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# SAR TEST REPORT

Equipment Under Test	Smart Phone
Model Name	V02S
Company Name	DELL Inc.
Company Address	One Dell Way, Round Rock, Tx 78682
Date of Receipt	2010.07.26
Date of Test(s)	2010.09.10-2010.10.29
Date of Issue	2010.12.16

Standards:

#### FCC OET Bulletin 65 supplement C, IEEE/ANSI C95.1, C95.3, IEEE 1528

In the configuration tested, the EUT complied with the standards specified above. **Remarks:** 

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Tested by	: Ricky Huang		V	Date :	2010.12.16	
	Asst. Supervise	or				
		nick	)-1244			
Approved by	: Nick Hsu	Jun	// •••	Date :	2010.12.16	
	Supervisor					
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# Version

Version No. Date		n No. Date Description			
1.0	Nov. 08, 2010	Initial issue of report			
1.1	Dec. 14, 2010	1 <sup>st</sup> modification			
1.2	Dec. 12, 2010	2 <sup>nd</sup> modification			



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### 1. General Information

#### 1.1 Testing Laboratory

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#### **1.2 Details of Applicant**

Company Name	DELL Inc.
Company Address	One Dell Way, Round Rock, Tx 78682
Contact Person	Matthew Samonek
TEL	815-382-4275
E-mail	matthew_samonek@dell.com

#### **1.3 Description of EUT**

EUT Name	Smart Phone				
Model Name	V02S				
Brand Name	DELL				
Marketing Name	Venue Pro				
TAC Code	01228600				
FCC ID	E2KV02S001				
Mode of Operation	GSM/GPRS/EGPRS/WCDMA/HSDPA/ HSUPA/WLAN802.11 b/g band				

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Definition	CE	Pr	oductio	on ur	nit		
Duty Cycle	GSM	GPRS	WCDMA B2		WCDMA B5	WLAN 802.11b/g	
	1/8	1/2 (Class B)	1		1	1	
TX Frequency Range	GSM 850	GSM1900	WCD B2		WCDMA B5	WLAN 802.11b/g	
(MHz)	824.2- 848.8	1850.2- 1909.8	1852 1907		826.4- 846.6	2412- 2462	
Channel Number	GSM 850	GSM1900	WCD B2		WCDMA B5	WLAN 802.11b/g	
(ARFCN)	128- 251	512- 810	9262- 9538		4132- 4233	1-11	
VOIP Function	No						
Battery Type	3.7 V Lithium-Ion						
Antenna Type		Int	ernal A	Anter	ina		
			GSM	850			
Max. SAR Measured	Head				Body		
(1 g)	0.436 mW/g 1. (At GSM 850 Right Head (At G		<b>1.39 m</b> (At GSM 850 _ 251 chan				
	GSM1900						
Max. SAR		Head			Body	/	
Measured (1 g)	(At GSM	646 mW/g         0.684 m           M 1900 Left Head         (At GSM 1900 left Head           < Position)_Slider off_		) Body			

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WCDM	A B2			
Head	Body			
<b>1.21 mW/g</b> (At WCDMA B2 Left Head (15° Tilt Position)_Slider off_ 9262 channel)	<b>0.693 mW/g</b> (At WCDMA B2 Body _ 9262 channel)			
WCDMA B5				
Head	Body			
<b>0.528 mW/g</b> (At WCDMA B5 Right Head (Cheek Position)_Slider off_ 4183 channel)	<b>0.696 mW/g</b> (At WCDMA B5 Body_ 4183 channel)			
WLAN802	11 b/g			
Body	Body			
<b>0.161 mW/g</b> (At WLAN802.11b Body_ 11 channel)	<b>0.127 mW/g</b> (At WLAN802.11g Body_ 11 channel)			
	1.21 mW/g (At WCDMA B2 Left Head (15° Tilt Position)_Slider off_ 9262 channel) WCDM Head 0.528 mW/g (At WCDMA B5 Right Head (Cheek Position)_Slider off_ 4183 channel) WLAN802 Body 0.161 mW/g (At WLAN802.11b Body_ 11			

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#### #. Conducted power table:

	GSM 850 (Average)			GSM 850 (Average) GSM 1900 (Averag			erage)
Mode\ARFCN	128	190	251	512	661	810	
GSM	32.2	32.2	32.2	28.9	29	29	
EGPRS 12	22.5	22.6	22.5	25.3	25.4	25.5	
GPRS 12	28.5	28.5	28.5	28.6	28.7	28.8	

		WCDMA	Band V	Channel	WCDMA	Band II	Channel
Mode	Subtest	4132	4183	4233	9262	9400	9538
Rel99	R99	23.68	23.82	23.75	22.8	22.87	22.71
	1	23.47	23.68	23.87	22.97	22.76	22.57
Rel6 HSDPA	2	23.61	23.71	23.62	22.68	22.73	22.56
KEIO HSDPA	3	23.01	23.2	23.38	22.49	22.31	22.04
	4	23.06	23.24	23.44	22.56	22.32	22.16
	1	23.64	23.75	23.67	22.72	22.85	22.65
	2	21.7	21.83	21.71	20.77	20.92	20.69
Rel6 HSUPA	3	22.68	22.81	22.75	21.78	21.87	21.73
	4	21.75	21.89	21.79	20.9	20.97	20.73
	5	23.5	23.58	23.56	22.61	22.71	22.56

EUT Mode	Frequency	СН	Average Power
	(MHz)		(dBm)
	2412	1	13.74
WLAN802.11b	2437	6	14.04
	2462	11	14.92
EUT Mode	Frequency	СН	Average Power
	(MHz)		(dBm)
	2412	1	0.54
	2412		9.54
WLAN802.11g	-	6	9.94

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#### 1.4 Test Environment

Ambient Temperature : 22±2° C Tissue Simulating Liquid: 22±2° C

#### 1.5 Operation description

#### General:

- 1. The EUT is controlled by using a Radio Communication Tester (R&S CMU200), and the communication between the EUT and the tester is established by air link.
- Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s). The EUT is set to maximum power level during all tests, and at the beginning of each test the batt<sup>-</sup>ery is fully charged.
- 3. During the SAR testing, the DASY4 system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing.
- 4. Testing Head SAR at lowest, middle and highest channel for all bands with LET/LEC/RET/REC conditions.
- 5. Testing body-worn SAR by separating **1.5cm** between the back of the EUT and the flat phantom in GPRS mode.

#### SAR evaluation considerations for handsets with multiple transmitters:

- 6. Since the WLAN function of this device does NOT support VoIP function. Users will not use it close to head. SAR evaluation of head adjacent is unnecessary, only Body condition will be considered for WLAN stand-alone situation.
  - When the maximum transmitter and antenna output power are  $\leq$  60/f(GHz) (mW)
  - SAR evaluation is typically not required for FCC or TCB approval. (BT power= 6.76dBm)
- 7. WWAN to WLAN antenna distance is 11cm.
- 8. Bluetooth and WLAN can not be transmitted simultaneously, according to client's operational description.

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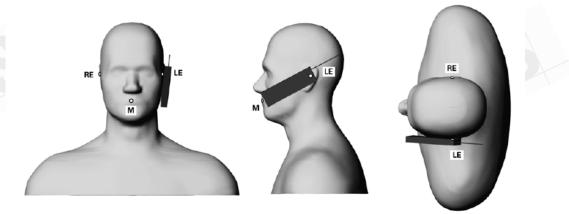
9. The highest 1-g SAR for WLAN is 0.161 W/kg and the highest 1-g SAR for WWAN is 1.39W/kg. The sum of 1-g for simultaneous transmitting WLAN and WWAN antenna pair is 0.161+1.39 = 1.551 W/kg < 1.6 W/kg. According to KDB648474/KDB447498 /KDB248227/KDB941225 Simultaneous SAR evaluation is not required.

#### Additional configuration(Head):

10. For highest SAR configuration in this band repeated with external Memory card inside. **Additional configuration(Body):** 

- 11. For highest SAR configuration in this band repeated with external Memory card inside.
- 12. For highest SAR configuration in this band repeated with external Headset (Foster).
- 13. For highest SAR configuration in this band repeated with external Headset (PCH).

#### **1.6 Positioning Procedure**



Phone position 1, "cheek" or "touch" position. The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning

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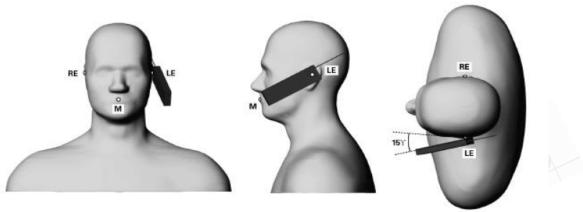
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Phone position 2, "tilted position." The reference points for the right ear (RE), left ear (LE) and mouth (M), which define the reference plane for phone positioning Cheek/Touch Position:

the handset was brought toward the mouth of the head phantom by pivoting against the ear reference point until any point of the mouthpiece or keypad touched the phantom. Ear/Tilt Position:

With the phone aligned in the Cheek/Touch position, the handset was tilted away from the mouth with respect to the test device reference point by 15 degrees.

#### **1.7 EVALUATION PROCEDURES**

The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- 1. The extraction of the measured data (grid and values) from the Zoom Scan.
- 2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- 3. The generation of a high-resolution mesh within the measured volume
- 4. The interpolation of all measured values from the measurement grid to the high-resolution grid
- 5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- 6. The calculation of the averaged SAR within masses of 1g and 10g.

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The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within –2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans.

The routines are verified and optimized for the grid dimensions used in these cube measurements. The measured volume of 30x30x30mm contains about 30g of tissue. The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found.

If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that

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case the cube measurement can be repeated, using the new interpolated maximum as the center.

#### 1.8 The SAR Measurement System

A photograph of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY 4 professional system ). A Model EX3DV4/ES3DV3 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR=  $\sigma$  ( $|Ei|^2$ )/ $\rho$  where  $\sigma$  and  $\rho$  are the conductivity and mass density of the tissue-simulant.

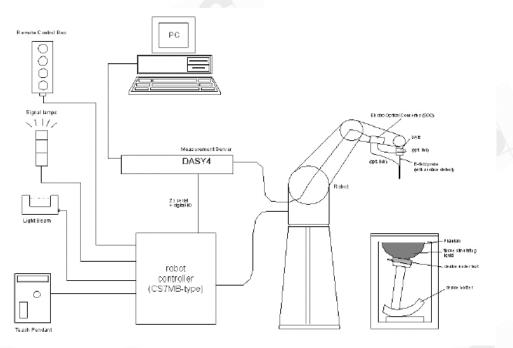


Fig.a The block diagram of SAR system

The DASY4 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.

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- 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 between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
  - A computer operating Windows 2000 or Windows XP.
  - DASY4 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
  - The SAM twin phantom enabling testing left-hand and right-hand usage.
  - The device holder for handheld mobile phones.
  - Tissue simulating liquid mixed according to the given recipes.
  - Validation dipole kits allowing to validate the proper functioning of the system.

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#### **1.9 System Components**

#### EX3DV4/ES3DV3 E-Field Probe

Construction:	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	/			
Calibration:	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL850/1900/2450MHz Additional CF for other liquids and frequencies upon request	E-Field Probe			
Frequency:	10 MHz to > 6 GHz; Linearity: $\pm$ 0.2 dB (30	MHz to 6 GHz)			
Directivity:	$\pm$ 0.3 dB in HSL (rotation around probe axis $\pm$ 0.5 dB in tissue material (rotation normal				
Dynamic Range:	10 $\mu$ W/g to > 100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 $\mu$ 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:					

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#### **SAM PHANTOM V4.0C**

Construction:	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-200X, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. <i>A</i> cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.						
Shell Thickness:	2 ± 0.2 mm						
Filling Volume:	Approx. 25 liters						
Dimensions:	Height: 251 mm; Length: 1000 mm; Width: 500 mm						
DEVICE HOLDE	R						
Construction	In combination with the Twin SAM Phantom V4.0/V4.0C or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and						

accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, flat phantom).



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#### 1.10 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 5% from the target SAR values.

These tests were done at 850/1900/2450 MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1. During the tests, the ambient temperature of the laboratory was in the range 22.1°C, the relative humidity was in the range 62% and the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

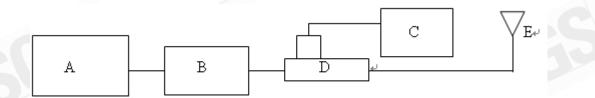


Fig.b The block diagram of system verification

- A. Agilent Model 8648D Signal Generator
- B. Mini circuits Model ZHL-42 Amplifier
- C. Agilent Model U2001B Power Sensor
- D. Agilent Model 778D/777D Dual directional coupling
- E. Reference dipole antenna



Photograph of the dipole Antenna

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Frequency (MHz)	Target SAR (1g) (Pin=250mW)	Measured SAR (1g)	Measured Date
835 MHz (Head)	2.42 mW/g	2.37mW/g	2010-09-12
835 MHz (Body)	2.53 mW/g	2.61mW/g	2010-09-10
1900 MHz (Head)	9.91 mW/g	10.2mW/g	2010-09-10
1900 MHz (Body)	10.1 mW/g	10.2mW/g	2010-09-10
2450 MHz (Body)	13.4 mW/g	12.9mW/g	2010-09-15
835 MHz (Head)	2.42 mW/g	2.34mW/g	2010-10-28
835 MHz (Body)	2.53 mW/g	2.59mW/g	2010-10-28
1900 MHz (Head)	9.91 mW/g	10.2mW/g	2010-10-29
1900 MHz (Body)	10.1 mW/g	10.3mW/g	2010-10-29
	(MHz) 835 MHz (Head) 835 MHz (Body) 1900 MHz (Head) 1900 MHz (Body) 835 MHz (Head) 835 MHz (Head) 835 MHz (Body) 1900 MHz (Body) 1900 MHz (Body)	Frequency (MHz)         SAR (1g) (Pin=250mW)           835 MHz (Head)         2.42 mW/g           835 MHz (Body)         2.53 mW/g           1900 MHz (Head)         9.91 mW/g           1900 MHz (Body)         10.1 mW/g           2450 MHz (Body)         13.4 mW/g           835 MHz (Body)         2.53 mW/g           1900 MHz (Body)         13.4 mW/g           835 MHz (Body)         2.53 mW/g           1900 MHz (Head)         2.53 mW/g           1900 MHz (Body)         10.1 mW/g           1900 MHz (Body)         10.1 mW/g	Frequency (MHz)         SAR (1g) (Pin=250mW)         Measured SAR (1g)           835 MHz (Head)         2.42 mW/g         2.37mW/g           835 MHz (Body)         2.53 mW/g         2.61mW/g           1900 MHz (Head)         9.91 mW/g         10.2mW/g           1900 MHz (Body)         10.1 mW/g         10.2mW/g           2450 MHz (Body)         13.4 mW/g         12.9mW/g           835 MHz (Body)         2.42 mW/g         2.34mW/g           835 MHz (Body)         2.53 mW/g         2.59mW/g           835 MHz (Body)         2.53 mW/g         2.59mW/g           835 MHz (Head)         2.53 mW/g         10.2mW/g           835 MHz (Head)         10.1 mW/g         10.2mW/g

Table 1. System validation (follow manufacture target value)

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#### 1.11 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this Head-simulant fluid were measured by using the HP Model 85070D Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in conjuncation with HP 8753D Network Analyzer (30 KHz-6000MHz) by using a procedure detailed in Section V.

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The depth of the tissue simulant iin the flat section of the phantom was 15cm±5mm during all tests. (Appendix Fig .2)

Froquopey		. Measurement date/		Dielectric Parameters			
Frequency (MHz)	Tissue type	Limits	ρ	σ (S/m)	Simulated Tissue Temperature(°C)		
850	Head	Measured, 2010-09-12	42	0.903	21.7		
600	пеаи	Recommended Limits	39.62-43.79	0.86-0.96	20-24		
850		Measured, 2010-09-10	53.1	0.974	21.7		
630	Body	Recommended Limits	51.49-56.91	0.93-1.03	20-24		
1900		Measured, 2010-09-10	39	1.45	21.7		
1900	Head	Recommended Limits	38.48-42.53	1.34-1.48	20-24		
1000		Measured, 2010-09-10	53.2	1.6	21.7		
1900	Body	Recommended Limits	52.06-57.54	1.45-1.61	20-24		
2450		Measured, 2010-09-15	53.4	2.03	21.7		
2450	Body	Recommended Limits	51.49-56.91	1.91-2.11	20-24		
950	llood	Measured, 2010-10-28	41.8	0.912	21.7		
850	Head	Recommended Limits	39.62-43.79	0.86-0.96	20-24		
950		Measured, 2010-10-28	54	0.978	21.7		
850	Body	Recommended Limits	51.49-56.91	0.93-1.03	20-24		
1000	X	Measured, 2010-10-29	38.8	1.45	21.7		
1900	Head	Recommended Limits	38.48-42.53	1.34-1.48	20-24		
1000		Measured, 2010-10-29	53.2	1.59	21.7		
1900	Body	Recommended Limits	52.06-57.54	1.45-1.61	20-24		

Table 2. Dielectric Parameters of Tissue Simulant Fluid

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Ingredie nt	850MHz (Head)	850MHz (Body)	1900MHz (Head)	1900MHz (Body)	2450MHz (Body)
DGMBE	Х	Х	444.52 g	300.67g	301.7ml
Water	532.98 g	631.68 g	552.42 g	716.56 g	698.3ml
Salt	18.3 g	11.72 g	3.06 g	4.0 g	X
Prevento					y l
I	2.4 g	1.2 g	Х	Х	Х
D-7					
Cellulose	3.2 g	X	Х	Х	Х
Sugar	766.0 g	600 g	X	Х	Х
Total	1 L	1 L	1L	1 L	1 L
amount	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)

The composition of the brain tissue simulating liquid:

Table 3. Recipes for tissue simulating liquid

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#### 1.12 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate ("SAR") in Section 4.2 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1–1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter.

Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

(1) Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube). Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.

(2) Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over

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the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube).

Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube).

General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for

occupational/controlled exposure in paragraph (d)(1) of this section. (Table .6)

Human Exposure	<b>Uncontrolled Environment</b>	Controlled Environment						
	General Population	Occupational						
Spatial Peak SAR (Brain)	1.60 m W/g	8.00 m W/g						
Spatial Average SAR (Whole Body)	0.08 m W/g	0.40 m W/g						
Spatial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 m W/g	20.00 m W/g						

Table 4. RF exposure limits

#### Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.

