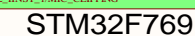
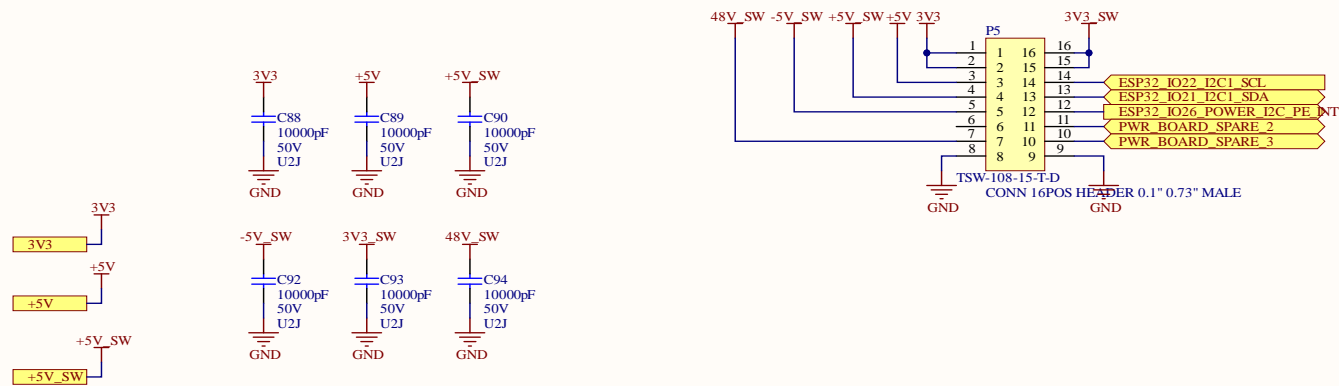


