HAC TEST REPORT

Test Item: Summary Result HAC Category = M3

REPORT NO.: HC110104E07A

MODEL NO.: Dolphin 6000

FCC ID: HD5D6000

HW: MTK6516MA

SW: 0.02A.093

RECEIVED: Feb. 22, 2011

TESTED: Feb. 22, 2011

ISSUED: Mar. 03, 2011

APPLICANT: Honeywell International Inc

ADDRESS: 9680 OLD BAILES RD FORT MILL SC 29707 UNITED STATES

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

LAB ADDRESS: No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.

TEST LOCATION: No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Mar. 03, 2011

1. CERTIFICATION

PRODUCT :	Mobile Computer
MODEL NO. :	Dolphin 6000
MODEL DISCREPANCY:	All the specification and layout are identical except they come with different model numbers for marketing purposes.
BRAND :	Honeywell
APPLICANT :	Honeywell International Inc
TESTED :	Feb. 22, 2011
TEST SAMPLE :	ENGINEERING SAMPLE
STANDARDS :	**FCC Part 20.19** ANSI C63.19 2007
TEST ITEM:	RF emissions

The above equipment (Model: Dolphin 6000) have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's characteristics under the conditions specified in this report.

PREPARED BY : _____ , DATE: Mar. 03, 2011
Andrea Hsia / Specialist

APPROVED BY : _____ , DATE: Mar. 03, 2011
Gary Chang / Assistant Manager

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

EUT	Mobile Computer
MODEL NO.	Dolphin 6000
MODEL DISCREPANCY	All the specification and layout are identical except they come with different model numbers for marketing purposes.
POWER SUPPLY	5.0Vdc (Car charger or power adapter) 3.7Vdc (battery)
CLASSIFICATION	Production Unit
MODULATION TYPE	GMSK, 8PSK
FREQUENCY RANGE	824MHz ~ 849MHz ; 1850MHz ~ 1910MHz
CHANNEL FREQUENCIES UNDER TEST AND ITS CONDUCTED OUTPUT POWER	Refer to note as below
HAC RATE CATEGORY	M3
ANTENNA TYPE	PIFA antenna with 3dBi gain
DATA CABLE	1.2m USB charger shielded cable with one core
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter, Battery, Holder cable, Car Charger

NOTE:

1. The test data are separated into following test reports:

RF Emission	TEST STANDARD	REFERENCE REPORT
HAC Test Report	FCC Part 20.19	HC110104E07A
HAC T-coil Test Report		HC110104E07A-1

2. The EUT could be supplied with a power adapter or a rechargeable battery as the following table:

Item	Brand	Model No.	Spec.
Adapter	Sunfone	ACW010A3-05Z	I/P: 100~240V, 50~60Hz, 0.4A O/P: 5Vdc, 2A Power cable: 1.4m non-shielded cable without core
Car Charger	Atech OEM Inc	C15C-0520CD0-S3	I/P: 12-24V O/P: 5Vdc, 2A Power cable: 1.5m non-shielded cable without core
battery	Palladium	Dolphin 6000 Battery	3.7Vdc, 1530mAh, 5.7Wh

3. Hardware version: MTK6516MA
4. Software version: 0.02A.093
5. IMEI Code: 00108200002yyy
6. Conducted power list as below:

CHANNEL	GSM850	GPRS 850 TS1	GPRS 850 TS2	E-GPRS 850 TS1	E-GPRS 850 TS2
CH 128: 824.2MHz	32.5dBm	32.5dBm	32.4dBm	27.7dBm	27.2dBm
CH 190: 836.6MHz	32.2dBm	32.2dBm	32.1dBm	27.5dBm	26.9dBm
CH 251: 848.8MHz	32.0dBm	32.0dBm	31.8dBm	27.1dBm	26.6dBm

CHANNEL	PCS1900	GPRS 1900 TS1	GPRS 1900 TS2	E-GPRS 1900 TS1	E-GPRS 1900 TS2
CH 512: 1850.2MHz	29.7dBm	29.7dBm	29.1dBm	26.2dBm	26.8dBm
CH 661: 1880.0MHz	29.8dBm	29.8dBm	28.8dBm	26.3dBm	26.5dBm
CH 810: 1909.8MHz	29.9dBm	29.9dBm	28.6dBm	26.6dBm	26.1dBm

7. The EUT was manufactured by following manufacture and factory:

Manufacturer	Manufacturer Address
Honeywell International Inc	9680 OLD BAILES RD FORT MILL SC 29707 UNITED STATES
Factory	**Factory Address**
Universal Scientific Industrial Co., Ltd.	141, Lane 351, Taiping Rd., Sec. 1, Tsao Tuen, Nan-Tou Hsien, Taiwan
Universal Scientific Industrial de Mexico, S.A de C.V.	Periferico Manuel Gomez Morin #656 R. Santa Isabel, Anillo 44290 Guadalajara, Jal Mexico
USI Electronics (Shenzhen)Co., Ltd.	USI Electronics Park, North of High-Tech Industry Park, Nanshan District, Shenzhen, Guangdong, China
Universal Scientific Industrial (Shanghai) Co., Ltd.	NO. 1558, ZHANGDONG RD. PUDONG SHANGHAI 201203 CHINA
Universal Global Technology (Shenzhen) Co., Ltd.	1&2&4 Floor of Building B and 2 Floor of Building C, USI Electronics Park NanShan District, ShenZhen, P.R.C 518057
Universal Scientific Industrial Co., Ltd.	1F&4F No.135, Lane 351, Taiping Road, Sec. 1, Tsao Tuen Nan-Tou, Taiwan
Universal Global Scientific Industrial Co., Ltd.	B1, 1~3F & 5F, No.135, Lane 351, Taiping Road, Sec. 1, Tsao Tuen Nan-Tou, Taiwan

8. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

2.2 DESCRIPTIONOF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
1	Universal Radio Communication Tester	R&S	CMU200	101095	Dec. 01, 2011

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

2.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to the specifications of the manufacturer, this product must comply with the requirements of the following standards:

FCC Part 20.19

ANSI C63.19 – 2007

All test items have been performed and recorded as per the above standards.

3. GENERAL INFORMATION OF THE DASY5SYSTEM

3.1. GENERAL INFORMATION OF TEST EQUIPMENT

DASY5 (software 5.2 Build 52.6) consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5software defined. The DASY5software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion form the optical into digital electric signal of the DAE and transfers data to the PC.

ER3DV6 E-FIELD PROBE

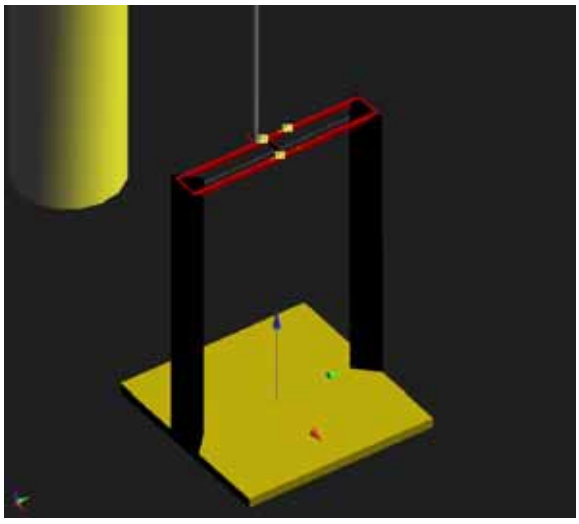
CONSTRUCTION	One dipole parallel, two dipoles normal to probe axis Built-in shielding against static charges
CALIBRATION	In air from 100MHz to 3.0GHz (absolute accuracy ± 6.0%, k = 2)
FREQUENCY	100MHz to > 6GHz; Linearity: ± 0.2dB (100MHz to 3GHz)
DIRECTIVITY	± 0.2dB in air (rotation around probe axis) ± 0.4dB in air (rotation normal to probe axis)
DYNAMIC RANGE	2V/m to > 1000V/m (M3 or better device readings fall well below diode compression point) Linearity: ± 0.2dB
DIMENSIONS	Overall length: 330mm (Tip: 16mm) Tip diameter: 8mm (Body: 12mm) Distance from probe tip to dipole centers: 2.5mm

H3DV6 H-FIELD PROBE

CONSTRUCTION	Three concentric loop sensors with 3.8mm loop diameters Resistively loaded detector diodes for linear response Built-in shielding against static charges
FREQUENCY	200MHz to 3GHz (absolute accuracy ± 6.0%, k = 2); Output linearized
DIRECTIVITY	± 0.25dB (spherical isotropy error)
DYNAMIC RANGE	10mA/m to 2A/m at 1GHz (M3 or better device readings fall well below diode compression point)
DIMENSIONS	Overall length: 330mm (Tip: 40mm) Tip diameter: 6mm (Body: 12mm) Distance from probe tip to dipole centers: 3mm
E-FIELD INTERFERENCE	< 10% at 3GHz (for plane wave)

NOTE: The Probe parameters have been calibrated by the SPEAG. Please reference “APPENDIX D” for the Calibration Certification Report.

HAC ARCH



DIMENSIONS 370 x 370 x 370mm

SYSTEM VALIDATION KITS:

CD835V3

Frequency Band: 800 ~ 960MHz (free space)
Return Loss: > 15dB
Calibrated at: 835MHz
Power Capability: 50W continuous
Length & Height: 166 x 330mm

CD1880V3

Frequency Band: 1710 ~ 2000MHz (free space)
Return Loss: > 18dB
Calibrated at: 1880MHz
Power Capability: 50W continuous
Length & Height: 80.8 x 330mm

DEVICE HOLDER

CONSTRUCTION Supports accurate and reliable positioning of any phone effect on near field <+/- 0.5dB

DATA ACQUISITION ELECTRONICS (DAE)

CONSTRUCTION The data acquisition electronics (DAE3) consists of a highly sensitive electrometer grade preamplifier with auto-zeroing, a channel and gain-switching multiplex, a fast 16 bit AD converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The mechanical probe is mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE3 box is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.

3.2. TEST EQUIPMENT LIST

ITEM	NAME	BRAND	TYPE	SERIES NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
1	HAC ARCH	S & P	SD HAC P01 BA	1034	NA	NA
2	Signal Generator	Anritsu	68247B	984703	May 31, 2010	May 30, 2011
3	E-Field Probe	Speag	ER3DV6	2293	Jan. 24, 2011	Jan. 23, 2012
4	H-Field Probe	Speag	H3DV6	6124	Jan. 24, 2011	Jan. 23, 2012
5	DAE	S & P	DAE 3	510	Oct. 04, 2010	Oct. 03, 2011
6	Robot Positioner	Staubli Unimation	NA	NA	NA	NA
7	Validation Dipole	S & P	CD835V3	1041	Apr. 26, 2010	Apr. 25, 2011
8	Validation Dipole	S & P	CD1880V3	1032	May 17, 2010	May 16, 2011

NOTE: Before starting the measurement, all test equipment shall be warmed up for 30min.

3.3. MEASUREMENT UNCERTAINTY

HAC UNCERTAINTY BUDGET ACCORDING TO ANSI C63.19[1]							
ERROR DESCRIPTION	**UNCERTAINTY VALUE**	**PROBABILITY DISTRIBUTION**	**DIVISOR**	**(Ci) E**	**(Ci) H**	**STD. UNC. E (%)**	**STD. UNC. H (%)**
MEASUREMENT SYSTEM							
Probe calibration	5.1	Normal	1	1	1	5.1	5.1
Axial isotropy	0.5	Rectangular	√3	1	1	0.3	0.3
Sensor Displacement	16.5	Rectangular	√3	1	0.145	9.5	1.4
Boundary Effects	2.4	Rectangular	√3	1	1	1.4	1.4
Linearity	0.6	Rectangular	√3	1	1	0.3	0.3
Scaling to Peak Envelope Power	2.0	Rectangular	√3	1	1	1.2	1.2
System Detection Limit	1.0	Rectangular	√3	1	1	0.6	0.6
Readout Electronics	0.3	Rectangular	√3	1	1	0.2	0.2
Response Time	0.8	Rectangular	√3	1	1	0.5	0.5
Integration Time	2.6	Rectangular	√3	1	1	1.5	1.5
RF Ambient Condition	3.0	Rectangular	√3	1	1	1.7	1.7
RF Reflections	12.0	Rectangular	√3	1	1	6.9	6.9
Probe Positioner	1.2	Rectangular	√3	1	0.67	0.7	0.5
Probe Positioning	4.7	Rectangular	√3	1	0.67	2.7	1.8
Extrap. And Interpolation	1.0	Rectangular	√3	1	1	0.6	0.6
TEST SAMPLE RELATED							
Device Positioning Vertical	2.6	Normal	1	1	1	2.6	2.6
Device Positioning Lateral	2.6	Normal	1	1	1	2.6	2.6
Device Holder and Phantom	2.4	Rectangular	√3	1	1	1.4	1.4
Power Drift	5.0	Rectangular	√3	1	1	2.9	2.9
PHANTOM AND SETUP RELATED							
Phantom Thickness	2.4	Rectangular	√3	1	0.67	1.4	0.9
COMBINED STD. UNCERTAINTY						14.4	10.7
EXPANDED STD. UNCERTAINTY ON POWER						28.8	21.3
EXPANDED STD. UNCERTAINTY ON FIELD						14.4	10.7

NOTE: Worst-case uncertainty budget for HAC free field assessment according to ANSI C63.19 [1]. The budget is valid for the frequency range 800MHz ~ 3GHz and represents a worst-case analysis. For specific tests and configurations, the uncertainty could be considerably smaller.

3.4. GENERAL DESCRIPTION OF THE HAC EVALUATION

The DASY5post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the micro-volt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion factor	$ConvF_i$
	- Diode compression point	dcp_i
Device parameters:	- Frequency	F
	- Crest factor	Cf

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \bullet \frac{cf}{dcp_i}$$

V_i	= compensated signal of channel i	(i = x, y, z)
U_i	= input signal of channel I	(i = x, y, z)
Cf	= crest factor of exciting field	(DASY parameter)
dcp_i	= diode compression point	(DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

$$\textbf{\textit{E-field probes:}}\quad E_i = \sqrt{\frac{V_1}{Norm_i \cdot ConvF}}$$

$$\textbf{\textit{H-field probes:}}\quad H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} f + a_{i2} f^2}{f}$$

V_i = compensated signal of channel I (i = x, y, z)
$Norm_i$ = sensor sensitivity of channel i μV/(V/m)2 for E-field Probes (i = x, y, z)
ConvF = sensitivity enhancement in solution
a_{ij} = sensor sensitivity factors for H-field probes
F = carrier frequency [GHz]
E_i = electric field strength of channel i in V/m
H_i = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

E = field strength in V/m
E_{tot} = total field strength in V/m

NOTE: The signal response time is evaluated as the time required by the system to reach 90% of the expected final value after an on/off switch of the power source with an integration time of 500ms and a probe response time of < 5ms. In the current implementation, DASY5waits longer than 100ms after having reached the grid point before starting a measurement, i.e., the response time uncertainty is negligible.

4. PERFORMANCE CATEGORIES

The ANSI Standard presents performance requirements for acceptable interoperability of hearing aids with wireless communications devices. When these parameters are met, a hearing aid operates acceptably in close proximity to a wireless communications device.

