



Date: 25 July 2012

Federal Communications Commission  
Office of Equipment Technology  
Equipment Authorizations

Sent via E-Mail

Re: PBA Inquiry 811012 (23 July 2012); for FCC ID: IHDT56NG1.

Dear Greg,

Motorola Mobility, Inc., 8000 W. Sunrise Blvd.; Suite A; Plantation, FL, herein submits its response to your 14 June 2012 request for further information on FCC ID: IHDT56NG1.

Q 1. Please provide factory "target" power levels for all transmitters and operating modes in the Tune-up Procedure (Exhibit 10), taking into account component tolerance. This information is more useful in determining the maximum power of a mass produced unit and whether compliance can still be maintained, which is of concern due to some SAR measurements are already close to the 1.6 W/kg limit.

**Response:**

The Tune Up Procedure (Exhibit 10) has been updated to include the power limits for the Wi-Fi modes. Note that these powers are not tuned in the Factory.

Q 2. In CDMA modes (Exhibit 12.2.8) are the open-loop power control formula affected by the power reduction? What is the TX power when hotspot is active at powered up?

**Response:**

As specified in Section 12.7.3.2 of the Operational Description, the power cutbacks implemented for Wireless Hotspot mode do not impact the operation of any of the power control features inherent to the protocol. They merely reduce the maximum power level available in the affected mode. Therefore, the maximum available transmitter power for any mode that can participate in the Hotspot mode is the maximum power specified for that mode (in Sections 12.2, 12.3, and 12.4), reduced by the amount described in 12.8, in the various situations described.

Q 3. Is hotspot and simultaneous transmission power reduction superseded by the network power level control commands?

**Response:**

As indicated in the response to Question 2 above, network power level control commands continue to function as intended when the device is operating in the Hotspot mode, but the maximum power available is limited. As in the non-Hotspot case, a network command to increase power results in increasing RF output power, until the maximum limit is reached. In the Hotspot mode, this limit is lower than for the non-Hotspot mode.

Q 4. Please clarify whether 5 MHz operation bandwidth is supported. The information provided in Exhibit 12.3.10 is not in agreement with elsewhere.

**Response:**

Section 12.3.10 has been amended to be in harmony with the rest of the application, reflecting that only 10 MHz operation is supported by this device.

Q 5. Wi-Fi transmitter is said in Exhibit 12.4.1 to support only client mode in UNII frequencies. Since standard 802.11 clients do support ad-hoc function, please clarify.

**Response:**

This device does not support ad hoc (mesh) networking. It does support Direct Mode, which is a peer-to-peer stand-alone network. In Direct Mode, there is a group owner, and the extent of the network is limited to this owner's range. This is distinct from ad hoc networking, which can extend as far as there are peers, and packets are forwarded as needed to reach the full extent of the network. The Operational Description has been amended to clarify this operation, and remove the phrase "ad hoc."

Q 6. Note that three pieces of test equipment used in the Part/24 and Part 27 EMC radiated tests (Page 6 in both reports) went out of calibration before the 6/11 and 6/14 test completion dates.

**Response:**

Motorola Mobility asserts and attests that all testing/measurements performed using the equipment listed on page 6 of both the referenced reports was in-calibration at the time that they were utilized.

Q 7. In the LTE Part 27 test report, please clarify in the band edge measurement how compliance with 27.53(c)(6) is achieved with the use of 10 kHz resolution bandwidth.

**Response:**

Use of 10 kHz resolution bandwidth represents a worse case condition. If compliance with 27.53(c)(6) is demonstrated using a 10 kHz resolution bandwidth, the measurement would also be compliant using a 6.25 kHz resolution bandwidth.

Q 8. Please justify the use of RB allocations of 1 and 100% in band edge and out-of-band spurious emission tests in the LTE Part 27 test report. The EUT is seeking 10 MHz LTE authorization only and therefore should use RB = 50% to demonstrate compliance. The occupied bandwidth plots in fact show possible incorrect equipment setting since, e.g., on Page 10, the bandwidth plots shown are not consistent with the RB settings in the captions.

**Response:**

Testing was performed using FCC KDB Publication 941225 D05 as guidance (we understand that this guidance applies to SAR measurement. We turned to this document since no other guidance is available for EMC). Data for RB allocations of 1, 50% and 100% was provided per that KDB. Please clarify the comment that only RB=50% is required to demonstrate compliance for a 10 MHz LTE product. In any event, since the RB=50 testing was provided, so compliance can be established on those data alone. We also do not see any inconsistencies between the referenced plots and the captions. Please clarify

If you have any questions, please contact me at (954) 723-6272, or via e-mail.

Sincerely,

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