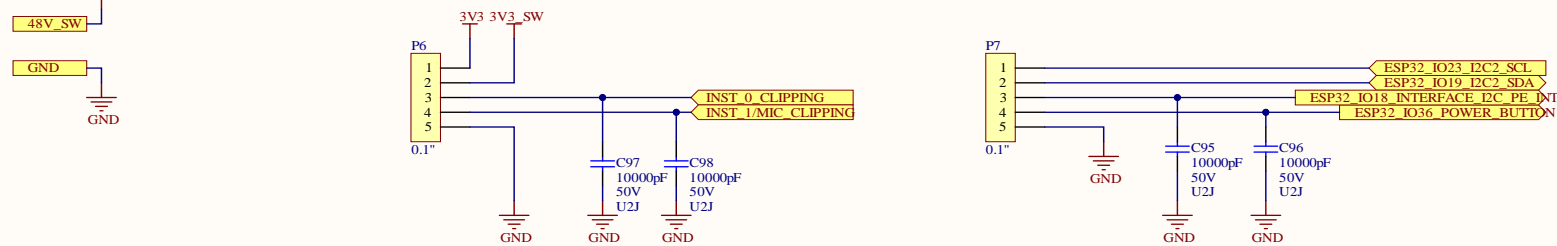
Board to Board Connectors

**MIXR**

Power Board



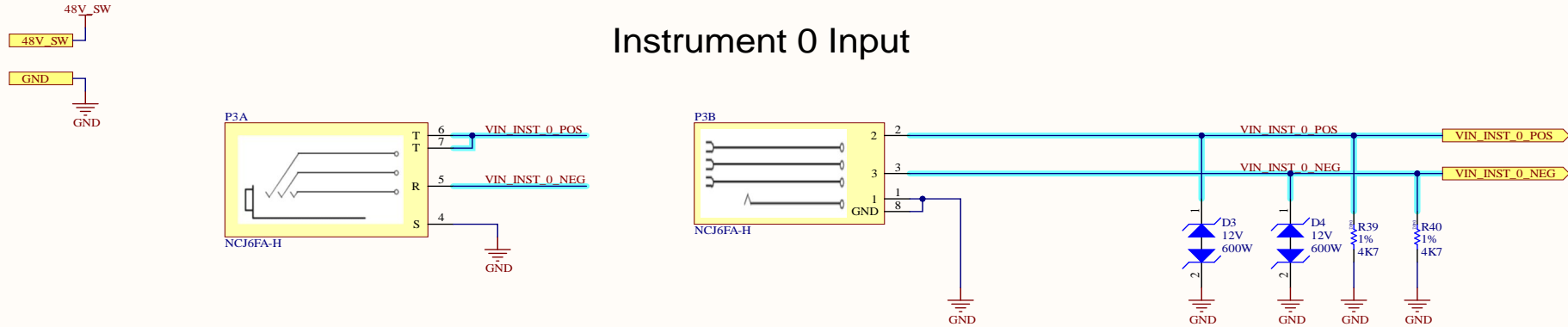
Buttons/Interface Board



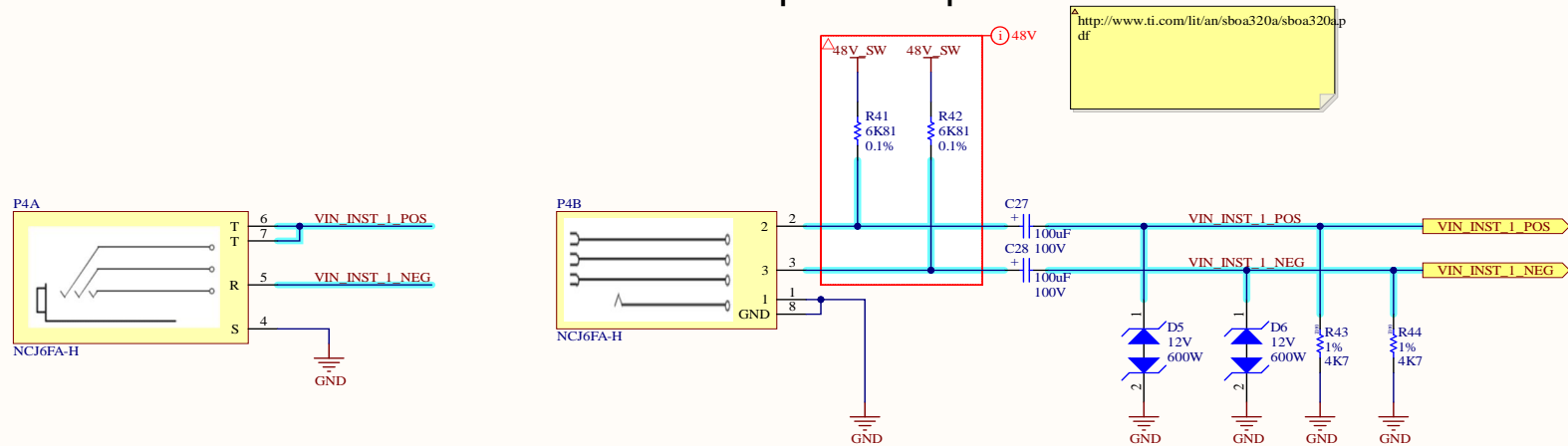
PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	Processing & Power Board Connector		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	TAIPING LI	REVISION	1.0
LAST MODIFIED	2020-01-30	SHEET	2 OF 14

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Instrument 0 Input



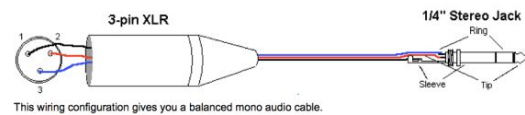
Instrument 1/Microphone Input



XLR to 1/4" Stereo Jack (wired for balanced mono)

The usual way to connect a 3-pin XLR to a 1/4" stereo jack is to use the following pin allocation:

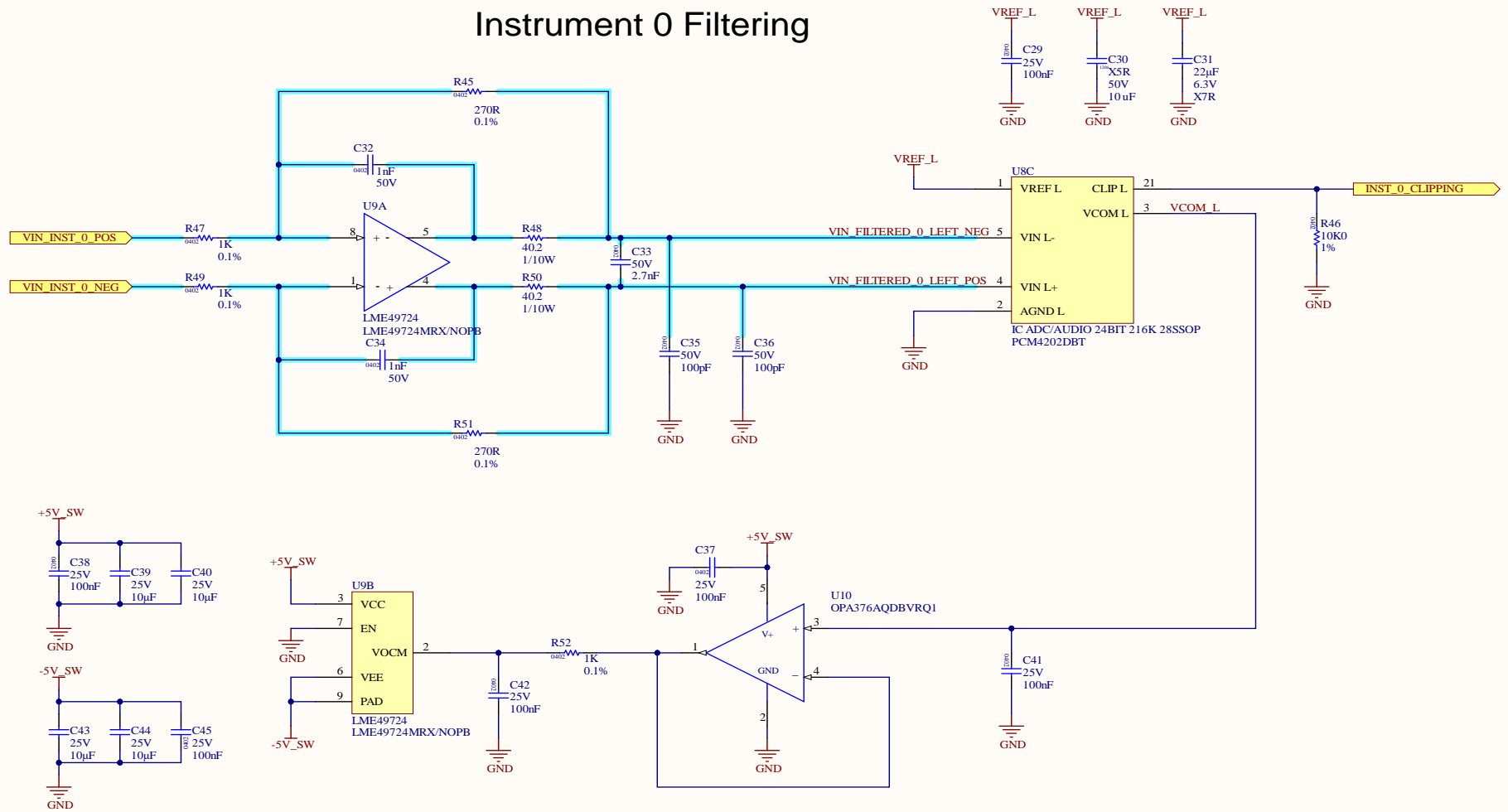
- XLR pin 1 to jack sleeve
- XLR pin 2 to jack tip
- XLR pin 3 to jack ring



PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	Instrument Inputs		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	Taiping Li	REVISION	1.0
LAST MODIFIED	2020-01-30	SHEET	3 OF 14

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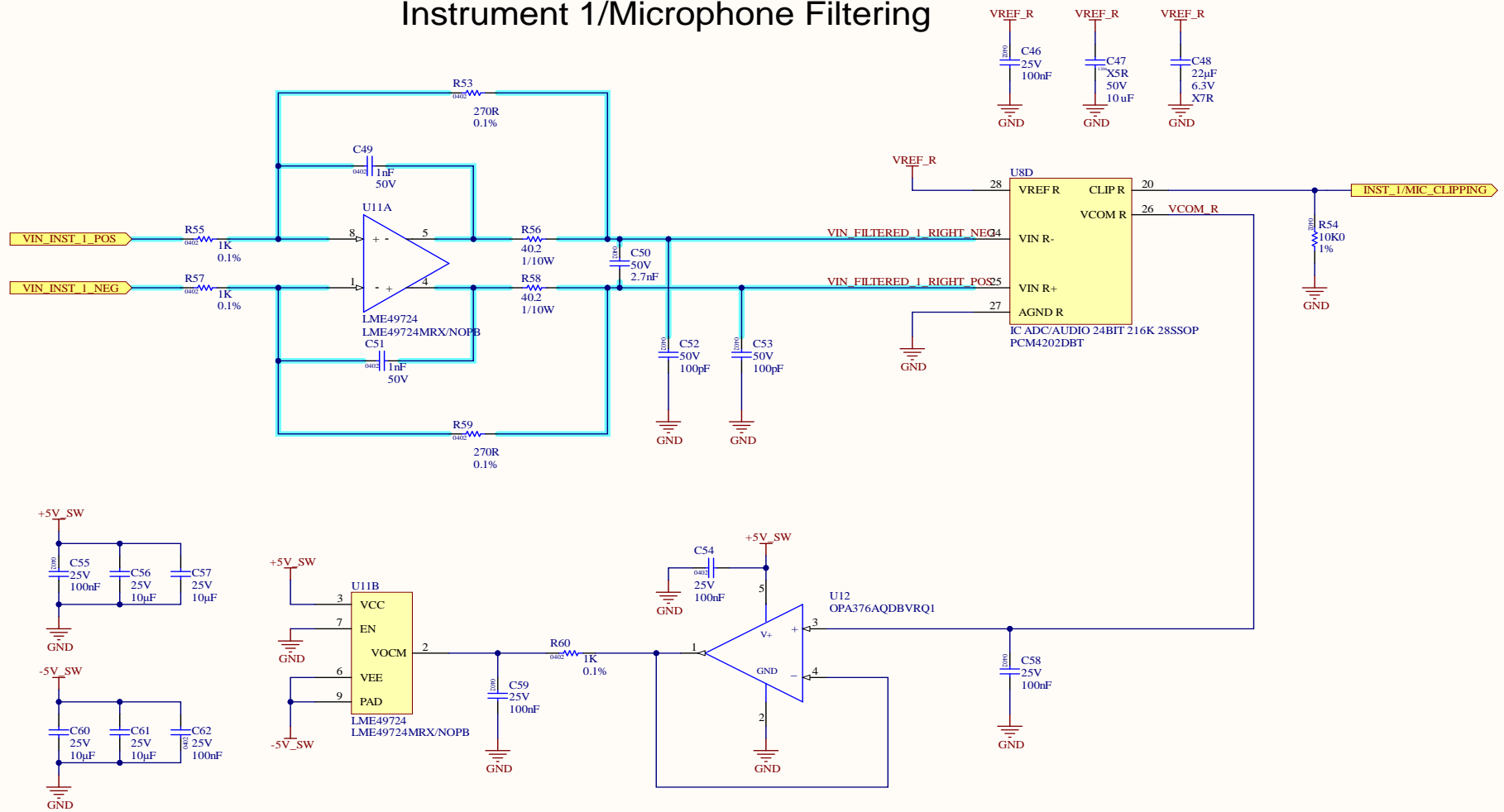
Instrument 0 Filtering



PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	Instrument 0 Filtering & ADC		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	Taiping Li	REVISION	1.0
LAST MODIFIED	2020-01-30	SHEET	4 OF 14

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Instrument 1/Microphone Filtering



PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	Instrument 1/Microphone Filtering & ADC		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	Taiping Li		REVISION 1.0
LAST MODIFIED	2020-01-30		SHEET 5 OF 14

MIXR

1

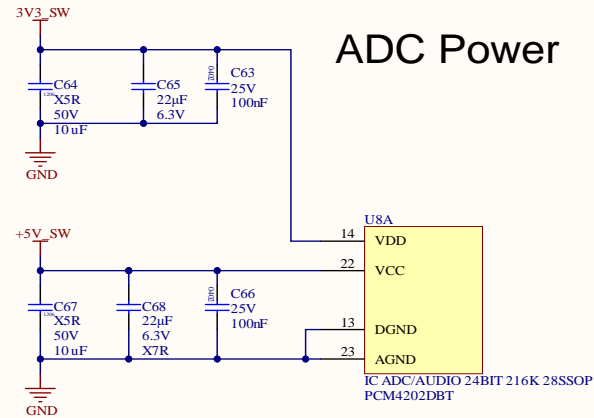
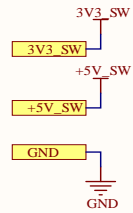
2

