



A Test Lab Techno Corp.

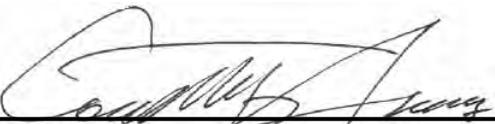
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HAC EVALUATION REPORT



Test Report No.	: 0803FS14
Applicant	: HUAWEI Technologies Co.,Ltd.
Trade Name	: HUAWEI
Model Number	: HUAWEI M328
EUT Type	: CDMA 1X Digital Mobile Telephone
FCC ID	: QISM328
Dates of Test	: Apr. 03 ~ Apr. 08, 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 :

HUAWEI Technologies Co., Ltd.
Bantian, Longgang District Shenzhen 518129 P.R. China

Manufacturer : HUAWEI Technologies Co., Ltd.
Manufacturer Address : Bantian, Longgang District Shenzhen 518129 P.R. China
EUT Type : CDMA 1X Digital Mobile Telephone
Trade Name : HUAWEI
Model Number : HUAWEI M328
FCC ID : QISM328
Max. Output Power : 0.316 W (25.00 dBm) CDMA Cellular
0.288 W (24.60 dBm) CDMA PCS
0.251 W (24.00 dBm) CDMA AWS
Tx Frequency : 824.67 - 848.31 MHz (CDMA Cellular)
1851.25 - 1908.75 MHz (CDMA PCS)
1711.25 - 1752.5 MHz (CDMA AWS)
HW Version : Ver. C
SW Version : M328C45B208SP02
Antenna Gain : -2 dBi (CDMA Cellular)
-1 dBi (CDMA PCS / CDMA AWS)
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 **HUAWEI Technologies Co.,Ltd. Trade Name: HUAWEI Model(s) : HUAWEI M328**. 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	Oct. 24, 2007	Oct. 24, 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	180.8	4.39%	Apr. 08, 2008
SN:1036	1880	CW	100	133.7	138.2	3.37%	Apr. 08, 2008

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	0.432	-3.14%	Apr. 08, 2008
SN:1036	1880	CW	100	0.442	0.441	-0.23%	Apr. 08, 2008

Table 3. Dipole H-Field Measurement Summary

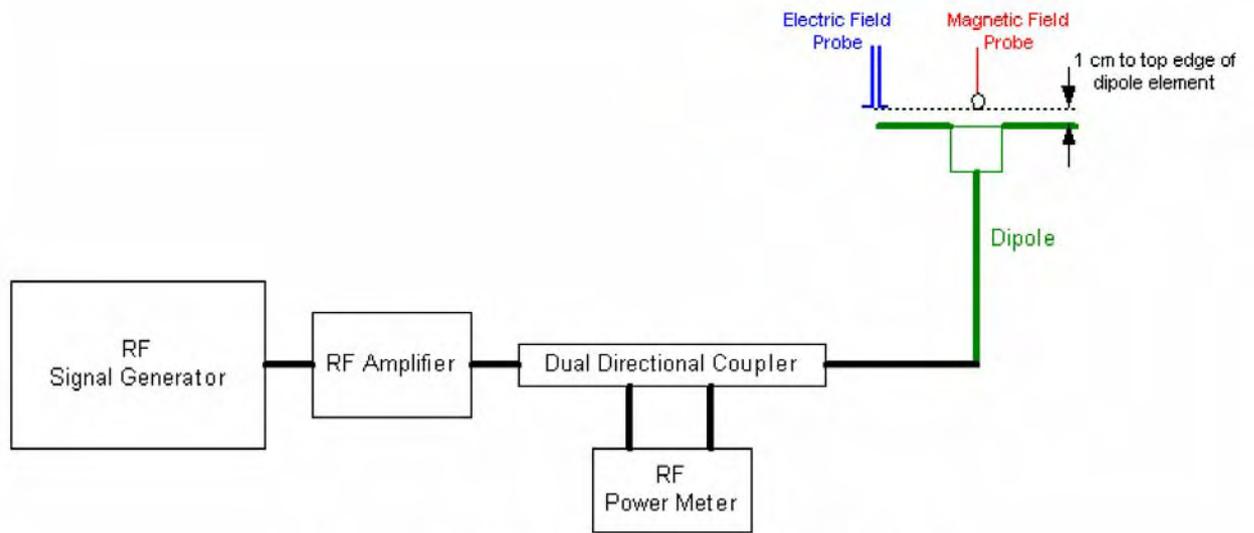


Figure 1. WD dipole calibration procedure

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.

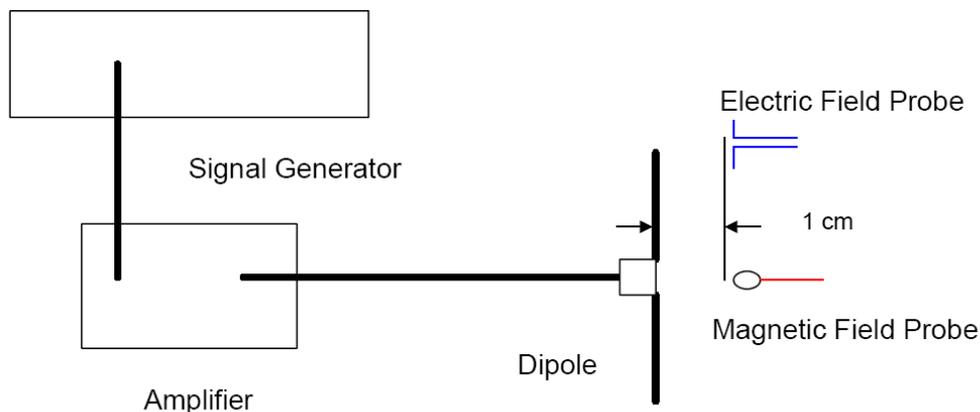


Figure 2. Dipole calibration procedure



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	CDMA	47	1.16	0.14	1.00
		63	1.12	0.19	1.01
		84	1.07	0.25	0.99
		112	1.03	0.34	0.97
		150	0.99	0.45	0.93
		200	0.96	0.60	0.89
		266	0.92	0.80	0.83
		355	0.89	1.07	0.77
		473	0.86	1.43	0.71
		631	0.82	1.91	0.64
		841	0.79	2.54	0.57
		1122	0.76	3.39	0.50
1880.0	CDMA	47	1.04	0.14	0.97
		63	1.01	0.19	0.93
		84	0.99	0.25	0.88
		112	0.97	0.34	0.82
		150	0.95	0.45	0.75
		200	0.93	0.60	0.68
		266	0.91	0.80	0.61
		355	0.89	1.07	0.54
		473	0.87	1.43	0.47
		631	0.85	1.91	0.40
		841	0.83	2.54	0.34
		1122	0.81	3.39	0.28

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.