CATEGORY NEAR FIELD	TELEPHONE RF PARAMETERS < 960MHz				
	AWF	E-FIELD EMISSION CW (dBV/m)	E-FIELD EMISSION CW (V/m)	H-FIELD EMISSION CW (dBA/m)	H-FIELD EMISSION CW (A/m)
M1	0	56.0 to 61.0	631.0 to 1122.0	5.6 to 10.6	1.91 to 3.39
	-5	53.5 to 58.5	473.2 to 841.4	3.1 to 8.1	1.43 to 2.54
M2	0	51.0 to 56.0	354.8 to 631.0	0.6 to 5.6	1.07 to 1.91
	-5	48.5 to 53.5	266.1 to 473.2	-1.9 to 3.1	0.80 to 1.43
M3	0	46.0 to 51.0	199.5 to 354.8	-4.4 to 0.6	0.60 to 1.07
	-5	43.5 to 48.5	149.6 to 266.1	-6.9 to -1.9	0.45 to 0.80
M4	0	< 46.0	< 199.5	< -4.4	< 0.60
	-5	< 43.5	< 149.6	< -6.9	< 0.45

CATEGORY NEAR FIELD	TELEPHONE RF PARAMETERS > 960MHz				
	AWF	E-FIELD EMISSION CW (dBV/m)	E-FIELD EMISSION CW (V/m)	H-FIELD EMISSION CW (dBA/m)	H-FIELD EMISSION CW (A/m)
M1	0	46.0 to 51.0	199.5 to 354.8	-4.4 to 0.6	0.60 to 1.07
	-5	43.5 to 48.5	149.6 to 266.1	-6.9 to -1.9	0.45 to 0.80
M2	0	41.0 to 46.0	112.2 to 199.5	-9.4 to -4.4	0.34 to 0.60
	-5	48.5 to 53.5	84.1 to 149.6	-11.9 to -6.9	0.25 to 0.45
M3	0	36.0 to 41.0	63.1 to 112.2	-14.4 to -9.4	0.19 to 0.34
	-5	33.5 to 38.5	47.3 to 84.1	-16.9 to -11.9	0.14 to 0.25
M4	0	< 36.0	< 63.1	< -14.4	< 0.19
	-5	< 33.5	< 47.3	< -16.9	< 0.14

ARTICULATION WEIGHING FACTOR (AWF)

The following AWF factors shall be used for the standard transmission protocols:

STANDARD	TECHNOLOGY	AWF (dB)
TIA/EIA/IS-2000	CDMA	0
TIA/EIA-136	TDMA (50Hz)	0
iDENTM	TDMA (22 and 11Hz)	0
J-STD-007	GSM (217)	-5
T1/T1P1/3GPP	UMTS (WCDMA)	0

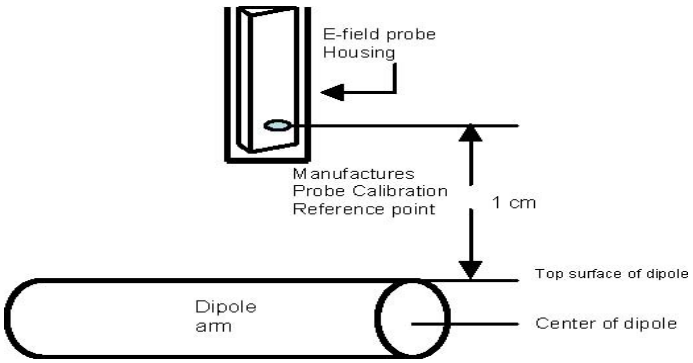
5. SYSTEM CHECK

The measured values (E-field and H-field) were compared with the values provided by the probe manufacturer and must within the allowed tolerance of **25%**.

5.1. VALIDATION STRUCTURE

The input signal was an un-modulated continuous wave. The following points were taken into consideration in performing this check:

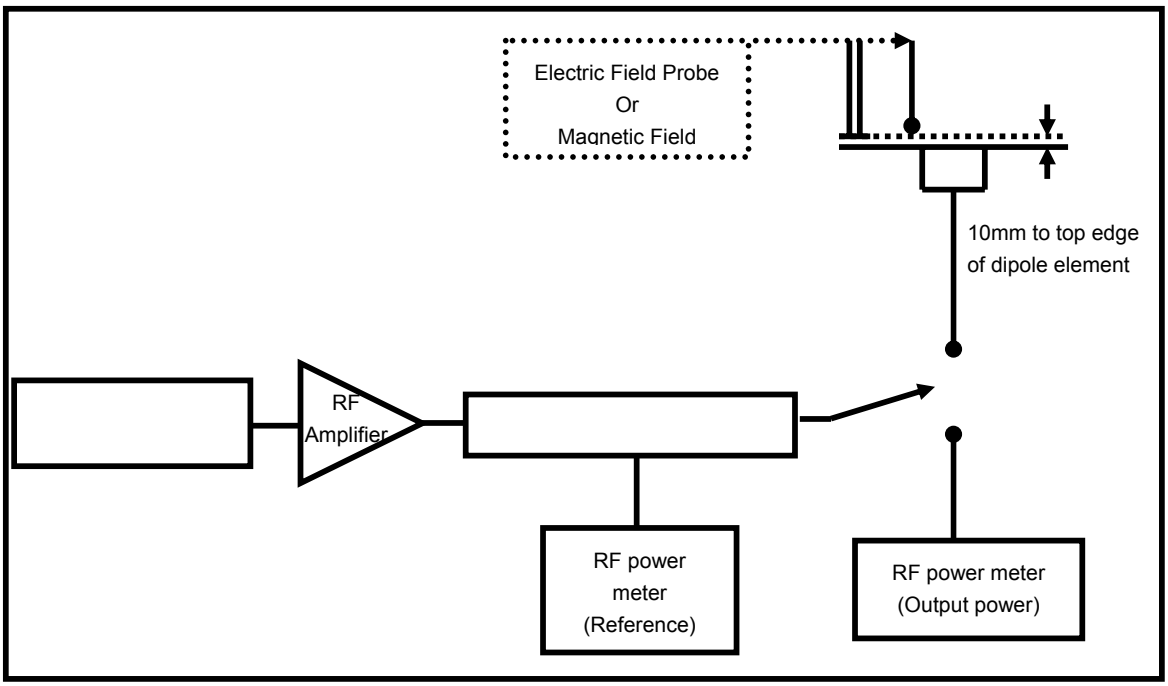
- Average Input Power P = 100mW RMS (20dBm RMS) after adjustment for return loss
- The test fixture must meet the 2 wavelength separation criterion
- The proper measurement of the 1cm probe to dipole separation, which is measured from top surface of the dipole to the calibration reference point of the sensor, defined by the probe manufacturer is shown in the following diagram:



5.2. SYSTEM CHECK PROCEDURE

1. Before you start the system performance check, need only to tell the system with which components (probe type, validation dipole and HAC arch) are performing the system performance check; the system will take care of all parameters.

The system check configuration is shown in the following figure:



2. The dipole was energized with a 20dBm unmodulated continuous-wave signal.
3. The length of the dipole was scanned with both E-field and H-field probes and the maximum values for each were recorded.

5.3. VALIDATION RESULTS

SYSTEM CHECK						
TEST FREQUENCY (MHz)	**BEGIN TEST SG POWER (mW)**	**REQUIRED E-FILED (V/m)**	**MEASURED E-FILED (V/m)**	**DEVIATION (%)**	**SEPARATION DISTANCE (mm)**	**TESTED DATE**
835	100.0	165.9	153.5	-7.47	10	Feb. 22, 2011
1880	100.0	141.9	126.2	-11.06	10	Feb. 22, 2011
TEST FREQUENCY (MHz)	**BEGIN TEST SG POWER (mW)**	**REQUIRED H-FILED (A/m)**	**MEASURED H-FILED (A/m)**	**DEVIATION (%)**	**SEPARATION DISTANCE (mm)**	**TESTED DATE**
835	100.0	0.454	0.467	-2.86	10	Feb. 22, 2011
1880	100.0	0.468	0.484	-3.42	10	Feb. 22, 2011
TESTED BY	Sam Onn					

NOTE: Please see Appendix for the system validation test data.

6. MODULATION FACTOR

A calibration was made of the modulation response of the probe and its instrumentation chain. This calibration was performed with the field probe, attached to its instrumentation. The response of the probe system to a CW field at the frequency of interest is compared to its response to a modulated signal with equal peak amplitude to that of a CW signal. The field level of the test signals are ensured to be more than 10dB above the ambient level and the noise floor of the instrumentation being used. The ratio of the CW reading to that taken with a modulated reading was applied to the DUT measurements.

This was done using the following procedure:

1. Fixing the probe in a set location relative to a field generating device, such as a reference dipole antenna, as illustrated in the system check procedure.
2. Illuminate the probe using the wireless device connected to the reference dipole with a test signal at the intended measurement frequency, Ensure there is sufficient field coupling between the probe and the antenna so the resulting reading is greater than 10dB above the probe system noise floor but within the systems operating range.
3. Record the amplitude applied to the antenna during transmission and the field strength measured by the E-field probe located near the tip of the dipole antenna.
4. Replace the wireless device with an RF signal generator producing an unmodulated CW signal and set to the wireless device operating frequency.
5. Set the amplitude of the unmodulated signal to equal that recorded from the wireless device.
6. Record the reading of the probe measurement system of the unmodulated signal.
7. The RF signal generator producing an 80%AM signal and set to the wireless device operating frequency. Set the amplitude of the signal to equal that recorded from the wireless device.
8. Record the reading of the probe measurement system of the 80%AM signal.
9. The ratio, in linear units, of the probe reading in Step 3) or 8) to the reading in Step 6) is the E-field modulation factor.
10. Steps 1-9 were repeated at all frequency bands and for both E and H field probes.

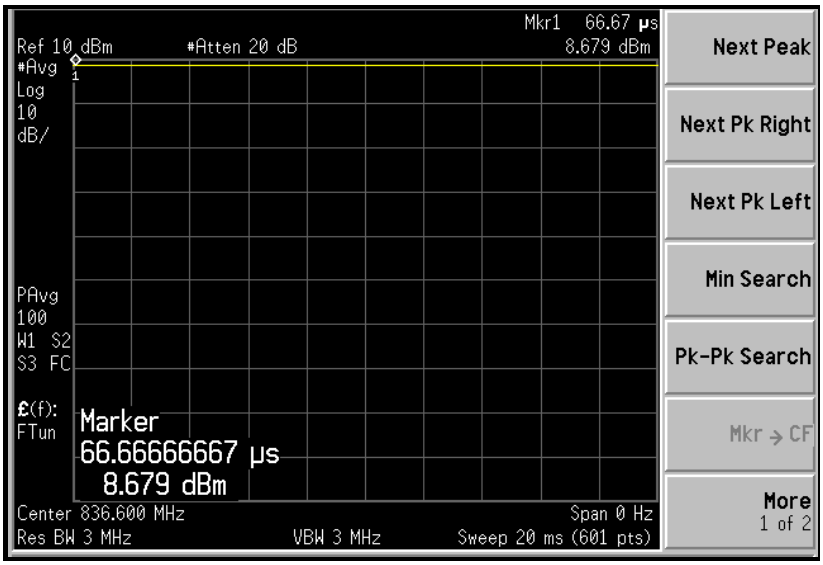
NOTE: The ratio of the CW to modulated signal reading is the modulation factor. The modulation factors obtained were applied to readings taken of the actual wireless device, in order to obtain an accurate peak field reading using the formula:

$$\mathbf{Peak = 20 \cdot log(Raw \cdot ProbeModulationFactor)}$$

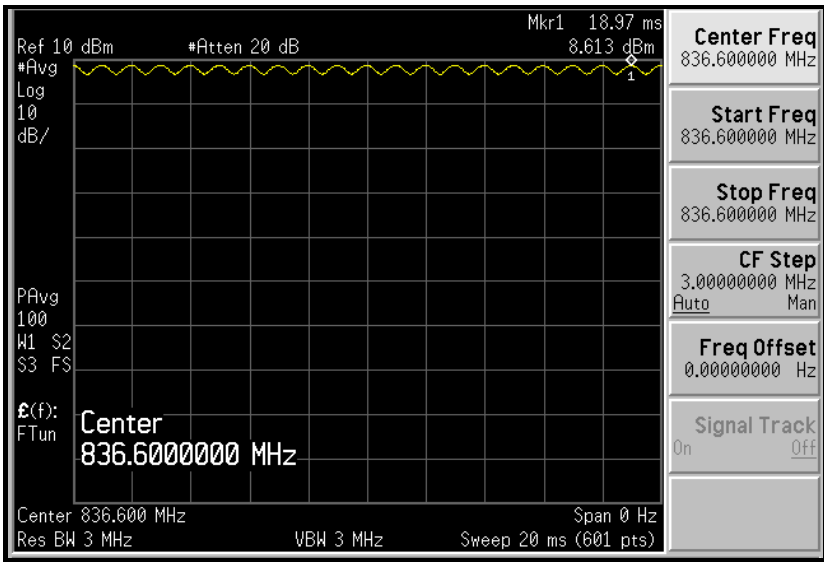
6.1 MODULATION FACTOR TEST RESULTS

TEST FREQUENCY (MHz)	PROTOCOL	REFERENCE LEVEL	MEASURED E-FILED (V/m)	E-FILED MODULATION FACTOR	TESTED DATE
836.6	CW	Refer to the next three plots	438.4	NA	Feb. 22, 2011
	80% AM		364.5	1.20	
	GSM 850		140.6	3.12	
TEST FREQUENCY (MHz)	**PROTOCOL**	**REFERENCE LEVEL**	**MEASURED H-FILED (A/m)**	**H-FILED MODULATION FACTOR**	**TESTED DATE**
836.6	CW	Refer to the next three plots	1.222	NA	Feb. 22, 2011
	80% AM		1.155	1.06	
	GSM 850		0.515	2.37	
TESTED BY	Sam Onn				

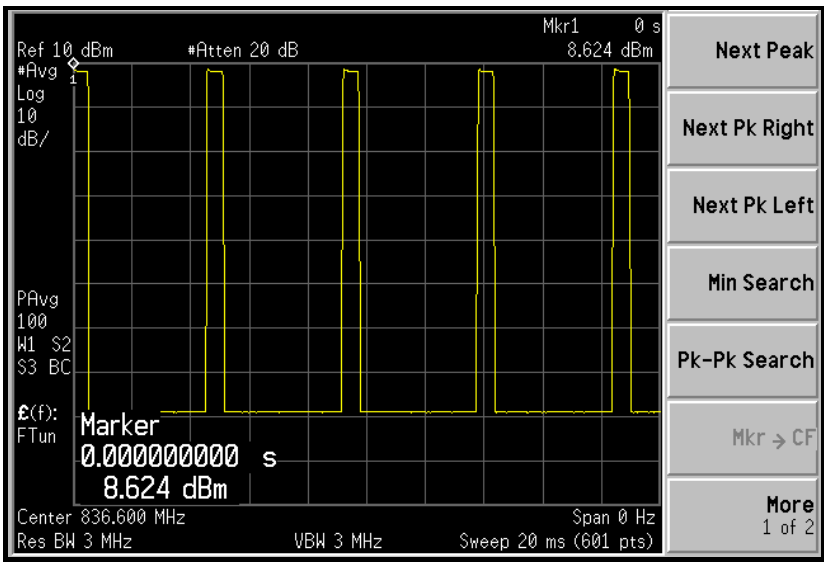
CW SIGNAL:



80% AM SIGNAL:

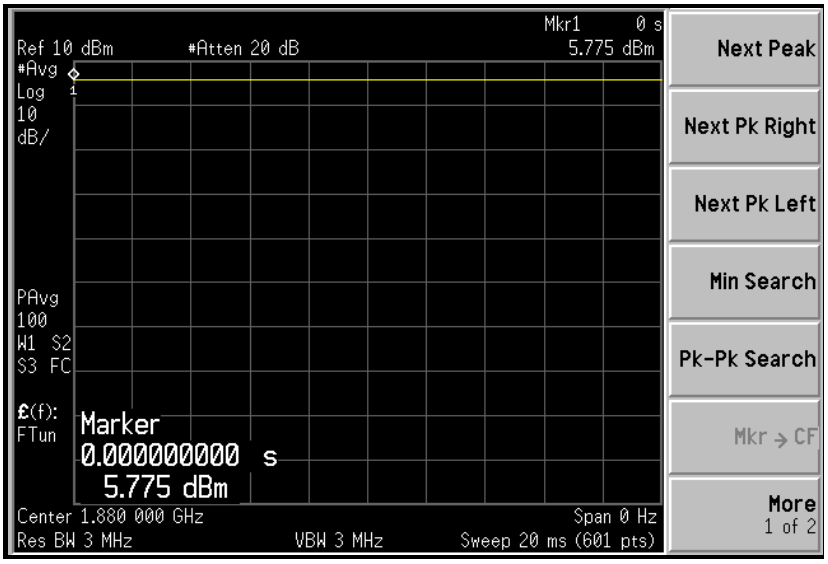


GSM 850 SIGNAL:

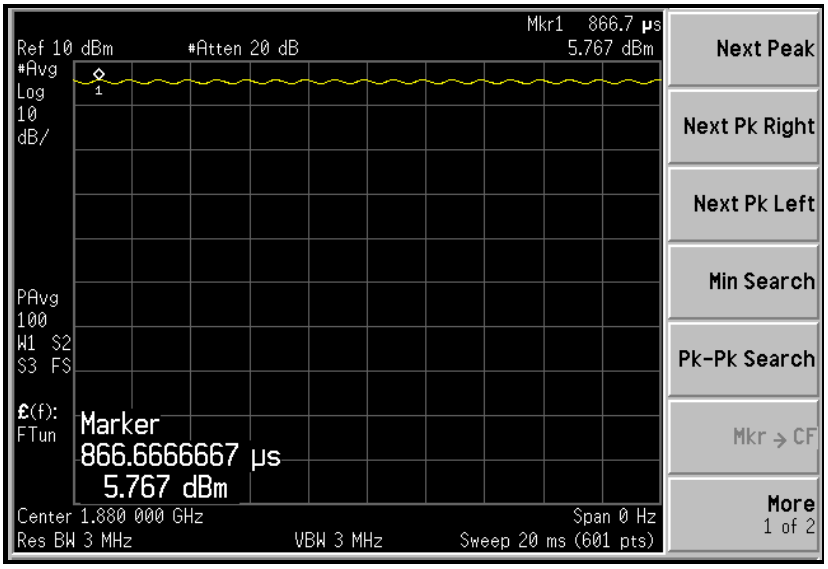


TEST FREQUENCY (MHz)	PROTOCOL	REFERENCE LEVEL	MEASURED E-FILED (V/m)	E-FILED MODULATION FACTOR	TESTED DATE
1880.0	CW	Refer to the next three plots	250.5	NA	Feb. 22, 2011
	80% AM		232.3	1.08	
	PCS 1900		83.317	3.01	
TEST FREQUENCY (MHz)	**PROTOCOL**	**REFERENCE LEVEL**	**MEASURED H-FILED (A/m)**	**H-FILED MODULATION FACTOR**	**TESTED DATE**
1880.0	CW	Refer to the next three plots	0.801	NA	Feb. 22, 2011
	80% AM		0.831	0.96	
	PCS 1900		0.381	2.10	
TESTED BY	Sam Onn				

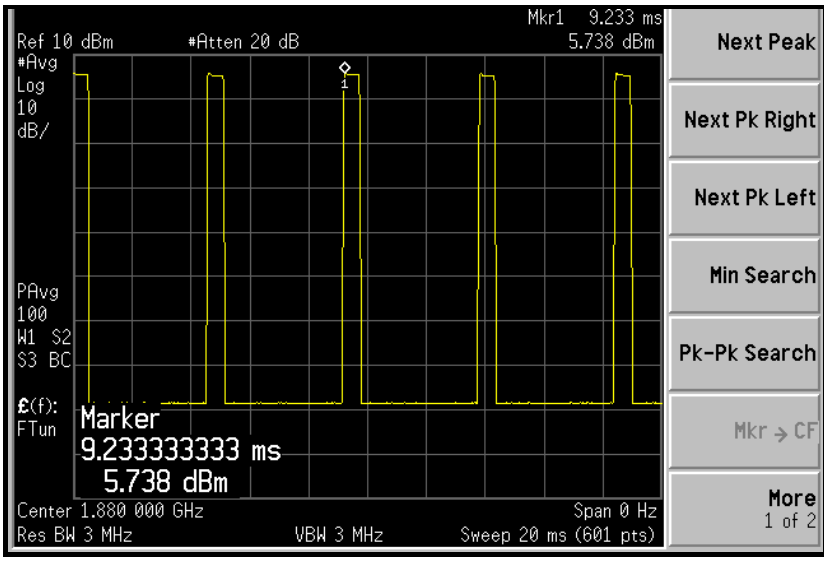
CW SIGNAL:



80% AM SIGNAL:

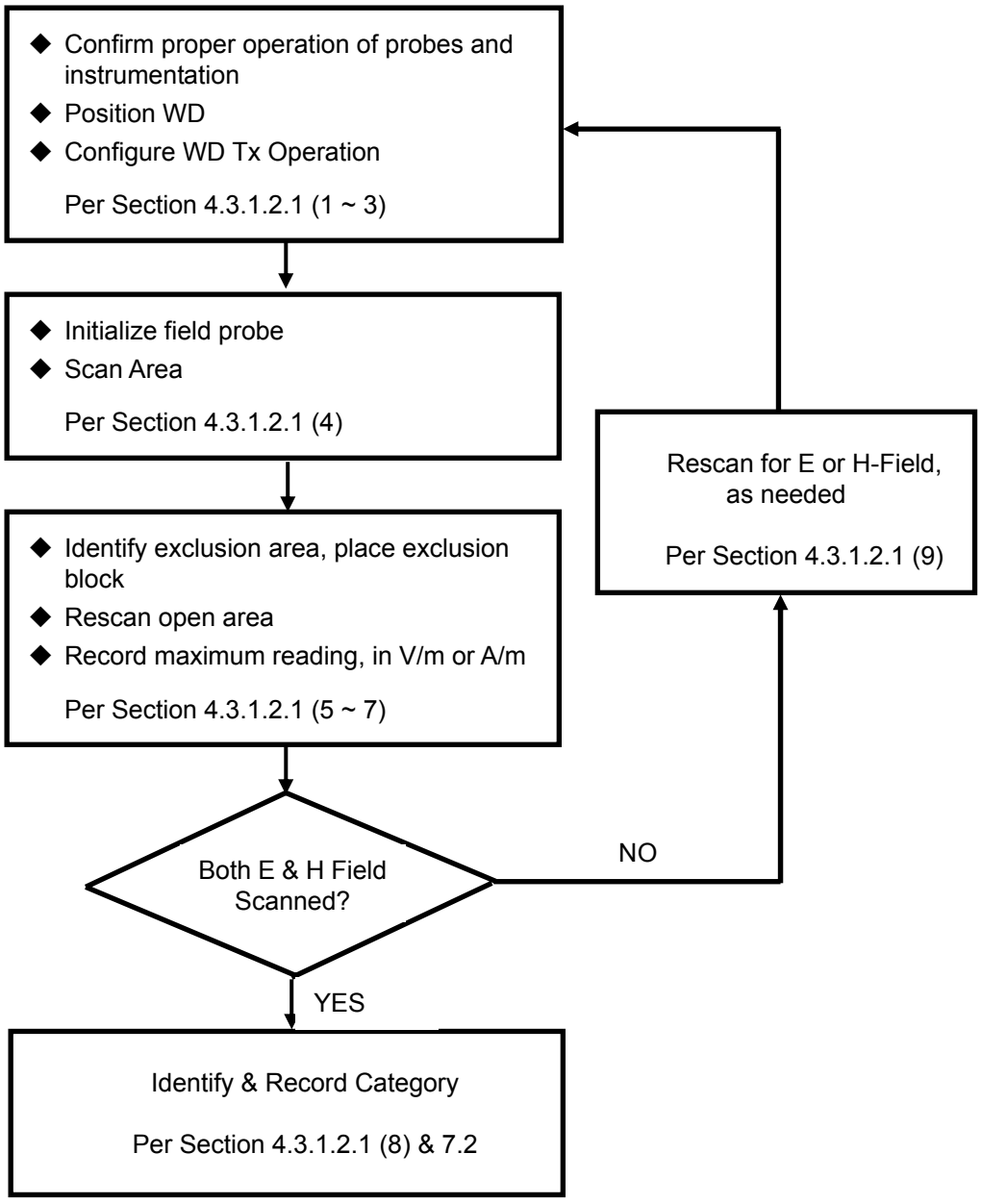


PCS 1900 SIGNAL:



7. RF EMISSION TEST PROCEDURES

7.1. TEST INSTRUCTION



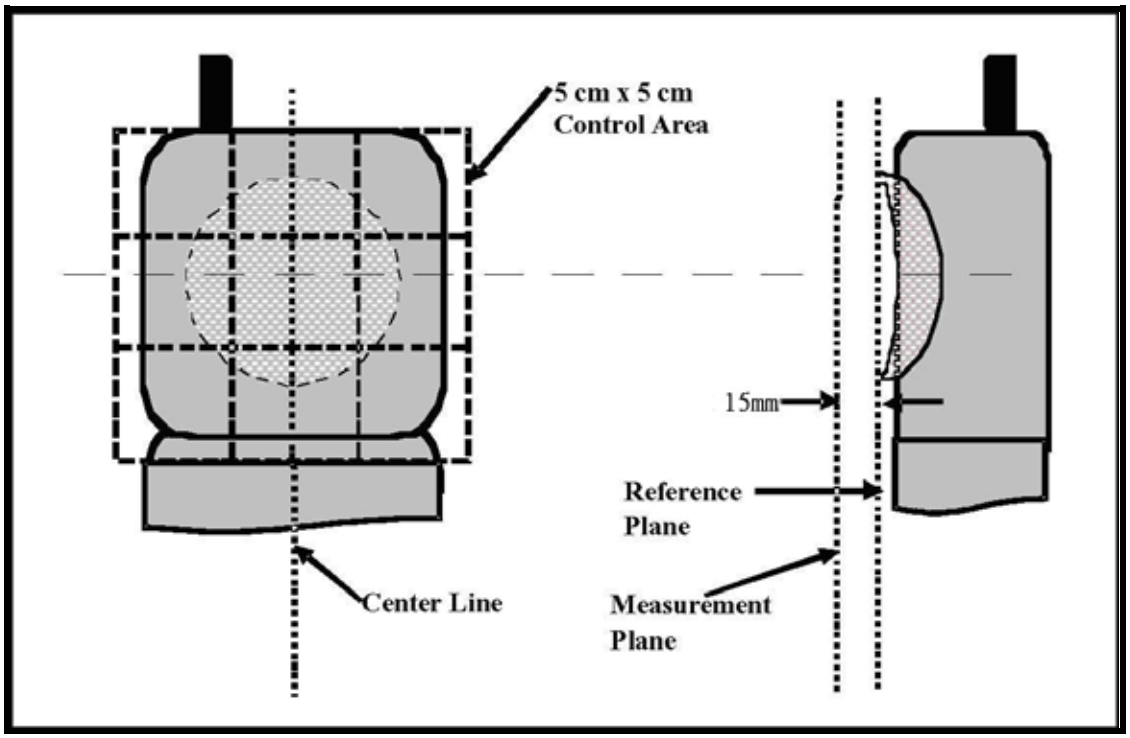
7.2. TEST PROCEDURES

The EUT makes a phone call to the GSM base station. Establish the simulation communication configuration rather the actual communication. Then the EUT could continuous the transmission mode. Adjust the PCL of the base station could controlled the EUT to transmitted the maximum output power. The base station also could control the transmission channel.

The recommended procedure for assessing the RF emission value consists of the following steps:

1. Proper operation of the field probe, probe measurement system, other instrumentation, and the positioning system was confirmed.
2. WD is positioned in its intended test position, acoustic output point of the device perpendicular to the field probe.
3. The center sub-grid was centered over the center of the acoustic output (also audio band magnetic output, if applicable). The WD audio output was positioned tangent (as physically possible) to the measurement plane.
4. A surface calibration was performed before each setup change to ensure repeatable spacing and proper maintenance of the measurement plane using the HAC arch.
5. The measurement system measured the field strength at the reference location.
6. Measurements at 2mm increments in the 5 x 5cm region were performed and recorded. A 360^{o} rotation about the azimuth axis at the maximum interpolated position was measured. For the worst-case condition, the peak reading from this rotation was used in re-evaluating the HAC category.
7. Steps 1-6 were done for both the E and H-Field measurements.

7.3. DESCRIPTION OF TEST POSITION AND CONFIGURATIONS



7.4. SUMMARY OF MEASURED HAC RESULTS

E-FIELD EMISSION

ENVIRONMENTAL CONDITION			Air Temperature：22.8°C, Humidity：60%RH					
TESTED BY			Sam Onn		DATE		Feb. 22, 2011	
FREQ. (MHz)	CHAN.	MODE	CONDUCTED PEAK POWER (dBm)	DRIFT (dB)	MEASURED PMF	EXCLUDED CELLS	PEAK FIELD (V/m)	RATING
824.2 (Low)	128	GSM 850	32.4	-0.0027	3.12	2, 3, 6	116.0	M4
836.6 (Mid.)	190		32.1	-0.010		2, 3, 6	175.2	M3
848.8 (High)	251		31.9	-0.060		2, 3, 6	202.2	M3

NOTE:

1. Please see the Appendix A for the measured data and test plots.
2. The variation of the EUT conducted power measured before and after HAC testing should not over 5%.

ENVIRONMENTAL CONDITION			Air Temperature：22.8°C, Humidity：60%RH					
TESTED BY			Sam Onn		DATE		Feb. 22, 2011	
FREQ. (MHz)	CHAN.	MODE	CONDUCTED PEAK POWER (dBm)	DRIFT (dB)	MEASURED PMF	EXCLUDED CELLS	PEAK FIELD (V/m)	RATING
1850.2 (Low)	512	PCS 1900	29.1	-0.110	3.01	6, 8, 9	79.919	M3
1880.0 (Mid.)	661		28.8	-0.040		7, 8, 9	73.809	M3
1909.8 (High)	810		28.6	-0.020		7, 8, 9	67.371	M3

NOTE:

1. Please see the Appendix A for the measured data and test plots.
2. The variation of the EUT conducted power measured before and after HAC testing should not over 5%.

H-FIELD EMISSION

ENVIRONMENTAL CONDITION			Air Temperature：22.8°C, Humidity：60%RH					
TESTED BY			Sam Onn		DATE		Feb. 22, 2011	
FREQ. (MHz)	CHAN.	MODE	CONDUCTED PEAK POWER (dBm)	DRIFT (dB)	MEASURED PMF	EXCLUDED CELLS	PEAK FIELD (A/m)	RATING
824.2 (Low)	128	GSM 850	32.4	-0.0018	2.37	1, 4	0.182	M4
836.6 (Mid.)	190		32.1	0.050		1, 4	0.283	M4
848.8 (High)	251		31.9	-0.030		1, 4	0.342	M4

NOTE:

1. Please see the Appendix A for the measured data and test plots.
2. The variation of the EUT conducted power measured before and after HAC testing should not over 5%.

ENVIRONMENTAL CONDITION			Air Temperature：22.8°C, Humidity：60%RH					
TESTED BY			Sam Onn		DATE		Feb. 22, 2011	
FREQ. (MHz)	CHAN.	MODE	CONDUCTED PEAK POWER (dBm)	DRIFT (dB)	MEASURED PMF	EXCLUDED CELLS	PEAK FIELD (A/m)	RATING
1850.2 (Low)	512	PCS 1900	29.1	-0.020	2.10	4, 7	0.212	M3
1880.0 (Mid.)	661		28.8	0.010		4	0.225	M3
1909.8 (High)	810		28.6	0.030		4	0.2	M3

NOTE:

1. Please see the Appendix A for the measured data and test plots.
2. The variation of the EUT conducted power measured before and after HAC testing should not over 5%.

8. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

---END---

Date/Time: 2011/2/22 19:22:40

E-GSM850-Ch128

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 824.2 MHz

Communication System: GSM 850 ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

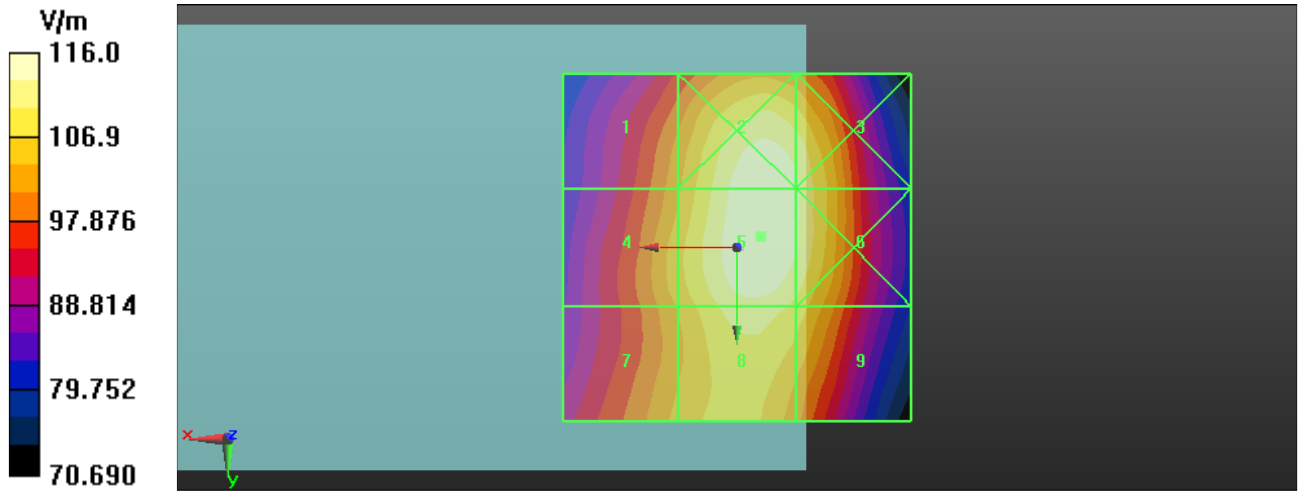
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Low/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 116.0 V/m
Probe Modulation Factor = 3.120
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 47.737 V/m; Power Drift = -0.0027 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **103.4 M4**	Grid 2 **115.6 M4**	Grid 3 **113.5 M4**
Grid 4 **106.0 M4**	Grid 5 **116.0 M4**	Grid 6 **113.5 M4**
Grid 7 **105.0 M4**	Grid 8 **112.0 M4**	Grid 9 **109.0 M4**


V/m
116.0
106.9
97.876
88.814
79.752
70.690
1
2
3
4
5
6
7
8
9

•

Date/Time: 2011/2/22 19:28:46

E-GSM850-Ch190

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 836.6 MHz

Communication System: GSM 850 ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

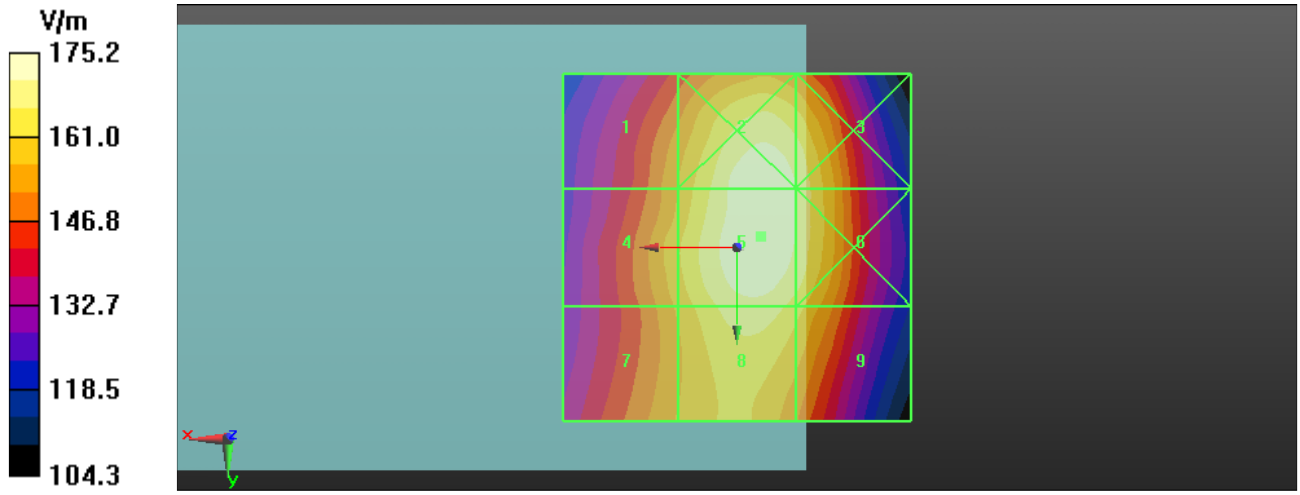
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Mid/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 175.2 V/m
Probe Modulation Factor = 3.120
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 71.971 V/m; Power Drift = -0.01 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **156.6 M3**	Grid 2 **174.9 M3**	Grid 3 **170.4 M3**
Grid 4 **160.5 M3**	Grid 5 **175.2 M3**	Grid 6 **170.5 M3**
Grid 7 **157.3 M3**	Grid 8 **169.1 M3**	Grid 9 **163.3 M3**


V/m
175.2
161.0
146.8
132.7
118.5
104.3
1
2
3
4
5
6
7
8
9

Date/Time: 2011/2/22 19:34:26

E-GSM850-Ch251

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 848.8 MHz

Communication System: GSM 850 ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

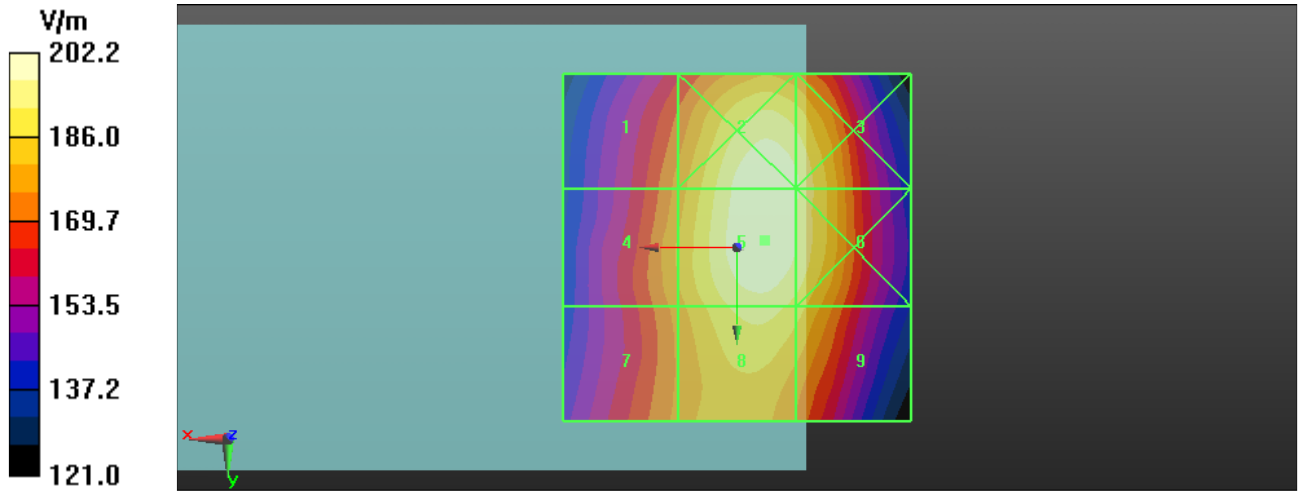
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 202.2 V/m
Probe Modulation Factor = 3.120
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 82.912 V/m; Power Drift = -0.06 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **177.5 M3**	Grid 2 **202.2 M3**	Grid 3 **197.7 M3**
Grid 4 **181.4 M3**	Grid 5 **202.2 M3**	Grid 6 **197.7 M3**
Grid 7 **178.1 M3**	Grid 8 **194.2 M3**	Grid 9 **189.0 M3**


V/m
202.2
186.0
169.7
153.5
137.2
121.0
1
2
3
4
5
6
7
8
9

-
-

Date/Time: 2011/2/22 19:43:25

E-PCS1900-Ch512

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1850.2 MHz

Communication System: PCS1900 ; Frequency: 1850.2 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

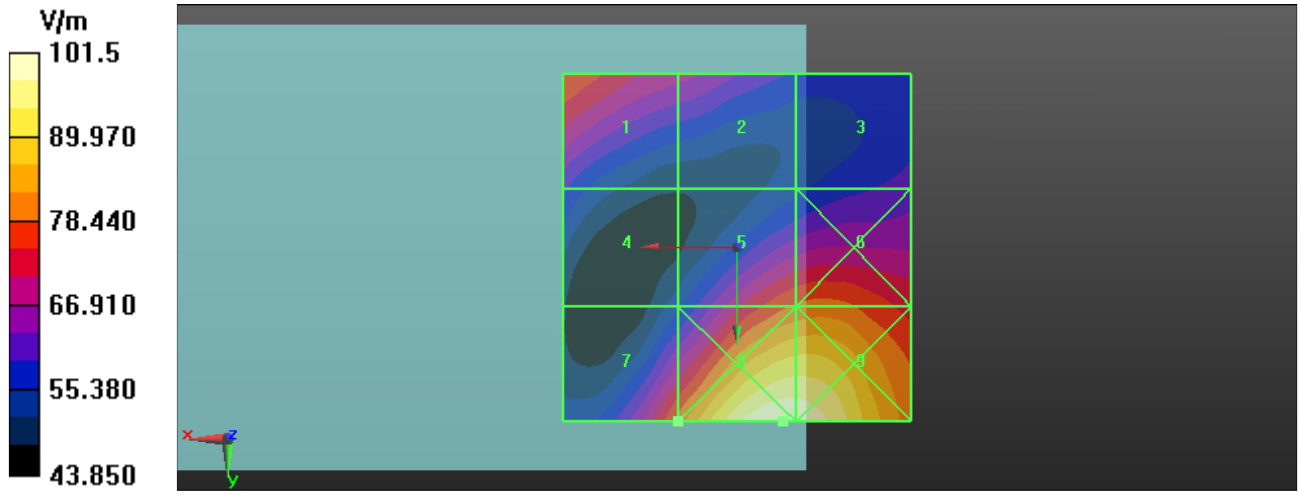
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Low/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 79.919 V/m
Probe Modulation Factor = 3.010
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 21.779 V/m; Power Drift = -0.11 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **78.847 M3**	Grid 2 **68.711 M3**	Grid 3 **61.076 M3**
Grid 4 **60.665 M3**	Grid 5 **79.089 M3**	Grid 6 **80.191 M3**
Grid 7 **79.919 M3**	Grid 8 **101.5 M2**	Grid 9 **101.0 M2**


V/m
101.5
89.970
78.440
66.910
55.380
43.850
1
2
3
4
5
6
7
8

Date/Time: 2011/2/22 19:49:07

E-PCS1900-Ch661

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1880 MHz

Communication System: PCS1900 ; Frequency: 1880 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

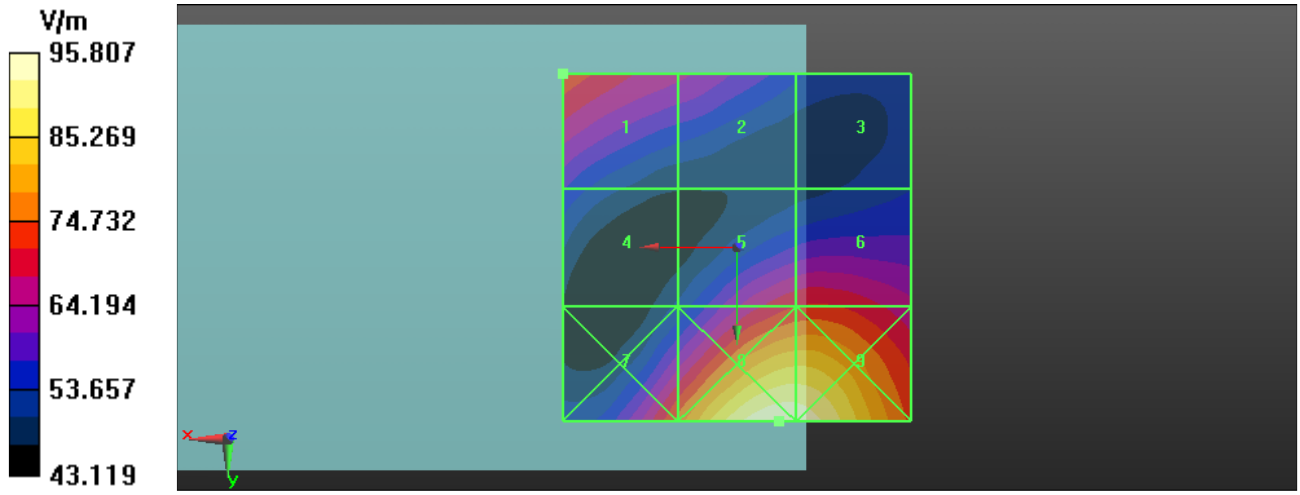
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Mid/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 73.809 V/m
Probe Modulation Factor = 3.010
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 19.712 V/m; Power Drift = -0.04 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **73.809 M3**	Grid 2 **65.382 M3**	Grid 3 **54.822 M3**
Grid 4 **57.913 M3**	Grid 5 **71.316 M3**	Grid 6 **71.970 M3**
Grid 7 **76.245 M3**	Grid 8 **95.807 M2**	Grid 9 **95.108 M2**


V/m
95.807
85.269
74.732
64.194
53.657
43.119
1
2
3
4
5
6
7
8

Date/Time: 2011/2/22 19:54:55

E-PCS1900-Ch810

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1909.8 MHz

Communication System: PCS1900 ; Frequency: 1909.8 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

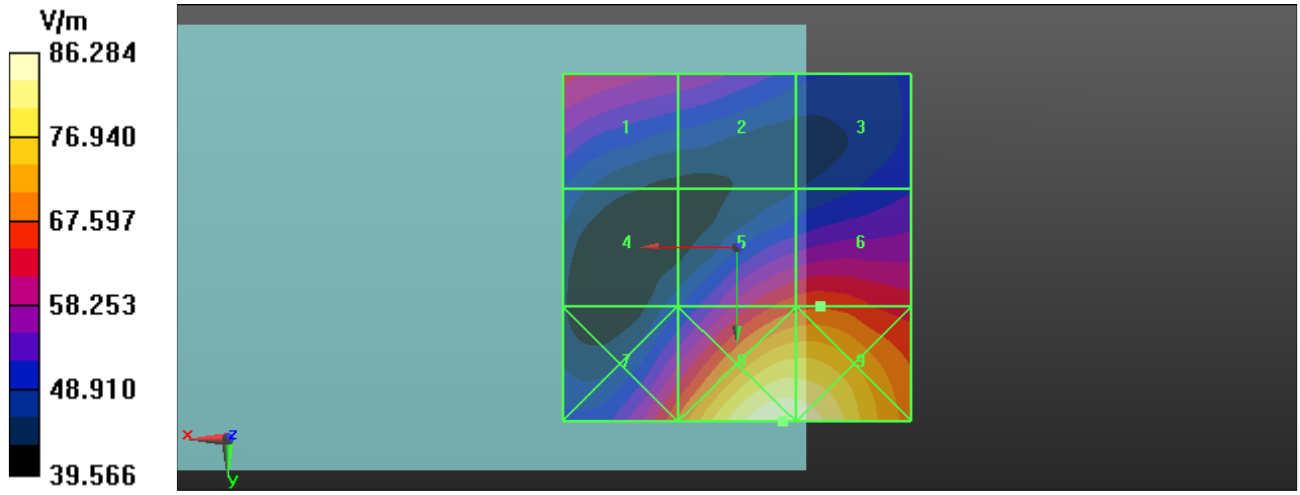
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Low 3/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 67.371 V/m
Probe Modulation Factor = 3.010
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 17.986 V/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **62.752 M3**	Grid 2 **57.932 M3**	Grid 3 **51.844 M3**
Grid 4 **49.330 M3**	Grid 5 **66.662 M3**	Grid 6 **67.371 M3**
Grid 7 **68.363 M3**	Grid 8 **86.284 M2**	Grid 9 **85.824 M2**


