



SAR Test Report

Product Name : Mobile Phone

Model No. : TEC/Y40

FCC ID : O4FY4035618905

Applicant : Tecmobile (International) Ltd

Address : Santok House, Unit L Braintree Industrial Estate, Braintree
Road, South Ruislip, Middlesex, United Kingdom

Date of Receipt : 10/03/2013

Date of Test : 12/03/2013

Issued Date : 14/03/2013

Report No. : 133S063R-HP-US-P03V01

Report Version : V 1.0

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Test Report Certification

Issued Date: 14/03/2013

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Applicant : Tecmobile (International) Ltd

Address : Santok House, Unit L Braintree Industrial Estate, Braintree
Road, South Ruislip, Middlesex, United Kingdom

Manufacturer : Tecmobile (International) Ltd

Address : Santok House, Unit L Braintree Industrial Estate, Braintree
Road, South Ruislip, Middlesex, United Kingdom

Model No. : TEC/Y40

FCC ID : O4FY4035618905

Brand Name : Tecmobile

EUT Voltage : DC 3.7V

Applicable Standard : FCC Oet65 Supplement C June 2001
IEEE Std. 1528-2003,47CFR § 2.1093

Test Result : Max. SAR Measurement (1g)
Head: 0.613 W/kg
Body: 1.03 W/kg

Performed Location : Suzhou EMC Laboratory
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The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :

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1. General Information

1.1. EUT Description

Product Name	Mobile Phone
Model No.	TEC/Y40
IMEI	356189050000018
Hardware Version	SR801_V1.0
Software Version	20130115-0.0.1034.0103
Device Category	Portable
RF Exposure Environment	Uncontrolled
Antenna Type	Internal
GPS	
Operate Frequency	1575.42MHz
Type of modulation	BPSK
2G	
Support Band	GSM850/PCS1900
GPRS Type	Class B
GPRS Class	Class 12
Uplink	GSM 850: 824~849MHz PCS 1900: 1850~1910MHz
Downlink	GSM 850: 869~894MHz PCS 1900: 1930~1990MHz
Release Version	R99
Type of modulation	GMSK for GSM/GPRS/EDGE
Antenna Gain	GSM 850: -1.0dBi PCS1900: 1dBi
Max. Output Power (Conducted)	GSM850: 32.78dBm PCS1900: 29.97dBm
3G	
Support Band	WCDMA Band V
Uplink	WCDMA Band V: 824~849MHz
Downlink	WCDMA Band V: 869~894MHz
Release Version	Rel-5
Type of modulation	QPSK
Antenna Gain	WCDMA Band V: -1.0dBi
Max. Output Power	WCDMA Band V: 23.45dBm

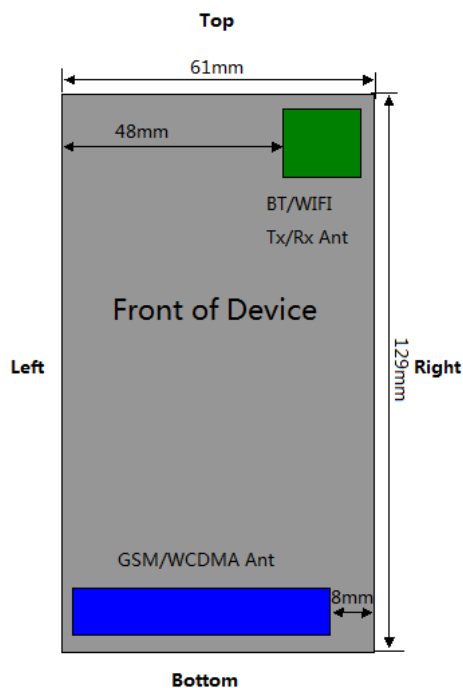
(Conducted)	
Bluetooth	
Bluetooth Frequency	2402~2480MHz
Bluetooth Version	V3.0
Type of modulation	FHSS
Data Rate	1Mbps(GFSK), 2Mbps(Pi/4 DQPSK), 3Mbps (8DPSK)
Antenna Gain	-2.5dBi
Wi-Fi	
Hotspots Function	YES
Wi-Fi Frequency	802.11b/g: 2412 ~ 2462 MHz
Type of modulation	802.11b: DSSS; 802.11g: OFDM
Data Rate	802.11b: 1/2/5.5/11 Mbps
	802.11g: 6/9/12/18/24/36/48/54 Mbps
Antenna Gain	-2.5dBi

1.2. Test Environment

Ambient conditions in the laboratory:

Items	Required	Actual
Temperature (°C)	18-25	21.5± 2
Humidity (%RH)	30-70	52

1.3. EUT Antenna Locations



Note: Specific antenna dimensions and separation distances are shown in the EUT Photo.

Mobile Hotspot Sides for SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
GPRS850	Yes	Yes	No	Yes	Yes	Yes
GPRS1900	Yes	Yes	No	Yes	Yes	Yes
UMTS850	Yes	Yes	No	Yes	Yes	Yes
UMTS1900	Yes	Yes	No	Yes	Yes	Yes
2.4GHz WLAN	Yes	Yes	Yes	No	Yes	No

Note: Particular DUT edges were not required to be evaluated for Wireless Router SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v01 guidance, page 2. The antenna photo shows the distances between the transmit antennas and the edges of the device.

1.4. Simultaneous Transmission Configurations

According to FCC KDB Publication 447498 D05v01,transmitter are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds. This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneously transmission analysis according to FCC KDB Publication 447498 D01v05 3) procedures.

Table 1-1
Simultaneous Transmission Scenarios

Ref.	Simultaneous Transmit Configurations	Head	Body-Worn Accessory	Hotspot	Note
		IEEE1528 Supp C	Supplement C	FCC KDB941225 D06	
1	GSM850 Voice + 2.4GHz Bluetooth	No	Yes	No	
2	GSM1900 Voice + 2.4GHz Bluetooth	No	Yes	No	
3	UMTS850 Voice + 2.4GHz Bluetooth	No	Yes	No	
4	UMTS1900 Voice + 2.4GHz Bluetooth	No	Yes	No	
5	GSM850 Voice + 2.4GHz Wi-Fi	Yes	Yes	No	
6	GSM1900 Voice + 2.4GHz Wi-Fi	Yes	Yes	No	
7	UMTS850 Voice + 2.4GHz Wi-Fi	Yes	Yes	No	
8	UMTS1900 Voice + 2.4GHz Wi-Fi	Yes	Yes	No	
9	GPRS850 Data + 2.4GHz Wi-Fi	No	No	Yes	GPRS + Wi-Fi Hotspot
10	GPRS1900 Data + 2.4GHz Wi-Fi	No	No	Yes	GPRS + Wi-Fi Hotspot
11	UMTS850 Data + 2.4GHz Wi-Fi	Yes	Yes	Yes	UMTS + Wi-Fi Hotspot
12	UMTS190 Data + 2.4GHz Wi-Fi	Yes	Yes	Yes	UMTS + Wi-Fi Hotspot
Note: Bluetooth and WIFI share the same antenna and cannot transmit simultaneously.					

1.5. SAR Test Exclusions Applied

(A) Wi-Fi/Bluetooth

Per FCC KDB 447498 D01v05,the SAR exclusion threshold for distances<50mm is defined by the following equation:

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

Based on the maximum conducted power of Bluetooth and the antenna to use separation distance, Bluetooth SAR was not required; [(2.67mW/10)* √2.441]=0.42<3.0.

IEEE 802.11g were not evaluated for SAR since the average output power was not more than 0.25 dB higher than the average output power of IEEE 802.11b.

(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

This device is only capable of QPSK HSDPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSDPA in KDB 941225 D01v02.

When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.

1.6. Power Reduction for SAR

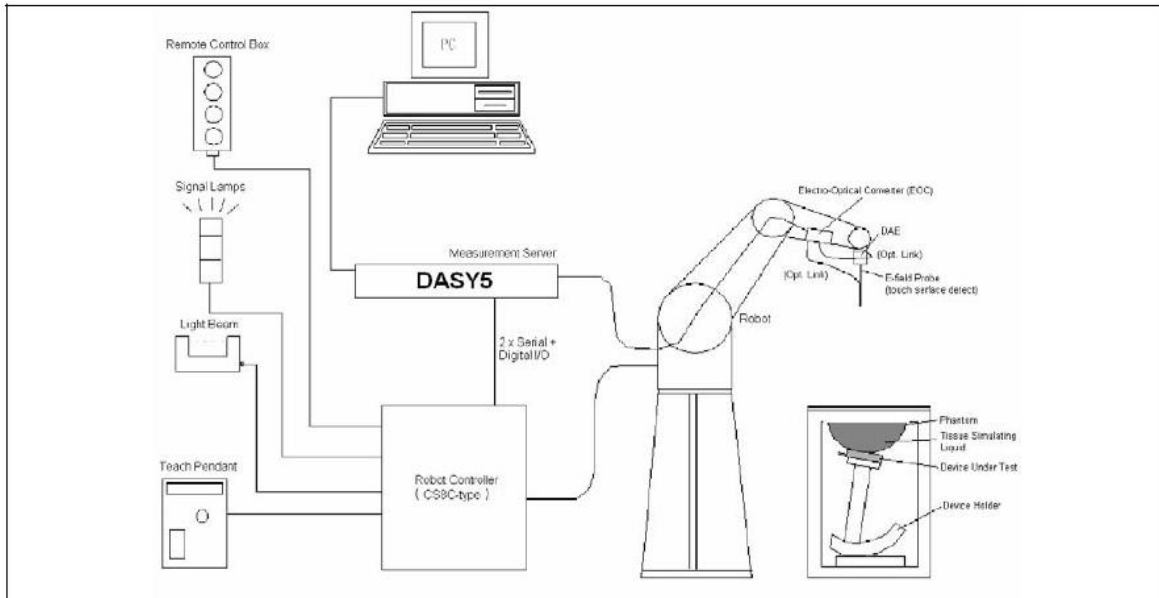
There is no power reduction used for any band/mode implemented in this device for SAR purposes.

1.7. Guidance Documents

- 1) FCC KDB Publication 941225 D01-D06 (2G/3G and Hotspot)
- 2) FCC KDB Publication 447498 D01v05 (General SAR Guidance)
- 3) FCC KDB Publication 865664 D01v01 (SAR measurement 100 MHz to 6 GHz)
- 4) FCC KDB Publication 248227 D01v01r02 (SAR Considerations for 802.11 Devices)

2. SAR Measurement System

2.1. DASY5 System Description



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

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

2.1.1. Applications

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

2.1.2. Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10mm^2 step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE 1528-2003 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan).

2.1.3. Zoom Scan (Cube Scan Averaging)

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of $7\text{mm} \times 7\text{mm} \times 7\text{mm}$ (5mmx5mmx5mm) providing a volume of 30mm in the X & Y axis, and 30mm in the Z axis.

2.1.4. Uncertainty of Inter-/Extrapolation and Averaging

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

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

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


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

2.2. DASY5 E-Field Probe

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

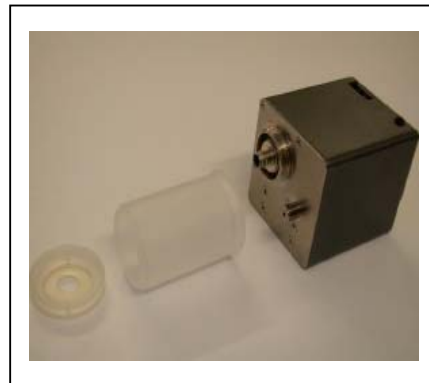
SPEAG conducts the probe calibration in compliance with international and national standards (e.g. IEEE 1528, EN 62209-1, IEC 62209, etc.) under ISO 17025. The calibration data are in Appendix D.

2.2.1. Isotropic E-Field Probe Specification

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

2.3. Boundary Detection Unit and Probe Mounting Device

The DASY5 probes use a precise connector and an additional holder for the probe, consisting of a plastic tube and a flexible silicon ring to center the probe. The connector at the DAE is flexibly mounted and held in the default position with magnets and springs. Two switching systems in the connector mount detect frontal and lateral probe collisions and trigger the necessary software response.



2.4. DATA Acquisition Electronics (DAE) and Measurement Server

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit.

Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

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



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



2.5. Robot

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

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

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



2.6. Light Beam Unit

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

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



2.7. Device Holder

The DASY5 device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.



2.8. SAM Twin Phantom

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

- Left head
- Right head
- Flat phantom



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

3. Tissue Simulating Liquid

3.1. The composition of the tissue simulating liquid

INGREDIENT (% Weight)	835MHz Head	835MHz Body	1900MHz Head	1900MHz Body	2450MHz Head	2450MHz Body
Water	40.45	52.4	54.90	40.5	46.7	73.2
Salt	1.45	1.40	0.18	0.50	0.00	0.04
Sugar	57.6	45.0	0.00	58.0	0.00	0.00
HEC	0.40	1.00	0.00	0.50	0.00	0.00
Preventol	0.10	0.20	0.00	0.50	0.00	0.00
DGBE	0.00	0.00	44.92	0.00	53.3	26.7

3.2. Tissue Calibration Result

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

Head Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
835 MHz	Reference result ± 5% window	41.50 39.43 to 43.58	0.90 0.86 to 0.95	N/A
	12-03-2013	41.87	0.90	21.0
1900 MHz	Reference result ± 5% window	40.00 38.00 to 42.00	1.40 1.33 to 1.47	N/A
	12-03-2013	39.21	1.44	21.0
2450MHz	Reference result ± 5% window	39.2 37.24 to 41.16	1.80 1.71 to 1.89	N/A
	12-03-2013	38.08	1.86	21.0

Body Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
835 MHz	Reference result ± 5% window	55.2 52.44 to 57.96	0.97 0.92 to 1.02	N/A
	12-03-2013	53.93	0.96	21.0
1900 MHz	Reference result ± 5% window	53.3 50.64 to 55.97	1.52 1.44 to 1.60	N/A
	12-03-2013	54.21	1.53	21.0
2450MHz	Reference result ± 5% window	52.7 50.07 to 55.34	1.95 1.85 to 2.05	N/A
	12-03-2013	53.33	1.90	21.0

3.3. Tissue Dielectric Parameters for Head and Body Phantoms

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

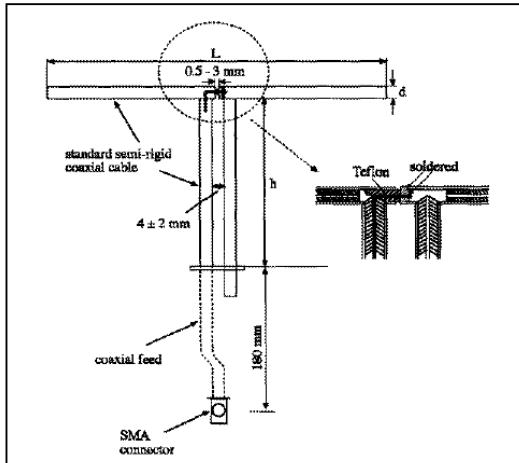
Target Frequency	Head		Body	
(MHz)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7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

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

4. SAR Measurement Procedure

4.1. SAR System Validation

4.1.1. Validation Dipoles



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

Frequency	L (mm)	h (mm)	d (mm)
835MHz	161.0	89.8	3.6
1900MHz	68.0	39.5	3.6
2450MHz	51.5	30.4	3.6

4.1.2. Validation Result

System Performance Check at 835MHz &1900MHz &2450MHz for Head				
Validation Kit: D835V2-SN 4d120				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
835 MHz	Reference result ± 10% window	9.41 8.47 to 10.35	6.15 5.54 to 6.77	N/A
	12-03-2013	9.76	6.36	21.0
Validation Kit: D1900V2-SN 5d142				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
1900 MHz	Reference result ± 10% window	39.4 35.46 to 43.34	20.8 18.72 to 22.88	N/A
	12-03-2013	39.72	20.08	21.0
Validation Dipole: D2450V2, SN: 839				
Frequency [MHz]	Frequency [MHz]	Frequency [MHz]	Frequency [MHz]	Frequency [MHz]
2450 MHz	Reference result ± 10% window	51.9 46.71 to 57.09	24.1 21.69 to 26.51	N/A
	12-03-2013	52.00	23.20	21.0
Note: All SAR values are normalized to 1W forward power.				
System Performance Check at 835MHz &1900MHz &2450MHz for Body				
Validation Kit: D835V2-SN 4d120				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
835 MHz	Reference result ± 10% window	9.57 8.61 to 10.53	6.33 5.70 to 6.96	N/A
	12-03-2013	9.88	6.44	21.0
Validation Kit: D1900V2-SN 5d142				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
1900 MHz	Reference result ± 10% window	38.7 34.83 to 42.57	20.4 18.36 to 22.44	N/A
	12-03-2013	41.20	21.32	21.0

Validation Dipole: D2450V2, SN: 839				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
2450 MHz	Reference result ± 10% window	48.7 43.83 to 53.57	22.8 20.52 to 25.08	N/A
	12-03-2013	46.80	21.28	21.0
Note: All SAR values are normalized to 1W forward power.				

4.2. SAR Measurement Procedure

The DASY5 calculates SAR using the following equation,

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

σ : represents the simulated tissue conductivity

ρ : represents the tissue density

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

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

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

The area scan is then run to establish the peak SAR location which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume. The interpolated resolution settings refer to FCC KDB 865664 D01.

			$\leq 3\text{ GHz}$	$> 3\text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			$5 \pm 1\text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5\text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}			$\leq 2\text{ GHz: } \leq 15\text{ mm}$ $2 - 3\text{ GHz: } \leq 12\text{ mm}$	$3 - 4\text{ GHz: } \leq 12\text{ mm}$ $4 - 6\text{ GHz: } \leq 10\text{ mm}$
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}			$\leq 2\text{ GHz: } \leq 8\text{ mm}$ $2 - 3\text{ GHz: } \leq 5\text{ mm}^*$	$3 - 4\text{ GHz: } \leq 5\text{ mm}^*$ $4 - 6\text{ GHz: } \leq 4\text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		$\leq 5\text{ mm}$	$3 - 4\text{ GHz: } \leq 4\text{ mm}$ $4 - 5\text{ GHz: } \leq 3\text{ mm}$ $5 - 6\text{ GHz: } \leq 2\text{ mm}$
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	$\leq 4\text{ mm}$	$3 - 4\text{ GHz: } \leq 3\text{ mm}$ $4 - 5\text{ GHz: } \leq 2.5\text{ mm}$ $5 - 6\text{ GHz: } \leq 2\text{ mm}$
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		$\geq 30\text{ mm}$	$3 - 4\text{ GHz: } \geq 28\text{ mm}$ $4 - 5\text{ GHz: } \geq 25\text{ mm}$ $5 - 6\text{ GHz: } \geq 22\text{ mm}$
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the area scan based <i>1-g SAR estimation</i> procedures of KDB 447498 is $\leq 1.4\text{ W/kg}$, $\leq 8\text{ mm}$, $\leq 7\text{ mm}$ and $\leq 5\text{ mm}$ zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

4.3. Body-Worn Accessory 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. Per FCC KDB Publication 648474 D04_v01, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01_v05 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do 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 tested with the device with each accessory. If multiple accessories 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 with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. 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 in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

4.4. Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v01 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, 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 tests.

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 cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v05 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

4.5. SAR Measurement Conditions for UMTS

4.5.1. Output Power Verification

Maximum output power is measured on the High, Middle and Low channels for each applicable transmission band 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”.

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 (release 5), using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

4.5.2. Head SAR Measurements for Handsets

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 0.25 dB higher than that measured in 12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2 AMR with a 3.4 kbps SRB (signaling radio bearer) using the exposure configuration that resulted in the highest SAR for that RF channel in the 12.2 kbps RMC mode.

4.5.3. Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all “1s”.

4.5.4. SAR Measurements for Handsets with Rel 5 HSDPA

Body SAR for HSDPA is not required for handsets with HSDPA capabilities when the maximum average output power of each RF channel with HSDPA active is less than 0.25 dB higher than that measured without HSDPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is $\leq 75\%$ of the SAR limit. Otherwise, SAR is measured for HSDPA, using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration measured in 12.2 kbps RMC without HSDPA, on the maximum output channel with the body exposure configuration that resulted in the highest SAR in 12.2 kbps RMC mode for that RF channel.

The H-set used in FRC for HSDPA should be configured according to the UE category of a test device. The number of HS-DSCH/HSPDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the applicable H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the FRC for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 2 ms to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors of $\beta_c=9$ and $\beta_d=15$, and power offset parameters of $\Delta_{ACK}=\Delta_{NACK}=5$ and $\Delta_{CQI}=2$ is used. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the FRC.

5. SAR Exposure Limits

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

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

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

6. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Cali. Due Date
Stäubli Robot TX60L	Stäubli	TX60L	F10/5C90A1/A/01	only once
Controller	Stäubli	SP1	S-0034	only once
Dipole Validation Kits	Speag	D835V2	4d094	2013.02.17
Dipole Validation Kits	Speag	D1900V2	5d121	2013.02.22
Dipole Validation Kits	Speag	D2450V2	839	2013.02.23
SAM Twin Phantom	Speag	SAM	TP-1561/1562	N/A
Device Holder	Speag	SD 000 H01 HA	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	915	2013.06.21
E-Field Probe	Speag	EX3DV4	3710	2013.03.12
SAR Software	Speag	DASY5	V5.2 Build 162	N/A
Power Amplifier	Mini-Circuit	ZVA-183-S+	N657400950	N/A
Directional Coupler	Agilent	778D	20160	N/A
Universal Radio Communication Tester	R&S	CMU 200	117088	2013.04.18
Vector Network	Agilent	E5071C	MY48367267	2013.04.10
Signal Generator	Agilent	E4438C	MY49070163	2013.04.18
Power Meter	Anritsu	ML2495A	0905006	2013.11.10
Wide Bandwidth Sensor	Anritsu	MA2411B	0846014	2013.11.10

7. Measurement Uncertainty

DASY5 Uncertainty								
Measurement uncertainty for 300 MHz to 3 GHz averaged over 1 gram / 10 gram.								
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(vi) Veff
Measurement System								
Probe Calibration	±6.0%	N	1	1	1	±6.0%	±6.0%	∞
Axial Isotropy	±4.7%	R	错误! 未找到引用源。	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	√3	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	√3	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	√3	1	1	±0.6%	±0.6%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	√3	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	√3	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	√3	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	√3	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	√3	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	√3	1	1	±1.7%	±1.7%	∞
Max. SAR Eval.	±1.0%	R	√3	1	1	±0.6%	±0.6%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	√3	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom Uncertainty	±4.0%	R	√3	1	1	±2.3%	±2.3%	∞
Liquid Conductivity (target)	±5.0%	R	√3	0.64	0.43	±1.8%	±1.2%	∞
Liquid Conductivity (meas.)	±2.5%	N	1	0.64	0.43	±1.6%	±1.1%	∞
Liquid Permittivity (target)	±5.0%	R	√3	0.6	0.49	±1.7%	±1.4%	∞
Liquid Permittivity	±2.5%	N	1	0.6	0.49	±1.5%	±1.2%	∞

(meas.)								
Combined Std. Uncertainty						±11.0%	±10.8%	387
Expanded STD Uncertainty						±22.0%	±21.5%	

8. Conducted Power Measurement

Mode	Frequency (MHz)	Avg. Burst Power (dBm)	Duty Cycle Factor (dB)	Frame Power (dBm)	Max. Power (dBm)	Scaling Factor
GSM850	824.2	32.85	-9	23.85	33.0	1.08
	836.4	32.86	-9	23.86	33.0	1.08
	848.8	32.80	-9	23.89	33.0	1.05
GPRS/EDGE850 (1 Slot)	824.2	32.34	-9	23.34	33.0	1.08
	836.4	32.31	-9	23.31	33.0	1.09
	848.8	32.39	-9	23.39	33.0	1.07
GPRS/EDGE850 (2 Slot)	824.2	29.28	-6	23.38	30.5	1.32
	836.4	29.32	-6	23.32	30.5	1.31
	848.8	29.39	-6	23.39	30.5	1.29
GPRS/EDGE850 (3 Slot)	824.2	27.66	-4.25	23.41	28.0	1.08
	836.4	27.69	-4.25	23.44	28.0	1.07
	848.8	27.76	-4.25	23.51	28.0	1.06
GPRS/EDGE850 (4 Slot)	824.2	26.61	-3	23.61	27.0	1.09
	836.4	26.64	-3	23.64	27.0	1.09
	848.8	26.72	-3	23.72	27.0	1.07
PCS1900	1850.2	29.32	-9	20.32	30.0	1.22
	1880.0	29.32	-9	20.31	30.0	1.06
	1909.8	29.72	-9	20.72	30.0	1.01
GPRS/EDGE1900 (1 Slot)	1850.2	29.12	-9	20.12	30.0	1.24
	1880.0	29.13	-9	20.13	30.0	1.11
	1909.8	29.50	-9	20.50	30.0	1.02
GPRS/EDGE1900 (2 Slot)	1850.2	26.14	-6	20.14	27.0	1.22
	1880.0	26.61	-6	20.61	27.0	1.09
	1909.8	26.90	-6	20.90	27.0	1.02
GPRS/EDGE1900 (3 Slot)	1850.2	24.46	-4.25	20.21	25.2	1.18
	1880.0	24.91	-4.25	20.66	25.2	1.07
	1909.8	25.07	-4.25	21.02	25.2	1.03
GPRS/EDGE1900 (4 Slot)	1850.2	23.12	-3	20.12	24.0	1.22
	1880.0	23.56	-3	20.56	24.0	1.11
	1909.8	23.90	-3	20.90	24.0	1.02

Note 1: Scaling Factor = Max. Power(mW) / Avg. Burst Power(mW)

2: This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication

447498 D01v05.

3: Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged powers were calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.

