



**SAR Evaluation Report
for
FCC KDB Publication 616217 D04 SAR for laptop and
tablets v01r01 and 47CFR § 2.1093**

Report No.: SESF1410008

Client : Shenzhen Autel Intelligent Technology Corp., Ltd.
Product : AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM
Trade Mark : 
Model : MaxiSys Elite
FCC ID : WQ8MAXISYSELITE
Manufacturer/ supplier : Shenzhen South Digital Limited
Test Date : October 29th, 2014
Date of issue : November 03rd 2014
Test Result : ☒ Compliance ☐ Not Compliance

Statement of Compliance:

The SAR values measured for the test sample are below the maximum recommended level of 1.6 W/kg averaged over any 1g tissue according to FCC KDBs and IEEE Std1528-2013.

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

Total number of pages of this test report: 82 pages

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to believe the sellers from their legal and/or contractual obligations.

Test Engineer:



Leo Chen

Approved by:



Miro Chueh



Applicant Information

Client	:	Shenzhen Autel Intelligent Technology Corp., Ltd.
Address	:	8th Floor, Building B1, Zhiyuan, xueyuan road, Xili, Nanshan, Shenzhen, 518055, China
Manufacturer	:	Shenzhen Autel Intelligent Technology Corp., Ltd.
Address	:	8th Floor, Building B1, Zhiyuan, xueyuan road, Xili, Nanshan, Shenzhen, 518055, China
EUT	:	AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM
Model No.	:	MaxiSys Elite
Standard Applied	:	FCC KDB Publication 616217 D04 SAR for laptop and tablets v01r01 and 47CFR § 2.1093
Laboratory	:	CERPASS TECHNOLOGY CORP. No.66, Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China.
Max. reported SAR	:	Max. Reported SAR (1g) 2.4GHz WLAN: 802.11b 2462MHz 0.541W/kg 5.2GHz WLAN: 802.11a 5240MHz 1.19W/kg 5.8GHz WLAN: 802.11a 5240MHz 1.164W/kg Bluetooth: 2441MHz 0.44W/kg
Max. Simultaneous SAR	:	2.4GHz WLAN + Bluetooth: 0.94W/kg 5.2GHz WLAN + Bluetooth: 1.589W/kg 5.8GHz WLAN + Bluetooth: 1.563W/kg



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1. General Information

1.1. Executive Summary

The EUT is a AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM with operations in 2450MHz frequency ranges. It contains WIFI and BT functions for SAR testing. The measurement was conducted by CERPASS, carried out with the dosimetric assessment system under DASY5. And it conducts according to the IEEE Std. 1528-2013 and FCC KDBs for SAR evaluating compliance.

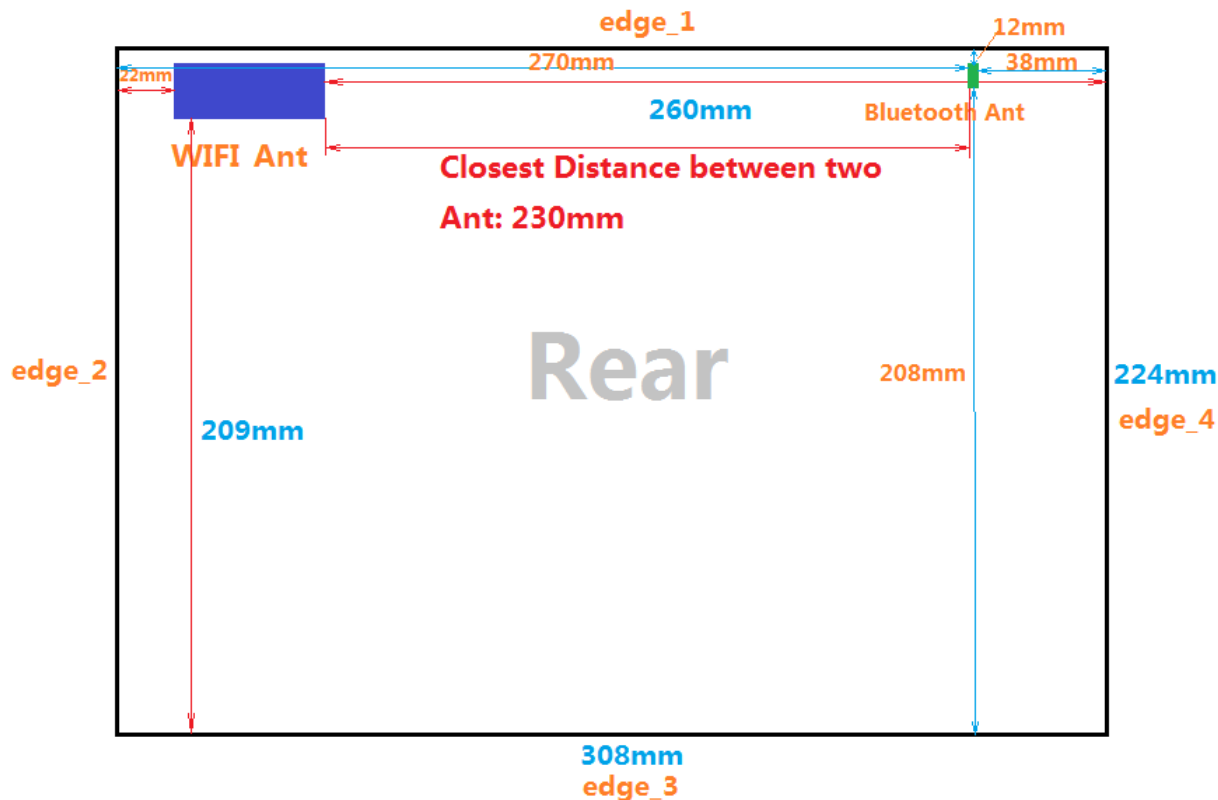
1.2. Description of Equipment under Test

Product Name	AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM
Model No.	MaxiSys Elite
Device Category	Portable
RF Exposure Environment	Uncontrolled
Bluetooth	
Bluetooth Frequency	2402~2480MHz
Channel numbers	79
Channel separation	1MHz
Modulation technology	GFSK, Pi/4 QPSK, 8DPSK
Antenna Type	Integral
Antenna gain	0.5dBi (declare by Applicant)
Wi-Fi	
Wi-Fi Frequency	2412MHz~2472MHz (802.11b/802.11g/802.11n(HT20)@2.4G band) 2422MHz~2462MHz (802.11n(H40) @ 2.4G band) 5180MHz~5240MHz, 5745MHz~5825MHz(802.11a/802.11n(HT20)/ 802.11ac(HT20)@ 5G band) 5190MHz ~ 5230MHz, 5755MHz~5795MHz(802.11n(H40)/802.11ac (HT40) @ 5G band) 5210MHz, 5775MHz(802.11ac(HT80) @ 5G band)
Channel Separation	5MHz @ 2.4G band 20MHz for 802.11a/802.11n(HT20)/ 802.11ac(HT20) @ 5G band 40MHz for 802.11n(HT40)/ 802.11ac(HT40) @ 5G band 80MHz for 802.11ac(HT80) @ 5G band



1.3. Antenna Location and Test Configuration

Rear of EUT



Mode	SAR Test Positions					
	Back	Front	Edge_1	Edge_2	Edge_3	Edge_4
WIFI(2.4GHz, 5GHz)	Yes	No	Yes	Yes	No	No
Bluetooth	Yes	No	Yes	No	No	No

1.4. Simultaneous Transmission Configurations

Simultaneous Transmission Scenarios

No.	Simultaneous Transmit Configurations	FCC KDB 616217	Note
1.	2.4GHz WIFI + 2.4GHz Bluetooth	YES	N/A
2.	5GHz WIFI + 2.4GHz Bluetooth	YES	N/A

Note: According to FCC KDB Publication 447498 D01v05r02, transmitter are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneously transmission analysis.



1.5. Power Reduction for SAR

There is no power reduction used for any band/mode implemented in this device for SAR purposes.

1.6. Environment Condition

Item	Target	Measured
Ambient Temperature(°C)	18~25	21.5±2
Temperature of Simulant(°C)	20~22	21±2
Relative Humidity(%RH)	30~70	52

1.7. Test Standards

1. FCC KDB Publication 447498 D01 General RF Exposure Guidance v05r02
2. FCC KDB Publication 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03
3. FCC KDB Publication 616217 D04 SAR for laptop and tablets v01r01
4. FCC KDB Publication 248227 D01 SAR measurement for 802 11 a b g v01r02
5. IEEE 1528-2013

1.8. RF Exposure Limits

Human Exposure	Basic restrictions for electric, magnetic and electromagnetic fields. (Unit in mW/ or W/kg)
Spatial Peak SAR ¹ (Head and Body)	1.60
Spatial Average SAR ² (Whole Body)	0.08
Spatial Peak SAR ³ (Arms and Legs)	4.00

Notes:

1. The Spatial Peak value of the SAR averaged over any 1gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over appropriate averaging time.



2. The SAR Measurement Procedure

2.1. System Performance Check

2.1.1 Purpose

1. To verify the simulating liquids are valid for testing.
2. To verify the performance of testing system is valid for testing.

2.1.2 Tissue Dielectric Parameters for Head and Body Phantoms

Target Frequency	Head		Body	
(MHz)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
850	41.5	0.92	55.2	0.99
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5200	36.0	4.66	49.0	5.30
5800	35.3	5.27	48.2	6.00

(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000 \text{ kg/m}^3$)



2.1.3 Tissue Calibration Result

➤ The dielectric parameters of the liquids were verified prior to the SAR evaluation using DASY5 Dielectric Assessment Kit and Agilent Vector Network Analyzer E5071C.

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
2450MHz	Reference result ± 5% window	52.7 50.07 to 55.34	1.95 1.85 to 2.05	N/A
	29-10-2014	51.70	1.92	21.0
5200MHz	Reference result ± 5% window	49.0 46.55 to 51.45	5.30 5.035 to 5.565	N/A
	29-10-2014	49.40	5.27	
5800MHz	Reference result ± 5% window	48.2 45.79 to 50.61	6.00 5.7 to 6.3	N/A
	29-10-2014	48.48	6.05	

➤ Refer to KDB 865664 D01 v01r03, The depth of body tissue-equivalent liquid in a phantom must be ≥ 15.0 cm with $\leq \pm 0.5$ cm variation for SAR measurements ≤ 3 GHz and ≥ 10.0 cm with $\leq \pm 0.5$ cm variation for measurements > 3 GHz.

2.1.4 System Performance Check Procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and the system performance check. They are read-only document files and destined as fully defined but unmeasured masks, so the finished system performance check must be saved under a different name. The system performance check document requires the SAM Twin Phantom or ELI4 Phantom, so the phantom must be properly installed in your system. (User defined measurement procedures can be created by opening a new document or editing an existing document file). Before you start the system performance check, you need only to tell the system with which components (probe, medium, and device) you are performing the system performance check; the system will take care of all parameters.

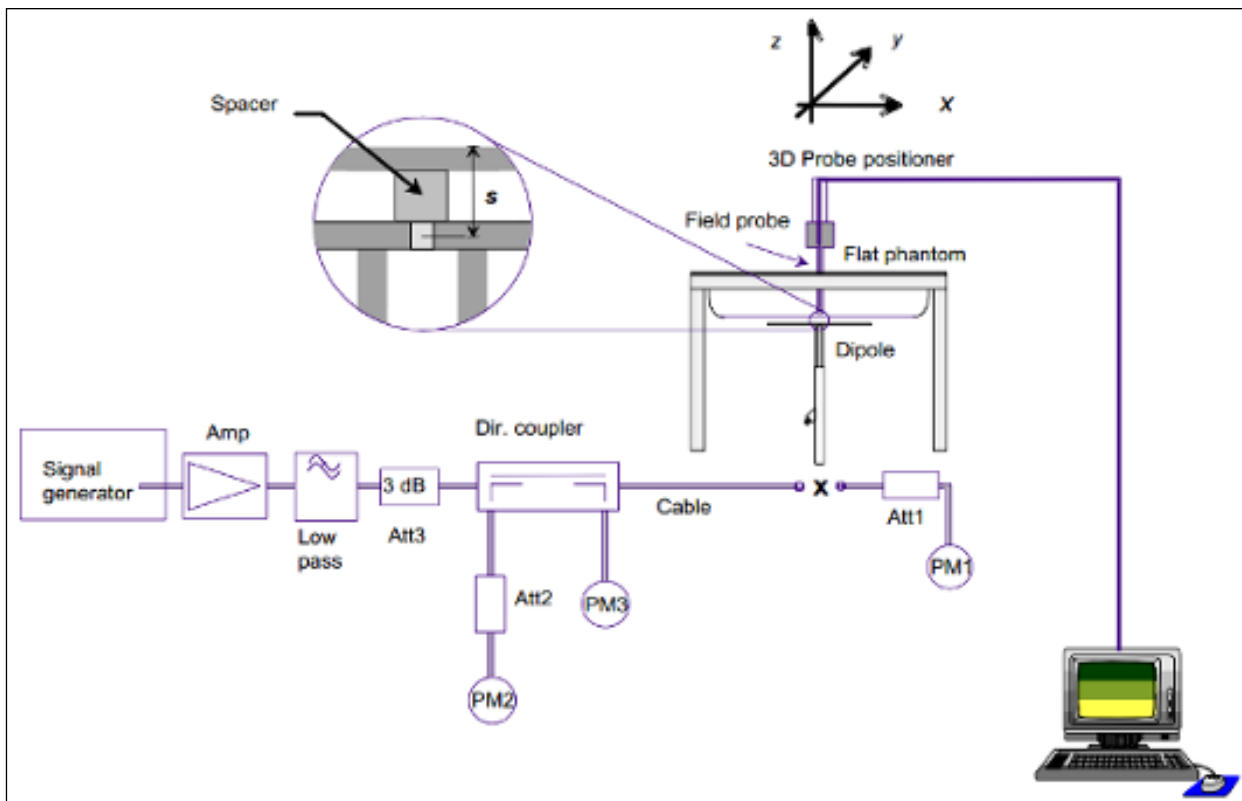
- **The Power Reference Measurement and Power Drift Measurement** jobs are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the Dipole output power. If it is too high (above ± 0.2 dB), the system performance check should be repeated;

- **The Surface Check** job tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1 mm). In that case it is better to abort the system performance check and stir the liquid;



- **The Area Scan** job measures the SAR above the dipole on a plane parallel to the surface. It is used to locate the approximate location of the peak SAR. The proposed scan uses large grid spacing for faster measurement; due to the symmetric field, the peak detection is reliable;
- **The Zoom Scan** job measures the field in a volume around the peak SAR value assessed in the previous Area Scan job (for more information see the application note on SAR evaluation). If the system performance check gives reasonable results. The dipole input power(forward power) was 250mW, 1 g and 10 g spatial average SAR values normalized to 1W dipole input power give reference data for comparisons and it's equal to 10x(dipole forward power). The next sections analyze the expected uncertainties of these values, as well as additional checks for further information or troubleshooting.

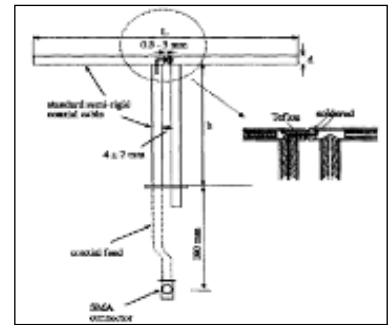
2.1.5 System Performance Check Setup





2.1.6 Validation Dipoles

The dipoles use is based on the IEEE Std.1528-2013 and FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03 standard, and is complied with mechanical and electrical specifications in line with the requirements of both EN62209-1 and EN62209-2. The table below provides details for the mechanical and electrical specifications for the dipoles.



2.1.7 Result of System Performance Check: Valid Result

System Performance Check at 2450MHz, 5200MHz and 5800MHz for Body.

Validation Dipole: D2450V2-SN 914

Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
2450 MHz	Reference result	51.5	23.9	21.0
	± 10% window	46.35 to 56.65	21.51 to 26.29	
	29-10-2014	51.2	23.4	

Validation Dipole: D5GHzV2-SN1156

Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5200MHz	Reference result	73.7	20.6	21.0
	± 10% window	66.33 to 81.07	18.54 to 22.66	
	29-10-2014	74.5	20.9	
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5800MHz	Reference result	73.1	20.1	21.0
	± 10% window	65.79 to 80.41	18.09 to 22.11	
	29-10-2014	72.4	20.2	

Note: All SAR values are normalized to 1W forward power.



2.2. Test Requirements

2.2.1 Test Procedures

Step 1 Setup a Connection

First, engineer should record the conducted power before the test. Then establish a call in handset at the maximum power level with a base station simulator via air interface, or make the EUT estimate by itself in testing band. Place the EUT to the specific test location. After the testing, must export SAR test data by SEMCAD. Then writing down the conducted power of the EUT into the report, also the SAR values tested.

Step 2 Power Reference Measurements

To measure the local E-field value at a fixed location which value will be taken as a reference value for calculating a possible power drift.

Step 3 Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01v01r01

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

**Step 4 Zoom Scan**

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 v01r03

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

Step 5 Power Drift Measurements

Repetition of the E-field measurement at the fixed location mentioned in Step 1 to make sure the two results differ by less than ± 0.2 dB.

2.2.2 Positions for Tablet & Laptop SAR testing

Per FCC KDB 616217 D04v01r01, the back surface and edges of the tablet mode should be tested for SAR compliance with the tablet touching the phantom and back surface for laptop mode. The SAR Exclusion Threshold in KDB 447498 D01v05r02 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.



2.2.3 Test Channel Choose

Mode	GHz	Channel	Turbo Channel	“Default Test Channels”			
				§15.247		UNII	
				802.11b	802.11g		
802.11 b/g	2.412	1 [#]		√	▽		
	2.437	6	6	√	▽		
	2.462	11 [#]		√	▽		
802.11a	5.18	36	42 (5.21 GHz)			√	
	5.20	40					*
	5.22	44					*
	5.24	48	50 (5.25 GHz)			√	
	5.26	52				√	
	5.28	56	58 (5.29 GHz)				*
	5.30	60					*
	5.32	64				√	
	5.500	100	Unknown				*
	5.520	104				√	
	5.540	108					*
	5.560	112					*
	5.580	116				√	
	5.600	120					*
	5.620	124				√	
	5.640	128					*
	5.660	132					*
	5.680	136				√	
	5.700	140					*
	5.745	149		√		√	
	5.765	153	152 (5.76 GHz)		*		*
	5.785	157		√			*
	5.805	161	160 (5.80 GHz)		*	√	
	5.825	165		√			

Table 1: “Default Test Channels”

- √ = “default test channels”
- * = possible 802.11a channels with maximum average output > the “default test channels”
- ▽ = possible 802.11g channels with maximum average output ¼ dB ≥ the “default test channels”
- # = when output power is reduced for channel 1 and/or 11 to meet restricted band requirements the highest output channels closest to each of these channels should be tested

1. Per KDB 248227 D01v01r02, SAR is not required for 802.11g/HT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

2. SAR is not required for Channels 12 and 13, if the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.



3. DASY5 Measurement System

DASY5 Measurement System

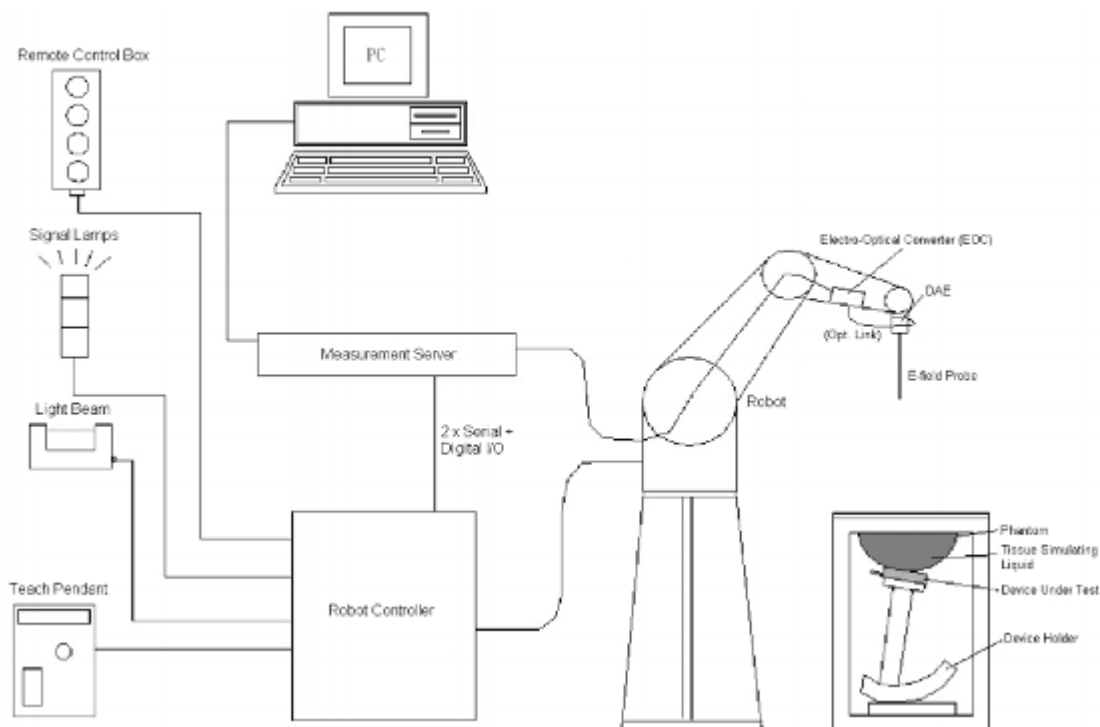


Figure 2.1 SPEAG DASY5 System Configurations

The DASY5 system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software
- A data acquisition electronic(DAE)attached to the robot arm extension
- A dosimetric probe equipped with an optical surface detector system
- The electro-optical converter(ECO)performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning
- A computer operating Windows 7
- DASY5 software
- Remote control with teach pendant additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom
- A device holder
- Tissue simulating liquid
- Dipole for evaluating the proper functioning of the system



3.1. Uncertainty of Inter-/Extrapolation and Averaging

In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY5 allows the generation of measurement grids which are artificially predefined by analytically based test functions. Therefore, the grids of area scans and zoom scans can be filled with uncertainty test data, according to the SAR benchmark functions of IEEE 1528. The three analytical functions shown in equations as below are used to describe the possible range of the expected SAR distributions for the tested handsets. The field gradients are covered by the spatially flat distribution f1, the spatially steep distribution f3 and f2 accounts for H-field cancellation on the phantom/tissue surface.

$$f_1(x, y, z) = Ae^{-\frac{z}{2a}} \cos^2 \left(\frac{\pi}{2} \frac{\sqrt{x'^2 + y'^2}}{5a} \right)$$

$$f_2(x, y, z) = Ae^{-\frac{z}{a}} \frac{a^2}{a^2 + x'^2} \left(3 - e^{-\frac{2z}{a}} \right) \cos^2 \left(\frac{\pi}{2} \frac{y'}{3a} \right)$$

$$f_3(x, y, z) = A \frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2} \left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a + 2z)^2} \right)$$

3.2. DASY5 E-Field Probe

The SAR measurement is conducted with the dosimetric probe manufactured by SPEAG. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528, EN 62209-1, IEC 62209, etc.) under ISO 17025. The calibration data are in Appendix D.