V/m
86.284
76.940
67.597
58.253
48.910
39.566
1
2
3
4
5
6
7
8
9

Date/Time: 2011/2/22 16:06:57

H-GSM850-Ch128

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 824.2 MHz

Communication System: GSM 850 ; Frequency: 824.2 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

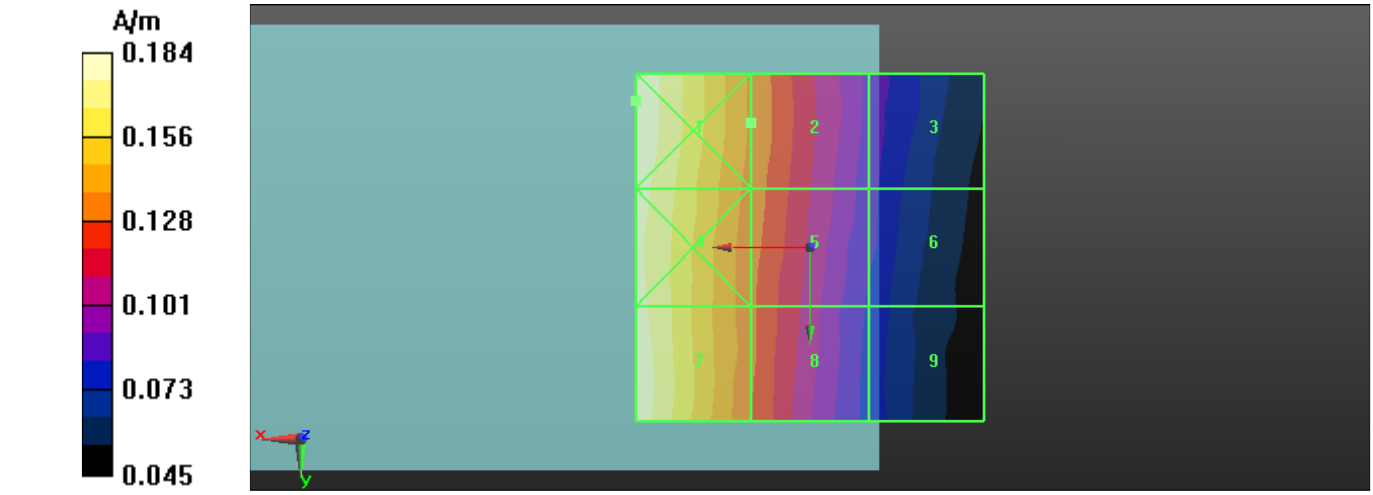
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Low/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.182 A/m
Probe Modulation Factor = 2.370
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.049 A/m; Power Drift = -0.0018 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.184 M4**	Grid 2 **0.137 M4**	Grid 3 **0.089 M4**
Grid 4 **0.180 M4**	Grid 5 **0.134 M4**	Grid 6 **0.086 M4**
Grid 7 **0.182 M4**	Grid 8 **0.132 M4**	Grid 9 **0.081 M4**


A/m
0.184
0.156
0.128
0.101
0.073
0.045
1
2
3
4
5
6
7
8
9

-
-

Date/Time: 2011/2/22 16:13:14

H-GSM850-Ch190

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 836.6 MHz

Communication System: GSM 850 ; Frequency: 836.6 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

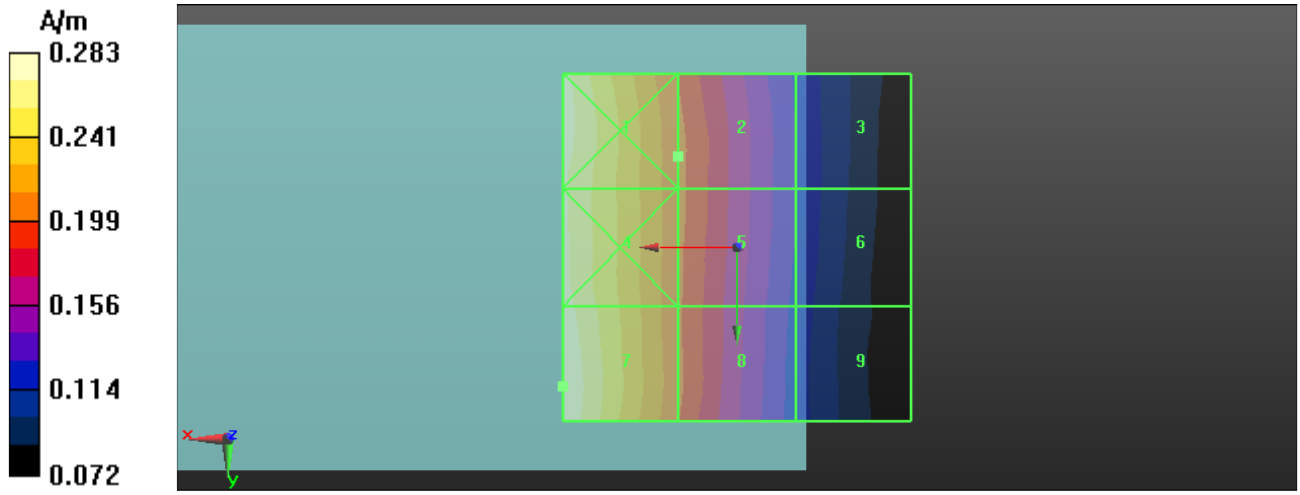
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device /Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.283 A/m
Probe Modulation Factor = 2.370
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.074 A/m; Power Drift = 0.05 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.277 M4**	Grid 2 **0.204 M4**	Grid 3 **0.129 M4**
Grid 4 **0.276 M4**	Grid 5 **0.204 M4**	Grid 6 **0.129 M4**
Grid 7 **0.283 M4**	Grid 8 **0.203 M4**	Grid 9 **0.125 M4**


A/m
0.283
0.241
0.199
0.156
0.114
0.072
1
2
3
4
5
6
7
8
9

Date/Time: 2011/2/22 16:19:49

H-GSM850-Ch251

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 848.8 MHz

Communication System: GSM 850 ; Frequency: 848.8 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

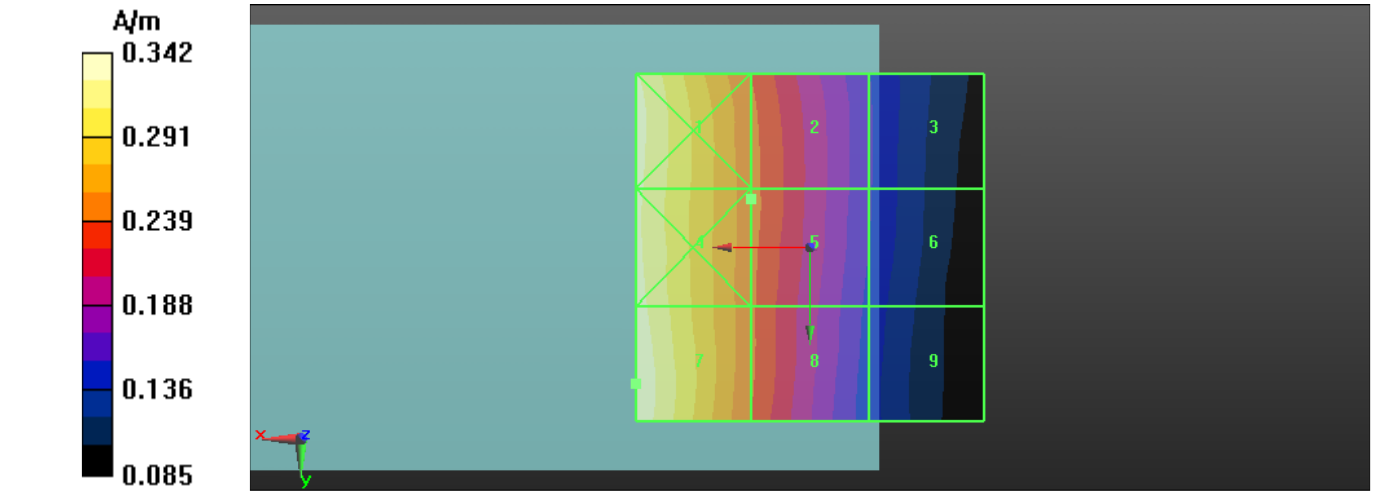
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.342 A/m
Probe Modulation Factor = 2.370
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.089 A/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.333 M4**	Grid 2 **0.246 M4**	Grid 3 **0.157 M4**
Grid 4 **0.334 M4**	Grid 5 **0.247 M4**	Grid 6 **0.156 M4**
Grid 7 **0.342 M4**	Grid 8 **0.244 M4**	Grid 9 **0.149 M4**


A/m
0.342
0.291
0.239
0.188
0.136
0.085
1
2
3
4
5
6
7
8
9

-
-

Date/Time: 2011/2/22 14:41:43

H-PCS1900-Ch512

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1850.2 MHz

Communication System: GSM 1900 ; Frequency: 1850.2 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

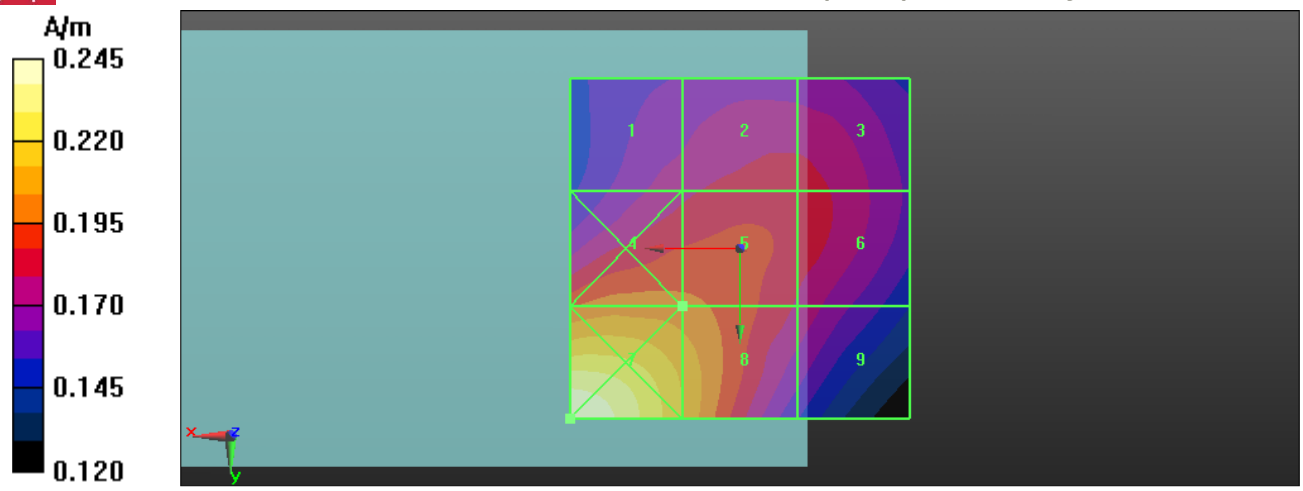
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Low/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.212 A/m
Probe Modulation Factor = 2.100
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.099 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.177 M3**	Grid 2 **0.182 M3**	Grid 3 **0.182 M3**
Grid 4 **0.200 M3**	Grid 5 **0.198 M3**	Grid 6 **0.184 M3**
Grid 7 **0.245 M3**	Grid 8 **0.212 M3**	Grid 9 **0.177 M3**


A/m
0.245
0.220
0.195
0.170
0.145
0.120
1
2
3
4
5
6
8
9
X
Z
Y

Date/Time: 2011/2/22 14:35:18

H-PCS1900-Ch661

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1880 MHz

Communication System: GSM 1900 ; Frequency: 1880 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

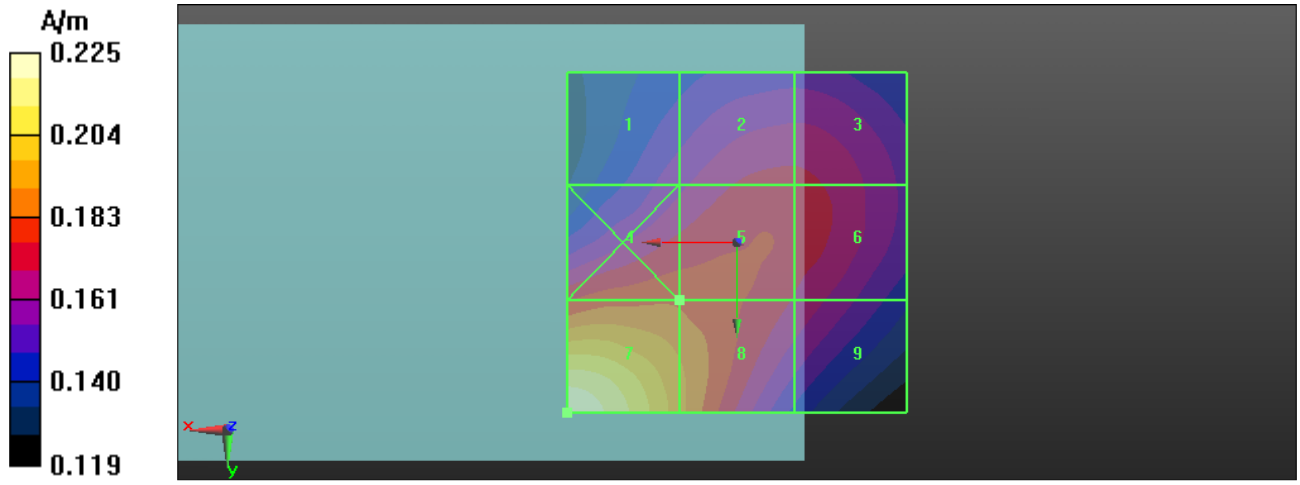
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device Mid/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.225 A/m
Probe Modulation Factor = 2.100
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.094 A/m; Power Drift = 0.01 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.160 M3**	Grid 2 **0.171 M3**	Grid 3 **0.171 M3**
Grid 4 **0.182 M3**	Grid 5 **0.181 M3**	Grid 6 **0.174 M3**
Grid 7 **0.225 M3**	Grid 8 **0.192 M3**	Grid 9 **0.168 M3**


A/m
0.225
0.204
0.183
0.161
0.140
0.119
1
2
3
4
5
6
7
8
9
X
Z
Y

Date/Time: 2011/2/22 14:47:18

H-PCS1900-Ch810

DUT: Mobile Computer ; Type: Dolphin 6000 ; Test Frequency: 1909.8 MHz

Communication System: GSM 1900 ; Frequency: 1909.8 MHz ; Duty Cycle: 1:8.30042Modulation type: GMSK
Medium: Air Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3 ;
Phantom section: RF Section ;
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

