



# SmartBelt Hardware Specifications



## Our Wearable Keeps Your Entire Operation Safe

The Modjoul SmartBelt is a workplace wearable designed to measure employee safety and work time. The sensors in the SmartBelt collect various data from the user to determine their activity while on the job. By collecting data such as acceleration, angular speed, proximity to other wearables, altitude, ambient temperature-pressure and humidity, companies can improve employee safety and wellbeing in the workplace through data and actionable insights.

### SmartBelt Sensors

| SENSOR        | NUMBER              | MAX VALUE     | MIN VALUE     | DATA ACQUISITION FREQUENCY |
|---------------|---------------------|---------------|---------------|----------------------------|
| Accelerometer | 1                   | 4g            | -4g           | 10 Hz                      |
| Gyroscope     | 1                   | 2000°/sec     | -2000°/sec    | 10 Hz                      |
| Magnetometer  | 1                   | +4800 $\mu$ T | -4800 $\mu$ T | 10 Hz                      |
| Altimeter     | 1                   | 30,000 ft     | 0             | 10 Hz                      |
| Humidity      | 1                   | 100% RH       | 0             | 10 Hz                      |
| Temperature   | 1                   | 185° F        | -40° F        | 10 Hz                      |
| GPS           | Available on demand | NA            | NA            | 10 Hz                      |

### Range of Operation

**Operating Temperature of SmartBelt:**  
-40 F to 1400 F

**Operating Voltage of SmartBelt:**  
3.3 to 4 V

**Operating Current:**  
25-30 mA when Wi-Fi radio is off

**Peak Current:**  
100 mA when Wi-Fi radio is transmitting

**Wi-Fi Encryption:**  
WPA2-PSK



## Battery Specifications

| PARAMETER        | VALUE  |
|------------------|--------|
| Normal Voltage   | 3.7 V  |
| Minimum Voltage  | 2.50 V |
| Charging Current | 440mA  |
| Charging Voltage | 4.2 V  |



## Device Dimensions

**Belt Buckle:**

112 mm x 57 mm x 24 mm = 4.4" x 2.24" x 0.94"

**Modular Device:**

82 mm x 53 mm x 20 mm=3.22" x 2.08" x 0.78"

**SmartBelt Body:**

One size fits all Nylon webbing  
(1270 mm x 32 mm x 1.7mm = 50" x 1.25" x 0.06")

**Weight:**

6 Ounces (with belt body)



## General Specifications

**Memory Card Storage:**

512 MB

**Wi-Fi Frequency:**

802.11 b/g/n and 20 MHz band. 2.4 GHz ISM band

**Wi-Fi Module FCC ID No:**

2ADHKATWINC1500

**Battery Capacity:**

2000 mAh

**Charging Interface:**

Micro-USB and Pogo Pins