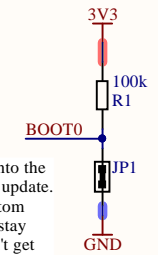
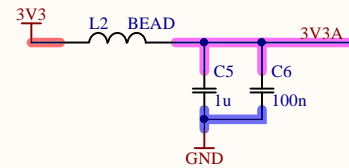
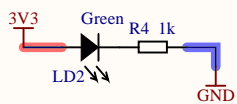


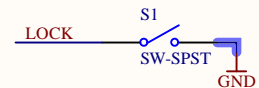
Debug / programming port.
Included only for completeness and for debugging in case there's a problem with the DFU bootloader.



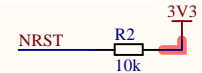
Boot jumper - remove to boot into the DFU bootloader for a firmware update. The jumper is placed in the bottom branch so that it may normally stay attached to the board and doesn't get lost. The cross current is negligible at about 30 uA.



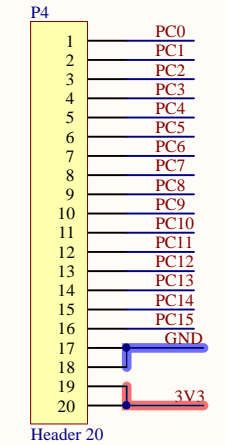
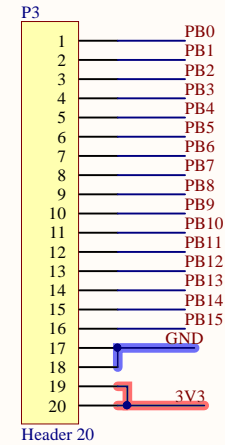
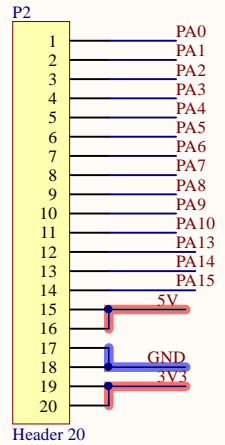
PA0	14	PA0	14	PC0	8	PC0
PA1	15	PA1	15	PC1	9	PC1
PA2	16	PA2	16	PC2	10	PC2
PA3	17	PA3	17	PC3	11	PC3
PA4	20	PA4	20	PC4	24	PC4
PA5	21	PA5	21	PC5	25	PC5
PA6	22	PA6	22	PC6	37	PC6
PA7	23	PA6	23	PC7	38	PC7
PA8	41	PA7	23	PC8	39	PC8
PA9	42	PA8	41	PC9	40	PC9
PA10	43	PA9	42	PC10	51	PC10
DM	44	PA10	43	PC11	52	PC11
DP	45	PA11/D-	44	PC12	53	PC12
SWDIO	PA13	PA12/D+	45	PC13	2	PC13
SWCLK	PA14	PA13/SWDIO	46	PC14	3	PC14
LED	PA15	PA14/SWCLK	49	PC15	4	PC15
		PA15	50			



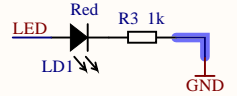
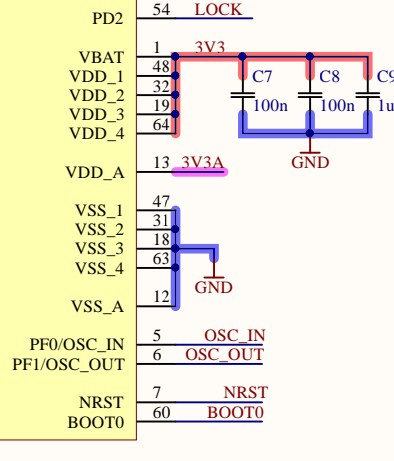
Lock button - push to enable or disable the virtual mass storage USB device with GEX's config files. Observe the indicator LED for a visual feedback.



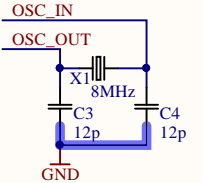
Reset - a resistor is used to allow pulling the pin low by a debugger, otherwise it stays at 3.3 V. Hard reset is not needed very often and a dedicated button is therefore unnecessary; the device can be re-plugged to the USB port should the need arise.



