

野火_i.MX6ULL EVK底板_原理图_V1.0

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野火_i.MX6ULL EVK底板_原理图

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历史版本

版本号	日期	设计	描述
V1.0	2019-06-20	cancore	初始版本
V1.0	2019-12-31	cancore	整理对外发布，稳定版

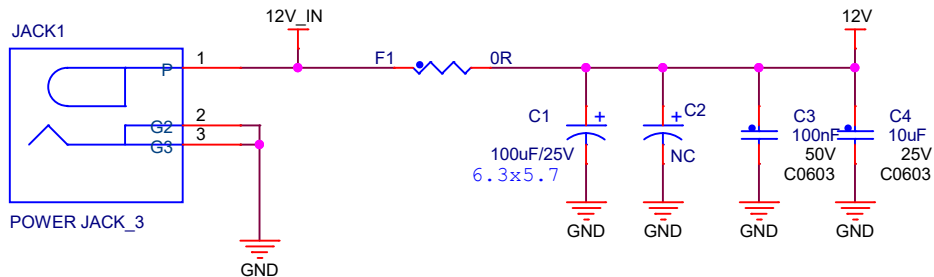
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Title
野火_i.MX6ULL EVK底板_原理图

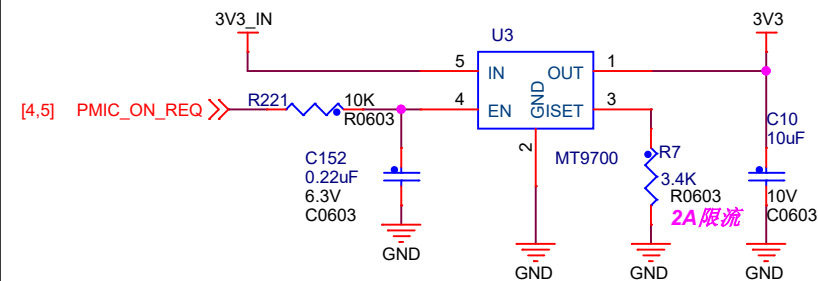
Size A4	Document Number 历史版本	Rev V1.0
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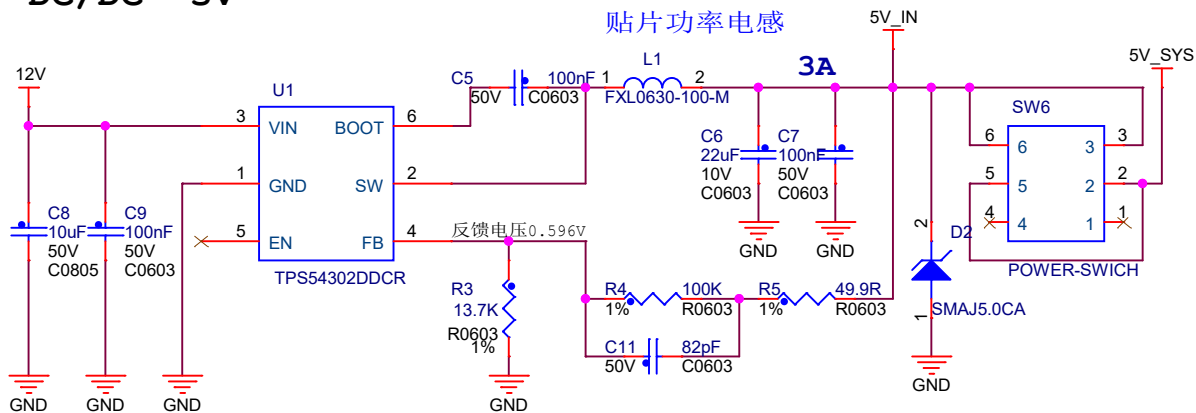
DC IN : 12V