Model	EX3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 μ W/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

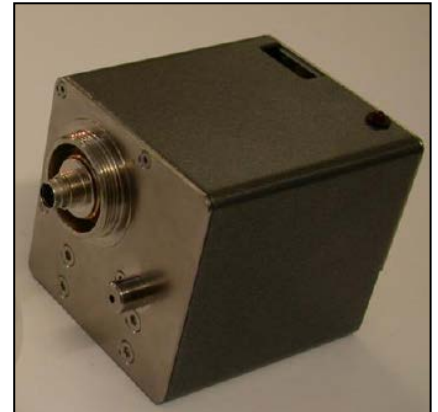


3.3. Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) 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 measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE4 is 200M Ohm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.



3.4. Robot

The DASY5 system uses the high precision robots TX90 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY5 system, the CS8C robot controller version from Stäubli is used.

The XL robot series have many features that are important for our application:

- High precision (repeatability 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)
- 6-axis controller



3.5. Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.





3.6. Measurement Server

The DASY5 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chipdisk and 128MB RAM. The necessary circuits for communication with the DAE electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY5 I/O board, which is directly connected to the PC/104 bus of the CPU board.



3.7. SAM Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:

- Left head
- Right head
- Flat phantom



The ELI4 Phantom also is a fiberglass shell phantom with 2mm shell thickness. It has 30 liters filling volume, and with a dimension of 600mm for major ellipse axis, 400mm for minor axis. It is intended for compliance testing of handheld and body-mounted wireless devices in frequency range of 30 MHz to 6GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

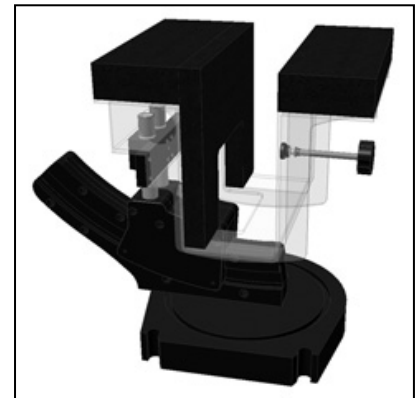


3.8. Device Holder

➤ The DASY5 device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles. The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



➤ The laptop extension is lightweight and made of POM, acrylic glass and foam. It fits easily on upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.





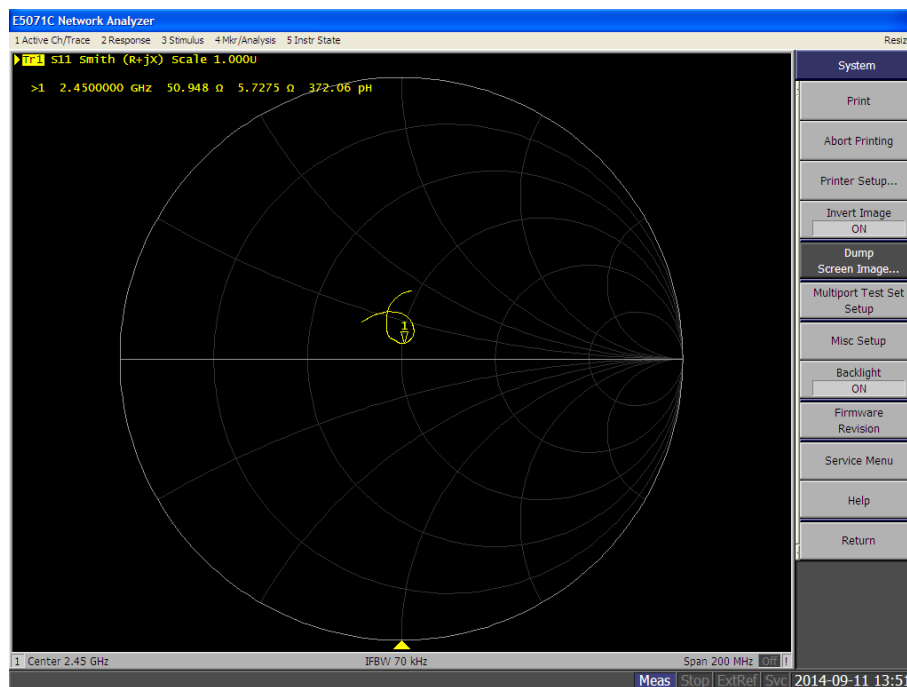
3.9. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Cali. Due Date
Stäubli Robot TX60L	Stäubli	TX60L	5P6VA1/A/01	only once
Robot Controller	Stäubli	CS8C	5P6VA1/C/01	only once
Dipole Validation Kits	Speag	D2450V2	914	2015.06.06
Dipole Validation Kits	Speag	D5GHzV2	1156	2015.06.19
SAM ELI Phantom	Speag	SAM	1211	N/A
Laptop Holder	Speag	SM LH1 001CD	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	1379	2015.05.18
E-Field Probe	Speag	EX3DV4	3927	2015.05.22
SAR Software	Speag	DASY5	V5.2 Build 162	N/A
Power Amplifier	Mini-Circuit	ZVA-183W-S+	MN136701248	N/A
Directional Coupler	Agilent	772D	MY52180104	N/A
Vector Network	Agilent	E5071C	MY4631693	2015.01.15
Signal Generator	R&S	SML	103287	2015.03.09
Power Meter	BONN	BLWA0830-160/100/40D	76659	2015.11.10
AUG Power Sensor	R&S	NRP-Z91	100384	2015.03.09

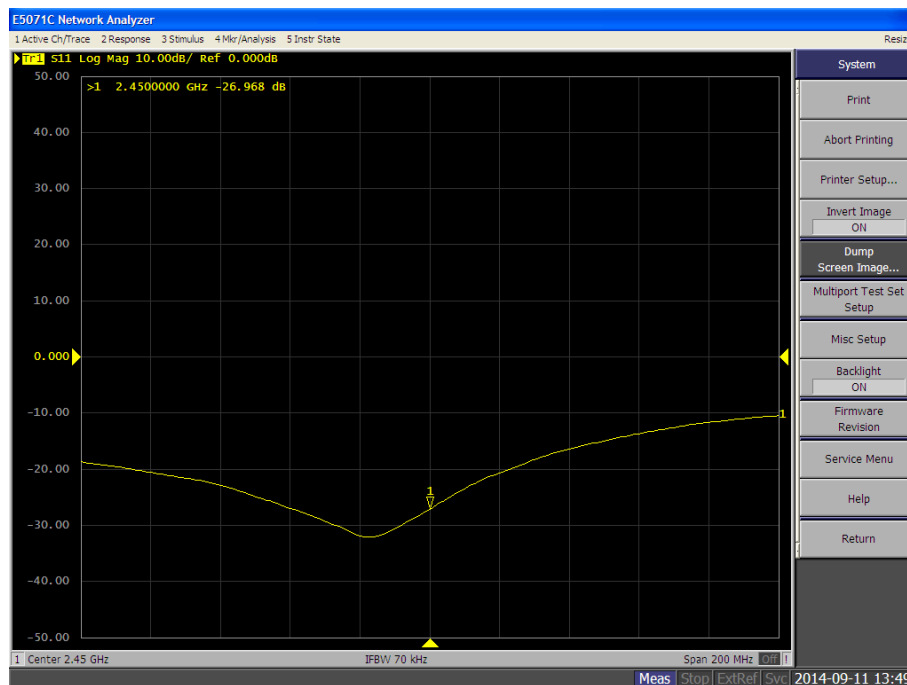


3.10. Annul Internal Check of Impedance and Return Loss

2450MHz Body calibrated impedance 52.051Ω; measured impedance: 50.948Ω (within 5Ω)



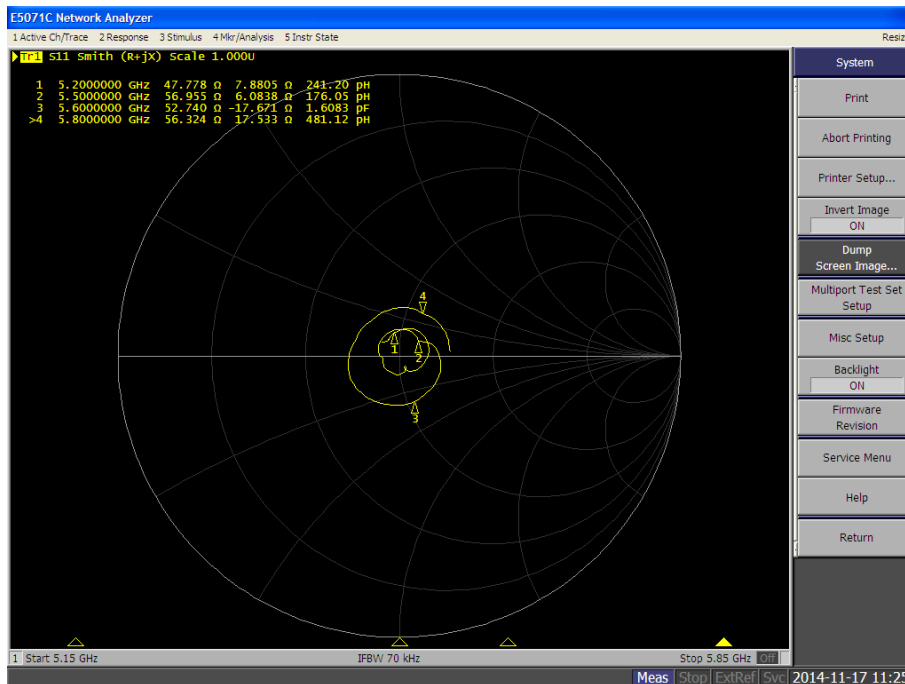
2450MHz Body calibrated return loss: -28.024 dB; Measured return loss: -26.968dB (within 20%)





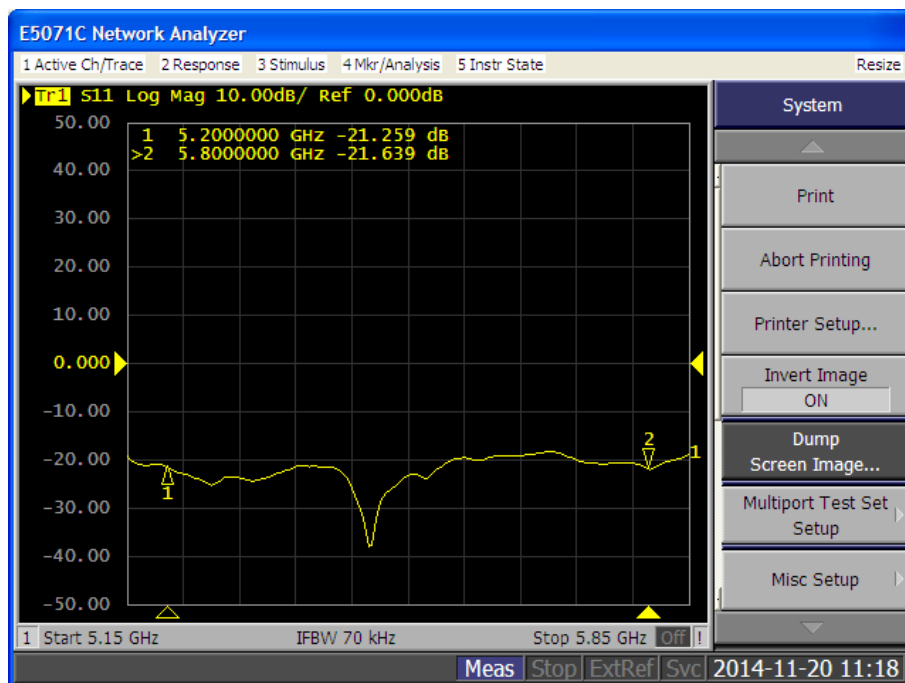
5200MHz Body calibrated impedance 49.105Ω; measured impedance: 47.778Ω (within 5Ω)

5800MHz Body calibrated impedance 58.912Ω; measured impedance: 56.324Ω (within 5Ω)



5200MHz Body calibrated return loss: -25.074 dB; Measured return loss: -21.259dB (within 20%)

5800MHz Body calibrated return loss: -21.232 dB; Measured return loss: -21.639dB (within 20%)





4. Results and Analysis

4.1. Conducted power (Averaged)

WLAN Power

Mode		Bandwidth	Ch.	Fr.(MHz)	AVG Power(dBm)	Tune-up Power(dBm)	Scaling Factor
2.4GHz	802.11b	20MHz	1	2412	12.44	13.0	1.14
			6	2437	13.77	14.0	1.05
			11	2462	14.89	15.0	1.03
	802.11g	20MHz	1	2412	12.40	13.0	1.15
			6	2437	13.77	14.0	1.05
			11	2462	14.80	15.0	1.05
	802.11n	20MHz	1	2412	11.08	11.5	1.10
			6	2437	12.38	12.5	1.03
			11	2462	13.27	13.5	1.05
		40MHz	3	2422	12.91	13.0	1.02
			7	2437	13.70	14.0	1.07
			11	2452	14.53	15.0	1.11
5.2GHz	802.11a	20MHz	36	5180	13.27	13.5	1.05
			40	5200	13.26	13.5	1.06
			48	5240	12.84	13.0	1.04
	802.11n	20MHz	36	5180	13.40	13.5	1.02
			40	5200	13.23	13.5	1.06
			48	5240	12.97	13.0	1.01
		40MHz	38	5190	13.90	14.0	1.02
			46	5230	13.56	14.0	1.11
	802.11ac	20MHz	36	5180	13.24	13.5	1.06
			40	5200	13.17	13.5	1.08
			48	5240	12.81	13.0	1.04
	802.11ac	40MHz	38	5190	13.57	14.0	1.10
			46	5230	13.45	14.0	1.14
	802.11ac	80MHz	42	5210	13.25	13.5	1.06



5.8GHz	802.11a	20MHz	149	5745	12.88	13.0	1.03
			157	5785	12.06	12.5	1.11
			165	5825	11.38	11.5	1.03
	802.11n	20MHz	149	5745	12.53	13.0	1.11
			157	5785	12.08	12.5	1.10
			165	5825	11.43	12.0	1.14
		40MHz	151	5755	12.96	13.0	1.01
			159	5795	12.50	13.0	1.12
	802.11ac	20MHz	149	5745	12.45	12.5	1.01
			157	5785	12.12	12.5	1.09
			165	5825	11.68	12.0	1.08
		40MHz	151	5755	13.08	13.5	1.10
			159	5795	12.41	12.5	1.02
		80MHz	155	5775	12.78	13.0	1.05

Bluetooth Power

Test CH	Max Output Power (dBm)	Tune-up Power (dBm)	Scaling Factor
Lowest	13.89	14.0	1.03
Middle	14.47	14.5	1.01
Highest	14.23	14.5	1.06



4.2. Wi-Fi/Bluetooth SAR exclusion

Per FCC KDB 447498 D01v05r02, the SAR exclusion threshold for distances < 50mm is defined by the following equation:

$$\frac{\text{Max Power of Channel(mW)}}{\text{Test Separation Distance(mm)}} \times \sqrt{\text{Frequency(GHz)}} \leq 3.0$$

Based on the maximum conducted power and the antenna to use separation distance, maximum average output power WIFI and Bluetooth are higher than the P_{re} , therefore WIFI/BT SAR are both required.

Note:

$$[(30.83\text{mW}/5) \times \sqrt{2.437}] = 9.69 > 3.0, \text{ for } 2.4\text{GHz WIFI};$$

$$[(21.23\text{mW}/5) \times \sqrt{5.2}] = 9.68 > 3.0, \text{ for } 5.2\text{GHz WIFI};$$

$$[(19.41\text{mW}/5) \times \sqrt{5.8}] = 9.35 > 3.0, \text{ for } 5.8\text{GHz WIFI};$$

$$[(27.99\text{mW}/5) \times \sqrt{2.441}] = 8.75 > 3.0, \text{ for Bluetooth.}$$

30.83mW, 21.23mW, 19.41mW and 27.99mW result from 14.89dBm for 2.4GHz WIFI, 13.27dBm for 5.2GHz WIFI, 12.88 dBm for 5.8GHz WIFI and 14.47dBm for Bluetooth.



4.3. SAR Test Results Summary

SAR Measurement									
Ambient Temperature (°C): 21.5 ± 2					Relative Humidity (%): 52				
Liquid Temperature (°C): 21.0 ± 2					Depth of Liquid (cm):>15				
Product: AUTOMOTIVE DIAGNOSTIC &ANALYSIS SYSTEM									
Test Position Body (0mm gap)	Antenna Position	Frequency		Average Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Test Mode: 802.11b									
Back	Fixed	1	2412	12.44	-0.10	0.170	1.14	0.194	1.6
Back	Fixed	6	2437	13.77	-0.03	0.209	1.05	0.219	1.6
Back	Fixed	11	2462	14.89	0.01	0.249	1.03	0.256	1.6
Edge1	Fixed	11	2462	14.89	0.13	0.525	1.03	0.541	1.6
Edge2	Fixed	11	2462	14.89	0.06	0.046	1.03	0.047	1.6
Test Mode: 802.11g									
Edge1	Fixed	11	2462	14.80	0.03	0.494	1.05	0.519	1.6
Test Mode: 802.11n(20MHz)									
Edge1	Fixed	11	2462	13.27	0.11	0.344	1.05	0.361	1.6
Test Mode: 802.11n(40MHz)									
Edge1	Fixed	9	2452	14.53	0.03	0.340	1.11	0.377	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									



SAR Measurement									
Ambient Temperature (°C): 21.5 ± 2					Relative Humidity (%): 52				
Liquid Temperature (°C): 21.0 ± 2					Depth of Liquid (cm):>15				
Product: AUTOMOTIVE DIAGNOSTIC &ANALYSIS SYSTEM									
Test Position Body (0mm gap)	Antenna Position	Frequency		Average Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Test Mode: 802.11a									
Edge1	Fixed	36	5180	13.27	-0.13	1.07	1.05	1.12	1.6
Back	Fixed	48	5240	12.84	-0.19	0.526	1.04	0.55	1.6
Edge1	Fixed	48	5240	12.84	-0.11	1.14	1.04	1.19	1.6
Edge1*	Fixed	48	5240	12.84	-0.05	1.12	1.04	1.16	1.6
Edge2	Fixed	48	5240	12.84	-0.18	0.133	1.04	0.14	1.6
Edge1	Fixed	149	5745	12.88	-0.19	1.04	1.03	1.07	1.6
Edge1	Fixed	157	5785	12.06	-0.12	1.02	1.11	1.13	1.6
Back	Fixed	165	5825	11.38	-0.13	0.505	1.03	0.520	1.6
Edge1	Fixed	165	5825	11.38	-0.17	1.13	1.03	1.164	1.6
Edge2	Fixed	165	5825	11.38	0.03	0.109	1.03	0.112	1.6
Test Mode: 802.11n(20MHz)									
Edge1	Fixed	36	5180	13.40	0.14	1.02	1.02	1.04	1.6
Edge1	Fixed	48	5240	12.97	-0.09	1.06	1.01	1.07	1.6
Edge1	Fixed	149	5745	12.53	-0.11	1.04	1.11	1.15	1.6
Edge1	Fixed	157	5785	12.08	-0.10	0.998	1.10	1.10	1.6
Edge1	Fixed	165	5825	11.43	-0.13	1	1.14	1.14	1.6
Test Mode: 802.11n(40MHz)									
Edge1	Fixed	38	5190	13.90	-0.11	0.999	1.02	1.02	1.6
Edge1	Fixed	46	5230	13.56	-0.03	0.987	1.11	1.10	1.6
Edge1	Fixed	151	5755	12.96	-0.02	0.945	1.01	0.95	1.6
Edge1	Fixed	159	5795	12.50	-0.05	0.956	1.12	1.07	1.6



Test Mode: 802.11ac(20MHz)									
Edge1	Fixed	36	5180	13.24	0.10	1	1.06	1.06	1.6
Edge1	Fixed	48	5240	12.81	-0.17	1.03	1.04	1.07	1.6
Edge1	Fixed	149	5745	12.45	0.03	1.12	1.01	1.13	1.6
Edge1	Fixed	157	5785	12.12	-0.05	1.04	1.09	1.13	1.6
Edge1	Fixed	165	5825	11.68	-0.02	0.952	1.08	1.03	1.6
Test Mode: 802.11ac(40MHz)									
Edge1	Fixed	38	5190	13.57	-0.09	1.08	1.10	1.19	1.6
Edge1	Fixed	46	5230	13.45	-0.19	0.933	1.14	0.97	1.6
Edge1	Fixed	151	5755	13.08	-0.05	1.07	1.10	1.08	1.6
Edge1	Fixed	159	5795	12.41	-0.14	1.05	1.02	1.14	1.6
Test Mode: 802.11ac(80MHz)									
Edge1	Fixed	42	5210	13.25	0.16	1.02	1.06	1.08	1.6
Edge1	Fixed	155	5775	12.78	0.01	1.04	1.05	1.09	1.6
Note1: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498. 2: * - repeated at the highest SAR measurement according to the FCC KDB 865664. 3: According to kdb248227 D01v01r02 page5, the power of ch.40 is not higher than the default test channel, therefore ch.40 SAR is not required. 4: According to 2.4GHz WIFI SAR, Edge_1 is the worst case for SAR test.									



