

April 25, 2007

Supplement to HAC Test Report for Motorola portable cellular phone (IHDT56HT1)

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There was a request for additional information regarding Motorola's HAC Test Reports for Motorola portable cellular phone (FCC ID IHDT56HT1). The requested information is addressed below in the same numbering sequence received.

1. Please demonstrate compliance with the FCC 3G CDMA2000 test procedure for HAC T-coil testing for ABM2 per July 2006 FCC guidance in Page 8, Exhibit 6B-2. What RC/SO combinations were investigated for ABM2? Which RC/SO mode was used for T-coil compliance evaluation? Which battery type was used for the ABM2 investigation?

RESPONSE:

For T-coil compliance evaluation, RC1 S03 is used. This RC1 S03 is used for measurements in Table 5 (page 8) and Table 6 (page 9). As per the recent presentation by Qualcomm to the FCC on March 15, 2007, RC1 S03 combination represents the appropriate configuration for T-coil testing.

2. The RC/SO mode determined with the worst-case ABM2 measurements in Table 5 do not appear to correlate to the RC/SO mode chosen in Table 6. Please address.

RESPONSE:

Table 5 determines highest channel for each frequency band. For CDMA 800, the highest ABM2 occurred in Ch 384. For CDMA 1900, the highest ABM2 occurred in Ch 25.

In Table 6, T-coil testing is performed on Ch 384 for CDMA 800 and Ch 25 for CDMA 1900.

3. Please demonstrate Frequency Response compliance for all orientations per July 2006 FCC guidance p.58 / sec 6.2.1.

RESPONSE:

Section 6.2.1 addresses ambient noise. For all configurations, we provide ambient noise level in Table 6 of section 5.2 and ambient noise spectrum plots in Appendix 2. We are not aware of Frequency Response compliancy for Ambient Noise.

4. Please include HAC Validation data for T-coil Environment Results in this class 2 application.

RESPONSE:

Dipole	F (MHz)	Protocol	Input Power (mW)	E-Field Results (V/m)	Target for Dipole (V/m)	% Deviation
SN 1042	835	CW	100	164.5	168.2	-2.2%
SN 1060	1880	CW	100	133.4	134.9	-1.1%

Dipole	F (MHz)	Protocol	Input Power (mW)	H-Field Results (A/m)	Target for Dipole (A/m)	% Deviation
SN 1042	835	CW	100	0.461	0.445	3.6%
SN 1060	1880	CW	100	0.458	0.452	1.3%

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Test Laboratory: Motorola - 020307, E - 835 CW -2.2% GOOD

DUT: HAC-Dipole 835 MHz; Type: CD835V3; Serial: 1042

Procedure Notes: 835 MHz HAC Validation; Dipole Sn# 1042; Input Power = 100 mW

Communication System: CW - HAC; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Air; Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

DASY4 Configuration:

- Probe: ER3DV6R - SN2244; ConvF(1, 1, 1); Calibrated: 7/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn387; Calibrated: 3/23/2006
- Phantom: PCS-3, HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x;
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

E Scan - Probe center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: dx=5mm, dy=5mm

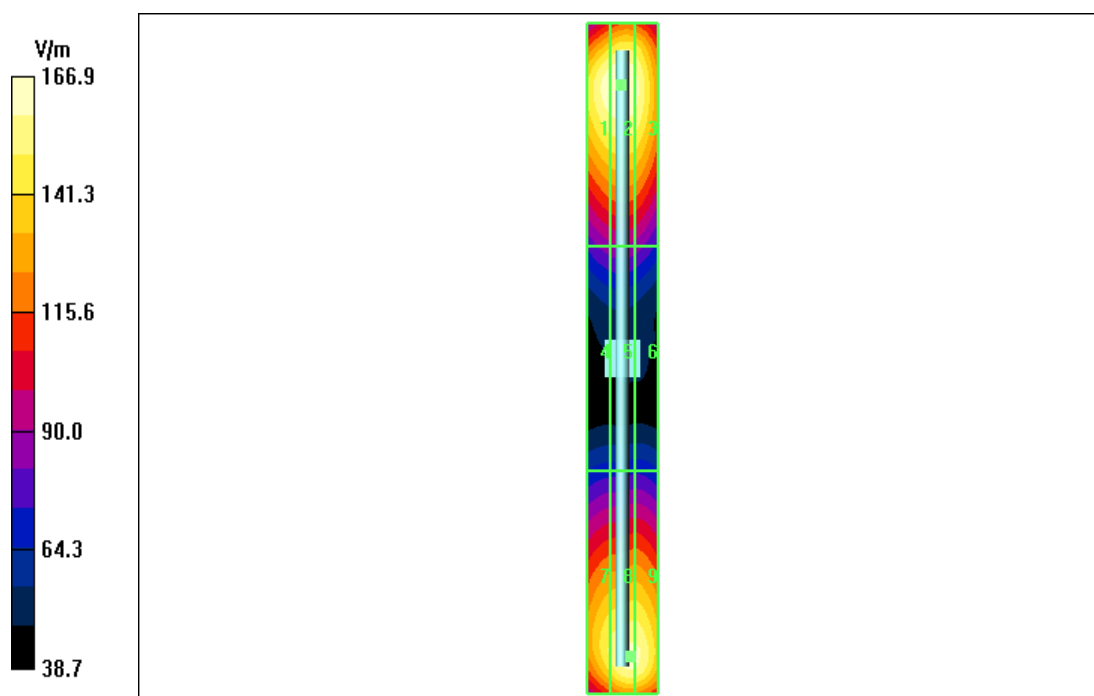
Probe Modulation Factor = 1.00; Reference Value = 100.2 V/m; Power Drift = 0.016 dB

