

Renesas IoT

Revision A01

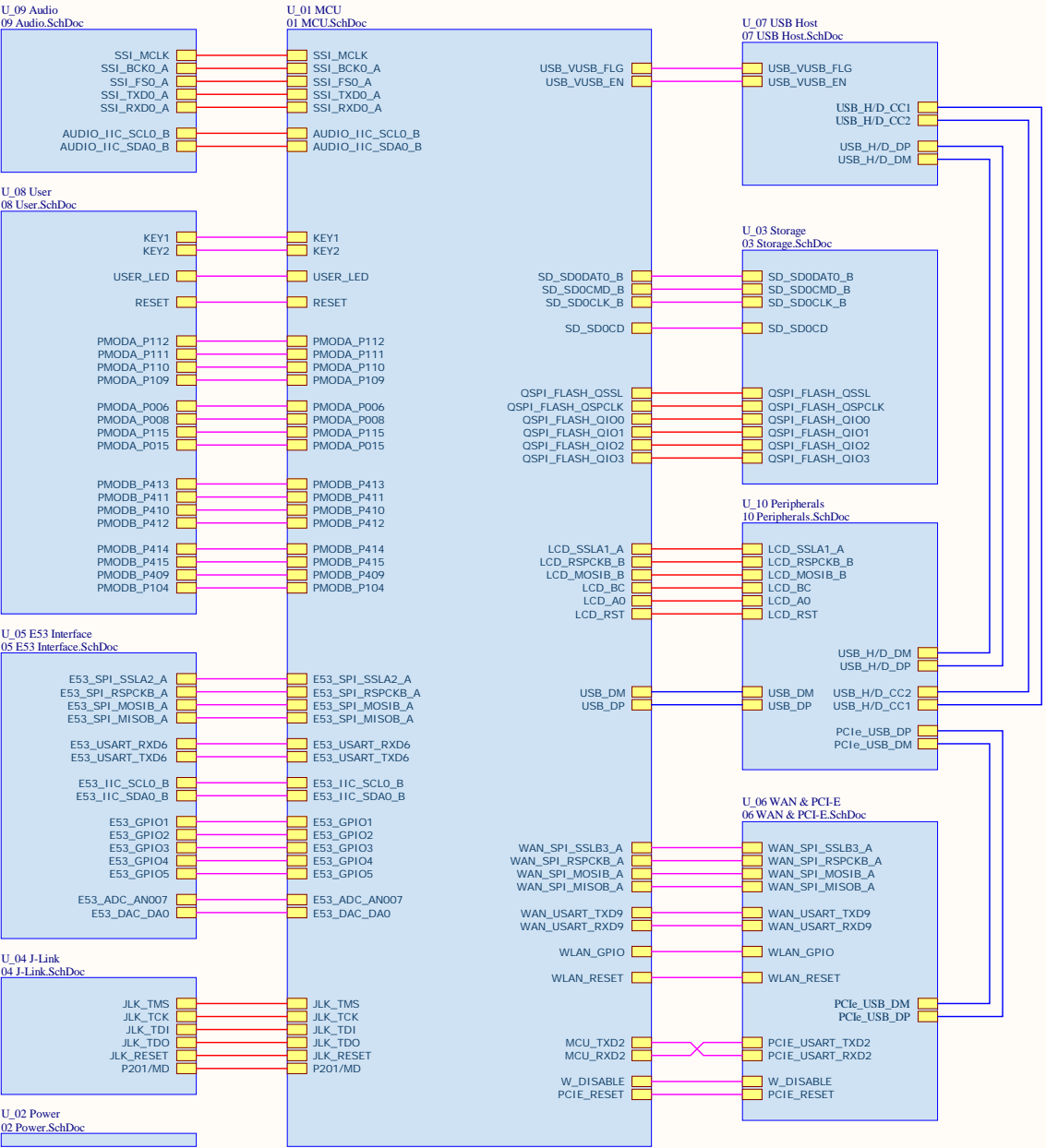
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框架说明

