

SAR TEST REPORT

Equipment Under Test	:	Tablet PC
Model No.	:	XE700T1C
Applicant	:	Samsung Electronics Co., Ltd.
Address of Applicant	:	416, Maetan-dong, Yeongtong-gu, Suwon-city, Gyeonggi-do, Korea
FCC ID	:	System FCC ID: A3LXE700T1C-N (for NFC) Contains FCC ID : A3LMU733-J (for WWAN Module) A3L6235ANH (for WLAN Module)
Device Category	:	Portable Device
Exposure Category	:	General Population / Uncontrolled Exposure
Date of Receipt	:	2012-08-21
Date of Test(s)	:	2012-09-18 ~ 2013-01-07
Date of Issue	:	2013-02-26

Standards:

FCC OET Bulletin 65 supplement C

IEEE 1528, 2003

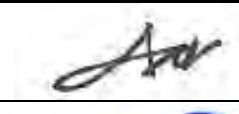
ANSI/IEEE C95.1, C95.3

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.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Korea Co., Ltd. (Gunpo Laboratory) or testing done by SGS Korea Co., Ltd. (Gunpo Laboratory) in connection with distribution or use of the product described in this report must be approved by SGS Korea Co., Ltd. (Gunpo Laboratory) in writing.

Tested by	:	Jongwon Ma		2013-02-26
Approved by	:	Denny Ham		2013-02-26

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APPENDIX

A. DASY4 SAR Report

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1. General Information

1.1 Testing Laboratory

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1.2 Details of Applicant

Applicant : Samsung Electronics Co., Ltd.
Address : 416, Maetan-dong, Yeongtong-gu, Suwon-city, Gyeonggi-do, Korea
Email : johnlee@samsung.com
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1.3 Version of Report

Version Number	Date	Revision
00	2013-01-15	Initial issue
01	2013-01-25	Revision 01
02	2013-02-19	Revision 02
03	2013-02-26	Revision 03

1.4 Description of EUT(s)

EUT Type	Tablet PC		
Model	XE700T1C		
FCC ID	System FCC ID: A3LXE700T1C-N (for NFC) Contains FCC ID : A3LMU733-J (for WWAN Module), A3L6235ANH (for WLAN Module)		
Serial Number	HXTV91CC700079M		
Mode of Operation	GSM850, PCS1900, WCDMA II, WCDMA V, WLAN		
Duty Cycle	8.3(GPRS 1Tx Slot), 4.15(GPRS 2Tx Slot), 1(WLAN)		
Body worn Accessory	None		
Tx Frequency Range	824.2 Mhz ~ 848.8 Mhz (GSM850) 1850.2 Mhz ~ 1909.8 Mhz (PCS1900) 1852.4 Mhz ~ 1907.6 Mhz (WCDMA II) 826.4 Mhz ~ 846.6 Mhz (WCDMA V) 2412 Mhz~ 2462 Mhz (WLAN_11b/g/n) 5180 Mhz ~ 5240 Mhz, 5260 Mhz ~ 5320 Mhz (WLAN_11a/n) 5500 Mhz ~ 5700 Mhz, 5745 Mhz ~ 5825 Mhz (WLAN_11a/n) 2402 Mhz ~ 2480 Mhz (Bluetooth)		
Equipment Class	Band & Mode	Measured Conducted Power [dB m]	Reported SAR
			1g Body-Worn (W/kg)
PCE	GSM850 GPRS	29.87	0.531
	PCS1900 GPRS	26.42	0.583
	WCDMA II	23.14	0.889
	WCDMA V	23.24	0.542
DTS	2.4 GHz WLAN	16.43	0.793
NUII	5 GHz WLAN	15.70	1.245
DSS	Bluetooth	6.02	N/A
Simultaneous SAR per KDB 690783 D01v01r02			1.645

1.5 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 44798 D01v05.

Burst Average power for Production					
Mode	Nominal & Maximum	GSM850		PCS1900	
		Normal	Reduced	Normal	Reduced
GPRS (GMSK, 1 Tx slot)	Maximum	33.00	24.00	29.50	19.50
	Nominal	32.50	23.50	29.00	19.00
GPRS (GMSK, 2 Tx slot)	Maximum	30.50	24.00	27.00	19.50
	Nominal	30.00	23.50	26.50	19.00
EDGE (8PSK, 1 Tx slot)	Maximum	27.50	24.50	26.00	19.50
	Nominal	27.00	24.00	25.50	19.00
EDGE (8PSK, 2 Tx slot)	Maximum	25.00	24.50	23.50	19.50
	Nominal	24.50	24.00	23.00	19.00
Average power for Production					
Mode	Nominal & Maximum	WCDMA II		WCDMA V	
		Normal	Reduced	Normal	Reduced
RMC 12.2K	Maximum	24.00	14.00	24.00	19.00
	Nominal	23.50	13.50	23.50	18.50
Average power for Production					
Mode	Nominal & Maximum	a	b	g	n
WLAN Main	Maximum	17.00	17.00	17.00	17.00
	Nominal	16.50	16.50	16.50	16.50
WLAN AUX	Maximum	16.50	17.00	17.00	17.00
	Nominal	16.00	16.50	16.50	16.50
Mode	Average power for Production				
Bluetooth	Maximum	7.50			
	Nominal	7.00			

1.6 Test Environment

Ambient temperature	: $(22 \pm 2) ^\circ \text{C}$
Tissue Simulating Liquid	: $(22 \pm 2) ^\circ \text{C}$
Relative Humidity	: $(55 \pm 5) \% \text{ R.H.}$

1.7 Operation Configuration

The device in GSM mode was controlled by using a Communication tester (CMU 200). Communication between the device and the tester was established by air link. Measurements were performed at the lowest, middle and highest channels of the operating band. The EUT was set to maximum power level during all tests and at the beginning of each test the battery was fully charged.

The DASY4 system measures power drift during SAR testing by comparing e-field in the same location at the beginning and at the end of measurement. Based on the RF Power and antenna separation distance, stand-alone BT SAR and simultaneous SAR evaluation are not required.

1.8 Host PC Information

Model Name	XE700T1C
Serial No.	N/A
Manufacturer	Samsung Electronics Co., Ltd.

1.9 SAR Measurement Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The Minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2 mm. This distance cannot be smaller than the Distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2 and 3: Area Scan & Zoom Scan 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 1 g and 10 g.

< Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01 >

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 2 mm	$\approx 5.8 \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{area}, \Delta y_{area}$			≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: $\Delta x_{zoom}, \Delta y_{zoom}$			≤ 2 GHz: ≤ 8 mm $2 - 3$ GHz: ≤ 5 mm*	$3 - 4$ GHz: ≤ 5 mm* $4 - 6$ GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{zoom}(0)$		≤ 5 mm	$3 - 4$ GHz: ≤ 4 mm $4 - 5$ GHz: ≤ 3 mm $5 - 6$ GHz: ≤ 2 mm
	graded grid	$\Delta z_{zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	$3 - 4$ GHz: ≤ 3 mm $4 - 5$ GHz: ≤ 2.5 mm $5 - 6$ GHz: ≤ 2 mm
		$\Delta z_{zoom}(n)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	$3 - 4$ GHz: ≥ 28 mm $4 - 5$ GHz: ≥ 25 mm $5 - 6$ GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the (issue) medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <u>reported</u> SAR from the area scan based <i>1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom-scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation, the extrapolated distance should not be larger than the step size in Z-direction.

1.10 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 DASY4 professional system). A Model ET3DV6 1782/Ex3DV4 3791 E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation $SAR = \sigma (|E_i|^2) / \rho$ where σ and ρ are the conductivity and mass density of the tissue-simulant. The DASY4 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimeter 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.

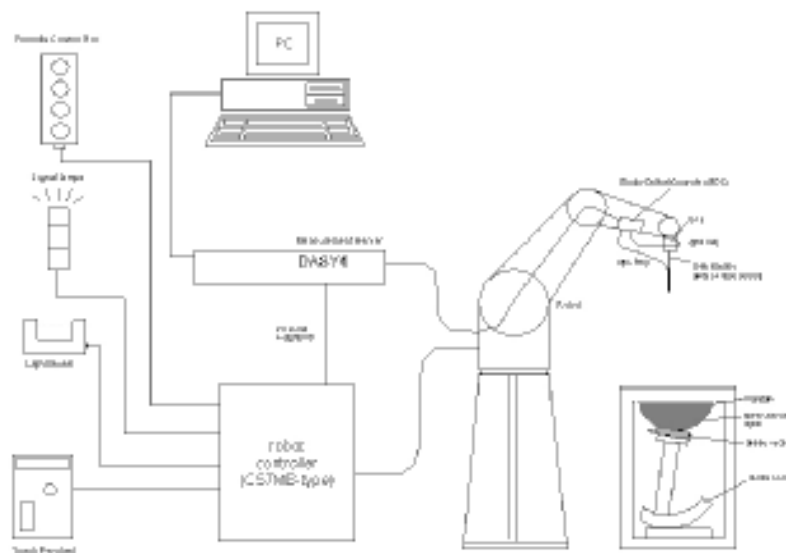


Fig a. The microwave circuit arrangement used for SAR system verification

- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows XP.
- DASY4 software.

- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM phantom enabling testing body usage.
- The device holder for flat phantom.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validate the proper functioning of the system.

1.11 System Components

ET3DV6 E-Field Probe

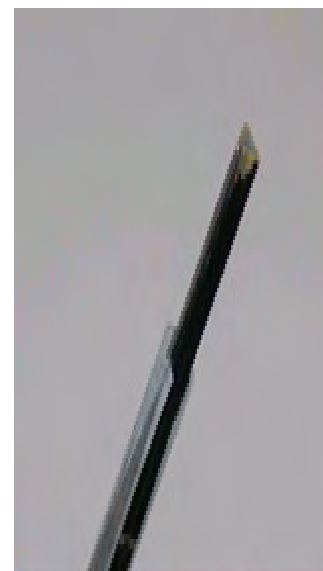
Construction	: Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. glycol).
Calibration	: In air from 10 MHz to 2.5 GHz In brain simulating tissue (accuracy $\pm 8\%$)
Frequency	: 10 MHz to >6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity	: ± 0.2 dB in brain tissue (rotation around probe axis) ± 0.4 dB in brain tissue (rotation normal to probe axis)
Dynamic Range	: 5 μ W/g to >100 mW/g; Linearity: ± 0.2 dB
Srfce. Detect	: ± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions	: Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application	: General dosimetry up to 3 GHz Compliance tests of mobile phone



ET3DV6 E-Field Probe

EX3DV4 E-Field Probe

Construction	: Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	: Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 2600 and HSL5800. Additional CF-Calibration for other liquids and frequencies upon request.
Frequency	: 10 MHz to 6 GHz; Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	: ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	: 10 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB(noise: typically < 1 μ W/g)
Dimensions	: Overall length: 337 mm (Tip length: 20 mm) Tip diameter: 2.5 mm (Body diameter: 12 mm) Distance from probe tip to dipole centers: 1 mm
Application	: High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%



EX3DV4 E-Field Probe

NOTE:

1. The Probe parameters have been calibrated by the SPEAG. Please reference "APPENDIX D" for the Calibration Certification Report.

ELI Phantom

Construction:

Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.

ELI V5.0 has the same shell geometry and is manufactured from the same material as ELI4, but has reinforced top structure



ELI Phantom

Shell Thickness: 2.0 mm $\pm$ 0.2 mm

Dimensions
 Major axis: 600 mm
 Minor axis: 400 mm

DEVICE HOLDER

Construction

Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (a.q.. laptops, Cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioned.



Device Holder

1.12 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 $\pm 10\%$ from the target SAR values. These tests were done at 835 MHz, 1900 MHz, 2450 MHz, 5.2 GHz, 5.5 GHz, 5.8 GHz. The tests for EUT were conducted within 24 hours after each validation. 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 $(22 \pm 2)^\circ\text{C}$, the relative humidity was in the range $(55 \pm 5)\%$ R.H. 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.

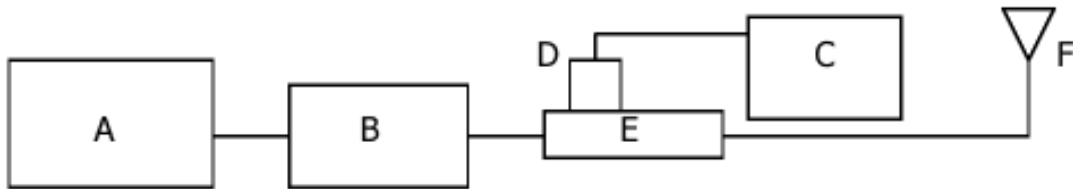


Fig b. The microwave circuit arrangement used for SAR system verification

- A. Agilent Model E4421B Signal Generator
- B. EMPOWER Model (2001-BBS3Q7ECK), (2057-BBS3Q5KCK) Amplifier
- C. Agilent Model E4419B Power Meter
- D. Agilent Model 9300H Power Sensor
- E. Agilent Model 778D/86205A Dual directional coupler
- F. Reference dipole Antenna

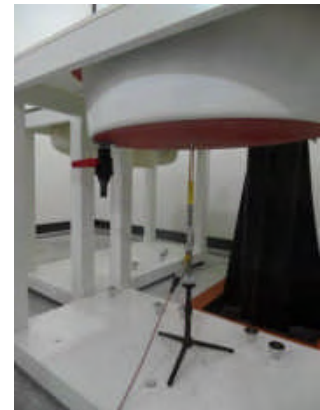


Photo of the dipole Antenna

System Validation Results

Validation Kit	Tissue	Target SAR 1 g from Calibration Certificate (1 W)	Measured SAR 1 g (0.1 W)	Measured SAR 1 g (1 W)	Deviation (%)	Date	Liquid Temp. (°C)
D835V2 S/N: 490	835 MHz Body	9.35 W/kg	0.940 W/kg	9.40 W/kg	0.53	2012-11-06	21.5
			0.929 W/kg	9.29 W/kg	-0.64	2012-11-07	21.7
			0.905 W/kg	9.05 W/kg	-3.21	2012-12-07	21.5
D1900V2 S/N: 5d033	1900 MHz Body	39.9 W/kg	4.10 W/kg	41.0 W/kg	2.76	2012-11-17	22.3
			4.09 W/kg	40.9 W/kg	2.51	2012-11-19	22.8
			3.94 W/kg	39.4 W/kg	-1.25	2012-12-06	22.4

Validation Kit	Tissue	Target SAR 1 g from Calibration Certificate (1 W)	Measured SAR 1 g (0.1 W)	Measured SAR 1 g (1 W)	Deviation (%)	Date	Liquid Temp. (°C)
D2450V2 S/N: 734	2450 MHz Body	50.2 W/kg	5.10 W/kg	51.0 W/kg	1.59	2013-01-05	23.1
			5.19 W/kg	51.9 W/kg	3.39	2013-01-06	22.4
D5 GHz V2 S/N: 1130	5200 MHz Body	75.1 W/kg	8.12 W/kg	81.2 W/kg	8.12	2012-09-17	22.1
			8.08 W/kg	80.8 W/kg	7.59	2012-11-27	21.9
			7.91 W/kg	79.1 W/kg	6.13	2012-11-29	21.8
	5500 MHz Body	78.7 W/kg	8.36 W/kg	83.6 W/kg	6.23	2012-09-18	22.7
			8.13 W/kg	81.3 W/kg	3.30	2012-09-19	22.3
			8.25 W/kg	82.5 W/kg	4.83	2012-11-26	22.3
			8.09 W/kg	80.9 W/kg	2.80	2013-01-07	22.1
	5800 MHz Body	74.7 W/kg	7.64 W/kg	76.4 W/kg	2.78	2012-09-19	22.8
			8.00 W/kg	80.0 W/kg	7.10	2012-12-03	22.1

Table 1. Results system validation

1.13 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this simulant fluid were measured by using the Agilent Model 85070B Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in conjunction with Agilent E5071B Network Analyzer (300 kHz - 6 GHz) by using a procedure detailed in Section V.

