A Test Lab Techno Corp.

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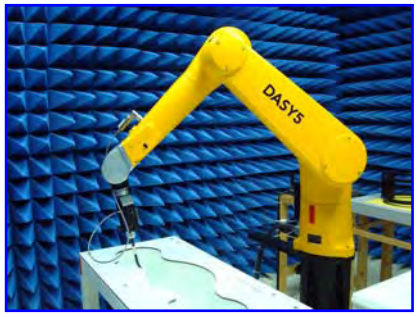
SAR EVALUATION REPORT

Test Report No.	：	**0810FS11-03**
Applicant	：	**ZyXEL Communications Corporation**
FCC ID	：	**I88NWD211AN**
Product Type	：	**Dual band Wireless N USB Adapter**
Trade Mark	：	**ZyXEL**
Model Number	：	**NWD-211AN**
Dates of Test	：	**Oct. 08 ~ Nov. 03, 2008 ; Jan. 12 ~ Jan. 13, 2009 ; Feb. 18, 2009**
Test Environment	：	**Ambient Temperature： 22 ±2 ° C** **Relative Humidity：40 - 70 %**
Test Specification	：	**Standard C95.1-1999** **IEEE Std. 1528-2003** **2.1093;FCC/OET Bulletin 65 Supplement C [July 2001]** **FCC：SAR Measurement Requirements For 3-6GHz** **FCC：SAR Measurement Requirements For 802.11 a/b/g Transmitters** **RSS-102 Issue 2 -2005**
Max. SAR	：	**1.050 W/kg Body SAR**
Test Lab	：	**Chang-An Lab**



1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.

Country Huang 20090302
Measurement Center Manager

Sam Chuang 20090302
Testing Engineer

Contents

Appendix

1. Description of Equipment Under Test (EUT)

Applicant：

ZyXEL Communications Corporation
No. 6, Innovation Road II, Science-Park, Hsin-Chu, 300, Taiwan

Manufacturer	:	ZyXEL Communications Corporation
Manufacturer Address	:	No. 6, Innovation Road II, Science-Park, Hsin-Chu, 300, Taiwan
FCC ID	:	I88NWD211AN
Model Name	:	Dual band Wireless N USB Adapter
Trade Mark	:	ZyXEL
Model Number	:	NWD-211AN
Test Device	:	Production Unit
Tx Frequency	:	2412 - 2462 MHz (802.11b/802.11g/802.11n 2.4G_HT20) 2422 - 2452 MHz (802.11n 2.4G_HT40) 5180 - 5825 MHz (802.11a / 802.11n 5G_HT20) 5190 - 5790 MHz (802.11n 5G_HT40)
Max. RF Conducted Power	:	0.104 W (20.17 dBm) 802.11b Peak 0.342 W (25.34 dBm) 802.11g Peak 0.337 W (25.27 dBm) 802.11n 2.4G_HT20 Peak 0.307 W (24.87 dBm) 802.11n 2.4G_HT40 Peak 0.121 W (20.82 dBm) 802.11a Peak 0.096 W (19.82 dBm) 802.11n 5G_HT20 Peak 0.094 W (19.74 dBm) 802.11n 5G_HT40 Peak
Max. SAR Measurement	:	1.050 W/kg Body SAR
HW Version	:	NA
SW Version	:	NA
Antenna Type	:	PCB Type
Antenna Gain	:	2.4GHz: -1.98 dBi (TX0) / -2.46 dBi (TX1) 5GHz Band1: -0.85 dBi (TX0) / -0.51 dBi (TX1) 5GHz Band2: -0.61 dBi (TX0) / 0.83 dBi (TX1) 5GHz Band3: 0.60 dBi (TX0) / 1.07 dBi (TX1) 5GHz Band4: 0.57 dBi (TX0) / 1.08 dBi (TX1)
Device Category	:	Portable
RF Exposure Environment	:	General Population / Uncontrolled
Power Option	:	USB Interface
Application Type	:	Certification

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment / general population exposure limits specified in Standard C95.1-1999 and had been tested in accordance with the measurement procedures specified in IEEE Std. 1528-2003.

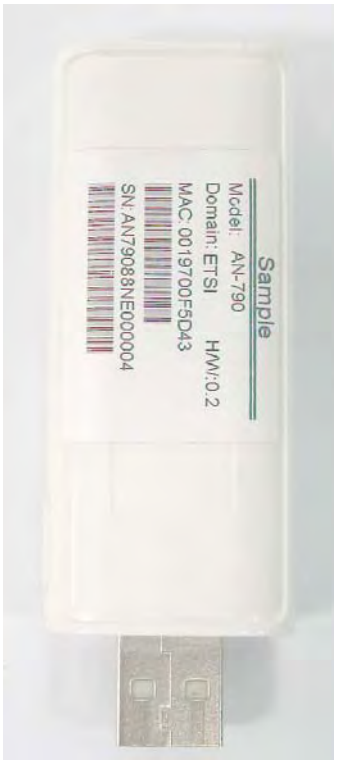
	
Front view	**Back view**

Figure 1. EUT Photo

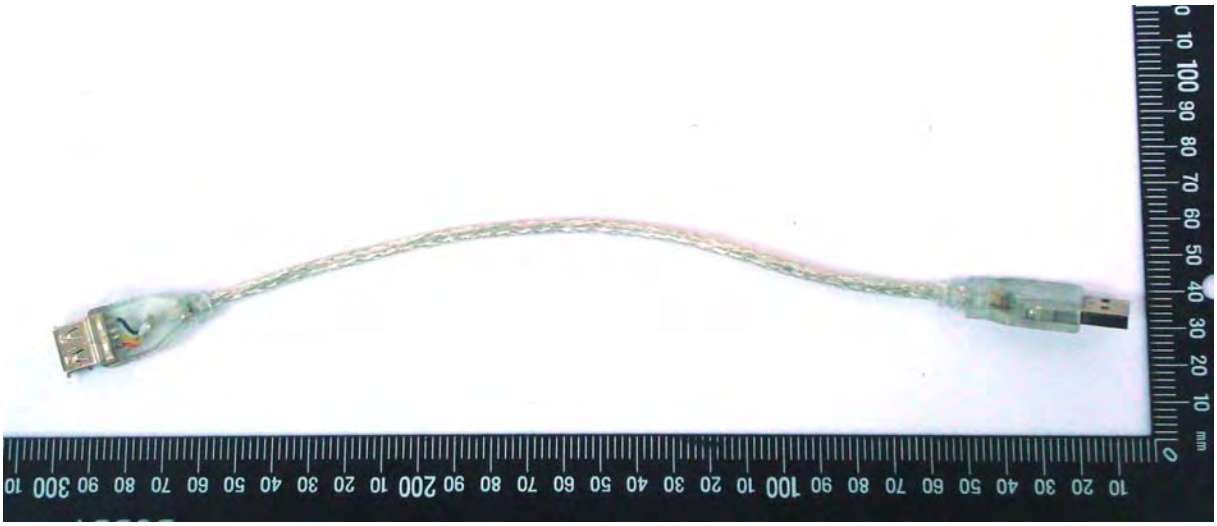


Figure 2. USB Cable

2. Introduction

The A Test Lab Techno Corp. has performed measurements of the maximum potential exposure to the user of **ZyXEL Communications Corporation Trade Mark：ZyXEL Model(s)：NWD-211AN**. The test procedures, as described in American National Standards, Institute C95.1 - 1999〔1〕, FCC/OET Bulletin 65 Supplement C [July 2001] were employed and they specify the maximum exposure limit of 1.6mW/g as averaged over any 1 gram of tissue for portable devices being used within 20cm between user and EUT in the uncontrolled environment. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the equipment used are included within this test report.

3. SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dw) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Figure 3).

$$SAR = \frac{d}{dt}\left(\frac{dw}{dm}\right) = \frac{d}{dt}\left(\frac{dw}{\rho dv}\right)$$

Figure 3. SAR Mathematical Equation

SAR is expressed in units of Watts per kilogram (W/kg)

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

Where：

σ = conductivity of the tissue (S/m)

ρ = mass density of the tissue (kg/m^3)

E = RMS electric field strength (V/m)

＊**Note**：

The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane〔2〕

4. SAR Measurement Setup

These measurements were performed with the automated near-field scanning system DASY5 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9m) which positions the probes with a positional repeatability of better than ±0.02mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines (length = 300mm) to the data acquisition unit.

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The 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 either the DAE4 (or DAE3) electronic 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. The PC consists of the Intel Core(TM)2 CPU @1.86GHz computer with Windows XP system and SAR Measurement Software DASY5, Post Processor SEMCAD, monitor, mouse, and keyboard. The Staubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection…etc. is connected to the Electro-optical converter (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the Measurement Server.

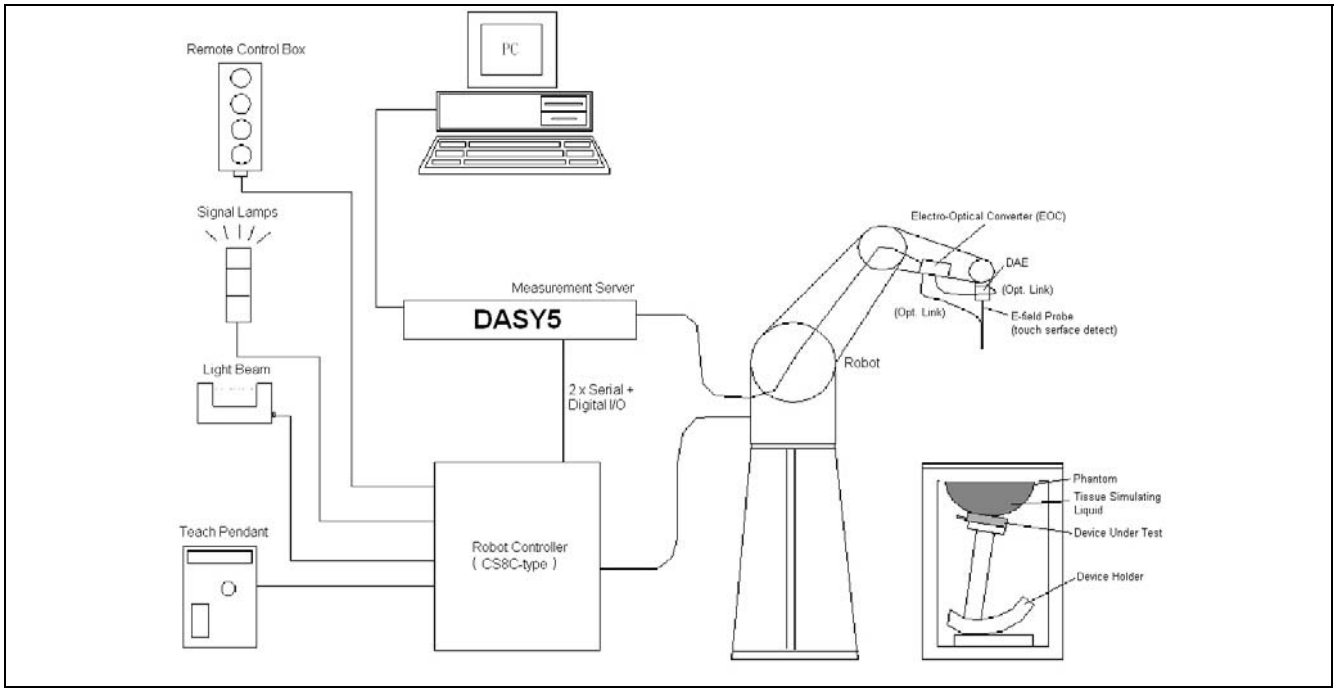


Figure 4. SAR Lab Test Measurement Setup

The DAE4 (or DAE3) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer. The system is described in detail in〔3〕.

5. System Components

5.1 DASY5 E-Field Probe System

The SAR measurements were conducted with the dosimetric probe (manufactured by SPEAG), designed in the classical triangular configuration〔3〕and optimized for dosimetric evaluation. The probes is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multi-fiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY5 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped when reaching the maximum.

5.1.1 E-Field Probe Specification

Construction	Symmetrical design with triangular core
	Built-in optical fiber for surface detection System
	Built-in shielding against static charges
	PEEK enclosure material (resistant to organic solvents, e.q., glycol)
Calibration	In brain and muscle simulating tissue at frequencies of 2450MHz(EX3DV3-3506 & ES3DV3-3150), 5200MHz (EX3DV4-SN3552 & EX3DV4-SN3578), 5500MHz (EX3DV4-SN3552 & EX3DV4-SN3578) and 5800MHz (EX3DV4-SN3552 & EX3DV4-SN3578) (accuracy ±8%)
	Calibration for other liquids and frequencies upon request
Frequency	10 MHz to > 6 GHz; Linearity: ±0.2 dB (30 MHz to 3 GHz)
Directivity	±0.3 dB in brain tissue (rotation around probe axis)
	±0.5 dB in brain tissue (rotation normal probe axis)
Dynamic Range	10 μW/g to > 100mW/g; Linearity: ±0.2dB
Surface Detection	±0.2 mm repeatability in air and clear liquids over diffuse reflecting surface
Dimensions	Overall length: 330mm
	Tip length: 20mm
	Body diameter: 12mm
	Tip diameter: 2.5mm
	Distance from probe tip to dipole centers: 1.0mm
Application	General dosimetry up to 6GHz
	Compliance tests of mobile phones
	Fast automatic scanning in arbitrary phantoms

Figure 5.
E-field Probe

Figure 6.
Probe setup on robot

5.1.2 E-Field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure described in〔4〕with accuracy better than ±10%. The spherical isotropy was evaluated with the procedure described in〔5〕and found to be better than ±0.25dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1GHz, and in a wave guide above 1GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\mathbf{SAR} = C\frac{\Delta T}{\Delta t}$$

Where：

Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (head or body),

ΔT = Temperature increase due to RF exposure.

Or

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

Where：

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

5.2 Data Acquisition Electronic (DAE) System

Cell Controller

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

Data Converter

Features：	Signal Amplifier, multiplexer, A/D converter, and control logic
Software：	DASY5 v5.0 (Build 120) & SEMCAD X Version 13.2 Build 87
Connecting Lines：	Optical downlink for data and status info
	Optical uplink for commands and clock

5.3 Robot

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

5.4 Measurement Server

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

5.5 Device Holder for Transmitters

In combination with the SAM Twin Phantom V4.0, the Mounting Device (POM) enables the rotation of the mounted transmitter in spherical coordinates whereby the rotation points is the ear opening. The devices can be easily, accurately, and repeat ably positioned according to the IEEE SCC34-SC2 and CENELEC specifications. The device holder can be locked at different phantom locations (left head, right head, and flat phantom).

∗**Note**：A simulating human hand is not used due to the complex anatomical and geometrical structure of the hand that may produced infinite number of configurations〔6〕. To produce the worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.

Larger DUT cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

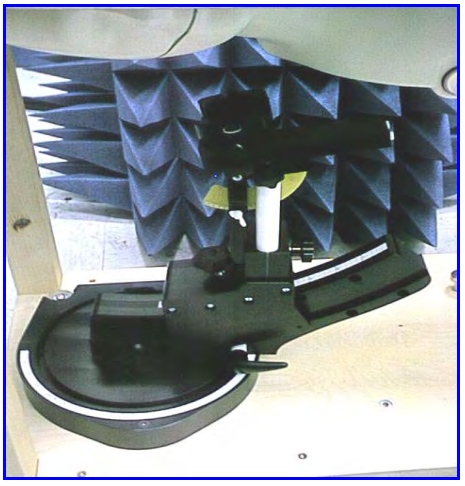


Figure 7. Device Holder

5.6 Oval Flat Phantom - ELI 4.0

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (Oval Flat) phantom defined in IEEE 1528-2003, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of wireless portable device usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.

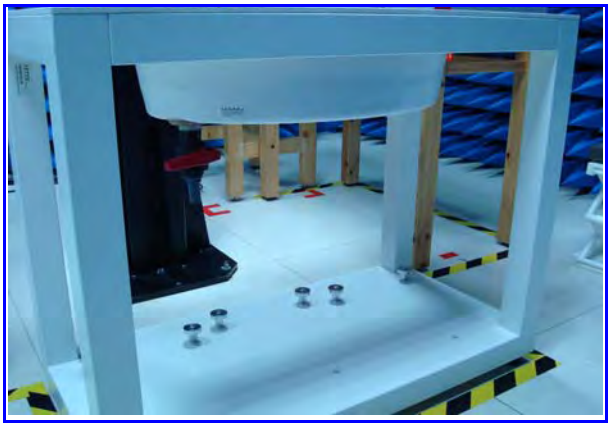


Figure 8. Oval Flat Phantom

Shell Thickness	2 ±0.2 mm
Filling Volume	Approx. 30 liters
Dimensions	190×600×400 mm (H×L×W)

Table 1. Specification of ELI 4.0

5.7 Data Storage and Evaluation

5.7.1 Data Storage

The DASY5 software stores the assessed data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension DA5. The post processing software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of erroneous parameter settings. For example, if a measurement has been performed with an incorrect crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be reevaluated.

5.7.2 Data Evaluation

The DASY5 post processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software：

Probe parameters：	- Sensitivity	Normi, ai0, ai1, ai2
	- Conversion factor	ConvFi
	- Diode compression point	dcpi
Device parameters：	- Frequency	f
	- Crest factor	cf
Media parameters：	- Conductivity	σ
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.
The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as：

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

with V_i = compensated signal of channel i (i = x, y, z)
U_i = input signal of channel i (i = x, y, z)
cf = crest factor of exciting field (DASY parameter)
dcp_i = diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated：

E-field probes： $$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

H-field probes：

$$H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1} f + a_{i2} f^2}{f}$$

with V_i = compensated signal of channel i (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)

μV/(V/m)^2 for E-field Probes

$ConvF$ = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E_i = electric field strength of channel i in V/m

Hi = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude)：

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

with SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m

σ = conductivity in [mho/m] or [Siemens/m]

ρ = equivalent tissue density in g/cm^3

∗**Note**：that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = \frac{E_{tot}^2}{3770} \quad \text{or} \quad P_{pwe} = \frac{H_{tot}^2}{37.7}$$

with P_{pwe} = equivalent power density of a plane wave in mW/cm^2

E_{tot} = total electric field strength in V/m

H_{tot} = total magnetic field strength in A/m

6. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	Dosimetric E-Field Probe	EX3DV3	3506	Sep. 30, 2008	Sep. 30, 2009
SPEAG	Dosimetric E-Field Probe	ES3DV3	3150	Jan. 09, 2008	Jan. 09, 2009
SPEAG	Dosimetric E-Field Probe	EX3DV4	3578	May. 20, 2008	May. 20, 2009
SPEAG	Dosimetric E-Field Probe	EX3DV4	3552	Mar. 21, 2008	Mar. 21, 2009
SPEAG	2450MHz System Validation Kit	D2450V2	712	Jan. 30, 2008	Jan. 30, 2009
SPEAG	2450MHz System Validation Kit	D2450V2	735	May. 22, 2008	May. 22, 2009
SPEAG	5GHz System Validation Kit	D5GHzV2	1021	May. 11, 2008	May. 11, 2009
SPEAG	Data Acquisition Electronics	DAE4	779	Nov. 30, 2007	Nov. 30, 2008
SPEAG	Data Acquisition Electronics	DAE4	779	Nov. 11, 2008	Nov. 11, 2009
SPEAG	Device Holder	N/A	N/A	NCR	NCR
SPEAG	Phantom ELI 4.0	QD OVA 001 BB	1036	NCR	NCR
SPEAG	Robot	Staubli TX90XL	F07/564ZA1/C/01	NCR	NCR
SPEAG	Software	DASY5 V5.0 Build 119	N/A	NCR	NCR
SPEAG	Software	SEMCAD V13.2 Build 87	N/A	NCR	NCR
SPEAG	Measurement Server	SE UMS 011 AA	1025	NCR	NCR
Agilent	ENA Series Network Analyzer	E5071B	MY42402996	Nov. 14, 2008	Nov. 14, 2009
Agilent	Dielectric Probe Kit	85070C	US99360094	NCR	NCR
R&S	Power Sensor	NRP-Z22	100179	Apr. 23, 2008	Apr. 23, 2009
Agilent	Signal Generator	E8257D	MY44320425	Jul. 03, 2008	Jul. 03, 2009
Agilent	Dual Directional Coupler	778D	50334	NCR	NCR
Mini-Circuits	Power Amplifier	ZHL-42W-SMA	D111103#5	NCR	NCR
Mini-Circuits	Power Amplifier	ZVE-8G-SMA	D042005 671800514	NCR	NCR

Table 2. Test Equipment List

7. Tissue Simulating Liquids

The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the tissue.

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070C Dielectric Probe Kit and an 8720ES Network Analyzer.

INGREDIENT	FREQUENCY
	MSL2.4G (Body)
Water	68.64%
DGBE	31.37%

INGREDIENT	FREQUENCY
	MSL5G (Body)
Water	78%
Mineral Oil	11%
Emulsifiers	9%
Additives and Salt	2%

Table 3. Recipes for Head & Body Tissue Simulating Liquids

IEEE SCC-34/SC-2 in 1528 recommended Tissue Dielectric Parameters

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in 1528 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 human head. Other head and body tissue parameters that have not been specified in 1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equation and extrapolated according to the head parameter specified in 1528.

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
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
2300	-	-	52.9	1.80
2450	39.2	1.80	52.7	1.95
2600	-	-	52.5	2.16
3000	38.5	2.40	52.0	2.73
5200	36.0	4.66	49.0	5.30
5200	35.6	5.0	48.6	5.6
5800	35.3	5.27	48.2	6.00
(ε_r = relative permittivity, σ = conductivity and ρ = 1000 kg/m^3)				

Table 4. Tissue dielectric parameters for head and body phantoms

7.1 Liquid Confirmation

7.1.1 Parameters

Liquid Verify								
Ambient Temperature： 22 ± 2℃；Relative Humidity：40 -70%								
Liquid Type	**Frequency**	**Temp (°C)**	**Parameters**	**Target Value**	**Measured Value**	**Deviation (%)**	**Limit (%)**	**Measured Date**
2450MHz Body	2450MHz	22.0	εr	52.7	51.7	**-1.90**	±5	Oct. 06, 2008
			σ	1.95	1.95	**0.00**	±5	
2450MHz Body	2450MHz	22.0	εr	52.7	51.7	**-1.90**	±5	Oct. 08, 2008
			σ	1.95	1.95	**0.00**	±5	
2450MHz Body	2450MHz	22.0	εr	52.7	53.7	**1.90**	±5	Jan. 13, 2009
			σ	1.95	1.97	**1.03**	±5	
2450MHz Body	2450MHz	22.0	εr	52.7	53.7	**1.90**	±5	Feb. 18, 2009
			σ	1.95	1.97	**1.03**	±5	
5200MHz Body	5200MHz	22.0	εr	49.0	49.0	**0.00**	±5	Oct. 08, 2008
			σ	5.30	5.30	**0.00**	±5	
5200MHz Body	5200MHz	22.0	εr	49.0	49.0	**0.00**	±5	Oct. 09, 2008
			σ	5.30	5.30	**0.00**	±5	
5200MHz Body	5200MHz	22.0	εr	49.0	49.0	**0.00**	±5	Oct. 10, 2008
			σ	5.30	5.30	**0.00**	±5	
5200MHz Body	5200MHz	22.0	εr	49.0	49.0	**0.00**	±5	Jan. 12, 2009
			σ	5.30	5.30	**0.00**	±5	
5200MHz Body	5200MHz	22.0	εr	49.0	49.0	**0.00**	±5	Feb. 18, 2009
			σ	5.30	5.30	**0.00**	±5	
5500MHz Body	5500MHz	22.0	εr	48.6	48.6	**0.00**	±5	Oct. 08, 2008
			σ	5.6	5.65	**0.89**	±5	
5500MHz Body	5500MHz	22.0	εr	48.6	48.6	**0.00**	±5	Jan. 12, 2009
			σ	5.6	5.65	**0.89**	±5	
5500MHz Body	5500MHz	22.0	εr	48.6	48.6	**0.00**	±5	Feb. 18, 2009
			σ	5.6	5.65	**0.89**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Oct. 08, 2008
			σ	6.00	5.80	**-3.33**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Oct. 09, 2008
			σ	6.00	5.80	**-3.33**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Oct. 10, 2008
			σ	6.00	5.80	**-3.33**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Nov. 03, 2008
			σ	6.00	5.80	**-3.33**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Jan. 12, 2009
			σ	6.00	5.80	**-3.33**	±5	
5800MHz Body	5800MHz	22.0	εr	48.2	47.8	**-0.83**	±5	Feb. 18, 2009
			σ	6.00	5.80	**-3.33**	±5	

Table 5. Measured Tissue dielectric parameters for head and body phantoms

7.1.2 Liquid Depth

The liquid level was during measurement 15cm ±0.5cm.

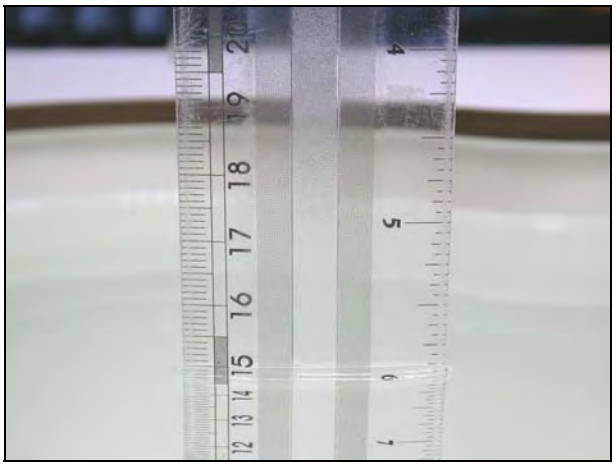


Figure 9. Head-Tissue-Simulating-Liquid

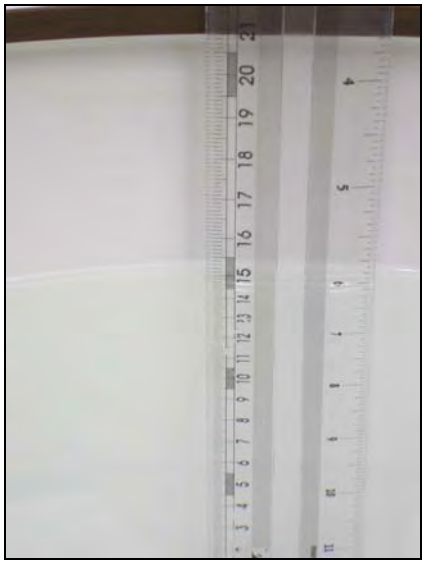


Figure 10. Body-Tissue-Simulating-Liquid

8. Measurement Process

8.1 Device and Test Conditions

The Test Device was provided by **ZyXEL Communications Corporation** for this evaluation. The spatial peak SAR values were assessed for the lowest, middle and highest channels defined by below table. The antenna(s), battery and accessories shall be those specified by the manufacturer. The battery shall be fully charged before each measurement and there shall be no external connections.

Usage	Operates with a built-in test mode by client
Simulating human Head/Body	Body
EUT Power Source	USB Interface
The test channels are defined as KDB248227.	

Frequency & Conducted power list

Band	Antenna	Rate	CH	Frequency (MHz)	Conducted power (dBm)	
					Before SAR Test	After SAR Test
802.11 b	----	1 M	1	2412	20.15	20.14
			6	2437	20.03	20.28
			11	2462	**20.17**	20.15
		2 M	1	2412	20.14	20.12
			6	2437	20.01	19.98
			11	2462	20.13	20.12
		5.5 M	1	2412	20.13	20.11
			6	2437	19.97	19.96
			11	2462	20.11	20.10
		11 M	1	2412	20.09	20.07
			6	2437	19.94	19.92
			11	2462	20.06	20.04

Band	Antenna	Rate	CH	Frequency (MHz)	Conducted power (dBm)	
					Before SAR Test	After SAR Test
802.11 g	----	6 M	1	2412	25.28	25.26
			6	2437	25.32	25.31
			11	2462	**25.34**	25.32
		9 M	1	2412	25.25	25.23
			6	2437	25.29	25.27
			11	2462	25.33	25.30
		12 M	1	2412	25.23	25.21
			6	2437	25.27	25.25
			11	2462	25.31	25.30
		18 M	1	2412	25.21	25.19
			6	2437	25.25	25.23
			11	2462	25.29	25.27
		24 M	1	2412	25.19	25.17
			6	2437	25.24	25.22
			11	2462	25.24	25.22
		36 M	1	2412	25.17	25.15
			6	2437	25.23	25.21
			11	2462	25.27	25.25
		48 M	1	2412	25.22	25.20
			6	2437	25.19	25.17
			11	2462	25.23	25.21
		54 M	1	2412	25.18	25.16
			6	2437	25.22	25.21
			11	2462	25.21	25.20

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 2.4G _HT20	6.5 M	1	2412	**25.27**	25.25	25.03	25.02
		6	2437	25.17	25.16	25.06	25.03
		11	2462	25.16	25.14	25.15	25.13
	13 M	1	2412	25.23	25.21	24.98	24.96
		6	2437	25.13	25.11	24.99	24.97
		11	2462	25.11	25.10	25.11	25.10
	19.5 M	1	2412	25.25	25.23	24.96	24.94
		6	2437	25.11	25.10	24.96	24.94
		11	2462	25.09	25.08	25.09	25.07
	26 M	1	2412	25.18	25.16	24.93	24.91
		6	2437	25.06	25.04	24.93	24.92
		11	2462	25.07	25.05	25.05	25.03
	39 M	1	2412	25.15	25.13	24.91	24.89
		6	2437	25.07	25.05	24.95	24.93
		11	2462	25.04	25.02	25.07	25.05
	52 M	1	2412	25.11	25.09	24.93	24.91
		6	2437	25.02	25.00	24.91	24.89
		11	2462	25.07	25.05	25.01	25.00
	58.5 M	1	2412	25.16	25.14	24.90	24.88
		6	2437	25.03	25.01	24.89	24.87
		11	2462	25.08	25.06	25.10	25.08
	65 M	1	2412	25.18	25.16	24.89	24.87
		6	2437	25.06	25.04	25.03	25.01
		11	2462	25.10	25.09	25.02	25.00

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 2.4G_HT40	13 M	3	2422	24.64	24.65	24.73	24.72
		6	2437	24.76	24.75	24.72	24.70
		9	2452	**24.87**	24.85	24.81	24.79
	27 M	3	2422	24.59	24.57	24.68	24.66
		6	2437	24.73	24.71	24.69	24.67
		9	2452	24.84	24.82	24.75	24.73
	40.5 M	3	2422	24.57	24.55	24.62	24.60
		6	2437	24.71	24.69	24.67	24.65
		9	2452	24.82	24.80	24.78	24.76
	54 M	3	2422	24.58	24.56	24.61	24.59
		6	2437	24.68	24.66	24.64	24.62
		9	2452	24.82	24.80	24.79	24.77
	81 M	3	2422	24.55	24.53	24.68	24.66
		6	2437	24.67	24.65	24.63	24.61
		9	2452	24.84	24.82	24.75	24.73
	108 M	3	2422	24.51	24.49	24.63	24.61
		6	2437	24.64	24.62	24.65	24.63
		9	2452	24.79	24.77	24.77	24.75
	121.5 M	3	2422	24.49	24.47	24.60	24.58
		6	2437	24.63	24.61	24.65	24.62
		9	2452	24.83	24.81	24.73	24.71

Band	Antenna	Rate	CH	Frequency (MHz)	Conducted power (dBm)	
					Before SAR Test	After SAR Test
802.11 a	Chain0	6 M	36	5180	13.65	13.62
			40	5200	13.86	13.85
			48	5240	13.57	13.55
			52	5260	15.95	15.93
			60	5300	16.14	16.11
			64	5320	15.81	15.80
			100	5500	12.01	12.00
			120	5600	11.94	11.93
			140	5700	13.72	13.70
			149	5745	**20.82**	20.80
			157	5785	20.00	19.98
			165	5825	20.77	20.75
		9 M	36	5180	13.63	13.61
			40	5200	13.82	13.80
			48	5240	13.55	13.53
			52	5260	15.89	15.87
			60	5300	16.10	16.08
			64	5320	15.76	15.74
			100	5500	11.98	11.96
			120	5600	11.92	11.90
			140	5700	13.70	13.68
			149	5745	20.78	20.76
			157	5785	19.95	19.93
			165	5825	20.74	20.72
		12 M	36	5180	13.61	13.59
			40	5200	13.80	13.78
			48	5240	13.52	13.50
			52	5260	15.87	15.85
			60	5300	16.07	16.05
			64	5320	15.74	15.72
			100	5500	11.99	11.97
			120	5600	11.91	11.89
			140	5700	13.71	13.69
			149	5745	20.80	20.78
			157	5785	19.94	19.92
			165	5825	20.73	20.71

Band	Antenna	Rate	CH	Frequency (MHz)	Conducted power (dBm)	
					Before SAR Test	After SAR Test
802.11 a	Chain0	18 M	36	5180	13.58	13.56
			40	5200	13.78	13.76
			48	5240	13.50	13.48
			52	5260	15.88	15.86
			60	5300	16.11	16.09
			64	5320	15.73	15.71
			100	5500	11.93	11.91
			120	5600	11.90	11.89
			140	5700	13.62	13.61
			149	5745	20.77	20.75
			157	5785	19.97	19.95
			165	5825	20.76	20.74
		24 M	36	5180	13.56	13.54
			40	5200	13.81	13.79
			48	5240	13.48	13.46
			52	5260	15.84	15.82
			60	5300	16.08	16.06
			64	5320	15.77	15.75
			100	5500	11.93	11.91
			120	5600	11.89	11.87
			140	5700	13.68	13.66
			149	5745	20.76	20.74
			157	5785	19.97	19.95
			165	5825	20.71	20.69
		36 M	36	5180	13.52	13.50
			40	5200	13.76	13.74
			48	5240	13.47	13.45
			52	5260	15.89	15.87
			60	5300	16.05	16.03
			64	5320	15.73	15.71
			100	5500	11.95	11.93
			120	5600	11.86	11.84
			140	5700	13.69	13.67
			149	5745	20.80	20.78
			157	5785	19.93	19.91
			165	5825	20.74	20.72

Band	Antenna	Rate	CH	Frequency (MHz)	Conducted power (dBm)	
					Before SAR Test	After SAR Test
802.11 a	Chain0	48 M	36	5180	13.51	13.49
			40	5200	13.77	13.75
			48	5240	13.46	13.44
			52	5260	15.91	15.90
			60	5300	16.07	16.05
			64	5320	15.78	15.76
			100	5500	11.93	11.91
			120	5600	11.84	11.82
			140	5700	13.70	13.68
			149	5745	20.76	20.74
			157	5785	19.98	19.96
			165	5825	20.75	20.73
		54 M	36	5180	13.55	13.53
			40	5200	13.74	13.72
			48	5240	13.42	13.40
			52	5260	15.86	15.84
			60	5300	16.04	16.02
			64	5320	15.80	15.78
			100	5500	11.97	11.95
			120	5600	11.87	11.85
			140	5700	13.68	13.66
			149	5745	20.77	20.75
			157	5785	19.96	19.94
			165	5825	20.71	20.69

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 5G_HT20	6.5 M	36	5180	9.96	9.94	10.31	10.30
		40	5200	10.15	10.14	10.31	10.29
		48	5240	10.75	10.72	10.35	10.33
		52	5260	12.32	12.31	12.36	12.34
		60	5300	12.56	12.54	12.40	12.38
		64	5320	12.16	12.15	12.47	12.45
		100	5500	9.00	8.99	9.82	9.80
		120	5600	9.23	9.21	10.37	10.35
		140	5700	10.45	10.43	10.63	10.61
		149	5745	19.75	19.73	19.62	19.60
		157	5785	19.83	19.82	19.68	19.67
		165	5825	**19.85**	19.84	19.47	19.45
	13 M	36	5180	9.95	9.93	10.28	10.26
		40	5200	10.11	10.09	10.27	10.25
		48	5240	10.72	10.70	10.31	10.30
		52	5260	12.30	12.28	12.31	12.29
		60	5300	12.50	12.48	12.37	12.35
		64	5320	12.13	12.11	12.45	12.44
		100	5500	8.92	8.90	9.80	9.79
		120	5600	9.20	9.18	10.33	10.31
		140	5700	10.41	10.40	10.62	10.60
		149	5745	19.71	19.69	19.59	19.57
		157	5785	19.81	19.79	19.66	19.64
		165	5825	19.82	19.80	19.45	19.43
	19.5 M	36	5180	9.93	9.90	10.26	10.24
		40	5200	10.12	10.10	10.22	10.20
		48	5240	10.70	10.68	10.30	10.28
		52	5260	12.28	12.26	12.26	12.24
		60	5300	12.54	12.52	12.36	12.34
		64	5320	12.11	12.10	12.42	12.40
		100	5500	8.93	8.91	9.79	9.77
		120	5600	9.21	9.19	10.35	10.33
		140	5700	10.38	10.36	10.60	10.58
		149	5745	19.69	19.67	19.56	19.54
		157	5785	19.79	19.77	19.64	19.62
		165	5825	19.81	19.80	19.43	19.41

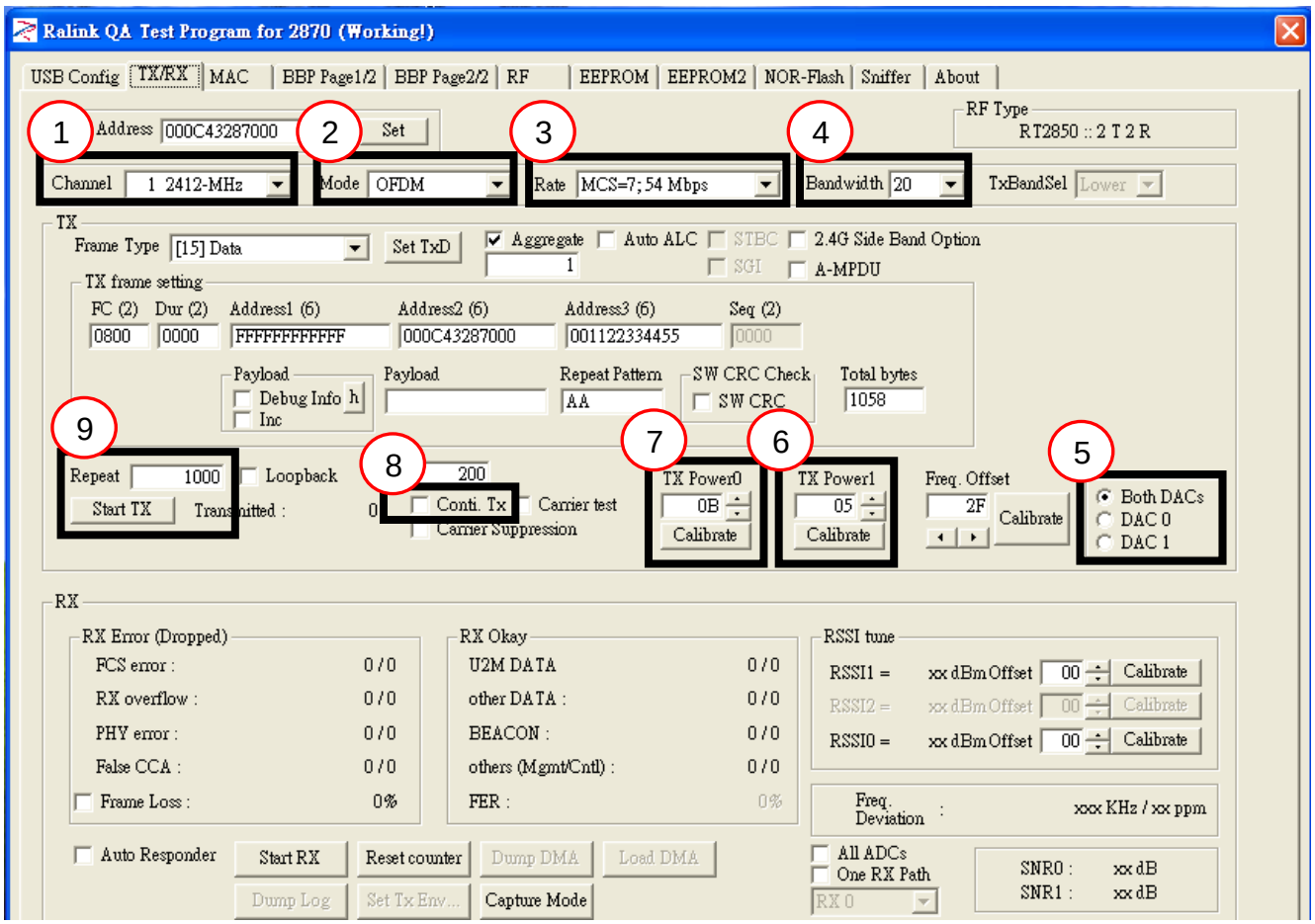
Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 5G_HT20	26 M	36	5180	9.91	9.89	10.28	10.26
		40	5200	10.13	10.11	10.27	10.25
		48	5240	10.67	10.65	10.28	10.26
		52	5260	12.27	12.25	12.28	12.26
		60	5300	12.51	12.49	12.39	12.37
		64	5320	12.10	12.08	12.41	12.39
		100	5500	8.80	8.78	9.77	9.75
		120	5600	9.18	9.16	10.32	10.31
		140	5700	10.37	10.35	10.59	10.57
		149	5745	19.73	19.71	19.54	19.52
		157	5785	19.77	19.75	19.63	19.61
		165	5825	19.79	19.77	19.41	19.39
	39 M	36	5180	9.93	9.91	10.25	10.23
		40	5200	10.07	10.05	10.26	10.24
		48	5240	10.71	10.69	10.29	10.27
		52	5260	12.29	12.27	12.29	12.27
		60	5300	12.48	12.42	12.34	12.32
		64	5320	12.09	12.07	12.44	12.42
		100	5500	8.90	8.89	9.75	9.73
		120	5600	9.17	9.15	10.31	10.29
		140	5700	10.33	10.31	10.55	10.54
		149	5745	19.70	19.68	19.55	19.53
		157	5785	19.74	19.72	19.67	19.65
		165	5825	19.77	19.75	19.42	19.40
	52 M	36	5180	9.94	9.92	10.22	10.20
		40	5200	10.05	10.03	10.21	10.19
		48	5240	10.70	10.68	10.27	10.25
		52	5260	12.25	12.23	12.25	12.23
		60	5300	12.49	12.47	12.35	12.34
		64	5320	12.13	12.11	12.41	12.40
		100	5500	8.93	8.91	9.72	9.70
		120	5600	9.16	9.14	10.30	10.28
		140	5700	10.38	10.36	10.58	10.56
		149	5745	19.68	19.66	19.58	19.56
		157	5785	19.78	19.76	19.63	19.61
		165	5825	19.73	19.71	19.37	19.35

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 5G_HT20	58.5 M	36	5180	9.92	9.90	10.26	10.24
		40	5200	10.07	10.05	10.25	10.23
		48	5240	10.68	10.66	10.25	10.23
		52	5260	12.24	12.22	12.29	12.27
		60	5300	12.45	12.43	12.33	12.31
		64	5320	12.07	12.05	12.40	12.38
		100	5500	8.99	8.97	9.78	9.76
		120	5600	9.19	9.17	10.31	10.30
		140	5700	10.39	10.37	10.59	10.57
		149	5745	19.66	19.64	19.60	19.58
		157	5785	19.75	19.73	19.62	19.60
		165	5825	19.78	19.76	19.33	19.31
	65 M	36	5180	9.90	9.89	10.27	10.25
		40	5200	10.09	10.07	10.24	10.22
		48	5240	10.66	10.64	10.22	10.20
		52	5260	12.21	12.19	12.26	12.24
		60	5300	12.47	12.45	12.37	12.35
		64	5320	12.05	12.03	12.43	12.41
		100	5500	8.91	8.89	9.80	9.78
		120	5600	9.15	9.13	10.34	10.32
		140	5700	10.40	10.38	10.60	10.58
		149	5745	19.63	19.61	19.54	19.52
		157	5785	19.73	19.71	19.64	19.62
		165	5825	19.82	19.80	19.36	19.34

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 5G_HT40	13 M	38	5190	10.73	10.71	10.06	10.04
		46	5230	10.58	10.55	10.15	10.14
		54	5270	10.83	10.81	10.12	10.10
		62	5310	10.99	10.96	10.18	10.15
		102	5510	8.03	8.01	7.58	7.56
		118	5590	8.74	8.72	7.98	7.97
		134	5670	8.98	8.97	8.00	7.99
		151	5755	**19.74**	19.71	19.56	19.54
		159	5790	19.58	19.56	19.38	19.35
	27 M	38	5190	10.70	10.68	10.01	9.99
		46	5230	10.55	10.53	10.11	10.09
		54	5270	10.80	10.78	10.11	10.09
		62	5310	10.96	10.94	10.15	10.13
		102	5510	7.97	7.95	7.56	7.54
		118	5590	8.70	8.68	7.95	7.93
		134	5670	8.95	8.93	7.95	7.93
		151	5755	19.70	19.68	19.51	19.49
		159	5790	19.56	19.54	19.35	19.33
	40.5 M	38	5190	10.69	10.67	10.03	10.01
		46	5230	10.54	10.52	10.09	10.07
		54	5270	10.78	10.76	10.10	10.08
		62	5310	10.94	10.92	10.11	10.09
		102	5510	7.99	7.97	7.55	7.53
		118	5590	8.68	8.66	7.93	7.91
		134	5670	8.93	8.91	7.93	7.91
		151	5755	19.68	19.66	19.50	19.48
		159	5790	19.55	19.53	19.33	19.31
	54 M	38	5190	10.66	10.64	10.00	9.98
		46	5230	10.51	10.49	10.05	10.03
		54	5270	10.77	10.75	10.09	10.07
		62	5310	10.97	10.95	10.13	10.11
		102	5510	8.01	7.99	7.54	7.52
		118	5590	8.66	8.64	7.91	7.89
		134	5670	8.95	8.93	7.91	7.89
		151	5755	19.66	19.64	19.48	19.46
		159	5790	19.52	19.50	19.32	19.30

Band	Rate	CH	Frequency (MHz)	Conducted power (dBm)			
				Antenna_ Chain0		Antenna_ Chain1	
				Before SAR Test	After SAR Test	Before SAR Test	After SAR Test
802.11 n 5G_HT40	81 M	38	5190	10.65	10.63	9.98	9.96
		46	5230	10.54	10.52	10.03	10.01
		54	5270	10.79	10.77	10.06	10.04
		62	5310	10.98	10.96	10.10	10.08
		102	5510	7.98	7.96	7.52	7.50
		118	5590	8.65	8.63	7.89	7.87
		134	5670	8.96	8.94	7.98	7.96
		151	5755	19.65	19.63	19.49	19.47
		159	5790	19.49	19.47	19.29	19.27
	108 M	38	5190	10.72	10.70	9.95	9.93
		46	5230	10.53	10.51	10.01	9.99
		54	5270	10.75	10.73	10.08	10.06
		62	5310	10.95	10.93	10.09	10.07
		102	5510	7.99	7.97	7.50	7.48
		118	5590	8.69	8.67	7.88	7.86
		134	5670	8.91	8.89	7.93	7.91
		151	5755	19.63	19.61	19.44	19.42
		159	5790	19.48	19.46	19.25	19.23
	121.5 M	38	5190	10.69	10.67	9.97	9.95
		46	5230	10.57	10.55	10.07	10.05
		54	5270	10.79	10.77	10.05	10.03
		62	5310	10.93	10.91	10.12	10.10
		102	5510	7.95	7.93	7.54	7.52
		118	5590	8.66	8.64	7.94	7.92
		134	5670	8.93	8.91	7.94	7.92
		151	5755	19.68	19.66	19.45	19.43
		159	5790	19.44	19.42	19.24	19.22

8.2 Test Mode Description



1. Choose Test Channel
2. Choose Test Mode EX: 802.11(a_b) Choose CCK. 802.11g Choose OFDM. 802.11n Choose HT Mix Mode
3. Choose Date Rate
4. Choose Band Width. EX: 802.11n Choose HT20 Or HT40. 802.11(a_b_g) Set HT20.
5. Choose Antenna. EX: 802.11(a_b_g) Choose DAC 0. 802.11(n) Choose Both DACs.
   Both DACs → Dual TX, DAC 0 → Chain 0, DAC 1 → Chain 1.
6. Set TX Power1. If Choose Both DACs. Must Set.
7. Set TX Power0. If Choose Both DACs or DAC 0. Must Set.
8. Choose Conti. TX.
9. Above Set Complete. Push Start TX.

