

SAR Test Report

Product Name : Tablet PC MC-C5 / MC-F5
Model No. : CFT-003

Applicant : Motion Computing Incorporated.
Address : 8601 Ranch Road 2222; Building #2 Austin,
Texas 78730 USA

Date of Receipt : 2010/01/20
Issued Date : 2010/04/21
Report No. : 101358R-HPUSP10V01
Report Version : V1.0

The test results relate only to the samples tested.

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Test Report Certification

Issued Date: 2010/04/21

Report No.:101358R-HPUSP10V01

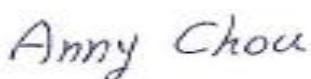


Product Name : Tablet PC MC-C5 / MC-F5
Applicant : Motion Computing Incorporated.
Address : 8601 Ranch Road 2222; Building #2 Austin, Texas 78730
USA
Manufacturer : Motion Computing Incorporated.
Model No. : CFT-003
Trade Name : Motion Computing Incorporated.
FCC ID. : Q3QIHW622ANH
Applicable Standard : FCC Oet65 Supplement C June 2001
IEEE Std. 1528-2003
47CFR § 2.1093
Test Result : Max. SAR Measurement (1g)
802.11b(2.4GHz): **0.729** W/kg
802.11a(5 GHz): **1.48** W/kg

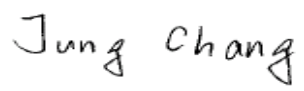
Application Type Certification

The test results relate only to the samples tested.

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Documented By : 

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Tested By : 

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1. General Information

1.1 EUT Description

Product Name	Tablet PC MC-C5 / MC-F5
Trade Name	Motion Computing Incorporated.
Model No.	CFT-003
FCC ID	Q3QIHW622ANH
TX Frequency	802.11b/802.11g : 2412MHz~2462MHz 802.11a : 5150MHz~5825MHz
Type of Modulation	DSSS/OFDM
Wlan Modular	MFR: Intel, M/N: 622ANHMW
Antenna Type	PIFA
Device Category	Portable
RF Exposure Environment	Uncontrolled
Max. Output Power (Conducted)	802.11b: 18.62 dBm 802.11g: 21.90 dBm 802.11a: 21.77 dBm

1.2 Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	YAGEO	CAN43130WLPE01851 (Main) CAN4313 580 022501B (Aux)	-0.07dBi for 2.4GHz 1.85dBi for 5GHz

Note:

The device has included RFID module card and Bluetooth module. The module placement and antenna placement please review internal photo of this report. The Bluetooth antenna is separation > 5cm to RFID antenna and WLAN antenna. The RFID antenna distance to WLAN antenna is 12cm and no co-location requirement.

1.3 Test Environment

Ambient conditions in the laboratory:

Test Date :2010/04/19

Items	Required	Actual
Temperature (°C)	18-25	21.4± 2
Humidity (%RH)	30-70	55

Test Date :2010/04/20

Items	Required	Actual
Temperature (°C)	18-25	21.4± 2
Humidity (%RH)	30-70	55

Site Description:

Accredited by TAF
 Accredited Number: 0914
 Effective through: December 12, 2011

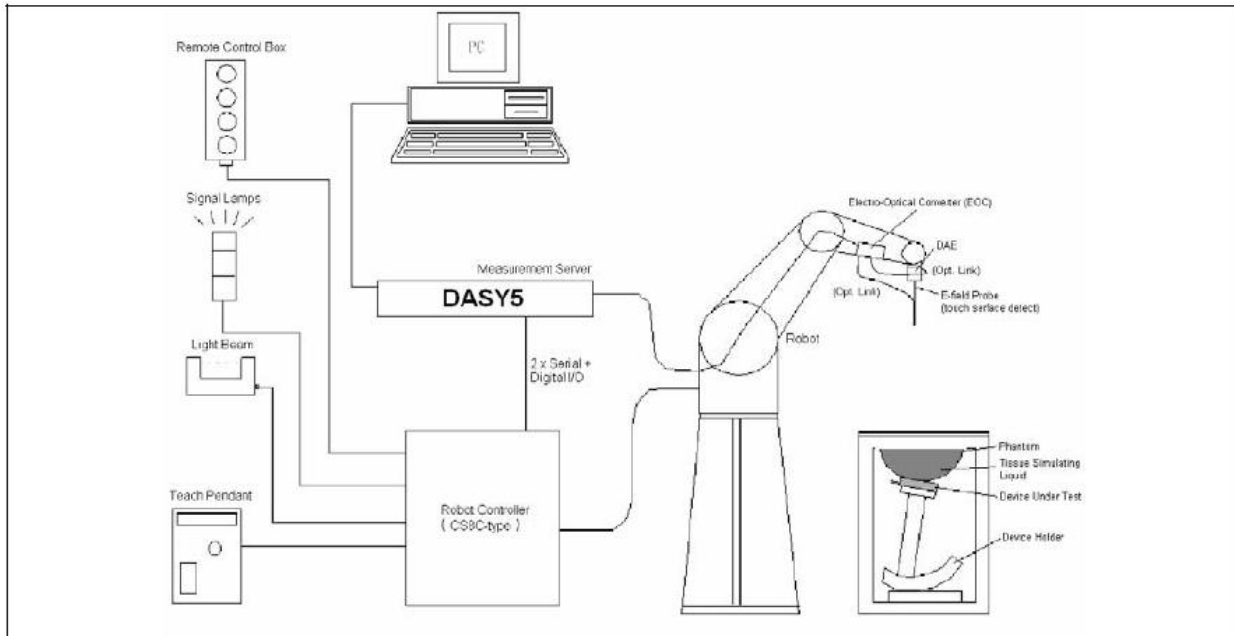


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2. SAR Measurement System

2.1 DASY5 System Description



The DASY5 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

2.1.1 Applications

Predefined procedures and evaluations for automated compliance testing with all worldwide standards, e.g., IEEE 1528, OET 65, IEC 62209-1, IEC 62209-2, EN 50360, EN 50383 and others.

2.1.2 Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm² step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima 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 1528-2003, EN 50361 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan).

2.1.3 Zoom Scan (Cube Scan Averaging)

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. A density of 1000 kg/m³ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications (including FCC) utilize a physical step of 5x5x7 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 30mm in the Z axis.

2.1.4 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.

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


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

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

2.2 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.

2.2.1 Isotropic E-Field Probe Specification

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 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/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%.	

2.3 Boundary Detection Unit and Probe Mounting Device

The DASY probes use a precise connector and an additional holder for the probe, consisting of a plastic tube and a flexible silicon ring to center the probe. The connector at the DAE is flexibly mounted and held in the default position with magnets and springs. Two switching systems in the connector mount detect frontal and lateral probe collisions and trigger the necessary software response.



2.4 DATA Acquisition Electronics (DAE) and Measurement Server

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.



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.



2.5 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



2.6 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.



2.7 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.



2.8 SAM Twin 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 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. Tissue Simulating Liquid

3.1 The composition of the tissue simulating liquid

INGREDIENT (% Weight)	2450MHz Head	2450MHz Body	5200MHz Body	5800MHz Body
Water	46.7	73.2	76	75.68
Salt	0.00	0.04	0.00	0.43
Sugar	0.00	0.00	0.00	0.00
HEC	0.00	0.00	0.00	0.00
Preventol	0.00	0.00	0.00	0.00
DGBE	53.3	26.7	4.44	4.42
Triton X-100	0.00	0.00	19.56	19.47

3.2 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using APREL Dielectric Probe Kit and Anritsu MS4623B Vector Network Analyzer.

Head Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
2450MHz	Reference result ± 5% window	40.1 38.095 to 42.105	1.78 1.691 to 1.869	N/A
	19-Apr-10	41.36	1.82	20.2

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
2412 MHz	Reference result ± 5% window	52.7 50.065 to 55.335	1.95 1.8525 to 2.0475	N/A
	Low channel	55.28	1.87	20.2
2437 MHz	Mid channel	54.11	1.90	20.2
2462 MHz	High channel	52.86	1.95	20.2

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
5200MHz	Reference result ± 5% window	49 46.55 to 51.45	5.3 5.035 to 5.565	N/A
	20-Apr-10	50.06	5.23	20.2
5180 MHz	Low channel	51.36	5.05	20.2
5240 MHz	Mid channel	49.83	5.28	20.2
5320 MHz	High channel	46.84	5.5	20.2

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
5500MHz	Reference result ± 5% window	49 46.55 to 51.45	5.3 5.035 to 5.565	N/A
	20-Apr-10	49.89	5.53	20.2
5590 MHz	Low channel	49.04	5.66	20.2
5600 MHz	Mid channel	48.62	5.71	20.2
5670 MHz	High channel	47.58	5.78	20.2

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
5800MHz	Reference result ± 5% window	48.2 45.79 to 50.61	6 5.7 to 6.3	N/A
	20-Apr-10	47.32	5.94	20.2
5745 MHz	Low channel	48.01	5.77	20.2
5785 MHz	Mid channel	47.67	5.83	20.2
5825 MHz	High channel	46.53	6.11	20.2

3.3 Tissue Dielectric Parameters for Head and Body Phantoms

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in P1528.

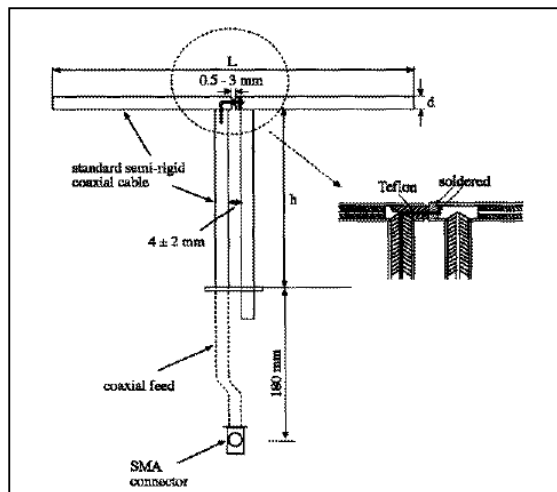
Target Frequency (MHz)	Head		Body	
	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80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

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

4. SAR Measurement Procedure

4.1 SAR System Validation

4.1.1 Validation Dipoles



The dipoles used is based on the IEEE-1528 standard, and is complied with mechanical and electrical specifications in line with the requirements of both IEEE and FCC Supplement C. the table below provides details for the mechanical and electrical specifications for the dipoles.

Frequency	L (mm)	h (mm)	d (mm)
2450MHz	53.5	30.4	3.6
5200MHz	23.1	14.2	3.6
5800MHz	21.2	13.1	3.6

4.1.2 Validation Result

System Performance Check at 2450MHz				
Validation Kit: ASL-D-2450-S-2				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
2450 MHz	Reference result ± 10% window	48.07 43.263 to 52.877	25.65 23.085 to 28.215	N/A
	19-Apr-10	49.64	24.64	20.2

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

System Performance Check at 5200MHz				
Validation Kit: ASL-D-5200-S-2				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5200 MHz	Reference result ± 10% window	77.2 69.48 to 84.92	21.7 19.53 to 23.87	N/A
	20-Apr-10	81.6	22.8	20.2
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at 5500MHz				
Validation Kit: ASL-D-5500-S-2				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5500 MHz	Reference result ± 10% window	76.6 68.94 to 84.26	21.1 18.99 to 23.21	N/A
	20-Apr-10	83.2	20.4	20.2
Note: All SAR values are normalized to 1W forward power.				

System Performance Check at 5800MHz				
Validation Kit: ASL-D-5800-S-2				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
5800 MHz	Reference result ± 10% window	68.2 61.38 to 75.02	18.7 16.83 to 20.57	N/A
	20-Apr-10	67.1	19.6	20.2
Note: All SAR values are normalized to 1W forward power.				

4.2 Arrangement Assessment Setup

4.2.1 Test Positions of Device Relative to Head

This specifies exactly two test positions for the handset against the head phantom, the “cheek” position and the “tilted” position. The handset should be tested in both positions on the left and right sides of the SAM phantom. If the handset construction is such that it cannot be positioned using the handset positioning procedures described in 4.2.2.1 and 4.2.2.2 to represent normal use conditions (e.g., asymmetric handset), alternative alignment procedures should be considered with details provided in the test report.

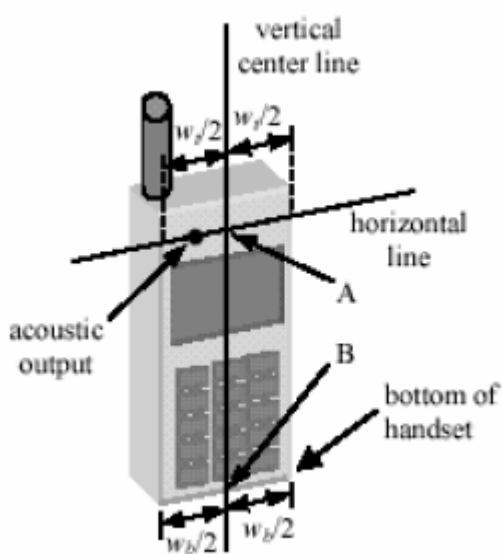


Figure 4.1a Fixed Case

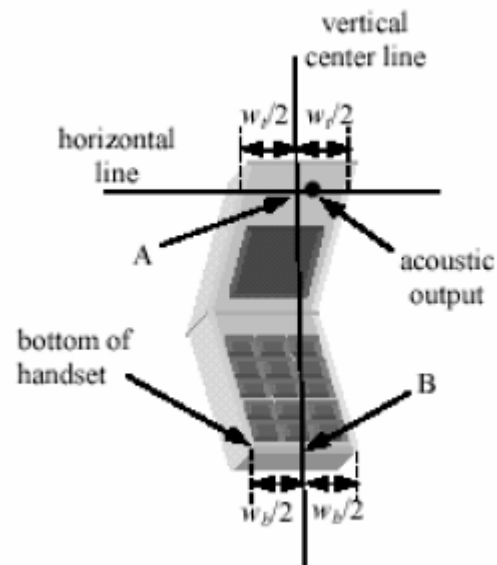


Figure 4.1b Clam Shell

4.2.1.1 Definition of the “Cheek” Position

The “cheek” position is defined as follows:

- a. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece, open the cover. (If the handset can also be used with the cover closed both configurations must be tested.)
- b. Define two imaginary lines on the handset: the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset: the midpoint of the width w_t of the handset at the level of the acoustic output (point A on Figures 4.1a and 4.1b), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 4.1a). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output. However, the acoustic output may be located elsewhere on the horizontal line.

Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 4.1b), especially for clamshell handsets, handsets with flip pieces, and other irregularly-shaped handsets.

- c. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 4.2), such that the plane defined by the vertical center line and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
- d. Translate the handset towards the phantom along the line passing through RE and LE until the handset touches the pinna.
- e. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to MB-NF including the line MB (called the reference plane).
- f. Rotate the handset around the vertical centerline until the handset (horizontal line) is symmetrical with respect to the line NF.
- g. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE and maintaining the handset contact with the pinna, rotate the handset about the line NF until any point on the handset is in contact with a phantom point below the pinna (cheek). See Figure 4.2 the physical angles of rotation should be noted.

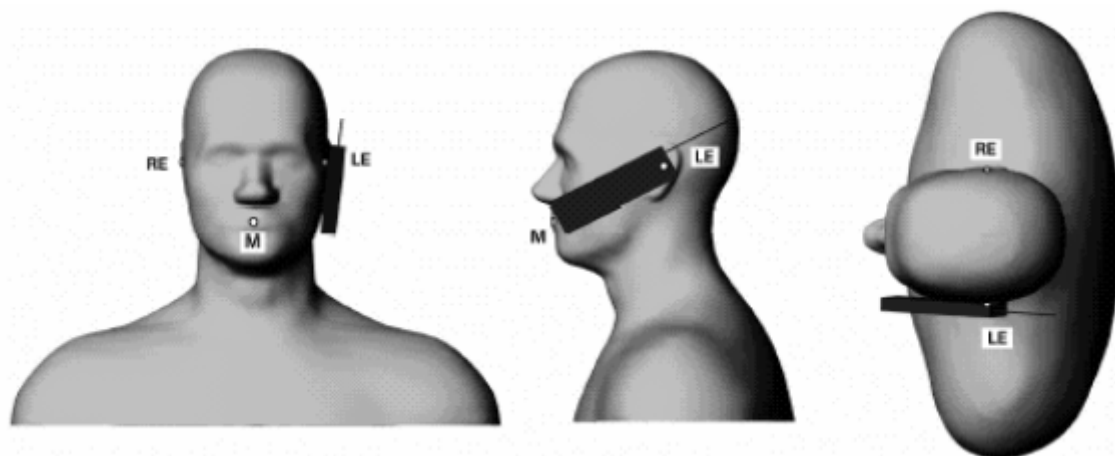


Figure 4.2 – Phone position 1, “cheek” or “touch” position.

4.2.1.2 Definition of the “Tilted” Position

The “tilted” position is defined as follows:

- a. Repeat steps (a) – (g) of 4.2.1.1 to place the device in the “cheek position.”
- b. While maintaining the orientation of the handset move the handset away from the pinna

along the line passing through RE and LE in order to enable a rotation of the handset by 15 degrees.

- c. Rotate the handset around the horizontal line by 15 degrees.
- d. While maintaining the orientation of the handset, move the handset towards the phantom on a line passing through RE and LE until any part of the handset touches the ear. The tilted position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna (e.g., the antenna with the back of the phantom head), the angle of the handset should be reduced. In this case, the tilted position is obtained if any part of the handset is in contact with the pinna as well as a second part of the handset is contact with the phantom (e.g., the antenna with the back of the head).

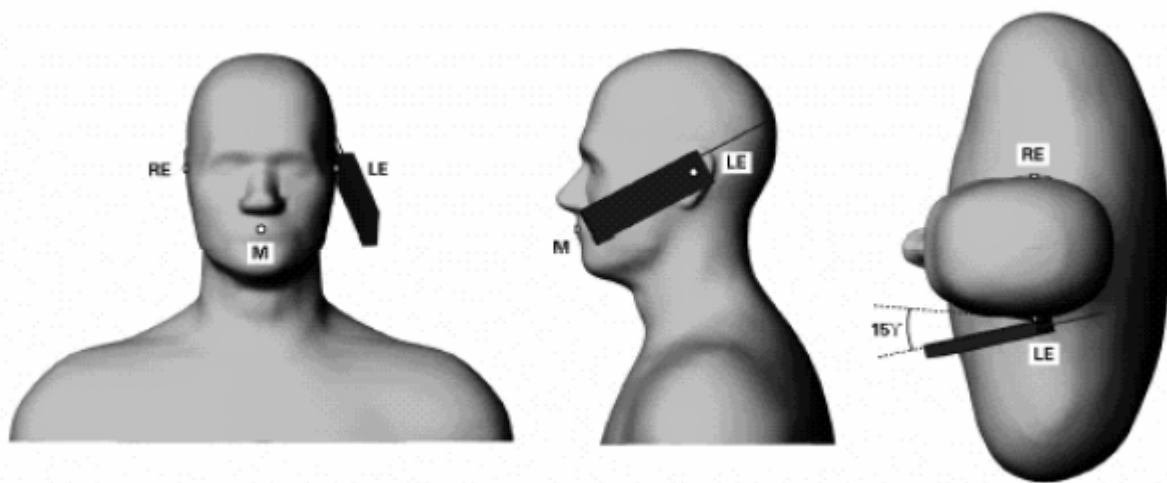


Figure 4.3 – Phone position 2, “tilted” position.

4.2.2 Test Positions for body-worn

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. A separation distance of 1.5 cm between the back of the device and a flat phantom is recommended for testing body-worn SAR compliance under such circumstances. Other separation distance may be use, but not exceed 2.5 cm.

4.3 SAR Measurement Procedure

The Dasy5 calculates SAR using the following equation,

$$SAR = \frac{\sigma |E|^2}{\rho}$$

- σ: represents the simulated tissue conductivity
- ρ: represents the tissue density

The EUT is set to transmit at the required power in line with product specification, at each frequency relating to the LOW, MID, and HIGH channel settings.

Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.

The EUT is placed against the Universal Phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.

The area scan is then run to establish the peak SAR location (interpolated resolution set at 1mm^2) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at 1mm^3).

5. SAR Exposure Limits

SAR assessments have been made in line with the requirements of IEEE-1528, FCC Supplement C, and comply with ANSI/IEEE C95.1-1992 “Uncontrolled Environments” limits. These limits apply to a location which is deemed as “Uncontrolled Environment” which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for brain or body)	1.60 W/kg
Spatial Average SAR (whole body)	0.08 W/kg
Spatial Peak SAR (10g for hands, feet, ankles and wrist)	4.00 W/kg

6. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Last Calibration	Next Calibration
Stäubli Robot TX60L	Stäubli	TX60L	F09/5BL1A1/A 06	May. 2009	only once
Controller	Speag	CS8c	N/A	May. 2009	only once
Aprél Reference Dipole 2450Mhz	Aprél	ALS-D-2450-S-2	QTK-319	May. 2008	May. 2010
Speag Reference Dipole 5GHz	Speag	D5GHzV2	1041	May. 2009	May. 2011
SAM Twin Phantom	Speag	QD000 P40 CA	TP 1515	N/A	N/A
Device Holder	Speag	N/A	N/A	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	910	Sep. 2009	Sep. 2010
E-Field Probe	Speag	EX3DV4	3602	May. 2009	May. 2010
SAR Software	Speag	DASY5	V5.0 Build 125	N/A	N/A
Aprél Dipole Spaccer	Aprél	ALS-DS-U	QTK-295	N/A	N/A
Power Amplifier	Mini-Circuit	ZHL-42	D051404-20	N/A	N/A
Directional Coupler	Agilent	778D-012	50550	N/A	N/A
Universal Radio Communication Tester	R&S	CMU 200	104846	May. 2009	May. 2010
Vector Network	Anritsu	MS4623B	992801	Aug. 2009	Aug. 2010
Signal Generator	Anritsu	MG3692A	042319	Jun. 2009	Jun. 2010
Power Meter	Anritsu	ML2487A	6K00001447	Apr. 2010	Apr. 2011
Wide Bandwidth Sensor	Anritsu	MA2491	030677	Apr. 2010	Apr. 2011

7. Measurement Uncertainty

Uncertainty								
Error Description	Uncertainty value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(v_i) v_{eff}
Measurement System								
Probe Calibration	±5.9 %	N	1	1	1	±5.9 %	±5.9 %	∞
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 %	∞
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.	±1.0 %	R	$\sqrt{3}$	1	1	±0.6 %	±0.6 %	∞
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 %	∞
Phantom and Setup								
Phantom Uncertainty	±4.0 %	R	$\sqrt{3}$	1	1	±2.3 %	±2.3 %	∞
Liquid Conductivity (target)	±5.0 %	R	$\sqrt{3}$	0.64	0.43	±1.8 %	±1.2 %	∞
Liquid Conductivity (meas.)	±2.5 %	N	1	0.64	0.43	±1.6 %	±1.1 %	∞
Liquid Permittivity (target)	±5.0 %	R	$\sqrt{3}$	0.6	0.49	±1.7 %	±1.4 %	∞
Liquid Permittivity (meas.)	±2.5 %	N	1	0.6	0.49	±1.5 %	±1.2 %	∞
Combined Std. Uncertainty						±10.9 %	±10.7 %	387
Expanded STD Uncertainty						±21.9 %	±21.4 %	

8. Conducted Power Measurement

Mode	Frequency (MHz)	Channel	Peak Power (dBm)
802.11b	2412	1	18.40
802.11b	2437	6	18.44
802.11b	2462	11	18.62
802.11g	2412	1	21.66
802.11g	2437	6	21.60
802.11g	2462	11	21.90
802.11a	5180	36	20.02
802.11a	5220	44	20.12
802.11a	5240	48	20.24
802.11a	5260	52	20.20
802.11a	5300	60	21.21
802.11a	5320	64	21.39
802.11a	5500	100	21.51
802.11a	5600	120	21.32
802.11a	5700	140	21.34
802.11a	5745	149	21.45
802.11a	5785	157	21.77
802.11a	5825	165	21.62

Mode	Frequency (MHz)	Channel	Peak Power (dBm)
802.11n(20M)	2412	1	25.37
802.11n(20M)	2437	6	24.88
802.11n(20M)	2462	11	24.35
802.11n(20M)	5180	36	23.91
802.11n(20M)	5220	44	23.61
802.11n(20M)	5240	48	24.06
802.11n(20M)	5260	52	24.21
802.11n(20M)	5300	60	24.51
802.11n(20M)	5320	64	23.15
802.11n(20M)	5500	100	24.27
802.11n(20M)	5600	120	23.87
802.11n(20M)	5700	140	24.03
802.11n(20M)	5745	149	25.82
802.11n(20M)	5785	157	25.80
802.11n(20M)	5825	165	25.47
802.11n(40M)	2422	3	22.44
802.11n(40M)	2437	6	23.88
802.11n(40M)	2452	9	22.70
802.11n(40M)	5190	38	23.02
802.11n(40M)	5230	46	24.61
802.11n(40M)	5270	54	23.92
802.11n(40M)	5310	62	23.81
802.11n(40M)	5510	102	22.51
802.11n(40M)	5590	118	23.11
802.11n(40M)	5670	134	22.87
802.11n(40M)	5755	151	25.50
802.11n(40M)	5795	159	25.09

9. Test Results

9.1 SAR Test Results Summary

SAR MEASUREMENT						
Ambient Temperature (°C) : 21.4 ±2			Relative Humidity (%): 56			
Liquid Temperature (°C) : 20.2 ±2			Depth of Liquid (cm):>15			
Test Mode: 802.11b - 2450 MHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Test Position Body	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Top	Fixed	1	2412	18.40	0.704	1.6
Top	Fixed	6	2437	18.44	0.729	1.6
Top	Fixed	11	2462	18.62	0.717	1.6
Side	Fixed	6	2437	18.44	0.059	1.6
Back	Fixed	6	2437	18.44	0.131	1.6
Test Mode: 802.11g - 2450 MHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Top	Fixed	6	2437	21.60	0.720	1.6
Test Mode: 802.11n (20M) - 2450 MHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Top	Fixed	6	2437	24.88	0.361	1.6
Test Mode: 802.11n (20M) - 2450 MHz –YAGEO Tx2 Antenna, P/N: CAN43139WLAS01172						
Top	Fixed	6	2437	24.88	0.497	1.6
Test Mode: 802.11n (40M) - 2450 MHz –YAGEO Tx2 Antenna, P/N: CAN43139WLAS01172						
Top	Fixed	6	2437	23.88	0.509	1.6

SAR MEASUREMENT						
Ambient Temperature (°C) : 20.3 ±2			Relative Humidity (%): 55			
Liquid Temperature (°C) : 21.4 ±2			Depth of Liquid (cm):>15			
Test Mode: 802.11a - 5 GHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Test Position Body	Antenna Position	Frequency		Conducted Power (dBm)	SAR 10g (W/kg)	Limit (W/kg)
		Channel	MHz			
Top	Fixed	100	5500	21.51	1.17	1.6
Back	Fixed	100	5500	21.51	0.308	1.6
Side	Fixed	100	5500	21.51	0.00135	1.6
Top	Fixed	36	5180	20.02	1.10	1.6
Top	Fixed	48	5240	20.24	1.31	1.6
Top	Fixed	52	5260	20.20	1.41	1.6
Top	Fixed	64	5320	21.39	1.12	1.6
Top	Fixed	120	5600	21.32	1.48	1.6
Top	Fixed	140	5700	21.34	1.07	1.6
Top	Fixed	149	5745	21.45	1.36	1.6
Top	Fixed	157	5785	21.77	0.952	1.6
Top	Fixed	165	5825	21.62	1.16	1.6
Test Mode: 802.11n (20M) - 5 GHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Top	Fixed	120	5600	23.87	1.42	1.6
Test Mode: 802.11n (20M) - 5 GHz –YAGEO Tx2 Antenna, P/N: CAN4313 580 022501B						
Top	Fixed	120	5600	23.87	0.349	1.6
Test Mode: 802.11n (40M) - 5 GHz –YAGEO Tx1 Antenna, P/N: CAN43130WLPE01851						
Top	Fixed	118	5590	23.11	1.08	1.6

Appendix**Appendix A. SAR System Validation Data****Appendix B. SAR measurement Data****Appendix C. Test Setup Photographs & EUT Photographs****Appendix D. Probe Calibration Data****Appendix E. Dipole Calibration Data**

