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# SAR TEST REPORT

<b>Equipment Under Test</b>	Mobile Internet Device
Model Name	M01M002
Company Name	Qisda Corporation
Company Address	157 Shan-Yang Road, Gueishan Taoyuan 333, Taiwan
Date of Receipt	2010.03.10
Date of Test(s)	2010.03.18 -20.
Date of Issue	2010.04.15

Standards:

# FCC OET 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 : Antony Wu **Date** 

2010.04.15

**Engineer** 

Approved by : Robert Chang

Tech Manager

2010.04.15 Date

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# 1. General Information

# 1.1 Testing Laboratory

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Taipei county, Taiwa	an, R.O.C.		
Telephone	+886-2-2299-3279		
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# 1.2 Details of Applicant

Company Name	Qisda Corporation
Company Address	157 Shan-Ying Road, Gueishan Taoyuan 333, Taiwan
Contact Person	Kun Han Liu
TEL	+886-3-359-5000 Ext.3704
Fax	+886-3-359-3395
E-mail	Kun.han.liu@qisda.com
Website	www.qisda.com

# 1.3 Description of EUT

EUT Name	Mobile Internet Device		
Model Name	M01M002		
Brand Name	DELL		
IMEI Code	012214000000235		
FCC ID	VRSM01M002		
Mode of Operation	GSM /GPRS/EDGE/WCDMA/HSDPA/HSUPA/ WLAN802.11b&g		
Definition	Production unit		

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Modulation Mode	GSM/GMSK/8PSK/QPSK/16QAM/CCK/OFDM			
Duty Cycle	GSM	GPRS (4multi-slot)	WCDMA B4	WLAN802.11 b&g
	1/8	1/2	1	1 ,
Maximum RF Conducted Power	GSM 850	GSM1900	WCDMA B4	WLAN802.11 b&g
(Average)	32.78 dBm	29.88 dBm	22.34 dBm	16.23 dBm
TX Frequency Range	GSM 850	GSM1900	WCDMA B4	WLAN802.11 b&g
(MHz)	824.2- 848.8	1850.2- 1909.8	1712.4- 1752.6	2412- 2462
Channel Number	GSM 850	GSM1900	WCDMA B4	WLAN802.11 b&g
(ARFCN)	128-251	512-810	1312-1513	1-11
VOIP Function			No	\
Battery Type		3.7 V I	_ithium-Ion	
Antenna Type		Intern	al Antenna	CED
	GSM850			
	ŀ	Head	E	Body
	O.431 mW/g (At GSM 850 Right Head _Cheek Position_ 128 channel)		(At GSI	<b>P56 mW/g</b> M 850 Body channel)
	GSM1900			
Max. SAR Measured	Head		Body	
(1 g)	0.385 mW/g (At GSM 1900 Left Head _Cheek Position_ 512 channel)			<b>4 mW/g</b> 1900 Body annel
	WCDMA B4			
	Head		Body	
	0.895 mW/g (At WCDMA B4 Left Head _Cheek Position_ 1412 channel)			<b>mW/g</b> MA B4 Body hannel

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	WLAN802.11b
Max. SAR Measured (1 g)	Body
	<b>0.156 mW/g</b> (At WLAN802.11b Body _ 11 channel)
	WLAN802.11g
	Body
	<b>0.104 mW/g</b> (At WLAN802.11g Body _ 11 channel

#### Note:

## 1. WCDMA B4 HSDPA & HSUPA conducted power:

Mode	Sub-test -	Band	WCDMA B4		
		Channel	1312	1412	1513
	1	$\beta_{c}/\beta_{d} (2/15)$	22.60	22.58	22.61
HCDDA	2	$\beta_c/\beta_d(12/15)$	22.19	22.18	22.19
HSDPA	3	$\beta_c/\beta_d(15/8)$	22.12	22.13	22.08
	4	$\beta_c/\beta_d(15/4)$	22.19	22.14	22.20

Mode Sub	Sub-test	Band	WCDMA B4		
	Sub-test	Channel	1312	1412	1513
	1	$\beta_c/\beta_d(11/15)$	22.23	22.30	22.28
	2	$\beta_c/\beta_d(6/15)$	20.28	20.37	20.32
HSUPA	3	$\beta_c/\beta_d(15/9)$	21.29	21.32	21.36
	4	$\beta_c/\beta_d(2/15)$	20.41	20.42	20.36
	5	$\beta_c/\beta_d(15/15)$	22.12	22.16	22.19

#### 1.4 Test Environment

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

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# 1.5 Operation description

# General:

- 1. The EUT is controlled by using a Radio Communication Tester (Agilent 8960), and the communication between the EUT and the tester is established by air link.
- 2. 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 battery is fully charged.
- 3. The WLAN transmitter is controlled by chip-specific software installed in this PDA phone, to make the EUT transmit at max power.
- 4. During the SAR testing, the DASY5 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.
- 5. Testing Head SAR at lowest, middle and highest channel for all bands with LET/LEC/RET/REC conditions.
- 6. Testing body-worn SAR by separating 1.5cm between the back of the EUT and the flat phantom in GPRS mode.

### Additional configuration(Head):

7. For highest SAR configuration in this band repeated with external Memory card inside.

# Additional configuration(Body):

8. For highest SAR configuration in this band repeated with external Memory card inside.

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

9. 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.

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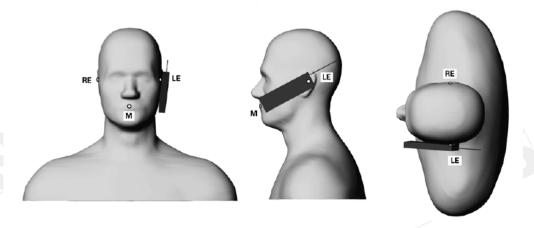
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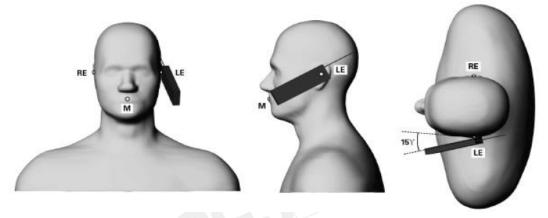
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10. The maximum SAR value for licensed transmitter happens on GSM 850 band, Body position), channel 190. the value is **0.956W/kg(1g)**. And the max SAR value for un-licensed transmitter WLAN 802.11b happens on Body worn, channel 11 The SAR value is 0.156W/kg (1g). The summation of the 1g SAR is 0.956 + 0.156 = 1.11W/kg, which lower than the limit 1.6W/kg. NO simultaneous transmission SAR evaluation is necessary.

# 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



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:

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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. 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

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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 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 5 professional system ). A Model ES3DV3 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR=  $\sigma$  (|Ei|<sup>2</sup>)/  $\rho$  where  $\sigma$  and ρ are the conductivity and mass density of the tissue-simulant.

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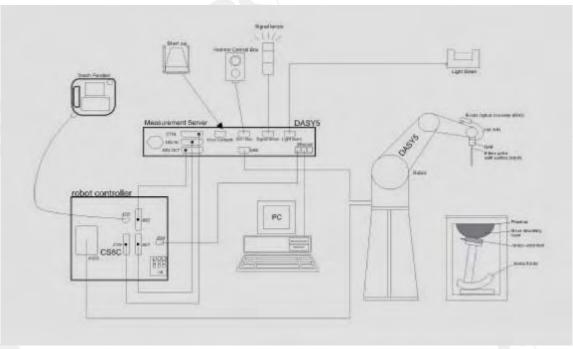


Fig.a The block diagram of SAR system

The DASY5 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.
- 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.

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- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
  - A computer operating Windows 2000 or Windows XP.
  - DASY5 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.

# 1.9 System Components

#### ES3DV3 E-Field Probe

E33DA2 E-LIGIO	TIODC			
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 HSL850/1800/1900/2450 Additional CF for other liquids and frequencies upon request			
		ES3DV3 E-Field Probe		
Frequency:	10 MHz to > 3 GHz; Linearity: ± 0.6 dB (30 MHz to 6 GHz)			
Directivity:	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)			
Dynamic Range:	the state of the s			
Dimensions:	Overall length: 337 mm (Tip: 10 mm) Tip diameter: 4 mm (Body: 10 mm) Typical distance from probe tip to dipole centers: 2 mm			
Application:	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.			

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### SAM PHANTOM V4.0C

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. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.		
Shell Thickness:	2 ± 0.2 mm		
Filling Volume:	Approx. 25 liters	(Walliam)	
Dimensions:	Height: 251mm; Length: 1000 mm; Width: 500 mm		

#### **DEVICE HOLDER**

Construction	In combination with the Twin SAM Phantom V4.0/V4.0C or Twin SAM, the Mounting	
oonstruction		A 100 TO
	Device (made from POM) enables the rotation	Section 1 and 1 an
	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,	The state of the s
	CENELEC, FCC or other specifications. The	
	device holder can be locked at different	
	phantom locations (left head, right head, flat	
	phantom).	Device Holder

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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 850/1800/1900/2450 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.

