HAC TEST REPORT

Applicant	Bullitt Group
FCC ID	ZL5S62
Product	4G Mobile Phone
Brand	CAT
Model	S62
Report No.	R2009A0612-H1V3
Issue Date	March 5, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **ANSI C63.19-2011**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Yu Wang Guangchang Fan

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	February 9, 2021
Rev.1	Update description in Page 9 and page 26.	February 25, 2021
Rev.2	Update description in page 26.	March 3, 2021
Rev.3	Update the band.	March 5, 2021
Note: This revised report (Report No. R2009A0612-H1V3) supersedes and replaces the previously issued report (Report No. R2009A0612-H1V2). Please discard or destroy the previously issued report and dispose of it accordingly.		

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1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd).**The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.2 Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
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1.3 Laboratory Environment

Temperature	Min. = 18°C, Max. = 28 °C
Relative humidity	Min. = 0%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

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2 Statement of Compliance

Table 2.1: T-Coil signal quality categories of each tested Mode

Band	Category
GSM 850	T4
GSM 1900	T4
WCDMA Band II	T4
WCDMA Band IV	T4
WCDMA Band V	T4
CDMA BC0	T4
CDMA BC1	T4
CDMA BC10	T4
LTE Band 2	T4
LTE Band 4	T4
LTE Band 5	T4
LTE Band 7	T4
LTE Band 12	T4
LTE Band 13	T4
LTE Band 14	T4
LTE Band 17	T4
LTE Band 25	T4
LTE Band 26	T4
LTE Band 38	T4
LTE Band 40	T4
LTE Band 41	T4
LTE Band 66	T4
WIFI 2.4G	T4
WIFI 5G	T4
The Total T-Coil rating is T4	
Date of Testing: January 21, 2021 ~ January 22, 2021	
Date of Sample Received: January 12, 2021	
Note: All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.	

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3 Description of Equipment under Test

Client Information

Applicant	Bullitt Group
Applicant address	One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR, United Kingdom
Manufacturer	Bullitt Group
Manufacturer address	One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR, United Kingdom

General Technologies

Device Type:	Portable Device	
EUT Stage	Production Unit	
Model	S62	
IMEI:	355418110039430	
Hardware Version	Q190_V1	
Software Version	LTE_S02111.10_N_S62_0	
Antenna Type	Fixed Internal	
Power Class:	GSM 850: 4 GSM 1900: 1 CDMA BC 0/1/10: 3 WCDMA Band II/IV/V: 3 LTE FDD 2/4/5/7/12/13/14/17/25/26/66:3 LTE TDD 38/40/41:3	
Power Level	GSM 850: level 5 GSM 1900: level 0 CDMA BC 0/1/10: all up bits WCDMA Band II/IV/V: All up bits LTE FDD 2/4/5/7/12/13/14/17/25/26/66:max power LTE TDD 38/40/41:max power	
Test Modulation:	(GSM)GMSK; (WCDMA) QPSK; (CDMA) QPSK; (LTE) QPSK, 16QAM, 64QAM; (Wi-Fi 2.4G) DSSS,OFDM; (Wi-Fi 5G) OFDM	
Operating Frequency Range(s):	Mode	Tx (MHz)
	GSM 850	824 ~ 849
	GSM 1900	1850 ~ 1910
	WCDMA Band II	1850 ~ 1910
	WCDMA Band IV	1710 ~ 1755
	WCDMA Band V	824 ~ 849
	CDMA BC0	824 ~ 849
	CDMA BC1	1850 ~ 1910
	CDMA BC10	817 ~ 824
	LTE FDD 2	1850 ~ 1910

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	LTE FDD 4	1710 ~ 1755
	LTE FDD 5	824 ~ 849
	LTE FDD 7	2500 ~ 2570
	LTE FDD 12	699 ~ 716
	LTE FDD 13	777 ~ 787
	LTE FDD 14	788~798
	LTE FDD 17	704~716
	LTE FDD 25	1850~1915
	LTE FDD 26	814~849
	LTE TDD 38	250 ~ 2620
	LTE TDD 40	2300 ~ 2400
	LTE TDD 41	2496 ~ 2690
	LTE FDD 66	1710 ~ 1780
	Wi-Fi 2.4G	2412 ~ 2462
	Wi-Fi 5G U-NII-1	5150 ~ 5250
	Wi-Fi 5G U-NII-3	5725 ~ 5850
	BT	2402 ~2480
Accessory Equipment		
Battery	Manufacturer: Hunan Gaoyuan Battery Co., Ltd. Model: XQ6602G	
Adapter	Manufacturer: Jiangxi Jian Aohai Technology Co.,Ltd. Model: A138-120150C-US1	
Note: The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.		

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Air-Interface	Band (MHz)	Type	ANSI C63.19 tested	Simultaneous Transmissions	Name of Voice Service	Power Reduction
GSM	850	VO	Yes	Yes BT or Wi-Fi	Google Duo	No
	1900					
	GPRS/EGPRS	VD	Yes			
CDMA	BC0	VO	Yes	Yes BT or Wi-Fi	Google Duo	No
	BC1					
	BC10					
	EVDO	VD	Yes			
WCDMA	Band II	VO	Yes	Yes BT or Wi-Fi	Google Duo	No
	Band IV					
	Band V					
	HSPA	VD	Yes			
LTE	Band 2	VD	Yes	Yes BT or Wi-Fi	Google Duo	No
	Band 4					
	Band 5					
	Band 7					
	Band 12					
	Band 13					
	Band 14					
	Band 17					
	Band 25					
	Band 26					
	Band 38					
	Band 40					
	Band 41					
	Band 66					
Wi-Fi	2450	VD	Yes	Yes WWAN	VoWiFi Google Duo	No
	5200 (U-NII-1)			Yes WWAN, BT		
	5800 (U-NII-3)					
Bluetooth (BT)	2450	DT	No	Yes WWAN, Wi-Fi	N/A	No

VO= legacy Cellular Voice Service from Table 7.1 in 7.4.2.1 of ANSI C63.19-2011
VD= IP voice service over digital transport.
DT= Digital Transport only (no voice)

Notes:

1. Reference level in accordance with 7.4.2.1 of ANSI C63.19-2011 and July 2012 C63 VoLTE Interpretation.
2. Reference level is -20dBm0 in accordance with FCC KDB 285076 D02.

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4 Test Specification and Operational Conditions

4.1 Test Specification

The tests documented in this report were performed in accordance with the following:

FCC CFR47 Part 20.19
ANSI C63.19-2011
KDB 285076 D01 HAC Guidance v05
KDB 285076 D02 T-Coil Testing v03
KDB 285076 D03 HAC FAQ v01r03

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5 Test Information

5.1 Operational Conditions during Test

5.1.1 General Description of Test Procedures

The phone was tested in all normal configurations for the ear use. The EUT is mounted in the device holder equivalent as for classic dosimeter measurements. The acoustic output of the EUT shall coincide with the center point of the area formed by the dielectric wire and the middle bar of the arch's top frame The EUT shall be moved vertically upwards until it touches the frame. The fine adjustment is possible by sliding the complete. EUT holder on the yellow base plate of the Test Arch phantom. During the test, the EUT is selected on T-Coil mode, the LCD backlight is turn off and volume is adjusted to maximum level.

A communication link is set up with a System Simulator (SS) by RF cable, and a call is established. The Absolute Radio Frequency Channel Number (ARFCN) is allocated to Ch Middle respectively in the case of Band. T-Coil configurations is measured using System Simulator (SS) of CMU200/ CMW 500, at the same time the EUT shall be operated at its maximum RF output power setting.

5.2 T-Coil Measurements System Configuration

5.2.1 T-coil Measurement Set-up

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

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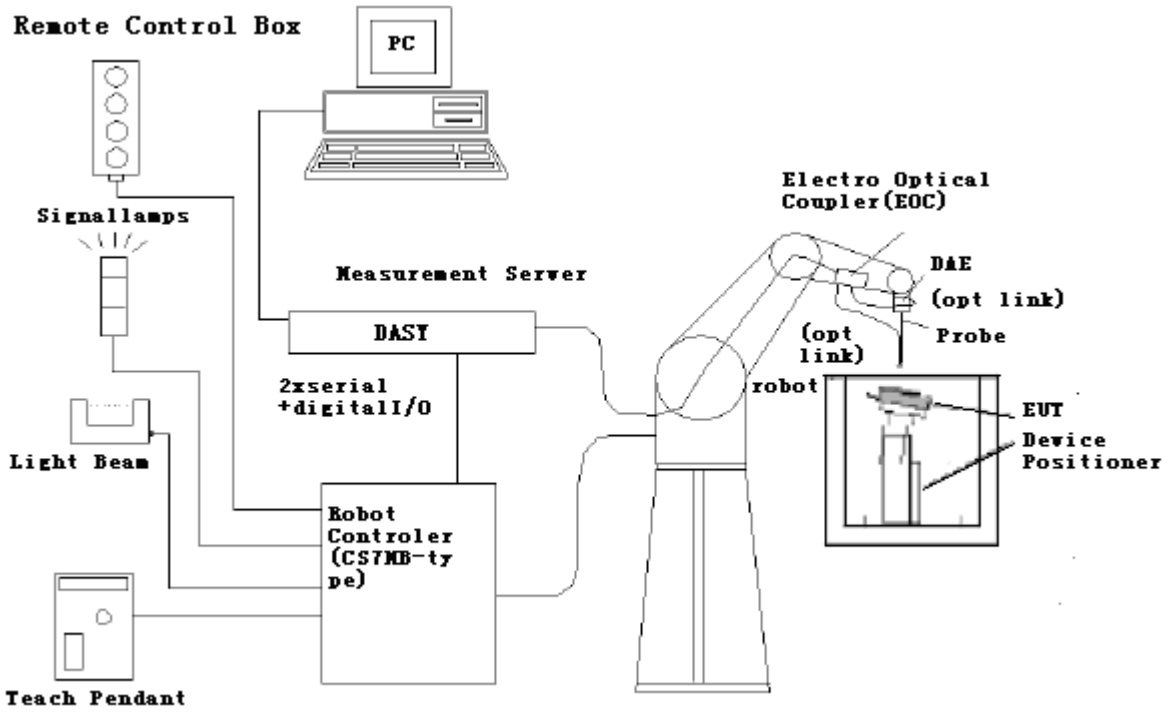

Figure 1 T-Coil Test Measurement Set-up

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

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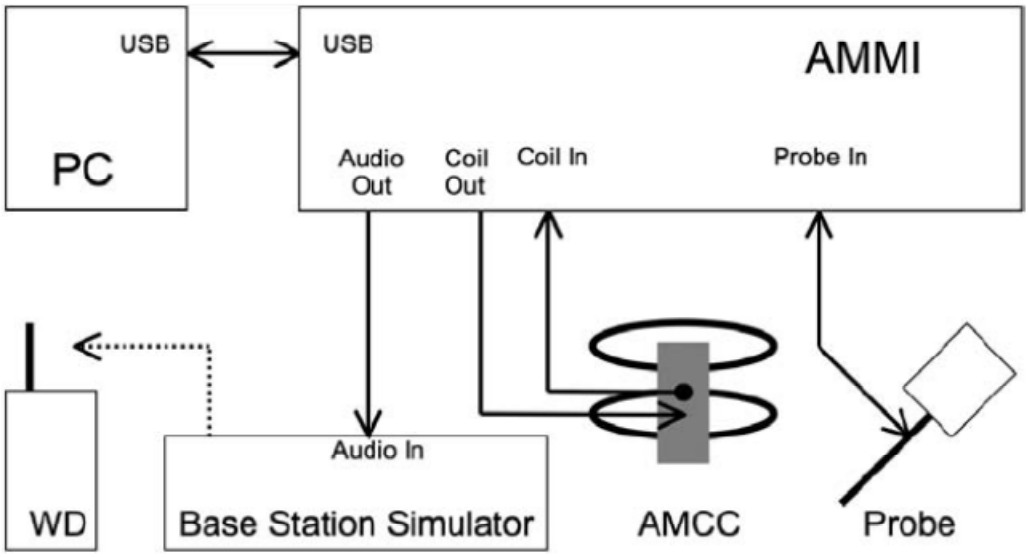

Figure 2 T-Coil Test Measurement Set-up

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5.2.2 AM1D Probe

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).

Specification

frequency range	0.1 - 20 kHz (RF sensitivity <-100 dB, fully RF shielded)
sensitivity	<-50 dB A/m @ 1 kHz
pre-amplifier	40 dB, symmetric
dimensions	tip diameter / length: 6 / 290 mm, sensor according to ANSI-C63.19

Figure 3 AM1D Probe

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5.2.3 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.

Figure 4 AMMI front panel

Port description:

Audio Out	BNC, audio signal to the base station simulator, for >500Ohm load
Coil Out	BNC, test and calibration signal to the AMCC (top connector), for 50Ohm load
Coil In	XLR, monitor signal from the AMCC BNO connector, 600 Ohm
Probe In	XLR, probe signal and phantom supply to the probe Lemo connector

Figure 5 AMMI rear side

Sampling rate	48 kHz / 24 bit
Dynamic range	85 dB
Test signal generation	User selectable and predefined (vis PC)
Calibration	Auto-calibration / full system calibration using AMCC with monitor output
Dimensions	482 x 65 x 270 mm

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5.2.4 Helmholtz 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 10Ohm permits monitoring the current with a scale of 1:10

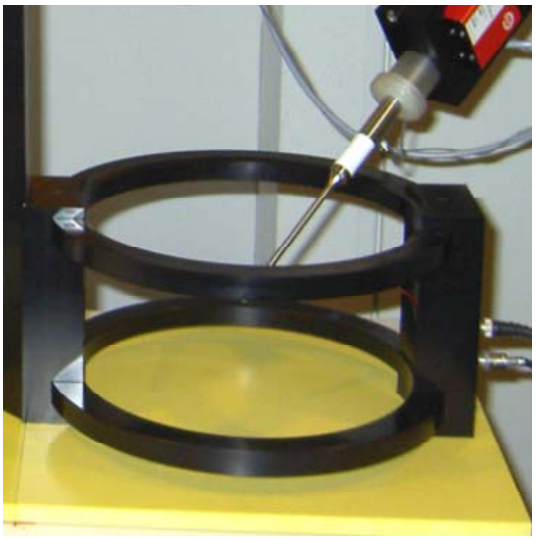

Figure 6 AMCC

Port description:

Signal	**Connector**	**Resistance**
Coil In	BNC	Typically 50Ohm
Coil Monitor	BNO	10Ohm±1% (100mV corresponding to 1 A/m)

Specification:

Dimensions	370 x 370 x 196 mm, according to ANSI-C63.19

5.2.5 Test Arch Phantom & Phone Positioner

The Test Arch phantom should be positioned horizontally on a stable surface. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. It enables easy and well defined positioning of the phone and validation dipoles as well as simple teaching of the robot (Dimensions: 370 x 370 x 370 mm).
The Device reference point is set for the EUT at 6.3 mm, the Grid reference point is on the upper surface at the origin of the coordinates, and the “user point \Height Check 0.5 mm” is 0.5mm above the center, allowing verication of the gap of 0.5mm while the probe is positioned there.

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

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Figure 7 T-coil Phantom & Device Holder

5.3 T-Coil measurement points and reference plane

The following figure illustrates the standard probe orientations. Position 1 is the perpendicular orientation of the probe coil; orientation 2 is the transverse orientation. The space between the measurement positions is not fixed. It is recommended that a scan of the WD be performed for each probe coil orientation and that the maximum level recorded be used as the reading for that orientation of the probe coil.

1) The reference plane is the planar area that contains the highest point in the area of the phone that normally rests against the user's ear. It is parallel to the centerline of the receiver area of the phone and is defined by the points of the receiver-end of the EUT handset, which, in normal handset use, rest against the ear.

2) The measurement plane is parallel to, and 10 mm in front of, the reference plane.

3) The reference axis is normal to the reference plane and passes through the center of the receiver speaker section (or the center of the hole array); or may be centered on a secondary inductive source. The actual location of the measurement point shall be noted in the test report as the measurement reference point.

4) The measurement points may be located where the axial and radial field intensity measurements are optimum with regard to the requirements. However, the measurement points should be near the acoustic output of the EUT and shall be located in the same half of the phone as the EUT receiver. In a EUT handset with a centered receiver and a circularly symmetrical magnetic field, the measurement axis and the reference axis would coincide.

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5) The relative spacing of each measurement orientation is not fixed. The axial and two radial orientations should be chosen to select the optimal position.

6) The measurement point for the axial position is located 10 mm from the reference plane on the measurement axis.

7) The actual location of the measurement point shall be noted in test reports and designated as the measurement reference point.

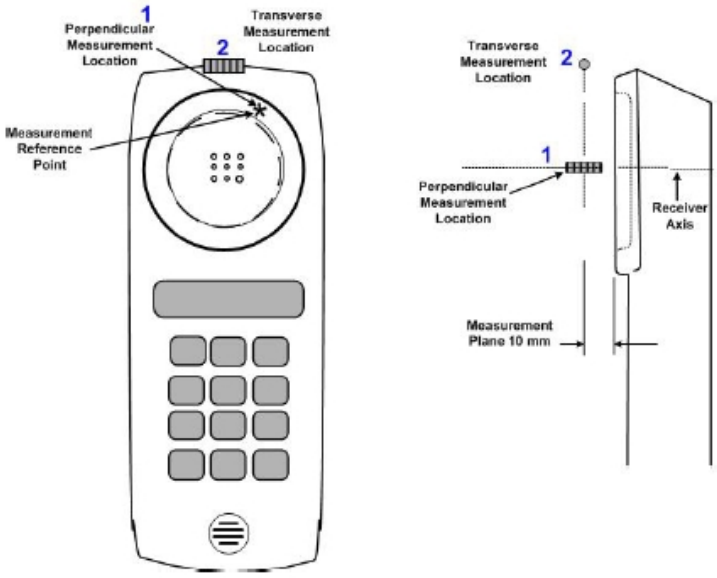

Figure 8 Axis and planes for EUT audio frequency magnetic field measurements

5.4 T-Coil Test Procedueres

The following illustrate a typical test scan over a wireless communications device:

1) Geometry and signal check: system probe alignment, proper operation of the field probe, probe measurement system, other instrumentation, and the positioning system was confirmed. A surface calibration was performed before each setup change to ensure repeatable spacing and proper maintenance of the measurement plane using the test Arch.

2) Set the reference drive level of signal voice defined in C63.19 per 7.4.2.1.

3) The ambient and test system background noise (dB A/m) was measured as well as ABM2 over the full measurement. The maximum noise level must be at least 10dB below the limit of C63.19 per 8.3.2.

4) The EUT was positioned in its intended test position, acoustic output point of the device perpendicular to the field probe.

5) The EUT operation for maximum rated RF output power was configured and connected by using of coaxial cable connection to the base station simulator at the test channel and other normal operating parameters as intended for the test. The battery was ensured to be fully charged before each test. The center sub-grid was centered over the center of the acoustic output (also audio band magnetic output, if applicable). The EUT audio output was positioned tangent (as physically possible) to the measurement plane.

6) The EUT's RF emission field was eliminated from T-coil results by using a well RF-shielding of the probe, AM1D, and by using of coaxial cable connection to a Base Station Simulator. One test channel was pre-measurement to avoid this possibility.

7) Determined the optimal measurement locations for the EUT by following the three steps, coarse

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resolution scan, fine resolution scans, and point measurement, as described in C63.19 per 7.4.4.2. At each measurement locations, samples in the measurement window duration were evaluated to get ABM1 and the signal spectrum. The noise measurement was performed after the scan with the signal, the same happened, just with the voice signal switched off. The ABM2 was calculated from this second scan.

8) All results resulting from a measurement point in a T-Coil job were calculated from the signal samples during this window interval. ABM values were averaged over the sequence of there samples.

9) At an optimal point measurement, the SNR (ABM1/ABM2) was calculated for axial,radial transverse and radial longitudinal orientation, and the frequency response was measured in axial axis.

10) Corrected for the frequency response after the EUT measurement since the DASY5 system had known the spectrum of the input signal by using a reference job.

11) In SEMCAD postprocessing, the spectral points are in addition scaled with the high-pass (half-band) and the A-weighting, bandwidth compensated factor (BWC) and those results are final as shown in this report.

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6 T-Coil Performance Requirements

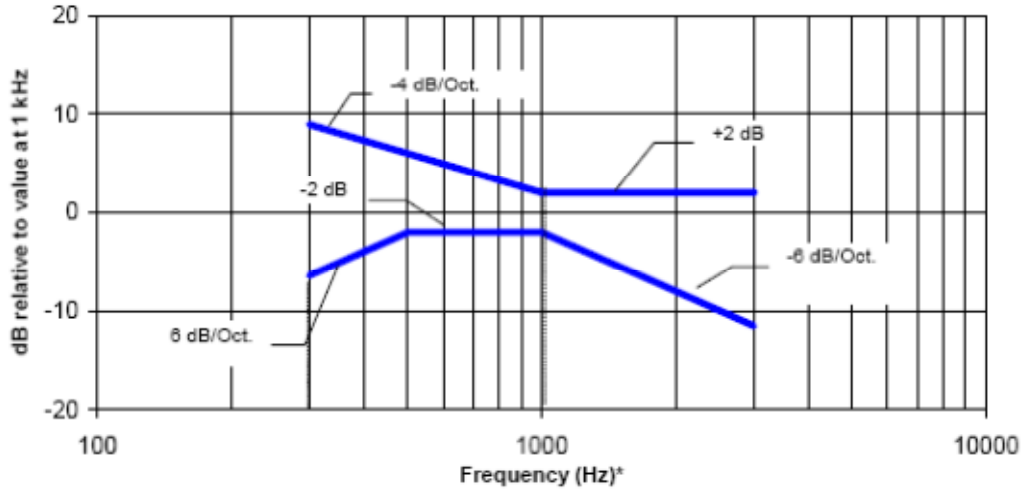
In order to be rated for T-Coil use, a EUT shall meet the requirements for signal level and signal quality contained in this part.

6.1 T-Coil coupling field intensity

When measured as specified in ANSI C63.19, the T-Coil signal shall be ≥ –18 dB (A/m) at 1 kHz, in a 1/3 octave band filter for all orientations.

6.2 Frequency response

The frequency response of the axial component of the magnetic field, measured in 1/3 octave bands, shall follow the response curve specified in this sub-clause, over the frequency range 300 Hz to 3000 Hz. The following figures provide the boundaries for the specified frequency. These response curves are for true field strength measurements of the T-Coil signal. Thus the 6 dB/octave probe response has been corrected from the raw readings.



NOTE—Frequency response is between 300 Hz and 3000 Hz.

Figure 9 Magnetic field frequency response for EUTs with a field ≤ –15 dB (A/m) at 1 kHz

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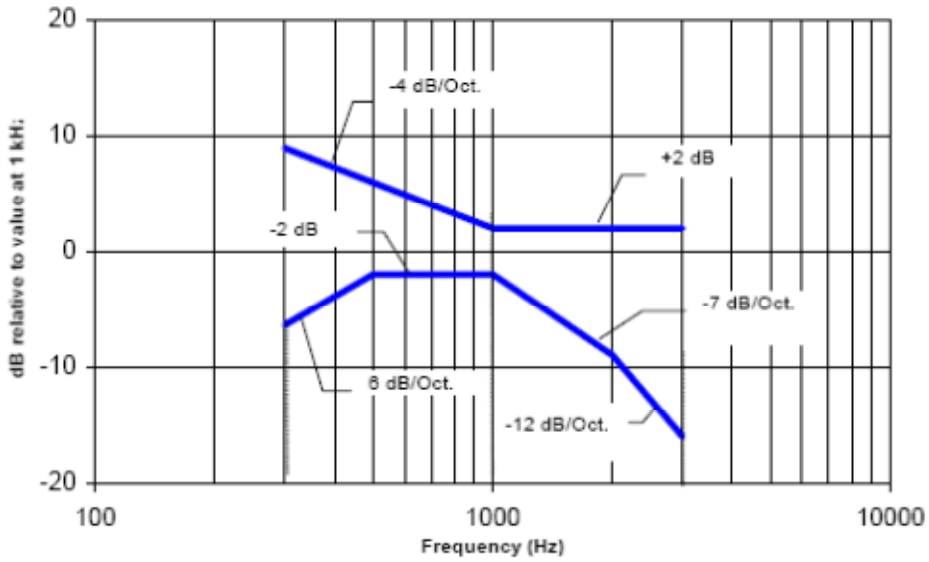

NOTE—Frequency response is between 300 Hz and 3000 Hz.

Figure 10 Magnetic field frequency response for EUTs with a field that exceeds –15 dB(A/m) at 1 kHz

6.3 Signal quality

This part provides the signal quality requirement for the intended T-Coil signal from a EUT. Only the RF immunity of the hearing aid is measured in T-Coil mode. It is assumed that a hearing aid can have no immunity to an interference signal in the audio band, which is the intended reception band for this mode. So, the only criteria that can be measured is the RF immunity in T-Coil mode. This is measured using the same procedure as for the audio coupling mode and at the same levels.

The worst signal quality of the twoT-Coil signal measurements shall be used to determine the T-Coil mode category per Table 1

Table 1: T-Coil signal quality categories

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

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7 T-Coil testing for VoWIFI

I. Test setup for VoWIFI over IMS T-coil Testing

1. Test setup

The general test setup used for VoWIFI over IMS, or CMRS WIFI calling, is shown below. The call box used when performing VoWIFI over IMS T-coil measurement is a CMW500. The Data Application Unit (DAU) of the CMW500 was used to simulate the IP Multimedia Subsystem (IMS) server.

2. Audio level setting

According to the KDB285076 D02, regarding the appropriate audio levels to be used for WIFI over IMS T-coil testing, -20dBm0 shall be used for the normal speech input level. The CMW500 base station simulator was manually configured to ensure that the settings for speech input and full scale levels resulted in the -20dBm0 speech input level to the DUT for the VoWIFI over IMS connection.

II. DUT configuration for VoWIFI over IMS T-coil Testing

1. Radio configuration investigation

Investigate the lowest and highest data rates and modulation to determine worst radio configuration to be used for testing by SNR comparison.

802.11b Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11b	**6**	**1**	**12.47**	**-35.08**	47.55
802.11b	6	11	-2.43	-42.46	**40.03**
802.11g Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11g	6	6	10.79	-44.96	**55.75**
802.11g	6	54	12.44	-45.12	57.56
802.11n HT20 Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11n HT20	6	MCS0	3.93	-42.57	**46.5**
802.11n HT20	6	MCS7	12.93	-36.38	49.31
802.11n HT40 Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11n HT40	6	MCS0	11.33	-39.97	51.3
802.11n HT40	6	MCS7	7.8	-40.06	**47.86**

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802.11a Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11a	36	6	10.55	-34.41	**44.96**
802.11a	36	54	9.70	-37.6	47.3
802.11n HT20 Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11n HT20	36	MCS0	9.58	-36.29	**45.87**
802.11n HT20	36	MCS7	11.04	-38.67	49.71
802.11n HT40 Radio configuration investigation					
Mode	**Channel**	**Data Rate [Mbps]**	**ABM1 [dB(A/m)]**	**ABM2 [dB(A/m)]**	**Signal Quality [dB]**
802.11n HT40	38	MCS0	8.92	-34.77	**43.69**
802.11n HT40	38	MCS7	10.30	-35.68	45.98

2. Codec investigation

For a voice service/air interface, investigate the variations of codec configurations (WB, NB bit rate) and document the parameters (ABM1, ABM2, S+N/N, frequency response) for that voice service. It is only necessary to document this for one channel/band; the following worst investigation codec would be remarked to be used for the testing for the handset.

AMR Codec Investigation - VoWIFI over IMS								
Codec Setting	**WB AMR 23.85kbps**	**WB AMR 6.60 kbps**	**NB AMR 12.2 kbps**	**NB AMR 4.75 kbps**	**Orientation**	**Band**	**Standard**	**Channel**
ABM1 (dBA/m)	9.49	**10.71**	-2.43	6.68	z (Axial):	2.4GHz	802.11b	6
ABM2 (dBA/m)	-35.3	-38.24	-42.46	-39.43				
Frequency Response	PASS	PASS	PASS	PASS				
Signal Quality (dB)	44.79	48.95	**40.03**	46.11				

EVS Codec Investigation - VoWIFI over IMS								
Codec Setting	**WB AMR 23.85kbps**	**WB AMR 6.60 kbps**	**NB AMR 12.2 kbps**	**NB AMR 4.75 kbps**	**Orientation**	**Band**	**Standard**	**Channel**
ABM1 (dBA/m)	11.03	**9.83**	3.59	5.46	z (Axial):	2.4GHz	802.11b	6
ABM2 (dBA/m)	-34.94	-38.52	-40.63	-41.25				
Frequency Response	PASS	PASS	PASS	PASS				
Signal Quality (dB)	**45.97**	48.35	**44.22**	46.71				

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3. Air Interface Investigation

a. Use the worst-case codec test and document a limited set of bands/channel/bandwidths. Observe the effect of changing the band and bandwidth to ensure that there are no unexpected variations. Using the knowledge of the observed variations, it is necessary to report only a set band/channel/bandwidth for each orientation for a voice service/air interface and the following worst configure would be remarked to be used for the testing for the handset.

b. Select WLAN 2.4GHz and WLAN 5GHz one frequency band to do measurement at the worst SNR position was additionally performed with varying the BWs/Modulations/data rate to verify the variation to find out worst configuration , the observed variation is very little to be within 1.5 dB which is much less than the margin from the rating threshold.

c. According to the ANSI C63.19 2011 section 7.3.2, test middle channel of each frequency band for HAC testing for each orientation to determine worst HAC T-Coil rating.

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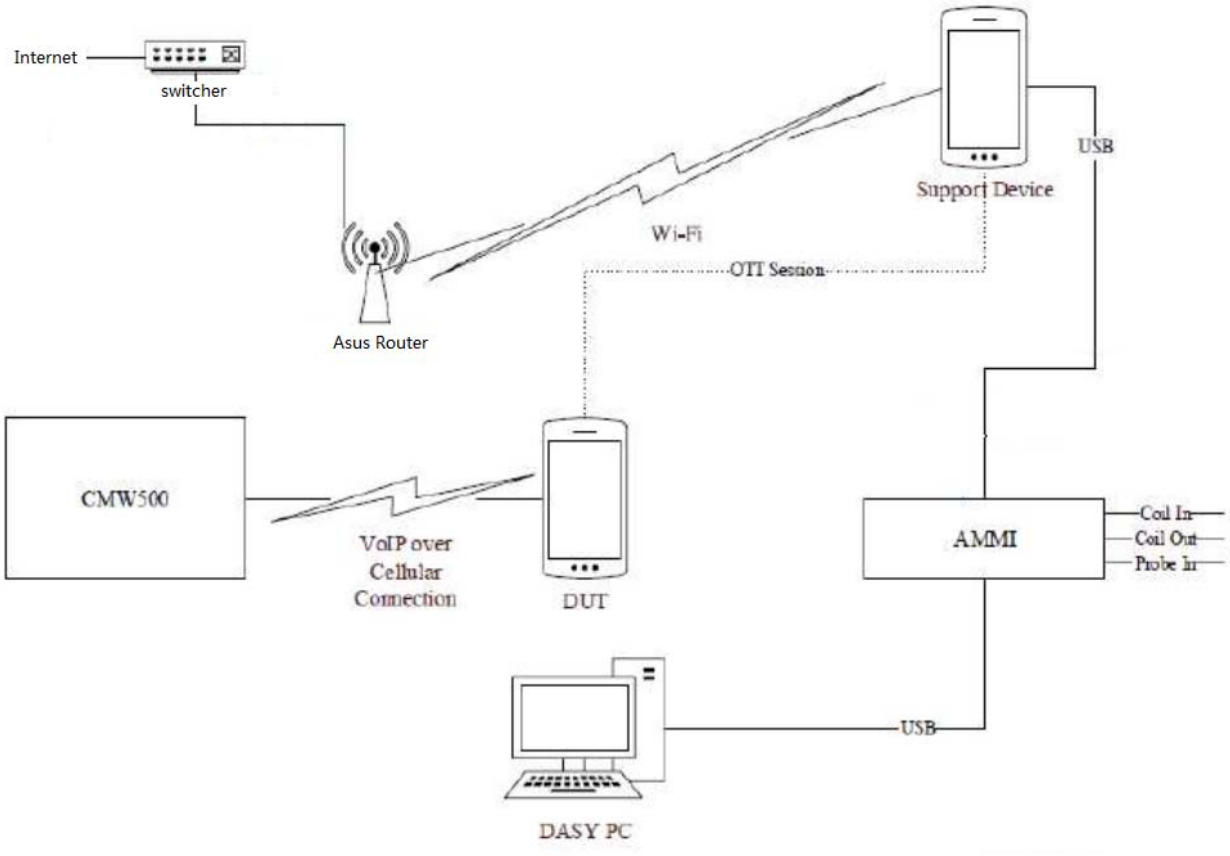
8 T-Coil testing for OTT

This device supports VoIP via a preinstalled application that uses the Google Duo service, using OPUS as its only codec. VoIP capabilities require HAC assessment when voice calls are supported over the cellular data connection via preinstalled VoIP applications and the assessment is subject to Pre-Approval Guidance procedures.

The equipment is set up as shown below with a support device used to originate the call using the IP transport. The support device connects to the cloud-based Google Duo service via Wi-Fi access point and router, or RJ45. The DUT connects to the VoIP service via a cellular/unlicensed air interface to the call box and an Ethernet connection from call box to Internet. The various codec bit rate and air interface configurations are evaluated to determine the worst-case configuration

Test Setup configuration for OTT calls



For the OTT call, the calibrated audio card within the CMW500 cannot be used so the AMMI is connected to an external Digital-Analog Converter (DAC) and the DAC is connected to the Support Device via USB. The test signal is sent from the DASY PC to the AMMI, from the AMMI to the DAC, from the DAC to the Support Device, and, via the VoIP call, to the DUT.

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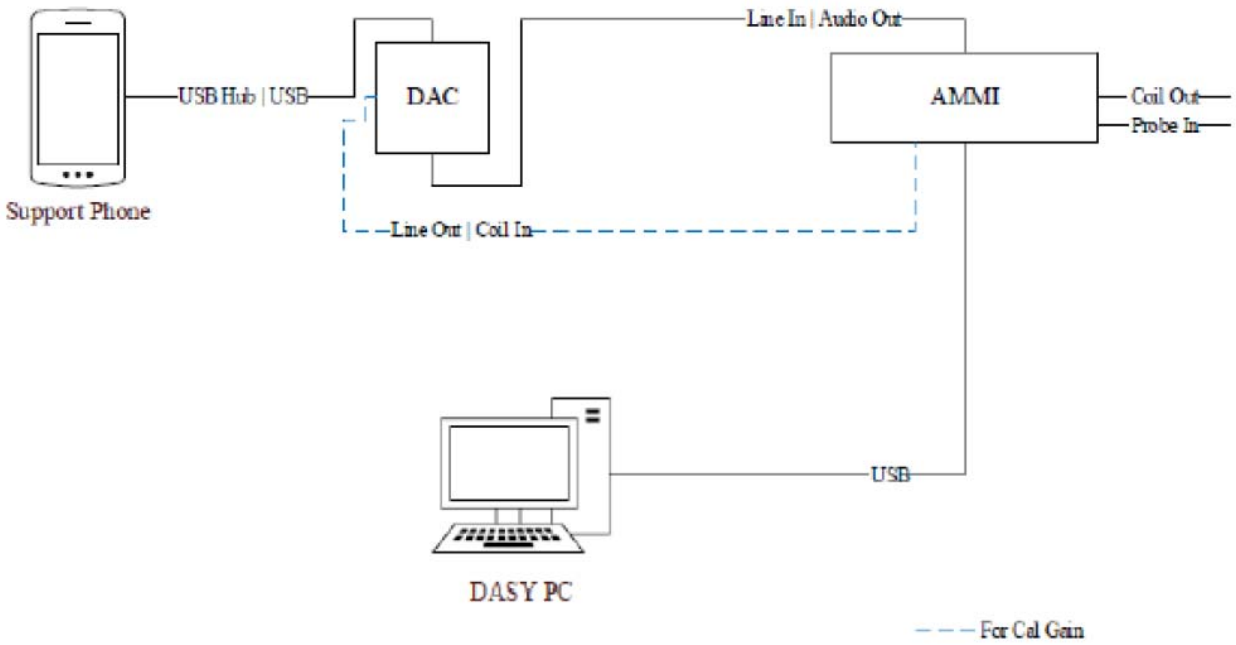
As this test set up uses an external DAC between the AMMI's audio output and support device, the appropriate gain factor for the OTT call needs be determined. This is done by connecting the DAC between the AMMI Audio output and Coil input as shown below.



Using the metering function on the DAC, the DAC gain is adjusted until the volume reaches 0 dBFS (3.14 dBm0 based on TIA/EIA 810-A). SPEAG's "TN-LK-05042018-C-T-Coil_Levels" document (ANNEX E) steps E through H are then followed to determine the adjusted gain values so that the reference level is set to 23.14dB below full scale, i.e. at -20dBm0. A verification of the DAC's output is performed prior to testing.

Codec Investigation - OTT VoIP(EDGE)					
Codec Setting	**75kbps**	**6kbps**	**Orientation**	**Band**	**Channel**
ABM1 (dBA/m)	12.39	12.77	z (Axial):	GSM 1900	661
ABM2 (dBA/m)	-34.85	-33.07			
Frequency Response	PASS	PASS			
Signal Quality (dB)	47.24	**45.84**			

Codec Investigation - OTT VoIP(EVDO)					
Codec Setting	**75kbps**	**6kbps**	**Orientation**	**Band**	**Channel**
ABM1 (dBA/m)	3.26	2.68	z (Axial):	CDMA BC1	600
ABM2 (dBA/m)	-37.67	-35.39			
Frequency Response	PASS	PASS			
Signal Quality (dB)	40.93	**38.07**			

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Codec Investigation - OTT VoIP(HSPA)					
Codec Setting	**75kbps**	**6kbps**	**Orientation**	**Band**	**Channel**
ABM1 (dBA/m)	4.51	2.33	z (Axial):	WCDMA Band 2	9400
ABM2 (dBA/m)	-36.27	-33.35			
Frequency Response	PASS	PASS			
Signal Quality (dB)	40.78	**35.68**			

Codec Investigation - OTT VoIP(LTE)					
Codec Setting	**75kbps**	**6kbps**	**Orientation**	**Band**	**Channel**
ABM1 (dBA/m)	12.5	14.2	z (Axial):	LTE Band 2	18900
ABM2 (dBA/m)	-29.17	-26.87			
Frequency Response	PASS	PASS			
Signal Quality (dB)	41.67	**41.07**			

Codec Investigation - OTT VoIP(WIFI)						
Codec Setting	**75kbps**	**6kbps**	**Orientation**	**Band**	**Standard**	**Channel**
ABM1 (dBA/m)	6.79	7.85	z (Axial):	2.4GHz	802.11b	6
ABM2 (dBA/m)	-38.73	-36.26				
Frequency Response	PASS	PASS				
Signal Quality (dB)	45.52	**44.11**				

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9 Audio Level and Gain Measurements

9.1 VoWi-Fi

No correction gain factors were measured for VoWi-Fi due to the Rohde Schwarz CMW500 , hosting a calibrated audio board. The gains used to measure VoWi-Fi are set to 100.

9.2 Over the Top(OTT)

For EDGE, HSPA, EV-DO, LTE, and Wi-Fi , the linear gain levels listed below were used. The results below are based on a reference input level of -20 dBm0. Granted, the C63.19-2011 interpretation for T-coil audio levels for LTE states that an input reference level of -16 dBm0 should be used, we, the test lab, opted for -20 dBm0 for LTE due to it being a more conservative input reference level.
The adjusted gain measurements are based on an external Analogue to Digital Converter (ADC), where the signal is sent from the AMMI to the AD, then to the DUT via Wi-Fi
To calibrate the ADC, three way audio files (sine wave, 1 kHz voice , and 300 to 3 kHz voice) are sent from the DASY5 PC to the AMMI, then to the ADC. The Helmholtz resonator measures the field strength, which represents the AMMI to ADC input sensitivity. After determining the input sensitivity, the adjusted linear gain values can then be calculated.

Signal Type	Audio Level [dBm0]	Gain [dB]	Gain [linear]
Voice 1 kHz	-20	29.27	29.07
Voice 300 - 3 kHz	-20	37.14	71.94

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10 Summary Test Results

Result For VoWi-Fi (NB)

Band	Channel /Frequency (MHz)	Probe Orientation	ABM1 [dB (A/m)]	ABM2 [dB (A/m)]	Ambient Noise [dB (A/m)]	ABM SNR (dB)	Freq. Resp. Diff(dB)	Frequency Response	T-Rating	Plot No.
WIFI2.4G:802.11b Voice NB AMR Codec:12.20kbit/s	6/2437 (BW:20M_Rate:11M)	Y-axial	0.20	-39.11	-58.39	39.31	/	/	T4	1
		Z-axial	-2.43	-42.46	-58.72	40.03	0.95	Pass	T4	2
WIFI2.4G:802.11g Voice NB AMR Codec: 12.20kbit/s	6/2437 (BW:20M_Rate:6M)	Y-axial	3.53	-48.83	-58.39	52.36	/	/	T4	3
		Z-axial	10.79	-44.96	-58.72	55.75	0.59	Pass	T4	4
WIFI2.4G:802.11n Voice NB AMR Codec:12.20kbit/s	6/2437 (BW:20M_Rate:MCS0)	Y-axial	2.38	-37.04	-58.39	39.42	/	/	T4	5
		Z-axial	3.93	-42.57	-58.72	46.50	0.72	Pass	T4	6
WIFI5G:802.11a (U-NII-1) Voice NB AMR Codec: 12.20kbit/s	44/5220 (BW:20M_Rate:6M)	Y-axial	2.97	-42.62	-58.39	45.59	/	/	T4	7
		Z-axial	10.55	-34.41	-58.72	44.96	0.50	Pass	T4	8
WIFI5G:802.11a (U-NII-3) Voice NB AMR Codec:12.20kbit/s	157/5785 (BW:20M_Rate:6M)	Y-axial	-0.20	-41.06	-58.39	40.86	/	/	T4	9
		Z-axial	4.36	-39.20	-58.72	43.56	0.55	Pass	T4	10
Note: 1. The LCD backlight is turn off and volume is adjusted to maximum level during T-Coil testing. 2. Signal strength measurement scan plots are presented in Annex B.										

Result For VoWi-Fi (WB)

Band	Channel /Frequency (MHz)	Probe Orientation	ABM1 [dB (A/m)]	ABM2 [dB (A/m)]	Ambient Noise [dB (A/m)]	ABM SNR (dB)	Freq. Resp. Diff(dB)	Frequency Response	T-Rating	Plot No.
WIFI2.4G: 802.11b Voice WB AMR Codec: 23.85kbit/s	6/2437(BW:20M_Rate:11M)	Y-axial	2.11	-49.08	-58.39	51.19	/	/	T4	11
		Z-axial	9.49	-35.30	-58.72	44.79	0.90	Pass	T4	12
WIFI2.4G: 802.11g Voice WB AMR Codec: 23.85kbit/s	6/2437(BW:20M_Rate:6M)	Y-axial	-1.10	-48.81	-58.39	47.71	/	/	T4	13
		Z-axial	11.39	-35.43	-58.72	46.82	0.98	Pass	T4	14
WIFI2.4G: 802.11n Voice WB AMR Codec: 23.85kbit/s	6/2437(BW:20M_Rate:MCS0)	Y-axial	-3.66	-50.29	-58.39	46.63	/	/	T4	15
		Z-axial	11.87	-28.91	-58.72	40.78	1.54	Pass	T4	16
WIFI5G: 802.11a	44/5220(BW:2	Y-axial	2.23	-37.53	-58.39	39.76	/	/	T4	17

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(U-NII-1) Voice WB AMR Codec: 23.85kbit/s	0M_Rate:6M)	Z-axial	10.99	-36.89	-58.72	47.88	0.75	Pass	T4	18
WIFI5G: 802.11a (U-NII-3) Voice WB AMR Codec: 23.85kbit/s	157/5785(BW: 20M_Rate:6M)	Y-axial	-3.91	-50.24	-58.39	46.33	/	/	T4	19
		Z-axial	6.05	-36.41	-58.72	42.46	1.20	Pass	T4	20

Note:
1. The LCD backlight is turn off and volume is adjusted to maximum level during T-Coil testing.
2. Signal strength measurement scan plots are presented in Annex B.

Result For OTT VoIP

Band	Channel /Frequency (MHz)	Probe Orientation	ABM1 [dB (A/m)]	ABM2 [dB (A/m)]	Ambient Noise [dB (A/m)]	ABM SNR (dB)	Freq. Resp. Diff(dB)	Frequency Response	T-Rating	Plot No.
GSM 850 Google Duo 6kbps	190/836.6	Y-axial	-8.20	-44.40	-58.39	36.20	/	/	T4	21
		Z-axial	13.72	-32.98	-58.72	46.70	1.00	Pass	T4	22
PCS 1900 Google Duo 6kbps	661/1880	Y-axial	-0.86	-43.68	-58.39	42.82	/	/	T4	23
		Z-axial	12.77	-33.07	-58.72	45.84	1.38	Pass	T4	24
CDMA BC0 Google Duo 6kbps	384/836.52	Y-axial	-9.58	-44.83	-58.39	35.25	/	/	T4	25
		Z-axial	3.35	-35.09	-58.72	38.44	0.91	Pass	T4	26
CDMA BC1 Google Duo 6kbps	600/1880	Y-axial	-4.03	-40.72	-58.39	36.69	/	/	T4	27
		Z-axial	2.68	-35.39	-58.72	38.07	1.74	Pass	T4	28
CDMA BC10 Google Duo 6kbps	580/820.5	Y-axial	-4.24	-41.19	-58.39	36.95	/	/	T4	29
		Z-axial	4.96	-29.48	-58.72	34.44	0.78	Pass	T4	30
WCDMA B2 Google Duo 6kbps	9400/1880	Y-axial	-4.67	-40.11	-58.39	35.44	/	/	T4	31
		Z-axial	2.33	-33.35	-58.72	35.68	0.85	Pass	T4	32
WCDMA B4 Google Duo 6kbps	1413/1732.6	Y-axial	-5.32	-42.04	-58.39	36.72	/	/	T4	33
		Z-axial	4.93	-34.99	-58.72	39.92	1.65	Pass	T4	34
WCDMA B5 Google Duo 6kbps	4183/836.6	Y-axial	-7.04	-43.60	-58.39	36.56	/	/	T4	35
		Z-axial	2.51	-34.81	-58.72	37.32	1.07	Pass	T4	36
LTE FDD B2 Google Duo 6kbps	18900/1880 (QPSK_20M_Full RB_0offset)	Y-axial	6.33	-37.97	-58.39	44.30	/	/	T4	37
		Z-axial	14.20	-26.87	-58.72	41.07	1.67	Pass	T4	38
LTE FDD B4	20175/1732.5	Y-axial	6.82	-36.63	-58.39	43.45	/	/	T4	39

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Google Duo 6kbps	(QPSK_20M_Full RB_0offset)	Z-axial	8.62	-31.06	-58.72	39.68	1.06	Pass	T4	40
LTE FDD B5 Google Duo 6kbps	20525/836.5 (QPSK_10M_Full RB_0offset)	Y-axial	4.32	-40.20	-58.39	44.52	/	/	T4	41
		Z-axial	13.54	-26.37	-58.72	39.91	0.58	Pass	T4	42
LTE FDD B7 Google Duo 6kbps	21100/2535 (QPSK_20M_Full RB_0offset)	Y-axial	4.64	-39.07	-58.39	43.71	/	/	T4	43
		Z-axial	13.53	-26.50	-58.72	40.03	0.59	Pass	T4	44
LTE FDD B12 Google Duo 6kbps	23095/707.5 (QPSK_10M_Full RB_0offset)	Y-axial	6.73	-35.93	-58.39	42.66	/	/	T4	45
		Z-axial	13.15	-28.35	-58.72	41.50	0.58	Pass	T4	46
LTE FDD B13 Google Duo 6kbps	23230/782 (QPSK_10M_Full RB_0offset)	Y-axial	6.31	-36.07	-58.39	42.38	/	/	T4	47
		Z-axial	12.86	-28.09	-58.72	40.95	0.97	Pass	T4	48
LTE FDD B14 Google Duo 6kbps	23330/793 (QPSK_10M_Full RB_0offset)	Y-axial	-2.96	-42.99	-58.39	40.03	/	/	T4	49
		Z-axial	10.87	-28.54	-58.72	39.41	0.86	pass	T4	50
LTE FDD B17 Google Duo 6kbps	23790/710 (QPSK_10M_Full RB_0offset)	Y-axial	4.19	-38.15	-58.39	42.34	/	/	T4	51
		Z-axial	13.23	-28.53	-58.72	41.76	0.49	pass	T4	52
LTE FDD B25 Google Duo 6kbps	26365/1882.5 (QPSK_20M_Full RB_0offset)	Y-axial	4.61	-39.60	-58.39	44.21	/	/	T4	53
		Z-axial	8.34	-33.23	-58.72	41.57	0.50	pass	T4	54
LTE FDD B26 Google Duo 6kbps	26865/831.5 (QPSK_15M_Full RB_0offset)	Y-axial	5.46	-38.16	-58.39	43.62	/	/	T4	55
		Z-axial	13.51	-28.64	-58.72	42.15	0.97	pass	T4	56
LTE TDD B38 Google Duo 6kbps	38000/2595 (QPSK_20M_Full RB_0offset)	Y-axial	4.33	-38.65	-58.39	42.98	/	/	T4	57
		Z-axial	9.22	-32.73	-58.72	41.95	0.59	pass	T4	58
LTE TDD B40 Google Duo 6kbps	39150/2350 (QPSK_20M_Full RB_0offset)	Y-axial	4.15	-38.86	-58.39	43.01	/	/	T4	59
		Z-axial	14.24	-27.61	-58.72	41.85	1.06	pass	T4	60
LTE TDD B41 Google Duo 6kbps	40690/2600 (QPSK_20M_Full RB_0offset)	Y-axial	4.01	-38.46	-58.39	42.47	/	/	T4	61
		Z-axial	13.76	-27.81	-58.72	41.57	0.83	pass	T4	62
LTE FDD B66 Google Duo 6kbps	132322/1745 (QPSK_20M_Full RB_0offset)	Y-axial	7.12	-36.06	-58.39	43.18	/	/	T4	63
		Z-axial	8.38	-32.09	-58.72	40.47	0.73	pass	T4	64
WIFI2.4G: 802.11b Google Duo 6kbps	6/2437 (BW:20M_Rate:11M)	Y-axial	3.81	-35.96	-58.39	39.77	/	/	T4	65
		Z-axial	7.85	-36.26	-58.72	44.11	0.86	pass	T4	66
WIFI2.4G: 802.11g	6/2437	Y-axial	4.90	-39.53	-58.39	44.43	/	/	T4	67

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Google Duo 6kbps	(BW:20M_Rate:6M)	Z-axial	9.33	-36.77	-58.72	46.10	0.81	pass	T4	68
WIFI2.4G: 802.11n Google Duo 6kbps	6/2437 (BW:200M_Rate:MCS0)	Y-axial	4.11	-36.93	-58.39	41.04	/	/	T4	69
		Z-axial	14.13	-26.18	-58.72	40.31	1.03	pass	T4	70
WIFI5G: 802.11a (U-NII-1) Google Duo 6kbps	44/5220 (BW:20M_Rate:6M)	Y-axial	2.29	-43.51	-58.39	45.80	/	/	T4	71
		Z-axial	13.95	-32.26	-58.72	46.21	1.32	pass	T4	72
WIFI5G: 802.11a (U-NII-3) Google Duo 6kbps	157/5785 (BW:20M_Rate:6M)	Y-axial	7.30	-35.54	-58.39	42.84	/	/	T4	73
		Z-axial	8.97	-31.54	-58.72	40.51	0.80	pass	T4	74

Note:

1. The LCD backlight is turn off and volume is adjusted to maximum level during T-Coil testing.
2. Signal strength measurement scan plots are presented in Annex B.