Appendix A. SAR System Validation Data

Date/Time: 4/19/2010

Test Laboratory: Quietek

System Performance Check_2450MHz-Head

DUT: Dipole 2450 MHz; Type: ALS-D-2450-S-2; Serial: QTK-319

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.82$ mho/m; $\epsilon_r = 41.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

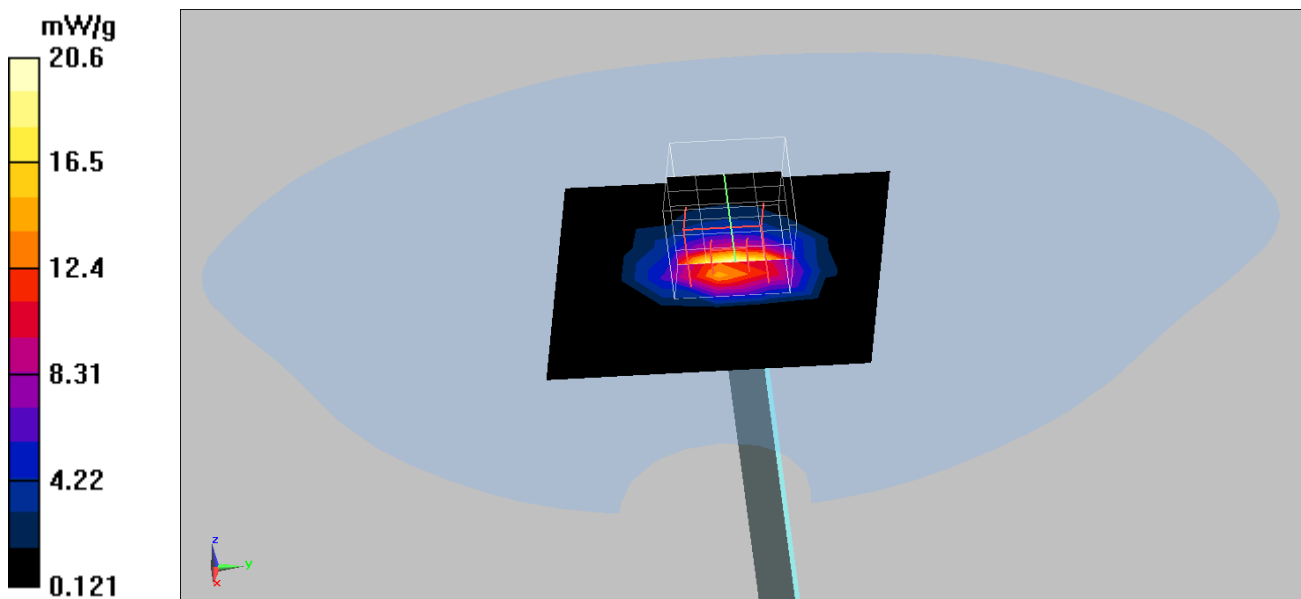
Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(7.1, 7.1, 7.1); Calibrated: 5/20/2009
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 4/7/2009
- Phantom: SAM Left Table; Type: SAM
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

2450MHz_Head/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 14.5 mW/g

2450MHz_Head/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 93.5 V/m; Power Drift = 0.086 dB
 Peak SAR (extrapolated) = 28 W/kg
SAR(1 g) = 12.41 mW/g; SAR(10 g) = 6.15 mW/g
 Maximum value of SAR (measured) = 20.6 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

System Performance Check_5200-Body

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 50.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.7, 3.7, 3.7); Calibrated: 6/26/2009
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 4/7/2009
- Phantom: SAM Left Table; Type: SAM
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

5200MHz-Body/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 28.7 mW/g

5200MHz-Body/Zoom Scan (3x3x2mm, graded), dist=2mm (11x11x6)/Cube

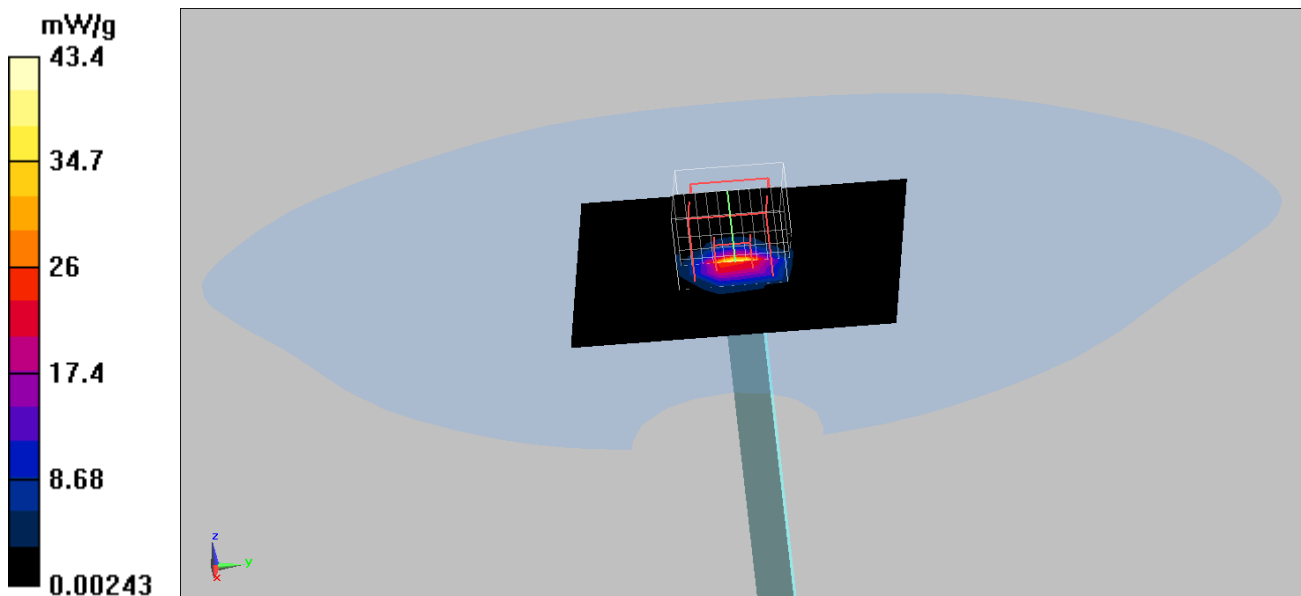
0: Measurement grid: dx=3mm, dy=3mm, dz=2mm

Reference Value = 90.5 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 91.3 W/kg

SAR(1 g) = 8.16 mW/g; SAR(10 g) = 2.28 mW/g

Maximum value of SAR (measured) = 43.4 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

System Performance Check_5500-Body

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.53$ mho/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.42, 3.42, 3.42); Calibrated: 6/26/2009
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 4/7/2009
- Phantom: SAM Left Table; Type: SAM
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 27.6 mW/g

Body/Zoom Scan (3x3x2mm, graded), dist=2mm (11x11x6)/Cube 0:

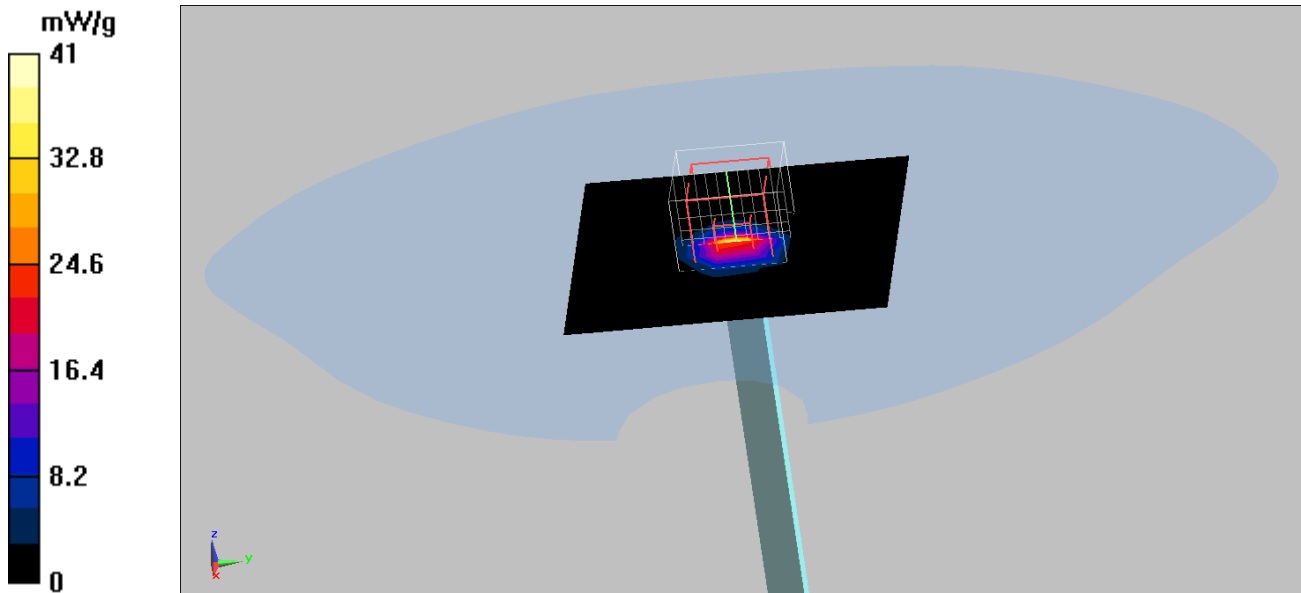
Measurement grid: dx=3mm, dy=3mm, dz=2mm

Reference Value = 95.1 V/m; Power Drift = 0.098 dB

Peak SAR (extrapolated) = 101.1 W/kg

SAR(1 g) = 8.32 mW/g; SAR(10 g) = 2.04 mW/g

Maximum value of SAR (measured) = 41 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

System Performance Check_5800-Body

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 5800$ MHz; $\sigma = 5.94$ mho/m; $\epsilon_r = 47.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.4, 3.4, 3.4); Calibrated: 6/26/2009
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1207; Calibrated: 4/7/2009
- Phantom: SAM Left Table; Type: SAM
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

5800MHz-Body/Area Scan (10x10x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 24.9 mW/g

5800MHz-Body/Zoom Scan (3x3x2mm, graded), dist=2mm (11x11x6)/Cube

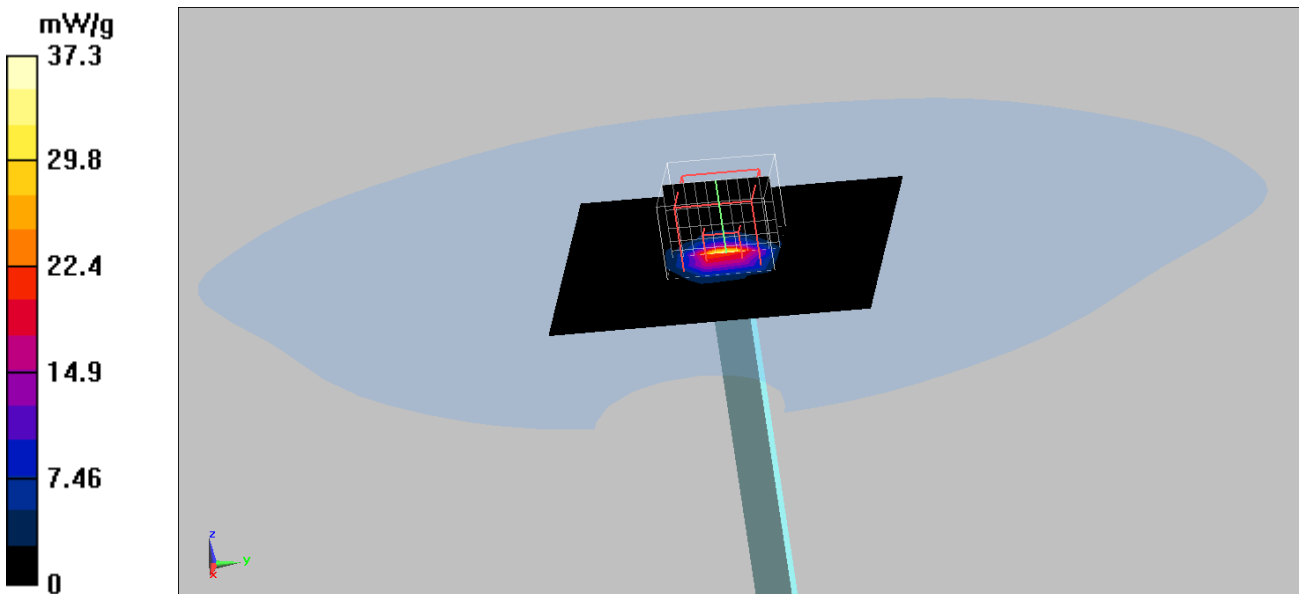
0: Measurement grid: dx=3mm, dy=3mm, dz=2mm

Reference Value = 87.6 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 90.7 W/kg

SAR(1 g) = 6.71 mW/g; SAR(10 g) = 1.96 mW/g

Maximum value of SAR (measured) = 37.3 mW/g



Appendix B. SAR measurement Data

Antenna Kit #1: YAGEO: Tx1 Antenna: P/N: CAN43130WLPE01851

Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11b_1 Top-TX1

DUT: Tablet PC; Type: CFT-003

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

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.87$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.853 mW/g