2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

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### 2. Summary of Results

## **GSM 850 MHZ**

#### Right Head (Cheek Position) Slider off

Right Head	(спеек Р	osition)	_Silder off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	128	824.2	32.20 dBm	0.403	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.428	22.1	21.7
	251	848.8	32.20 dBm	0.436	22.1	21.7
Left Head (	Cheek Pos	sition) _	Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	128	824.2	32.20 dBm	0.382	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.427	22.1	21.7
	251	848.8	32.20 dBm	0.426	22.1	21.7
<b>Right Head</b>	(15° Tilt I	Positior	n) _Slider off		465	
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	128	824.2	32.20 dBm	0.261	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.3	22.1	21.7
	251	848.8	32.20 dBm	0.311	22.1	21.7
Left Head (	15° Tilt Po	osition)	_Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	128	824.2	32.20 dBm	0.267	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.31	22.1	21.7
	251	848.8	32.20 dBm	0.314	22.1	21.7

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<u></u>	(0)	、				
Right Head	(Cheek Po		_Slider on		r	T
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C
	128	824.2	32.20 dBm	0.205	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.277	22.1	21.7
2000	251	848.8	32.20 dBm	0.289	22.1	21.7
Left Head (	Cheek Pos	sition) _	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.20 dBm	0.201	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.255	22.1	21.7
	251	848.8	32.20 dBm	0.267	22.1	21.7
Right Head	(15° Tilt	Positior	n) _Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.20 dBm	0.125	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.172	22.1	21.7
	251	848.8	32.20 dBm	0.180	22.1	21.7
Left Head (	15° Tilt Po	osition)	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.20 dBm	0.107	22.1	21.7
850 MHz	190	836.6	32.20 dBm	0.147	22.1	21.7
	251	848.8	32.20 dBm	0.154	22.1	21.7
Body worn	(testing ir	GPRS	mode)			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg)	Amb.	
	128	824.2	28.50 dBm	1g 1.25	Temp[°C] 22.1	Temp[°C 21.7
850 MHz	120	836.6	28.50 dBm	1.31	22.1	21.7
	251	848.8	28.50 dBm	1.39	22.1	21.7
	201	040.0	20.30 0011	1.37	22.1	21.7

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Body worn	(testing ir	n GPRS	mode)_repeated f	for EUT front to p	hantom	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	251	848.8	28.50 dBm	1.09	22.1	21.7
Body worn	(testing ir	n GPRS	mode)_repeated v	with Headset (PC	CH)	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	251	848.8	28.50 dBm	1.12	22.1	21.7
Body worn	(testing ir	n GPRS	mode)_repeated v	with Headset (Fo	ster)	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	251	848.8	28.50 dBm	1.13	22.1	21.7
Body worn	(testing ir	n GPRS	mode)_repeated v	with Memory car	d	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	251	848.8	28.50 dBm	1.36	22.1	21.7
Body worn	(testing ir	EGPR	S mode)_repeated	with EGPRS mo	de	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	251	848.8	22.50 dBm	0.552	22.1	21.7

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# PCS 1900 MHZ

Right Head	(Cheek Po	osition)	_Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	512	1850.2	28.90 dBm	0.347	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.396	22.1	21.7
	810	1909.8	29.00 dBm	0.356	22.1	21.7
Left Head (	Cheek Pos	sition) _	Slider off	/		
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	512	1850.2	28.90 dBm	0.559	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.646	22.1	21.7
	810	1909.8	29.00 dBm	0.608	22.1	21.7
Right Head	(15° Tilt I	Positior	n) _Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	512	1850.2	28.90 dBm	0.204	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.23	22.1	21.7
	810	1909.8	29.00 dBm	0.214	22.1	21.7
Left Head (	15° Tilt Po	osition)	_Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
L	512	1850.2	28.90 dBm	0.184	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.22	22.1	21.7
	810	1909.8	29.00 dBm	0.205	22.1	21.7

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Right Head	(Cheek Po	osition)	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	28.90 dBm	0.125	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.165	22.1	21.7
245	810	1909.8	29.00 dBm	0.195	22.1	21.7
Left Head (	Cheek Pos	sition) _	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	28.90 dBm	0.209	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.279	22.1	21.7
	810	1909.8	29.00 dBm	0.322	22.1	21.7
Right Head	(15° Tilt I	Positior	n) _Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	28.90 dBm	0.14	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.169	22.1	21.7
	810	1909.8	29.00 dBm	0.201	22.1	21.7
Left Head (*	15° Tilt Po	osition)	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	28.90 dBm	0.112	22.1	21.7
1900 MHz	661	1880	29.00 dBm	0.155	22.1	21.7
	810	1909.8	29.00 dBm	0.186	22.1	21.7
Body worn	(testing ir	GPRS	mode)		7 845	
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	512	1850.2	28.60 dBm	0.684	22.1	21.7
1900 MHz	661	1880	28.70 dBm	0.644	22.1	21.7
	810	1909.8	28.80 dBm	0.482	22.1	21.7

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# WCDMA B2

Right Head	(Cheek Po	osition)	_Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.671	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.64	22.1	21.7
	9538	1907.6	22.71dBm	0.453	22.1	21.7
Left Head (	Cheek Pos	sition) _	Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.968	22.1	21.7
1900MHz	9400	1880	22.87dBm	1.15	22.1	21.7
	9538	1907.6	22.71dBm	0.76	22.1	21.7
Right Head	(15° Tilt I	Positior	n) _Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.416	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.402	22.1	21.7
	9538	1907.6	22.71dBm	0.274	22.1	21.7
Left Head (	15° Tilt Po	osition)	_Slider off			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	1.21	22.1	21.7
1900MHz	9400	1880	22.87dBm	1.2	22.1	21.7
	9538	1907.6	22.71dBm	0.869	22.1	21.7

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Right Head	(Cheek Po	osition)	_Slider on			
Frequency	equency Channel MHz Conducted Output Measured(W Power (Average) 1g		Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C	
	9262	1852.4	22.8dBm	0.344	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.42	22.1	21.7
	9538	1907.6	22.71dBm	0.413	22.1	21.7
Left Head (	Cheek Pos	sition) _	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.686	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.844	22.1	21.7
	9538	1907.6	22.71dBm	0.691	22.1	21.7
Right Head	(15° Tilt I	Positior	n) _Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.416	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.369	22.1	21.7
	9538	1907.6	22.71dBm	0.422	22.1	21.7
Left Head (*	15° Tilt Po	osition)	_Slider on			
Frequency	1 3		Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	9262	1852.4	22.8dBm	0.699	22.1	21.7
1900MHz	9400	1880	22.87dBm	0.930	22.1	21.7
	9538	1907.6	22.71dBm	0.784	22.1	21.7
Left Head (*	15° Tilt Po	osition)	_Slider off_repea	ted with memory	y card	
Frequency	Channel	MHz	Conducted Output Power (Average)			Liquid Temp[°C]
1900MHz	9262	1852.4	22.8dBm	1.19	22.1	21.7
						•

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Body worn (testing in R99 mode)									
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]			
	9262	1852.4	22.8dBm	0.693	22.1	21.7			
1900MHz	9400	1880	22.87dBm	0.656	22.1	21.7			
	9538	1907.6	22.71dBm	0.497	22.1	21.7			

# WCDMA B5

Right Head (Cheek Position)_Slider off							
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]	
	4132	826.4	23.68dBm	0.273	22.1	21.7	
850MHz	4183	836.6	23.82dBm	0.528	22.1	21.7	
	4233	846.6	23.75dBm	0.482	22.1	21.7	
Left Head (	Cheek Pos	ition) _	_Slider off				
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]	
	4132	826.4	23.68dBm	0.265	22.1	21.7	
850MHz	4183	836.6	23.82dBm	0.487	22.1	21.7	
	4233	846.6	23.75dBm	0.444	22.1	21.7	
Right Head	(15° Tilt I	Positior	n) _Slider off				
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]	
	4132	826.4	23.68dBm	0.159	22.1	21.7	
850MHz	4183	836.6	23.82dBm	0.315	22.1	21.7	
	4233	846.6	23.75dBm	0.284	22.1	21.7	

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Left Head (	15° Tilt Po	osition)	_Slider off			
		Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C	
	4132	826.4	23.68dBm	0.314	22.1	21.7
850MHz	4183	836.6	23.82dBm	0.319	22.1	21.7
	4233	846.6	23.75dBm	0.276	22.1	21.7
Right Head	(Cheek Po	osition)	_Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	4132	826.4	23.68dBm	0.132	22.1	21.7
850MHz	4183	836.6	23.82dBm	0.262	22.1	21.7
	4233	846.6	23.75dBm	0.191	22.1	21.7
Left Head (	Cheek Pos	ition) _	Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)			Liquid Temp[°C
EP.	4132	826.4	23.68dBm	0.103	22.1	21.7
850MHz	4183	836.6	23.82dBm	0.242	22.1	21.7
	4233	846.6	23.75dBm	0.178	22.1	21.7
Right Head	(15° Tilt I	Positior	n) _Slider on			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	4132	826.4	23.68dBm	0.067	22.1	21.7
850MHz	4183	836.6	23.82dBm	0.135	22.1	21.7
	4233	846.6	23.75dBm	0.096	22.1	21.7
Left Head (*	15° Tilt Po	osition)	_Slider on		3 644	
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	4132	826.4	23.68dBm	0.065	22.1	21.7
850MHz	4183	836.6	23.82dBm	0.133	22.1	21.7
	4233	846.6	23.75dBm	0.095	22.1	21.7

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Body worn (testing in R99 mode)									
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]			
	4132	826.4	23.68dBm	0.382	22.1	21.7			
850MHz	4183	836.6	23.82dBm	0.696	22.1	21.7			
	4233	846.6	23.75dBm	0.578	22.1	21.7			

# WLAN802.11 b

Body worn				-			
Frequency	Channel	MHz	Conducted Output	Conducted Output Measured(W/kg)		Liquid	
			Power (Average)	1g	Temp[°C]	Temp[°C]	
	1	2412	13.74 dBm	0.117	22.1	21.7	
2450 MHz	6	2437	14.04 dBm	0.152	22.1	21.7	
	11	2462	14.92 dBm	0.161	22.1	21.7	
Body worn- repeated for EUT front to phantom							
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid	
	/		Power (Average)	1g	Temp[°C]	Temp[°C]	
2450 MHz	11	2462	14.92 dBm	0.03	22.1	21.7	
Body worn-	repeated	with He	eadset	2			
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid	
			Power (Average)	1g	Temp[°C]	Temp[°C]	
2450 MHz	11	2462	14.92 dBm	0.146	22.1	21.7	
Body worn-	Body worn-repeated with Memory card						
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid	
			Power (Average)	1g	Temp[°C]	Temp[°C]	
2450 MHz	11	2462	14.92 dBm	0.132	22.1	21.7	

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### WLAN 802.11 g

Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
		Power (Average)	1g	Temp[°C]	Temp[°C]
1	2412	9.54 dBm	0.097	22.1	21.7
6	2437	9.93 dBm	0.112	22.1	21.7
11	2462	10.53 dBm	0.127	22.1	21.7
	1	1         2412           6         2437	Power (Average)           1         2412         9.54 dBm           6         2437         9.93 dBm	Power (Average)         1g           1         2412         9.54 dBm         0.097           6         2437         9.93 dBm         0.112	Power (Average)         1g         Temp[°C]           1         2412         9.54 dBm         0.097         22.1           6         2437         9.93 dBm         0.112         22.1

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### 3. Instruments List

Manufacturer	Device	Туре	Serial number	Date of last calibration
Schmid & Partner	Dosimetric E-Field	ES3DV3	3712	May.21.2010
Engineering AG	Probe	EX3DV4	3703	DEC.30.2010
Schmid & Partner	850 /1900 /2450	D835V2	4d063	May.21.2010
Engineering AG	MHz System	D1900V2	5d027	Apr.28.2010
Engineering AG	Validation Dipole	D2450V2	727	Apr.29.2010
Schmid & Partner Engineering AG	Data acquisition Electronics	DAE4	547	Aug.18.2010
Schmid & Partner Engineering AG	Software	DASY 4 V4.7 Build 80	N/A	Calibration not required
Schmid & Partner Engineering AG	Phantom	SAM	N/A	Calibration not required
НР	Network Analyzer	8753D	3410A05662	Mar.30.2010
НР	Dielectric Probe Kit	85070D	US01440168	Calibration not required
Agilopt	Dual-directional	778D	50313	Aug.25.2010
Agilent	coupler	777D	50114	Aug.25.2010
Agilent	RF Signal Generator	8648D	3847M00432	Jun.04.2010
Agilent	Power Sensor	U2001B	MY48100169	Apr.30.2010
R&S	Radio Communication Test	CMU200	113505	Mar.25.2010

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#### 4. Measurements

Date: 2010/9/12

#### Re Cheek\_CH128\_Slider off

#### DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

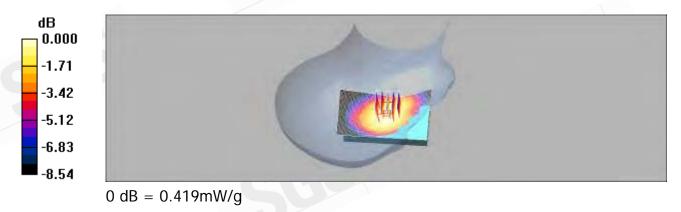
- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

#### **RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.423 mW/g

**RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.8 V/m; Power Drift = -0.029 dB Peak SAR (extrapolated) = 0.483 W/kg SAR(1 g) = 0.403 mW/g; SAR(10 g) = 0.315 mW

Maximum value of SAR (measured) = 0.419 mW/g



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#### Re Cheek\_CH190\_Slider off

DUT: V02S;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Pight Section

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.448 mW/g

**RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = -0.037 dBPeak SAR (extrapolated) = 0.509 W/kg

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.334 mW/g

Maximum value of SAR (measured) = 0.444 mW/g



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#### Re Cheek\_CH251\_Slider off

DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.451 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = 0.048 dB Peak SAR (extrapolated) = 0.534 W/kg SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.340 mW/g Maximum value of SAR (measured) = 0.456 mW/g



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#### Le Cheek\_CH128\_Slider off

#### DUT: V02S;

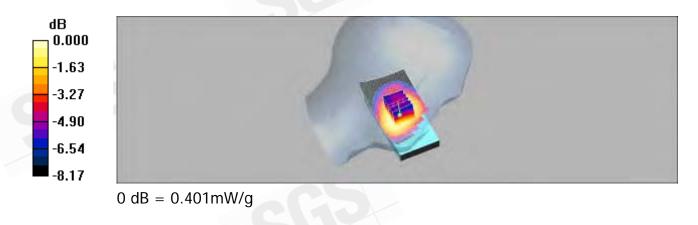
Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.392 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.2 V/m; Power Drift = 0.114 dB Peak SAR (extrapolated) = 0.465 W/kg SAR(1 g) = 0.382 mW/g; SAR(10 g) = 0.297 mW/g Maximum value of SAR (measured) = 0.401 mW/g



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## Le Cheek\_CH190\_Slider off

DUT: V02S;

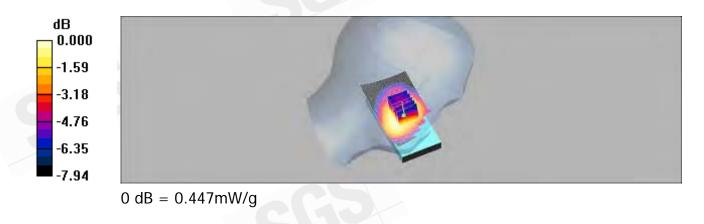
Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.440 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.7 V/m; Power Drift = -0.013 dB Peak SAR (extrapolated) = 0.518 W/kg SAR(1 g) = 0.427 mW/g; SAR(10 g) = 0.329 mW/g Maximum value of SAR (measured) = 0.447 mW/g



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## Le Cheek\_CH251\_Slider off

DUT: V02S;

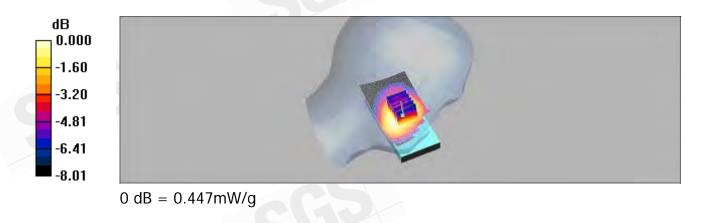
Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.441 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.5 V/m; Power Drift = 0.031 dB Peak SAR (extrapolated) = 0.519 W/kg SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.329 mW/g Maximum value of SAR (measured) = 0.447 mW/g



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## Re Tilt\_CH128\_Slider off

#### DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.270 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 13.9 V/m; Power Drift = 0.000 dB Peak SAR (extrapolated) = 0.323 W/kg SAR(1 g) = 0.261 mW/g; SAR(10 g) = 0.199 mW/g Maximum value of SAR (measured) = 0.274 mW/g



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## Re Tilt\_CH190\_Slider off

DUT: V02S;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

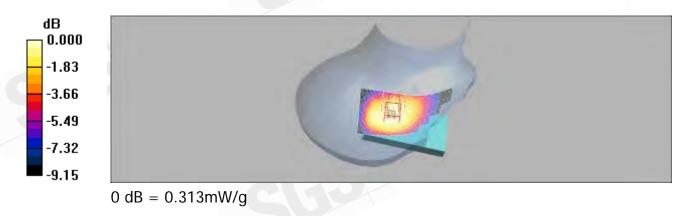
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.310 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 14.8 V/m; Power Drift = -0.033 dB Peak SAR (extrapolated) = 0.375 W/kg SAR(1 g) = 0.300 mW/g; SAR(10 g) = 0.227 mW/g Maximum value of SAR (measured) = 0.313 mW/g



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除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



## Re Tilt\_CH251\_Slider off

DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.322 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 14.9 V/m; Power Drift = -0.022 dB Peak SAR (extrapolated) = 0.389 W/kg SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.236 mW/g Maximum value of SAR (measured) = 0.325 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



#### Le Tilt\_CH128\_Slider off

#### DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

#### LET/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.284 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 13.5 V/m; Power Drift = -0.069 dB

Peak SAR (extrapolated) = 0.331 W/kg

SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.204 mW/g

Maximum value of SAR (measured) = 0.277 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



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## Le Tilt\_CH190\_Slider off

DUT: V02S;

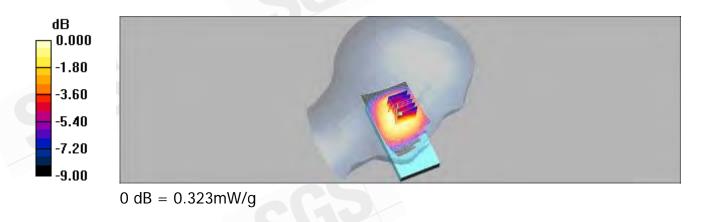
Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.322 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 14.2 V/m; Power Drift = -0.006 dB Peak SAR (extrapolated) = 0.387 W/kg SAR(1 g) = 0.310 mW/g; SAR(10 g) = 0.235 mW/g Maximum value of SAR (measured) = 0.323 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



## Le Tilt\_CH251\_Slider off

DUT: V02S;

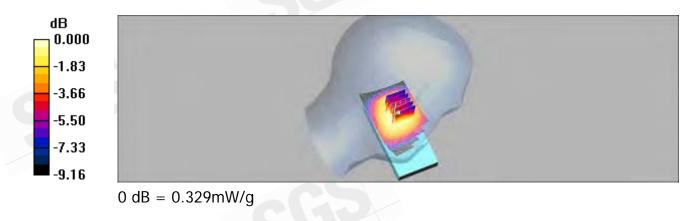
Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.330 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 14.2 V/m; Power Drift = 0.026 dB Peak SAR (extrapolated) = 0.391 W/kg SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.238 mW/g Maximum value of SAR (measured) = 0.329 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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#### Re Cheek\_CH128\_Slider on

#### DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

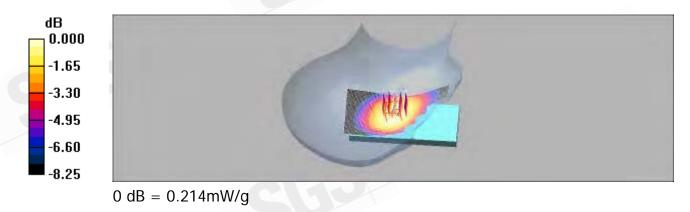
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.214 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.13 V/m; Power Drift = -0.119 dB Peak SAR (extrapolated) = 0.243 W/kg SAR(1 g) = 0.205 mW/g; SAR(10 g) = 0.161 mW/g Maximum value of SAR (measured) = 0.214 mW/g



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#### Re Cheek\_CH190\_Slider on

#### DUT: V02S;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

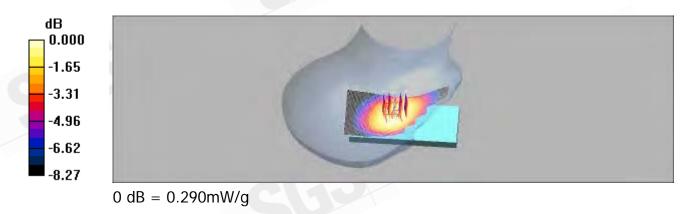
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.285 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.15 V/m; Power Drift = 0.024 dB Peak SAR (extrapolated) = 0.333 W/kg SAR(1 g) = 0.277 mW/g; SAR(10 g) = 0.218 mW/g Maximum value of SAR (measured) = 0.290 mW/g



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#### Re Cheek\_CH251\_Slider on

DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

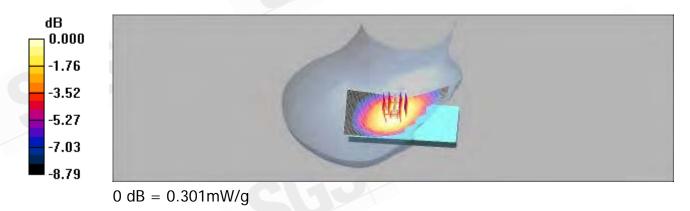
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.302 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.36 V/m; Power Drift = -0.042 dB Peak SAR (extrapolated) = 0.348 W/kg SAR(1 g) = 0.289 mW/g; SAR(10 g) = 0.226 mW/g Maximum value of SAR (measured) = 0.301 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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#### Le Cheek\_CH128\_Slider on

#### DUT: V02S;

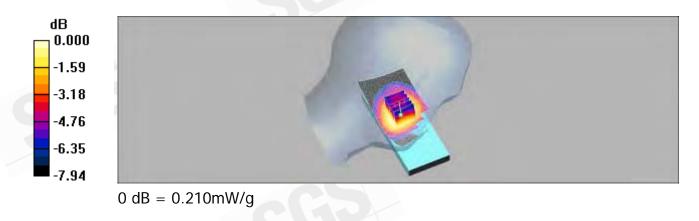
Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.206 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 6.35 V/m; Power Drift = 0.199 dB Peak SAR (extrapolated) = 0.236 W/kg SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.158 mW/g Maximum value of SAR (measured) = 0.210 mW/g



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#### Le Cheek\_CH190\_Slider on

DUT: V02S;