4: The bolded GPRS modes were selected for SAR testing according to the highest frame-averaged output power table per KDB 941225 D03v01.

5: GPRS/EDGE(GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.

WCDMA/HSDPA

Mode	3GPP Subtest	Band V (850MHz)			MPR
		Conducted Power (dBm)			
		4132	4182	4233	
WCDMA R99	1	23.22	23.28	23.45	N/A
Rel5 HSDPA	1	22.91	22.84	23.22	0
	2	22.89	22.79	23.18	0
	3	22.50	22.31	22.82	0.5
	4	22.47	22.29	22.80	0.5

Note: UMTS SAR was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v02. 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 1.2 W/kg.

Mode	Band V (850MHz) Channel	Normal Power (dBm)	Max. Power (dBm)	Scaling Factor
WCDMA R99	4132	23.22	23.5	1.07
	4182	23.28	23.5	1.05
	4233	23.45	23.5	1.01
Rel5 HSDPA	4132	22.91	23.5	1.15
	4182	22.84	23.5	1.16
	4233	23.22	23.5	1.07

WLAN output power

Test Mode	Channel No.	Frequency (MHz)	Average Power (dBm)	Max. Power (dBm)	Scaling Factor
802.11b	01	2412	15.62	16.0	1.09
	06	2437	15.75	16.0	1.06
	11	2462	14.72	16.0	1.34
802.11g	01	2412	13.13	15.5	1.14
	06	2437	11.89	15.5	1.28
	11	2462	12.26	15.5	1.40

Note: Justification for reduced test configurations for WIFI channels per KDB Publication 248227 D01v01r02.

For 2.4 GHz, highest average RF output power channel for the lowest data rate for IEEE 802.11b were selected for SAR evaluation. Other IEEE 802.11 modes (including 802.11g/n) were not investigated since the average output powers over all channels and data rates were not more than 0.25 dB higher than the tested channel in the lowest data rate of IEEE 802.11b mode.

When the maximum extrapolated peak SAR of the zoom scan for the maximum output channel is $<1.6 \text{ W/kg}$ and the reported 1g averaged SAR is $<0.8 \text{ W/kg}$, SAR testing on other channels is not required. Otherwise, the other default (or corresponding required) test channels were additionally tested using the lowest data rate.

The bolded channel above was tested for SAR.

9. Test Results

9.1. SAR Test Results Summary

SAR MEASUREMENT									
Ambient Temperature (°C) : 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C) : 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Test Mode: GSM850									
Test Position Head	Antenna Position	Frequency		Frame Power (dBm)	Power Drift ($\leq \pm 0.2$)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Left-Cheek	Fixed	128	824.2	23.85	--	--	1.08	--	1.6
Left-Cheek	Fixed	189	836.4	23.86	-0.14	0.613	1.08	0.662	1.6
Left-Cheek	Fixed	251	848.8	23.89	--	--	1.05	--	1.6
Left-Tilted	Fixed	189	836.4	23.86	-0.10	0.390	1.08	0.421	1.6
Right-Cheek	Fixed	128	824.2	23.85	--	--	1.08	--	1.6
Right-Cheek	Fixed	189	836.4	23.86	0.09	0.580	1.08	0.626	1.6
Right-Cheek	Fixed	251	848.8	23.89	--	--	1.05	--	1.6
Right-Tilted	Fixed	189	836.4	23.86	0.09	0.381	1.08	0.412	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C): 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C): 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Body-worn Accessory SAR Configurations									
Test Mode: GSM850									
Test Position Body (10mm gap)	Antenna Position	Frequency		Frame Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Body-worn	Fixed	128	824.2	23.85	--	--	1.08	--	1.6
Body-worn	Fixed	189	836.4	23.86	-0.10	0.672	1.08	0.726	1.6
Body-worn	Fixed	251	848.8	23.89	--	--	1.05	--	1.6
Hotspot SAR Configurations									
Test Mode: GPRS850-3slot									
Body-worn	Fixed	128	824.2	23.41	0.06	0.928	1.08	1.002	1.6
Body-worn*	Fixed	128	824.2	23.41	0.06	1.03	1.08	1.112	1.6
Body-worn	Fixed	189	836.4	23.44	0.14	0.919	1.07	0.983	1.6
Body-worn	Fixed	251	848.8	23.51	0.16	0.815	1.06	0.864	1.6
Body-front	Fixed	189	836.4	23.44	-0.10	0.749	1.07	0.801	1.6
Body-bottom	Fixed	189	836.4	23.44	0.01	0.391	1.07	0.418	1.6
Body-left side	Fixed	189	836.4	23.44	-0.11	0.594	1.07	0.636	1.6
Body-right side	Fixed	189	836.4	23.44	-0.19	0.559	1.07	0.598	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C) : 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C) : 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Test Mode: PCS1900									
Test Position Head	Antenna Position	Frequency		Frame Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Left-Cheek	Fixed	512	1850.2	20.32	--	--	1.22	--	1.6
Left-Cheek	Fixed	661	1880.0	20.31	-0.12	0.438	1.06	0.462	1.6
Left-Cheek	Fixed	810	1909.8	20.72	--	--	1.01	--	1.6
Left-Tilted	Fixed	661	1880.0	20.31	-0.11	0.120	1.06	0.127	1.6
Right-Cheek	Fixed	512	1850.2	20.32	--	--	1.22	--	1.6
Right-Cheek	Fixed	661	1880.0	20.31	-0.11	0.284	1.06	0.301	1.6
Right-Cheek	Fixed	810	1909.8	20.72	--	--	1.01	--	1.6
Right-Tilted	Fixed	661	1880.0	20.31	-0.07	0.136	1.06	0.144	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C) : 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C) : 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Body-worn Accessory SAR Configurations									
Test Mode: PCS1900									
Test Position Body (10mm gap)	Antenna Position	Frequency		Frame Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Body-worn	Fixed	512	1850.2	20.32	--	--	1.18	--	1.6
Body-worn	Fixed	661	1880.0	20.12	0.09	0.409	1.07	0.438	1.6
Body-worn	Fixed	810	1909.8	20.72	--	--	1.03	--	.1.6
Hotspot SAR Configurations									
Test Mode: GPRS1900-3slot									
Body-worn	Fixed	512	1850.2	20.21	--	--	1.18	--	1.6
Body-worn	Fixed	661	1880.0	20.66	-0.06	0.551	1.07	0.6	1.6
Body-worn	Fixed	810	1909.8	21.02	--	--	1.03	--	1.6
Body-front	Fixed	661	1880.0	20.66	-0.04	0.428	1.07	0.458	1.6
Body-bottom	Fixed	661	1880.0	20.66	-0.10	0.421	1.07	0.451	1.6
Body-left side	Fixed	661	1880.0	20.66	-0.20	0.130	1.07	0.139	1.6
Body-right side	Fixed	661	1880.0	20.66	0.18	0.125	1.07	0.134	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C) : 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C) : 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Test Mode: WCDMA Band V									
Test Position Head	Antenna Position	Frequency		Conducted Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Left-Cheek	Fixed	4132	826.4	23.22	--	--	1.07	--	1.6
Left-Cheek	Fixed	4182	836.4	23.28	-0.07	0.421	1.05	0.442	1.6
Left-Cheek	Fixed	4233	846.6	23.45	--	--	1.01	--	1.6
Left-Tilt	Fixed	4182	836.4	23.28	0.02	0.298	1.05	0.313	1.6
Right-Cheek	Fixed	4132	826.4	23.22	--	--	1.07	--	1.6
Right-Cheek	Fixed	4182	836.4	23.28	0.10	0.402	1.05	0.422	1.6
Right-Cheek	Fixed	4233	846.6	23.45	--	--	1.01	--	1.6
Right-Tilt	Fixed	4182	836.4	23.28	0.17	0.272	1.05	0.286	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C): 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C): 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Body-worn Accessory SAR Configurations									
Test Mode: WCDMA Band V									
Test Position Body (10mm gap)	Antenna Position	Frequency		Conducted Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Body-worn	Fixed	4132	826.4	23.22	0.03	0.820	1.07	0.877	1.6
Body-worn	Fixed	4182	836.4	23.28	-0.01	0.821	1.05	0.862	1.6
Body-worn*	Fixed	4132	826.4	23.22	0.06	0.778	1.07	0.833	1.6
Body-worn	Fixed	4233	846.6	23.45	-0.01	0.806	1.01	0.814	1.6
Hotspot SAR Configurations									
Test Mode: WCDMA Band V									
Body-worn	Fixed	4182	836.4	23.28	-0.01	0.821	1.05	0.862	1.6
Body-front	Fixed	4182	836.4	23.28	0.03	0.456	1.05	0.479	1.6
Body-bottom	Fixed	4182	836.4	23.28	0.01	0.260	1.05	0.273	1.6
Body-left side	Fixed	4182	836.4	23.28	-0.10	0.597	1.05	0.627	1.6
Body-right side	Fixed	4182	836.4	23.28	-0.17	0.436	1.05	0.458	1.6
Note: when the 1-g SAR is ≤ 0.8 W/kg, testing for low and high channel is optional, refer to KDB 447498.									

SAR MEASUREMENT									
Ambient Temperature (°C) : 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C) : 21.0 ±2					Depth of Liquid (cm):>15				
Product: Mobile Phone									
Test Mode: 802.11b									
Test Position Head	Antenna Position	Frequency		Average Power (dBm)	Power Drift (<±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Left-Cheek	Fixed	1	2412	15.62	--	--	1.09	--	1.6
Left-Cheek	Fixed	6	2437	15.75	-0.12	0.00348	1.06	0.00469	1.6
Left-Cheek	Fixed	11	2462	14.72	--	--	1.34	--	1.6
Left-Tilt	Fixed	1	2437	15.75	0.19	0.000131	1.06	0.000139	1.6
Right-Cheek	Fixed	1	2412	15.62	--	--	1.09	--	1.6
Right-Cheek	Fixed	6	2437	15.75	0.18	0.00475	1.06	0.00448	1.6
Right-Cheek	Fixed	11	2462	14.72	--	--	1.34	--	1.6
Right-Tilt	Fixed	1	2437	15.75	0.19	0.00236	1.06	0.0025	1.6

SAR MEASUREMENT									
Ambient Temperature (°C): 21.5 ±2					Relative Humidity (%): 52				
Liquid Temperature (°C): 21.0 ±2					Depth of Liquid (cm):>15				
Product:Mobile Phone									
Body-worn Accessory SAR Configurations									
Test Mode: 802.11b									
Test Position Body (10mm gap)	Antenna Position	Frequency		Average Power (dBm)	Power Drift (≤±0.2)	SAR 1g (W/kg)	Scaling Factor	Scaled SAR 1g (W/kg)	Limit (W/kg)
		Channel	MHz						
Body-worn	Fixed	1	2412	15.62	--	--	1.09	--	1.6
Body-worn	Fixed	6	2437	15.75	-0.18	0.015	1.06	0.0159	1.6
Body-worn	Fixed	11	2462	14.72	--	--	1.34	--	1.6
Hotspot SAR Configurations									
Test Mode: 802.11b									
Body-worn	Fixed	1	2437	15.75	-0.18	0.015	1.06	0.0159	1.6
Body-front	Fixed	1	2437	15.75	0.06	0.000607	1.06	0.000643	1.6
Body-Top	Fixed	1	2437	15.75	0.15	0.00401	1.06	0.00378	1.6
Body-rightside	Fixed	1	2437	15.75	-0.04	0.00471	1.06	0.00499	1.6

9.2. SAR Test Notes

9.2.1. Test position and configuration

Head SAR was performed with the device configured in the positions according to IEEE1528. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.

9.2.2. Body SAR with Headset

Per FCC KDB Publication 648474 D04v01, SAR was evaluated without a headset connected to the device. Since the standalone reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.

9.2.3. Hotspot Operation Mode

During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated.

9.2.4. Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v05, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg. When standalone SAR is not required to be measured, per FCC KDB 447498 D01v05 4.3.2 2, the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission assessment involving that transmitter.

$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{(\text{Max Power of channel, mW})}{\text{Min. Separation Distance, mm}}$$

Estimated SAR for Bluetooth

Mode	Frequency	Maximum Allowed Power	Estimated SAR (Held-to-Ear)	Separation Distance (Body)	Estimated SAR (Body)
	[MHz]	[dBm]	[W/kg]	[mm]	[W/kg]
Bluetooth	2441	3.56	N/A	10	0.056

Note: Held-to ear configurations are not applicable to Bluetooth operations and therefore were not considered for simultaneous transmission.

Appendix A. SAR System Validation Data

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Head 835MHz

DUT: Dipole 835 MHz D835V2; Type: D835V2

Communication System: CW; Communication System Band: D835(835.0MHz); Duty Cycle: 1:1; Frequency: 835 MHz; Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.87$; $\rho = 1000$ kg/m³; Phantom section: Flat Section ; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

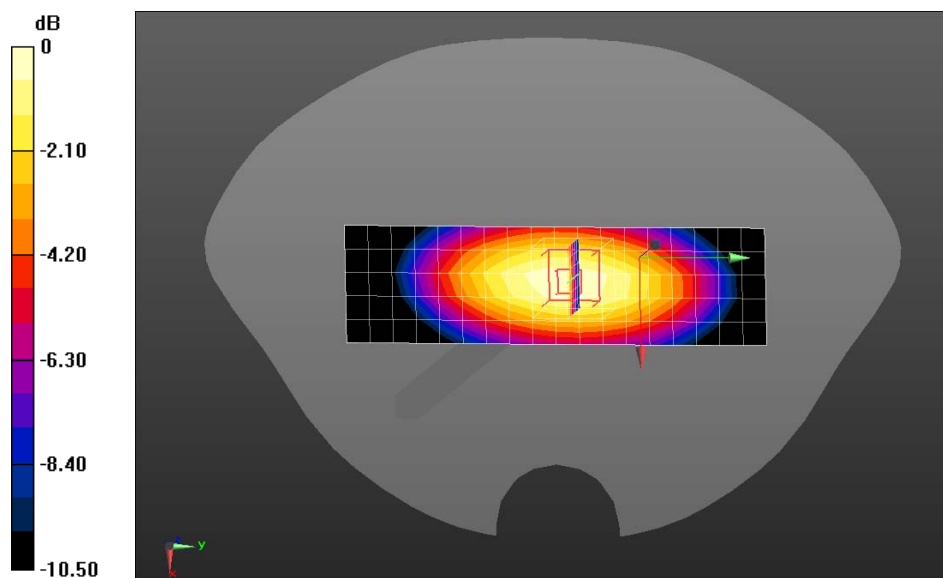
- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Head 835MHz/Area Scan (6x19x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.52 mW/g

Configuration/System Check Head 835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 53.690 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.673 mW/g

SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.59 mW/g Maximum value of SAR (measured) = 2.63 mW/g



0 dB = 2.63 mW/g = 8.40 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Body 835MHz

DUT: Dipole 835 MHz D835V2; Type: D835V2

Communication System: CW; Communication System Band: D835 (835.0 MHz); Duty Cycle: 1:1;

Frequency: 835 MHz; Medium parameters used: $f = 835$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$ kg/m³ ;

Phantom section: Flat Section ; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

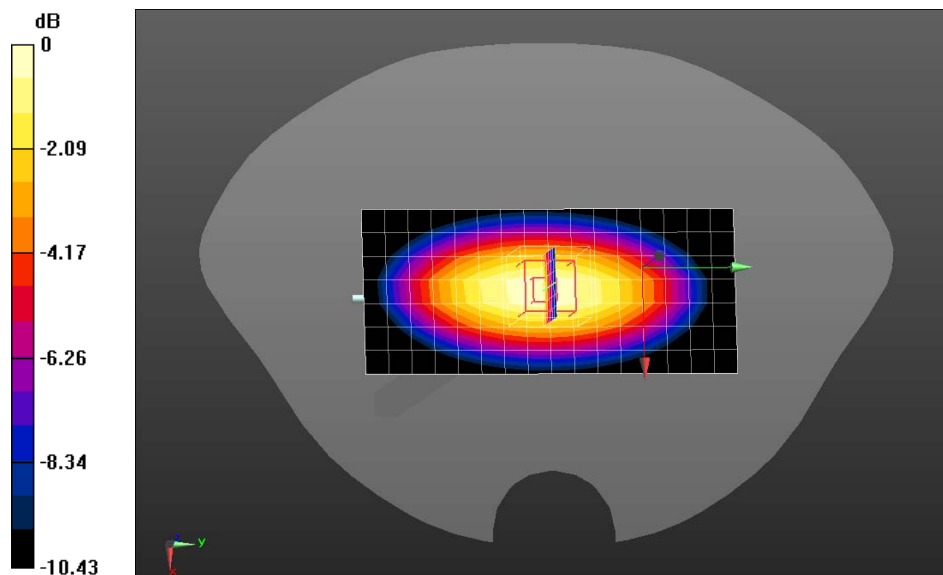
- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Body 835MHz/Area Scan (8x17x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 2.48 mW/g

Configuration/System Check Body 835MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 52.556 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.736 mW/g

SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.61 mW/g Maximum value of SAR (measured) = 2.67 mW/g



0 dB = 2.67 mW/g = 8.53 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Head 1900MHz

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2

Communication System: CW; Communication System Band: D1900(1900MHz); Duty Cycle: 1:1; Frequency: 1900 MHz; Medium parameters used: $f = 1900$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.21$; $\rho = 1000$ kg/m³; Phantom section: Flat Section; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

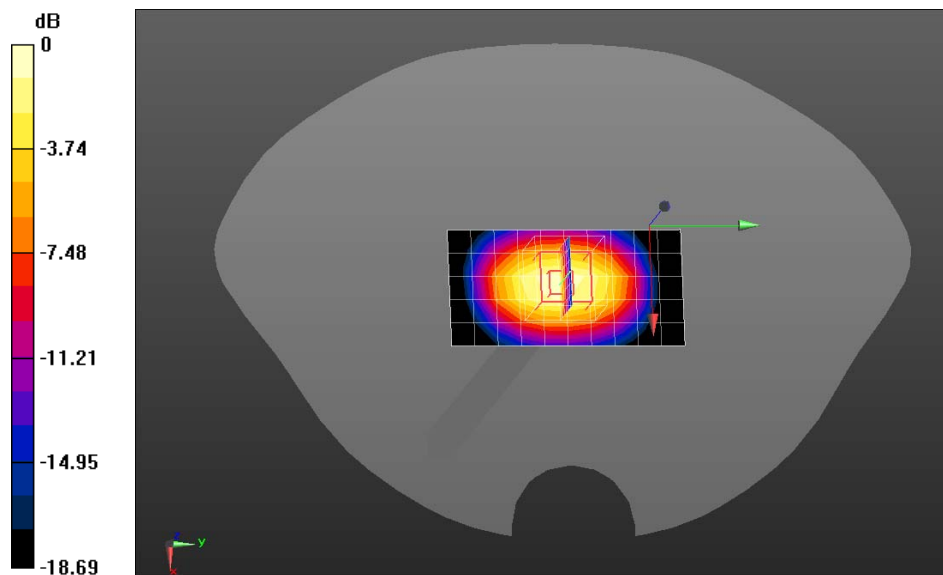
- Probe: EX3DV4 - SN3710; ConvF(8.16, 8.16, 8.16); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Head 1900MHz/Area Scan (6x11x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 10.0 mW/g

Configuration/System Check Head 1900MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 86.896 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 19.242 mW/g

SAR(1 g) = 9.93 mW/g; SAR(10 g) = 5.02 mW/g Maximum value of SAR (measured) = 11.2 mW/g



0 dB = 11.2 mW/g = 20.98 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Body 1900MHz

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2

Communication System: CW; Communication System Band: D1900(1900MHz); Duty Cycle: 1:1; Frequency: 1900 MHz; Medium parameters used: $f = 1900$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³; Phantom section: Flat Section; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

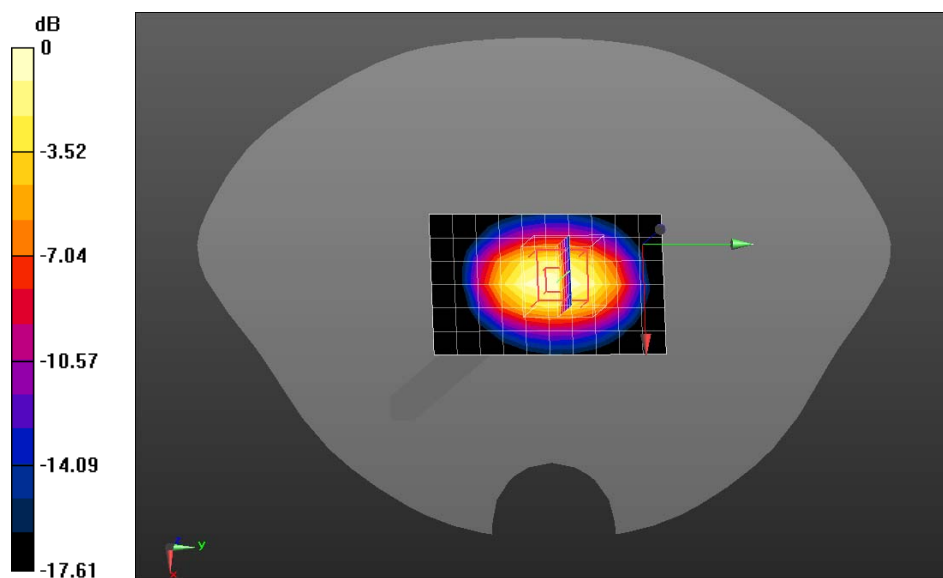
- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Body 1900MHz/Area Scan (7x11x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 11.4 mW/g

