
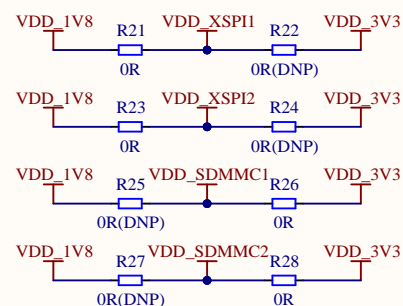
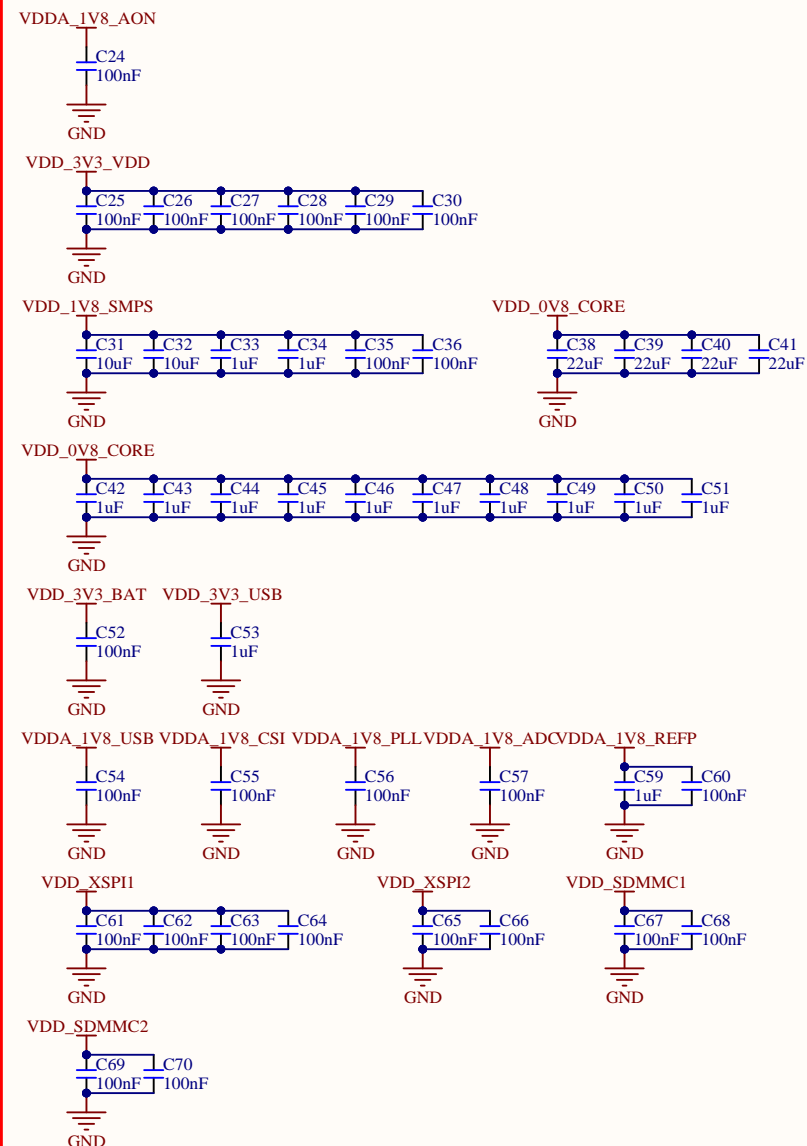
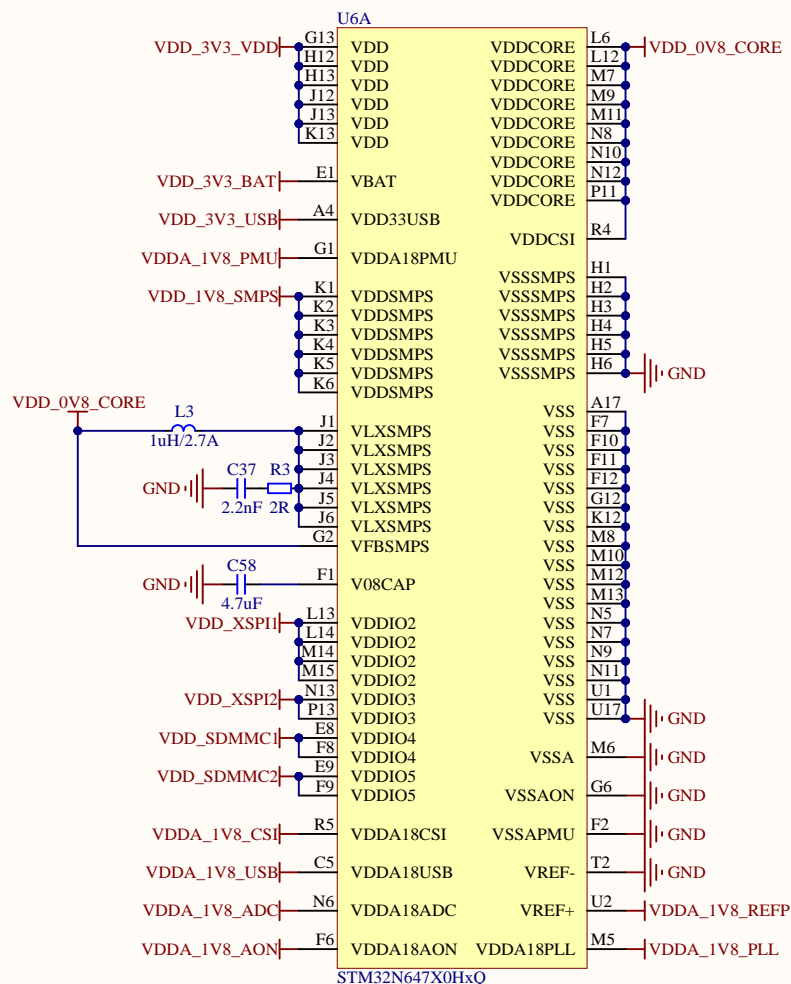
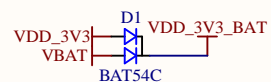
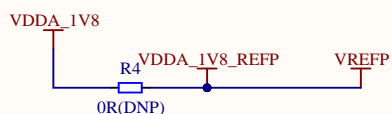



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| Title: CNN647B.PrjPcb | |  正点原子 |
| Author: ALIENTEK | Size: A4 | |
| Date: 2025/04/11/星期五 | File: Power.SchDoc | |
| Revision: 0 | Version: V1.0 | |

