
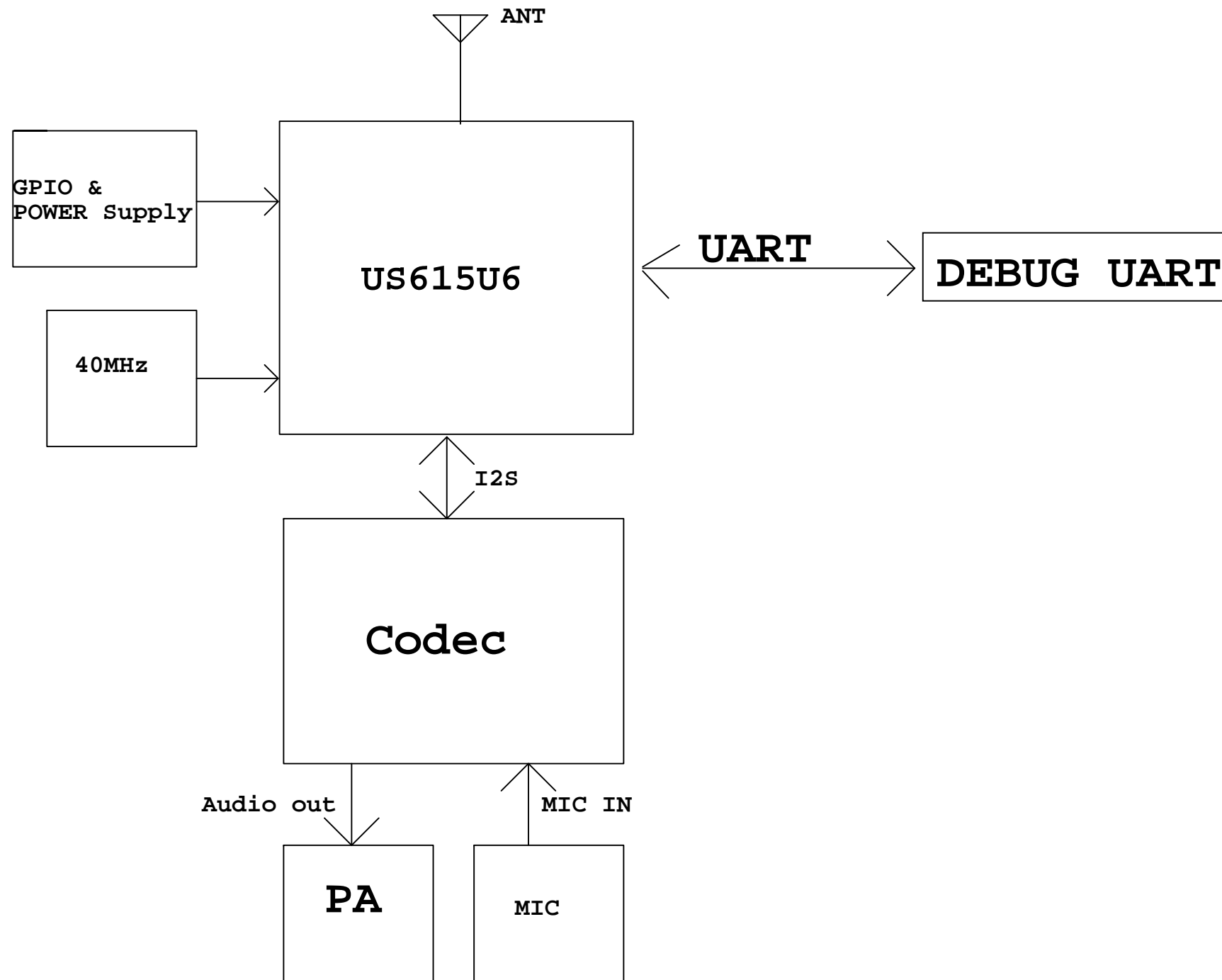


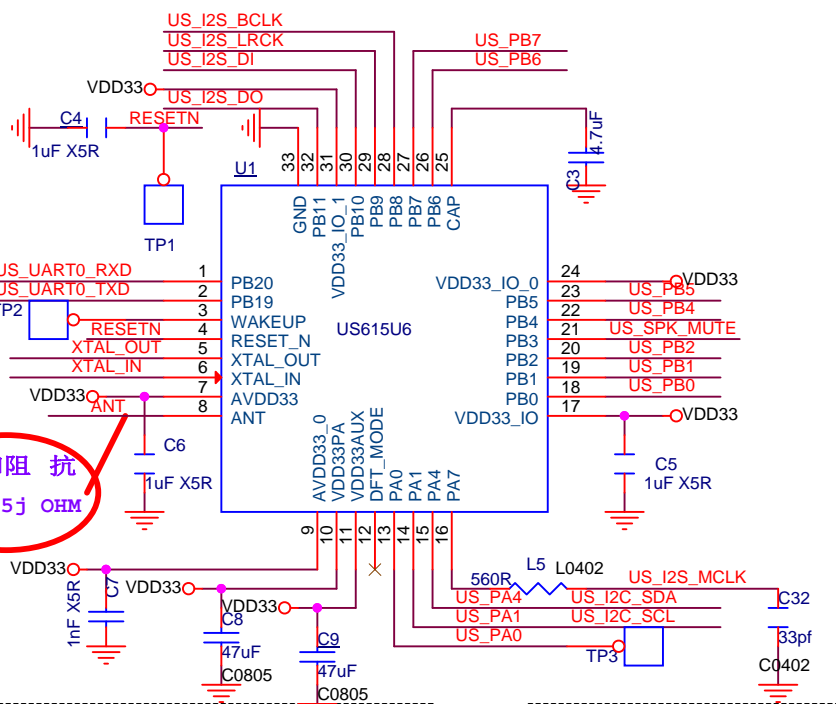
# VERSION HISTORY

Version	Date	Author	Change Note	Approved
V1.0	20210907	SunLehua	First editor	GeYong
V1.1	20211126	SunLehua	I2S MCLK add RC filter, I2S BCLK add C33 for option Changed T type match net	GeYong

