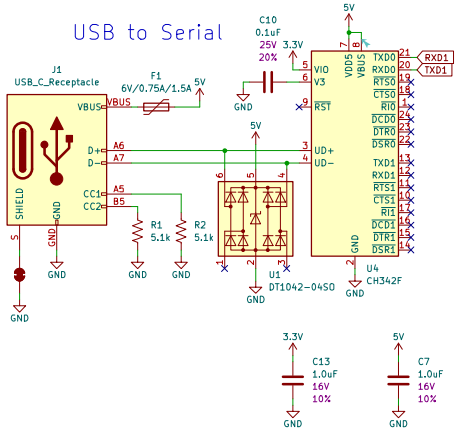
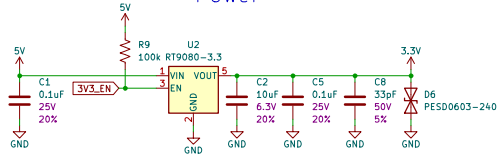


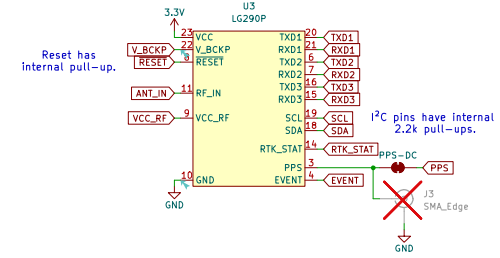
USB to Serial



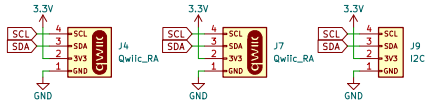
Power



LG290P Quadband GNSS Receiver



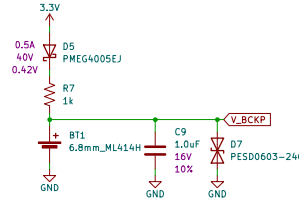
I²C Connectors



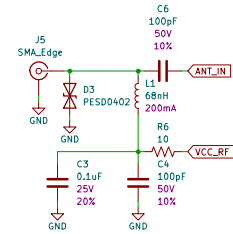
No external I²C pull-ups because LG290P has internal resistors.

I²C interface not yet supported.
Support coming in future firmware release.

Battery Backup

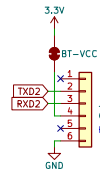
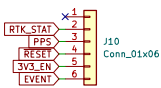
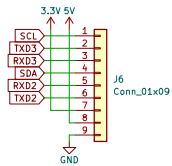


RF Connector

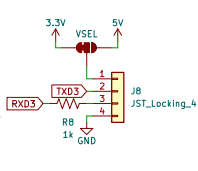


Coplanar Waveguide Calculation:
Copper Thickness (Loz): 1.4mil/0.035mm
Board thickness: 1.6mm
Dielectric thickness (layer 1 to 2): 0.2mm
Er: 4.6
Polygon Isolation: 8mil/0.2032mm
RF Trace Width: 13.74mil/0.349mm
<https://chemandy.com/calculators/coplanar-waveguide-with-ground-calculator.htm>

External PTH Connectors

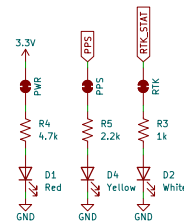


Locking JST



Generally speaking the ports are used as follows:
UART1 - Configure in and NMEA output over USB
UART2 - RTCM correction input and NMEA output over Bluetooth
UART3 - NMEA output to embedded system

LEDs



open source hardware

Designed by: N. Seidle

sparkfun

Sheet: /
File: SparkFun_GNSS_LG290P.kicad_sch

Title: LG290P Triband GNSS Receiver Breakout

Size: USLedger Date: 2024-08-21

KiCad E.D.A. 8.0.5

Rev: v10

Id: 1/1