- Renesas IoT 开发板总体上由以下功能模块构成
- 01 存储部分，通用TF卡接口
 - 02 存储部分，板载64M QSPI-FLASH
 - 03 5V电源输入，通过降压电路降为3.3V，为整个开发板供电
 - 04 电源指示灯
 - 05 E53接口，遵循物联网俱乐部E53接口标准而设计，为开发者提供快捷的案例扩展方式
 - PMOD接口，包含PMODA和PMODB两个扩展接口
 - 07 主控部分，为整个开发板的核心，相当于整个开发板的大脑
 - 08 用户按键部分，包含两个用户按键，方便开发者进行二次开发
 - 09 复位按键，可对开发板进行复位
 - 10 WAN接口，同样遵循物联网俱乐部WAN网络接口标准而设计，为开发者提供快捷的通讯扩展方式
 - 11 板载J-Link，为用户烧录、下载、仿真程序提供一个快捷的方式

Renesas IoT Overview



[illegible]

Pin connection diagram for RFA0M44AF3CP. The diagram shows a blue square representing the chip with pins numbered 1 to 32. On the left, pins 8, 12, 16, 20, 24, 28, and 32 are connected to VDD_3V3. On the right, pins 38, 64, 9, 88, 91, 92, 89, and 90 are connected to VDD_3V3. On the left, pins 17, 21, 25, 29, and 31 are connected to GND. On the right, pins 39, 65, 10, 89, and 90 are connected to GND. Internal labels include VBAT, VCC, USB, VSS, and RESET#.

Figure 10 shows the pin connections for the HD8254-L1-2uP. The chip is a 16-pin package. The pins are labeled as follows:

- Pins 1-12: RESERVED_P000, RESERVED_P100, RESERVED_P101, RESERVED_P113, RESERVED_P200, RESERVED_P209, RESERVED_P401, RESERVED_P402, RESERVED_P403, RESERVED_P404, RESERVED_P405, RESERVED_P406
- Pins 13-16: RESERVED_P407, RESERVED_P408, RESERVED_P409, RESERVED_P410

The chip is connected to a 3V3 supply (VCC_3V3) and ground (GND). The chip also has a CH1 pin connected to a 10k resistor and a SYS_SWO pin connected to a 10k resistor and ground (GND).

QSPI_FLASH_QIO0	QSPI_FLASH_QIO0
QSPI_FLASH_QIO1	QSPI_FLASH_QIO1
QSPI_FLASH_QIO2	QSPI_FLASH_QIO2
QSPI_FLASH_QIO3	QSPI_FLASH_QIO3
QSPI_FLASH_QSPCLK	QSPI_FLASH_QSPCLK
QSPI_FLASH_QSSL	QSPI_FLASH_QSSL

SD_SD0DAT0_B	SD_SD0DAT0_B
SD_SD0CMD_B	SD_SD0CMD_B
SD_SD0CLK_B	SD_SD0CLK_B
SD_SD0CD	SD_SD0CD

USB_DP	USB_DP
USB_DM	USB_DM
USB_VUSB_EN	USB_VUSB_EN
USB_VUSB_FLG	USB_VUSB_FLG

MCU_TXD2	MCU_TXD2
MCU_RXD2	MCU_RXD2
RESET#	PCIE_RESET
W_DISABLE	W_DISABLE

SSI_RXD0_A	SSI_RXD0_A
SSI_TXD0_A	SSI_TXD0_A
SSI_FSD0_A	SSI_FSD0_A
SSI_BCK0_A	SSI_BCK0_A
SSI_MCLK	SSI_MCLK
IIC_SDA0_B	AUDIO_IIC_SDA0_B
IIC_SCL0_B	AUDIO_IIC_SCL0_B

WLAN_GPIO	WLAN_GPIO
WAN_SPI_SSLEB_A	WAN_SPI_SSLEB_A
SPI_RSPCKB_A	WAN_SPI_RSPCKB_A
SPI_MOSIB_A	WAN_SPI_MOSIB_A
SPI_MISOB_A	WAN_SPI_MISOB_A
WAN_USART_TXD9	WAN_USART_TXD9
WAN_USART_RXD9	WAN_USART_RXD9
RESET#	WLAN_RESET