8.3 System Performance Check

8.3.1 Symmetric Dipoles for System Validation

Construction	Symmetrical dipole with l/4 balun enables measurement of feed point impedance with NWA matched for use near flat phantoms filled with head simulating solutions Includes distance holder and tripod adaptor Calibration Calibrated SAR value for specified position and input power at the flat phantom in head simulating solutions.
Frequency	450, 900, 1800, 2000, 2450, 5200MHz, 5800MHz
Return Loss	> 20 dB at specified validation position
Power Capability	> 100 W (f < 1GHz); > 40 W (f > 1GHz)
Options	Dipoles for other frequencies or solutions and other calibration conditions are available upon request
Dimensions	D450V2：dipole length 270 mm; overall height 330 mm D900V2：dipole length 149 mm; overall height 330 mm D1800V2：dipole length 72 mm; overall height 300 mm D2000V2：dipole length 65 mm; overall height 300 mm D2450V2：dipole length 51.5 mm; overall height 300 mm D5GHzV2：dipole length 20.6 mm; overall height 450 mm

Figure 11. Validation Kit

8.3.2 Validation

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ± 7%. The validation was performed at 2450MHz, 5200MHz and 5800MHz.

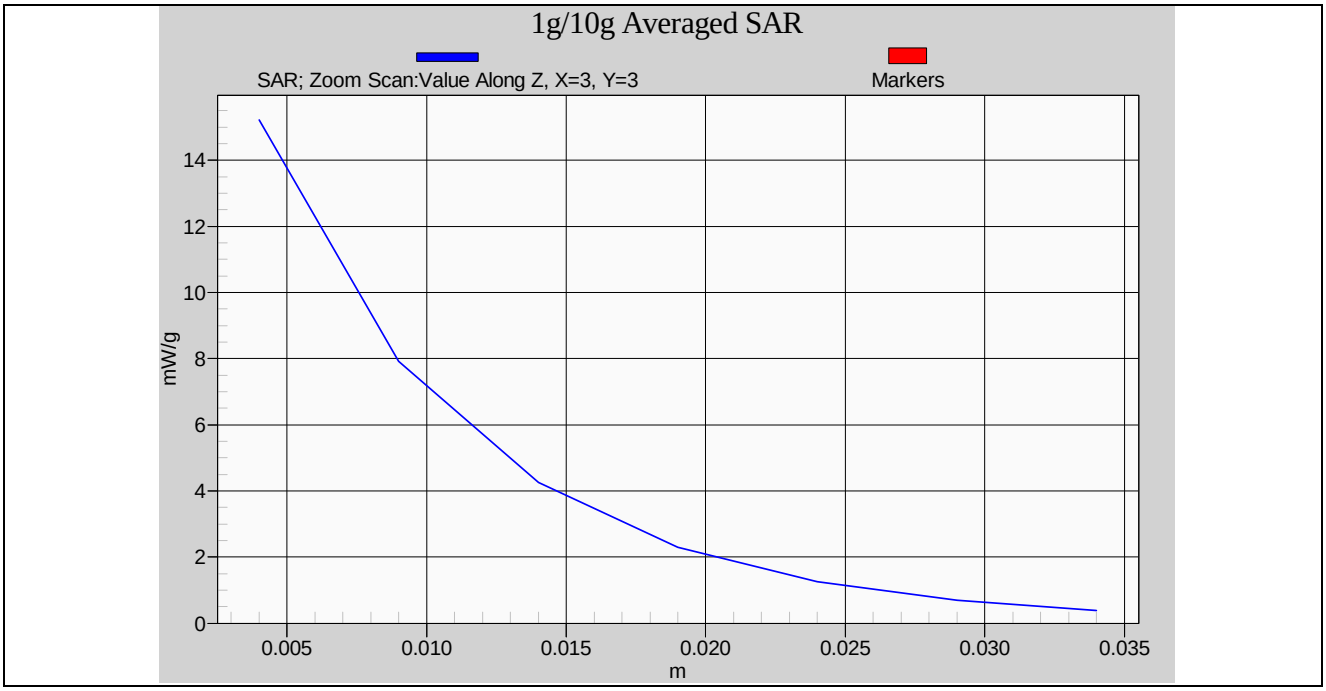
Validation kit		Mixture Type	SAR_{1g} [mW/g]		SAR_{10g} [mW/g]		Date of Calibration
D2450V2-SN712		Body	53.6		24.8		Jan. 30, 2008
D5GHzV2-SN1021 (5200MHz)		Body	80.4		22.5		Mar. 11, 2008
Frequency (MHz)	**Power**	**SAR_{1g} (mW/g)**	**SAR_{10g} (mW/g)**	**Drift (dB)**	**Difference percentage**		**Date**
					1g	**10g**	
2450 (Body)	250mW	13.4	6.27	**-0.05600**	**0.0 %**	**1.1 %**	**Oct. 06, 2008**
	Normalize to 1 Watt	**53.6**	**25.08**				
2450 (Body)	250mW	12.9	6.31	**-0.03800**	**-3.7 %**	**1.8 %**	**Oct. 08, 2008**
	Normalize to 1 Watt	**51.6**	**25.24**				
2450 (Body)	250mW	13.7	6.15	**-0.07200**	**2.2 %**	**-0.8 %**	**Jan. 13, 2009**
	Normalize to 1 Watt	**54.8**	**24.6**				
2450 (Body)	250mW	13.3	6.15	**-0.13300**	**4.7 %**	**3.9 %**	**Feb. 18, 2009**
	Normalize to 1 Watt	**53.2**	**24.6**				
5200 (Body)	100mW	8.22	2.29	**-0.04300**	**2.2 %**	**1.8 %**	**Oct. 08, 2008**
	Normalize to 1 Watt	**82.2**	**22.9**				
5200 (Body)	100mW	8.24	2.31	**0.05700**	**2.5 %**	**2.7 %**	**Oct. 09, 2008**
	Normalize to 1 Watt	**82.4**	**23.1**				
5200 (Body)	100mW	8.13	2.28	**-0.09500**	**1.1 %**	**1.3 %**	**Oct. 10, 2008**
	Normalize to 1 Watt	**81.3**	**22.8**				
5200 (Body)	100mW	8.25	2.32	**-0.19700**	**2.6 %**	**3.1 %**	**Jan. 12, 2009**
	Normalize to 1 Watt	**82.5**	**23.2**				
5200 (Body)	100mW	8.24	2.31	**-0.08600**	**2.5 %**	**2.7 %**	**Feb. 18, 2009**
	Normalize to 1 Watt	**82.4**	**23.1**				

Detail results see Appendix A.

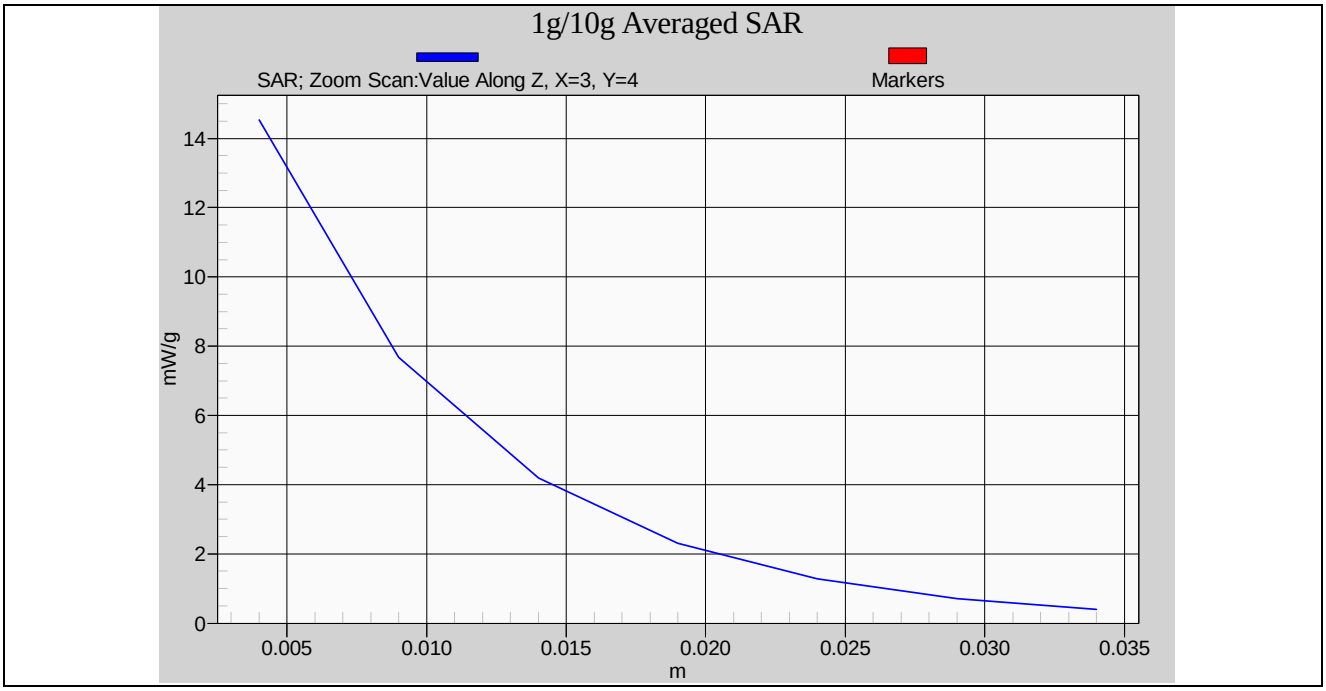
Validation kit		Mixture Type	SAR_{1g} [mW/g]			SAR_{10g} [mW/g]		Date of Calibration
D5GHzV2-SN1021 (5500MHz)		Body	84.9			23.7		Mar. 11, 2008
D5GHzV2-SN1021 (5800MHz)		Body	78.2			21.8		Mar. 11, 2008
Frequency (MHz)	**Power**	**SAR_{1g} (mW/g)**	**SAR_{10g} (mW/g)**	**Drift (dB)**	**Difference percentage**		**Date**	
					1g	**10g**		
5500 (Body)	100mW	8.7	2.4	**0.00382**	**2.5 %**	**1.3 %**	**Oct. 08, 2008**	
	Normalize to 1 Watt	**87**	**24**					
5500 (Body)	100mW	8.65	2.43	**-0.13000**	**1.9 %**	**2.5 %**	**Jan. 12, 2009**	
	Normalize to 1 Watt	**86.5**	**24.3**					
5500 (Body)	100mW	8.63	2.41	**-0.11000**	**1.6 %**	**1.7 %**	**Feb. 18, 2009**	
	Normalize to 1 Watt	**86.3**	**24.1**					
5800 (Body)	100mW	7.9	2.17	**0.00772**	**1.0 %**	**-0.5 %**	**Oct. 08, 2008**	
	Normalize to 1 Watt	**79**	**21.7**					
5800 (Body)	100mW	8.04	2.22	**0.04300**	**2.8 %**	**1.8 %**	**Oct. 09, 2008**	
	Normalize to 1 Watt	**80.4**	**22.2**					
5800 (Body)	100mW	8.02	2.21	**0.03200**	**2.6 %**	**1.4 %**	**Oct. 10, 2008**	
	Normalize to 1 Watt	**80.2**	**22.1**					
5800 (Body)	100mW	8.17	2.26	**0.04600**	**4.5 %**	**3.7 %**	**Nov. 03, 2008**	
	Normalize to 1 Watt	**81.7**	**22.6**					
5800 (Body)	100mW	7.9	2.22	**-0.14800**	**1.0 %**	**1.8 %**	**Jan. 12, 2009**	
	Normalize to 1 Watt	**79**	**22.2**					
5800 (Body)	100mW	7.91	2.21	**-0.02800**	**1.2 %**	**1.4 %**	**Feb. 18, 2009**	
	Normalize to 1 Watt	**79.1**	**22.1**					

Detail results see Appendix A.

Z-axis Plot of System Performance Check

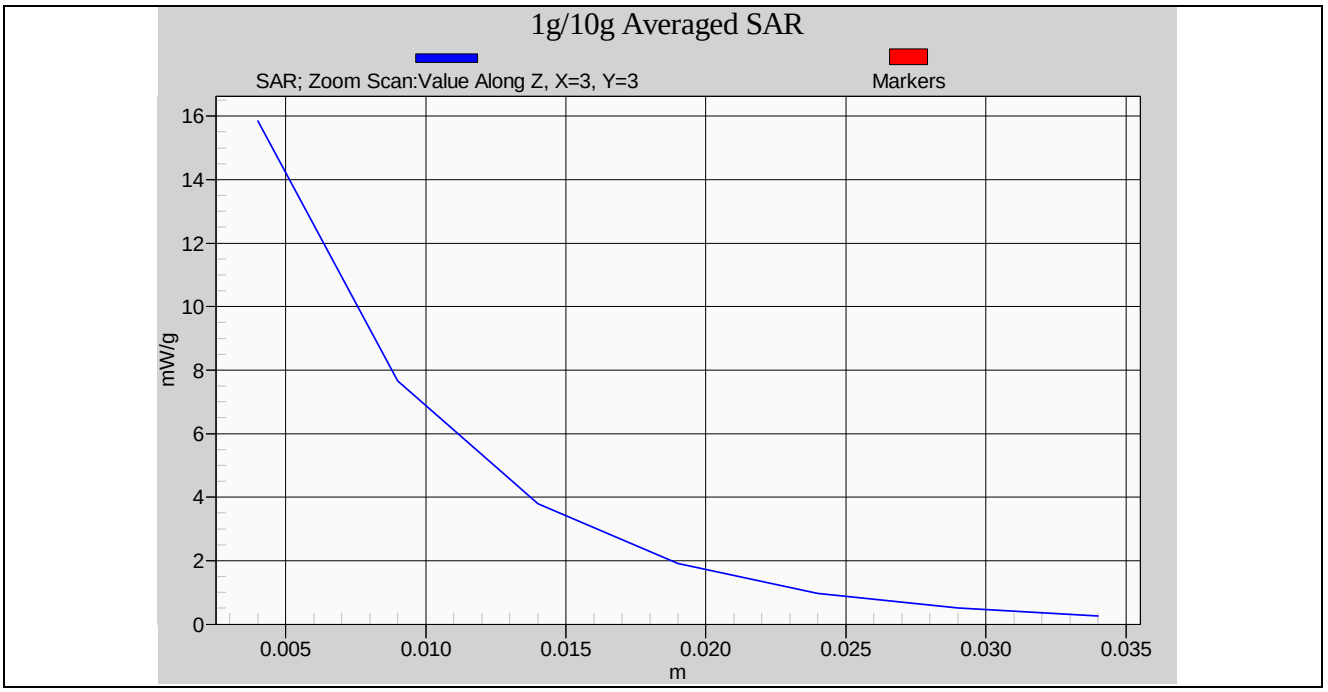


Body-Tissue-Simulating-Liquid 2.4GHz (2008/10/06)

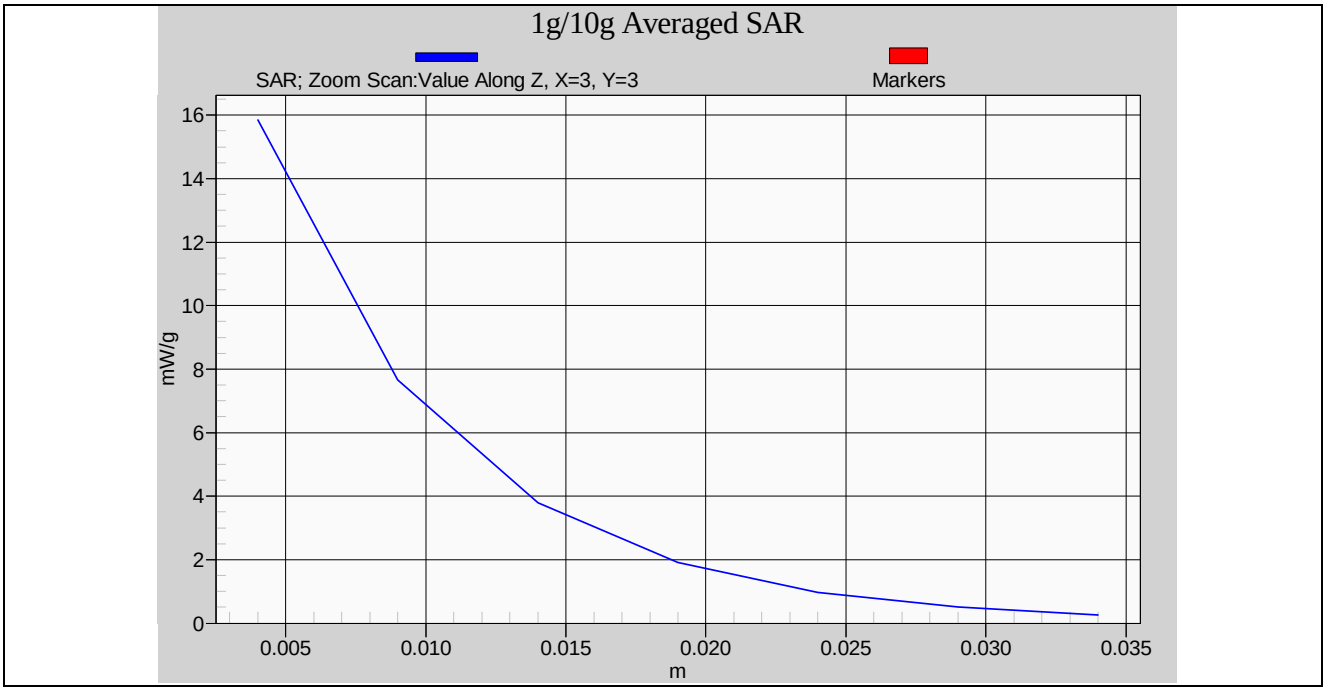


Body-Tissue-Simulating-Liquid 2.4GHz (2008/10/08)

Z-axis Plot of System Performance Check

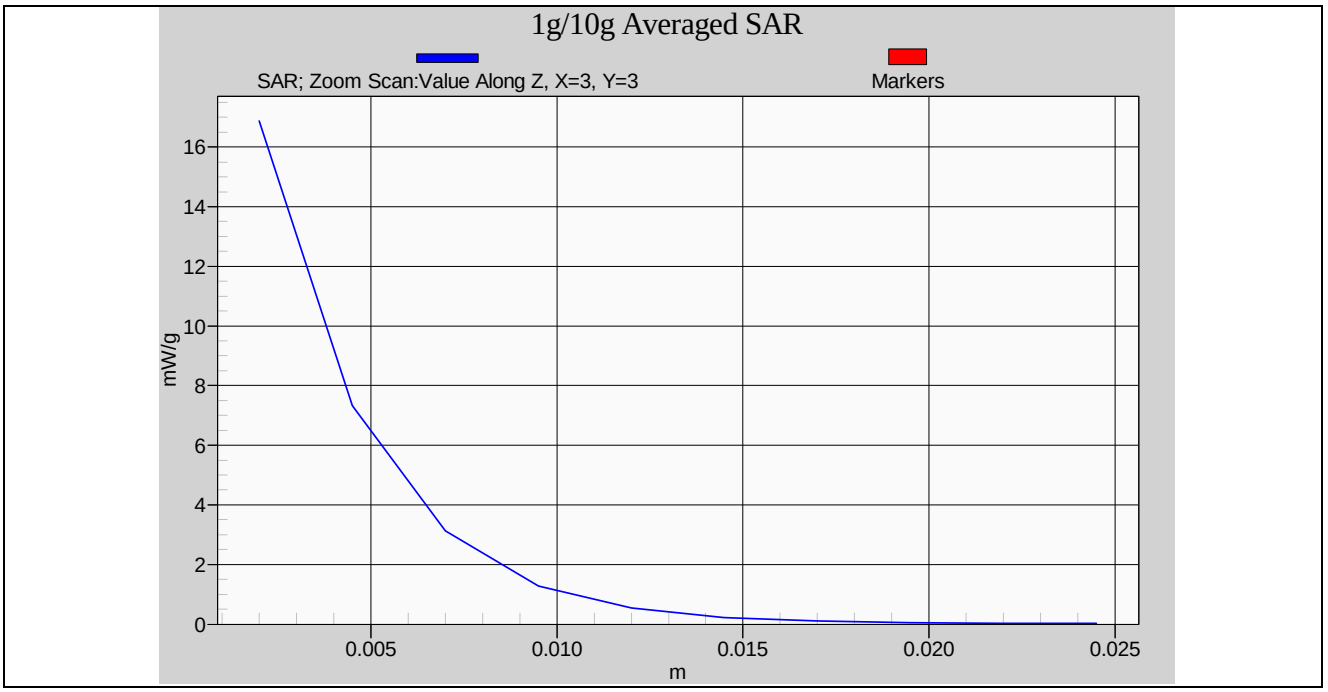


Body-Tissue-Simulating-Liquid 2.4GHz (2009/01/13)

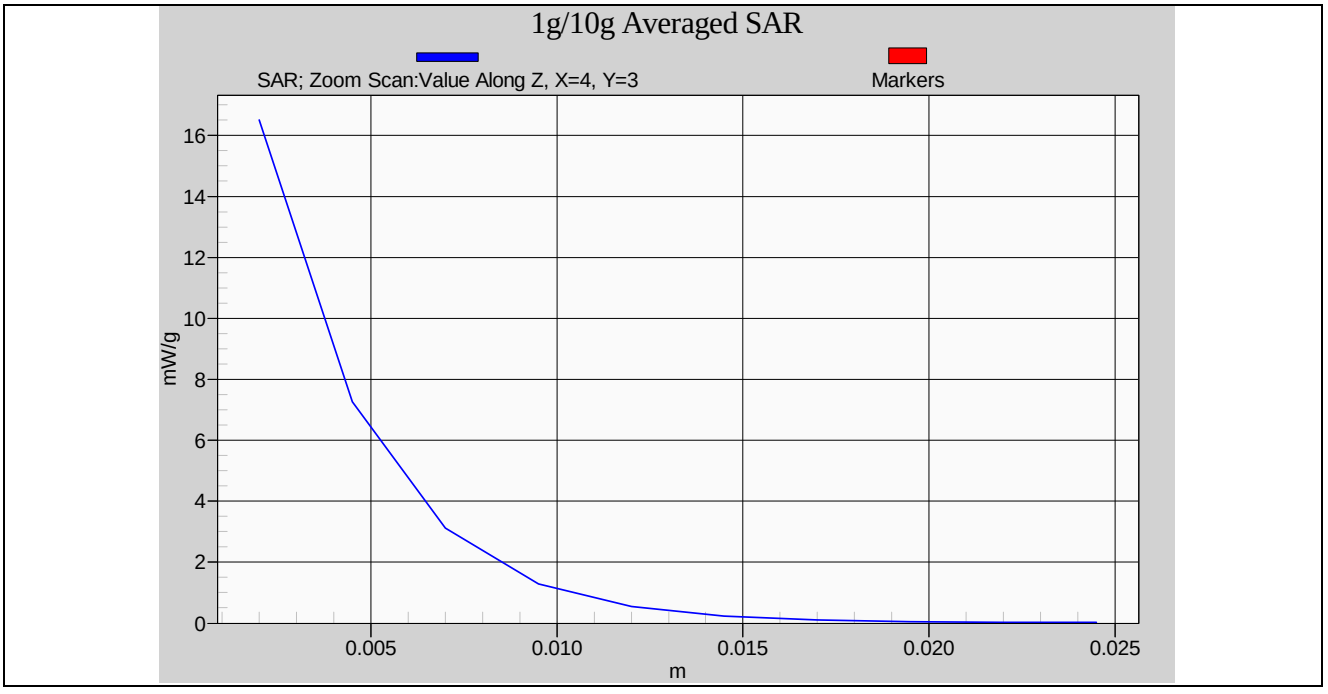


Body-Tissue-Simulating-Liquid 2.4GHz (2009/02/18)

Z-axis Plot of System Performance Check

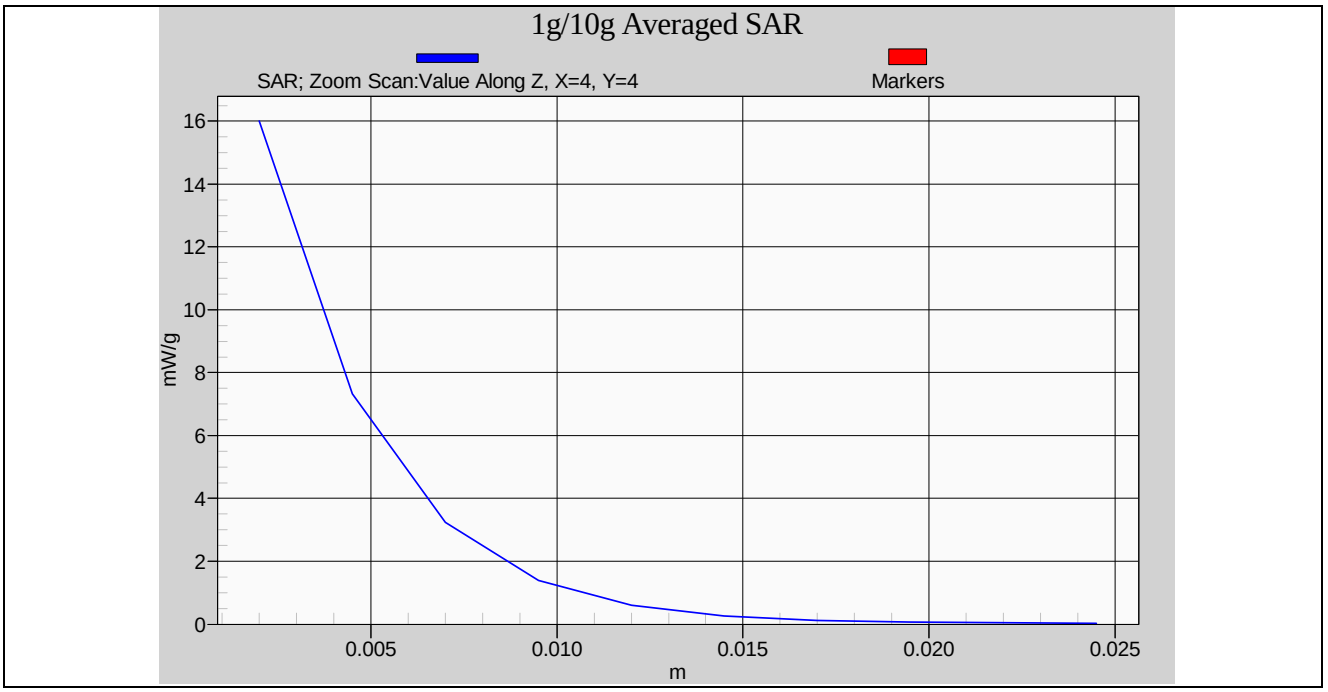


Body-Tissue-Simulating-Liquid 5.2GHz (2008.10.08)

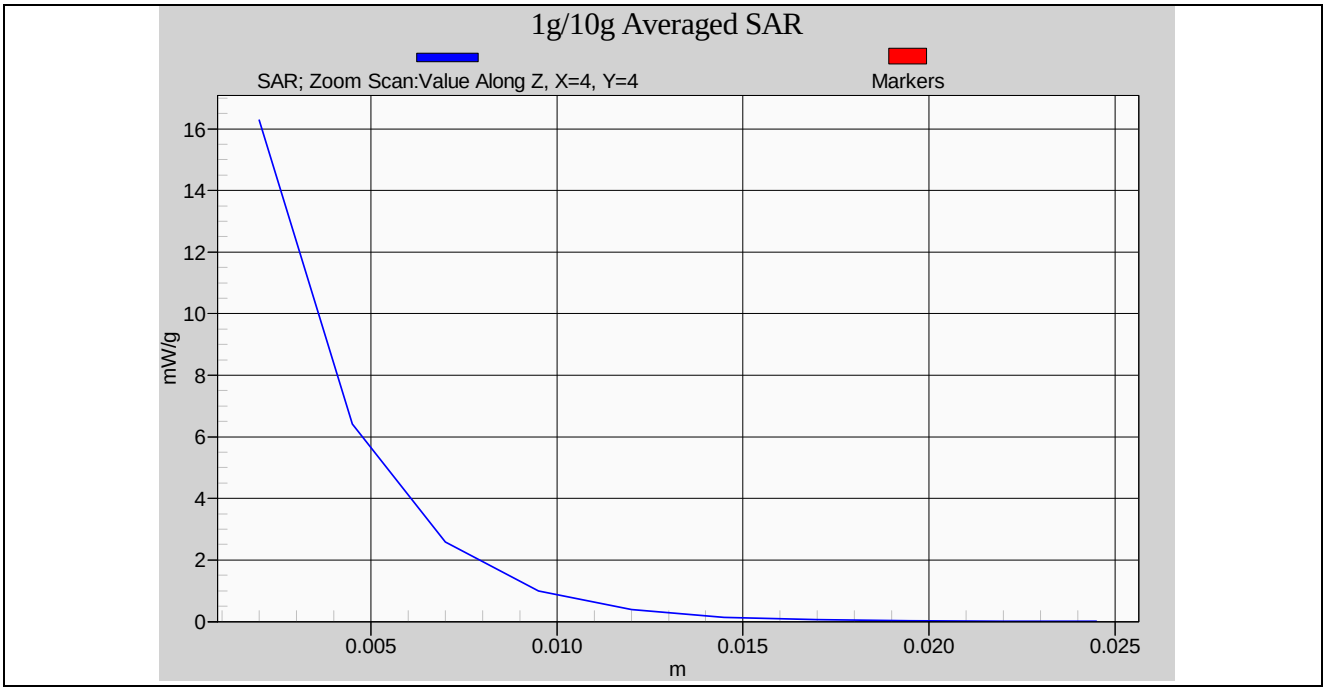


Body-Tissue-Simulating-Liquid 5.2GHz (2008.10.09)

Z-axis Plot of System Performance Check

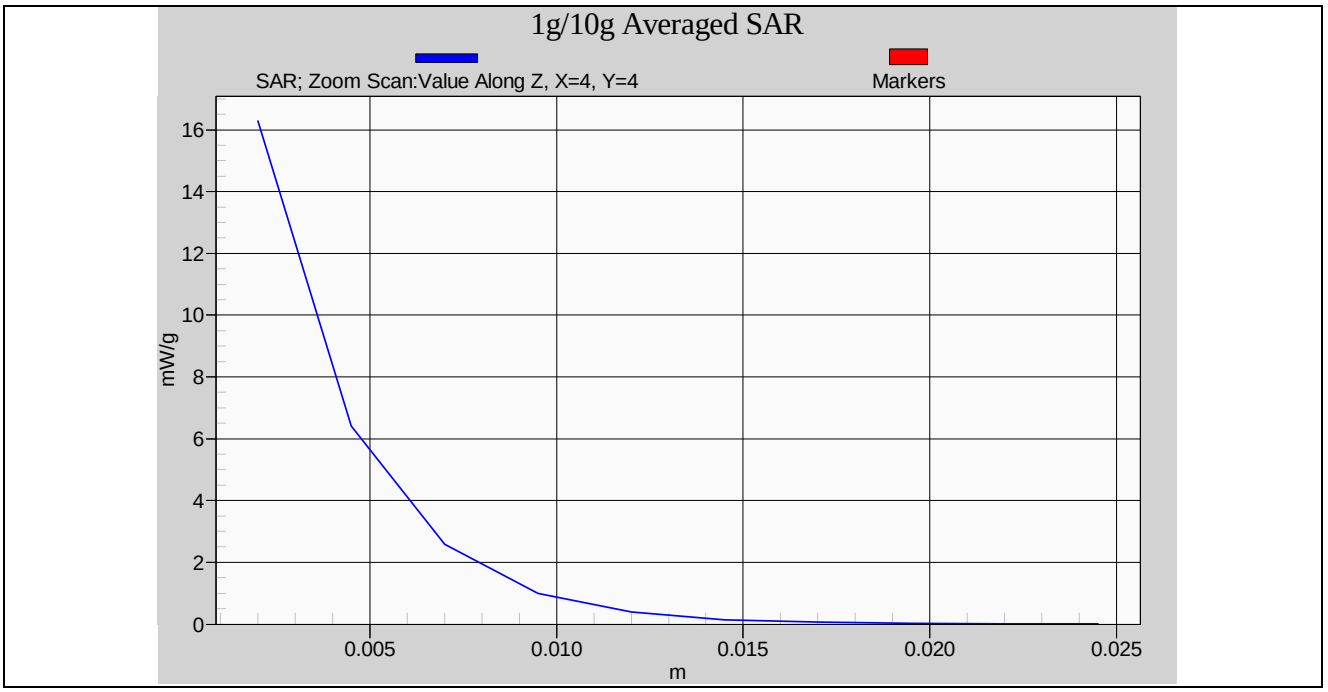


Body-Tissue-Simulating-Liquid 5.2GHz (2008.10.10)

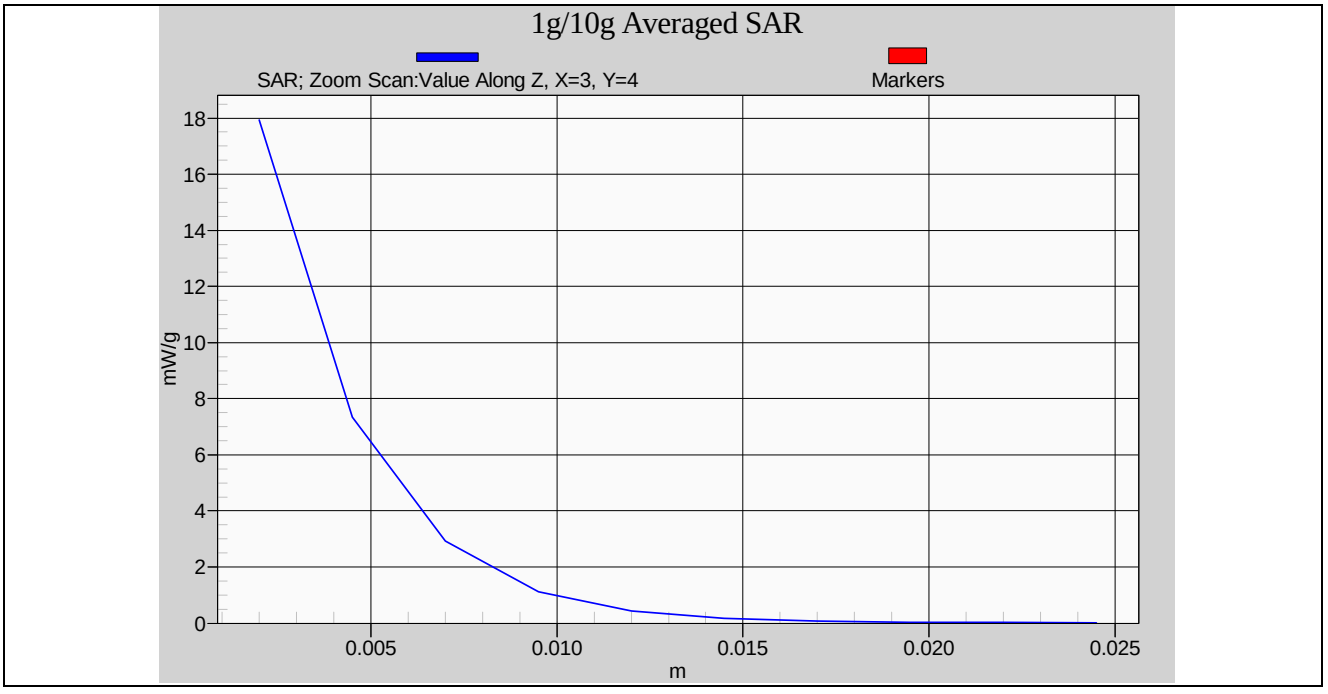


Body-Tissue-Simulating-Liquid 5.2GHz (2009.01.12)

Z-axis Plot of System Performance Check

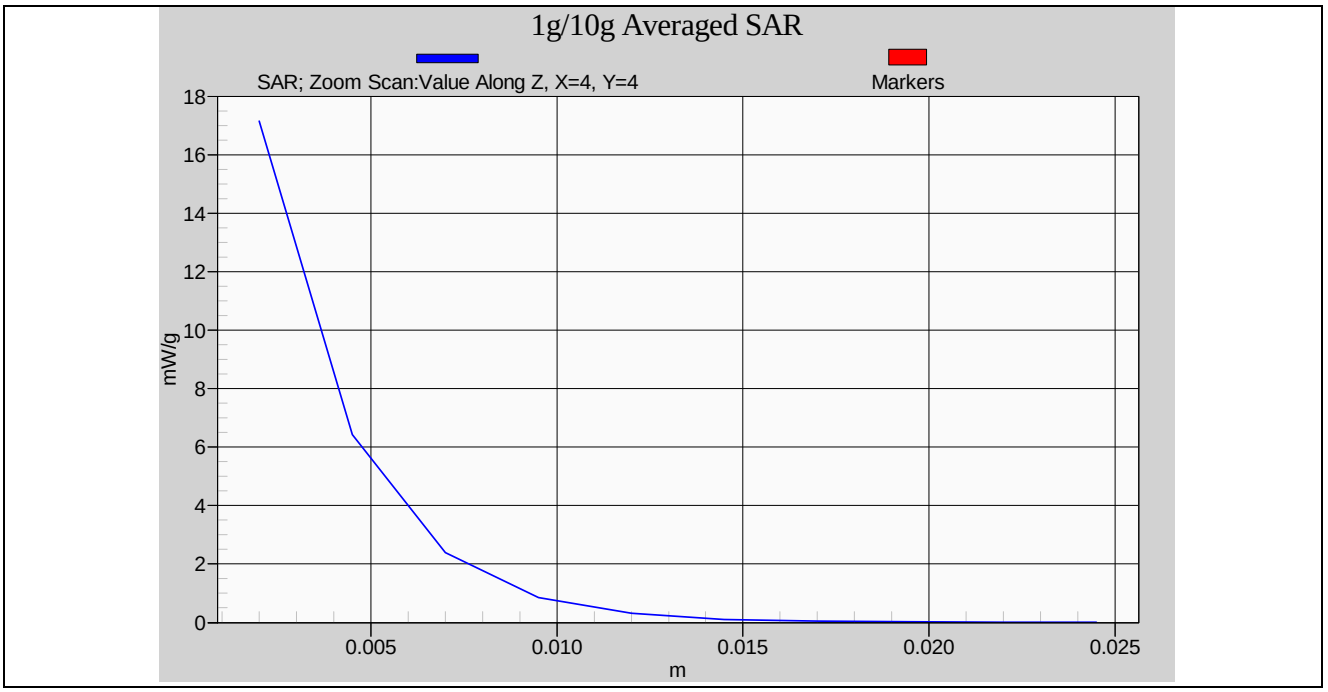


Body-Tissue-Simulating-Liquid 5.2GHz (2009.02.18)

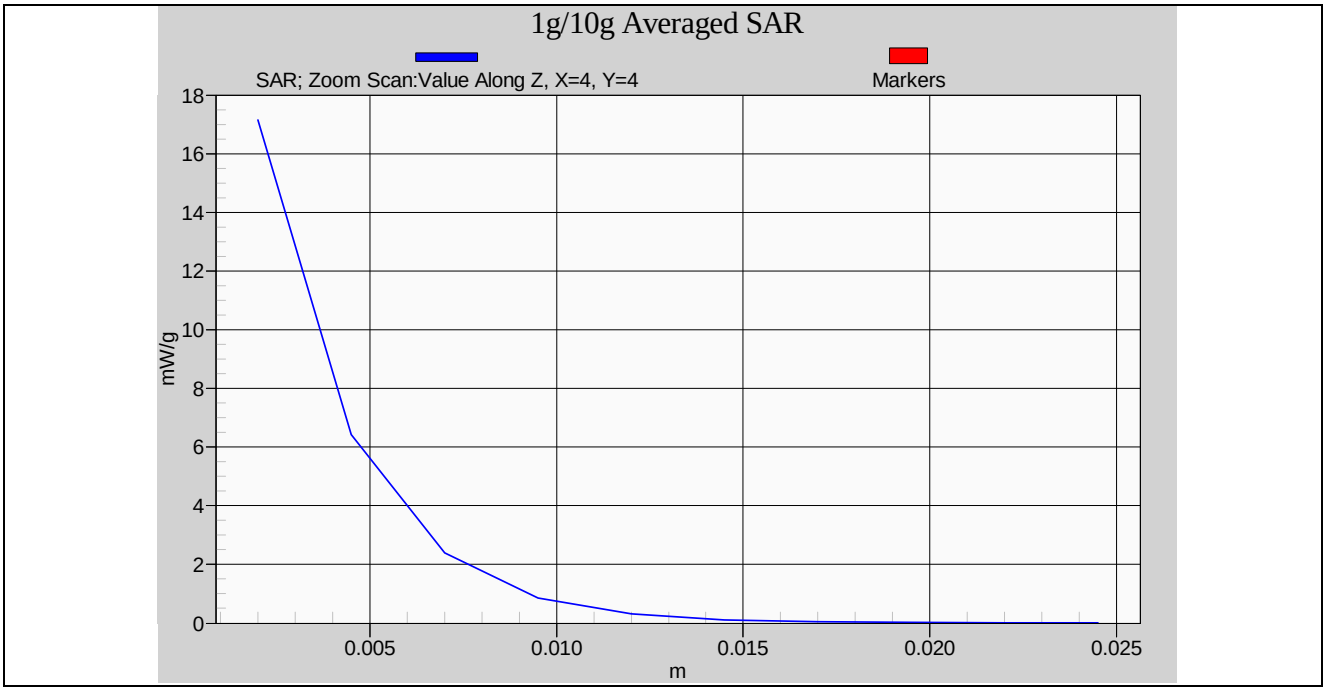


Body-Tissue-Simulating-Liquid 5.5GHz (2008.10.08)

Z-axis Plot of System Performance Check

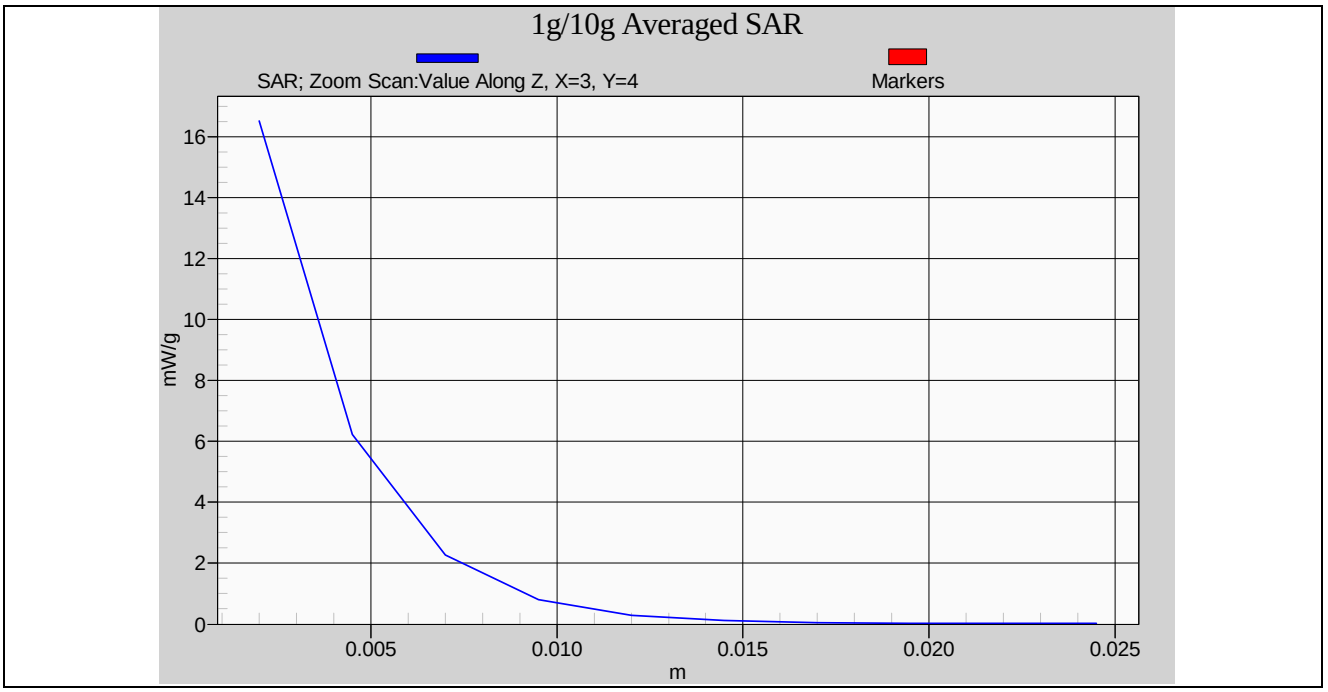


Body-Tissue-Simulating-Liquid 5.5GHz (2009.01.12)

