

野火_i.MX6ULL EVK底板_原理图_V1.0

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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

DIMM核心板

D

C

B

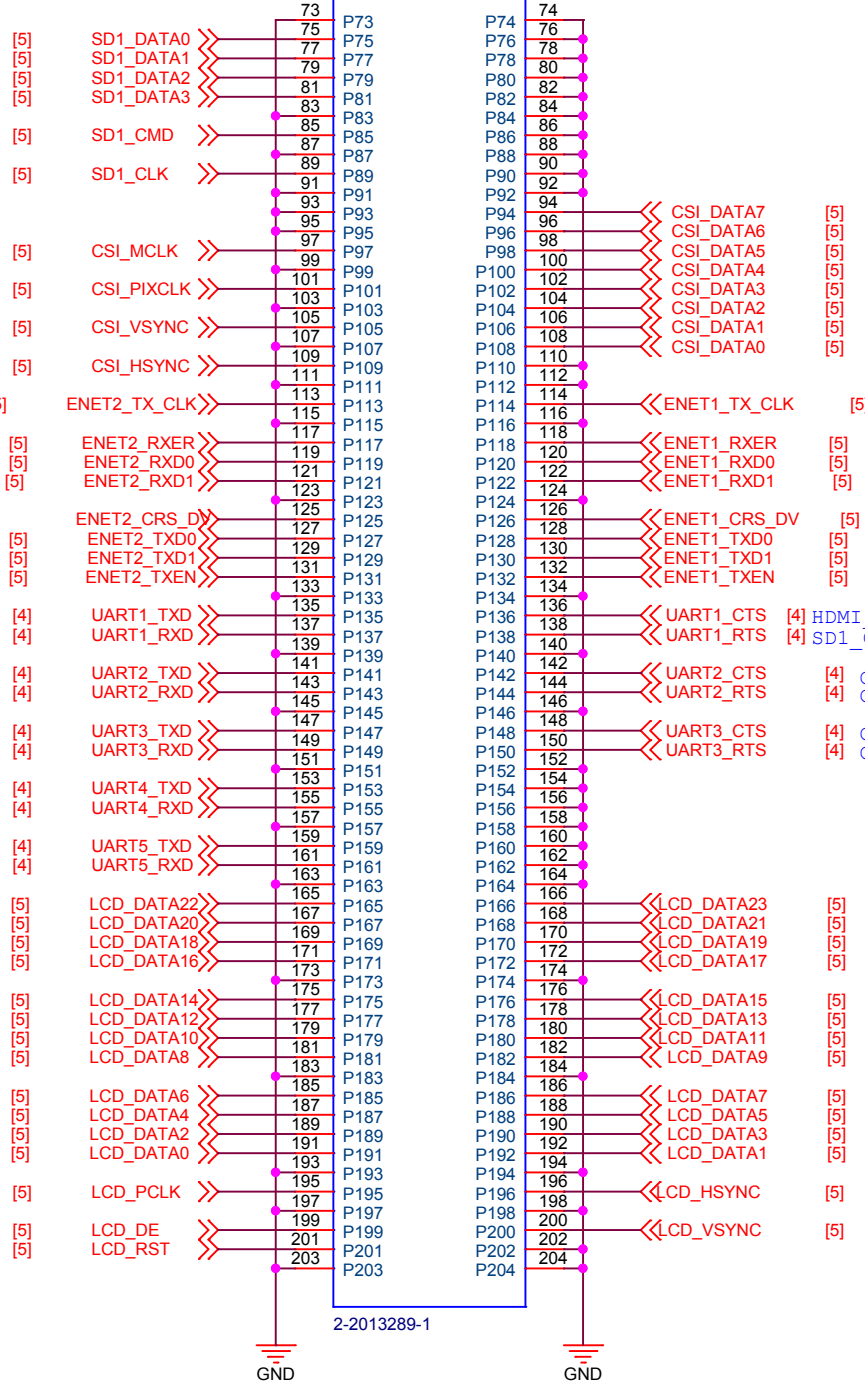
A

LED_B_pwm7.OUT
LED_B_pwm8.OUT

UART6_TXD
UART6_RXD
UART7_TXD
UART7_RXD
UART8_TXD
UART8_RXD

I2C1_SCL
I2C1_SDA
I2C2_SCL
I2C2_SDA

CTP_RST

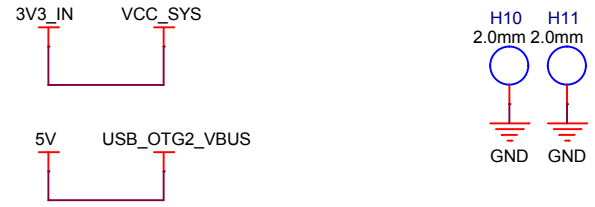
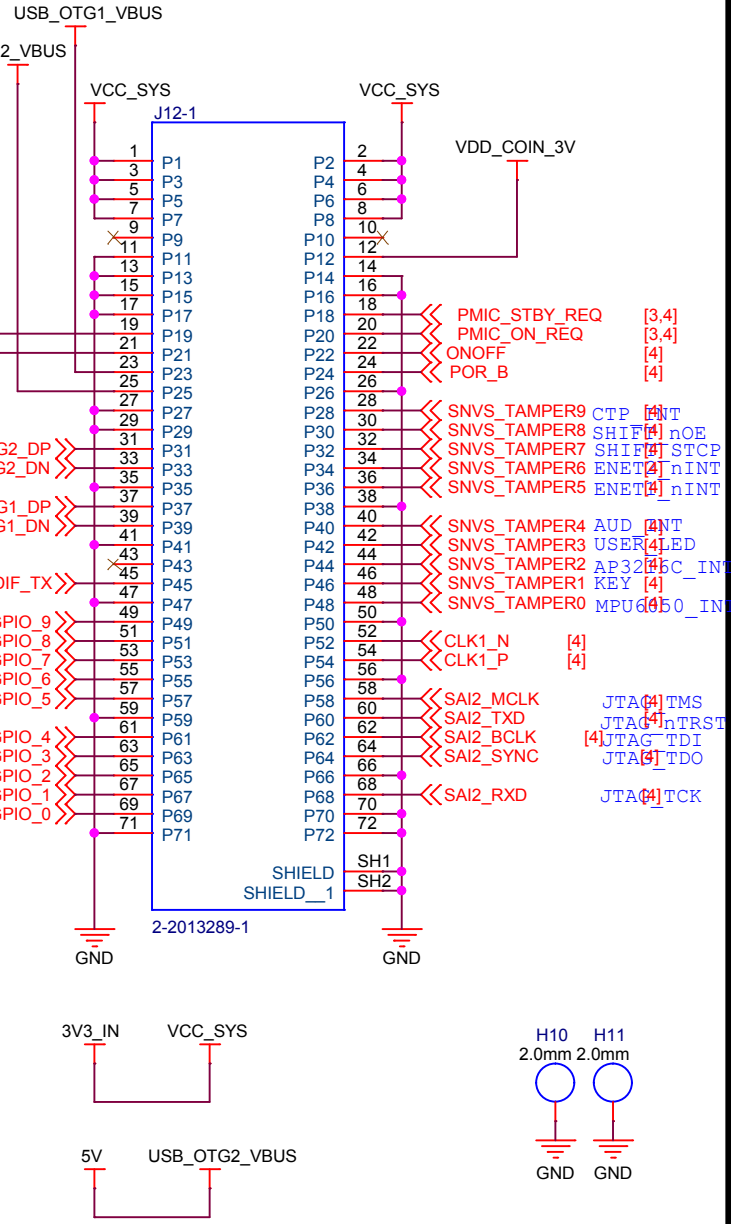


