Technical Specification for Inertial Measurement Unit Components

Model/part number of each item and associated technical specification must be provided for technical evaluation.

1. Sensor pack for Inertial Measurement Unit (IMU): Quantity 4

General specifications:
   i. Dimensions: 42 x 27 x 11mm
   ii. Weight: 9.5g
   iii. IP68
   iv. Bluetooth 5
   v. Battery: 12 hr life
   vi. Charge time: 1.5 hr

Sensor specifications:
   i. Accelerometer sensor: Low-g 16 bit / High-g 13bit
   ii. Accelerometer axes: 3 axis
   iii. Accelerometer range: Low-g ±16g / High-g ±200g
   iv. Accelerometer frequency: Low-g 1125Hz / High-g 1600Hz
   v. Gyroscope sensor: 16-bit Gyroscope axes 3 axis
   vi. Gyroscope range: ±2000°/sec
   vii. Gyroscope frequency: 1125Hz
   viii. Magnetometer sensor: 16 bit
   ix. Magnetometer axes: 3 axis
   x. Magnetometer range: ±4900μT
   xi. Magnetometer frequency: 100Hz

Sensor pack should be able to capture up to 200g, measuring movement simultaneously, ensuring high-fidelity data capture and eliminating sensor saturation.

Setup should have
   i. Strap (S/M/L)
   ii. Cradle per sensor
iii. USB to micro USB cable

Comprehensive warranty for a period of 1 year.

2. **Integration Kit for Inertial Measurement Unit (IMU): Quantity 1**

Kit should include
i. Bluetooth dongle
ii. 1m USB extender cable
iii. Active wand clip
iv. Quick start guide

Comprehensive warranty for a period of 1 year.

3. **Software for Inertial Measurement Unit (IMU): Quantity 1**

The life science software package for data capture, post-processing and exporting to 3rd party software.
Data capture should be supported for marker-based optical motion capture system and IMU-based markerless motion capture systems. Customisable and repeatable post-processing should be supported for, but not limited to, biomechanical movement analysis, rehabilitation biomechanics, sports biomechanics, and neuroscience and motor control. Should be compatible with 3rd party software such as, but not limited to, MatLab and Labview.

Comprehensive warranty for a period of 1 year.
4. **Dongle for Inertial Measurement Unit (IMU): Quantity 1**

Safenet dongle, or substantially equivalent access management and authentication service dongle, to load the software license.

Comprehensive warranty for a period of 1 year.