HAC RF TEST REPORT

No. 2012EEE02069-1

For

Teleepoch Limited

Mobile phone

C5620/FLIP/MXC-628

With

Hardware Version: C5620-Main_V1.0

Software Version: C5620_01.01.08I

FCC ID: U46-C5620

Results Summary: M Category = M4

Issued Date: 2012-04-06

No. **DGA-PL-114/01-02**

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

Test Laboratory:

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TABLE OF CONTENT

1 Test Laboratory

1.1 Testing Location

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Telephone:	+86-10-62304633
Fax:	+86-10-62304793

1.2 Testing Environment

Temperature:	18°C~25 °C,
Relative humidity:	30%~ 70%
Ground system resistance:	< 0.5 Ω

Ambient noise is checked and found very low and in compliance with requirement of standards.
Reflection of surrounding objects is minimized and in compliance with requirement of standards.

1.3 Project Data

Project Leader:	Qi Dianyuan
Test Engineer:	Lin Hao
Testing Start Date:	March 31 , 2012
Testing End Date:	March 31 , 2012

1.4 Signature

Lin Hao

(Prepared this test report)

Qi Dianyuan

(Reviewed this test report)

Xiao Li

Deputy Director of the laboratory

(Approved this test report)

2 Client Information

2.1 Applicant Information

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City:	Shenzhen
Postal Code:	518000
Country:	China
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2.2 Manufacturer Information

Company Name:	Teleepoch Limited
Address /Post:	5A,B1 Building, Digital Tech Zone, High-Tech Park(south), Nanshan district, Shenzhen, Guangdong Province, China
City:	Shenzhen
Postal Code:	518000
Country:	China
Telephone:	+86-755-26037146
Fax:	/

3 Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1 About EUT

EUT Description:	CDMA 1X mobile phone
Model Name:	C5620/FLIP/MXC-628
Marketing Name:	C5620/FLIP/MXC-628
Frequency Band:	CDMA Band class 0, CDMA Band class 1, CDMA Band class 14

Attention: Teleepoch Limited declares that Mobile phone C5620/FLIP/MXC-628 applied FCC-certified are the same, the only difference among Above-mentioned products is the appearance of the trademark and model name. The model of EUT tested is C5620.


Fig. 1: Constituents of the sample _ C5620 (Lithium Battery is in the Handset)

3.2 Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	A1000009AF7CE89	C5620-Main_V1.0	C5620_01.01.08I

*EUT ID: is used to identify the test sample in the lab internally.

3.3 Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	BTR2080B	/	TELEEPOCH

*AE ID: is used to identify the test sample in the lab internally

4 CONDUCTED OUTPUT POWER MEASUREMENT

4.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMU-200) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured output power should be greater and within 5% than EMI measurement.

4.2 Conducted Power

CDMA BC0	**Conducted Power (dBm)**		
	Channel 777(848.31MHz)	**Channel 384(836.52MHz)**	**Channel 1013(824.7MHz)**
	24.2	24.3	24.1
CDMA BC1	**Conducted Power (dBm)**		
	Channel1175(1908.75MHz)	**Channel 600(1880MHz)**	**Channel 25(1851.25MHz)**
	23.4	23.6	23.8
CDMA BC14	**Conducted Power (dBm)**		
	Channel1275(1913.75MHz)	**Channel 650(1882.5MHz)**	**Channel 25(1851.25MHz)**
	23.4	23.6	23.7

5. Reference Documents

5.1Reference Documents for testing

The following document listed in this section is referred for testing.

Reference	Title	Version
ANSI C63.19-2007	American National Standard for Methods of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids	2007 Edition

6 OPERATIONAL CONDITIONS DURING TEST

6.1 HAC MEASUREMENT SET-UP

These measurements are performed using the DASY5 NEO automated dosimetric assessment system. It is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland. It consists of high precision robotics system (Stäubli), robot controller, Intel Core2 computer, near-field probe, probe alignment sensor. The robot is a six-axis industrial robot performing precise movements. A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The PC consists of the HP Intel Core2 1.86 GHz computer with Windows XP system and HAC Measurement Software DASY5 NEO, A/D interface card, monitor, mouse, and keyboard. The Stäubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card.

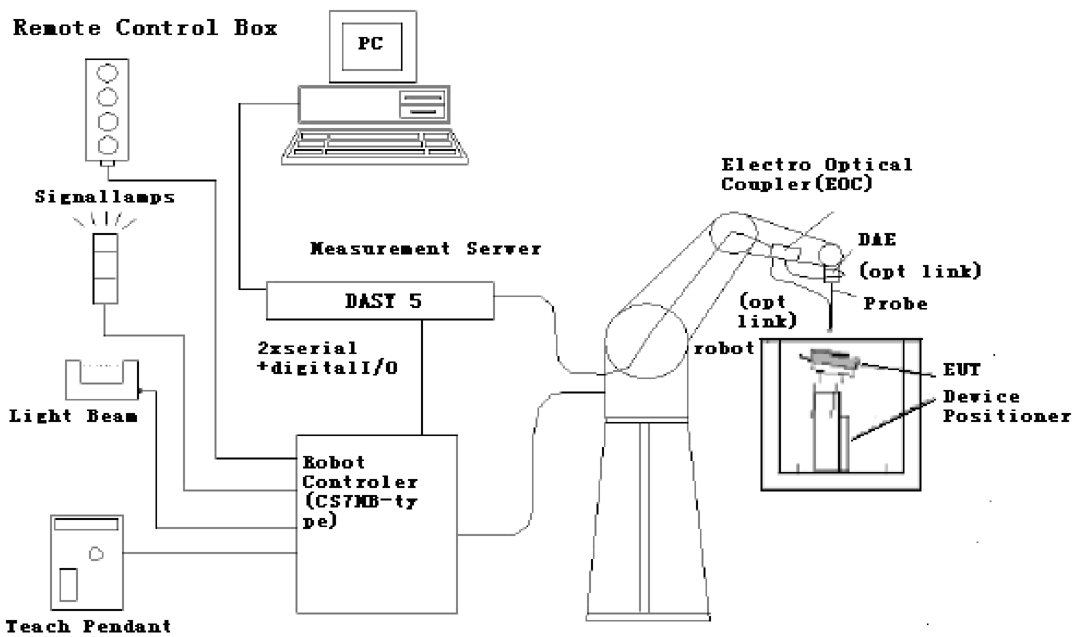


Fig.2 HAC Test Measurement Set-up

The DAE4 consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.

6.2 Probe Specification

6.2.1 E-Field Probe Description

[ER3DV6]

Construction	One dipole parallel, two dipoles normal to probe axis Built-in shielding against static charges PEEK enclosure material
Calibration	In air from 100 MHz to 3.0 GHz (absolute accuracy ±6.0%, k=2)
Frequency	40 MHz to > 6 GHz (can be extended to < 20 MHz) Linearity: ± 0.2 dB (100 MHz to 3 GHz)
Directivity	± 0.2 dB in air (rotation around probe axis) ± 0.4 dB in air (rotation normal to probe axis)
Dynamic Range	2 V/m to > 1000 V/m; Linearity: ± 0.2 dB
Dimensions	Overall length: 330 mm (Tip: 16 mm) Tip diameter: 8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.5 mm
Application	General near-field measurements up to 6 GHz Field component measurements Fast automatic scanning in phantoms

6.2.2 H-Field Probe Description

[H3DV6]

Construction	Three concentric loop sensors with 3.8 mm loop diameters Resistively loaded detector diodes for linear response Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Frequency	200 MHz to 3 GHz (absolute accuracy ± 6.0%, k=2); Output linearized
Directivity	± 0.2 dB (spherical isotropy error)
Dynamic Range	10 mA/m to 2 A/m at 1 GHz
E-Field Interference	< 10% at 3 GHz (for plane wave)

Dimensions	Overall length: 330 mm (Tip: 40 mm) Tip diameter: 6 mm (Body: 12 mm) Distance from probe tip to dipole centers: 3 mm
Application	General magnetic near-field measurements up to 3 GHz (in air or liquids) Field component measurements Surface current measurements Low interaction with the measured field

6.3 Test Arch Phantom & Phone Positioner

The Test Arch phantom should be positioned horizontally on a stable surface. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. It enables easy and well defined positioning of the phone and validation dipoles as well as simple teaching of the robot (Dimensions: 370 x 370 x 370 mm).

The Phone Positioner supports accurate and reliable positioning of any phone with effect on near field <±0.5 dB.

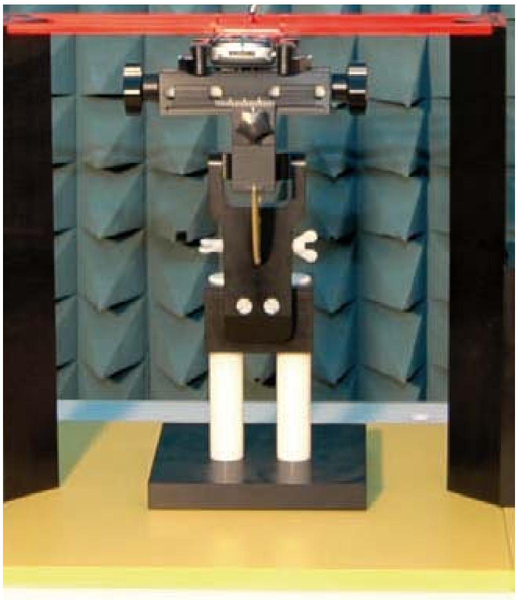


Fig. 3 HAC Phantom & Device Holder

6.4 Robotic System Specifications

Specifications

Positioner: Stäubli Unimation Corp. Robot Model: RX160L

Repeatability: ±0.02 mm

No. of Axis: 6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor: Intel Core2

Clock Speed: 1.86 GHz
Operating System: Windows XP
Data Converter
Features: Signal Amplifier, multiplexer, A/D converter, and control logic
Software: DASY5 software
Connecting Lines: Optical downlink for data and status info.
Optical uplink for commands and clock

7 EUT ARRANGEMENT

7.1 WD RF Emission Measurements Reference and Plane

Figure 4 illustrates the references and reference plane that shall be used in the WD emissions measurement.

• The grid is 5 cm by 5 cm area that is divided into 9 evenly sized blocks or sub-grids.
• The grid is centered on the audio frequency output transducer of the WD (speaker or T-coil).
• The grid is located by reference to a reference plane. This reference plane is the planar area that contains the highest point in the area of the WD that normally rests against the user's ear
• The measurement plane is located parallel to the reference plane and 15 mm from it, out from the phone. The grid is located in the measurement plane.

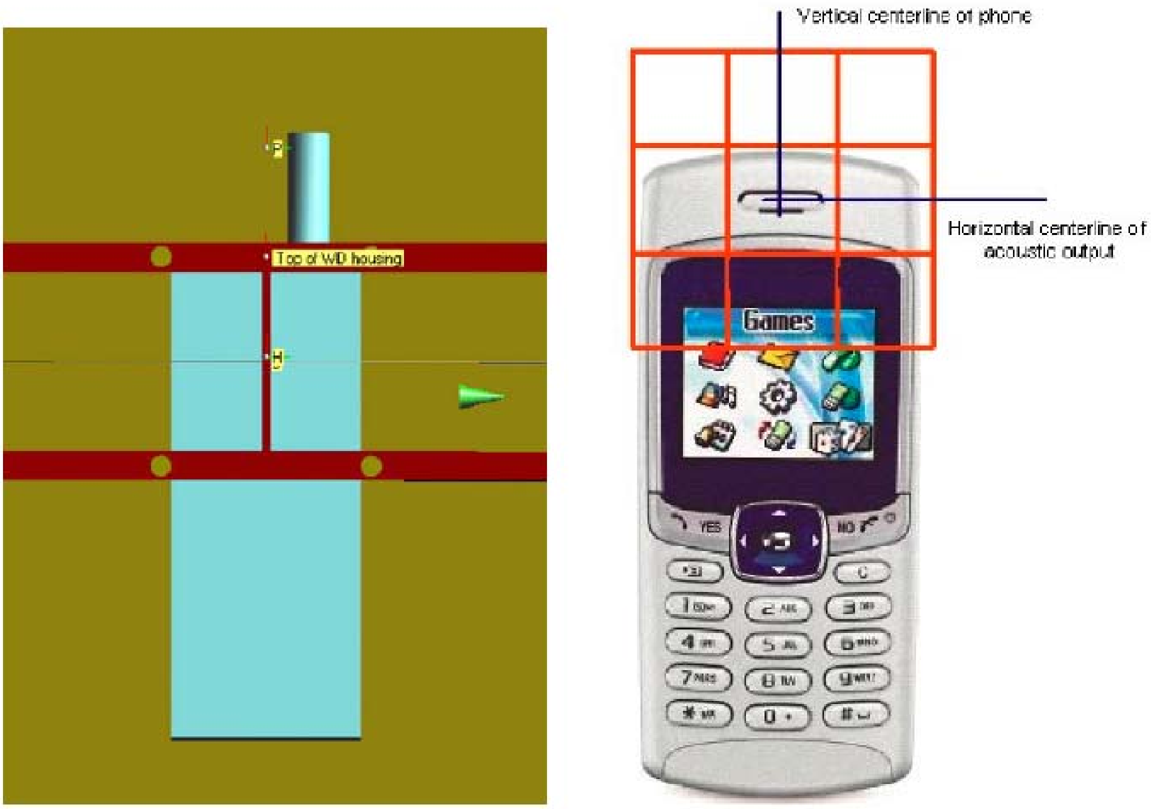


Fig. 4 WD reference and plane for RF emission measurements

8 SYSTEM VALIDATION

8.1 Validation Procedure

Place a dipole antenna meeting the requirements given in ANSI C63.19 D.5 in the position normally occupied by the WD. The dipole antenna serves as a known source for an electrical and magnetic output. Position the E-field and H-field probes so that:

• The probes and their cables are parallel to the coaxial feed of the dipole antenna

• The probe cables and the coaxial feed of the dipole antenna approach the measurement area from opposite directions

• The center point of the probe element(s) are 10 mm from the closest surface of the dipole elements.

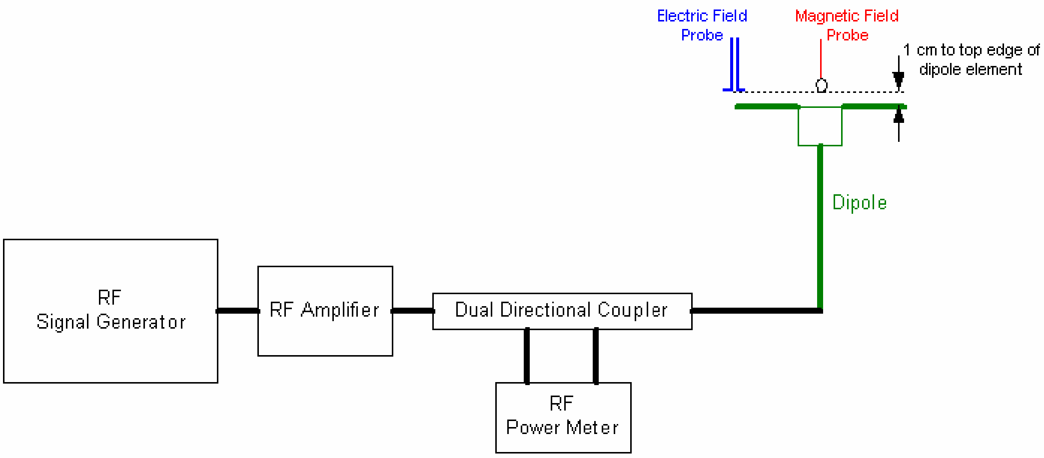


Fig. 5 Dipole Validation Setup

8.2 Validation Result

E-Field Scan						
Mode	**Frequency (MHz)**	**Input Power (mW)**	**Measured[1] Value(V/m)**	**Target[2] Value(V/m)**	**Deviation[3] (%)**	**Limit[4] (%)**
CW	835	100	169.5	163.9	+3.42%	±25
CW	1880	100	133.7	137.7	-2.90%	±25
H-Field Scan						
Mode	**Frequency (MHz)**	**Input Power (mW)**	**Measured Value(A/m)**	**Target Value(A/m)**	**Deviation (%)**	**Limit (%)**
CW	835	100	0.445	0.458	-2.84%	±25
CW	1880	100	0.456	0.463	-1.51%	±25

Notes:

1. Please refer to the attachment for detailed measurement data and plot.

2. Target value is provided by SPEAD in the calibration certificate of specific dipoles.

3. Deviation (%) = 100 * (Measured value minus Target value) divided by Target value.

4. ANSI C63.19 requires values within ± 25% are acceptable, of which 12% is deviation and 13% is measurement uncertainty. Values independently validated for the dipole actually used in the measurements should be used,

when available.

