

EVM-CKL138EDA

版本：3.0

设计者： F
2022.03.05

修订历史

修订版本	描述	设计者	日期
3.0	基于 EVM-NC215EDA 2.1 版本	F	2022.03.05
	增加 AD7606/AD5676		
	增加 LCD 转 HDMI		
	调整页面大小从 B 到 A3		

目录

- 01.OVERVIEW
- 02.CONNECTOR
- 03.POWER/BOOT/RESET
- 04.ETH/SD/USB/EEPROM
- 05.JTAG/RTC/UART/CMOS
- 06.LED/KEY
- 07.HDMI/KEYBOARD
- 08.M.2 SOCKET 2
- 09.LED/LCD/SHT30/BUZZER
- 10.AD7606/AD5676/IO

GPIO BANK 电压[1.8/3.3V]

BANK	电压	说明
POWER GROUP A	3.3V	固定电压由核心板提供
POWER GROUP B	3.3V	固定电压由核心板提供
POWER GROUP C	3.3V	固定电压由核心板提供

I2C 设备地址

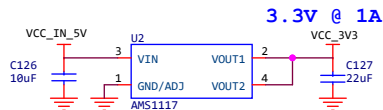
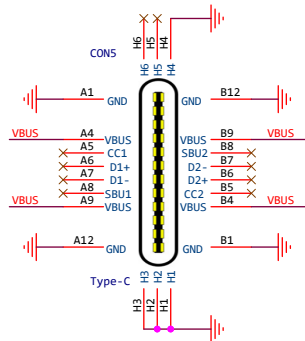
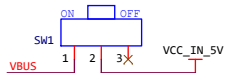
设备	外设	地址
电容触摸屏	I2C0	0x14/0x5D
CMOS	I2C0	由 CMOS 模块确定
SHT30	I2C0	0x44



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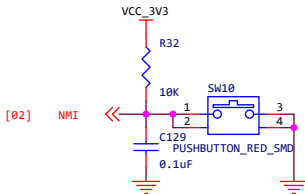
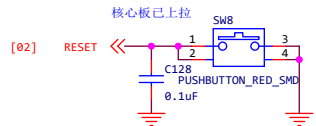
电源



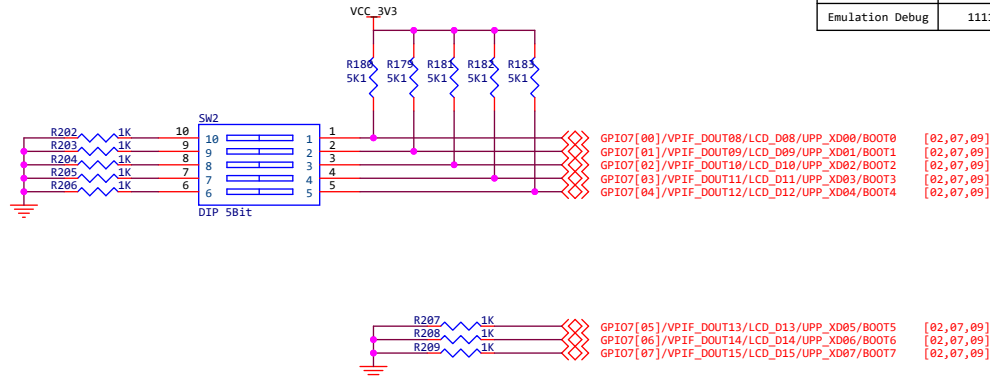
测试点



复位/不可屏蔽中断按键

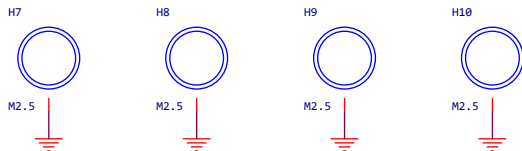


启动模式

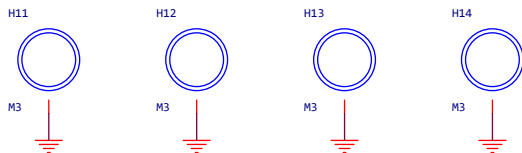


启动设备	BOOT [4:0]	拨码开关
MMC/SD0	11100	ON ON ON OFF OFF
SPI1 FLASH	01100	OFF ON ON OFF OFF
UART2	10100	ON OFF ON OFF OFF
Emulation Debug	11110	ON ON ON ON OFF