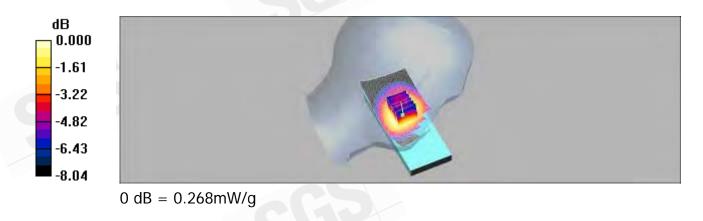
Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.265 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 7.43 V/m; Power Drift = -0.065 dB Peak SAR (extrapolated) = 0.305 W/kg SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.200 mW/g Maximum value of SAR (measured) = 0.268 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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#### Le Cheek\_CH251\_Slider on

DUT: V02S;

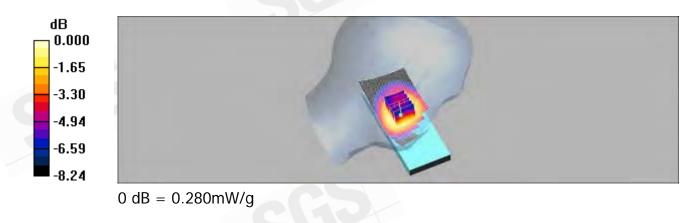
Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.275 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 7.51 V/m; Power Drift = 0.001 dB Peak SAR (extrapolated) = 0.319 W/kg SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.208 mW/g Maximum value of SAR (measured) = 0.280 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



#### Re Tilt\_CH128\_Slider on

#### DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.129 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 9.35 V/m; Power Drift = 0.018 dB Peak SAR (extrapolated) = 0.155 W/kg SAR(1 g) = 0.125 mW/g; SAR(10 g) = 0.096 mW/g Maximum value of SAR (measured) = 0.131 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



## Re Tilt\_CH190\_Slider on

#### DUT: V02S;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

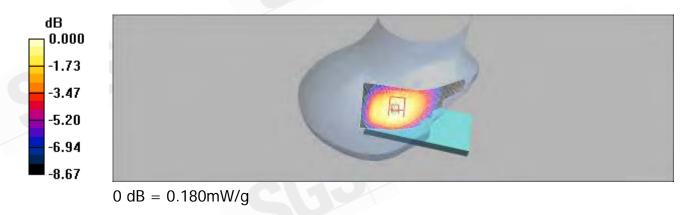
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.176 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 10.9 V/m; Power Drift = -0.004 dB Peak SAR (extrapolated) = 0.211 W/kg SAR(1 g) = 0.172 mW/g; SAR(10 g) = 0.132 mW/g Maximum value of SAR (measured) = 0.180 mW/g



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除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



## Re Tilt\_CH251\_Slider on

#### DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

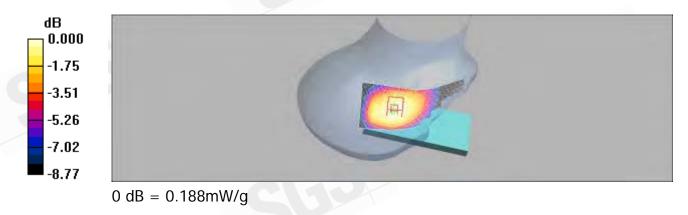
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.187 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.1 V/m; Power Drift = 0.047 dB Peak SAR (extrapolated) = 0.223 W/kg SAR(1 g) = 0.180 mW/g; SAR(10 g) = 0.138 mW/g Maximum value of SAR (measured) = 0.188 mW/g



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#### Le Tilt\_CH128\_Slider on

#### DUT: V02S;

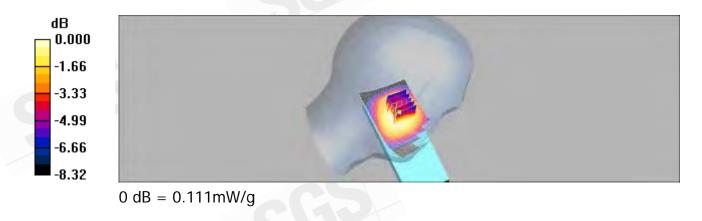
Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.893 mho/m;  $\epsilon_r$  = 42.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.110 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.06 V/m; Power Drift = -0.017 dB Peak SAR (extrapolated) = 0.130 W/kg SAR(1 g) = 0.107 mW/g; SAR(10 g) = 0.083 mW/g Maximum value of SAR (measured) = 0.111 mW/g



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#### Le Tilt\_CH190\_Slider on

DUT: V02S;

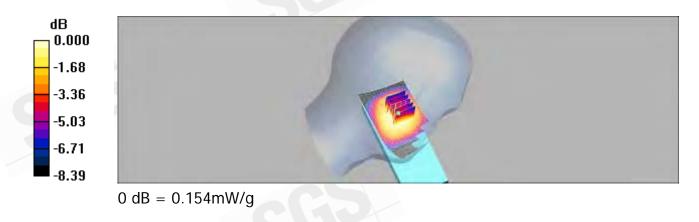
Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.905 mho/m;  $\epsilon_r$  = 41.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.154 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.32 V/m; Power Drift = -0.019 dB Peak SAR (extrapolated) = 0.181 W/kg SAR(1 g) = 0.147 mW/g; SAR(10 g) = 0.114 mW/g Maximum value of SAR (measured) = 0.154 mW/g



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#### Le Tilt\_CH251\_Slider on

DUT: V02S;

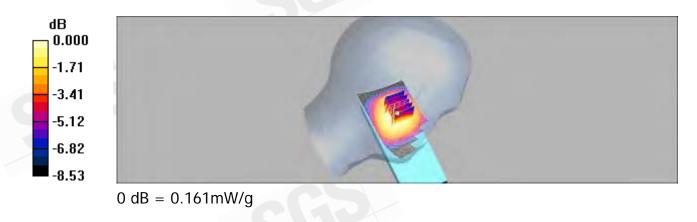
Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3 Medium: Head 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.160 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.44 V/m; Power Drift = -0.019 dB Peak SAR (extrapolated) = 0.190 W/kg SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.119 mW/g Maximum value of SAR (measured) = 0.161 mW/g



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#### BODY\_CH128

DUT: V02S;

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma$  = 0.962 mho/m;  $\epsilon_r$  = 53.3;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

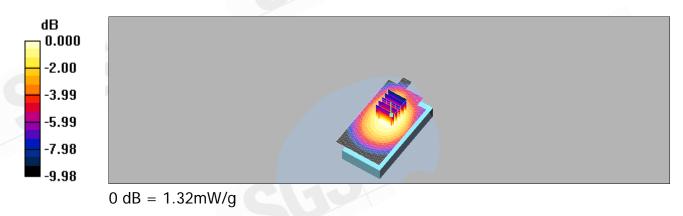
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.34 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.0 V/m; Power Drift = 0.008 dB Peak SAR (extrapolated) = 1.65 W/kg SAR(1 g) = 1.25 mW/g; SAR(10 g) = 0.914 mW/g Maximum value of SAR (measured) = 1.32 mW/g



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#### BODY\_CH190

DUT: V02S;

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.976 mho/m;  $\epsilon_r$  = 53.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

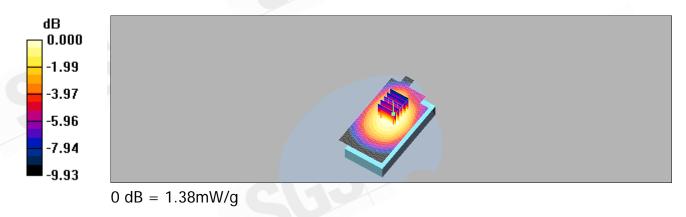
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.41 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.4 V/m; Power Drift = -0.017 dB Peak SAR (extrapolated) = 1.73 W/kg SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.959 mW/g Maximum value of SAR (measured) = 1.38 mW/g



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#### BODY\_CH251

DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

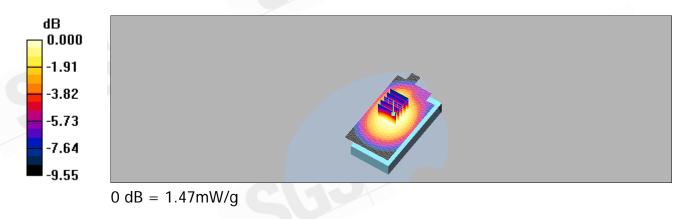
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.49 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 13.9 V/m; Power Drift = -0.186 dB Peak SAR (extrapolated) = 1.82 W/kg SAR(1 g) = 1.39 mW/g; SAR(10 g) = 1.01 mW/g Maximum value of SAR (measured) = 1.47 mW/g

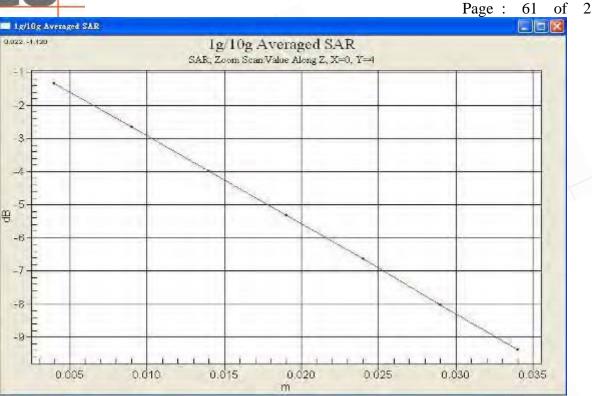


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# BODY\_CH251\_repeated for EUT front to phantom

DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

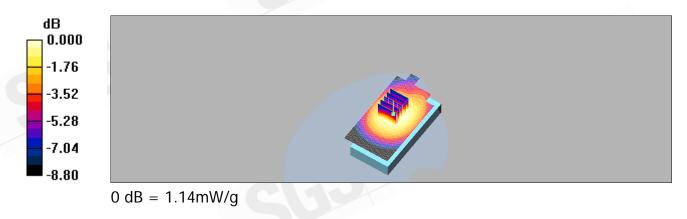
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.16 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 9.42 V/m; Power Drift = 0.013 dB Peak SAR (extrapolated) = 1.42 W/kg SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.811 mW/g Maximum value of SAR (measured) = 1.14 mW/g



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## BODY\_CH251\_repeated with headset (PCH)

#### DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

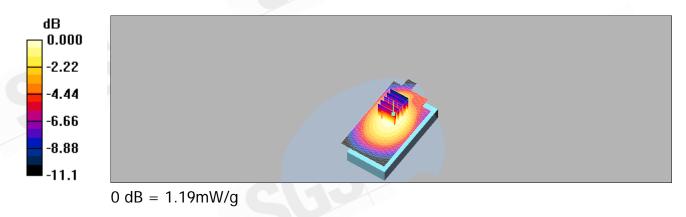
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.19 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.0 V/m; Power Drift = 0.088 dB Peak SAR (extrapolated) = 1.54 W/kg SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.803 mW/g Maximum value of SAR (measured) = 1.19 mW/g



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# BODY\_CH251\_repeated with headset (Foster)

#### DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.23 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 10.3 V/m; Power Drift = -0.084 dB Peak SAR (extrapolated) = 1.50 W/kg SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.817 mW/g Maximum value of SAR (measured) = 1.19 mW/g



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#### BODY\_CH251\_repeated with Memory card

#### DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.44 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 13.7 V/m; Power Drift = -0.012 dB Peak SAR (extrapolated) = 1.83 W/kg SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.983 mW/g Maximum value of SAR (measured) = 1.44 mW/g



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## BODY\_CH251\_repeated with EGPRS mode

#### DUT: V02S;

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:2 Medium: Muscle 900 MHz Medium parameters used: f = 849 MHz;  $\sigma$  = 0.989 mho/m;  $\epsilon_r$  = 52.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

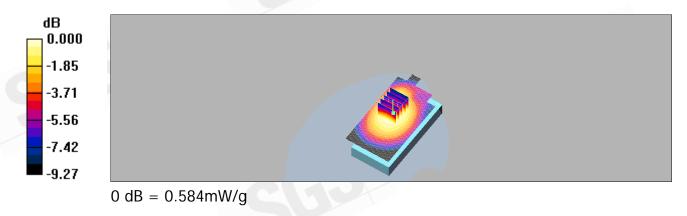
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.572 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 7.84 V/m; Power Drift = 0.147 dB Peak SAR (extrapolated) = 0.718 W/kg SAR(1 g) = 0.552 mW/g; SAR(10 g) = 0.406 mW/g Maximum value of SAR (measured) = 0.584 mW/g



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#### Re Cheek\_CH512\_Slider off

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.383 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.73 V/m; Power Drift = -0.134 dB Peak SAR (extrapolated) = 0.512 W/kg SAR(1 g) = 0.347 mW/g; SAR(10 g) = 0.219 mW/g Maximum value of SAR (measured) = 0.372 mW/g



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## Re Cheek\_CH661\_Slider off

DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.441 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.67 V/m; Power Drift = -0.083 dB Peak SAR (extrapolated) = 0.586 W/kg SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.249 mW/g Maximum value of SAR (measured) = 0.421 mW/g



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#### Re Cheek\_CH810\_Slider off

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.396 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.73 V/m; Power Drift = -0.037 dB Peak SAR (extrapolated) = 0.530 W/kg SAR(1 g) = 0.356 mW/g; SAR(10 g) = 0.223 mW/g Maximum value of SAR (measured) = 0.382 mW/g



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#### Le Cheek\_CH512\_Slider off

#### DUT: V02S;

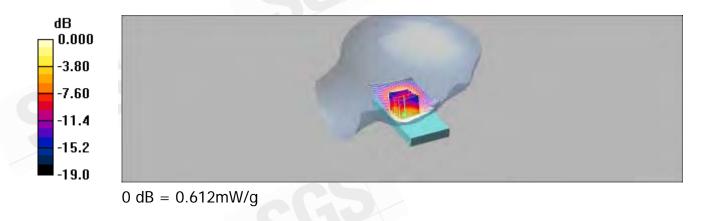
Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.643 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.12 V/m; Power Drift = -0.114 dB Peak SAR (extrapolated) = 0.837 W/kg SAR(1 g) = 0.559 mW/g; SAR(10 g) = 0.345 mW/g Maximum value of SAR (measured) = 0.612 mW/g



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## Le Cheek\_CH661\_Slider off

DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.731 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.44 V/m; Power Drift = -0.042 dB Peak SAR (extrapolated) = 0.971 W/kg SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.394 mW/g Maximum value of SAR (measured) = 0.706 mW/g



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## Le Cheek\_CH810\_Slider off

DUT: V02S;

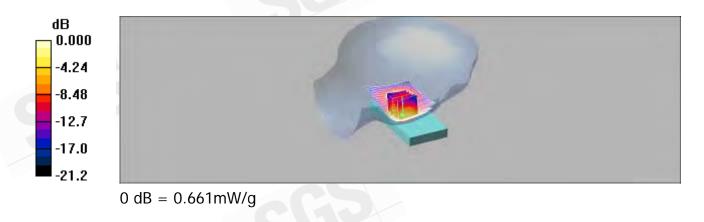
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.713 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 7.86 V/m; Power Drift = -0.018 dB Peak SAR (extrapolated) = 0.926 W/kg SAR(1 g) = 0.608 mW/g; SAR(10 g) = 0.368 mW/g Maximum value of SAR (measured) = 0.661 mW/g



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## Re Tilt\_CH512\_Slider off

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.233 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.7 V/m; Power Drift = -0.027 dB Peak SAR (extrapolated) = 0.304 W/kg SAR(1 g) = 0.204 mW/g; SAR(10 g) = 0.126 mW/g Maximum value of SAR (measured) = 0.217 mW/g



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## Re Tilt\_CH661\_Slider off

DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.263 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 12.3 V/m; Power Drift = -0.029 dB Peak SAR (extrapolated) = 0.346 W/kg SAR(1 g) = 0.230 mW/g; SAR(10 g) = 0.141 mW/g Maximum value of SAR (measured) = 0.245 mW/g



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## Re Tilt\_CH810\_Slider off

DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.245 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.7 V/m; Power Drift = 0.044 dB Peak SAR (extrapolated) = 0.324 W/kg SAR(1 g) = 0.214 mW/g; SAR(10 g) = 0.131 mW/g Maximum value of SAR (measured) = 0.228 mW/g



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### Le Tilt\_CH512\_Slider off

#### DUT: V02S;

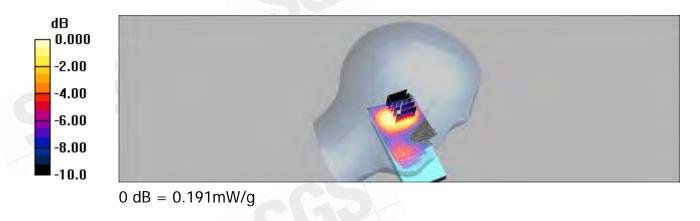
Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.211 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.3 V/m; Power Drift = 0.028 dB Peak SAR (extrapolated) = 0.267 W/kg SAR(1 g) = 0.184 mW/g; SAR(10 g) = 0.119 mW/g Maximum value of SAR (measured) = 0.191 mW/g



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## Le Tilt\_CH661\_Slider off

DUT: V02S;

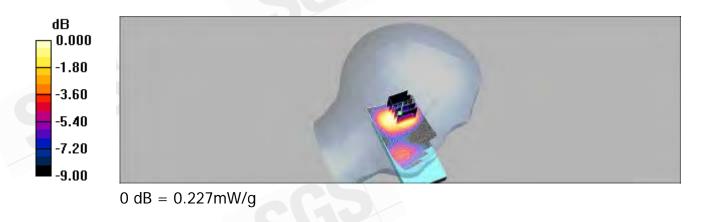
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.255 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 11.0 V/m; Power Drift = -0.002 dB Peak SAR (extrapolated) = 0.321 W/kg SAR(1 g) = 0.220 mW/g; SAR(10 g) = 0.141 mW/g Maximum value of SAR (measured) = 0.227 mW/g



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## Le Tilt\_CH810\_Slider off

DUT: V02S;

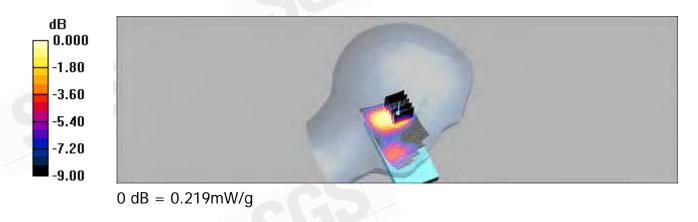
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.238 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.4 V/m; Power Drift = 0.037 dB Peak SAR (extrapolated) = 0.304 W/kg SAR(1 g) = 0.205 mW/g; SAR(10 g) = 0.129 mW/g Maximum value of SAR (measured) = 0.219 mW/g



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#### Re Cheek\_CH512\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

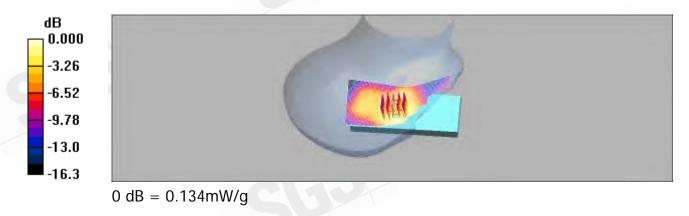
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.135 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.13 V/m; Power Drift = -0.149 dB Peak SAR (extrapolated) = 0.182 W/kg SAR(1 g) = 0.125 mW/g; SAR(10 g) = 0.082 mW/g Maximum value of SAR (measured) = 0.134 mW/g



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### Re Cheek\_CH661\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

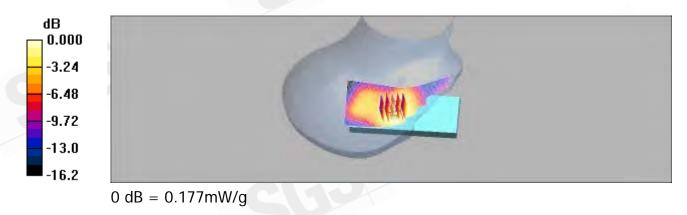
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.179 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.81 V/m; Power Drift = 0.059 dB Peak SAR (extrapolated) = 0.241 W/kg SAR(1 g) = 0.165 mW/g; SAR(10 g) = 0.106 mW/g Maximum value of SAR (measured) = 0.177 mW/g



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#### Re Cheek\_CH810\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

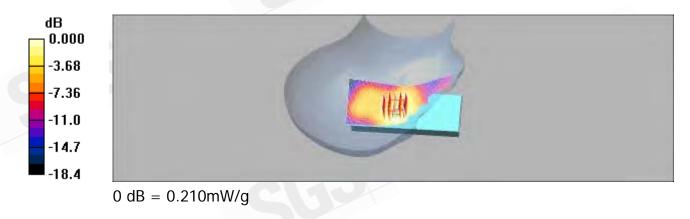
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RE Cheek/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.211 mW/g

# **RE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.40 V/m; Power Drift = -0.006 dB Peak SAR (extrapolated) = 0.292 W/kg SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.124 mW/g Maximum value of SAR (measured) = 0.210 mW/g



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#### Le Cheek\_CH512\_Slider on

