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Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDP56MB4).

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1. As stated on p.1 of the SAR report, this particular Motorola SAR Lab is not 17025 accredited for SAR measurements in the 5 GHz bands. Please provide some justification for our TCB to accept this data (a TCB must be able to justify any non-17025 accredited data accepted). In doing so, please verify that the procedures and practices used during the accredited SAR tests were also performed, as appropriate, for the 5 GHz testing. Please also include information regarding the knowledge and expertise of the engineers who performed the non-accredited SAR tests, demonstrating their competency to perform those tests. This justification may be included in the SAR report, submitted as a separate document, or included in the Attestation Statements document.

Response:

Motorola has had out ISO 17025 accreditation expanded to include SAR testing within the 5GHz frequency band. During our last ISO audit, the auditor reviewed all the process and work instructions and approved them. Accreditation was withheld for this band because Motorola was still in the process of obtaining commercially available simulated tissue for the 5GHz band. The material we had in house did not meet the tolerance criteria specified in FCC KDB 4580824. Motorola is now using the commercially available tissue and the parameters meet the specification (see SAR report for specific values). When this was demonstrated to the auditor, our ISO accreditation was expanded. All SAR testing for this application was performed using the same processes, work instructions and equipment reviewed and approved by the ISO auditor. Therefore the testing represented in this report meets the expanded ISO accreditation that has been obtained.

2. Please revise the diagram in Section 6.4 of the SAR report to show the distances from each of those antennas to the different edges of the EUT, as well as to each other.

Response:

Section 6.4 has been revised.

4. SAR Section 2.2 (p.5) lists a maximum level for the BT transmitter that is not the highest output measured in the DSS EMC report. Please revise.

Response:

The report has been modified.

5. SAR Section 2.2 does not list the correct tuning range for AWS WCDMA operation – please revise. In addition, for “GSM Data Functionality” it states “5 total timeslots per frame” – please address. (I also note a typo in the footnote on p.5).

Response:

The frequency range for AWS has been revised. The typo in the footnote has been fixed. GPRS Class 12 is defined to have a maximum of 5 timeslots per frame.

7. The Tune-Up Procedure lists the maximum rated output power for LTE Band 4 as 24.0 dBm +/- 0.2dB, but the SAR report shows multiple readings higher than 24.2 dBm. Please address.

Response:

The power is phased to the + / - 0.2 dB window. For LTE Band 4, the power is phased in Rb low and RB high for 15 MHz Channel Bandwidth. In other RB configurations and other bandwidths, the power is measured only (not phased). Due to variation across channels and number of RBs, the power varies slightly.

11. SAR testing in NII Band 3 was performed on channel 124 (5620 MHz). Please note that, pursuant to KDB Pub 443999, the EUT is prohibited from operation on any channel overlapping 5600 MHz, such as channel 124. Please revise the report to remove this data and provide SAR data for this band on a frequency at which the EUT is authorized to operate.

Response:

The report has been revised. The SAR data for channel 124 was replaced with channel 132.

12. Page 19 of the SAR report shows that the conductivity of the body tissue fluid used for the NII Bands 2 and 3 tests on 3/30/12, and the 5.8 GHz tests on 3/31/12, is outside of the permitted tolerance. A justification for this is provided on p.20 of the report. Has a KDB Inquiry been sent to the FCC seeking acceptance of this justification? If so, please submit a copy of the FCC's response. If not, please either submit such an Inquiry and provide the response, when received, or else re-test using compliant tissue fluid and submit new data.

Response:

The report had a mistake in the tolerance for conductivity. The permitted tolerance has been corrected for 5 GHz tissue fluid. Please see page 19.

13. Please explain why the tissue parameters in Section 4 (p.19) are not the same as those listed for the System Verification tests in Section 5 (p.21), even when the tissue parameters were measured on the same day as the Verification test. Please revise the SAR report to include this explanation.

Response:

Tissue parameters get measured every 24 hours. The System Verification is also performed every 24 hours. However the tissue measurement and System Verification test are not always done at the same time of the day.

15. In the simultaneous transmission configurations requiring SPLR analysis on p.45 of the SAR report, Items A and B list "Right Cheek", but according to the Table at the top of p.44, these should be "Left Cheek". Item C is correct, as are the actual analyses on the subsequent pages. Please revise items A and B accordingly.

Response:

The report has been corrected.

16. Please revise the SAR report to include the data/calculations used to determine the distance values used in the SPLR calculations.

Response:

The report has been revised.

19. SAR Section 4 (p.18) addresses the PCS band tissue fluid parameter requirements with respect to KDB Pub 450824, but the same situation also exists for the AWS band tissue fluid: the probe is only calibrated at 1810 MHz, more than 50 MHz away from the AWS band. I note that the same conversion factor is used for measurements on frequencies 150 MHz and more apart. The tissue fluid parameters Table on p.19 shows that the conductivity values for the AWS band head tissue fluid measured on 3/6/12, and the body tissue fluid measured on 3/7/12 and 3/29/12 are not higher than the target sigma values, and thus are not in compliance with KDB Pub 450824. Please address.

Response:

The p.18 has been modified to include wording for “1700 MHz” band. FCC pub. KDB 450824 D01 provides methods for compensation of the measured 1-g SAR with respect to the 5% tolerances using valid SAR sensitivity data to reduce SAR underestimation and maintain conservativeness. Also, draft FCC KDB 865664 D01 allows for SAR compensation for dielectric parameters to target values. Therefore Motorola believes that tissue parameters measured to the target values meet the requirements specified.

20. The SAR plots measured on the following pages were all performed one day after the corresponding System Verification test for that band/fluid. Please revise the report to confirm that the phantom, tissue fluid and probe used for the Verification test remained unchanged until the time of the actual SAR test, so that the Verification data remains applicable. The plots affected are on pages: 108, 110, 111, 113, 114, 119, 125, 126, 132, 136, 137, 138, and 146.

Response:

The System Verification test was performed within 24 hours of all SAR testing. The phantom, tissue fluid and probe used for the System Verification remained unchanged until the time of the actual SAR test.

21. Please revise the SAR System Verification data Tables (pp.21-22) to also indicate the dipole used for each test.

Response:

The report has been modified.

22. Please revise the SAR System Verification data Tables (pp.21-22) to list the measured SAR in addition to the normalized SAR (this is a regular request from the FCC).

Response:

The report has been modified.

23. The SAR System Verification tests do not include the AWS band, NII Band 2 or NII Band 3. If the tests for those bands use the same system set-up (i.e., phantom/probe/tissue) as the PCS band and reported 5 GHz band tests, so that the reported results for these bands is also applicable to the missing bands, please revise the SAR report to clearly state this.

Response:

The report has been modified on p.20.

24. The SAR plot on p.127 lists the TILT position, but the corresponding SAR value is listed in the Table on p.24 as TOUCH. Please reconcile.

Response:

The report has been revised. The plot (page A-83 in REV1) is for TILT. The tables have been corrected.