3

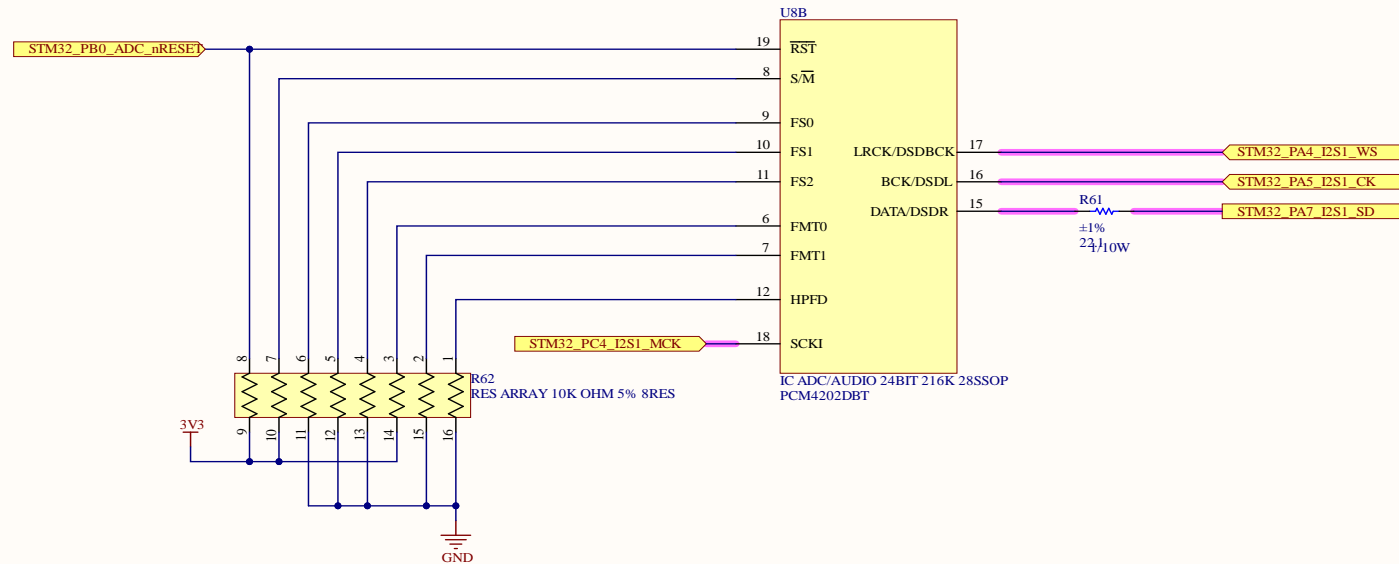
4

5

6



ADC Communications



PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	ADC Power & I2S Communication		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	REVISION	1.0	
LAST MODIFIED	2020-01-30	SHEET	6 OF 14

MIXR

1

2

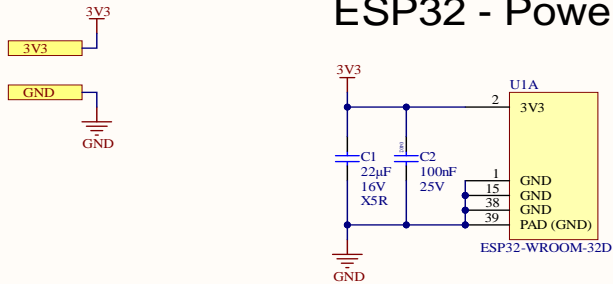
3

4

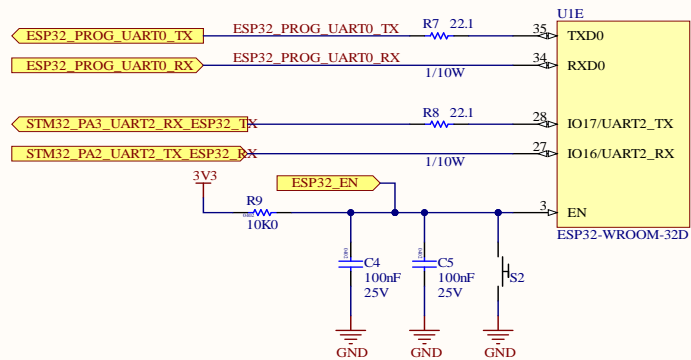
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6

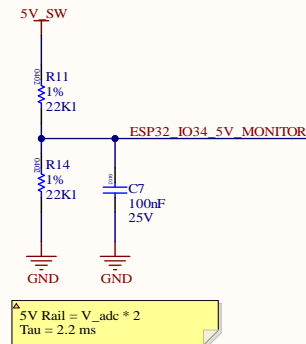
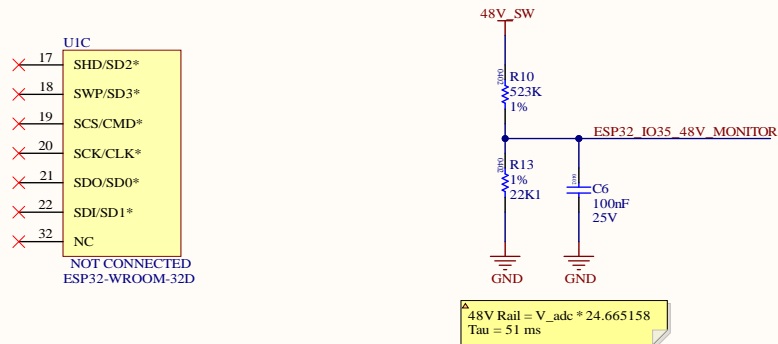
ESP32 - Power



