

野火STM32F429/F767/H743底板原理图_V2.1

目录

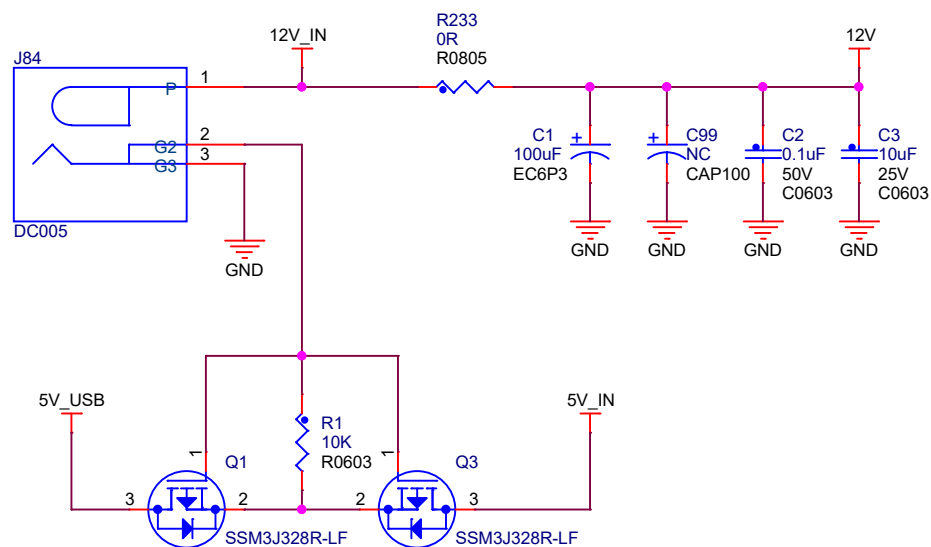
Page 1	目录
Page 2	历史版本
Page 3	主电源
Page 4	B2B_Conector
Page 5	引出IO/BOOT
Page 6	液晶屏/WIFI
Page 7	UART/CAN/RS232/RS485
Page 8	Camera/SD/USB
Page 9	ETHERNET
Page 10	SENSOR/KEY/LED
Page 11	AUDIO
Page 12	USB HUB/OTG
Page 13	

东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火STM32F429/F767/H743底板原理图		
Size A4	Document Number 目录	Rev V2.0
Date: Friday, October 13, 2023	Sheet 1 of 12	

历史版本

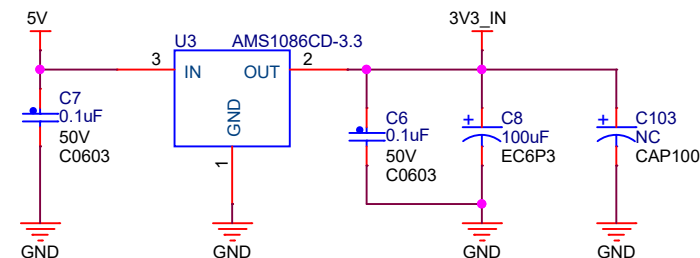
版本号	日期	设计	描述
V1.0	2018-11-30	cancore	初始版本
V2.0	2019-03-12	cancore	增加SWD接口，增加一个EBF-Module接口
V2.1	2021-09-27	cancore	修改电源芯片，USB转串口换成CH340C，修改USB接口HOST，Device各一个
V2.2	2024-0826	LPC	更新can 485 232 的替代料

