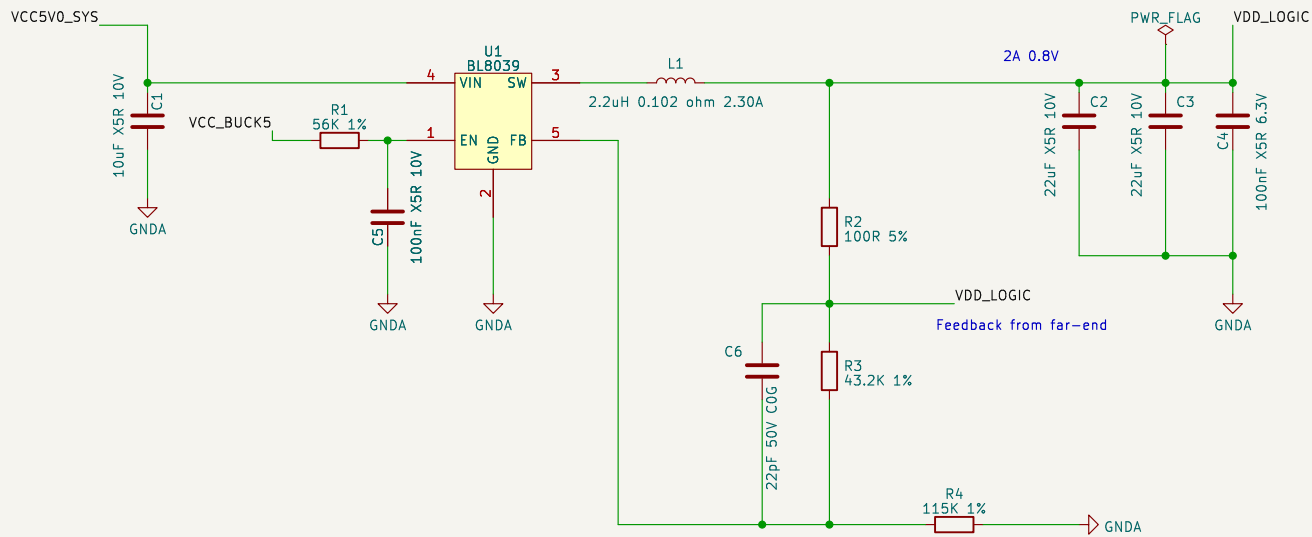
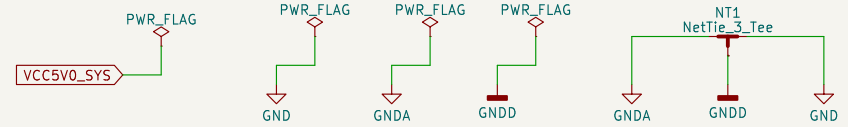
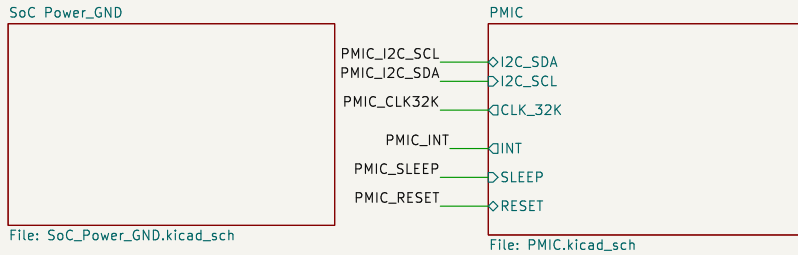


VCC5V0_SYS
VCC_BUCK5
VDD_LOGIC

PMIC_INTD
PMIC_SLEEP
PMIC_I2C_SCLD
PMIC_I2C_SDA
PMIC_RESET
PMIC_CLK32K



License: CC BY-SA

Yang Hongbo

Sheet: /Power/

File: Power.kicad_sch

Title: Leaf RV1126

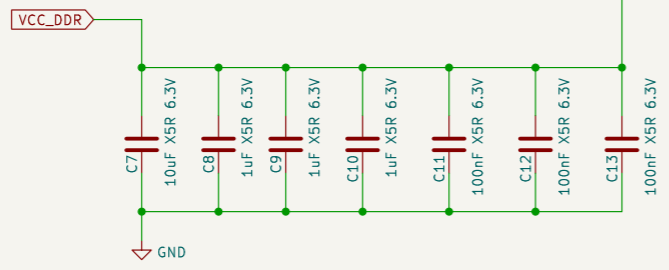
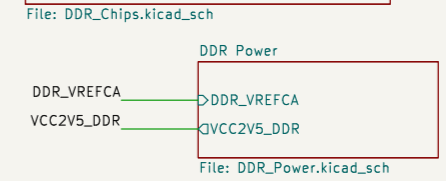
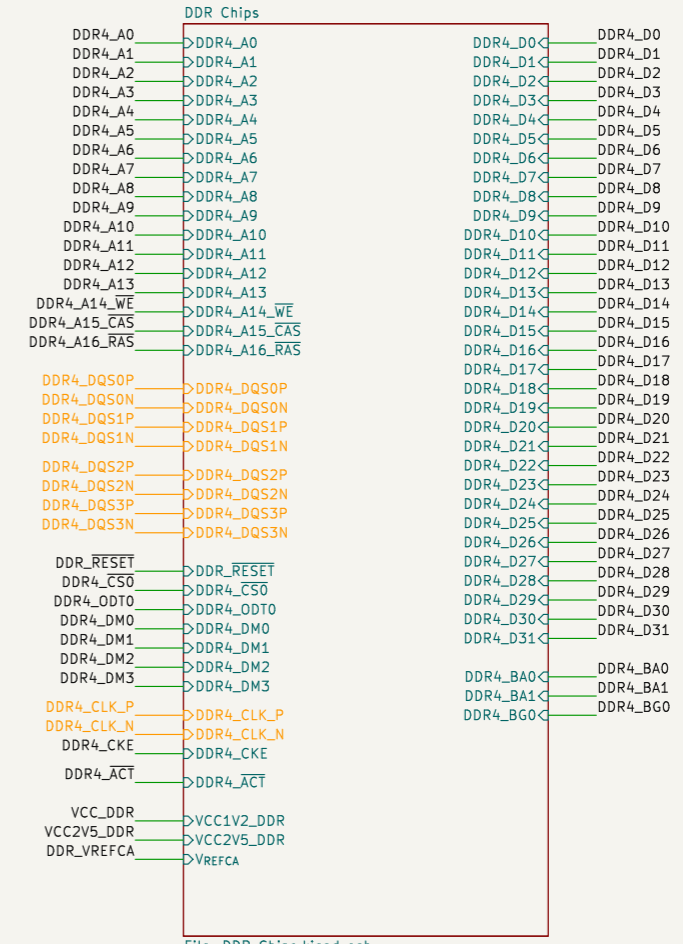
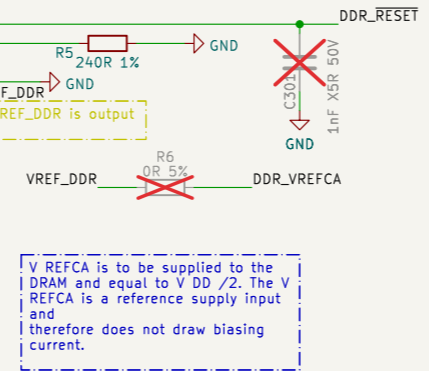
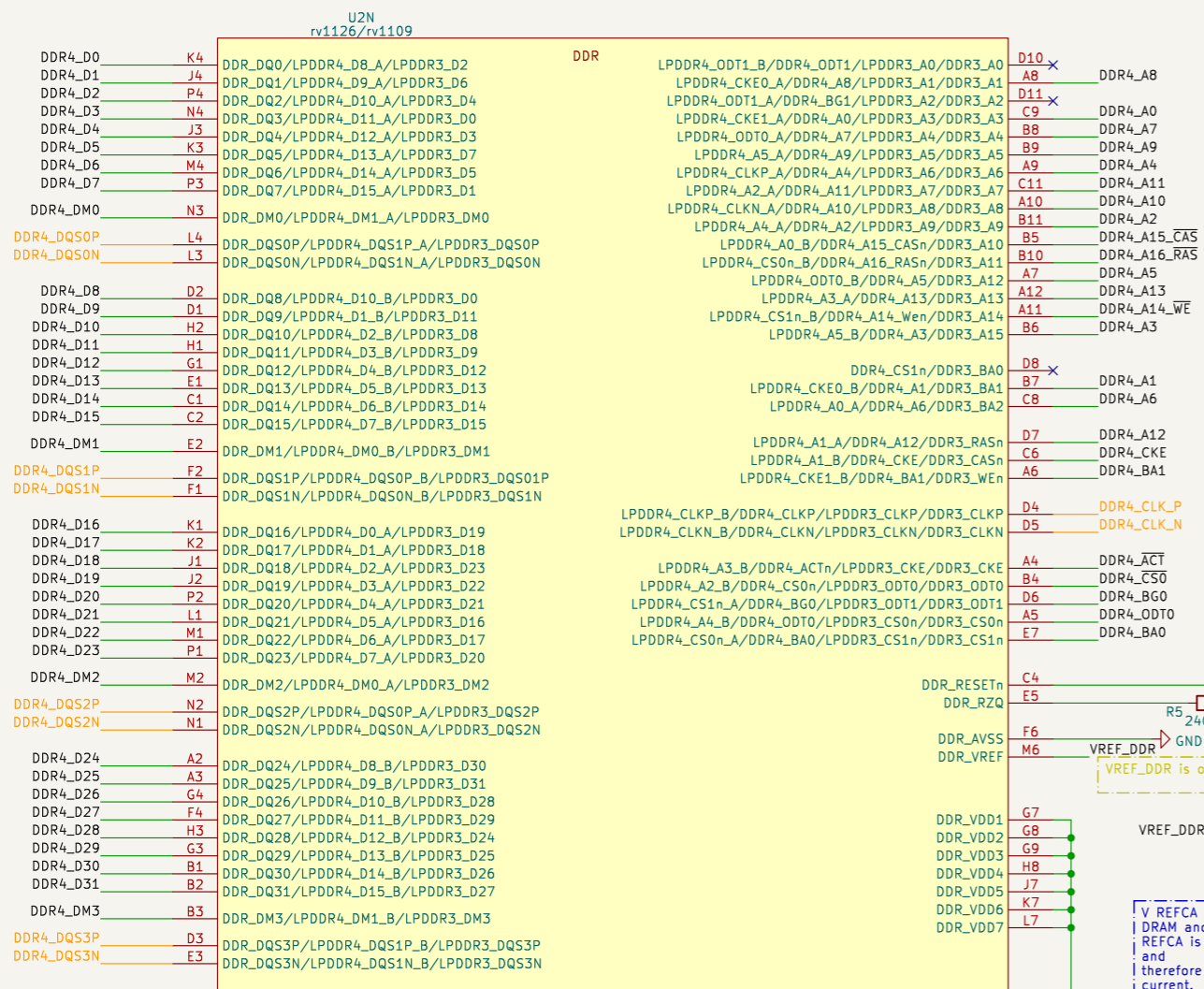
Size: A4