Configuration/System Check Body 1900MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 86.570 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 19.049 mW/g

SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.33 mW/g Maximum value of SAR (measured) = 11.6 mW/g



0 dB = 11.6 mW/g = 21.29 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Head 2450MHz

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

Communication System: CW; Communication System Band: D2450(2450MHz); Duty Cycle: 1:1; Frequency: 2450 MHz; Medium parameters used: $f = 2450$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.08$; $\rho = 1000$ kg/m³; Phantom section: Flat Section ; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

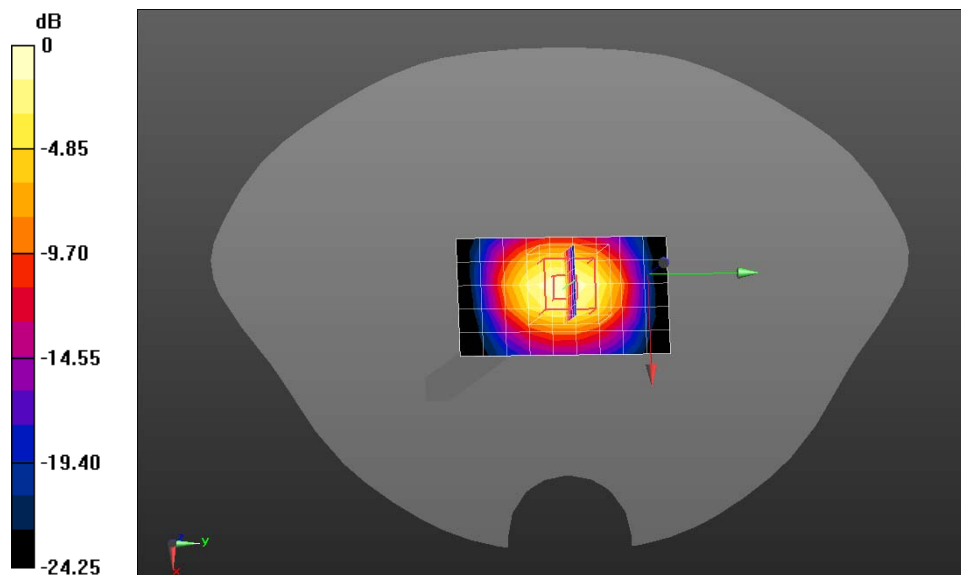
- Probe: EX3DV4 - SN3710; ConvF(7.25, 7.25, 7.25); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Head 2450MHz/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 13.5 mW/g

Configuration/System Check Head 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 85.565 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 29.260 mW/g

SAR(1 g) = 13 mW/g; SAR(10 g) = 5.8 mW/g Maximum value of SAR (measured) = 14.8 mW/g



0 dB = 14.8 mW/g = 23.41 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

System Check Body 2450MHz

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2

Communication System: CW; Communication System Band: D2450(2450MHz); Duty Cycle: 1:1; Frequency: 2450 MHz; Medium parameters used: $f = 2450$ MHz; $\sigma = 1.9$ mho/m; $\epsilon_r = 53.33$; $\rho = 1000$ kg/m³; Phantom section: Flat Section; Input Power=250mW

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

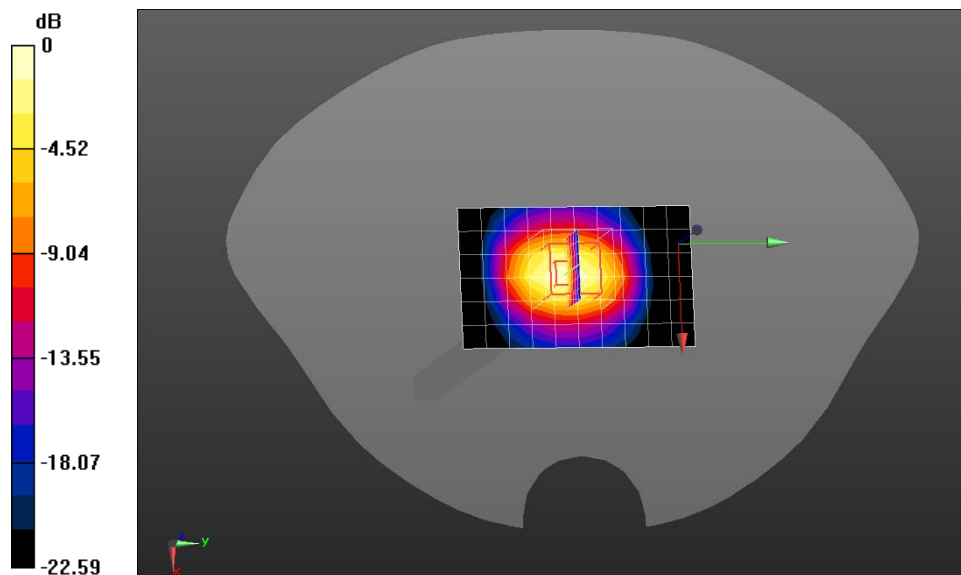
- Probe: EX3DV4 - SN3710; ConvF(6.98, 6.98, 6.98); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/System Check Body 2450MHz/Area Scan (7x11x1): Measurement grid: dx=10mm, dy=10mm, Maximum value of SAR (measured) = 12.6 mW/g

Configuration/System Check Body 2450MHz/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, Reference Value = 81.492 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 24.706 mW/g

SAR(1 g) = 11.7 mW/g; SAR(10 g) = 5.32 mW/g Maximum value of SAR (measured) = 13.4 mW/g



0 dB = 13.4 mW/g = 22.54 dB mW/g

Appendix B. SAR measurement Data

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GSM850 Mid Touch-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: GSM850; Duty Cycle: 1:8.3;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.87$; $\rho = 1000$ kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

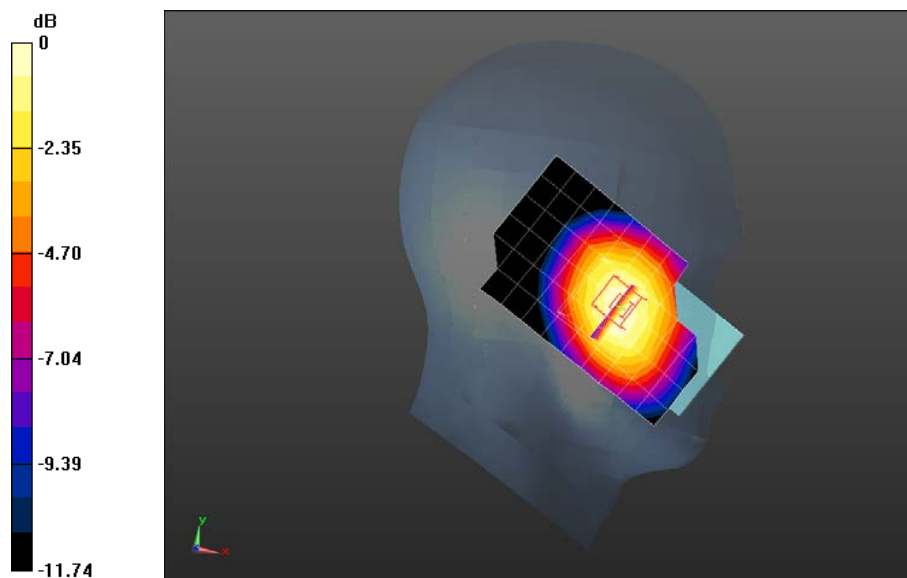
Configuration/GSM850 Mid Touch-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.637 mW/g

Configuration/GSM850 Mid Touch-Left/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 7.406 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.803 mW/g

SAR(1 g) = 0.613 mW/g; SAR(10 g) = 0.450 mW/g Maximum value of SAR (measured) = 0.644 mW/g



0 dB = 0.644 mW/g = -3.82 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GSM850 Mid Tilt-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: GSM850; Duty Cycle: 1:8.3;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.87$; $\rho = 1000$

kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GSM850 Mid Tilt-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

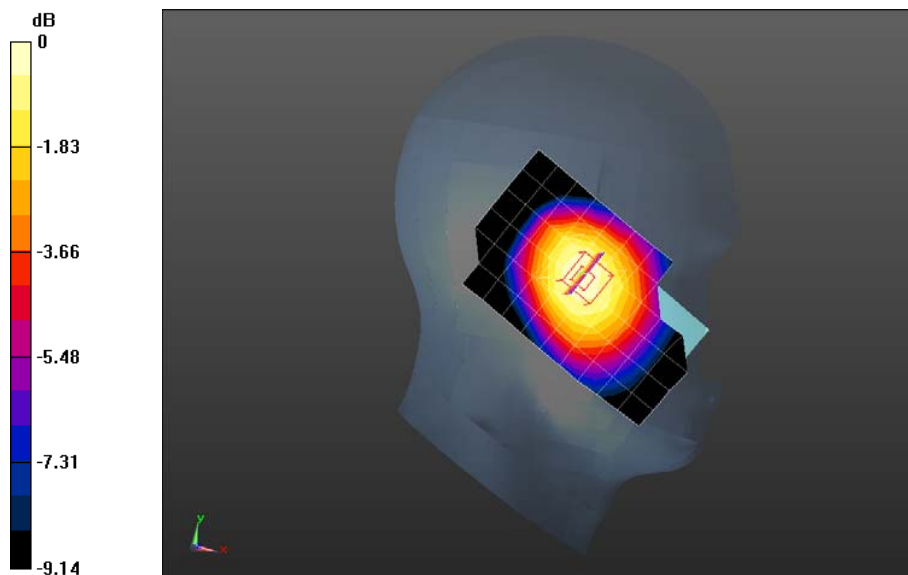
Maximum value of SAR (measured) = 0.395 mW/g

Configuration/GSM850 Mid Tilt-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm, Reference Value = 12.789 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.474 mW/g

SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.299 mW/g Maximum value of SAR (measured) = 0.407 mW/g



0 dB = 0.407 mW/g = -7.81 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GSM850 Mid Touch-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: GSM850; Duty Cycle: 1:8.3;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.87$; $\rho = 1000$

kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GSM850 Mid Touch-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

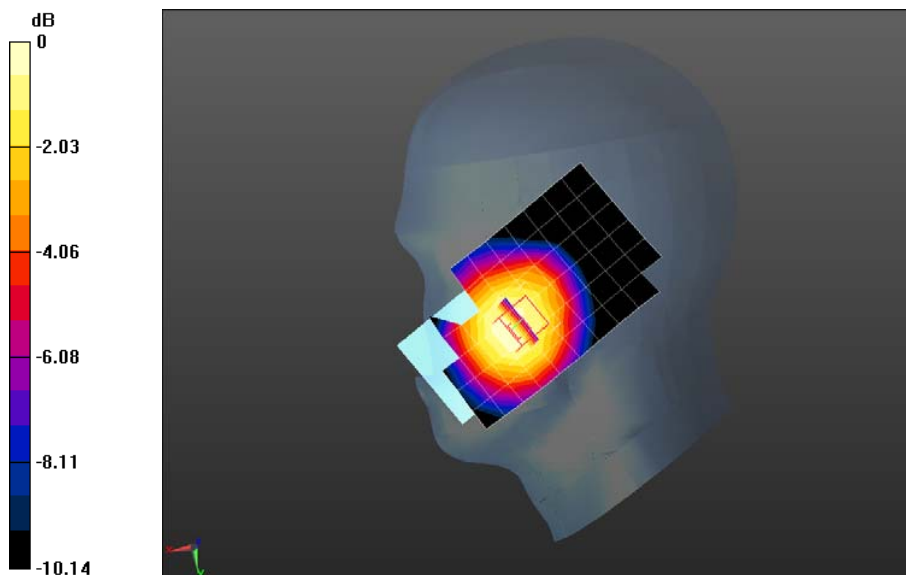
Maximum value of SAR (measured) = 0.586 mW/g

Configuration/GSM850 Mid Touch-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 5.962 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.699 mW/g

SAR(1 g) = 0.580 mW/g; SAR(10 g) = 0.442 mW/g Maximum value of SAR (measured) = 0.605 mW/g



0 dB = 0.605 mW/g = -4.36 dB mW/g

Date/Time: 12-03-2012

Test Laboratory: QuieTek Lab

GSM850 Mid Tilt-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: GSM850; Duty Cycle: 1:8.3;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.87$; $\rho = 1000$

kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GSM850 Mid Tilt-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

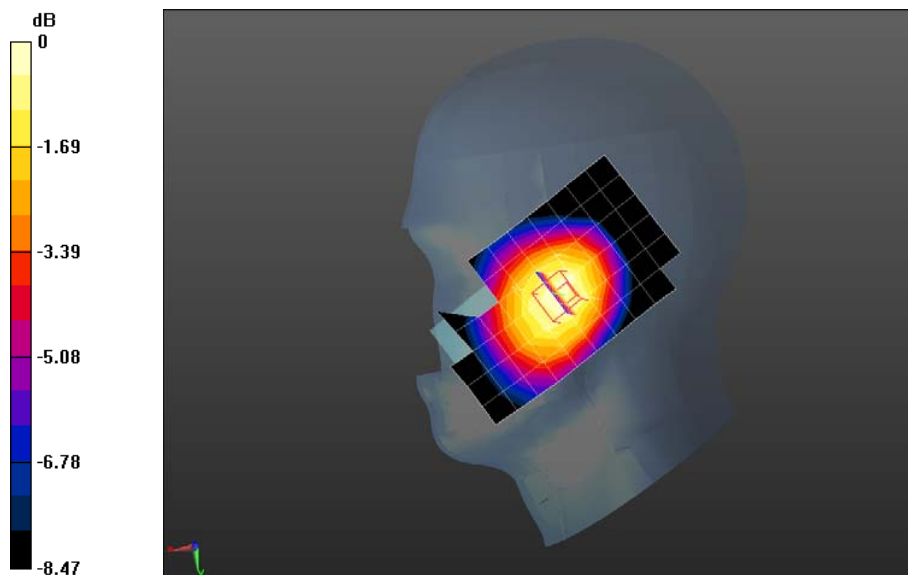
Maximum value of SAR (measured) = 0.380 mW/g

Configuration/GSM850 Mid Tilt-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 11.862 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.465 mW/g

SAR(1 g) = 0.381 mW/g; SAR(10 g) = 0.290 mW/g Maximum value of SAR (measured) = 0.400 mW/g



0 dB = 0.400 mW/g = -7.96 dB mW/g

Date/Time: 12-03-2012

Test Laboratory: QuieTek Lab

GSM850 Mid Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: GSM850; Duty Cycle: 1:8.3;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GSM850 Mid Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.685 mW/g

Configuration/GSM850 Mid Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 11.678 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.877 mW/g

SAR(1 g) = 0.631 mW/g; SAR(10 g) = 0.446 mW/g

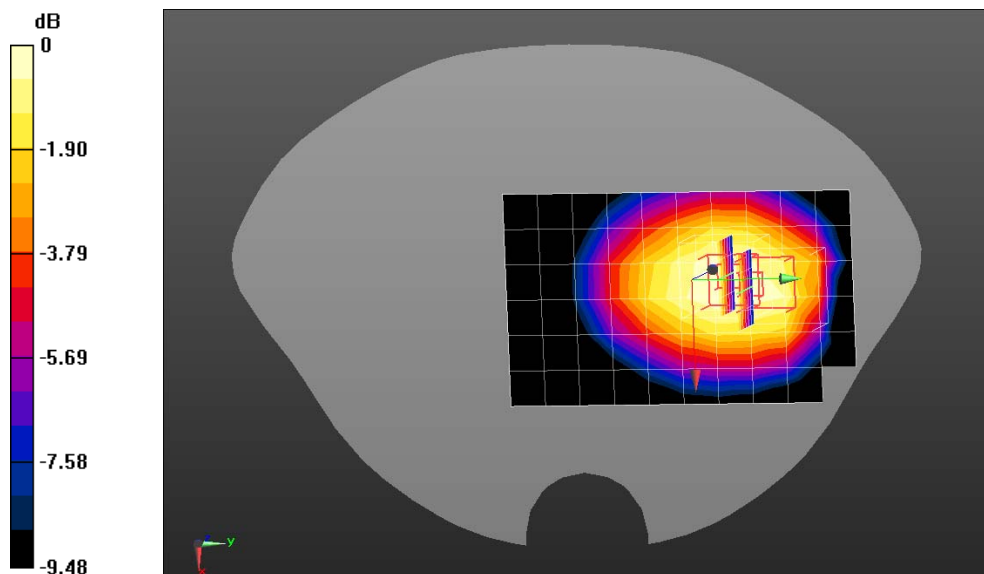
Maximum value of SAR (measured) = 0.692 mW/g

Configuration/GSM850 Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 11.678 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.888 mW/g

SAR(1 g) = 0.672 mW/g; SAR(10 g) = 0.492 mW/g Maximum value of SAR (measured) = 0.708 mW/g



0 dB = 0.708 mW/g = -3.00 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Low Body-Back(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 824.2 MHz; Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.06$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 Low Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

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

Configuration/GPRS850 Low Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.317 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.286 mW/g

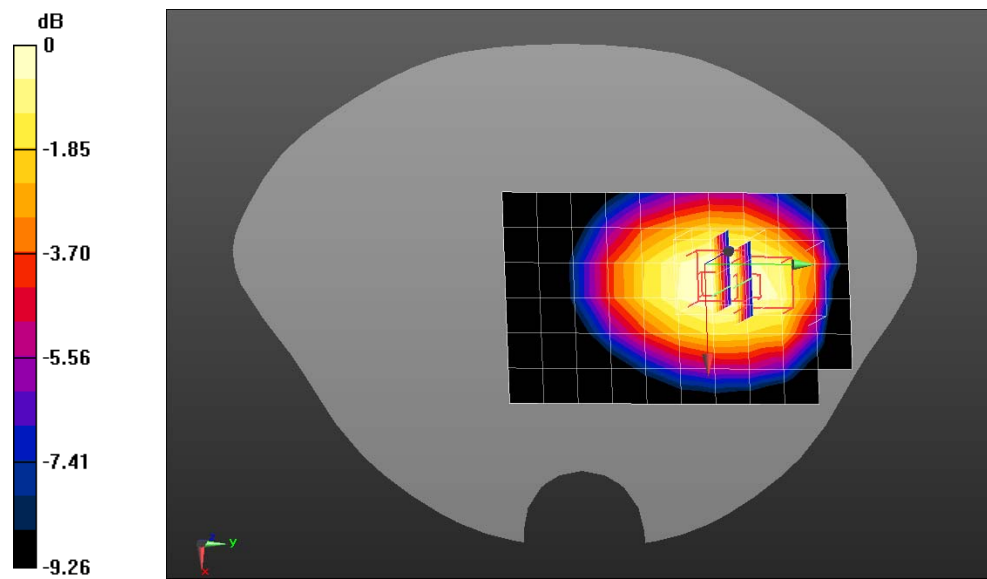
SAR(1 g) = 0.933 mW/g; SAR(10 g) = 0.661 mW/g

Maximum value of SAR (measured) = 1.04 mW/g

Configuration/GPRS850 Low Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 14.317 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.268 mW/g

SAR(1 g) = 0.978 mW/g; SAR(10 g) = 0.723 mW/g Maximum value of SAR (measured) = 1.03 mW/g



0 dB = 1.03 mW/g = 0.26 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Low Body-Back(3up)-1

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 824.2 MHz; Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.95$ mho/m; $\epsilon_r = 54.06$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 Low Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.10 mW/g

Configuration/GPRS850 Low Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 11.358 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.399 mW/g

SAR(1 g) = 0.927 mW/g; SAR(10 g) = 0.642 mW/g

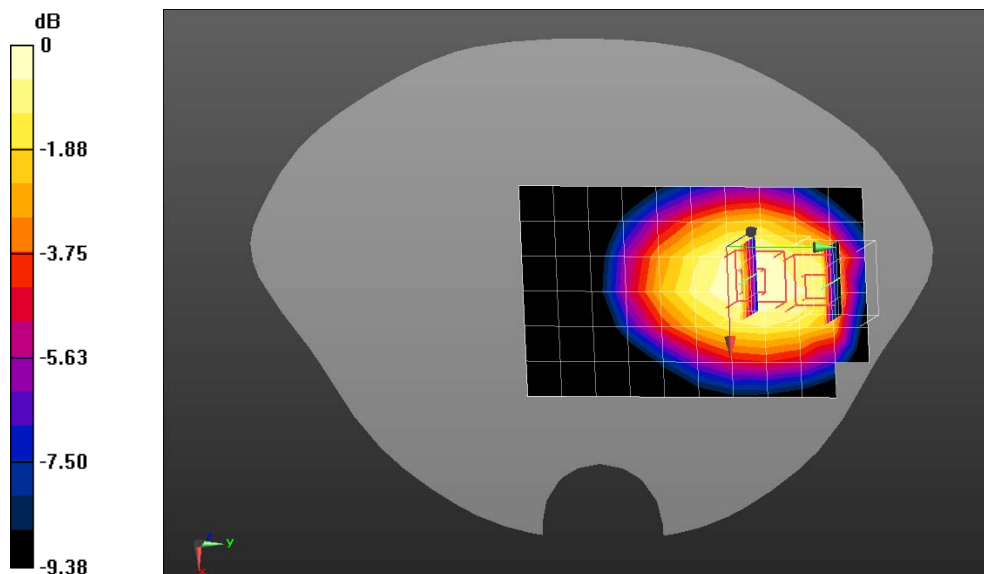
Maximum value of SAR (measured) = 0.992 mW/g

Configuration/GPRS850 Low Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 11.358 V/m; Power Drift = 0.06 dB

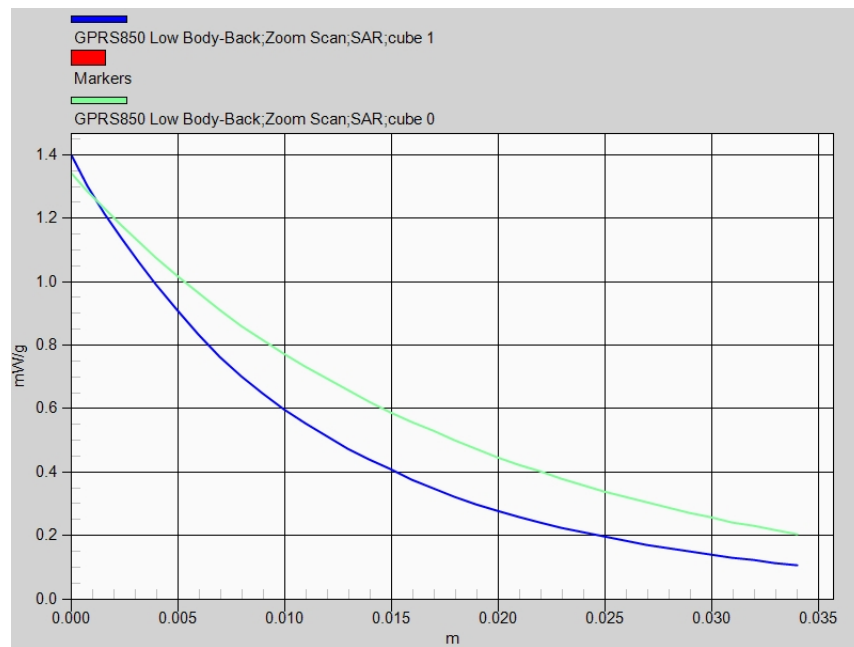
Peak SAR (extrapolated) = 1.341 mW/g

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.763 mW/g Maximum value of SAR (measured) = 1.08 mW/g