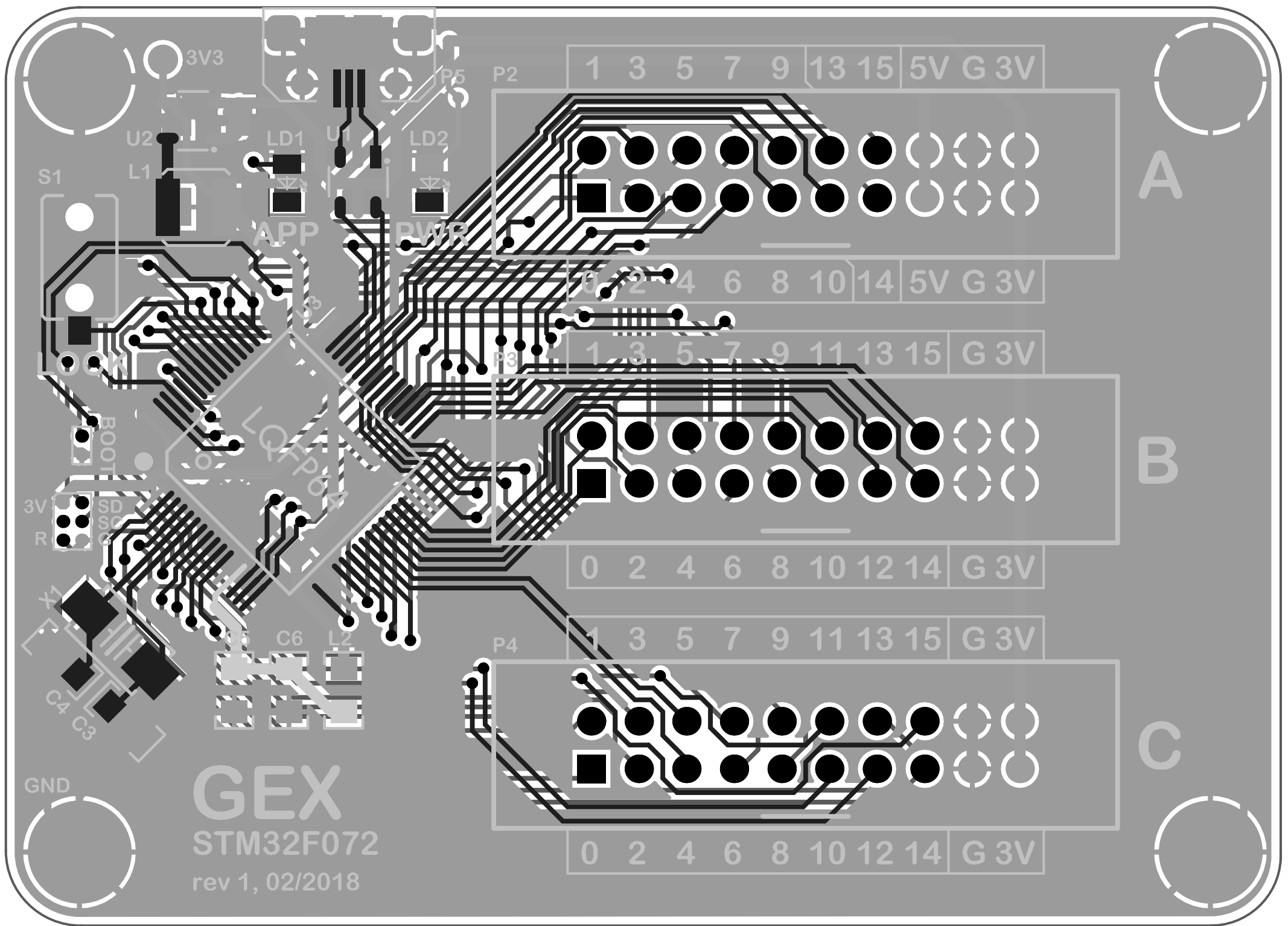
3V3 and 5V must not be adjacent to prevent a short during manipulation bringing Vdd to the Vbus level. A short to GND will trip overcurrent protection in the USB hub or the regulator. PA15 and PA14 are 5V tolerant.



Indicator LED - "start-up chime", periodic flash to indicate correct operation, file upload indication etc. Solid light = fault (will extinguish after a couple seconds due to WD)



Title		
GEX platform		
Size	Number	Revision
A4		1
Date:	12. 2. 2018	Sheet of
File:	D:\GEX\pcb-dongle\GEX_Dongle.SchDoc	Drawn By: Ondřej Hruška



GEX
STM32F072
rev 1, 02/2018

1 3 5 7 9 13 15 5V G 3V

2 4 6 8 10 14 5V G 3V

1 3 5 7 9 11 13 15 G 3V

0 2 4 6 8 10 12 14 G 3V

1 3 5 7 9 11 13 15 G 3V

0 2 4 6 8 10 12 14 G 3V

A

B

C