Maximum value of Total (interpolated) = 166.9 V/m

Average value of Total (interpolated) = $(162.1 + 166.9) / 2 = 164.5$ V/m

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
165.1	166.9	162.0
Grid 4	Grid 5	Grid 6
87.2	89.3	86.6
Grid 7	Grid 8	Grid 9
151.7	162.1	161.7



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Test Laboratory: Motorola - 020307, E - 1880 CW -1.1% GOOD

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1060

Procedure Notes: 1880 MHz HAC Validation; Dipole Sn# 1060; Input Power = 100 mW

Communication System: CW - HAC; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: Air; Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

DASY4 Configuration:

- Probe: ER3DV6R - SN2244; ConvF(1, 1, 1); Calibrated: 7/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn387; Calibrated: 3/23/2006
- Phantom: PCS-3, HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x;
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

E Scan - Probe center 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm

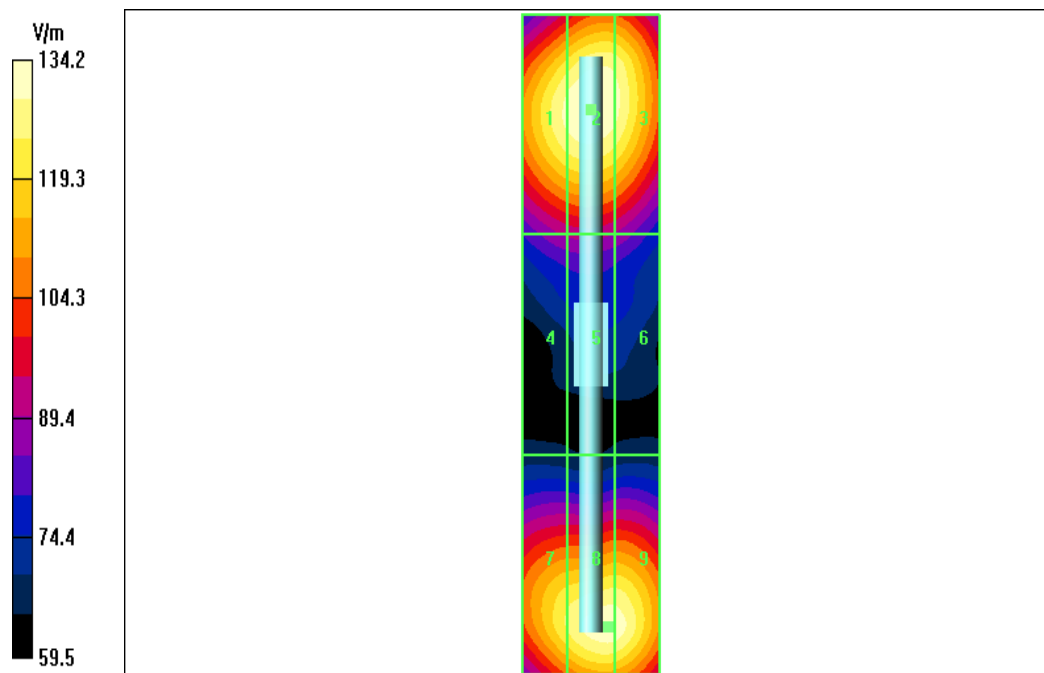
Probe Modulation Factor = 1.00; Reference Value = 147.1 V/m; Power Drift = 0.003 dB