SAR Measurement								
Ambient Temperature (°C): 21.5 ± 2					Relative Humidity (%): 52			
Liquid Temperature (°C): 21.0 ± 2					Depth of Liquid (cm):>15			
Product: AUTOMOTIVE DIAGNOSTIC &ANALYSIS SYSTEM								
Test Position Body (0mm gap)	Antenna Position	Frequency (MHz)	Average Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
Test Mode: Bluetooth(GFSK)								
Back	Fixed	2441	14.47	-0.10	0.436	1.01	0.44	1.6
Edge1	Fixed	2402	13.89	0.03	0.354	1.03	0.365	1.6
Edge1	Fixed	2441	14.47	0.07	0.383	1.01	0.387	1.6
Edge1	Fixed	2480	14.23	-0.06	0.376	1.06	0.399	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.								



5. The Description of Test Procedure

5.1. General Notes:

1. Batteries are fully charged at the beginning of the SAR measurements.
2. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
3. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v05r02.
4. Per FCC KDB 616217 D04 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D01v05 was applied to determine SAR test exclusion for adjacent edge configurations. SAR tests were required for bottom and primary landscape for the BT/WLAN Antenna.

WLAN/BT Notes:

1. Justification for reduced test configurations for WIFI channels per KDB Publication 248227 D01v01r02 and April 2010 FCC/TCB Meeting Notes for 2.4 GHz WIFI: Highest average RF output power channel for the lowest data rate was selected for SAR evaluation in 802.11b. Other IEEE 802.11 modes (including 802.11g/n) were not investigated since the average output powers over all channels and data rates were not more than 0.25 dB higher than the tested channel in the lowest data rate of IEEE 802.11b mode.
2. WIFI transmission was verified using a spectrum analyzer.
3. When the maximum extrapolated peak SAR of the zoom scan for the maximum output channel is <1.6 W/kg and the reported 1g averaged SAR is <0.8 W/kg, SAR testing on other default channels is not required.

5.2. Simultaneous Transmission Analysis

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v05r02, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg.



5.3. Simultaneous Transmission Analysis

Max. Simultaneous SAR

➤ 2.4GHz WIFI + Bluetooth

Configuration	Mode	Max. Scaled SAR(W/kg)	Bluetooth SAR(W/kg)	Σ SAR(W/kg)
Body-Back	802.11b	0.256	0.44	0.696
Body-Edge_1	802.11b	0.541	0.399	0.94
Body-Edge_2	802.11b	0.047	0.4	0.447
Body-Edge_3	802.11b	0.4	0.4	0.8
Body-Edge_4	802.11b	0.4	0.4	0.8

➤ 5.2GHz WIFI + Bluetooth

Configuration	Mode	Max. Scaled SAR(W/kg)	Bluetooth SAR(W/kg)	Σ SAR(W/kg)
Body-Back	802.11a	0.55	0.44	0.99
Body-Edge_1	802.11a	1.19	0.399	1.589
Body-Edge_2	802.11a	0.14	0.4	0.54
Body-Edge_3	802.11a	0.4	0.4	0.8
Body-Edge_4	802.11a	0.4	0.4	0.8

➤ 5.8GHz WIFI + Bluetooth

Configuration	Mode	Max. Scaled SAR(W/kg)	Bluetooth SAR(W/kg)	Σ SAR(W/kg)
Body-Back	802.11a	0.520	0.44	0.96
Body-Edge_1	802.11a	1.164	0.399	1.563
Body-Edge_2	802.11a	0.112	0.4	0.512
Body-Edge_3	802.11a	0.4	0.4	0.8
Body-Edge_4	802.11a	0.4	0.4	0.8

Note: An estimated SAR of 0.4 W/kg was used to determine simultaneous transmission SAR per 447498 D01v05r02.

5.4. Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v05r02.



6. Measurement Uncertainty

DASY5 Uncertainty Budget								
according to IEEE 1528/2011 and IEC 62209-1/2011(0.3-3GHz)								
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std.Unc. (1g)	Std. nc. (10g)	(vi) veff
Measurement System								
Probe Calibration	±6.0%	N	1	1	1	±6.0%	±6.0%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Modulation Response	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max.SAR Eval.	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Power Scaling ^p	±0%	R	$\sqrt{3}$	0	0	±0%	±0%	∞
Phantom and Setup								
Phantom Uncertainty	±6.1%	R	$\sqrt{3}$	1	1	±3.5%	±3.5%	∞
SAR correction	±1.9%	R	$\sqrt{3}$	1	0.84	±1.1%	±0.9%	∞
Liquid Conductivity (mea.) ^{DAK}	±2.5%	R	$\sqrt{3}$	0.78	0.71	±1.1%	±1.0%	∞
Liquid Permittivity (mea.) ^{DAK}	±2.5%	R	$\sqrt{3}$	0.26	0.26	±0.3%	±0.4%	∞
Temp. unc. – Conductivity ^{BB}	±3.4%	R	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%	∞
Temp. unc. – Permittivity ^{BB}	±0.4%	R	$\sqrt{3}$	0.23	0.26	±0.1%	±0.1%	∞
Combined Std. Uncertainty						±11.2%	±11.1%	361
Expanded STD Uncertainty(k=2)						±22.3%	±22.2%	



7. APPENDIX A. SAR System Verification Data

Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

SystemPerformanceCheck-D2450 Body2014721

DUT: Dipole 2450 MHz D2450V2; Type: SA AAD 245 BB

Communication System: CW; Frequency: 2450 MHz

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.92$ S/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -22°C; Input power-250mW

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY Configuration:

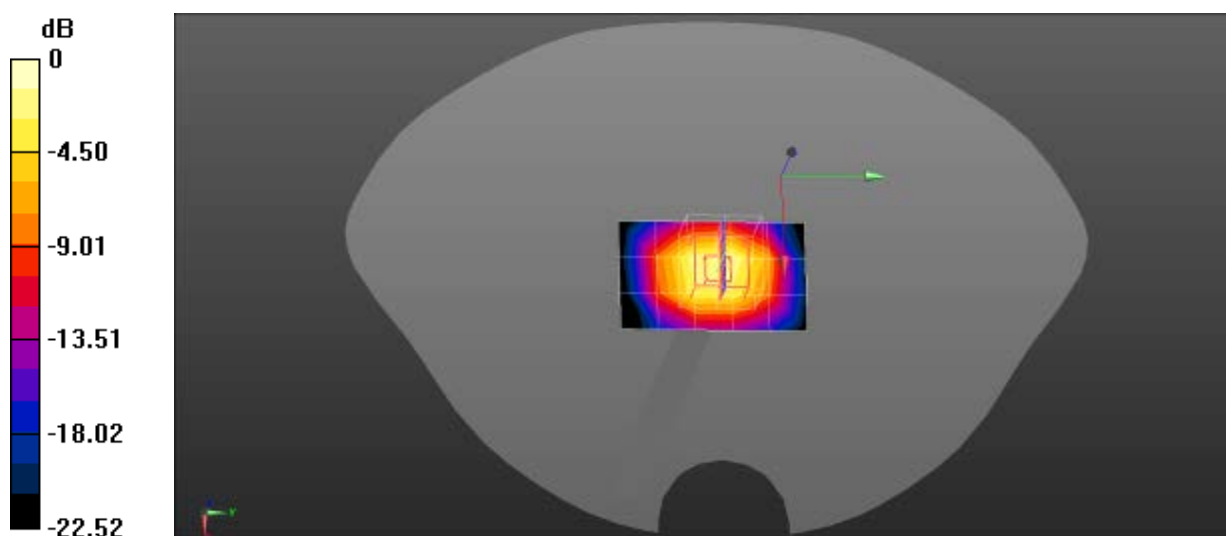
- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/SystemPerformanceCheck-D2450 Body/Area Scan (4x6x1): Measurement grid:

dx=15mm, dy=15mm, Maximum value of SAR (measured) = 10.4 W/kg

Configuration/SystemPerformanceCheck-D2450 Body/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 89.29 V/m; Power Drift = 0.04 dB, Peak SAR (extrapolated) = 27.5 W/kg

SAR(1 g) = 12.8 W/kg; SAR(10 g) = 5.85 W/kg Maximum value of SAR (measured) = 14.7 W/kg

0 dB = 14.7 W/kg = 11.67 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

Dipole Calibration for Body Tissue Pin=100mW, dist=10mm, f=5200 MHz

DUT: Dipole 5200MHz D5GHzV2; Type: SA AAD 510 BB

Communication System: CW; Frequency: 5200 MHz

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.27$ S/m; $\epsilon_r = 49.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -22°C; Input power-100mW

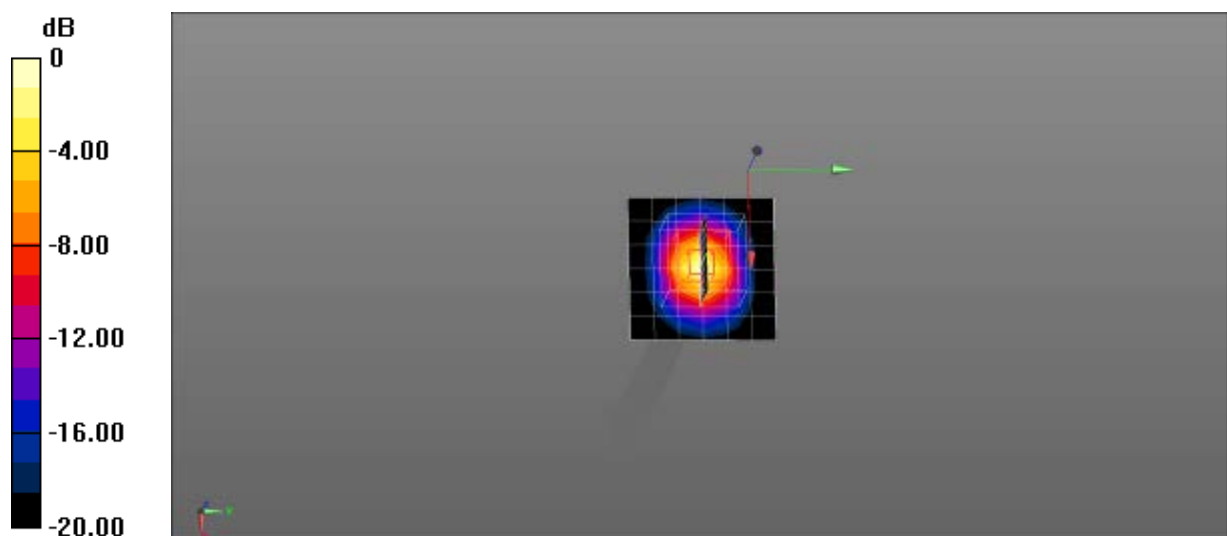
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Area**Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 18.9 W/kg**Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom****Scan (9x9x6)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 40.72 V/m; Power Drift = -0.03 dB, Peak SAR (extrapolated) = 31.1 W/kg

SAR(1 g) = 7.45 W/kg; SAR(10 g) = 2.09 W/kg Maximum value of SAR (measured) = 19.0 W/kg

0 dB = 19.0 W/kg = 12.79 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

Dipole Calibration for Body Tissue Pin=100mW, dist=10mm, f=5800 MHz

DUT: Dipole 5800MHz D5GHzV2; Type: SA AAD 510 BB

Communication System: CW; Frequency: 5800 MHz

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.05$ S/m; $\epsilon_r = 48.48$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Meas. Ambient Temp (celsius) -22°C; Input power-100mW

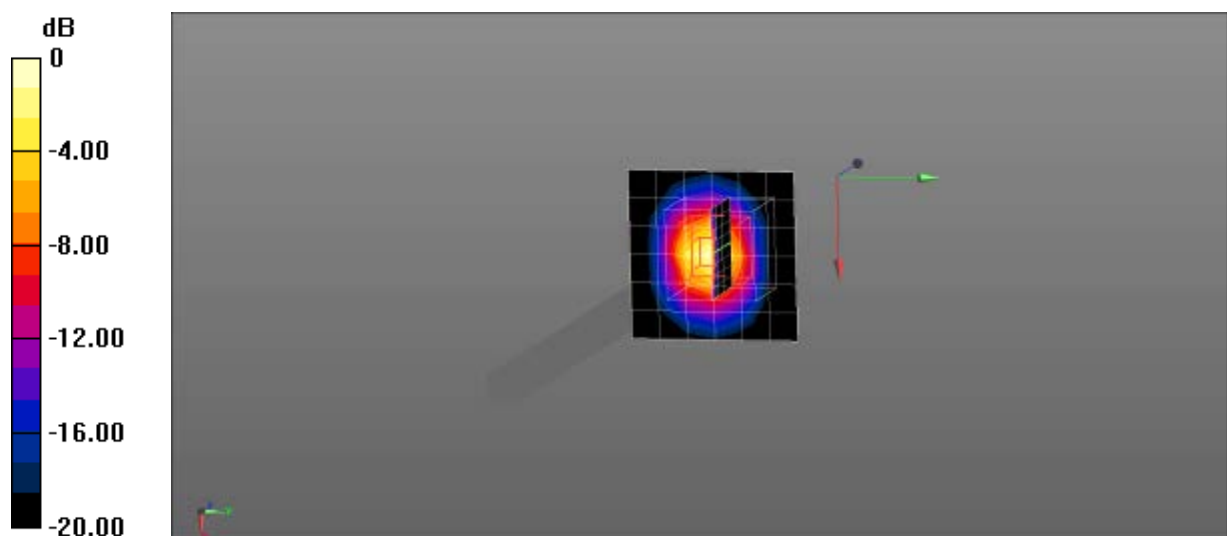
Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection), $z = 1.0, 31.0$
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Area**Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 18.9 W/kg**Configuration/Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom****Scan (9x9x6)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 37.25 V/m; Power Drift = -0.04 dB, Peak SAR (extrapolated) = 34.2 W/kg

SAR(1 g) = 7.24 W/kg; SAR(10 g) = 2.02 W/kg Maximum value of SAR (measured) = 19.4 W/kg

0 dB = 19.4 W/kg = 12.88 dBW/kg



9. APPENDIX B. SAR measurement Data

Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11b 2412MHz Low Body-Back

Communication System Band: 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.89$ S/m; $\epsilon_r = 51.91$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

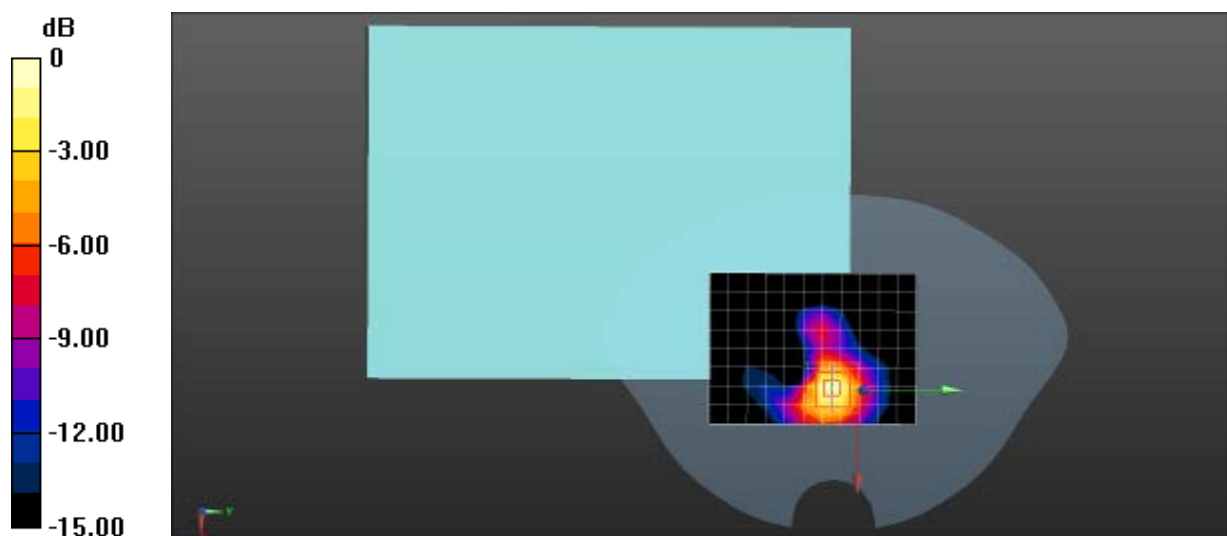
Configuration/802.11b 2412MHz Low Body-Back/Area Scan (9x12x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.174 W/kg

Configuration/802.11b 2412MHz Low Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 4.736 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.332 W/kg

SAR(1 g) = 0.170 W/kg; SAR(10 g) = 0.080 W/kg Maximum value of SAR (measured) = 0.197 W/kg

0 dB = 0.197 W/kg = -7.06 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11b 2437MHz Mid Body-Back

Communication System Band: 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 51.72$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

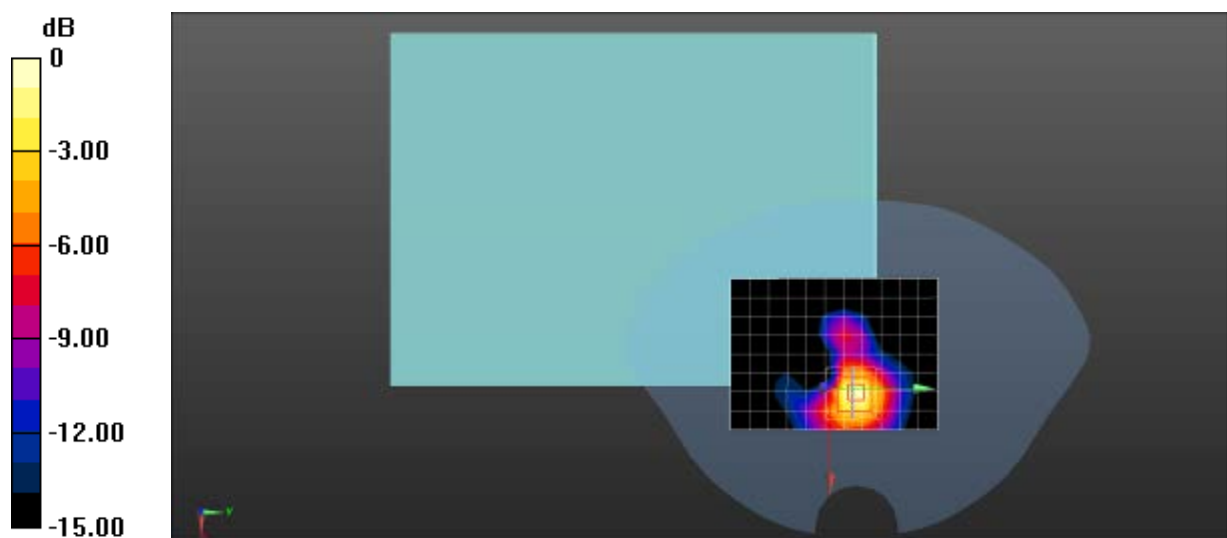
Configuration/802.11b 2437MHz Mid Body-Back/Area Scan (9x12x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.226 W/kg

Configuration/802.11b 2437MHz Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 5.318 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.209 W/kg; SAR(10 g) = 0.097 W/kg Maximum value of SAR (measured) = 0.241 W/kg

0 dB = 0.241 W/kg = -6.18 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11b 2462MHz High Body-Back

Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

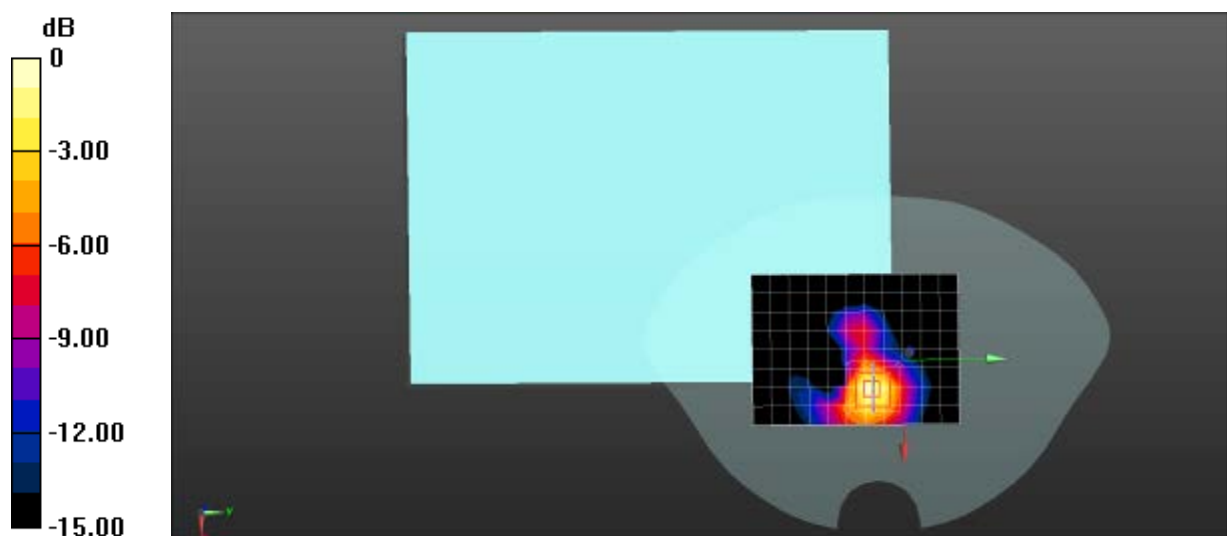
Configuration/802.11b 2462MHz High Body-Back/Area Scan (9x12x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.267 W/kg

Configuration/802.11b 2462MHz High Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 4.826 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.519 W/kg

SAR(1 g) = 0.249 W/kg; SAR(10 g) = 0.114 W/kg Maximum value of SAR (measured) = 0.282 W/kg

0 dB = 0.282 W/kg = -5.50 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11b 2462MHz High Body-Edge_1

Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

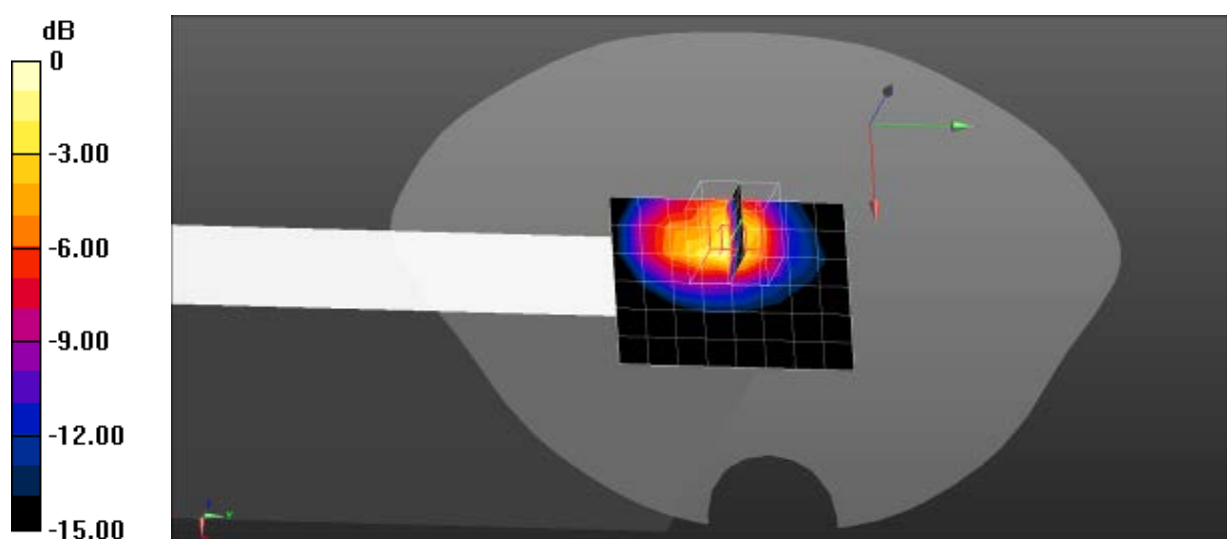
Configuration/802.11b 2462MHz High Body-Edge_1/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.520 W/kg

Configuration/802.11b 2462MHz High Body-Edge_1/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 5.797 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 1.15 W/kg

SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.227 W/kg Maximum value of SAR (measured) = 0.647 W/kg

0 dB = 0.647 W/kg = -1.89 dBW/kg



Z-Axis Plot





Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11b 2462MHz High Body-Edge_2

Communication System Band: 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

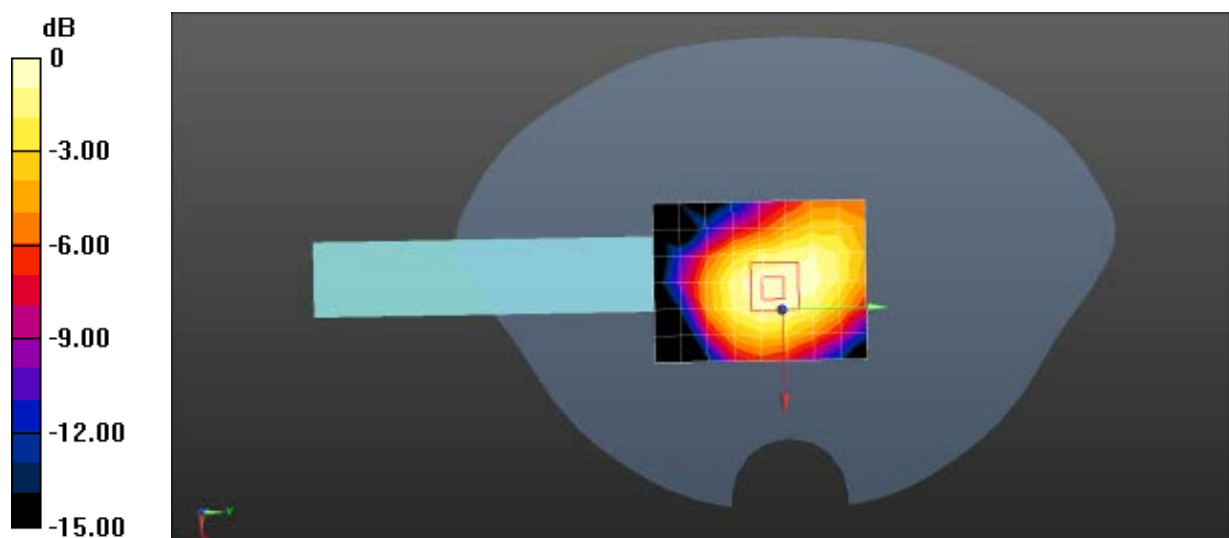
Configuration/802.11b 2462MHz High Body-Edge_2/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.0511 W/kg

Configuration/802.11b 2462MHz High Body-Edge_2/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 4.787 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.0790 W/kg

SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.025 W/kg Maximum value of SAR (measured) = 0.0513 W/kg

0 dB = 0.0513 W/kg = -12.90 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11g 2462MHz High Body-Edge_1

Communication System Band: 802.11g; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

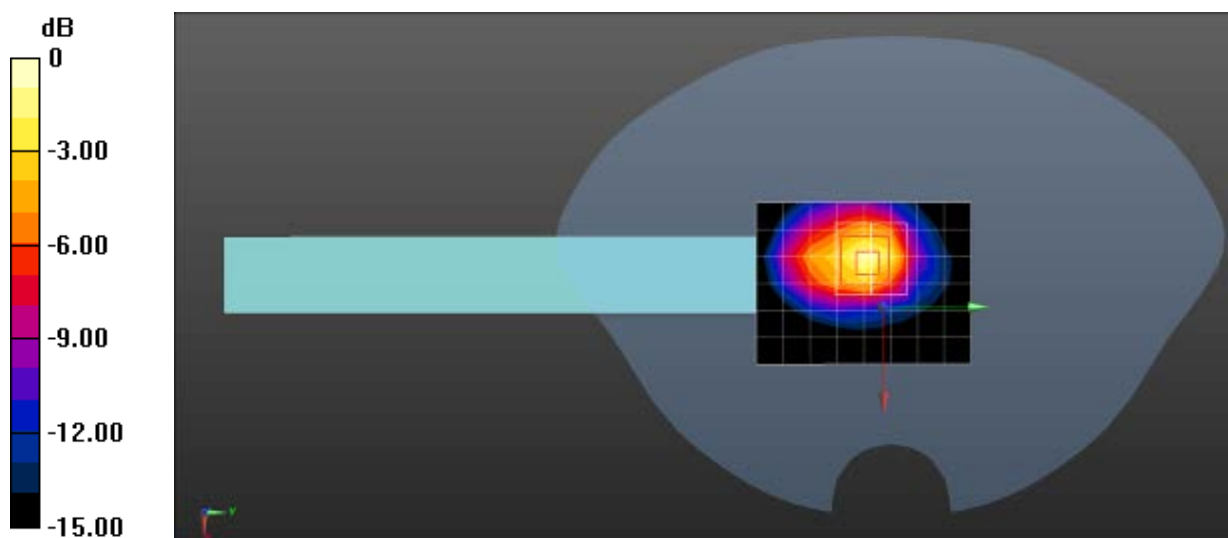
Configuration/802.11g 2462MHz High Body-Edge_1/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.513 W/kg

Configuration/802.11g 2462MHz High Body-Edge_1/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.90 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.494 W/kg; SAR(10 g) = 0.213 W/kg Maximum value of SAR (measured) = 0.581 W/kg

0 dB = 0.581 W/kg = -2.36 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 2462MHz High Body-Edge_1

Communication System Band: 802.11n(20MHz); Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

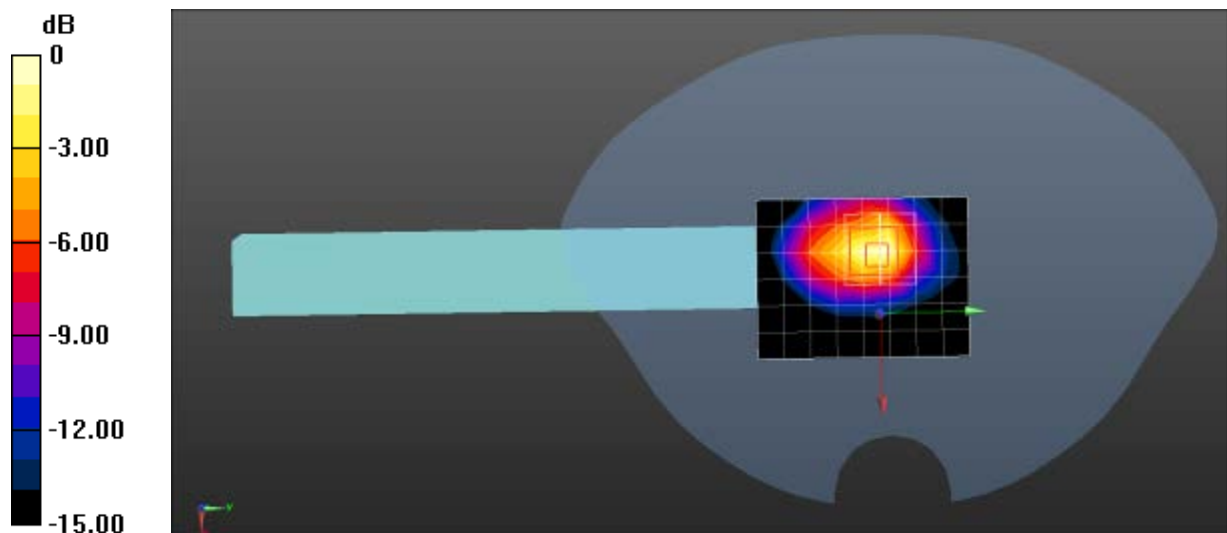
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 2462MHz High Body-Edge_1/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.366 W/kg**Configuration/802.11n(20MHz) 2462MHz High Body-Edge_1/Zoom Scan (5x5x7)/Cube 0:**

Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.12 V/m; Power Drift = 0.11 dB, Peak SAR (extrapolated) = 0.758 W/kg

SAR(1 g) = 0.344 W/kg; SAR(10 g) = 0.148 W/kg Maximum value of SAR (measured) = 0.391 W/kg

0 dB = 0.391 W/kg = -4.08 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(40MHz) 2462MHz High Body-Edge_1

Communication System Band: 802.11n(40MHz); Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.93$ S/m; $\epsilon_r = 51.63$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

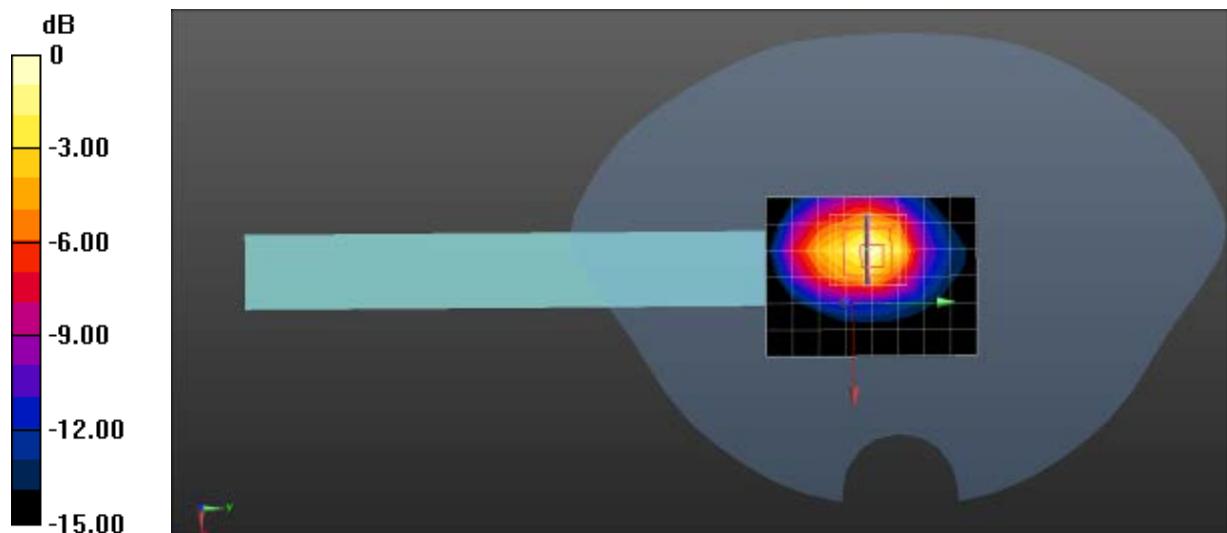
- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(40MHz) 2462MHz High Body-Edge_1/Area Scan (7x9x1): Measurement grid: dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.377 W/kg

Configuration/802.11n(40MHz) 2462MHz High Body-Edge_1/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 8.223 V/m; Power Drift = 0.03 dB, Peak SAR (extrapolated) = 0.734 W/kg

SAR(1 g) = 0.340 W/kg; SAR(10 g) = 0.148 W/kg



0 dB = 0.377 W/kg = -4.24 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5180MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5180$ MHz; $\sigma = 5.25$ S/m; $\epsilon_r = 49.42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

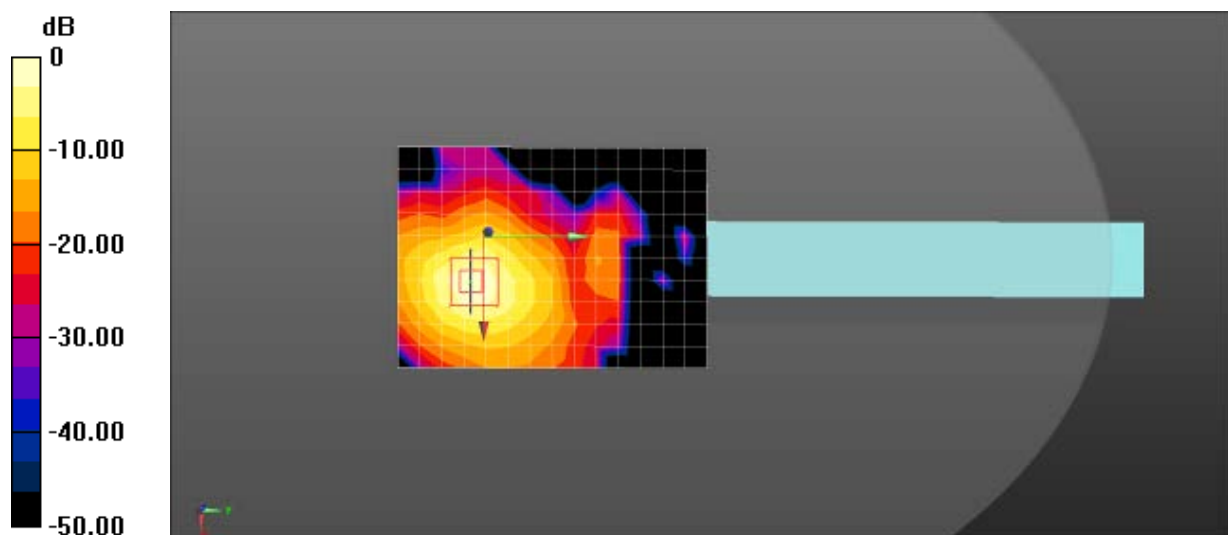
Configuration/802.11a 5180MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.99 W/kg

Configuration/802.11a 5180MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.978 V/m; Power Drift = -0.53 dB

Peak SAR (extrapolated) = 4.13 W/kg

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.363 W/kg Maximum value of SAR (measured) = 2.08 W/kg

0 dB = 2.08 W/kg = 3.18 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5240MHz Body-Back

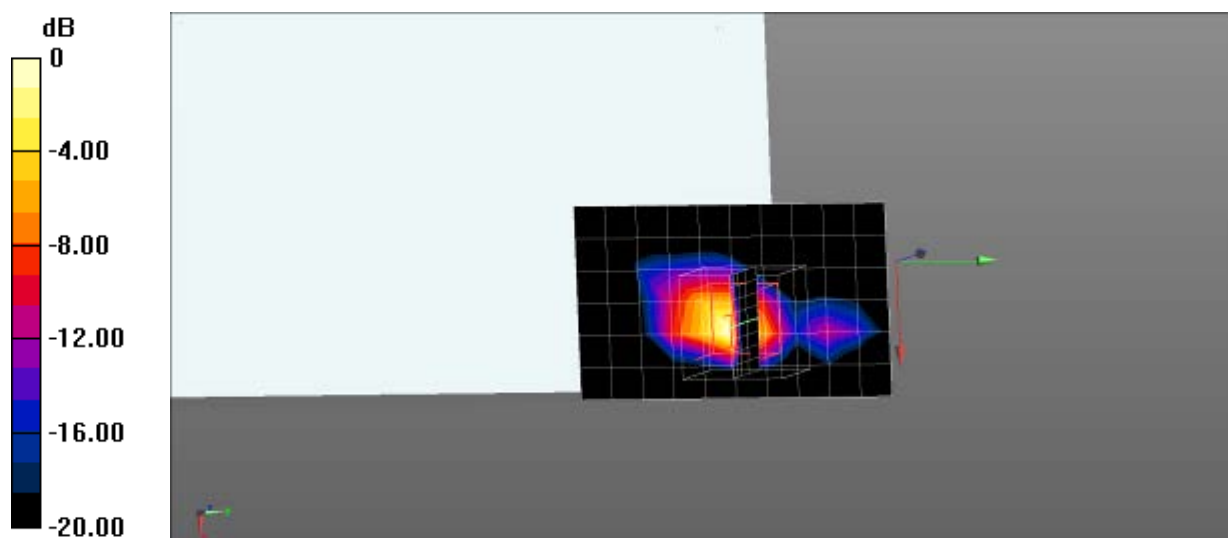
Communication System Band: 802.11a (20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.38 \text{ S/m}$; $\epsilon_r = 49.37$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11a 5240MHz Body-Back/Area Scan (7x11x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$, Maximum value of SAR (measured) = 1.32 W/kg **Configuration/802.11a 5240MHz Body-Back/Zoom Scan (9x9x6)/Cube 0:** Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2\text{mm}$, Reference Value = 14.64 V/m ; Power Drift = -0.19 dB , Peak SAR (extrapolated) = 2.77 W/kg **SAR(1 g) = 0.526 W/kg ; SAR(10 g) = 0.126 W/kg** Maximum value of SAR (measured) = 1.12 W/kg 0 dB = 1.12 W/kg = 0.49 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5240MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.38$ S/m; $\epsilon_r = 49.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

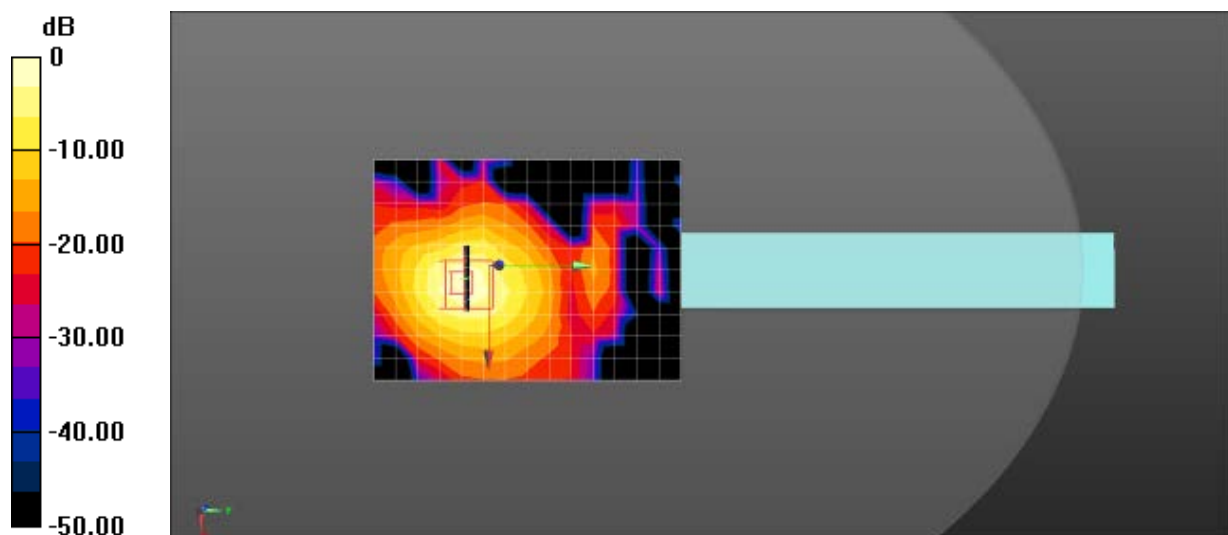
Configuration/802.11a 5240MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.82 W/kg

Configuration/802.11a 5240MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 9.493 V/m; Power Drift = -0.11 dB

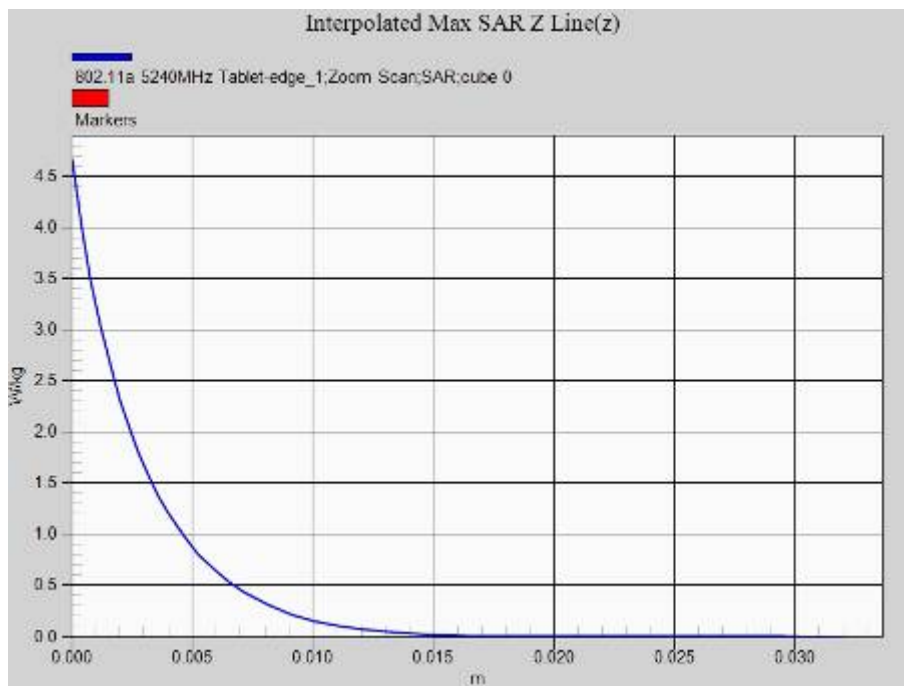
Peak SAR (extrapolated) = 4.67 W/kg

SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.393 W/kg Maximum value of SAR (measured) = 2.29 W/kg