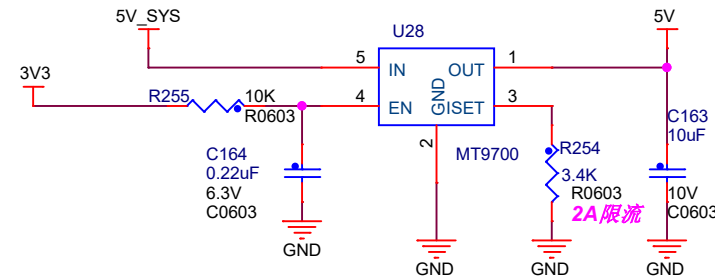
3.3V 输出控制及过流保护



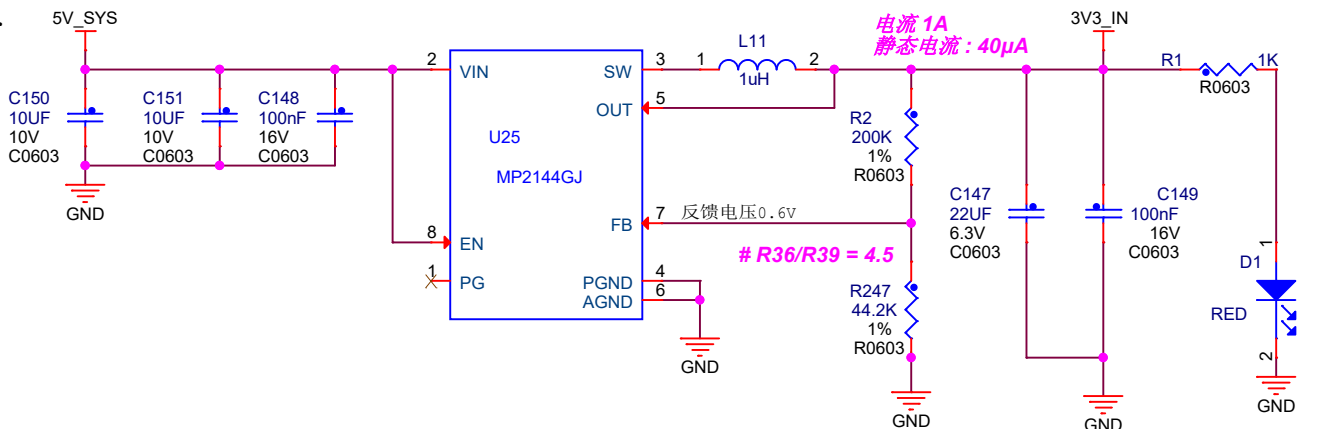
DC/DC 5V



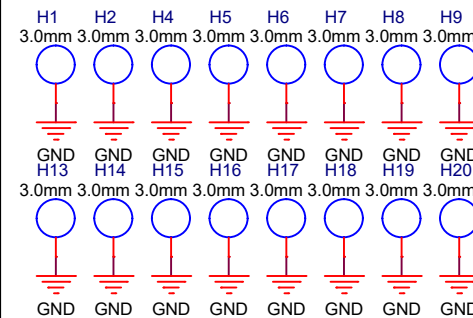
5v输出控制及过流保护



5V转3.3V



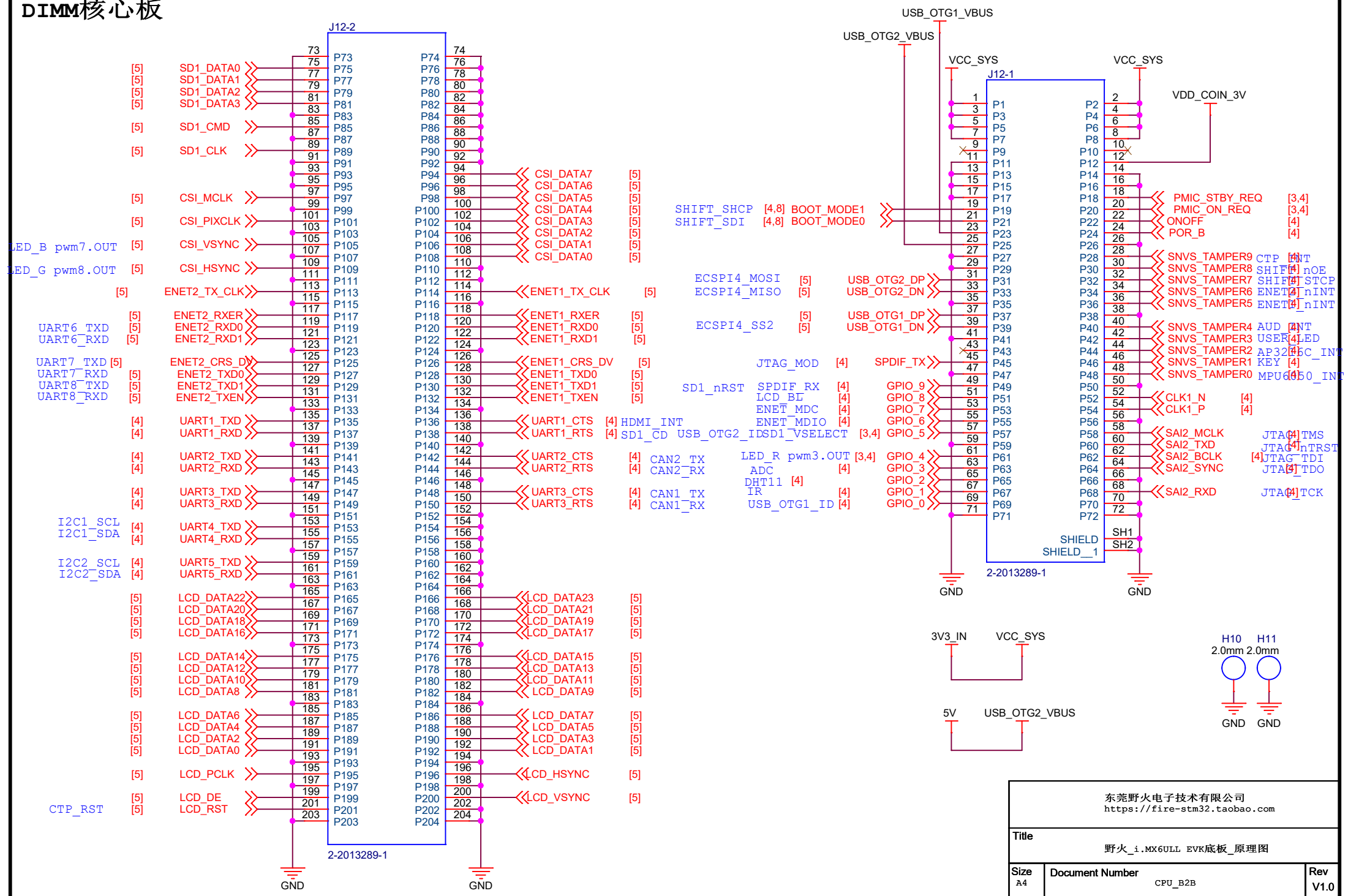
定位孔



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	电源	
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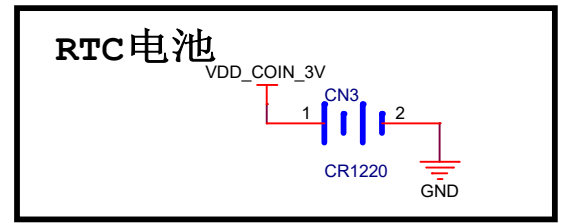
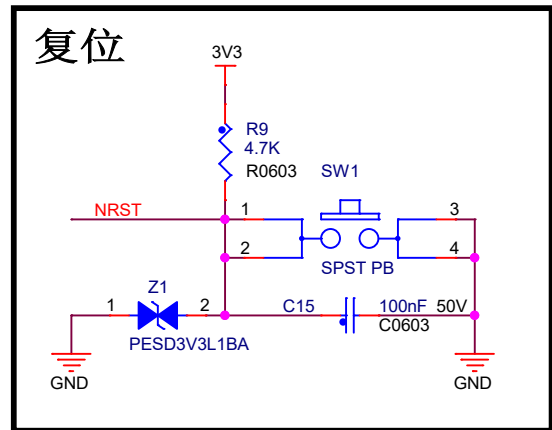
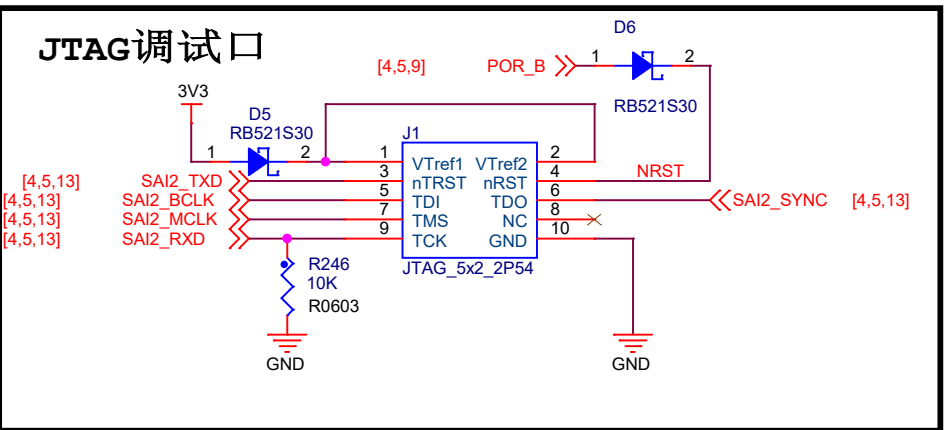
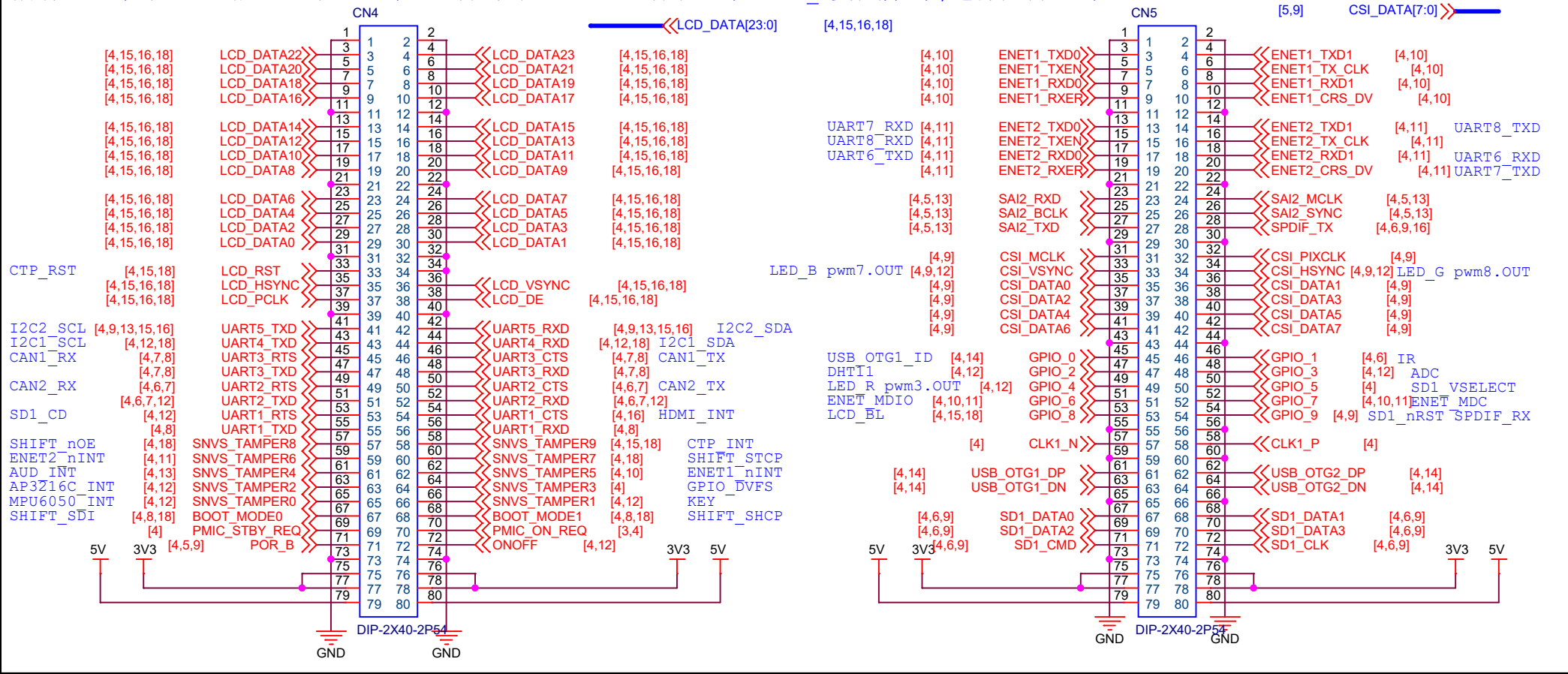
DIMM核心板



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引出IO口(排针)

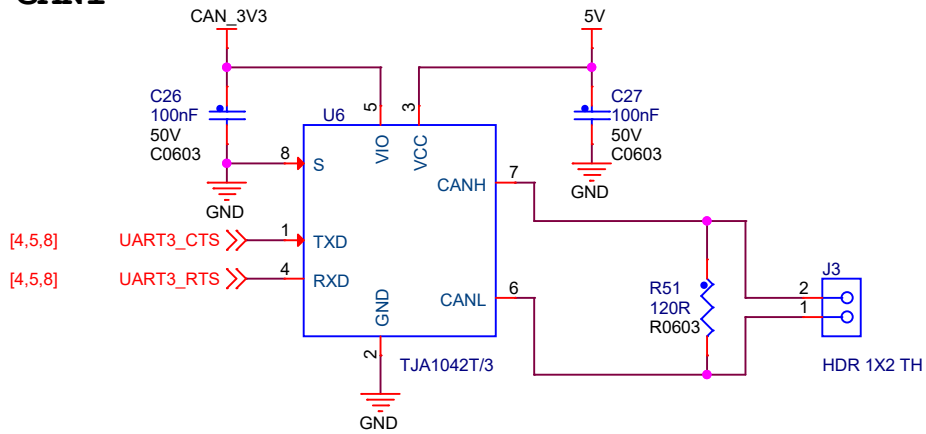
所有IO全部引出, 包括GPIO引出107个, 差分时钟一组, USB专用口2个, POR_B复位脚1个, 电源控制口2个



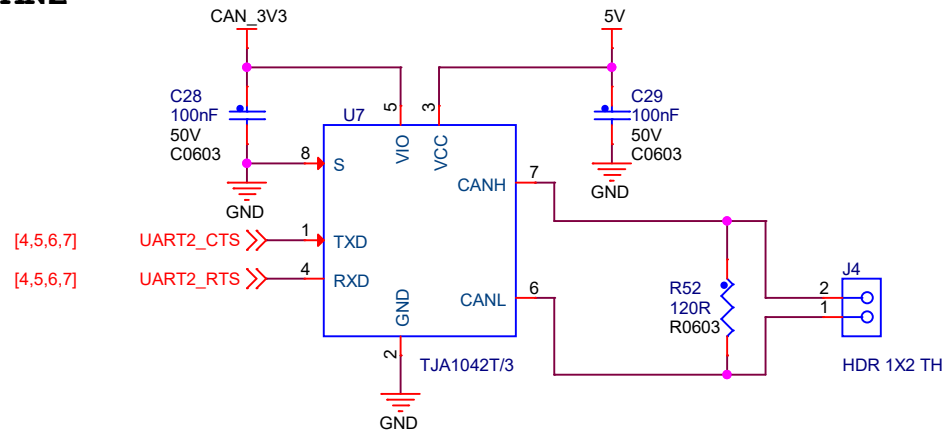
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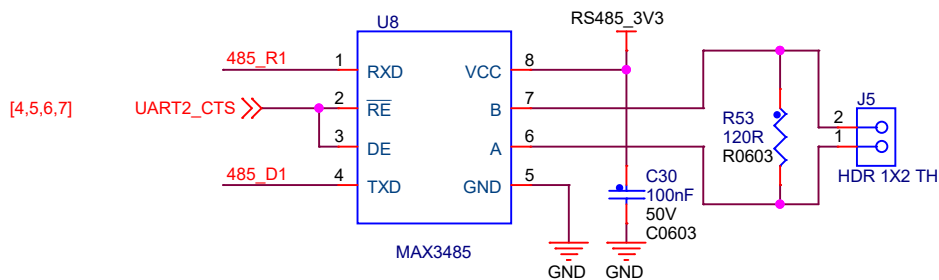
CAN1



