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Regulatory Compliance Group
IT R&D Center

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Yeongtong-gu, Suwon-si,
Gyeonggi-do, Korea 443-742

TEST REPORT ON SAR

Model Tested: **GT-N7105**

FCC ID (Requested): **A3LGTN7105**

Job No: **FJ-216**

Report No: **FJ-216-S1**

- Abstract –

This document reports on SAR Tests carried out in accordance with FCC/OET Bulletin 65, Supplement C(July 2001).

Prepared By

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1. GENERAL INFORMATION

Test Dates :	Aug.22, 2012 ~ Aug.27, 2012
Manufacturer :	SAMSUNG ELECTRONICS Co., Ltd.
Address :	416 Maetan3-Dong, Suwon City, Korea
Test Standard :	§2.1093; FCC/OET Bulletin 65, Supplement C(July 2001)
	Licensed Portable Transmitter Held to Ear (PCE)
FCC Classification :	Digital Transmitter System (DTS)
	Unlicensed National Information Infrastructure Tx (UNII)
Tested for :	FCC/TCB Certification

2. DESCRIPTION OF DEVICE

Test Sample :	850/1900 GSM/GPRS/EDGE and 850 WCDMA/HSPA Mobile Phone with WLAN, Bluetooth and NFC
Model Number :	GT-N7105
Serial Number :	Identical prototype (S/N : # FJ-216-B)
Tx Freq.Range :	824.2 ~ 848.8 MHz (GSM850)
	1850.20 ~ 1909.80 MHz (GSM1900)
	826.4 ~ 846.6 MHz (WCDMA850)
	2412 ~ 2462 MHz (2.4 GHz WLAN)
	5180 ~5240 MHz (5.2 GHz WLAN)
	5260 ~ 5320 MHz (5.3 GHz WLAN)
	5500 ~5700 MHz (5.5 GHz WLAN)
	5745 ~5825 MHz (5.8 GHz WLAN)
	2402 ~ 2480 MHz (Bluetooth)
	13.56 MHz (NFC)
Antenna Manufacturer :	TYCO
	Model No.: GT-N7105
Antenna Dimensions :	60.57 X 19.61 X 4.9 (mm)
Separation distance between Main and Bluetooth antenna :	87mm

3. DESCRIPTION OF TEST EQUIPMENT

3.1 SAR Measurement Setup

Robotic System

Measurements are performed using the DASY4 (or DASY5) automated dosimetric assessment system. Which is made by Schmid & Partner Engineering AG (SPEAG) in Zurich, Switzerland and consists of high precision robotics system (Stäubli), robot controller, measurement server, Samsung computer, near-field probe, probe alignment sensor, and the SAM twin phantom containing the brain equivalent material. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF) (see Fig. 3.1).

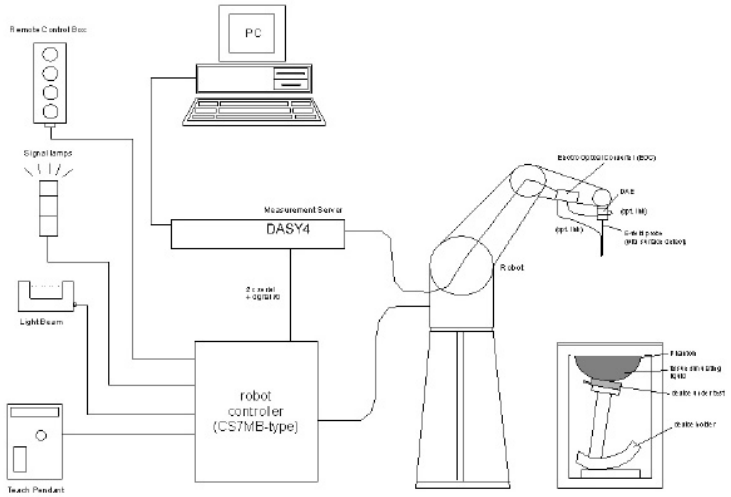

Figure 3.1 SAR Measurement System Setup

System Hardware

A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and a remote control is used to drive the robot motors. The PC consists of the Samsung computer with Windows XP system and SAR Measurement Software DASY4 (or DASY5), LCD monitor, mouse and keyboard. The Stäubli Robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit that performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the measurement server.

System Electronics

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 measurement server 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.

3.2 E-field Probe

The SAR measurement were conducted with the dosimetric probe ES3DV2, ES3DV3, EX3DV4 and ET3DV6, designed in the classical triangular configuration (see Fig.3.3) and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. 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 DASY4 software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting (see Fig.3.2). The approach is stopped at reaching the maximum.

Figure 3.2 DAE System

Probe Specifications

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Basic Broad Band Calibration in air: 10-3000 MHz Conversion Factors (CF) for HSL 900 and HSL 1800 Additional CF for other liquids and frequencies upon request

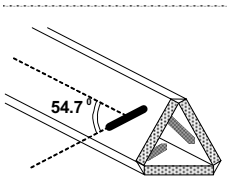

Figure 3.3 Triangular Probe Configuration

Frequency 10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)

Directivity **[ES3DV3], [ET3DV6]**

± 0.2 dB in HSL (rotation around probe axis)

± 0.3 dB in tissue material (rotation normal to probe axis)

[EX3DV4]

± 0.3 dB in HSL (rotation around probe axis)

± 0.5 dB in tissue material (rotation normal to probe axis)

Dynamic Range **[ES3DV3], [ET3DV6]**

5μW/g to > 100mW/g; Linearity: ± 0.2dB

[EX3DV4]

10 μW/g to > 100 mW/g; Linearity: ± 0.2 dB

Dimensions **[ES3DV3], [ES3DV2]**

Overall length: 330 mm (Tip: 20 mm)

Tip diameter: 3.9 mm (Body: 12 mm)

Distance from probe tip to dipole centers: 2.1 mm

[ES3DV3] ,[ES3DV2]

[EX3DV4]

Overall length: 330 mm (Tip: 20 mm)

Tip diameter: 2.5 mm (Body: 12 mm)

Typical distance from probe tip to dipole centers: 1 mm

[EX3DV4]

[ET3DV6]

Overall length: 330mm

Tip length: 16mm

Body diameter: 12mm

Tip diameter: 6.8mm

Distance from probe tip to dipole centers: 2.7mm

Application	**[ES3DV3], [ES3DV2]** General dosimetry up to 5 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones	 [ET3DV6]
	[EX3DV4] High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields).Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30 %.	
	[ET3DV6] General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms	
Optical Surface Detection	**[ET3DV6]** ± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces	

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3.3 Phantom

SAM Twin Phantom

The SAM Twin Phantom V4.0 is constructed of a fiberglass shell integrated in a wooden table. The shape of the shell is based on data from an anatomical study designed to determine the maximum exposure in at least 90% of all users. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents the 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 in the robot. (See Figure 3.5)

Figure3.5 SAM Twin Phantom

SAM Twin Phantom Specification

Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, EN 50361:2001 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid.
Shell Thickness	2 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Height: 810 mm; Length: 1000 mm; Width: 500 mm

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Modular Flat Phantom

The Modular Flat Phantom V5.1 is constructed of a fiberglass shell integrated in a wooden table. Also It consists of three identical flat phantoms (modules) which can be installed and removed separately without emptying the liquid, as well as a wooden support.. It enables the dosimetric evaluation of body mounted usage at the flat phantom region. A cover prevents the 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 in the robot. (See Figure 3.6)

Figure 3.6 Modular Flat Phantom

Modular Flat Phantom Specification

Construction	The shell corresponds to the specifications of IEEE 1528-2003. It enables the dosimetric evaluation of body mounted usage above 800 MHz at the flat phantom region. A cover prevents evaporation of the liquid
Shell Thickness	2 ± 0.2 mm
Filling Volume	Approx. 10 liters
Dimension	Wooden support - Height: 810 mm; Length: 830 mm; Width: 500 mm Each Module - Height:190 mm; Length: 200 mm; width: 300 mm

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3.4 Brain Simulating Mixture Characterization

The brain mixtures consist of a viscous gel using hydroxethylcellullose (HEC) gelling agent and saline solution (see Table 3.1). Preservation with a bactericide is added and visual inspection is made to make sure air bubbles are not trapped during the mixing process. The mixture is calibrated to obtain proper dielectric constant (permittivity) and conductivity of the desired tissue.

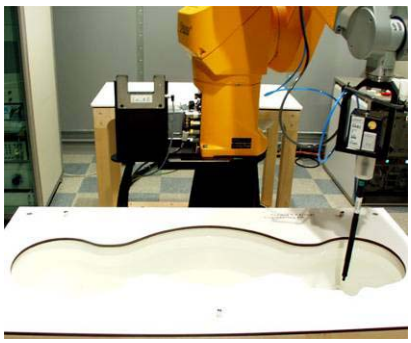

Figure 3.7 Simulated Tissue

Table 3.1 Composition of the Brain Tissue Equivalent Matter

INGREDIENTS	835MHz Brain	835MHz Muscle	1900MHz Brain	1900MHz Muscle	2450MHz Brain	2450MHz Muscle
WATER	40.29%	50.75%	55.24%	70.23%	62.7%	73.2%
SUGAR	57.90%	48.21%	-	-	-	-
SALT	1.38%	0.94%	0.24%	0.21%	-	0.04%
TWEEN20	-	-	44.52%	29.56%	37.3%	26.76%
BACTERIACIDE	0.18%	0.10%	-	-	-	-
HEC	0.25%	-	-	-	-	-
Dielectric Constant Target	41.50	55.20	40.00	53.30	39.2	52.7
Conductivity Target (S/m)	0.900	0.970	1.400	1.520	1.80	1.95

Table 3.2 Simulating Liquids for 5GHz, Manufactured by SPEAG

INGREDIENTS	Brain	Muscle
WATER	50 - 65%	60 - 80%
Mineral oil	10 - 30%	-
Emulsifiers	8 - 25%	-
Esters, Emulsfiers, Inhibitors	-	20 - 40 %
Sodium salt	0 - 1.5%	0 - 1.5%

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3.5 Device Holder for Transmitters

In combination with the Twin SAM Phantom V4.0, the Mounting Device (see Fig. 3.7) 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 repeatedly be positioned according to the EN 50360:2001 and FCC specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).

Figure 3.8 Device Holder

*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 configuration. To produce worst-case condition (the hand absorbs antenna output power), the hand is omitted during the tests.

3.6 Validation Dipole

The reference dipole should have a return loss better than –20 dB (measured in the setup) at the resonant frequency to reduce the uncertainty in the power measurement.

Frequency	835, 1900, 2450, 5000 MHz
Return Loss	< -20 dB at specified validation position
Dimensions	D835V2: dipole length: 161 mm; overall height: 330 mm D1900V2: dipole length: 68 mm; overall height: 300 mm D2450V2: dipole length: 51.8 mm; overall height: 300 mm D5000V2: dipole length: 20.6mm; overall height: 300 mm

Note:

Usage of SAR dipoles calibrated less than 2 years ago but more than 1 year ago were confirmed in maintaining return loss (< -20dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibration in KDB 450824

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3.7 Equipment Calibration

Table 3.2 Test Equipment Calibration

Type	Calibration Date	Calibration Due Date	Serial No.
SPEAG E-Field Probe ES3DV2	May.17, 2012	May.17, 2013	3017
SPEAG E-Field Probe EX3DV4	Feb.21, 2012	Feb.21, 2013	3520
SPEAG DAE4	Jan.19, 2012	Jan.19, 2013	486
SPEAG Validation Dipole D835V2	Nov.18, 2011	Nov.18, 2013	4d111
SPEAG Validation Dipole D1900V2	Jan.26, 2012	Jan.26, 2014	5d023
SPEAG Validation Dipole D2450V2	Feb.23, 2012	Feb.23, 2014	807
SPEAG Validation Dipole D5GHzV2	Jul.02, 2012	Jul.02, 2014	1132
Stäubli Robot RX90BL	Not Required	Not Required	F01/5N19A1/A/01
SPEAG SAM Twin Phantom V4.0	Not Required	Not Required	TP-1141
SPEAG SAM Twin Phantom V4.0	Not Required	Not Required	TP-1143
Modular Phantom	Not Required	Not Required	MP-1001
E4421B Signal Generator	Oct.12, 2011	Oct.12, 2012	MY41000654
BBS3Q7ELU Power Amp	Oct.12, 2011	Oct.12, 2012	1007D/C0035
E4419B Power meter	Oct.12, 2011	Oct.12, 2012	GB41293847
E9300B Power sensor	Feb.13, 2012	Feb.13, 2013	MY41495533
HP-8753ES Network Analyzer	Apr.16, 2012	Apr.16, 2013	US39173712
HP85070C Dielectric Probe Kit	Not Required	Not Required	US99360087
Digital thermo-hygrometer	Feb.10, 2012	Feb.10, 2013	1374
Digital thermo-hygrometer	Feb.10, 2012	Feb.10, 2013	1375
E4419B Power meter	Feb.20, 2012	Feb.20, 2013	MY45103291
E9300B Power sensor	Feb.20, 2012	Feb.20, 2013	MY41496209
E9300B Power sensor	Feb.20, 2012	Feb.20, 2013	MY41496085
DASY4 S/W (ver 4.7)	Not Required	Not Required	-
8560E Spectrum Analyzer	Sep.16, 2011	Sep.16, 2012	3635A02452
778D Dual Directional Coupler	Dec.02, 2011	Dec.02, 2012	50189
777D Dual Directional Coupler	Feb.20, 2012	Feb.20, 2013	07523
772D Dual Directional Coupler	Mar.04, 2012	Mar.04, 2013	ZA200100954
Base Station Simulator	Dec.19, 2011	Dec.19, 2012	GB46490112
Pre-Amplifier 84498B	Dec.09, 2011	Dec.09, 2012	3008A00691
Spectrum Analyzer	Mar.08,2012	Mar.08,2013	MY46187454
Communication tester(E5515C)	Nov.27,2011	Nov.27,2012	GB42230535
11636B	Apr.03,2012	Apr.03,2013	58459

NOTE:
The E-field probe was calibrated by SPEAG, by temperature measurement procedure. Dipole Validation measurement is performed by Samsung Lab. before each test. (see § 7.2) The brain/Body simulating material is calibrated by Samsung using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain/Body-equivalent material. (see § 7.1)

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4. SAR MEASUREMENT PROCEDURE

The evaluation was performed using the following procedure.

STEP 1

The SAR measurement was taken at a selected spatial reference point to monitor power variations during testing. This fixed location point was measured and used as a reference value.

STEP 2

The SAR distribution at the exposed side of the head was measured at a distance of 3.9mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 20mm x 20mm. Based on the area scan data, the area of the maximum absorption was determined by spline interpolation.

STEP 3

Around this point, a volume of 32mm x 32mm x 30mm (fine resolution volume scan, zoom scan) was assessed by measuring 5 x 5 x 7 points. On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

The data at the surface was extrapolated, since the center of the dipoles is 2.7mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluated the points between the surface and the probe tip. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

STEP 4

The SAR value at the same location as in step 1 was again measured.

(If the value changed by more than 5%, the evaluation is repeated.)

STEP 5

For 5GHz testing finer resolution zoom scans were performed as specified by FCC SAR Measurement Requirements for 3 -6 GHz, KDB pub 865664. The 5GHz zoom scan requires a minimum volume of 24mm x 24mm x 20mm and 7 x 7 x 11 points.

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5. DESCRIPTION OF TEST POSITION

5.1 SAM Phantom Shape

Figure 5.1 shows the front, back and side views of SAM. The point “M” is the reference point for the center of mouth, “LE” is the left ear reference point (ERP), and “RE” is the right ERP. The ERPs are 15 mm posterior to the entrance to ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 5.2.

Figure 5.1 Front, back and side view of SAM

The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front) perpendicular to the reference plane and passing through the RE (or LE) is called the Reference Pivoting Line (see Figure 5.3). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines should be marked on the external phantom shell to facilitate handset positioning. Posterior to the N-F line, the thickness of the phantom shell with the shape of an ear is a flat surface 6 mm thick at the ERPs.

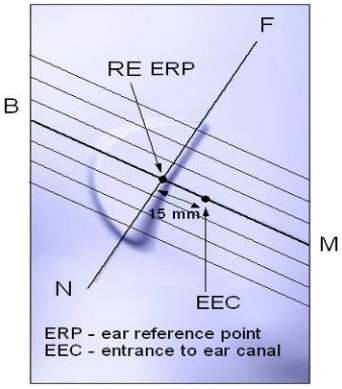
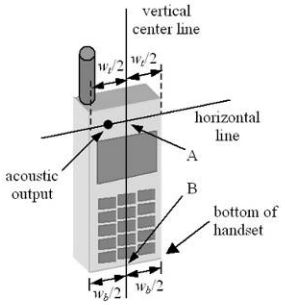


Figure 5.2 Close up side view

5.2 “cheek” Position

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the “test device reference point” located along the “vertical centerline” on the front of the device aligned to the “ear reference point” (see Fig. 5.4). The “test device reference point” was than located at the same level as the center of the eat reference point. The test device was positioned so that the “vertical centerline” was bisecting the front surface of the handset at it’s tip and bottom edges, positioning the “ear reference point” on the outer surface of the both the left and right head

phantoms on the ear reference point



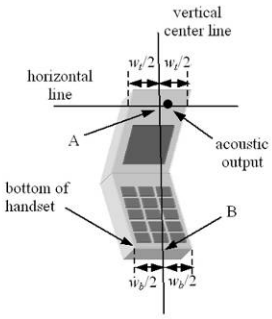


Figure 5.4 Handset vertical and horizontal reference lines

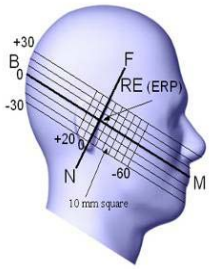


Figure 5.3 Side view of the phantom showing relevant markings

Step 1

The test device was positioned with the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 5.5), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom

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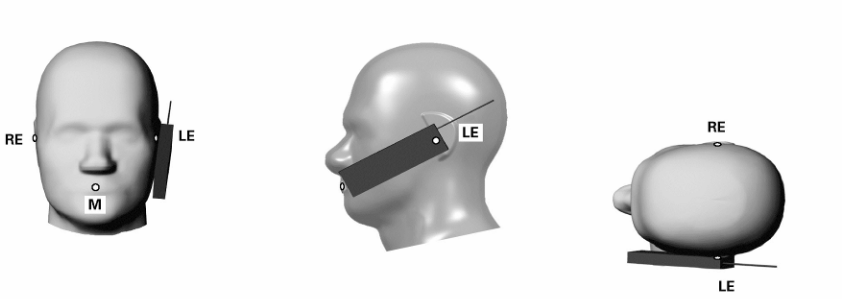

Figure 5.5 Front, Side and Top View of Cheek/Touch Position

Step 2

The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the ear.

Step 3

While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the plane normal to MB-NF including the line MB (reference plane).

Step 4

Rotate the handset around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.

Step 5

While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the phone contact with the ear, the handset was rotated about the line NF until any point on the handset made contact with a phantom point below the ear (cheek). See Figure 5.2.

5.3 “tilted” Position

With the test device aligned in the “cheek” position :

Step 1

Repeat steps 1 to 5 of 5.2 to place the device in the “Cheek/Touch Position”

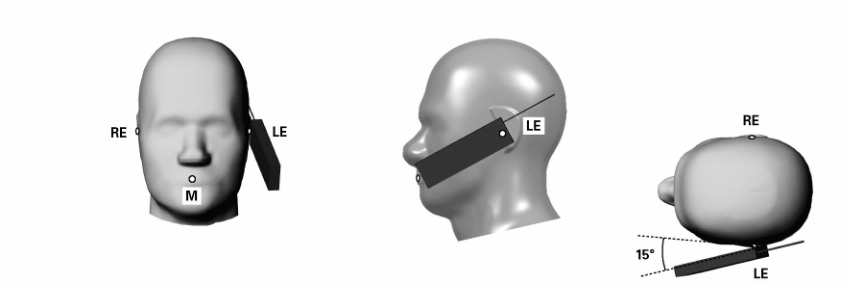

Figure 5.6 Front, side and Top View of Ear/Tilt 15° Position

Step 2

While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15 degree.

Step 3

The phone was then rotated around the horizontal line by 15 degree.

Step 4

While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the phone touches the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. The tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head.

5.4 Body Holster/Belt Clip Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 5.7). A device with a headset output is tested with a headset connected to the device. Body dielectric parameters are used.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are supplied with the device, the device is tested with each accessory that contains unique metallic component. If multiple accessory share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some Devices intended to be authorized for body-worn use. In this case, a test configuration where a separation distance between the back of the device and the flat phantom is used.

Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessory(ies), Including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

In all cases SAR measurements are performed to investigate the worst-case positioning. Worst-case positioning is then documented and used to perform Body SAR testing.

In order for users to be aware of the body-worn operating requirements for meeting RF exposure compliance, operating instructions and cautions statements must be included in the user's manual.

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5.5 FCC Personal Wireless Router Configurations

5.5.1 Personal Wireless Router

Some battery-operated handsets have the capability to transmit and receive internet connectivity through simultaneous transmission of WIFI in conjunction with a separate licensed transmitter. The FCC has provided guidance in KDB Publication 941225 D06 for handsets greater than 9cm x 5cm where SAR test considerations are based on a composite test separation distance of 10mm from the edges, front and back of the device with antennas 2.5cm or closer to the edge of the device, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR test.

5.5.2 SAR test Setup for Personal Wireless Router Features

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus connot be evaluated for SAR under actual use conditions. Therefore, SAR must be evaluated for each frequency transmission and mode separately and summed with the WIFI transmitter according to KDB 648474 publication procedures. The “Portable Hotspot: feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.

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Table 5-1 Mobile Hotspot Sides for SAR testing

Mode	Back	Left	Right	Top	Bottom	Front
GPRS850	Yes	Yes	No	No	Yes	Yes
GPRS1900	Yes	Yes	No	No	Yes	Yes
WCDMA850	Yes	Yes	No	No	Yes	Yes
WLAN	Yes	No	Yes	Yes	No	Yes

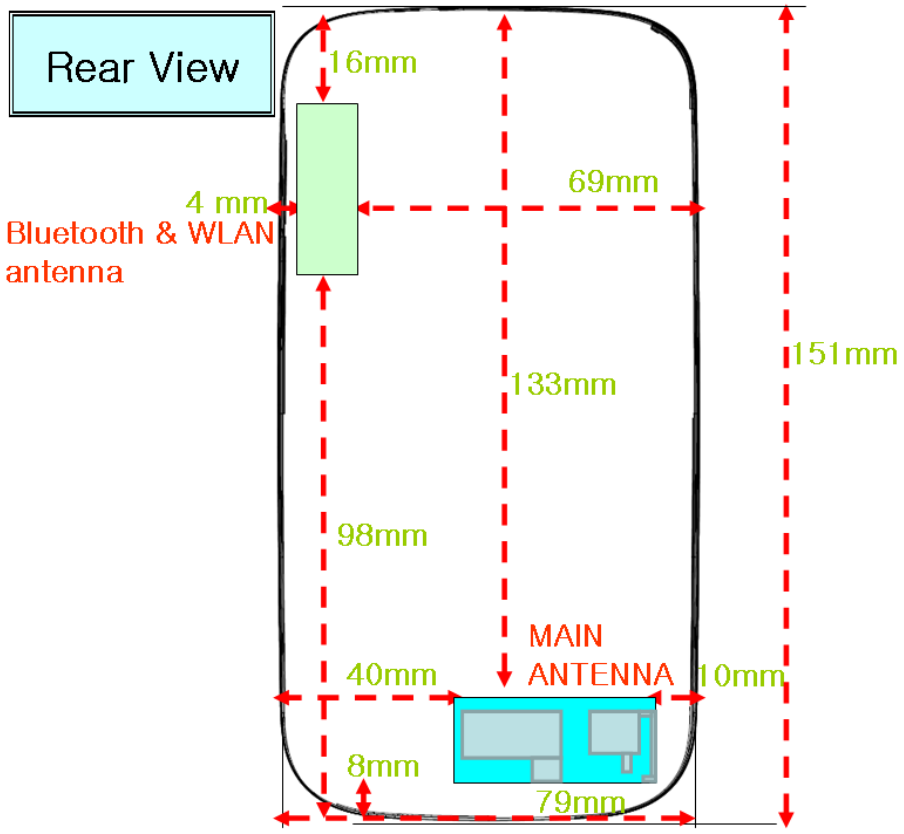

Figure 5.7 Identification of Sides for SAR testing

Note : Particular DUT edges were not necessary to be evaluated for Wireless Router SAR if the edges were greater than 2.5cm from the transmitting antenna according to FCC KDB Publication 941225 D06 guidance, page2. The antenna document shows the distances between the transmit antennas and the edges of the device. When the wireless router mode is enabled, all 5 GHz bands are disabled. Therefore 5GHz WIFI is not considered in this section.

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5.6 Near Fiel Communications (NFC) Antenna

This DUT has NFC operations. The NFC antenna is integrated into the battery cover and will be the only battery available from the manufacturer for this model. Therefore all SAR tests were performed with the standard battery and battery cover with the NFC antenna. The device restricts the battery used to the battery model. Please refer to NFC operational descrition.

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6. MEASUREMENT UNCERTAINTY

Table 6.1 Uncertainty Budget at 835MHz

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	c_i	Standard uncertainty (±%)	v_i^2 or v_{eff}
Measurement System						
Probe Calibration	11.00	normal	2.000	1	5.50	∞
Axial Isotropy	4.70	rectangular	1.732	0.7	1.90	∞
Hemispherical Isotropy	9.60	rectangular	1.732	0.7	3.88	∞
Linearity	4.70	rectangular	1.732	1	2.71	∞
System Detection Limits	0.25	rectangular	1.732	1	0.14	∞
Boundary effects	1.00	rectangular	1.732	1	0.58	∞
Readout electronics	0.30	normal	1.000	1	0.30	∞
Response time	0.80	rectangular	1.732	1	0.46	∞
RF ambient conditions	3.00	rectangular	1.732	1	1.73	∞
Integration time	1.73	rectangular	1.732	1	1.00	∞
Mechanical constrains of robot	1.50	rectangular	1.732	1	0.87	∞
Probe positioning	2.90	rectangular	1.732	1	1.67	∞
Extrapolation and integration	1.00	rectangular	1.732	1	0.58	∞
Test Sample Related						
Test Sample positioning	1.12	normal	1.000	1	1.12	14
Device holded uncertainty	3.44	normal	1.000	1	3.44	∞
Power Drift	5.00	rectangular	1.732	1	2.89	∞
Phantom and Setup						
Modular Phantom uncertainty	5.62	normal	1.000	1	5.62	2
Phantom uncertainty	4.00	rectangular	1.732	1	2.31	∞
Liquid conductivity (deviation from target)	5.00	rectangular	1.732	0.64	1.85	∞
Liquid conductivity (measurement error)	0.38	normal	1.000	0.64	0.24	∞
Liquid permittivity (deviation from target)	5.00	rectangular	1.732	0.6	1.73	∞
Liquid permittivity (measurement error)	5.44	normal	1.000	0.6	3.26	∞
Combined Standard Uncertainty		Normal	-	-	**11.84**	**172776**
Extended Standard Uncertainty(K=2.00)					**23.69**	**172776**

Table 6.2 Uncertainty Budget at 1900MHz

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	c_i	Standard uncertainty (±%)	v_i^2 or v_{eff}
Measurement System						
Probe Calibration	11.00	normal	2.000	1	5.50	∞
Axial Isotropy	4.70	rectangular	1.732	0.7	1.90	∞
Hemispherical Isotropy	9.60	rectangular	1.732	0.7	3.88	∞
Linearity	4.70	rectangular	1.732	1	2.71	∞
System Detection Limits	0.25	rectangular	1.732	1	0.14	∞
Boundary effects	1.00	rectangular	1.732	1	0.58	∞
Readout electronics	0.30	normal	1.000	1	0.30	∞
Response time	0.80	rectangular	1.732	1	0.46	∞
RF ambient conditions	3.00	rectangular	1.732	1	1.73	∞
Integration time	0.00	rectangular	1.732	1	0.00	∞
Mechanical constrains of robot	1.50	rectangular	1.732	1	0.87	∞
Probe positioning	2.90	rectangular	1.732	1	1.67	∞
Extrapolation and integration	1.00	rectangular	1.732	1	0.58	∞
Test Sample Related						
Test Sample positioning	1.50	normal	1.000	1	1.50	14
Device holded uncertainty	3.44	normal	1.000	1	3.44	∞
Power Drift	5.00	rectangular	1.732	1	2.89	∞
Phantom and Setup						
Modular Phantom uncertainty	6.02	normal	1.000	1	6.02	2
Phantom uncertainty	4.00	rectangular	1.732	1	2.31	∞
Liquid conductivity (deviation from target)	5.00	rectangular	1.732	0.64	1.85	∞
Liquid conductivity (measurement error)	1.84	normal	1.000	0.64	1.18	∞
Liquid permittivity (deviation from target)	5.00	rectangular	1.732	0.6	1.73	∞
Liquid permittivity (measurement error)	4.54	normal	1.000	0.6	2.73	∞
Combined Standard Uncertainty		Normal	-	-	**12.00**	**60176**
Extended Standard Uncertainty(K=2.00)					**24.00**	**60176**

Table 6.3 Uncertainty Budget at 2450MHz

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	c_i	Standard uncertainty (±%)	v_i^2 or v_{eff}
Measurement System						
Probe Calibration	11.00	normal	2.000	1	5.00	∞
Axial Isotropy	4.70	rectangular	1.732	0.7	1.90	∞
Hemispherical Isotropy	9.60	rectangular	1.732	0.7	3.88	∞
Linearity	4.70	rectangular	1.732	1	2.71	∞
System Detection Limits	0.25	rectangular	1.732	1	0.14	∞
Boundary effects	1.00	rectangular	1.732	1	0.58	∞
Readout electronics	0.30	normal	1.000	1	0.30	∞
Response time	0.80	rectangular	1.732	1	0.46	∞
RF ambient conditions	3.00	rectangular	1.732	1	1.73	∞
Integration time	0.00	rectangular	1.732	1	0.00	∞
Mechanical constrains of robot	1.50	rectangular	1.732	1	0.87	∞
Probe positioning	2.90	rectangular	1.732	1	1.67	∞
Extrapolation and integration	1.00	rectangular	1.732	1	0.58	∞
Test Sample Related						
Test Sample positioning	4.22	normal	1.000	1	4.22	14
Device holded uncertainty	3.44	normal	1.000	1	3.44	∞
Power Drift	5.00	rectangular	1.732	1	2.89	∞
Phantom and Setup						
Modular Phantom uncertainty	2.32	Normal	1.0001	1	2.32	2
Phantom uncertainty	4.00	rectangular	1.732	1	2.31	∞
Liquid conductivity (deviation from target)	5.00	rectangular	1.732	0.64	1.85	∞
Liquid conductivity (measurement error)	2.04	normal	1.000	0.64	1.30	∞
Liquid permittivity (deviation from target)	5.00	rectangular	1.732	0.6	1.73	∞
Liquid permittivity (measurement error)	4.27	normal	1.000	0.6	2.56	∞
Combined Standard Uncertainty		Normal	-	-	**11.32**	**728**
Extended Standard Uncertainty(K=2.00)					**22.64**	**728**

Table 6.4 Uncertainty Budget at 5GHz

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	c_i	Standard uncertainty (±%)	v_i^2 or v_{eff}
Measurement System						
Probe Calibration	13.1	normal	2.000	1	6.55	∞
Axial Isotropy	4.70	rectangular	1.732	0.7	1.90	∞
Hemispherical Isotropy	9.60	rectangular	1.732	0.7	3.88	∞
Linearity	4.70	rectangular	1.732	1	2.71	∞
System Detection Limits	0.25	rectangular	1.732	1	0.14	∞
Boundary effects	1.00	rectangular	1.732	1	0.58	∞
Readout electronics	0.30	normal	1.000	1	0.30	∞
Response time	0.80	rectangular	1.732	1	0.46	∞
RF ambient conditions	3.00	rectangular	1.732	1	1.73	∞
Integration time	0.00	rectangular	1.732	1	0.00	∞
Mechanical constrains of robot	1.50	rectangular	1.732	1	0.87	∞
Probe positioning	2.90	rectangular	1.732	1	1.67	∞
Extrapolation and integration	1.00	rectangular	1.732	1	0.58	∞
Test Sample Related						
Test Sample positioning	4.22	normal	1.000	1	4.22	14
Device holded uncertainty	3.44	normal	1.000	1	3.44	∞
Power Drift	5.00	rectangular	1.732	1	2.89	∞
Phantom and Setup						
Modular Phantom uncertainty	2.32	Normal	1.0001	1	2.32	2
Phantom uncertainty	4.00	rectangular	1.732	1	2.31	∞
Liquid conductivity (deviation from target)	5.00	rectangular	1.732	0.64	1.85	∞
Liquid conductivity (measurement error)	1.12	normal	1.000	0.64	1.30	∞
Liquid permittivity (deviation from target)	5.00	rectangular	1.732	0.6	1.73	∞
Liquid permittivity (measurement error)	3.06	normal	1.000	0.6	2.56	∞
Combined Standard Uncertainty		Normal	-	-	**11.68**	**822**
Extended Standard Uncertainty(K=2.00)					**23.36**	**822**

7. SYSTEM VERIFICATION

7.1 Tissue Verification

Table 7.1 MEASURED TISSUE PARAMETERS

	835MHz Head		835MHz Body		1900MHz Head		1900MHz Body		2450MHz Head		2450MHz Body	
	Target	Measured	Target	Measured	Target	Measured	Target	Measured	Target	Measured	Target	Measured
Date	Aug.22,2012		Aug.22,2012		Aug.24,2012		Aug.24,2012		Aug.27,2012		Aug.27,2012	
Liquid Temperature(°C)	22.5		22.5		22.4		22.2		22.6		22.7	
Dielectric Constant: å'	41.5	40.9	55.2	55	40	39.4	53.3	52	39.2	38.8	52.7	51.4
Conductivity:	0.9	0.90	0.97	0.99	1.4	1.40	1.52	1.49	1.8	1.85	1.95	1.93
Tissue Batch Number	835DF1001X		835B1001V		1900F1002F		1900B3001F		2450MF1001M		2450B1001X	

	5200MHz Head		5200MHz Body		5500MHz Head		5500MHz Body		5800MHz Head		5800MHz Body	
	Target	Measured	Target	Measured	Target	Measured	Target	Measured	Target	Measured	Target	Measured
Date	Aug.24,2012		Aug.27,2012		Aug.24,2012		Aug.27,2012		Aug.24,2012		Aug.27,2012	
Liquid Temperature(°C)	22.3		22.2		22.3		22.2		22.3		22.2	
Dielectric Constant: å'	35.99	34.7	49.02	47.9	35.65	34.9	48.61	47.2	35.4	34.5	48.2	46.1
Conductivity:	4.65	4.85	5.29	5.41	4.96	5.2	5.64	5.91	5.27	5.47	6	6.17
Tissue Batch Number	5000MF1001A		5000B1001A		5000MF1001A		5000B1001A		5000MF1001A		5000B1001A	

The measured value must be within ±5% of the target value.

