CAN

File: CAN.kicad_sch

MCU

File: MCU.kicad_sch

USB_SDCARD

File: USB.kicad_sch

POWER

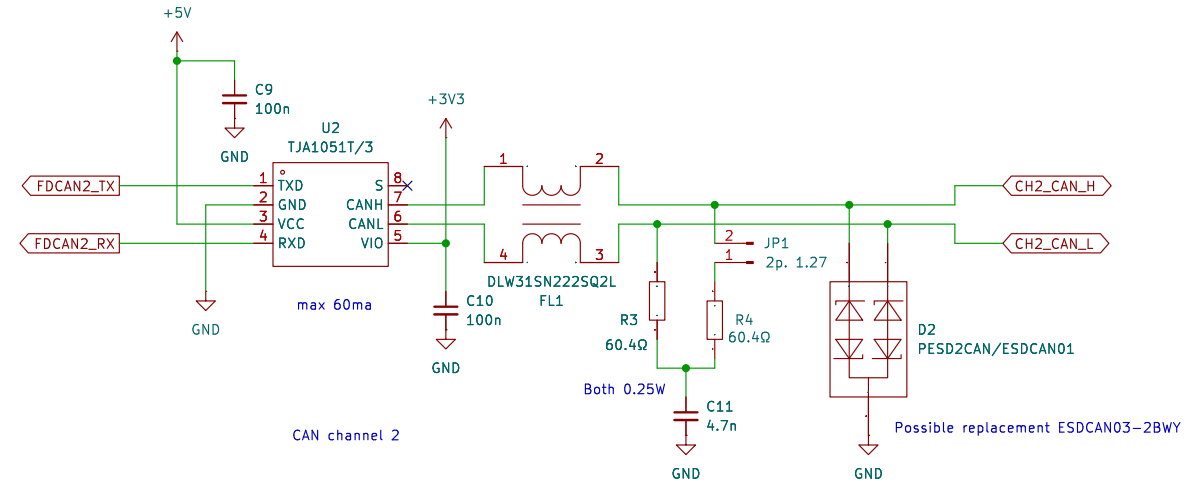
File: POWER.kicad_sch

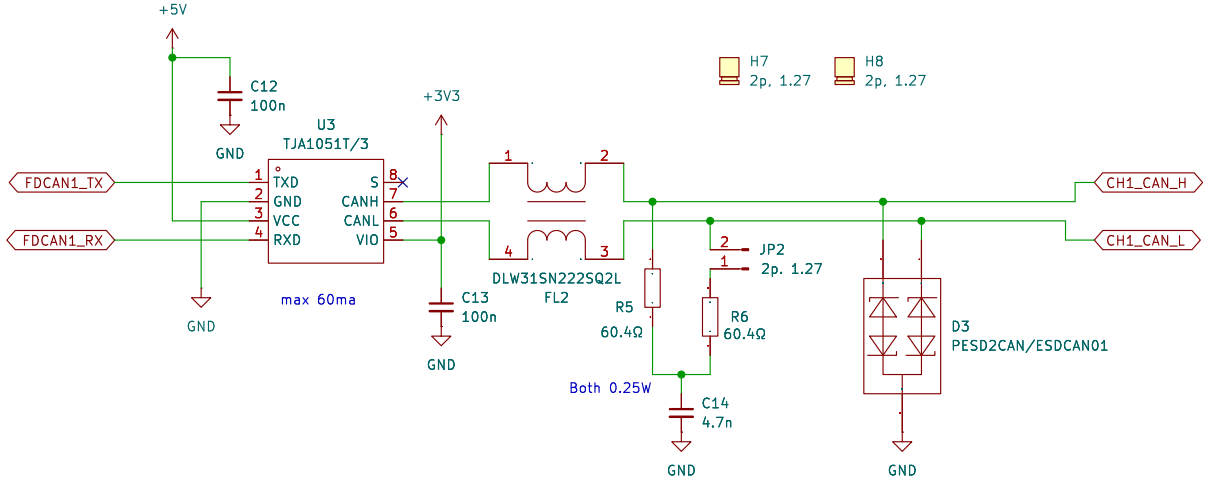
rev 1.0 – initial
rev 1.1
  * replace solder jumpers with 1.27 jumpers
  * increase resistors for LED indicators (to 5k1 and 10k for 12v line)

