

Satellite Transceiver Kit (Swarm M138)

KIT-21287

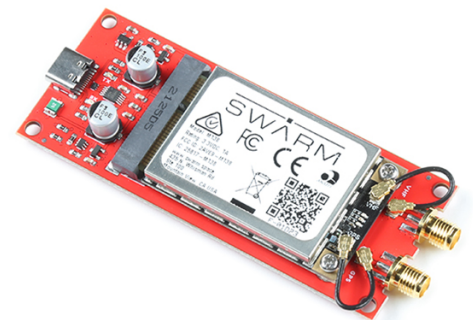
Product Overview

1/25/2024

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

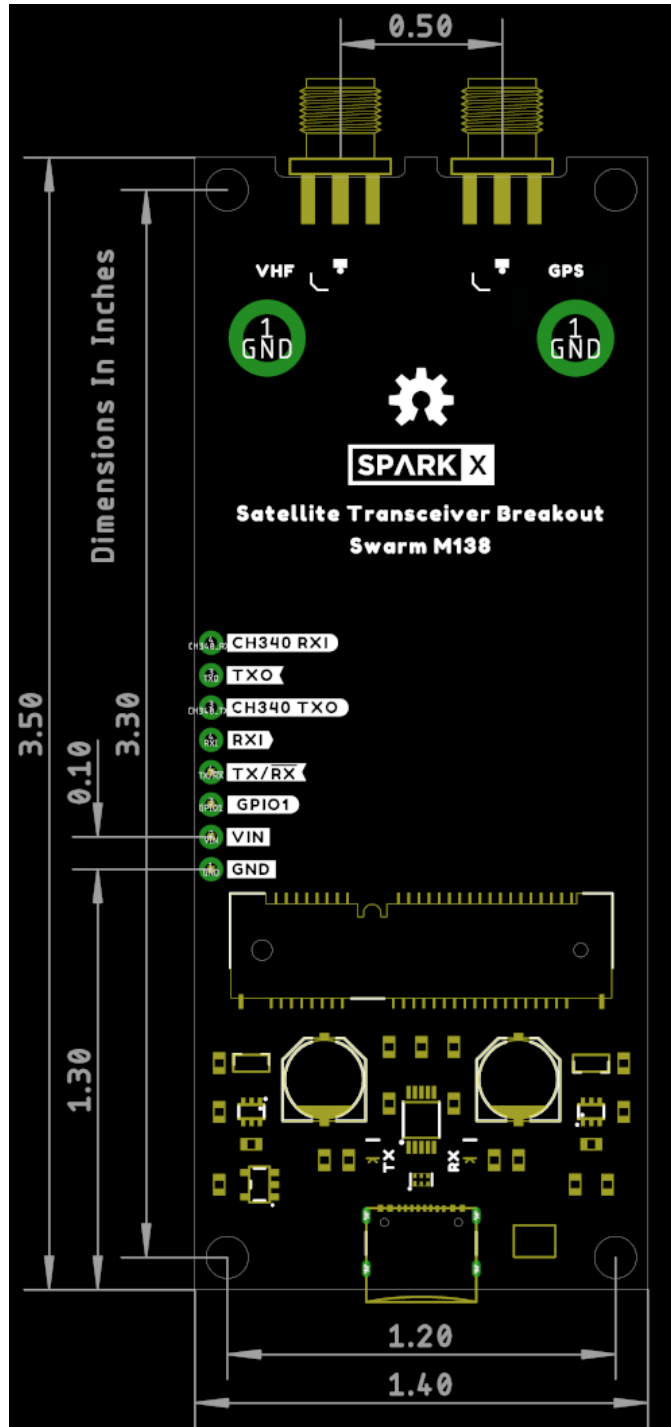
SparkFun Satellite Transceiver Kit (Swarm M138) is a low-cost way to send and receive data messages via satellite. This kit consists of a mini-PCI express card containing both the satellite modem and a very competent GNSS receiver. The transceiver kit includes both a USB-C™ interface (for power and/or serial data) and a full set of breakout pins. This kit operates from a 3V to 5V supply voltage range. The transceiver kit allows you to send and receive short messages almost anywhere in the world, and far beyond the reach of WiFi and cellular networks. This Kit is ideally used for connecting people and tracking vehicles, ships, or packages to relay sensor data for agriculture, energy, and industrial IoT applications.