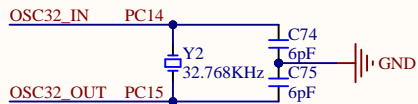
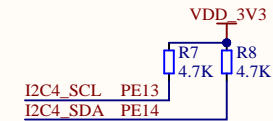
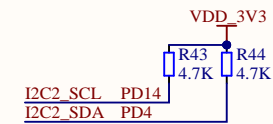
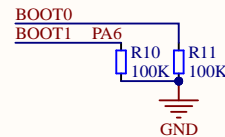
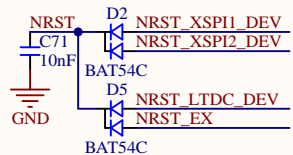
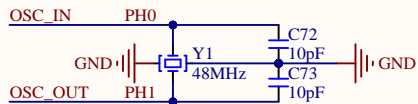
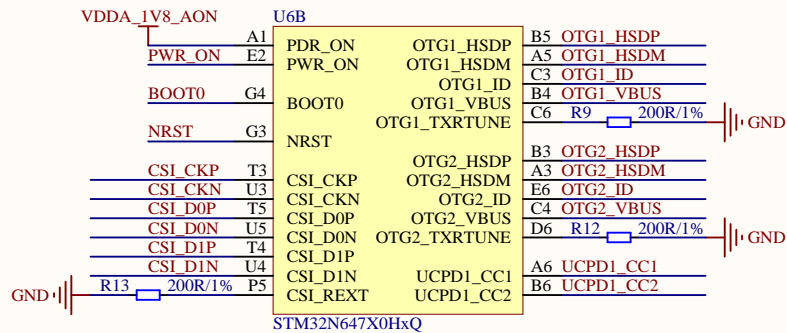



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|------------|--------------------|
| VDD_XSPI1 | PO[5:0],PP[15:0] |
| VDD_XSPI2 | PN[12:0] |
| VDD_SDMMC1 | PC[1,12:6],PH[2,9] |
| VDD_SDMMC2 | PC[0,5:2],PE[4] |



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| Title: CNN647B.PrjPcb | |  正点原子 |
| Author: ALIENTEK | Size: A4 | |
| Date: 2025/04/11/星期五 | File: STM32N6 Power.SchDoc | |
| Revision: 0 | Version: V1.0 | |





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|--------------------------|------------------------------|---|
| Title: CNN647B.PrjPcb | |  正点原子 |
| Author: ALIENTEK | Size: A4 | |
| Date: 2025/04/11/星期五 | File: STM32N6 Misc.SchDoc | |
| Revision: 0 | Version: V1.0 | |
| | | |