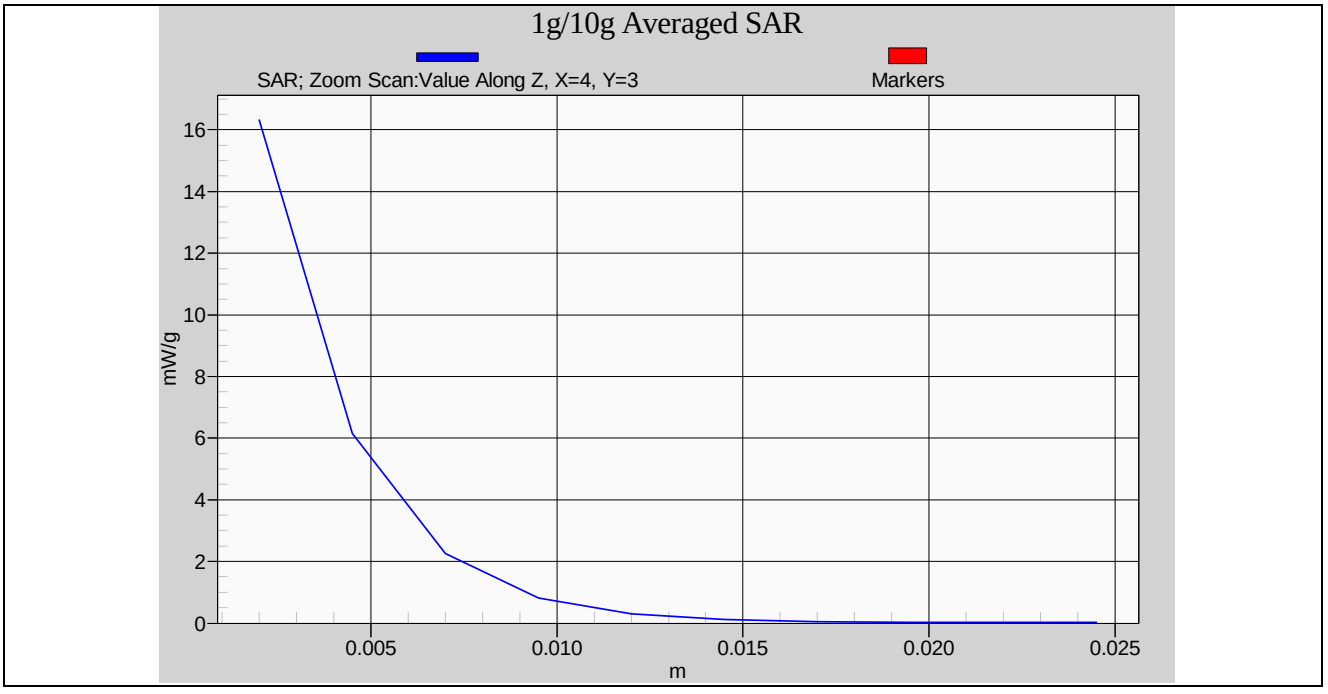


Body-Tissue-Simulating-Liquid 5.5GHz (2009.02.18)

Z-axis Plot of System Performance Check

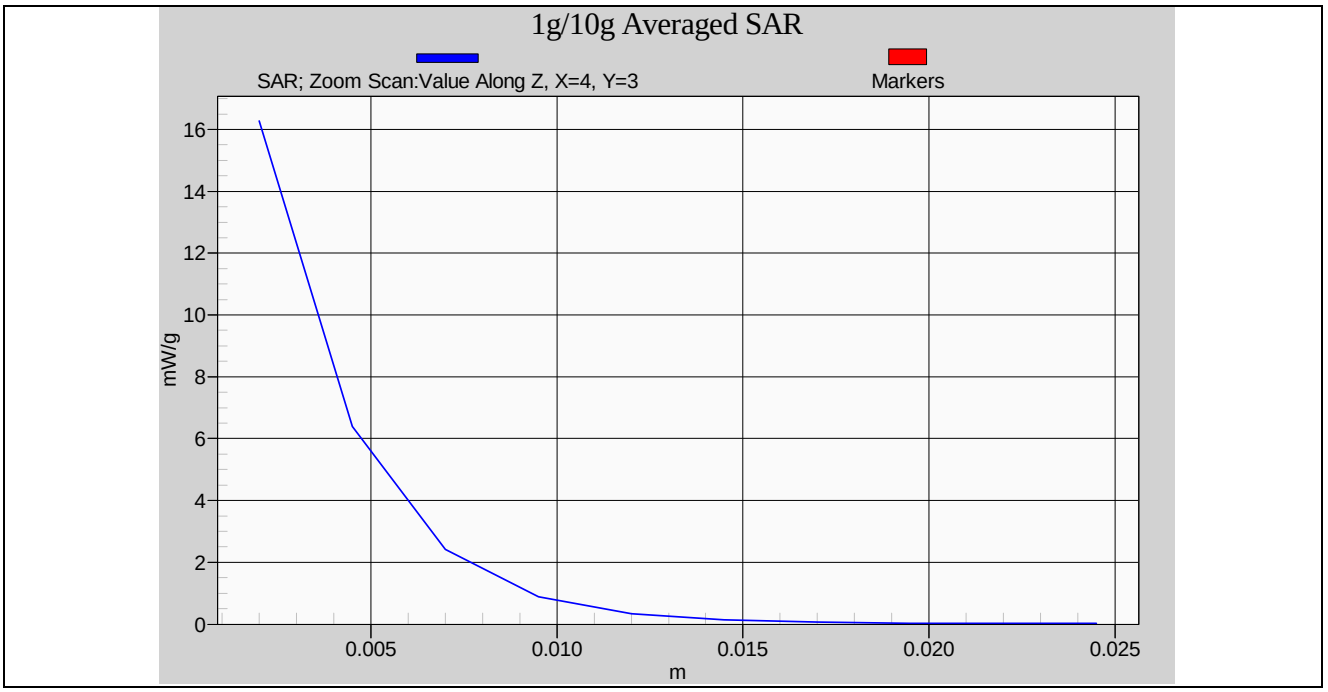


Body-Tissue-Simulating-Liquid 5.8GHz (2008.10.08)

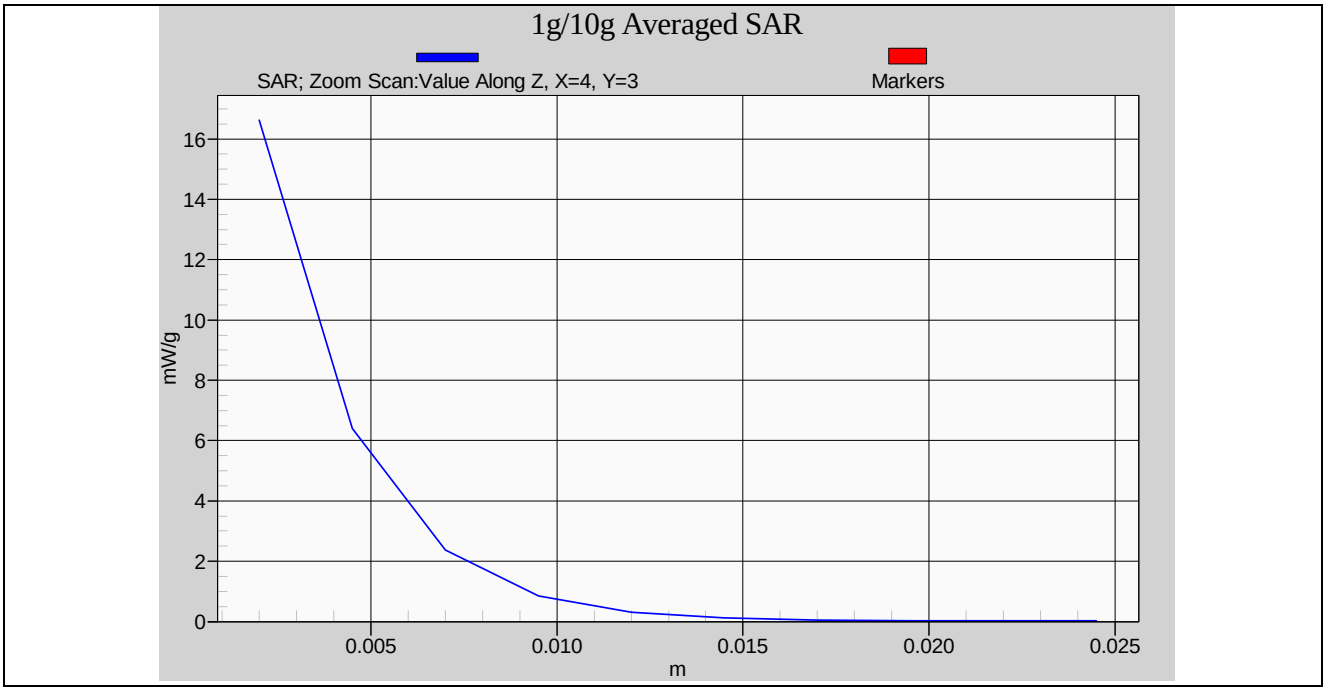


Body-Tissue-Simulating-Liquid 5.8GHz (2008.10.09)

Z-axis Plot of System Performance Check

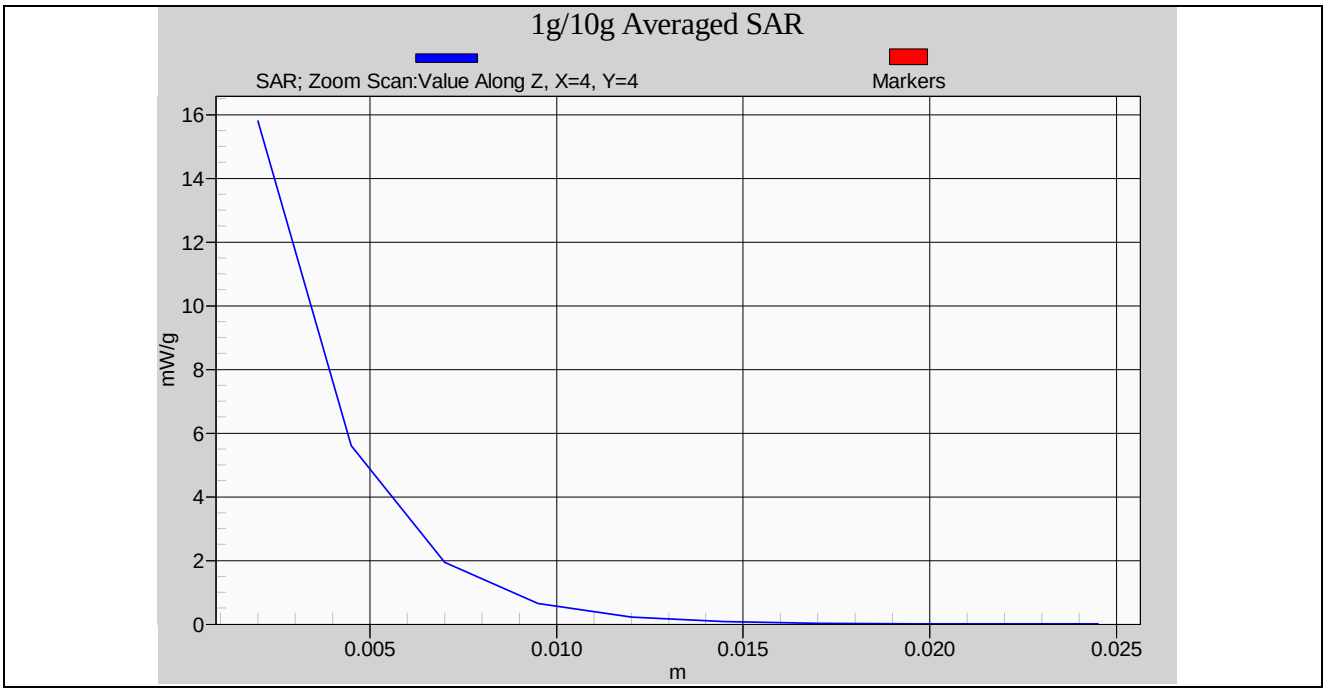


Body-Tissue-Simulating-Liquid 5.8GHz (2008.10.10)

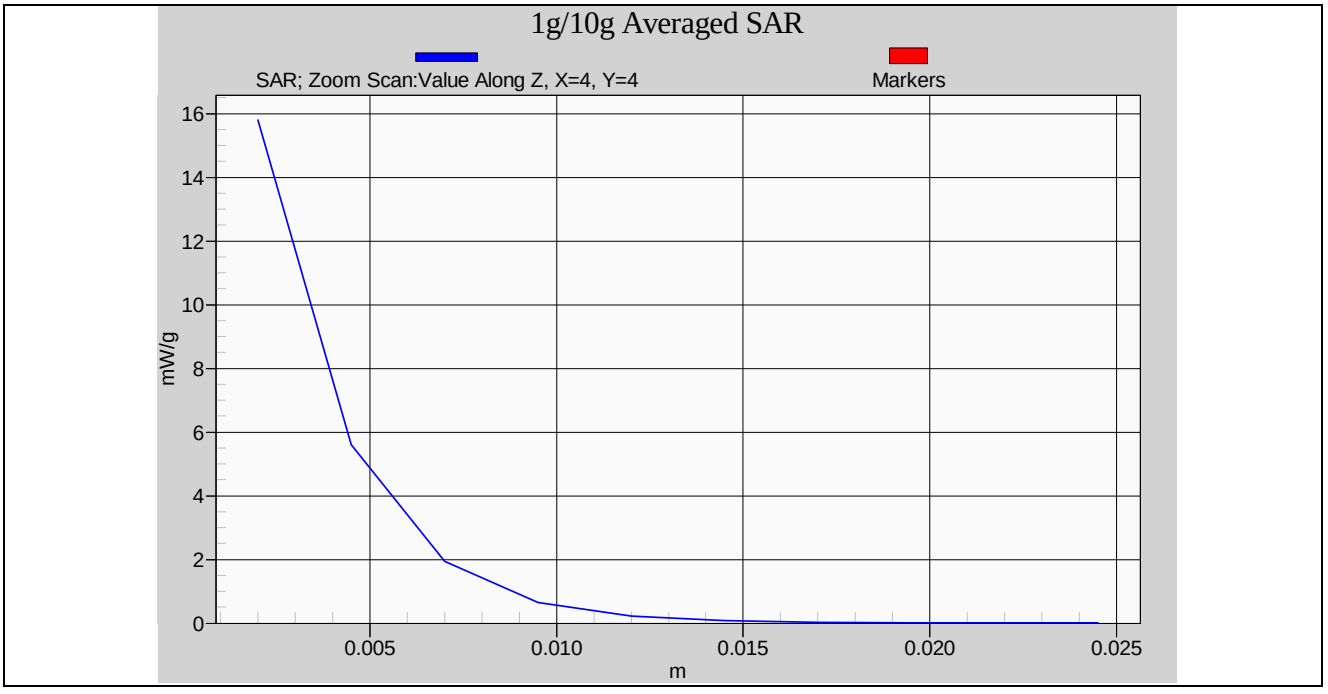


Body-Tissue-Simulating-Liquid 5.8GHz (2008.11.03)

Z-axis Plot of System Performance Check



Body-Tissue-Simulating-Liquid 5.8GHz (2009.01.13)



Body-Tissue-Simulating-Liquid 5.8GHz (2009.02.18)

8.4 Dosimetric Assessment Setup

8.4.1 Body-Worn Test Position

Body-Worn Configuration

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. Devices with a headset output should be tested with a headset connected to the device.

Body-worn accessories may not always be supplied or available as options for some devices that are intended to be authorized for body-worn use. 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.
For this test：

☐ The EUT is placed into the holster/belt clip and the holster is positioned against the surface of the phantom in a normal operating position.

■ Since this EUT doesn't supply any body-worn accessory to the end user, a distance of 5 mm was tested to confirm the necessary "minimum SAR separation distance".
(＊Note：This distance includes the 2 mm phantom shell thickness.)

8.4.2 Measurement Procedures

The evaluation was performed with the following procedures：

Surface Check： A surface check job gathers data used with optical surface detection. It determines the distance from the phantom surface where the reflection from the optical detector has its peak. Any following measurement jobs using optical surface detection will then rely on this value. The surface check performs its search a specified number of times, so that the repeatability can be verified. The probe tip distance is 1.3mm to phantom inner surface during scans.

Reference： The reference job measures the field at a specified reference position, at 4 mm from the selected section's grid reference point.

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 finer measurement around the hot spot. The sophisticated interpolation routines can find the maximum locations even in relatively coarse grids. 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. Any following zoom scan within the same procedure will then perform fine scans around these maxima. The area covered the entire dimension of the EUT and the horizontal grid spacing was 15 mm × 15 mm.

Zoom Scan： Zoom scans are used to assess the highest averaged SAR for cubic averaging volumes with 1 g and 10 g of simulated tissue. The zoom scan measures 5 x 5 x 7 points in a 32 x 32 x 30 mm cube whose base faces are centered around the maxima returned from a preceding area scan within the same procedure.

Drift： The drift job measures the field at the same location as the most recent reference job within the same procedure, with the same settings. The drift measurement gives the field difference in dB from the last reference measurement. Several drift measurements are possible for each reference measurement. This allows monitoring of the power drift of the device in the batch process. If the value changed by more than 5%, the evaluation was repeated.

8.5 Spatial Peak SAR Evaluation

The DASY5 software includes all numerical procedures necessary to evaluate the spatial peak SAR values. Based on the Draft: SCC-34, SC-2, WG-2 - Computational Dosimetry, IEEE P1529/D0.0 (Draft Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) Associated with the Use of Wireless Handsets - Computational Techniques), a new algorithm has been implemented. The spatial-peak SAR can be computed over any required mass.

The base for the evaluation is a "cube" measurement in a volume of (32x32x30)mm^3 (5x5x7 points). The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan. If the 10g cube or both cubes are not entirely inside the measured volumes, the system issues a warning regarding the evaluated spatial peak values within the Postprocessing engine (SEMCAD). This means that if the measured volume is shifted, higher values might be possible. To get the correct values you can use a finer measurement grid for the area scan. In complicated field distributions, a large grid spacing for the area scan might miss some details and give an incorrectly interpolated peak location.
The entire evaluation of the spatial peak values is performed within the Postprocessing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into three stages:

Interpolation and Extrapolation

The probe is calibrated at the center of the dipole sensors which is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated.

In DASY5, the choice of the coordinate system defining the location of the measurement points has no influence on the uncertainty of the interpolation, Maxima Search and SAR extrapolation routines. The interpolation, Maxima Search and extrapolation routines are all based on the modified Quadratic Shepard's method [7].

9. ***Measurement Uncertainty***

Measurement uncertainties in SAR measurements are difficult to quantify due to several variables including biological, physiological, and environmental. However, we estimate the measurement uncertainties in SAR to be less than ± 22.4 %〔8〕.

According to Std. C95.3〔9〕, the overall uncertainties are difficult to assess and will vary with the type of meter and usage situation. However, accuracy's of ±1 to 3 dB can be expected in practice, with greater uncertainties in near-field situations and at higher frequencies (shorter wavelengths), or areas where large reflecting objects are present. Under optimum measurement conditions, SAR measurement uncertainties of at least ±2dB can be expected.

According to CENELEC〔10〕, typical worst-case uncertainty of field measurements is ±5 dB. For well-defined modulation characteristics the uncertainty can be reduced to ±3 dB.

Uncertainty Component	Uncertainty Value	Probability Distribution	Divisor	c_i (1g)	c_i (10g)	Standard Uncertainty ±1% (1-g)	Standard Uncertainty ±1% (10-g)	v_i or V_{eff}
Measurement System								
Probe Calibration (*k*=1)	4.8	Normal	1	1	1	4.8	4.8	∞
Axial Isotropy	4.7	Rectangular	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	1.9	1.9	∞
Hemispherical Isotropy	9.6	Rectangular	$\sqrt{3}$	$\sqrt{0.5}$	$\sqrt{0.5}$	3.9	3.9	∞
Boundary Effect	0.8	Rectangular	$\sqrt{3}$	1	1	0.5	0.5	∞
Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	∞
System Detection Limit	1.0	Rectangular	$\sqrt{3}$	1	1	0.6	0.6	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	∞
Response Time	1.0	Rectangular	$\sqrt{3}$	1	1	0.6	0.6	∞
Integration Time	1.9	Rectangular	$\sqrt{3}$	1	1	1.1	1.1	∞
RF Ambient Conditions	3.0	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	1.4	Rectangular	$\sqrt{3}$	1	1	0.8	0.8	∞
Probe Positioning with respect to Phantom Shell	2.9	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	4.5	Rectangular	$\sqrt{3}$	1	1	2.6	2.6	∞
Test sample Related								
Test sample Positioning	2.9	Normal	1	1	1	2.9	2.9	145
Device Holder Uncertainty	3.6	Normal	1	1	1	3.6	3.6	5
Output Power Variation – SAR drift measurement	5.0	Rectangular	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and Tissue Parameters								
Phantom Uncertainty (shape and thickness tolerances)	4.0	Rectangular	$\sqrt{3}$	1	1	2.3	2.3	∞
Liquid Conductivity – deviation from target values	5.0	Rectangular	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
Liquid Conductivity – measurement uncertainty	5.0	Normal	1	0.64	0.43	3.2	2.2	∞
Liquid Permittivity - deviation from target values	5.0	Rectangular	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
Liquid Permittivity - measurement uncertainty	5.0	Normal	1	0.6	0.49	3.0	2.5	∞
Combined standard uncertainty		RSS				11.2	10.7	388
Expanded uncertainty (95% CONFIDENCE LEVEL)		*k*=2				22.4	21.5	

Table 6. Uncertainty Budget of DASY

10. SAR Test Results Summary

10.1 802.11b Body SAR _ EUT to Phantom (5mm separation)

Ambient :

Temperature (℃) : 22 ± 2 — Relative HUMIDITY (%) : 40 - 70

Liquid :

Mixture Type : MSL2450 — Liquid Temperature (℃) : 22.0

Depth of liquid (cm) : 15

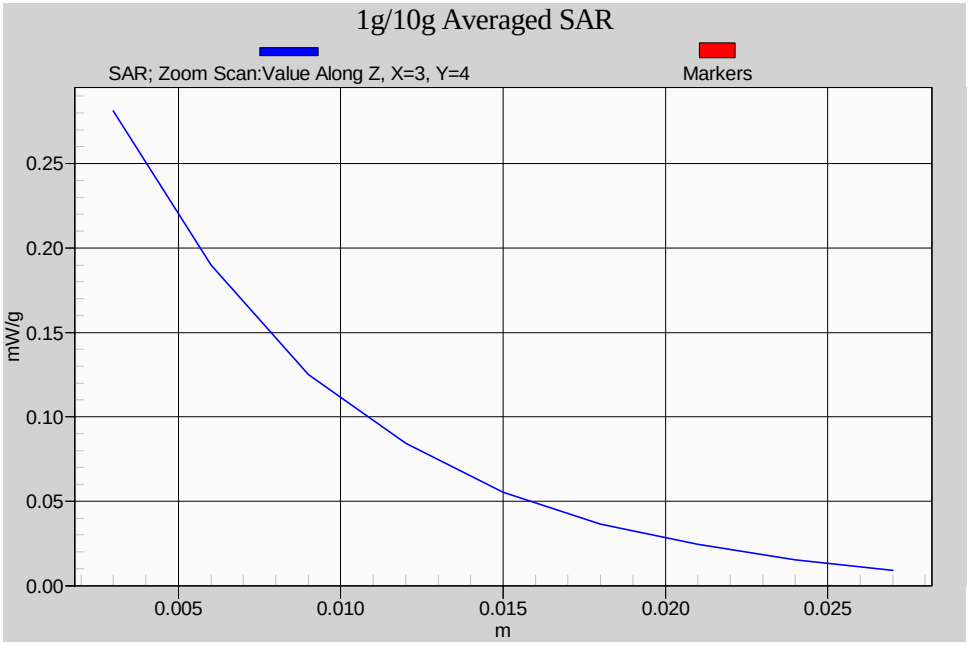
Measurement :

Crest Factor : 1 — Probe S/N : 3150 / 3578

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
2462	1 M	Flat	Top (5mm)	0.221	-0.13700	22.0	USB Cable
2462	1 M	Flat	Bottom (5mm)	0.136	0.15200	22.0	Notebook
2462	1 M	Flat	Right Side (5mm)	0.151	-0.15100	22.0	Notebook
2462	1 M	Flat	Left Side (5mm)	0.039	0.13000	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Top to phantom) _ 802.11b 2462MHz

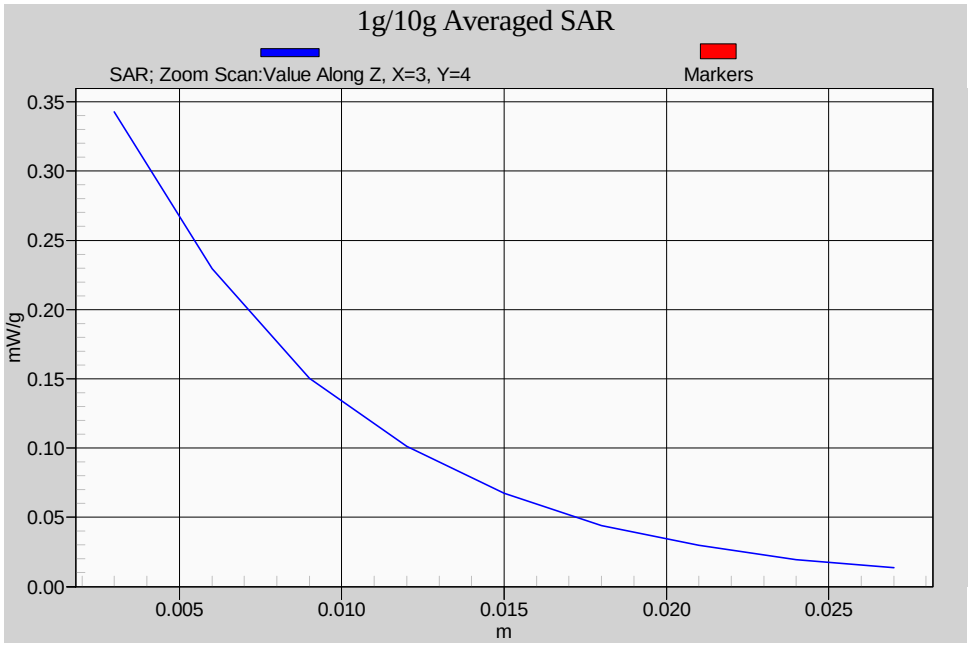
10.2 802.11g Body SAR _ EUT to Phantom (5mm separation)

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL2450	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3150 / 3578

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
2462	6 M	Flat	Top (5mm)	0.266	-0.03300	22.0	USB Cable
2462	6 M	Flat	Bottom (5mm)	0.185	-0.19000	22.0	Notebook
2462	6 M	Flat	Right Side (5mm)	0.167	-0.16300	22.0	Notebook
2462	6 M	Flat	Left Side (5mm)	0.043	0.15300	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Top to phantom) _ 802.11g 2462MHz

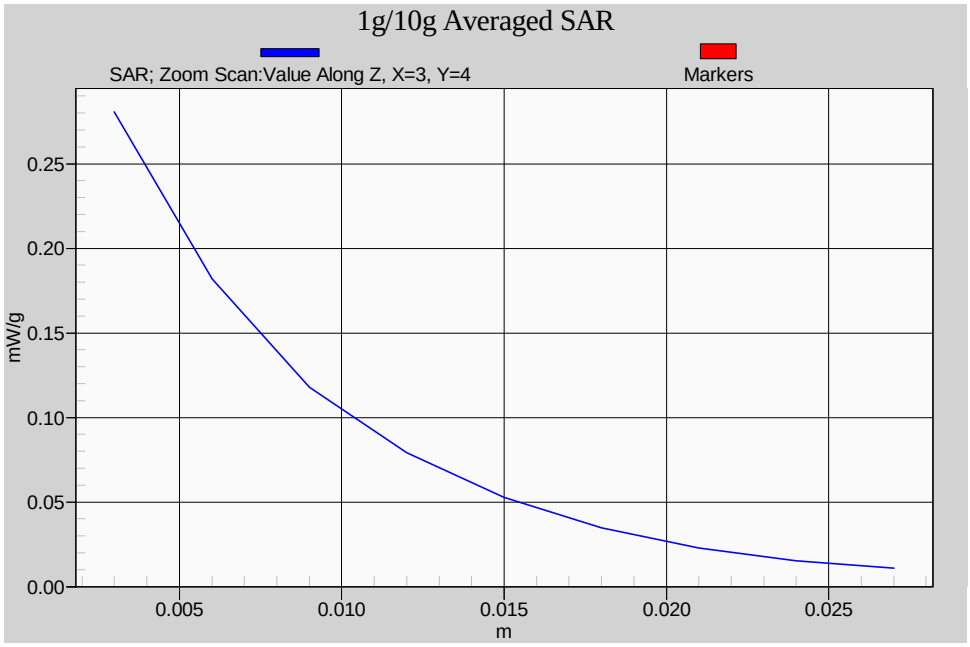
10.3 802.11n 2.4G_HT20 Body SAR _ EUT to Phantom (5mm separation)

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL2450	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3150 / 3578

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
2462	6.5 M	Flat	Top (5mm)	0.213	0.15100	22.0	USB Cable
2462	6.5 M	Flat	Bottom (5mm)	0.180	-0.09000	22.0	Notebook
2462	6.5 M	Flat	Right Side (5mm)	0.103	0.10600	22.0	Notebook
2462	6.5 M	Flat	Left Side (5mm)	0.139	-0.03600	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Top to phantom) _ 802.11n 2.4G_HT20 2462MHz

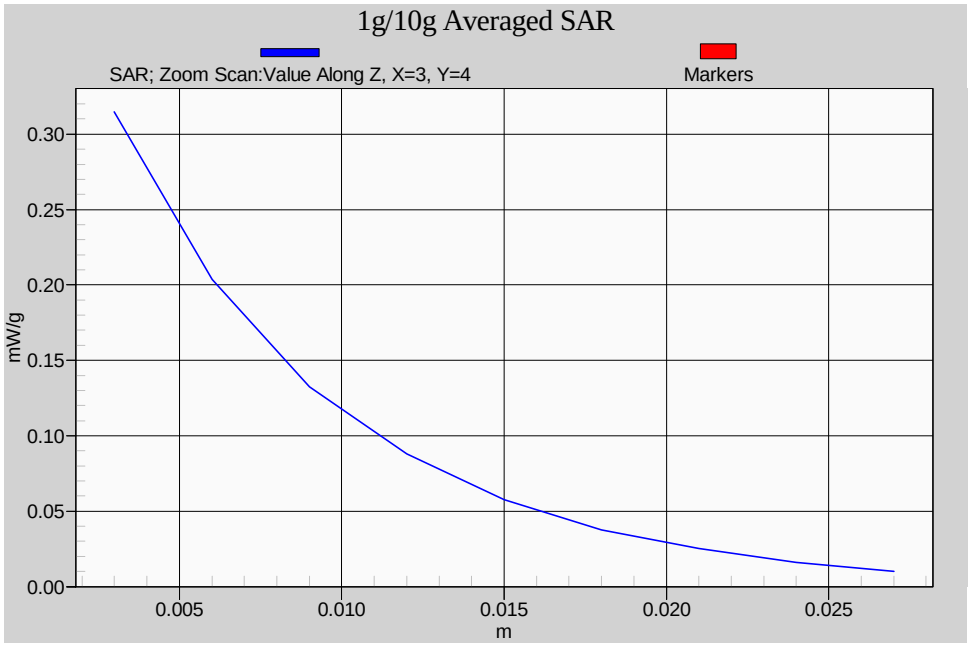
10.4 802.11n 2.4G_HT40 Body SAR _ EUT to Phantom (5mm separation)

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL2450	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3150 / 3578

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
2452	13 M	Flat	Top (5mm)	0.240	-0.12100	22.0	USB Cable
2452	13 M	Flat	Bottom (5mm)	0.186	0.10500	22.0	Notebook
2452	13 M	Flat	Right Side (5mm)	0.105	0.01700	22.0	Notebook
2452	13 M	Flat	Left Side (5mm)	0.159	0.00967	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Top to phantom) _ 802.11n 2.4G_HT40 2452MHz

10.5 802.11a

10.5.1 802.11a (5180~5240MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5200	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

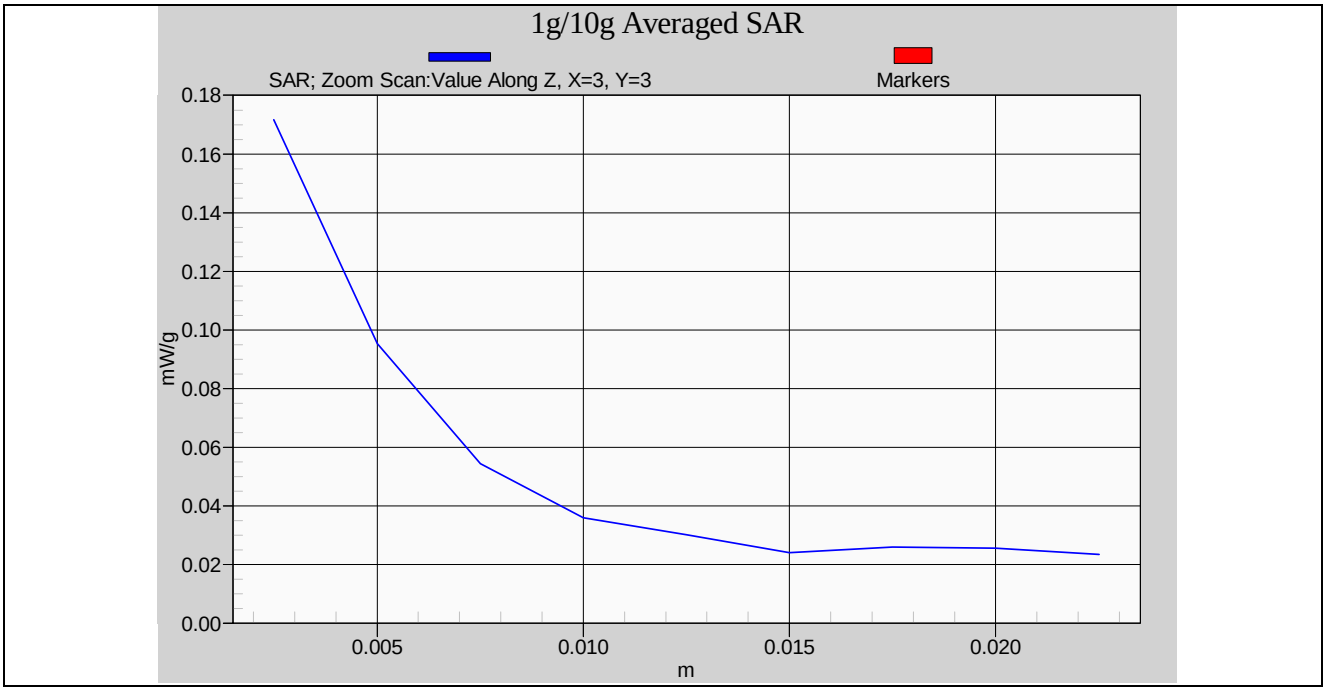
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5200	6 M	Flat	Top (5mm)	0.045	0.03300	22.0	USB Cable
5200	6 M	Flat	Bottom (5mm)	0.110	-0.12600	22.0	Notebook
5200	6 M	Flat	Right Side (5mm)	0.031	-0.16700	22.0	Notebook
5200	6 M	Flat	Left Side (5mm)	0.033	-0.01300	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11a 5200MHz

10.5.2 802.11a (5260~5320MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5200	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

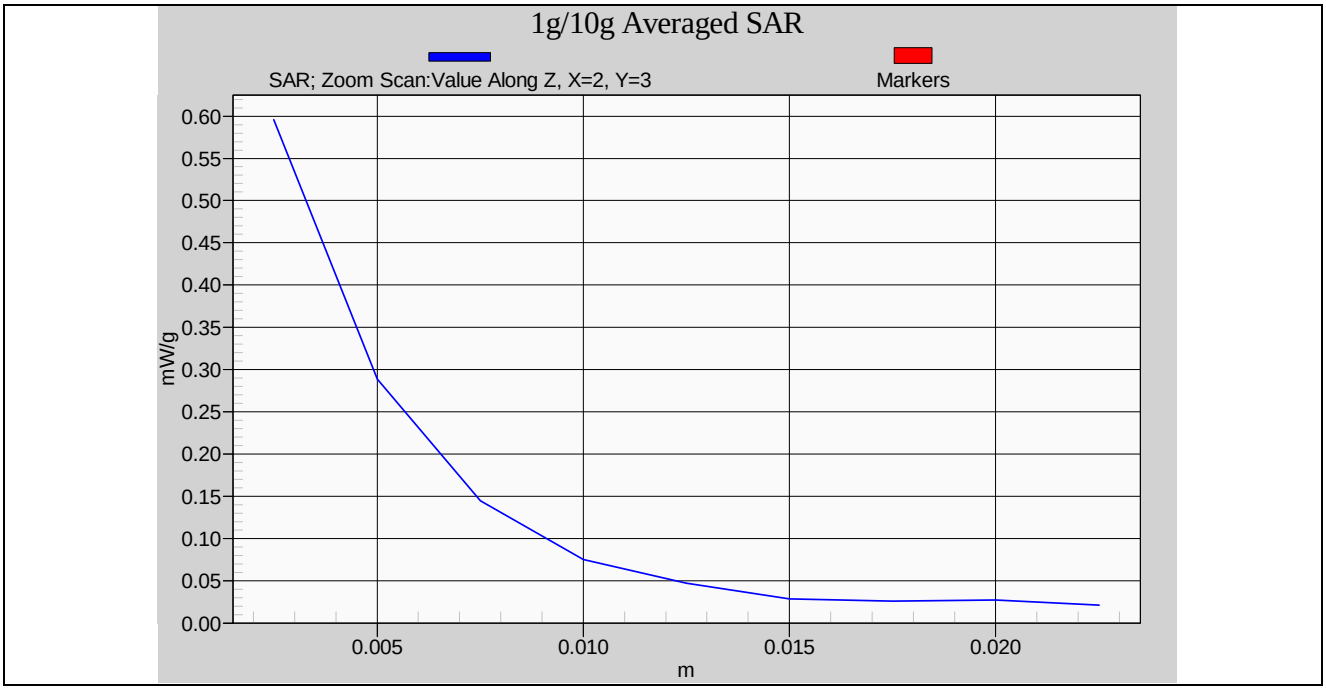
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5300	6 M	Flat	Top (5mm)	0.145	-0.16200	22.0	USB Cable
5300	6 M	Flat	Bottom (5mm)	0.352	-0.08300	22.0	Notebook
5300	6 M	Flat	Right Side (5mm)	0.062	0.09800	22.0	Notebook
5300	6 M	Flat	Left Side (5mm)	0.063	0.05900	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11a 5300MHz

10.5.3 802.11a (5500~5700MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5500	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

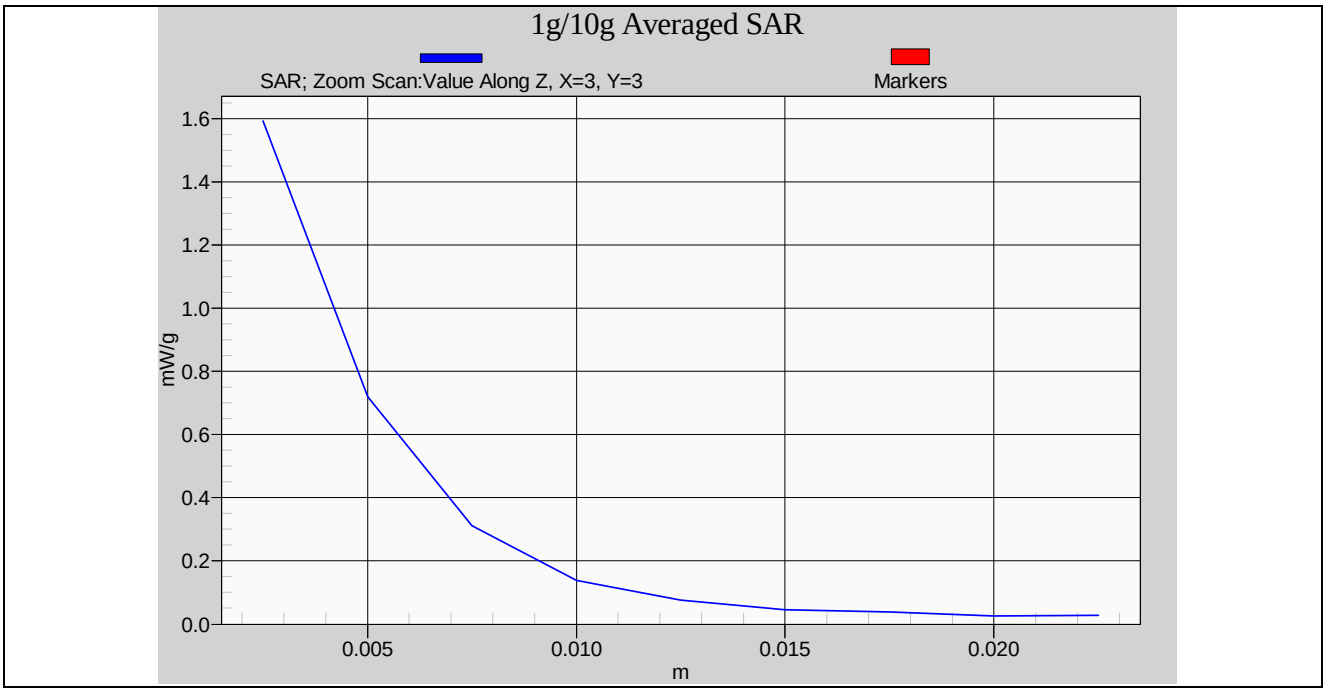
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5520	6 M	Flat	Top (5mm)	0.215	-0.10800	22.0	USB Cable
5520	6 M	Flat	Bottom (5mm)	0.666	-0.16000	22.0	Notebook
5520	6 M	Flat	Right Side (5mm)	0.132	0.09500	22.0	Notebook
5520	6 M	Flat	Left Side (5mm)	0.075	-0.12000	22.0	USB Cable
5580	6 M	Flat	Top (5mm)	0.211	0.01700	22.0	USB Cable
5580	6 M	Flat	Bottom (5mm)	0.653	0.03400	22.0	Notebook
5580	6 M	Flat	Right Side (5mm)	0.128	-0.18800	22.0	Notebook
5580	6 M	Flat	Left Side (5mm)	0.072	0.12300	22.0	USB Cable
5620	6 M	Flat	Top (5mm)	0.217	0.12100	22.0	USB Cable
5620	6 M	Flat	Bottom (5mm)	0.672	0.10600	22.0	Notebook
5620	6 M	Flat	Right Side (5mm)	0.131	0.13200	22.0	Notebook
5620	6 M	Flat	Left Side (5mm)	0.074	0.18200	22.0	USB Cable
5680	6 M	Flat	Top (5mm)	0.218	0.11700	22.0	USB Cable
5680	6 M	Flat	Bottom (5mm)	0.675	0.02600	22.0	Notebook
5680	6 M	Flat	Right Side (5mm)	0.134	0.11600	22.0	Notebook
5680	6 M	Flat	Left Side (5mm)	0.077	0.14200	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11a 5680MHz

10.5.4 802.11a (5740~5825MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5800	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

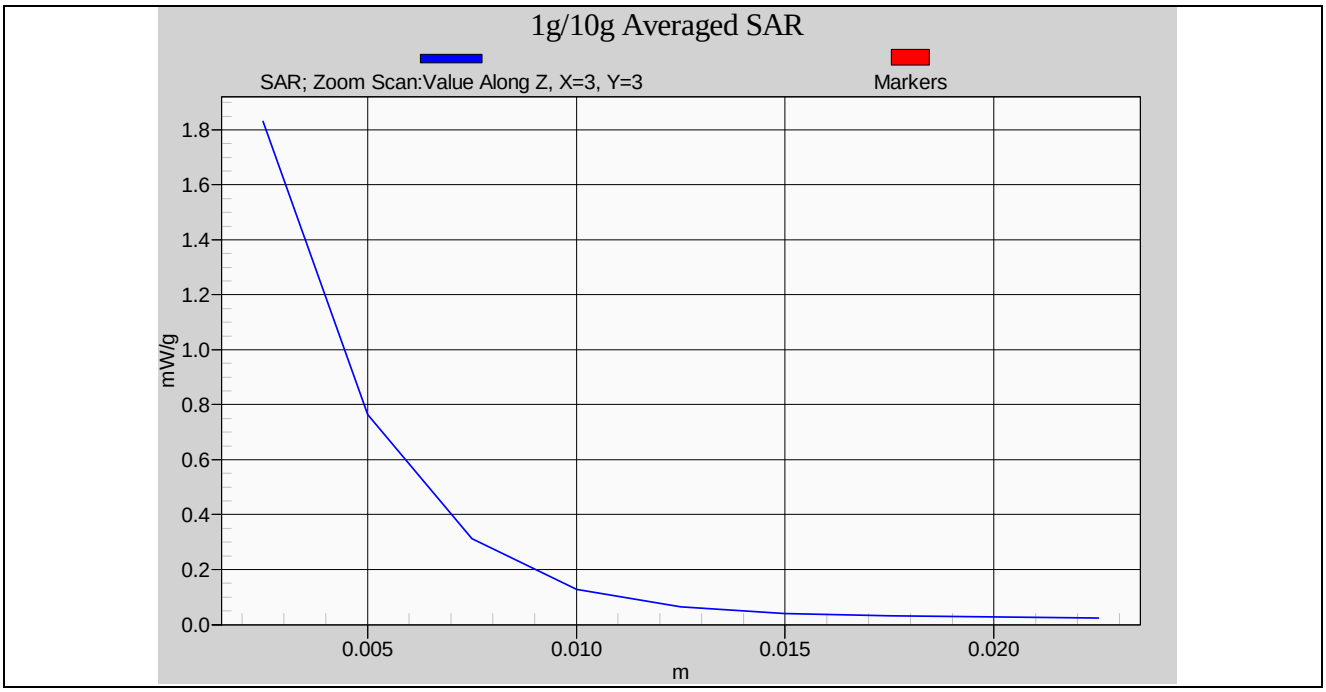
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5785	6 M	Flat	Top (5mm)	0.500	-0.02700	22.0	USB Cable
5785	6 M	Flat	Bottom (5mm)	0.838	0.05000	22.0	Notebook
5745	6 M	Flat	Bottom (5mm)	1.030	-0.14000	22.0	Notebook
5825	6 M	Flat	Bottom (5mm)	0.708	-0.10800	22.0	Notebook
5785	6 M	Flat	Right Side (5mm)	0.343	0.04500	22.0	Notebook
5785	6 M	Flat	Left Side (5mm)	0.074	0.02500	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11a 5745MHz