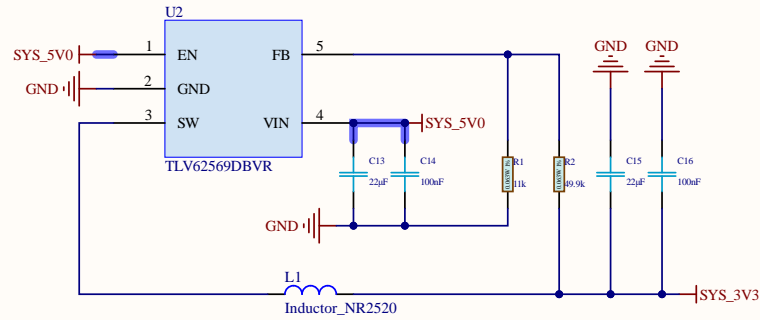
ESI_SPL_SSLA2_A	ESI_SPL_SSLA2_A
SPL_RSPCB_A	ESI_SPL_RSPCB_A
SPL_RSPCB_B	ESI_SPL_RSPCB_B
SPL_MISOB_A	ESI_SPL_MISOB_A
IC_SCLC1_B	ESI_IC_SCLC1_B
IC_SDA0_B	ESI_IC_SDA0_B
ESI_USART_TXD6	ESI_USART_TXD6
ESI_USART_RXD6	ESI_USART_RXD6
ESI_GP01	ESI_GP01
ESI_GP02	ESI_GP02
ESI_GP03	ESI_GP03
ESI_GP04	ESI_GP04
ESI_GP05	ESI_GP05
ESI_DAC_DA0	ESI_DAC_DA0
ESI_ADC_AN007	ESI_ADC_AN007

RESET#	RESET
KEY1	KEY1
KEY2	KEY2
USER_LED	USER_LED
PMOD0_P006	PMOD0_P006
PMOD0_P008	PMOD0_P008
PMOD0_P015	PMOD0_P015
PMOD0_P015	PMOD0_P015
SSLA0_B	PMOD0_P102
MISO0_A	PMOD0_P100
MOSI_B	PMOD0_P101
RSPCKA_B	PMOD0_P111
PMOD0_P414	PMOD0_P414
PMOD0_P415	PMOD0_P415
PMOD0_P409	PMOD0_P409
PMOD0_P104	PMOD0_P104
PMOD0_P410	PMOD0_P410
PMOD0_P411	PMOD0_P411
PMOD0_P412	PMOD0_P412
PMOD0_P413	PMOD0_P413

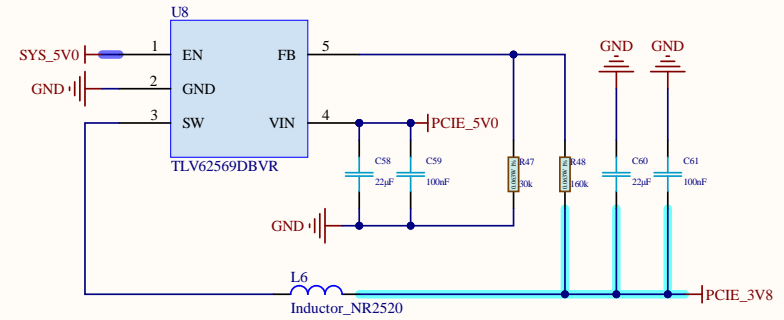
JLK_TCK	JLK_TCK
JLK_TMS	JLK_TMS
JLK_TDO	JLK_TDO
JLK_TDI	JLK_TDI
RESET#	JLK_RESET
P20I/MD	P20I/MD

