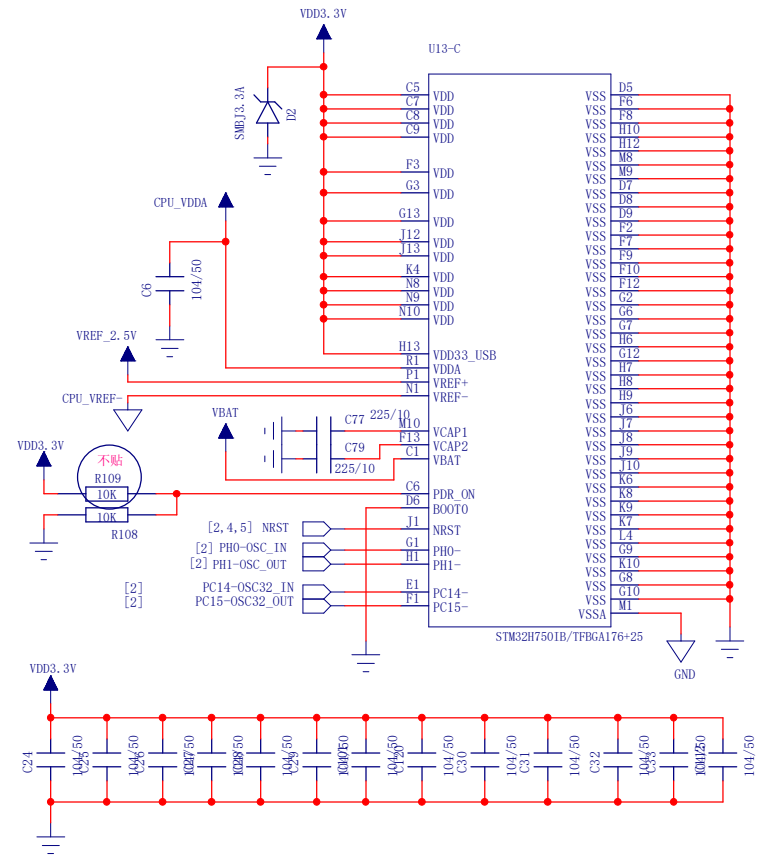
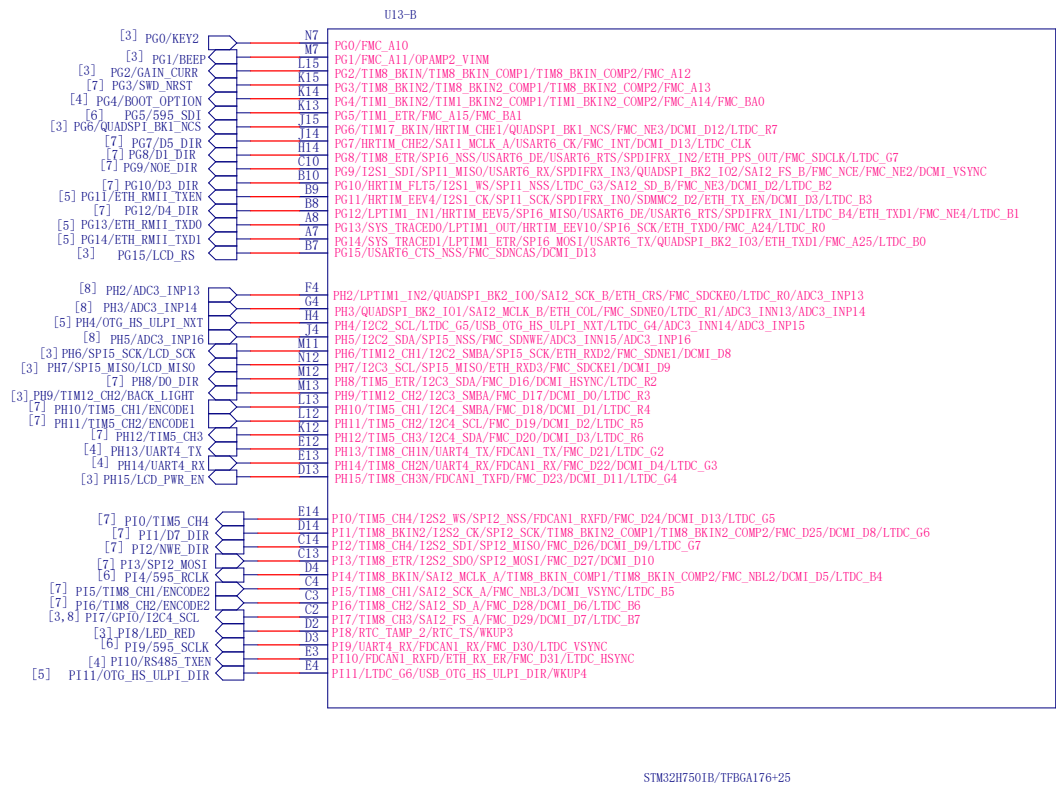


