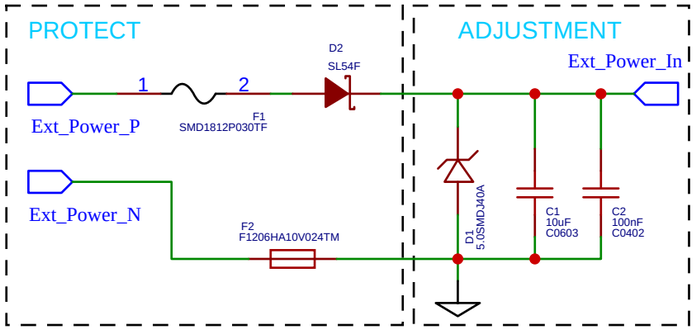
VEHICLE_BATTERY



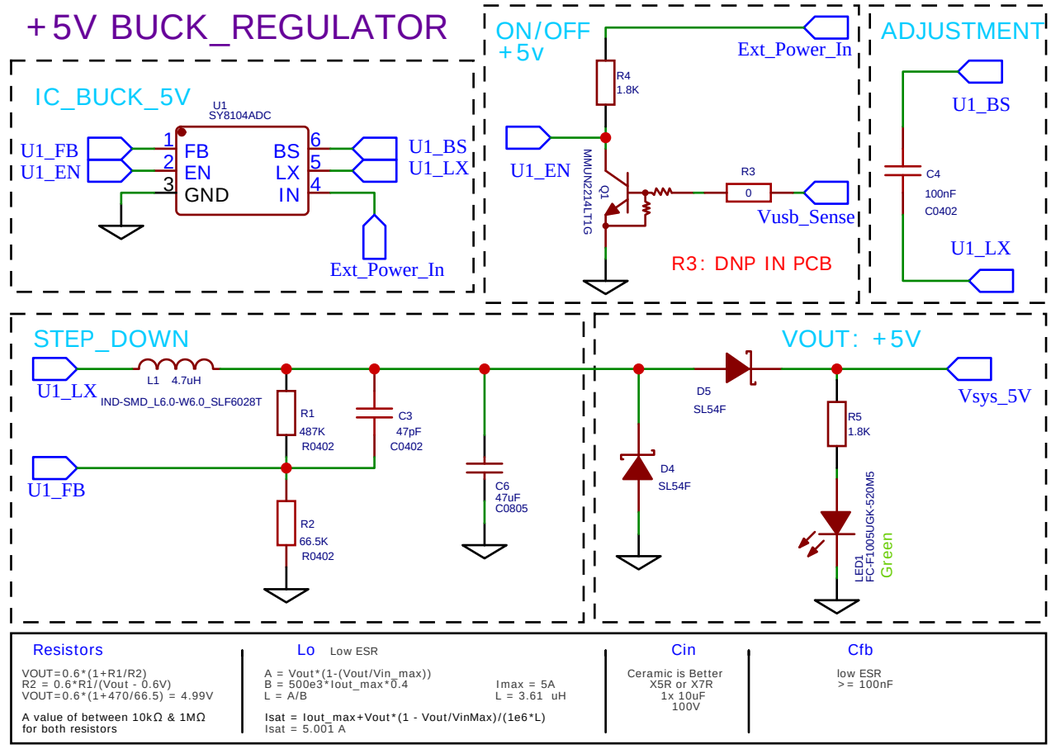
INPUT POWER

The Vmax rating shall be less than +18V

The Vmax rating shall be more than +5V3

The max value supported to negative voltage input shall be less than |30V|

+5V BUCK_REGULATOR



Resistors

VOUT=0.6*(1+R1/R2)
R2 = 0.6*R1/(Vout - 0.6V)
VOUT=0.6*(1+470/66.5) = 4.99V

A value of between 10kΩ & 1MΩ for both resistors

Lo Low ESR

A = Vout*(1-(Vout/Vin_max))
B = 500e3*Iout_max*0.4
