

Napájení MCU

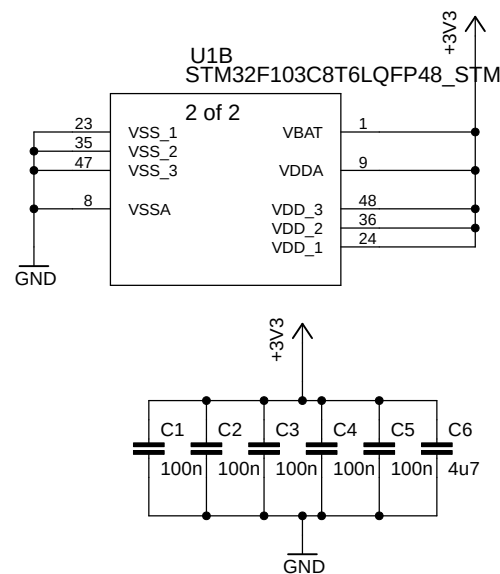
The diagram illustrates the power supply configuration for an STM32F103C8T6LQFP48 MCU (U1B). The MCU is shown with its pin connections for ground, power, and a +3V3 supply.

MCU Pin Connections:

- Ground (GND):** Pins 23, 35, 47, and 8 are connected to GND.
- Power:**
 - VSS_1, VSS_2, and VSS_3 are connected to GND.
 - VSSA is connected to GND.
 - VDD_3, VDD_2, and VDD_1 are connected to the +3V3 supply.
- Other Pins:**
 - VBAT is connected to the +3V3 supply.
 - VDDA is connected to the +3V3 supply.

Decoupling Capacitors:

- C1, C2, C3, C4, and C5 are 100nF capacitors connected between the +3V3 supply and GND.
- C6 is a 4u7 capacitor connected between the +3V3 supply and GND.