9 Probe Modulation Factor

The Probe Modulation Factor (PMF) is defined as the ratio of the field readings for a CW and a modulated signal with the equivalent Field Envelope Peak as defined in ANSI C63.19 (Chapter C.3.1).Calibration shall be made of the modulation response of the probe and its instrumentation chain. This Calibration shall be performed with the field probe, attached to the instrumentation that is to be used with it during the measurement. 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. The field level of the test signals shall 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 field shall be applied to the readings taken of modulated fields of the specified type.

9.1 Modulation Factor Test Procedure

This may be done using the following procedure:

1. Fix the field probe in a set location relative to a field generating device, such as the reference dipole antenna, as illustrated in Figure 6.
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 10 dB 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 ratio, in linear units, of the probe reading in Step 6) to the reading in Step 3) is the E-field modulation factor. $PMF_E = E_{CW} / E_{mod}$ ($PMF_H = H_{CW} / H_{mod}$)
8. Repeat the previous steps using the H-field probe, except locate the probe at the center of the dipole.

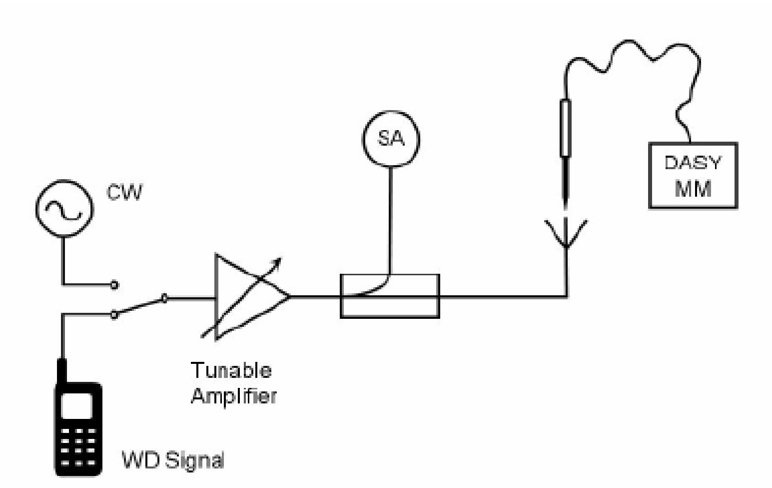


Fig. 6 Probe Modulation Factor Test Setup

9.2 Modulation Factor

9.2.1 E-Field

Frequency (MHz)	Mode	Input Power (mW)	E-Field Measured Value (V/m)	Probe Modulation Factor
835	**CW**	**100**	**163.9**	****
	CDMA	100	163.0	**1.00**
1880	**CW**	**100**	**137.7**	****
	CDMA	100	134.8	**1.00**

9.2.2 H-Field

Frequency (MHz)	Mode	Input Power (mW)	H-Field Measured Value (A/m)	Probe Modulation Factor
835	**CW**	**100**	**0.458**	****
	CDMA	100	0.449	**1.00**
1880	**CW**	**100**	**0.463**	****
	CDMA	100	0.431	**1.00**

10 RF TEST PROCEDUERES

The evaluation was performed with the following procedure:

1) Confirm proper operation of the field probe, probe measurement system and other instrumentation and the positioning system.

2) Position the WD in its intended test position. The gauge block can simplify this positioning. Note that a separate E-field and H-field gauge block will be needed if the center of the probe sensor elements are at different distances from the tip of the probe.

3) Configure the WD normal operation for maximum rated RF output power, at the desired channel and other operating parameters (e.g., test mode), as intended for the test.

4) The center sub-grid shall centered on the center of the T-Coil mode axial measurement point or the acoustic output, as appropriate. Locate the field probe at the initial test position in the 50 mm by 50 mm grid, which is contained in the measurement plane. If the field alignment method is used, align the probe for maximum field reception.

5) Record the reading.

6) Scan the entire 50 mm by 50 mm region in equally spaced increments and record the reading at each measurement point. The distance between measurement points shall be sufficient to assure the identification of the maximum reading.

7) Identify the five contiguous sub-grids around the center sub-grid with the lowest maximum field strength readings. Thus the six areas to be used to determine the WD's highest emissions are identified and outlined for the final manual scan. Please note that a maximum of five blocks can be excluded for both E-field and H-field measurements for the WD output being measured. Stated another way, the center sub-grid and three others must be common to both the E-field and H-field measurements.

8) Identify the maximum field reading within the non-excluded sub-grids identified in Step 7)

9) Convert the maximum field strength reading identified in Step 8) to V/m or A/m, as appropriate. For probes which require a probe modulation factor, this conversion shall be done using the

appropriate probe modulation factor and the calibration.

10) Repeat Step 1) through Step 10) for both the E-field and H-field measurements.

11) Compare this reading to the categories in ANSI C63.19 Clause 7 and record the resulting category. The lowest category number listed in 7.2, Table 7.4, or Table 7.5 obtained in Step 10) for either E- or H-field determines the M category for the audio coupling mode assessment. Record the WD category rating.

11 HAC RF TEST DATA SUMMARY

11.1 Measurement Results (E-Field)

Frequency		AWF	Measured Value (V/m)	Power Drift (dB)	Category
MHz	Channel				
CDMA Bandclass0					
848.31	777	0	25.83	0.13	**M4**(see Fig B.1)
836.52	384	0	19.22	0.05	**M4**(see Fig B.2)
824.7	1013	0	22.09	0.14	**M4**(see Fig B.3)
CDMA Bandclass1					
1908.75	1175	0	16.02	0.03	**M4**(see Fig B.4)
1880	600	0	18.80	-0.08	**M4**(see Fig B.5)
1851.25	25	0	19.92	0.04	**M4**(see Fig B.6)
CDMA Bandclass14					
1913.75	1275	0	16.18	-0.14	**M4**(see Fig B.7)
1882.5	650	0	19.18	-0.06	**M4**(see Fig B.8)
1851.25	25	0	20.11	0.05	**M4**(see Fig B.9)

11.2 Measurement Results (H-Field)

Frequency		AWF	Measured Value (A/m)	Power Drift (dB)	Category
MHz	Channel				
CDMA Bandclass0					
848.31	777	0	0.05	-0.13	**M4**(see Fig B.10)
836.52	384	0	0.03	0.20	**M4**(see Fig B.11)
824.7	1013	0	0.03	0.14	**M4**(see Fig B.12)
CDMA Bandclass1					
1908.75	1175	0	0.05	-0.05	**M4**(see Fig B.13)
1880	600	0	0.07	-0.03	**M4**(see Fig B.14)
1851.25	25	0	0.06	-0.08	**M4**(see Fig B.15)
CDMA Bandclass14					
1913.75	1275	0	0.05	0.01	**M4**(see Fig B.16)
1882.5	650	0	0.06	0.09	**M4**(see Fig B.17)
1851.25	25	0	0.06	0.03	**M4**(see Fig B.18)

11.3 Total M-rating

Mode	Maximum value of peak Total E-Field (V/m)	Maximum value of peak Total H-Field (A/m)	E-Field M Rating	H-Field M Rating	Total M Rating
CDMA BC0	25.83	0.05	M4 (AWF 0 dB)	M4 (AWF 0 dB)	**M4**(see Fig B.19)
CDMA BC1	19.92	0.07	M4 (AWF 0 dB)	M4 (AWF 0 dB)	**M4**(see Fig B.20)
CDMA BC14	20.11	0.06	M4 (AWF 0 dB)	M4 (AWF 0 dB)	**M4**(see Fig B.21)

12 ANSI C 63.19-2007 LIMITS

Table 1: Telephone near-field categories in linear units

Category		Telephone RF parameters < 960 MHz			
Near field	**AWF**	**E-field emissions**		**H-field emissions**	
Category M1/T1	0	631.0 to 1122.0	V/m	1.91 to 3.39	A/m
	–5	473.2 to 841.4	V/m	1.43 to 2.54	A/m
Category M2/T2	0	354.8 to 631.0	V/m	1.07 to 1.91	A/m
	–5	266.1 to 473.2	V/m	0.80 to 1.43	A/m
Category M3/T3	0	199.5 to 354.8	V/m	0.60 to 1.07	A/m
	–5	149.6 to 266.1	V/m	0.45 to 0.80	A/m
Category M4/T4	0	< 199.5	V/m	< 0.60	A/m
	–5	< 149.6	V/m	< 0.45	A/m
Category		**Telephone RF parameters > 960 MHz**			
Near field	**AWF**	**E-field emissions**		**H-field emissions**	
Category M1/T1	0	199.5 to 354.8	V/m	0.60 to 1.07	A/m
	–5	149.6 to 266.1	V/m	0.45 to 0.80	A/m
Category M2/T2	0	112.2 to 199.5	V/m	0.34 to 0.60	A/m
	–5	84.1 to 149.6	V/m	0.25 to 0.45	A/m
Category M3/T3	0	63.1 to 112.2	V/m	0.19 to 0.34	A/m
	–5	47.3 to 84.1	V/m	0.14 to 0.25	A/m
Category M4/T4	0	< 63.1	V/m	< 0.19	A/m
	–5	< 47.3	V/m	< 0.14	A/m

13 MEASUREMENT UNCERTAINTY

No.	Error source	Type	Uncertainty Value (%)	Prob. Dist.	k	c_i E	c_i H	Standard Uncertainty (%) u_i' (%) E	Standard Uncertainty (%) u_i' (%) H	Degree of freedom V_{eff} or v_i
Measurement System										
1	Probe Calibration	B	5.	N	1	1	1	5.1	5.1	∞
2	Axial Isotropy	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
3	Sensor Displacement	B	16.5	R	$\sqrt{3}$	1	0.145	9.5	1.4	∞
4	Boundary Effects	B	2.4	R	$\sqrt{3}$	1	1	1.4	1.4	∞
5	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
6	Scaling to Peak Envelope Power	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
7	System Detection Limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
8	Readout Electronics	B	0.3	N	1	1	1	0.3	0.3	∞
9	Response Time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
10	Integration Time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
11	RF Ambient Conditions	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
12	RF Reflections	B	12.0	R	$\sqrt{3}$	1	1	6.9	6.9	∞
13	Probe Positioner	B	1.2	R	$\sqrt{3}$	1	0.67	0.7	0.5	∞
14	Probe Positioning	A	4.7	R	$\sqrt{3}$	1	0.67	2.7	1.8	∞
15	Extra. And Interpolation	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test Sample Related										
16	Device Positioning Vertical	B	4.7	R	$\sqrt{3}$	1	0.67	2.7	1.8	∞
17	Device Positioning Lateral	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞

18	Device Holder and Phantom	B	2.4	R	$\sqrt{3}$	1	1	1.4	1.4	∞
19	Power Drift	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and Setup related										
20s	Phantom Thickness	B	2.4	R	$\sqrt{3}$	1	0.67	1.4	0.9	∞
Combined standard uncertainty(%)								14.7	10.9	
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$		N	k=2			29.4	21.8	

14 MAIN TEST INSTRUMENTS

Table 2: List of Main Instruments

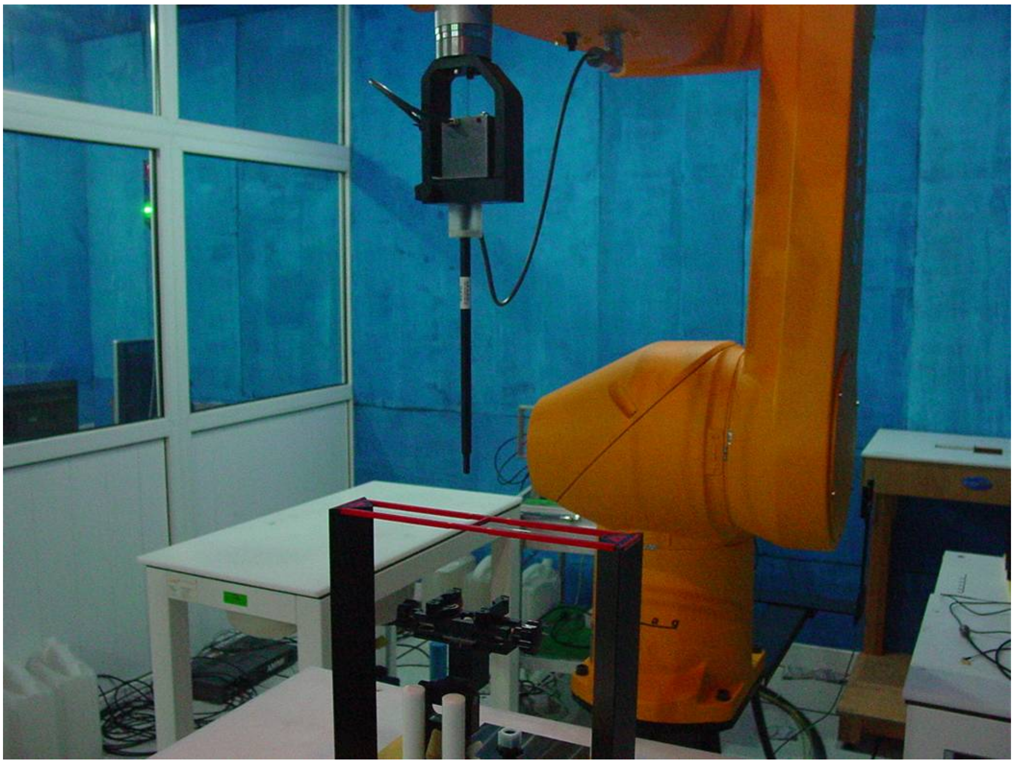
No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	E-Field Probe	ER3DV6	2424	December 31, 2011	One year
02	H-Field Probe	H3DV6	6264	December 31, 2011	One year
03	HAC Dipole	CD835V3	1023	October 20, 2011	Two years
04	HAC Dipole	CD1880V3	1018	October 20, 2011	Two years
05	BTS	CMU 200	114825	January 19, 2012	One year
06	DAE	SPEAG DAE4	786	November 21,2011	One year
07	HAC Test Arch	N/A	1150	NCR	NCR

15 CONCLUSION

The HAC measurement indicates that the EUT complies with the HAC limits of the ANSI C63.19-2007. The total M-ratings are **M4** for **CDMA Band Class 0/ Band Class 1/ Band Class 14.**

END OF REPORT BODY

ANNEX A TEST LAYOUT



Picture A1: HAC RF System Layout

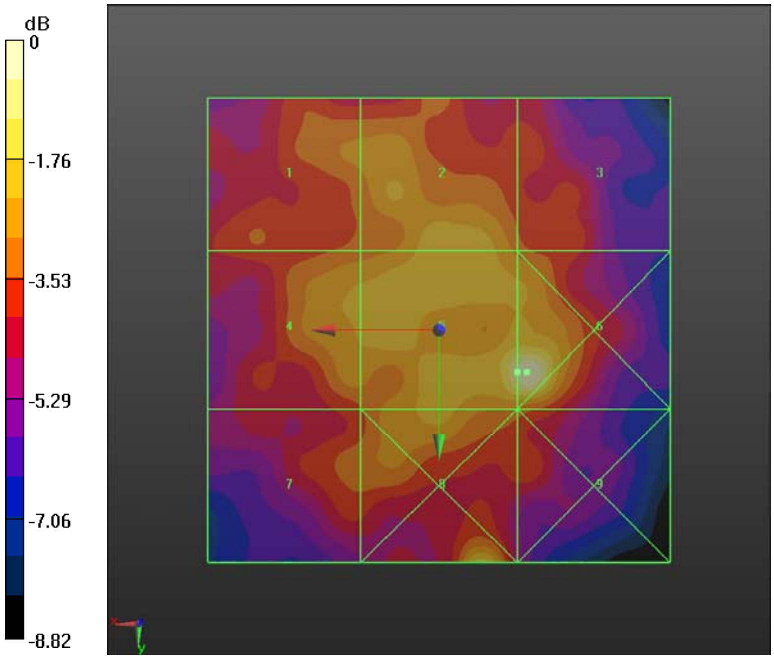
ANNEX B TEST PLOTS

HAC RF E-Field CDMA BC0 High

Date/Time: 3/31/2012 2:56:52 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 848.31 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe/E Scan - ER3D -CDMA BC0-High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 27.36 V/m; Power Drift = 0.13 dB
PMF = 1.000 is applied.
E-field emissions = 25.83 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **19.69 V/m**	Grid 2 **M4** **21.76 V/m**	Grid 3 **M4** **18.86 V/m**
Grid 4 **M4** **21.15 V/m**	Grid 5 **M4** **25.83 V/m**	Grid 6 **M4** **27.00 V/m**
Grid 7 **M4** **18.85 V/m**	Grid 8 **M4** **23.02 V/m**	Grid 9 **M4** **19.00 V/m**