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11 Measurement Uncertainty

Measurement uncertainty evaluation template for DUT HAC T-Coil test

Error source	Type	Uncertainty Value ai (%)	Prob. Dist.	k	ABM1c_i	ABM2c_i	Std. Unc. ABM1 (± %)	Std. Unc. ABM2 (± %)	Degree of freedom V_{eff} or v_i
Probe Sensitivity									
Reference Level	B	3.0	N	1	1	1	3.0	3.0	∞
AMCC Geometry	B	0.4	R	1.732	1	1	0.2	0.2	∞
AMCC Current	B	0.6	R	1.732	1	1	0.3	0.3	∞
Probe Positioning during Calibration	B	0.1	R	1.732	1	1	0.1	0.1	∞
Noise Contribution	B	0.7	R	1.732	0.0143	1	0.0	0.4	∞
Frequency Slope	B	5.9	R	1.732	0.1	1	0.3	3.4	∞
Probe System									
Repeatability / Drift	B	1.0	R	1.732	1	1	0.6	0.6	∞
Linearity / Dynamic Range	B	0.6	R	1.732	1	1	0.3	0.3	∞
Acoustic Noise	B	1.0	R	1.732	0.1	1	0.1	0.6	∞
Probe Angle	B	2.3	R	1.732	1	1	1.3	1.3	∞
Spectral Processing	B	0.9	R	1.732	1	1	0.5	0.5	∞
Integration Time	B	0.6	N	1	1	5	0.6	3.0	∞
Field Distribution	B	0.2	R	1.732	1	1	0.1	0.1	∞
Test Signal									
Ref.Signal Spectral Response	B	0.6	R	1.732	0	1	0.0	0.3	∞
Positioning									
Probe Positioning	B	1.9	R	1.732	1	1	1.1	1.1	∞
Phantom Thickness	B	0.9	R	1.732	1	1	0.5	0.5	∞
EUT Positioning	B	1.9	R	1.732	1	1	1.1	1.1	∞
External Contributions									
RF Interference	B	0.0	R	1.732	1	0.3	0.0	0.0	∞
Test Signal Variation	B	2.0	R	1.732	1	1	1.2	1.2	∞
Combined Std. Uncertainty (ABM Field)							4.0	6.1	
Expanded Std. Uncertainty							8.0	12.2	

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12 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Last Cal.	Cal. Due Date
Audio Magnetic 1D Field Probe	SPEAG	AM1DV3	3082	2020-02-27	2021-02-26
DAE	SPEAG	DAE4	1291	2020-02-24	2021-02-23
Universal Radio Communication Tester	R&S	CMU 200	118133	2020-05-17	2021-05-16
Universal Radio Communication Tester	R&S	CMW 500	146734	2020-05-17	2021-05-16
Audio Magnetic Calibration Coil	SPEAG	AMCC	1101	/	/
Hygrothermograph	Anymetr	NT-311	20150731	2020-05-17	2021-05-16
HAC Phantom	SPEAG	SD HAC P01 BB	1117	/	/
DAC	Sound Devices	USBPre 2	HB1420183010	/	/
Software for Test	Speag	DASY5	/	/	/

*******END OF REPORT *******

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ANNEX A: Test Layout

Picture 1: HAC T-Coil System Layout

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ANNEX B: Graph Results

NB

Plot 1 T-Coil WIFI 2.4G: 802.11b Y transversal

Date: 1/21/2021

Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 39.31 dB

ABM1 comp = 0.20 dBA/m

BWC Factor = 0.17 dB

Location: 4.2, 25, 3.7 mm

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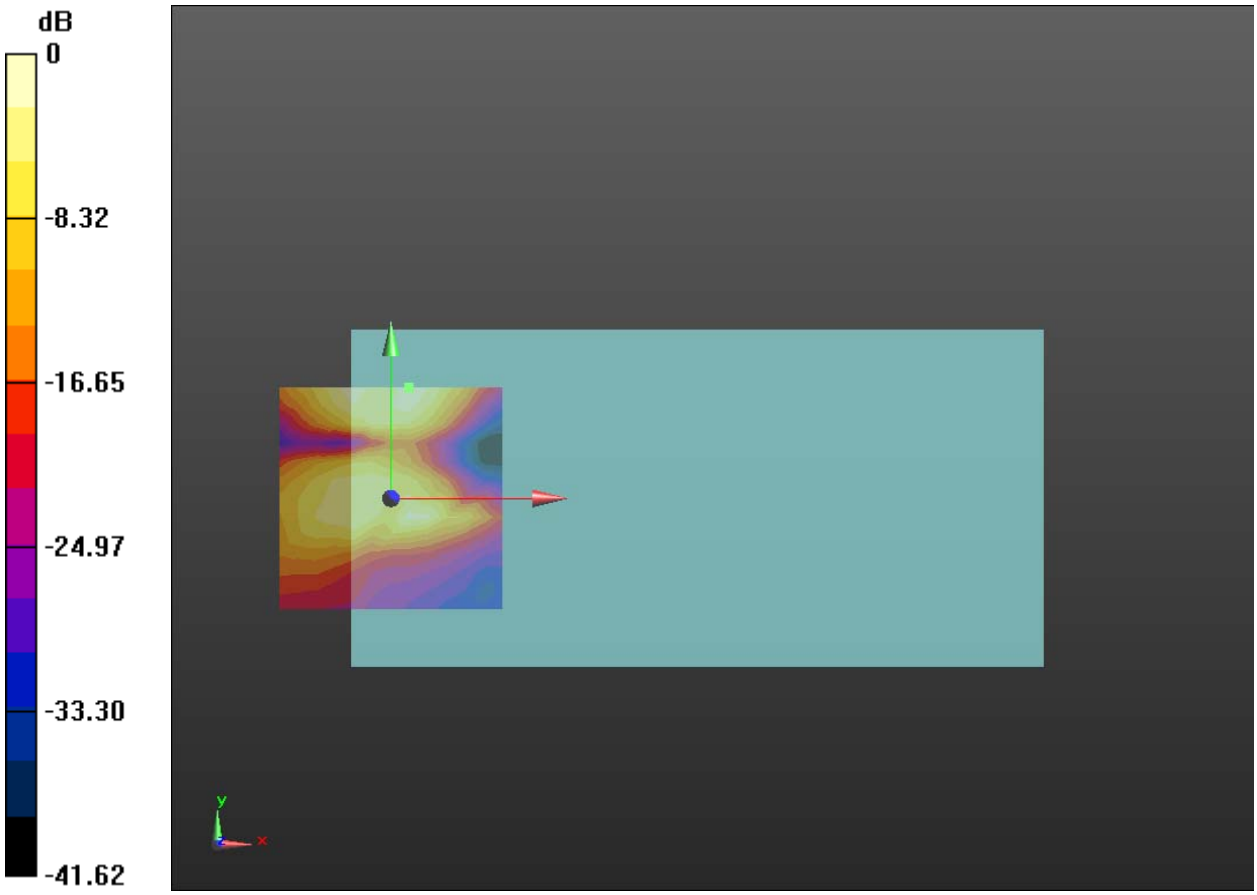

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Plot 2 T-Coil WIFI 2.4G: 802.11b Z Axial

Date: 1/21/2021
Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.03 dB
ABM1 comp = -2.43 dBA/m
BWC Factor = 0.17 dB
Location: -8.3, 12.5, 3.7 mm

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.95 dB
BWC Factor = 10.81 dB
Location: -8.3, 12.5, 3.7 mm

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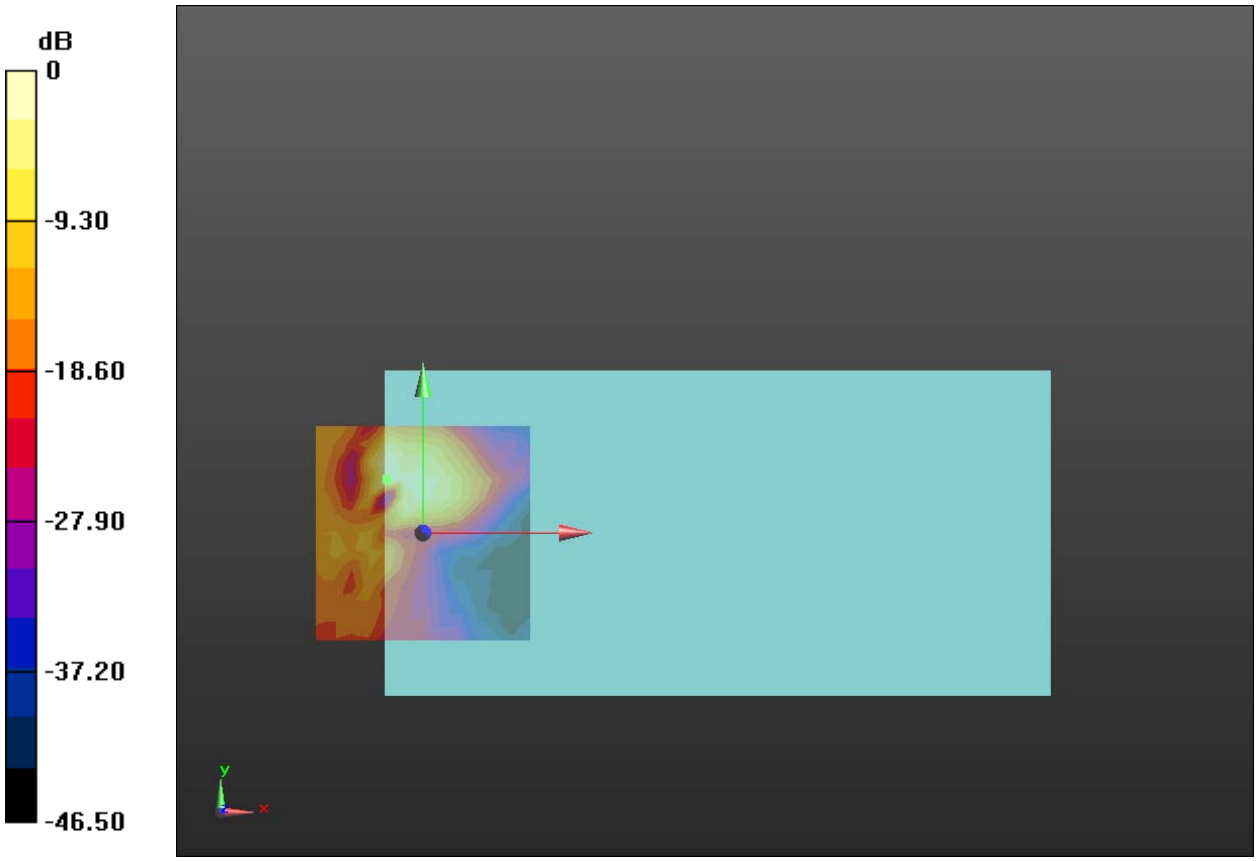

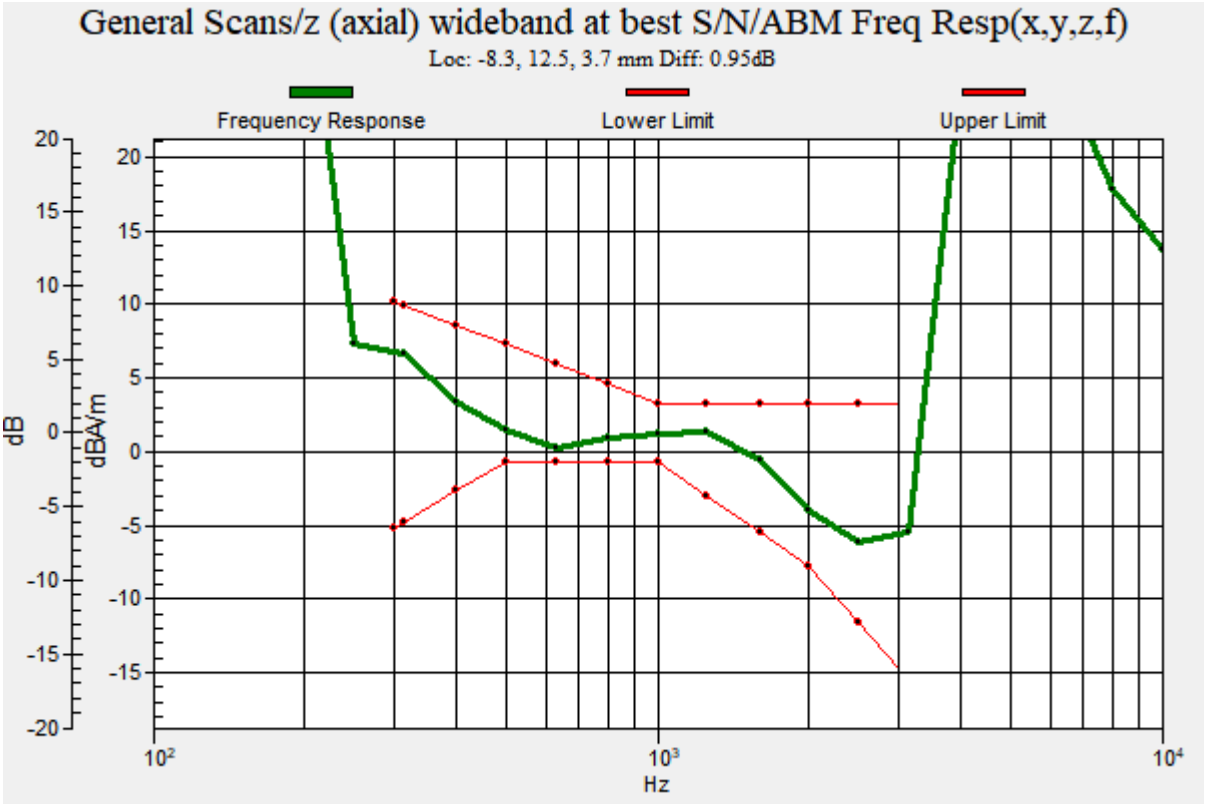

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Plot 3 T-Coil WIFI 2.4G: 802.11g Y transversal

Date: 1/21/2021

Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 52.36 dB

ABM1 comp = 3.53 dBA/m

BWC Factor = 0.17 dB

Location: 4.2, 20.8, 3.7 mm

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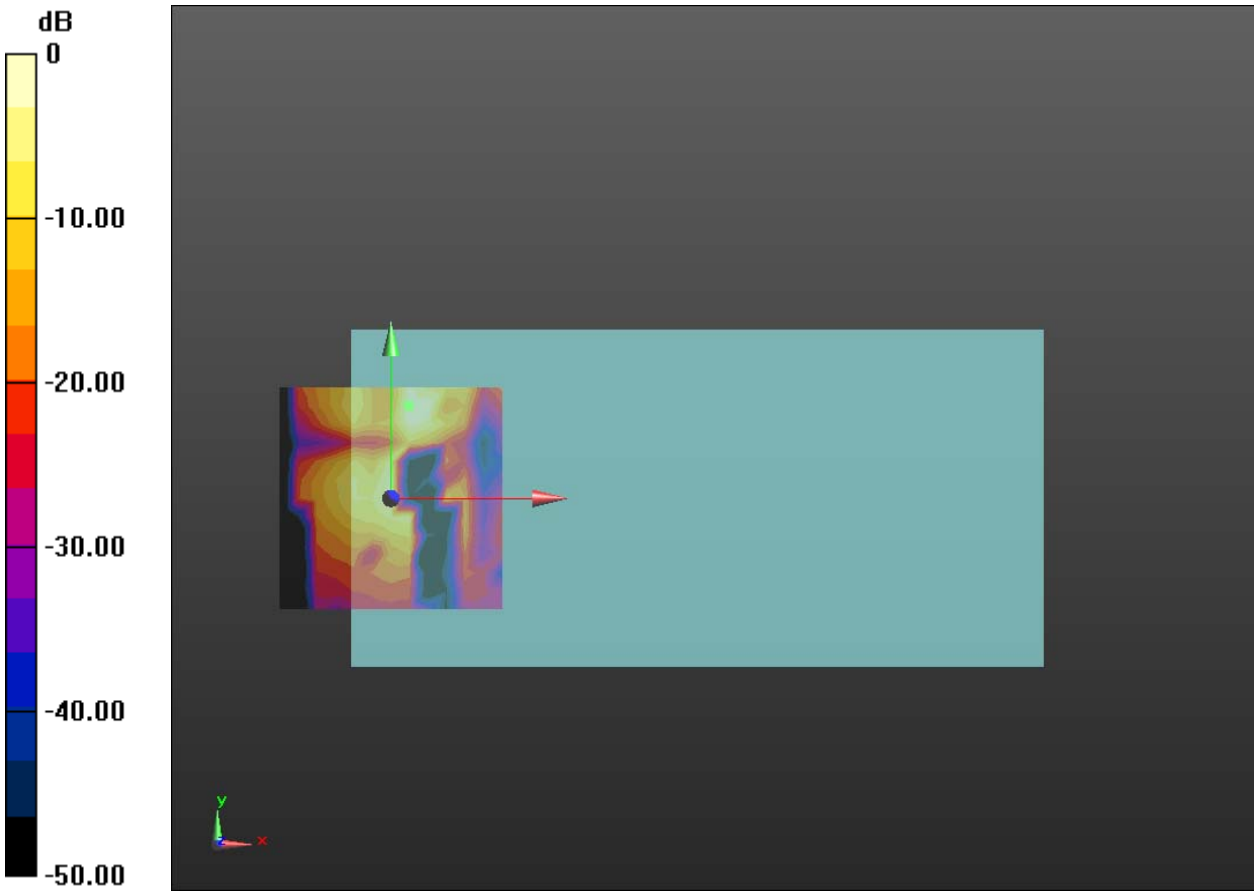

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Plot 4 T-Coil WIFI 2.4G: 802.11g Z Axial

Date: 1/21/2021
Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 55.75 dB
ABM1 comp = 10.79 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

802.11g HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.59 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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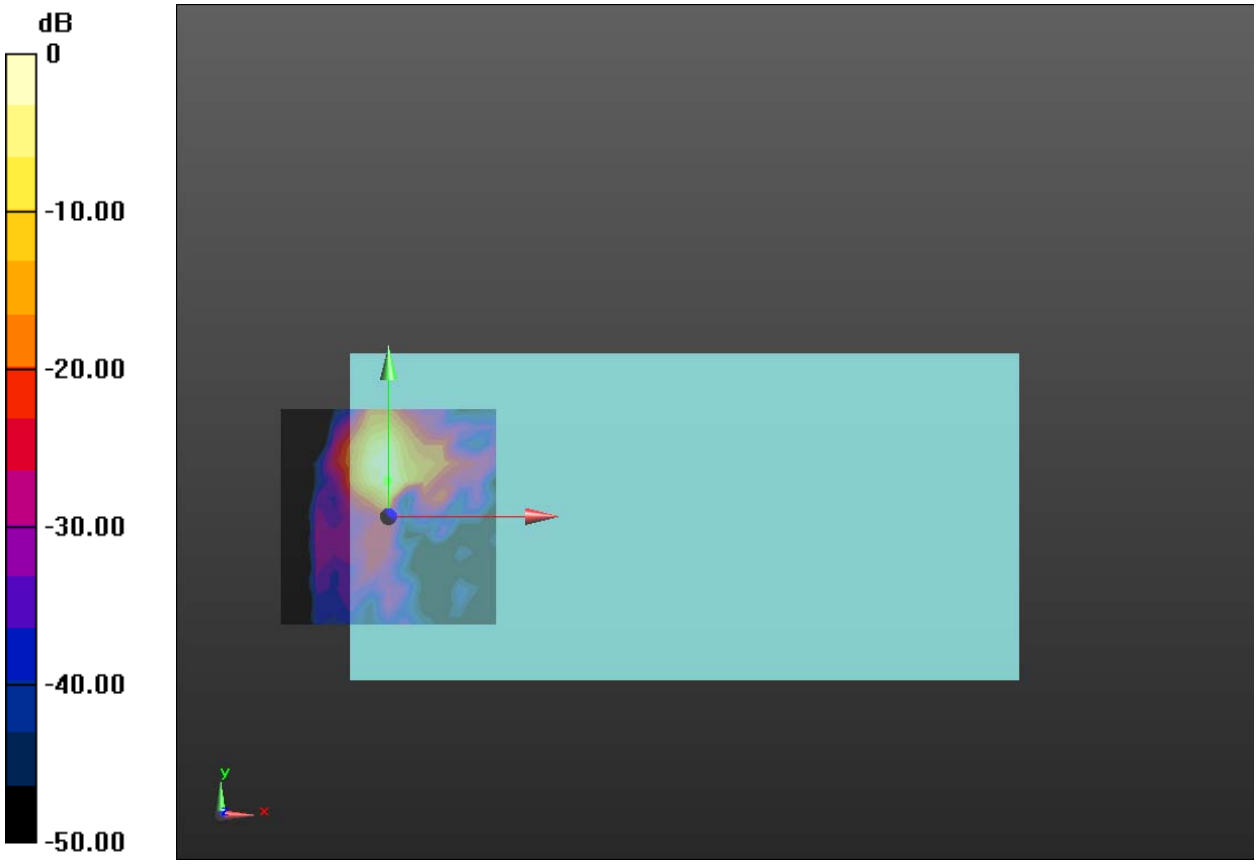

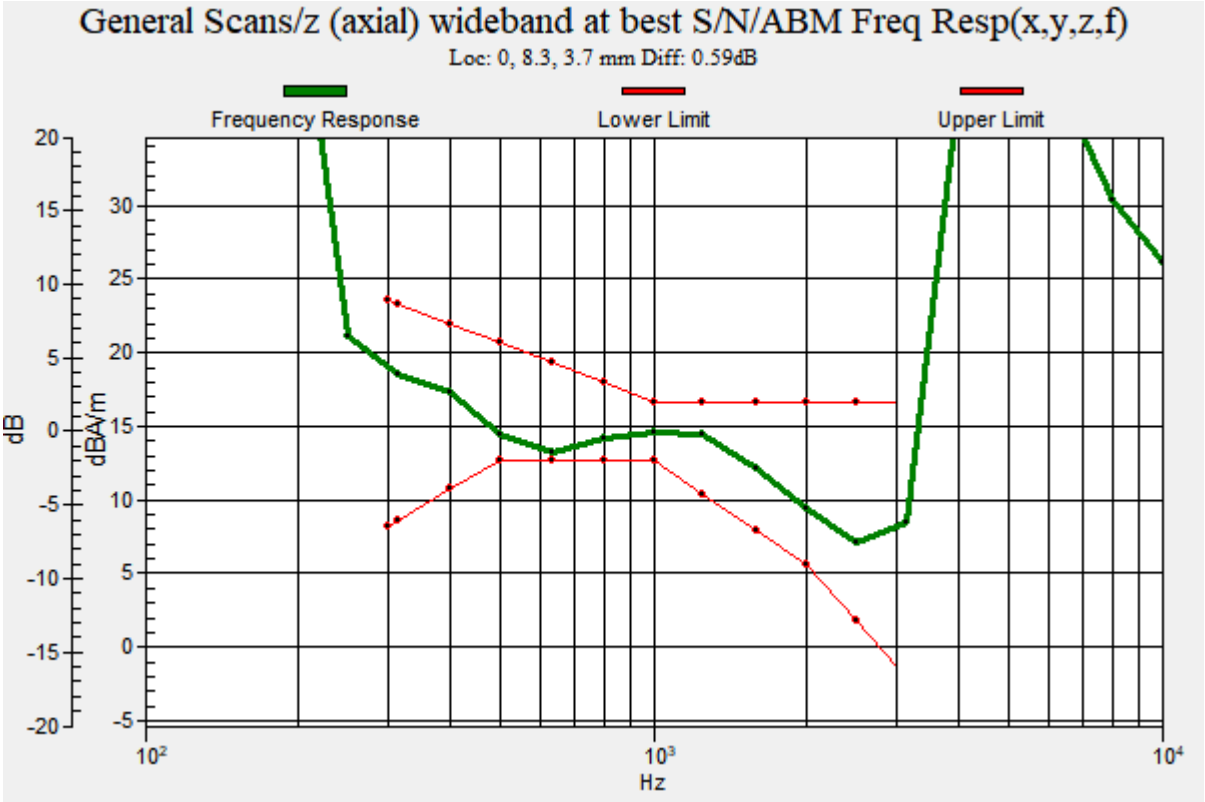

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Plot 5 T-Coil WIFI 2.4G: 802.11n Y transversal

Date: 1/21/2021
Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil_WD_Emission NB/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 39.42 dB
ABM1 comp = 2.38 dBA/m
BWC Factor = 0.17 dB
Location: 0, 20.8, 3.7 mm

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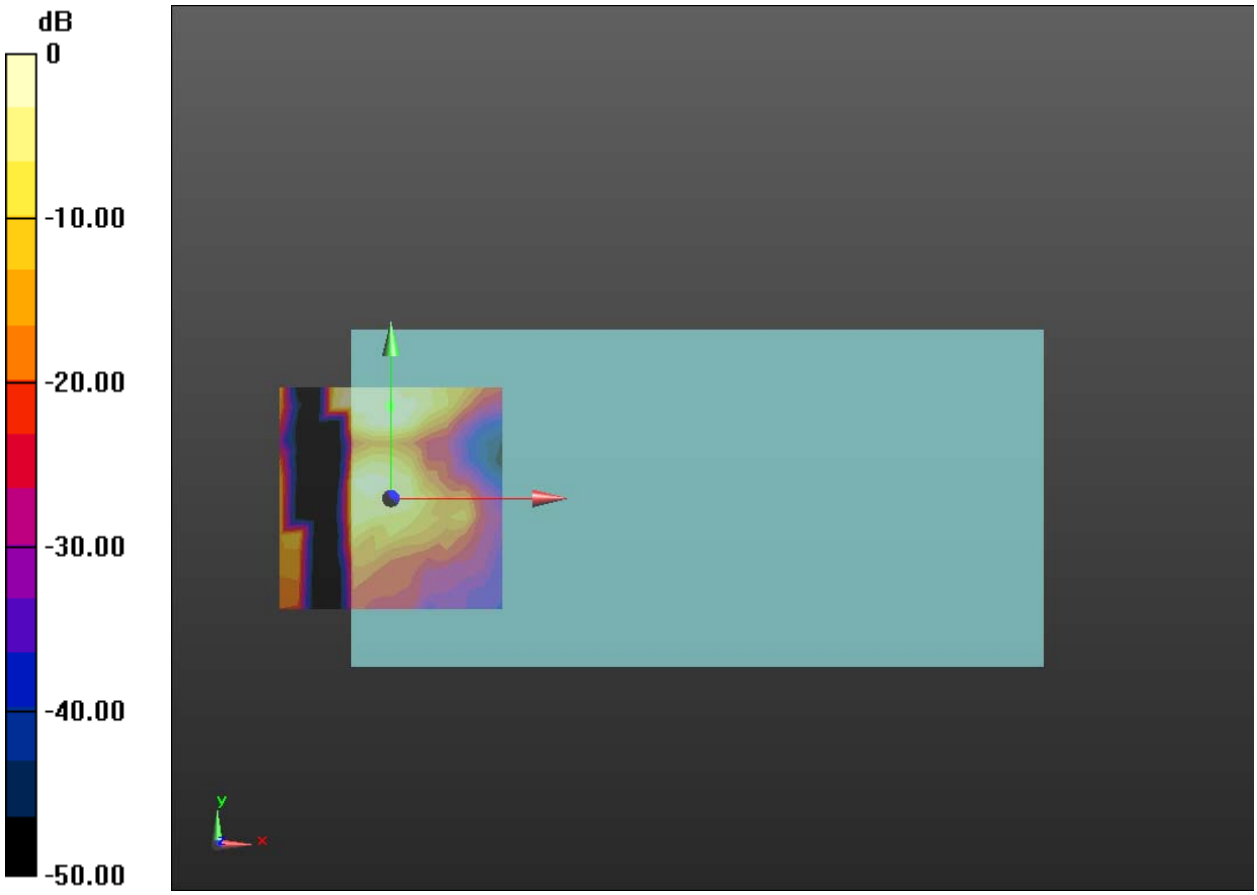

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Plot 6 T-Coil WIFI 2.4G: 802.11n Z Axial

Date: 1/21/2021

Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil_WD_Emission NB/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 46.50 dB

ABM1 comp = 3.93 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 12.5, 3.7 mm

802.11n HAC_TCoil_WD_Emission NB/General Scans/z (axial) wideband at best S/N/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: 100

Measure Window Start: 300ms

Measure Window Length: 2000ms

BWC applied: 10.81 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

Diff = 0.72 dB

BWC Factor = 10.81 dB

Location: -4.2, 12.5, 3.7 mm

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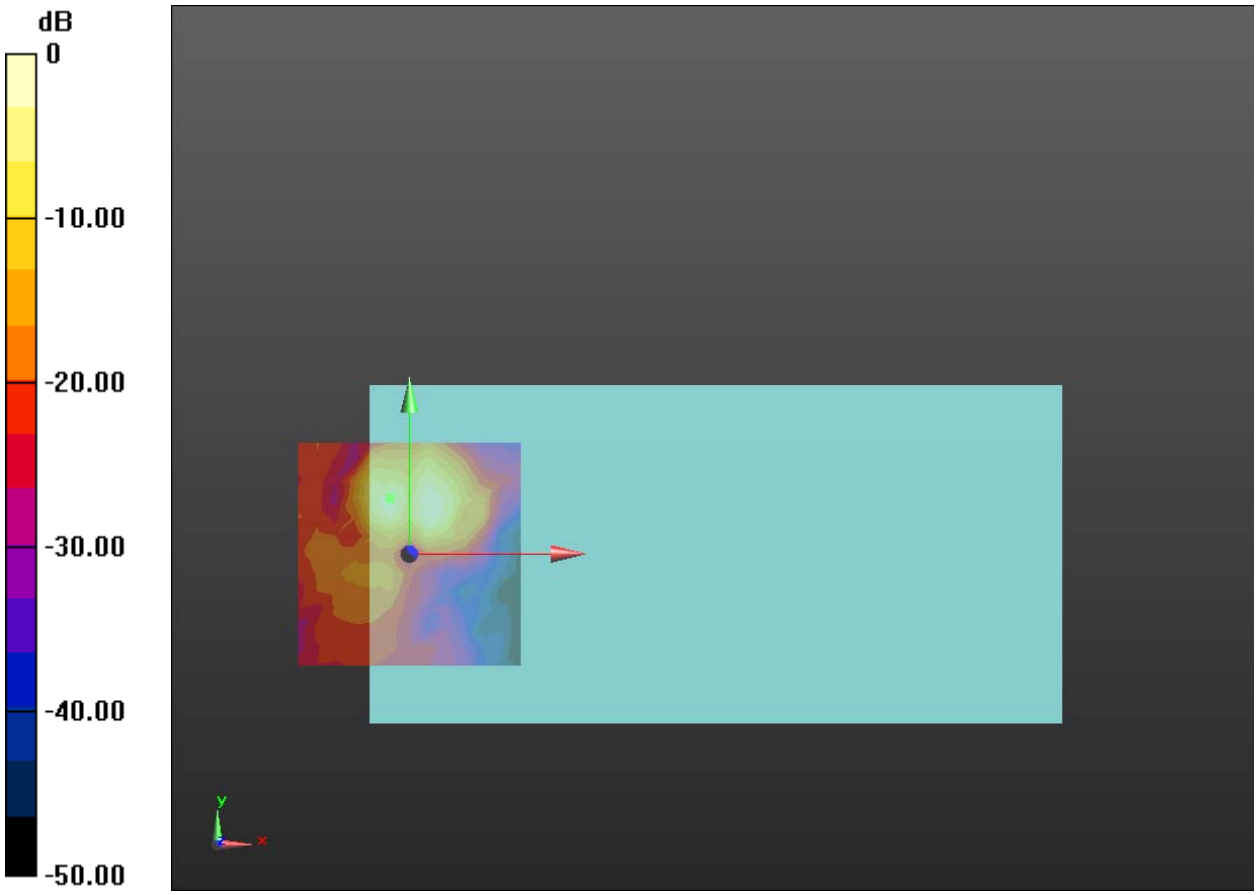

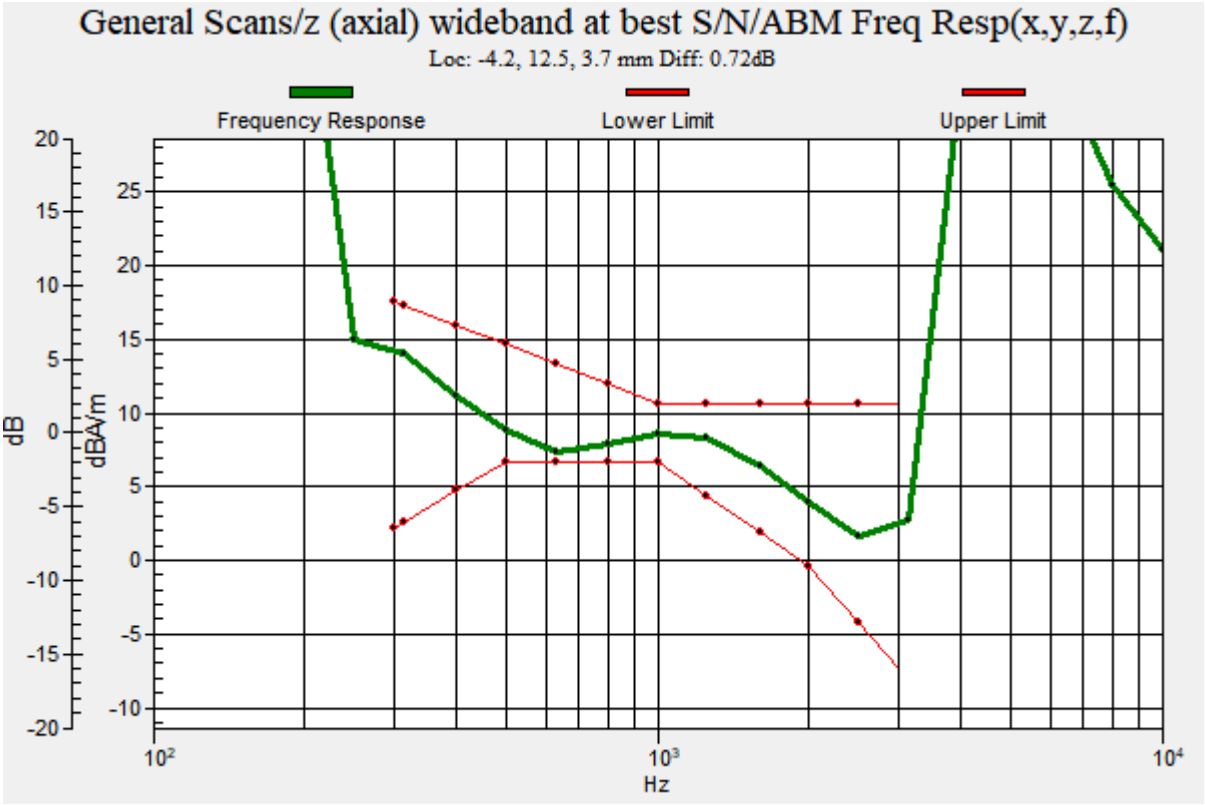

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Plot 7 T-Coil WIFI 5G: 802.11a (U-NII-1) Y transversal

Date: 1/21/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 1/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 45.59 dB

ABM1 comp = 2.97 dBA/m

BWC Factor = 0.17 dB

Location: 4.2, 20.8, 3.7 mm

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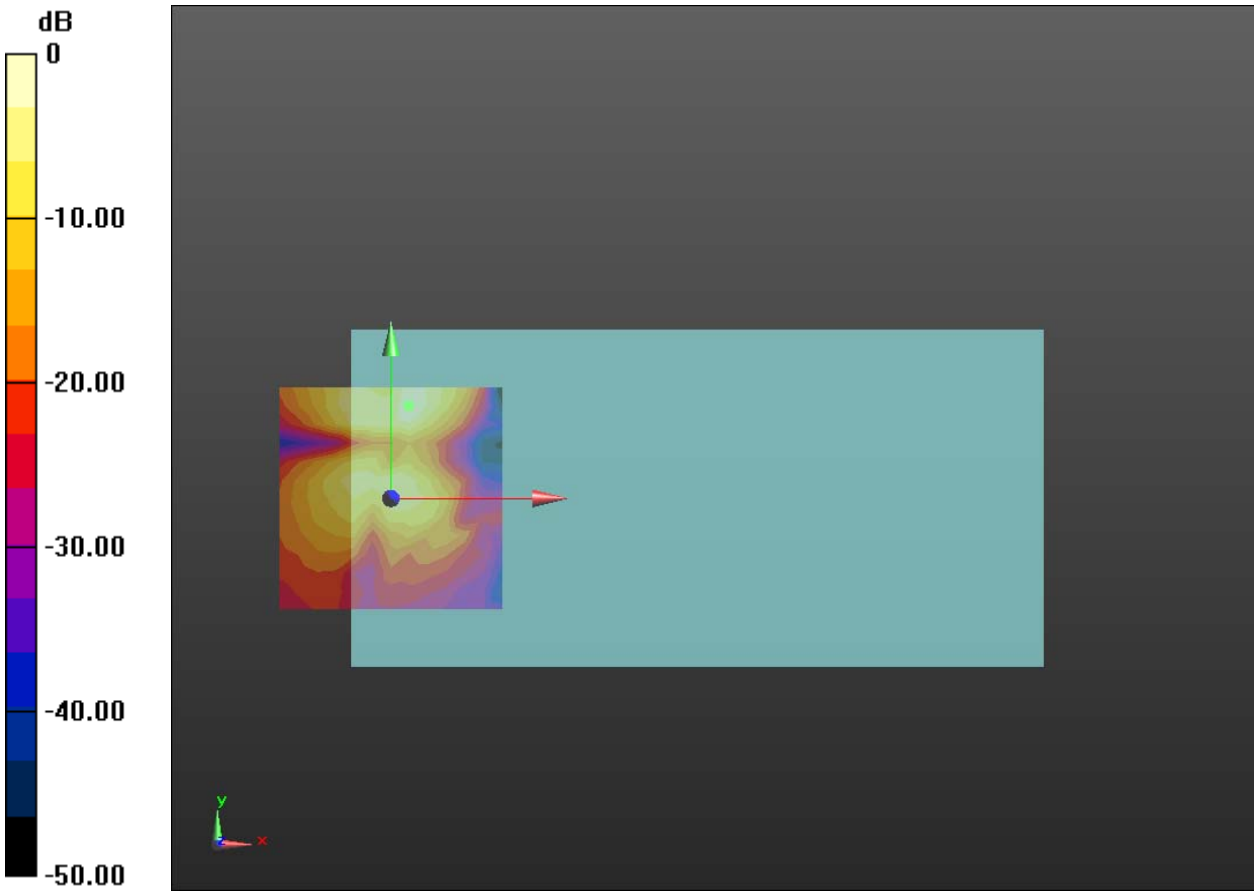

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Plot 8 T-Coil WIFI 5G: 802.11a (U-NII-1) Z Axial

Date: 1/21/2021
Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 1/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.96 dB
ABM1 comp = 10.55 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

802.11a HAC_TCoil_WD_Emission - 1/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.50 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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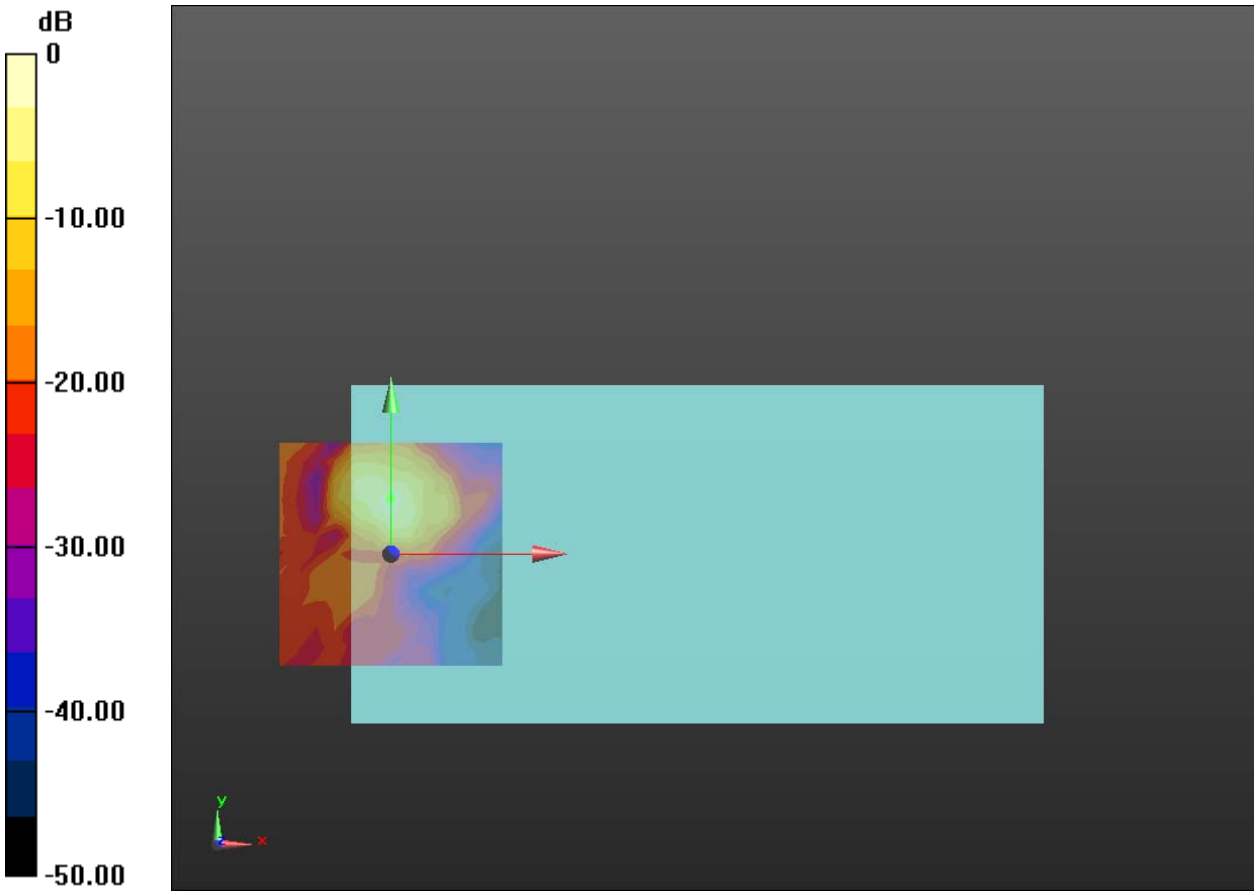

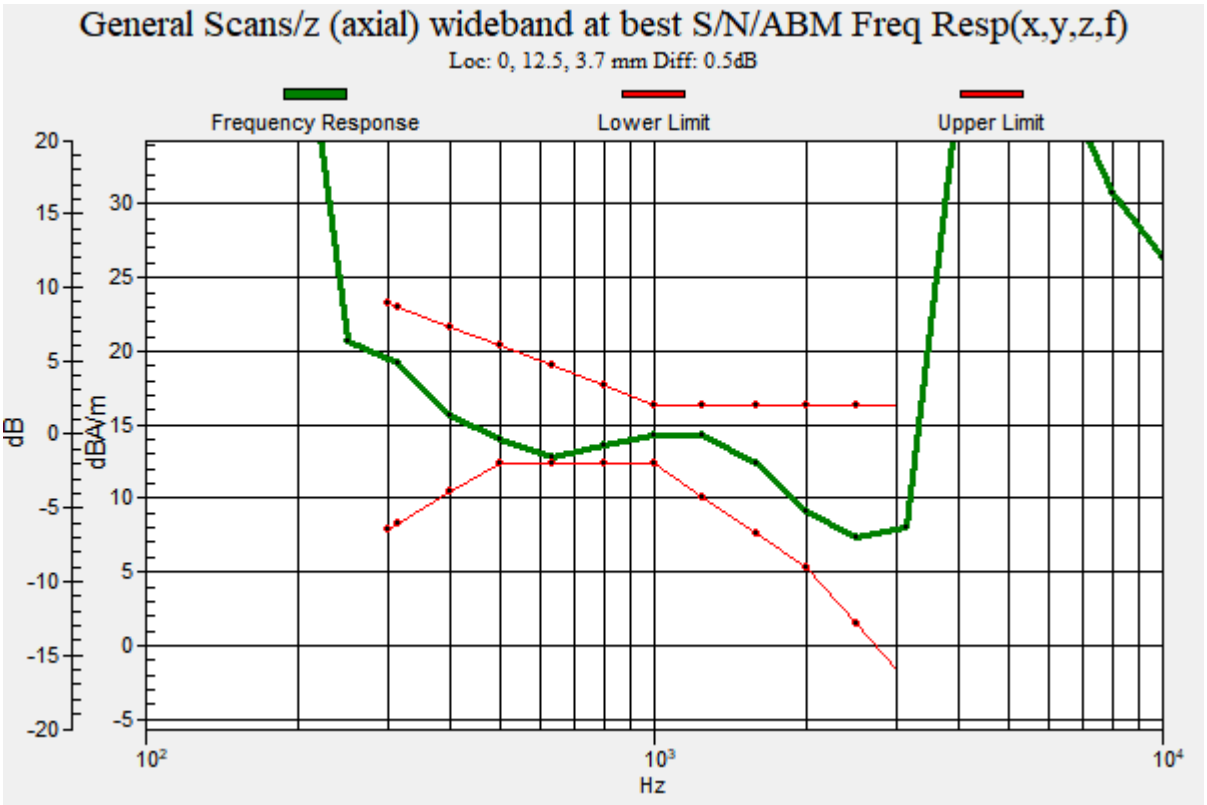

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Plot 9 T-Coil WIFI 5G: 802.11a (U-NII-3) Y transversal

Date: 1/21/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission-3/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 40.86 dB

ABM1 comp = -0.20 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 20.8, 3.7 mm

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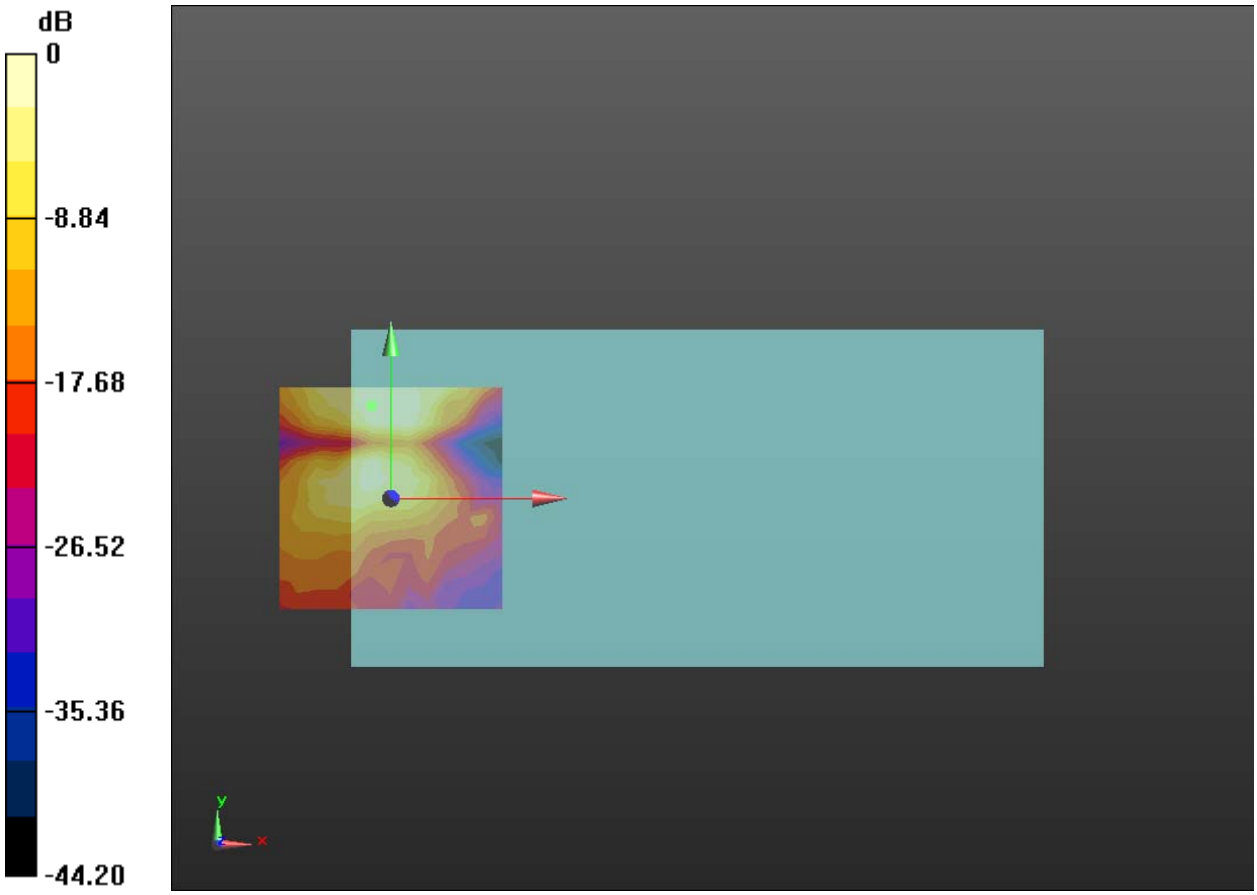

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Plot 10 T-Coil WIFI 5G: 802.11a (U-NII-3) Z Axial

Date: 1/21/2021
Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission-3/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 43.56 dB
ABM1 comp = 4.36 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

802.11a HAC_TCoil_WD_Emission-3/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.55 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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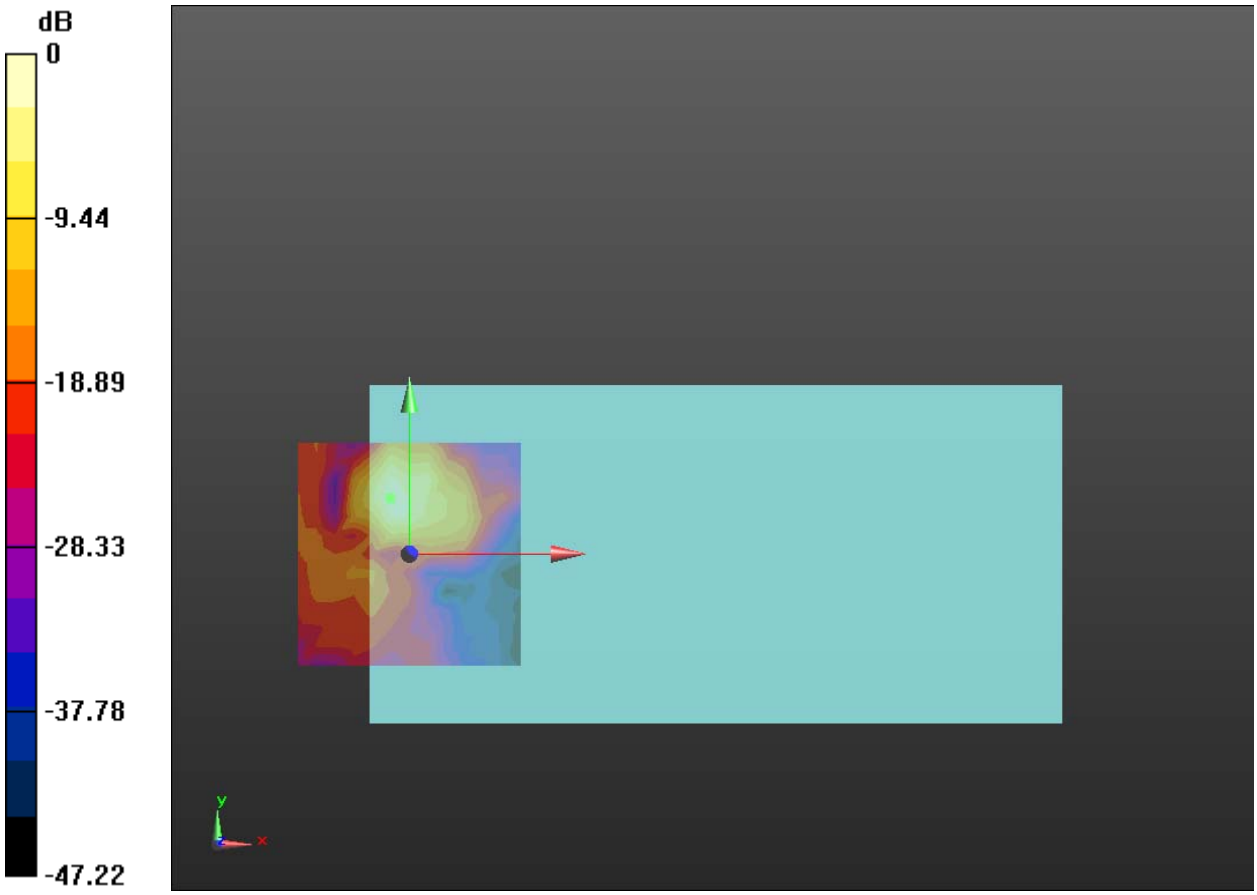

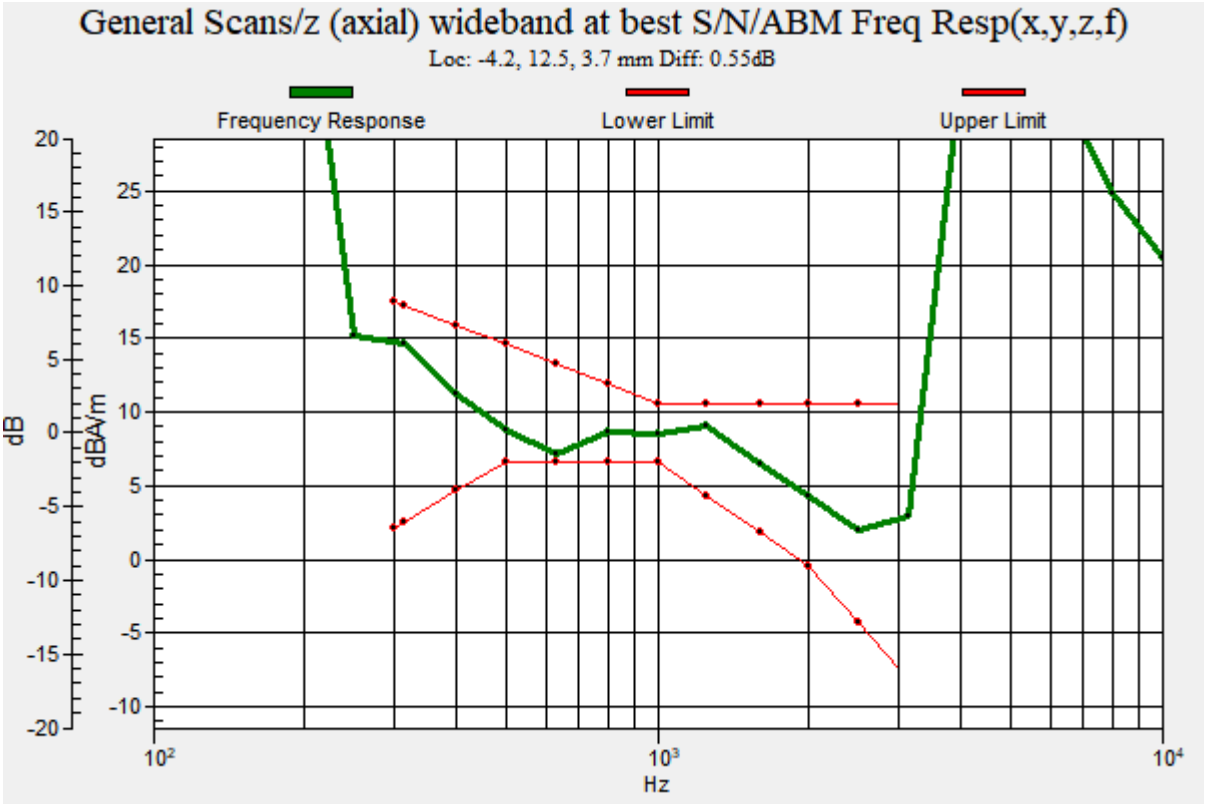

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WB

Plot 11 T-Coil WIFI 2.4G: 802.11b Y transversal

Date: 1/21/2021

Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 51.19 dB

ABM1 comp = 2.11 dBA/m

BWC Factor = 0.17 dB

Location: 0, 20.8, 3.7 mm

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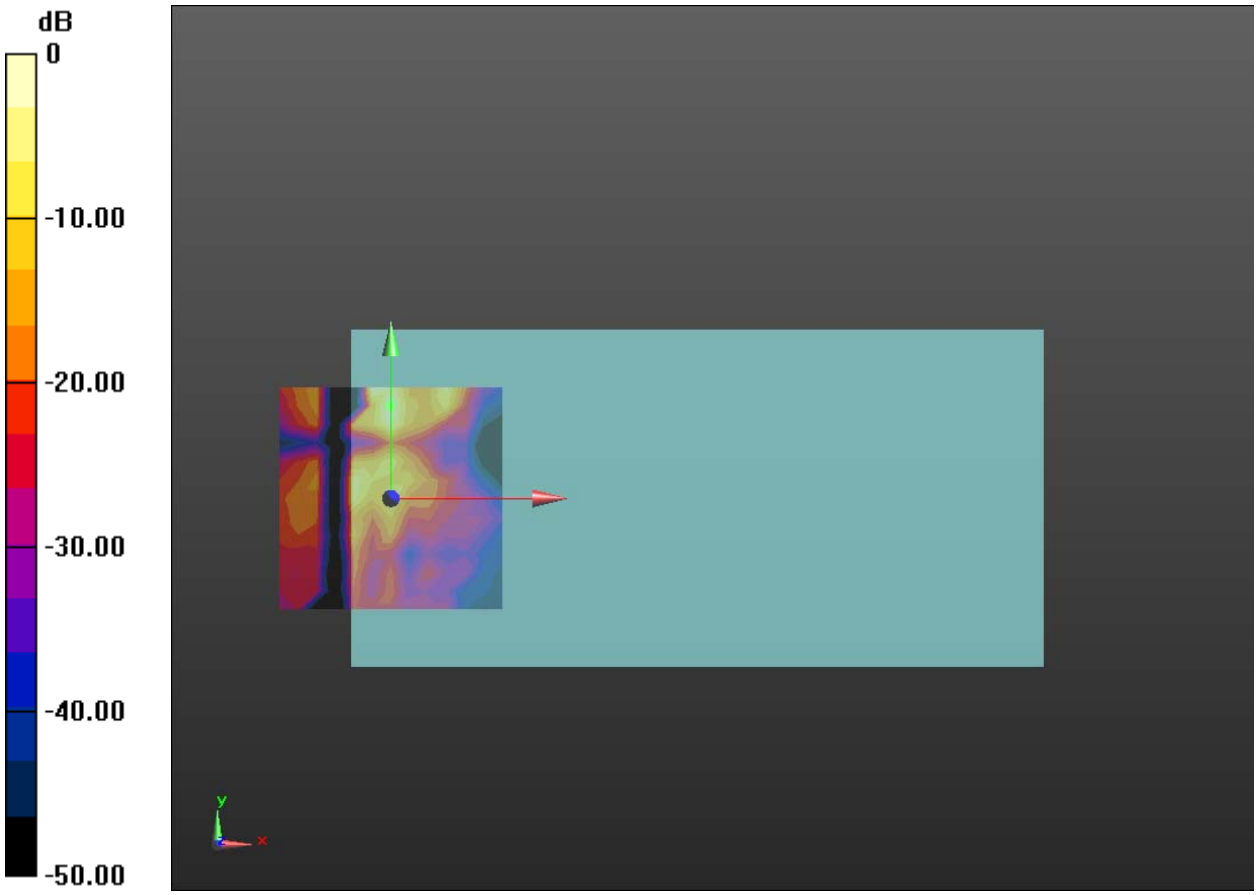

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Plot 12 T-Coil WIFI 2.4G: 802.11b Z Axial