LCD_RST	LCD_RST
LCD_SS1A_A	LCD_SS1A_A
LCD_A0	LCD_A0
LCD_MOSI_B	LCD_MOSI_B
LCD_RSPIKB_B	LCD_RSPIKB_B
LCD_BC	LCD_BC

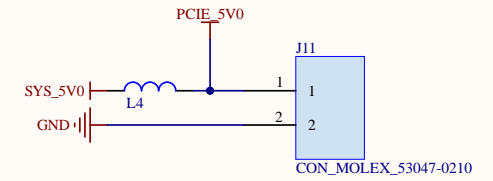
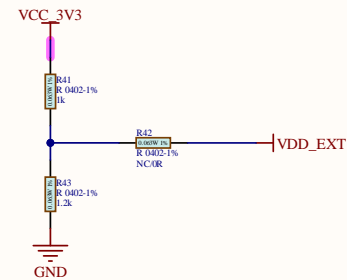
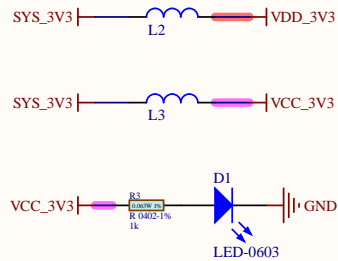
Power Module



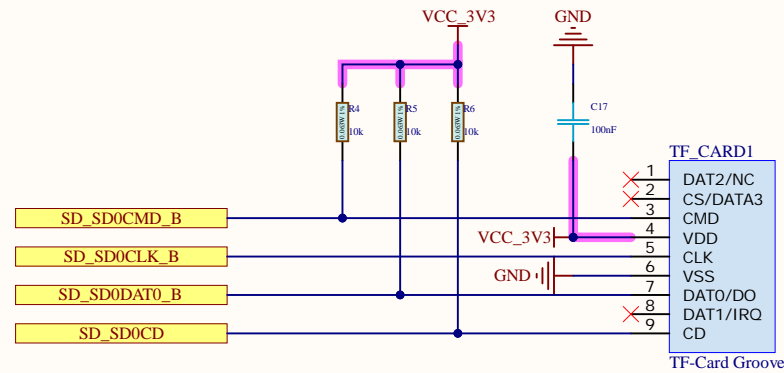
5V - 3.3V



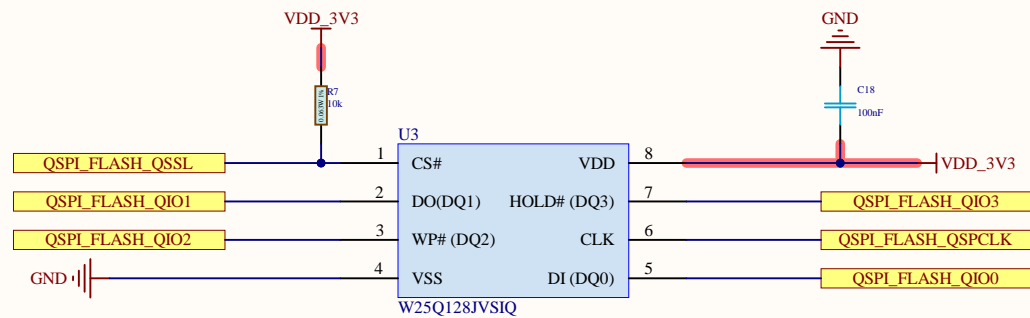
Power 3.8V



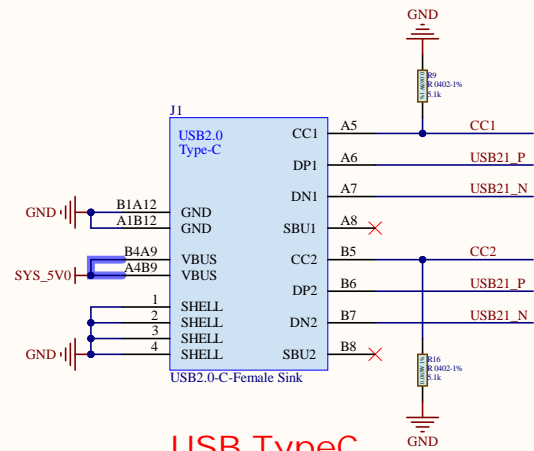
SD Card Module



