A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)
Tel：+886-3-2710188 / Fax：+886-3-2710190

HAC T-Coil Test Report

Test Report No.	:	1107FS16
Applicant	:	HTC Corporation
Trade Name	:	HTC
Model Name	:	PG76200
FCC ID	:	NM8PG76200
EUT Type	:	Smartphone
Dates of Test	:	Jun. 30, 2011
Issued Date	:	Jul. 07, 2011
Test Environment	:	Ambient Temperature： 22 ±2 ℃ Relative Humidity： 40 - 70 %
Test Lab	:	Changan Lab
HAC T-Coil Standard	:	ANSI C63.19-2007
C63.19 T-Coil Rated Category	:	T4 (Audio Band Magnetic)
Statement of Compliance	:	FCC 47 CFR §20.19. The measurements were performed to ensure compliance to the ANSI C63.19-2007 standard. It also declares that the product was tested in accordance with the appropriate measurement standards, guidelines and recommended practices.

1. The test operations are cautiously performed with due diligence. The test results are as attached.
2. The test results are generated under the chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume any responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report shall be approved in writing by A Test Lab Techno Corp. It may only be reproduced or published in full. This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp.
4. This document may be altered or revised by A Test Lab Techno Corp. personnel only and any modification shall be noted in the revision section of the document.

Approved By : Sam Chuang (Sam Chuang)

Tested By : Alex Wu (Alex Wu)

Contents

1. Description of Equipment under Test (EUT)

Applicant	:	HTC Corporation		
Applicant Address	:	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan		
Manufacturer	:	HTC Corporation		
Manufacturer Address	:	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan		
EUT Type	:	Smartphone		
Trade Name	:	HTC		
Model Name	:	PG76200		
FCC ID	:	NM8PG76200		
Tx Frequency	:	Band		Operate Frequency (MHz)
		CDMA / 1xRTT / 1xEVDO Rev.0 / 1xEVDO Rev.A	Cellular Band	824.7 - 848.3
			PCS Band	1851.2 - 1908.8
RF Conducted Power (Avg.)	:	Band		Power (W / dBm)
		Cellular Band		0.250 / 23.98
		PCS Band		0.271 / 24.33
Antenna type	:	PIFA Antenna		
EUT Type	:	Production Unit		
Battery Option	:	Standard / Model No.: BD29100 (3.7V 1230mAh)		

Note: This device does not support power reduction option for GSM1900.

<All Air Interfaces / Bands List>

Air-Interface	Band (MHz)	Type	C63.19 Tested	Simultaneous Transmissions	Concurrent Single Transmission	Reduced Power 20.19(e)	Voice Over Digital Transport (Data)
CDMA2000	850	Voice	Yes	Yes BT/WLAN	Yes	N/A	No
	1900	Voice	Yes		Yes	N/A	No
	1xRTT/EVDO	Data	No	Yes BT/WLAN	Yes	N/A	Yes
WLAN	2450	Data	No	Yes CDMA2000 or 1xRTT or 1xEVDO & BT	Yes	N/A	Yes
Bluetooth	2450	Data	No	Yes CDMA2000 or 1xRTT or 1xEVDO & WLAN	Yes	N/A	No

2. Description of the Test Procedure

2.1 Test Arch and Device Holder

The test device was placed in the Device Holder (illustrated below) that is supplied by SPEAG. Using this positioner the tested device is positioner under Test Arch.

Figure 1. WD Holder

2.2 Test Positions

The device was positioned such that Device Reference level was touching the bottom of the Test Arch. The speaker output is aligned with the intersection of the Test Arch's middle bar and dielectric wire. The WD is positioned always this way to ensure repeatability of the measurements. Coordinate system depicted below is used to define exact locations of measurement points relative to the center of the speaker output.

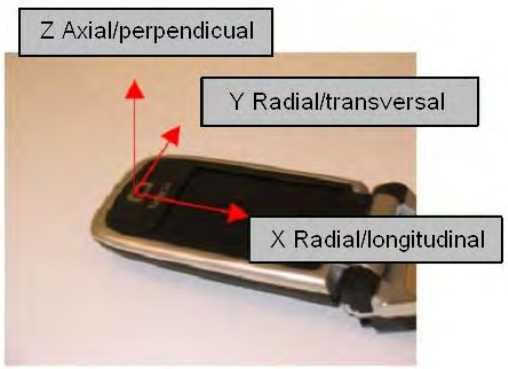


Figure 2. Photo of a typical device positioned under Test Arch and coordinate system

2.3 T-coil Scan Procedures

Manufacturer can either define measurement locations for WD categorization or optimum locations can be found using following procedure; First, coarse scans in all measurement orientations, centered at the earpiece, are made to find approximate locations of optimum signal. More accurate fine scans are made in these locations to find final measurement points.

2.4 Measurement procedure and used test signals

During measurements signal is fed to WD via communication tester. Proper gain setting is used in software to ensure correct signal level fed to communication tester speech input.

Measurement software compares fed signal and signal from measurement probe and applies proper filtering and integration procedures.

Broadband voice-like signals are used during scans and frequency response measurement to ensure proper operation of WD vocoder and audio enhancement algorithms.

Both signal (ABM1) and undesired audio noise (ABM2) are measured consequently to enable determination of signal + noise to noise ratio (SNR).

In final measurement sine signal is used to determine signal strength @ 1 kHz.

2.5 T-coil Requirements and Category Limits

RF Emissions

The radial components of the magnetic field shall be ≥-18dB (A/m) at 1 kHz, in 1/3 octave band filter for all orientations.

Frequency Response

Frequency response of the axial component must follow the frequency curve depicted below:

Frequency response is between 300 Hz and 3000 Hz.

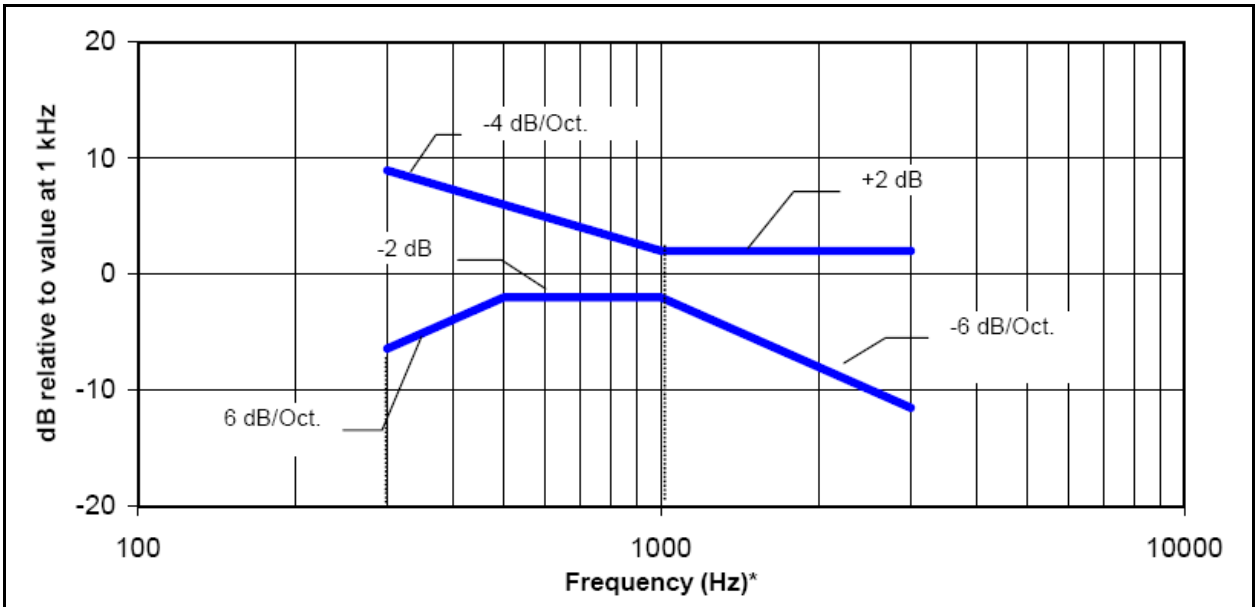


Figure 3. Magnetic field frequency response for WDs with a field ≤ -15 dB (A/m) at 1 kHz

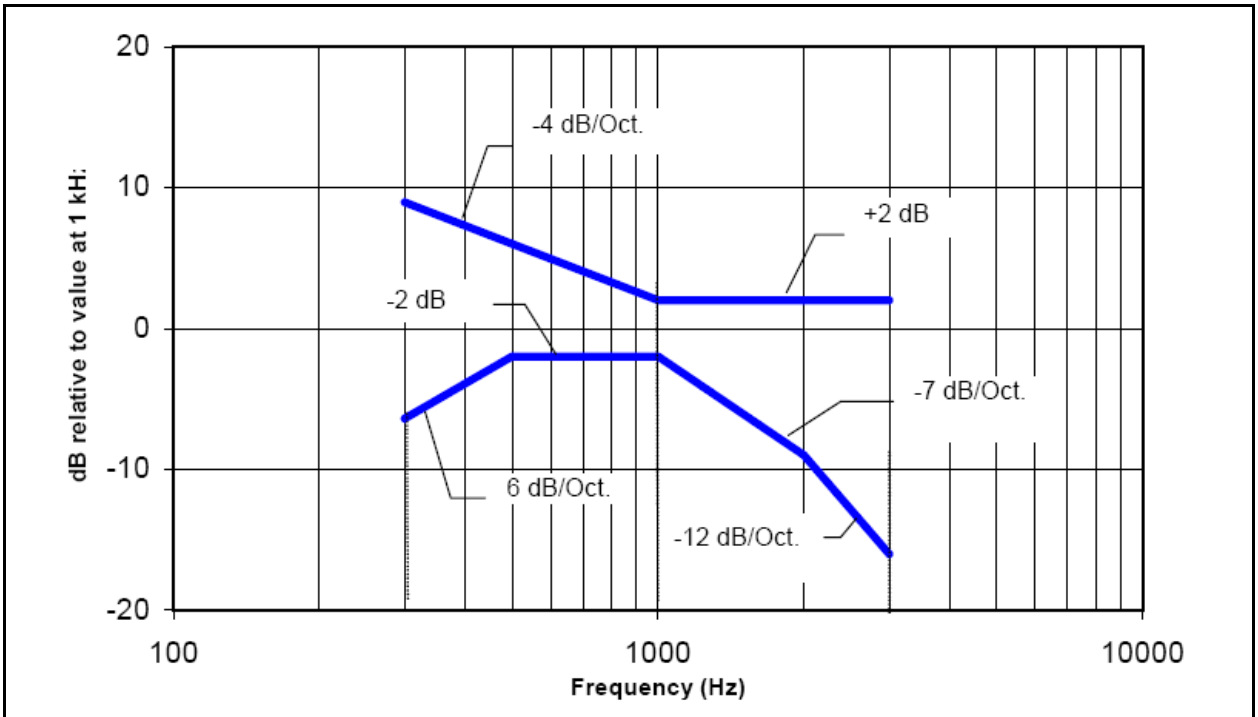


Figure 4. Magnetic field frequency response for WDs with a field that exceeds -15 dB(A/m) at 1 kHz

Signal Quality

The worst result of three T-coil signal measurements is used to define WD Hearing Aid T-category according to the category limits:

Category	Telephone parameters WD signal quality [(signal + noise)-to-noise ratio in decibels]
T1	0 dB to 10 dB
T2	10 dB to 20 dB
T3	20 dB to 30 dB
T4	> 30 dB

Table 1. T-Coil signal quality categories

2.6 Measurement Uncertainty

Measurement uncertainty budget presented in Appendix B.