U6C

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|------------|------|-----|--|
| LTDC_G3 | PA0 | U10 | PA0/TIM2_CH1/TIM5_CH1/TIM9_CH1/TIM15_BKIN/I2S6_WS/SPI6_NSS/USART2_CTS/USART2_NSS/UART4_TX/SAI2_SD_B/SDMMC2_CMD/FMC_D7/FMC_DA7/LTDC_G3 |
| LTDC_G2 | PA1 | P9 | PA1/TIM2_CH2/TIM5_CH2/LPTIM3_IN1/TIM15_CH1N/USART2_RTS/UART4_RX/DCMIPP_D0/DCML_D0/PSSI_D0/SAI2_MCLK_B/FMC_D6/FMC_DA6/LTDC_G2 |
| LTDC_B7 | PA2 | T8 | PA2/TIM2_CH3/TIM5_CH3/LPTIM3_IN2/TIM15_CH1/USART2_TX/SAI2_SCK_B/MDIOS_MDIO/FMC_D5/FMC_DA5/LTDC_B7 |
| TIM16_CH1 | PA3 | R14 | PA3/TIM16_CH1/SPI5_NSS/SAI1_SD_B/UART7_RX/FMC_A17/FMC_ALE |
| | PA4 | U14 | PA4/SPI5_MOSI/USART6_RX/DCMIPP_D3/DCML_D3/PSSI_D3/FMC_A13 |
| LTDC_CLK | PA5 | R8 | PA5/PWR_CSTOP/TIM2_CH1/TIM2_ETR/TIM9_CH2/I3C1_SCL/I2S1_CK/SPI1_SCK/I2S6_CK/SPI6_SCK/DCMIPP_D8/DCML_D8/PSSI_D8/TIM10_CH1/FMC_NOE/LTDC_CLK |
| BOOT1 | PA6 | P8 | PA6/BOOT1/TIM1_BKIN/TIM3_CH1/LPTIM3_ETR/I3C1_SDA/I2S1_SDI/SPI1_MISO/I2S6_SDI/SPI6_MISO/DCMIPP_PIXCLK/DCML_PIXCLK/PSSI_PDCK/TIM13_CH1/MDIOS_MDC/LTDC_B7/LTDC_HSYNC |
| LTDC_B1 | PA7 | R12 | PA7/TIM1_CH1N/TIM3_CH2/I2S1_SDO/SPI1_MOSI/USART1_RX/I2S6_SDO/SPI6_MOSI/LTDC_R4/TIM14_CH1/LTDC_B1 |
| LTDC_B6 | PA8 | U8 | PA8/RCC_MCO_1/TIM1_CH1/I3C2_SCL/I2C3_SCL/USART1_CK/TIM11_CH1/UART7_RX/FMC_D4/FMC_DA4/LTDC_B6 |
| LTDC_B5 | PA9 | P7 | PA9/TIM1_CH2/I3C2_SDA/LPUART1_TX/I2C3_SDA/I2S2_CK/SPI2_SCK/USART1_TX/DCMIPP_D0/DCML_D0/PSSI_D0/FMC_D3/FMC_DA3/LTDC_B5 |
| LTDC_B4 | PA10 | R7 | PA10/PWR_CSLEEP/TIM1_CH3/LPUART1_RX/USART1_RX/DCMIPP_D1/DCML_D1/PSSI_D1/MDIOS_MDIO/FMC_D2/FMC_DA2/LTDC_B4 |
| LTDC_B3 | PA11 | T7 | PA11/TIM1_CH4/LPUART1_CTS/I2S2_WS/SPI2_NSS/FDCAN1_RX/USART1_CTS/USART1_NSS/UART4_RX/FMC_D1/FMC_DA1/LTDC_B3 |
| LTDC_B2 | PA12 | U7 | PA12/TIM1_ETR/LPUART1_RTS/I2S2_CK/SPI2_SCK/FDCAN1_TX/USART1_RTS/UART4_TX/SAI2_FS_B/FMC_D0/FMC_DA0/LTDC_B2 |
| SWDIO | PA13 | U6 | PA13/TMS/SWDIO |
| SWCLK | PA14 | T6 | PA14/JTCK/SWCLK |
| LTDC_R5 | PA15 | P12 | PA15/JTDI/TIM2_CH1/TIM2_ETR/I2S1_WS/SPI1_NSS/I2S3_WS/SPI3_NSS/I2S6_WS/SPI6_NSS/UART4_DE/UART4_RTS/UART7_TX/FMC_D15/FMC_DA15/LTDC_R5 |
| | PB0 | E15 | PB0/TIM1_CH4/SAI1_D2/ADF1_SDIO/MDF1_SDI2/SPI4_NSS/SAI1_FS_A/TIM15_CH1N/DCMIPP_D4/DCML_D4/PSSI_D4/FMC_D13/FMC_DA13 |
| LTDC_R1 | PB1 | R11 | PB1/TIM1_CH3N/TIM3_CH4/TIM9_CH2/FDCAN2_TX/USART2_TX/FMC_NOE/LTDC_R1 |
| | PB2 | C16 | PB2/RTC_OUT2/TIM1_CH1/SAI1_D1/ADF1_SDIO/MDF1_SDI1/SAI1_SD_A/I2S3_SDO/SPI3_MOSI/FMC_D2/FMC_DA2/LTDC_B2 |
| TP_PEN | PB3 | F13 | PB3/JTDO/TRACESWO/TIM1_CH4N/GFXTIM_FCKCAL/MDF1_CK11/USART1_CK/SAI2_FS_B/FMC_NBL1/GFXTIM_LCKCAL/FMC_A23 |
| LTDC_R3 | PB4 | T12 | PB4/NJTRST/TIM16_BKIN/TIM3_CH1/LPTIM4_ETR/I2S1_SDI/SPI1_MISO/I2S3_SDI/SPI3_MISO/I2S2_WS/SPI2_NSS/I2S6_SDI/SPI6_MISO/DCMIPP_VSYNC/DCML_VSYNC/PSSI_RDY/UART7_TX/SDMMC2_D3/FMC_D13/FMC_DA13/LTDC_R3 |
| LTDC_R2 | PB5 | U12 | PB5/JTDO/TRACESWO/TIM17_BKIN/TIM3_CH2/LPTIM4_OUT/I2C1_SMB/SAI2_SDO/SPI1_MOSI/FDCAN2_RX/I2S3_SDO/SPI3_MOSI/I2S6_SDO/SPI6_MOSI/DCMIPP_D10/DCML_D10/PSSI_D10/UART5_RX/FMC_D12/FMC_DA12/LTDC_R2 |
| | PB6 | E17 | PB6/SAI1_CK2/ADF1_CCK1/MDF1_CCK1/SPI4_MISO/SAI1_SCK_A/TIM15_CH1/DCMIPP_D6/DCML_D6/PSSI_D6/FMC_D14/FMC_DA14 |
