH_MII_CRS, FMC_SDCKE0, LCD_R0	LD3320_IRQ
37	PB1	TIM1_CH3N, TIM3_CH4, TIM8_CH3N, DFSDM1_DATIN1, LCD_R6, OTG_HS_ULPI_D2, LCD_R6, OTG_HS_ULPI_D2	LD3320_RST
39	GND		

右列

引脚号	引脚名称	功能	注释
2	3V_BAT		
4	V_ref+		
6	GND		
8	PG14	LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2	
10	PB8	LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,LCD_R6, OTG_HS_ULPI_D2,SDMMC2_D4, ETH_MII_TXD3,SDMMC2_D4, ETH_MII_TXD3,LCD_B6	
12	PC1	TRACED0, SAI1_D1,DFSDM1_DATIN0,DFSDM1_CKIN4,SPI2_MOSI/I2S2_SDO,SAI1_SD_A, SAI4_SD_A,SDMMC2_CK, SAI4_D1,SDMMC2_CK, SAI4_D1	
14	GND		
16	PA1_C	TIM2_CH2, TIM5_CH2,LPTIM3_OUT, TIM15_CH1N,USART2_RTS/USART2_DE,UART4_RX, QUADSPI_BK1_IO3,SAI2_MCLK_B,ETH_MII_RX_CLK/ETH_RMII_REF_CLK, LCD_R2	
18	PC4	DFSDM1_CKIN2, I2S1_MCK,SPDIFRX1_IN3,SPDIFRX1_IN3,, FMC_SDNE0	
20	GND		
22	PA1	TIM2_CH2, TIM5_CH2,LPTIM3_OUT, TIM15_CH1N,USART2_RTS/USART2_DE,UART4_RX, QUADSPI_BK1_IO3,SAI2_MCLK_B,ETH_MII_RX_CLK/ETH_RMII_REF_CLK, LCD_R2	
24	PA2	TIM2_CH3, TIM5_CH3,LPTIM4_OUT, TIM15_CH1,USART2_TX, SAI2_SCK_B,ETH_MDIO, MDIOS_MDIO,LCD_R1	
26	PA3	TIM2_CH4, TIM5_CH4,LPTIM5_OUT, TIM15_CH2,USART2_RX, LCD_B2,OTG_HS_ULPI_D0,OTG_HS_ULPI_D0,	
28	PA11	TIM1_CH4, HRTIM_CHD1,LPUART1_CTS,SPI2_NSS/I2S2_WS, UART4_RX,USART1_CTS/USART1_NSS,FDCAN1_RX, OTG_FS_DM,LCD_R4	
30	GND		
32	PE2	TRACECLK, SAI1_CK1,SPI4_SCK, SAI1_MCLK_A,SAI4_MCLK_A,QUADSPI_BK1_IO2, SAI4_CK1,ETH_MII_TXD3, FMC_A23	SPI4
34	GND		
36	PH3	QUADSPI_BK2_IO1,SAI2_MCLK_B, ETH_MII_COL,FMC_SDNE0, LCD_R1	
38	PB0	TIM1_CH2N, TIM3_CH3,TIM8_CH2N, DFSDM1_CKOUT,UART4_CTS, LCD_R3,OTG_HS_ULPI_D1,ETH_MII_RXD2, LCD_G1	ir_rev

引脚号	引脚名称	功能	注释
40	PB2	RTC_OUT, SAI1_D1,DFSDM1_CKIN1, SAI1_SD_A,SPI3_MOSI/I2S3_SDO,SAI4_SD_A, QUADSPI_CLK,SAI4_D1, EVENTOUT	

## 已用引脚

- LD3320  
PE2, PE5, PE6 --> SPI4  
PE4 --> LD3320\_CS  
PH2 --> LD3320\_IRQ  
GND --> LD3320\_WR  
PB1 --> LD3320\_RST
- 红外  
PB0 --> IR接收  
PH10 --> IR发送