DC IN : 6V~12V

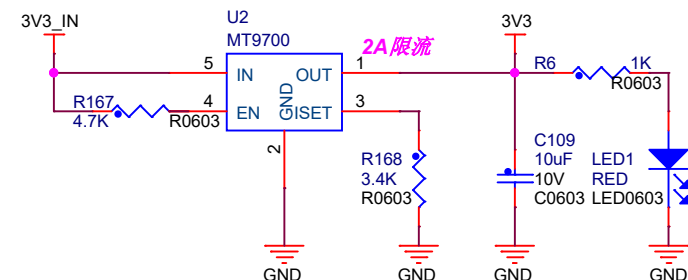


DC电源插入时, Q1/Q3截止, 防止电流流向USB
DC电源断开时, Q1/Q3打开, USB供电

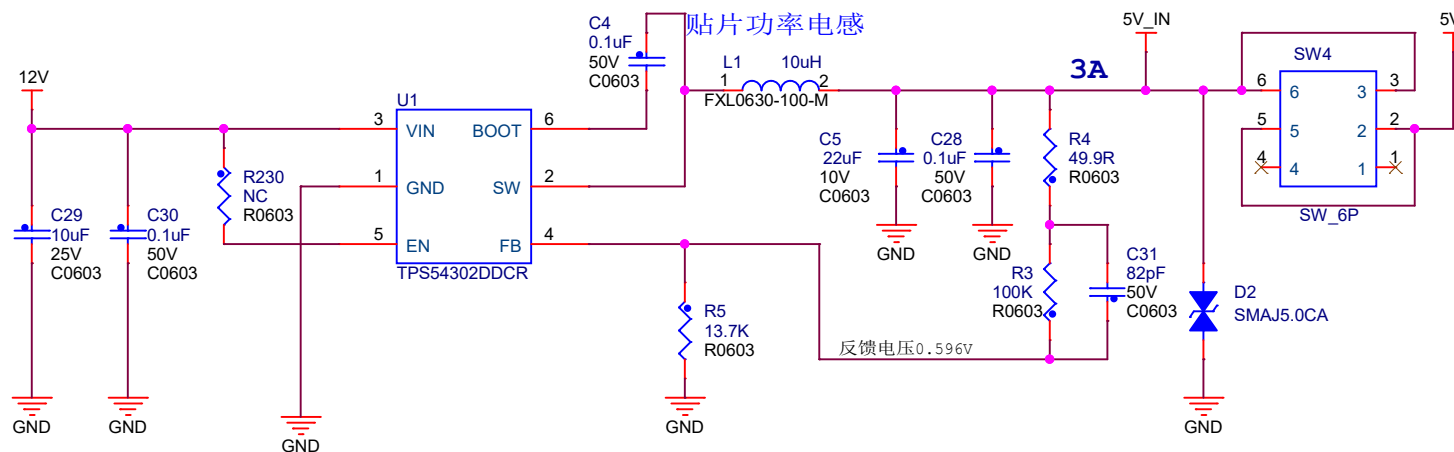
LDO 3.3V



3.3V 输出过流保护

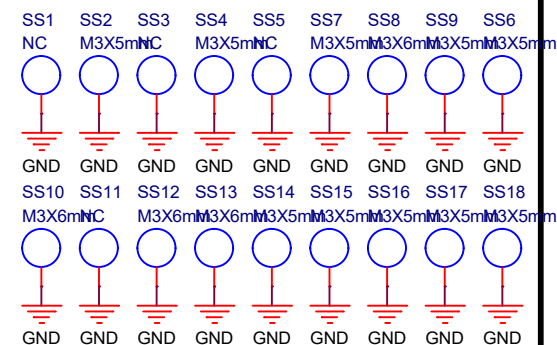


DC/DC 5V



R230为100K/NC
根据使用芯片决定是否需要焊对应的电阻

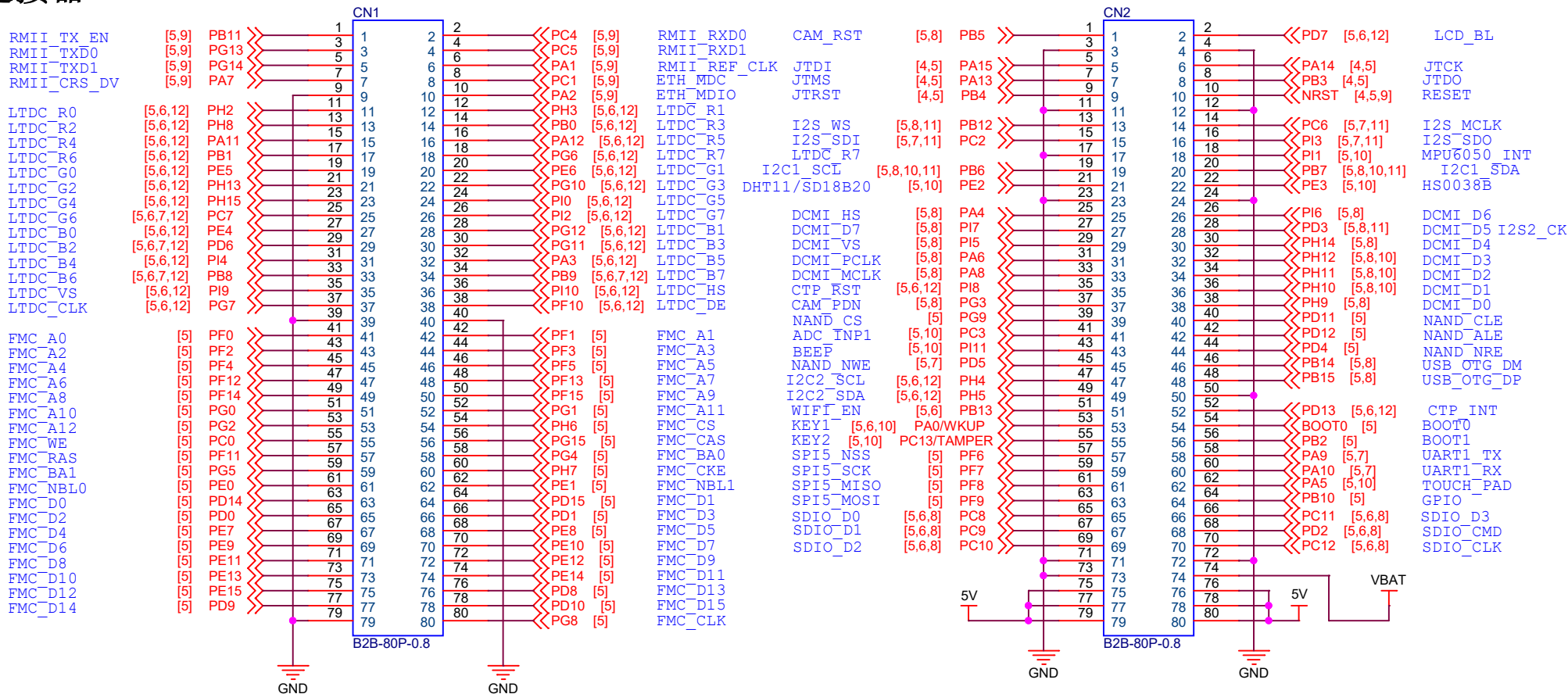
定位孔



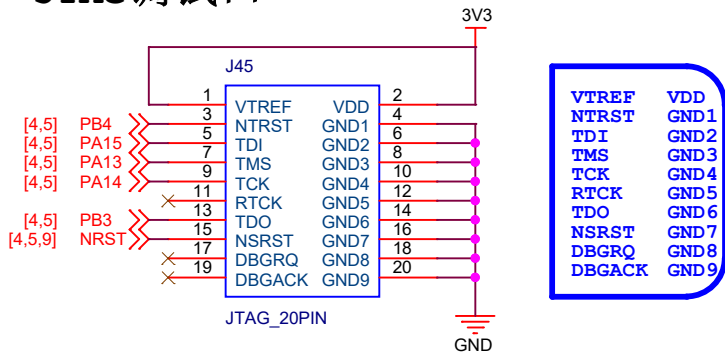
东莞野火电子有限公司
https://yehuosm.tmall.com

Title		
野火STM32F429/F767/H743底板原理图		
Size A4	Document Number 电源供电	Rev V2.0
Date: Friday, October 13, 2023	Sheet 3 of 12	