0 dB = 27.000V/m = 28.63 dB V/m

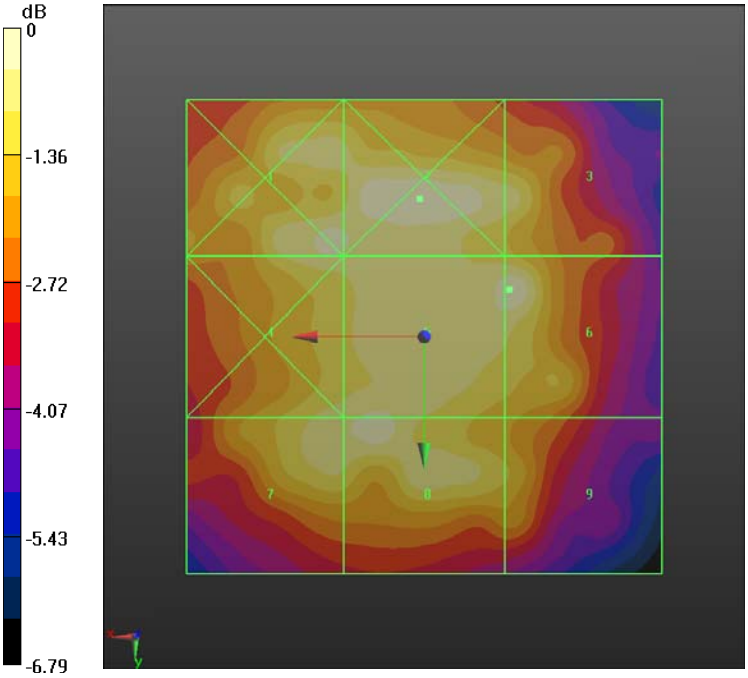
Fig B.1 HAC RF E-Field CDMA BC0 High

HAC RF E-Field CDMA BC0 Middle

Date/Time: 3/31/2012 2:42:54 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 836.52 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe/E Scan - ER3D -CDMA BC0-Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 25.11 V/m; Power Drift = 0.05 dB
PMF = 1.000 is applied.
E-field emissions = 19.22 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **18.89 V/m**	Grid 2 **M4** **19.43 V/m**	Grid 3 **M4** **18.00 V/m**
Grid 4 **M4** **18.49 V/m**	Grid 5 **M4** **19.06 V/m**	Grid 6 **M4** **19.22 V/m**
Grid 7 **M4** **18.34 V/m**	Grid 8 **M4** **18.98 V/m**	Grid 9 **M4** **16.76 V/m**



0 dB = 19.430V/m = 25.77 dB V/m

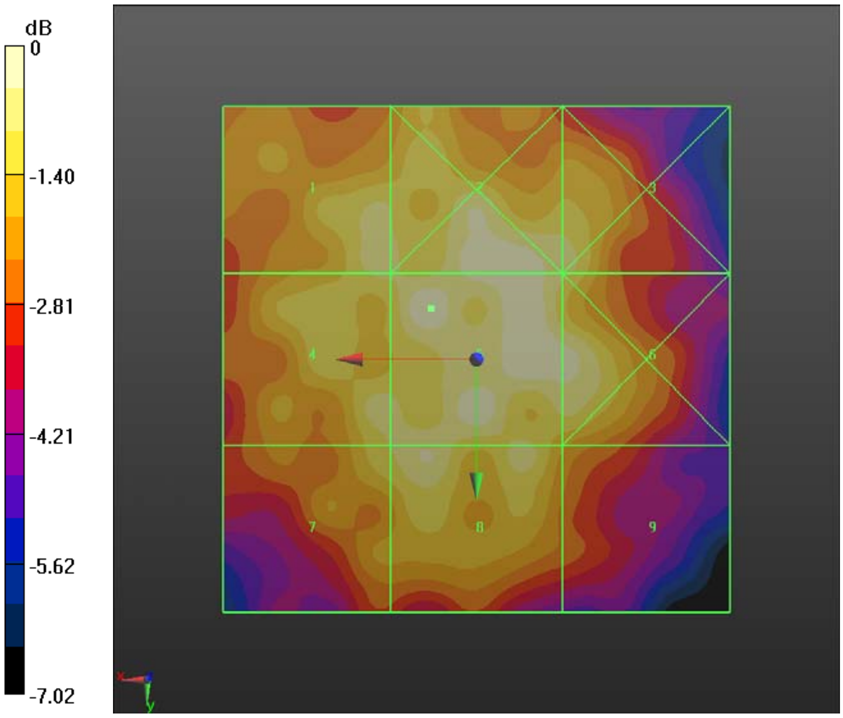
Fig B.2 HAC RF E-Field CDMA BC0 Middle

HAC RF E-Field CDMA BC0 Low

Date/Time: 3/31/2012 3:03:39 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 824.7 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe/E Scan - ER3D -CDMA BC0-Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 27.32 V/m; Power Drift = 0.14 dB
PMF = 1.000 is applied.
E-field emissions = 22.09 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **20.45 V/m**	Grid 2 **M4** **21.63 V/m**	Grid 3 **M4** **20.41 V/m**
Grid 4 **M4** **20.42 V/m**	Grid 5 **M4** **22.09 V/m**	Grid 6 **M4** **21.42 V/m**
Grid 7 **M4** **19.86 V/m**	Grid 8 **M4** **21.02 V/m**	Grid 9 **M4** **18.08 V/m**



0 dB = 22.090V/m = 26.88 dB V/m

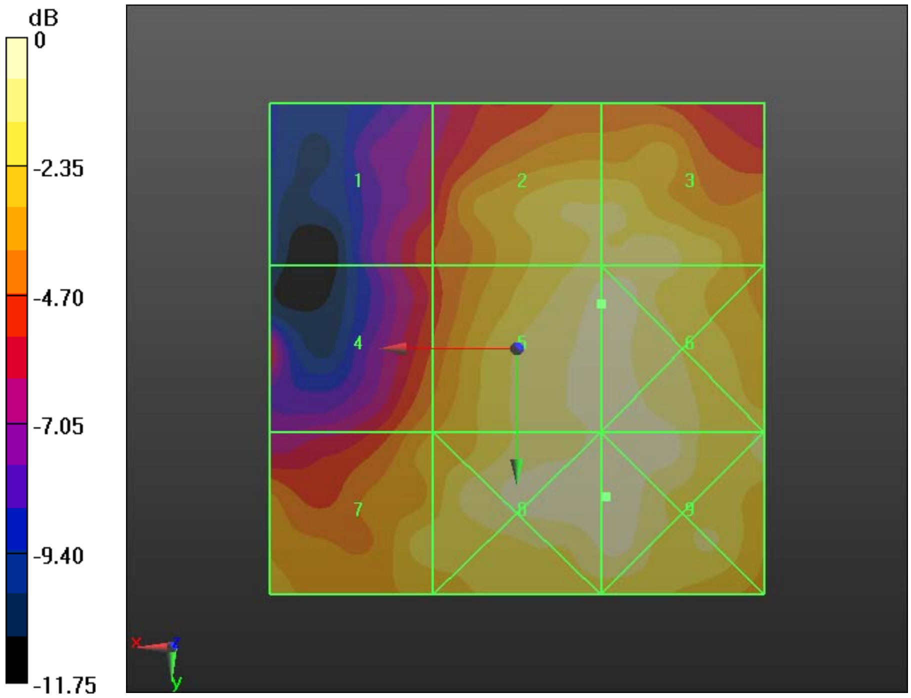
Fig B.3 HAC RF E-Field CDMA BC0 Low

HAC RF E-Field CDMA BC1 High

Date/Time: 3/31/2012 3:40:22 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1908.75 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe /E Scan - ER3D -CDMA BC1-High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 18.86 V/m; Power Drift = 0.03 dB
PMF = 1.000 is applied.
E-field emissions = 16.02 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **9.65 V/m**	Grid 2 **M4** **14.39 V/m**	Grid 3 **M4** **14.57 V/m**
Grid 4 **M4** **11.56 V/m**	Grid 5 **M4** **16.02 V/m**	Grid 6 **M4** **16.36 V/m**
Grid 7 **M4** **13.19 V/m**	Grid 8 **M4** **16.58 V/m**	Grid 9 **M4** **16.59 V/m**



0 dB = 16.590V/m = 24.40 dB V/m

Fig B.4 HAC RF E-Field CDMA BC1 High

HAC RF E-Field CDMA BC1 Middle

Date/Time: 3/31/2012 3:34:45 PM

Electronics: DAE4 Sn786

Medium: Air

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Communication System: CDMA Frequency: 1880 MHz Duty Cycle: 1:1

Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)

Device E-Field measurement with ER probe/E Scan - ER3D - CDMA BC1-Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 21.93 V/m; Power Drift = -0.08 dB

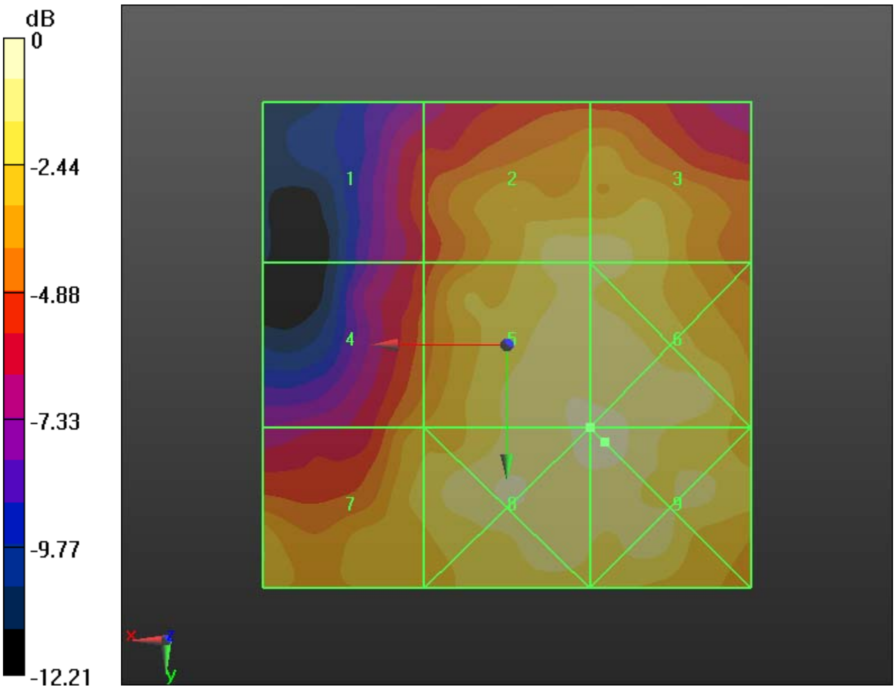
PMF = 1.000 is applied.

E-field emissions = 18.80 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **10.96 V/m**	Grid 2 **M4** **17.06 V/m**	Grid 3 **M4** **17.00 V/m**
Grid 4 **M4** **13.71 V/m**	Grid 5 **M4** **18.80 V/m**	Grid 6 **M4** **19.08 V/m**
Grid 7 **M4** **15.41 V/m**	Grid 8 **M4** **19.09 V/m**	Grid 9 **M4** **19.51 V/m**



0 dB = 19.510V/m = 25.81 dB V/m

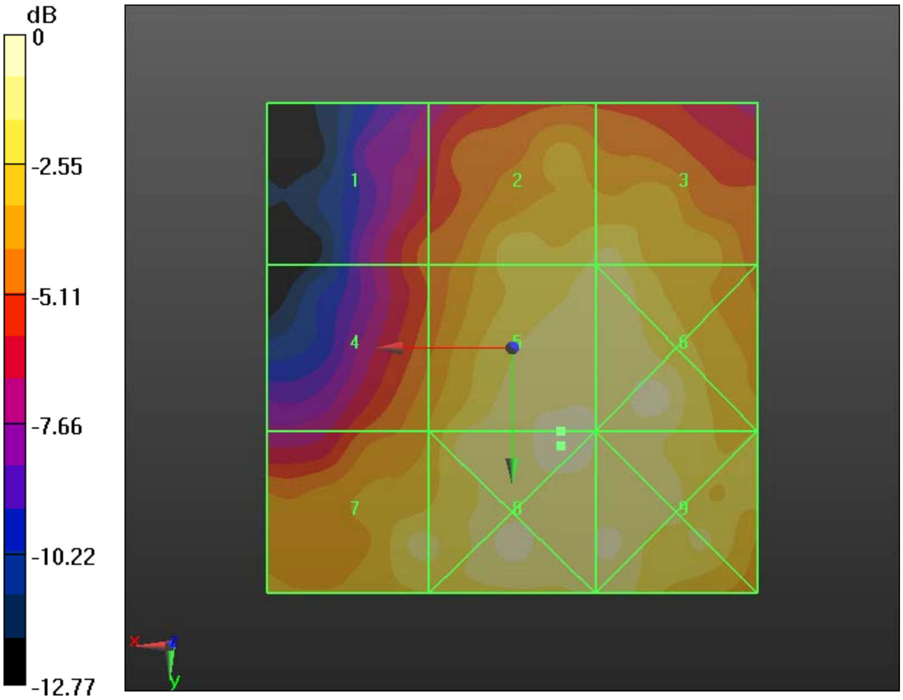
Fig B.5 HAC RF E-Field CDMA BC1 Middle

HAC RF E-Field CDMA BC1 Low

Date/Time: 3/31/2012 3:22:13 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe /E Scan - ER3D - CDMA BC1-Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 21.93 V/m; Power Drift = 0.04 dB
PMF = 1.000 is applied.
E-field emissions = 19.92 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **11.88 V/m**	Grid 2 **M4** **17.13 V/m**	Grid 3 **M4** **17.29 V/m**
Grid 4 **M4** **13.89 V/m**	Grid 5 **M4** **19.92 V/m**	Grid 6 **M4** **19.33 V/m**
Grid 7 **M4** **17.23 V/m**	Grid 8 **M4** **20.39 V/m**	Grid 9 **M4** **18.89 V/m**



