



A Test Lab Techno Corp.

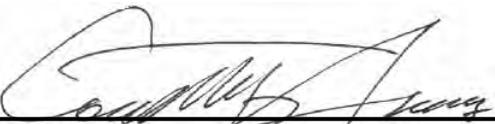
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HAC EVALUATION REPORT



Test Report No.	: 0802FS18
Applicant	: Hewlett-Packard Company
Trade Name	: Hewlett-Packard
Model Number	: HSTNH-I18C
EUT Type	: PDA Phone
FCC ID	: B94HHI18C
Dates of Test	: Feb. 26 ~ Feb. 27, 2008
Test Environment	: Ambient Temperature : 22 ± 3 °C Relative Humidity : 40 - 70 %
FCC Rule Part(s)	: FCC 47 CFR § 20.19.
HAC Standard	: ANSI C63.19-2006
C63.19 HAC Rated Category	: M3 (RF EMISSIONS)
Test Lab.	: Chang-An Lab

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.


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1. Description of Equipment Under Test (EUT)

Applicant :

Hewlett-Packard Company

3000 Hanover Street, Palo Alto, California 94304, U.S.A.

Manufacturer : Inventec Appliances Co., LTD.
Manufacturer Address : No.37 Wugong 5th Rd. Wugu Shiong, Taipei, Taiwan
EUT Type : PDA Phone
Trade Name : Hewlett-Packard
Model Number : HSTNH-I18C
FCC ID : B94HHI18C
Max. Output Power : 1.445 W (31.60 dBm) GSM 850
0.851 W (29.30 dBm) PCS 1900
0.197 W (22.94 dBm) WCDMA Band V
0.175 W (22.43 dBm) WCDMA Band II
Tx Frequency : 824.2 - 848.8 MHz (GSM 850)
1850.2 - 1909.8 MHz (PCS 1900)
826.6 - 846.4 MHz (WCDMA Band V)
1852.6 - 1907.4 MHz (WCDMA Band II)
HW Version : EVT3.2
SW Version : E:E2-0.33.00
Antenna Gain : -2.50 dBi (GSM 850 / WCDMA Band V)
1.00 dBi (PCS 1900 / WCDMA Band II)
Antenna Type : Internal Type
Test Device : Production Unit
Device Category : Portable

This wireless portable device has performed Hearing Aid Compatibility (HAC) measurements for the portable cellular phone. The measurements were performed to ensure compliance to the ANSI C63.19-2006 standards.



2. Introduction

The A Test Lab Techno Corp. has performed measurements of the maximum potential exposure to the user of **Hewlett-Packard Company Trade Name: Hewlett-Packard Model(s) : HSTNH-I18C**. The test procedures, as described in ANSI C63.19-2006 standard were employed. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the equipment are included within this test report.



3. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	Dosimetric E-Filed Probe	ER3DV6	2256	Aug. 21, 2007	Aug. 21, 2008
SPEAG	Dosimetric H-Filed Probe	H3DV6	6076	Aug. 23, 2007	Aug. 23, 2008
SPEAG	835 MHz System Validation Kit	CD835V3	1017	Jul. 12, 2007	Jul. 12, 2008
SPEAG	1880 MHz System Validation Kit	CD1880V3	1036	Jul. 12, 2007	Jul. 12, 2008
SPEAG	Data Acquisition Electronics	DAE4	779	Nov. 30, 2007	Nov. 30, 2008
SPEAG	Device Holder	N/A	N/A	NCR	
SPEAG	Phantom	SAM V4.0	TP-1150	NCR	
SPEAG	Robot	Staubli TX90XL	F07/564ZA1/C/01	NCR	
SPEAG	Software	DASY5 V5.0 Build 91	N/A	NCR	
SPEAG	Software	SEMCAD X V12.4 Build 52	N/A	NCR	
SPEAG	Measurement Server	SE UMS 011 AA	1025	NCR	
Agilent	Wireless Communication Test Set	CMU200	112387	Apr. 02, 2007	Apr. 02, 2008
Agilent	Spectrum Analyzer(ESA-L)	E4408B	MY45107753	May. 28, 2007	May. 28, 2008
R&S	Spectrum Analyzer(FSL)	FSL6	100410	Feb. 19, 2008	Feb. 19, 2009
Agilent	Power Meter	E4418B	GB40206143	Apr. 24, 2007	Apr. 24, 2008
Agilent	Signal Generator	8648C	3847A05201	Jul. 03, 2007	Jul. 03, 2008
Agilent	Power Sensor	8481H	3318A20779	Apr. 25, 2007	Apr. 25, 2008
Agilent	Dual Directional Coupler	778D	50334	NCR	
Mini-Circuits	Power Amplifier	ZVE-8G	D042005 671800514	NCR	
Mini-Circuits	Power Amplifier	ZHL-42W-SMA	D111103#5	NCR	

Table 1. Test Equipment List



4. Validation

Validations of the DASY5 v5.0 test system were performed using the measurement equipment listed in Section 3. All validations occur in free space using the DASY5 test arch. Note that the 10mm probe to dipole separation is measured from the top edge of the dipole to the calibration reference point of the probe. SPEAG uses the center point of the probe sensor(s) as the reference point when establishing targets for their dipoles. Therefore, because SPEAG's dipoles and targets are used, it is appropriate to measure the 10mm separation distance to the center of the sensors as they do. This reference point was used for validation only. Validations were performed at 835 MHz and/or 1880 MHz. These frequencies are within each operating band and are within 2MHz of the mid-band frequency of the test device.

Validations were performed to verify that measured E-field and H-field values are within +/- 25% from the target reference values provided by the manufacturer (Ref: Appendix D). Per Section 4.2.2.1 of the standard, "Values within +/-25% are acceptable, of which 12% is deviation and 13% is measurement uncertainty." Therefore, the E-Field and H-Field dipole verification results, shown in Table 2 & 3, are in accordance with the acceptable parameters defined by the standard.

Dipole	Freq. (MHz)	Protocol	Input Power (mW)	Target for Dipole (V/m)	E-Field Results (V/m)	Deviation	Date
SN:1017	835	CW	100	173.2	188.4	8.78%	Nov. 25, 2007
SN:1036	1880	CW	100	133.7	149.7	11.97%	Nov. 25, 2007

Table 2. Dipole E-Field Measurement Summary

Dipole	Freq. (MHz)	Protocol	Input Power (mW)	Target for Dipole (A/m)	H-Field Results (A/m)	Deviation	Date
SN:1017	835	CW	100	0.446	0.475	6.50%	Nov. 25, 2007
SN:1036	1880	CW	100	0.442	0.457	3.39%	Nov. 25, 2007

Table 3. Dipole H-Field Measurement Summary

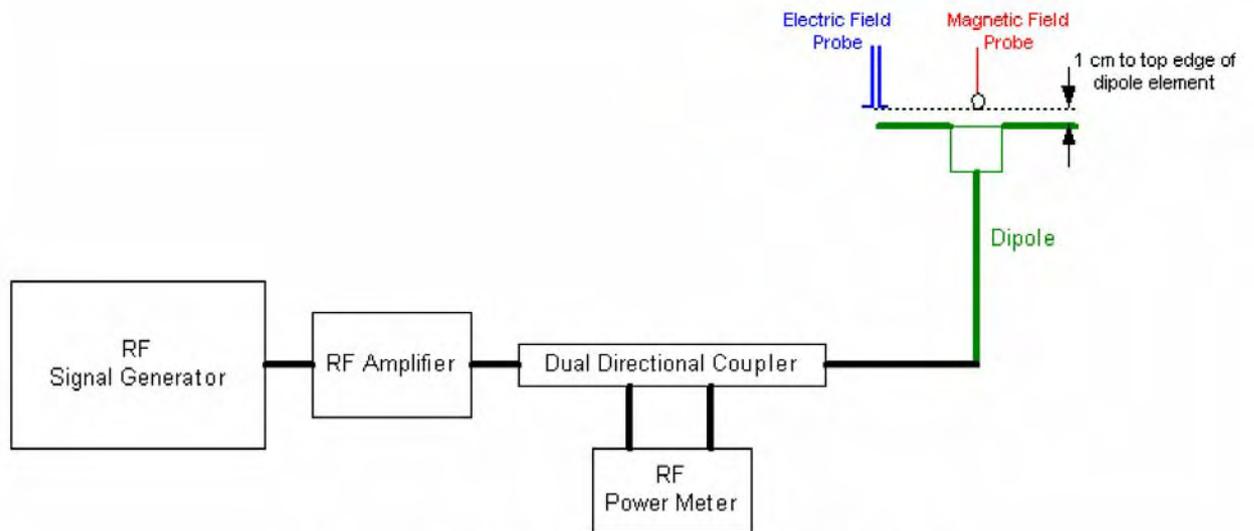


Figure 1. WD dipole calibration procedure

5. Probe Modulation Factor

After every probe calibration, the response of the probe to each applicable modulated signal (CDMA, GSM, UMTS, etc) must be assessed at both 835 MHz, 1880 MHz. The response of the probe system to a CW field at the frequency(s) of interest is compared to its response to a modulated signal with equal peak amplitude. For each PMF assessment, a Signal Generator was used to replace the original CW signal with the desired modulated signal. The PMF results are shown in Table 4. RF Field Probe Modulation Response was measured with the field probe and associated measurement equipment. The PMF was measured per ANSI C63.19-2006 using a signal generator as follows:

1. Illuminate a dipole with a CW signal at the intended measured frequency.
2. Fix the probe at a set location relative to the dipole; typically located at the field reference point.
3. Record the reading of the probe measurement system of the CW signal.
4. Substitute a modulated signal of the same amplitude, using the same modulation as that used by the intended WD for the CW signal.
5. Record the reading of the probe measurement system of the modulated signal.
6. The ratio of the CW to modulated signal reading is the probe modulation factor.
7. Spectrum analyzer settings:
 - Center Frequency: nominal center frequency of channel
 - Span: zero
 - Resolution bandwidth \geq emission bandwidth
 - Video bandwidth \geq 20kHz.
 - Detection: RMS detection.
 - Trigger: Video or IF trigger, adjusted to give a stable display of the transmission.
 - Sweep rate: Set to show a complete transmission cycle.
 - Line max hold may be used temporarily to ease the peak reading.

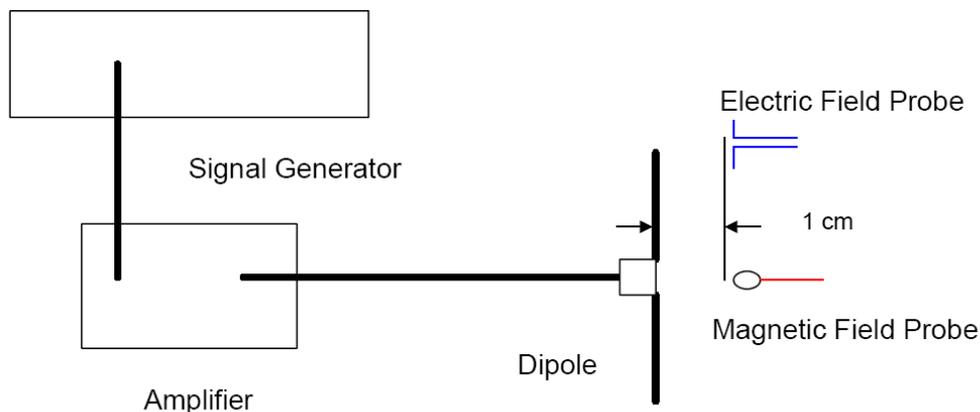


Figure 2. Dipole calibration procedure



Frequency (MHz)	Protocol	E-Field Probe SN:2256		H-Field Probe SN:6076	
		E-Field (V/m)	E-Field Modulation Factor	H-Field (A/m)	H-Field Modulation Factor
835.0	GSM	47	2.99	0.14	2.61
		63	2.95	0.19	2.71
		84	2.91	0.25	2.77
		112	2.87	0.34	2.79
		150	2.83	0.45	2.79
		200	2.79	0.60	2.74
		266	2.75	0.80	2.67
		355	2.71	1.07	2.56
		473	2.67	1.43	2.43
		631	2.64	1.91	2.28
		841	2.60	2.54	2.11
1122	2.57	3.39	1.93		
1880.0	GSM	47	2.94	0.14	2.97
		63	2.92	0.19	2.94
		84	2.90	0.25	2.90
		112	2.87	0.34	2.83
		150	2.85	0.45	2.76
		200	2.83	0.60	2.67
		266	2.81	0.80	2.58
		355	2.79	1.07	2.47
		473	2.77	1.43	2.35
		631	2.75	1.91	2.23
		841	2.73	2.54	2.11
1122	2.71	3.39	1.98		
835.0	UMTS	47	1.11	0.14	0.93
		63	1.07	0.19	0.93
		84	1.04	0.25	0.92
		112	1.00	0.34	0.91
		150	0.97	0.45	0.89
		200	0.93	0.6	0.86
		266	0.90	0.8	0.83
		355	0.87	1.07	0.79
		473	0.84	1.43	0.75
		631	0.81	1.91	0.71
		841	0.78	2.54	0.66
1122	0.76	3.39	0.61		
1880.0	UMTS	47	1.06	0.14	1.09
		63	1.05	0.19	1.06
		84	1.04	0.25	1.02
		112	1.04	0.34	0.96
		150	1.03	0.45	0.89
		200	1.02	0.6	0.81
		266	1.02	0.8	0.73
		355	1.01	1.07	0.64
		473	1.00	1.43	0.55
		631	1.00	1.91	0.47
		841	0.99	2.54	0.39
1122	0.98	3.39	0.32		

Table 4. PMF Measurement Summary

Note: PMF measurements were verified at WD's power as an input to the dipole.



6. Test Results

The phone was tested in all normal configurations for the ear use. When applicable, each configuration is tested with the antenna in its fully extended and fully retracted positions. These test configurations are tested at the high, middle and low frequency channels of each applicable operating mode; for example, GSM, UMTS, CDMA and TDMA.