0 dB = 1.08 mW/g = 0.67 dB mW/g

Z-Axis Plot



Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Mid Body-Back(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 Mid Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.976 mW/g

Configuration/GPRS850 Mid Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 13.548 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.277 mW/g

SAR(1 g) = 0.859 mW/g; SAR(10 g) = 0.606 mW/g

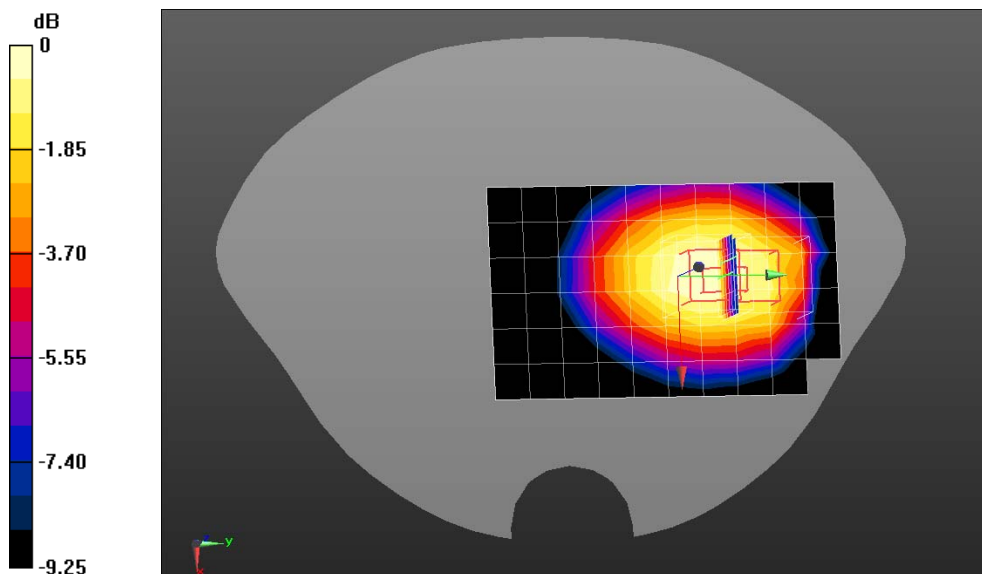
Maximum value of SAR (measured) = 0.926 mW/g

Configuration/GPRS850 Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 13.548 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 1.264 mW/g

SAR(1 g) = 0.919 mW/g; SAR(10 g) = 0.677 mW/g Maximum value of SAR (measured) = 0.985 mW/g



0 dB = 0.985 mW/g = -0.13 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 High Body-Back(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 848.8 MHz; Medium parameters used: $f = 848.8 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 53.79$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 High Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.802 mW/g

Configuration/GPRS850 High Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 12.949 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.024 mW/g

SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.517 mW/g

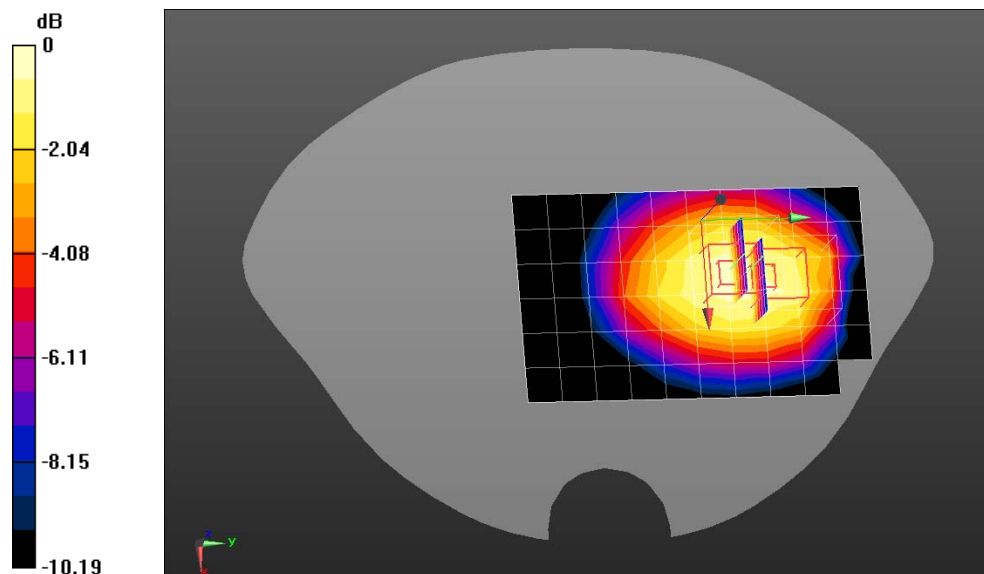
Maximum value of SAR (measured) = 0.823 mW/g

Configuration/GPRS850 High Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 12.949 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.068 mW/g

SAR(1 g) = 0.815 mW/g; SAR(10 g) = 0.593 mW/g Maximum value of SAR (measured) = 0.872 mW/g



$$0 \text{ dB} = 0.872 \text{ mW/g} = -1.19 \text{ dB mW/g}$$

Date/Time:

12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Mid Body-Front(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4 \text{ MHz}$; $\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 53.93$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 Mid Body-Front/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

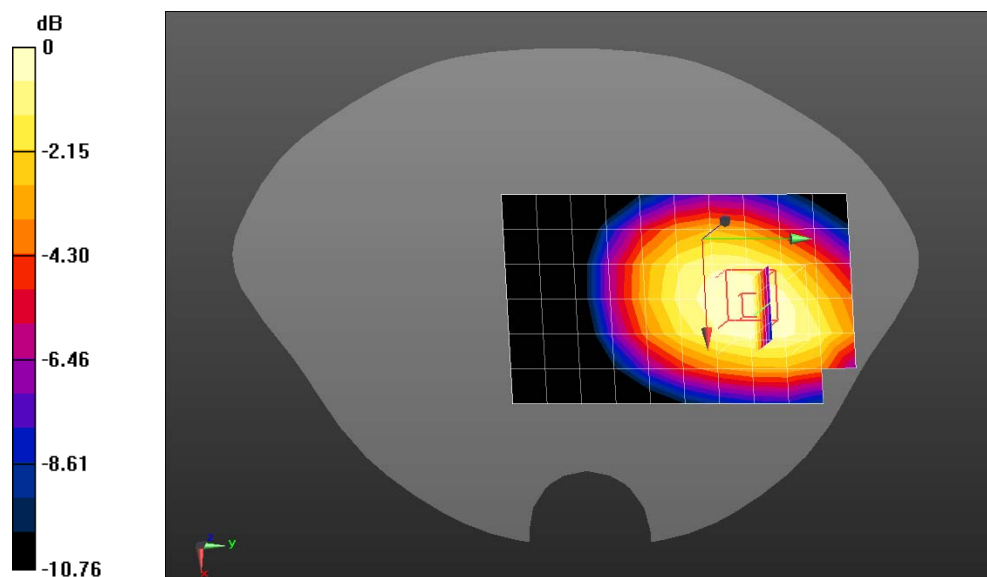
Maximum value of SAR (measured) = 0.783 mW/g

Configuration/GPRS850 Mid Body-Front/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 8.168 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.996 mW/g

SAR(1 g) = 0.749 mW/g; SAR(10 g) = 0.557 mW/g Maximum value of SAR (measured) = 0.781 mW/g



0 dB = 0.781 mW/g = -2.15 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Mid Body-Left side(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

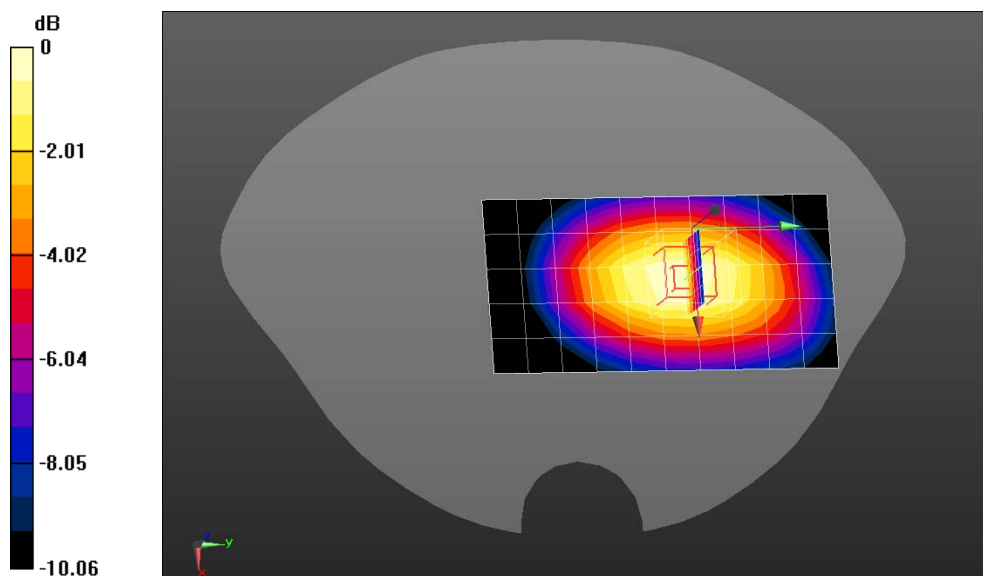
Configuration/GPRS850 Mid Body-Left side/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.606 mW/g

Configuration/GPRS850 Mid Body-Left side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 15.355 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.836 mW/g

SAR(1 g) = 0.594 mW/g; SAR(10 g) = 0.409 mW/g Maximum value of SAR (measured) = 0.631 mW/g



0 dB = 0.631 mW/g = -4.00 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Mid Body-Right side(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;
Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

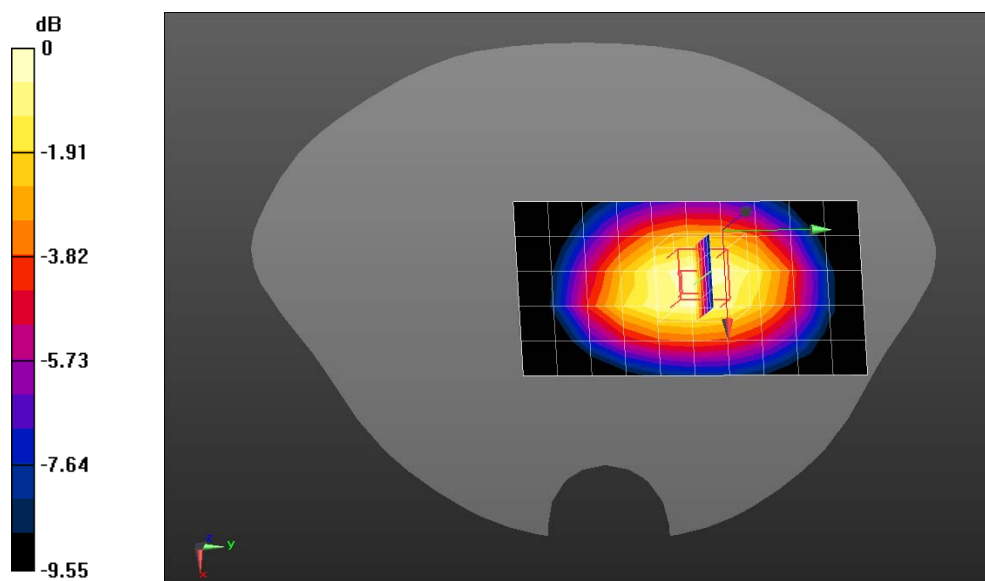
- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/GPRS850 Mid Body-Right side/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.560 mW/g

Configuration/GPRS850 Mid Body-Right side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 16.913 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 0.794 mW/g

SAR(1 g) = 0.559 mW/g; SAR(10 g) = 0.386 mW/g Maximum value of SAR (measured) = 0.597 mW/g



0 dB = 0.597 mW/g = -4.48 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS850 Mid Body-Bottom(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: GSM 850; Duty Cycle: 1:2.8 ;
Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 53.93$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

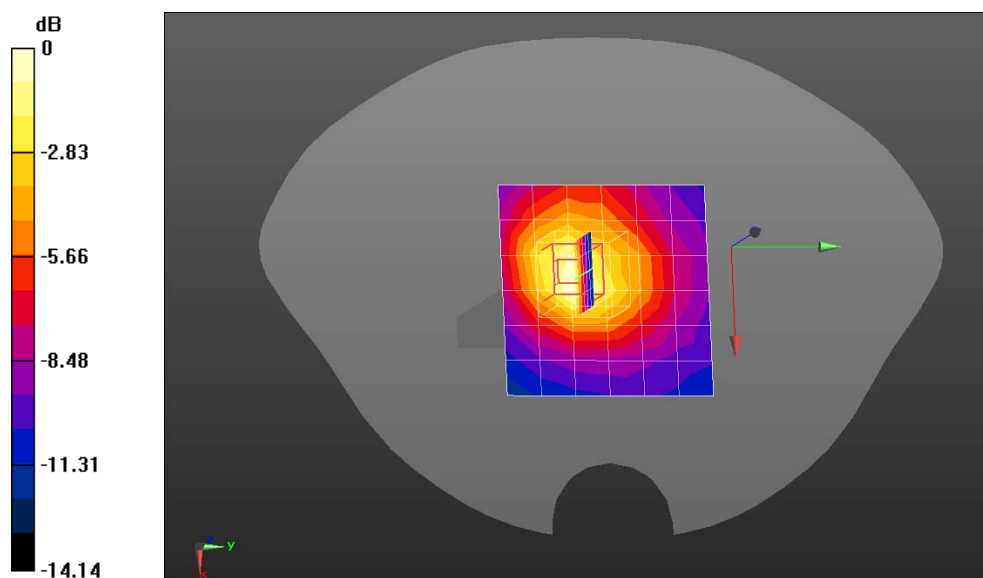
Configuration/GPRS850 Mid Body-Bottom/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.398 mW/g

Configuration/GPRS850 Mid Body-Bottom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 15.737 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.822 mW/g

SAR(1 g) = 0.391 mW/g; SAR(10 g) = 0.205 mW/g Maximum value of SAR (measured) = 0.402 mW/g



0 dB = 0.402 mW/g = -7.92 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

PCS1900 Mid Touch-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: PCS1900; Duty Cycle: 1:8.3;

Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.21$; $\rho = 1000$

kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.16, 8.16, 8.16); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/PCS1900 Mid Touch-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

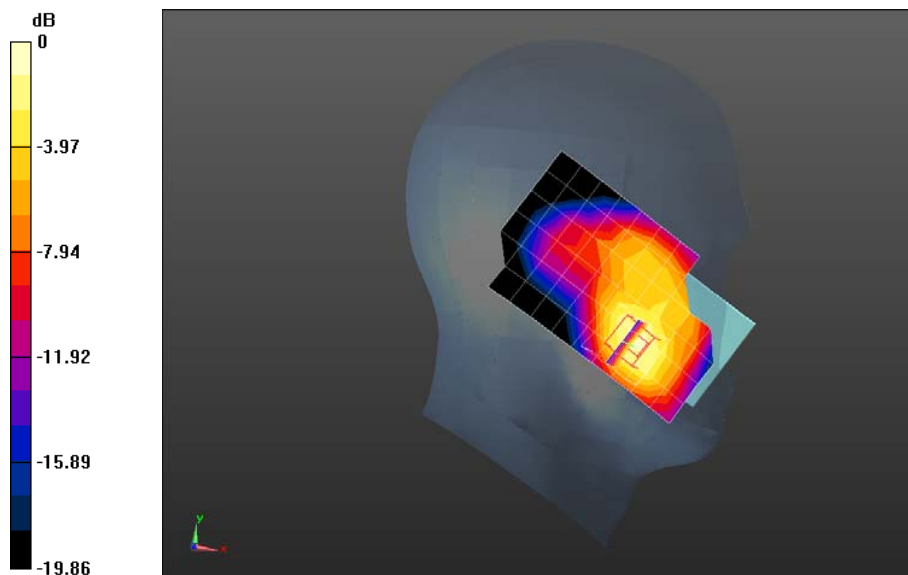
Maximum value of SAR (measured) = 0.407 mW/g

Configuration/PCS1900 Mid Touch-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 6.180 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.776 mW/g

SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.238 mW/g Maximum value of SAR (measured) = 0.472 mW/g



0 dB = 0.472 mW/g = -6.52 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

PCS1900 Mid Tilt-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: PCS1900; Duty Cycle: 1:8.3;

Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.21$; $\rho = 1000$

kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.16, 8.16, 8.16); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/PCS1900 Mid Tilt-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

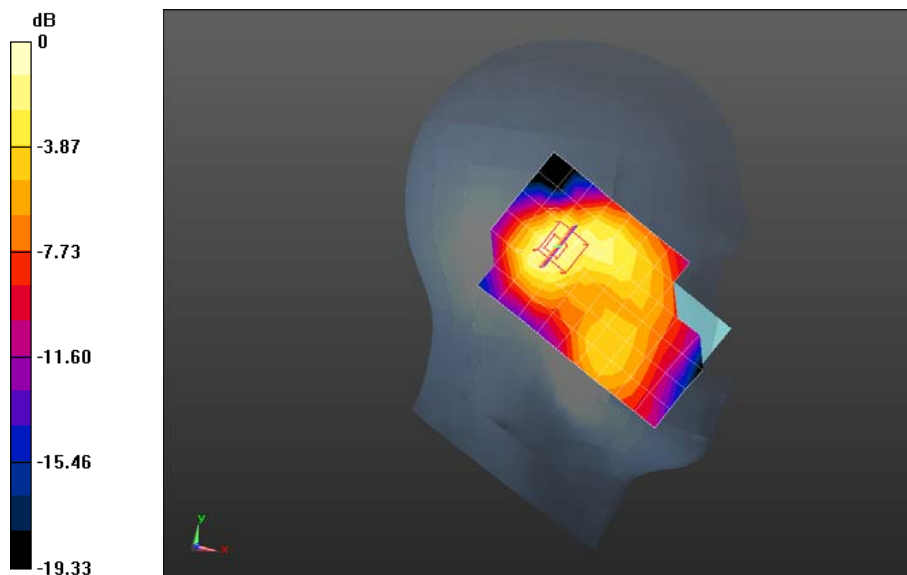
Maximum value of SAR (measured) = 0.119 mW/g

Configuration/PCS1900 Mid Tilt-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm,Reference Value = 9.487 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.202 mW/g

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.069 mW/g Maximum value of SAR (measured) = 0.132 mW/g



0 dB = 0.132 mW/g = -17.59 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

PCS1900 Mid Touch-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: PCS1900; Duty Cycle: 1:8.3;

Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.21$; $\rho = 1000$

kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.16, 8.16, 8.16); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/PCS1900 Mid Touch-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

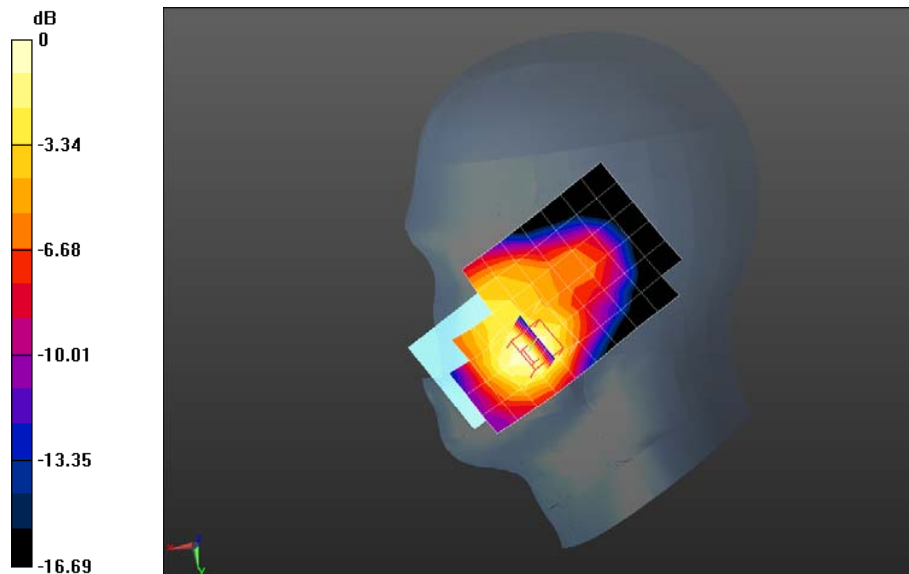
Maximum value of SAR (measured) = 0.304 mW/g

Configuration/PCS1900 Mid Touch-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 6.149 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.444 mW/g

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.171 mW/g Maximum value of SAR (measured) = 0.299 mW/g



0 dB = 0.299 mW/g = -10.49 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

PCS1900 Mid Tilt-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: PCS1900; Duty Cycle: 1:8.3;

Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 39.21$; $\rho = 1000$ kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(8.16, 8.16, 8.16); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/PCS1900 Mid Tilt-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

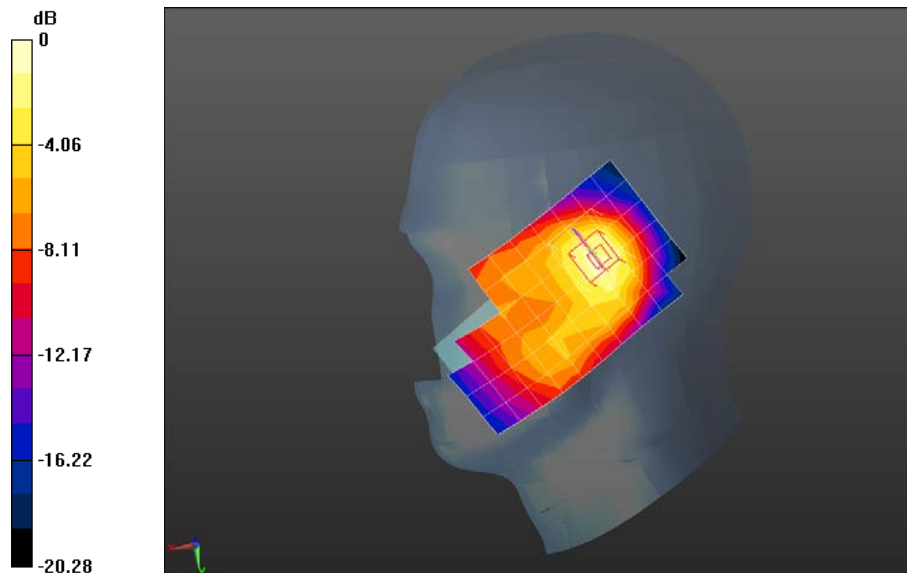
Maximum value of SAR (measured) = 0.136 mW/g

Configuration/PCS1900 Mid Tilt-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 8.744 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.232 mW/g

SAR(1 g) = 0.136 mW/g; SAR(10 g) = 0.077 mW/g Maximum value of SAR (measured) = 0.149 mW/g



0 dB = 0.149 mW/g = -16.54 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

PCS1900 Mid Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Generic GSM; Communication System Band: PCS1900; Duty Cycle: 1:8.3;

Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/PCS1900 Mid Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

