MOTOROLA, Inc. FCC ID: IHDT6EM1

From: Motorola, Inc.

24410 West Lake Cook Rd. Deer Park, IL 90010, USA

To: Elite Electronic 2410 Central Dr, Downers Grove, IL

Subject: Request of Modular Transmitter Approval for BlueTooth device

This letter is a request for modular approval for an in-vehicle BlueTooth device TCU1P03_m1202d. The BlueTooth device will be installed inside a host Telecommunication Unit (TCU) intended for the automotive market. The device will be used to offer wireless communication features to automotive customers.

The BlueTooth device TCU1P03_m1202d is a complete RF transmitter module with its own reference oscillator, antenna connector, RF shield and power regulator. The only connection to the module is power supply and serial communication lines.

The BlueTooth device TCU1P03_m1202d satisfies FCC guidelines DA 00-1407 for modular transmitters in accordance to the following numbered requirements.

- 1. The device has its own RF shield.
- 2. The device has its own buffered modulation/data inputs that can be used for controlling and communicating with the device. The modulation/data inputs routed through an on-board connector that can be used for connecting to a host device along with a power supply.
- 3. The device has its own regulated 1.8 V and 3V power supplies that will insure that the device's performance will remain unchanged regardless of the power supply circuitry in the host Telecommunication Unit.
- 4. The BlueTooth device is equipped with a unique RF antenna connector. The antenna connector is permanently attached to the module though soldering process. The external antenna used in this application is a BMW supplied antenna, BMW part number 6 928 461. The unit is an integrated part of the Telematics Control Unit and located in an automobile, usually in the trunk area. The device is mounted within a metal housing. Due to the low power at which the unit transmits (0.0025 W max.), placement from an SAR perspective is not critical.
- 5. The device was tested for FCC compliance in stand-alone configuration. The device works from a 5V DC external power supply that was attached to the module through the on-board connector using DC power input lines. The length of input lines was approximately 12 cm.
- 6. The device will be labeled with its own FCC ID number. A sample label from a similar module is shown in Picture 1. Since the label will not be visible after the module is assembled into the host TCU, a second label will be placed onto the

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host TCU device to display the FCC ID information of the enclosed module. The external label will attach to the wall of the host TCU device and be clearly visible to the public. A sample label from the host TCU is shown in Picture 2.



Picture 1. A sample on-board label from a similar BlueTooth module.

This label will be placed on to the BlueTooth module.



Picture 2. A sample label from a housing of the host TCU device. This label will be clearly visible to the public.

- 7. The BlueTooth module is compliant with spread-spectrum transmitter requirements.
- 8. The device is compliant with all applicable RF exposure requirements.

In summary, the BlueTooth device TCU1P03_m1202d is compliant with all of the numbered requirements listed in FCC guidelines DA 00-1407. For any further information, please contact: Irina Shmagin, Ph.D., phone: (847) 862-2420, email: Irina@motorola.com.

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