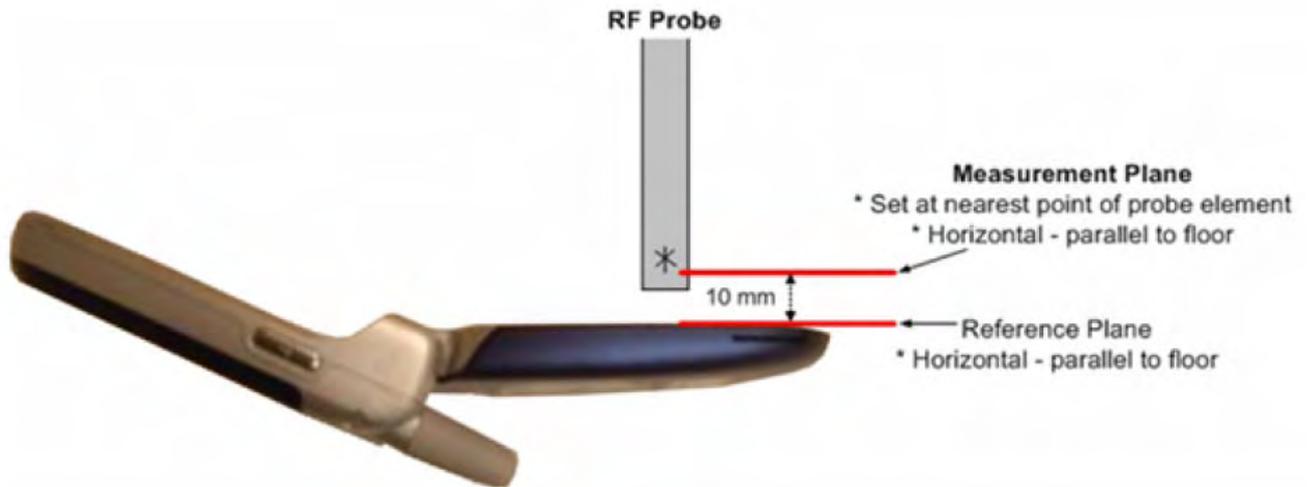
The signal was setup by creating and maintaining an over the coaxial connection between the DUT and an R&S CMU200 Wireless Communications Test Set. The CDMA radio is available on CDMA 2000(1X) and IS-95. The test equipment was configured to use "all up bits" for RC1 / SO2 on J-STD-008 for CDMA 1900 and 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.



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 : HB4A2H / 3.7V 900mAh



6.1 HAC E-Field measurement results:

Band	Rating	E-Field
CDMA Cellular	M3	199.5 to 354.8 V/m
	M4	< 199.5 V/m
CDMA PCS / AWS	M3	63.1 to 112.2 V/m
	M4	< 63.1 V/m

Table 5. Emissions Limits

Band	Channel	Conducted Power (dBm)	Measured PMF	Drift (dB)	Excluded Cells	Peak Field (V/m)	Rating
CDMA Cellular	1013	24.80	0.99	0.00477	1.2.4	128.3	M4
	384	25.00	0.99	-0.096	1.2.4	127.0	M4
	777	25.00	0.99	-0.097	1.2.4	128.4	M4
CDMA PCS	1175	24.30	1.01	-0.024	6.8.9	62.3	M4
	600	24.30	1.01	0.052	6.8.9	58.8	M4
	25	24.60	1.01	-0.168	6.8.9	53.3	M4
CDMA AWS	25	24.00	0.99	0.018	6.8.9	68.8	M3
	450	24.20	0.99	0.037	6.8.9	77.8	M3
	850	23.90	0.99	0.035	6.8.9	64.7	M3

Note: 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
CDMA Cellular	M3	0.60 to 1.07 A/m
	M4	< 0.60 A/m
CDMA PCS / AWS	M3	0.19 to 0.34 A/m
	M4	< 0.19 A/m

Table 6. Emissions Limits

Band	Channel	Conducted Power (dBm)	Measured PMF	Drift (dB)	Excluded Cells	Peak Field (A/m)	Rating
CDMA Cellular	1013	24.80	0.99	-0.028	1.4.7	0.159	M4
	384	25.00	0.99	-0.016	1.4.7	0.157	M4
	777	25.00	0.99	-0.053	1.4.7	0.163	M4
CDMA PCS	1175	24.30	0.88	0.074	4.7.8	0.154	M4
	600	24.30	0.88	0.063	4.7.8	0.162	M4
	25	24.60	0.93	-0.022	4.7.8	0.158	M4
CDMA AWS	25	24.00	0.88	0.092	4.7.8	0.161	M4
	450	24.20	0.88	-0.205	4.7.8	0.173	M4
	850	23.90	0.88	0.092	4.7.8	0.155	M4

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

6.3 Test Setup Photo

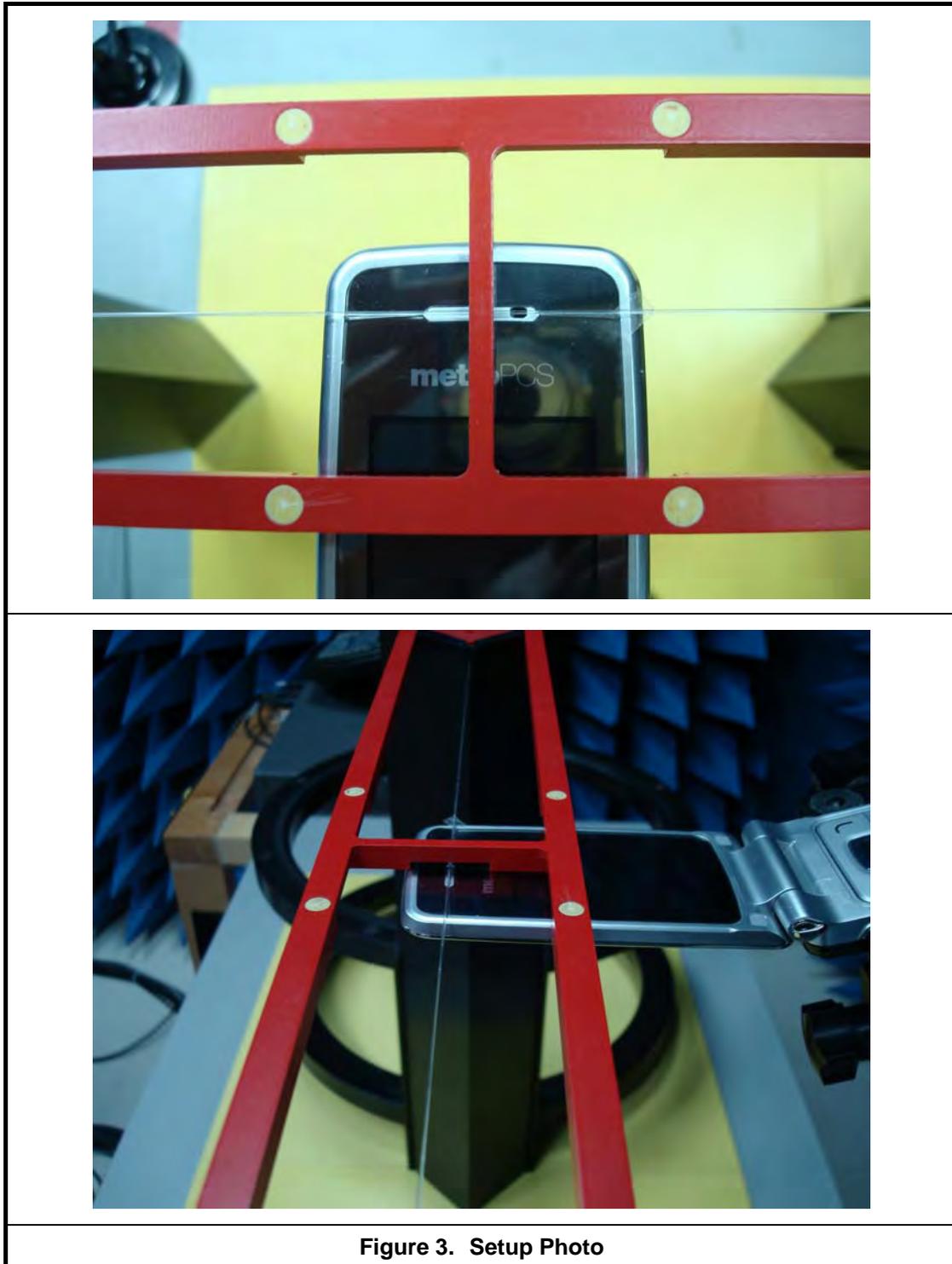
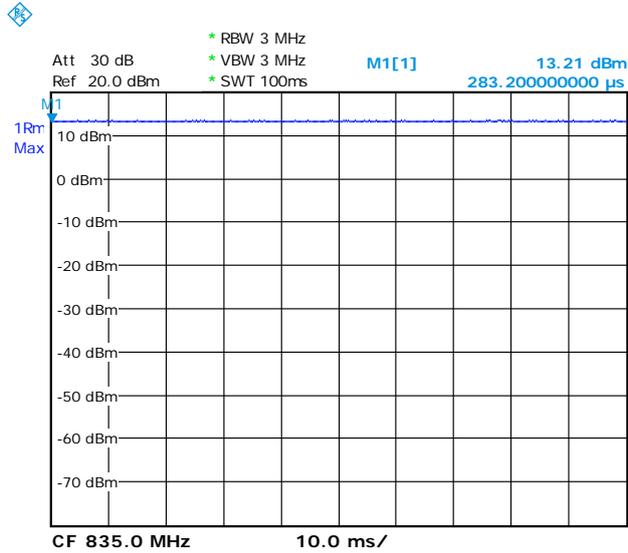