L = A/B

Imax = 5A
L = 3.61 uH

Isat = Iout_max+Vout*(1 - Vout/VinMax)/(1e6*L)
Isat = 5.001 A

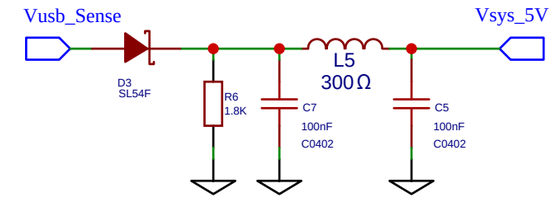
Cin

Ceramic is Better
X5R or X7R
1x 10uF
100V

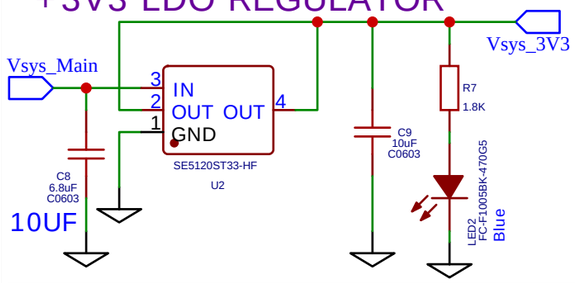
Cfb

low ESR
>= 100nF

Vusb REGULATOR



+3V3 LDO REGULATOR



Dropout

550mV from 3V3@2A

Cin

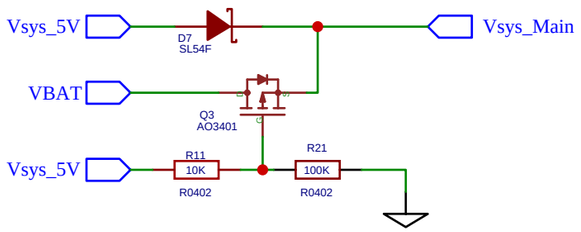
Ceramic is Better
X5R or X7R
1x 4.7uF
10V

Cout

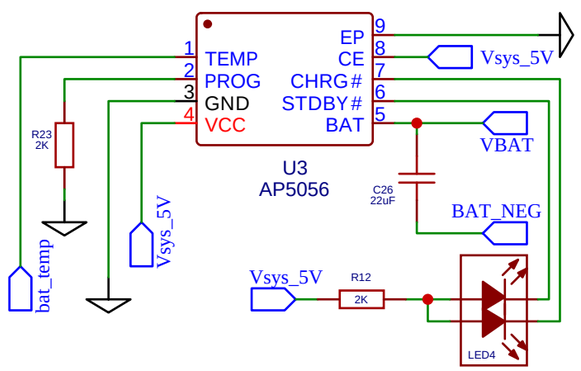
Ceramic is Better
X5R or X7R
1x 4.7uF
10V