0 dB = 2.29 W/kg = 3.60 dBW/kg



Z-Axis Plot





Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5240MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.38$ S/m; $\epsilon_r = 49.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11a 5240MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

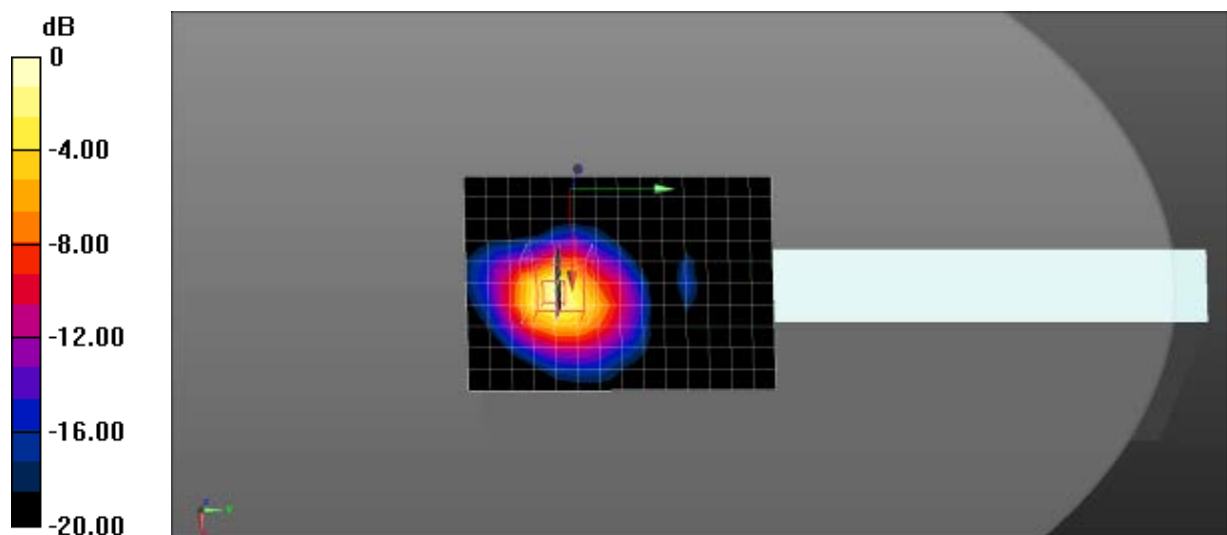
$dx=10$ mm, $dy=10$ mm, Maximum value of SAR (measured) = 1.76 W/kg

Configuration/802.11a 5240MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

$dx=5$ mm, $dy=5$ mm, $dz=2$ mm, Reference Value = 9.484 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 4.52 W/kg

SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.380 W/kg Maximum value of SAR (measured) = 2.22 W/kg



0 dB = 2.22 W/kg = 3.46 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5240MHz Tablet-edge_2

Communication System Band: 802.11a (20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.38$ S/m; $\epsilon_r = 49.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

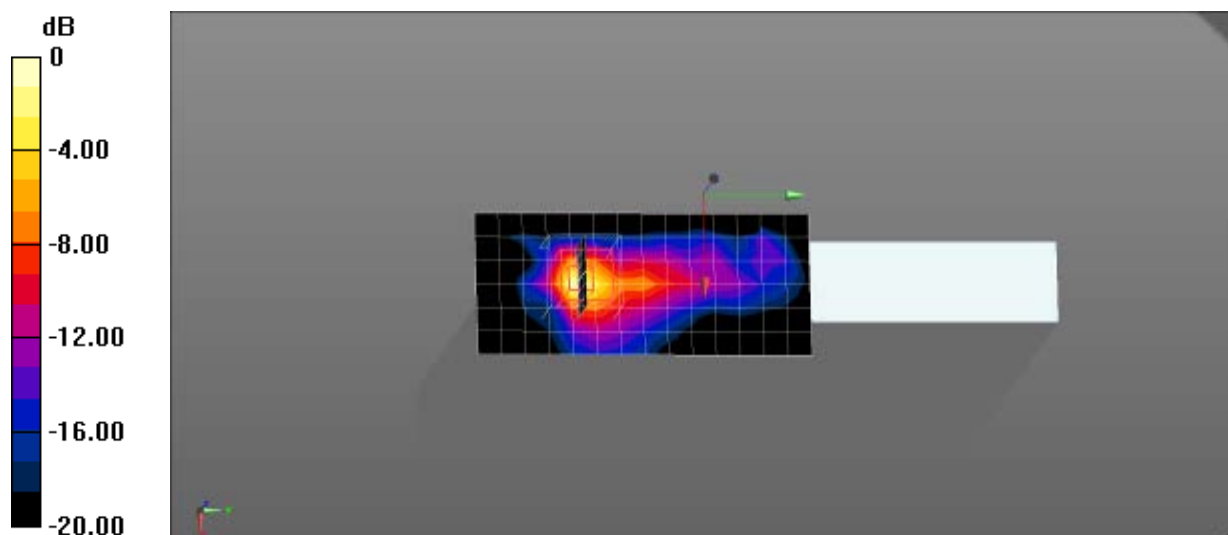
Configuration/802.11a 5240MHz Tablet-edge_2/Area Scan (7x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 0.263 W/kg

Configuration/802.11a 5240MHz Tablet-edge_2/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.714 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.607 W/kg

SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.033 W/kg Maximum value of SAR (measured) = 0.292 W/kg

0 dB = 0.292 W/kg = -5.35 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5745MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.91$ S/m; $\epsilon_r = 48.57$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

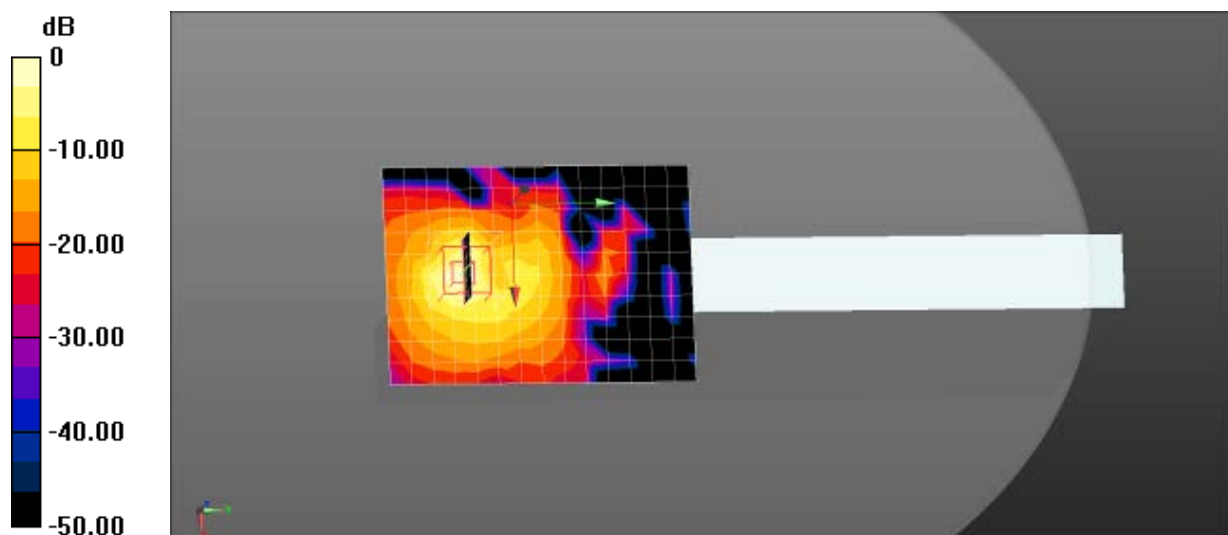
Configuration/802.11a 5745MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.92 W/kg

Configuration/802.11a 5745MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 15.03 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 4.70 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.303 W/kg Maximum value of SAR (measured) = 2.23 W/kg

0 dB = 2.23 W/kg = 3.48 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5785MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785$ MHz; $\sigma = 6.02$ S/m; $\epsilon_r = 48.51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

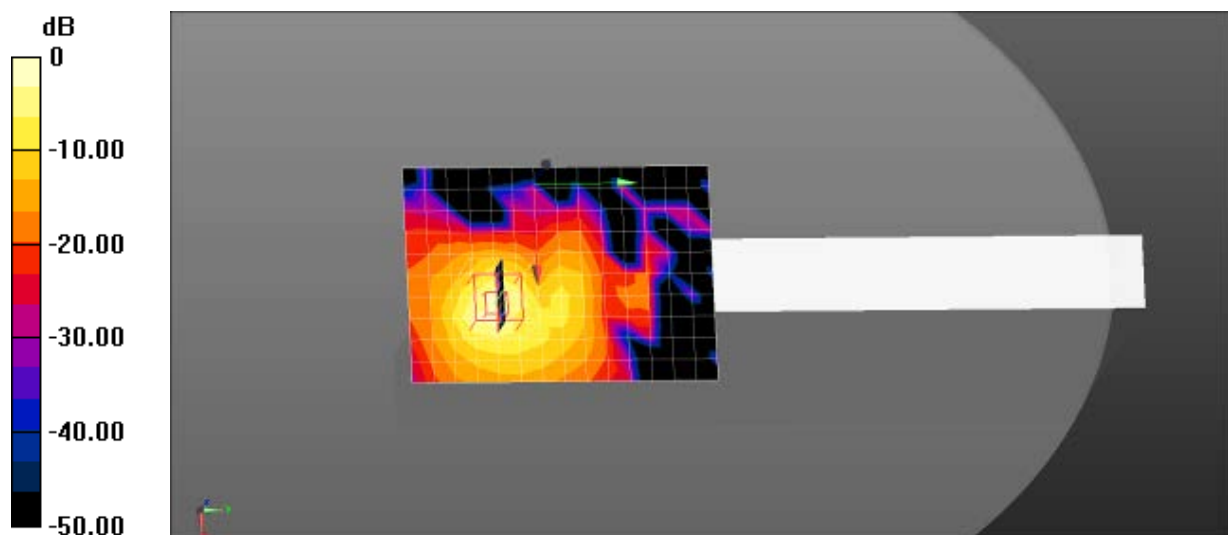
Configuration/802.11a 5785MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.80 W/kg

Configuration/802.11a 5785MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 3.453 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 4.63 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.298 W/kg Maximum value of SAR (measured) = 2.15 W/kg

0 dB = 2.15 W/kg = 3.32 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5825MHz Mid Body-Back

Communication System Band: 802.11a (20MHz); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.11$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

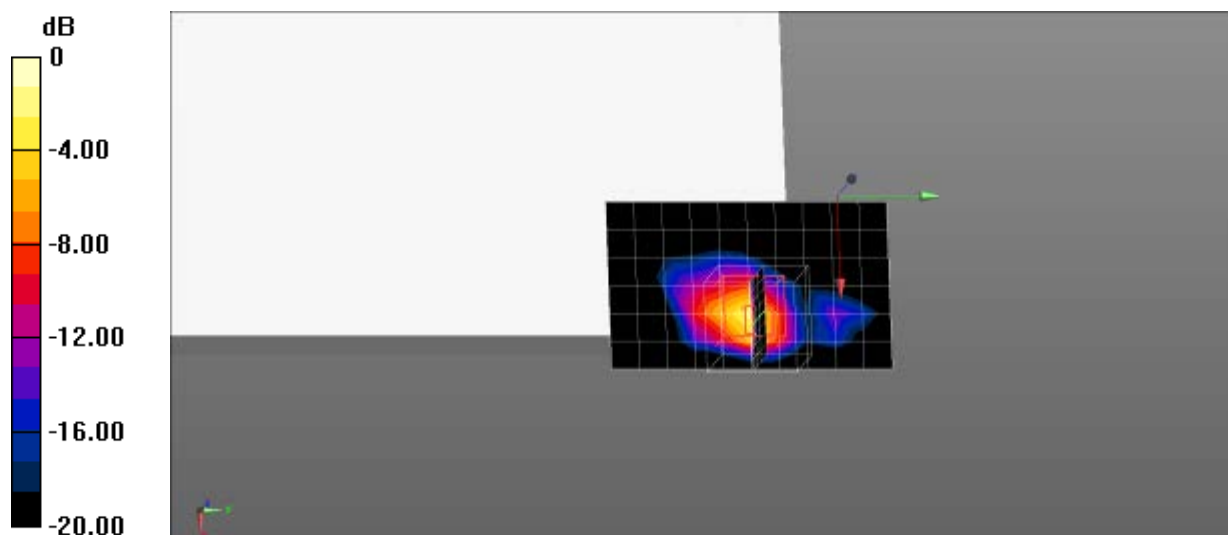
Configuration/802.11a 5825MHz Mid Body-Back/Area Scan (7x11x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 0.777 W/kg

Configuration/802.11a 5825MHz Mid Body-Back/Zoom Scan (9x9x6)/Cube 0: Measurement grid:

dx=4mm, dy=4mm, dz=2mm, Reference Value = 11.72 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 2.68 W/kg

SAR(1 g) = 0.505 W/kg; SAR(10 g) = 0.122 W/kg Maximum value of SAR (measured) = 1.23 W/kg

0 dB = 1.23 W/kg = 0.90 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5825MHz Tablet-edge_1

Communication System Band: 802.11a (20MHz); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.11$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11a 5825MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:

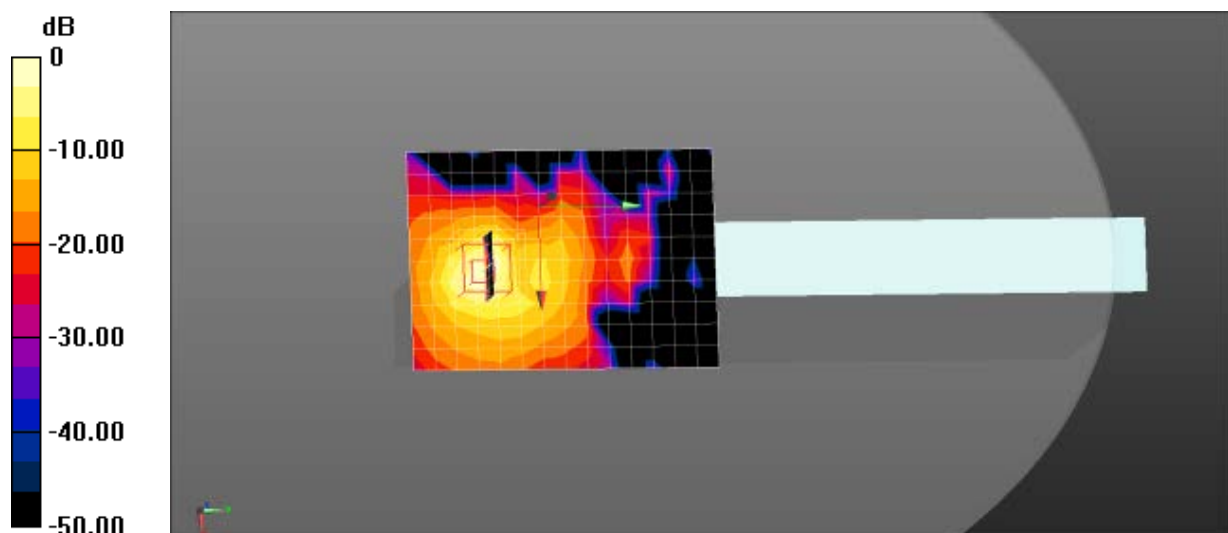
$dx=10$ mm, $dy=10$ mm, Maximum value of SAR (measured) = 1.97 W/kg

Configuration/802.11a 5825MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

$dx=5$ mm, $dy=5$ mm, $dz=2$ mm, Reference Value = 12.33 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 5.26 W/kg

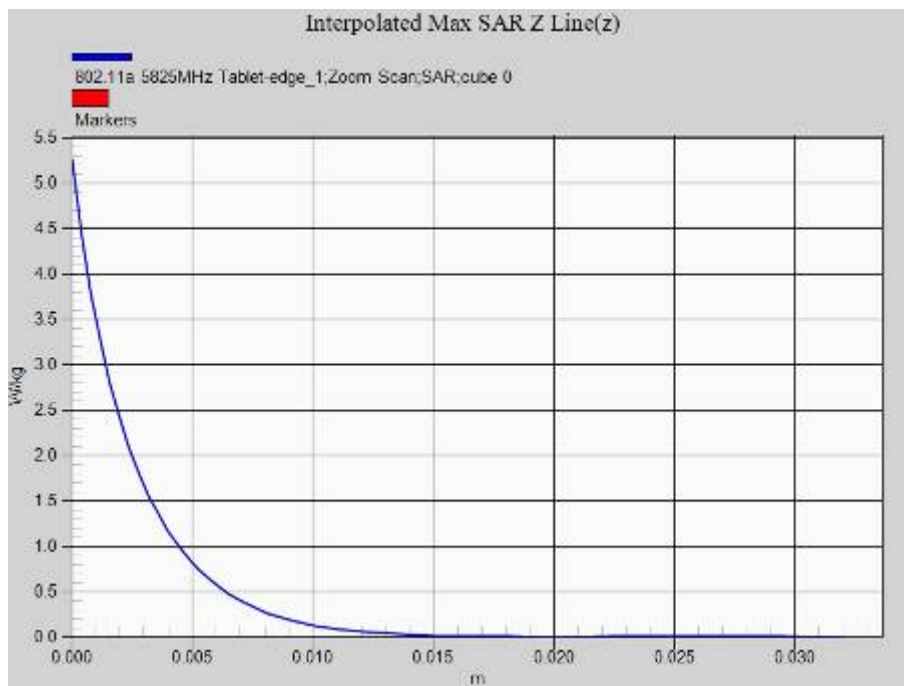
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.327 W/kg Maximum value of SAR (measured) = 2.39 W/kg



0 dB = 2.39 W/kg = 3.78 dBW/kg



Z-Axis Plot





Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11a 5825MHz Tablet-edge_2

Communication System Band: 802.11a (20MHz); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.11$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

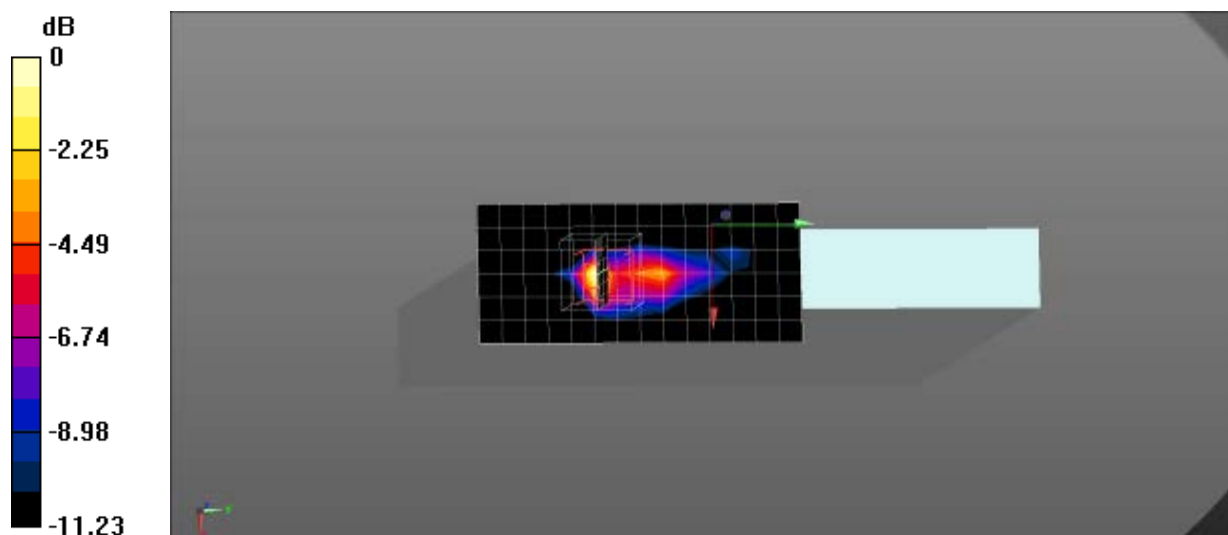
Configuration/802.11a 5825MHz Tablet-edge_2/Area Scan (7x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 0.258 W/kg

Configuration/802.11a 5825MHz Tablet-edge_2/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 6.201 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.438 W/kg

SAR(1 g) = 0.109 W/kg; SAR(10 g) = 0.027 W/kg Maximum value of SAR (measured) = 0.264 W/kg

0 dB = 0.264 W/kg = -5.78 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 5180MHz Tablet-edge_1

Communication System Band: 802.11n(20MHz); Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5180$ MHz; $\sigma = 5.25$ S/m; $\epsilon_r = 49.42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