Date: 1/21/2021
Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.79 dB
ABM1 comp = 9.49 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.90 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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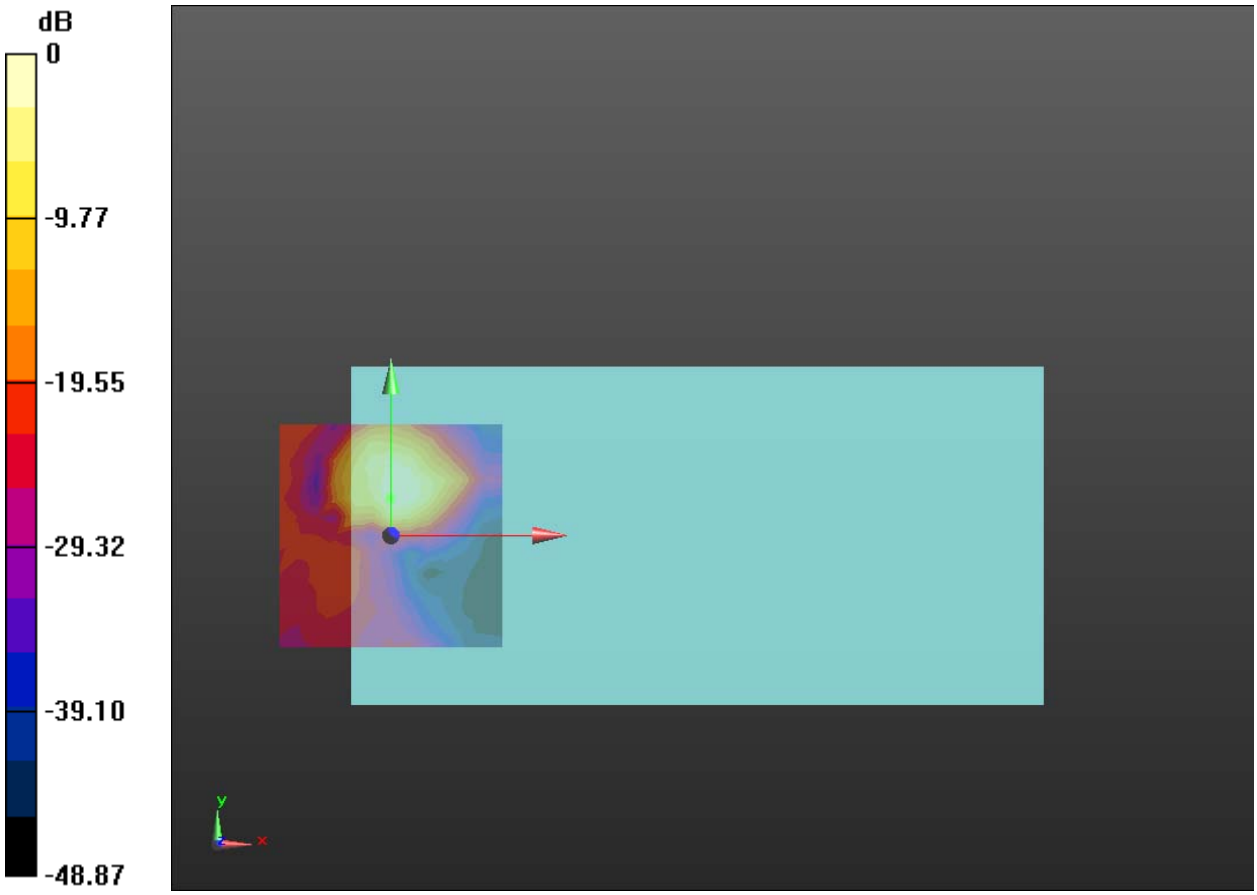

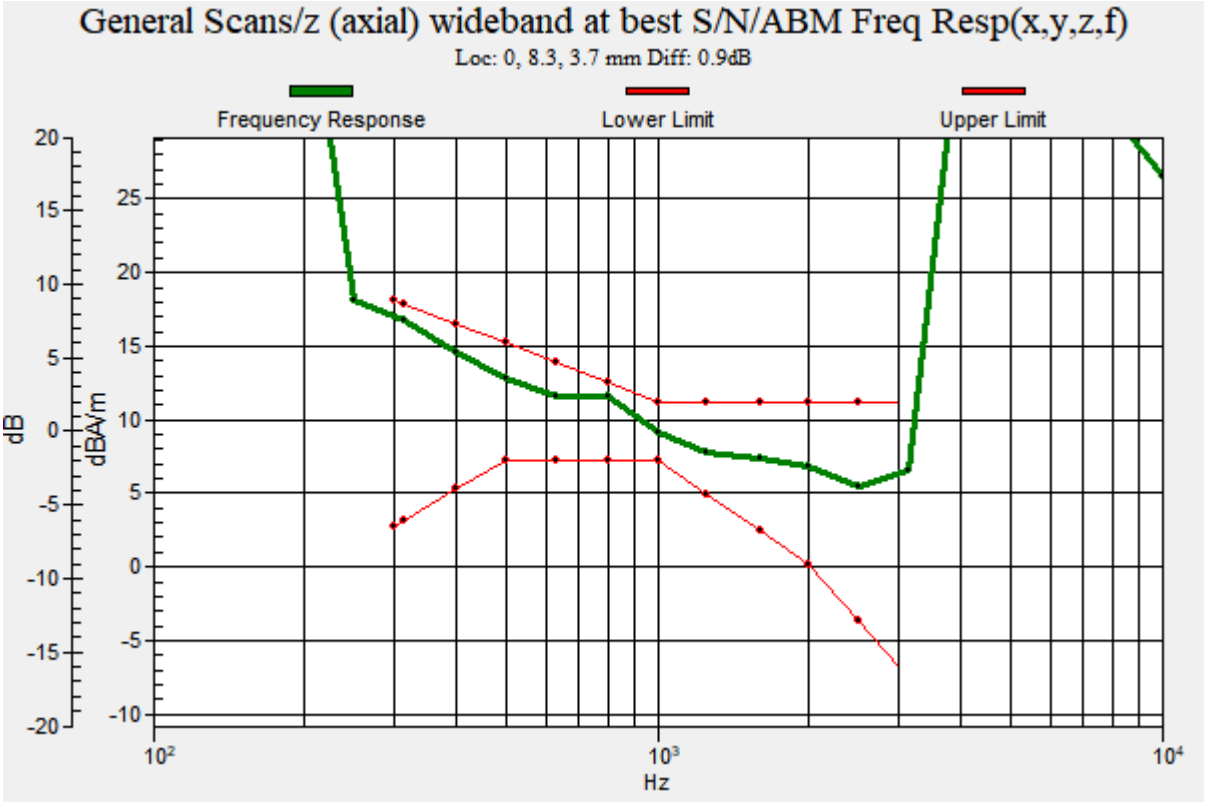

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Plot 13 T-Coil WIFI 2.4G: 802.11g Y transversal

Date: 1/21/2021
Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 47.71 dB
ABM1 comp = -1.10 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 0, 3.7 mm

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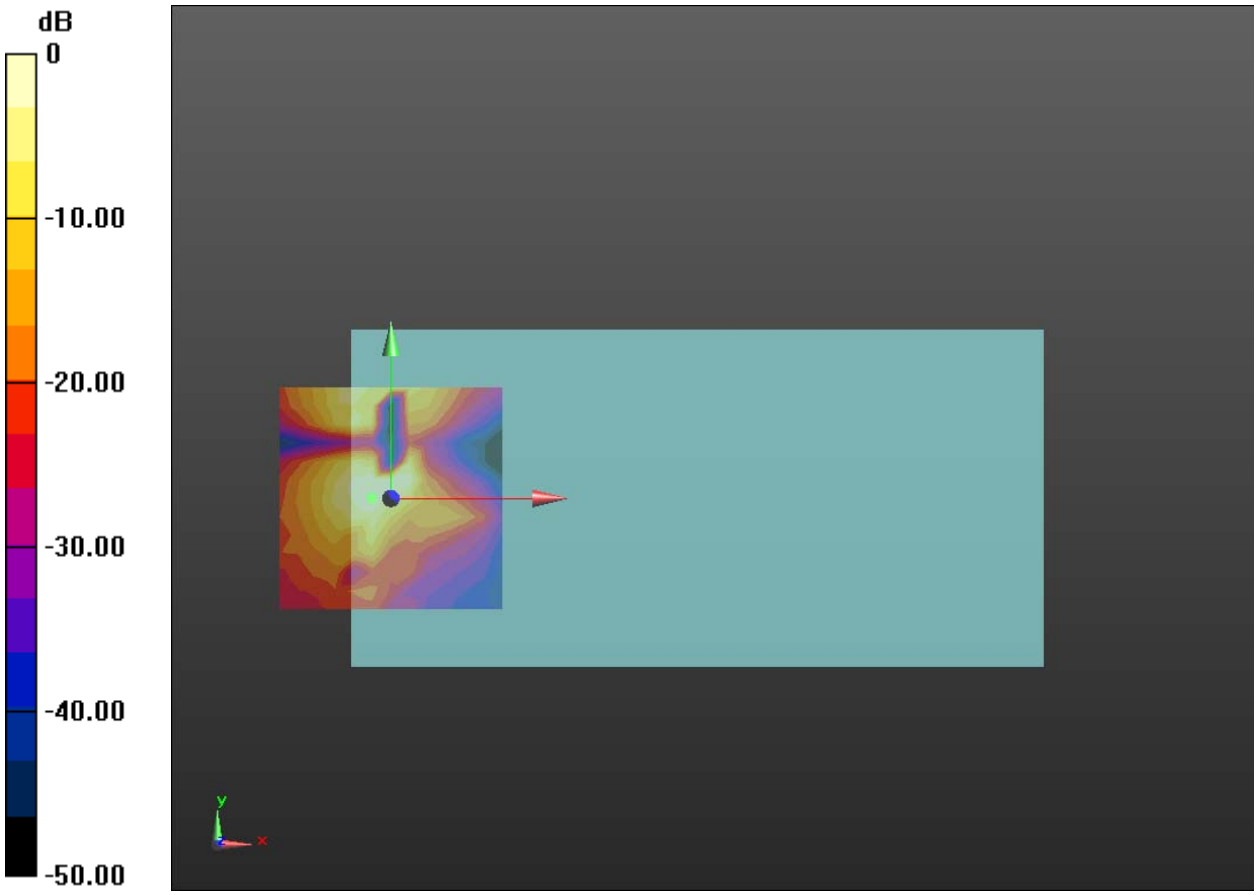

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Plot 14 T-Coil WIFI 2.4G: 802.11g Z Axial

Date: 1/21/2021
Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 46.82 dB
ABM1 comp = 11.39 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

Yogi 802.11g HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.98 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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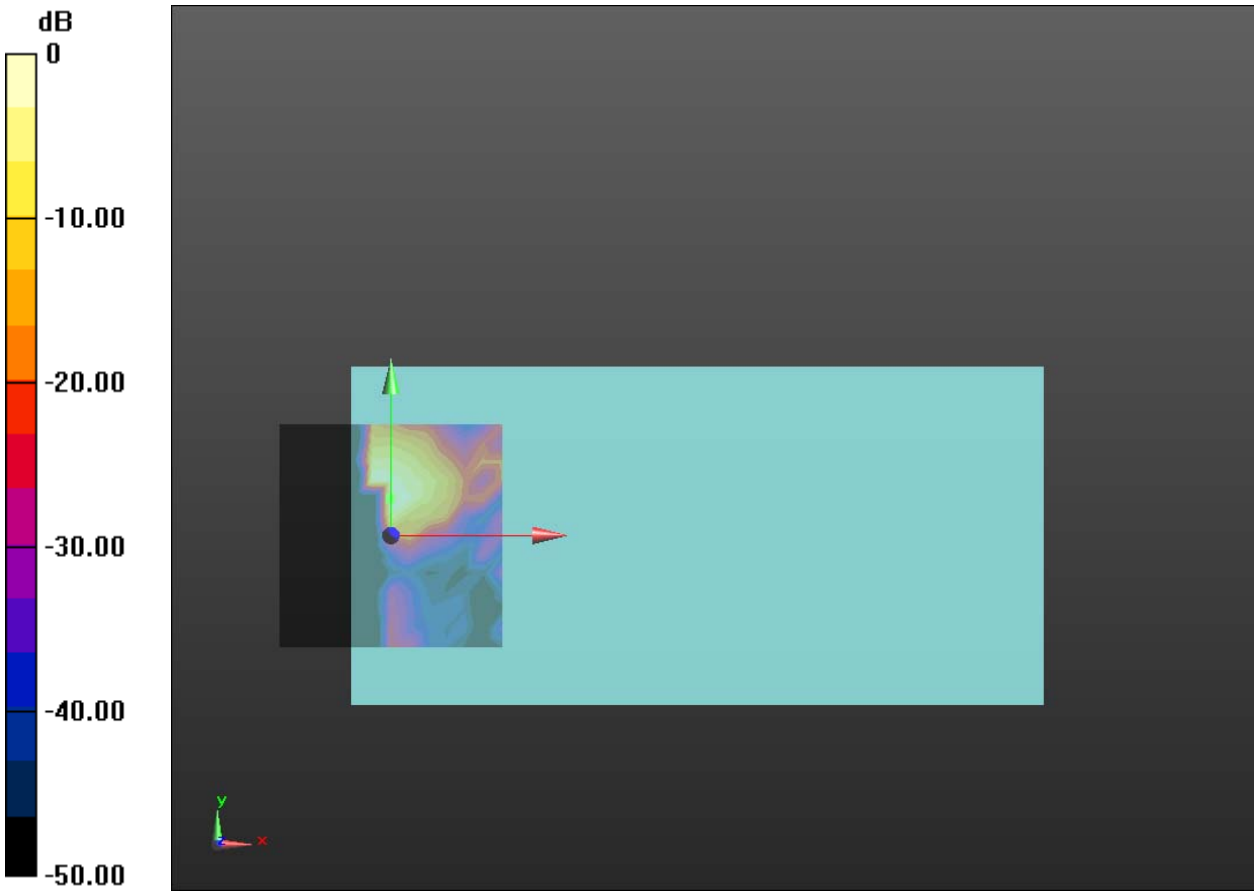

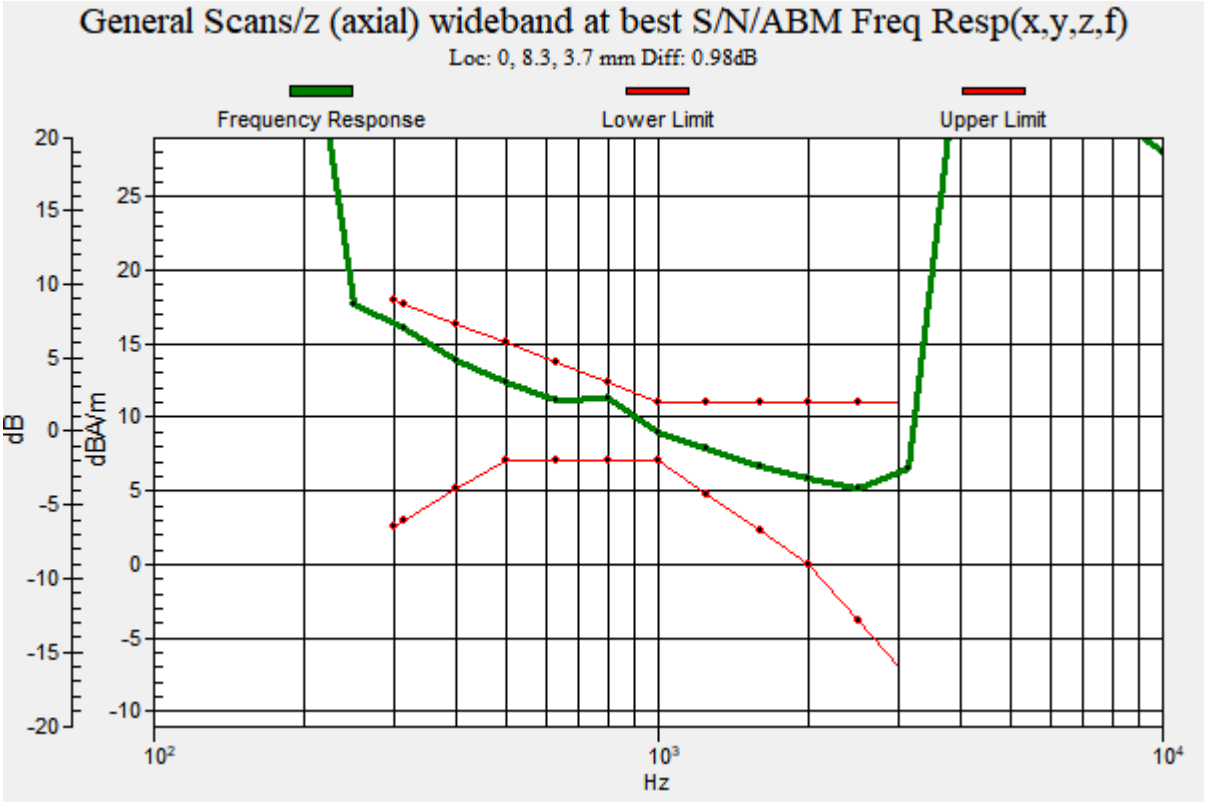

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Plot 15 T-Coil WIFI 2.4G: 802.11n Y transversal

Date: 1/21/2021

Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil_WD_Emission NB/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 46.63 dB

ABM1 comp = -3.66 dBA/m

BWC Factor = 0.17 dB

Location: 12.5, 25, 3.7 mm

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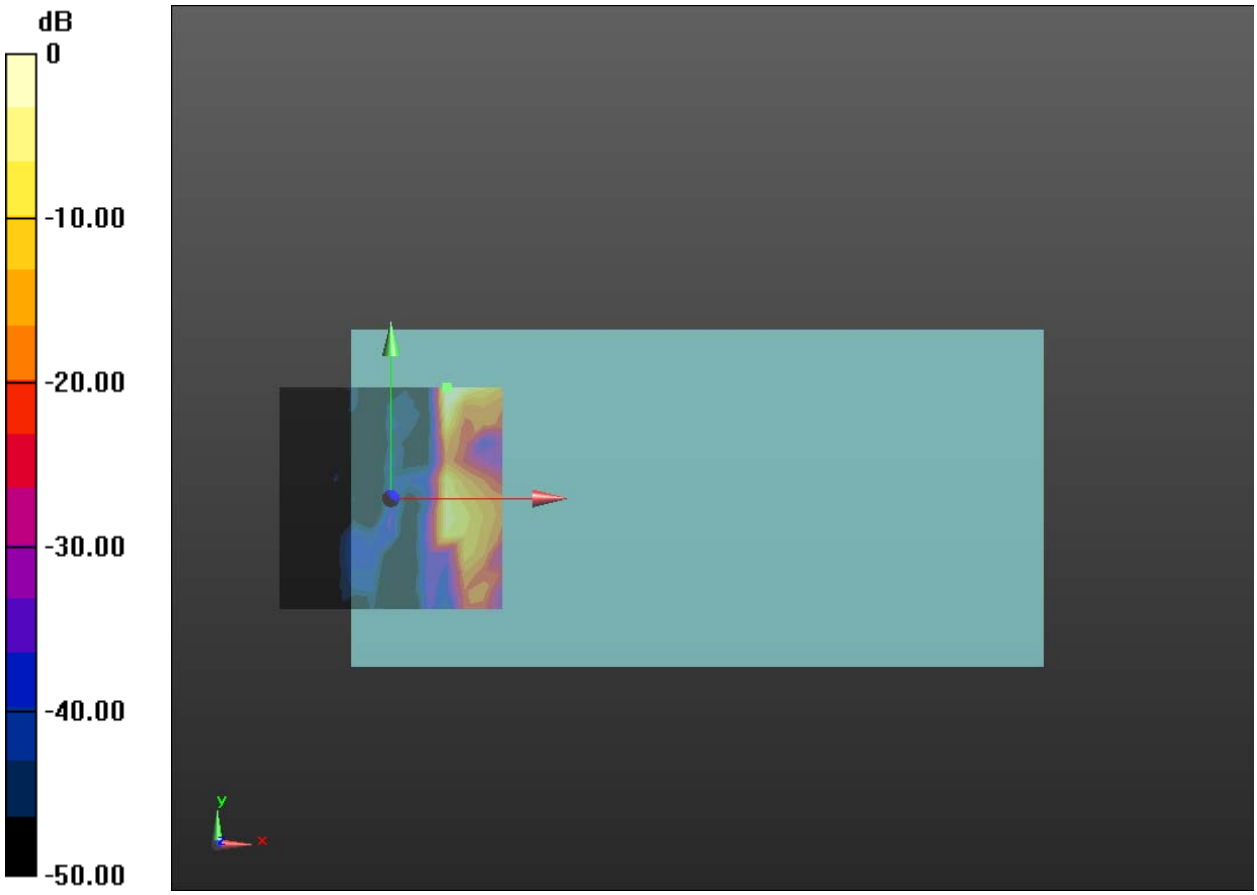

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Plot 16 T-Coil WIFI 2.4G: 802.11n Z Axial

Date: 1/21/2021
Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil_WD_Emission NB/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.78 dB
ABM1 comp = 11.87 dBA/m
BWC Factor = 0.17 dB
Location: 4.2, 8.3, 3.7 mm

802.11n HAC_TCoil_WD_Emission NB/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.54 dB
BWC Factor = 10.81 dB
Location: 4.2, 8.3, 3.7 mm

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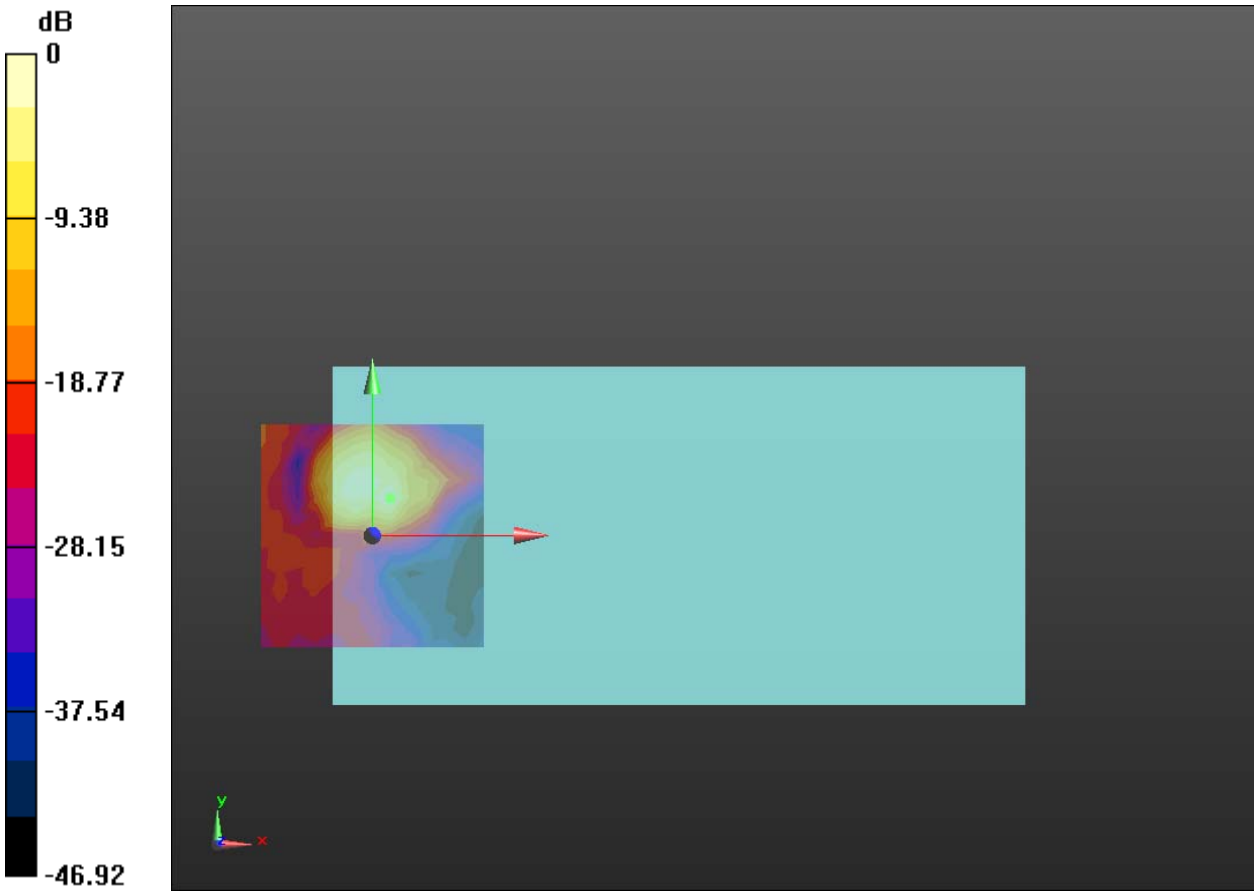

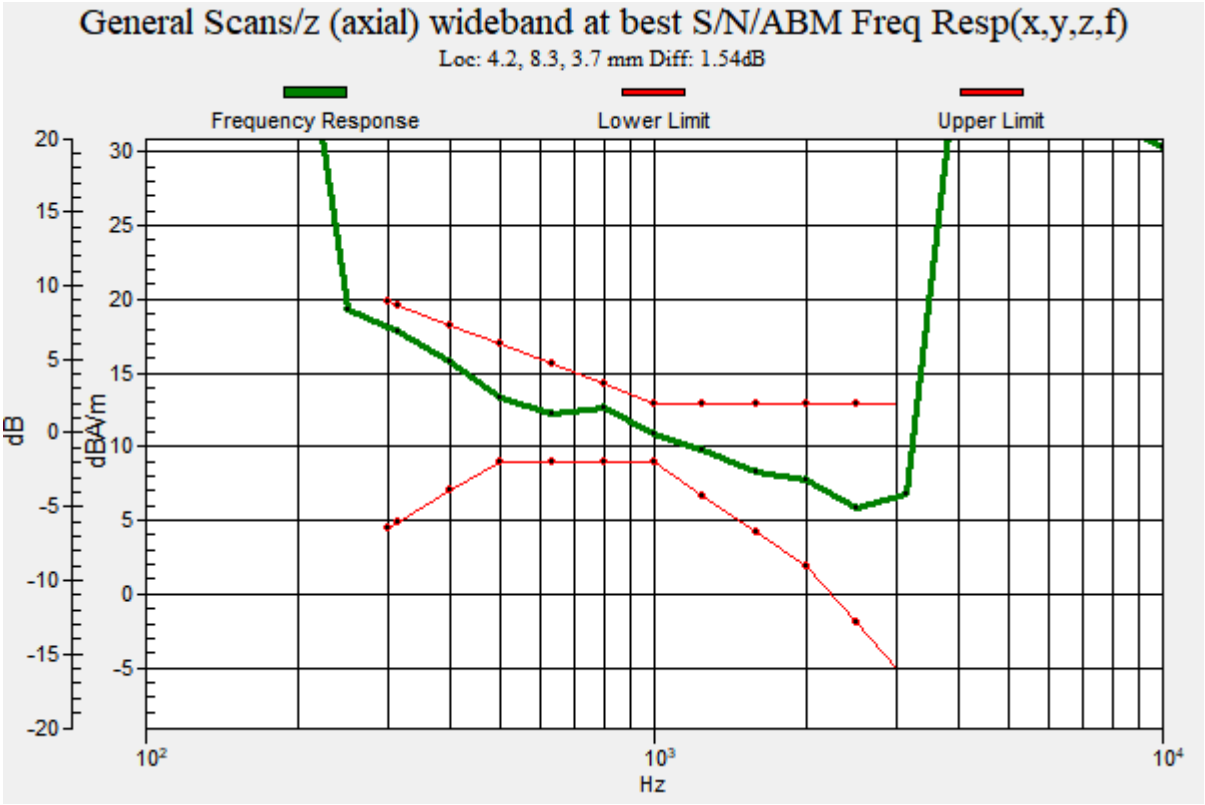

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Plot 17 T-Coil WIFI 5G: 802.11a (U-NII-1) Y transversal

Date: 1/21/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 1/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 39.76 dB

ABM1 comp = 2.23 dBA/m

BWC Factor = 0.17 dB

Location: 0, 20.8, 3.7 mm

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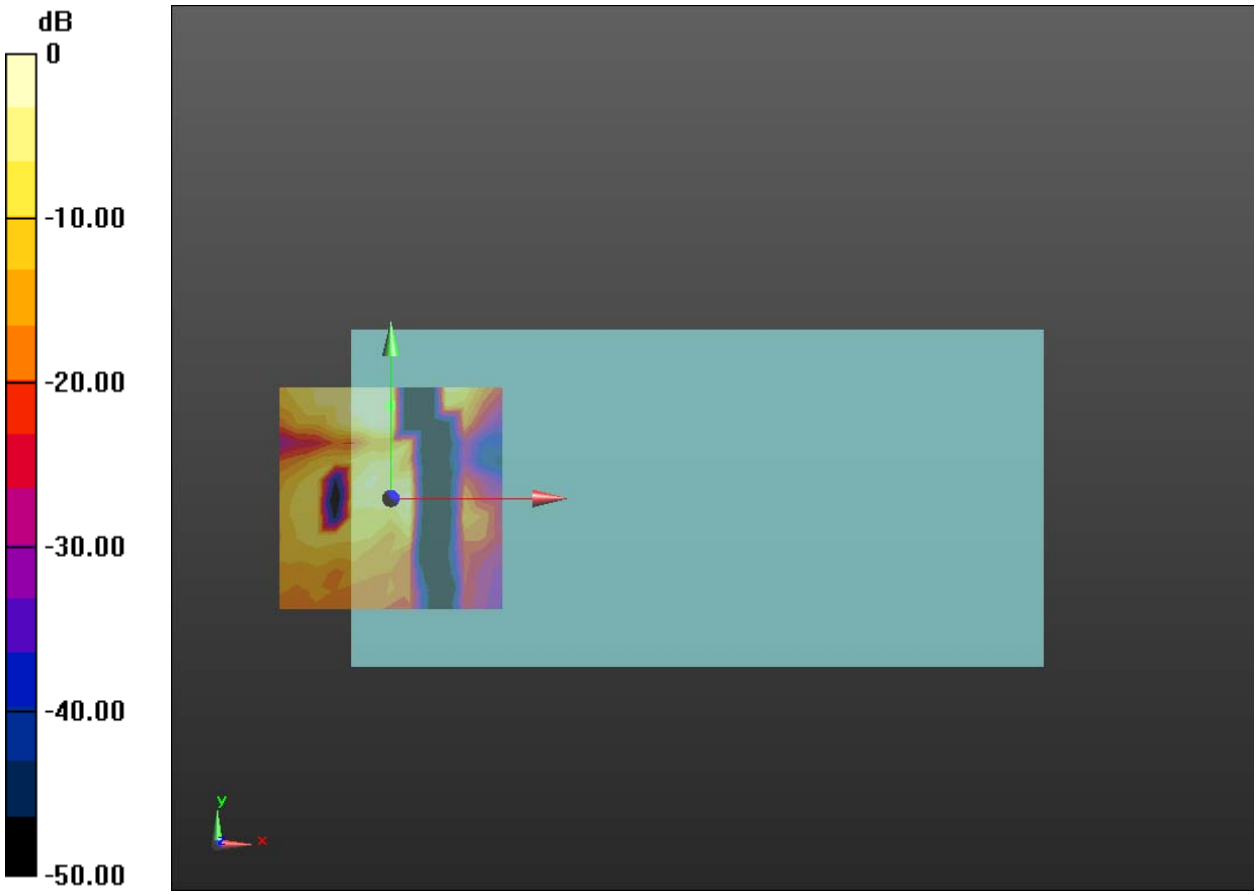

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Plot 18 T-Coil WIFI 5G: 802.11a (U-NII-1) Z Axial

Date: 1/21/2021
Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 1/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 47.88 dB
ABM1 comp = 10.99 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

802.11a HAC_TCoil_WD_Emission - 1/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.75 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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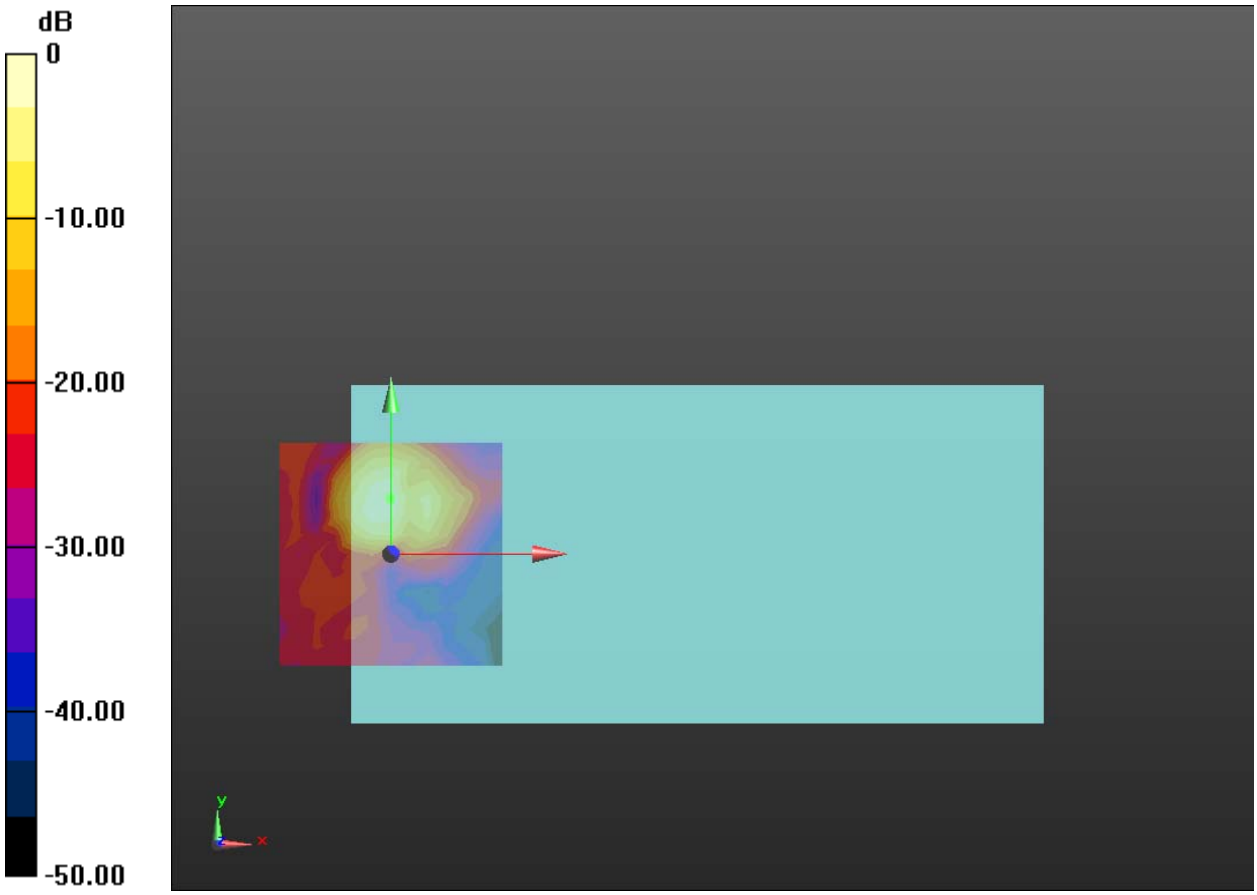

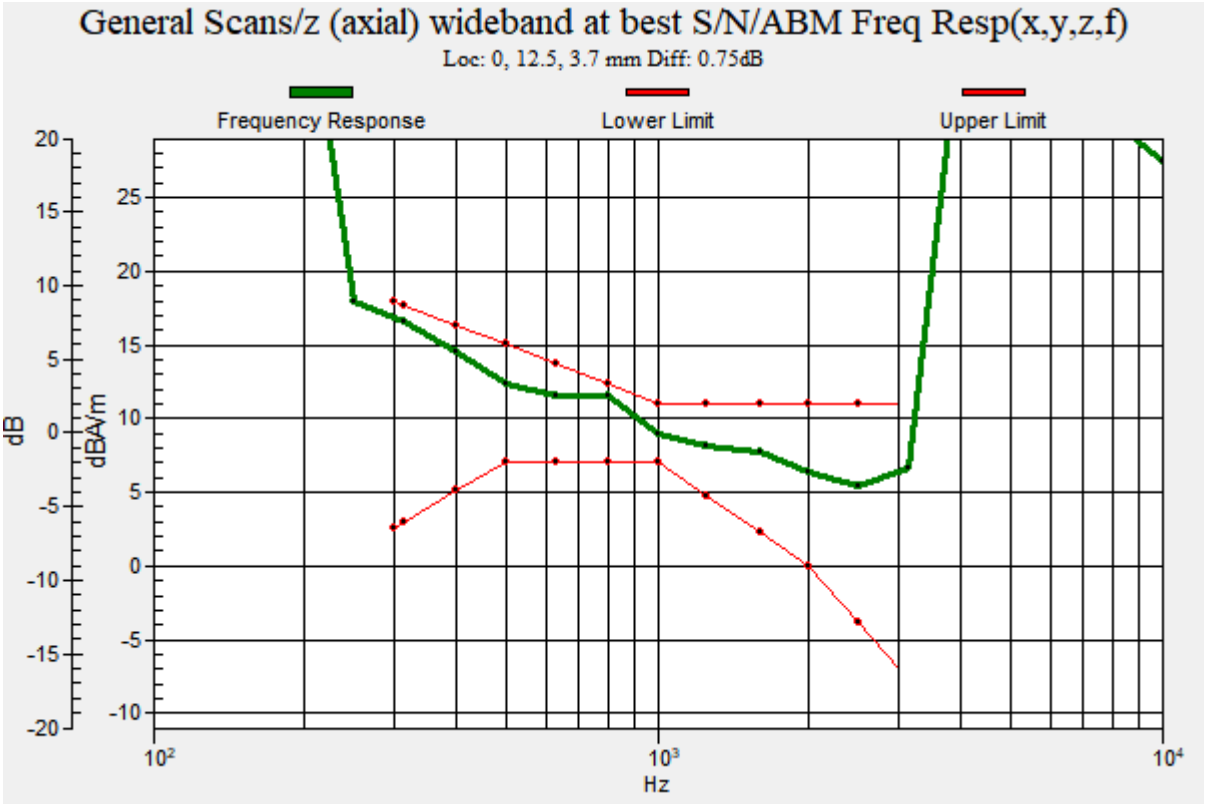

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Plot 19 T-Coil WIFI 5G: 802.11a (U-NII-3) Y transversal

Date: 1/21/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 3/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 100

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 46.33 dB

ABM1 comp = 3.91 dBA/m

BWC Factor = 0.17 dB

Location: 4.2, 20.8, 3.7 mm

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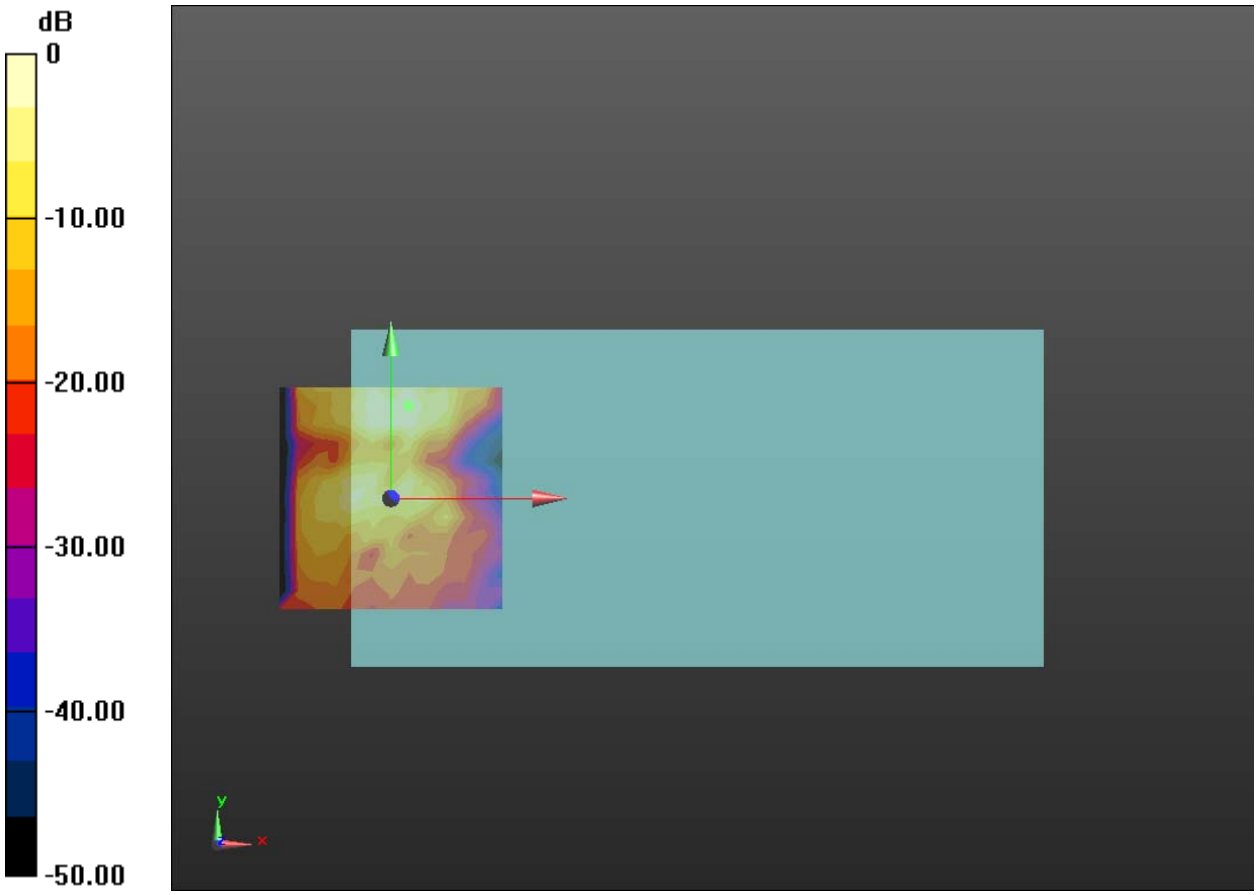

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Plot 20 T-Coil WIFI 5G: 802.11a (U-NII-3) Z Axial

Date: 1/21/2021
Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil_WD_Emission - 3/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 100
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 42.46 dB
ABM1 comp = 6.05 dBA/m
BWC Factor = 0.17 dB
Location: 0, 16.7, 3.7 mm

802.11a HAC_TCoil_WD_Emission - 3/General Scans/z (axial) wideband at best S/N/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: 100
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.20 dB
BWC Factor = 10.81 dB
Location: 0, 16.7, 3.7 mm

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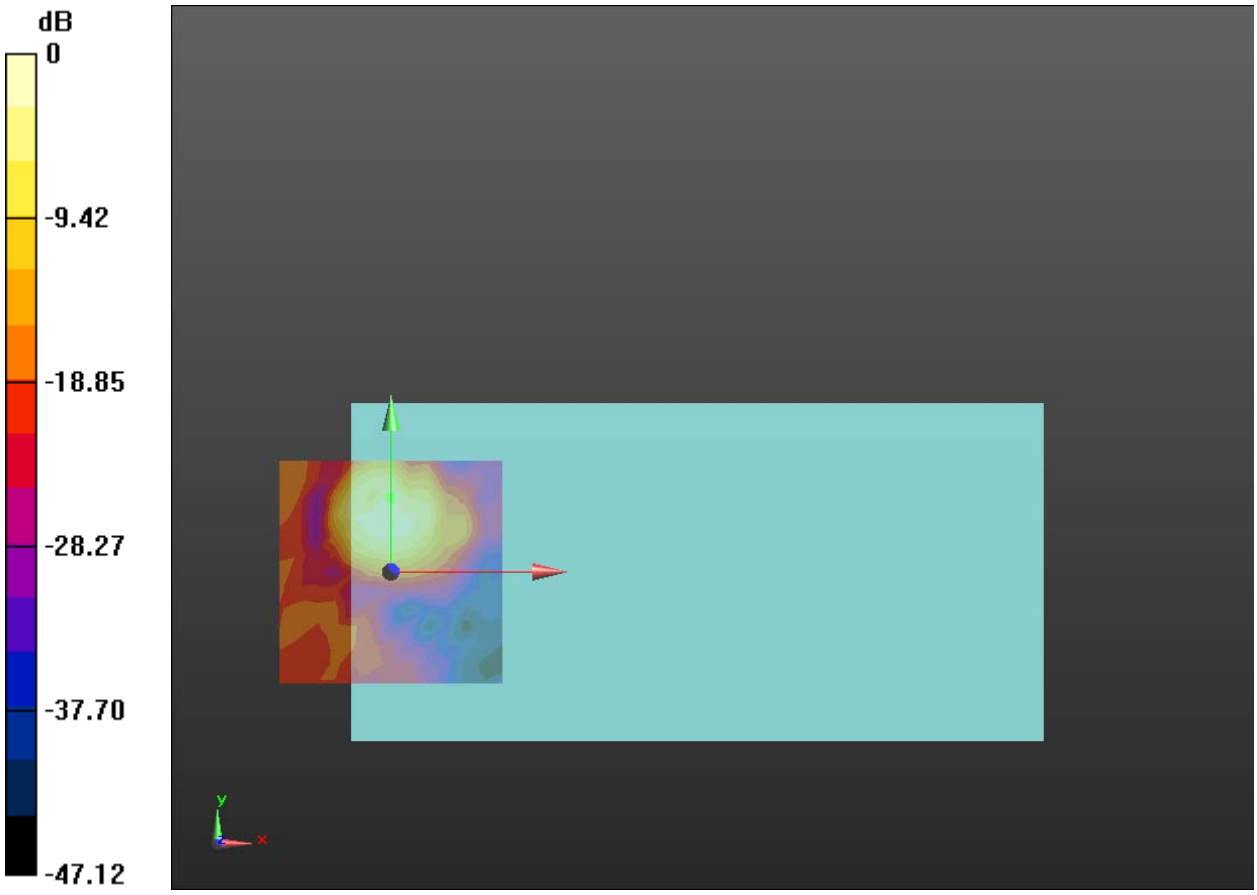

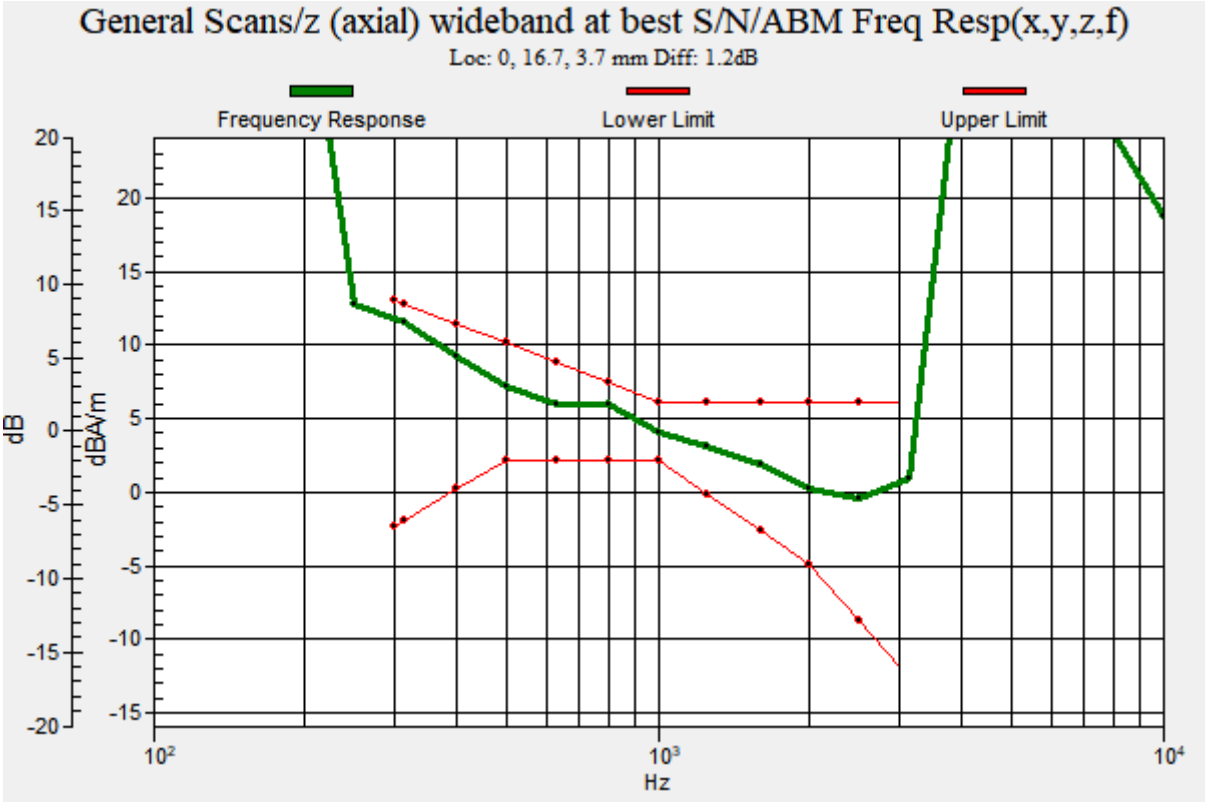

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Plot 21 T-Coil GSM 850 Y transversal

Date: 1/21/2021

Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

GSM850 HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 36.20 dB

ABM1 comp = -8.20 dBA/m

BWC Factor = 0.17 dB

Location: -12.5, -4.2, 3.7 mm

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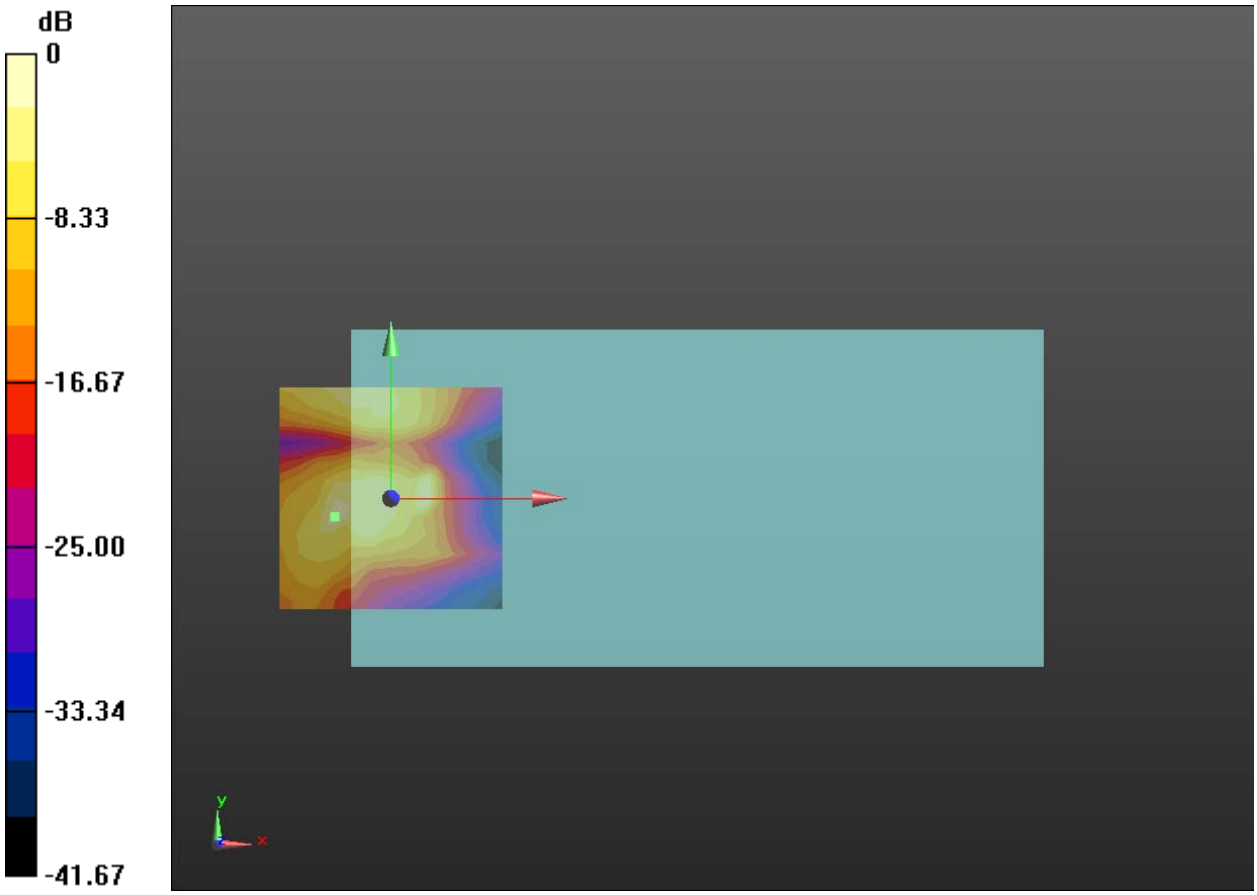

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Plot 22 T-Coil GSM 850 Z Axial

Date: 1/21/2021
Communication System: UID 0, GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8.30042
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

GSM850 HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 46.70 dB
ABM1 comp = 13.72 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

GSM850 HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.00 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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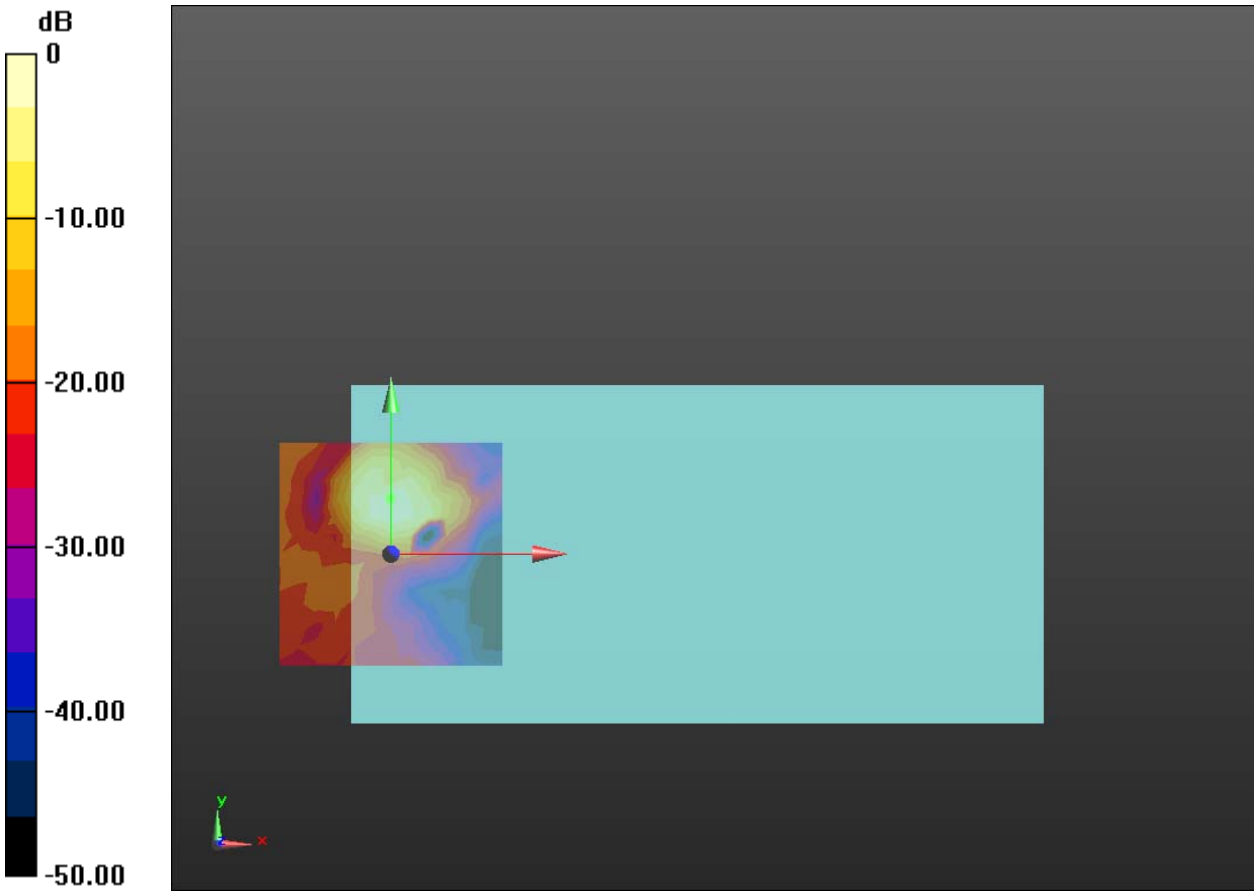

