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CERTIFICATION SERVICES INC.

"Your Agent to Product Certifications and Licenses Throughout the World"

To: TIMCO September 22, 2009

From: Duane R. Bagdons

Cover Letter for request for a Limited Single Modular Approval FCC ID: UJF ALNKA01

This request is for a Limited Single Modular Approval. This unit will only be installed and used in the Grantee's products only. This unit is a module that operates at 2400 to 2483.5 Mhz Spread Spectrum (DSS) frequency band. The module will only be used by the manufacturer (BodySound Technologies, Inc.) in a product called BodyLink Model: BLNK-A01. The above FCC ID product is a plug in module board that is plugged in as a daughter board to the Main Bodylink board and provides wireless communications in the 2400 to 2483.5 Mhz frequency band in spread spectrum format.

- (i) "The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements."

  This EUT (FCC ID: UJF ALNKA01) ***does not have any shielding*** *of the radio elements---hence* ***Limited Single Modular Approval****.*

- (ii) "The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates by over-modulation."

  The processor chip in this module is a Nordic nRF24Z1. ***The control of the output data stream is controlled by the internal firmware and logic design in this chip to prevent excessive data rates by over modulation.***

- (iii) The Modular transmitter must have its own power supply regulation.

  A linear voltage regulator (U3 LP3990MF) is provided on the modular board *to provide power to the Nordic processor chip as well as the power amplifier circuit (U6 SST12LP00)*

- (iv)The modular transmitter must comply with the antenna and transmission system requirements of Sections 15.203, 15.204 (b) and 15.204 (c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). The "professional installation" provision of Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

  *The antenna used is a separate external antenna (****Pulse Antennas P/N: W1030****) and it uses a special* ***reverse SMA male connector****. The* ***Gain of this antenna is 2 dBi****.* ***This module is only installed at the factory and cannot be purchased to be installed by the consumer. There are no adjustments on the EUT.***

- (v) The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with Part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see Section 15.27 (a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that

there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see Section 15.31 (i).

*This module was **tested in a stand-alone configuration**. **It was plugged into the Host product (BodyLink) with a 25 cm flat cable assembly and was tested outside the Host box**. The EUT is normally plugged into a header connector on the Main PC board in the HOST so there normally is no cable assembly used to plug in the EUT. The EUT is not battery powered hence the **conducted emissions test was performed on the Host (BodyLink) box**. **These photos are shown in the test report**.*

- (vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.

- (vi)(A) If using a permanently affixed label, the modular transmitter must be labeled with its own FCC identification number, and, if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use working such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1." Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.

  *The module has a **permanently affixed label on the pc board**. The **Host also has a label on the outside of the chassis declaring that it contains the above FCC ID product.** Photos of this are included in the filing attachments.*

- (vii) The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization.

  ***All the requirements of FCC 15.247 are met** and the **manufacturer has provided installation instructions** for this module (this is an attachment the filing of this device).*

The only section that does not fully comply for Modular Approval is the shielding of the radio elements (i). All other requirements are met.