Figure 3. Setup Photo

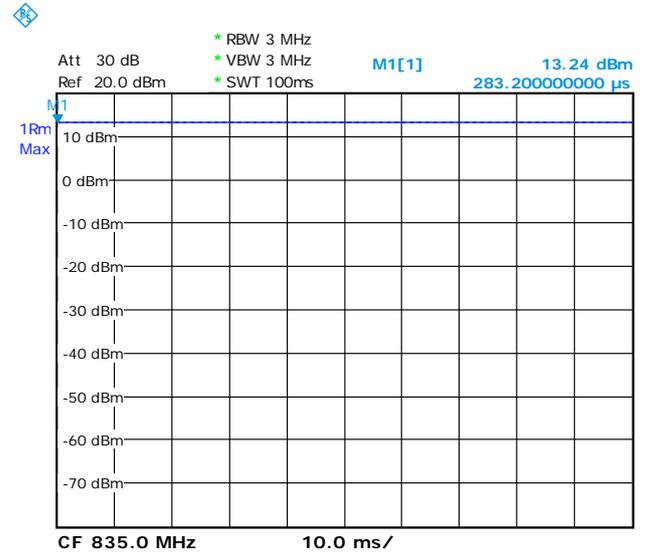


Appendix A - Details of WD signal

CDMA 835 MHz

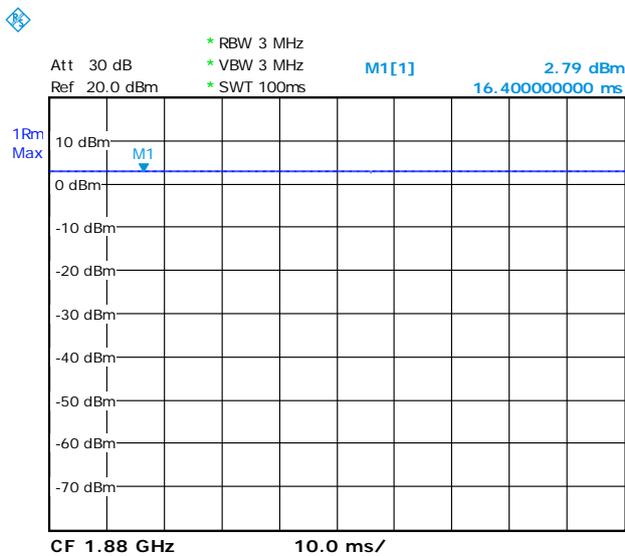


CDMA Signal

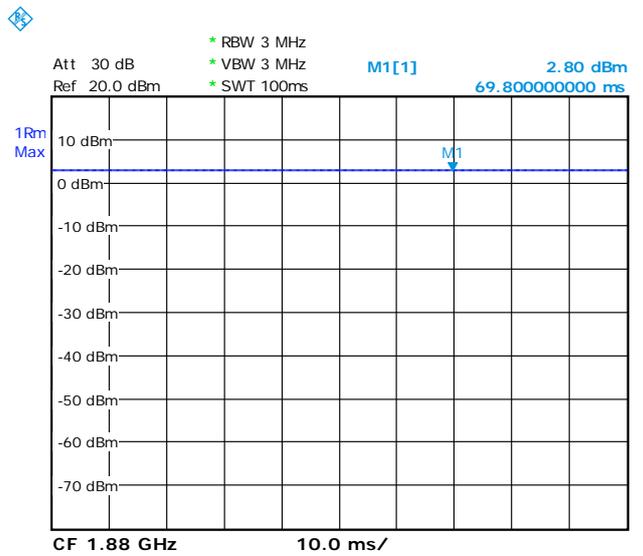


CW Signal

CDMA 1880 MHz



CDMA Signal



CW 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: 4/8/2008 5:12:52 AM

HAC_System Performance Check at 835MHz_20080408_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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 180.8 V/m

Probe Modulation Factor = 1

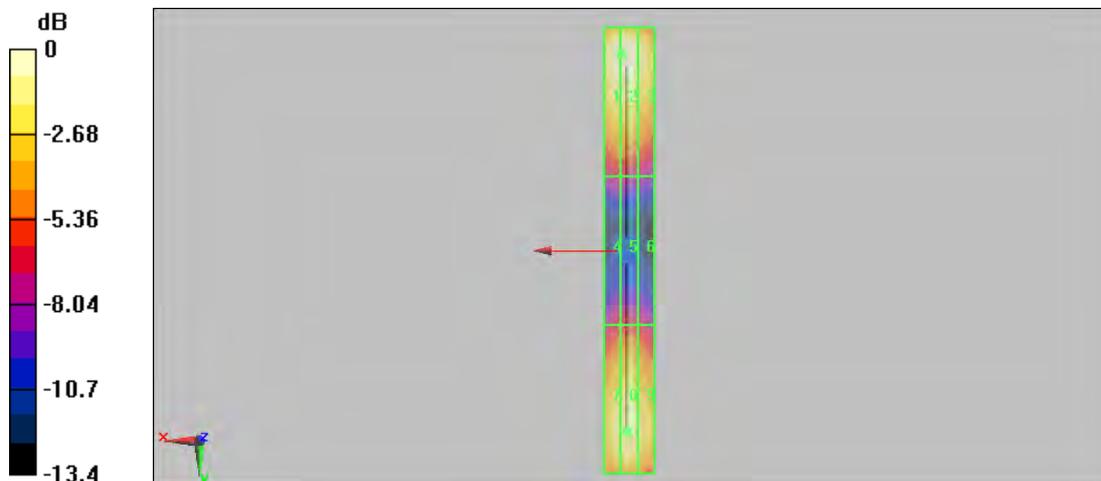
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 123.9 V/m; Power Drift = 0.000523 dB