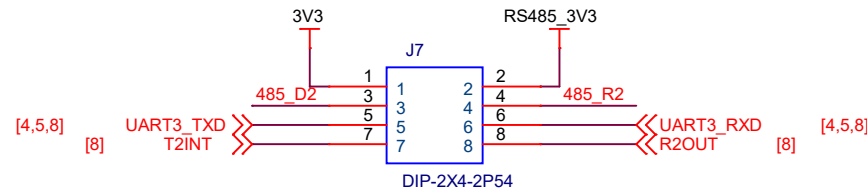
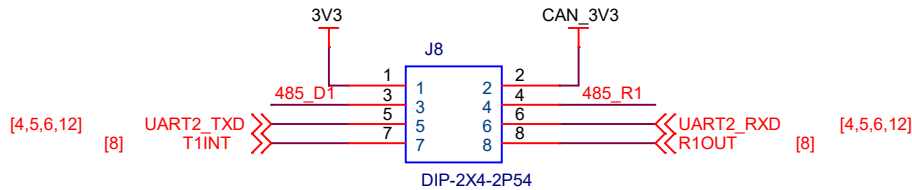
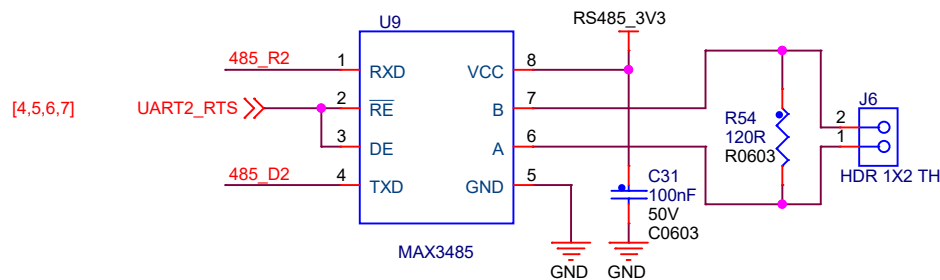
CAN2



RS485-1



RS485-2



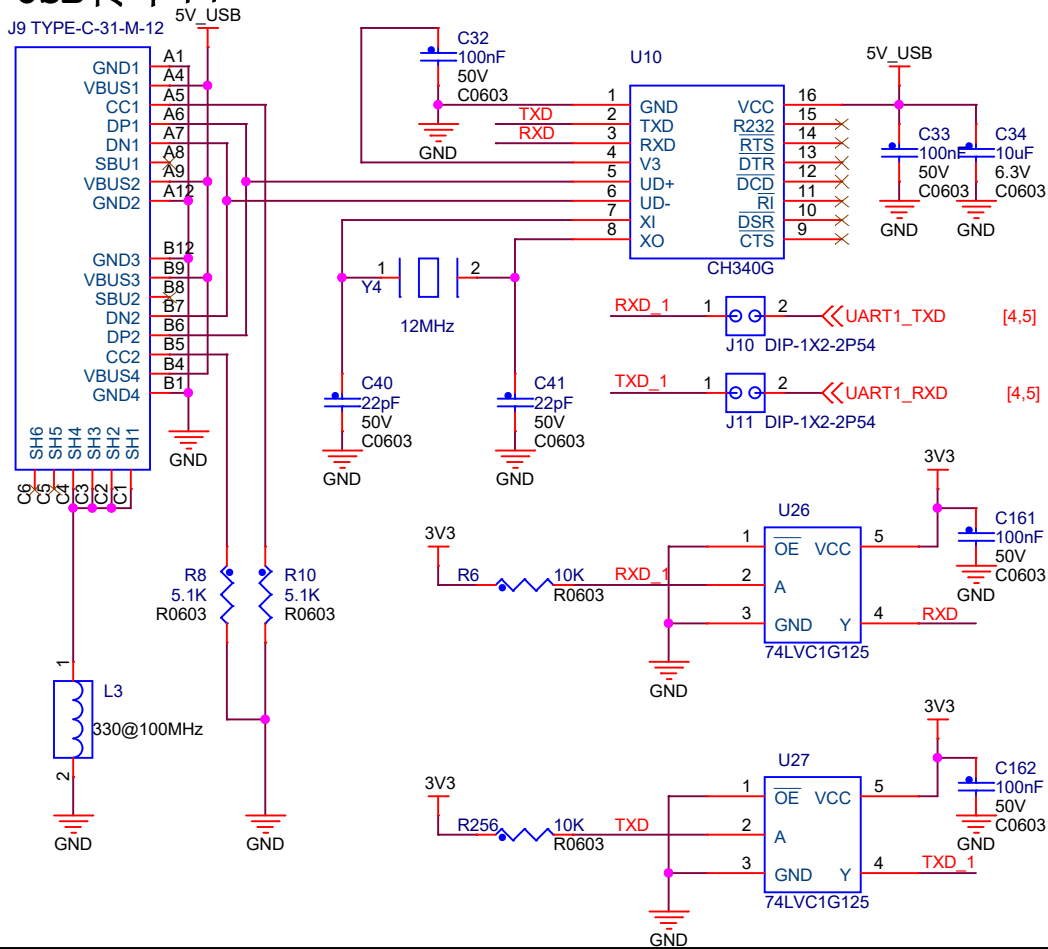
CAN1和CAN2的电源
由跳帽J8的1和2脚控制，默认不接

RS485-1和RS485-2的电源
由跳帽J7的1和2脚控制，默认不接

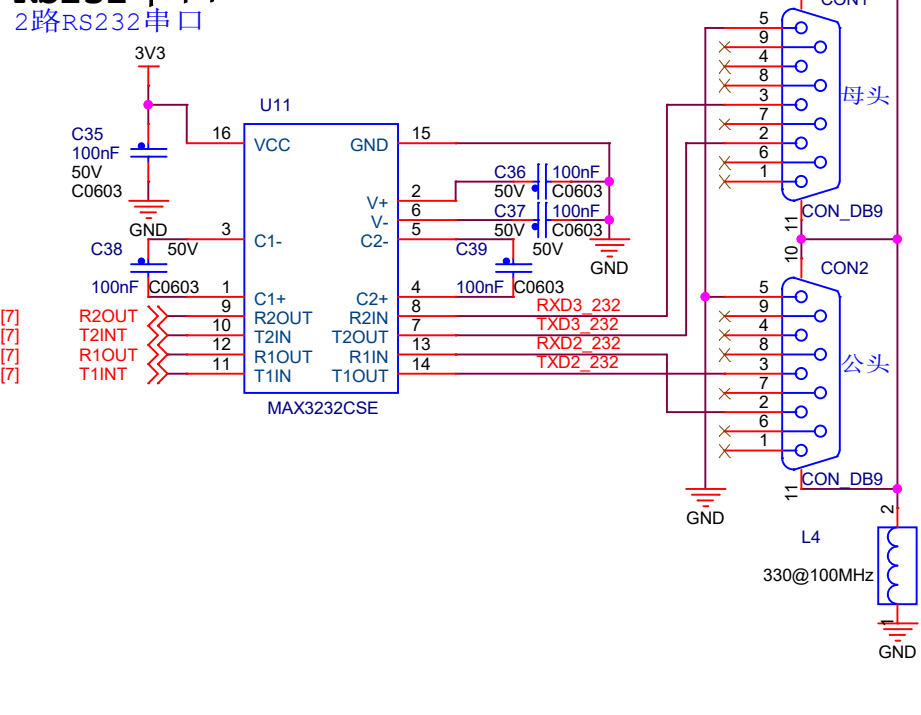
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野火_i.MX6ULL EVK底板_原理图		
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USB转串口

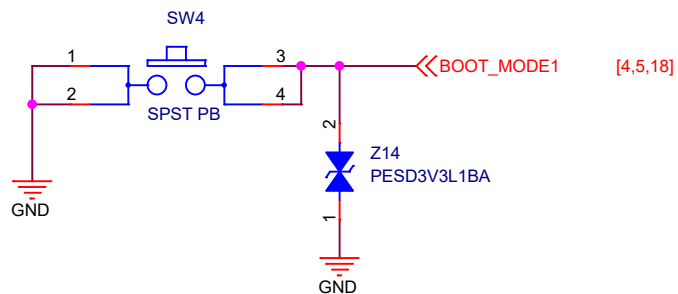


RS232串口



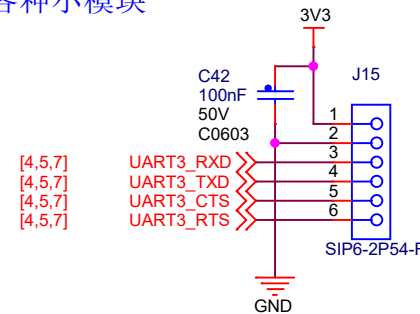
串行烧录启动切换

按下按键再复位即可进入串行烧录模式



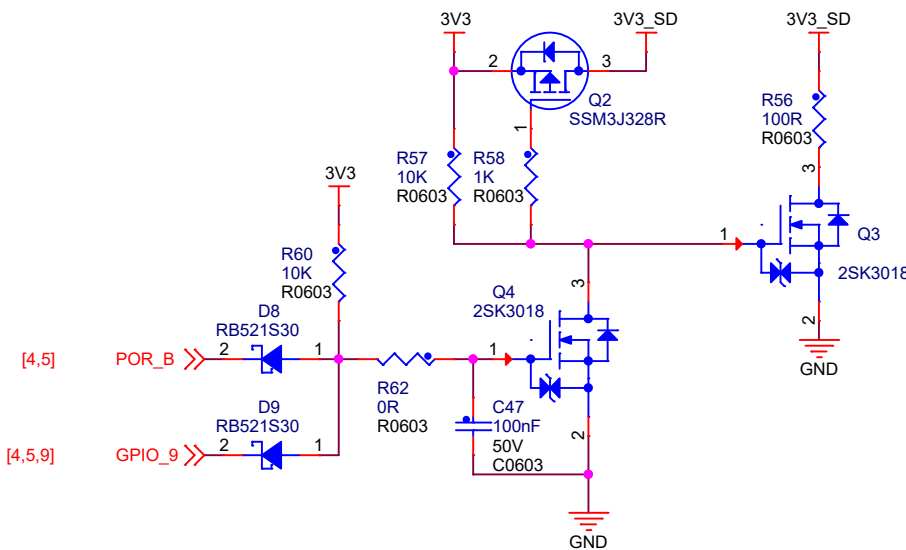
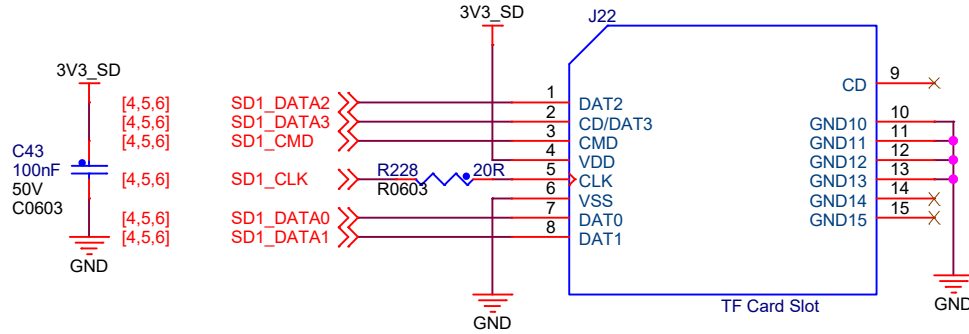
EBF-Module

