

VERSION HISTORY

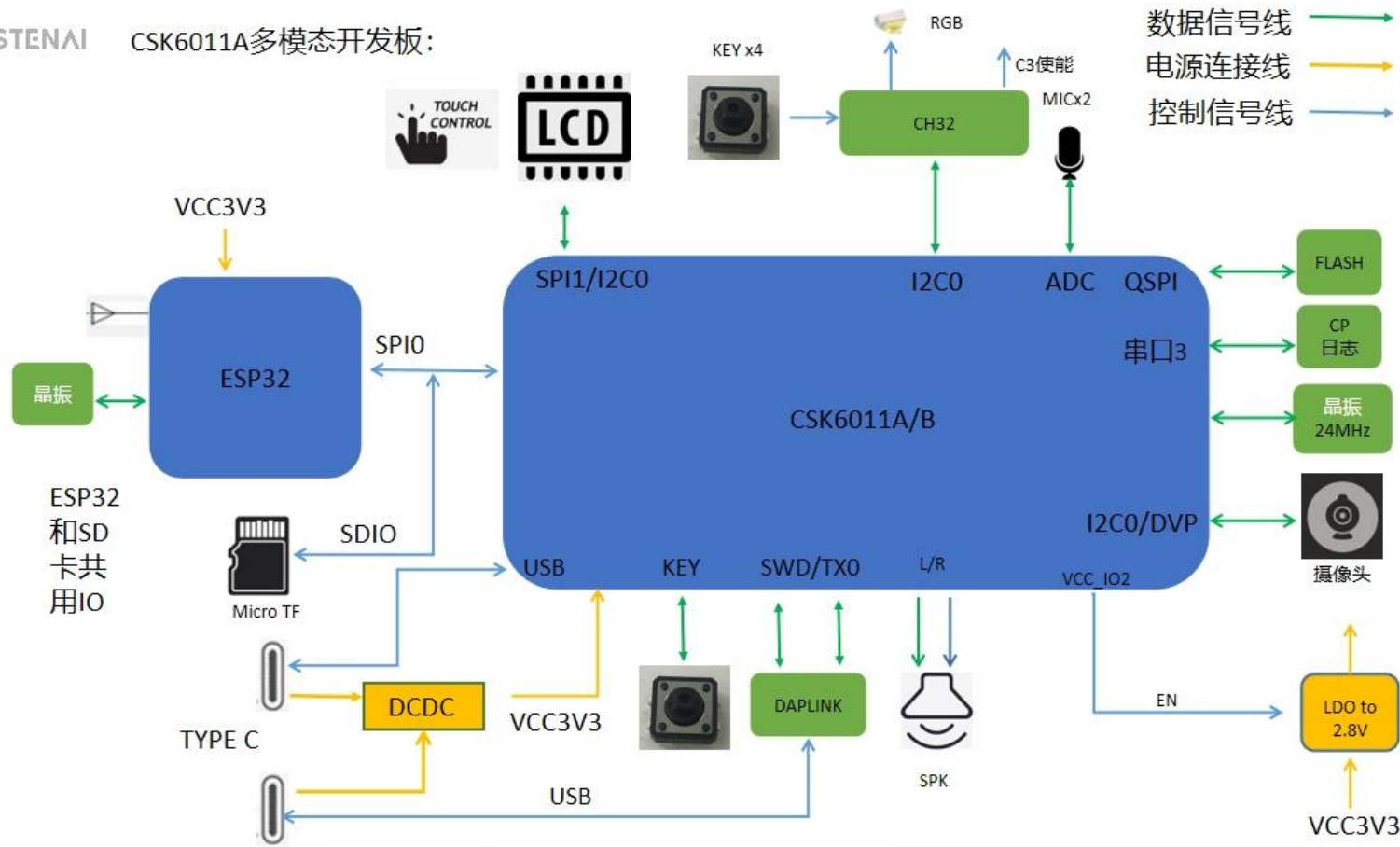
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- 06 AMP&MIC&ADC_KEY
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- 10 WIFI_MODULE
- 11 EXTENDED IO

Revision	Description	Date	Author
IV1.0	First Edit	20230712	HY
IV1.1	1.更新丝印 2.CH32复位脚增加上拉和电容 3.优化K4和K5同时按下时只有一个按键有作用	20231006	

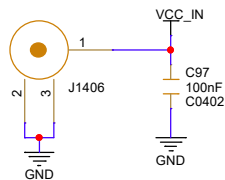
				CSK6011_Mutimodule	
				Title	
				MODIFY NOTE	
Size B		Document Number <Doc>		Rev IV1.0	
Designer: HY		Date:		Sheet 1 of 11	

LISTENAI CSK6011A多模态开发板:

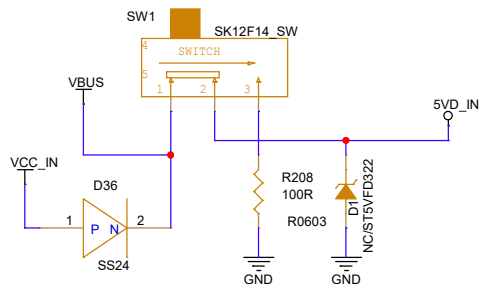


				CSK6011_Mutimodule	
				Title	
				DIAGRAM BLOCK	
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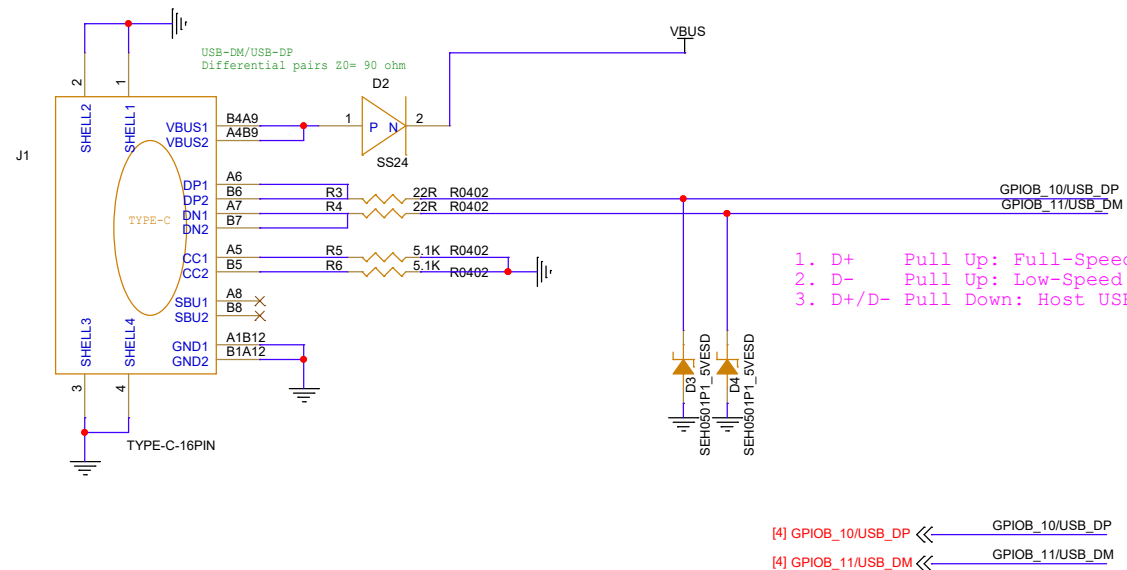
DC座



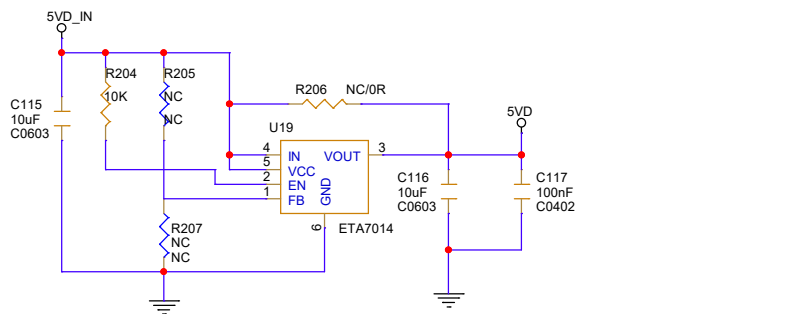
拨动开关



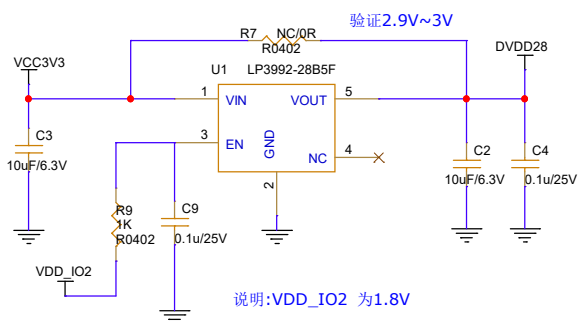
USB



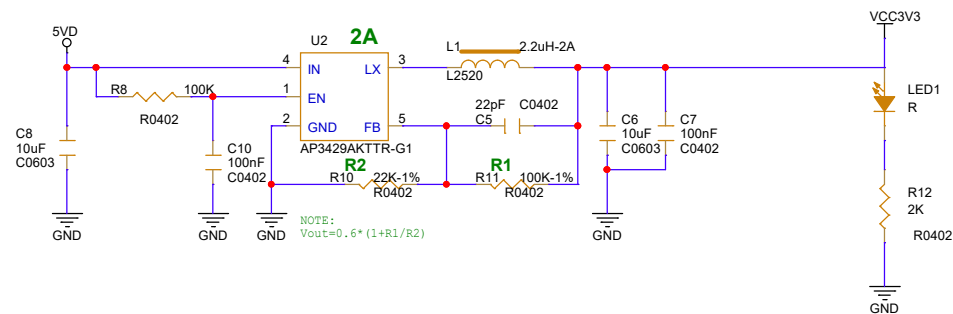
OVP



POWER-2V8 :

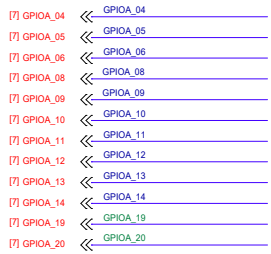


POWER-3V3 :

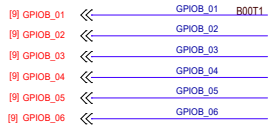


CSK6011_Mutimodule			
Title POWER			
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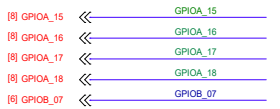
DVP和预留IO, 拔出摄像头可复用使用GPIO