BMS POWER PATH

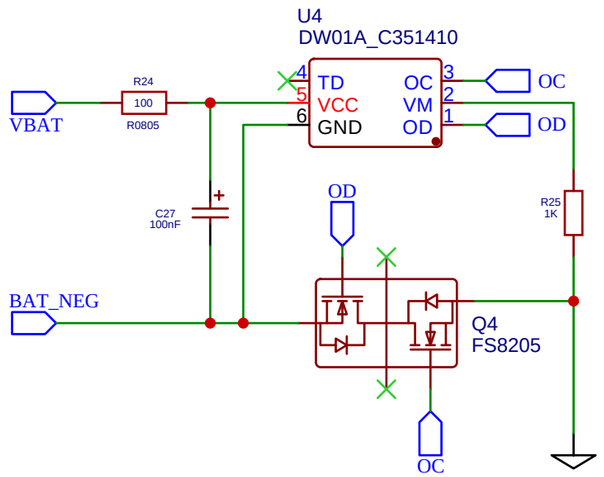
AUTO POWER SELECTOR



LI-PO BATTERY CHARGER

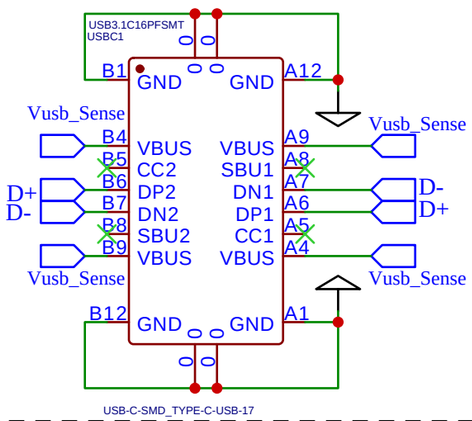


B.M.S

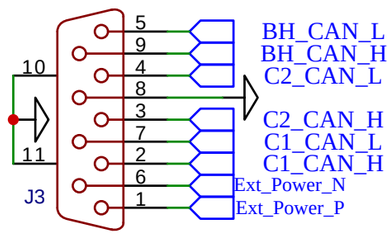


POWER CONNECTORS

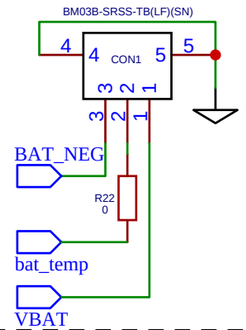
USB TYPE C



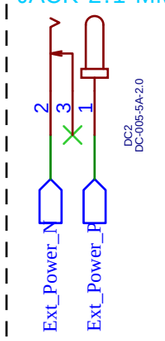
DB9 INTERFACE



LI-PO CON



JACK 2.1 MM



TITLE: POWER SUPPLY / CONNECTORS

REV: 1.0

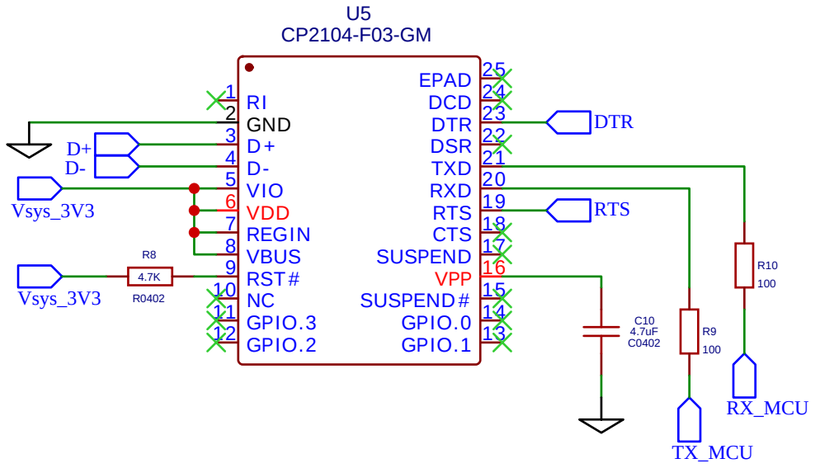
Company: QsiX

Sheet: 1/8

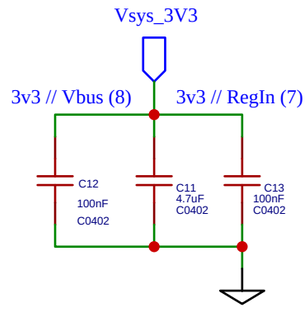
Date: 2020-10-14 Drawn By: Vinicius Rodrigo May