#### DUT: V02S;

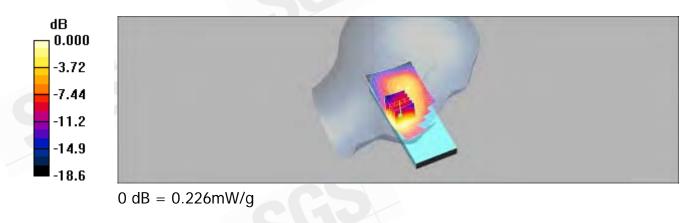
Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.236 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 5.03 V/m; Power Drift = 0.109 dB Peak SAR (extrapolated) = 0.309 W/kg SAR(1 g) = 0.209 mW/g; SAR(10 g) = 0.131 mW/g Maximum value of SAR (measured) = 0.226 mW/g



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### Le Cheek\_CH661\_Slider on

DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.323 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 6.31 V/m; Power Drift = -0.018 dB Peak SAR (extrapolated) = 0.416 W/kg SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.175 mW/g Maximum value of SAR (measured) = 0.302 mW/g



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### Le Cheek\_CH810\_Slider on

#### DUT: V02S;

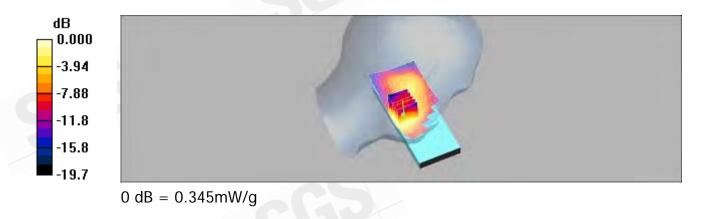
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.380 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 6.87 V/m; Power Drift = -0.084 dB Peak SAR (extrapolated) = 0.481 W/kg SAR(1 g) = 0.322 mW/g; SAR(10 g) = 0.200 mW/g Maximum value of SAR (measured) = 0.345 mW/g



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### Re Tilt\_CH512\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.163 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 10.0 V/m; Power Drift = -0.032 dB Peak SAR (extrapolated) = 0.212 W/kg SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.087 mW/g Maximum value of SAR (measured) = 0.151 mW/g



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## Re Tilt\_CH661\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.199 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.3 V/m; Power Drift = 0.003 dB Peak SAR (extrapolated) = 0.263 W/kg SAR(1 g) = 0.169 mW/g; SAR(10 g) = 0.104 mW/g Maximum value of SAR (measured) = 0.179 mW/g



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## Re Tilt\_CH810\_Slider on

#### DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.235 mW/g

#### RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 12.1 V/m; Power Drift = -0.039 dB Peak SAR (extrapolated) = 0.316 W/kg SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.122 mW/g Maximum value of SAR (measured) = 0.214 mW/g



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### Le Tilt\_CH512\_Slider on

#### DUT: V02S;

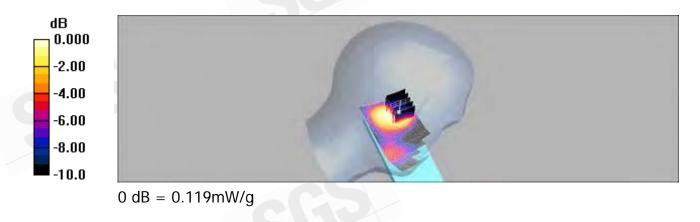
Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.39 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.127 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.34 V/m; Power Drift = 0.027 dB Peak SAR (extrapolated) = 0.161 W/kg SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.073 mW/g Maximum value of SAR (measured) = 0.119 mW/g



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## Le Tilt\_CH661\_Slider on

#### DUT: V02S;

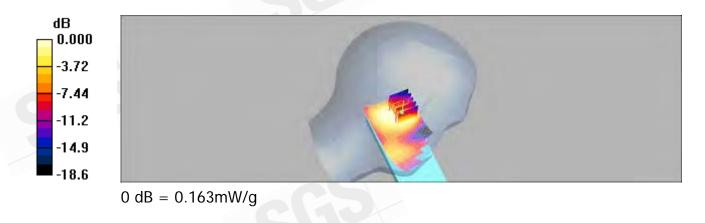
Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.177 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.95 V/m; Power Drift = -0.044 dB Peak SAR (extrapolated) = 0.223 W/kg SAR(1 g) = 0.155 mW/g; SAR(10 g) = 0.102 mW/g Maximum value of SAR (measured) = 0.163 mW/g



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### Le Tilt\_CH810\_Slider on

#### DUT: V02S;

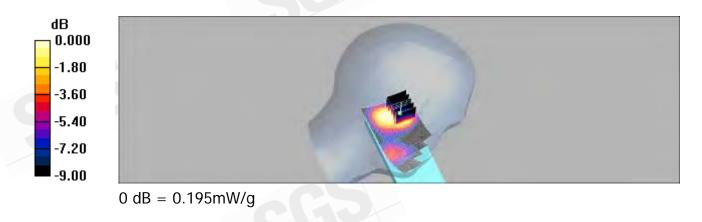
Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8.3 Medium: Head 1900 MHz Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.47 mho/m;  $\epsilon_r$  = 39.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.217 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 11.0 V/m; Power Drift = -0.041 dB Peak SAR (extrapolated) = 0.277 W/kg SAR(1 g) = 0.186 mW/g; SAR(10 g) = 0.121 mW/g Maximum value of SAR (measured) = 0.195 mW/g



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#### BODY\_CH512

DUT: V02S;

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:2 Medium: M1800 & 1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma$  = 1.56 mho/m;  $\epsilon_r$  = 53.7;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

- Probe: ES3DV3 SN3172; ConvF(4.45, 4.45, 4.45); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.745 mW/g

**BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.0 V/m; Power Drift = -0.116 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.417 mW/g

Maximum value of SAR (measured) = 0.739 mW/g

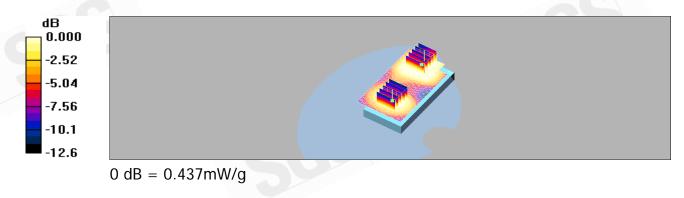
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.0 V/m; Power Drift = -0.116 dB

Peak SAR (extrapolated) = 0.580 W/kg

#### SAR(1 g) = 0.410 mW/g; SAR(10 g) = 0.273 mW/g

Maximum value of SAR (measured) = 0.437 mW/g



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### BODY\_CH661

DUT: V02S;

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:2 Medium: M1800 & 1900 Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.59 mho/m;  $\epsilon_r$  = 53.2;  $\rho$  = 1000 kg/m<sup>3</sup>

Phantom section: Flat Section

- Probe: ES3DV3 SN3172; ConvF(4.45, 4.45, 4.45); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

#### **BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.713 mW/g

# **BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.644 mW/g; SAR(10 g) = 0.397 mW/g

Maximum value of SAR (measured) = 0.694 mW/g

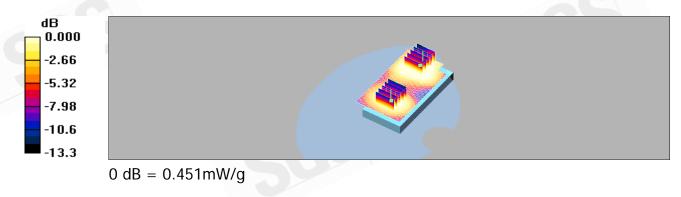
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.2 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 0.604 W/kg

#### SAR(1 g) = 0.424 mW/g; SAR(10 g) = 0.280 mW/g

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



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### BODY\_CH810

DUT: V02S;

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:2 Medium: M1800 & 1900 Medium parameters used: f = 1910 MHz;  $\sigma$  = 1.6 mho/m;  $\epsilon_r$  = 53.2;  $\rho$  = 1000 kg/m<sup>3</sup>

Phantom section: Flat Section

- Probe: ES3DV3 SN3172; ConvF(4.45, 4.45, 4.45); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.526 mW/g

**BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.7 V/m; Power Drift = -0.199 dB

Peak SAR (extrapolated) = 0.742 W/kg

SAR(1 g) = 0.482 mW/g; SAR(10 g) = 0.306 mW/g

Maximum value of SAR (measured) = 0.510 mW/g

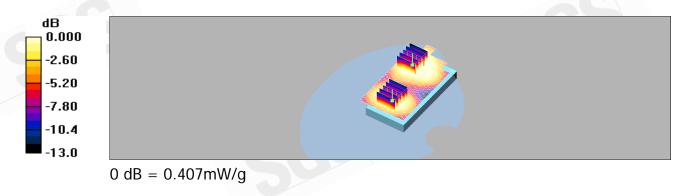
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.7 V/m; Power Drift = -0.199 dB

Peak SAR (extrapolated) = 0.548 W/kg

#### SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.249 mW/g

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



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#### Re Cheek\_CH9262\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

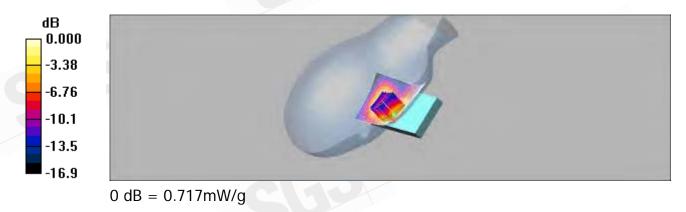
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.727 mW/g

## REC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 11.3 V/m; Power Drift = 0.072 dB Peak SAR (extrapolated) = 1.02 W/kg SAR(1 g) = 0.671 mW/g; SAR(10 g) = 0.420 mW/g Maximum value of SAR (measured) = 0.717 mW/g



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## Re Cheek\_CH9400\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

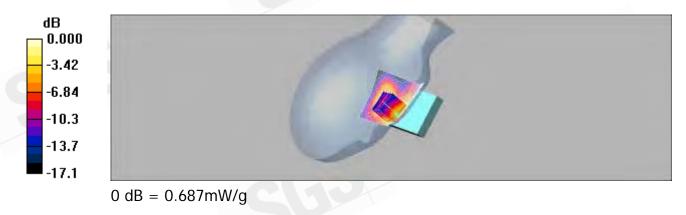
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.704 mW/g

## REC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 10.8 V/m; Power Drift = -0.115 dB Peak SAR (extrapolated) = 0.970 W/kg SAR(1 g) = 0.640 mW/g; SAR(10 g) = 0.397 mW/g Maximum value of SAR (measured) = 0.687 mW/g



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### Re Cheek\_CH9538\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

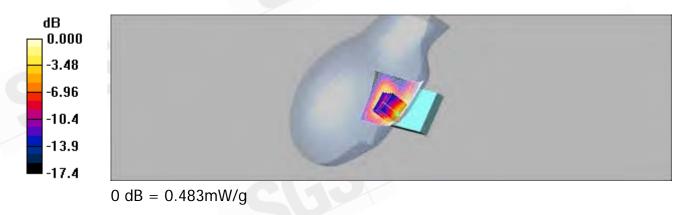
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.526 mW/g

## REC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 9.05 V/m; Power Drift = -0.183 dB Peak SAR (extrapolated) = 0.689 W/kg SAR(1 g) = 0.453 mW/g; SAR(10 g) = 0.280 mW/g Maximum value of SAR (measured) = 0.483 mW/g



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### Le Cheek\_CH9262\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

LEC/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.15 mW/g

**LEC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.90 V/m; Power Drift = -0.044 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 0.968 mW/g; SAR(10 g) = 0.599 mW/g

Maximum value of SAR (measured) = 1.06 mW/g



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## Le Cheek\_CH9400\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.29 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.4 V/m; Power Drift = -0.108 dB Peak SAR (extrapolated) = 1.72 W/kg SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.715 mW/g Maximum value of SAR (measured) = 1.25 mW/g



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## Le Cheek\_CH9538\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

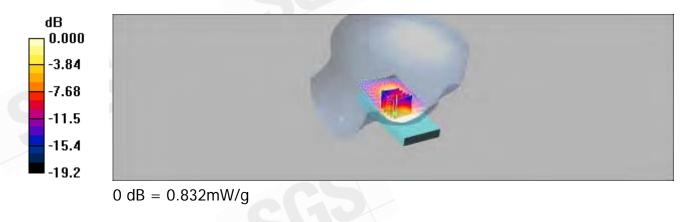
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.896 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.40 V/m; Power Drift = -0.137 dB Peak SAR (extrapolated) = 1.13 W/kg SAR(1 g) = 0.760 mW/g; SAR(10 g) = 0.469 mW/g

Maximum value of SAR (measured) = 0.832 mW/g



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## Re Tilt\_CH9262\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.450 mW/g

## RET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 15.1 V/m; Power Drift = 0.027 dB Peak SAR (extrapolated) = 0.637 W/kg SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.256 mW/g Maximum value of SAR (measured) = 0.445 mW/g



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## Re Tilt\_CH9400\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.442 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.6 V/m; Power Drift = -0.069 dB Peak SAR (extrapolated) = 0.611 W/kg SAR(1 g) = 0.402 mW/g; SAR(10 g) = 0.246 mW/g Maximum value of SAR (measured) = 0.438 mW/g



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## Re Tilt\_CH9538\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.310 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.8 V/m; Power Drift = 0.018 dB Peak SAR (extrapolated) = 0.425 W/kg SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.167 mW/g Maximum value of SAR (measured) = 0.297 mW/g



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## Le Tilt\_CH9262\_Slider off

#### **DUT: V02S;**

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

#### LET/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.42 mW/g **LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

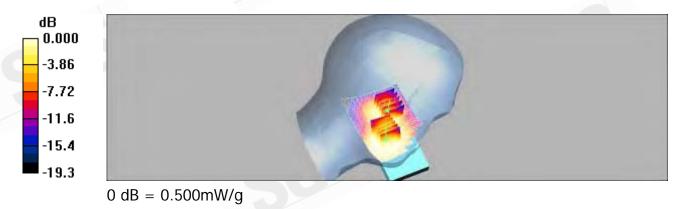
Reference Value = 10.4 V/m; Power Drift = 0.089 dB Peak SAR (extrapolated) = 1.83 W/kg SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.737 mW/g Maximum value of SAR (measured) = 1.32 mW/g LET/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.4 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 0.670 W/kg

SAR(1 g) = 0.458 mW/g; SAR(10 g) = 0.299 mW/g

Maximum value of SAR (measured) = 0.500 mW/g

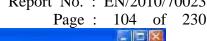


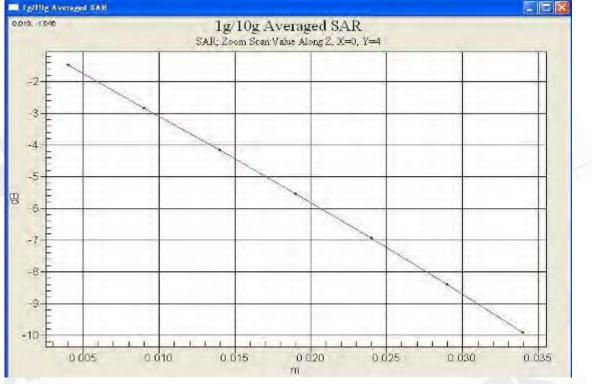
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## Report No. : EN/2010/70023





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## Le Tilt\_CH9400\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

LET/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.35 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.3 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.723 mW/g

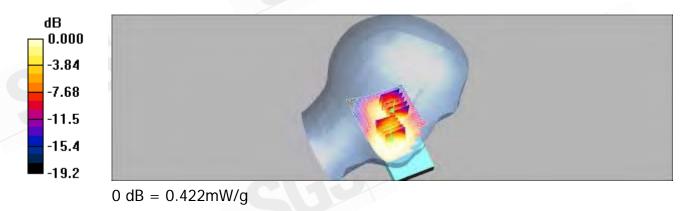
Maximum value of SAR (measured) = 1.28 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.3 V/m; Power Drift = -0.150 dB

Peak SAR (extrapolated) = 0.569 W/kg

SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.258 mW/g

Maximum value of SAR (measured) = 0.422 mW/g



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## Le Tilt\_CH9538\_Slider off

#### **DUT: V02S;**

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

LET/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

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

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.31 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 1.34 W/kg

SAR(1 g) = 0.869 mW/g; SAR(10 g) = 0.523 mW/g

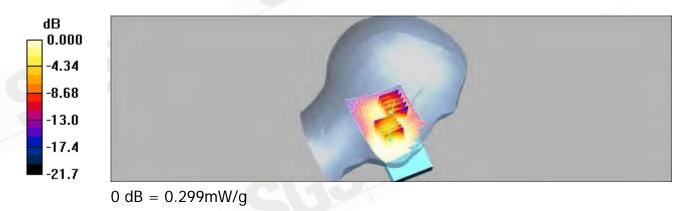
Maximum value of SAR (measured) = 0.934 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.31 V/m; Power Drift = -0.190 dB

Peak SAR (extrapolated) = 0.406 W/kg

SAR(1 g) = 0.275 mW/g; SAR(10 g) = 0.177 mW/g

Maximum value of SAR (measured) = 0.299 mW/g



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#### Re Cheek\_CH9262\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

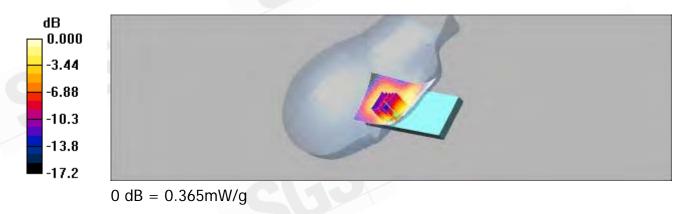
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.368 mW/g

## REC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 8.91 V/m; Power Drift = 0.174 dB Peak SAR (extrapolated) = 0.503 W/kg SAR(1 g) = 0.344 mW/g; SAR(10 g) = 0.223 mW/g Maximum value of SAR (measured) = 0.365 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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## Re Cheek\_CH9400\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

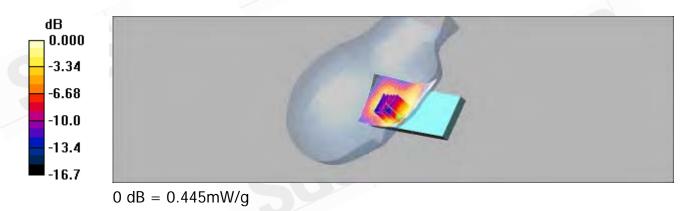
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.472 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.97 V/m; Power Drift = -0.131 dB Peak SAR (extrapolated) = 0.635 W/kg SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.267 mW/g Maximum value of SAR (measured) = 0.445 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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### Re Cheek\_CH9538\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

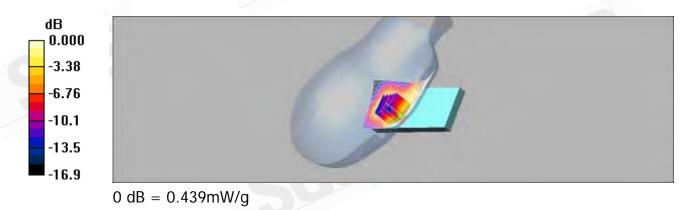
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.465 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.92 V/m; Power Drift = -0.117 dB Peak SAR (extrapolated) = 0.632 W/kg SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.259 mW/g Maximum value of SAR (measured) = 0.439 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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#### Le Cheek\_CH9262\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

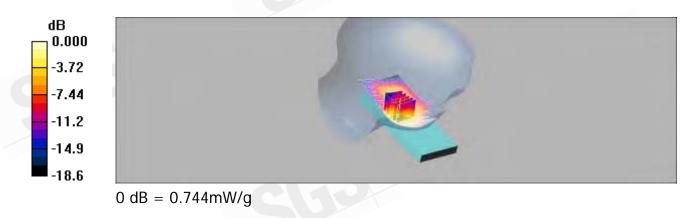
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.797 mW/g

**LEC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.32 V/m; Power Drift = -0.136 dB Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.686 mW/g; SAR(10 g) = 0.434 mW/gMaximum value of SAR (measured) = 0.744 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



#### Le Cheek\_CH9400\_Slider on

DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.965 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.0 V/m; Power Drift = -0.178 dB Peak SAR (extrapolated) = 1.25 W/kg SAR(1 g) = 0.844 mW/g; SAR(10 g) = 0.532 mW/g

Maximum value of SAR (measured) = 0.919 mW/g



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#### Le Cheek\_CH9538\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

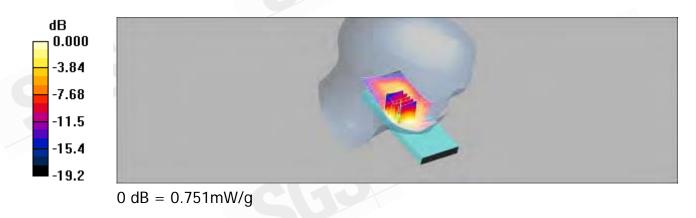
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.837 mW/g