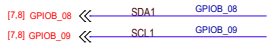
SD卡和SPI WIFI模组复用



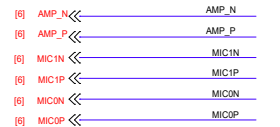
屏幕LCD



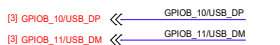
I2C



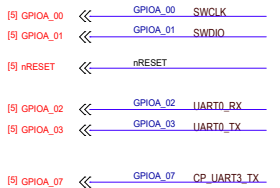
AUDIO



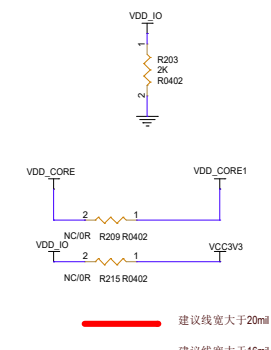
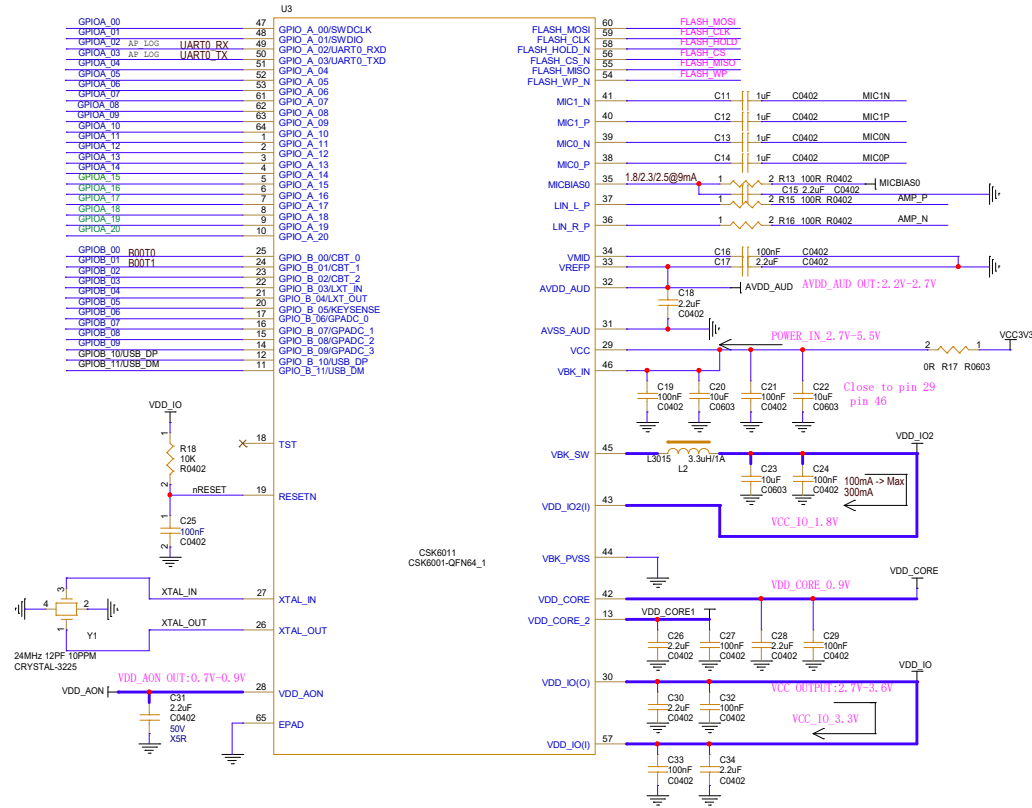
USB



DEBUG&LOAD

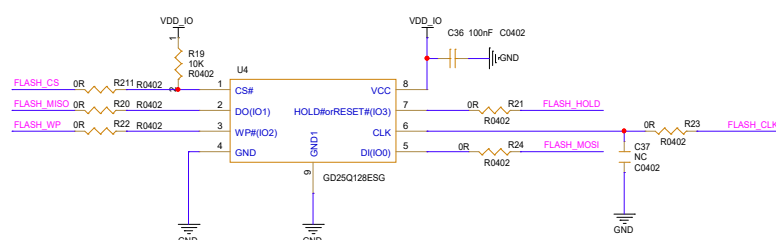


CSK6011 PART

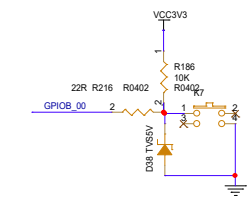


Nor flash

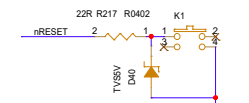
Layout 布局尽量保证flash时钟和数据线短
避免打过孔走线



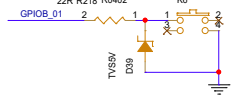
用户按键&



复位按键

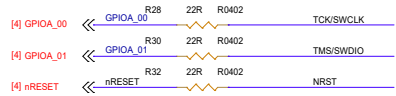


Boot按键

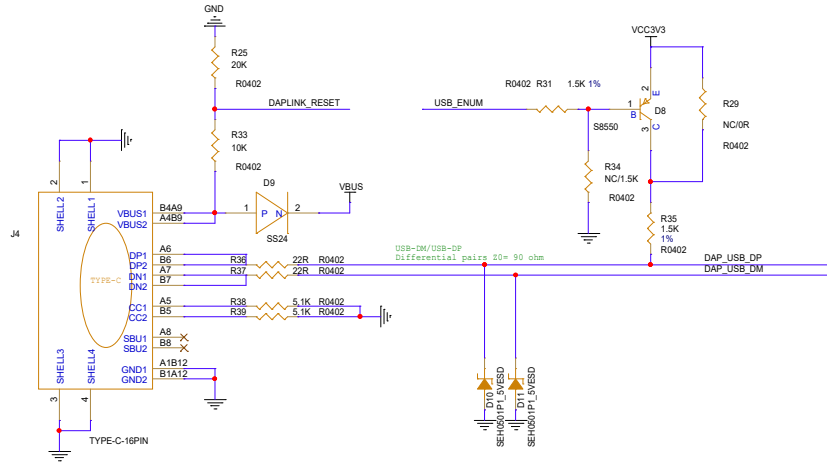


Title		CSK6011_Mutmodule	
Size		CSK6011A	
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CSK_DAPLINK



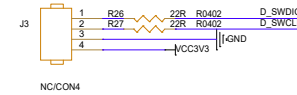
DAP LINK USB



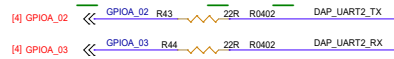
插DAPLINK USB时，
用优先使用DAPLINK调试，
此时不能外接J-LINK调试！