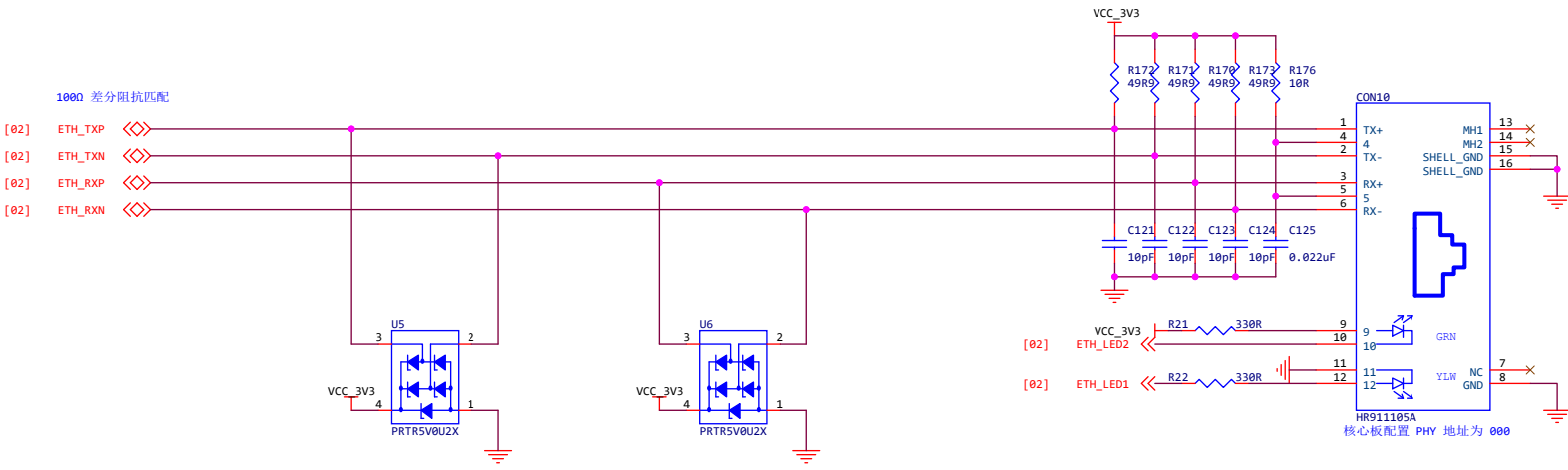
底板固定孔



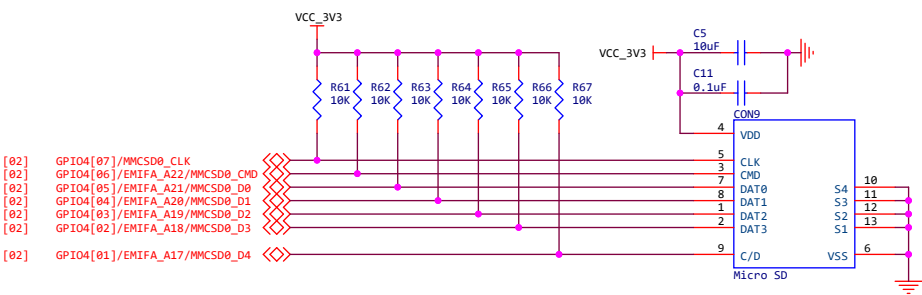
液晶屏固定孔



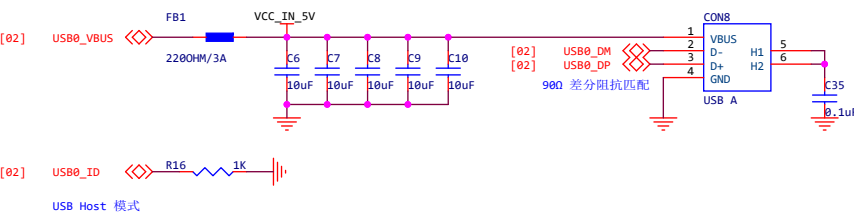
ETH



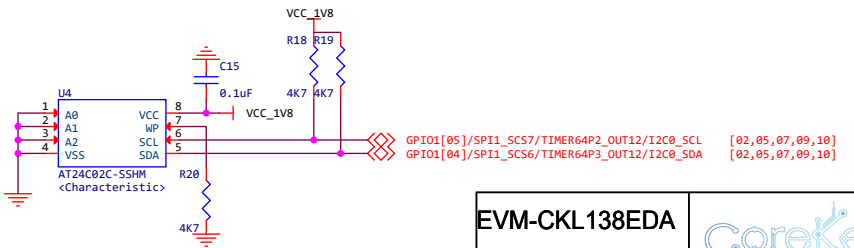
Micro SD



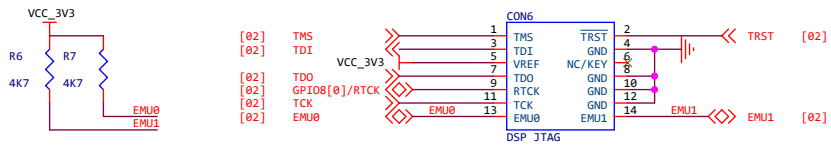
USB



EEPROM



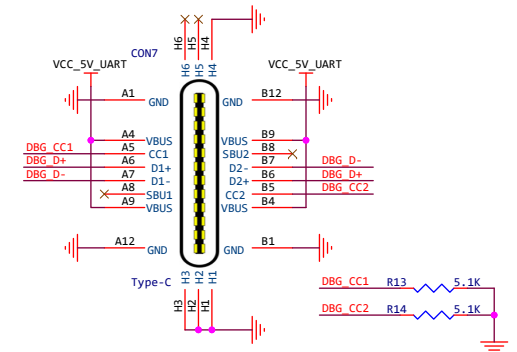
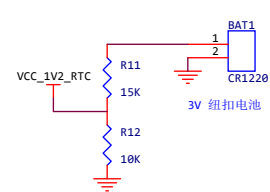
JTAG