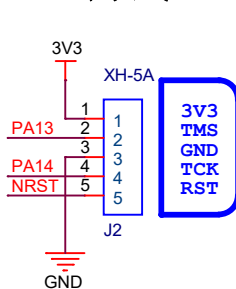
连接器



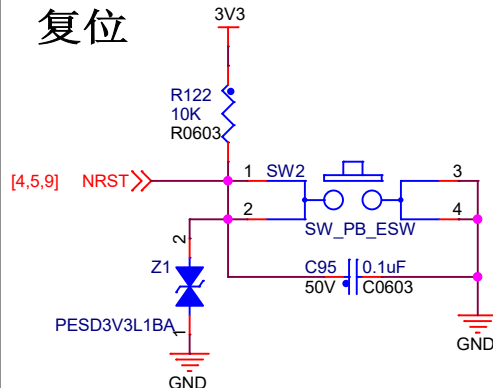
JTAG调试口



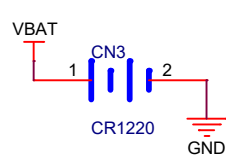
SWD调试口



复位



RTC电池



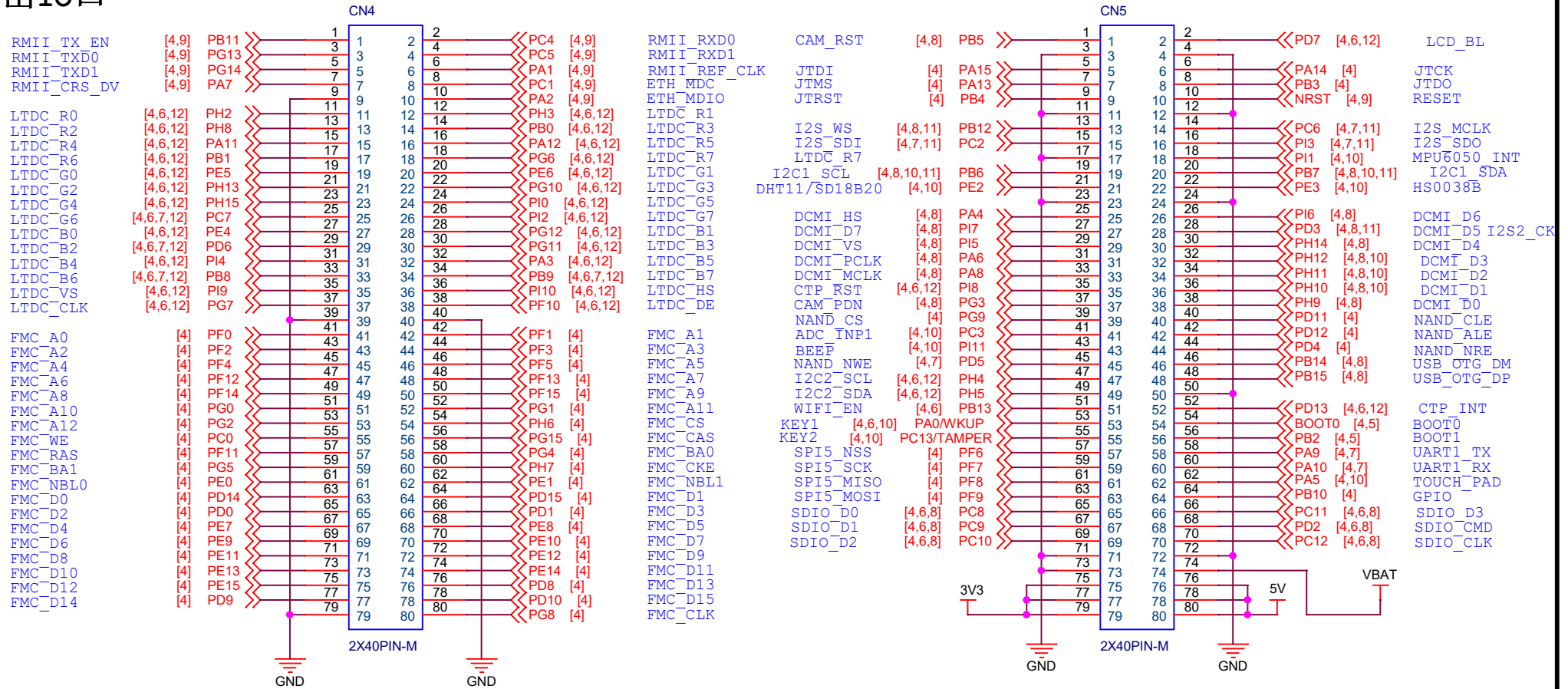
东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

Title 野火STM32F429/F767/H743底板原理图

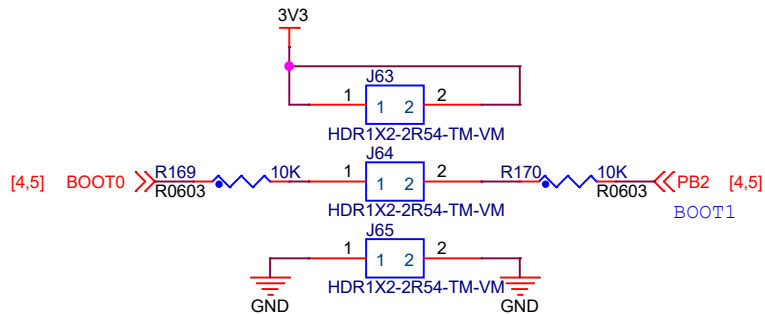
Size A4	Document Number B2B_Conector	Rev V2.0
---------	------------------------------	----------