DEBUG

DAP LINK_debug&load



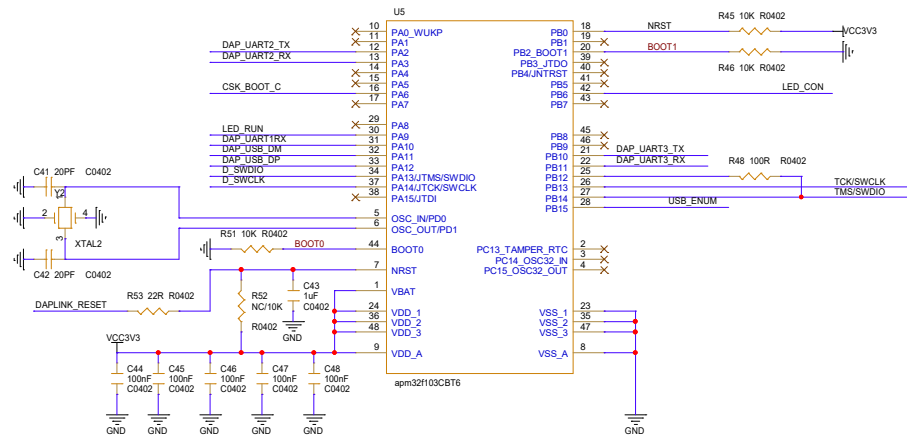
CSK_UART0_AP_LOG



CSK_UART3_CP_LOG



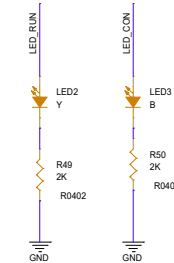
DAPLINK



CSK_UART_BOOT

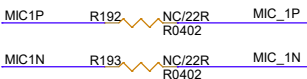
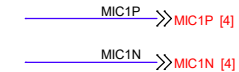
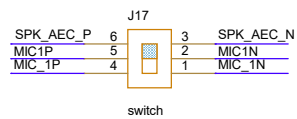


DAPLINK 指示灯



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DAPLink&DEBUG			
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通道1切换开关

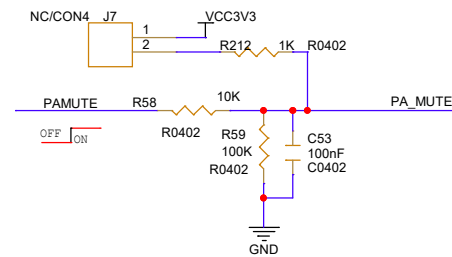
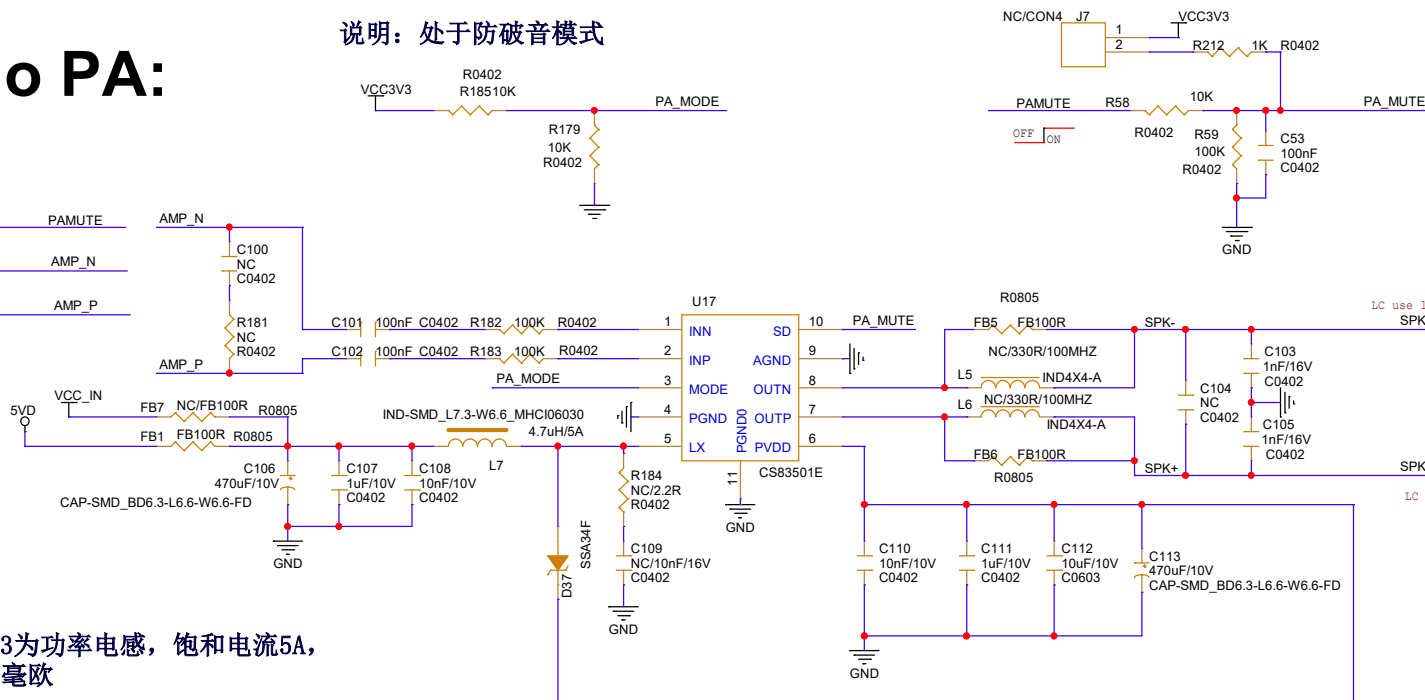


Audio PA:

说明：处于防破音模式

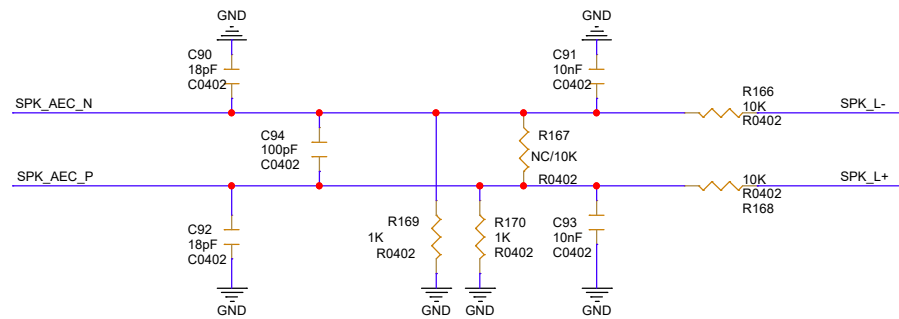
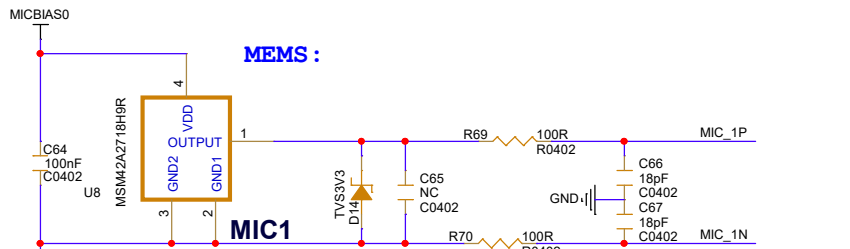
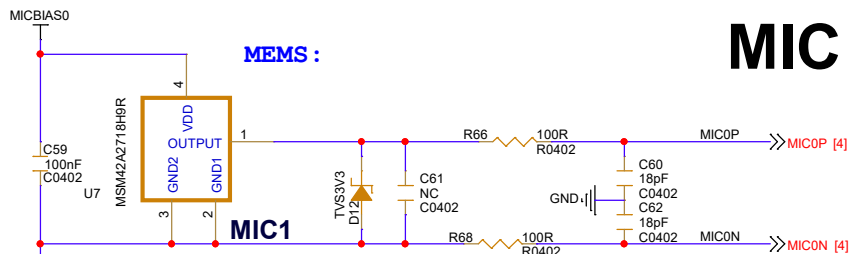
- [1] PAMUTE << PAMUTE
- [3] AMP_N << AMP_N
- [3] AMP_P << AMP_P

说明：L3为功率电感，饱和电流5A，DCR<=50毫欧



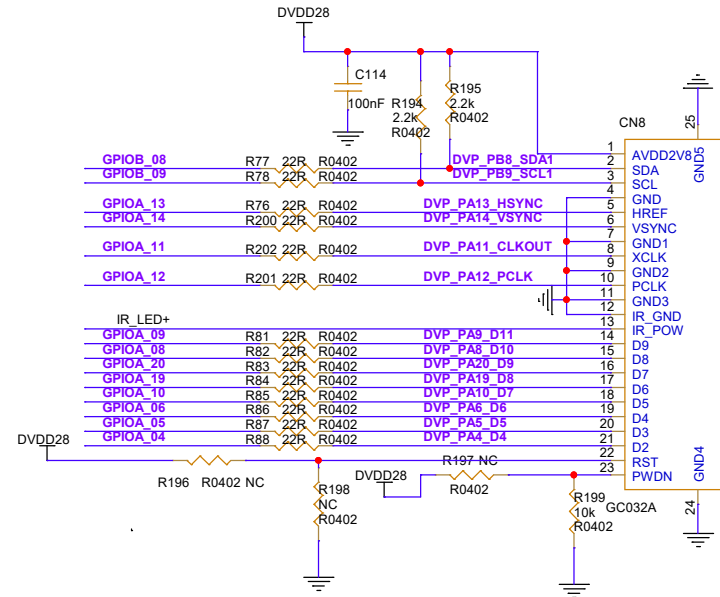
MIC

AEC



CSK6011_Mutimodule			
Title			
AMP&MIC&ADC_KEY			
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DVP SENSOR:



IO RESERVE

CN1	
GPIOA_00/SWDCLK	20
GPIOA_01/SWDIO	19
CSK_RST	18
	17 GNG
GPIOA_02_RX0	16
GPIOA_03_TX0	15
DVP_PB8_SDA1	14
DVP_PB9_SCL1	13
DVP_PA13_HSYNC	12
DVP_PA14_VSYNC	11
DVP_PA11_CLKOUT	10
DVP_PA12_PCLK	9
DVP_PA9_D11	8
DVP_PA8_D10	7
DVP_PA20_D9	6
DVP_PA19_D8	5
DVP_PA10_D7	4
DVP_PA6_D6	3
DVP_PA5_D5	2
DVP_PA4_D4	1

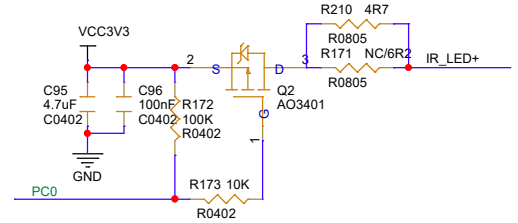
10X2_2.54MM

- [4] GPIOB_08 << GPIOB_08
- [4] GPIOB_09 << GPIOB_09
- [4] GPIOA_14 << GPIOA_14
- [4] GPIOA_13 << GPIOA_13
- [4] GPIOA_12 << GPIOA_12
- [4] GPIOA_11 << GPIOA_11
- [4] GPIOA_09 << GPIOA_09
- [4] GPIOA_08 << GPIOA_08
- [4] GPIOA_20 << GPIOA_20
- [4] GPIOA_19 << GPIOA_19
- [4] GPIOA_10 << GPIOA_10
- [4] GPIOA_06 << GPIOA_06
- [4] GPIOA_05 << GPIOA_05
- [4] GPIOA_04 << GPIOA_04
- [1] CH_SW_IR << PC0

