



PR No. 1000033309

Rfx No. 6100001447

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 $\pm 16g$ / High-g $\pm 200g$
- iv. Accelerometer frequency: Low-g 1125Hz / High-g 1600Hz
- v. Gyroscope sensor: 16-bit Gyroscope axes 3 axis
- vi. Gyroscope range: $\pm 2000^\circ/\text{sec}$
- vii. Gyroscope frequency: 1125Hz
- viii. Magnetometer sensor: 16 bit
- ix. Magnetometer axes: 3 axis
- x. Magnetometer range: $\pm 4900\mu\text{T}$
- 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.



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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.