Date: Friday, October 13, 2023 Sheet 4 of 12

引出IO口



设置启动模式



F429 BOOT设置

BOOT0	BOOT1	启动方式
0	X	用户闪存
1	0	系统存储器/ISP
1	1	内嵌SRAM

默认配置是用户闪存（即内部Flash）

东莞野火电子有限公司
<https://yehuosm.tmall.com>

Title

野火STM32F429/F767/H743底板原理图

Size
A4

Document Number

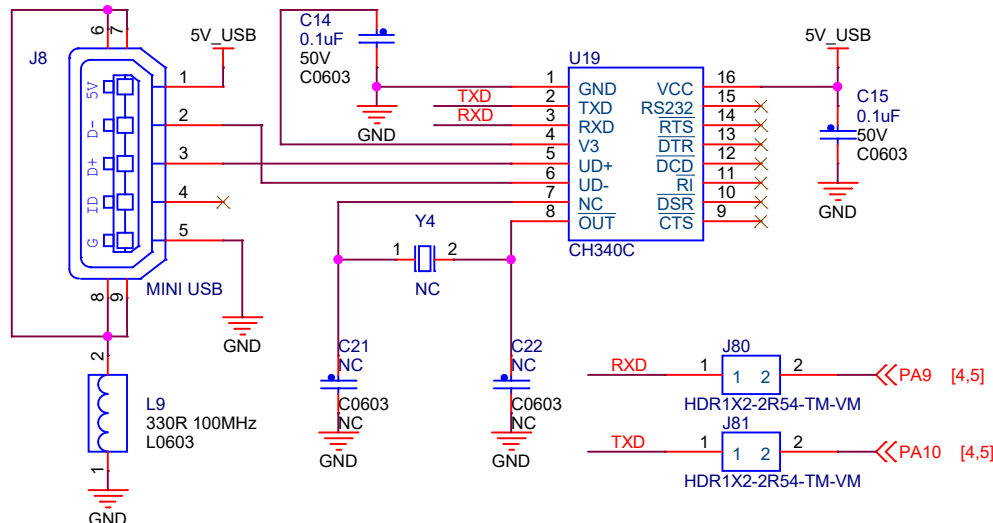
引出IO/BOOT

Rev
V2.0

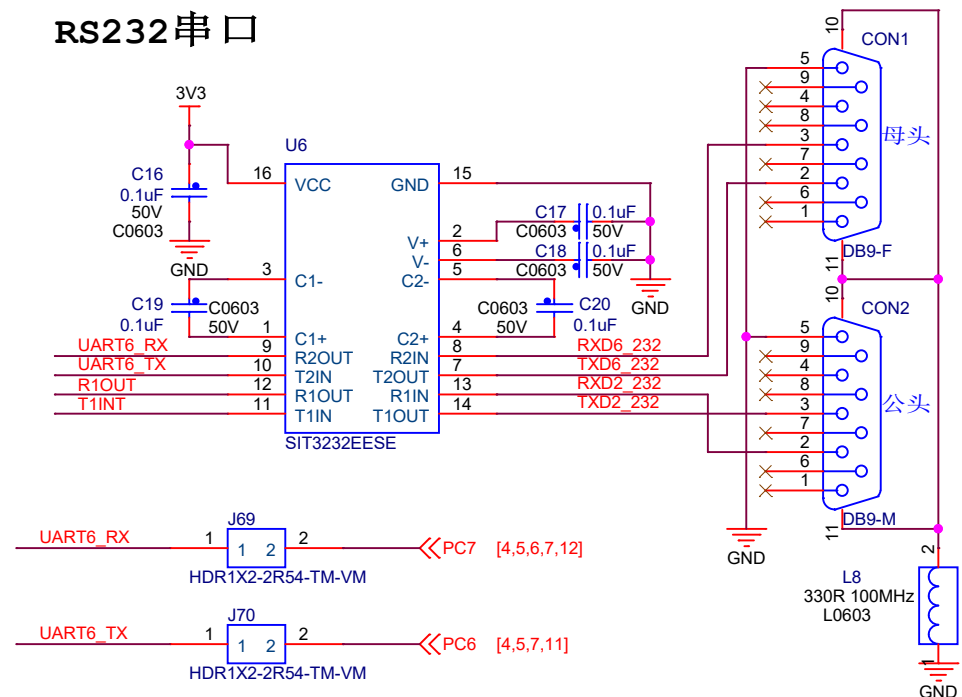
Date: Friday, October 13, 2023

Sheet 5 of 12

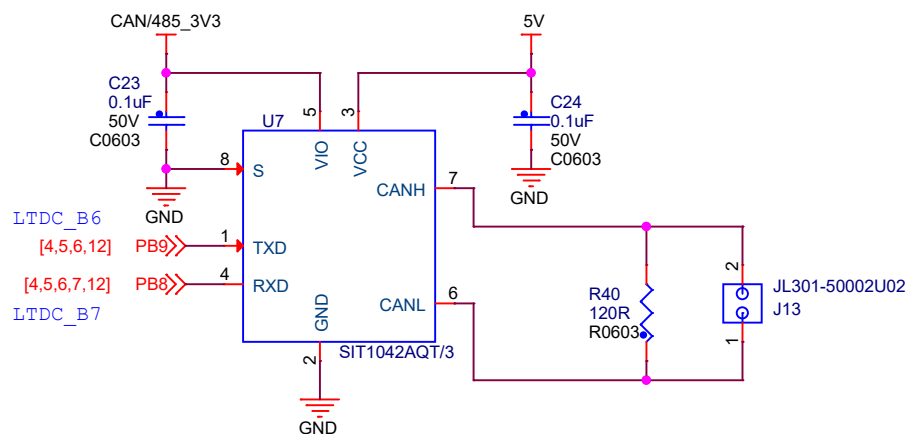
USB转串口



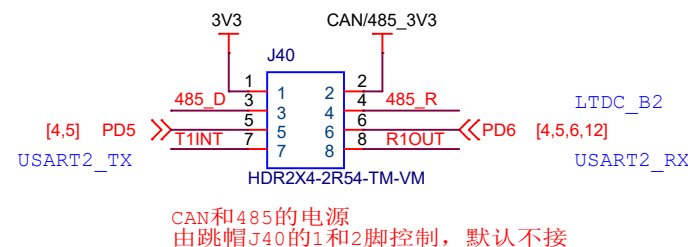
RS232串口



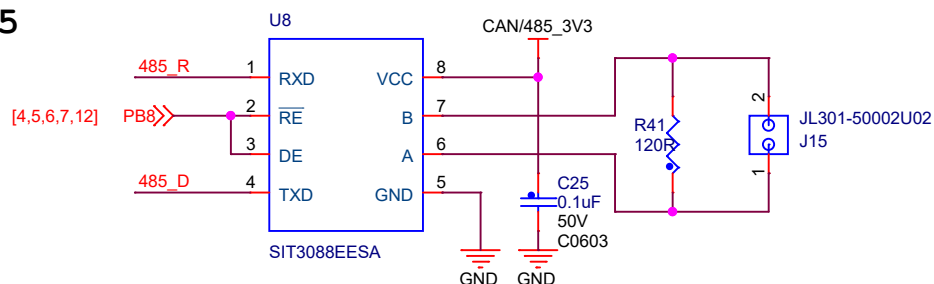
CAN



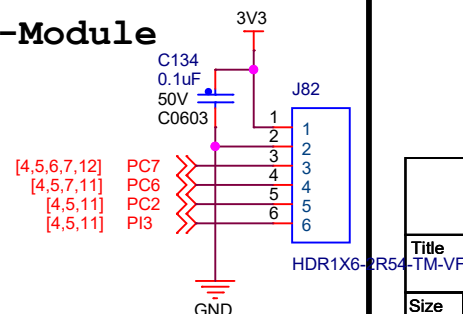
跳帽选择



RS485