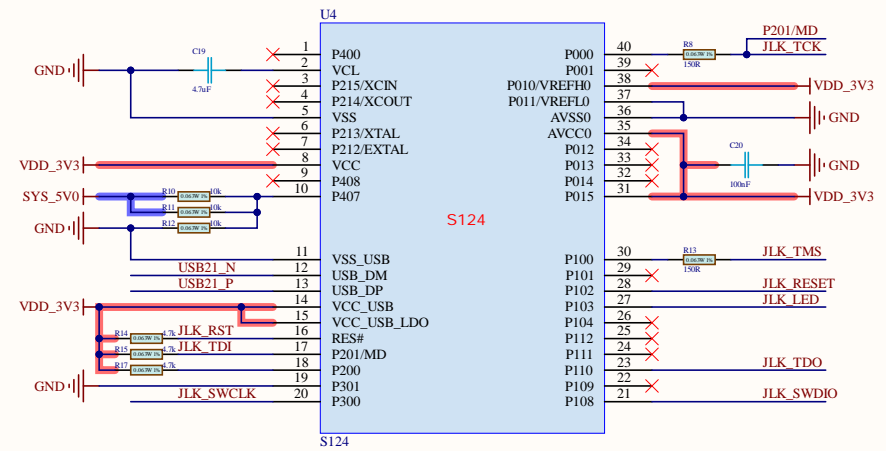
QSPI Flash Module



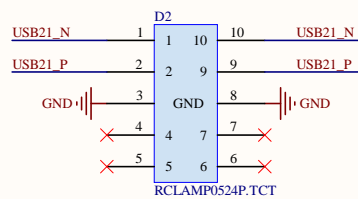
Type-C Interface



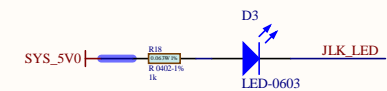
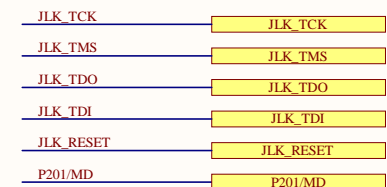
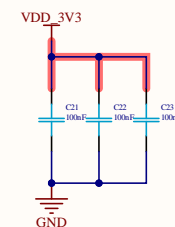
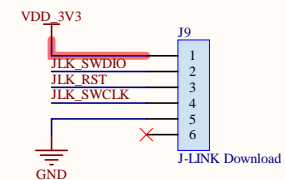
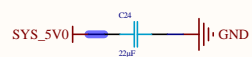
J-Link



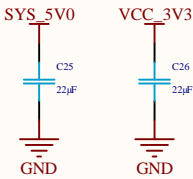
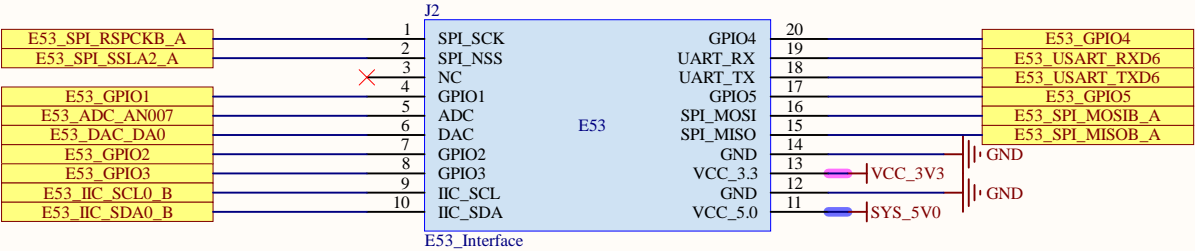
J-Link On Board