UART

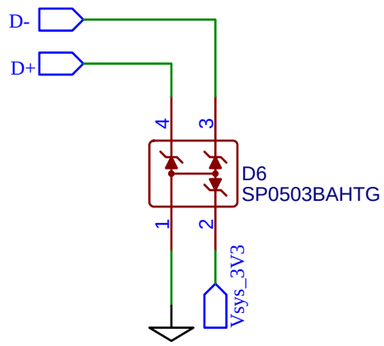
CHIP



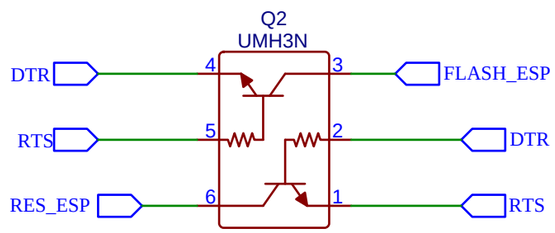
DECOUPLING



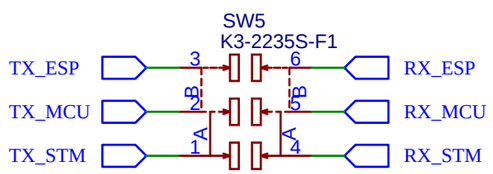
ESD PROTECTION



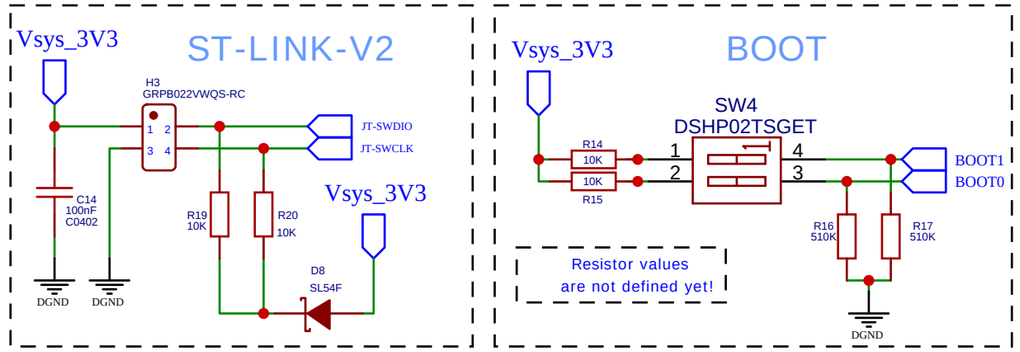
ESP32 AUTO DOWNLOAD



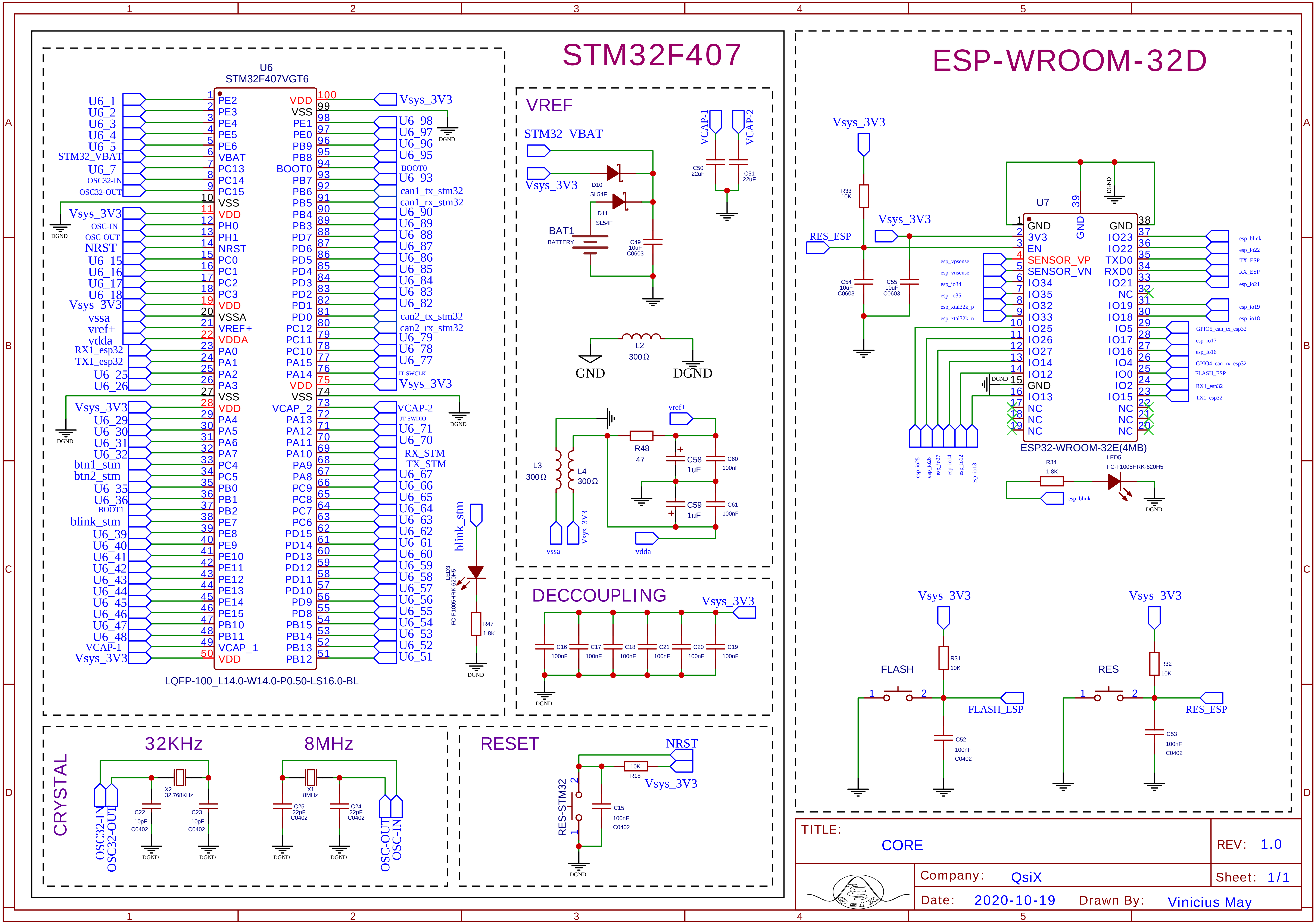
SELECT DEVICE



J-TAG - STM32



TITLE: USB UART INTERFACE		REV: 1.0
	Company: QsiX	Sheet: 1/1
	Date: 2020-10-25 Drawn By: Vinicius Rodrigo May	