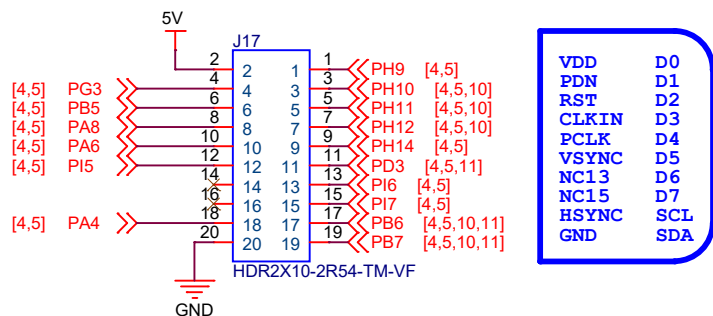
EBF-Module



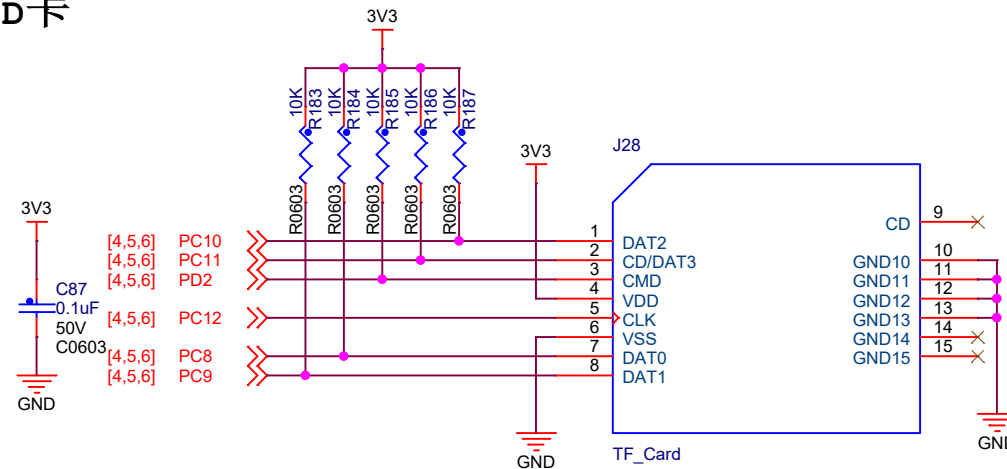
东莞野火电子有限公司
https://yehuosm.tmall.com

Title 野火STM32F429/F767/H743底板原理图		
Size A4	Document Number UART/CAN/RS232/RS485	Rev V2.0
Date: Monday, August 26, 2024	Sheet 7 of 12	

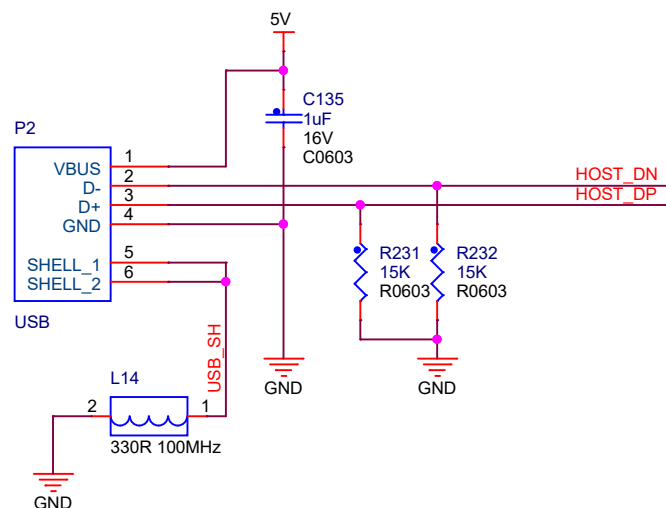
摄像头接口



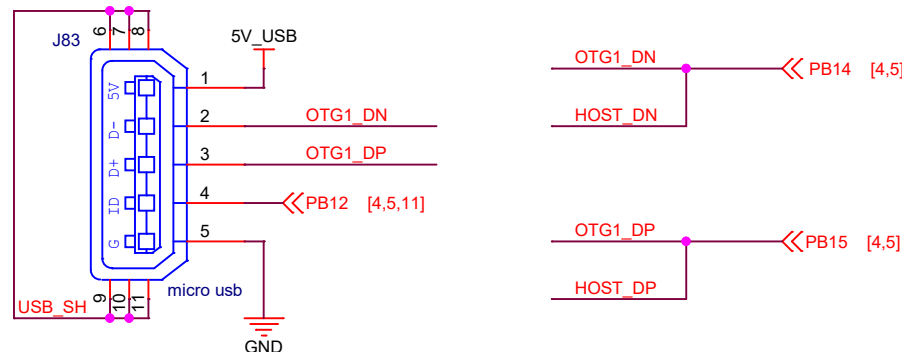
SD卡



USB HOST



USB Device



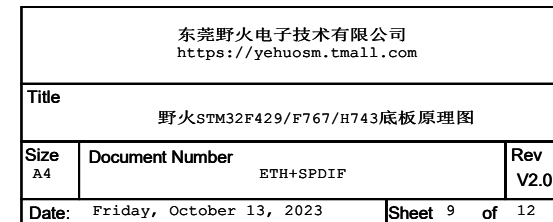
东莞野火电子有限公司
https://yehuosm.tmall.com

Title
野火STM32F429/F767/H743底板原理图

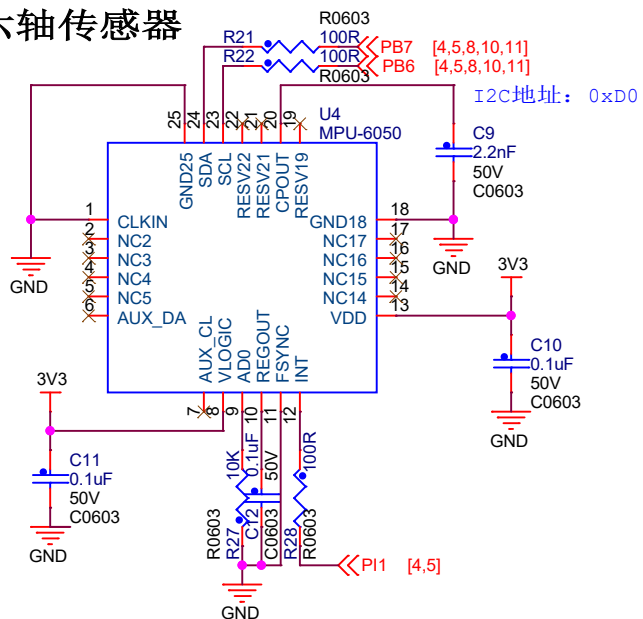
Size A4	Document Number Camera/SD	Rev V2.0
------------	------------------------------	-------------