MCU

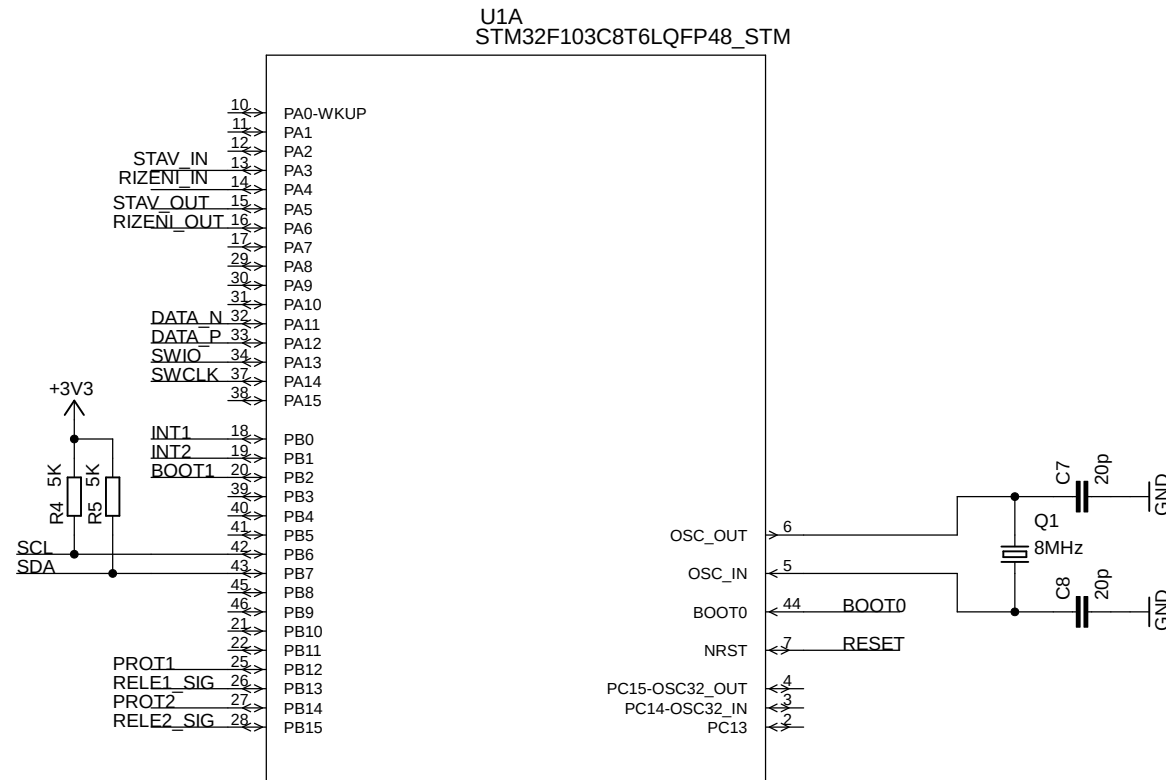
U1A
STM32F103C8T6LQFP48_STM

10 PA0-WKUP
11 PA1
12 PA2
13 STAV_IN PA3
14 RIZENI_IN PA4
15 STAV_OUT PA5
16 RIZENI_OUT PA6
17 PA7
29 PA8
30 PA8
31 PA9
32 DATA_N PA10
33 DATA_P PA11
34 SWIO PA12
37 SWCLK PA13
38 PA14
39 PA15
18 INT1 PB0
19 INT2 PB1
20 BOOT1 PB2
39 PB3
40 PB4
41 PB5
42 PB6
43 PB7
45 PB8
46 PB9
21 PB10
22 PB11
25 PB12
26 PROT1 RELE1_SIG PB13
27 PROT2
28 RELE2_SIG PB15

+3V3
P4 5K
P3 5K
SCL
SDA

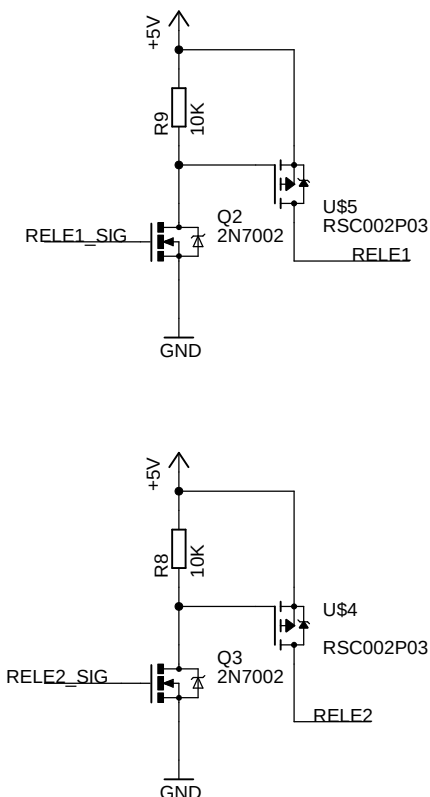
6 OSC_OUT
5 OSC_IN
44 BOOT0
7 NRST
4 PC15-OSC32_OUT
3 PC14-OSC32_IN
2 PC13

Q1 8MHz
C7 20p
C8 20p
GND
GND



Ovládání relé kruhových bočníků

The image contains two identical circuit diagrams, one for RELE1 and one for RELE2. Each diagram shows a +5V power supply connected to a 10K resistor (R0 or R8). The other end of the resistor is connected to the collector of an NPN transistor (Q2 or Q3, 2N7002). The emitter of the transistor is connected to GND. The base of the transistor is connected to a signal input (RELE1_SIG or RELE2_SIG) through a 10K resistor. The transistor's collector is also connected to a relay coil (P0 or P8, 10K), which is then connected to GND. The relay coil is labeled as U\$5 (RSC002P03) for RELE1 and U\$4 (RSC002P03) for RELE2.