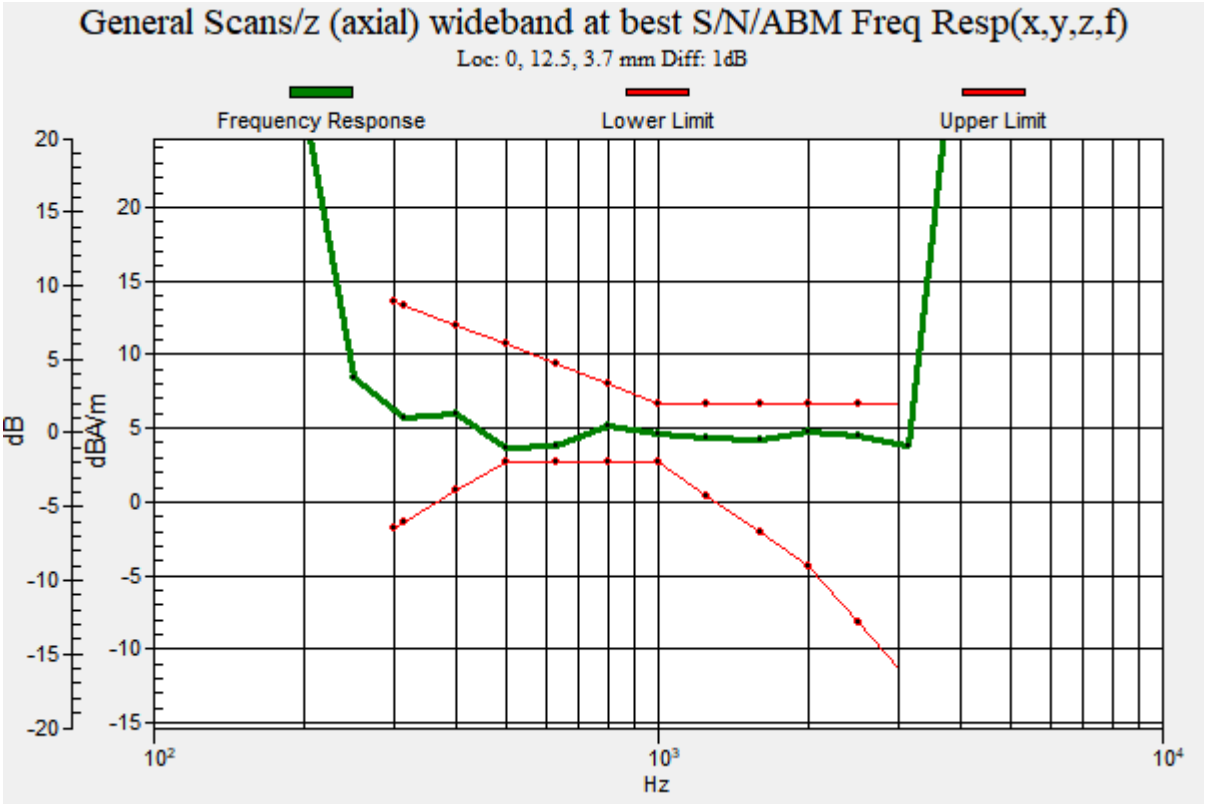

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Plot 23 T-Coil GSM 1900 Y transversal

Date: 1/21/2021
Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

GSM1900 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 42.82 dB
ABM1 comp = -0.86 dBA/m
BWC Factor = 0.17 dB
Location: 12.5, -4.2, 3.7 mm

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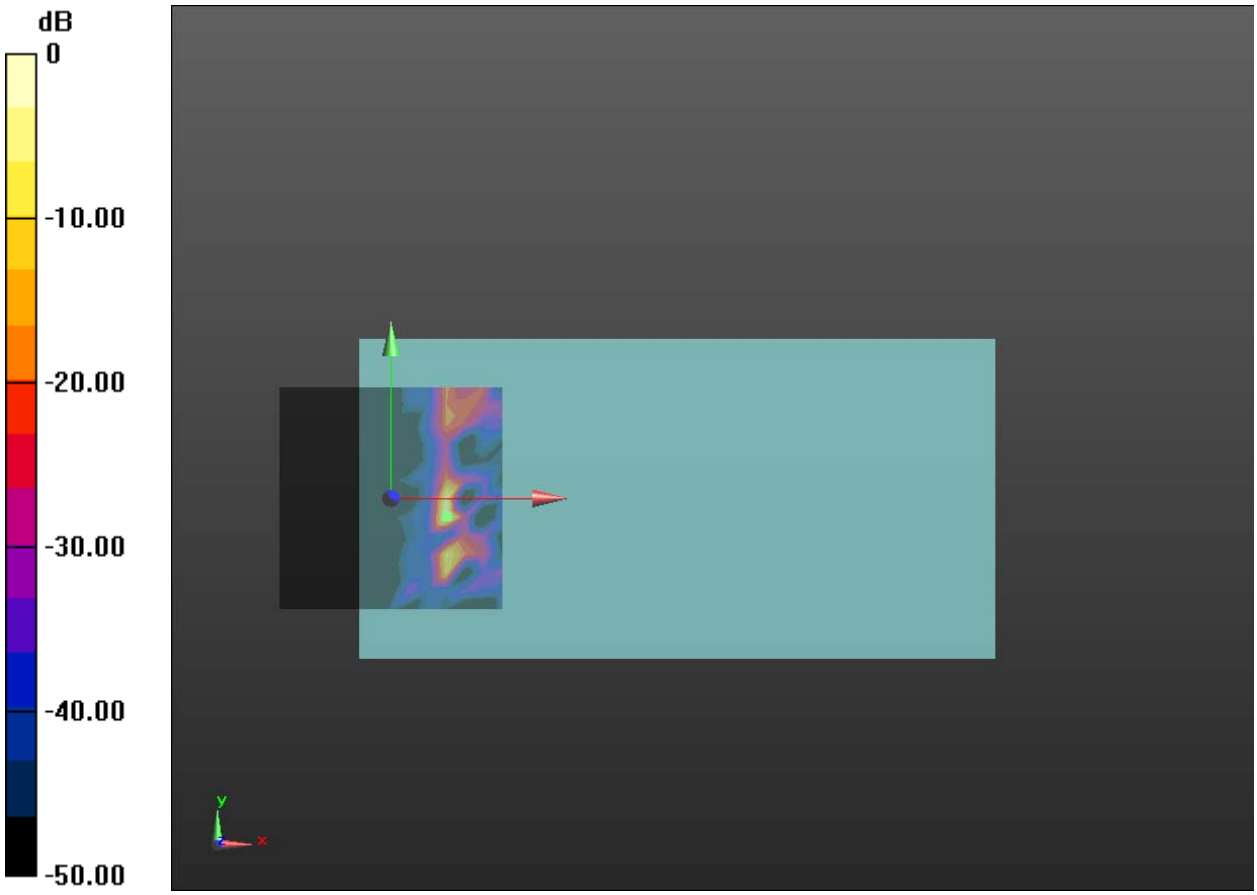

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Plot 24 T-Coil GSM 1900 Z Axial

Date: 1/21/2021
Communication System: UID 0, GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8.30042
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

GSM1900 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 45.84 dB
ABM1 comp = 12.77 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

GSM1900 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.38 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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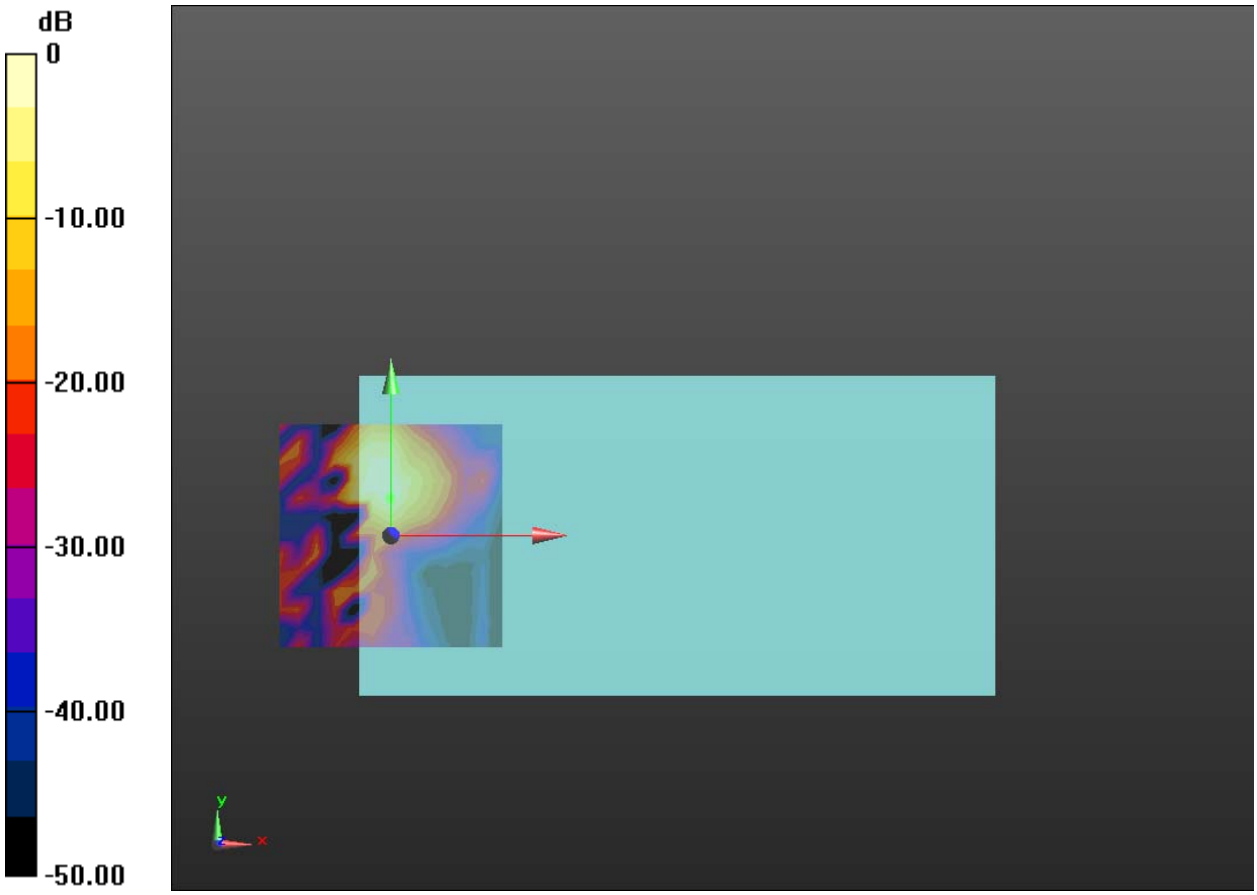

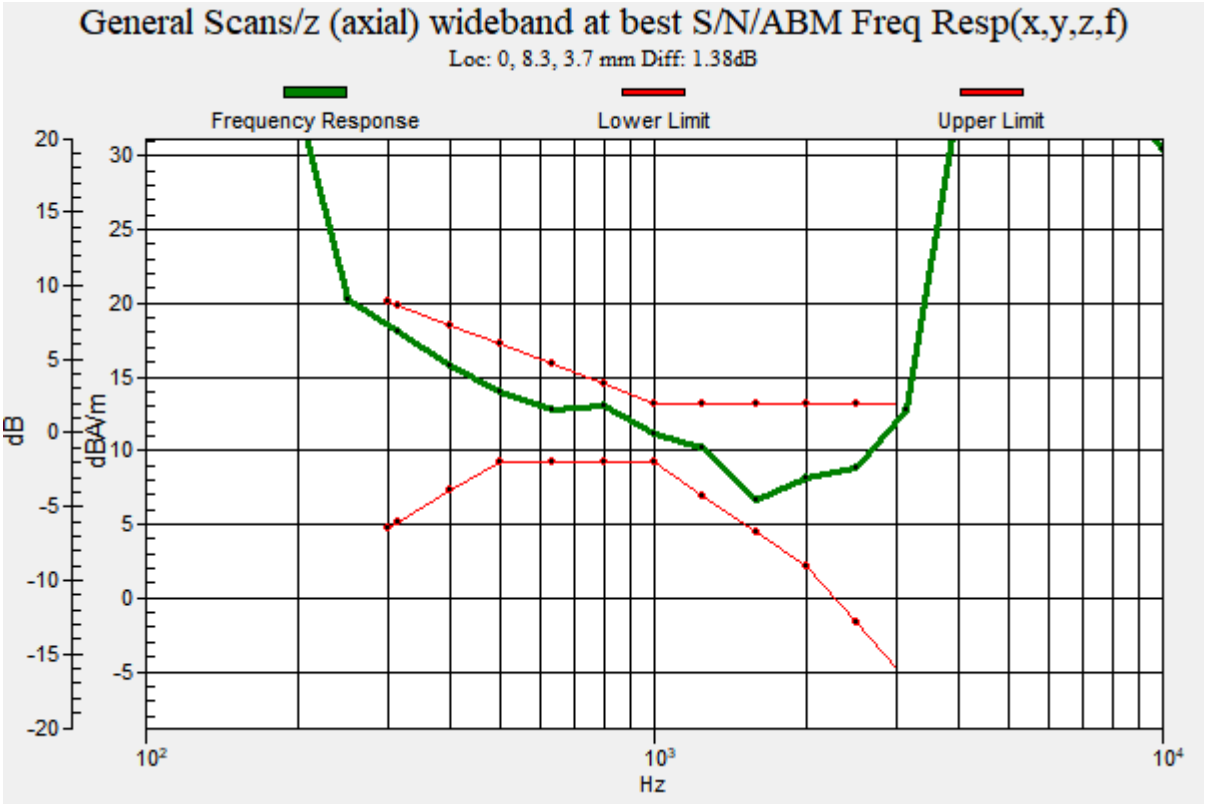

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Plot 25 T-Coil WCDMA Band II Y transversal

Date: 1/21/2021

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz;Duty Cycle: 1:1.95434

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B2 HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 35.44 dB

ABM1 comp = -4.67 dBA/m

BWC Factor = 0.16 dB

Location: 0, 20.8, 3.7 mm

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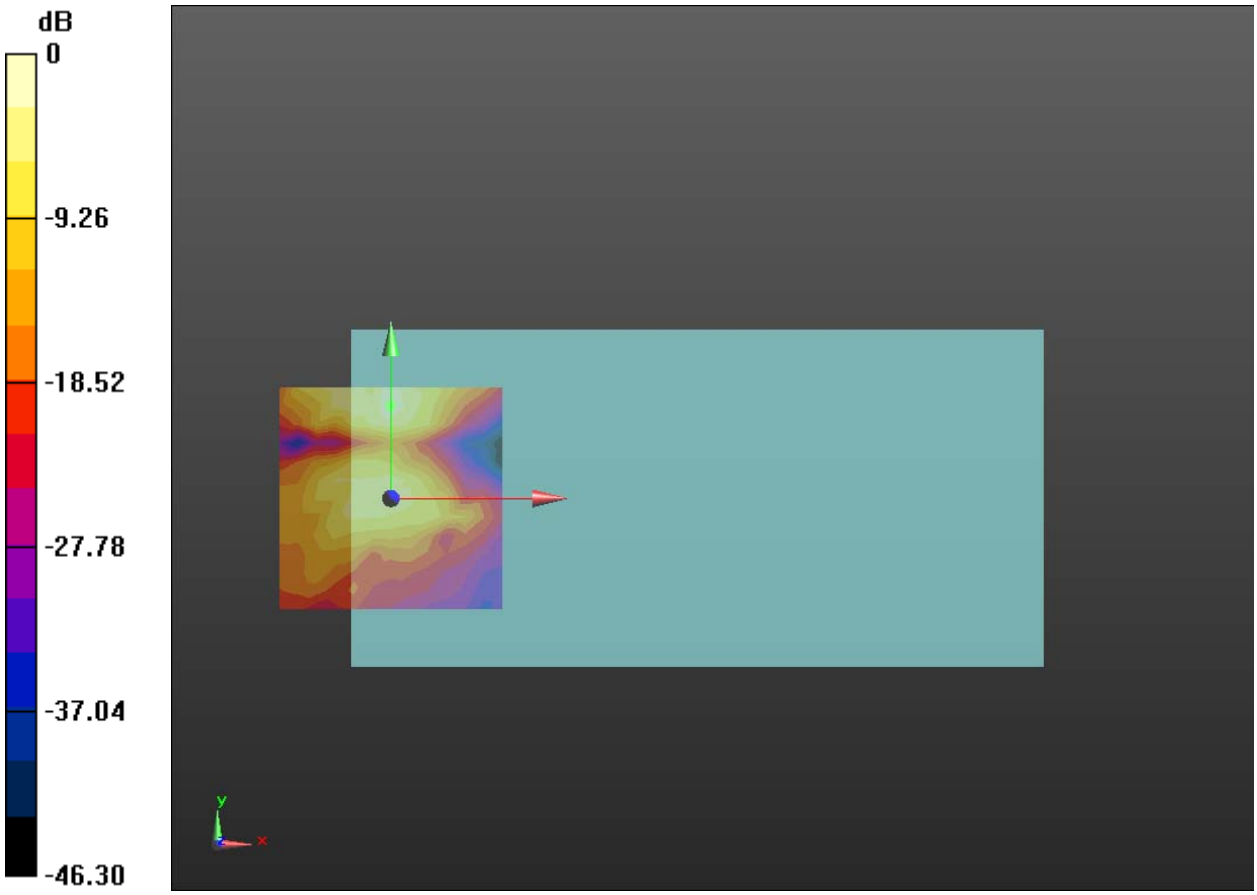

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Plot 26 T-Coil WCDMA Band II Z Axial

Date: 1/21/2021
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1880 MHz;Duty Cycle: 1:1.95434
Medium parameters used: σ = 0 S/m, εr = 1; ρ = 1 kg/m3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B2 HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.16 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 35.68 dB
ABM1 comp = 2.33 dBA/m
BWC Factor = 0.16 dB
Location: 0, 8.3, 3.7 mm

WCDMA B2 HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.85 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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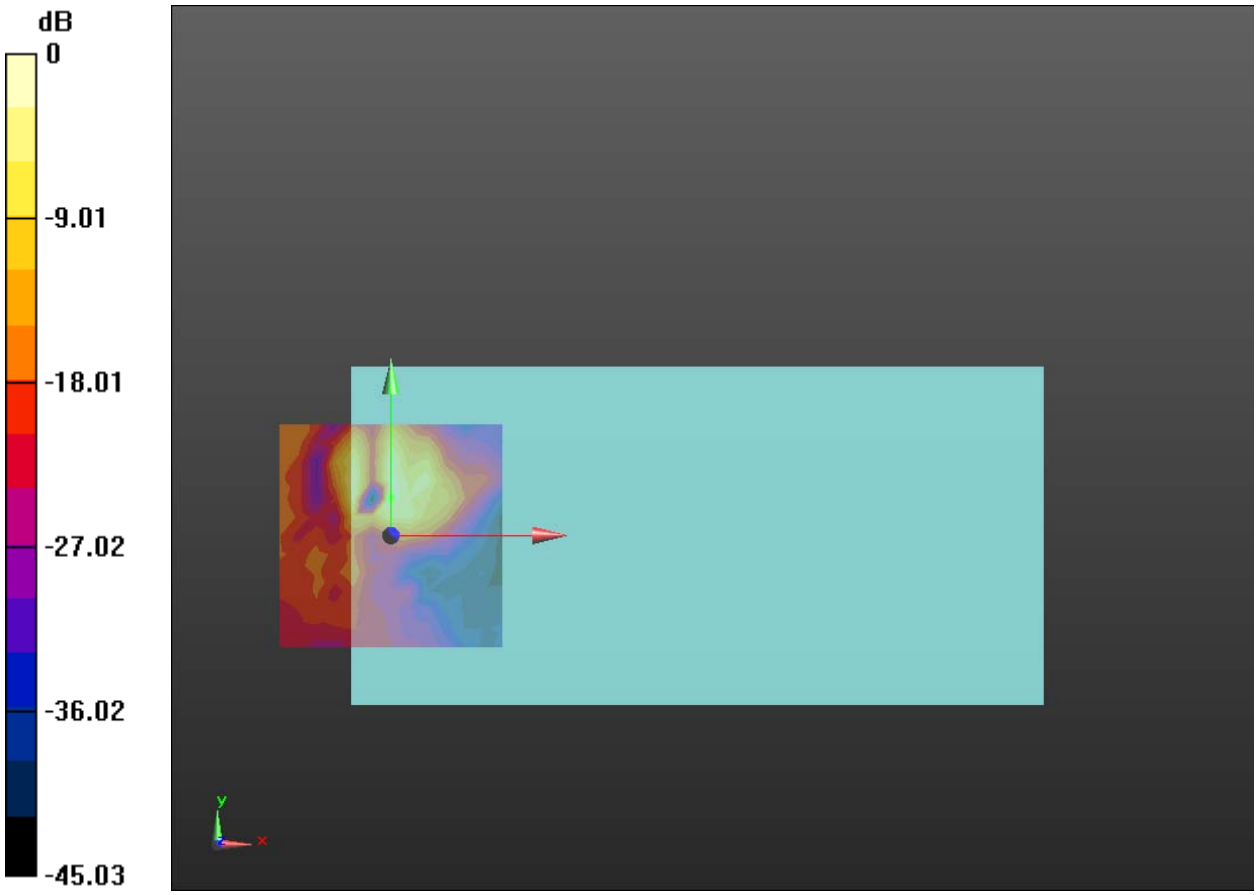

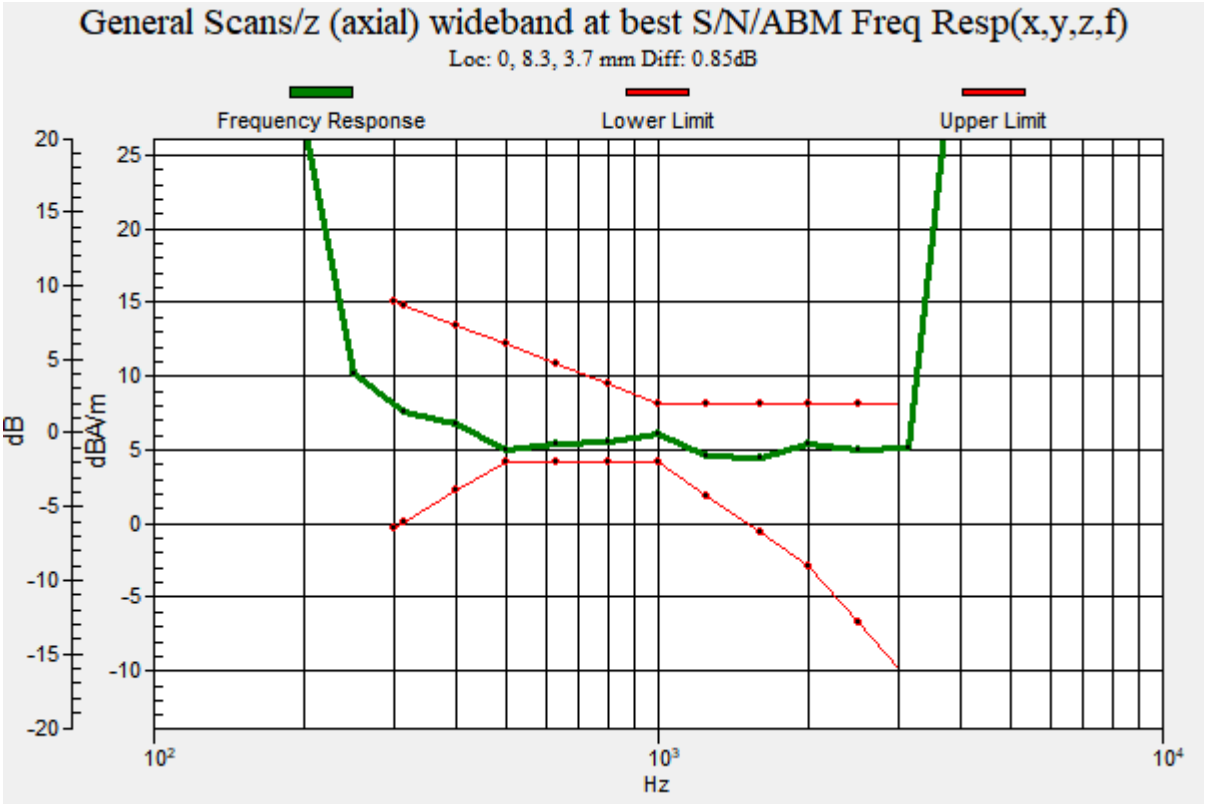

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Plot 27 T-Coil WCDMA Band IV Y transversal

Date: 1/21/2021

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz;Duty Cycle: 1:1.95434

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B4 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 36.72 dB

ABM1 comp = -5.32 dBA/m

BWC Factor = 0.16 dB

Location: 0, 20.8, 3.7 mm

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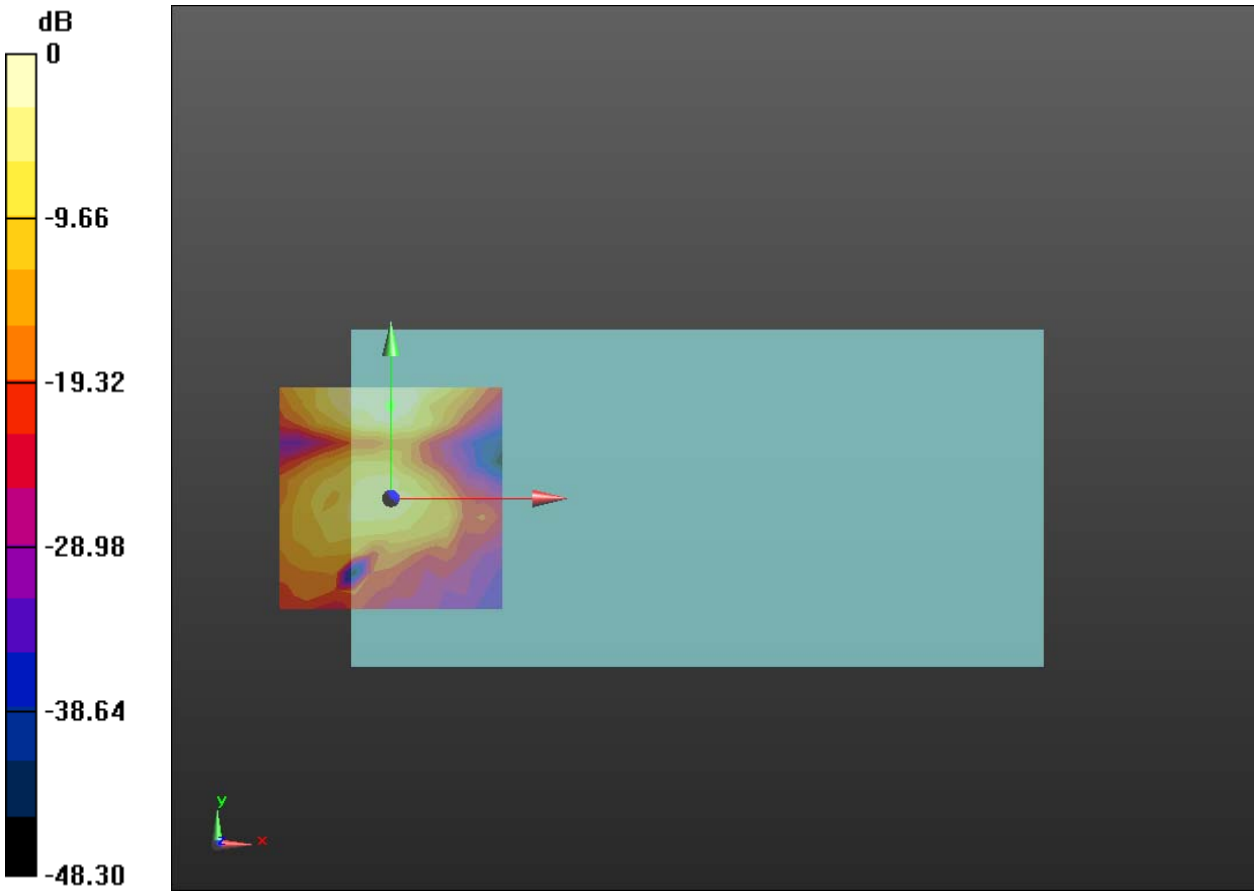

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Plot 28 T-Coil WCDMA Band IV Z Axial

Date: 1/21/2021
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 1732.6 MHz;Duty Cycle: 1:1.95434
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B4 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.16 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 39.92 dB
ABM1 comp = 4.93 dBA/m
BWC Factor = 0.16 dB
Location: 0, 8.3, 3.7 mm

WCDMA B4 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.65 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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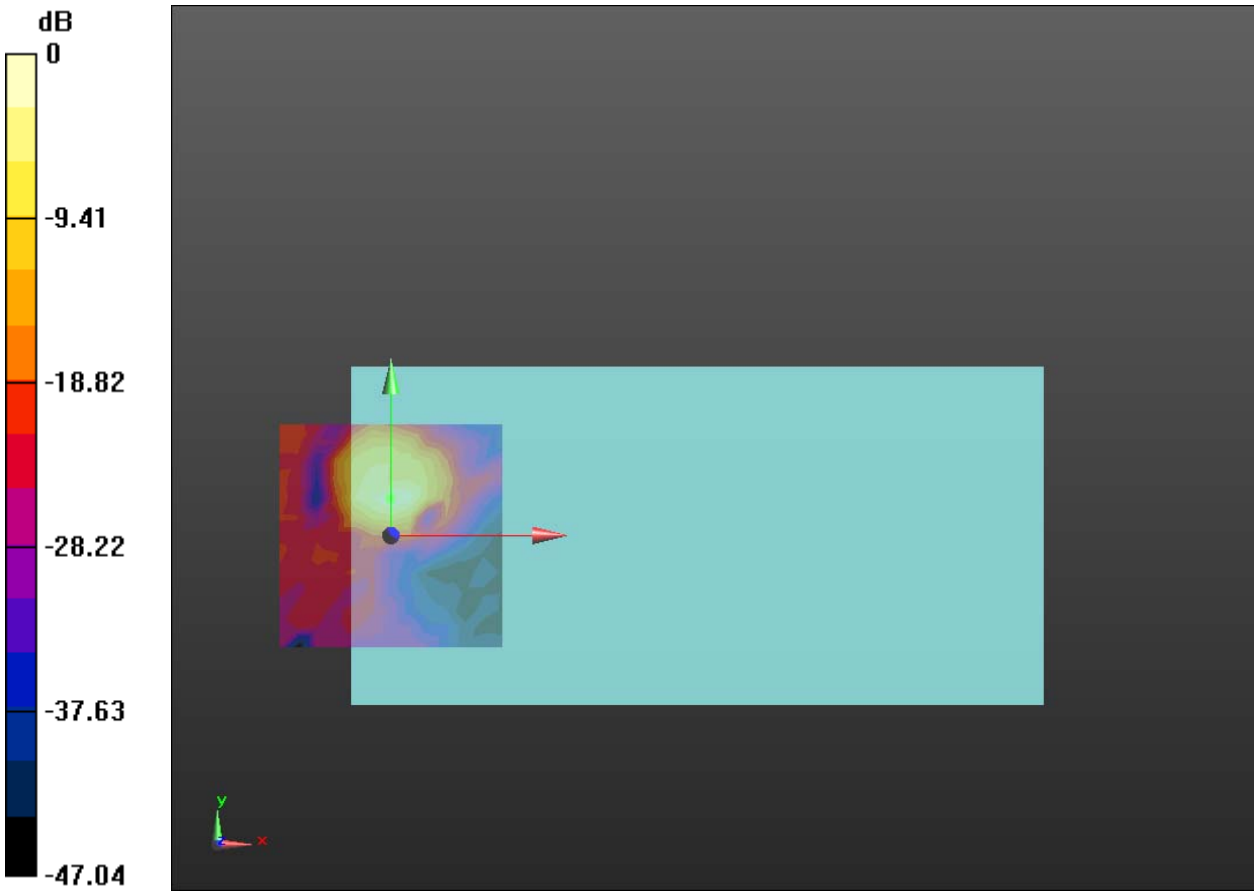

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Plot 29 T-Coil WCDMA Band V Y transversal

Date: 1/21/2021

Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz;Duty Cycle: 1:1.95434

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B5 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.16 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 36.56 dB

ABM1 comp = -7.04 dBA/m

BWC Factor = 0.16 dB

Location: 0, 25, 3.7 mm

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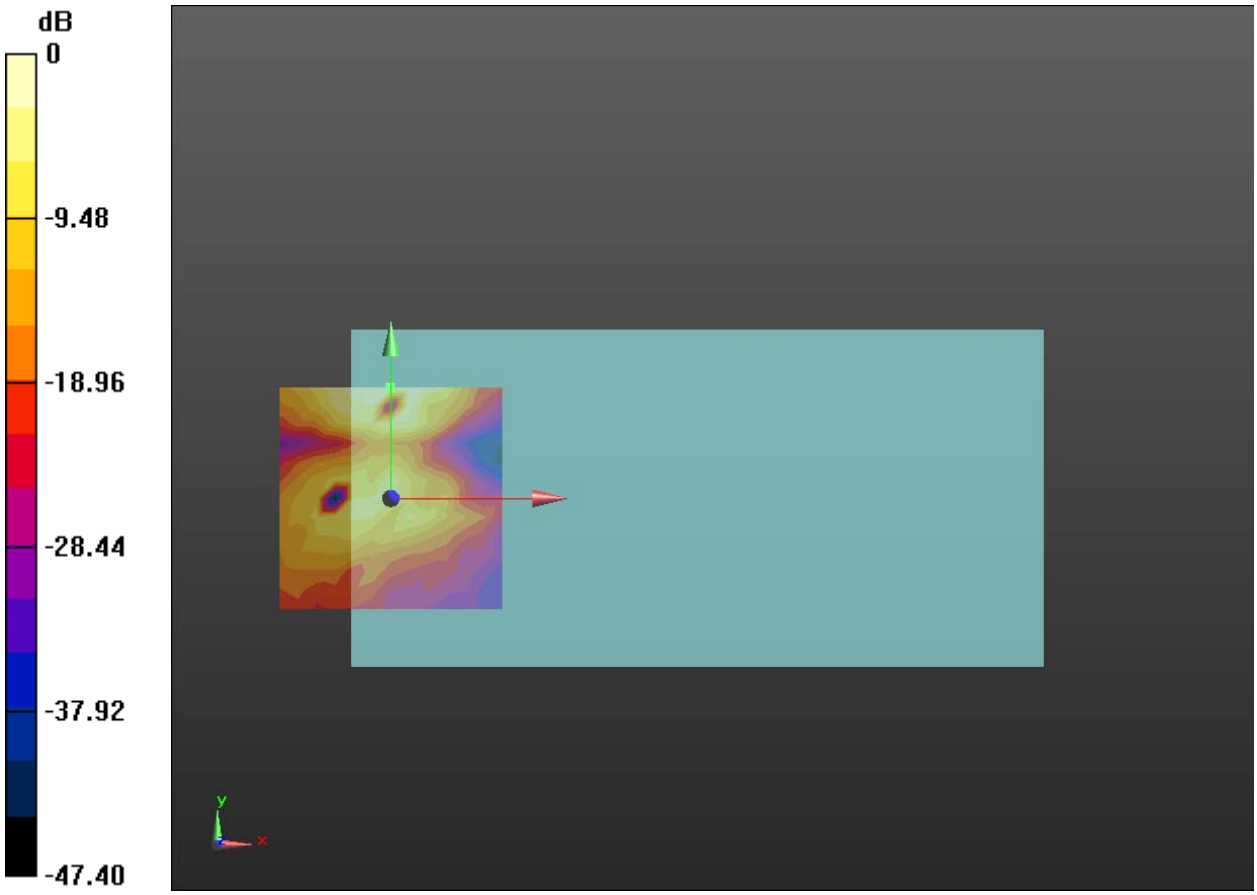

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Plot 30 T-Coil WCDMA Band V Z Axial

Date: 1/21/2021
Communication System: UID 10011 - CAB, UMTS-FDD (WCDMA); Frequency: 836.6 MHz;Duty Cycle: 1:1.95434
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

WCDMA B5 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.16 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 37.32 dB
ABM1 comp = 2.51 dBA/m
BWC Factor = 0.16 dB
Location: 0, 12.5, 3.7 mm

WCDMA B5 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.07 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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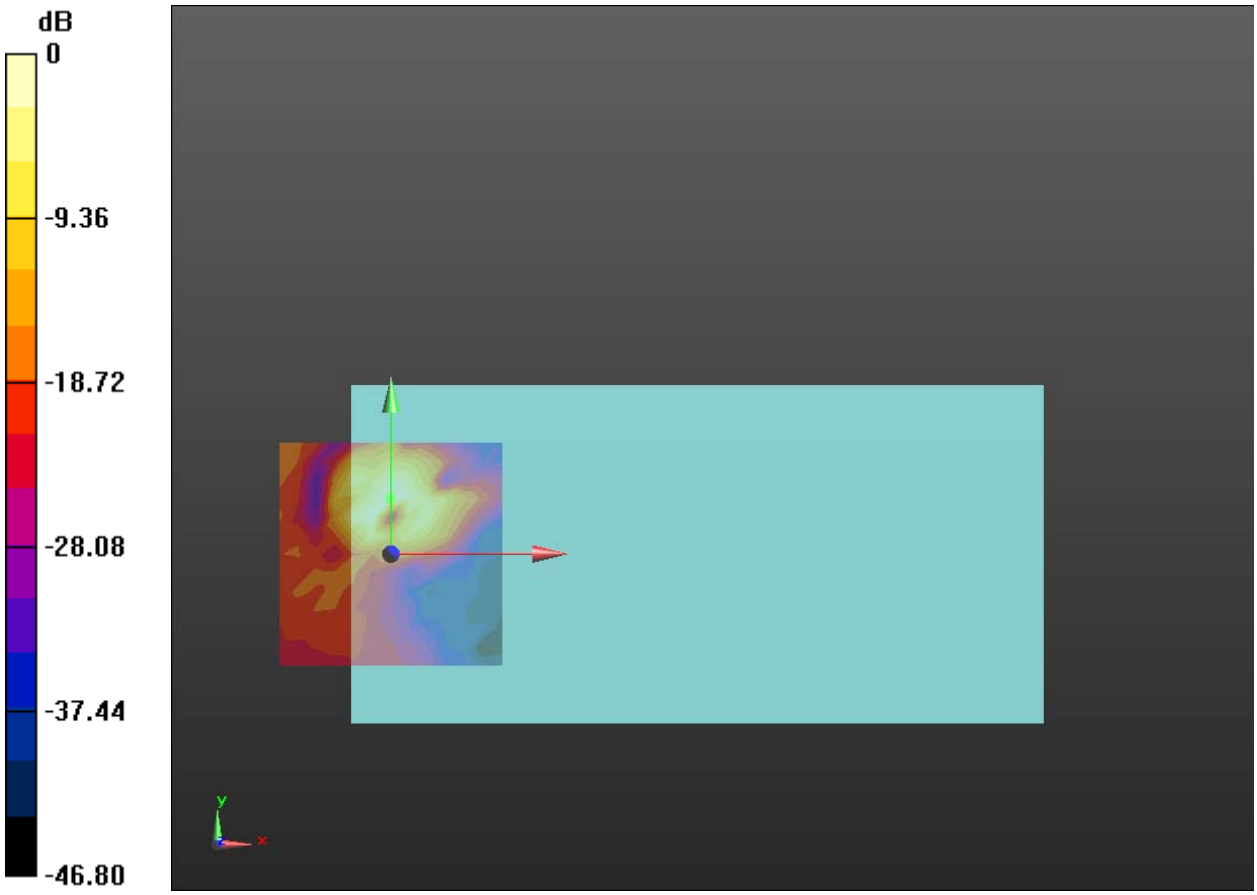

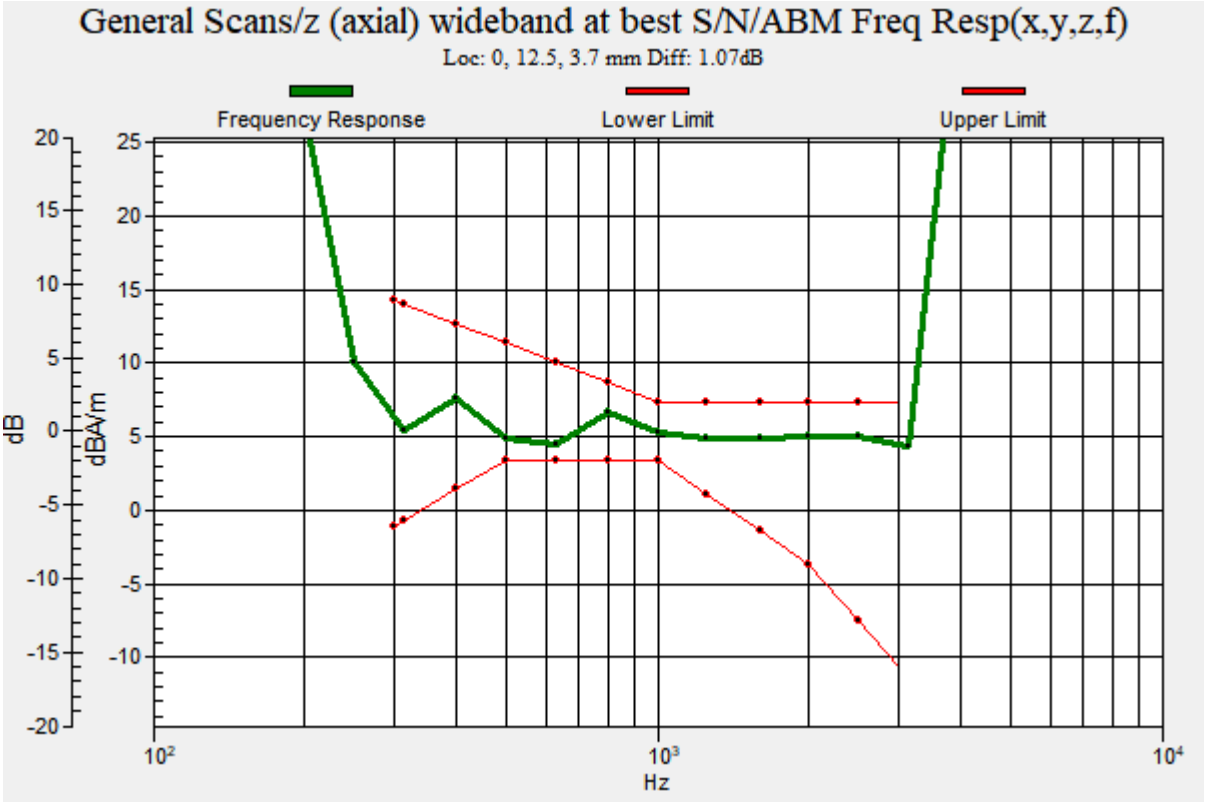

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Plot 31 T-Coil CDMA BC0 Y transversal

Date: 1/21/2021

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz;Duty Cycle: 1:17.746

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC0 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 35.25 dB

ABM1 comp = -9.58 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 25, 3.7 mm

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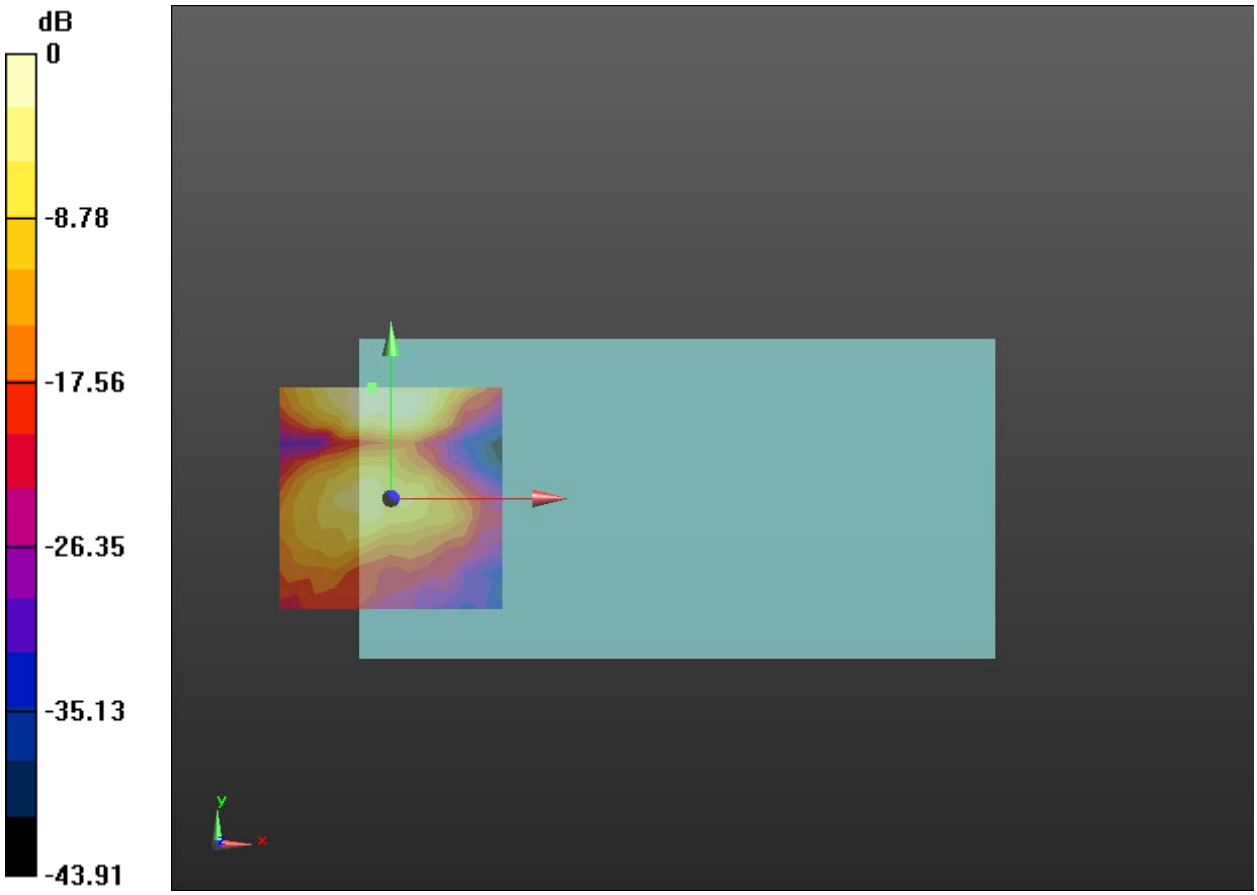

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Plot 32 T-Coil CDMA BC0 Z Axial

Date: 1/21/2021
Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 836.52 MHz;Duty Cycle: 1:17.746
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC0 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 38.44 dB
ABM1 comp = 3.35 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

CDMA BC0 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.91 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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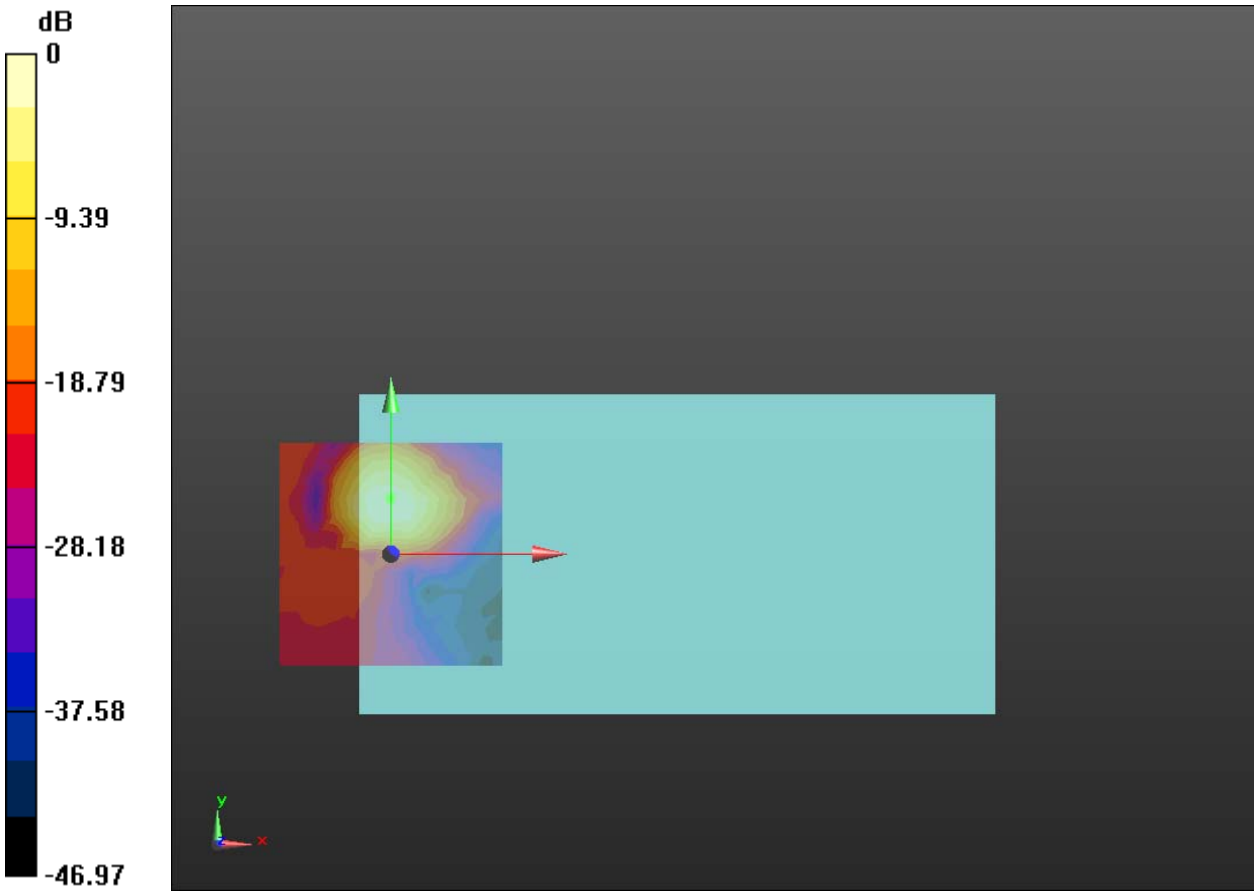

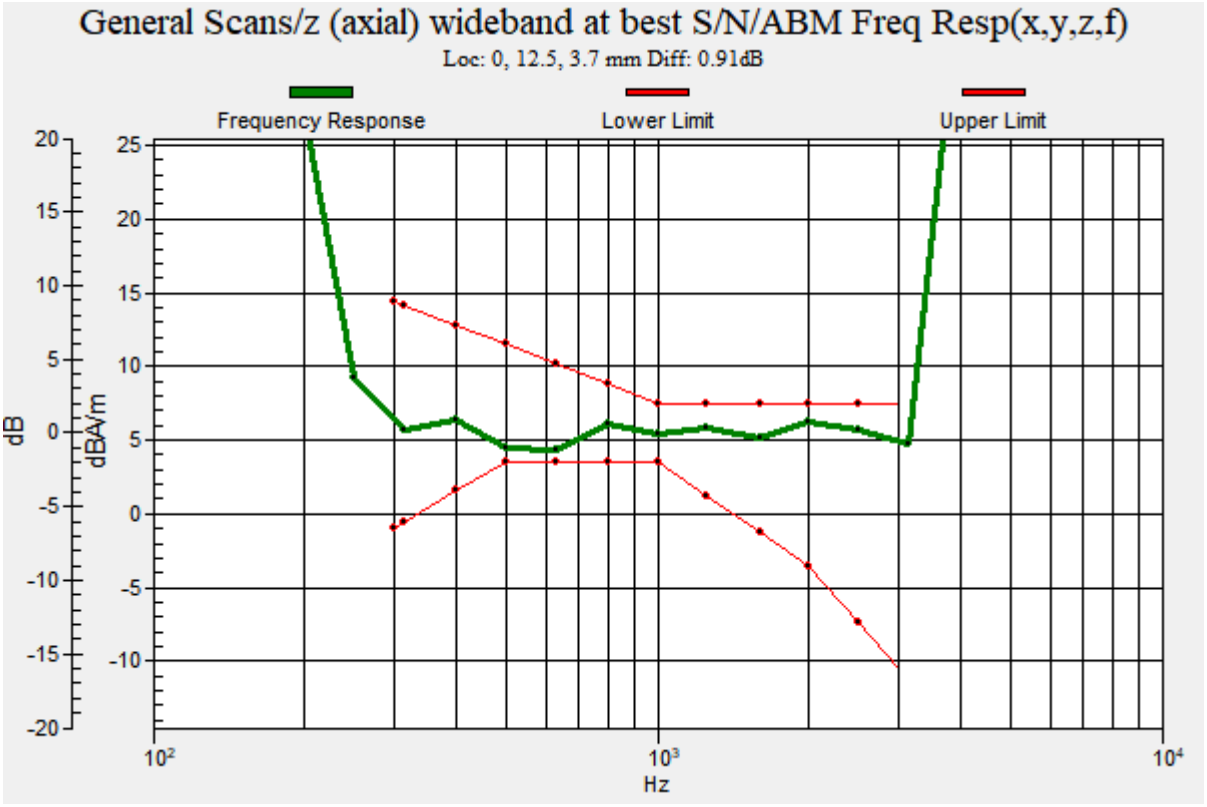

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Plot 33 T-Coil CDMA BC1 Y transversal

Date: 1/21/2021

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 1880 MHz;Duty Cycle: 1:17.746

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC1 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 36.69 dB

ABM1 comp = -4.03 dBA/m

BWC Factor = 0.17 dB

Location: 0, 20.8, 3.7 mm

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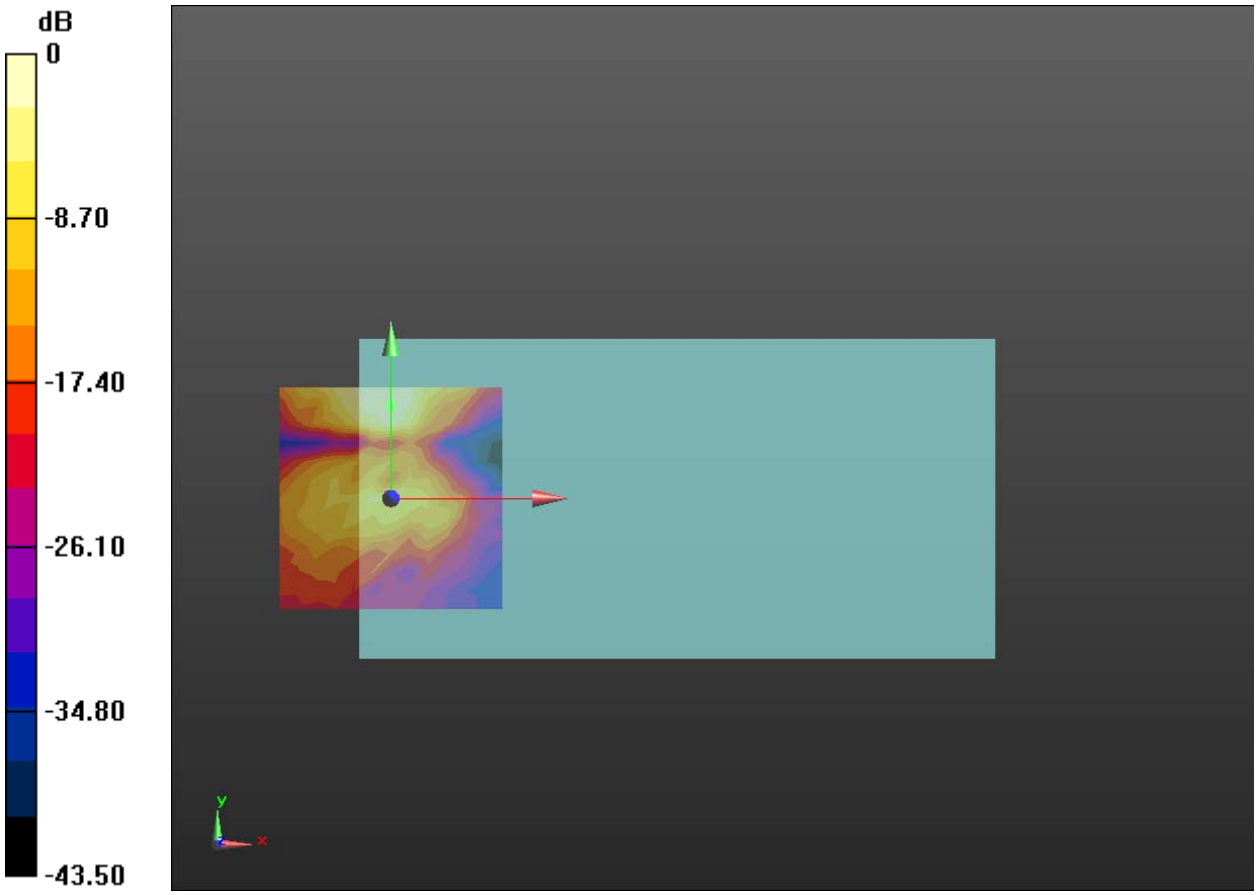

