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Date: July 23, 2012

Federal Communications Commission  
Equipment Authorization Division  
Application Processing Branch  
7435 Oakland Mills Road  
Columbia, Maryland 21046

Subject: Class II Permissive Change for FCC ID: XWX-TFF2005  
(Original Grant date: 08/04/2010)

To Whom It May Concern,

The purpose of this letter is to request a Class II Permissive Change for FCC ID: XWX-TFF2005, WhereTag IV Module originally granted on 08/04/2010.

The transmitter module itself has not changed.

The major changes filed under this application are:

- I. The following changes have been made to the PCB:
  1. Add a 2-pin header, J2, to allow an option to connect the PCB to a battery pack with a Molex 5264 connector.
  2. Replace the single color LED with a bi-color LED. Add a resistor, R5, to set the current of the LED's second color diode.
  3. Add two solder terminals (or via holes), E1 and E2, to allow an option to connect wires of a pushbutton switch to the PCB.
  4. Replace the 4Mbit flash memory chip, U1, with an 8Mbit chip. The 8Mbit chip is pin for pin compatible with the 4Mbit chip. Larger flash is required to add new software features.



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II. Add new antennas:

In previous design, the module can be used with either an integral on-board antenna or an off-board antenna. In the new design, two additional off-board antennas can be used with the module.

III. Changes to software (or firmware):

In previous design, the 802.11b/g transceiver was used as a 1-way transmitter only, and the receiver was disabled and unable to receive 802.11b/g data packets. In this 1-way 802.11b/g mode, which is also known as Cisco CCX mode, the module transmits RF at very low duty cycle. Therefore, duty cycle correction factor was applied to measured test results.

In the new design, the software has been updated to add a new radio mode, which is called 802.11b/g 2-way client mode. In this mode, both the transmitter and the receiver are active and the module operates as an 802.11b/g client. The transmitter can be on and transmit at 100% duty cycle. Therefore, duty cycle correction factor will not be applied to measured data. Also, RF output power has been reduced in order to meet RF exposure requirements.

We also will retain control over the final installation of the WhereTag IV Module and assure compliance of the end product. The WhereTag IV Module will be only installed in devices produced by Zebra Technologies Corp..

Sincerely,

Signature:

A handwritten signature in black ink, appearing to read "Guzvaldo Medina", written over a horizontal line.

Name:

Guzvaldo Medina

Title:

Senior Compliance Engineer

Company:

Zebra Technologies Corporation