用于接野火的各种小模块



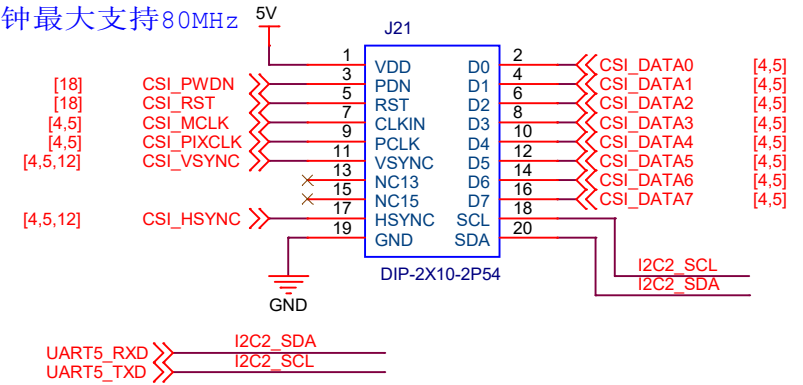
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Title		
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SD卡 与WIFI复用SDIO引脚

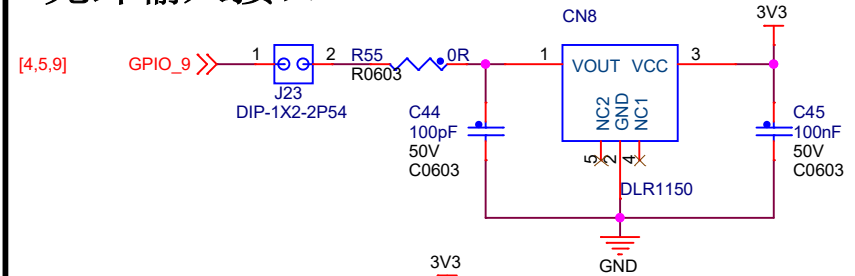


摄像头接口

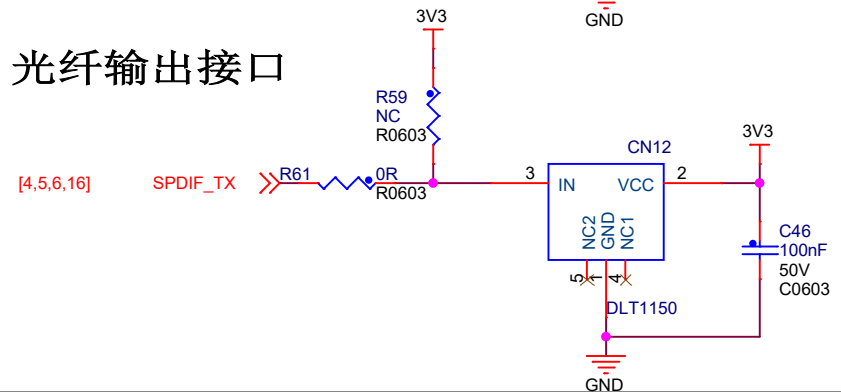
像素时钟最大支持80MHz



光纤输入接口



光纤输出接口



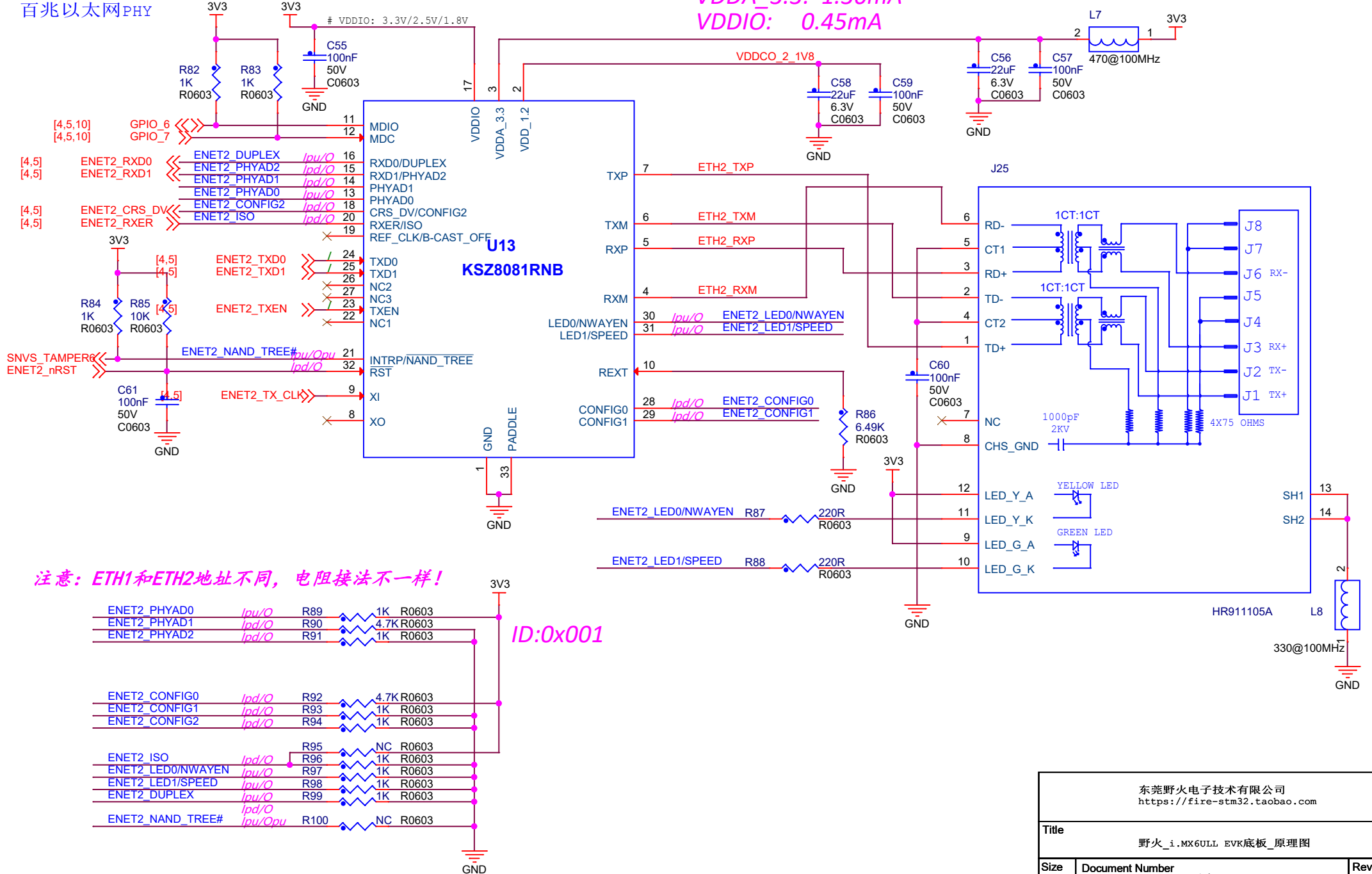
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以太网接口2