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7.2 Test System Validation

Prior to assessment, the system is verified to the ±10% of the specification at 835MHz, 1900MHz, 2450MHz and 5GHz by using the system validation kit(s). (see Appendix D, Graphic Plot Attached)

Table 7.2 System Validation Results

System Validation Kit	Tissue	Targeted SAR_{1g} (mW/g)	Normalized SAR_{1g} (mW/g)	Measured SAR_{1g} (mW/g)	Deviation (%)	Date	Liquid Temperature(°C)	Ambient Temperature(°C)	Input Power (mW)
4d111	835MHz Brain	9.43	9.73	0.973	3.18	Aug.22, 2012	22.5	22.8	100
4d111	835MHz Body	9.54	9.51	0.951	-0.31	Aug.22, 2012	22.5	22.9	100
5d023	1900MHz Brain	39.0	40.3	4.03	3.33	Aug.24, 2012	22.4	22.7	100
5d023	1900MHz Body	38.8	38.0	3.80	-2.06	Aug.24, 2012	22.2	22.8	100
807	2450MHz Brain	53.5	52.8	5.28	-1.31	Aug.27, 2012	22.6	23.0	100
807	2450MHz Body	50.3	50.6	5.06	0.60	Aug.27, 2012	22.7	23.0	100
1132	5200MHz Brain	81.5	82.9	8.29	1.72	Aug.24, 2012	22.3	22.4	100
1132	5200MHz Body	75.3	72.8	7.28	-3.32	Aug.27, 2012	22.2	22.5	100
1132	5500MHz Brain	85.2	82.8	8.28	-2.82	Aug.24, 2012	22.3	22.4	100
1132	5500MHz Body	78.9	81.1	8.11	2.79	Aug.27, 2012	22.2	22.5	100
1132	5800MHz Brain	80.2	87.5	8.75	9.10	Aug.24, 2012	22.3	22.4	100
1132	5800MHz Body	74.5	76.3	7.63	2.42	Aug.27, 2012	22.2	22.5	100

*Validation was measured with input power 100 mW and normalized to 1W.

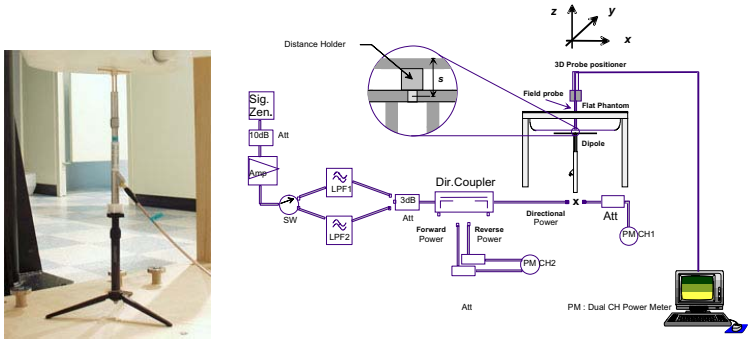

Figure 7.1 Dipole Validation Test Setup

8. SAR MEASUREMENT RESULTS

Procedures Used To Establish Test Signal

The handset was placed into simulated call mode using manufacturers test codes. Such test signals offer a consistent means for testing SAR and are recommended for evaluating SAR. When test modes are not available or inappropriate for testing a handset, the actual transmission is activated through a base station simulator or similar equipment. See data pages for actual procedure used in measurement.

SAR Measurement Conditions for WCDMA

These procedures were followed according to FCC "SAR Measurement Procedures for 3G Devices"v02, October 2007.

Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1s". Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes) should be tabulated in the test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations should be clearly identified.

Head SAR Measurements

SAR for head exposure configurations is measured using the 12.2 kbps RMC with TPC bits configured to all "1s". SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than ¼ dB higher than that measured in 12.2kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2 AMR with a 3.4kbps SRB (signaling radio bearer) using the exposure configuration that results in the highest SAR for that RF channel in 12.2 RMC.

Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits configured to all "1s". SAR for other spreading codes and multiple DPDCHn, when supported by the DUT, are not required when the maximum average outputs of each RF channel, for each spreading code and DPDCHn configuration, are less than ¼ dB higher than those measured in

12.2 RMC. Otherwise, SAR is measured on the maximum output channel with an applicable RMC configuration for the corresponding spreading code or DPDCHn using the exposure configuration that results in the highest SAR with 12.2 RMC. When more than 2 DPDCHn are supported by the DUT, it may be necessary to configure the additional DPDCHn for the DUT using FTM(Factory Test Mode) with parameters similar to those used in 384 kbps and 768 kbps RMC.

Table 8.1 Max. Power Output Table for GT-N7105

Operating Band	Channel	HSPA Inactive		HSPA Active
		12.2 kbps RMC	12.2 kbps AMR	12.2 kbps RMC
WCDMA 850 (dBm)	4132	22.38	22.25	21.15
	4183	22.56	22.33	21.28
	4233	22.73	22.68	21.55

Table 8.2 HSPA Max. Power Output Table for GT-N7105

	HSDPA	4132	4183	4233	MPR
WCDMA 850 (dBm)	Subtest1	21.15	21.28	21.55	0.0
	Subtest2	21.02	21.19	21.45	0.0
	Subtest3	20.56	20.65	20.80	0.5
	Subtest4	20.42	20.61	20.87	0.5
	HSUPA	4132	4183	4233	MPR
	Subtest1	20.53	20.66	20.64	0
	Subtest2	19.95	20.02	20.15	1
	Subtest3	19.77	19.79	19.56	2
	Subtest4	20.59	20.57	20.88	1
	Subtest5	20.94	20.96	20.84	0

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Device Test Conditions

The handset is battery operated. Each SAR measurement was taken with a fully charged battery. In order to verify that the device was tested at full power, conducted output power measurements were performed before and after each SAR measurement to confirm the output power. If a conducted power deviation of more than 5% occurred, the test was repeated. And all Tx(1~4Tx) conducted power were also investigated for Body-Worn SAR Measurement

Table 8.3 Conducted Power Table for GT-N7105

Band	Channel	Voice	GPRS/EDGE (GMSK)				EDGE (8-PSK)			
		GSM(dBm) CS(1Tx)	1Tx (dBm)	2Tx (dBm)	3Tx (dBm)	4Tx (dBm)	1Tx (dBm)	2Tx (dBm)	3Tx (dBm)	4Tx (dBm)
850	128	33.15	33.13	32.97	30.85	27.55	26.92	26.40	24.90	22.56
	190	33.02	32.96	32.77	30.94	27.52	26.98	26.84	25.12	22.72
	251	32.71	32.68	32.48	30.71	27.60	26.82	26.60	25.06	22.30
1900	512	29.54	29.34	29.28	27.61	24.36	25.52	25.13	23.72	21.38
	661	29.37	29.32	29.29	27.33	24.25	24.64	24.90	23.61	21.05
	810	29.53	29.38	29.36	27.64	24.30	24.90	25.24	23.72	20.83

Table 8.4 Calculated Frame-Averaged Output Power Table for GT-N7105

Band	Channel	Voice	GPRS(GMSK)				EDGE (8-PSK)			
		GSM(dBm) CS(1Tx)	1Tx (dBm)	2Tx (dBm)	3Tx (dBm)	4Tx (dBm)	1Tx (dBm)	2Tx (dBm)	3Tx (dBm)	4Tx (dBm)
850	128	24.12	24.10	26.95	26.59	24.54	17.89	20.38	20.64	19.55
	190	23.99	23.93	26.75	26.68	24.51	17.95	20.82	20.86	19.71
	251	23.68	23.65	26.46	26.45	24.59	17.79	20.58	20.80	19.29
1900	512	20.51	20.31	23.26	23.35	21.35	16.49	19.11	19.46	18.37
	661	20.34	20.29	23.27	23.07	21.24	15.61	18.88	19.35	18.04
	810	20.50	20.35	23.34	23.38	21.29	15.87	19.22	19.46	17.82

Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. CS1 coding scheme was used in GPRS output power measurements and SAR Testing, as a condition where GMSK modulation was ensured. It was investigated that CS1 - CS4 settings do not have any impact on the output levels in the GPRS modes.
3. MCS7 coding scheme was used to measure the output power measurements and SAR Testing, as a condition where GMSK modulation was ensured. Investigation has shown that CS1- CS4 settings do not have any impact on the output levels in the GPRS modes.
4. The conducted powers are reported and measured by base station simulator E5515C when the equipment was calibrated.

GSM Class : B

GPRS Multislot Class : 12 (max 4 Tx Uplink slots)

EDGE Multislot Class : 12 (max 4 Tx Uplink slots)

DTM Multislot Class : N/A

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Table 8.5 802.11b Average RF Power

802.11b Mode		Rated	Measured Power
Frequncy[MHz]	Channel No.	[Mbps]	(dBm)
2412	1	1	15.67
		2	15.60
		5.5	15.47
		11	15.14
2437	6	1	**15.72**
		2	15.52
		5.5	15.41
		11	15.30
2462	11	1	14.58
		2	14.49
		5.5	14.29
		11	14.19

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Table 8.6 802.11g Average RF Power

802.11g Mode		Rated	Measured Power
Frequncy[MHz]	Channel No.	[Mbps]	(dBm)
2412	1	6	13.42
		9	13.35
		12	13.10
		18	12.92
		24	12.58
		36	12.21
		48	11.94
		54	11.81
2437	6	6	13.51
		9	13.49
		12	13.27
		18	13.24
		24	13.10
		36	12.64
		48	12.37
		54	11.84
2462	11	6	12.49
		9	12.36
		12	12.23
		18	11.98
		24	11.73
		36	11.29
		48	11.04
		54	10.81

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Table 8.7 802.11n Average RF Power

802.11n_HT20 Mode		Rated	Measured Power
Frequncy[MHz]	Channel No.	[Mbps]	(dBm)
2412	1	MCS0	12.49
		MCS1	12.26
		MCS2	12.00
		MCS3	11.68
		MCS4	11.42
		MCS5	11.36
		MCS6	11.15
		MCS7	10.67
2437	6	MCS0	12.44
		MCS1	12.28
		MCS2	12.17
		MCS3	12.10
		MCS4	11.82
		MCS5	11.61
		MCS6	11.23
		MCS7	10.73
2462	11	MCS0	11.51
		MCS1	11.19
		MCS2	11.00
		MCS3	10.68
		MCS4	10.38
		MCS5	9.98
		MCS6	9.93
		MCS7	9.71

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Table 8.8 802.11a Average RF Power

802.11a Mode	Rated	Average Power (dBm)	802.11a Mode	Rated	Average Power (dBm)	802.11a Mode	Rated	Average Power (dBm)
Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)
5180	6	9.78	5520	6	10.14	5700	6	**10.68**
	9	9.52		9	10.02		9	10.42
	12	9.36		12	9.84		12	10.33
	18	9.15		18	9.46		18	10.12
	24	9.06		24	9.15		24	9.95
	36	8.78		36	8.94		36	9.71
	48	8.52		48	8.69		48	9.38
	54	8.25		54	8.57		54	9.22
5200	6	**10.31**	5540	6	10.05	5745	6	10.72
	9	10.11		9	9.85		9	10.58
	12	10.05		12	9.64		12	10.24
	18	9.68		18	9.43		18	10.06
	24	9.24		24	9.25		24	9.85
	36	8.98		36	9.05		36	9.64
	48	8.85		48	8.74		48	9.46
	54	8.74		54	8.55		54	9.21
5220	6	10.15	5560	6	10.44	5765	6	10.67
	9	10.02		9	10.13		9	10.42
	12	9.84		12	9.98		12	10.31
	18	9.56		18	9.74		18	10.05
	24	9.32		24	9.55		24	9.84
	36	9.05		36	9.38		36	9.61
	48	8.74		48	9.12		48	9.37
	54	8.51		54	8.95		54	9.18
5240	6	9.79	5580	6	10.52	5785	6	10.86
	9	9.32		9	10.45		9	10.64
	12	9.18		12	10.28		12	10.56
	18	9.12		18	10.05		18	10.31
	24	8.85		24	9.87		24	10.11
	36	8.64		36	9.65		36	9.84
	48	8.48		48	9.35		48	9.52
	54	8.25		54	9.04		54	9.38
5260	6	10.12	5600	6	N/A	5805	6	**10.92**
	9	10.02		9	N/A		9	10.82
	12	9.85		12	N/A		12	10.34
	18	9.45		18	N/A		18	10.11
	24	9.32		24	N/A		24	10.02
	36	9.05		36	N/A		36	9.85
	48	8.77		48	N/A		48	9.69
	54	8.54		54	N/A		54	9.46
5280	6	**10.33**	5620	6	N/A	5825	6	10.65
	9	10.16		9	N/A		9	10.44
	12	9.97		12	N/A		12	10.31
	18	9.74		18	N/A		18	10.18
	24	9.35		24	N/A		24	9.98
	36	9.17		36	N/A		36	9.72
	48	8.94		48	N/A		48	9.38
	54	8.81		54	N/A		54	9.23
5300	6	10.05	5640	6	N/A			
	9	9.84		9	N/A			
	12	9.64		12	N/A			
	18	9.82		18	N/A			
	24	9.33		24	N/A			
	36	8.94		36	N/A			
	48	8.75		48	N/A			
	54	8.46		54	N/A			
5320	6	9.95	5660	6	10.67			
	9	9.67		9	10.42			
	12	9.77		12	10.31			
	18	9.32		18	10.02			
	24	9.12		24	9.85			
	36	8.76		36	9.48			
	48	8.45		48	9.24			
	54	8.31		54	9.17			
5500	6	10.36	5680	6	10.39			
	9	10.12		9	10.13			
	12	9.87		12	10.02			
	18	9.48		18	9.87			
	24	9.32		24	9.68			
	36	9.15		36	9.52			
	48	8.94		48	9.29			
	54	8.77		54	9.02			

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Table 8.9 802.11n_HT20 Average RF Power

802.11n_HT20 Mode	Rated	Average Power (dBm)	802.11n_HT20 Mode	Rated	Average Power (dBm)	802.11n_HT20 Mode	Rated	Average Power (dBm)
Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)
5180	MCS0	9.72	5520	MCS0	9.93	5700	MCS0	10.55
	MCS1	9.58		MCS1	9.75		MCS1	10.32
	MCS2	9.42		MCS2	9.42		MCS2	10.19
	MCS3	9.13		MCS3	9.13		MCS3	9.84
	MCS4	8.95		MCS4	9.05		MCS4	9.67
	MCS5	8.75		MCS5	8.82		MCS5	9.32
	MCS6	8.36		MCS6	8.64		MCS6	9.05
	MCS7	8.07		MCS7	8.40		MCS7	8.86
5200	MCS0	10.11	5540	MCS0	9.98	5745	MCS0	10.55
	MCS1	10.02		MCS1	9.61		MCS1	10.31
	MCS2	9.82		MCS2	9.24		MCS2	10.17
	MCS3	9.45		MCS3	9.05		MCS3	9.95
	MCS4	9.32		MCS4	8.82		MCS4	9.67
	MCS5	9.13		MCS5	8.64		MCS5	9.48
	MCS6	8.85		MCS6	8.49		MCS6	9.13
	MCS7	8.58		MCS7	8.35		MCS7	9.32
5220	MCS0	9.94	5560	MCS0	10.24	5765	MCS0	10.52
	MCS1	9.75		MCS1	10.02		MCS1	10.33
	MCS2	9.32		MCS2	9.84		MCS2	10.72
	MCS3	9.16		MCS3	9.61		MCS3	10.62
	MCS4	8.94		MCS4	9.24		MCS4	9.93
	MCS5	8.82		MCS5	8.98		MCS5	9.64
	MCS6	8.65		MCS6	8.81		MCS6	9.62
	MCS7	8.34		MCS7	8.78		MCS7	9.58
5240	MCS0	9.72	5580	MCS0	10.46	5785	MCS0	10.77
	MCS1	9.46		MCS1	10.24		MCS1	10.72
	MCS2	9.32		MCS2	10.07		MCS2	10.69
	MCS3	9.13		MCS3	9.82		MCS3	10.61
	MCS4	8.95		MCS4	9.45		MCS4	10.28
	MCS5	8.67		MCS5	9.32		MCS5	9.94
	MCS6	8.42		MCS6	9.05		MCS6	9.79
	MCS7	8.11		MCS7	8.87		MCS7	9.45
5260	MCS0	9.97	5600	MCS0	N/A	5805	MCS0	10.84
	MCS1	9.76		MCS1	N/A		MCS1	10.87
	MCS2	9.41		MCS2	N/A		MCS2	10.55
	MCS3	9.24		MCS3	N/A		MCS3	10.83
	MCS4	9.02		MCS4	N/A		MCS4	10.37
	MCS5	8.88		MCS5	N/A		MCS5	10.30
	MCS6	8.64		MCS6	N/A		MCS6	10.33
	MCS7	8.40		MCS7	N/A		MCS7	10.15
5280	MCS0	10.27	5620	MCS0	N/A	5825	MCS0	10.62
	MCS1	10.02		MCS1	N/A		MCS1	10.60
	MCS2	9.43		MCS2	N/A		MCS2	10.29
	MCS3	9.24		MCS3	N/A		MCS3	9.54
	MCS4	9.03		MCS4	N/A		MCS4	10.04
	MCS5	8.88		MCS5	N/A		MCS5	9.94
	MCS6	8.76		MCS6	N/A		MCS6	9.71
	MCS7	8.60		MCS7	N/A		MCS7	9.65
5300	MCS0	9.95	5640	MCS0	N/A			
	MCS1	9.64		MCS1	N/A			
	MCS2	9.52		MCS2	N/A			
	MCS3	9.31		MCS3	N/A			
	MCS4	9.18		MCS4	N/A			
	MCS5	8.87		MCS5	N/A			
	MCS6	8.64		MCS6	N/A			
	MCS7	8.29		MCS7	N/A			
5320	MCS0	9.87	5660	MCS0	10.59			
	MCS1	9.54		MCS1	10.36			
	MCS2	9.32		MCS2	10.14			
	MCS3	9.11		MCS3	9.95			
	MCS4	8.95		MCS4	9.74			
	MCS5	8.64		MCS5	9.48			
	MCS6	8.52		MCS6	9.22			
	MCS7	8.26		MCS7	9.01			
5500	MCS0	10.24	5680	MCS0	10.38			
	MCS1	10.01		MCS1	10.11			
	MCS2	9.82		MCS2	9.98			
	MCS3	9.58		MCS3	9.74			
	MCS4	9.31		MCS4	9.55			
	MCS5	9.05		MCS5	9.13			
	MCS6	8.82		MCS6	8.98			
	MCS7	8.60		MCS7	8.86			

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Table 8.10 802.11n_HT40 Average RF Power

802.11n_HT40 Mode	Rated	Average Power (dBm)	802.11n_HT40 Mode	Rated	Average Power (dBm)	802.11n_HT40 Mode	Rated	Average Power (dBm)
Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)	Frequncy[MHz]	[Mbps]	(dBm)
5190	MCS0	9.65	5510	MCS0	9.28	5670	MCS0	10.09
	MCS1	9.48		MCS1	9.23		MCS1	10.03
	MCS2	9.37		MCS2	9.21		MCS2	9.99
	MCS3	9.25		MCS3	9.20		MCS3	9.95
	MCS4	9.11		MCS4	9.15		MCS4	9.83
	MCS5	9.10		MCS5	9.13		MCS5	9.80
	MCS6	9.05		MCS6	9.12		MCS6	9.75
	MCS7	8.93		MCS7	9.03		MCS7	9.70
5230	MCS0	9.49	5550	MCS0	9.57	5755	MCS0	**11.36**
	MCS1	9.38		MCS1	9.43		MCS1	11.25
	MCS2	9.37		MCS2	9.33		MCS2	11.20
	MCS3	9.35		MCS3	9.31		MCS3	11.20
	MCS4	9.25		MCS4	9.25		MCS4	11.16
	MCS5	9.21		MCS5	9.21		MCS5	11.13
	MCS6	9.15		MCS6	9.20		MCS6	11.11
	MCS7	9.03		MCS7	9.15		MCS7	11.03
5270	MCS0	9.37	5590	MCS0	N/A	5795	MCS0	**11.40**
	MCS1	9.25		MCS1	N/A		MCS1	11.38
	MCS2	9.24		MCS2	N/A		MCS2	11.35
	MCS3	9.23		MCS3	N/A		MCS3	11.32
	MCS4	9.11		MCS4	N/A		MCS4	11.25
	MCS5	9.10		MCS5	N/A		MCS5	11.22
	MCS6	9.06		MCS6	N/A		MCS6	11.20
	MCS7	9.02		MCS7	N/A		MCS7	11.15
5310	MCS0	8.93	5630	MCS0	N/A			
	MCS1	8.92		MCS1	N/A			
	MCS2	8.88		MCS2	N/A			
	MCS3	8.79		MCS3	N/A			
	MCS4	8.77		MCS4	N/A			
	MCS5	8.73		MCS5	N/A			
	MCS6	8.70		MCS6	N/A			
	MCS7	8.65		MCS7	N/A			

Per FCC KDB Publication 443999, transmission on channels which overlap the 5600-5650 MHz is prohibited as a client. This device does not transmit any beacons or initiate any transmissions in 5.3 and 5.5 GHz Bands. (*) – indicates default channels per KDB Publication 248227. When the adjacent channels are higher in power then the default channels, these “required channels” are considered instead of the default channels for SAR testing.

The bolded channels and data rates above were tested for SAR

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8.1 SAR DATA Summay

Table 8.11 GSM850 Head SAR Results

Frequency		Mode	Conducted		Side	Test Position	Antenna Type	Battery	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End						
836.6	190	GSM850	33.01	33.04	Right	Cheek/Touch	Intenna	Standard	0.040	0.080
836.6	190	GSM850	33.01	33.02	Right	Ear/Tilt 15°	Intenna	Standard	0.029	0.041
836.6	190	GSM850	32.98	33.00	Left	Cheek/Touch	Intenna	Standard	0.020	**0.088**
836.6	190	GSM850	32.99	33.04	Left	Ear/Tilt 15°	Intenna	Standard	-0.016	0.052
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram				

Table 8.12 GSM850 Body SAR Results

Frequency		Mode	Conducted Power		Separation Distance	Test Position	Antenna Type	Battery	Tx Slots	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
836.6	190	GSM850	33.05	33.04	1.0 cm	Back	Intenna	Standard	1	-0.011	0.217
836.6	190	GPRS850	32.94	32.97	1.0 cm	Back	Intenna	Standard	1	-0.006	0.208
836.6	190	GPRS850	32.79	32.79	1.0 cm	Back	Intenna	Standard	2	0.012	0.435
836.6	190	GPRS850	30.92	30.90	1.0 cm	Back	Intenna	Standard	3	-0.032	**0.508**
836.6	190	GPRS850	27.55	27.56	1.0 cm	Back	Intenna	Standard	4	0.025	0.367
836.6	190	GPRS850	30.95	30.98	1.0 cm	Left	Intenna	Standard	3	-0.018	0.204
836.6	190	GPRS850	30.96	30.96	1.0 cm	Bottom	Intenna	Standard	3	0.013	0.232
836.6	190	GPRS850	30.94	30.91	1.0 cm	Front	Intenna	Standard	3	0.026	0.232
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram					

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Table 8.13 GSM1900 Head SAR Results

Frequency		Mode	Conducted		Side	Test Position	Antenna Type	Battery	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End						
1880	661	GSM1900	29.35	29.34	Right	Cheek/Touch	Intenna	Standard	0.013	0.044
1880	661	GSM1900	29.33	29.34	Right	Ear/Tilt 15°	Intenna	Standard	-0.116	0.045
1880	661	GSM1900	29.37	29.39	Left	Cheek/Touch	Intenna	Standard	-0.015	**0.061**
1880	661	GSM1900	29.33	29.35	Left	Ear/Tilt 15°	Intenna	Standard	-0.003	0.033
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram				

Table 8.14 GSM1900 Body SAR Results

Frequency		Mode	Conducted Power		Separation Distance	Test Position	Antenna Type	Battery	Tx Slots	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
1880	661	GSM1900	29.35	29.34	1.0 cm	Back	Intenna	Standard	1	0.046	0.158
1880	661	GSM1900	29.34	29.33	1.0 cm	Back	Intenna	Standard	1	-0.034	0.159
1880	661	GSM1900	29.26	29.25	1.0 cm	Back	Intenna	Standard	2	-0.028	0.305
1880	661	GSM1900	27.36	27.37	1.0 cm	Back	Intenna	Standard	3	-0.039	0.298
1880	661	GSM1900	24.21	24.22	1.0 cm	Back	Intenna	Standard	4	0.020	0.191
1880	661	GSM1900	29.29	29.31	1.0 cm	Left	Intenna	Standard	2	0.004	0.232
1880	661	GSM1900	29.31	29.28	1.0 cm	Bottom	Intenna	Standard	2	0.000	**0.345**
1880	661	GSM1900	29.33	29.32	1.0 cm	Front	Intenna	Standard	2	-0.007	0.280
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram					

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Table 8.15 WCDMA850 Head SAR Results

Frequency		Mode	Conducted Power		Side	Test Position	Antenna Type	Battery	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End						
836.6	4183	WCDMA850	22.54	22.52	Right	Cheek/Touch	Intenna	Standard	0.031	0.072
836.6	4183	WCDMA850	22.56	22.56	Right	Ear/Tilt 15°	Intenna	Standard	0.078	0.038
836.6	4183	WCDMA850	22.60	22.59	Left	Cheek/Touch	Intenna	Standard	-0.043	**0.078**
836.6	4183	WCDMA850	22.58	22.59	Left	Ear/Tilt 15°	Intenna	Standard	0.022	0.047
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g) averaged over 1 gram**				

Table 8.16 WCDMA850 Body SAR Results

Frequency		Mode	Conducted Power		Separation Distance	Test Position	Antenna Type	Battery	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End						
836.6	4183	WCDMA850	22.59	22.59	1.0 cm	Back	Intenna	Standard	-0.002	**0.212**
836.6	4183	WCDMA850	22.55	22.57	1.0 cm	Left	Intenna	Standard	0.004	0.091
836.6	4183	WCDMA850	22.58	22.57	1.0 cm	Bottom	Intenna	Standard	-0.011	0.103
836.6	4183	WCDMA850	22.56	22.51	1.0 cm	Front	Intenna	Standard	-0.008	0.099
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g) averaged over 1 gram**				

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Table 8.17 2.4GHz 802.11b Head SAR Results

Frequency		Mode	Conducted		Side	Test Position	Antenna Type	Battery	Data Rate (Mbps)	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
2437	6	IEEE 802.11b	15.76	15.71	Right	Cheek/Touch	Intenna	Standard	1	0.001	0.068
2437	6	IEEE 802.11b	15.72	15.74	Right	Ear/Tilt 15°	Intenna	Standard	1	0.010	0.054
2437	6	IEEE 802.11b	15.72	15.70	Left	Cheek/Touch	Intenna	Standard	1	0.103	**0.134**
2437	6	IEEE 802.11b	15.70	15.74	Left	Ear/Tilt 15°	Intenna	Standard	1	-0.069	0.097
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram					

Table 8.18 2.4GHz 802.11b Body SAR Results

Frequency		Mode	Conducted		Separation Distance	Test Position	Antenna Type	Battery	Data Rate (Mbps)	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
2437	6	IEEE 802.11b	15.75	15.72	1.0 cm	Back	Intenna	Standard	1	0.042	**0.222**
2437	6	IEEE 802.11b	15.71	15.71	1.0 cm	Right	Intenna	Standard	1	-0.051	0.080
2437	6	IEEE 802.11b	15.73	15.70	1.0 cm	Top	Intenna	Standard	1	0.055	0.026
2437	6	IEEE 802.11b	15.73	15.75	1.0 cm	Front	Intenna	Standard	1	0.014	0.035
ANSI / IEEE C95.1 2005 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g)** averaged over 1 gram					

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Table 8.19 5GHz WLAN Head SAR Results

Frequency		Mode	Conducted		Side	Test Position	Antenna Type	Battery	Data Rate (Mbps)	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
5200	40	IEEE 802.11a	10.29	10.27	Right	Cheek/Touch	Intenna	Standard	6	0.197	0.011
5200	40	IEEE 802.11a	10.28	10.30	Right	Ear/Tilt 15°	Intenna	Standard	6	-0.196	0.013
5200	40	IEEE 802.11a	10.30	10.28	Left	Cheek/Touch	Intenna	Standard	6	0.067	0.024
5200	40	IEEE 802.11a	10.32	10.30	Left	Ear/Tilt 15°	Intenna	Standard	6	0.074	0.025
5280	56	IEEE 802.11a	10.36	10.33	Right	Cheek/Touch	Intenna	Standard	6	0.114	0.013
5280	56	IEEE 802.11a	10.34	10.35	Right	Ear/Tilt 15°	Intenna	Standard	6	0.029	0.022
5280	56	IEEE 802.11a	10.30	10.34	Left	Cheek/Touch	Intenna	Standard	6	0.184	**0.037**
5280	56	IEEE 802.11a	10.33	10.33	Left	Ear/Tilt 15°	Intenna	Standard	6	0.172	0.033
5700	140	IEEE 802.11a	10.68	10.69	Right	Cheek/Touch	Intenna	Standard	6	0.183	0.016
5700	140	IEEE 802.11a	10.66	10.70	Right	Ear/Tilt 15°	Intenna	Standard	6	0.164	0.014
5700	140	IEEE 802.11a	10.71	10.69	Left	Cheek/Touch	Intenna	Standard	6	0.120	0.023
5700	140	IEEE 802.11a	10.67	10.69	Left	Ear/Tilt 15°	Intenna	Standard	6	0.192	0.019
5755	151	IEEE 802.11n(HT40)	11.32	11.34	Right	Cheek/Touch	Intenna	Standard	MCS0	0.114	0.013
5755	151	IEEE 802.11n(HT40)	11.36	11.36	Right	Ear/Tilt 15°	Intenna	Standard	MCS0	-0.091	0.017
5755	151	IEEE 802.11n(HT40)	11.38	11.35	Left	Cheek/Touch	Intenna	Standard	MCS0	0.157	0.022
5755	151	IEEE 802.11n(HT40)	11.33	11.33	Left	Ear/Tilt 15°	Intenna	Standard	MCS0	0.135	0.017
5795	159	IEEE 802.11n(HT40)	11.44	11.41	Right	Cheek/Touch	Intenna	Standard	MCS0	0.036	0.013
5795	159	IEEE 802.11n(HT40)	11.43	11.43	Right	Ear/Tilt 15°	Intenna	Standard	MCS0	0.181	0.015
5795	159	IEEE 802.11n(HT40)	11.42	11.39	Left	Cheek/Touch	Intenna	Standard	MCS0	0.123	0.022
5795	159	IEEE 802.11n(HT40)	11.37	11.39	Left	Ear/Tilt 15°	Intenna	Standard	MCS0	-0.056	0.020
5805	161	IEEE 802.11a	10.90	10.93	Right	Cheek/Touch	Intenna	Standard	6	-0.024	0.014
5805	161	IEEE 802.11a	10.95	10.96	Right	Ear/Tilt 15°	Intenna	Standard	6	0.103	0.019
5805	161	IEEE 802.11a	10.92	10.93	Left	Cheek/Touch	Intenna	Standard	6	-0.086	0.021
5805	161	IEEE 802.11a	10.92	10.91	Left	Ear/Tilt 15°	Intenna	Standard	6	0.178	0.024
ANSI / IEEE C95.1 1992 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g) averaged over 1 gram**					

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Table 8.20 5GHz WLAN Body SAR Results

Frequency		Mode	Conducted		Separation Distance	Test Position	Antenna Type	Battery	Data Rate (Mbps)	Drift (dB)	SAR Level (W/kg)
MHz	Ch		Start	End							
5200	40	IEEE 802.11a	10.29	10.28	1.0cm	Back	Intenna	Standard	6	0.054	0.326
5280	56	IEEE 802.11a	10.37	10.34	1.0cm	Back	Intenna	Standard	6	0.039	**0.438**
5700	140	IEEE 802.11a	10.66	10.70	1.0cm	Back	Intenna	Standard	6	0.007	0.248
5755	151	IEEE 802.11n(HT40)	11.38	11.40	1.0cm	Back	Intenna	Standard	MCS0	0.008	0.126
5795	159	IEEE 802.11n(HT40)	11.44	11.43	1.0cm	Back	Intenna	Standard	MCS0	-0.068	0.088
5805	161	IEEE 802.11a	10.90	10.92	1.0cm	Back	Intenna	Standard	6	0.186	0.082
ANSI / IEEE C95.1 1992 – SAFETY LIMIT Spatial Peak Uncontrolled Exposure / General Population						**1.6W/kg (mW/g) averaged over 1 gram**					

8.2 SAR Note

General Note :

1. The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used are according to FCC/OET Bulletin 65, Supp.C [June 2001].
2. Tissue parameters and temperatures are listed on the SAR plot.
3. Liquid tissue depth is 15.2 ± 0.2cm
4. Battery is fully charged for all readings. The Standard battery was used.
5. Test Configuration ☐ With Holster ☒ Without Holster
6. Justification for reduced test configurations: Per FCC/OET Bulletin 65 Supplement C (June, 2001), if the SAR measured at the middle channel for each test configuration (left, right, cheek/touch, tilt/ear, extended and retracted) is least 3.0 dB lower than the SAR limit, testing at the high and low channels is optional for such test configuration(s).
7. Device was tested using a fixed spacing for body-worn accessory tesing. A separation distance of 10mm was tested because the manufacturer has determined that there will be body-worn accessories available in the marketplace for usere to support this separation distance.
8. The standard battery contains a near field communications (NFC) antenna, and is the only battery that comes with the device. All tests were performed using the standard NFC battery. The technical description contains detailed informations about the near field communications antenna. As described in Operational Description, the device does not allow other battery than model.

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GSM Notes

1. Body-Worn Accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR using headphone.
2. Per FCC guidance, GPRS Data Mode is additionally required for body-worn configuration. When the same wireless modes and device transmission configurations are required for body-worn accderssory SAR for the same device orientation. Therefore, the hotspot data for the back and front side configuration additionally shows body-worn compliance at the same distance.
3. Justification for reduced thest configurations per KDB Publication 941225 D03: The source-based time-averaged output power was evaluated for all multi-slot operations. In addition to the worst-case reported, all source-based time-averaged powers within 10% of the worst-case were additionally included in the evaluation for data modes.

WCDMA Notes

1. WCDMA mode in Body SAR was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01. HSPA SAR was not required since the average output power of the HSPA subtests was not more than 0.25 dB higher than the RMC level and SAR was less than 1.2W/Kg.
2. Per FCC KDB Publication 941225 D06, when the same wireless modes and device transmission configurations are required for body-worn accessory SAR for the same device orientation. Therefore, the hotspot data for the back side configuration additionally shows body-worn complicane at the same distance.

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WLAN Notes

1. Justification for reduced test configurations for WIFI channels per KDB Publication 248227 and April 2010 FCC/TCB Meeting Notes for 2.4GHz WIFI : Highest average RF output power channel for the lowest data rate was selected for SAR evaluation in 802.11b. Other IEEE 802.11 modes (including 802.11g/n) were not investigated since the average output powers over all channels and data rates were not more than 0.25dB higher than the tested channel in the lowest data rate of IEEE 802.11b mode.
2. Justification for reduced test configurations for WIFI channels per KDB Publication 248227 and April 2010 FCC/TCB Meeting Notes for 5GHz WIFI : Highest average RF output power channel for the lowest data rate was selected for SAR evaluation in 802.11a. Other IEEE 802.11 mode (802.11n 40MHz Bandwidth, Channel 151, 159) were investigated since the average output power was more than 0.25dB higher than the tested channel in the lowest data rate of IEEE 802.11a mode.
3. When Hotspot is enabled, all 5GHz bands are disabled.
4. WLAN transmission was verified using an uncalibrated spectrum analyzer.
5. When the maximum extrapolated peak SAR of the zoom scan for the maximum output channel is <1.6 W/Kg and the 1g averaged SAR is <0.8 W/Kg, SAR testing on other channels is not required. The other default(or corresponding required) test channels were additionally tested using the lowest data rate since the maximum extrapolated peak SAR of the zoom scan for the maximum output channel is greater than 1.6W/Kg.
6. Per FCC KDB Publication 941225 D06, when the same wireless modes and device transmission configurations are required for body-worn accessories and hotspot mode(2.4GHz WLAN), it is not necessary to additionally test body-worn accessory SAR for the same device orientation. Therefore, the hotspot data for the back side configuration additionally shows body-worn compliance at the same distance.