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Plot 34 T-Coil CDMA BC1 Z Axial

Date: 1/21/2021
Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 1880 MHz;Duty Cycle: 1:17.746
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC1 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 38.07 dB
ABM1 comp = 2.68 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

CDMA BC1 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.74 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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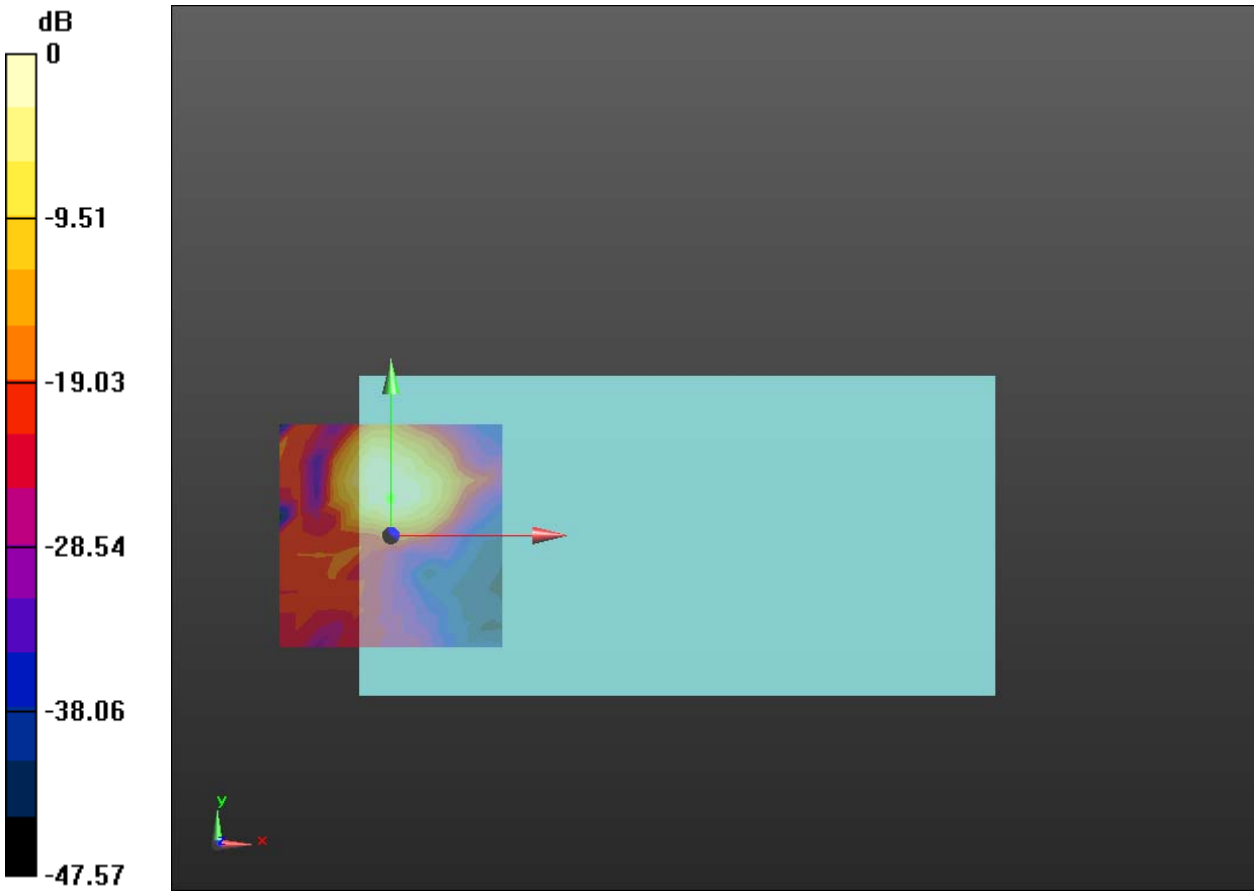

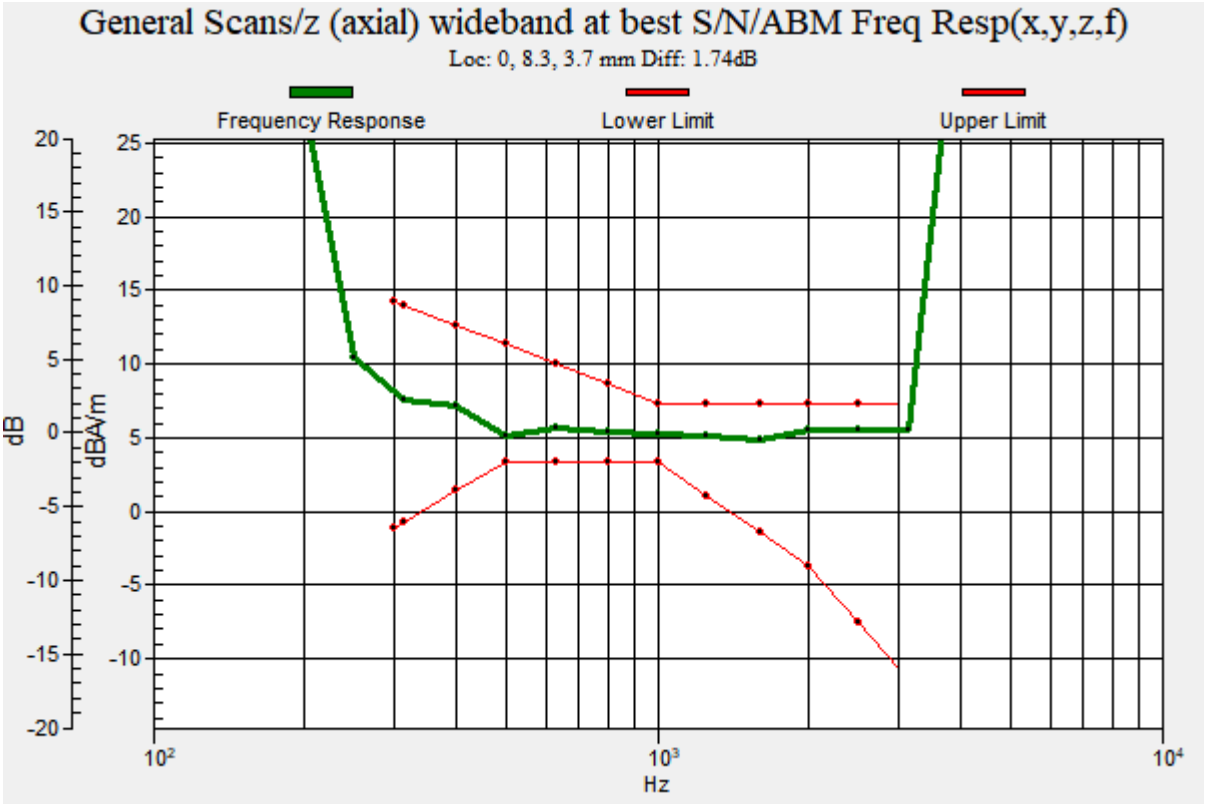

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Plot 35 T-Coil CDMA BC10 Y transversal

Date: 1/21/2021

Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 820.5 MHz;Duty Cycle: 1:17.746

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC10 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 36.95 dB

ABM1 comp = -4.24 dBA/m

BWC Factor = 0.17 dB

Location: 0, 20.8, 3.7 mm

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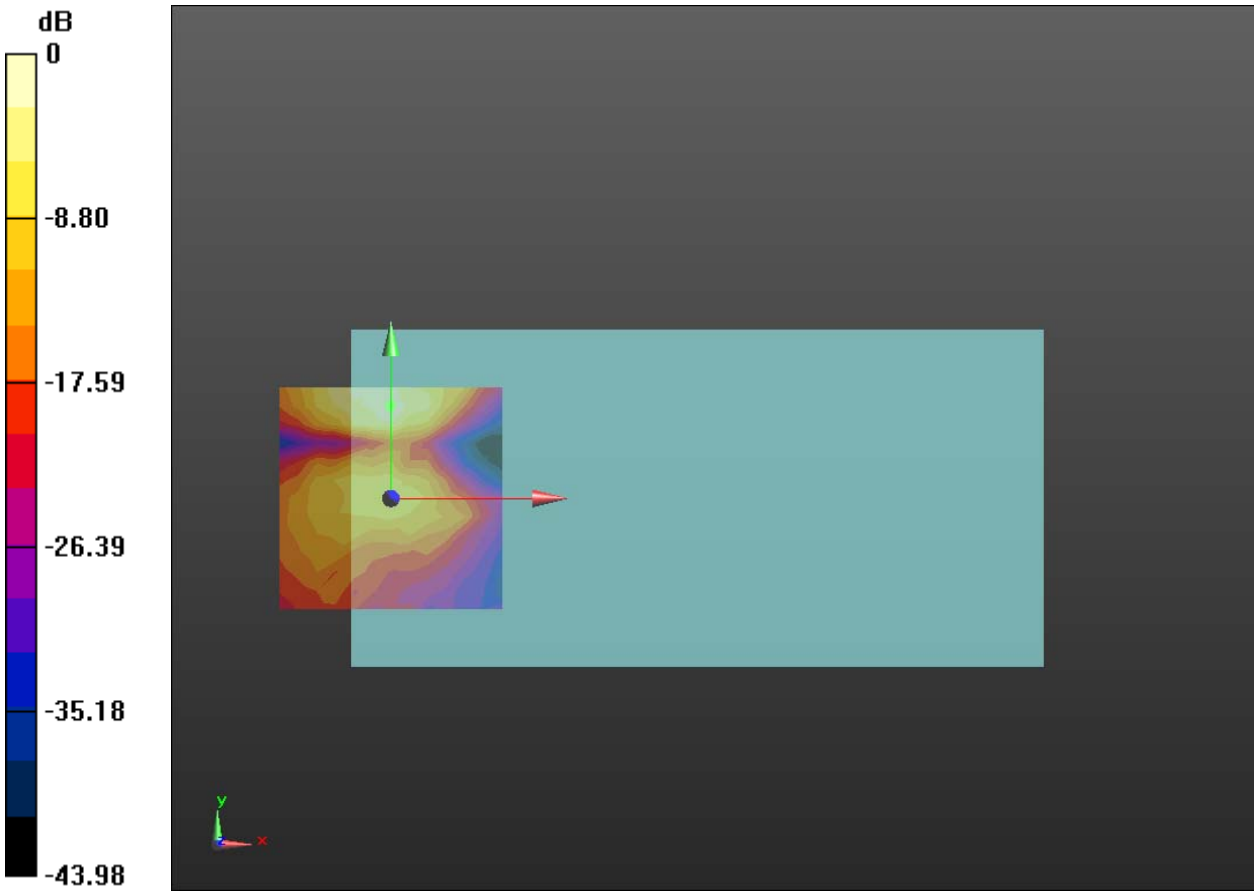

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Plot 36 T-Coil CDMA BC10 Z Axial

Date: 1/21/2021
Communication System: UID 10295 - AAB, CDMA2000, RC1, SO3, 1/8th Rate 25 fr.; Frequency: 820.5 MHz;Duty Cycle: 1:17.746
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

CDMA BC10 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 34.44 dB
ABM1 comp = 4.96 dBA/m
BWC Factor = 0.17 dB
Location: 4.2, 12.5, 3.7 mm

CDMA BC10 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.78 dB
BWC Factor = 10.81 dB
Location: 4.2, 12.5, 3.7 mm

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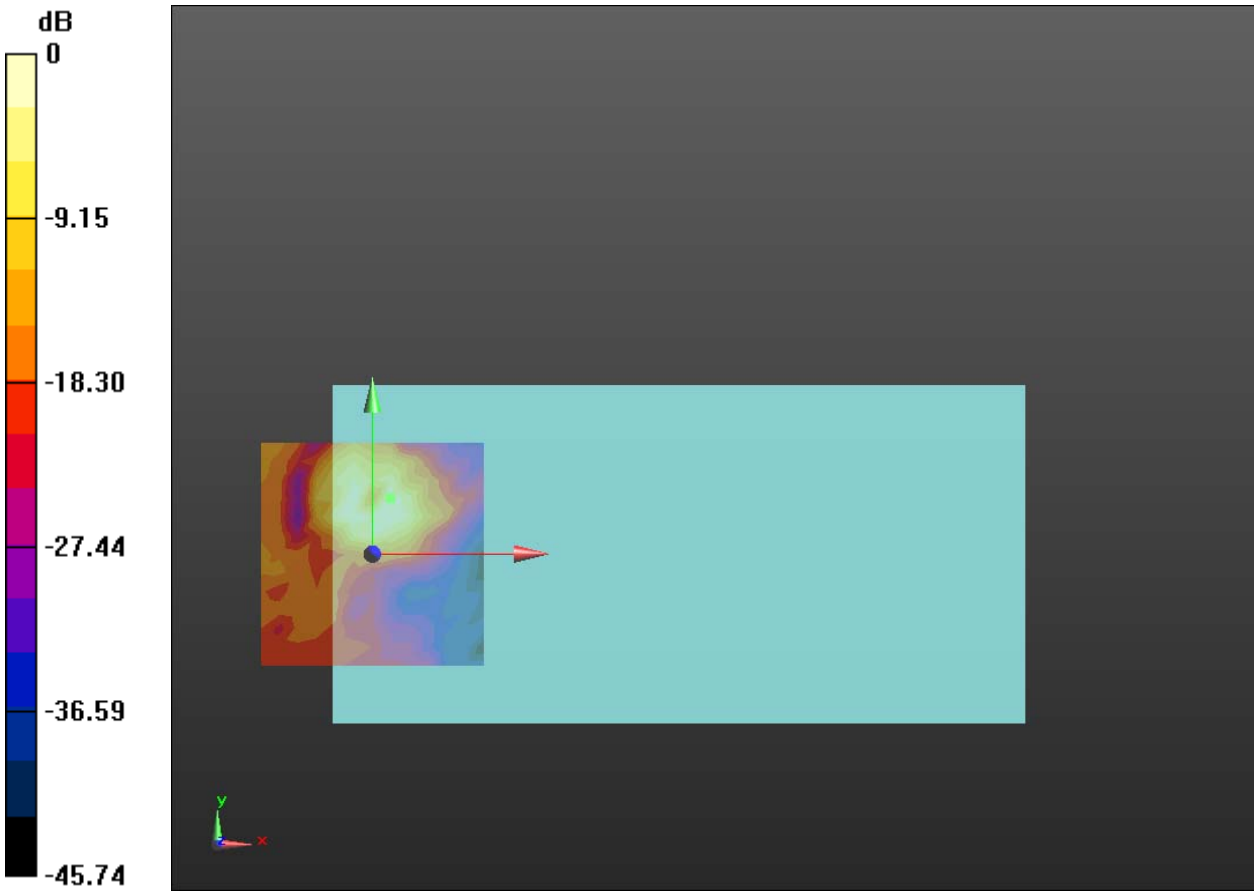

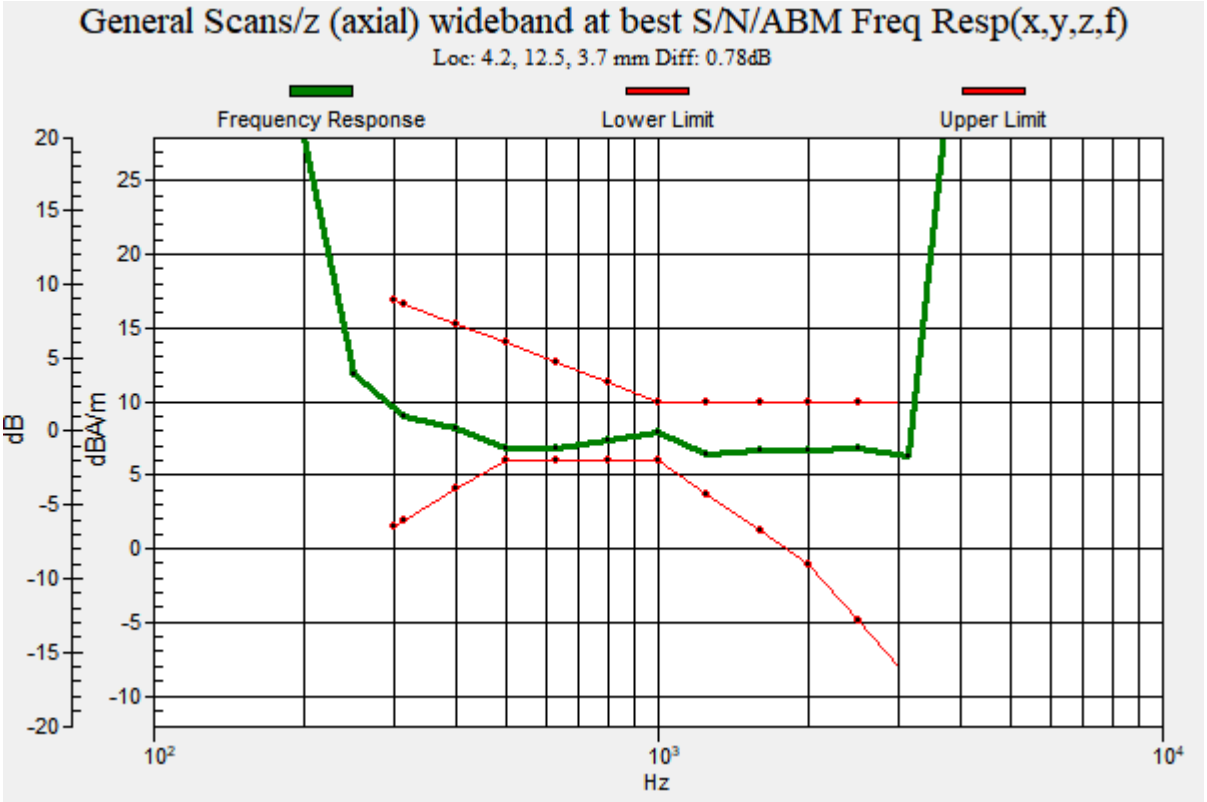

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Plot 37 T-Coil, LTE Band 2, 6kbps, Y transversal

Date: 1/21/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1880 MHz;Duty Cycle: 1:3.74111
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B2 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.30 dB
ABM1 comp = 6.33 dBA/m
BWC Factor = 0.17 dB
Location: 0, 4.2, 3.7 mm

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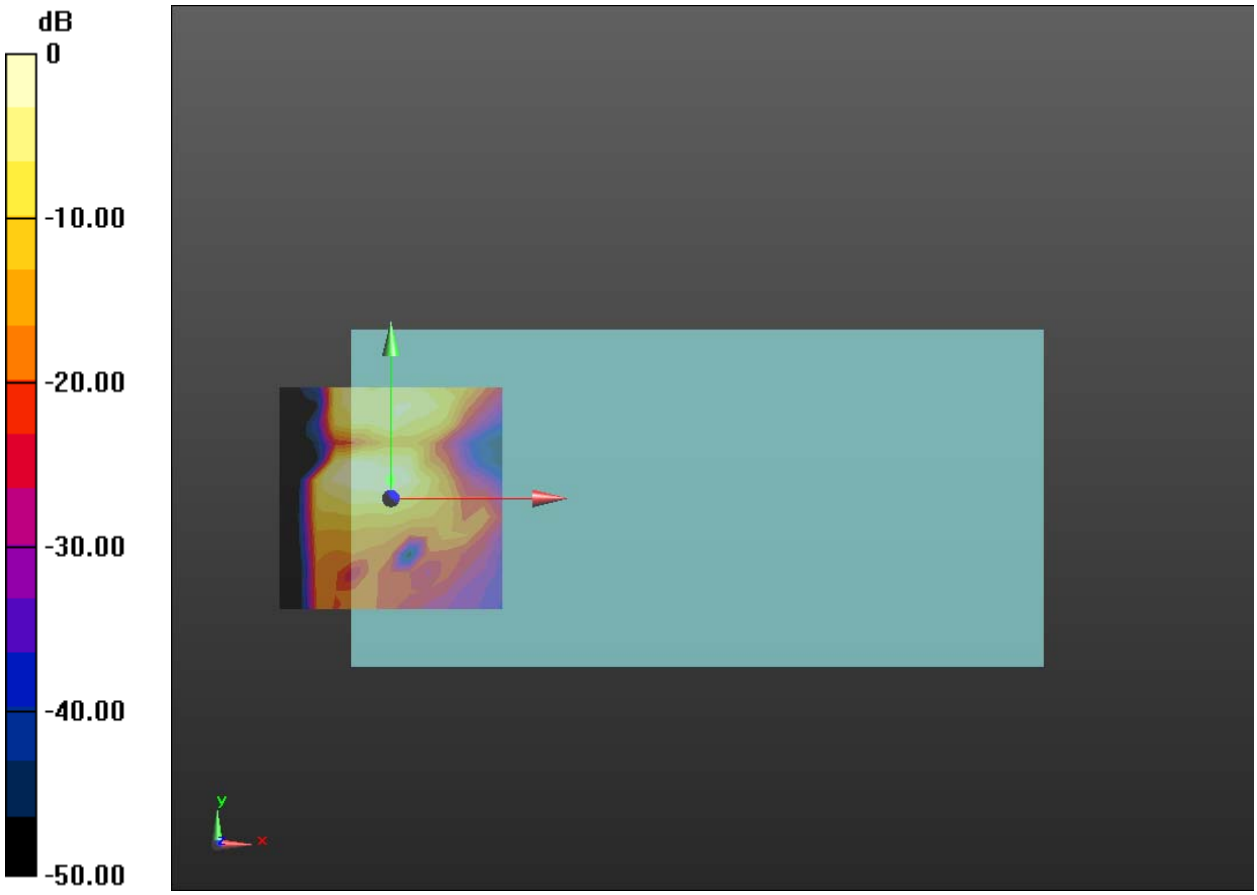

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Plot 38 T-Coil, LTE Band 2, 6kbps, Z Axial

Date: 1/21/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1880 MHz;Duty Cycle: 1:3.74111
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B2 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.07 dB
ABM1 comp = 14.20 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B2 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) narrowband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.67 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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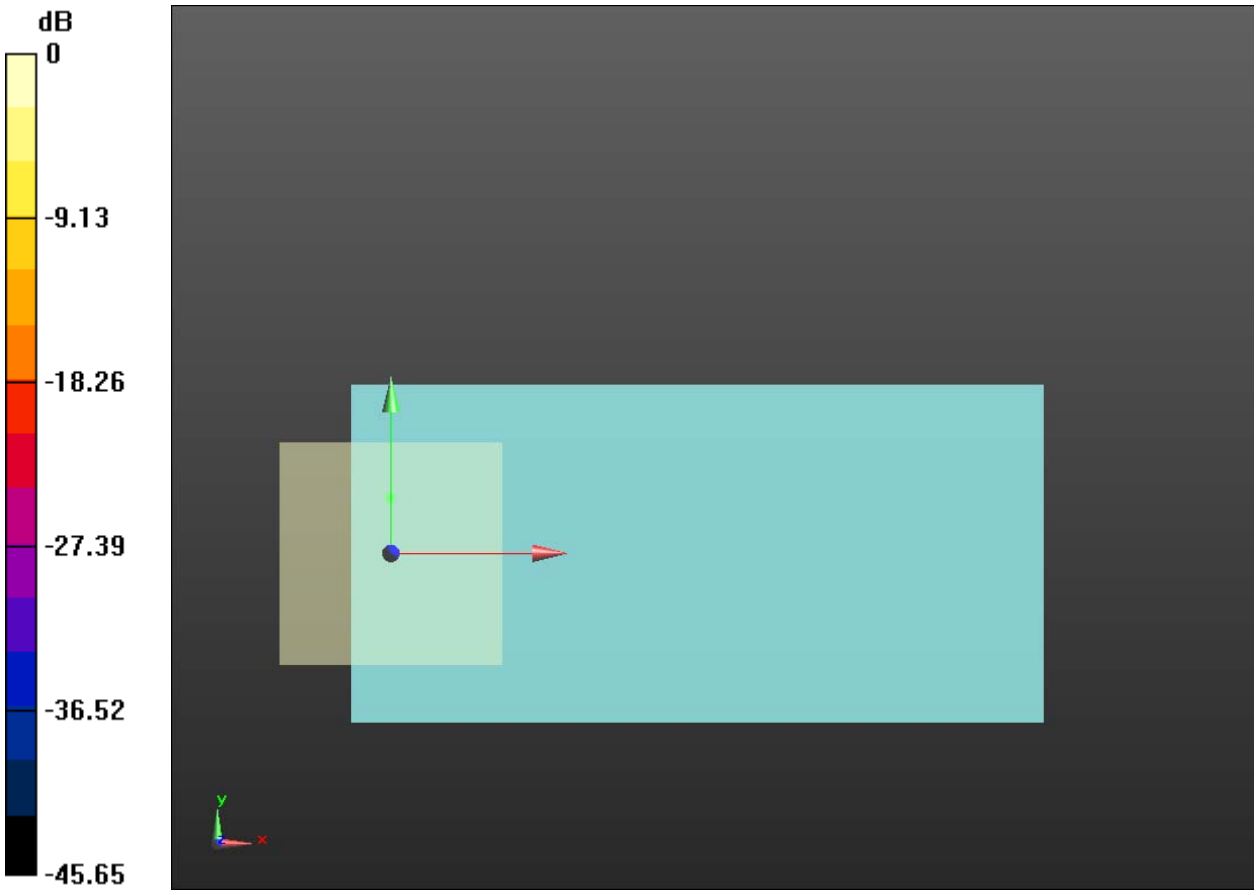

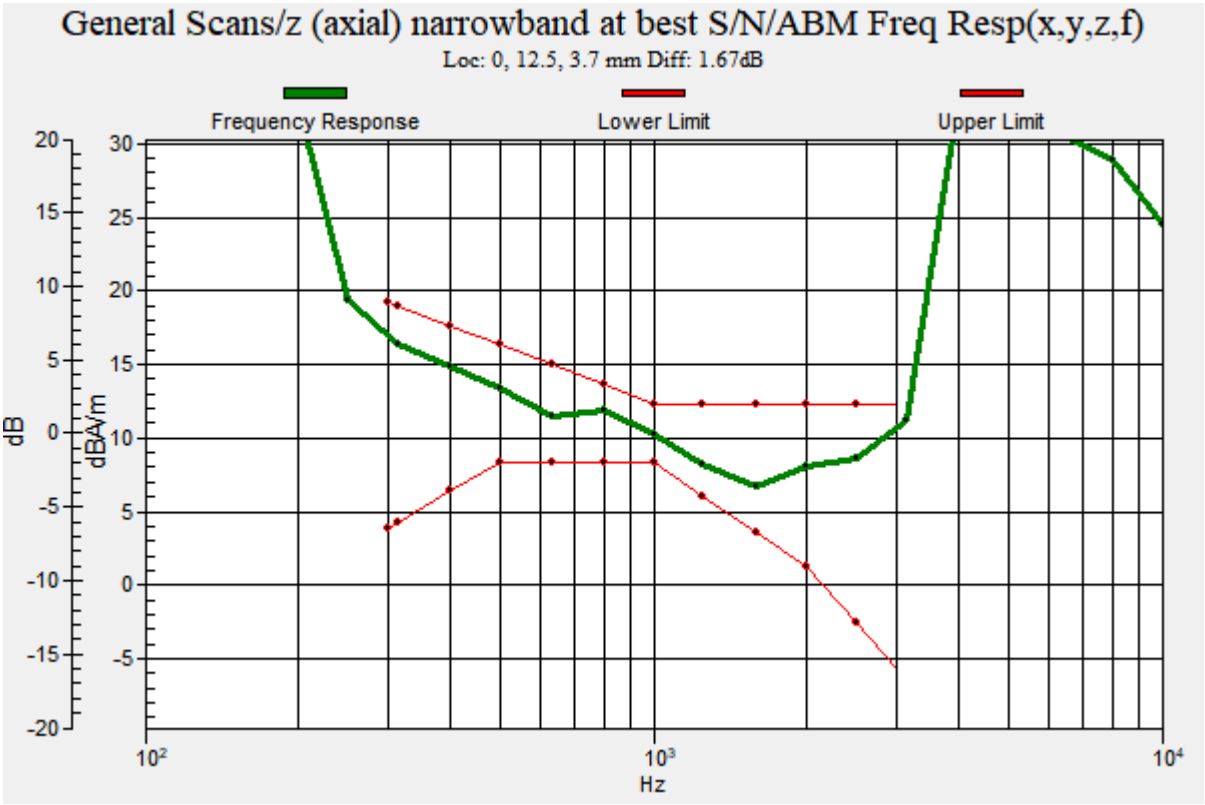

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Plot 39 T-Coil, LTE Band 4, 6kbps, Y transversal

Date: 1/21/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1732.5 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B4 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 43.45 dB
ABM1 comp = 6.82 dBA/m
BWC Factor = 0.17 dB
Location: 0, 4.2, 3.7 mm

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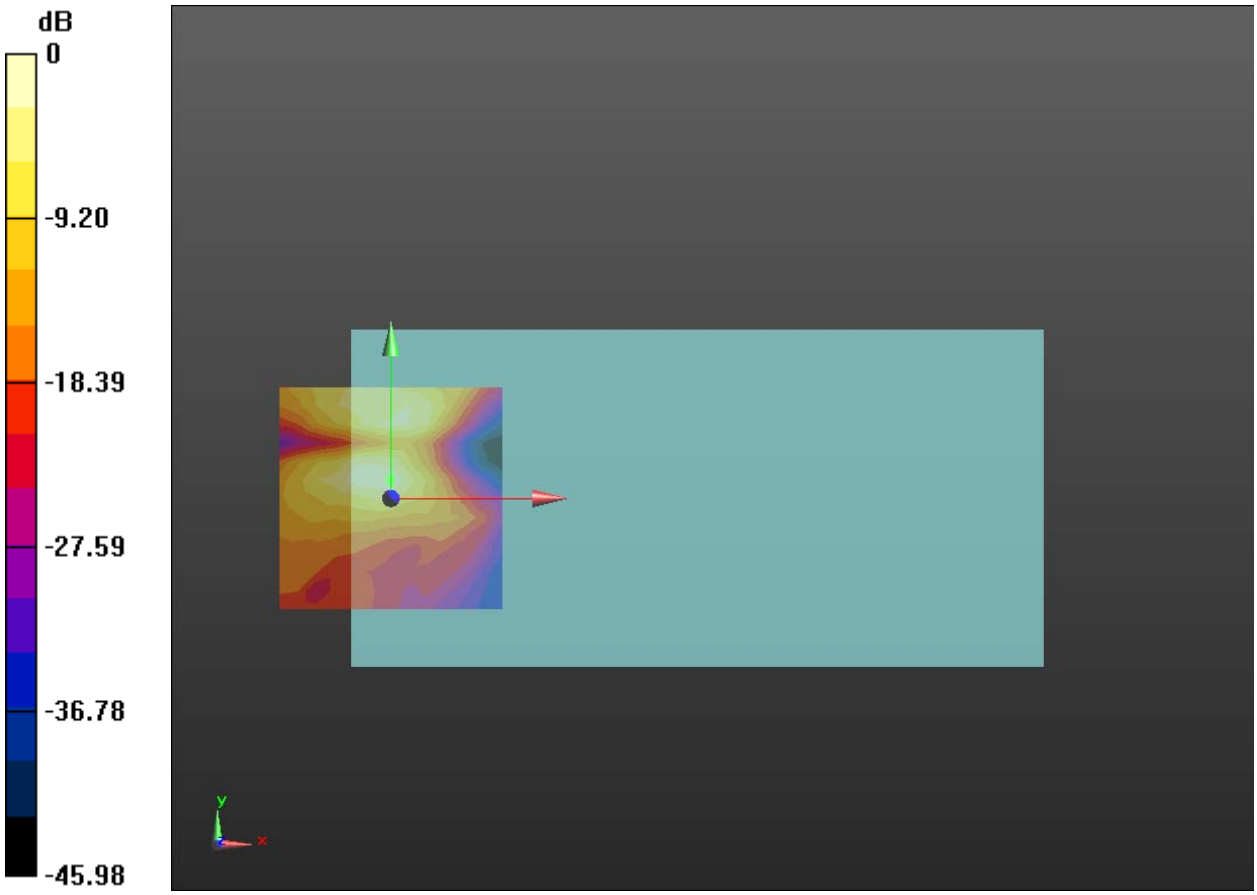

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Plot 40 T-Coil, LTE Band 4, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1732.5 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B4 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 39.68 dB
ABM1 comp = 8.62 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

LTE B4 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) narrowband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.06 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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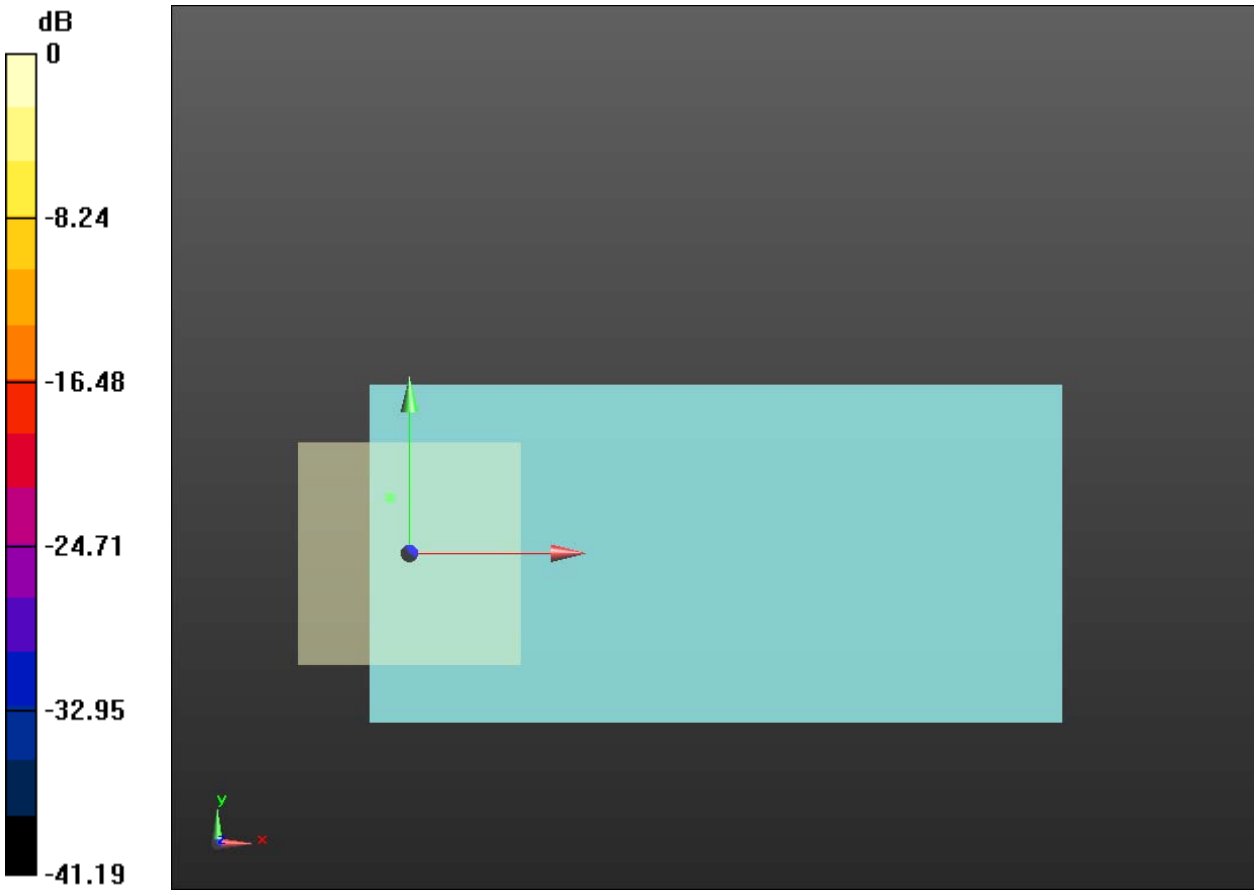

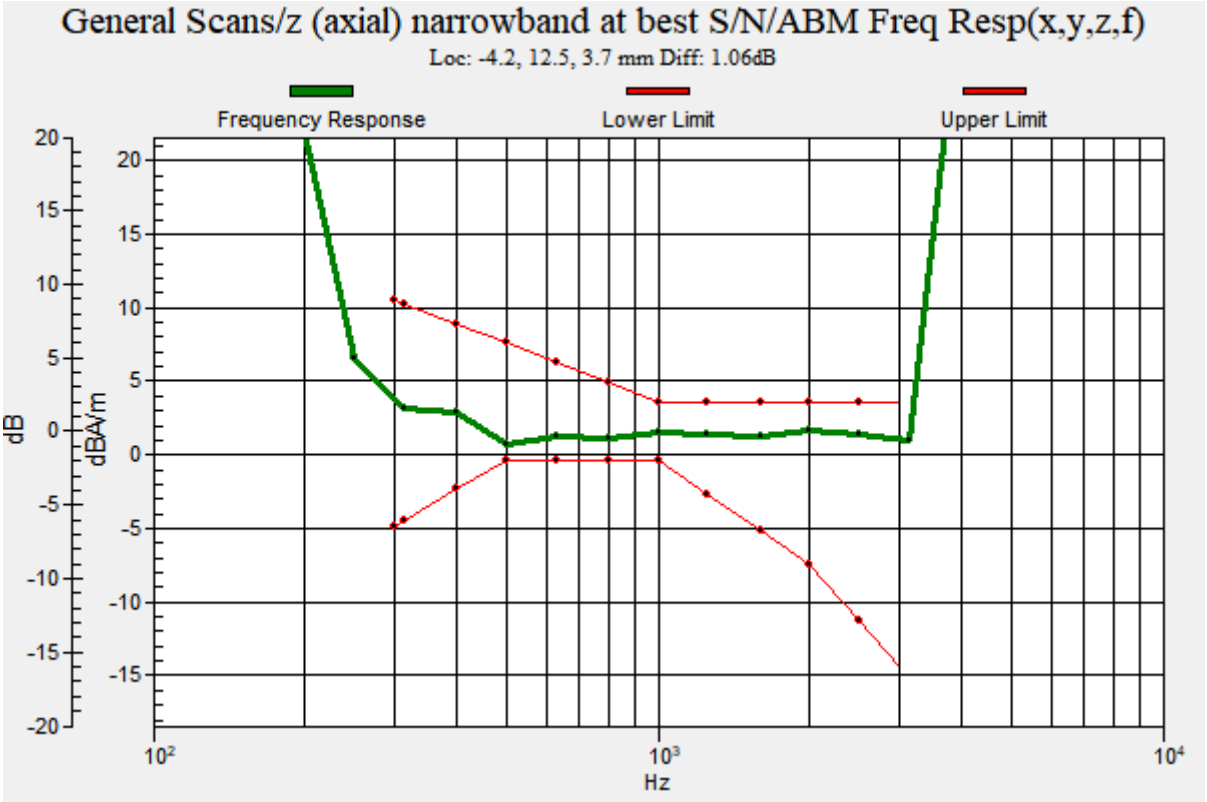

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Plot 41 T-Coil, LTE Band 5, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 836.5 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B5 HAC(OTT)_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.52 dB
ABM1 comp = 4.32 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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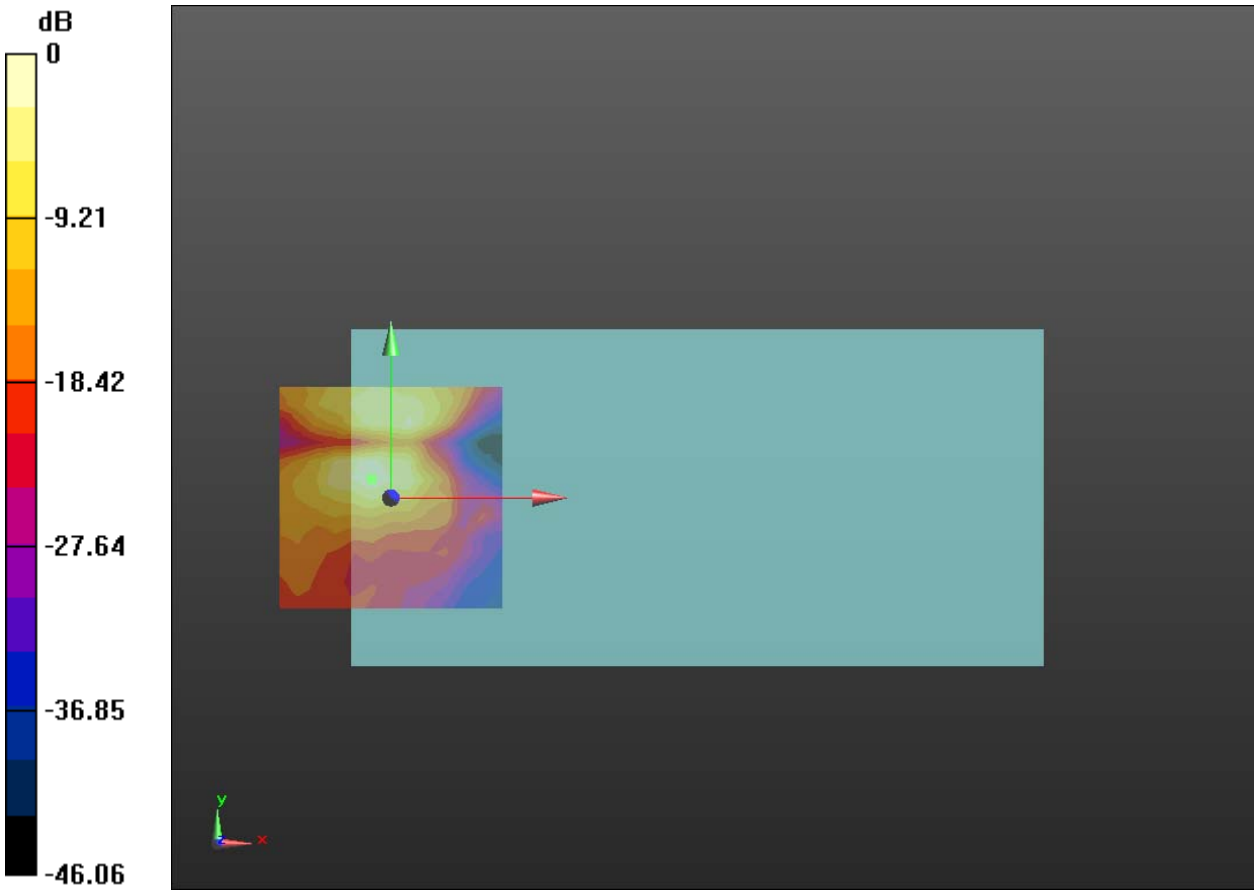

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Plot 42 T-Coil, LTE Band 5, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 836.5 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B5 HAC(OTT)_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 39.91 dB
ABM1 comp = 13.54 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B5 HAC(OTT)_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.29 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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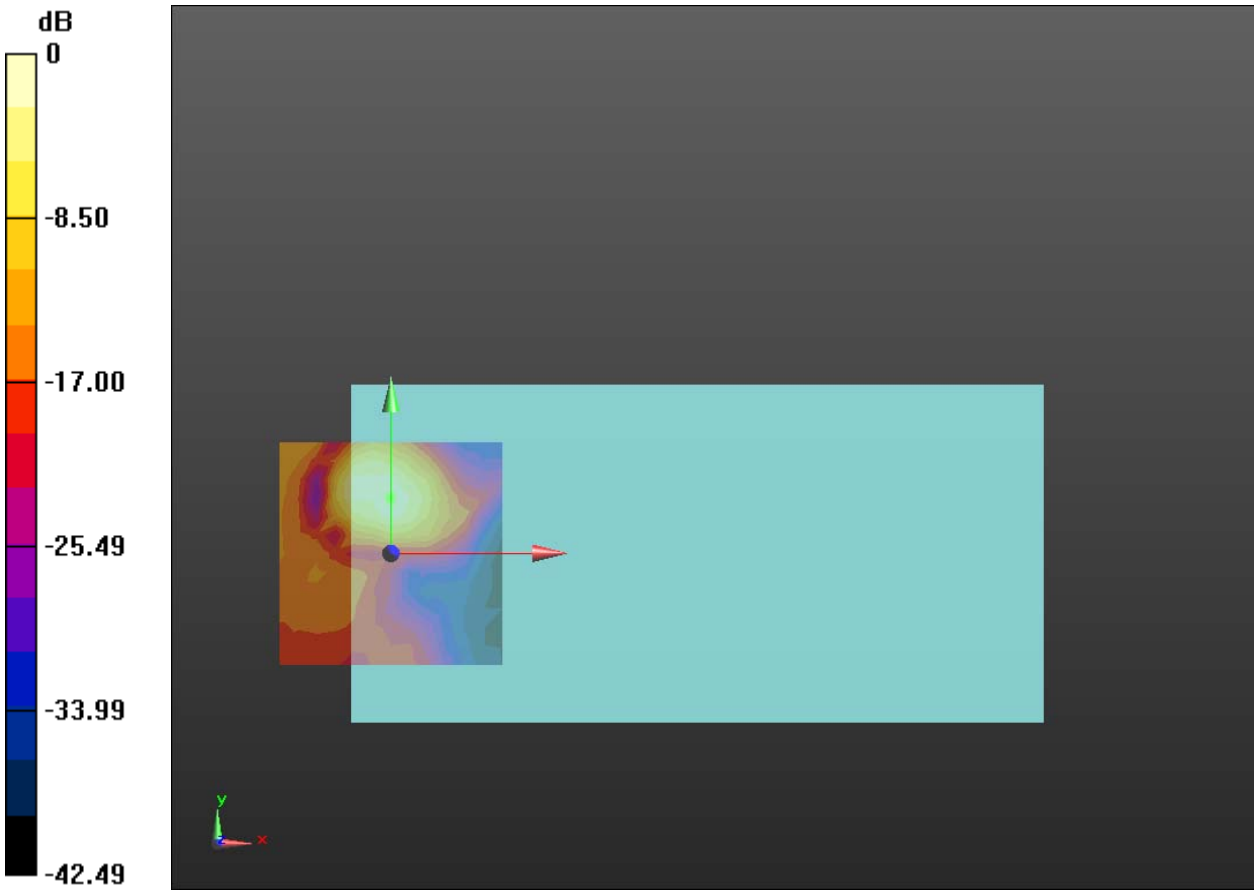

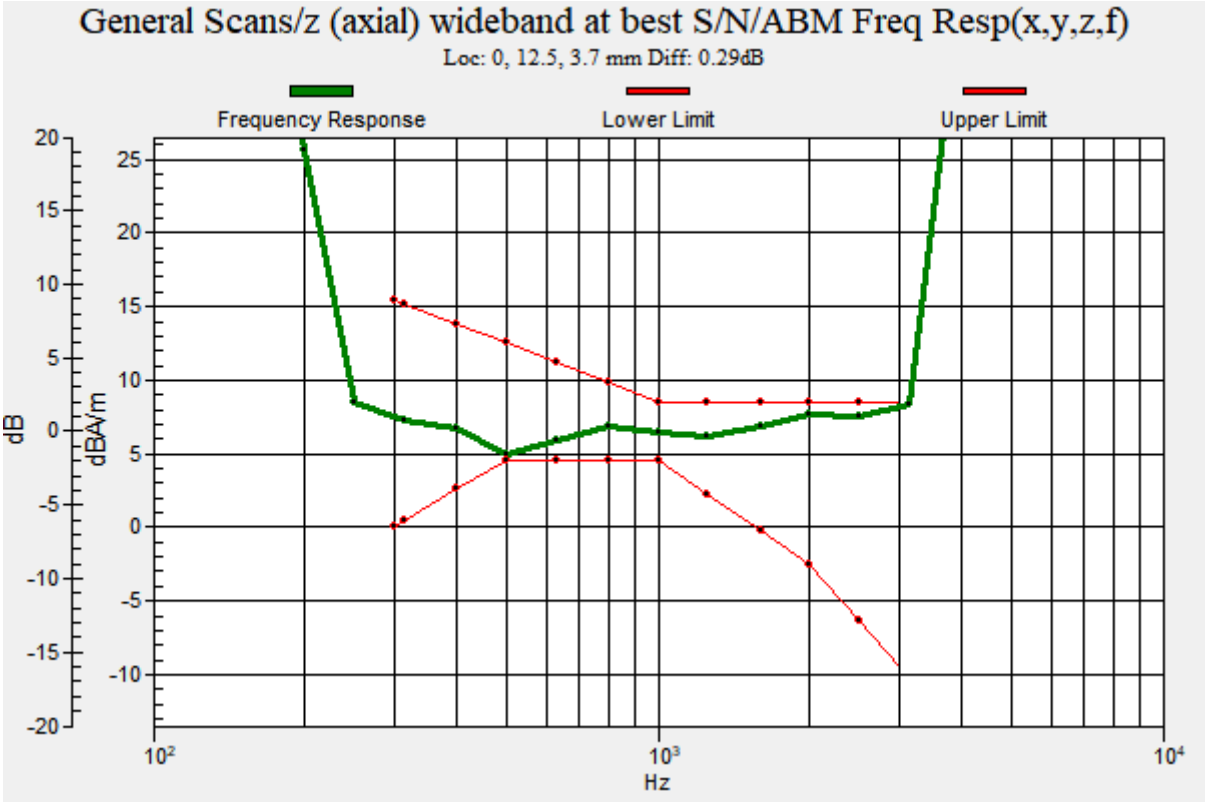

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Plot 43 T-Coil, LTE Band 7, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B7 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 43.71 dB
ABM1 comp = 4.64 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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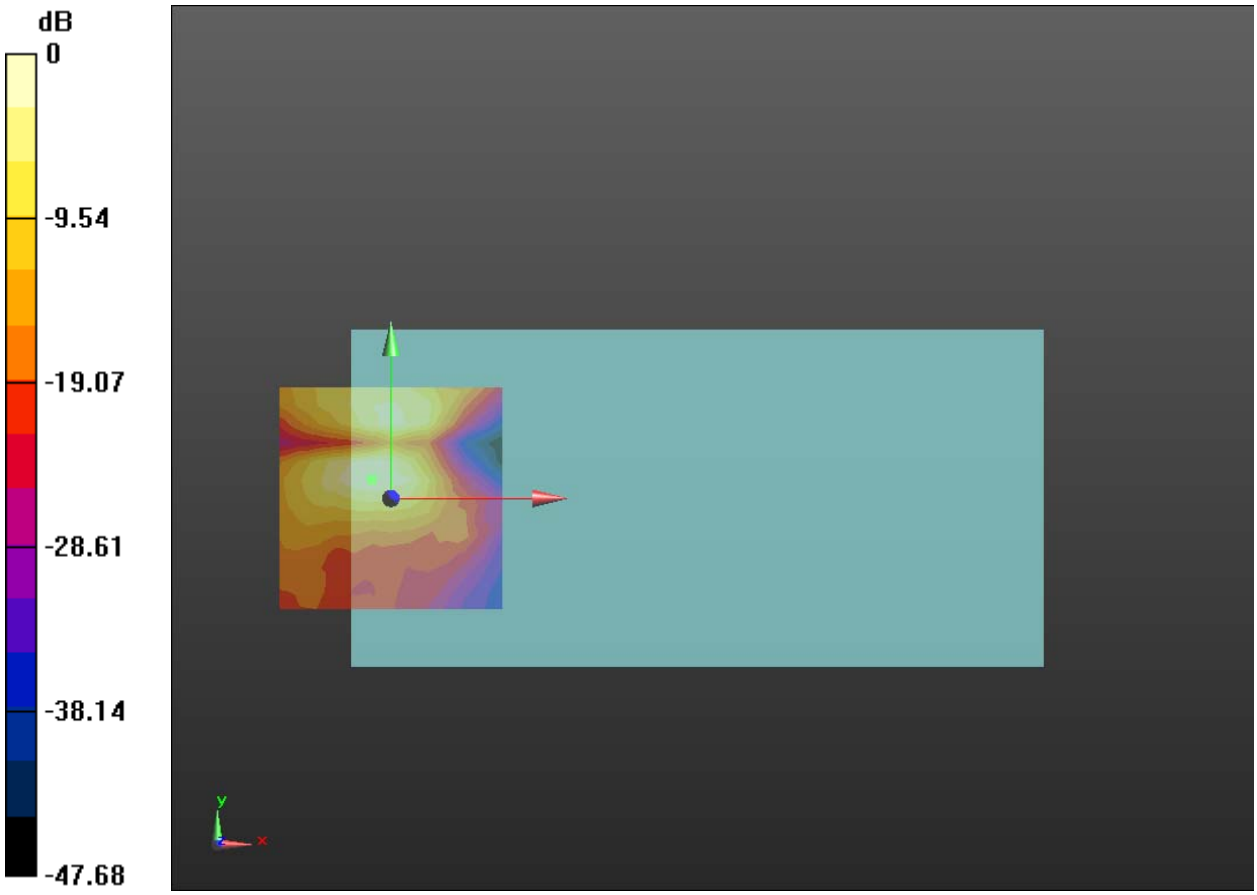

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Plot 44 T-Coil, LTE Band 7, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2535 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B7 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.03 dB
ABM1 comp = 13.53 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B7 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) narrowband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.59 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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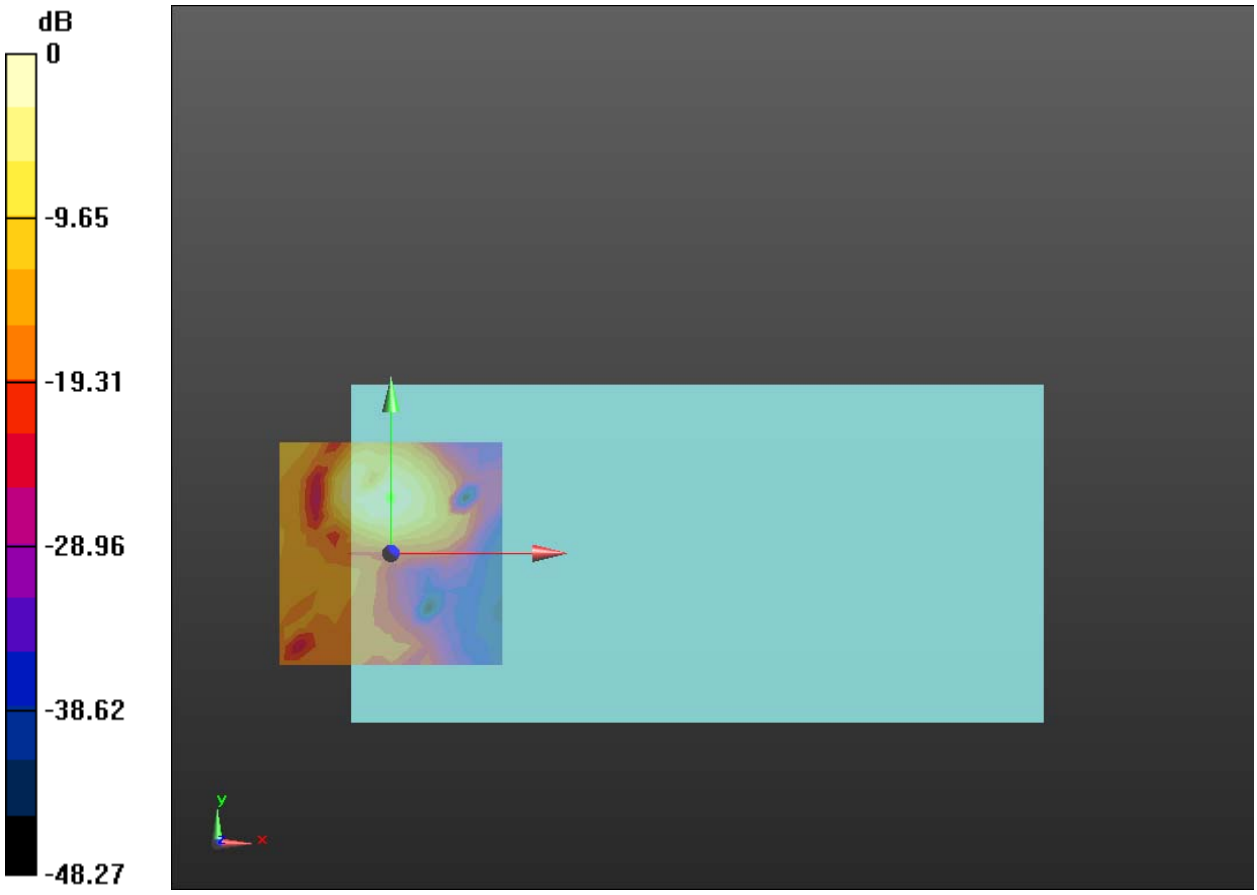