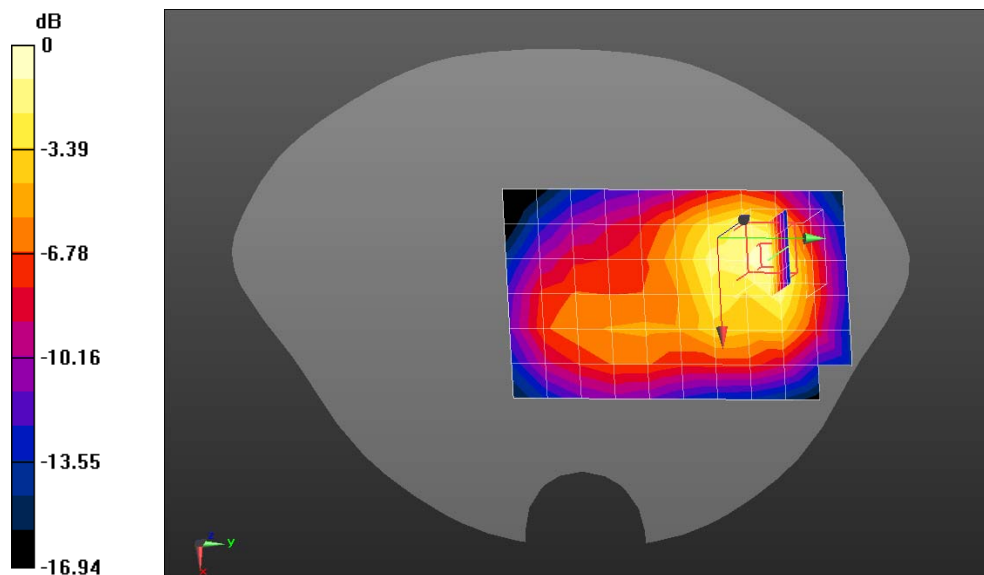
Maximum value of SAR (measured) = 0.432 mW/g

Configuration/PCS1900 Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 8.002 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.686 mW/g

SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.234 mW/g Maximum value of SAR (measured) = 0.459 mW/g



0 dB = 0.459 mW/g = -6.76 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS1900 Mid Body-Back(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: PCS 1900; Duty Cycle: 1:2.8 ; Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

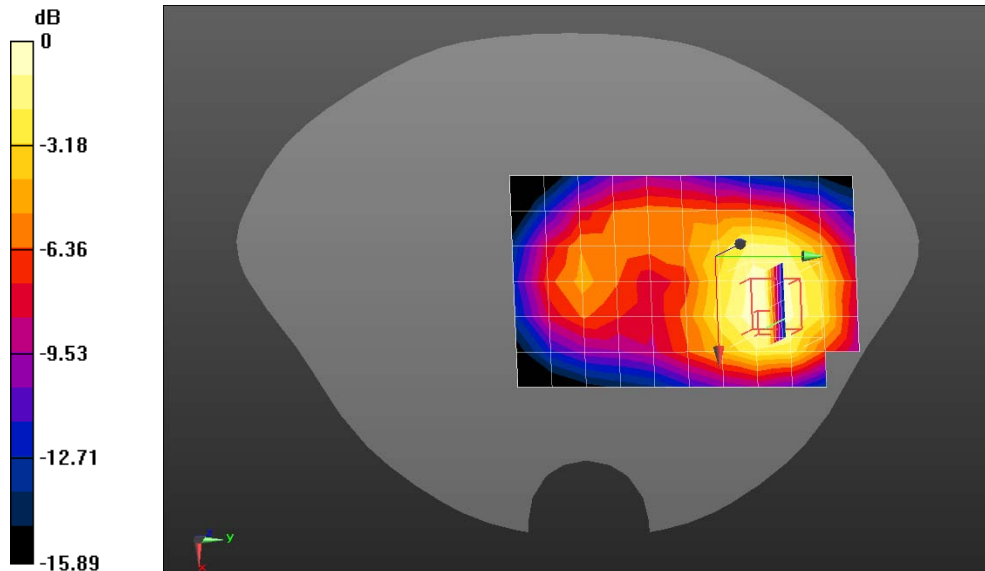
Configuration/GPRS1900 Mid Body-Front/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.575 mW/g

Configuration/GPRS1900 Mid Body-Front/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.344 V/m; Power Drift = -0.06 dB

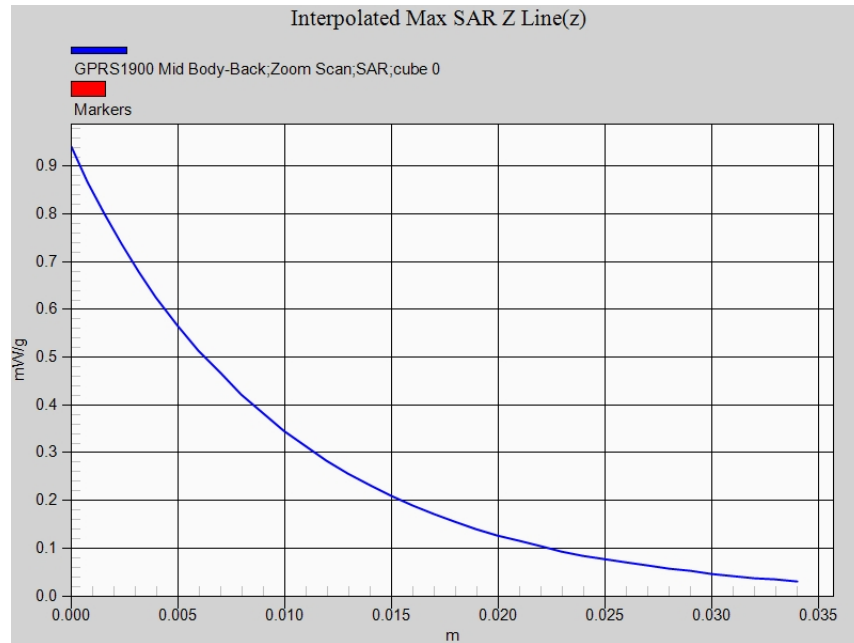
Peak SAR (extrapolated) = 0.738 mW/g

SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.277 mW/g Maximum value of SAR (measured) = 0.595 mW/g



0 dB = 0.595 mW/g = -6.26 dB mW/g

Z-Axis Plot



Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS1900 Mid Body-Front(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: PCS 1900; Duty Cycle: 1:2.8 ; Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

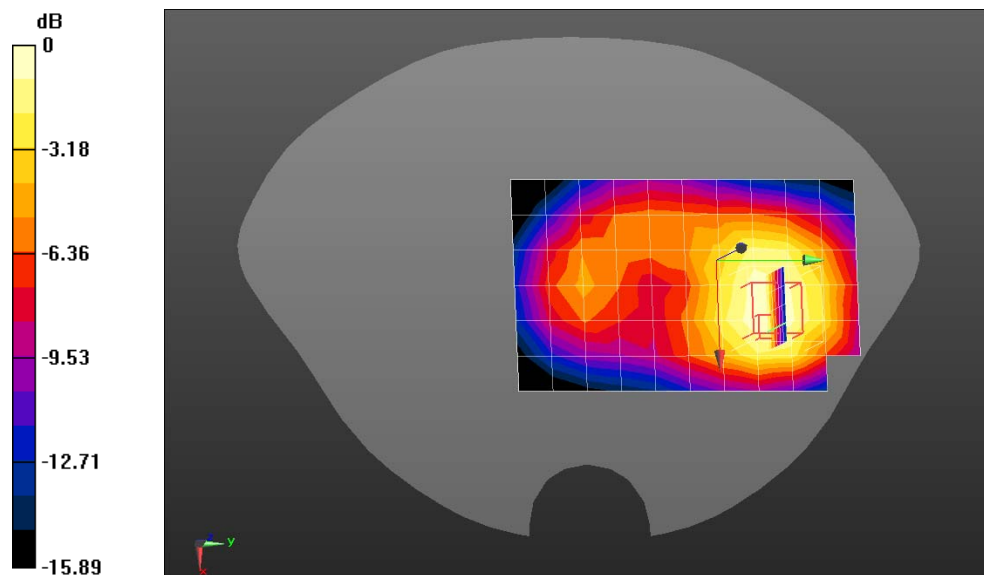
Configuration/GPRS1900 Mid Body-Front/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.455 mW/g

Configuration/GPRS1900 Mid Body-Front/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 10.344 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.738 mW/g

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.259 mW/g Maximum value of SAR (measured) = 0.475 mW/g



0 dB = 0.475 mW/g = -6.47 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS1900 Mid Body-Bottom(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: PCS 1900; Duty Cycle: 1:2.8 ; Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

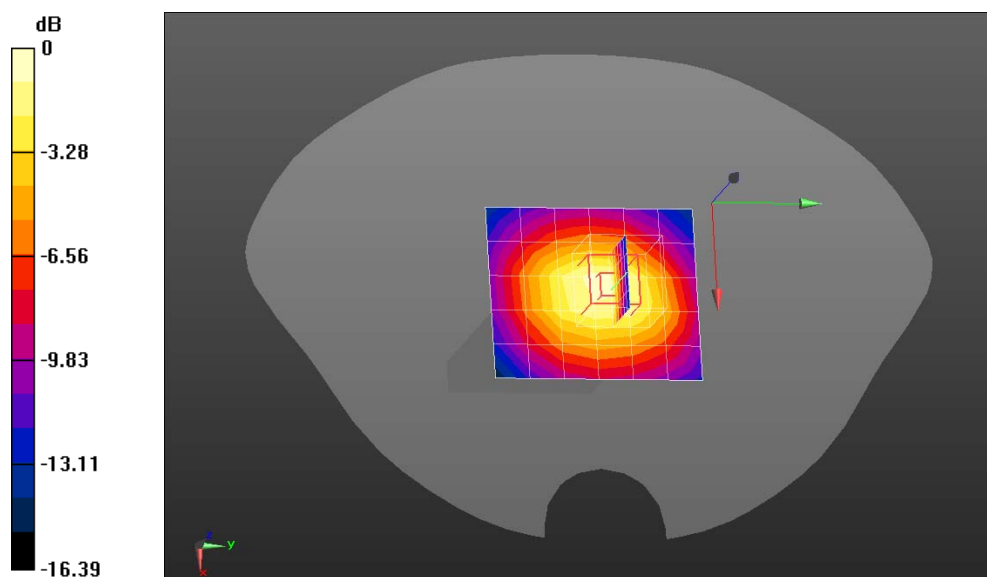
Configuration/GPRS1900 Mid Body-Bottom/Area Scan (6x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.405 mW/g

Configuration/GPRS1900 Mid Body-Bottom/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 17.288 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.689 mW/g

SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.246 mW/g Maximum value of SAR (measured) = 0.460 mW/g



0 dB = 0.460 mW/g = -6.74 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS1900 Mid Body-Left side(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: PCS 1900; Duty Cycle: 1:2.8 ; Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

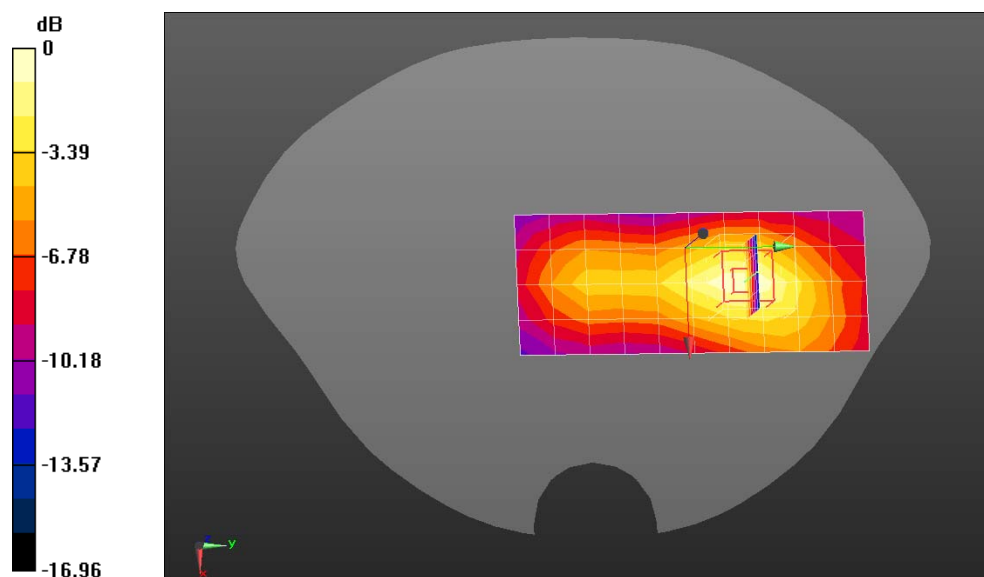
Configuration/GPRS1900 Mid Body-Left side/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.222 mW/g

Configuration/GPRS1900 Mid Body-Left side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 8.161 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.355 mW/g

SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.121 mW/g Maximum value of SAR (measured) = 0.233 mW/g



0 dB = 0.233 mW/g = -12.65 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

GPRS1900 Mid Body-Right side(3up)

DUT: Mobile Phone ; Type: You 40, X40

Communication System: GPRS/EGPRS-3 Slot; Communication System Band: PCS 1900; Duty Cycle: 1:2.8 ; Frequency: 1880 MHz; Medium parameters used: $f = 1880$ MHz; $\sigma = 1.53$ mho/m; $\epsilon_r = 54.21$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.43, 7.43, 7.43); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

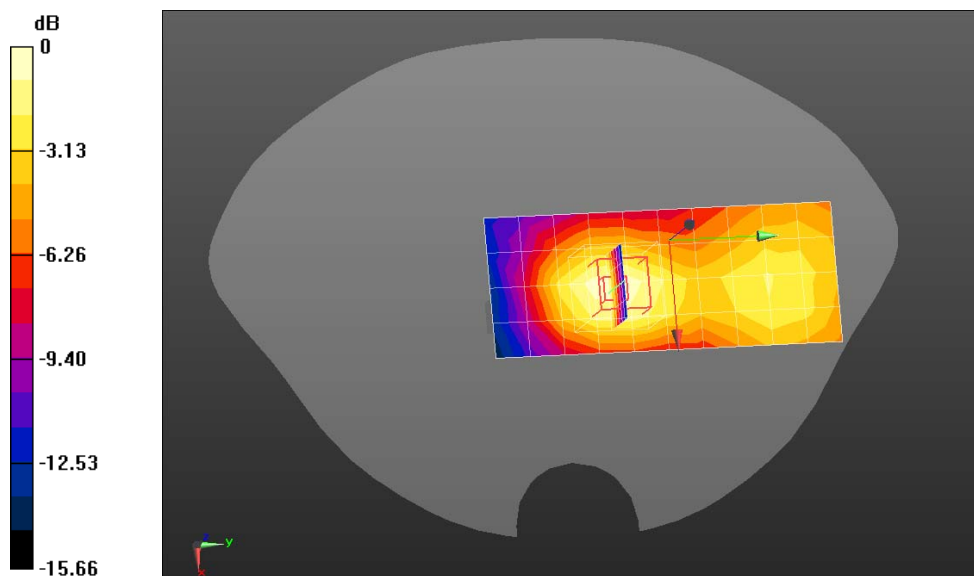
Configuration/GPRS1900 Mid Body-Left side/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.127 mW/g

Configuration/GPRS1900 Mid Body-Left side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 7.083 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.208 mW/g

SAR(1 g) = 0.125 mW/g; SAR(10 g) = 0.078 mW/g Maximum value of SAR (measured) = 0.141 mW/g



0 dB = 0.141 mW/g = -17.02 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Touch-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.32$; $\rho = 1000$

kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Toucht-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

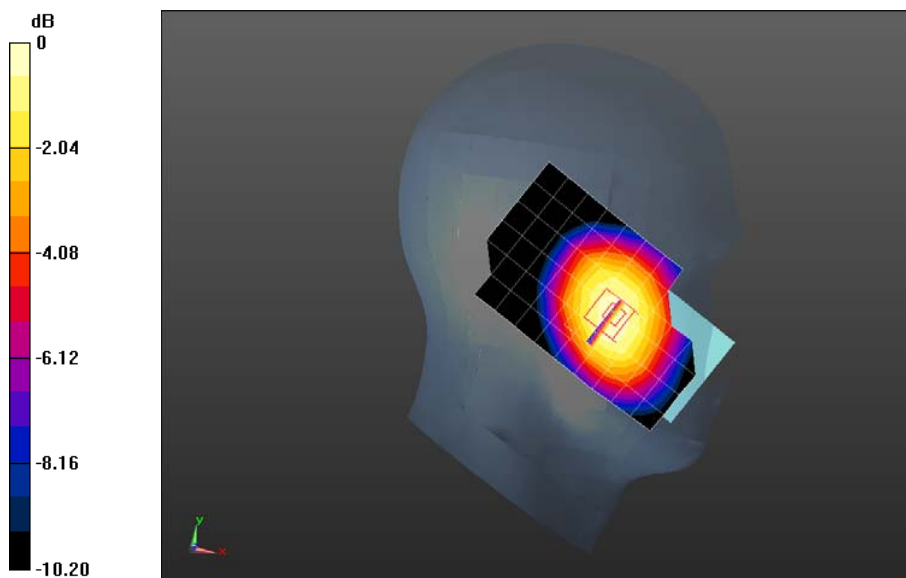
Maximum value of SAR (measured) = 0.445 mW/g

Configuration/WCDMA Band V Mid Toucht-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 6.183 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 0.537 mW/g

SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.313 mW/g Maximum value of SAR (measured) = 0.443 mW/g



0 dB = 0.443 mW/g = -7.07 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Tilt-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.32$; $\rho = 1000$

kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

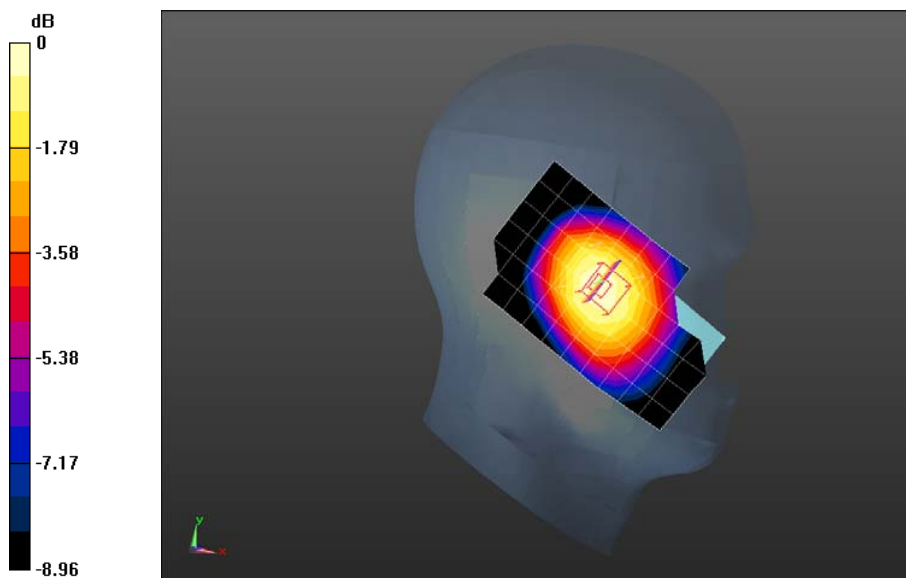
Configuration/WCDMA Band V Mid Tilt-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.301 mW/g

Configuration/WCDMA Band V Mid Tilt-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 11.074 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.356 mW/g

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.229 mW/g Maximum value of SAR (measured) = 0.311 mW/g



0 dB = 0.311 mW/g = -10.14 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Touch-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;
Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.32$; $\rho = 1000$ kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

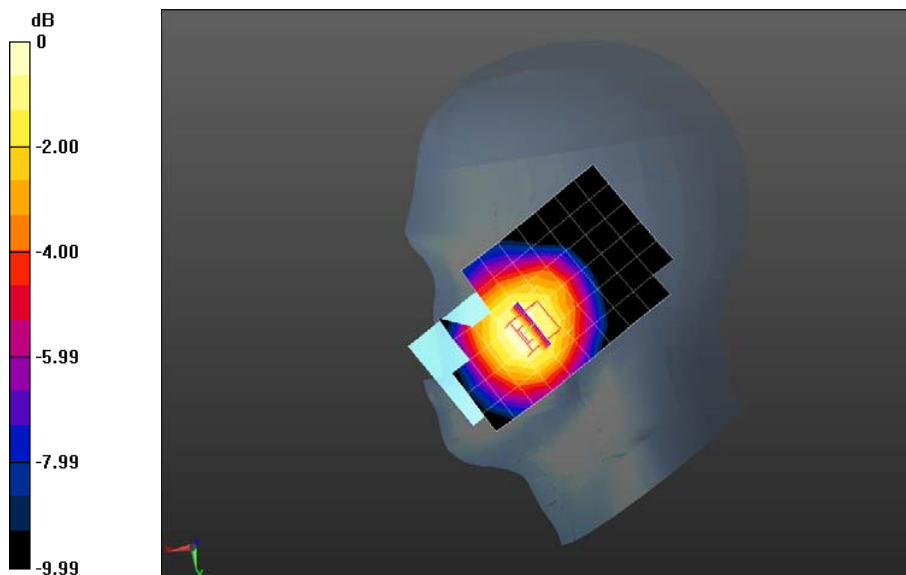
Configuration/WCDMA Band V Mid Touch-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.400 mW/g

Configuration/WCDMA Band V Mid Touch-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 4.845 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.484 mW/g

SAR(1 g) = 0.402 mW/g; SAR(10 g) = 0.306 mW/g Maximum value of SAR (measured) = 0.422 mW/g



0 dB = 0.422 mW/g = -7.49 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Tilt-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.32$; $\rho = 1000$

kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.18, 9.18, 9.18); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

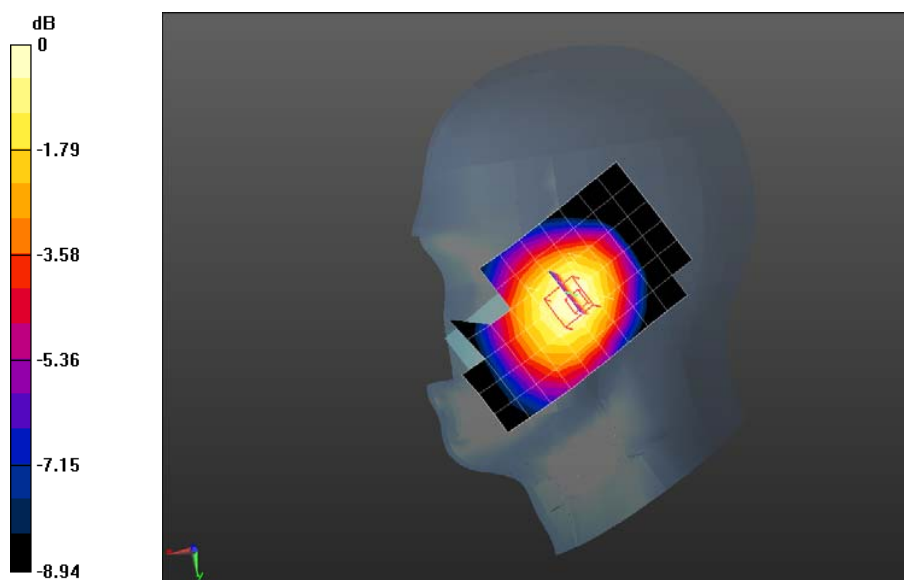
Configuration/WCDMA Band V Mid Tilt-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.275 mW/g

Configuration/WCDMA Band V Mid Tilt-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 9.801 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.330 mW/g

SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.207 mW/g Maximum value of SAR (measured) = 0.284 mW/g



0 dB = 0.284 mW/g = -10.93 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Low Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 826.4 MHz; Medium parameters used: $f = 826.4$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 53.77$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Low Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.835 mW/g

Configuration/WCDMA Band V Low Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 8.807 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.033 mW/g