| | PB7 | E16 | PB7/TIM1_BKIN2/SAI1_D1/ADF1_SDIO/MDF1_SDI1/SPI4_MOSI/SAI1_SD_A/TIM15_CH2/DCMIPP_D7/DCML_D7/PSSI_D7/SAI2_MCLK_B/FMC_D15/FMC_DA15 |
| | PB8 | D16 | PB8/I2S1_SDI/SPI1_MISO/USART6_RX/SPDIFRX1_IN3/DCMIPP_VSYNC/DCML_VSYNC/PSSI_RDY/SAI2_FS_B/SDMMC2_D0/FMC_D1/FMC_DA1 |
| | PB9 | D15 | PB9/LPTIM1_IN2/I2S1_CK/SPI1_SCK/USART10_TX/SPDIFRX1_IN0/DCMIPP_D3/DCML_D3/PSSI_D3/SDMMC2_D2/FMC_D3/FMC_DA3 |
| LTDC_G7 | PB10 | U11 | PB10/TIM2_CH3/I3C2_SCL/LPTIM2_IN1/I2C2_SCL/I2S2_CK/SPI2_SCK/USART3_TX/FMC_D11/FMC_DA11/LTDC_G7 |
| LTDC_G6 | PB11 | P10 | PB11/TIM2_CH4/I3C2_SDA/LPTIM2_ETR/I2C2_SDA/USART3_RX/FMC_D10/FMC_DA10/LTDC_G6 |
| LTDC_G5 | PB12 | R10 | PB12/TIM1_BKIN/LPTIM2_IN2/I2C2_SMB/SAI2_WS/SPI2_NSS/FDCAN2_RX/USART3_CK/UART5_RX/FMC_D9/FMC_DA9/LTDC_G5 |
| | PB13 | C15 | PB13/LPTIM1_CH1/TIM8_CH3N/I2S6_CK/SPI6_SCK/USART10_CTS/USART10_NSS/USART6_CTS/USART6_NSS/SDMMC2_D6/FMC_D5/FMC_DA5/LTDC_CLK |
| | PB14 | B17 | PB14/LPTIM1_CH2/TIM8_CH4N/USART10_CK/USART6_CTS/USART6_NSS/DCMIPP_D10/DCML_D10/PSSI_D10/FMC_D7/FMC_DA7/LTDC_HSYNC |
| LTDC_G4 | PB15 | D17 | PB15/I2S6_WS/SPI6_NSS/USART6_RTS/SPDIFRX1_IN2/FMC_D0/FMC_DA0/LTDC_G4 |
| SDMMC2_D2 | PC0 | C10 | PC0/TIM2_CH2/LPTIM4_IN1/MDF1_CK11/I2S1_CK/SPI1_SCK/I2S3_CK/SPI3_SCK/I2S6_CK/SPI6_SCK/DCMIPP_HSYNC/DCML_HSYNC/PSSI_DE/UART7_RX/SDMMC2_D2/FMC_D14/FMC_DA14/LTDC_R4 |
| | PC1 | A9 | PC1/TIM17_CH1/TIM4_CH4/I2C1_SDA/I2S2_WS/SPI2_NSS/FDCAN1_TX/I3C1_SDA/UART4_TX/DCMIPP_D7/DCML_D7/PSSI_D7/SDMMC1_D5/SDMMC2_D5/SDMMC1_CD1R |
| | PC2 | D9 | PC2/SAI1_D1/ADF1_SDIO/MDF1_SDI1/I2S3_SDO/SPI3_MOSI/SAI1_SCK_A/USART2_RX/DCMIPP_D13/DCML_D13/PSSI_D13/SDMMC2_CK/FMC_NE3 |
| SDMMC2_CMD | PC3 | E10 | PC3/I2S1_SDO/SPI1_MOSI/USART2_CK/SPDIFRX1_IN0/DCMIPP_D2/DCML_D2/PSSI_D2/SDMMC2_CMD/FMC_D8/FMC_DA8 |
| SDMMC2_D0 | PC4 | A10 | PC4/TIM1_CH2N/TIM12_CH1/LPTIM2_CH2/USART1_TX/I2S2_SDI/SPI2_MISO/USART3_RTS/UART4_DE/UART4_RTS/LTDC_VSYNC/SDMMC2_D0/FMC_NE1/LTDC_DE |
| SDMMC2_D1 | PC5 | B10 | PC5/I2S1_WS/SPI1_NSS/DCMIPP_D2/DCML_D2/PSSI_D2/SAI2_SD_B/SDMMC2_D1/FMC_NWE |
| | PC6 | B9 | PC6/TIM1_CH1/TIM3_CH1/TIM9_CH1/I2S2_MCK/USART6_TX/DCMIPP_D1/DCML_D1/PSSI_D1/SDMMC1_D6/SDMMC2_D6/SDMMC1_D0DIR |
| | PC7 | C9 | PC7/TIM16_CH1N/TIM3_CH2/TIM9_CH2/I2S3_MCK/USART6_RX/DCMIPP_D1/DCML_D1/PSSI_D1/SDMMC1_D7/SDMMC2_D7/SDMMC1_D123DIR |
| | PC8 | D7 | PC8/TIM3_CH3/I2C3_SMB/UCPD1_FRSTX1/USART6_CK/DCMIPP_D2/DCML_D2/PSSI_D2/SDMMC1_D0/UART5_DE/UART5_RTS/FMC_NE4/LTDC_B0 |
| | PC9 | C7 | PC9/RCC_MCO_2/TIM3_CH4/I2C3_SDA/AUDIOCLK/UCPD1_FRSTX2/USART6_RX/DCMIPP_D3/DCML_D3/PSSI_D3/SDMMC1_D1/UART5_CTS/LTDC_B3 |
| | PC10 | A8 | PC10/TIM1_BKIN/I3C2_SCL/I2C4_SCL/I2S3_CK/SPI3_SCK/USART3_TX/UART4_TX/DCMIPP_D14/PSSI_D14/SDMMC1_D2/FMC_CLK |
| | PC11 | B8 | PC11/I3C2_SDA/I2C4_SDA/I2S3_SDI/SPI3_MISO/USART3_RX/UART4_RX/DCMIPP_D4/DCML_D4/PSSI_D4/SDMMC1_D3 |
| | PC12 | C8 | PC12/TIM1_CH4/TIM15_CH1/I2S6_CK/SPI6_SCK/I2S3_SDO/SPI3_MOSI/USART3_CK/DCMIPP_D9/DCML_D9/PSSI_D9/SDMMC1_CK/UART5_TX/FMC_NL |
| PWR_WKUP3 | PC13 | F3 | PC13 |
| OSC32_IN | PC14 | D1 | PC14/OSC32_IN |
| OSC32_OUT | PC15 | C1 | PC15/OSC32_OUT |

