



**MOTOROLA**

**Date:** February 3, 2010

**Subject:** Request for additional information regarding FCC ID: IHDP56KD1 (Class II)

**Reference:**

Correspondence Reference Number: IHD010105  
Confirmation Number: Y1001280105  
Date of Original Email: February 2, 2010

**Prepared by:**

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Questions and responses follow:

1. The SAR report shows multiple measurements (typically WCDMA) in which the power drift during the measurement exceeds 5% of the power level. This is prohibited by IEEE 1528 Section 6.2.2. Please re-measure, ensuring a compliant power drift, and submit new data.

**Response:** Testing for the Class II Permissive Change SAR test report was performed to both the IEEE 1528 and FCC Supplement C SAR testing requirements. Both of these standards require that SAR be evaluated at the maximum output power that a user may be exposed to for this device. If testing is not possible at this level, then additional steps are required to evaluate compliance for the *“highest exposure expected based on battery capacity”*. The power slump (aka “drift”) seen during the SAR testing of this device is typical for the design of this device. The Class II Permissive Change SAR test report presented both the measured and the extrapolated SAR values for this evaluation. Section *“6.1 Head Adjacent Test Results”* of the SAR report provided the means by which the extrapolation was determined.

From the SAR test report:

### **6.1 Head Adjacent Test Results**

The SAR results shown in tables 1 through 4 are maximum SAR values averaged over 1 gram of phantom tissue, to demonstrate compliance to [3] and also over 10 grams of phantom tissue, to demonstrate compliance to the [6]. Also shown are the measured conducted output power levels, the temperature of the simulated tissue after the test, the measured drift and the extrapolated SAR. The exact method of extrapolation is  $\text{New SAR} = \text{Old SAR} * 10^{(-\text{drift}/10)}$ . The SAR reported at the end of the measurement process by the DASY4™ measurement system can be scaled up by the measured drift to determine the SAR at the beginning of the measurement process. This is the most conservative SAR because it corresponds to the average output power at the beginning

of the SAR test. This extrapolation has been done because when the DUT is operating properly it may exhibit a slump in radiated power and SAR over time. This is verified by measuring the SAR drift after the test.

IEEE 1528 states in section "6.3.3 Output power":

The handsets should be set to the maximum output power level that is defined by the system and/or the operating requirements of the subscriber unit, i.e., at the maximum power a user may be exposed to by this particular handset. If this is not possible, the test can be performed at lower power and then scaled to the maximum output power provided that the SAR response of the handset is linear. Maximum power levels should be verified, e.g., by conducted power tests. The battery should be fully charged. Steps should be taken to check for any power variation during the measurement (see 6.6). It should be verified that any variation in output power during the SAR test is consistent with the design and specification of the device.

Additionally, FCC OET Bulletin 65 Supplement C states in the "DEVICE OPERATING CAPABILITIES" section

For certain devices that are designed to operate with a substantially low operating duty factor where constant peak output power is neither supported by the hardware nor its battery, SAR compliance should be evaluated at the highest operating duty factor expected during normal use. If a device or its battery is not designed to maintain a constant average output power, SAR should be evaluated with respect to the highest exposure expected based on battery capacity. The measured SAR should typically correspond to the average output power measured before and after the SAR measurement.

2. Please indicate the data rate used for the WLAN SAR testing.

**Response:** Please refer to the updated SAR report attached.

3. The FCC measurement procedure for 802.11 devices requires that SAR data be submitted for 3 channels, at data rates determined by the corresponding output power levels. Please provide the DTS output power data used to determine the correct data rate(s) for SAR testing, and submit the additional required SAR data for the low and hi channels.

**Response:** Please refer to the updated SAR report attached.

4. The Cover Letter lists the STC request until 2110- please revise.

**Response:** Please refer to the revised cover letter attached.