

Important: Black Pill 5V pins 18 and 40 are power INPUT pins whereas 3.3V pins 20 and 38 are power OUTPUT pins from the onboard 3.3V LDO regulator, and can supply up to 100mA current.

Note: this is a simple voltage divider, because the STM32 ADC max. input voltage = 3.3V.

Sheet: GPSDO Extras

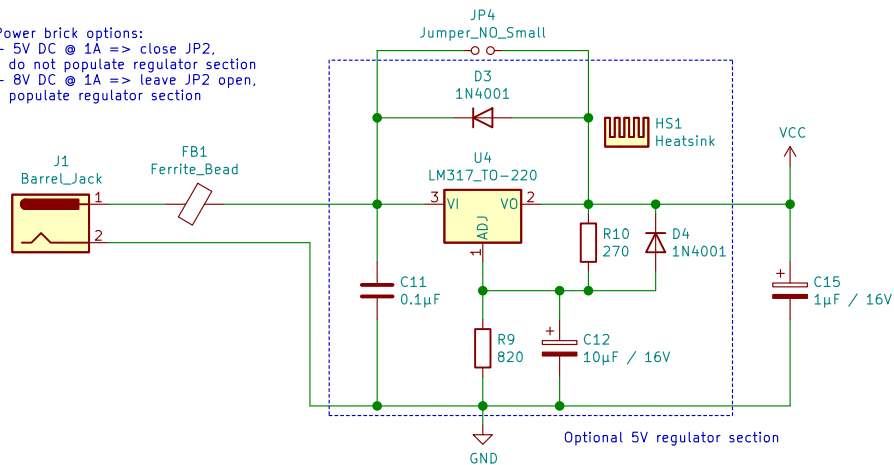
File: GPSDO-extras.sch

STM32 GPSDO by AndrewBCN
with optional OLED display, sensors
and Bluetooth module

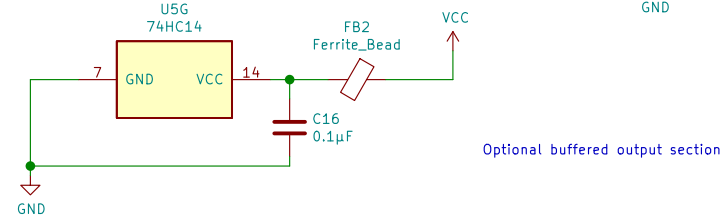
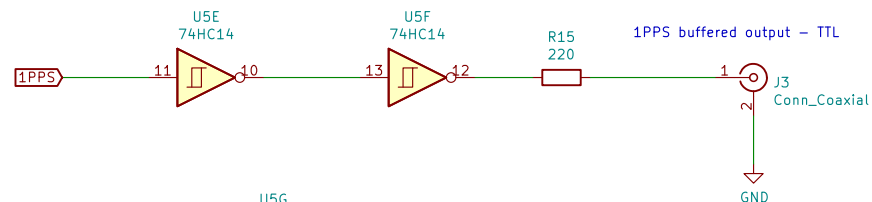
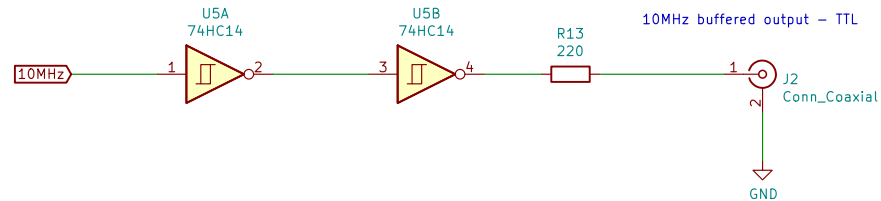
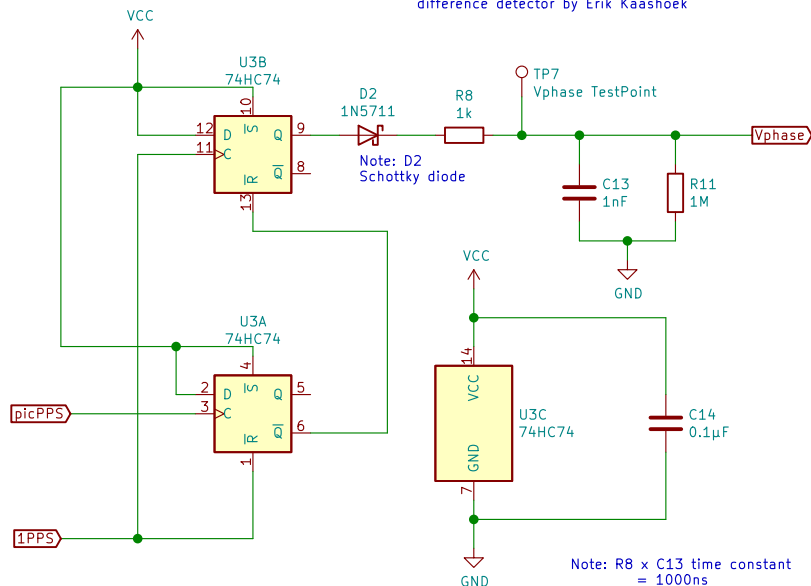