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters			
			Permittivity	Conductivity	Simulated Tissue Temp(°C)	
835	Body	Measured, 2012-11-06	55.3	0.95	21.5	
		Recommended Limits	55.2	0.97	21.0 ~ 23.0	
		<u>Deviation(%)</u>	<u>0.18</u>	<u>-2.06</u>	-	
824		Measured, 2012-11-06	55.4	0.94	21.5	
		<u>Deviation(%)</u>	<u>0.36</u>	<u>-3.09</u>	-	
		848	Measured, 2012-11-06	55.1	0.96	21.5
<u>Deviation(%)</u>			<u>-0.18</u>	<u>-1.03</u>	-	
835			Body	Measured, 2012-11-07	55.3	0.95
		Recommended Limits		55.2	0.97	21.0 ~ 23.0
	<u>Deviation(%)</u>	<u>0.18</u>		<u>-2.06</u>	-	
	824	Measured, 2012-11-07		55.4	0.94	21.7
		<u>Deviation(%)</u>		<u>0.36</u>	<u>-3.09</u>	-
		848		Measured, 2012-11-07	55.1	0.96
<u>Deviation(%)</u>	<u>-0.18</u>			<u>-1.03</u>	-	
835	Body			Measured, 2012-12-07	53.4	0.94
		Recommended Limits		55.2	0.97	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-3.26</u>	<u>-3.09</u>	-	
		824	Measured, 2012-12-07	53.5	0.924	21.5
			<u>Deviation(%)</u>	<u>-3.08</u>	<u>-4.74</u>	-
			848	Measured, 2012-12-07	53.3	0.95
<u>Deviation(%)</u>		<u>-3.44</u>		<u>-2.06</u>	-	

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			Permittivity	Conductivity	Simulated Tissue Temp(°C)
1900	Body	Measured, 2012-11-17	53.5	1.52	22.3
		Recommended Limits	53.3	1.52	21.0 ~ 23.0
		Deviation(%)	0.38	0.00	-
1851		Measured, 2012-11-17	53.7	1.47	22.3
		Deviation(%)	0.75	-3.29	-
1908		Measured, 2012-11-17	53.5	1.53	22.3
		Deviation(%)	0.38	0.65	-
1900	Body	Measured, 2012-11-19	53.6	1.54	22.8
		Recommended Limits	53.3	1.52	21.0 ~ 23.0
		Deviation(%)	0.56	1.32	-
1851		Measured, 2012-11-19	53.8	1.48	22.8
		Deviation(%)	0.94	-2.63	-
1908		Measured, 2012-11-19	53.6	1.55	22.8
		Deviation(%)	0.56	1.97	-
1900	Body	Measured, 2012-12-06	52.4	1.54	22.4
		Recommended Limits	53.3	1.52	21.0 ~ 23.0
		Deviation(%)	-1.69	1.32	-
1851		Measured, 2012-12-06	52.6	1.48	22.4
		Deviation(%)	-1.31	-2.63	-
1908		Measured, 2012-12-06	52.4	1.55	22.4
		Deviation(%)	-1.69	1.97	-
2450	Body	Measured, 2013-01-05	50.8	1.95	23.1
		Recommended Limits	52.7	1.95	21.0 ~ 23.0
		Deviation(%)	-3.61	0.00	-
2412		Measured, 2013-01-05	50.9	1.89	23.1
		Deviation(%)	-3.42	-3.08	-
2462		Measured, 2013-01-05	50.7	1.96	23.1
		Deviation(%)	-3.80	0.51	-
2450	Body	Measured, 2013-01-06	50.4	1.95	22.4
		Recommended Limits	52.7	1.95	21.0 ~ 23.0
		Deviation(%)	-4.36	0.00	-
2412		Measured, 2013-01-06	50.5	1.89	22.4
		Deviation(%)	-4.17	-3.08	-
2462		Measured, 2013-01-06	50.4	1.95	22.4
		Deviation(%)	-4.36	0.00	-

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			Permittivity	Conductivity	Simulated Tissue Temp(℃)
5200	Body	Measured, 2012-09-17	51.0	5.30	22.1
		Recommended Limits	49.0	5.30	21.0 ~ 23.0
		Deviation(%)	4.08	0.00	-
5180		Measured, 2012-09-17	51.1	5.26	22.1
		Deviation(%)	4.29	-0.75	-
5300		Measured, 2012-09-17	50.8	5.42	22.1
	Deviation(%)	3.67	2.26	-	
5200	Body	Measured, 2012-11-27	49.7	5.34	21.9
		Recommended Limits	49.0	5.30	21.0 ~ 23.0
		Deviation(%)	1.43	0.75	-
5180		Measured, 2012-11-27	49.8	5.31	21.9
		Deviation(%)	1.63	0.19	-
5300		Measured, 2012-11-27	49.6	5.47	21.9
	Deviation(%)	1.22	3.21	-	
5200	Body	Measured, 2012-11-29	50.2	5.34	21.8
		Recommended Limits	49.0	5.30	21.0 ~ 23.0
		Deviation(%)	2.45	0.75	-
5180		Measured, 2012-11-29	50.2	5.32	21.8
		Deviation(%)	2.45	0.38	-
5300		Measured, 2012-11-29	50.1	5.48	21.8
	Deviation(%)	2.24	3.40	-	
5500	Body	Measured, 2012-09-18	50.6	5.56	22.7
		Recommended Limits	48.6	5.65	21.0 ~ 23.0
		Deviation(%)	4.12	-1.59	-
5520		Measured, 2012-09-18	50.6	5.59	22.7
		Deviation(%)	4.12	-1.06	-
5580		Measured, 2012-09-18	50.5	5.67	22.7
		Recommended Limits	48.5	5.77	21.0 ~ 23.0
		Deviation(%)	4.12	-1.73	-
5660		Measured, 2012-09-18	50.4	5.76	22.7
		Recommended Limits	48.3	5.88	21.0 ~ 23.0
		Deviation(%)	4.35	-2.04	-
5680		Measured, 2012-09-18	50.3	5.79	22.7
		Deviation(%)	4.14	-1.53	-
5700		Measured, 2012-09-18	50.3	5.82	22.7
		Deviation(%)	4.14	-1.02	-

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			Permittivity	Conductivity	Simulated Tissue Temp(°C)
5500	Body	Measured, 2012-09-19	47.9	5.52	22.3
		Recommended Limits	48.6	5.65	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-1.44</u>	<u>-2.30</u>	-
5520		Measured, 2012-09-19	47.8	5.53	22.3
		<u>Deviation(%)</u>	<u>-1.65</u>	<u>-2.12</u>	-
5580		Measured, 2012-09-19	49.6	5.62	22.3
		Recommended Limits	48.5	5.77	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>2.27</u>	<u>-2.60</u>	-
5660		Measured, 2012-09-19	47.4	5.68	22.3
		Recommended Limits	48.3	5.88	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-1.86</u>	<u>-3.40</u>	-
5680		Measured, 2012-09-19	47.4	5.72	22.3
		<u>Deviation(%)</u>	<u>-1.86</u>	<u>-2.72</u>	-
5700		Measured, 2012-09-19	47.4	5.75	22.3
		<u>Deviation(%)</u>	<u>-1.86</u>	<u>-2.21</u>	-
5500	Body	Measured, 2012-11-26	47.2	5.64	22.3
		Recommended Limits	48.6	5.65	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-2.88</u>	<u>-0.18</u>	-
5520		Measured, 2012-11-26	47.0	5.67	22.3
		<u>Deviation(%)</u>	<u>-3.29</u>	<u>0.35</u>	-
5580		Measured, 2012-11-26	47.0	5.82	22.3
		Recommended Limits	48.5	5.77	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-3.09</u>	<u>0.87</u>	-
5660		Measured, 2012-11-26	46.6	5.91	22.3
		Recommended Limits	48.3	5.88	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-3.52</u>	<u>0.51</u>	-
5680		Measured, 2012-11-26	46.6	5.95	22.3
		<u>Deviation(%)</u>	<u>-3.52</u>	<u>1.19</u>	-
5700		Measured, 2012-11-26	46.6	5.95	22.3
		<u>Deviation(%)</u>	<u>-3.52</u>	<u>1.19</u>	-
5500	Body	Measured, 2013-01-07	48.4	5.52	22.1
		Recommended Limits	48.6	5.65	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-0.41</u>	<u>-2.30</u>	-
5520		Measured, 2013-01-07	48.3	5.54	22.1
		<u>Deviation(%)</u>	<u>-0.62</u>	<u>-1.95</u>	-
5580		Measured, 2013-01-07	48.2	5.63	22.1
		Recommended Limits	48.5	5.77	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-0.62</u>	<u>-2.43</u>	-
5660		Measured, 2013-01-07	48.0	5.71	22.1
		Recommended Limits	48.3	5.88	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-0.62</u>	<u>-2.89</u>	-
5680		Measured, 2013-01-07	48.0	5.74	22.1
		<u>Deviation(%)</u>	<u>-0.62</u>	<u>-2.38</u>	-
5700		Measured, 2013-01-07	48.0	5.77	22.1
		<u>Deviation(%)</u>	<u>-0.62</u>	<u>-1.87</u>	-

f (MHz)	Tissue type	Limits / Measured	Dielectric Parameters		
			Permittivity	Conductivity	Simulated Tissue Temp(°C)
5800	Body	Measured, 2012-09-19	47.2	5.86	22.8
		Recommended Limits	48.2	6.00	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-2.07</u>	<u>-2.33</u>	-
5745		Measured, 2012-09-19	47.3	5.81	22.8
		<u>Deviation(%)</u>	<u>-1.87</u>	<u>-3.17</u>	-
5825		Measured, 2012-09-19	47.1	5.89	22.8
	<u>Deviation(%)</u>	<u>-2.28</u>	<u>-1.83</u>	-	
5800	Body	Measured, 2012-12-03	47.0	6.14	22.1
		Recommended Limits	48.2	6.00	21.0 ~ 23.0
		<u>Deviation(%)</u>	<u>-2.49</u>	<u>2.33</u>	-
5745		Measured, 2012-12-03	46.8	6.03	22.1
		<u>Deviation(%)</u>	<u>-2.90</u>	<u>0.50</u>	-
5825		Measured, 2012-12-03	46.9	6.11	22.1
	<u>Deviation(%)</u>	<u>-2.70</u>	<u>1.83</u>	-	

The composition of the tissue simulating liquid

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Diethylenglycol monohexylether	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Simulating Liquids for 5 GHz, Manufactured by SPEAG

Water	Mineral oil	Emulsifiers	Additives and Salt
78	11	9	2

Salt: 99 + % Pure Sodium Chloride

Sugar: 98 + % Pure Sucrose

Water: De-ionized, 16 MΩ⁺ resistivity

HEC: Hydroxyethyl Cellulose

DGBE: 99 + % Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]

Triton X-100 (ultra pure): Polyethylene glycol mono [4-(1,1, 3, 3-tetramethylbutyl)phenyl]ether

1.14 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 C95.3–2003, Copyright 2003 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 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 .1)

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

Table .1 RF exposure limits

2. Instruments List

Maunfacturer	Device	Type	Serial Number	Due date of Calibration
Stäubli	Robot	RX90BL	F12/5LP8A1/01	N/A
Schmid& Partner Engineering AG	Dosimetric E-Field Probe	ET3DV6	1782	April 27, 2013
Schmid& Partner Engineering AG	Dosimetric E-Field Probe	EX3DV4	3791	May 23, 2013
Schmid& Partner Engineering AG	Data acquisition Electronics	DAE3	567	January 20, 2013
Schmid& Partner Engineering AG	835 Mhz System Validation Dipole	D835V2	490	May 16, 2014
Schmid& Partner Engineering AG	1900 Mhz System Validation Dipole	D1900V2	5d033	May 23, 2014
Schmid& Partner Engineering AG	2450 Mhz System Validation Dipole	D2450V2	734	January 19, 2014
Schmid& Partner Engineering AG	5000 Mhz System Validation Dipole	D5 GHz V2	1130	July 02, 2014
Schmid& Partner Engineering AG	Software	DASY 4 V52.8.01	-	N/A
Schmid& Partner Engineering AG	Phantom	ELI 4.0	1169	N/A
Agilent	Network Analyzer	E5071C	MY46111535	July 3, 2013
Agilent	Dielectric Probe Kit	85070D	2184	N/A
Agilent	Power Meter	E4419B	GB43311125	July 01, 2013
Agilent	Power Sensor	E9300H	MY41495314	September 18, 2013
			MY41495307	September 18, 2013
Agilent	Signal Generator	E4421B	MY42082477	March 29, 2013
Empower RF Systems	Power Amplifier	2001-BBS3Q7ECK	1032 D/C 0336	March 31, 2013
Empower RF Systems	Power Amplifier	BBS5K8CAJ	1010	September 17, 2013
Agilent	Directional RF Bridges	86205A	MY31402302	July 03, 2013
Microlab	LP Filter	LA-15N	N/A	September 14, 2013
Microlab	LP Filter	LA-30N	N/A	September 14, 2013
Microlab	LP Filter	LA-60N	N/A	September 14, 2013
Agilent	Attenuator	8491B	50566	September 14, 2013
R & S	Spectrum Analyzer	FSV30	100768	March 29, 2013
R & S	Mobile Test Unit	CMU 200	107279	January 03, 2013

3. Summary of Results

3.1 FCC Power Measurement Procedures

Power measurements were performed using a power meter under digital average mode.

In order to verify that the device was tested and maintained at full power, this was configured with the base station simulator. The SAR measurement Software calculates a reference point at the start and end of the test to check for power drifts. If conducted power deviations of more than 5 % occurred, the tests were repeated.

3.2 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v05, When SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as reported SAR. Test highest reported SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r02.

3.3 RF Conducted Average Power

GSM (Full Power)

GSM	Channel	Frequency(MHz)	Burst-Conducted Average Power(dB m)			
			GPRS Data		EDGE Data	
			1 Tx Slot	2 Tx Slot	1 Tx Slot	2 Tx Slot
GSM 850 Band	128	824.2	32.12	29.72	26.70	24.27
	190	836.6	32.21	29.87	26.78	24.35
	251	848.8	32.11	29.74	26.66	24.26
PCS 1900 Band	512	1850.2	28.93	26.39	25.14	22.70
	661	1880.0	29.06	26.42	25.26	22.82
	810	1909.8	28.95	26.33	25.16	22.71

GSM (Power Reduction Enabled)

GSM	Channel	Frequency(MHz)	Burst-Conducted Average Power(dB m)			
			GPRS Data		EDGE Data	
			1 Tx Slot	2 Tx Slot	1 Tx Slot	2 Tx Slot
GSM 850 Band	128	824.2	23.37	23.38	23.79	23.78
	190	836.6	23.47	23.47	23.87	23.84
	251	848.8	23.35	23.36	23.74	23.75
PCS 1900 Band	512	1850.2	18.82	18.81	19.13	19.12
	661	1880.0	18.91	18.82	19.23	19.22
	810	1909.8	18.79	18.80	19.12	19.14

GSM (Full Power)

GSM	Channel	Frequency(MHz)	Frame-Conducted Average Power(dB m)			
			GPRS Data		EDGE Data	
			1 Tx Slot	2 Tx Slot	1 Tx Slot	2 Tx Slot
GSM 850 Band	128	824.2	23.09	23.70	22.44	21.26
	190	836.6	23.18	23.85	22.52	21.34
	251	848.8	23.08	23.72	22.40	21.25
PCS 1900 Band	512	1850.2	19.90	20.37	20.88	19.69
	661	1880.0	20.03	20.40	21.00	19.81
	810	1909.8	19.92	20.31	20.90	19.70

GSM (Power Reduction Enabled)

GSM	Channel	Frequency(MHz)	Frame-Conducted Average Power(dB m)			
			GPRS Data		EDGE Data	
			1 Tx Slot	2 Tx Slot	1 Tx Slot	2 Tx Slot
GSM 850 Band	128	824.2	14.34	17.36	19.53	20.77
	190	836.6	14.44	17.45	19.61	20.83
	251	848.8	14.32	17.34	19.48	20.74
PCS 1900 Band	512	1850.2	9.79	12.79	14.87	16.11
	661	1880.0	9.88	12.80	14.97	16.21
	810	1909.8	9.76	12.78	14.86	16.13

Note:

- Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
- The bolded GPRS modes were selected for SAR testing according to the highest frame averaged output power table according to KDB 941225D03v01.
- GPRS(GMSK) output powers were measured with CS1.
- EGPRS(8-PSK) output power were measured with MCS7.

WCDMA II

Band	Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Proximity sensor power back-off (dBm)
WCDMA II (RMC)	RMC	9262	1852.4	23.38	13.65
	RMC	9400	1880.0	23.14	13.55
	RMC	9538	1907.6	23.20	13.51
WCDMA II (HSDPA Active)	Sub-test 1	9262	1852.4	21.79	11.93
		9400	1880.0	21.67	11.69
		9538	1907.6	21.49	11.65
	Sub-test 2	9262	1852.4	21.22	11.77
		9400	1880.0	21.06	11.61
		9538	1907.6	21.00	11.67
	Sub-test 3	9262	1852.4	20.68	11.73
		9400	1880.0	20.59	11.54
		9538	1907.6	20.49	11.48
	Sub-test 4	9262	1852.4	20.44	11.74
		9400	1880.0	20.29	11.61
		9538	1907.6	20.23	11.49
		β_c	β_d	$\Delta ACK, \Delta NACK, \Delta CQI$	AGV
	Sub-test 1	2	15	8	-
	Sub-test 2	12	15	8	-
	Sub-test 3	15	8	8	-
	Sub-test 4	15	4	8	-
WCDMA II (HSUPA)	Sub-test 1	9662	1852.4	21.4	11.70
		9800	1880.0	21.23	11.57
		9938	1907.6	21.13	11.40
	Sub-test 2	9662	1852.4	20.36	12.44
		9800	1880.0	20.20	12.29
		9938	1907.6	20.05	12.22
	Sub-test 3	9662	1852.4	21.40	12.33
		9800	1880.0	20.96	12.26
		9938	1907.6	20.78	12.06
	Sub-test 4	9662	1852.4	20.51	12.31
		9800	1880.0	20.42	12.25
		9938	1907.6	20.45	12.26
	Sub-test 5	9662	1852.4	21.44	11.75
		9800	1880.0	21.33	11.70
		9938	1907.6	21.26	11.54
		β_c	β_d	$\Delta ACK, \Delta NACK, \Delta CQI$	AGV
	Sub-test 1	11	15	8	20
	Sub-test 2	6	15	8	12
	Sub-test 3	15	9	8	15
	Sub-test 4	2	15	8	17
	Sub-test 5	15	15	8	21

WCDMA V

Band	Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Proximity sensor power back-off (dBm)
WCDMA V (RMC)	RMC	4132	826.4	23.32	18.75
	RMC	4183	836.6	23.24	18.49
	RMC	4233	846.6	23.12	18.47
WCDMA V (HSDPA Active)	Sub-test 1	4132	826.4	23.09	18.58
		4183	836.6	22.79	18.28
		4233	846.6	22.75	18.24
	Sub-test 2	4132	826.4	22.56	18.51
		4183	836.6	22.29	18.25
		4233	846.6	22.25	18.23
	Sub-test 3	4132	826.4	22.10	18.55
		4183	836.6	21.82	18.26
		4233	846.6	21.73	18.19
	Sub-test 4	4132	826.4	21.84	18.54
		4183	836.6	21.54	18.22
		4233	846.6	21.52	18.21
		β_c	β_d	$\Delta ACK, \Delta NACK, \Delta CQI$	AGV
	Sub-test 1	2	15	8	-
	Sub-test 2	12	15	8	-
	Sub-test 3	15	8	8	-
	Sub-test 4	15	4	8	-
WCDMA V (HSUPA)	Sub-test 1	4132	826.4	22.09	16.15
		4183	836.6	21.82	15.94
		4233	846.6	21.82	15.88
	Sub-test 2	4132	826.4	20.61	17.40
		4183	836.6	20.34	17.13
		4233	846.6	20.28	17.10
	Sub-test 3	4132	826.4	21.58	16.35
		4183	836.6	21.36	16.10
		4233	846.6	21.32	16.05
	Sub-test 4	4132	826.4	20.77	18.74
		4183	836.6	20.50	18.45
		4233	846.6	20.42	18.44
	Sub-test 5	4132	826.4	22.37	15.75
		4183	836.6	22.29	15.45
		4233	846.6	22.30	15.44
		β_c	β_d	$\Delta ACK, \Delta NACK, \Delta CQI$	AGV
	Sub-test 1	11	15	8	20
	Sub-test 2	6	15	8	12
	Sub-test 3	15	9	8	15
	Sub-test 4	2	15	8	17
	Sub-test 5	15	15	8	21

Note :

The modes with highest output power channel were chosen for the conducted output power measurement.