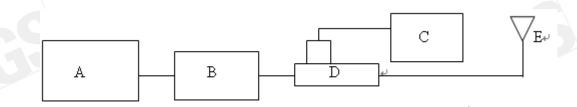


Fig.b The block diagram of SAR system verification

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



Photograph of the dipole Antenna

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Validation Kit	Frequency (MHz)	Target SAR (1g) (Pin=250mW)	Measured SAR (1g)	Measured Date
D835V2 S/N: 4d063	835 MHz (Head)	2.38 mW/g	2.27 mW/g	2010/03/18
D835V2 S/N: 4d063	835 MHz (Body)	2.55 mW/g	2.57 mW/g	2010/03/19
D1800V2 S/N: 2d051	1800 MHz (Head)	9.8 m W/g	9.87 mW/g	2010/03/18
D1800V2 S/N: 2d051	1800 MHz (Body)	9.66 m W/g	9.72 mW/g	2010/03/19
D1900V2 S/N: 5d027	1900 MHz (Head)	10.5 mW/g	10.7 mW/g	2010/03/19
D1900V2 S/N: 5d027	1900 MHz (Body)	10.6 mW/g	11 mW/g	2010/03/20
D2450V2 S/N: 727	2450 MHz (Body)	13.2 mW/g	13.6 mW/g	2010/03/20

Table 1. System validation (follow manufacture target value)

# 1.11 issue 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 in the ear reference point of the phantom was 15cm±5mm during all tests. (Appendix Fig .2)

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Eroguonev		Measurement date/	Die	electric Par	rameters
Frequency (MHz)	Tissue type	Limits	ρ	σ (S/m)	Simulated Tissue Temperature(° C)
850	Head	Measured, 2010. 03.18	40.4	0.878	21.7
830	пеаи	Recommended Limits	38.76-42.84	0.85-0.93	20-24
850	Pody	Measured, 2010. 03.19	54	1	21.7
630	Body	Recommended Limits	51.11-56.49	0.96-1.06	20-24
1800	Head	Measured, 2010. 03.18	39.1	1.47	21.7
1800	пеаи	Recommended Limits	36.96-40.85	1.33-1.47	20-24
1800	Dody	Measured, 2010. 03.19	54.4	1.52	21.7
1800	Body	Recommended Limits	52.35-57.86	1.41-1.55	20-24
1900	Head	Measured, 2010. 03.19	39.4	1.47	21.7
1900	пеаи	Recommended Limits	36.67-40.53	1.4-1.54	20-24
1900	Pody	Measured, 2010. 03.20	54.5	1.59	21.7
1900	Body	Recommended Limits	52.16-57.65	1.48-1.64	20-24
	Pody	Measured, 2010. 03.20	52.2	2.08	21.7
2450	Body	Recommended Limits	51.68-57.12	1.88-2.08	20-24

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the brain tissue simulating liquid for 850 & 1800 & 1900 &2450 band:

Ingredient	850MHz (Head)	850MHz (Body)	1800MHz (Head)	1800MHz (Body)	1900MHz (Head)	1900MHz (Body)	2450MHz (Body)
DGMBE	Χ	X	444.52 g	300.67 g	444.52 g	300.67 g	301.7ml
Water	532.98 g	631.68 g	552.42 g	716.56 g	552.42 g	716.56 g	698.3ml
Salt	-18.3 g	11.72 g	3.06 g	4.0 g	3.06 g	4.0 g	X
Preventol D-7	2.4 g	1.2 g	X	Х	Х	X	Х
Cellulose	3.2 g	Χ	X	X	Χ	Χ	Χ
Sugar	766.0 g	600 g	X	X	Χ	Χ	Χ
Total	1 L	1 L	1 L	1 L	1 L	1 L	1 L
amount	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)	(1.0kg)

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 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

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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	Uncontrolled Environment	Controlled Environment
	General Population	Occupational
Spatial Peak SAR	1.60 m W/g	8.00 m W/g
(Brain)		-
Spatial Average SAR	0.08 m W/g	0.40 m W/g
(Whole Body)	_	
Spatial Peak SAR	4.00 m W/g	20.00 m W/g
(Hands/Feet/Ankle/Wrist)	J	

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 MH7**

Right Head						
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.77dBm	0.431	22.1	21.7
850 MHz	190	836.6	32.78dBm	0.428	22.1	21.7
	251	848.8	32.76dBm	0.43	22.1	21.7
Left Head (	Cheek Pos	ition)				
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.77dBm	0.39	22.1	21.7
850 MHz	190	836.6	32.78dBm	0.384	22.1	21.7
	251	848.8	32.76dBm	0.371	22.1	21.7
Right Head	(15° Tilt I	Position	1)			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.77dBm	0.268	22.1	21.7
850 MHz	190	836.6	32.78dBm	0.26	22.1	21.7
	251	848.8	32.76dBm	0.233	22.1	21.7
Left Head (	15° Tilt Po	sition)			1	<u> </u>
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	32.77dBm	0.28	22.1	21.7
850 MHz	190	836.6	32.78dBm	0.277	22.1	21.7
	251	848.8	32.76dBm	0.257	22.1	21.7
Body worn	testing ir	GPRS	mode)			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	128	824.2	29.51dBm	0.89	22.1	21.7
850 MHz	190	836.6	29.53dBm	0.956	22.1	21.7
	251	848.8	29.51dBm	0.936	22.1	21.7
		•				

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Body worn (	(testing ir	GPRS	mode)_repeated 1	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	190	836.6	29.53dBm	0.249	22.1	21.7
Body worn (	(testing ir	GPRS	mode)_repeated \	with Memory car	d	
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	190	836.6	29.53dBm	0.873	22.1	21.7
Body worn (	(testing ir	GPRS	mode)_repeated v	with headset		
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
850 MHz	190	836.6	29.53dBm	0.758	22.1	21.7
Body worn (	(testing ir	EGPR	S mode)			
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
	128	824.2	25.58dBm	0.296	22.1	21.7
850 MHz	190	836.6	25.94dBm	0.366	22.1	21.7
	251	848.8	25.87dBm	0.379	22.1	21.7

# **PCS 1900 MHZ**

Right Head	Right Head (Cheek Position)									
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]				
	512	1850.2	29.75dBm	0.21	22.1	21.7				
1900 MHz	661	1880	29.85dBm	0.235	22.1	21.7				
	810	1909.8	29.88dBm	0.243	22.1	21.7				

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Left Head (	Cheek Pos	sition)				
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
		· ·	Power (Average)	1g	Temp[°C]	Temp[°C]
\	512	1850.2	29.75dBm	0.385	22.1	21.7
1900 MHz	661	1880	29.85dBm	0.379	22.1	21.7
	810	1909.8	29.88dBm	0.347	22.1	21.7
Right Head	(15° Tilt I	Position	1)			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	512	1850.2	29.75dBm	0.127	22.1	21.7
1900 MHz	661	1880	29.85dBm	0.13	22.1	21.7
	810	1909.8	29.88dBm	0.13	22.1	21.7
Left Head (	15° Tilt Po	sition)	7			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	29.75dBm	0.156	22.1	21.7
1900 MHz	661	1880	29.85dBm	0.157	22.1	21.7
	810	1909.8	29.88dBm	0.15	22.1	21.7
Body worn	(testing ir	GPRS	mode)		•	ı
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	27.14dBm	0.592	22.1	21.7
1900 MHz	661	1880	27.27dBm	0.592	22.1	21.7
`	810	1909.8	27.22dBm	0.644	22.1	21.7
Body worn	testing ir	i EGPRS	S mode)			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C
	512	1850.2	24.28dBm	0.291	22.1	21.7
1900 MHz	661	1880	24.52dBm	0.326	22.1	21.7
	810	1909.8	24.11dBm	0.359	22.1	21.7

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# **WCDMA BAND 4**

VVCDIVIA						
Right Head	(Cheek Po	osition)				
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
	1312	1712.4	22.31dBm	0.319	22.1	21.7
WCDMA B4	1412	1732.4	22.32dBm	0.439	22.1	21.7
	1513	1752.6	22.34dBm	0.431	22.1	21.7
Left Head (0	Cheek Pos	sition)				
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
	1312	1712.4	22.31dBm	0.646	22.1	21.7
WCDMA B4	1412	1732.4	22.32dBm	0.895	22.1	21.7
	1513	1752.6	22.34dBm	0.851	22.1	21.7
Left Head (0	Cheek Pos	sition) _	repeated with Me	mory card		
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	•
WCDMA B4	1412	1732.4	22.32dBm	0.852	22.1	21.7
Right Head	(15° Tilt I	Positior	1)			
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
	1312	1712.4	22.31dBm	0.331	22.1	21.7
WCDMA B4	1412	1732.4	22.32dBm	0.42	22.1	21.7
	1513	1752.6	22.34dBm	0.371	22.1	21.7
Left Head (1	15° Tilt Po	osition)				
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
ACC	1312	1712.4	22.31dBm	0.348	22.1	21.7
WCDMA B4	1412	1732.4	22.32dBm	0.452	22.1	21.7
	1513	1752.6	22.34dBm	0.409	22.1	21.7
		•				•

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Body worn						
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
\	1312	1712.4	22.31dBm	0.262	22.1	21.7
WCDMA B4	1412	1732.4	22.32dBm	0.376	22.1	21.7
	1513	1752.6	22.34dBm	0.41	22.1	21.7