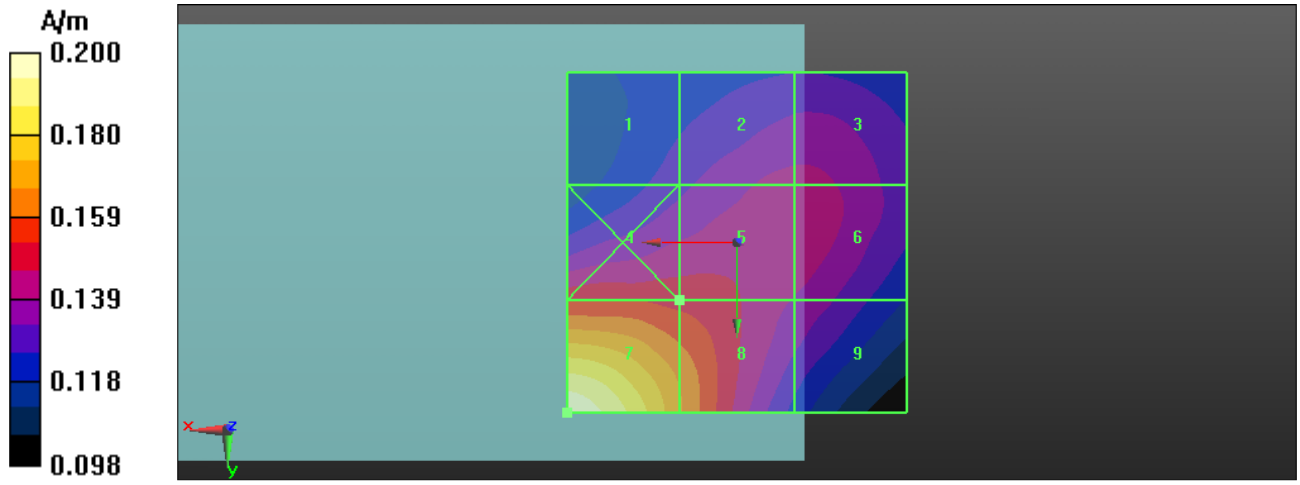
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device High/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 0.200 A/m
Probe Modulation Factor = 2.100
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.076 A/m; Power Drift = 0.03 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.130 M4**	Grid 2 **0.141 M3**	Grid 3 **0.141 M3**
Grid 4 **0.153 M3**	Grid 5 **0.151 M3**	Grid 6 **0.144 M3**
Grid 7 **0.200 M3**	Grid 8 **0.167 M3**	Grid 9 **0.138 M4**


A/m
0.200
0.180
0.159
0.139
0.118
0.098
1
2
3
4
5
6
7
8
9
x
z
y

Date/Time: 2011/2/22 13:07:59

H-WD-GSM850-Ch190

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: GSM 850 ; Frequency: 836.6 MHz; Duty Cycle: 1:8.30042; Modulation type: GMSK
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

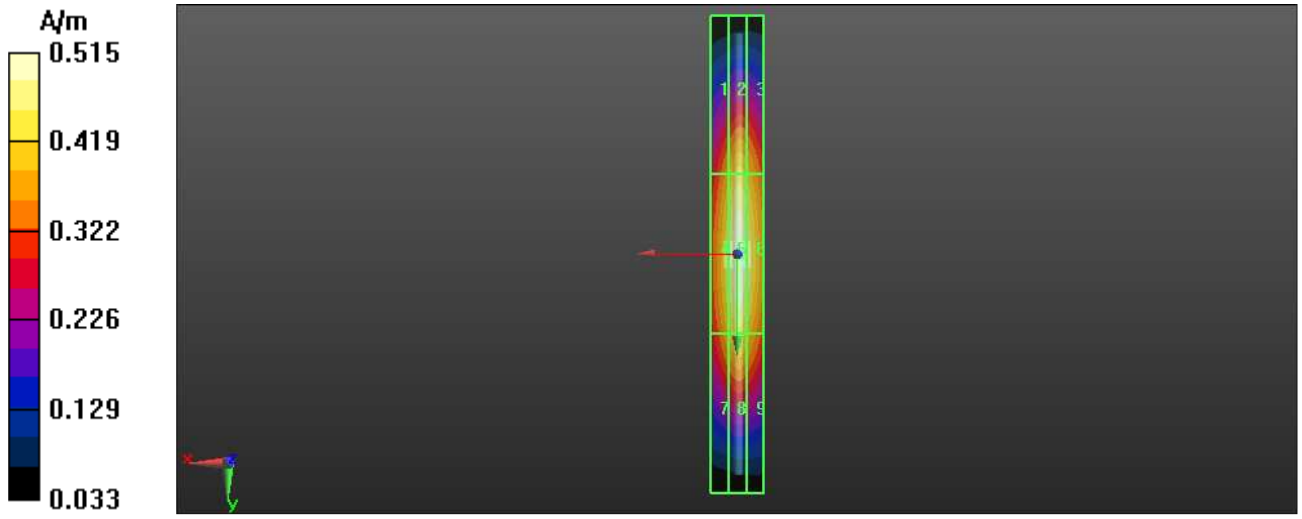
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 0.515 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.558 A/m; Power Drift = -0.04 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.377 M4**	Grid 2 **0.436 M4**	Grid 3 **0.409 M4**
Grid 4 **0.451 M3**	Grid 5 **0.515 M3**	Grid 6 **0.483 M3**
Grid 7 **0.387 M4**	Grid 8 **0.440 M4**	Grid 9 **0.409 M4**


A/m
0.515
0.419
0.322
0.226
0.129
0.033

Date/Time: 2011/2/22 13:28:12

H-CW-836.6 MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

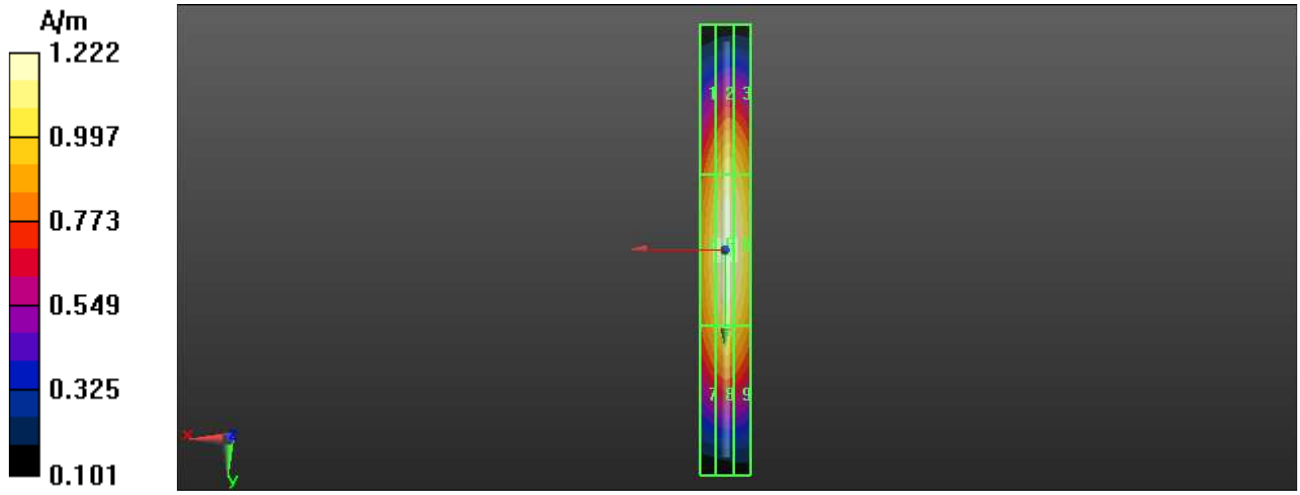
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 1.222 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 1.299 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.969 M3**	Grid 2 **1.078 M2**	Grid 3 **1.058 M3**
Grid 4 **1.121 M2**	Grid 5 **1.222 M2**	Grid 6 **1.190 M2**
Grid 7 **0.993 M3**	Grid 8 **1.071 M2**	Grid 9 **1.035 M3**


A/m
1.222
0.997
0.773
0.549
0.325
0.101

Date/Time: 2011/2/22 13:37:06

H-AM-836.6 MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: AM ; Frequency: 836.6 MHz; Duty Cycle: 1:1; Modulation type: AM
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

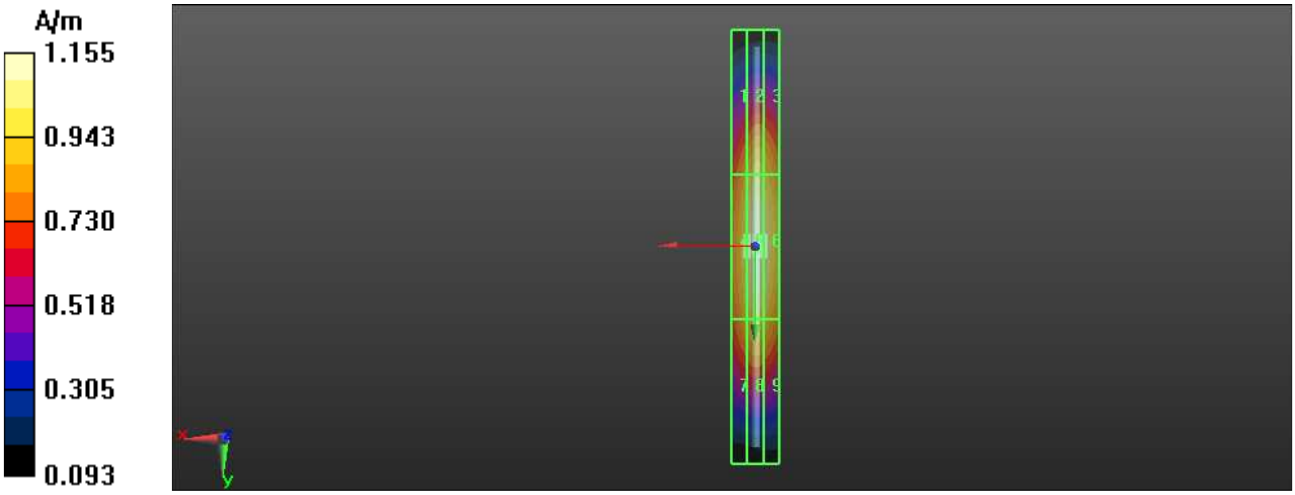
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 1.155 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 1.234 A/m; Power Drift = 0.05 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.893 M3**	Grid 2 **1.006 M3**	Grid 3 **0.979 M3**
Grid 4 **1.045 M3**	Grid 5 **1.155 M2**	Grid 6 **1.112 M2**
Grid 7 **0.919 M3**	Grid 8 **1.001 M3**	Grid 9 **0.957 M3**


A/m
1.155
0.943
0.730
0.518
0.305
0.093

Date/Time: 2011/2/22 13:19:50

H-WD-PCS1900-Ch661

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: PCS 1900 ; Frequency: 1880 MHz; Duty Cycle: 1:8.30042; Modulation type: GMSK
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

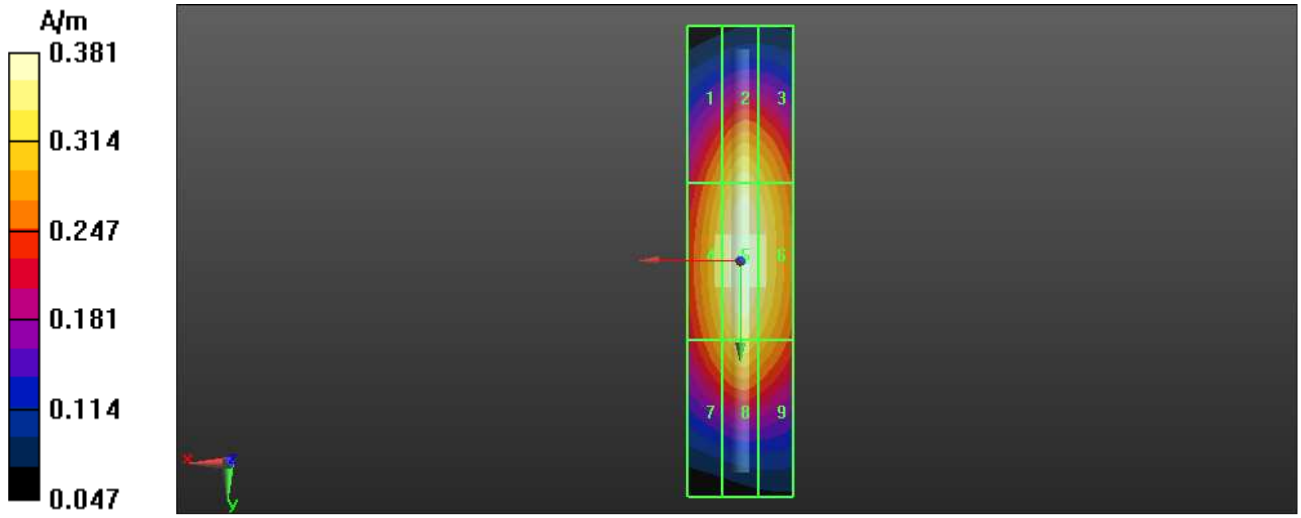
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 0.381 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.408 A/m; Power Drift = 0.01 dB
Hearing Aid Near-Field Category: M2 (AWF -5 dB)

Peak H-field in A/m

Grid 1 **0.302 M2**	Grid 2 **0.350 M2**	Grid 3 **0.331 M2**
Grid 4 **0.338 M2**	Grid 5 **0.381 M2**	Grid 6 **0.358 M2**
Grid 7 **0.299 M2**	Grid 8 **0.334 M2**	Grid 9 **0.313 M2**


A/m
0.381
0.314
0.247
0.181
0.114
0.047
1
2
3
4
5
6
7
8
9

Date/Time: 2011/2/22 13:52:53

H-CW-1880 MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: CW ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

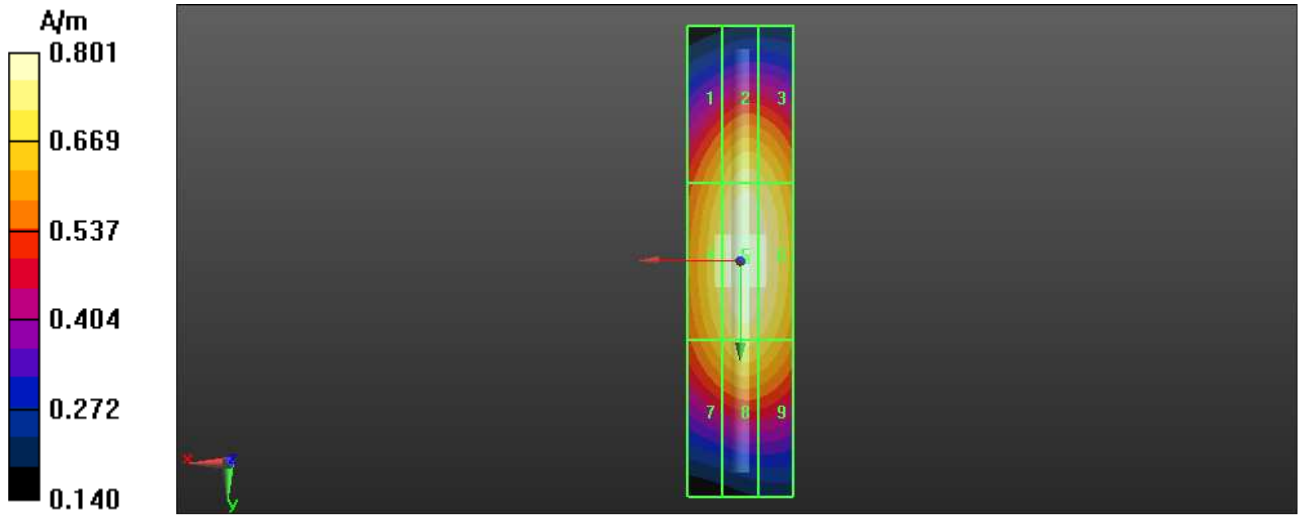
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 0.801 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.848 A/m; Power Drift = -0.06 dB
Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.675 M1**	Grid 2 **0.745 M1**	Grid 3 **0.731 M1**
Grid 4 **0.740 M1**	Grid 5 **0.801 M1**	Grid 6 **0.785 M1**
Grid 7 **0.675 M1**	Grid 8 **0.729 M1**	Grid 9 **0.711 M1**