TITLE: CORE

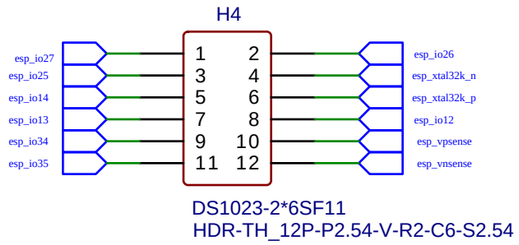
REV: 1.0

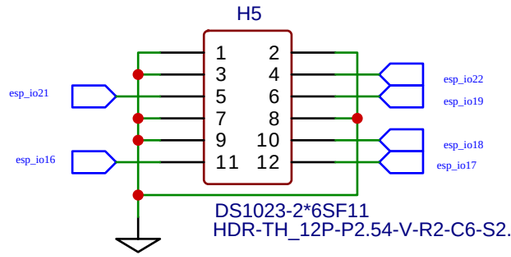
Company: QsiX

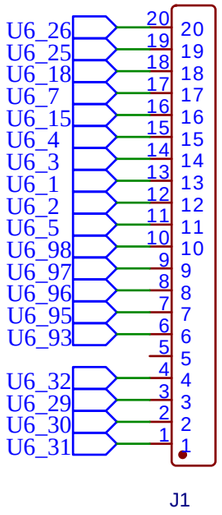
Sheet: 1/1

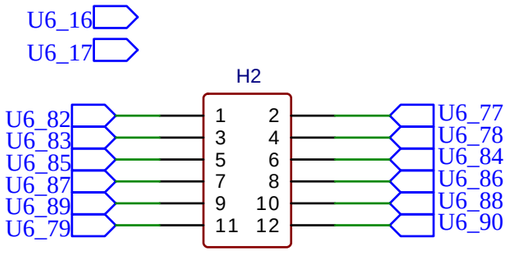