# WCDMA BAND 4 HSDPA mode(Sub-test 1)

Body worn			\			
Frequency	Channel	MHz	Conducted Output Power (Average)	Measured(W/kg) 1g	Amb. Temp[°C]	Liquid Temp[°C]
	1312	1712.4	22.60dBm	0.262	22.1	21.7
WCDMA B4	1412	1732.4	22.58dBm	0.374	22.1	21.7
\	1513	1752.6	22.61dBm	0.407	22.1	21.7

# WCDMA BAND 4 HSUPA mode(Sub-test 1)

<b>110</b> 21112	1 -1 111	<u> </u>		as (Sab ts	<u> </u>	
Body worn						
Frequency	Channel	MHz	Conducted Output	Measured(W/kg)	Amb.	Liquid
			Power (Average)	1g	Temp[°C]	Temp[°C]
	1312	1712.4	22.23dBm	0.249	22.1	21.7
WCDMA B4	1412	1732.4	22.30dBm	0.297	22.1	21.7
	1513	1752.6	22.28dBm	0.328	22.1	21.7

# WLAN802.11 b

Body worn							
Frequency	Channel	Conducted	Conducted	Measured(W/kg)	Amb.	Liquid	
MHz		Output Power	Output Power	1g	Temp[°C]	Temp[°C]	
		(Peak)	(Average)				
2412	1	17.12dBm	14.69dBm	0.101	22.1	21.7	
2437	6	17.68 dBm	14.88dBm	0.143	22.1	21.7	
2462	11	17.67 dBm	14.85dBm	0.156	22.1	21.7	

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Body worn- repeated for EUT front to phantom							
Frequency	Channel	Conducted	Conducted	Measured(W/kg)	Amb.	Liquid	
MHz		Output Power	Output Power	1g	Temp[°C]	Temp[°C]	
		(Peak)	(Average)				
2462	11	17.67 dBm	14.85dBm	0.075	22.1	21.7	
Body worn-repeated with Memory card							
Frequency	Channel	Conducted	Conducted	Measured(W/kg)	Amb.	Liquid	
MHz	<b>L</b>	Output Power	Output Power	1g	Temp[°C]	Temp[°C]	
		(Peak)	(Average)				
2462	11	17.67dBm	14.85dBm	0.146	22.1	21.7	
Body worn-repeated with headset							
Frequency	Channel	Conducted	Conducted	Measured(W/kg)	Amb.	Liquid	
MHz		Output Power	Output Power	1g	Temp[°C]	Temp[°C]	
		(Peak)	(Average)				
2462	11	17.67dBm	14.85dBm	0.148	22.1	21.7	

WLAN 802.11 a

Body worn							
Frequency	Channel	Conducted	Conducted	Measured(W/kg)	Amb.	Liquid	
MHz		Output Power	Output Power	1g	Temp[°C]	Temp[°C]	
		(Peak)	(Average)		-		
2412	1	18.31dBm	16.09dbm	0.076	22.1	21.7	
2437	6	18.63dBm	16.23dbm	0.101	22.1	21.7	
2462	11	18.31dBm	16.07dbm	0.104	22.1	21.7	

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# 3. Instruments List

Manufacturer	Device	Туре	Serial number	Date of last calibration
Schmid & Partner Engineering AG	Dosimetric E-FieldProbe	ES3DV3	3172	May.27.2009
		D835V2	4d063	May.25.2009
Schmid & Partner	850/1800/1900/2450MHz	D1800V2	2d061	Apr.27.2009
Engineering AG	System Validation Dipole	D1900V2	5d027	Apr.27.2009
		D2450V2	727	Apr.27.2009
Schmid & Partner Engineering AG	Data acquisition Electronics	DAE4	856	May.26.2009
Calaurial O Danturan		DASY 5		C à l'ile marti a m
Schmid & Partner	Software	V5.0	N/A	Calibration
Engineering AG		Build125		not required
Schmid & Partner	<u>.</u>			Calibration
Engineering AG	Phantom	SAM	N/A	not required
Agilent	Network Analyzer	8753D	3410A05547	Mar.31.2009
A cilont	Dialactria Droba Vit	050700	11001440170	Calibration
Agilent	Dielectric Probe Kit	85070D	US01440168	not required
Agilent Dual-directional co		777D	50014	Aug.27.2009
Agilent	Agilent RF Signal Generator		3847M00432	May.25.2009
Agilent	Power Sensor	U2001B	MY48100169	Apr.23.2009
Agilent	Radio Communication Test	E5515c	GB44051912	Nov.05 .2008

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# 4. Measurements

Date: 2010/3/18

### RE Cheek\_CH128

#### DUT: M01M002;

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.87$  mho/m;

 $\varepsilon_r = 40.6$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.453 mW/g

# RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

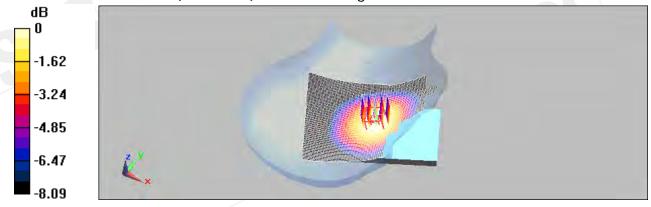
dy=8mm, dz=5mm

Reference Value = 8.4 V/m; Power Drift = 0.00297 dB

Peak SAR (extrapolated) = 0.536 W/kg

# SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.332 mW/g

Maximum value of SAR (measured) = 0.449 mW/g



0 dB = 0.449 mW/g

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Date: 2010/3/18

# RE Cheek\_CH190

DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 837 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.449 mW/g

RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

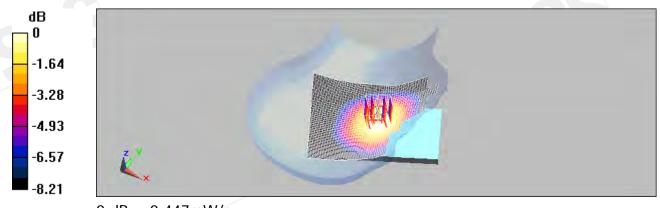
dy=8mm, dz=5mm

Reference Value = 8.13 V/m; Power Drift = 0.125 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.329 mW/g

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



0 dB = 0.447 mW/g

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Date: 2010/3/18

# RE Cheek\_CH251

DUT: M01M002;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 849 MHz;  $\sigma = 0.894$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.454 mW/g

RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

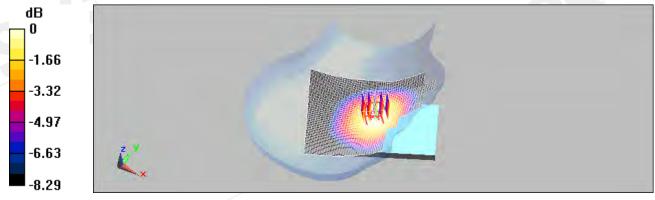
dy=8mm, dz=5mm

Reference Value = 8.13 V/m; Power Drift = 0.034 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.430 mW/g; SAR(10 g) = 0.329 mW/g

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



0 dB = 0.447 mW/q

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Date: 2010/3/18

# LE Cheek\_CH128

### DUT: M01M002;

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.87 \text{ mho/m}$ ;

 $\varepsilon_{\rm r} = 40.6$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.403 mW/g

# **LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

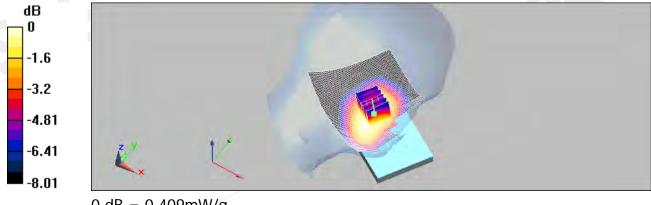
dy=8mm, dz=5mm

Reference Value = 8.33 V/m; Power Drift = -0.119 dB

Peak SAR (extrapolated) = 0.485 W/kg

# SAR(1 g) = 0.390 mW/g; SAR(10 g) = 0.300 mW/g

Maximum value of SAR (measured) = 0.409 mW/g



0 dB = 0.409 mW/q

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Date: 2010/3/18

# LE Cheek\_CH190

DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 837 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.398 mW/g

# **LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

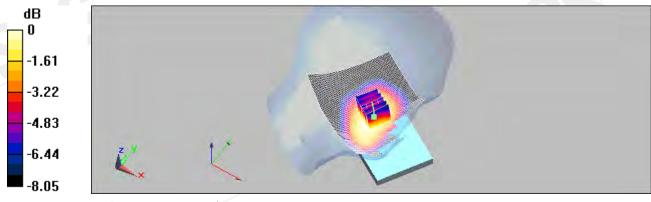
dy=8mm, dz=5mm

Reference Value = 7.98 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.476 W/kg

## SAR(1 g) = 0.384 mW/g; SAR(10 g) = 0.294 mW/g

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



0 dB = 0.407 mW/q

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Date: 2010/3/18

# LE Cheek\_CH251

### DUT: M01M002;

Communication System: GSM 850; Frequency: 846.6 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 837 MHz;  $\sigma = 0.894$  mho/m;  $\varepsilon_r = 40.2$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.385 mW/g