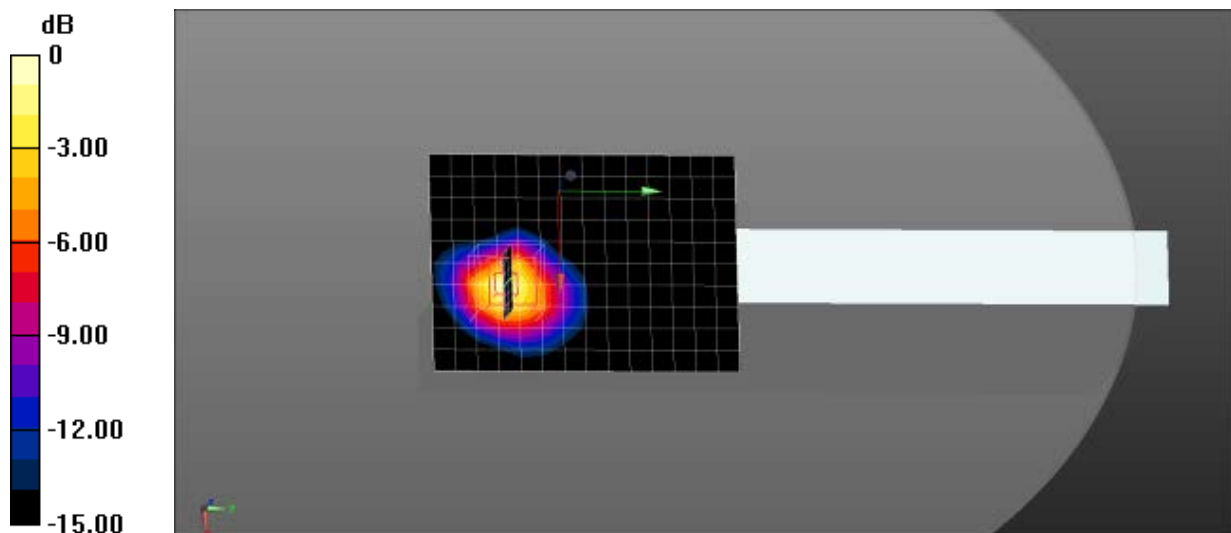
- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 5180MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.89 W/kg

Configuration/802.11n(20MHz) 5180MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.978 V/m; Power Drift = 0.14 dB, Peak SAR (extrapolated) = 3.93 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.346 W/kg Maximum value of SAR (measured) = 1.98 W/kg



0 dB = 1.98 W/kg = 2.97 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 5240MHz Tablet-edge_1

Communication System Band: 802.11n(20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.38$ S/m; $\epsilon_r = 49.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

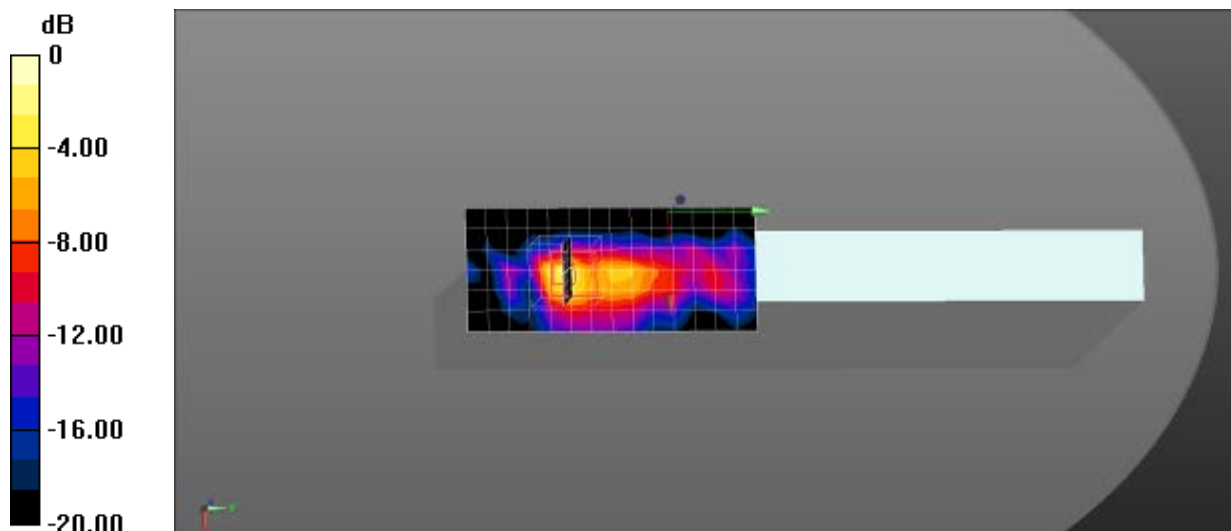
- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 5240MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.67 W/kg

Configuration/802.11n(20MHz) 5240MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.810 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 5.56 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.261 W/kg Maximum value of SAR (measured) = 2.52 W/kg



0 dB = 2.52 W/kg = 4.01 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 5745MHz Tablet-edge_1

Communication System Band: 802.11n(20MHz); Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.91$ S/m; $\epsilon_r = 48.57$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

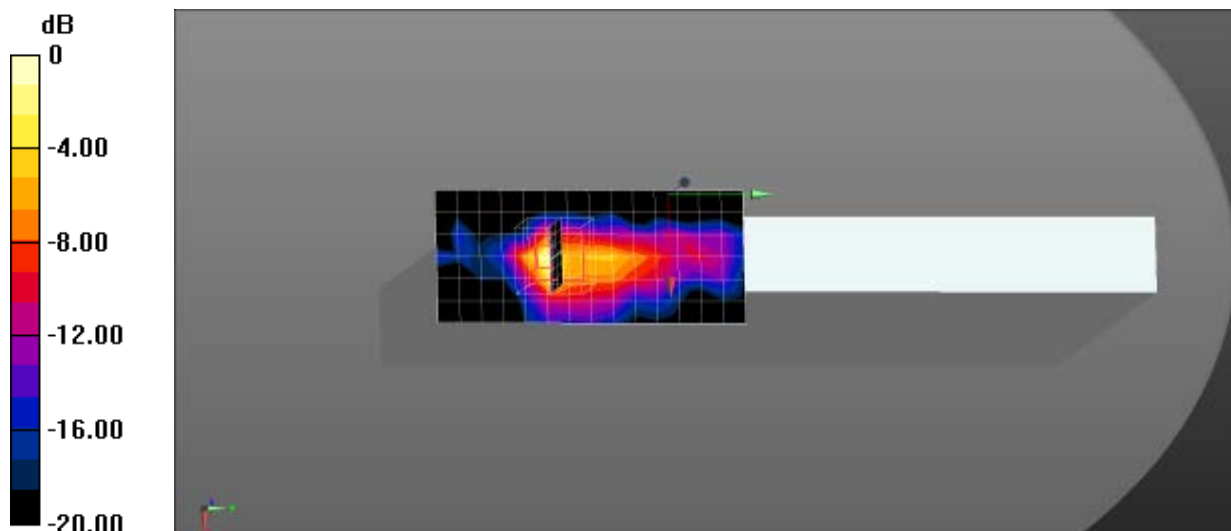
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 5745MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.37 W/kg

Configuration/802.11n(20MHz) 5745MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 5.266 V/m; Power Drift =
-0.11 dB, Peak SAR (extrapolated) = 5.77 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.261 W/kg Maximum value of SAR (measured) = 2.42 W/kg



0 dB = 2.42 W/kg = 3.84 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 5785MHz Tablet-edge_1

Communication System Band: 802.11n(20MHz); Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785$ MHz; $\sigma = 6.02$ S/m; $\epsilon_r = 48.51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

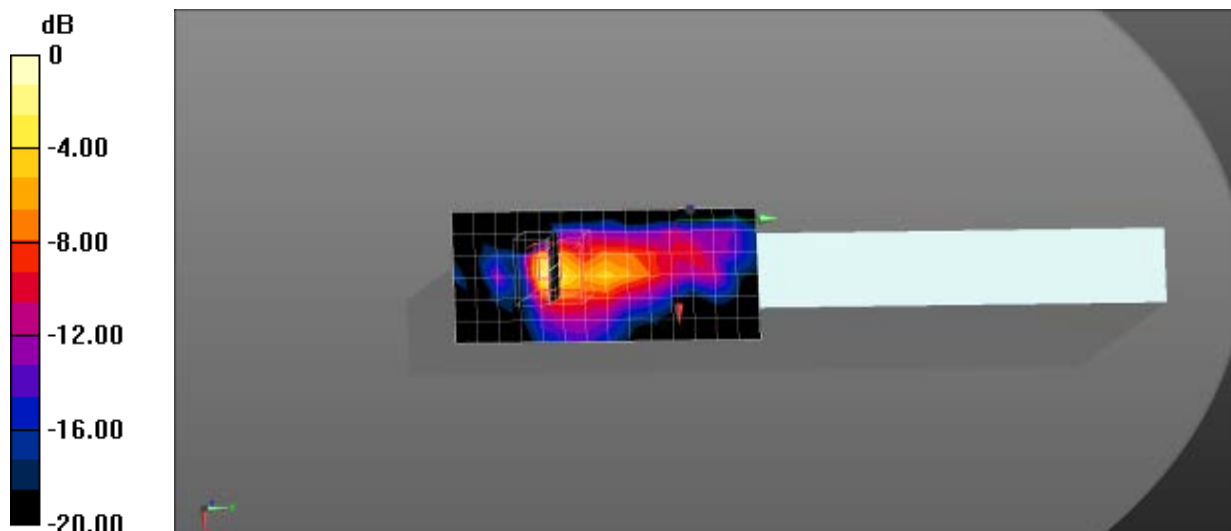
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 5785MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.59 W/kg

Configuration/802.11n(20MHz) 5785MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.219 V/m; Power Drift = -0.10 dB, Peak SAR (extrapolated) = 4.17 W/kg

SAR(1 g) = 0.998 W/kg; SAR(10 g) = 0.238 W/kg Maximum value of SAR (measured) = 2.35 W/kg



0 dB = 2.35 W/kg = 3.71 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(20MHz) 5825MHz Tablet-edge_1

Communication System Band: 802.11n(20MHz); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.11$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

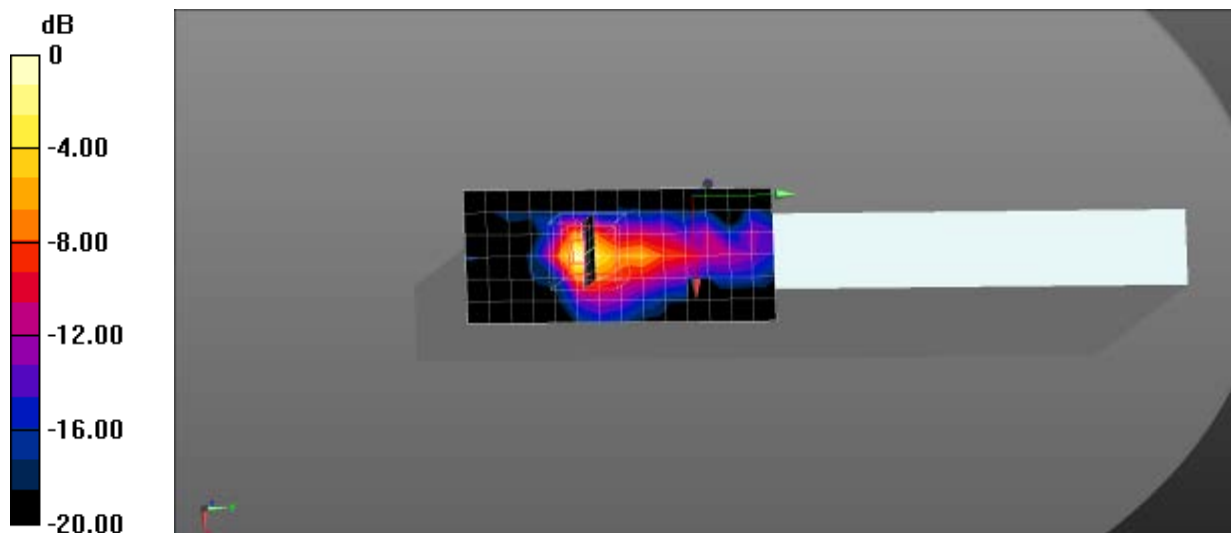
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(20MHz) 5825MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.21 W/kg

Configuration/802.11n(20MHz) 5825MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 5.137 V/m; Power Drift = -0.13 dB, Peak SAR (extrapolated) = 4.20 W/kg

SAR(1 g) = 1 W/kg; SAR(10 g) = 0.244 W/kg Maximum value of SAR (measured) = 2.30 W/kg



0 dB = 2.30 W/kg = 3.62 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(40MHz) 5190MHz Tablet-edge_1

Communication System Band: 802.11n(40MHz); Frequency: 5190 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5190$ MHz; $\sigma = 5.26$ S/m; $\epsilon_r = 49.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

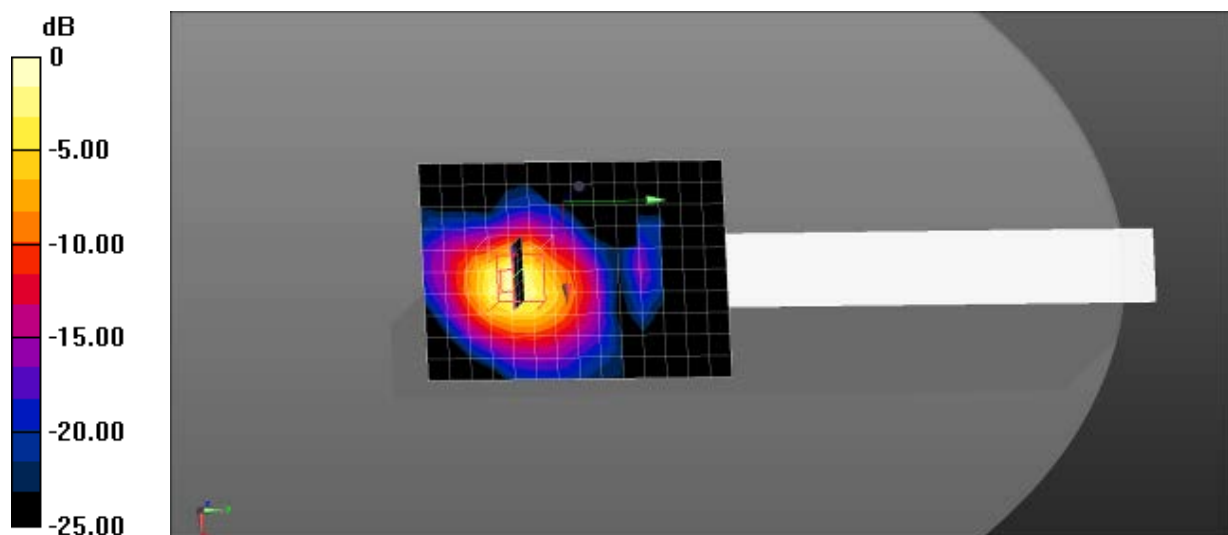
- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(40MHz) 5190MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.57 W/kg

Configuration/802.11n(40MHz) 5190MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 9.414 V/m; Power Drift = -0.11 dB, Peak SAR (extrapolated) = 4.01 W/kg

SAR(1 g) = 0.999 W/kg; SAR(10 g) = 0.337 W/kg Maximum value of SAR (measured) = 1.97 W/kg



0 dB = 1.97 W/kg = 2.94 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(40MHz) 5230MHz Tablet-edge_1

Communication System Band: 802.11n(40MHz); Frequency: 5230 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5230$ MHz; $\sigma = 5.37$ S/m; $\epsilon_r = 49.38$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

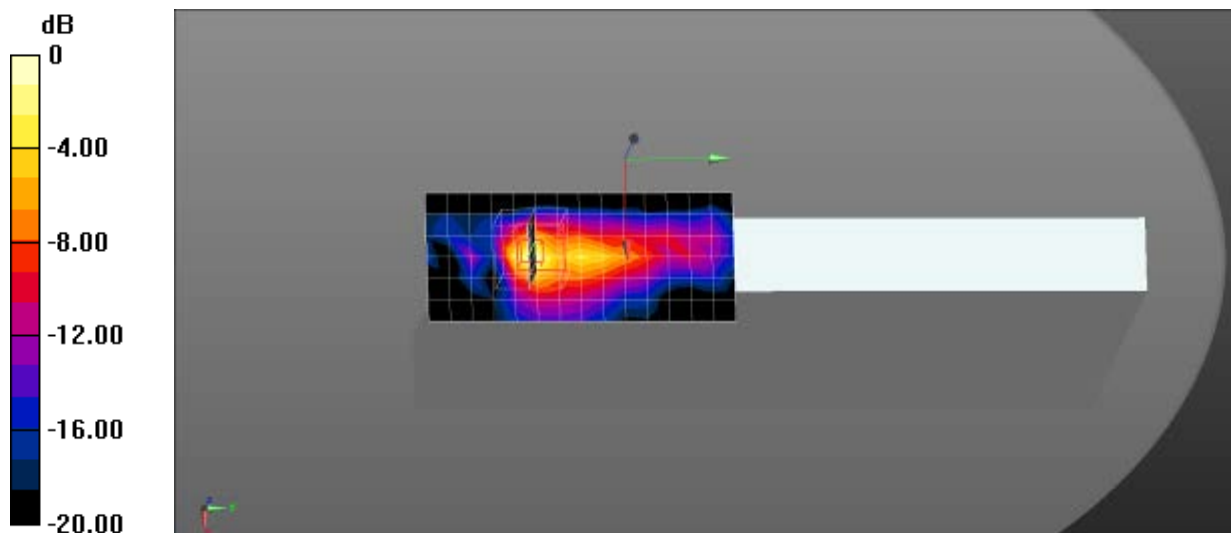
- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(40MHz) 5230MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid: $dx=10$ mm, $dy=10$ mm, Maximum value of SAR (measured) = 1.85 W/kg

Configuration/802.11n(40MHz) 5230MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=2$ mm, Reference Value = 9.419 V/m; Power Drift = -0.03 dB, Peak SAR (extrapolated) = 4.89 W/kg

SAR(1 g) = 0.987 W/kg; SAR(10 g) = 0.246 W/kg Maximum value of SAR (measured) = 2.24 W/kg



0 dB = 2.24 W/kg = 3.50 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(40MHz) 5755MHz Tablet-edge_1

Communication System Band: 802.11n(40MHz); Frequency: 5755 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5755$ MHz; $\sigma = 5.92$ S/m; $\epsilon_r = 48.56$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

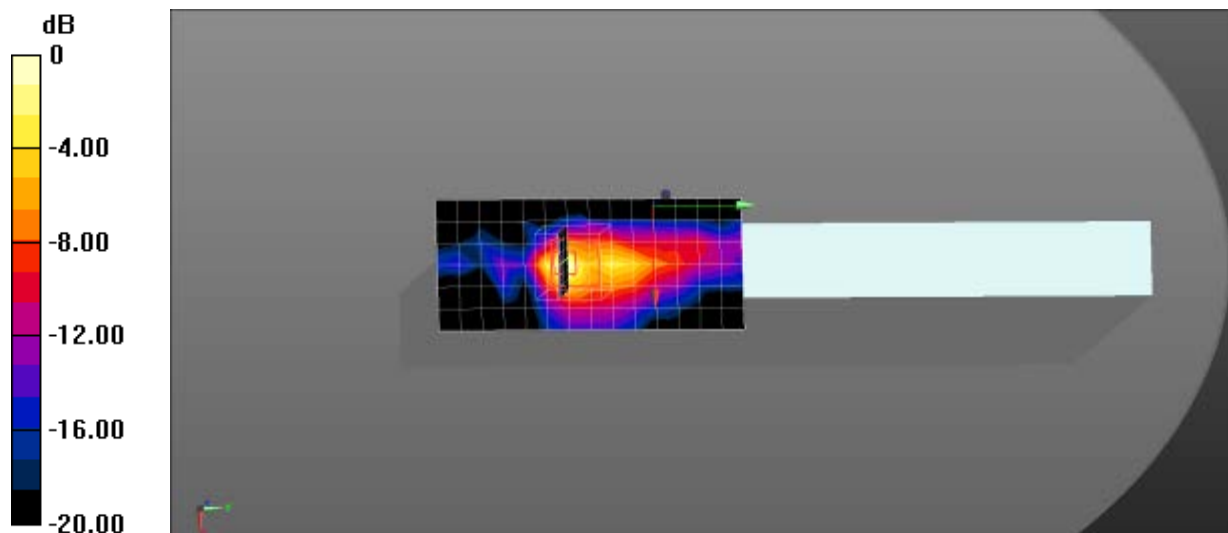
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(40MHz) 5755MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.00 W/kg

Configuration/802.11n(40MHz) 5755MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 6.273 V/m; Power Drift = -0.02 dB, Peak SAR (extrapolated) = 4.20 W/kg

SAR(1 g) = 0.945 W/kg; SAR(10 g) = 0.238 W/kg Maximum value of SAR (measured) = 2.05 W/kg



0 dB = 2.05 W/kg = 3.12 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11n(40MHz) 5795MHz Tablet-edge_1

Communication System Band: 802.11n(40MHz); Frequency: 5795 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5795$ MHz; $\sigma = 6.04$ S/m; $\epsilon_r = 48.49$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21 °C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

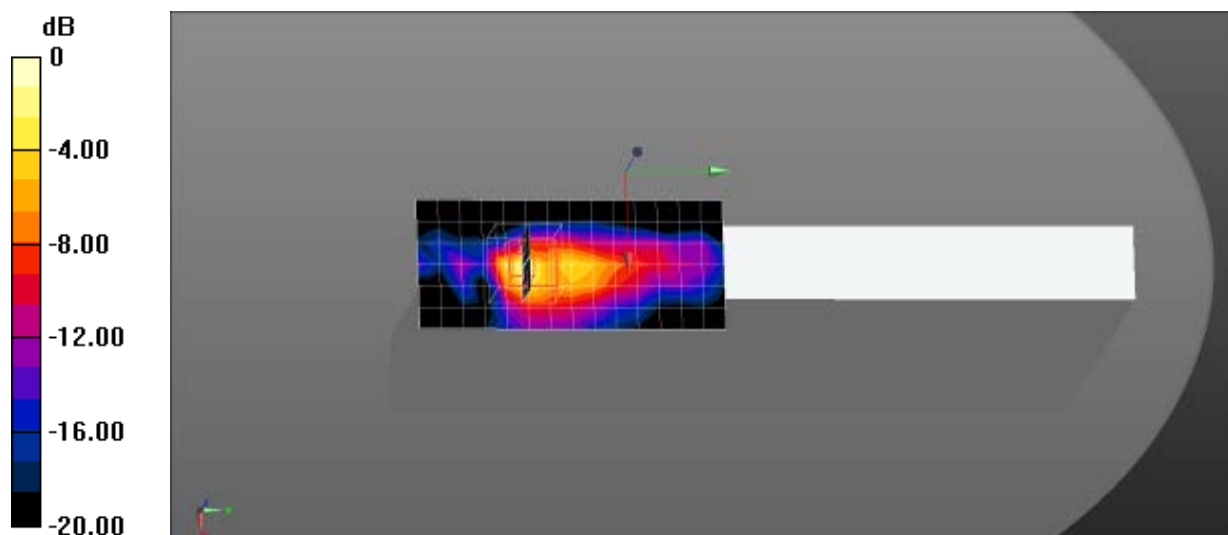
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11n(40MHz) 5795MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.75 W/kg