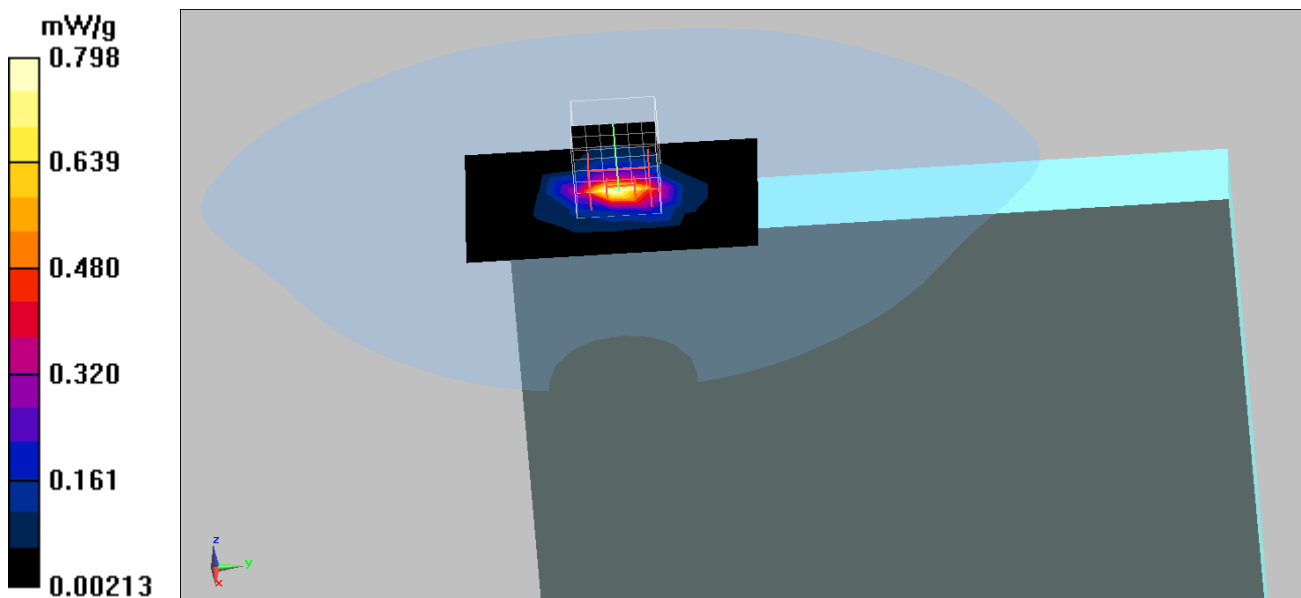
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19 V/m; Power Drift = 0.038 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.704 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.798 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11b_6 Top-TX1

DUT: Tablet PC; Type: CFT-003

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

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 54.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.972 mW/g

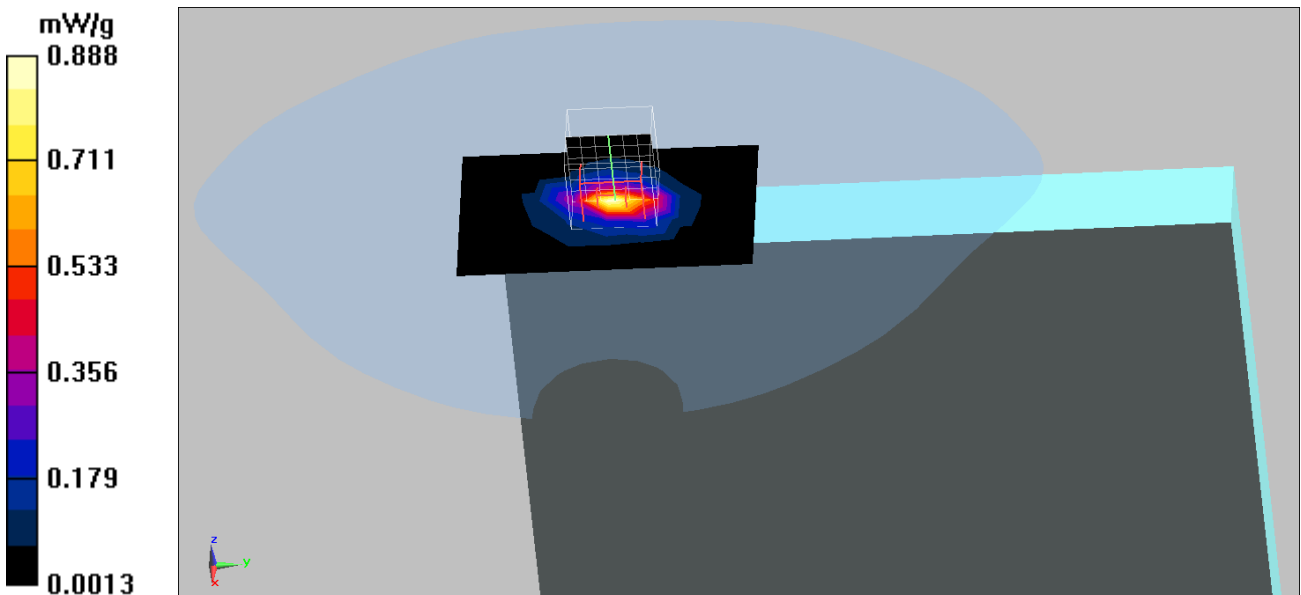
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.3 V/m; Power Drift = -0.085 dB

Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.305 mW/g

Maximum value of SAR (measured) = 0.888 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11b_11 Top-TX1

DUT: Tablet PC; Type: CFT-003

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

Medium parameters used: $f = 2462$ MHz; $\sigma = 1.95$ mho/m; $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.800 mW/g

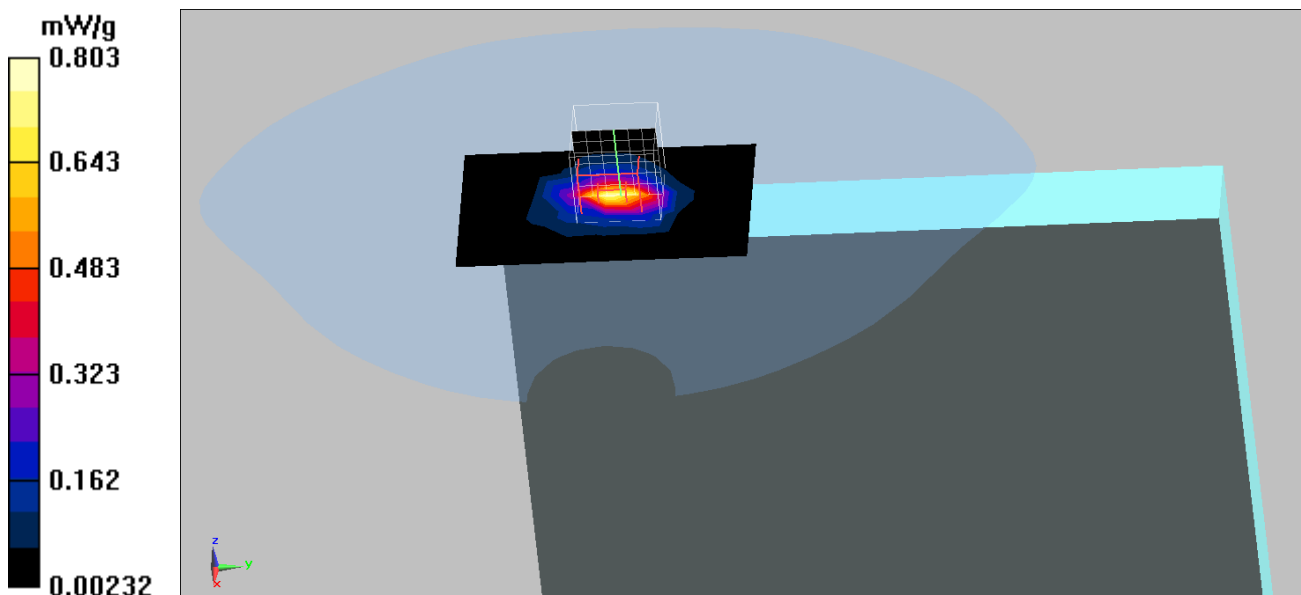
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.7 V/m; Power Drift = 0.189 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.717 mW/g; SAR(10 g) = 0.307 mW/g

Maximum value of SAR (measured) = 0.803 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11b_6 Side-TX1

DUT: Tablet PC; Type: CFT-003

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

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.9$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.063 mW/g

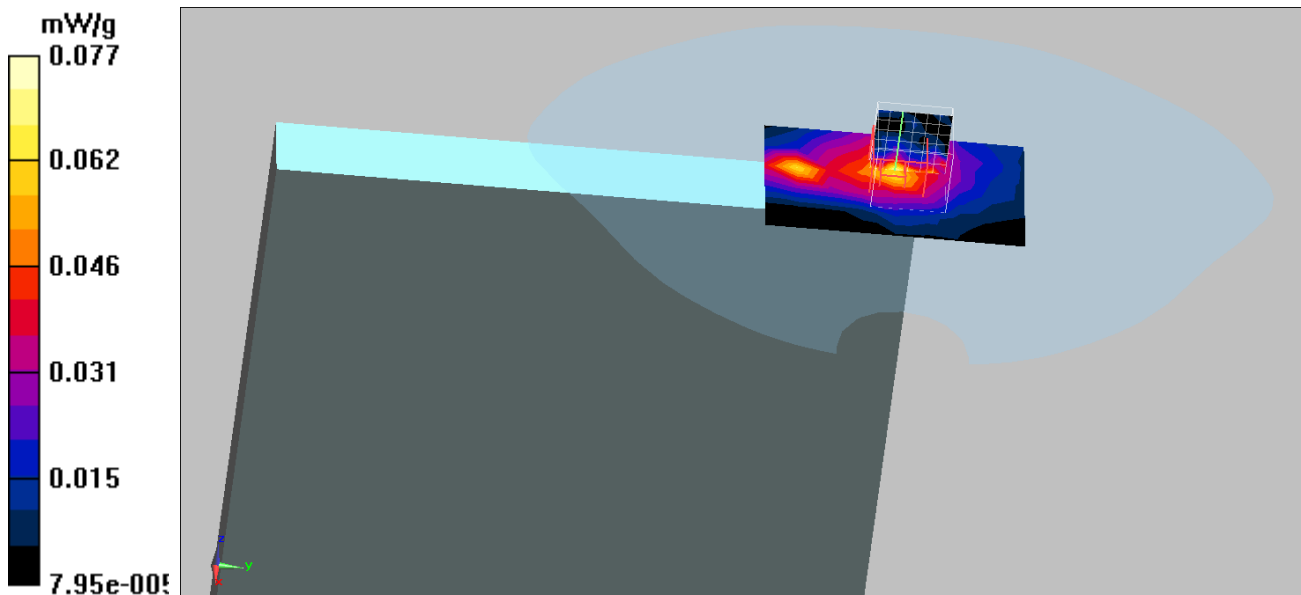
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.97 V/m; Power Drift = 0.159 dB

Peak SAR (extrapolated) = 0.192 W/kg

SAR(1 g) = 0.059 mW/g; SAR(10 g) = 0.027 mW/g

Maximum value of SAR (measured) = 0.077 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11b_6 Back-TX1

DUT: Tablet PC; Type: CFT-003

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

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.9$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (5x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.147 mW/g

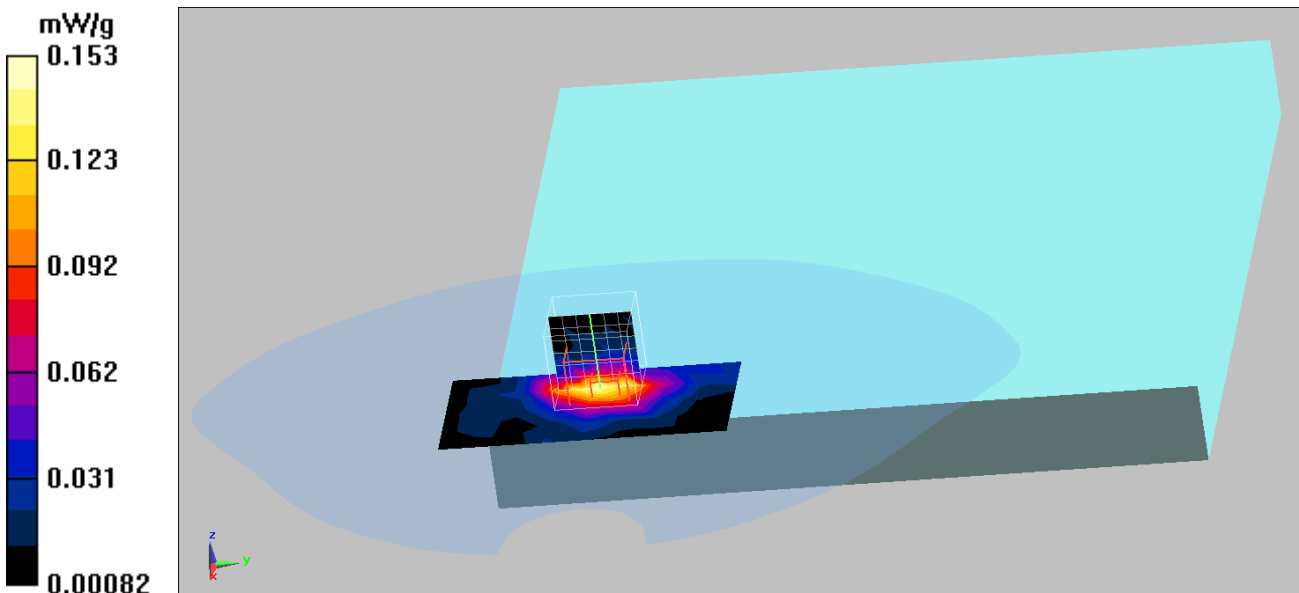
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 8.17 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.252 W/kg

SAR(1 g) = 0.131 mW/g; SAR(10 g) = 0.066 mW/g

Maximum value of SAR (measured) = 0.153 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11g_6 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11g; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 54.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.768 mW/g