Please refer to original report (FCC ID: QISMU733) for Average Power information as documented in 07/29/2010 original filing.

WLAN

2.4 GHz

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11b	2412	1	1	16.31	16.43
	2437	6	1	16.42	15.48
	2462	11	1	16.63	15.45
802.11g	2412	1	6	14.01	14.58
	2437	6	6	16.51	16.31
	2462	11	6	13.85	13.13
802.11n HT20	2412	1	HT0	12.95	12.37
	2437	6	HT0	16.37	16.48
	2462	11	HT0	12.42	12.32
802.11n HT40	2422	3	HT7	10.42	9.14
	2437	6	HT7	13.37	12.59
	2452	9	HT7	10.02	10.08
802.11n HT20_MIMO	2412	1	HT8	11.45	11.48
	2437	6	HT8	13.21	12.98
	2462	11	HT8	11.10	10.29
802.11n HT40_MIMO	2422	3	HT8	7.55	7.27
	2437	6	HT8	13.22	12.21
	2452	9	HT8	6.45	6.58

5.2 GHz

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11a	5180	36	6	16.08	15.90
	5200	40	6	16.02	15.76
	5220	44	6	15.94	15.67
	5240	48	6	15.83	15.65
802.11n HT20	5180	36	HT0	15.85	15.72
	5200	40	HT0	16.38	15.68
	5220	44	HT0	16.32	15.86
	5240	48	HT0	16.32	15.87
802.11n HT40	5190	38	HT7	12.76	12.65
	5230	46	HT7	16.32	15.76
802.11n HT20_MIMO	5180	36	HT8	13.11	13.21
	5200	40	HT8	12.05	13.14
	5220	44	HT8	12.94	12.75
	5240	48	HT8	12.95	12.75
802.11n HT40_MIMO	5190	38	HT8	9.81	10.74
	5230	46	HT8	13.32	13.12

5.3 GHz

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11a	5260	52	6	15.79	15.23
	5280	56	6	15.61	15.21
	5300	60	6	16.28	15.33
	5320	64	6	16.15	15.60
802.11n HT20	5260	52	HT0	16.06	15.32
	5280	56	HT0	16.0	15.32
	5300	60	HT0	16.55	15.21
	5320	64	HT0	16.52	15.63
802.11n HT40	5270	54	HT7	15.74	15.11
	5310	62	HT7	11.51	12.39
802.11n HT20_MIMO	5260	52	HT8	12.61	12.44
	5280	56	HT8	12.65	12.35
	5300	60	HT8	13.11	12.44
	5320	64	HT8	12.85	13.02
802.11n HT40_MIMO	5270	54	HT8	12.45	12.29
	5310	62	HT8	12.32	12.28

5.5 GHz

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11a	5500	100	6	16.36	15.52
	5520	104	6	16.35	15.56
	5540	108	6	16.21	15.47
	5560	112	6	16.28	15.55
	5580	116	6	16.32	15.63
	5600	120	6	16.38	15.66
	5620	124	6	16.33	15.62
	5640	128	6	16.36	15.69
	5660	132	6	16.42	15.69
	5680	136	6	16.45	15.70
	5700	140	6	16.44	15.48

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11n HT20	5500	100	HT0	16.37	15.52
	5520	104	HT0	16.22	15.49
	5540	108	HT0	16.22	15.71
	5560	112	HT0	16.31	15.51
	5580	116	HT0	16.33	15.47
	5600	120	HT0	16.37	15.45
	5620	124	HT0	16.21	15.65
	5640	128	HT0	16.32	15.68
	5660	132	HT0	16.22	15.52
	5680	136	HT0	16.17	15.44
	5700	140	HT0	16.22	15.38
802.11n HT40	5510	102	HT7	15.41	14.66
	5550	110	HT7	16.44	15.61
	5590	118	HT7	16.42	15.65
	5630	130	HT7	16.32	15.54
	5670	134	HT7	16.38	15.41
802.11n HT20_MIMO	5500	100	HT8	12.65	13.12
	5520	104	HT8	12.65	13.12
	5540	108	HT8	12.47	13.12
	5560	112	HT8	12.55	13.14
	5580	116	HT8	12.49	13.14
	5600	120	HT8	12.68	13.14
	5620	124	HT8	12.67	13.15
	5640	128	HT8	12.62	13.19
	5660	132	HT8	12.62	13.29
	5680	136	HT8	12.38	12.17
802.11n HT40_MIMO	5700	140	HT8	12.39	12.23
	5510	102	HT8	13.10	12.82
	5550	110	HT8	13.11	13.17
	5590	118	HT8	13.15	13.18
	5630	126	HT8	12.52	12.66
	5670	134	HT8	12.53	12.65

5.8 GHz

Mode	Freq. (MHz)	Ch. #	Rate	Measured Power [dB m]	
				Main	AUX
802.11a	5745	149	6	16.41	16.48
	5765	153	6	16.29	16.52
	5785	157	6	16.50	16.70
	5805	161	6	16.44	16.54
	5825	165	6	16.42	16.61
802.11n HT20	5745	149	HT0	16.42	16.45
	5765	153	HT0	16.22	16.26
	5785	157	HT0	16.41	16.45
	5805	161	HT0	16.25	16.27
	5825	165	HT0	16.36	16.33
802.11n HT40	5755	151	HT7	16.24	16.34
	5795	159	HT7	16.25	16.42
11n_20 MIMO	5745	149	HT8	13.48	13.47
	5765	153	HT8	13.60	13.50
	5785	157	HT8	13.42	13.35
	5805	161	HT8	13.35	13.25
	5825	165	HT8	13.26	13.45
11n_40 MIMO	5755	151	HT8	13.17	13.45
	5795	159	HT8	13.25	13.37

Note :

1. The modes with highest output power channel were chosen for the conducted output power.
2. Original target power is from EMC report R84672. Please refer to original report (FCC ID:PD96235ANH) for Average Power information as documented in 10/11/2011 original filing

3.4 Calculated ERP/EIRP Average Power Measurement

Frequency (MHz)	Output Measured Power (W)	Antenna Gain (dB i)	Calculated EIRP (W)	Calculated ERP (W)	Rule Part	Limit (W)
824.2 ~ 848.8	1.663	-0.36		0.933	22	7.00
826.4 ~ 846.6	0.218	-0.36		0.122	22	7.00
1850.2 ~ 1909.8	0.805	0.76	0.959		22	2.00
1852.4 ~ 1907.6	0.215	0.76	0.256		24	2.00
WLAN Main Antenna						
2412 ~ 2462	0.0046	0.9	0.057		15	1.00
5180 ~ 5240	0.0041	-1.0	0.033		15	0.75
5260 ~ 5320	0.0042	-1.0	0.033		15	0.25
5500 ~ 5700	0.0044	-1.8	0.029		15	0.25
5745 ~ 5825	0.0045	-1.8	0.030		15	1.00
WLAN Aux Antenna						
2412 ~ 2462	0.044	-0.1	0.043		15	1.00
5180 ~ 5240	0.039	0.1	0.040		15	0.75
5260 ~ 5320	0.036	0.1	0.037		15	0.25
5500 ~ 5700	0.037	-0.7	0.031		15	0.25
5745 ~ 5825	0.047	-3.4	0.021		15	1.00

Note

1. Antenna Gain supplied by manufacturer.
2. The methods and procedures used were as detailed in KDB 412172 D01 Determining ERP and EIRP v01.

3.5 SAR Test Configuration

IEEE 802.11 Transmitters

802.11 a/b/g and 4.9 GHz operating modes are tested independently according to the service requirements in each frequency band. 802.11 b/g modes are tested on channel 1, 6, and 11. 802.11a is tested for UNII operations on channels 36 and 48 in the 5.15 ~ 5.25 GHz band, channels 52 and 64 in the 5.25 ~ 5.35 GHz band, channels 104, 116, 124 and 136 in the 5.470 ~ 5.725 GHz band, and channels 149 and 161 in the 5.8 GHz band. When 5.8 GHz §15.247 is also available, channels 149, 157 and 165 should be tested instead of the UNII channels. 802.11g mode was evaluated only if the output power was 0.25 dB higher than the 802.11b mode.

Mode	GHz	Channel	Turbo Channel	“Default Test Channels”			
				§15.247		UNII	
802.11 b/g	2.412	1 [#]		✓	▽		
	2.437	6	6	✓	▽		
	2.462	11 [#]		✓	▽		
802.11a	5.18	36	42 (5.21 GHz)			✓	
	5.20	40					✱
	5.22	44					✱
	5.24	48	50 (5.25 GHz)			✓	
	5.26	52	58 (5.29 GHz)			✓	
	5.28	56					✱
	5.30	60					✱
	5.32	64	Unknown			✓	
	5.500	100					✱
	5.520	104				✓	
	5.540	108					✱
	5.560	112					✱
	5.580	116				✓	
	5.600	120					✱
	5.620	124				✓	
	5.640	128					✱
	5.660	132					✱
	5.680	136				✓	
	5.700	140					✱
	5.745	149	152 (5.76 GHz)	✓		✓	
	5.765	153			✱		✱
	5.785	157		✓			✱
	5.805	161			✱	✓	
§15.247	5.825	165		✓			

- ✓ = “default test channels”
- ✱ = possible 802.11 a channels with maximum average output > the “default test channels”
- ▽ = possible 802.11 g channels with maximum average output ¼ dB ≥ the “default test channels”
- # = when output power is reduced for channel 1 and/or 11 to meet restricted band requirements the highest output channels closest to each of these channels should be tested

3.6 SAR Test Exclusions Applied

Per FCC KDB 616217 D04v01 the antennas embedded in tablets are typically $\leq 5\text{mm}$ from the outer housing. When the dedicated host approach is applied, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

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

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

Per FCC KDB 447498 D01v05, At 100 MHz to 6 GHz and for test separation distances $> 50\text{ mm}$, the SAR test exclusion threshold is determined according to the following

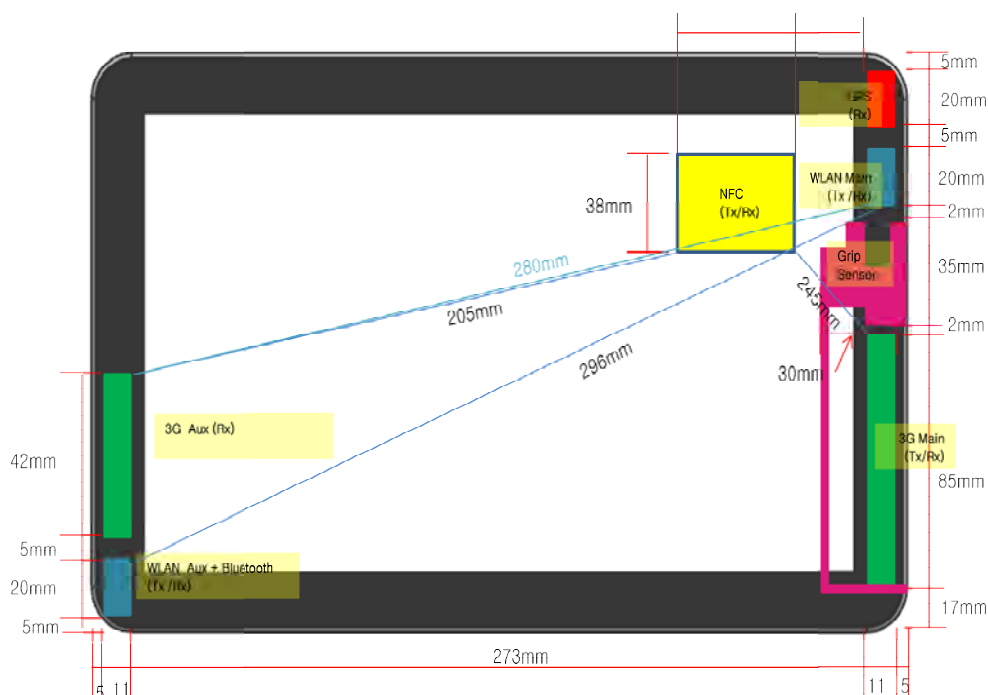
$$[(\text{Threshold at } 50\text{ mm in step 1}) + (\text{test separation distance} - 50\text{ mm}) * (f(\text{MHz})/150)]\text{ mW}$$

at 100 MHz to 1500 MHz

$$[(\text{Threshold at } 50\text{ mm in step 1}) + (\text{test separation distance} - 50\text{ mm}) * 10]\text{ mW}$$

at $> 1500\text{ MHz}$ and $\leq 6\text{ GHz}$

<The Distance information of Antenna to Edges of EUT>



< Per FCC KDB 447498 D01v05, the WWAN and WLAN antenna are required to be test reduction>

Antenna	Tx	Frequency (MHz)	Output power Note 2, 4		Separation distances (mm) Note 1 and 4						SAR Exemption Note 3 and 4					
			dBm	mW	Left	Right	Rear	Top	Bottom	Front	Left	Right	Rear	Top	Bottom	Front
WWAN Main Antenna																
3G Main	GSM	850	24.48	281	289	5	5	89	17		1517mW EXEMPT	51.81 Measure	51.81 Measure	384mW EXEMPT	15.24 Measure	N/A
3G Main	GSM	1900	20.98	125	289	5	5	89	17		2499mW EXEMPT	34.46 Measure	34.46 Measure	499mW EXEMPT	10.14 Measure	N/A
3G Main	WCDMA	850	24.00	251	289	5	5	89	17		1517mW EXEMPT	46.28 Measure	46.28 Measure	384mW EXEMPT	13.61 Measure	N/A
3G Main	WCDMA	1900	24.00	251	289	5	5	89	17		2499mW EXEMPT	69.20 Measure	69.20 Measure	499mW EXEMPT	20.35 Measure	N/A
WiFi - Main Antenna																
WLAN Main	WiFi	2462	16.63	46	289	5	5	30	141		2486mW EXEMPT	14.44 Measure	14.44 Measure	2.41 EXEMPT	1006mW EXEMPT	N/A
WLAN Main	WiFi	5180	16.08	41	289	5	5	30	141		2456mW EXEMPT	18.66 Measure	18.66 Measure	3.11 Measure	976mW EXEMPT	N/A
WLAN Main	WiFi	5300	16.28	42	289	5	5	30	141		2455mW EXEMPT	19.34 Measure	19.34 Measure	3.22 Measure	975mW EXEMPT	N/A
WLAN Main	WiFi	5680	16.45	44	289	5	5	30	141		2453mW EXEMPT	20.97 Measure	20.97 Measure	3.50 Measure	973mW EXEMPT	N/A
WLAN Main	WiFi	5785	16.50	45	289	5	5	30	141		2452mW EXEMPT	21.65 Measure	21.65 Measure	3.61 Measure	972mW EXEMPT	N/A
WiFi - Aux Antenna																
WLAN AUX	WiFi	2412	16.43	44	5	289	5	166	5		13.67 Measure	2487mW EXEMPT	13.67 Measure	1257mW EXEMPT	13.67 Measure	N/A
WLAN AUX	WiFi	5180	15.90	39	5	289	5	166	5		17.75 Measure	2456mW EXEMPT	17.75 Measure	1226mW EXEMPT	17.75 Measure	N/A
WLAN AUX	WiFi	5320	15.60	36	5	289	5	166	5		16.61 Measure	2455mW EXEMPT	16.61 Measure	1225mW EXEMPT	16.61 Measure	N/A
WLAN AUX	WiFi	5680	15.70	37	5	289	5	166	5		17.64 Measure	2453mW EXEMPT	17.64 Measure	1223mW EXEMPT	17.64 Measure	N/A
WLAN AUX	WiFi	5785	16.70	47	5	289	5	166	5		22.61 Measure	2452mW EXEMPT	22.61 Measure	1222mW EXEMPT	22.61 Measure	N/A
Bluetooth - Antenna																
Bluetooth	B.T	2441	7.50	6	5	289	5	166	5		1.87 EXEMPT	2486mW EXEMPT	1.87 EXEMPT	1256mW EXEMPT	1.87 EXEMPT	N/A

Notes

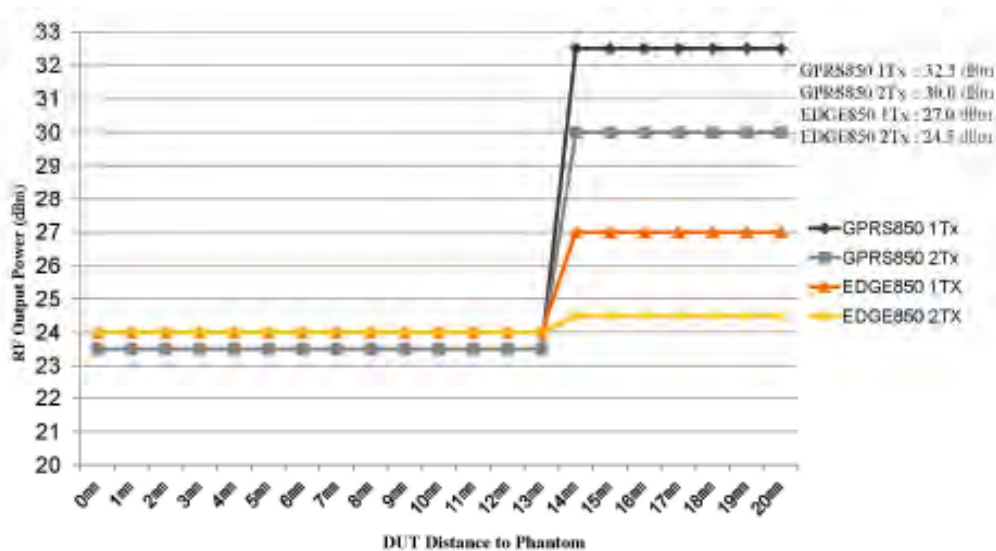
- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the value listed is the output power threshold, above which SAR measurement is required. For separation $\leq$ 50mm the value is the KDB 447498 calculated value and must be less than 3 for SAR exemption.
- Formulas round separation distance to nearest mm and power to nearest mW before calculating thresholds or exemption values.