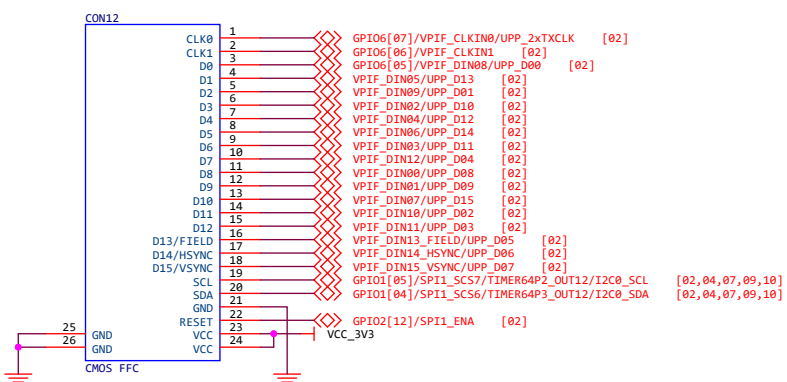
USB_UART



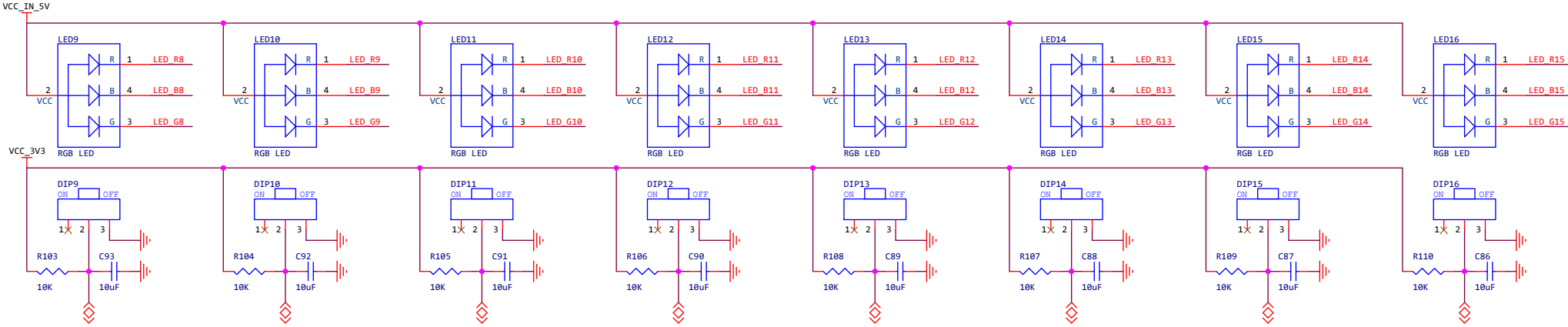
RTC



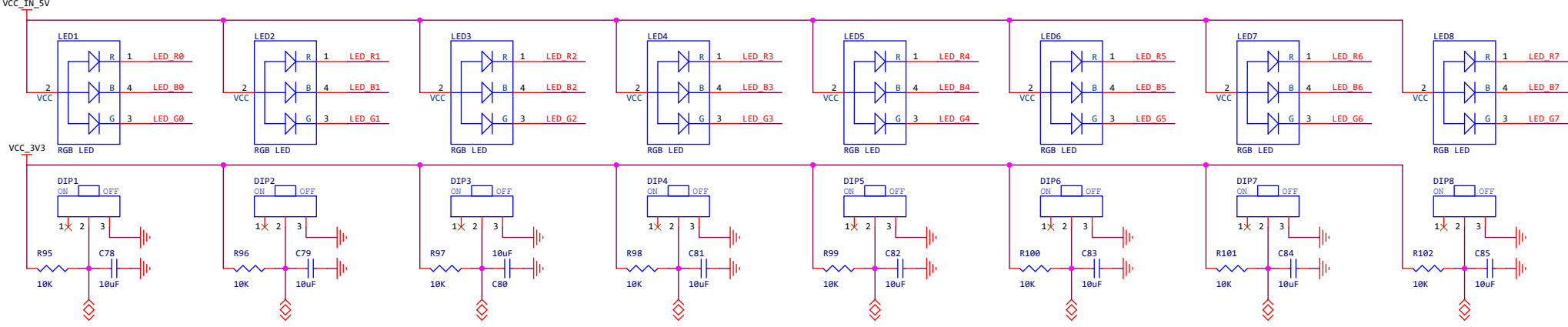
CMOS



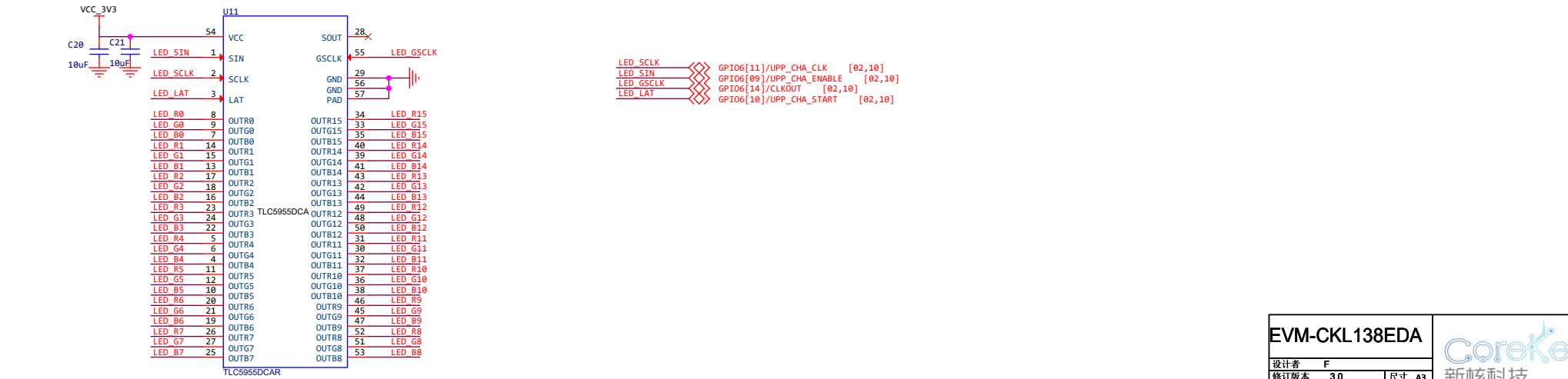
RGB LED / 拨动开关



[02] GPIO2[08]/EMIFA_BA0 [02] GPIO2[09]/EMIFA_BA1 [02] GPIO3[08]/EMIFA_WAIT0 [02] GPIO3[09]/EMIFA_A_Rw [02] GPIO3[10]/EMIFA_OE [02] GPIO3[11]/EMIFA_WE [02] GPIO3[12]/EMIFA_CS5 [02] GPIO3[13]/EMIFA_CS4