3. Description of The Test Equipment

3.1 Measurement system and components

The measurements were performed using an automated near-field scanning system, DASY5 software version 5.0, manufactured by Schmid & Partner Engineering AG (SPEAG) in Switzerland.

Components and signal paths of used measurement system are pictured below:

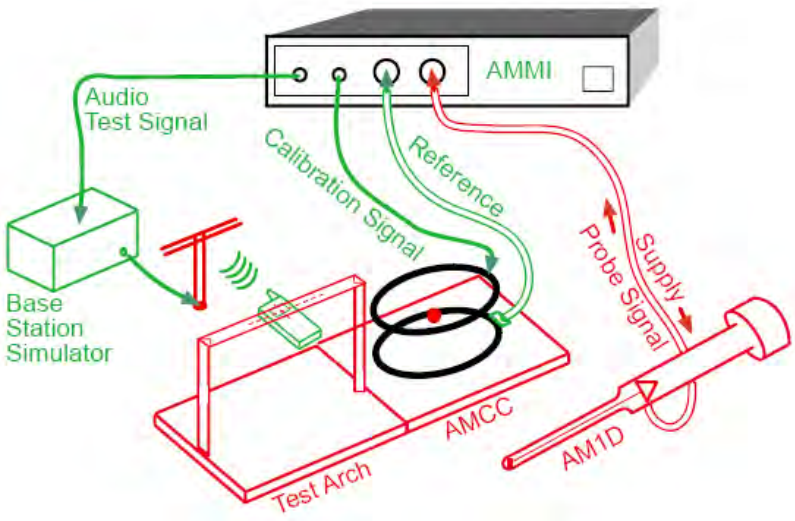


Figure 5. T-Coil Measurement system

The following table lists calibration dates of measurement equipment：

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	Data Acquisition Electronics	DAE4	779	Jan. 31, 2011	Jan. 31, 2012
SPEAG	Audio Magnetic 1D Field Probe	AM1DV2	1017	Feb. 14, 2011	Feb. 14, 2012
SPEAG	Device Holder	N/A	N/A	NCR	NCR
SPEAG	AMCC	SD HAC P02 AB	1011	NCR	NCR
SPEAG	AMMI	SE UMS 010AA	1001	NCR	NCR
SPEAG	Software	DASY5 V5.0 Build 125	N/A	NCR	NCR
SPEAG	Software	SEMCAD X V13.2 Build 87	N/A	NCR	NCR
SPEAG	Measurement Server	SE UMS 011 AA	1025	NCR	NCR
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	109369	Aug. 10, 2010	Aug. 10, 2011
Brüel & Kjær	Frequency Analyzer	2144	2102727	Mar. 01, 2011	Mar. 01, 2012

Table 2. Equipment List

3.1.1 Audio Magnetic Probe AM1DV2

The AM1D probe is an active probe with a single sensor. It is fully RF-shielded and has a rounded tip 6mm in diameter incorporating a pickup coil with its center offset 3mm from the tip and the sides. The symmetric signal preamplifier in the probe is fed via the shielded symmetric output cable from the AMMI with a 48V “phantom” voltage supply. The 7-pin connector on the back in the axis of the probe does not carry any signals. It is mounted to the DAE for the correct orientation of the sensor. If the probe axis is tilted 54.7 degree from the vertical, the sensor is approximately vertical when the signal connector is at the underside of the probe (cable hanging downwards).

Construction	Fully RF-shielded metal construction (RF sensitivity < -100dB)
Calibration	Calibrated using Helmholtz coil
Frequency	0.1 - 20 kHz Sensitivity < -50 dB A/m
Dimensions	Overall length: 290 mm; Tip diameter: 6 mm

3.1.2 Audio Magnetic Measurement Instrument AMMI

The Audio Magnetic Measuring Instrument (AMMI) is a desktop 19-inch unit containing a sampling unit, a waveform generator for test and calibration signals, and a USB interface.

Sampling	Rate 48 kHz/ 24 bit
Dynamic Range	85 dB
Test Signal Generation	User selectable and predefined (via PC)
Calibration	Auto-calibration / full system calibration using AMCC with monitor output
Dimensions	482 x 65 x 270 mm

3.1.3 Audio Magnetic Calibration Coil AMCC

The Audio Magnetic Calibration coil is a Helmholtz Coil designed for calibration of the AM1D probe. The two horizontal coils generate a homogeneous magnetic field in the z direction. The DC input resistance is adjusted by a series resistor to approximately 50Ohm, and a shunt resistor of 10 Ohm permits monitoring the current with a scale of 1:10.

Coil In	BNC	typically 50 Ohm
Coil Monitor	BNO	10Ohm ±1%(100mV corresponding to 1 A/m)
Dimensions	370 x 370 x 196 mm (ANSI-C63.19 compliant)	

3.1.4 Data Acquisition Electronic (DAE) System

Cell Controller

Processor：	Intel Core(TM)2 CPU
Clock Speed：	@ 1.86GHz
Operating System：	Windows XP Professional

Data Converter

Features：	Signal Amplifier, multiplexer, A/D converter, and control logic
Software：	DASY5 v5.0 (Build 125) & SEMCAD X Version 13.4 Build 125
Connecting Lines：	Optical downlink for data and status info
	Optical uplink for commands and clock

3.1.5 Robot

Positioner：	Stäubli Unimation Corp. Robot Model: TX90XL
Repeatability：	±0.02 mm
No. of Axis：	6

3.1.6 Measurement Server

Processor：	PC/104 with a 400MHz intel ULV Celeron
I/O-board：	Link to DAE4 (or DAE3)
	16-bit A/D converter for surface detection system
	Digital I/O interface
	Serial link to robot
	Direct emergency stop output for robot

3.1.7 WD position

The WD position and Test Arch are manufactured by Speag (http://www.dasy4.com/hac). Test arch is used for all tests i.e. for both validation testing and device testing. The position and test arch conforms to the requirements of ANSI C63.19.

The SPEAG device holder (see Section 2.1) was used to position the test device in all tests.

3.1.8 Verification of the System

Audio Magnetic Probe AM1D is calibrated in AMCC Helmholtz Audio Magnetic Calibration Coil before each measurement procedure using calibration and reference signals.

3.1.9 Reference Input of Audio Signal Spectrum

With the reference job "use as reference" in the beginning of a procedure, measure the spectrum of the current when applied to the AMCC, i.e. the input magnetic field spectrum, as shown below Figure 6 and Figure 7. For this, the delay of the window shall be set to a multiple of the signal period and at least 2s. From the measurement on the device, using the same signal, the postprocessor deducts the input spectrum, so the result represents the net DUT response.

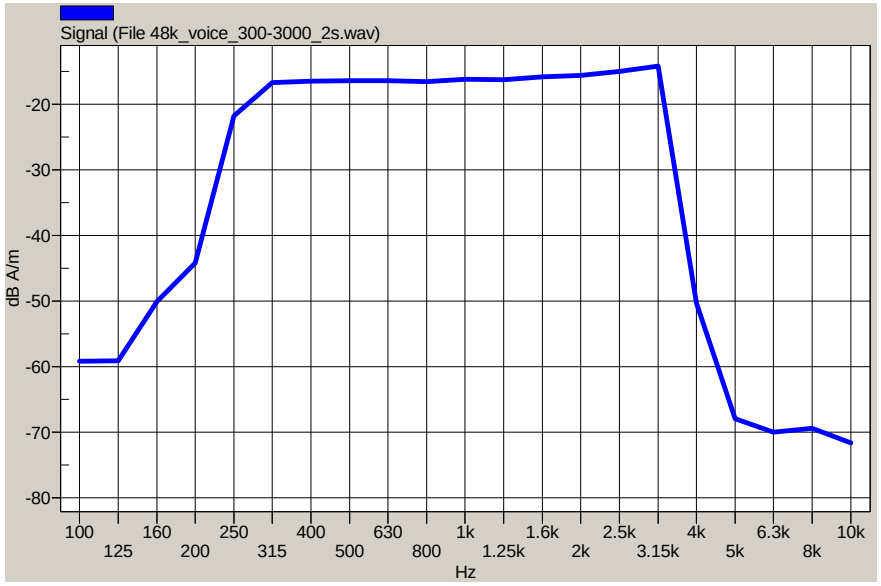


Figure 6. Audio signal spectrum of the broadband signal (48kHz_voice_300Hz~3 kHz)

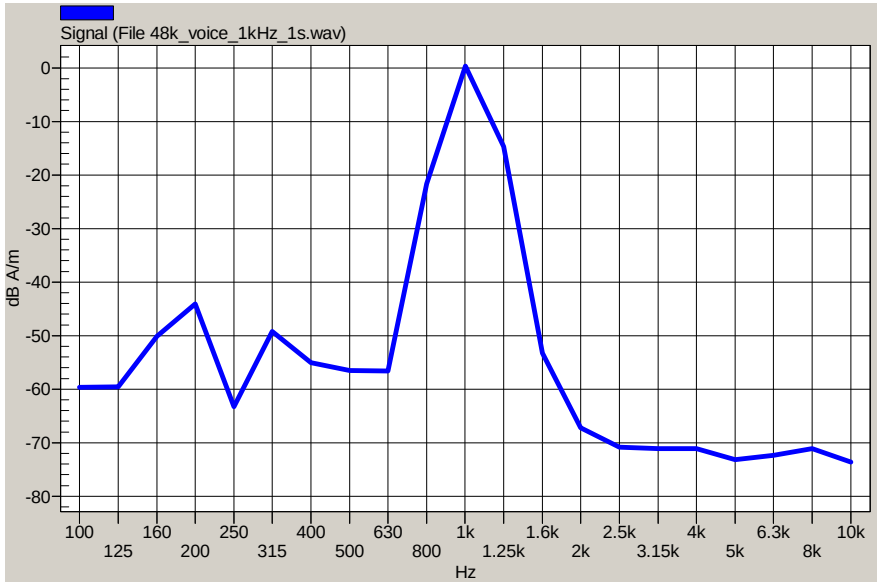


Figure 7. Audio signal spectrum of the narrowband signal (48kHz_voice_1kHz)

3.1.10 Signal Verification

According to ANSI C63.19:2007 section 6.3.2.1, the normal speech input level for HAC T-coil tests shall be set to -16 dBm0 for GSM and UMTS (WCDMA), and to -18 dBm0 for CDMA. This technical note shows a possibility to evaluate and set the correct level with the HAC T-Coil setup with a Rohde&Schwarz communication tester CMU200 with audio option B52 and B85.