SHIFT_SHCP [4,8] BOOT_MODE1
SHIFT_SDI [4,8] BOOT_MODE0

ECSPI4_MOSI [5]
ECSPI4_MISO [5]
ECSPI4_SS2 [5]

SD1_nRST
LCD_BL [4]
ENET_MDC [4]
ENET_MDIO [4]
CAN2_TX [4]
CAN2_RX [4]
CAN1_TX [4]
CAN1_RX [4]

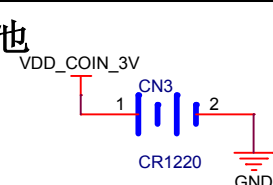
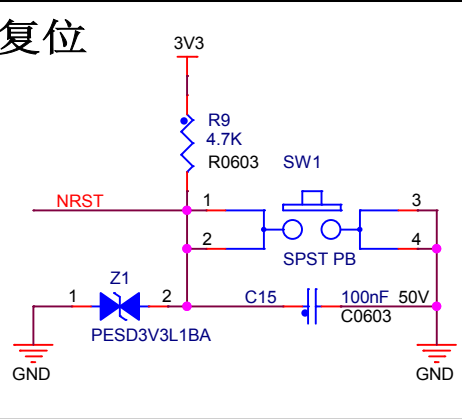
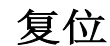
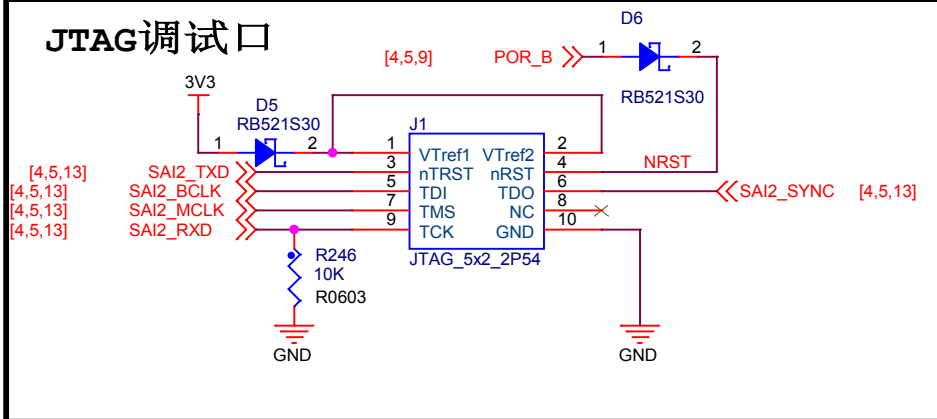
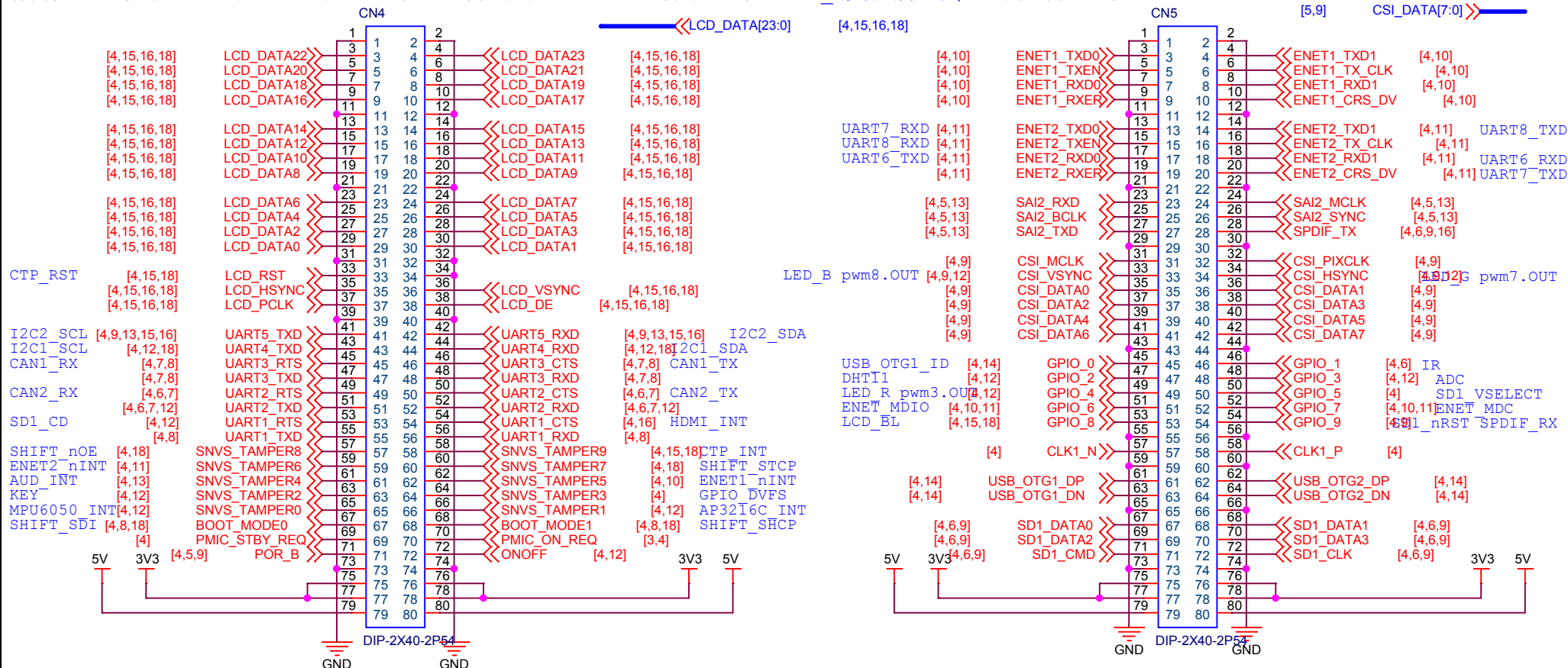
LED_R_pwm3.OUT [3,4]
ADC [4]
DHT11 [4]
IR [4]
USB_OTG1_ID [4]



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野火_i.MX6ULL EVK底板_原理图		
A4	CPU_B2B	V1.0
Wednesday, December 04, 2019		4 18

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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野火 i.MX6ULL EVK底板 原理图

