



Date: 8 August 2012

Federal Communications Commission
Office of Equipment Technology
Equipment Authorizations

Sent via E-Mail

Re: Correspondence IHD120810 (2 August 2012); Confirmation Number: 1Y1207270810~15, for FCC ID: IHDT56NS1.

Dear Sir or Madam,

Motorola Mobility, Inc., 8000 W. Sunrise Blvd.; Suite A; Plantation, FL, herein submits its response to your 2 August 2012 request for further information on FCC ID: IHDT56NS1.

Q 1. In response to an FCC RT for FCC ID: IHDT56NG1, Motorola revised the last 2 paragraphs of Section 12.4.1 of that Operational Description to address potential ad hoc operation and initiation of transmissions. Please revise this NS1 Operational Description to also include this same additional information, and confirm that any other revisions made to the NG1 Operational Description that are also applicable to the NS1 have been included in the revised NS1 Operational Description submitted in response to this question.

Response:

The requested clarification has been added to the Operational Description. All other modifications to the NG1 Operational Description have been incorporated, as appropriate, into this application's Operational Description.

Q 2. In SAR Section 2.2, the Part 15 transmitters' maximum output settings are either a dB higher or up to 2 dB lower than the values measured in the EMC reports. Please address.

Response:

The SAR report has been amended so that the maximum power data are in line with those values reported in the EMC reports.

Q 3. In the SAR Table on p.16, the sum of the percentages of the 2450 MHz head fluid ingredients is not equal to 100%. Please revise.

Response:

This has been corrected in the amended SAR report.

Q 4. SAR data Tables 5-8 provide cellular CDMA data with a reduced output level, but the SAR report and Operational Description appear to indicate that power reduction is not applied to the CDMA 850 band, but only the CDMA 1900 band (as well as LTE and Wi-Fi). If this is the case, why was this reduced cellular CDMA output SAR measured? If not, please indicate where the CDMA 850 power reduction is described.

Response:

Per section 2.2.2 of the report, power limit reduction for LTE during SVLTE occurs when the power of the 1x CDMA transmitter is operating at or below 18.5 dBm. This is described on page 8 of the SAR report, fourth and fifth paragraphs (“The DUT supports Simultaneous Voice and LTE (SVLTE)...”).

The SAR data and summations described in Q4 and Q6 are provided to demonstrate simultaneous SAR evaluations during these conditions.

Q 5. Page 9 of the SAR report describes (in the middle of the page) a non-hotspot body-worn configuration when power reduction is applied to the CDMA 1900 tx (22.0 dBm target setting), however, Tables 9 and 10 only include CDMA 1900 data at full power, and Tables 25 and 26 appear to use these full-power values in the simultaneous transmission summations. Is the referenced description on p.9 correct? Please clarify.

Response:

The description given on page 9 of the SAR report is correct. See footnote 7 on page 43.

- Q 6. Simultaneous transmission SAR summation Tables 19, 20, 24, etc. list a condition with CDMA 1900 output relative to 18.5 dBm. Please identify where this particular power reduction is described (it does not appear to be listed in Section 2.2.2).

Response:

Per section 2.2.2 of the report, power limit reduction for LTE during SVLTE occurs when the power of the 1x CDMA transmitter is operating at or below 18.5 dBm. This is described on page 8 of the SAR report, fourth and fifth paragraphs (“The DUT supports Simultaneous Voice and LTE (SVLTE)...”).

The SAR data and summations described in Q4 and Q6 are provided to demonstrate simultaneous SAR evaluations during these conditions.

- Q 7. SAR Tables 5-8 list CDMA 1900 data with an output of 18.62 dBm, but Section 2.2.2 does not appear to describe a scenario that uses this amount of reduction. Please clarify.

Response:

As described in paragraph four on page 8 of the SAR report, power reduction for LTE during an SVLTE session with 1x CDMA is conditional on the transmit power of the 1x signal, with a threshold of 18.5 dBm. To demonstrate evaluations for simultaneous SAR with the LTE transmitter at full power, SAR results for the 1x CDMA transmitter at 18.5 dBm are necessary. To carry out these measurements the power of the DUT was manually tuned to 18.5 dBm, plus uncertainty for the meter used. The final reading of this tuning process was 18.62 dBm. Though this resulted in the DUT operating at a power value slightly above the triggering threshold, it was determined that this would provide SAR results that are more conservative when considered in combination with the values found from LTE transmitter operating at maximum power.

Q 8. SAR Tables 20 and 24 list a condition with CDMA 1900 output less than 18.5 dBm, but the SAR levels listed are from data taken with a measured output level of 18.62 dBm (i.e., greater than 18.5 dBm). Please address.

Response:

As described in paragraph four on page 8 of the SAR report, power reduction for LTE during an SVLTE session with 1x CDMA is conditional on the transmit power of the 1x signal, with a threshold of 18.5 dBm. To demonstrate evaluations for simultaneous SAR with the LTE transmitter at full power, SAR results for the 1x CDMA transmitter at 18.5 dBm are necessary. To carry out these measurements the power of the DUT was manually tuned to 18.5 dBm, plus uncertainty for the meter used. The final reading of this tuning process was 18.62 dBm. Though this resulted in the DUT operating at a power value slightly above the triggering threshold, it was determined that this would provide SAR results that are more conservative when considered in combination with the values found from LTE transmitter operating at maximum power.

Q 9. Please revise the SAR report to also include z-axis plots for the 5 GHz measurement set up, both head and body fluids.

Response:

Due to an error in the version of SEMCADX software used to generate these plots, 5 GHz z-axis probe retraction plots are unavailable for export from within the program itself. Attempting to generate these plots causes the program to crash. SPEAG has been notified of the bug, and is in the process to correct the fault. At their direction, the data was exported and plotted manually in Excel. These plots have been added to Part 2 of 5 of the amended SAR report, after each affected system verification report.

Q 10. Please submit the calibration report for the 5 GHz SAR dipole SN 1088.

Response:

See pages A159 to A173 of Part 4 of the report appendices.

Q 11. FYI: in the future, when performing measurements supporting an extended SAR dipole calibration period, please also provide the measured return loss value, rather than simply noting "Verified."

Response:

Noted.

Q 12. The HAC and T-coil report contain the following statement "The Cellular Phone model covered by this report..." However, while the serial number of the device is provided, the model number does not appear to be in the reports. Please address and provide the model number of the device within the text of the report.

Response:

References to the phone model have been removed from both reports. The model number was not added to these reports to retain flexibility in the event that Motorola decides to market model variants of this device, allowing the current reports and subsequent grants to be applicable to them.

Per KDB Publication 285076D01, "There is no requirement that the grant of certification and HAC report exhibits include an up-to-date model designation ..." At some time in the future, should there be model variants sharing this device's FCC ID, but having different HAC performance characteristics, Motorola would submit additional HAC reports, as needed, with the distinguishing model numbers specified.

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

Sincerely,

John Lewczak (signed)

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Product Safety and Compliance
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