The signal was setup by creating and maintaining an over the coaxial connection between the DUT and an R&S CMU200 Wireless Communications Test Set. The CDMA radio is available on CDMA 2000(1X) and IS-95. The test equipment was configured to use "all up bits" for RC1 / SO2 on J-STD-008 for CDMA 1900 and TSB-84 for CDMA 800 MHz. The Wideband and Zero Span spectrum analyzer plots are shown in Appendix A.

The DASY5 v5.0 measurement system specified in section 3.1 was utilized within the intended operations as set by the SPEAG™ setup. The default settings for the grid spacing of the scan were set to 5mm as shown in the Field plots included in Appendix B and C. The 5cm x 5cm area measurement grid is centered on the acoustic output of the device. The Test Arch provided by SPEAG is used to position the DUT. The WD reference plane is parallel to the device and contains the highest point on its contour in the area of the phone that normally rests against the user's ear. The measurement plane contains the nearest point on the probe sensor(s) relative to the WD. The pictures of the setup are included in 7.3.

The device is positioned such that the WD reference plane is located 10mm from, and parallel to, the measurement plane. This is in accordance with section 4.3 of the standard, which states that "The WD reference plane is a plane parallel with the front "face" of the WD and containing the highest point on its contour in the area of the phone that normally rests against the user's ear."

The following figure shows the position of the measurement grid with respect to a typical device under test.

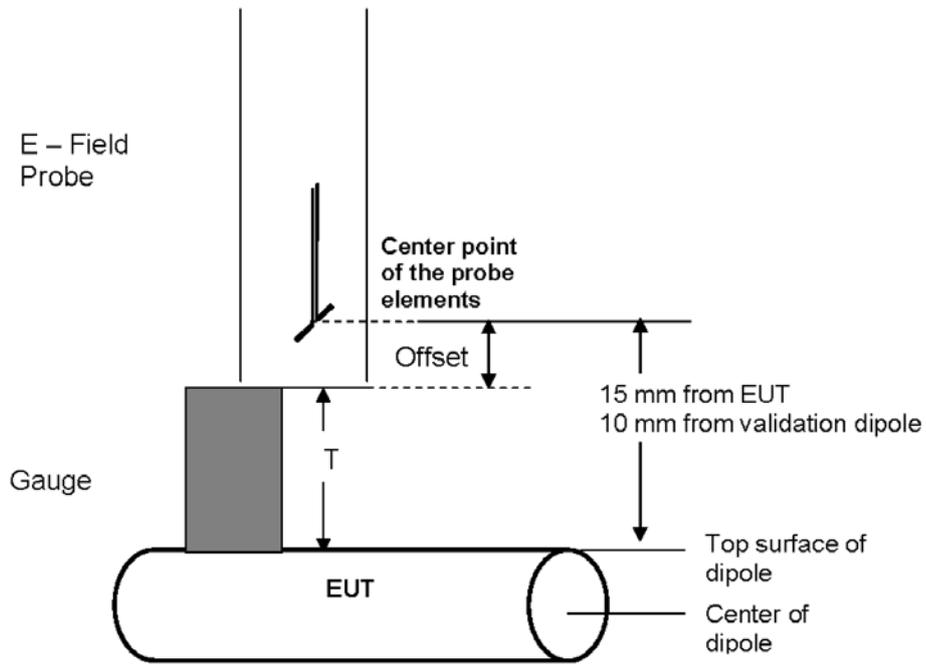


Figure 3. Gauge block with E-field probe

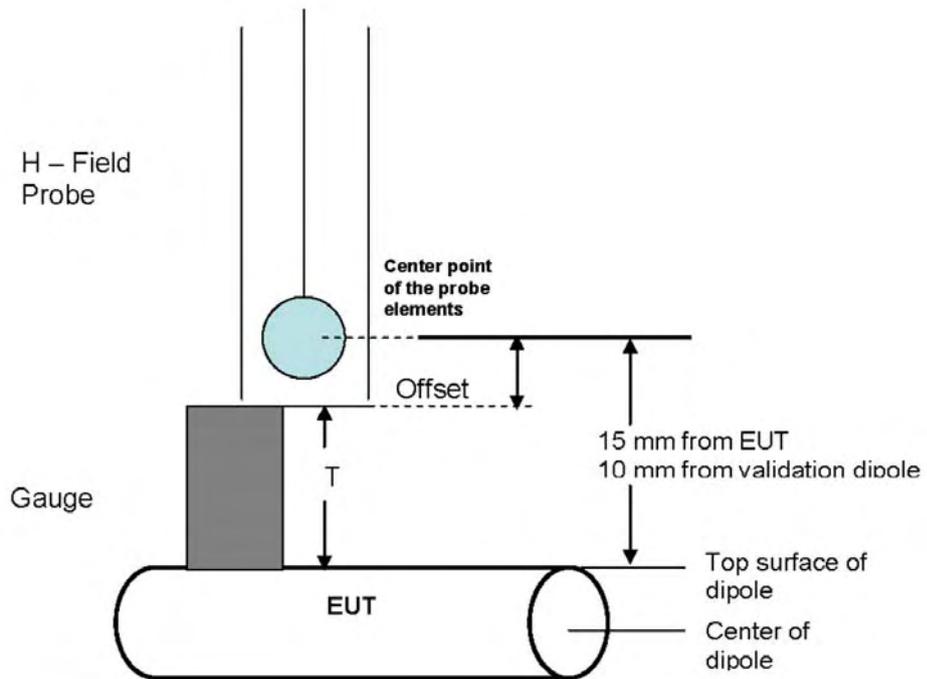


Figure 4. Gauge block with H-field probe



The HAC Rating results for E-Field and H-field are shown in 6.1 and 6.2. Also shown are the measured conducted output powers, the measured drifts, excluded areas, and the peak fields. PMF measurements are taken from section 5. The worst-case test conditions are indicated with bold numbers in the tables and are detailed in Appendix C: HAC distribution plots for E-Field and H-Field.

Drift was measured using the typical DASY5 v5.0 measurement routines. The field is measured at the reference location (center of the ear piece) at the beginning of the test. Then after completion of the E or H field measurement, the probe returns to the same reference location and takes another measurement. The drift is the delta between these two values and is included in the test report scans.

The cellular phone model covered by this report has the following battery options:

Battery : HSTNH-K14B-HS / 3.7V 1940mAh



6.1 HAC E-Field measurement results:

Band	Rating	E-Field
GSM 850	M3	149.6 to 266.1 V/m
	M4	< 149.6 V/m
PCS 1900	M3	47.3 to 84.1 V/m
	M4	< 47.3 V/m
WCDMA Band V	M3	199.5 to 354.8
	M4	< 199.5
WCDMA Band II	M3	63.1 to 112.2
	M4	< 63.1

Table 5. Emissions Limits

Band	Channel	Conducted Power (dBm)	Measured PMF	Drift (dB)	Excluded Cells	Peak Field (V/m)	Rating
GSM 850	128	31.60	2.91	-0.083	2.3.6	204.2	M3
	190	31.60	2.95	0.014	2.3.6	218.1	M3
	251	31.50	2.95	0.029	2.3.6	205.3	M3
PCS 1900	512	29.20	2.94	0.027	1.2.3	51.4	M3
	661	29.10	2.94	0.013	1.2.3	57.6	M3
	810	29.30	2.94	0.014	2.3.6	61.6	M3
WCDMA Band V	4133	22.68	1.11	-0.020	2.3.6	49.5	M4
	4180	22.94	1.11	0.035	2.3.6	69.9	M4
	4232	22.47	1.11	-0.042	2.3.6	56.0	M4
WCDMA Band II	9263	22.43	1.06	0.064	1.2.3	30.2	M4
	9400	22.25	1.06	0.129	1.2.3	28.2	M4
	9537	22.23	1.06	-0.027	2.3.6	27.4	M4

Note:

1. HAC E-Field measurement results for the portable cellular telephone at highest possible output power.



6.2 HAC H-Field measurement results:

Band	Rating	H-Field
GSM 850	M3	0.45 to 0.80 A/m
	M4	< 0.45 A/m
PCS 1900	M3	0.14 to 0.25 A/m
	M4	<0.14 A/m
WCDMA Band V	M3	0.60 to 1.07
	M4	< 0.60
WCDMA Band II	M3	0.19 to 0.34
	M4	< 0.19

Table 6. Emissions Limits

Band	Channel	Conducted Power (dBm)	Measured PMF	Drift (dB)	Excluded Cells	Peak Field (A/m)	Rating
GSM 850	128	31.10	2.61	-0.044	1.4.7	0.256	M4
	190	31.00	2.61	0.021	1.4.7	0.273	M4
	251	30.90	2.61	0.050	1.4.7	0.258	M4
PCS 1900	512	29.40	2.97	0.022	1.4.7	0.158	M3
	661	29.00	2.97	-0.032	1.4.7	0.168	M3
	810	28.80	2.97	-0.023	1.4.7	0.179	M3
WCDMA Band V	4133	22.68	0.93	-0.061	1.4.7	0.061	M4
	4180	22.94	0.93	0.080	1.4.7	0.084	M4
	4232	22.47	0.93	0.082	1.4.7	0.067	M4
WCDMA Band II	9263	22.43	1.09	-0.005	1.4.7	0.094	M4
	9400	22.25	1.09	-0.060	1.4.7	0.083	M4
	9537	22.23	1.09	-0.080	1.4.7	0.084	M4

Note:

1. HAC H-Field measurement results for the portable cellular telephone at highest possible output power.

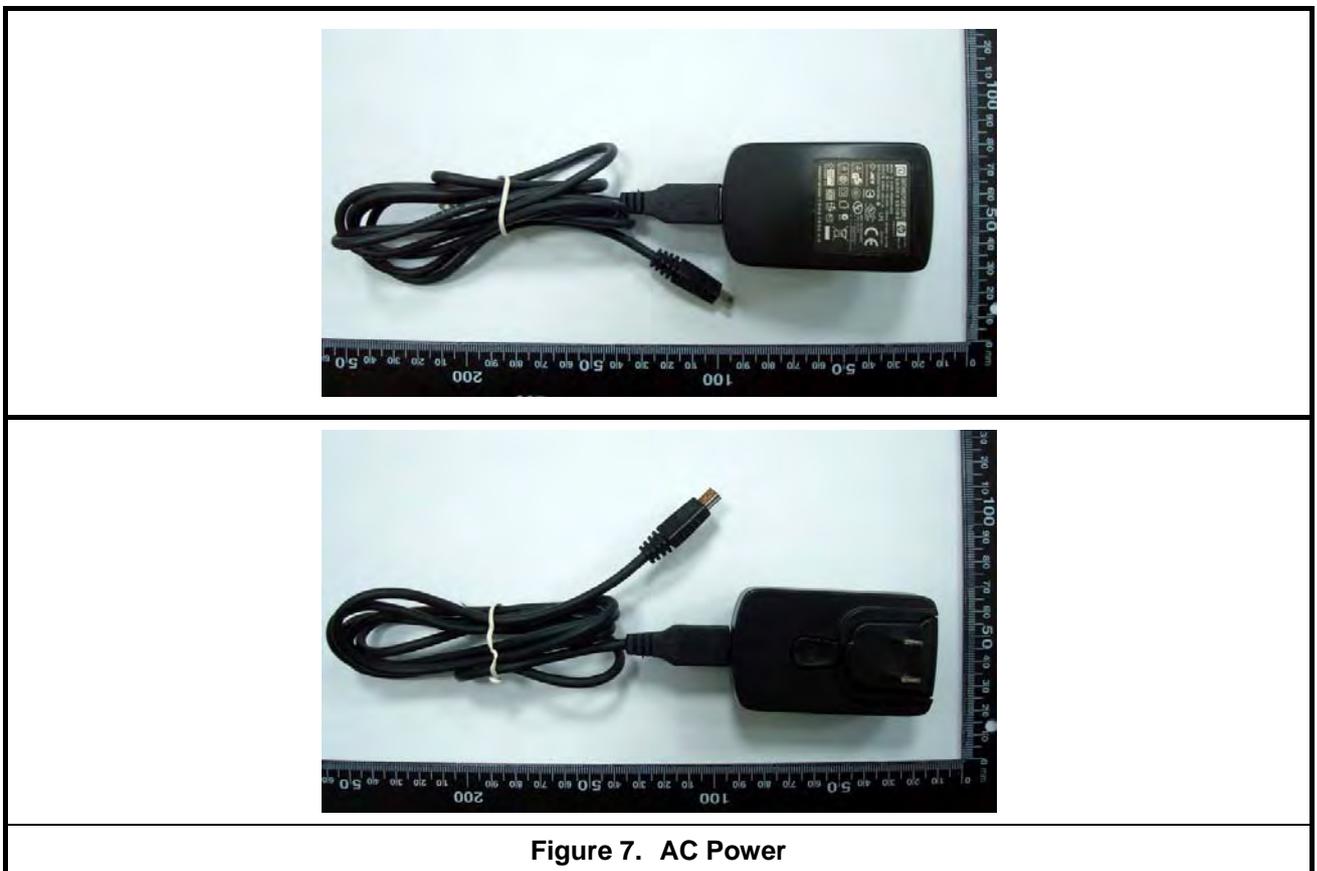
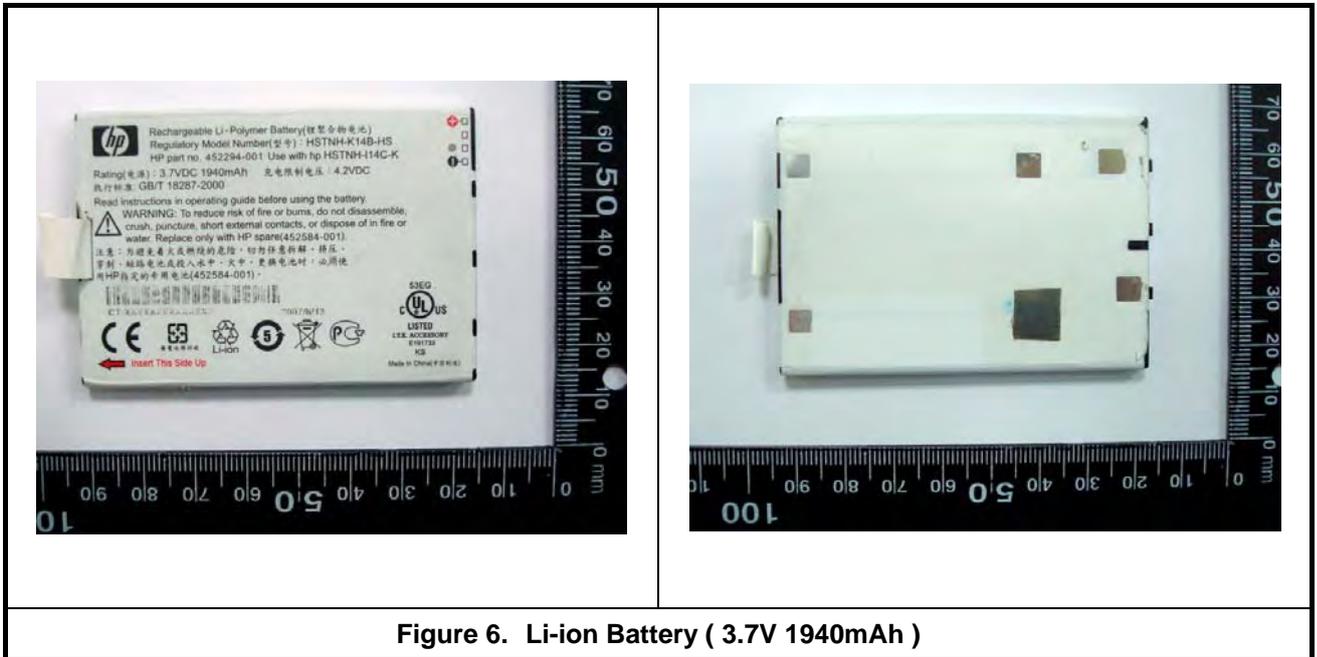
6.3 Description of the Device under Test (DUT)

