



Gen 2 Electrically Isolated USB EZO™ Carrier Board

The Gen 2 Electrically Isolated USB EZO™ Carrier Board Allows you to connect your Atlas Scientific circuit directly to your computer or Raspberry Pi, using standard USB drivers (for an FTDI device). Built in isolation ensures that your circuit will be protected from interference, ground loops, and harmful voltages.

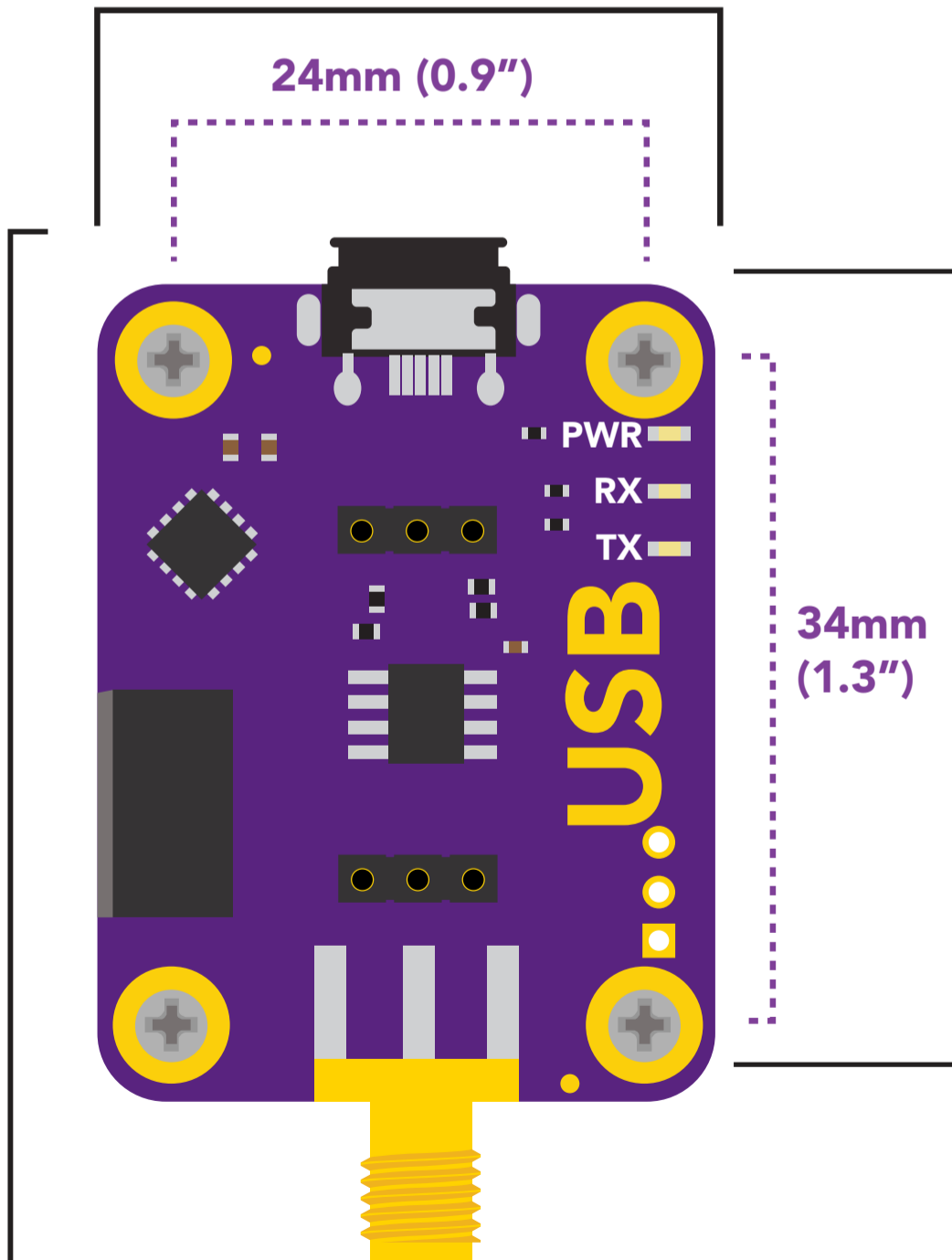
Power consumption

Circuit	5V
No Load	17mA
EZO™ pH	54mA
EZO™ ORP	54mA
EZO™ Dissolved Oxygen	52mA
EZO™ Conductivity	78mA
EZO™ Temperature	52mA
EZO™ Flow Totalizer	52mA

32.2mm (1.2")

24mm (0.9")

