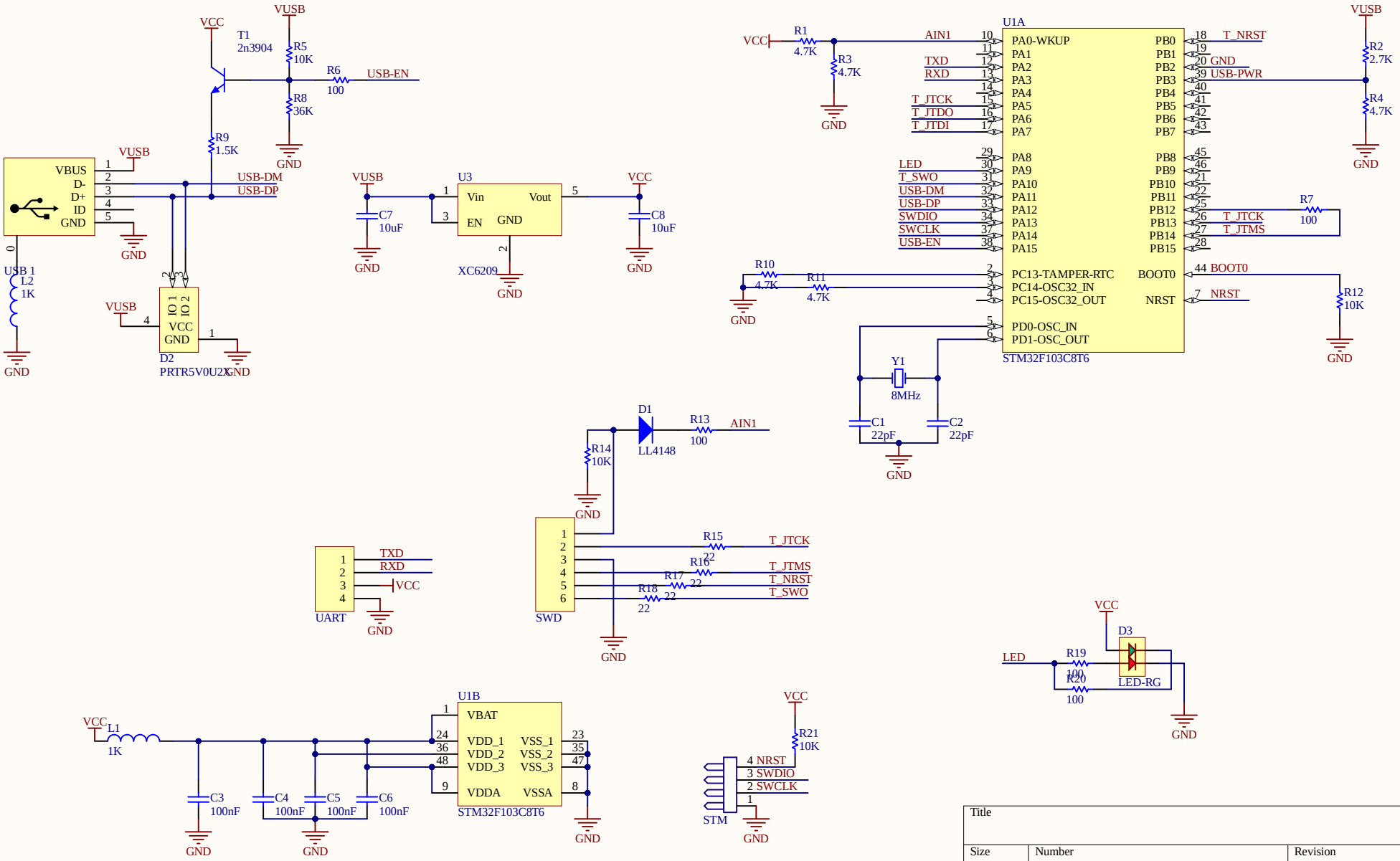
VCC
VUSB
T1
2n3904
R5
10K
R6
100
USB-EN
R8
36K
R9
1.5K
GND
VUSB
VBUS
D-
D+
ID
GND
USB-DM
USB-DP
USB 1
L2
1K
VUSB
IO 1
IO 2
VCC
GND
D2
PRTR5V0U2X
VUSB
U3
Vin
Vout
EN
GND
XC6209
C7
10uF
C8
10uF
VCC
R1
4.7K
R3
4.7K
U1A
AIN1
TXD
RXD
T_JTCK
T_JTDO
T_JTDI
LED
T_SWO
USB-DM
USB-DP
SWDIO
SWCLK
USB-EN
PA0-WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
T_NRST
GND
USB-PWR
T_JTCK
T_JTMS
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32_OUT
PD0-OSC_IN
PD1-OSC_OUT
BOOT0
NRST
STM32F103C8T6
R2
2.7K
R4
4.7K
R7
100
R10
4.7K
R11
4.7K
R12
10K
BOOT0
NRST
Y1
8MHz
C1
22pF
C2
22pF
D1
LL4148
R13
100
R14
10K
R15
22
R16
22
R17
22
R18
22
T_JTCK
T_JTMS
T_NRST
T_SWO
SWD
TXD
RXD
VCC
UART
D3
LED-RG
R19
100
R20
100
LED
U1B
VBAT
VDD_1
VDD_2
VDD_3
VDDA
VSS_1
VSS_2
VSS_3
VSSA
STM32F103C8T6
L1
1K
C3
100nF
C4
100nF
C5
100nF
C6
100nF
R21
10K
NRST
SWDIO
SWCLK
STM
Title
Size
A4
Number
Revision
Date:
11/13/2022
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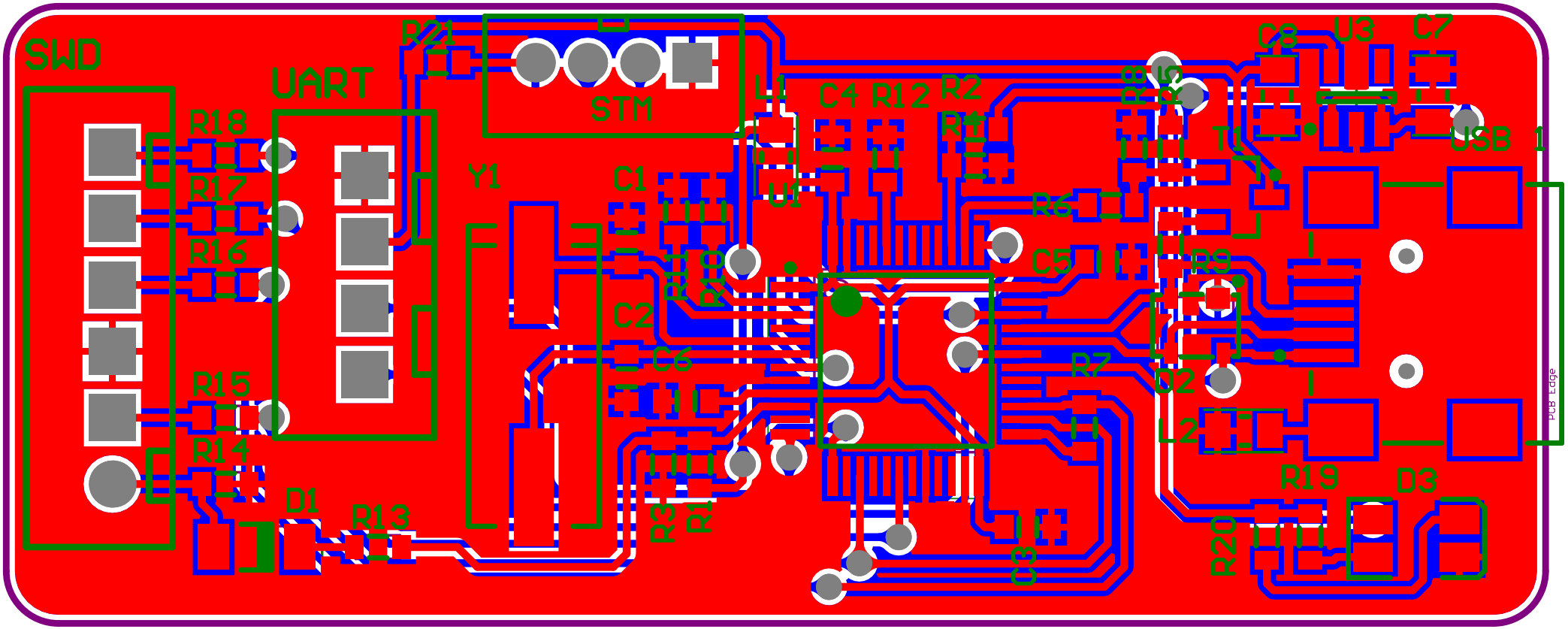
SWD
UART
P21
STM
R18
R17
R16
R15
R14
D1
R13
Y1
C1
C2
C6
C4
R12
R2
R6
C5
R9