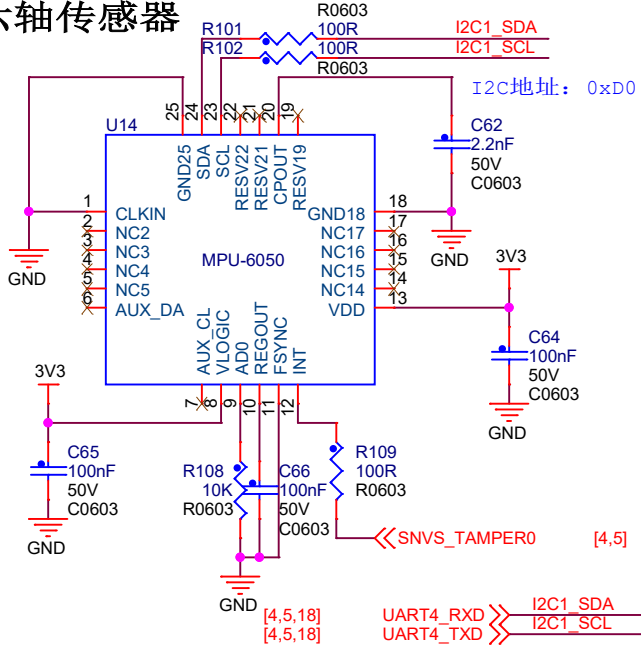
百兆以太网PHY

软件掉电模式:
VDDA_3.3: 1.36mA
VDDIO: 0.45mA

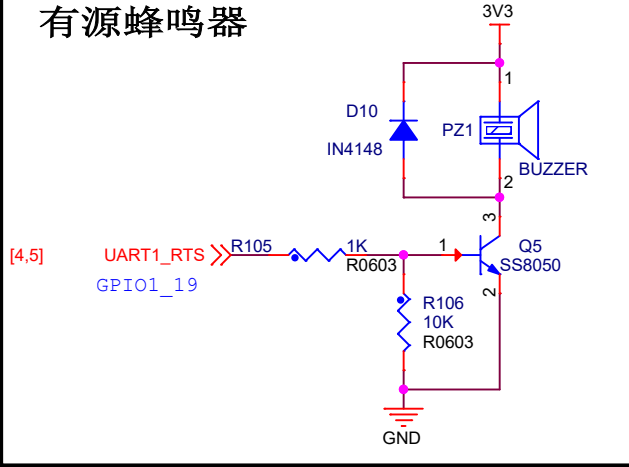


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六轴传感器

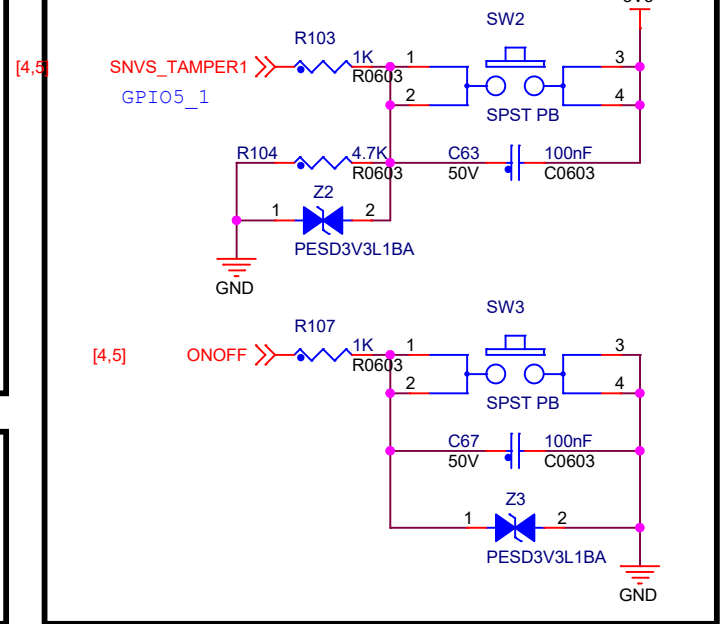


有源蜂鸣器

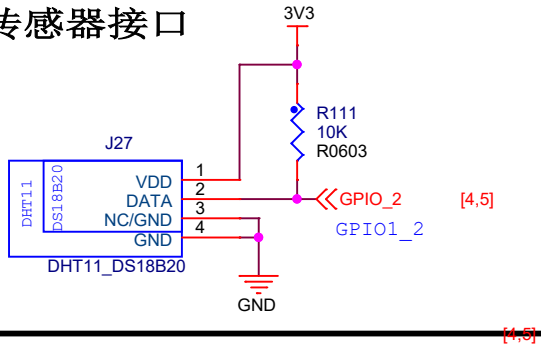


按键

长按SW3按键可以实现开关机

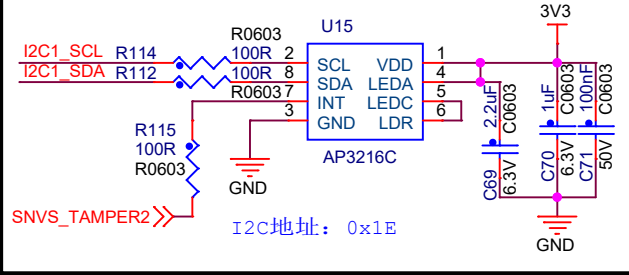


温湿度传感器接口

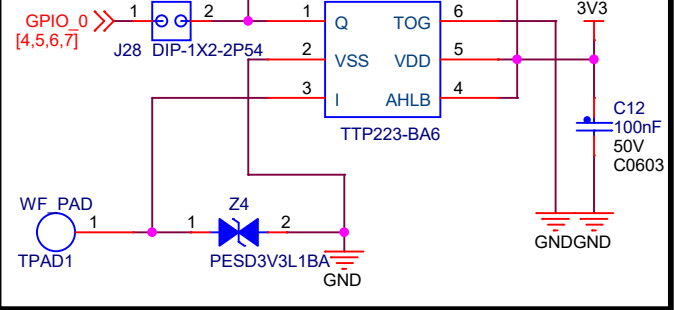


ALS+PS+IRLED (三合一)

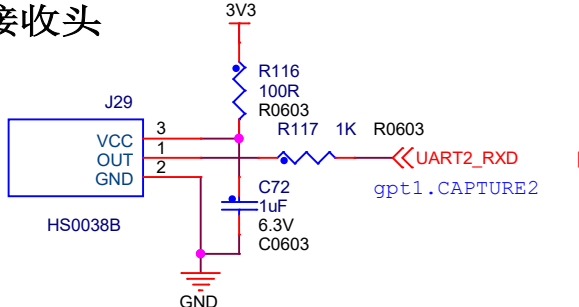
环境光传感器、接近传感器、红外LED三合一



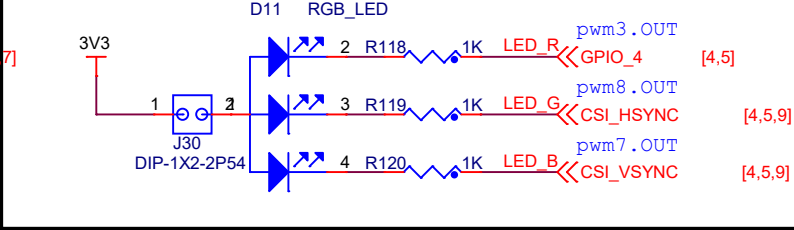
触摸按键



红外接收头

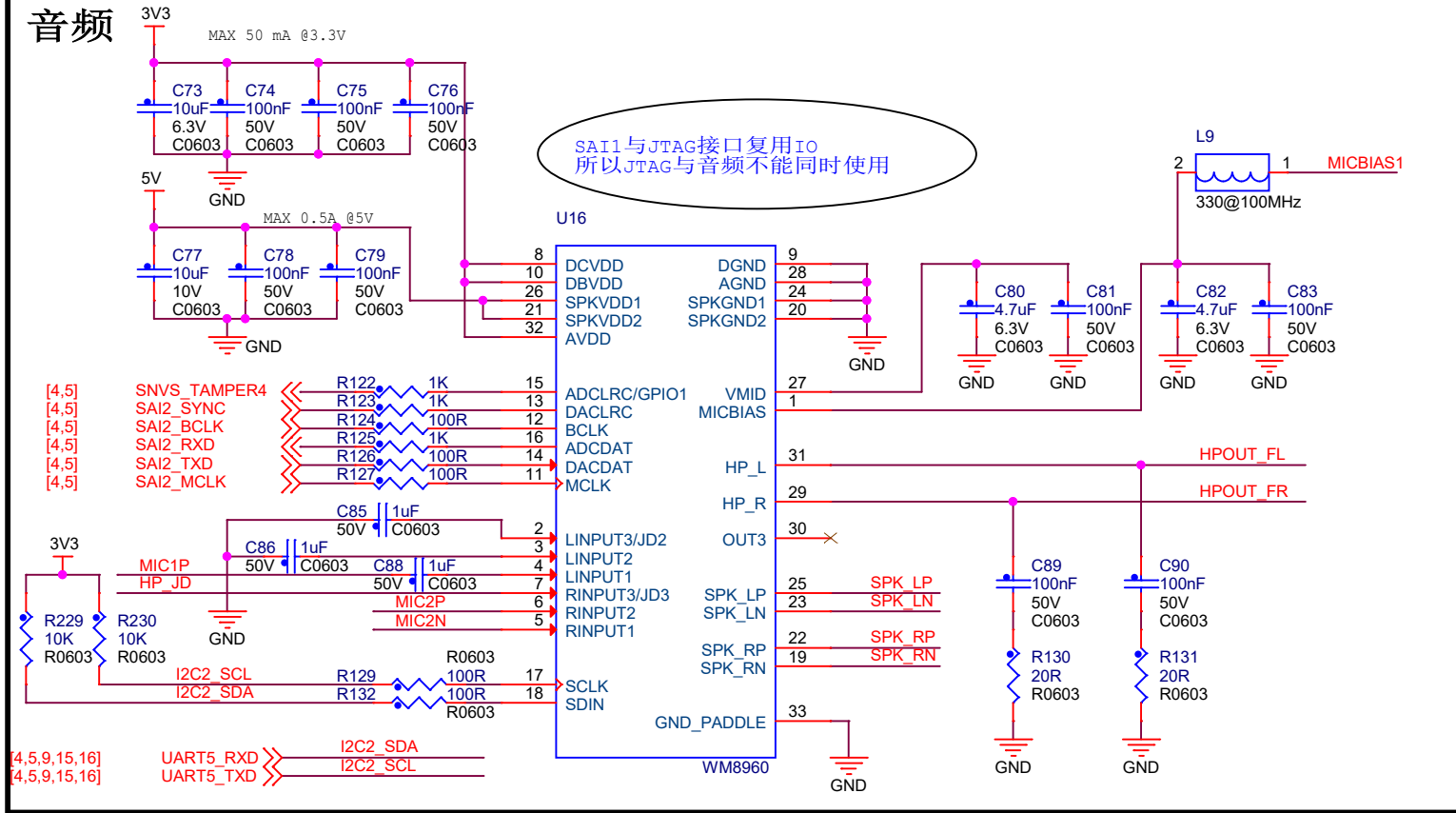


彩色LED

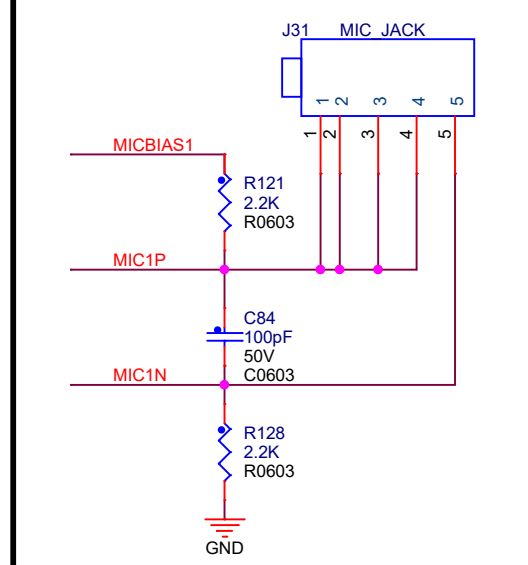


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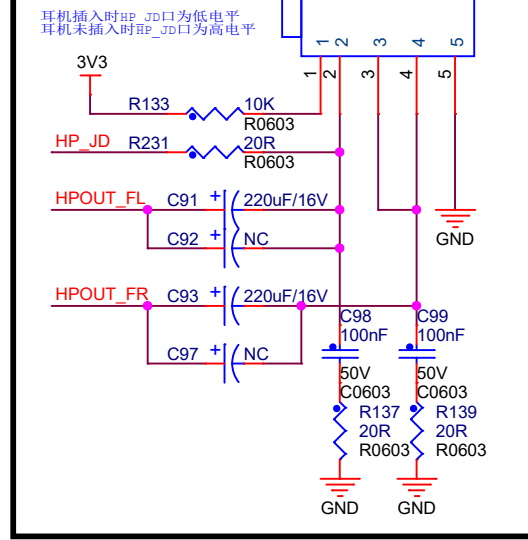
音频