Hotspot Notes

1. Top and Right Edge for the licensed transmitter was not tested since the antenna distance from the edge was greater than 2.5cm per FCC KDB Publication 941225 D06 guidance.
2. Bottom and Left Edges for the WLAN transmitter were not tested since the antenna distance from the edge was greater than 2.5cm per FCC KDB Publication 941225 D06 guidance.
3. During SAR testing for the wireless Router conditions per KDB 941225 D06, the actural Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated.

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8.3 Simultaneous Transmission

Refer to the FCC OET document, 'SAR Evaluation Considerations for Handsets with Multiple Transmitters and Antennas' (Feb 2008)

Table 8.21 Output Power Thresholds for Unlicensed Transmitters

	2.45	5.15 - 5.35	5.47 - 5.85	GHz
P Ref	**12**	**6**	**5**	**mW**
Device output power should be rounded to the nearest mW to compare with values specified in this table				

Table 8.22 Summary of SAR Evaluation Requirements for Cell phones with Multiple Transmitters

	Individual Transmitter	**Simultaneous Transmission**
Licensed Transmitters	**Routine evaluation required**	**SAR not required:** **Unlicensed only** o when stand-alone 1-g SAR is not required and antenna is > 5 cm from other antennas **Licensed & Unlicensed** o when the sum of the 1-g SAR is <1.6 W/kg for all simultaneous transmitting antennas o when SAR to antenna separation ratio of simultaneous transmitting antenna pair is < 0.3 **SAR required:** **Licensed & Unlicensed** antenna pairs with SAR to antenna separation ratio ≥ 0.3; test is only required for the configuration that results in the highest SAR in standalone configuration for each wireless mode and exposure condition Note: simultaneous transmission exposure conditions for head and body can be different for different style phones; therefore, different test requirements may apply
Unlicensed Transmitters	**When there is no simultaneous transmission –** o output < 60/f: SAR not required o output ≥ 60/f: stand-alone SAR required **When there is simultaneous transmission –** **Stand-alone SAR not required when** O output ≤ 2.P_{Ref} and antenna is > 5.0 cm from other antennas O output ≤ PRef and antenna is ≥ 2.5 cm from other antennas O output ≤ PRef and antenna is < 2.5 cm from other antennas, each with either output power ≤ PRef or 1-g SAR < 1.2 W/kg **Otherwise stand-alone SAR is required** **When stand-alone SAR is required** o test SAR on highest output channel for each wireless mode and exposure condition o if SAR for highest output channel is > 50% of SAR limit, evaluate all channels according to normal procedures	

Table 8.23 Simultaneous Transmission Summation for Held to Ear Voice Call (2.4GHz WLAN)

Simult Tx	Configuration	GSM850 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GSM1900 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.080	0.068	0.148	Head SAR	Right Cheek	0.044	0.068	0.112
	Right Tilt	0.041	0.054	0.095		Right Tilt	0.045	0.054	0.099
	Left Cheek	0.088	0.134	0.222		Left Cheek	0.061	0.134	0.195
	Left Tilt	0.052	0.097	0.149		Left Tilt	0.033	0.097	0.130
Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)					
Head SAR	Right Cheek	0.072	0.068	0.140					
	Right Tilt	0.038	0.054	0.092					
	Left Cheek	0.078	0.134	0.212					
	Left Tilt	0.047	0.097	0.144					

The above tables represent a held to ear voice call with 2.4GHz WLAN.

Table 8.24 Simultaneous Transmission Summation for Held to Ear Voice Call (5.2GHz WLAN)

Simult Tx	Configuration	GSM850 SAR(W/Kg)	5.2GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GSM1900 SAR(W/Kg)	5.2GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.080	0.011	0.091	Head SAR	Right Cheek	0.044	0.011	0.055
	Right Tilt	0.041	0.013	0.054		Right Tilt	0.045	0.013	0.058
	Left Cheek	0.088	0.024	0.112		Left Cheek	0.061	0.024	0.085
	Left Tilt	0.052	0.025	0.077		Left Tilt	0.033	0.025	0.058
Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	5.2GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)					
Head SAR	Right Cheek	0.072	0.011	0.083					
	Right Tilt	0.038	0.013	0.051					
	Left Cheek	0.078	0.024	0.102					
	Left Tilt	0.047	0.025	0.072					

The above tables represent a held to ear voice call with 5.2GHz WLAN.

Table 8.25 Simultaneous Transmission Summation for Held to Ear Voice Call (5.3GHz WLAN)

Simult Tx	Configuration	GSM850 SAR(W/Kg)	5.3GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GSM1900 SAR(W/Kg)	5.3GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.080	0.013	0.093	Head SAR	Right Cheek	0.044	0.013	0.057
	Right Tilt	0.041	0.022	0.063		Right Tilt	0.045	0.022	0.067
	Left Cheek	0.088	0.037	0.125		Left Cheek	0.061	0.037	0.098
	Left Tilt	0.052	0.033	0.085		Left Tilt	0.033	0.033	0.066
Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	5.3GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)					
Head SAR	Right Cheek	0.072	0.013	0.085					
	Right Tilt	0.038	0.022	0.060					
	Left Cheek	0.078	0.037	0.115					
	Left Tilt	0.047	0.033	0.080					

The above tables represent a held to ear voice call with 5.3GHz WLAN.

Table 8.26 Simultaneous Transmission Summation for Held to Ear Voice Call (5.5GHz WLAN)

Simult Tx	Configuration	GSM850 SAR(W/Kg)	5.5GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GSM1900 SAR(W/Kg)	5.5GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.080	0.016	0.096	Head SAR	Right Cheek	0.044	0.016	0.060
	Right Tilt	0.041	0.014	0.055		Right Tilt	0.045	0.014	0.059
	Left Cheek	0.088	0.023	0.111		Left Cheek	0.061	0.023	0.084
	Left Tilt	0.052	0.019	0.071		Left Tilt	0.033	0.019	0.052
Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	5.5GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)					
Head SAR	Right Cheek	0.072	0.016	0.088					
	Right Tilt	0.038	0.014	0.052					
	Left Cheek	0.078	0.023	0.101					
	Left Tilt	0.047	0.019	0.066					

The above tables represent a held to ear voice call with 5.5GHz WLAN.

Table 8.27 Simultaneous Transmission Summation for Held to Ear Voice Call (5.8GHz WLAN)

Simult Tx	Configuration	GSM850 SAR(W/Kg)	5.8GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GSM1900 SAR(W/Kg)	5.8GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.080	0.014	0.094	Head SAR	Right Cheek	0.044	0.014	0.058
	Right Tilt	0.041	0.019	0.060		Right Tilt	0.045	0.019	0.064
	Left Cheek	0.088	0.021	0.109		Left Cheek	0.061	0.021	0.082
	Left Tilt	0.052	0.024	0.076		Left Tilt	0.033	0.024	0.057

Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	5.8GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Head SAR	Right Cheek	0.072	0.014	0.086
	Right Tilt	0.038	0.019	0.057
	Left Cheek	0.078	0.021	0.099
	Left Tilt	0.047	0.024	0.071

The above tables represent a held to ear voice call with 5.8GHz WLAN.

Table 8.28 Simultaneous Transmission Summation for 2G&3G voice and 2.4GHz WLAN(Body-Worn)

Configuration	Mode	2G&3G SAR (W/Kg)	WIFI SAR	Σ SAR
Back	GSM850	0.217	0.222	0.439
Back	GSM1900	0.158	0.222	0.380
Back	WCDMA850	0.212	0.222	0.434

The above tables represent a body worn voice call with 2.4GHz WLAN.

Table 8.29 Simultaneous Transmission Summation for 2G&3G voice and 5GHz WLAN(Body-Worn)

Configuration	Mode	2G&3G SAR (W/Kg)	5.2GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Configuration	Mode	2G&3G SAR (W/Kg)	5.3GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Back	GSM850	0.217	0.326	0.543	Back	GSM850	0.217	0.438	0.655
Back	GSM1900	0.158	0.326	0.484	Back	GSM1900	0.158	0.438	0.596
Back	WCDMA850	0.212	0.326	0.538	Back	WCDMA850	0.212	0.438	0.650
Configuration	Mode	2G&3G SAR (W/Kg)	5.5GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Configuration	Mode	2G&3G SAR (W/Kg)	5.8GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Back	GSM850	0.217	0.248	0.465	Back	GSM850	0.217	0.126	0.343
Back	GSM1900	0.158	0.248	0.406	Back	GSM1900	0.158	0.126	0.284
Back	WCDMA850	0.212	0.248	0.460	Back	WCDMA850	0.212	0.126	0.338

The above tables represent a body worn voice call with 5GHz WLAN.

Table 8.30 Simultaneous Transmission Summation for 2G&3G Data and 2.4GHz WLAN(Hotspot)

Simult Tx	Configuration	GPRS850 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)	Simult Tx	Configuration	GPRS1900 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)
Body SAR	Back	0.508	0.222	**0.730**	Body SAR	Back	0.305	0.222	0.527
	Left	0.204	-	0.204		Left	0.232	-	0.232
	Right	-	0.080	0.080		Right	-	0.080	0.080
	Top	-	0.026	0.026		Top	-	0.026	0.026
	Bottom	0.232	-	0.232		Bottom	0.345	-	0.345
	Front	0.232	0.035	0.267		Front	0.280	0.035	0.315
Simult Tx	Configuration	WCDMA850 SAR(W/Kg)	2.4GHz WIFI SAR (W/Kg)	Σ SAR (W/Kg)					
Body SAR	Back	0.212	0.222	0.434					
	Left	0.091	-	0.091					
	Right	-	0.080	0.080					
	Top	-	0.026	0.026					
	Bottom	0.103	-	0.103					
	Front	0.099	0.035	0.134					

Note :

1. Per FCC KDB Publication941225 D06, the edges with antennas more than 2.5cm are not required to be evaluated for SAR(”-“). The above tables represent a portable hotspot condition.
2. When Hotspot is enabled all 5GHz WLAN bands are disabled.

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Multiple Antenna/Transmission Information for GT-N7105

The separation between the main antenna and the Bluetooth and WLAN antennas is 87mm.

RF Conducted Power of Bluetooth Tx is 7.64dBm. RF Conducted Power of 2.4GHz WLAN is 15.72dBm. Maximum RF conducted power of 5GHz WLAN is 11.40 Bm

2.4 GHz and 5 GHz WIFI and Bluetooth share the same antenna path and cannot transmit simultaneously.

Per KDB Publication 648474, Bluetooth SAR was not required based on the maximum conducted power, the Bluetooth/WLAN to main antenna separation distance and Body-SAR of the main antenna.

Simultaneous Transmission Conclusion

The above numerical summed SAR was below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit. Therefore, no volumetric SAR summation is required since the numerical sums are below the limit

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9. CONCLUSION

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

The highest reported SAR values are as follows:
GSM850: Head: 0.088 W/Kg : Body-worn: 0.217 W/Kg : Hotspot: 0.508 W/Kg
GSM1900: Head: 0.061 W/Kg : Body-worn: 0.158 W/Kg : Hotspot: 0.345 W/Kg
WCDMA850: Head: 0.078 W/Kg : Body-worn: 0.212 W/Kg : Hotspot: 0.212 W/Kg
2.4GHz WLAN: Head: 0.134 W/Kg : Body-worn: 0.222 W/Kg : Hotspot: 0.222 W/Kg
5.2GHz WLAN: Head: 0.025 W/Kg : Body-worn: 0.326 W/Kg
5.3GHz WLAN: Head: 0.037 W/Kg : Body-worn: 0.438 W/Kg
5.5GHz WLAN: Head: 0.023 W/Kg : Body-worn: 0.248 W/Kg
5.8GHz WLAN: Head: 0.024 W/Kg : Body-worn: 0.126 W/Kg
Highest Simulataneous SAR : Head : 0.222 W/Kg : Body : 0.730 W/Kg

10. REFERENCES

[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.

[2] ANSI/IEEE C95.1-2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300kHz to 100GHz, New York: IEEE, 2006.

[3] ANSI/IEEE C95.1-1992, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300kHz to 100GHz, New York: IEEE, Sept. 1992.

[4] ANSI/IEEE C95.3-2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: IEEE, December 2002.

[5] Federal Communications Commission, OET Bulletin 65 (Edition 97-01), Supplement C (Edition 01-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, June 2001.

[6] IEEE Standards Coordinating Committee 34 – IEEE Std. 1528-2003, Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices.

[7] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for RadioFrequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.

[8] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.

[9] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 120-124.

[10] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.

[11] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.

[12] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Head Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.

[13] 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.

[14] G. Hartsgrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bioelectromagnetics, Canada: 1987, pp. 29-36.

[15] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.

[16] W. Gander, Computermathematick, Birkhaeuser, Basel, 1992.

[17] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recepies in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.

[18] Federal Communications Commission, OET Bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. Supplement C, Dec. 1997.

[19] 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.

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

[21] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hoschschule Zürich, Dosimetric Evaluation of the Cellular Phone.

[22] IEC 62209-1, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz), Feb. 2005.

[23] Industry Canada RSS-102 Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 4, March 2010.

[24] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2009

[25] FCC Public Notice DA-02-1438. Office of Engineering and Technology Announces a Transition Period for the Phantom Requirements of Supplement C to OET Bulletin 65, June 19, 2002

[26] FCC SAR Measurement Procedures for 3G Devices KDB 941225

[27] SAR Measurement procedures for IEEE 802.11a/b/g KDB 248227

[28] FCC SAR Considerations for Handsets with Multiple Transmitters and Antennas, KDB 648474

[29] FCC Application Note for SAR Probe Calibration and System Verification Consideration for Measurements at 150 MHz – 3 GHz, KDB 450824

[30] FCC SAR Evaluation Considerations for Laptop Computers with Antennas Built-in on Display Screens, KDB 616217

[31] FCC SAR Measurement Requirements for 3 – 6 GHz, KDB 865664

[32] FCC Mobile Portable RF Exposure Procedure, KDB 447498

[33] FCC SAR Procedures for Dongle Transmitters, KDB 447498

[34] Anexo à Resolução No. 533, de 10 de Septembro de 2009.

[35] FCC SAR Test Considerations for LTE Handsets and Data Modems, KDB Publication 941225

[36] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), Mar. 2010.

[37] FCC Hot Spot SAR v01, KDB Publication 941225 D06.

APPENDIX A

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (p). It is also defined as the rate of RF energy absorption pet unit mass at a point in an absorbing body (see Fig. A.1).

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{pdv}\right)$$

Figure A.1 SAR Mathematical Equation

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

$$SAR = \sigma E^2 / p$$

Where :

σ = conductivity of the tissue-simulant material (S/m)
p = mass density of the tissue-simulant material (kg/m^3)
E = Total RMS electric field strength (V/m)

Note: The primary factors that control rate or 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.

APPENDIX B

Probe Calibration Process

Dosimetric Assessment Procedure

Each probe is calibrated according to a dosimetric assessment procedure described in **K. Pokovic, T.Schmid, N. Kuster, *Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies*, ICECOM97, Oct. 1997, pp. 120-124** with an accuracy better than +/-10%. The spherical isotropy was evaluated with the procedure described in **K. Pokovic, T.Schmid, N. Kuster, *E-field Probe with improved isotropy in brain simulating liquids*, Proceedings of the ELMAR, Zadar, June 23-25, 1996, pp. 172-175** and found to be better than +/-0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe is tested.

Free Space Assessment

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 1 GHz (see Fig. B.1), and in a waveguide above 1 GHz 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.

Temperature Assessment

E-field temperature correlation calibration is performed in a flat phantom 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 (see Fig. B.2).

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

where:

Δt = exposure time (30 seconds)

C = heat capacity of tissue (brain or muscle).

ΔT = temperature increase due to RF exposure.

SAR is proportional to ΔT/ Δt, the initial rate of tissue heating, before thermal diffusion takes place. Now it's possible to quantify the electric field in the simulated tissue by equating the thermally derived SAR to the E-field;

$$\text{SAR} = \frac{|E|^2 \cdot \sigma}{p}$$

where:

σ = simulated tissue conductivity

p = Tissue density (1.25 g/cm^3 for brain tissue)

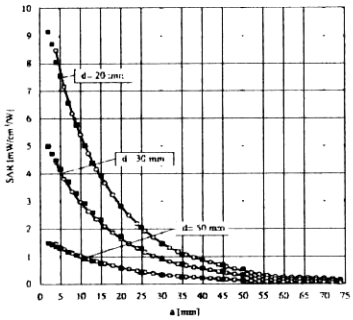


Figure B.1. E-Field and Temperature measurements at 900MHz

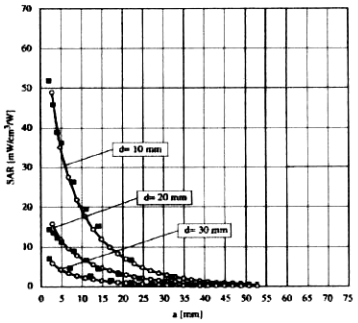


Figure B.2. E-Field and temperature measurements at 1.9GHz

APPENDIX C

ANSI/IEEE C95.1 – 2005 RF EXPOSURE LIMITS

Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is the exposure that may be incurred by persons who are aware of the potential for exposure,(i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table C.1 Safety Limits for Partial Body Exposure

	UNCONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT General Population (W/kg) or (mW/g)
SPATIAL PEAK SAR[1] Brain	1.60	8.00
SPATIAL PEAK SAR[2] Whole Body	0.08	0.40
SPATIAL PEAK SAR[3] Hands,Feet,Ankles, Wrists	4.00	20.00

[1] The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as tissue volume in the shape of a cube) and over the appropriate averaging time.
[2] The Spatial Average value of the SAR averaged over the whole body.
[3] The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

APPENDIX D

The Validation Measurements

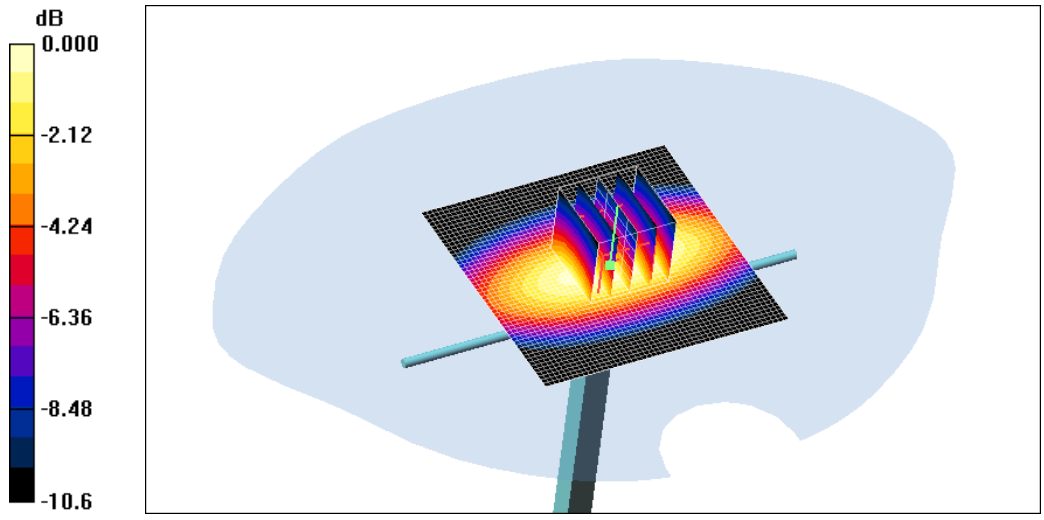
DUT: Dipole 835 MHz; Serial: 4d111
Program Name: 835MHz Dipole Validation 2012.08.22
Procedure Name: 835MHz @ 100mW Head
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.904 mho/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

835MHz @ 100mW Head/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 1.14 mW/g

835MHz @ 100mW Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.4 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.973 mW/g; SAR(10 g) = 0.636 mW/g
Maximum value of SAR (measured) = 1.14 mW/g



0 dB = 1.14mW/g

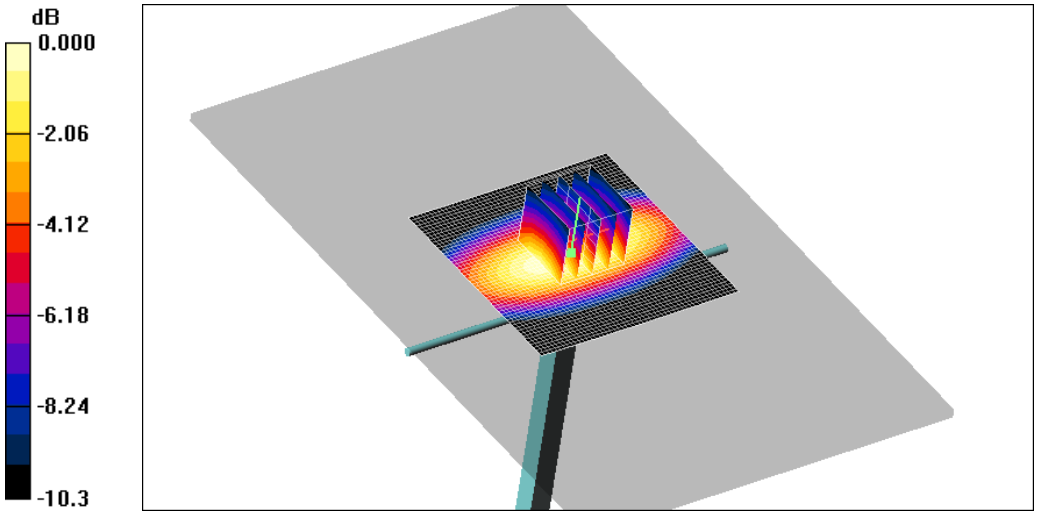
DUT: Dipole 835 MHz; Serial: 4d111
Program Name: 835MHz Dipole Validation 2012.08.22
Procedure Name: 835MHz @ 100mW Body
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

835MHz @ 100mW Body/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 1.14 mW/g

835MHz @ 100mW Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 34.1 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.629 mW/g
Maximum value of SAR (measured) = 1.10 mW/g



0 dB = 1.10mW/g

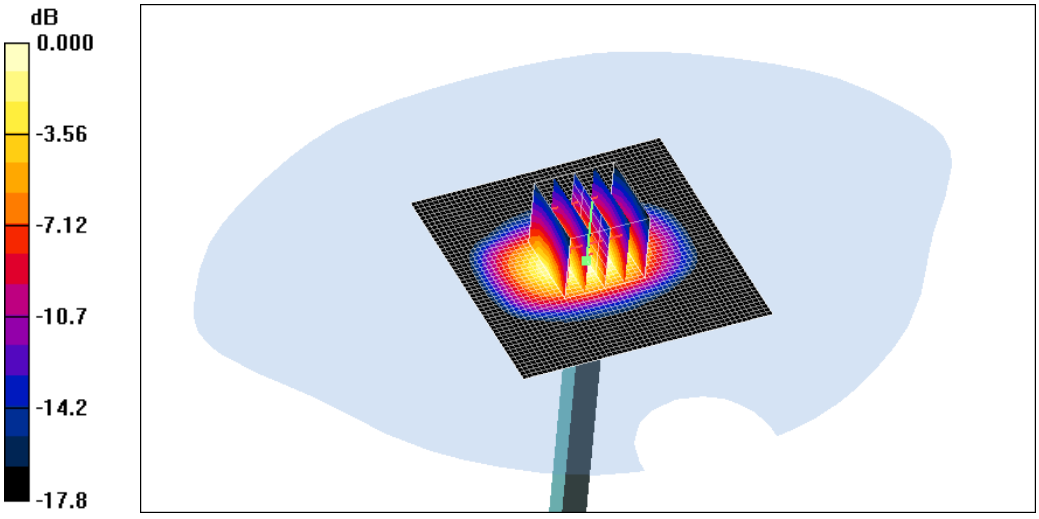
DUT: Dipole 1900 MHz; Serial: 5d023
Program Name: 1900MHz Dipole Validation 2012.08.24
Procedure Name: 1900MHz @ 100mW Head
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.41 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

1900MHz @ 100mW Head/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 6.77 mW/g

1900MHz @ 100mW Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 60.9 V/m; Power Drift = -0.019 dB
Peak SAR (extrapolated) = 7.24 W/kg
SAR(1 g) = 4.03 mW/g; SAR(10 g) = 2.11 mW/g
Maximum value of SAR (measured) = 5.03 mW/g



0 dB = 5.03mW/g

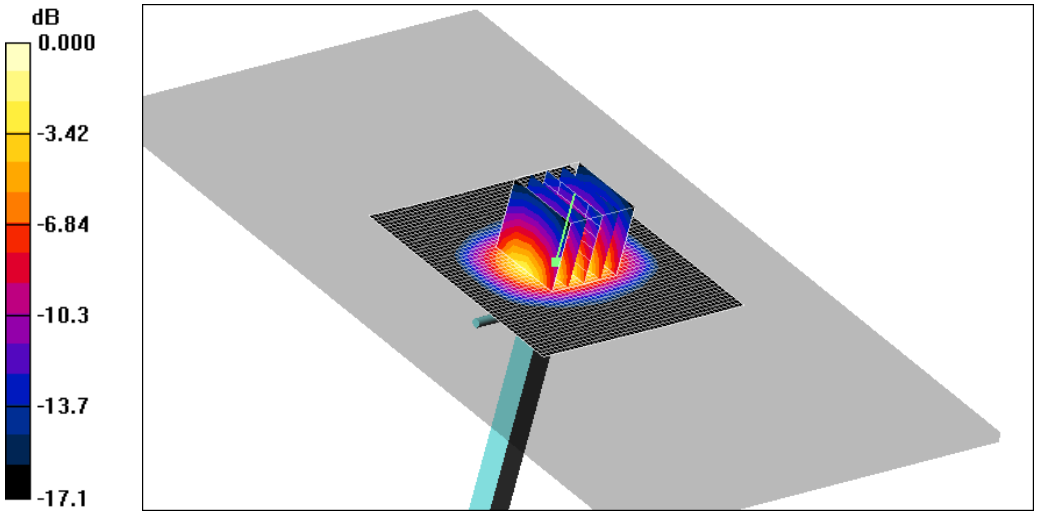
DUT: Dipole 1900 MHz; Serial: 5d023
Program Name: 1900MHz Dipole Validation 2012.08.24
Procedure Name: 1900MHz @ 100mW Body
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.49 mho/m; ε_r = 52; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

1900MHz @ 100mW Body/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 6.30 mW/g

1900MHz @ 100mW Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 58.8 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 6.54 W/kg
SAR(1 g) = 3.8 mW/g; SAR(10 g) = 2.02 mW/g
Maximum value of SAR (measured) = 4.76 mW/g



0 dB = 4.76mW/g

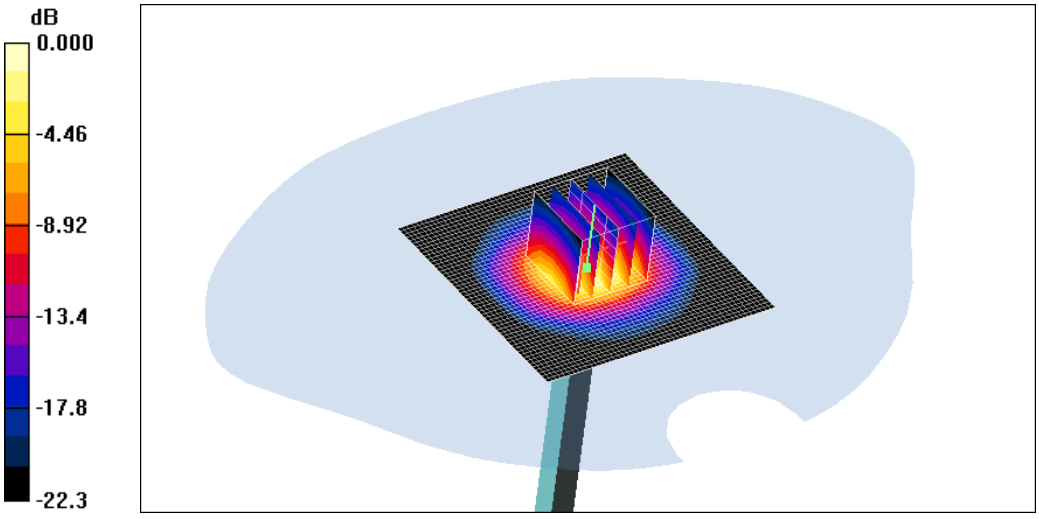
DUT: Dipole 2450 MHz; Serial: D2450V2 - SN:807
Program Name: 2450MHz Dipole Validation 2012.08.27
Procedure Name: 2450MHz @ 100mW Head
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.85 mho/m; ε_r = 38.8; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

2450MHz @ 100mW Head/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 8.76 mW/g

2450MHz @ 100mW Head/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.7 V/m; Power Drift = -0.021 dB
Peak SAR (extrapolated) = 11.1 W/kg
SAR(1 g) = 5.28 mW/g; SAR(10 g) = 2.44 mW/g
Maximum value of SAR (measured) = 6.00 mW/g



0 dB = 6.00mW/g

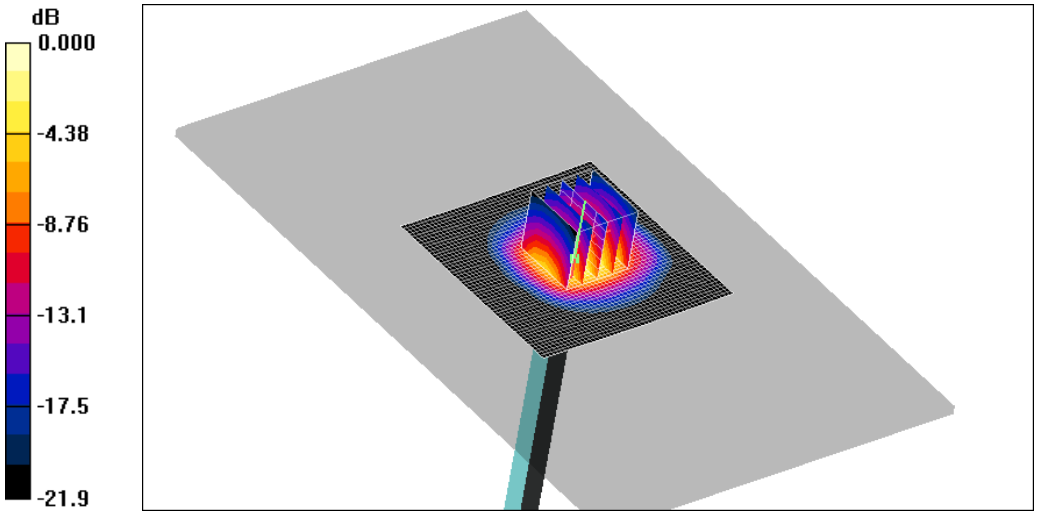
DUT: Dipole 2450 MHz; Serial: D2450V2 - SN:807
Program Name: 2450MHz Dipole Validation 2012.08.27
Procedure Name: 2450MHz @ 100mW Body
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; σ = 1.94 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

2450MHz @ 100mW Body/Area Scan (51x51x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 6.94 mW/g

2450MHz @ 100mW Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 56.5 V/m; Power Drift = 0.039 dB
Peak SAR (extrapolated) = 10.2 W/kg
SAR(1 g) = 5.06 mW/g; SAR(10 g) = 2.39 mW/g
Maximum value of SAR (measured) = 6.51 mW/g



0 dB = 6.51mW/g

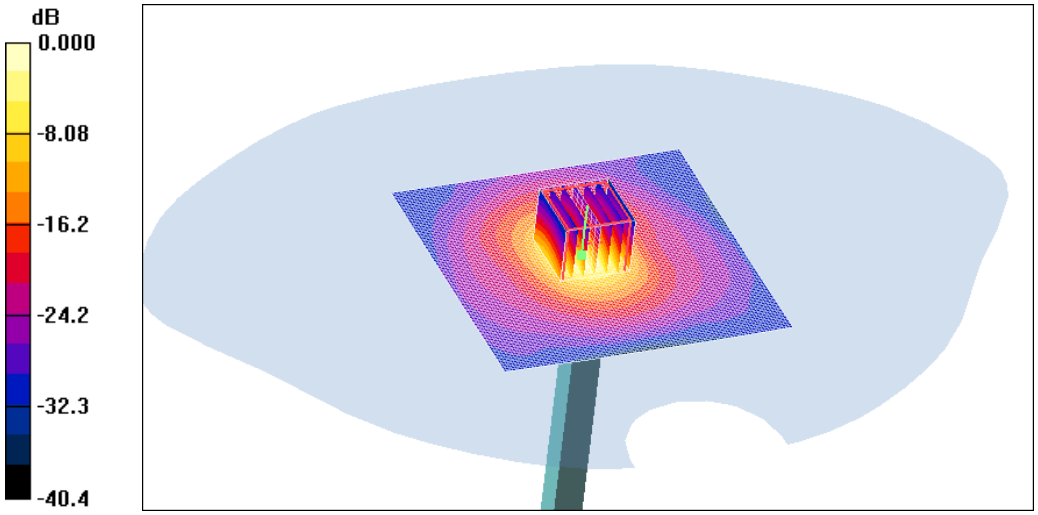
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5200MHz Dipole Validation 2012.08.24
Procedure Name: 5200MHz @ 100mW
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.85 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.91, 4.91, 4.91); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5200MHz @ 100mW/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.6 mW/g

5200MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 56.5 V/m; Power Drift = 0.170 dB
Peak SAR (extrapolated) = 35.2 W/kg
SAR(1 g) = 8.29 mW/g; SAR(10 g) = 2.34 mW/g
Maximum value of SAR (measured) = 17.5 mW/g



0 dB = 17.5mW/g

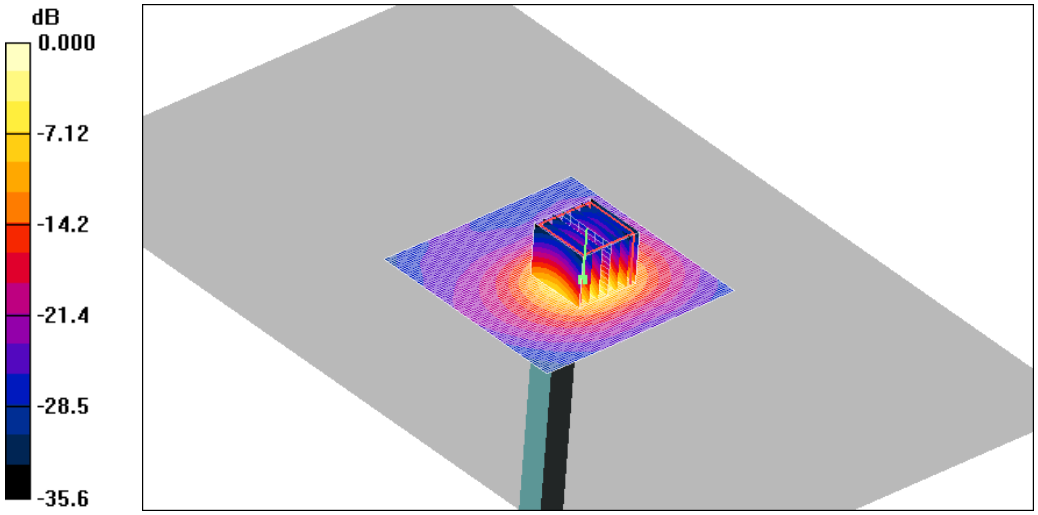
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5200MHz Dipole Validation 2012.08.27
Procedure Name: 5200MHz @ 100mW
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: CW; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.41 mho/m; ε_r = 47.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.9, 3.9, 3.9); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5200MHz @ 100mW/Area Scan (81x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 15.1 mW/g