CPU GPIOA-F

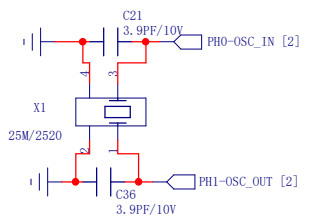
		STM32H7501B/TFPGA176-25	
		U13-A	
[7] PA0/TIM2_CH1	N3	PA0~WKUP(PA0)/TIM2_CH1/TIM2_ETR/TIM5_CH1/TIM8_ETR/TIM15_BKIN/UART4_TX/SDMMC2_CMD/SAI2_SD_B/ETH_CRS/ADCI1_INP16/WKUP0	
[5] PA1/ETH_RMII_REF_CLK	N2	PA1/TIM2_CH2/TIM5_CH2/LPTIM3_OUT/TIM15_CHIN/USART2_DE/USART2_RTS/UART4_RX/QUADSPI_BK1_I03/SAI2_MCLK_B/ETH_REF_CLK/ETH_RX_CLK/LTDC_R2/ADCI1_INN16/ADCI1_INP17	
[5] PA2/ETH_RMII_MDIO	P2	PA2/TIM2_CH3/TIM5_CH3/LPTIM4_OUT/TIM15_CHI/USART2_TX/SAI2_SCK_B/ETH_MDIO/MDIOS_MDIO/LTDC_R1/ADC12_INN14/WKUP1	
[5] PA3/USB_OTG_HS_ULPI_D0	R2	PA3/TIM2_CH4/TIM5_CH4/LTIM5_OUT/TIM15_CH2/USART2_RX/LTDC_R2/USB_OTG_HS_ULPI_D0/ETH_COI/LTDC_B5/ADC12_INP15	
[6] PA4/DACONF0	N4	PA4/TIM5_ETR/I2S1_WS/SP11_NSS/I2S3_WS/SP13_NSS/USART2_CK/SP16_NSS/USB_OTG_HS_SOF/DCMI_HSYNC/LTDC_VSYNC/ADC12_INP18/DACI1_OUT1	
[5] PA5/USB_OTG_HS_ULPI_CK	P4	PA5/TIM2_CH1/TIM2_ETR/TIM8_CHIN/I2S1_CK/SP11_SCK/SP16_SCK/USB_OTG_HS_ULPI_CK/LTDC_R4/ADC12_INN18/ADC12_INP19/DACI1_OUT2	
[3] PA6/ADC12_INP3	P3	PA6/TIM1_BKIN/TIM3_CH1/TIM8_BKIN/I2S1_SDI/SP11_MISO/SP16_MISO/TIM13_CH1/TIM8_BKIN_COMP1/TIM8_BKIN_COMP2/MDIOS_MDC/TIM1_BKIN_COMP1/TIM1_BKIN_COMP2/DCMI_PIXCLK/LTDC_G2/ADC12_INP3	
[5] PA7/ETH_RMII_CRS_DV	F15	PA7/TIM1_CHIN/TIM3_CH2/TIM8_CHIN/I2S1_SDO/SP11_MOSI/SP16_MOSI/TIM14_CH1/ETH_CRS_DV/ETH_RX_DV/FMC_SDNWE/ADC12_INN3/ADC12_INP7/OPAMP1_VINM	
[1, 4, 7] PA8/UART7_RX	E15	PA8/RCC_MCO_1/TIM1_CH1/HRTIM_CHB2/TIM8_BKIN2/LTDC3_SCK/USB_OTG_FS_SOF/UART7_RX/TIM8_BKIN2_COMP1/TIM8_BKIN2_COMP2/LTDC_B3/LTDC_R6	
[1, 7] PA9/USART1_TX/PE13/FMC_D10	D15	PA9/TIM1_CH2/HRTIM_CHC1/LPUART1_RX/I2C4_SMBAA/I2S2_CK/SP12_SCK/USART1_TX/FDCAN1_RX/FD/ETH_TX_ER/DCMI_D0/LTDC_R5/OTG_FS_VBUS	
[1, 7] PA10/USART1_RX/PE14/FMC_D11	C15	PA10/TIM1_CH3/HRTIM_CHC2/LPUART1_RX/USART1_RX/FDCAN1_TX/FD/ETH_TX_ER/DCMI_D1/LTDC_B1	
[1, 4] PA11/CAN1_RX/PD8/FMC_D12	B15	PA11/TIM1_CH4/HRTIM_CHD1/LPUART1_CTS/I2S2_WS/SP12_NSS/UART4_RX/FDCAN1_RX/USB_OTG_FS_DM/LTDC_R4	
[1, 4] PA12/CAN1_TX/PE15/FMC_D12	A15	PA12/TIM1_ETR/HRTIM_CHD2/LPUART1_DE/LPUART1_RTS/I2S2_CK/SP12_SCK/UART4_TX/USART1_DE/USART1_RTS/SAI2_FS_B/FDCAN1_TX/USB_OTG_FS_DP/LTDC_R5	
[2] PA13/SWDIO	A15	PA13(SYS_JTMS-SWDIO)/SYS_JTMS-SWDIO	
[2] PA14/SWCLK	A14	PA14(SYS_JTCK-SWCLK)/SYS_JTCK-SWCLK	
[7] PA15/UART7_TX	A13	PA15(SYS_JTD1)/TIM2_CH1/TIM2_ETR/HRTIM_FLT1/CEC/I2S1_WS/SP11_NSS/I2S3_WS/SP13_NSS/SP16_NSS/UART4_DE/UART4_RTS/UART7_TX	
[5] PB0/USB_OTG_HS_ULPI_D1	R5	PB0/TIM1_CH2N/TIM3_CH3/TIM8_CH2N/DFSDM1_CKOUT/UART4_CTS/LTDC_R3/USB_OTG_HS_ULPI_D1/ETH_RXD2/LTDC_G1/ADC12_INN5/ADC12_INP9/OPAMP1_VINP/COMP_1_INP	
[5] PB1/USB_OTG_HS_ULPI_D2	R4	PB1/TIM1_CH3N/TIM3_CH4/TIM8_CH3N/DFSDM1_DATIN1/LTDC_R6/USB_OTG_HS_ULPI_D2/ETH_RXD3/LTDC_G0/ADC12_INP5/COMP_1_INM	
[3] PB2/QUADSPI_CLK	M6	PB2/SAI1_D1/DFSDM1_CKIN1/SAI1_SD_A/I2S3_SDO/SP13_MOSI/SAI4_SD_A/QUADSPI_CLK/SAI4_D1/ETH_TX_ER	
[4] PB3/SDMMC2_D2	A10	PB3/SYS_JTDO-SWO/TIM2_CH2/HRTIM_FLT4/I2S1_CK/SP11_SCK/SP13_SCK/I2S3_CK/SP13_SCK/SP16_SCK/SDMMC2_D2/UART7_RX	
[4] PB4/SDMMC2_D3	A9	PB4/SYS_JTRST/TIM16_BKIN/TIM3_CH1/HRTIM_EBVI/I2S1_SDI/SP11_MISO/SP16_MISO/SP12_NSS/SP16_MISO/SDMMC2_D3/UART7_TX	
[5] PB5/USB_OTG_HS_ULPI_D7	A6	PB5/TIM17_BKIN/TIM6_CH2/HRTIM_EBVT/I2C1_SMBAA/I2S1_SDO/SP11_MOSI/I2C4_SCK/SP13_SDO/SP13_MOSI/SP16_MOSI/FDCAN2_RX/USB_OTG_HS_ULPI_D7/ETH_PPS_OUT/FMC_SDCKE1/DCMI_D10/UART5_RX	
[3] PB6/LCD_RST	D6	PB6/TIM16_CH1N/TIM4_CH1/HRTIM_EBVB/I2C1_SCL/CEC/I2C4_SCL/USART1_TX/LPUART1_TX/FDCAN2_TX/QUADSPI_BK1_NCS/DFSDM1_DATIN5/FMC_SDNEL/DCMI_D5/UART5_TX	
[7] PB7/TIM4_CH2	A5	PB7/TIM17_CH1N/TIM4_CH2/HRTIM_EBVB/I2C1_SDA/I2C4_SDA/USART1_RX/LPUART1_RX/FDCAN2_TX/FD/DFSDM1_CKIN5/FMC_NL/DCMI_VSYNC/PVD_IN	
[4] PB8/SDIO_D4	B4	PB8/TIM16_CH1/TIM4_CH3/DFSDM1_CKIN7/I2C1_SCL/I2C4_SCL/SDMMC1_CKIN/UART4_RX/FDCAN1_RX/SDMMC2_D4/ETH_TXD3/SDMMC1_D4/DCMI_D6/LTDC_B6	
[4] PB9/SDIO_D5	R12	PB9/TIM17_CH1/TIM4_CH4/DFSDM1_DATIN7/I2C1_SDA/I2S2_NSS/SP12_NSS/I2C4_SDA/SDMMC1_CD1R/UART4_TX/FDCAN1_TX/SDMMC2_D5/I2C4_SMBAA/SDMMC1_D5/DCMI_D7/LTDC_B7	