U2
1-1825910-0

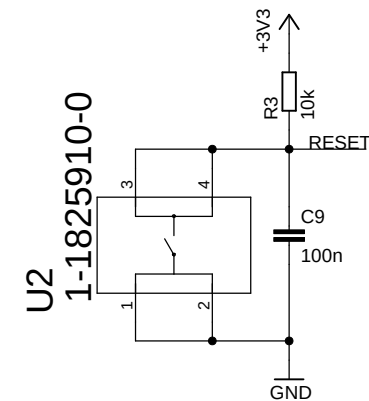
RESET

+3V3

R3 10k

C9 100n

GND



USB port

VBUS

A4*2

VBUS

CC1

CC2

D+

D-

SBU1

SBU2

SHIELD

GND

S1*4

A1*2

GND

GND

A5

B5

A6*2

A7*2

A8

B8

DATA_P_U

DATA_N_U

5K1

5K1

GND

GND

Nastavení proudu 3A

DATA_N

VBUS

DATA_P

1

2

3

6

5

4

DATA_N_U

GND

DATA_P_U

O1

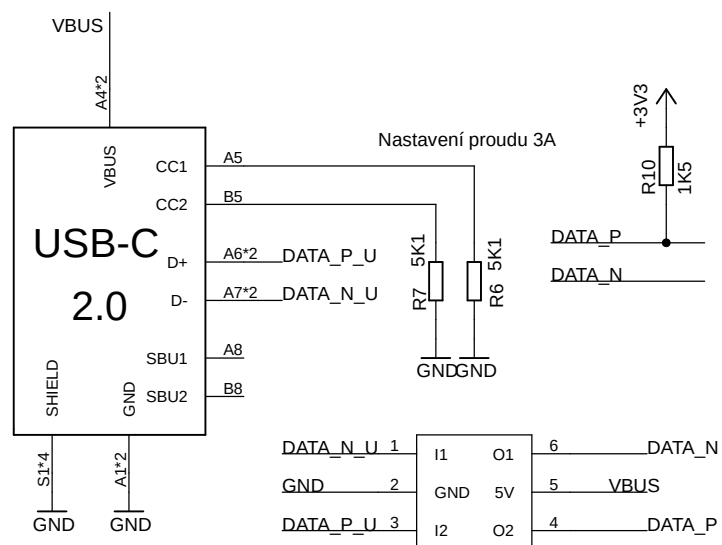
5V

O2

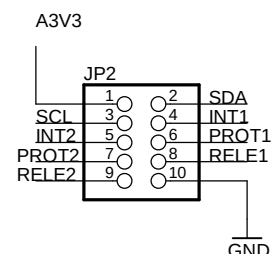
R10

1K5

+3V3



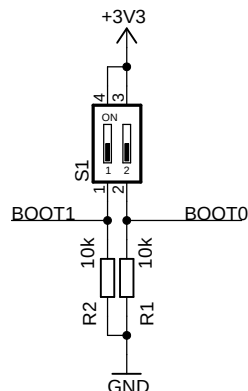
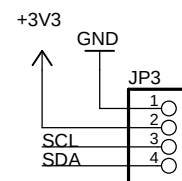
Konektor analogové desky



OLED SPARE

Wiring diagram for the OLED SPARE module:

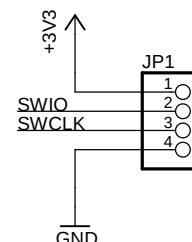
- +3V3** (indicated by an arrow) connects to pin 1 of the **JP3** header.
- GND** connects to pin 2 of the **JP3** header.
- SCL** connects to pin 3 of the **JP3** header.
- SDA** connects to pin 4 of the **JP3** header.



Programovací konektor

The diagram illustrates the wiring for the programming connector, labeled JP1. The connector has four pins, numbered 1 through 4. The connections are as follows:

- Pin 1 is connected to the +3V3 power supply.
- Pin 2 is connected to the SWIO signal line.
- Pin 3 is connected to the SWCLK signal line.
- Pin 4 is connected to the GND (ground) line.

