

Date: 21 March 2011

Mr. Bruno Clavier  
TIMCO Engineering, Inc.  
TCB, FCC and Industry Canada Approvals  
849 NW State Road 45  
Newberry, FL 32669

Re: FCC Correspondence Number: 97771  
TIMCO Job Number: 2706UC10 (Part 22/24) Filing.

Dear Mr. Clavier,

Motorola Mobility, Inc., 8000 W. Sunrise Blvd, Suite A; Plantation, FL herein submits its response to the FCC's 3 March 2011 request for further information on FCC ID: IHDP56LS1, as referenced above.

Q 1. Concerning the exhibit entitled "3G Wireless Hotspot," this contains test results useful to support the reliability and consistency of the power reduction mechanism for SAR compliance, and as usual test results cannot be held confidential. Also this exhibit explains conditions under which power reduction is activated, and applicant was informed during pre-TCB discussions that SAR report and/or associated exhibits need to provide such information, i.e. in non-confidential exhibit such as attestation letter, and as is required to support the test results.

**Response:**

A new exhibit (*IHDP56LS1\_Ex\_06c.1 (TX\_Power\_Reduction).pdf*) is being provided herewith that reports the measurements also found in Exhibit 12B (*IHDP56LS1-EX12B revB.pdf*). It also reveals, in general terms, the conditions under which this power reduction is implemented. Motorola Mobility does not believe the more detailed description of the feature found in Exhibit 12B need be included in a non-confidential exhibit, and would like to keep them in Exhibit 12B.

Q 2. The exhibit entitled "3G Wireless Hotspot" identifies conditions under which WWAN power is reduced; i.e., as long as there is no voice activity at the earpiece of the handset, including conditions when there is no voice call in progress (therefore, no audio signal to the earpiece), power reduction to the hotspot mode is enforced when the conditions listed are all satisfied. To confirm the nominal/design power reduction levels, the pre-TCB testing guidance KDB discussions had requested two sets of localized / single-point SAR results for channels and modes which have power reduction, one set where WWAN power not "limited" i.e. max WWAN, and one set with "trigger" conditions applicable so WWAN power is reduced. The recommended test set-up was use back face/surface of phone at flat phantom 0 cm or 1 cm spacing, and probe at a few mm away from phantom inner surface (e.g. 3-5 mm depending on probe). The "3G Wireless Hotspot" exhibit includes single-point field strength (V/m) results comparing reduced and not-reduced transmit conditions, however it is unclear whether/how these V/m results demonstrate / correspond with dB reduction levels listed in terms of output power - please revise to provide explanation and/or re-test where appropriate.

**Response:**

The data presented was the electric field strength at a single point. Motorola Mobility may have misinterpreted your "single point" request, since SAR, by its nature, involves a volumetric component. However, the data presented clearly show the expected reduction corresponding with the design intent of this feature.

Q 3. Op. desc. indicates 32.5 dBm for GSM and 23 dBm for WCDMA, which appears to be inconsistent with levels listed in SAR report. Specified output power for 802.11b is 20 dBm and 802.11 modes in 5 GHz bands are 13 dBm; however the measured output powers appear to 1-2 dB lower. Some of the 1-g sum SAR exclusion values are around 1.54 W/kg to 1.58 W/kg, therefore please also provide tune-up target info for this device, i.e. consistent with OET Lab policy (Apr 2010 FCC-TCB conference notes): - a test device must be representative of the production units, with respect to §2.908; for example, within specified - - production tolerance, electrical and mechanical tolerances - - performance specifications etc - the measured maximum output power must be within - - the specified tune-up tolerance range for production units - the test results must demonstrate compliance - - for all applicable limits, including maximum output power, RF exposure and various EMC requirements - - when results are extrapolated to the upper tune-up tolerance limit, with respect to the maximum measured output power of the test sample, to ensure all production units are compliant - - to alleviate potential inconsistencies in determining compliance Please explain and/or revise all associated portions of filing where appropriate to ensure consistency of power levels listed, and as consistent with KDB pub. 291699.

**Response:**

The values shown in the original Exhibit 12 (Operational Description) were apparently in error. An updated exhibit is provided herewith.

With respect to the factory tuning limits, please refer to the amended Exhibit 10 (*IHDP56LS1\_EX10 parts list.pdf*) submitted herewith. The tables there capture the factory tuning limits for this transmitter's FCC regulated bands of operation.