# **LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

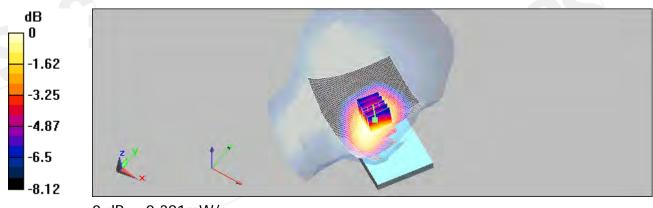
dy=8mm, dz=5mm

Reference Value = 7.88 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.462 W/kg

# SAR(1 g) = 0.371 mW/g; SAR(10 g) = 0.284 mW/g

Maximum value of SAR (measured) = 0.391 mW/g



0 dB = 0.391 mW/q

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Date: 2010/3/18

# RE Tilt\_CH128

#### DUT: M01M002;

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.87 \text{ mho/m}$ ;

 $\varepsilon_{\rm r} = 40.6$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.283 mW/g

### RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

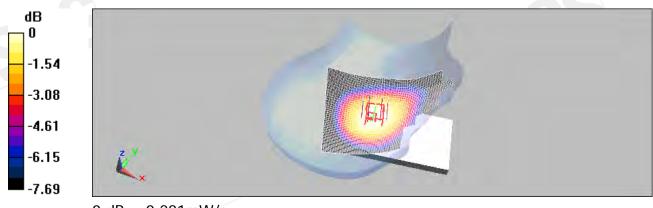
dy=8mm, dz=5mm

Reference Value = 13.1 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 0.332 W/kg

# SAR(1 g) = 0.268 mW/g; SAR(10 g) = 0.210 mW/g

Maximum value of SAR (measured) = 0.281 mW/g



0 dB = 0.281 mW/q

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Date/Time: 09/19/2009 03:44:06

# RE Tilt\_CH190

### DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 837 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.275 mW/g

### RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

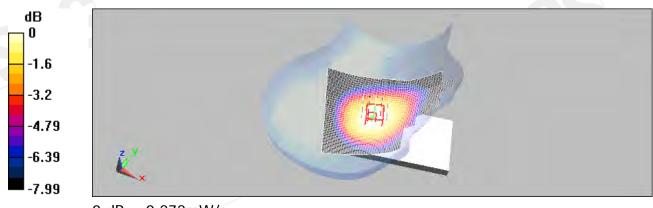
dy=8mm, dz=5mm

Reference Value = 12.8 V/m; Power Drift = -0.139 dB

Peak SAR (extrapolated) = 0.319 W/kg

### SAR(1 g) = 0.260 mW/g; SAR(10 g) = 0.202 mW/g

Maximum value of SAR (measured) = 0.272 mW/g



0 dB = 0.272 mW/q

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# RE Tilt\_CH251

### DUT: M01M002;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 849 MHz;  $\sigma = 0.894$  mho/m;  $\varepsilon_r = 40.2$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.246 mW/g

### RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

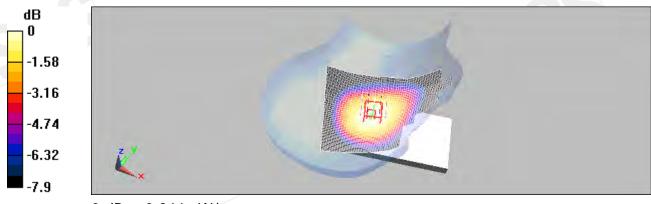
dy=8mm, dz=5mm

Reference Value = 12.4 V/m; Power Drift = -0.00653 dB

Peak SAR (extrapolated) = 0.288 W/kg

#### SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.244 mW/g



0 dB = 0.244 mW/q

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Date/Time: 09/19/2009 06:05:09

# LE Tilt\_CH128

### DUT: M01M002;

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.87 \text{ mho/m}$ ;

 $\varepsilon_r = 40.6$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Tilt/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.294 mW/g

### LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

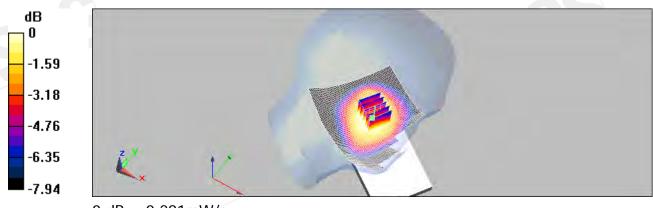
dy=8mm, dz=5mm

Reference Value = 13.3 V/m; Power Drift = -0.100 dB

Peak SAR (extrapolated) = 0.344 W/kg

# SAR(1 g) = 0.280 mW/g; SAR(10 g) = 0.217 mW/g

Maximum value of SAR (measured) = 0.291 mW/g



0 dB = 0.291 mW/g

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Date: 2010/3/18

# LE Tilt\_CH190

### DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 837 MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 40.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.290 mW/g

### **LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

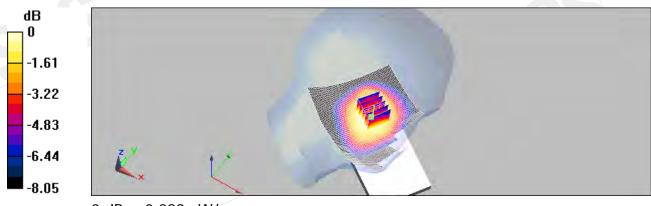
dy=8mm, dz=5mm

Reference Value = 13 V/m; Power Drift = -0.010 dB

Peak SAR (extrapolated) = 0.344 W/kg

## SAR(1 g) = 0.277 mW/g; SAR(10 g) = 0.215 mW/g

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



0 dB = 0.289 mW/q

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# LE Tilt\_CH251

#### DUT: M01M002;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD900 Medium parameters used: f = 849 MHz;  $\sigma = 0.894$  mho/m;  $\varepsilon_r = 40.2$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.83, 5.83, 5.83); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.270 mW/g

### **LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

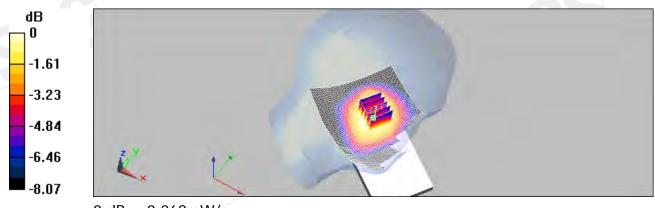
dy=8mm, dz=5mm

Reference Value = 12.3 V/m; Power Drift = 0.075 dB

Peak SAR (extrapolated) = 0.316 W/kg

# SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.198 mW/g

Maximum value of SAR (measured) = 0.268 mW/g



0 dB = 0.268 mW/q

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# Body\_CH128

#### **DUT: M01M002:**

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.973$ 

mho/m;  $\varepsilon_r = 52.8$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dv=8mm, dz=5mm

Reference Value = 9.45 V/m; Power Drift = -0.130 dB

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.669 mW/g

Maximum value of SAR (measured) = 0.933 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 1: Measurement grid: dx=8mm,

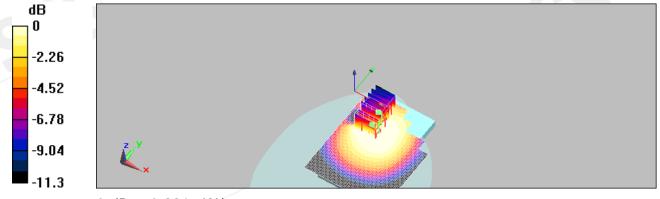
dy=8mm, dz=5mm

Reference Value = 9.45 V/m; Power Drift = -0.130 dB

Peak SAR (extrapolated) = 1.08 W/kg

SAR(1 g) = 0.818 mW/g; SAR(10 g) = 0.565 mW/g

Maximum value of SAR (measured) = 0.896 mW/g



0 dB = 0.896 mW/q

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Date: 2010/3/19

# Body\_CH190

#### **DUT: M01M002:**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 837 MHz;  $\sigma = 0.979$  mho/m;  $\varepsilon_r = 52.5$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.03 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dv=8mm, dz=5mm

Reference Value = 9.66 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 1.21 W/kg

SAR(1 g) = 0.956 mW/g; SAR(10 g) = 0.734 mW/g

Maximum value of SAR (measured) = 0.994 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 1: Measurement grid: dx=8mm,

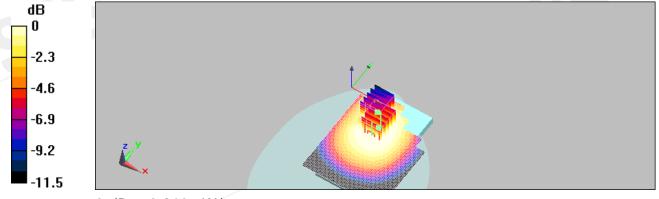
dy=8mm, dz=5mm

Reference Value = 9.66 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.891 mW/g; SAR(10 g) = 0.631 mW/g

