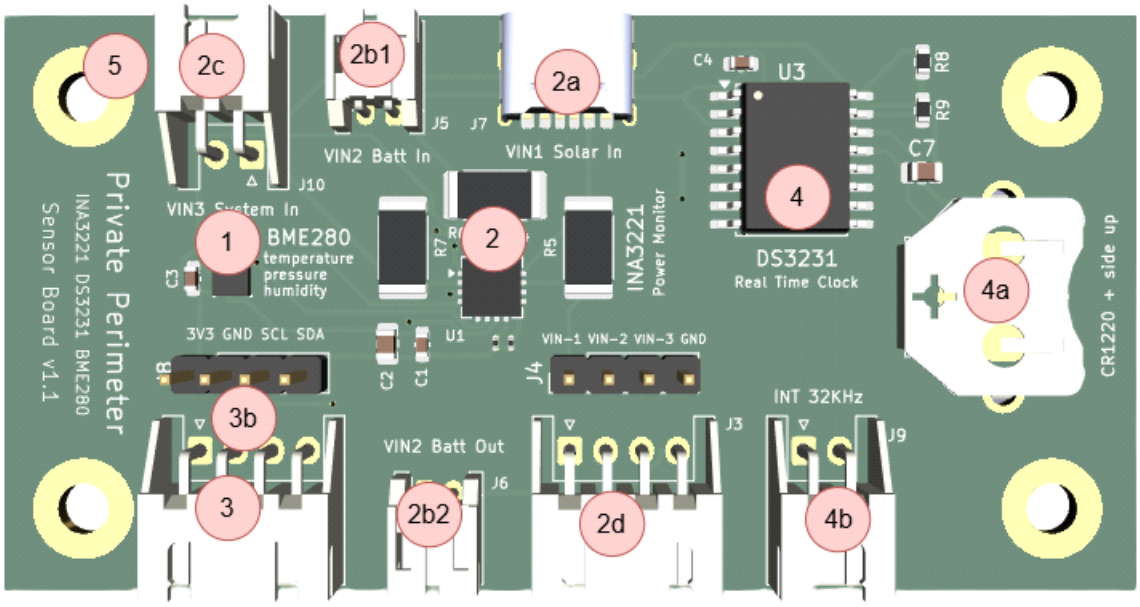
Private Perimeter Sensor Board XH (JST XH) v1.1



1. BME280 environment sensor (temperature, pressure, humidity)
2. INA3221 Power Sensor - three channels with 1W 1% 0.1 ohm shunt resistors
    - 2a: Solar Panel USB-C input for VIN1+, GND, VIN1- power only input (use the processor USB-C for firmware update)
    - 2b1: Battery input JST PH 2.0 for VIN2+ / GND
    - 2b2: Battery output JST PH 2.0 for VIN2- / GND
    - 2c: Spare / System JST XH for VIN3+ / GND
    - 2d: JST XH for all outputs VIN1- / VIN2- / VIN3- / GND
3. I2C Interface - JST XH with pullups
    - 3b: Dupont pins for alternate I2C interface
4. DS3231 Real Time Clock with TCXO
    - 4a: Battery holder for a CR1220 (not included) for up to 10 years of backup
    - 4b: Auxilliary JST XH for RTC interrupt and 32KHz signal
5. M3 mounting holes

All pins are clearly marked on the board for ease of use.
Circuit includes a solid ground plane, capacitors, pull-up resistors, and signal rounding resistors which are handy for potential FCC compliance.