TVS



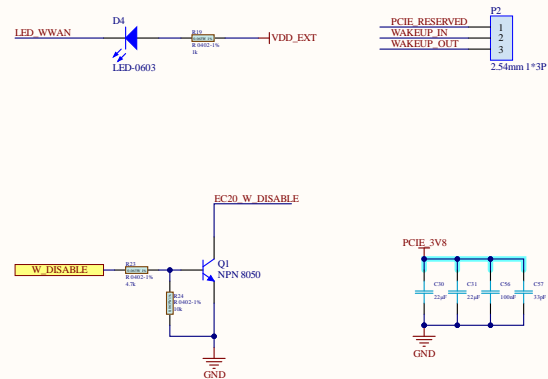
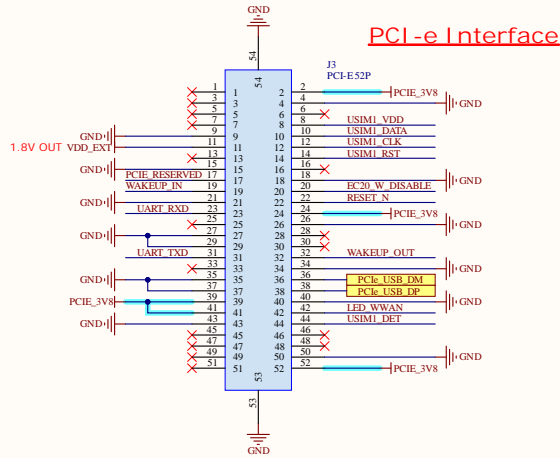
E53 Interface



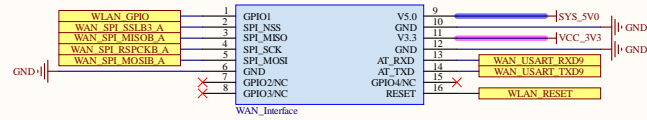
E53 Interface compatible with the following products:

- 1. E53_SC1
- 2. E53_SC2
- 3. E53_SF1
- 4. E53_ST1
- 5. E53_IA1
- 6. E53_IS1

PCI-e Module



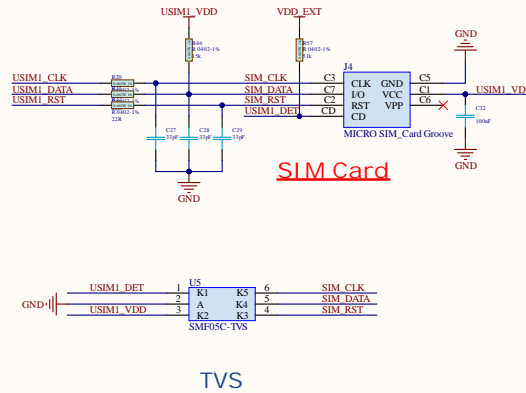
WLAN Interface



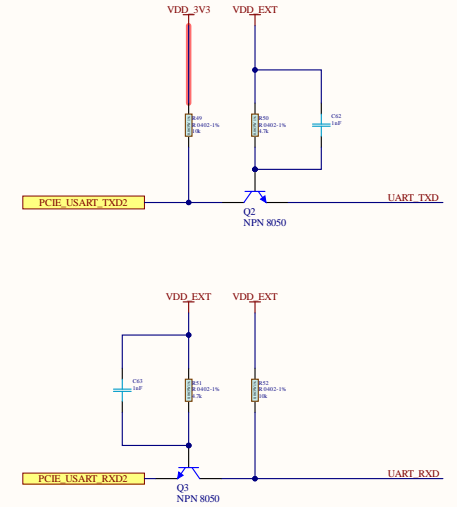
WAN Interface compatible with the following products:

1. NB35-A
2. WIFI-8266

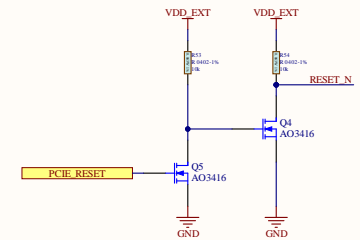
PCI SIM



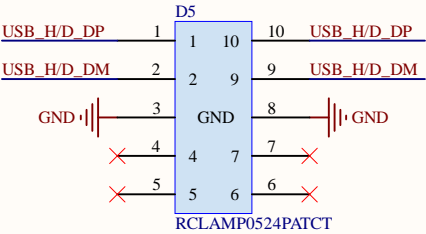
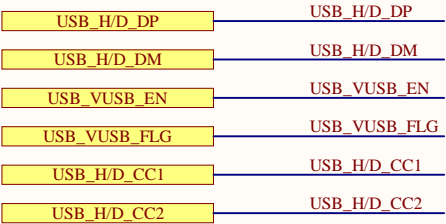
UART_TTL