[5] PB10/USB_OTG_HS_ULPI_D3	R13	PB10/TIM2_CH3/HRTIM_SCOUT/LPTIM2_IN1/I2C2_SCL/I2S2_CK/SP12_SCK/DFSDM1_DATIN7/USART3_TX/QUADSPI_BK1_NCS/USB_OTG_HS_ULPI_D3/ETH_RX_ER/LTDC_G4	
[5] PB11/USB_OTG_HS_ULPI_D4	P12	PB11/TIM2_CH4/HRTIM_SCIN/LPTIM2_OUT/I2C2_SDA/DFSDM1_CKIN7/USART3_RX/USB_OTG_HS_ULPI_D4/ETH_TX_EN/LTDC_G5	
[5] PB12/USB_OTG_HS_ULPI_D5	P12	PB12/TIM1_BKIN/I2C2_SMBAA/I2S2_WS/SP12_NSS/DFSDM1_DATIN1/USART3_CK/FDCAN2_RX/USB_OTG_HS_ULPI_D5/ETH_TXD0/USB_OTG_HS_ID/TIM1_BKIN_COMP1/TIM1_BKIN_COMP2/UART5_RX	
[5] PB13/USB_OTG_HS_ULPI_D6	P13	PB13/TIM1_CH1N/LPTIM2_OUT/I2S2_CK/SP12_SCK/DFSDM1_CKIN1/FDCAN2_TX/USB_OTG_HS_ULPI_D6/ETH_TXD1/UART5_TX/OTG_HS	
[4] PB14/SDMMC2_D1	R14	PB14/TIM1_CH2N/TIM2_CH1/TIM8_CH2N/USART1_TX/I2S2_SDI/SP12_MISO/DFSDM1_DATIN2/USART3_DE/USART3_RTS/UART4_DE/UART4_RTS/SDMMC2_D0/USB_OTG_HS_DM	
[4] PB15/SDMMC2_D1	R15	PB15/RTC_REFIN/TIM1_CH3N/TIM12_CH2/TIM8_CH3N/USART1_RX/I2S2_SDO/SP12_MOSI/DFSDM1_CKIN2/UART4_CTS/SDMMC2_D1/USB_OTG_HS_DP	
[5] PC0/USB_OTG_HS_ULPI_STP	M2	PC0/DFSDM1_CKIN0/DFSDM1_DATIN4/SAI2_FS_B/USB_OTG_HS_ULPI_STP/FMC_SDNWE/LTDC_R5/ADC123_IP10	
[5] PC1/ETH_RMII_MDC	M4	PC1/SYS_TRACED0/SAI1_D1/DFSDM1_DATIN0/DFSDM1_CKIN4/I2S2_SDO/SP12_MOSI/SAI1_SD_A/SAI4_SD_A/SDMMC2_CK/SAI4_D1/ETH_MDC/MDIOS_MDC/ADC123_INN10/ADC123_INP11/RTC_TAMP_3/WKUP5	
[6] PC2_C/ADC3_INN1/ADC3_INP0/ADC123_INN11/INP12	M5	PC2/DFSDM1_CKIN1/I2S2_SDI/SP12_MISO/DFSDM1_CKOUT/USB_OTG_HS_ULPI_DIR/ETH_TXD2/FMC_SDN0/ADC123_INN11/ADC123_INP12	
[6] PC3_C/ADC3_INP1/PC3/ADC12_INN1/ADC12_INP13	N5	PC3/DFSDM1_DATIN1/I2S2_SDO/SP12_MOSI/USB_OTG_HS_ULPI_NXT/ETH_TX_CLK/FMC_SDCKE0/ADC12_INN12/ADC12_INP13	
[5] PC4/ETH_RMII_RXD0	P5	PC4/DFSDM1_CKIN2/I2S1_MCK/SPDIFRX_IN2/COMP1_IN2/COMP1_VOIT/COMP1_IN2	
[5] PC5/ETH_RMII_RXD1	P5	PC5/SAI1_D3/DFSDM1_DATIN2/SPDIFRX_IN3/SAI4_D3/ETH_RXD1/FMC_SDCKE0/COMP1_OUT/ADC12_INN4/ADC12_INP8/OPAMP1_VINM	
[4] PC6/SDIO_D6	H15	PC6/HRTIM_CHA1/TIM3_CH1/TIM8_CH1/DFSDM1_CKIN3/I2S2_MCK/USART6_TX/SDMMC1_D0D1R/FMC_NWA1/SDMMC2_D6/SDMMC1_D6/DCMI_D0/LTDC_HSYNC/SWPMI_10	
[4] PC7/SDIO_D7	C15	PC7/SYS_TRG10/HRTIM_CHA2/TIM3_CH2/TIM8_CH2/DFSDM1_DATIN3/I2S3_MCK/USART6_RX/SDMMC1_D123D1R/FMC_NEL/SDMMC2_D7/SWPMI1_TX/SDMMC1_D7/DCMI_D1/LTDC_G6	
[4] PC8/SDIO_D0	F14	PC8/SYS_TRACED1/HRTIM_CHB1/TIM3_CH3/TIM8_CH3/USART6_CK/UART5_DE/UART5_RTS/FMC_NCE/FMC_NE2/SWPMI1_RX/SDMMC1_D0/DCMI_D2	
[4] PC9/SDIO_D1	B14	PC9/RCC_MCO_2/TIM3_CH4/TIM8_CH4/I2C3_SDA/I2S_CKIN/UART5_CTS/QUADSPI_BK1_I00/LTDC_G3/SWPMI1_SUSPEND/SDMMC1_D1/DCMI_D3/LTDC_B2	
[4] PC10/SDIO_D2	B13	PC10/HRTIM_EBVI/DFSDM1_CKIN5/I2S3_CK/SP13_SCK/USART3_TX/UART4_TX/QUADSPI_BK1_I01/SDMMC1_D2/DCMI_D8/LTDC_R2	
[4] PC11/SDIO_D3	A12	PC11/HRTIM_FLT2/DFSDM1_DATIN5/I2S3_SDI/SP13_MISO/USART3_RX/UART4_RX/QUADSPI_BK2_NCS/SDMMC1_D3/DCMI_D4	
[4] PC12/SDIO_CK	D1	PC12/SYS_TRACED3/HRTIM_EBVB/I2S3_SDO/SP13_MOSI/USART3_CK/UART5_TX/SDMMC1_CK/DCMI_D9	
[8] PC13/TVCC_ON/OFF	D1	PC13/RTC_TAMP_1/RTC_TS/WKUP2	
[7] PD0/FMC_D2	B12	PD0/DFSDM1_CKIN6/SAI3_SCK_A/UART4_RX/FDCAN1_RX/FMC_D2/FMC_D42	
[7] PD1/FMC_D3	C12	PD1/DFSDM1_DATIN6/SAI3_SD_A/UART4_TX/FDCAN1_TX/FMC_D3/FMC_D43	
[4] PD2/SDIO_CMD	D12	PD2/SYS_TRACED2/TIM3_ETR/UART5_RX/SDMMC1_CMD/DCMI_D11	
[7] PD3/SP12_SCK	D10	PD3/DFSDM1_CKOUT/I2S2_CK/SP12_SCK/USART2_CTS_NSS/FMC_CLK/DCMI_D5/LTDC_G7	
[7] PD4/FMC_NOE	C11	PD4/HRTIM_FLT3/SAI3_FS_A/USART2_DE/USART2_RTS/FDCAN1_RX/FD/FMC_NOE	
[7] PD5/FMC_NWE	B11	PD5/HRTIM_EBVB3/USART2_TX/FDCAN1_TX/FD/FMC_NWE	
[4] PD6/SDMMC2_CK	A11	PD6/SAI1_D1/DFSDM1_CKIN4/DFSDM1_DATIN1/I2S3_SDO/SP13_MOSI/SAI1_SD_A/USART2_RX/SAI4_SD_A/FDCAN2_RX/FD/SAI4_D1/SDMMC2_CK/FMC_NWA1/DCMI_D10/LTDC_B2	
[4] PD7/SDMMC2_CMD	P15	PD7/DFSDM1_DATIN4/I2S1_SDO/SP11_MOSI/DFSDM1_CKIN1/USART2_CK/SPDIFRX_IN0/SDMMC2_CMD/FMC_NE1	
[1, 4] PA11/CAN1_RX/PD8/FMC_D13	P14	PD8/DFSDM1_CKIN3/SAI3_SCK_B/USART3_TX/SPDIFRX_IN1/FMC_D13/FMC_D413	