**LEC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.88 V/m; Power Drift = -0.148 dB Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.691 mW/g; SAR(10 g) = 0.434 mW/gMaximum value of SAR (measured) = 0.751 mW/g



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### Re Tilt\_CH9262\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.486 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.6 V/m; Power Drift = 0.012 dB Peak SAR (extrapolated) = 0.644 W/kg SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.258 mW/g Maximum value of SAR (measured) = 0.447 mW/g



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### Re Tilt\_CH9400\_Slider on

DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.496 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.7 V/m; Power Drift = -0.159 dB Peak SAR (extrapolated) = 0.591 W/kg SAR(1 g) = 0.369 mW/g; SAR(10 g) = 0.219 mW/g Maximum value of SAR (measured) = 0.436 mW/g



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### Re Tilt\_CH9538\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.525 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.6 V/m; Power Drift = -0.104 dB Peak SAR (extrapolated) = 0.684 W/kg SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.249 mW/g Maximum value of SAR (measured) = 0.439 mW/g



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## Le Tilt\_CH9262\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

#### LET/Area Scan (61x111x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.788 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.41 V/m; Power Drift = 0.024 dBPeak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.699 mW/g; SAR(10 g) = 0.439 mW/g

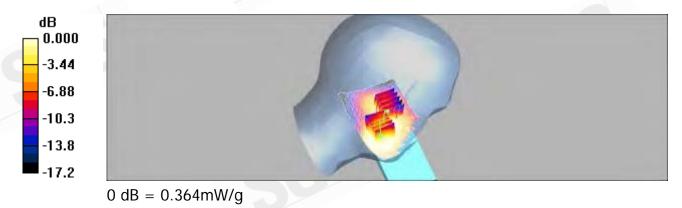
Maximum value of SAR (measured) = 0.753 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.41 V/m; Power Drift = 0.024 dB Peak SAR (extrapolated) = 0.463 W/kg

Peak SAR (extrapolated) = 0.463 W/kg

```
SAR(1 g) = 0.270 mW/g; SAR(10 g) = 0.183 mW/g
```

Maximum value of SAR (measured) = 0.364 mW/g



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### Le Tilt\_CH9400\_Slider on

#### **DUT: V02S;**

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.42 mho/m;  $\epsilon_r$  = 38.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (61x111x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.07 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.47 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.579 mW/g

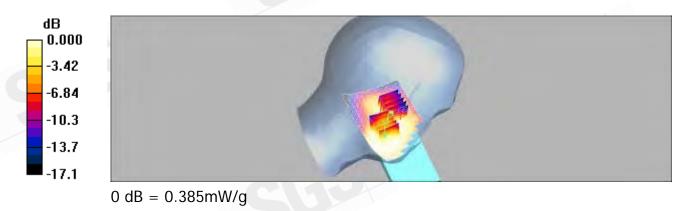
Maximum value of SAR (measured) = 0.998 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.47 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.482 W/kg

SAR(1 g) = 0.286 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.385 mW/g



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### Le Tilt\_CH9538\_Slider on

#### **DUT: V02S;**

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.46 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (61x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.960 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.03 V/m; Power Drift = -0.133 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.784 mW/g; SAR(10 g) = 0.488 mW/g

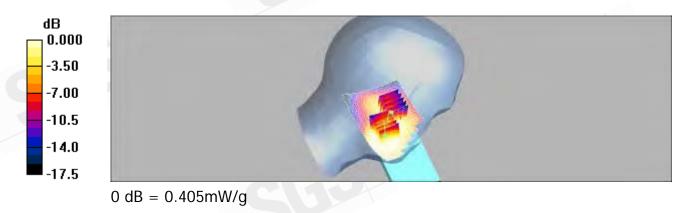
Maximum value of SAR (measured) = 0.842 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 9.03 V/m; Power Drift = -0.133 dB

Peak SAR (extrapolated) = 0.515 W/kg

SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.191 mW/g

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



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## Le Tilt\_CH9262\_Slider off\_repeated with memory card

#### DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: Head 1900 MHz Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.4 mho/m;  $\epsilon_r$  = 39.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

LET/Area Scan (61x91x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.39 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.4 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.722 mW/g

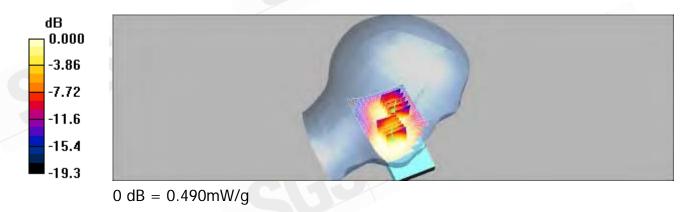
Maximum value of SAR (measured) = 1.29 mW/g

**LET/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 10.4 V/m; Power Drift = 0.089 dB

Peak SAR (extrapolated) = 0.657 W/kg

SAR(1 g) = 0.449 mW/g; SAR(10 g) = 0.293 mW/g

Maximum value of SAR (measured) = 0.490 mW/g



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#### BODY\_CH9262

DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium: M1800 & 1900 Medium parameters used (interpolated): f = 1852.4 MHz;  $\sigma$  = 1.55 mho/m;  $\epsilon_r$  = 54;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

- Probe: EX3DV4 SN3703; ConvF(7.26, 7.26, 7.26); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.751 mW/g

**BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.5 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.693 mW/g; SAR(10 g) = 0.424 mW/g

Maximum value of SAR (measured) = 0.730 mW/g

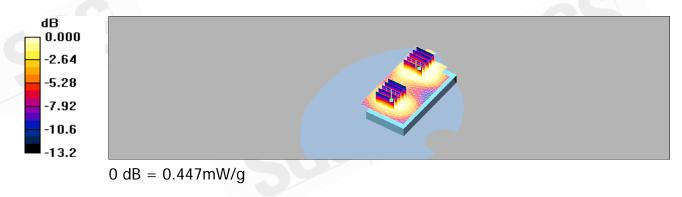
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.5 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.624 W/kg

#### SAR(1 g) = 0.421 mW/g; SAR(10 g) = 0.276 mW/g

Maximum value of SAR (measured) = 0.447 mW/g



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### BODY\_CH9400

DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1880 MHz;Duty Cycle: 1:1 Medium: M1800 & 1900 Medium parameters used: f = 1880 MHz;  $\sigma$  = 1.56 mho/m;  $\epsilon_r$  = 53.6;  $\rho$  = 1000 kg/m<sup>3</sup>

Phantom section: Flat Section

- Probe: EX3DV4 SN3703; ConvF(7.26, 7.26, 7.26); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.710 mW/g

**BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.656 mW/g; SAR(10 g) = 0.398 mW/g

Maximum value of SAR (measured) = 0.703 mW/g

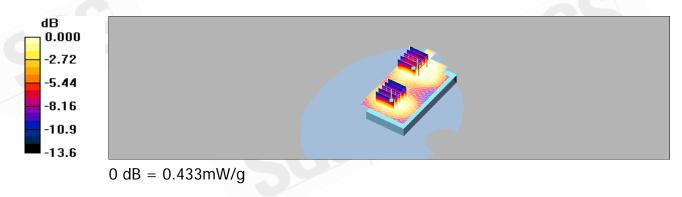
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 0.612 W/kg

#### SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.263 mW/g

Maximum value of SAR (measured) = 0.433 mW/g



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#### BODY\_CH9538

DUT: V02S;

Communication System: WCDMA BAND2; Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium: M1800 & 1900 Medium parameters used: f = 1908 MHz;  $\sigma$  = 1.6 mho/m;  $\epsilon_r$  = 53.2;  $\rho$  = 1000 kg/m<sup>3</sup>

Phantom section: Flat Section

- Probe: EX3DV4 SN3703; ConvF(7.26, 7.26, 7.26); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.545 mW/g

**BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.24 V/m; Power Drift = -0.127 dB

Peak SAR (extrapolated) = 0.810 W/kg

SAR(1 g) = 0.497 mW/g; SAR(10 g) = 0.298 mW/g

Maximum value of SAR (measured) = 0.532 mW/g

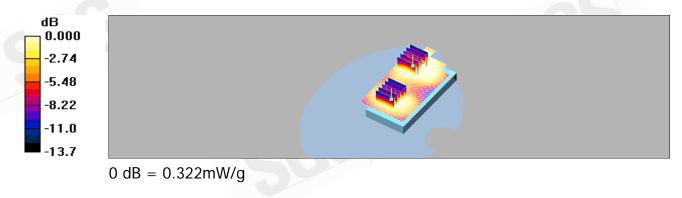
# **BODY/Zoom Scan (5x5x7)/Cube 1:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.24 V/m; Power Drift = -0.127 dB

Peak SAR (extrapolated) = 0.456 W/kg

#### SAR(1 g) = 0.302 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.322 mW/g



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#### Re Cheek\_CH4132\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.283 mW/g

### REC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 9.10 V/m; Power Drift = 0.017 dB Peak SAR (extrapolated) = 0.330 W/kg SAR(1 g) = 0.273 mW/g; SAR(10 g) = 0.213 mW/g Maximum value of SAR (measured) = 0.284 mW/g



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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## Re Cheek\_CH4183\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.552 mW/g

**REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.5 V/m; Power Drift = 0.067 dB Peak SAR (extrapolated) = 0.643 W/kg SAR(1 g) = 0.528 mW/g; SAR(10 g) = 0.411 mW/g Maximum value of SAR (measured) = 0.547 mW/g



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## Re Cheek\_CH4233\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

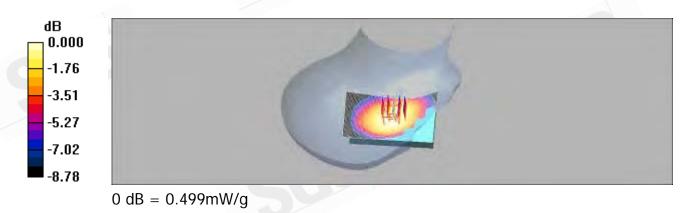
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.493 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = 0.001 dB Peak SAR (extrapolated) = 0.585 W/kg SAR(1 g) = 0.482 mW/g; SAR(10 g) = 0.375 mW/g Maximum value of SAR (measured) = 0.499 mW/g



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除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



## Le Cheek\_CH4132\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.268 mW/g

**LE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.89 V/m; Power Drift = -0.003 dB Peak SAR (extrapolated) = 0.329 W/kg SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.205 mW/g Maximum value of SAR (measured) = 0.277 mW/g



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## Le Cheek\_CH4183\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.510 mW/g

**LE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.7 V/m; Power Drift = 0.061 dB Peak SAR (extrapolated) = 0.602 W/kg SAR(1 g) = 0.487 mW/g; SAR(10 g) = 0.377 mW/g Maximum value of SAR (measured) = 0.509 mW/g



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### Le Cheek\_CH4233\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LE Cheek/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.457 mW/g

**LE Cheek/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.1 V/m; Power Drift = 0.028 dB Peak SAR (extrapolated) = 0.543 W/kg SAR(1 g) = 0.444 mW/g; SAR(10 g) = 0.341 mW/g Maximum value of SAR (measured) = 0.467 mW/g



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## Re Tilt\_CH4132\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

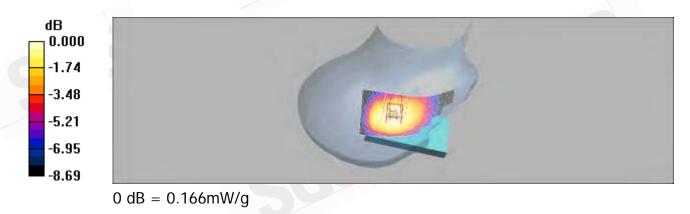
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.166 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.2 V/m; Power Drift = 0.025 dB Peak SAR (extrapolated) = 0.197 W/kg SAR(1 g) = 0.159 mW/g; SAR(10 g) = 0.122 mW/g Maximum value of SAR (measured) = 0.166 mW/g



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## Re Tilt\_CH4183\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

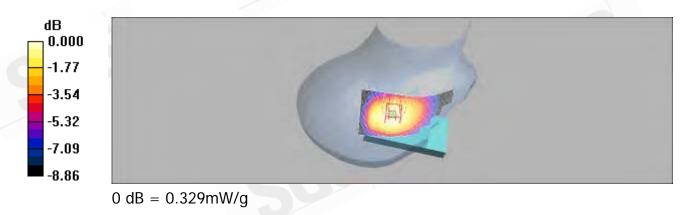
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.321 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.2 V/m; Power Drift = 0.137 dB Peak SAR (extrapolated) = 0.395 W/kg SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.240 mW/g Maximum value of SAR (measured) = 0.329 mW/g



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## Re Tilt\_CH4233\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.294 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.7 V/m; Power Drift = 0.048 dB Peak SAR (extrapolated) = 0.354 W/kg SAR(1 g) = 0.284 mW/g; SAR(10 g) = 0.216 mW/g Maximum value of SAR (measured) = 0.295 mW/g



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## Le Tilt\_CH4132\_Slider off

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

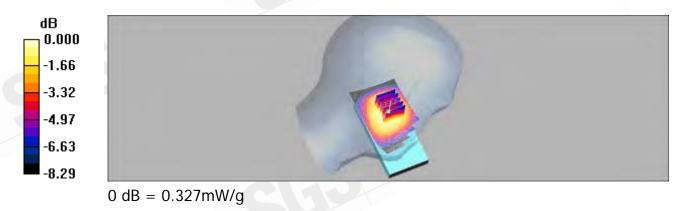
- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.325 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 13.5 V/m; Power Drift = 0.025 dB Peak SAR (extrapolated) = 0.393 W/kg

```
SAR(1 g) = 0.314 \text{ mW/g}; SAR(10 g) = 0.239 \text{ mW/g}
```

Maximum value of SAR (measured) = 0.327 mW/g



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## Le Tilt\_CH4183\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz; Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma = 0.914$  mho/m;  $\epsilon_r = 41.8$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

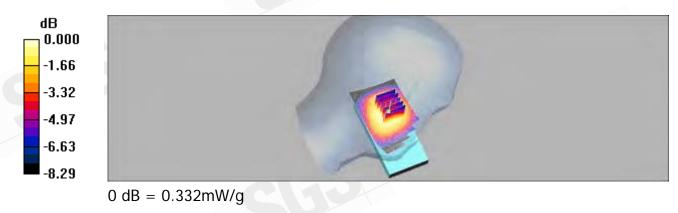
**DASY4** Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

LET/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.330 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 13.5 V/m; Power Drift = 0.025 dB Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.243 mW/gMaximum value of SAR (measured) = 0.332 mW/g



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## Le Tilt\_CH4233\_Slider off

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

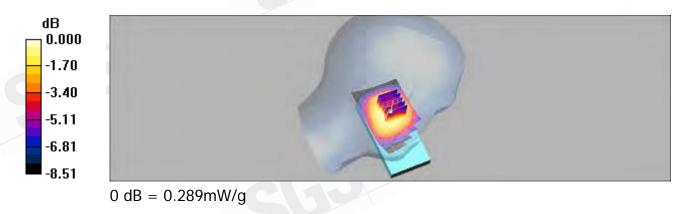
- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x91x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.287 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 12.4 V/m; Power Drift = 0.018 dB Peak SAR (extrapolated) = 0.351 W/kg

```
SAR(1 g) = 0.276 \text{ mW/g}; SAR(10 g) = 0.209 \text{ mW/g}
```

Maximum value of SAR (measured) = 0.289 mW/g



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### Re Cheek\_CH4132\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

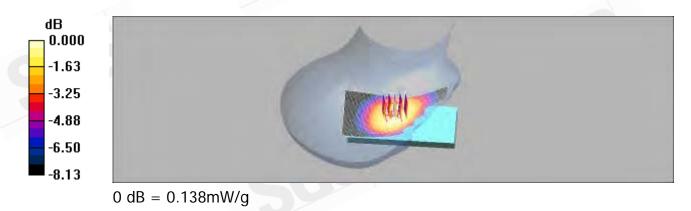
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.140 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.66 V/m; Power Drift = 0.144 dB Peak SAR (extrapolated) = 0.158 W/kg SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.103 mW/g Maximum value of SAR (measured) = 0.138 mW/g



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### Re Cheek\_CH4183\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

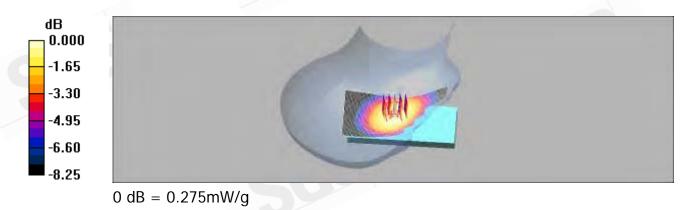
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.280 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.59 V/m; Power Drift = 0.097 dB Peak SAR (extrapolated) = 0.319 W/kg SAR(1 g) = 0.262 mW/g; SAR(10 g) = 0.204 mW/g Maximum value of SAR (measured) = 0.275 mW/g



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### Re Cheek\_CH4233\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

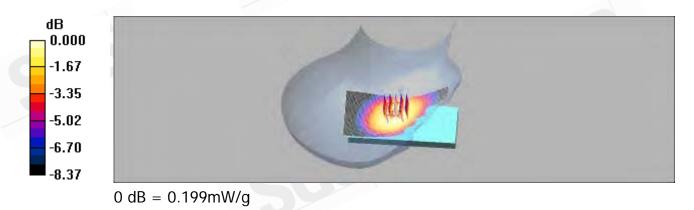
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**REC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.207 mW/g

## **REC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.70 V/m; Power Drift = -0.130 dB Peak SAR (extrapolated) = 0.230 W/kg SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.148 mW/g Maximum value of SAR (measured) = 0.199 mW/g



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除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。



### Le Cheek\_CH4132\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

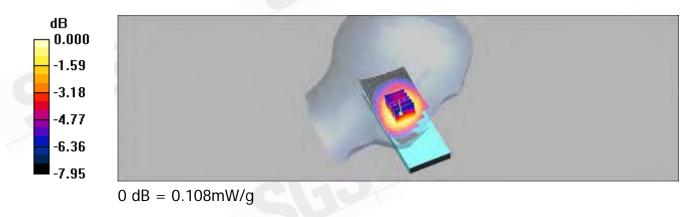
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.106 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 5.07 V/m; Power Drift = 0.174 dB Peak SAR (extrapolated) = 0.122 W/kg SAR(1 g) = 0.103 mW/g; SAR(10 g) = 0.081 mW/g

Maximum value of SAR (measured) = 0.108 mW/g



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#### Le Cheek\_CH4183\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

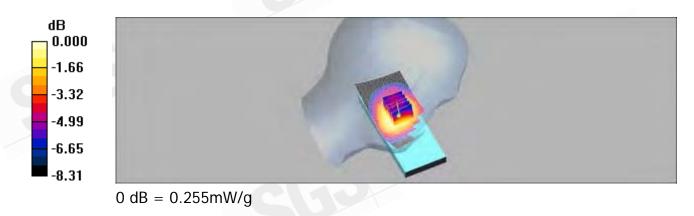
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.248 mW/g

LEC/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 7.14 V/m; Power Drift = 0.184 dB Peak SAR (extrapolated) = 0.292 W/kg SAR(1 g) = 0.242 mW/g; SAR(10 g) = 0.188 mW/g

Maximum value of SAR (measured) = 0.255 mW/g



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#### Le Cheek\_CH4233\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

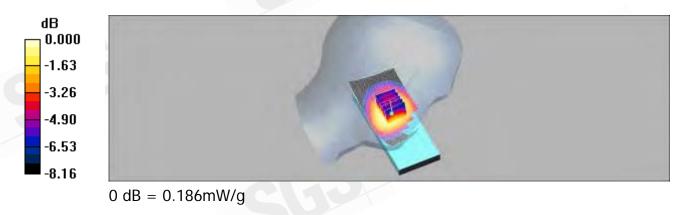
- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LEC/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.186 mW/g

**LEC/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 6.31 V/m; Power Drift = -0.093 dB Peak SAR (extrapolated) = 0.210 W/kg

SAR(1 g) = 0.178 mW/g; SAR(10 g) = 0.138 mW/g Maximum value of SAR (measured) = 0.186 mW/g

Maximum value of SAR (measured) = 0.186 mW/g



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### Re Tilt\_CH4132\_Slider on

#### DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

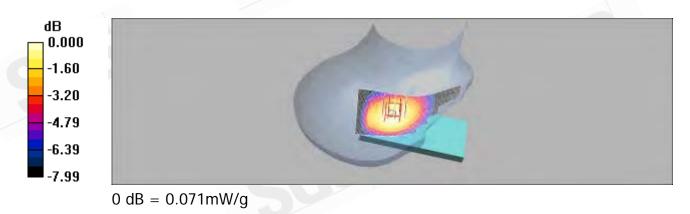
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.070 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.23 V/m; Power Drift = 0.033 dB Peak SAR (extrapolated) = 0.083 W/kg SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.052 mW/g Maximum value of SAR (measured) = 0.071 mW/g



