## SOFTWARE REQIUIREMENT SPECIFICATION

### REQUIREMENT

1. Introduction

1.1 Purpose

This document outlines the software requirements for the development of three audio products: wired headphones, neckband, and TWS earphones.

1.2 Scope

The software described in this document is intended to enhance the user experience and functionality of the specified audio products.

2. Product Descriptions

2.1 Wired Headphones

2.1.1 Features

High-quality sound output

Comfortable over-ear design

Wired connectivity with a standard 3.5mm audio jack

In-line controls for volume and playback

2.1.2 Software Requirements

Compatibility with common audio devices (smartphones, computers, etc.)

Support for basic audio controls via in-line controls

2.2 Neckband

2.2.1 Features

Neckband design for comfortable wear

Wireless Bluetooth connectivity

Long-lasting battery life

In-line controls for volume, playback, and calls

2.2.2 Software Requirements

Bluetooth pairing and connectivity with a range of devices

Audio playback control via connected devices

Call handling functionality through the neckband controls

2.3 TWS Earphones

2.3.1 Features

True Wireless Stereo technology for a cable-free experience

Compact and portable charging case

Touch controls for playback, volume, and calls

Auto-pairing and seamless device switching

2.3.2 Software Requirements

Bluetooth 5.0 or higher for reliable connection

Touch-sensitive controls for user interaction

Smart pairing and device switching functionality

3. General Requirements

3.1 Compatibility

The software for all three products must be compatible with a wide range of devices, including smartphones, tablets, and computers.

3.2 User Interface

The user interface should be intuitive and user-friendly, providing clear indications of device status and battery levels.

3.3 Firmware Updates

The products should support firmware updates to enable future enhancements and bug fixes.

4. Constraints

The software should not interfere with the core functionality of the audio products.

Compatibility with third-party applications should be considered.

5. Assumptions and Dependencies

It is assumed that users have basic knowledge of pairing and using Bluetooth devices.

Dependencies on third-party libraries or frameworks should be documented.

6. References

Product specifications provided by the hardware team.

Bluetooth specifications for wireless connectivity.

### ROLE

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