A4

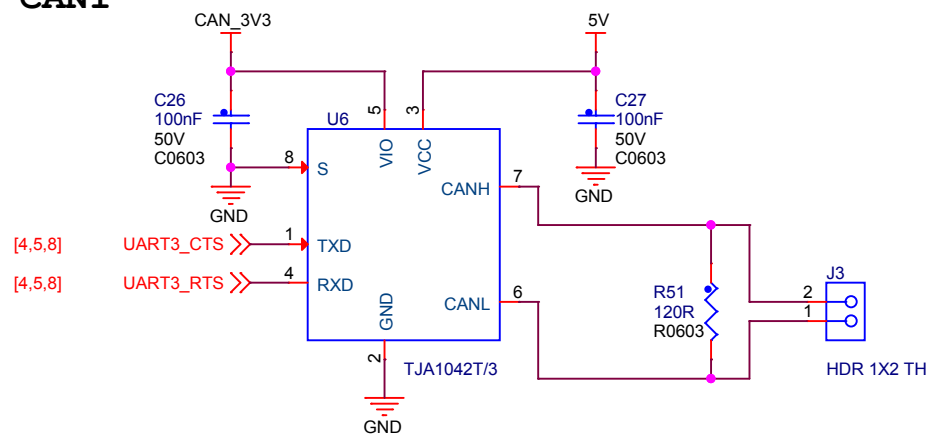
引出IO

V1.0

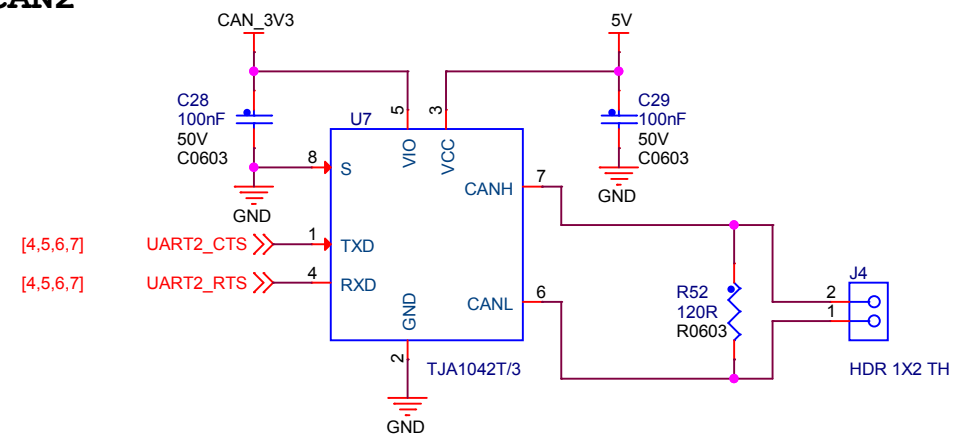
Wednesday, December 04, 2019

18

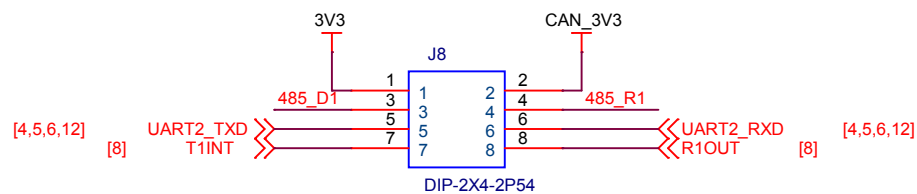
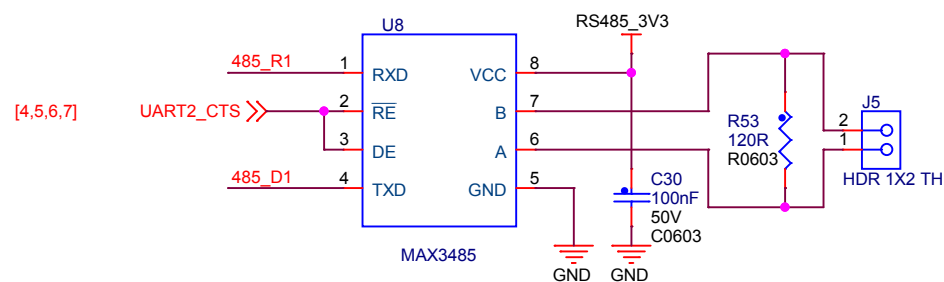
CAN1



CAN2

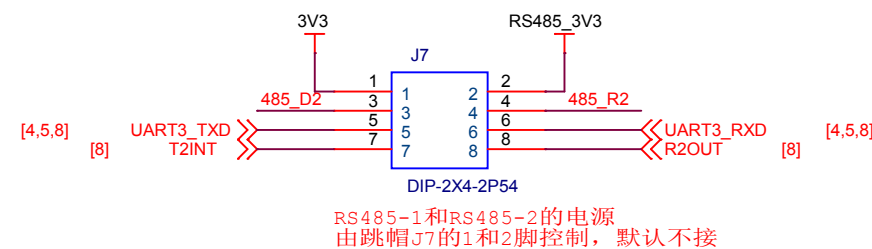
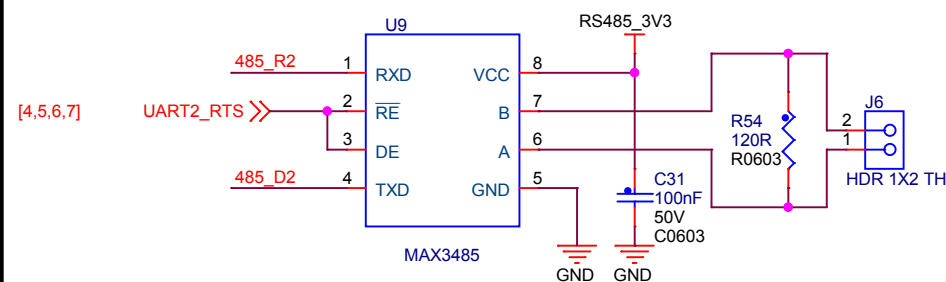


RS485-1



CAN1和CAN2的电源
由跳帽J8的1和2脚控制，默认不接

RS485-2



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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A4