5200MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 41.5 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 28.9 W/kg
SAR(1 g) = 7.28 mW/g; SAR(10 g) = 2.06 mW/g
Maximum value of SAR (measured) = 15.4 mW/g



0 dB = 15.4mW/g

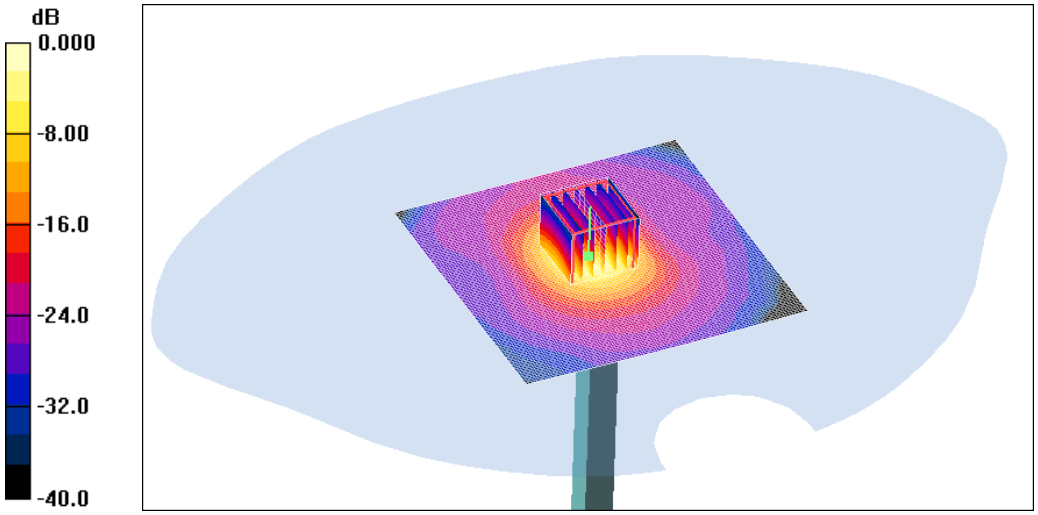
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5500MHz Dipole Validation 2012.08.24
Procedure Name: 5500MHz @ 100mW
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: CW; Frequency: 5500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.2 mho/m; ε_r = 34.9; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.52, 4.52, 4.52); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5500MHz @ 100mW/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 17.1 mW/g

5500MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 53.9 V/m; Power Drift = -0.119 dB
Peak SAR (extrapolated) = 36.1 W/kg
SAR(1 g) = 8.28 mW/g; SAR(10 g) = 2.35 mW/g
Maximum value of SAR (measured) = 17.5 mW/g



0 dB = 17.5mW/g

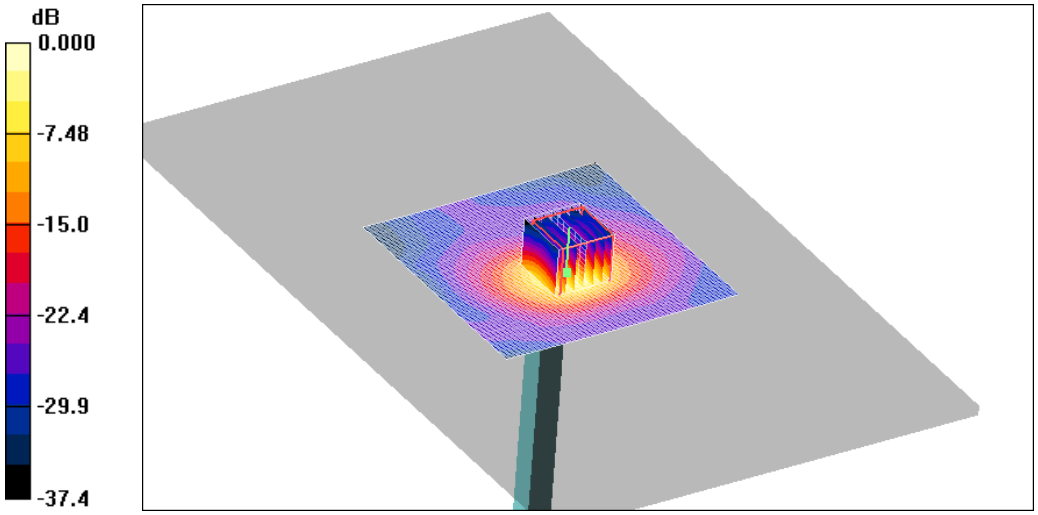
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5500MHz Dipole Validation 2012.08.27
Procedure Name: 5500MHz @ 100mW
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: CW; Frequency: 5500 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5500 MHz; σ = 5.91 mho/m; ε_r = 47.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.38, 3.38, 3.38); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5500MHz @ 100mW/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 19.0 mW/g

5500MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 38.9 V/m; Power Drift = -0.078 dB
Peak SAR (extrapolated) = 33.4 W/kg
SAR(1 g) = 8.11 mW/g; SAR(10 g) = 2.27 mW/g
Maximum value of SAR (measured) = 17.0 mW/g



0 dB = 17.0mW/g

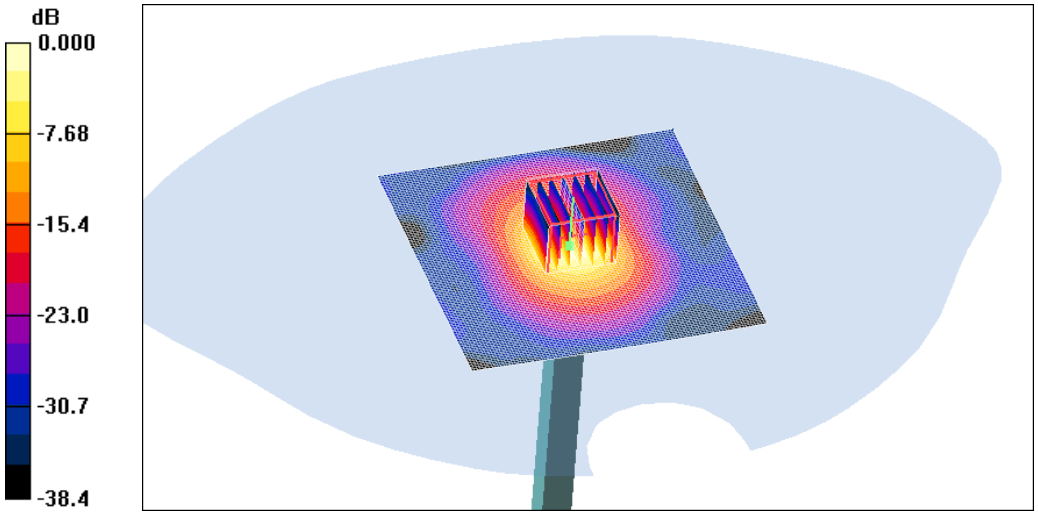
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5800MHz Dipole Validation 2012.08.24
Procedure Name: 5800MHz @ 100mW
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 5.47 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5800MHz @ 100mW/Area Scan (101x101x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 18.1 mW/g

5800MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 58.5 V/m; Power Drift = 0.124 dB
Peak SAR (extrapolated) = 40.4 W/kg
SAR(1 g) = 8.75 mW/g; SAR(10 g) = 2.49 mW/g
Maximum value of SAR (measured) = 18.2 mW/g



0 dB = 18.2mW/g

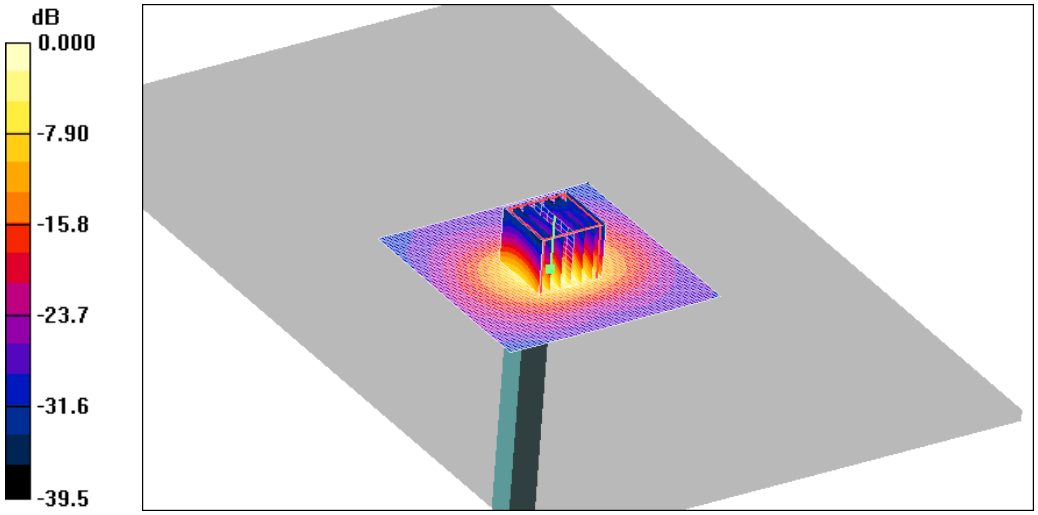
DUT: Dipole 5000 MHz; Serial: D5GHzV2 - SN:1132
Program Name: 5800MHz Dipole Validation 2012.08.27
Procedure Name: 5800MHz @ 100mW
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: CW; Frequency: 5800 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5800 MHz; σ = 6.17 mho/m; ε_r = 46.1; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.5, 3.5, 3.5); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

5800MHz @ 100mW/Area Scan (81x81x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 16.5 mW/g

5800MHz @ 100mW/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 30.3 V/m; Power Drift = 0.190 dB
Peak SAR (extrapolated) = 32.3 W/kg
SAR(1 g) = 7.63 mW/g; SAR(10 g) = 2.13 mW/g
Maximum value of SAR (measured) = 16.6 mW/g



0 dB = 16.6mW/g

APPENDIX E

Plots of The SAR Measurements

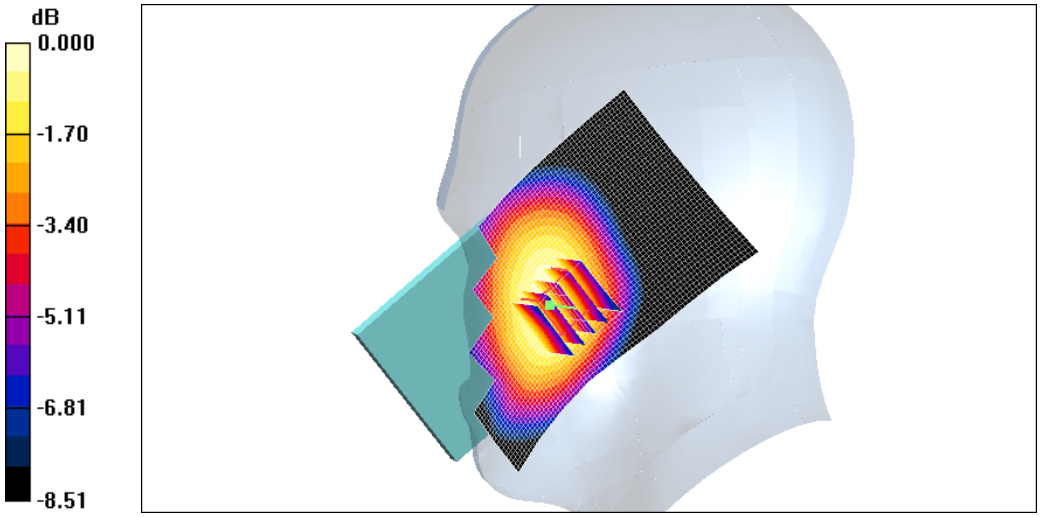
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Right (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.088 mW/g

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.81 V/m; Power Drift = 0.040 dB
Peak SAR (extrapolated) = 0.099 W/kg
SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.063 mW/g
Maximum value of SAR (measured) = 0.088 mW/g



0 dB = 0.088mW/g

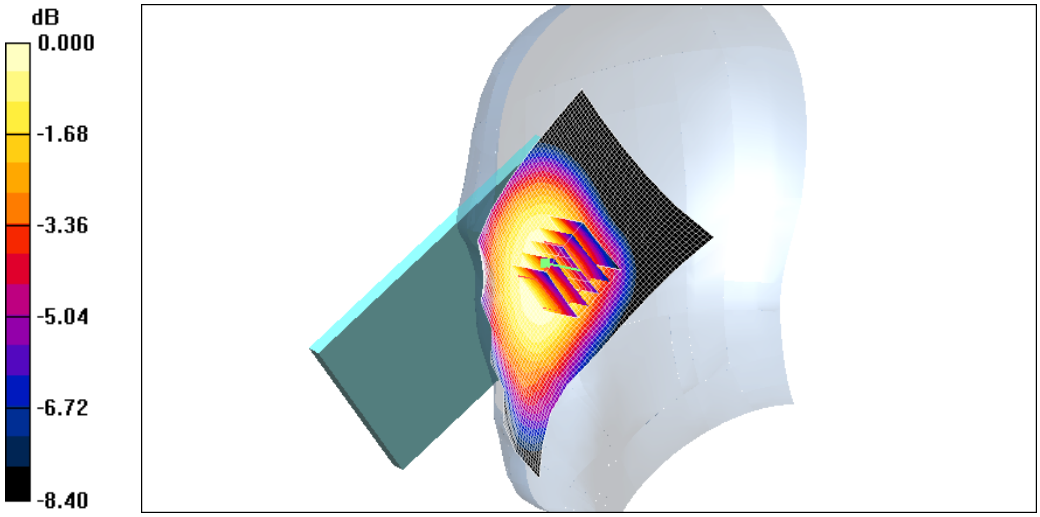
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Right (Job No. : FJ-216)
Procedure Name: Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.044 mW/g

Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.01 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.050 W/kg
SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.032 mW/g
Maximum value of SAR (measured) = 0.044 mW/g



0 dB = 0.044mW/g

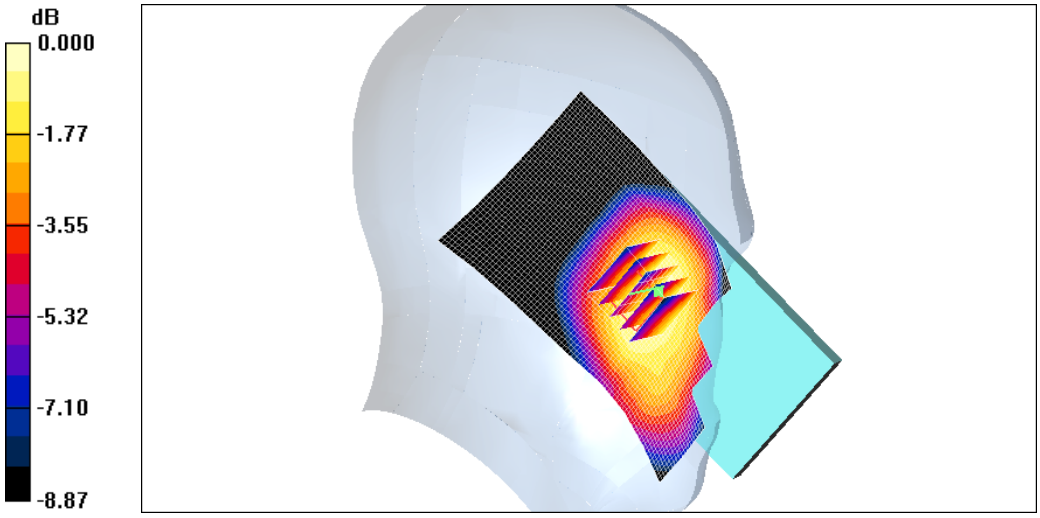
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Left (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.092 mW/g

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 0.107 W/kg
SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.068 mW/g
Maximum value of SAR (measured) = 0.095 mW/g



0 dB = 0.095mW/g

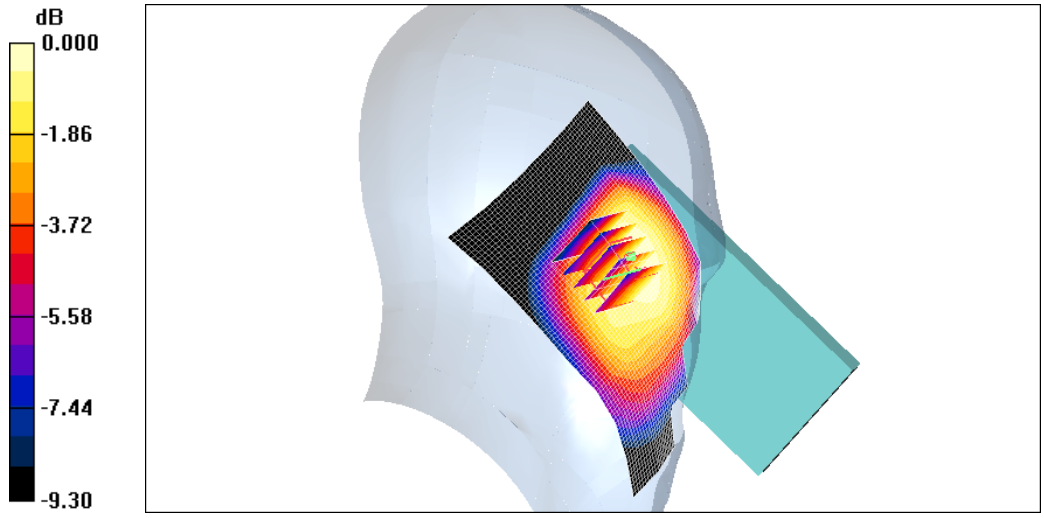
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Left (Job No. : FJ-216)
Procedure Name: Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.060 mW/g

Ear/Tilt, Ch.190, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.02 V/m; Power Drift = -0.016 dB
Peak SAR (extrapolated) = 0.064 W/kg
SAR(1 g) = 0.052 mW/g; SAR(10 g) = 0.041 mW/g
Maximum value of SAR (measured) = 0.057 mW/g



0 dB = 0.057mW/g

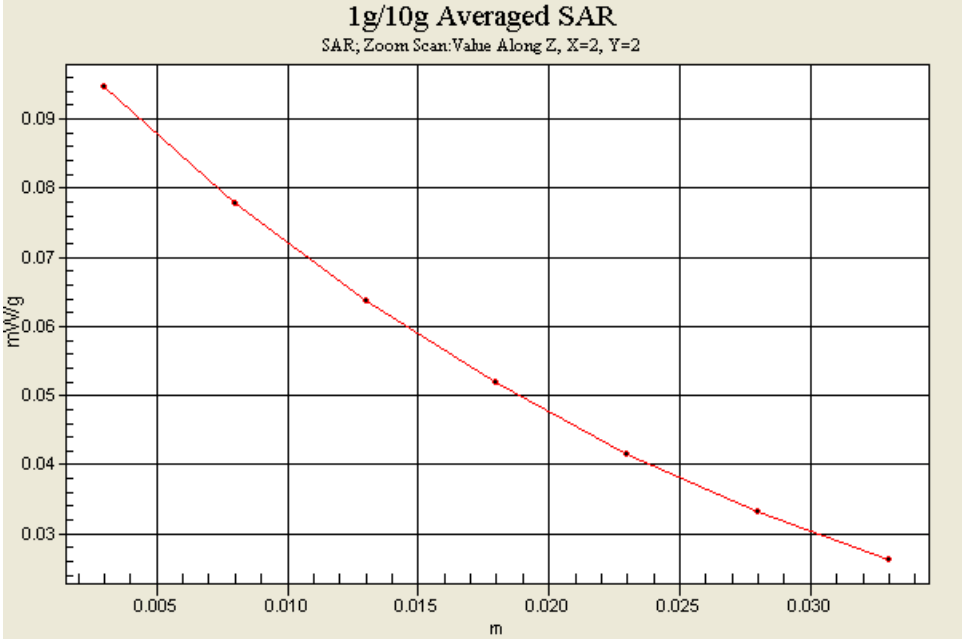
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Left (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.092 mW/g

Cheek/Touch, Ch.190, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.2 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 0.107 W/kg
SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.068 mW/g
Maximum value of SAR (measured) = 0.095 mW/g



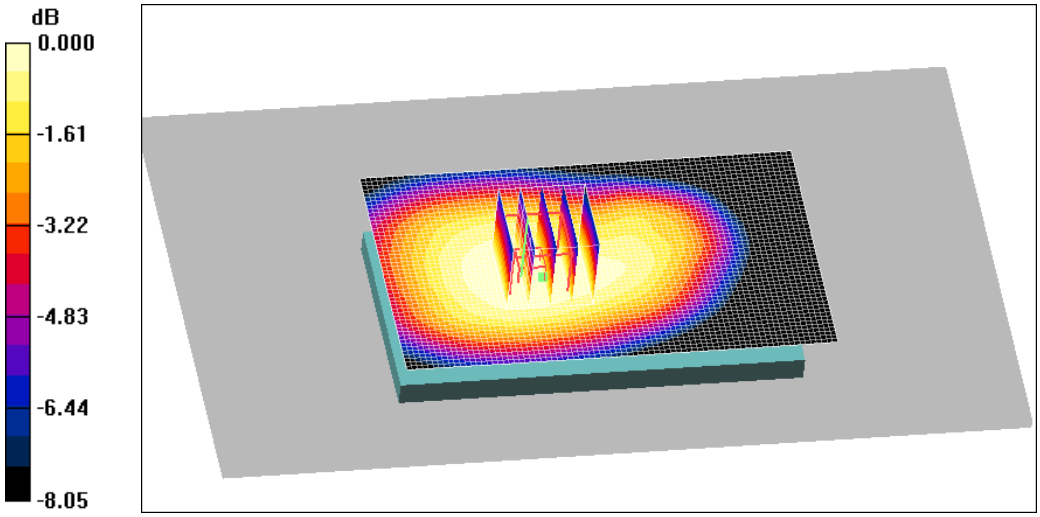
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.238 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 0.267 W/kg
SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.169 mW/g
Maximum value of SAR (measured) = 0.235 mW/g



0 dB = 0.235mW/g

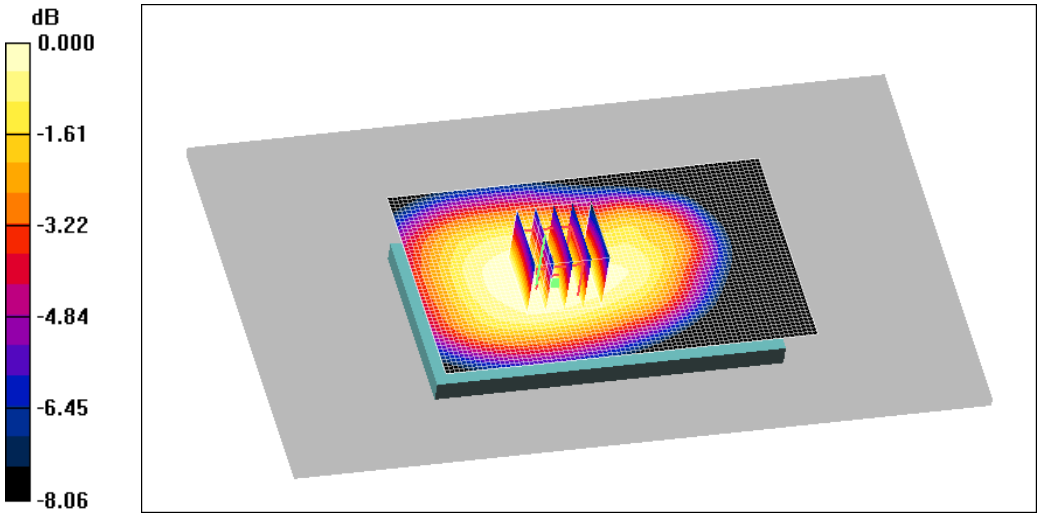
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.228 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.1 V/m; Power Drift = -0.006 dB
Peak SAR (extrapolated) = 0.257 W/kg
SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.162 mW/g
Maximum value of SAR (measured) = 0.226 mW/g



0 dB = 0.226mW/g

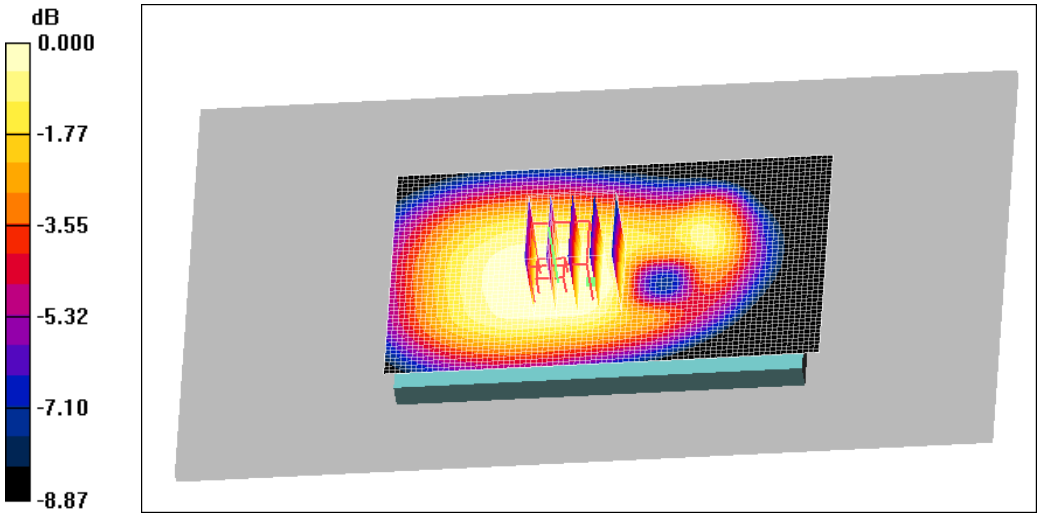
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.510 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm/Zoom Scan 2 (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.0 V/m; Power Drift = 0.012 dB
Peak SAR (extrapolated) = 0.541 W/kg
SAR(1 g) = 0.435 mW/g; SAR(10 g) = 0.337 mW/g
Maximum value of SAR (measured) = 0.474 mW/g



0 dB = 0.474mW/g

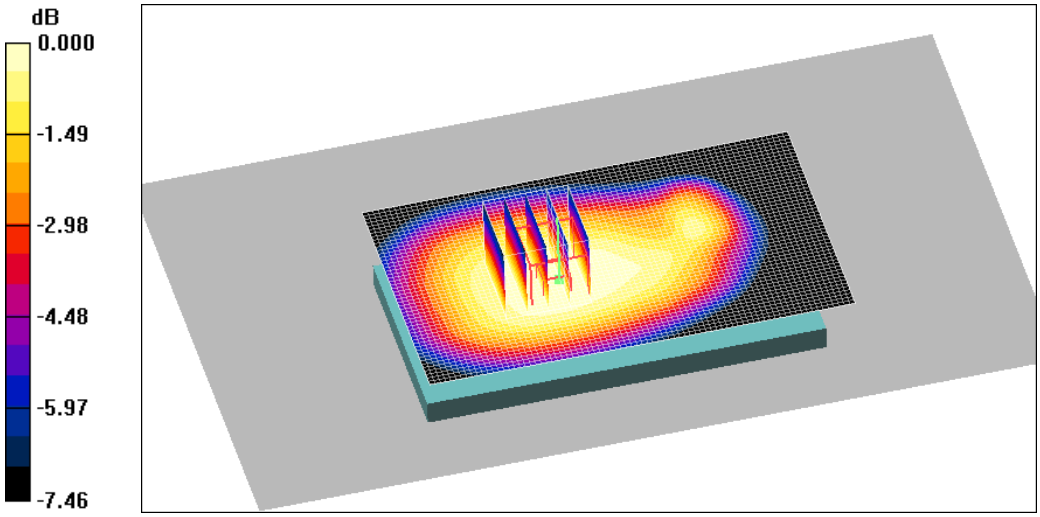
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.562 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.1 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 0.634 W/kg
SAR(1 g) = 0.508 mW/g; SAR(10 g) = 0.394 mW/g
Maximum value of SAR (measured) = 0.554 mW/g



0 dB = 0.554mW/g

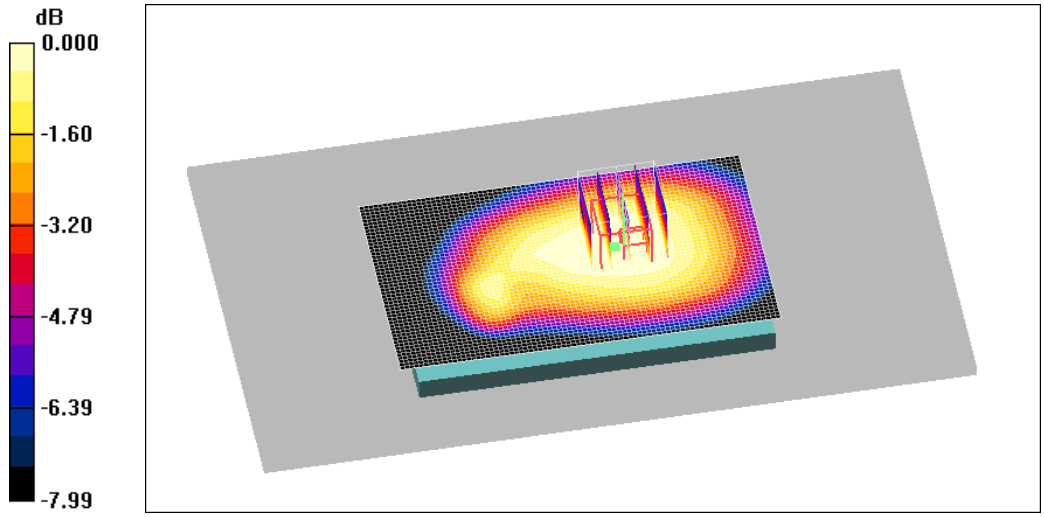
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.075
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.401 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.3 V/m; Power Drift = 0.025 dB
Peak SAR (extrapolated) = 0.469 W/kg
SAR(1 g) = 0.367 mW/g; SAR(10 g) = 0.284 mW/g
Maximum value of SAR (measured) = 0.398 mW/g



0 dB = 0.398mW/g

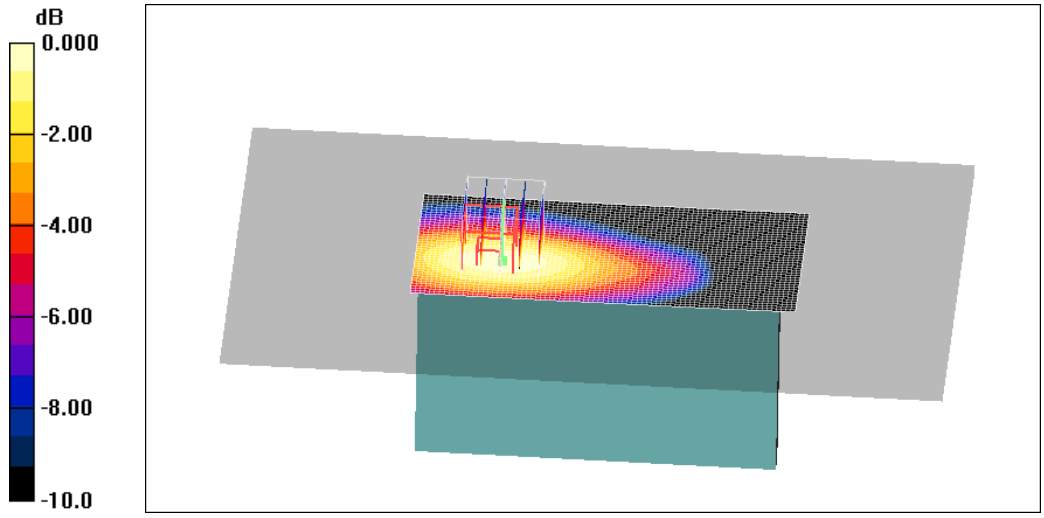
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Left, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Left, 10mm/Area Scan (41x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.223 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Left, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.018 dB
Peak SAR (extrapolated) = 0.292 W/kg
SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.133 mW/g
Maximum value of SAR (measured) = 0.227 mW/g



0 dB = 0.227mW/g

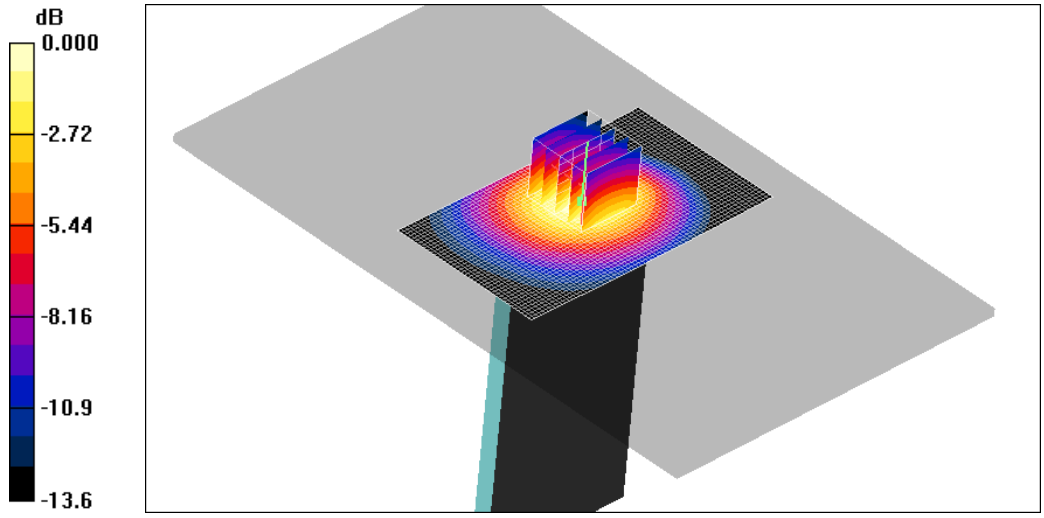
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Bottom, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Bottom, 10mm/Area Scan (71x41x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.275 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Bottom, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.351 W/kg
SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.150 mW/g
Maximum value of SAR (measured) = 0.271 mW/g



0 dB = 0.271mW/g

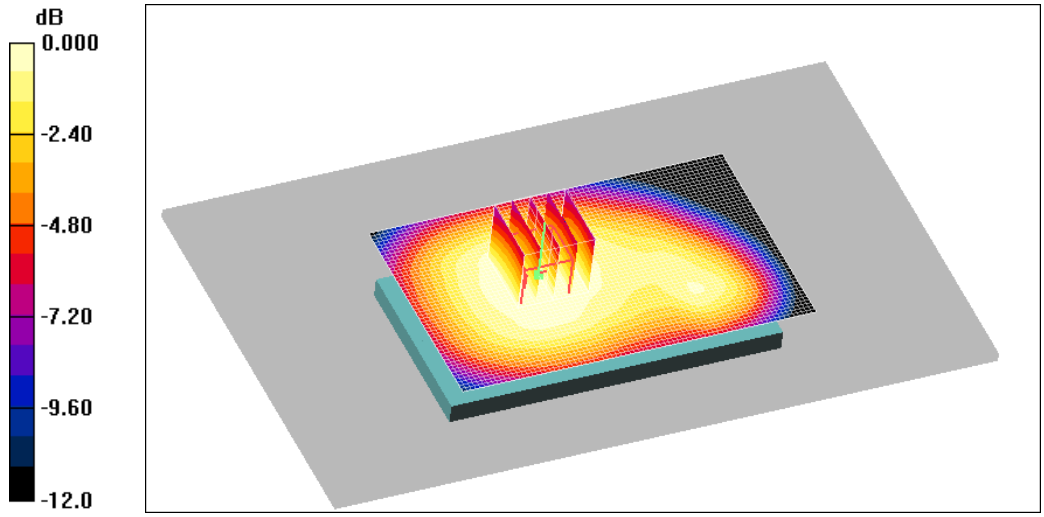
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Front, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Front, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.255 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Front, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.4 V/m; Power Drift = 0.026 dB
Peak SAR (extrapolated) = 0.288 W/kg
SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.180 mW/g
Maximum value of SAR (measured) = 0.253 mW/g



