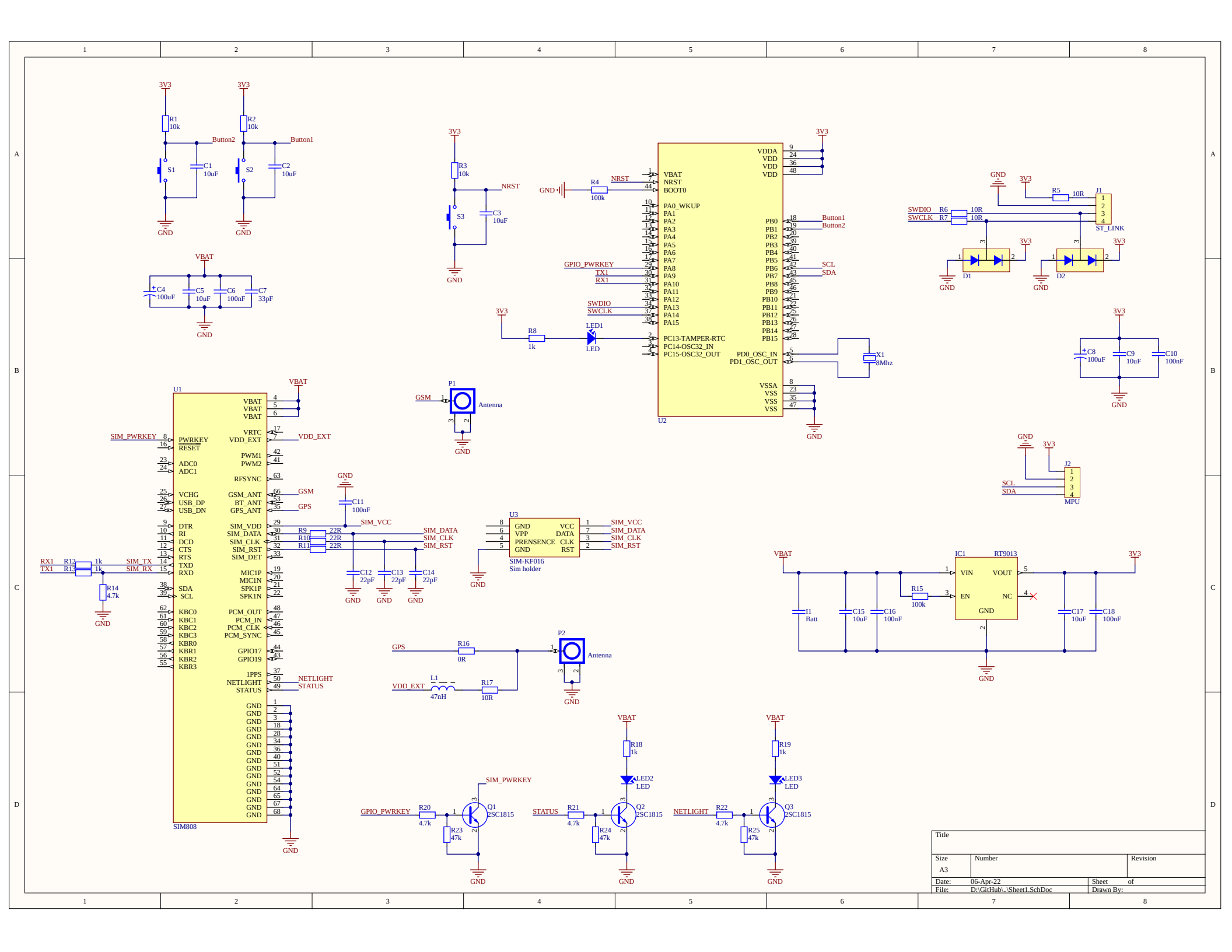
3V3
R1
10k
R2
10k
Button2
Button1
S1
S2
C1
10uF
C2
10uF
GND
VBAT
C4
100uF
C5
10uF
C6
100nF
C7
33pF
R3
10k
NRST
S3
C3
10uF
R4
100k
U2
VDDA
VDD
VDD
VDD
VBAT
NRST
BOOT0
PA0_WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32_OUT
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PD0_OSC_IN
PD1_OSC_OUT
VSSA
VSS
VSS
VSS
Button1
Button2
SCL
SDA
GPIO_PWRKEY
TX1
RX1
SWDIO
SWCLK
R8
1k
LED1
LED
X1
8Mhz
SWDIO
SWCLK
R6
10R
R7
10R
R5
10R
J1
ST_LINK
D1
D2
C8
100uF
C9
10uF
C10
100nF
U1
SIM808
VBAT
VBAT
VBAT
VRTC
VDD_EXT
PWM1
PWM2
RFSYNC
GSM_ANT
BT_ANT
GPS_ANT
SIM_VDD
SIM_DATA
SIM_CLK
SIM_RST
SIM_DET
MIC1P
MIC1N
SPK1P
SPK1N
PCM_OUT
PCM_IN
PCM_CLK
PCM_SYNC
GPIO17
GPIO19
1PPS
NETLIGHT
STATUS
SIM_PWRKEY
PWRKEY
RESET
ADC0
ADC1
VCHG
USB_DP
USB_DN
DTR
RI
DCD
CTS
RTS
TXD
RXD
SDA
SCL
KBC0
KBC1
KBC2
KBC3
KBR0
KBR1
KBR2
KBR3
VDD_EXT
GSM
GPS
NETLIGHT
STATUS
P1
Antenna
GSM
C11
100nF
SIM_VCC
R9
22R
R10
22R
R11
22R
C12
22pF
C13
22pF
C14
22pF
SIM_DATA
SIM_CLK
SIM_RST
RX1
TX1
R12
1k
R13
1k
SIM_TX
SIM_RX
R14
4.7k
U3
SIM-KF016
Sim holder
GND
VCC
VPP
DATA
PRENSENCE
CLK
GND
RST
SIM_VCC
SIM_DATA
SIM_CLK
SIM_RST
GPS
R16
0R
P2
Antenna