3.7 Power Sensor Activation detail Supply by manufacturer

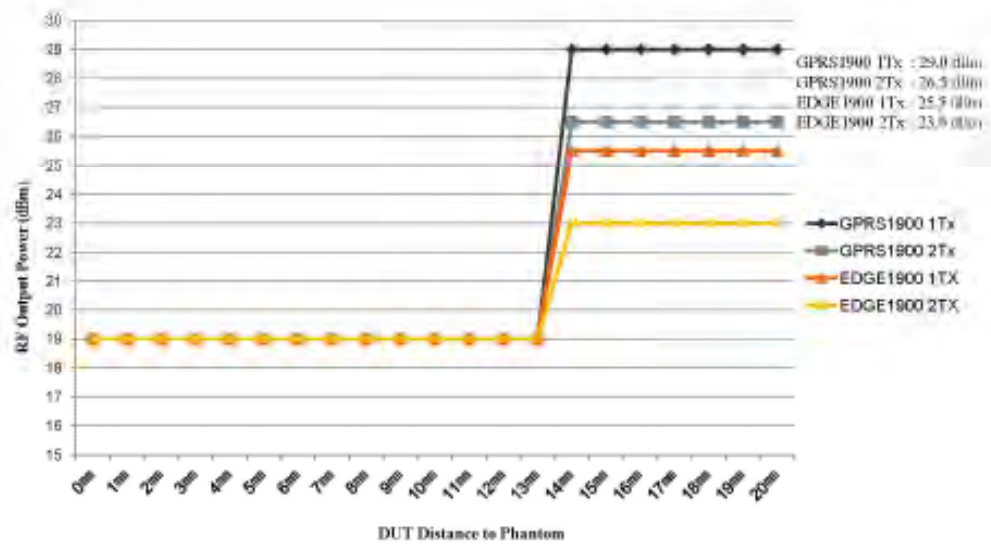
This tablet PC can be used for four display orientations. It is designed with a proximity sensor which can trigger/no trigger power reduction for WCDMA band II and GSM on EUT rear and right edge orientations. The other RF capabilities (WLAN / BT / NFC) have no power reduction. The power vs distance plots for EUT rear and right Edge are shown as below.



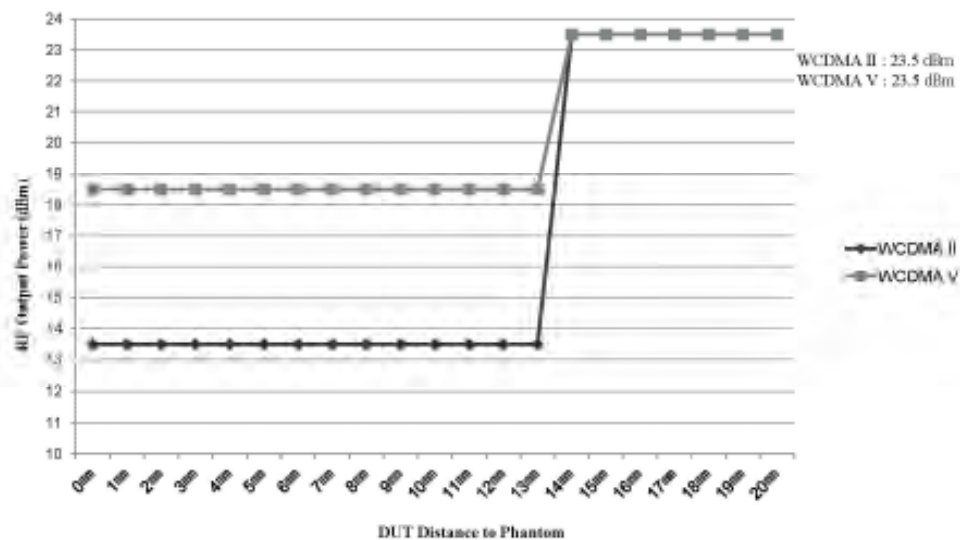
Back off Sensor Power Reduction (Rear Side)



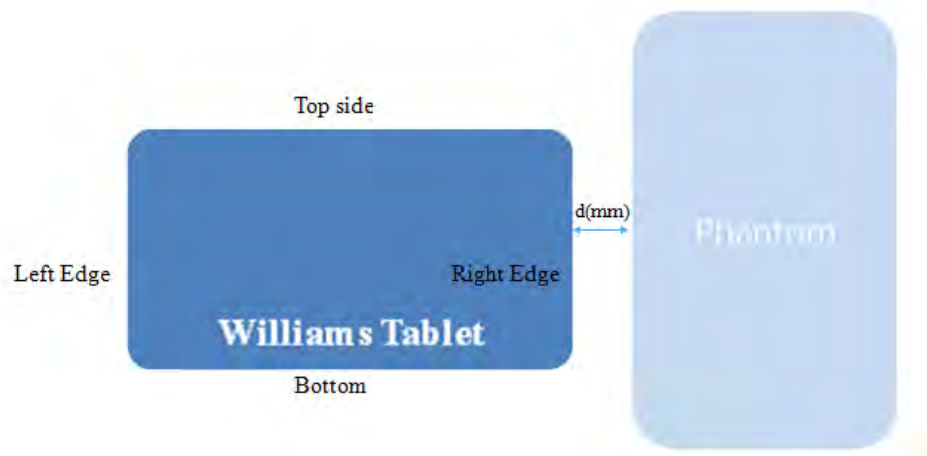
Back off Sensor Power Reduction (GSM850 Rear Side)



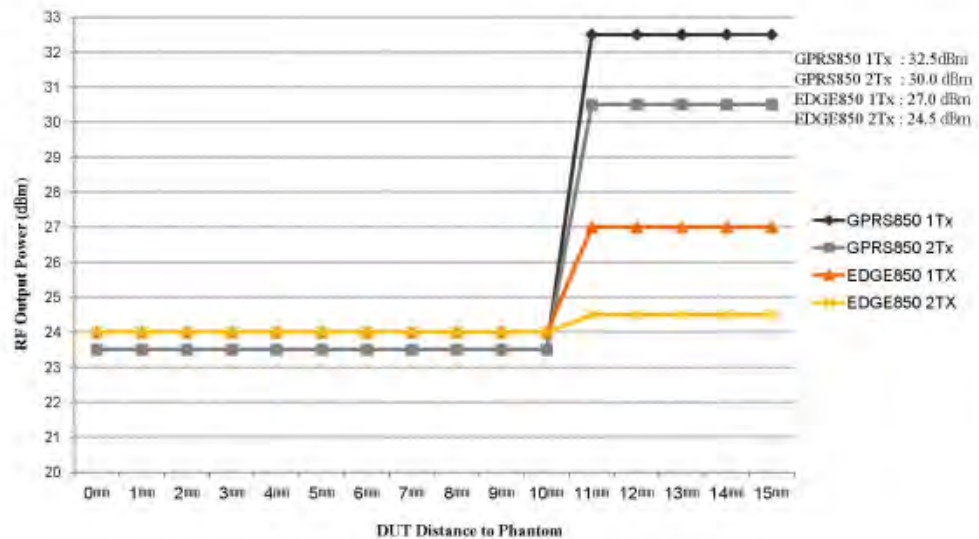
Back off Sensor Power Reduction (GSM1900 Rear Side)



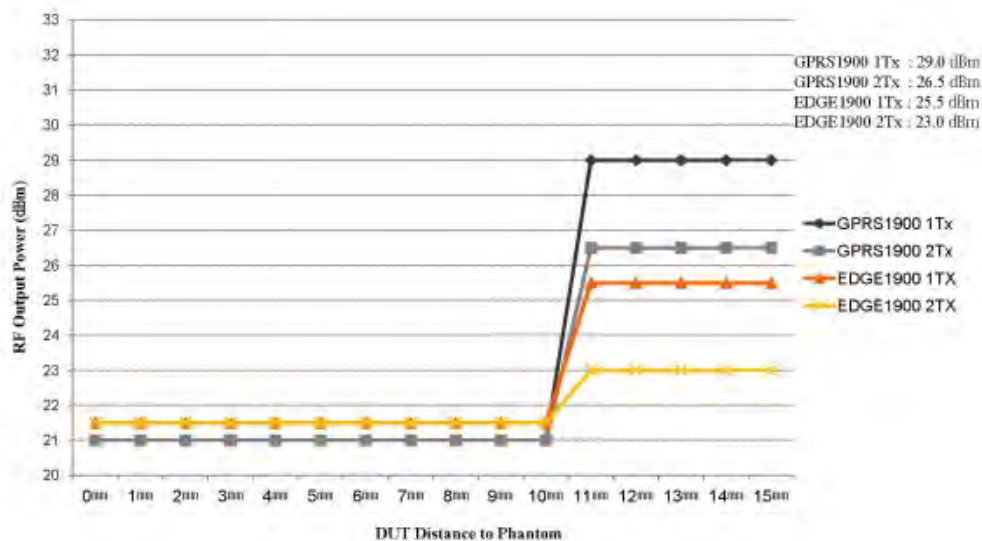
Back off Sensor Power Reduction (WCDMA Rear Side)



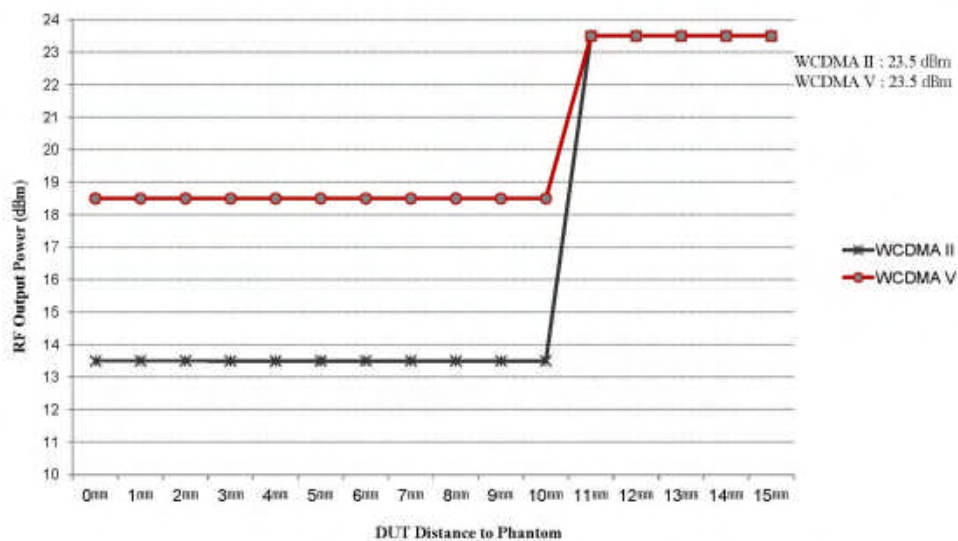
Back off Sensor Power Reduction (Right Edge Side)



Back off Sensor Power Reduction (GSM850 Right edge Side)



Back off Sensor Power Reduction (GSM1900 Right edge Side)



Back off Sensor Power Reduction (WCDMA Right edge Side)

Based on the separation distance for the sensor power back off / no power back off, we test SAR with power reduction at 0 mm, and test SAR without power reduction at 14 mm for EUT rear and at 11 mm for EUT Right edge.

3.8 Additional SAR Testing for the Top contour and Right Edge contour.

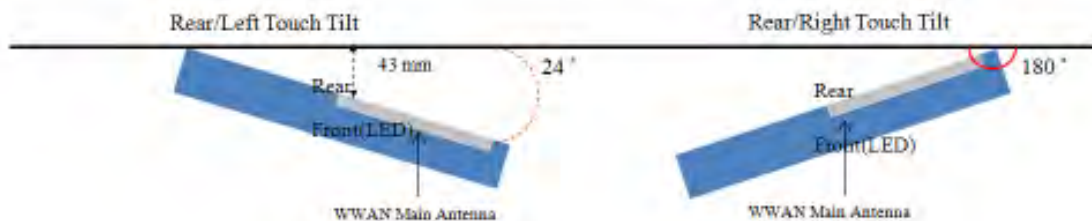
Since the sensing coverage does not cover the right / left edge contour and the power will resume to normal full power while this tablet is tilted to certain angle, we tilt the tablet and test SAR on the angle with the sensor no power back off.

When the rear of EUT is close to user, the angle of proximity sensor power back off / no power back off at the corner of EUT rear of left touch tilt and right touch tilt is listed as below. Based on the angle, we test SAR without power reduction at 24° rear / left touch tilt corner.

Angle of Rear/Touch Tilt

Angle of Rear/Right Touch Tilt	0° ~ 23°	24°	25°	26°
Proximity Sensor	Back off	no Back off	no Back off	no Back off

Angle of Rear/Left Touch Tilt	0° ~ 180°			
Proximity Sensor	Back off			



When the right edge of primary portrait is close to user, the angle of proximity sensor triggered / no triggered at the corner of right touch tilt and left touch tilt is listed as below. Based on the angle, we test SAR without power reduction at 22° for left edge / left touch tilt corner.

Angle of Right Edge/Touch Tilt

Angle of Right Edge/Right Touch Tilt	0° ~ 21°	22°	23°	24°
Proximity Sensor	Back off	no Back off	no Back off	no Back off

Angle of Right Edge/Left Touch Tilt	0° ~ 90°			
Proximity Sensor	Back off			



3.9 SAR Data Summary

GSM850 Body Test

With Proximity sensor activated with power back-off

Ambient Temperature (°C)	22.4
Liquid Temperature (°C)	21.5
Date	2012-11-06

Mode	Freq. (MHz)	Ch. #	Slot	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
GPRS	836.6	190	1	Rear	0.0	0.104	23.47	24.00	1.130	0.138	0.156
	836.6	190	2		0.0	-0.083	23.47	24.00	1.130	0.279	0.315
	836.6	190	1	Right Edge	0.0	-0.016	23.47	24.00	1.130	0.141	0.159
	836.6	190	2		0.0	-0.026	23.47	24.00	1.130	0.250	0.283
EGPRS	836.6	190	1	Rear	0.0	-0.176	23.87	24.50	1.156	0.152	0.176
	836.6	190	2		0.0	-0.055	23.84	24.50	1.164	0.312	0.363
	836.6	190	1	Right Edge	0.0	-0.104	23.87	24.50	1.156	0.152	0.176
	836.6	190	2		0.0	-0.080	23.84	24.50	1.164	0.307	0.357

Ambient Temperature (°C)	22.4	22.5
Liquid Temperature (°C)	21.5	21.5
Date	2012-11-06	2012-12-07

GSM850 Body Test

No power back-off

Mode	Freq. (MHz)	Ch. #	Slot	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
GPRS	836.6	190	2	Rear	14	-0.003	29.87	30.50	1.156	0.202	0.234
	836.6	190	2	Left Touch Tilt at 24°	43	-0.015	29.87	30.50	1.156	0.101	0.117
	836.6	190	2	Right Edge	11	-0.050	29.87	30.50	1.156	0.459	0.531
	836.6	190	2	Left Touch Tilt at 22°	30	-0.058	29.87	30.50	1.156	0.057	0.066
	836.6	190	1	Bottom	0	-0.072	32.21	33.00	1.200	0.133	0.160
	836.6	190	2		0	-0.039	29.87	30.50	1.130	0.154	0.174
EGPRS	836.6	190	2	Rear	14	0.093	24.35	25.00	1.161	0.063	0.073
	836.6	190	2	Left Touch Tilt at 24°	43	-0.111	24.35	25.00	1.161	0.025	0.029
	836.6	190	2	Right Edge	11	-0.013	24.35	25.00	1.161	0.126	0.146
	836.6	190	2	Left Touch Tilt at 22°	30	0.109	24.35	25.00	1.161	0.018	0.021
	836.6	190	1	Bottom	0	-0.028	26.78	27.50	1.180	0.039	0.046
	836.6	190	2		0	0.026	24.35	25.50	1.303	0.045	0.059