Modes and Bands of Operation	GSM 850	PCS 1900	WCDMA Band V	WCDMA Band II
Modulation Mode	GMSK	GMSK	QPSK	QPSK
Duty Cycle	1/8.3	1/8.3	1/1	1/1
Transmitter Frequency Range (MHz)	824.2 - 848.8	1850.2 - 1909.8	826.6 - 846.4	1852.6 - 1907.4

6.3.1 Picture of Device



6.3.2 Picture of Accessories



6.3.3 Test Setup Photo

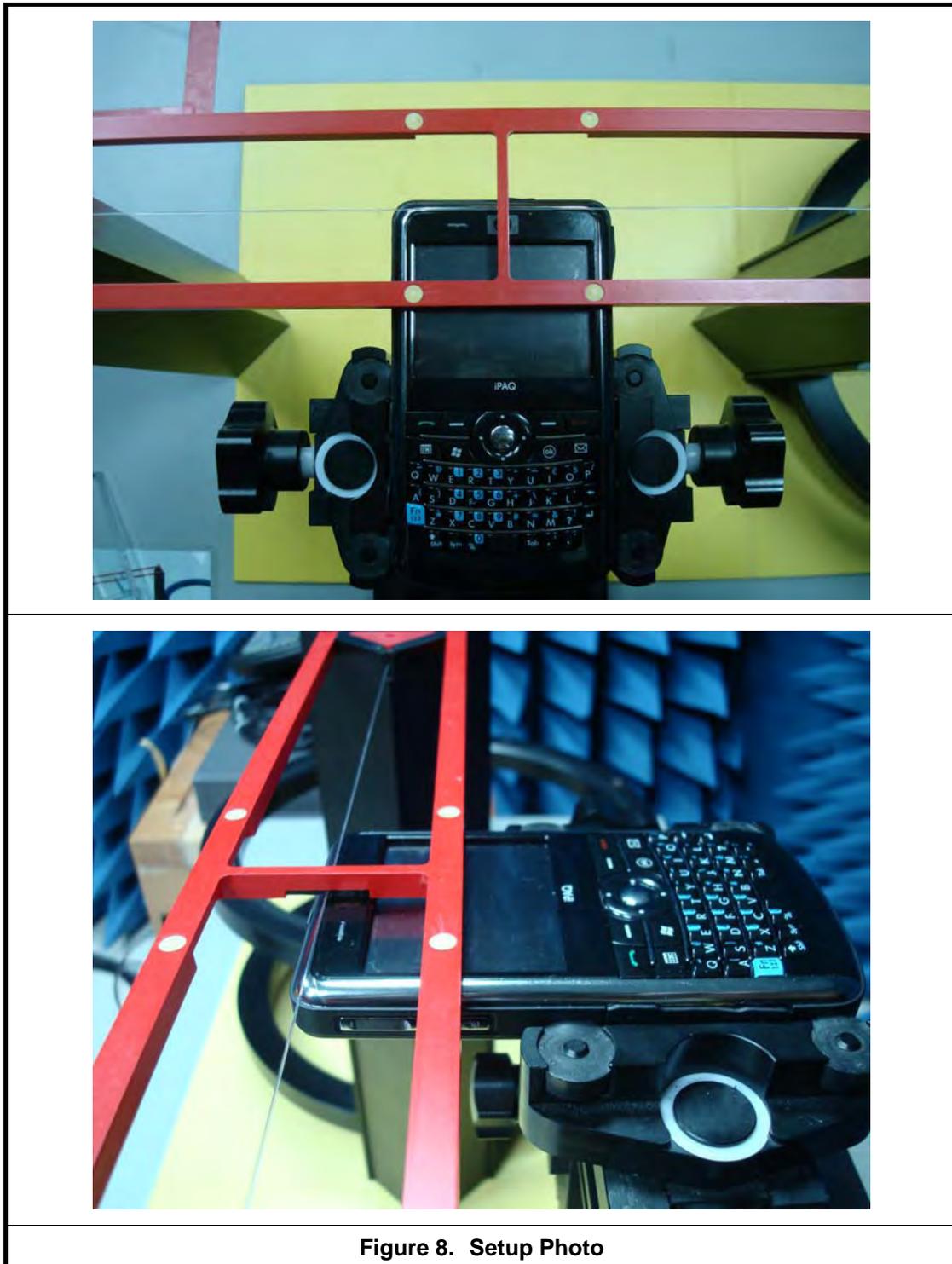
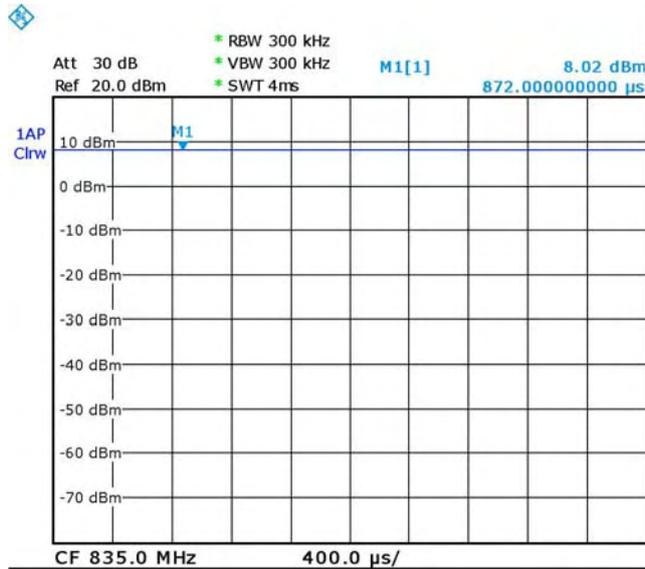