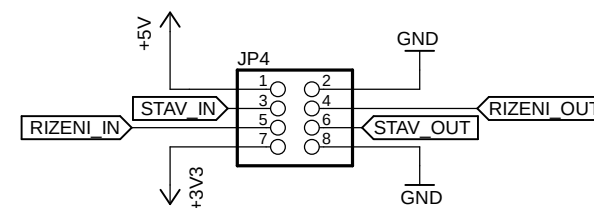


Konektor ochran

The diagram shows the wiring for the JP4 connector. The pins are numbered 1 through 8. The connections are as follows:

- Pin 1: +5V
- Pin 2: GND
- Pin 3: STAV IN
- Pin 4: GND
- Pin 5: RIZENI IN
- Pin 6: STAV OUT
- Pin 7: +3V3
- Pin 8: GND

The STAV IN and STAV OUT signals are represented by bidirectional arrows, indicating they are bidirectional signals.

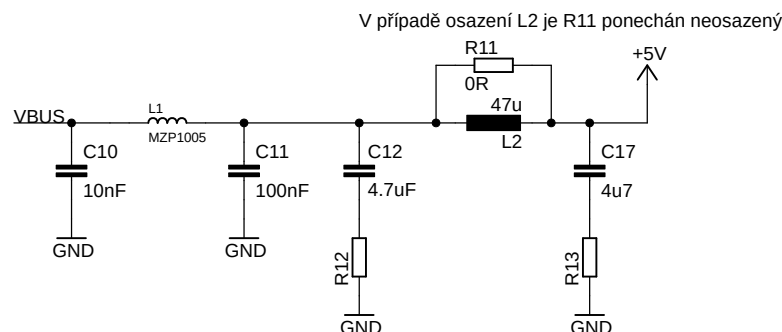
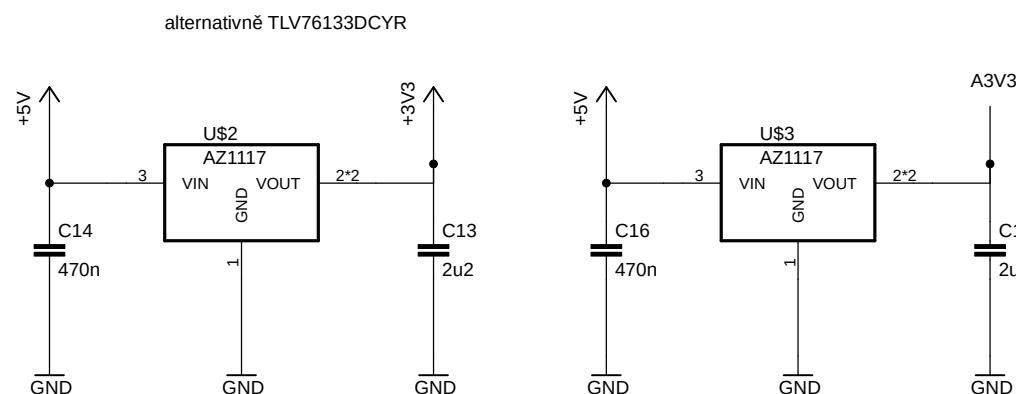


Vstupní filtr

V případě osazení L2 je R11 ponechán neosazený

The diagram illustrates a power supply input filter circuit. The input is labeled VBUS. The circuit components and their connections are as follows:

- C10** (10nF) is connected to ground (GND) after the input.
- L1** (MZP1005) is connected in series.
- C11** (100nF) is connected to ground (GND) after the inductor.
- C12** (4.7uF) is connected to ground (GND) after the capacitor.
- R11** (0R) and **L2** (47uH) are connected in parallel to ground (GND).
- C17** (4uF) is connected to ground (GND) after the parallel combination.
- R13** is connected in parallel with **C17** to ground (GND).
- The output is labeled +5V.

[illegible]

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