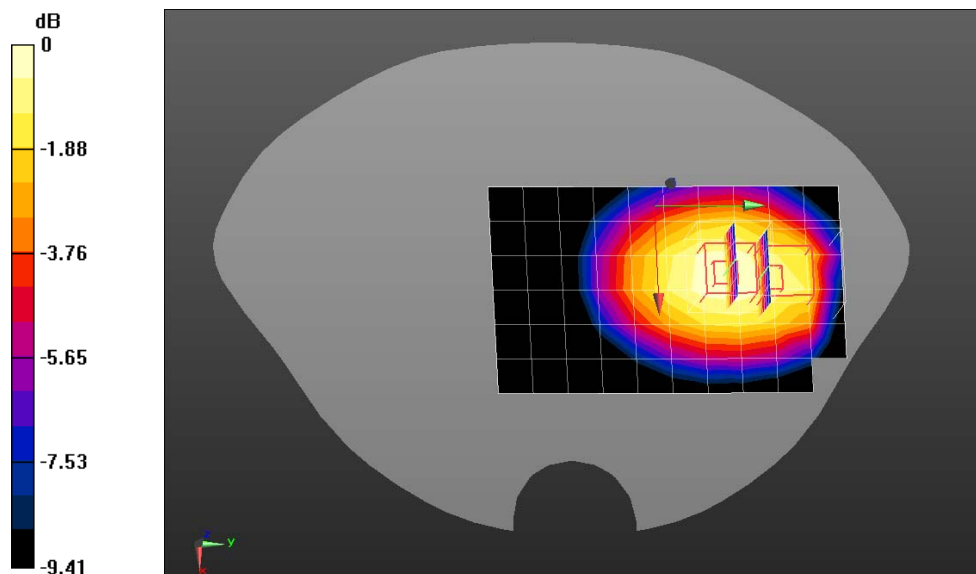
SAR(1 g) = 0.706 mW/g; SAR(10 g) = 0.497 mW/g Maximum value of SAR (measured) = 0.782 mW/g

Configuration/WCDMA Band V Low Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 8.807 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.062 mW/g

SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.604 mW/g Maximum value of SAR (measured) = 0.863 mW/g



0 dB = 0.863 mW/g = -1.28 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.829 mW/g

Configuration/WCDMA Band V Mid Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 9.122 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.028 mW/g

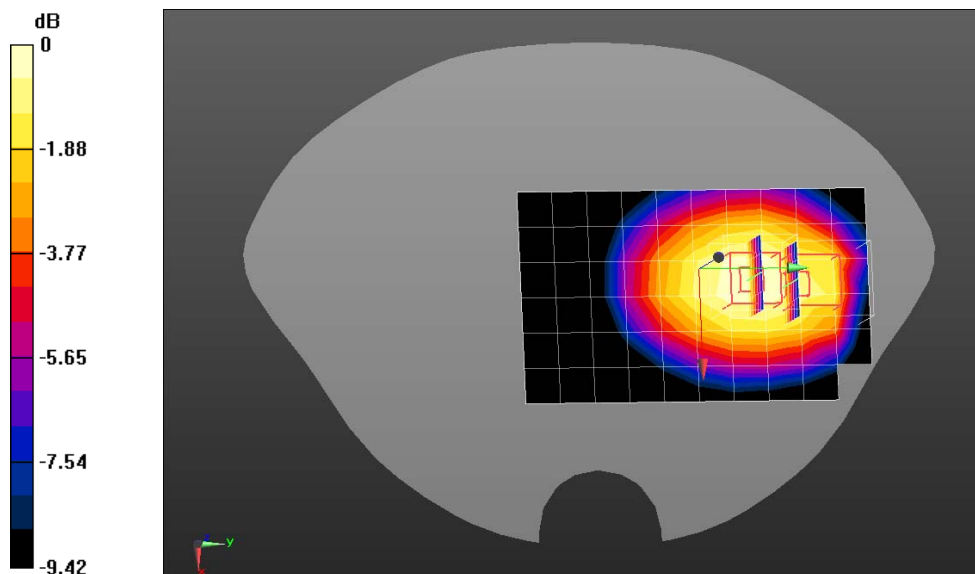
SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.490 mW/g Maximum value of SAR (measured) = 0.775 mW/g

Configuration/WCDMA Band V Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 9.122 V/m; Power Drift = -0.01 dB

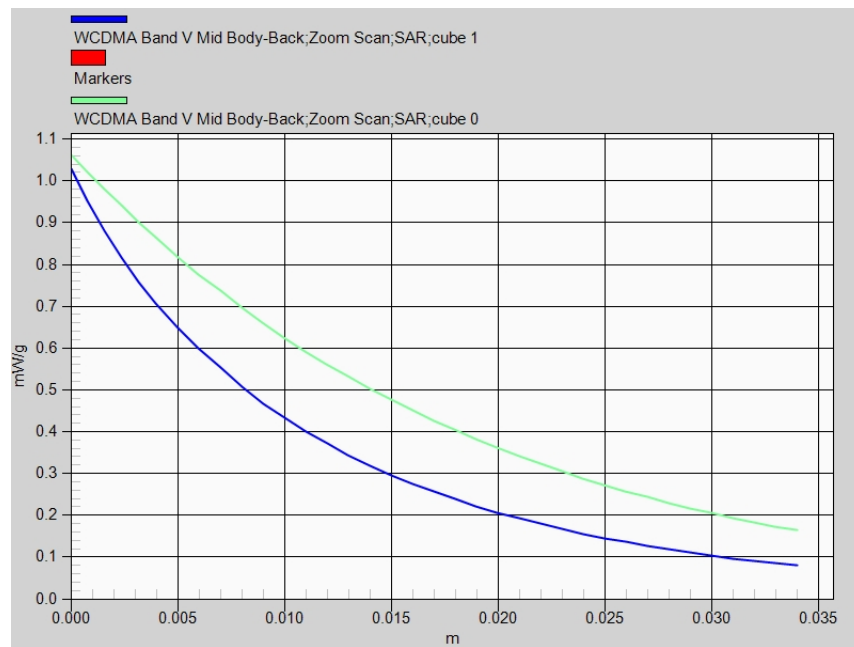
Peak SAR (extrapolated) = 1.061 mW/g

SAR(1 g) = 0.821 mW/g; SAR(10 g) = 0.604 mW/g Maximum value of SAR (measured) = 0.866 mW/g



0 dB = 0.866 mW/g = -1.25 dB mW/g

Z-Axis Plot



Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Back-1

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;
Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.787 mW/g

Configuration/WCDMA Band V Mid Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 9.669 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.972 mW/g

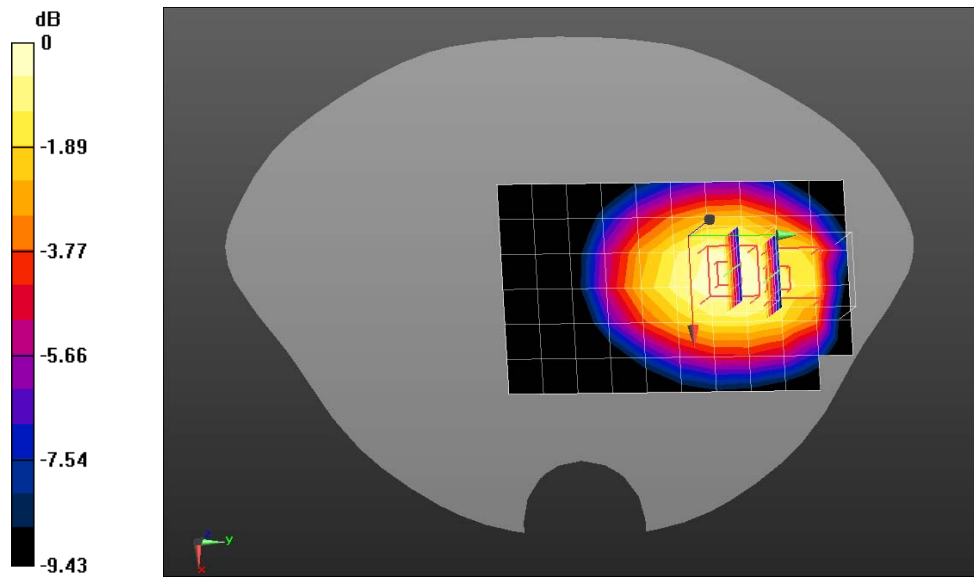
SAR(1 g) = 0.662 mW/g; SAR(10 g) = 0.458 mW/g Maximum value of SAR (measured) = 0.728 mW/g

Configuration/WCDMA Band V Mid Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 9.669 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.008 mW/g

SAR(1 g) = 0.778 mW/g; SAR(10 g) = 0.572 mW/g Maximum value of SAR (measured) = 0.822 mW/g



0 dB = 0.822 mW/g = -1.70 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V High Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;
Frequency: 846.6 MHz; Medium parameters used: $f = 846.6 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53.55$; $\rho = 1000 \text{ kg/m}^3$; Phantom section: Flat Section

Ambient temperature ($^{\circ}\text{C}$): 21.5, Liquid temperature ($^{\circ}\text{C}$): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V High Body-Back/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.820 mW/g

Configuration/WCDMA Band V High Body-Back/Zoom Scan (5x5x7)/Cube 1: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$, Reference Value = 9.258 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.006 mW/g

SAR(1 g) = 0.676 mW/g; SAR(10 g) = 0.474 mW/g

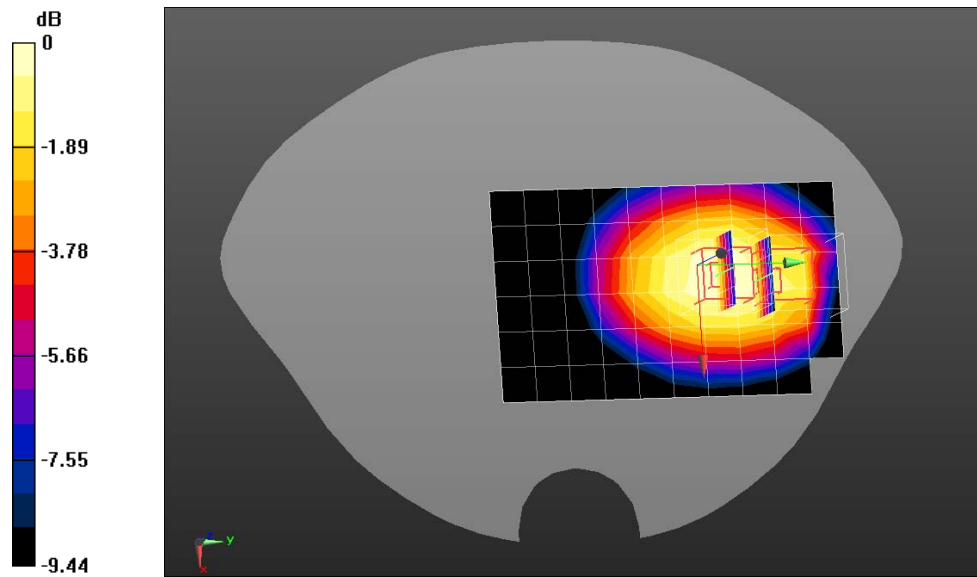
Maximum value of SAR (measured) = 0.756 mW/g

Configuration/WCDMA Band V High Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

$dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$, Reference Value = 9.258 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.048 mW/g

SAR(1 g) = 0.806 mW/g; SAR(10 g) = 0.593 mW/g Maximum value of SAR (measured) = 0.849 mW/g



0 dB = 0.849 mW/g = -1.42 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Front

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Body-Front/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

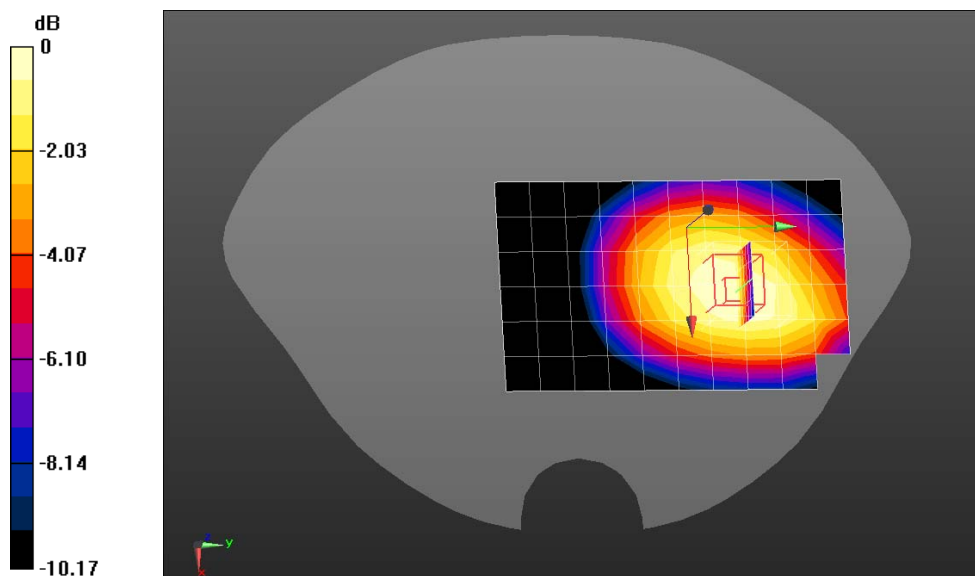
Maximum value of SAR (measured) = 0.472 mW/g

Configuration/WCDMA Band V Mid Body-Front/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 6.479 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.593 mW/g

SAR(1 g) = 0.456 mW/g; SAR(10 g) = 0.340 mW/g Maximum value of SAR (measured) = 0.481 mW/g



0 dB = 0.481 mW/g = -6.36 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Bottom

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Body-Bottom/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

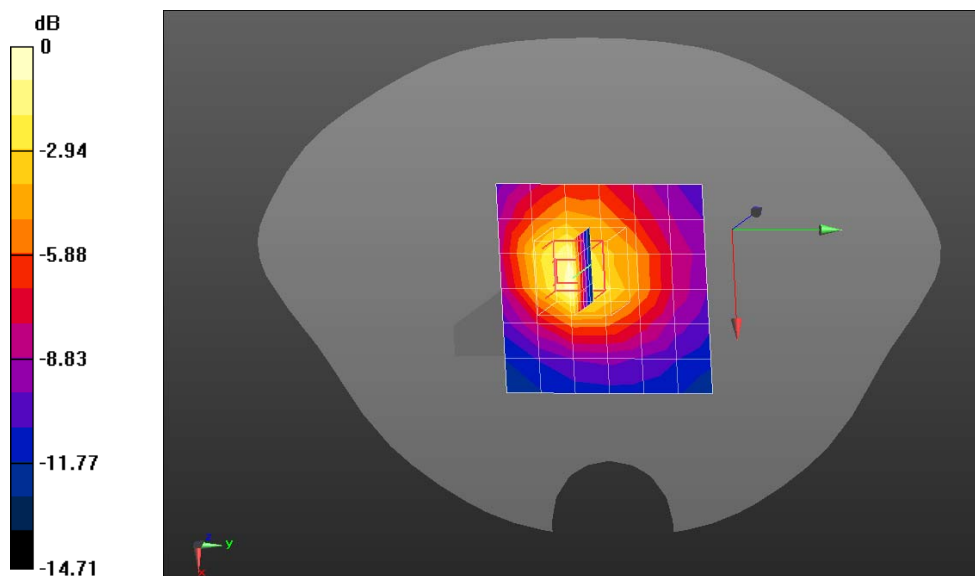
Maximum value of SAR (measured) = 0.251 mW/g

Configuration/WCDMA Band V Mid Body-Bottom/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 12.805 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.529 mW/g

SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.134 mW/g Maximum value of SAR (measured) = 0.280 mW/g



0 dB = 0.280 mW/g = -11.06 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Left side

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;
Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

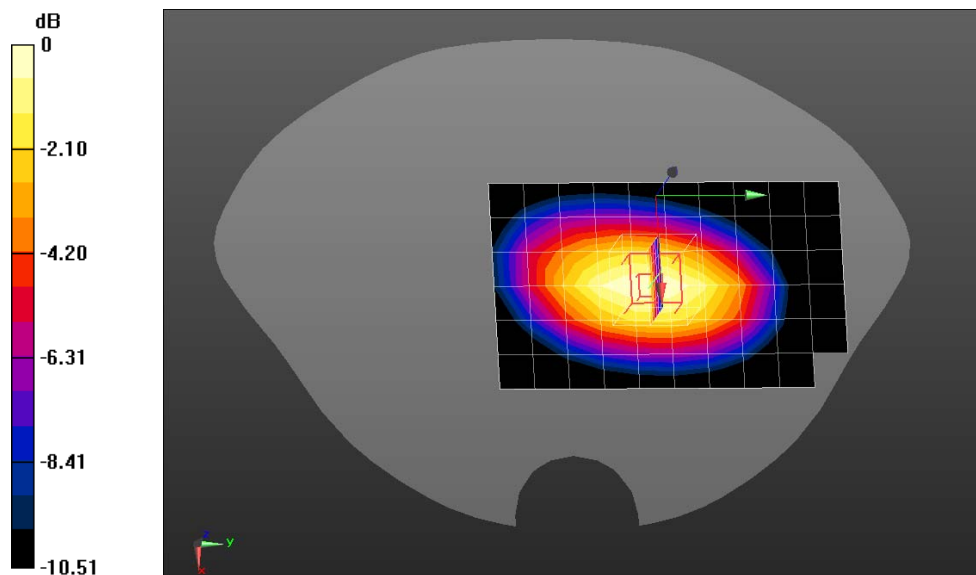
Configuration/WCDMA Band V Mid Body-Left side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.654 mW/g

Configuration/WCDMA Band V Mid Body-Left side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 19.623 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.887 mW/g

SAR(1 g) = 0.597 mW/g; SAR(10 g) = 0.395 mW/g Maximum value of SAR (measured) = 0.641 mW/g



0 dB = 0.641 mW/g = -3.86 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

WCDMA Band V Mid Body-Right side

DUT: Mobile Phone ; Type: You 40, X40

Communication System: UMTS; Communication System Band: Band V UTRA/FDD; Duty Cycle: 1:1.0;

Frequency: 836.4 MHz; Medium parameters used: $f = 836.4$ MHz; $\sigma = 0.98$ mho/m; $\epsilon_r = 53.64$; $\rho = 1000$

kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(9.13, 9.13, 9.13); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/WCDMA Band V Mid Body-Right side/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

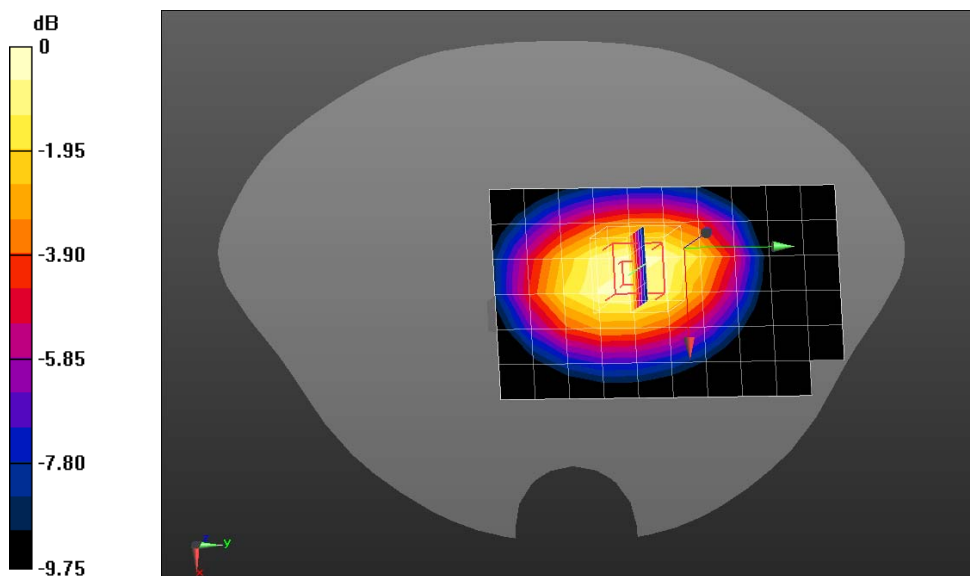
Maximum value of SAR (measured) = 0.432 mW/g

Configuration/WCDMA Band V Mid Body-Right side/Zoom Scan (5x5x7)/Cube 0: Measurement grid:

dx=8mm, dy=8mm, dz=5mm, Reference Value = 18.349 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.621 mW/g

SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.299 mW/g Maximum value of SAR (measured) = 0.468 mW/g



0 dB = 0.468 mW/g = -6.60 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Touch-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.08$; $\rho = 1000$ kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

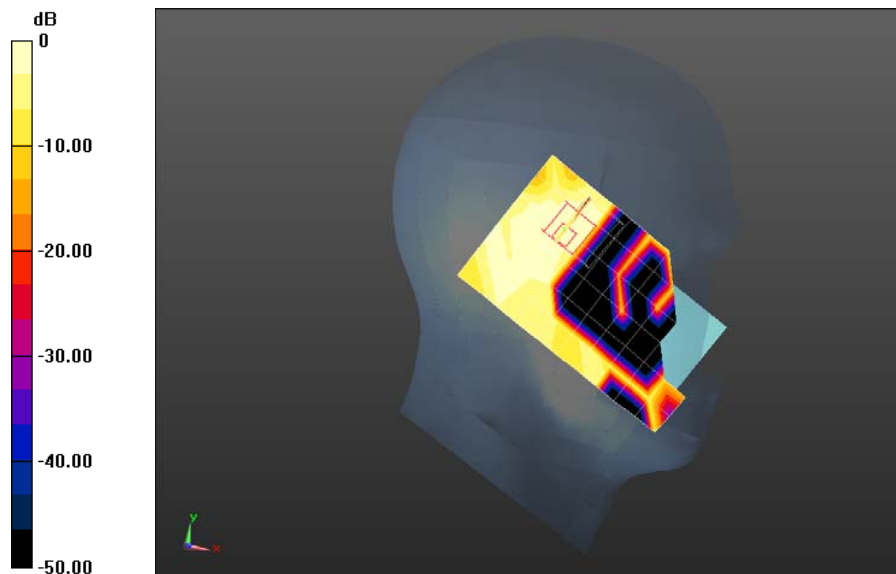
- Probe: EX3DV4 - SN3710; ConvF(7.25, 7.25, 7.25); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Touch-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.00331 mW/g

Configuration/802.11b 2437MHz Touch-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 1.532 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 0.012 mW/g

SAR(1 g) = 0.00348 mW/g; SAR(10 g) = 0.00102 mW/g Maximum value of SAR (measured) = 0.00343 mW/g



0 dB = 0.00343 mW/g = -49.29 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Tilt-Left

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.08$; $\rho = 1000$ kg/m³ ; Phantom section: Left Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.25, 7.25, 7.25); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Tilt-Left/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