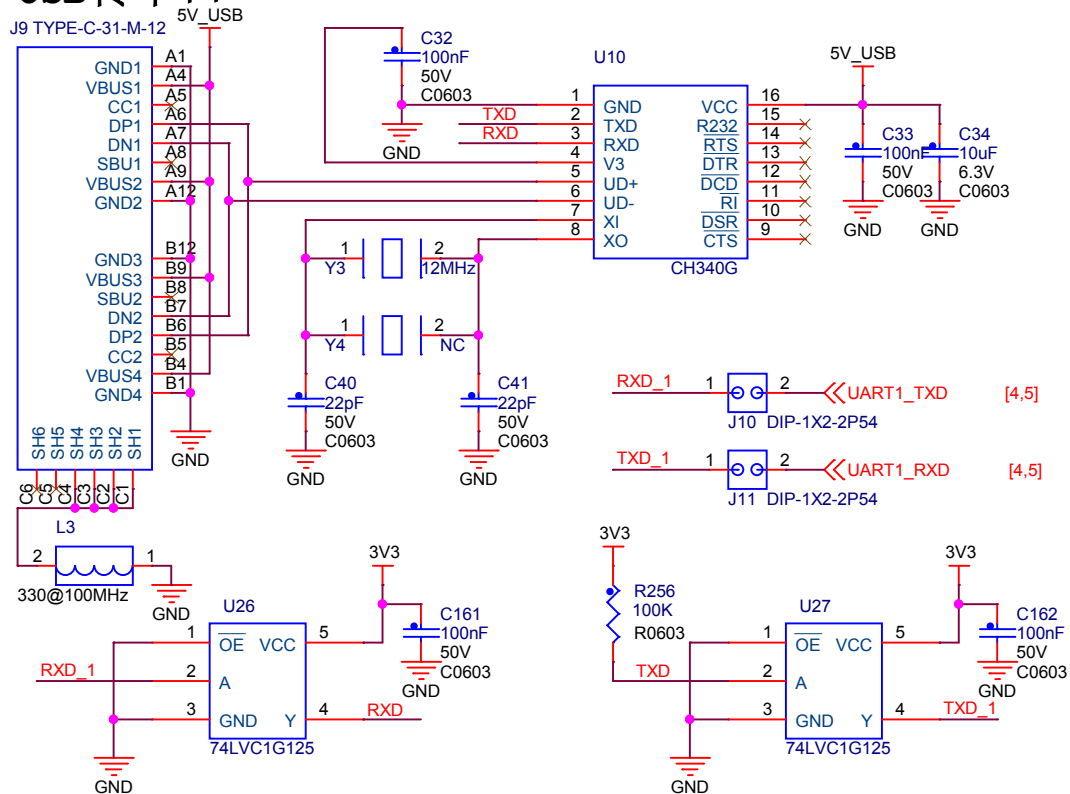
CAN/RS485

V1.0

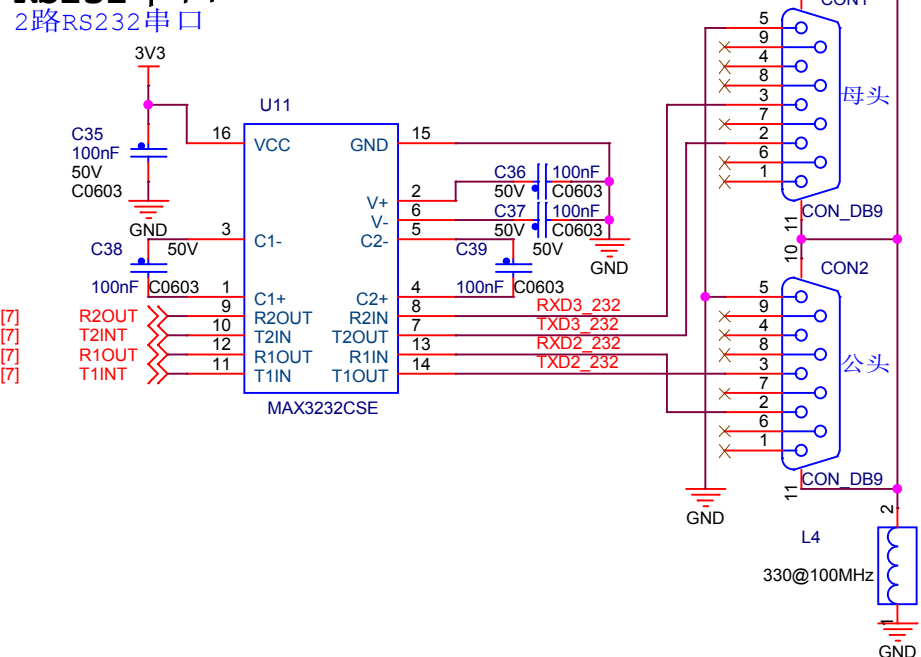
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USB转串口

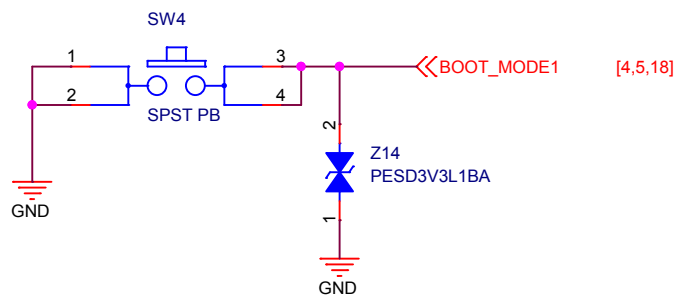


RS232串口



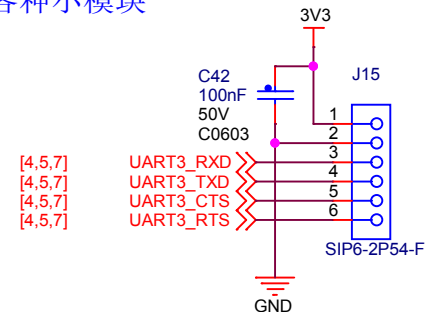
串行烧录启动切换

按下按键再复位即可进入串行烧录模式



EBF-Module

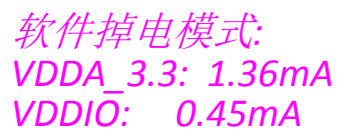
用于接野火的各种小模块



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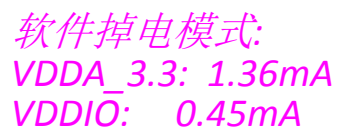
野火_i.MX6ULL EVK底板_原理图

百兆以太网PHY



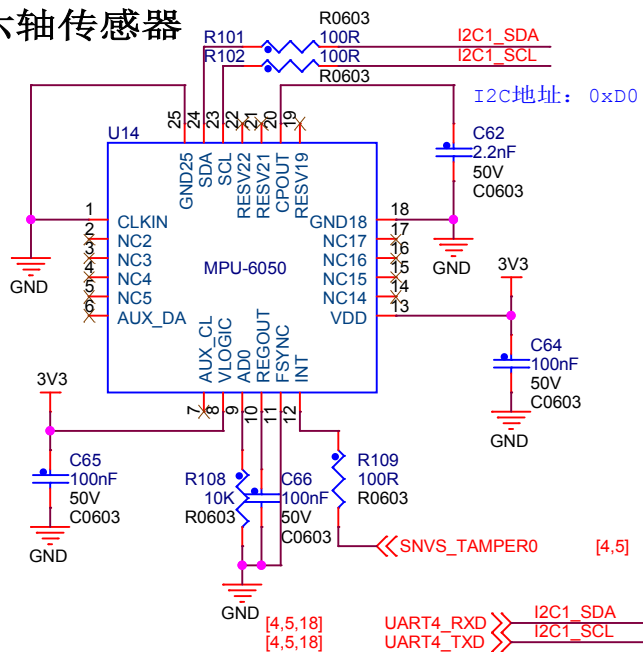
A4	以太网x1		V1.0
Wednesday, December 04, 2019		10	18