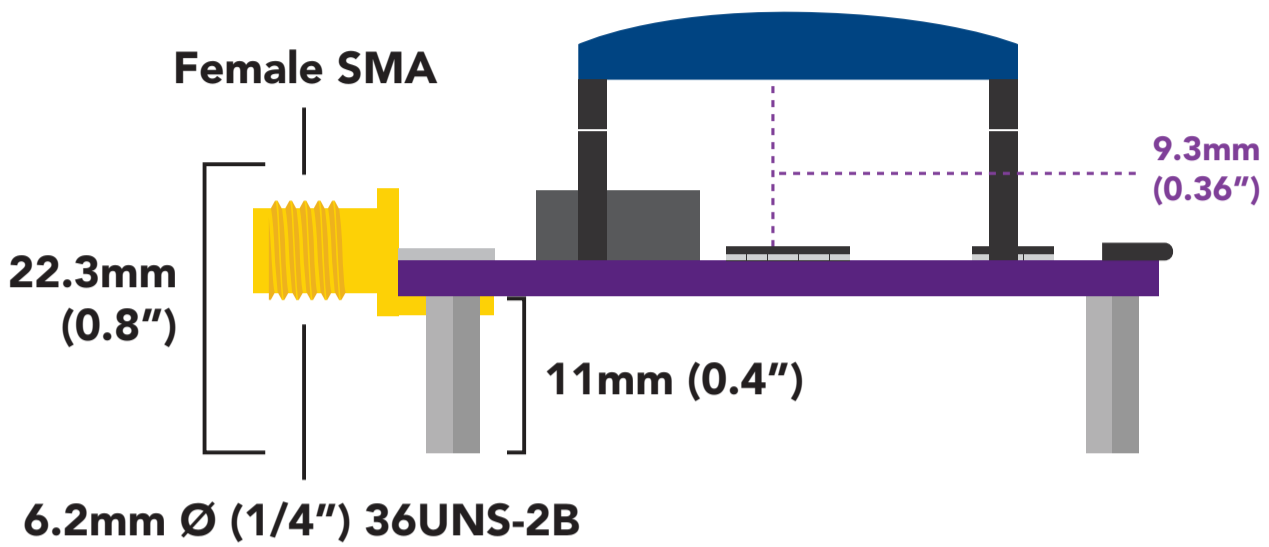
52.3mm
(2")



34mm
(1.3")

41.9mm
(1.6")

Gen 2 Electrically Isolated USB EZO™ Carrier Board

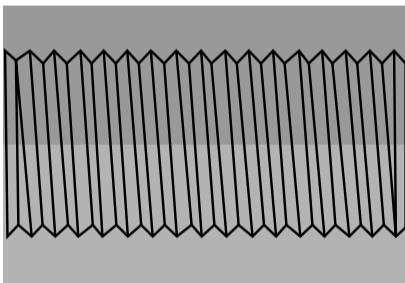


Standoffs

4.75mm
(0.1")



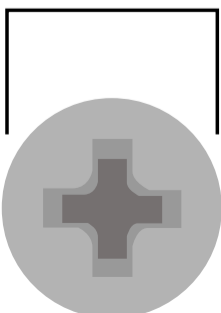
#4-40



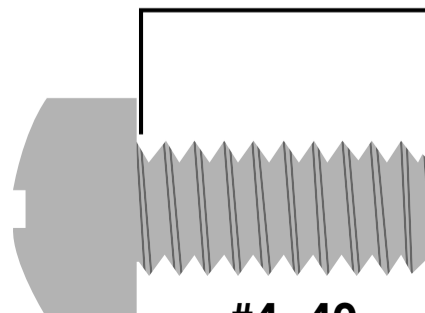
11mm (0.43")

Screws

4.6mm
(0.183")



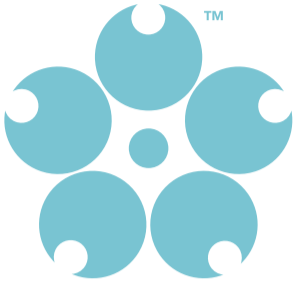
6.35mm
(0.25")



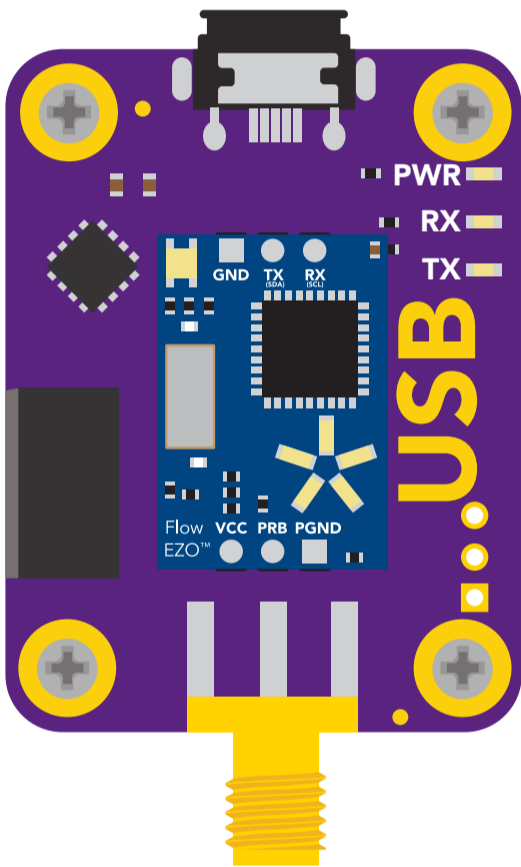
2.8mm
(0.112")