Date: 2020-10-19

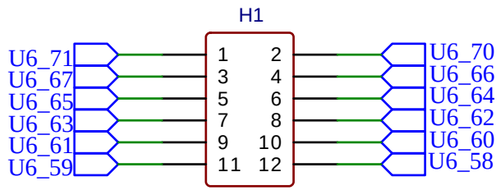
Drawn By: Vinicius May

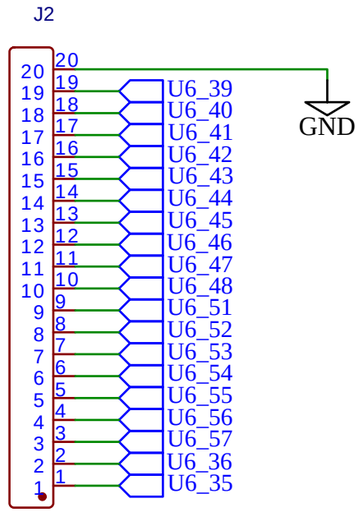


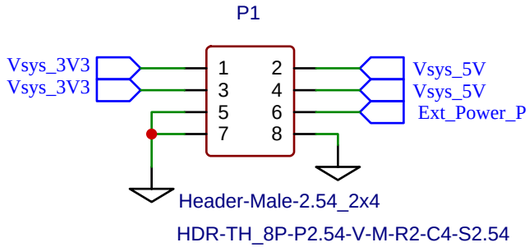




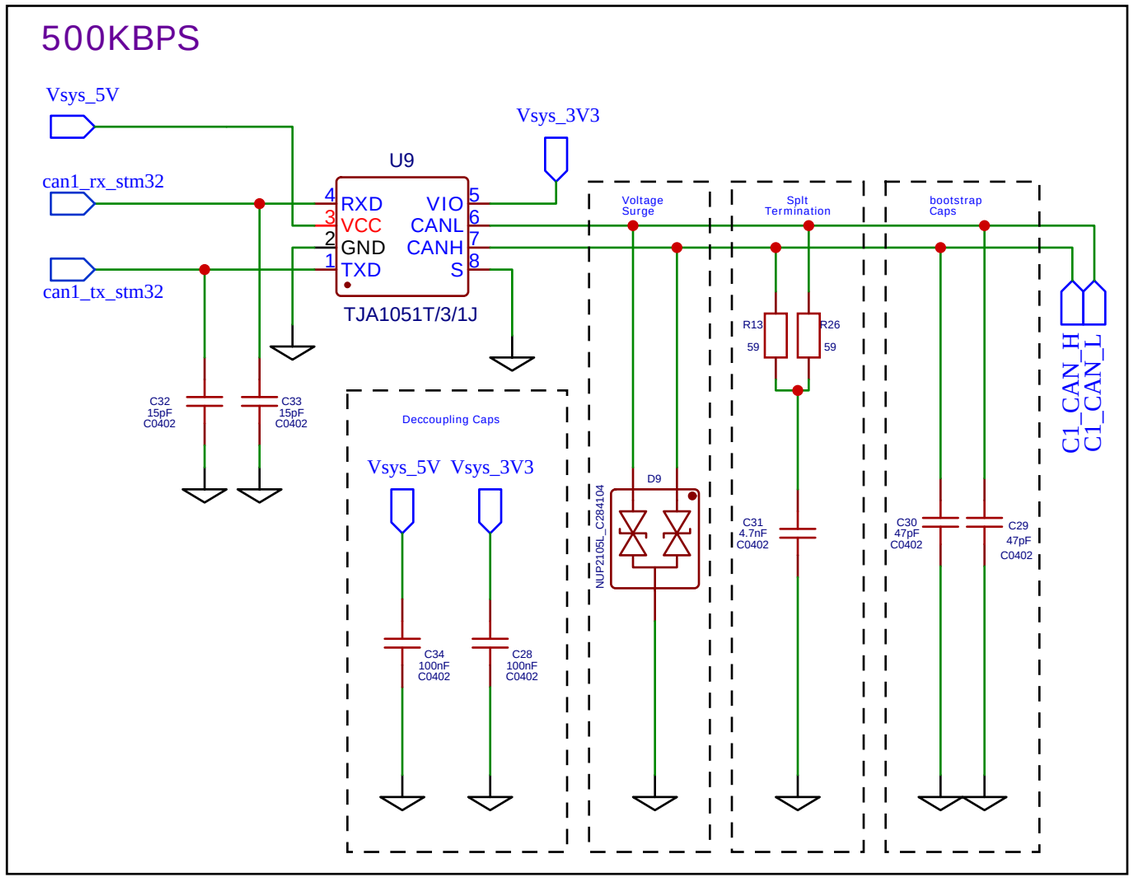


