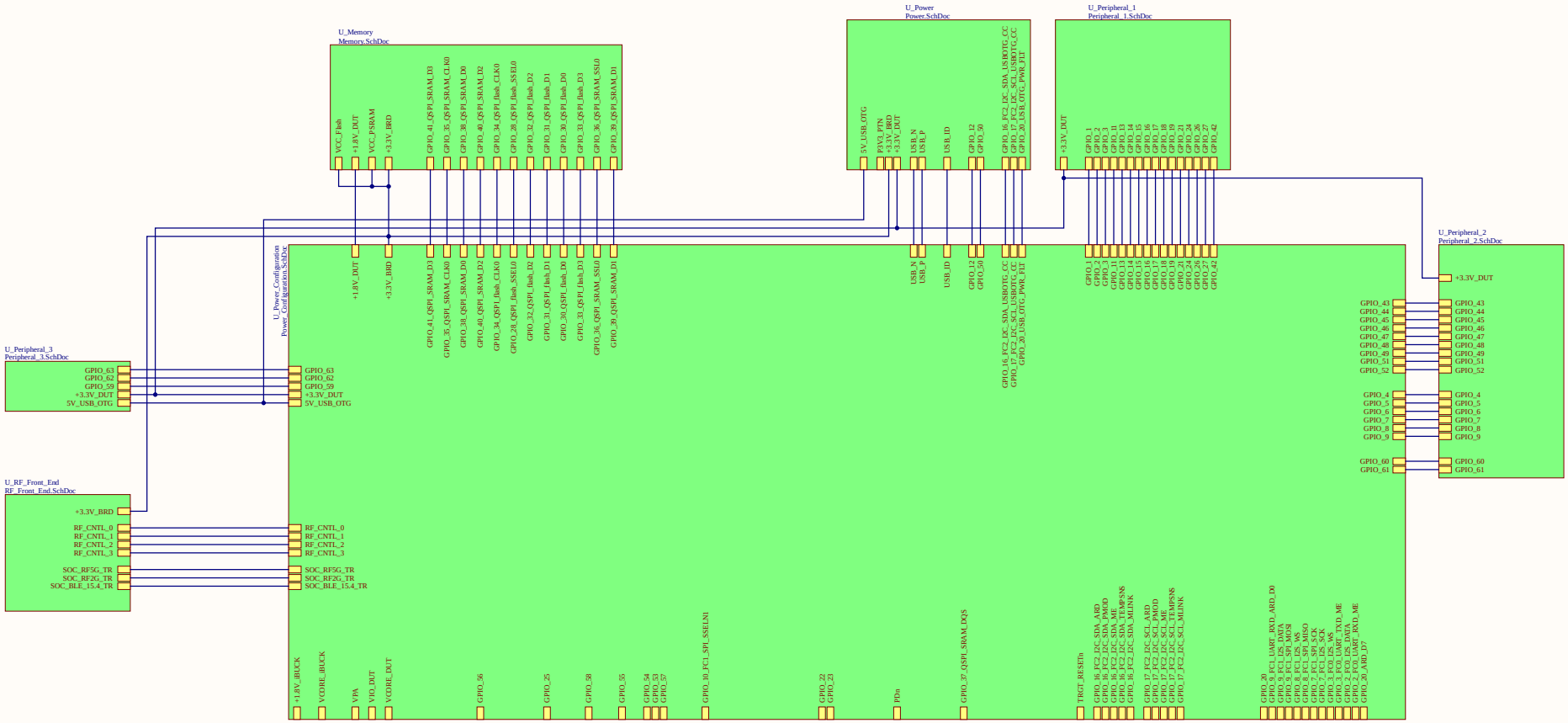
U_Memory
Memory.SchDoc
VCC_Flash
+1.8V_DUT
VCC_PSRAM
+3.3V_BRD
GPIO_41_QSPI_SRAM_D3
GPIO_35_QSPI_SRAM_CLK0
GPIO_38_QSPI_SRAM_D0
GPIO_40_QSPI_SRAM_D2
GPIO_34_QSPI_flash_CLK0
GPIO_28_QSPI_flash_SSEL0
GPIO_32_QSPI_flash_D2
GPIO_31_QSPI_flash_D1
GPIO_30_QSPI_flash_D0
GPIO_33_QSPI_flash_D3
GPIO_36_QSPI_SRAM_SSL0
GPIO_39_QSPI_SRAM_D1
U_Power
Power.SchDoc
5V_USB_OTG
P3V3_PTN
+3.3V_BRD
+3.3V_DUT
USB_N
USB_P
USB_ID
GPIO_12
GPIO_50
GPIO_16_I²C2_I2C_SDA_USBOTG_CC
GPIO_17_I²C2_I2C_SCL_USBOTG_CC
GPIO_20_USB_OTG_PWR_FLT
U_Peripheral_1
Peripheral_1.SchDoc
+3.3V_DUT
GPIO_1
GPIO_2
GPIO_3
GPIO_11
GPIO_13
GPIO_14
GPIO_15
GPIO_16
GPIO_17
GPIO_18
GPIO_19
GPIO_21
GPIO_24
GPIO_26
GPIO_27
GPIO_42
U_Peripheral_2
Peripheral_2.SchDoc
+3.3V_DUT
GPIO_43
GPIO_44
GPIO_45
GPIO_46
GPIO_47
GPIO_48
GPIO_49
GPIO_51
GPIO_52
GPIO_4
GPIO_5
GPIO_6
GPIO_7
GPIO_8
GPIO_9
GPIO_60
GPIO_61
U_Power_Configuration
Power_Configuration.SchDoc
+1.8V_DUT
+3.3V_BRD
GPIO_41_QSPI_SRAM_D3
GPIO_35_QSPI_SRAM_CLK0
GPIO_38_QSPI_SRAM_D0
GPIO_40_QSPI_SRAM_D2
GPIO_34_QSPI_flash_CLK0
GPIO_28_QSPI_flash_SSEL0
GPIO_32_QSPI_flash_D2
GPIO_31_QSPI_flash_D1
GPIO_30_QSPI_flash_D0
GPIO_33_QSPI_flash_D3
GPIO_36_QSPI_SRAM_SSL0
GPIO_39_QSPI_SRAM_D1
USB_N
USB_P
USB_ID
GPIO_12
GPIO_50
GPIO_16_I²C2_I2C_SDA_USBOTG_CC
GPIO_17_I²C2_I2C_SCL_USBOTG_CC