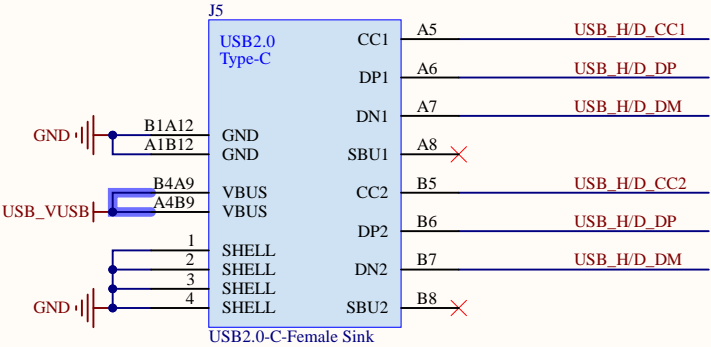
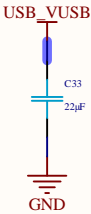
RST_TTL



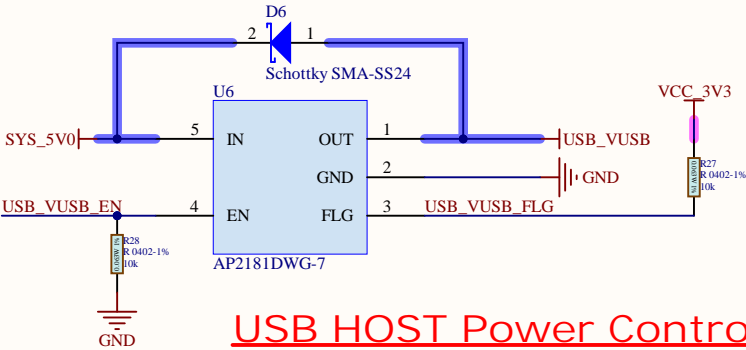
USB HOST/Device Type-C



TVS

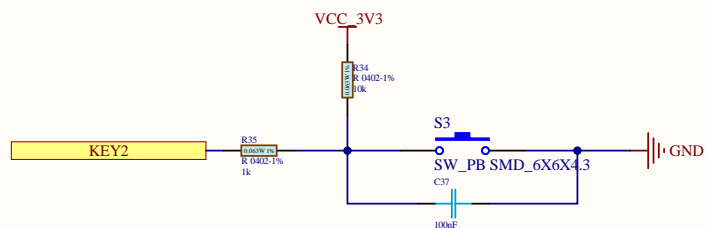
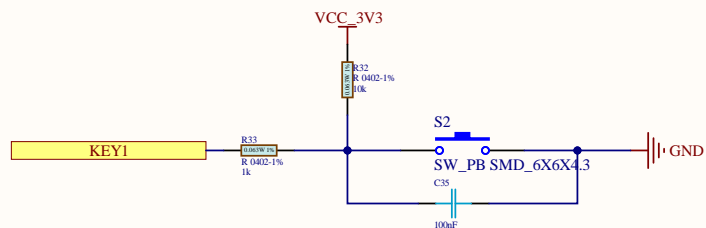
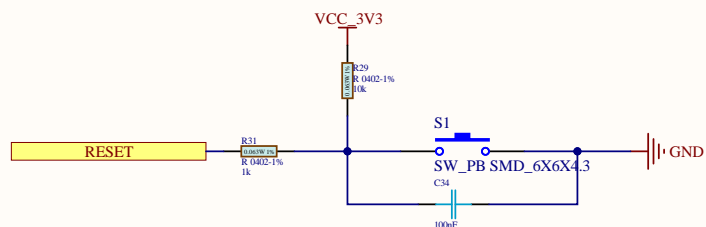