Figure 8. Setup Photo

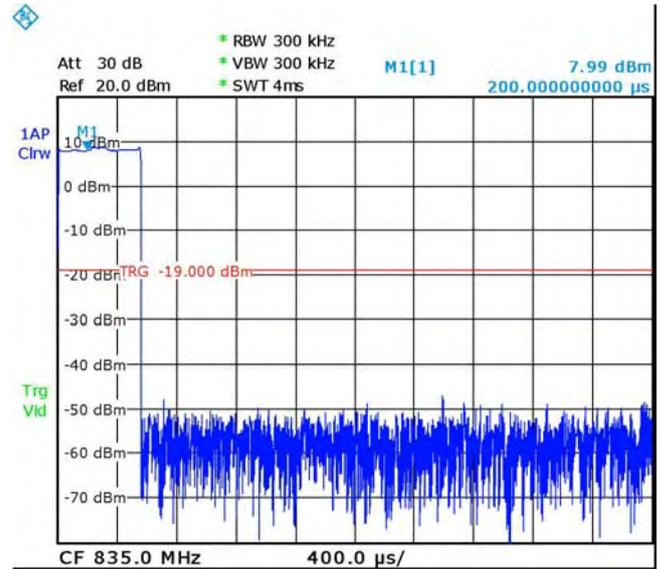


Appendix A - Details of WD signal

GSM 835 MHz

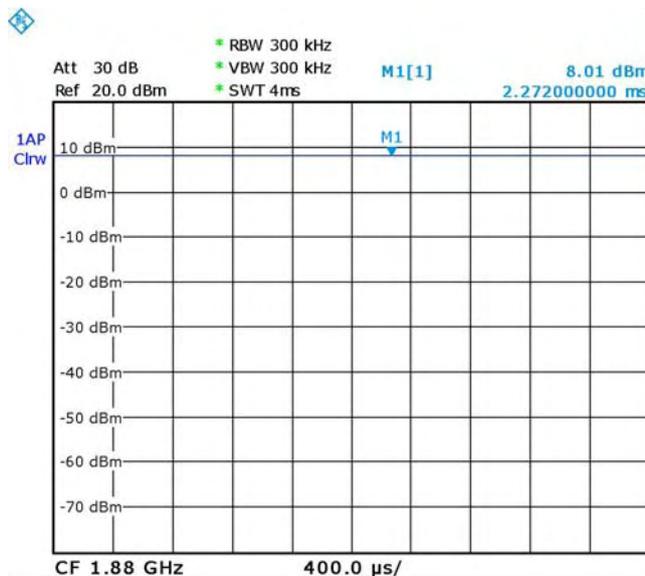


CW Signal

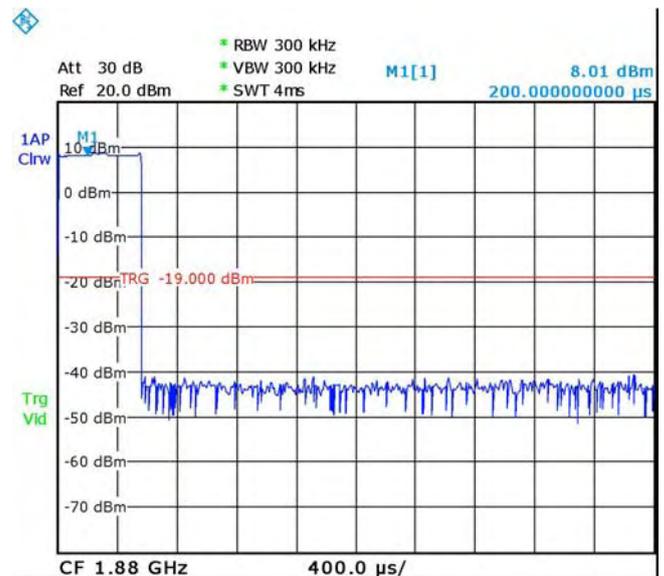


GSM Signal

GSM 1880 MHz



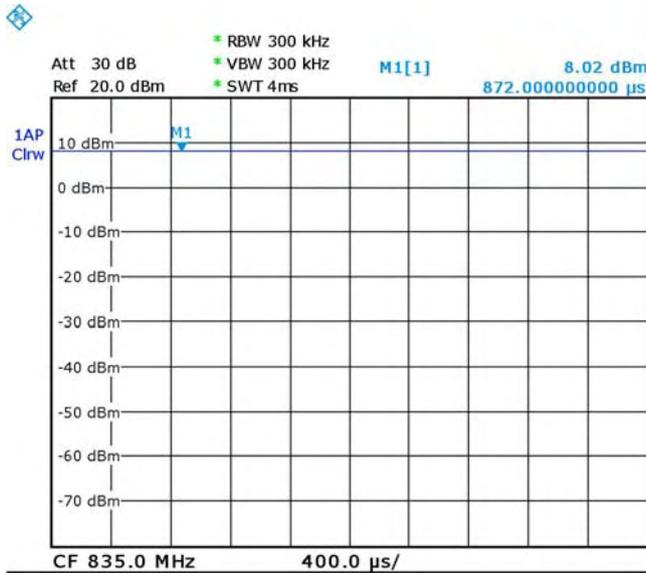
CW Signal



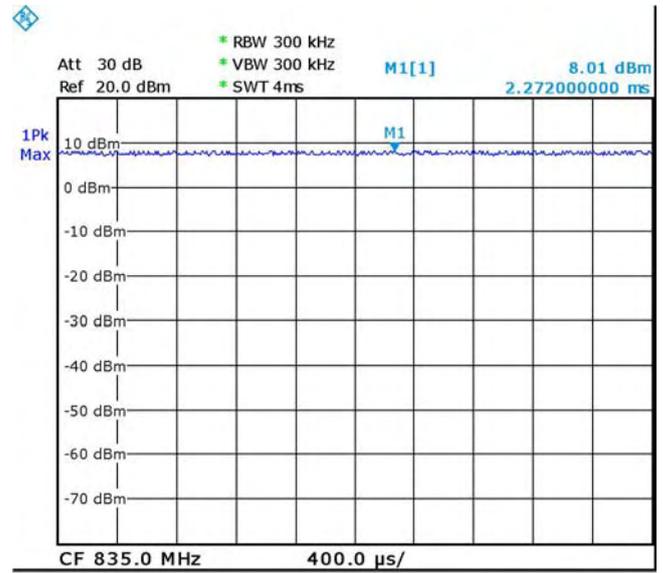
GSM Signal



UMTS 835 MHz

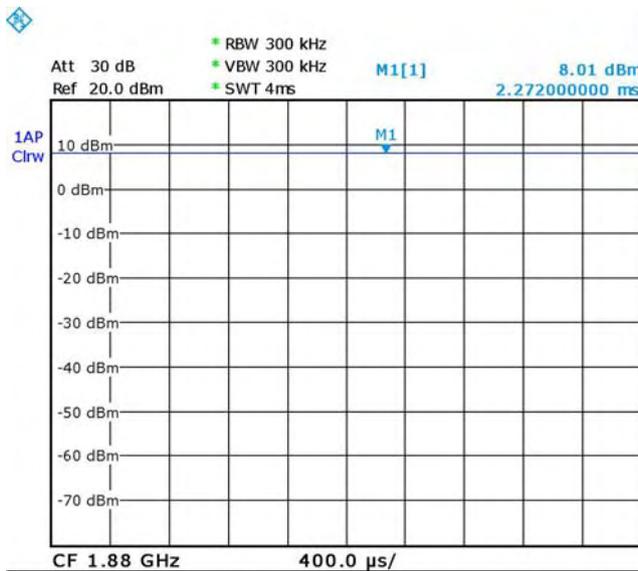


CW Signal

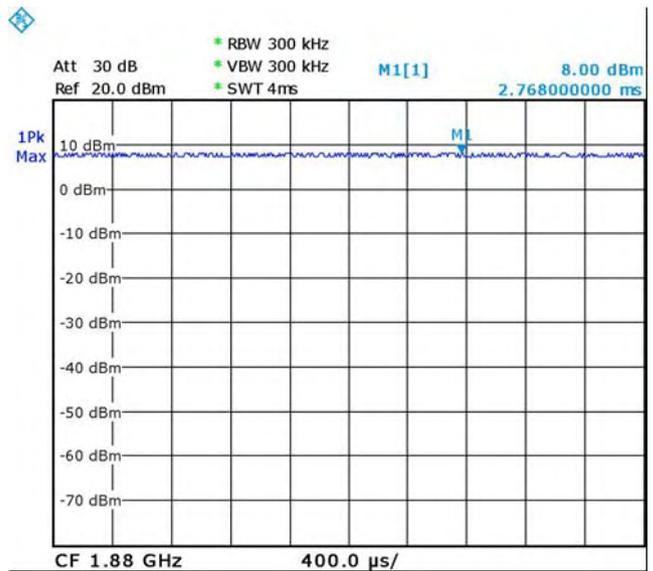


UMTS Signal

UMTS 1880 MHz



CW Signal



UMTS Signal



Appendix B - Validation

See following Attached Pages for HAC distribution plots for E-Field and H-Field.



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 11:41:14 AM

System Performance Check at 835MHz_20080226_HAC_E

DUT: Dipole 835 MHz; Type: CD835V3; Serial: CD835V3 - SN:1017

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

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Dipole Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

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

Maximum value of peak Total field = 183.2 V/m

Probe Modulation Factor = 1

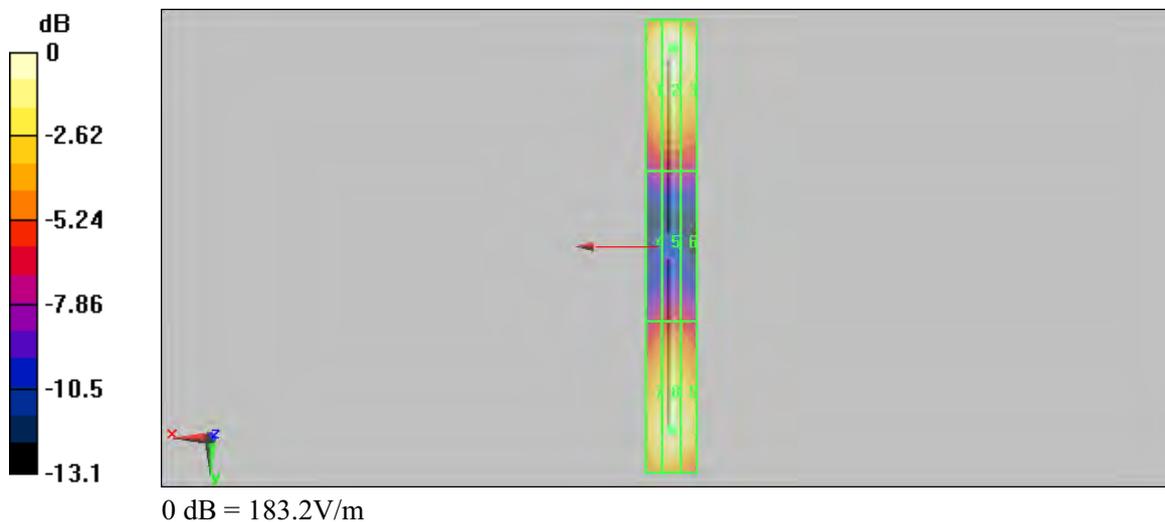
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 129.1 V/m; Power Drift = 0.014 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 175.9 M4	Grid 2 183.2 M4	Grid 3 178.8 M4
Grid 4 90.8 M4	Grid 5 94.1 M4	Grid 6 91.8 M4
Grid 7 163.9 M4	Grid 8 168.8 M4	Grid 9 164.0 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 11:05:36 AM

System Performance Check at 835MHz_20080226_HAC_H

DUT: Dipole 835 MHz; Type: CD835V3; Serial: CD835V3 - SN:1017

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

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

Phantom section: H Dipole Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

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

Maximum value of peak Total field = 0.482 A/m

Probe Modulation Factor = 1

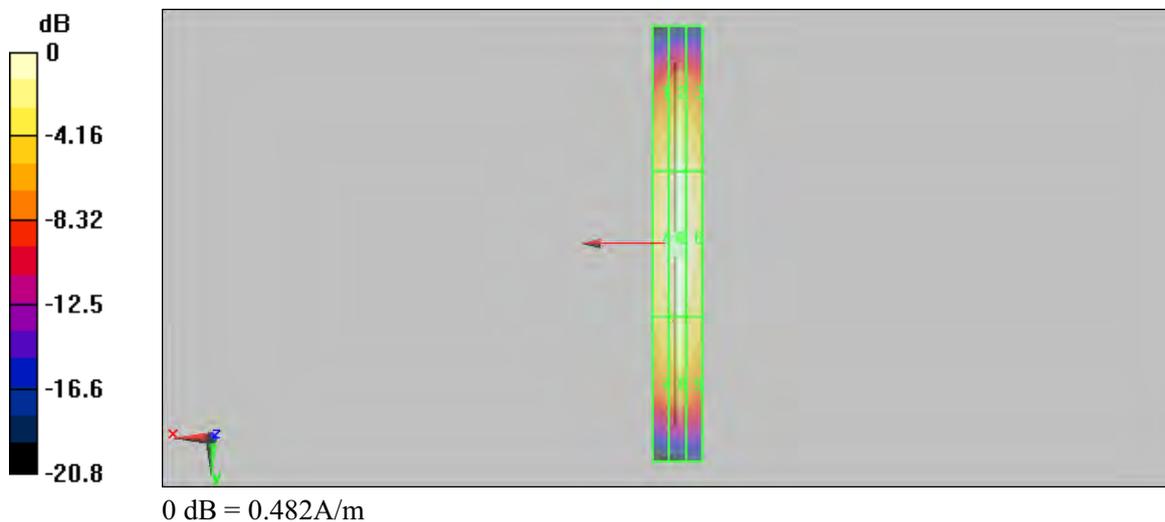
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 0.512 A/m; Power Drift = 0.00202 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.399 M4	0.429 M4	0.415 M4
Grid 4	Grid 5	Grid 6
0.452 M4	0.482 M4	0.470 M4
Grid 7	Grid 8	Grid 9
0.386 M4	0.408 M4	0.394 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 1:33:59 PM

System Performance Check at 1880MHz_20080227_HAC_E

DUT: Dipole 1880 MHz; Type: CD1880V3; Serial: CD1880V3 - SN:1036

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

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Dipole Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):

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

Maximum value of peak Total field = 148.9 V/m

Probe Modulation Factor = 1

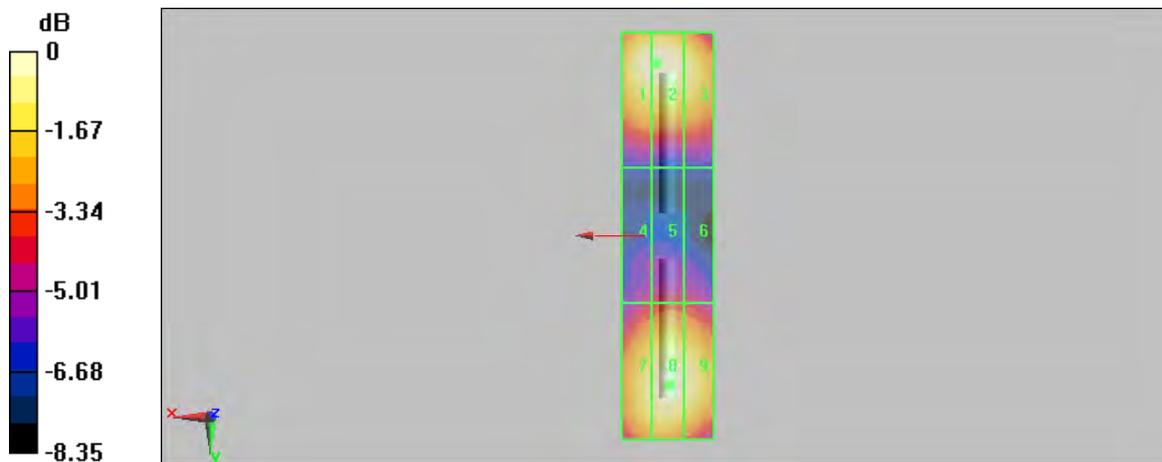
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 150.7 V/m; Power Drift = 0.00274 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 148.3 M2	Grid 2 148.9 M2	Grid 3 139.3 M2
Grid 4 91.5 M3	Grid 5 96.7 M3	Grid 6 94.4 M3
Grid 7 137.7 M2	Grid 8 145.0 M2	Grid 9 141.3 M2



0 dB = 148.9V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 1:49:31 PM

System Performance Check at 1880MHz_20080227_HAC_H

DUT: Dipole 1880 MHz; Type: CD1880V3; Serial: CD1880V3 - SN:1036

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

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

Phantom section: H Dipole Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):

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

Maximum value of peak Total field = 0.455 A/m

Probe Modulation Factor = 1

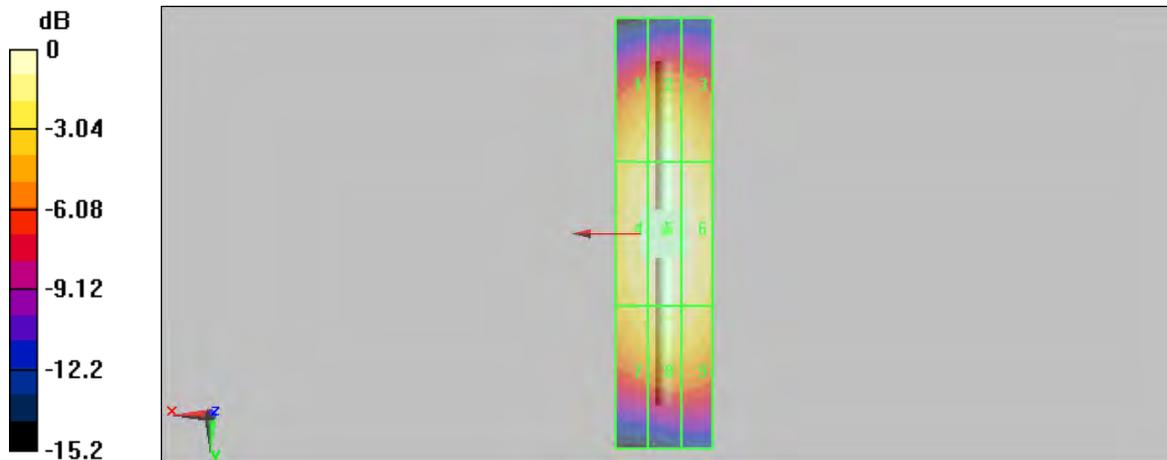
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 0.483 A/m; Power Drift = -0.019 dB

Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.396 M2	Grid 2 0.424 M2	Grid 3 0.408 M2
Grid 4 0.425 M2	Grid 5 0.455 M2	Grid 6 0.442 M2
Grid 7 0.383 M2	Grid 8 0.415 M2	Grid 9 0.406 M2



0 dB = 0.455A/m



Appendix C - HAC distribution plots for E-Field and H-Field

See following Attached Pages for HAC distribution plots for E-Field and H-Field.