Sheet: /
File: canlogger.kicad_sch

Title: Dual Channel CAN Logger

Size: A4	Date:	**Rev: 1.1**
KiCad E.D.A. 9.0.3		Id: 1/5





Sheet: /CAN/		
File: CAN.kicad_sch		
Title: Dual Channel CAN Logger		
Size: A4	Date:	**Rev: 1.1**
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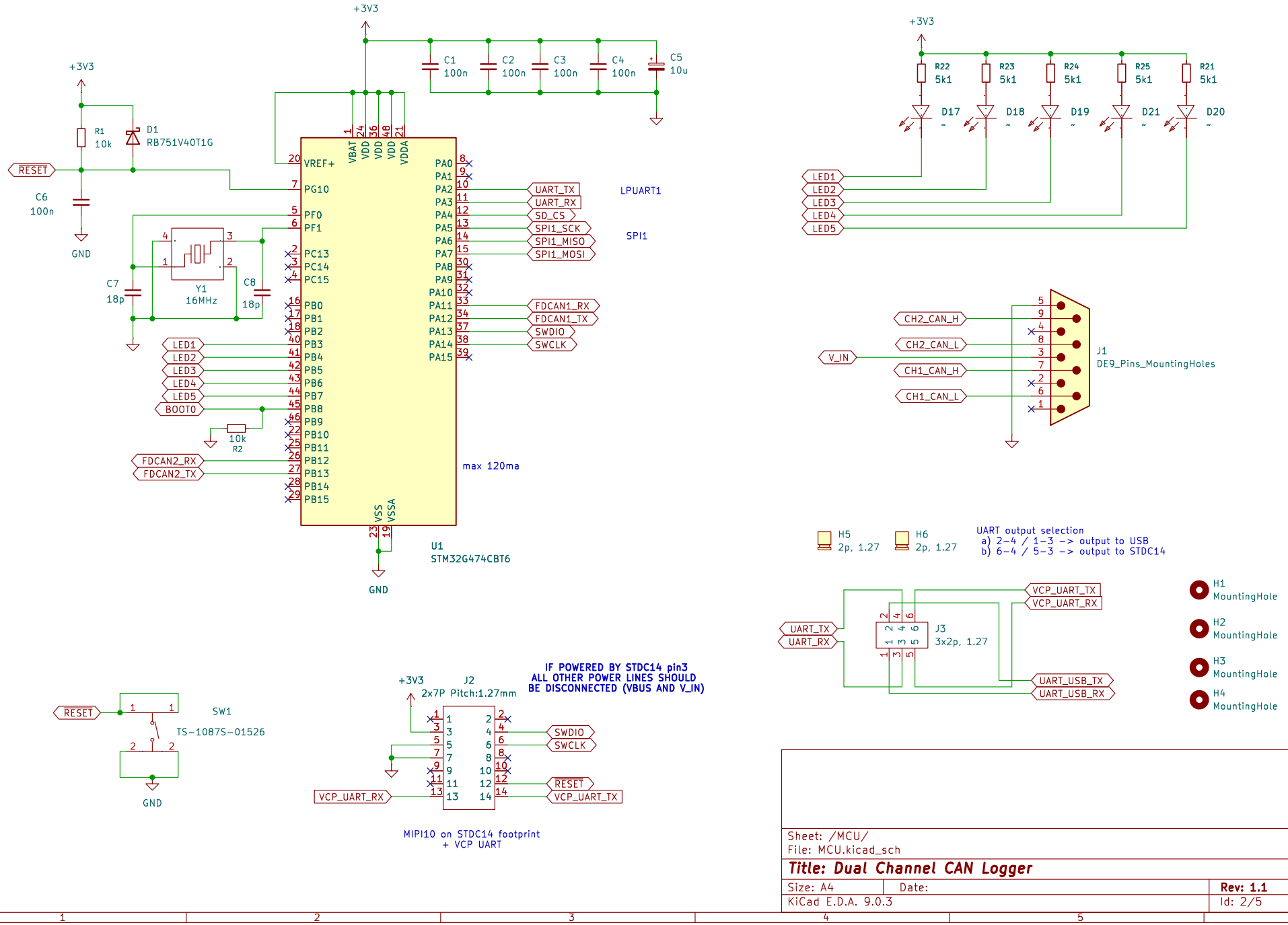
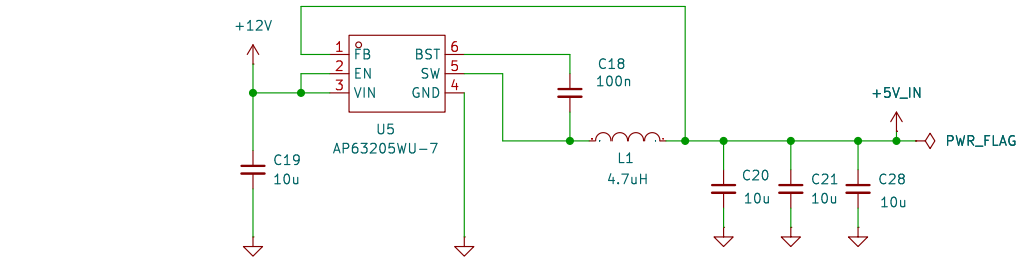
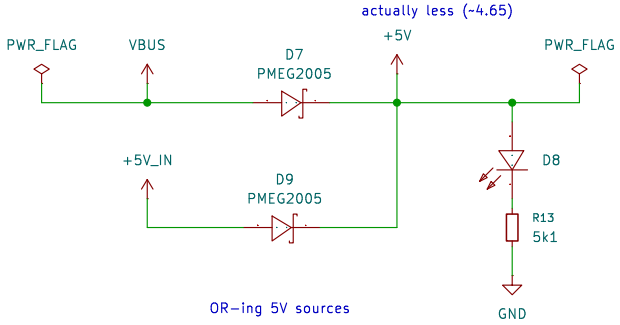
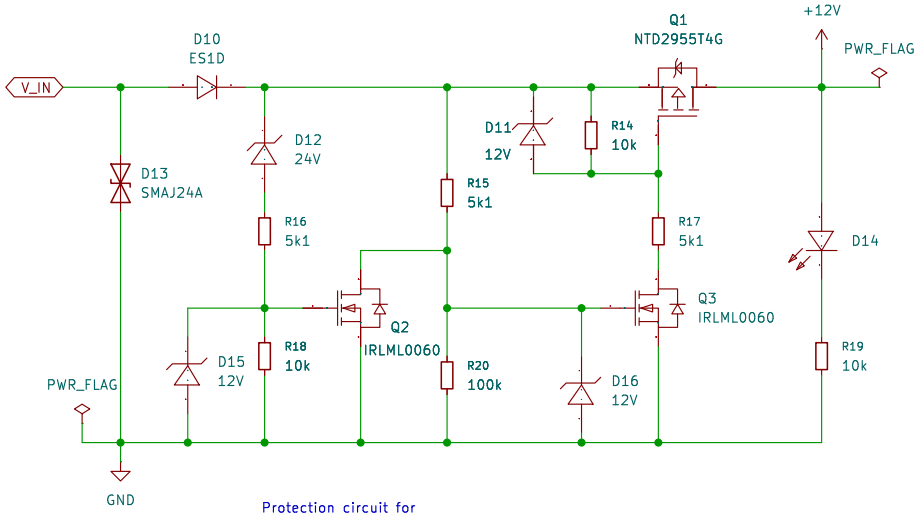