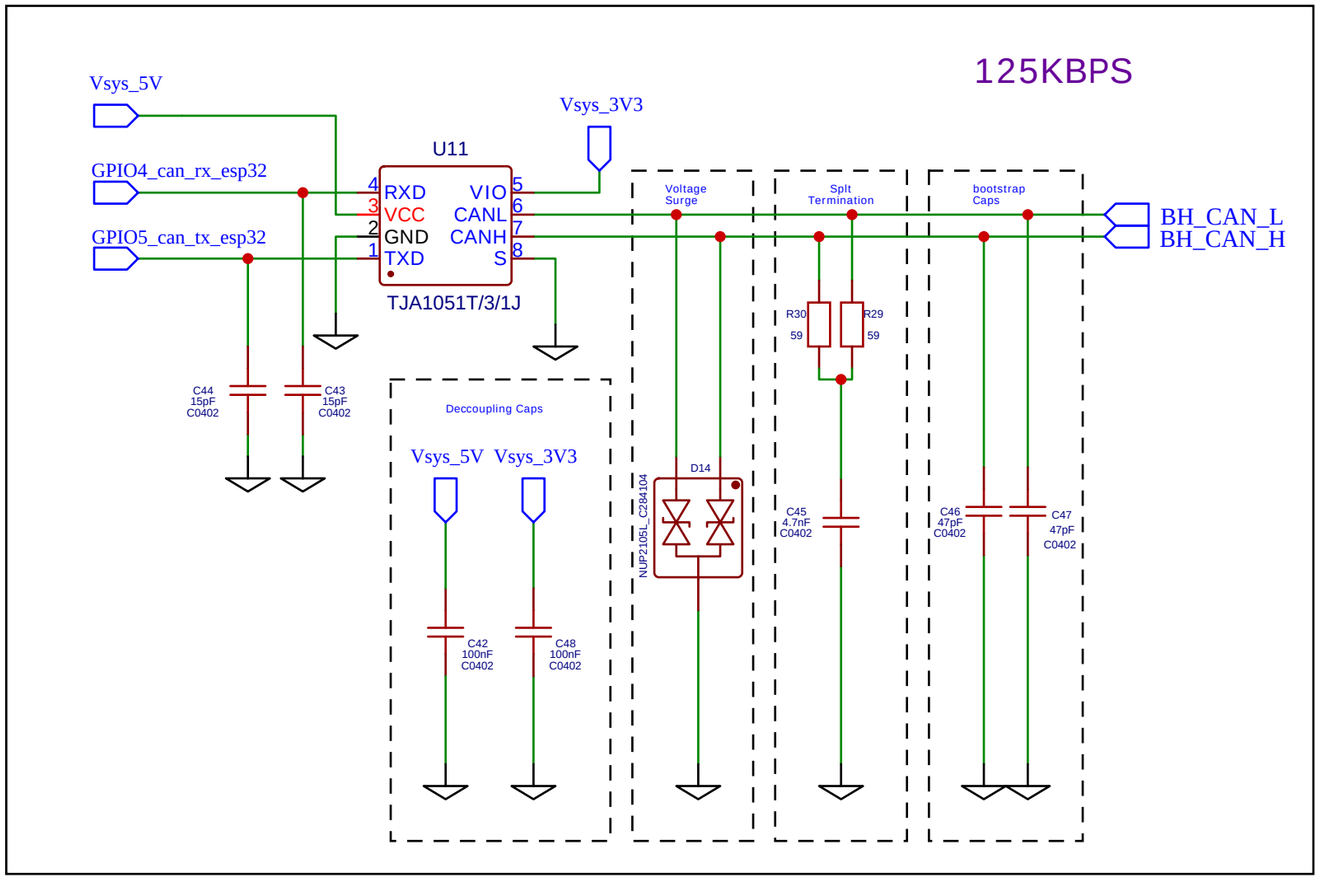


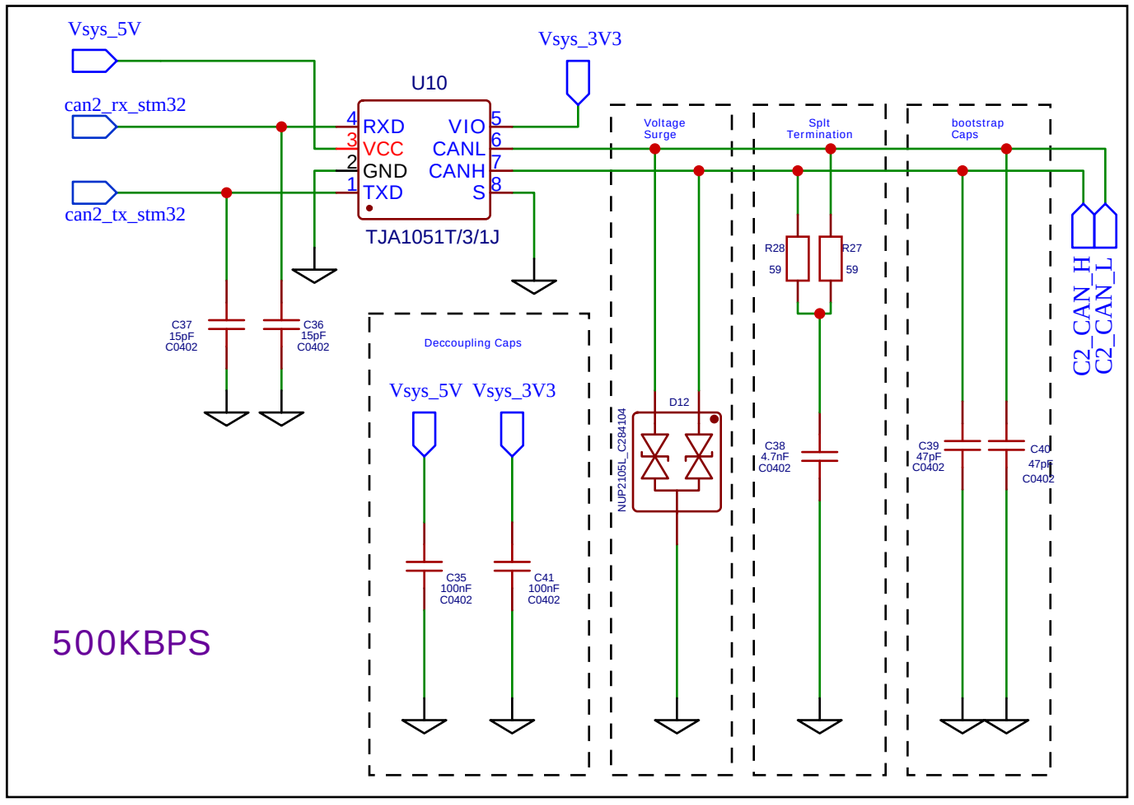




TITLE: CONNECTOR		REV: 1.0
	Company: QsiX	Sheet: 1/1
	Date: 2020-10-19	Drawn By: VInicius Rodrigo May