Maximum value of SAR (measured) = 0.960 mW/g



0 dB = 0.960 mW/q

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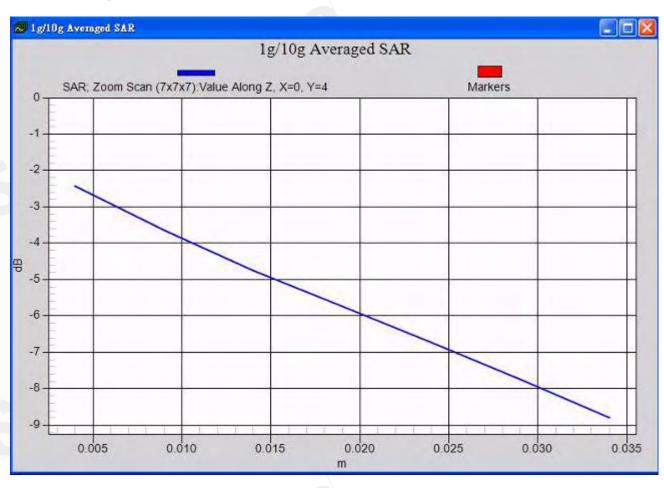
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# Body\_CH251

DUT: M01M002;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 849 MHz;  $\sigma = 0.981$  mho/m;  $\varepsilon_r = 52.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm

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

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

dy=8mm, dz=5mm

Reference Value = 9.75 V/m; Power Drift = -0.158 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.936 mW/g; SAR(10 g) = 0.718 mW/g

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

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 1: Measurement grid: dx=8mm,

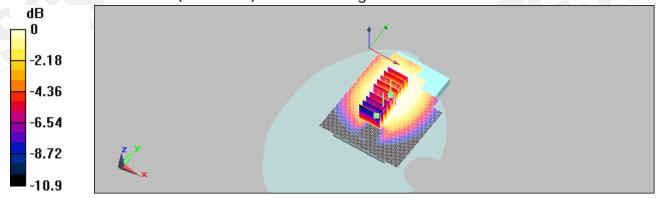
dy=8mm, dz=5mm

Reference Value = 9.75 V/m; Power Drift = -0.158 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.769 mW/g; SAR(10 g) = 0.536 mW/g

Maximum value of SAR (measured) = 0.866 mW/g



0 dB = 0.866 mW/q

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# Body\_CH190\_repeated for EUT front to phantom

DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 837 MHz;  $\sigma = 0.979$  mho/m;  $\varepsilon_r = 52.5$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.266 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

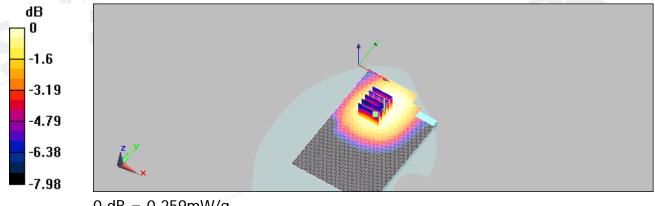
dy=8mm, dz=5mm

Reference Value = 4.88 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.316 W/kg

# SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.190 mW/g

Maximum value of SAR (measured) = 0.259 mW/g



0 dB = 0.259 mW/q

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Date: 2010/3/19

# Body\_CH190\_repeated with Memory card

#### DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 837 MHz;  $\sigma = 0.979$  mho/m;  $\varepsilon_r = 52.5$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.956 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

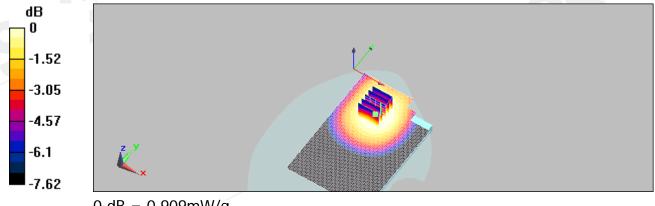
dy=8mm, dz=5mm

Reference Value = 9.27 V/m; Power Drift = -0.181 dB

Peak SAR (extrapolated) = 1.11 W/kg

### SAR(1 g) = 0.873 mW/g; SAR(10 g) = 0.676 mW/g

Maximum value of SAR (measured) = 0.909 mW/g



0 dB = 0.909 mW/q

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# BODY\_CH190\_repeated with headset

DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 837 MHz;  $\sigma = 0.979$  mho/m;  $\varepsilon_r = 52.5$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.785 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

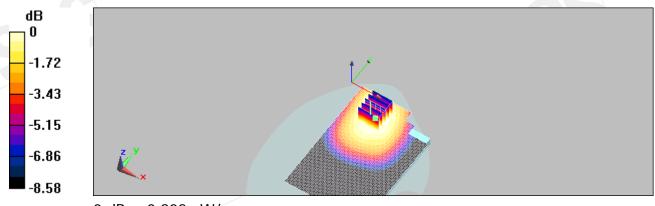
dy=8mm, dz=5mm

Reference Value = 7.51 V/m; Power Drift = 0.150 dB

Peak SAR (extrapolated) = 0.965 W/kg

#### SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.563 mW/g

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



0 dB = 0.802 mW/q

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Date: 2010/3/19

# Body\_CH128\_repeated with EGPRS mode

#### DUT: M01M002;

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used (interpolated): f = 824.2 MHz;  $\sigma = 0.973$ 

mho/m; ε<sub>r</sub> = 52.8; ρ = 1000 kg/m<sup>3</sup> Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.309 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

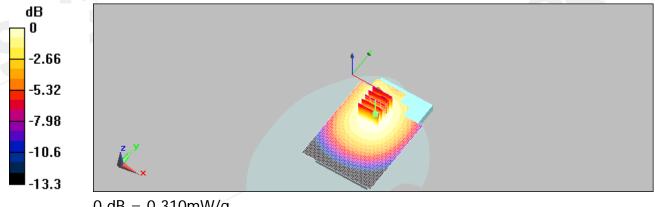
dy=8mm, dz=5mm

Reference Value = 4.87 V/m; Power Drift = 0.186 dB

Peak SAR (extrapolated) = 0.376 W/kg

# SAR(1 g) = 0.296 mW/g; SAR(10 g) = 0.228 mW/g

Maximum value of SAR (measured) = 0.310 mW/g



0 dB = 0.310 mW/q

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# Body\_CH190\_repeated with EGPRS mode

DUT: M01M002;

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 837 MHz;  $\sigma = 0.979$  mho/m;  $\varepsilon_r = 52.5$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.375 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

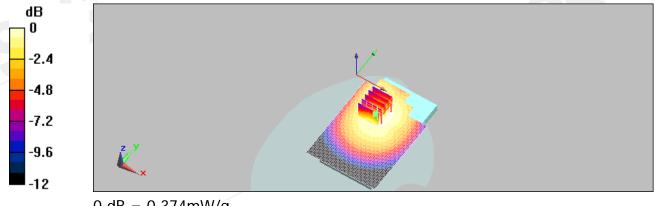
dy=8mm, dz=5mm

Reference Value = 5.65 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 0.479 W/kg

#### SAR(1 g) = 0.366 mW/g; SAR(10 g) = 0.272 mW/g

Maximum value of SAR (measured) = 0.374 mW/g



0 dB = 0.374 mW/q

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Date: 2010/3/19

# Body\_CH251\_repeated with EGPRS mode

DUT: M01M002;

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:2

Medium: BODY900 Medium parameters used: f = 849 MHz;  $\sigma = 0.981$  mho/m;  $\varepsilon_r = 52.4$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(5.81, 5.81, 5.81); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.375 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

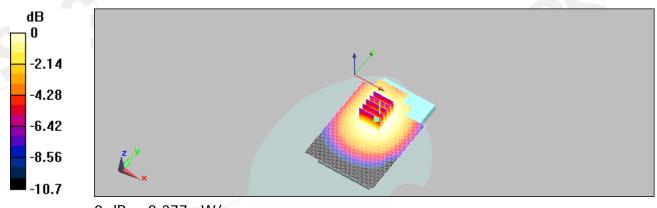
dy=8mm, dz=5mm

Reference Value = 5.74 V/m; Power Drift = 0.033 dB

Peak SAR (extrapolated) = 0.501 W/kg

### SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.278 mW/g

Maximum value of SAR (measured) = 0.377 mW/g



0 dB = 0.377 mW/g

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Date: 2010/3/19

### RE Cheek\_CH512

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $\varepsilon_r = 39.1$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Cheek/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.227 mW/g

### RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

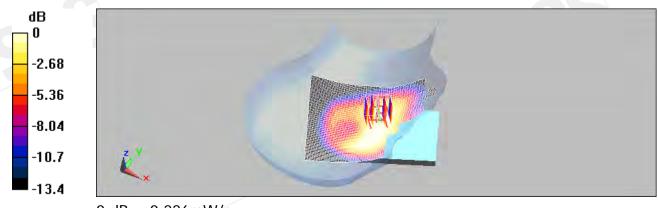
dy=8mm, dz=5mm

Reference Value = 5.7 V/m; Power Drift = -0.089 dB

Peak SAR (extrapolated) = 0.298 W/kg

### SAR(1 g) = 0.210 mW/g; SAR(10 g) = 0.141 mW/g

Maximum value of SAR (measured) = 0.226 mW/g



0 dB = 0.226 mW/q

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Date: 2010/3/19

# RE Cheek\_CH661

DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 39.1$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Cheek/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.251 mW/g

RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

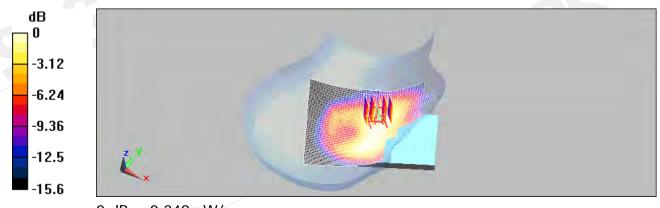
dy=8mm, dz=5mm

Reference Value = 5.45 V/m; Power Drift = -0.00726 dB

Peak SAR (extrapolated) = 0.341 W/kg

SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.154 mW/g

Maximum value of SAR (measured) = 0.249 mW/g



0 dB = 0.249 mW/q

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### RE Cheek\_CH810

DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 39$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Cheek/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.262 mW/g

RE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

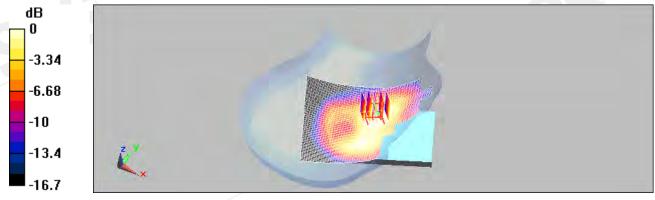
dy=8mm, dz=5mm

Reference Value = 5.53 V/m; Power Drift = 0.199 dB

Peak SAR (extrapolated) = 0.359 W/kg

SAR(1 g) = 0.243 mW/g; SAR(10 g) = 0.156 mW/g

Maximum value of SAR (measured) = 0.261 mW/g



0 dB = 0.261 mW/q

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### LE Cheek\_CH512

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $\varepsilon_r = 39.1$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.435 mW/g

### LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

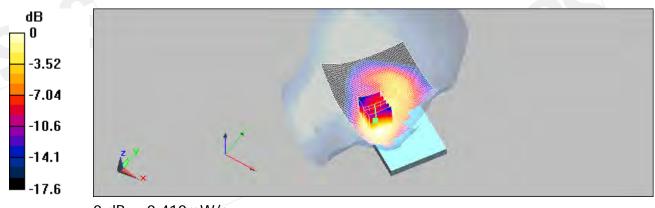
dy=8mm, dz=5mm

Reference Value = 6.45 V/m; Power Drift = 0.101 dB

Peak SAR (extrapolated) = 0.568 W/kg

### SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.410 mW/g



0 dB = 0.410 mW/g

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# LE Cheek\_CH661

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 39.1$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.434 mW/g

### **LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

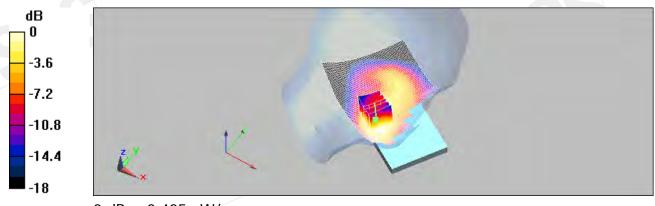
dy=8mm, dz=5mm

Reference Value = 6.28 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 0.570 W/kg

# SAR(1 g) = 0.379 mW/g; SAR(10 g) = 0.243 mW/g

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



0 dB = 0.405 mW/q

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# LE Cheek\_CH810

DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 39$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Cheek/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.399 mW/g

### **LE Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

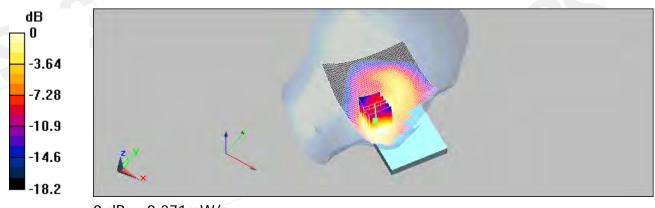
dy=8mm, dz=5mm

Reference Value = 6.23 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.526 W/kg

# SAR(1 g) = 0.347 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.371 mW/g



0 dB = 0.371 mW/q

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# RE Tilt\_CH512

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $\varepsilon_r = 39.1$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.142 mW/g

RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

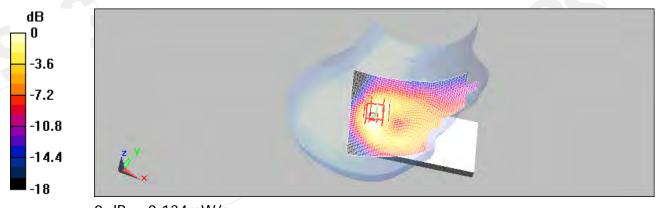
dy=8mm, dz=5mm

Reference Value = 9.19 V/m; Power Drift = -0.073 dB

Peak SAR (extrapolated) = 0.207 W/kg

#### SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.075 mW/g

Maximum value of SAR (measured) = 0.134 mW/g



0 dB = 0.134 mW/q

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### RE Tilt\_CH661

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 39.1$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE Tilt/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.152 mW/g

#### RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

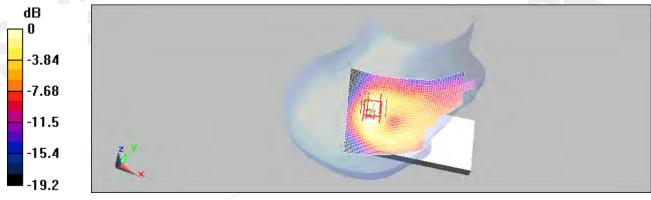
dy=8mm, dz=5mm

Reference Value = 9.18 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.209 W/kg

### SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.077 mW/g

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



0 dB = 0.139 mW/q

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### RE Tilt\_CH810

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 39$ ;  $\rho =$ 

1000 kg/m<sup>3</sup>

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

RE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.150 mW/g

#### RE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

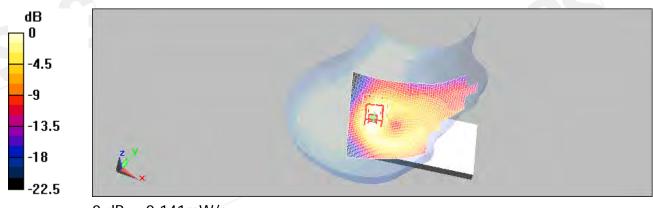
dy=8mm, dz=5mm

Reference Value = 9.32 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.212 W/kg

# SAR(1 g) = 0.130 mW/g; SAR(10 g) = 0.075 mW/g

Maximum value of SAR (measured) = 0.141 mW/g



0 dB = 0.141 mW/q

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# LE Tilt\_CH512

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $\varepsilon_r = 39.1$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE Tilt/Area Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.167 mW/g

#### **LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

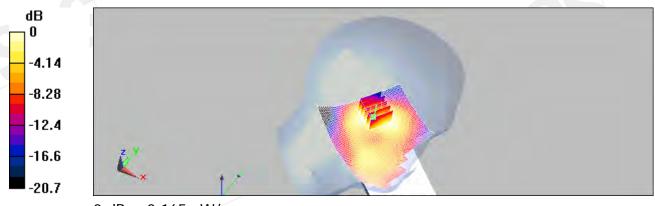
dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = 0.069 dB

Peak SAR (extrapolated) = 0.248 W/kg

#### SAR(1 g) = 0.156 mW/g; SAR(10 g) = 0.096 mW/g

Maximum value of SAR (measured) = 0.165 mW/g



0 dB = 0.165 mW/q

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Date: 2010/3/19

# LE Tilt\_CH661

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 39.1$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Tilt/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.177 mW/g

#### LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

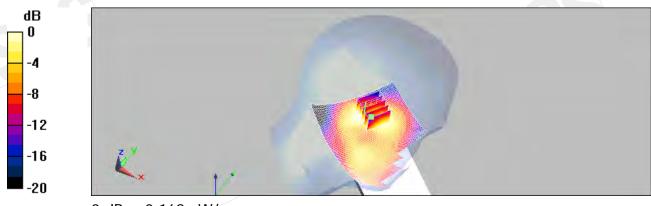
dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.248 W/kg

### SAR(1 g) = 0.157 mW/g; SAR(10 g) = 0.096 mW/g

Maximum value of SAR (measured) = 0.168 mW/g



0 dB = 0.168 mW/q

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### LE Tilt\_CH810

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium: HEAD1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.51$  mho/m;  $\epsilon_r = 39$ ;  $\rho = 1.51$  mho/m;  $\epsilon_r = 39$ ;  $\epsilon_r = 39$ 

1000 kg/m<sup>3</sup>

Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.86, 4.86, 4.86); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE Tilt/Area Scan (81x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.167 mW/g