STM32N647X0HxQ

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| Title: CNN647B.PrjPcb | |
| Author: ALIENTEK | Size: A4 |
| Date: 2025/04/11/星期五 | File: STM32N6 GPIO ABC.SchDoc |
| Revision: 0 | Version: V1.0 |



U6D

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|------------|------|--|
| PD0 | D13 | PD0/TIM1_ETR/FDCAN1_RX/UART9_CTS/UART4_RX/DCMIPP_HSYNC/DCMI_HSYNC/PSSI_DE/FMC_A6/FMC_A22 |
| PD1 | A14 | PD1/FDCAN1_TX/UART4_TX/ETH1_MDC/FMC_A7/FMC_A23 |
| SDMMC2_CK | PD2 | C12 PD2/TIM1_CH3/SAI1_D1/ADF1_SDIO/MDF1_SDIO/I2S2_SDO/SPI2_MOSI/SAI1_SD_A/TIM15_CH1N/MDIOS_MDC/SDMMC2_CK/FMC_A0/FMC_A16/FMC_CLE |
| PD3 | E13 | PD3/I2C2_SMB/USART10_RX/USART6_CTS/DCMIPP_D14/PSSI_D14/ETH1_PHY_INTN/FMC_A10 |
| I2C2_SDA | PD4 | B15 PD4/TIM1_BKIN2/I2C2_SDA/SPI5_MISO/USART6_RTS/DCMIPP_D9/DCMI_D9/PSSI_D9/FMC_A11 |
| PD5 | D14 | PD5/TIM1_CH4N/USART2_TX/DCMIPP_PIXCLK/DCMI_PIXCLK/PSSI_PDCK/SDMMC2_D7/FMC_D6/FMC_DA6 |
| PD6 | D12 | PD6/TIM1_CH1/TIM15_CH2/I2S2_SDI/SPI2_MISO/FMC_A1/FMC_A17/FMC_ALE |
| PD7 | E12 | PD7/TIM1_CH2/TIM15_CH1N/I2S2_SDO/SPI2_MOSI/I2S3_WS/SPI3_NSS/DCMIPP_D0/DCMI_D0/PSSI_D0/FMC_A2/FMC_A18 |
| TP_MISO | PD8 | E14 PD8/USART3_TX/SPDIFRX1_IN1/DCMIPP_D11/DCMI_D11/PSSI_D11/FMC_NBL0/LTDC_R7 |
| PD9 | H14 | PD9/USART3_RX/DCMIPP_D11/DCMI_D11/PSSI_D11/FMC_SDCLK/LTDC_R1 |
| TP_CS | PD10 | A13 PD10/TIM1_ETR/MDF1_CK/I3/I2S1_MCK/UCPD1_FRSTX1/SPDIFRX1_IN2/SAI2_FS_B/FMC_A3/GFXTIM_TE/FMC_A19 |
| PD11 | G14 | PD11/I2C4_SDA/I2S2_SDI/SPI2_MISO/UCPD1_FRSTX1/DCMIPP_D15/PSSI_D15/SDMMC1_D0/FMC_D8/FMC_DA8 |
| PD12 | C13 | PD12/SAI1_D3/MDF1_SDIO/UCPD1_FRSTX2/SPDIFRX1_IN3/DCMIPP_D12/DCMI_D12/PSSI_D12/ETH1_MDIO/FMC_A5/FMC_A21 |
| PD13 | C17 | PD13/LPTIM1_CH1/TIM4_CH2/UCPD1_FRSTX2/UART9_RTS/DCMIPP_D13/DCMI_D13/PSSI_D13/SAI2_SCK_A/FMC_D4/FMC_DA4/LTDC_R6 |
| I2C2_SCL | PD14 | C14 PD14/I2C2_SCL/USART10_RX/FMC_A9 |
| PD15 | B14 | PD15/I2C2_SDA/USART10_TX/FMC_A8/LTDC_R2 |
| PE0 | F16 | PE0/LPTIM1_ETR/TIM4_ETR/LPTIM2_ETR/USART3_RX/UART8_RX/DCMIPP_D2/DCMI_D2/PSSI_D2/SAI2_MCLK_A/FMC_D9/FMC_DA9 |
| PE1 | F17 | PE1/LPTIM1_IN2/LPTIM2_CH2/USART3_TX/UART8_TX/DCMIPP_D8/DCMI_D8/PSSI_D8/FMC_D10/FMC_DA10 |
| PE2 | F15 | PE2/LPTIM5_IN1/SAI1_CK1/ADF1_CCK0/MDF1_CCK0/SPI4_SCK/SAI1_MCLK_A/UCPD1_FRSTX1/FMC_D11/FMC_DA11/TIM1_CH2N |
| PE3 | F14 | PE3/LPTIM5_ETR/MDF1_CK/I3/SAI1_SD_B/TIM15_BKIN/FMC_D12/FMC_DA12 |
| SDMMC2_D3 | PE4 | D10 PE4/LPTIM1_IN1/I2S6_SDI/SPI6_MISO/USART10_RX/USART6_RTS/SPDIFRX1_IN1/DCMIPP_D5/DCMI_D5/PSSI_D5/SDMMC2_D3/LTDC_G1 |
| USART1_TX | PE5 | C11 PE5/TIM16_CH1N/TIM4_CH1/LPUART1_TX/I2C1_SCL/I3C1_SCL/FDCAN2_TX/USART1_TX/DCMIPP_D5/DCMI_D5/PSSI_D5/UART5_TX/FMC_SDNE1 |
| USART1_RX | PE6 | D11 PE6/TIM17_CH1N/TIM4_CH2/LPUART1_RX/I2C1_SDA/I3C1_SDA/USART1_RX/DCMIPP_VSYNC/DCMI_VSYNC/PSSI_RDY/DCMIPP_D1/DCMI_D1/PSSI_D1/UART5_TX/FMC_SDCKE1 |
| PE7 | B13 | PE7/TIM1_ETR/MDF1_CK/I0/UART7_RX/SAI2_SD_B/FMC_A4/FMC_A20 |
| PE8 | A15 | PE8/TIM1_CH1N/MDF1_SDIO/USART3_TX/UART7_TX/DCMIPP_D4/DCMI_D4/PSSI_D4/FMC_A12 |
| PE9 | A16 | PE9/TIM1_CH1/MDF1_CK/I4/UART7_RTS/FMC_A14/FMC_BA0 |
| PE10 | B16 | PE10/TIM1_CH2N/MDF1_SDIO/USART3_RX/UART7_CTS/DCMIPP_D3/DCMI_D3/PSSI_D3/FMC_A15/FMC_BA1 |
| PE11 | E11 | PE11/TIM1_CH2/MDF1_CK/I5/SPI4_NSS/FDCAN3_TX/SAI2_SD_B/FMC_SDNWE/LTDC_VSYNC |
| PE12 | B12 | PE12/TIM1_CH3N/MDF1_SDI5/SPI4_SCK/FDCAN3_RX/SAI2_SCK_B/FMC_SDNRAS |
| I2C4_SCL | PE13 | A11 PE13/TIM1_CH3/ADF1_CCK0/I2C4_SCL/SPI4_MISO/SAI2_FS_B/FMC_SDNCA5 |
| I2C4_SDA | PE14 | B11 PE14/TIM1_CH4/GFXTIM_FCKCAL/ADF1_CCK1/I2C4_SDA/SPI4_MOSI/SAI2_MCLK_B/FMC_SDNE0/GFXTIM_LCKCAL/FMC_NWE |
| PE15 | A12 | PE15/TIM1_BKIN/GFXTIM_LCKCAL/I2C4_SMB/SAI5_SCK/USART10_CK/USART2_CK/SDMMC1_D0/FMC_SDCKE0/GFXTIM_FCKCAL |
| PF0 | R3 | PF0/LPTIM5_OUT/TIM4_CH4/UCPD1_FRSTX2/UART9_TX/UART8_RTS/DCMIPP_D9/DCMI_D9/PSSI_D9/ETH1_MII_TX_CLK/ETH1_RGMII GTX_CLK |
| PF1 | P4 | PF1/LPTIM1_CH2/TIM4_CH3/LPTIM2_CH1/UCPD1_FRSTX1/UART9_RX/UART8_CTS/DCMIPP_D7/DCMI_D7/PSSI_D7/ETH1_TX_ER |
| PF2 | N4 | PF2/TIM1_CH3N/I2S2_CK/SPI2_SCK/FDCAN3_TX/USART2_CTS/USART2_NSS/ETH1_RGMII_CLK/I25/FMC_NWAIT/LTDC_B1 |
| PF3 | M2 | PF3/FDCAN3_RX/USART2_RTS/DCMIPP_HSYNC/DCMI_HSYNC/PSSI_DE/ETH1_PPS_OUT/FMC_NL/LTDC_R4 |
| PF4 | L2 | PF4/TIM5_ETR/LPTIM3_CH2/I2S1_WS/SPI1_NSS/I2S3_WS/SPI3_NSS/USART2_CK/I2S6_WS/SPI6_NSS/DCMIPP_HSYNC/DCMI_HSYNC/PSSI_DE/ETH1_MDIO/LTDC_R3 |
| PF5 | M3 | PF5/TIM1_ETR/LPTIM2_IN2/USART3_CTS/USART3_NSS/DCMIPP_D6/DCMI_D6/PSSI_D6/SAI2_SD_A/ETH1_CLK/FMC_NE3/LTDC_G0 |
| PF6 | L5 | PF6/TIM2_CH4/TIM5_CH4/LPTIM3_CH1/TIM15_CH2/I2S6_MCK/SPI4_RDY/USART2_RX/GFXTIM_LCKCAL/SPI5_RDY/SPI1_RDY/ETH1_MII_COL/GFXTIM_FCKCAL/TIM1_CH3/LTDC_DE |
| PF7 | M1 | PF7/TIM1_CH2N/TIM3_CH3/TIM9_CH1/I2S1_CK/SPI1_SCK/UART4_CTS/ETH1_MII_RX_CLK/ETH1_RGMII_RX_CLK/ETH1_RMII_REF_CLK/GFXTIM_TE/LTDC_VSYNC |
| LTDC_R6 | PF8 | N3 PF8/UART9_TX/ETH1_MII_RXD2/ETH1_RGMII_RXD2/FMC_NWE/LTDC_R6 |
| LTDC_HSYNC | PF9 | P1 PF9/ETH1_MII_RXD3/ETH1_RGMII_RXD3/LTDC_HSYNC |
| PF10 | L4 | PF10/TIM16_BKIN/SAI1_D3/MDF1_SDIO/UCPD1_FRSTX1/UART7_RX/DCMIPP_D11/DCMI_D11/PSSI_D11/DCMIPP_D15/PSSI_D15/ETH1_MII_RX_DV/ETH1_RGMII_RX_CTL/ETH1_RMII_CRS_DV/LTDC_R1 |
| PF11 | P3 | PF11/SPI5_MOSI/DCMIPP_D15/PSSI_D15/SAI2_SD_B/ETH1_MII_TX_EN/ETH1_RGMII_TX_CTL/ETH1_RMII_TX_EN/LTDC_B0 |
| PF12 | T1 | PF12/USART1_RX/SPI5_MISO/DCMIPP_D13/DCMI_D13/PSSI_D13/ETH1_MII_TXD0/ETH1_RGMII_TXD0/ETH1_RMII_TXD0 |
| PF13 | R2 | PF13/USART1_TX/SPI5_NSS/DCMIPP_D10/DCMI_D10/PSSI_D10/ETH1_MII_TXD1/ETH1_RGMII_TXD1/ETH1_RMII_TXD1 |
| PF14 | N2 | PF14/TIM2_CH2/USART1_CTS/SPI5_MOSI/ETH1_MII_RXD0/ETH1_RGMII_RXD0/ETH1_RMII_RXD0/LTDC_G0 |
| PF15 | N1 | PF15/USART1_RTS/SPI5_SCK/ETH1_MII_RXD1/ETH1_RGMII_RXD1/ETH1_RMII_RXD1/LTDC_G1 |