Establish a call from the CMU200 to a wireless device. Select CMU200 Network Bitstream ”Decoder Cal” to have a 1 kHz signal with a level of 3.14 dBm0 at the speech output. Run the measurement job and read the voltage level at the multi-meter display “Coil signal”. Read the RMS voltage corresponding to 3.14 dBm0 and note it. Calculate the desired signal levels of -18 dBm0:
3.14 dBm0 = -2.54 dBV
-18 dBm0 = -23.68 dBV

Determine the 1 kHz input level to generate the desired signal level of -18 dBm0. Select CMU200 Network Bitstream “Codec Cal” to loop the input via the codec to the output. Run the measurement job (AMMI 1 kHz signal with gain 10 inserted) and read the voltage level at the multimeter display “Coil signal”. Calculate the required gain setting for the above levels:

Gain 10 = -20.75 dBV
Difference for -18 dBm0 = -23.68 - (-20.75) = -2.93 dB
Gain factor = 10 ^ ((-2.93) / 20) = 0.71
Resulting Gain = 10 x 0.71 = 7.14

The predefined signal types have the following differences / factors compared to the 1 kHz sine signal:

Signal Type	Duration (S)	Peak to RMS (dB)	RMS (dB)	Gain Factor	Gain Setting
1kHz	1	16.2	-12.7	4.33	3.09
300Hz ~ 3kHz	2	21.6	-18.6	8.48	6.05

4. Test Conditions

4.1 Temperature and Humidity

Ambient temperature (℃)	19 to 25
Ambient humidity (RH %)	40 to 70

Table 3. Temperature and Humidity

4.2 WD Control

The transmitter of the device was put into operation by using a call tester. Communications between the device and the call tester were established by air link. EFR speech codec was used during testing.

The device output power was set to maximum power level for all tests; a fully charged battery was used for every test sequence.

In all operating bands the measurements were performed on middle channel.

4.3 WD Parameters

HAC mode was switched on from the WD user interface, volume setting was 1/10 and microphone was muted.

4.4 Audio Band Magnetic

The purpose of the HAC T-Coil Extension is to add the capability of Audio Band Magnetic (ABM) measurements according to standard ANSI-C63.19 [1]. Together with the HAC RF extension, it allows complete characterization of the emissions of a wireless device (WD). The signals measured during these tests represent the field picked up by the T-Coil of a hearing aid. This application note describes the measurements required for the Wireless device T-Coil signal test that is described in ANSI-C63.19

4.5 System Specifications

Active Audio Magnetic Field Probe (AM1DV2) Description

The Audio Magnetic Field Probe is a fully shielded magnetic field probe for the frequency range from 100 Hz to 20 kHz. The pickup coil is compliant with the dimensional requirements of [1]. The probe includes a symmetric 40dB low noise amplifier for the signal available at the shielded 3 pin connector at the side. Power is supplied via the same connector (phantom power supply) and monitored via the LED near the connector. The 7 pin connector at the end of the probe does not carry any signals, but determines angle of sensor when mounted on the DAE. The probe supports mechanical detection of the surface. The single sensor in the probe is arranged in a tilt angle allowing measurement of 3 orthogonal field components when rotating the probe by 120◦ Around its axis. It is aligned with the perpendicular component of the field, if the probe axis is tilted 35.3 above the measurement plane, using the connector rotation below.

Figure 8.
Audio Magnetic Field Probe

The probe is fully RF shielded when operated with the matching signal cable (shielded) and allows measurement of audio magnetic fields in the close vicinity of RF emitting wireless devices according to [1] without additional shielding.

5. Summary of HAC T-Coil Signal Test Report

5.1 Summary of T-Coil Test Results

5.1.1 Results

Measurement position coordinates are defined as deviation from earpiece center in millimeters. Coordinate system is defined in chapter 4.2

Axial measurement location was defined by the manufacturer of the device.

Sample1 + Battery #1	Radial 1 (longitudinal)		Radial 2 (transversal)		Axial	
Mode	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band
Measurement position (x,y) [mm]	6, 2	6, 0	2, -6	0, -10	0, 2	0, -2
Signal strength [dB A/m]	5.24	5.63	3.85	3.76	12.90	12.40
Ambient back round noise ABM [dB A/m]	-55.76	-56.02	-48.89	-49.52	-53.17	-53.30
ABM2 [dB A/m]	-32.63	-29.58	-45.05	-42.05	-37.23	-31.46
Signal quality [dB]	37.90	35.20	48.90	45.80	50.10	43.90

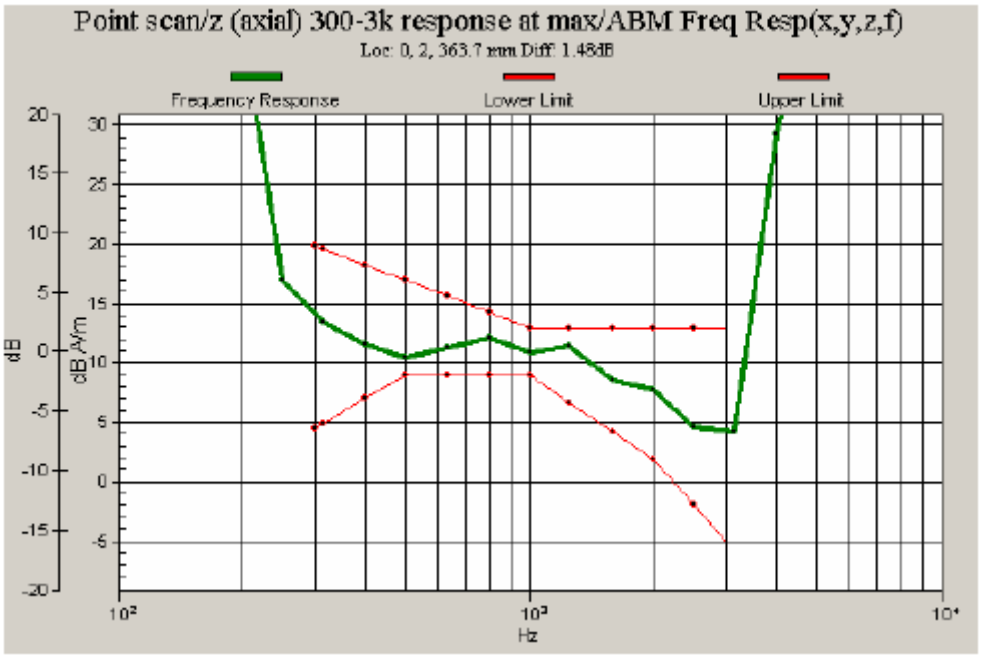
Sample1 + Battery #2	Radial 1 (longitudinal)		Radial 2 (transversal)		Axial	
Mode	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band
Measurement position (x,y) [mm]	8, 0	8, 0	2, -6	2, -6	0, 2	0, 0
Signal strength [dB A/m]	5.17	5.61	3.94	5.61	11.90	13.00
Ambient back round noise ABM [dB A/m]	-55.91	-54.95	-49.12	-48.92	-53.47	-53.32
ABM2 [dB A/m]	-28.26	-30.15	-43.42	-31.62	-30.47	-31.62
Signal quality [dB]	33.40	35.80	47.40	49.60	42.30	44.60

Sample2 + Battery #1	Radial 1 (longitudinal)		Radial 2 (transversal)		Axial	
Mode	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band
Measurement position (x,y) [mm]	-6, 2	6, 2	0, -6	0, -6	2, 0	2, 0
Signal strength [dB A/m]	4.27	5.13	4.36	4.38	11.70	11.60
Ambient back round noise ABM [dB A/m]	-55.91	-54.95	-49.12	-48.92	-53.47	-53.52
ABM2 [dB A/m]	-33.46	-32.17	-44.93	-48.92	-53.47	-53.52
Signal quality [dB]	37.70	37.30	49.30	51.00	42.50	46.50

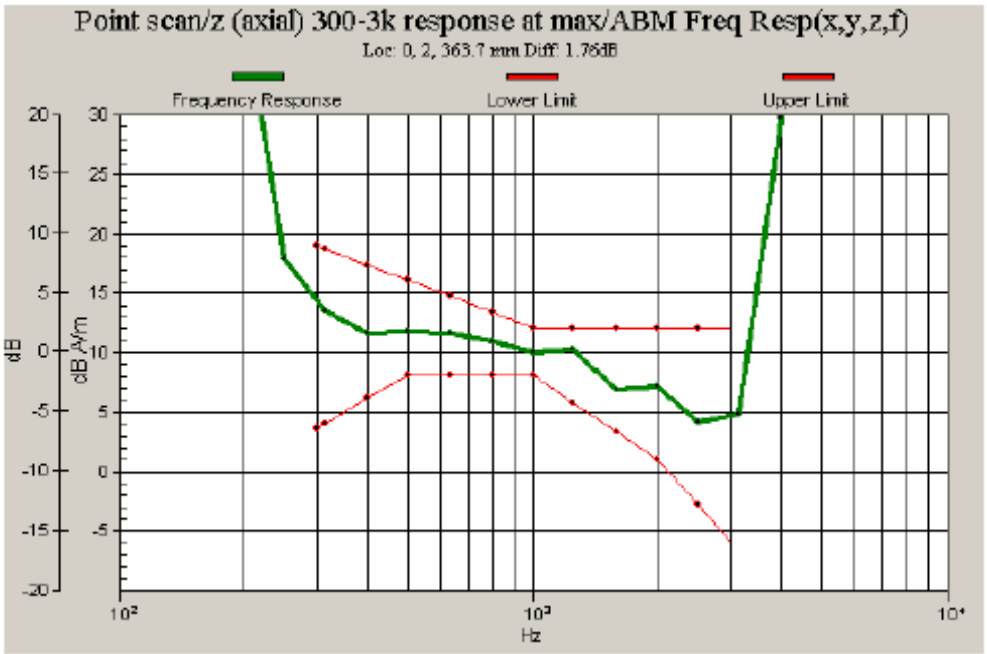
Sample2 + Battery #2	Radial 1 (longitudinal)		Radial 2 (transversal)		Axial	
Mode	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band	CDMA Cellular Band	CDMA PCS Band
Measurement position (x,y) [mm]	6, 2	8, 2	2, -8	0, -6	0, 0	0, 0
Signal strength [dB A/m]	6.06	5.67	4.69	4.93	12.60	13.00
Ambient back round noise ABM [dB A/m]	-55.91	-54.95	-49.12	-48.92	-53.47	-53.52
ABM2 [dB A/m]	-30.29	-33.42	-42.01	-46.26	-31.95	-36.06
Signal quality [dB]	36.30	39.10	46.70	51.20	44.50	44.60

Plots of the signal strength Measurement scans are presented in Appendix A.