百兆以太网PHY

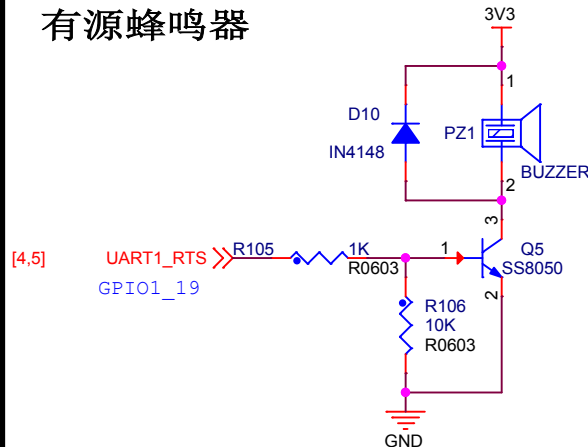


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Wednesday, December 04, 2019		11	18

六轴传感器

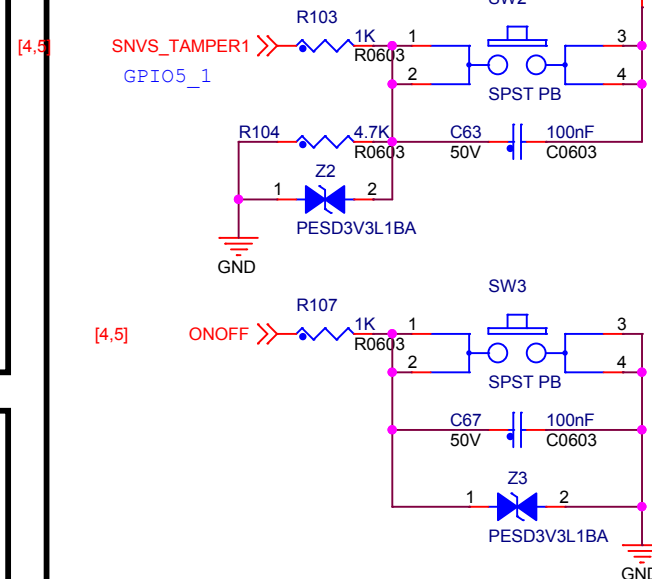


有源蜂鸣器

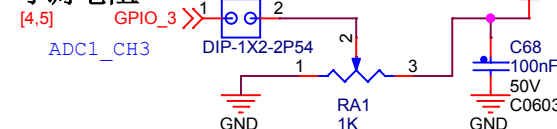


按键

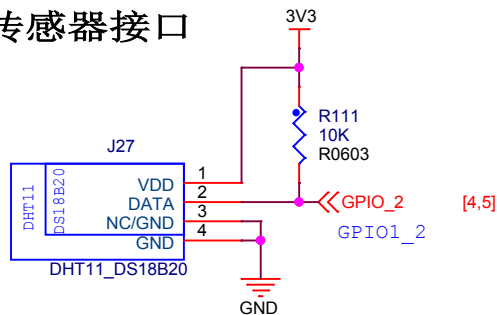
长按SW3按键可以实现开关机



可调电阻

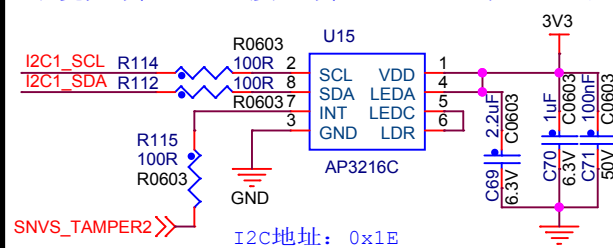


温湿度传感器接口

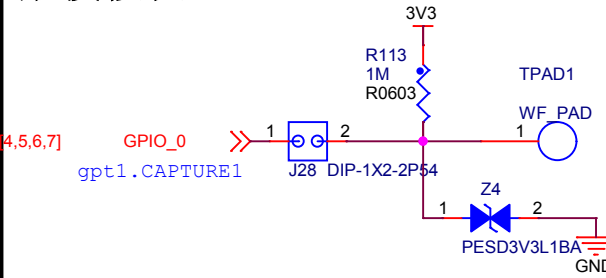


ALS+PS+IRLED (三合一)