CSK JLINK CONNECTER

- [4] nRESET << nRESET R40 22R R0402 CSK_RST
- [4] GPIOA_00 << GPIOA_00 R41 22R R0402 GPIOA_00/SWDCLK
- [4] GPIOA_01 << GPIOA_01 R42 22R R0402 GPIOA_01/SWDIO
- [4] GPIOA_02 << GPIOA_02 R213 22R R0402 GPIOA_02_RX0
- [4] GPIOA_03 << GPIOA_03 R214 22R R0402 GPIOA_03_TX0

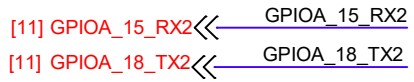
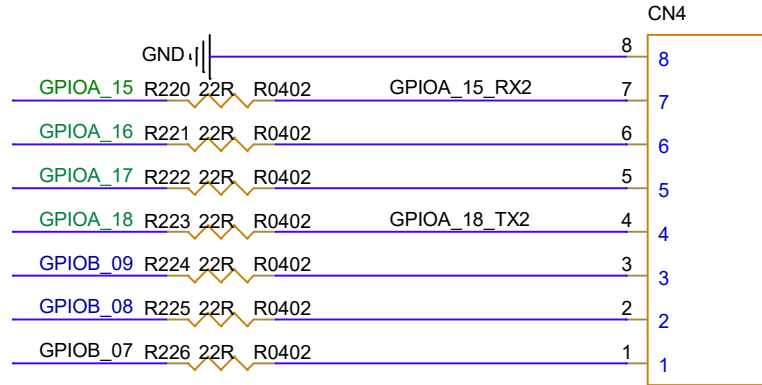
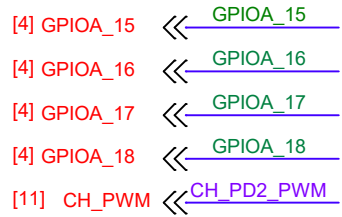
IR_LED



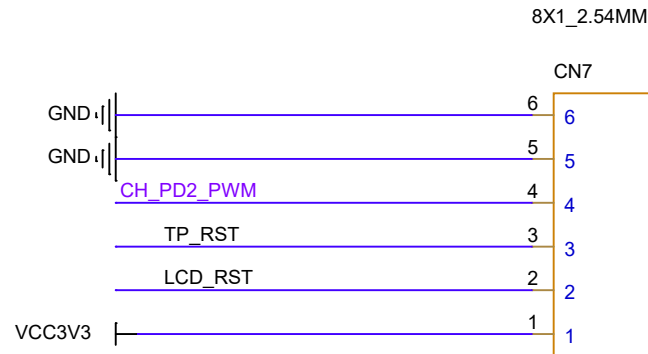
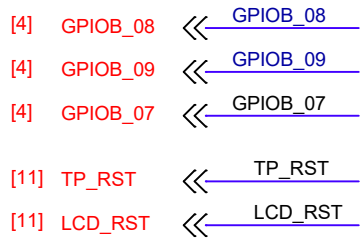
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Title DVP&GPIO			
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IO RESERVE

LCD



TOUCH



7X1 2.54MM

CSK6011_Mutimodule			
Title LCD			
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SEL:L A-B0 SD卡

SEL:H A-B1 ESP32-C3

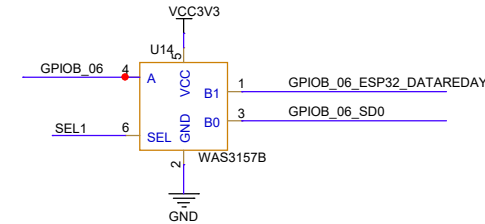
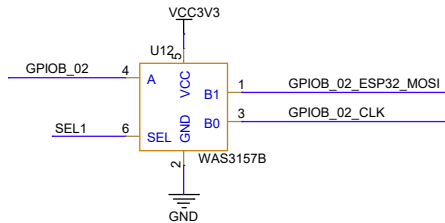
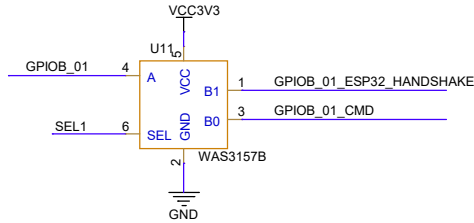
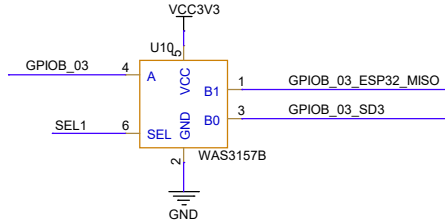
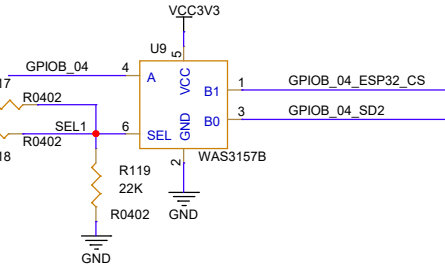
[11] ESP32_EN << PC1