Date: Friday, October 13, 2023 Sheet 8 of 12

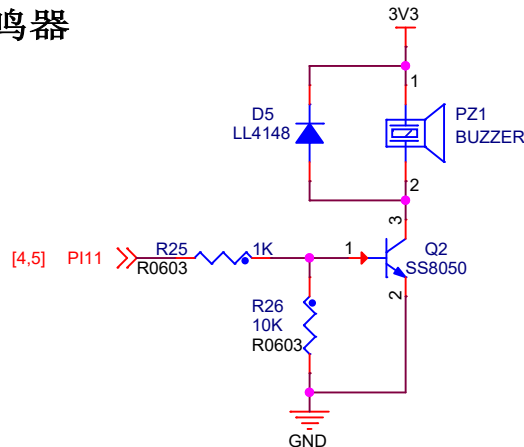
A



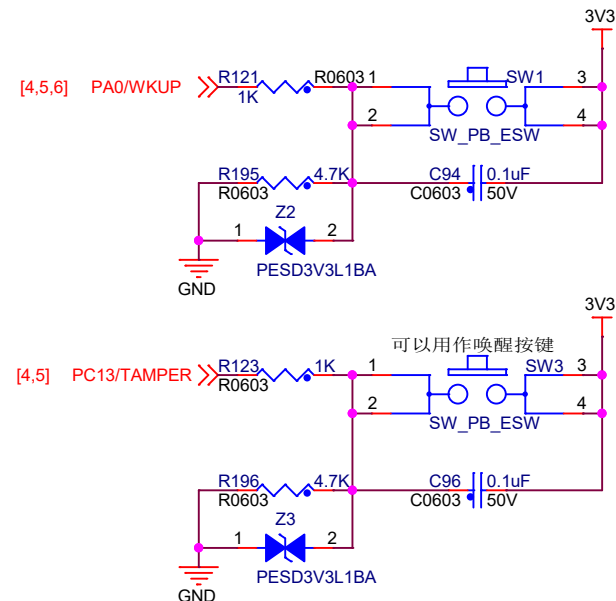
六轴传感器



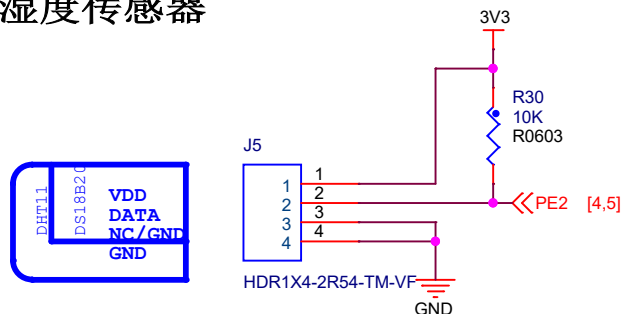
蜂鸣器



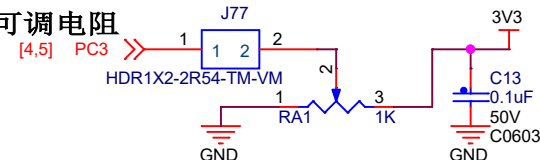
按键



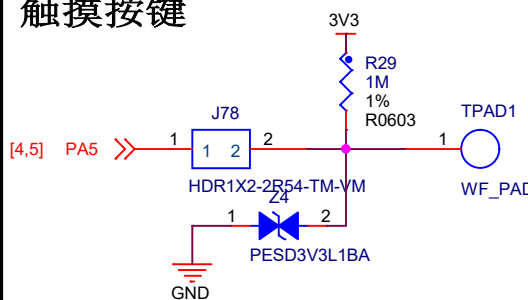
温湿度传感器



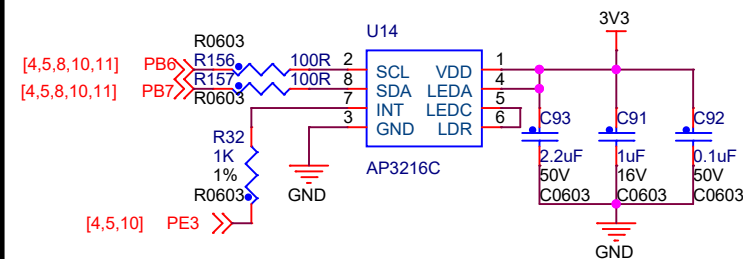
可调电阻



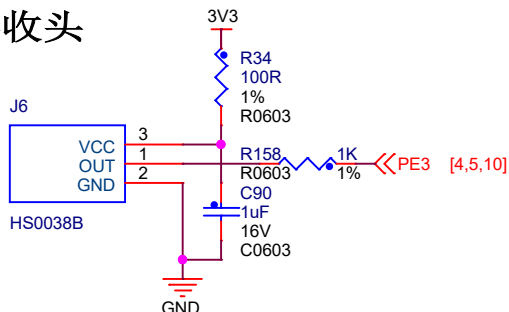
触摸按键



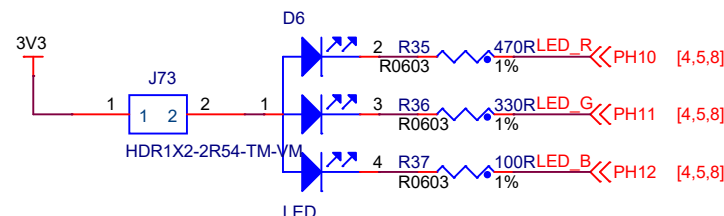
ALS+PS+IRLED (三合一)