GPIO_20_USB_OTG_PWR_FLT
GPIO_1
GPIO_2
GPIO_3
GPIO_11
GPIO_13
GPIO_14
GPIO_15
GPIO_16
GPIO_17
GPIO_18
GPIO_19
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GPIO_47
GPIO_48
GPIO_49
GPIO_51
GPIO_52
GPIO_4
GPIO_5
GPIO_6
GPIO_7
GPIO_8
GPIO_9
GPIO_60
GPIO_61
U_Peripheral_3
Peripheral_3.SchDoc
GPIO_63
GPIO_62
GPIO_59
+3.3V_DUT
5V_USB_OTG
GPIO_63
GPIO_62
GPIO_59
+3.3V_DUT
5V_USB_OTG
U_RF_Front_End
RF_Front_End.SchDoc
+3.3V_BRD
RF_CNTL_0
RF_CNTL_1
RF_CNTL_2
RF_CNTL_3
SOC_RF5G_TR
SOC_RF2G_TR
SOC_BLE_15.4_TR
RF_CNTL_0
RF_CNTL_1
RF_CNTL_2
RF_CNTL_3
SOC_RF5G_TR
SOC_RF2G_TR
SOC_BLE_15.4_TR
+1.8V_BUCK
VCORE_BUCK
VPA
VIO_DUT
VCORE_DUT
GPIO_56
GPIO_25
GPIO_58
GPIO_55
GPIO_54
GPIO_53
GPIO_57
GPIO_10_FC1_SPI_SSEL1N1
GPIO_22
GPIO_23
PDn
GPIO_37_QSPI_SRAM_DQS
TRGT_RESETn
GPIO_16_FC2_I2C_SDA_ARD
GPIO_16_FC2_I2C_SDA_PMOD
GPIO_16_FC2_I2C_SDA_ME
GPIO_16_FC2_I2C_SDA_TEMPSNS
GPIO_16_FC2_I2C_SDA_MLINK
GPIO_17_FC2_I2C_SCL_ARD
GPIO_17_FC2_I2C_SCL_PMOD
GPIO_17_FC2_I2C_SCL_ME
GPIO_17_FC2_I2C_SCL_TEMPSNS
GPIO_17_FC2_I2C_SCL_MLINK
GPIO_20
GPIO_9_FC1_UART_RXD_ARD_D0
GPIO_9_FC1_I2S_DATA
GPIO_10_FC1_I2S_MCK
GPIO_8_FC1_SPI_MISO
GPIO_7_FC1_SPI_SCK
GPIO_6_FC1_I2S_SCK
GPIO_1_FC1_I2S_WS
GPIO_3_FC0_UART_TXD_ME
GPIO_2_FC0_I2S_DATA
GPIO_2_FC0_UART_RXD_ME
GPIO_20_ARD_D7
Title
Size
A2
Number
Revision
Date:
10/27/2024
Sheet of
File:
C:\Users\...\Principal.SchDoc
Drawn By:

RW612 SOC POWER

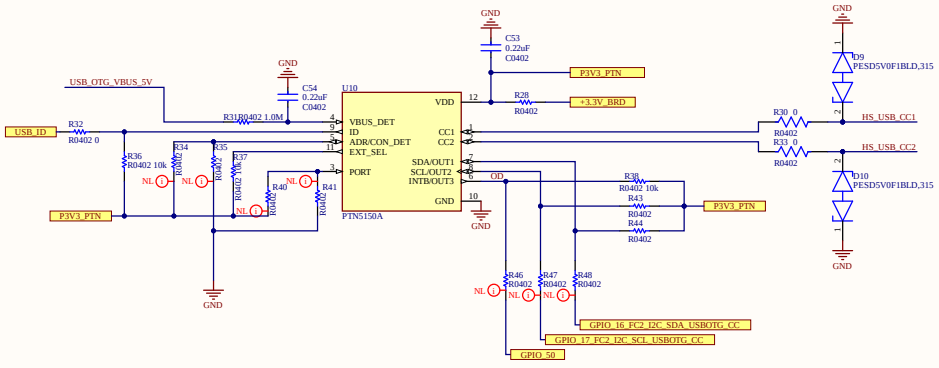
NOTE: THIS SCHEMATIC IS A PRELIMINARY DESIGN.
JOSÉ AND VALENTINA RESERVE THE RIGHT TO MAKE CHANGES TO THE SCHEMATIC AT ANY TIME WITHOUT NOTICE.

STRAP CONFIG

Title			
Size: A1	Number		Revision
Date: 10/27/2024	Sheet of		
File: C:\Users\...\Power_Configuration.SchDoc	Drawn By:		