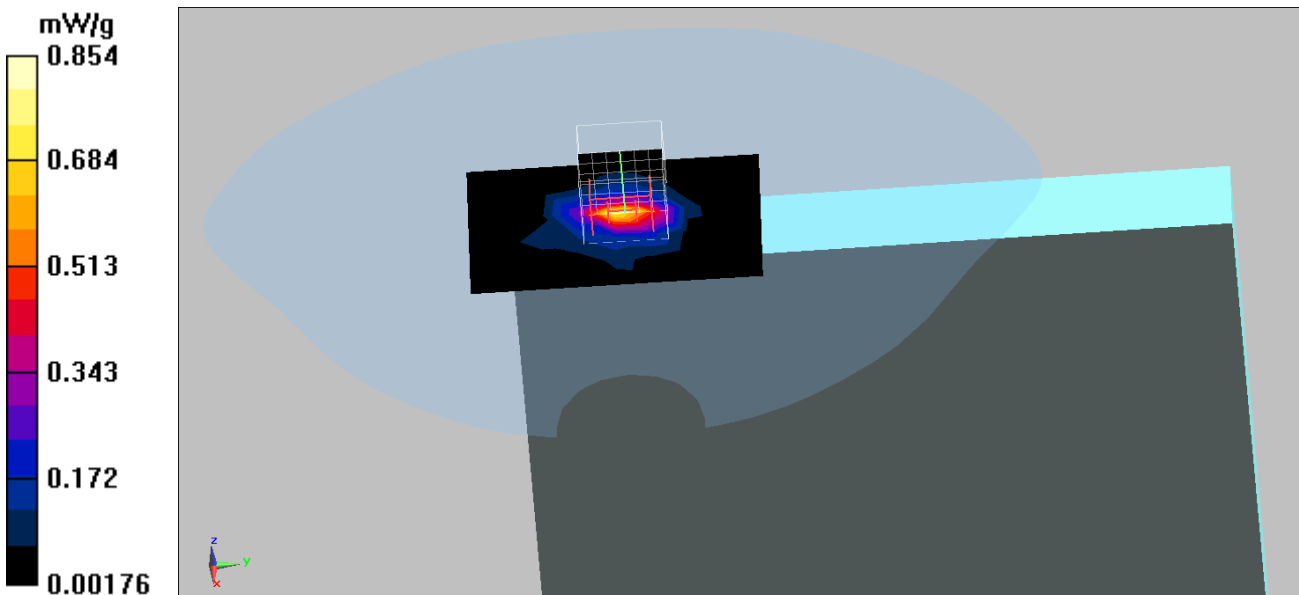
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 17.8 V/m; Power Drift = 0.179 dB

Peak SAR (extrapolated) = 1.78 W/kg

SAR(1 g) = 0.720 mW/g; SAR(10 g) = 0.294 mW/g

Maximum value of SAR (measured) = 0.854 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11n_6_20M Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 54.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.438 mW/g

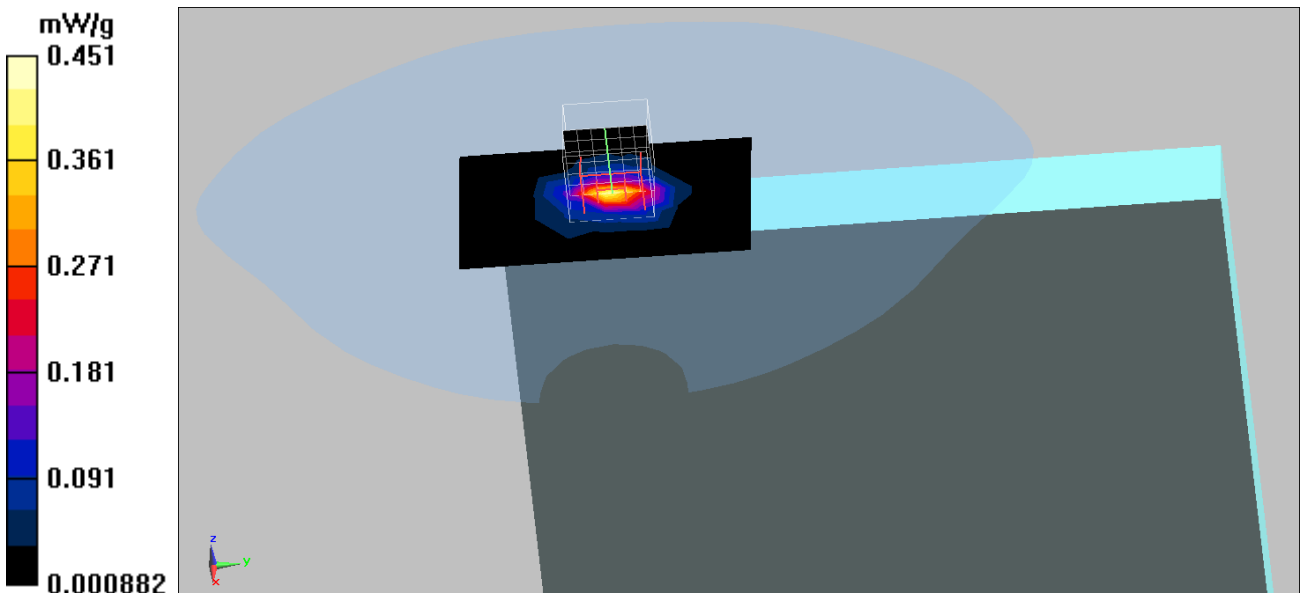
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.2 V/m; Power Drift = -0.098 dB

Peak SAR (extrapolated) = 0.850 W/kg

SAR(1 g) = 0.361 mW/g; SAR(10 g) = 0.148 mW/g

Maximum value of SAR (measured) = 0.451 mW/g



Antenna Kit #2: YAGEO: Tx1 Antenna: P/N: CAN4313 580 022501B

Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11n_6_20M Top-TX2

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.9$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x10x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.534 mW/g

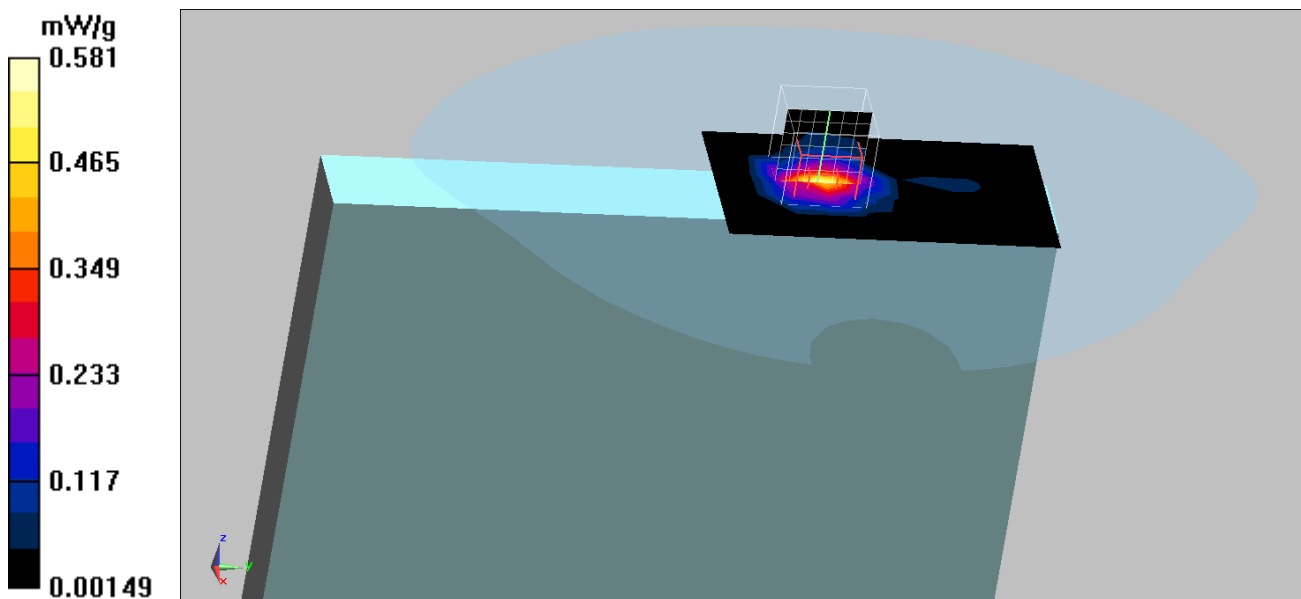
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.7 V/m; Power Drift = -0.00345 dB

Peak SAR (extrapolated) = 1.02 W/kg

SAR(1 g) = 0.497 mW/g; SAR(10 g) = 0.216 mW/g

Maximum value of SAR (measured) = 0.581 mW/g



Date/Time: 4/19/2010

Test Laboratory: Quietek

802.11n_6_40M Top-TX2

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.9 \text{ mho/m}$; $\epsilon_r = 54.1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.2

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(6.9, 6.9, 6.9); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x10x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.571 mW/g

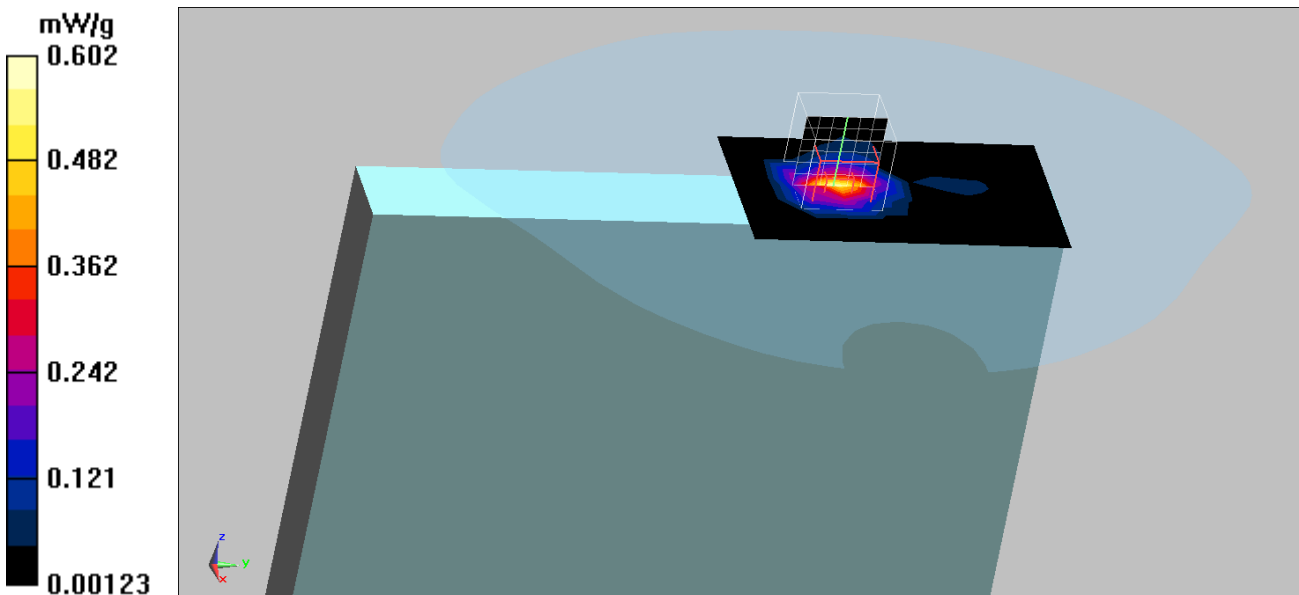
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 15.4 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 1.03 W/kg

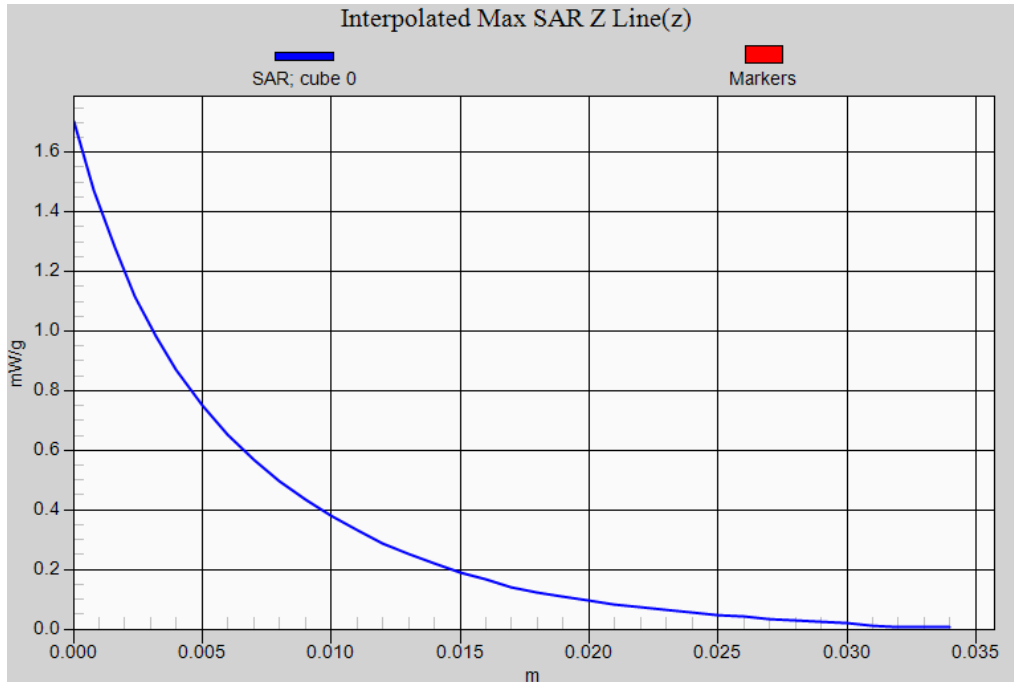
SAR(1 g) = 0.509 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.602 mW/g



802.11b Tx1 Antenna EUT Top Z-Axis plot

Channel: 6



Antenna Kit #1: YAGEO: Tx1 Antenna: P/N: CAN43130WLPE01851

Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_100 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.53$ mho/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.08, 4.08, 4.08); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 1.29 mW/g