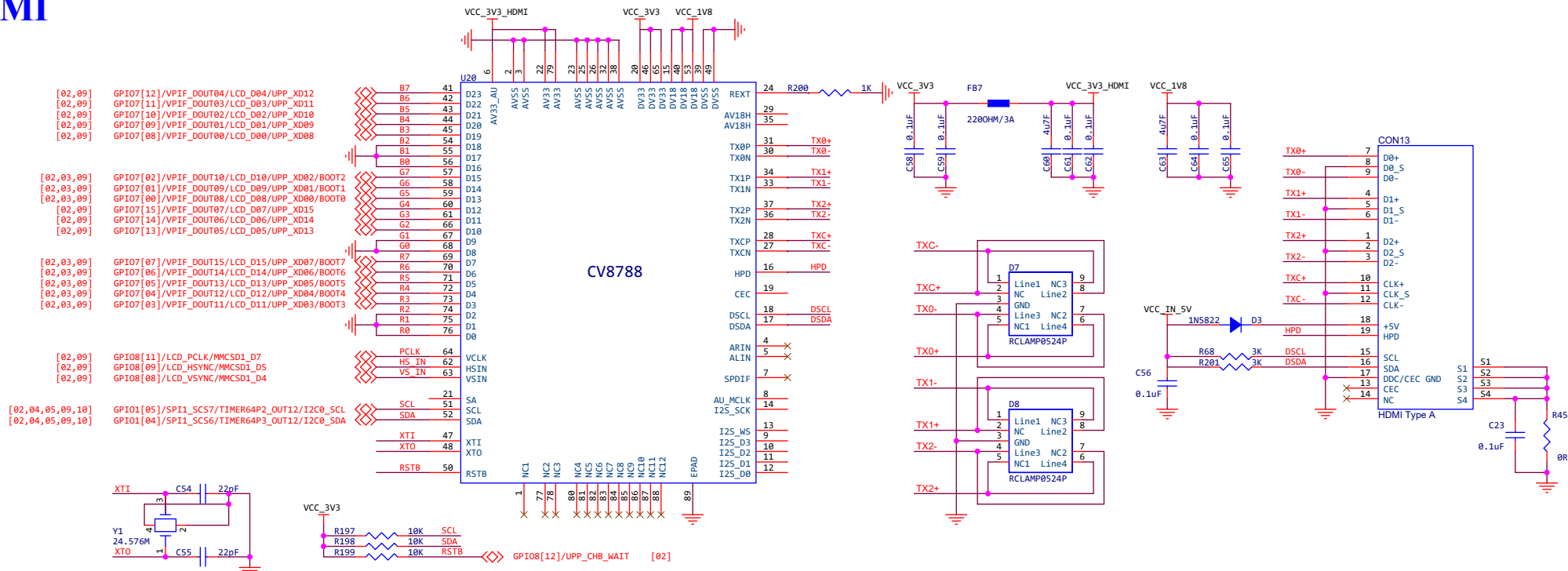


[02] GPIO2[00]/EMIFA_CS0 [02] GPIO2[01]/EMIFA_WAIT1 [02] GPIO2[02]/EMIFA_WEN_DQM1 [02] GPIO2[03]/EMIFA_WEN_DQM0 [02] GPIO2[04]/EMIFA_CAS [02] GPIO2[05]/EMIFA_RAS [02] GPIO2[06]/EMIFA_SDCKE [02] GPIO2[07]/EMIFA_CLK

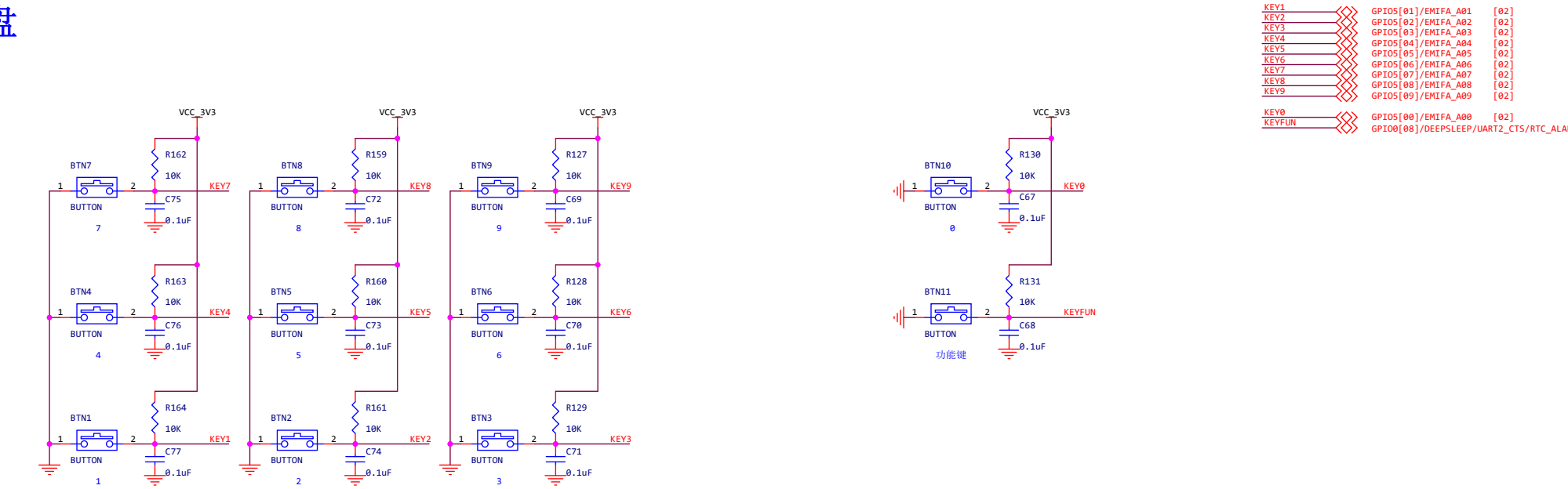


LED_SCLK GPIO6[11]/UPP_CHA_CLK [02,10]
LED_SIN GPIO6[09]/UPP_CHA_ENABLE [02,10]
LED_GSCLK GPIO6[14]/CLKOUT [02,10]
LED_LAT GPIO6[10]/UPP_CHA_START [02,10]