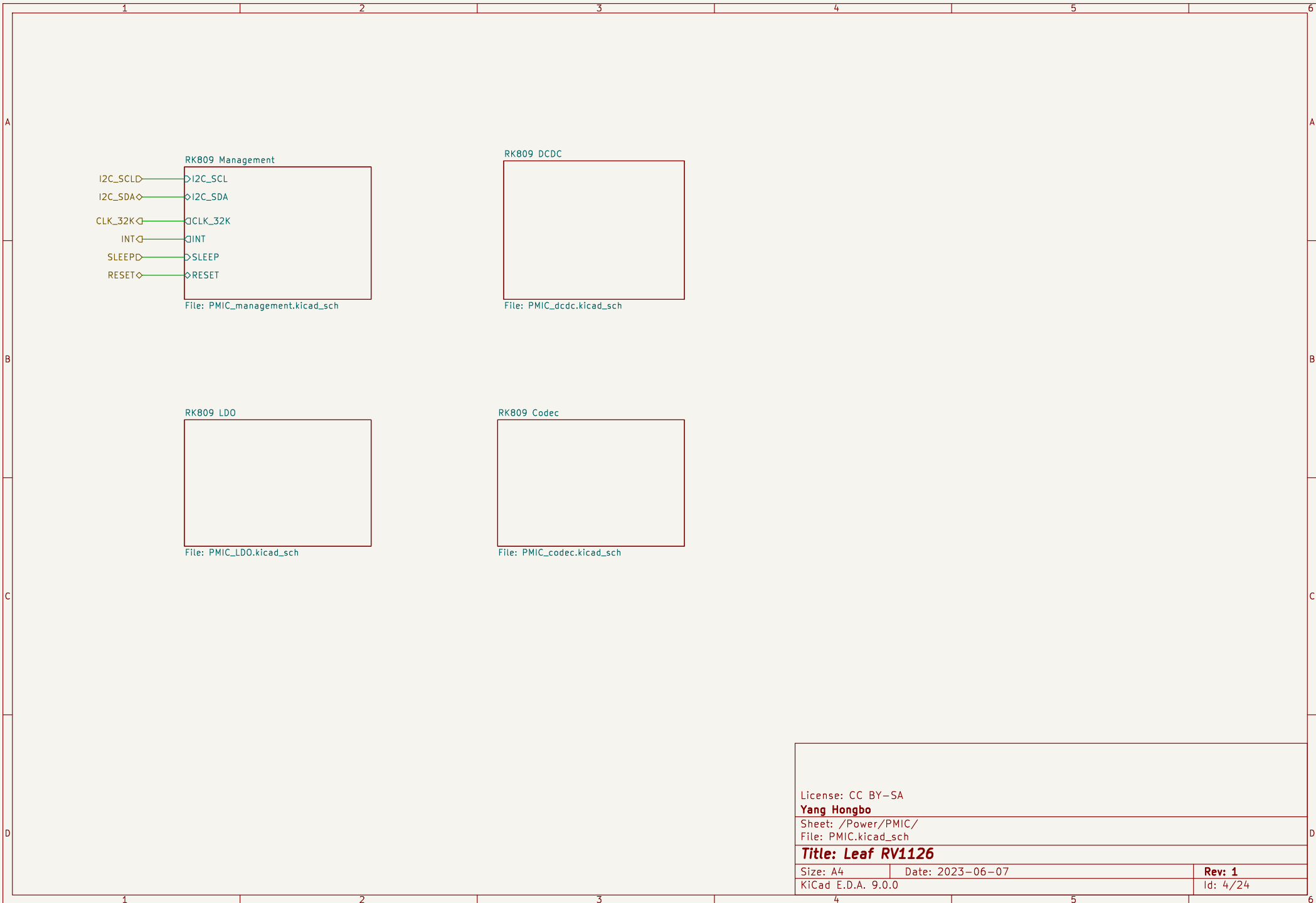
Date: 2023-06-07

Rev: 1

KiCad E.D.A. 9.0.0

Id: 2/24





License: CC BY-SA

Yang Hongbo

Sheet: /Power/PMIC/

File: PMIC.kicad_sch

Title: Leaf RV1126

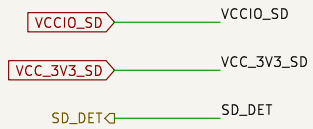
Size: A4

Date: 2023-06-07

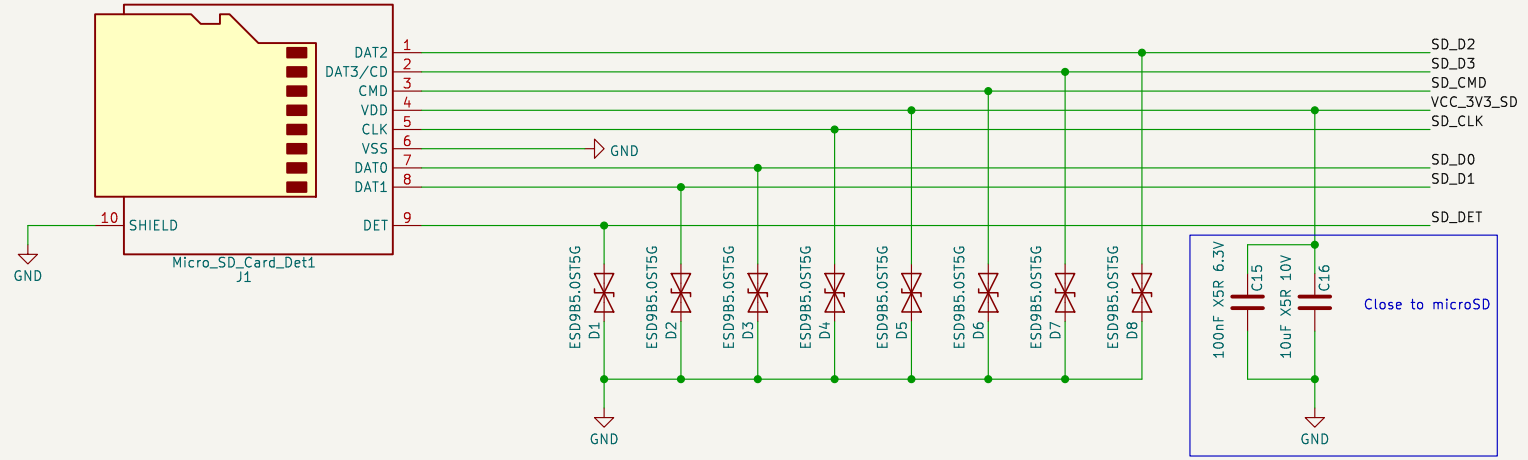
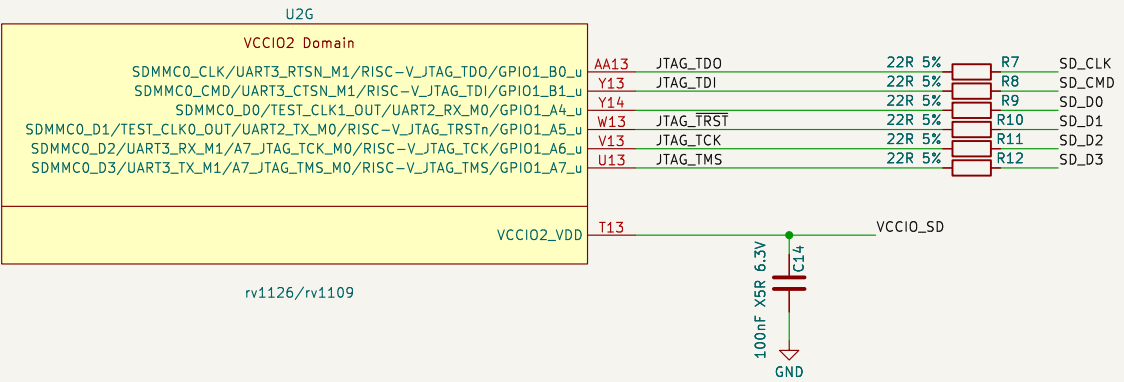
Rev: 1