+3V3
C1 100n
C2 100n
C3 100n
C4 100n
C5 10u
R1 10k
D1 RB751V40T1G
RESET
C6 100n
GND
C7 18p
C8 18p
Y1 16MHz
U1
STM32G474CBT6
VBAT
VDD
VDDA
VREF+
PG10
PF0
PF1
PC13
PC14
PC15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
VSS
VSSA
UART_TX
UART_RX
SD_CS
SPI1_SCK
SPI1_MISO
SPI1_MOSI
FDCAN1_RX
FDCAN1_TX
SWDIO
SWCLK
LED1
LED2
LED3
LED4
LED5
BOOT0
10k R2
FDCAN2_RX
FDCAN2_TX
LPUART1
SPI1
max 120ma
R22 5k1
R23 5k1
R24 5k1
R25 5k1
R21 5k1
D17
D18
D19
D21
D20
CH2_CAN_H
CH2_CAN_L
V_IN
CH1_CAN_H
CH1_CAN_L
J1
DE9_Pins_MountingHoles
H5
2p, 1.27
H6
2p, 1.27
UART output selection
a) 2–4 / 1–3 –> output to USB
b) 6–4 / 5–3 –> output to STDC14
VCP_UART_TX
VCP_UART_RX
J3
3x2p, 1.27
UART_USB_TX
UART_USB_RX
H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
SW1
TS-1087S-01526
J2
2x7P Pitch:1.27mm
IF POWERED BY STDC14 pin3
ALL OTHER POWER LINES SHOULD
BE DISCONNECTED (VBUS AND V_IN)
MIPI10 on STDC14 footprint
+ VCP UART
Sheet: /MCU/
File: MCU.kicad_sch
Title: Dual Channel CAN Logger
Size: A4
Date:
Rev: 1.1
KiCad E.D.A. 9.0.3
Id: 2/5