Frequency Response:

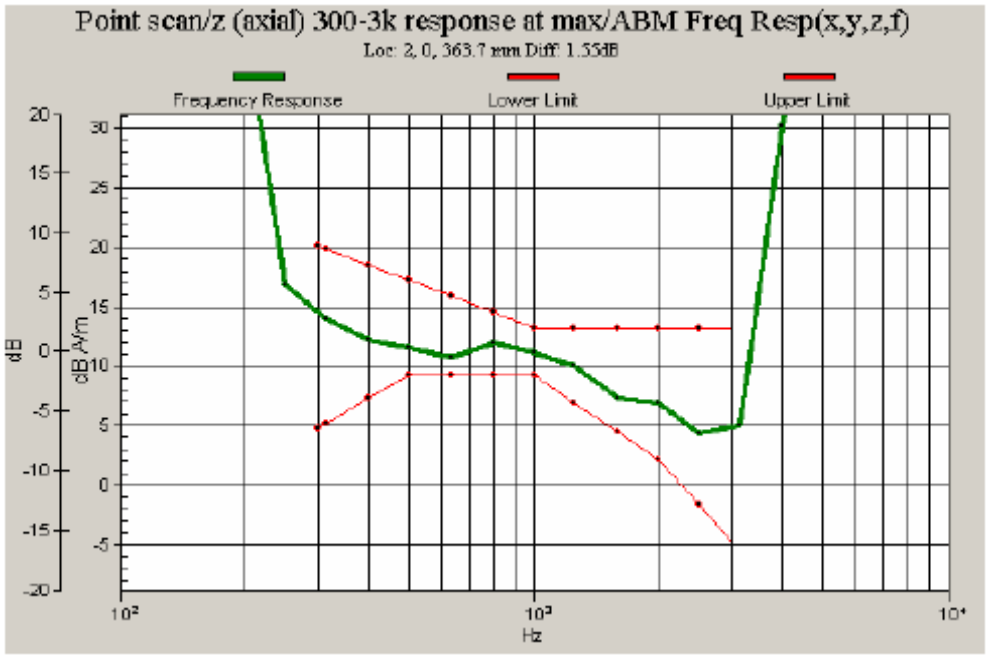


Frequency Response in CDMA Cellular Band _ Sample1 + Battery #1

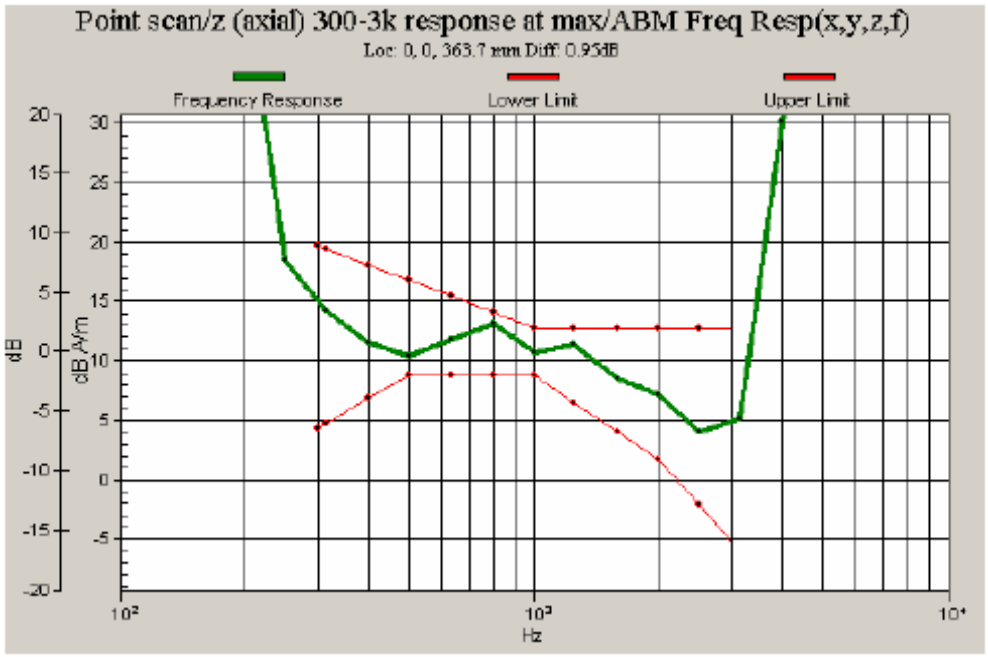


Frequency Response in CDMA Cellular Band _ Sample1 + Battery #2

Frequency Response:

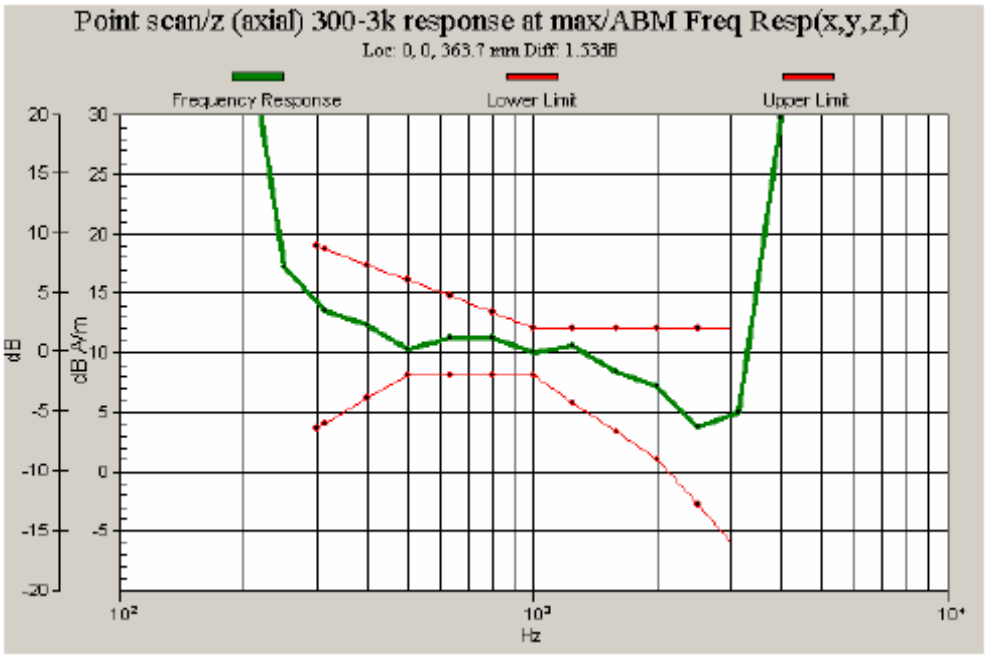


Frequency Response in CDMA Cellular Band _ Sample2 + Battery #1

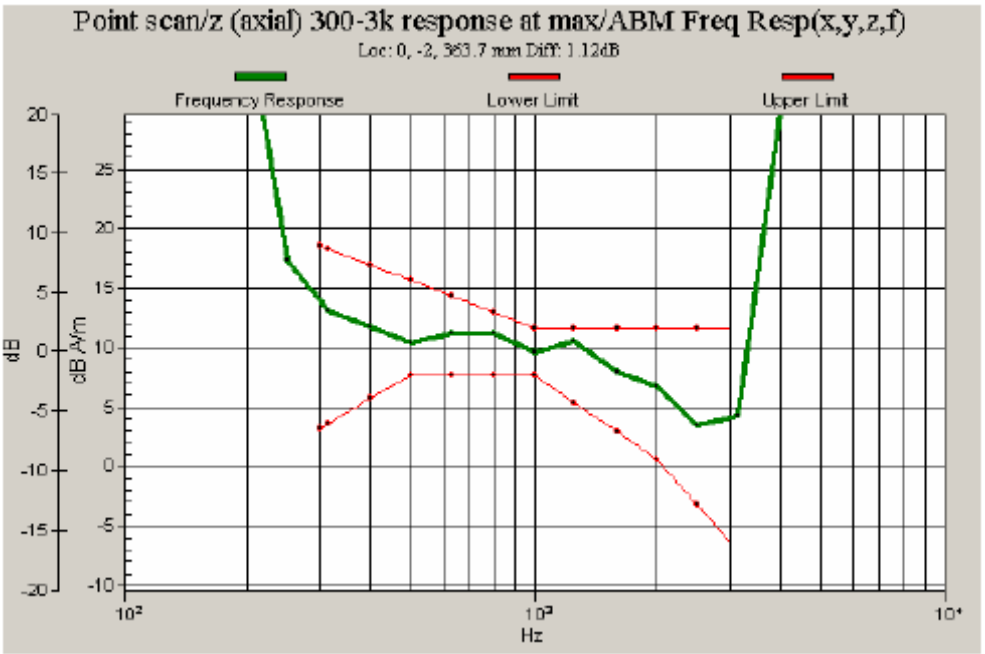


Frequency Response in CDMA Cellular Band _ Sample2 + Battery #2

Frequency Response:

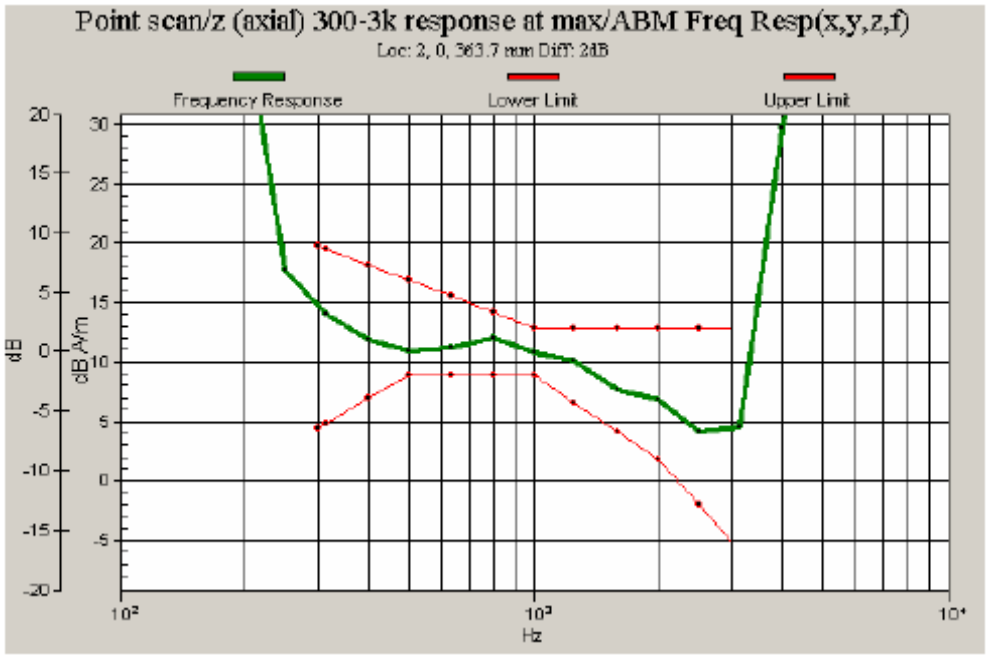


Frequency Response in CDMA PCS Band _ Sample1 + Battery #1

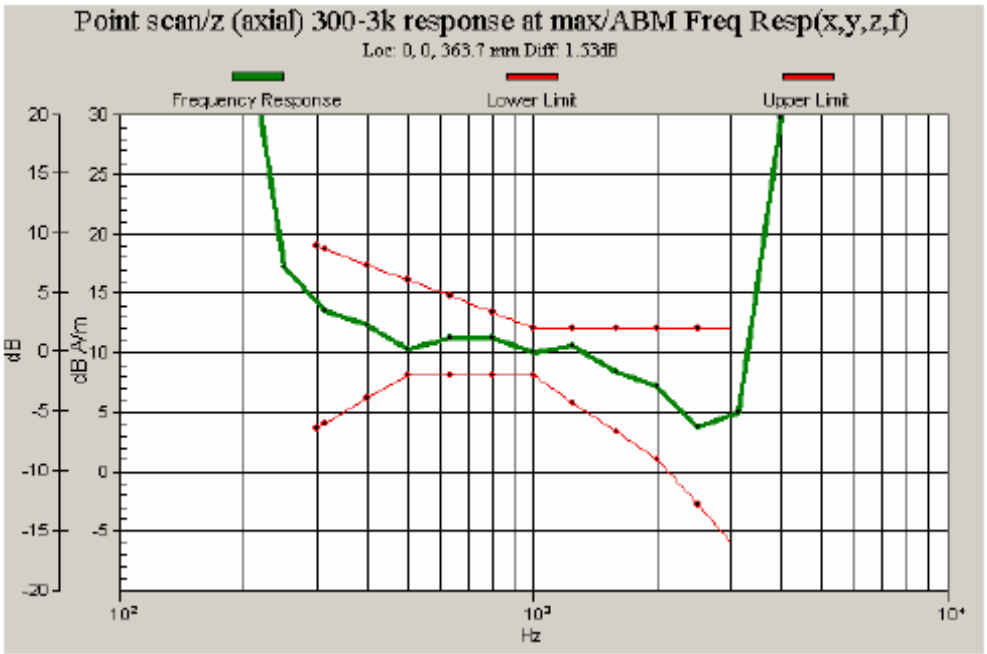


Frequency Response in CDMA PCS Band _ Sample1 + Battery #2

Frequency Response:



Frequency Response in CDMA PCS Band _ Sample2 + Battery #1



Frequency Response in CDMA PCS Band _ Sample2 + Battery #2

5.1.2 T-Coil Coupling Field Intensity

5.1.2.1. Axial Field Intensity

Sample1 + Battery #1			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	12.90	Pass
CDMA PCS Band	-18	12.40	Pass

Sample1 + Battery #2			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	11.90	Pass
CDMA PCS Band	-18	13.00	Pass

Sample2 + Battery #1			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	11.70	Pass
CDMA PCS Band	-18	11.60	Pass

Sample2 + Battery #2			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	12.60	Pass
CDMA PCS Band	-18	13.00	Pass

5.1.2.2. Radial Field Intensity

Sample1 + Battery #1			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	3.85	Pass
CDMA PCS Band	-18	3.76	Pass

Sample1 + Battery #2			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	3.94	Pass
CDMA PCS Band	-18	5.61	Pass

Sample2 + Battery #1			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	4.27	Pass
CDMA PCS Band	-18	4.38	Pass

Sample2 + Battery #2			
Cell Phone Mode	Minimum limit [dB (A/m)]	Result [dB (A/m)]	Verdict
CDMA Cellular Band	-18	4.69	Pass
CDMA PCS Band	-18	4.93	Pass

5.1.3 Frequency Response at Axial Measurement Point

Sample1 + Battery #1	
Cell Phone Mode	Verdict
CDMA Cellular Band	Pass
CDMA PCS Band	Pass

Sample1 + Battery #2	
Cell Phone Mode	Verdict
CDMA Cellular Band	Pass
CDMA PCS Band	Pass

Sample2 + Battery #1	
Cell Phone Mode	Verdict
CDMA Cellular Band	Pass
CDMA PCS Band	Pass

Sample2 + Battery #2	
Cell Phone Mode	Verdict
CDMA Cellular Band	Pass
CDMA PCS Band	Pass

5.1.4 Signal Quality

Sample1 + Battery #1							
Cell Phone Mode	Minimum Limit [dB]				Minimum Result [dB]	Category	Note
	T1	T2	T3	T4			
CDMA Cellular Band	0 to 10	10 to 20	20 to 30	>30	37.90	T4	-
CDMA PCS Band	0 to 10	10 to 20	20 to 30	>30	35.52	T4	-

Sample1 + Battery #2							
Cell Phone Mode	Minimum Limit [dB]				Minimum Result [dB]	Category	Note
	T1	T2	T3	T4			
CDMA Cellular Band	0 to 10	10 to 20	20 to 30	>30	33.40	T4	-
CDMA PCS Band	0 to 10	10 to 20	20 to 30	>30	35.80	T4	-

Sample2 + Battery #1							
Cell Phone Mode	Minimum Limit [dB]				Minimum Result [dB]	Category	Note
	T1	T2	T3	T4			
CDMA Cellular Band	0 to 10	10 to 20	20 to 30	>30	37.30	T4	-
CDMA PCS Band	0 to 10	10 to 20	20 to 30	>30	37.30	T4	-

Sample2 + Battery #2							
Cell Phone Mode	Minimum Limit [dB]				Minimum Result [dB]	Category	Note
	T1	T2	T3	T4			
CDMA Cellular Band	0 to 10	10 to 20	20 to 30	>30	36.30	T4	-
CDMA PCS Band	0 to 10	10 to 20	20 to 30	>30	39.10	T4	-

Wireless Mode	Cell Phone Mode	CH	Minimum Result [dB]			Category	Note
			Radial 1 (longitudinal)	Radial 2 (transversal)	Axial		
---	CDMA Cellular Band	384	33.4	47.40	42.30	T4	Sample1 + Battery #2
		600	35.2	45.80	43.90	T4	Sample1 + Battery #1
Bluetooth	CDMA Cellular Band	384	33.6	47.20	42.20	T4	Sample1 + Battery #2
		600	35.4	45.50	43.30	T4	Sample1 + Battery #1
Wi-Fi	CDMA Cellular Band	384	33.7	47.00	42.00	T4	Sample1 + Battery #2
		600	35.5	45.10	43.30	T4	Sample1 + Battery #1

5.2 Description of the Equipment under Test (EUT)

Modes and Bands of Operation	CDMA Cellular Band	CDMA PCS Band
Modulation Mode	QPSK	QPSK
Duty Cycle	1/1	1/1
Transmitter Frequency Range (MHz)	824.7 – 848.3	1851.2 – 1918.8

Appendix A - Measurement Scans

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:19:24 PM

T-Coil_CDMA cellular CH384_main+battery main_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 3.7 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

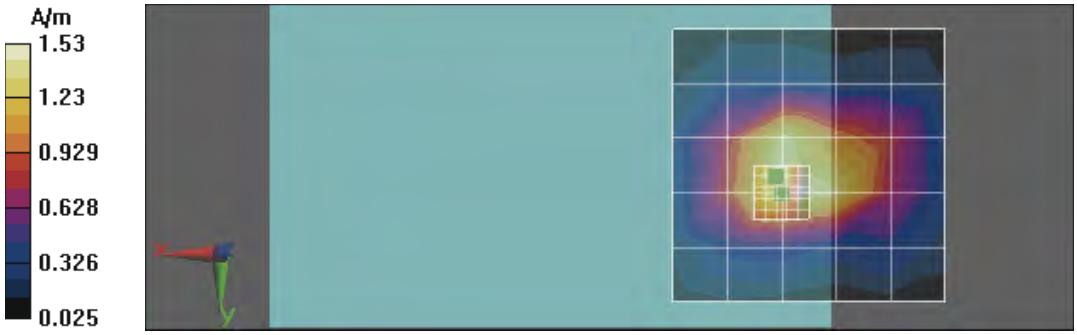
Cursor:
ABM1 comp = 6.19 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 37.9 dB
ABM1 comp = 5.24 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.24 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:21:02 PM

T-Coil_CDMA cellular CH384_main+battery main_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