Ambient Temperature (°C)	23.1
Liquid Temperature (°C)	22.8
Date	2012-11-19

GSM1900 Body Test

With Proximity sensor activated with power back-off

Mode	Freq. (MHz)	Ch. #	Slot	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
GPRS	1880.0	661	1	Rear	0.0	0.042	18.91	19.50	1.146	0.217	0.249
	1880.0	661	2		0.0	-0.059	18.82	19.50	1.169	0.450	0.526
	1880.0	661	1	Right Edge	0.0	-0.048	18.91	19.50	1.146	0.241	0.276
	1880.0	661	2		0.0	-0.050	18.82	19.50	1.169	0.478	0.559
EGPRS	1880.0	661	1	Rear	0.0	0.151	19.23	19.50	1.064	0.261	0.278
	1880.0	661	2		0.0	-0.059	19.22	19.50	1.067	0.528	0.563
	1880.0	661	1	Right Edge	0.0	-0.106	19.23	19.50	1.064	0.259	0.276
	1880.0	661	2		0.0	-0.022	19.22	19.50	1.067	0.529	0.564

Ambient Temperature (°C)	23.1	23.1
Liquid Temperature (°C)	22.8	22.4
Date	2012-11-19	2012-12-06

GSM1900 Body Test

No power back-off

Mode	Freq. (MHz)	Ch. #	Slot	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
GPRS	1880.0	661	2	Rear	14	0.008	26.42	27.00	1.143	0.206	0.235
	1880.0	661	2	Left Touch Tilt at 24°	43	0.089	26.42	27.00	1.143	0.166	0.190
	1880.0	661	2	Right Edge	11	-0.054	26.42	27.00	1.143	0.510	0.583
	1880.0	661	2	Left Touch Tilt at 22°	30	0.021	26.42	27.00	1.143	0.053	0.061
	1880.0	661	1	Bottom	0	-0.027	29.06	29.50	1.107	0.394	0.436
	1880.0	661	2		0	-0.051	26.42	27.00	1.143	0.439	0.502
EGPRS	1880.0	661	2	Rear	14	-0.056	22.82	23.50	1.169	0.096	0.112
	1880.0	661	2	Left Touch Tilt at 24°	43	0.077	22.82	23.50	1.169	0.078	0.091
	1880.0	661	2	Right Edge	11	-0.059	22.82	23.50	1.169	0.229	0.268
	1880.0	661	2	Left Touch Tilt at 22°	30	0.134	22.82	23.50	1.169	0.024	0.028
	1880.0	661	1	Bottom	0	0.019	25.26	26.00	1.186	0.088	0.104
	1880.0	661	2		0	-0.068	22.82	23.50	1.169	0.168	0.196

WCDMA II Body Test

With Proximity sensor activated with power back-off

Ambient Temperature (°C)	23.5	23.1
Liquid Temperature (°C)	22.3	22.4
Date	2012-11-17	2012-12-06

Mode	Freq. (MHz)	Ch. #	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
FDD II	1880.0	9400	Rear	0.0	-0.019	13.55	14.00	1.109	0.478	0.530
	1880.0	9400	Right Edge	0.0	-0.004	13.55	14.00	1.109	0.575	0.638

No power back-off

Mode	Freq. (MHz)	Ch. #	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
FDD II	1880.0	9400	Rear	14	-0.003	23.14	24.00	1.219	0.379	0.462
	1880.0	9400	Left Touch Tilt at 24°	43	-0.007	23.14	24.00	1.219	0.254	0.310
	1880.0	9400	Right Edge	11	-0.007	23.14	24.00	1.219	0.729	0.889
	1880.0	9400	Left Touch Tilt at 22°	30	0.007	23.14	24.00	1.219	0.099	0.121
	1880.0	9400	Bottom	0	-0.012	23.14	24.00	1.219	0.650	0.792

Ambient Temperature (°C)	22.9	22.5
Liquid Temperature (°C)	21.7	21.5
Date	2012-11-07	2012-12-07

WCDMA V Body Test

No power back-off

Mode	Freq. (MHz)	Ch. #	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
FDD V	836.6	4183	Rear	0.0	-0.049	18.49	19.00	1.125	0.394	0.443
	836.6	4183	Right Edge	0.0	-0.047	18.49	19.00	1.125	0.431	0.485

No power back-off

Mode	Freq. (MHz)	Ch. #	Position	Gap [mm]	Power Drift(dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
FDD V	836.6	4183	Rear	14	0.000	23.24	24.00	1.191	0.182	0.217
	836.6	4183	Left Touch Tilt at 24°	43	0.034	23.24	24.00	1.191	0.083	0.099
	836.6	4183	Right Edge	11	-0.014	23.24	24.00	1.191	0.455	0.542
	836.6	4183	Left Touch Tilt at 22°	30	-0.013	23.24	24.00	1.191	0.040	0.048
	836.6	4183	Bottom	0	-0.005	23.24	24.00	1.191	0.134	0.160

2.4 GHz Body Test

Ambient Temperature (°C)	23.7	23.2
Liquid Temperature (°C)	22.9	22.1
Date	2012-09-20	2012-11-02

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11b	Main	2462	11	1	Rear	-0.075	16.63	17.00	1.089	0.605	0.659
			11		Right Edge	-0.088	16.63	17.00	1.089	0.477	0.519
	Aux	2412	1		Rear	0.114	16.43	17.00	1.419	0.559	0.793
			1		Left Edge	-0.057	16.43	17.00	1.140	0.213	0.243
			1		Bottom	-0.030	16.43	17.00	1.140	0.541	0.617
802.11n HT20 MIMO	Main & AUX	2437	6	HT8	Rear	0.000	13.21 12.98	14.5	1.381	0.395	0.545
					Left Edge	-0.033				0.071	0.098
					Right Edge	-0.117				0.166	0.229
					Top	-0.040				0.097	0.134
					Bottom	-0.004				0.214	0.296

5.2 GHz Body Test

Ambient Temperature (°C)	23.4	23.0	23.3
Liquid Temperature (°C)	22.1	21.9	21.8
Date	2012-09-17	2012-11-27	2012-11-29

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11a	Main	5180	36	6	Rear	0.166	16.08	17.00	1.236	0.135	0.167
					Right Edge	0.142	16.08	17.00	1.236	0.142	0.176
					Top	0.089	16.08	17.00	1.236	0.015	0.019
	AUX	5180	36		Rear	-0.065	15.90	17.00	1.288	0.790	1.028
					Left Edge	0.166	15.90	17.00	1.288	0.521	0.671
					Bottom	0.197	15.90	17.00	1.288	0.315	0.406
802.11n HT40 MIMO	Main &AUX	5230	46	HT8	Rear	0.153	13.32 13.12	14.5	1.342	0.414	0.556
					Left Edge	0.098				0.275	0.369
					Right Edge	-0.162				0.083	0.111
					Top	0.000				0.001	0.001
					Bottom	0.185				0.116	0.156

5.3 GHz Body Test

Ambient Temperature (°C)	23.4	23.3
Liquid Temperature (°C)	22.1	21.8
Date	2012-09-17	2012-11-29

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11a	Main	5300	60	6	Rear	-0.040	16.28	17.00	1.180	0.134	0.158
					Right Edge	0.195	16.28	17.00	1.180	0.079	0.093
					Top	0.163	16.28	17.00	1.180	0.003	0.004
	AUX	5320	64		Rear	0.196	15.60	17.00	1.380	0.552	0.762
					Left Edge	0.016	15.60	17.00	1.380	0.304	0.420
					Bottom	-0.003	15.60	17.00	1.380	0.192	0.265
802.11n HT20 MIMO	Main &AUX	5300	60	HT8	Rear	0.000	13.11 12.44	14.50	1.483	0.473	0.701
					Left Edge	0.061				0.289	0.429
					Right Edge	0.040				0.050	0.074
					Top	0.000				N/A	N/A
					Bottom	0.047				0.146	0.217

5.5 GHz Body Test

Ambient Temperature (°C)	23.9	23.1	23.0
Liquid Temperature (°C)	22.7	22.3	22.3
Date	2012-09-18	2012-09-19	2012-11-26

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11a	Main	5680	136	6	Rear	-0.174	16.45	17.00	1.135	Cube0: 0.336	0.381
										Cube0: 0.271	0.308
		5600	120		Right Edge	-0.105	16.38	17.00	1.153	Cube0: 0.336	0.387
										Cube0: 0.320	0.369
		5640	128		Right Edge	-0.072	16.36	17.00	1.159	Cube0: 0.493	0.571
										Cube0: 0.366	0.424
		5680	136		Right Edge	0.011	16.45	17.00	1.135	Cube0: 0.545	0.619
										Cube0: 0.385	0.437
		5680	136		Top	0.196	16.65	16.50	1.084	0.024	0.026
	AUX	5520	104		Rear	0.137	15.56	16.50	1.393	0.412	0.574
						0.052	15.63	16.50	1.371	0.531	0.728
		5580	116		Rear	-0.185	15.66	16.50	1.330	0.599	0.797
						-0.063	15.62	16.50	1.312	0.690	0.905
		5600	120		Rear	-0.103	15.70	16.50	1.285	0.737	0.947
						-0.093	15.56	16.50	1.393	0.500	0.697
		5620	124		Left Edge	0.186	15.63	16.50	1.371	0.601	0.824
						-0.029	15.66	16.50	1.330	0.741	0.986
		5620	124		Left Edge	0.058	15.62	16.50	1.312	0.733	0.962
						0.105	15.70	16.50	1.285	0.969	1.245
		5680	136		Bottom	-0.110	15.70	16.50	1.285	0.371	0.477

5.5 GHz Body Test

Ambient Temperature (°C)	23.0
Liquid Temperature (°C)	22.3
Date	2012-11-26

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11n HT20 MIMO	Main &AUX	5590	118	HT8	Rear	0.000	13.15 13.18	14.50	1.360	0.146	0.196
					Left Edge	0.157				0.246	0.335
					Right Edge	0.180				0.120	0.163
					Top	0.000				0.014	0.019
					Bottom	0.000				0.077	0.105

5.8 GHz Body Test

Ambient Temperature (°C)	23.5	23.4
Liquid Temperature (°C)	22.8	22.1
Date	2012-09-19	2012-12-03

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	Tune-Up Limit [dB m]	Scaling Factor	SAR 1g (W/kg)	Scaled SAR 1g (W/kg)
802.11a	Main	5785	157	6	Rear	-0.133	16.50	17.00	1.122	0.230	0.258
					Right Edge	-0.035	16.50	17.00	1.122	0.369	0.414
					Top	-0.160	16.50	17.00	1.122	0.037	0.042
	AUX	5785	157		Rear	0.085	16.70	17.00	1.072	0.449	0.481
					Left Edge	-0.047	16.70	17.00	1.072	0.546	0.585
					Bottom	0.049	16.70	17.00	1.072	0.222	0.238
802.11n HT20 MIMO	Main &AUX	5765	153	HT8	Rear	0.000	13.60 13.50	14.50	1.244	0.150	0.187
					Left Edge	-0.078				0.230	0.286
					Right Edge	0.137				0.111	0.138
					Top	0.000				0.013	0.016
					Bottom	-0.194				0.062	0.077

SAR Test Notes

General Notes :

- The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2003, FCC/OET Bulletin 65, Supplement C [June 2001] and FCC KDB Publication 447498 D01v05.
- All modes of operation were investigated, and worst-case results are reported.
- Battery is fully charged for all readings and the standard batteries are the only options.
- The EUT is tested 2nd hot-spot peak, if it is less than 2 dB below the highest peak.
- The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
- SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v05.

7. Per FCC KDB Publication 648474 D04v01, SAR was evaluated without a headset connected to the device. Since the reported SAR was ≤ 1.2 W/kg, no additional SAR evaluations using a headset cable were required.
8. Per FCC KDB Publication 865664 D01v01, variability SAR tests were performed when the measured SAR results for a frequency band were greater than 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see section 12 for variability analysis.

GSM Test Notes :

1. Per FCC KDB Publication 447498 D01v05, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is $> 1/2$ dB, instead of the middle channel, the highest output power channel must be used.

WCDMA Notes :

1. WCDMA mode in Body SAR was tested under RMC 12.2 kbps with HSPA inactive per KDB Publication 941225 D01v02. HSPA SAR was not required since the average output power of the HSPA subtests was not more than 0.25 dB higher than the RMC level and SAR was less than 1.2 W/kg.
2. Per FCC KDB Publication 447498 D01v05, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is $> 1/2$ dB, instead of the middle channel, the highest output power channel must be used.

WLAN Notes :

1. Justification for reduced test configuration for WIFI channels per KDB Publication 248227 and April 2010 FCC/TCB Meeting Notes: Highest average RF output power channel for the lowest data rate were selected for SAR evaluation. Other IEEE 802.11 modes (including 802.11n and higher data rates) were not investigated since the average output powers were not greater than 0.25 dB than that of the corresponding channel in the lowest data rate IEEE 802.11a modes.
2. WLAN transmission was verified using a spectrum analyzer.
3. Per FCC KDB Publication 447498 D01v05: Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g SAR for the mid-band or highest output power channel is :
 SAR for highest power channel was ≤ 0.8 W/kg and the frequency range is < 100 MHz
 SAR for highest power channel was ≤ 0.4 W/kg and the frequency range is ≥ 200 MHz.

3.10 Simultaneous Multi-band Transmission Evaluation

3.10.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v05 are applicable to handsets with built-in unlicensed transmitters such as 802.11 b/g/n and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

3.10.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is require. Per FCC KDB 447498 D01v05 IV.C.1,iii, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg. When standalone SAR is not required to be measured per FCC KDB 447498 D01v05 4.3.2.2), the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission involving that transmitter.

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

Antenna	Tx	Frequency (MHz)	Output power ^{Note 2, 4}		Separation distances (mm) ^{Note 1 and 4}						Estimated SAR Value ^{Note 3 and 4}					
			dBm	mW	Left	Right	Rear	Top	Bottom	Front	Left	Right	Rear	Top	Bottom	Front
WWAN Main Antenna																
3G Main	GSM	850	24.48	281	289	5	5	89	17		0.400	Measure	Measure	0.400	Measure	N/A
3G Main	GSM	1900	20.98	125	289	5	5	89	17		0.400	Measure	Measure	0.400	Measure	N/A
3G Main	WCDMA	850	24.00	251	289	5	5	89	17		0.400	Measure	Measure	0.400	Measure	N/A
3G Main	WCDMA	1900	24.00	251	289	5	5	89	17		0.400	Measure	Measure	0.400	Measure	N/A
WiFi - Main Antenna - Zero separation from tablet																
WLAN Main	WiFi	2462	16.63	46	289	5	5	30	141		0.192	Measure	Measure	0.321	0.192	N/A
WLAN Main	WiFi	5180	16.08	41	289	5	5	30	141		0.249	Measure	Measure	Measure	0.249	N/A
WLAN Main	WiFi	5300	16.28	42	289	5	5	30	141		0.258	Measure	Measure	Measure	0.258	N/A
WLAN Main	WiFi	5680	16.45	44	289	5	5	30	141		0.280	Measure	Measure	Measure	0.280	N/A
WLAN Main	WiFi	5785	16.50	45	289	5	5	30	141		0.289	Measure	Measure	Measure	0.289	N/A
WiFi -Aux Antenna - Zero separation from tablet																
WLAN Main	WiFi	2412	16.43	44	5	289	5	166	5		Measure	0.182	Measure	0.182	Measure	N/A
WLAN Main	WiFi	5180	15.90	39	5	289	5	166	5		Measure	0.237	Measure	0.237	Measure	N/A
WLAN Main	WiFi	5320	15.60	36	5	289	5	166	5		Measure	0.221	Measure	0.221	Measure	N/A
WLAN Main	WiFi	5680	15.70	37	5	289	5	166	5		Measure	0.235	Measure	0.235	Measure	N/A
WLAN Main	WiFi	5785	16.70	47	5	289	5	166	5		Measure	0.301	Measure	0.301	Measure	N/A
Bluetooth - Antenna																
Bluetooth	B.T	2441	7.50	6	5	289	5	166	5		0.250	0.025	0.250	0.025	0.250	N/A

Notes

- For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.
- Output power is the maximum rated power (including tune-up or manufacturing tolerances) and includes source-based averaging.
- If the antenna separation distance is > 50mm then the estimated SAR value is the lesser of the estimated value at 50mm or 0.4 W/Kg.
- Formulas round separation distance to nearest mm and power to nearest mW before calculating estimated SAR or determining if SAR is excluded.