POWER

CC Logic Control

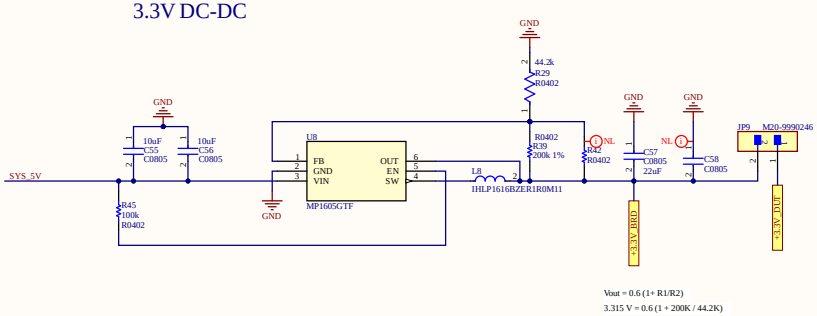


ADR/CON_DET:
When Power-up, ADR(input) function:
ADR=1: I2C Address: 0x7A(ADR)
ADR=0: I2C Address: 0x3A(ADR)
ADR=MID/FLOATING:(Pin 6/7/8) configured as OUT1/2/3 in non-I2C mode
After TINPUTLATCH, CON_DET(output) function:
CON_DET=1: Connection Detected
CON_DET=0: No Connection

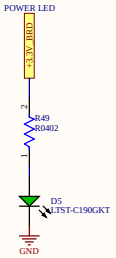
EXT_SEL: External selection
High = CC1 orientation or no valid CC1/CC2 detection
Low = CC2 orientation

Place TVS and resistors close to USB connector

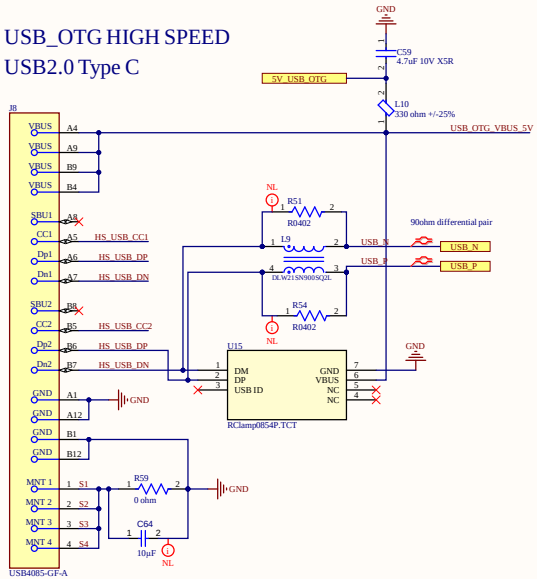
3.3V DC-DC



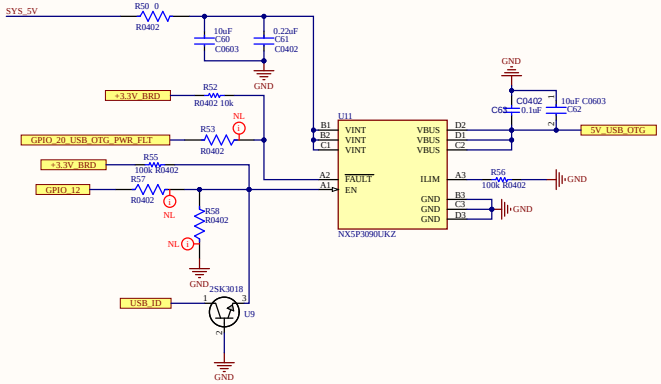
Vout = 0.6 (1+ R1/R2)
3.315 V = 0.6 (1 + 200K / 44.2K)