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

Peak E-field in V/m

Grid 1 180.4 M4	Grid 2 180.8 M4	Grid 3 165.4 M4
Grid 4 88.1 M4	Grid 5 89.9 M4	Grid 6 85 M4
Grid 7 158.2 M4	Grid 8 162.8 M4	Grid 9 154.2 M4



0 dB = 180.8V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 1:54:00 AM

HAC_System Performance Check at 835MHz_20080408_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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 CD835

Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.432 A/m

Probe Modulation Factor = 1

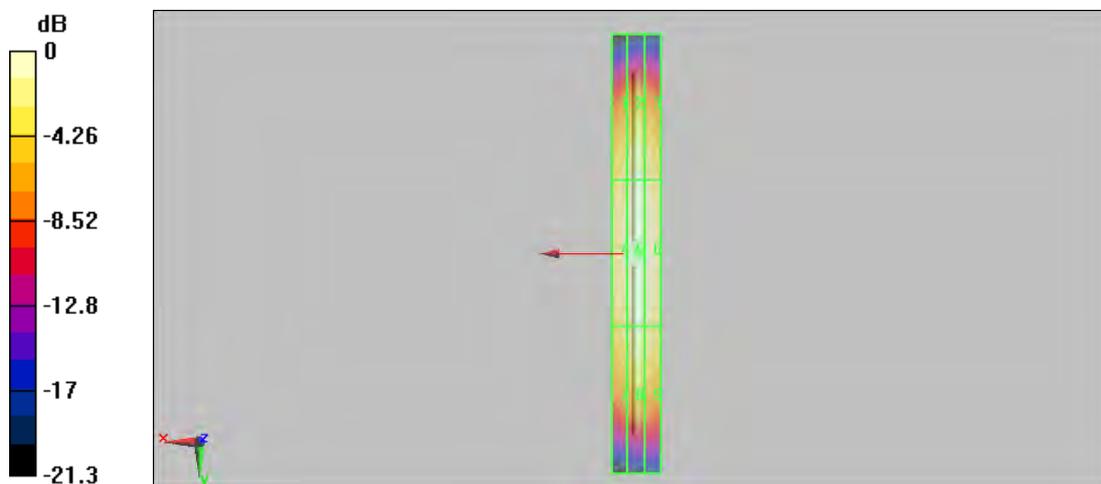
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 0.456 A/m; Power Drift = -0.036 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.356 M4	0.386 M4	0.375 M4
Grid 4	Grid 5	Grid 6
0.397 M4	0.432 M4	0.422 M4
Grid 7	Grid 8	Grid 9
0.345 M4	0.379 M4	0.371 M4



0 dB = 0.432A/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 1:22:25 AM

HAC_System Performance Check at 1880MHz_20080408_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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 138.2 V/m

Probe Modulation Factor = 1

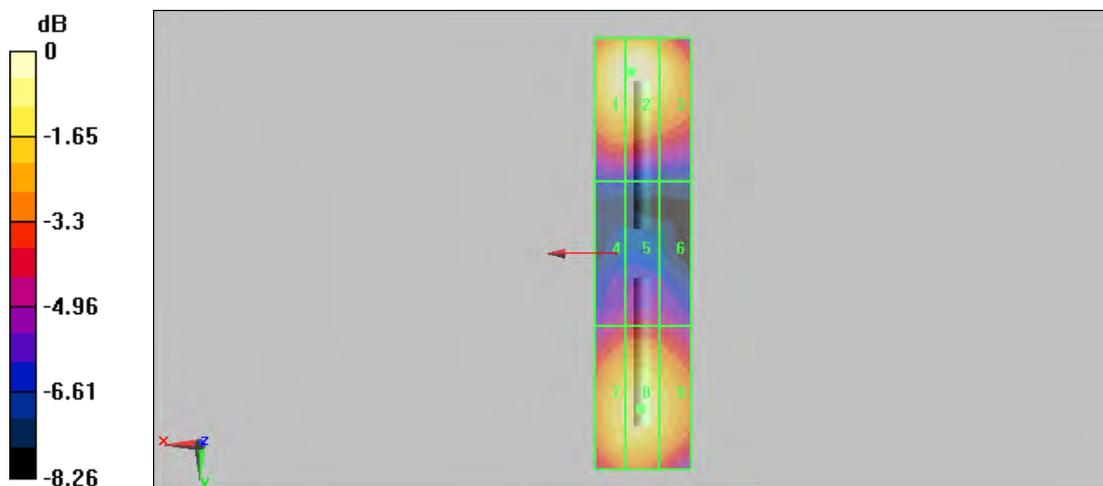
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 129.7 V/m; Power Drift = 0.029 dB

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

Peak E-field in V/m

Grid 1 137.7 M2	Grid 2 138.2 M2	Grid 3 125.6 M2
Grid 4 84.6 M3	Grid 5 87.2 M3	Grid 6 84 M3
Grid 7 124.5 M2	Grid 8 127.1 M2	Grid 9 120.7 M2



0 dB = 138.2V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 2:00:48 AM

HAC_System Performance Check at 1880MHz_20080408_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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.441 A/m