The Simultaneous Transmission possibilities are listed as below

No	Capable TX Configuration	Body SAR
1	WWAN (GSM850, PCS1900, WCDMA II, WCDMA V) + WLAN 2.4 GHz	O
2	WWAN (GSM850, PCS1900, WCDMA II, WCDMA V) + WLAN 5 GHz	O
3	WWAN (GSM850, PCS1900, WCDMA II, WCDMA V) + Bluetooth	O
4	WWAN (GSM850, PCS1900, WCDMA II, WCDMA V) + WLAN 2.4 GHz + Bluetooth	X
5	WWAN(GSM850, PCS1900, WCDMA II, WCDMA V) + WLAN 5 GHz + Bluetooth	X

Simultaneous Multi-band Transmission Evaluation

Conditions (SAR1+SAR2)	Position	P-Sensor Status	Max. SAR1	Max. SAR2	SAR1+SAR2 Summation
GSM850 + WLAN 2.4G	Rear	Back Off	0.363	0.793	1.156
		No Back Off	0.234		1.027
	Right Edge	Back Off	0.357	0.519	0.876
		No Back Off	0.531		1.050
	Left Edge	N/A	0.400	0.243	0.643
	Top	N/A	0.400	0.321	0.721
	Bottom	N/A	0.174	0.617	0.791
GSM850 + WLAN 5G	Rear	Back Off	0.363	1.028	1.391
		No Back Off	0.234		1.262
	Right Edge	Back Off	0.357	0.619	0.976
		No Back Off	0.531		1.150
	Left Edge	N/A	0.400	1.245	1.645
	Top	N/A	0.400	0.301	0.701
	Bottom	N/A	0.174	0.477	0.651
GSM850 + Bluetooth	Rear	Back Off	0.363	0.234	0.597
		No Back Off	0.234		0.468
	Right Edge	Back Off	0.357	0.234	0.591
		No Back Off	0.531		0.765
	Left Edge	N/A	0.400	0.234	0.634
	Top	N/A	0.400	0.234	0.634
	Bottom	N/A	0.174	0.234	0.408
GSM1900 + WLAN 2.4G	Rear	Back Off	0.563	0.793	1.356
		No Back Off	0.235		1.028
	Right Edge	Back Off	0.564	0.519	1.083
		No Back Off	0.583		1.102
	Left Edge	N/A	0.400	0.243	0.643
	Top	N/A	0.400	0.321	0.721
	Bottom	N/A	0.502	0.617	1.119
GSM1900 + WLAN 5G	Rear	Back Off	0.563	1.028	1.591
		No Back Off	0.235		1.263
	Right Edge	Back Off	0.564	0.619	1.183
		No Back Off	0.583		1.202
	Left Edge	N/A	0.400	1.245	1.645
	Top	N/A	0.400	0.301	0.701
	Bottom	N/A	0.502	0.477	0.979
GSM1900 + Bluetooth	Rear	Back Off	0.563	0.234	0.797
		No Back Off	0.235		0.469
	Right Edge	Back Off	0.564	0.234	0.798
		No Back Off	0.583		0.817
	Left Edge	N/A	0.400	0.234	0.634
	Top	N/A	0.400	0.234	0.634
	Bottom	N/A	0.502	0.234	0.736

Conditions (SAR1+SAR2)	Position	P-Sensor Status	Max. SAR1	Max. SAR2	SAR1+SAR2 Summation
WCDMA II + WLAN 2.4G	Rear	Back Off	0.530	0.793	1.323
		No Back Off	0.462		1.255
	Right Edge	Back Off	0.638	0.519	1.157
		No Back Off	0.889		1.408
	Left Edge	N/A	0.400	0.243	0.643
	Top	N/A	0.400	0.321	0.721
	Bottom	N/A	0.792	0.617	1.409
WCDMA II + WLAN 5G	Rear	Back Off	0.530	1.028	1.558
		No Back Off	0.462		1.490
	Right Edge	Back Off	0.638	0.619	1.257
		No Back Off	0.889		1.508
	Left Edge	N/A	0.400	1.245	1.645
	Top	N/A	0.400	0.301	0.701
	Bottom	N/A	0.792	0.477	1.269
WCDMA II + Bluetooth	Rear	Back Off	0.530	0.234	0.764
		No Back Off	0.462		0.696
	Right Edge	Back Off	0.638	0.234	0.872
		No Back Off	0.889		1.123
	Left Edge	N/A	0.400	0.234	0.634
	Top	N/A	0.400	0.234	0.634
	Bottom	N/A	0.792	0.234	1.026
WCDMA V + WLAN 2.4G	Rear	Back Off	0.443	0.793	1.236
		No Back Off	0.217		1.010
	Right Edge	Back Off	0.485	0.519	1.004
		No Back Off	0.542		1.061
	Left Edge	N/A	0.400	0.243	0.643
	Top	N/A	0.400	0.321	0.721
	Bottom	N/A	0.160	0.617	0.777
WCDMA V + WLAN 5G	Rear	Back Off	0.443	1.028	1.471
		No Back Off	0.217		1.245
	Right Edge	Back Off	0.485	0.619	1.104
		No Back Off	0.542		1.161
	Left Edge	N/A	0.400	1.245	1.645
	Top	N/A	0.400	0.301	0.701
	Bottom	N/A	0.160	0.477	0.637
WCDMA V + Bluetooth	Rear	Back Off	0.443	0.234	0.677
		No Back Off	0.217		0.451
	Right Edge	Back Off	0.485	0.234	0.719
		No Back Off	0.542		0.776
	Left Edge	N/A	0.400	0.234	0.634
	Top	N/A	0.400	0.234	0.634
	Bottom	N/A	0.160	0.234	0.394

3.11 SPLSR Evaluation Analysis

Pre FCC KDB Publication 447498 D01v05, when the sum of the standalone transmitters is more than 1.6 W/kg, the SAR sum to peak locations can be analyzed to determine SAR distribution overlaps. When the SAR peak to location ratio (shown below) for each pair of antennas is ≤ 0.04 , simultaneous SAR evaluation is not required. The distance between the transmitters was calculated using the following formula.

$$\text{Distance}_{Tx1-Tx2} = R_i = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

$$\text{SPLS Ratio} = \frac{(SAR_1 + SAR_2)^{1/4}}{R_i}$$

The sum of the standalone SAR values was above 1.6 W/kg for the Body Left edge configuration at a separation distance of 0 mm with 5 GHz WLAN potentially operation with WWAN.

Mode / Band	x (mm)	y (mm)	z (mm)
WWAN	6.001	65	-182.4
WLAN 5 GHz	6.001	65	-471.4

Note

Pre KDB 447498, when finding the SPLS ratio of an excluded mode, i.e. WWAN, the location of the geometric center of the radiating antenna or the feed-point of the antenna, whichever gives a smaller separation distance, shall be used as the peak SAR location. For this device, the feed-point of the antenna gave the smaller distance. The WWAN x-axis and y-axis separation distance was assumed to be the same as the WLAN x-axis and y-axis separation distance.



Antenna Pair		Standalong 1g SAR (W/kg)		Standalong SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio
Ant "a"	Ant "b"	a	b	a + b	D_{a-b}	$(a+b)^{1.5} / D_{a-b}$
WLAN AUX	WWAN	1.245	0.400	1.645	286	0.007

Simultaneous Transmission conclusion

The above numerical summed SAR results and SPLSR analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB publication 447498 D01 v05.

3.12 Repeated SAR Measurement

Mode	Antenna (Chain)	Freq. (MHz)	Ch. #	Rate	Position	Power Drift (dB)	Measured Power [dB m]	SAR 1g (W/kg)	Deviation (%)
802.11a	AUX	5680	136	6	Left Edge	0.105	15.91	0.885	8.67

Note.

1. Per KDB 865664 D01v01, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01, if the deviation among the repeated measurement is $\leq 20\%$ and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
3. The deviation is the difference in percentage between original and repeated measured SAR.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

Appendix

List

Appendix A	DASY4 Report (Plots of the SAR Measurements)	- 835 MHz Validation Test - 1900 MHz Validation Test - 2450 MHz Validation Test - 5.2 GHz Validation Test - 5.5 GHz Validation Test - 5.8 GHz Validation Test
Appendix B	Uncertainty Analysis	
Appendix C	Calibration Certificate	- PROBE - DAE3 - DIPOLE

Appendix A

Test Plot – DASY4 Report

835 MHz Validation Test_Body

Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 835 MHz_Body.dut

Input Power : 100 mW

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:490
 Program Name: Validation 835 MHz_Body

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.949 \text{ mho/m}$; $\epsilon_r = 55.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 835 MHz_Body/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.01 mW/g

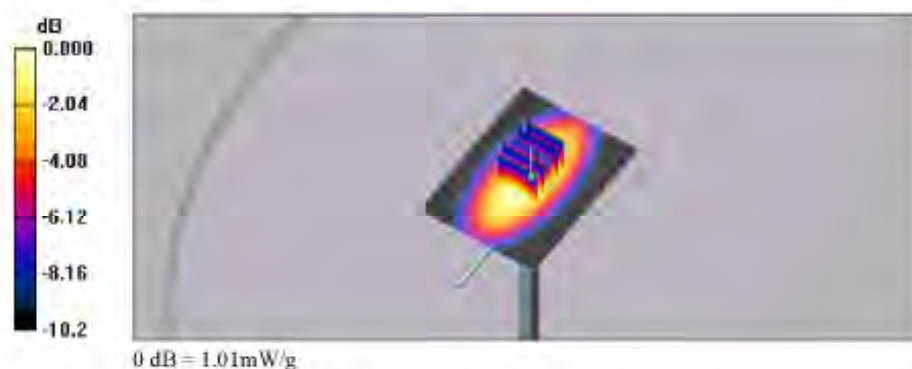
Validation 835 MHz_Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = -0.008 dB

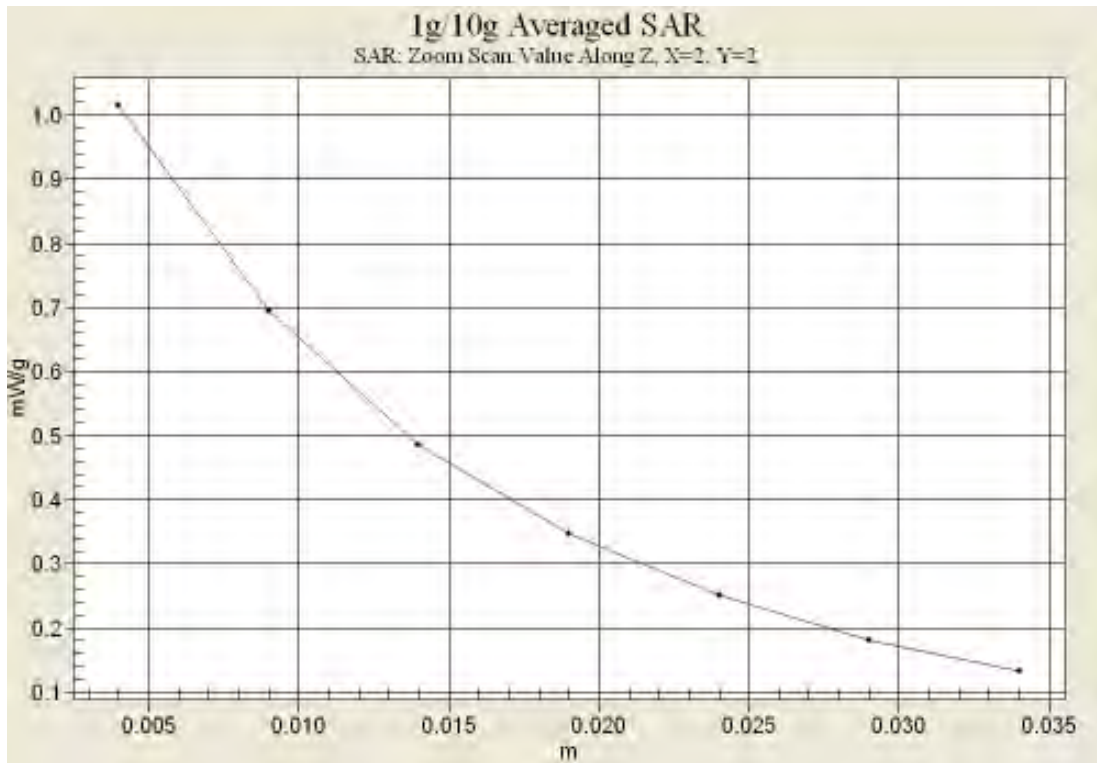
Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.940 mW/g; SAR(10 g) = 0.620 mW/g

Maximum value of SAR (measured) = 1.01 mW/g



Z-Scan



Date: 2012-11-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 835 MHz_Body.dic4

Input Power : 100 mW

Ambient Temp : 22.9 °C Tissue Temp : 21.7°C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:490
Program Name: Validation 835 MHz_Body

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.945 \text{ mho/m}$; $\epsilon_r = 55.3$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 835 MHz_Body/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 1.01 mW/g

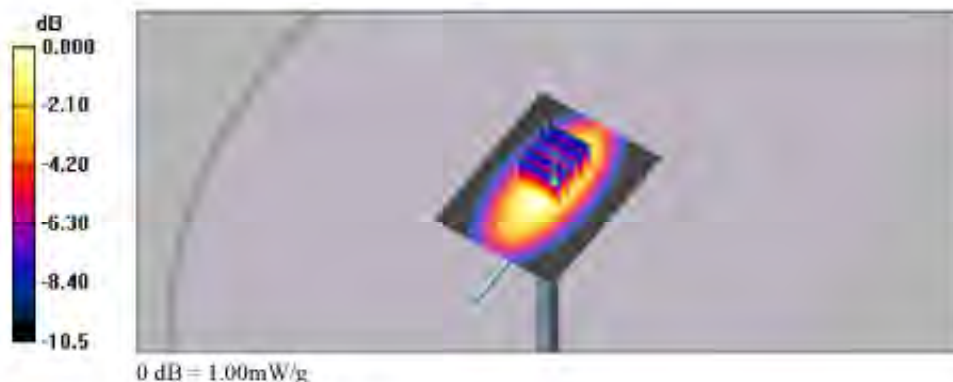
Validation 835 MHz_Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$,
 $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.7 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 1.36 W/kg

SAR(1 g) = 0.929 mW/g; SAR(10 g) = 0.612 mW/g

Maximum value of SAR (measured) = 1.00 mW/g



Z-Scan



Date: 2012-12-07

Test Laboratory: SGS Korea (Gimpo Laboratory)
 File Name: Validation 835 MHz_Body.dut

Input Power : 100 mW

Ambient Temp : 22.5 °C Tissue Temp : 21.5°C

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:490
Program Name: Validation 835 MHz_Body

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.935 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 835 MHz_Body/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.973 mW/g

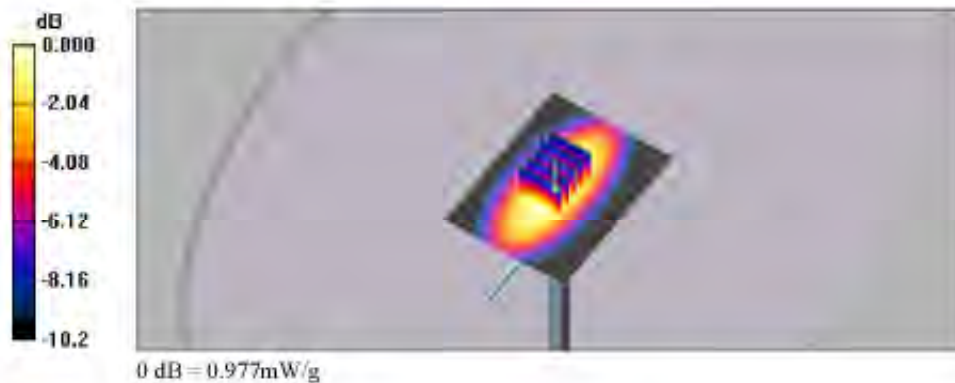
Validation 835 MHz_Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$,
 $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 33.2 V/m; Power Drift = -0.014 dB

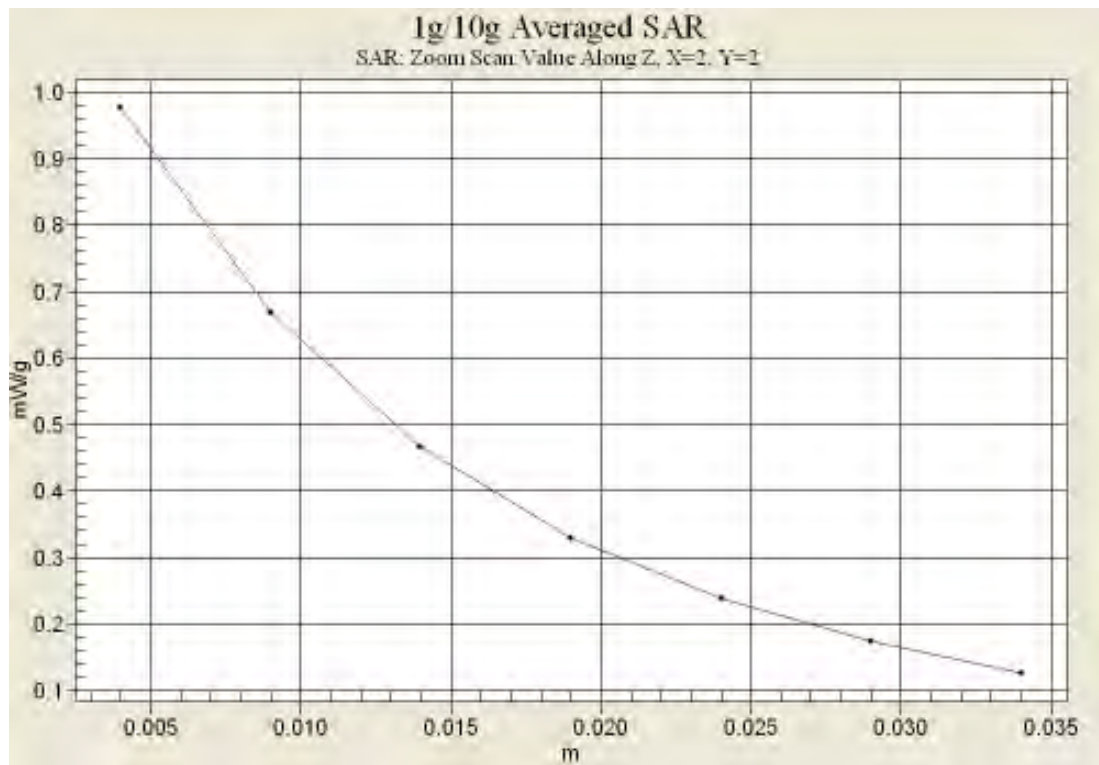
Peak SAR (extrapolated) = 1.32 W/kg

SAR(1 g) = 0.905 mW/g; SAR(10 g) = 0.597 mW/g

Maximum value of SAR (measured) = 0.977 mW/g



Z-Scan



1900 MHz Validation Test_Body

Date: 2012-11-17

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 1900 MHz_Body.d44

Input Power : 100 mW

Ambient Temp : 23.5 °C Tissue Temp : 22.3 °C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d033
Program Name: Validation 1900 MHz