10.6 802.11n 5G_HT20

10.6.1 802.11n 5G_HT20 (5180~5240MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5200	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

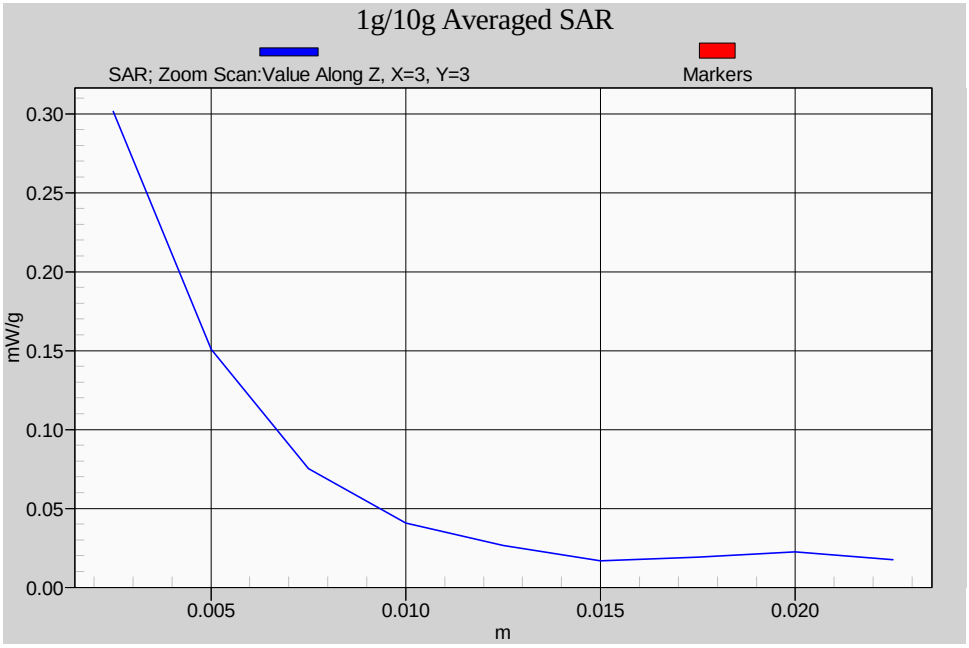
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5240	6.5 M	Flat	Top (5mm)	0.093	-0.10300	22.0	USB Cable
5240	6.5 M	Flat	Bottom (5mm)	0.174	-0.08800	22.0	Notebook
5240	6.5 M	Flat	Right Side (5mm)	0.031	0.11700	22.0	Notebook
5240	6.5 M	Flat	Left Side (5mm)	0.036	0.10400	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT20 5240MHz

10.6.2 802.11n 5G_HT20 (5260~5320MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70

Liquid：

Mixture Type：	MSL5200	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15

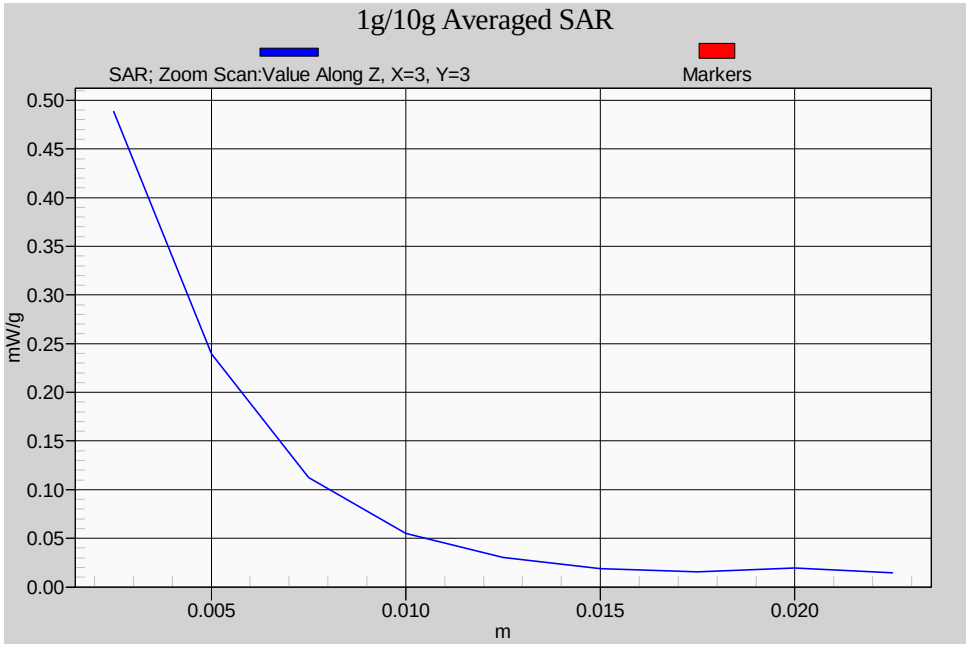
Measurement：

Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5300	6.5 M	Flat	Top (5mm)	0.132	0.09900	22.0	USB Cable
5300	6.5 M	Flat	Bottom (5mm)	0.290	0.14200	22.0	Notebook
5300	6.5 M	Flat	Right Side (5mm)	0.076	0.13100	22.0	Notebook
5300	6.5 M	Flat	Left Side (5mm)	0.105	0.03800	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT20 5300MHz

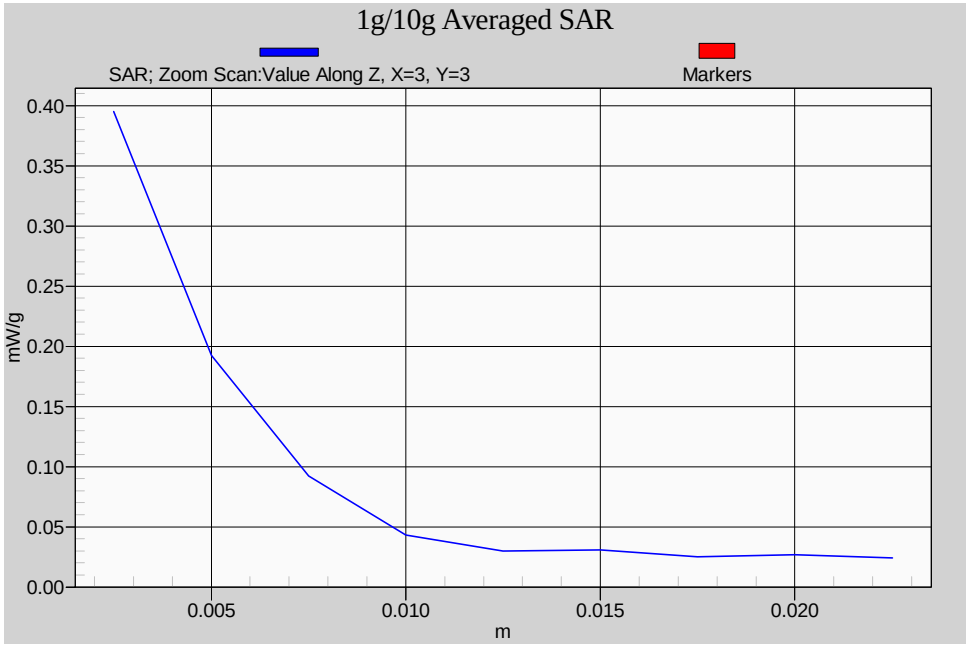
10.6.3 802.11n 5G_HT20 (5500~5700MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL5800	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5700	6.5 M	Flat	Top (5mm)	0.077	-0.13900	22.0	USB Cable
5700	6.5 M	Flat	Bottom (5mm)	0.235	0.06200	22.0	Notebook
5700	6.5 M	Flat	Right Side (5mm)	0.042	0.17500	22.0	Notebook
5700	6.5 M	Flat	Left Side (5mm)	0.034	-0.12800	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT20 5700MHz

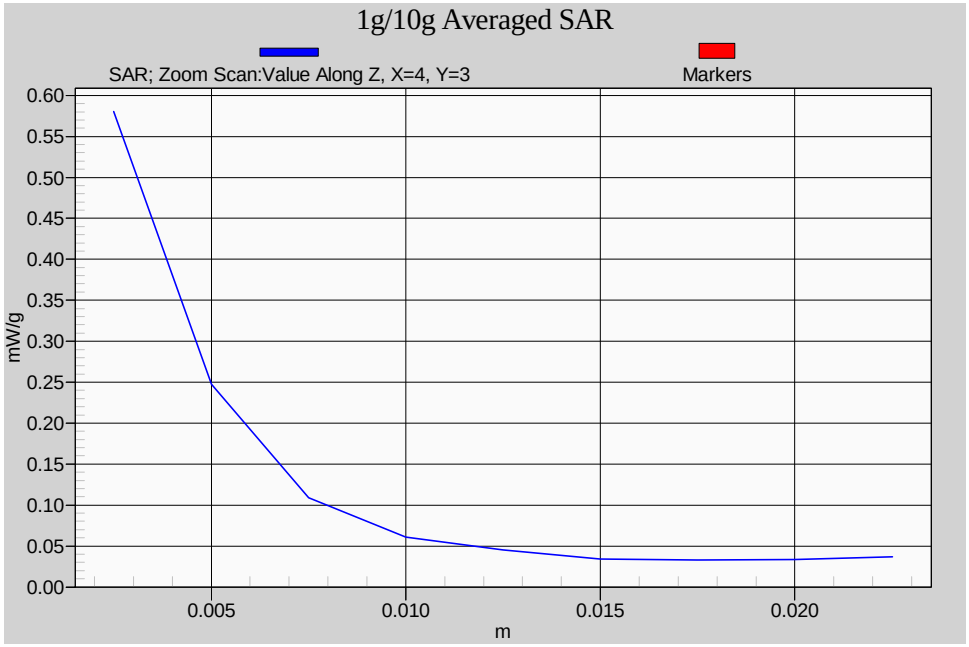
10.6.4 802.11n 5G_HT20 (5740~5825MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL5800	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5785	6.5 M	Flat	Top (5mm)	0.185	0.14400	22.0	USB Cable
5785	6.5 M	Flat	Bottom (5mm)	0.356	-0.16200	22.0	USB Cable
5785	6.5 M	Flat	Right Side (5mm)	0.053	-0.07800	22.0	Notebook
5785	6.5 M	Flat	Left Side (5mm)	0.050	-0.03500	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT20 5785MHz

10.7 802.11n 5G_HT40

10.7.1 802.11n 5G_HT40 (5190~5310MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：

Temperature (℃)： 22 ± 2 Relative HUMIDITY (%)： 40 - 70

Liquid：

Mixture Type： MSL5200 Liquid Temperature (℃) ： 22.0

Depth of liquid (cm)： 15

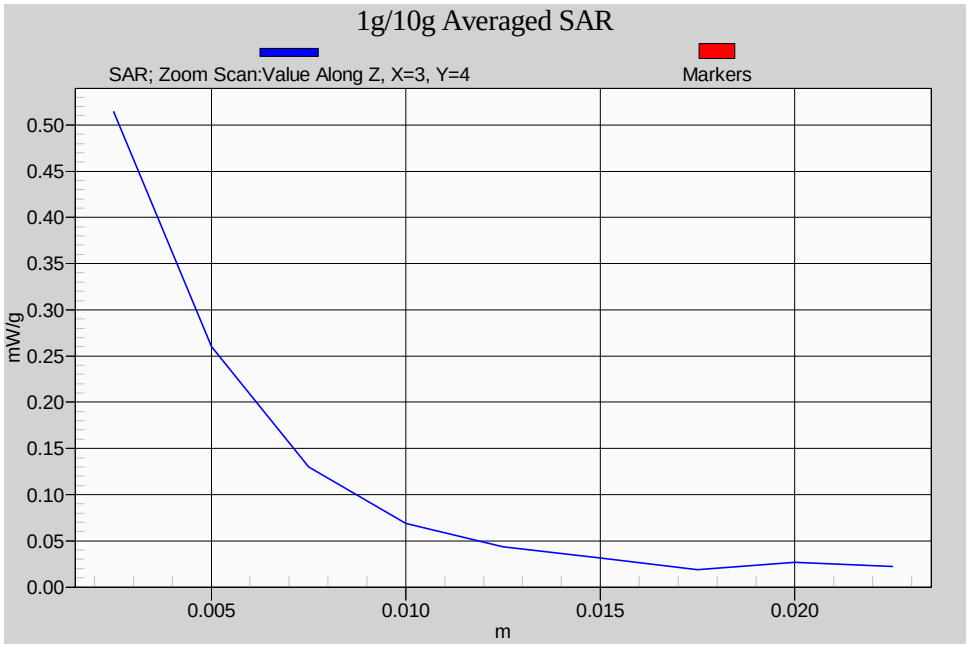
Measurement：

Crest Factor： 1 Probe S/N： 3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5270	13 M	Flat	Top (5mm)	0.112	-0.01400	22.0	USB Cable
5270	13 M	Flat	Bottom (5mm)	0.270	0.07700	22.0	Notebook
5270	13 M	Flat	Right Side (5mm)	0.047	0.05800	22.0	Notebook
5270	13 M	Flat	Left Side (5mm)	0.071	0.01500	22.0	USB Cable
5310	13 M	Flat	Top (5mm)	0.104	0.00474	22.0	USB Cable
5310	13 M	Flat	Bottom (5mm)	0.301	-0.19000	22.0	Notebook
5310	13 M	Flat	Right Side (5mm)	0.046	0.15400	22.0	Notebook
5310	13 M	Flat	Left Side (5mm)	0.047	-0.08900	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT40 5310MHz

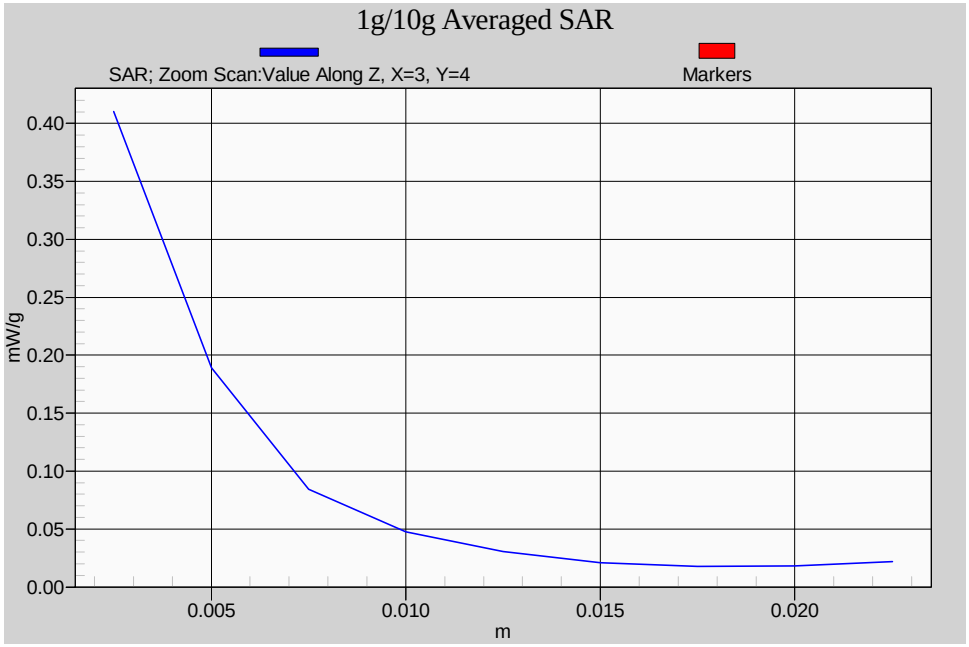
10.7.2 802.11n 5G_HT40 (5510~5790MHz) Body SAR _ EUT to Phantom 5 mm separation

Ambient：			
Temperature (℃)：	22 ± 2	Relative HUMIDITY (%)：	40 - 70
Liquid：			
Mixture Type：	MSL5800	Liquid Temperature (℃) ：	22.0
		Depth of liquid (cm)：	15
Measurement：			
Crest Factor：	1	Probe S/N：	3506 / 3552

Frequency (MHz)	Data Rate	Phantom Position	EUT to Phantom Setup	SAR_{1g} [mW/g]	Power Drift (dB)	Amb. Temp.	Remark
5755	13 M	Flat	Top (5mm)	0.091	0.11700	22.0	USB Cable
5755	13 M	Flat	Bottom (5mm)	0.261	-0.13100	22.0	Notebook
5755	13 M	Flat	Right Side (5mm)	0.058	0.19600	22.0	Notebook
5755	13 M	Flat	Left Side (5mm)	0.052	0.13100	22.0	USB Cable
Std. C95.1-1999 - Safety Limit Spatial Peak Uncontrolled Exposure/General Population				1.6 W/kg (mW/g) Averaged over 1 gram			

Detail results see Appendix B.

Z-axis Plot of SAR Measurement



SAR Measurement (Flat Section_EUT Bottom to phantom) _ 802.11n 5G_HT40 5755MHz

10.8 Energy Enhance

Band	Worst Case	Single Point SAR(5mm)	Single Point SAR(10mm)
2.4GHz	Flat_802.11g CH11_6M_ Top	0.494	0.0936
5GHz	Flat_802.11a CH149_6M_ Bottom	1.990	0.6980

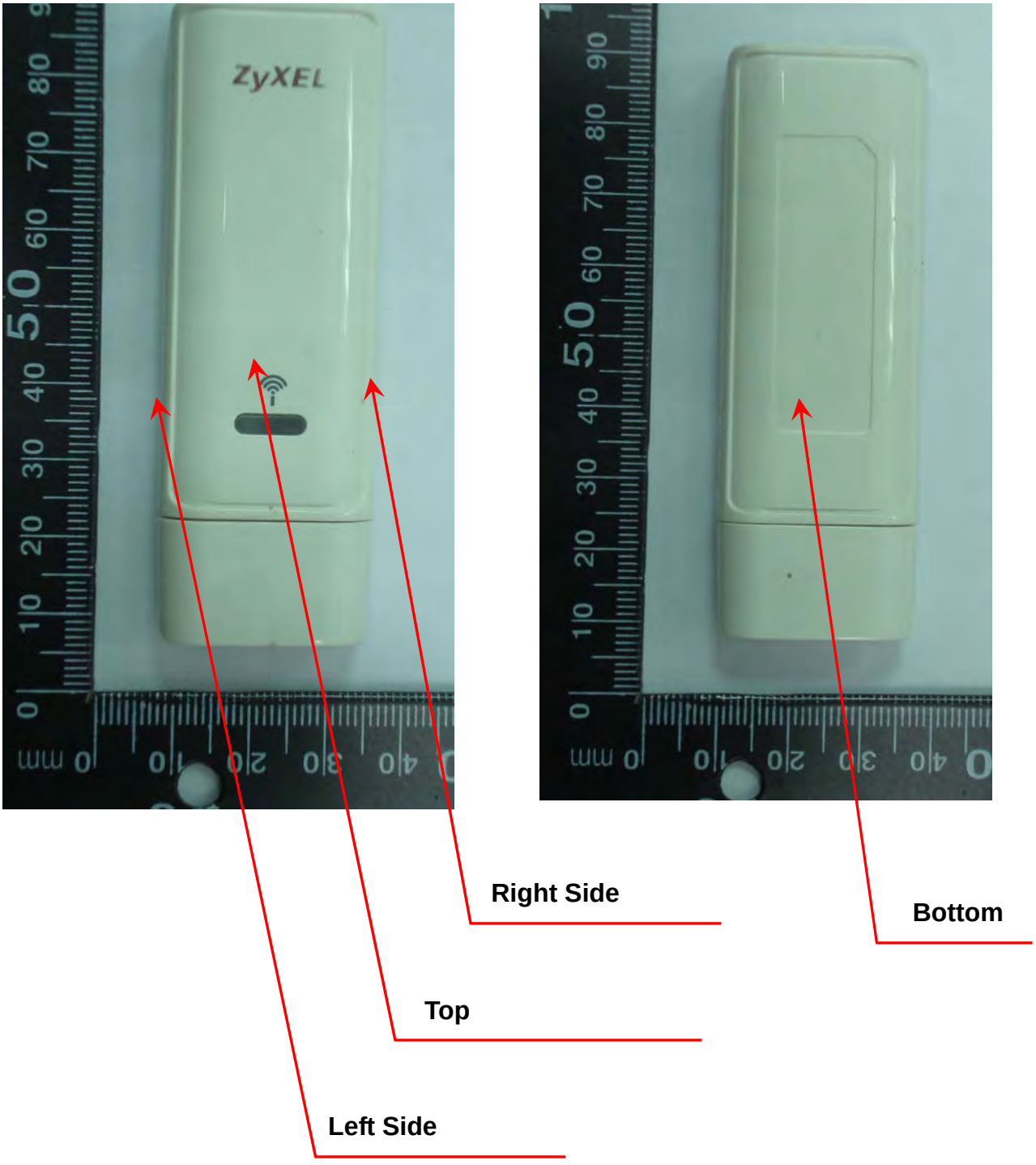
10.9 Zoom Scan 2.5 Step Test

Due to SAR result of Zoom Scan with 4mm and Zoom Scan with 2.5mm are pretty close, so we decide to test by 4mm.

Band	Worst Case	Zoom Scan 4mm	Zoom Scan 2.5mm
2.4GHz	Flat_802.11g CH11_6M_ Top	0.266	0.242
5GHz	Flat_802.11a CH149_6M_ Bottom	1.030	0.925

Detail results see Appendix C.

10.10 Test Setup Photo



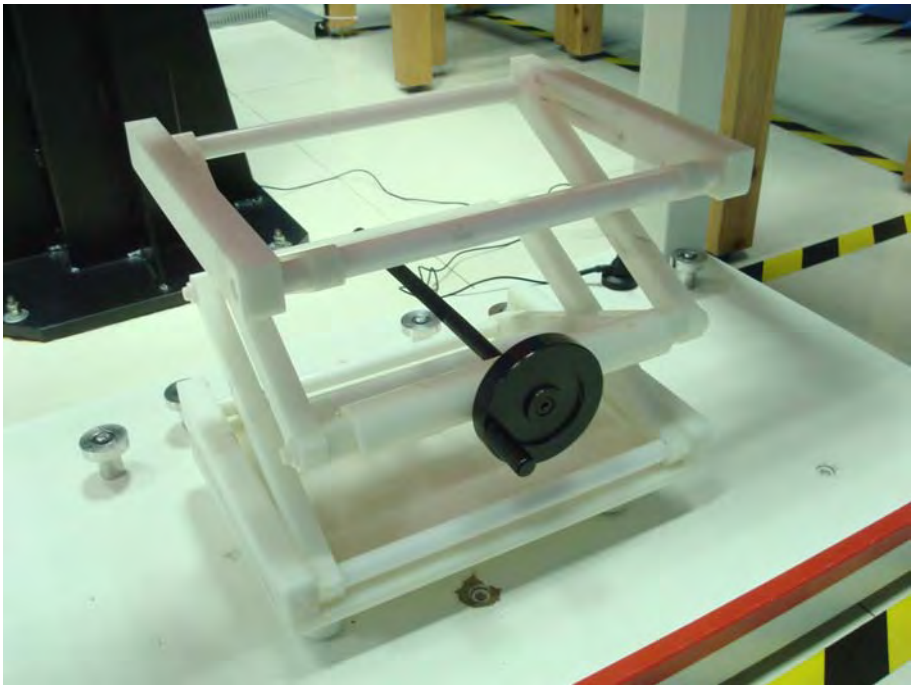


Figure 12. Laptop Holder

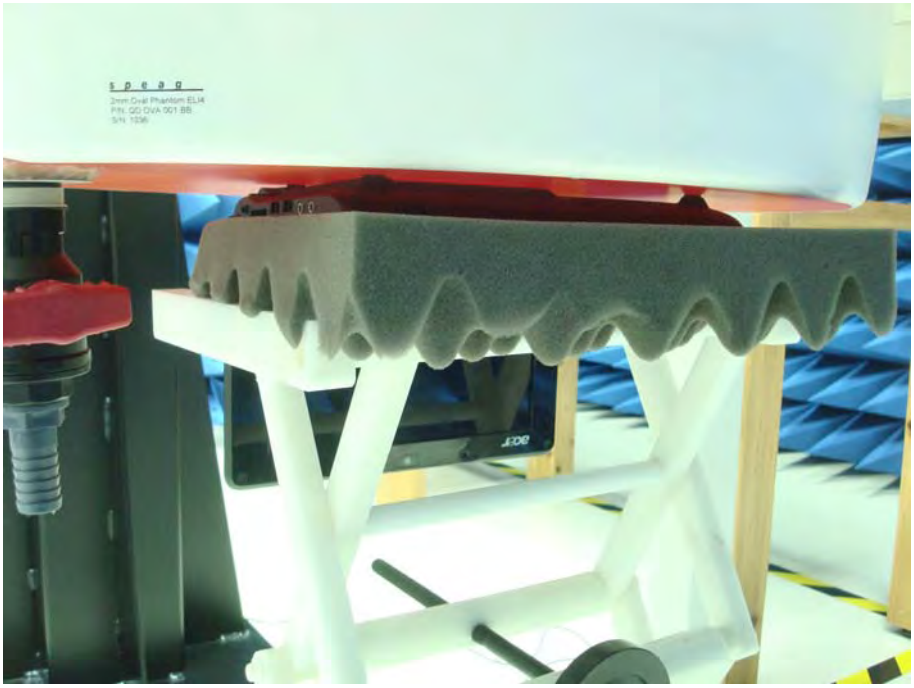


Figure 13. Laptop Holder with EUT

10.10.1 EUT with USB cable Top to phantom 5 mm separation

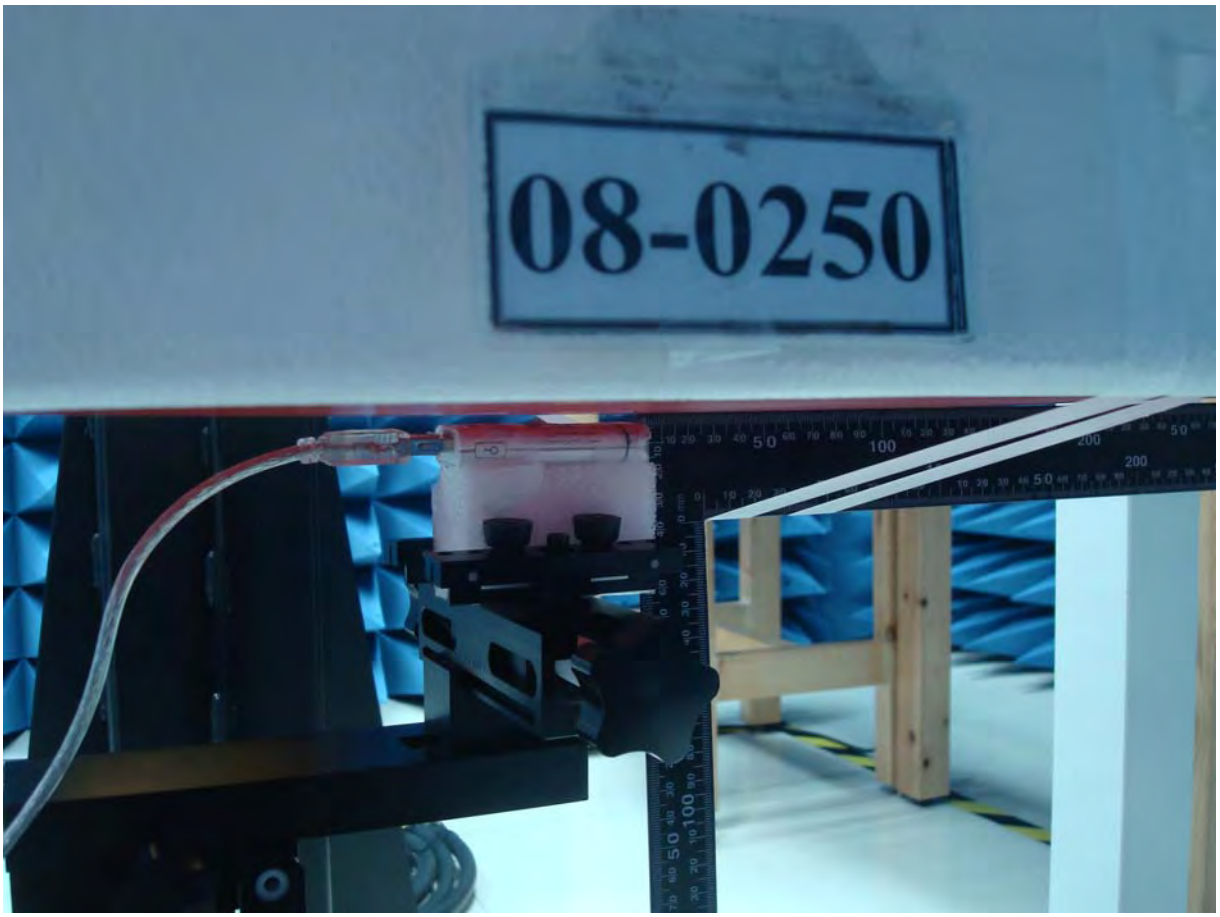
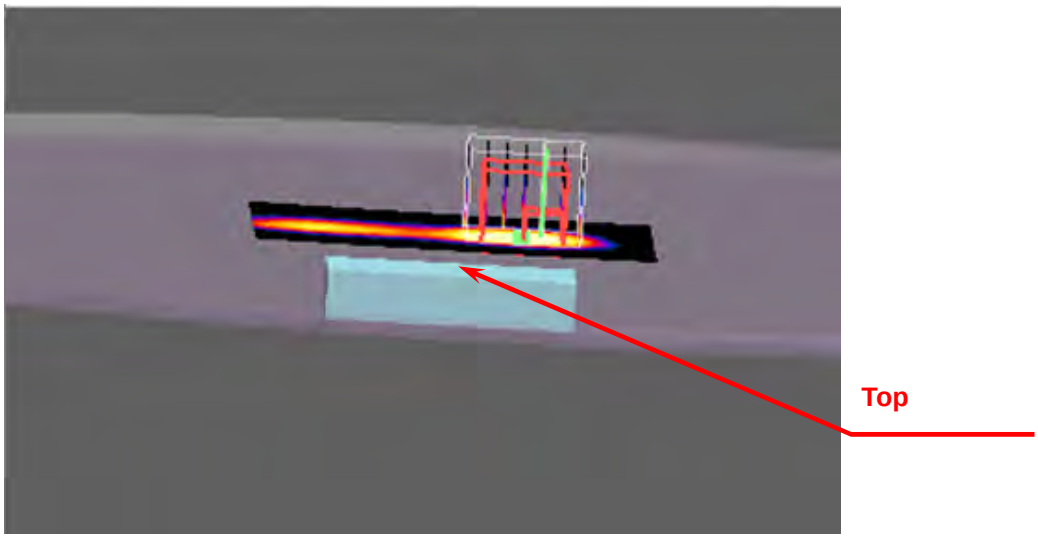
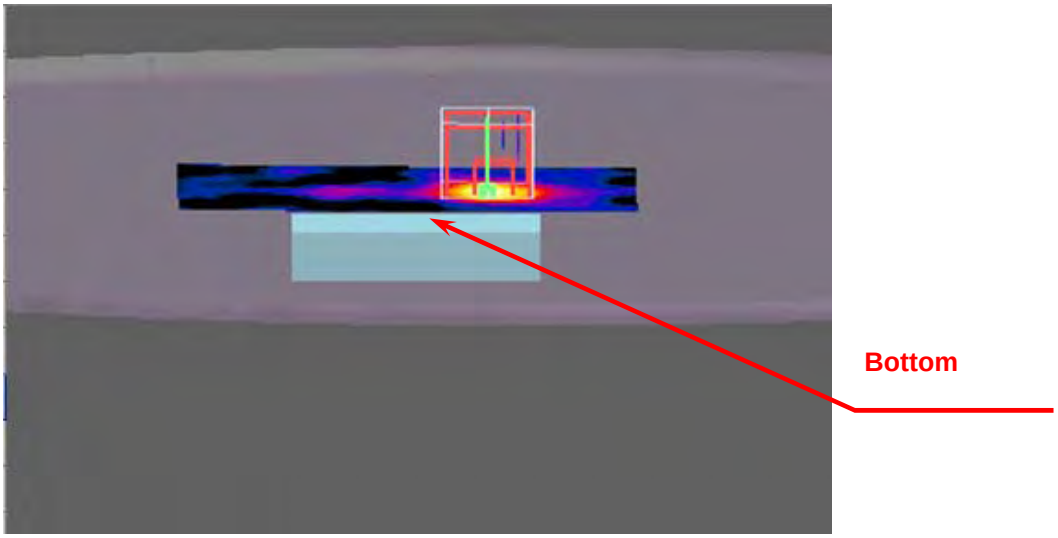


Figure 14. Body SAR Test Setup (Flat Section)



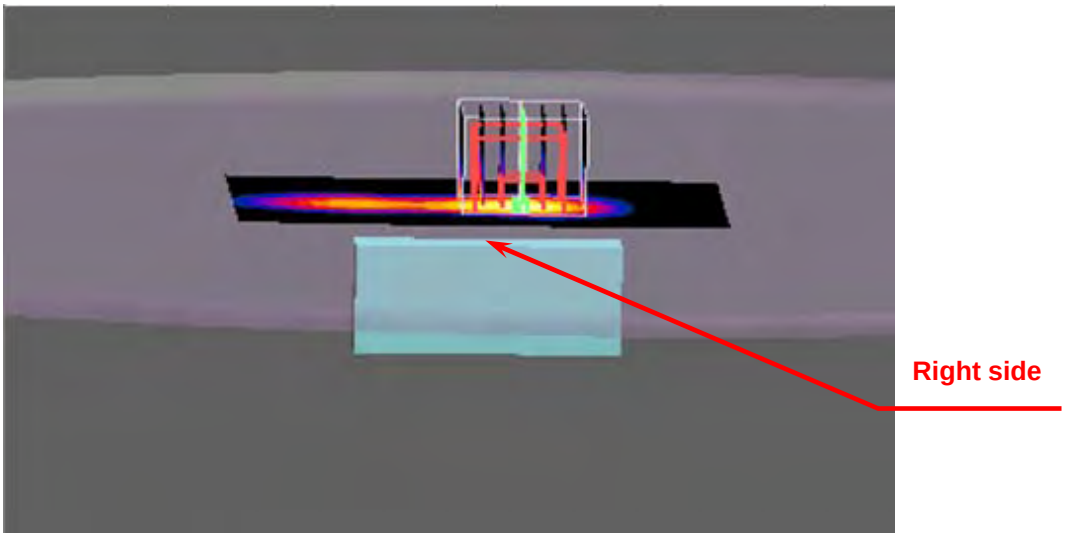
10.10.2 EUT with NB Bottom to phantom 5mm separation

Figure 15. Body SAR Test Setup (Flat Section)



10.10.3 EUT with Notebook Right Side to phantom 5mm separation

Figure 16. Body SAR Test Setup (Flat Section)



10.10.4 EUT with USB cable Left Side to phantom 5mm separation

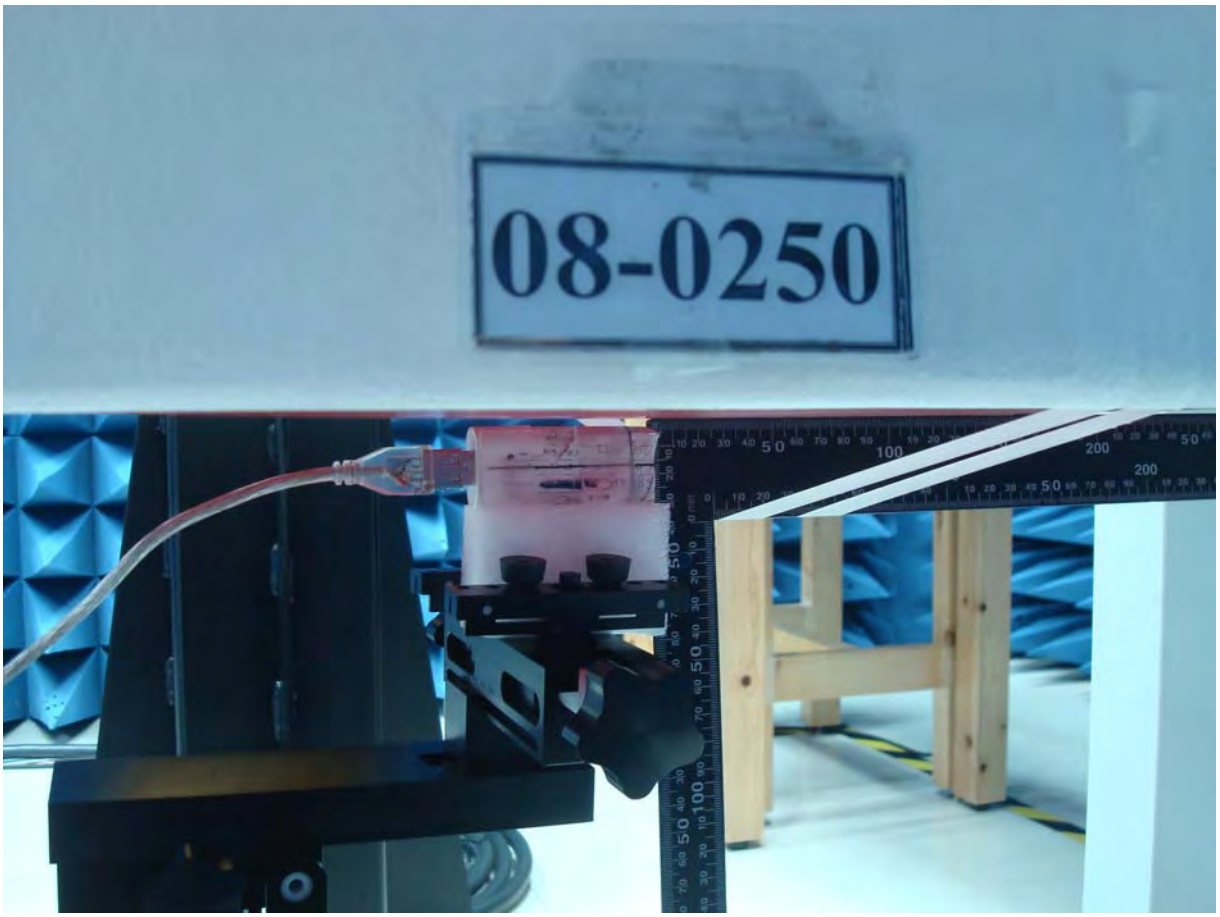
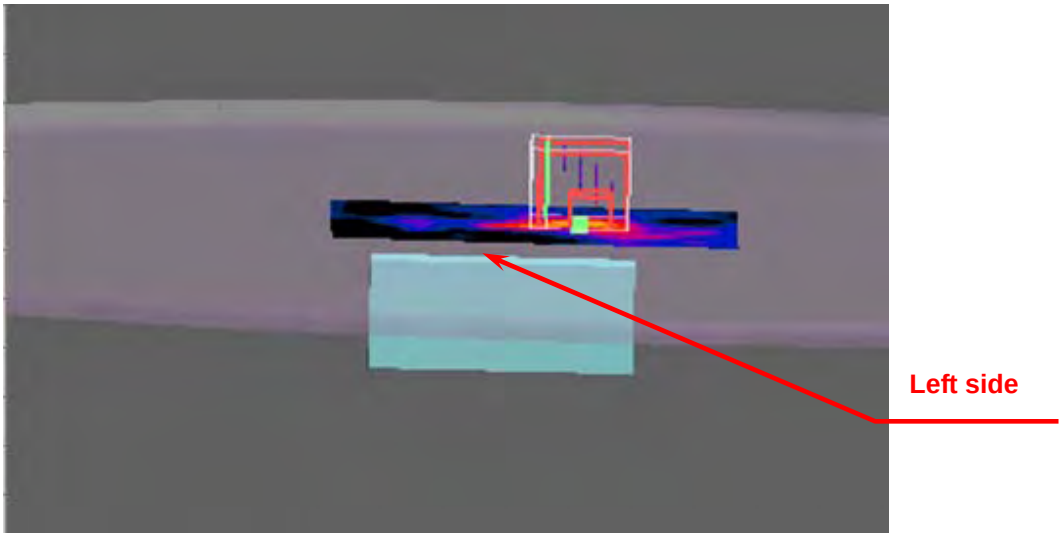


Figure 17. Body SAR Test Setup (Flat Section)



10.11 Std. C95.1-1999 RF Exposure Limit

Human Exposure	Population Uncontrolled Exposure (W/kg) or (mW/g)	Occupational Controlled Exposure (W/kg) or (mW/g)
Spatial Peak SAR* (head)	1.60	8.00
Spatial Peak SAR** (Whole Body)	0.08	0.40
Spatial Peak SAR*** (Partial-Body)	1.60	8.00
Spatial Peak SAR**** (Hands / Feet / Ankle / Wrist)	4.00	20.00

Table 7. Safety Limits for Partial Body Exposure

Notes：

***** 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 the appropriate averaging time.

****** The Spatial Average value of the SAR averaged over the whole - body.

******* The Spatial Average value of the SAR averaged over the partial - body.

******** The Spatial Peak value of the SAR averaged over any 10 grams of tissue.
(defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Population / Uncontrolled Environments： are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Occupational / Controlled Environments： are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

11. Conclusion

The SAR test values found for the portable mobile phone **ZyXEL Communications Corporation Trade Mark：ZyXEL Model (s): NWD-211AN** is below the maximum recommended level of 1.6 W/kg (mW/g).

12. References

[1] Std. C95.1-1999, *"American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300KHz to 100GHz",* New York.

[2] NCRP, National Council on Radiation Protection and Measurements, "*Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields"*, NCRP report NO. 86, 1986.

[3] T. Schmid, O. Egger, and N. Kuster, "*Automatic E-field scanning system for dosimetric assessments*", IEEE Transactions on Microwave Theory and Techniques, vol. 44, pp, 105-113, Jan. 1996.

[4] K. Pokovi ć, T. Schmid, and N. Kuster, "*Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequency*", in ICECOM'97, Dubrovnik, October 15-17, 1997, pp.120-124.

[5] K. Pokovi ć, T. Schmid, and N. Kuster, "*E-field probe with improved isotropy in brain simulating liquids*", in Proceedings of the ELMAR, Zadar, Croatia, 23-25 June, 1996, pp.172-175.

[6] N. Kuster, and Q. Balzano, "*Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz"*, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

[7] Robert J. Renka, "*Multivariate Interpolation Of Large Sets Of Scattered Data*", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988 , pp. 139-148.

[8] N. Kuster, R. Kastle, T. Schmid, *Dosimetric evaluation of mobile communications equipment with known precision*, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

[9] Std. C95.3-1991, *"IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave,* New York: IEEE", Aug. 1992.

[10] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), *Human Exposure to Electromagnetic Fields High-frequency*: 10KHz-300GHz, Jan. 1995.

11] RSS-102 - Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 2 November 2005.

Appendix A - System Performance Check

See following attached pages for System Performance Check.