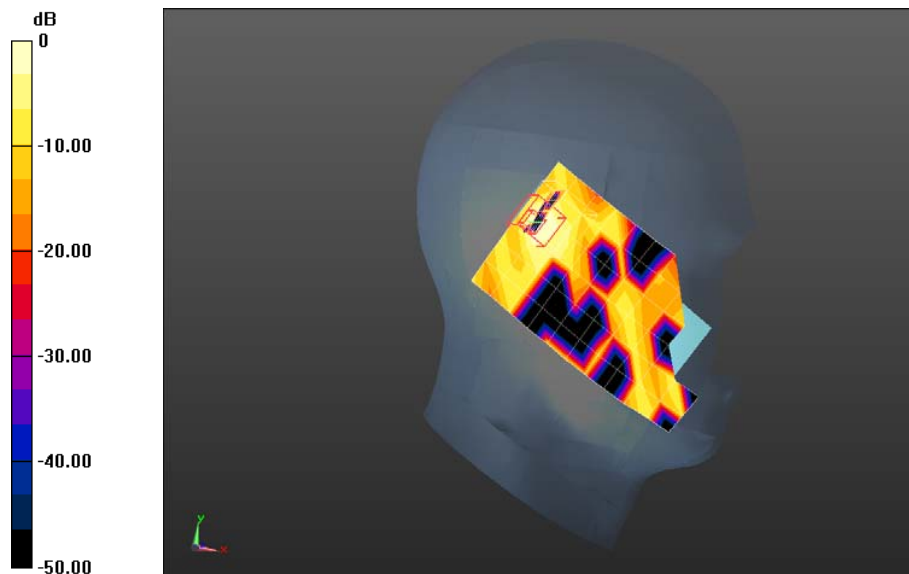
Maximum value of SAR (measured) = 0.00424 mW/g

Configuration/802.11b 2437MHz Tilt-Left/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm, Reference Value = 1.082 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 0.00384 mW/g

SAR(1 g) = 0.000131 mW/g; SAR(10 g) = 1.39e-005 mW/g Maximum value of SAR (measured) = 0.00526 mW/g



0 dB = 0.00526 mW/g = -45.58 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Touch-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.08$; $\rho = 1000$ kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

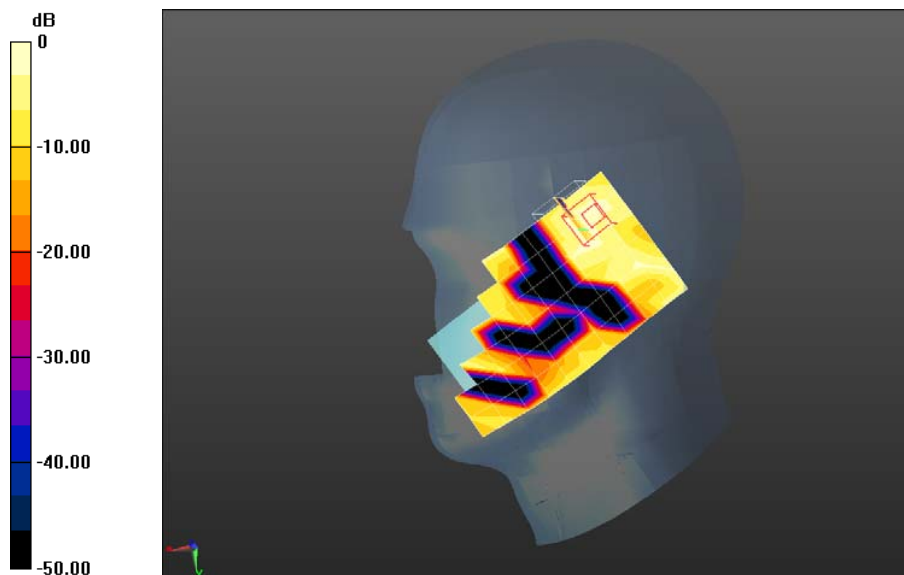
- Probe: EX3DV4 - SN3710; ConvF(7.25, 7.25, 7.25); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Touch-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.00571 mW/g

Configuration/802.11b 2437MHz Touch-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0.866 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.011 mW/g

SAR(1 g) = 0.00473 mW/g; SAR(10 g) = 0.00163 mW/g Maximum value of SAR (measured) = 0.00569 mW/g



0 dB = 0.00569 mW/g = -44.90 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Tilt-Right

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 38.08$; $\rho = 1000$ kg/m³ ; Phantom section: Right Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(7.25, 7.25, 7.25); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM1; Type: SAM; Serial: TP1561
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

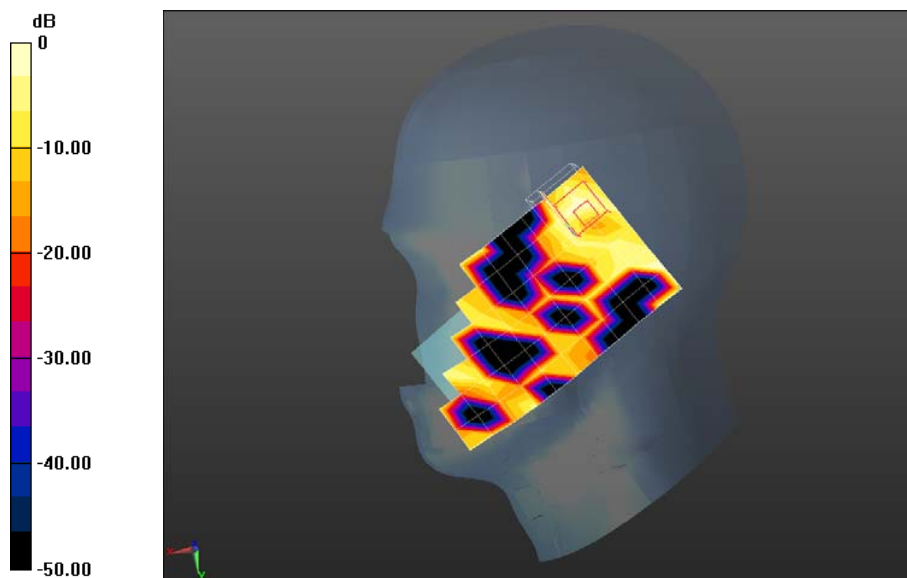
Configuration/802.11b 2437MHz Tilt-Right/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.00527 mW/g

Configuration/802.11b 2437MHz Tilt-Right/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0.919 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.011 mW/g

SAR(1 g) = 0.00236 mW/g; SAR(10 g) = 0.000367 mW/g Maximum value of SAR (measured) = 0.00602 mW/g



0 dB = 0.00602 mW/g = -44.41 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Body-Back

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 53.33$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

- Probe: EX3DV4 - SN3710; ConvF(6.98, 6.98, 6.98); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

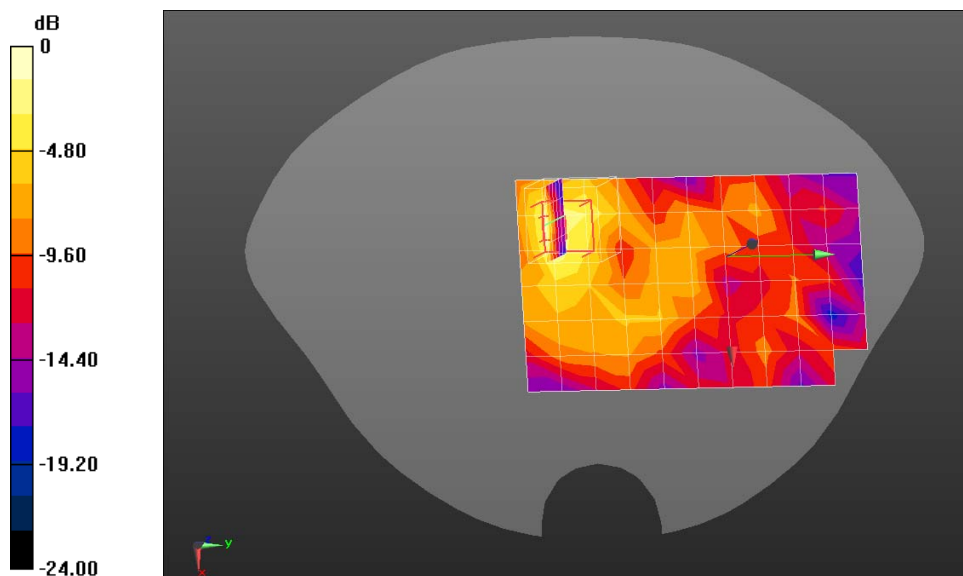
Configuration/802.11b 2437MHz Body-Back/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.0133 mW/g

Configuration/802.11b 2437MHz Body-Back/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 1.490 V/m; Power Drift = -0.18 dB

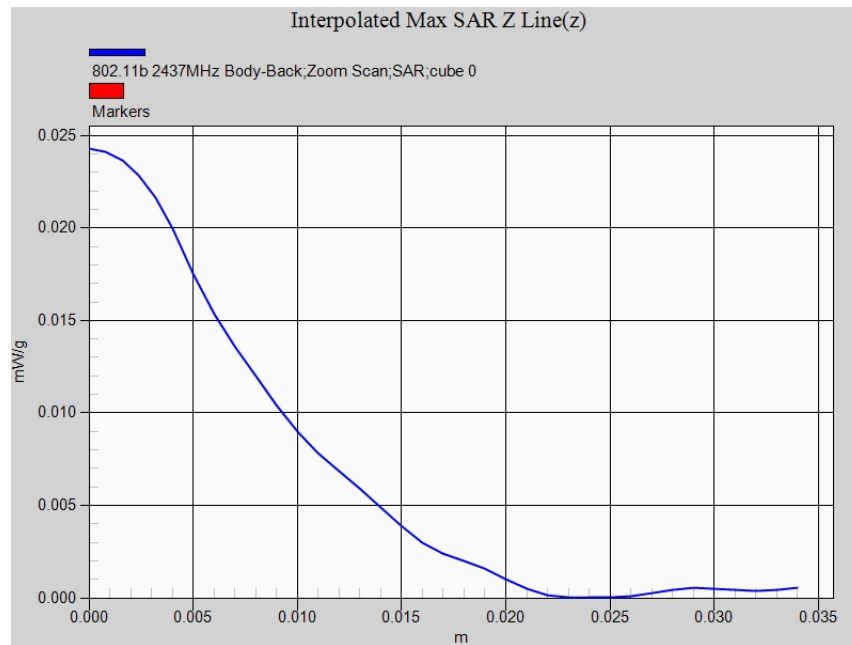
Peak SAR (extrapolated) = 0.024 mW/g

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00628 mW/g Maximum value of SAR (measured) = 0.0195 mW/g



0 dB = 0.0195 mW/g = -34.20 dB mW/g

Z-Axis Plot



Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Body-Front

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 53.33$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

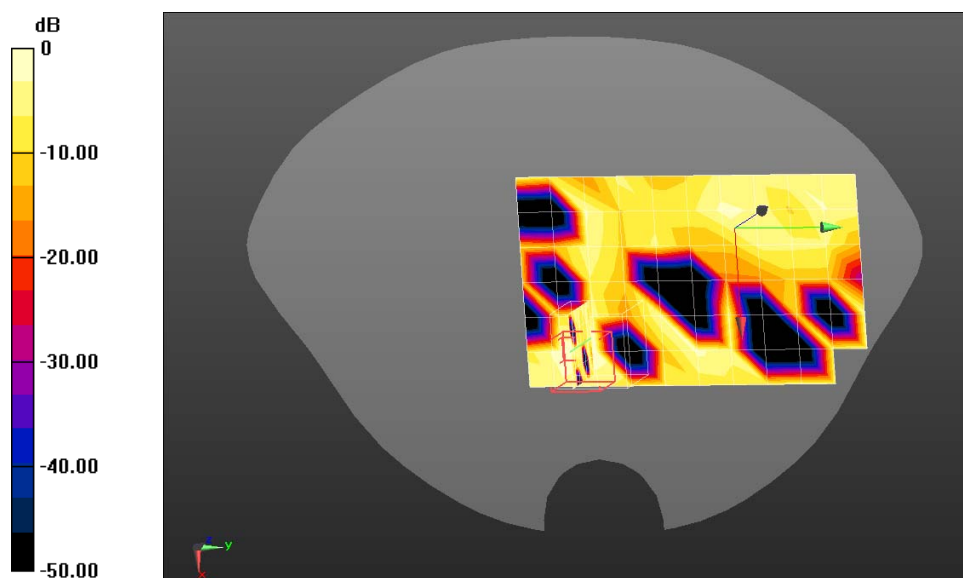
- Probe: EX3DV4 - SN3710; ConvF(6.98, 6.98, 6.98); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Body-Front/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.00188 mW/g

Configuration/802.11b 2437MHz Body-Front/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 0.352 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.00393 mW/g

SAR(1 g) = 0.000607 mW/g; SAR(10 g) = 9.05e-005 mW/g Maximum value of SAR (measured) = 0.00233 mW/g



0 dB = 0.00233 mW/g = -52.65 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Body-Top

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 53.33$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

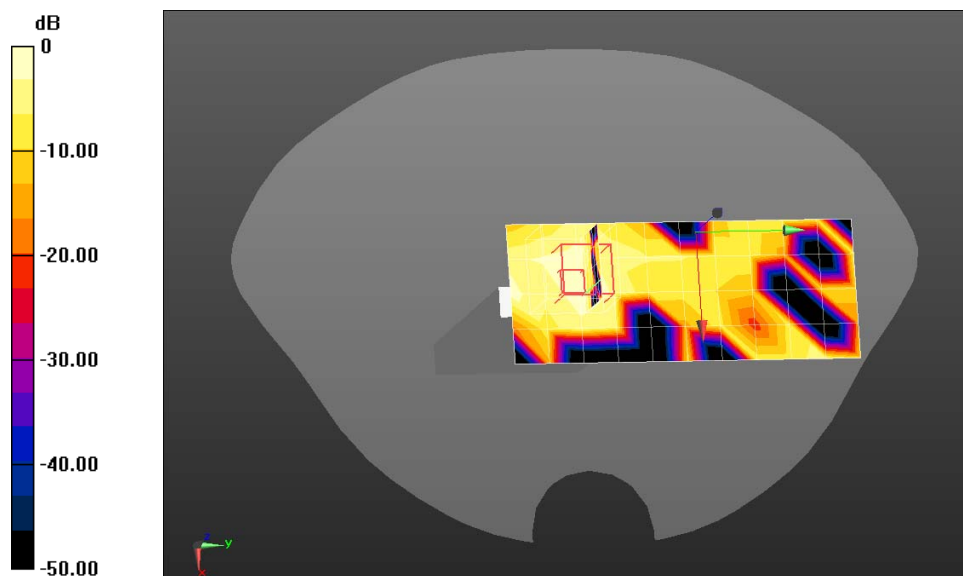
- Probe: EX3DV4 - SN3710; ConvF(6.98, 6.98, 6.98); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Body-Top/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.00347 mW/g

Configuration/802.11b 2437MHz Body-Top/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 1.349 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 0.012 mW/g

SAR(1 g) = 0.00401 mW/g; SAR(10 g) = 0.00148 mW/g Maximum value of SAR (measured) = 0.00438 mW/g



0 dB = 0.00438 mW/g = -47.17 dB mW/g

Date/Time: 12-03-2013

Test Laboratory: QuieTek Lab

802.11b 2437MHz Body-Right side

DUT: Mobile Phone ; Type: You 40, X40

Communication System: Wi-Fi; Communication System Band: 802.11b; Duty Cycle: 1:1.0; Frequency: 2437 MHz; Medium parameters used: $f = 2437$ MHz; $\sigma = 1.90$ mho/m; $\epsilon_r = 53.33$; $\rho = 1000$ kg/m³ ; Phantom section: Flat Section

Ambient temperature (°C): 21.5, Liquid temperature (°C): 21.0

DASY5 Configuration:

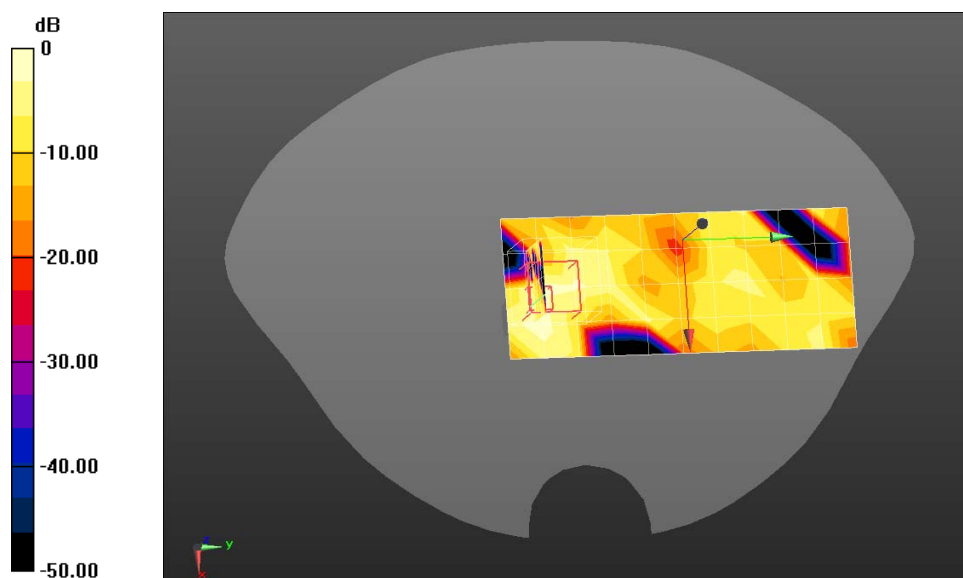
- Probe: EX3DV4 - SN3710; ConvF(6.98, 6.98, 6.98); Calibrated: 12/03/2012;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn915; Calibrated: 21/06/2012
- Phantom: SAM2; Type: SAM; Serial: TP1562
- Measurement SW: DASY52, Version 52.8 (1); SEMCAD X Version 14.6.5 (6469)

Configuration/802.11b 2437MHz Body-Rightside/Area Scan (5x11x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.00365 mW/g

Configuration/802.11b 2437MHz Body-Right side/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm, Reference Value = 1.256 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.020 mW/g

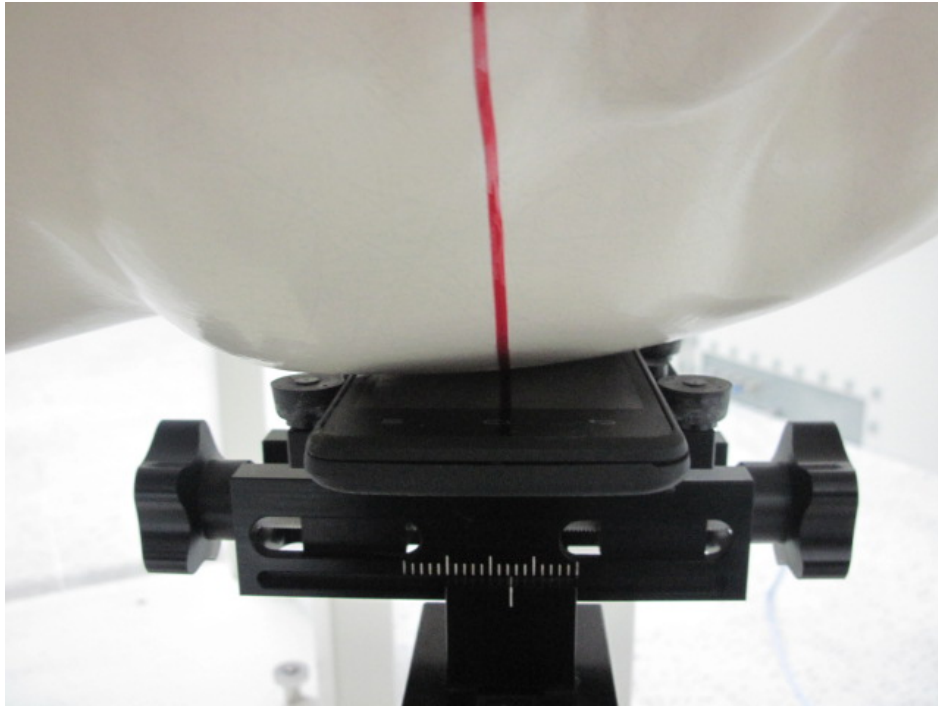
SAR(1 g) = 0.00471 mW/g; SAR(10 g) = 0.00146 mW/g Maximum value of SAR (measured) = 0.00515 mW/g