USB TypeC

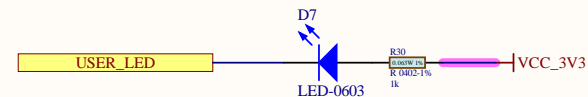


USB HOST Power Control

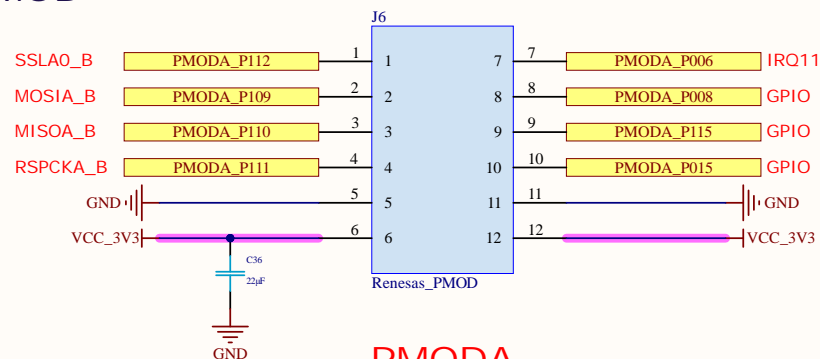
User's Key



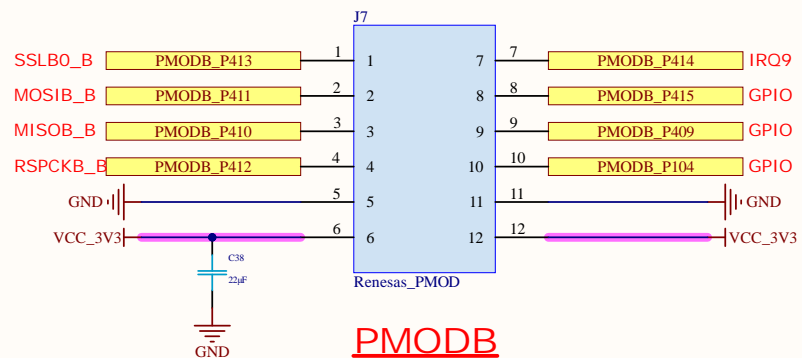
User's LED



PMOD

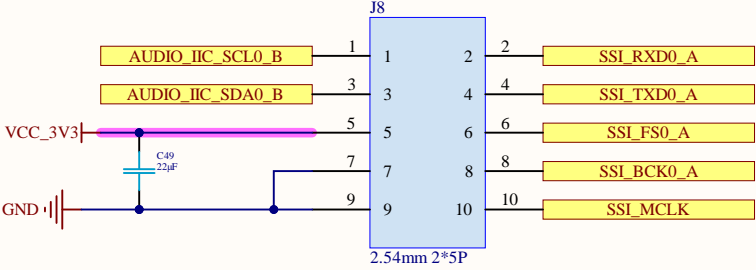


PM0DA

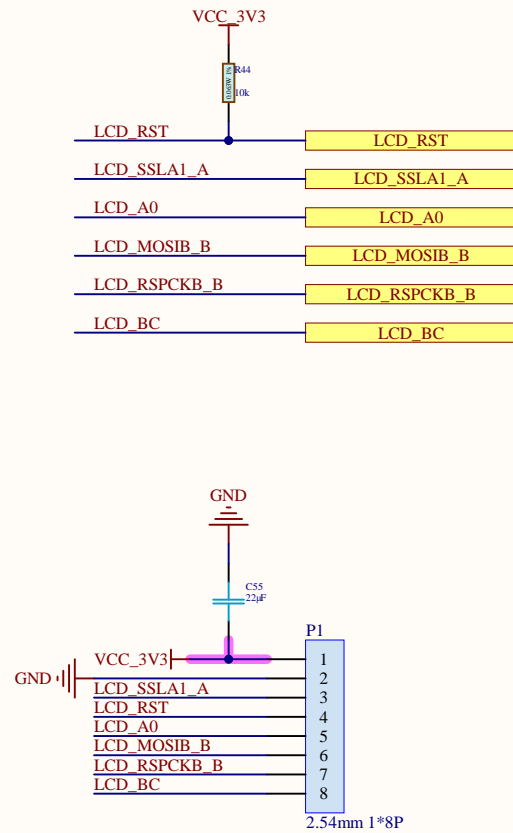


PM0DB

Audio Module



External LCD



USB Mode Switch

IN1-2	IN3-4	USB Mode
0	0	USB Connect to PCIE
0	1	Type-C Device Mode
1	0	USB Connect to PCIE
1	1	Type-C Host Mode