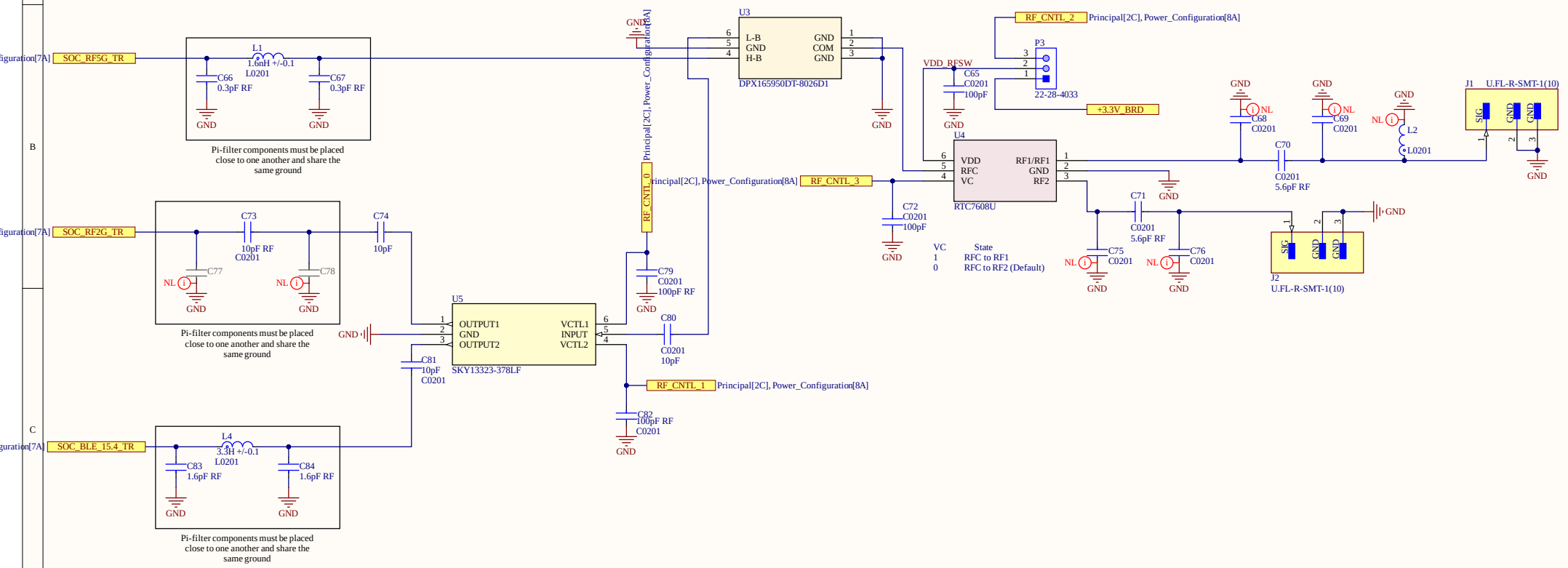
USB_OTG HIGH SPEED
USB2.0 Type C



VBUS Control



RF FRONT END



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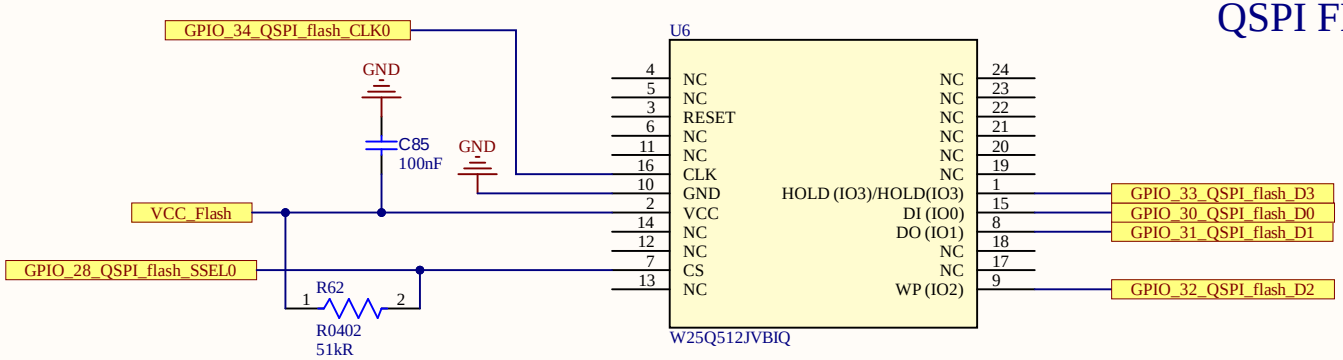
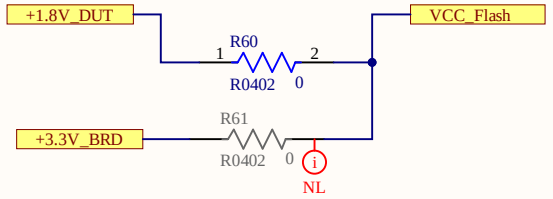
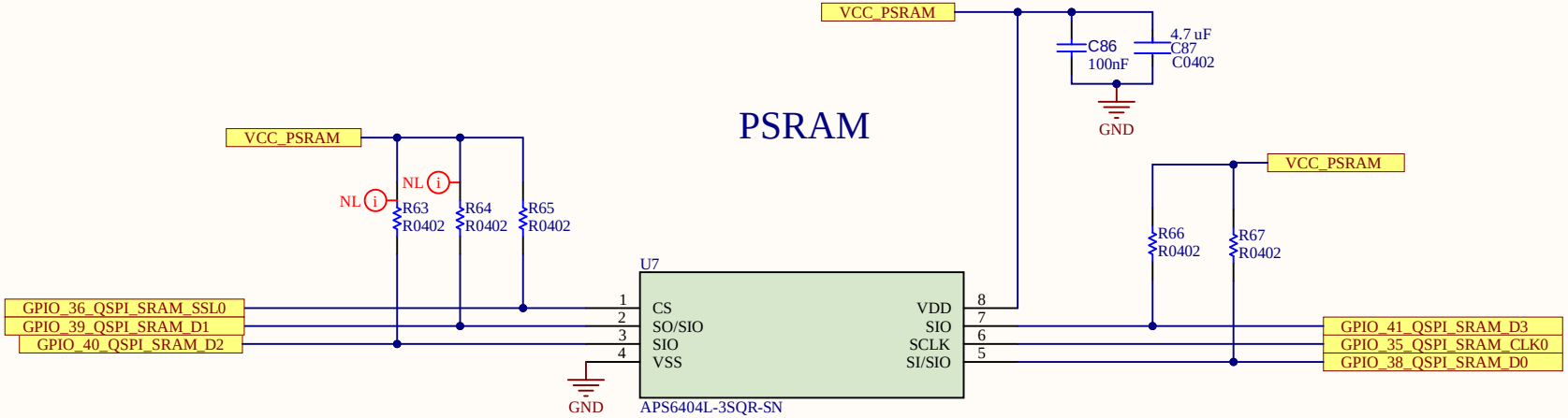
