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Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDT5YD1).

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1. Summary of FCC request for additional information

There was a request for additional information regarding Motorola's SAR Test Report for Motorola portable cellular phone (FCC ID IHDT5YD1) dated August 15, 2000. The requested information may be summarized as follows:

- A. *Please provide illustrations to identify the peak SAR location for head and body-worn test configurations.*
- B. *Since body-worn operating configuration was not tested in the original filing, please verify if the specific belt-clip tested for this Class II filing is also used for the device approved in the original filing, and if applicable, please confirm body-worn SAR compliance for the original device.*
- C. *The dipole validation result has indicated a secondary peak on the edge of the plot. This is usually not expected, please clarify.*
- D. *There are substantial differences between the SAR measured for the original filing and the current Class II filing. SAR with antenna extended is about 2-3 times lower but SAR with antenna retracted is about 2-3 times higher. These SAR changes do not appear to correlate with typical changes in the physical shape and dimensions of the device housing; please clarify.*

2. Illustrations of Location of Peak SAR

The location of peak SAR when the phone is used against the head:



Figure 1. Contour Plot Overlaid on Face of Phone with Antenna Extended.



Figure 2. Contour Plot Overlaid on Face of Phone with Antenna Retracted.

The location of peak SAR when the phone is used in a body worn configuration:

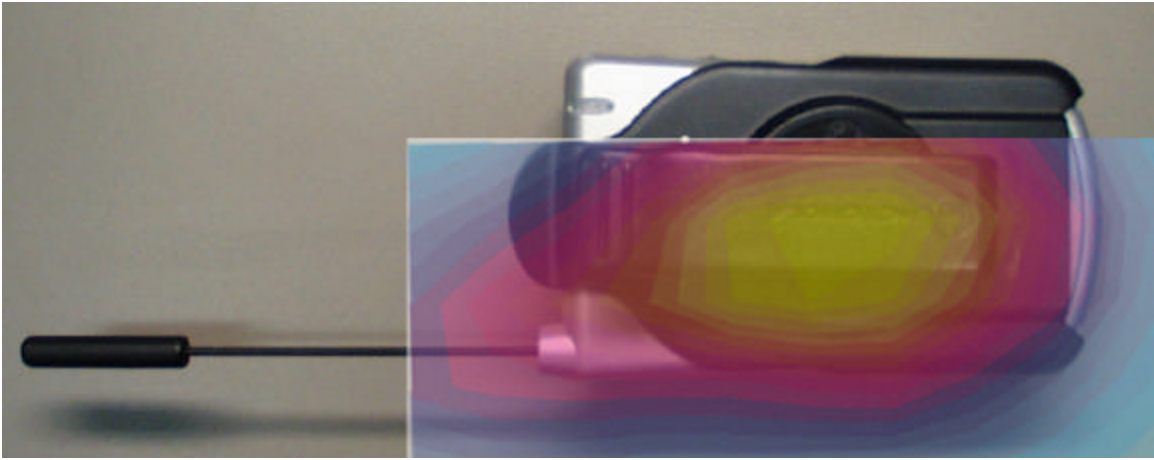


Figure 1. Contour Plot Overlaid on Face of Phone with Antenna Extended.



Figure 2. Contour Plot Overlaid on Face of Phone with Antenna Retracted.

3. Body Worn Configuration Tests

“Since body-worn operating configuration was not tested in the original filing, please verify if the specific belt-clip tested for this Class II filing is also used for the device approved in the original filing, and if applicable, please confirm body-worn SAR compliance for the original device.”

No, the belt-clip tested for this Class II filing is not used for the device approved in the original filing.

4. Additional Dipole Validation Results

The dipole validation result supplied in the Class II filing did not have the dipole in the correct position. Appendix A contains an additional dipole validation that was also run that day. The results of this additional dipole validation show that the system was correctly validated the day of the measurements.

5. SAR results of Antenna Extended vs. Antenna Retracted

The SAR changes are due in part to the fact that the phone used in the original filing had lower conducted output power. In addition, the SAR for the phone in the original filing was measured on a different measurement system. The phone in the Class II filing was measured on a DASY 3 system which tends to provide higher SAR values.

Appendix A

Additional System Validation Measurements

Dipole 900 MHz

900 MHz Dipole Validation / Dipole Sn# 67 / Forward Power = 252mW

Temp at time of measurement = 21.5 C

Amy Twin Optics OFF; Section 1

Probe: ET3DV6 - SN1398 - Validation; ConvF(6.61,6.61,6.61); Crest factor: 1.0; Validation 900 MHz: $\sigma = 0.83$ mho/m $\epsilon_r = 41.0$ $\rho = 1.00$ g/cm³

Cubes (2): Peak: 3.79 mW/g ± 0.06 dB, SAR (1g): 2.42 mW/g ± 0.05 dB, SAR (10g): 1.56 mW/g ± 0.04 dB, (Worst-case extrapolation)

Penetration depth: 12.2 (11.0, 13.7) [mm]

Powerdrift: -0.02 dB



SAR_{Tot} [mW/g]