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 12:21:58 PM

HAC_GSM850 CH128_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 204.2 V/m

Probe Modulation Factor = 2.91

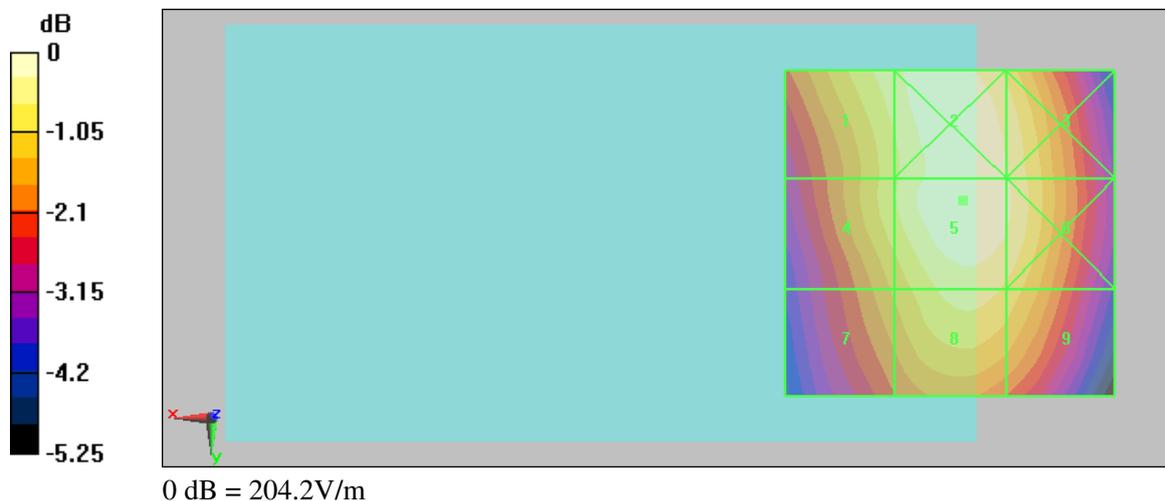
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 90.3 V/m; Power Drift = -0.083 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 193.9 M3	Grid 2 203.1 M3	Grid 3 197.0 M3
Grid 4 187.7 M3	Grid 5 204.2 M3	Grid 6 198.1 M3
Grid 7 175.4 M3	Grid 8 192.3 M3	Grid 9 187.0 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 12:35:19 PM

HAC_GSM850 CH190_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 218.1 V/m

Probe Modulation Factor = 2.95

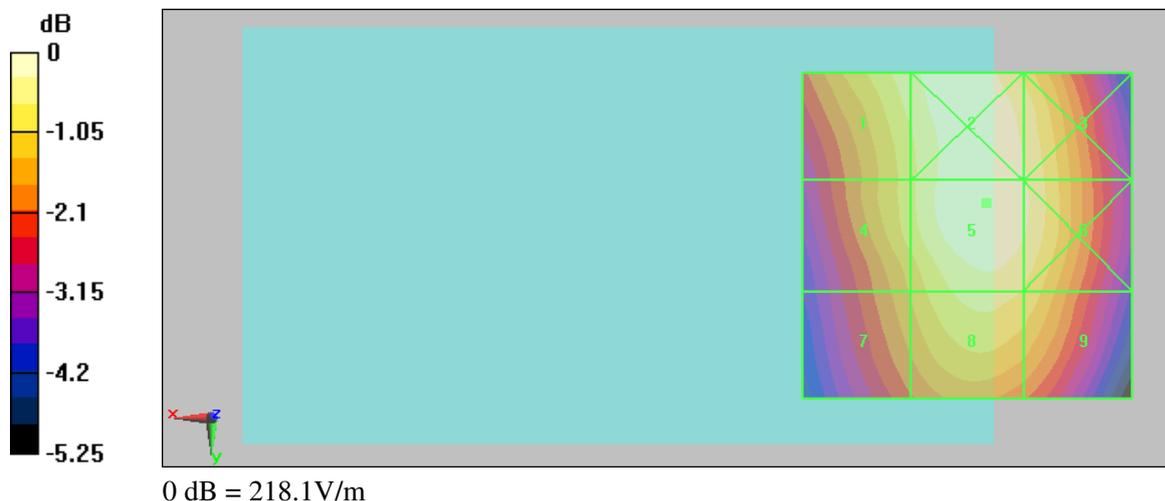
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 94.5 V/m; Power Drift = 0.014 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 207.1 M3	Grid 2 216.7 M3	Grid 3 210.9 M3
Grid 4 199.3 M3	Grid 5 218.1 M3	Grid 6 211.9 M3
Grid 7 187.0 M3	Grid 8 205.3 M3	Grid 9 200.7 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 12:51:14 PM

HAC_GSM850 CH251_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 205.3 V/m

Probe Modulation Factor = 2.95

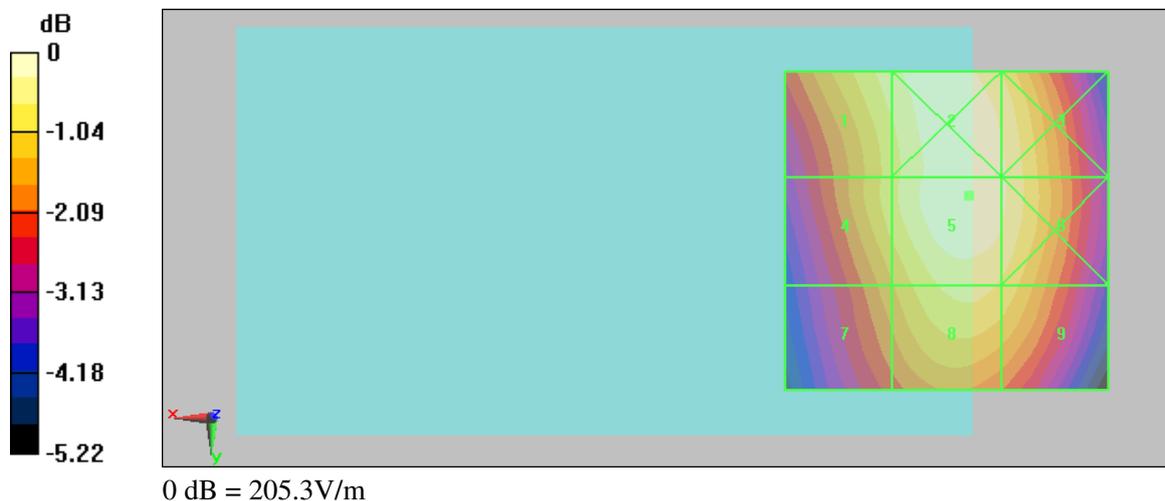
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 88.7 V/m; Power Drift = 0.029 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 194.5 M3	Grid 2 204.5 M3	Grid 3 198.7 M3
Grid 4 187.3 M3	Grid 5 205.3 M3	Grid 6 198.8 M3
Grid 7 174.3 M3	Grid 8 192.8 M3	Grid 9 188.4 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 5:18:41 PM

HAC_PCS CH512_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 51.4 V/m

Probe Modulation Factor = 2.94

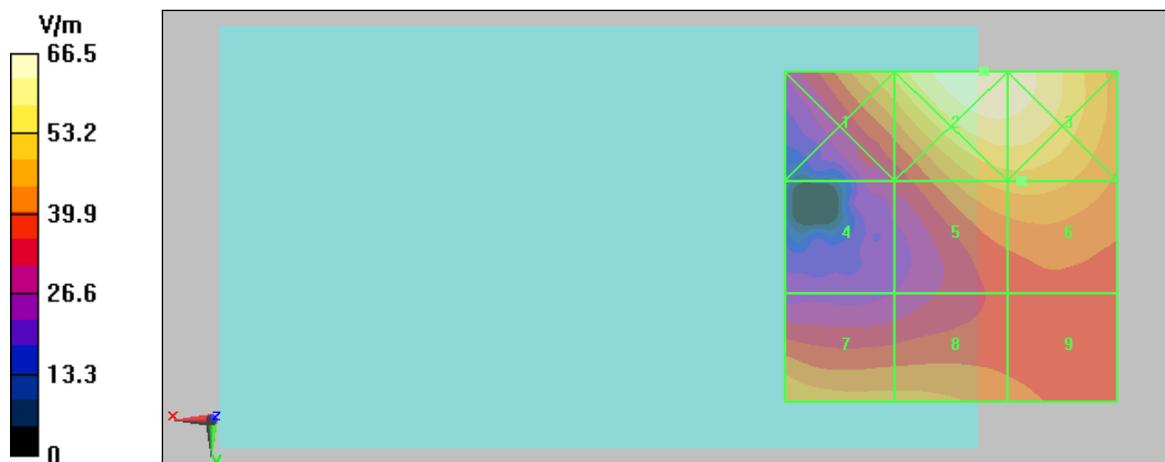
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 13.7 V/m; Power Drift = 0.027 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 54.7 M3	Grid 2 66.5 M3	Grid 3 65.6 M3
Grid 4 32.8 M4	Grid 5 51.1 M3	Grid 6 51.4 M3
Grid 7 48.7 M3	Grid 8 46.4 M4	Grid 9 42 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 5:27:23 PM

HAC_PCS CH661_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 57.6 V/m

Probe Modulation Factor = 2.94

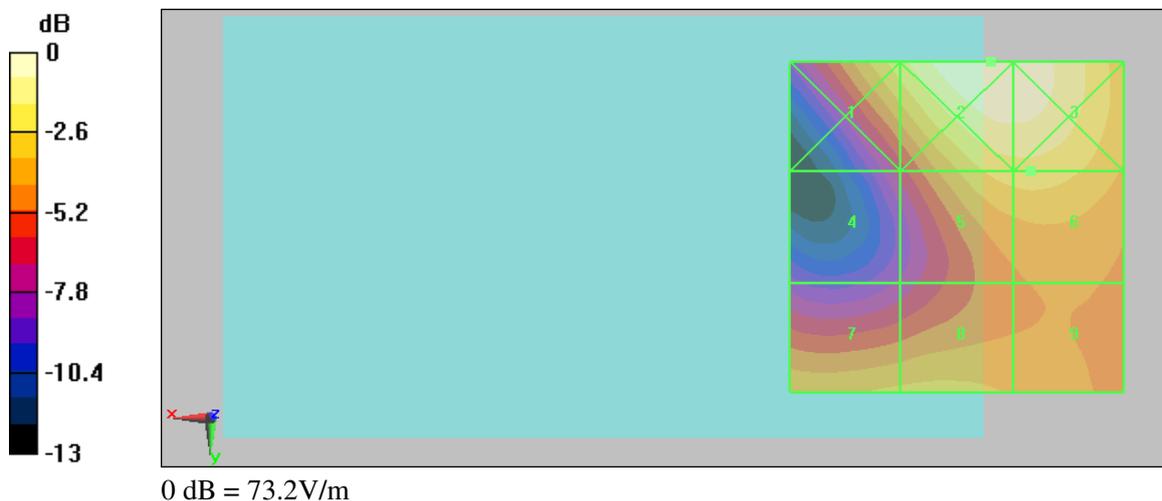
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 16.2 V/m; Power Drift = 0.013 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 57.9 M3	Grid 2 73.2 M3	Grid 3 72.2 M3
Grid 4 34.7 M4	Grid 5 57.3 M3	Grid 6 57.6 M3
Grid 7 50.4 M3	Grid 8 51 M3	Grid 9 48.6 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 5:35:58 PM

HAC_PCS CH810_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 61.6 V/m

Probe Modulation Factor = 2.94

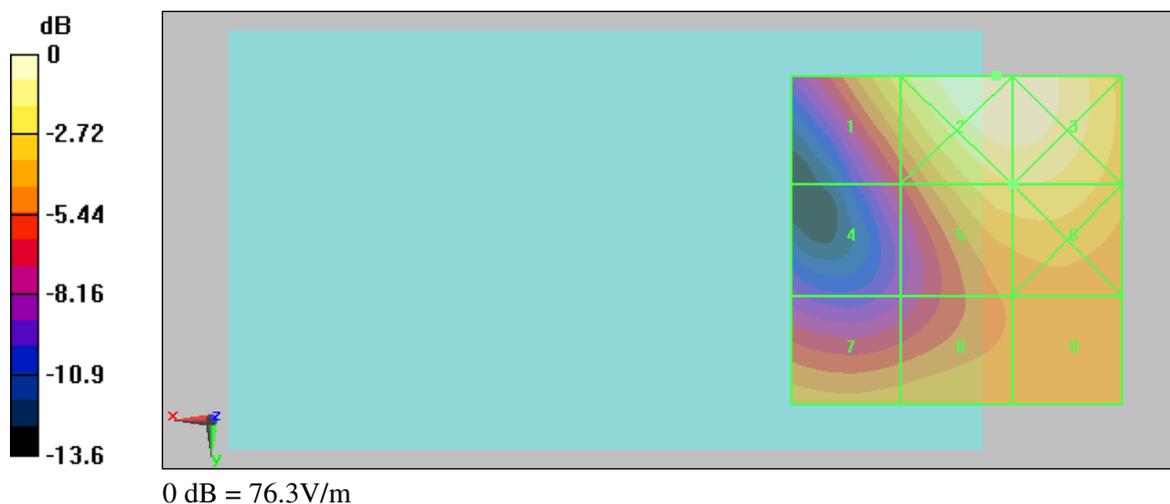
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 17.6 V/m; Power Drift = 0.014 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 59.4 M3	Grid 2 76.3 M3	Grid 3 75.7 M3
Grid 4 36.3 M4	Grid 5 61.6 M3	Grid 6 62 M3
Grid 7 49.4 M3	Grid 8 50.3 M3	Grid 9 49.4 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:58:33 PM

HAC_WCDMA Band V CH4133_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 826.6 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 49.5 V/m

Probe Modulation Factor = 1.11

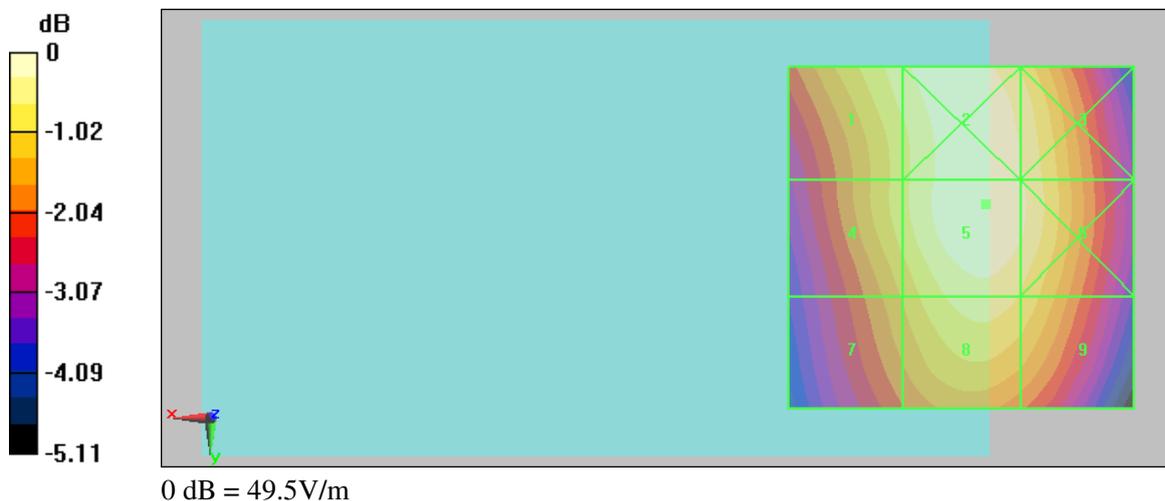
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 57.1 V/m; Power Drift = -0.020 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 47 M4	Grid 2 49.3 M4	Grid 3 47.8 M4
Grid 4 45.3 M4	Grid 5 49.5 M4	Grid 6 48.1 M4
Grid 7 42.6 M4	Grid 8 46.9 M4	Grid 9 45.6 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 3:03:38 PM