HDMI

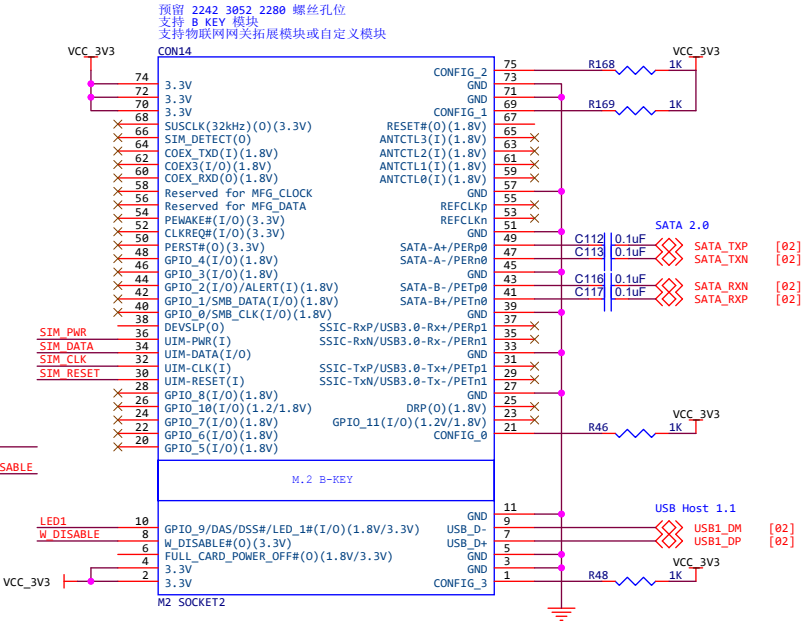


键盘

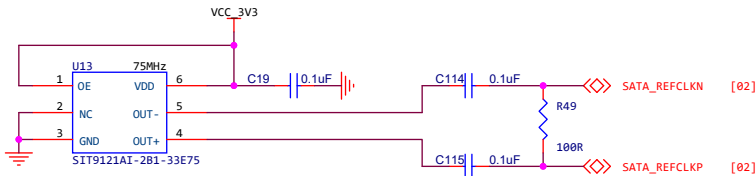


M.2 Socket 2

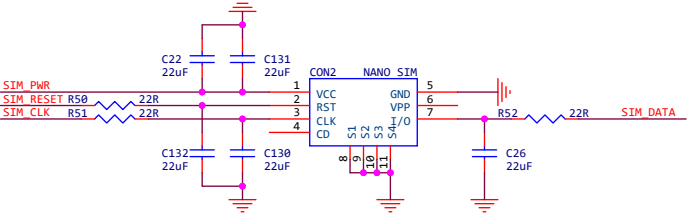
SATA/USB1 需要 ARM Linux 驱动支持



SATA Clock



SIM

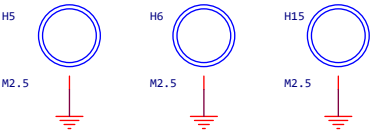


Socket 2 模块配置

配置	CONFIG_0	CONFIG_1	CONFIG_2	CONFIG_3	模块类型和主要接口	端口配置（仅 WWAN）
0	GND	GND	GND	GND	SSD - SATA	N/A
1	GND	N/C	GND	GND	SSD - PCIe	N/A
2	GND	GND	N/C	GND	WWAN - PCIe	0
3	GND	N/C	N/C	GND	WWAN - PCIe	1
4	GND	GND	GND	N/C	WWAN - USB 3.0	0
5	GND	N/C	GND	N/C	WWAN - USB 3.0	1
6	GND	GND	N/C	N/C	WWAN - USB 3.0	2
7	GND	N/C	N/C	N/C	WWAN - USB 3.0	3
8	N/C	GND	GND	GND	WWAN - SSIC	0
9	N/C	N/C	GND	GND	WWAN - SSIC	1
10	N/C	GND	N/C	GND	WWAN - SSIC	2
11	N/C	N/C	N/C	GND	WWAN - SSIC	3
12	N/C	GND	GND	N/C	WWAN - PCIe	2
13	N/C	N/C	GND	N/C	WWAN - PCIe	3
14	N/C	GND	N/C	N/C	保留	N/A
15	N/C	N/C	N/C	N/C	无模块连接	N/A

不同端口配置 GPIO 引脚功能分配

引脚	端口配置 0	端口配置 1	端口配置 2	端口配置 3
40	GPIO_0	GNSS_SCL	GNSS_SCL	SIM_DET2
42	GPIO_1	GNSS_SDA	GNSS_SDA	UIM_DATA2
44	GPIO_2	GNSS_IRQ	GNSS_IRQ	UIM_CLK2
46	GPIO_3	SYSCLK	GNSS_0	UIM_RST2
48	GPIO_4	TX_BLANKING	GNSS_1	UIM_PWR2
20	GPIO_5	AUDIO_0	AUDIO_0	保留
22	GPIO_6	AUDIO_1	AUDIO_1	保留
24	GPIO_7	AUDIO_2	AUDIO_2	保留
28	GPIO_8	AUDIO_3	AUDIO_3	保留
10	GPIO_9	LED_1#	LED_1#	DAS/DSSH/IPC_7
26	GPIO_10	W_DISABLE2#	W_DISABLE2#	W_DISABLE2#
23	GPIO_11	WAKE_ON_WWAN#	WAKE_ON_WWAN#	WAKE_ON_WWAN#



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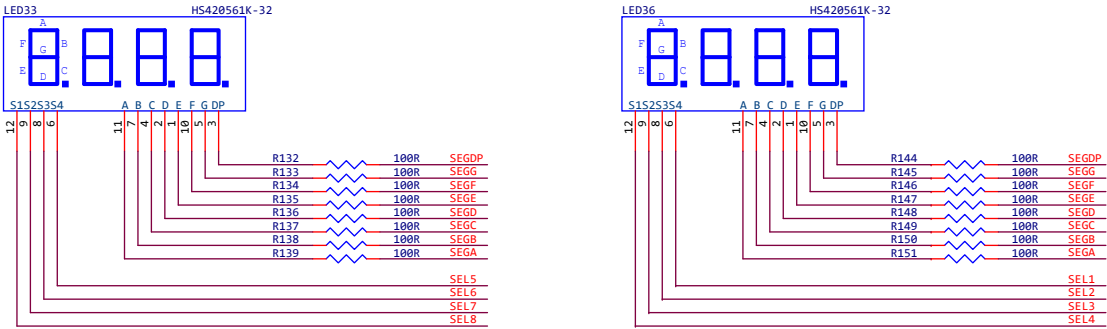
设计者 F
修订版本 3.0
页面名称 M2
页面修改时间 Tuesday, March 08, 2022