0 dB = 0.253mW/g

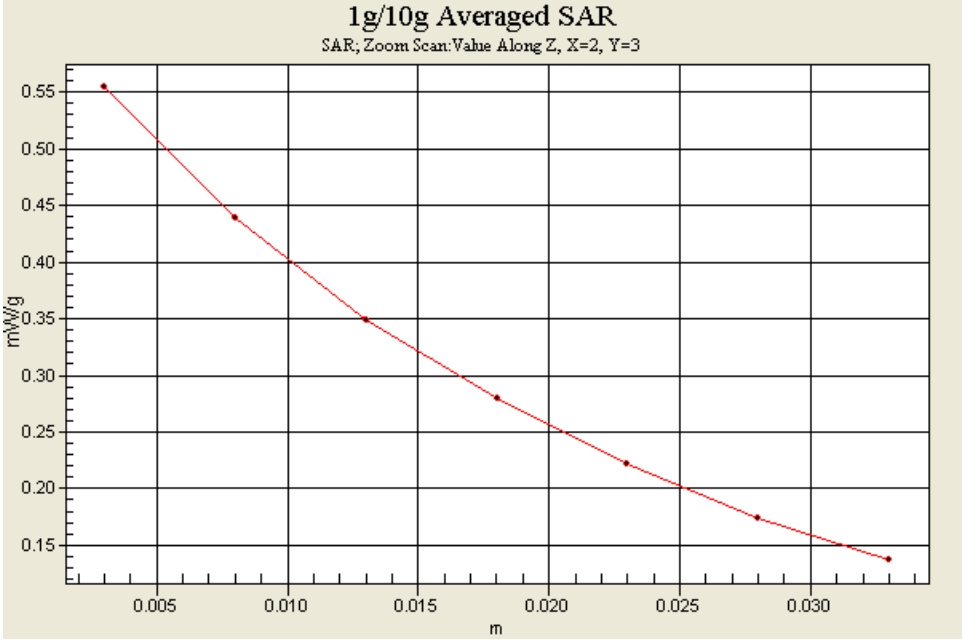
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.562 mW/g

Body, Ch.190, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.1 V/m; Power Drift = -0.032 dB
Peak SAR (extrapolated) = 0.634 W/kg
SAR(1 g) = 0.508 mW/g; SAR(10 g) = 0.394 mW/g
Maximum value of SAR (measured) = 0.554 mW/g



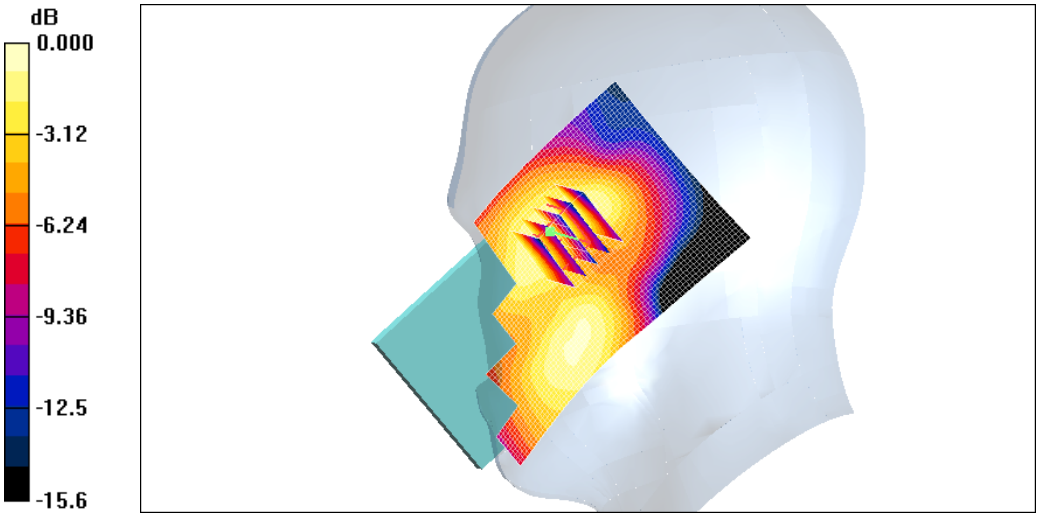
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.661, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.045 mW/g

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.37 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 0.068 W/kg
SAR(1 g) = 0.044 mW/g; SAR(10 g) = 0.027 mW/g
Maximum value of SAR (measured) = 0.052 mW/g



0 dB = 0.052mW/g

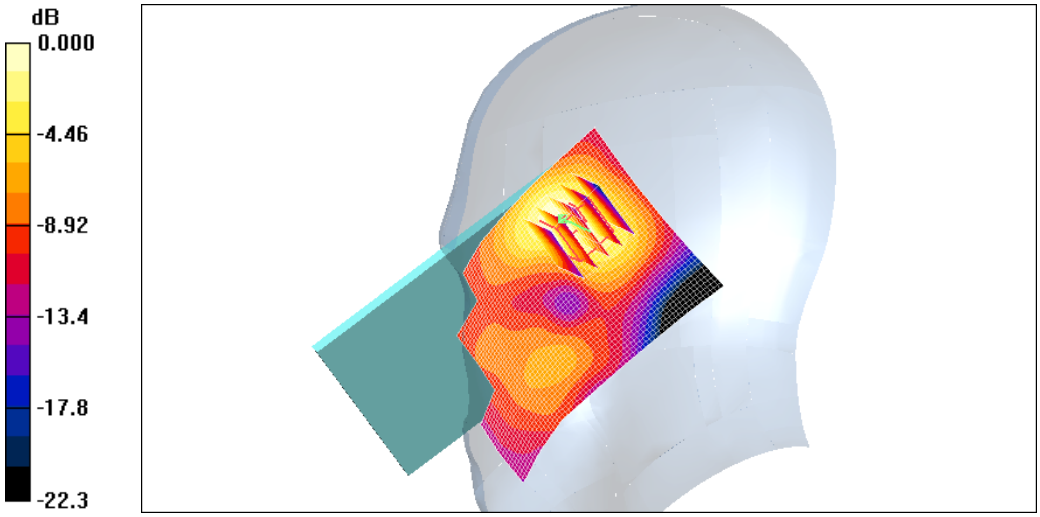
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.661, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.053 mW/g

Tilt, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.20 V/m; Power Drift = -0.116 dB
Peak SAR (extrapolated) = 0.068 W/kg
SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.027 mW/g
Maximum value of SAR (measured) = 0.052 mW/g



0 dB = 0.052mW/g

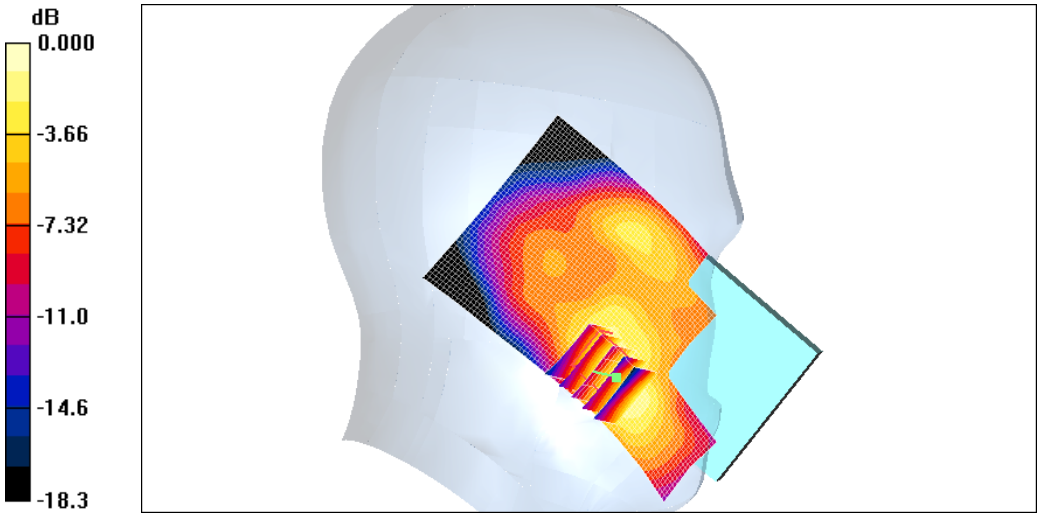
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.661, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.071 mW/g

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.53 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 0.092 W/kg
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.038 mW/g
Maximum value of SAR (measured) = 0.071 mW/g



0 dB = 0.071mW/g

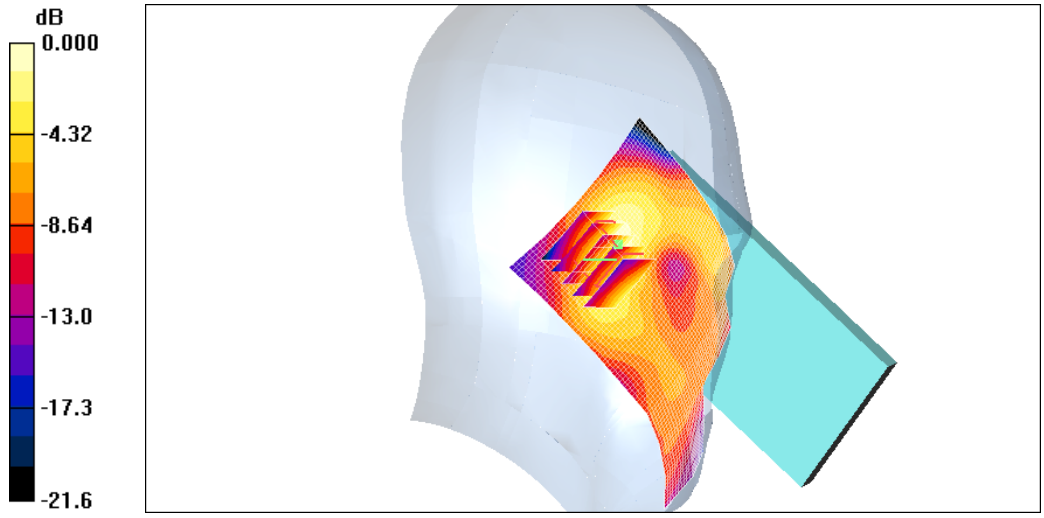
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.661, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.037 mW/g

Tilt, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.66 V/m; Power Drift = -0.003 dB
Peak SAR (extrapolated) = 0.051 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.039 mW/g



0 dB = 0.039mW/g

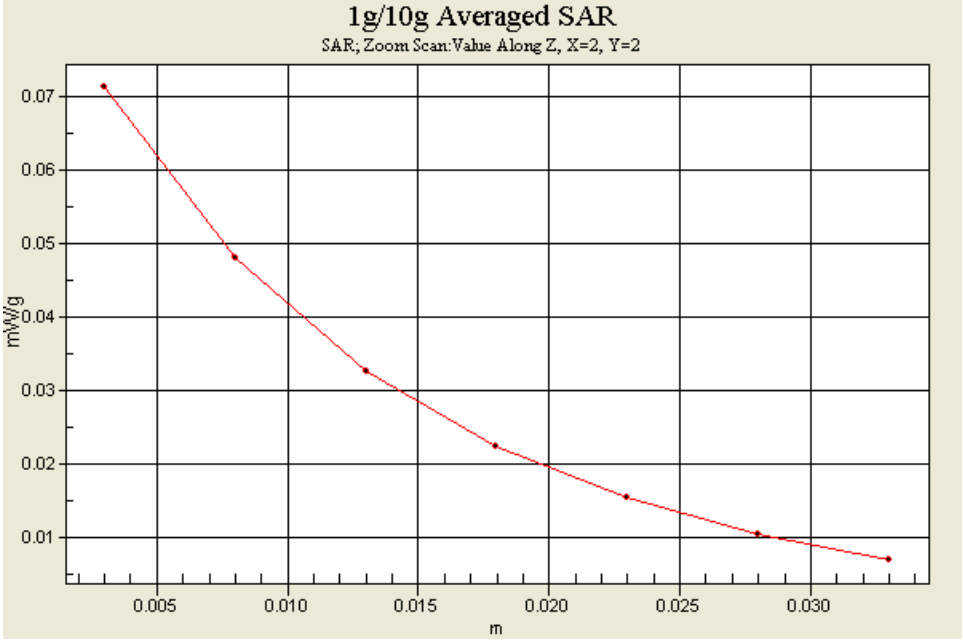
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.661, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.7,Tissue Temp(celsius)-22.4;Test Date-24/Aug/2012

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.38 mho/m; ε_r = 39.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.94, 4.94, 4.94); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.071 mW/g

Cheek, Ch.661, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.53 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 0.092 W/kg
SAR(1 g) = 0.061 mW/g; SAR(10 g) = 0.038 mW/g
Maximum value of SAR (measured) = 0.071 mW/g



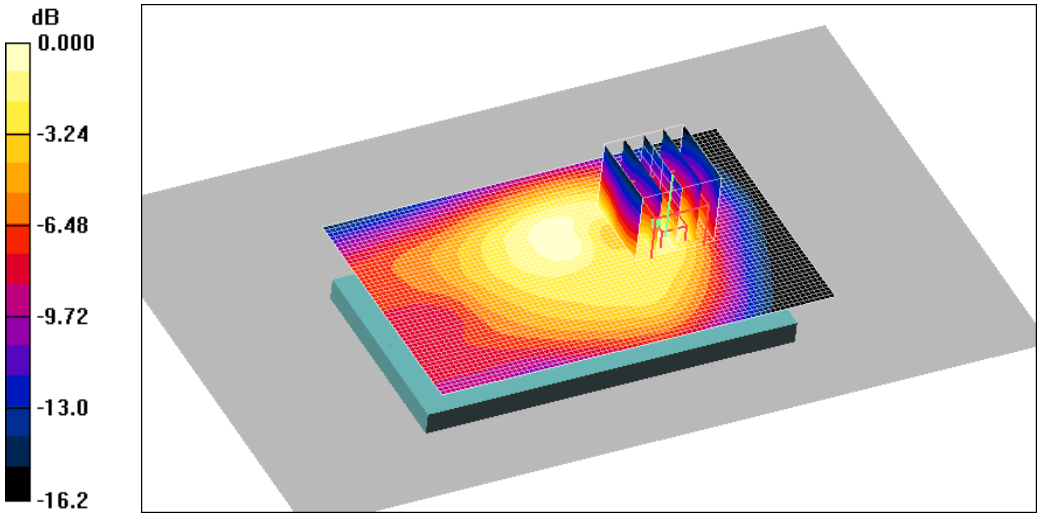
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GSM1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.196 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, Voice call, 1Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.86 V/m; Power Drift = 0.046 dB
Peak SAR (extrapolated) = 0.264 W/kg
SAR(1 g) = 0.158 mW/g; SAR(10 g) = 0.085 mW/g
Maximum value of SAR (measured) = 0.202 mW/g



0 dB = 0.202mW/g

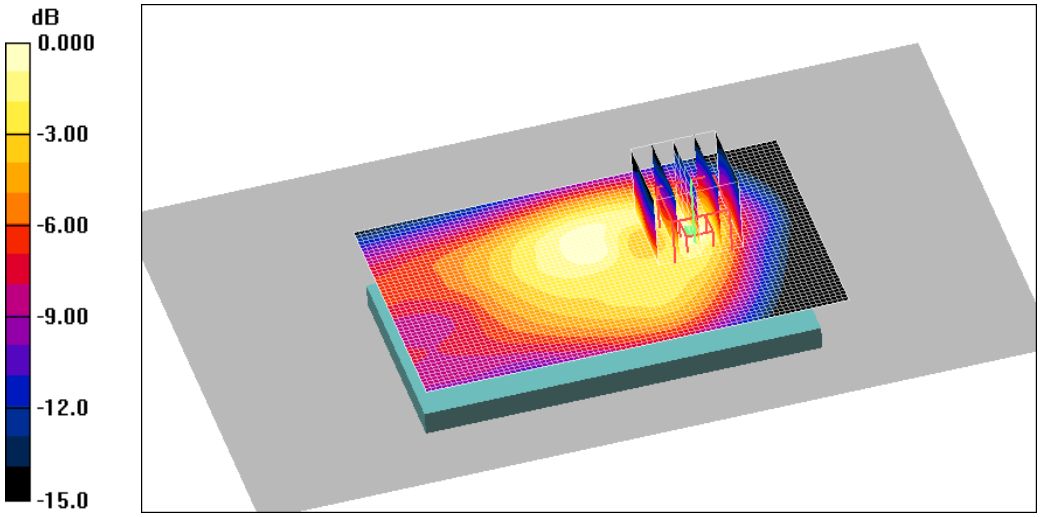
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.200 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 1Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.0 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 0.263 W/kg
SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.086 mW/g
Maximum value of SAR (measured) = 0.203 mW/g



0 dB = 0.203mW/g

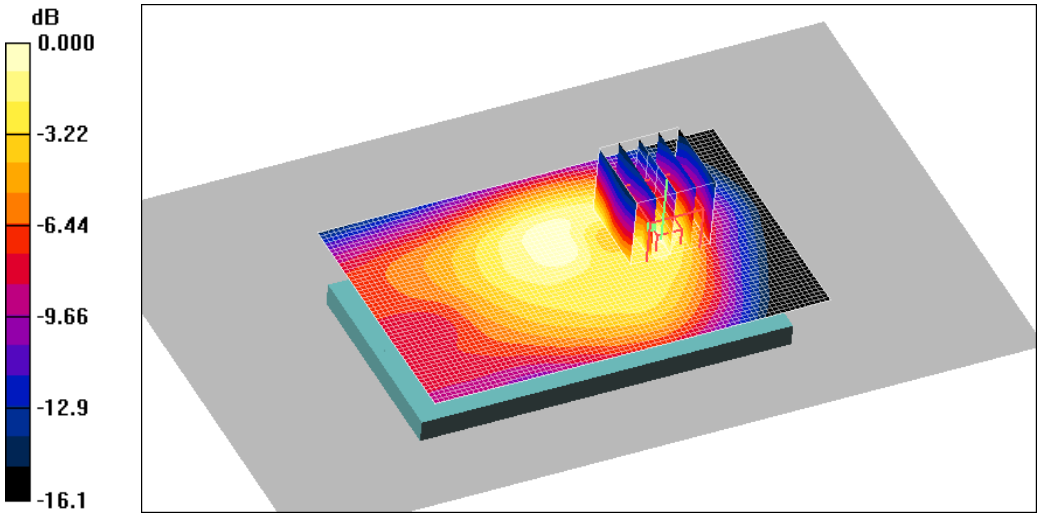
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.381 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.9 V/m; Power Drift = -0.028 dB
Peak SAR (extrapolated) = 0.586 W/kg
SAR(1 g) = 0.305 mW/g; SAR(10 g) = 0.161 mW/g
Maximum value of SAR (measured) = 0.382 mW/g



0 dB = 0.382mW/g

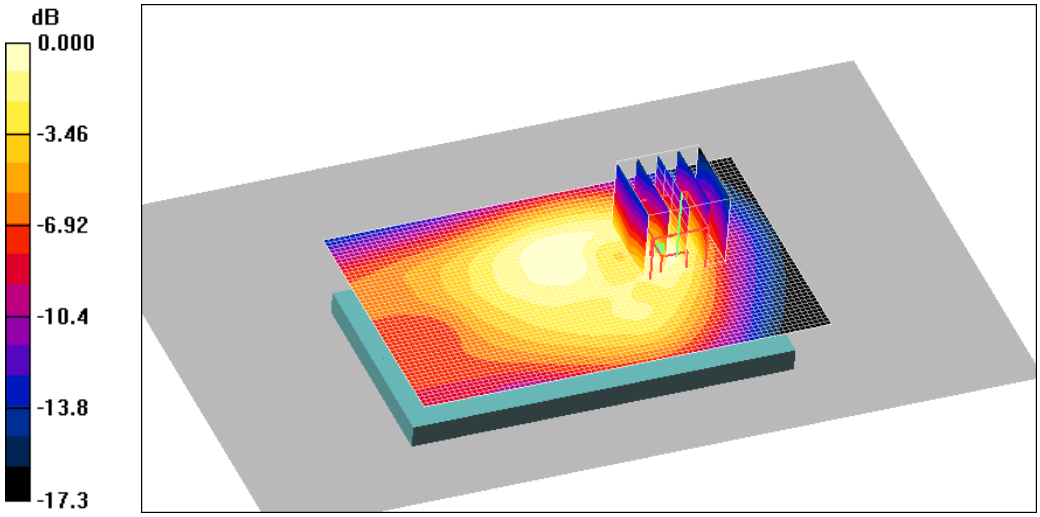
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:2.767
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.376 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 3Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.8 V/m; Power Drift = -0.039 dB
Peak SAR (extrapolated) = 0.496 W/kg
SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.159 mW/g
Maximum value of SAR (measured) = 0.353 mW/g



0 dB = 0.353mW/g

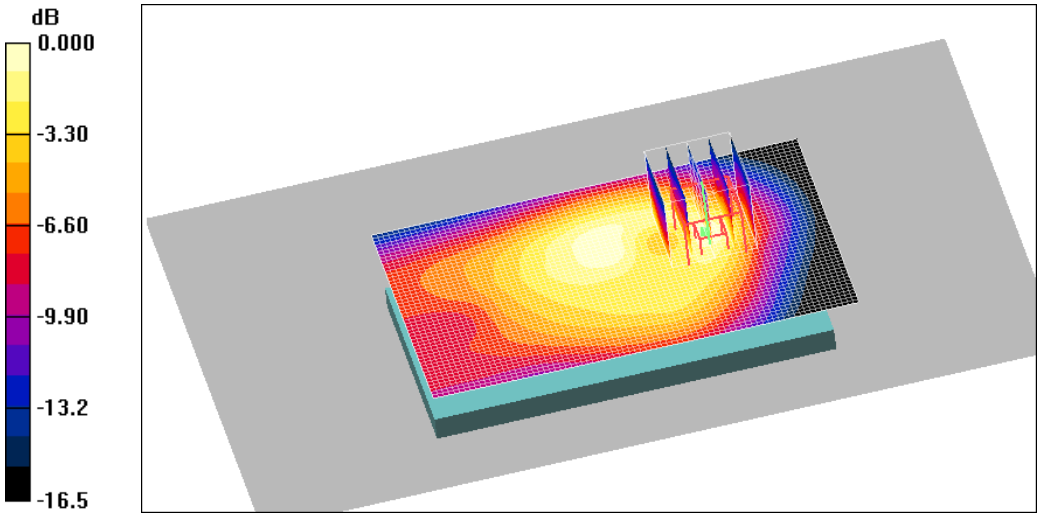
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:2.075
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.238 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 4Tx, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.9 V/m; Power Drift = 0.020 dB
Peak SAR (extrapolated) = 0.317 W/kg
SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.102 mW/g
Maximum value of SAR (measured) = 0.243 mW/g



0 dB = 0.243mW/g

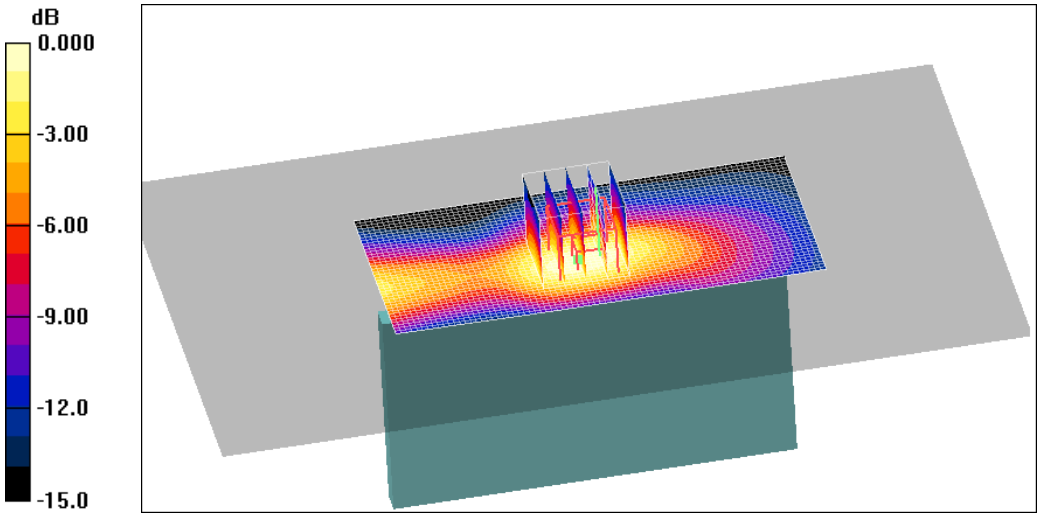
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Left, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Left, 10mm/Area Scan (41x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.277 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Left, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.2 V/m; Power Drift = 0.004 dB
Peak SAR (extrapolated) = 0.361 W/kg
SAR(1 g) = 0.232 mW/g; SAR(10 g) = 0.139 mW/g
Maximum value of SAR (measured) = 0.275 mW/g



0 dB = 0.275mW/g

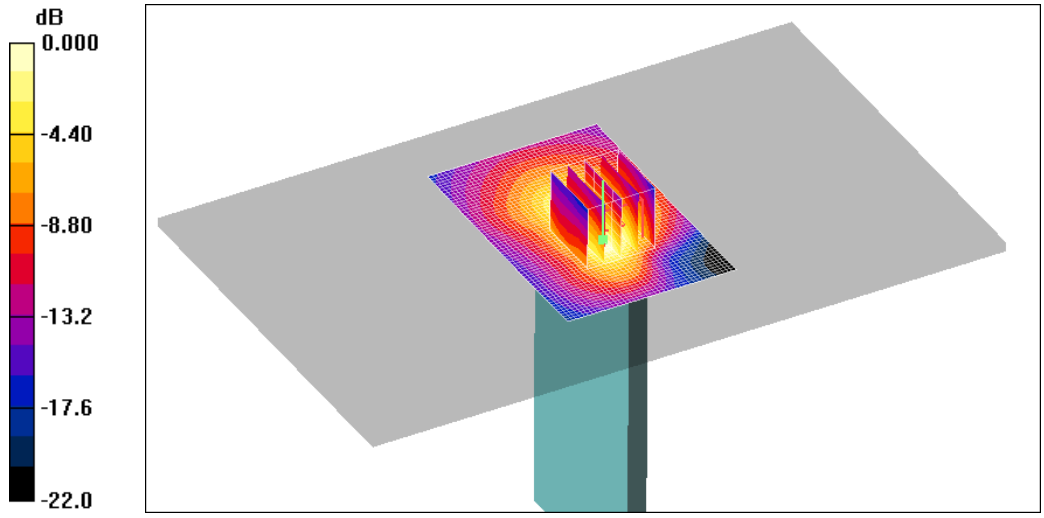
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm/Area Scan (61x41x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.425 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.4 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 0.580 W/kg
SAR(1 g) = 0.345 mW/g; SAR(10 g) = 0.188 mW/g
Maximum value of SAR (measured) = 0.408 mW/g



0 dB = 0.408mW/g

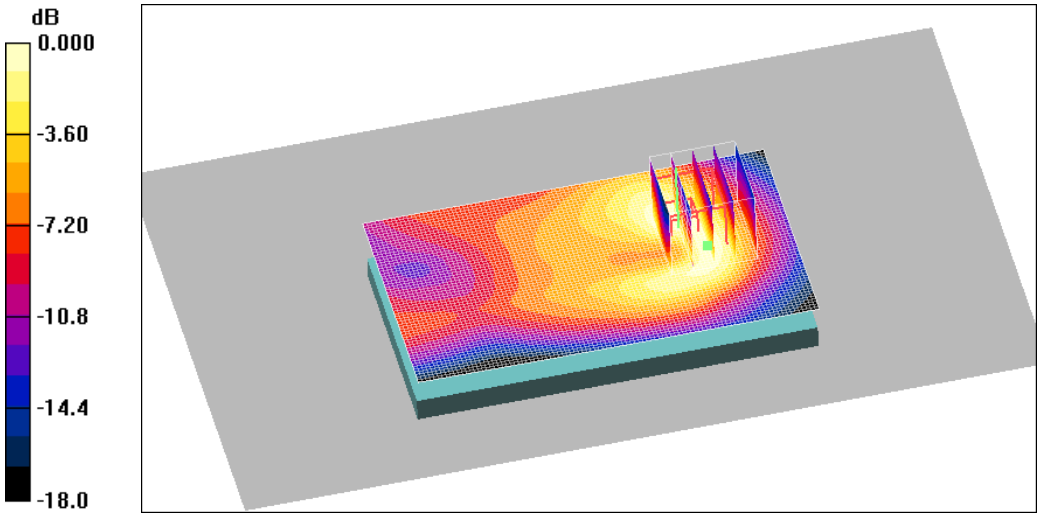
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Front, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Front, 10mm/Area Scan (61x101x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.317 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Front, 10mm/Zoom Scan 2 (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.85 V/m; Power Drift = -0.007 dB
Peak SAR (extrapolated) = 0.451 W/kg
SAR(1 g) = 0.280 mW/g; SAR(10 g) = 0.159 mW/g
Maximum value of SAR (measured) = 0.333 mW/g



0 dB = 0.333mW/g

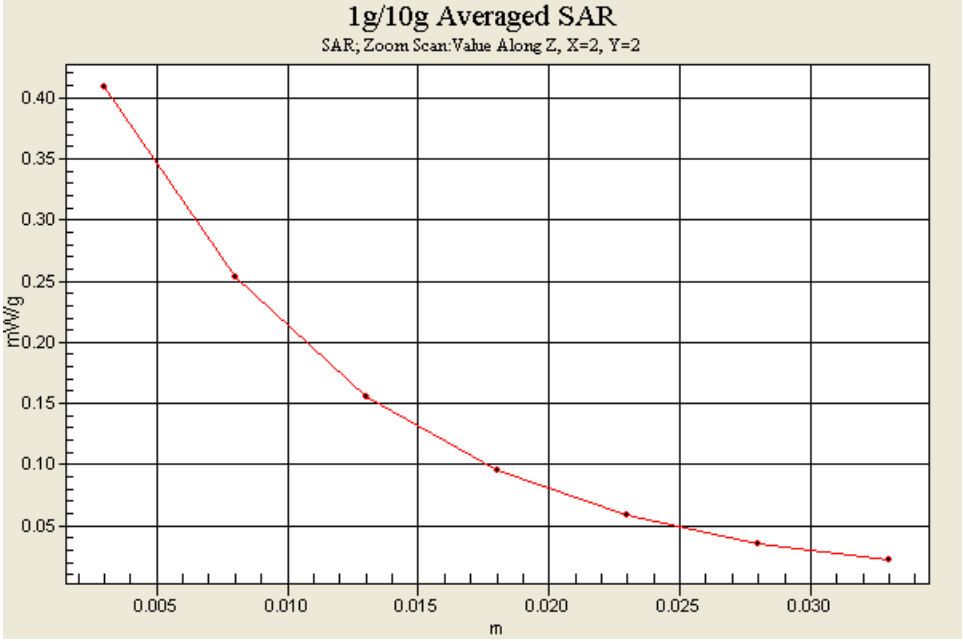
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 GPRS1900 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.2;Test Date-24/Aug/2012

Communication System: Body GPRS ; Frequency: 1880 MHz;Duty Cycle: 1:4.15
Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ε_r = 52.1; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.56, 4.56, 4.56); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm/Area Scan (61x41x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.425 mW/g

Body, Ch.661, Ant.Intenna, Bat.Standard, 2Tx, Bottom, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.4 V/m; Power Drift = 0.000 dB
Peak SAR (extrapolated) = 0.580 W/kg
SAR(1 g) = 0.345 mW/g; SAR(10 g) = 0.188 mW/g
Maximum value of SAR (measured) = 0.408 mW/g



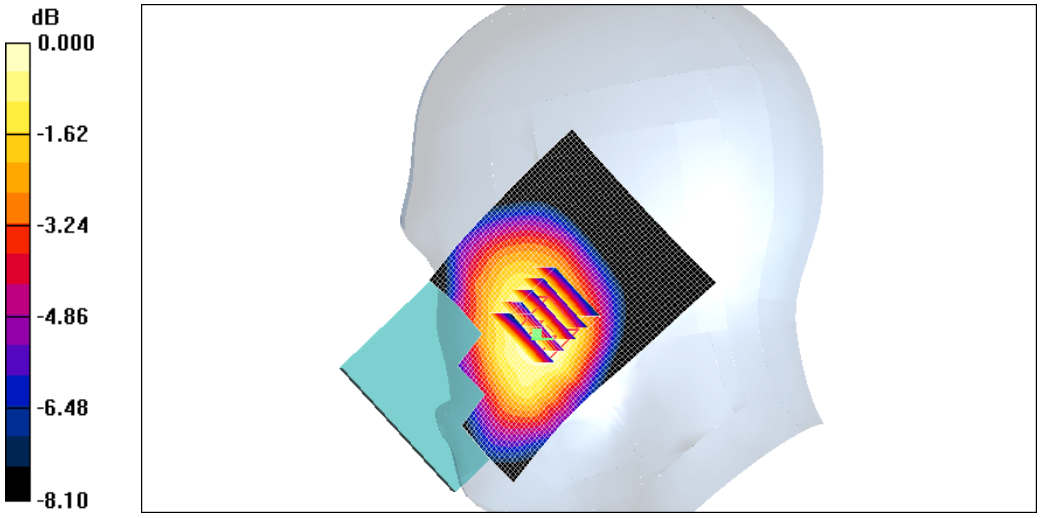
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Right (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.078 mW/g

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.17 V/m; Power Drift = 0.031 dB
Peak SAR (extrapolated) = 0.089 W/kg
SAR(1 g) = 0.072 mW/g; SAR(10 g) = 0.056 mW/g
Maximum value of SAR (measured) = 0.078 mW/g



0 dB = 0.078mW/g

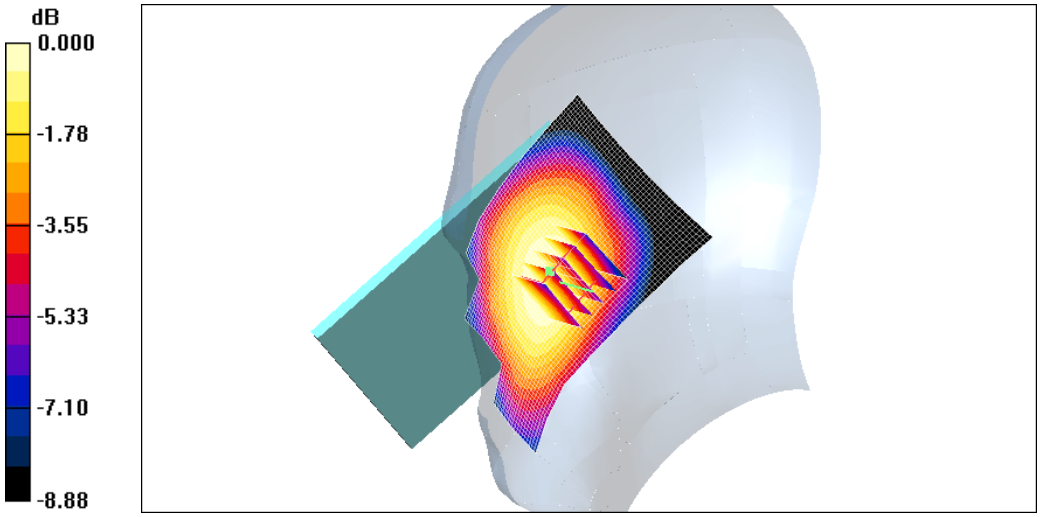
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Right (Job No. : FJ-216)
Procedure Name: Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.041 mW/g

Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.62 V/m; Power Drift = 0.078 dB
Peak SAR (extrapolated) = 0.045 W/kg
SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.030 mW/g
Maximum value of SAR (measured) = 0.040 mW/g



0 dB = 0.040mW/g

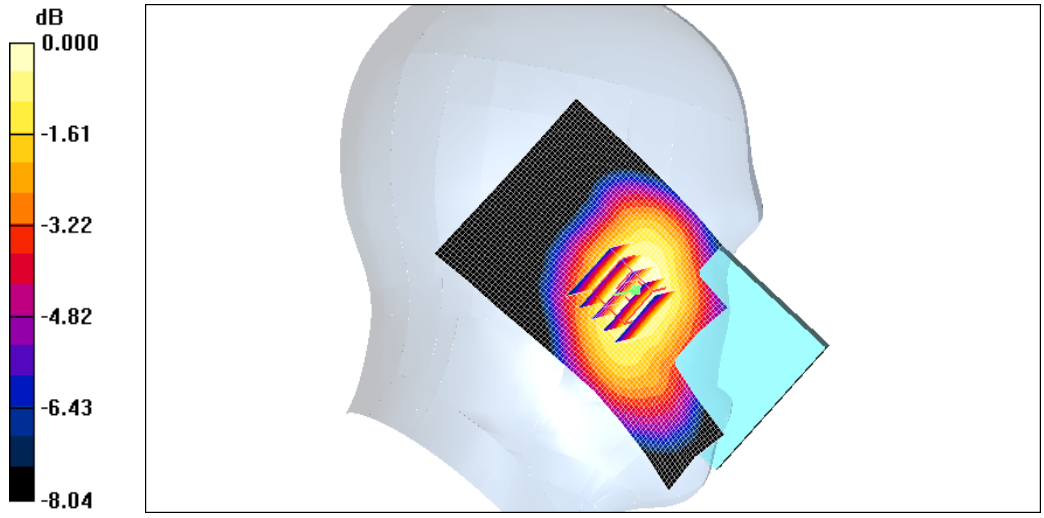
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Left (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.089 mW/g

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.84 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.096 W/kg
SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.061 mW/g
Maximum value of SAR (measured) = 0.085 mW/g



0 dB = 0.085mW/g

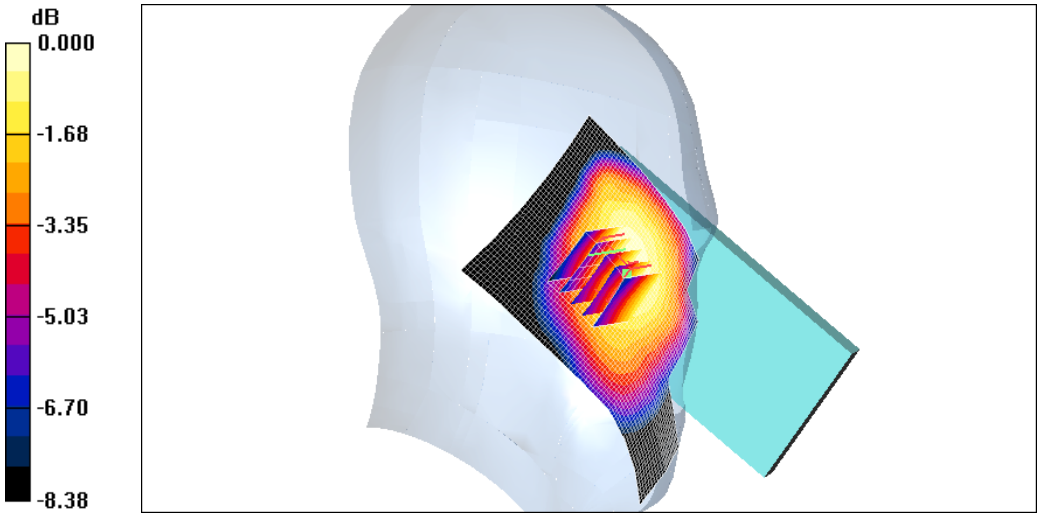
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Left (Job No. : FJ-216)
Procedure Name: Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.050 mW/g

Ear/Tilt, Ch.4183, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.46 V/m; Power Drift = 0.022 dB
Peak SAR (extrapolated) = 0.058 W/kg
SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.036 mW/g
Maximum value of SAR (measured) = 0.050 mW/g



0 dB = 0.050mW/g

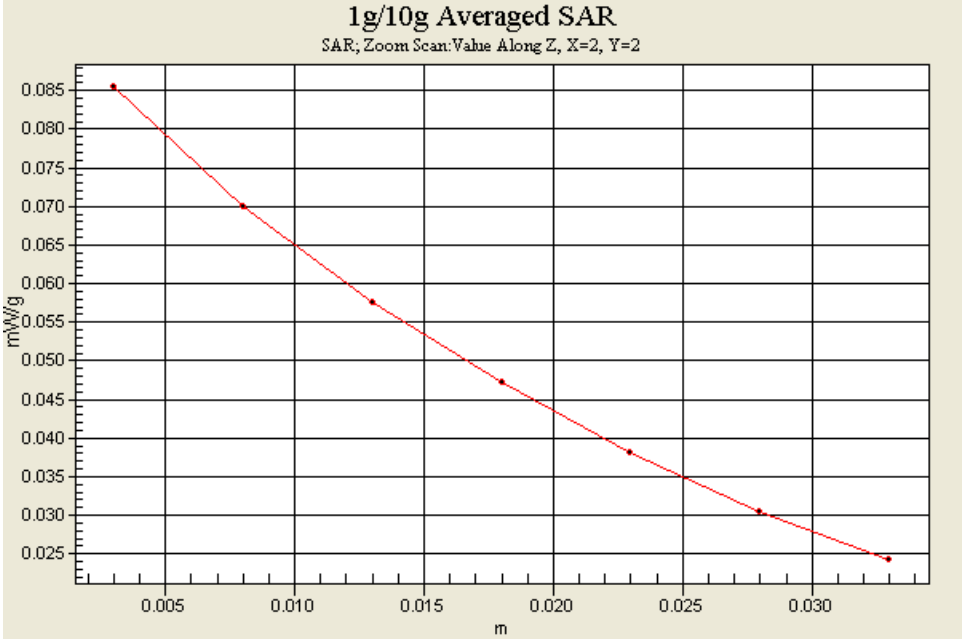
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Left (Job No. : FJ-216)
Procedure Name: Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard
Meas. Ambient Temp(celsius)-22.8,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.907 mho/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.31, 6.31, 6.31); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #2; Type: SAM; Serial: TP-1141
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Area Scan (51x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.089 mW/g

Cheek/Touch, Ch.4183, Ant.Intenna, Bat.Standard/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.84 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.096 W/kg
SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.061 mW/g
Maximum value of SAR (measured) = 0.085 mW/g



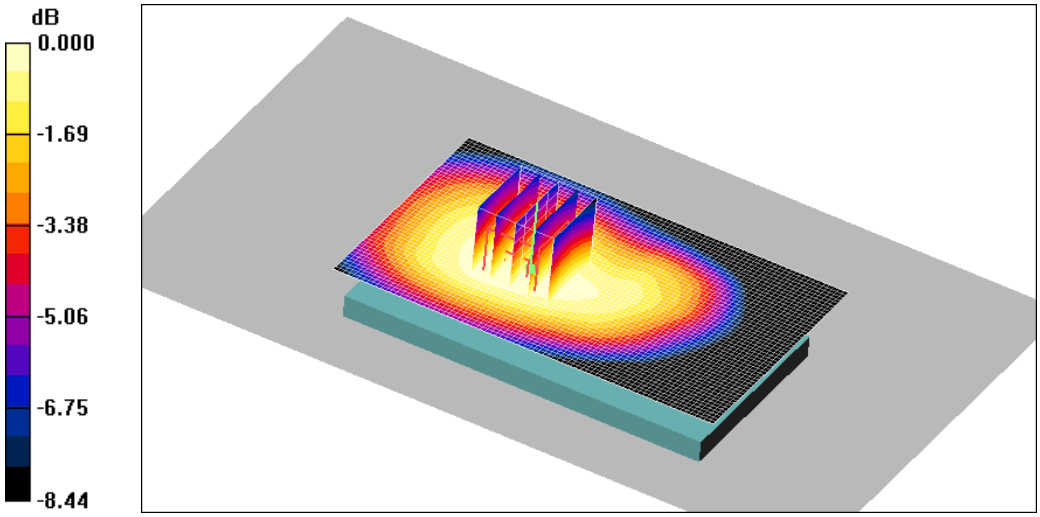
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.228 mW/g

Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.9 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.263 W/kg
SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.165 mW/g
Maximum value of SAR (measured) = 0.231 mW/g



0 dB = 0.231mW/g

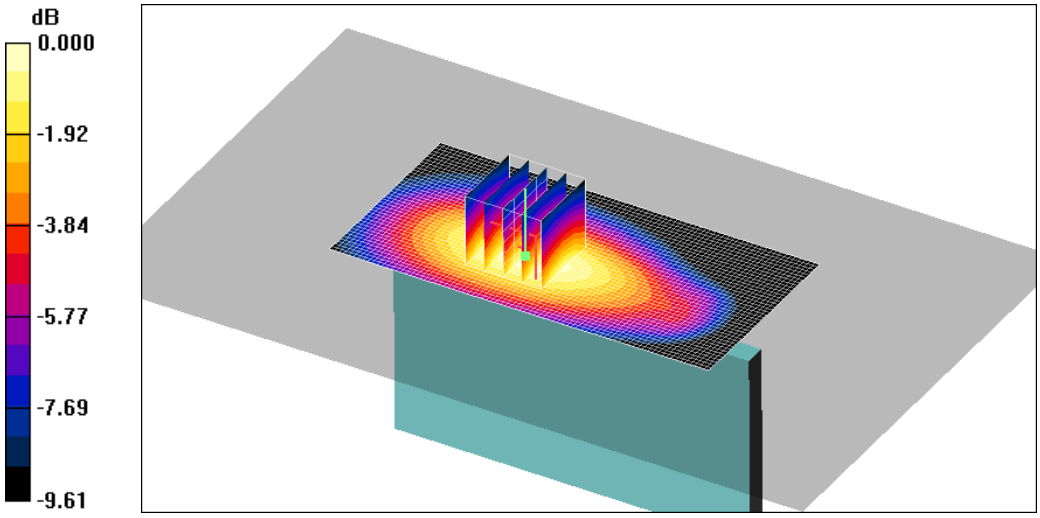
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.4183, Ant.Intenna, Bat.Standard, Left, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.4183, Ant.Intenna, Bat.Standard, Left, 10mm/Area Scan (41x81x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.102 mW/g

Body, Ch.4183, Ant.Intenna, Bat.Standard, Left, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.36 V/m; Power Drift = 0.004 dB
Peak SAR (extrapolated) = 0.127 W/kg
SAR(1 g) = 0.091 mW/g; SAR(10 g) = 0.063 mW/g
Maximum value of SAR (measured) = 0.104 mW/g



0 dB = 0.104mW/g

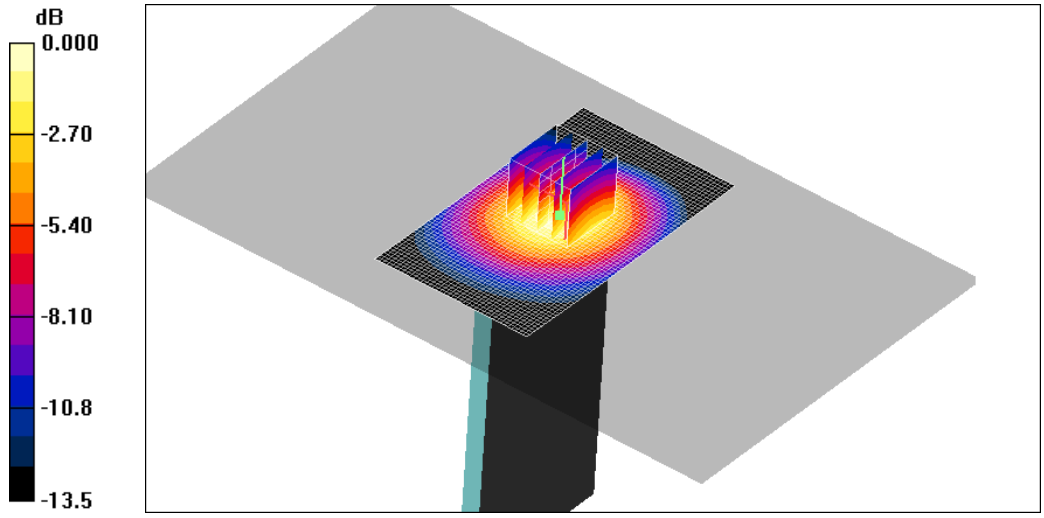
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.4183, Ant.Intenna, Bat.Standard, Bottom, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.4183, Ant.Intenna, Bat.Standard, Bottom, 10mm/Area Scan (71x41x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.123 mW/g

Body, Ch.4183, Ant.Intenna, Bat.Standard, Bottom, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.7 V/m; Power Drift = -0.011 dB
Peak SAR (extrapolated) = 0.155 W/kg
SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.066 mW/g
Maximum value of SAR (measured) = 0.120 mW/g



0 dB = 0.120mW/g

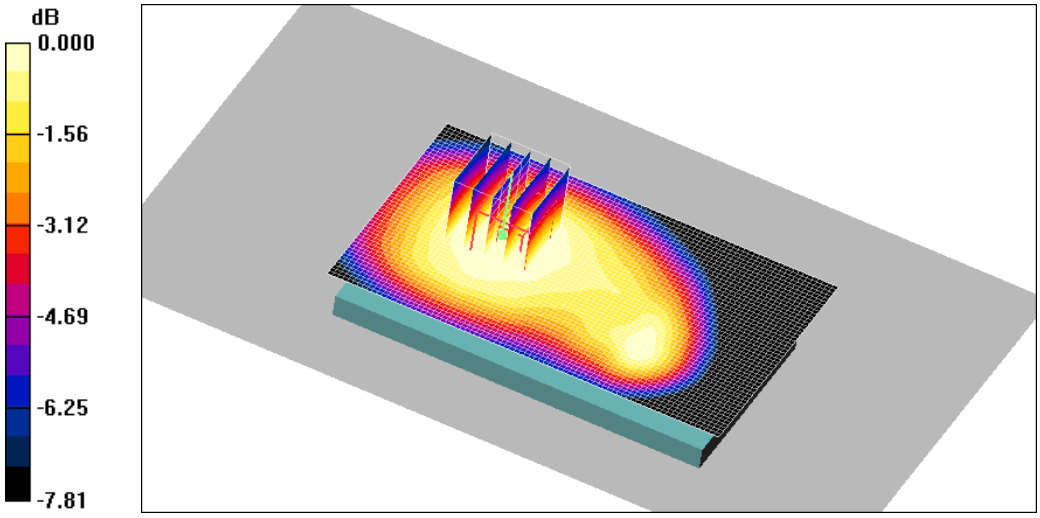
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.4183, Ant.Intenna, Bat.Standard, Front, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.4183, Ant.Intenna, Bat.Standard, Front, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.108 mW/g

Body, Ch.4183, Ant.Intenna, Bat.Standard, Front, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.77 V/m; Power Drift = -0.008 dB
Peak SAR (extrapolated) = 0.121 W/kg
SAR(1 g) = 0.099 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.107 mW/g



0 dB = 0.107mW/g

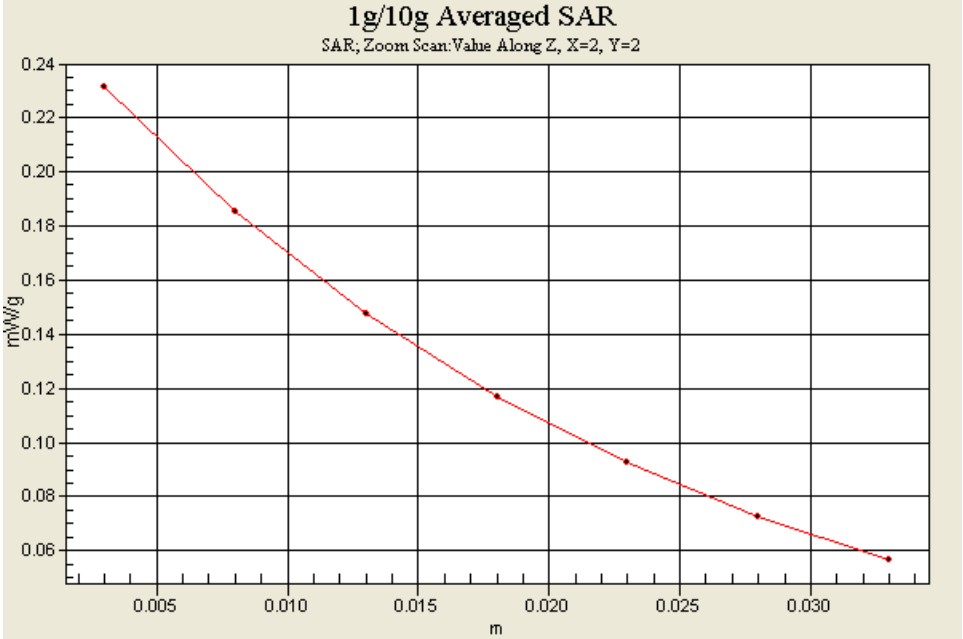
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 WCDMA850 Body (Job No. : FJ-216)
Procedure Name: Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm
Meas. Ambient Temp(celsius)-22.9,Tissue Temp(celsius)-22.5;Test Date-22/Aug/2012

Communication System: W-CDMA 850; Frequency: 836.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 836.78 MHz; σ = 0.996 mho/m; ε_r = 55; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(6.21, 6.21, 6.21); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm/Area Scan (51x81x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.228 mW/g

Body, Ch.4183, Ant.Intenna, Bat.Standard, Back, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.9 V/m; Power Drift = -0.002 dB
Peak SAR (extrapolated) = 0.263 W/kg
SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.165 mW/g
Maximum value of SAR (measured) = 0.231 mW/g



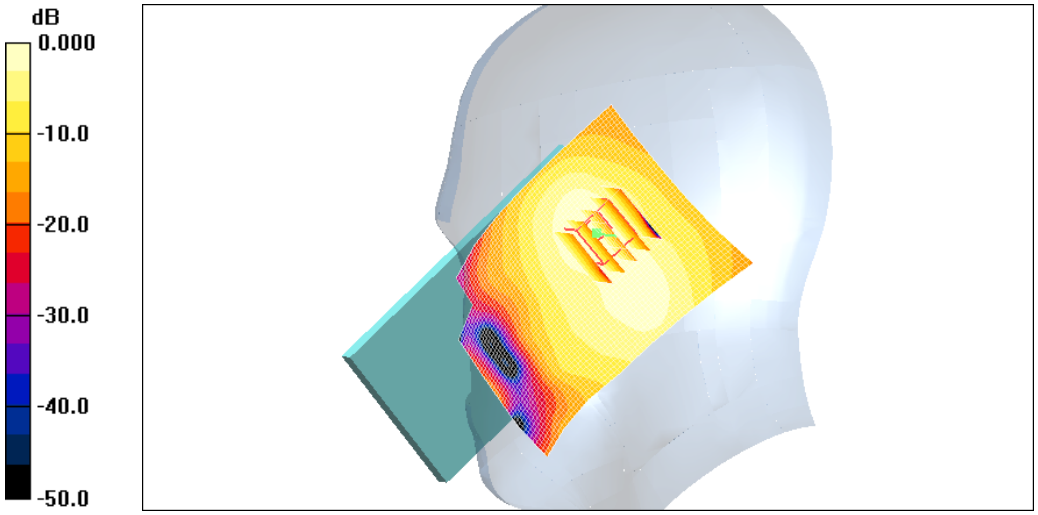
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Right(Job No. : FJ-216)
Procedure Name: Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.087 mW/g

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.69 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 0.118 W/kg
SAR(1 g) = 0.068 mW/g; SAR(10 g) = 0.037 mW/g
Maximum value of SAR (measured) = 0.083 mW/g



0 dB = 0.083mW/g

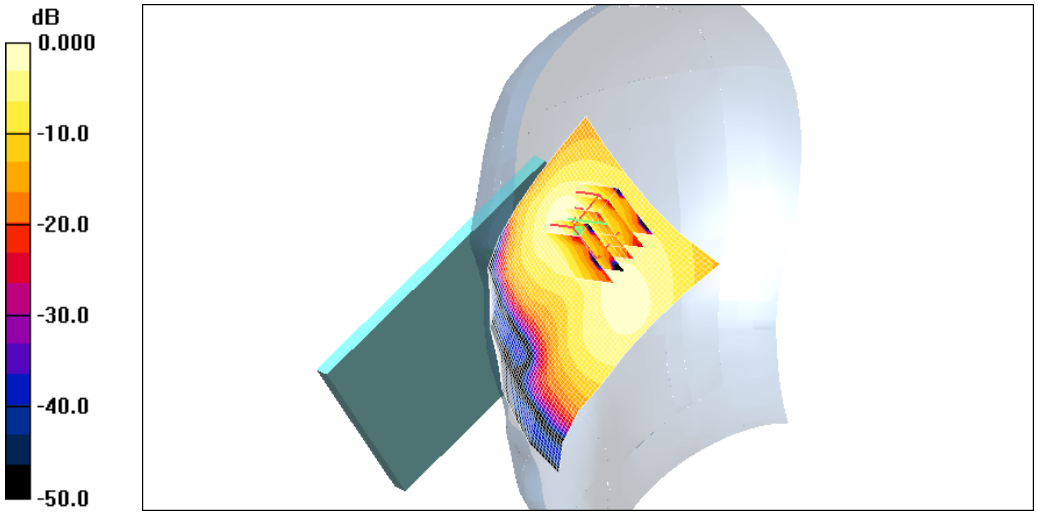
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Right(Job No. : FJ-216)
Procedure Name: Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.063 mW/g

Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.31 V/m; Power Drift = 0.010 dB
Peak SAR (extrapolated) = 0.099 W/kg
SAR(1 g) = 0.054 mW/g; SAR(10 g) = 0.028 mW/g
Maximum value of SAR (measured) = 0.065 mW/g



0 dB = 0.065mW/g

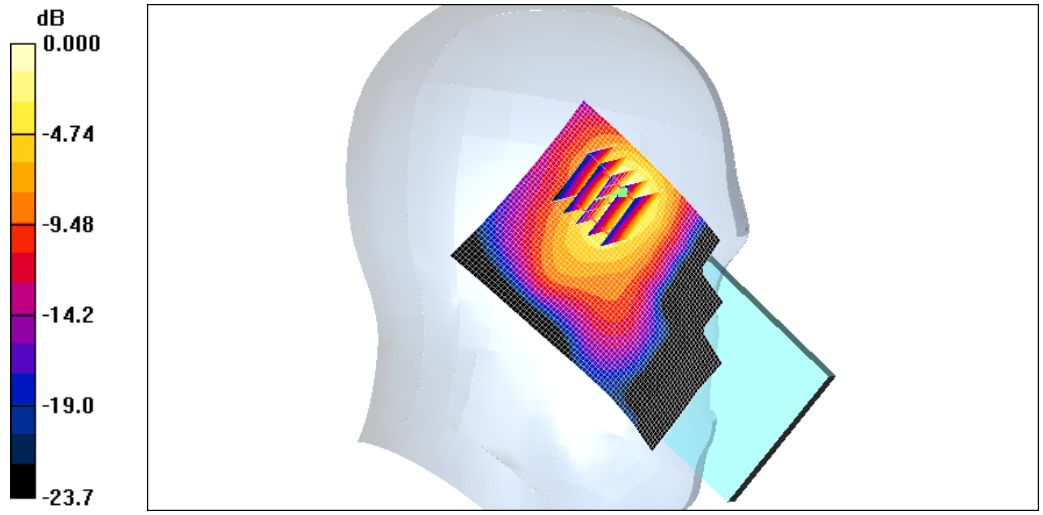
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Left(Job No. : FJ-216)
Procedure Name: Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.169 mW/g

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.54 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.257 W/kg
SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.068 mW/g
Maximum value of SAR (measured) = 0.173 mW/g



0 dB = 0.173mW/g

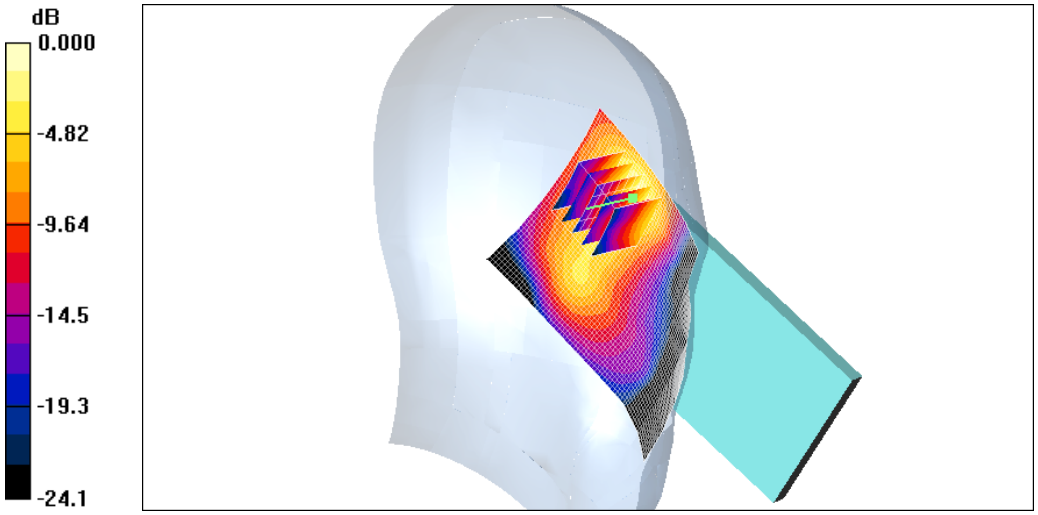
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Left(Job No. : FJ-216)
Procedure Name: Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.107 mW/g

Tilted, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.78 V/m; Power Drift = -0.069 dB
Peak SAR (extrapolated) = 0.183 W/kg
SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.049 mW/g
Maximum value of SAR (measured) = 0.118 mW/g



0 dB = 0.118mW/g

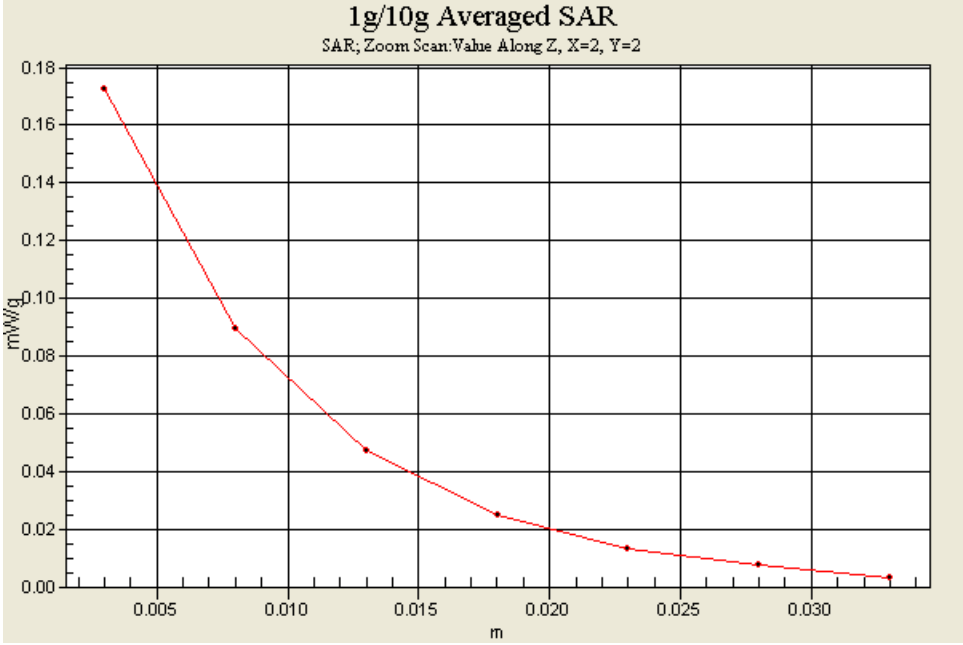
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Left(Job No. : FJ-216)
Procedure Name: Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.6;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.83 mho/m; ε_r = 38.9; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Area Scan (51x71x1): Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.169 mW/g

Cheek, Ch.6, Ant.Intenna, Bat.Standard, 1Mbps/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.54 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.257 W/kg
SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.068 mW/g
Maximum value of SAR (measured) = 0.173 mW/g



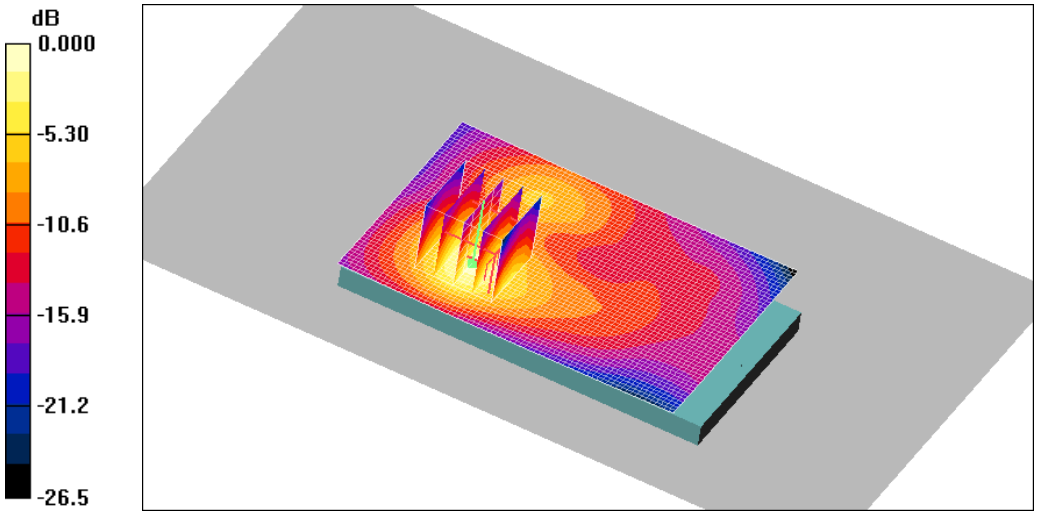
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Body (Job No. : FJ-216)
Procedure Name: Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm/Area Scan (51x71x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.209 mW/g

Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.80 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.435 W/kg
SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.107 mW/g
Maximum value of SAR (measured) = 0.278 mW/g



0 dB = 0.278mW/g

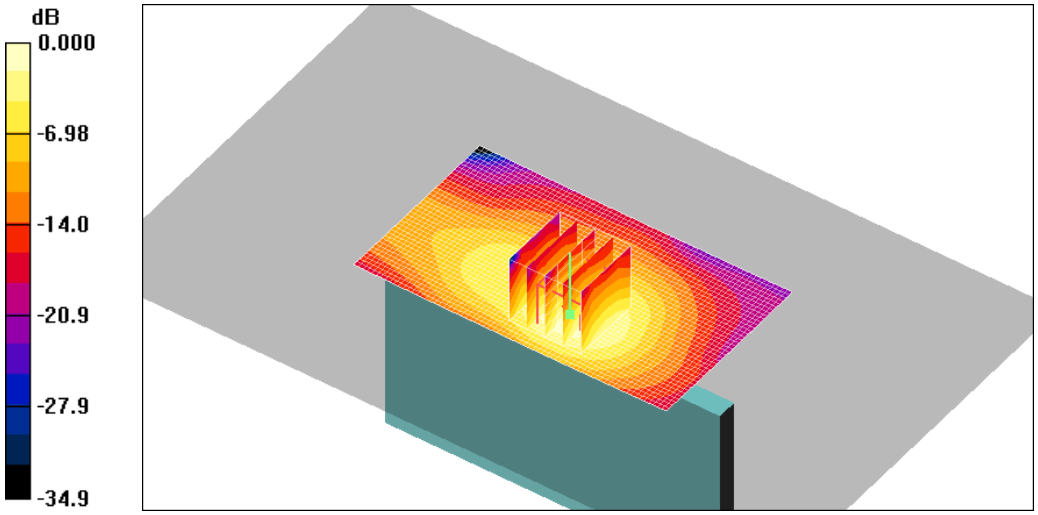
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Body (Job No. : FJ-216)
Procedure Name: Body, Ch.6, Ant.Intenna, Bat.Standard, Right, 1Mbps, 10mm
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.6, Ant.Intenna, Bat.Standard, Right, 1Mbps, 10mm/Area Scan (41x71x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.103 mW/g

Body, Ch.6, Ant.Intenna, Bat.Standard, Right, 1Mbps, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.93 V/m; Power Drift = -0.051 dB
Peak SAR (extrapolated) = 0.153 W/kg
SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.041 mW/g
Maximum value of SAR (measured) = 0.099 mW/g



0 dB = 0.099mW/g

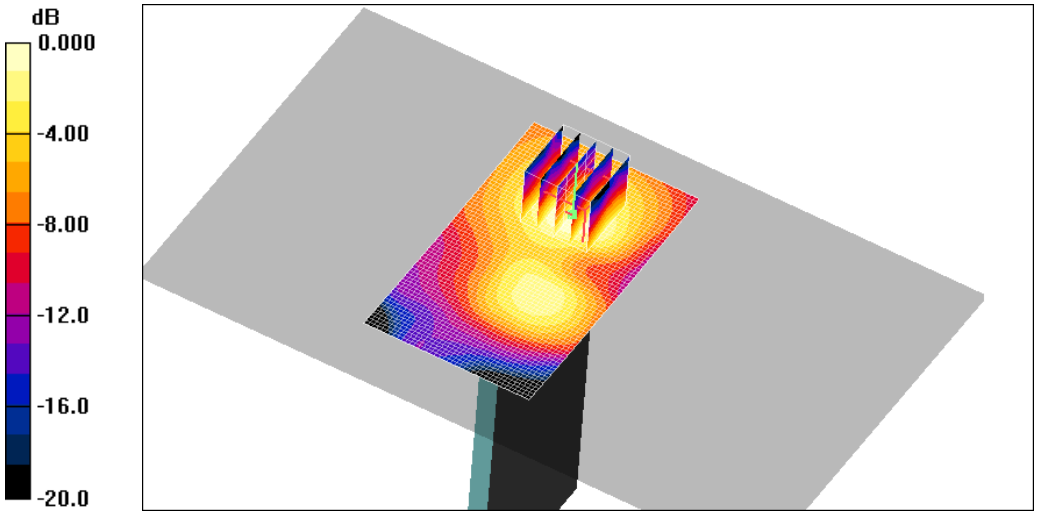
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Body (Job No. : FJ-216)
Procedure Name: Body, Ch.6, Ant.Intenna, Bat.Standard, Top, 1Mbps, 10mm
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.6, Ant.Intenna, Bat.Standard, Top, 1Mbps, 10mm/Area Scan (71x41x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.031 mW/g

Body, Ch.6, Ant.Intenna, Bat.Standard, Top, 1Mbps, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.59 V/m; Power Drift = 0.055 dB
Peak SAR (extrapolated) = 0.046 W/kg
SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.031 mW/g