Probe Modulation Factor = 1

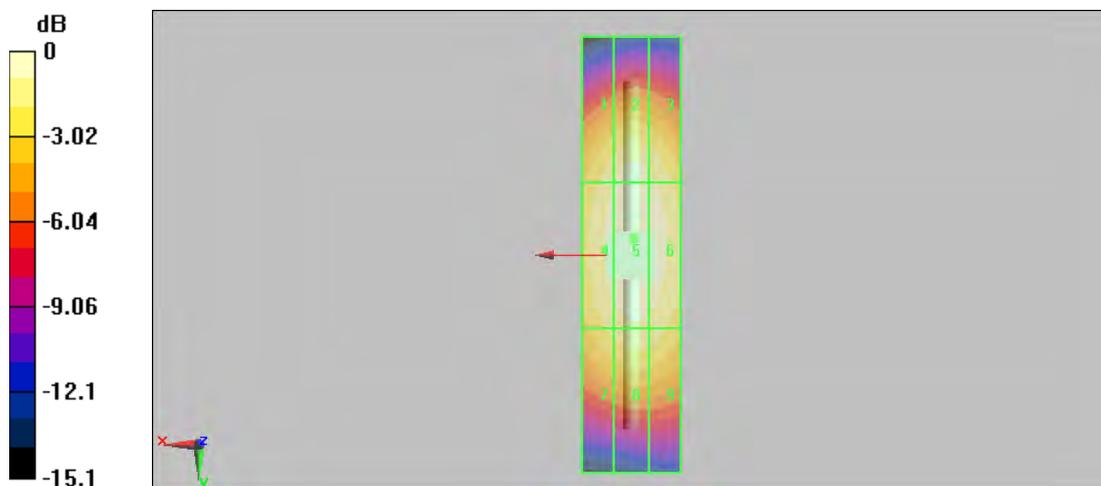
Device Reference Point: 0, 0, 354.7 mm

Reference Value = 0.467 A/m; Power Drift = 0.098 dB

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

Peak H-field in A/m

Grid 1 0.390 M2	Grid 2 0.419 M2	Grid 3 0.404 M2
Grid 4 0.416 M2	Grid 5 0.441 M2	Grid 6 0.430 M2
Grid 7 0.364 M2	Grid 8 0.385 M2	Grid 9 0.377 M2



0 dB = 0.441A/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: 4/8/2008 5:23:23 AM

HAC_CDMA Cell CH1013_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 824.7 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:

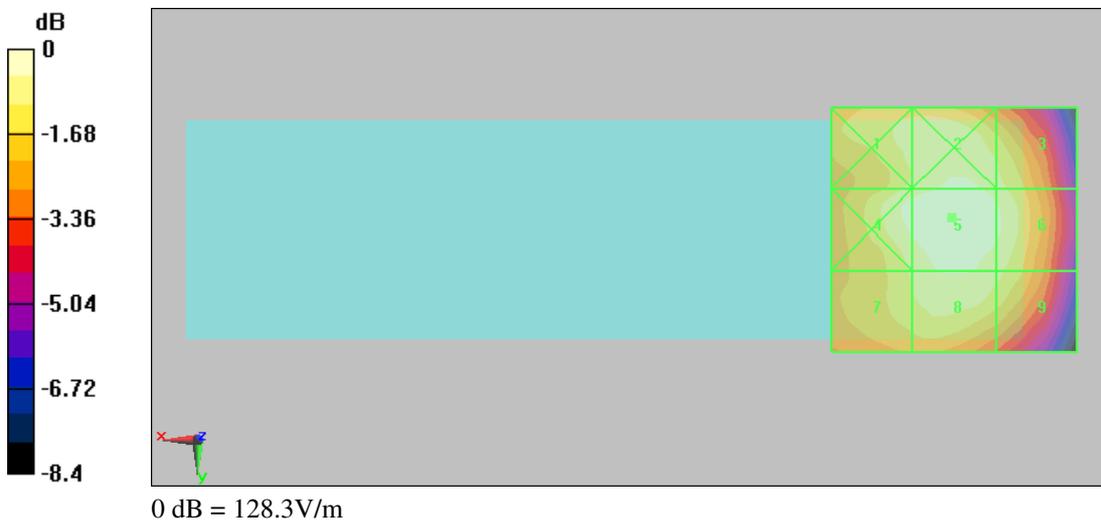
- Probe: ER3DV6 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- Measurement SW: DASYS, V5.0 Build 91; SEMCAD X Version 12.4 Build 52

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 = 128.3 V/m
 Probe Modulation Factor = 0.990
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 130.5 V/m; Power Drift = 0.00477 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 117.8 M4	Grid 2 122.4 M4	Grid 3 116.8 M4
Grid 4 123.5 M4	Grid 5 128.3 M4	Grid 6 122.1 M4
Grid 7 114.2 M4	Grid 8 120.8 M4	Grid 9 115.6 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 5:32:34 AM

HAC_CDMA Cell CH384_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 836.52 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)

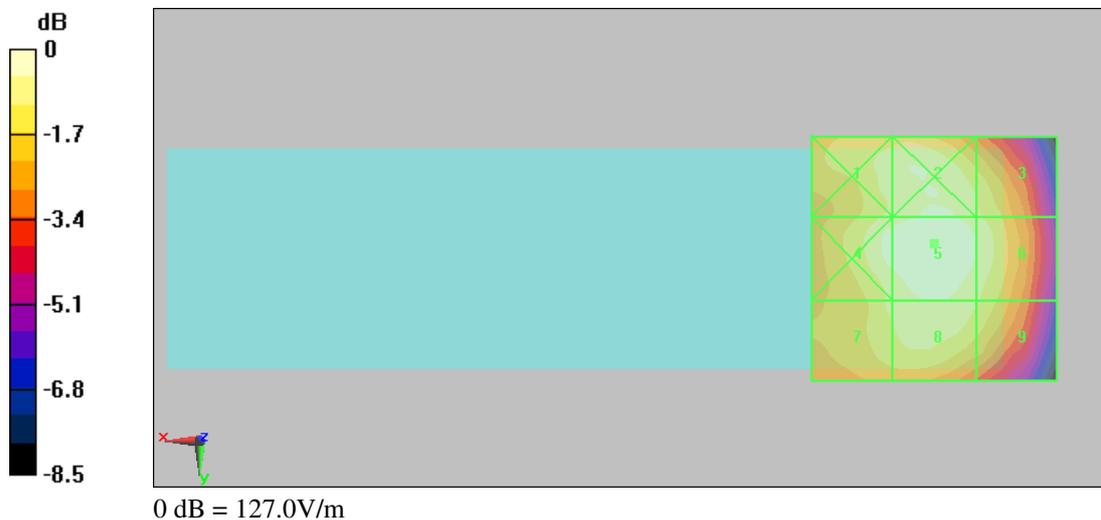
DASY5 Configuration:

- Probe: ER3DV6 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 127.0 V/m
 Probe Modulation Factor = 0.990
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 128.9 V/m; Power Drift = -0.096 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 116.0 M4	Grid 2 121.0 M4	Grid 3 114.1 M4
Grid 4 122.2 M4	Grid 5 127.0 M4	Grid 6 119.2 M4
Grid 7 113.5 M4	Grid 8 119.3 M4	Grid 9 112.6 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 5:39:41 AM

HAC_CDMA Cell CH777_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 848.31 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 128.4 V/m