#4-40

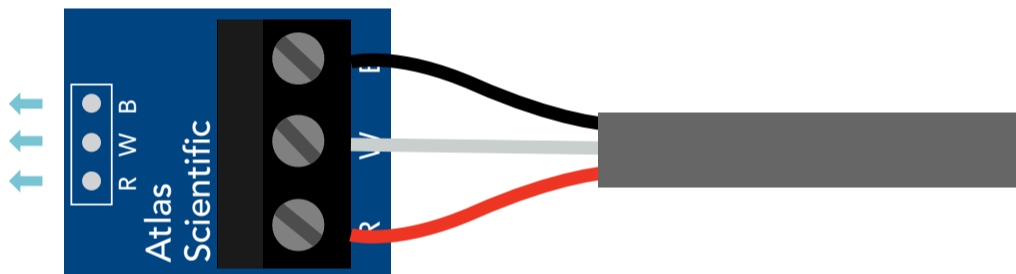
Gen 2 Electrically Isolated USB EZO™ Carrier Board



Proper setup for use with the EZO™ Universal Flow Meter Totalizer

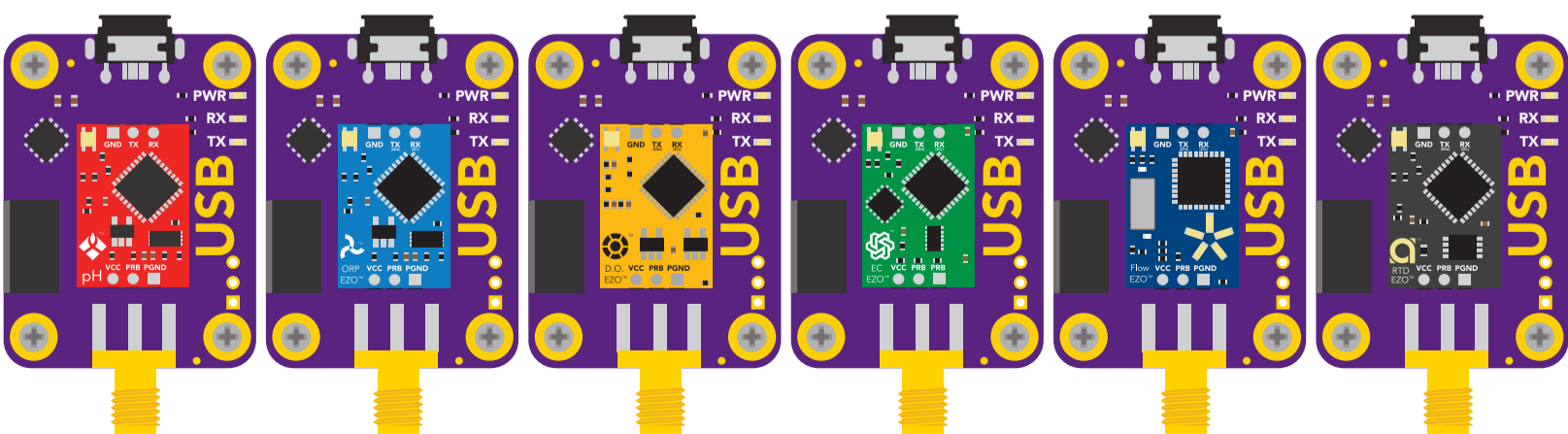


Connect Flow breakout board
to the carrier board.



The Gen 2 Electrically Isolated USB EZO™ Carrier Board works with all EZO™ class devices.

The Gen 2 Electrically Isolated USB EZO™ Carrier Board does not come with EZO™ class devices.



Gen 2 Electrically Isolated USB EZO™ Carrier Board

This schematic shows exactly how we isolate power and data using the RFM-0505s, SI8600, and a few passive components. The RFM-0505s Isolates the power up to 200mA, 5 volts input = 5 volts output, 3 Volts input = 3 volts output, The SI8600 has two bidirectional data channels, making it ideal for UART and I2C communication. Each channel has a 10kΩ pull up resistor on both the isolated and non-isolated lines.

Isolated ground is different from non-isolated ground, these two lines should not be connected together.

