Model Name: **AXIS**

Model Number: **AN – 001, CD – 001, AD – 001**

Product Category: Wireless VR/XR gaming periperhal

Product Description: Motion Capture System

Operational Description:

This equipment is a wireless motion capturing device worn by the user on different locations of their body to capture the motion of each specific location. Depending on the application, user can use from 4 to 16 Nodes (AN-001) each time. Each Node senses the change in direction in 9 different axis and is transmitted to the user computer wirelessly using Wi-Fi technology through the Dongle (AD – 001). The Bluetooth Function of the Module was disabled by software setting for both Nodes and Dongle. All motions are captured at 30 – 120hz and transmitted directly to the PC allowing user to super impose their motion into virtual space.

The wireless technology used is based on IEEE 802.11 b/g/n from 2401 – 2473 MHz - a total of 11 channels are available to the user. Bandwidth is up to 150mbps during usage.

Each Node is powered by a 600mAh non removable li-ion battery and uses a single core RISC-V architecture running a 160Mhz CPU together with a 9 DOF IMU and also a haptic motor to provide haptic feedback to allow user to experience more immersive gameplay. Operating temperature is suggested at 5℃ to 45℃ ambient. Expected operating duration is 3-4hrs and charging time is expected to be 90mins to 120mins

The Dongle has a dual core Xtensa CPU running at 240MHz which is connected to the PC via USB-A connection at USB 2.0 standards. Operating temperature is suggested at 5℃ to 45℃ ambient.

The Charging Dock (CD-001) is a docking station for charging up to 9 Nodes simultaneously and also acts as a storage case when nodes are not in used. The Charging Dock inputs at Vac 110 – 240v and outputs 5V 7A (Max) during usage.

To operate the system, users are required to pair their Nodes to the Dongle using our self-developed software suite. Once paired, a calibration and zeroing step is required, then users can view their actions in our software suite and can also be streamed to other applications through UDP. There are also certain functions available to developers, such as shutting down the nodes, vibrating the nodes, changing the LED colour etc.