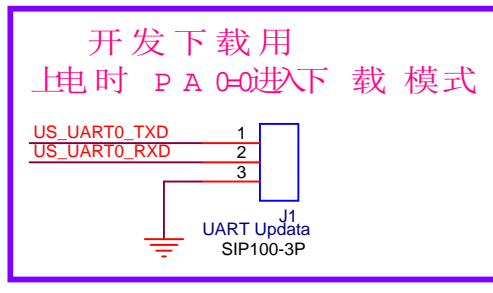
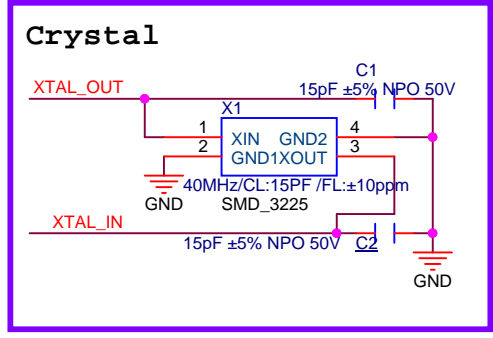
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Title		<b>US615_REF</b>	
Size A4	Document Number	<b>Version</b>	Rev
Date:	Friday, November 26, 2021	Sheet	1 of 3

# US615\_REF Frame



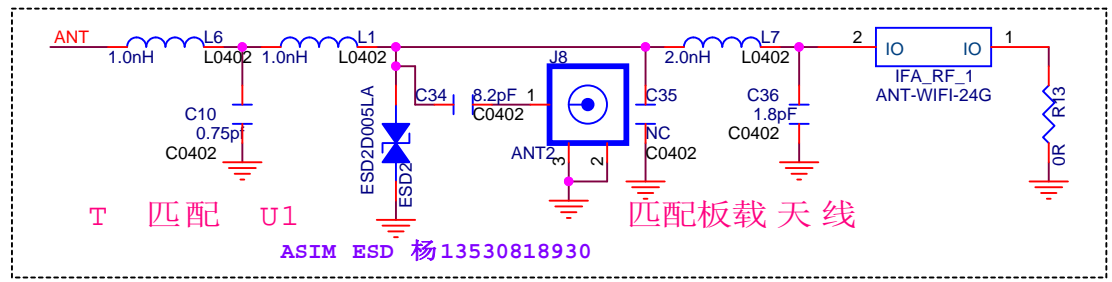


端口阻抗  
17-1.5j OHM



U1 模拟电源采用星状连接  
注意和其他数字电源分开

MCLK 远离芯片防止干扰 射频  
并加滤波电路去除对天线的 影响  
滤波电路需要根据实际设计 调节



### 蜂鸟芯片 GPIO 功能说明

管脚名	功能	说明
PB_20	UART0 RX/PWM1/UART1 CTS/I2C SCL	UART0 download/debug
PB_19	UART0 TX/PWM0/UART1 RTS/I2C SDA	UART0 download/debug
PA_0	I2S MCLK/LSPI CS/PWM2/I2S DO	BOOTMODE选择脚, 0为下载模式
PA_1	I2C SCL/PWM3/I2S LRCK/ADC0	Codec I2C clock
PA_4	I2C SDA/PWM4/I2S BCK/ADC1	Codec I2C data
PA_7	PWM4/LSPI MOSI/I2S MCK/I2S DI/Touch0	Codec I2S clock
PB_0	PWM0/LSPI MISO/UART3 TX/PSRAM CK/Touch3	可用于UART/PWM功能
PB_1	PWM1/LSPI CK/UART3 RX/PSRAM CS/Touch4	预留GPIO
PB_2	PWM2/LSPI CK/UART2 TX/PSRAM D0/Touch5	用于控制功放MUTE脚
PB_3	PWM3/LSPI MISO/UART2 RX/PSRAM D1/Touch6	作为串口对外通信使用
PB_4	LSPI CS/UART2 RTS/UART4 TX/PSRAM D2/Touch7	UART1_TX
PB_5	LSPI MOSI/UART2 CTS/UART4 RX/PSRAM D3/Touch8	UART1_RX
PB_6	UART1 TX/MMC CLK/HSPI CK/SDIO CK/Touch9	Codec I2S Bit clock
PB_7	UART1 RX/MMC CMD/HSPI INT/SDIO CMD/Touch10	Codec I2S LR clock
PB_8	I2S BCK/MMC D0/PWM BREAK/SDIO D0/Touch11	Codec I2S data input
PB_9	I2S LRCK/MMC D1/HSPI CS/SDIO D1/Touch12	Codec I2S data output
PB_10	I2S DI/MMC D2/HSPI DI/SDIO D2	
PB_11	I2S DO/MMC D3/HSPI DO/SDIO D3	