#### LE Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

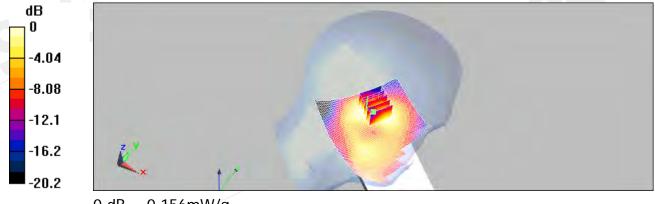
dy=8mm, dz=5mm

Reference Value = 10.1 V/m; Power Drift = -0.00224 dB

Peak SAR (extrapolated) = 0.242 W/kg

### SAR(1 g) = 0.150 mW/g; SAR(10 g) = 0.091 mW/g

Maximum value of SAR (measured) = 0.156 mW/g



0 dB = 0.156 mW/q

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Date: 2010/3/20

# Body\_CH512

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $\varepsilon_r = 55.8$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**Body/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.652 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

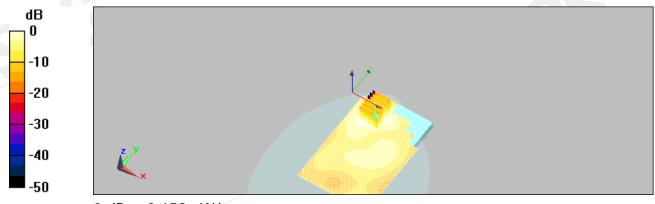
dy=8mm, dz=5mm

Reference Value = 8.44 V/m; Power Drift = -0.054 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.592 mW/g; SAR(10 g) = 0.320 mW/g

Maximum value of SAR (measured) = 0.658 mW/g



0 dB = 0.658 mW/q

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# Body\_CH661

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.54$  mho/m;  $\epsilon_r = 55.8$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**Body/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.722 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

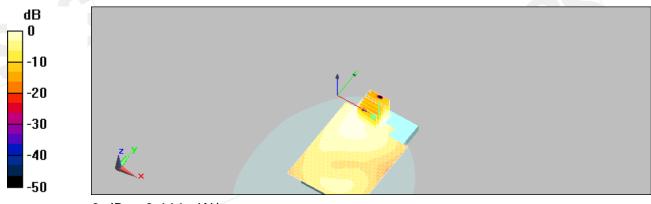
dy=8mm, dz=5mm

Reference Value = 8.75 V/m; Power Drift = 0.187 dB

Peak SAR (extrapolated) = 1.06 W/kg

#### SAR(1 g) = 0.592 mW/g; SAR(10 g) = 0.322 mW/g

Maximum value of SAR (measured) = 0.661 mW/g



0 dB = 0.661 mW/q

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# Body\_CH810

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.56$  mho/m;  $\epsilon_r = 55.7$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.732 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

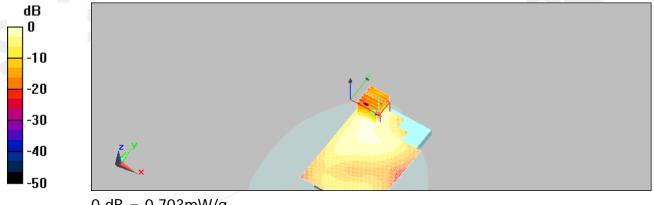
dy=8mm, dz=5mm

Reference Value = 9.15 V/m; Power Drift = -0.043 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.644 mW/g; SAR(10 g) = 0.350 mW/g

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



0 dB = 0.703 mW/q

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# Body\_CH512\_repeated with EGPRS mode

#### DUT: M01M002;

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used (interpolated): f = 1850.2 MHz;  $\sigma = 1.51$ 

mho/m;  $ε_r = 55.8$ ;  $ρ = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.326 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

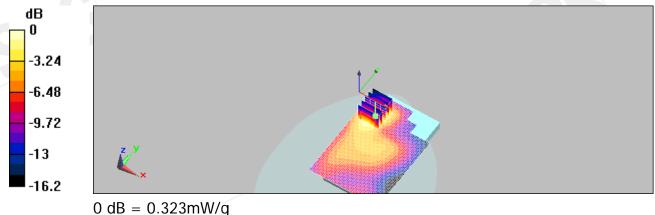
dy=8mm, dz=5mm

Reference Value = 4.59 V/m; Power Drift = 0.167 dB

Peak SAR (extrapolated) = 0.474 W/kg

SAR(1 g) = 0.291 mW/g; SAR(10 g) = 0.162 mW/g

Maximum value of SAR (measured) = 0.323 mW/g



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# Body\_CH661\_repeated with EGPRS mode

DUT: M01M002;

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used: f = 1880 MHz;  $\sigma = 1.54$  mho/m;  $\varepsilon_r = 55.8$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.366 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

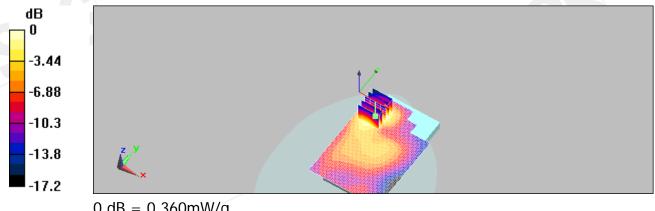
dy=8mm, dz=5mm

Reference Value = 4.73 V/m; Power Drift = -0.066 dB

Peak SAR (extrapolated) = 0.562 W/kg

### SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.360 mW/g



0 dB = 0.360 mW/q

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# Body\_CH810\_repeated with EGPRS mode

DUT: M01M002;

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2

Medium: BODY1900 Medium parameters used: f = 1910 MHz;  $\sigma = 1.56$  mho/m;  $\varepsilon_r = 55.7$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.54, 4.54, 4.54); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

Body/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.428 mW/g

Body/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

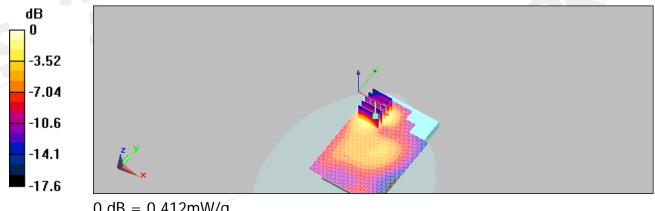
dy=8mm, dz=5mm

Reference Value = 4.67 V/m; Power Drift = -0.163 dB

Peak SAR (extrapolated) = 0.821 W/kg

# SAR(1 g) = 0.359 mW/g; SAR(10 g) = 0.192 mW/g

Maximum value of SAR (measured) = 0.412 mW/g



0 dB = 0.412 mW/q

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Date: 2010/3/18

# RE Cheek\_CH1312

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1712.4 MHz;  $\sigma = 1.35$ 

mho/m;  $\varepsilon_r = 39.4$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Cheek/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.340 mW/g

## RE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

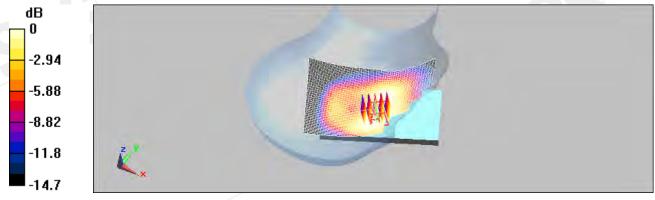
dy=8mm, dz=5mm

Reference Value = 9.77 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.449 W/kg

# SAR(1 g) = 0.319 mW/g; SAR(10 g) = 0.218 mW/g

Maximum value of SAR (measured) = 0.336 mW/g



0 dB = 0.336 mW/q

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# RE Cheek\_CH1412

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1732.4 MHz;Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1732.4 MHz;  $\sigma = 1.36$ 

mho/m;  $\varepsilon_r = 39.2$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Cheek/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.474 mW/g

## RE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

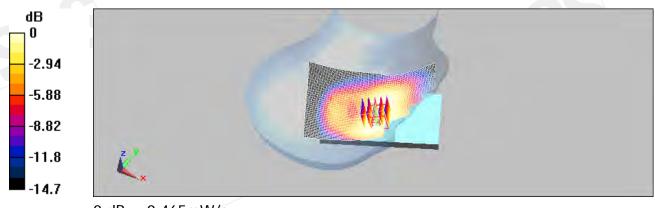
dy=8mm, dz=5mm

Reference Value = 10.7 V/m; Power Drift = 0.00401 dB

Peak SAR (extrapolated) = 0.618 W/kg

### SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.301 mW/g

Maximum value of SAR (measured) = 0.465 mW/g



0 dB = 0.465 mW/g

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### RE Cheek\_CH1513

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used: f = 1753 MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 39.2$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Cheek/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.478 mW/g

### RE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

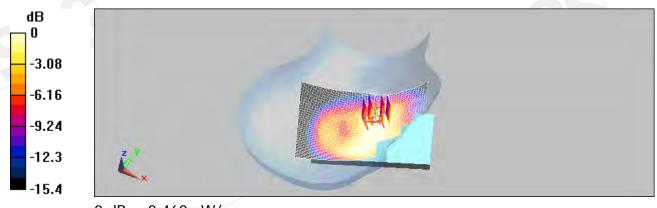
dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 0.598 W/kg

