



21 March 2011

Authorization & Evaluation Division
Federal Communications Commission Laboratory
7435 Oakland Mills Road
Columbia, MD 21046

Subject: Application for Class II Permissive Change to Certified transmitter with FCC ID: IHDT56MG1, i475-Series Handsets with Bluetooth.

Gentlemen;

Motorola Inc., 600 North US Hwy 45, Libertyville, IL herein submits its application for a Class II Permissive Change to the certified multi-mode handset with FCC ID: **IHDT56MG1**.

Description of Transceiver:

This transceiver features a variable output power (0.22 to 640 milliwatts) transmitter that is part of a handheld transceiver used in SMR and EA SMR trunking systems operating within the United States 806-821/851-866 MHz and 896-901/935-940 MHz frequency bands. Operation is also extended for use in a Narrowband PCS system operating in the United States in the spectrum between 901-902/940-941 MHz, on channels which the licensee has aggregated together to form twenty-one 25 kHz operating channels.

This radio product is also equipped with a Bluetooth (BT) transceiver. BT supports both voice and data for short range wireless communications. The Bluetooth Band of Operation is 2.4 - 2.4835 GHz (1 MHz channel bandwidth). It is a Class 1 type device, with power rated +4 to +10 dBm (typical +8 dBm). The physical location of the Bluetooth antenna is shown in Exhibit 7b. The BT device complies 15.247 (c), 15.205 and 15.209 (b).

This radio product features integrated GPS and FM broadcast receivers, and is designed to function as a computer peripheral device when functioning as an RF modem, while connected to a computer via a data cable, as described in 47 CFR Part 15.3(r). For these reasons a Declaration of Conformity has been prepared and provided as part of the User Guide (Exhibit 8), as shown on the exhibit cover page.

Description of Changes:

Minor modifications to the SMR antenna were made to improve performance of the final product when used with either of the intended batteries.

- Antenna:
 - Minor dimensional changes to the main (iDEN) antenna to optimize the performance in 800 MHz band. The Antenna element length was reduced by 1-mm.
 - The Bluetooth antenna is unchanged.
- Matching Components:
 - The topology of the matching network and matching components are unchanged.
- The internal SW3 supply to display and LEDs was changed to external charge pump supply to reduce noise. There is no effect to antenna performance.

Impact of Change:

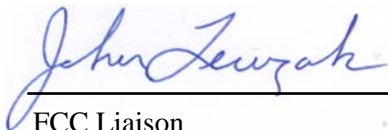
The performance of all applicable and reportable operating parameters under FCC Rule Part 90S, Part 24D, and Part 15 were evaluated and compared with the values originally filed. In particular, the RF Exposure performance (per 47 CFR 2.1093), Radiated Emissions, and other characteristics (per 47 CFR 2.1046 – 2.1055, as required) were evaluated. Some harmonics degraded more than 3 dB, but still have more than 10 dB of margin to the specification limit. All other aspects of the transmitter's Part 90, Part 24D, and Part 15 ISM band performance (including HAC performance) remains unchanged, within measurement uncertainty, from that originally filed with the FCC for this ID.

Conclusion:

This transceiver continues to meet all FCC requirements for which the original authorization was granted. The changes described, therefore, meet the requirements for a Class 2 Permissive Change, in accordance with 47 CFR 2.1043.

Enclosed are an amended test report, and Statements of Certification. Contact me at (847) 523-6167 if you require any additional information.

Regards,



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Attachments:

1. Exhibit 2 (Statements of Certification).
2. Exhibit 6 (IHDT56MG1 RF Test Report -- TX Spurious).