KiCad E.D.A. 9.0.0

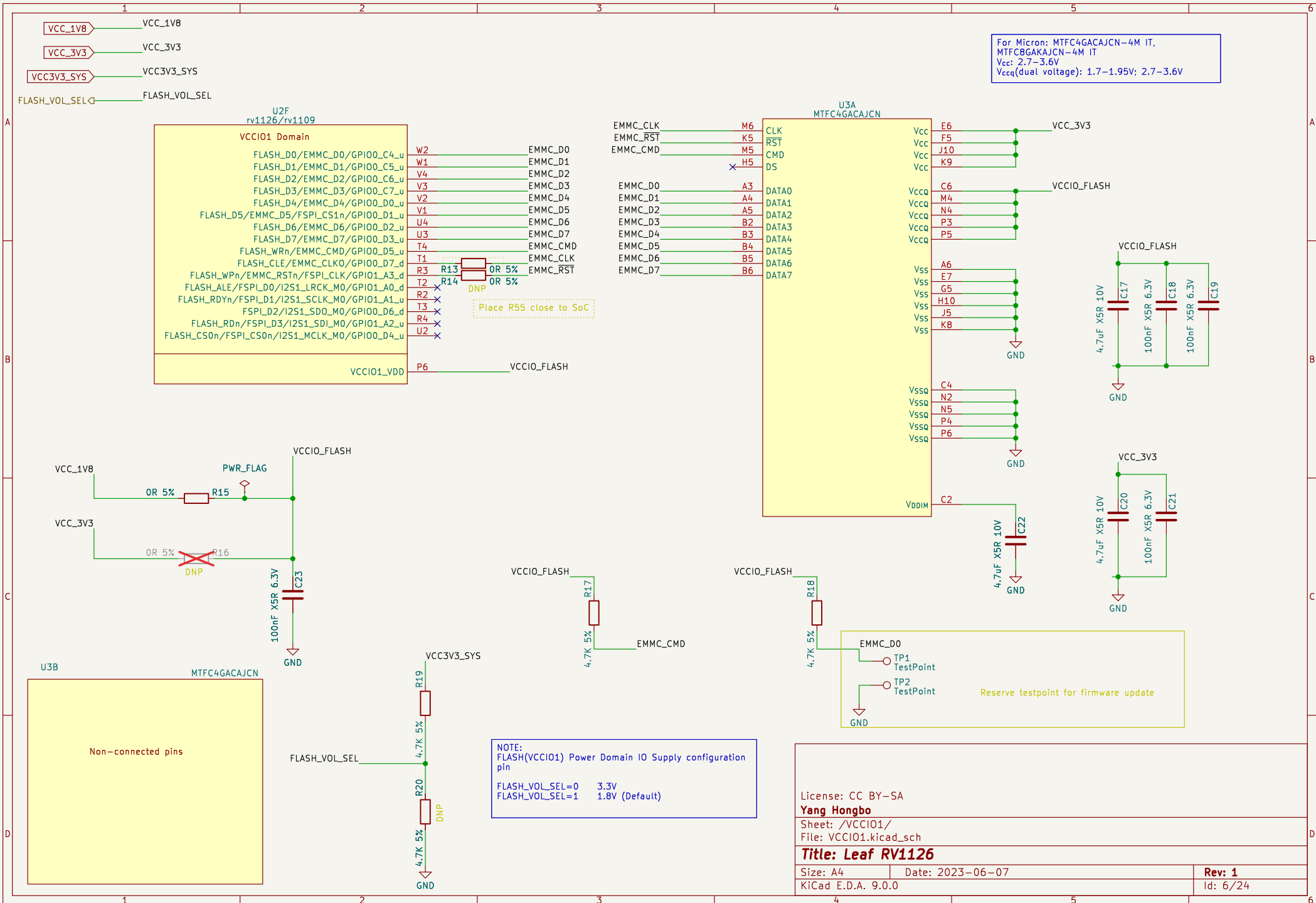
Id: 4/24

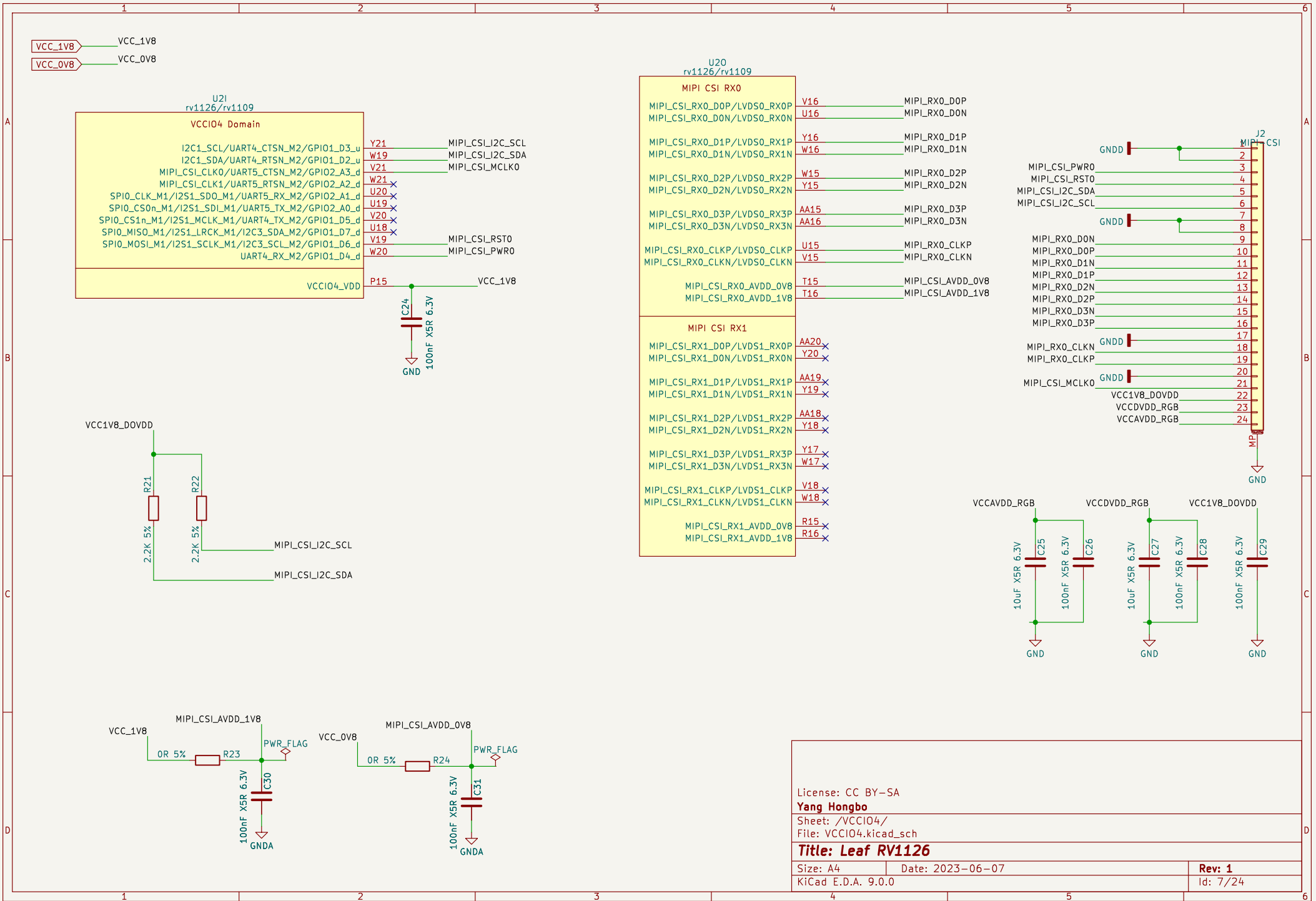


NOTE:
 Place the SDMMC0_CLK resistor closed to SoC for better signal quality if long trace.
 The resistor can be deleted if the trace is short



License: CC BY-SA	
Yang Hongbo	
Sheet: /VCCI02/	
File: VCCI02.kicad_sch	
Title: Leaf RV1126	
Size: A4	Date: 2023-06-07
KiCad E.D.A. 9.0.0	Rev: 1
	Id: 5/24



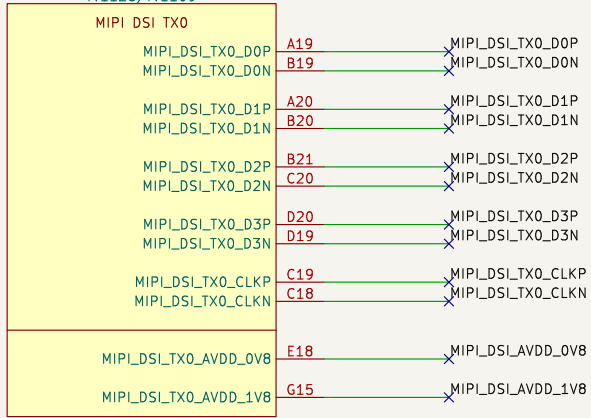


License: CC BY-SA
Yang Hongbo
Sheet: /VCCI04/
File: VCCI04.kicad_sch
Title: Leaf RV1126

Size: A4	Date: 2023-06-07	Rev: 1
KiCad E.D.A. 9.0.0		Id: 7/24

VCC_0V8 → VCC_0V8
VCC_1V8 → VCC_1V8

U2P
rv1126/rv1109



License: CC BY-SA

Yang Hongbo

Sheet: /Display/

File: Display.kicad_sch

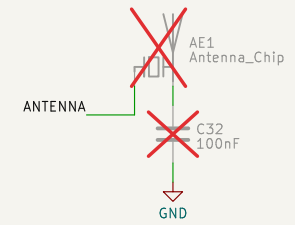
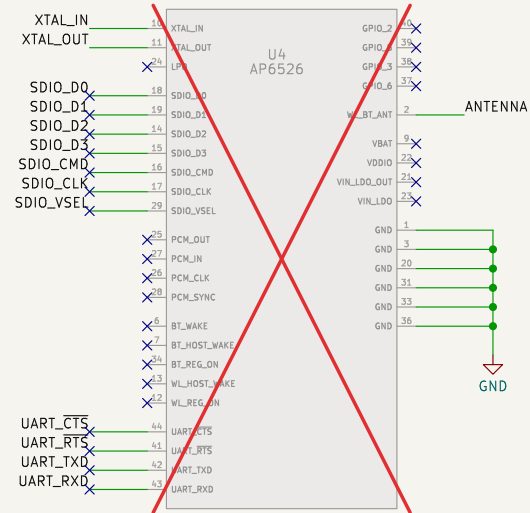
Title: Leaf RV1126

Size: A4 Date: 2023-06-07

KiCad E.D.A. 9.0.0

Rev: 1

Id: 8/24



License: CC BY-SA

Yang Hongbo

Sheet: /WiFi/

File: WiFi.kicad_sch

Title: Leaf RV1126

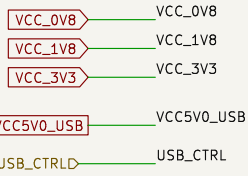
Size: A4

Date: 2023-06-07

Rev: 1

KiCad E.D.A. 9.0.0

Id: 9/24

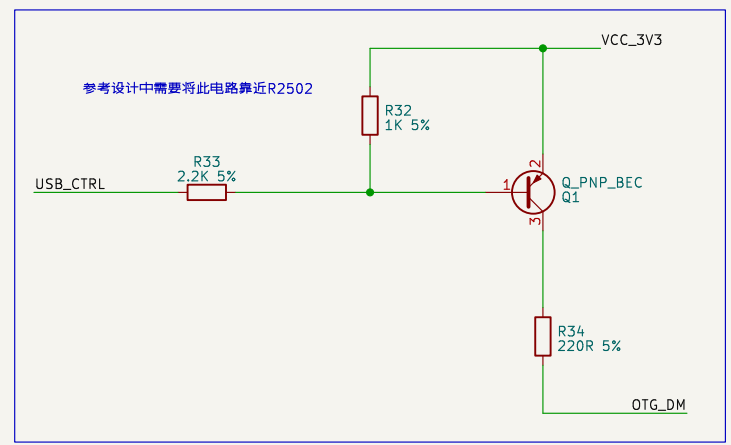
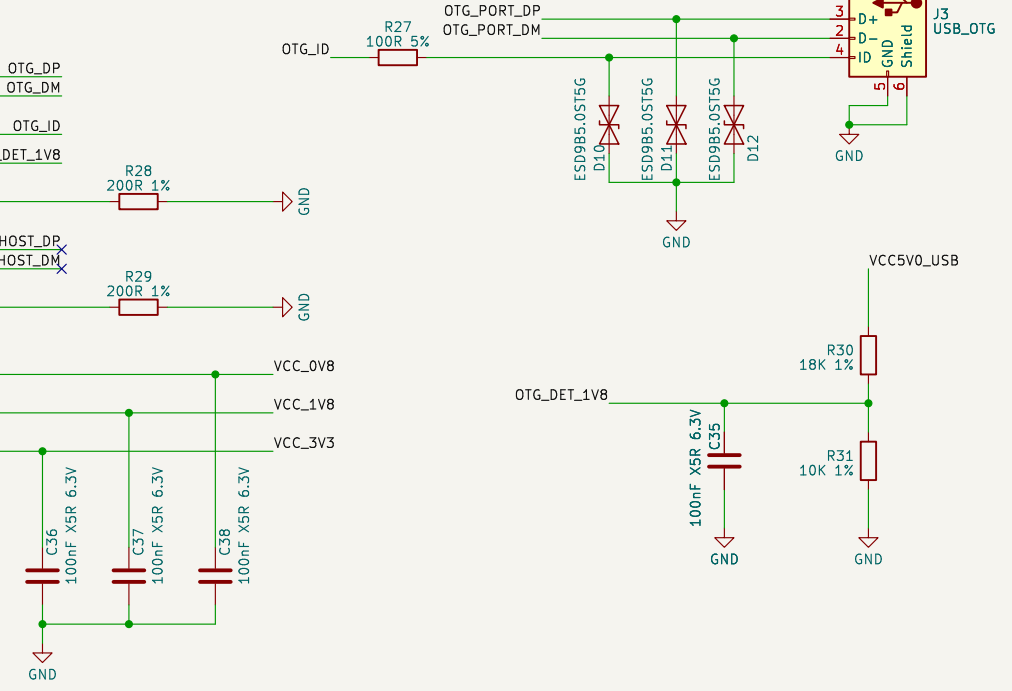
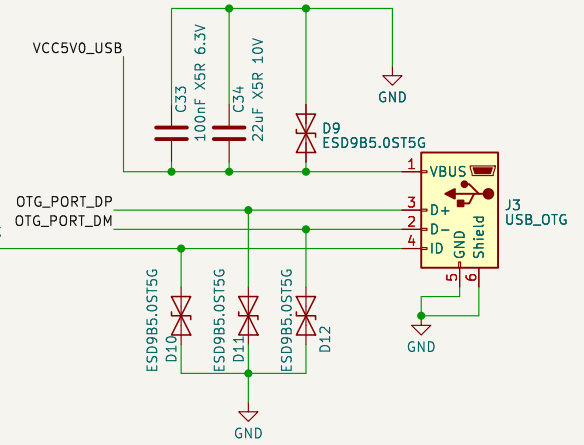
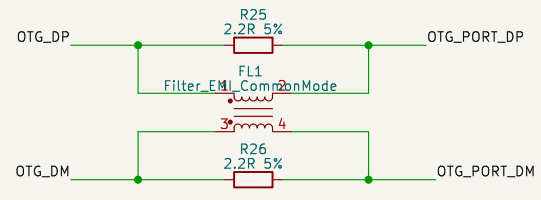
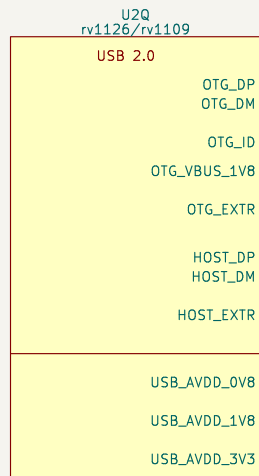