Probe Modulation Factor = 0.990

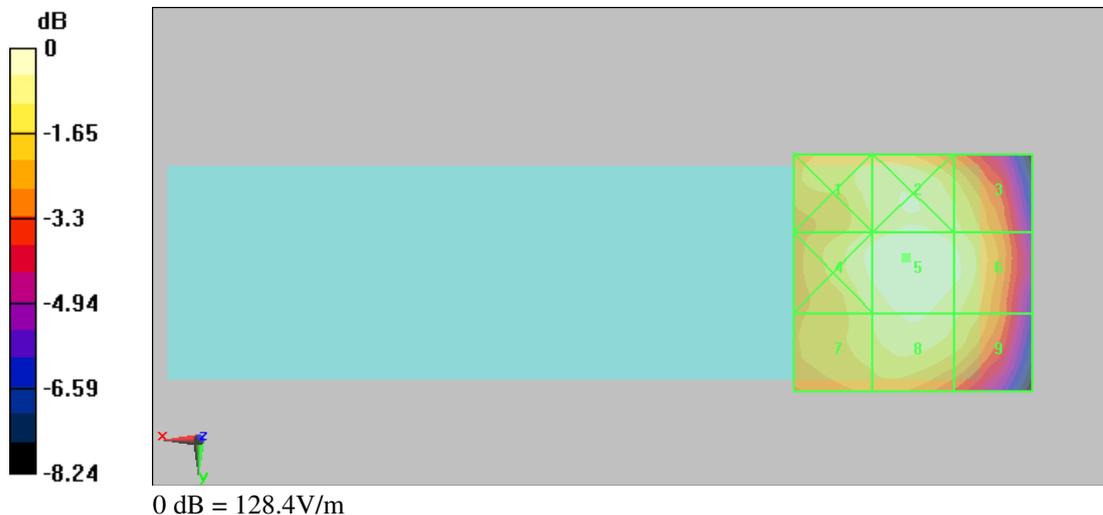
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 130.9 V/m; Power Drift = -0.097 dB

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

Peak E-field in V/m

Grid 1 117.6 M4	Grid 2 122.1 M4	Grid 3 116.6 M4
Grid 4 123.3 M4	Grid 5 128.4 M4	Grid 6 122.9 M4
Grid 7 114.6 M4	Grid 8 121.9 M4	Grid 9 115.1 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 6:11:43 AM

HAC_CDMA PCS CH25_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; Frequency: 1851.25 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)

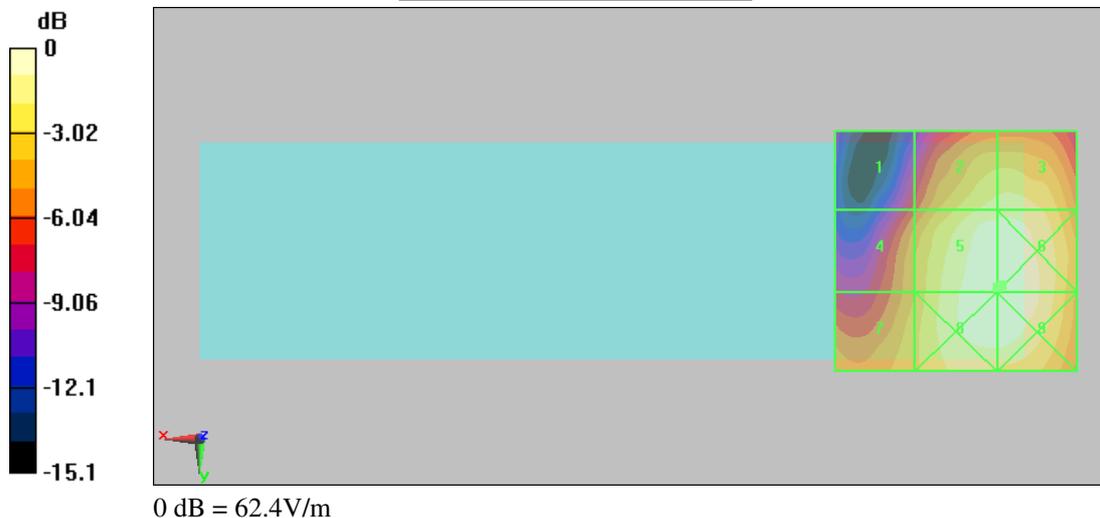
DASY5 Configuration:

- Probe: ER3DV6 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 62.3 V/m
 Probe Modulation Factor = 1.01
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 53.3 V/m; Power Drift = -0.024 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 30.1 M4	Grid 2 52.9 M4	Grid 3 53.3 M4
Grid 4 39.6 M4	Grid 5 62.3 M4	Grid 6 62.4 M4
Grid 7 43.2 M4	Grid 8 62.3 M4	Grid 9 62.4 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 6:05:11 AM

HAC_CDMA PCS CH600_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 58.8 V/m

Probe Modulation Factor = 1.01

Device Reference Point: 0, 0, 353.7 mm

Reference Value = 48.4 V/m; Power Drift = 0.052 dB

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

Peak E-field in V/m

Grid 1 26.7 M4	Grid 2 49 M4	Grid 3 49.7 M4
Grid 4 37 M4	Grid 5 58.8 M4	Grid 6 58.9 M4
Grid 7 43.3 M4	Grid 8 58.9 M4	Grid 9 58.9 M4



0 dB = 58.9V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 5:55:26 AM

HAC_CDMA PCS CH1175_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; Frequency: 1908.75 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 53.3 V/m
 Probe Modulation Factor = 1.01
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 43.6 V/m; Power Drift = -0.168 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 22.4 M4	Grid 2 43 M4	Grid 3 43.5 M4
Grid 4 33.2 M4	Grid 5 53.3 M4	Grid 6 53.5 M4
Grid 7 40 M4	Grid 8 53 M4	Grid 9 53 M4



0 dB = 53.5V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 6:20:20 AM

HAC_CDMA AWS CH25_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1711.25 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 10mm/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 68.8 V/m

Probe Modulation Factor = 0.990

Device Reference Point: 0, 0, 353.7 mm

Reference Value = 63.3 V/m; Power Drift = 0.018 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1 38.8 M4	Grid 2 61.3 M4	Grid 3 61.5 M4
Grid 4 47.2 M4	Grid 5 68.8 M3	Grid 6 68.9 M3
Grid 7 48 M4	Grid 8 68.8 M3	Grid 9 68.8 M3



0 dB = 68.9V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 6:25:37 AM

HAC_CDMA AWS CH450_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1732.5 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 77.8 V/m

Probe Modulation Factor = 0.990

Device Reference Point: 0, 0, 353.7 mm

Reference Value = 70.2 V/m; Power Drift = 0.037 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1 43.6 M4	Grid 2 69.3 M3	Grid 3 69.6 M3
Grid 4 52.5 M4	Grid 5 77.8 M3	Grid 6 77.9 M3
Grid 7 54.7 M4	Grid 8 76.8 M3	Grid 9 76.7 M3



0 dB = 77.9V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 6:30:44 AM

HAC_CDMA AWS CH850_E

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1752.5 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 - SN2256; ConvF(1, 1, 1); Calibrated: 8/21/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 64.7 V/m
 Probe Modulation Factor = 0.990
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 58.2 V/m; Power Drift = 0.035 dB
Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1 35.2 M4	Grid 2 57.6 M4	Grid 3 57.8 M4
Grid 4 43.5 M4	Grid 5 64.7 M3	Grid 6 64.9 M3
Grid 7 45.2 M4	Grid 8 64.1 M3	Grid 9 64.1 M3



0 dB = 64.9V/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 3:48:14 AM

HAC_CDMA Cell CH1013_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 824.7 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.159 A/m
 Probe Modulation Factor = 0.990
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 0.118 A/m; Power Drift = -0.028 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.232 M4	Grid 2 0.159 M4	Grid 3 0.083 M4
Grid 4 0.215 M4	Grid 5 0.156 M4	Grid 6 0.084 M4
Grid 7 0.236 M4	Grid 8 0.159 M4	Grid 9 0.082 M4