0 dB = 0.031mW/g

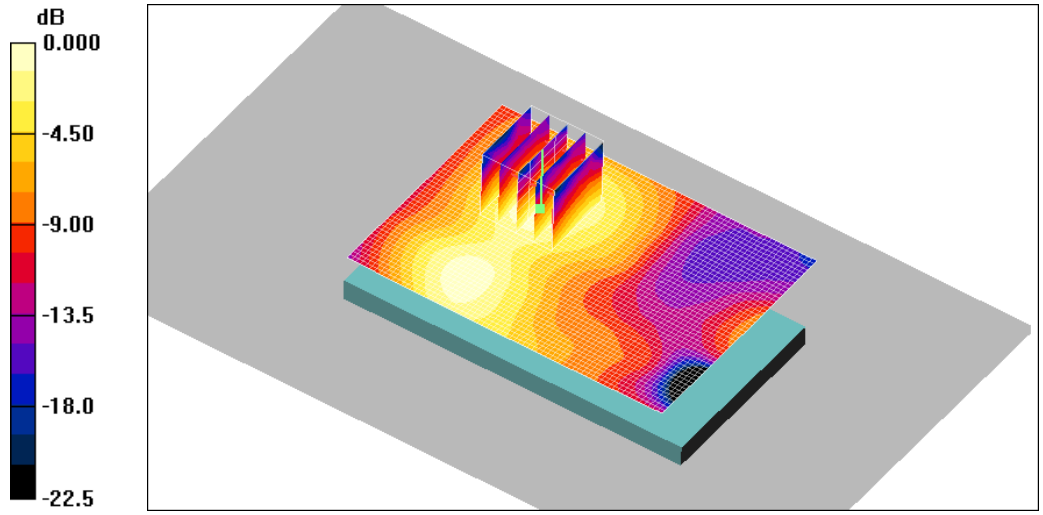
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Body (Job No. : FJ-216)
Procedure Name: Body, Ch.6, Ant.Intenna, Bat.Standard, Front, 1Mbps, 10mm
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.6, Ant.Intenna, Bat.Standard, Front, 1Mbps, 10mm/Area Scan (51x71x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.040 mW/g

Body, Ch.6, Ant.Intenna, Bat.Standard, Front, 1Mbps, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.18 V/m; Power Drift = 0.014 dB
Peak SAR (extrapolated) = 0.063 W/kg
SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.042 mW/g



0 dB = 0.042mW/g

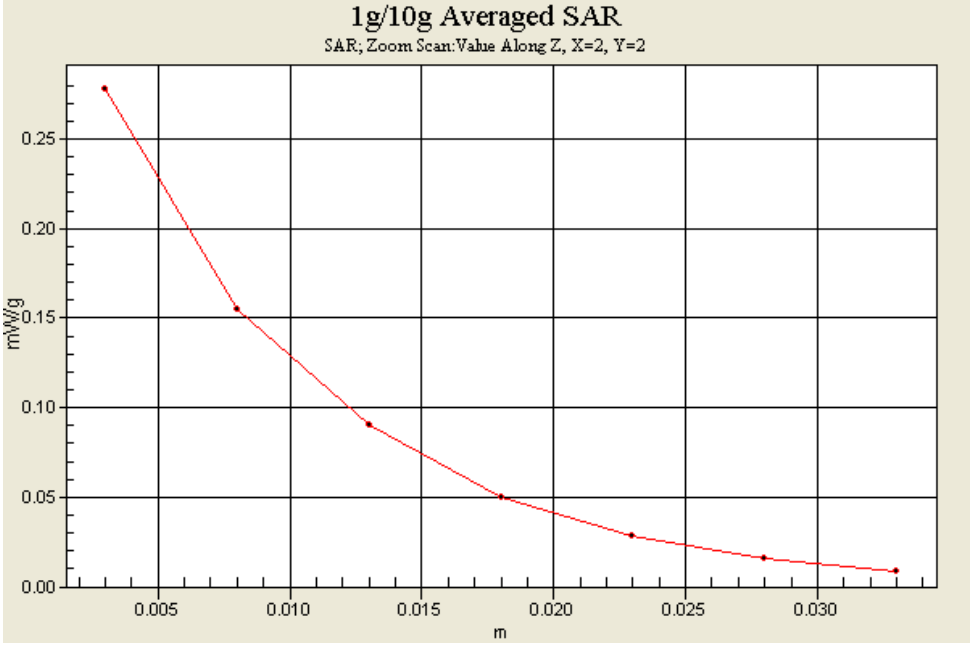
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11b Body (Job No. : FJ-216)
Procedure Name: Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm
Meas. Ambient Temp(celsius)-23.0,Tissue Temp(celsius)-22.7;Test Date-27/Aug/2012

Communication System: WLAN; Frequency: 2437 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2437 MHz; σ = 1.92 mho/m; ε_r = 51.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ES3DV2 - SN3017; ConvF(3.99, 3.99, 3.99); Calibrated: 2012-05-17
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm/Area Scan (51x71x1):
Measurement grid: dx=20mm, dy=20mm
Maximum value of SAR (interpolated) = 0.209 mW/g

Body, Ch.6, Ant.Intenna, Bat.Standard, Back, 1Mbps, 10mm/Zoom Scan (5x5x7)/Cube 0:
Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.80 V/m; Power Drift = 0.042 dB
Peak SAR (extrapolated) = 0.435 W/kg
SAR(1 g) = 0.222 mW/g; SAR(10 g) = 0.107 mW/g
Maximum value of SAR (measured) = 0.278 mW/g



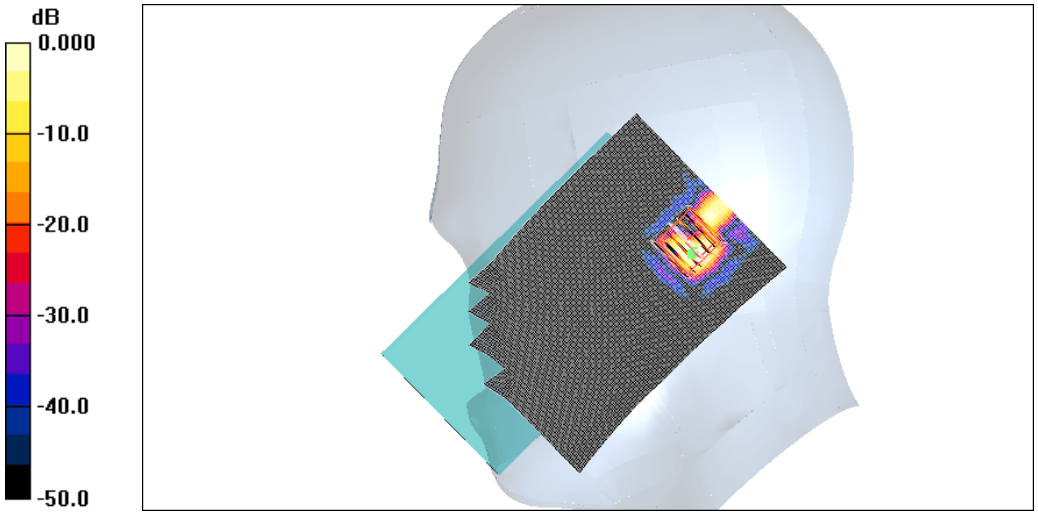
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.85 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.91, 4.91, 4.91); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.034 mW/g

Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.63 V/m; Power Drift = 0.197 dB
Peak SAR (extrapolated) = 0.124 W/kg
SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00327 mW/g
Maximum value of SAR (measured) = 0.029 mW/g



0 dB = 0.029mW/g

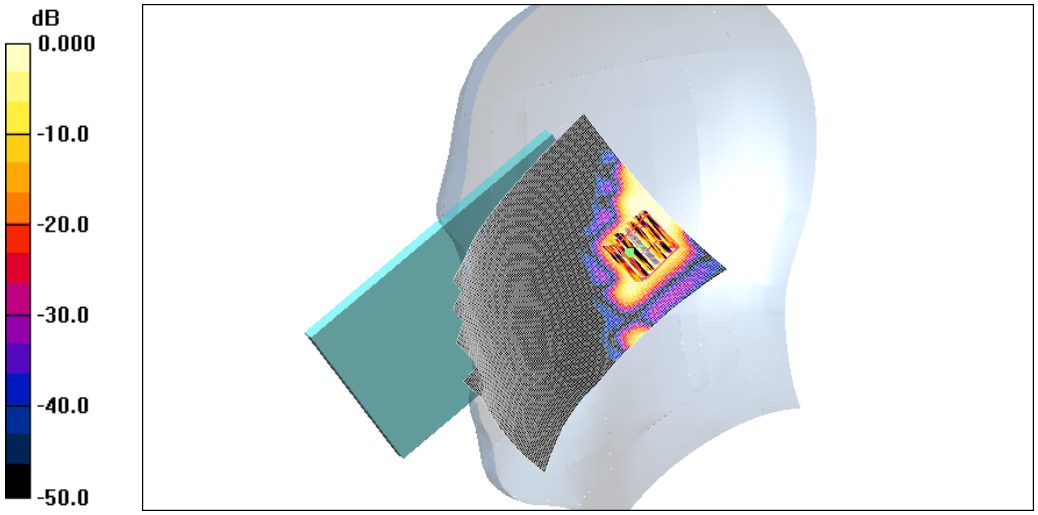
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.85 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.91, 4.91, 4.91); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.043 mW/g

Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan 2 (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.46 V/m; Power Drift = -0.196 dB
Peak SAR (extrapolated) = 0.099 W/kg
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00448 mW/g
Maximum value of SAR (measured) = 0.033 mW/g



0 dB = 0.033mW/g

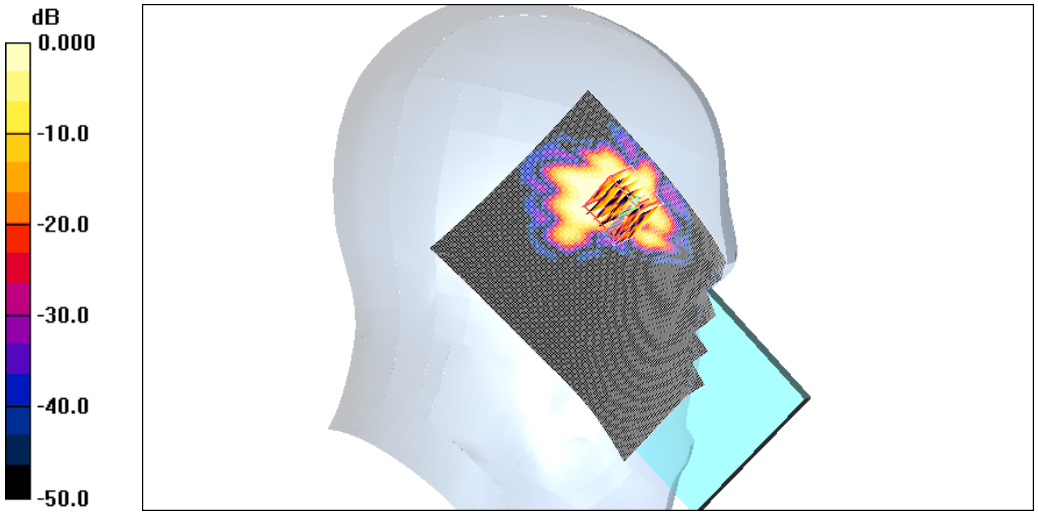
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.85 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.91, 4.91, 4.91); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.071 mW/g

Cheek, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.41 V/m; Power Drift = 0.067 dB
Peak SAR (extrapolated) = 0.087 W/kg
SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.00762 mW/g
Maximum value of SAR (measured) = 0.051 mW/g



0 dB = 0.051mW/g

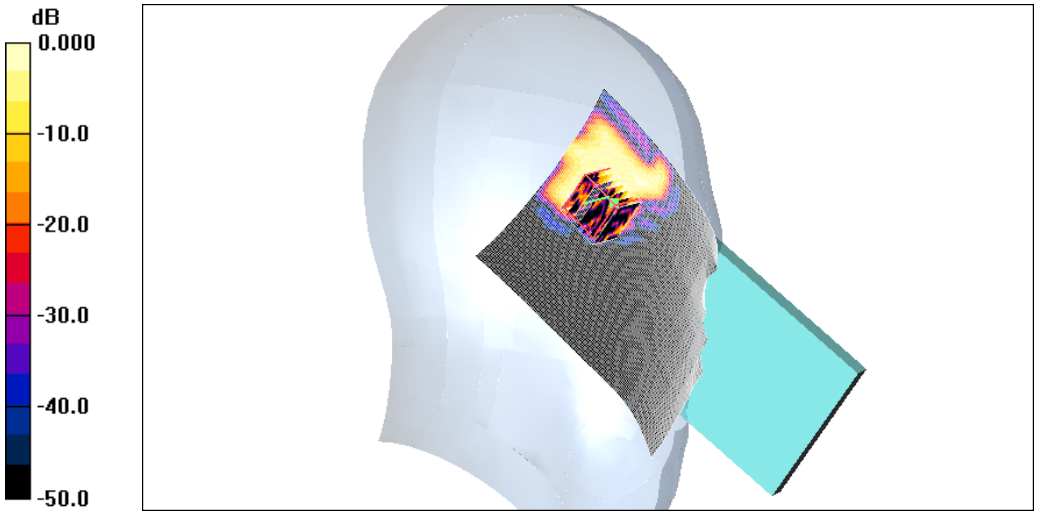
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 4.85 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.91, 4.91, 4.91); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.056 mW/g

Tilt, Ch.40, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.17 V/m; Power Drift = 0.074 dB
Peak SAR (extrapolated) = 0.106 W/kg
SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.00727 mW/g
Maximum value of SAR (measured) = 0.053 mW/g



0 dB = 0.053mW/g

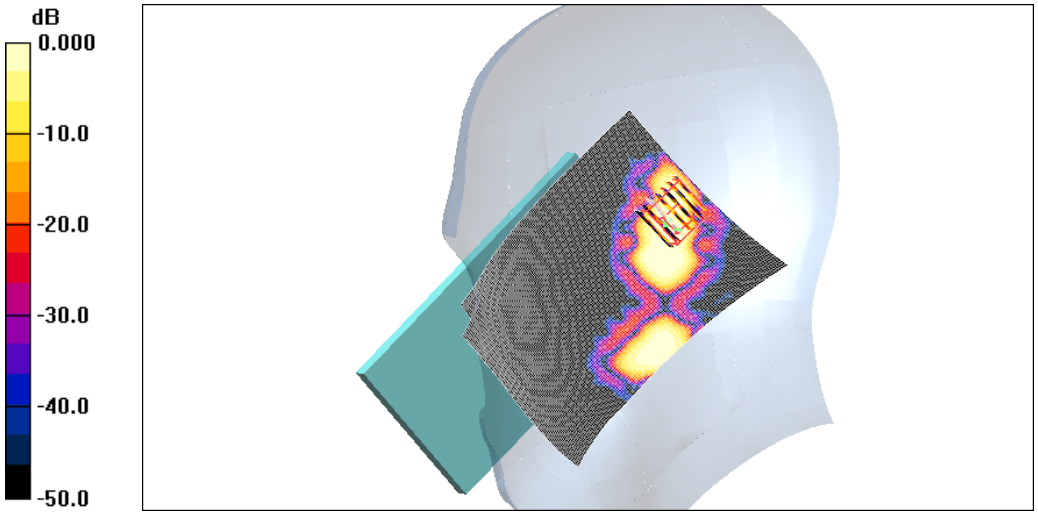
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.56 Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.94 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.72, 4.72, 4.72); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.56 Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.038 mW/g

Cheek, Ch.56 Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.39 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 0.105 W/kg
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00507 mW/g
Maximum value of SAR (measured) = 0.033 mW/g



0 dB = 0.033mW/g

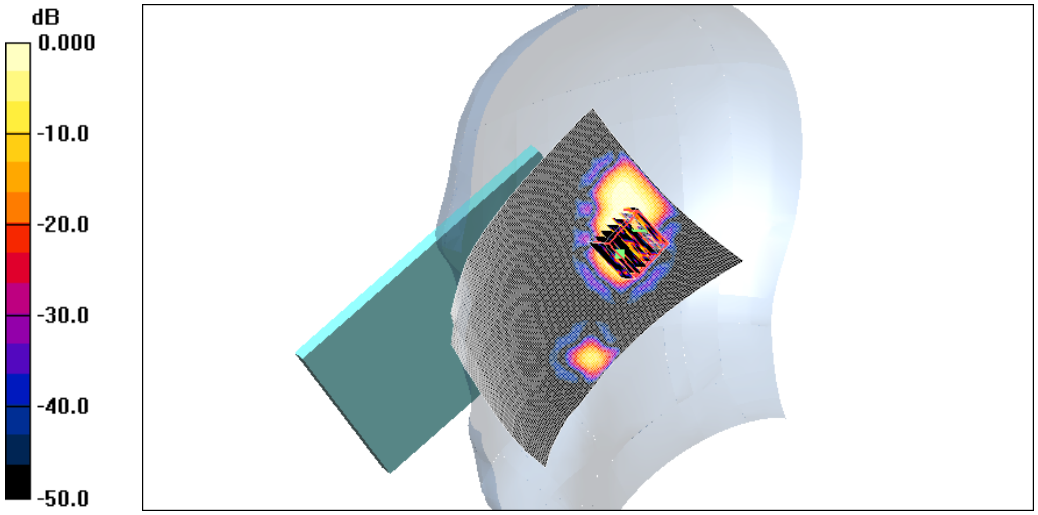
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.94 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.72, 4.72, 4.72); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.141 mW/g

Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.11 V/m; Power Drift = 0.029 dB
Peak SAR (extrapolated) = 0.244 W/kg
SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.0067 mW/g
Maximum value of SAR (measured) = 0.046 mW/g



0 dB = 0.046mW/g

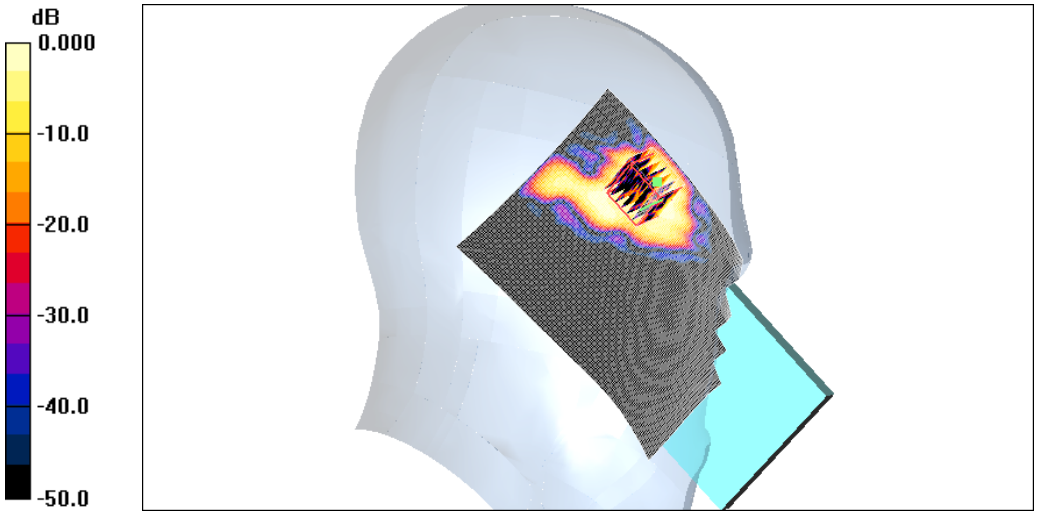
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.94 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.72, 4.72, 4.72); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.089 mW/g

Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.25 V/m; Power Drift = 0.184 dB
Peak SAR (extrapolated) = 0.174 W/kg
SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.010 mW/g
Maximum value of SAR (measured) = 0.081 mW/g



0 dB = 0.081mW/g

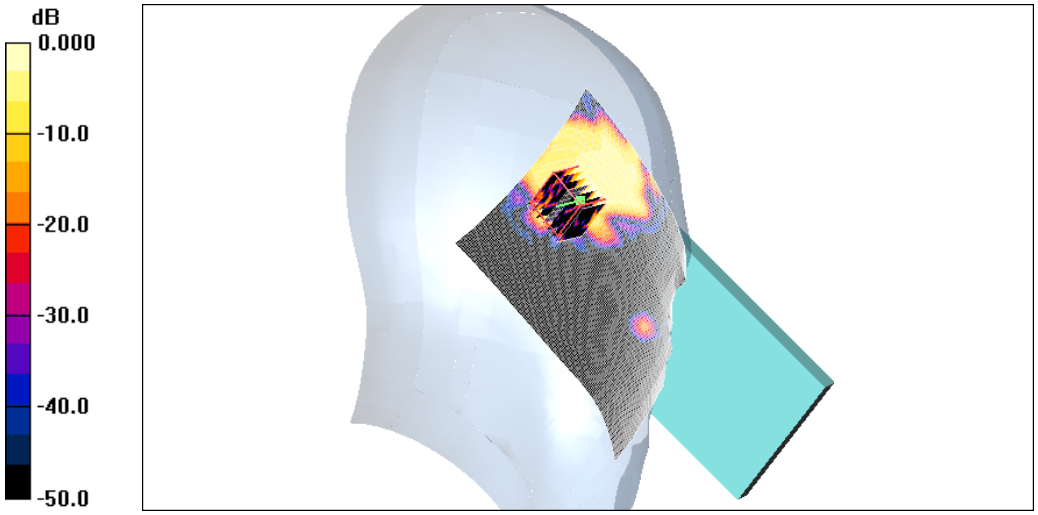
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.94 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.72, 4.72, 4.72); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.071 mW/g

Tilt, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.04 V/m; Power Drift = 0.172 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.00902 mW/g
Maximum value of SAR (measured) = 0.078 mW/g



0 dB = 0.078mW/g

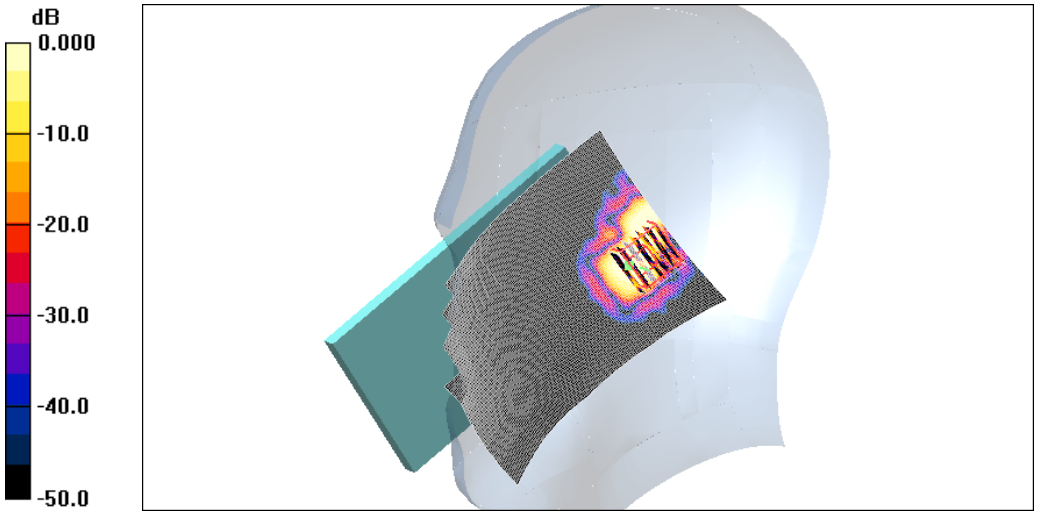
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.140 Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.35 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.140 Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.022 mW/g

Cheek, Ch.140 Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.27 V/m; Power Drift = 0.183 dB
Peak SAR (extrapolated) = 0.194 W/kg
SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.00442 mW/g
Maximum value of SAR (measured) = 0.022 mW/g



0 dB = 0.022mW/g

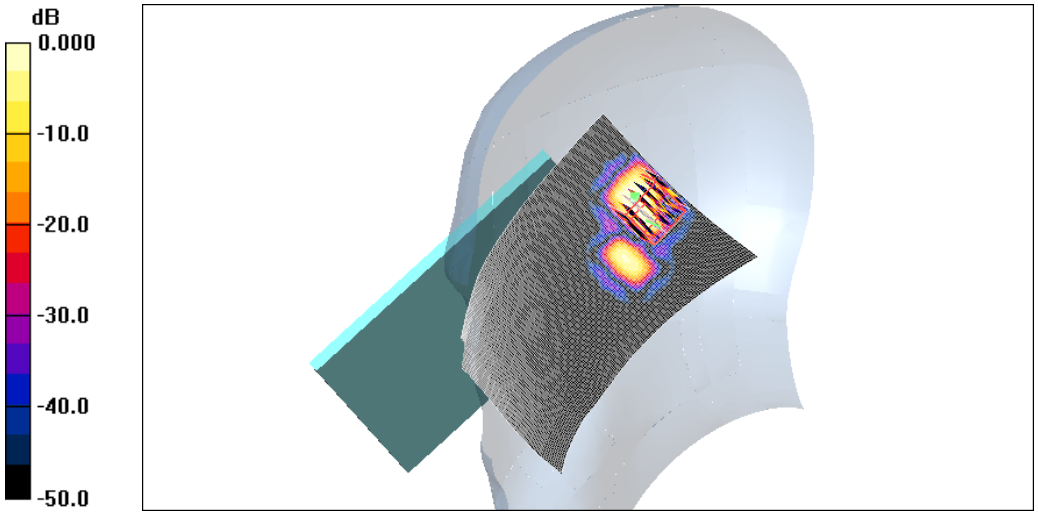
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.35 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.092 mW/g

Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.83 V/m; Power Drift = 0.164 dB
Peak SAR (extrapolated) = 0.141 W/kg
SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00497 mW/g
Maximum value of SAR (measured) = 0.030 mW/g



0 dB = 0.030mW/g

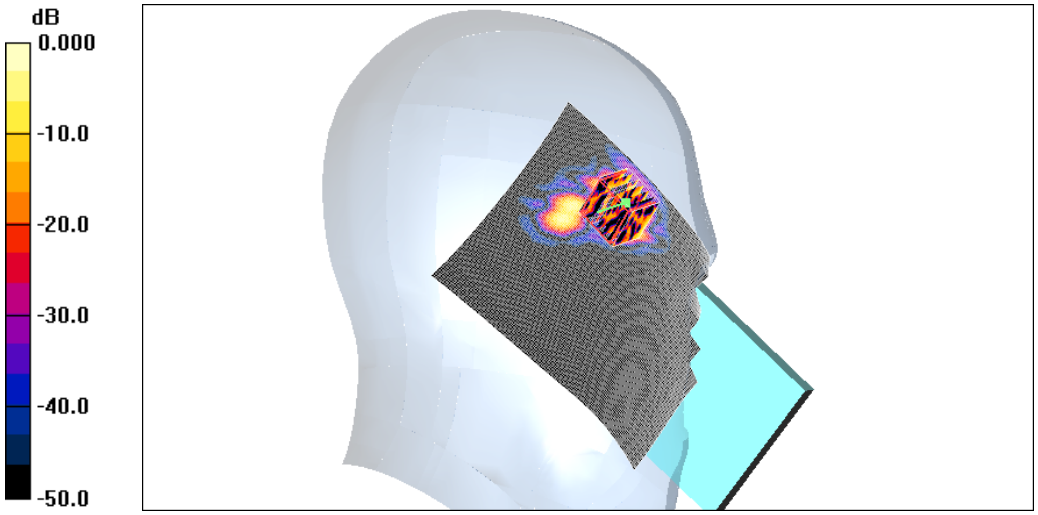
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.35 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.052 mW/g

Cheek, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.65 V/m; Power Drift = 0.120 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.0065 mW/g
Maximum value of SAR (measured) = 0.059 mW/g



0 dB = 0.059mW/g

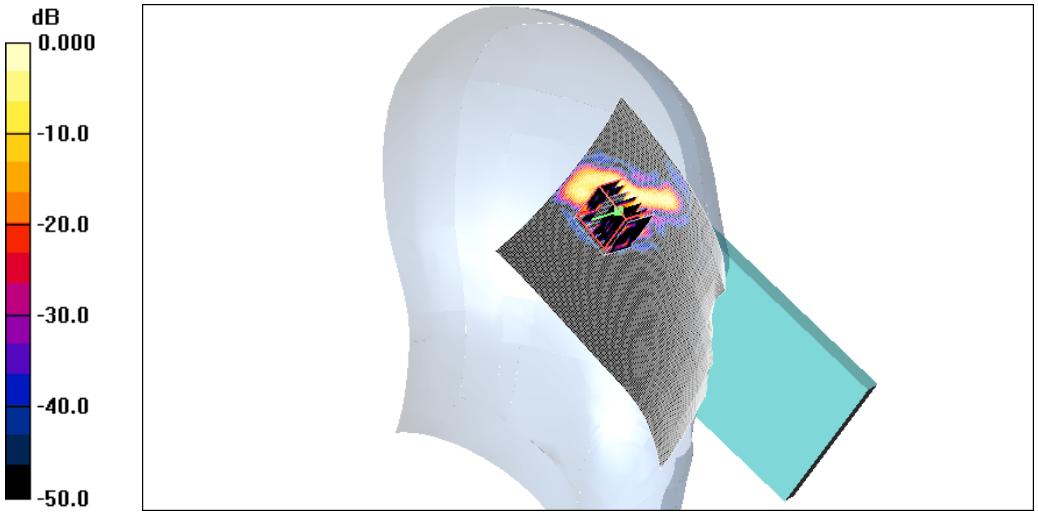
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 5.35 mho/m; ε_r = 34.7; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.044 mW/g

Tilt, Ch.140, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.50 V/m; Power Drift = 0.192 dB
Peak SAR (extrapolated) = 0.184 W/kg
SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.00484 mW/g
Maximum value of SAR (measured) = 0.048 mW/g



0 dB = 0.048mW/g

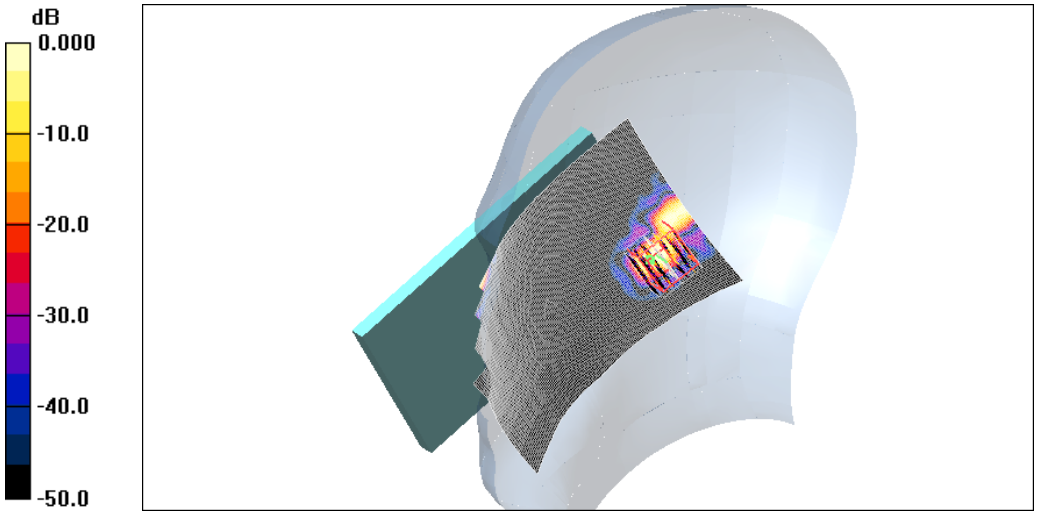
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5755 MHz; σ = 5.41 mho/m; ε_r = 34.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (101x141x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.033 mW/g

Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.20 V/m; Power Drift = 0.114 dB
Peak SAR (extrapolated) = 0.143 W/kg
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00424 mW/g
Maximum value of SAR (measured) = 0.024 mW/g



0 dB = 0.024mW/g

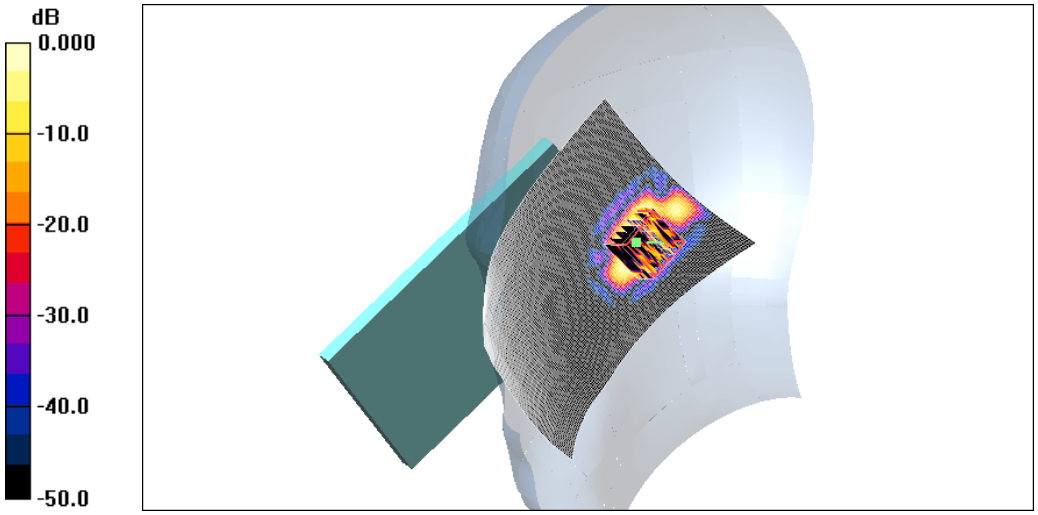
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5755 MHz; σ = 5.41 mho/m; ε_r = 34.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.098 mW/g

Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.02 V/m; Power Drift = -0.091 dB
Peak SAR (extrapolated) = 0.181 W/kg
SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.00493 mW/g
Maximum value of SAR (measured) = 0.030 mW/g



0 dB = 0.030mW/g

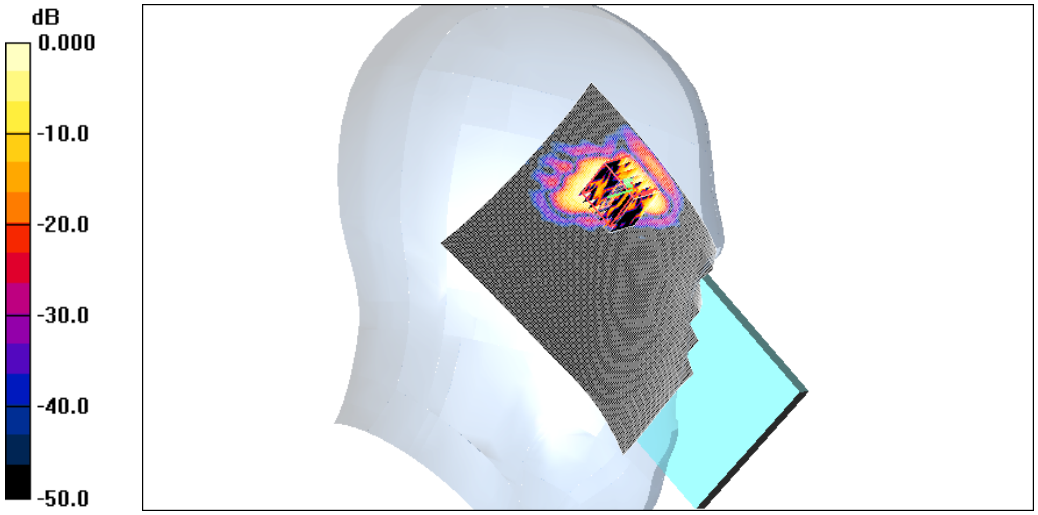
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5755 MHz; σ = 5.41 mho/m; ε_r = 34.6; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (111x141x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.052 mW/g

Cheek, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.49 V/m; Power Drift = 0.157 dB
Peak SAR (extrapolated) = 0.140 W/kg
SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.00629 mW/g
Maximum value of SAR (measured) = 0.051 mW/g