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.52$ mho/m; $\epsilon_r = 53.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 1900 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 4.96 mW/g

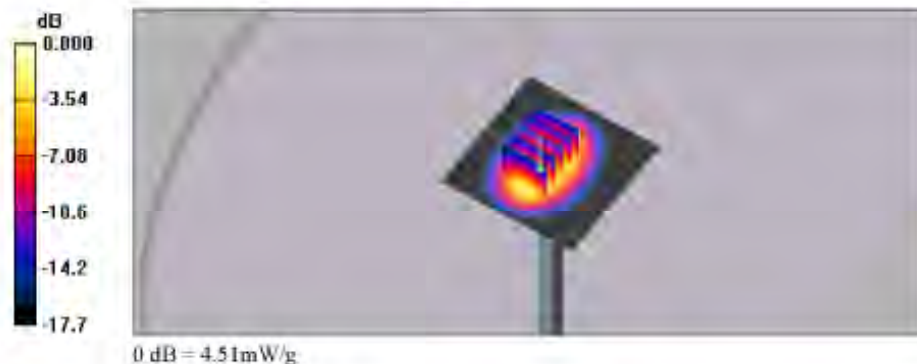
Validation 1900 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.8 V/m; Power Drift = -0.044 dB

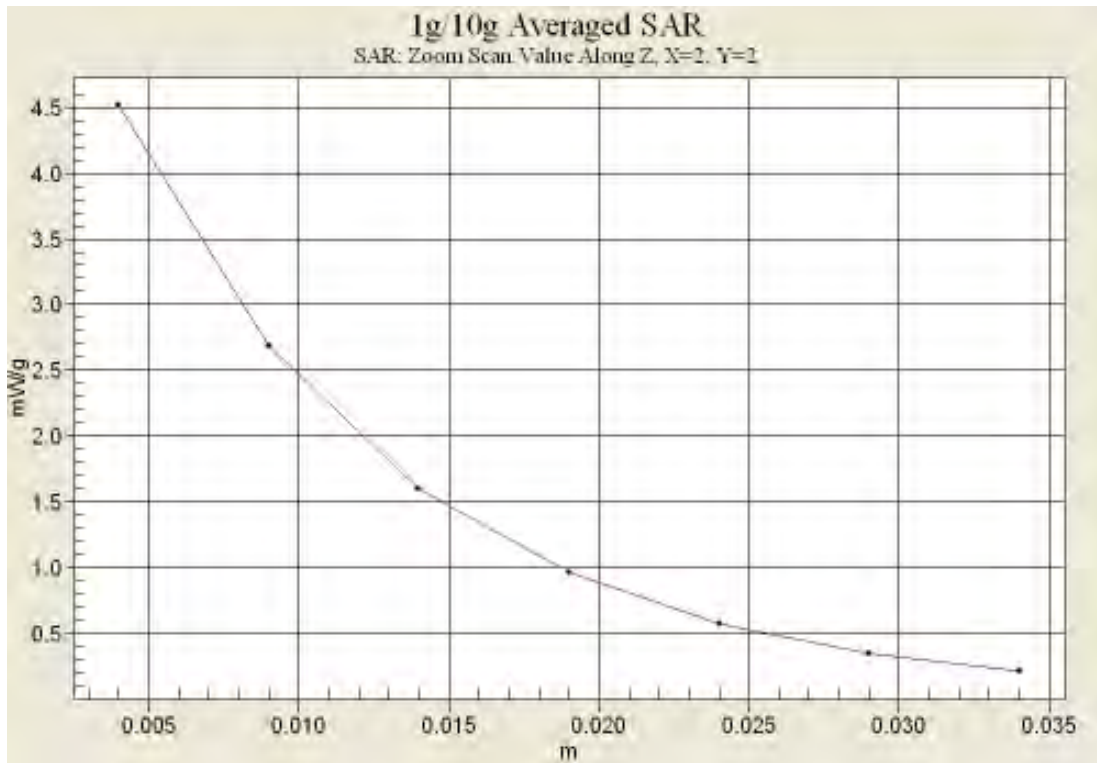
Peak SAR (extrapolated) = 6.99 W/kg

SAR(1 g) = 4.1 mW/g; SAR(10 g) = 2.2 mW/g

Maximum value of SAR (measured) = 4.51 mW/g



Z-Scan



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 1900 MHz_Body.d04

Input Power : 100 mW

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d033
Program Name: Validation 1900 MHz

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 1900 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 4.95 mW/g

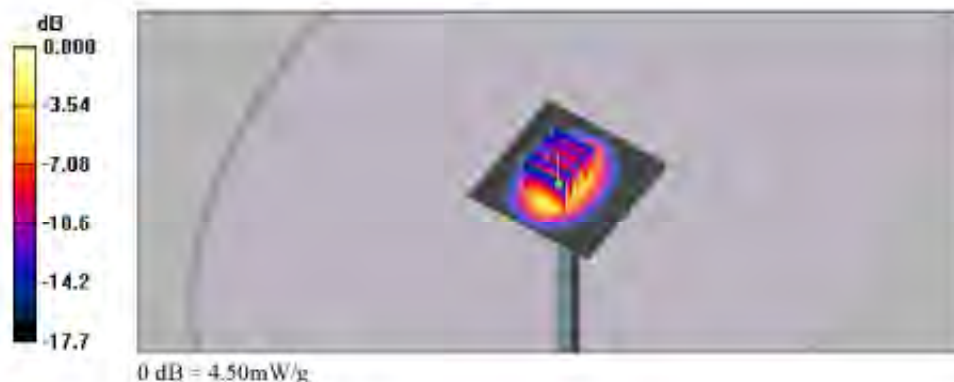
Validation 1900 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.4 V/m; Power Drift = -0.025 dB

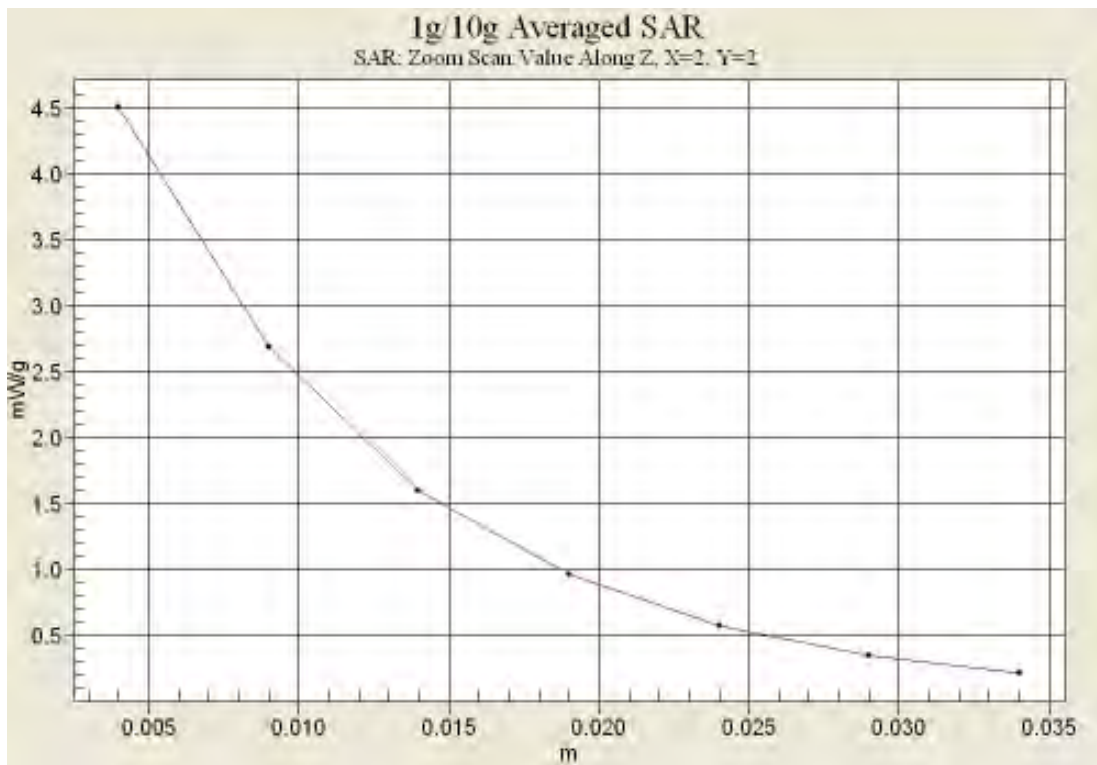
Peak SAR (extrapolated) = 6.93 W/kg

SAR(1 g) = 4.09 mW/g; SAR(10 g) = 2.19 mW/g

Maximum value of SAR (measured) = 4.50 mW/g



Z-Scan



Date: 2012-12-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 1900 MHz_Body.d04

Input Power : 100 mW

Ambient Temp : 23.1 °C Tissue Temp : 22.4°C

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d033
Program Name: Validation 1900 MHz

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 1900 MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 4.65 mW/g

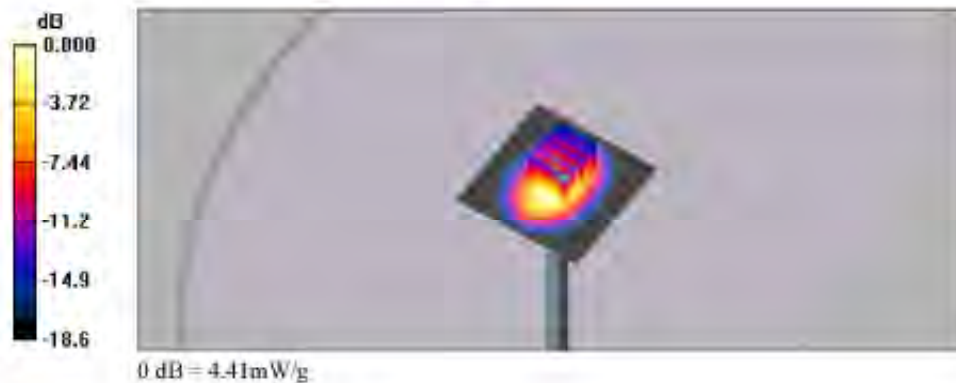
Validation 1900 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.3 V/m; Power Drift = -0.035 dB

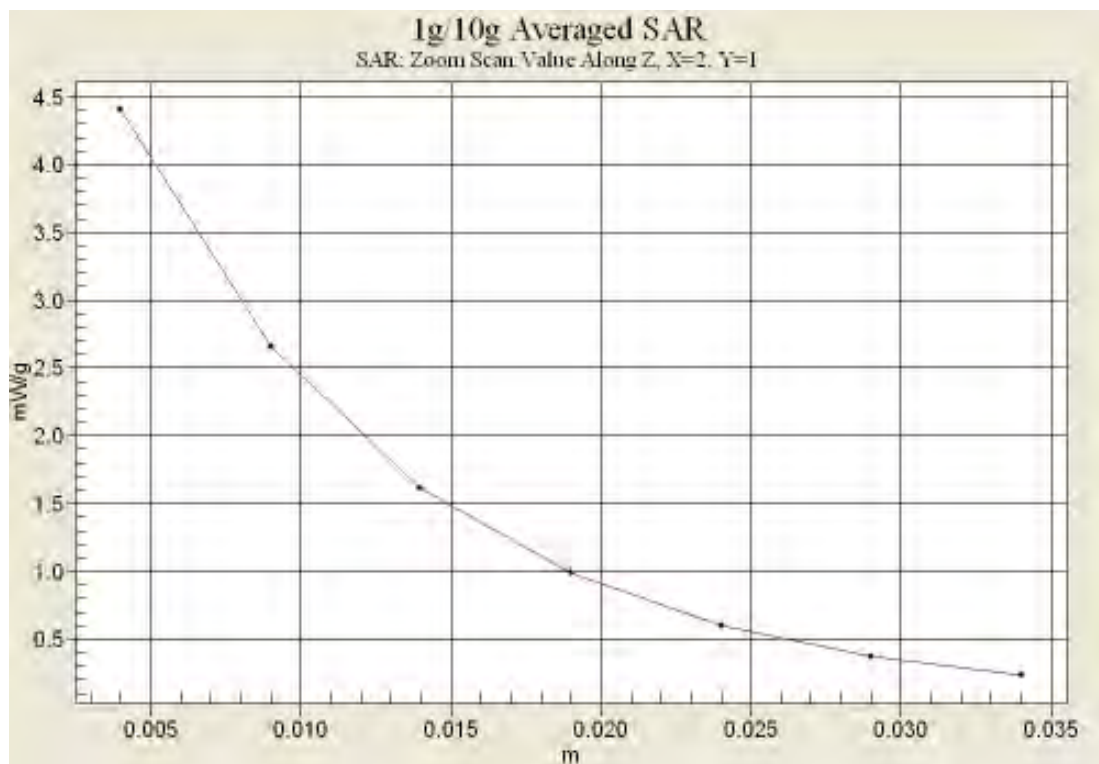
Peak SAR (extrapolated) = 6.67 W/kg

SAR(1 g) = 3.94 mW/g; SAR(10 g) = 2.13 mW/g

Maximum value of SAR (measured) = 4.41 mW/g



Z-Scan



2450 MHz Validation Test_Body

Date: 2013-01-05

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 2450 MHz_Body.dxf

Input Power: 100 mW

Ambient Temp : 23.9 °C Tissue Temp : 23.1 °C

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:734
Program Name: Validation 2450 MHz_Body

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.95$ mho/m; $\epsilon_r = 50.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 2450 MHz_Body/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 5.96 mW/g

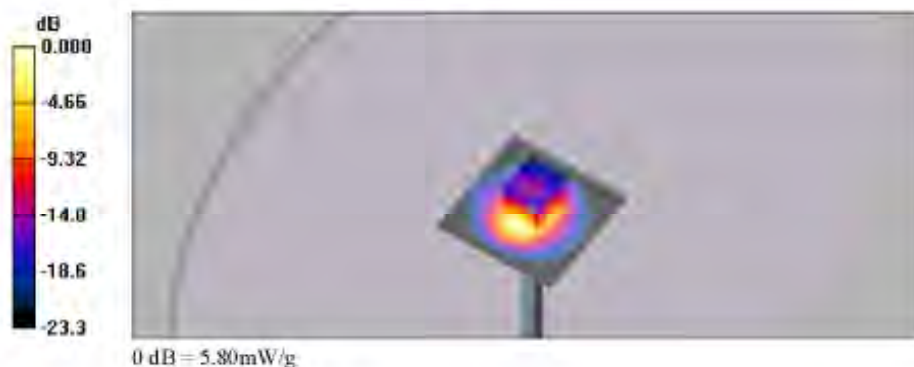
Validation 2450 MHz_Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.1 V/m; Power Drift = -0.036 dB

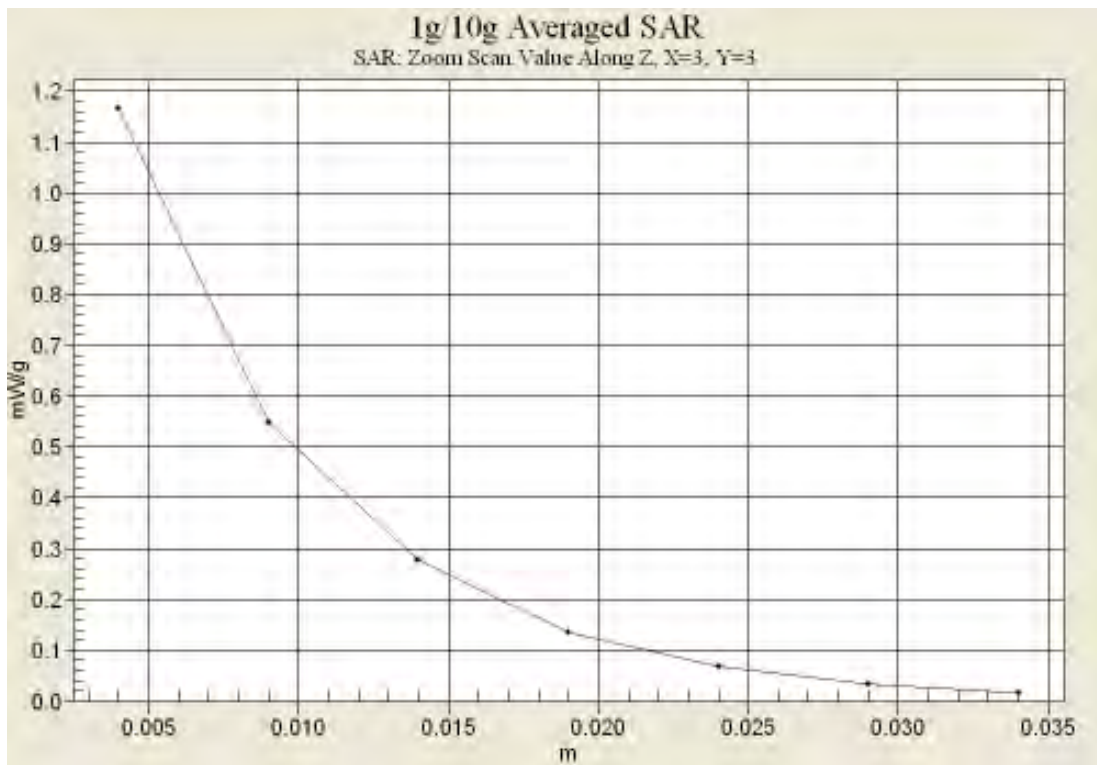
Peak SAR (extrapolated) = 10.6 W/kg

SAR(1 g) = 5.1 mW/g; SAR(10 g) = 2.38 mW/g

Maximum value of SAR (measured) = 5.80 mW/g



Z-Scan



Date: 2013-01-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 2450 MHz_Body.dxf