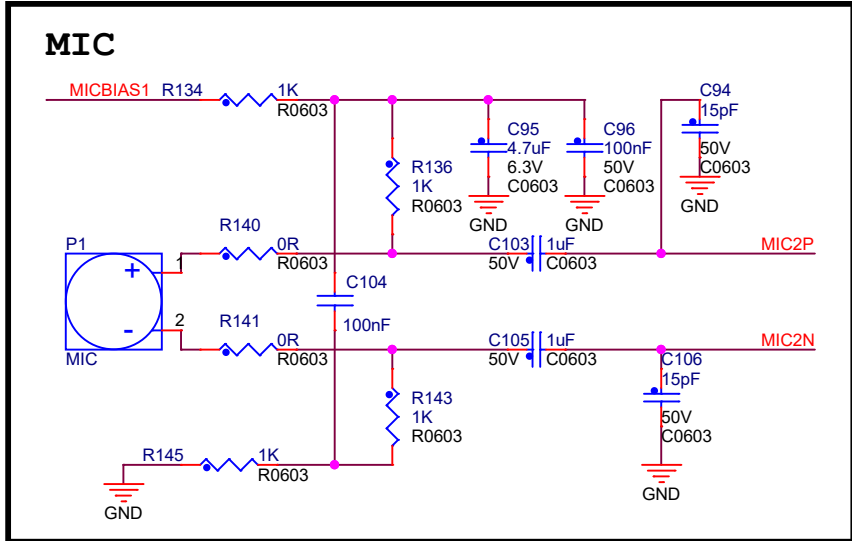
MIC插头



耳机插头

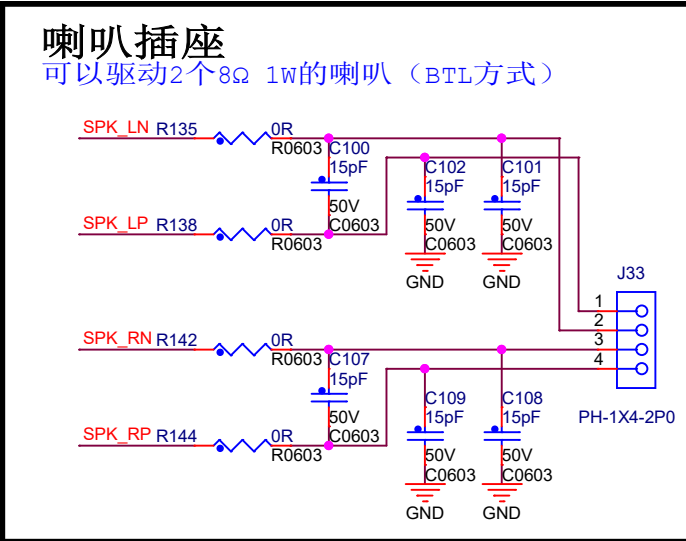


MIC



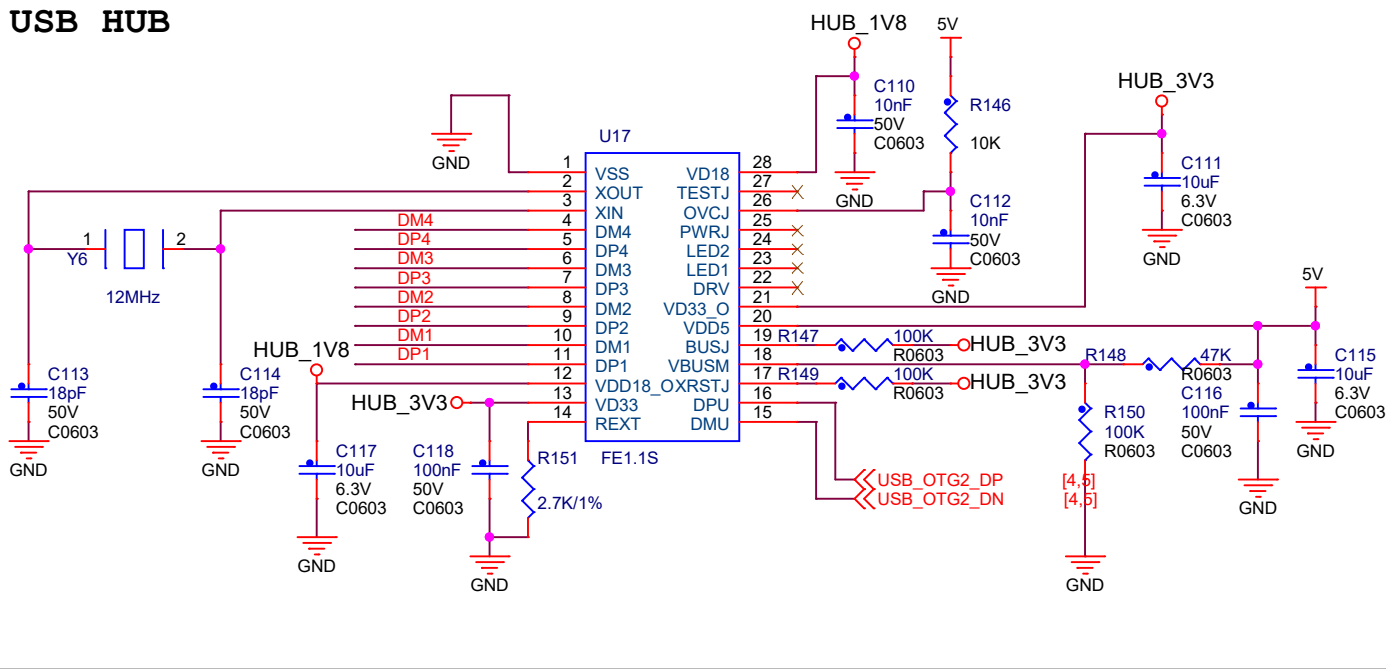
喇叭插座

可以驱动2个8Ω 1W的喇叭 (BTL方式)



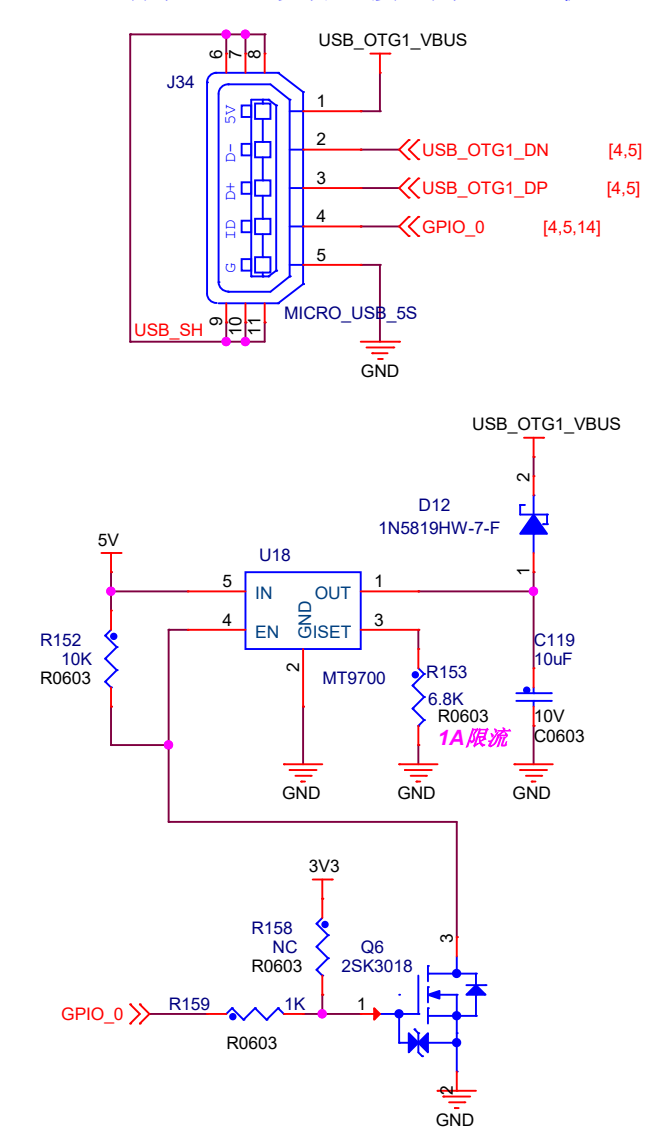
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USB HUB