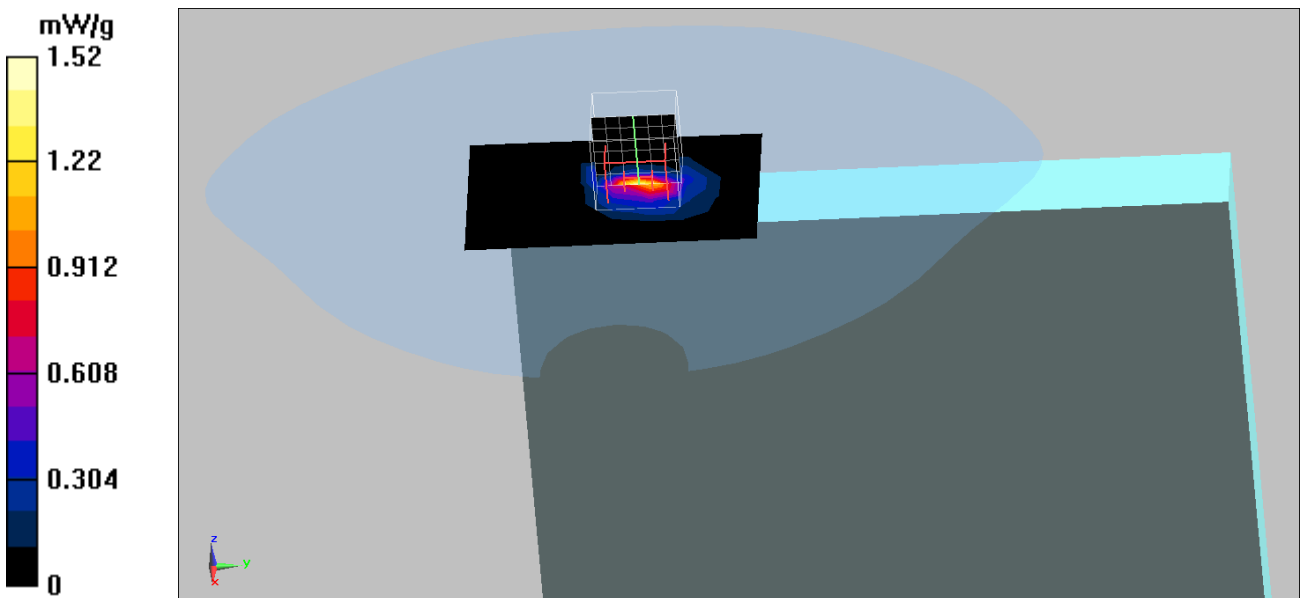
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = 0.00798 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.359 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_100 Back-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.53$ mho/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.08, 4.08, 4.08); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (5x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.251 mW/g

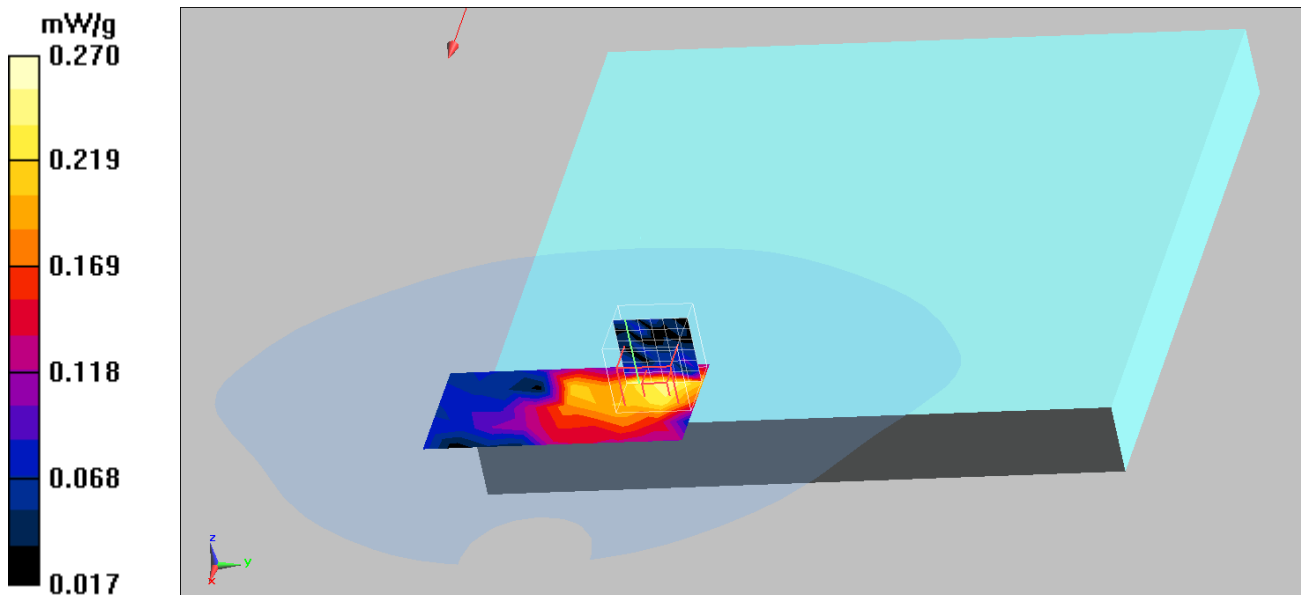
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.75 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.094 mW/g

Maximum value of SAR (measured) = 0.270 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_100 Side-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500 \text{ MHz}$; $\sigma = 5.53 \text{ mho/m}$; $\epsilon_r = 49.9$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.08, 4.08, 4.08); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x8x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.082 mW/g

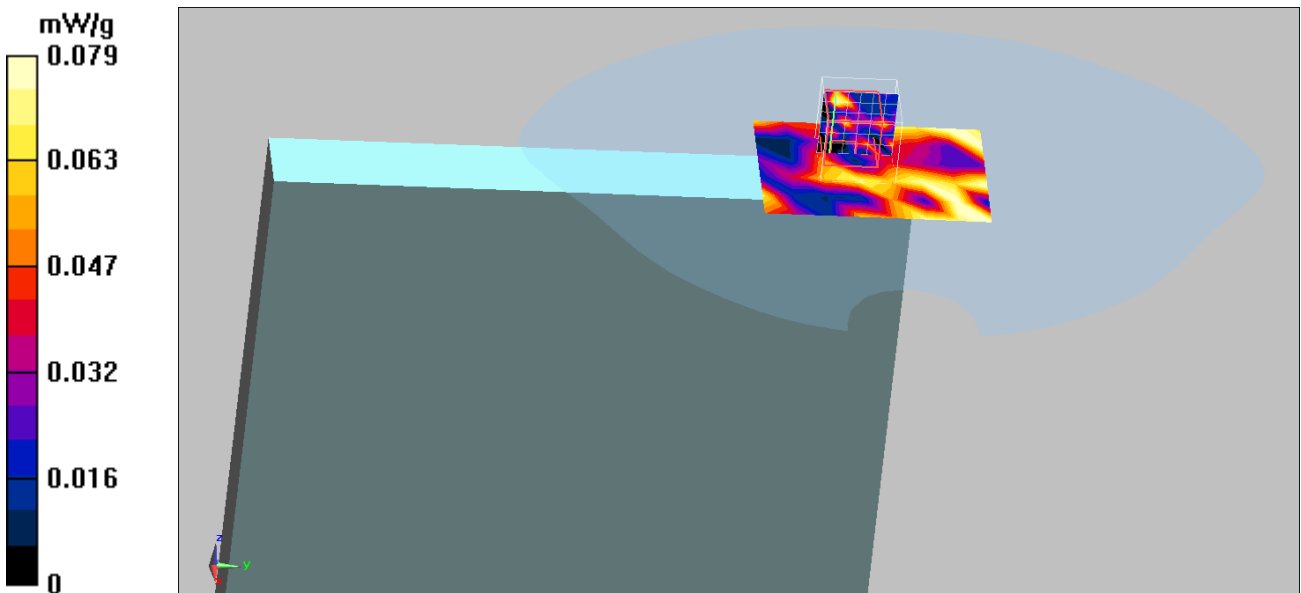
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.7 V/m; Power Drift = -0.185 dB

Peak SAR (extrapolated) = 0.048 W/kg

SAR(1 g) = 0.00135 mW/g; SAR(10 g) = 0.000359 mW/g

Maximum value of SAR (measured) = 0.079 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_36 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5180 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5180 \text{ MHz}$; $\sigma = 5.05 \text{ mho/m}$; $\epsilon_r = 51.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.43, 4.43, 4.43); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 1.23 mW/g

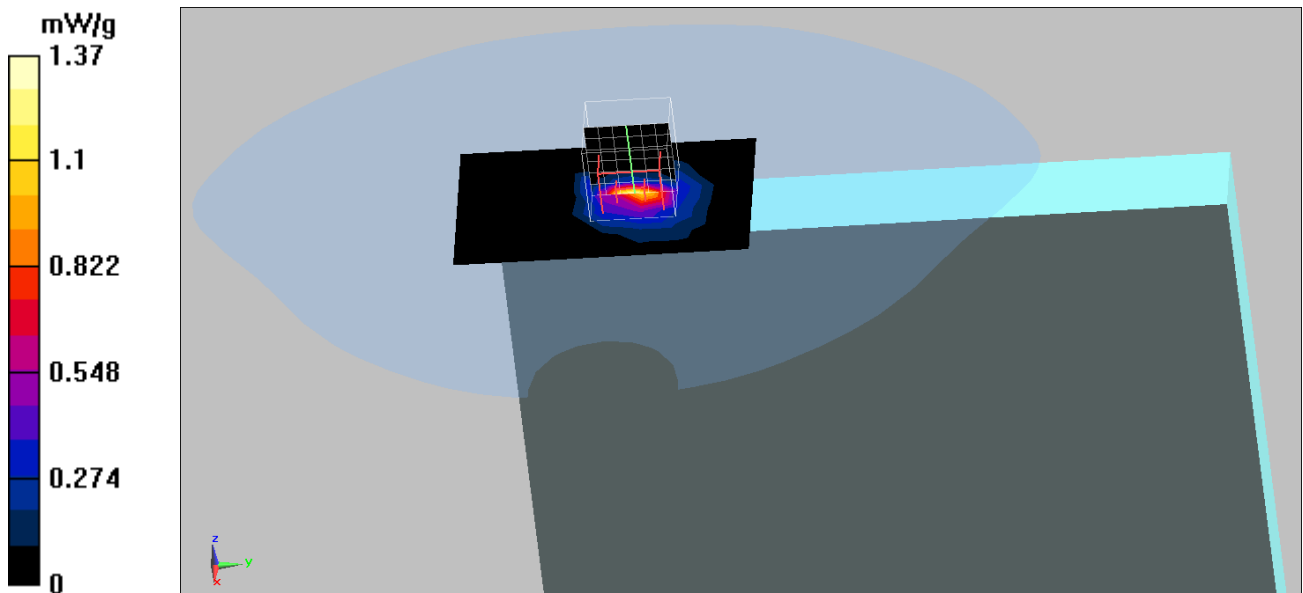
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.6 V/m; Power Drift = 0.00963 dB

Peak SAR (extrapolated) = 3.3 W/kg

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.356 mW/g

Maximum value of SAR (measured) = 1.37 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_48 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5240 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5240 \text{ MHz}$; $\sigma = 5.28 \text{ mho/m}$; $\epsilon_r = 49.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.43, 4.43, 4.43); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 1.18 mW/g

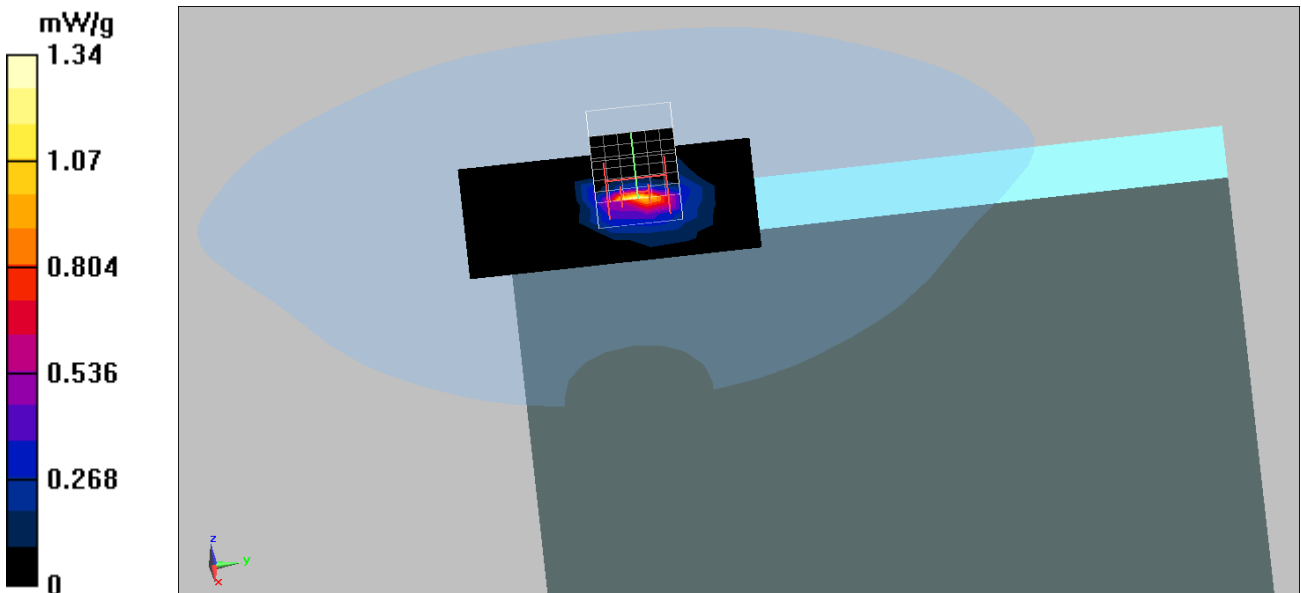
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.2 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 6.54 W/kg

SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.378 mW/g

Maximum value of SAR (measured) = 1.34 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_52 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 5.33$ mho/m; $\epsilon_r = 49.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.23, 4.23, 4.23); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 1.27 mW/g

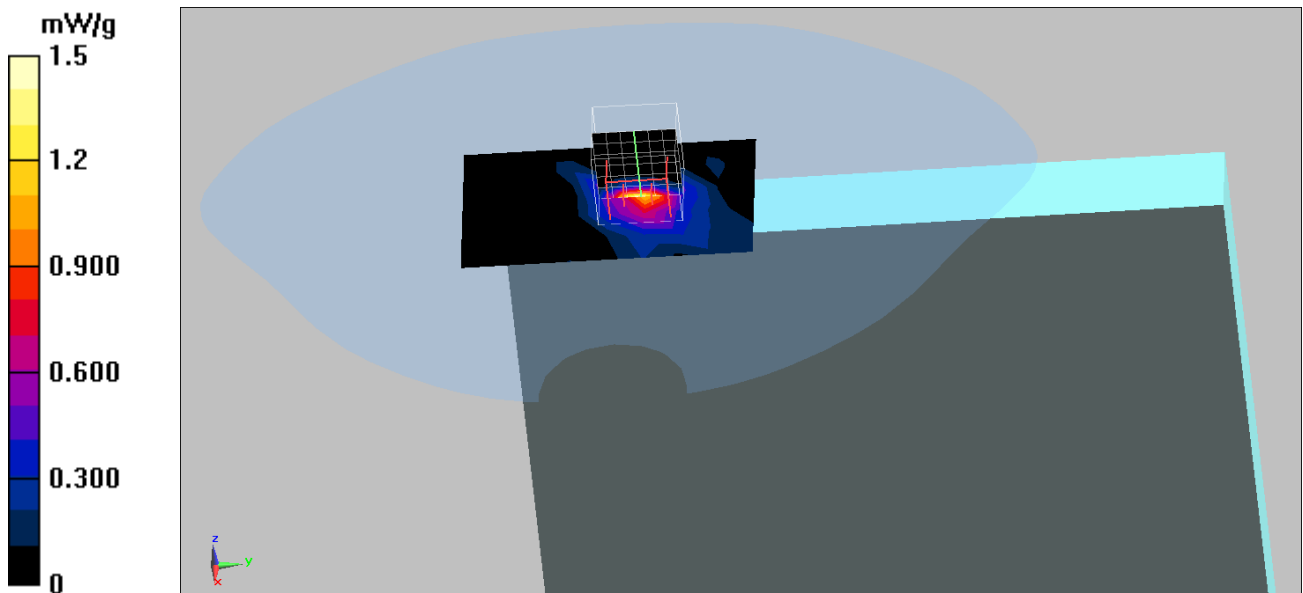
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15 V/m; Power Drift = -0.126 dB