0 dB = 20.390V/m = 26.19 dB V/m

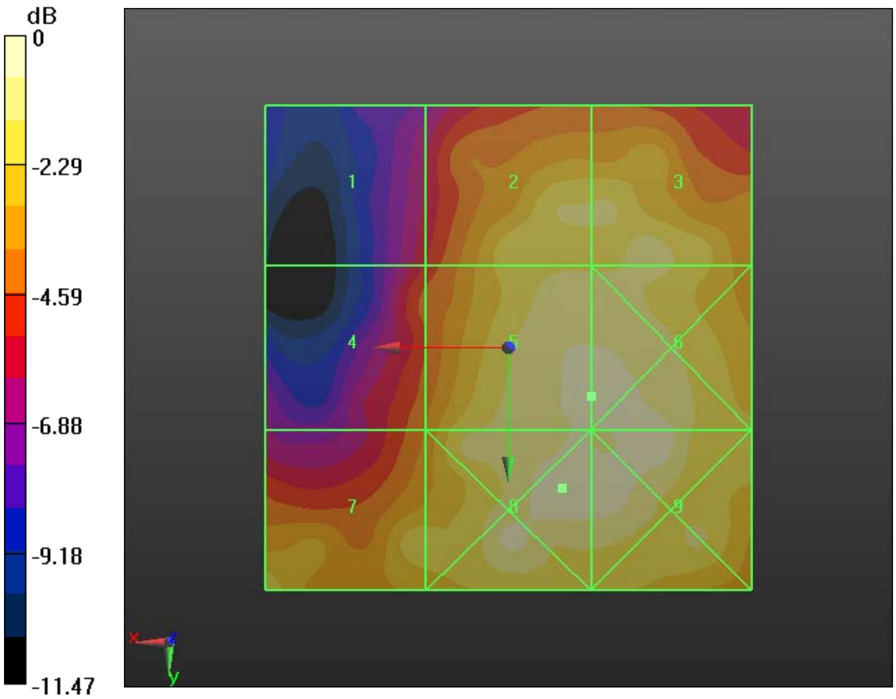
Fig B.6 HAC RF E-Field CDMA BC1 Low

HAC RF E-Field CDMA BC14 High

Date/Time: 3/31/2012 4:04:02 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1913.75 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe /E Scan - ER3D –CDMA BC14-High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 20.03 V/m; Power Drift = -0.14 dB
PMF = 1.000 is applied.
E-field emissions = 16.18 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **9.52 V/m**	Grid 2 **M4** **14.80 V/m**	Grid 3 **M4** **15.25 V/m**
Grid 4 **M4** **11.36 V/m**	Grid 5 **M4** **16.18 V/m**	Grid 6 **M4** **16.95 V/m**
Grid 7 **M4** **14.49 V/m**	Grid 8 **M4** **17.39 V/m**	Grid 9 **M4** **17.33 V/m**



0 dB = 17.390V/m = 24.81 dB V/m

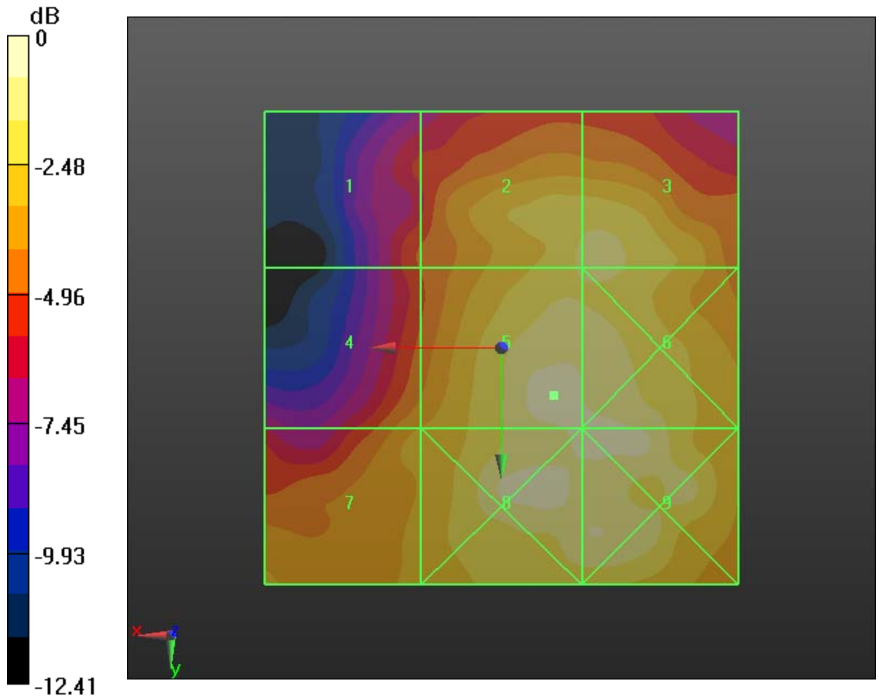
Fig B.7 HAC RF E-Field CDMA BC14 High

HAC RF E-Field CDMA BC14 Middle

Date/Time: 3/31/2012 3:49:18 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1882.5 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe/E Scan - ER3D –CDMA BC14-Middle/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 23.46 V/m; Power Drift = -0.06 dB
PMF = 1.000 is applied.
E-field emissions = 19.18 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **11.04 V/m**	Grid 2 **M4** **16.17 V/m**	Grid 3 **M4** **16.45 V/m**
Grid 4 **M4** **13.19 V/m**	Grid 5 **M4** **19.18 V/m**	Grid 6 **M4** **17.94 V/m**
Grid 7 **M4** **13.75 V/m**	Grid 8 **M4** **18.38 V/m**	Grid 9 **M4** **18.05 V/m**



0 dB = 19.180V/m = 25.66 dB V/m

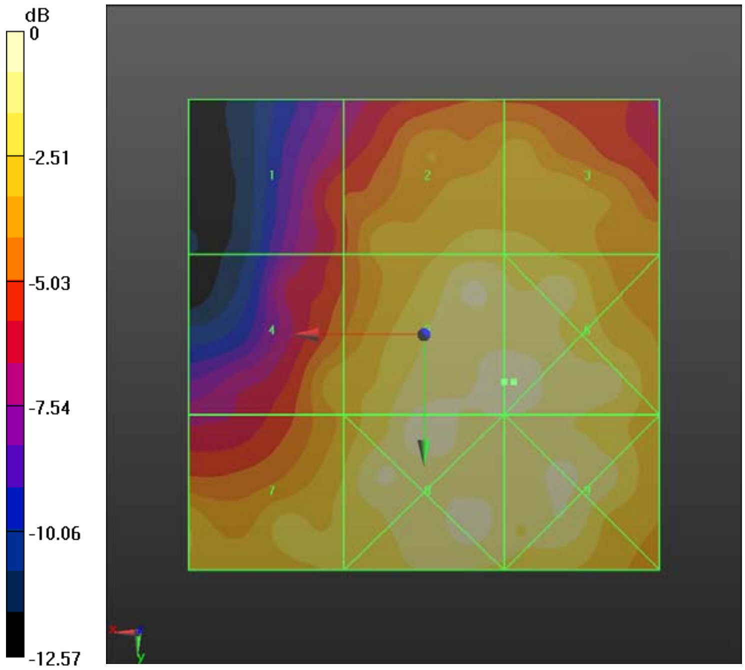
Fig B.8 HAC RF E-Field CDMA BC14 Middle

HAC RF E-Field CDMA BC14 Low
Date/Time: 3/31/2012 3:56:12 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)

Device E-Field measurement with ER probe /E Scan - ER3D –CDMA BC14-Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 22.48 V/m; Power Drift = 0.05 dB
PMF = 1.000 is applied.
E-field emissions = 20.11 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **11.53 V/m**	Grid 2 **M4** **16.40 V/m**	Grid 3 **M4** **16.17 V/m**
Grid 4 **M4** **15.16 V/m**	Grid 5 **M4** **20.11 V/m**	Grid 6 **M4** **20.45 V/m**
Grid 7 **M4** **15.84 V/m**	Grid 8 **M4** **20.03 V/m**	Grid 9 **M4** **19.05 V/m**



0 dB = 20.450V/m = 26.21 dB V/m

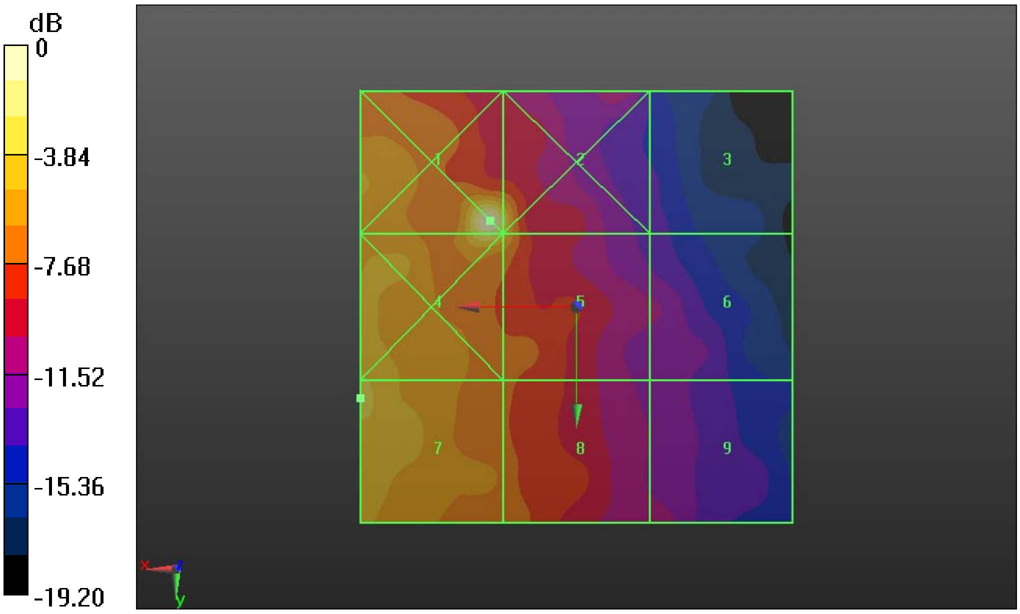
Fig B.6 HAC RF E-Field CDMA BC14 Low

HAC RF H-Field CDMA BC0 High

Date/Time: 3/31/2012 4:58:04 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 848.31 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC0_High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.03 V/m; Power Drift = -0.13 dB
PMF = 1.000 is applied.
H-field emissions = 0.05 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.07 A/m**	Grid 2 **M4** **0.05 A/m**	Grid 3 **M4** **0.02 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.05 A/m**	Grid 6 **M4** **0.02 A/m**
Grid 7 **M4** **0.05 A/m**	Grid 8 **M4** **0.03 A/m**	Grid 9 **M4** **0.02 A/m**



0 dB = 0.070A/m = -23.10 dB A/m

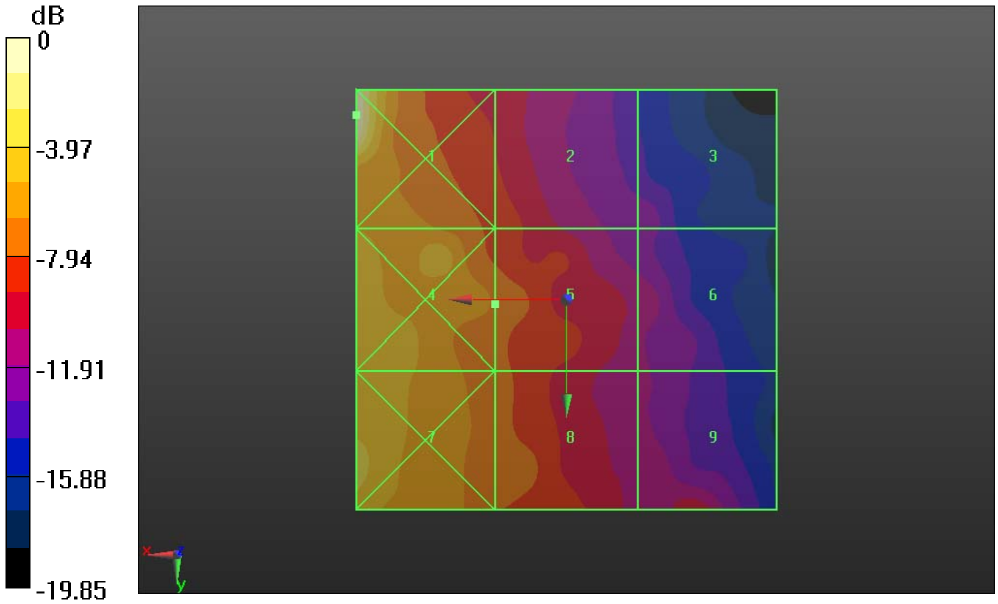
Fig B.10 HAC RF H-Field CDMA BC0 High

HAC RF H-Field CDMA BC0 Middle

Date/Time: 3/31/2012 5:03:42 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: σ = 0 mho/m, ε_r = 1; ρ = 0 kg/m^3
Communication System: CDMA Frequency: 836.52 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC0_Mid/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.02 V/m; Power Drift = 0.20 dB
PMF = 1.000 is applied.
H-field emissions = 0.03 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.06 A/m**	Grid 2 **M4** **0.02 A/m**	Grid 3 **M4** **0.01 A/m**
Grid 4 **M4** **0.04 A/m**	Grid 5 **M4** **0.03 A/m**	Grid 6 **M4** **0.02 A/m**
Grid 7 **M4** **0.04 A/m**	Grid 8 **M4** **0.03 A/m**	Grid 9 **M4** **0.02 A/m**



0 dB = 0.060A/m = -24.44 dB A/m

Fig B.11 HAC RF H-Field CDMA BC0 Middle

HAC RF H-Field CDMA BC0 Low

Date/Time: 3/31/2012 5:09:21 PM

Electronics: DAE4 Sn786

Medium: Air

Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Communication System: CDMA Frequency: 824.7 MHz Duty Cycle: 1:1

Probe: H3DV6 - SN6264

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC0_Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.02 V/m; Power Drift = 0.14 dB

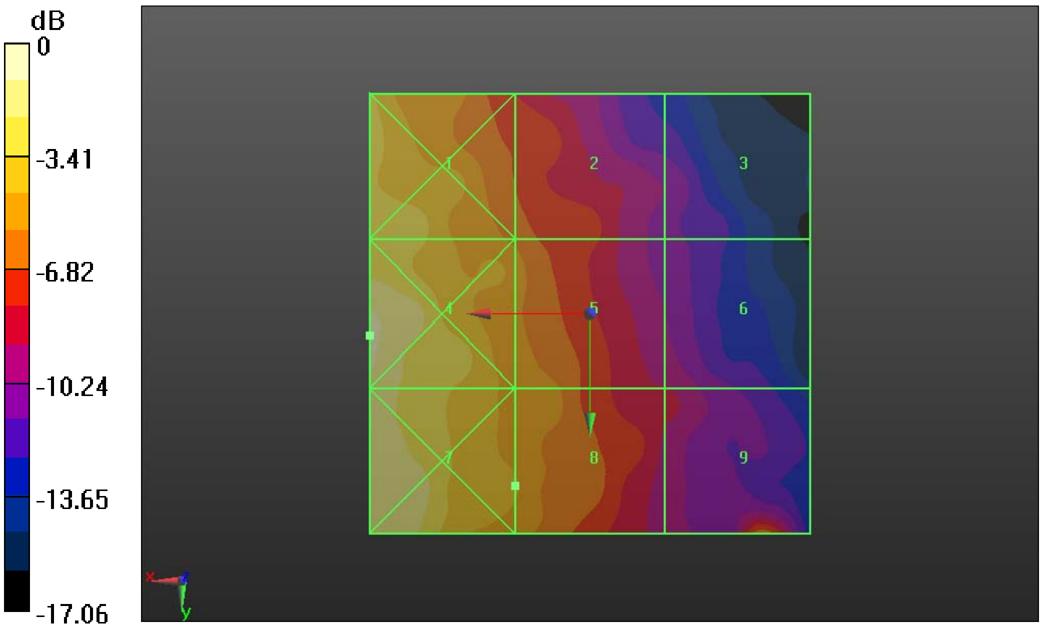
PMF = 1.000 is applied.