CoreKernel

新核科技

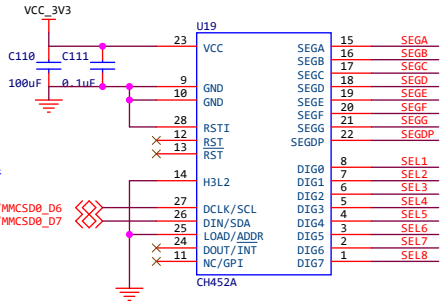
第 08 页 共 10 页

数码管

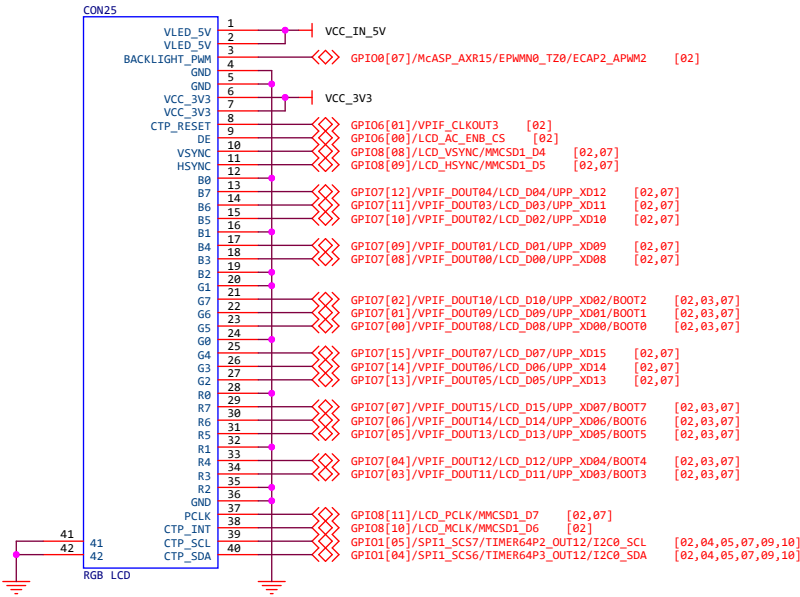


共阴极数码管

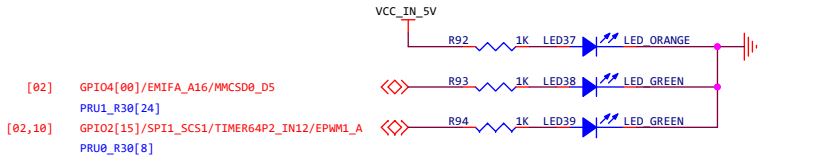
两线制接口
GPIO5[15]/EMIFA_A15/MMCSD0_D6
GPIO5[14]/EMIFA_A14/MMCSD0_D7



