STM32F103C8T6 (Blue pill) Development board

Power Supply

VBUS

U2
AMS1117-3.3
3 VI
VO 2
1 GND

+3.3V

D1
RED

PWR_LED_K

C13
22u

C12
22u

R3
1k5

GND
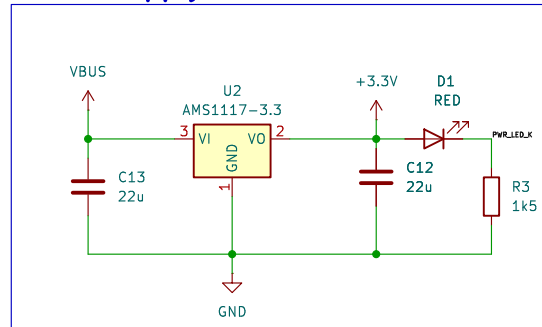
VBUS from USB connector(nom. +5v)   min.22uf inp./out. caps

Mounting holes

H1 MountingHole
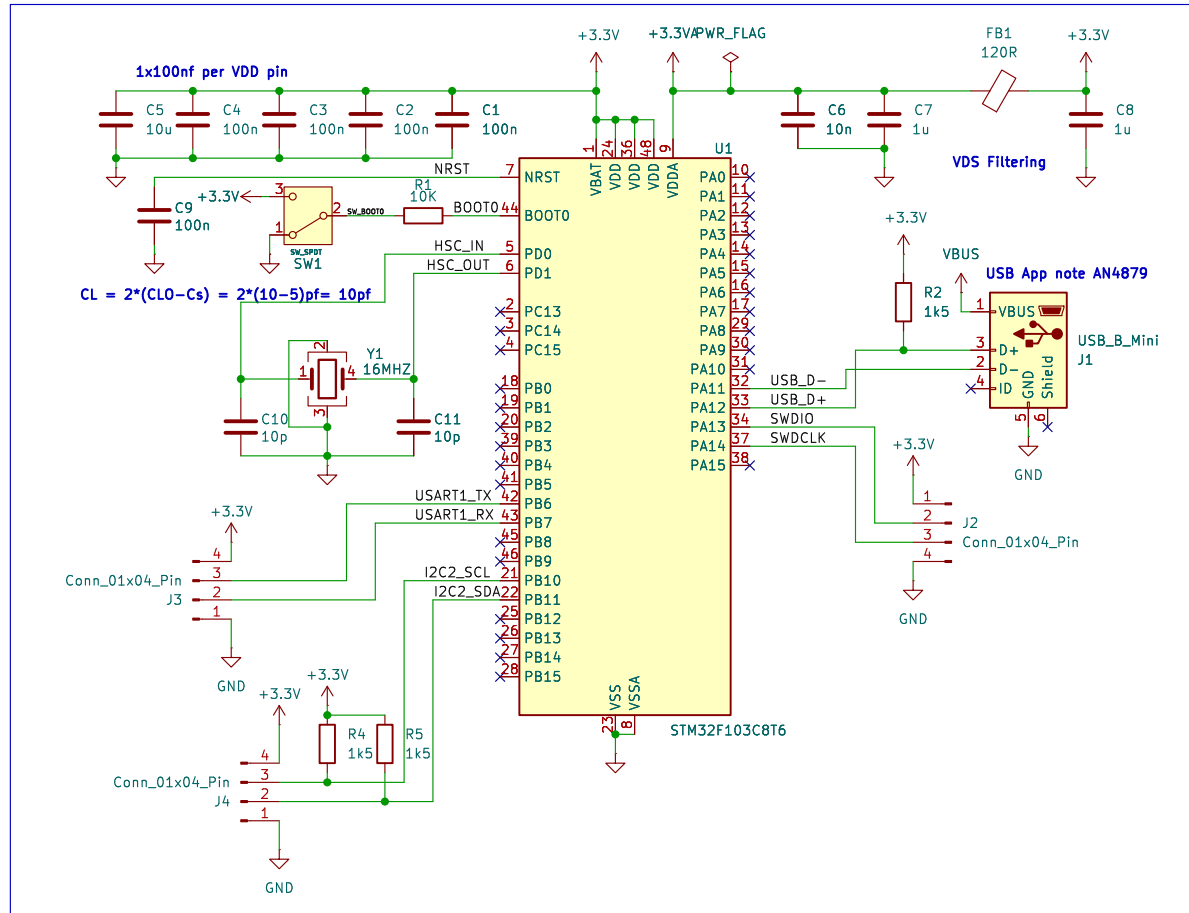H2 MountingHole
H3 MountingHole
H4 MountingHole
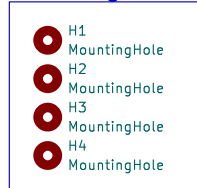
M2

Microcontroller and Usb

+3.3V   +3.3V PWR_FLAG

FB1
120R

+3.3V

1x100nf per VDD pin

C5 10u   C4 100n   C3 100n   C2 100n   C1 100n

C6 10n   C7 1u

C8 1u

VDS Filtering

NRST   7 NRST

U1

VBAT VDD VDD VDD VDDA

PA0 10
PA1 11
PA2 12
PA3 13
PA4 14
PA5 15
PA6 16
PA7 17
PA8 29
PA9 30
PA10 31
PA11 32
PA12 33
PA13 34
PA14 37
PA15 38

C9 100n   +3.3V

SW1
SW_SPDT
SW_BOOT0

R1 10K

BOOT0 44 BOOT0

HSC_IN   5 PD0
HSC_OUT 6 PD1

CL = 2*(CL0-Cs) = 2*(10-5)pf= 10pf

+3.3V

R2 1k5

VBUS

USB App note AN4879

2 PC13
3 PC14
4 PC15

Y1 16MHZ

C10 10p   C11 10p

18 PB0
19 PB1
20 PB2
39 PB3
40 PB4
41 PB5
42 PB6
43 PB7
45 PB8
46 PB9
21 PB10
22 PB11
25 PB12
26 PB13
27 PB14
28 PB15

USART1_TX 42
USART1_RX 43

USB_D- 32
USB_D+ 33
SWDIO 34
SWDCLK 37

1 VBUS
3 D+
2 D-
4 ID
5 GND
6 Shield

USB_B_Mini
J1

GND

+3.3V

Conn_01x04_Pin
J3
4
3
2
1

GND

I2C2_SCL 21
I2C2_SDA 22

+3.3V

1
2
3
4
J2
Conn_01x04_Pin

GND

+3.3V

R4 1k5   R5 1k5

Conn_01x04_Pin
J4
4
3
2
1

23 VSS
8 VSSA

STM32F103C8T6

GND

Pin-out using ST32CubeIDE

JG Projects
Sheet: /
File: 1st project.kicad_sch
Title: Blue Pill Board
Size: A4   Date: 24-06-2024   **Rev: 0.1**
KiCad E.D.A. 8.0.3   Id: 1/1