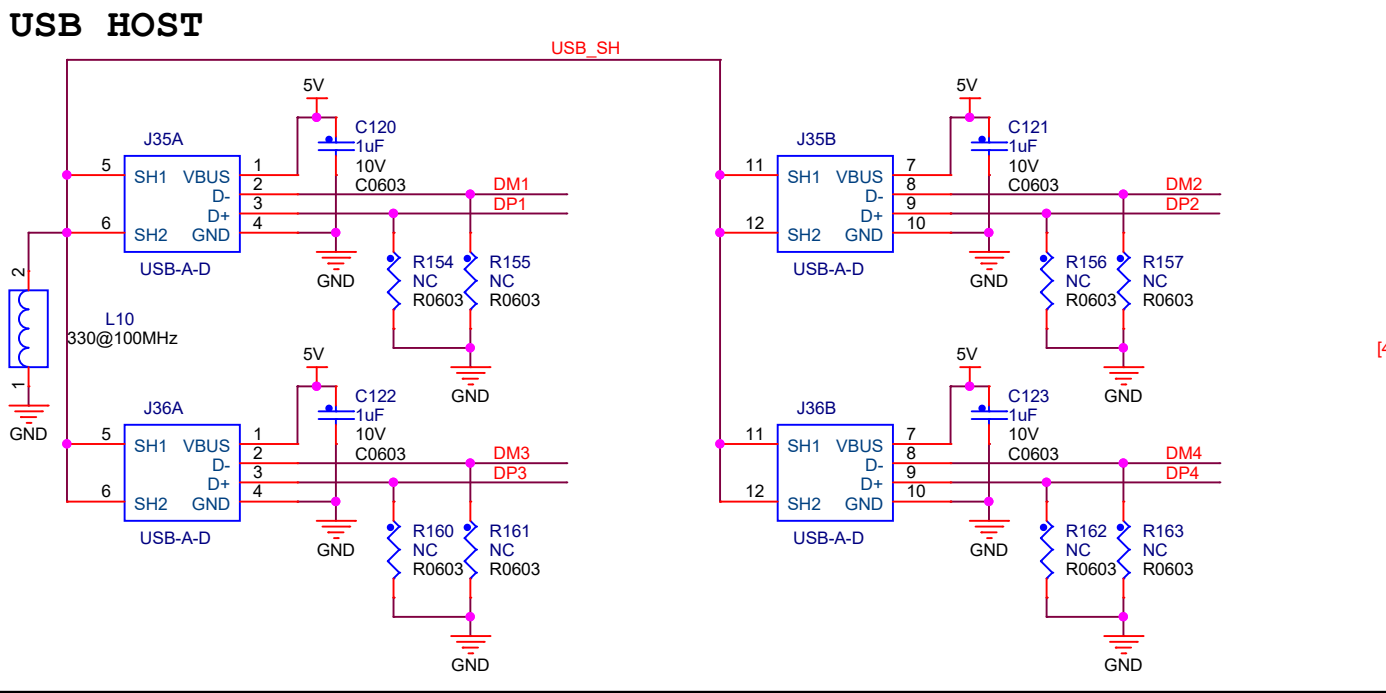


USB OTG

ID悬空时为Device设备，接地为HOST主机



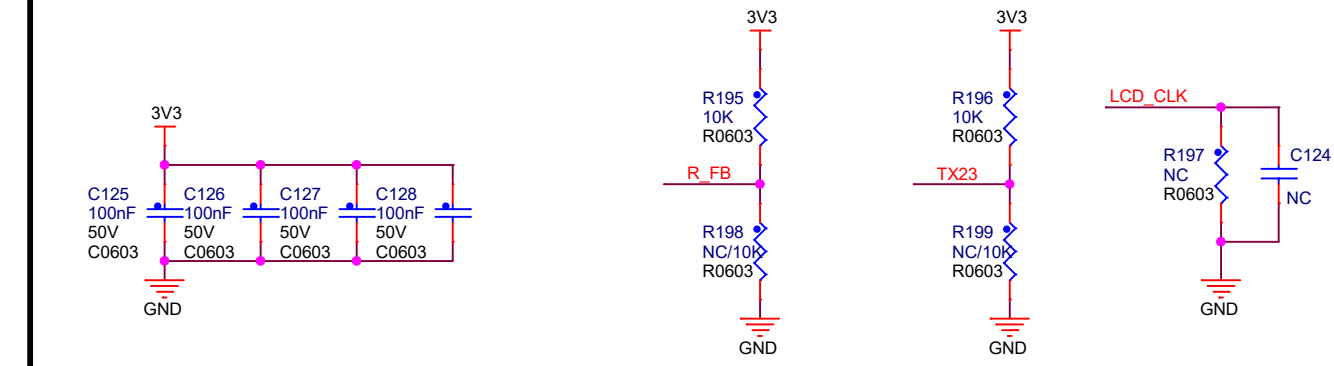
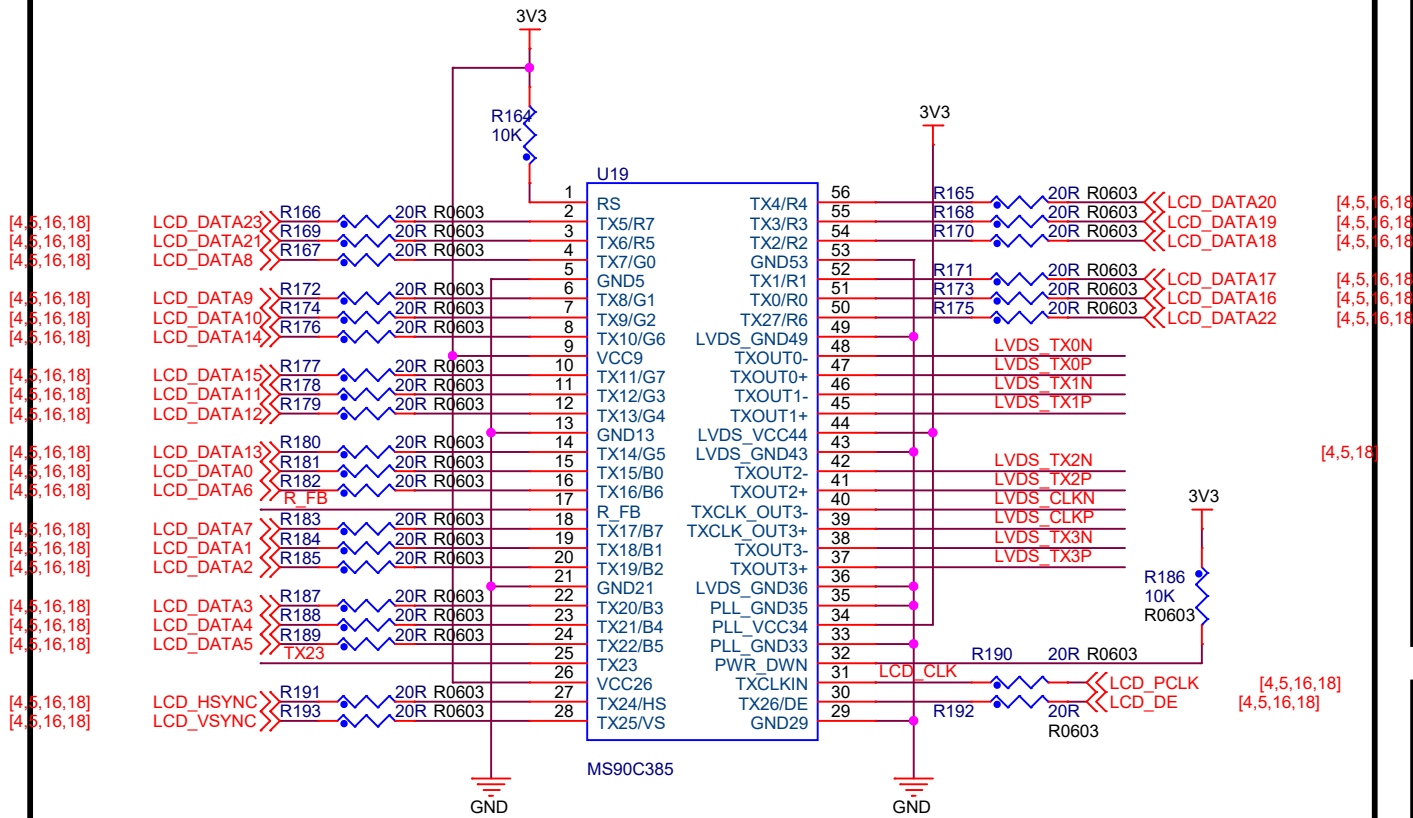
USB HOST



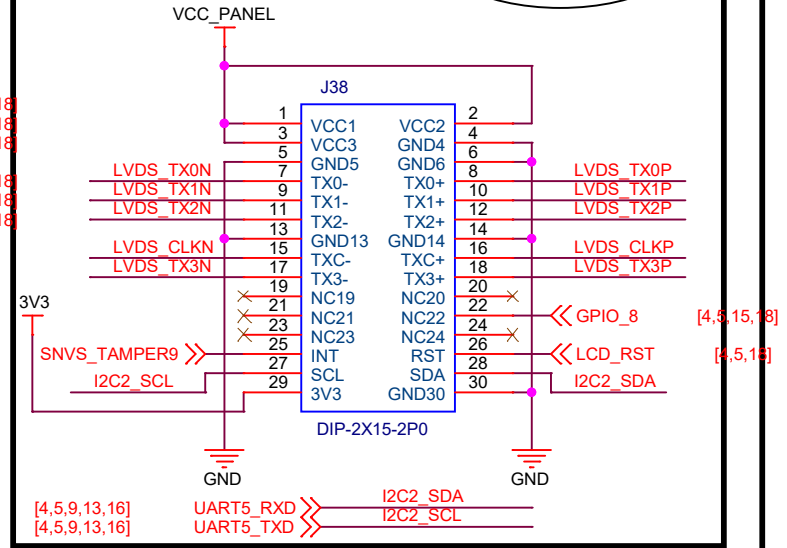
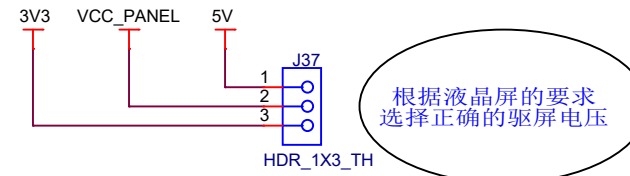
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RGB888转LVDS