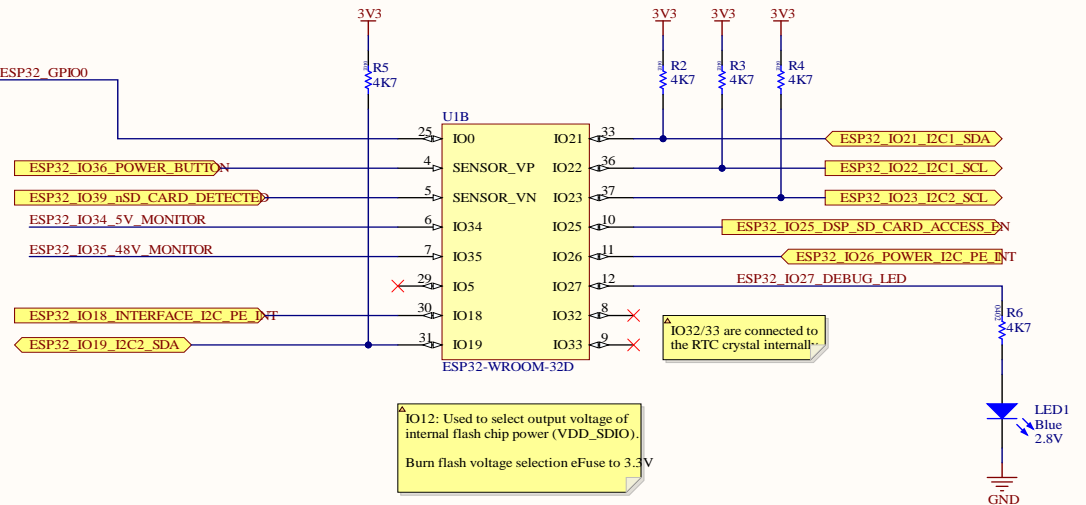
ESP32 - UART



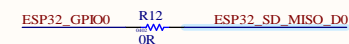
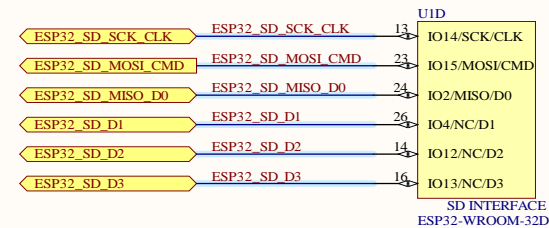
Voltage Monitors



ESP32 - GPIO



ESP32 - SD Card

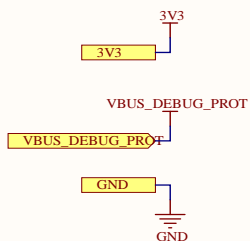
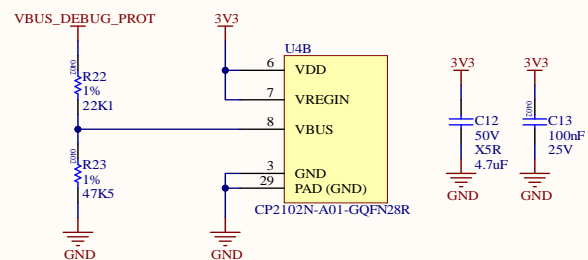
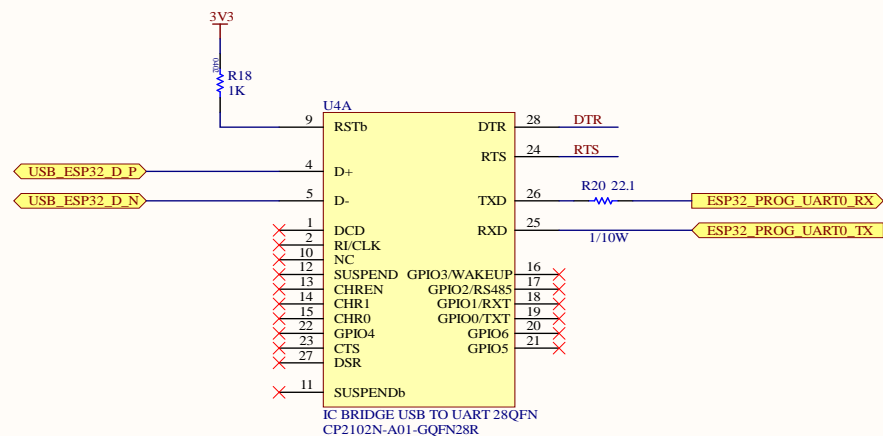


^A IO2: Pin has to be pulled low to enter UART download mode.
Jumper allows the pin to be pulled low when the board is reset.

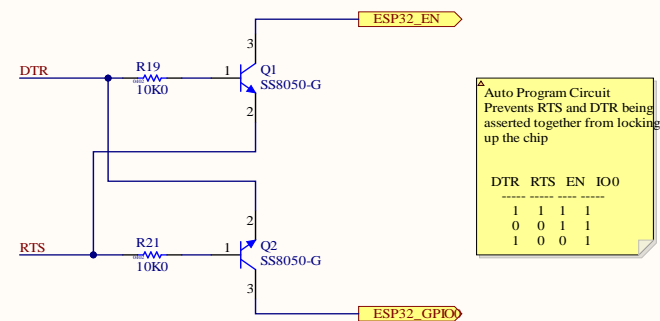
PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	ESP32		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY	Taiping Li	REVISION	1.0
LAST MODIFIED	2020-01-30	SHEET	7 OF 14

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ESP32 - USB to Serial Converter