A/m
0.801
0.669
0.537
0.404
0.272
0.140
1
2
3
7
8
9

Date/Time: 2011/2/22 13:47:00

H-AM-1880 MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: AM ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: AM
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

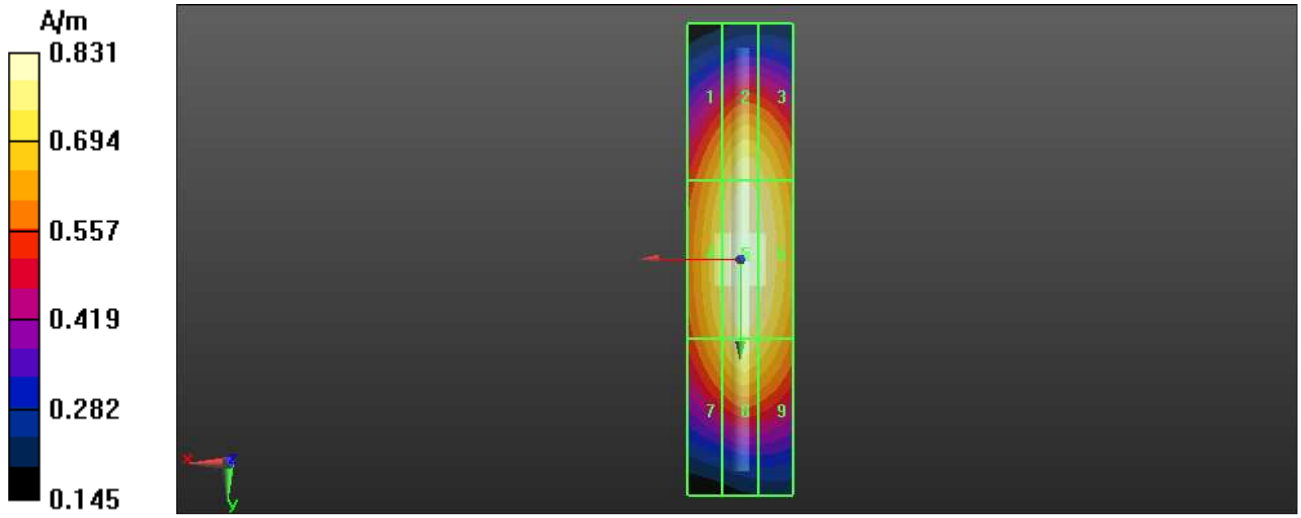
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 0.831 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.882 A/m; Power Drift = -0.03 dB
Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.703 M1**	Grid 2 **0.787 M1**	Grid 3 **0.764 M1**
Grid 4 **0.760 M1**	Grid 5 **0.831 M1**	Grid 6 **0.807 M1**
Grid 7 **0.705 M1**	Grid 8 **0.775 M1**	Grid 9 **0.744 M1**


A/m
0.831
0.694
0.557
0.419
0.282
0.145
1
2
3
7
8
9

Date/Time: 2011/2/22 17:53:02

E-WD-GSM850-Ch190

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: GSM 850 ; Frequency: 836.6 MHz; Duty Cycle: 1:8.30042; Modulation type: GMSK
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

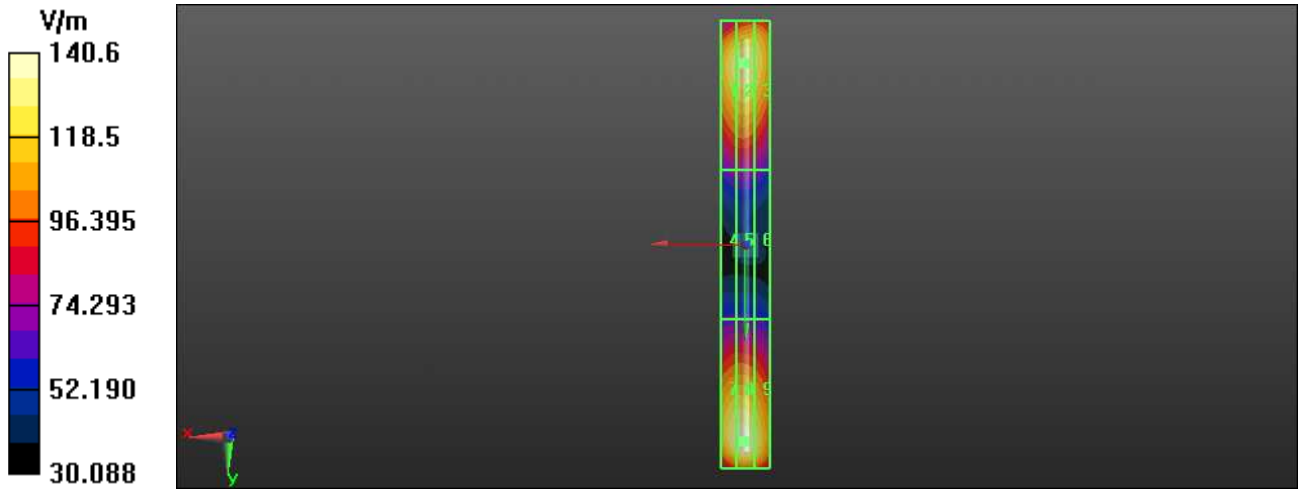
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 140.6 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 91.638 V/m; Power Drift = 0.07 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **131.4 M4**	Grid 2 **133.9 M4**	Grid 3 **129.4 M4**
Grid 4 **72.572 M4**	Grid 5 **73.996 M4**	Grid 6 **70.778 M4**
Grid 7 **137.5 M4**	Grid 8 **140.6 M4**	Grid 9 **133.6 M4**


V/m
140.6
118.5
96.395
74.293
52.190
30.088

Date/Time: 2011/2/22 18:36:09

E-CW-836.6 MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

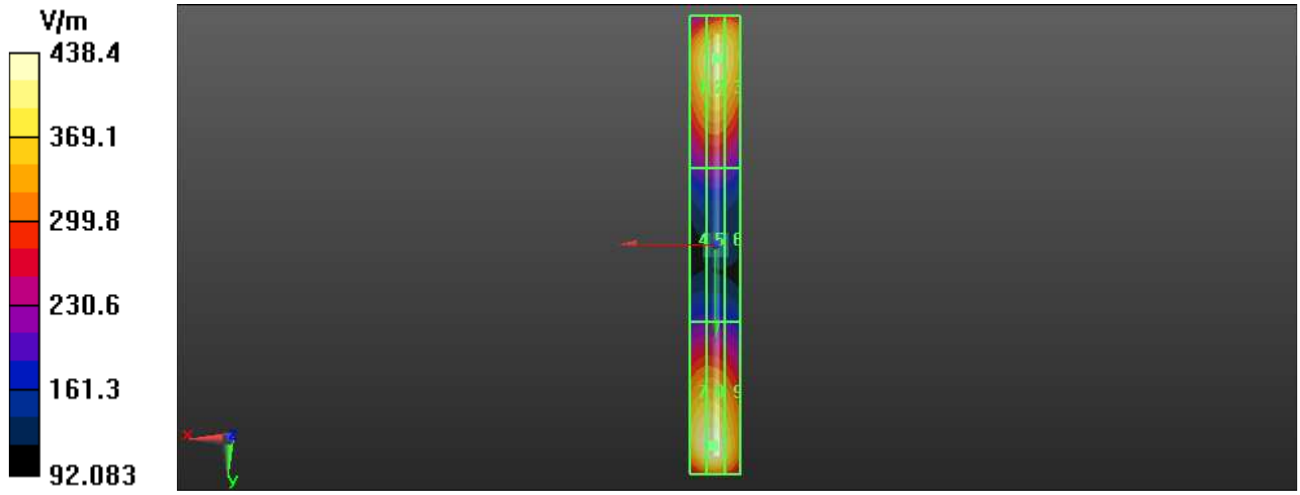
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 438.4 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 284.3 V/m; Power Drift = 0.006 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **402.1 M2**	Grid 2 **413.8 M2**	Grid 3 **405.9 M2**
Grid 4 **224.0 M3**	Grid 5 **228.9 M3**	Grid 6 **221.3 M3**
Grid 7 **432.3 M2**	Grid 8 **438.4 M2**	Grid 9 **409.0 M2**


V/m
438.4
369.1
299.8
230.6
161.3
92.083

Date/Time: 2011/2/22 18:44:39

E-AM-836.6 MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 836.6 MHz

Communication System: AM ; Frequency: 836.6 MHz; Duty Cycle: 1:1; Modulation type: AM
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

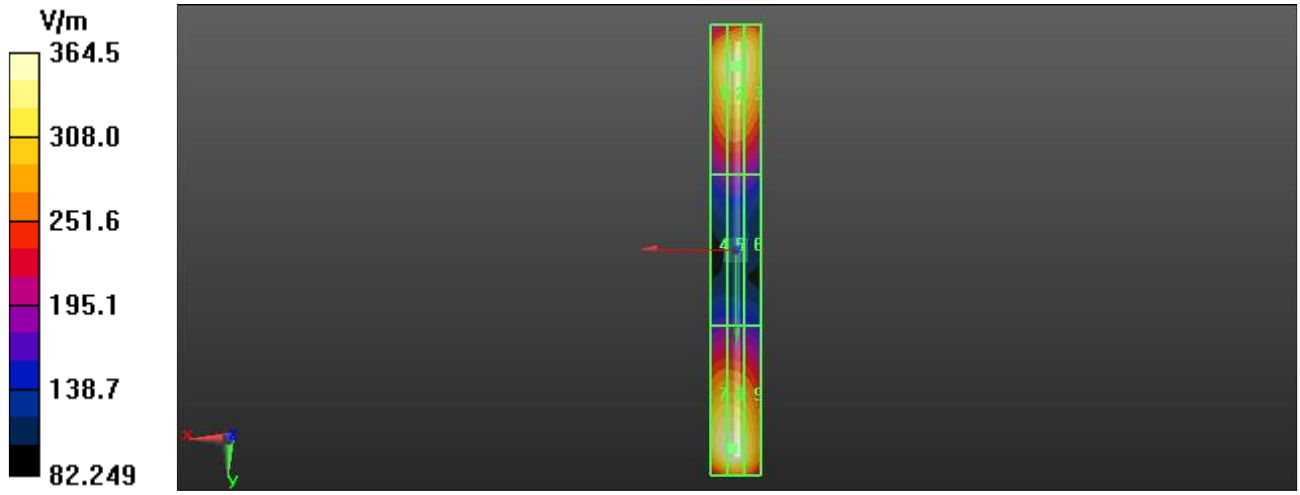
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 364.5 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 239.3 V/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **338.8 M3**	Grid 2 **346.3 M3**	Grid 3 **342.3 M3**
Grid 4 **192.9 M4**	Grid 5 **195.2 M4**	Grid 6 **190.9 M4**
Grid 7 **361.2 M2**	Grid 8 **364.5 M2**	Grid 9 **343.8 M3**


V/m
364.5
308.0
251.6
195.1
138.7
82.249

Date/Time: 2011/2/22 18:05:39

E-WD-PCS1900-Ch661

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: PCS 1900 ; Frequency: 1880 MHz; Duty Cycle: 1:8.30042; Modulation type: GMSK
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

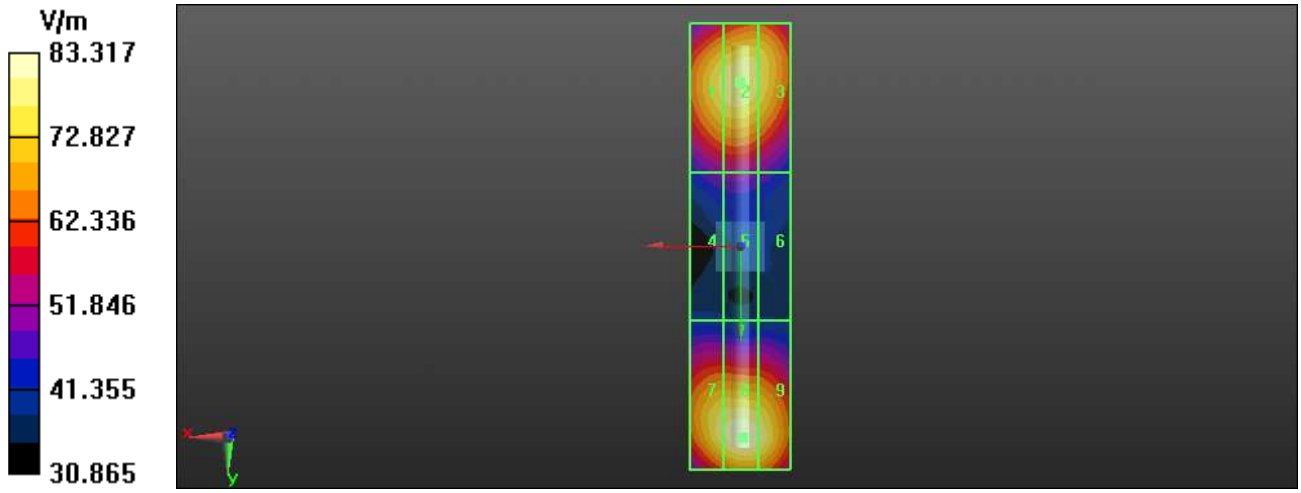
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 83.317 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 94.449 V/m; Power Drift = 0.0033 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 **77.789 M3**	Grid 2 **79.662 M3**	Grid 3 **77.232 M3**
Grid 4 **50.676 M3**	Grid 5 **52.022 M3**	Grid 6 **49.465 M3**
Grid 7 **79.406 M3**	Grid 8 **83.317 M3**	Grid 9 **80.800 M3**


V/m
83.317
72.827
62.336
51.846
41.355
30.865
1
2
3
4
5
6
7
8
9

Date/Time: 2011/2/22 18:23:23

E-CW-1880 MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: CW ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