Peak SAR (extrapolated) = 6.36 W/kg

SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.420 mW/g

Maximum value of SAR (measured) = 1.5 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_64 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5320 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5320 \text{ MHz}$; $\sigma = 5.5 \text{ mho/m}$; $\epsilon_r = 46.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4.23, 4.23, 4.23); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 1.09 mW/g

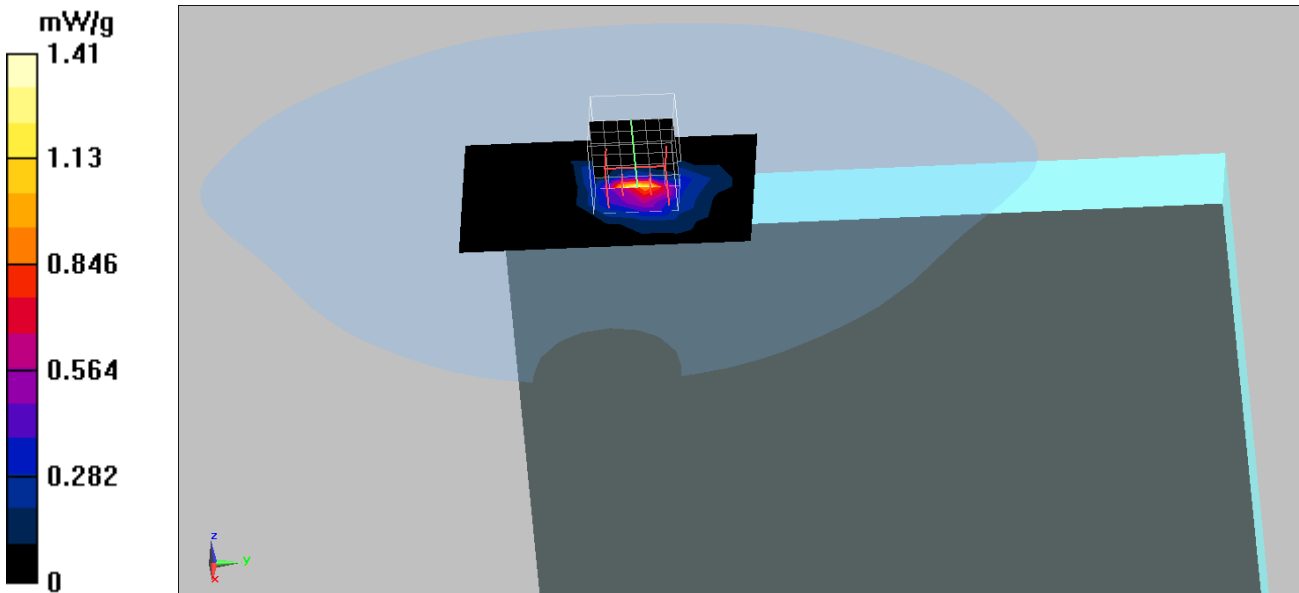
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.7 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 3.38 W/kg

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.341 mW/g

Maximum value of SAR (measured) = 1.41 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_120 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.71$ mho/m; $\epsilon_r = 48.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(3.95, 3.95, 3.95); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 1.14 mW/g

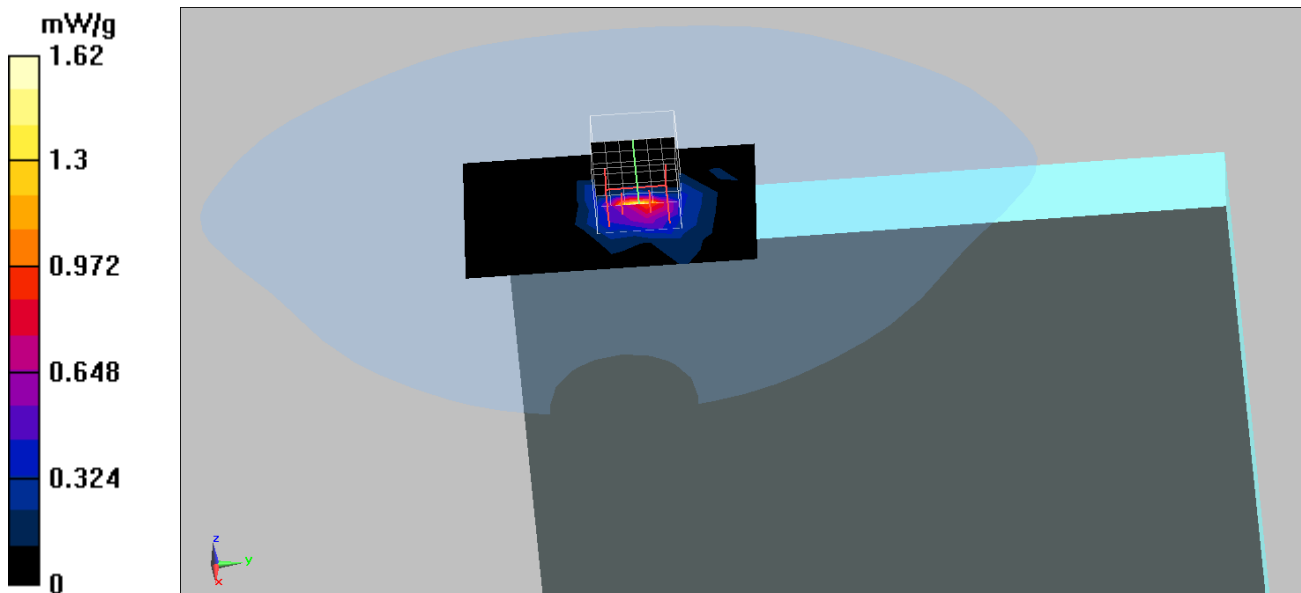
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = -0.037 dB

Peak SAR (extrapolated) = 4.17 W/kg

SAR(1 g) = 1.48 mW/g; SAR(10 g) = 0.398 mW/g

Maximum value of SAR (measured) = 1.62 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_140 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5700 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5700$ MHz; $\sigma = 5.61$ mho/m; $\epsilon_r = 48.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(3.95, 3.95, 3.95); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.978 mW/g

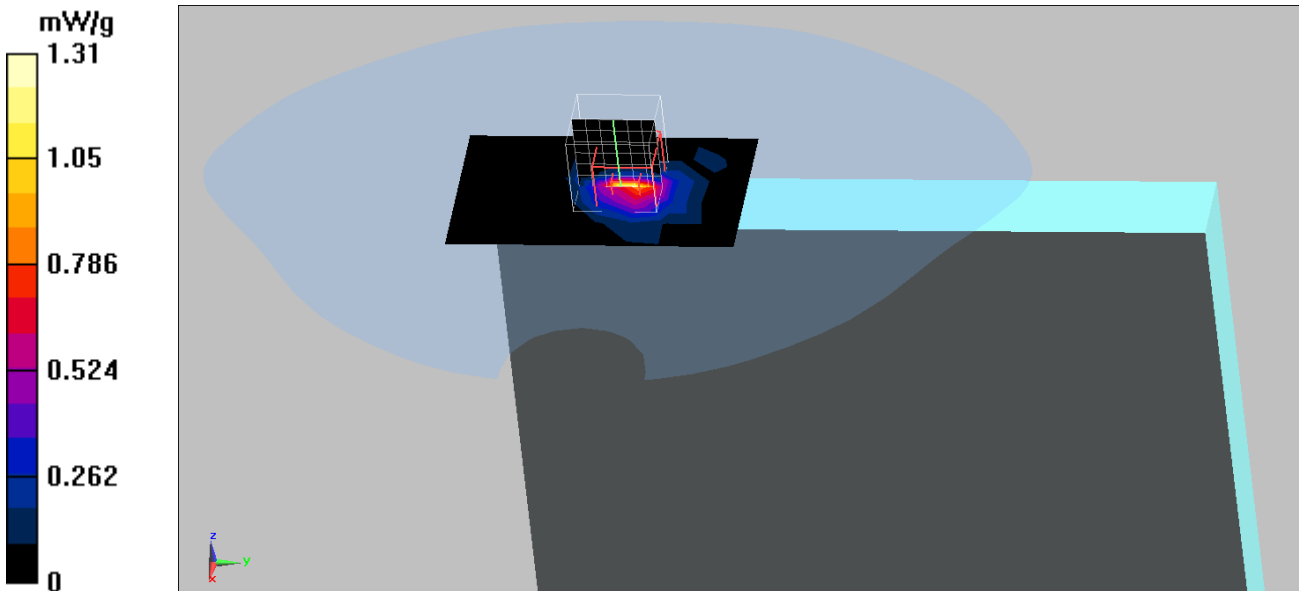
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.7 V/m; Power Drift = -0.092 dB

Peak SAR (extrapolated) = 3.19 W/kg

SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.332 mW/g

Maximum value of SAR (measured) = 1.31 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_149 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745 \text{ MHz}$; $\sigma = 5.77 \text{ mho/m}$; $\epsilon_r = 48$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4, 4, 4); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.973 mW/g

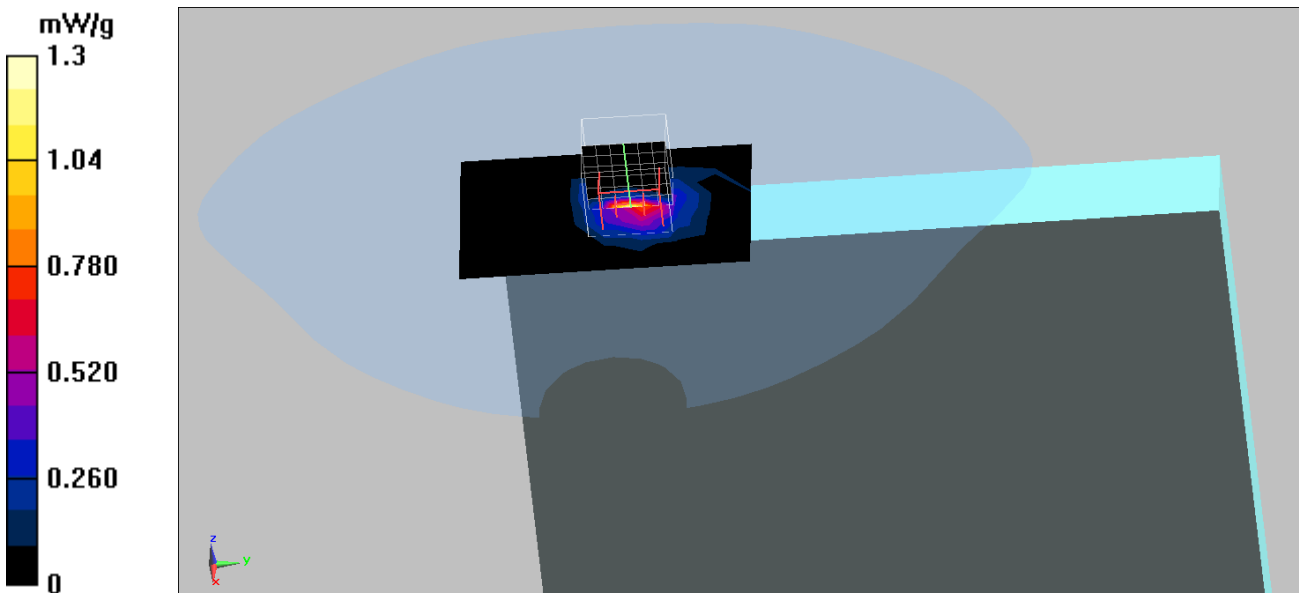
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.5 V/m; Power Drift = -0.053 dB

Peak SAR (extrapolated) = 7.31 W/kg

SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.346 mW/g

Maximum value of SAR (measured) = 1.3 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_157 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5785 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5785 \text{ MHz}$; $\sigma = 5.83 \text{ mho/m}$; $\epsilon_r = 47.7$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4, 4, 4); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 0.844 mW/g