红外接收头



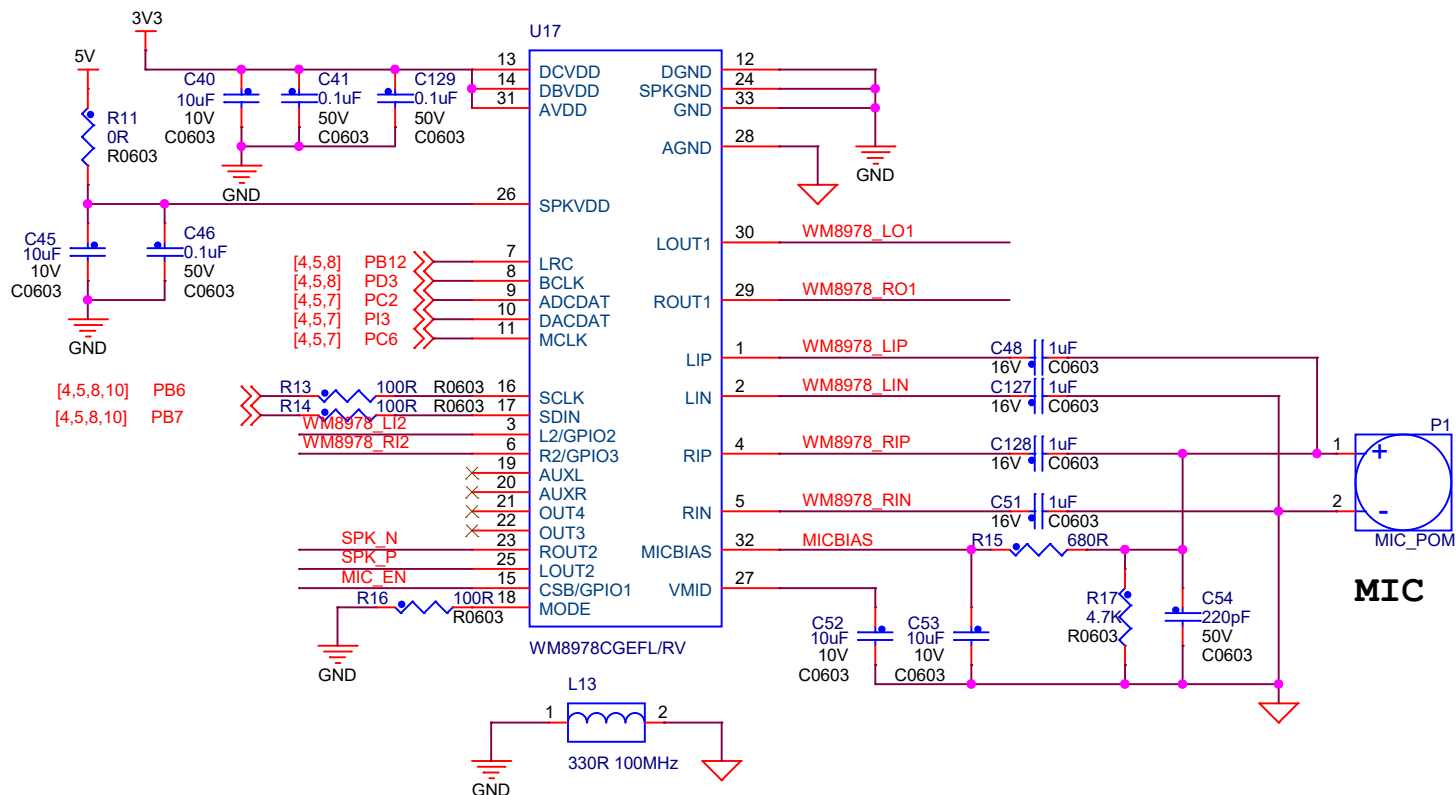
彩色LED



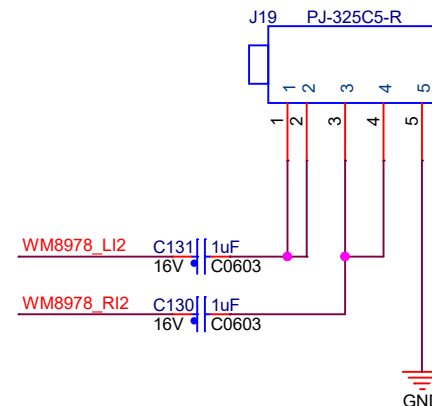
东莞野火电子有限公司
https://yehuosm.tmall.com

Title		
野火STM32F429/F767/H743底板原理图		
Size A4	Document Number	Rev V2.0
SENSOR/KEY/LED		
Date: Friday, October 13, 2023	Sheet 10 of 12	