HAC_WCDMA Band V CH4180_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 836 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 69.9 V/m

Probe Modulation Factor = 1.11

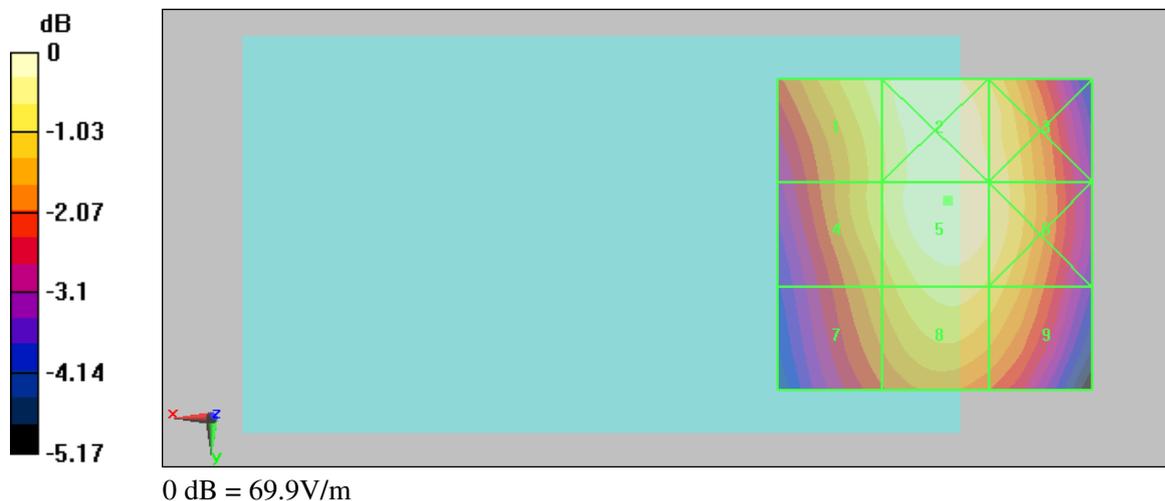
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 80.4 V/m; Power Drift = 0.035 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 66.4 M4	Grid 2 69.6 M4	Grid 3 67.5 M4
Grid 4 64.3 M4	Grid 5 69.9 M4	Grid 6 67.6 M4
Grid 7 60.2 M4	Grid 8 65.8 M4	Grid 9 64.1 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 3:10:09 PM

HAC_WCDMA Band V CH4232_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 846.4 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 56 V/m

Probe Modulation Factor = 1.11

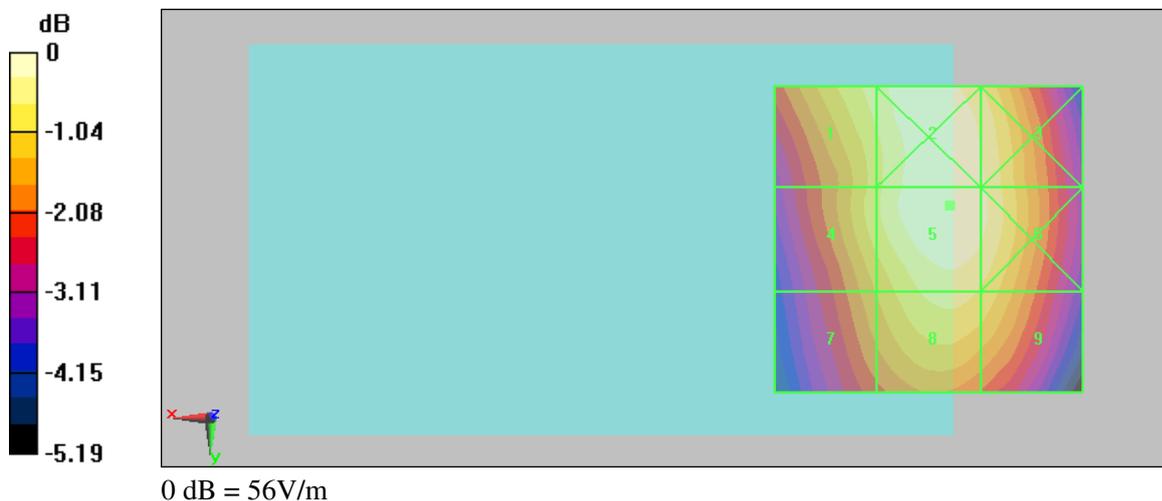
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 64.4 V/m; Power Drift = -0.042 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 52.8 M4	Grid 2 55.9 M4	Grid 3 54.3 M4
Grid 4 51.3 M4	Grid 5 56 M4	Grid 6 54.5 M4
Grid 7 47.9 M4	Grid 8 52.7 M4	Grid 9 51.5 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 6:55:52 PM

HAC_WCDMA Band II CH9263_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1852.6 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 30.2 V/m

Probe Modulation Factor = 1.06

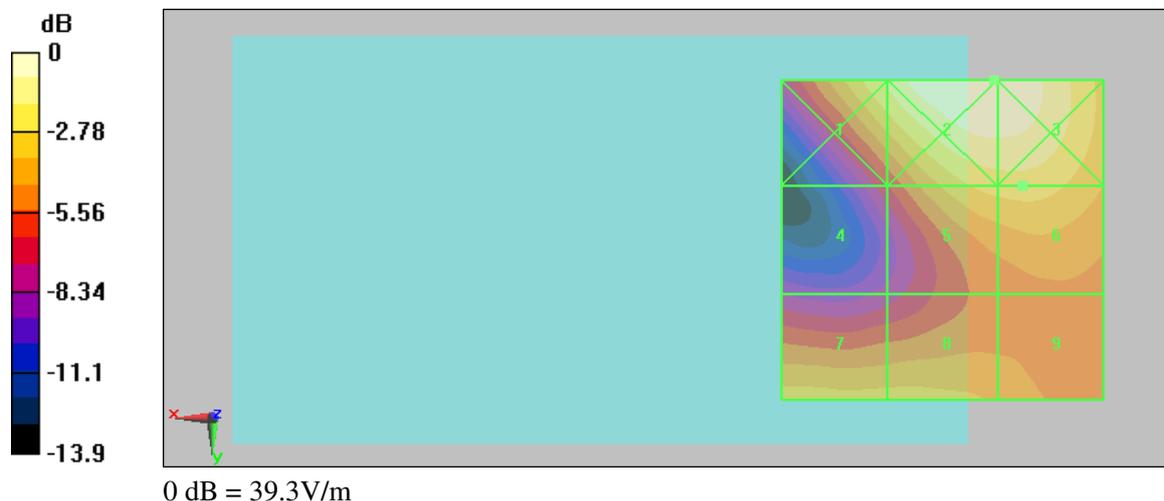
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 22.2 V/m; Power Drift = 0.064 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 32.7 M4	Grid 2 39.3 M4	Grid 3 39.2 M4
Grid 4 18.7 M4	Grid 5 29.9 M4	Grid 6 30.2 M4
Grid 7 27.2 M4	Grid 8 27.1 M4	Grid 9 25.2 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 7:03:02 PM

HAC_WCDMA Band II CH9400_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 28.2 V/m

Probe Modulation Factor = 1.06

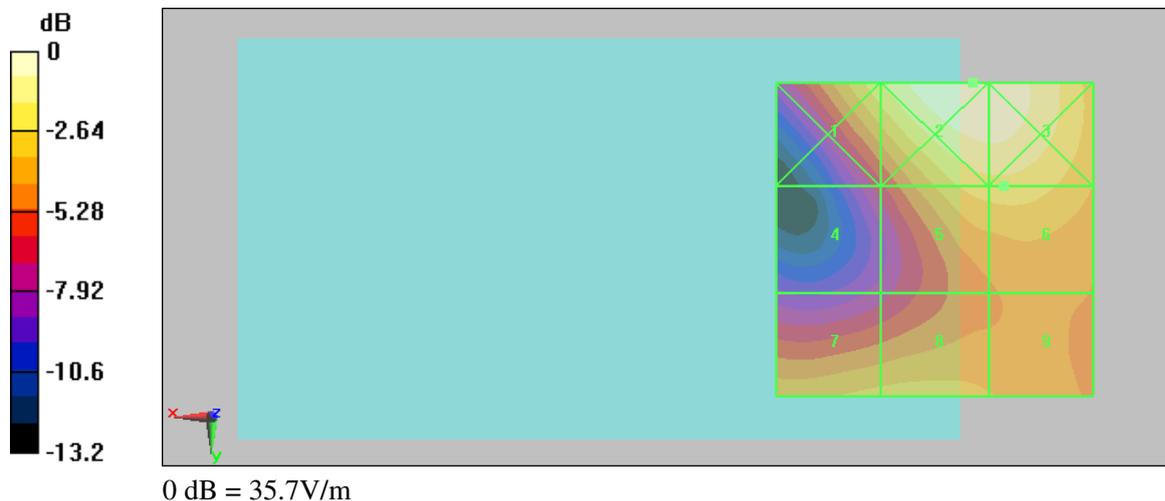
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 21.7 V/m; Power Drift = 0.129 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 28.8 M4	Grid 2 35.7 M4	Grid 3 35.6 M4
Grid 4 17.2 M4	Grid 5 28 M4	Grid 6 28.2 M4
Grid 7 24.8 M4	Grid 8 25 M4	Grid 9 24 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 7:10:10 PM

HAC_WCDMA Band II CH9537_E

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1907.4 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: ER3DV6 - SN2302; ConvF(1, 1, 1); Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

E Scan - ER3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 27.4 V/m

Probe Modulation Factor = 1.06

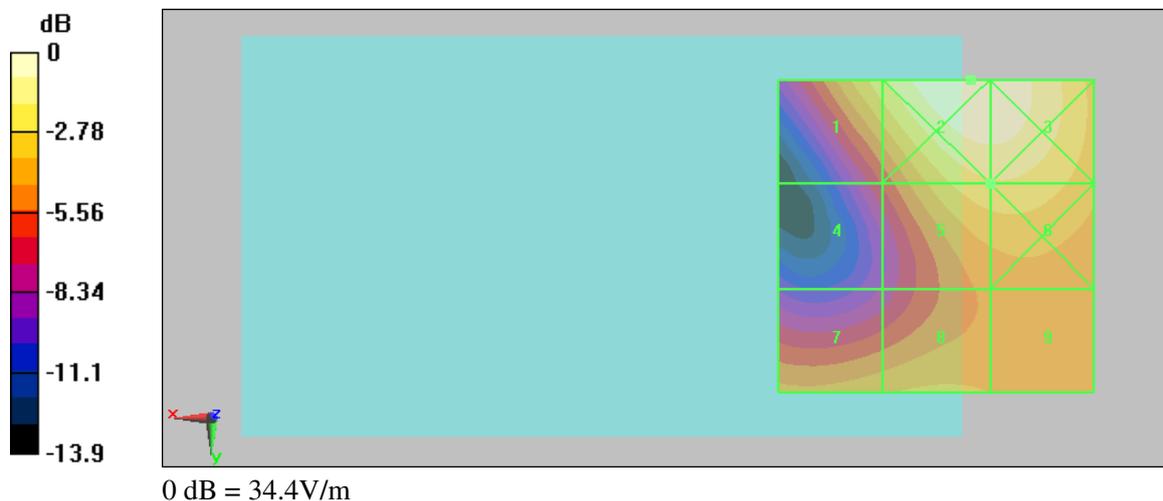
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 22.2 V/m; Power Drift = -0.027 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 27.1 M4	Grid 2 34.4 M4	Grid 3 34 M4
Grid 4 16.7 M4	Grid 5 27.4 M4	Grid 6 27.6 M4
Grid 7 22.2 M4	Grid 8 23 M4	Grid 9 22.5 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 1:35:43 PM

HAC_GSM850 CH128_H

DUT: HSTNH-I18C ; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.256 A/m

Probe Modulation Factor = 2.61

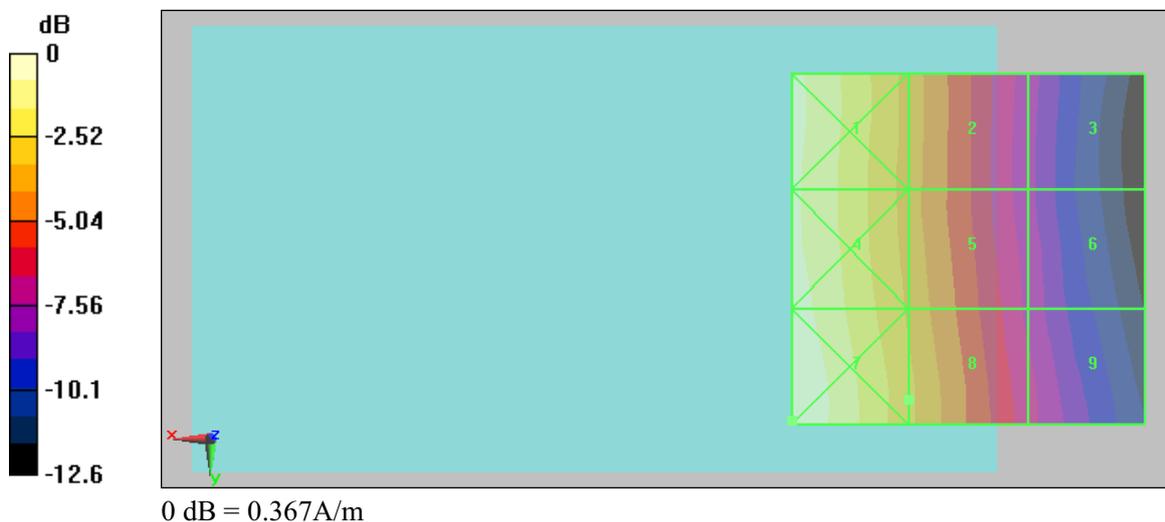
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.075 A/m; Power Drift = -0.044 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.344 M4	Grid 2 0.241 M4	Grid 3 0.147 M4
Grid 4 0.351 M4	Grid 5 0.246 M4	Grid 6 0.150 M4
Grid 7 0.367 M4	Grid 8 0.256 M4	Grid 9 0.161 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 1:41:38 PM