R7
C8
U3
C7
USB
L2
R19
D3
R20
PCB Edge

Comment	Description	Designator	Footprint	LibRef	Quantity
22pF	Capacitor	C1, C2	C603	Cap	2
100nF	Capacitor	C3, C4, C5, C6	C603	Cap	4
10uF	Capacitor	C7, C8	C805	Cap	2
LL4148		D1	SOD-80	LL4148	1
PRTR5V0U2X	Ultra low capacitance double rail-to-rail ESD protection diode	D2	SOT-143B	PRTR5V0U2X	1
LED-RG		D3	LED-1210	LED-RG-4	1
1K	FERRITE BEAD	L1, L2	r805	Ferrite Bead	2
4.7K	Resistor	R1, R3, R4, R10, R11	R0603	Resistor	5
2.7K	Resistor	R2	R0603	Resistor	1
10K	Resistor	R5, R12, R14, R21	R0603	Resistor	4
100	Resistor	R6, R7, R13, R19, R20	R0603	Resistor	5
36K	Resistor	R8	R0603	Resistor	1
1.5K	Resistor	R9	R0603	Resistor	1
22	Resistor	R15, R16, R17, R18	R0603	Resistor	4
PHDR 4	PinHeader	STM	PH-4	PHDR 4	1
CONN-6		SWD	XH-6	CONN-6	1
2n3904		T1	SOT-23-3	2n3904	1
STM32F103C8T6	ARM Cortex-M3 32-bit MCU, 64 KB Flash, 20 KB Internal RAM, 37 I/Os, 48-pin LQFP, -40 to 85 degC, Tray	U1	LQFP-48	STM32F103C8T6	1
XC6209	150 mA Low-Noise LDO Regulator	U3	SOT-23-5	XC6209	1
CONN-4		UART	XH-4	CONN-4	1
USB MINI		USB 1	USB-MINI-SMD	USB MINI	1
8MHz	Crystal Oscillator	Y1	XTAL-SMD	XTAL	1