USB2.0 Design Rules

1. Max intra-pair skew < 4ps
2. Max trace length < 6 inches
3. Max allowed via < 6
4. Trace impedance 90ohm +/- 10%
5. The distance between other signals follows the 3W rule

摘自《瑞芯微 RV1126/RV1109 硬件设计指南》

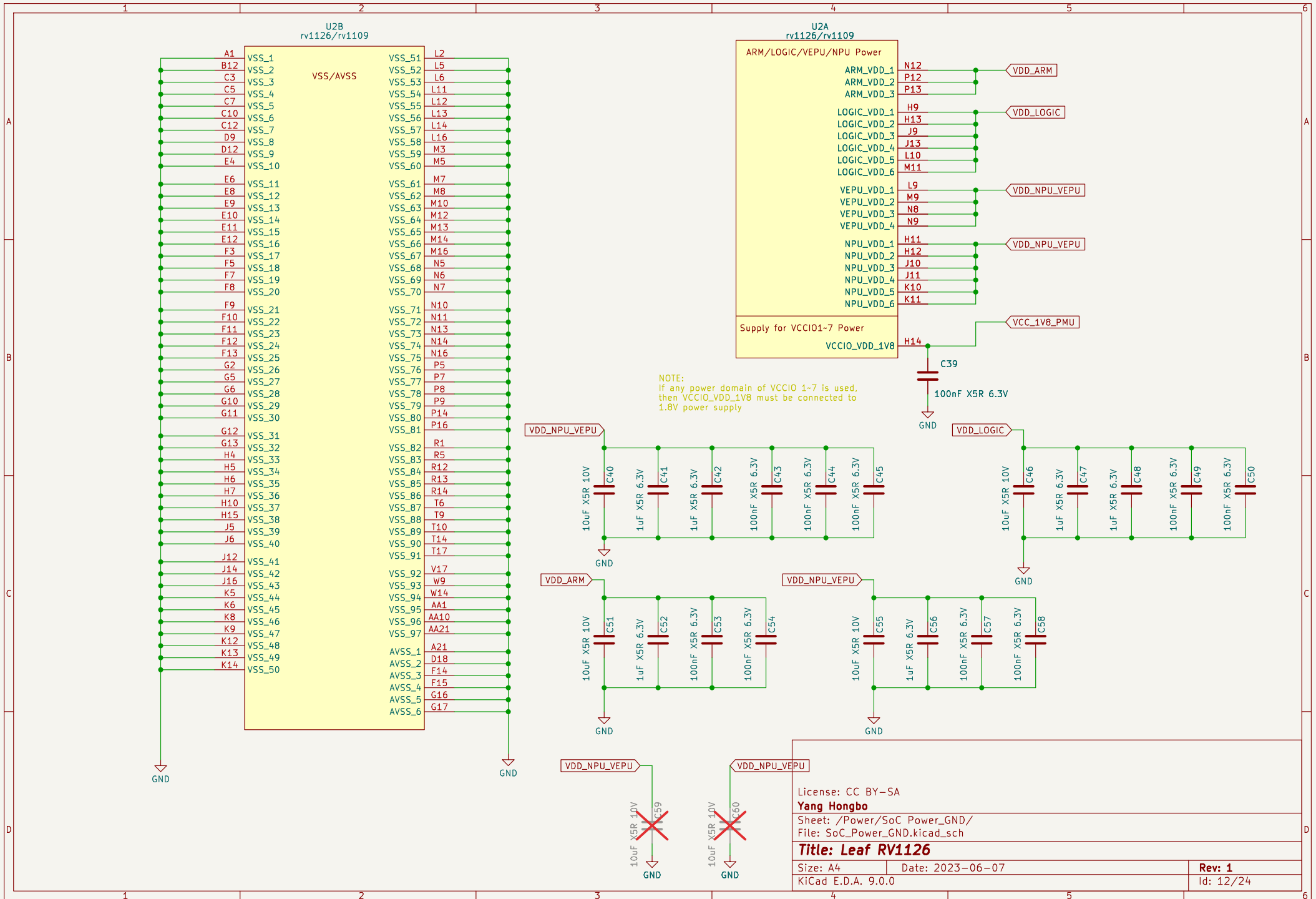
1. USB_ID内部上拉到USB_AVDD_1V8, 所以OTG默认为Device
2. OTG_VBUS_1V8通过一个18K电阻和一个10K电阻分压VCC5V0_USB做输入检测, 检测电压为1.62V-2.08V, 检测高电平说明有 USB 插入
3. USB 控制器参考电阻200 ohm请选用 1% 精度的电阻, 该电阻关系到 USB 幅度并影响眼图质量
4. 为提高 USB 性能, 控制器的去耦电容要靠近管脚放置
5. 为抑制电磁辐射, 可以都在信号线上预留共模电感, 在调测过程中根据实际情况选择使用2.2R电阻或者共模电感
6. 为了提高 USB 兼容性, 需要增加 USB_CTRL 电路, 且 USB_CTRL 一定要使用 GPIO0_C1(PIN AA4)来控制
7. USB 2.0 的信号上要有 ESD 保护措施, ESD 器件的寄生电容要求小于 1pF, ESD 器件靠近 USB 端口放置



License: CC BY-SA
Yang Hongbo
 Sheet: /USB/
 File: USB.kicad_sch

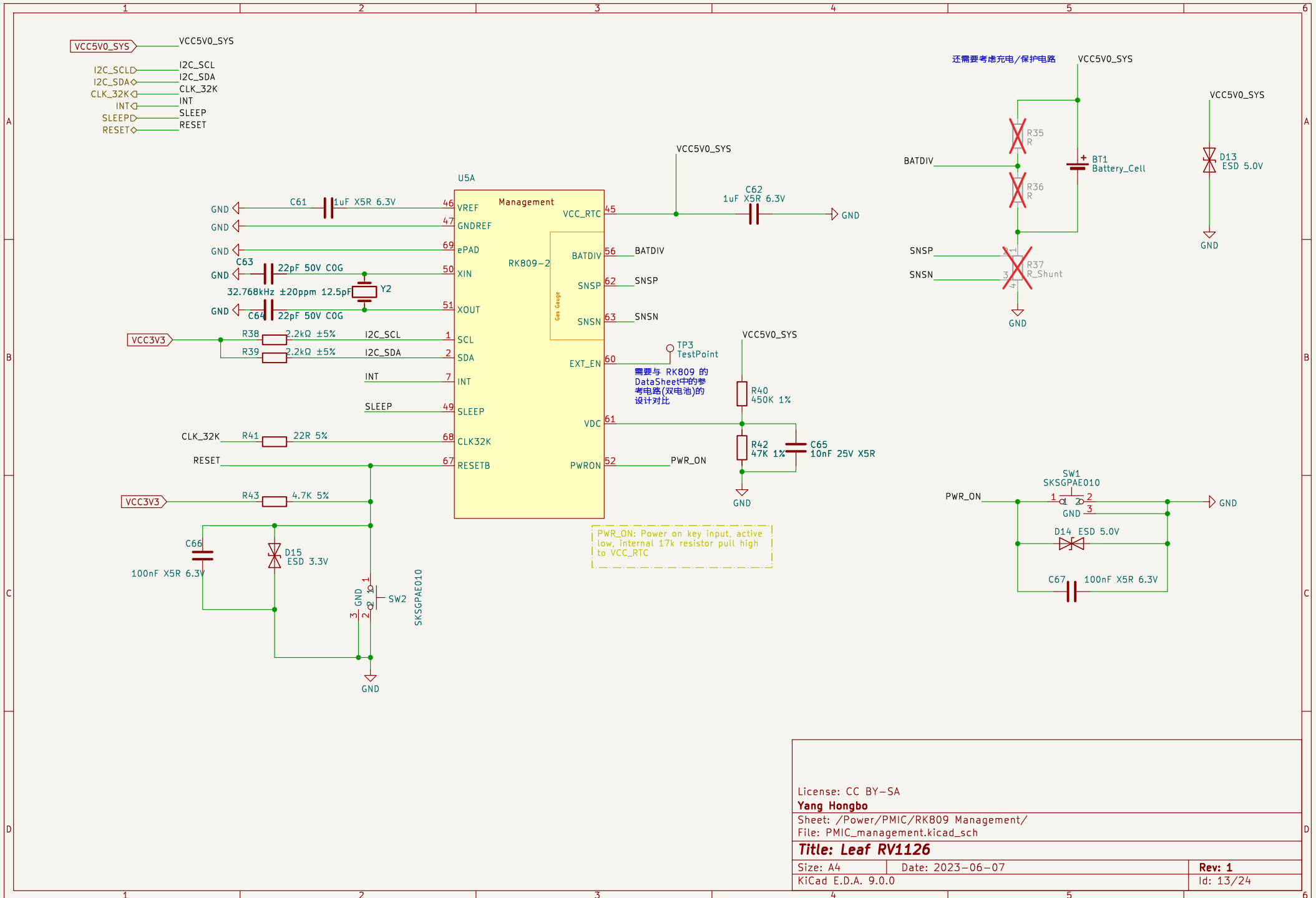
Title: Leaf RV1126

Size: A4	Date: 2023-06-07	Rev: 1
KiCad E.D.A. 9.0.0		Id: 10/24

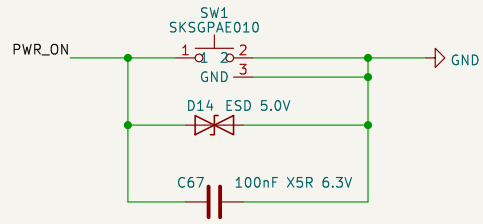
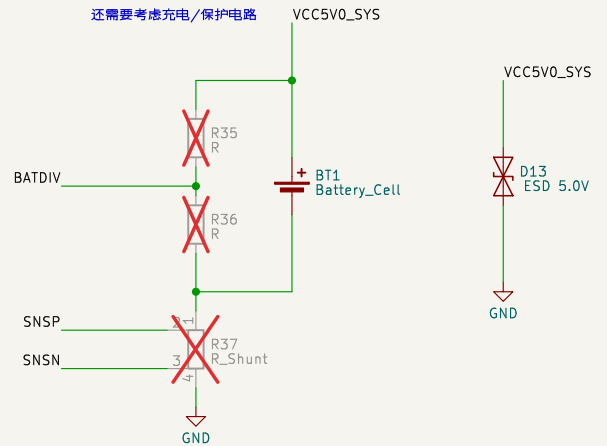