#### SAR(1 g) = 0.431 mW/g; SAR(10 g) = 0.294 mW/g

Maximum value of SAR (measured) = 0.460 mW/g



0 dB = 0.460 mW/g

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### LE Cheek\_CH1312

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1712.4 MHz;  $\sigma = 1.35$ 

mho/m;  $\varepsilon_r = 39.4$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE\_Cheek/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.720 mW/g

## LE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

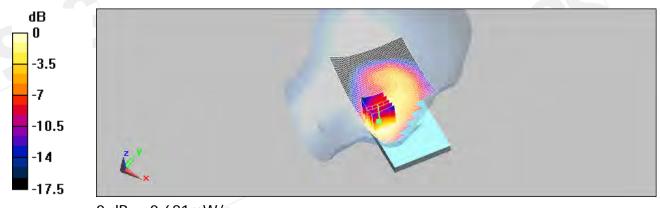
dy=8mm, dz=5mm

Reference Value = 9.31 V/m; Power Drift = -0.0023 dB

Peak SAR (extrapolated) = 0.928 W/kg

# SAR(1 g) = 0.646 mW/g; SAR(10 g) = 0.425 mW/g

Maximum value of SAR (measured) = 0.681 mW/g



0 dB = 0.681 mW/q

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### LE Cheek\_CH1412

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1732.4 MHz;  $\sigma = 1.36$ 

mho/m;  $\varepsilon_r = 39.2$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### DASY5 Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE\_Cheek/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.01 mW/g

### LE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

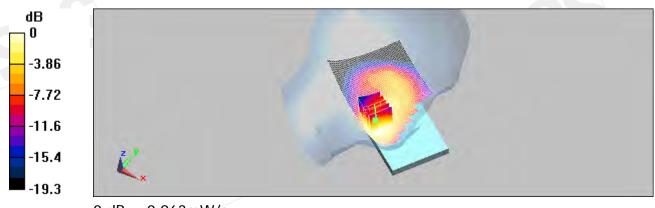
dy=8mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = 0.103 dB

Peak SAR (extrapolated) = 1.29 W/kg

#### SAR(1 g) = 0.895 mW/g; SAR(10 g) = 0.585 mW/g

Maximum value of SAR (measured) = 0.963 mW/g



0 dB = 0.963 mW/g

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### LE Cheek\_CH1513

DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used: f = 1753 MHz;  $\sigma = 1.39$  mho/m;  $\varepsilon_r = 39.2$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE\_Cheek/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.952 mW/g

LE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

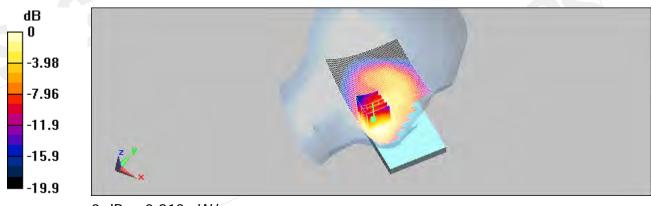
dy=8mm, dz=5mm

Reference Value = 10.5 V/m; Power Drift = -0.051 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.851 mW/g; SAR(10 g) = 0.554 mW/g

Maximum value of SAR (measured) = 0.913 mW/g



0 dB = 0.913 mW/q

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# LE Cheek\_CH1412\_repeated with Memory card

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1732.4 MHz;  $\sigma = 1.36$ 

mho/m;  $ε_r = 39.2$ ;  $ρ = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

LE\_Cheek/Area Scan (71x121x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.955 mW/g

## LE\_Cheek/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

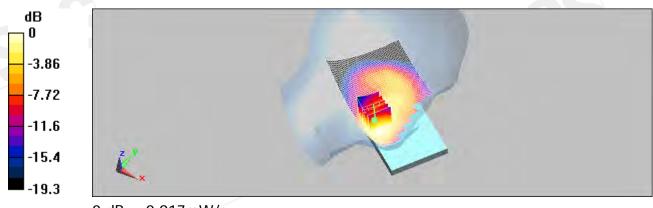
dy=8mm, dz=5mm

Reference Value = 11.1 V/m; Power Drift = -0.075 dB

Peak SAR (extrapolated) = 1.23 W/kg

# SAR(1 g) = 0.852 mW/g; SAR(10 g) = 0.558 mW/g

Maximum value of SAR (measured) = 0.917 mW/g



0 dB = 0.917 mW/q

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# RE Tilt\_CH1312

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1712.4 MHz;  $\sigma = 1.35$ 

mho/m;  $\varepsilon_r = 39.4$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Tilt/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.372 mW/g

### **RE\_Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0:** Measurement grid: dx=8mm,

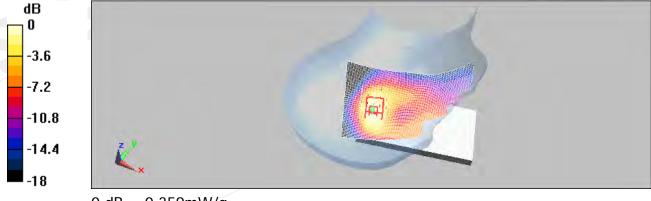
dy=8mm, dz=5mm

Reference Value = 14.9 V/m; Power Drift = -0.042 dB

Peak SAR (extrapolated) = 0.528 W/kg

### SAR(1 g) = 0.331 mW/g; SAR(10 g) = 0.193 mW/g

Maximum value of SAR (measured) = 0.359 mW/g



0 dB = 0.359 mW/q

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# RE Tilt\_CH1412

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1732.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1732.4 MHz;  $\sigma = 1.36$ 

mho/m;  $\varepsilon_r = 39.2$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Tilt/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.472 mW/g

#### RE\_Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

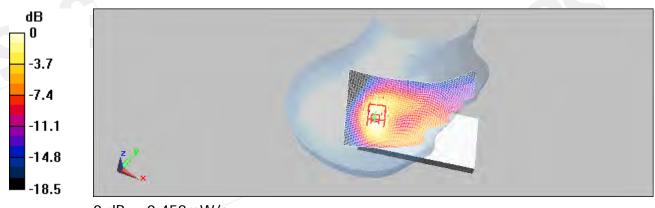
dy=8mm, dz=5mm

Reference Value = 16.8 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 0.675 W/kg

### SAR(1 g) = 0.420 mW/g; SAR(10 g) = 0.245 mW/g

Maximum value of SAR (measured) = 0.458 mW/g



0 dB = 0.458 mW/g

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### RE Tilt\_CH1513

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used: f = 1753 MHz;  $\sigma = 1.39$  mho/m;  $\epsilon_r = 39.2$ ;  $\rho$ 

 $= 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**RE\_Tilt/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.426 mW/g

#### RE\_Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

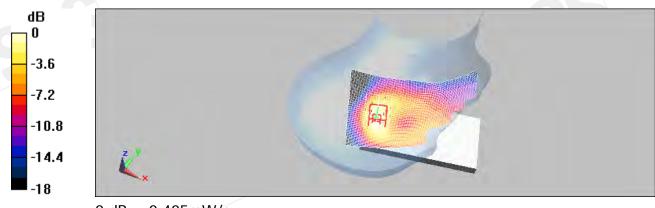
dy=8mm, dz=5mm

Reference Value = 16 V/m; Power Drift = -0.063 dB

Peak SAR (extrapolated) = 0.601 W/kg

#### SAR(1 g) = 0.371 mW/g; SAR(10 g) = 0.215 mW/g

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



0 dB = 0.405 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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Date: 2010/3/18

# LE Tilt\_CH1312

#### DUT: M01M002;

Communication System: WCDMA BAND4; Frequency: 1712.4 MHz; Duty Cycle: 1:1

Medium: Head 1800 Medium parameters used (interpolated): f = 1712.4 MHz;  $\sigma = 1.35$ 

mho/m;  $\varepsilon_r = 39.4$ ;  $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section

#### **DASY5** Configuration:

Probe: ES3DV3 - SN3172; ConvF(4.99, 4.99, 4.99); Calibrated: 5/27/2009

Sensor-Surface: 4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn856; Calibrated: 5/26/2009

Phantom: SAM1; Type: SAM;

Measurement SW: DASY5, V5.0 Build 125; SEMCAD X Version 13.4 Build 125

**LE\_Tilt/Area Scan (71x121x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.436 mW/g

## LE\_Tilt/Zoom Scan (7x7x7) (5x5x7)/Cube 0: Measurement grid: dx=8mm,

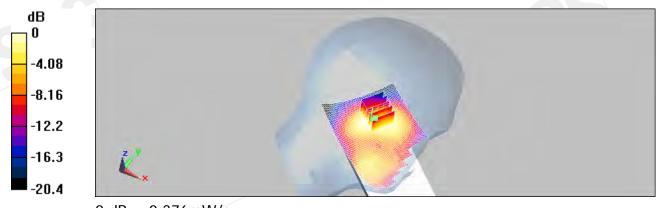
dy=8mm, dz=5mm

Reference Value = 15.2 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.530 W/kg

# SAR(1 g) = 0.348 mW/g; SAR(10 g) = 0.221 mW/g

Maximum value of SAR (measured) = 0.376 mW/g



0 dB = 0.376 mW/q

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