Configuration/802.11n(40MHz) 5795MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 8.112 V/m; Power Drift = -0.05 dB, Peak SAR (extrapolated) = 4.33 W/kg

SAR(1 g) = 0.956 W/kg; SAR(10 g) = 0.241 W/kg Maximum value of SAR (measured) = 2.20 W/kg



0 dB = 2.20 W/kg = 3.42 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(20MHz) 5180MHz Tablet-edge_1

Communication System Band: 802.11ac(20M); Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5180$ MHz; $\sigma = 5.25$ S/m; $\epsilon_r = 49.42$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

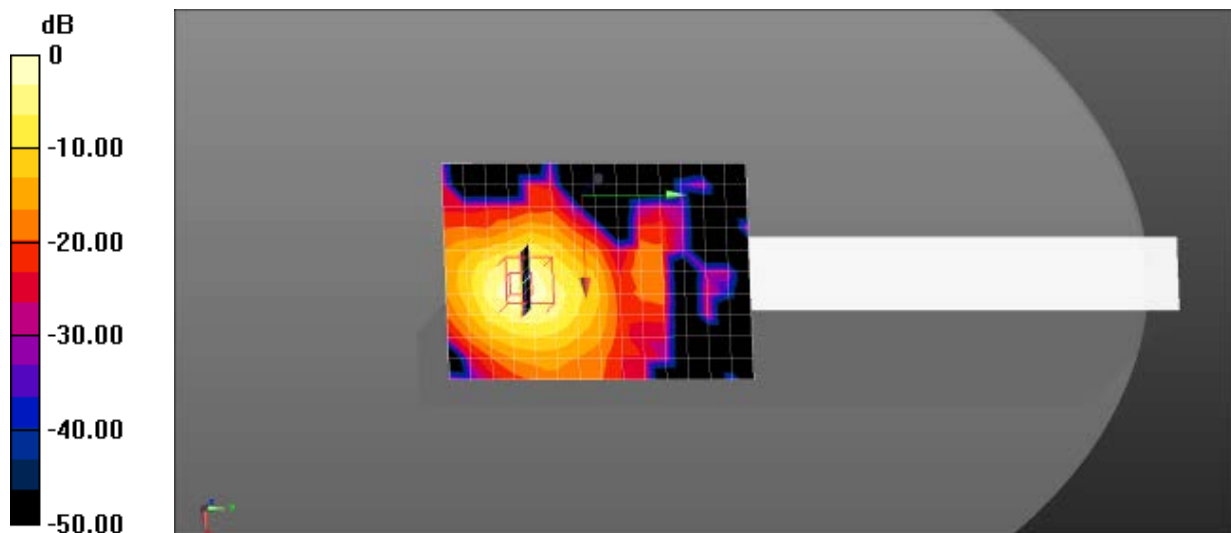
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(20MHz) 5180MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.73 W/kg**Configuration/802.11ac(20MHz) 5180MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 10.57 V/m; Power Drift = 0.10 dB, Peak SAR (extrapolated) = 3.96 W/kg

SAR(1 g) = 1 W/kg; SAR(10 g) = 0.337 W/kg Maximum value of SAR (measured) = 1.93 W/kg

0 dB = 1.93 W/kg = 2.86 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac 5240MHz Tablet-edge_1

Communication System Band: 802.11ac(20MHz); Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240$ MHz; $\sigma = 5.38$ S/m; $\epsilon_r = 49.37$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

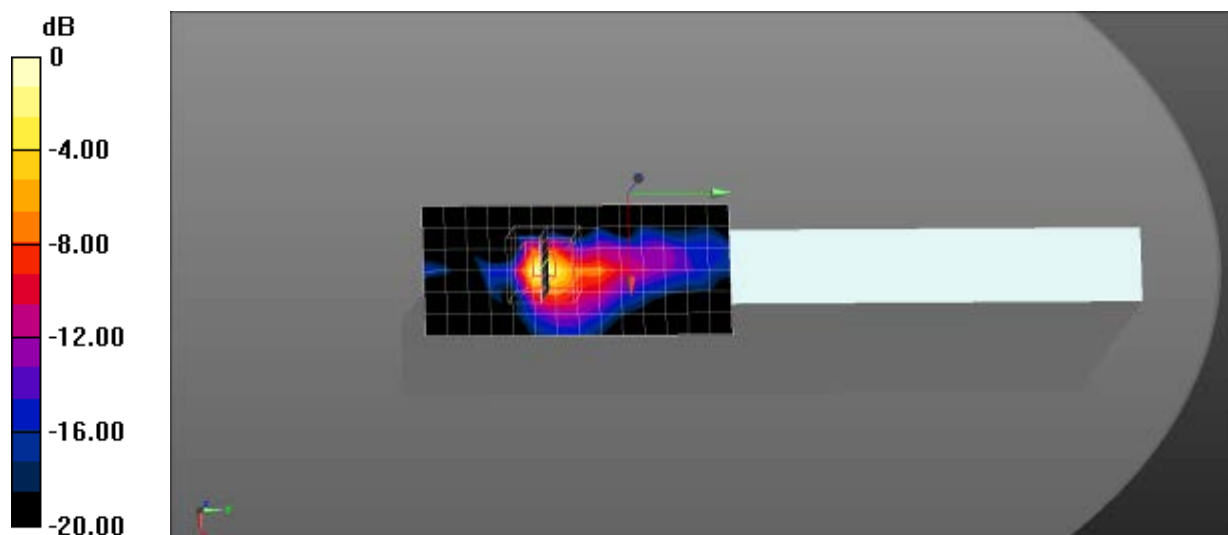
Configuration/802.11ac 5240MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:

dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.98 W/kg

Configuration/802.11ac 5240MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0: Measurement grid:

dx=5mm, dy=5mm, dz=2mm, Reference Value = 6.320 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 4.64 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.248 W/kg Maximum value of SAR (measured) = 2.34 W/kg

0 dB = 2.34 W/kg = 3.69 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(20MHz) 5745MHz Tablet-edge_1

Communication System Band: 802.11ac(20MHz); Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.91$ S/m; $\epsilon_r = 48.57$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

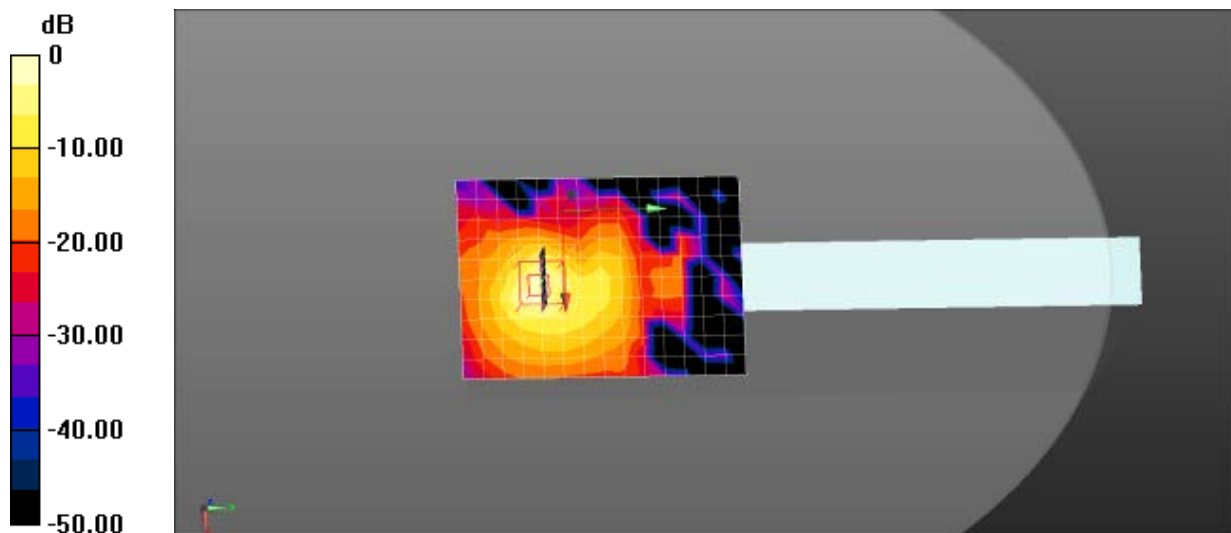
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(20MHz) 5745MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.96 W/kg**Configuration/802.11ac(20MHz) 5745MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.894 V/m; Power Drift = 0.03 dB, Peak SAR (extrapolated) = 5.15 W/kg

SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.327 W/kg Maximum value of SAR (measured) = 2.36 W/kg

0 dB = 2.36 W/kg = 3.73 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(20MHz) 5785MHz Tablet-edge_1

Communication System Band: 802.11ac(20MHz); Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785$ MHz; $\sigma = 6.02$ S/m; $\epsilon_r = 48.51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

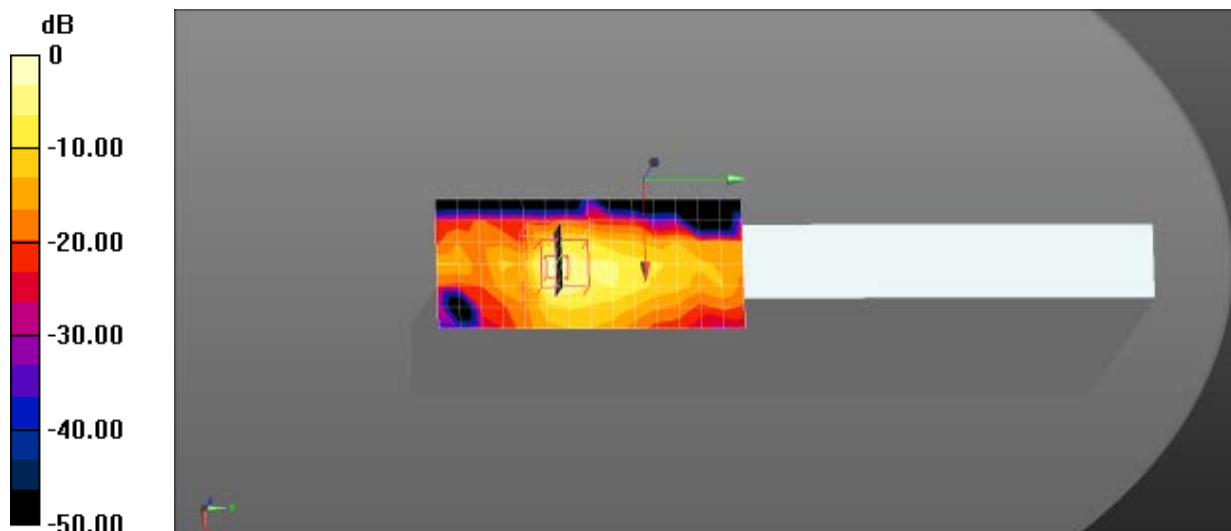
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(20MHz) 5785MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.79 W/kg

Configuration/802.11ac(20MHz) 5785MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 6.769 V/m; Power Drift = -0.05 dB, Peak SAR (extrapolated) = 4.78 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.259 W/kg Maximum value of SAR (measured) = 2.39 W/kg



0 dB = 2.39 W/kg = 3.78 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(20MHz) 5825MHz Tablet-edge_1

Communication System Band: 802.11ac(20MHz); Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825$ MHz; $\sigma = 6.11$ S/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

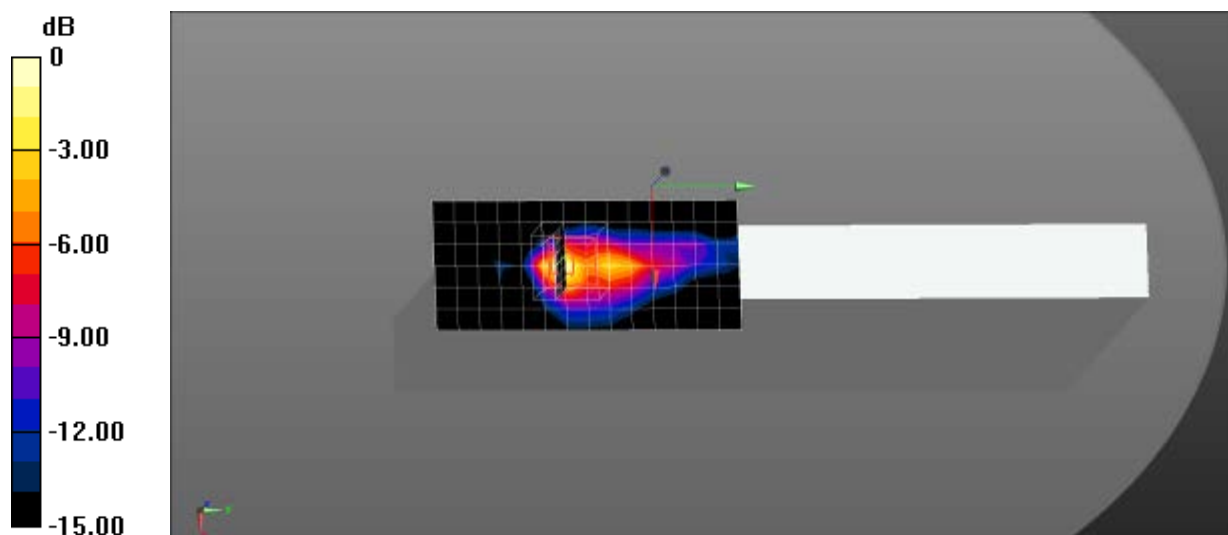
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(20MHz) 5825MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.02 W/kg

Configuration/802.11ac(20MHz) 5825MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 6.345 V/m; Power Drift = -0.02 dB, Peak SAR (extrapolated) = 4.23 W/kg

SAR(1 g) = 0.952 W/kg; SAR(10 g) = 0.240 W/kg Maximum value of SAR (measured) = 2.06 W/kg



0 dB = 2.06 W/kg = 3.14 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(40MHz) 5190MHz Tablet-edge_1

Communication System Band: 802.11ac(40MHz); Frequency: 5190 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5190$ MHz; $\sigma = 5.26$ S/m; $\epsilon_r = 49.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

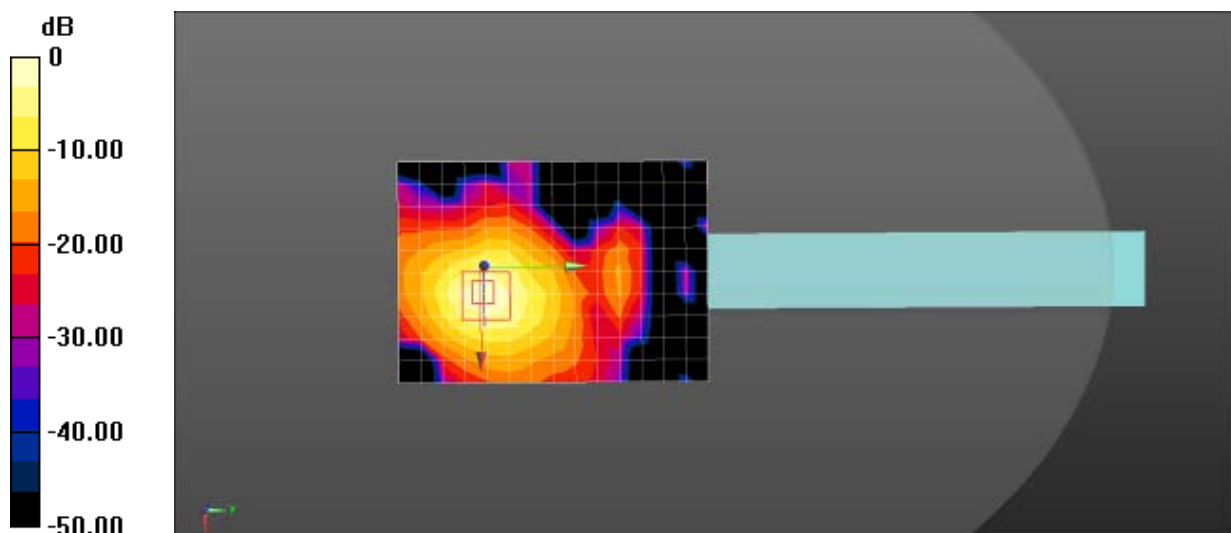
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(40MHz) 5190MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.14 W/kg**Configuration/802.11ac(40MHz) 5190MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.050 V/m; Power Drift = -0.09 dB, Peak SAR (extrapolated) = 4.36 W/kg

SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.378 W/kg Maximum value of SAR (measured) = 2.23 W/kg

0 dB = 2.23 W/kg = 3.48 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(40MHz) 5230MHz Tablet-edge_1

Communication System Band: 802.11ac(40MHz); Frequency: 5230 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5230$ MHz; $\sigma = 5.37$ S/m; $\epsilon_r = 49.38$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

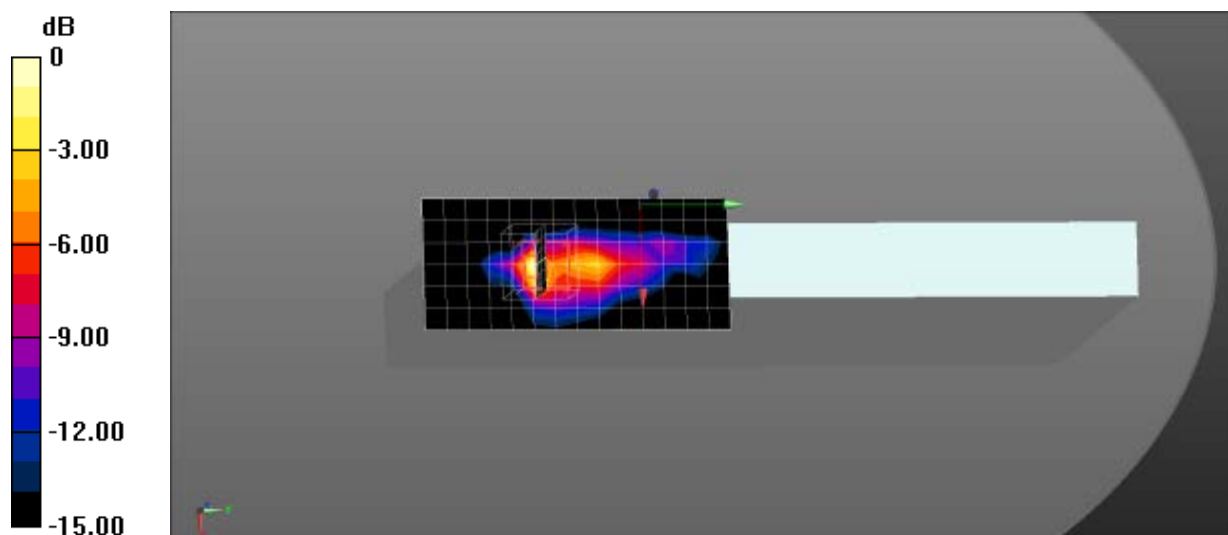
- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(40MHz) 5230MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.21 W/kg

Configuration/802.11ac(40MHz) 5230MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 5.959 V/m; Power Drift = -0.19
dBPeak SAR (extrapolated) = 3.86 W/kg

SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.232 W/kg Maximum value of SAR (measured) = 2.26 W/kg



0 dB = 2.26 W/kg = 3.54 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(40MHz) 5755MHz Tablet-edge_1

Communication System Band: 802.11ac(40MHz); Frequency: 5755 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5755$ MHz; $\sigma = 5.92$ S/m; $\epsilon_r = 48.56$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

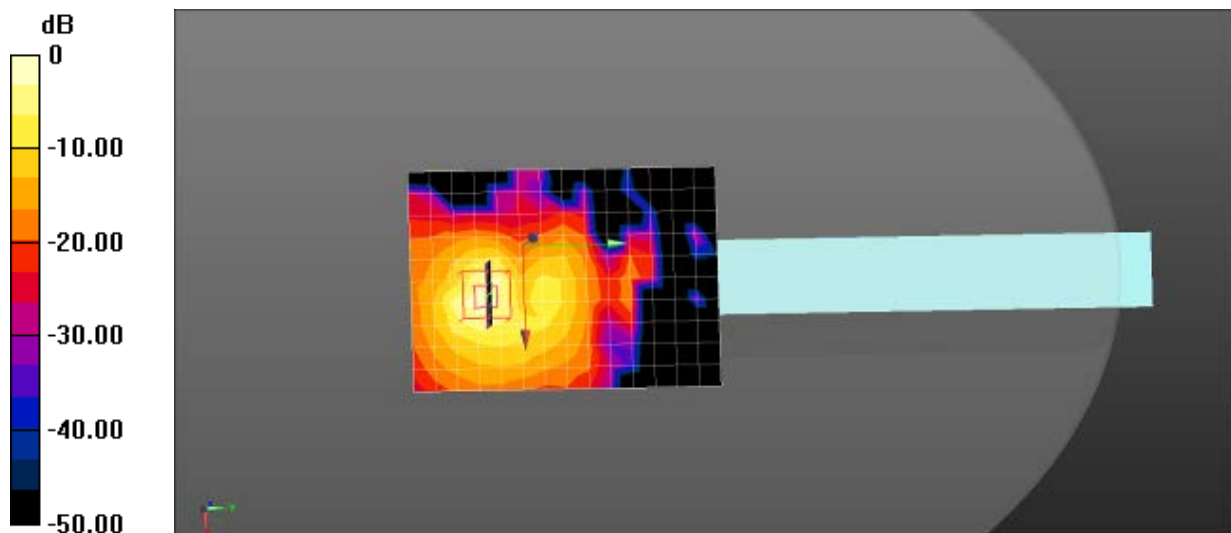
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(40MHz) 5755MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.20 W/kg**Configuration/802.11ac(40MHz) 5755MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 10.50 V/m; Power Drift = -0.05 dB, Peak SAR (extrapolated) = 5.08 W/kg