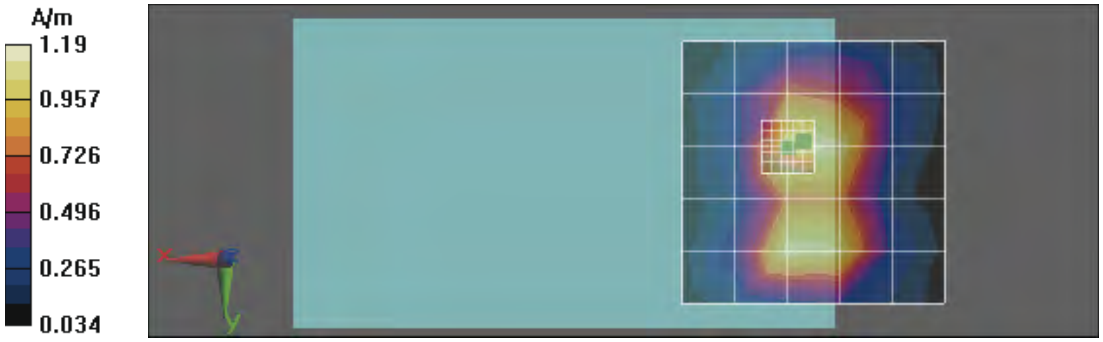
- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 1.49 dB A/m
BWC Factor = 0.151969 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.04 dB A/m
BWC Factor = 0.152993 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 48.9 dB
ABM1 comp = 3.85 dB A/m
BWC Factor = 0.152993 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.85 dB A/m
BWC Factor = 0.152993 dB
Location: 2, -6, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:17:52 PM

T-Coil_CDMA cellular CH384_main+battery main_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 8.78 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 12.8 dB A/m
BWC Factor = 0.152993 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.48 dB
BWC Factor = 10.8 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 50.1 dB
ABM1 comp = 12.9 dB A/m
BWC Factor = 0.152993 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 12.9 dB A/m
BWC Factor = 0.152993 dB
Location: 0, 2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:54:42 PM

T-Coil_CDMA cellular CH384_main+battery 2nd_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.88 dB A/m
BWC Factor = 0.152993 dB
Location: 5, -5, 363.7 mm

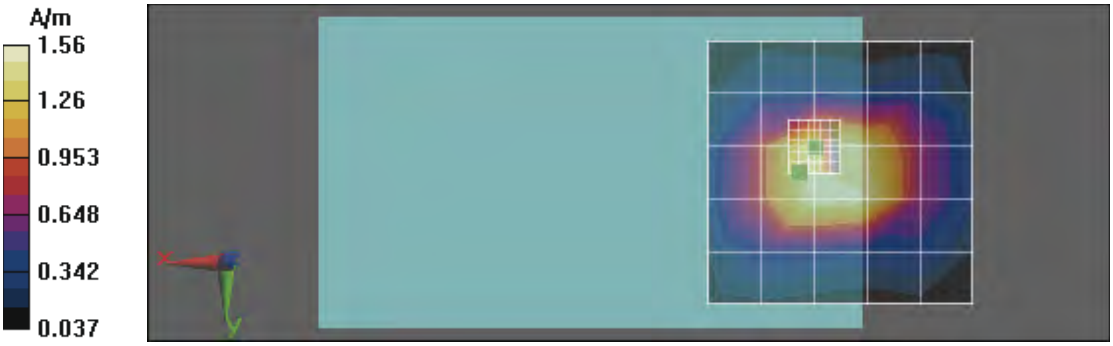
Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.74 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 33.4 dB
ABM1 comp = 5.17 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.17 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:56:19 PM

T-Coil_CDMA cellular CH384_main+battery 2nd_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 2.49 dB A/m
BWC Factor = 0.152993 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.51 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 47.4 dB
ABM1 comp = 3.94 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.94 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm

0 dB = 1A/m

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:53:09 PM

T-Coil_CDMA cellular CH384_main+battery 2nd_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 9.54 dB A/m
BWC Factor = 0.152993 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 13 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.76 dB
BWC Factor = 10.8 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 42.3 dB
ABM1 comp = 11.9 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 11.9 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:24:34 PM

T-Coil_CDMA cellular CH384_2nd+battery man_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.72 dB A/m
BWC Factor = 0.152993 dB
Location: -5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.88 dB A/m
BWC Factor = 0.151969 dB
Location: -6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 37.7 dB
ABM1 comp = 4.27 dB A/m
BWC Factor = 0.152993 dB
Location: -6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.27 dB A/m
BWC Factor = 0.152993 dB
Location: -6, 2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:26:11 PM

T-Coil_CDMA cellular CH384_2nd+battery man_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

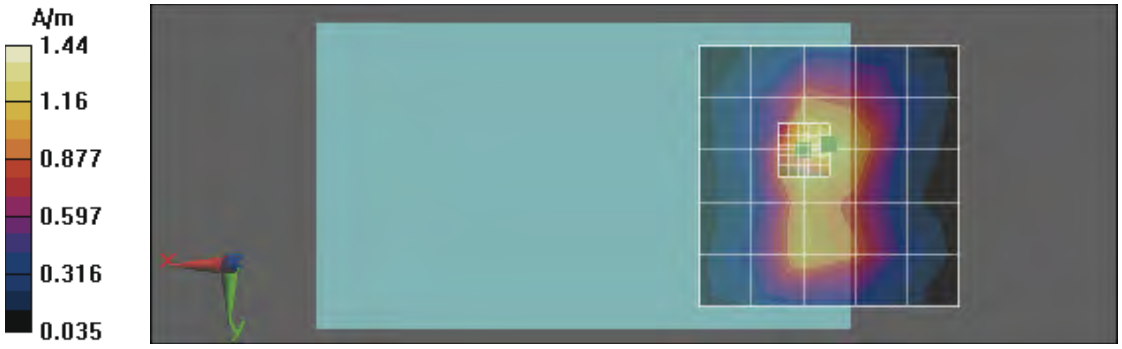
- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.16 dB A/m
BWC Factor = 0.152993 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.7 dB A/m
BWC Factor = 0.151969 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 49.3 dB
ABM1 comp = 4.36 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.36 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:23:02 PM

T-Coil_CDMA cellular CH384_2nd+battery man_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 9.75 dB A/m
BWC Factor = 0.152993 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 12.9 dB A/m
BWC Factor = 0.151969 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.55 dB
BWC Factor = 10.8 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 42.5 dB
ABM1 comp = 11.7 dB A/m
BWC Factor = 0.152993 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 11.7 dB A/m
BWC Factor = 0.152993 dB
Location: 2, 0, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 4:13:33 PM

T-Coil_CDMA cellular CH384_2nd+battery 2nd_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.1 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.94 dB A/m
BWC Factor = 0.151969 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 36.3 dB
ABM1 comp = 6.06 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 6.06 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 4:15:11 PM

T-Coil_CDMA cellular CH384_2nd+battery 2nd_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.02 dB A/m
BWC Factor = 0.151969 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.87 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -8, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 46.7 dB
ABM1 comp = 4.69 dB A/m
BWC Factor = 0.152993 dB
Location: 2, -8, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 4.69 dB A/m
BWC Factor = 0.152993 dB
Location: 2, -8, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 4:12:01 PM

T-Coil_CDMA cellular CH384_2nd+battery 2nd_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA Cellular ; Frequency: 836.52 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 9.09 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 13.3 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

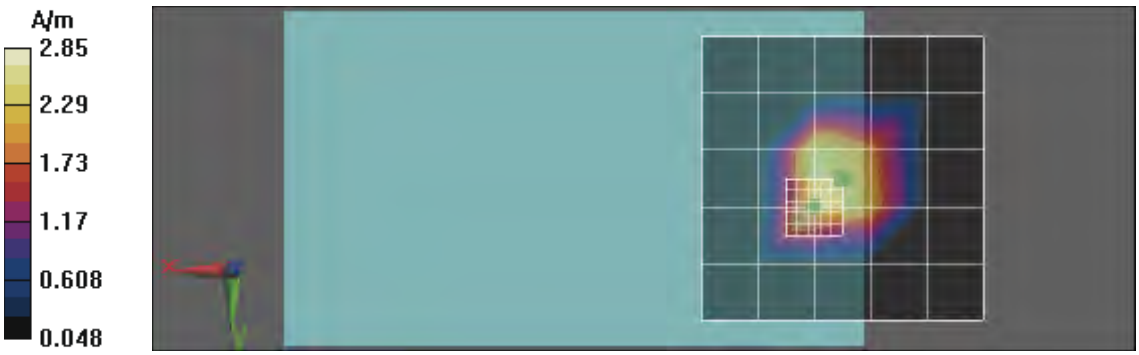
Cursor:
Diff = 0.953 dB
BWC Factor = 10.8 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 44.5 dB
ABM1 comp = 12.6 dB A/m
BWC Factor = 0.152993 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 12.6 dB A/m
BWC Factor = 0.152993 dB
Location: 0, 0, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:45:48 PM

T-Coil_CDMA PCS CH600_main+battery main_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.3 dB A/m
BWC Factor = 0.152993 dB
Location: 5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.154017 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.5 dB A/m
BWC Factor = 0.154017 dB
Location: 6, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 35.2 dB
ABM1 comp = 5.63 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.63 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 0, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:47:25 PM

T-Coil_CDMA PCS CH600_main+battery main_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

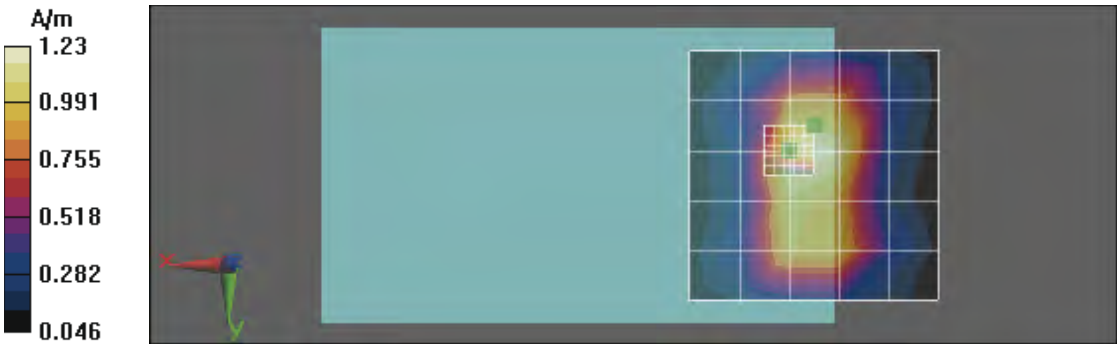
Cursor:
ABM1 comp = 1.78 dB A/m
BWC Factor = 0.152993 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.154017 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 4.39 dB A/m
BWC Factor = 0.154017 dB
Location: 0, -10, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 45.8 dB
ABM1 comp = 3.76 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -10, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.76 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -10, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 3:44:15 PM