H-field emissions = 0.03 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.04 A/m**	Grid 2 **M4** **0.03 A/m**	Grid 3 **M4** **0.02 A/m**
Grid 4 **M4** **0.05 A/m**	Grid 5 **M4** **0.03 A/m**	Grid 6 **M4** **0.02 A/m**
Grid 7 **M4** **0.04 A/m**	Grid 8 **M4** **0.03 A/m**	Grid 9 **M4** **0.03 A/m**



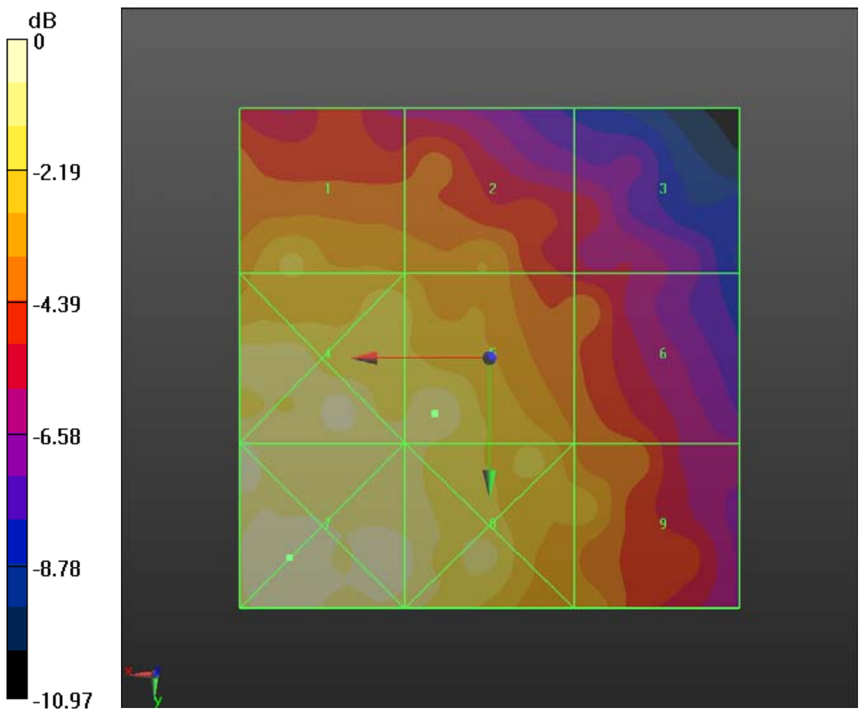
0 dB = 0.050A/m = -26.02 dB A/m

Fig B.12 HAC RF H-Field CDMA BC0 Low

HAC RF H-Field CDMA BC1 High
Date/Time: 3/31/2012 4:44:42 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1908.75 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC1 _High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = -0.05 dB.
PMF = 1.000 is applied.
H-field emissions = 0.05 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.03 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.05 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.06 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



0 dB = 0.060A/m = -24.44 dB A/m

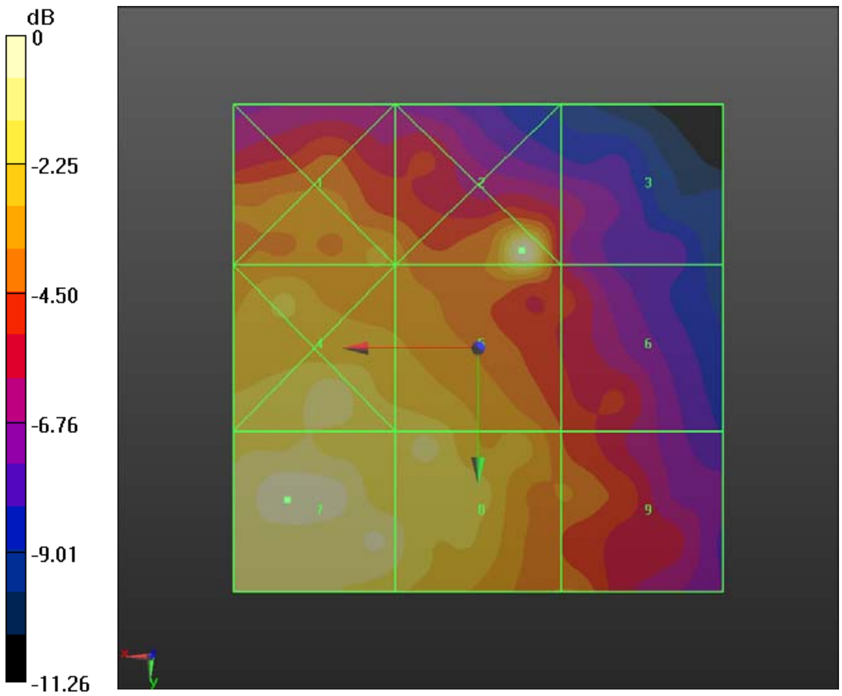
Fig B.13 HAC RF H-Field CDMA BC1 High

HAC RF H-Field CDMA BC1 Middle

Date/Time: 3/31/2012 4:37:56 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1880 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC1_Mid/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = -0.03 dB
PMF = 1.000 is applied.
H-field emissions = 0.07 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.07 A/m**	Grid 3 **M4** **0.04 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.05 A/m**



0 dB = 0.070A/m = -23.10 dB A/m

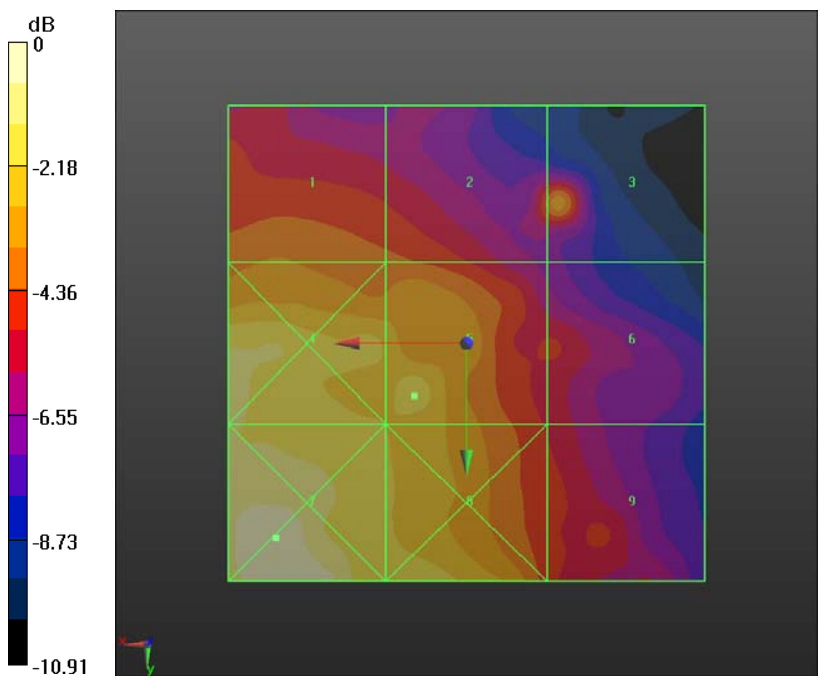
Fig B.14 HAC RF H-Field CDMA BC1 Middle

HAC RF H-Field CDMA BC1 Low

Date/Time: 3/31/2012 4:50:22 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe_1900/H Scan - H3DV6 CDMA BC1__Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = -0.08 dB
PMF = 1.000 is applied.
H-field emissions = 0.06 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.05 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



0 dB = 0.070A/m = -23.10 dB A/m

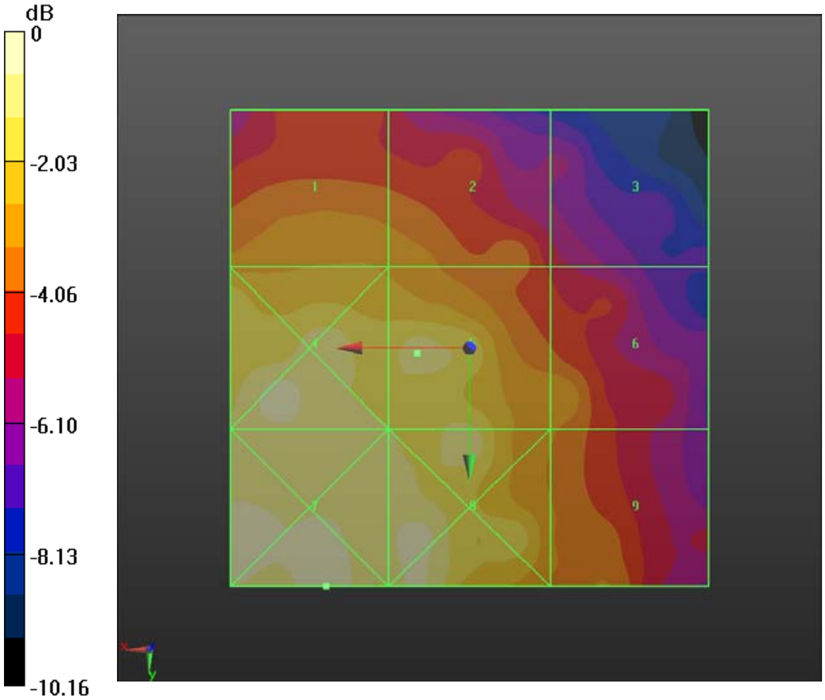
Fig B.15 HAC RF H-Field CDMA BC1 Low

HAC RF H-Field CDMA BC14 High

Date/Time: 3/31/2012 4:19:11 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1913.75 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC14 _High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.01 dB
PMF = 1.000 is applied.
H-field emissions = 0.05 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.04 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.03 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.05 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.06 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



0 dB = 0.060A/m = -24.44 dB A/m

Fig B.16 HAC RF H-Field CDMA BC14 High

HAC RF H-Field CDMA BC14 Middle

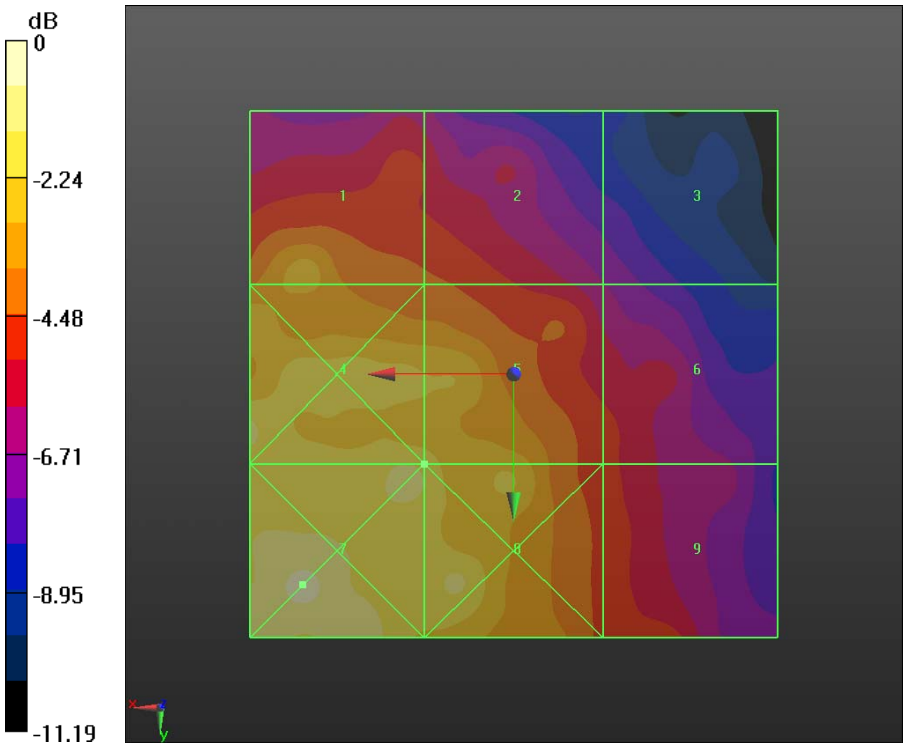
Date/Time: 3/31/2012 4:25:30 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1882.5 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC14 _Mid/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.09 dB
PMF = 1.000 is applied.
H-field emissions = 0.06 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.03 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



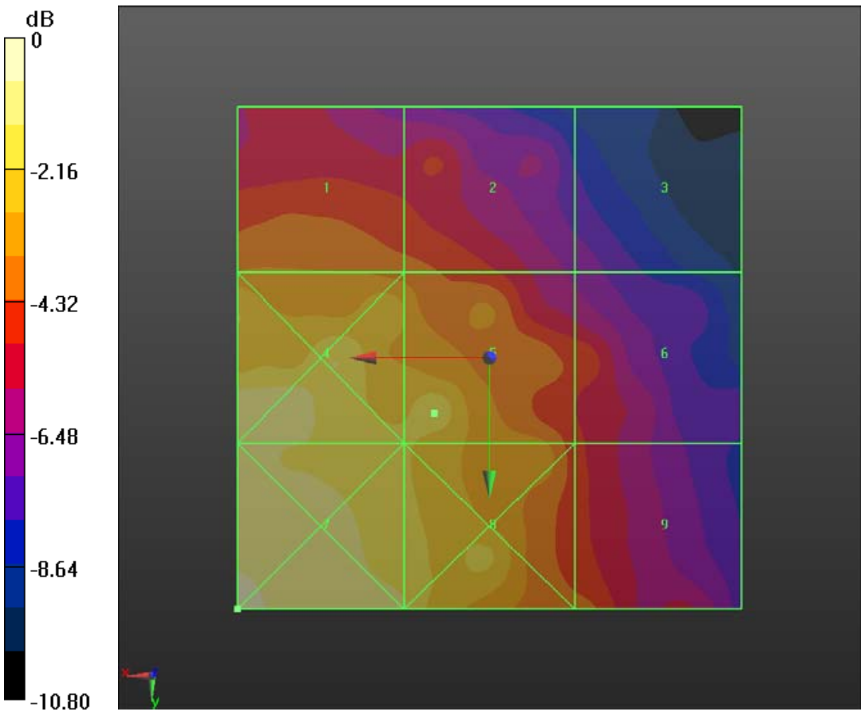
0 dB = 0.070A/m = -23.10 dB A/m

Fig B.17 HAC RF H-Field CDMA BC14 Middle

HAC RF H-Field CDMA BC14 Low
Date/Time: 3/31/2012 4:31:15 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC14 _Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.03 dB
PMF = 1.000 is applied.
H-field emissions = 0.06 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.03 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



0 dB = 0.070A/m = -23.10 dB A/m

Fig B.18 HAC RF H-Field CDMA BC14 Low

Total M-rating of CDMA BC0 MHz Band

Date/Time: 3/31/2012 2:56:52 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 848.31 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)

Device E-Field measurement with ER probe/E Scan - ER3D -CDMA BC0-High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 27.36 V/m; Power Drift = 0.13 dB
PMF = 1.000 is applied.
E-field emissions = 25.83 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

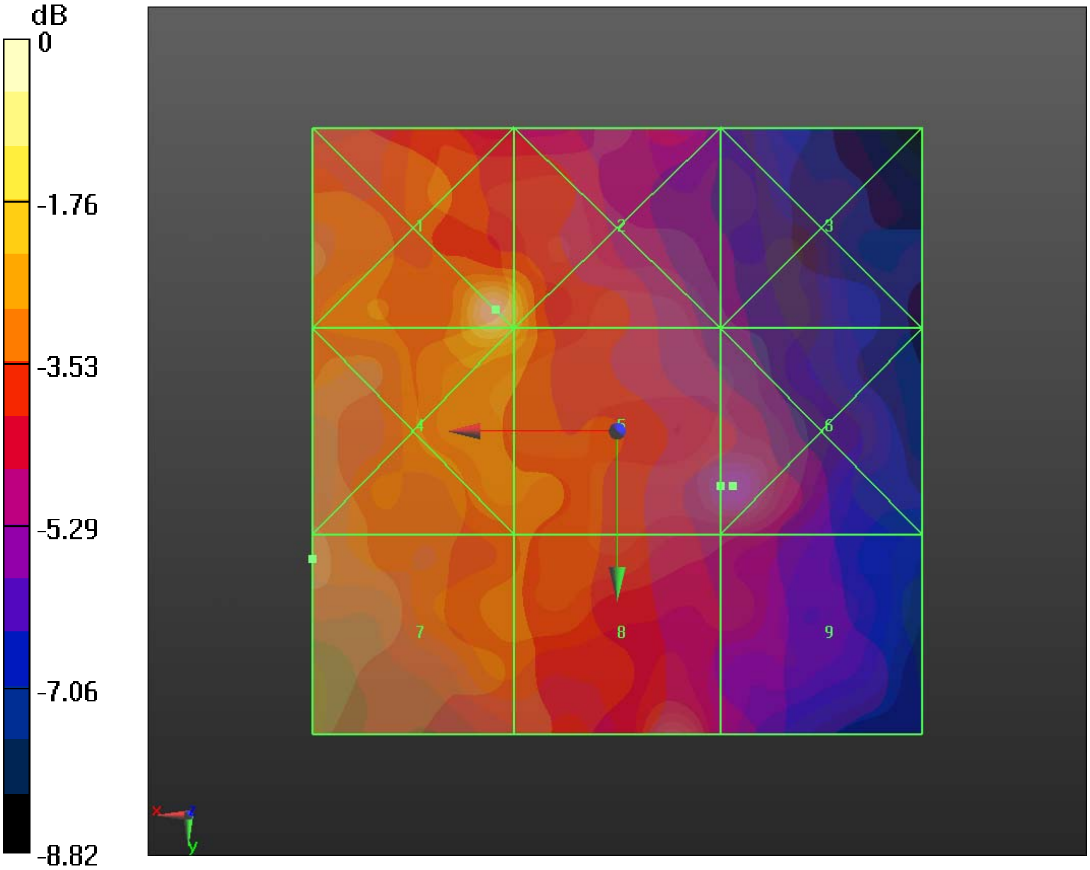
Grid 1 **M4** **19.69 V/m**	Grid 2 **M4** **21.76 V/m**	Grid 3 **M4** **18.86 V/m**
Grid 4 **M4** **21.15 V/m**	Grid 5 **M4** **25.83 V/m**	Grid 6 **M4** **27.00 V/m**
Grid 7 **M4** **18.85 V/m**	Grid 8 **M4** **23.02 V/m**	Grid 9 **M4** **19.00 V/m**