HAC_GSM850 CH190_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.273 A/m

Probe Modulation Factor = 2.61

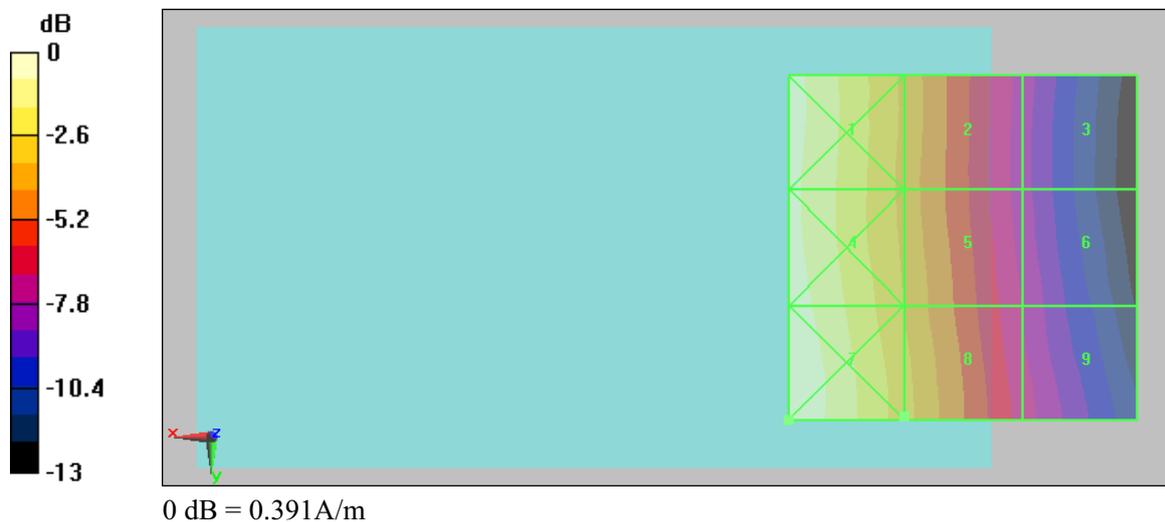
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.079 A/m; Power Drift = 0.021 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.369 M4	Grid 2 0.257 M4	Grid 3 0.153 M4
Grid 4 0.375 M4	Grid 5 0.262 M4	Grid 6 0.159 M4
Grid 7 0.391 M4	Grid 8 0.273 M4	Grid 9 0.169 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 1:47:51 PM

HAC_GSM850 CH251_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: GSM850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.258 A/m

Probe Modulation Factor = 2.61

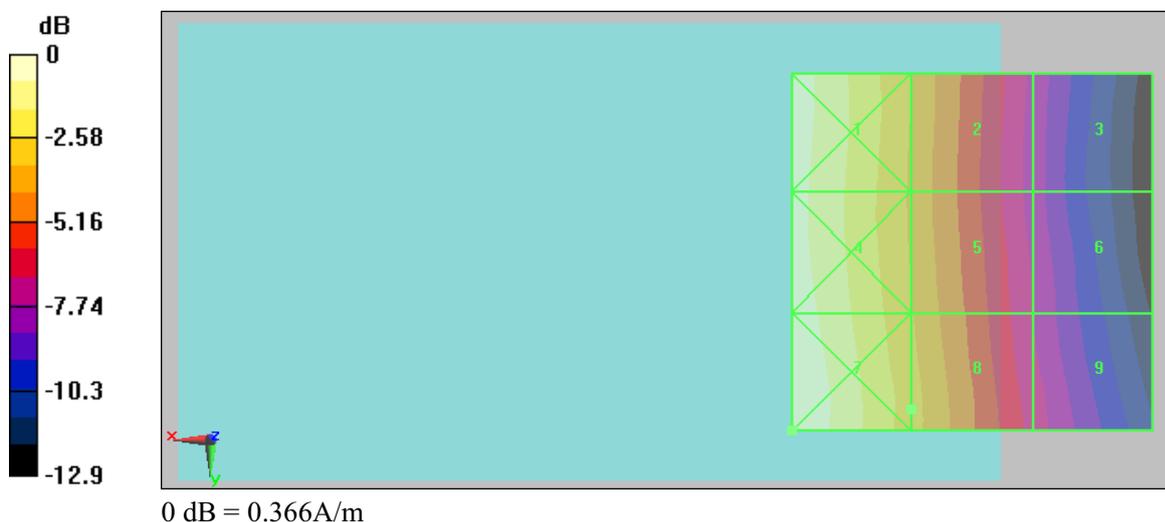
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.075 A/m; Power Drift = 0.050 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.351 M4	Grid 2 0.246 M4	Grid 3 0.147 M4
Grid 4 0.351 M4	Grid 5 0.249 M4	Grid 6 0.150 M4
Grid 7 0.366 M4	Grid 8 0.258 M4	Grid 9 0.160 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 4:36:39 PM

HAC_PCS CH512_H

DUT: HSTNH-I18C ; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.158 A/m

Probe Modulation Factor = 2.97

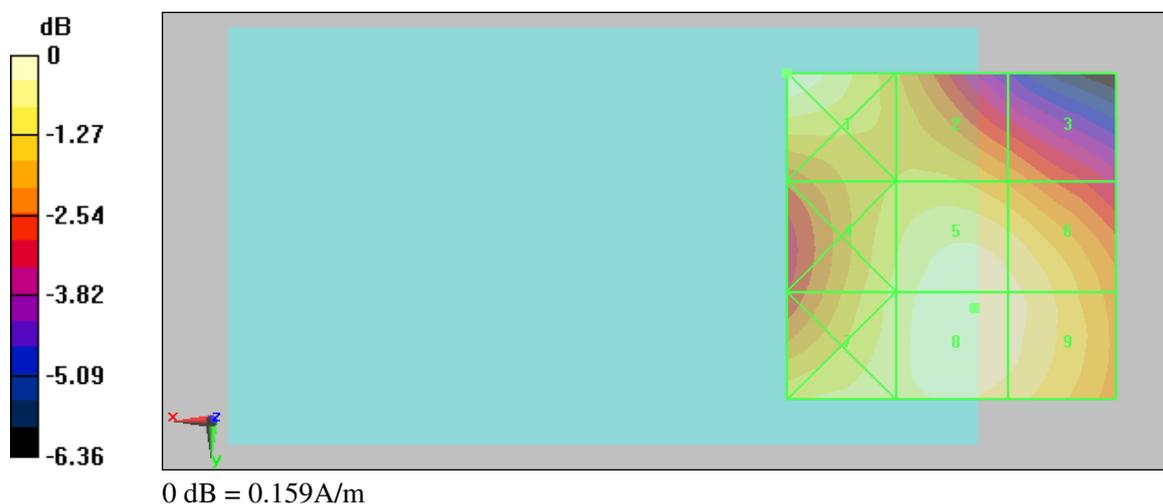
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.058 A/m; Power Drift = 0.022 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.159 M3	Grid 2 0.139 M4	Grid 3 0.130 M4
Grid 4 0.146 M3	Grid 5 0.157 M3	Grid 6 0.154 M3
Grid 7 0.149 M3	Grid 8 0.158 M3	Grid 9 0.155 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 4:47:56 PM

HAC_PCS CH661_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1880 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.168 A/m

Probe Modulation Factor = 2.97

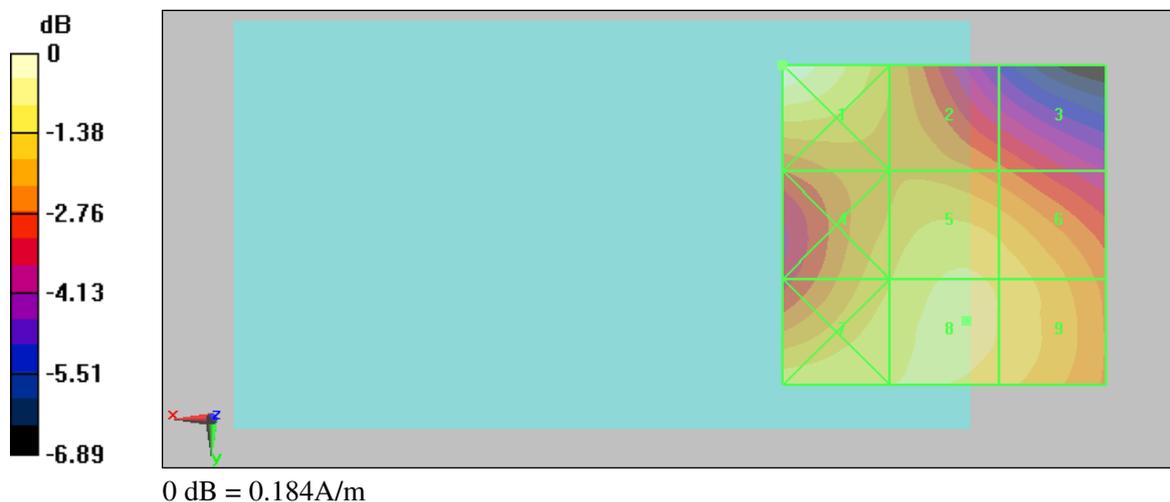
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.061 A/m; Power Drift = -0.032 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.184 M3	Grid 2 0.149 M3	Grid 3 0.136 M4
Grid 4 0.157 M3	Grid 5 0.167 M3	Grid 6 0.164 M3
Grid 7 0.166 M3	Grid 8 0.168 M3	Grid 9 0.165 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 4:54:11 PM

HAC_PCS CH810_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: PCS; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.179 A/m

Probe Modulation Factor = 2.97

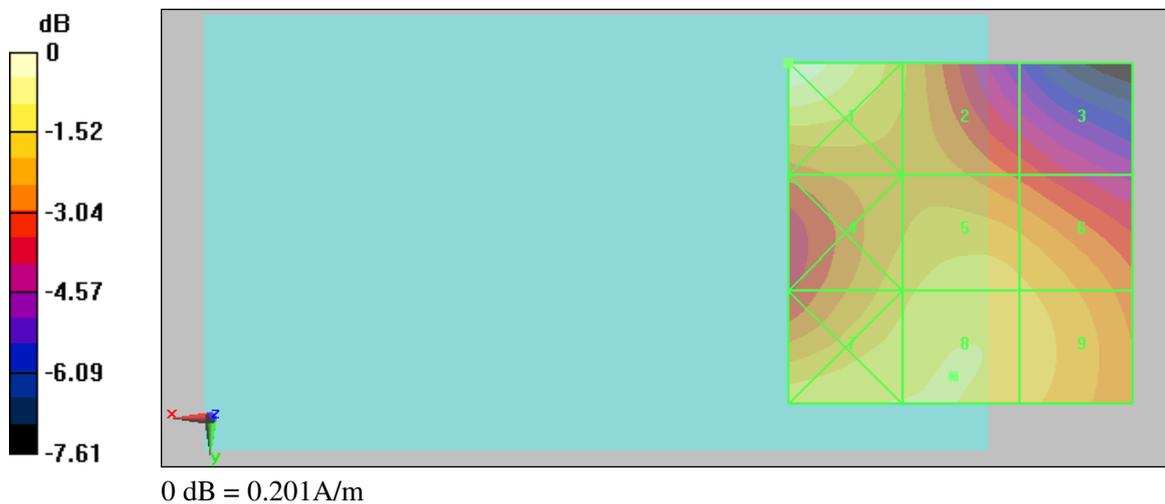
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.063 A/m; Power Drift = -0.023 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 0.201 M3	Grid 2 0.161 M3	Grid 3 0.140 M3
Grid 4 0.166 M3	Grid 5 0.175 M3	Grid 6 0.171 M3
Grid 7 0.179 M3	Grid 8 0.179 M3	Grid 9 0.176 M3





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:04:07 PM

HAC_WCDMA Band V CH4133_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 826.6 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.061 A/m

