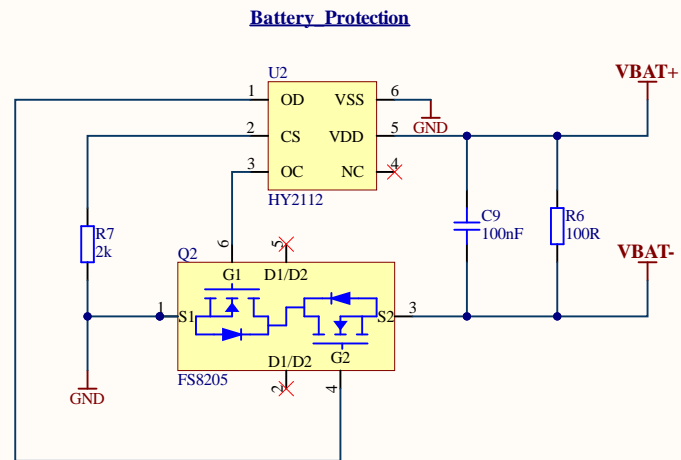
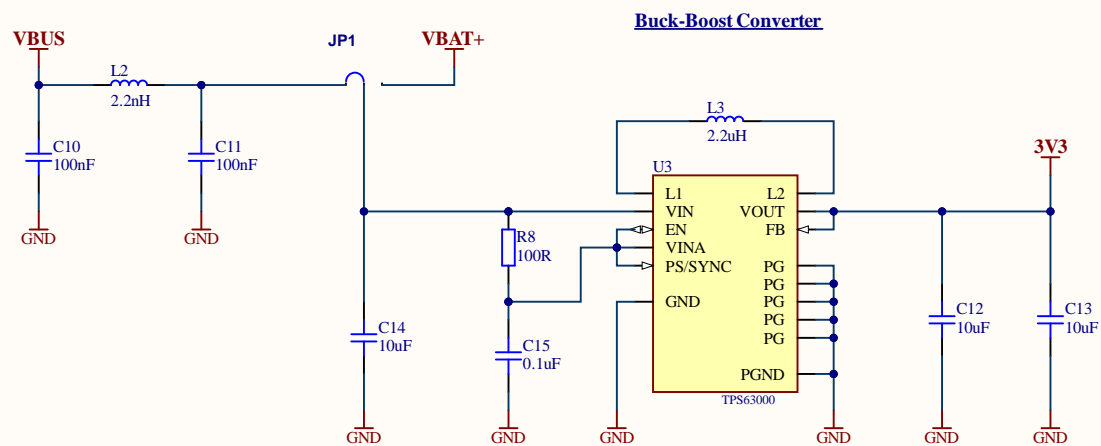
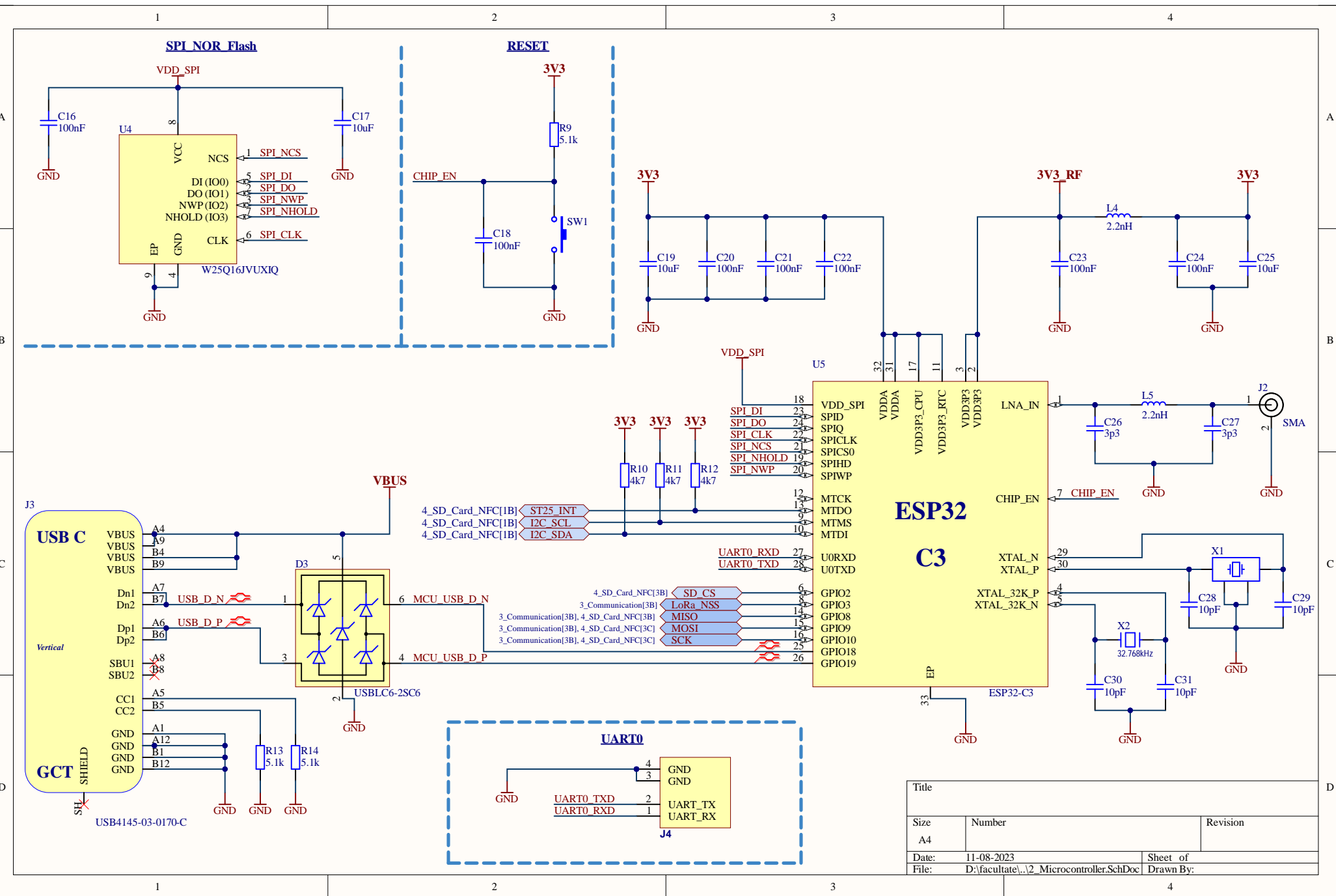