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/6/2008 6:38:12 PM

System Performance Check at 2450MHz_20081006_Body

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:712

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

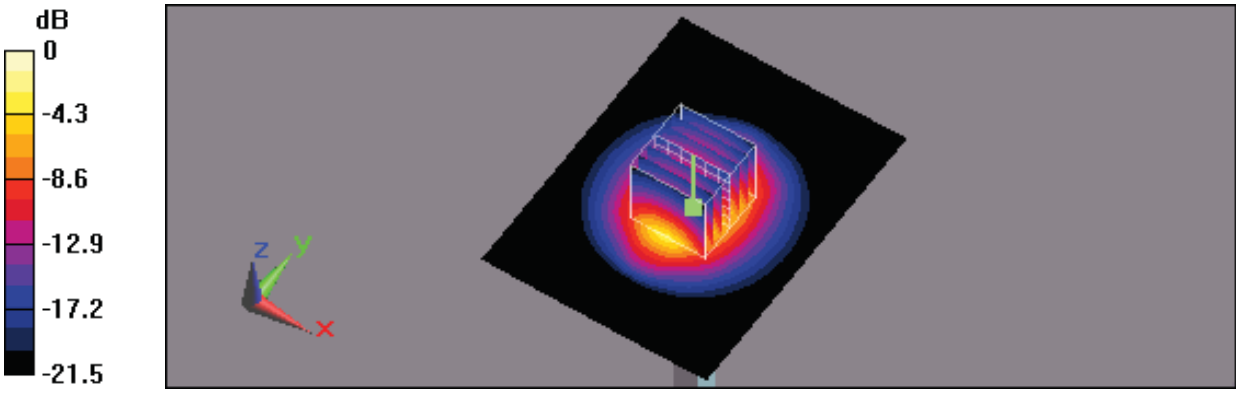
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 2450MHz/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.5 mW/g

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 90.6 V/m; Power Drift = -0.056 dB
Peak SAR (extrapolated) = 26.8 W/kg
SAR(1 g) = 13.4 mW/g; SAR(10 g) = 6.27 mW/g
Maximum value of SAR (measured) = 15.2 mW/g



0 dB = 15.2mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 3:57:26 AM

System Performance Check at 2450MHz_20081008_Body

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:712

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.95 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

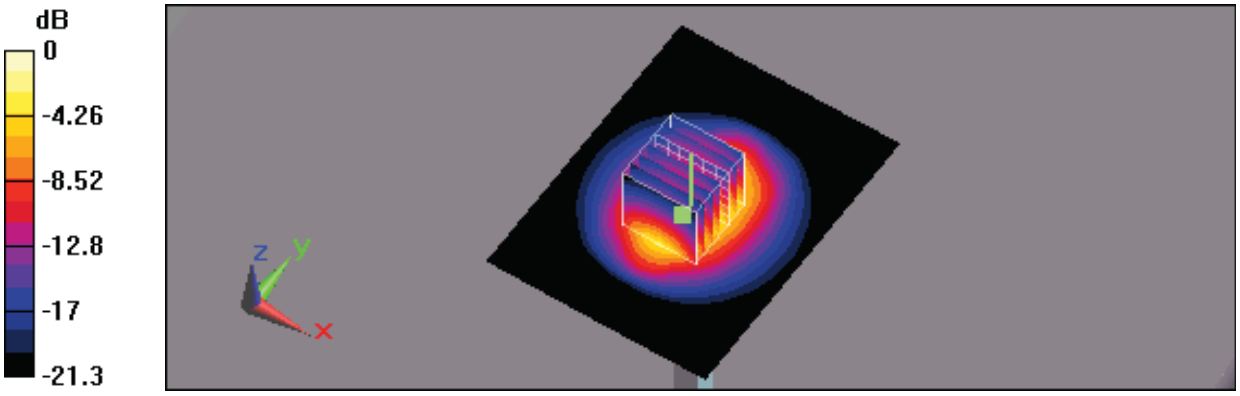
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 2450MHz/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.1 mW/g

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.2 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 25.2 W/kg
SAR(1 g) = 12.9 mW/g; SAR(10 g) = 6.31 mW/g
Maximum value of SAR (measured) = 14.5 mW/g



0 dB = 14.5mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 9:22:34 AM

System Performance Check at 2450MHz_20090113_Body

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:712

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.97 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

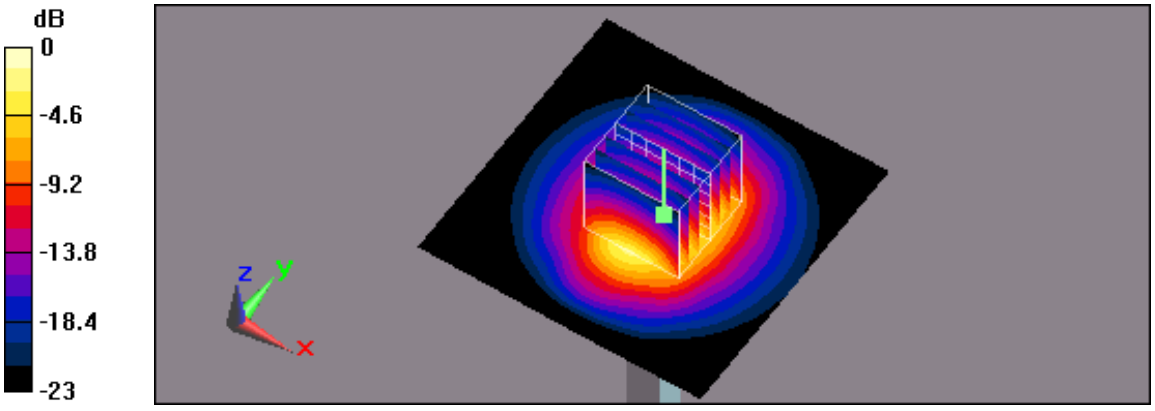
- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 5/20/2008
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 2450MHz/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.5 mW/g

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.3 V/m; Power Drift = -0.072 dB
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 13.7 mW/g; SAR(10 g) = 6.15 mW/g
Maximum value of SAR (measured) = 15.8 mW/g



0 dB = 15.8mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 9:50:51 PM

System Performance Check at 2450MHz_20090218_Body

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:735

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.97 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

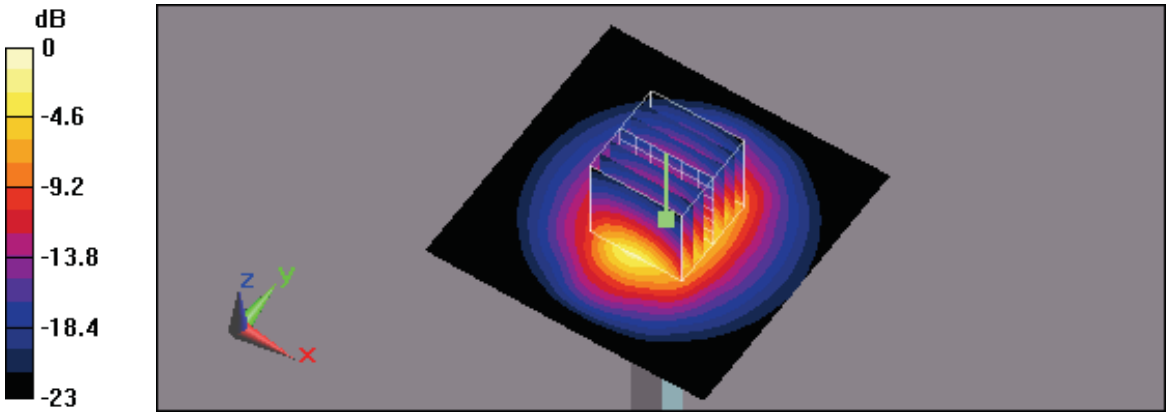
- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 2450MHz/Area Scan (61x61x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 15.2 mW/g

System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.3 V/m; Power Drift = -0.133 dB
Peak SAR (extrapolated) = 29.2 W/kg
SAR(1 g) = 13.3 mW/g; SAR(10 g) = 6.15 mW/g
Maximum value of SAR (measured) = 15.8 mW/g



0 dB = 15.8mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 8:42:51 PM

System Performance Check at 5200MHz_20081008_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

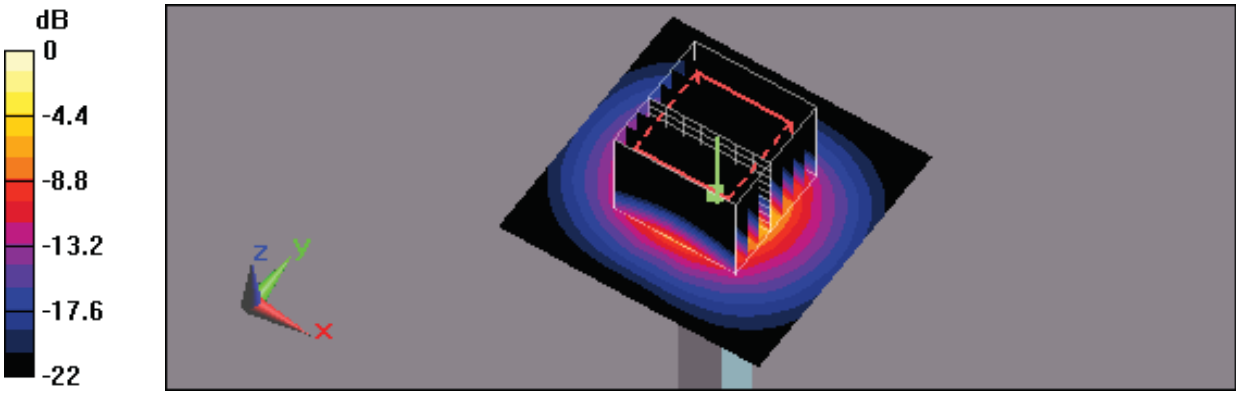
- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5200MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.8 mW/g

System Performance Check at 5200MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 63.5 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 33.8 W/kg
SAR(1 g) = 8.22 mW/g; SAR(10 g) = 2.29 mW/g
Maximum value of SAR (measured) = 16.9 mW/g



0 dB = 16.9mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 8:27:46 PM

System Performance Check at 5200MHz_20081009_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

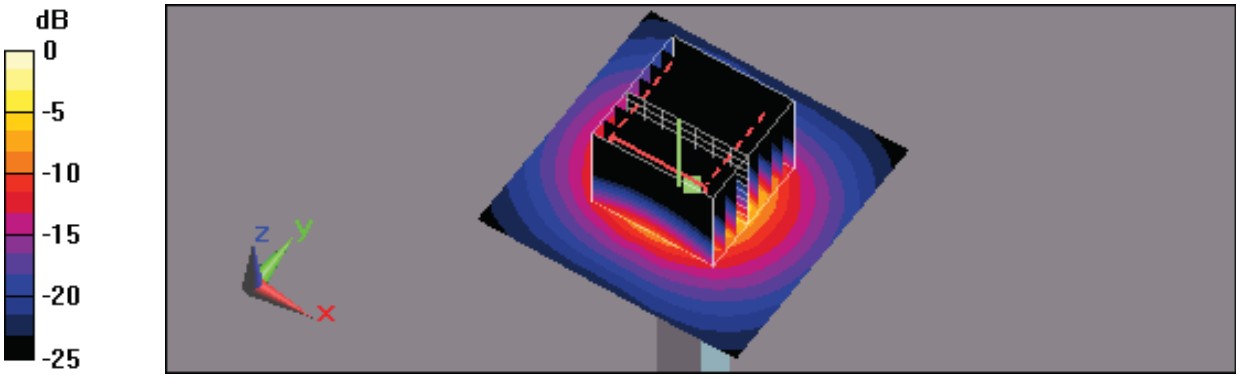
- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5200MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.7 mW/g

System Performance Check at 5200MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 63.1 V/m; Power Drift = 0.057 dB
Peak SAR (extrapolated) = 33.8 W/kg
SAR(1 g) = 8.24 mW/g; SAR(10 g) = 2.31 mW/g
Maximum value of SAR (measured) = 16.5 mW/g



0 dB = 16.5mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 5:48:49 PM

System Performance Check at 5200MHz_20081010_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

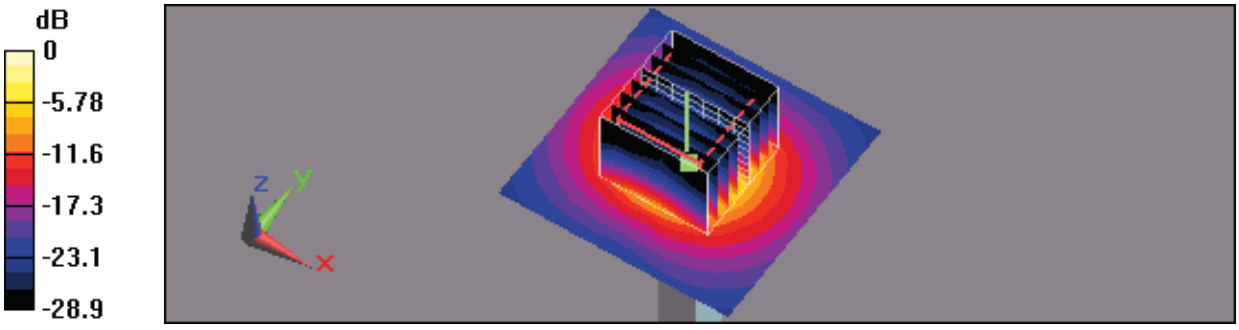
- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5200MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.2 mW/g

System Performance Check at 5200MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 63 V/m; Power Drift = -0.095 dB
Peak SAR (extrapolated) = 33.7 W/kg
SAR(1 g) = 8.13 mW/g; SAR(10 g) = 2.28 mW/g
Maximum value of SAR (measured) = 16 mW/g



0 dB = 16mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 3:03:29 PM

System Performance Check at 5200MHz_20090112_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

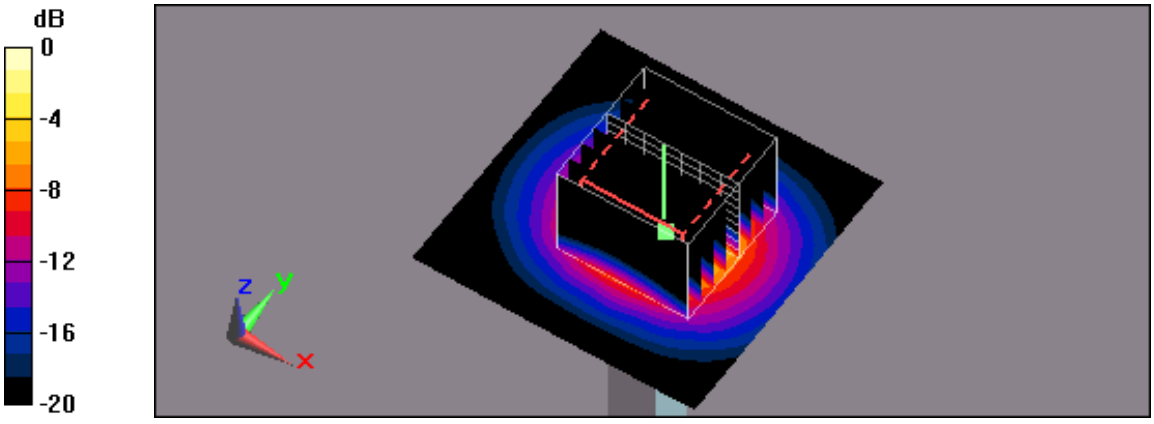
Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5200MHz/Area Scan (61x61x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.8 mW/g

System Performance Check at 5200MHz/Zoom Scan (8x8x10)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 55.5 V/m; Power Drift = -0.197 dB
Peak SAR (extrapolated) = 34.1 W/kg
SAR(1 g) = 8.25 mW/g; SAR(10 g) = 2.32 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



0 dB = 16.3mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 6:25:30 PM

System Performance Check at 5200MHz_20090218_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

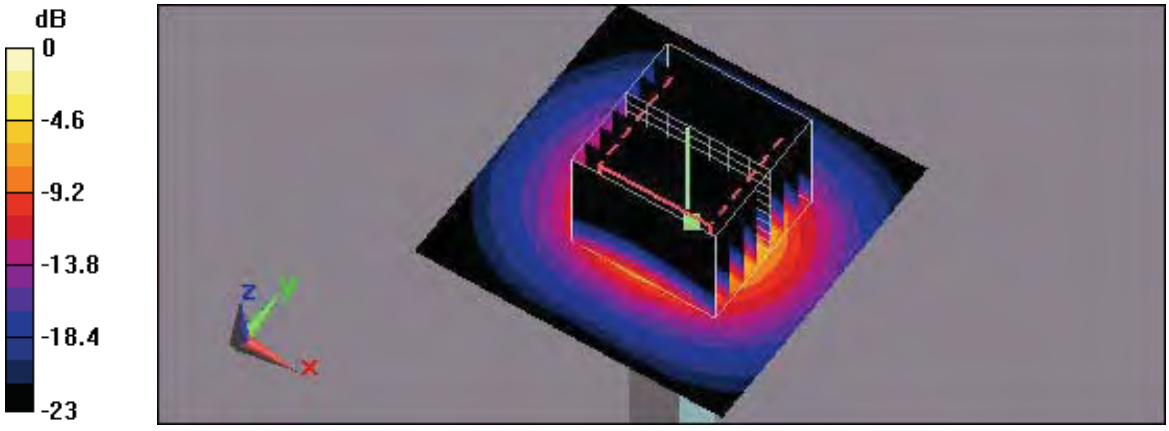
- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5200MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.6 mW/g

System Performance Check at 5200MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 55.2 V/m; Power Drift = -0.086 dB
Peak SAR (extrapolated) = 34.2 W/kg
SAR(1 g) = 8.24 mW/g; SAR(10 g) = 2.31 mW/g
Maximum value of SAR (measured) = 16.2 mW/g



0 dB = 16.2mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 9:44:36 PM

System Performance Check at 5500MHz_20081008_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.65 mho/m; ε_r = 48.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

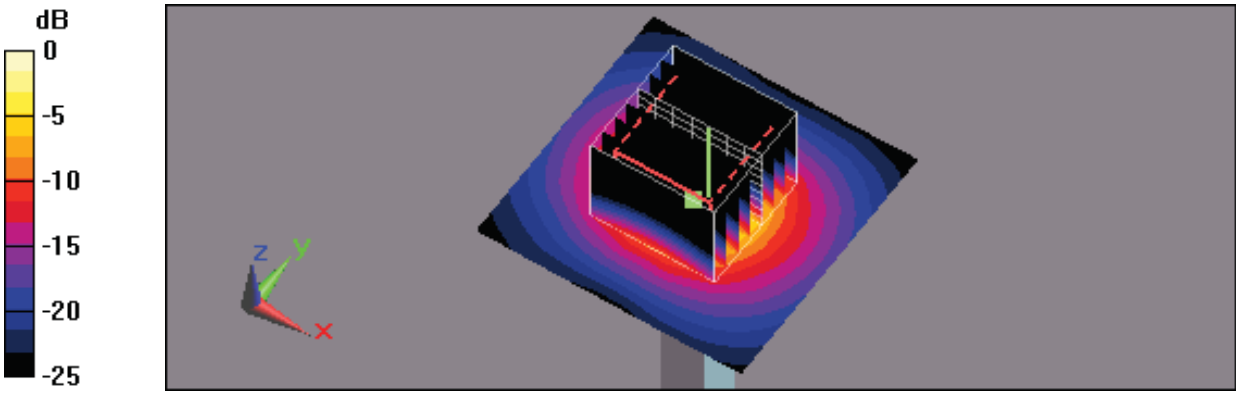
- Probe: EX3DV3 - SN3506; ConvF(3.76, 3.76, 3.76); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5500MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 19.1 mW/g

System Performance Check at 5500MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 63.7 V/m; Power Drift = 0.00382 dB
Peak SAR (extrapolated) = 38.6 W/kg
SAR(1 g) = 8.7 mW/g; SAR(10 g) = 2.4 mW/g
Maximum value of SAR (measured) = 17.9 mW/g



0 dB = 17.9mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 2:19:54 PM

System Performance Check at 5500MHz_20090112_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.65 mho/m; ε_r = 48.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

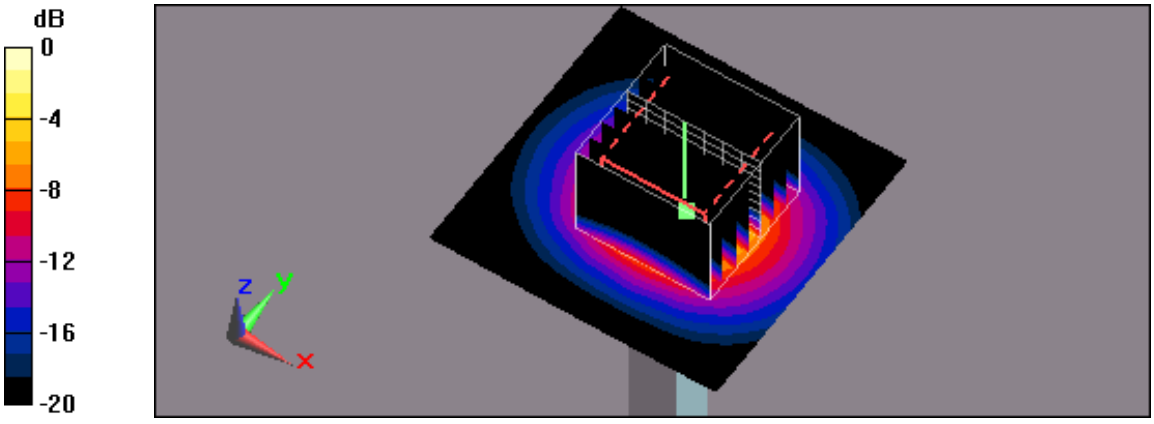
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5500MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.8 mW/g

System Performance Check at 5500MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 56.7 V/m; Power Drift = -0.130 dB
Peak SAR (extrapolated) = 38.4 W/kg
SAR(1 g) = 8.65 mW/g; SAR(10 g) = 2.43 mW/g
Maximum value of SAR (measured) = 17.2 mW/g



0 dB = 17.2mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 11:11:54 AM

System Performance Check at 5500MHz_20090218_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.65 mho/m; ε_r = 48.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

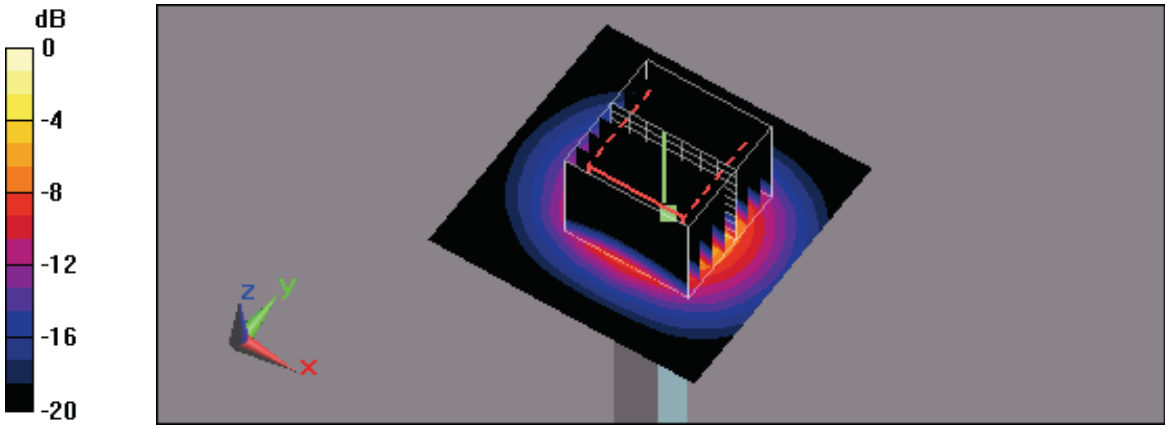
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5500MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.6 mW/g

System Performance Check at 5500MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 55.6 V/m; Power Drift = -0.110 dB
Peak SAR (extrapolated) = 38.1 W/kg
SAR(1 g) = 8.63 mW/g; SAR(10 g) = 2.41 mW/g
Maximum value of SAR (measured) = 17.1 mW/g



0 dB = 17.1mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 10:13:07 PM

System Performance Check at 5800MHz_20081008_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

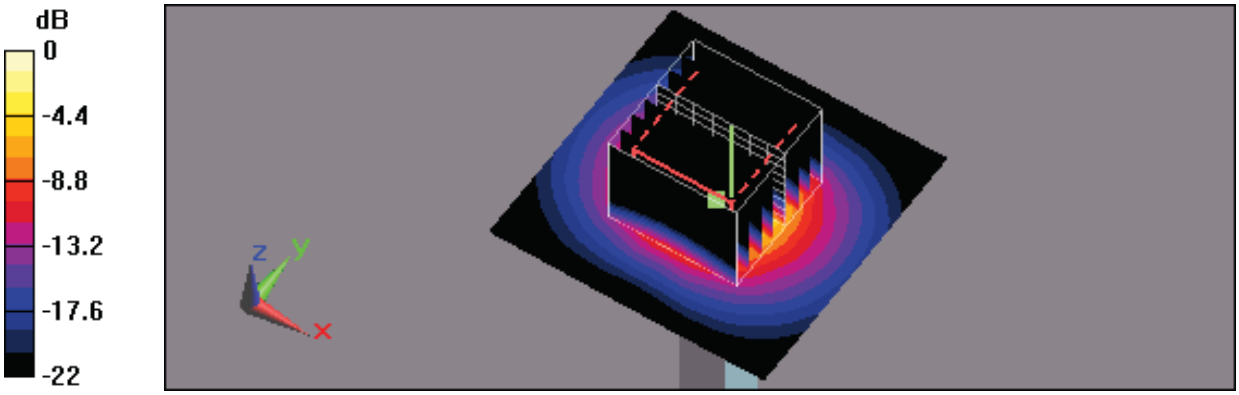
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.4 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 60 V/m; Power Drift = 0.00772 dB
Peak SAR (extrapolated) = 36.6 W/kg
SAR(1 g) = 7.9 mW/g; SAR(10 g) = 2.17 mW/g
Maximum value of SAR (measured) = 16.5 mW/g



0 dB = 16.5mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 9:28:36 PM

System Performance Check at 5800MHz_20081009_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

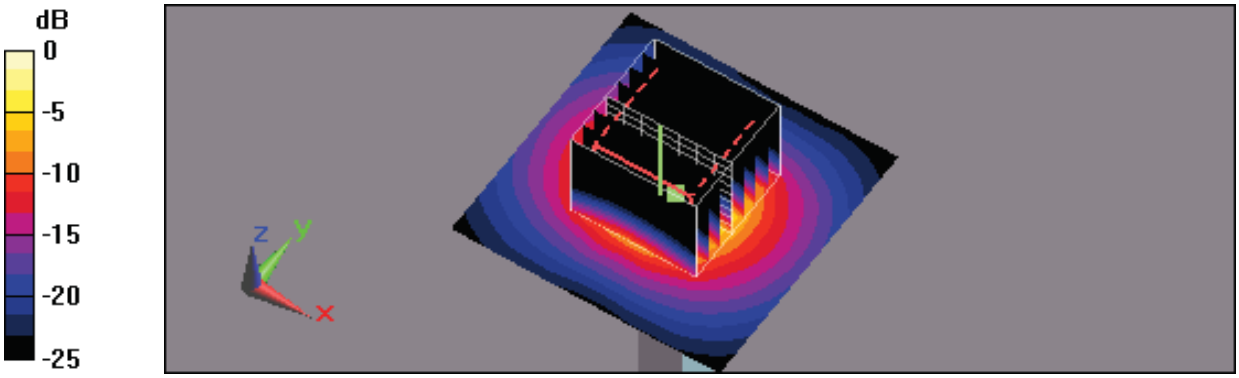
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.5 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 59.7 V/m; Power Drift = 0.043 dB
Peak SAR (extrapolated) = 34.8 W/kg
SAR(1 g) = 8.04 mW/g; SAR(10 g) = 2.22 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



0 dB = 16.3mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 7:22:36 PM

System Performance Check at 5800MHz_20081010_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

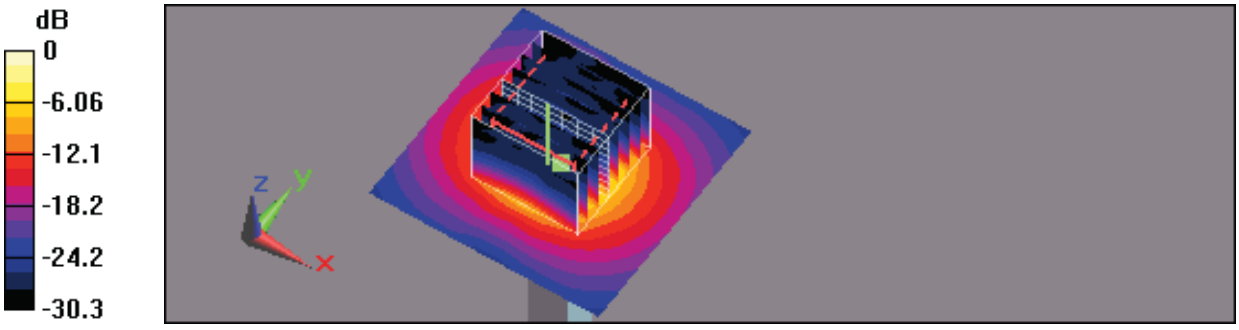
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.8 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 59.9 V/m; Power Drift = 0.032 dB
Peak SAR (extrapolated) = 33.94 W/kg
SAR(1 g) = 8.02 mW/g; SAR(10 g) = 2.21 mW/g
Maximum value of SAR (measured) = 16.3 mW/g



0 dB = 16.3mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 11/3/2008 2:42:13 PM

System Performance Check at 5800MHz_20081103_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

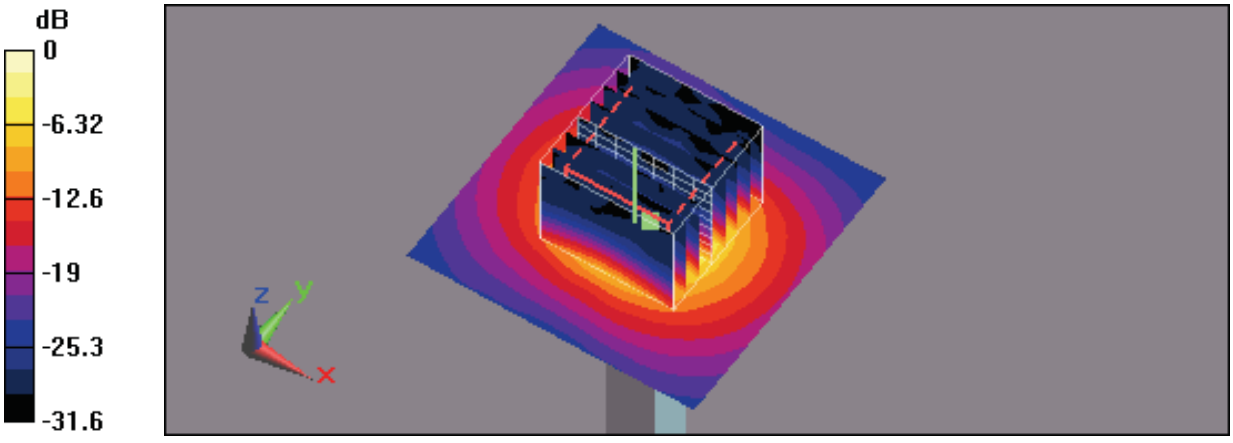
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 18 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 59.8 V/m; Power Drift = 0.046 dB
Peak SAR (extrapolated) = 41.2 W/kg
SAR(1 g) = 8.17 mW/g; SAR(10 g) = 2.26 mW/g
Maximum value of SAR (measured) = 16.6 mW/g



0 dB = 16.6mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 4:20:49 PM

System Performance Check at 5800MHz_20090112_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

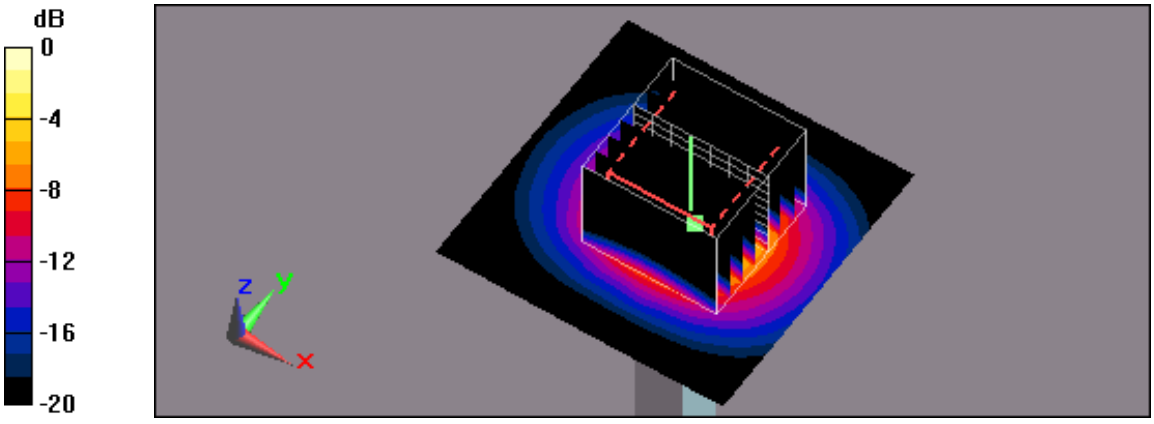
Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.5 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 52.5 V/m; Power Drift = -0.148 dB
Peak SAR (extrapolated) = 43.6 W/kg
SAR(1 g) = 7.9 mW/g; SAR(10 g) = 2.22 mW/g
Maximum value of SAR (measured) = 15.8 mW/g



0 dB = 15.8mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 12:06:49 PM

System Performance Check at 5800MHz_20090218_Body

DUT: Dipole 5GHzV2; Type: D5GHz; Serial: 1021

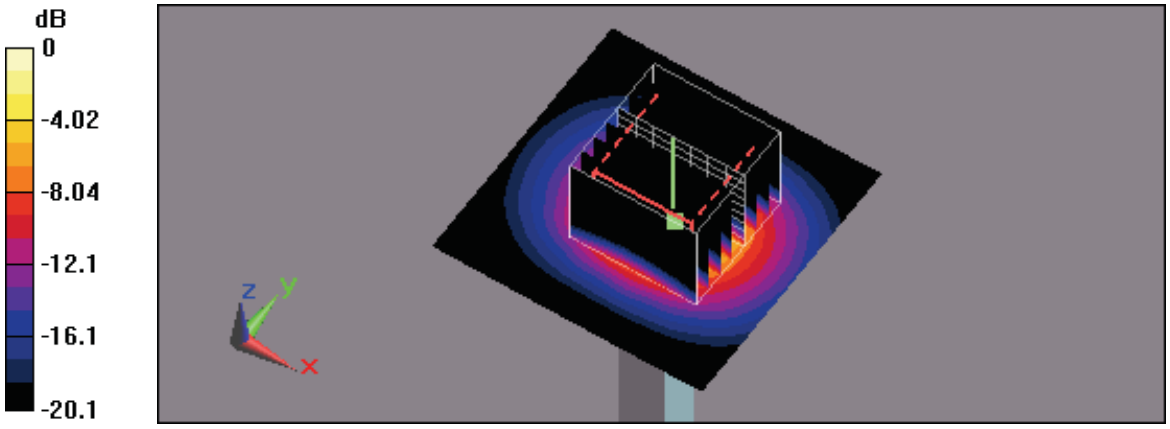
Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

System Performance Check at 5800MHz/Area Scan (61x61x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.3 mW/g

System Performance Check at 5800MHz/Zoom Scan (8x8x10)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 52.2 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 34.6 W/kg
SAR(1 g) = 7.91 mW/g; SAR(10 g) = 2.21 mW/g
Maximum value of SAR (measured) = 15.7 mW/g



0 dB = 15.7mW/g

Appendix B - SAR Measurement Data

See following attached pages for SAR Measurement Data.

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 5:28:21 PM

Flat_802.11b CH11_1M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

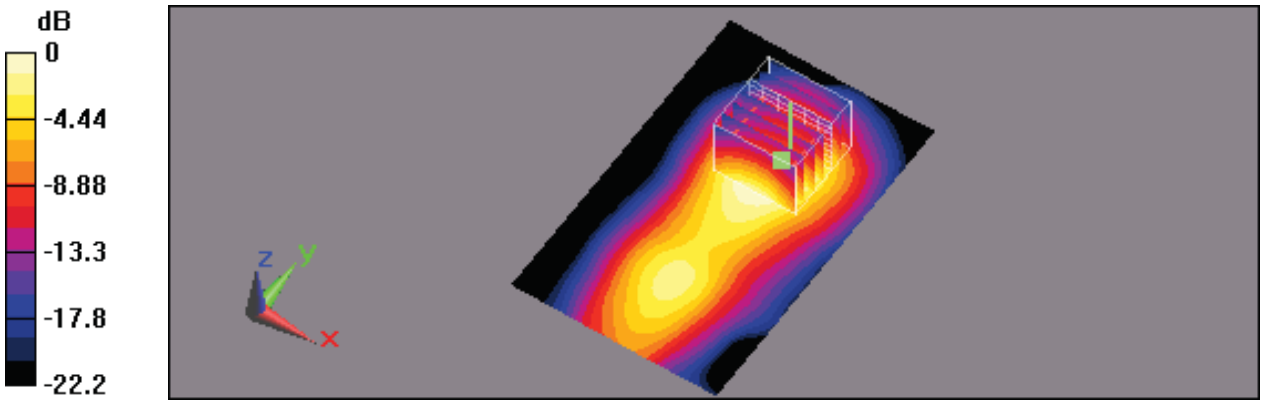
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.513 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 17.4 V/m; Power Drift = -0.137 dB
Peak SAR (extrapolated) = 0.445 W/kg
SAR(1 g) = 0.221 mW/g; SAR(10 g) = 0.107 mW/g
Maximum value of SAR (measured) = 0.281 mW/g



0 dB = 0.281mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 10:23:59 PM

Flat_802.11b CH11_1M_EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

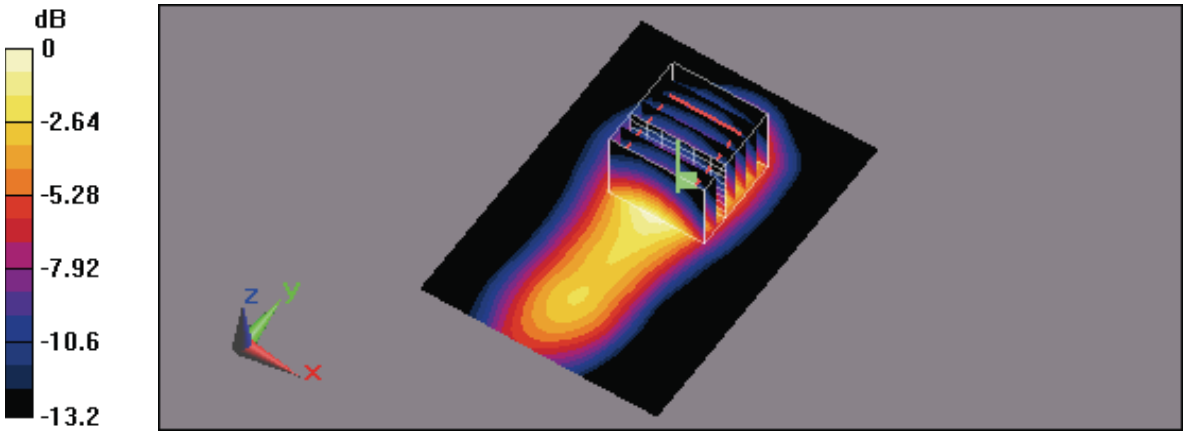
- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.218 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 9.2 V/m; Power Drift = 0.152 dB
Peak SAR (extrapolated) = 0.251 W/kg
SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.073 mW/g
Maximum value of SAR (measured) = 0.173 mW/g



0 dB = 0.173mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/19/2009 12:01:21 AM

Flat_802.11b CH11_1M_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.98 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

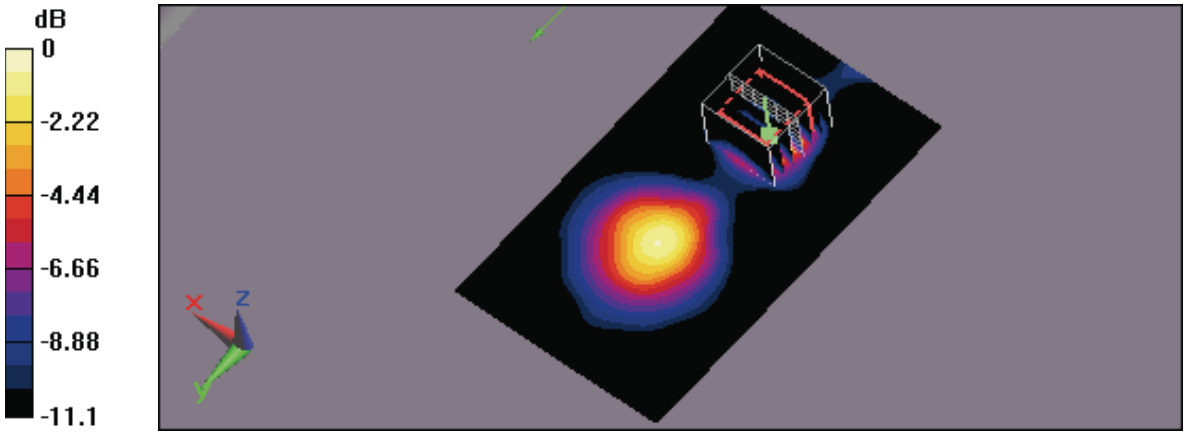
- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.196 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.88 V/m; Power Drift = -0.151 dB
Peak SAR (extrapolated) = 0.214 W/kg
SAR(1 g) = 0.151 mW/g; SAR(10 g) = 0.074 mW/g
Maximum value of SAR (measured) = 0.195 mW/g



0 dB = 0.195mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/7/2008 3:37:35 AM

Flat_802.11b CH11_1M_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11b; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

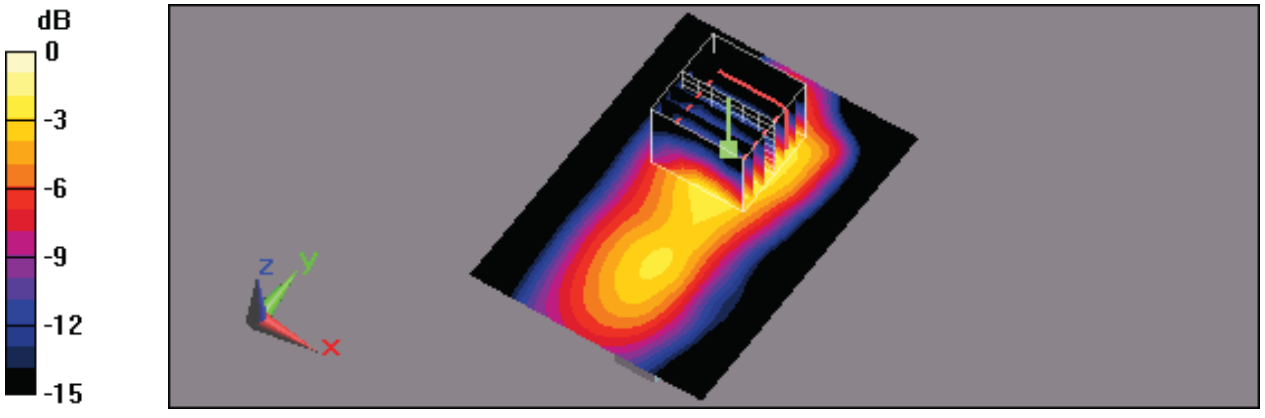
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.051 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.22 V/m; Power Drift = 0.130 dB
Peak SAR (extrapolated) = 0.084 W/kg
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.018 mW/g
Maximum value of SAR (measured) = 0.052 mW/g



0 dB = 0.052mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 6:21:58 PM

Flat_802.11g CH11_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11g; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

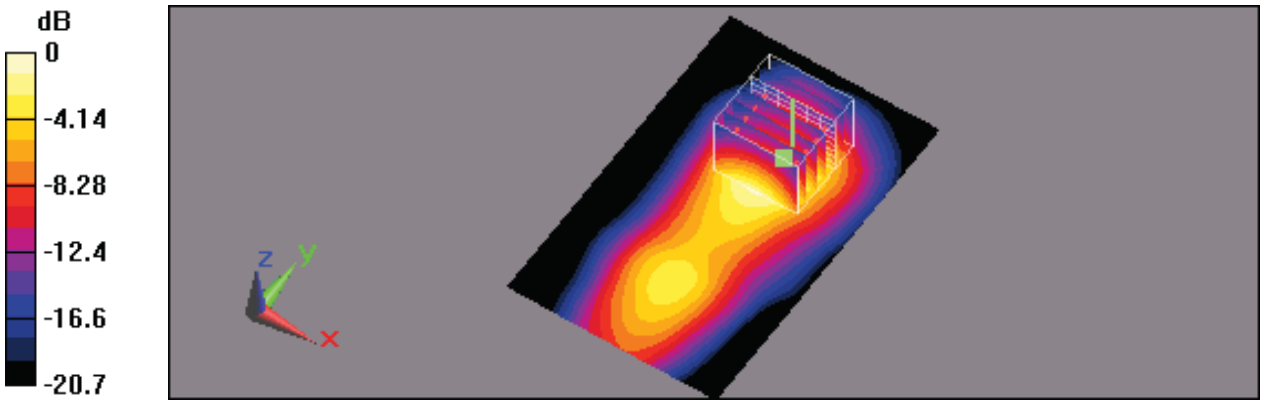
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.494 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 16.7 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 0.540 W/kg
SAR(1 g) = 0.266 mW/g; SAR(10 g) = 0.128 mW/g
Maximum value of SAR (measured) = 0.343 mW/g



0 dB = 0.343mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 10:41:22 PM

Flat_802.11g CH11_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11g; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

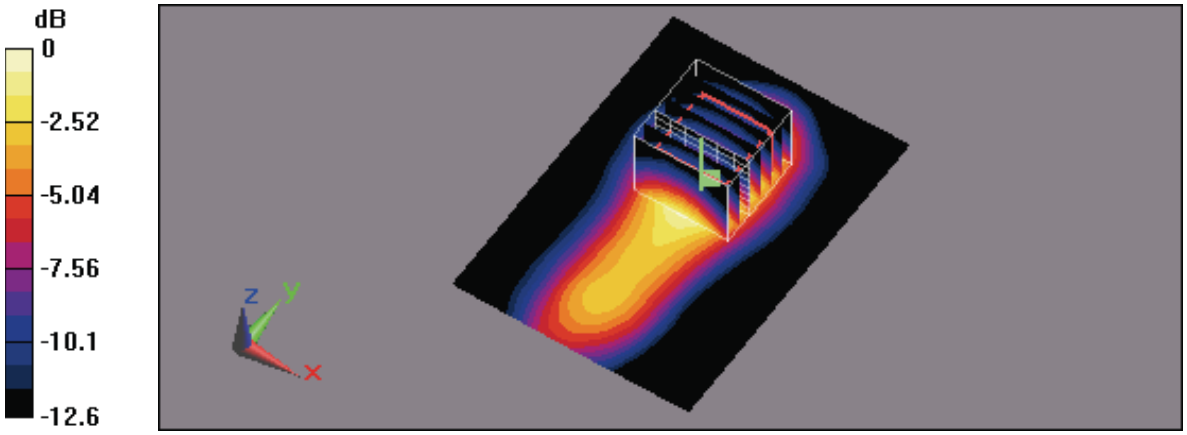
- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.291 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 11.1 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 0.338 W/kg
SAR(1 g) = 0.185 mW/g; SAR(10 g) = 0.100 mW/g
Maximum value of SAR (measured) = 0.235 mW/g



0 dB = 0.235mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/19/2009 12:21:26 AM

Flat_802.11g CH11_6M_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.98 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

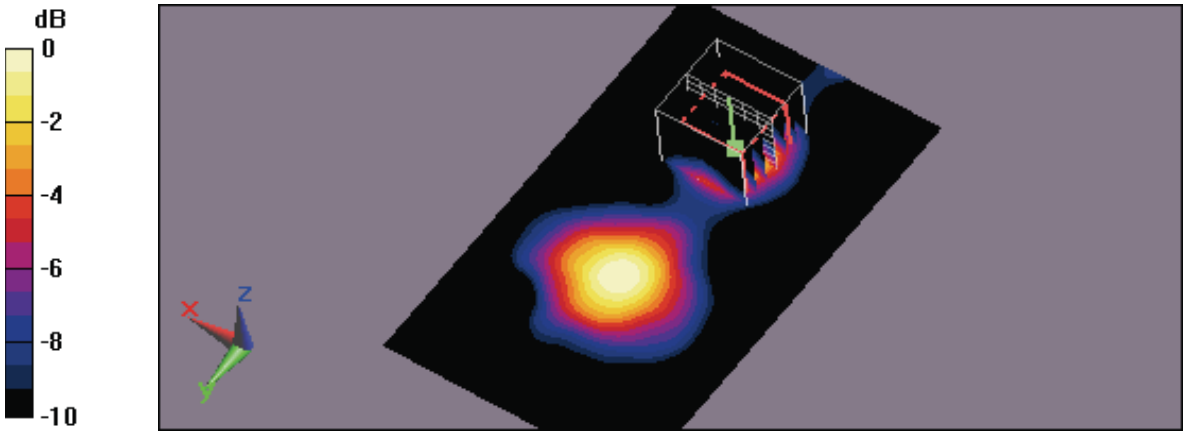
- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (61x81x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.230 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 7.92 V/m; Power Drift = -0.163 dB
Peak SAR (extrapolated) = 0.333 W/kg
SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.082 mW/g
Maximum value of SAR (measured) = 0.219 mW/g



0 dB = 0.219mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/7/2008 3:14:54 AM

Flat_802.11g CH11_6M_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11g; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