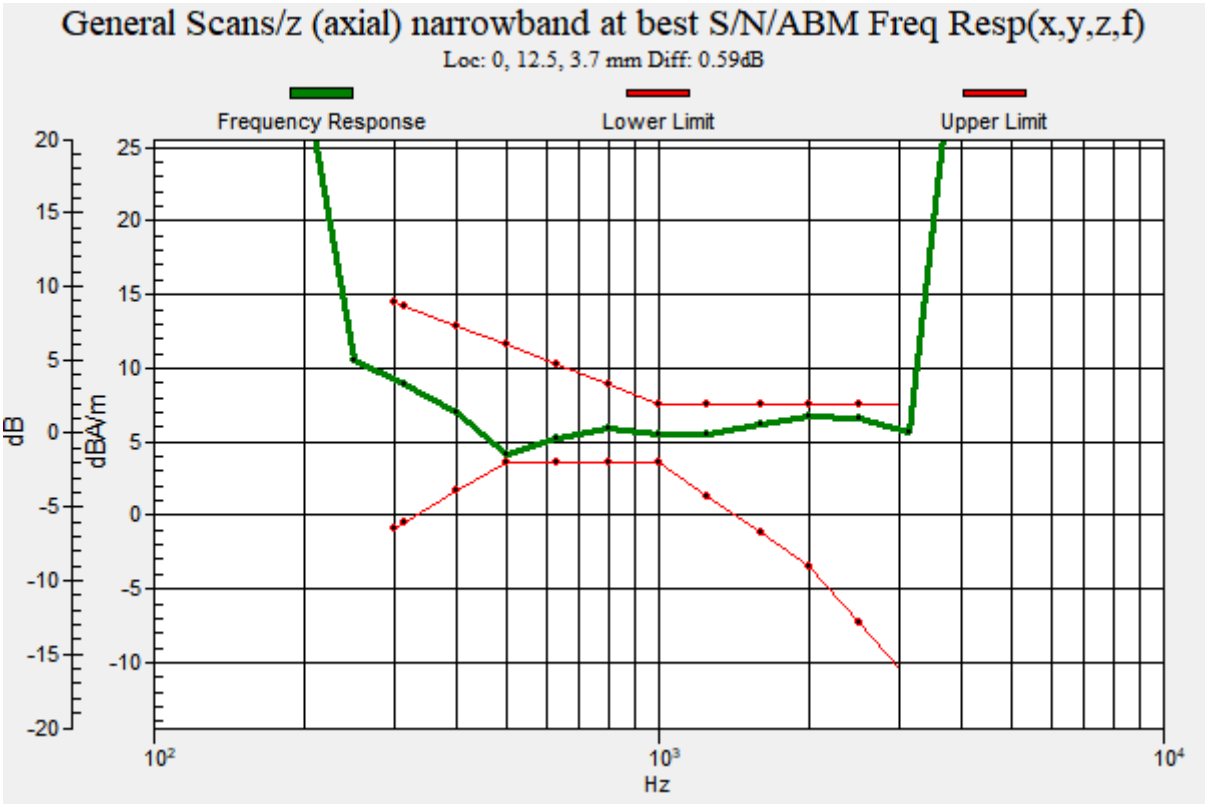

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Plot 45 T-Coil, LTE Band 12, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 707.5 MHz;Duty Cycle: 1:3.73594

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B12 HAC_TCoil_WD_Emission NB/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 42.66 dB

ABM1 comp = 6.73 dBA/m

BWC Factor = 0.17 dB

Location: 0, 4.2, 3.7 mm

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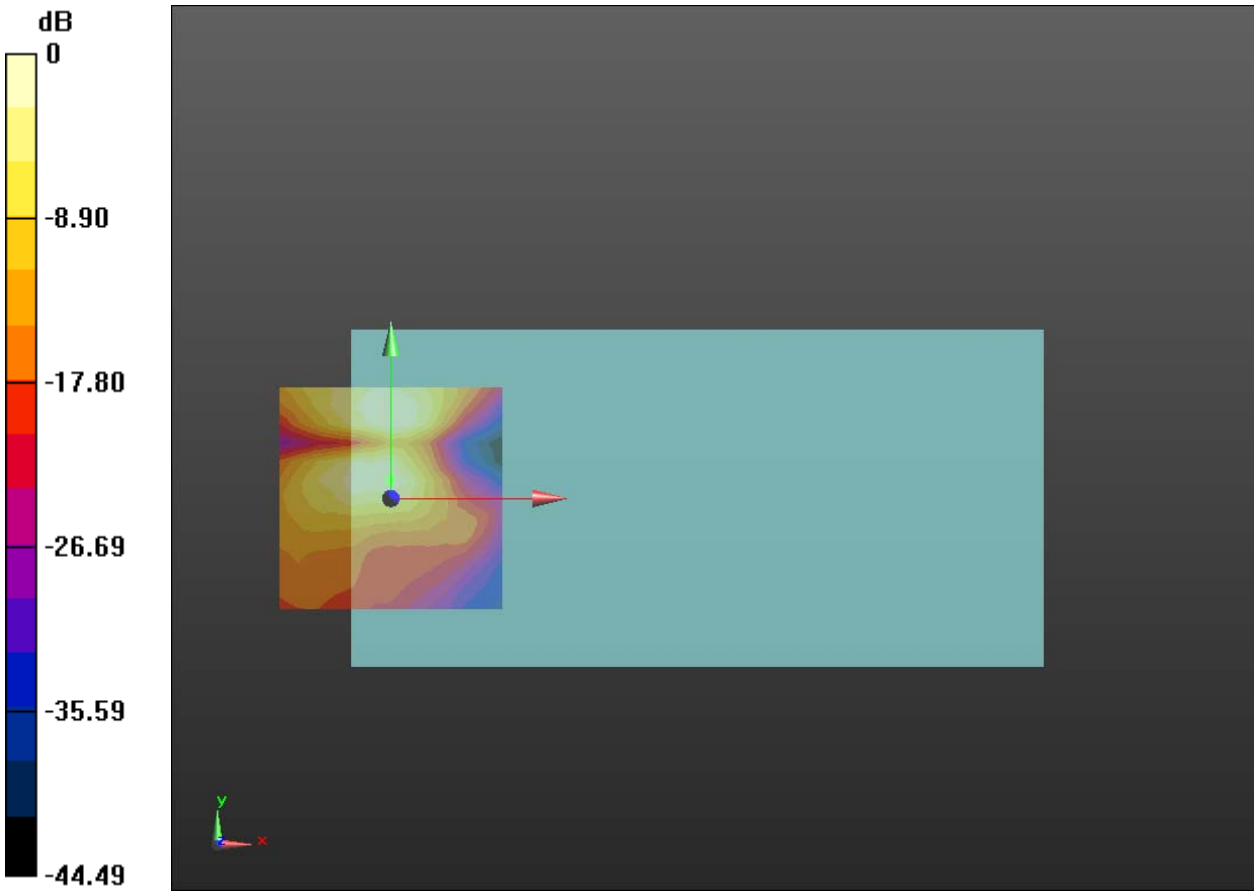

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Plot 46 T-Coil, LTE Band 12, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 707.5 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B12 HAC_TCoil_WD_Emission NB/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.50 dB
ABM1 comp = 13.15 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B12 HAC_TCoil_WD_Emission NB/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.58 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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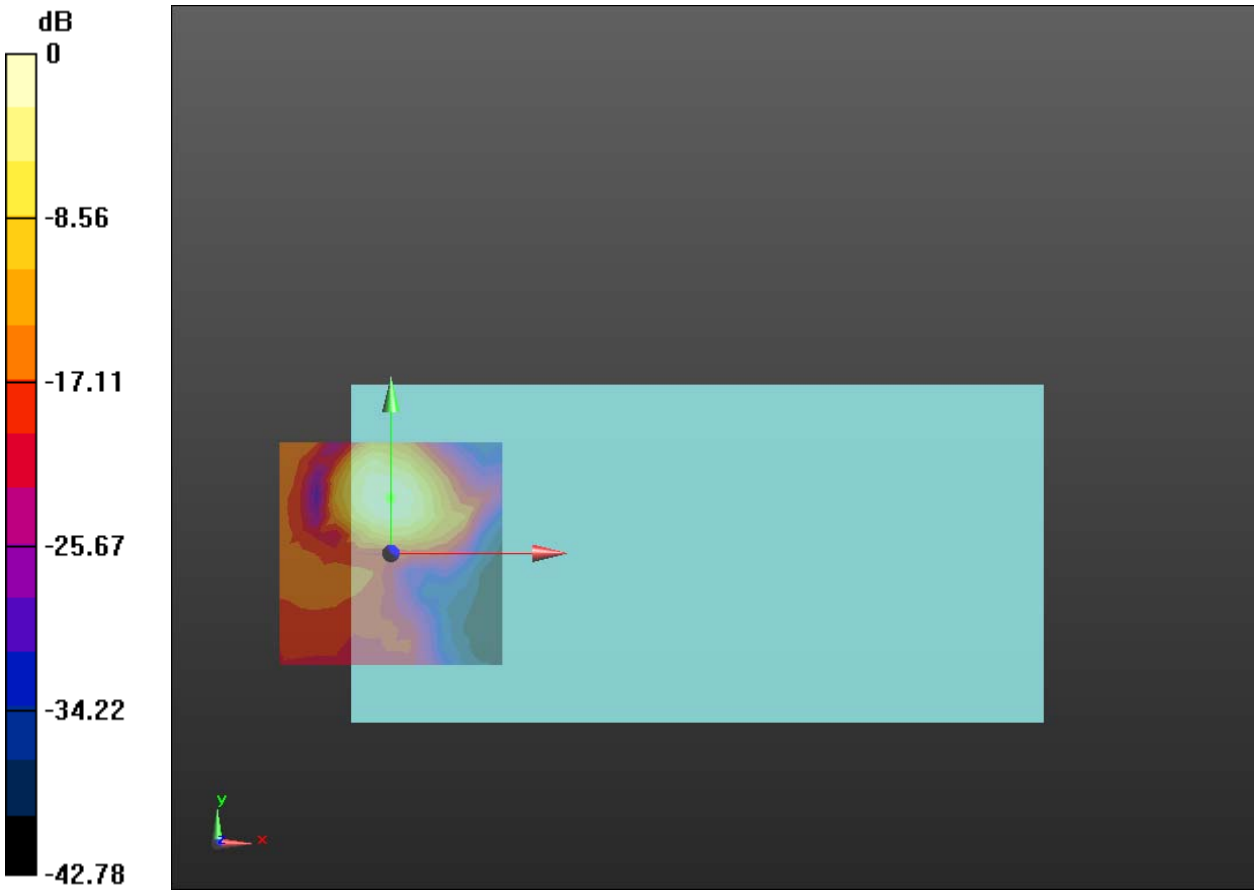

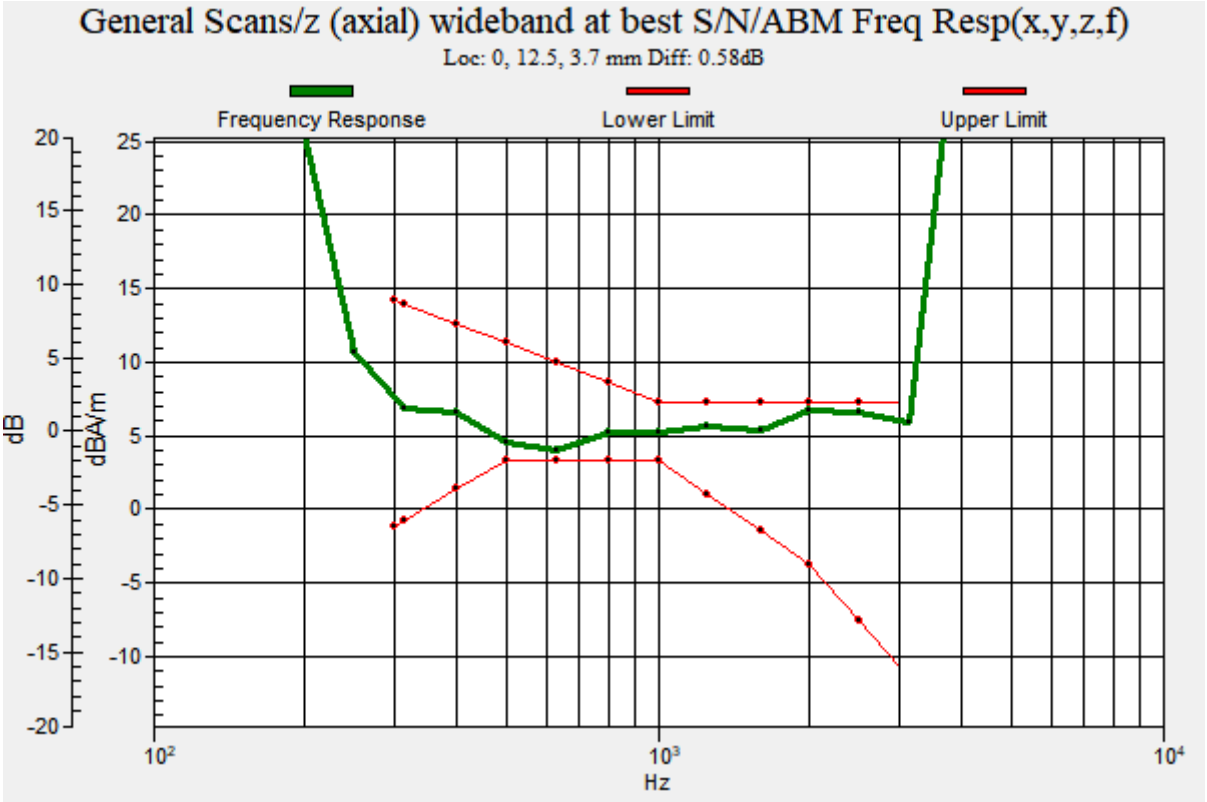

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Plot 47 T-Coil, LTE Band 13, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 782 MHz;Duty Cycle: 1:3.73594

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B13 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 42.38 dB

ABM1 comp = 6.31 dBA/m

BWC Factor = 0.17 dB

Location: 0, 4.2, 3.7 mm

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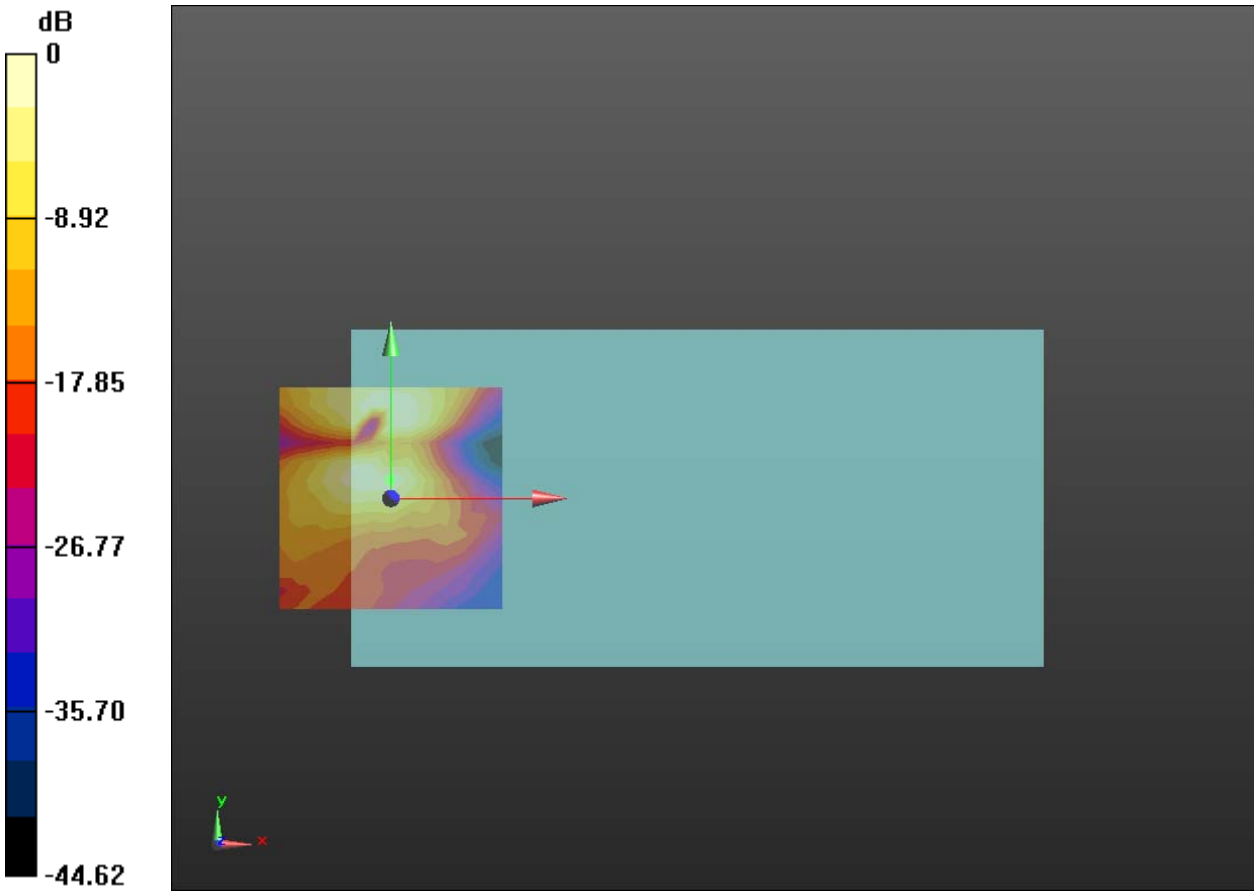

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Plot 48 T-Coil, LTE Band 13, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 782 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B13 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.95 dB
ABM1 comp = 12.86 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B13 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.97 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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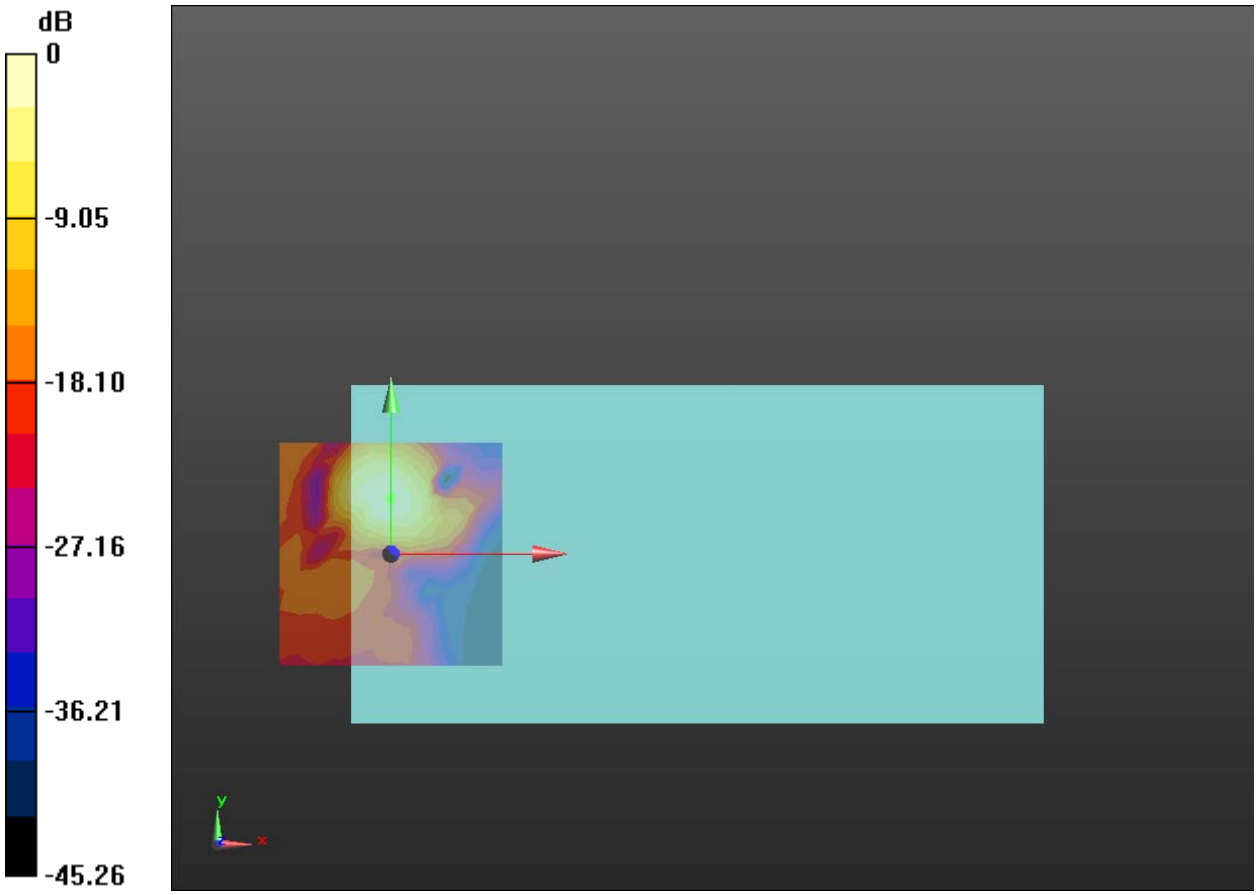

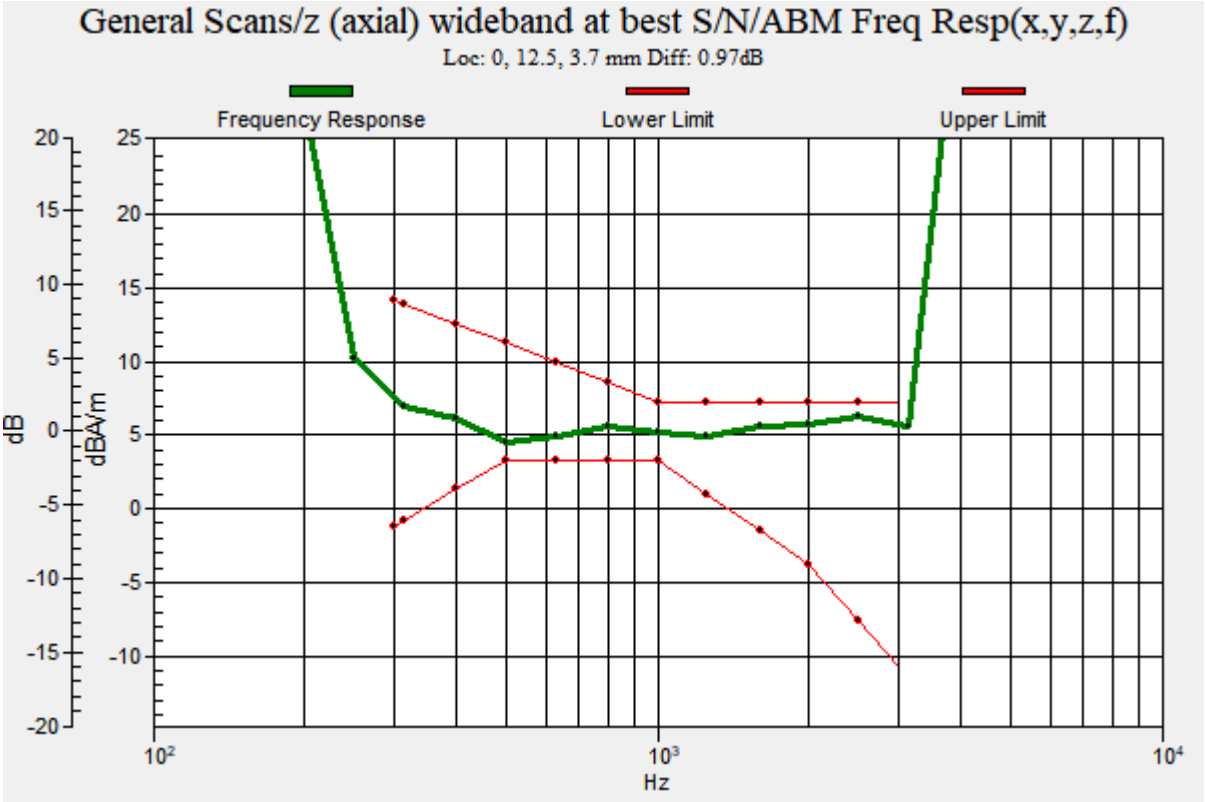

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Plot 49 T-Coil, LTE Band 14, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 793 MHz;Duty Cycle: 1:3.73594

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B14 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 40.03 dB

ABM1 comp = -2.96 dBA/m

BWC Factor = 0.17 dB

Location: -8.3, 4.2, 3.7 mm

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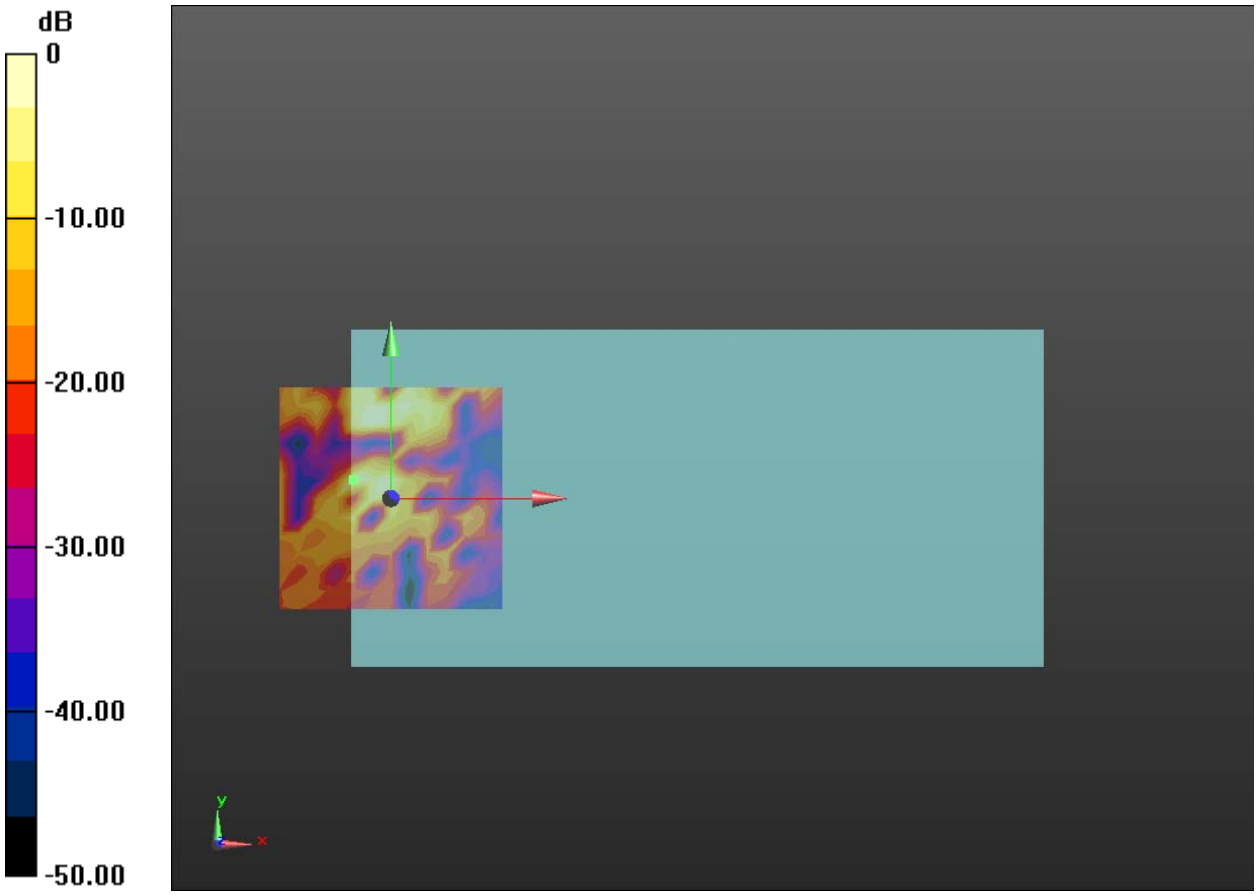

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Plot 50 T-Coil, LTE Band 14, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 793 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B14 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 39.41 dB
ABM1 comp = 10.87 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B14 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.86 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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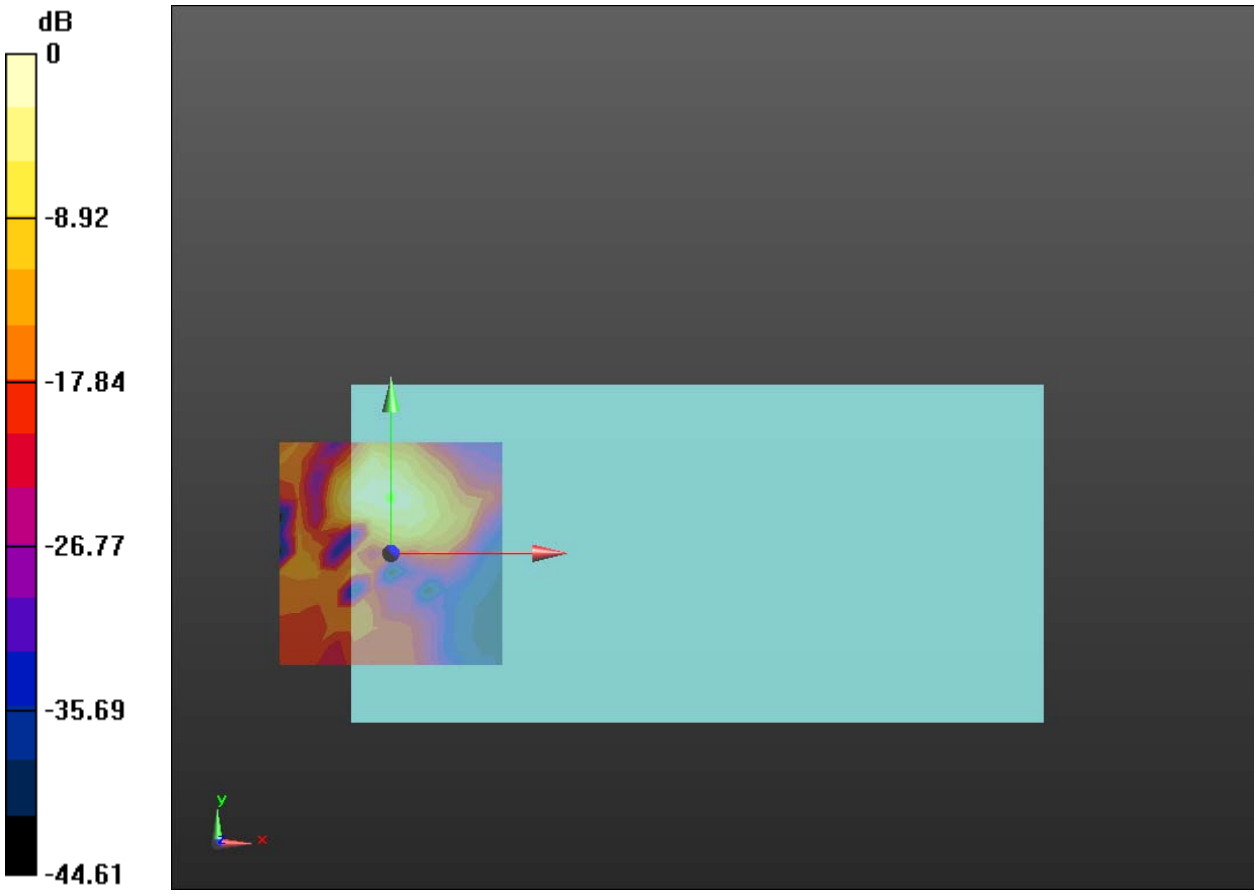

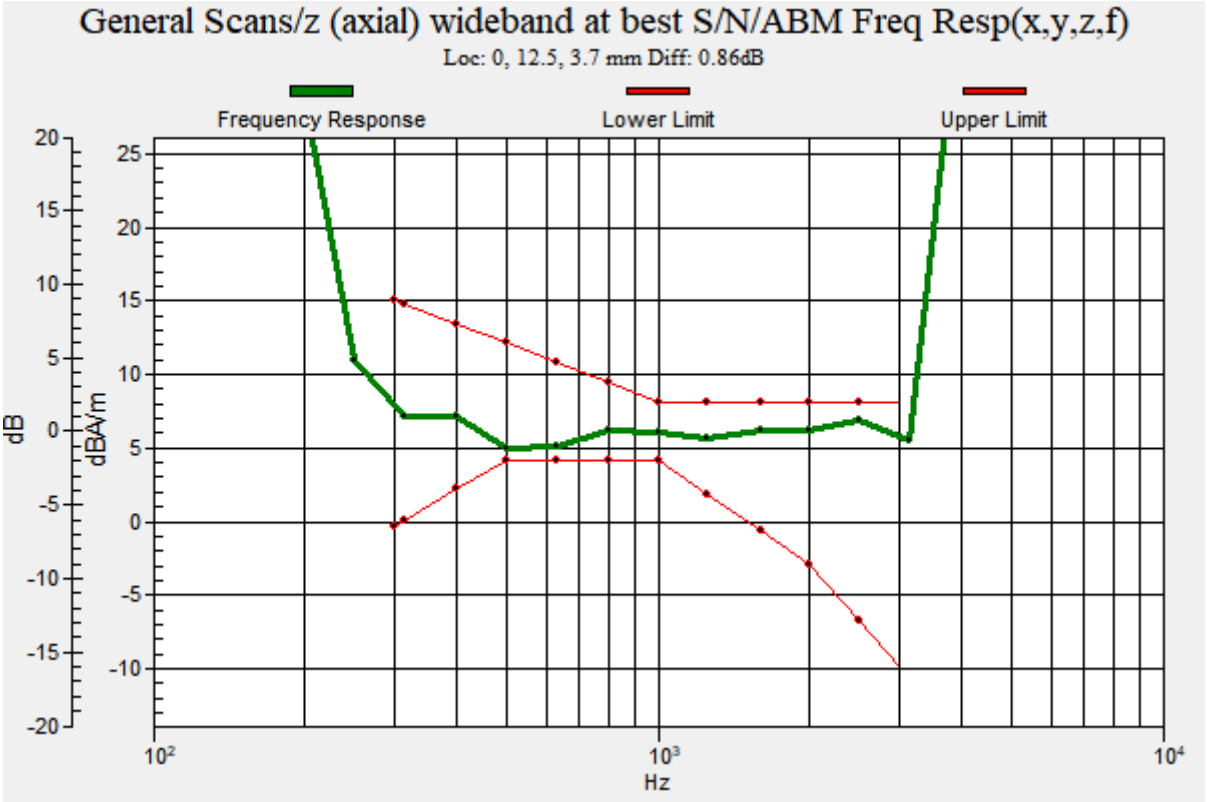

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Plot 51 T-Coil, LTE Band 17, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 710 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B17 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 42.34 dB
ABM1 comp = 4.19 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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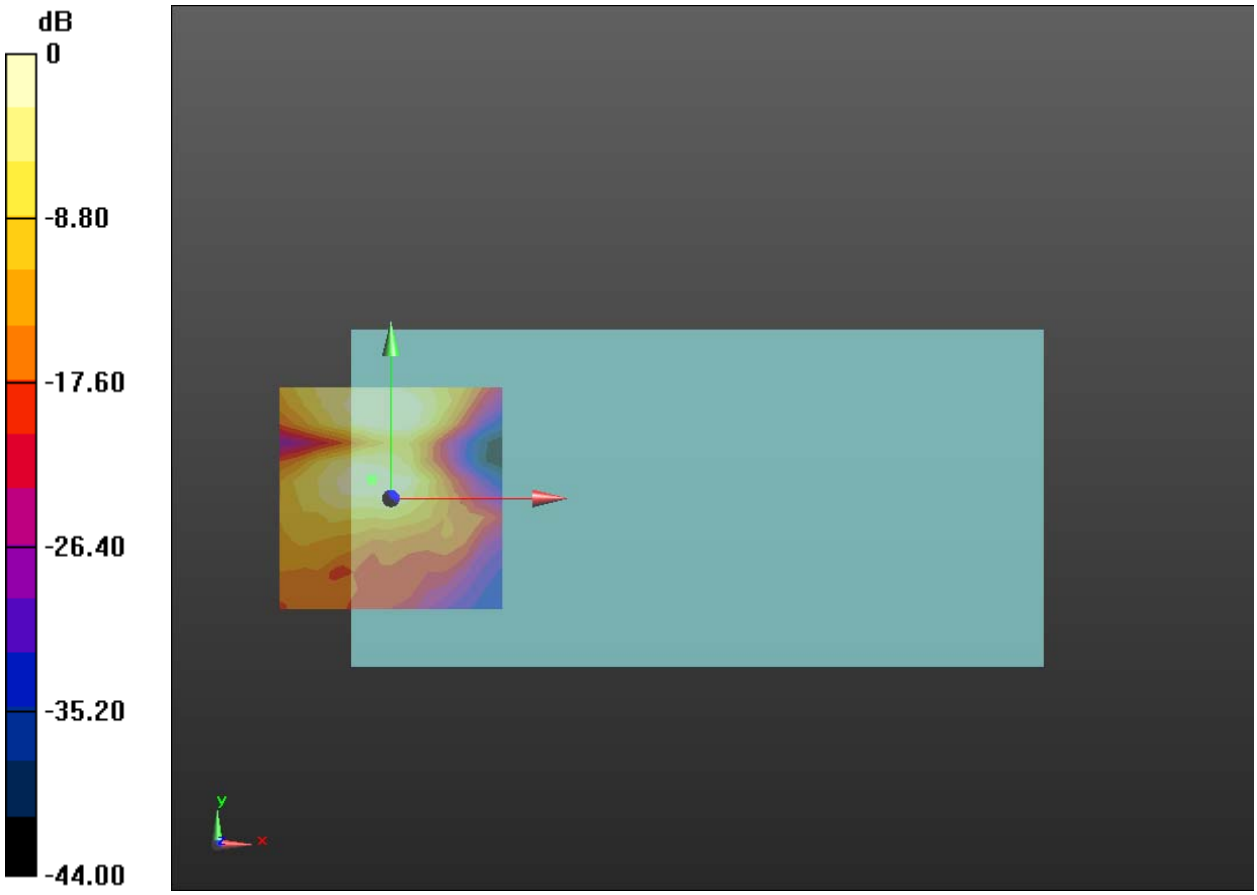

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Plot 52 T-Coil, LTE Band 17, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10175 - CAG, LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK); Frequency: 710 MHz;Duty Cycle: 1:3.73594
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B17 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.76 dB
ABM1 comp = 13.23 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B17 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.49 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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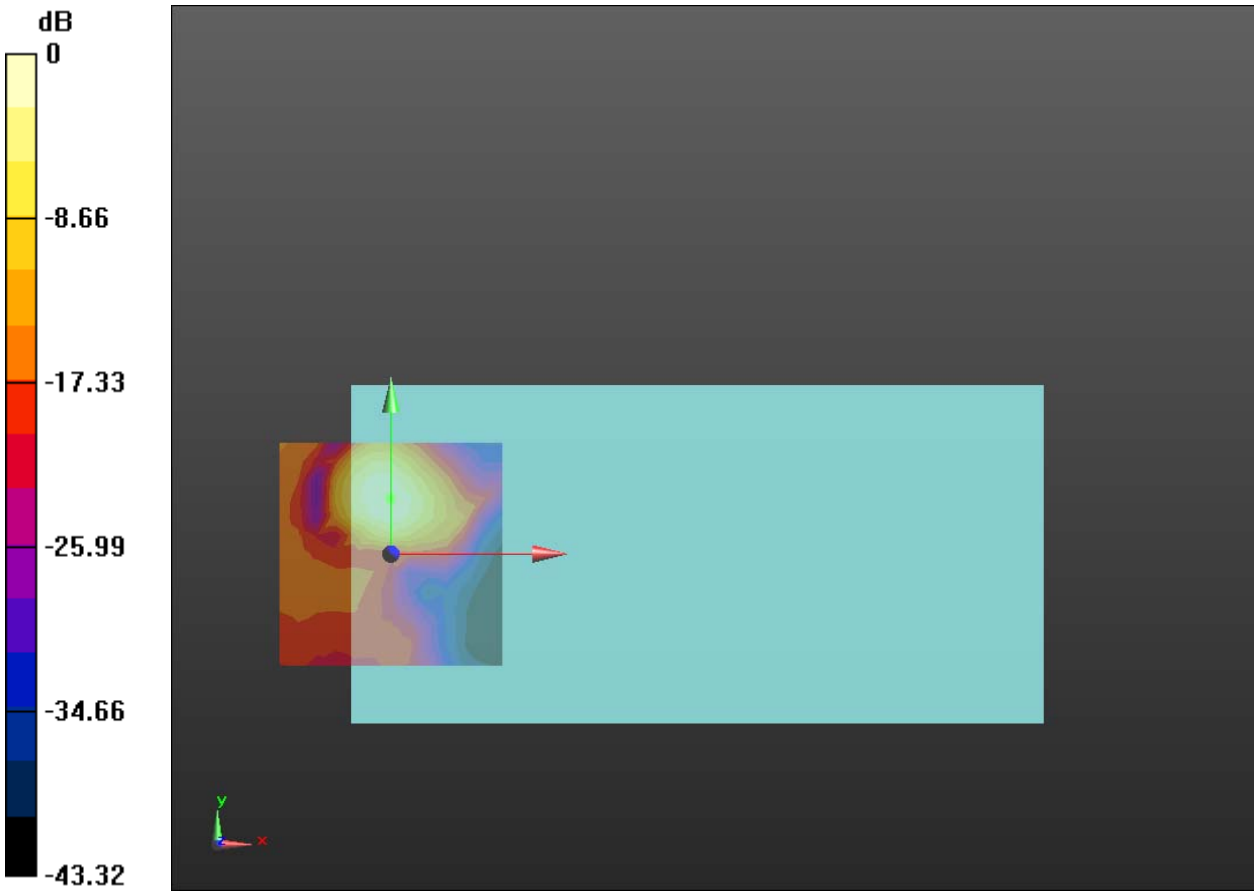

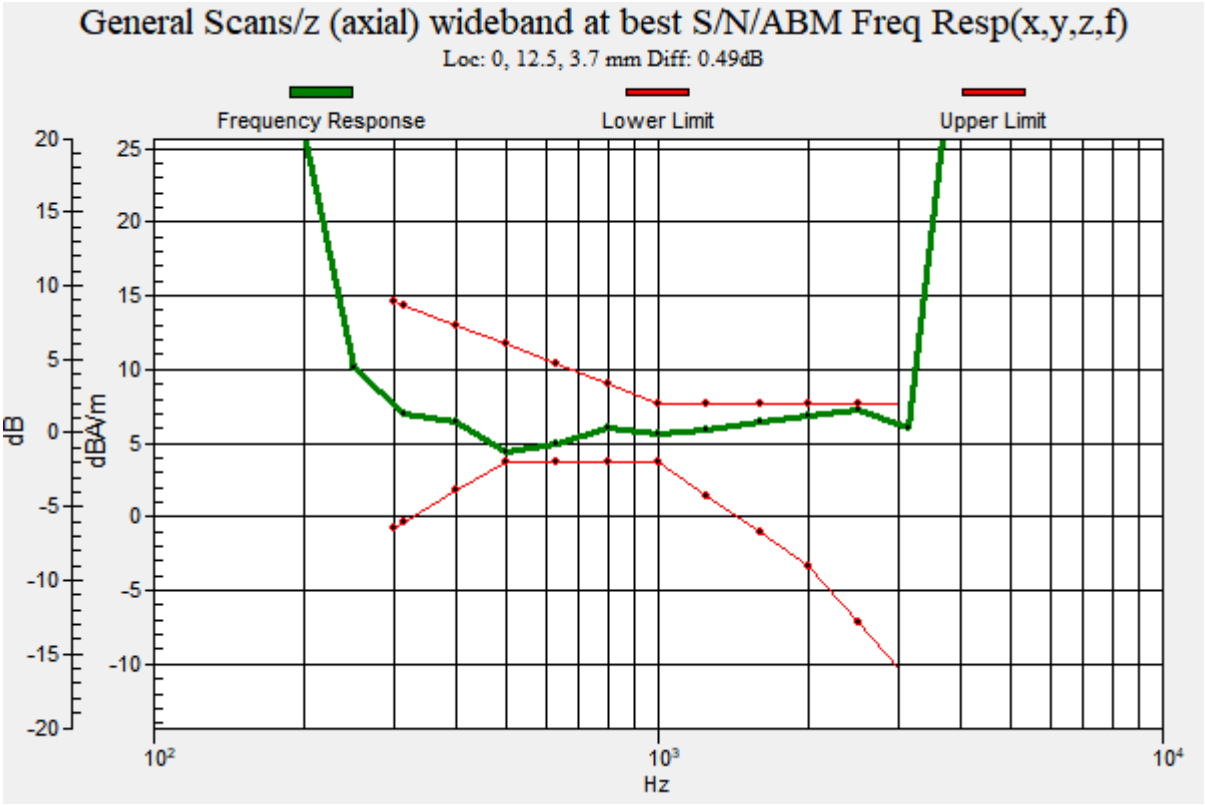

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Plot 53 T-Coil, LTE Band 25, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1882.5 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B25 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.21 dB
ABM1 comp = 4.61 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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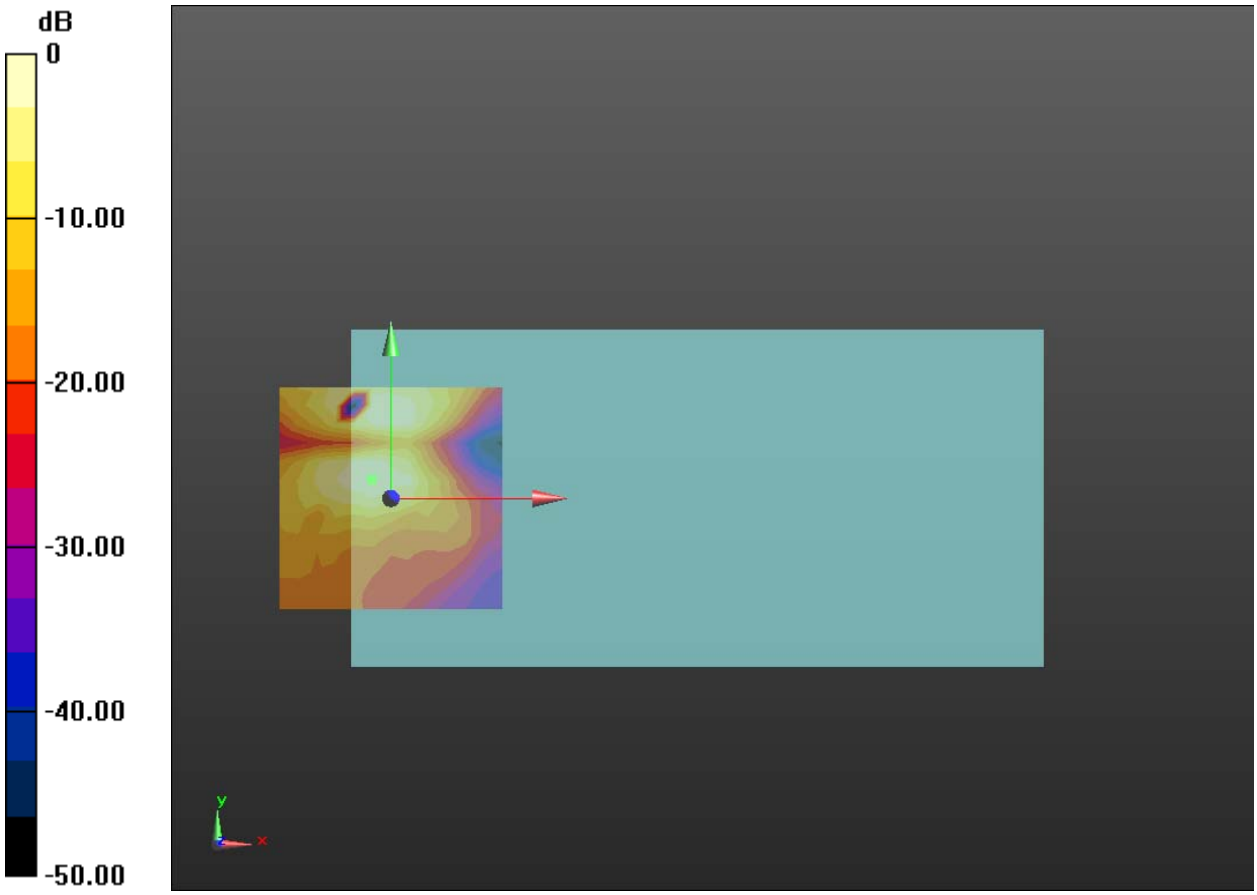

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Plot 54 T-Coil, LTE Band 25, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1882.5 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B25 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.57 dB
ABM1 comp = 8.34 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

LTE B25 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.50 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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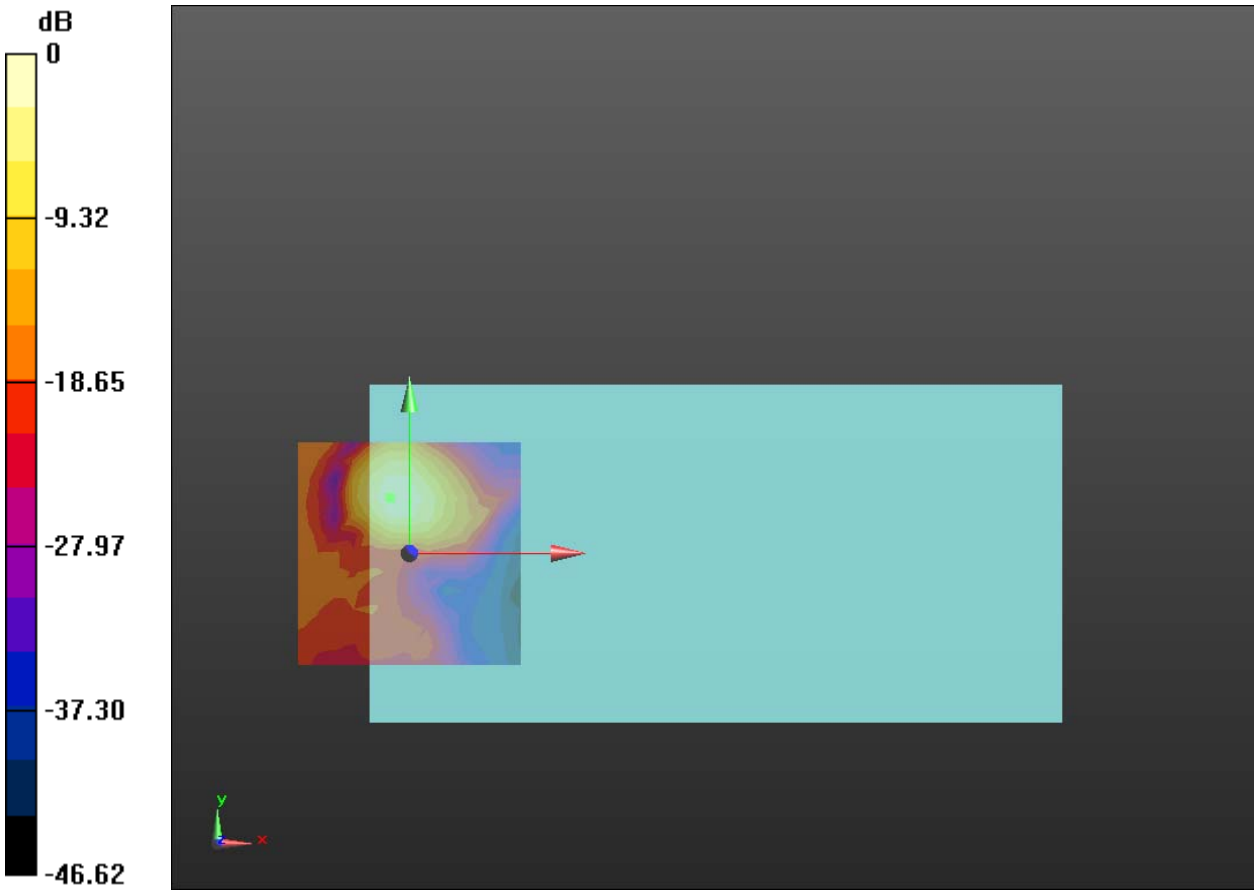

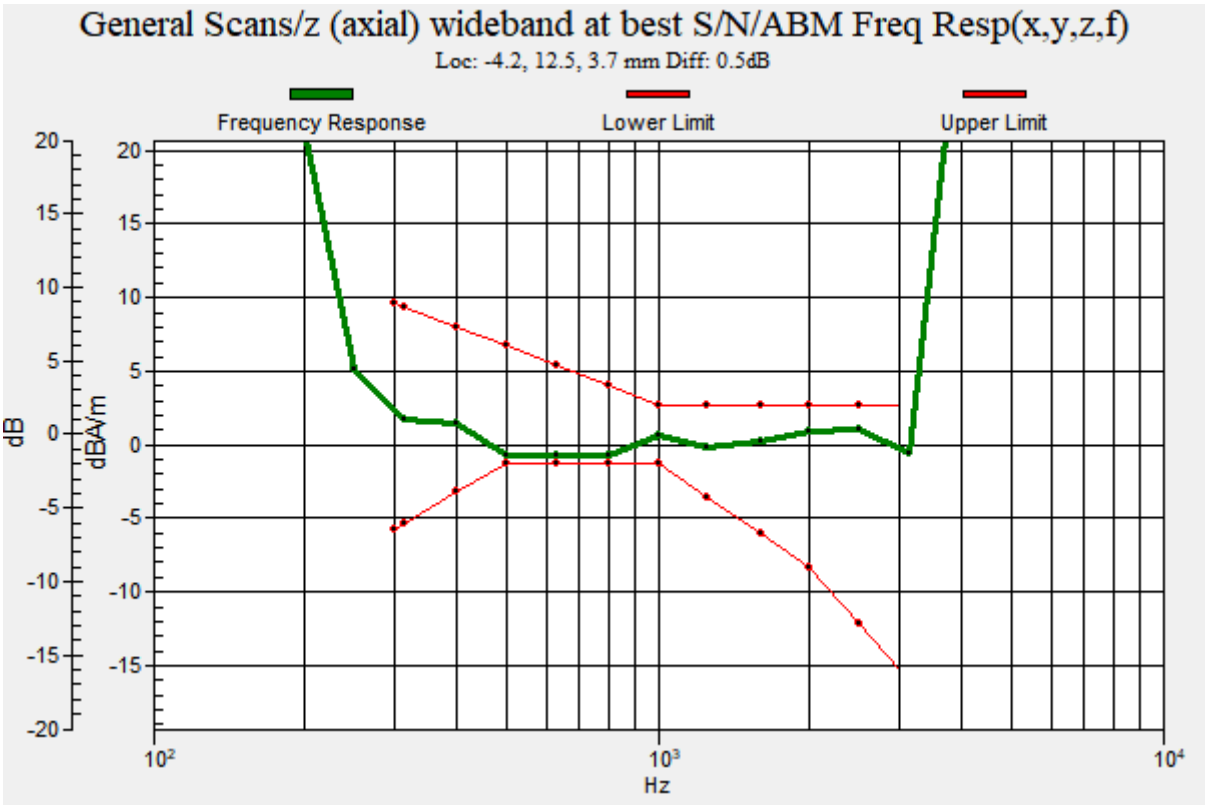

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Plot 55 T-Coil, LTE Band 26, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10181 - CAE, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK); Frequency: 831.5 MHz;Duty Cycle: 1:3.7368
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B26 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 43.62 dB
ABM1 comp = 5.46 dBA/m
BWC Factor = 0.17 dB
Location: 0, 20.8, 3.7 mm