Date/Time: 3/31/2012 4:58:04 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 848.31 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC0_High/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.03 V/m; Power Drift = -0.13 dB
PMF = 1.000 is applied.
H-field emissions = 0.05 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.07 A/m**	Grid 2 **M4** **0.05 A/m**	Grid 3 **M4** **0.02 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.05 A/m**	Grid 6 **M4** **0.02 A/m**
Grid 7 **M4** **0.05 A/m**	Grid 8 **M4** **0.03 A/m**	Grid 9 **M4** **0.02 A/m**



0 dB = 27.000V/m = 28.63 dB V/m

RF RESULTS AND M-RATING	E-Field M Rating	**M4 (AWF 0 dB)**
	H-Field M Rating	**M4 (AWF 0 dB)**
	Total M Rating	**M4**

Fig B.19 Total M-rating of CDMA BC0

Total M-rating of CDMA BC1 MHz Band

Date/Time: 3/31/2012 3:22:13 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)

Device E-Field measurement with ER probe /E Scan - ER3D -CDMA BC1-Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 21.93 V/m; Power Drift = 0.04 dB
PMF = 1.000 is applied.
E-field emissions = 19.92 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

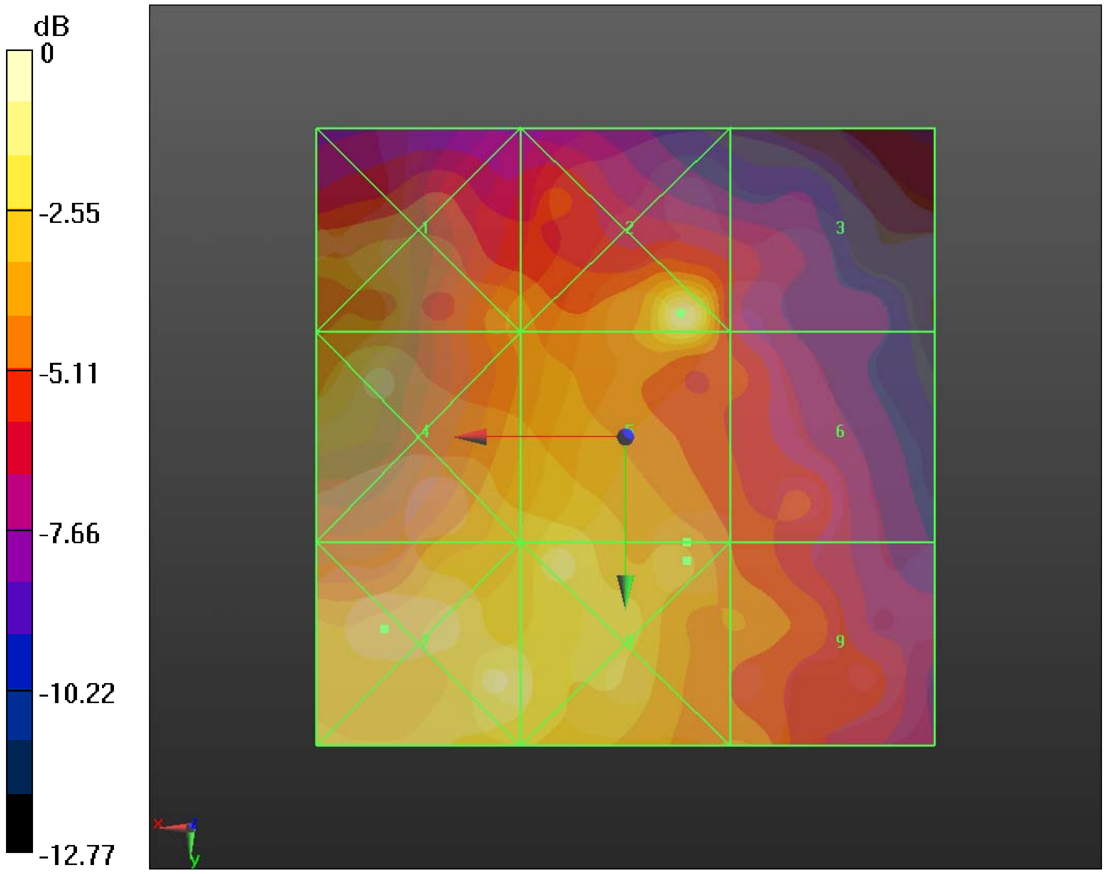
Grid 1 **M4** **11.88 V/m**	Grid 2 **M4** **17.13 V/m**	Grid 3 **M4** **17.29 V/m**
Grid 4 **M4** **13.89 V/m**	Grid 5 **M4** **19.92 V/m**	Grid 6 **M4** **19.33 V/m**
Grid 7 **M4** **17.23 V/m**	Grid 8 **M4** **20.39 V/m**	Grid 9 **M4** **18.89 V/m**

Date/Time: 3/31/2012 4:37:56 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1880 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264

Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC1_Mid/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = -0.03 dB
PMF = 1.000 is applied.
H-field emissions = 0.07 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.07 A/m**	Grid 3 **M4** **0.04 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.05 A/m**



0 dB = 20.390V/m = 26.19 dB V/m

RF RESULTS AND M-RATING	E-Field M Rating	**M4 (AWF 0 dB)**
	H-Field M Rating	**M4 (AWF 0 dB)**
	Total M Rating	**M4**

Fig B.20 Total M-rating of CDMA BC1

Total M-rating of CDMA BC14 MHz Band

Date/Time: 3/31/2012 3:56:12 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: ER3DV6 - SN2424 ConvF(1, 1, 1)
Device E-Field measurement with ER probe /E Scan - ER3D-CDMA BC14-Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 22.48 V/m; Power Drift = 0.05 dB
PMF = 1.000 is applied.
E-field emissions = 20.11 V/m
Near-field category: M4 (AWF 0 dB)

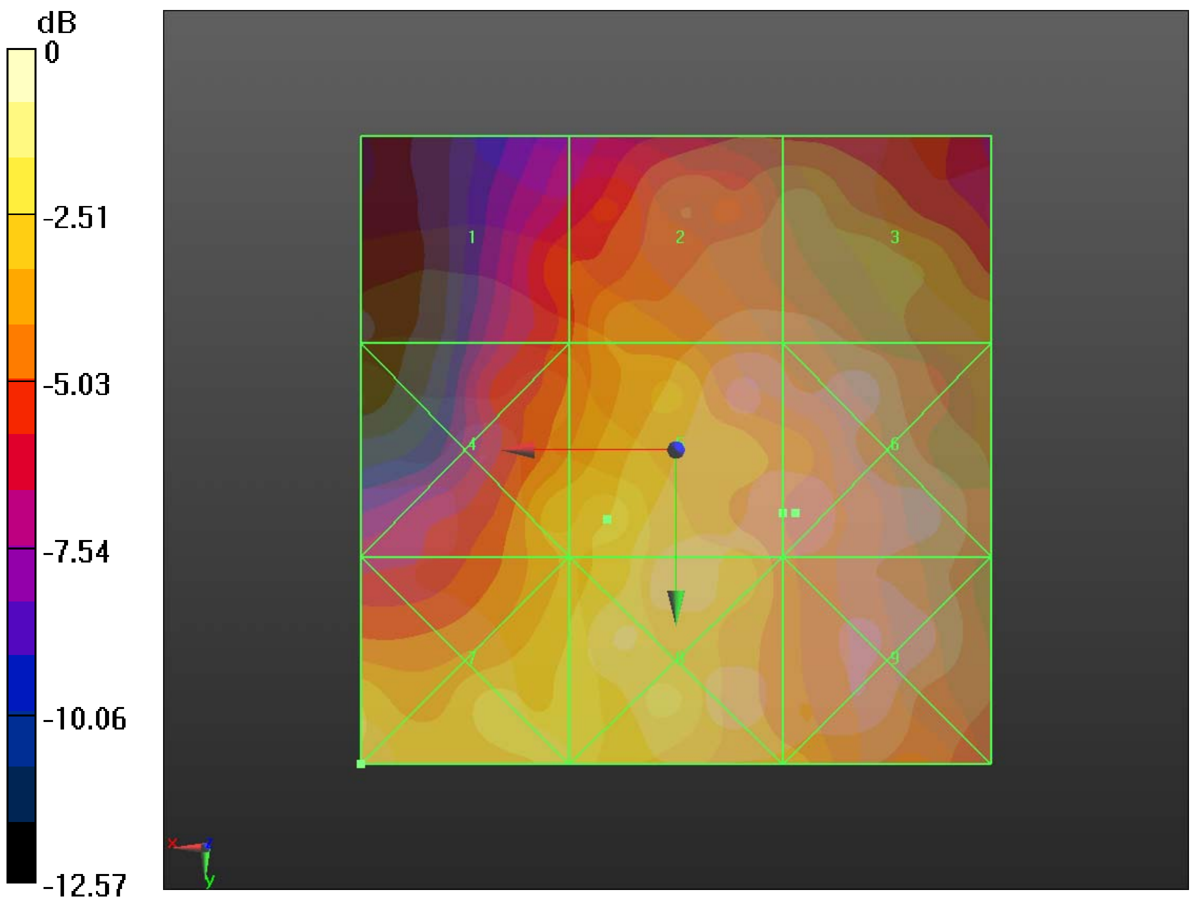
PMF scaled E-field

Grid 1 **M4** **11.53 V/m**	Grid 2 **M4** **16.40 V/m**	Grid 3 **M4** **16.17 V/m**
Grid 4 **M4** **15.16 V/m**	Grid 5 **M4** **20.11 V/m**	Grid 6 **M4** **20.45 V/m**
Grid 7 **M4** **15.84 V/m**	Grid 8 **M4** **20.03 V/m**	Grid 9 **M4** **19.05 V/m**

Date/Time: 3/31/2012 4:31:15 PM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CDMA Frequency: 1851.25 MHz Duty Cycle: 1:1
Probe: H3DV6 - SN6264
Device H-Field meausrement with H3DV6 probe/H Scan - H3DV6 CDMA BC14 _Low/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.03 dB
PMF = 1.000 is applied.
H-field emissions = 0.06 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.05 A/m**	Grid 2 **M4** **0.04 A/m**	Grid 3 **M4** **0.03 A/m**
Grid 4 **M4** **0.06 A/m**	Grid 5 **M4** **0.06 A/m**	Grid 6 **M4** **0.04 A/m**
Grid 7 **M4** **0.07 A/m**	Grid 8 **M4** **0.06 A/m**	Grid 9 **M4** **0.04 A/m**



0 dB = 20.450V/m = 26.21 dB V/m

RF RESULTS AND M-RATING	E-Field M Rating	**M4 (AWF 0 dB)**
	H-Field M Rating	**M4 (AWF 0 dB)**
	Total M Rating	**M4**

Fig B.21 Total M-rating of CDMA BC14

ANNEX C SYSTEM VALIDATION RESULT

E SCAN of Dipole 835 MHz

Date/Time: 3/31/2012 7:40:55 AM

Electronics: DAE4 Sn786

Medium: Air

Medium parameters used: σ = 0 mho/m, εr = 1; ρ = 0 kg/m^3

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

Probe: ER3DV6 - SN2424;ConvF(1, 1, 1)

E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 119.9 V/m; Power Drift = -0.051 dB

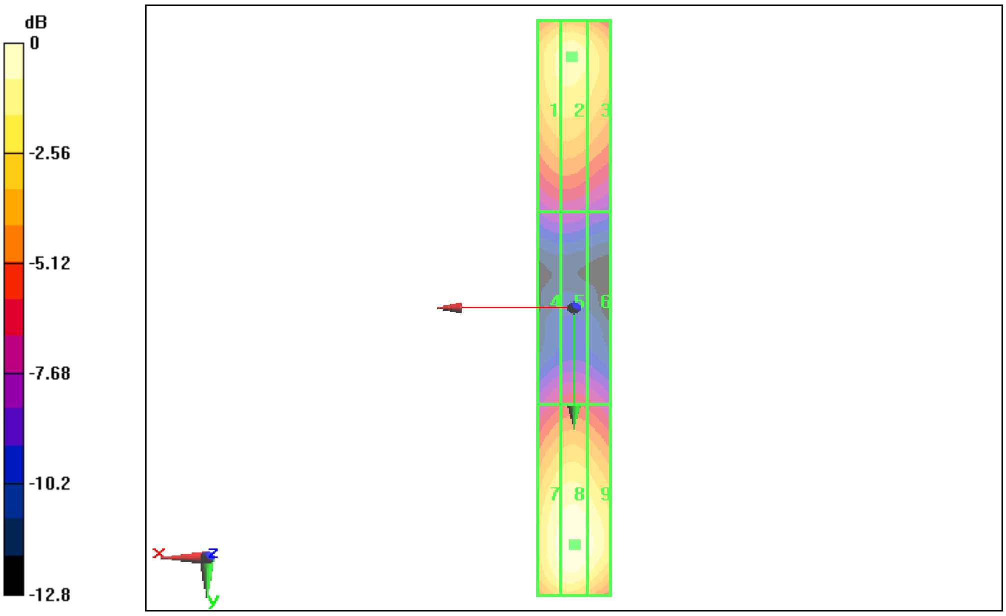
PMF = 1 is applied.