Probe Modulation Factor = 0.930

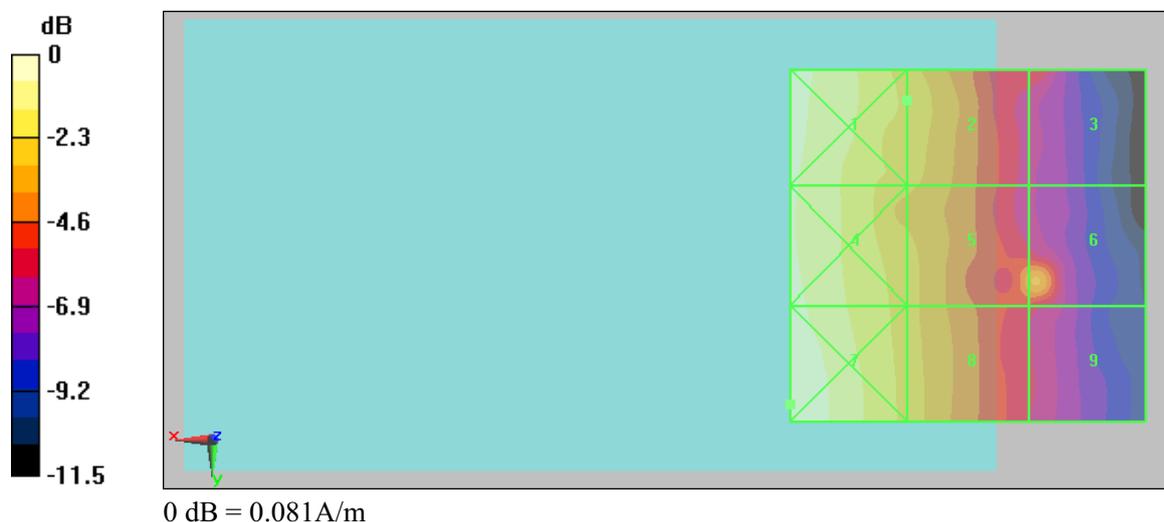
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.057 A/m; Power Drift = -0.061 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.077 M4	Grid 2 0.061 M4	Grid 3 0.045 M4
Grid 4 0.077 M4	Grid 5 0.059 M4	Grid 6 0.058 M4
Grid 7 0.081 M4	Grid 8 0.060 M4	Grid 9 0.043 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:12:44 PM

HAC_WCDMA Band V CH4180_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 836 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.084 A/m

Probe Modulation Factor = 0.930

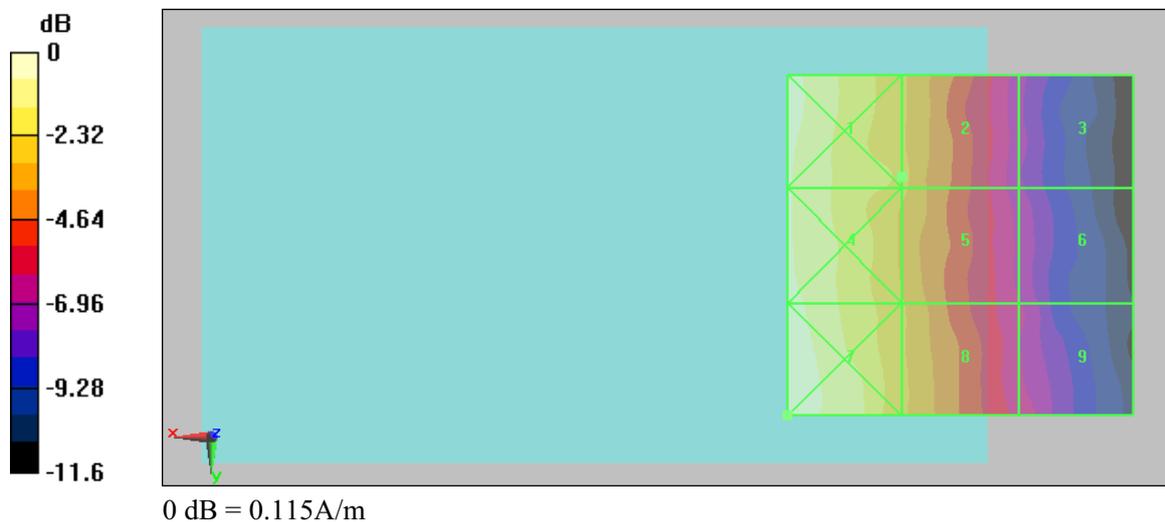
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.071 A/m; Power Drift = 0.080 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.109 M4	Grid 2 0.084 M4	Grid 3 0.049 M4
Grid 4 0.109 M4	Grid 5 0.083 M4	Grid 6 0.052 M4
Grid 7 0.115 M4	Grid 8 0.083 M4	Grid 9 0.056 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/26/2008 2:17:44 PM

HAC_WCDMA Band V CH4232_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band V; Frequency: 846.4 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.067 A/m

Probe Modulation Factor = 0.930

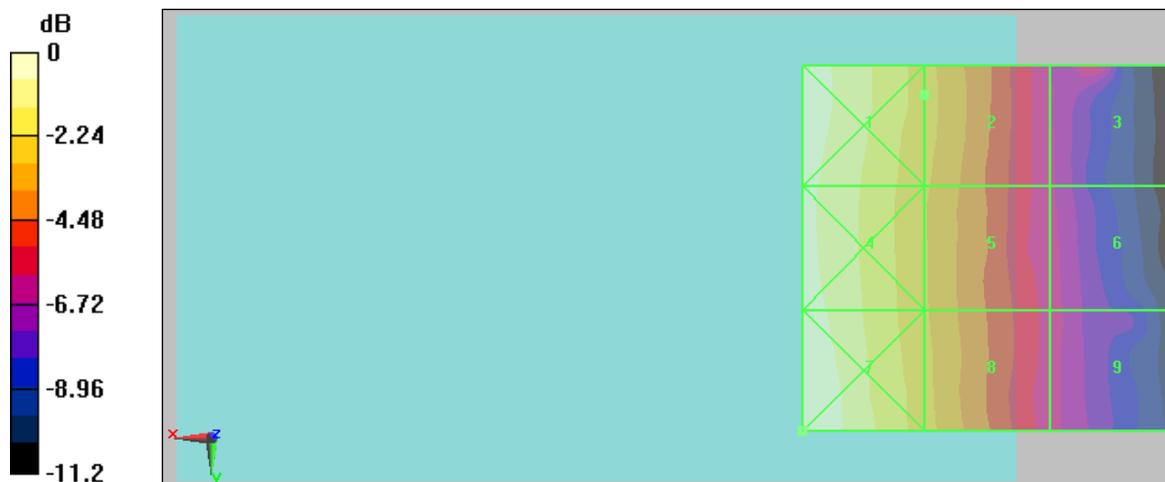
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.062 A/m; Power Drift = 0.082 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.089 M4	Grid 2 0.067 M4	Grid 3 0.048 M4
Grid 4 0.088 M4	Grid 5 0.066 M4	Grid 6 0.044 M4
Grid 7 0.091 M4	Grid 8 0.067 M4	Grid 9 0.044 M4



0 dB = 0.091 A/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 3:50:09 PM

HAC_WCDMA Band II CH9263_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1852.6 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASY5, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.094 A/m

Probe Modulation Factor = 1.09

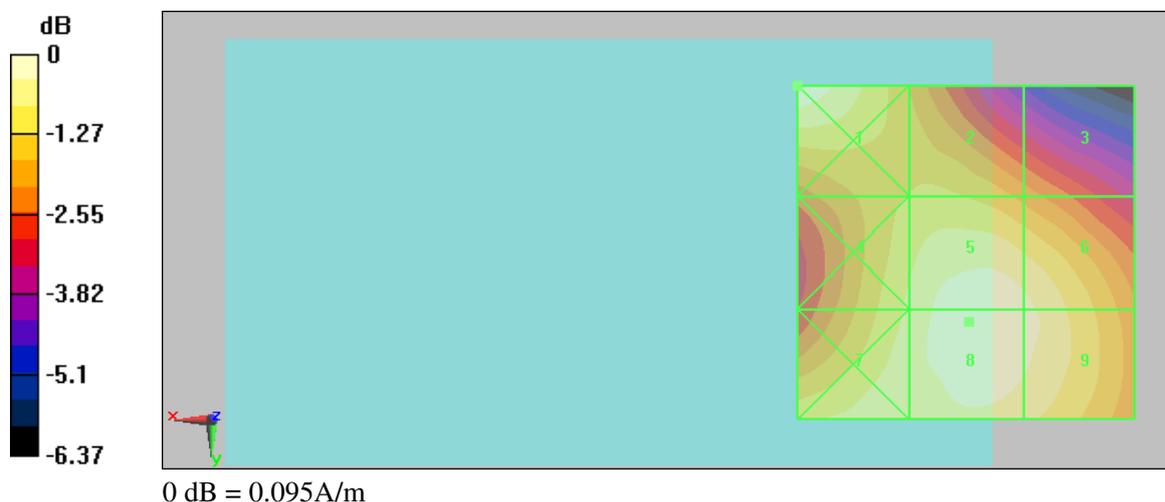
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.092 A/m; Power Drift = -0.00491 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.095 M4	Grid 2 0.083 M4	Grid 3 0.077 M4
Grid 4 0.087 M4	Grid 5 0.093 M4	Grid 6 0.092 M4
Grid 7 0.089 M4	Grid 8 0.094 M4	Grid 9 0.092 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 4:05:19 PM

HAC_WCDMA Band II CH9400_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.083 A/m

Probe Modulation Factor = 1.09

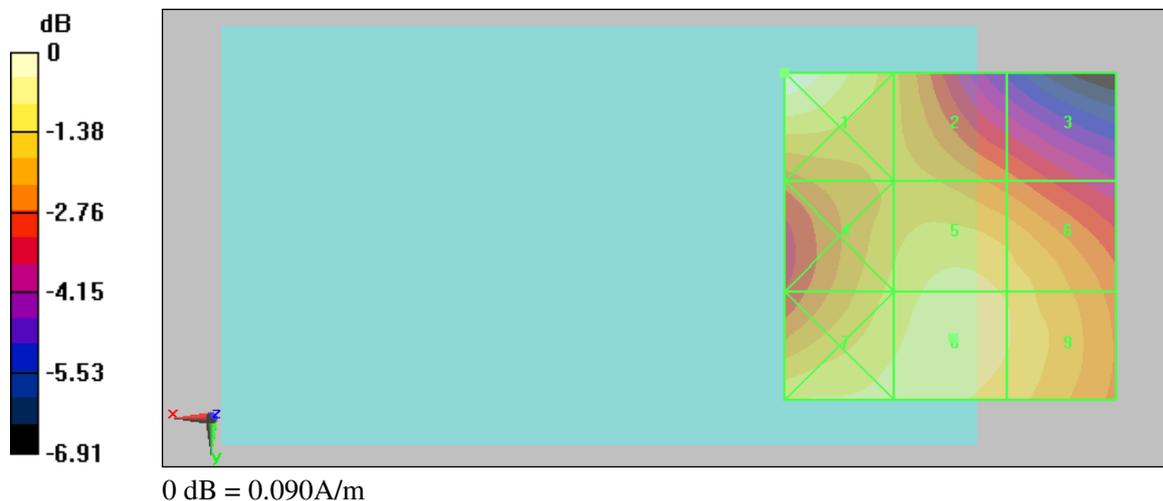
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.081 A/m; Power Drift = -0.060 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.090 M4	Grid 2 0.074 M4	Grid 3 0.067 M4
Grid 4 0.078 M4	Grid 5 0.082 M4	Grid 6 0.080 M4
Grid 7 0.082 M4	Grid 8 0.083 M4	Grid 9 0.081 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/27/2008 4:17:34 PM

HAC_WCDMA Band II CH9537_H

DUT: HSTNH-I18C; Type: PDA Phone; Serial: 356719012004508

Communication System: WCDMA Band II; Frequency: 1880 MHz; Duty Cycle: 1:1

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

Phantom section: H Device Section

Measurement Standard: DASYS (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6187; ; Calibrated: 3/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial:
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

H Scan - H3DV6 - measurement distance from the probe sensor center to the Device = 15mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.084 A/m

Probe Modulation Factor = 1.09

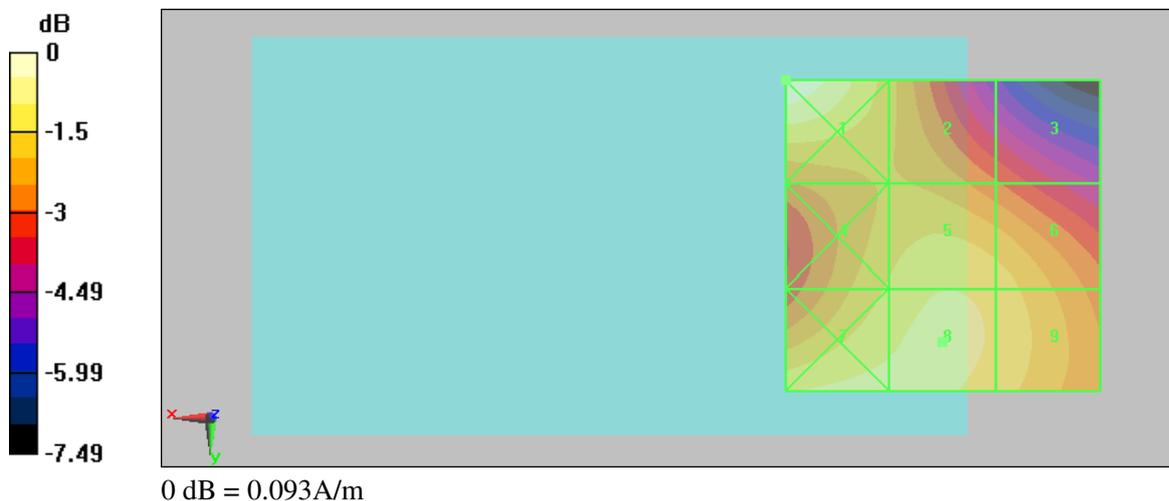
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.081 A/m; Power Drift = -0.080 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.093 M4	Grid 2 0.076 M4	Grid 3 0.066 M4
Grid 4 0.079 M4	Grid 5 0.083 M4	Grid 6 0.081 M4
Grid 7 0.084 M4	Grid 8 0.084 M4	Grid 9 0.082 M4





Appendix D - Calibration

All of the instruments Calibration information are listed below.

- Dipole _ CD835V3 SN:1017 Calibration No.CD835V3-1017_Jul07
- Dipole _ CD1880V3 SN:1036 Calibration No.CD1880V3-1036_ Jul07
- Probe _ ER3DV6 SN: 2256 Calibration No. ER3-2256_Aug07
- Probe _ H3DV6 SN: 6076 Calibration No. H3-6076_Aug07
- DAE _ DAE4 SN:779 Calibration No.DAE4-779_ Nov07