Maximum value of Total (interpolated) = 134.2 V/m

Average value of Total (interpolated) = $(134.2 + 132.6) / 2 = 133.4$ V/m

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
130.6	134.2	131.1
Grid 4	Grid 5	Grid 6
90.5	92.2	88.9
Grid 7	Grid 8	Grid 9
125.0	132.6	132.3



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Test Laboratory: Motorola - 020507, h - 835 CW 3.6% GOOD

DUT: HAC-Dipole 835 MHz; Type: CD835V3; Serial: 1042

Procedure Notes: 835 MHz HAC Validation; Dipole Sn# 1042; Input Power = 100 mW

Communication System: CW - HAC; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: Air; Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

DASY4 Configuration:

- Probe: H3DV6 - SN6078; ; Calibrated: 7/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn703; Calibrated: 6/1/2006
- Phantom: PCS-3, HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x;
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

H Scan - Probe center 10mm above CD835 Dipole/Hearing Aid Compatibility Test (41x361x1):

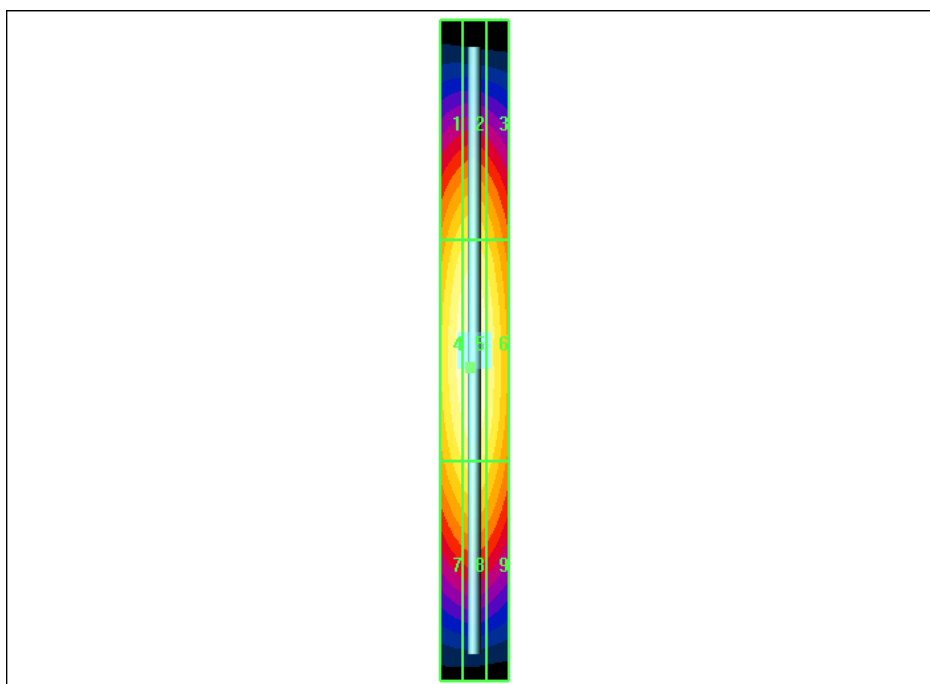
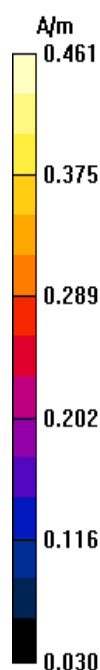
Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00; Reference Value = 0.488 A/m; Power Drift = 0.008 dB

Maximum value of Total (interpolated) = 0.461 A/m

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.398	0.410	0.378
Grid 4	Grid 5	Grid 6
0.449	0.461	0.431
Grid 7	Grid 8	Grid 9
0.403	0.417	0.393



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Test Laboratory: Motorola - 020507, h - 1880 CW 1.3% GOOD

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1060

Procedure Notes: 1880 MHz HAC Validation; Dipole Sn# 1060; Input Power = 100 mW

Communication System: CW - HAC; Frequency: 1880 MHz; Channel Number: 3; Duty Cycle: 1:1

Medium: Air; Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

DASY4 Configuration:

- Probe: H3DV6 - SN6078; ; Calibrated: 7/11/2006
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn703; Calibrated: 6/1/2006
- Phantom: PCS-3, HAC Test Arch with Coil; Type: SD HAC P01 BA; Serial: 100x;
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

H Scan - Probe center 10mm above CD1880 Dipole/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm

Probe Modulation Factor = 1.00; Reference Value = 0.481 A/m; Power Drift = 0.014 dB

Maximum value of Total (interpolated) = 0.458 A/m

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.389	0.403	0.385
Grid 4	Grid 5	Grid 6
0.451	0.458	0.426
Grid 7	Grid 8	Grid 9
0.424	0.430	0.391