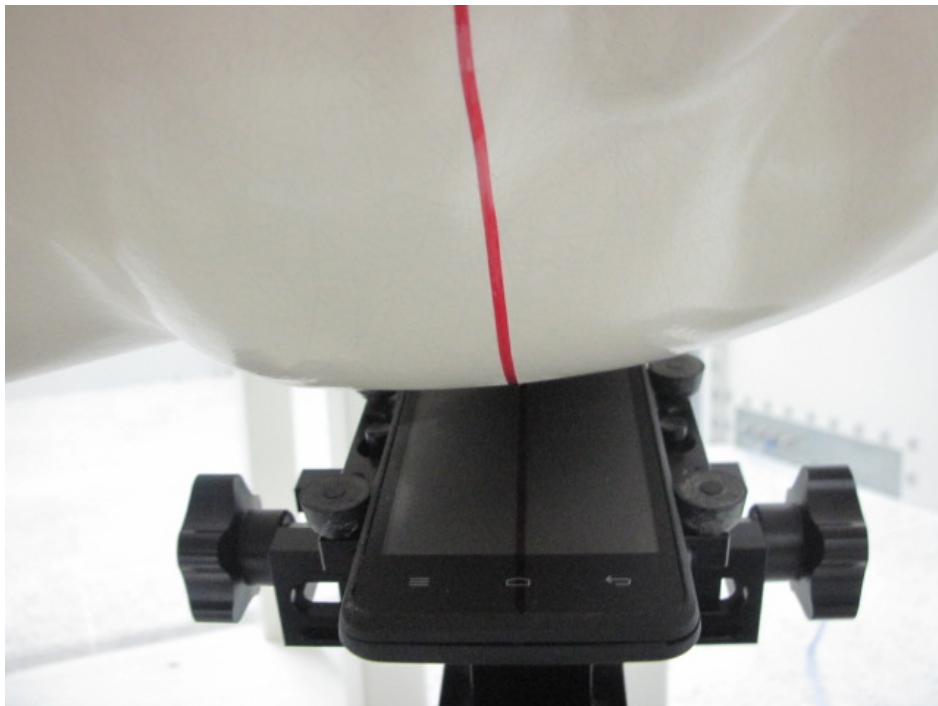
0 dB = 0.00515 mW/g = -45.76 dB mW/g

Appendix C. Test Setup Photographs & EUT Photographs

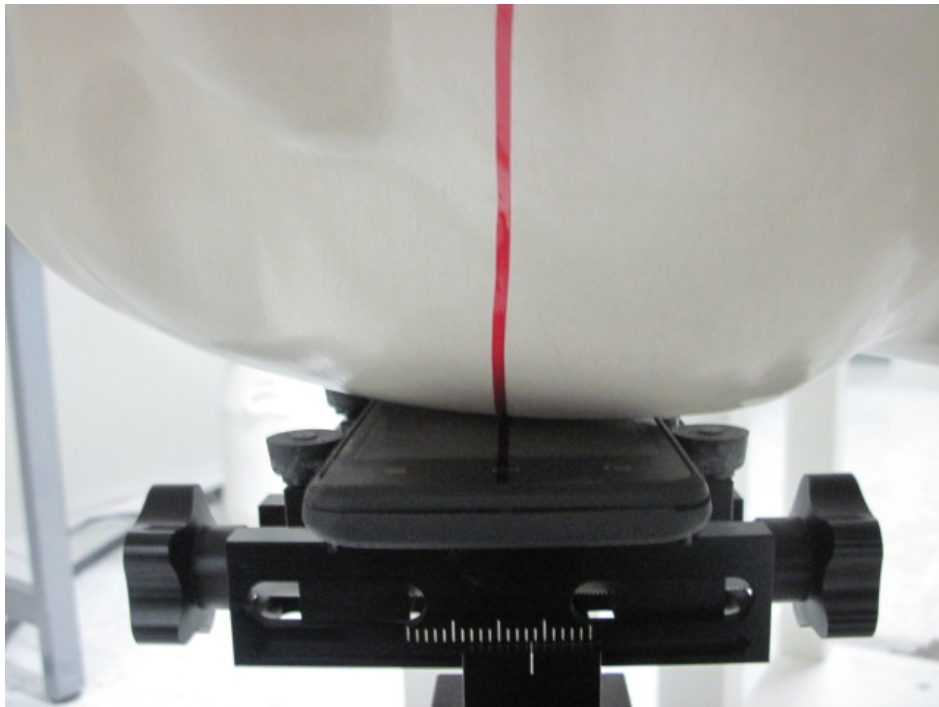
Test Setup Photographs



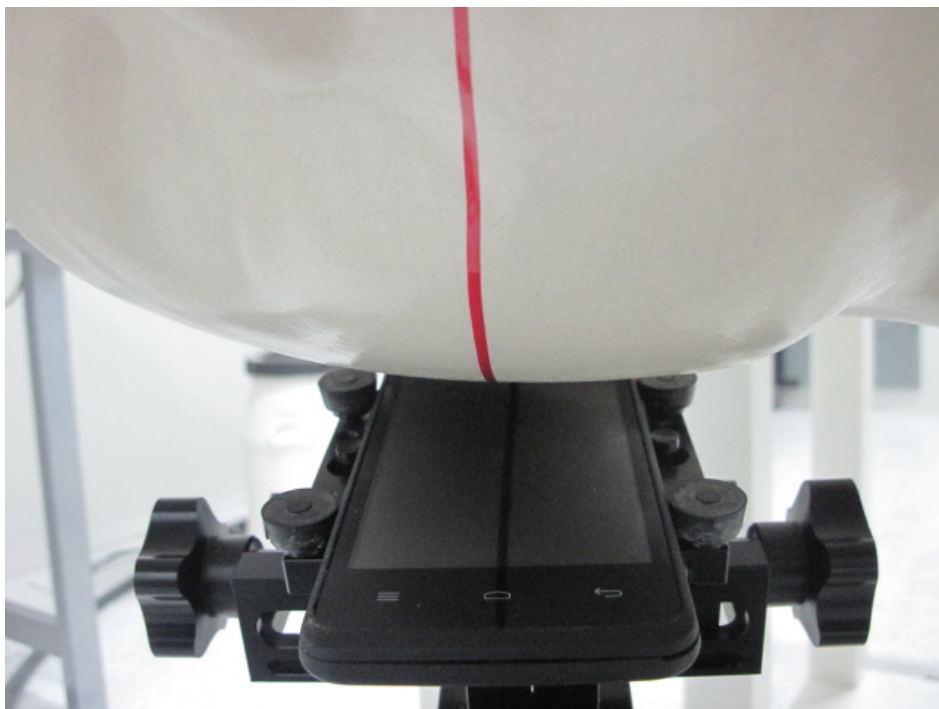
Left-Cheek Touch



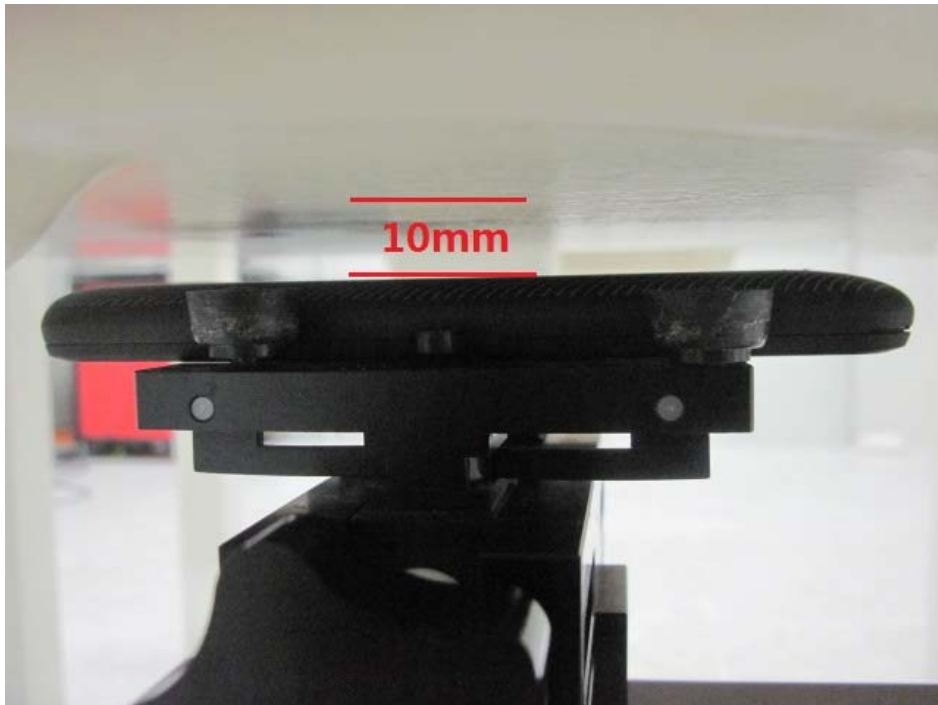
Left-Tilt 15°



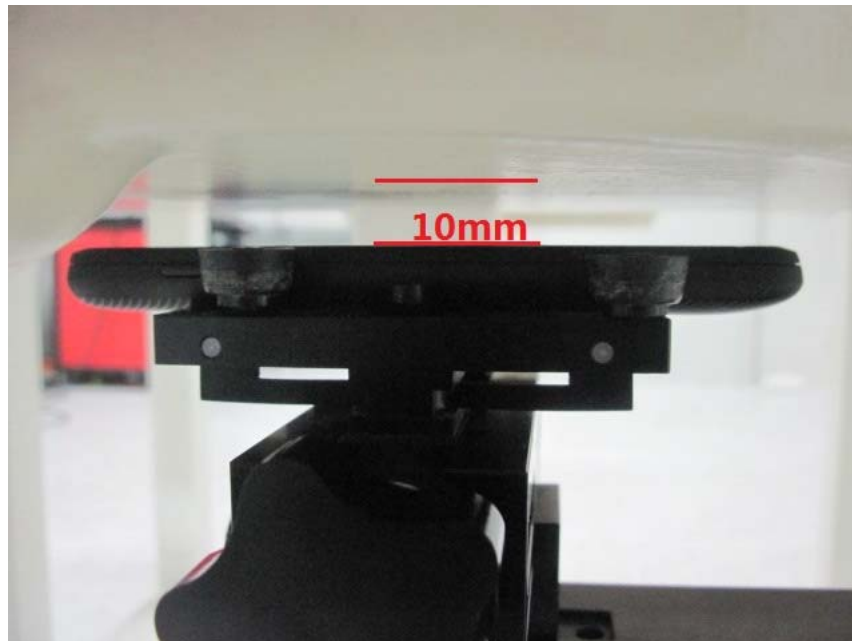
Right-Cheek Touch



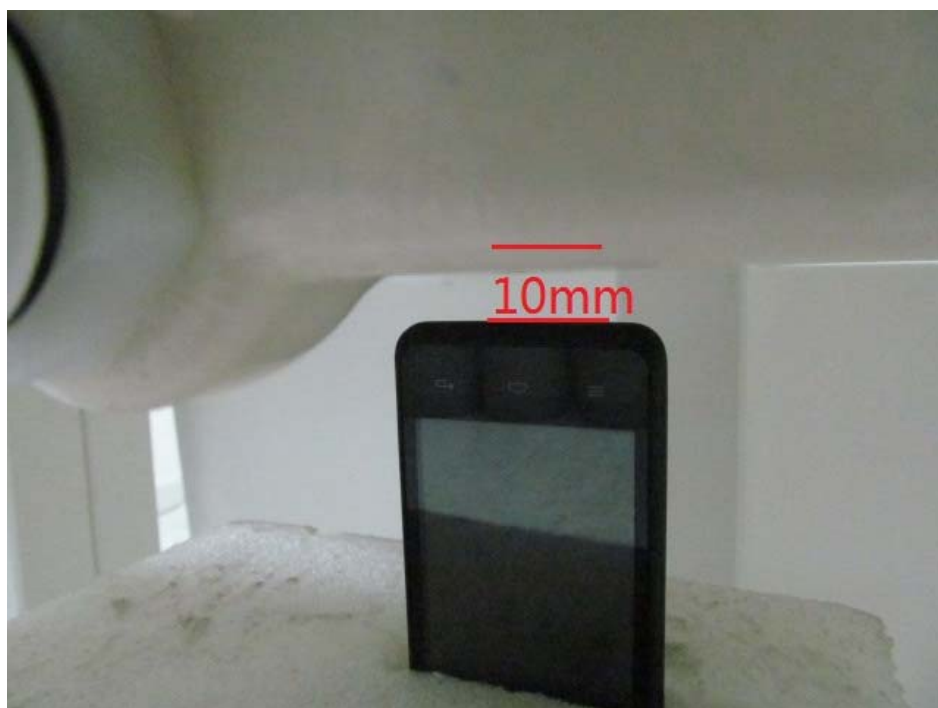
Right-Tilt 15°



Body SAR Back 10mm



Body SAR Front 10mm



Body SAR Bottom 10mm for GSM/UMTS



Body SAR Right Side 10mm for GSM/UMTS



Body SAR Left Side 10mm for GSM/UMTS



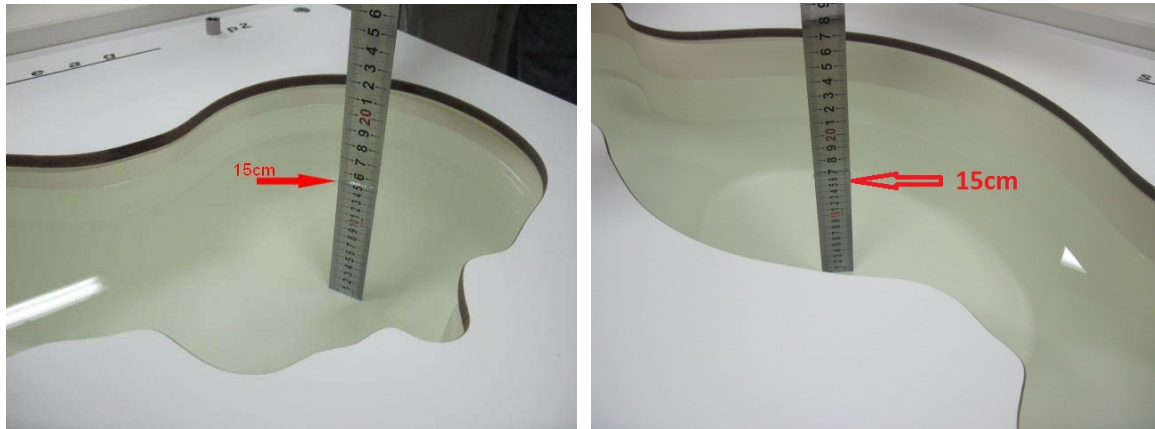
Body SAR Top 10mm for Wi-Fi



Body SAR Left Side 10mm for Wi-Fi

Depth of the liquid in the phantom – Zoom in

Note: The position used in the measurements were according to IEEE 1528 - 2003



EUT Photographs

(1) EUT Photo



(2) EUT Photo



Appendix D. Probe Calibration Data

Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
 The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Quietek-CN (Auden)**

Certificate No: **EX3-3710_Mar12**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3710**

Calibration procedure(s) **QA CAL-01.v8, QA CAL-12.v7, QA CAL-14.v3, QA CAL-23.v4,
 QA CAL-25.v4
 Calibration procedure for dosimetric E-field probes**

Calibration date: **March 12, 2012**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	31-Mar-11 (No. 217-01372)	Apr-12
Power sensor E4412A	MY41498087	31-Mar-11 (No. 217-01372)	Apr-12
Reference 3 dB Attenuator	SN: S5054 (3c)	29-Mar-11 (No. 217-01369)	Apr-12
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-11 (No. 217-01367)	Apr-12
Reference 30 dB Attenuator	SN: S5129 (30b)	29-Mar-11 (No. 217-01370)	Apr-12
Reference Probe ES3DV2	SN: 3013	29-Dec-11 (No. ES3-3013_Dec11)	Dec-12
DAE4	SN: 654	3-May-11 (No. DAE4-654_May11)	May-12
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (in house check Apr-11)	In house check: Apr-13
Network Analyzer HP 8753E	US37390585	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			

Issued: March 13, 2012

Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 108**

The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E^2 -field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; VR_{x,y,z}; A, B, C** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

EX3DV4 – SN:3710

March 12, 2012

Probe EX3DV4

SN:3710

Manufactured:	July 21, 2009
Repaired:	February 21, 2012
Calibrated:	March 12, 2012

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

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March 12, 2012

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3710

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$) ^A	0.51	0.56	0.44	$\pm 10.1\%$
DCP (mV) ^B	101.3	98.9	100.9	

Modulation Calibration Parameters

UID	Communication System Name	PAR		A dB	B dB	C dB	VR mV	Unc ^E (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	114.4	$\pm 2.2\%$
			Y	0.00	0.00	1.00	94.4	
			Z	0.00	0.00	1.00	114.2	

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

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Pages 5 and 6).

^B Numerical linearization parameter: uncertainty not required.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:3710

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
450	43.5	0.87	9.61	9.61	9.61	0.12	1.00	± 13.4 %
750	41.9	0.89	9.51	9.51	9.51	0.24	1.16	± 12.0 %
835	41.5	0.90	9.18	9.18	9.18	0.22	1.15	± 12.0 %
900	41.5	0.97	8.97	8.97	8.97	0.19	1.35	± 12.0 %
1810	40.0	1.40	8.32	8.32	8.32	0.79	0.60	± 12.0 %
1900	40.0	1.40	8.16	8.16	8.16	0.72	0.66	± 12.0 %
2450	39.2	1.80	7.25	7.25	7.25	0.36	0.91	± 12.0 %
2600	39.0	1.96	6.96	6.96	6.96	0.39	0.95	± 12.0 %
3500	37.9	2.91	6.80	6.80	6.80	0.33	1.09	± 13.1 %
5200	36.0	4.66	5.21	5.21	5.21	0.35	1.80	± 13.1 %
5500	35.6	4.96	4.9.5	4.9.5	4.9.5	0.35	1.80	± 13.1 %
5800	35.3	5.27	4.56	4.56	4.56	0.45	1.80	± 13.1 %

^C Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

EX3DV4- SN:3710

March 12, 2012

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3710

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unc. (k=2)
450	56.7	0.94	10.69	10.69	10.69	0.06	1.00	± 13.4 %
750	55.5	0.96	9.33	9.33	9.33	0.43	0.86	± 12.0 %
835	55.2	0.97	9.13	9.13	9.13	0.63	0.70	± 12.0 %
900	55.0	1.05	9.04	9.04	9.04	0.39	0.88	± 12.0 %
1810	53.3	1.52	7.73	7.73	7.73	0.33	1.10	± 12.0 %
1900	53.3	1.52	7.43	7.43	7.43	0.42	0.90	± 12.0 %
2450	52.7	1.95	6.98	6.98	6.98	0.79	0.59	± 12.0 %
2600	52.5	2.16	6.68	6.68	6.68	0.79	0.52	± 12.0 %
3500	51.3	3.31	6.23	6.23	6.23	0.36	1.13	± 13.1 %
5200	49.0	5.30	4.20	4.20	4.20	0.50	1.90	± 13.1 %
5500	48.6	5.65	3.82	3.82	3.82	0.50	1.90	± 13.1 %
5800	48.2	6.00	3.89	3.89	3.89	0.60	1.90	± 13.1 %

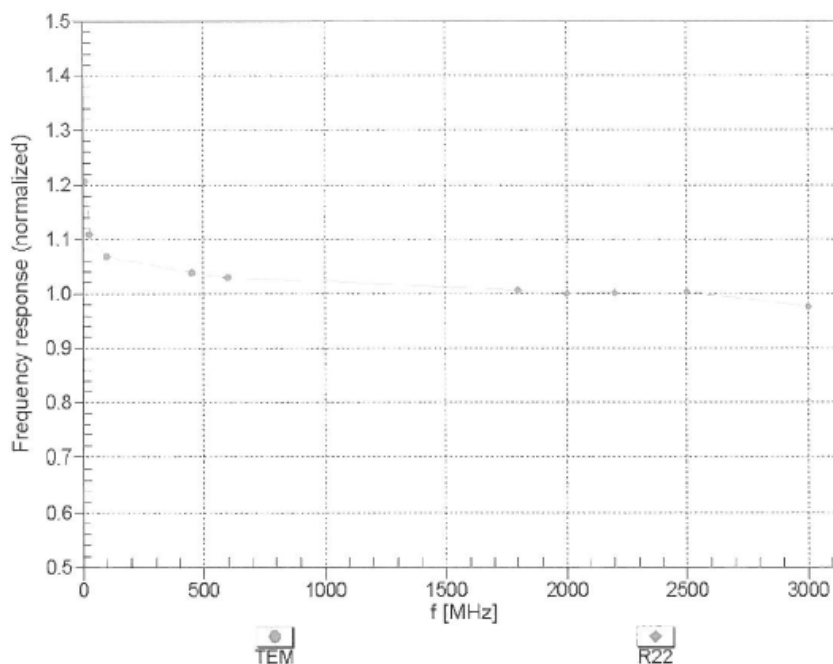
^C Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F At frequencies below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



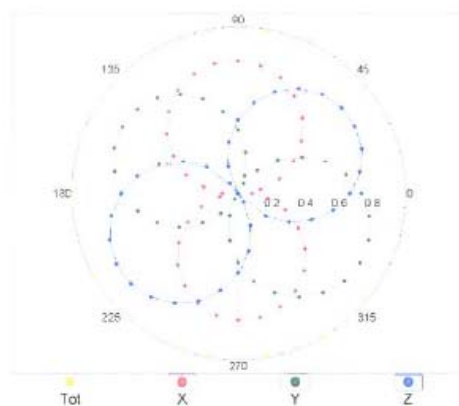
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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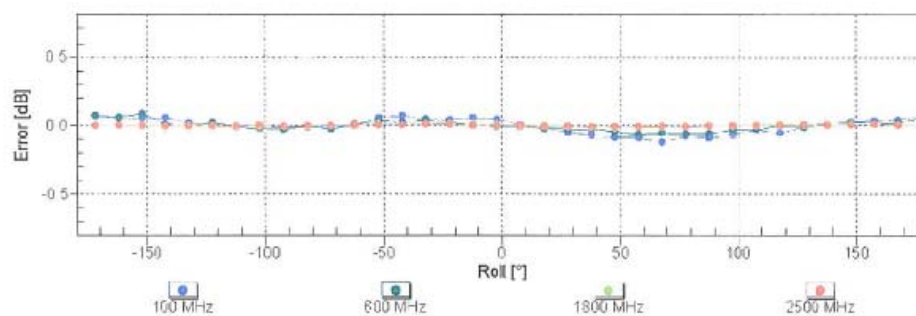
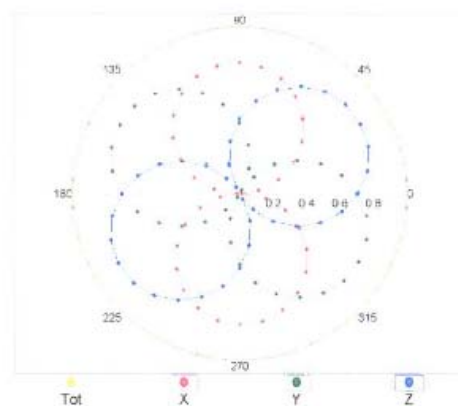
March 12, 2012

Receiving Pattern (ϕ), $\theta = 0^\circ$

f=600 MHz,TEM



f=1800 MHz,R22

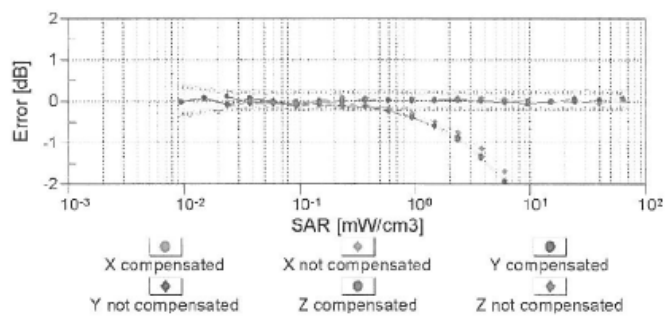
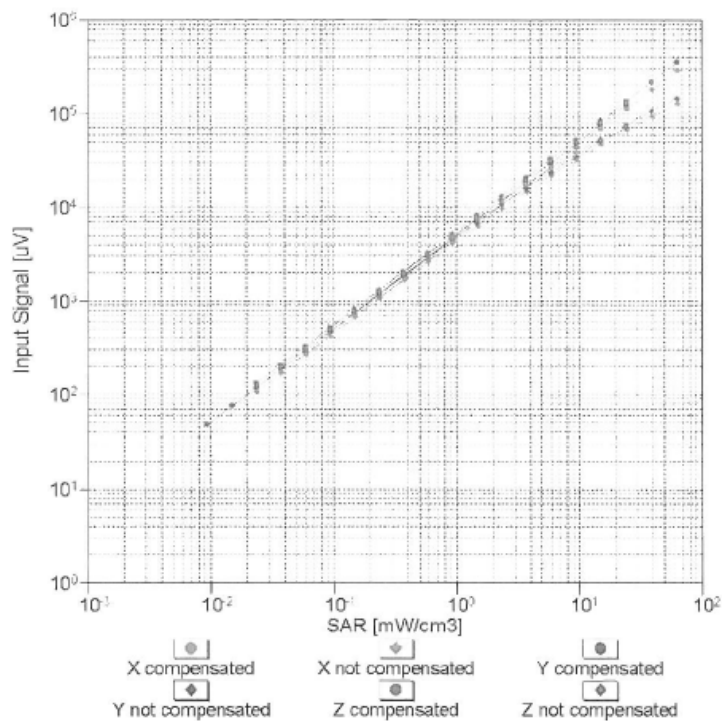


Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

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Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f = 900 \text{ MHz}$)

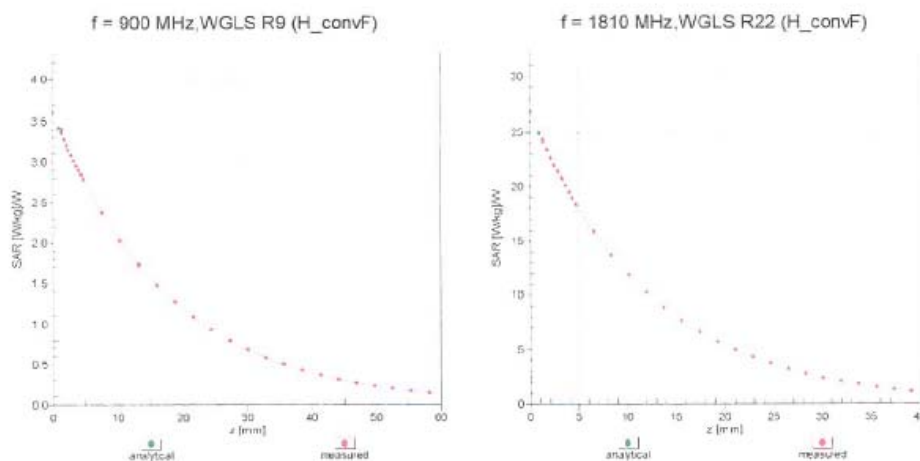


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

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March 12, 2012

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ , θ), f = 900 MHz