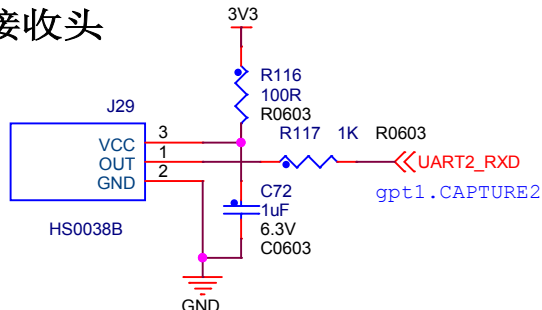
环境光传感器、接近传感器、红外LED三合一



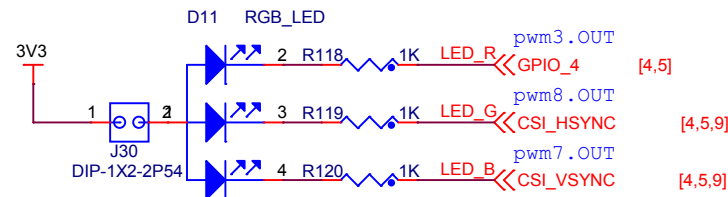
触摸按键



红外接收头



彩色LED

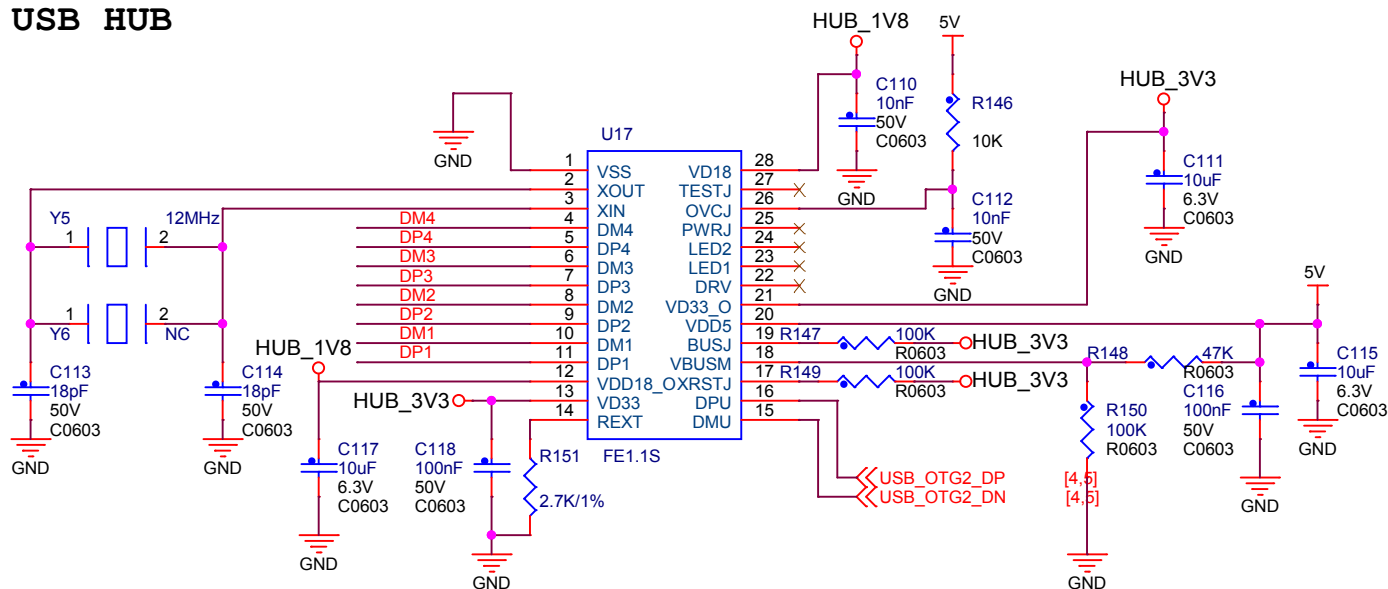


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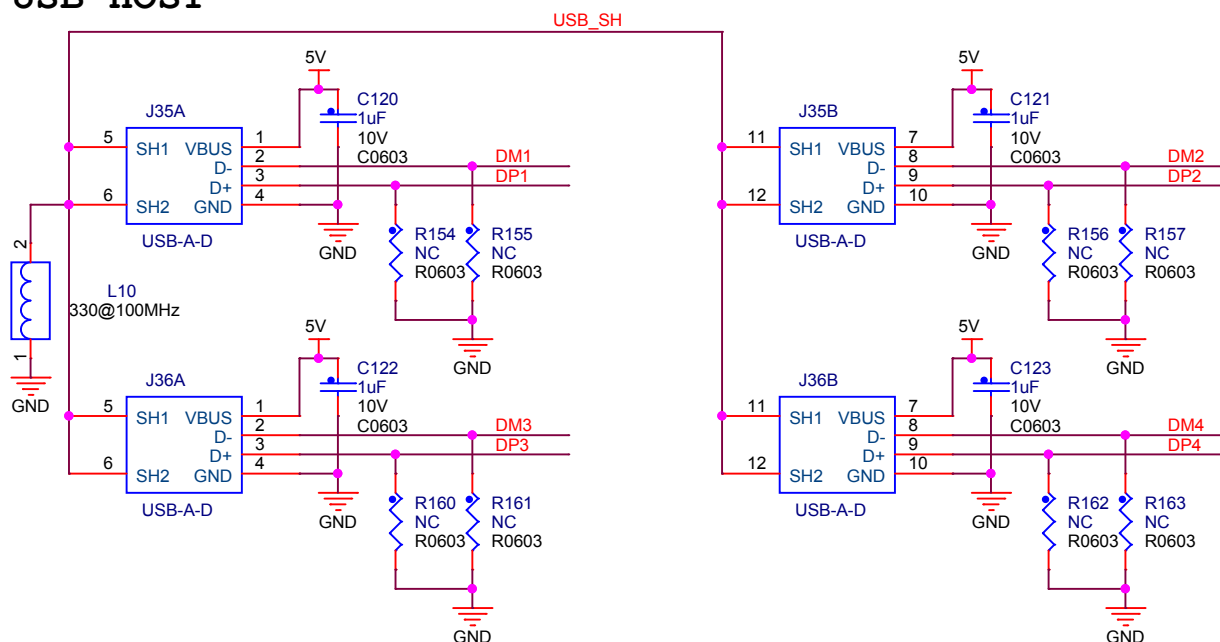
野火_i.MX6ULL EVK底板_原理图