STM32N647X0HxQ

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| Title: CNN647B.PrjPcb | |
| Author: ALIENTEK | Size: A4 |
| Date: 2025/04/11/星期五 | File: STM32N6 GPIO DEF.SchDoc |
| Revision: 0 | Version: V1.0 |



正点原子

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| LTDC_VSYNC | PG0 | R13 | PG0/TIM1_CH4N/TIM12_CH1/UART9_RX/LTDC_VSYNC/ETH1_PHY_INTN/LTDC_R0 |
| LTDC_G1 | PG1 | R9 | PG1/TIM16_CH1N/SPI5_MISO/SAI1_SCK_B/UART7_RTS/DCMIPP_PIXCLK/DCMI_PIXCLK/PSSI_PDCK/TIM13_CH1/FMC_A19/LTDC_G1 |
| LTDC_R0 | PG2 | T11 | PG2/TIM17_CH1N/SPI5_MOSI/SAI1_FS_B/USART3_RTS/UART7_CTS/DCMIPP_D6/DCMI_D6/PSSI_D6/SAI2_MCLK_B/TIM14_CH1/FMC_A21/LTDC_R0 |
| | PG3 | R1 | PG3/USART2_TX/DCMIPP_HSYNC/DCMI_HSYNC/PSSI_DE/ETH1_MII_TXD2/ETH1_RGMII_TXD2 |
| | PG4 | P2 | PG4/TIM1_BKIN2/ETH1_MII_TXD3/ETH1_RGMII_TXD3/LTDC_B0 |
| | PG5 | M4 | PG5/TIM1_ETR/USART2_CTS/USART2_NSS/ETH1_MII_RX_ER/LTDC_B1 |
| | PG6 | L3 | PG6/TIM17_BKIN/USART6_CK/DCMIPP_D12/DCMI_D12/PSSI_D12/ETH1_MII_CRS/LTDC_B3 |
| | PG7 | L1 | PG7/SAI1_MCLK_A/USART6_CK/DCMIPP_D13/DCMI_D13/PSSI_D13/ETH1_PHY_INTN |
| | PG8 | T14 | PG8/RTC_REFIN/TIM1_CH3N/TIM12_CH2/USART1_RX/I2S2_SDO/SPI2_MOSI/SAI1_SCK_B/UART4_CTS/SDMMC2_D1/FMC_A20/LTDC_G7 |
| LTDC_R7 | PG9 | T13 | PG9/FMC_D8/FMC_DA8/LTDC_R7 |
| LED0 | PG10 | T10 | PG10/TIM1_CH1N/LPTIM2_CH1/I2S2_CK/SPI2_SCK/FDCAN2_TX/USART3_CTS/USART3_NSS/DCMIPP_D2/DCMI_D2/PSSI_D2/UART5_TX/FMC_A16/FMC_CLE/LTDC_G4 |
| | PG11 | U13 | PG11/UART7_RX/ETH1_MDC/LTDC_R6 |
| LTDC_G0 | PG12 | T9 | PG12/TIM17_CH1/SPI5_SCK/SAI1_MCLK_B/UART7_TX/FMC_A18/LTDC_G0 |
| LTDC_DE | PG13 | U9 | PG13/LPTIM1_IN1/TIM4_CH1/LPTIM2_IN1/USART3_RTS/DCMIPP_D12/DCMI_D12/PSSI_D12/SAI2_FS_A/FMC_NE1/LTDC_DE |
| | PG14 | P6 | PG14/LPTIM1_ETR/TIM8_CH4/I2S6_SDO/SPI6_MOSI/USART10_RTS/USART6_TX/USART2_RTS/DCMIPP_D11/DCMI_D11/PSSI_D11/FMC_NCE/FMC_NE2/LTDC_B1 |
| LTDC_B0 | PG15 | R6 | PG15/TIM1_CH4/SPI5_RDY/SPI4_RDY/USART3_CK/DCMIPP_D4/DCMI_D4/PSSI_D4/SPI1_RDY/ETH1_MII_RX_CLK/ETH1_RMII_REF_CLK/FMC_CLK/LTDC_B0 |
| OSC_IN | PH0 | A7 | PH0/OSC_IN |
| OSC_OUT | PH1 | B7 | PH1/OSC_OUT |
| | PH2 | E7 | PH2/TIM1_ETR/TIM3_ETR/TIM15_BKIN/FDCAN1_TX/DCMIPP_D11/DCMI_D11/PSSI_D11/SDMMC1_CMD/UART5_RX/FMC_NE3 |
| | PH3 | B1 | PH3/UART7_TX/LTDC_B4 |
| LTDC_R4 | PH4 | F4 | PH4/UART7_TX/LTDC_R4 |
| | PH5 | F5 | PH5/SPI5_SCK/ETH1_MDC |
| | PH6 | B2 | PH6/SPI5_NSS/LTDC_B5 |
| | PH7 | D2 | PH7/I3C2_SCL/SPI5_MOSI |
| | PH8 | C2 | PH8/I3C2_SDA/SPI5_MISO |
| | PH9 | D8 | PH9/TIM16_CH1/TIM4_CH3/USART3_CK/I2C1_SCL/FDCAN1_RX/I3C1_SCL/UART4_RX/DCMIPP_D6/DCMI_D6/PSSI_D6/SDMMC1_D4/SDMMC2_D4/SDMMC1_CKIN/FMC_D9/FMC_DA9 |
| XSPIM_P2_DQ0 | PN0 | P17 | PN0/XSPIM_P2_DQ0/FMC_A25 |
| XSPIM_P2_NCS1 | PN1 | R17 | PN1/XSPIM_P2_NCS1/FMC_A24 |
| XSPIM_P2_IO0 | PN2 | T17 | PN2/XSPIM_P2_IO0/FMC_A23 |
| XSPIM_P2_IO1 | PN3 | R15 | PN3/XSPIM_P2_IO1/FMC_A22 |
| XSPIM_P2_IO2 | PN4 | N17 | PN4/XSPIM_P2_IO2 |
| XSPIM_P2_IO3 | PN5 | R16 | PN5/XSPIM_P2_IO3 |
| XSPIM_P2_CLK | PN6 | P15 | PN6/XSPIM_P2_CLK |
| | PN7 | T16 | PN7/XSPIM_P2_NCLK |
| XSPIM_P2_IO4 | PN8 | P16 | PN8/XSPIM_P2_IO4 |
| XSPIM_P2_IO5 | PN9 | T15 | PN9/XSPIM_P2_IO5/DCMIPP_D5/DCMI_D5/PSSI_D5 |
| XSPIM_P2_IO6 | PN10 | U15 | PN10/XSPIM_P2_IO6/LTDC_B4 |
| XSPIM_P2_IO7 | PN11 | U16 | PN11/XSPIM_P2_IO7/LTDC_B6 |
| | PN12 | P14 | PN12/XSPIM_P2_NCS2 |