[7] PD9/D2_DIR	N15	PD9/DFSDM1_DATIN3/SAI3_SD_B/USART3_RX/FDCAN2_RX/FD/FMC_D14/FMC_D414	
[7] PD10/D6_DIR	N14	PD10/DFSDM1_CKOUT/SAI3_FS_B/USART3_CK/FDCAN2_TX/FD/FMC_D15/FMC_D415/LTDC_B3	
[3] PD12/QUADSPI_BK1_I01	N13	PD11/LPTIM2_IN2/I2C4_SCK/USART3_CTS_NSS/QUADSPI_BK1_I00/SAI2_SD_A/FMC_A16	
[3] PD13/QUADSPI_BK1_I03	M15	PD12/LPTIM1_IN1/TIM1_CH1/LPTIM2_IN1/I2C4_SCL/USART3_DE/USART3_RTS/QUADSPI_BK1_I01/SAI2_FS_A/FMC_A17	
[7] PD14/FMC_D0	M14	PD13/LPTIM1_OUT/TIM4_CH2/I2C4_SDA/QUADSPI_BK1_I03/SAI2_SCK_A/FMC_A18	
[7] PD15/FMC_D1	L14	PD14/TIM4_CH3/SAI3_MCLK_B/UART8_CTS/FMC_D0/FMC_D40	
[4] PE0/UART8_RX	M4	PE0/LPTIM1_ETR/TIM4_ETR/HRTIM_SCIN/LPTIM2_ETR/UART8_RX/FDCAN1_RX/FD/SAI2_MCLK_A/FMC_NBL0/DCMI_D2	
[3] PE1/LCD_CS	A3	PE1/LPTIM1_IN2/HRTIM_SCOUT/UART8_TX/FDCAN1_TX/FD/FMC_NBL1/DCMI_D3	
[7] PE2/SP14_SCK	A2	PE2/SYS_TRACCLK/SAI1_CK1/SP14_SCK/SAI1_MCLK_A/SAI4_MCLK_A/QUADSPI_BK1_I02/SAI4_CK1/ETH_TXD3/FMC_A23	
[6] PE3/65130_SW	A1	PE3/SYS_TRACED0/TIM15_BKIN/SAI1_SD_B/SAI4_SD_B/FMC_A19	
[7] PE4/SP14_NSS	B2	PE4/SYS_TRACED1/SAI1_D2/DFSDM1_DATIN3/TIM15_CHIN/SP14_NSS/SAI1_FS_A/SAI4_FS_A/SAI4_D2/FMC_A20/DCMI_D4/LTDC_B0	
[7] PE5/SP14_MISO	B3	PE5/SYS_TRACED2/SAI1_CK2/DFSDM1_CKIN3/TIM15_CHI/SP14_MISO/SAI1_SCK_A/SAI4_SCK_A/SAI4_CK2/FMC_A21/DCMI_D6/LTDC_G0	
[7] PE6/SP14_MOSI	R8	PE6/SYS_TRACED3/TIM1_BKIN2/SAI1_D1/TIM15_CH2/SP14_MOSI/SAI1_SD_A/SAI4_SD_A/SAI4_D1/SAI2_MCLK_B/TIM1_BKIN2_COMP1/TIM1_BKIN2_COMP2/FMC_A22/DCMI_D7/LTDC_G1	
[7] PE7/FMC_D4	P8	PE7/TIM1_ETR/DFSDM1_DATIN2/UART7_RX/QUADSPI_BK2_I00/FMC_D4/FMC_D40/OPAMP2_VOIT/COMP_2_INM	
[7] PE8/FMC_D5	P9	PE8/TIM1_CH1N/DFSDM1_CKIN2/UART7_TX/QUADSPI_BK2_I02/FMC_D5/FMC_D50/COMP2_VOIT/OPAMP2_VINM	
[7] PE9/FMC_D6	R9	PE9/TIM1_CH1/DFSDM1_CKOUT/UART7_DE/UART7_RTS/QUADSPI_BK2_I02/OPAMP2_VINP/COMP_2_INP	
[7] PE10/FMC_D7	P10	PE10/TIM1_CH2N/DFSDM1_DATIN4/UART7_CTS/QUADSPI_BK2_I03/FMC_D7/FMC_D47/COMP_2_INM	
[7] PE11/FMC_D8	N10	PE11/TIM1_CH2/DFSDM1_CKIN4/SP14_NSS/SAI2_SD_B/FMC_D8/FMC_D48/LTDC_G3/COMP_2_INP	
[7] PE12/FMC_D9	N11	PE12/TIM1_CH3N/DFSDM1_DATIN5/SP14_SCK/SAI2_SCK_B/FMC_D9/FMC_D49/COMP1_OUT/LTDC_B4	
[1, 4, 7] PA9/USART1_TX/PE13/FMC_D10	P11	PE13/TIM1_CH3/DFSDM1_CKIN5/SP14_MISO/SAI2_FS_B/FMC_D10/FMC_D410/COMP2_OUT/LTDC_DE	
[1, 7] PA10/USART1_RX/PE14/FMC_D11	R11	PE14/TIM1_CH4/SP14_MOSI/SAI2_MCLK_B/FMC_D11/FMC_D411/LTDC_CLK	
[1, 4] PA12/CAN1_TX/PE15/FMC_D12	R11	PE15/TIM1_BKIN/FMC_D12/FMC_D412/TIM1_BKIN_COMP1/TIM1_BKIN_COMP2/LTDC_R7	
[7] PF0/I2C2_SDA	F2	PF0/I2C2_SDA/FMC_A0	
[7] PF1/I2C2_SCL	H3	PF1/I2C2_SCL/FMC_A1	
[3] PF2/KEY1	H2	PF2/I2C2_SMBAA/FMC_A2	
[3] PF3/ADC3_INP5/THERMAL_RESISTOR_TEST	J2	PF3/FMC_A3/ADC3_INP5	
[2] PF4/GP10/ADC3_INN5/ADC3_INP9	J3	PF4/FMC_A4/ADC3_INN5/ADC3_INP9	
[8] PF5/ADC3_INP4/CURRENT_TEST_SWO	K3	PF5/FMC_A5/ADC3_INP4	
[4] PF6/ESP32-S_RESET	K2	PF6/TIM16_CH1/SP15_NSS/SAI1_SD_B/UART7_RX/SAI4_SD_B/QUADSPI_BK1_I03/ADC3_INN4/ADC3_INP8	
[3] PF7/QUADSPI_BK1_I02	L1	PF7/TIM17_CH1/SP15_SCK/SAI1_MCLK_B/UART7_TX/SAI4_MCLK_B/QUADSPI_BK1_I02/ADC3_INP3	
[3] PF8/ADC3_INN3/ADC3_INP7	L3	PF8/TIM16_CHIN/SP15_MISO/SAI1_SCK_B/UART7_DE/UART7_RTS/SAI4_SCK_B/TIM13_CH1/QUADSPI_BK1_I00/ADC3_INN3/ADC3_INP7	
[1, 6] PF11/ADC1_INP2/PF9/ADC3_INP2/PF13/ADC2_INP2	R118	PF9/TIM17_CHIN/SP15_MOSI/SAI1_FS_B/UART7_CTS/SAI4_FS_B/TIM14_CH1/QUADSPI_BK1_I01/ADC3_INP2	
[1, 6] PF12/ADC1_INN2/PF10/ADC3_INN2/PF14/ADC2_INN2	R27	PF10/TIM16_BKIN/SAI1_D3/QUADSPI_CLK/SAI4_D3/DCMI_D11/LTDC_DE/ADC3_INN2/ADC3_INP6	
[1, 6] PF11/ADC1_INP2/PF9/ADC3_INP2/PF13/ADC2_INP2	R125	PF11/SP15_MOSI/SAI2_SD_B/FMC_SDNARS/DCMI_D12/ADC1_INP2	
[1, 6] PF12/ADC1_INN2/PF10/ADC3_INN2/PF14/ADC2_INN2	R133	PF12/FMC_A6/ADC1_INN2	
[1, 6] PF11/ADC1_INP2/PF9/ADC3_INP2/PF13/ADC2_INP2	R126	PF13/DFSDM1_DATIN6/I2C4_SMBAA/FMC_A7/ADC2_INP2	
[1, 6] PF12/ADC1_INN2/PF10/ADC3_INN2/PF14/ADC2_INN2	R134	PF14/DFSDM1_CKIN6/I2C4_SCL/FMC_A8/ADC2_INN2/ADC2_INP6	
[1, 6] PF12/ADC1_INN2/PF10/ADC3_INN2/PF14/ADC2_INN2	R134	PF15/I2C4_SDA/FMC_A9	
[3, 8] PF15/I2C4_SDA	P7		