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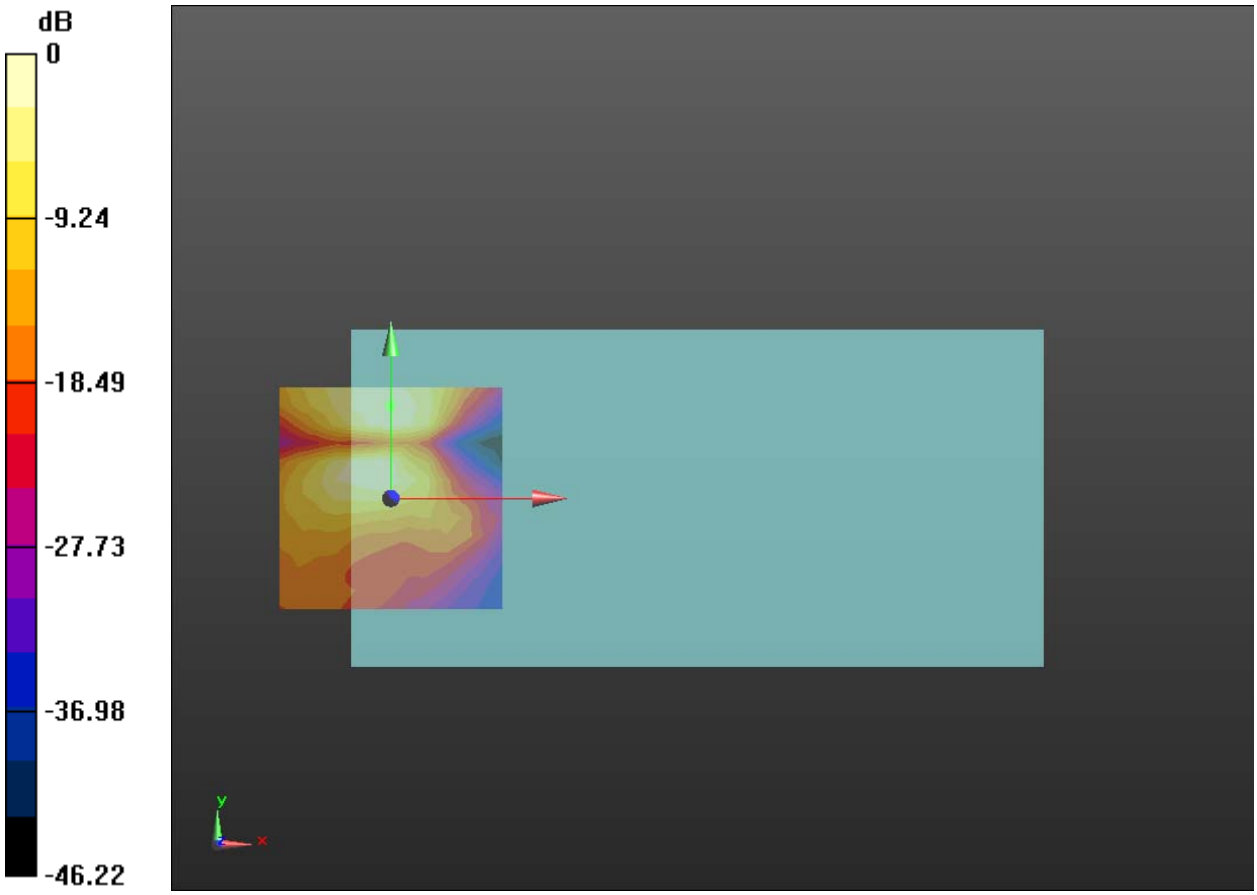

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Plot 56 T-Coil, LTE Band 26, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10181 - CAE, LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK); Frequency: 831.5 MHz;Duty Cycle: 1:3.7368
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B26 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 42.15 dB
ABM1 comp = 13.51 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B26 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.97 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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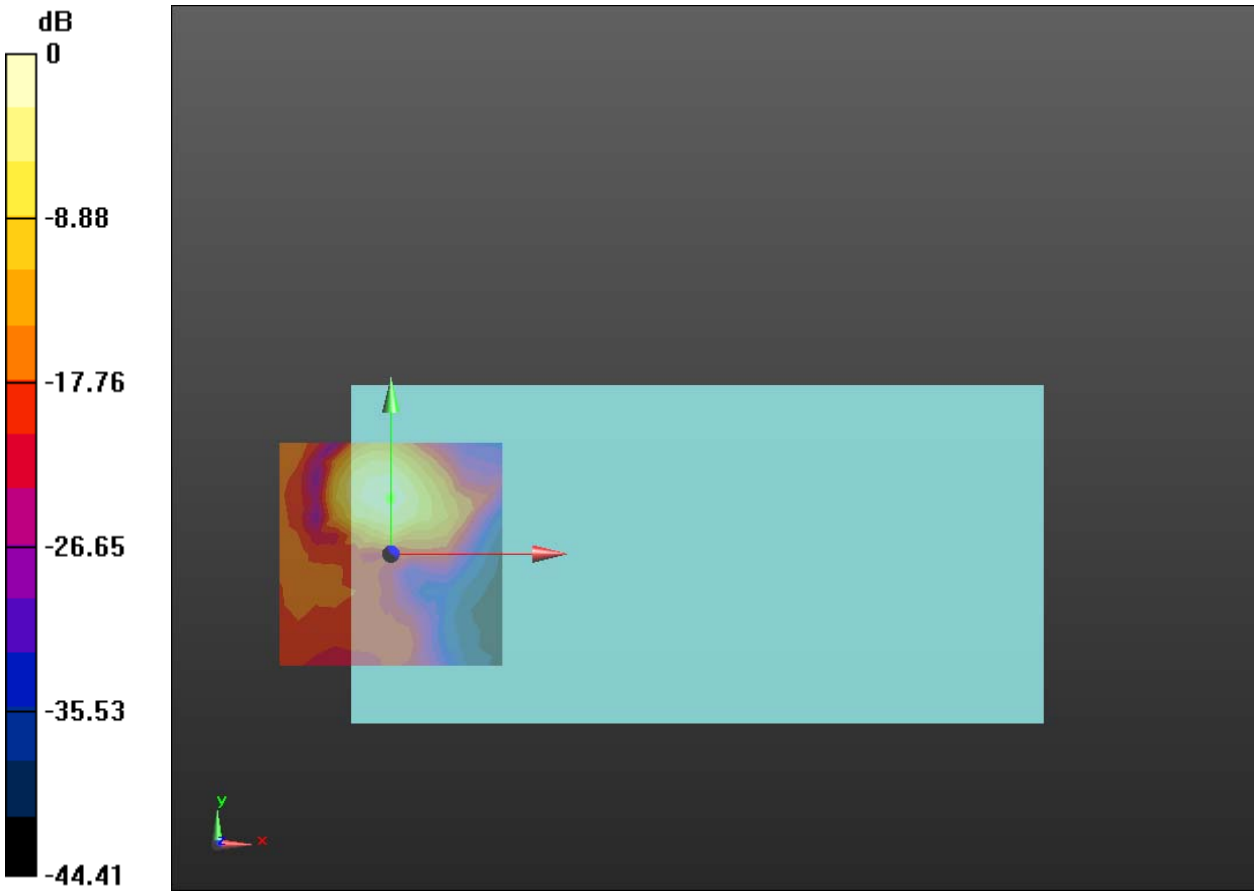

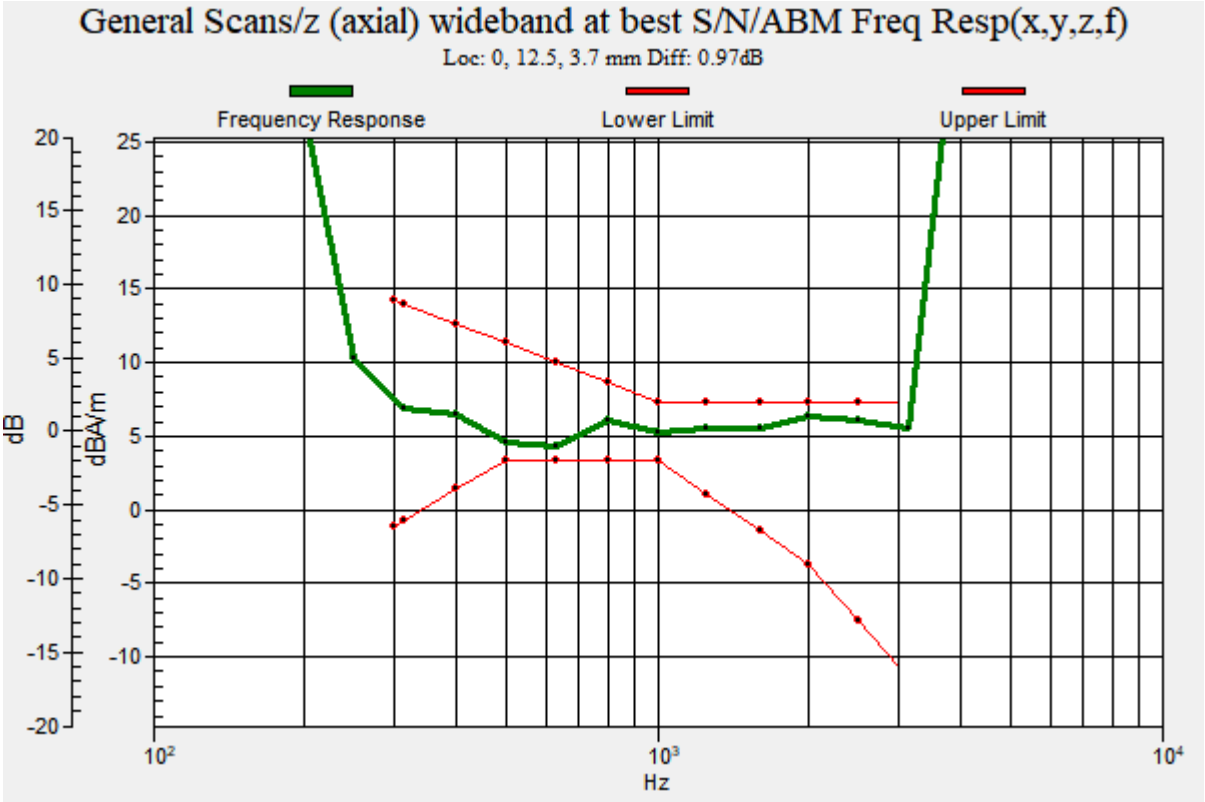

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Plot 57 T-Coil, LTE Band 38, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2350 MHz;Duty Cycle: 1:8.33105

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B38 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 42.98 dB

ABM1 comp = 4.33 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 4.2, 3.7 mm

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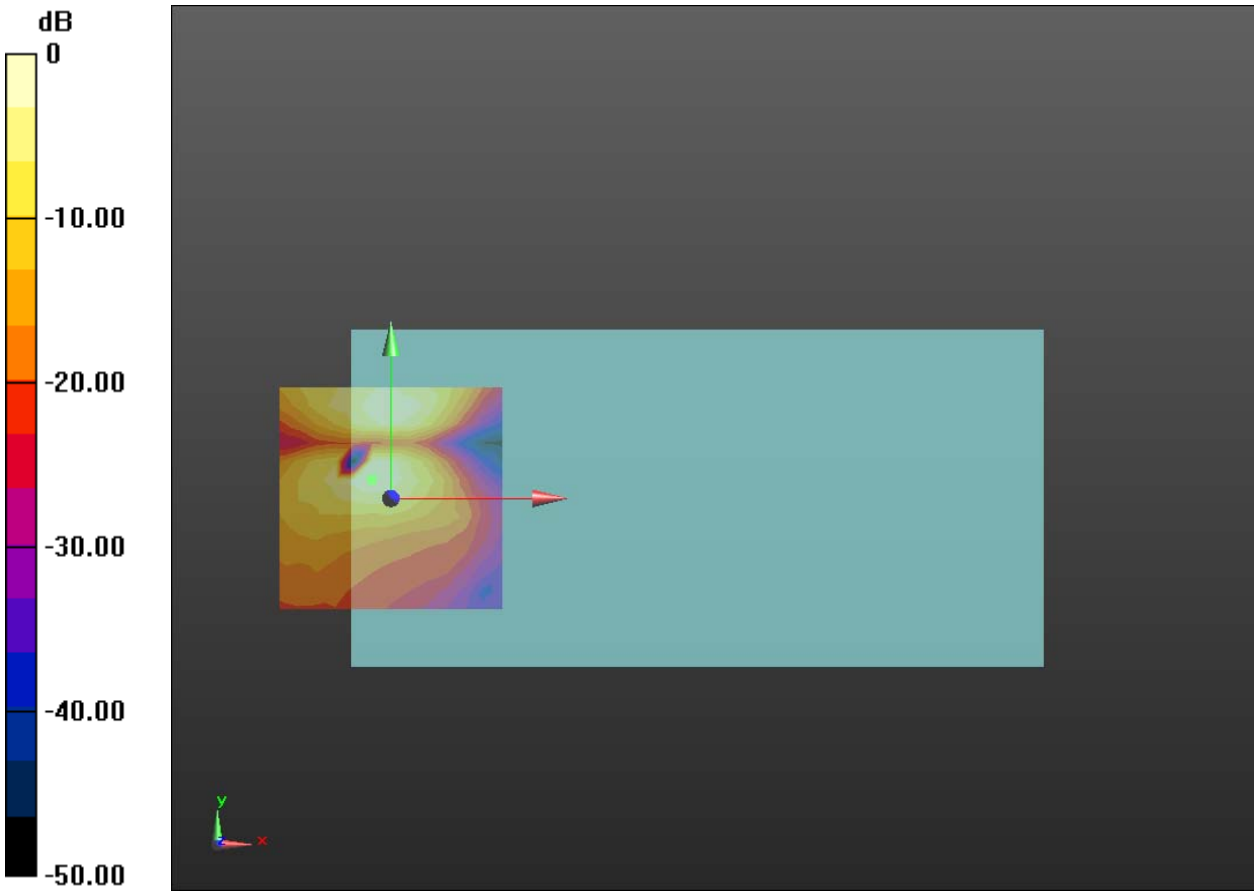

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Plot 58 T-Coil, LTE Band 38, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2350 MHz;Duty Cycle: 1:8.33105
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B38 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.95 dB
ABM1 comp = 9.22 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

LTE B38 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.59 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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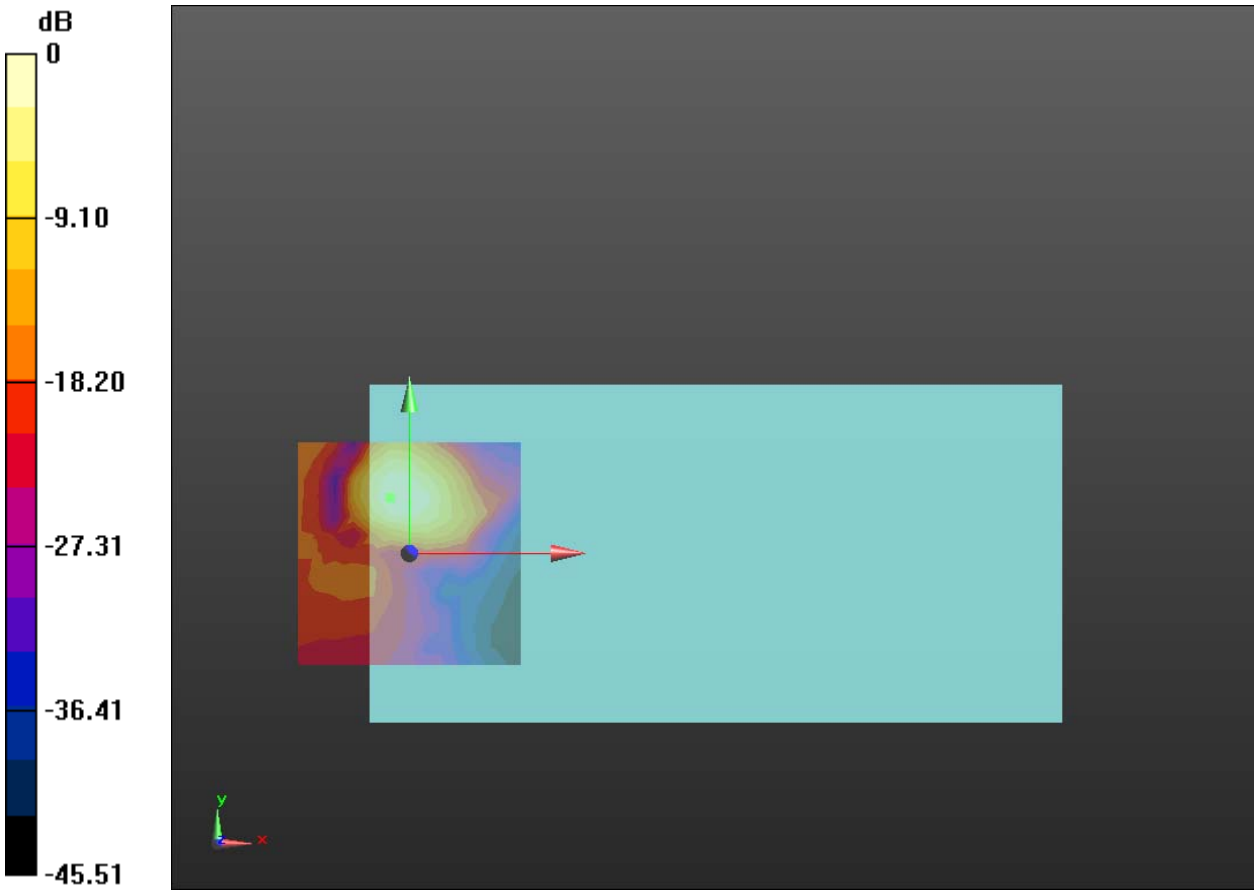

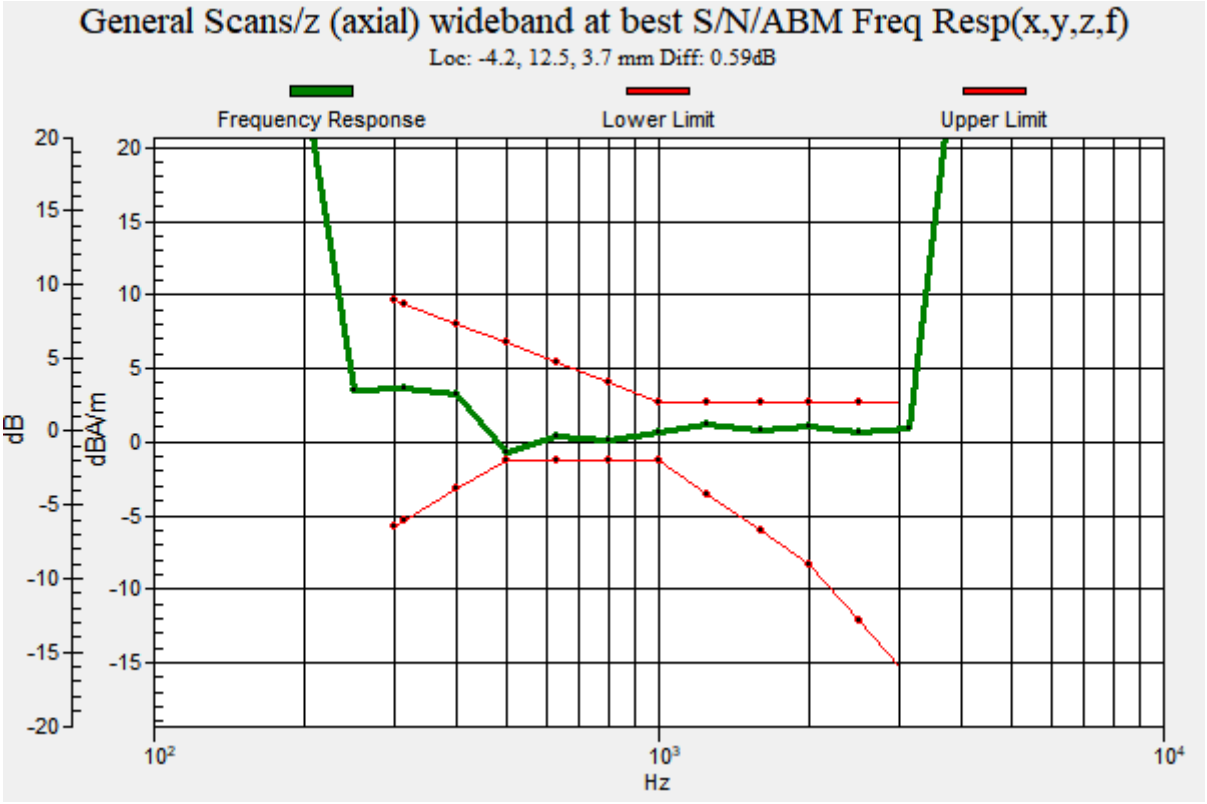

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Plot 59 T-Coil, LTE Band 40, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2350 MHz;Duty Cycle: 1:8.33105
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B40 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 43.01 dB
ABM1 comp = 4.15 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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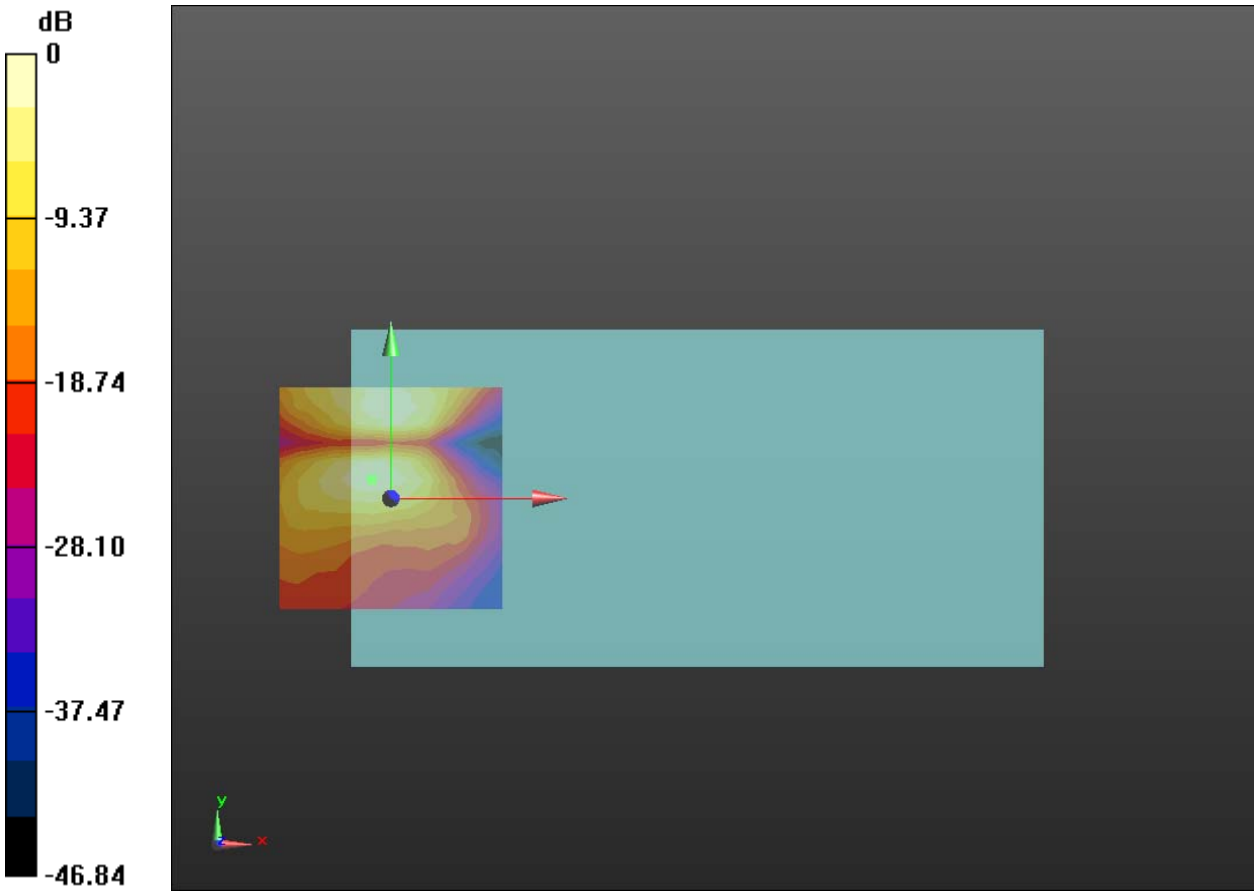

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Plot 60 T-Coil, LTE Band 40, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2350 MHz;Duty Cycle: 1:8.33105
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B40 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.85 dB
ABM1 comp = 14.24 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B40 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.06 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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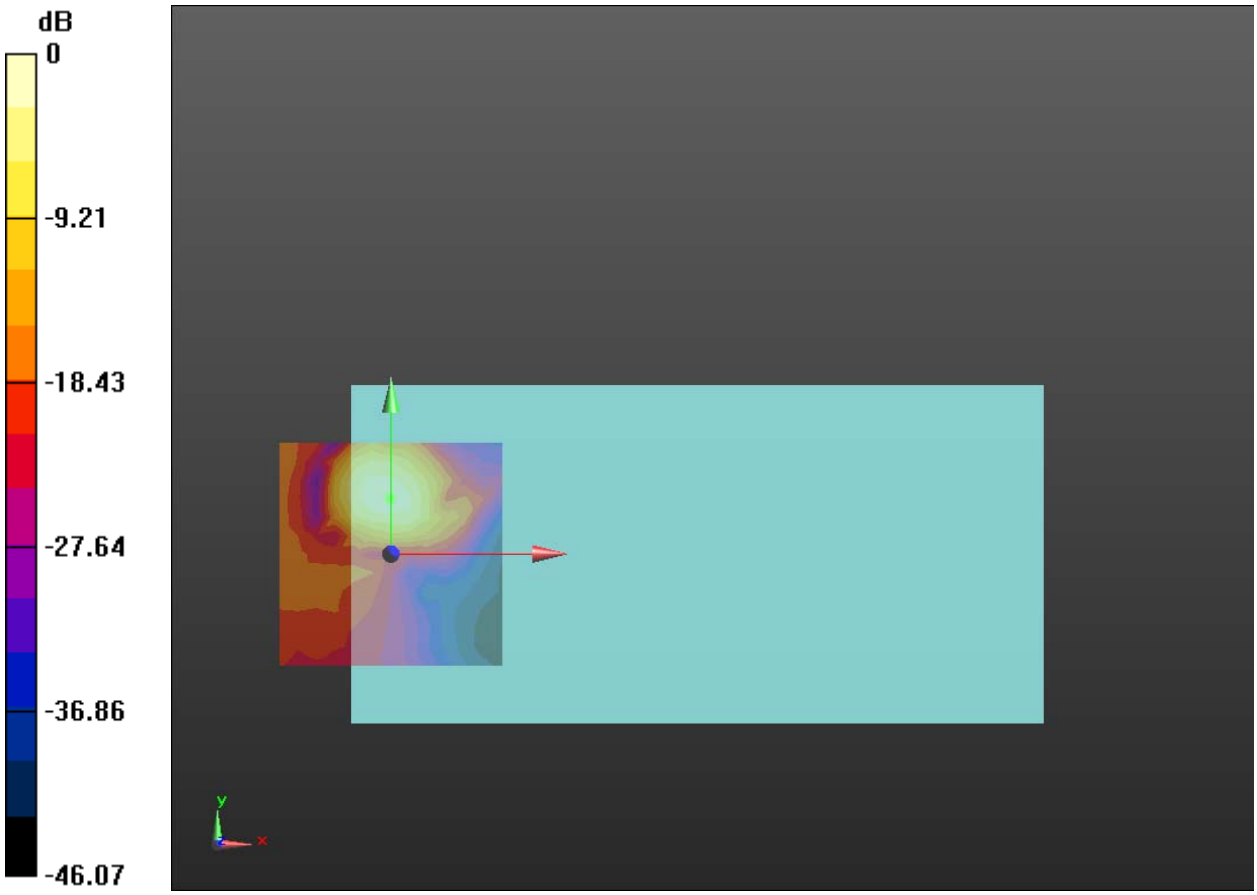

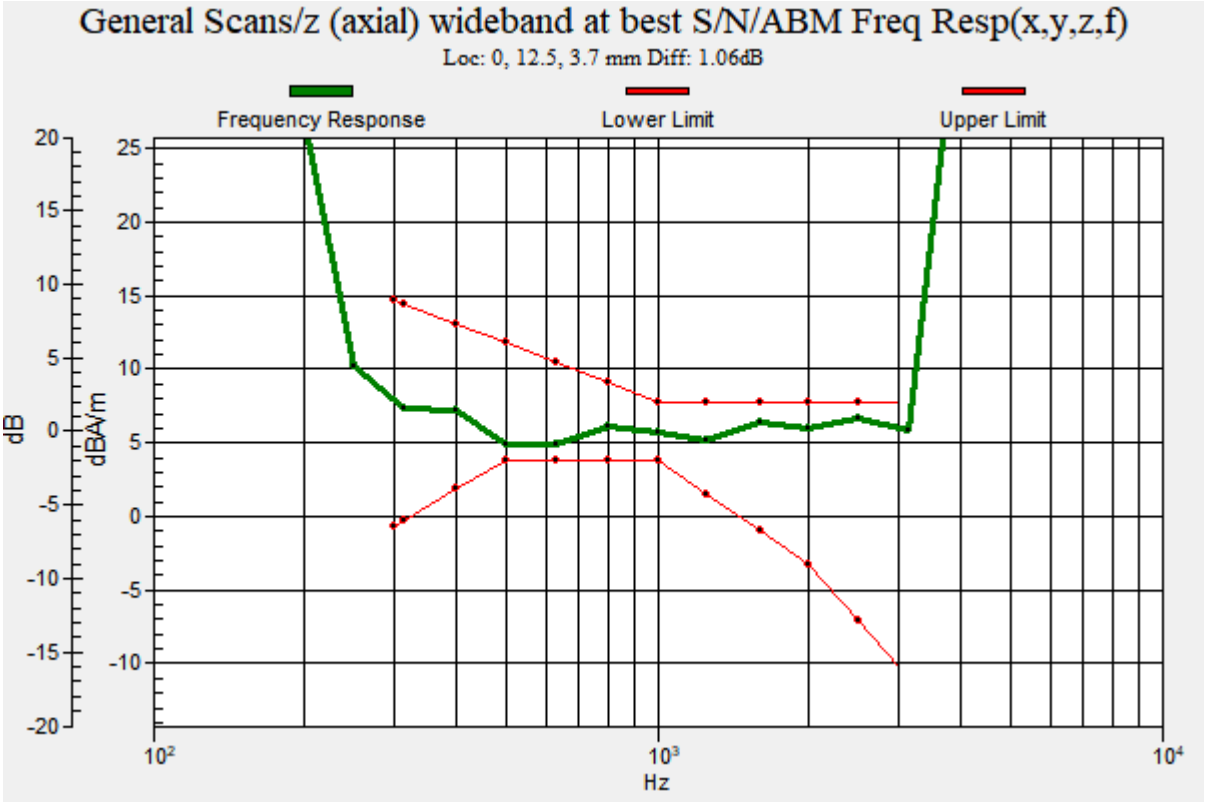

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Plot 61 T-Coil, LTE Band 41, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2600 MHz;Duty Cycle: 1:8.33105
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B41 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 42.47 dB
ABM1 comp = 4.01 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 4.2, 3.7 mm

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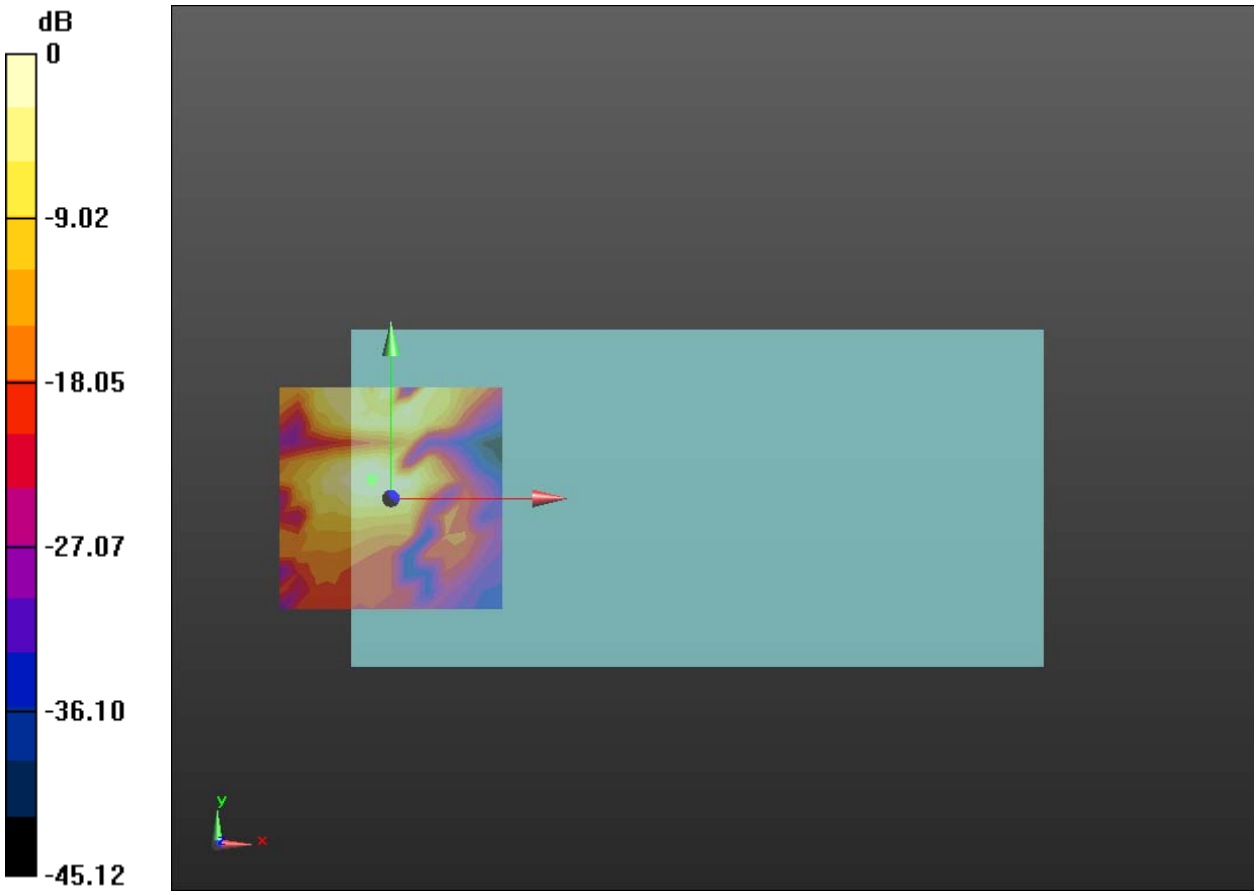

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Plot 62 T-Coil, LTE Band 41, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 2600 MHz;Duty Cycle: 1:8.33105
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B41 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 41.57 dB
ABM1 comp = 13.76 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

LTE B41 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.83 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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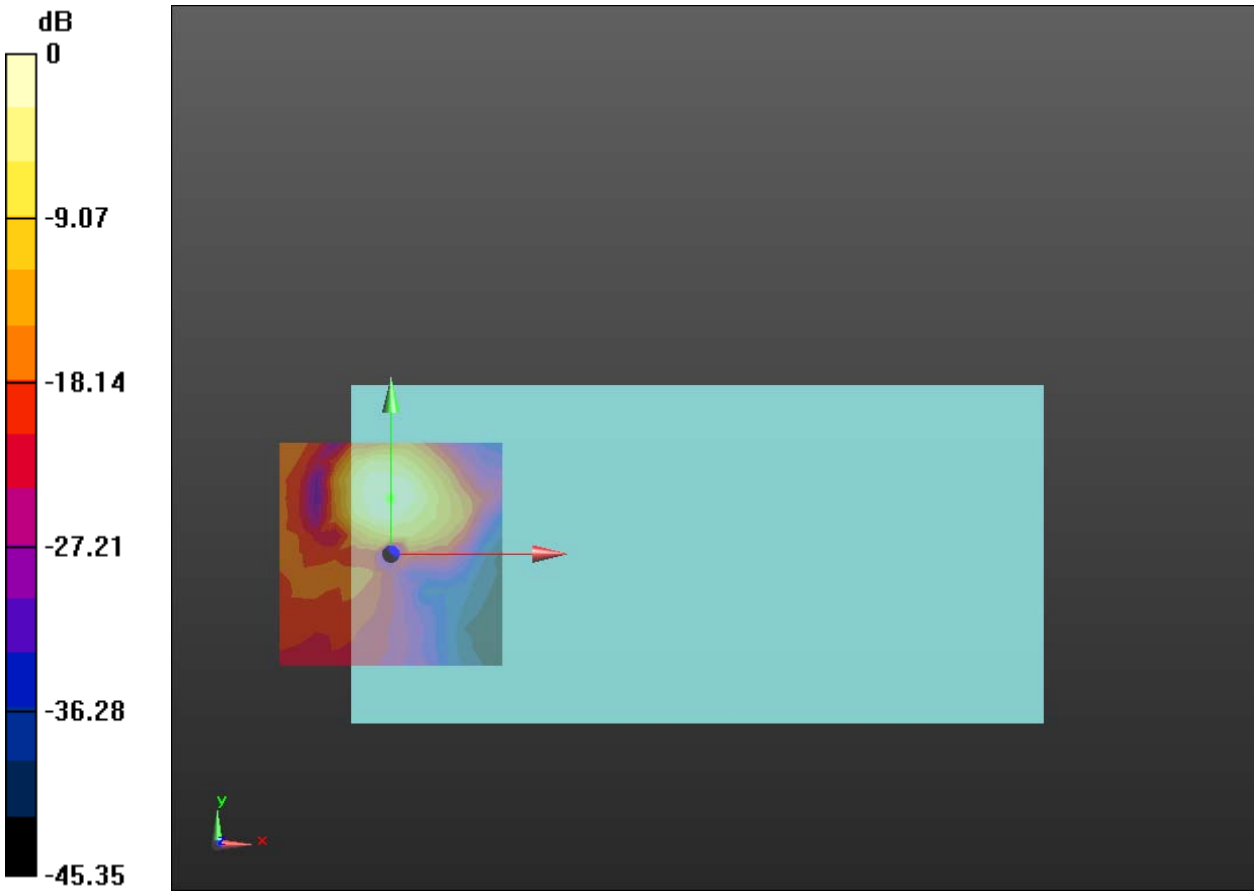

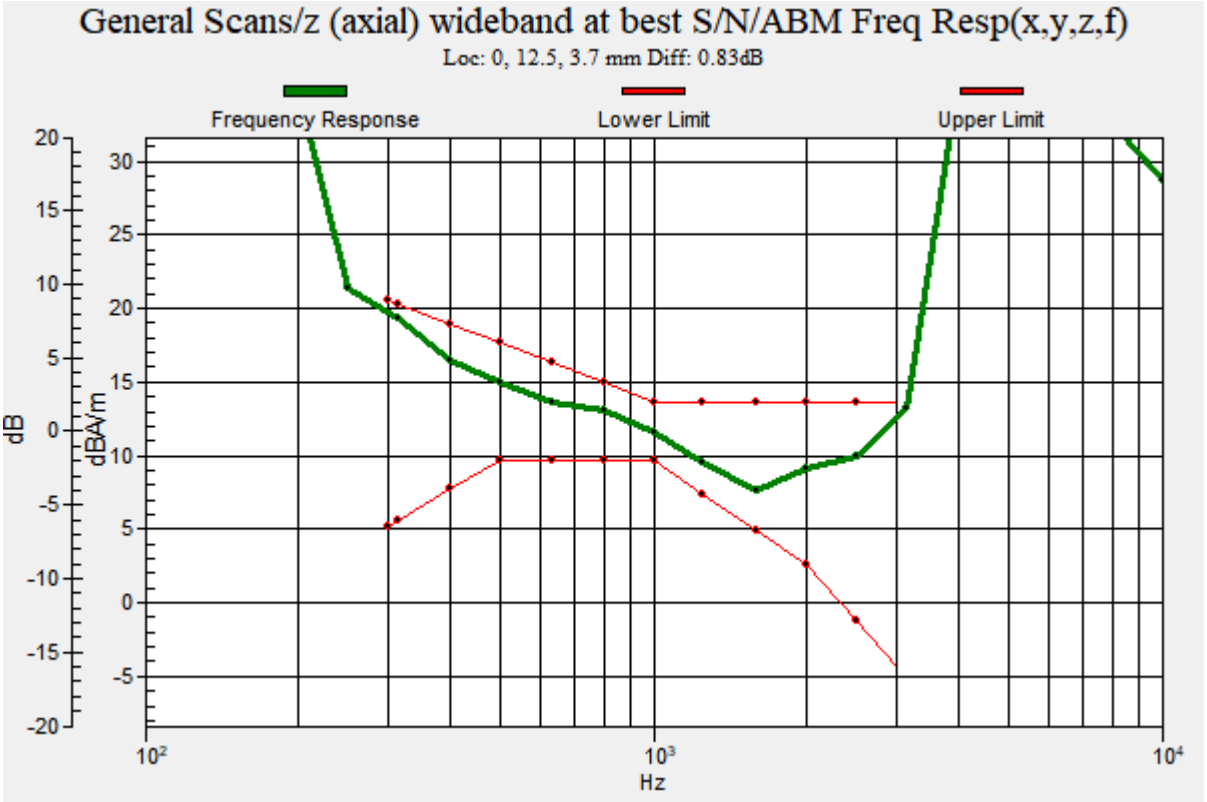

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Plot 63 T-Coil, LTE Band 66, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1745 MHz;Duty Cycle: 1:3.73852

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B66 HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 43.18 dB

ABM1 comp = 7.12 dBA/m

BWC Factor = 0.17 dB

Location: 0, 4.2, 3.7 mm

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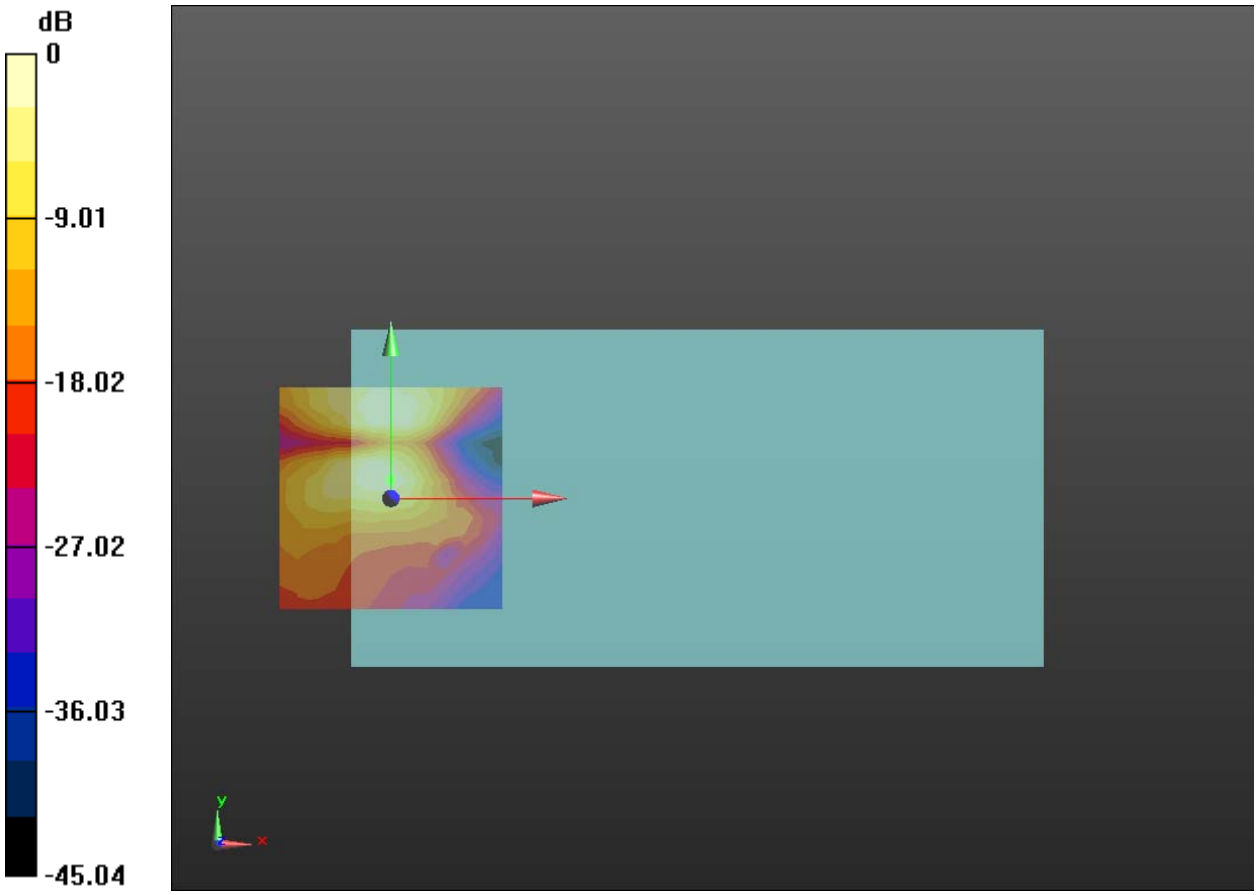

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Plot 64 T-Coil, LTE Band 66, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10169 - CAE, LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK); Frequency: 1745 MHz;Duty Cycle: 1:3.73852
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

LTE B66 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.47 dB
ABM1 comp = 8.38 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

LTE B66 HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.73 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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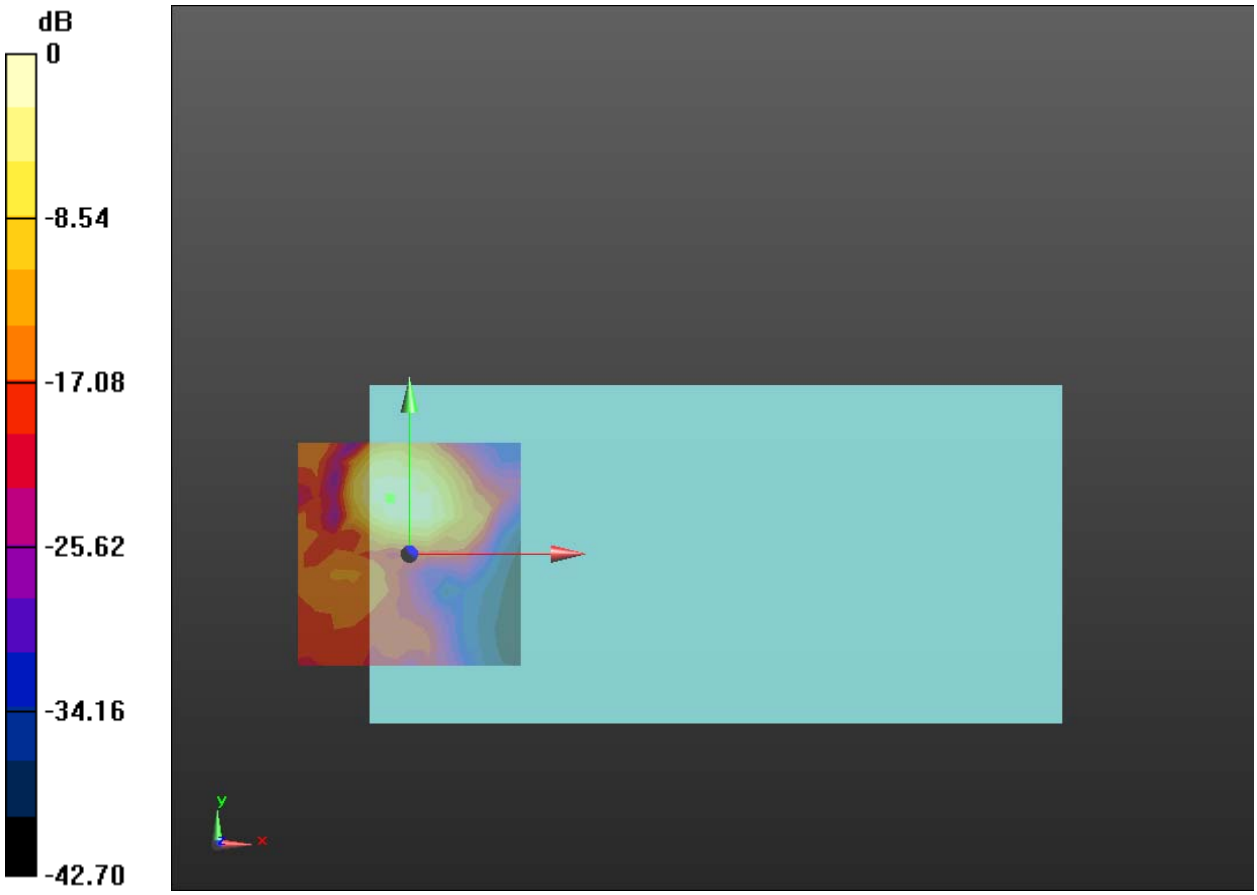

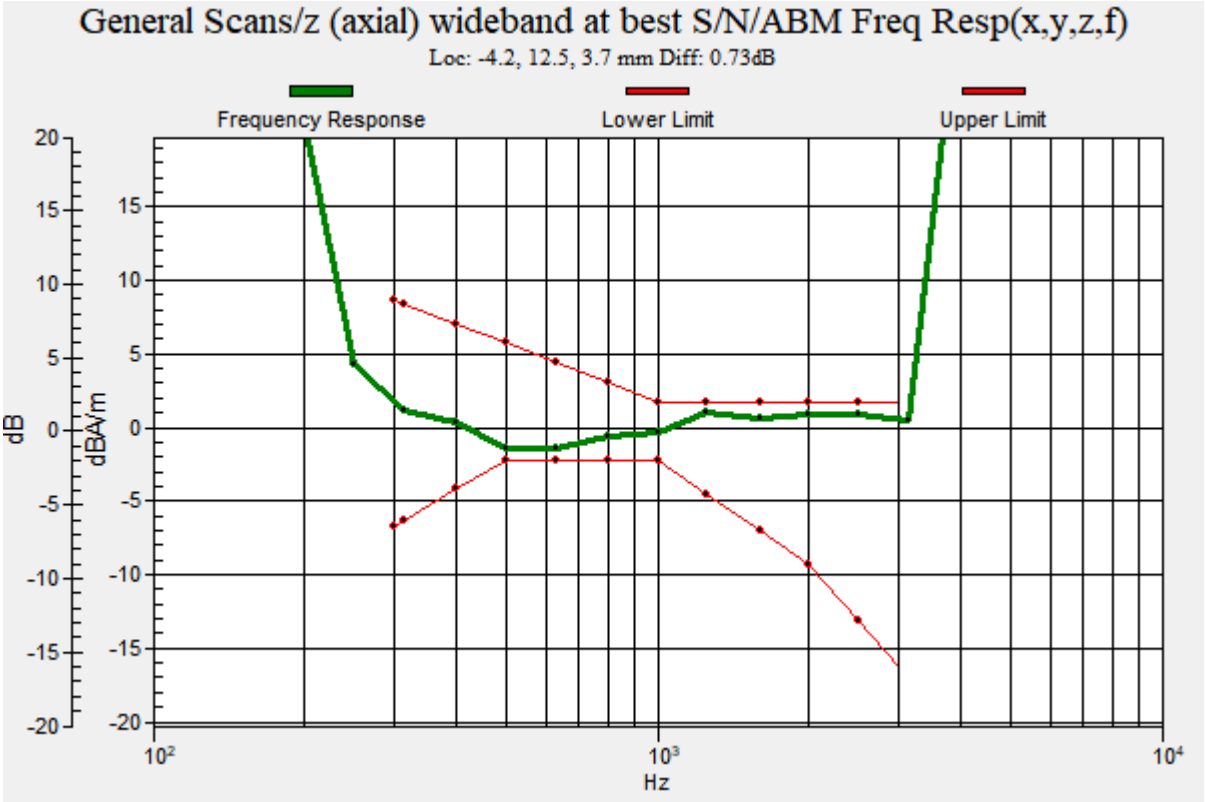

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Plot 65 T-Coil WIFI 2.4G: 802.11b, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 39.77 dB

ABM1 comp = 3.81 dBA/m

BWC Factor = 0.17 dB

Location: 4.2, 25, 3.7 mm

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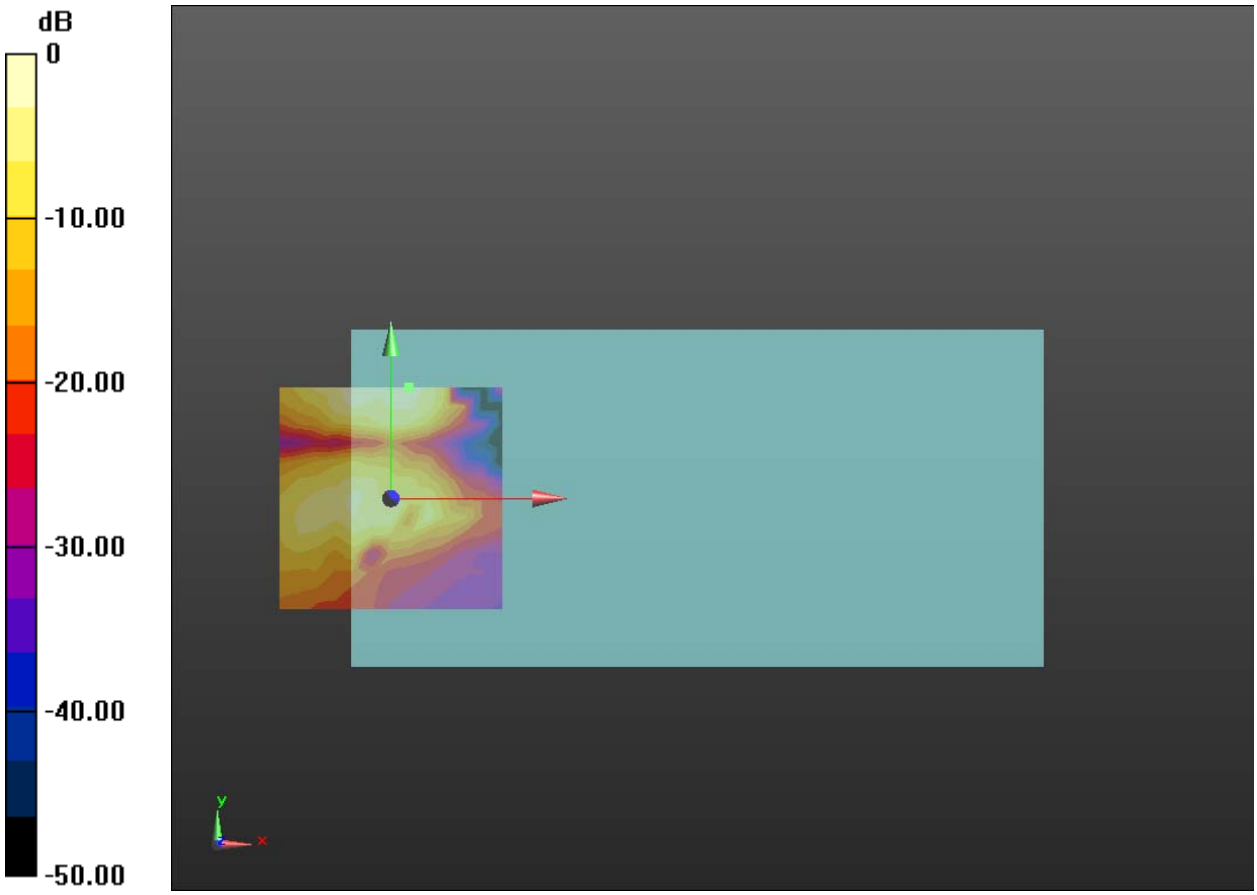