Note that Bluetooth and Wi-Fi powers are not tuned in the Factory, as these parameters are established by the device supplier. Maximum powers for these emissions shown in the SAR report (and elsewhere in the filing) are consistent with the device supplier's specifications. As fine power adjustments are not possible for these emissions (an intrinsic hardware limitation), the SAR contribution at maximum rated power was determined via scaling.

- Q 4. If not in SAR report already, please revise to identify GSM/GPRS MS class (A, B, C). If Class A, please address compliance with KDB 941225 D04 DTM provisions as applicable.

**Response:**

The product in question is MS Class B. No further compliance activities are required.

- Q 5. SAR report cites "FCC IHDP56LS1 EX11 SAR Report -2.pdf" however it appears that exhibit is not in this filing TCB please adjust internal processing where appropriate to ensure all future filings contain all pertinent. Also please upload said "-2" exhibit herein as applicable.

**Response:**

The missing portions of the SAR report are included herewith.

Q 6. FYI for all future filings at minimum SAR lab please ensure to apply appropriate system verification procedures using both head and body liquids and parameters. Other details are as follows. The dipole calibration requirements in the preliminary KDB draft-for-review (DR) version of KDB pub. 450824 included a proposal to enable SAR system verification using either head or body tissue dielectric parameters when both are applicable for testing a device. Due to comments received during the 30-day KDB DR period, this specific proposal was not included in the final release of KDB 450824, because additional tests and verifications may be necessary to address the comments. Therefore, separate head and body SAR system verifications are necessary. In general, test labs are expected to perform SAR system measurement accuracy verification before using a specific liquid and SAR probe to test a device. Test labs sometimes perform system verification daily. If a lab knows the liquid is in a well controlled environment and the liquid dielectric parameters are within the required tolerances, it may not be necessary to perform daily system verification. If the tests using a liquid last for more than 3 to 4 days, additional system verification should be considered or ensure that one is done at the end of the series of measurements using that liquid and SAR probe to demonstrate nothing has drifted out of tolerance. When a lab switches liquid (head to body or different frequencies), system verification using the new liquid is needed before performing measurement using that liquid. SAR probes are calibrated at specific frequencies using specific tissue dielectric parameters. When any of these parameters are changed (frequency or liquid), the specific SAR probe calibration point needs a system verification with the liquid used for the actual measurements to confirm SAR system measurement accuracy.

**Response:**

The Knowledge Base document referenced in this FYI isn't as clear as it might have been with respect to this requirement. Motorola Mobility has been guided in this area by the [comments offered by Kwok Chan](#) during the draft review processes on 4 November 2009:

*“The same SAR probe with both head and body calibrations at the required device test frequency range must be used for both SAR system accuracy verification and head and body SAR testing of the device. Therefore, when SAR system accuracy is verified using one type of liquid, it can be inferred that the SAR probe calibration at the same frequency range for the other liquid medium (head or body) should have equivalently acceptable accuracy.”*

We also note that there appears to some confusion throughout the industry, as it is not unusual to find SAR reports for recently-granted handsets which do not have verification testing for both head and body tissue simulants.

In any event, Motorola Mobility, wishing to function consistent with the highest standards of our industry, is working towards becoming compliant with this expectation at all of its SAR laboratories world wide. Our plan to accomplish this is offered below.

Motorola Mobility is currently shipping its dipoles to SPEAG for expedited additional calibration to include body tissue targets. SPEAG has agreed to perform the calibrations and return all of them by the end of April 2011. Motorola Mobility anticipates all System Performance Checks done after May 1, 2011 will include checks to head and/or body targets, where applicable.

Please note that applications for which testing has already been completed, or for which testing is accomplished before the above plan is complete, may not have these verification data. Note also that some applications may have these data before the plan completion date, due to its phased implementation. We trust that this plan will prove to be acceptable to the FCC. We stand ready to discuss further, if you feel it necessary.

Q 7. User manual exhibit appears to be only a preliminary version - consistent with 2.1033(c)(3) please provide final operating instructions provided to be to users, as available.

**Response:**

The final version of the User's Guide is submitted with this response.

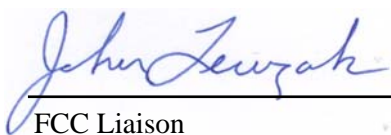
Q 8. Please explain whether or not device supports HSPA+ operations in the uplink, and/or revise all portions of filing where appropriate to address compliance.

**Response:**

The product in question supports HSPA+ in the downlink only. Uplink supports HSUPA (Release 6), as indicated in the SAR report, and compliance testing was performed accordingly.

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

Regards,



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