阅读提示： 网标旁边 内的数字表示该网标存在的页码

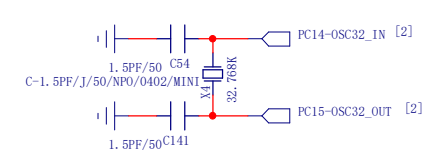
CPU GPIO G-I



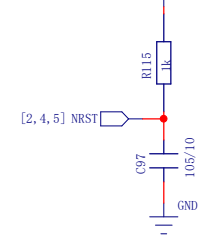
HSE晶振



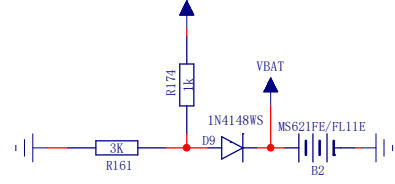
LSE晶振



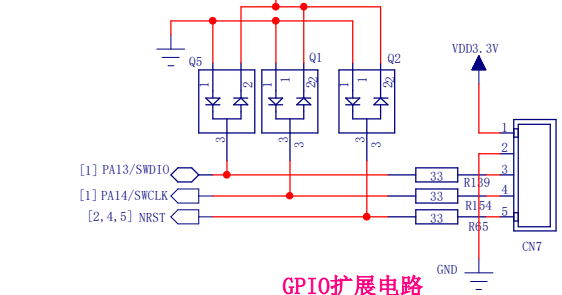
复位电路



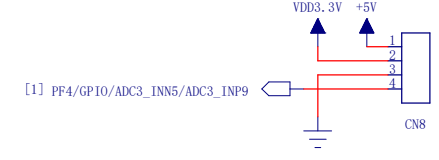
VBAT电路



SWD调试接口



GPIO扩展电路

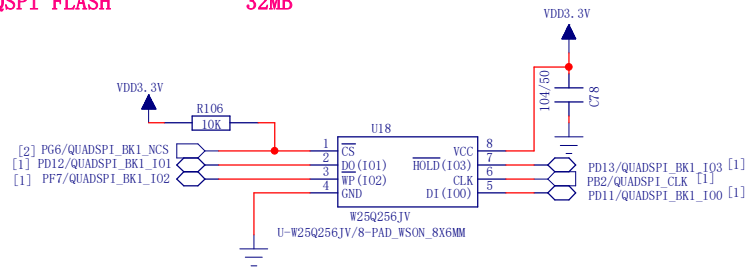


H7-T00L开发工具

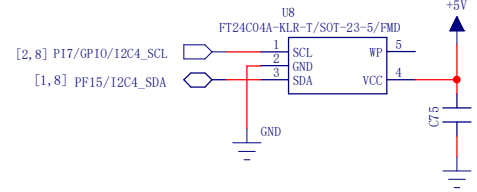
D253-6	2019-09-30
SHEET NAME: [2]CPU_GPIOGHI_VDD	
武汉安富莱电子有限公司	
淘宝店: armfly.taobao.com	

