USB_COM1   F1   VCC
VBUS   A4
MF-FSMF050X-2
Dn1   A7
Dn2   B7   DGND
Dp1   A6
Dp2   B6
SBU1   A8
SBU2   B8
CC1   A5
CC2   B5
GND   A1
SHELL   0
USB-C_16P
R10   R11
5.1K   5.1K
DGND

USBLC6-2
1   I/O1   I/O1   6
2   GND VBUS   5
3   I/O2   I/O2   4

R1   USB_N
22R   VDD_3V3
R3   USB_P
22R   VCC
R5
1.5K
Q1   R7
S9013   10K   R8   USB_RENUMn
100R
R9
36K
VDD_3V3   DGND

D2   DGND
VCC   DESD5V0S1BL-7B

VDD_3V3   R13   LED_STA
470   STA_LED
红色

VDD_3V3   R16   LED_PWR
470   DGND
蓝色

VCC   V1   VDD_3V3
3   Vin   Vout   2
GND
CJ1117-3V3
C4   C5   C6   C7
475   104   104   475
DGND

VDD_3V3
U1B   STM32F103C8
1   VBAT
24   VDD   VSS   23
36   VDD   VSS   35
48   VDD_3   VSS_3   47
9   VDDA   VSSA   8
DGND

VDD_3V3
C8   C9   C10   C11   C12
475   104   104   104   104
DGND

VDD_3V3   R2
4.7K
DGND   R4
4.7K

U1A   STM32F103C8
10   PA0-WKUP   PB0   18   T_NRST
11   PA1   PB1   19
T_TX   12   PA2   PB2   20
T_RX   13   PA3   PB3   39   PWR_EXT   R6
14   PA4   PB4   40   DGND
T_JTCK   15   PA5   PB5   41   0   VDD_3V3
T_JTDO   16   PA6   PB6   42
T_JTDI   17   PA7   PB7   43
MCO   29   PA8   PB8   45
STA_LED   30   PA9   PB9   46
T_SWO   31   PA10   PB10   21
USB_N   32   PA11   PB11   22
USB_P   33   PA12   PB12   25   T_SWDIO_IN   R12
MCU_SWD   34   PA13/SWDIO   PB13   26   T_JTCK   100R
MCU_SCK   37   PA14/SWCLK   PB14   27   T_JTMS
USB_RENUM38   PA15   PB15   28   C1
10P   DGND

DGND   R14   2   PC13-TAMPER-RTC   PD0-OSC_IN   5   8M
10K
DGND   R15   3   PC14-OSC32_IN   PD1-OSC_OUT   6   C2
10K   44   R17   10P   DGND
4   PC15-OSC32_OUT   BOOT0   100K
R18
NRST   7   100K   VDD_3V3
C3
104
DGND

T_JTCK   R19   STLK_SWCLK
22R
T_JTMS   R20   STLK_SWDIO
22R
T_SWO   R21   STLK_SWO
22R
T_TX   R22   STLK_TX
22R
T_RX   R23   STLK_RX
22R