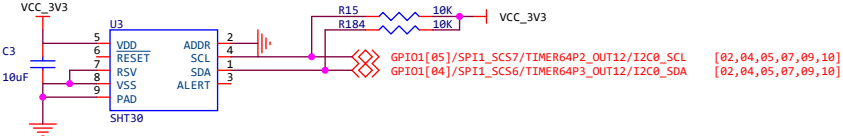
LCD



LED



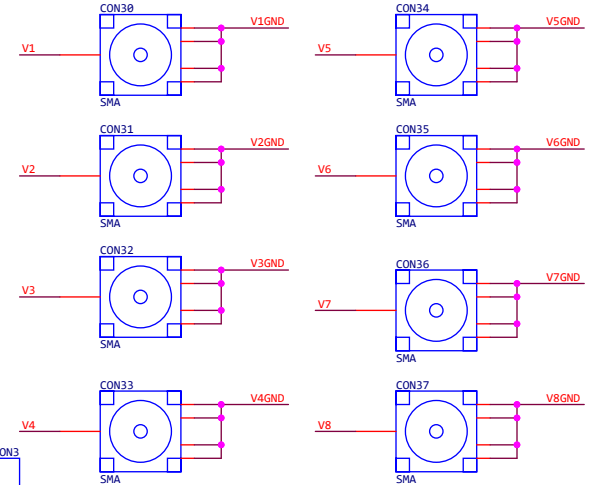
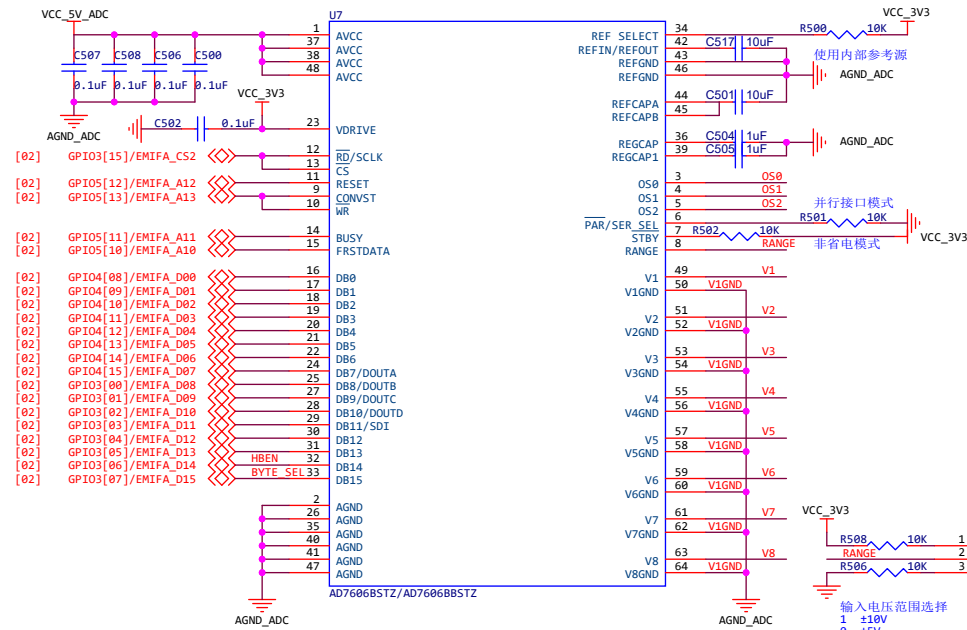
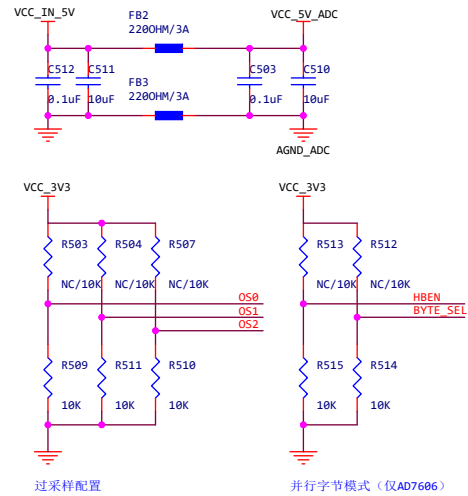
SHT30



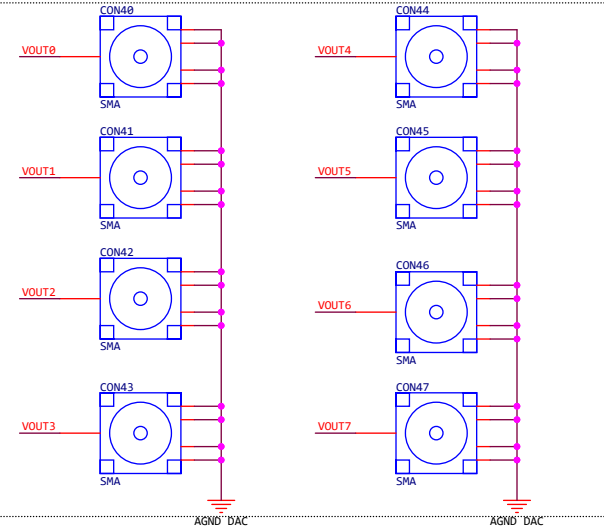
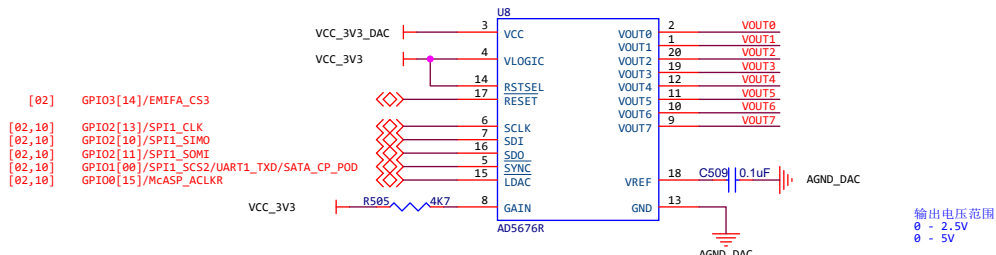
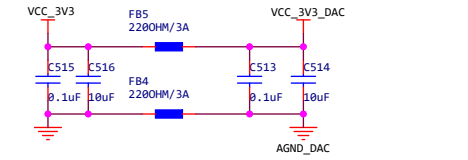
蜂鸣器



AD7606



AD5676



扩展接口