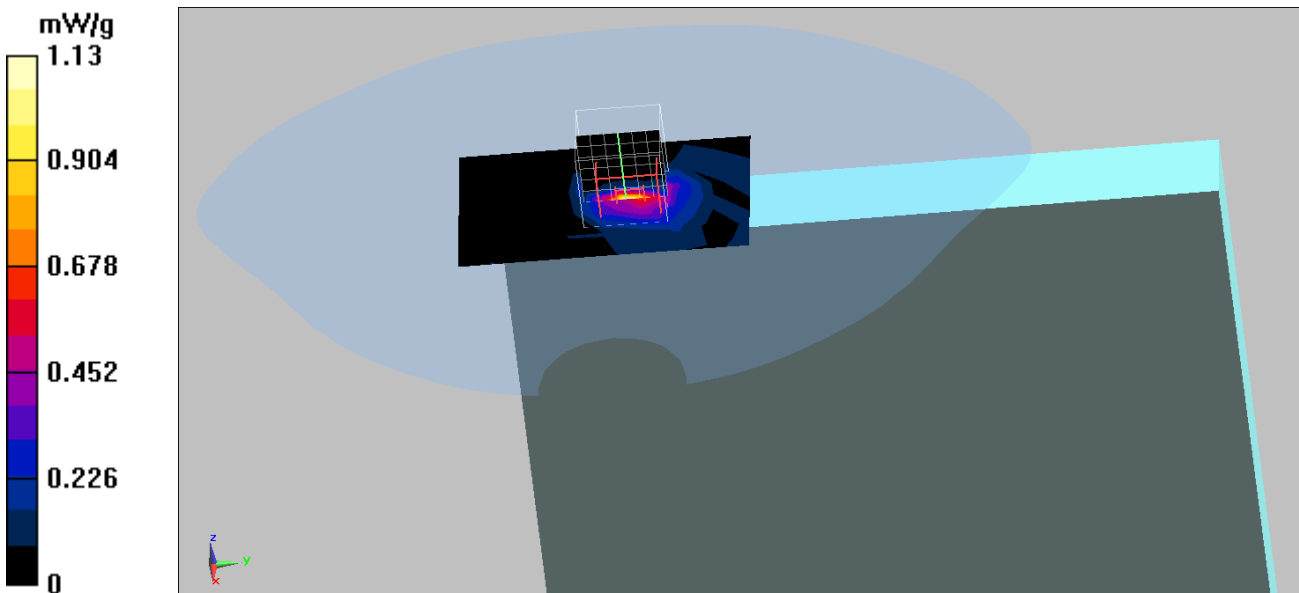
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.8 V/m; Power Drift = -0.162 dB

Peak SAR (extrapolated) = 2.96 W/kg

SAR(1 g) = 0.952 mW/g; SAR(10 g) = 0.289 mW/g

Maximum value of SAR (measured) = 1.13 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11a_165 Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11a; Frequency: 5825 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5825 \text{ MHz}$; $\sigma = 6.11 \text{ mho/m}$; $\epsilon_r = 46.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(4, 4, 4); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 1.08 mW/g

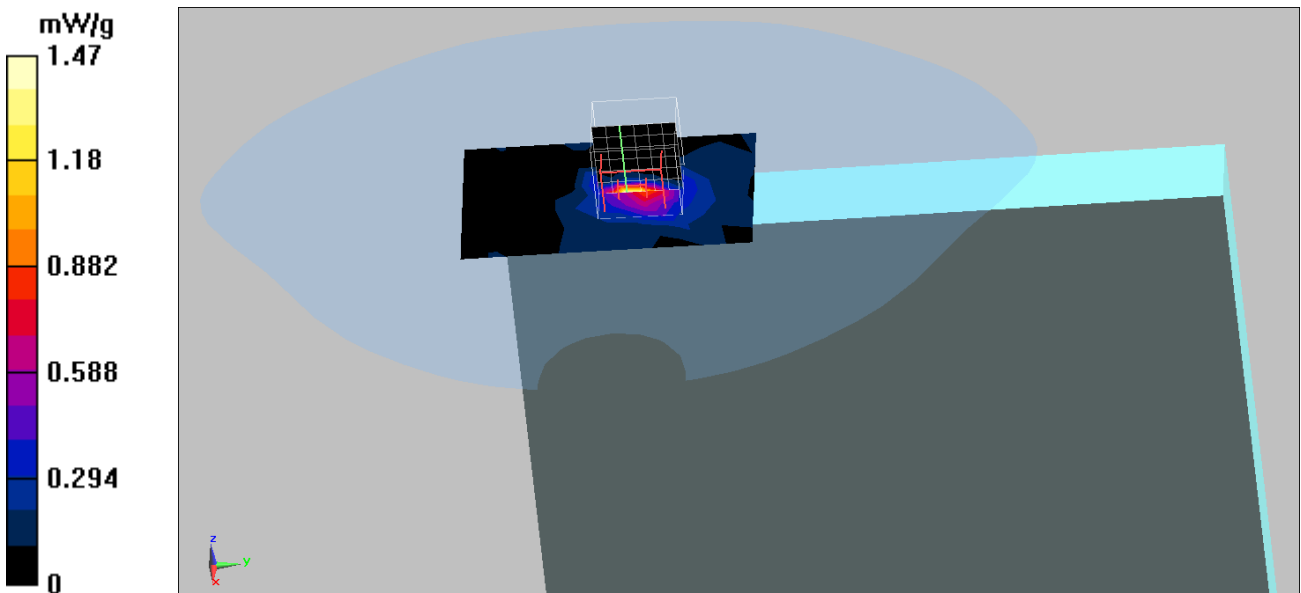
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 13.6 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 3.7 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.348 mW/g

Maximum value of SAR (measured) = 1.47 mW/g



Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11n_120_20M Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.71$ mho/m; $\epsilon_r = 48.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(3.95, 3.95, 3.95); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 1.02 mW/g

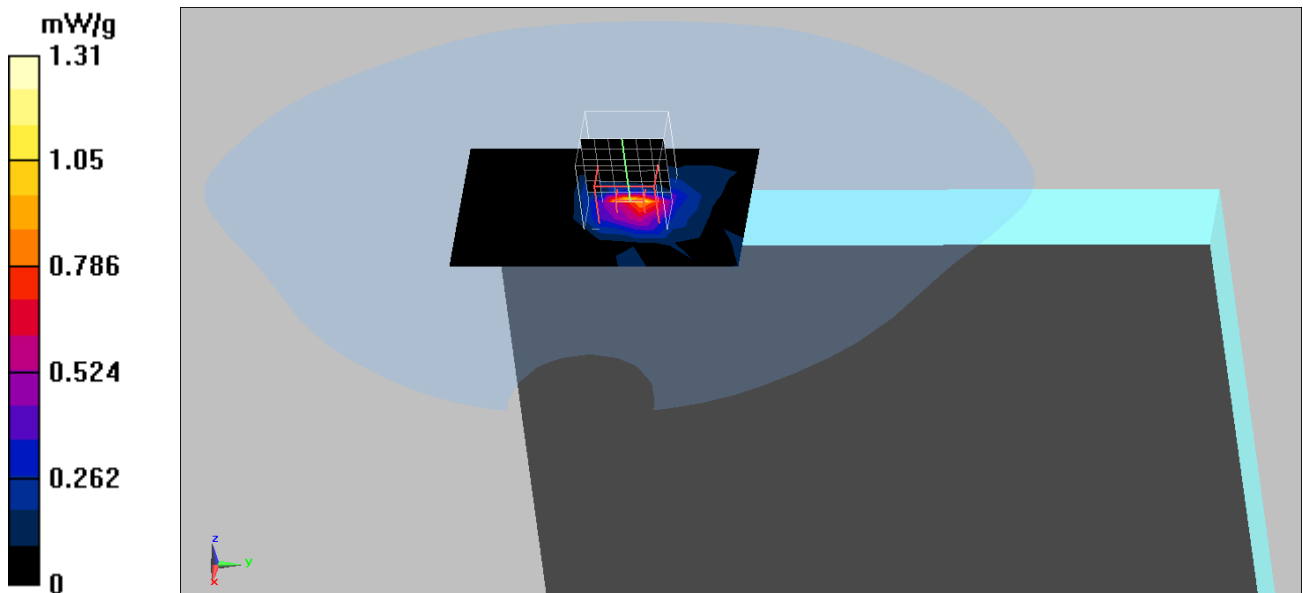
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.2 V/m; Power Drift = -0.184 dB

Peak SAR (extrapolated) = 7.27 W/kg

SAR(1 g) = 1.42 mW/g; SAR(10 g) = 0.388 mW/g

Maximum value of SAR (measured) = 1.31 mW/g



Antenna Kit #2: YAGEO: Tx1 Antenna: P/N: CAN4313 580 022501B

Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11n_120_20M Top-TX2

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.71$ mho/m; $\epsilon_r = 48.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Ambient Temperature (°C) : 21.4, Liquid Temperature (°C) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(3.95, 3.95, 3.95); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: dx=13mm, dy=13mm

Maximum value of SAR (measured) = 0.352 mW/g

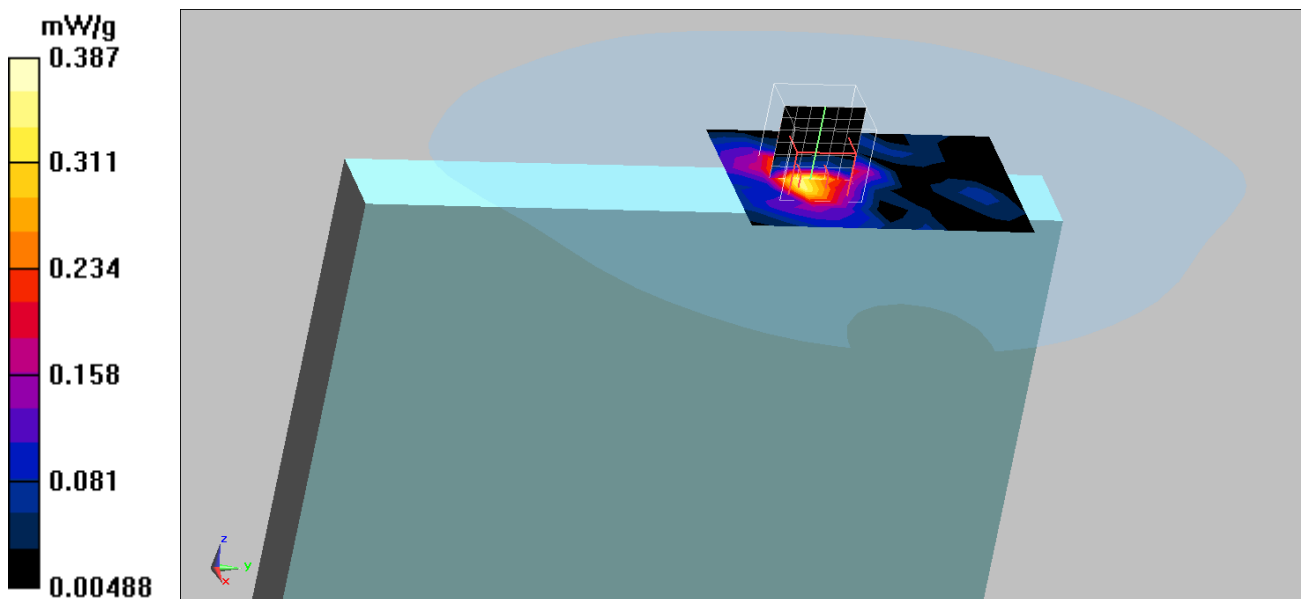
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.63 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.349 mW/g; SAR(10 g) = 0.133 mW/g

Maximum value of SAR (measured) = 0.387 mW/g



Antenna Kit #1: YAGEO: Tx1 Antenna: P/N: CAN43130WLPE01851

Date/Time: 4/20/2010

Test Laboratory: Quietek

802.11n_118_40M Top-TX1

DUT: Tablet PC; Type: CFT-003

Communication System: 802.11n; Frequency: 5590 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5590 \text{ MHz}$; $\sigma = 5.66 \text{ mho/m}$; $\epsilon_r = 49$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Ambient Temperature ($^{\circ}\text{C}$) : 21.4, Liquid Temperature ($^{\circ}\text{C}$) : 20.3

DASY4 Configuration:

- Probe: EX3DV4 - SN3602; ConvF(3.95, 3.95, 3.95); Calibrated: 5/20/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn910; Calibrated: 9/18/2009
- Phantom: SAM Right Table; Type: SAM;
- Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (6x9x1): Measurement grid: $dx=13\text{mm}$, $dy=13\text{mm}$

Maximum value of SAR (measured) = 1.05 mW/g

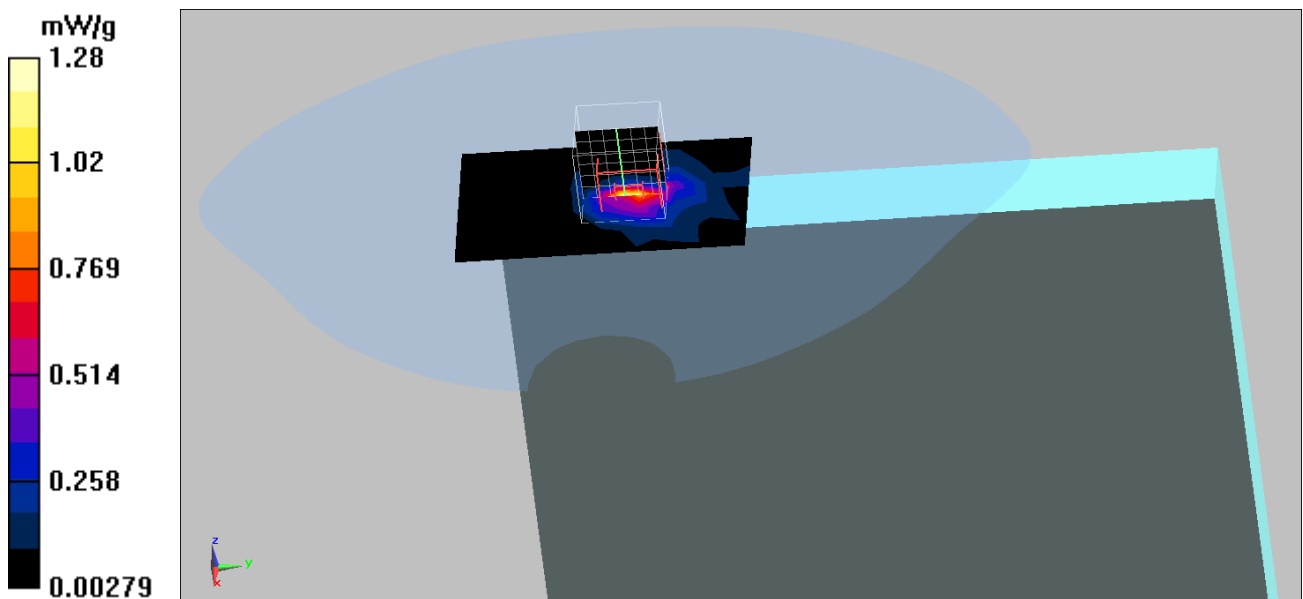
Body/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 12.4 V/m; Power Drift = -0.061 dB

Peak SAR (extrapolated) = 3.39 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.338 mW/g

Maximum value of SAR (measured) = 1.28 mW/g



802.11a Tx1 Antenna EUT Top Z-Axis plot
Channel: 120