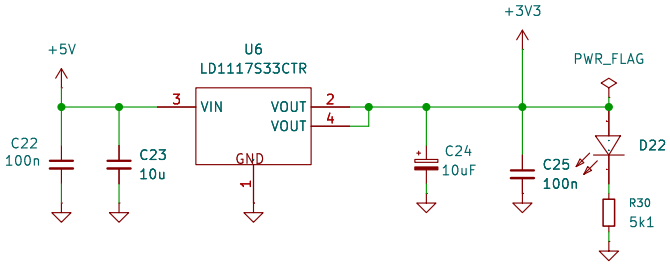
DC-DC buck converter



OR-ing 5V sources



Protection circuit for
- transient
- overvoltage
- reverse-polarity

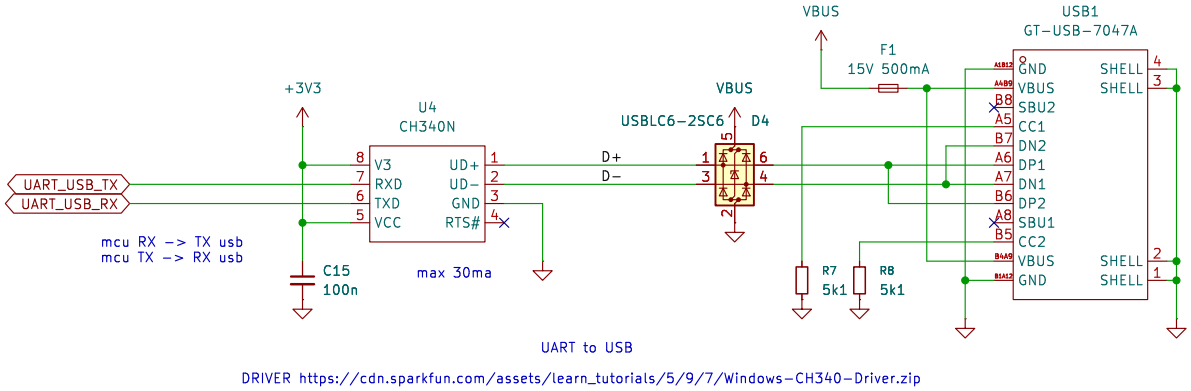


LDO 5-> 3.3 (800mA max)

Sheet: /POWER/
File: POWER.kicad_sch

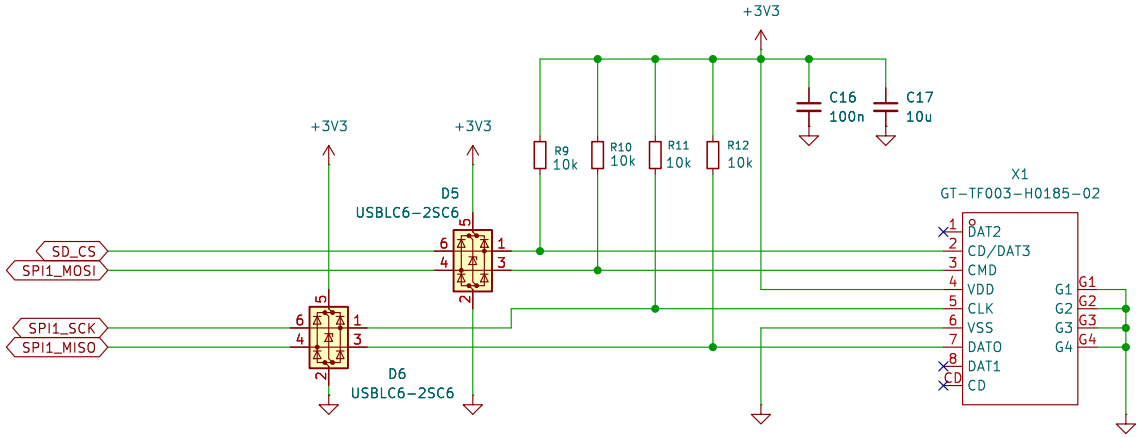
Title: Dual Channel CAN Logger

Size: A4	Date:	**Rev: 1.1**
KiCad E.D.A. 9.0.3		Id: 5/5



UART to USB

DRIVER https://cdn.sparkfun.com/assets/learn_tutorials/5/9/7/Windows-CH340-Driver.zip



SD CARD interface

Sheet: /USB_SDCARD/
File: USB.kicad_sch

Title: Dual Channel CAN Logger

Size: A4	Date: 2025-10-22	**Rev: 1.1**
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