J1
VCC 1 VBUS
D- 2 USB_N
D+ 3 USB_P
VSS 4 GND
SHELL 5 GND
SHELL 6 GND
USB

F1 500mA
5V
U1
VIN 1 VOUT 5
EN 3
GND 2 BYP 4
SPX3819
3.3V
C1 0.1uF
C4 0.1uF
C2 0.1uF
C3 10uF
GND
GND

3.3V
R1 10K
5V
Q1 NPN
R3 100
USB_RENM
R4 36K
USB_P R6 1.5K
GND

3.3V
R2 4.7K
R5 4.7K
GND

U2
10 PA0-WKUP
11 PA1
T_TXD 12 PA2
T_RXD 13 PA3
14 PA4
T_JTCK 15 PA5
T_JTDO 16 PA6
T_JTDI 17 PA7
29 PA8
STA_LED 30 PA9
T_SWO 31 PA10
32 PA11
33 PA12
SWDIO0 34 PA13/JTMS/SWDIO
SWCLK0 37 PA14/JTCK/SWCLK
USB_RENM 38 PA15/JTDI
5 OSC_IN/PD0
6 OSC_OUT/PD1
BOOT0 44 BOOT0
7 NRST
3.3V 1 VBAT
3.3V 24 VDD_1
3.3V 36 VDD_2
3.3V 48 VDD_3
3.3V 9 VDDA

PB0 18 T_NRST
PB1 19
PB2/BOOT1 20
PB3/JTDO 39
PB4/JNTRST 40
PB5 41
PB6 42
PB7 43
PB8 45
PB9 46
PB10 21 TXD0
PB11 22
PB12 25 T_SWDIO_IN
PB13 26 T_JTCK
PB14 27 T_JTMS
PB15 28 T_MOSI
PC13-TAMPER-RTC 2
PC14-OSC32_IN 3
PC15-OSC32_OUT 4
VSS_1 23
VSS_2 35
VSS_3 47
VSSA 8

STM32F103CBT6

R7 4.7K
GND 3.3V

USB_N R8 22
USB_P R9 22

R11 100

P1
3.3V 1
SWCLK0 2
SWDIO0 3
GND 4
SWD

R13 10K
R14 NA
GND

3.3V
D1 LED_G
R10 1.5K STA_LED
R12 1.5K
D2 LED_R
STA_LED
GND

C5 22pF
Y1 8M
C6 22pF
R15 100K
C7 0.1uF
GND

3.3V
R23 36K
T_RXD R16 22 P_RXD
T_TXD R17 22 P_TXD
T_MOSI R18 22 P_MOSI
T_SWO R19 22 P_SWO
T_NRST R20 22 P_NRST
T_JTMS R21 22 P_SWDIO
T_JTCK R22 22 P_SWCLK

3.3V
C8 0.1uF
GND

GND

P2
P_TXD 5
P_RXD 4
GND 3
P_SWDIO 2
P_SWCLK 1
P-BOTTOM

P3
P_MOSI 1
5V 2
3.3V 3
P_SWO 4
P_NRST 5
P-TOP

PA2: TXD/SCL(GPIO   )
PA3: RXD/SDA(GPIO   )
PB13: SWCLK/SCK
PB14: SWDIO/MISO
PB15: MOSI/DTR
PB0: NRST/RST
PA10: SWO/SWIM

Title

Size A
Number
Revision
Date: 2018/12/4
File: G:\STLink\..\ST-Link-V2.2-Mini.SchDoc
Sheet of
Drawn By:

Bill of Materials <Parameter Title not found>

Source Data From: ST-Link-V2.2-Mini.PrjPcb

Project: ST-Link-V2.2-Mini.PrjPcb

Variant: None

Creation Date: 2018/12/4   22:59:38

Print Date: 43438   43438.95834

Footprint	Comment	LibRef	Designator	Description	Quantity
C-0603	Cap	Cap	C1, C2, C3, C4, C5, C6, C7, C8	Capacitor	8
SMT_LED_0603	LED_G	LED2	D1	Typical RED, GREEN, YELLOW, AMBER GaAs LED	1
SMT_LED_0603	LED_R	LED2	D2	Typical RED, GREEN, YELLOW, AMBER GaAs LED	1
0805-1	Fuse1	Fuse1	F1	保险丝	1
USB-B	USB	USB	J1	USB接口	1
SIP4-1.27	SWD	Header 4	P1	Header, 4-Pin	1
HEADER_5	P-BOTTOM	Header 5	P2	Header, 5-Pin	1
HEADER_5	P-TOP	Header 5	P3	Header, 5-Pin	1
SOT23-3	NPN	NPN1	Q1	贴片三极管	1
0603-1	Res1	Res1	R1, R3, R4, R6, R13, R14, R23	贴片电阻	7
0603-1	Res2	Res2	R2, R5, R7, R8, R9, R10, R11, R12, R15, R16, R17, R18, R19, R20, R21, R22	Resistor	16
SOT23-5	SPX3819	SPX3819	U1		1
LQFP48_N	STM32F103CBT6	STM32F103C8T6	U2	STM32 ARM-based 32-bit MCU with 64 Kbytes Flash, 48-pin LQFP, Industrial Temperature	1
XAL5032 2-Leads	8M	XTAL	Y1	Crystal Oscillator	1
					42

Approved   **Notes**