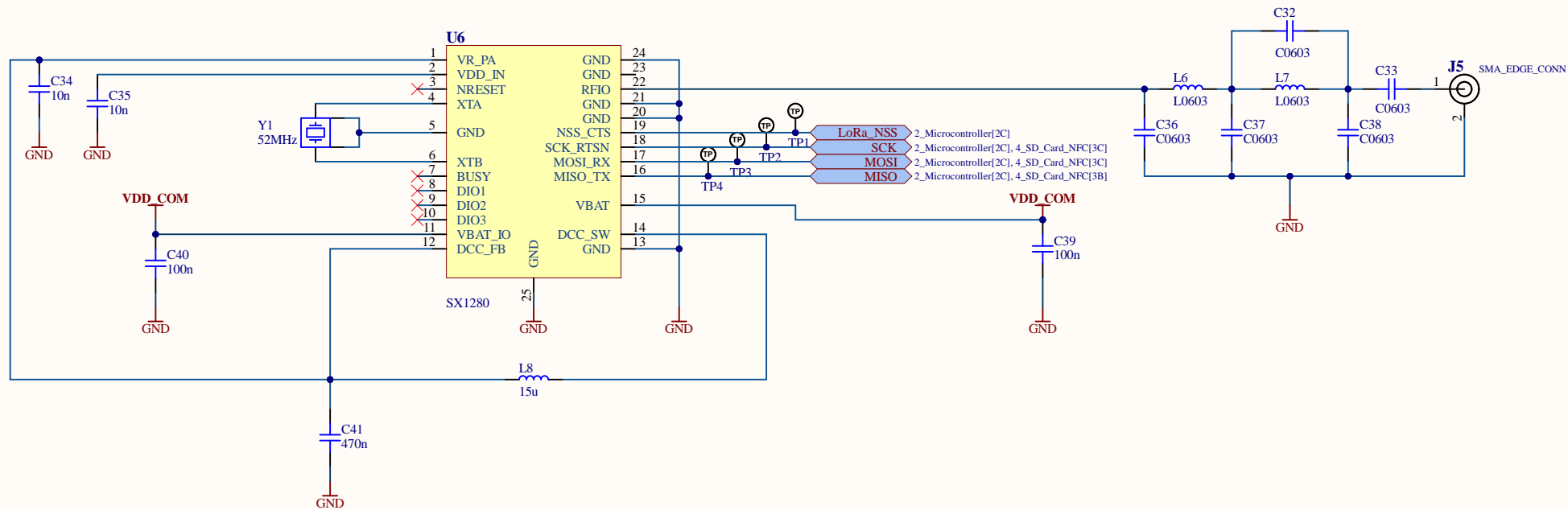
Switching between VBUS and Battery Power for debugging



Title		
Size	Number	Revision
A4		
Date:	11-08-2023	Sheet of
File:	D:\facultate\...\1_Power.SchDoc	Drawn By:

# Antenna connected on SMA connector





Title		
Size	Number	Revision
A4		
Date:	11-08-2023	Sheet of
File:	D:\facultate\...3_Communication.SchDoc	Drawn By:



Comment	Description	Designator	Footprint	LibRef	Quantity
NFC_ANTENNA		ANT1		NFC_ANTENNA	1
100nF	Capacitor SMD 0603	C1, C2, C5, C9, C10, C11, C16, C18, C20, C21, C22, C23, C24, C42	CAP_0603	CAP_0603	14
4.7uF	Capacitor SMD 0603	C3, C6	CAP_0603	CAP_0603	2
10uF	Capacitor SMD 0805	C4, C7, C12, C13, C14, C17, C19, C25	CAP_0805	CAP_0805	8
220nF	Capacitor SMD 0603	C8	CAP_0603	CAP_0603	1
0.1uF	Capacitor SMD 0603	C15	CAP_0603	CAP_0603	1
3p3	Capacitor SMD 0603	C26, C27	CAP_0603	CAP_0603	2
10pF	Capacitor SMD 0603	C28, C29, C30, C31	CAP_0603	CAP_0603	4
C0603	Capacitor SMD 0603	C32, C33, C36, C37, C38	CAP_0603	CAP_0603	5
10n	Capacitor SMD 0603	C34, C35	CAP_0603	CAP_0603	2
100n	Capacitor SMD 0603	C39, C40	CAP_0603	CAP_0603	2
470n	Capacitor SMD 0603	C41	CAP_0603	CAP_0603	1
SS34	Diode	D1, D2	DO-213AA	DIODE_SCHOTTKY	2
USBLC6-2SC6	Low-Capacitance ESD Protection USB	D3	SOT-23-6	USBLC6-2SC6	1
PLUGIN_TERMINAL	Screw terminal or plug terminal for power	J1		Power_Connector	1
SMA	RF Connector SMA Female 50 Ohms 18 GHz PCB Edge Mount	J2	CON-SMA-EDGE-S	CON-SMA-EDGE-S	1
USB4145-03-0170-C	USB Connector Type C SMT 16 Pin Vertical	J3	USB4145-03-0170-C	USB4145-03-0170-C	1
Header1x4		J4		Header1x4	1
SMA_EDGE_CONN	RF Connector SMA Female 50 Ohms 18 GHz PCB Edge Mount	J5	CON-SMA-EDGE-S	CON-SMA-EDGE-S	1
USD_CARD HOLDER		J6		USD_CARD	1
JUMPER_3PIN		JP1	JUMPER_SMD_3	JUMPER_3PIN	1
47uH	Inductor SMD 0603	L1	IND_0603	IND_0603	1
2.2nH	Inductor SMD 1008	L2, L4, L5	IND_1008	IND_1008	3
2.2uH	Inductor SMD 1008	L3	IND_1008	IND_1008	1
L0603	Inductor SMD 0603	L6, L7	IND_0603	IND_0603	2
15u	Inductor SMD 0603	L8	IND_0603	IND_0603	1
LED_RED	Typical BLUE SIC LED	LD1	3.5X2.8X1.9	LED_RED	1
LED_GREEN	Typical BLUE SIC LED	LD2	3.5X2.8X1.9	LED_GREEN	1
FDS4435		Q1		FDS4435	1
FS8205		Q2		FS8205	1
OR05	Resistor SMD 0805	R1	RES_0805	RES_0805	1
27k	Resistor SMD 0603	R2	RES_0603	RES_0603	1
1k5	Resistor SMD 0603	R3	RES_0603	RES_0603	1
120R	Resistor SMD 0603	R4	RES_0603	RES_0603	1
3k	Resistor SMD 0603	R5	RES_0603	RES_0603	1
100R	Resistor SMD 0603	R6, R8	RES_0603	RES_0603	2
2k	Resistor SMD 0603	R7	RES_0603	RES_0603_1	1
5.1k	Resistor SMD 0603	R9, R13, R14	RES_0603	RES_0603	3
4k7	Resistor SMD 0603	R10, R11, R12	RES_0603	RES_0603	3
PTS645SM43SMTR92 LFS	Switch	SW1	SW_PB	SW-PB	1
CN3801	LiFePO4 charge IC with integrated MPPT and wide input range (4.5 to 28V) with deeply discharged cell revive	U1		CN3801	1
HY2112	LiFePO4 protection IC	U2		HY2112	1
TPS63000_1	Buck-Boost Switching Regulator IC Positive Adjustable 1.2V 1 Output 1.6A _Switch_ 10-VFDFN Exposed Pad	U3	10-VFDFN	TPS63000_1	1
W25Q16JUXIQ	16M-BIT SERIAL FLASH MEMORY WITH DUAL/QUAD SPI USON 8	U4	USON-8-2X3MM	W25Q16JUXIQ	1
ESP32-C3	Ultra-Low-Power SoC with RISC-V Single-Core CPU Supporting IEEE 802.11b/g/n (2.4 GHz Wi-Fi) and Bluetooth® 5 (LE)	U5	QFN32-5x5	ESP32-C3	1
SX1280	Low power LoRa transceiver operating at 2.4GHz with ranging capability	U6		SX1280	1
ST25DV04K	ST25DV04K NFC module with I2C	U7		ST25DV04K	1
XTAL_2016	Crystal SMD 4-Pin 2.0x1.6mm	X1	XTAL_2016	XTAL_2016	1
32.768kHz	Crystal	X2	SX-3215	CRYSTAL_1	1
52MHz	Crystal	Y1	XTAL_3225	Crystal	1