A4	传感器/按键/LED	V1.0
Tuesday, December 31, 2019		
12 18		

USB HUB

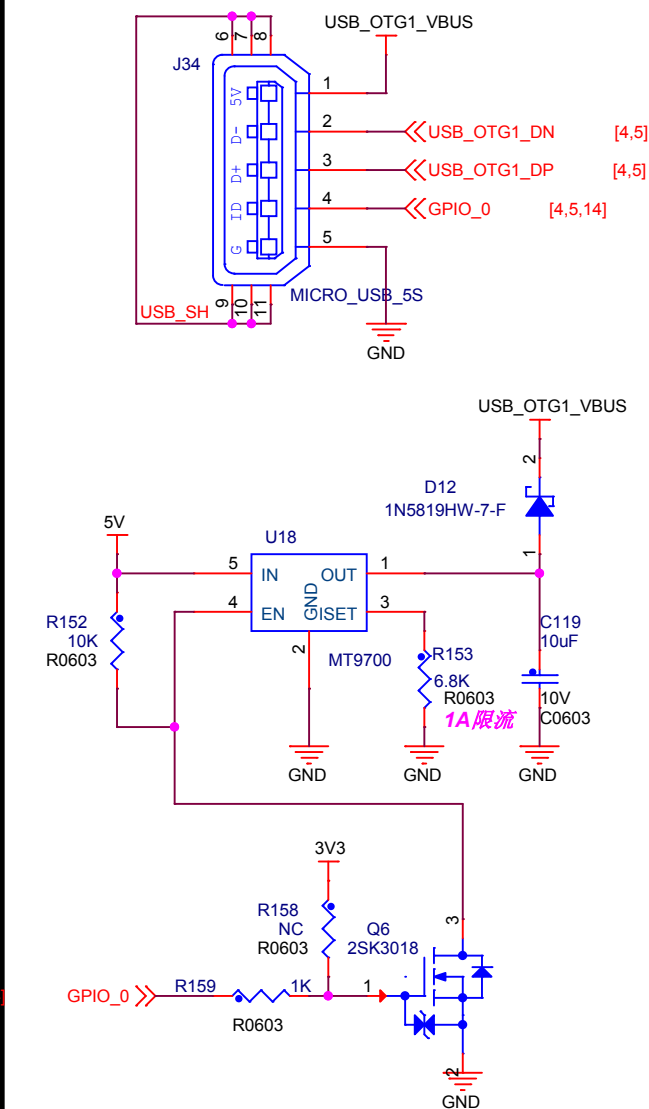


USB HOST



USB OTG

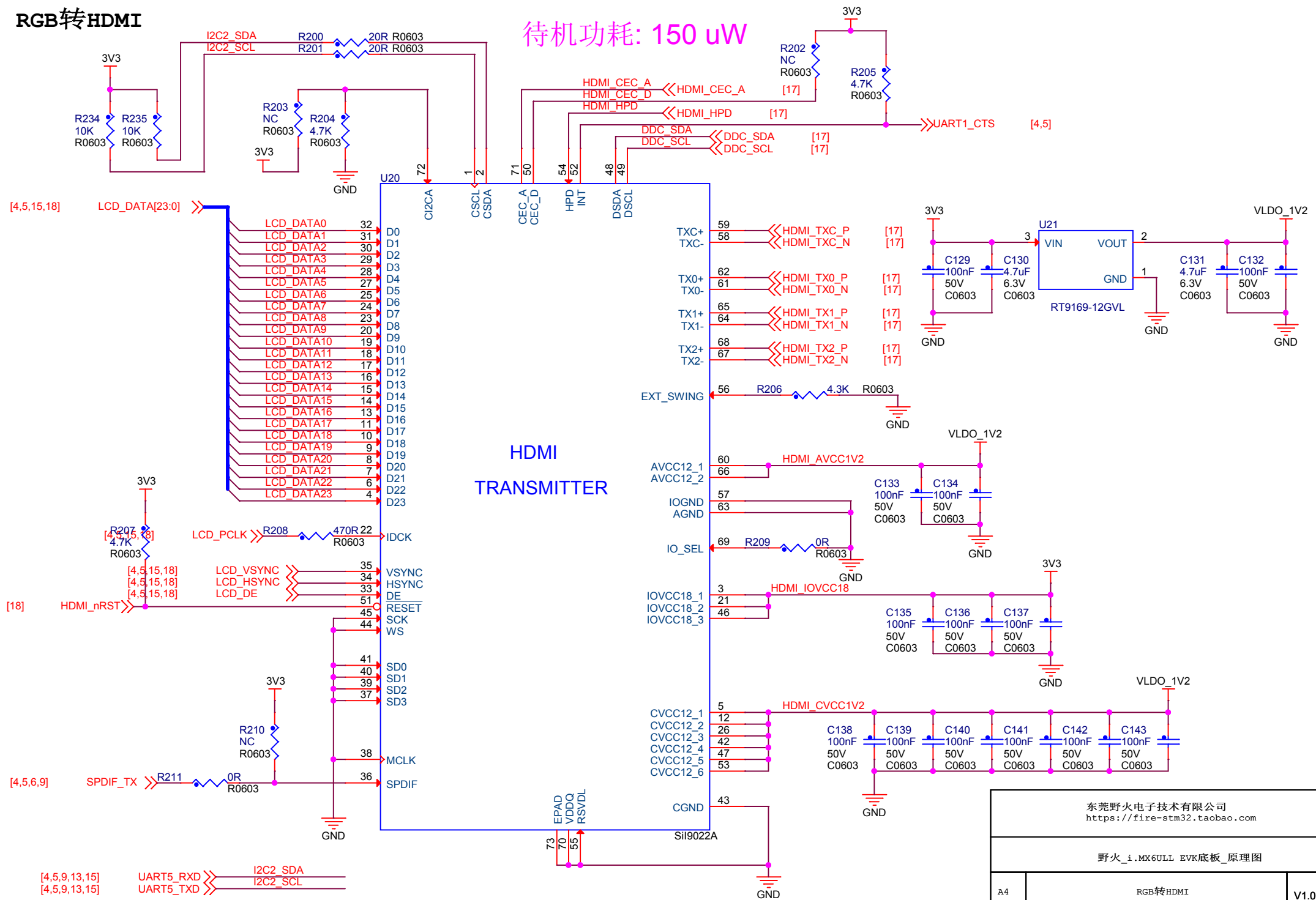
ID悬空时为Device设备，接地为HOST主机



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RGB转HDMI



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野火_i.MX6ULL EVK底板_原理图

A4

RGB转HDMI

V1.0

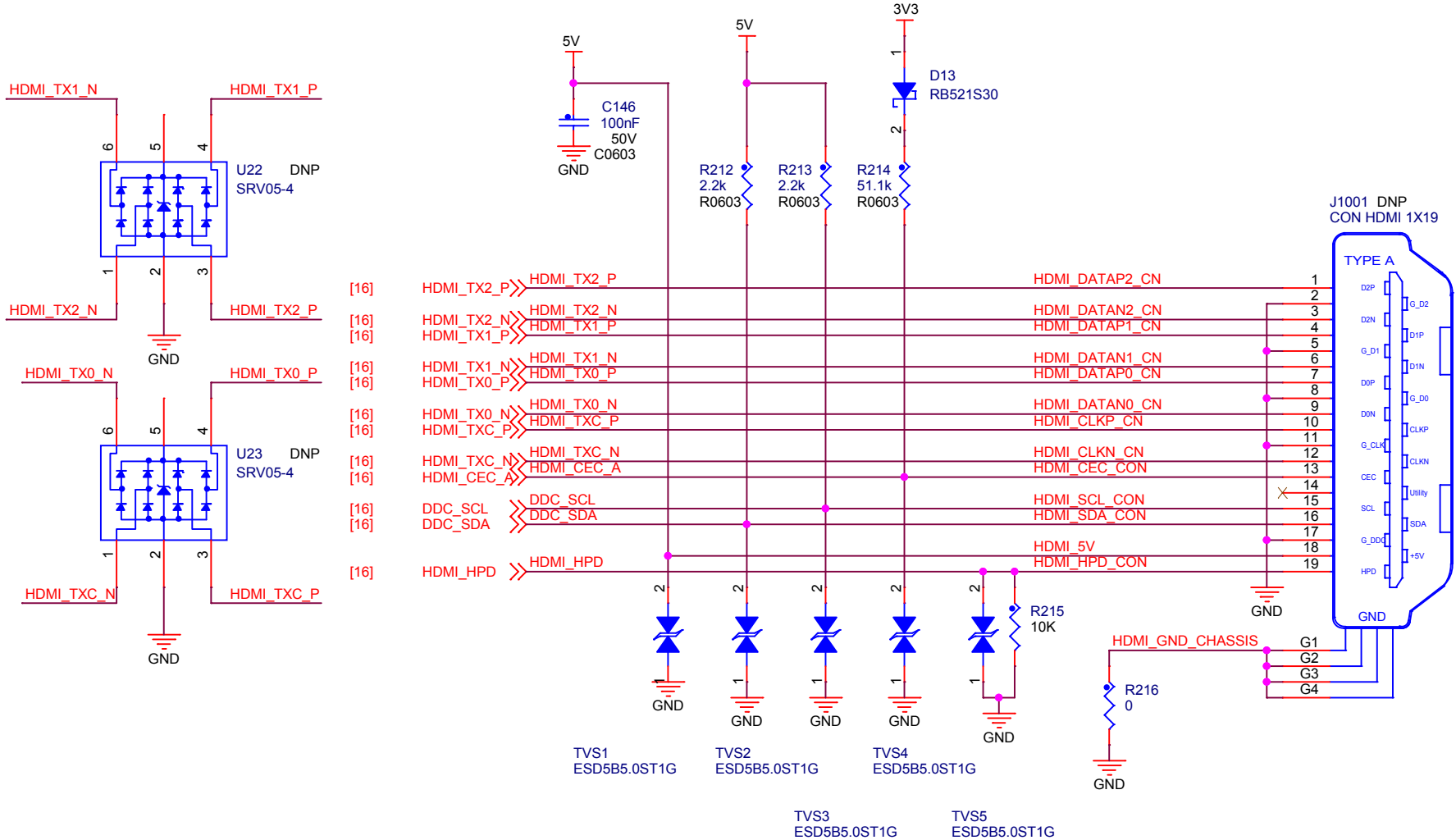
Tuesday, December 31, 2019

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HDMI连接器