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.332 W/kg Maximum value of SAR (measured) = 2.41 W/kg

0 dB = 2.41 W/kg = 3.82 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(40MHz) 5795MHz Tablet-edge_1

Communication System Band: 802.11ac(40MHz); Frequency: 5795 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5795$ MHz; $\sigma = 6.04$ S/m; $\epsilon_r = 48.49$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

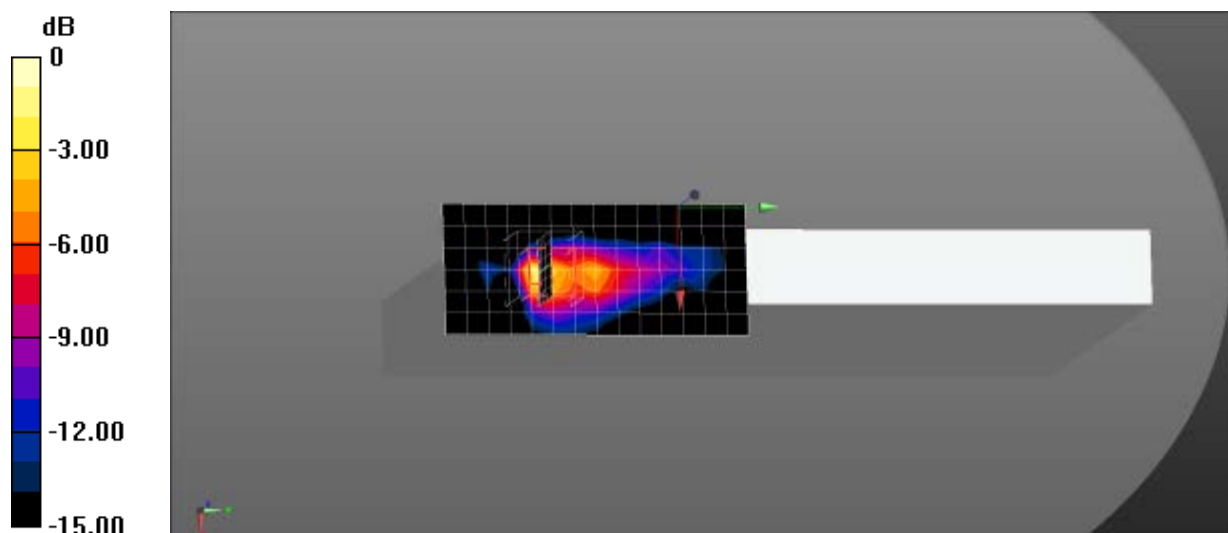
- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(40MHz) 5795MHz Tablet-edge_1/Area Scan (7x15x1): Measurement grid:
dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.94 W/kg

Configuration/802.11ac(40MHz) 5795MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube

0: Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 7.135 V/m; Power Drift = -0.14 dB, Peak SAR (extrapolated) = 4.49 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.263 W/kg Maximum value of SAR (measured) = 2.54 W/kg



0 dB = 2.54 W/kg = 4.05 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(80MHz) 5210MHz Tablet-edge_1

Communication System Band: 802.11ac(80MHz); Frequency: 5210 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5210$ MHz; $\sigma = 5.34$ S/m; $\epsilon_r = 49.39$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

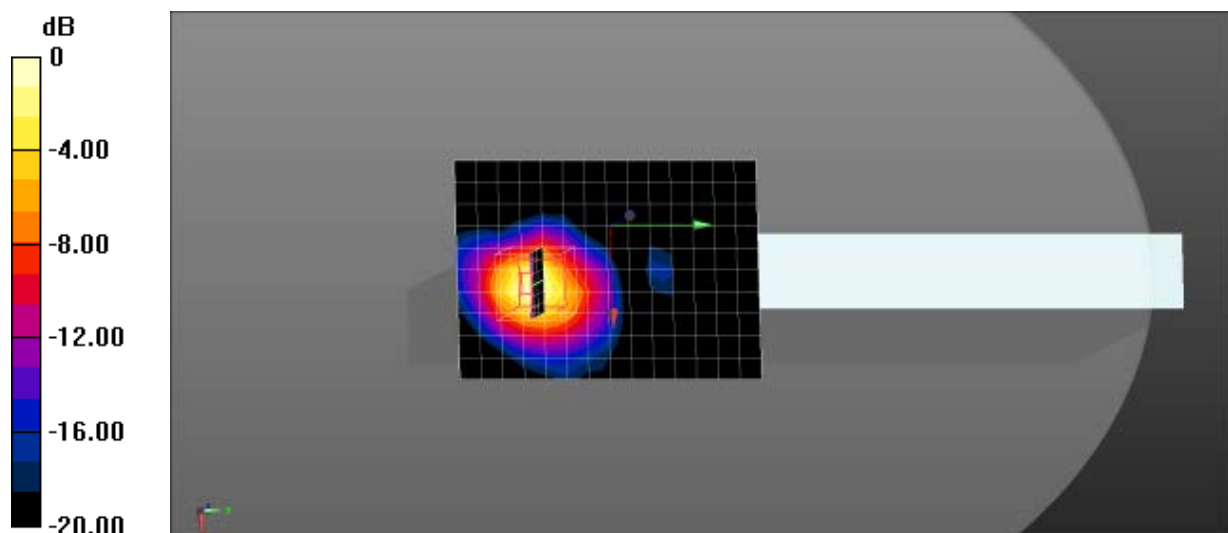
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.61, 4.61, 4.61); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(80MHz) 5210MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.75 W/kg**Configuration/802.11ac(80MHz) 5210MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 10.44 V/m; Power Drift = 0.16 dB, Peak SAR (extrapolated) = 4.02 W/kg

SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.341 W/kg Maximum value of SAR (measured) = 1.95 W/kg

0 dB = 1.95 W/kg = 2.90 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: 802.11ac(80MHz) 5775MHz Tablet-edge_1

Communication System Band: 802.11ac(80MHz); Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5775$ MHz; $\sigma = 5.99$ S/m; $\epsilon_r = 48.53$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

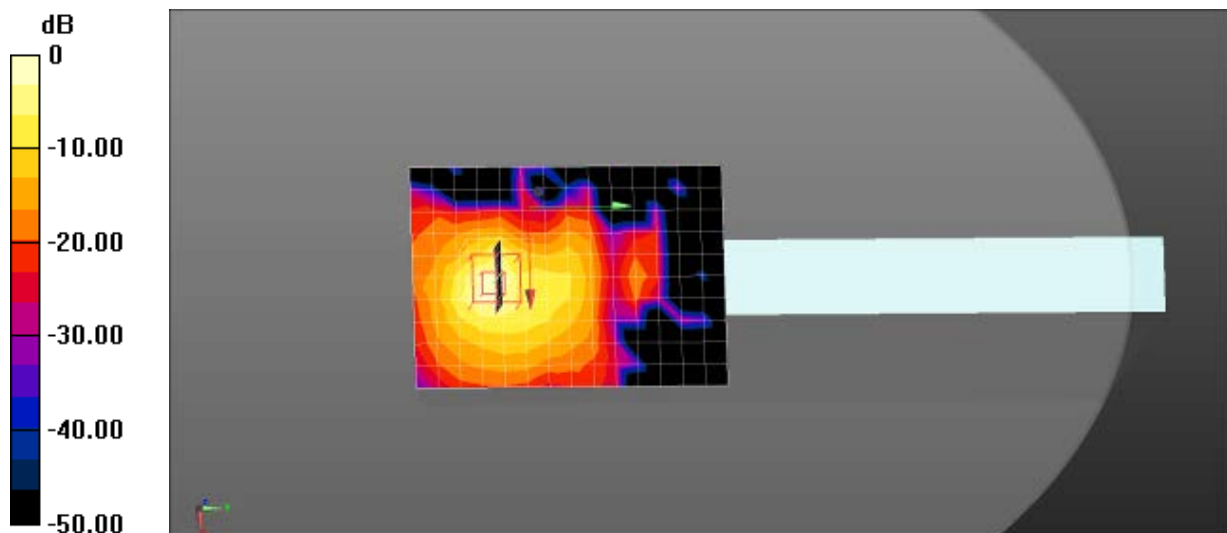
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(4.25, 4.25, 4.25); Calibrated: 2014/5/23;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: ELI v5.0; Type: QDOVA002AA
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/802.11ac(80MHz) 5775MHz Tablet-edge_1/Area Scan (11x15x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 1.90 W/kg**Configuration/802.11ac(80MHz) 5775MHz Tablet-edge_1/Zoom Scan (7x7x6)/Cube 0:**

Measurement grid: dx=5mm, dy=5mm, dz=2mm, Reference Value = 11.36 V/m; Power Drift = -0.01 dB, Peak SAR (extrapolated) = 4.56 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.295 W/kg Maximum value of SAR (measured) = 2.18 W/kg

0 dB = 2.18 W/kg = 3.38 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: Cerpass Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: Bluetooth 2441MHz Mid Body-Back

Communication System Band: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 51.71$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius)- 21 °C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

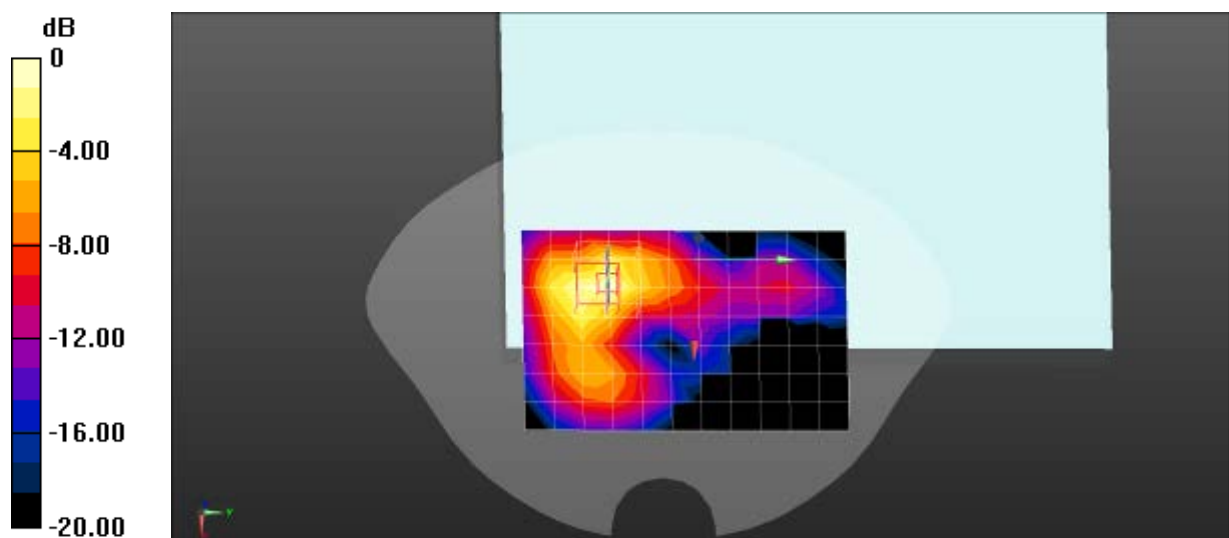
Configuration/ Bluetooth 2441MHz Mid Body-Back/Area Scan (8x12x1): Measurement grid:

dx=15mm, dy=15mm, Maximum value of SAR (measured) = 0.493 W/kg

Configuration/ Bluetooth 2441MHz Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 1.717 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.436 W/kg; SAR(10 g) = 0.193 W/kg Maximum value of SAR (measured) = 0.494 W/kg

0 dB = 0.494 W/kg = -3.06 dBW/kg



Z-Axis Plot





Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: Bluetooth 2402MHz Low Body-Edge_1

Communication System Band: Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2402$ MHz; $\sigma = 1.88$ S/m; $\epsilon_r = 51.92$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

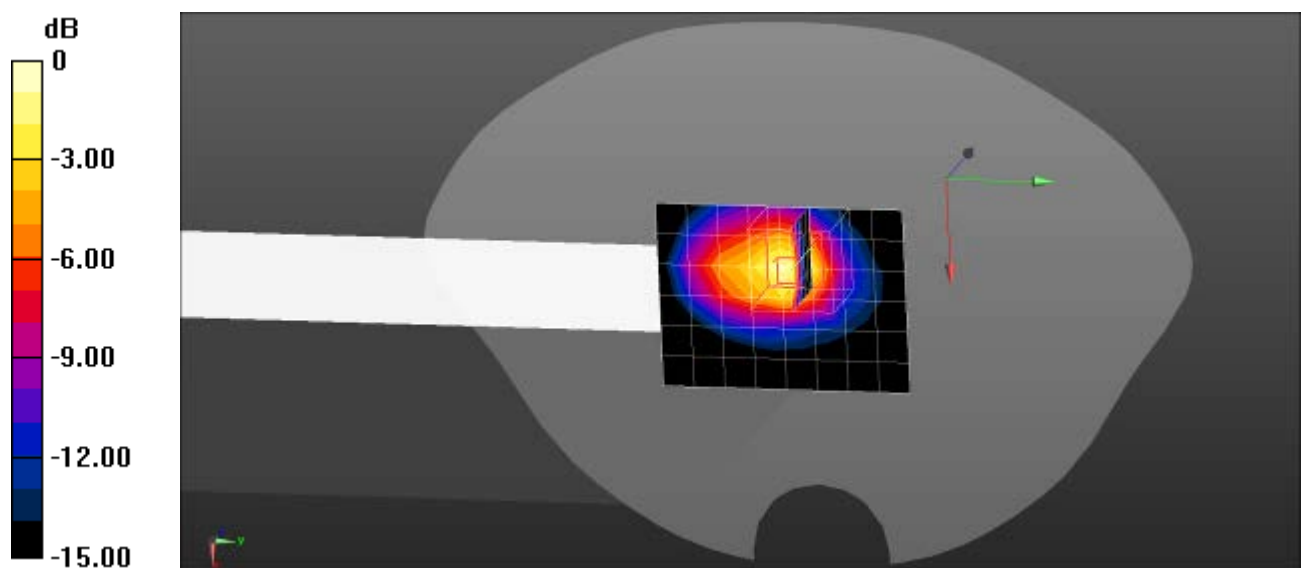
Configuration/Bluetooth 2402MHz Low Body-Edge_1/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.368 W/kg

Configuration/Bluetooth 2402MHz Low Body-Edge_1/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.79 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.772 W/kg

SAR(1 g) = 0.354 W/kg; SAR(10 g) = 0.153 W/kg Maximum value of SAR (measured) = 0.417 W/kg

0 dB = 0.417 W/kg = -3.80 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: Bluetooth 2441MHz Mid Body-Edge_1

Communication System Band: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2441$ MHz; $\sigma = 1.91$ S/m; $\epsilon_r = 51.71$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

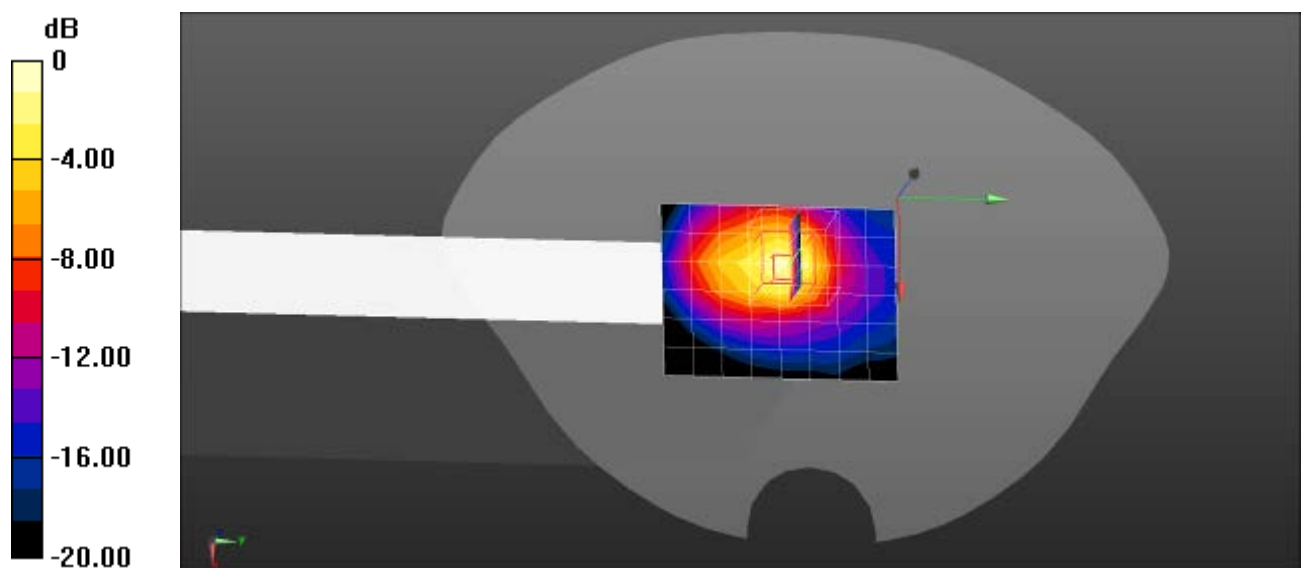
Configuration/Bluetooth 2441MHz Mid Body-Edge_1/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.397 W/kg

Configuration/Bluetooth 2441MHz Mid Body-Edge_1/Zoom Scan (5x5x7)/Cube 0: Measurement

grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.86 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.833 W/kg

SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.165 W/kg Maximum value of SAR (measured) = 0.450 W/kg

0 dB = 0.450 W/kg = -3.47 dBW/kg



Date/Time: 29/10/2014

Test Laboratory: CerpPASS Lab

DUT: AUTOMOTIVE DIAGNOSTIC & ANALYSIS SYSTEM; Type: MaxiSys Elite

Procedure Name: Bluetooth 2480MHz High Body-Edge_1

Communication System Band: Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2480$ MHz; $\sigma = 1.95$ S/m; $\epsilon_r = 51.49$; $\rho = 1000$ kg/m³

Phantom section: Flat Section; Tissue Temp (celsius) - 21°C

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY5 Configuration:

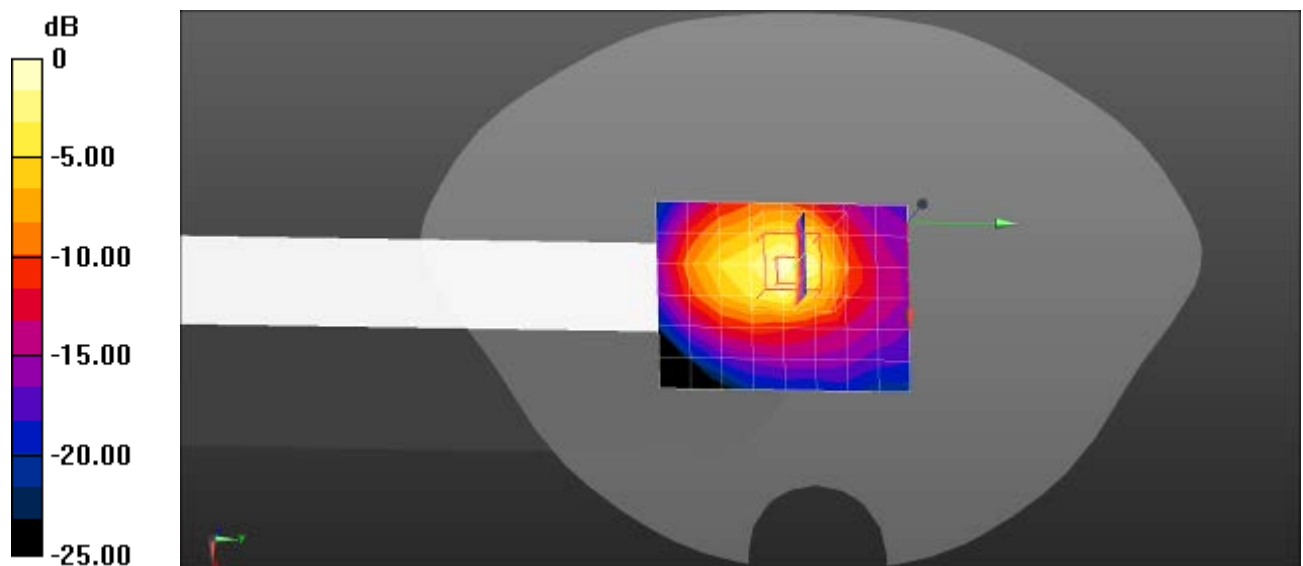
- Probe: EX3DV4 - SN3927; ConvF(7.63, 7.63, 7.63); Calibrated: 2014/5/23;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1379; Calibrated: 2014/5/19
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD
- Measurement SW: DASY52, Version 52.8 (8);

Configuration/Bluetooth 2480MHz High Body-Edge_1/Area Scan (7x9x1): Measurement grid:

dx=12mm, dy=12mm, Maximum value of SAR (measured) = 0.390 W/kg

Configuration/Bluetooth 2480MHz High Body-Edge_1/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.93 V/m; Power Drift = -0.06 dB, Peak SAR (extrapolated) = 0.818 W/kg

SAR(1 g) = 0.376 W/kg; SAR(10 g) = 0.162 W/kg Maximum value of SAR (measured) = 0.442 W/kg

0 dB = 0.442 W/kg = -3.55 dBW/kg



8. APPENDIX C EUT Photographs & Test Setup Photographs

Note: EUT photographs and test setup photos, see separate documents in PDF, named FCC SAR-Appendix C-EUT Photographs and FCC SAR-Appendix C- Test Setup Photographs.



9. APPENDIX D/E/F

Appendix D. Probe Calibration Data

Appendix E. Dipole Calibration Data

Appendix F. DAE Calibration Data

Note: Please refer to attached files, named "appendix for Instrument calibration data".

End of this report