0 dB = 0.051mW/g

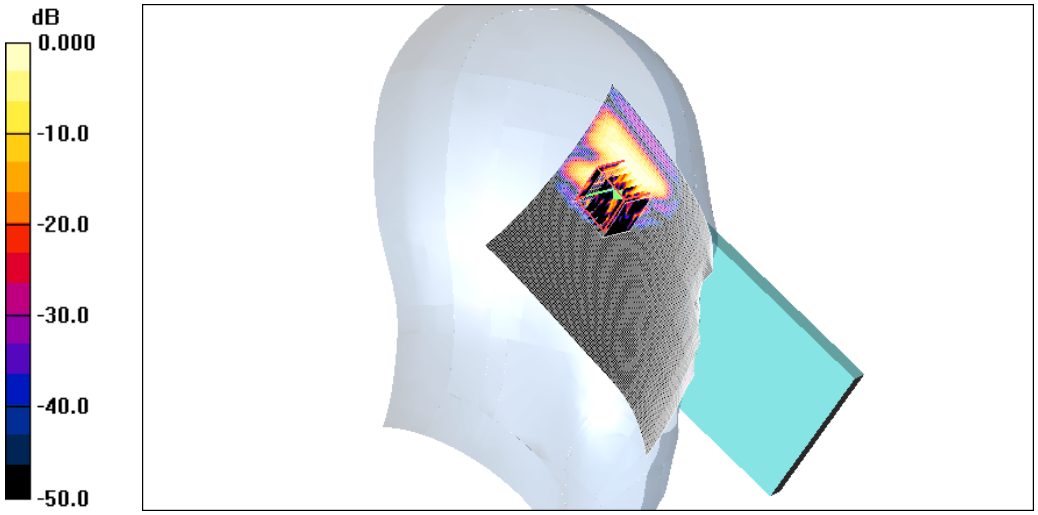
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5755 MHz; σ = 5.41 mho/m; ε_r = 34.6; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.084 mW/g

Tilt, Ch.151, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.69 V/m; Power Drift = 0.135 dB
Peak SAR (extrapolated) = 0.158 W/kg
SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.00534 mW/g
Maximum value of SAR (measured) = 0.046 mW/g



0 dB = 0.046mW/g

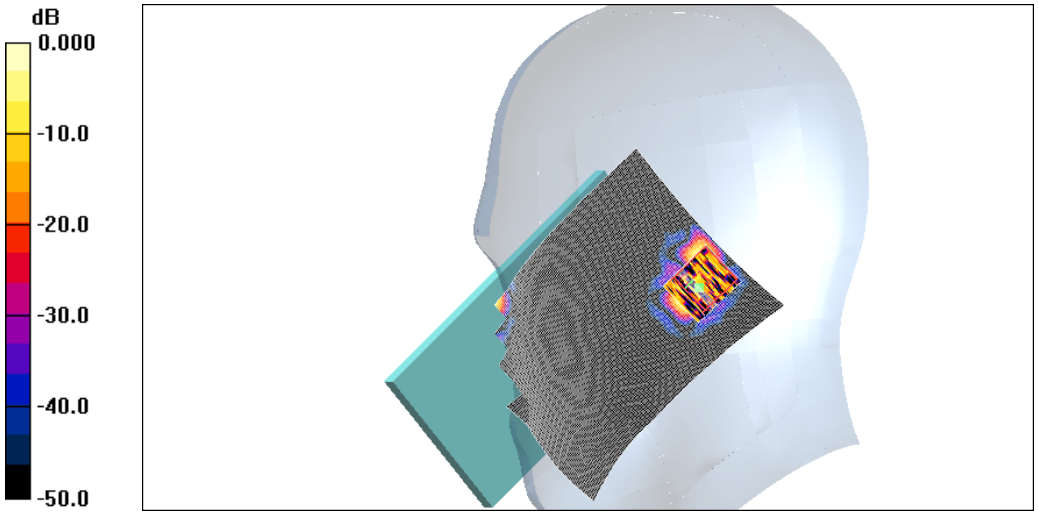
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 5.46 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (101x141x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.026 mW/g

Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.51 V/m; Power Drift = 0.036 dB
Peak SAR (extrapolated) = 0.160 W/kg
SAR(1 g) = 0.013 mW/g; SAR(10 g) = 0.00377 mW/g
Maximum value of SAR (measured) = 0.027 mW/g



0 dB = 0.027mW/g

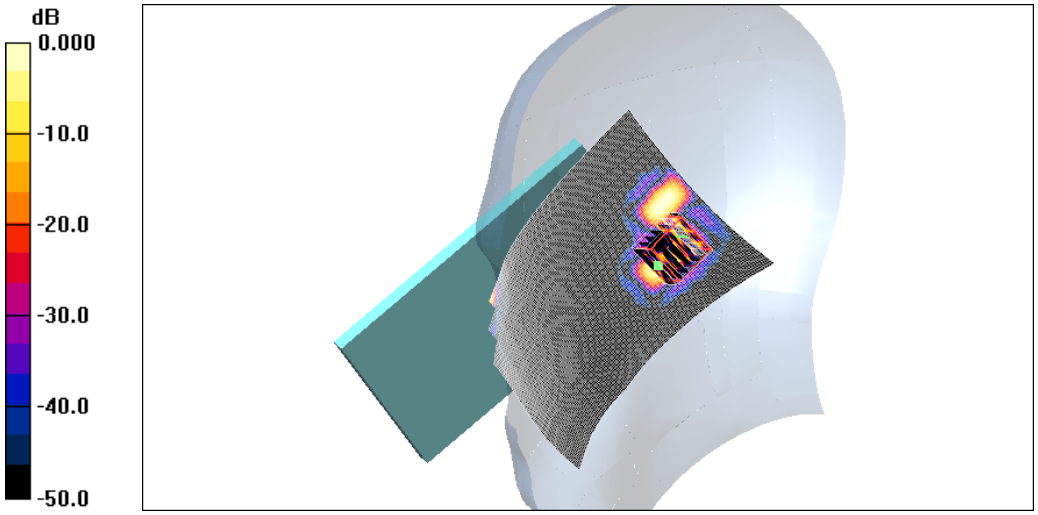
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 5.46 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.026 mW/g

Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.01 V/m; Power Drift = 0.181 dB
Peak SAR (extrapolated) = 0.187 W/kg
SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00418 mW/g
Maximum value of SAR (measured) = 0.026 mW/g



0 dB = 0.026mW/g

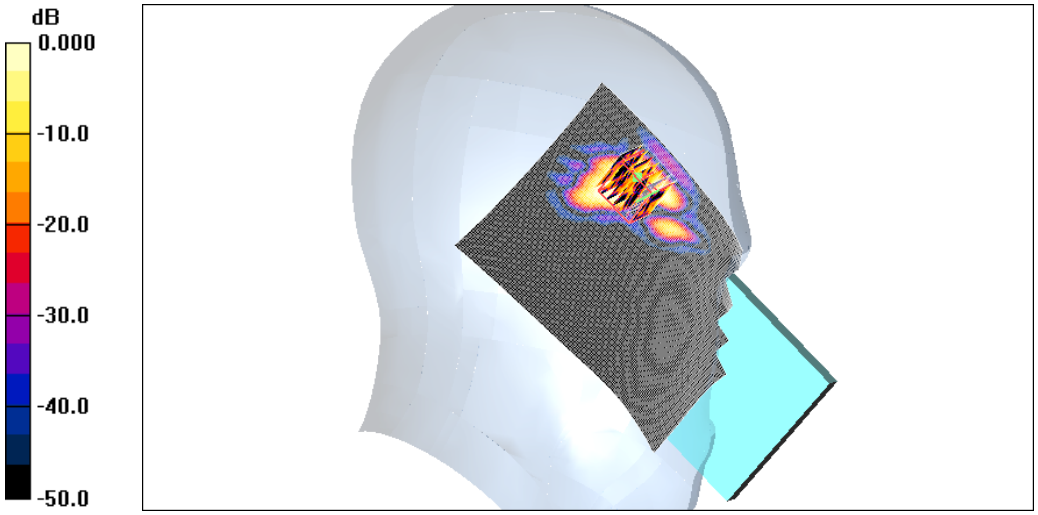
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 5.46 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (111x141x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.154 mW/g

Cheek, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.77 V/m; Power Drift = 0.123 dB
Peak SAR (extrapolated) = 0.151 W/kg
SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.00668 mW/g
Maximum value of SAR (measured) = 0.052 mW/g



0 dB = 0.052mW/g

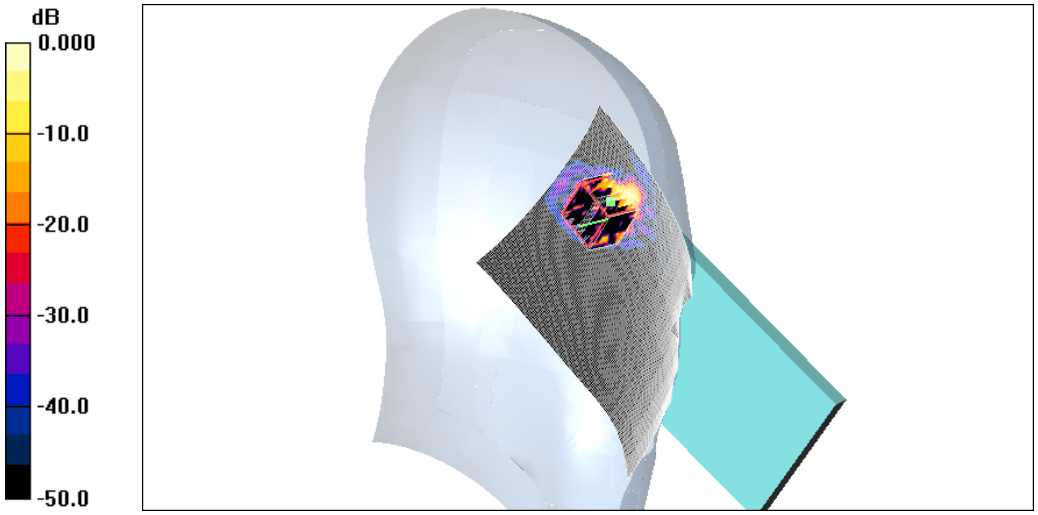
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 5.46 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.084 mW/g

Tilt, Ch.159, Ant.Intenna, Bat.Standard, MCS0, HT40/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.49 V/m; Power Drift = -0.056 dB
Peak SAR (extrapolated) = 0.183 W/kg
SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.00615 mW/g
Maximum value of SAR (measured) = 0.046 mW/g



0 dB = 0.046mW/g

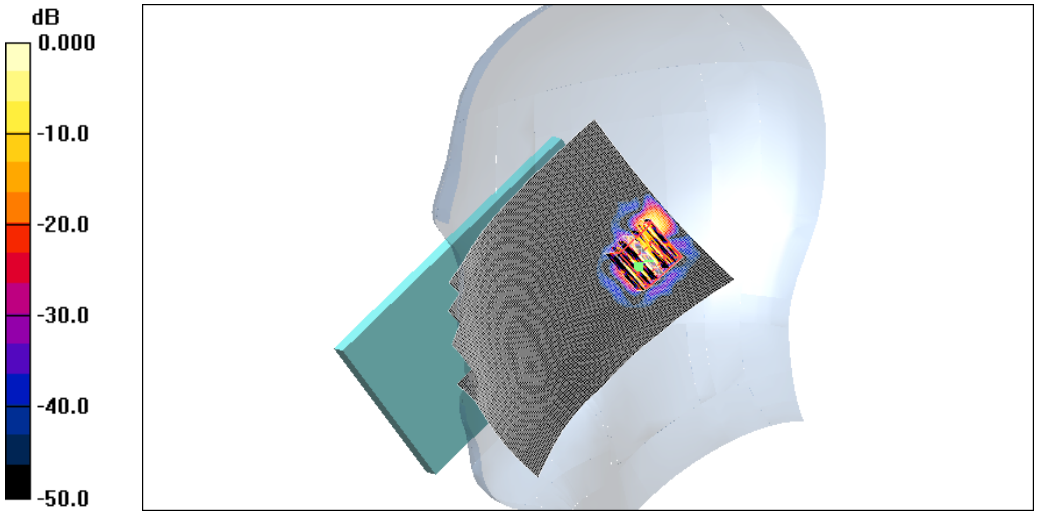
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5805 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5805 MHz; σ = 5.47 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.029 mW/g

Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.10 V/m; Power Drift = -0.024 dB
Peak SAR (extrapolated) = 0.161 W/kg
SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00372 mW/g
Maximum value of SAR (measured) = 0.025 mW/g



0 dB = 0.025mW/g

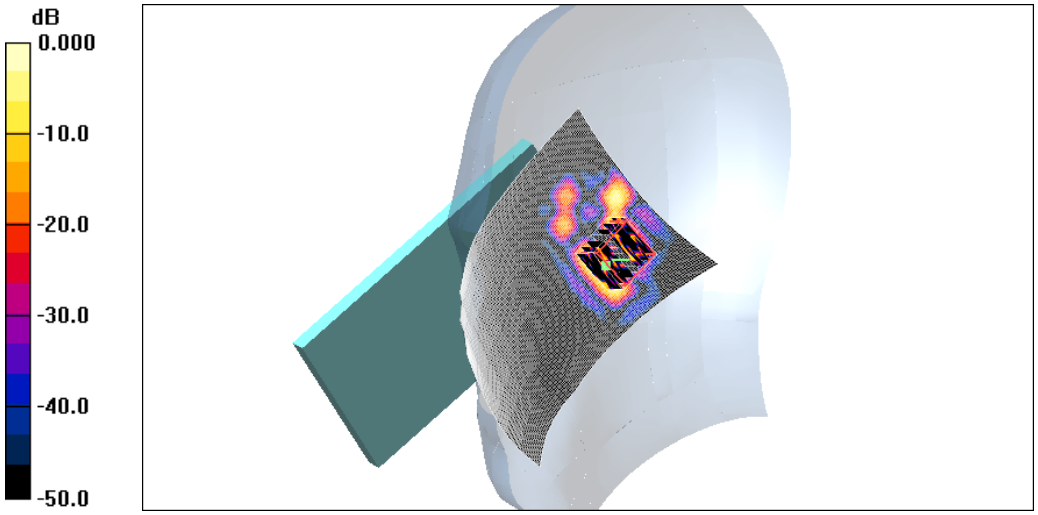
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Right (Job No. : FJ-216)
Procedure Name: Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5805 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5805 MHz; σ = 5.47 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (101x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.029 mW/g

Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.38 V/m; Power Drift = 0.103 dB
Peak SAR (extrapolated) = 0.240 W/kg
SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.00402 mW/g
Maximum value of SAR (measured) = 0.029 mW/g



0 dB = 0.029mW/g

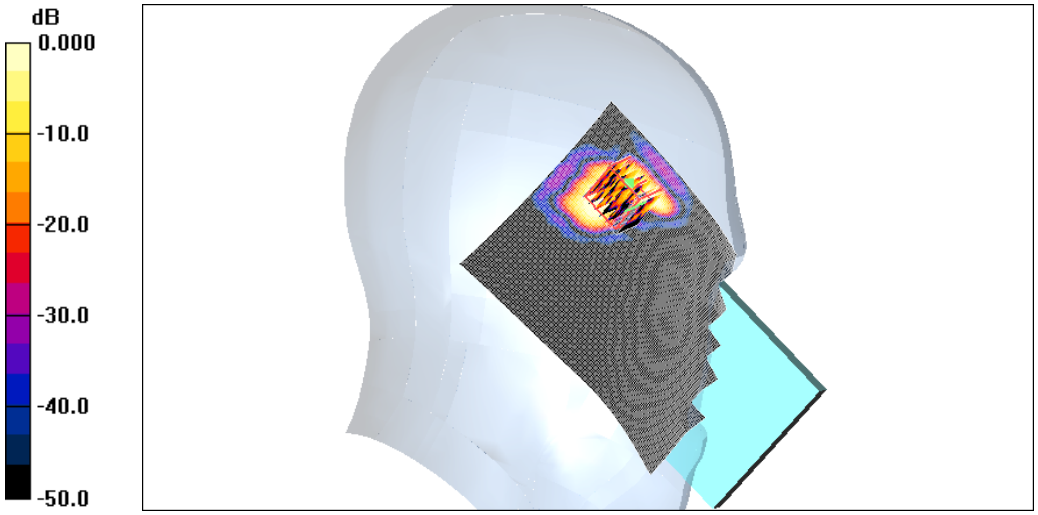
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5805 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5805 MHz; σ = 5.47 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.160 mW/g

Cheek, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan 2 (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 1.69 V/m; Power Drift = -0.086 dB
Peak SAR (extrapolated) = 0.149 W/kg
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.00665 mW/g
Maximum value of SAR (measured) = 0.058 mW/g



0 dB = 0.058mW/g

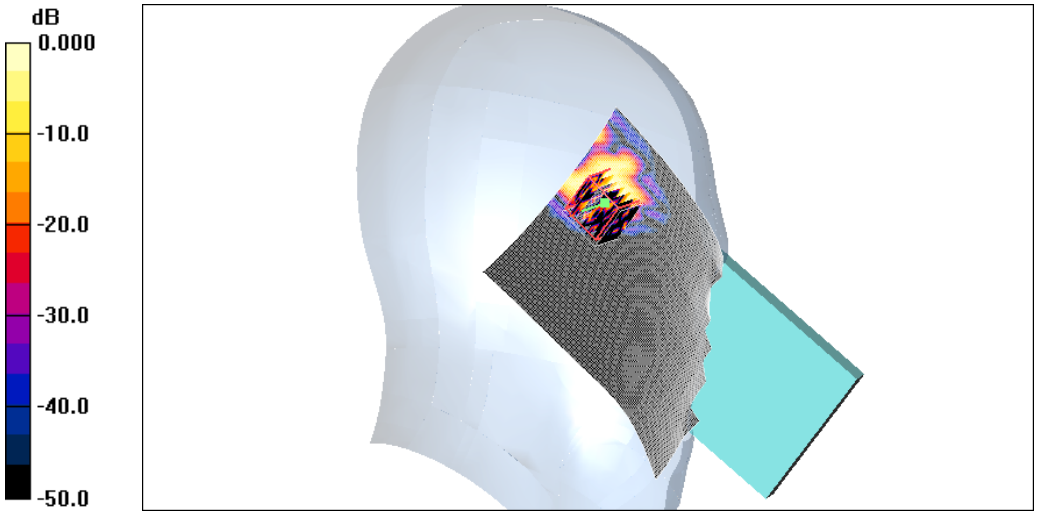
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5805 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5805 MHz; σ = 5.47 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.28, 4.28, 4.28); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.095 mW/g

Tilt, Ch.161, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 2.77 V/m; Power Drift = 0.178 dB
Peak SAR (extrapolated) = 0.147 W/kg
SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.00662 mW/g
Maximum value of SAR (measured) = 0.066 mW/g



0 dB = 0.066mW/g

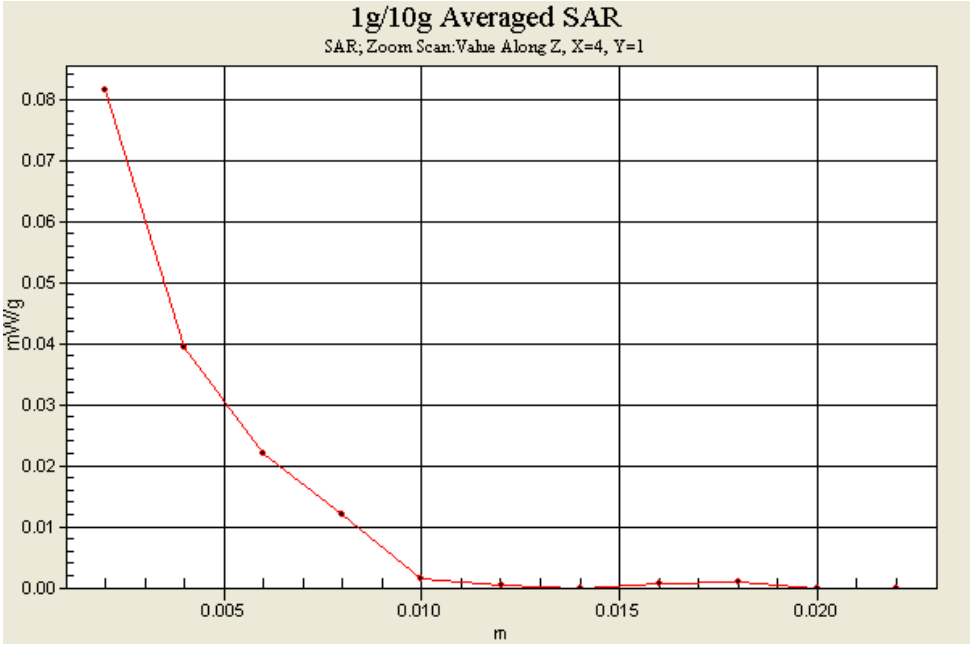
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Left (Job No. : FJ-216)
Procedure Name: Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps
Meas. Ambient Temp(celsius)-22.4,Tissue Temp(celsius)-22.3;Test Date-24/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 4.94 mho/m; ε_r = 34.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(4.72, 4.72, 4.72); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: PHANTOM #1; Type: SAM; Serial: TP-1143
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Area Scan (111x141x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.089 mW/g

Cheek, Ch.56, Ant.Intenna, Bat.Standard, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 3.25 V/m; Power Drift = 0.184 dB
Peak SAR (extrapolated) = 0.174 W/kg
SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.010 mW/g
Maximum value of SAR (measured) = 0.081 mW/g



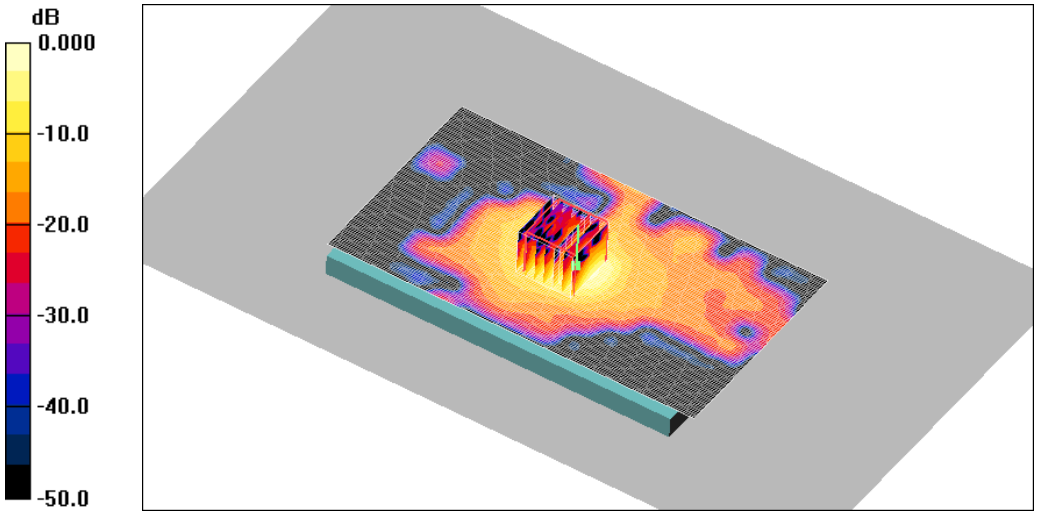
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Body (Job No. : FJ-216)
Procedure Name: Back, Ch.40, Ant.Intenna, Bat.Standard, 10mm, 6Mbps
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5200 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5200 MHz; σ = 5.41 mho/m; ε_r = 47.9; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.9, 3.9, 3.9); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.40, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.619 mW/g

Back, Ch.40, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 9.20 V/m; Power Drift = 0.054 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.090 mW/g
Maximum value of SAR (measured) = 0.649 mW/g



0 dB = 0.649mW/g

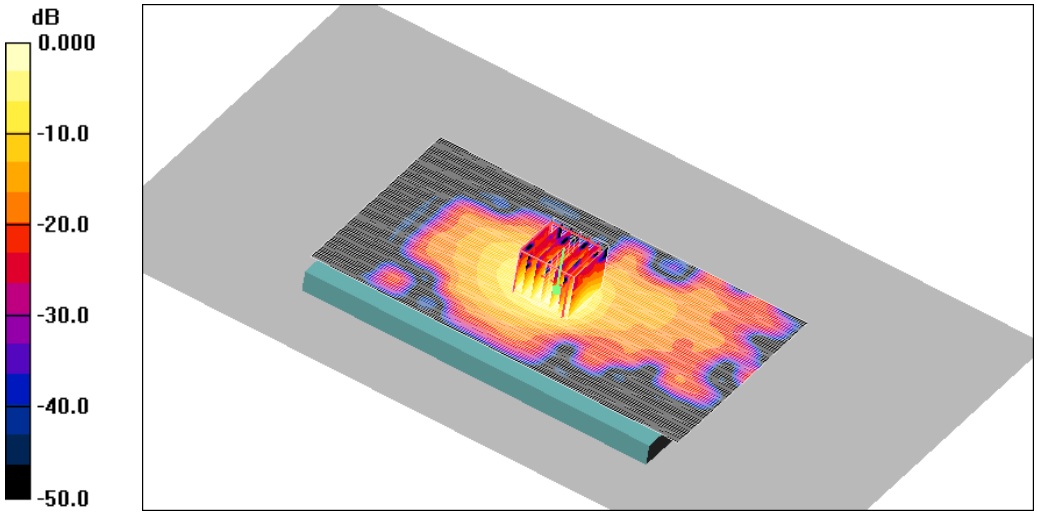
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Body (Job No. : FJ-216)
Procedure Name: Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 5.51 mho/m; ε_r = 47.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.846 mW/g

Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 11.8 V/m; Power Drift = 0.039 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.438 mW/g; SAR(10 g) = 0.131 mW/g
Maximum value of SAR (measured) = 0.872 mW/g



0 dB = 0.872mW/g

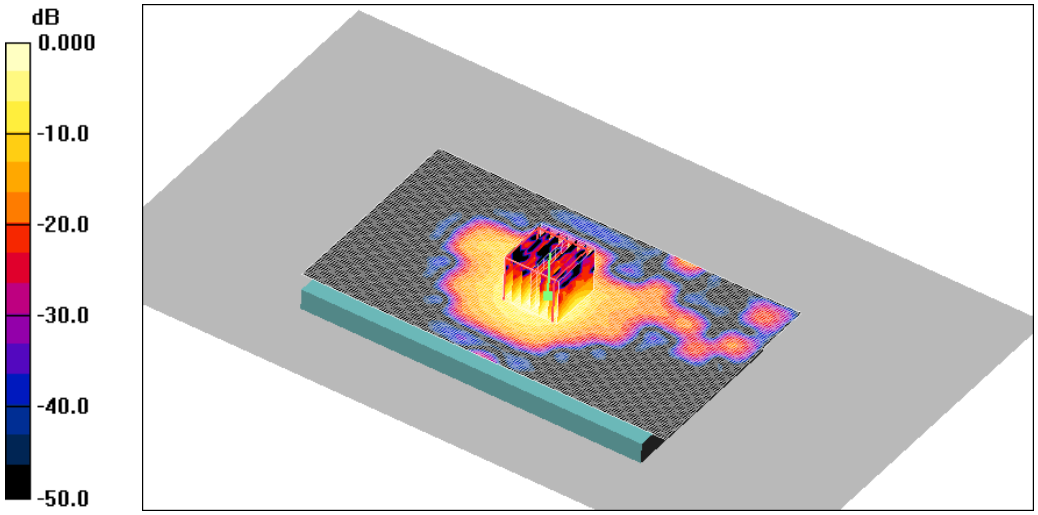
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Body (Job No. : FJ-216)
Procedure Name: Back, Ch.140, Ant.Intenna, Bat.Standard, 10mm, 6Mbps
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5700 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5700 MHz; σ = 6.04 mho/m; ε_r = 46.4; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.27, 3.27, 3.27); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.140, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.486 mW/g

Back, Ch.140, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 7.89 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 0.935 W/kg
SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.070 mW/g
Maximum value of SAR (measured) = 0.513 mW/g



0 dB = 0.513mW/g

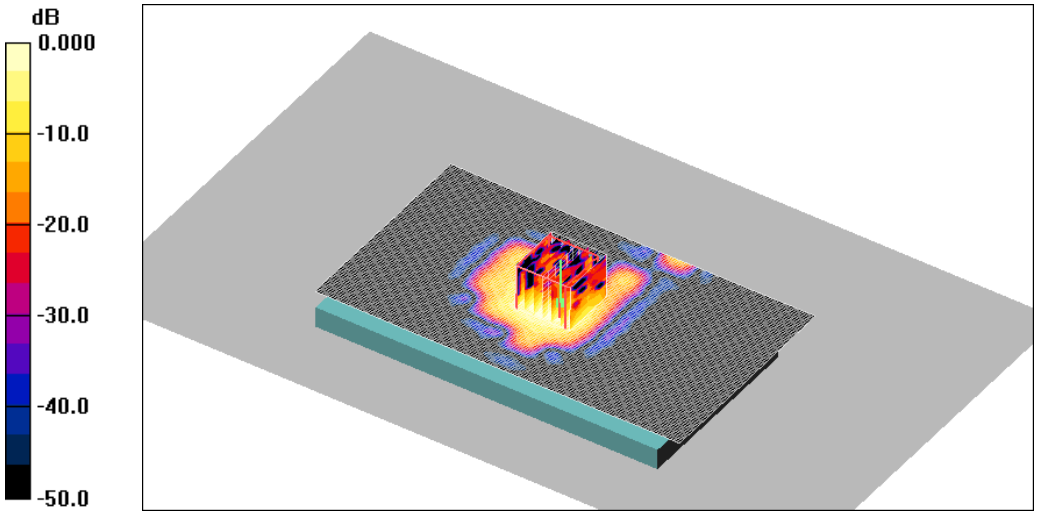
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Body (Job No. : FJ-216)
Procedure Name: Back, Ch.151, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5755 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5755 MHz; σ = 6.11 mho/m; ε_r = 46.3; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.5, 3.5, 3.5); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.151, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.289 mW/g

Back, Ch.151, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 5.35 V/m; Power Drift = 0.008 dB
Peak SAR (extrapolated) = 0.464 W/kg
SAR(1 g) = 0.126 mW/g; SAR(10 g) = 0.034 mW/g
Maximum value of SAR (measured) = 0.256 mW/g



0 dB = 0.256mW/g

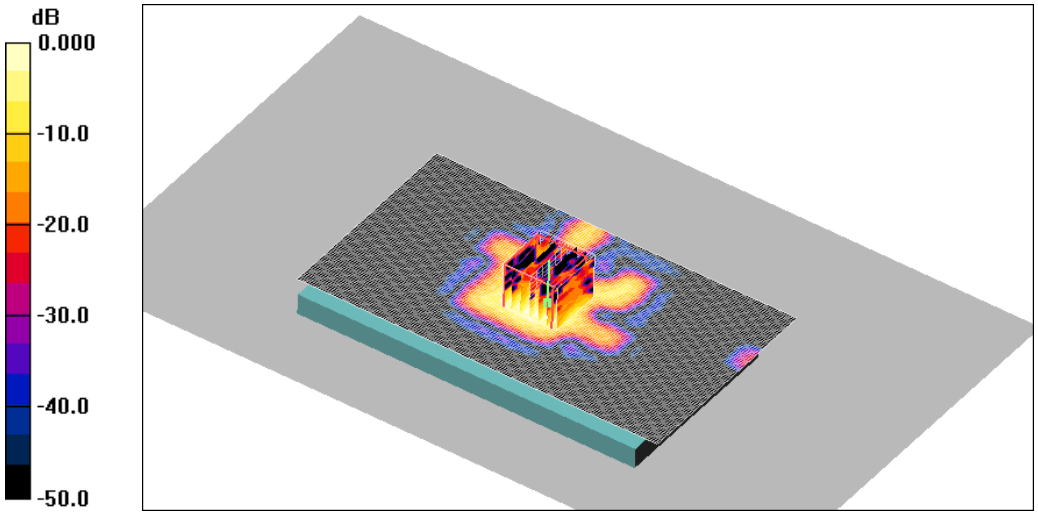
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11n Body (Job No. : FJ-216)
Procedure Name: Back, Ch.159, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5795 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5795 MHz; σ = 6.16 mho/m; ε_r = 46.1; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.5, 3.5, 3.5); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.159, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.193 mW/g

Back, Ch.159, Ant.Intenna, Bat.Standard, 10mm, MCS0, HT40/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.55 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.325 W/kg
SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.024 mW/g
Maximum value of SAR (measured) = 0.189 mW/g



0 dB = 0.189mW/g

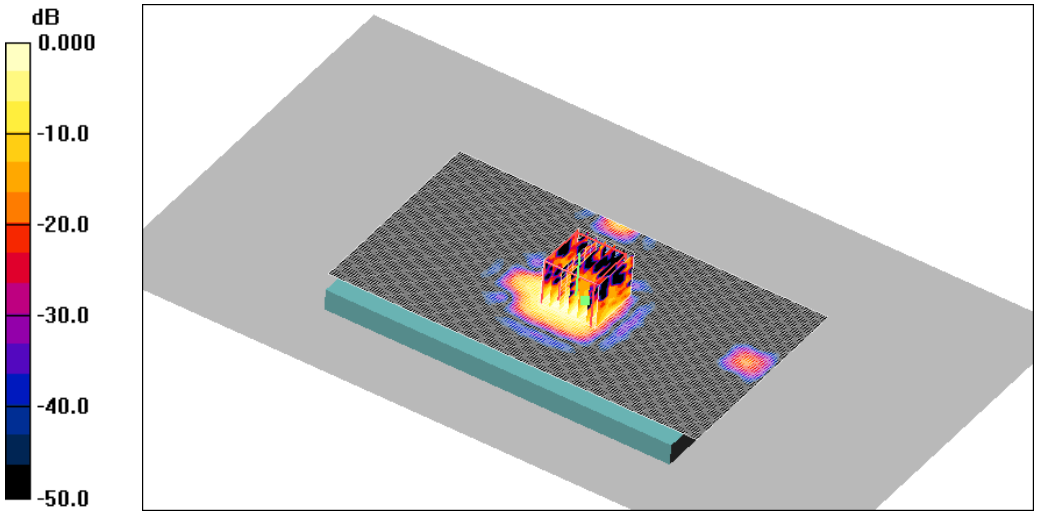
DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Body (Job No. : FJ-216)
Procedure Name: Back, Ch.161, Ant.Intenna, Bat.Standard, 10mm, 6Mbps
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5805 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5805 MHz; σ = 6.17 mho/m; ε_r = 46.1; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.5, 3.5, 3.5); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.161, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.208 mW/g

Back, Ch.161, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 4.80 V/m; Power Drift = 0.186 dB
Peak SAR (extrapolated) = 0.301 W/kg
SAR(1 g) = 0.082 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.171 mW/g



0 dB = 0.171mW/g

DUT: GT-N7105; Serial: FJ-216-B
Program Name: GT-N7105 802.11a Body (Job No. : FJ-216)
Procedure Name: Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps
Meas. Ambient Temp(celsius)-22.5,Tissue Temp(celsius)-22.2;Test Date-27/Aug/2012

Communication System: 5GHz; Frequency: 5280 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5280 MHz; σ = 5.51 mho/m; ε_r = 47.6; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3520; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-02-21
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn486; Calibrated: 2012-01-19
- Phantom: Triple Flat Phantom 5.1; Type: Triple Flat Phantom 5.1; Serial: MP-1001
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Area Scan (91x161x1):
Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (interpolated) = 0.846 mW/g

Back, Ch.56, Ant.Intenna, Bat.Standard, 10mm, 6Mbps/Zoom Scan (7x7x11)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2mm
Reference Value = 11.8 V/m; Power Drift = 0.039 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.438 mW/g; SAR(10 g) = 0.131 mW/g
Maximum value of SAR (measured) = 0.872 mW/g