CSK6 GPIOB 1、2、3、4、5、6 默认和SD卡连接，ESP32使能时CSK6 IO切换连接到ESP32，断开和SD卡连接。

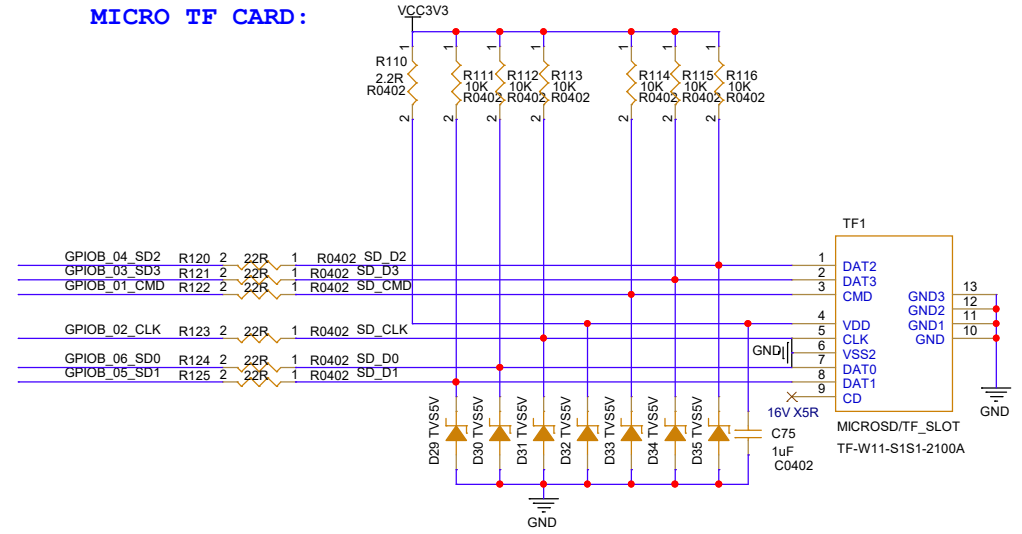
- [4] GPIOB_04 << GPIOB_04
- [4] GPIOB_03 << GPIOB_03
- [4] GPIOB_01 << GPIOB_01
- [4] GPIOB_02 << GPIOB_02
- [4] GPIOB_06 << GPIOB_06
- [4] GPIOB_05 << GPIOB_05

- [10] GPIOB_04_ESP32_CS << GPIOB_04_ESP32_CS
- [10] GPIOB_03_ESP32_MISO << GPIOB_03_ESP32_MISO
- [10] GPIOB_05_ESP32_CLK << GPIOB_05_ESP32_CLK
- [10] GPIOB_02_ESP32_MOSI << GPIOB_02_ESP32_MOSI
- [10] GPIOB_06_ESP32_DATAREDA << GPIOB_06_ESP32_DATAREDA
- [10] GPIOB_01_ESP32_HANDSHAKE << GPIOB_01_ESP32_HANDSHAKE

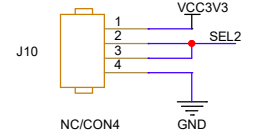
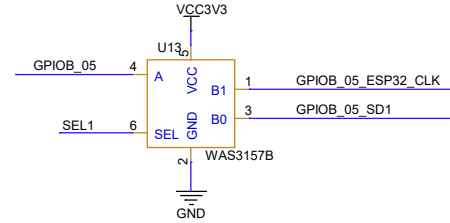
- [7] SD_D2 << SD_D2
- [7] SD_D3 << SD_D3
- [7] SD_CMD << SD_CMD
- [7] SD_CLK << SD_CLK
- [7] SD_D0 << SD_D0
- [7] SD_D1 << SD_D1



MICRO TF CARD:

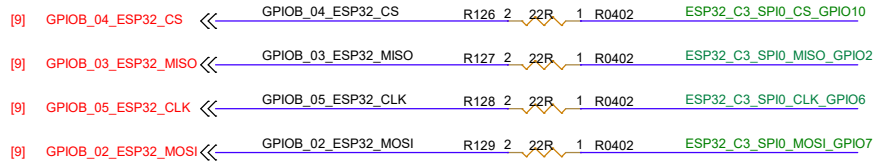


跳冒设置电子开关连接，优先级高于ESP使能

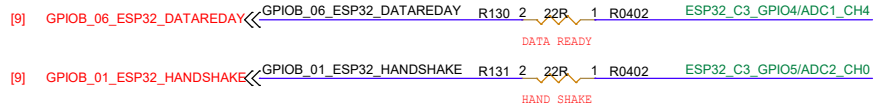


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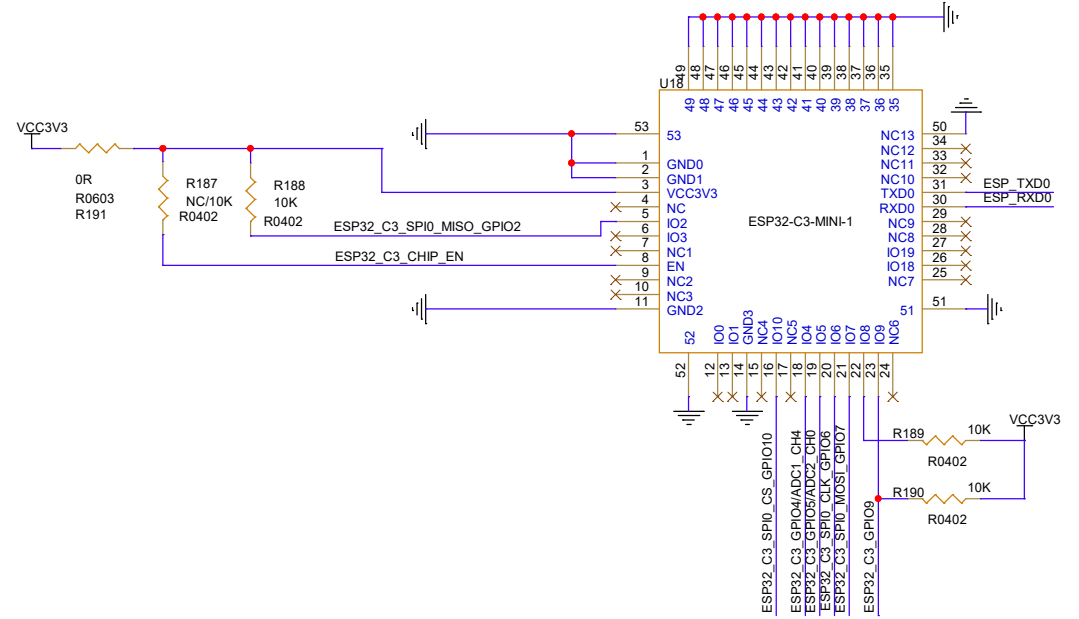
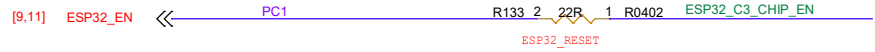
ESP32_C3 TO CSK6 SPI0