MCP23008 - I2C Port Expander

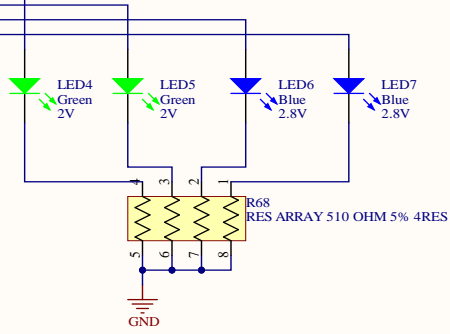
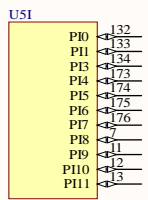
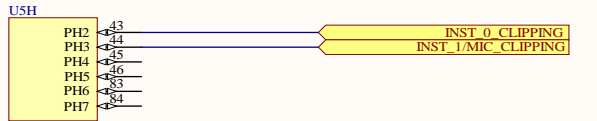
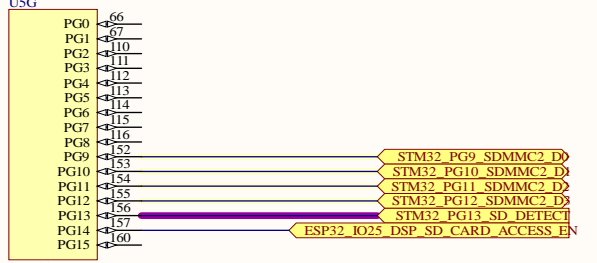
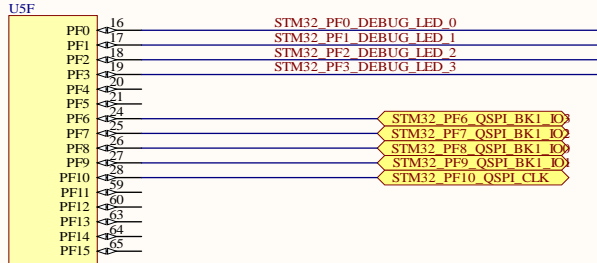
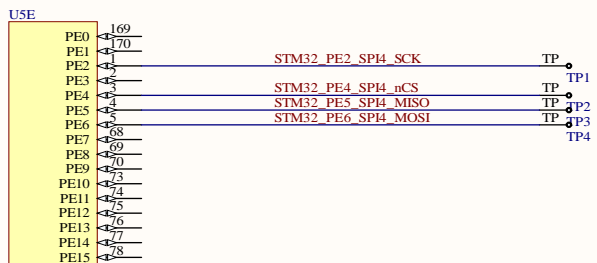
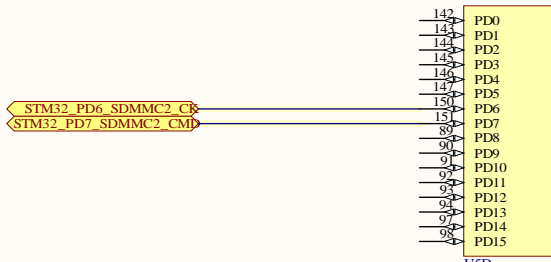
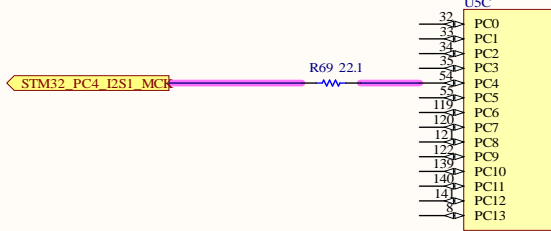
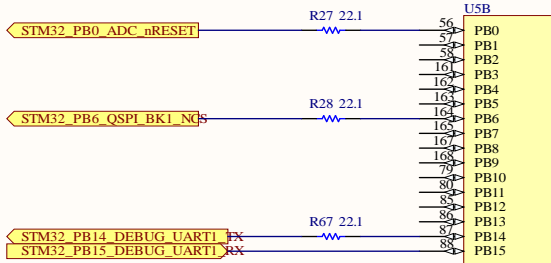
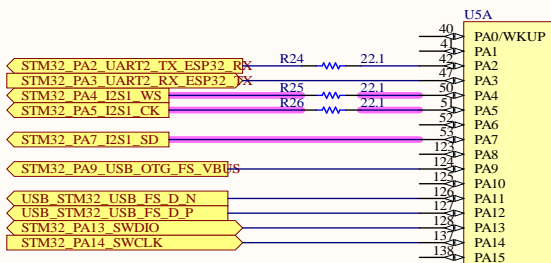


Auto Program Circuit
Prevents RTS and DTR being asserted together from locking up the chip