DGND   JP1   DGND   JP2   MCU_SCK   JP3
VDD_3V3   1   VDD_3V3   5   MCU_SWD   1
2   4   2
STLK_SWDIO   3   STLK_TX   3   DGND   3
STLK_SWCLK   4   STLK_RX   2
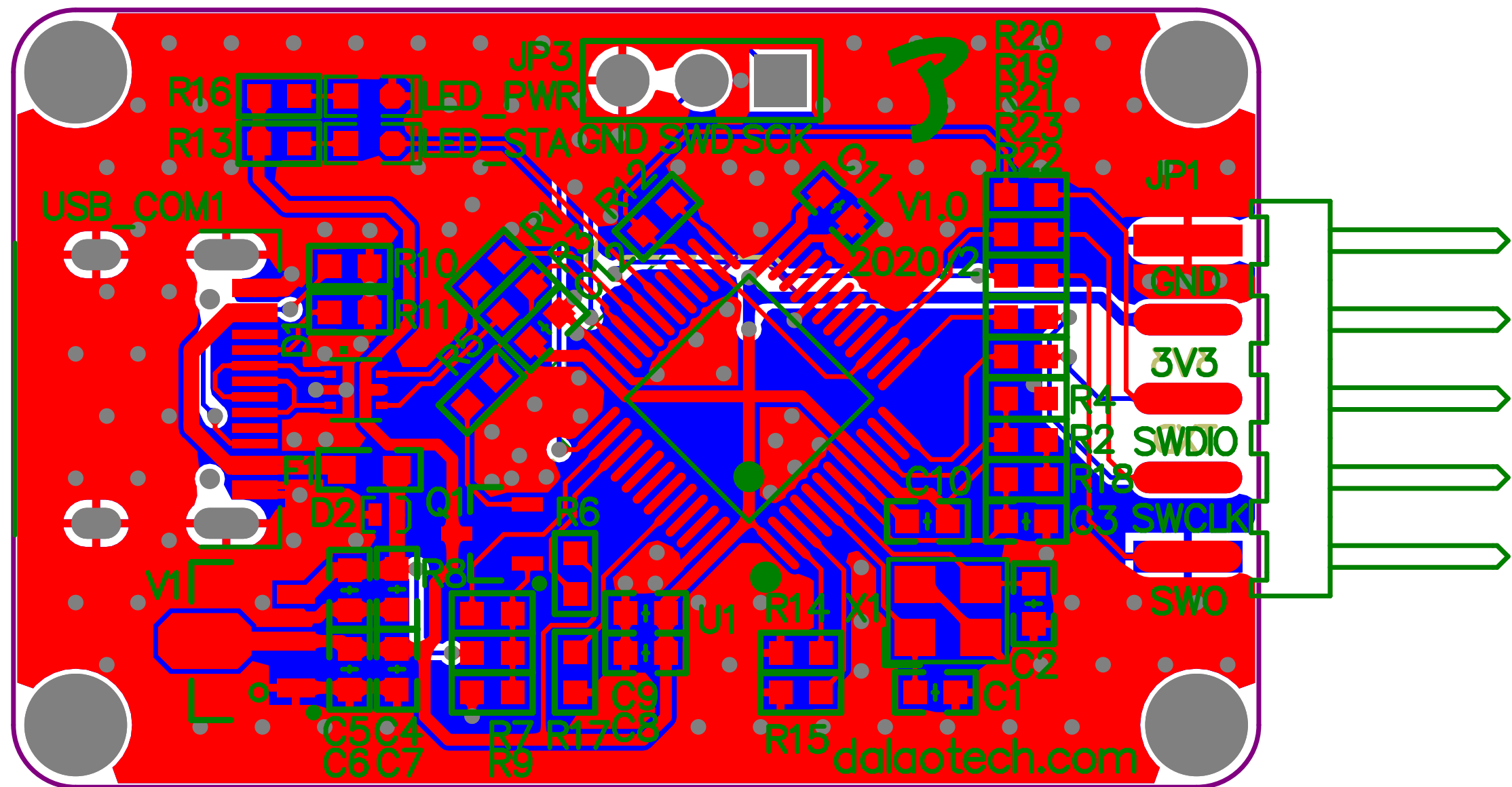STLK_SWO   5   DGND   1

Title
Size   Number   Revision
A4
Date: 2020/4/9   Sheet   of
File: C:\Users\..\ST-LINK_V2.1 Ver1.0.SchDoc   Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
10p	无极性贴片电容	C1, C2	C 0603_L	C	2
104	无极性贴片电容	C3, C5, C6, C9, C10, C11, C12	C 0603_L	C	7
475	无极性贴片电容	C4, C7, C8	C 0603_L	C	3
USBLC6-2	ESD保护二极管	D1	SOT-666-L	USBLC6-2	1
DESD5V0S1BL-7B	双向TVS稳压管	D2	SOD-882	TVS_B	1
MF-FSMF050X-2	贴片保险丝	F1	FU 0603	FU	1
HDR-1X5	5P接插件	JP1, JP2	HDR2.54-WS-5P	Header 5	2
HDR-1X3	3P接插件	JP3	HDR2.54-LI-3P	Header 3	1
蓝色	贴片LED	LED_PWR	LED 0603B	LED-SMD	1
红色	贴片LED	LED_STA	LED 0603B	LED-SMD	1
S9013	低频放大-NPN型	Q1	SOT23-3L	9013-SMD	1
22R	贴片电阻	R1, R3, R19, R20, R21, R22, R23	R 0603_L	R	7
4.7K	贴片电阻	R2, R4	R 0603_L	R	2
1.5K	贴片电阻	R5	R 0603_L	R	1
0	贴片电阻	R6	R 0603_L	R	1
10K	贴片电阻	R7, R14, R15	R 0603_L	R	3
100R	贴片电阻	R8, R12	R 0603_L	R	2
36K	贴片电阻	R9	R 0603_L	R	1
5.1K	贴片电阻	R10, R11	R 0603_L	R	2
470	贴片电阻	R13, R16	R 0603_L	R	2
100K	贴片电阻	R17, R18	R 0603_L	R	2
STM32F103C8	Flaah:64/RAM:20/IO:36	U1	LQFP48 7X7_N	STM32F103C8	1
USB-C_16P	Type-C 12Pin接口	USB_COM1	USB-C-16P	USB-C_16P	1
CJ1117-3V3	三端稳压芯片,GOI	V1	SOT89_L	AMS1117	1
8M	4脚无源晶振	X1	OSC 3225-4P	XTAL-4P	1