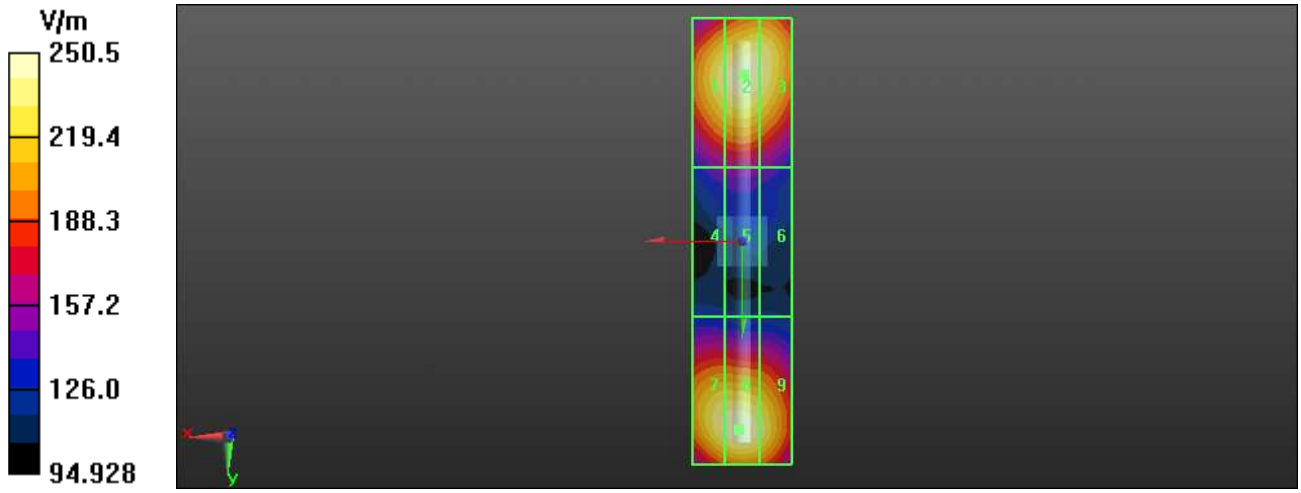
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 250.5 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 282.9 V/m; Power Drift = -0.09 dB
Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **239.1 M1**	Grid 2 **247.8 M1**	Grid 3 **243.4 M1**
Grid 4 **154.3 M2**	Grid 5 **159.2 M2**	Grid 6 **152.6 M2**
Grid 7 **243.4 M1**	Grid 8 **250.5 M1**	Grid 9 **238.5 M1**


V/m
250.5
219.4
188.3
157.2
126.0
94.928

Date/Time: 2011/2/22 18:28:39

E-AM-1880 MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: AM ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: AM
Medium: Air;Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 1000 kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

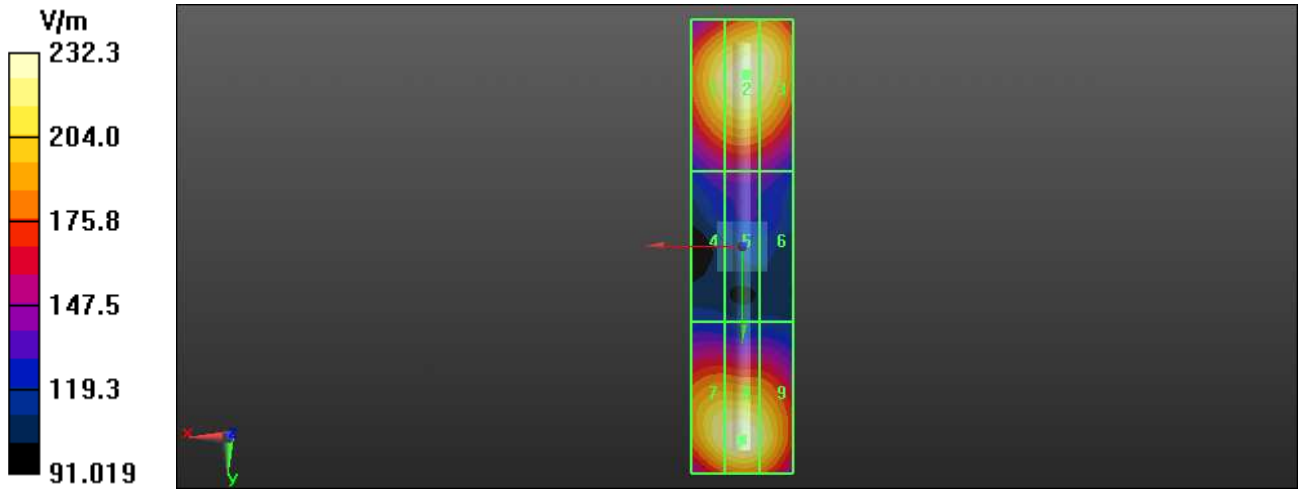
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 232.3 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 261.6 V/m; Power Drift = -0.04 dB
Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **222.2 M1**	Grid 2 **229.9 M1**	Grid 3 **227.7 M1**
Grid 4 **145.2 M2**	Grid 5 **149.1 M2**	Grid 6 **144.2 M2**
Grid 7 **225.7 M1**	Grid 8 **232.3 M1**	Grid 9 **222.4 M1**


V/m
232.3
204.0
175.8
147.5
119.3
91.019
2
3
4
5
6
7
9

Date/Time: 2011/2/22 11:24:13

H-System Performance Check-835MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 835 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

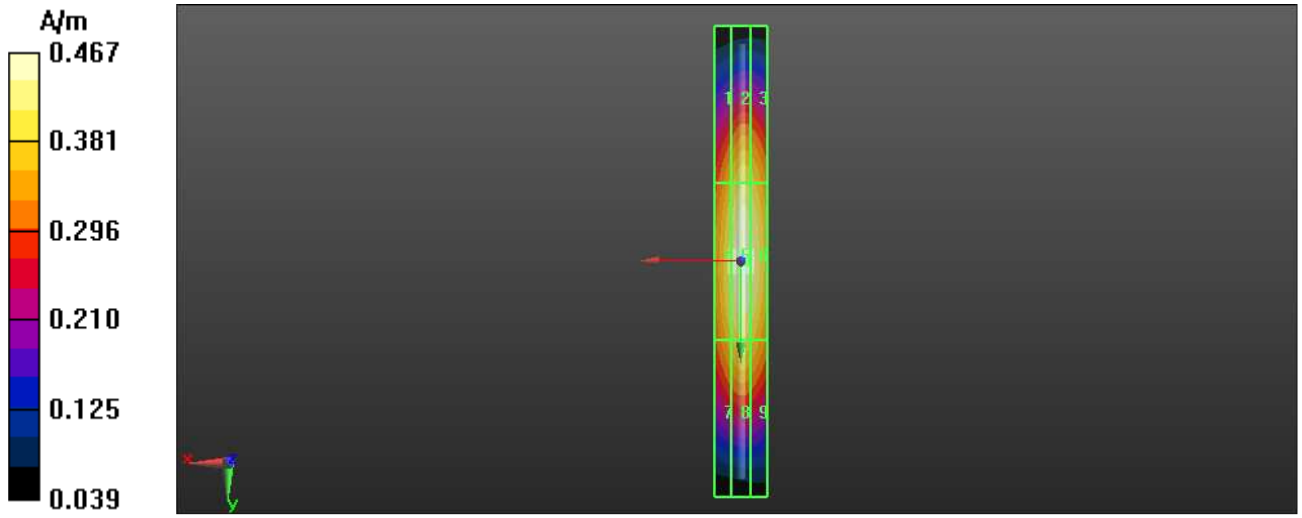
- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 0.467 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.409 A/m; Power Drift = -0.17 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.373 M4**	Grid 2 **0.412 M4**	Grid 3 **0.401 M4**
Grid 4 **0.431 M4**	Grid 5 **0.467 M4**	Grid 6 **0.453 M4**
Grid 7 **0.380 M4**	Grid 8 **0.408 M4**	Grid 9 **0.393 M4**


A/m
0.467
0.381
0.296
0.210
0.125
0.039

Date/Time: 2011/2/22 11:03:26

H-System Performance Check-1880MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: CW ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

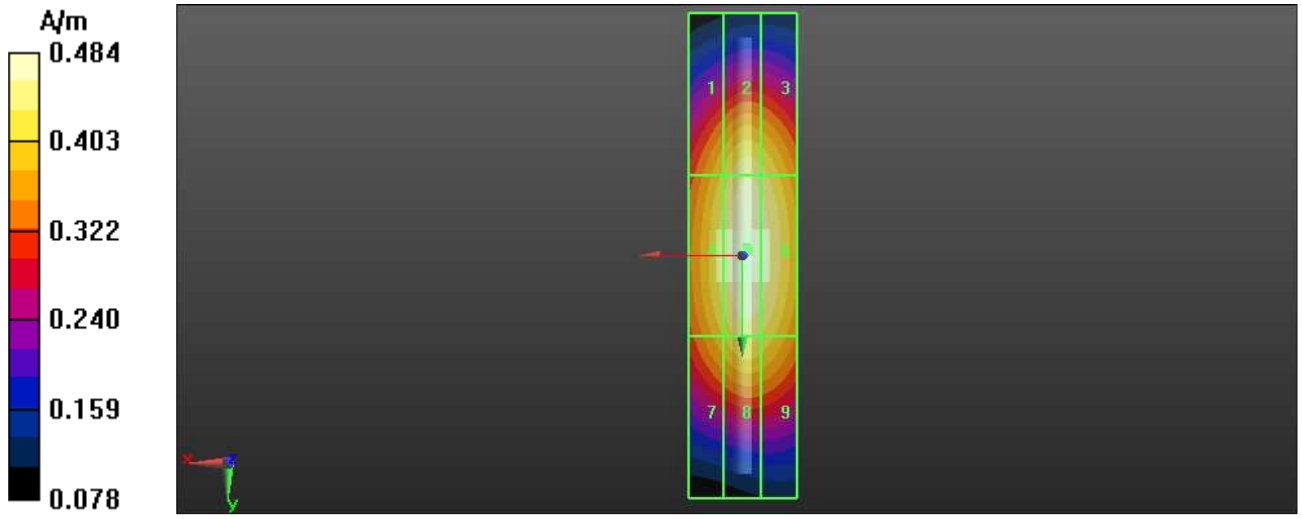
DASY5 Configuration:

- Probe: H3DV6 - SN6124; ; Calibrated: 2011/1/14
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole H-Field meausrement with H3DV6 probe/H Scan - 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 = 0.484 A/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.515 A/m; Power Drift = -0.04 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.411 M2**	Grid 2 **0.453 M2**	Grid 3 **0.440 M2**
Grid 4 **0.446 M2**	Grid 5 **0.484 M2**	Grid 6 **0.471 M2**
Grid 7 **0.404 M2**	Grid 8 **0.439 M2**	Grid 9 **0.426 M2**


A/m
0.484
0.403
0.322
0.240
0.159
0.078
1
2
3
7
8
9

Date/Time: 2011/2/22 16:50:49

E-System Performance Check-835MHz

DUT: HAC-Dipole 835 MHz ; Type: CD835V3 ; Serial: 1041 ; Test Frequency: 835 MHz

Communication System: CW ; Frequency: 835 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

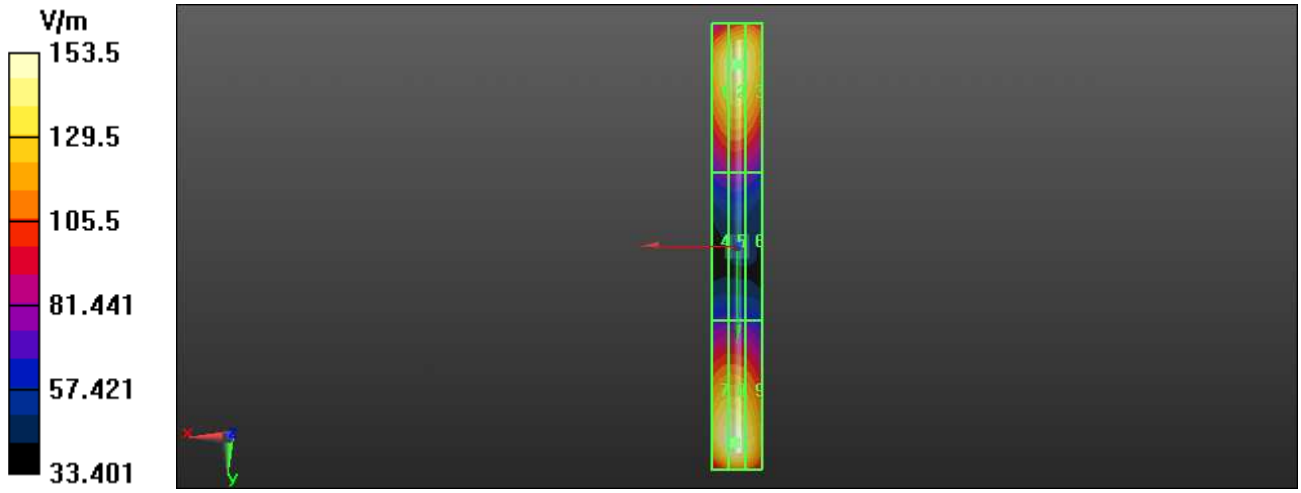
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 153.5 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 101.0 V/m; Power Drift = -0.09 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **143.7 M4**	Grid 2 **147.1 M4**	Grid 3 **143.5 M4**
Grid 4 **79.807 M4**	Grid 5 **81.355 M4**	Grid 6 **78.227 M4**
Grid 7 **151.3 M4**	Grid 8 **153.5 M4**	Grid 9 **145.3 M4**


V/m
153.5
129.5
105.5
81.441
57.421
33.401

Date/Time: 2011/2/22 17:03:25

E-System Performance Check-1880MHz

DUT: HAC Dipole 1880 MHz ; Type: CD1880V3 ; Serial: 1032 ; Test Frequency: 1880 MHz

Communication System: CW ; Frequency: 1880 MHz; Duty Cycle: 1:1; Modulation type: CW
Medium: Air;Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: RF Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007);

DASY5 Configuration:

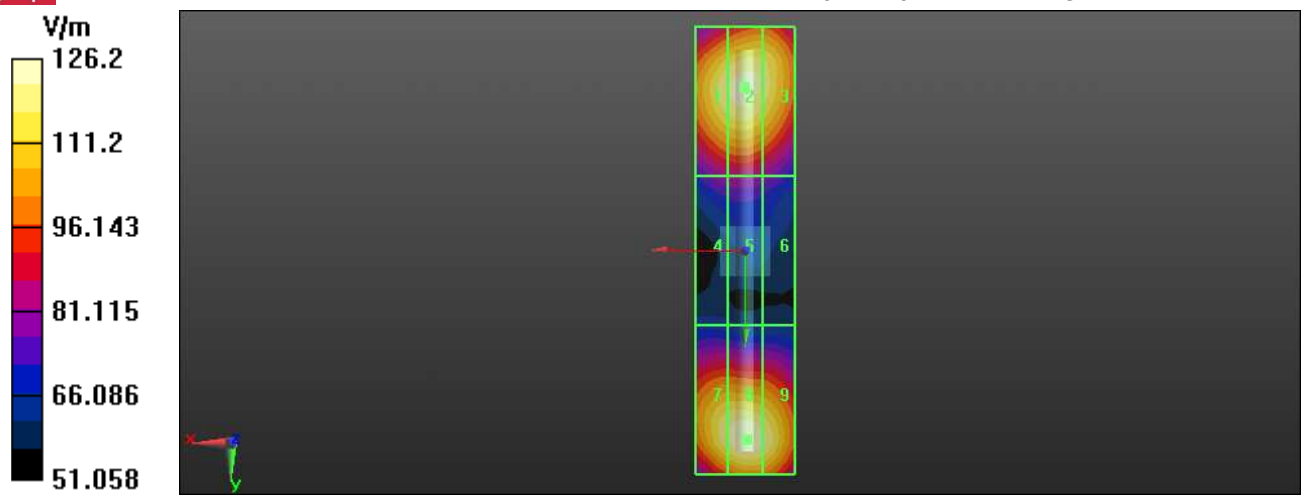
- Probe: ER3DV6 - SN2293; ConvF(1, 1, 1); Calibrated: 2011/1/24
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn510; Calibrated: 2010/10/4
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.6 (1); SEMCAD X Version 14.4.2 (2595)

Dipole E-Field measurement/E Scan - 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 = 126.2 V/m
Probe Modulation Factor = 1.000
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 142.7 V/m; Power Drift = -0.05 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **121.1 M2**	Grid 2 **123.8 M2**	Grid 3 **120.3 M2**
Grid 4 **81.725 M3**	Grid 5 **83.458 M3**	Grid 6 **79.661 M3**
Grid 7 **121.3 M2**	Grid 8 **126.2 M2**	Grid 9 **123.0 M2**


V/m
126.2
111.2
96.143
81.115
66.086
51.058