Date: 10/27/2024		Sheet of
File: C:\Users\..\RF_Front_End.SchDoc		Drawn By:

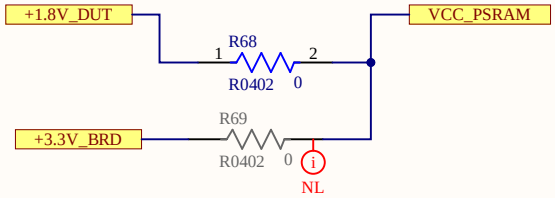
QSPI FLASH





PSRAM





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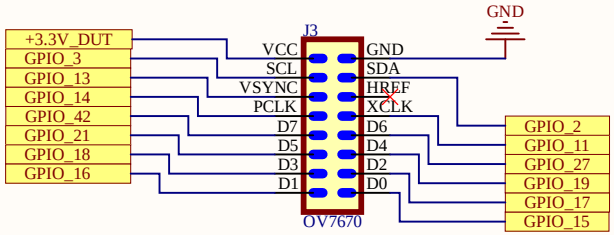
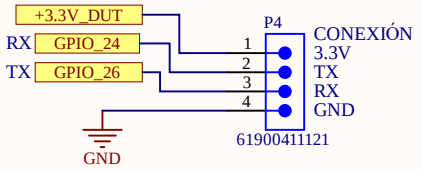
Cámara OV7670