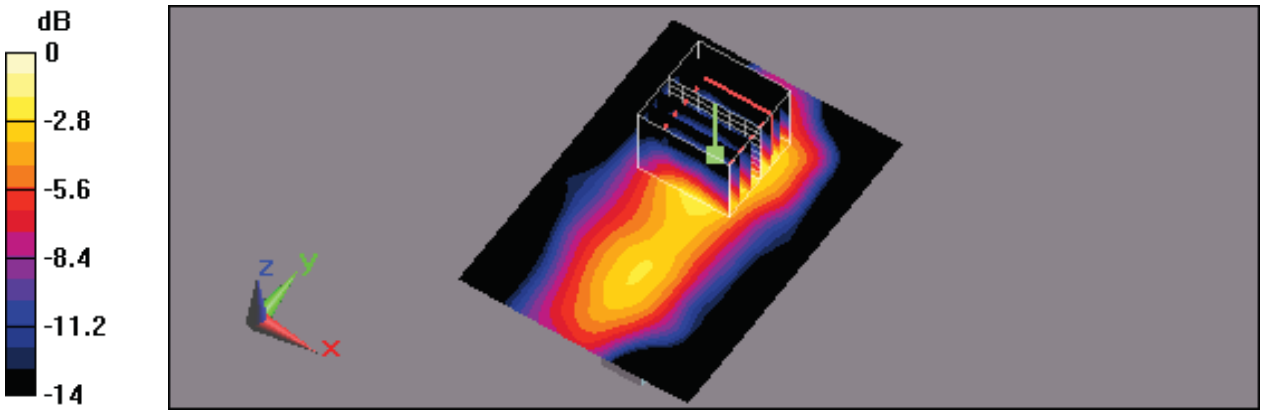
- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):

Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.056 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.3 V/m; Power Drift = 0.153 dB
Peak SAR (extrapolated) = 0.092 W/kg
SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.059 mW/g



0 dB = 0.059mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 10:56:57 AM

Flat_802.11n(2.4GHz) CH11_6.5M_HT20_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

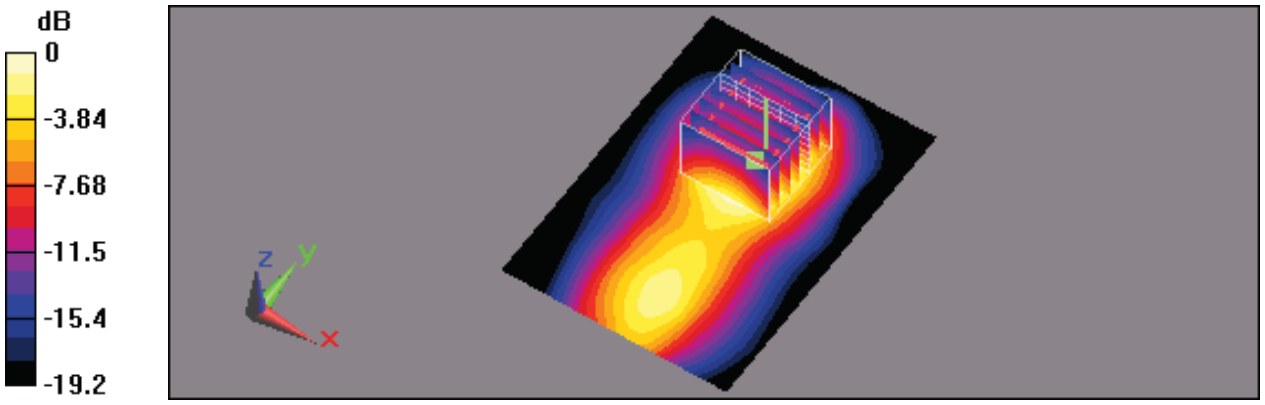
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.465 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 14.7 V/m; Power Drift = 0.151 dB
Peak SAR (extrapolated) = 0.437 W/kg
SAR(1 g) = 0.213 mW/g; SAR(10 g) = 0.108 mW/g
Maximum value of SAR (measured) = 0.281 mW/g



0 dB = 0.281mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 11:10:31 PM

Flat_802.11n(2.4GHz) CH11_6.5M_HT20_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

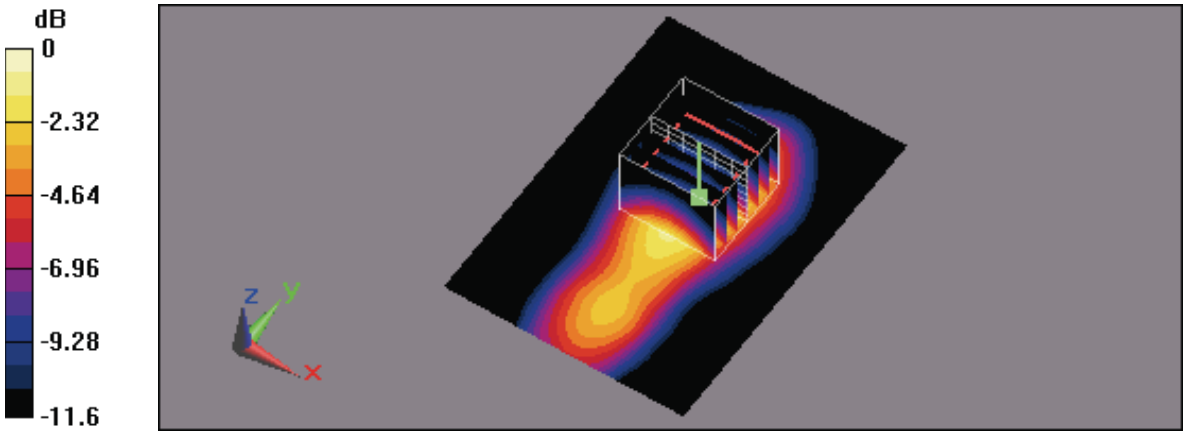
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x71x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.248 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 9.28 V/m; Power Drift = -0.090 dB
Peak SAR (extrapolated) = 0.329 W/kg
SAR(1 g) = 0.18 mW/g; SAR(10 g) = 0.092 mW/g
Maximum value of SAR (measured) = 0.228 mW/g



0 dB = 0.228mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 12:11:07 PM

Flat_802.11n(2.4GHz) CH11_6.5M_HT20_Dual Tx_EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

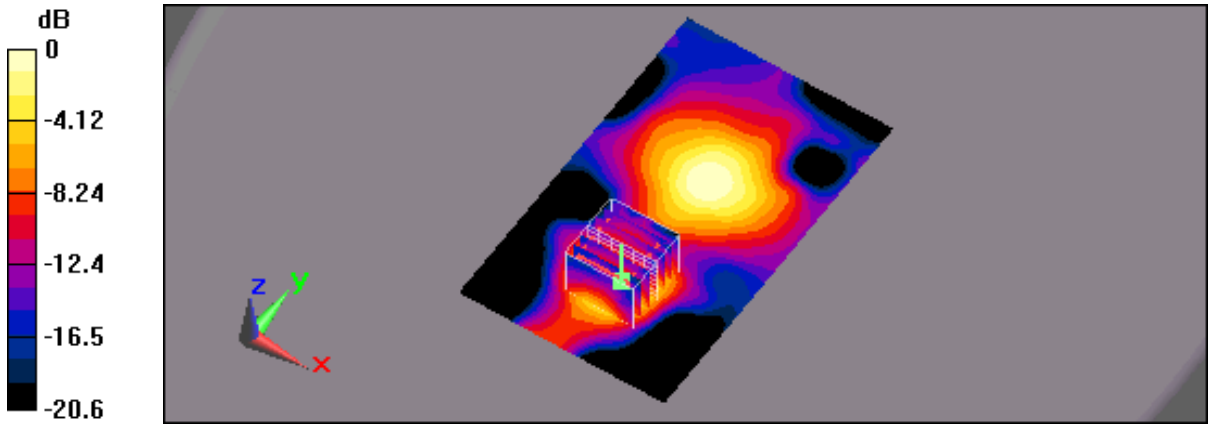
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.98 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 5/20/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (61x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.143 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 5.2 V/m; Power Drift = 0.106 dB
Peak SAR (extrapolated) = 0.209 W/kg
SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.046 mW/g
Maximum value of SAR (measured) = 0.134 mW/g



0 dB = 0.134mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 12:44:07 PM

Flat_802.11n(2.4GHz) CH11_6.5M_HT20_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

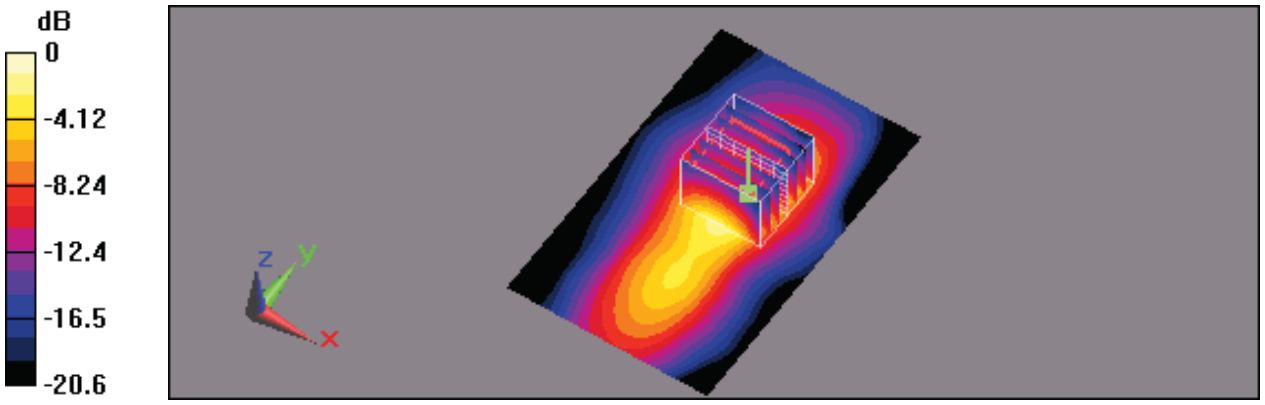
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.176 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 8.29 V/m; Power Drift = -0.036 dB
Peak SAR (extrapolated) = 0.276 W/kg
SAR(1 g) = 0.139 mW/g; SAR(10 g) = 0.065 mW/g
Maximum value of SAR (measured) = 0.183 mW/g



0 dB = 0.183mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 4:06:48 PM

Flat_802.11n(2.4GHz) CH9_13M_HT40_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

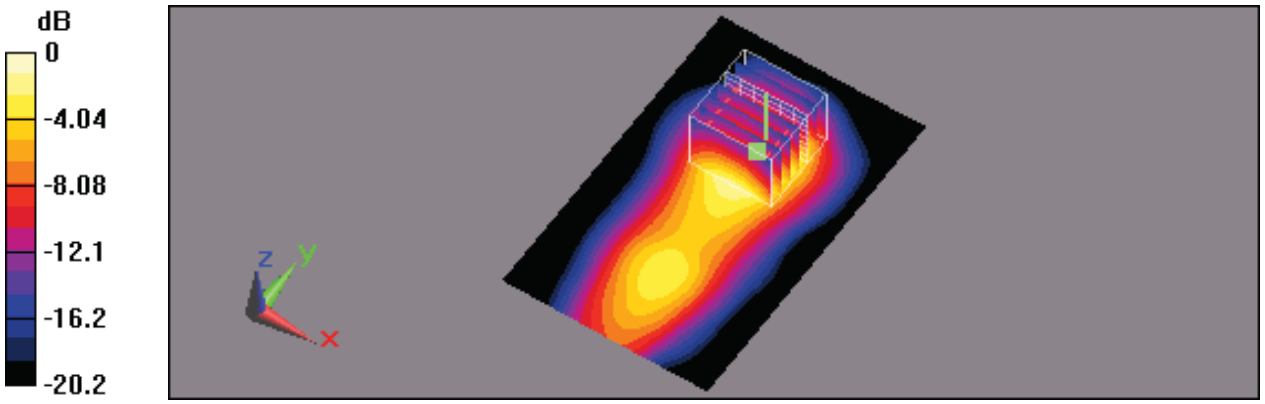
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2452 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2452 MHz; σ = 1.95 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.458 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 13.3 V/m; Power Drift = -0.121 dB
Peak SAR (extrapolated) = 0.498 W/kg
SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.119 mW/g
Maximum value of SAR (measured) = 0.315 mW/g



0 dB = 0.315mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 11:29:29 PM

Flat_802.11n(2.4GHz) CH9_13M_HT40_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

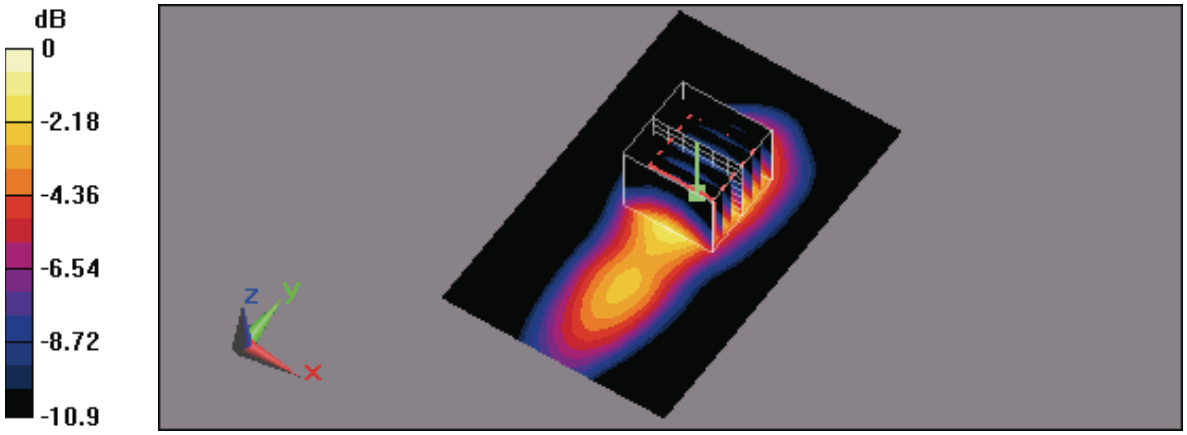
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2452 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2452 MHz; σ = 1.95 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.23, 4.23, 4.23); Calibrated: 1/20/2009
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.244 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 9.51 V/m; Power Drift = 0.105 dB
Peak SAR (extrapolated) = 0.329 W/kg
SAR(1 g) = 0.186 mW/g; SAR(10 g) = 0.098 mW/g
Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 1:22:06 PM

Flat_802.11n(2.4GHz) CH9_13M_HT40_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

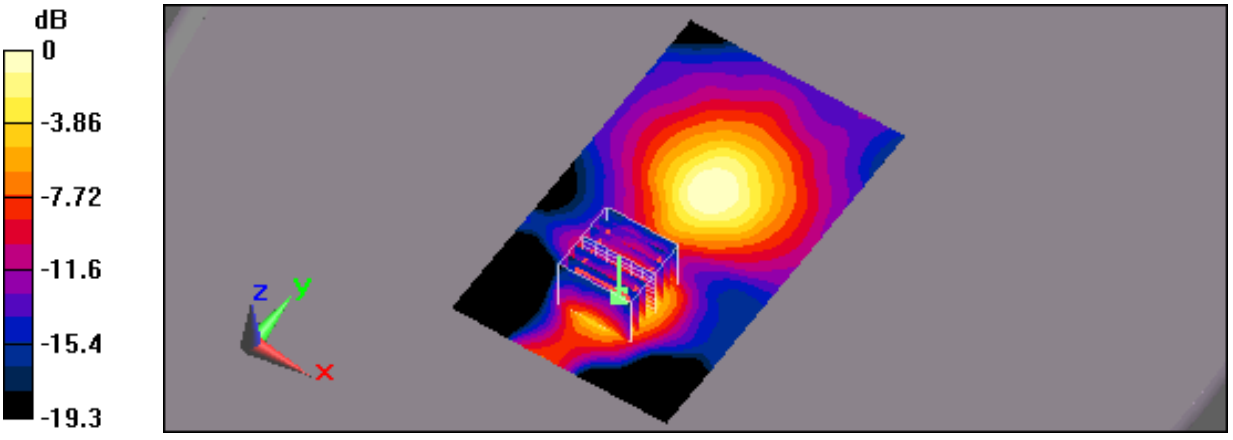
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2452 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2452 MHz; σ = 1.97 mho/m; ε_r = 53.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 5/20/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (61x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.156 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.77 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.214 W/kg
SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.047 mW/g
Maximum value of SAR (measured) = 0.141 mW/g



0 dB = 0.141mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/8/2008 2:10:37 PM

Flat_802.11n(2.4GHz) CH9_13M_HT40_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

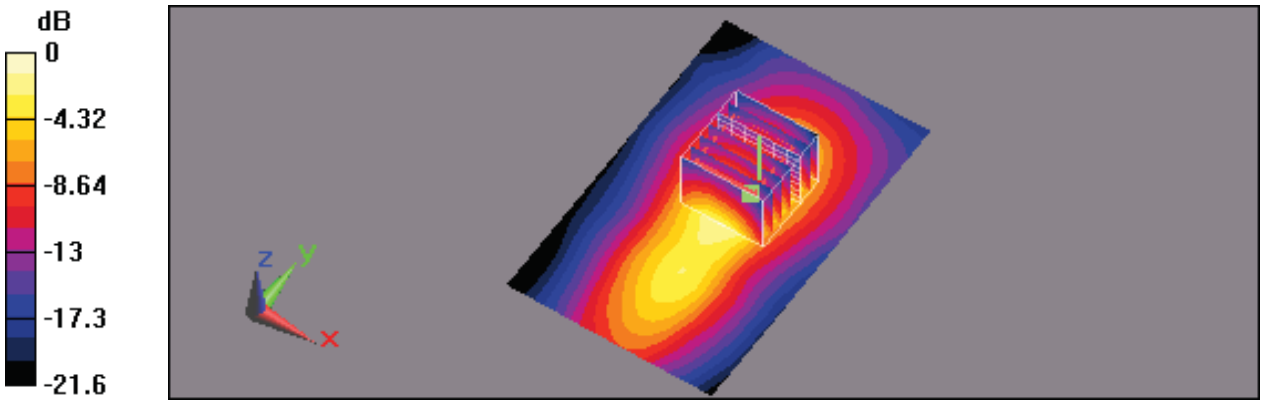
Communication System: IEEE 802.11n(2.4GHz); Frequency: 2452 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2452 MHz; σ = 1.95 mho/m; ε_r = 51.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV3 - SN3150; ConvF(4.19, 4.19, 4.19); Calibrated: 1/9/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.228 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 9.91 V/m; Power Drift = 0.00967 dB
Peak SAR (extrapolated) = 0.318 W/kg
SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.074 mW/g
Maximum value of SAR (measured) = 0.206 mW/g



0 dB = 0.206mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 7:53:37 PM

Flat_802.11a CH40_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

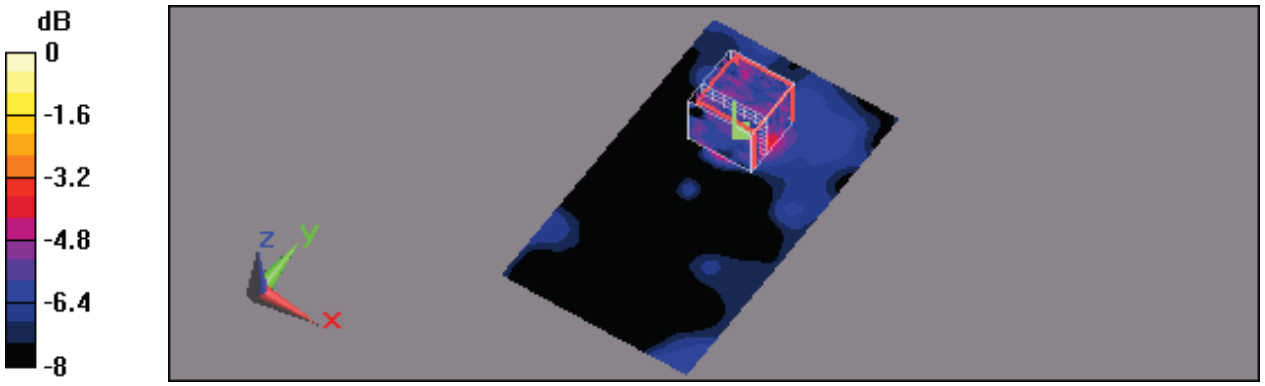
- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.062 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.58 V/m; Power Drift = 0.033 dB
Peak SAR (extrapolated) = 0.198 W/kg
SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.025 mW/g
Maximum value of SAR (measured) = 0.072 mW/g



0 dB = 0.072mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 6:25:30 PM

Flat_802.11a CH40_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

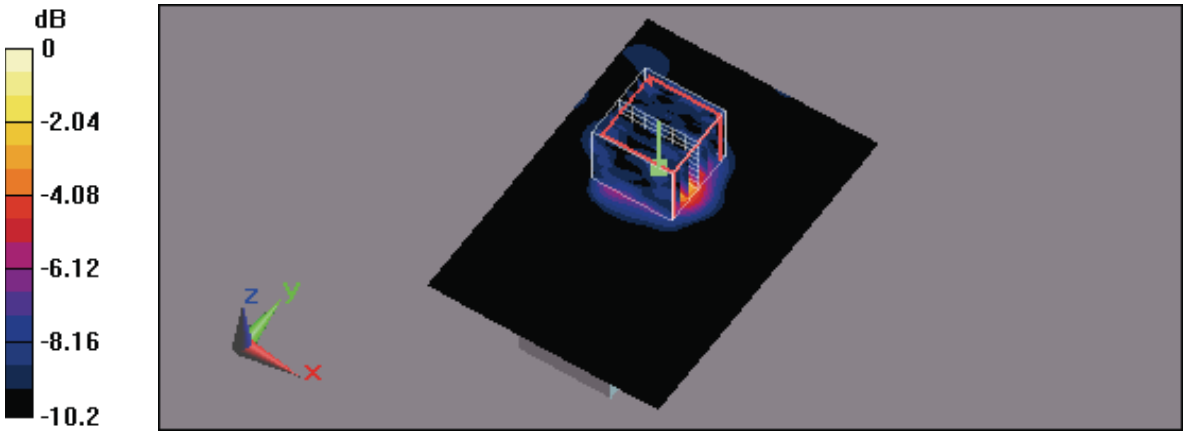
- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.183 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 5.62 V/m; Power Drift = -0.126 dB
Peak SAR (extrapolated) = 0.524 W/kg
SAR(1 g) = 0.11 mW/g; SAR(10 g) = 0.043 mW/g
Maximum value of SAR (measured) = 0.17 mW/g



0 dB = 0.17mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 5:47:46 PM

Flat_802.11a CH40_6M_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

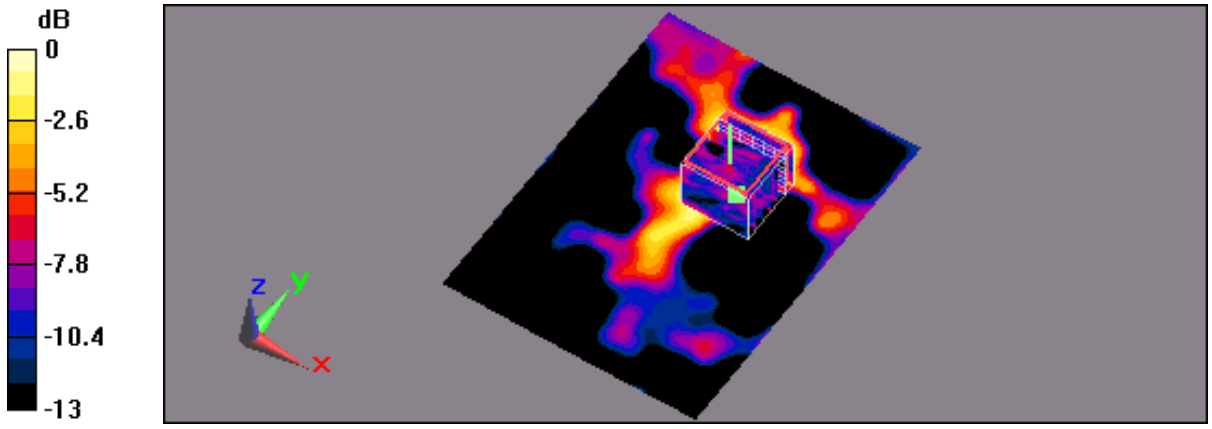
- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (91x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.072 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.17 V/m; Power Drift = -0.167 dB
Peak SAR (extrapolated) = 0.287 W/kg
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.060 mW/g



0 dB = 0.060mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 11:28:32 PM

Flat_802.11a CH40_6M_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.3 mho/m; ε_r = 49; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

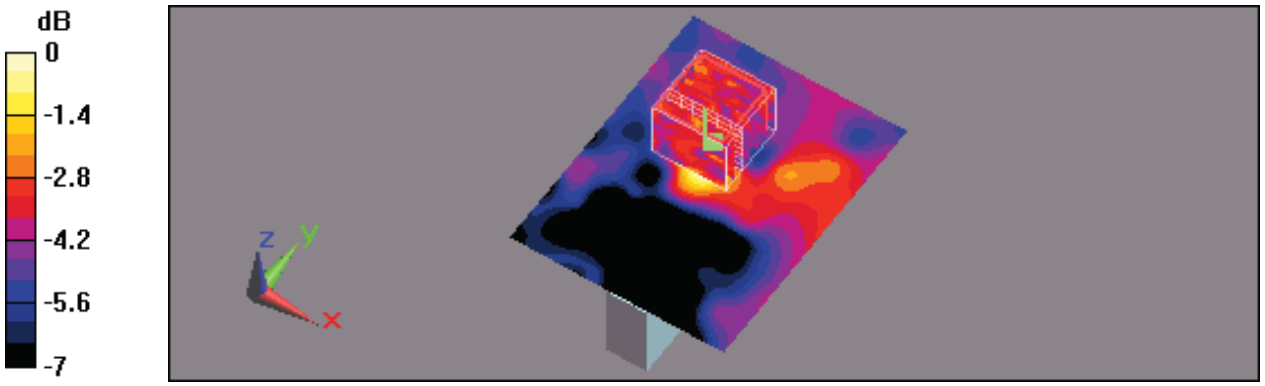
- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.066 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.43 V/m; Power Drift = -0.013 dB
Peak SAR (extrapolated) = 0.115 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.022 mW/g
Maximum value of SAR (measured) = 0.044 mW/g



0 dB = 0.044mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 7:25:19 PM

Flat_802.11a CH60_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

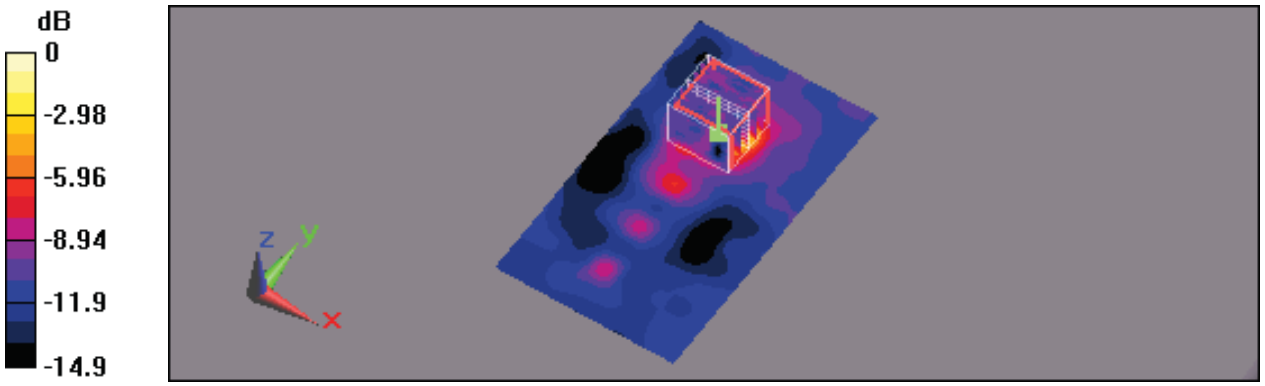
- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.238 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.28 V/m; Power Drift = -0.162 dB
Peak SAR (extrapolated) = 0.582 W/kg
SAR(1 g) = 0.145 mW/g; SAR(10 g) = 0.054 mW/g
Maximum value of SAR (measured) = 0.236 mW/g



0 dB = 0.236mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 6:46:20 PM

Flat_802.11a CH60_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

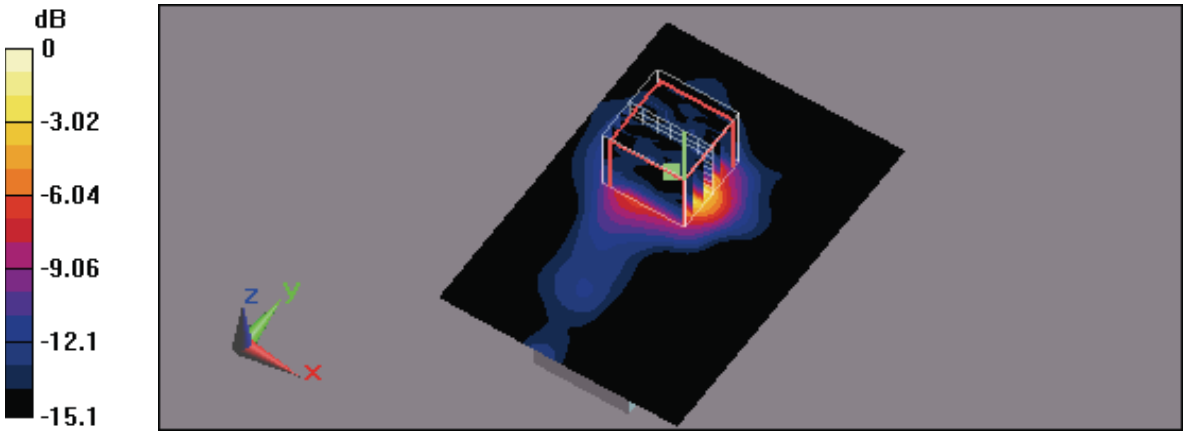
Communication System: IEEE 802.11a; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.665 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.56 V/m; Power Drift = -0.083 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.113 mW/g
Maximum value of SAR (measured) = 0.594 mW/g



0 dB = 0.594mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 10:27:31 PM

Flat_802.11a CH60_6M_ EUT with USB Cable Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

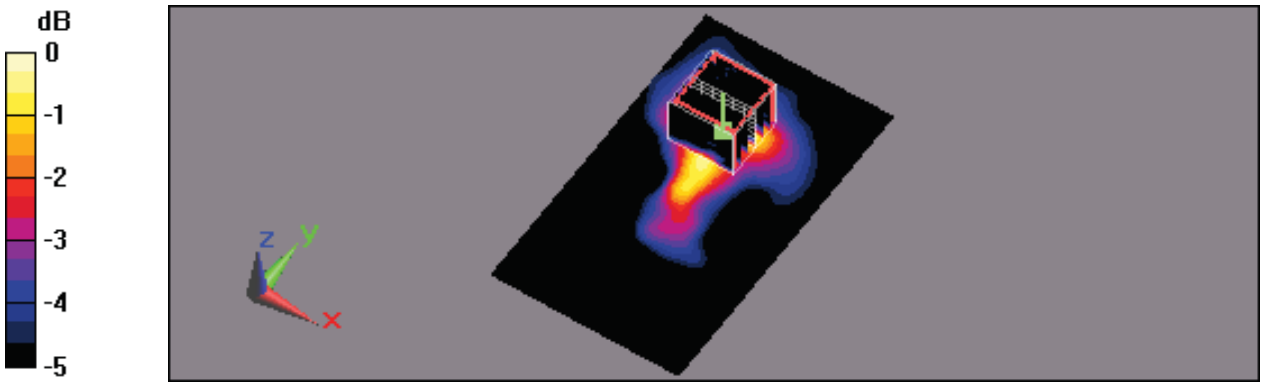
- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.079 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.24 V/m; Power Drift = 0.098 dB
Peak SAR (extrapolated) = 0.267 W/kg
SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.038 mW/g
Maximum value of SAR (measured) = 0.084 mW/g



0 dB = 0.084mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/9/2008 11:55:34 PM

Flat_802.11a CH60_6M_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

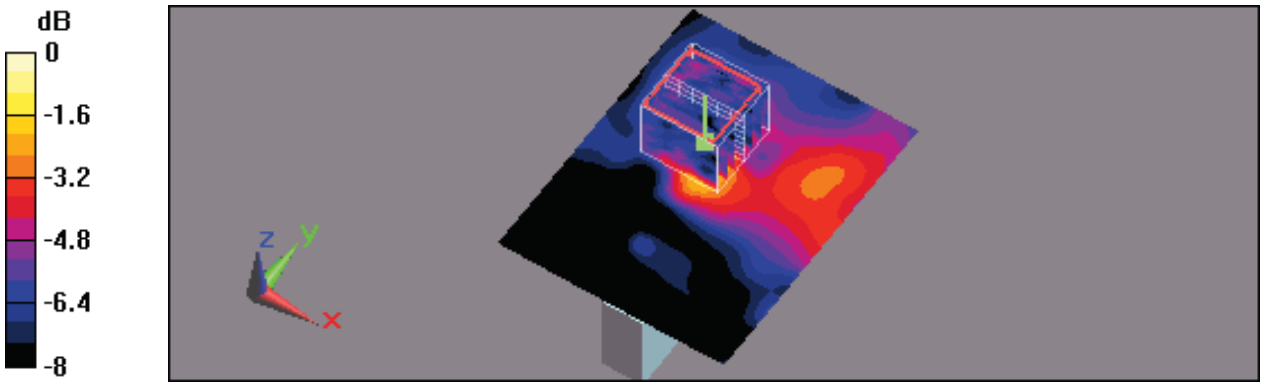
- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.088 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.84 V/m; Power Drift = 0.059 dB
Peak SAR (extrapolated) = 0.468 W/kg
SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.033 mW/g
Maximum value of SAR (measured) = 0.085 mW/g



0 dB = 0.085mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 5:02:19 PM

Flat_802.11a CH104_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5520 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5520 MHz; σ = 5.71 mho/m; ε_r = 49.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

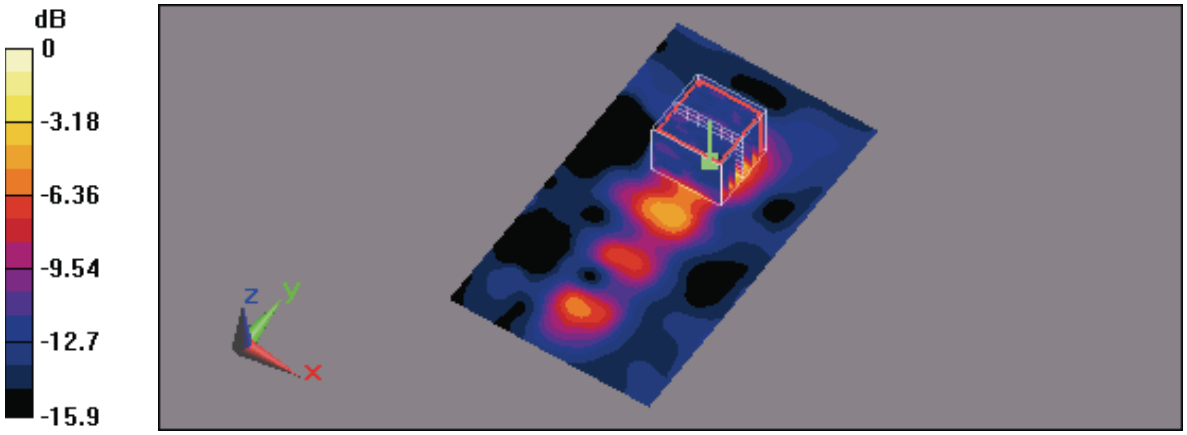
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.412 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.35 V/m; Power Drift = -0.108 dB
Peak SAR (extrapolated) = 0.923 W/kg
SAR(1 g) = 0.215 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.357 mW/g



0 dB = 0.357mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 5:20:16 PM

Flat_802.11a CH104_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5520 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5520 MHz; σ = 5.71 mho/m; ε_r = 49.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

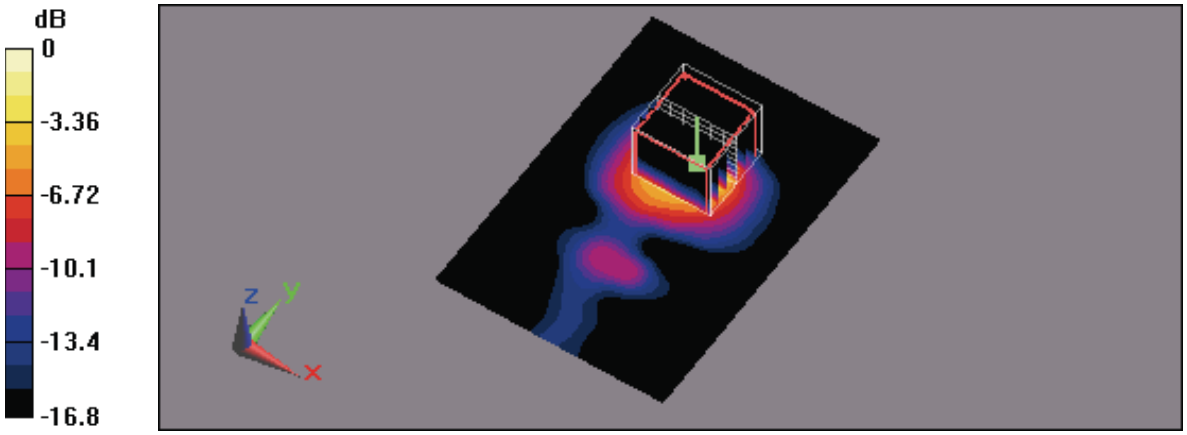
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.35 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 14.9 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 2.9 W/kg
SAR(1 g) = 0.666 mW/g; SAR(10 g) = 0.204 mW/g
Maximum value of SAR (measured) = 1.17 mW/g



0 dB = 1.17mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 5:40:45 PM

Flat_802.11a CH104_6M_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5520 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5520 MHz; σ = 5.71 mho/m; ε_r = 49.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

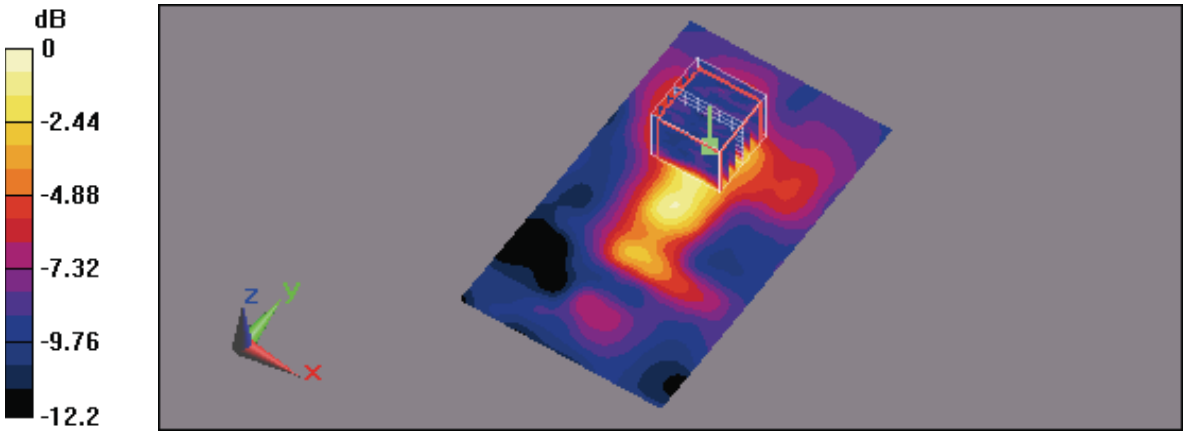
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.206 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.41 V/m; Power Drift = 0.095 dB
Peak SAR (extrapolated) = 0.689 W/kg
SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.060 mW/g
Maximum value of SAR (measured) = 0.195 mW/g



0 dB = 0.195mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 6:05:30 PM

Flat_802.11a CH104_6M_ EUT with USB Cable Left 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5520 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5520 MHz; σ = 5.71 mho/m; ε_r = 49.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

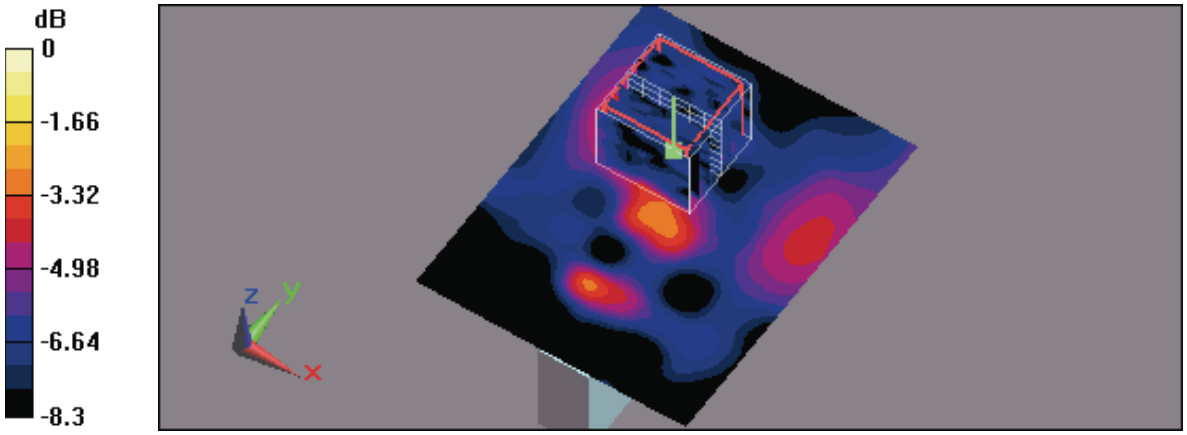
- Probe: EX3DV4 - SN3552 add; ConvF(4.05, 4.05, 4.05); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.108 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.79 V/m; Power Drift = -0.120 dB
Peak SAR (extrapolated) = 0.546 W/kg
SAR(1 g) = 0.075 mW/g; SAR(10 g) = 0.036 mW/g
Maximum value of SAR (measured) = 0.111 mW/g



0 dB = 0.111mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 3:31:11 PM

Flat_802.11a CH116_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

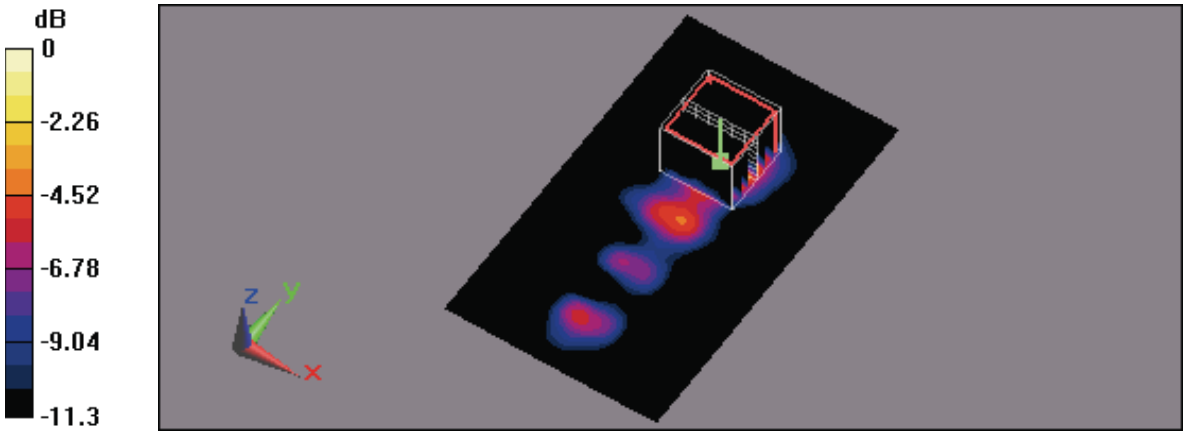
Communication System: IEEE 802.11a; Frequency: 5580 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5580 MHz; σ = 5.87 mho/m; ε_r = 49.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.404 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.03 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.916 W/kg
SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.075 mW/g
Maximum value of SAR (measured) = 0.350 mW/g



0 dB = 0.350mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 4:01:11 PM

Flat_802.11a CH116_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5580 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5580 MHz; σ = 5.87 mho/m; ε_r = 49.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

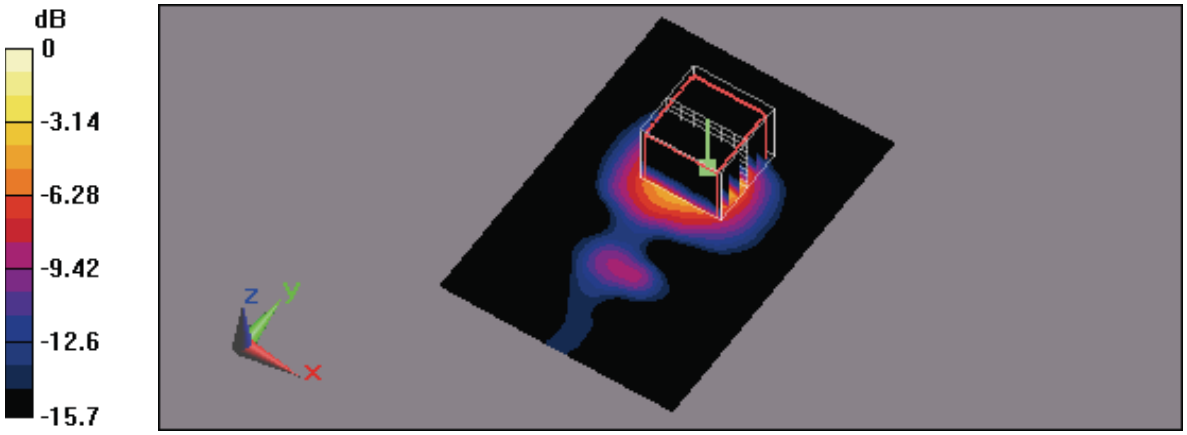
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.32 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 14.4 V/m; Power Drift = 0.034 dB
Peak SAR (extrapolated) = 2.87 W/kg
SAR(1 g) = 0.653 mW/g; SAR(10 g) = 0.200 mW/g
Maximum value of SAR (measured) = 1.15 mW/g



0 dB = 1.15mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 4:22:38 PM

Flat_802.11a CH116_6M_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5580 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5580 MHz; σ = 5.87 mho/m; ε_r = 49.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