0 dB = 0.236A/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 3:32:21 AM

HAC_CDMA Cell CH384_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 836.52 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.157 A/m
 Probe Modulation Factor = 0.990
 Device Reference Point: 0, 0, 353.7 mm
 Reference Value = 0.115 A/m; Power Drift = -0.016 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 0.230 M4	Grid 2 0.156 M4	Grid 3 0.082 M4
Grid 4 0.212 M4	Grid 5 0.152 M4	Grid 6 0.084 M4
Grid 7 0.233 M4	Grid 8 0.157 M4	Grid 9 0.079 M4



0 dB = 0.233A/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 3:41:20 AM

HAC_CDMA Cell CH777_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA Cellular ; Frequency: 848.31 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.163 A/m

Probe Modulation Factor = 0.990

Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.122 A/m; Power Drift = -0.053 dB

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

Peak H-field in A/m

Grid 1 0.237 M4	Grid 2 0.162 M4	Grid 3 0.085 M4
Grid 4 0.218 M4	Grid 5 0.159 M4	Grid 6 0.086 M4
Grid 7 0.240 M4	Grid 8 0.163 M4	Grid 9 0.082 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 3:11:20 AM

HAC_CDMA PCS CH25_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; Frequency: 1851.25 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.154 A/m

Probe Modulation Factor = 0.880

Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.140 A/m; Power Drift = 0.074 dB

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

Peak H-field in A/m

Grid 1 0.134 M4	Grid 2 0.130 M4	Grid 3 0.097 M4
Grid 4 0.156 M4	Grid 5 0.154 M4	Grid 6 0.104 M4
Grid 7 0.174 M4	Grid 8 0.159 M4	Grid 9 0.100 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 3:23:50 AM

HAC_CDMA PCS CH600_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; 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: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: H3DV6 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.162 A/m

Probe Modulation Factor = 0.880

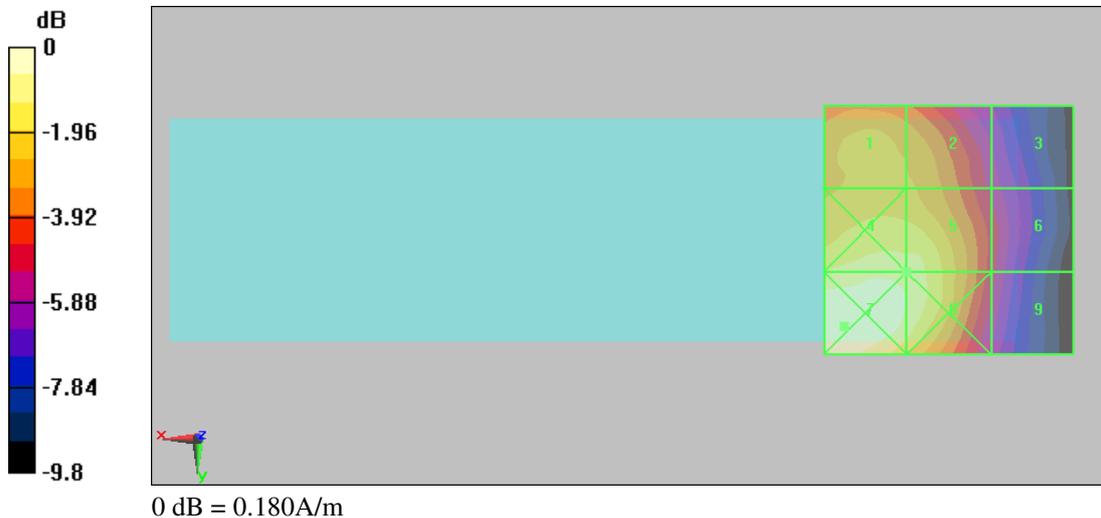
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.147 A/m; Power Drift = 0.063 dB

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

Peak H-field in A/m

Grid 1 0.138 M4	Grid 2 0.135 M4	Grid 3 0.097 M4
Grid 4 0.164 M4	Grid 5 0.162 M4	Grid 6 0.104 M4
Grid 7 0.180 M4	Grid 8 0.167 M4	Grid 9 0.102 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 2:40:34 AM

HAC_CDMA PCS CH1175_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA PCS ; Frequency: 1908.75 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.158 A/m

Probe Modulation Factor = 0.930

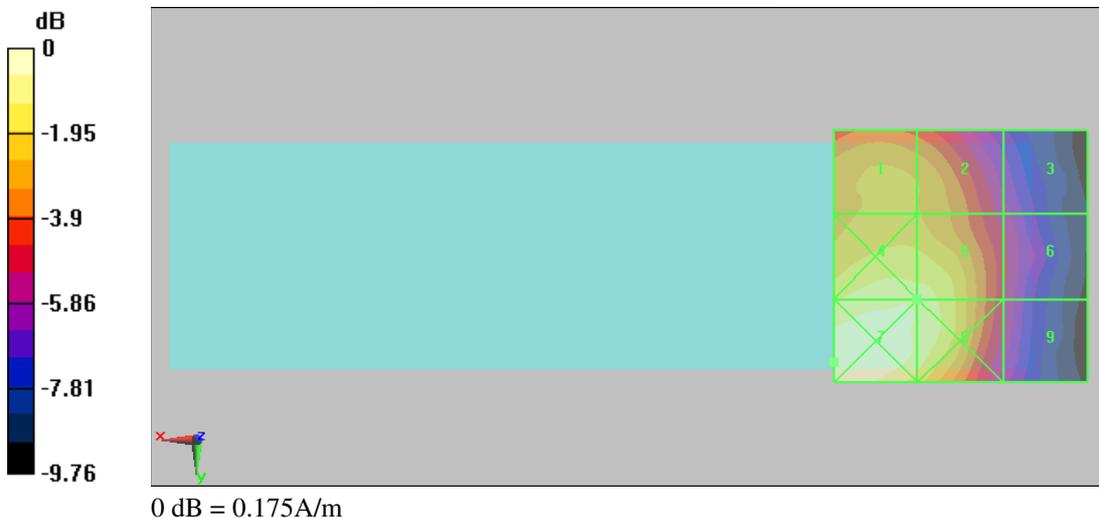
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.133 A/m; Power Drift = -0.022 dB

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

Peak H-field in A/m

Grid 1 0.134 M4	Grid 2 0.131 M4	Grid 3 0.093 M4
Grid 4 0.160 M4	Grid 5 0.158 M4	Grid 6 0.099 M4
Grid 7 0.175 M4	Grid 8 0.162 M4	Grid 9 0.098 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 4:04:37 AM

HAC_CDMA AWS CH25_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1711.25 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.161 A/m