E-field emissions = 169.5 V/m

Near-field category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **144.3 M4**	Grid 2 **146.8 M4**	Grid 3 **139.1 M4**
Grid 4 **81.0 M4**	Grid 5 **83.4 M4**	Grid 6 **80.1 M4**
Grid 7 **161.1 M4**	Grid 8 **169.5 M4**	Grid 9 **161.2 M4**

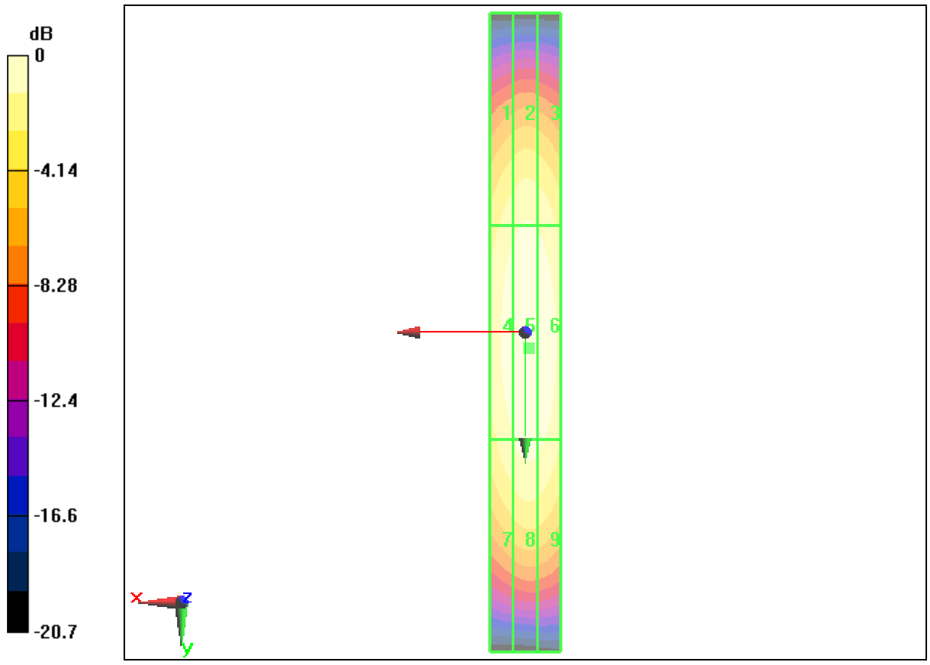


0 dB = 169.5V/m

H SCAN of Dipole 835 MHz
Date/Time:3/31/2012 8:21:14 AM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: σ = 0 mho/m, εr = 1; ρ = 0 kg/m^3
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Probe: H3DV6 - SN6264;
H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.467 A/m; Power Drift = 0.085dB
PMF =1 is applied.
H-field emissions = 0.445 A/m
Near-field category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.361 M4**	Grid 2 **0.385 M4**	Grid 3 **0.369 M4**
Grid 4 **0.419 M4**	Grid 5 **0.445 M4**	Grid 6 **0.432 M4**
Grid 7 **0.370 M4**	Grid 8 **0.400 M4**	Grid 9 **0.389 M4**

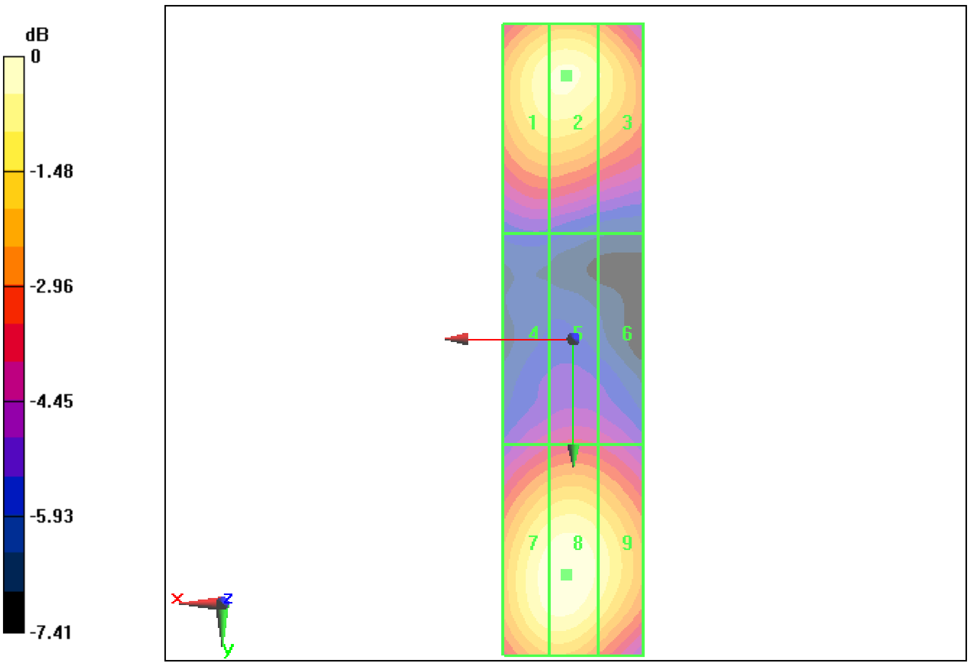


0 dB = 0.445A/m

E SCAN of Dipole 1880 MHz
Date/Time:3 /31/2012 9:24:49 AM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Probe: ER3DV6 - SN2424;ConvF(1, 1, 1)
E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 139.5 V/m; Power Drift =-0.064 dB
PMF = 1 is applied.
E-field emissions = 133.7 V/m
Near-field category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1 **125.8 M2**	Grid 2 **127.9 M2**	Grid 3 **120.2 M2**
Grid 4 **83.9 M3**	Grid 5 **87.0 M3**	Grid 6 **84.5 M3**
Grid 7 **131.0 M2**	Grid 8 **133.7 M2**	Grid 9 **125.3 M2**

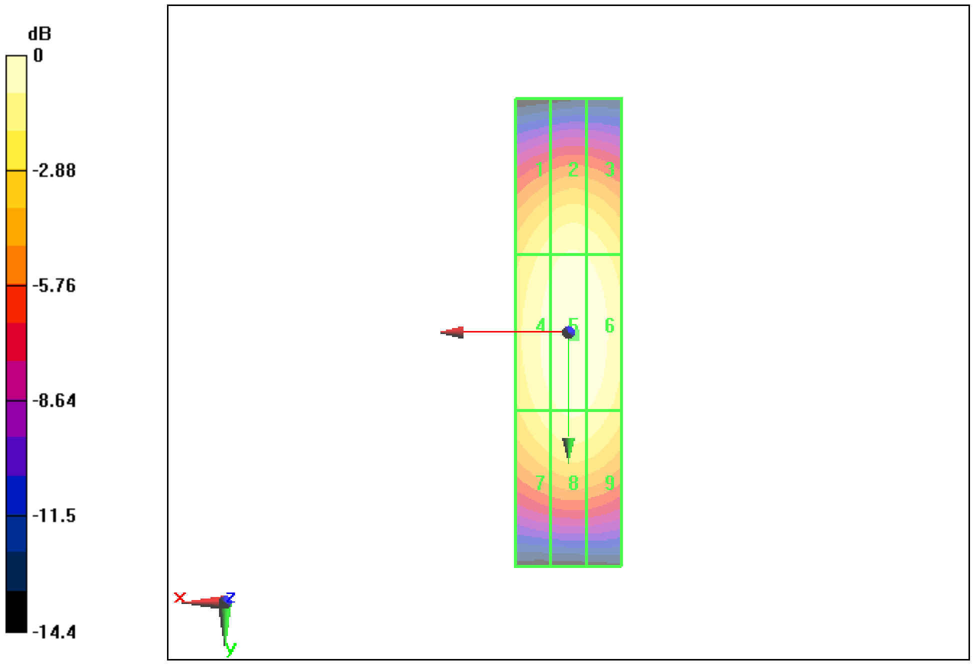


0 dB = 133.7V/m

H SCAN of Dipole 1880 MHz
Date/Time:3/31/2012 9:48:35 AM
Electronics: DAE4 Sn786
Medium: Air
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Probe: H3DV6 - SN6264;
H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.473 A/m; Power Drift = 0.091 dB
PMF =1 is applied.
H-field emissions = 0.456 A/m
Near-field category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1 **0.385 M2**	Grid 2 **0.405 M2**	Grid 3 **0.401 M2**
Grid 4 **0.424 M2**	Grid 5 **0.456 M2**	Grid 6 **0.436 M2**
Grid 7 **0.386 M2**	Grid 8 **0.413 M2**	Grid 9 **0.404 M2**



0 dB = 0.456A/m

ANNEX D PROBE CALIBRATION CERTIFICATE

E_Probe ER3DV6

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client Telecommunication Metrology Center of MIIT

Certificate No: ER3-2424_Dec11

CALIBRATION CERTIFICATE

Object	**ER3DV6-SN: 2424**
Calibration procedure(s)	**QA CAL-02.v5** **Calibration procedure for E-field probes optimized for close near field evaluations in air**
Calibration date:	**December 31, 2011**
Condition of the calibrated item	**In Tolerance**

This calibration certify documents the traceability to national standards, which realize the physical units of measurements(SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted at an environment temperature (22±3)°C and humidity<70%
Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID#	Cal Data (Calibrated by, Certification NO.)	Scheduled Calibration
Power meter E4419B	GB41293874	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Power sensor E4412A	MY41495277	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Power sensor E4412A	MY41498087	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Reference 3 dB Attenuator	SN: S5054 (3c)	5-Aug-11 (METAS, NO. 217-00719)	Aug-12
Reference 20 dB Attenuator	SN: S5086 (20b)	26-Mar-11 (METAS, NO. 217-00671)	Mar-12
Reference 30 dB Attenuator	SN: S5129 (30b)	5-Aug-11 (METAS, NO. 217-00720)	Aug-12
Reference Probe ER3DV6	SN: 2328	29-Sep-11 (SPEAG, NO.ER3-2328_Sep11)	Sep-12
DAE4	SN: 654	17-Apr-11 (SPEAG, NO. DAE4-654_Apr11)	Apr-12

Secondary Standards	ID#	Check Data (in house)	Scheduled Calibration
RF generator HP8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Oct-11)	In house check: Oct-12
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: December 31, 2011

This calibration certificate shall not be reported except in full without written approval of the laboratory.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe ER3DV6

SN: 2424

Manufactured: December 3, 2007

Calibrated: December 31, 2011

Calibrated for DASY Systems

DASY-Parameters of Probe: ER3DV6 SN: 2424

Sensitivity in Free Space

NormX	1.50	$\mu V/(V/m)^2$
NormY	1.53	$\mu V/(V/m)^2$
NormZ	1.93	$\mu V/(V/m)^2$

Frequency Correction

X	0.00
Y	0.00
Z	0.00

Diode Compression

DCP X	95	mV
DCP Y	95	mV
DCP Z	96	mV

Sensor Offect (Probe Tip to Sensor Center)

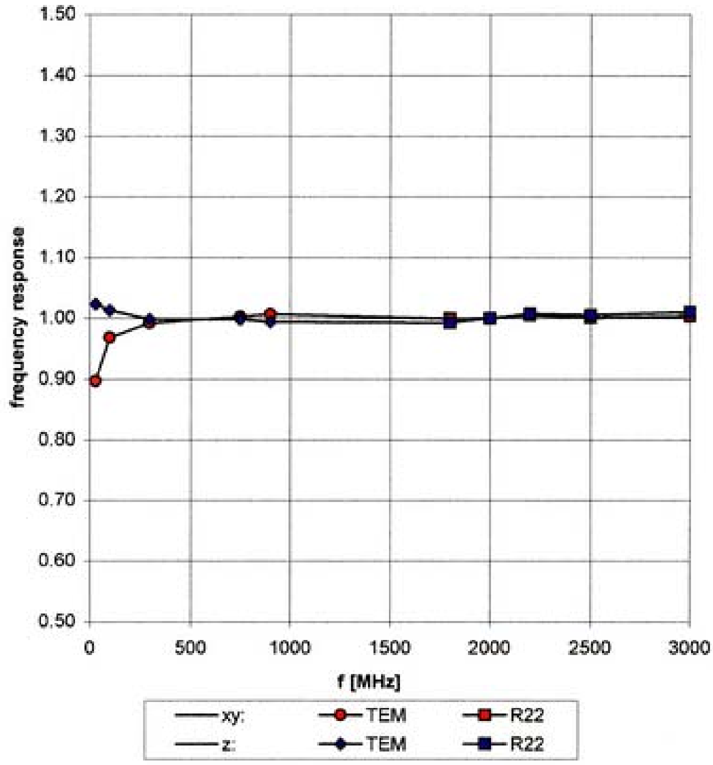
X	2.50	mm
Y	2.50	mm
Z	2.50	mm

Connector Angle -197 ^{0}

ER3DV6 SN: 2424 December 31, 2011

Frequency Response of E-Field

(TEM-Cell:ifi110, Waveguide R22)

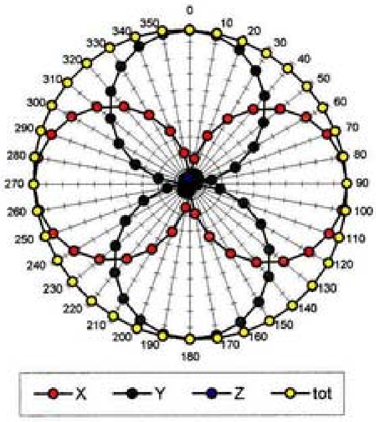


Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

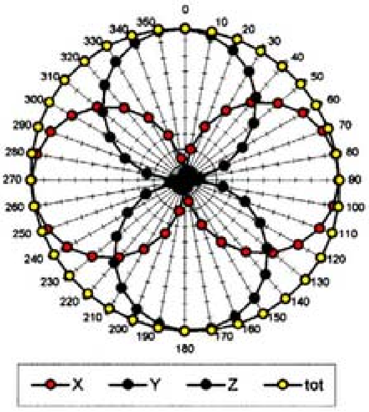
ER3DV6 SN: 2424 **December 31, 2011**

Receiving Pattern (φ), θ =0°

f=600 MHz, TEM ifi110EXX

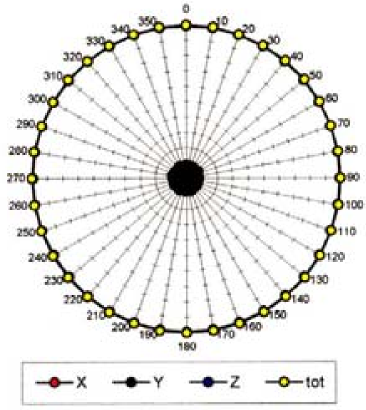


f=2500 MHz, WG R22

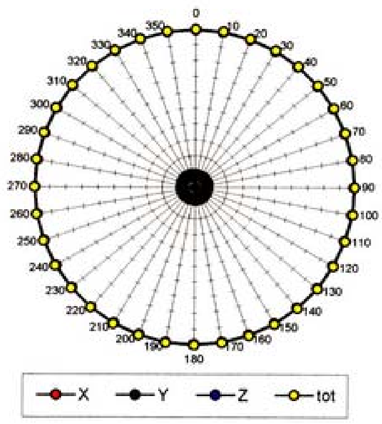


Receiving Pattern (φ), θ =90°

f=600 MHz, TEM ifi110EXX

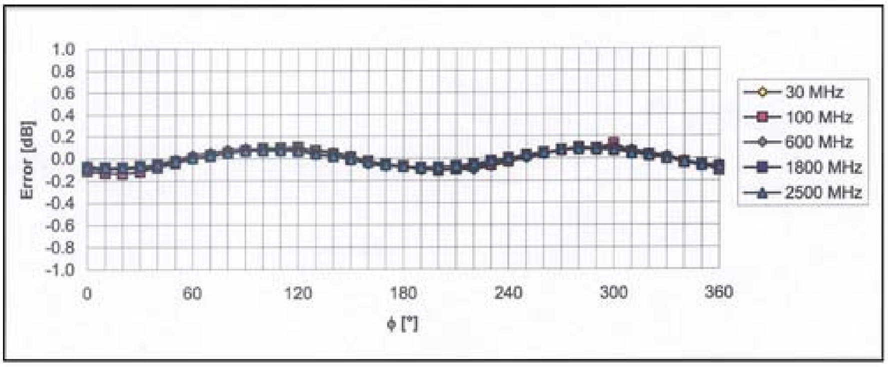


f=2500 MHz, WG R22



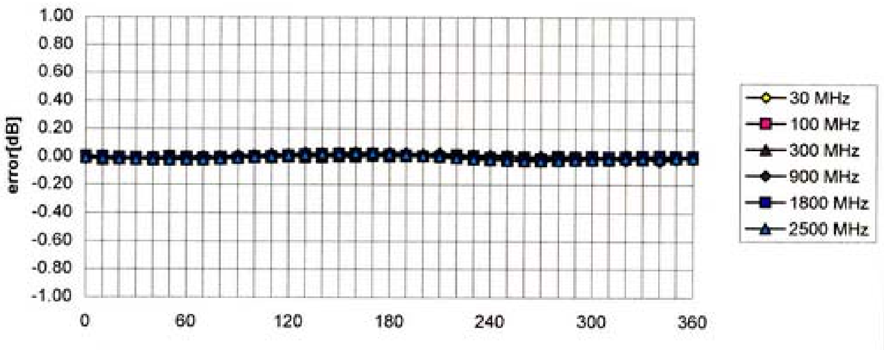
ER3DV6 SN: 2424 December 31, 2011

Receiving Pattern (ϕ), θ =0°



Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

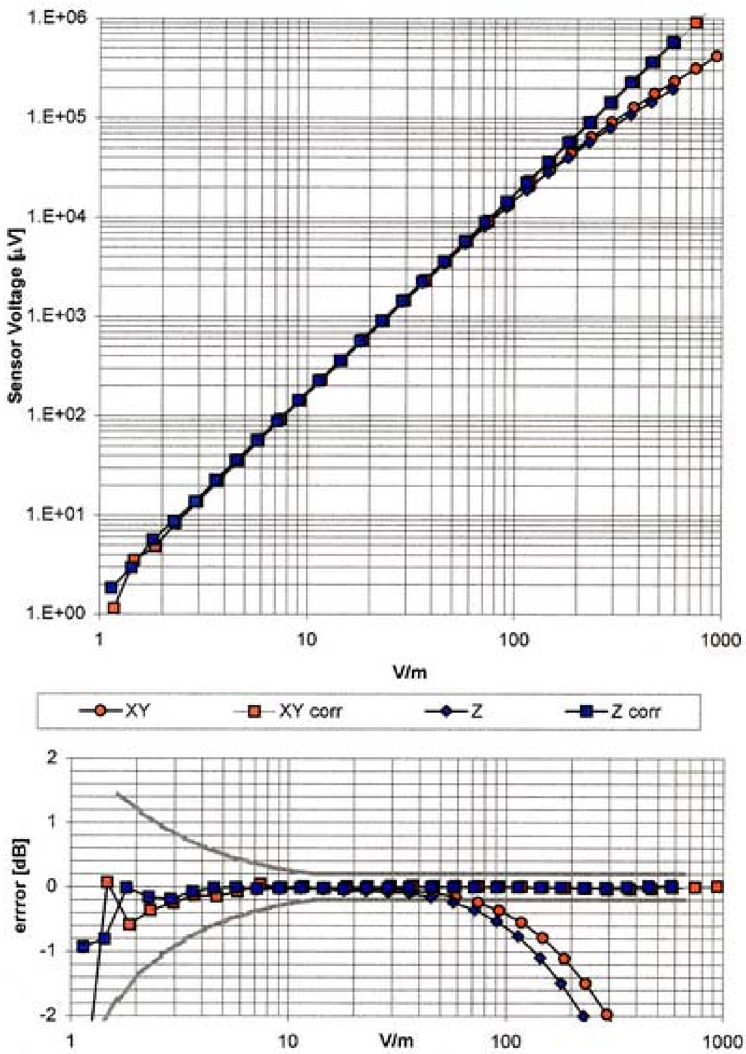
Receiving Pattern (ϕ), θ =90°



Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

ER3DV6 SN: 2424 December 31, 2011

Dynamic Range f(E-field)
(Waveguide: R22, f = 1800 MHz)