VDD_EXT
L1
47nH
R17
10R
J2
MPU
SCL
SDA
IC1
RT9013
VIN
VOUT
EN
NC
GND
R15
100k
I1
Batt
C15
10uF
C16
100nF
C17
10uF
C18
100nF
R18
1k
LED2
LED
R19
1k
LED3
LED
GPIO_PWRKEY
R20
4.7k
Q1
2SC1815
R23
47k
STATUS
R21
4.7k
Q2
2SC1815
R24
47k
NETLIGHT
R22
4.7k
Q3
2SC1815
R25
47k
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Number
Revision
Date:
06-Apr-22
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of
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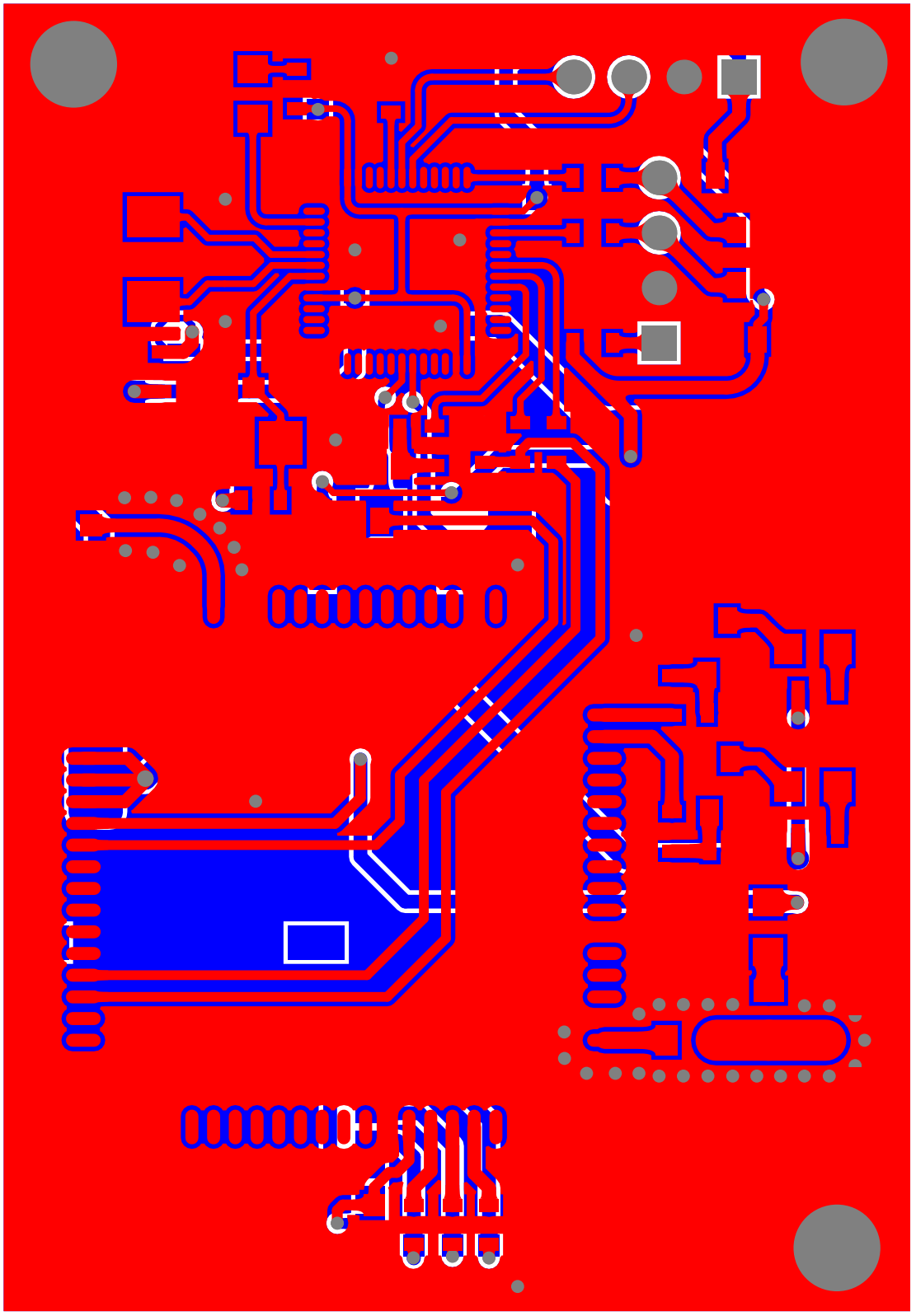

Comment	Description	Designator	Footprint	LibRef	Quantity
10uF	Capacitor	C1, C2, C3, C5, C9, C15, C17	CAP_0603	CapSMD	7
100uF	Tantalum	C4, C8	CAP_7343	Cap Pol	2
100nF	Capacitor	C6, C10, C11, C16, C18	CAP_0603	CapSMD	5
33pF	Capacitor	C7	CAP_0603	CapSMD	1
22pF	Capacitor	C12, C13, C14	CAP_0603	CapSMD	3
DIODE-BAV99	ZENER, SOT23,	D1, D2	SOT23	DIODE-BAV99	2
Batt	Pad	I1	CAP_3216	CapSMD	1
RT9013	RT9013-33GB IC REG LINEAR 3.3V 500mA SOT23-5	IC1	SOT23-5	RT9013	1
ST_LINK	Header IDC, 4 x 1 Pin Vertical 2.54mm Pitch (Non-Boxed, Male)	J1	JP4-D1T	Header4	1
MPU	Header IDC, 4 x 1 Pin Vertical 2.54mm Pitch (Non-Boxed, Male)	J2	JP4-D1T	Header4	1
47nH	Inductor	L1	L-0805	Inductor Ferit	1