T-Coil_CDMA PCS CH600_main+battery main_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 8.38 dB A/m
BWC Factor = 0.152993 dB
Location: 5, -5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.154017 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 12.5 dB A/m
BWC Factor = 0.154017 dB
Location: 0, -2, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.12 dB
BWC Factor = 10.8 dB
Location: 0, -2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 43.9 dB
ABM1 comp = 12.4 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -2, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 12.4 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 6:19:17 PM

T-Coil_CDMA PCS CH600_main+battery 2nd_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.17 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

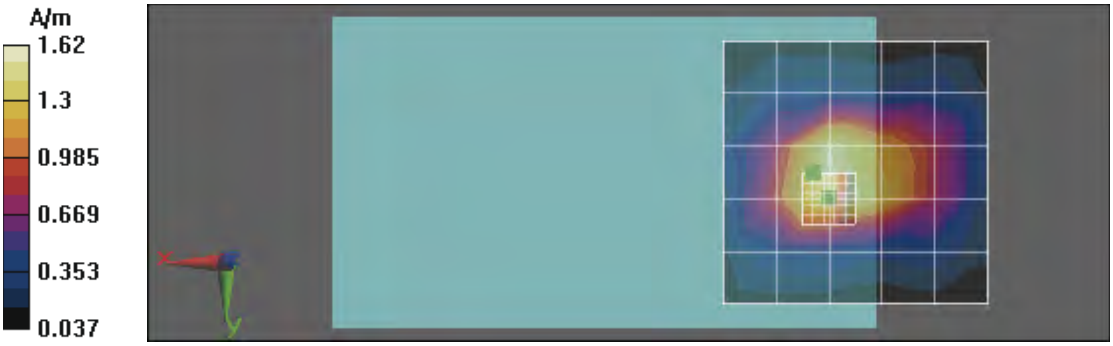
Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 6.38 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 35.8 dB
ABM1 comp = 5.61 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.61 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 6:20:55 PM

T-Coil_CDMA PCS CH600_main+battery 2nd_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 1.78 dB A/m
BWC Factor = 0.151969 dB
Location: 5, -5, 363.7 mm

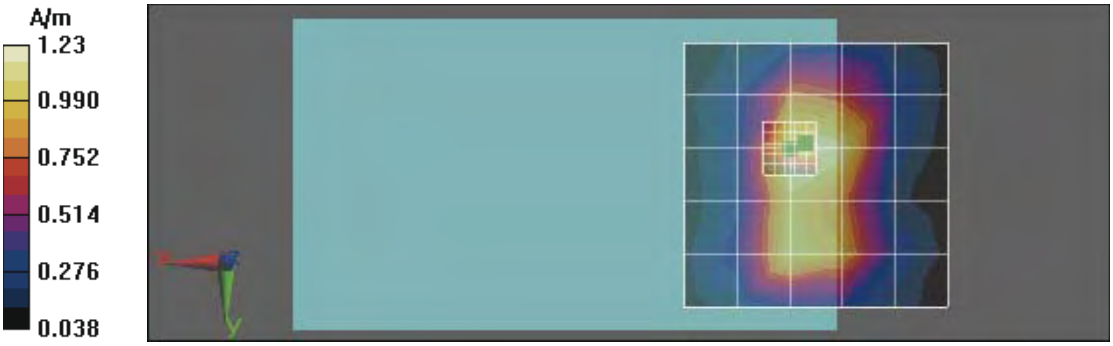
Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.52 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 49.6 dB
ABM1 comp = 5.61 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.61 dB A/m
BWC Factor = 0.151969 dB
Location: 2, -6, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 6:17:45 PM

T-Coil_CDMA PCS CH600_main+battery 2nd_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 9.25 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 6.38 dB A/m
BWC Factor = 0.151969 dB
Location: 8, 0, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.53 dB
BWC Factor = 10.8 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 44.6 dB
ABM1 comp = 13 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 13 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:02:33 PM

T-Coil_CDMA PCS CH600_2nd+battery main_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 3.96 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

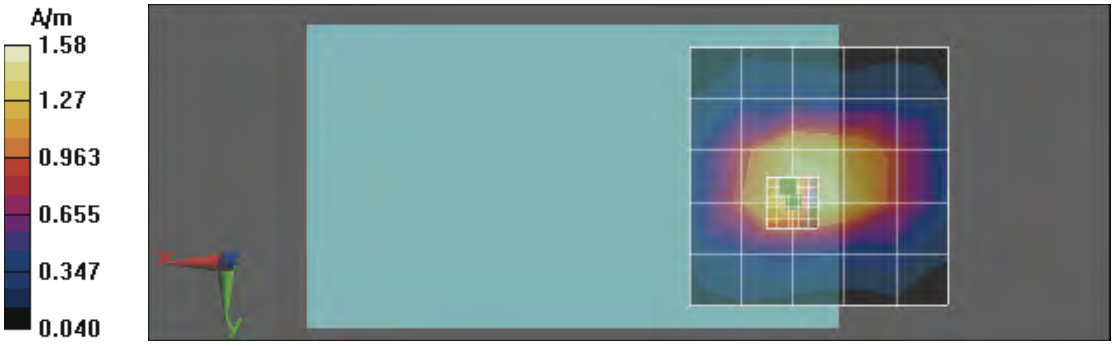
Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.69 dB A/m
BWC Factor = 0.151969 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 37.3 dB
ABM1 comp = 5.13 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 5.13 dB A/m
BWC Factor = 0.152993 dB
Location: 6, 2, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:04:10 PM

T-Coil_CDMA PCS CH600_2nd+battery main_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

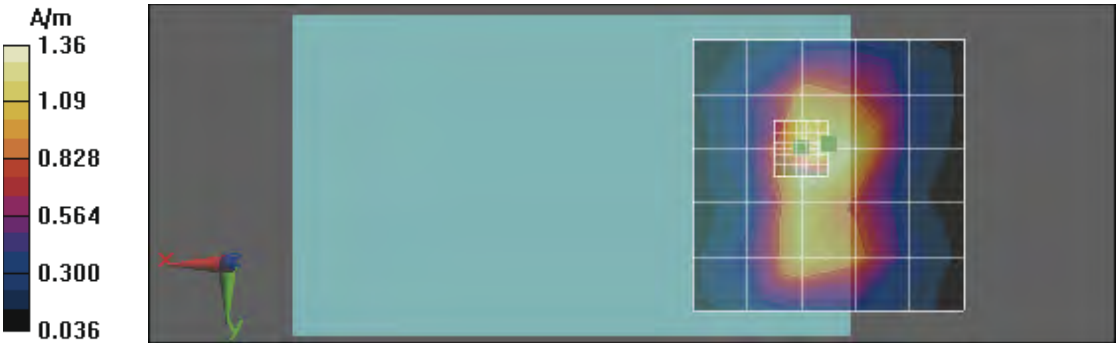
- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 2.65 dB A/m
BWC Factor = 0.151969 dB
Location: 5, -5, 363.7 mm

Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.59 dB A/m
BWC Factor = 0.151969 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 51 dB
ABM1 comp = 4.38 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.38 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 5:01:00 PM

T-Coil_CDMA PCS CH600_2nd+battery main_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 8.95 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 13.2 dB A/m
BWC Factor = 0.151969 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 2 dB
BWC Factor = 10.8 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 46.5 dB
ABM1 comp = 11.6 dB A/m
BWC Factor = 0.152993 dB
Location: 2, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 11.6 dB A/m
BWC Factor = 0.152993 dB
Location: 2, 0, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 4:39:27 PM

T-Coil_CDMA PCS CH600_2nd+battery 2nd_x (longitudinal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/x (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 4.35 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/x (longitudinal) scan 10 x 10 (grid 2) with noise 2/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 6.45 dB A/m
BWC Factor = 0.152993 dB
Location: 8, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1/ABM2 = 39.1 dB
ABM1 comp = 5.67 dB A/m
BWC Factor = 0.152993 dB
Location: 8, 2, 363.7 mm

Point scan/x (longitudinal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.67 dB A/m
BWC Factor = 0.152993 dB
Location: 8, 2, 363.7 mm

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 4:41:04 PM

T-Coil_CDMA PCS CH600_2nd+battery 2nd_y (transversal)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/y (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 2.93 dB A/m
BWC Factor = 0.151969 dB
Location: 5, -5, 363.7 mm

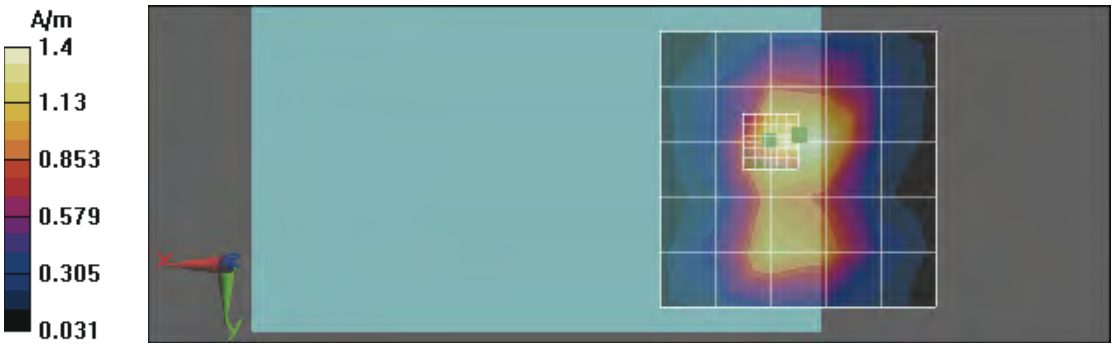
Fine scan/y (transversal) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 5.14 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 51.2 dB
ABM1 comp = 4.93 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm

Point scan/y (transversal) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.152993 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 4.93 dB A/m
BWC Factor = 0.152993 dB
Location: 0, -6, 363.7 mm



Test Laboratory: A Test Lab Techno Corp.