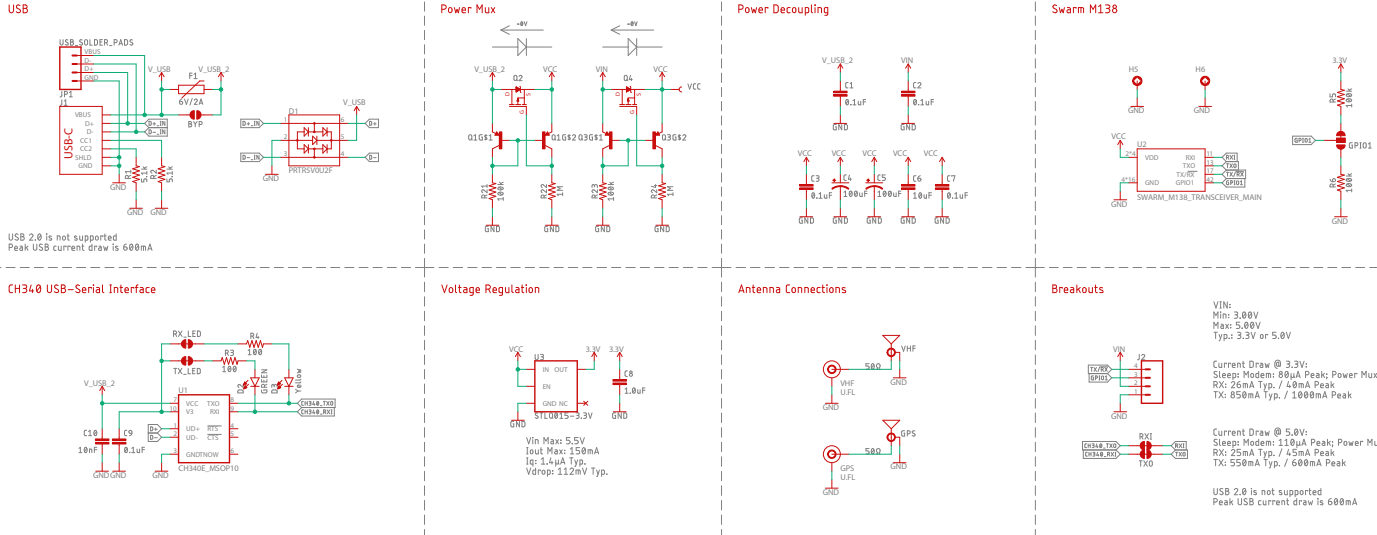
Features

- 3.5" x 1.4" x 0.37" (89mm x 36mm x 9.5mm) PCB dimensions
- Separate, robust connectors for VHF satellite communication and GPS / GNSS positioning
- Serial interface:
 - USB-C™ via a CH340E USB-serial converter
 - 3.3V UART via 0.1" breakout pins
 - Split pads allow the TX and RX breakout pins to be isolated from the CH340E
 - TX and RX LEDs (configurable)
- Power supply:
 - 3V minimum and 5V maximum
 - Power can be provided by USB-C or via 0.1" breakout pins
 - "Ideal diode" power mux circuit with ~0V voltage drop
- Current draw @ 3.3V:
 - Sleep modem 80µA (peak) power mux ~70µA
 - Receive 26mA, 40mA (peak)
 - Transmit 850mA, 1000mA (peak)
- Current draw @ 5.0V:
 - Sleep modem 110µA (peak) power mux ~100µA
 - Receive 25mA (Typical) 45mA (peak)
 - Transmit 550mA (Typical) 600mA (peak)
- Please note:
 - When powering the board from USB, please use a USB-C or USB 3 port
 - USB 2.0 is not supported

Breakout Board Dimensions



Schematic Diagram



Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-satellite-transceiver-kit/>