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Plot 66 T-Coil WIFI 2.4G: 802.11b, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10061 - CAB, IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:2.29034
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.11 dB
ABM1 comp = 7.85 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

802.11b HAC_TCoil_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.86 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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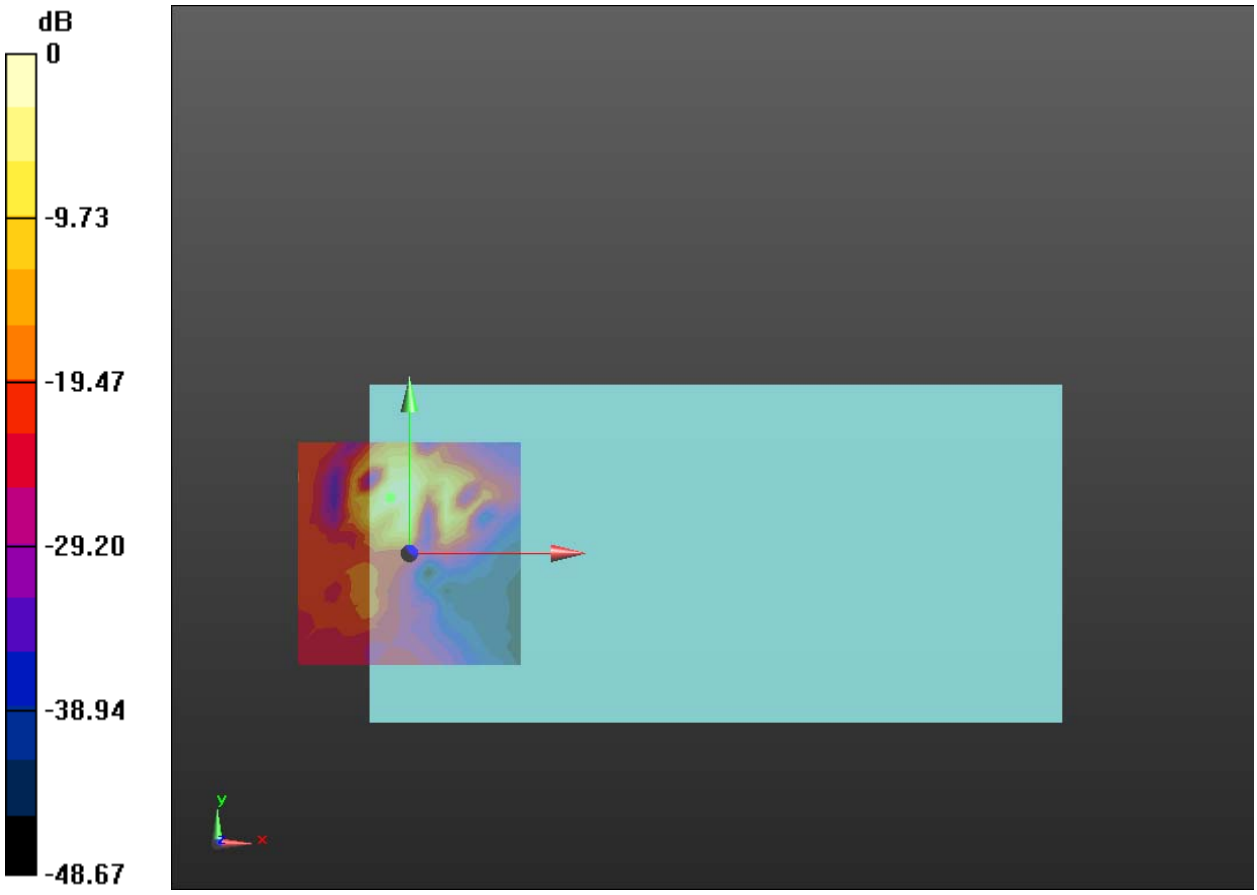

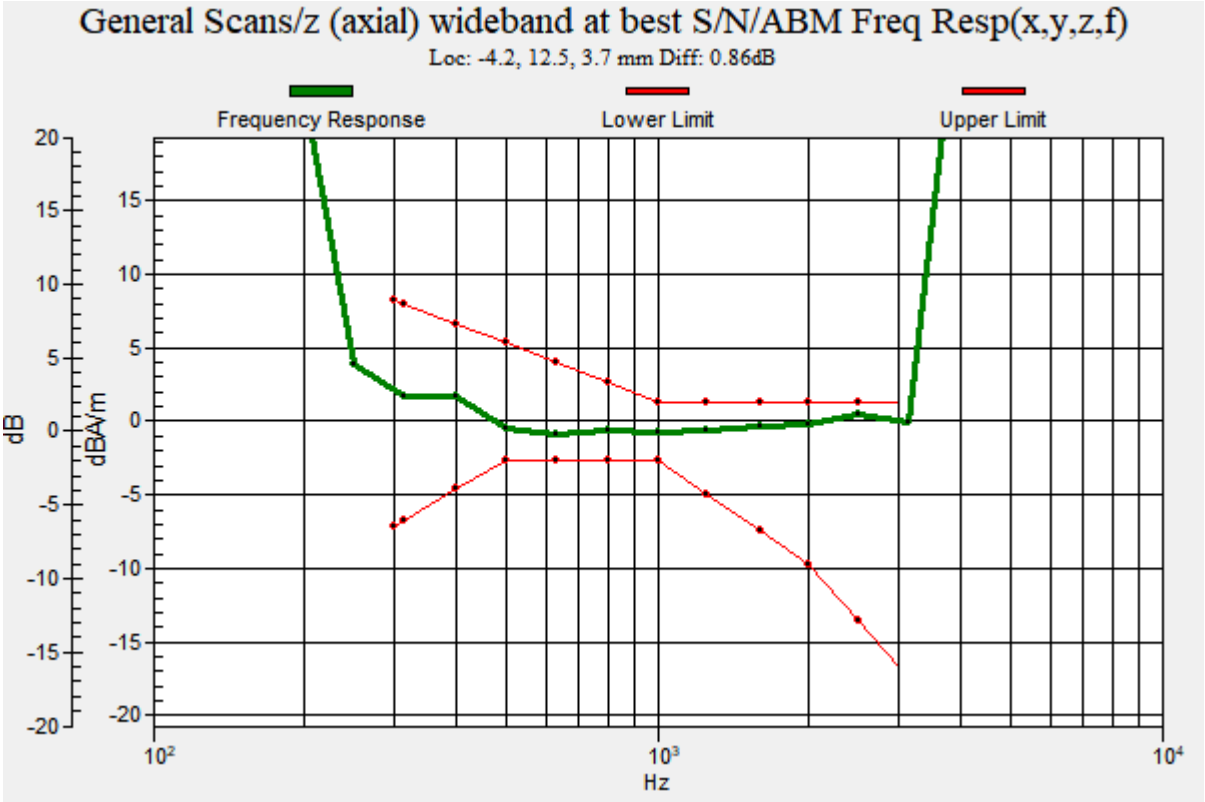

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Plot 67 T-Coil WIFI 2.4G: 802.11g, 6kbps, Y transversal

Date: 1/22/2021
Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission NB/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 44.43 dB
ABM1 comp = 4.90 dBA/m
BWC Factor = 0.17 dB
Location: 0, 20.8, 3.7 mm

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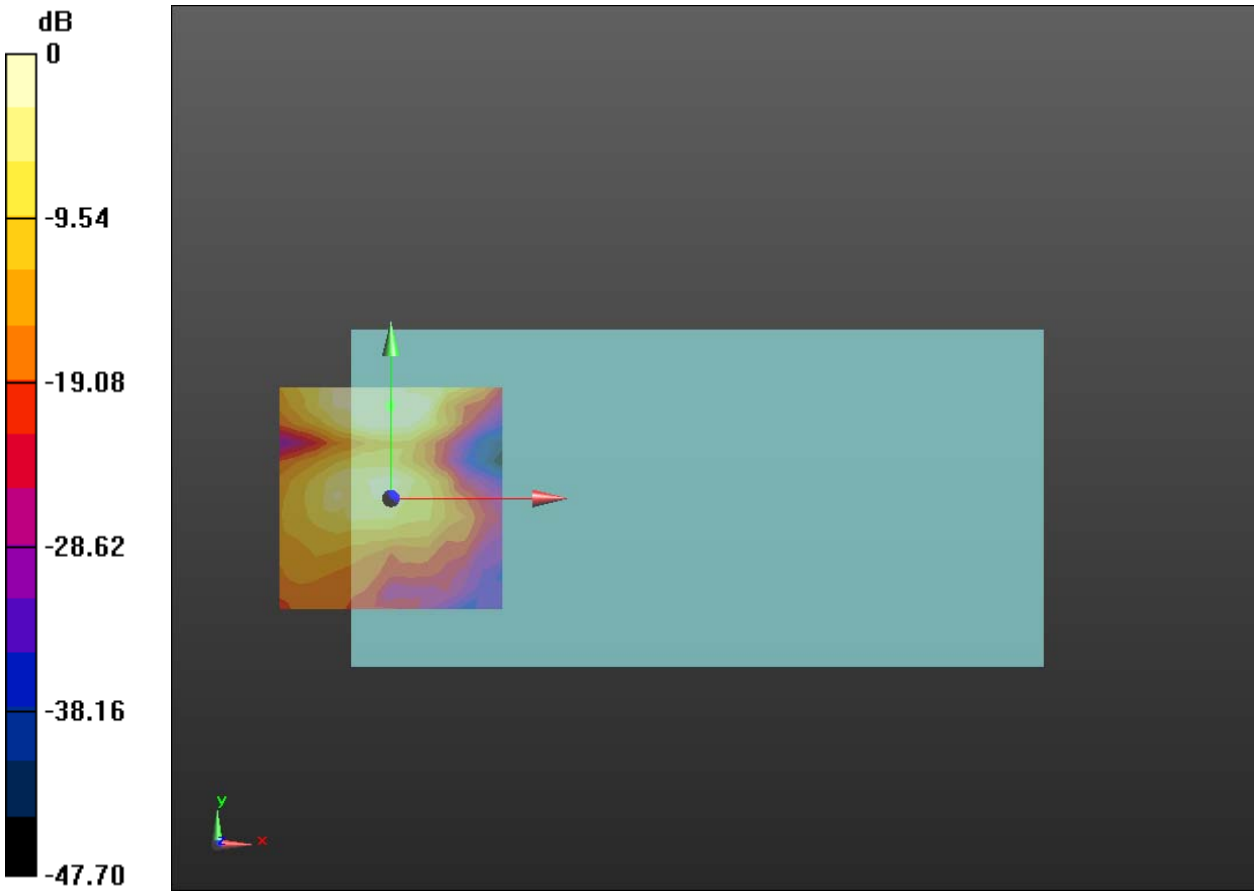

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Plot 68 T-Coil WIFI 2.4G: 802.11g, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10077 - CAB, IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps); Frequency: 2437 MHz;Duty Cycle: 1:12.5777
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11g HAC_TCoil_WD_Emission NB/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 46.10 dB
ABM1 comp = 9.33 dBA/m
BWC Factor = 0.17 dB
Location: -4.2, 12.5, 3.7 mm

802.11g HAC_TCoil_WD_Emission NB/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 0.81 dB
BWC Factor = 10.81 dB
Location: -4.2, 12.5, 3.7 mm

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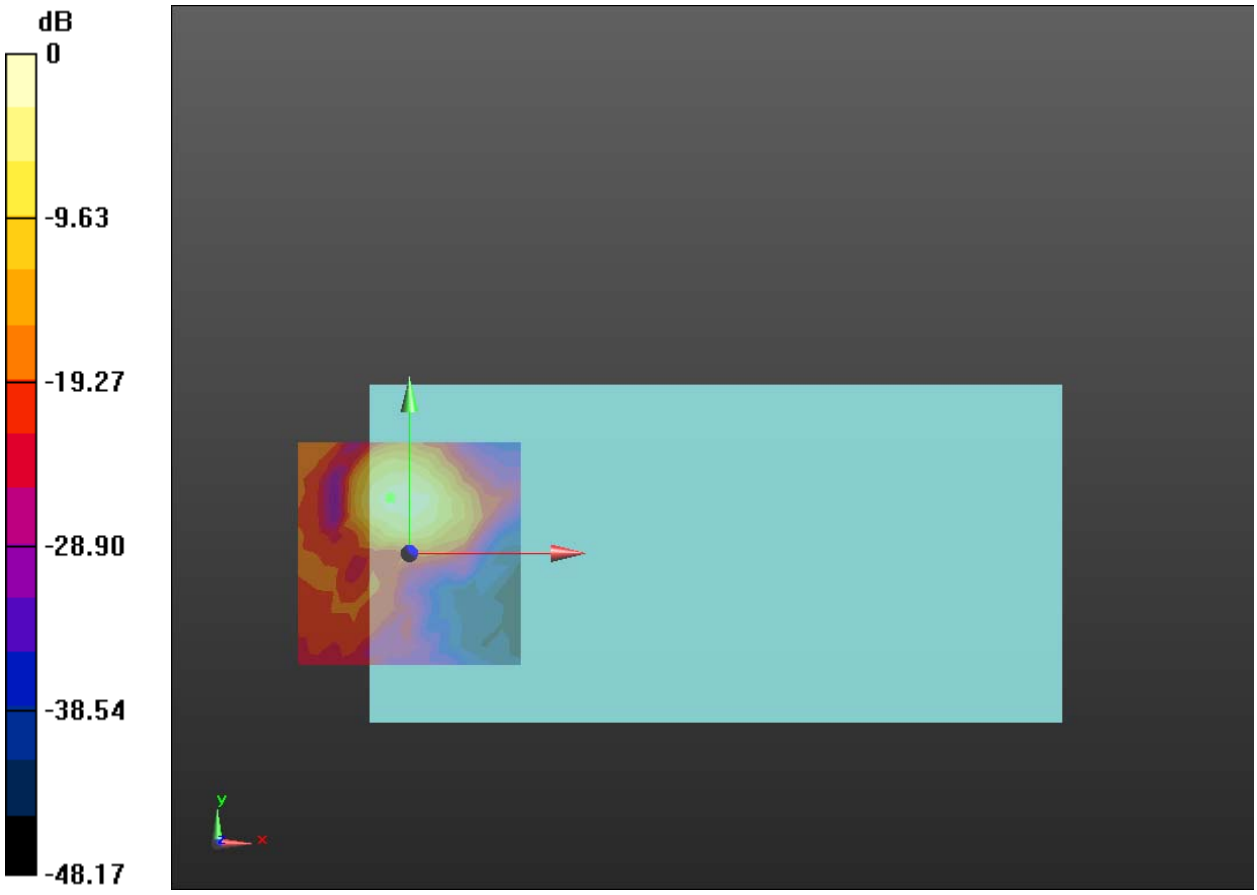

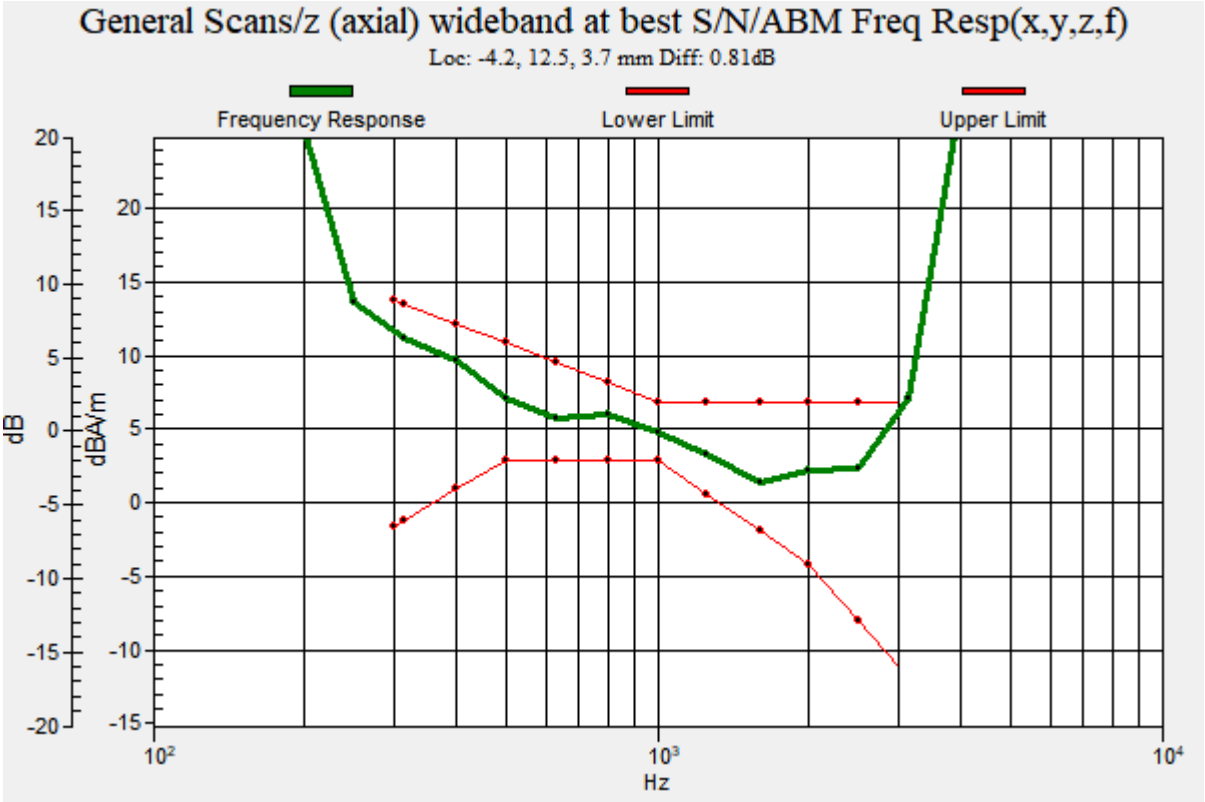

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Plot 69 T-Coil WIFI 2.4G: 802.11n, 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil(OTT)_WD_Emission/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 41.04 dB

ABM1 comp = 4.11 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 20.8, 3.7 mm

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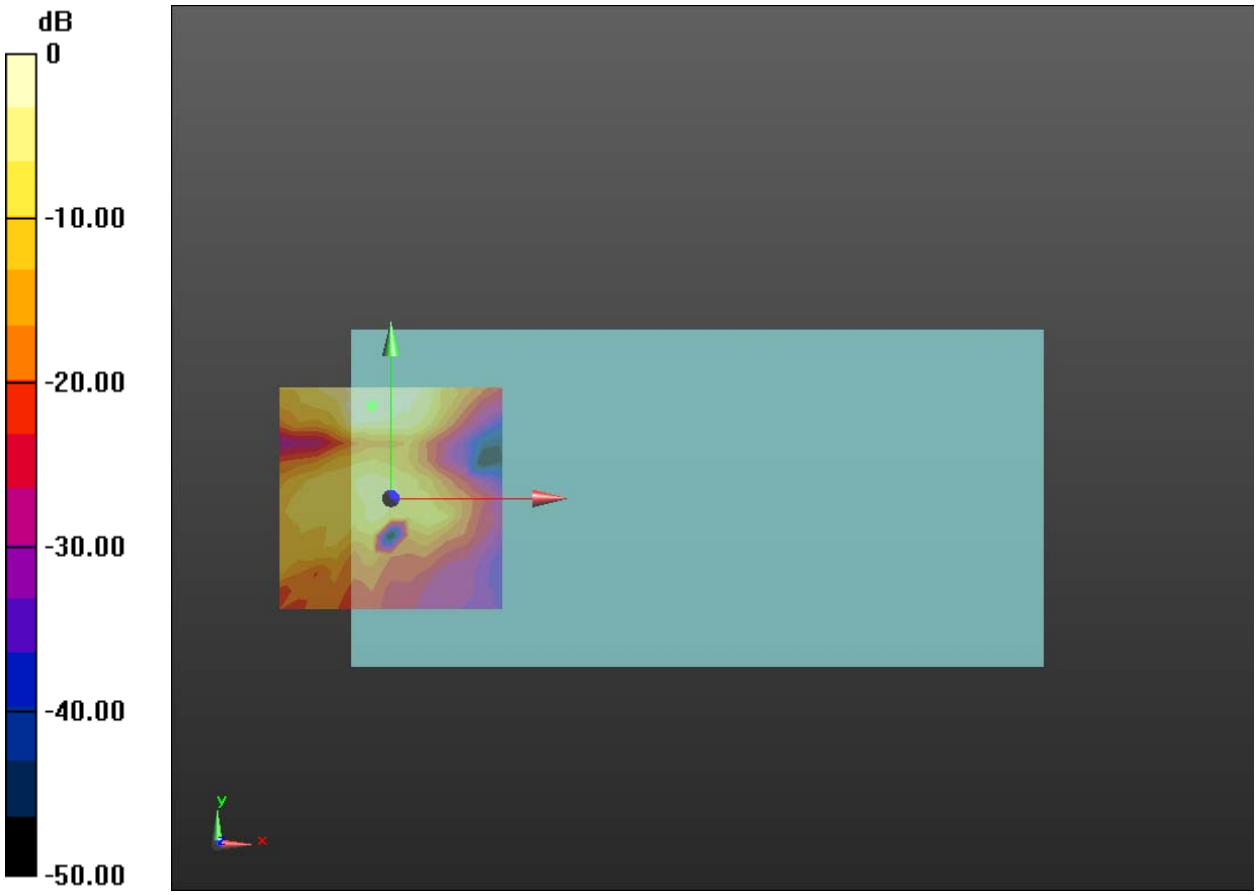

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Plot 70 T-Coil WIFI 2.4G: 802.11n, 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10591 - AAB, IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle); Frequency: 2437 MHz;Duty Cycle: 1:7.29122
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

802.11n HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 40.31 dB
ABM1 comp = 14.13 dBA/m
BWC Factor = 0.17 dB
Location: 0, 12.5, 3.7 mm

802.11n HAC_TCoil(OTT)_WD_Emission/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.03 dB
BWC Factor = 10.81 dB
Location: 0, 12.5, 3.7 mm

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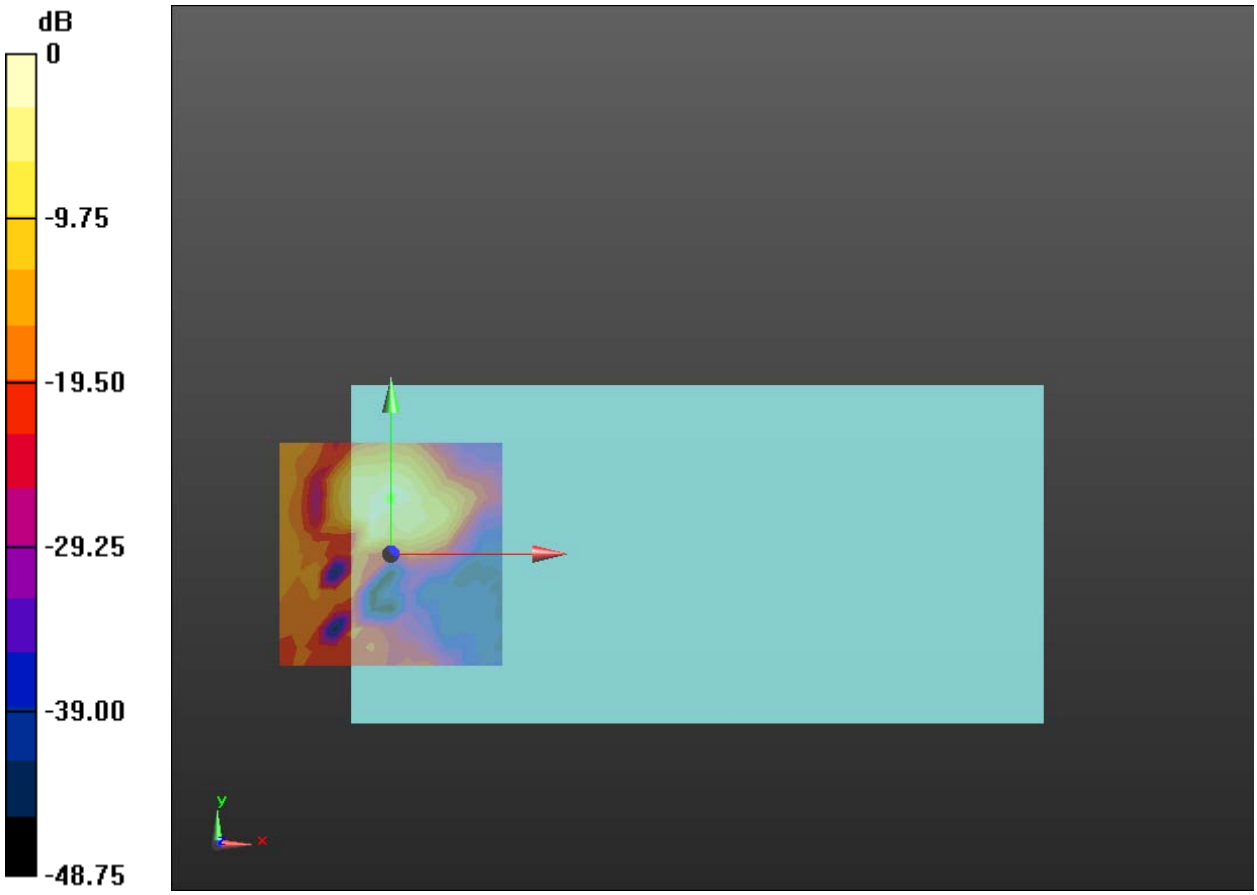

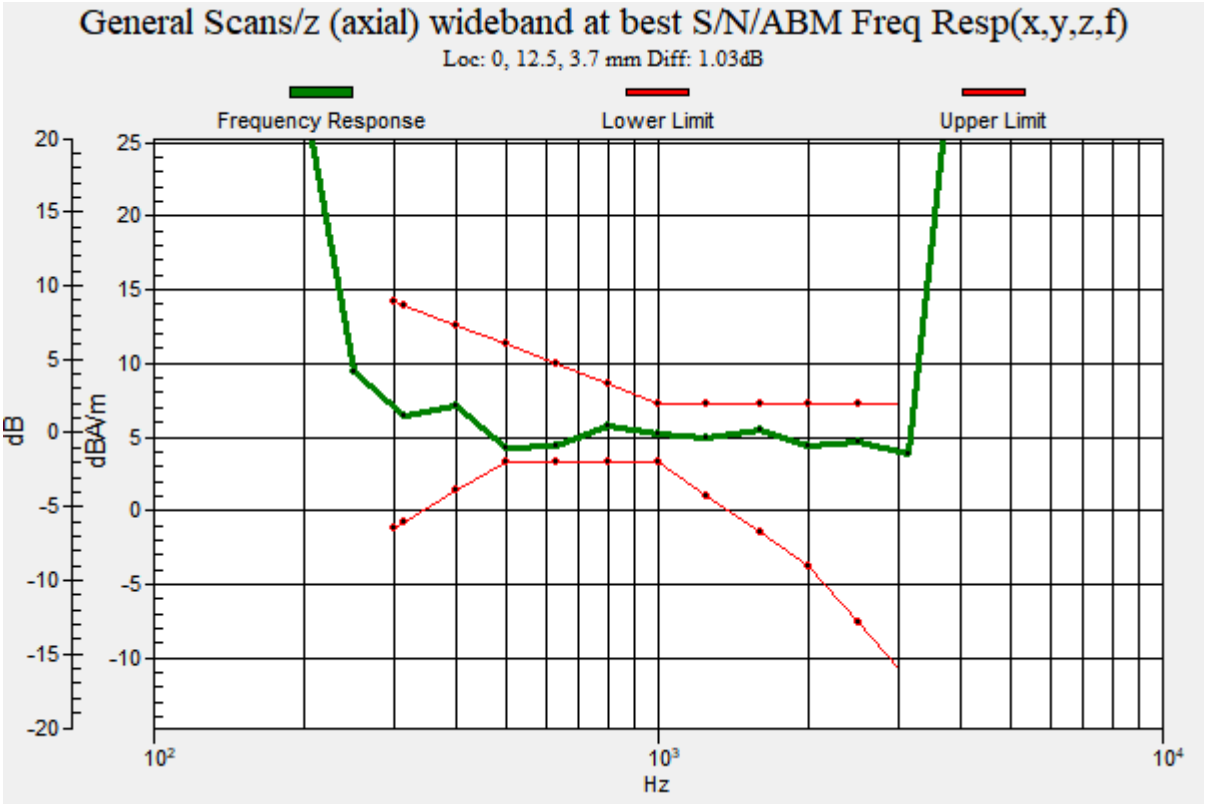

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Plot 71 T-Coil WIFI 5G: 802.11a (U-NII-1), 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC(OTT)_TCoil_WD_Emission 1/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 45.80 dB

ABM1 comp = 2.29 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 20.8, 3.7 mm

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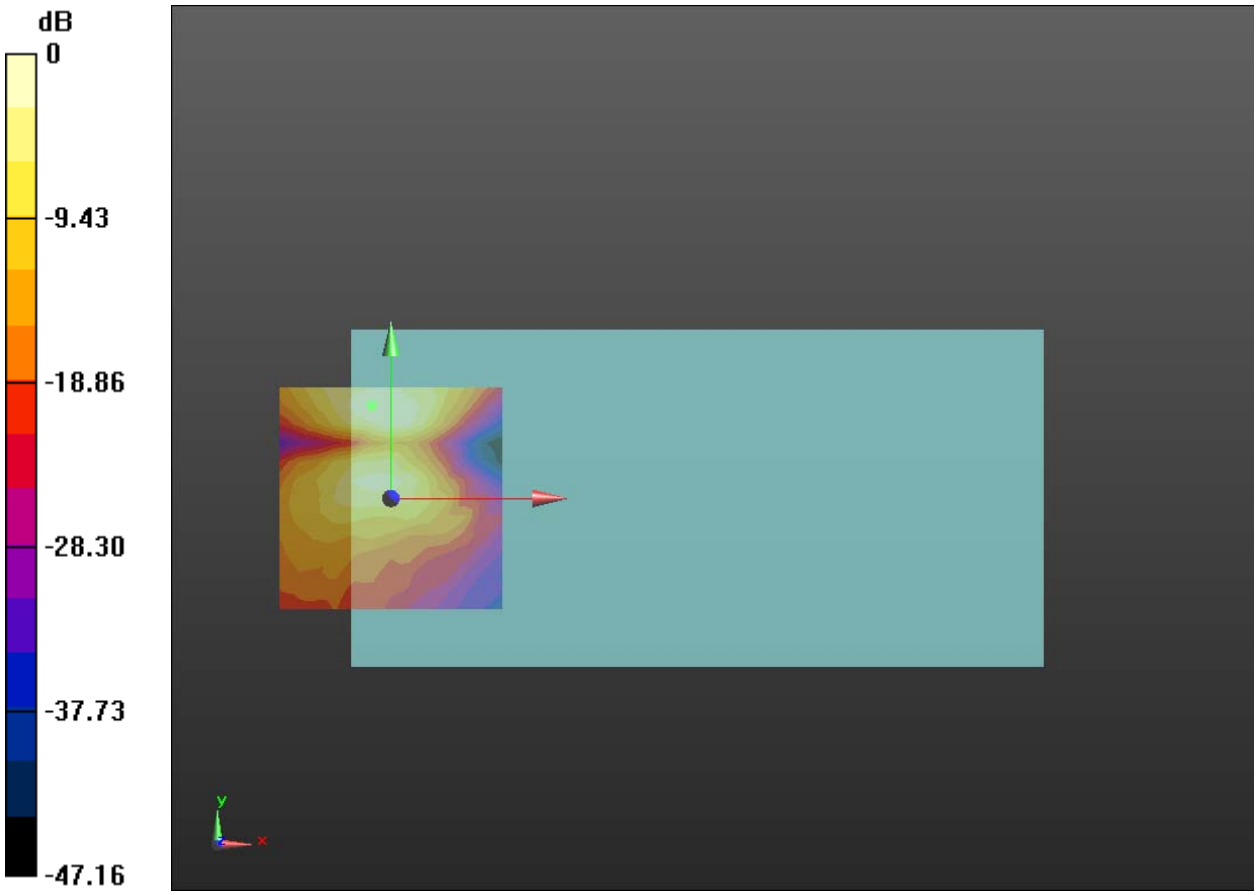

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Plot 72 T-Coil WIFI 5G: 802.11a (U-NII-1), 6kbps, Z Axial

Date: 1/22/2021
Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5220 MHz;Duty Cycle: 1:11.3789
Medium parameters used: σ = 0 S/m, ε_r = 1; ρ = 1 kg/m^3
Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃
Phantom section: TCoil Section
DASY5 Configuration:
Sensor-Surface: 4mm (Mechanical Surface Detection)
Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020
Electronics: DAE4 Sn1291; Calibrated: 2/24/2020
Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.12 (7470)

802.11a HAC(OTT)_TCoil_WD_Emission 1/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm
Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav
Output Gain: 29.07
Measure Window Start: 300ms
Measure Window Length: 1000ms
BWC applied: 0.17 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
ABM1/ABM2 = 46.21 dB
ABM1 comp = 13.95 dBA/m
BWC Factor = 0.17 dB
Location: 0, 8.3, 3.7 mm

802.11a HAC(OTT)_TCoil_WD_Emission 1/General Scans/z (axial) wideband at best S/N/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: 71.94
Measure Window Start: 300ms
Measure Window Length: 2000ms
BWC applied: 10.81 dB
Device Reference Point: 0, 0, -6.3 mm

Cursor:
Diff = 1.32 dB
BWC Factor = 10.81 dB
Location: 0, 8.3, 3.7 mm

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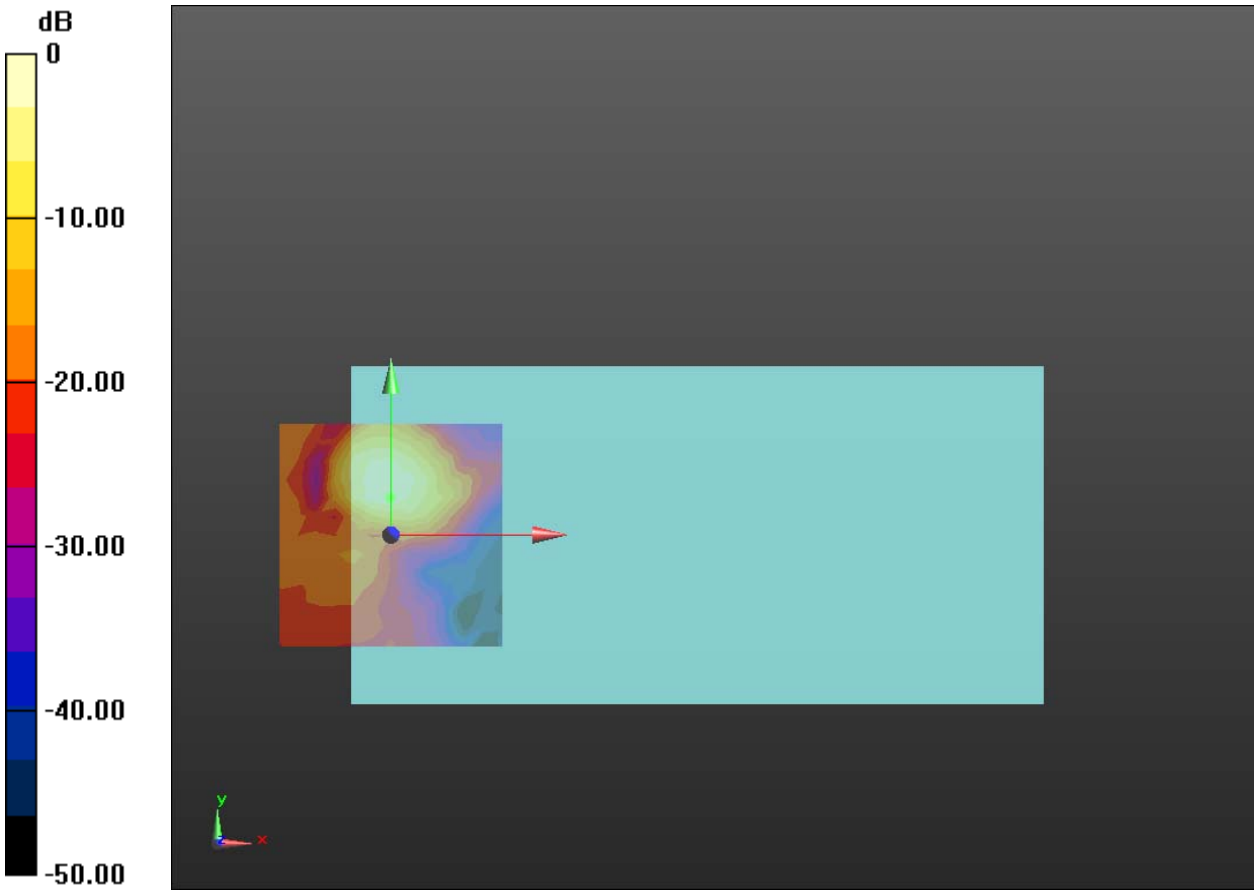

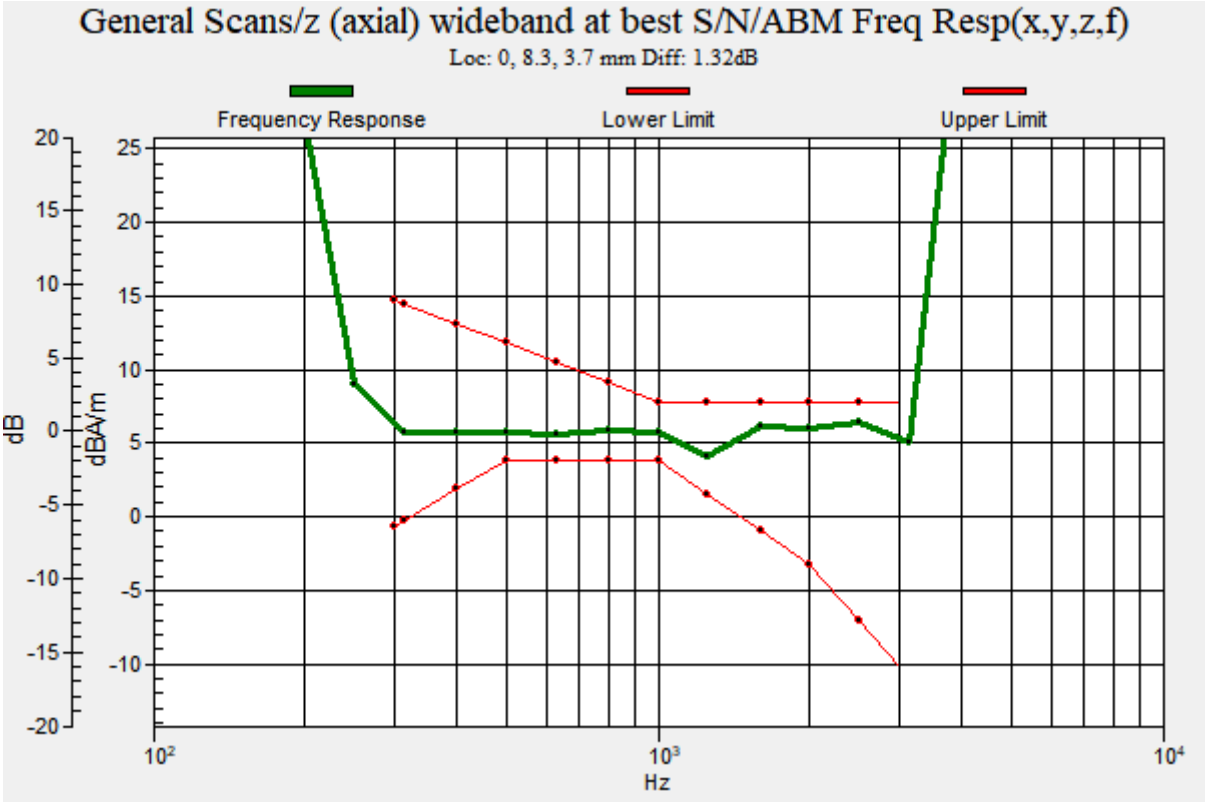

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Plot 73 T-Coil WIFI 5G: 802.11a (U-NII-3), 6kbps, Y transversal

Date: 1/22/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil(OTT)_WD_Emission - 3/General Scans/y (transversal) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 42.84 dB

ABM1 comp = 7.30 dBA/m

BWC Factor = 0.17 dB

Location: 0, 4.2, 3.7 mm

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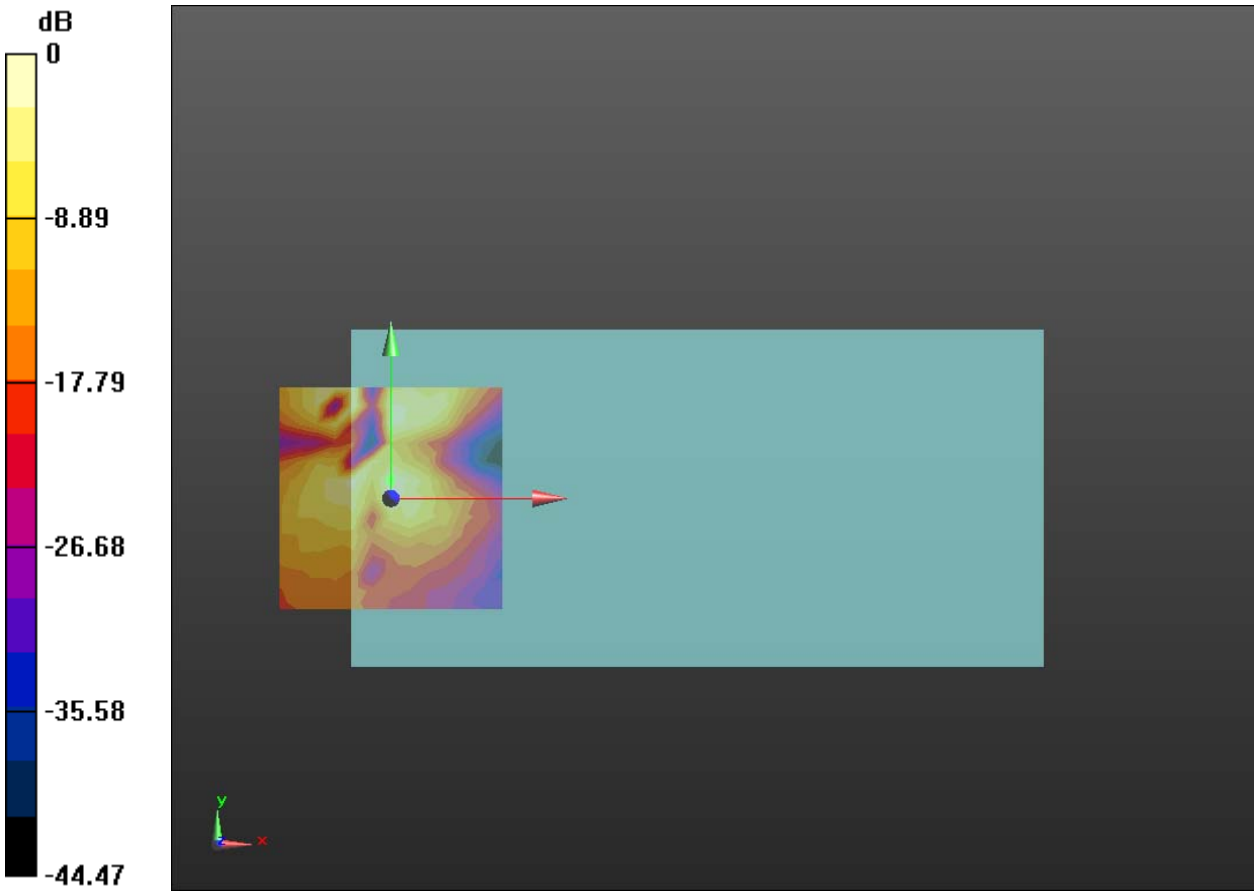

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Plot 74 T-Coil WIFI 5G: 802.11a (U-NII-3), 6kbps, Z Axial

Date: 1/22/2021

Communication System: UID 10069 - CAC, IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps); Frequency: 5785 MHz;Duty Cycle: 1:11.3789

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

Ambient Temperature:22.3 ℃ Liquid Temperature: 21.5℃

Phantom section: TCoil Section

DASY5 Configuration:

Sensor-Surface: 4mm (Mechanical Surface Detection)

Probe: AM1DV3 - 3082; ; Calibrated:2/27/2020

Electronics: DAE4 Sn1291; Calibrated: 2/24/2020

Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA

Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

802.11a HAC_TCoil(OTT)_WD_Emission - 3/General Scans/z (axial) 4.2mm 50 x 50/ABM SNR(x,y,z) (13x13x1): Measurement grid: dx=10mm, dy=10mm

Signal Type: Audio File (.wav) 48k_voice_1kHz_1s.wav

Output Gain: 29.07

Measure Window Start: 300ms

Measure Window Length: 1000ms

BWC applied: 0.17 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

ABM1/ABM2 = 40.51 dB

ABM1 comp = 8.97 dBA/m

BWC Factor = 0.17 dB

Location: -4.2, 12.5, 3.7 mm

802.11a HAC_TCoil(OTT)_WD_Emission - 3/General Scans/z (axial) wideband at best S/N/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: 71.94

Measure Window Start: 300ms

Measure Window Length: 2000ms

BWC applied: 10.81 dB

Device Reference Point: 0, 0, -6.3 mm

Cursor:

Diff = 0.80 dB

BWC Factor = 10.81 dB

Location: -4.2, 12.5, 3.7 mm

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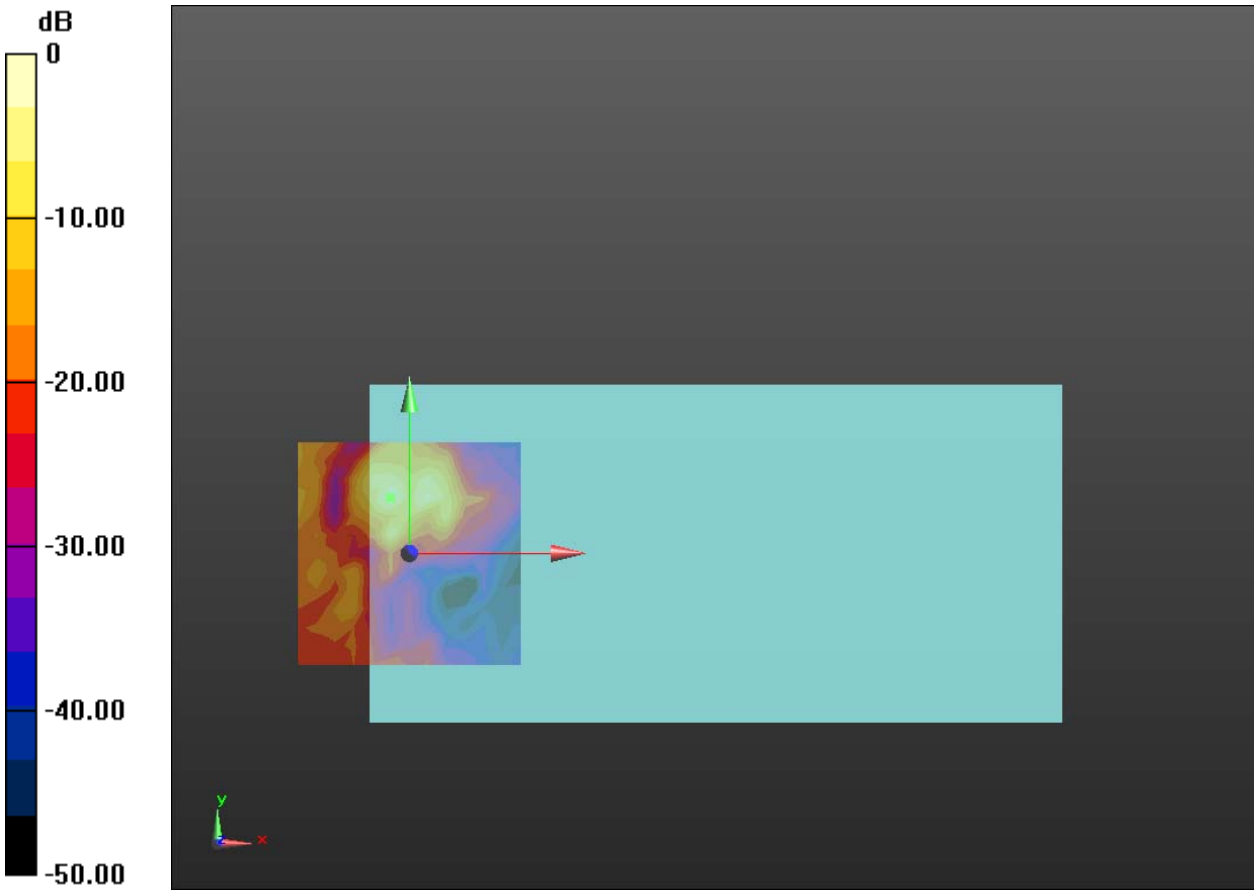

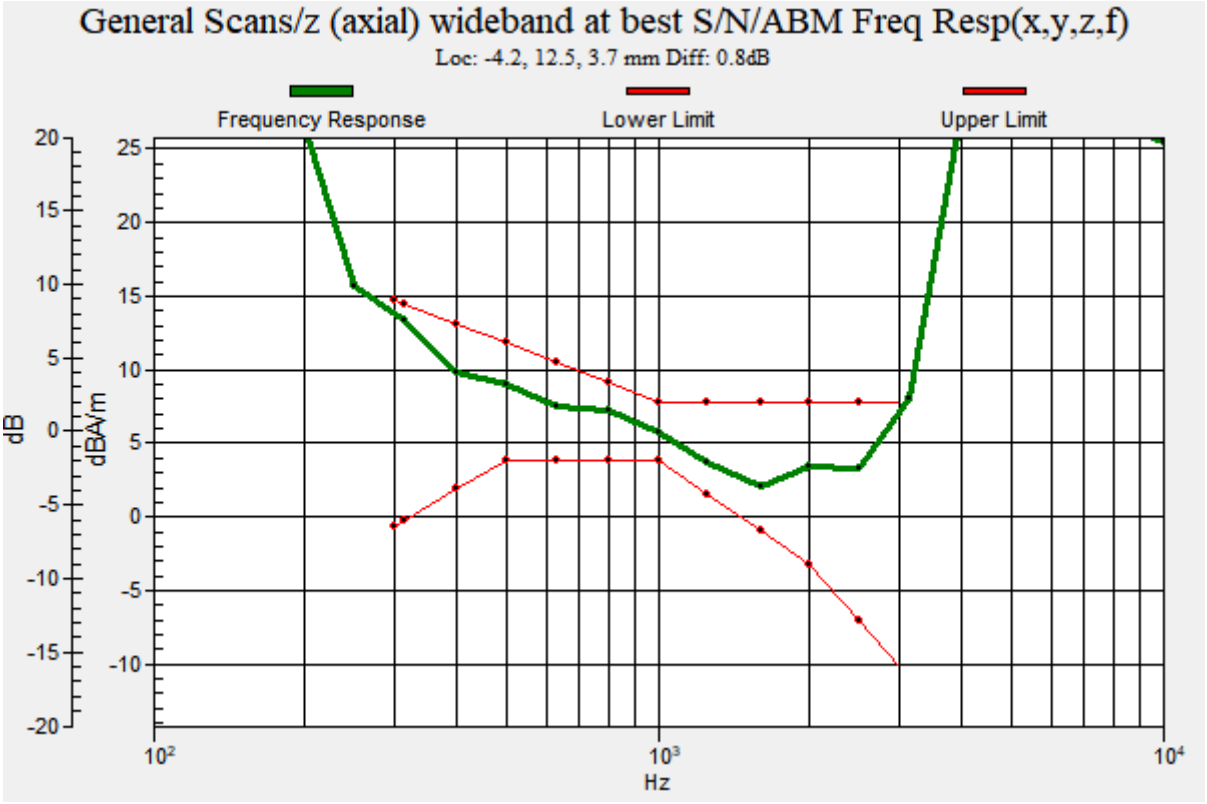

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ANNEX C: Probe Calibration Certificate

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 0108

Client TA-SH (Auden) **Certificate No: AM1DV3-3082_Feb20**

CALIBRATION CERTIFICATE

Object	AM1DV3 - SN: 3082
Calibration procedure(s)	QA CAL-24.v4 Calibration procedure for AM1D magnetic field probes and TMFS in the audio range
Calibration date:	February 27, 2020

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	03-Sep-19 (No. 25949)	Sep-20
Reference Probe AM1DV2	SN: 1008	10-Dec-19 (No. AM1DV2-1008_Dec19)	Dec-20
DAE4	SN: 781	27-Dec-19 (No. DAE4-781_Dec19)	Dec-20

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
AMCC	SN: 1050	01-Oct-13 (in house check Oct-17)	Oct-20
AMMI Audio Measuring Instrument	SN: 1062	26-Sep-12 (in house check Oct-17)	Oct-20

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 27, 2020

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Certificate No: AM1DV3-3082_Feb20 Page 1 of 3

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[References

[1] ANSI-C63.19-2007
American National Standard for Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
[2] ANSI-C63.19-2011
American National Standard, Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids.
[3] DASY5 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+2]. 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+2] 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 [3], 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.

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AM1D probe identification and configuration data

Item	**AM1DV3** Audio Magnetic 1D Field Probe
Type No	SP AM1 001 BA
Serial No	**3082**

Overall length	296 mm
Tip diameter	6.0 mm (at the tip)
Sensor offset	3.0 mm (centre of sensor from tip)
Internal Amplifier	20 dB

Manufacturer / Origin	Schmid & Partner Engineering AG, Zurich, Switzerland

Calibration data

Connector rotation angle	(in DASY system)	**8.6 °**	+/- 3.6 ° (k=2)
Sensor angle	(in DASY system)	**0.39 °**	+/- 0.5 ° (k=2)
Sensitivity at 1 kHz	(in DASY system)	**0.00739 V/(A/m)**	+/- 2.2 % (k=2)

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

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ANNEX D: DAE4 Calibration Certificate

In Collaboration with
s p e a g
CALIBRATION LABORATORY
Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com Http://www.chinattl.cn

中国认可
国际互认
校准
CALIBRATION
CNAS L0570

Client : TA(Shanghai) Certificate No: Z20-60078

CALIBRATION CERTIFICATE

Object	DAE4 - SN: 1291
Calibration Procedure(s)	FF-Z11-002-01 Calibration Procedure for the Data Acquisition Electronics (DAEx)
Calibration date:	February 24, 2020

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)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	24-Jun-19 (CTTL, No.J19X05126)	Jun-20

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: February 26, 2020

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Certificate No: Z20-60078 Page 1 of 3

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CALIBRATION LABORATORY
Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
E-mail: cttl@chinattl.com Http://www.chinattl.cn

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 report provide only calibration results for DAE, it does not contain other performance test results.

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E-mail: cttl@chinattl.com Http://www.chinattl.cn

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	402.573 ± 0.15% (k=2)	403.248 ± 0.15% (k=2)	403.162 ± 0.15% (k=2)
Low Range	3.97616 ± 0.7% (k=2)	3.98005 ± 0.7% (k=2)	3.97509 ± 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	166.5° ± 1 °

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