Interfaz Paralela



Sensor de Huella Capacitivo FPC1020A

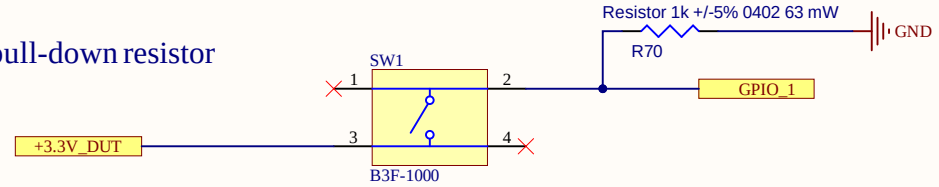
Protocolo Serial



Botón o Timbre

GPIO

pull-down resistor



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Size: A4	Number	Revision
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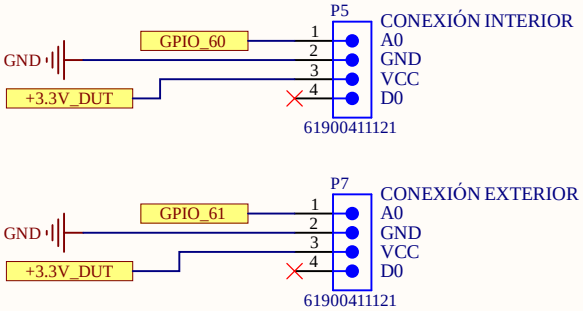
File: C:\Users\..\Peripheral_1.SchDoc		Drawn By:

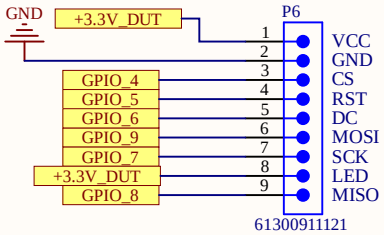
Micrófono KY-037

ADC



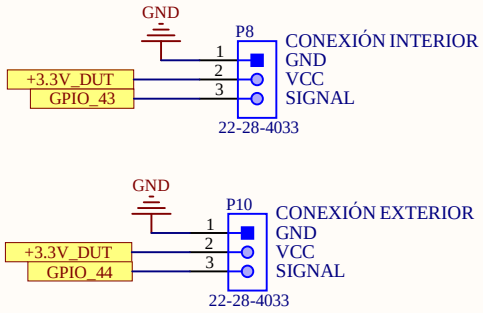
Pantalla ILI9341V

SPI



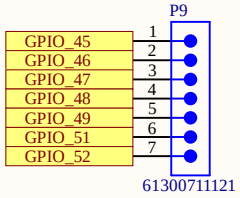
Parlante FIT0449

DAC



Teclado SparkFun COM-08653

GPIO



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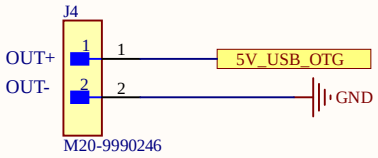
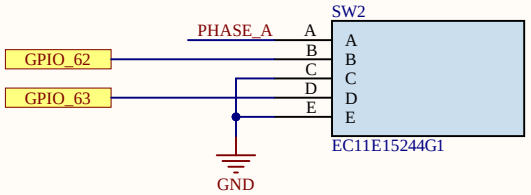
Módulo de Carga TP4056

Power Supply



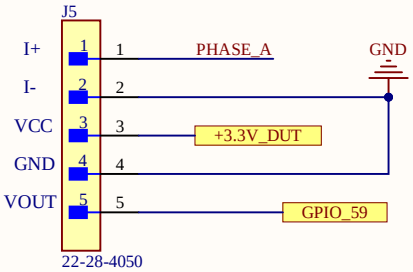
Perilla EC11E15244G1

GPIO



Sensor de Corriente ACS712

GPIO



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Date: 10/27/2024		Sheet of
File: C:\Users\..\Peripheral_3.SchDoc		Drawn By:

Board Stack Report