STM32N647X0HxQ

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|--------------------------|----------------------------------|
| Title: CNN647B.PrjPcb | |
| Author: ALIENTEK | Size: A4 |
| Date: 2025/04/11/星期五 | File: STM32N6 GPIO GHN.SchDoc |
| Revision: 0 | Version: V1.0 |



正点原子

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| B | | | B |
| C | | | C |
| D | | | D |

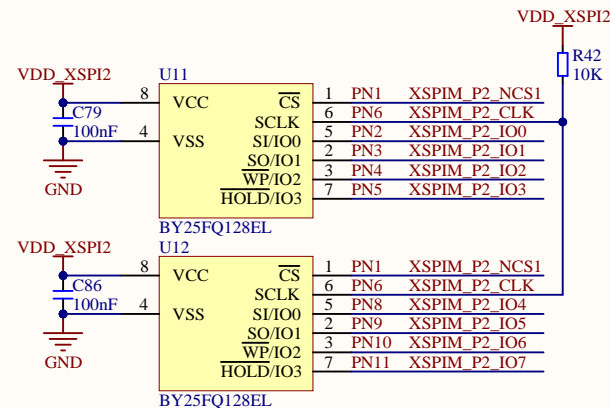
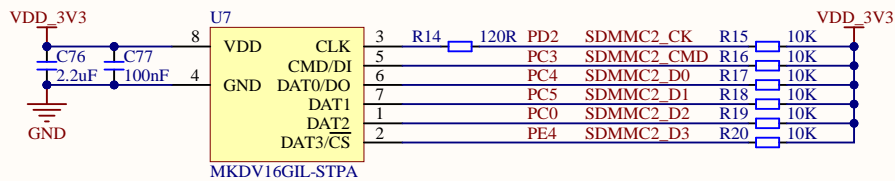
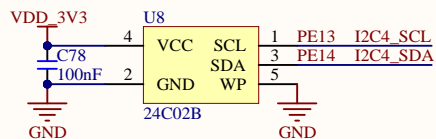
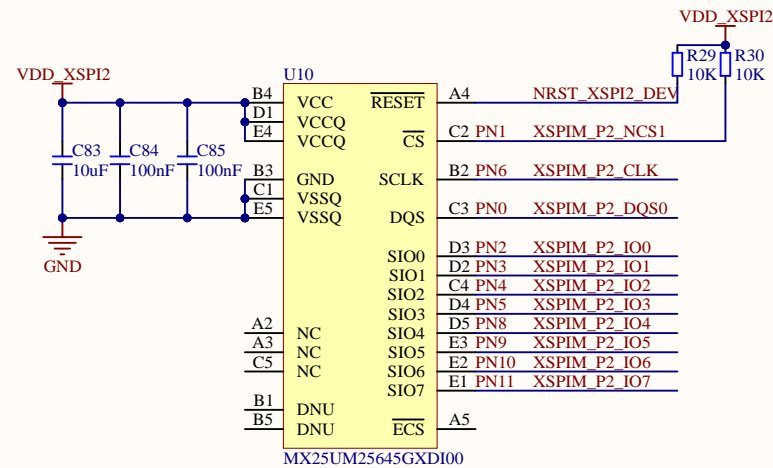
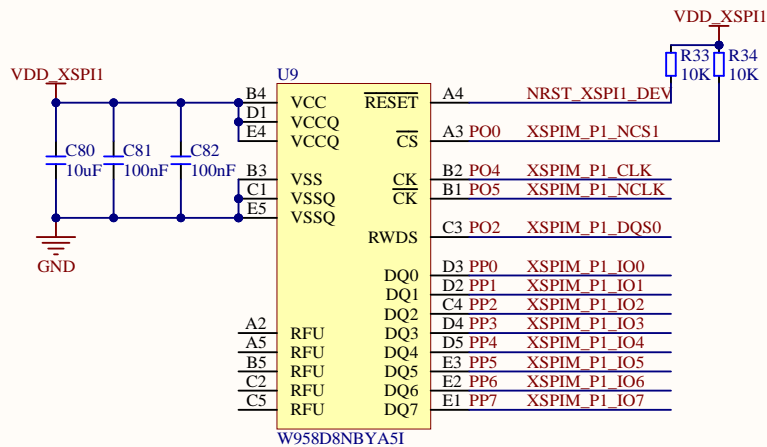
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|---------------|------|-----|---|
| XSPIM_P1_NCS1 | PO0 | M17 | PO0/XSPIM_P1_NCS1/FMC_A22 |
| | PO1 | K16 | PO1/XSPIM_P1_NCS2/FMC_A23 |
| XSPIM_P1_DQS0 | PO2 | K17 | PO2/XSPIM_P1_DQS0/FMC_A24/LTDC_B7 |
| | PO3 | M16 | PO3/XSPIM_P1_DQS1/FMC_A25/LTDC_G3 |
| XSPIM_P1_CLK | PO4 | N16 | PO4/XSPIM_P1_CLK/LTDC_B4/FMC_A24/FMC_NBL2 |
| XSPIM_P1_NCLK | PO5 | K15 | PO5/XSPIM_P1_NCLK/FMC_A25/FMC_NBL3 |
| XSPIM_P1_IO0 | PP0 | G17 | PP0/XSPIM_P1_IO0/FMC_D16 |
| XSPIM_P1_IO1 | PP1 | H16 | PP1/XSPIM_P1_IO1/FMC_D17 |
| XSPIM_P1_IO2 | PP2 | J17 | PP2/XSPIM_P1_IO2/FMC_D18 |
| XSPIM_P1_IO3 | PP3 | J16 | PP3/XSPIM_P1_IO3/FMC_D19 |
| XSPIM_P1_IO4 | PP4 | H15 | PP4/XSPIM_P1_IO4/FMC_D20 |
| XSPIM_P1_IO5 | PP5 | J14 | PP5/XSPIM_P1_IO5/FMC_D21 |
| XSPIM_P1_IO6 | PP6 | G16 | PP6/XSPIM_P1_IO6/FMC_D22 |
| XSPIM_P1_IO7 | PP7 | G15 | PP7/XSPIM_P1_IO7/FMC_D23 |
| | PP8 | L16 | PP8/SPI2_MISO/XSPIM_P1_IO8/FMC_D24 |
| | PP9 | N14 | PP9/SPI2_MOSI/XSPIM_P1_IO9/FMC_D25 |
| | PP10 | N15 | PP10/XSPIM_P1_IO10/ETH1_MDC/FMC_D26 |
| | PP11 | L15 | PP11/XSPIM_P1_IO11/FMC_D27 |
| | PP12 | J15 | PP12/XSPIM_P1_IO12/FMC_D28 |
| | PP13 | K14 | PP13/XSPIM_P1_IO13/FMC_D29 |
| | PP14 | L17 | PP14/XSPIM_P1_IO14/FMC_D30 |
| | PP15 | H17 | PP15/XSPIM_P1_IO15/FMC_D31/LTDC_B5 |
| | PQ0 | E5 | PQ0/TIM8_ETR |
| | PQ1 | E4 | PQ1/TIM8_BKIN |
| | PQ2 | E3 | PQ2/TIM8_BKIN2/SAI2_SCK_B |
| | PQ3 | D3 | PQ3/TIM8_CH1 |
| | PQ4 | D4 | PQ4/TIM8_CH1N |
| | PQ5 | D5 | PQ5/TIM8_CH2/SAI2_FS_B |
| | PQ6 | A2 | PQ6/TIM8_CH2N/SAI2_SD_B |
| | PQ7 | G5 | PQ7/TIM8_CH3/SAI2_MCLK_B |