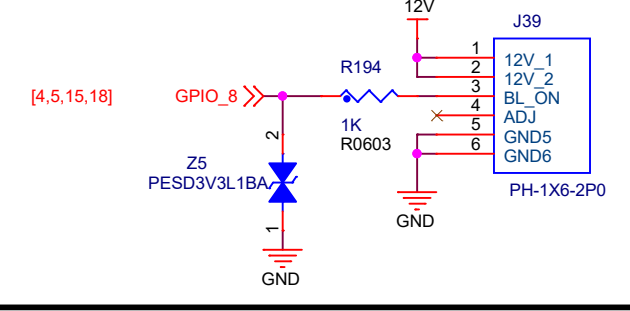
支持高达1366*768分辨率
支持单八位的LVDS接口的液晶屏



驱屏接口



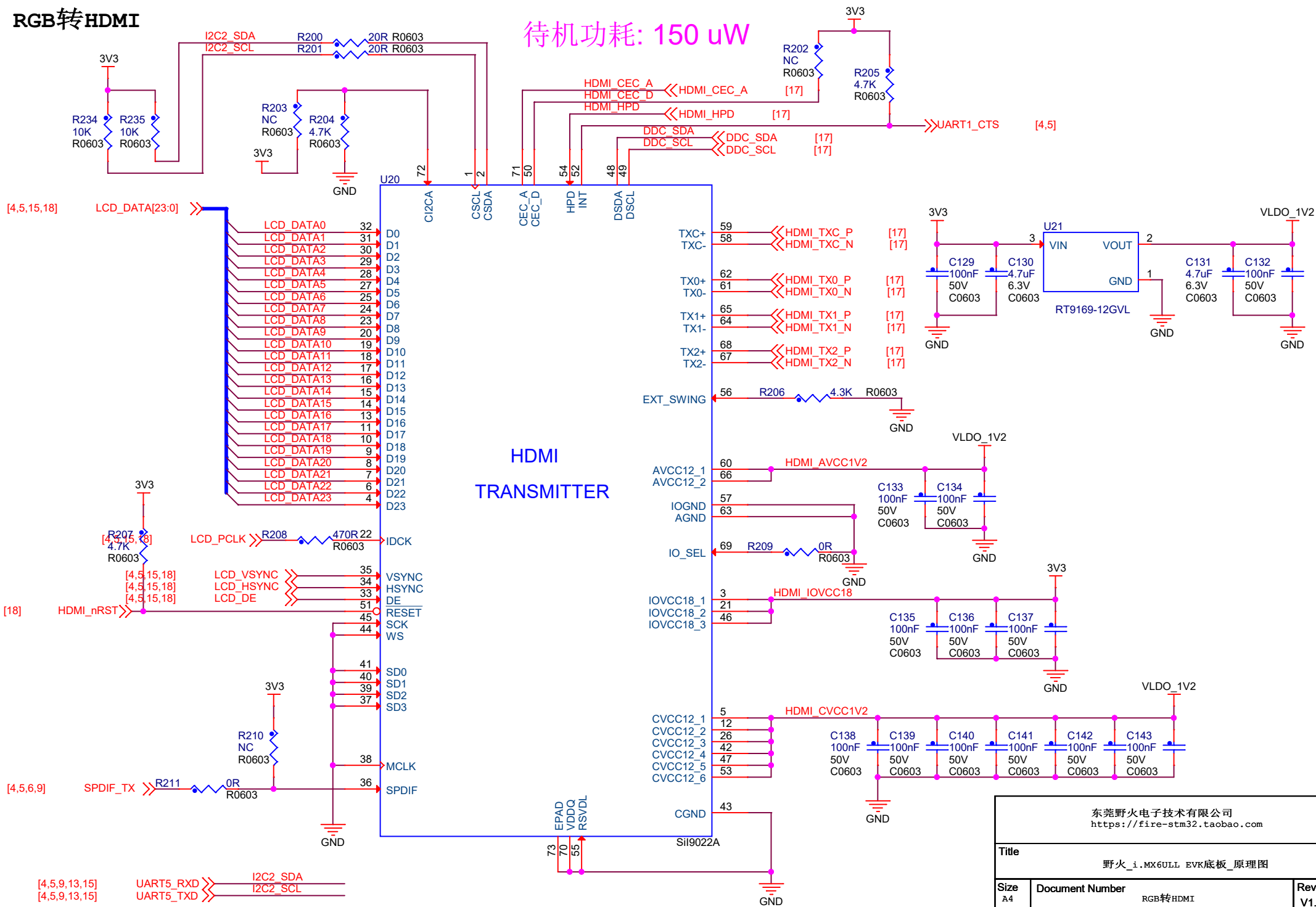
液晶背光接口



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RGB转HDMI

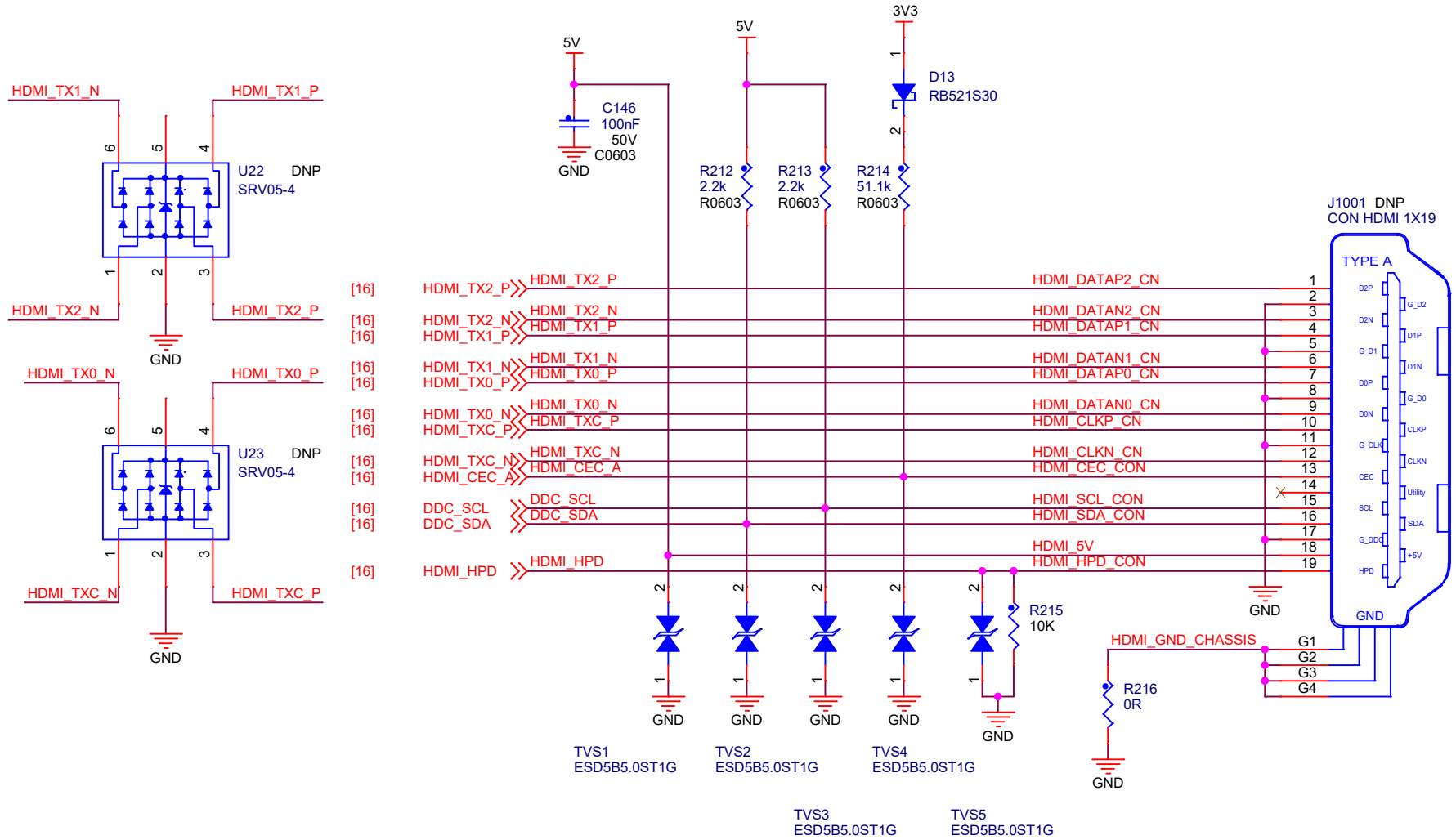
待机功耗: 150 uW



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HDMI连接器

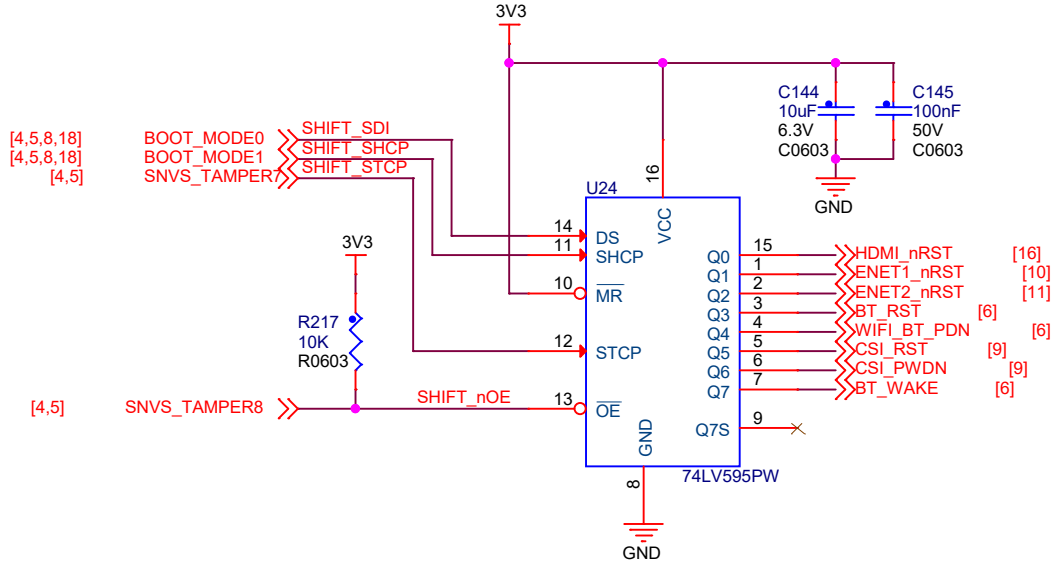
Type A型



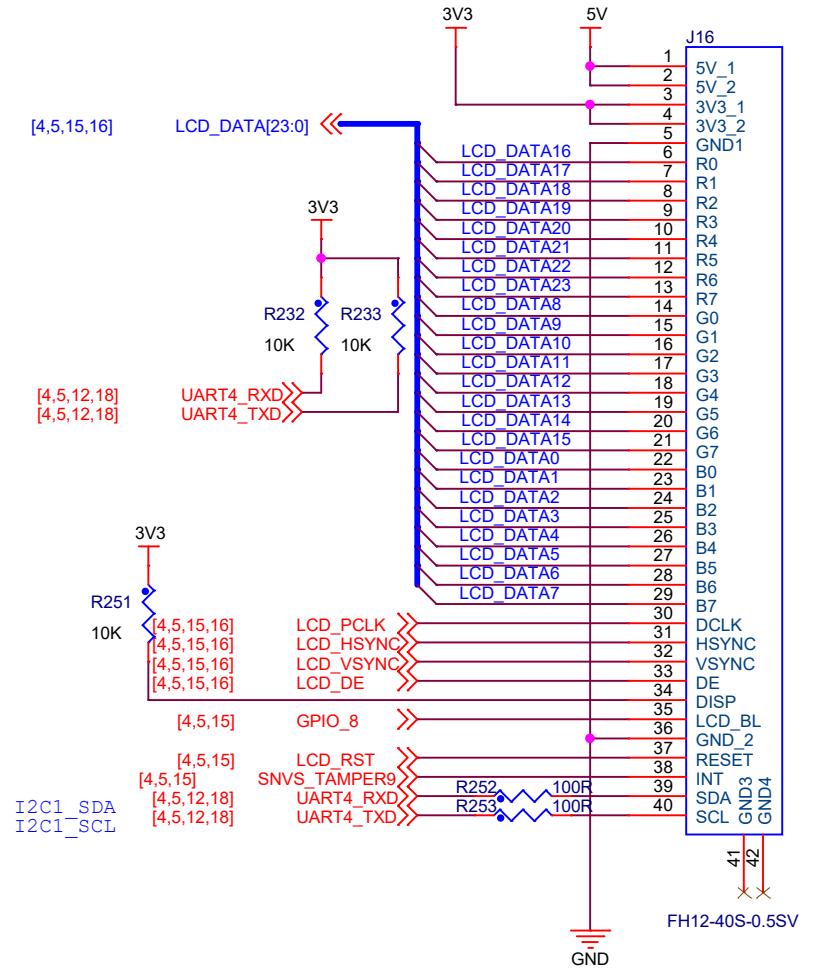
东莞野火电子有限公司 https://fire-stm32.taobao.com		
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Size A4	Document Number HDMI连接器	Rev V1.0
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扩展IO

由于GPIOIO口资源比较紧张，使用四个IO口扩展八个输出控制口

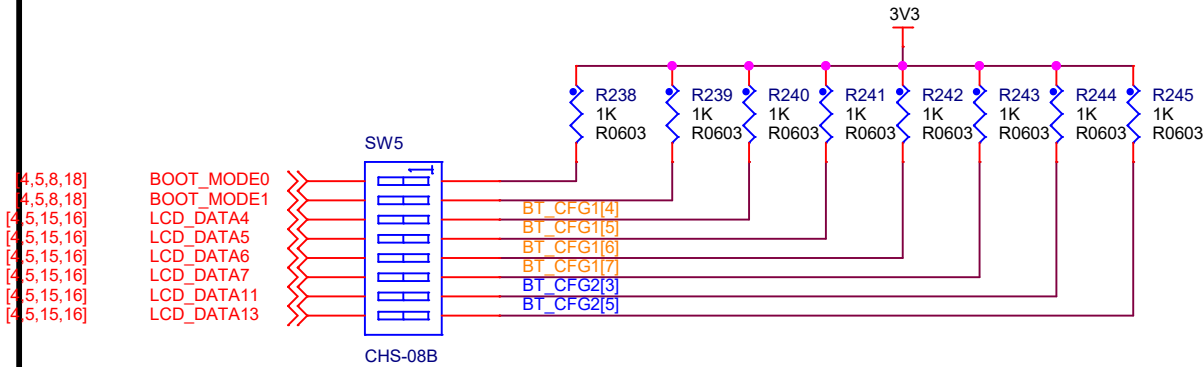


LCD-FPC接口



启动设置

NAND启动:
EMMC启动:
SD 启动:



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