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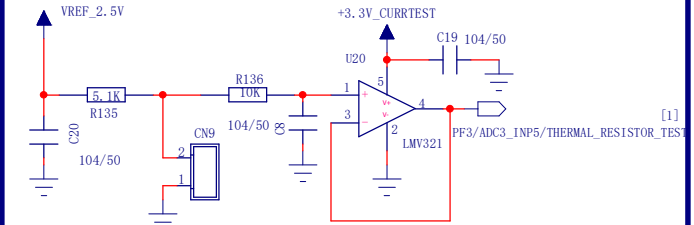
QSPI FLASH 32MB



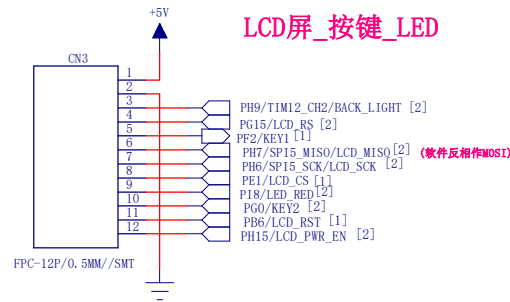
I2C EEPROM 实际贴装的是24C16 (2K字节)



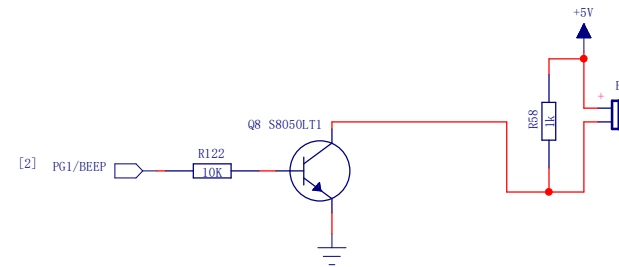
热敏电阻测温接口电路



LCD屏_按键_LED

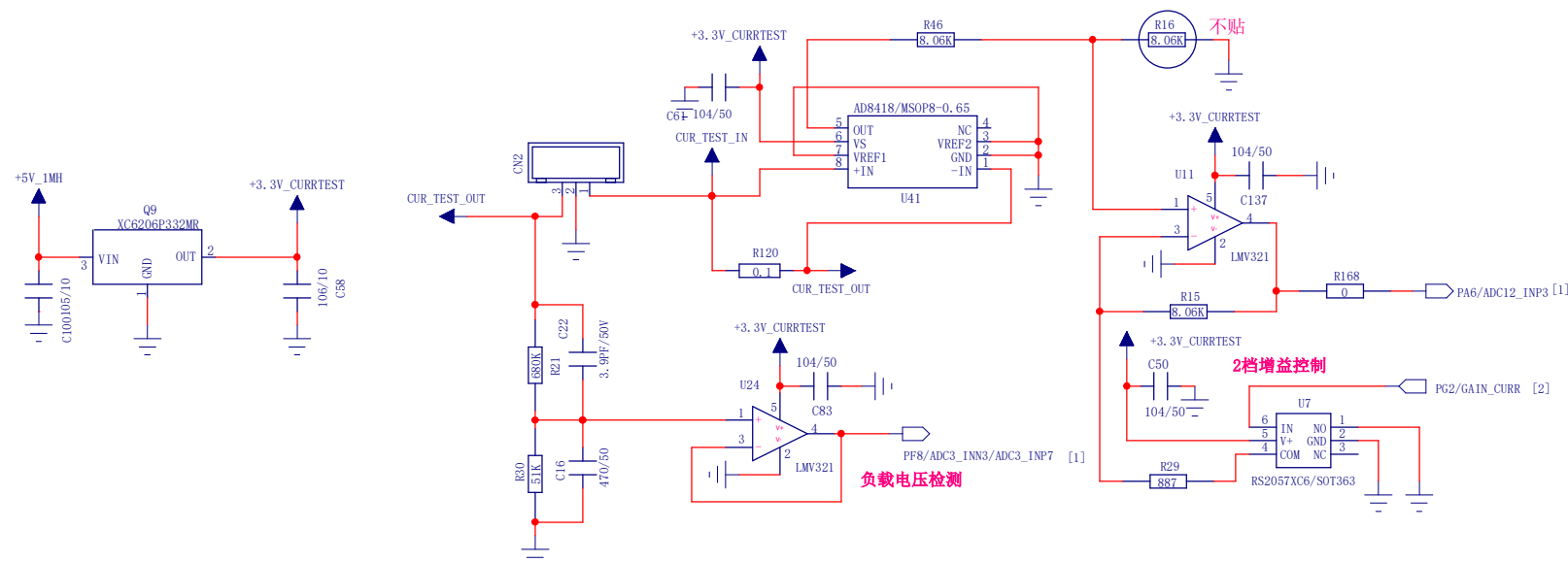


蜂鸣器电路



有源蜂鸣器

负载电流检测电路



H7-T00L开发工具

D253-6 2019-09-30

SHEET NAME: 24C04_QSPI_LCD_BEEP_CURRTEST

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淘宝店: armfly.taobao.com

RS232串口 (USART1)

The diagram illustrates the internal pin connections of the UT3232G-P16-R/TSSOP-16 IC. The IC is a 16-pin device with the following pins and connections:

- Pin 1:** C1+ (VCC)
- Pin 2:** V+
- Pin 3:** C1- (GND)
- Pin 4:** C2+ (VCC)
- Pin 5:** C2- (GND)
- Pin 6:** V-
- Pin 7:** T2OUT
- Pin 8:** R2IN
- Pin 9:** T2IN
- Pin 10:** T1IN
- Pin 11:** T1OUT
- Pin 12:** R1IN
- Pin 13:** R1OUT
- Pin 14:** T10UT
- Pin 15:** VCC
- Pin 16:** GND

External components and connections include:

- Capacitors:** C46, C47, C48, C49, C50 (all 104/50).
- Resistors:** R6 (1k), R76 (1k), R72 (10k).
- Power Supply:** VDD3.3V.
- Signal Connections:**
 - RS232_TX [7] (Pin 14)
 - RS232_RX [7] (Pin 13)
 - RS232_CPU_RX [7] (Pin 12)
 - PA9/USART1_TX/PE13/FMC_0104_7 (Pin 11)
 - PEO/UART8_RX [1] (Pin 9)

CAN接口

The diagram illustrates the CAN interface circuit for the U-TJF1051T/3/S08 microcontroller. The microcontroller's internal CAN pins are connected to an external CAN transceiver (TVS-SMC24/S0T23) and the CAN bus lines (CAN1, CANL). The power supply connections for +5V and VDD3.3V are also shown.

Legend:

- [1] PA12/CAN1_TX/PE15/FMC_D12
- [1] PA11/CAN1_RX/PD8/FMC_D13

[illegible]

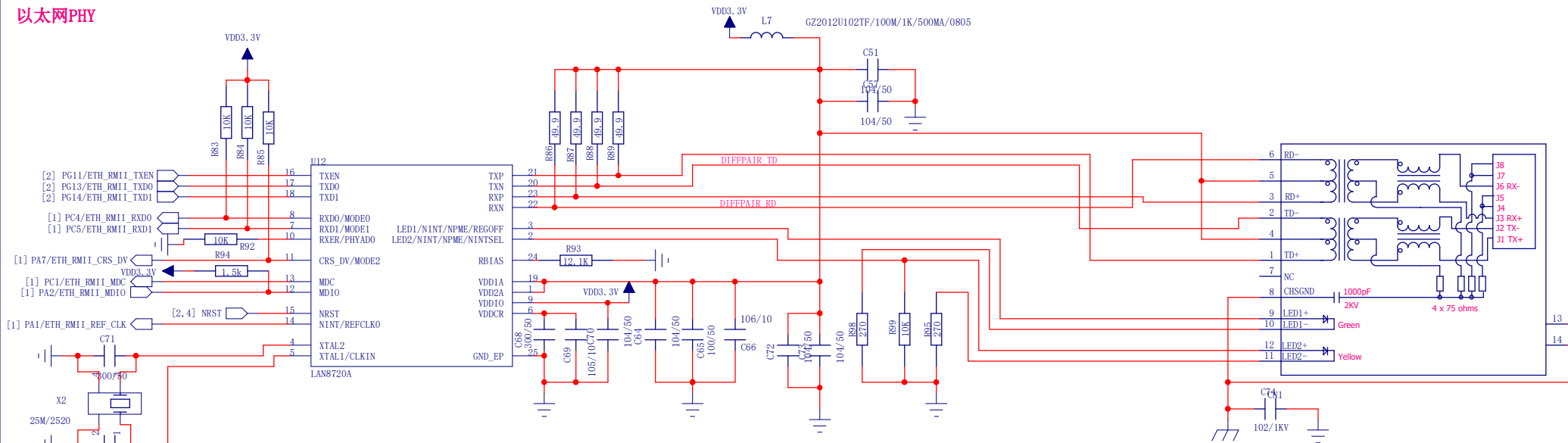
The diagram illustrates the pin connections for an ESP32-S module, specifically for UART and SDIO interfaces. The module is shown with its pins numbered 1 through 40. The connections are as follows:

- Power and Ground:**
 - VDD3.3V is connected to pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40.
 - GND is connected to pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40.
- UART Interface:**
 - PH14/UART4_RX [2] is connected to pin 39.
 - PH13/UART4_TX [2] is connected to pin 38.
- SDIO Interface:**
 - PD6/SDMMC2_CK [1] is connected to pin 39.
 - PB3/SDMMC2_D2 [1] is connected to pin 38.
 - PB4/SDMMC2_D3 [1] is connected to pin 37.
- Other Connections:**
 - GPIO1021 is connected to pin 33.
 - GPIO1022 is connected to pin 34.
 - GPIO1023 is connected to pin 35.
 - GPIO1024 is connected to pin 36.
 - GPIO1025 is connected to pin 37.
 - GPIO1026 is connected to pin 38.
 - GPIO1027 is connected to pin 39.
 - GPIO1028 is connected to pin 40.
 - GPIO1029 is connected to pin 1.
 - GPIO1030 is connected to pin 2.
 - GPIO1031 is connected to pin 3.
 - GPIO1032 is connected to pin 4.
 - GPIO1033 is connected to pin 5.
 - GPIO1034 is connected to pin 6.
 - GPIO1035 is connected to pin 7.
 - GPIO1036 is connected to pin 8.
 - GPIO1037 is connected to pin 9.
 - GPIO1038 is connected to pin 10.
 - GPIO1039 is connected to pin 11.
 - GPIO1040 is connected to pin 12.
 - GPIO1041 is connected to pin 13.
 - GPIO1042 is connected to pin 14.
 - GPIO1043 is connected to pin 15.
 - GPIO1044 is connected to pin 16.
 - GPIO1045 is connected to pin 17.
 - GPIO1046 is connected to pin 18.
 - GPIO1047 is connected to pin 19.
 - GPIO1048 is connected to pin 20.
 - GPIO1049 is connected to pin 21.
 - GPIO1050 is connected to pin 22.
 - GPIO1051 is connected to pin 23.
 - GPIO1052 is connected to pin 24.
 - GPIO1053 is connected to pin 25.
 - GPIO1054 is connected to pin 26.
 - GPIO1055 is connected to pin 27.
 - GPIO1056 is connected to pin 28.
 - GPIO1057 is connected to pin 29.
 - GPIO1058 is connected to pin 30.
 - GPIO1059 is connected to pin 31.
 - GPIO1060 is connected to pin 32.
 - GPIO1061 is connected to pin 33.
 - GPIO1062 is connected to pin 34.
 - GPIO1063 is connected to pin 35.
 - GPIO1064 is connected to pin 36.
 - GPIO1065 is connected to pin 37.
 - GPIO1066 is connected to pin 38.
 - GPIO1067 is connected to pin 39.
 - GPIO1068 is connected to pin 40.

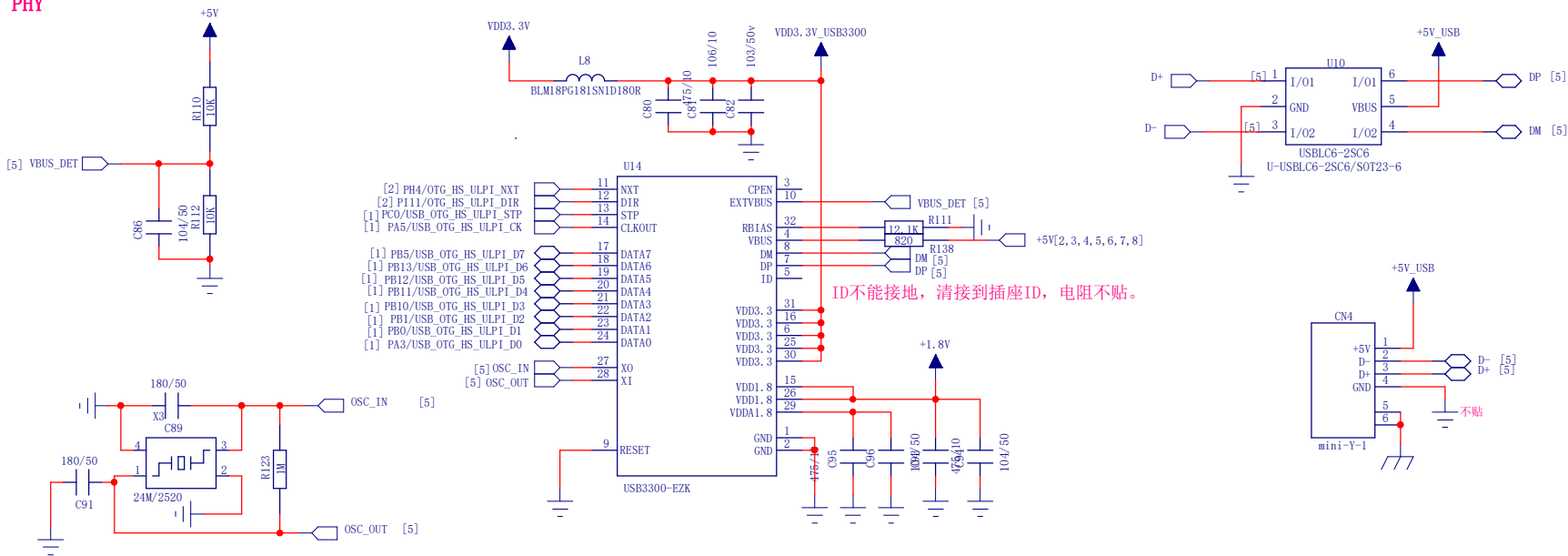
[illegible]

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以太网PHY



USB PHY



H7-TOOL开发工具

D253-6

2019-09-30

SHEET NAME: [6]LAN_USB

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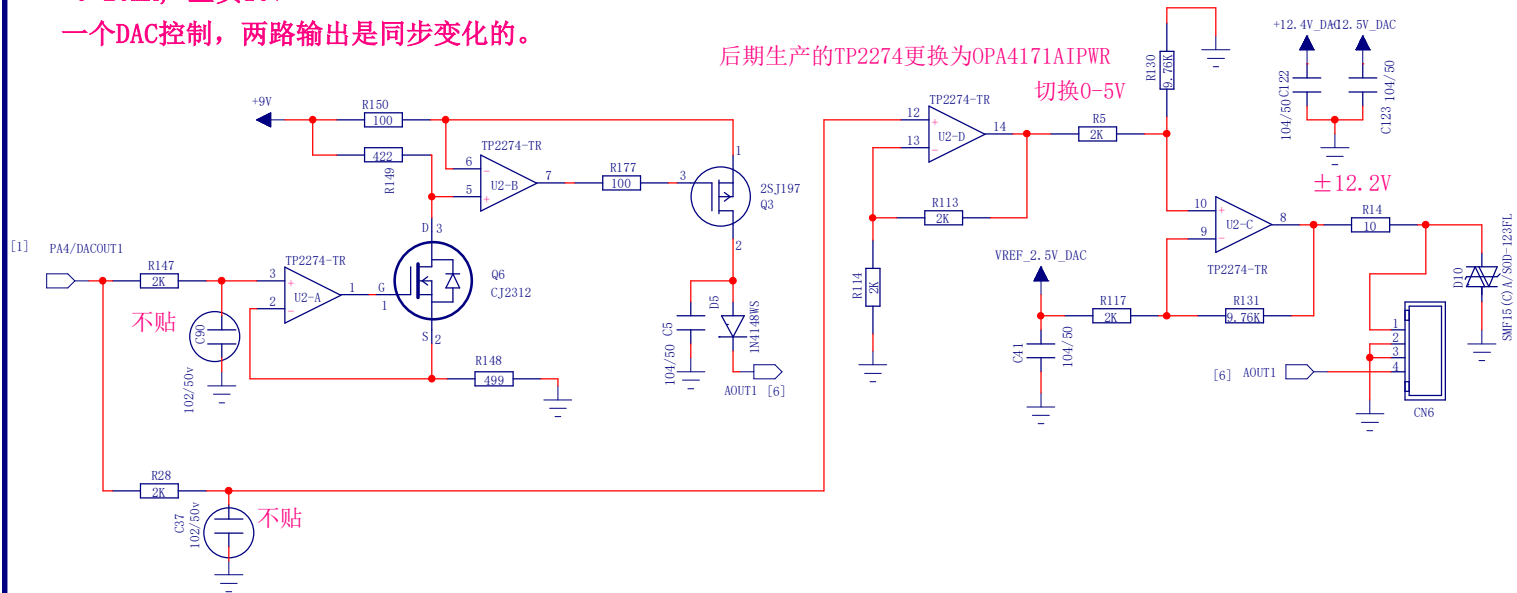
淘宝店: armfly.taobao.com