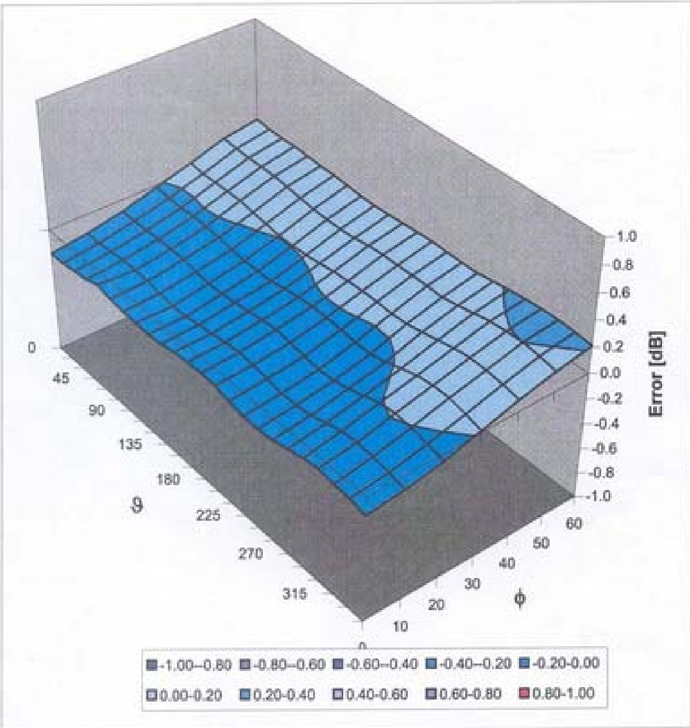


Uncertainty of Linearity Assessment: ±0.6% (k=2)

ER3DV6 SN: 2424 December 31, 2011

Deviation from Isotropy

Error (ϕ , θ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ±2.6% (k=2)

H_Probe H3DV6

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client Telecommunication Metrology Center of MIIT — Certificate No: H3-6264_Dec11

CALIBRATION CERTIFICATE

Object	**H3DV6-SN: 6264**
Calibration procedure(s)	**QA CAL-03.v5** **Calibration procedure for H-field probes optimized for close near field evaluations in air**
Calibration date:	**December 31, 2011**
Condition of the calibrated item	**In Tolerance**

This calibration certify documents the traceability to national standards, which realize the physical units of measurements(SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted at an environment temperature (22±3)°C and humidity<70%
Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID#	Cal Data (Calibrated by, Certification NO.)	Scheduled Calibration
Power meter E4419B	GB41293874	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Power sensor E4412A	MY41495277	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Power sensor E4412A	MY41498087	26-Mar-11 (METAS, NO. 217-00670)	Mar-12
Reference 3 dB Attenuator	SN: S5054 (3c)	5-Aug-11 (METAS, NO. 217-00719)	Aug-12
Reference 20 dB Attenuator	SN: S5086 (20b)	26-Mar-11 (METAS, NO. 217-00671)	Mar-12
Reference 30 dB Attenuator	SN: S5129 (30b)	5-Aug-11 (METAS, NO. 217-00720)	Aug-12
Reference Probe H3DV6	SN: 6182	29-Sep-11 (SPEAG, NO.H3-6182_Sep11)	Sep-12
DAE4	SN: 654	17-Apr-11 (SPEAG, NO. DAE4-654_Apr11)	Apr-12

Secondary Standards	ID#	Check Data (in house)	Scheduled Calibration
RF generator HP8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Oct-11)	In house check: Oct-12
Network Analyzer HP 8753E	US37390585	18-Oct-01 (SPEAG, in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: December 31, 2011

This calibration certificate shall not be reported except in full without written approval of the laboratory.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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C Service suisse d'étalonnage
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Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe H3DV6

SN: 6264

Manufactured: September 7, 2007

Calibrated: December 31, 2011

Calibrated for DASY Systems

DASY-Parameters of Probe: H3DV6 SN: 6264

Sensitivity in Free Space

	a0	a1	a2
X	2.419E-03	-3.057E-06	2.259E-05
Y	2.481E-03	5.862E-06	3.742E-06
Z	2.896E-03	-2.120E-05	2.373E-05

Diode Compression

DCP X	83	mV
DCP Y	83	mV
DCP Z	85	mV

Sensor Offect (Probe Tip to Sensor Center)

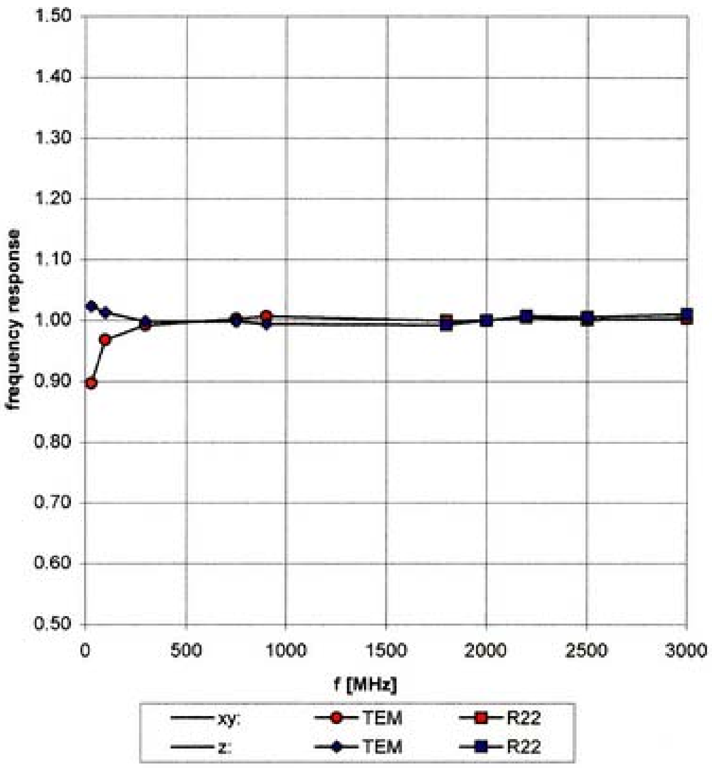
X	3.0	mm
Y	3.0	mm
Z	3.0	mm

Connector Angle -226 °

H3DV6 SN: 6264 December 31, 2011

Frequency Response of H-Field

(TEM-Cell:ifi110, Waveguide R22)

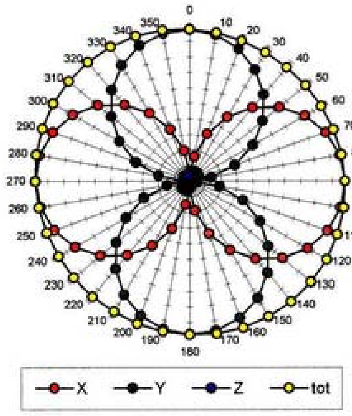


Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

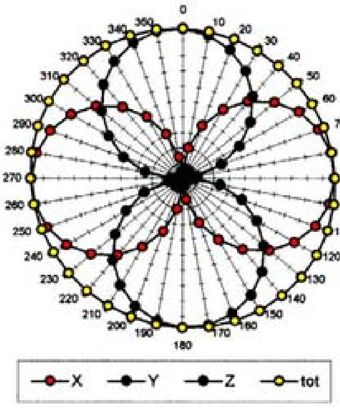
H3DV6 SN: 6264 December 31, 2011

Receiving Pattern (Φ), θ =90°

f=300 MHz, TEM ifi110EXX

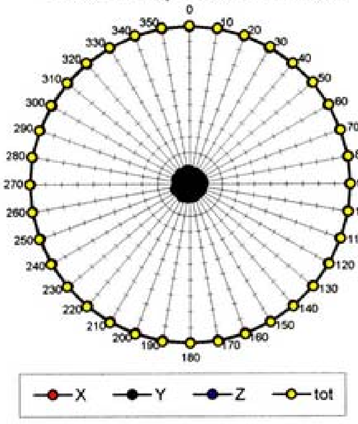


f=2500 MHz, WG R22

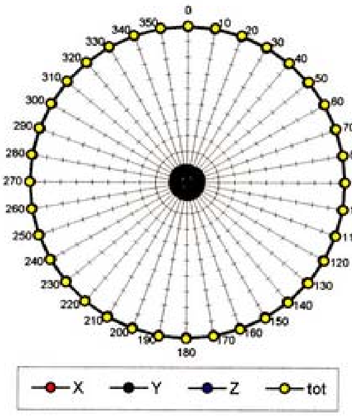


Receiving Pattern (Φ), θ =0°

f=300 MHz, TEM ifi110EXX

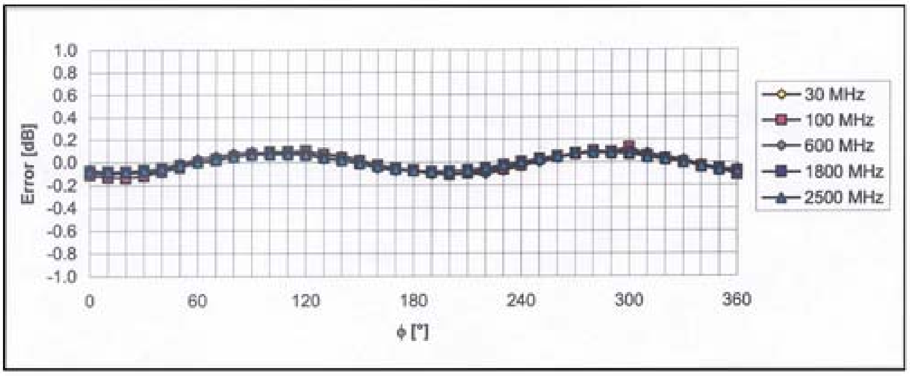


f=2500 MHz, WG R22



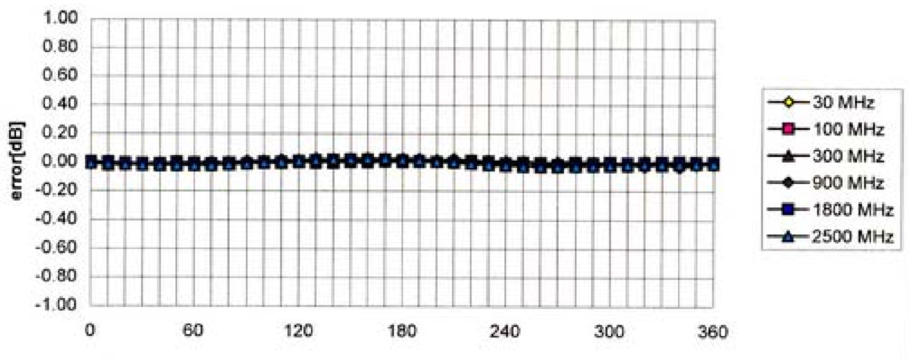
H3DV6 SN: 6264 December 31, 2011

Receiving Pattern (ϕ), θ =90°



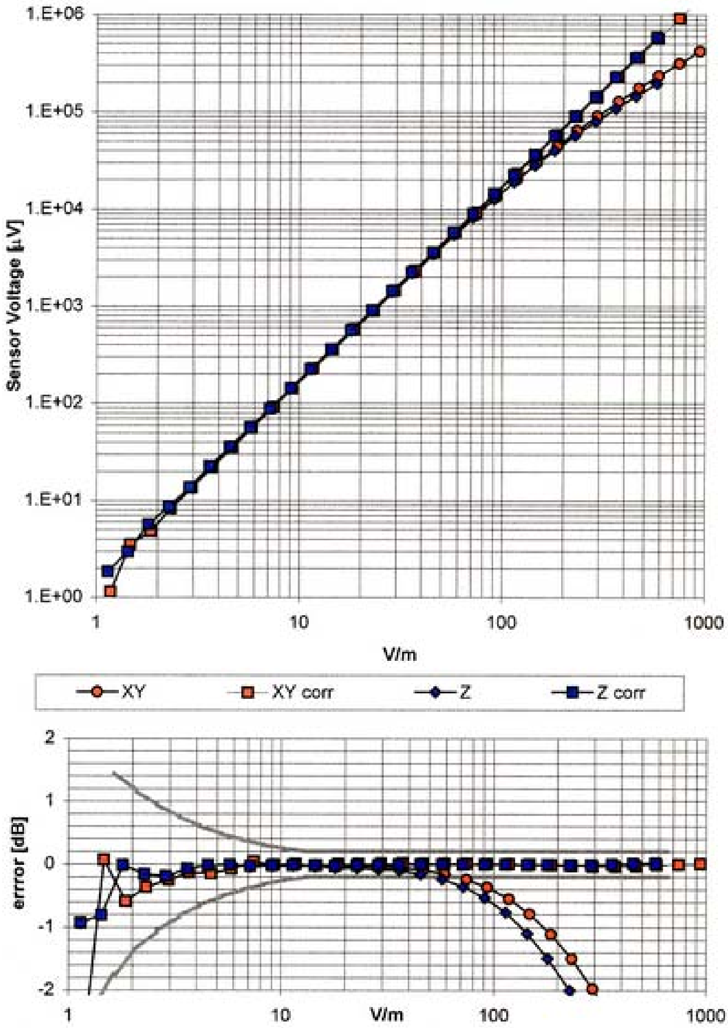
Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

Receiving Pattern (ϕ), θ =0°



Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

Dynamic Range f(H-field)
(Waveguide: R22, f = 1800 MHz)



Uncertainty of Linearity Assessment: ±0.6% (k=2)

ANNEX E Declaration of Difference among Models

TELEEPOCH

Teleepoch Limited
5A,B1 Building, Digital Tech Zone, High-Tech Park(south), Nanshan district,Shenzhen,Guangdong Province, China
Tel: +86-755-26037146 Fax: +86-0755-26037077

Product Similarity Declaration

To Whom It May Concern,

We, Teleepoch Limited, hereby declare that our Mobile phone, Model Number: FLIP/MXC-628 are electrically identical with the Model Number: C5620 that was certified by BACL. They are named differently due to marketing purposes.

Please contact me if you have any question.

Signature:

Maggie Zhang

Project Manager Maggie Zhang

2012.02.29