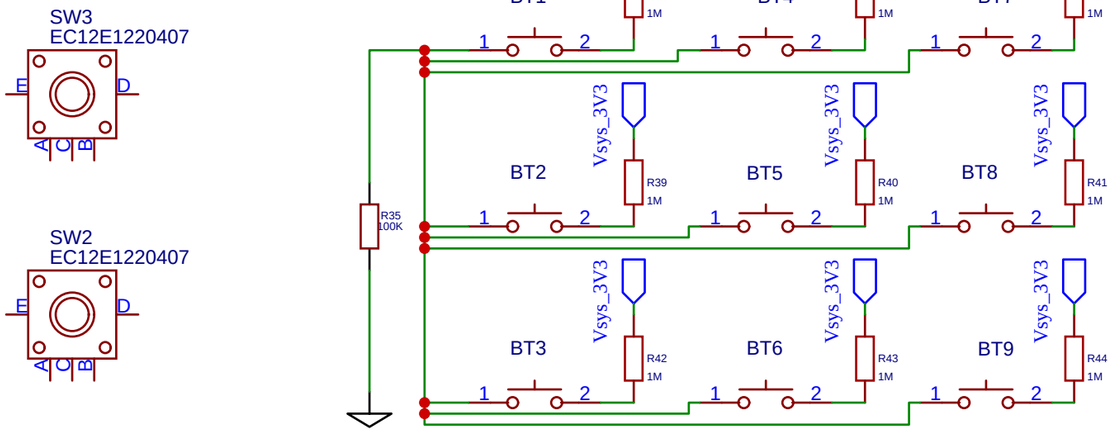


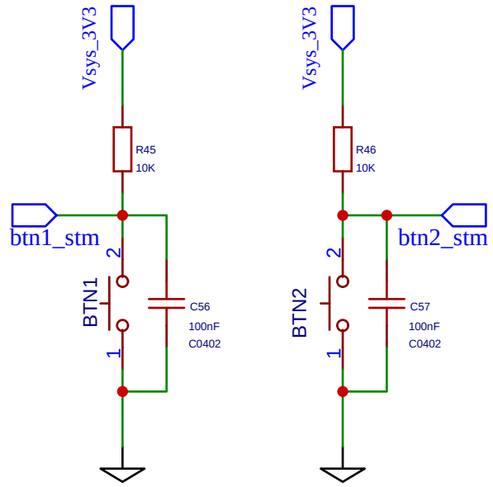




TITLE: CAN		REV: 1.0
	Company: QsiX	Sheet: 1/1
	Date: 2020-10-20	Drawn By: Vinicius Rodrigo May

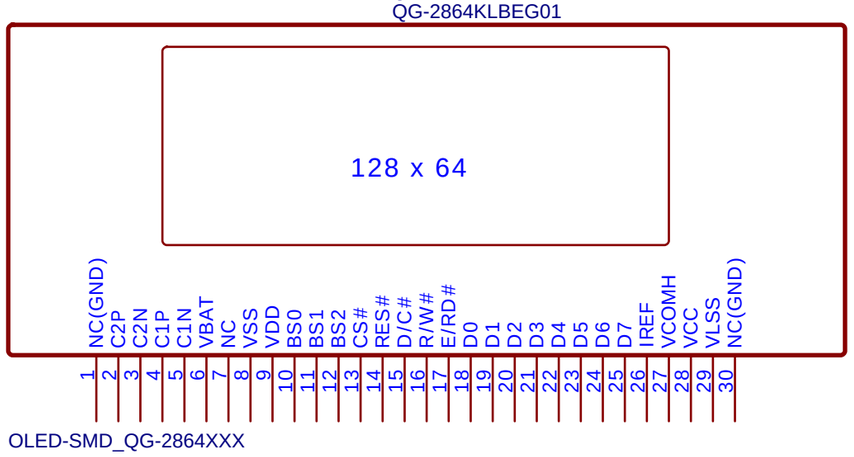
Analog Key





KeyOn / KeyOff

OLED1
QG-2864KLBEG01



OLED-SMD_QG-2864XXX

GREEN CON

BLUE CON

PHYSICAL LEVEL PROOF

SPEAKER CON

TITLE: HMI		REV: 1.0
	Company: QsiX	Sheet: 1/1
	Date: 2020-10-19 Drawn By: Vinicius May	