NOTE:
If any power domain of VCCIO 1-7 is used,
then VCCIO_VDD_1V8 must be connected to
1.8V power supply

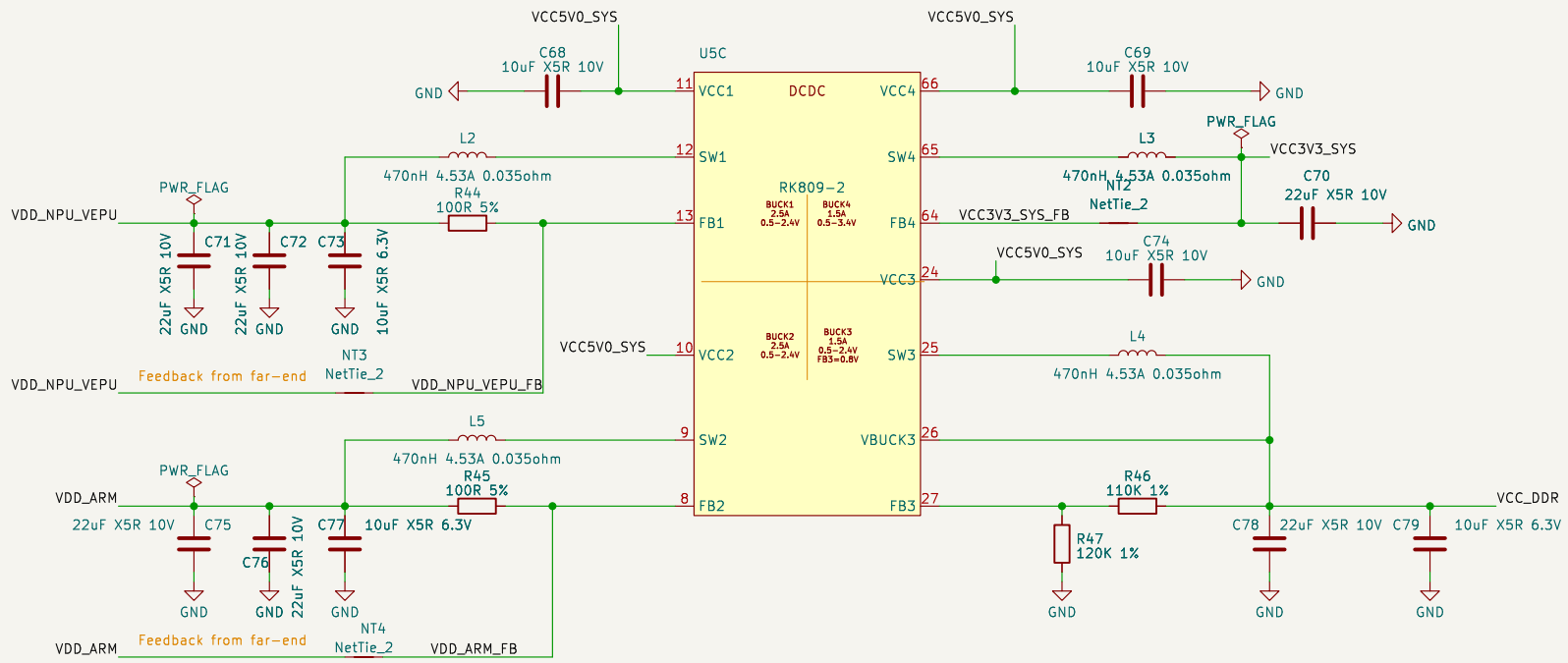
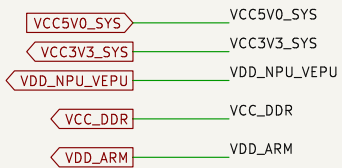
License: CC BY-SA	
Yang Hongbo	
Sheet: /Power/SoC Power_GND/	
File: SoC_Power_GND.kicad_sch	
Title: Leaf RV1126	
Size: A4	Date: 2023-06-07
KiCad E.D.A. 9.0.0	Rev: 1
	Id: 12/24



PWR_ON: Power on key input, active low, internal 17k resistor pull high to VCC_RTC



License: CC BY-SA	
Yang Hongbo	
Sheet: /Power/PMIC/RK809 Management/	
File: PMIC_management.kicad_sch	
Title: Leaf RV1126	
Size: A4	Date: 2023-06-07
KiCad E.D.A. 9.0.0	Rev: 1
	Id: 13/24



DDR Type	VCC_DDR Voltage	R46
DDR4	1.21V	62K
LPDDR3	1.21V	62K
DDR3L	1.35V	82K
DDR3	1.53V	100K
LPDDR4	1.14V	51K

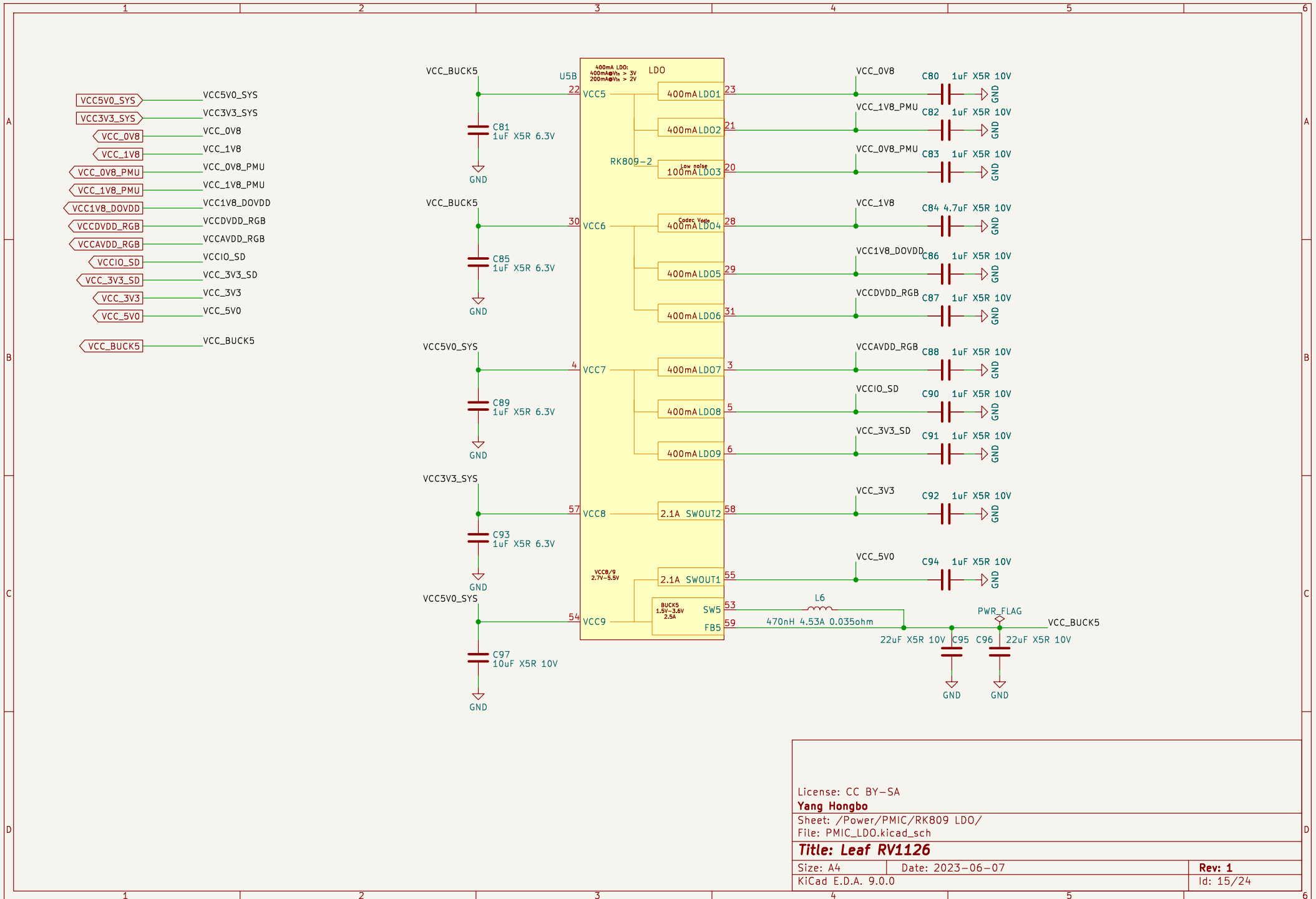
License: CC BY-SA

Yang Hongbo

Sheet: /Power/PMIC/RK809 DCDC/
File: PMIC_dcdc.kicad_sch

Title: Leaf RV1126

Size: A4	Date: 2023-06-07	Rev: 1
KiCad E.D.A. 9.0.0		Id: 14/24



License: CC BY-SA

Yang Hongbo

Sheet: /Power/PMIC/RK809 LDO/
File: PMIC_LDO.kicad_sch

Title: Leaf RV1126

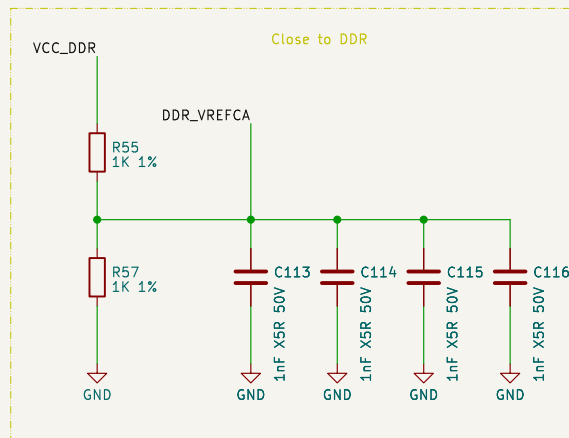
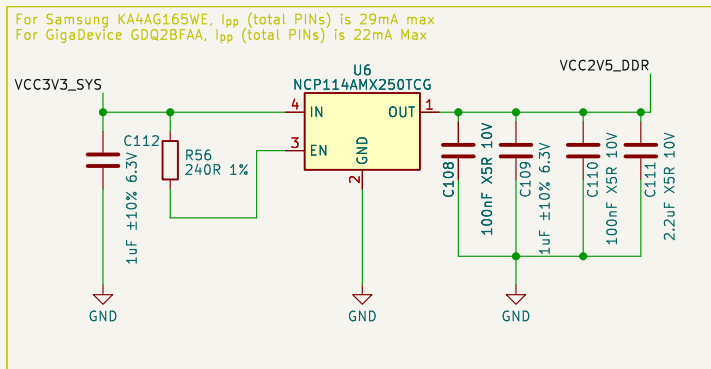
Size: A4 Date: 2023-06-07