DTR	RTS	EN	IO0
1	1	1	1
0	0	1	1
1	0	0	1

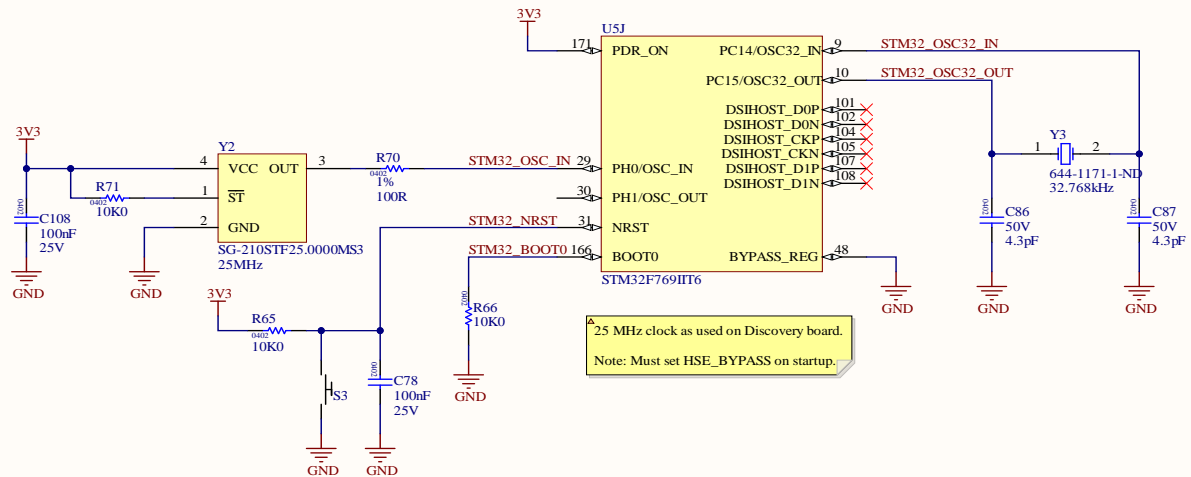
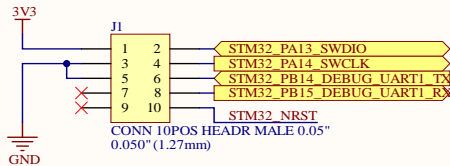
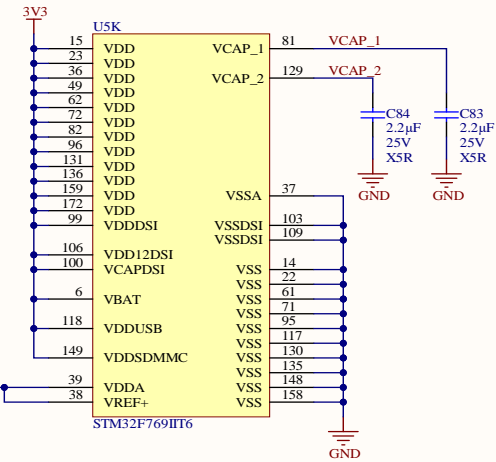
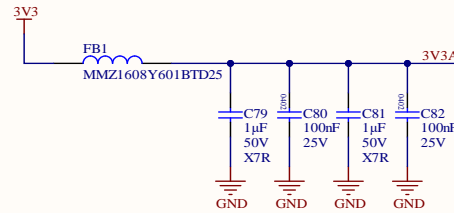
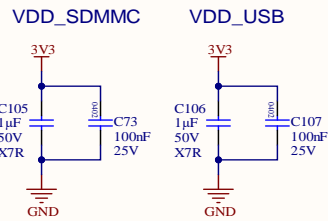
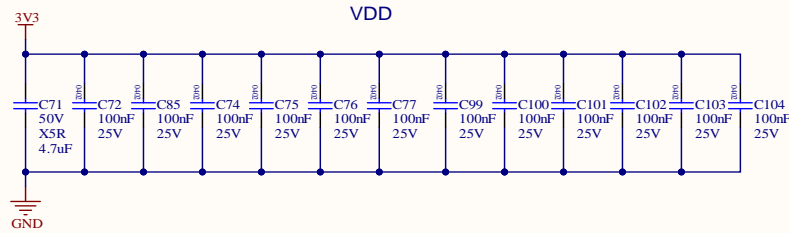
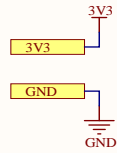
PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	ESP32 USB-UART & Auto-Reset		
PART NUMBER	VARIANT	[No Variations]	
DRAWN BY Taiping Li	REVISION	1.0	
LAST MODIFIED 2020-01-30	SHEET 8	OF	14

MIXR



PROJECT	MIXR Input and Processing.PrjPcb		
DOCUMENT	STM32F767 DSP Microcontroller - GPIOs		
PART NUMBER	VARIANT	[No Variations]	
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LAST MODIFIED	2020-01-30		SHEET 9 OF 14





25 MHz clock as used on Discovery board.
Note: Must set HSE_BYPASS on startup.

PROJECT	MIXR Input and Processing.PrjPcb
DOCUMENT	STM32F767 DSP Microcontroller - Clock & Power
PART NUMBER	VARIANT [No Variations]
DRAWN BY	REVISION 1.0
LAST MODIFIED	SHEET 10 OF 14

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