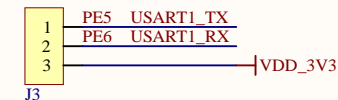
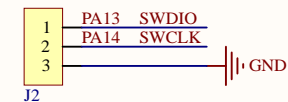
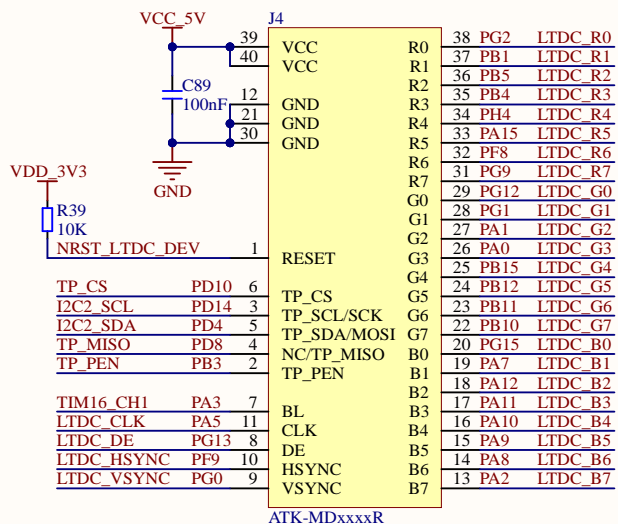
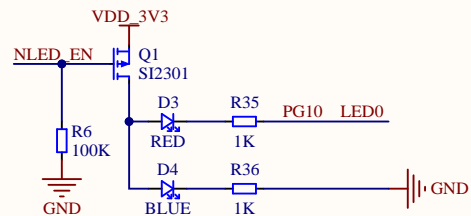
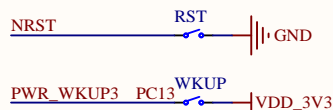
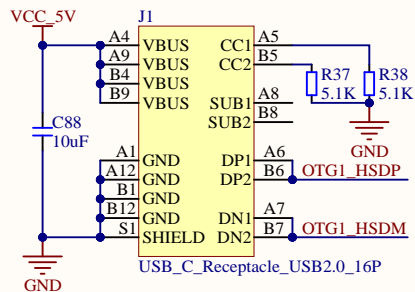
STM32N647X0HxQ


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| Title: CNN647B.PrjPcb | |
| Author: ALIENTEK | Size: A4 |
| Date: 2025/04/11/星期五 | File: STM32N6 GPIO OPQ.SchDoc |
| Revision: 0 | Version: V1.0 |

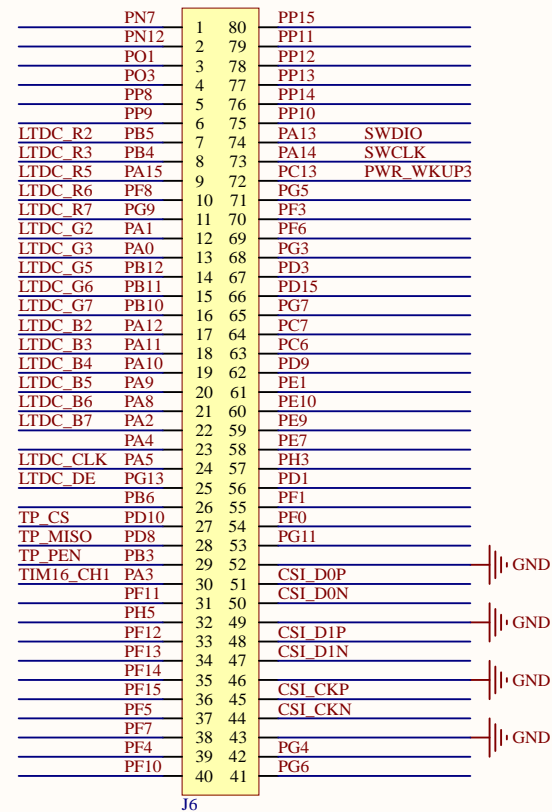
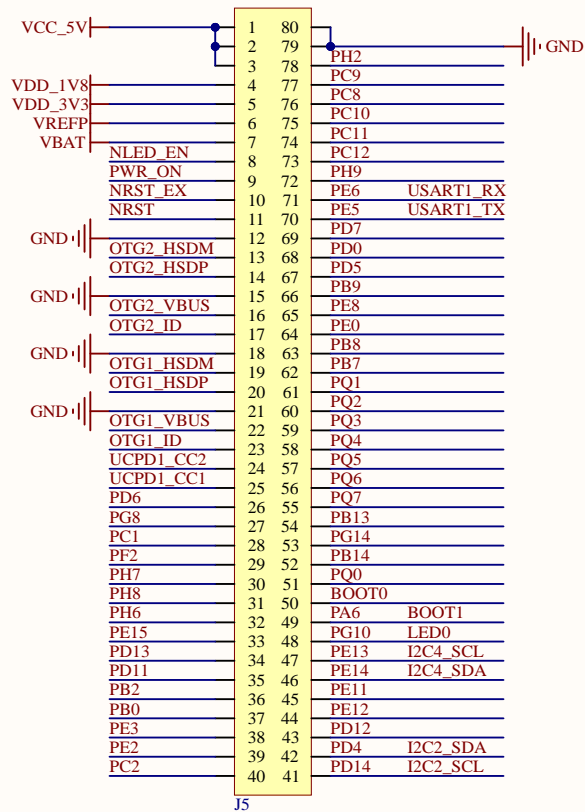

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| Title: CNN647B.PrjPcb | |  正点原子 |
| Author: ALIENTEK | Size: A4 | |
| Date: 2025/04/11/星期五 | File: Memory.SchDoc | |
| Revision: 0 | Version: V1.0 | |



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|--------------------------|-------------------------|---|
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| Author: ALIENTEK | Size: A4 | |
| Date: 2025/04/11/星期五 | File: Devices.SchDoc | |
| Revision: 0 | Version: V1.0 | |



32.00mm

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