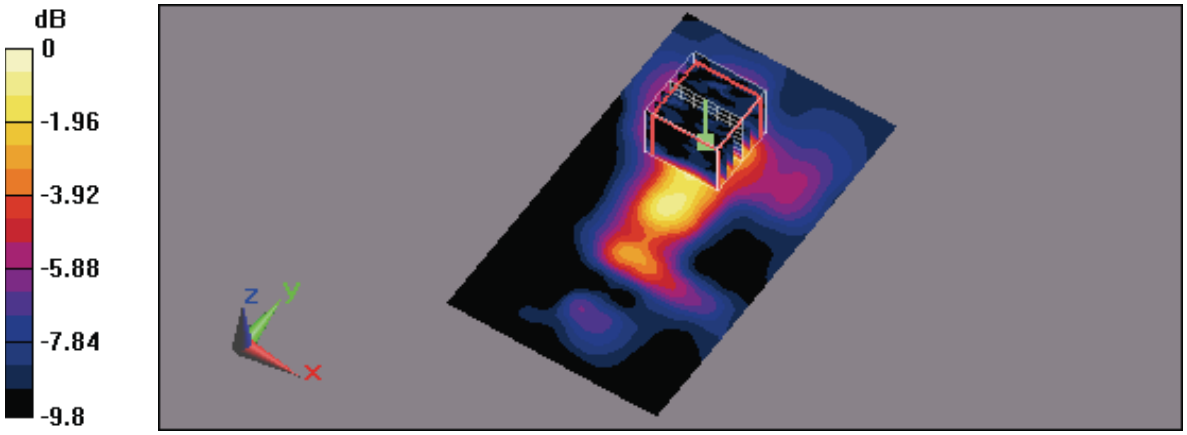
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.201 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.09 V/m; Power Drift = -0.188 dB
Peak SAR (extrapolated) = 0.687 W/kg
SAR(1 g) = 0.128 mW/g; SAR(10 g) = 0.058 mW/g
Maximum value of SAR (measured) = 0.191 mW/g



0 dB = 0.191mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 4:42:49 PM

Flat_802.11a CH116_6M_ EUT with USB Cable Left 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5580 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5580 MHz; σ = 5.87 mho/m; ε_r = 49.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

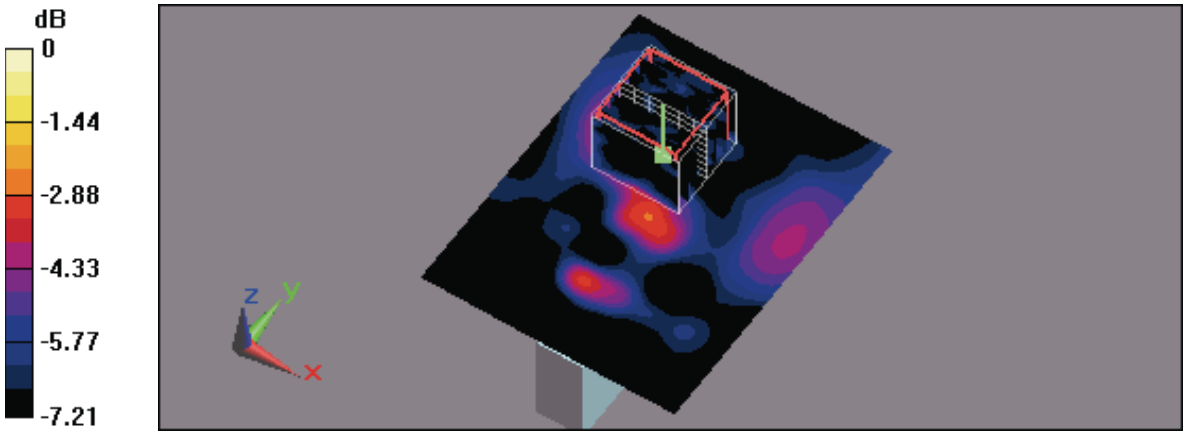
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.106 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.49 V/m; Power Drift = 0.123 dB
Peak SAR (extrapolated) = 0.548 W/kg
SAR(1 g) = 0.072 mW/g; SAR(10 g) = 0.034 mW/g
Maximum value of SAR (measured) = 0.109 mW/g



0 dB = 0.109mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 2:15:22 PM

Flat_802.11a CH124_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5620 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5620 MHz; σ = 5.96 mho/m; ε_r = 49.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

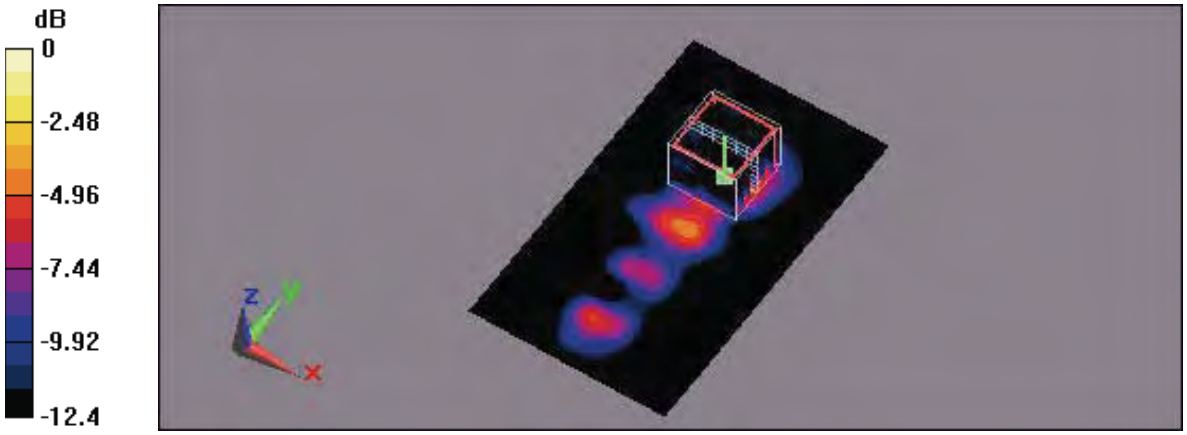
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.415 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.09 V/m; Power Drift = 0.121 dB
Peak SAR (extrapolated) = 0.942 W/kg
SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.360 mW/g



0 dB = 0.360mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 2:32:48 PM

Flat_802.11a CH124_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5620 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5620 MHz; σ = 5.96 mho/m; ε_r = 49.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

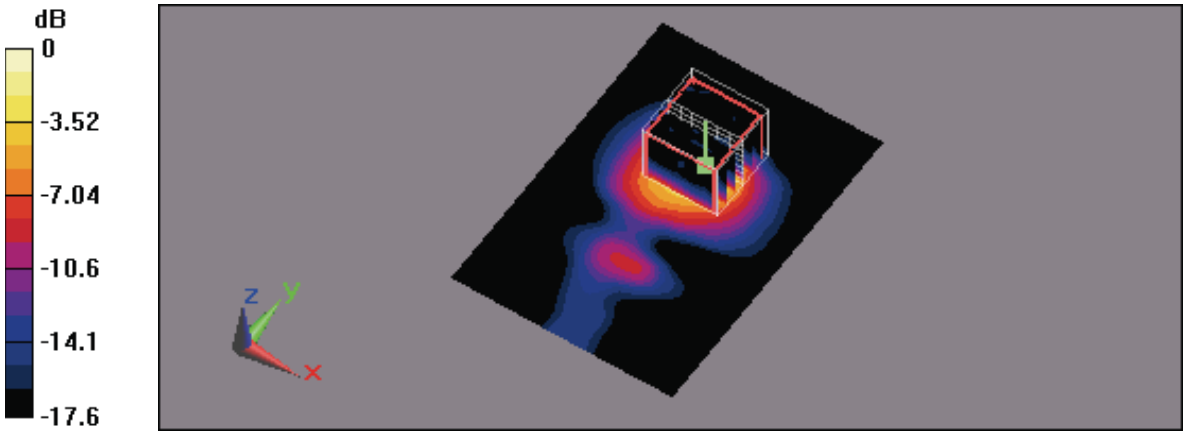
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.36 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 14.1 V/m; Power Drift = 0.106 dB
Peak SAR (extrapolated) = 2.96 W/kg
SAR(1 g) = 0.672 mW/g; SAR(10 g) = 0.206 mW/g
Maximum value of SAR (measured) = 1.18 mW/g



0 dB = 1.18mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 2:55:42 PM

Flat_802.11a CH124_6M_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5620 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5620 MHz; σ = 5.96 mho/m; ε_r = 49.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

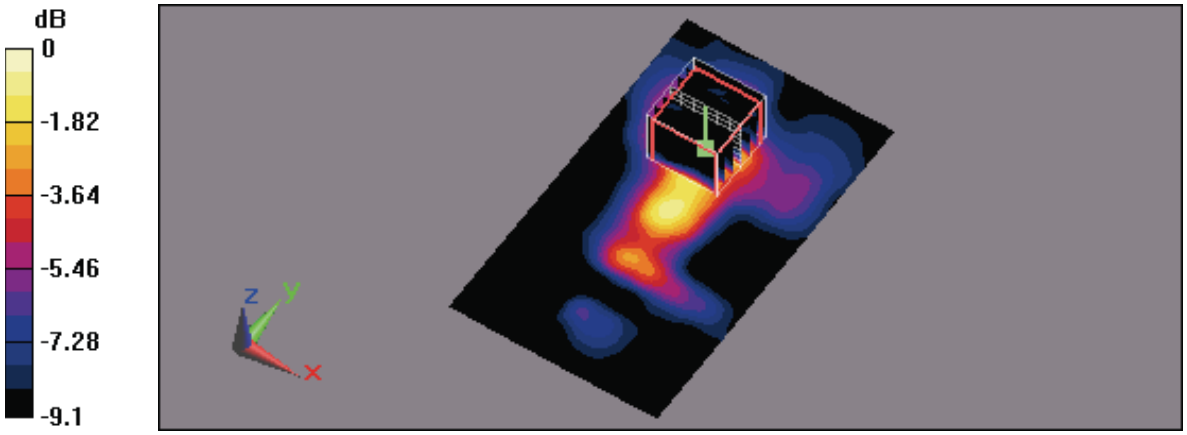
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.204 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 5.15 V/m; Power Drift = 0.132 dB
Peak SAR (extrapolated) = 0.706 W/kg
SAR(1 g) = 0.131 mW/g; SAR(10 g) = 0.060 mW/g
Maximum value of SAR (measured) = 0.197 mW/g



0 dB = 0.197mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 3:16:42 PM

Flat_802.11a CH124_6M_ EUT with USB Cable Left 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5620 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5620 MHz; σ = 5.96 mho/m; ε_r = 49.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

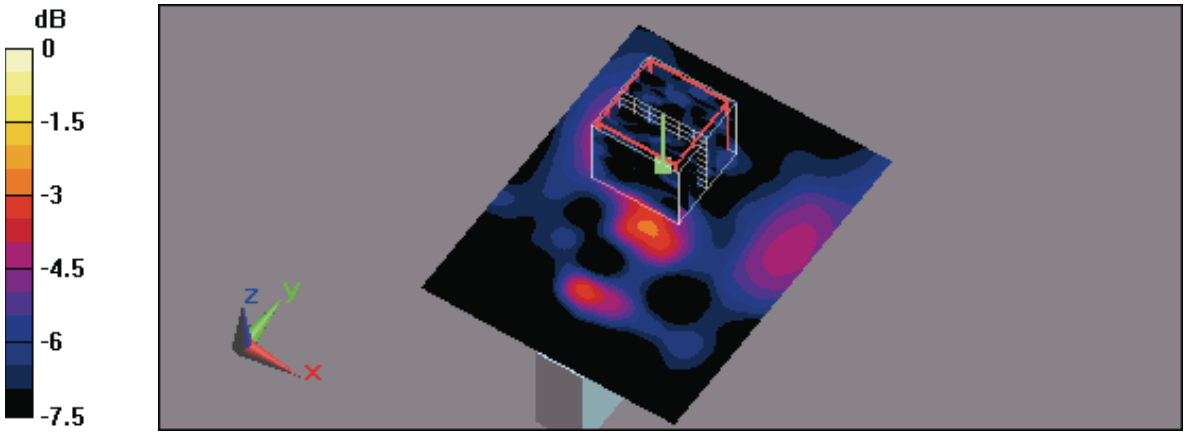
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.109 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.31 V/m; Power Drift = 0.182 dB
Peak SAR (extrapolated) = 0.563 W/kg
SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.035 mW/g
Maximum value of SAR (measured) = 0.112 mW/g



0 dB = 0.112mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 12:41:54 PM

Flat_802.11a CH136_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; Serial: N/A

Communication System: IEEE 802.11a; Frequency: 5680 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5680 MHz; σ = 5.87 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

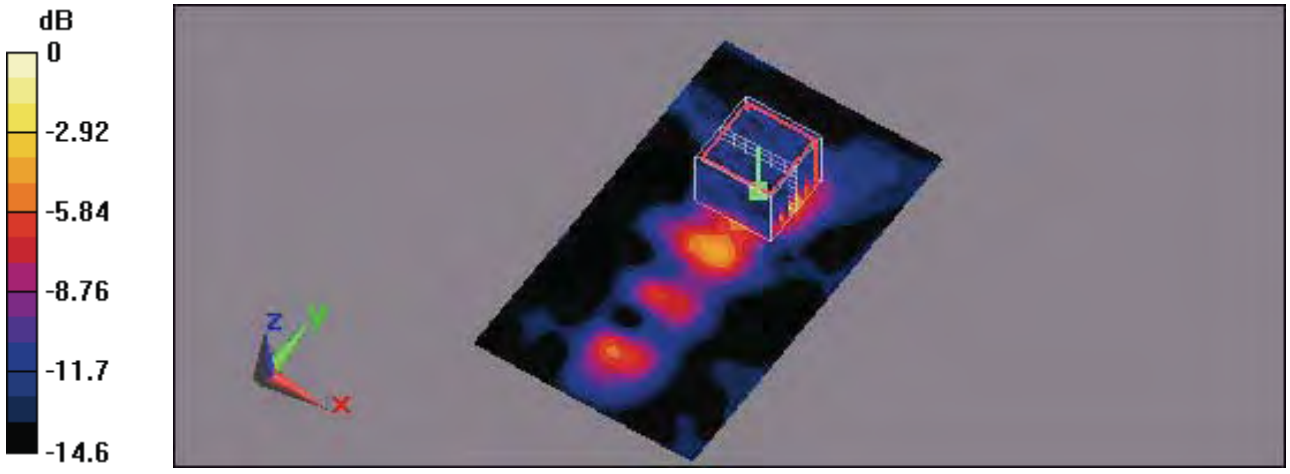
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.417 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.19 V/m; Power Drift = 0.117 dB
Peak SAR (extrapolated) = 0.947 W/kg
SAR(1 g) = 0.218 mW/g; SAR(10 g) = 0.078 mW/g
Maximum value of SAR (measured) = 0.362 mW/g



0 dB = 0.362mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 1:07:24 PM

Flat_802.11a CH136_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN_Bottom; Type: USB dongle; Serial: N/A

Communication System: IEEE 802.11a; Frequency: 5680 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5680 MHz; σ = 5.87 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

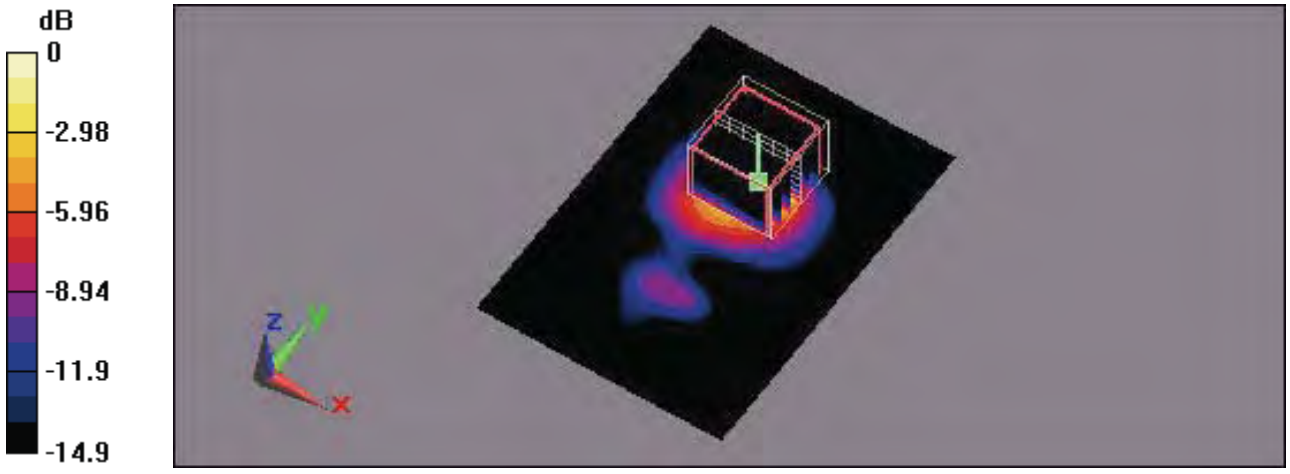
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.37 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 14.6 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 2.97 W/kg
SAR(1 g) = 0.675 mW/g; SAR(10 g) = 0.207 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 1:26:42 PM

Flat_802.11a CH136_6M_ EUT with NB Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; Serial: N/A

Communication System: IEEE 802.11a; Frequency: 5680 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5680 MHz; σ = 5.87 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

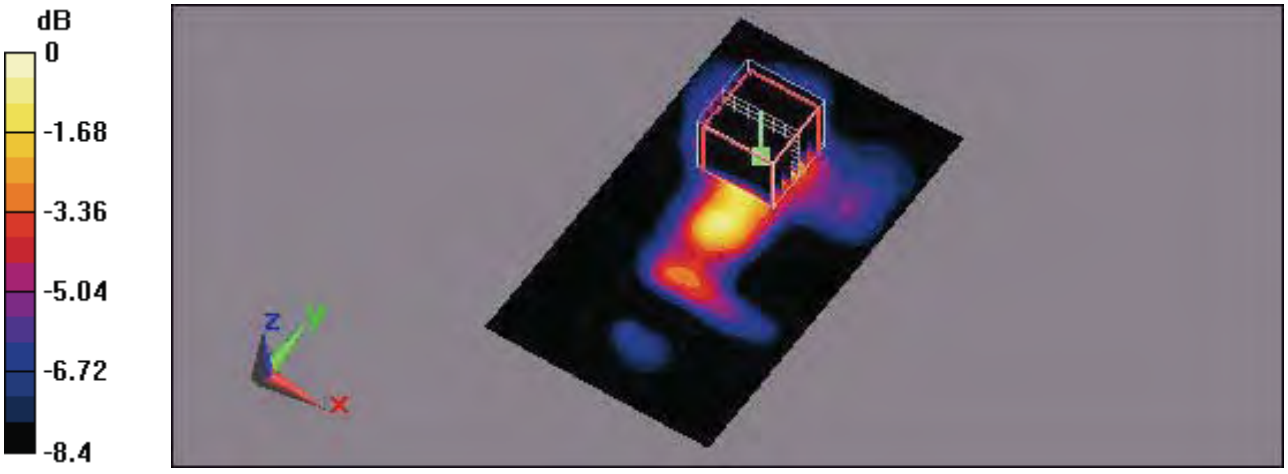
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.208 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.2 V/m; Power Drift = 0.116 dB
Peak SAR (extrapolated) = 0.710 W/kg
SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.061 mW/g
Maximum value of SAR (measured) = 0.198 mW/g



0 dB = 0.198mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 1:50:29 PM

Flat_802.11a CH136_6M_ EUT with USB Cable Left 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; Serial: N/A

Communication System: IEEE 802.11a; Frequency: 5680 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5680 MHz; σ = 5.87 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

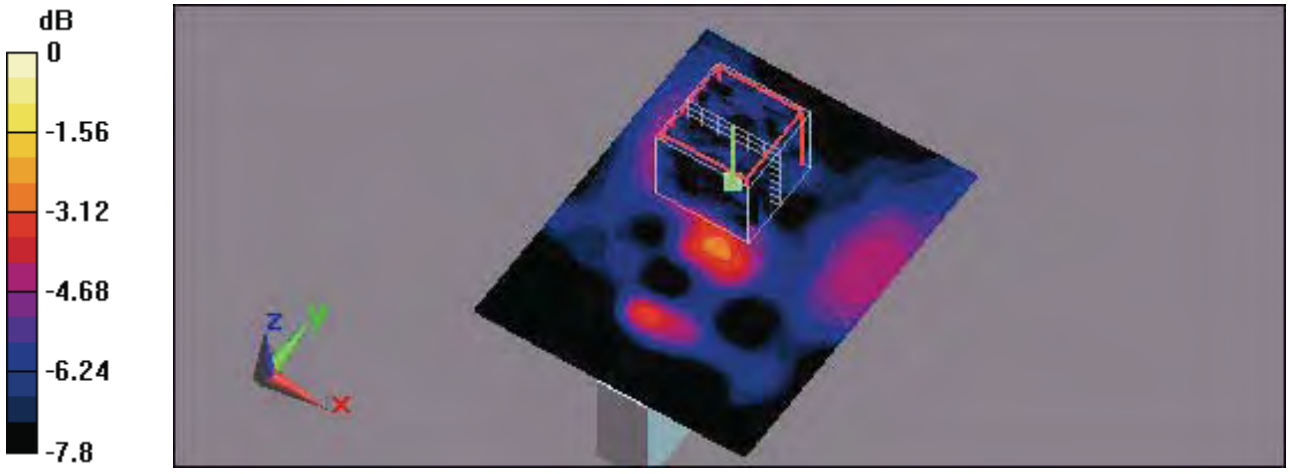
- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.109 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.76 V/m; Power Drift = 0.142 dB
Peak SAR (extrapolated) = 0.566 W/kg
SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.037 mW/g
Maximum value of SAR (measured) = 0.113 mW/g



0 dB = 0.113mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 3:00:58 AM

Flat_802.11a CH157_6M_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

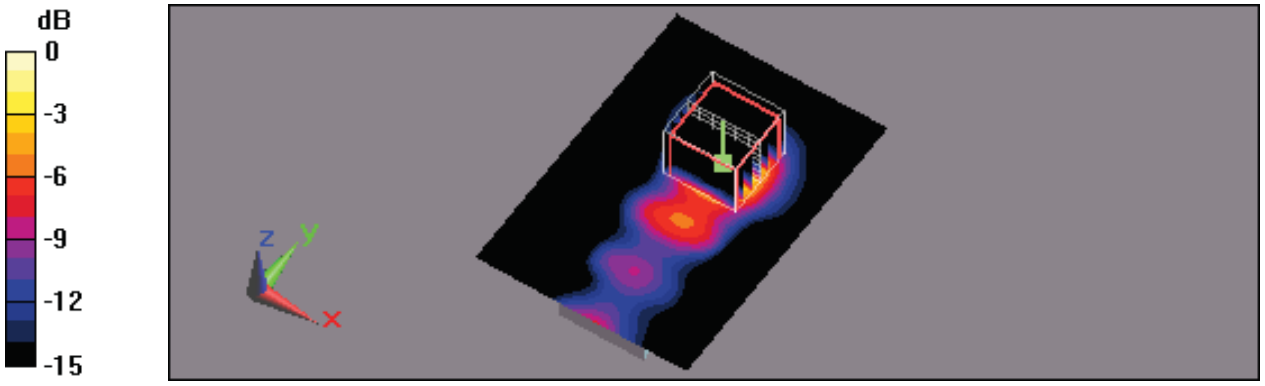
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.01 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 12.4 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 2.29 W/kg
SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.160 mW/g
Maximum value of SAR (measured) = 0.856 mW/g



0 dB = 0.856mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/19/2009 12:45:18 AM

Flat_802.11a CH157_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

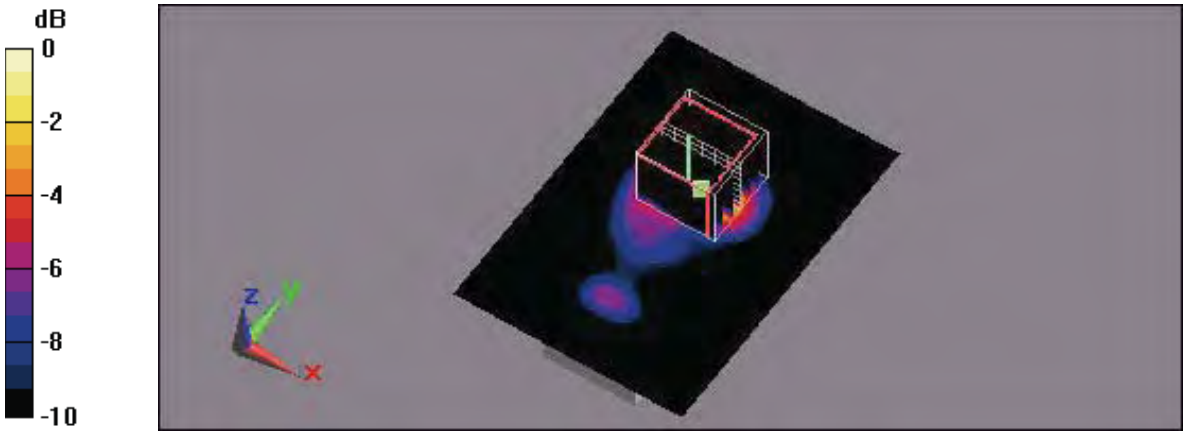
- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.55 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 15.3 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 4.19 W/kg
SAR(1 g) = 0.838 mW/g; SAR(10 g) = 0.273 mW/g
Maximum value of SAR (measured) = 1.45 mW/g



0 dB = 1.45mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 7:06:28 PM

Flat_802.11a CH149_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5745 MHz; σ = 5.81 mho/m; ε_r = 47.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

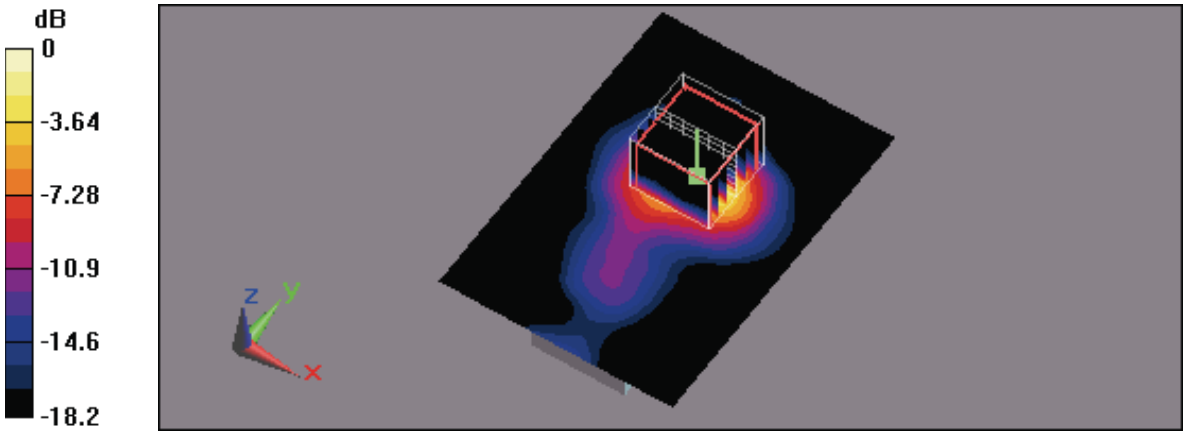
- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.96 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 18.2 V/m; Power Drift = -0.140 dB
Peak SAR (extrapolated) = 4.67 W/kg
SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.315 mW/g
Maximum value of SAR (measured) = 1.82 mW/g



0 dB = 1.82mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/19/2009 1:15:36 AM

Flat_802.11a CH165_6M_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5825 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5825 MHz; σ = 5.84 mho/m; ε_r = 47.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

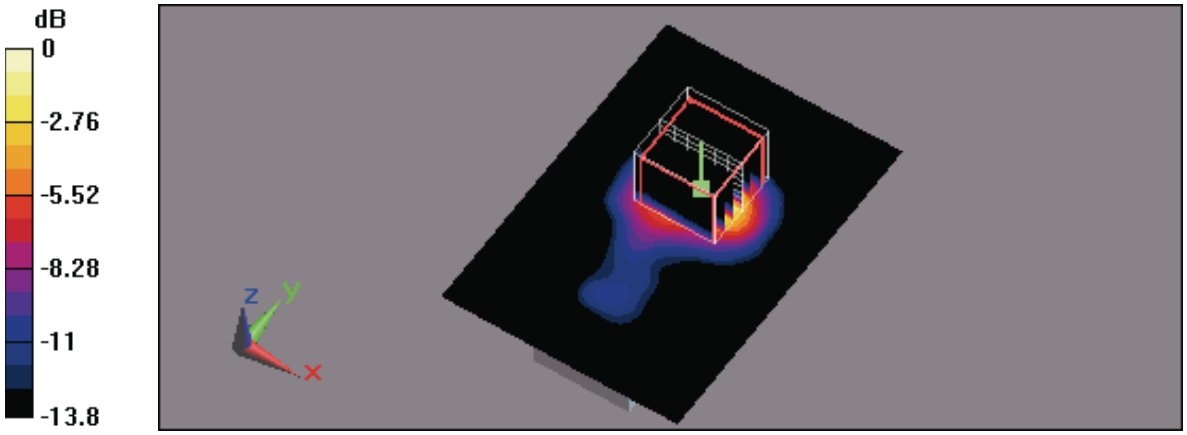
- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.53 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 18.9 V/m; Power Drift = -0.108 dB
Peak SAR (extrapolated) = 3.25 W/kg
SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.220 mW/g
Maximum value of SAR (measured) = 1.19 mW/g



0 dB = 1.19mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 10:50:50 PM

Flat_802.11a CH157_6M_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

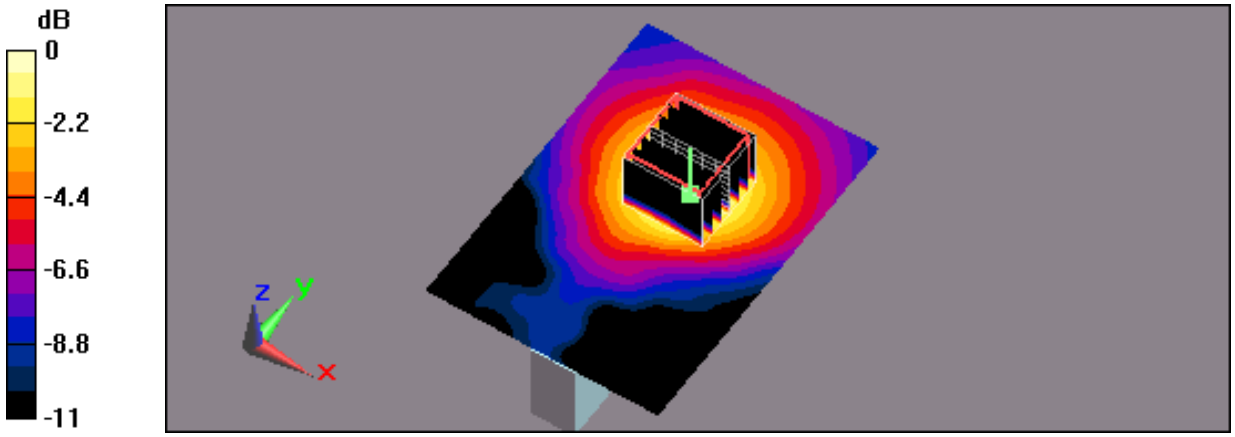
- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.556 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10.3 V/m; Power Drift = 0.045 dB
Peak SAR (extrapolated) = 1.52 W/kg
SAR(1 g) = 0.343 mW/g; SAR(10 g) = 0.142 mW/g
Maximum value of SAR (measured) = 0.541 mW/g



0 dB = 0.541mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 12:59:21 AM

Flat_802.11a CH157_6M_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

Communication System: IEEE 802.11a; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

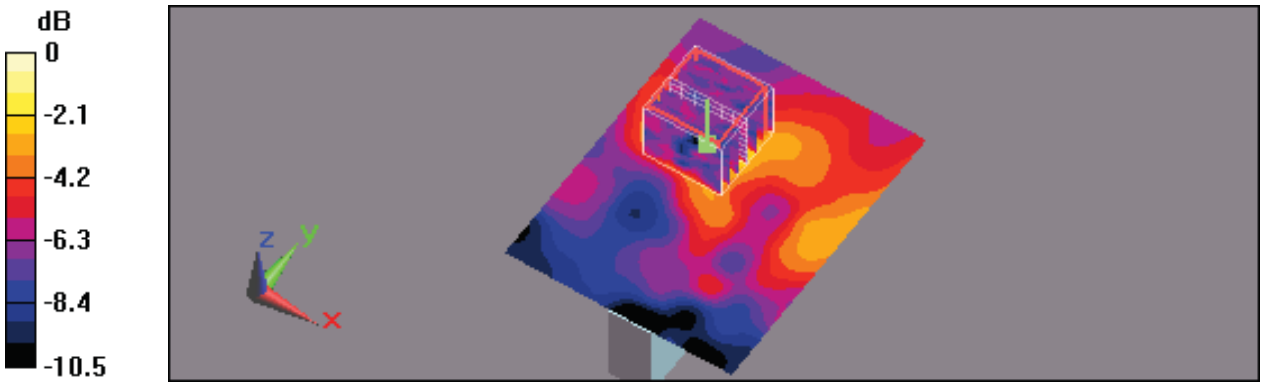
- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x91x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.111 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.46 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 0.222 W/kg
SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.040 mW/g
Maximum value of SAR (measured) = 0.122 mW/g



0 dB = 0.122mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 3:30:12 AM

Flat_802.11n(5GHz) CH48_6.5M_HT20_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; Serial: FCC ID: I88NWD211AN

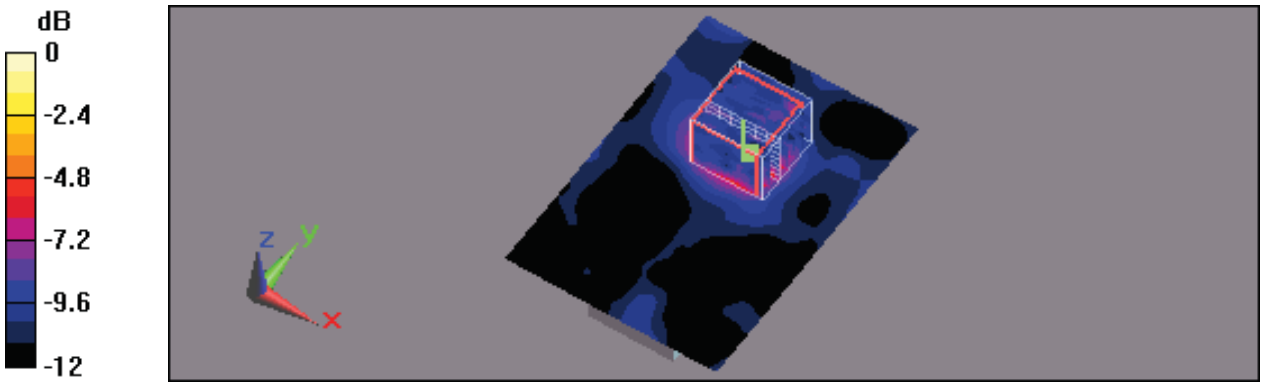
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5240 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5240 MHz; σ = 5.41 mho/m; ε_r = 50; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.082 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.62 V/m; Power Drift = -0.103 dB
Peak SAR (extrapolated) = 0.449 W/kg
SAR(1 g) = 0.093 mW/g; SAR(10 g) = 0.036 mW/g
Maximum value of SAR (measured) = 0.149 mW/g



0 dB = 0.149mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 7:25:28 PM

Flat_802.11n(5GHz) CH48_6.5M_HT20_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

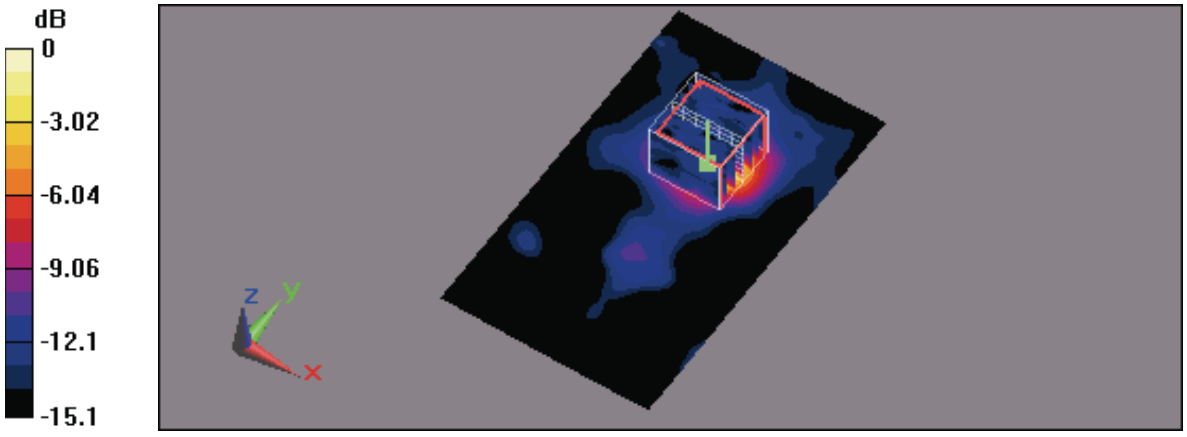
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5240 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5240 MHz; σ = 5.41 mho/m; ε_r = 50; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.291 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 7.89 V/m; Power Drift = -0.088 dB
Peak SAR (extrapolated) = 0.630 W/kg
SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.056 mW/g
Maximum value of SAR (measured) = 0.301 mW/g



0 dB = 0.301mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/12/2009 11:33:50 PMDate/Time: 1/12/2009 11:44:03 PM

Flat_802.11n(5GHz) CH48_6.5M_HT20_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; Serial: N/A

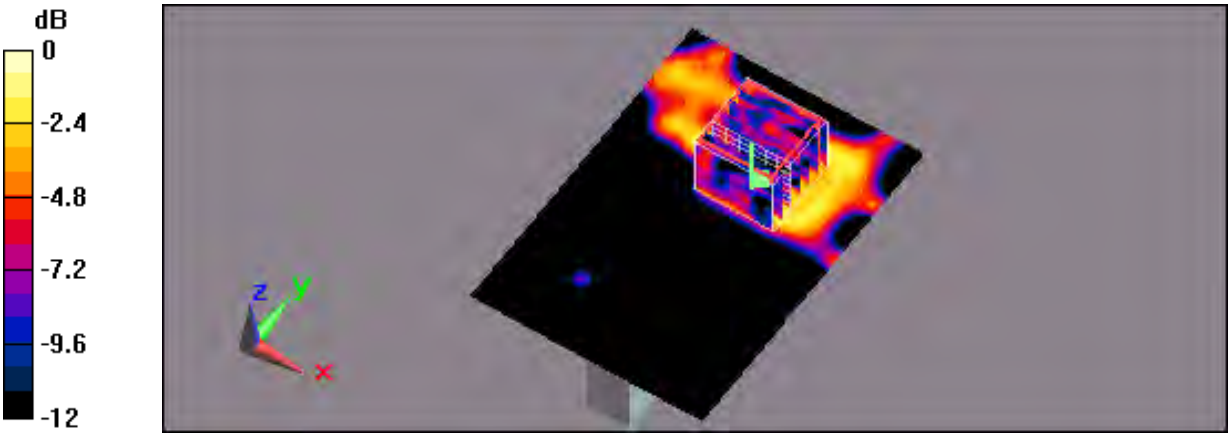
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5240 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5240 MHz; σ = 5.41 mho/m; ε_r = 50; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.53, 4.53, 4.53); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.041 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.48 V/m; Power Drift = 0.117 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.045 mW/g



0 dB = 0.045mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 1:26:12 AM

Flat_802.11n(5GHz) CH48_6.5M_HT20_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

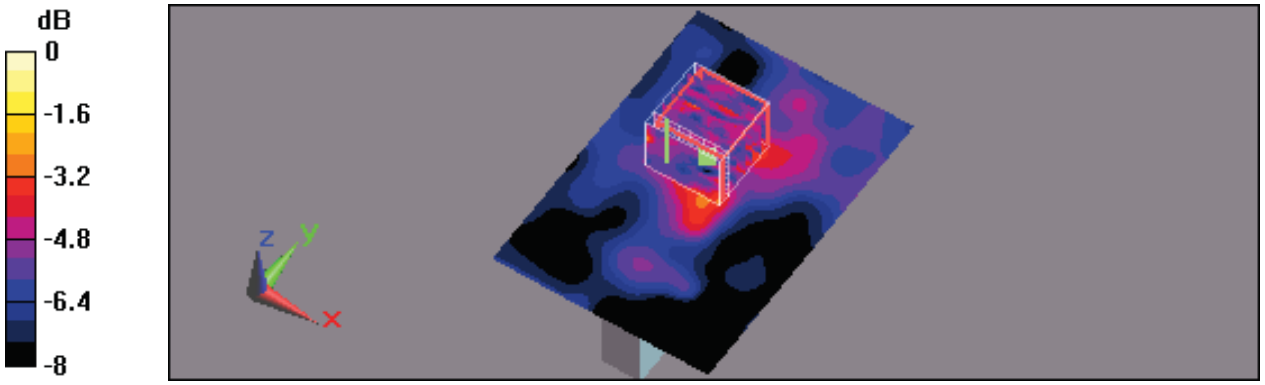
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5240 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5240 MHz; σ = 5.41 mho/m; ε_r = 50; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(4.25, 4.25, 4.25); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.046 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.24 V/m; Power Drift = 0.104 dB
Peak SAR (extrapolated) = 0.191 W/kg
SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.026 mW/g
Maximum value of SAR (measured) = 0.076 mW/g



0 dB = 0.076mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 7:17:46 AM

Flat_802.11n(5GHz) CH60_6.5M_HT20_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

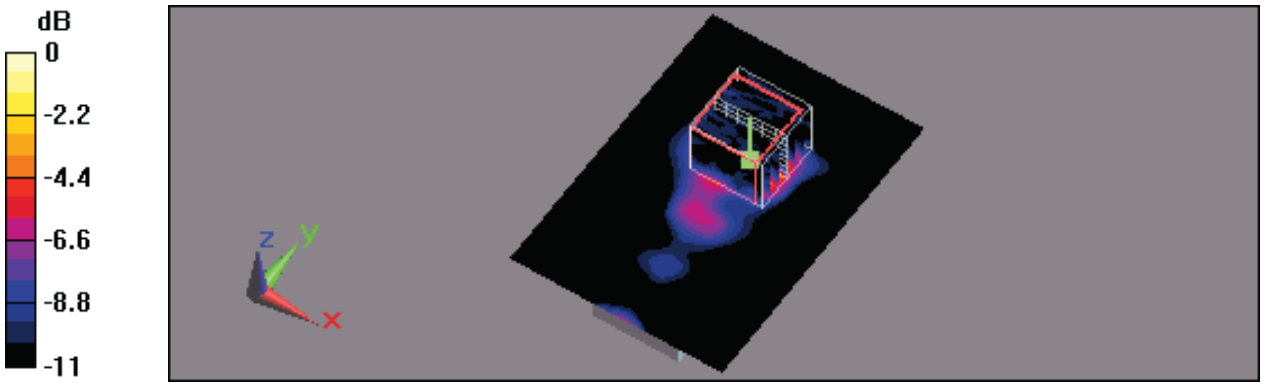
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.223 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.96 V/m; Power Drift = 0.099 dB
Peak SAR (extrapolated) = 0.530 W/kg
SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.050 mW/g
Maximum value of SAR (measured) = 0.221 mW/g



0 dB = 0.221mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 9:01:39 PM

Flat_802.11n(5GHz) CH60_6.5M_HT20_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

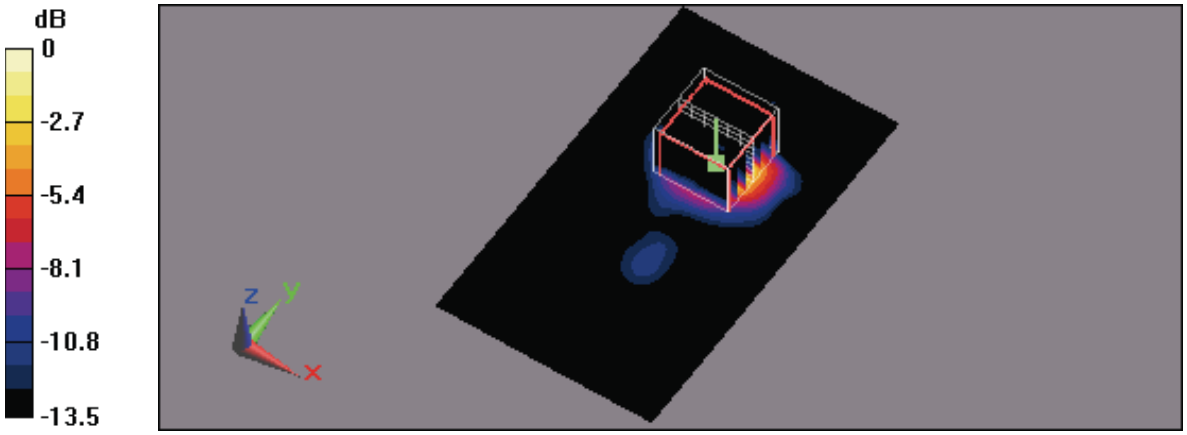
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.492 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10 V/m; Power Drift = 0.142 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.29 mW/g; SAR(10 g) = 0.091 mW/g
Maximum value of SAR (measured) = 0.487 mW/g



0 dB = 0.487mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 1:47:15 AM

Flat_802.11n(5GHz) CH60_6.5M_HT20_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

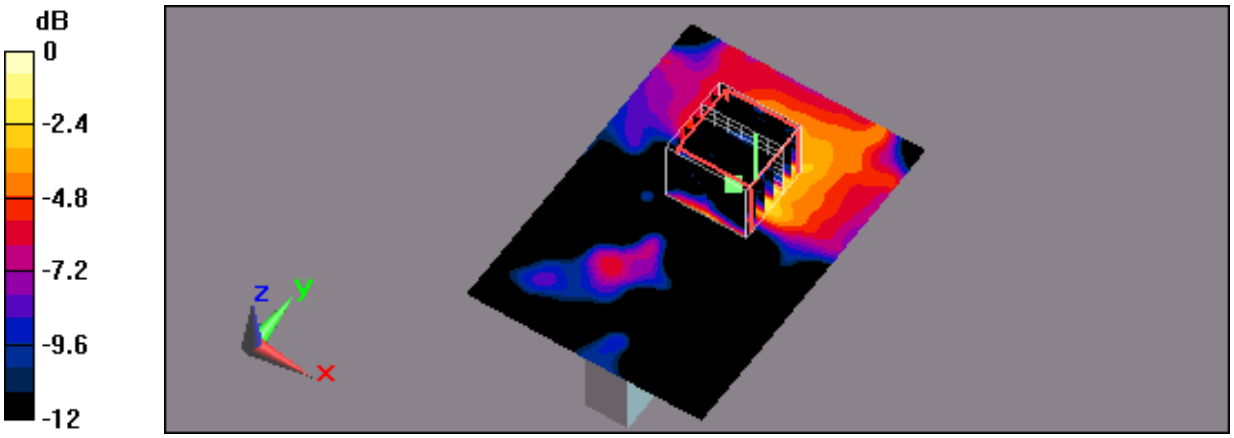
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.156 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.51 V/m; Power Drift = 0.131 dB
Peak SAR (extrapolated) = 0.254 W/kg
SAR(1 g) = 0.076 mW/g; SAR(10 g) = 0.031 mW/g
Maximum value of SAR (measured) = 0.138 mW/g