Probe Modulation Factor = 0.880

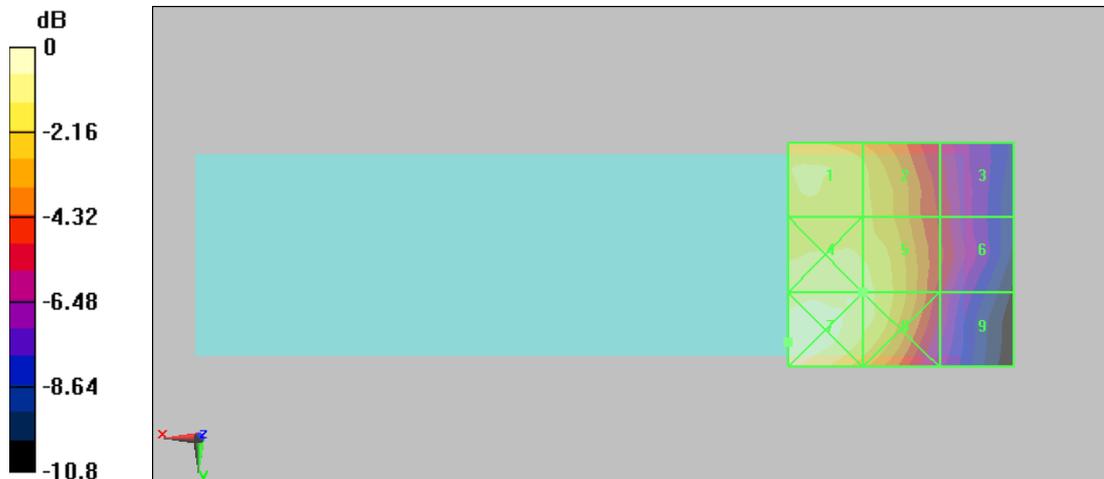
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.148 A/m; Power Drift = 0.029 dB

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

Peak H-field in A/m

Grid 1 0.156 M4	Grid 2 0.146 M4	Grid 3 0.101 M4
Grid 4 0.166 M4	Grid 5 0.161 M4	Grid 6 0.104 M4
Grid 7 0.181 M4	Grid 8 0.162 M4	Grid 9 0.097 M4



0 dB = 0.181A/m



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 4:24:20 AM

HAC_CDMA AWS CH450_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1732.5 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.173 A/m

Probe Modulation Factor = 0.880

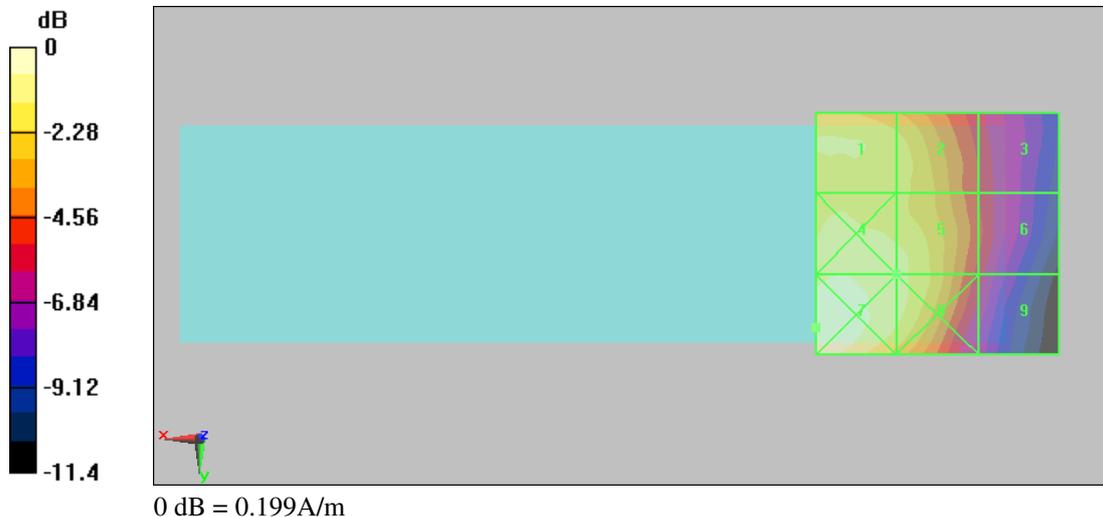
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.162 A/m; Power Drift = -0.205 dB

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

Peak H-field in A/m

Grid 1 0.168 M4	Grid 2 0.161 M4	Grid 3 0.109 M4
Grid 4 0.182 M4	Grid 5 0.173 M4	Grid 6 0.111 M4
Grid 7 0.199 M3	Grid 8 0.174 M4	Grid 9 0.104 M4





Test Laboratory: A Test Lab Techno Corp.

Date/Time: 4/8/2008 4:32:48 AM

HAC_CDMA AWS CH850_H

DUT: M328; Type: CDMA 1X Digital Mobile Telephone; FCC ID: SM328

Communication System: CDMA AWS; Frequency: 1752.5 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 - SN6076; ; Calibrated: 8/23/2007
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: HAC Test Arch 4.6; Type: SD HAC P01 BA; Serial: 1038
- 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 = 0.155 A/m

Probe Modulation Factor = 0.930

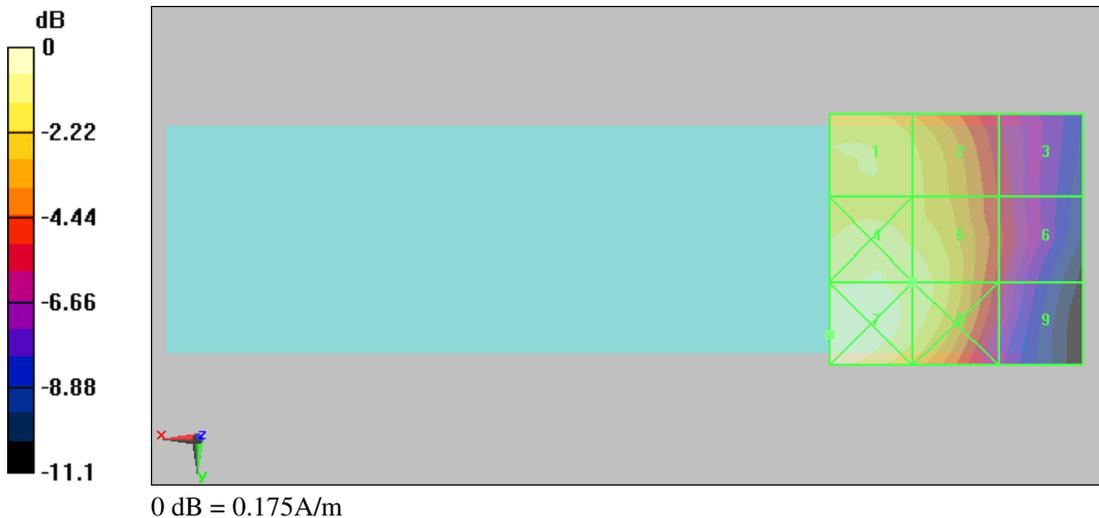
Device Reference Point: 0, 0, 353.7 mm

Reference Value = 0.136 A/m; Power Drift = 0.092 dB

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

Peak H-field in A/m

Grid 1 0.148 M4	Grid 2 0.140 M4	Grid 3 0.096 M4
Grid 4 0.162 M4	Grid 5 0.155 M4	Grid 6 0.099 M4
Grid 7 0.175 M4	Grid 8 0.156 M4	Grid 9 0.093 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