Type A型

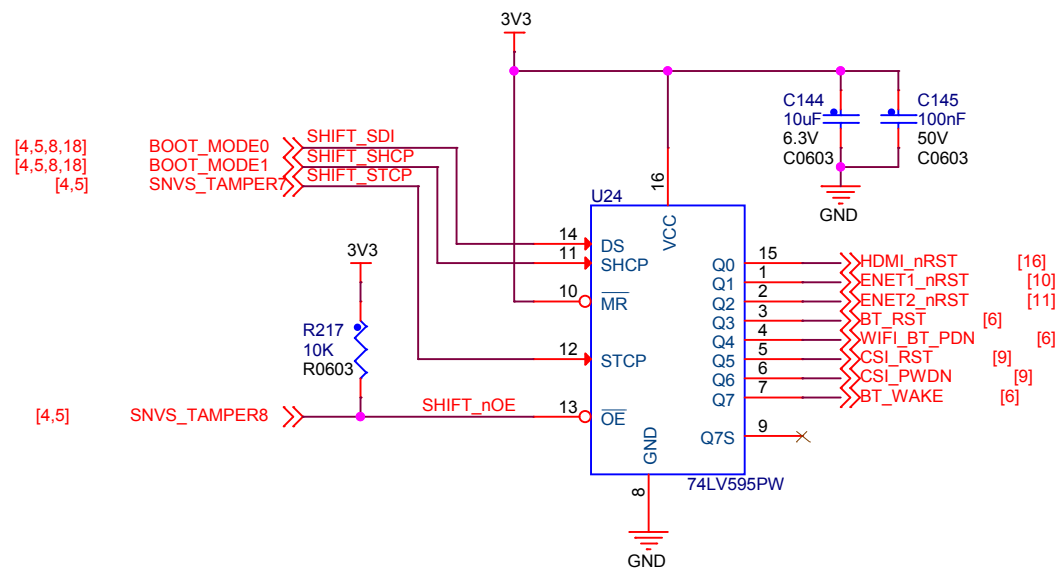


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野火_i.MX6ULL EVK底板_原理图

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

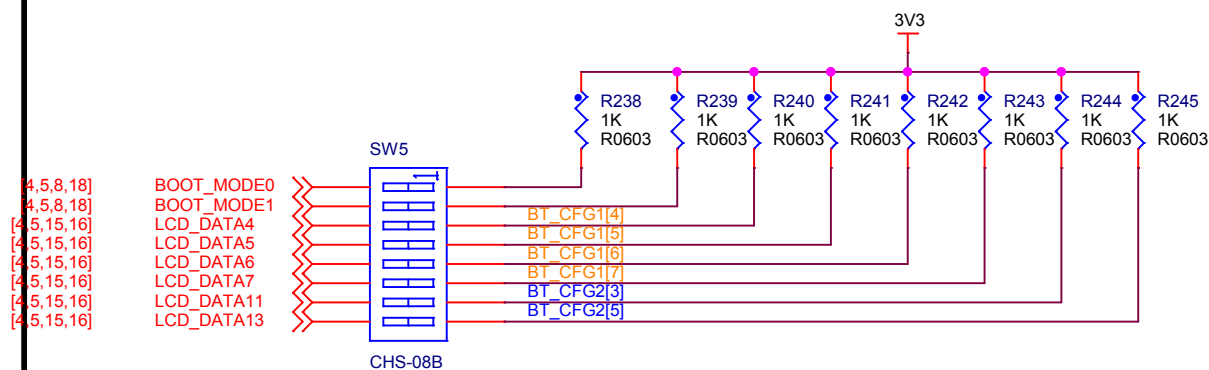


启动设置

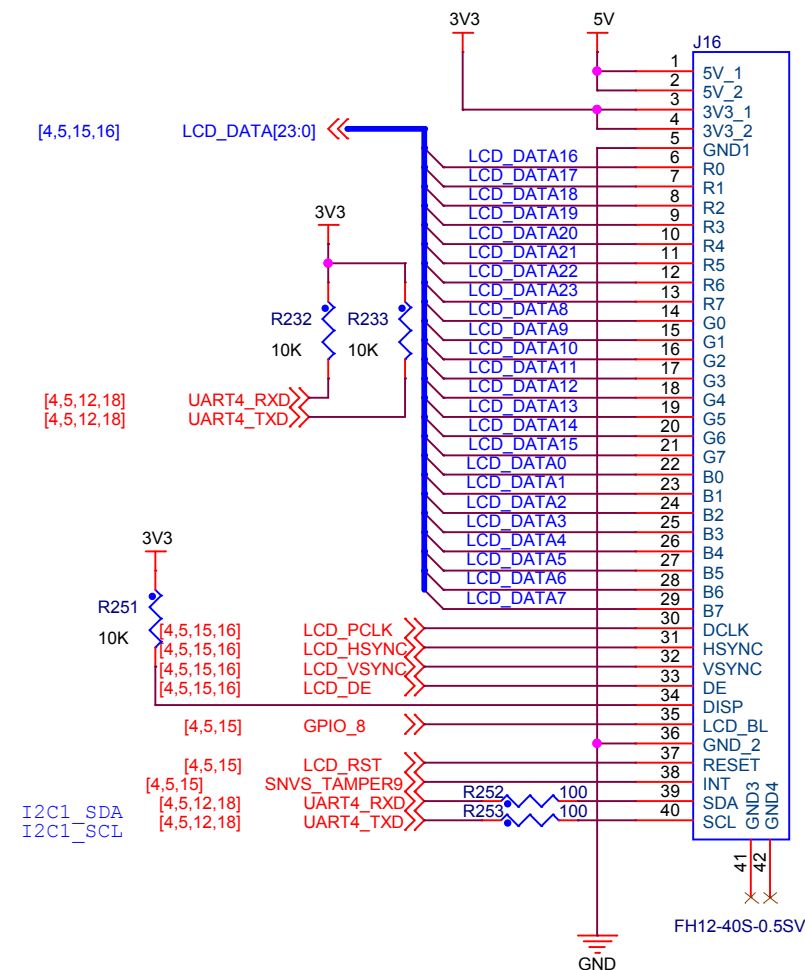
NAND启动:

EMMC启动:

SD 启动:



LCD-FPC接口



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野火 i.MX6ULL EVK底板 原理图

A4

扩展IO/启动切换

V1.0

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