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### Re Tilt\_CH4183\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

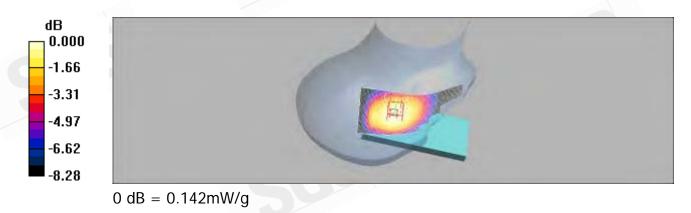
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.141 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 8.79 V/m; Power Drift = 0.042 dB Peak SAR (extrapolated) = 0.166 W/kg SAR(1 g) = 0.135 mW/g; SAR(10 g) = 0.104 mW/g Maximum value of SAR (measured) = 0.142 mW/g



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### Re Tilt\_CH4233\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**RET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.100 mW/g

## **RET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.37 V/m; Power Drift = 0.052 dB Peak SAR (extrapolated) = 0.119 W/kg SAR(1 g) = 0.096 mW/g; SAR(10 g) = 0.074 mW/g Maximum value of SAR (measured) = 0.101 mW/g



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## Le Tilt\_CH4132\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

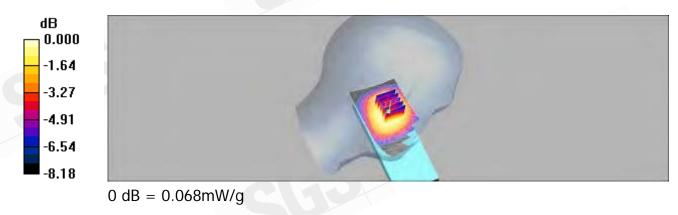
- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.069 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 6.25 V/m; Power Drift = 0.016 dB Peak SAR (extrapolated) = 0.080 W/kg

```
SAR(1 g) = 0.065 \text{ mW/g}; SAR(10 g) = 0.050 \text{ mW/g}
```

Maximum value of SAR (measured) = 0.068 mW/g



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## Le Tilt\_CH4183\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.914 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

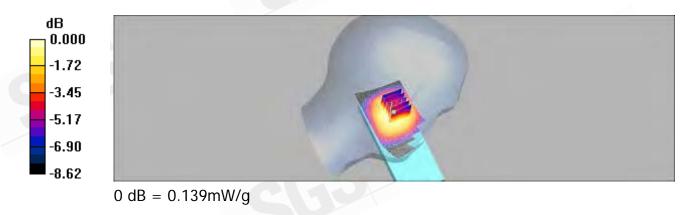
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.138 mW/g

LET/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 8.75 V/m; Power Drift = 0.137 dB Peak SAR (extrapolated) = 0.167 W/kg SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.102 mW/g

Maximum value of SAR (measured) = 0.139 mW/g



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## Le Tilt\_CH4233\_Slider on

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.921 mho/m;  $\epsilon_r$  = 41.6;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Left Section

DASY4 Configuration:

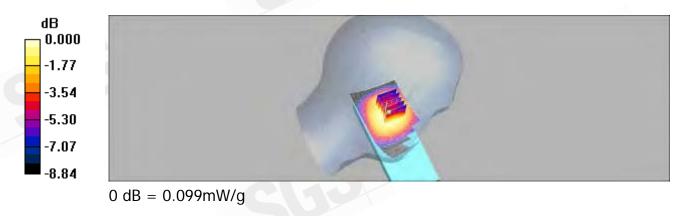
- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**LET/Area Scan (51x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.100 mW/g

**LET/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm Reference Value = 7.48 V/m; Power Drift = -0.019 dB Peak SAR (extrapolated) = 0.119 W/kg

SAR(1 g) = 0.095 mW/g; SAR(10 g) = 0.073 mW/g

Maximum value of SAR (measured) = 0.099 mW/g



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### BODY\_CH4132

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 826.4 MHz;Duty Cycle: 1:1 Medium: Muscle 900 MHz Medium parameters used (interpolated): f = 826.4 MHz;  $\sigma$  = 0.969 mho/m;  $\epsilon_r$  = 54.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

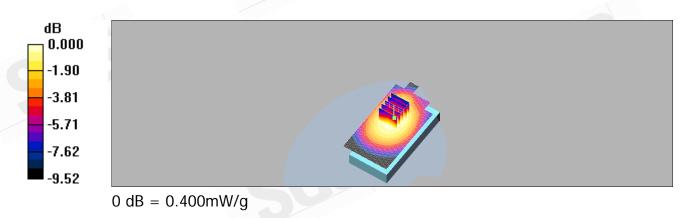
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.74, 8.74, 8.74); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.398 mW/g

# **BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.06 V/m; Power Drift = -0.111 dB Peak SAR (extrapolated) = 0.487 W/kg SAR(1 g) = 0.382 mW/g; SAR(10 g) = 0.286 mW/g Maximum value of SAR (measured) = 0.400 mW/g



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#### BODY\_CH4183

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 836.6 MHz;Duty Cycle: 1:1 Medium: Muscle 900 MHz Medium parameters used: f = 837 MHz;  $\sigma$  = 0.981 mho/m;  $\epsilon_r$  = 54;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

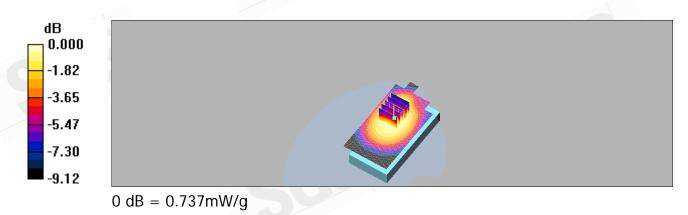
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.74, 8.74, 8.74); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.726 mW/g

# **BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.34 V/m; Power Drift = 0.165 dB Peak SAR (extrapolated) = 0.888 W/kg SAR(1 g) = 0.696 mW/g; SAR(10 g) = 0.519 mW/g Maximum value of SAR (measured) = 0.737 mW/g



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#### BODY\_CH4233

DUT: V02S;

Communication System: WCDMA BAND5; Frequency: 846.6 MHz;Duty Cycle: 1:1 Medium: Muscle 900 MHz Medium parameters used: f = 847 MHz;  $\sigma$  = 0.99 mho/m;  $\epsilon_r$  = 53.9;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

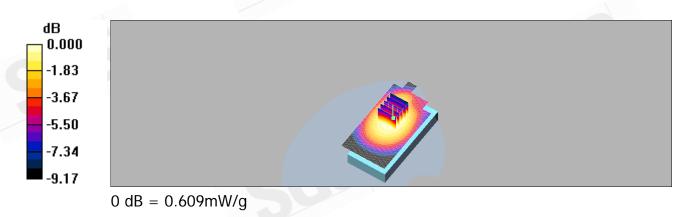
DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.74, 8.74, 8.74); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.610 mW/g

# **BODY/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.67 V/m; Power Drift = 0.161 dB Peak SAR (extrapolated) = 0.740 W/kg SAR(1 g) = 0.578 mW/g; SAR(10 g) = 0.432 mW/g Maximum value of SAR (measured) = 0.609 mW/g



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#### BODY\_WLAN802.11 b\_CH1

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2412 MHz; Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2412 MHz;  $\sigma$  = 1.97 mho/m;  $\epsilon_r$  = 53.5;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

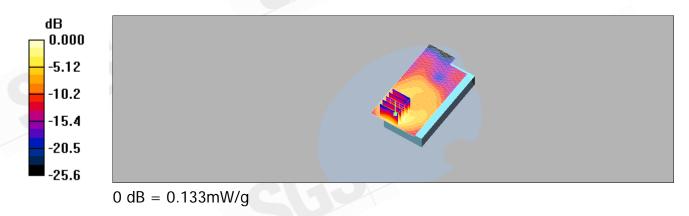
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.133 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 5.89 V/m; Power Drift = -0.106 dB Peak SAR (extrapolated) = 0.235 W/kg SAR(1 g) = 0.117 mW/g; SAR(10 g) = 0.059 mW/g Maximum value of SAR (measured) = 0.133 mW/g



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#### BODY\_WLAN802.11 b\_CH6

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2437 MHz;  $\sigma$  = 2.01 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

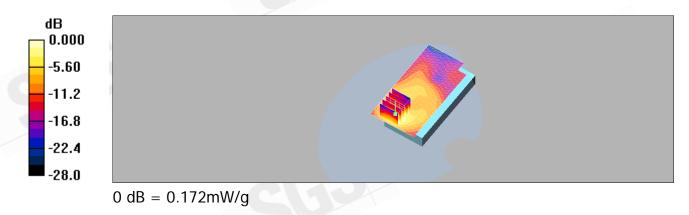
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.168 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 6.82 V/m; Power Drift = -0.001 dB Peak SAR (extrapolated) = 0.309 W/kg SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.075 mW/g Maximum value of SAR (measured) = 0.172 mW/g



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#### BODY\_WLAN802.11 b\_CH11

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2462 MHz;  $\sigma$  = 2.04 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

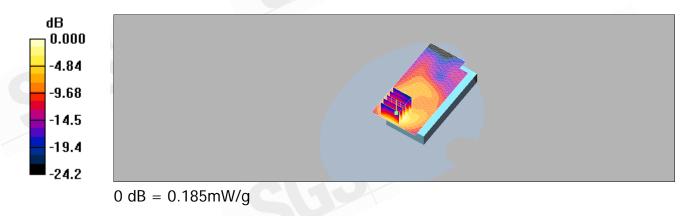
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.187 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 6.82 V/m; Power Drift = 0.170 dB Peak SAR (extrapolated) = 0.325 W/kg SAR(1 g) = 0.161 mW/g; SAR(10 g) = 0.079 mW/g Maximum value of SAR (measured) = 0.185 mW/g



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# BODY\_WLAN802.11 b\_CH11\_repeated for EUT front to phantom

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2462 MHz;  $\sigma$  = 2.04 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.032 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 3.10 V/m; Power Drift = 0.101 dB Peak SAR (extrapolated) = 0.058 W/kg SAR(1 g) = 0.030 mW/g; SAR(10 g) = 0.017 mW/g Maximum value of SAR (measured) = 0.032 mW/g



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# BODY\_WLAN802.11 b\_CH11\_repeated with headset

#### DUT: V02S;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2462 MHz;  $\sigma$  = 2.04 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

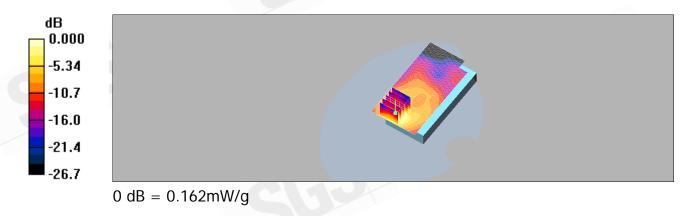
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.171 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 6.84 V/m; Power Drift = -0.121 dB Peak SAR (extrapolated) = 0.296 W/kg SAR(1 g) = 0.146 mW/g; SAR(10 g) = 0.071 mW/g Maximum value of SAR (measured) = 0.162 mW/g



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# BODY\_WLAN802.11 b\_CH11\_repeated with Memory card

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2462 MHz;  $\sigma$  = 2.04 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

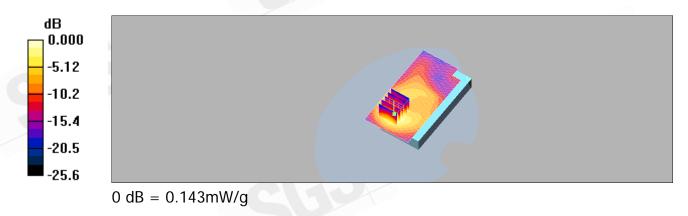
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.150 mW/g

## BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 5.91 V/m; Power Drift = 0.183 dB Peak SAR (extrapolated) = 0.263 W/kg SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.065 mW/g Maximum value of SAR (measured) = 0.143 mW/g



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### BODY\_WLAN802.11 g\_CH1

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2412 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2412 MHz;  $\sigma$  = 1.97 mho/m;  $\epsilon_r$  = 53.5;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.105 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 5.37 V/m; Power Drift = 0.121 dB Peak SAR (extrapolated) = 0.193 W/kg SAR(1 g) = 0.097 mW/g; SAR(10 g) = 0.048 mW/g Maximum value of SAR (measured) = 0.110 mW/g



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#### BODY\_WLAN802.11 g\_CH6

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2437 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2437 MHz;  $\sigma$  = 2.01 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

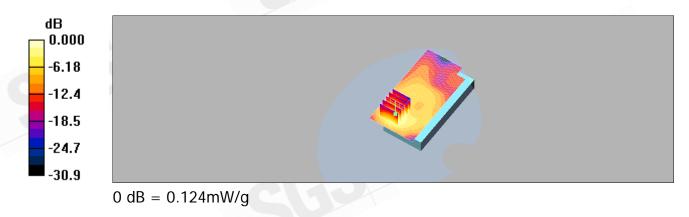
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.110 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 5.22 V/m; Power Drift = -0.045 dB Peak SAR (extrapolated) = 0.222 W/kg SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.056 mW/g Maximum value of SAR (measured) = 0.124 mW/g



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#### BODY\_WLAN802.11 g\_CH11

DUT: V02S;

Communication System: Wireless LAN; Frequency: 2462 MHz;Duty Cycle: 1:1 Medium: Muscle 2450 Medium parameters used: f = 2462 MHz;  $\sigma$  = 2.04 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

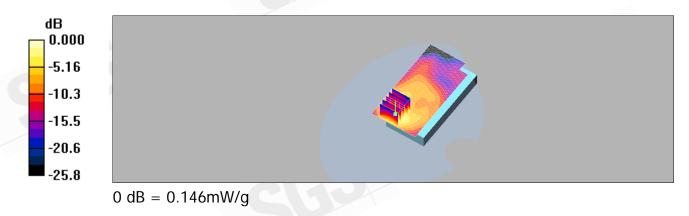
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**BODY/Area Scan (51x101x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.141 mW/g

#### BODY/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm,

dz=5mm Reference Value = 5.89 V/m; Power Drift = -0.153 dB Peak SAR (extrapolated) = 0.257 W/kg SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.062 mW/g Maximum value of SAR (measured) = 0.146 mW/g



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# 5. System Verification

Date: 2010/9/12

#### DUT: Dipole 835 MHz;

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 835 MHz;  $\sigma$  = 0.903 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

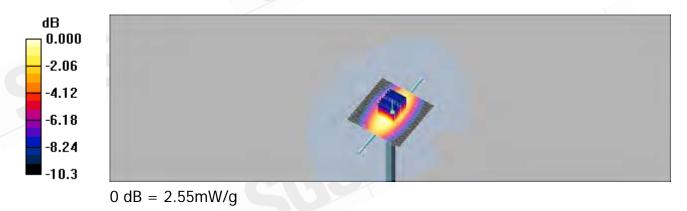
DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.85, 5.85, 5.85); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.55 mW/g

## Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 53.0 V/m; Power Drift = -0.034 dB Peak SAR (extrapolated) = 3.58 W/kg SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.55 mW/g Maximum value of SAR (measured) = 2.55 mW/g



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#### DUT: Dipole 835 MHz;

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1 Medium: Muscle 900 MHz Medium parameters used: f = 835 MHz;  $\sigma$  = 0.974 mho/m;  $\epsilon_r$  = 53.1;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

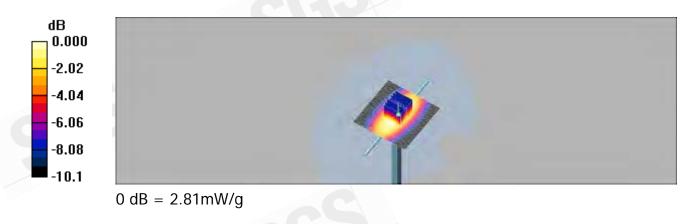
**DASY4** Configuration:

- Probe: ES3DV3 SN3172; ConvF(5.84, 5.84, 5.84); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.84 mW/g

#### Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 53.8 V/m; Power Drift = -0.056 dB Peak SAR (extrapolated) = 3.83 W/kg SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.73 mW/g Maximum value of SAR (measured) = 2.81 mW/g



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#### DUT: Dipole 1900 MHz;

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1 Medium: Head 1900MHz Medium parameters used: f = 1900 MHz;  $\sigma$  = 1.45 mho/m;  $\epsilon_r$  = 39;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

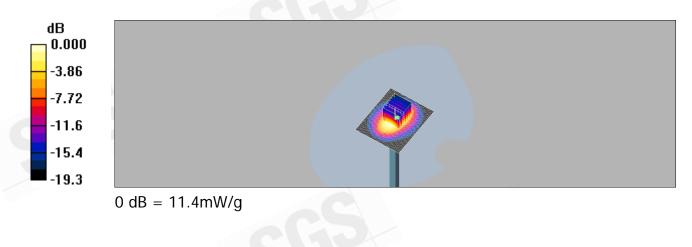
**DASY4** Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.89, 4.89, 4.89); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mw/Area Scan (51x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 13.3 mW/g

#### Pin=250mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 88.5 V/m; Power Drift = -0.030 dB Peak SAR (extrapolated) = 20.2 W/kg SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.13 mW/g Maximum value of SAR (measured) = 11.4 mW/g



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#### DUT: Dipole 1900 MHz;

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1 Medium: M1800 & 1900 Medium parameters used (interpolated): f = 1900 MHz;  $\sigma$  = 1.6 mho/m;  $\epsilon_r$  = 53.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.45, 4.45, 4.45); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (51x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 14.2 mW/g

#### Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 85.6 V/m; Power Drift = -0.132 dB Peak SAR (extrapolated) = 17.6 W/kg SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.42 mW/g Maximum value of SAR (measured) = 11.6 mW/g



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#### DUT: Dipole 2450 MHz;

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1 Medium: M 2450 Medium parameters used: f = 2450 MHz;  $\sigma$  = 2.03 mho/m;  $\epsilon_r$  = 53.4;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV3 SN3172; ConvF(4.11, 4.11, 4.11); Calibrated: 2010/5/21
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM1; Type: SAM 4.0; Serial: TP:1419
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (51x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 17.9 mW/g

#### Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 83.1 V/m; Power Drift = -0.150 dB Peak SAR (extrapolated) = 23.6 W/kg SAR(1 g) = 12.9 mW/g; SAR(10 g) = 5.96 mW/g Maximum value of SAR (measured) = 14.2 mW/g



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#### DUT: Dipole 835 MHz;

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1 Medium: Head 900 MHz Medium parameters used: f = 835 MHz;  $\sigma$  = 0.912 mho/m;  $\epsilon_r$  = 41.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.87, 8.87, 8.87); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.51 mW/g

### Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 53.0 V/m; Power Drift = 0.022 dB Peak SAR (extrapolated) = 3.50 W/kg SAR(1 g) = 2.34 mW/g; SAR(10 g) = 1.53 mW/g Maximum value of SAR (measured) = 2.52 mW/g



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#### DUT: Dipole 835 MHz;

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1 Medium: Muscle 900 MHz Medium parameters used: f = 835 MHz;  $\sigma$  = 0.978 mho/m;  $\epsilon_r$  = 54;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(8.74, 8.74, 8.74); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (61x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 2.81 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 54.2 V/m; Power Drift = -0.014 dB Peak SAR (extrapolated) = 3.89 W/kg SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.67 mW/g Maximum value of SAR (measured) = 2.80 mW/g



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#### DUT: Dipole 1900 MHz;

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1 Medium: Head 1900MHz Medium parameters used: f = 1900 MHz;  $\sigma$  = 1.45 mho/m;  $\epsilon_r$  = 38.8;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.44, 7.44, 7.44); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mw/Area Scan (51x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 13.5 mW/g

Pin=250mw/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 88.9 V/m; Power Drift = -0.055 dB Peak SAR (extrapolated) = 20.0 W/kg SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.11 mW/g Maximum value of SAR (measured) = 11.4 mW/g



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Date: 2010/10/29

#### DUT: Dipole 1900 MHz;

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1 Medium: M1800 & 1900 Medium parameters used: f = 1900 MHz;  $\sigma$  = 1.59 mho/m;  $\epsilon_r$  = 53.2;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 SN3703; ConvF(7.26, 7.26, 7.26); Calibrated: 2009/12/30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn547; Calibrated: 2010/8/18
- Phantom: SAM2; Type: SAM 4.0; Serial: TP:1270
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Pin=250mW/Area Scan (51x61x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 13.0 mW/g

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 87.3 V/m; Power Drift = -0.011 dB Peak SAR (extrapolated) = 17.9 W/kg SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.39 mW/g Maximum value of SAR (measured) = 11.5 mW/g