KiCad E.D.A. 9.0.0

Rev: 1

Id: 15/24

VCC_DDR ——— DDR4: 1.2V
 VCC_DDR
 VCC3V3_SYS ——— VCC3V3_SYS
 DDR_VREFCAD ——— DDR_VREFCAD
 VCC2V5_DDR ——— VCC2V5_DDR



License: CC BY-SA

Yang Hongbo

Sheet: /DDR/DDR Power/

File: DDR_Power.kicad_sch

Title: Leaf RV1126

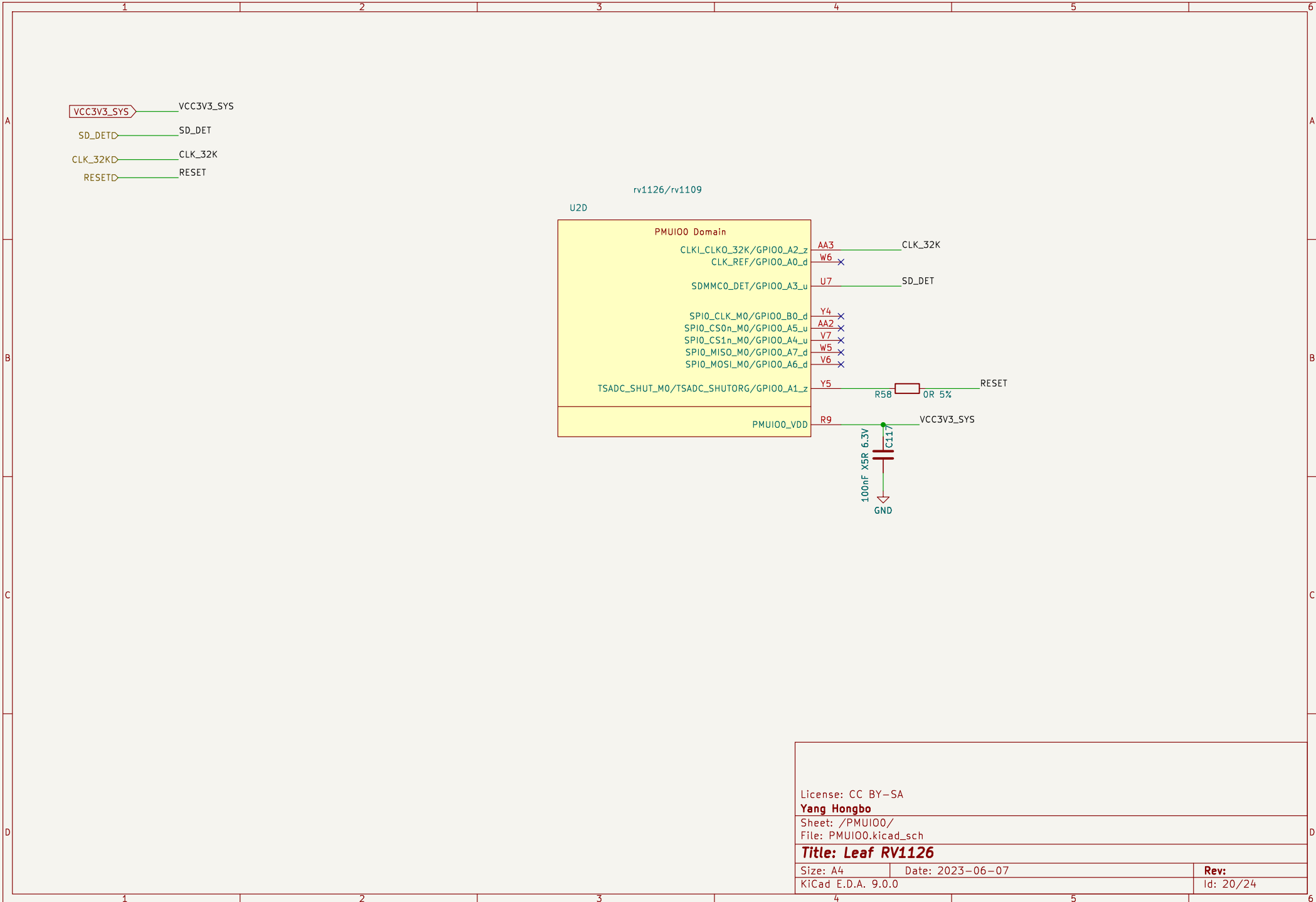
Size: A4

Date: 2023-06-07

KiCad E.D.A. 9.0.0

Rev:

Id: 18/24



License: CC BY-SA

Yang Hongbo

Sheet: /PMUI00/

File: PMUI00.kicad_sch

Title: Leaf RV1126

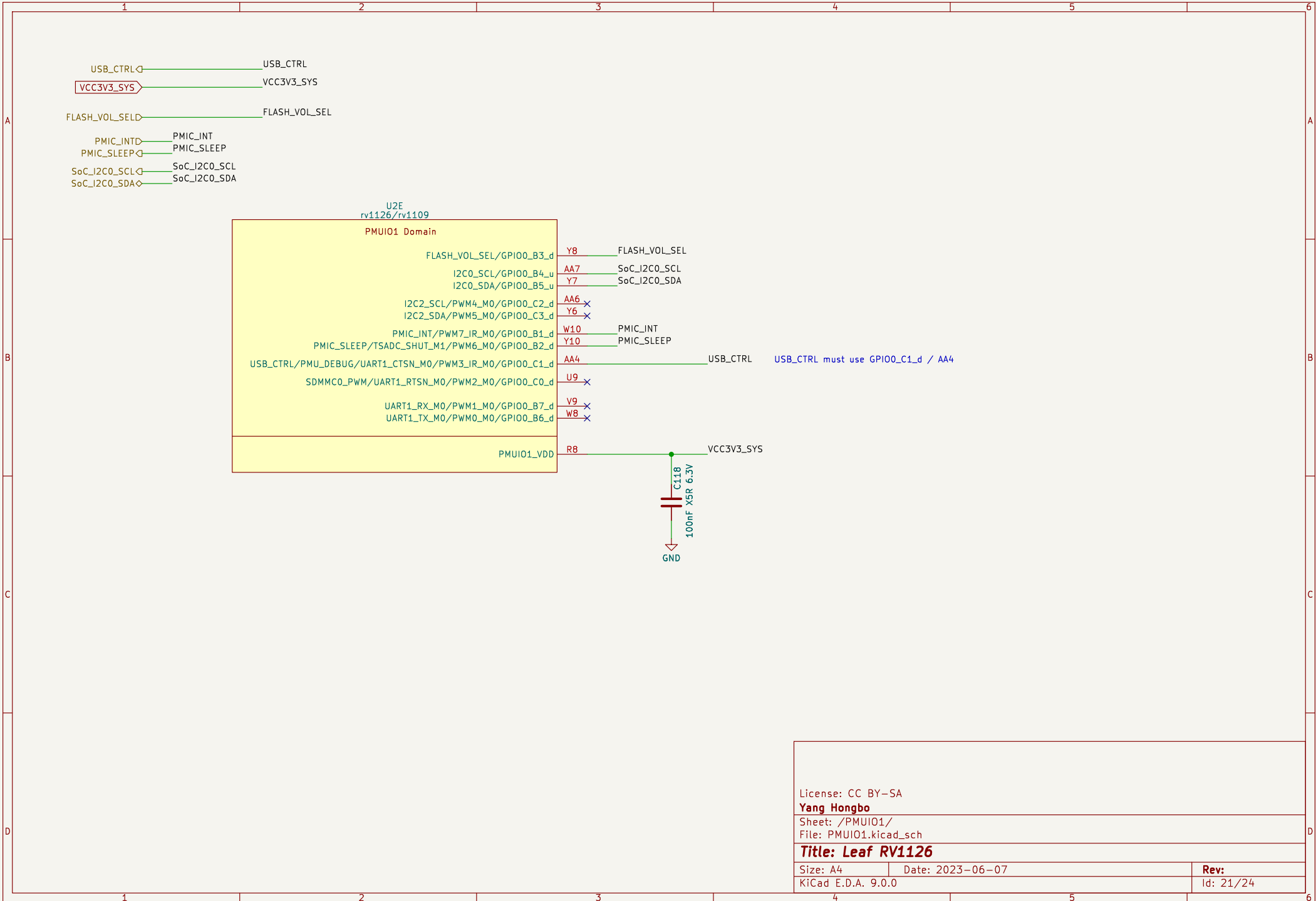
Size: A4

Date: 2023-06-07

Rev:

KiCad E.D.A. 9.0.0

Id: 20/24



U2J
rv1126/rv1109

VCCI05 Domain

- CAN_RXD_M0/UART3_TX_M2/PWM7_IR_M1/SPI1_CS1n_M2/I2C4_SCL_M0/GPIO3_A0_u ~~E20~~ ✕
- CAN_TXD_M0/UART3_RX_M2/PWM11_IR_M1/I2C4_SDA_M0/GPIO3_A1_u ~~E19~~ ✕
- LCDC_D0/RGMIL_TXD3_M1/CIF_D0_M1/UART4_RTSN_M1/GPIO2_A4_d ~~J18~~ ✕
- LCDC_D1/RGMIL_CRS_M1/CIF_D1_M1/UART4_CTSN_M1/I2C5_SCL_M0/GPIO2_A5_d ~~L17~~ ✕
- LCDC_D2/RGMIL_COL_M1/CIF_D2_M1/PWM5_M1/_UART4_TX_M1/GPIO2_A6_d ~~M21~~ ✕
- LCDC_D3/I2S2_SDO_M1/UART4_RX_M1/PWM4_M1/SPI0_CS0n_M2/GPIO2_A7_d ~~M20~~ ✕
- LCDC_D4/I2S2_SDI_M1/UART5_TX_M1/PWM3_IR_M1/SPI0_MOSI_M2/GPIO2_B0_d ~~L19~~ ✕
- LCDC_D5/I2S2_SCLK_M1/UART5_RX_M1/PWM2_M1/SPI0_MISO_M2/GPIO2_B1_d ~~L20~~ ✕
- LCDC_D6/I2S2_LRCK_M1/UART5_RTSN_M1/PWM1_M1/SPI0_CLK_M2/GPIO2_B2_d ~~K16~~ ✕
- LCDC_D7/I2S2_MCLK_M1/CIF_D3_M1/UART5_CTSN_M1/SPI0_CS1n_M2/PWM0_M1/I2C5_SDA_M0/_GPIO2_B3_d ~~K17~~ ✕
- LCDC_D8/RGMIL_RXDV_M1/CIF_D4_M1/GPIO2_B4_d ~~K18~~ ✕
- LCDC_D9/RGMIL_RXD0_M1/CIF_D5_M1/GPIO2_B5_d ~~K19~~ ✕
- LCDC_D10/RGMIL_RXD1_M1/CIF_D6_M1/GPIO2_B6_d ~~K20~~ ✕
- LCDC_D11/RGMIL_CLK_M1/CIF_D7_M1/GPIO2_B7_d ~~K21~~ ✕
- LCDC_D12/RGMIL_RXER_M1/CIF_D8_M1/GPIO2_C0_d ~~J19~~ ✕
- LCDC_D13/RGMIL_MDIO_M1/CIF_D9_M1/GPIO2_C1_d ~~J21~~ ✕
- LCDC_D14/RGMIL_MDC_M1/CIF_D10_M1/GPIO2_C2_d ~~J20~~ ✕
- LCDC_D15/RGMIL_TXD0_M1/CIF_D11_M1/GPIO2_C3_d ~~H20~~ ✕
- LCDC_D16/RGMIL_TXD1_M1/CIF_D12_M1/GPIO2_C4_d ~~H19~~ ✕
- LCDC_D17/CLK_OUT_ETHERNET_M1/CIF_D13_M1/GPIO2_C5_d ~~G21~~ ✕
- LCDC_D18/RGMIL_TXEN_M1/CIF_D14_M1/GPIO2_C6_d ~~G20~~ ✕
- LCDC_D19/RGMIL_RXD2_M1/CIF_D15_M1/I2S1_MCLK_M2/GPIO2_C7_d ~~G19~~ ✕
- LCDC_D20/RGMIL_RXD3_M1/CIF_VSYNC_M1/I2S1_SDO_M2/GPIO2_D0_d ~~H18~~ ✕
- LCDC_D21/RGMIL_TXD2_M1/CIF_CLKOUT_M1/I2S1_SCLK_M2/GPIO2_D1_d ~~F21~~ ✕
- LCDC_D22/RGMIL_TXCLK_M1/CIF_CLKIN_M1/I2S1_LRCK_M2/GPIO2_D2_d ~~F20~~ ✕
- LCDC_D23/RGMIL_RXCLK_M1/CIF_HSYNC_M1/I2S1_SDI_M2/GPIO2_D3_d ~~F19~~ ✕
- LCDC_CLK/UART3_CTSN_M2/PWM8_M1/SPI1_MISO_M2/GPIO2_D7_d ~~D21~~ ✕
- LCDC_DEN/PWM6_M1/SPI1_CS0n_M2/I2C3_SCL_M1/GPIO2_D4_d ~~J17~~ ✕
- LCDC_HSYNC/PWM10_M1/_SPI1_CLK_M2/I2C3_SDA_M1/GPIO2_D5_d ~~H17~~ ✕
- LCDC_VSYNC/UART3_RTSN_M2/PWM9_M1/SPI1_MOSI_M2/GPIO2_D6_d ~~C21~~ ✕
- UART2_RX_M1/A7_JTAG_TMS_M1/GPIO3_A3_u ~~H16~~ ✕
- UART2_TX_M1/A7_JTAG_TCK_M1/GPIO3_A2_u ~~G18~~ ✕

VCCI05_VDD1 ~~J15~~ ✕

VCCI05_VDD2 ~~K15~~ ✕

U2K
rv1126/rv1109

VCCI06 Domain

- CIF_CLKIN_M0/CLK_OUT_ETHERNET_M0/UART3_CTSN_M0/GPIO3_C5_d ~~M19~~ ✕
- CIF_CLKOUT_M0/RGMIL_TXCLK_M0/UART3_TX_M0/GPIO3_C6_d ~~P19~~ ✕
- CIF_D0_M0/I2S0_SCLK_TX_M1/UART4_TX_M0/I2C3_SCL_M0/PWM8_M0/GPIO3_A4_d ~~R17~~ ✕
- CIF_D10_M0/RGMIL_RXD0_M0/PDM_SDI2_M1/SPI1_MOSI_M0/GPIO3_B6_d ~~R20~~ ✕
- CIF_D11_M0/RGMIL_RXD1_M0/PDM_SDI3_M1/SPI1_MISO_M0/GPIO3_B7_d ~~R21~~ ✕
- CIF_D12_M0/RGMIL_CLK_M0/PDM_CLK0_M1/SPI1_CLK_M0/GPIO3_C0_d ~~N19~~ ✕
- CIF_D13_M0/RGMIL_RXDV_M0/PDM_SDI0_M1/GPIO3_C1_d ~~M17~~ ✕
- CIF_D14_M0/RGMIL_RXER_M0/PDM_SDI1_M1/GPIO3_C2_d ~~M18~~ ✕
- CIF_D15_M0/RGMIL_MDIO_M0/PDM_CLK1_M1/GPIO3_C3_d ~~N20~~ ✕
- CIF_D1_M0/RGMIL_CRS_M0/I2S0_LRCK_TX_M1/UART4_RX_M0/I2C3_SDA_M0/PWM9_M0/GPIO3_A5_d ~~T18~~ ✕
- CIF_D2_M0/RGMIL_COL_M0/I2S0_SDO0_M1/UART5_TX_M0/CAN_RXD_M1/PWM10_M0/GPIO3_A6_d ~~P17~~ ✕
- CIF_D3_M0/RGMIL_RXD2_M0/I2S0_SDI0_M1/UART5_RX_M0/CAN_TXD_M1/PWM11_IR_M0/GPIO3_A7_d ~~R18~~ ✕
- CIF_D4_M0/RGMIL_RXD3_M0/I2S0_MCLK_M1/UART5_RTSN_M0/I2C5_SCL_M1/GPIO3_B0_d ~~T19~~ ✕
- CIF_D5_M0/RGMIL_TXD2_M0/I2S0_SCLK_RX_M1/UART5_CTSN_M0/I2C5_SDA_M1/GPIO3_B1_d ~~T20~~ ✕
- CIF_D6_M0/RGMIL_TXD3_M0/I2S0_LRCK_RX_M1/UART4_RTSN_M0/GPIO3_B2_d ~~N17~~ ✕
- CIF_D7_M0/RGMIL_TXD0_M0/I2S0_SDO1_SDI3_M1/UART4_CTSN_M0/GPIO3_B3_d ~~R19~~ ✕
- CIF_D8_M0/RGMIL_TXD1_M0/I2S0_SDO2_SDI2_M1/SPI1_CS1n_M0/GPIO3_B4_d ~~T21~~ ✕
- CIF_D9_M0/RGMIL_TXEN_M0/I2S0_SDO3_SDI1_M1/SPI1_CS0n_M0/GPIO3_B5_d ~~N18~~ ✕
- CIF_HSYNC_M0/RGMIL_RXCLK_M0/UART3_RX_M0/GPIO3_C7_d ~~P20~~ ✕
- CIF_VSYNC_M0/RGMIL_MDC_M0/UART3_RTSN_M0/GPIO3_C4_d ~~N21~~ ✕

VCCI06_VDD ~~M15~~ ✕

License: CC BY-SA

Yang Hongbo

Sheet: /Ethernet/

File: Ethernet.kicad_sch

Title: Leaf RV1126

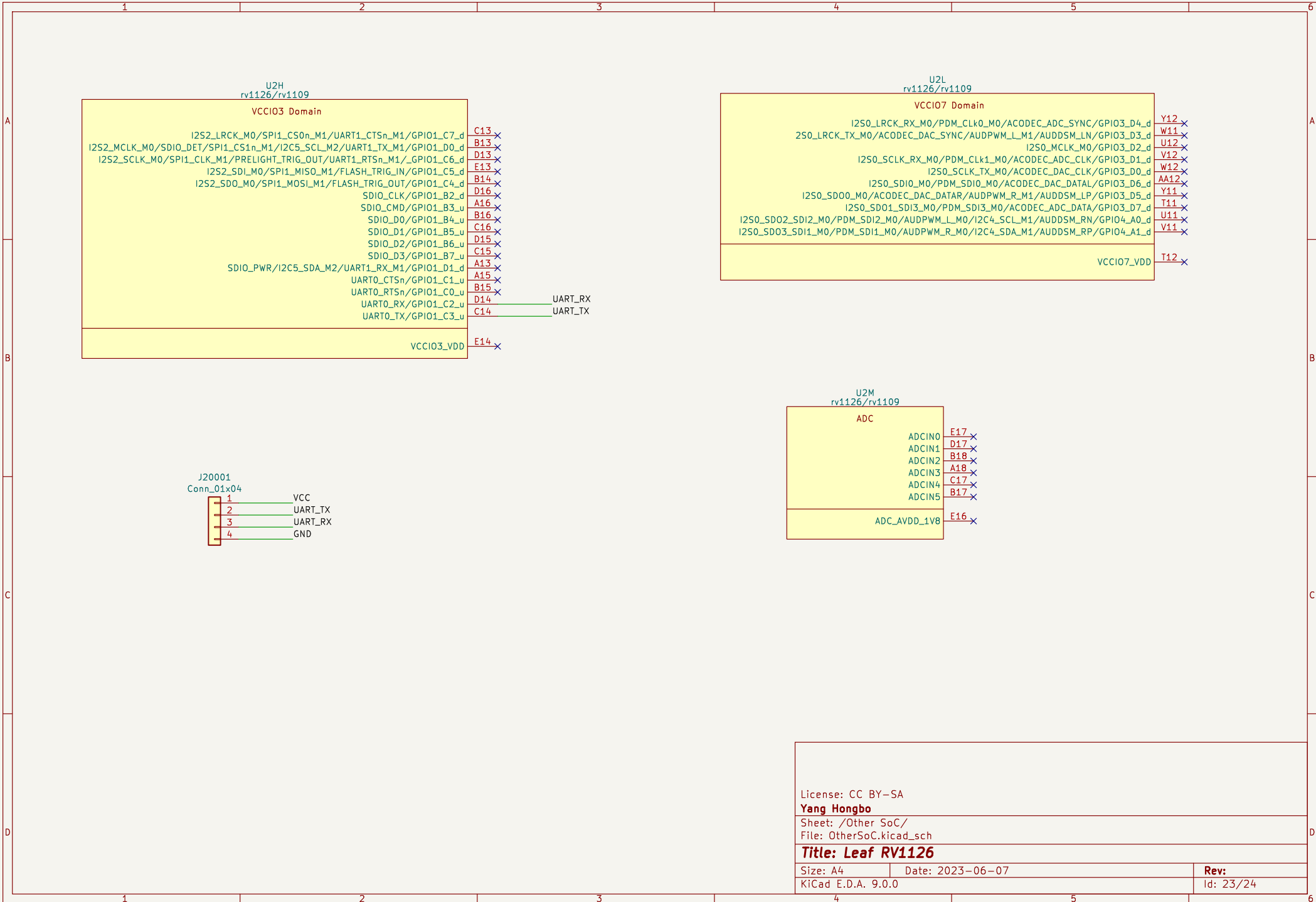
Size: A4

Date: 2023-06-07

Rev:

KiCad E.D.A. 9.0.0

Id: 22/24



U2H
rv1126/rv1109

VCCI03 Domain

I2S2_LRCK_M0/SPI1_CS0n_M1/UART1_CTSn_M1/GPIO1_C7_d C13 ✕
 I2S2_MCLK_M0/SDIO_DET/SPI1_CS1n_M1/I2C5_SCL_M2/UART1_TX_M1/GPIO1_D0_d B13 ✕
 I2S2_SCLK_M0/SPI1_CLK_M1/PRELIGHT_TRIG_OUT/UART1_RTSn_M1/_GPIO1_C6_d D13 ✕
 I2S2_SDI_M0/SPI1_MISO_M1/FLASH_TRIG_IN/GPIO1_C5_d E13 ✕
 I2S2_SDO_M0/SPI1_MOSI_M1/FLASH_TRIG_OUT/GPIO1_C4_d B14 ✕
 SDIO_CLK/GPIO1_B2_d D16 ✕
 SDIO_CMD/GPIO1_B3_u A16 ✕
 SDIO_D0/GPIO1_B4_u B16 ✕
 SDIO_D1/GPIO1_B5_u C16 ✕
 SDIO_D2/GPIO1_B6_u D15 ✕
 SDIO_D3/GPIO1_B7_u C15 ✕
 SDIO_PWR/I2C5_SDA_M2/UART1_RX_M1/GPIO1_D1_d A13 ✕
 UART0_CTSn/GPIO1_C1_u B15 ✕
 UART0_RTSn/GPIO1_C0_u D14 ✕
 UART0_RX/GPIO1_C2_u UART_RX
 UART0_TX/GPIO1_C3_u UART_TX

VCCI03_VDD E14 ✕

U2L
rv1126/rv1109

VCCI07 Domain

I2S0_LRCK_RX_M0/PDM_CLK0_M0/ACODEC_ADC_SYNC/GPIO3_D4_d Y12 ✕
 I2S0_LRCK_TX_M0/ACODEC_DAC_SYNC/AUDPWM_L_M1/AUDDSM_LN/GPIO3_D3_d W11 ✕
 I2S0_MCLK_M0/GPIO3_D2_d U12 ✕
 I2S0_SCLK_RX_M0/PDM_CLK1_M0/ACODEC_ADC_CLK/GPIO3_D1_d V12 ✕
 I2S0_SCLK_TX_M0/ACODEC_DAC_CLK/GPIO3_D0_d W12 ✕
 I2S0_SDIO_M0/PDM_SDIO_M0/ACODEC_DAC_DATA/GPIO3_D6_d AA12 ✕
 I2S0_SDO0_M0/ACODEC_DAC_DATA/AUDPWM_R_M1/AUDDSM_LP/GPIO3_D5_d Y11 ✕
 I2S0_SDO1_SDI3_M0/PDM_SDI3_M0/ACODEC_ADC_DATA/GPIO3_D7_d T11 ✕
 I2S0_SDO2_SDI2_M0/PDM_SDI2_M0/AUDPWM_L_M0/I2C4_SCL_M1/AUDDSM_RN/GPIO4_A0_d U11 ✕
 I2S0_SDO3_SDI1_M0/PDM_SDI1_M0/AUDPWM_R_M0/I2C4_SDA_M1/AUDDSM_RP/GPIO4_A1_d V11 ✕

VCCI07_VDD T12 ✕

U2M
rv1126/rv1109

ADC

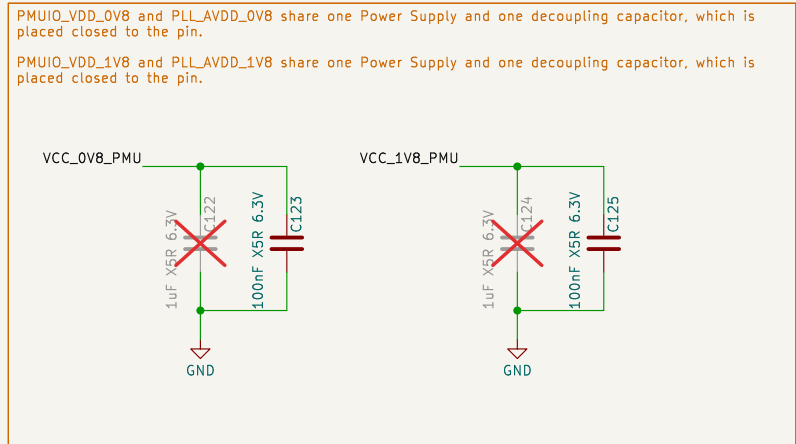
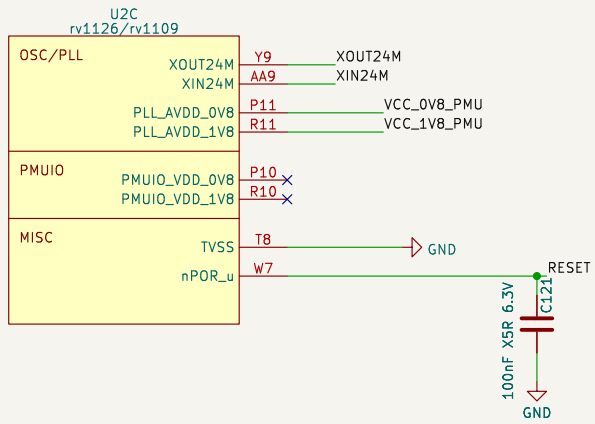
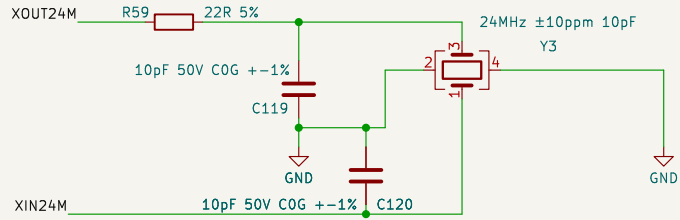
ADCIN0 E17 ✕
 ADCIN1 D17 ✕
 ADCIN2 B18 ✕
 ADCIN3 A18 ✕
 ADCIN4 C17 ✕
 ADCIN5 B17 ✕

ADC_AVDD1V8 E16 ✕

J20001
Conn_01x04

1 VCC
 2 UART_TX
 3 UART_RX
 4 GND

RESETD — RESET
 VCC_0V8_PMU — VCC_0V8_PMU
 VCC_1V8_PMU — VCC_1V8_PMU



License: CC BY-SA

Yang Hongbo

Sheet: /SoC OSC PLL/

File: SoC_OSC_PLL.kicad_sch

Title: Leaf RV1126

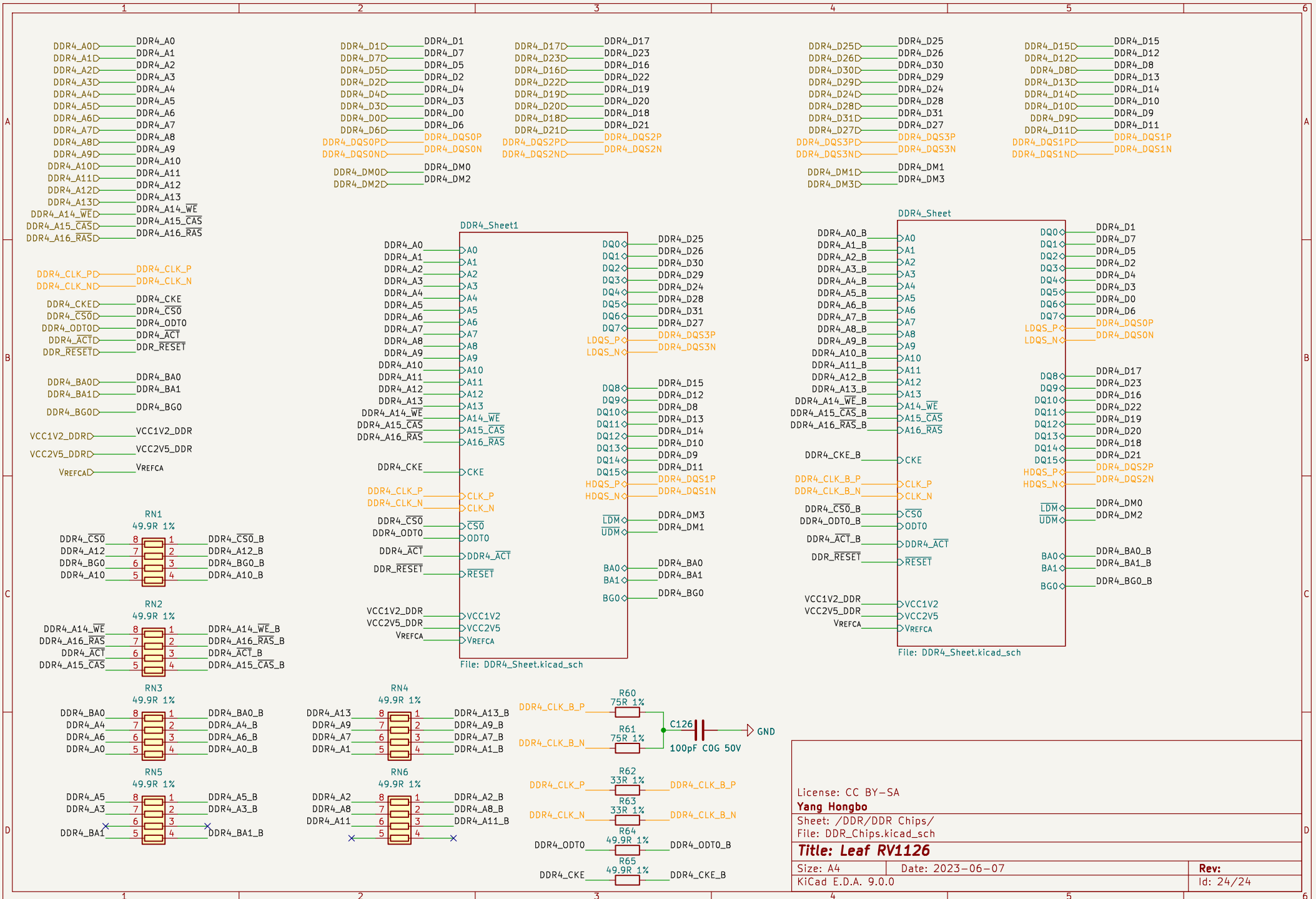
Size: A4

Date: 2023-06-07

KiCad E.D.A. 9.0.0

Rev:

Id: 24/24



License: CC BY-SA	
Yang Hongbo	
Sheet: /DDR/DDR Chips/ File: DDR_Chips.kicad_sch	
Title: Leaf RV1126	
Size: A4	Date: 2023-06-07
KiCad E.D.A. 9.0.0	Rev: Id: 24/24