Sheet: /	
File: GPSDO-KiCad.sch	
Title: STM32 GPSDO	
Size: A4	Date: 2021-11-18
KiCad E.D.A. eeschema 5.1.10-88a1d61d5890ubuntu20.10.1	
Rev: 0.6.2	
Id: 1/3	

Power brick options:
 - 5V DC @ 1A => close JP2,
 do not populate regulator section
 - 8V DC @ 1A => leave JP2 open,
 populate regulator section



Optional experimental 1ns resolution phase
 difference detector by Erik Kaashoek



Sheet: GPSDO Extras 2

File: GPSDO-extras2.sch

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole
- H5 MountingHole

STM32 GPSDO by AndrewBCN
 Power supply, output buffers and
 1ns resolution phase detector



Sheet: /GPSDO Extras/
 File: GPSDO-extras.sch

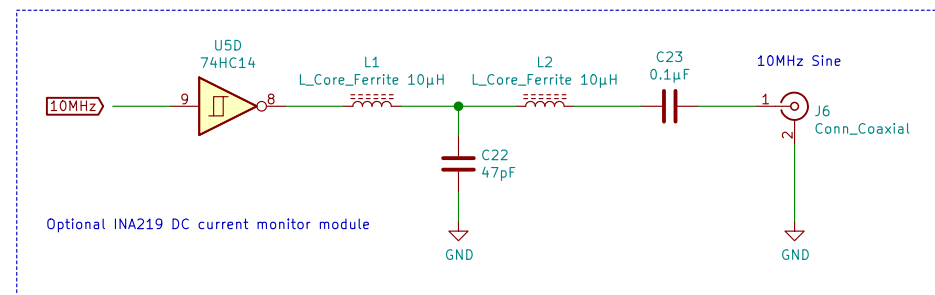
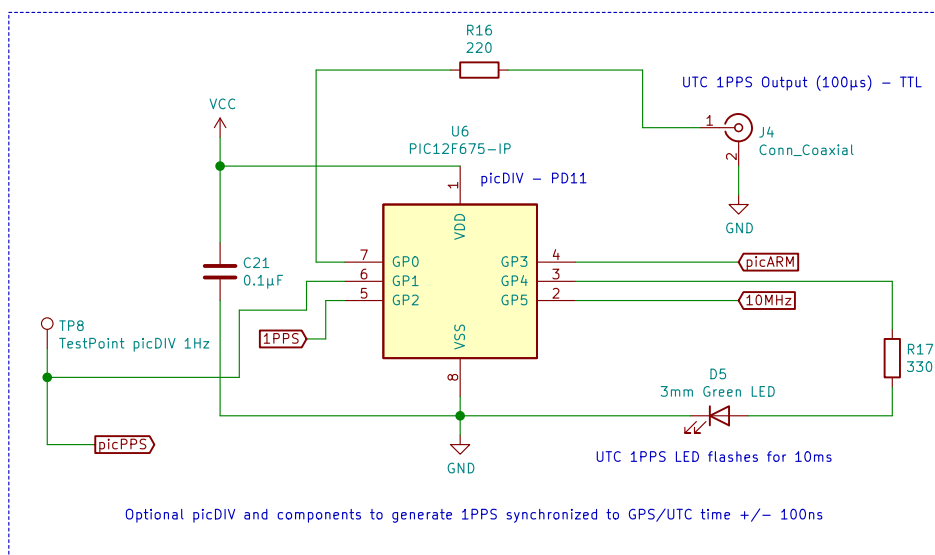
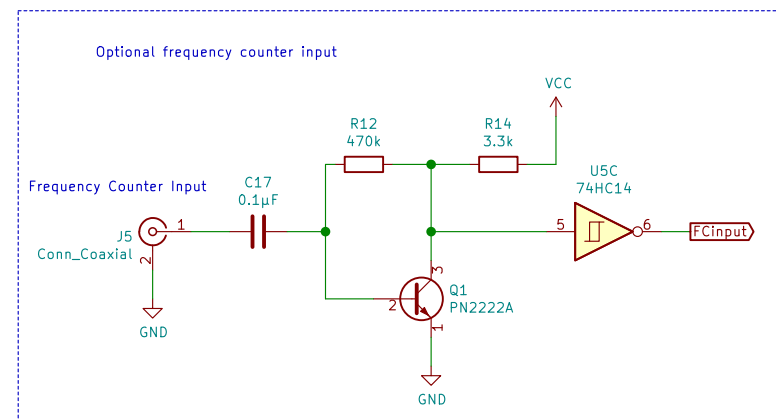
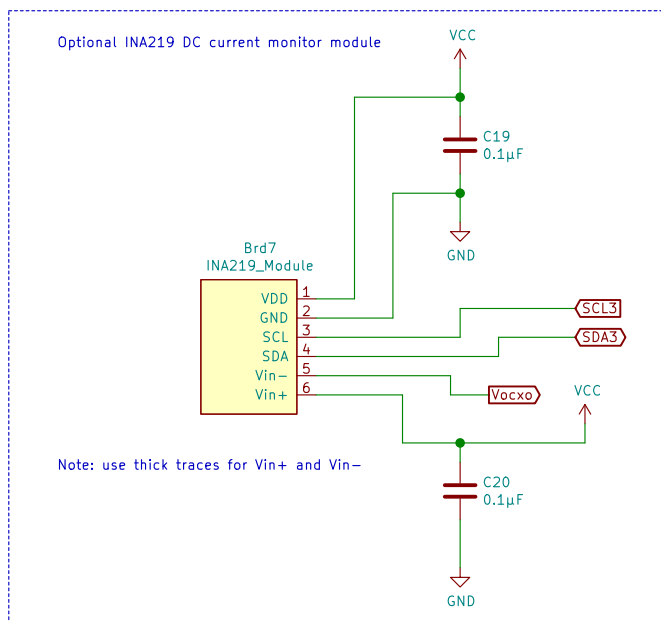
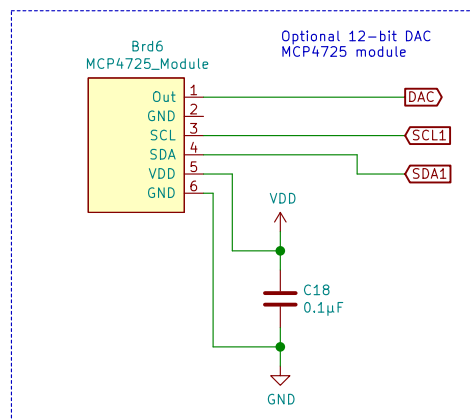
Title: STM32 GPSDO

Size: A4 Date: 2021-11-18

KiCad E.D.A. eeschema 5.1.10-88a1d61d5890ubuntu20.10.1

Rev: 0.6.2

Id: 2/3



STM32 GPSDO by AndrewBCN
Optional 12-bit DAC module
Optional OCXO DC current monitor module



Sheet: /GPSDO Extras/GPSDO Extras 2/
File: GPSDO-extras2.sch

Title: STM32 GPSDO

Size: A4 Date: 2021-11-18
KiCad E.D.A. eeschema 5.1.10-88a1d61d5890ubuntu20.10.1

Rev: 0.6.2
Id: 3/3