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# 6. DAE & Probe Calibration certificate

and a second			
Accredited by the Swiss Accredita The Swiss Accreditation Servic Multilateral Agreement for the r	e is one of the signatorie	s to the EA	tation No.: SCS 108
Client SGS-TW		Certifica	te No: DAE4-547_Aug10
CALIBRATION	CERTIFICATE		
Object	DAE4 - SD 000 [	004 BJ - SN: 547	
Calibration procedure(s)	QA CAL-06.v22		
	Calibration proce	dure for the data acquisition	electronics (DAE)
Calibration date:	August 18, 2010		
		onal standards, which realize the physic	
		onal standards, which realize the physic obability are given on the following pag	
The measurements and the unce	ertainties with confidence p		es and are part of the certificate.
The measurements and the unce	ertainties with confidence pr	robability are given on the following pag	es and are part of the certificate.
The measurements and the unce All calibrations have been conduc Calibration Equipment used (M&	ertainties with confidence protected in the closed laborator TE critical for calibration)	robability are given on the following pag y facility: environment temperature (22	es and are part of the certificate. ± 3)°C and humidity < 70%.
The measurements and the unce	ertainties with confidence pr	robability are given on the following pag	es and are part of the certificate.
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The measurements and the unce All calibrations have been conduct Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards Calibrator Box V1.1	ertainties with confidence provide the closed laborator TE critical for calibration) ID # SN: 0810278 ID # SE UMS 006 AB 1004 Name	robability are given on the following pag y facility: environment temperature (22 : Cal Date (Certificate No.) 1-Oct-09 (No: 9055) Check Date (in house) 07-Jun-10 (in house check) Function	es and are part of the certificate. ± 3)°C and humidity < 70%. Scheduled Calibration Oct-10 Scheduled Check
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The measurements and the unce All calibrations have been conduc Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards	ertainties with confidence provide the closed laborator TE critical for calibration) ID # SN: 0810278 ID # SE UMS 006 AB 1004 Name	robability are given on the following pag y facility: environment temperature (22 : Cal Date (Certificate No.) 1-Oct-09 (No: 9055) Check Date (in house) 07-Jun-10 (in house check) Function	es and are part of the certificate. ± 3)°C and humidity < 70%. Scheduled Calibration Oct-10 Scheduled Check In house check: Jun-11 Signature
The measurements and the unce All calibrations have been conduc Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards Calibrator Box V1.1	Artainties with confidence protected in the closed laborator TE critical for calibration) ID # SN: 0810278 ID # SE UMS 006 AB 1004 Name Dominique Steffen	robability are given on the following pag y facility: environment temperature (22 : <u>Cal Date (Certificate No.)</u> 1-Oct-09 (No: 9055) <u>Check Date (in house)</u> 07-Jun-10 (in house check) Function Technician	es and are part of the certificate. ± 3)°C and humidity < 70%. Scheduled Calibration Oct-10 Scheduled Check In house check: Jun-11

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The Swiss Accreditation Serv	itation Service (SAS) ice is one of the signatori		n No.: SCS 108
Multilateral Agreement for the			
Client SGS-TW (Aud	den)	Certificate N	o: ES3-3172_May10
CALIBRATION	CERTIFICAT	E	
Object	ES3DV3 - SN:3	172	
Calibration procedure(s)		QA CAL-14.v3, QA CAL-23.v3 an edure for dosimetric E-field probe	
Calibration date:	May 21, 2010		
The measurements and the un	certainties with confidence	tional standards, which realize the physical un probability are given on the following pages an ory facility: environment temperature (22 ± 3)°(	nd are part of the certificate.
The measurements and the un All calibrations have been cond Calibration Equipment used (M	certainties with confidence fucted in the closed laborat &TE critical for calibration)	probability are given on the following pages an ory facility: environment temperature $(22 \pm 3)^{\circ}$	nd are part of the certificate. C and humidity < 70%.
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards	certainties with confidence fucted in the closed laborat &TE critical for calibration)   ID #	probability are given on the following pages an ory facility: environment temperature (22 ± 3)° Cal Date (Certificate No.)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration
The measurements and the un All calibrations have been cond Calibration Equipment used (M	certainties with confidence fucted in the closed laborat &TE critical for calibration)	probability are given on the following pages an ory facility: environment temperature $(22 \pm 3)^{\circ}$	nd are part of the certificate. C and humidity < 70%.
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B	certainties with confidence lucted in the closed laborat &TE critical for calibration) ID # GB41293874	probability are given on the following pages an ory facility: environment temperature (22 ± 3)°( Cal Date (Certificate No.) 1-Apr-10 (No. 217-01136)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A	certainties with confidence lucted in the closed laborat &TE critical for calibration) D# GB41293874 MY41495277	probability are given on the following pages an ory facility: environment temperature (22 ± 3)°( Cal Date (Certificate No.) 1-Apr-10 (No. 217-01136) 1-Apr-10 (No. 217-01136)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 3 dB Attenuator	certainties with confidence functed in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b)	probability are given on the following pages an           ory facility: environment temperature (22 ± 3)°(           Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)	C and humidity < 70%. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Mar-11 Mar-11 Mar-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 20 dB Attenuator	certainties with confidence lucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41495277 MY41498087 SN: S5054 (3c) SN: S5054 (3c) SN: S5058 (20b) SN: S5129 (30b)	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)	c and humidity < 70%. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 30 dB Attenuator Reference 30 dB Attenuator	certainties with confidence lucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41495087 SN: 55054 (3c) SN: 55054 (3c) SN: 55056 (20b) SN: 35129 (30b) SN: 3013	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01136)           30-Mar-10 (No. 217-0116)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Mar-00 (No. 217-01161)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11 Dec-10
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 20 dB Attenuator	certainties with confidence lucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41495277 MY41498087 SN: S5054 (3c) SN: S5054 (3c) SN: S5058 (20b) SN: S5129 (30b)	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)	c and humidity < 70%. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 30 dB Attenuator Reference 30 dB Attenuator Reference Probe ES3DV2	certainties with confidence lucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41495087 SN: 55054 (3c) SN: 55054 (3c) SN: 55056 (20b) SN: 35129 (30b) SN: 3013	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01136)           30-Mar-10 (No. 217-0116)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Mar-00 (No. 217-01161)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11 Dec-10
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 3 dB Attenuator Reference 3 dB Attenuator Reference Probe ES3DV2 DAE4	ertainties with confidence fucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41495277 MY41498087 SN: S5054 (3c) SN: S5086 (20b) SN: S5029 (30b) SN: 3013 SN: 3013	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Dar-10 (No. 217-01161)	C and humidity < 70%. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11 Dec-10 Apr-11
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards RF generator HP 8648C	Certainties with confidence fucted in the closed laborat (ATE critical for calibration) ID # GB41293874 MY41495277 MY41498087 SN: 55054 (3c) SN: 55054 (3c) SN: 55056 (20b) SN: 55129 (30b) SN: 5129 (30b) SN: 3013 SN: 660 ID #	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Dec-09 (No. ES3-3013_Dec09)           20-Apr-10 (No. DAE4-660_Apr10)           Check Date (in house)	c and humidity < 70%. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Mar-11 Dec-10 Apr-11 Scheduled Check
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E4419B Power sensor E4412A Reference 3 dB Attenuator Reference 20 dB Attenuator Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards RF generator HP 8648C	certainties with confidence           lucted in the closed laborat           & ID #           GB41293874           MY41495277           MY41495277           MY41495037           SN: 55056 (3c)           SN: 55056 (20b)           SN: 55129 (30b)           SN: 660           ID #           US3642U01700	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01161)           30-Dec-09 (No. ES3-3013_Dec09)           20-Apr-10 (No. DAE4-660_Apr10)           Check Date (in house)           4-Aug-99 (in house check Oct-09)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Apr-11 Mar-11 Mar-11 Dec-10 Apr-11 Scheduled Check In house check: Oct-11
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The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A Reference 3 dB Attenuator Reference 3 dB Attenuator Reference 3 dB Attenuator Reference 9 dB Attenuator Reference 9 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards	Certainties with confidence fucted in the closed laborat &TE critical for calibration) ID # GB41293874 MY41492087 SN: S5054 (3c) SN: S5054 (3c) SN: S5086 (20b) SN: S5086 (20b) SN: S5129 (30b) SN: 3013 SN: 660 ID # US3642U01700 US37390585 Name	Cal Date (Certificate No.)           1-Apr-10 (No. 217-01136)           30-Mar-10 (No. 217-01159)           30-Mar-10 (No. 217-01161)           30-Mar-10 (No. 217-01160)           30-Dec-09 (No. ES3-3013_Dec09)           20-Apr-10 (No. DAE4-660_Apr10)           Check Date (in house)           4-Aug-99 (in house check Oct-09)           18-Oct-01 (in house check Oct-09)           Function	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Apr-11 Apr-11 Mar-11 Mar-11 Mar-11 Mar-11 Dec-10 Apr-11 Scheduled Check In house check: Oct-11 In house check: Oct10

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#### Report No. : EN/2010/70023 Page : 170 of 230

Schweizerischer Kalibrierdienst

Service suisse d'étalonnage

Servizio svizzero di taratura

Swiss Calibration Service

Accreditation No.: SCS 108

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



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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

#### Glossary:

TSI NORMx,y,z ConvF DCP CF A.B.C Polarization  $\phi$ Polarization 9

tissue simulating liquid sensitivity in free space sensitivity in TSL / NORMx,y,z diode compression point crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters φ rotation around probe axis 9 rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., 9 = 0 is normal to probe axis

#### Calibration is Performed According to the Following Standards:

- a) 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
- Absorption Rate (SAR) in the runnan near norm threads of the runnan near the r b)

#### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization  $\vartheta = 0$  (f  $\le 900$  MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,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.
- DCPx, 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.
- Ax,y,z; Bx,y,z; Cx,y,z, VRx,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 ≤ 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 NORMx, 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  $\pm$  50 MHz to  $\pm$  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.

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ES3DV3 SN:3172

May 21, 2010

# Probe ES3DV3

# SN:3172

Manufactured: Last calibrated: Recalibrated:

January 23, 2008 May 27, 2009 May 21, 2010

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

Certificate No: ES3-3172\_May10

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#### ES3DV3 SN:3172

#### May 21, 2010

#### DASY/EASY - Parameters of Probe: ES3DV3 SN:3172

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	1.37	1.19	0.97	± 10.1%
DCP (mV) <sup>B</sup>	93.9	92.5	93.2	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dBuV	С	VR mV	Unc <sup>E</sup> (k=2)
10000	CW	0.00	х	0.00	0.00	1.00	300.0	± 1.5%
			Y	0.00	0.00	1.00	300.0	
			Z	0.00	0.00	1.00	300.0	

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%.

<sup>A</sup> The uncertainties of NormX, Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>8</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

Certificate No: ES3-3172\_May10

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ES3DV3 SN:3172

May 21, 2010

#### DASY/EASY - Parameters of Probe: ES3DV3 SN:3172

Calibration Parameter Determined in Head Tissue Simulating Media

Validity [MHz] <sup>C</sup>	Permittivity	Conductivity	ConvFX Co	nvF Y	ConvF Z	Alpha	Depth Unc (k=2)
± 50 / ± 100	41.5 ± 5%	0.90 ± 5%	5.85	5.85	5.85	0.76	1.14 ± 11.0%
± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	5.75	5.75	5.75	0.87	1.08 ± 11.0%
± 50 / ± 100	40.1 ± 5%	1.37 ± 5%	5.04	5.04	5.04	0.31	1.82 ± 11.0%
± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	4.89	4.89	4.89	0.50	1.46 ± 11.0%
± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	4.73	4.73	4.73	0.49	1.44 ± 11.0%
± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	4.32	4.32	4.32	0.42	1.70 ± 11.0%
	± 50 / ± 100 ± 50 / ± 100 ± 50 / ± 100 ± 50 / ± 100 ± 50 / ± 100	$\begin{array}{cccc} \pm 50 \ / \pm 100 & 41.5 \pm 5\% \\ \pm 50 \ / \pm 100 & 41.5 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.1 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.0 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.0 \pm 5\% \end{array}$	$\begin{array}{cccccc} \pm 50 \ / \pm 100 & 41.5 \pm 5\% & 0.90 \pm 5\% \\ \pm 50 \ / \pm 100 & 41.5 \pm 5\% & 0.97 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.1 \pm 5\% & 1.37 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.0 \pm 5\% & 1.40 \pm 5\% \\ \pm 50 \ / \pm 100 & 40.0 \pm 5\% & 1.40 \pm 5\% \end{array}$	$\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.90 \pm 5\%$ $5.85$ $\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.97 \pm 5\%$ $5.75$ $\pm 50 / \pm 100$ $40.1 \pm 5\%$ $1.37 \pm 5\%$ $5.04$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.89$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.73$	$\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.90 \pm 5\%$ $5.85$ $5.85$ $\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.97 \pm 5\%$ $5.75$ $5.75$ $\pm 50 / \pm 100$ $40.1 \pm 5\%$ $1.37 \pm 5\%$ $5.04$ $5.04$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.89$ $4.89$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.73$ $4.73$	$\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.90 \pm 5\%$ $5.85$ $5.85$ $5.85$ $\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.97 \pm 5\%$ $5.75$ $5.75$ $5.75$ $\pm 50 / \pm 100$ $40.1 \pm 5\%$ $1.37 \pm 5\%$ $5.04$ $5.04$ $5.04$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.89$ $4.89$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.73$ $4.73$	$\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.90 \pm 5\%$ $5.85$ $5.85$ $5.85$ $0.76$ $\pm 50 / \pm 100$ $41.5 \pm 5\%$ $0.97 \pm 5\%$ $5.75$ $5.75$ $5.75$ $0.87$ $\pm 50 / \pm 100$ $40.1 \pm 5\%$ $1.37 \pm 5\%$ $5.04$ $5.04$ $5.04$ $0.31$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.89$ $4.89$ $4.89$ $0.50$ $\pm 50 / \pm 100$ $40.0 \pm 5\%$ $1.40 \pm 5\%$ $4.73$ $4.73$ $4.73$ $0.49$

<sup>C</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

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ES3DV3 SN:3172

May 21, 2010

#### DASY/EASY - Parameters of Probe: ES3DV3 SN:3172

Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz] <sup>C</sup>	Permittivity	Conductivity	ConvFX Co	nvF Y	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	5.84	5.84	5.84	0.81	1.19 ± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	5.75	5.75	5.75	0.73	1.24 ± 11.0%
1750	± 50 / ± 100	53.4 ± 5%	1.49 ± 5%	4.63	4.63	4.63	0.39	1.75 ± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.45	4.45	4.45	0.32	2.36 ± 11.0%
2000	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	4.47	4.47	4.47	0.32	2.44 ± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	1.95 ± 5%	4.11	4.11	4.11	0.82	1.17 ± 11.0%
2600	± 50 / ± 100	52.5 ± 5%	2.16 ± 5%	3.99	3.99	3.99	0.95	1.09 ± 11.0%
3500	± 50 / ± 100	51.3 ± 5%	3.31 ± 5%	3.28	3.28	3.28	1.00	1.28 ± 13.1%

<sup>C</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

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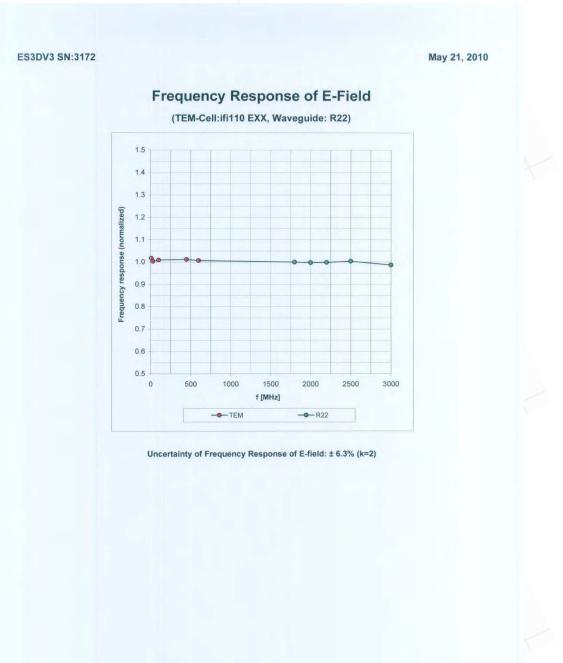
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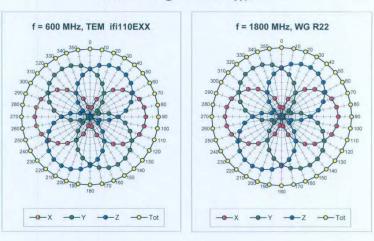


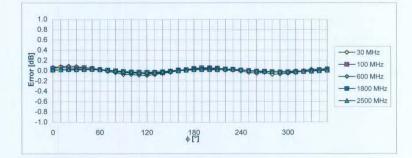
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ES3DV3 SN:3172

May 21, 2010







Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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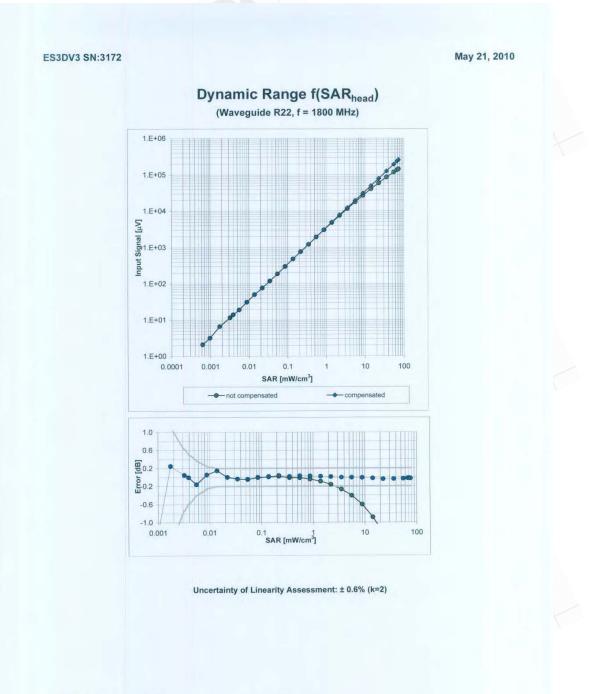
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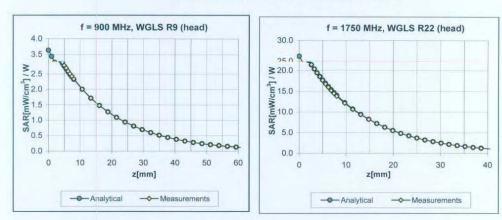
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#### ES3DV3 SN:3172

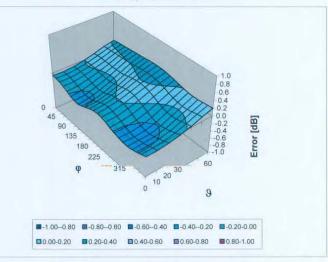
SGS

#### May 21, 2010



#### **Conversion Factor Assessment**





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

Certificate No: ES3-3172\_May10

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ES3DV3 SN:3172

May 21, 2010

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4.0 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Certificate No: ES3-3172 May10

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# Report No. : EN/2010/70023 Page : 180 of 230

ultilateral Agreement for the	e is one of the signatorie	es to the EA	No.: SCS 108
ent SGS (Auden)	ecognition of campation		: EX3-3703_Dec09
ALIBRATION	CERTIFICAT	E	
bject	EX3DV4 - SN:37	703	
	04 041 01 16	QA CAL-14.v3, QA CAL-23.v3 and	d OA CAL-25 v2
alibration procedure(s)	Calibration proc	edure for dosimetric E-field probes	s
alibration date:	December 30, 2	009	
		tional standards, which realize the physical uni probability are given on the following pages an	
he measurements and the unc	ertainties with confidence		d are part of the certificate.
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Calibration Laboratory of Schmid & Partner Engineering AG eughausstrasse 43, 8004 Zurich, Switzerland Zeugh



SWISS BRATIO

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

Accreditation No.: SCS 108

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

#### Glossary:

TSL NORMx,y,z ConvF DCP CF A, B, C Polarization φ Polarization 9

tissue simulating liquid sensitivity in free space sensitivity in TSL / NORMx,y,z diode compression point crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters o rotation around probe axis 9 rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., 9 = 0 is normal to probe axis

- Calibration is Performed According to the Following Standards: a) 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 b) proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

#### Methods Applied and Interpretation of Parameters:

- NORMx, y, z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not effect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,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.
- DCPx, 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.
- Ax,y,z; Bx,y,z; Cx,y,z, VRx,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  $f \le 800$  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 NORMx, 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.