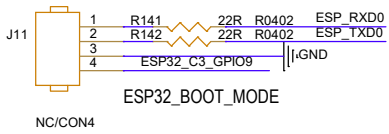
ESP32_C3 TO CSK6 GPIO



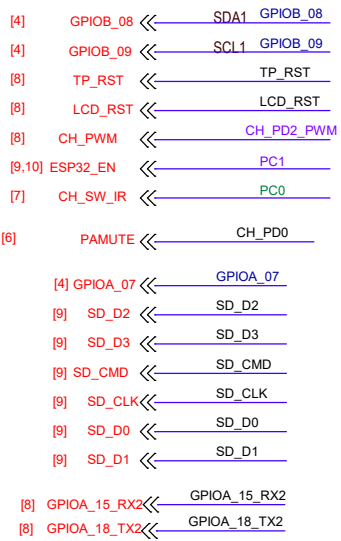
ESP32_C3 TO CH32 GPIO



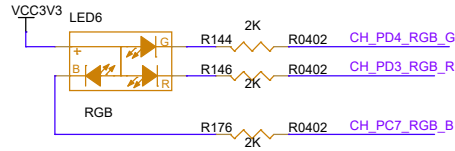
LOAD&DEBUG



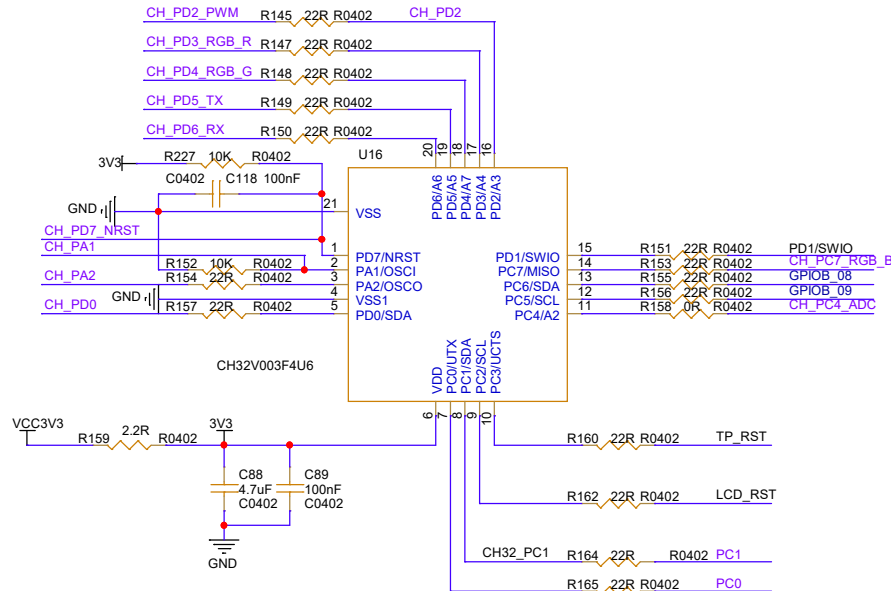
CSK6011_Mutimodule			
Title WIFI_MODULE			
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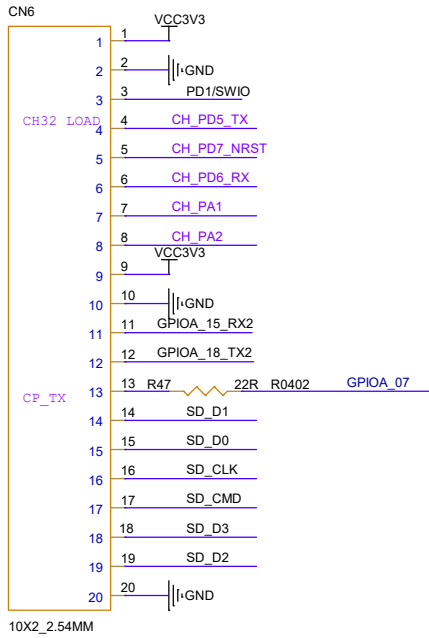
User RGB



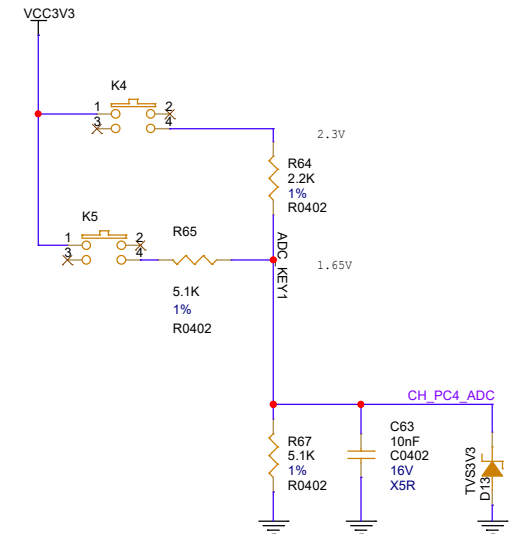
扩展IO芯片:



IO RESERVE



ADC KEY:



CSK6011_Mutimodule			
Title Extended IO			
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