Date/Time: 6/30/2011 6:17:45 PM

T-Coil_CDMA PCS CH600_2nd+battery 2nd)_z (axial)

DUT: PG76200; Type: Smartphone; FCC ID: NM8PG76200

Communication System: CDMA PCS ; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1$ kg/m^3
Phantom section: AMB with Coil Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: AM1DV2 - 1017; ; Calibrated: 2/14/2011
- Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE4 Sn779; Calibrated: 1/31/2011
- Phantom: HAC Test Arch with Coil; Type: SD_HAC_P02_AB; Serial: 1011
- Measurement SW: DASY5, V5.0 Build 125;SEMCAD X Version 13.2 Build 87

Coarse Scans/z (axial) scan 50 x 50 (grid 10) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 9.25 dB A/m
BWC Factor = 0.151969 dB
Location: 5, 5, 363.7 mm

Fine scan/z (axial) scan 10 x 10 (grid 2) with noise/ABM Signal(x,y,z) (6x6x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm
Cursor:
ABM1 comp = 13.1 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) 300-3k response at max/ABM Freq Resp(x,y,z,f) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_300-3000_2s.wav
Output Gain: 60.51
Measure Window Start: 2000ms
Measure Window Length: 2000ms
BWC applied: 10.8 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
Diff = 1.53 dB
BWC Factor = 10.8 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM SNR(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1/ABM2 = 44.6 dB
ABM1 comp = 13 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Point scan/z (axial) scan at point with noise/ABM Signal(x,y,z) (1x1x1):
Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 30.9
Measure Window Start: 0ms
Measure Window Length: 1000ms
BWC applied: 0.151969 dB
Device Reference Point: 0, 0, 353.7 mm

Cursor:
ABM1 comp = 13 dB A/m
BWC Factor = 0.151969 dB
Location: 0, 0, 363.7 mm

Appendix B - Calibration

All of the instruments Calibration information are listed below.

- Probe _ AM1DV2 SN:1017 Calibration No. AM1DV2-1017_Feb11
- DAE _ DAE4 SN:779 Calibration No.DAE4-779_ Jan11

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

Client ATL (Auden)

Certificate No: AM1DV2- 1017_Feb11

CALIBRATION CERTIFICATE

Object	AM1DV2 - SN: 1017
Calibration procedure(s)	QA CAL-24.v2 Calibration procedure for AM1D magnetic field probes and TMFS in the audio range
Calibration date:	February 14, 2011

This calibration certificate 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 in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	28-Sep-10 (No:10376)	Sep-11
Reference Probe AM1DV2	SN: 1008	18-Jan-11 (No. AM1D-1008_Jan11)	Jan-12
DAE4	SN: 781	20-Oct-10 (No. DAE4-781_Oct10)	Oct-11

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
AMCC	1050	15-Oct-09 (in house check Oct-09)	Oct-11

	Name	Function	Signature
Calibrated by:	Mike Meili	Laboratory Technician	
Approved by:	Fin Bomholt	R&D Director	

Issued: February 15, 2011

References

[1] ANSI C63.19-2007
American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.

[2] DASY4 manual, Chapter: Hearing Aid Compatibility (HAC) T-Coil Extension

Description of the AM1D probe

The AM1D Audio Magnetic Field Probe is a fully shielded magnetic field probe for the frequency range from 100 Hz to 20 kHz. The pickup coil is compliant with the dimensional requirements of [1]. The probe includes a symmetric low noise amplifier for the signal available at the shielded 3 pin connector at the side. Power is supplied via the same connector (phantom power supply) and monitored via the LED near the connector. The 7 pin connector at the end of the probe does not carry any signals, but determines the angle of the sensor when mounted on the DAE. The probe supports mechanical detection of the surface.
The single sensor in the probe is arranged in a tilt angle allowing measurement of 3 orthogonal field components when rotating the probe by 120° around its axis. It is aligned with the perpendicular component of the field, if the probe axis is tilted nominally 35.3° above the measurement plane, using the connector rotation and sensor angle stated below.
The probe is fully RF shielded when operated with the matching signal cable (shielded) and allows measurement of audio magnetic fields in the close vicinity of RF emitting wireless devices according to [1] without additional shielding.

Handling of the item

The probe is manufactured from stainless steel. In order to maintain the performance and calibration of the probe, it must not be opened. The probe is designed for operation in air and shall not be exposed to humidity or liquids. For proper operation of the surface detection and emergency stop functions in a DASY system, the probe must be operated with the special probe cup provided (larger diameter).

Methods Applied and Interpretation of Parameters

- *Coordinate System:* The AM1D probe is mounted in the DASY system for operation with a HAC Test Arch phantom with AMCC Helmholtz calibration coil according to [2], with the tip pointing to "southwest" orientation.
- *Functional Test:* The functional test preceding calibration includes test of
  Noise level
  RF immunity (1kHz AM modulated signal). The shield of the probe cable must be well connected.
  Frequency response verification from 100 Hz to 10 kHz.
- *Connector Rotation:* The connector at the end of the probe does not carry any signals and is used for fixation to the DAE only. The probe is operated in the center of the AMCC Helmholtz coil using a 1 kHz magnetic field signal. Its angle is determined from the two minima at nominally +120° and –120° rotation, so the sensor in the tip of the probe is aligned to the vertical plane in z-direction, corresponding to the field maximum in the AMCC Helmholtz calibration coil.
- *Sensor Angle:* The sensor tilting in the vertical plane from the ideal vertical direction is determined from the two minima at nominally +120° and –120°. DASY system uses this angle to align the sensor for radial measurements to the x and y axis in the horizontal plane.
- *Sensitivity:* With the probe sensor aligned to the z-field in the AMCC, the output of the probe is compared to the magnetic field in the AMCC at 1 kHz. The field in the AMCC Helmholtz coil is given by the geometry and the current through the coil, which is monitored on the precision shunt resistor of the coil.

AM1D probe identification and configuration data

Item	**AM1DV2** Audio Magnetic 1D Field Probe
Type No	SP AM1 001 AD
Serial No	**1017**

Overall length	296 mm
Tip diameter	6.0 mm (at the tip)
Sensor offset	3.0 mm (centre of sensor from tip)
Internal Amplifier	40 dB

Manufacturer / Origin	Schmid & Partner Engineering AG, Zurich, Switzerland
Manufacturing date	Apr-2006
Last calibration date	February 23, 2010

Calibration data

Connector rotation angle	(in DASY system)	**232.9** °	+/- 3.6 ° (k=2)
Sensor angle	(in DASY system)	**-0.39** °	+/- 0.5 ° (k=2)
Sensitivity at 1 kHz	(in DASY system)	**0.0651 V / (A/m)**	+/- 2.2 % (k=2)

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 ATL (Auden)

Certificate No: DAE4-779_Jan11

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BJ - SN: 779
Calibration procedure(s)	QA CAL-06.v22 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	January 31, 2011

This calibration certificate 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 in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	28-Sep-10 (No:10376)	Sep-11
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Calibrator Box V1.1	SE UMS 006 AB 1004	07-Jun-10 (in house check)	In house check: Jun-11

	Name	Function	Signature
Calibrated by:	Andrea Guntli	Technician	
Approved by:	Fin Bomholt	R&D Director	

Issued: January 31, 2011

This calibration certificate shall not be reproduced 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

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV ,	full range =	-100...+300 mV
Low Range:	1LSB =	61nV ,	full range =	-1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.517 ± 0.1% (k=2)	403.748 ± 0.1% (k=2)	403.972 ± 0.1% (k=2)
Low Range	3.96927 ± 0.7% (k=2)	3.98585 ± 0.7% (k=2)	3.99915 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	155.5 ° ± 1 °

Appendix

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200001.8	6.19	0.00
Channel X	+ Input	20003.75	4.25	0.02
Channel X	- Input	-19996.56	3.04	-0.02
Channel Y	+ Input	200005.0	0.90	0.00
Channel Y	+ Input	20000.78	1.38	0.01
Channel Y	- Input	-19996.43	2.97	-0.01
Channel Z	+ Input	200002.2	-1.15	-0.00
Channel Z	+ Input	19999.59	0.19	0.00
Channel Z	- Input	-19995.05	4.35	-0.02

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2000.4	0.25	0.01
Channel X	+ Input	200.27	0.37	0.18
Channel X	- Input	-199.08	1.12	-0.56
Channel Y	+ Input	2000.1	0.19	0.01
Channel Y	+ Input	199.01	-0.89	-0.45
Channel Y	- Input	-199.30	0.50	-0.25
Channel Z	+ Input	1999.6	-0.40	-0.02
Channel Z	+ Input	199.22	-0.88	-0.44
Channel Z	- Input	-200.27	-0.37	0.19

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-3.66	-5.39
	- 200	5.82	4.90
Channel Y	200	13.39	13.58
	- 200	-14.98	-15.16
Channel Z	200	2.20	2.53
	- 200	-4.84	-4.61

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	1.33	-0.57
Channel Y	200	1.97	-	3.29
Channel Z	200	1.19	-0.28	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15613	15134
Channel Y	15831	16218
Channel Z	16150	17743

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	-0.26	-1.03	0.79	0.42
Channel Y	0.52	-1.04	2.07	0.58
Channel Z	-2.22	-3.25	-0.85	0.44

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

Appendix C - Measurement Uncertainty

Error Description	Uncertainty value[%]	Prob. Dist.	Div.	c ABM1	c ABM2	Std. Unc. ABM1	Std. Unc. ABM2
PROBE SENSITIVITY							
Reference level	3.0	N	1.0	1	1	3.0	3.0
AMCC geometry	0.4	R	1.7	1	1	0.2	0.2
AMCC current	0.6	R	1.7	1	1	0.4	0.4
Probe positioning during calibration	1.0	R	1.7	1	1	0.6	0.6
Noise contribution	0.7	R	1.7	0.014	1	0.0	0.4
Frequency slope	5.9	R	1.7	0.1	1.0	0.3	3.5
PROBE SYSTEM							
Repeatability / Drift	1.0	R	1.7	1	1	0.6	0.6
Linearity / Dynamic range	0.6	R	1.7	1	1	0.4	0.4
Acoustic noise	1.0	R	1.7	0.1	1	0.1	0.6
Probe angle	2.3	R	1.7	1	1	1.4	1.4
Spectral processing	0.9	R	1.7	1	1	0.5	0.5
Integration time	0.6	N	1.0	1	5	0.6	3.0
Field disturbation	0.2	R	1.7	1	1	0.1	0.1
TESTT SIGNAL							
Reference signal spectral response	0.6	R	1.7	0	1	0.0	0.4
POSITIONING							
Probe positioning	1.9	R	1.7	1	1	1.1	1.1
Phantom thickness	0.9	R	1.7	1	1	0.5	0.5
DUT positioning	1.9	R	1.7	1	1	1.1	1.1
EXTERNAL CONTRIBUTIONS							
RF interference	0.0	R	1.7	1	1	0.0	0.0
Test signal variation	2.0	R	1.7	1	1	1.2	1.2
COMBINED UNCERTAINTY							
Combined td. Uncertainty (ABM field)						4.1	6.2
Expanded Std. Uncertainty [%]						8.2	12.3

Table 4. **Draft T-Coil Uncertainty Budget, provided by SPEAG Jun. 07, 2006**