LED	LED Single colour Green and Red	LED1	LED-0805-Orange	LED	1
LED	LED Single colour Green and Red	LED2	LED-0805-Yellow	LED	1
LED	LED Single colour Green and Red	LED3	LED-0805-Red	LED	1
Antenna	Antenna GSM GPS	P1, P2	IPXS	IPXSx66	2
2SC1815	NPN 600mW, ECB	Q1, Q2, Q3	SOT23D	2SC1815	3
10k	Resistor	R1, R2, R3	RES-SMD-0603	Resistor - SMD	3
100k	Resistor	R4, R15	RES-SMD-0603	Resistor - SMD	2
10R	Resistor	R5, R6, R7	RES-SMD-0603	Resistor - SMD	3
1k	Resistor	R8, R12, R13, R18, R19	RES-SMD-0603	Resistor - SMD	5
22R	Resistor	R9, R10, R11	RES-SMD-0603	Resistor - SMD	3
4.7k	Resistor	R14, R20, R21, R22	RES-SMD-0603	Resistor - SMD	4
0R	Resistor	R16	RES-SMD-0805	Resistor - SMD	1
10R	Resistor	R17	RES-SMD-0805	Resistor - SMD	1
47k	Resistor	R23, R24, R25	RES-SMD-0603	Resistor - SMD	3
SW-SMD	Switch	S1, S2, S3	SW 3x2x4	SW-SMD	3
SIM808	SIM808 GPS, GPRS/GSM RF Arduino Platform Evaluation Expansion Board	U1	XCVR_SIM808	SIM808	1
STM32	STM32 ARM-based 32-bit MCU with 64 Kbytes Flash, 64-pin LQFP, Industrial Temperature	U2	LQFP 48	STM32F103C8T6	1
SIM-KF016	SIM Card Holder KF-016	U3	Sim Socket	Sim holder	1
8Mhz	Crystal For all Crystal 2pin.	X1	XTAL 5032 SMD	XT2	1