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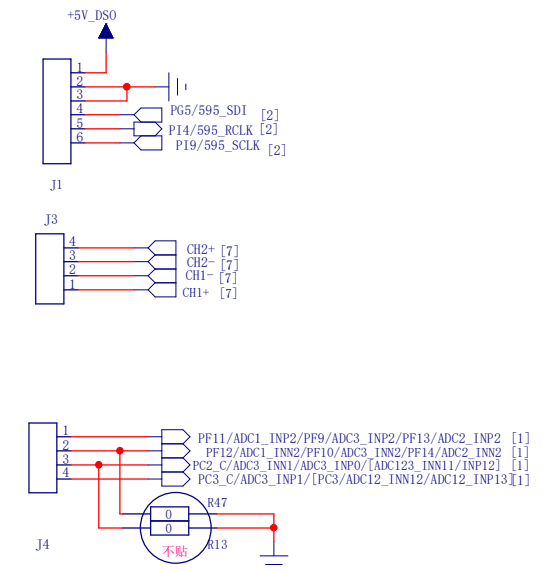
DAC模拟量输出

0-20mA, 正负10V

一个DAC控制，两路输出是同步变化的。



ADC示波器接口



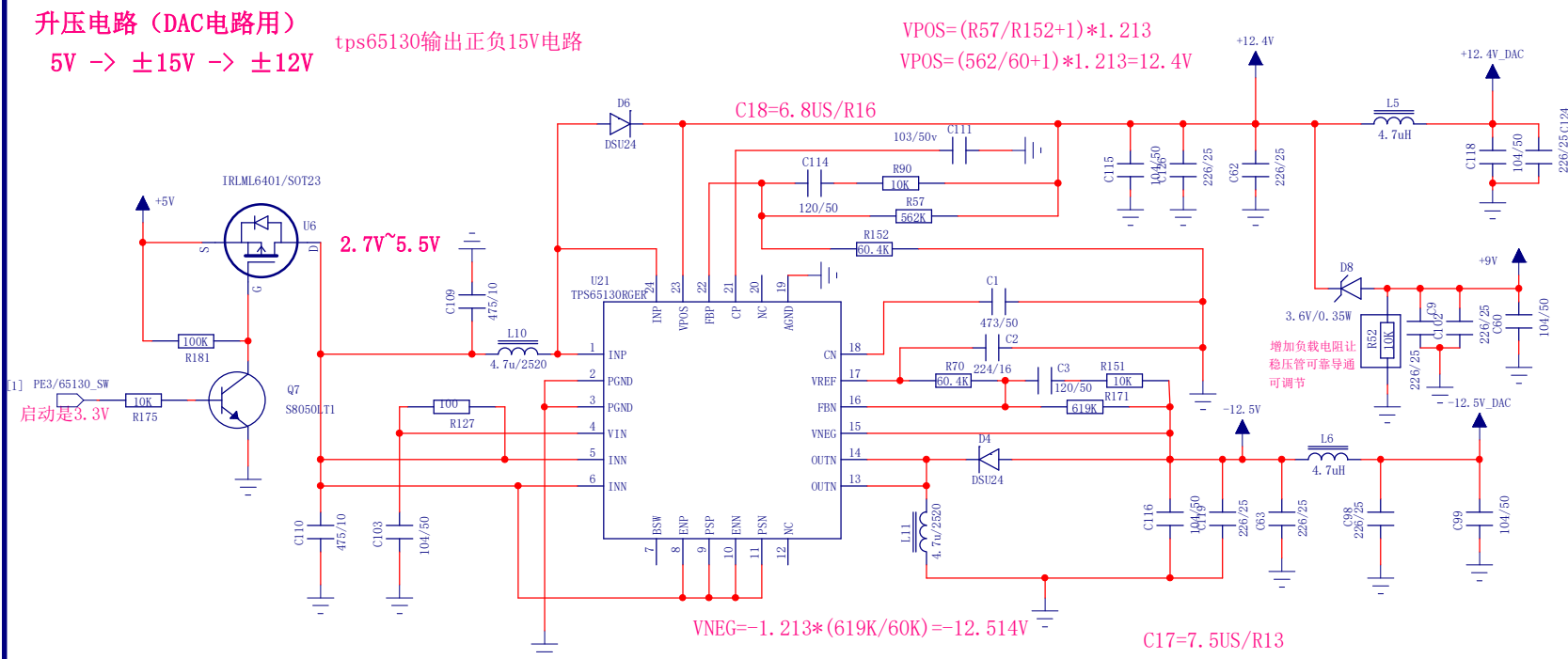
升压电路（DAC电路用）

5V \rightarrow $\pm 15V \rightarrow \pm 12V$

tps65130输出正负15V电路

$$\text{VPOS} = (\text{R57}/\text{R152} + 1) * 1.213$$

$$V_{POS} = (562/60 + 1) * 1.213 = 12.4V$$



H7-T00L开发工具

D253-6

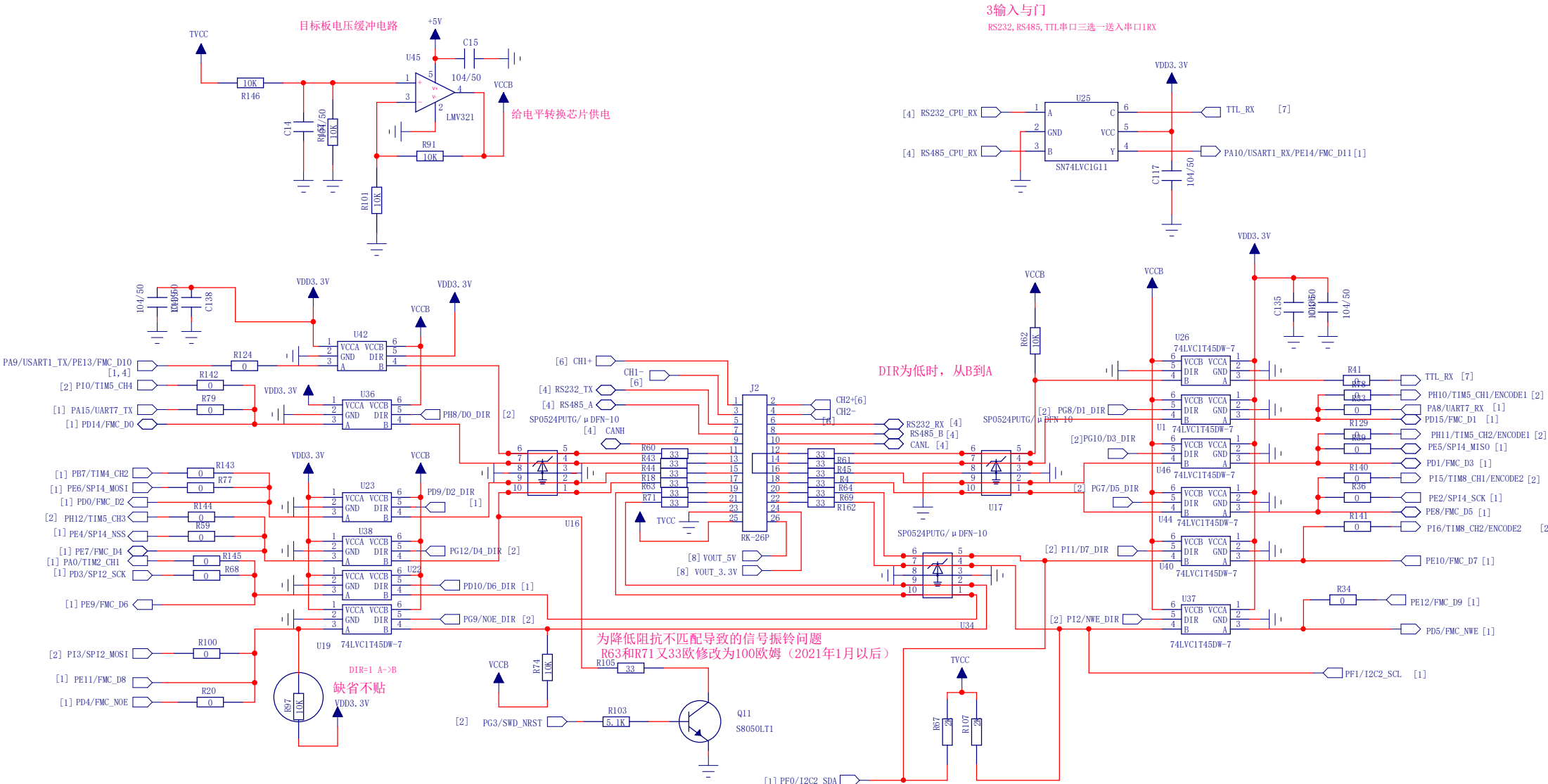
2019-09-30

SHEET NAME: [8]DAC

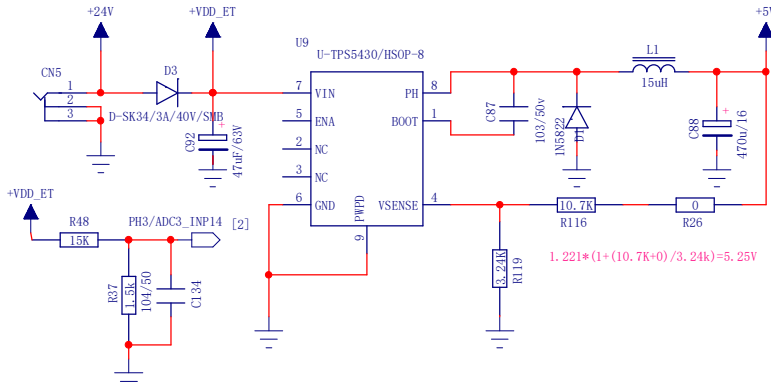
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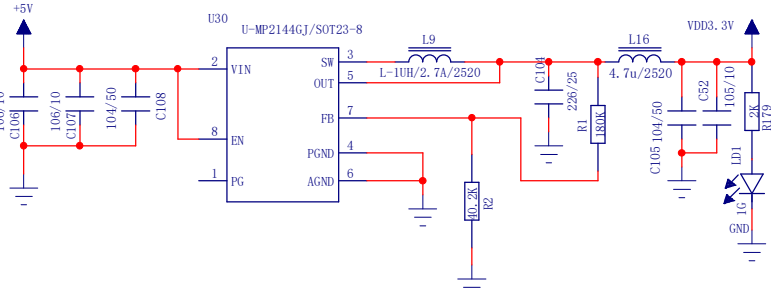
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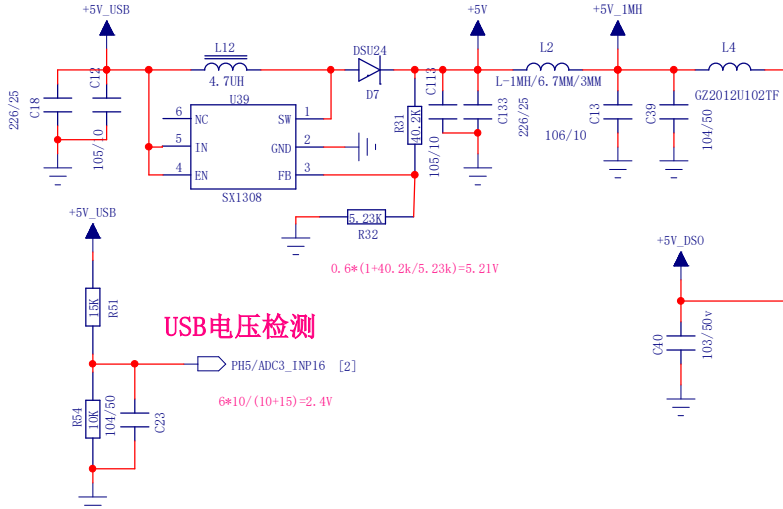
7-36V转5V



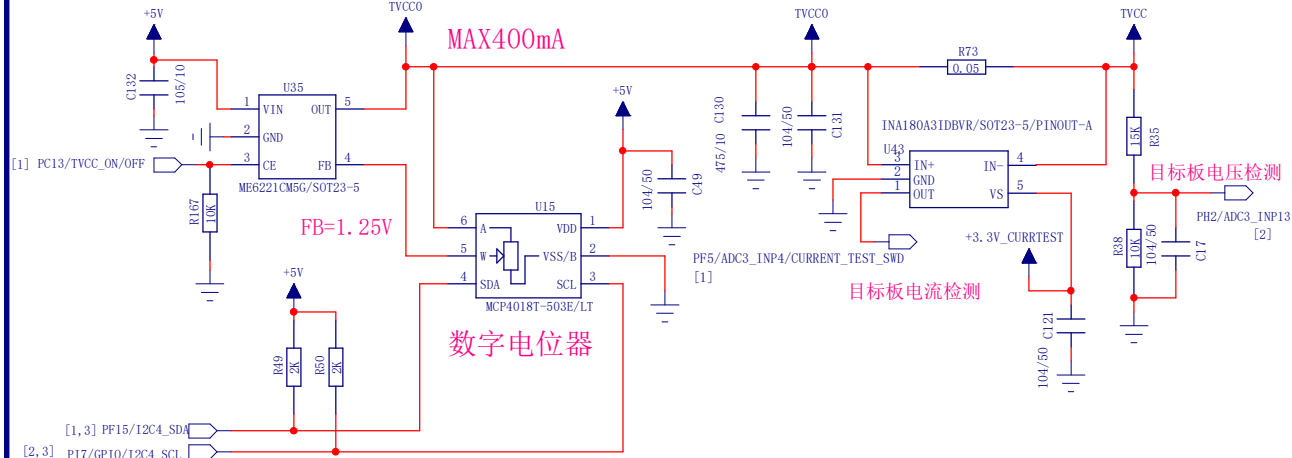
5V转3.3V 开关电源



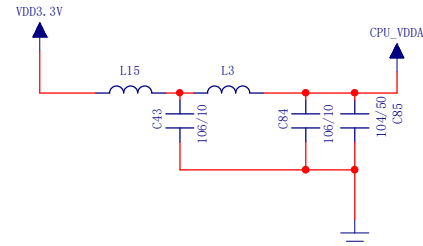
USB 5V升压电路



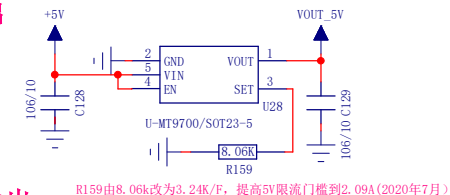
TVCC 目标板电压 (I0电平) 及电压电流检测电路



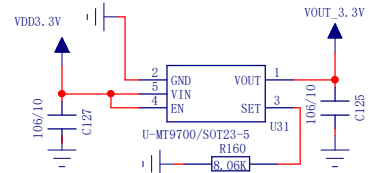
CPU内部模拟部分电源



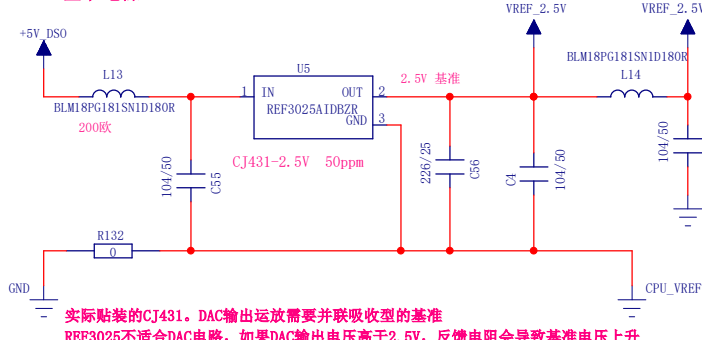
5V限流输出



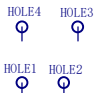
3. 3V限流输出



2. 5V基准电源



定位孔



H7-T00L开发工具

D253-6

2019-09-30

SHEET NAME: [10]POWER

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