Certificate No: EX3-3703 Dec09

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EX3DV4 SN:3703

December 30, 2009

# Probe EX3DV4

## SN:3703

Manufactured: Calibrated:

July 21, 2009 December 30, 2009

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

Certificate No: EX3-3703\_Dec09

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#### December 30, 2009

#### DASY - Parameters of Probe: EX3DV4 SN:3703

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/(V/m) <sup>2</sup> ) <sup>A</sup>	0.52	0.52	0.53	± 10.1%
DCP (mV) <sup>B</sup>	92.6	88.0	91.6	

#### **Modulation Calibration Parameters**

UID	Communication System Name	PAR		A dB	B dBuV	с	VR mV	Unc <sup>E</sup> (k=2)
10000	CW	0.00	X	0.00	0.00	1.00	300	± 1.5%
			Y	0.00	0.00	1.00	300	
			Z	0.00	0.00	1.00	300	



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%.

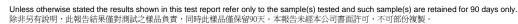
\* The uncertainties of NormX, Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

<sup>8</sup> Numerical linearization parameter uncertainty not required.

Uncertainty is determined using the maximum deviation from linear response applying recatangular distribution and is expressed for the square of the field value.

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December 30, 2009

#### DASY - Parameters of Probe: EX3DV4 SN:3703

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz]	Validity [MHz] <sup>C</sup>	Permittivity	Conductivity	ConvFX Co	onvFY C	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	41.5 ± 5%	0.90 ± 5%	8.87	8.87	8.87	0.58	0.66 ± 11.0%
900	± 50 / ± 100	41.5 ± 5%	0.97 ± 5%	8.62	8.62	8.62	0.52	0.68 ± 11.0%
1750	± 50 / ± 100	40.1 ± 5%	1.37 ± 5%	7.73	7.73	7,73	0.67	0.64 ± 11.0%
1900	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	7.44	7.44	7.44	0.67	0.66 ± 11.0%
2000	± 50 / ± 100	40.0 ± 5%	1.40 ± 5%	7.26	7.26	7.26	0.70	0.65 ± 11.0%
2450	± 50 / ± 100	39.2 ± 5%	1.80 ± 5%	6.80	6.80	6.80	0.43	0.83 ± 11.0%
5200	± 50 / ± 100	36.0 ± 5%	4.66 ± 5%	4.68	4.68	4.68	0.38	1.80 ± 13.1%
5300	± 50 / ± 100	35.9 ± 5%	4.76 ± 5%	4.36	4.36	4.36	0.35	1.80 ± 13.1%
5600	± 50 / ± 100	35.5 ± 5%	5.07 ± 5%	4.01	4.01	4.01	0.45	1.80 ± 13.1%
5800	± 50 / ± 100	35.3 ± 5%	5.27 ± 5%	3.95	3.95	3.95	0.50	1.80 ± 13.1%

<sup>C</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Certificate No: EX3-3703\_Dec09

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December 30, 2009

#### DASY - Parameters of Probe: EX3DV4 SN:3703

Calibration Parameter Determined in Body Tissue Simulating Media

f [MHz]	Validity [MHz] <sup>C</sup>	Permittivity	Conductivity	ConvFX Co	NVFY	ConvF Z	Alpha	Depth Unc (k=2)
835	± 50 / ± 100	55.2 ± 5%	0.97 ± 5%	8.74	8.74	8.74	0.65	0.72 ± 11.0%
900	± 50 / ± 100	55.0 ± 5%	1.05 ± 5%	8.58	8.58	8.58	0.64	0.72 ± 11.0%
1750	± 50 / ± 100	53.4 ± 5%	1.49 ± 5%	7.75	7.75	7,75	0.66	0.66 ± 11.0%
1900	± 50 / ± 100	53.3 ± 5%	1.52 ± 5%	7.26	7.26	7.26	0.54	0.74 ± 11.0%
2000	± 50 / ± 100	53.3 ± 5%	$1.52 \pm 5\%$	7.28	7.28	7.28	0.49	0.78 ± 11.0%
2450	± 50 / ± 100	52.7 ± 5%	$1.95 \pm 5\%$	6.95	6.95	6.95	0.37	0.87 ± 11.0%
5200	± 50 / ± 100	49.0 ± 5%	$5.30 \pm 5\%$	3.99	3.99	3.99	0.55	1.90 ± 13.1%
5300	± 50 / ± 100	48.5 ± 5%	$5.42 \pm 5\%$	3.77	3.77	3.77	0.55	1.90 ± 13.1%
5600	± 50 / ± 100	48.5 ± 5%	5.77 ± 5%	3.55	3.55	3.55	0.60	1.90 ± 13.1%
5800	± 50 / ± 100	48.2 ± 5%	$6.00 \pm 5\%$	3.80	3.80	3.80	0.60	1.90 ± 13.1%

<sup>©</sup> The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Certificate No: EX3-3703 Dec09

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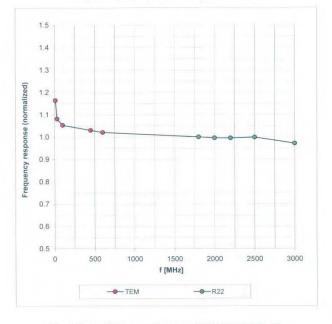
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December 30, 2009



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



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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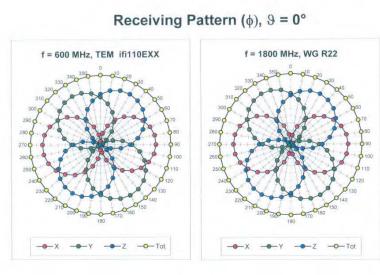


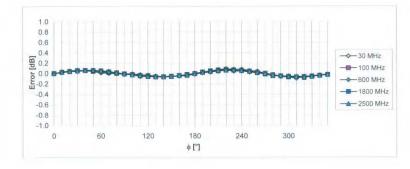
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Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: EX3-3703 Dec09

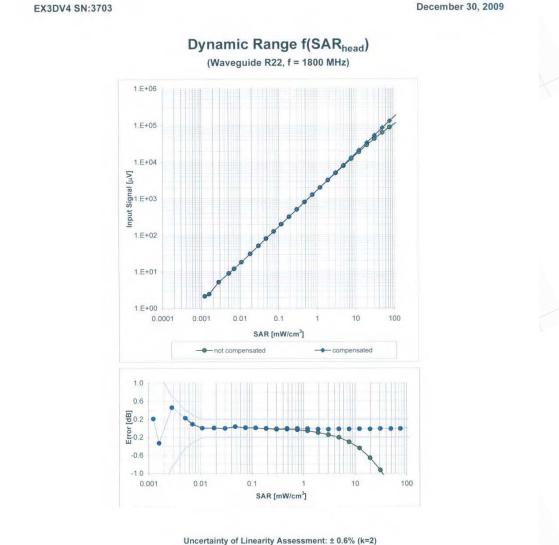
Page 8 of 11

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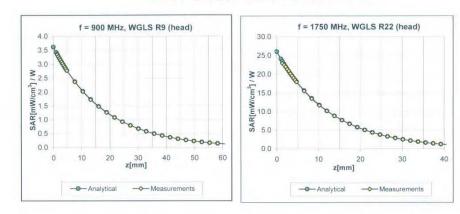
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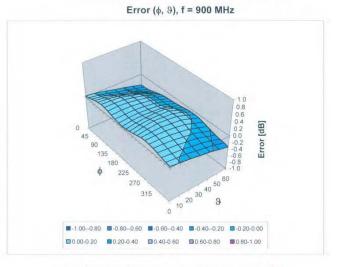
#### EX3DV4 SN:3703

#### December 30, 2009



#### **Conversion Factor Assessment**

**Deviation from Isotropy in HSL** 



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

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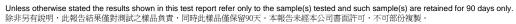


#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	Not applicable
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	2 mm

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## 7. Uncertainty Analysis

	1.44	-		1	1-1-1-1	1		
Error Description	Uncertainty value	Prob. Dist.	Div.	$(e_i)$	$(c_i)$ 10g	Std. Unc.	Std. Unc. (10g)	$\langle v_i \rangle$
Measurement System	value	Dist+	-	1g	TUg.	(lg)	(10g)	$v_{cf_j}$
Probe Calibration	±4.8%	N	1	1	1	±4.8%	±4.8%	x
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	$\pm 1.9\%$	±1.9%	00
Hemispherical Isotropy	±9,6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9 %	x
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	主0.6 %	00
Linearity	±4.7%	R	13	1	1	$\pm 2.7\%$	±2.7 %	X
System Detection Limits	±1.0 %	R	$\sqrt{3}$	1	1	±0.6%	±0.6 %	x
Readout Electronics	±1.0%	N	1	1	1	±1.0%	±1.0%	x
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5 %	x
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	$\pm 1.5 \%$	x
RF Ambient Conditions	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	$\infty$
Probe Positioner	$\pm 0.4\%$	R	$\sqrt{3}$	1	1	±0.2%	±0.2 %	x
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	$\infty$
Max. SAR Eval.	±1.0%	R	$\sqrt{3}$	1	1	$\pm 0.6\%$	±0.6%	x
Test Sample Related			1			1		
Device Positioning	±2.9 %	Ň	1	1	1	±2.9%	±2.9%	875
Device Holder	$\pm 3.6\%$	Ň	1	1	1	$\pm 3.6\%$	$\pm 3.6\%$	5
Power Drift	$\pm 5.0 \%$	R	$\sqrt{3}$	1	1	$\pm 2.9\%$	±2.9 %	00
Phantom and Setup			10.00		· · · · · ·			
Phantom Uncertainty	±4.0 %	R	$\sqrt{3}$	1	1	$\pm 2.3\%$	±2.3 %	$\infty$
Liquid Conductivity (target)	±5.0 %	R	$\sqrt{3}$	0.64	0.43	±1.8%	±1.2 %	$\infty$
Liquid Conductivity (meas.)	$\pm 2.5\%$	N	1	0.64	0.43	$\pm 1.6\%$	±1.1 %	$\infty$
Liquid Permittivity (target)	$\pm 5.0\%$	R	$\sqrt{3}$	0.6	0.49	±1.7%	土1.4%	$\infty$
Liquid Permittivity (meas.)	±2.5 %.	N	1	0.6	0.49	±1.5%	±1.2 %	ΰ¢.
Combined Std. Uncertainty						$\pm 10.3$ %	±10.0 %	331
Expanded STD Uncertain	ity					$\pm 20.6\%$	$\pm 20.1\%$	

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 www.tw.sgs.com



## 8. Phantom description

Schmid & Partner Engineering AG

Zoughausetrasse 43, 6004 Zunch, Switzerland Phone +41 1 245 9700, Fax +41 1 245 9779 Info@speeg.com, http://www.speeg.com

Certificate of Conformity / First Article Inspection

ttem	SAM Twin Phantom V4.0	
Type No	QD 000 P40 C	
Series No	TP-1150 and higher	1000
Manufacturer	SPEAG Zeughaussträsse 43 CH-8004 Zorich Switzerland	

Tests The series production process used allows the limitation to test of first articles. Complete leats were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been referted using further series items (called samples) or are leated at each item.

Test	Requirement	Details	Units tested
Dimensions	Compliant with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness of shell	Compliant with the requirements according to the standards	2mm +/- 0.2mm in fist and specific areas of head section	First article, Samples, TP-1314 ff.
Material thickness at ERP	Compliant with the requirements according to the standards	6mm +/- 0.2mm at ERP	First article, All items
Materia) parameters	Dielectric parameters for required frequencies	300 MHz – 6 GHz: Relative permittivity < 5, Loss tangent < 0.05	Material semples
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards if handled and cleaned according to the instructiona. Observe technical Note for material compatibility.	DEGMBE based simulating liquids	Pre-series, First article, Material samples
Sagging	Compliant with the requirements according to the standards. Sagging of the flat section when filled with tissue simulating liquid.	< 1% typical < 0.8% if filled with 155mm of HSL900 and without DUT below	Prototypes, Sample testing

- Standards [1] CENELEC EN 50361 [2] IEEE Std 1528-2003 [3] IEC 62208 Part I
- [4]
- FCC OET Bulletin 65, Supplement C, Edition 01-01 The IT/IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of the other documents.

#### Conformity

Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standards [1] to [4].

Date	07.07.2005	speag
Signature / Stamp		Seturat & Pegner Engineering AG 2990 Braussylesse 43, 8004 20167 (Switzerland Phone 641, 2016 March 2016 245 19778 Info@eperg.com, http://www.speeg.com

(n)

101

Disc Min BRI - CID DOD PAD C - F

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9. System Validation from Original equipment supplier

Accredited by the Swiss Accredit The Swiss Accreditation Servic Multilateral Agreement for the r	e is one of the signatories	s to the EA	No.: SCS 108
Client SGS-TW (Aud	en)	Certificate No	o: D835V2-4d063_May1
CALIBRATION	CERTIFICATE		
Object	D835V2 - SN: 4d	063	
Calibration procedure(s)	QA CAL-05.v7 Calibration proce	dure for dipole validation kits	
Calibration date:	May 21, 2010		
The measurements and the unc	ertainties with confidence p acted in the closed laborator	onal standards, which realize the physical ur robability are given on the following pages ar ry facility: environment temperature (22 ± 3)° Cal Date (Certificate No.)	nd are part of the certificate.
The measurements and the unc All calibrations have been condu Calibration Equipment used (M8	ertainties with confidence p acted in the closed laborator .TE critical for calibration)	robability are given on the following pages ar y facility: environment temperature (22 $\pm$ 3)°	nd are part of the certificate. C and humidity < 70%.
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The measurements and the unc All calibrations have been condu Calibration Equipment used (M8 Primary Standards Power meter EPM-442A Power sensor HP 8481A Reference 20 dB Attenuator Type-N mismatch combination Reference Probe ES3DV3	ertainties with confidence p include in the closed laborator ID # GB37480704 US37292783 SN: 5086 (20g) SN: 5047.2 / 06327 SN: 3205	robability are given on the following pages ar y facility: environment temperature (22 ± 3)° Cal Date (Certificate No.) 06-Oct-09 (No. 217-01086) 06-Oct-09 (No. 217-01086) 30-Mar-10 (No. 217-01158) 30-Mar-10 (No. 217-01162) 30-Apr-10 (No. ES3-3205_Apr10)	nd are part of the certificate. C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Mar-11 Mar-11 Apr-11
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The measurements and the unor All calibrations have been condu- Calibration Equipment used (M& Primary Standards Power meter EPM-442A Power sensor HP 8481A Reference 20 dB Attenuator Type-N mismatch combination Reference Probe ES3DV3 DAE4 Secondary Standards Power sensor HP 8481A RF generator R&S SMT-06 Network Analyzer HP 8753E	inties with confidence p           inter closed laborator           ID #           GB37480704           US37292783           SN: 5086 (20g)           SN: 601           ID #           MY41092317           100005           US37390585 S4206           Name	robability are given on the following pages ar y facility: environment temperature (22 ± 3)* Cal Date (Certificate No.) 06-Oct-09 (No. 217-01086) 06-Oct-09 (No. 217-01086) 30-Mar-10 (No. 217-01158) 30-Mar-10 (No. 217-01152) 30-Apr-10 (No. ES3-3205_Apr10) 02-Mar-10 (No. DAE4-601_Mar10) Check Date (in house) 18-Oct-02 (in house check Oct-09) 4-Aug-99 (in house check Oct-09) 18-Oct-01 (in house check Oct-09) 18-Oct-01 (in house check Oct-09) 18-Oct-01 (in house check Oct-09)	And are part of the certificate. C and humidity < 70%. Scheduled Calibration Oct-10 Oct-10 Mar-11 Mar-11 Mar-11 Scheduled Check In house check: Oct-11 In house check: Oct-10

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



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

Accreditation No.: SCS 108

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 Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

#### Calibration is Performed According to the Following Standards:

- a) 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
- b) 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
- c) Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

#### Additional Documentation:

d) DASY4/5 System Handbook

#### Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

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#### **Measurement Conditions**

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V5.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

#### Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.7 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature during test	(22.5 ± 0.2) °C		

#### SAR result with Head TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.42 mW / g
SAR normalized	normalized to 1W	9.68 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	9.62 mW /g ± 17.0 % (k=2)
	1	
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL	condition	
	condition 250 mW input power	1.58 mW / g
SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL SAR measured SAR normalized		1.58 mW / g 6.32 mW / g

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#### **Body TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.2 ± 6 %	0.98 mho/m ± 6 %
Body TSL temperature during test	(22.0 ± 0.2) °C		

#### SAR result with Body TSL

SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.53 mW / g
SAR normalized	normalized to 1W	10.1 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	10.0 mW / g ± 17.0 % (k=2)

SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL	condition	and the second sec
SAR measured	250 mW input power	1.66 mW / g
SAR normalized	normalized to 1W	6.64 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	6.59 mW / g ± 16.5 % (k=2)



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#### Appendix

#### Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.6 Ω - 0.6 jΩ	
Return Loss	- 31.7 dB	

#### Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.9 Ω - 2.8 jΩ	
Return Loss	- 28.9 dB	

#### **General Antenna Parameters and Design**

Electrical Delay (one direction)	1.392 ns	
Electrical Boldy (one an obtion)	11002 110	

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

#### Additional EUT Data

Manufactured by	SPEAG	
Manufactured on	November 27, 2006	



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#### **DASY5 Validation Report for Head TSL**

Date/Time: 21.05.2010 11:22:13

Test Laboratory: SPEAG, Zurich, Switzerland

#### DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

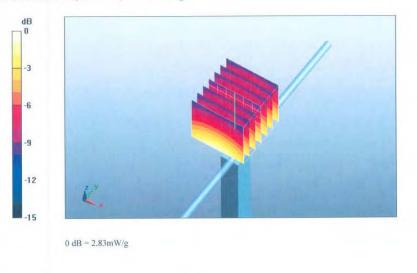
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1 Medium: HSL900 Medium parameters used: f = 835 MHz;  $\sigma = 0.91$  mho/m;  $\varepsilon_r = 41.9$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 SN3205; ConvF(6.03, 6.03, 6.03); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 61

#### Pin=250 mW/d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement

grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 57.5 V/m; Power Drift = 0.00219 dB Peak SAR (extrapolated) = 3.61 W/kg SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.58 mW/g Maximum value of SAR (measured) = 2.83 mW/g



Certificate No: D835V2-4d063\_May10

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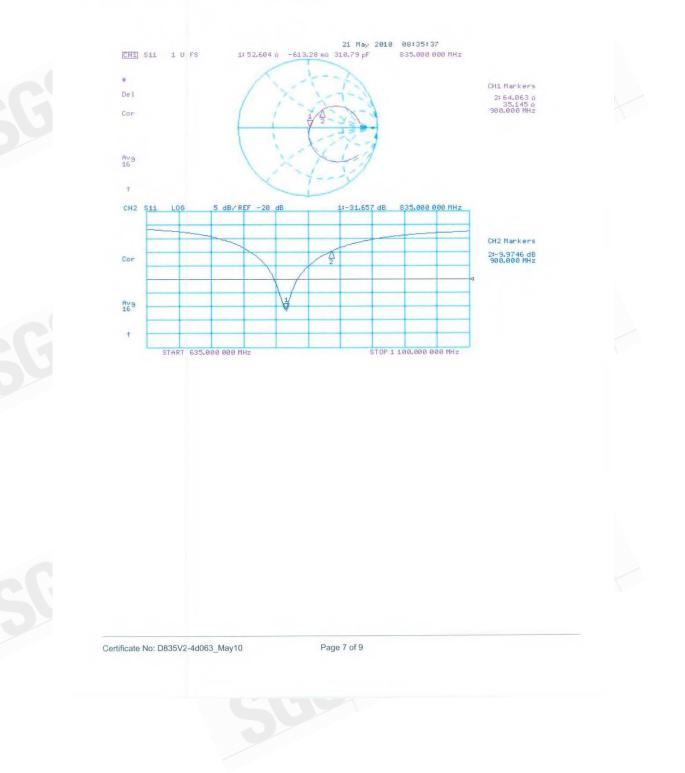
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#### Impedance Measurement Plot for Head TSL



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#### **DASY5 Validation Report for Body**

Date/Time: 20.05.2010 10:45:06

Test Laboratory: SPEAG, Zurich, Switzerland

#### DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

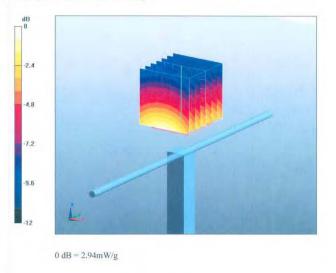
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1 Medium: MSL900 Medium parameters used: f = 835 MHz;  $\sigma = 0.98$  mho/m;  $\varepsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 SN3205; ConvF(5.86, 5.86, 5.86); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection) .
- Electronics: DAE4 Sn601; Calibrated: 02.03.2010 .
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.2 Build 162; SEMCAD X Version 14.0 Build 61 .

#### Pin250 mW/d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement

grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 56.5 V/m; Power Drift = 0.013 dB Peak SAR (extrapolated) = 3.71 W/kg SAR(1 g) = 2.53 mW/g; SAR(10 g) = 1.66 mW/g Maximum value of SAR (measured) = 2.94 mW/g



Certificate No: D835V2-4d063\_May10

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