0 dB = 0.138mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 8:28:09 AM

Flat_802.11n(5GHz) CH60_6.5M_HT20_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

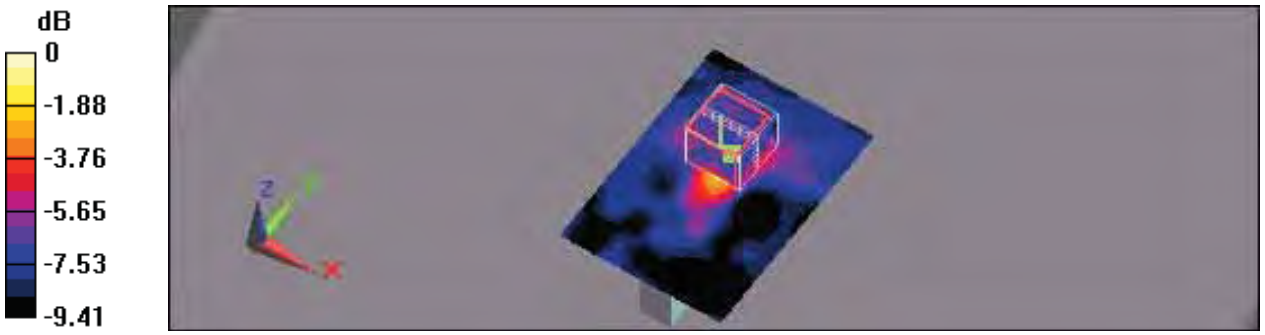
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5300 MHz; σ = 5.54 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.147 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.63 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.850 W/kg
SAR(1 g) = 0.105 mW/g; SAR(10 g) = 0.055 mW/g
Maximum value of SAR (measured) = 0.169 mW/g



0 dB = 0.169mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 11:09:09 AM

Flat_802.11n(5GHz) CH140_6.5M_HT20_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

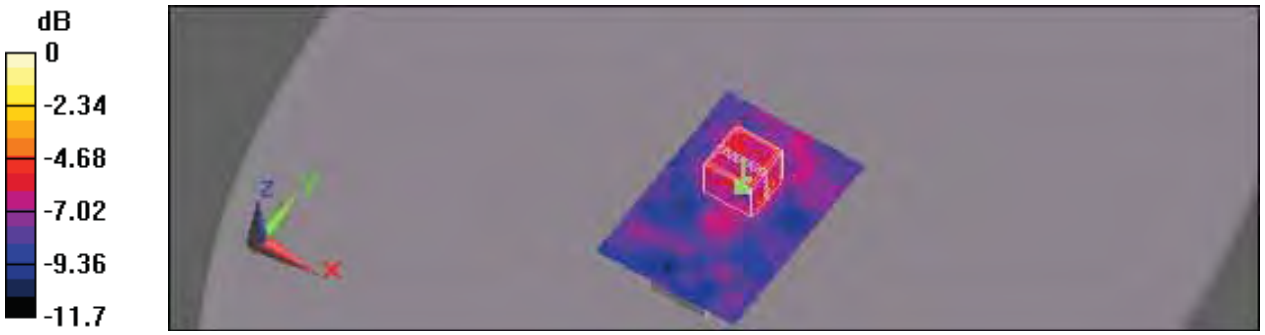
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.77 mho/m; ε_r = 47; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.92, 3.92, 3.92); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.138 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.65 V/m; Power Drift = -0.139 dB
Peak SAR (extrapolated) = 0.434 W/kg
SAR(1 g) = 0.077 mW/g; SAR(10 g) = 0.039 mW/g
Maximum value of SAR (measured) = 0.120 mW/g



0 dB = 0.120mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 8:41:26 PM

Flat_802.11n(5GHz) CH140_6.5M_HT20_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

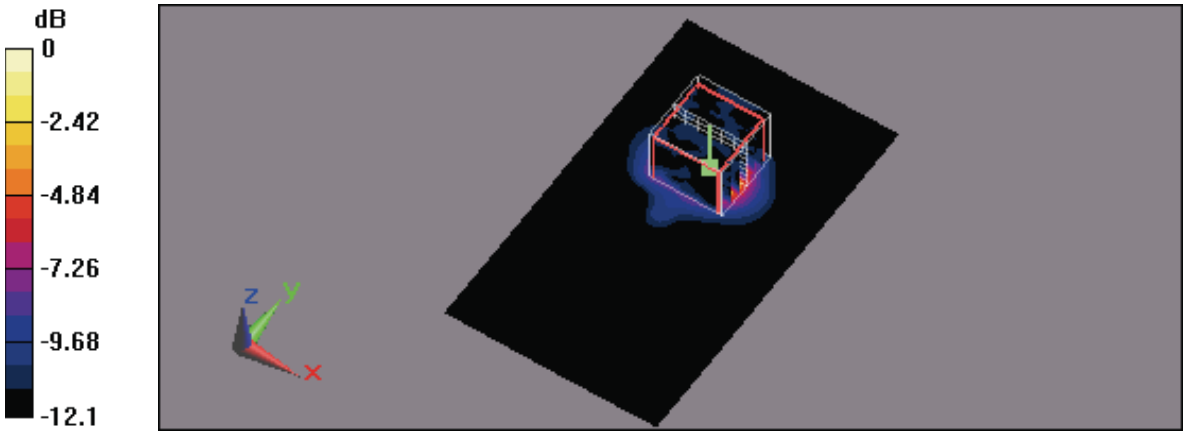
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.77 mho/m; ε_r = 47; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.421 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 8.08 V/m; Power Drift = 0.062 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.394 mW/g



0 dB = 0.394mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 10:14:10 AM

Flat_802.11n(5GHz) CH140_6.5M_HT20_Dual Tx_ EUT with NB Right Side 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

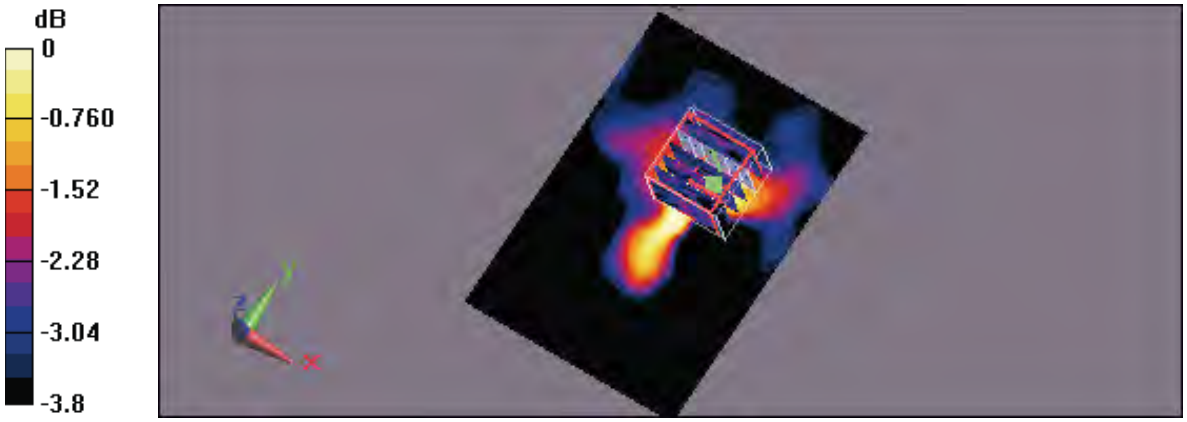
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.77 mho/m; ε_r = 47; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.92, 3.92, 3.92); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.073 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.74 V/m; Power Drift = 0.175 dB
Peak SAR (extrapolated) = 0.136 W/kg
SAR(1 g) = 0.042 mW/g; SAR(10 g) = 0.031 mW/g
Maximum value of SAR (measured) = 0.055 mW/g



0 dB = 0.055mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 12:08:25 PM

Flat_802.11n(5GHz) CH140_6.5M_HT20_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

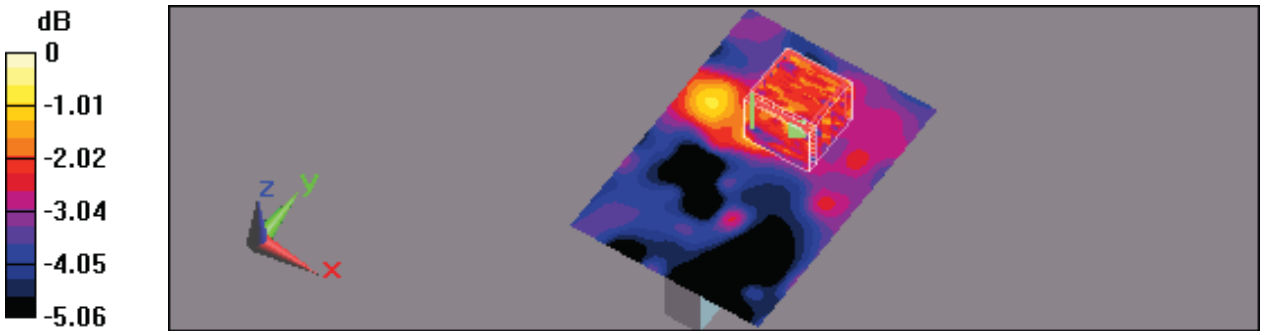
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.77 mho/m; ε_r = 47; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.92, 3.92, 3.92); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.043 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.76 V/m; Power Drift = -0.128 dB
Peak SAR (extrapolated) = 0.066 W/kg
SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.029 mW/g
Maximum value of SAR (measured) = 0.048 mW/g



0 dB = 0.048mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 12:38:25 PM

Flat_802.11n(5GHz) CH157_6.5M_HT20_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; Serial: FCC ID: I88NWD211AN

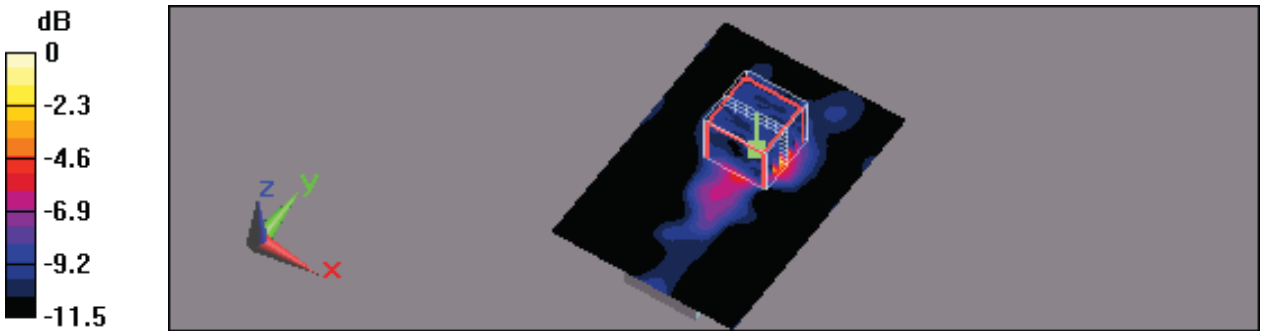
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.389 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 7.88 V/m; Power Drift = 0.144 dB
Peak SAR (extrapolated) = 0.764 W/kg
SAR(1 g) = 0.185 mW/g; SAR(10 g) = 0.073 mW/g
Maximum value of SAR (measured) = 0.293 mW/g



0 dB = 0.293mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 7:41:36 PM

Flat_802.11n(5GHz) CH157_6.5M_HT20_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

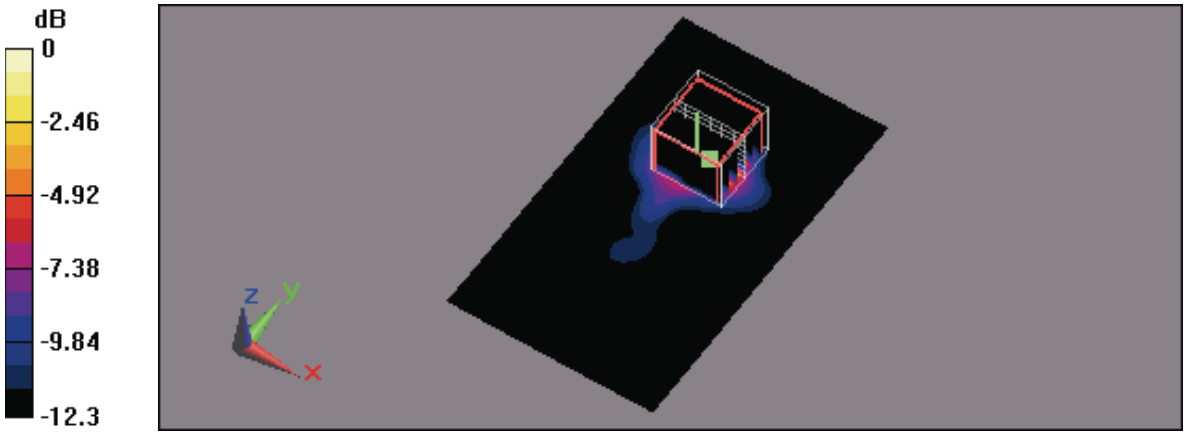
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.632 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10.9 V/m; Power Drift = -0.162 dB
Peak SAR (extrapolated) = 2.37 W/kg
SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.106 mW/g
Maximum value of SAR (measured) = 0.579 mW/g



0 dB = 0.579mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 2:33:03 AM

Flat_802.11n(5GHz) CH157_6.5M_HT20_Dual Tx_ EUT with Notebook Right Side 5m

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

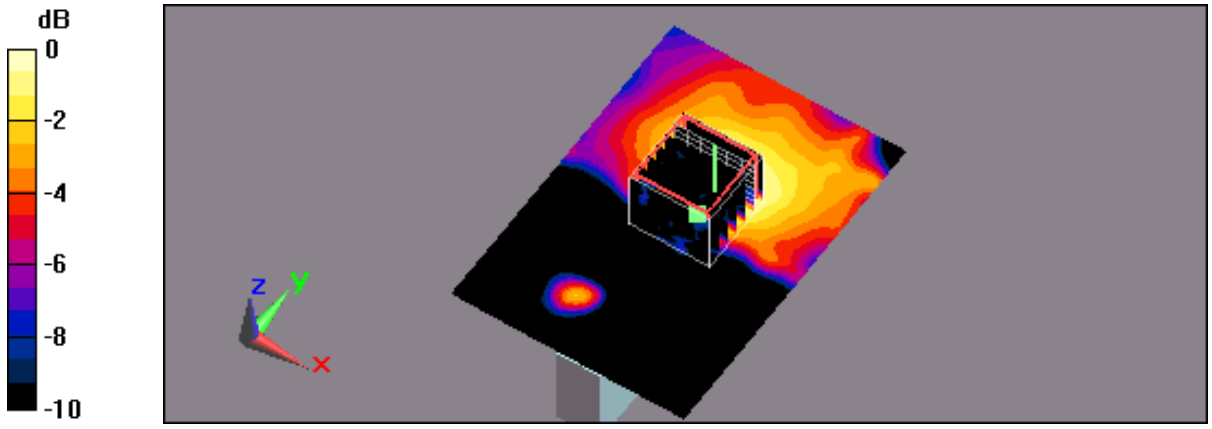
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.128 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.71 V/m; Power Drift = -0.078 dB
Peak SAR (extrapolated) = 0.387 W/kg
SAR(1 g) = 0.053 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.106 mW/g



0 dB = 0.106mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 2:15:37 PM

Flat_802.11n(5GHz) CH157_6.5M_HT20_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

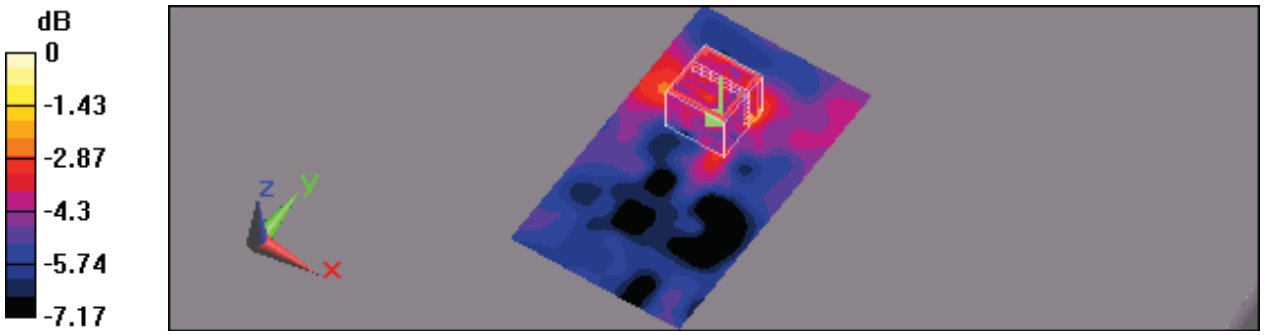
Communication System: IEEE 802.11n(5GHz)HT20; Frequency: 5785 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5785 MHz; σ = 5.8 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.082 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.33 V/m; Power Drift = -0.035 dB
Peak SAR (extrapolated) = 0.147 W/kg
SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.035 mW/g
Maximum value of SAR (measured) = 0.080 mW/g



0 dB = 0.080mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 2:48:14 PM

Flat_802.11n(5GHz) CH54_13M_HT40_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; Serial: FCC ID: I88NWD211AN

Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5270 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5270 MHz; σ = 5.48 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

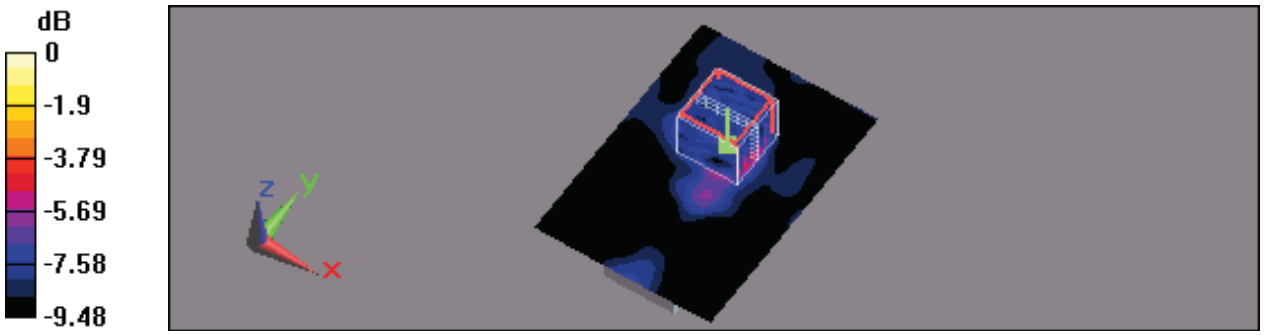
- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):

Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.195 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:

Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.62 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 0.421 W/kg
SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.050 mW/g
Maximum value of SAR (measured) = 0.170 mW/g



0 dB = 0.170mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 8:01:56 PM

Flat_802.11n(5GHz) CH54_13M_HT40_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

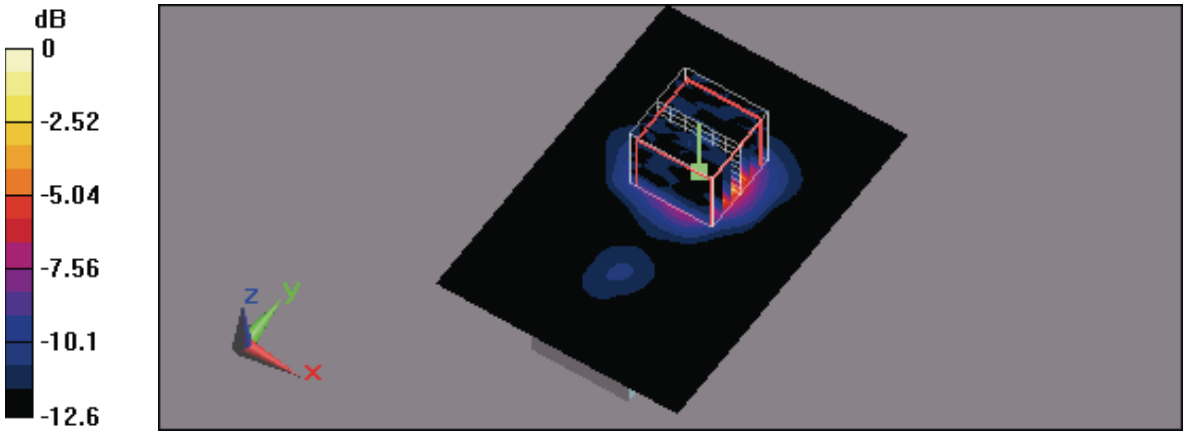
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5270 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5270 MHz; σ = 5.48 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.523 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.68 V/m; Power Drift = 0.077 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.27 mW/g; SAR(10 g) = 0.086 mW/g
Maximum value of SAR (measured) = 0.443 mW/g



0 dB = 0.443mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 12:03:25 AM

Flat_802.11n(5GHz) CH54_13M_HT40_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

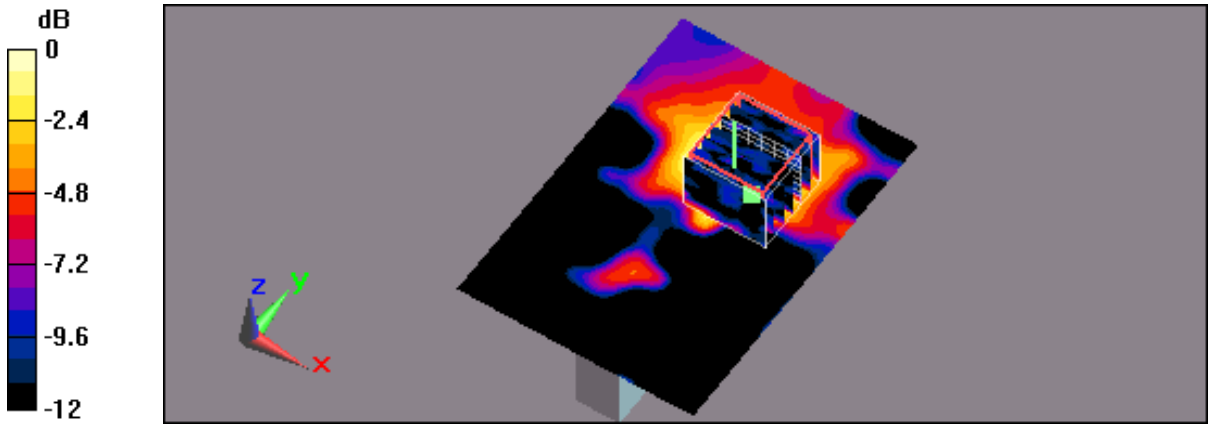
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5270 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5270 MHz; σ = 5.48 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.087 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.27 V/m; Power Drift = 0.058 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.018 mW/g
Maximum value of SAR (measured) = 0.091 mW/g



0 dB = 0.091mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 4:51:30 PM

Flat_802.11n(5GHz) CH54_13M_HT40_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

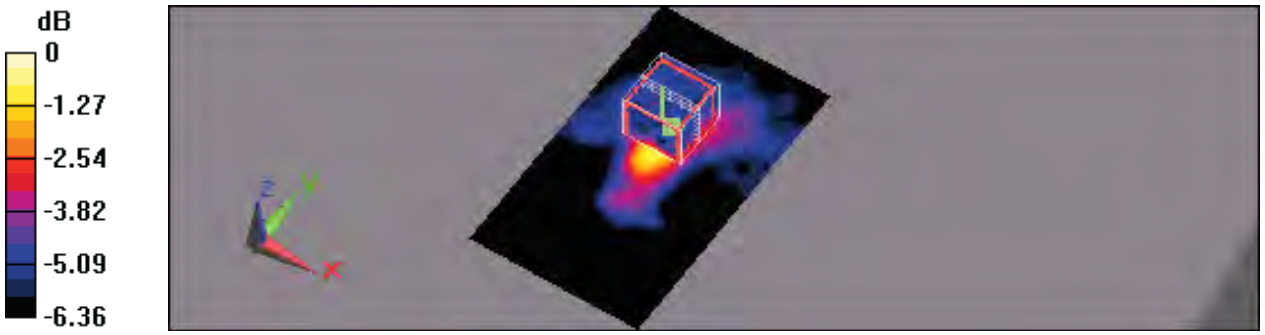
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5270 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5270 MHz; σ = 5.48 mho/m; ε_r = 50.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.117 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.23 V/m; Power Drift = 0.015 dB
Peak SAR (extrapolated) = 0.362 W/kg
SAR(1 g) = 0.071 mW/g; SAR(10 g) = 0.044 mW/g
Maximum value of SAR (measured) = 0.099 mW/g



0 dB = 0.099mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 8:13:36 PM

Flat_802.11n(5GHz) CH62_13M_HT40_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

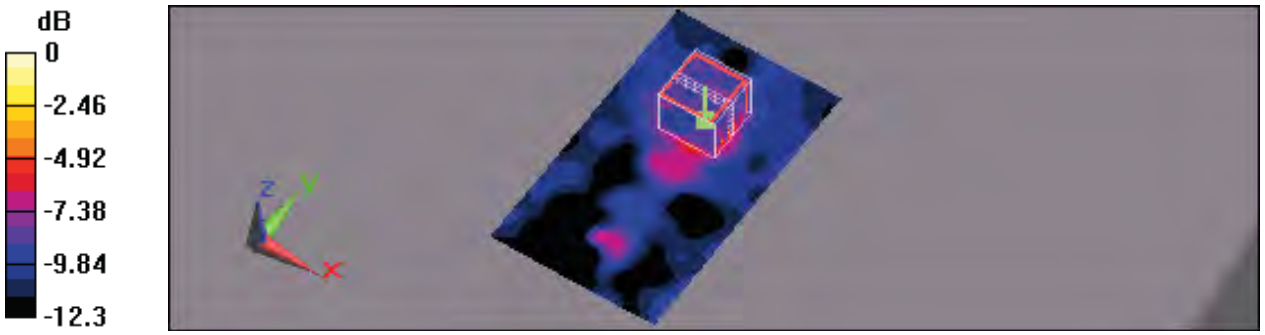
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5310 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5310 MHz; σ = 5.53 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.171 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 6.79 V/m; Power Drift = 0.00474 dB
Peak SAR (extrapolated) = 0.431 W/kg
SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.044 mW/g
Maximum value of SAR (measured) = 0.172 mW/g



0 dB = 0.172mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 8:20:34 PM

Flat_802.11n(5GHz) CH62_13M_HT40_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

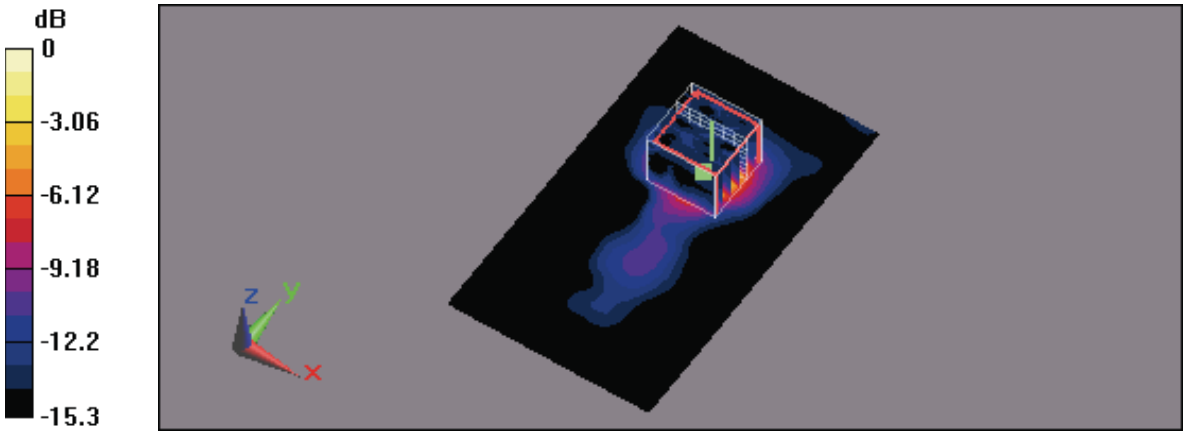
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5310 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5310 MHz; σ = 5.53 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.504 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 10.1 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 1.21 W/kg
SAR(1 g) = 0.301 mW/g; SAR(10 g) = 0.090 mW/g
Maximum value of SAR (measured) = 0.512 mW/g



0 dB = 0.512mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 12:30:17 AM

Flat_802.11n(5GHz) CH62_13M_HT40_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

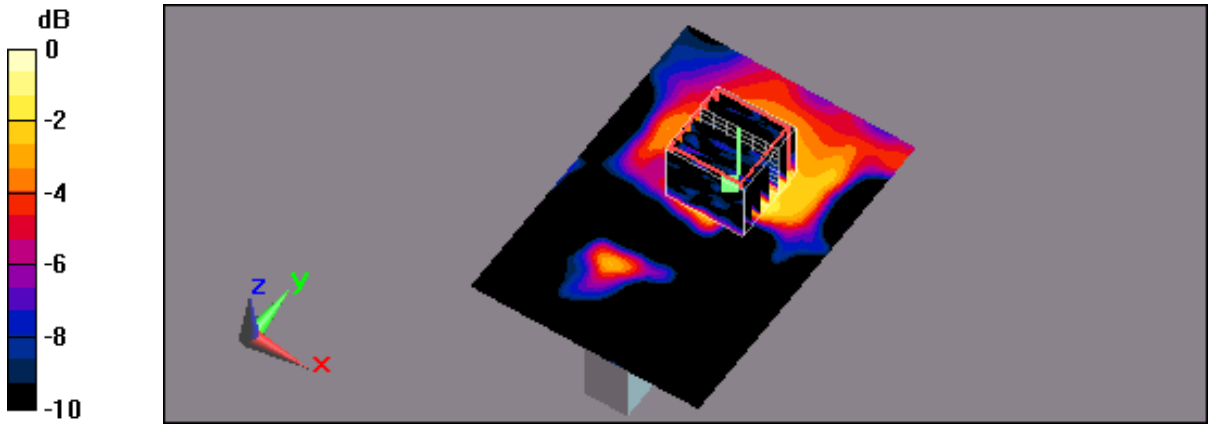
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5310 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5310 MHz; σ = 5.53 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(4.17, 4.17, 4.17); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.095 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.2 V/m; Power Drift = 0.154 dB
Peak SAR (extrapolated) = 0.297 W/kg
SAR(1 g) = 0.046 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.087 mW/g



0 dB = 0.087mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/10/2008 11:03:49 PM

Flat_802.11n(5GHz) CH62_13M_HT40_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

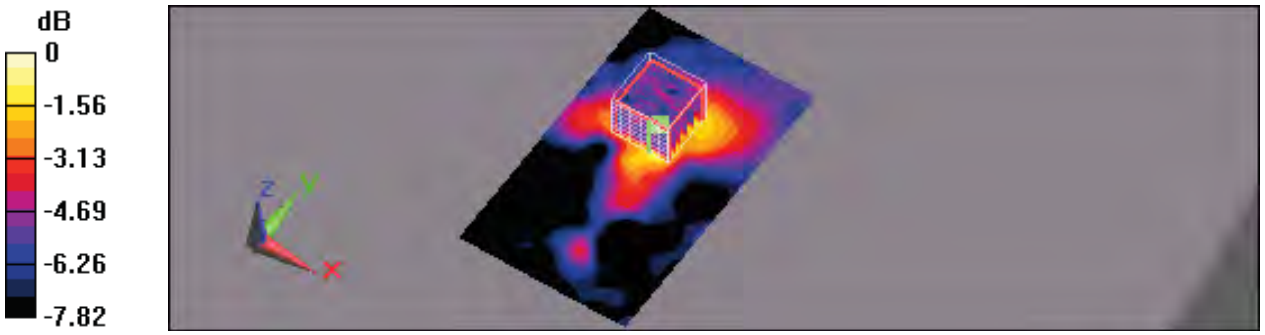
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5310 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5310 MHz; σ = 5.53 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.95, 3.95, 3.95); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.071 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 3.59 V/m; Power Drift = -0.089 dB
Peak SAR (extrapolated) = 0.144 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.031 mW/g
Maximum value of SAR (measured) = 0.074 mW/g



0 dB = 0.074mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/11/2008 12:18:13 AM

Flat_802.11n(5GHz) CH151_13M_HT40_Dual Tx_ EUT with USB Cable Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; FCC ID: I88NWD211AN

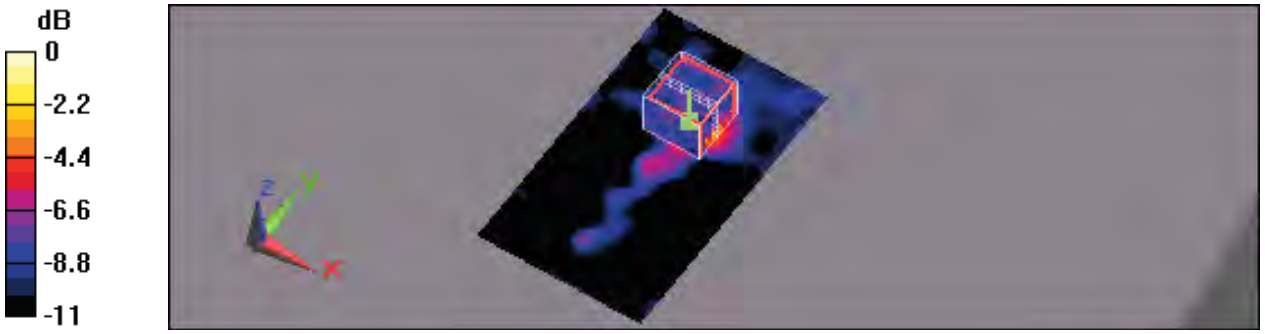
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5755 MHz; σ = 5.81 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.142 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 5.51 V/m; Power Drift = 0.117 dB
Peak SAR (extrapolated) = 0.707 W/kg
SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.040 mW/g
Maximum value of SAR (measured) = 0.138 mW/g



0 dB = 0.138mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/18/2009 9:23:13 PM

Flat_802.11n(5GHz) CH151_13M_HT40_Dual Tx_ EUT with NB Bottom 5mm

DUT: NWD-211AN; Type: USB dongle; FCC ID: I88NWD211AN

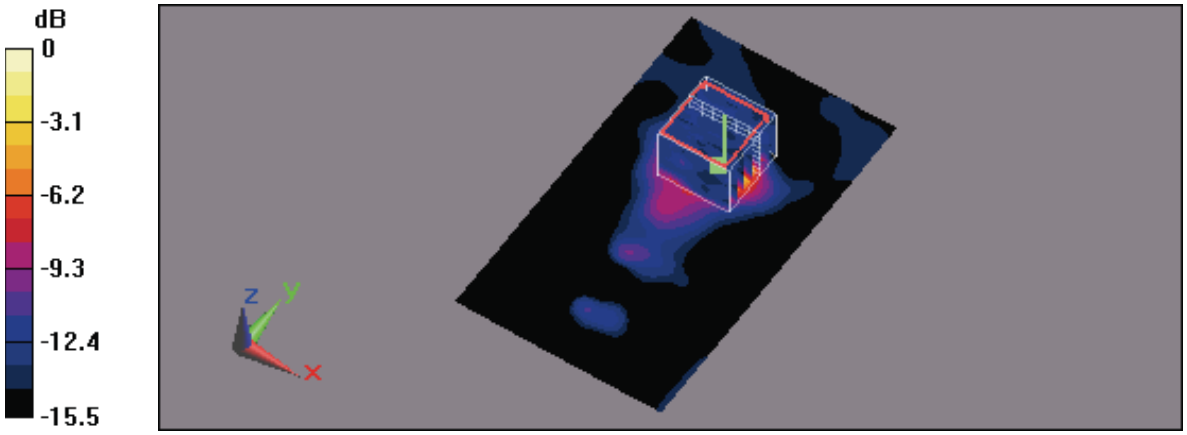
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5755 MHz; σ = 5.81 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.438 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 9.16 V/m; Power Drift = -0.131 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.261 mW/g; SAR(10 g) = 0.080 mW/g
Maximum value of SAR (measured) = 0.409 mW/g



0 dB = 0.409mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 1/13/2009 12:58:47 AM

Flat_802.11n(5GHz) CH151_13M_HT40_Dual Tx_ EUT with Notebook Right Side 5mm

DUT: NWD-211AN_Right side; Type: USB dongle; FCC ID: I88NWD211AN

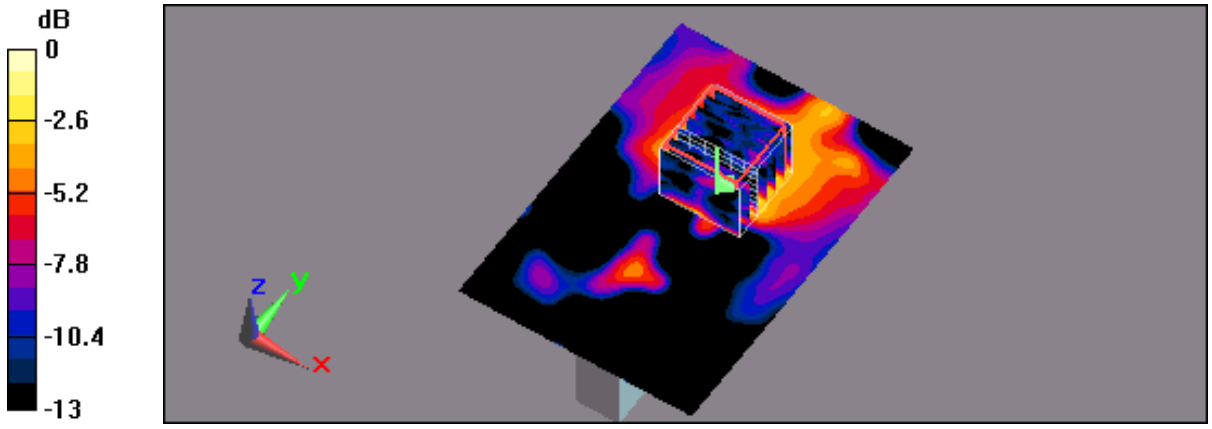
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5755 MHz; σ = 5.81 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3552 add; ConvF(3.96, 3.96, 3.96); Calibrated: 3/21/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.106 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 4.29 V/m; Power Drift = 0.196 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.058 mW/g; SAR(10 g) = 0.025 mW/g
Maximum value of SAR (measured) = 0.111 mW/g



0 dB = 0.111mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 10/11/2008 3:53:41 AM

Flat_802.11n(5GHz) CH151_13M_HT40_Dual Tx_ EUT with USB Cable Left Side 5mm

DUT: NWD-211AN_Left side; Type: USB dongle; FCC ID: I88NWD211AN

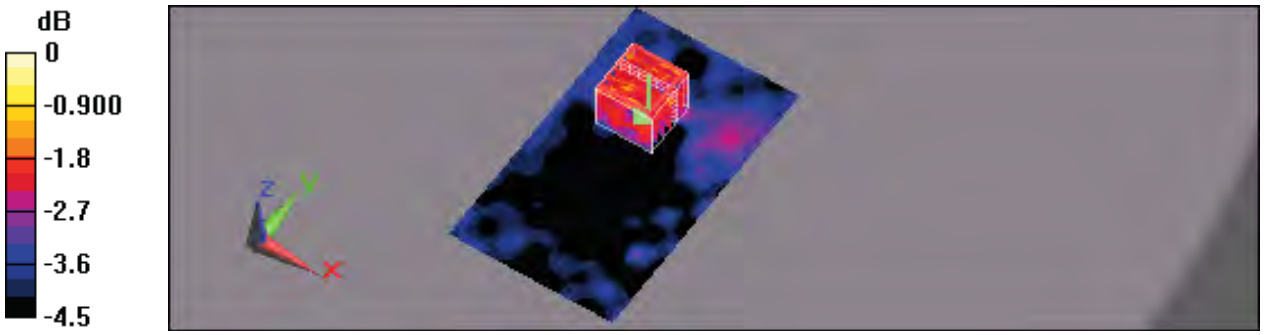
Communication System: IEEE 802.11n(5GHz)HT40; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5755 MHz; σ = 5.81 mho/m; ε_r = 47.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV3 - SN3506; ConvF(3.87, 3.87, 3.87); Calibrated: 9/30/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/30/2007
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x121x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.057 mW/g

Flat/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 2.74 V/m; Power Drift = 0.131 dB
Peak SAR (extrapolated) = 0.104 W/kg
SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.043 mW/g
Maximum value of SAR (measured) = 0.071 mW/g



0 dB = 0.071mW/g

Appendix C - Zoom Scan 2.5 Step Test

See following attached pages for SAR Measurement Data.

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/8/2009 12:29:18 PM

Flat_802.11g CH11_6M_Top 5mm

DUT: NWD-211AN_Top; Type: USB dongle; Serial: N/A

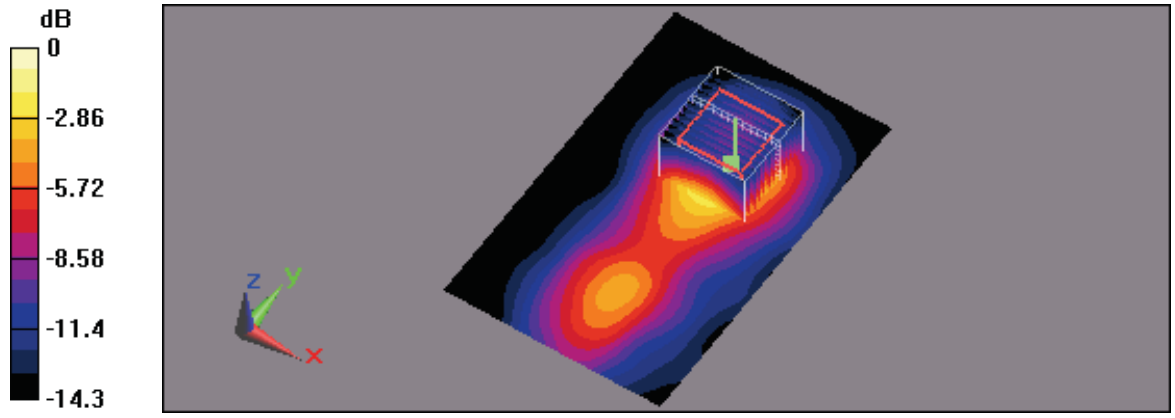
Communication System: IEEE 802.11g; Frequency: 2462 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2462 MHz; σ = 1.96 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(6.55, 6.55, 6.55); Calibrated: 5/20/2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (51x81x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.380 mW/g

Flat/Zoom Scan (13x13x9)/Cube 0:
Measurement grid: dx=2.5mm, dy=2.5mm, dz=2.5mm
Reference Value = 13.1 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.481 W/kg
SAR(1 g) = 0.242 mW/g; SAR(10 g) = 0.118 mW/g
Maximum value of SAR (measured) = 0.338 mW/g



0 dB = 0.338mW/g

Test Laboratory: A Test Lab Techno Corp.

Date/Time: 2/8/2009 5:20:34 PM

Flat_802.11a CH149_6M_Bottom 5mm

DUT: NWD-211AN_Bottom; Type: USB dongle; Serial: N/A

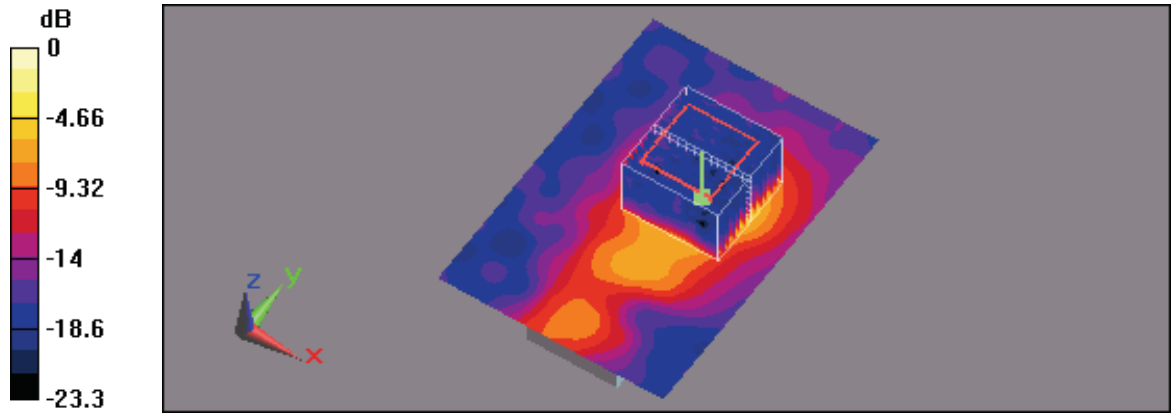
Communication System: IEEE 802.11a; Frequency: 5745 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 5745 MHz; σ = 5.81 mho/m; ε_r = 47.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: EX3DV4 - SN3578; ConvF(3.92, 3.92, 3.92); Calibrated: 5/20/2008
- Sensor-Surface: 2.5mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 11/11/2008
- Phantom: ELI 4.0; Type: QDOVA001BB; Serial: 1036
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.2 Build 87

Flat/Area Scan (71x101x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 1.86 mW/g

Flat/Zoom Scan (13x13x9)/Cube 0:
Measurement grid: dx=2.5mm, dy=2.5mm, dz=2.5mm
Reference Value = 13.3 V/m; Power Drift = -0.065 dB
Peak SAR (extrapolated) = 4.47 W/kg
SAR(1 g) = 0.925 mW/g; SAR(10 g) = 0.300 mW/g
Maximum value of SAR (measured) = 1.57 mW/g



0 dB = 1.57mW/g

Appendix D - Calibration

All of the instruments Calibration information are listed below.

- Dipole _ D2450V2 SN:712 Calibration No.D2450V2-712_Jan08
- Dipole _ D2450V2 SN:735 Calibration No.D2450V2-735_May08
- Dipole _ D5GHzV2 SN:1021 Calibration No.D5GHzV2-1021_ Mar08
- Probe _ EX3DV3 SN:3506 Calibration No.EX3-3506_Sep08
- Probe _ ES3DV3 SN:3150 Calibration No.ES3-3150_Jan08
- Probe _ EX3DV4 SN:3578 Calibration No.EX3-3578_May08
- Probe _ EX3DV4 SN:3552 Calibration No.EX3-3552_Mar08
- DAE _ DAE4 SN:779 Calibration No.DAE4-779_Nov07