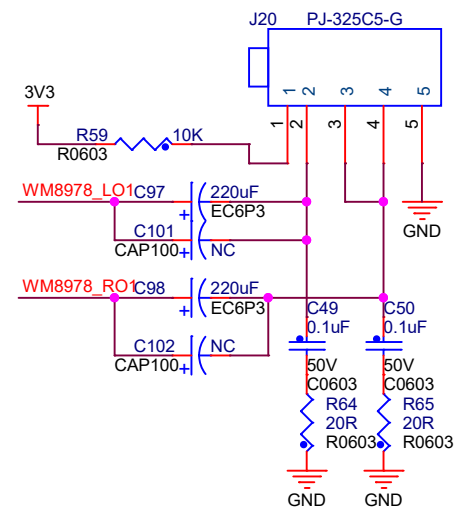
MIC插头



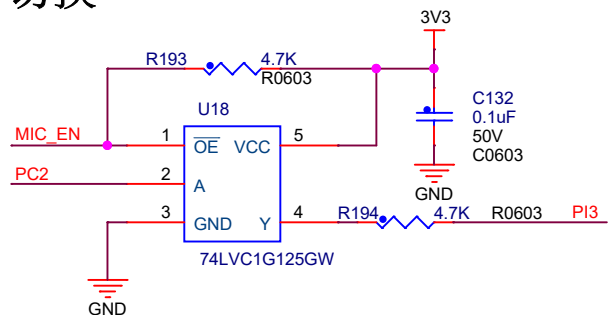
音频输入



耳机插座

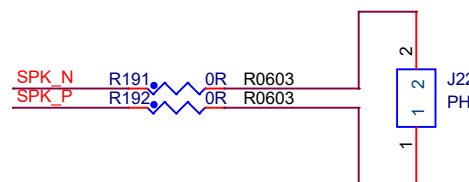


录音放音切换



F767的I2S是半双工，模拟开关切换
MIC_EN为高电平放音，低电平录音
F429/H743的I2S是全双工，不需要切换

喇叭插座



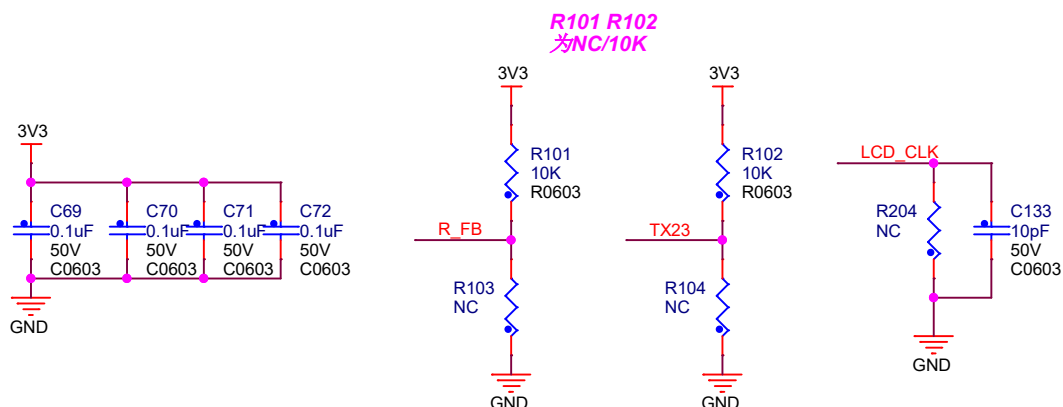
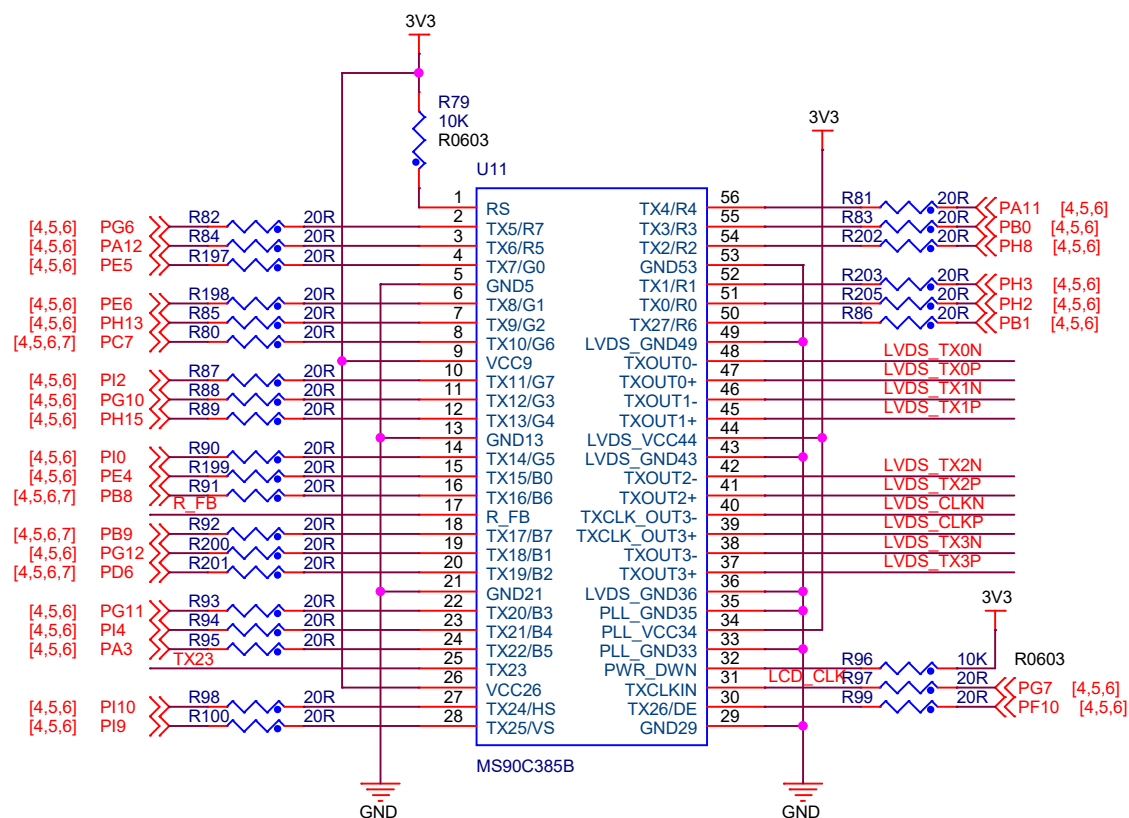
东莞野火电子技术有限公司
https://yehuosm.tmall.com

Title 野火STM32F429/F767/H743底板原理图

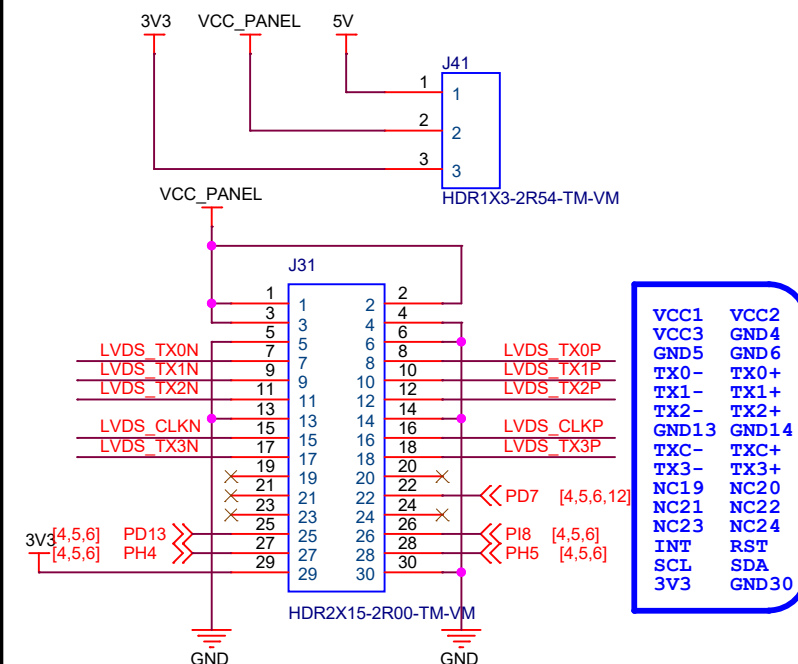
Size A4 Document Number AUDIO Rev V2.0

Date: Friday, October 13, 2023 Sheet 11 of 12

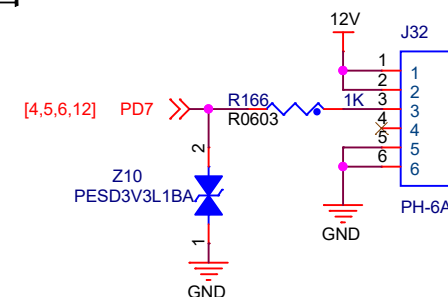
RGB888转LVDS



驱屏接口



液晶背光接口



东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

Title	野火STM32F429/F767/H743底板原理图
-------	----------------------------

Size A4	Document Number LVDS	Rev V2.0
------------	-------------------------	-------------

Date: Friday, October 13, 2023 Sheet 12 of 12