Input Power: 100 mW

Ambient Temp : 23.2 °C Tissue Temp : 22.4 °C

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:734
Program Name: Validation 2450 MHz_Body

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.95$ mho/m; $\epsilon_r = 50.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.11, 4.11, 4.11); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation 2450 MHz_Body/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 6.06 mW/g

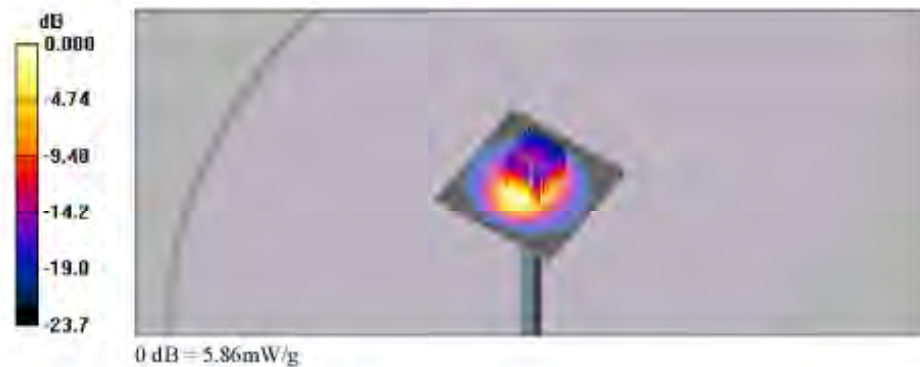
Validation 2450 MHz_Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 58.6 V/m; Power Drift = -0.059 dB

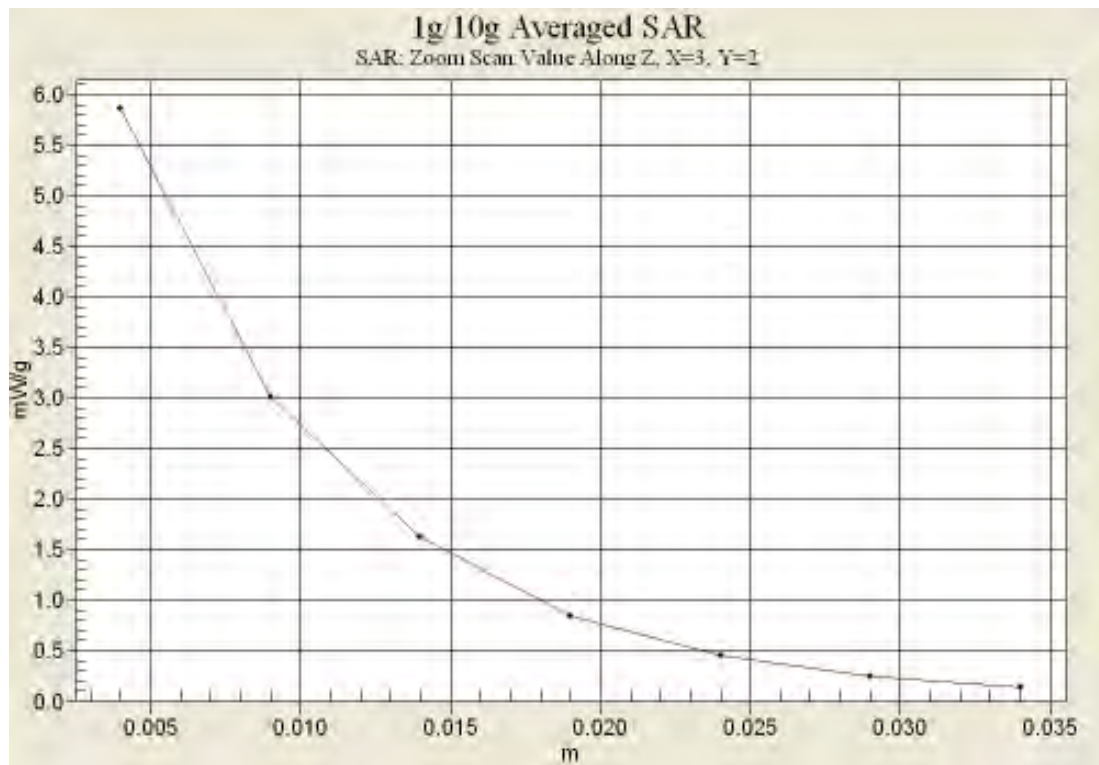
Peak SAR (extrapolated) = 10.7 W/kg

SAR(1 g) = 5.19 mW/g; SAR(10 g) = 2.43 mW/g

Maximum value of SAR (measured) = 5.86 mW/g



Z-Scan



5200 MHz Validation Test_Body

Date: 2012-09-17

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation_5200_MHz_Body.d4

Input Power : 100 mW

Ambient Temp : 23.4 °C Tissue Temp : 22.1 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1130
Program Name: Body Validation

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.3$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(4, 4, 4); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: xxxx
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.5 mW/g

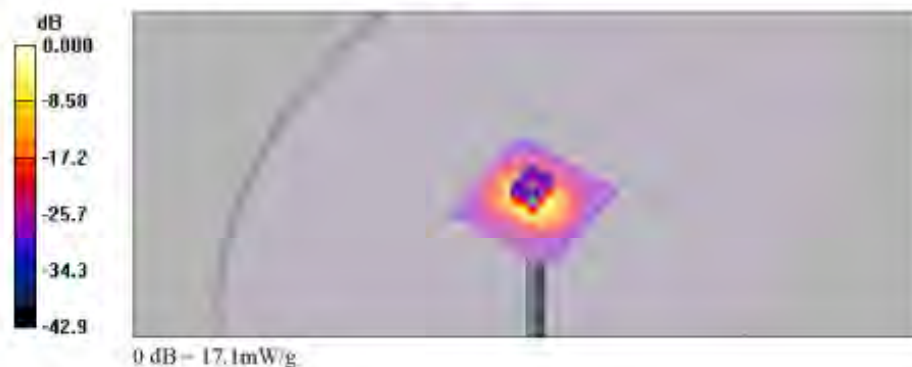
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 47.5 V/m; Power Drift = 0.112 dB

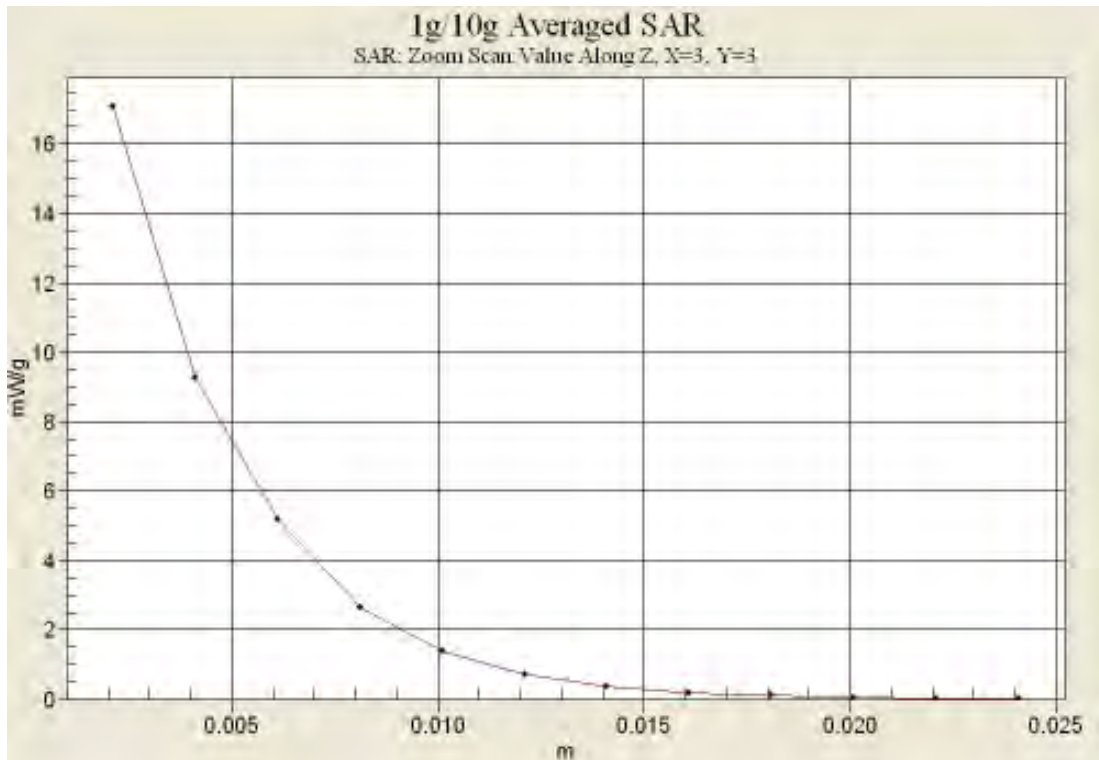
Peak SAR (extrapolated) = 33.9 W/kg

SAR(1 g) = 8.12 mW/g; SAR(10 g) = 2.28 mW/g

Maximum value of SAR (measured) = 17.1 mW/g



Z-Scan



Date: 2012-11-27

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation_5200_MHz_Body.das

Input Power : 100 mW

Ambient Temp : 23.0 °C Tissue Temp : 21.9°C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: 1130
Program Name: Body Validation

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5200$ MHz; $\sigma = 5.34$ mho/m; $\epsilon_r = 49.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(4, 4, 4); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.9 mW/g

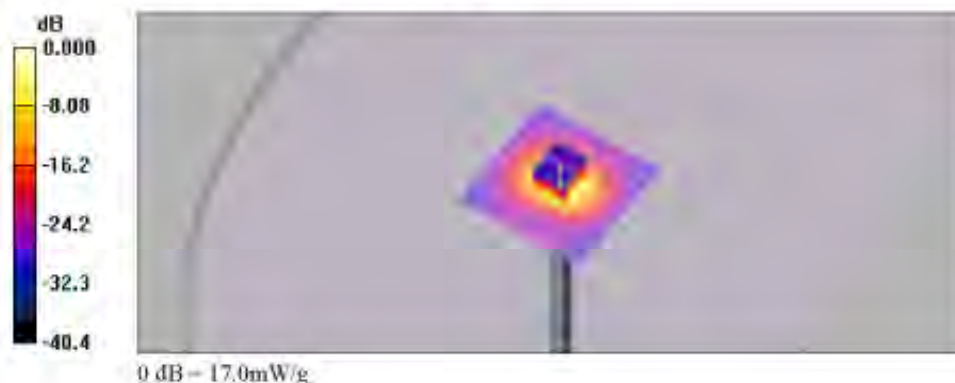
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 49.8 V/m; Power Drift = -0.103 dB

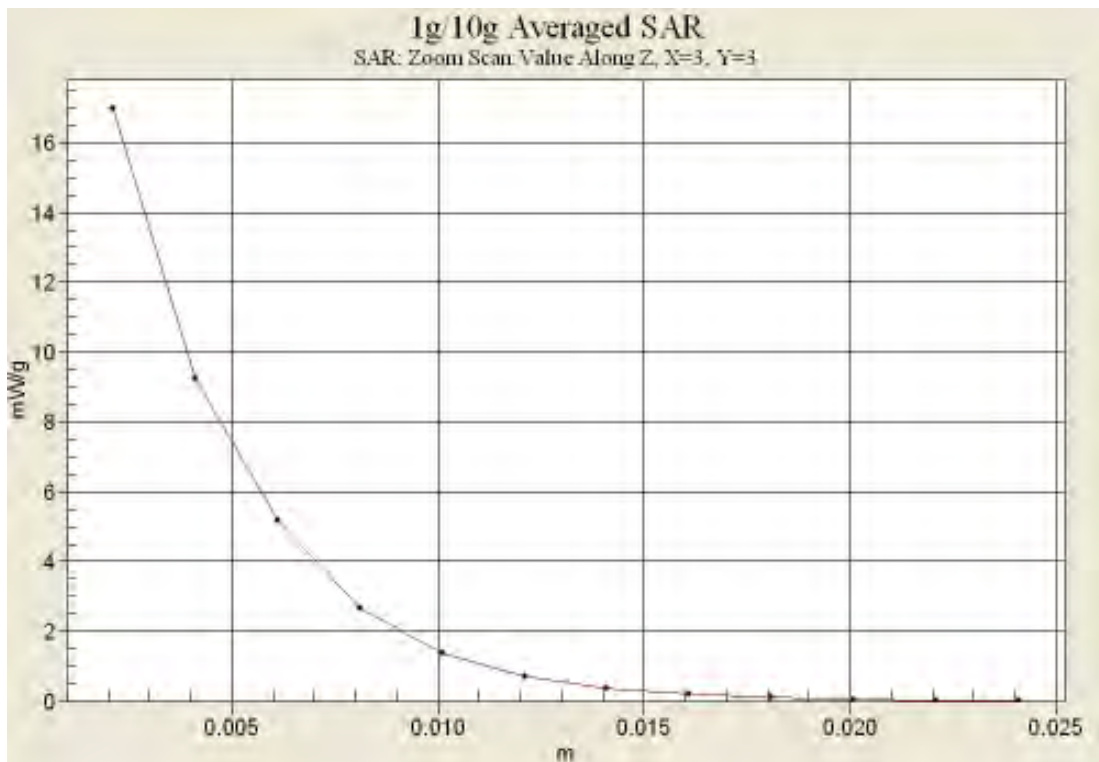
Peak SAR (extrapolated) = 34.0 W/kg

SAR(1 g) = 8.08 mW/g; SAR(10 g) = 2.29 mW/g

Maximum value of SAR (measured) = 17.0 mW/g



Z-Scan



Date: 2012-11-29

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation_5200_MHz_Body.d44

Input Power : 100 mW

Ambient Temp : 23.3 °C Tissue Temp : 21.8 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: 1130
Program Name: Body Validation

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.34$ mho/m; $\epsilon_r = 50.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

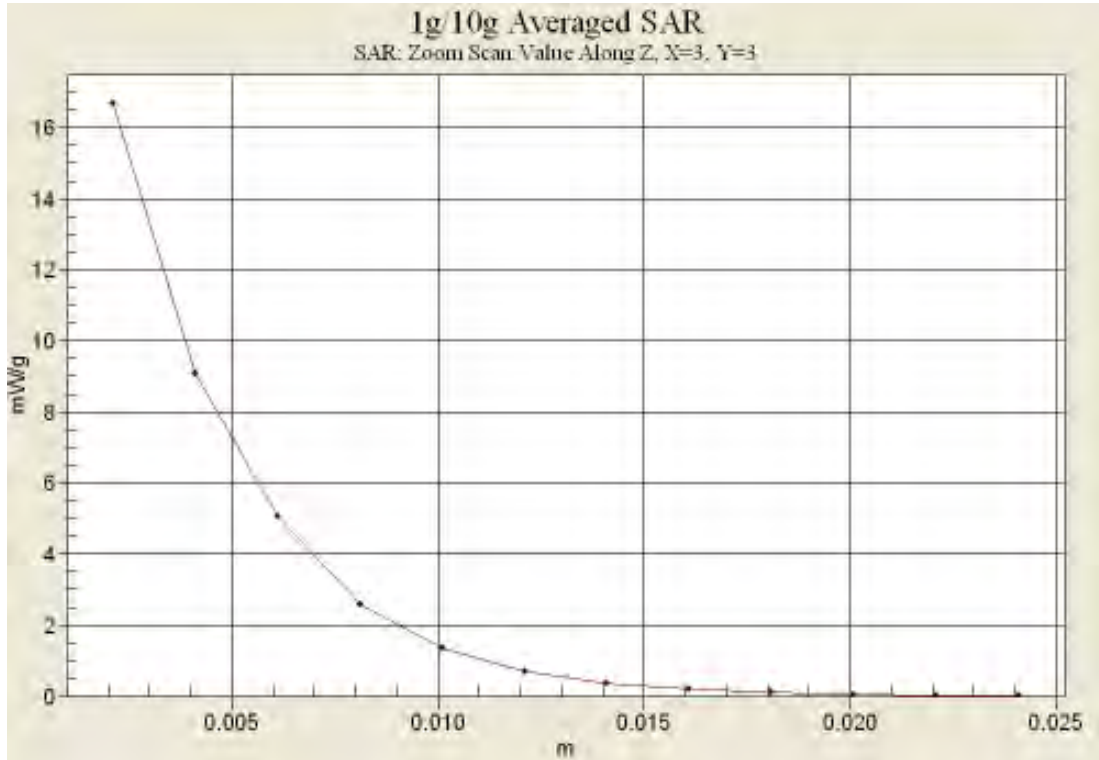
- Probe: EX3DV4 - SN3791; ConvF(4, 4, 4); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 16.9 mW/g

Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
 Reference Value = 49.3 V/m; Power Drift = 0.017 dB
 Peak SAR (extrapolated) = 33.1 W/kg
SAR(1 g) = 7.91 mW/g; SAR(10 g) = 2.25 mW/g
 Maximum value of SAR (measured) = 16.7 mW/g



Z-Scan



5500 MHz Validation Test_Body

Date: 2012-09-18

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 5500 MHz_Body.d4

Input Power : 100 mW

Ambient Temp : 23.9 °C Tissue Temp : 22.7 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1130
Program Name: Body Validation

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.56$ mho/m; $\epsilon_r = 50.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 17.7 mW/g

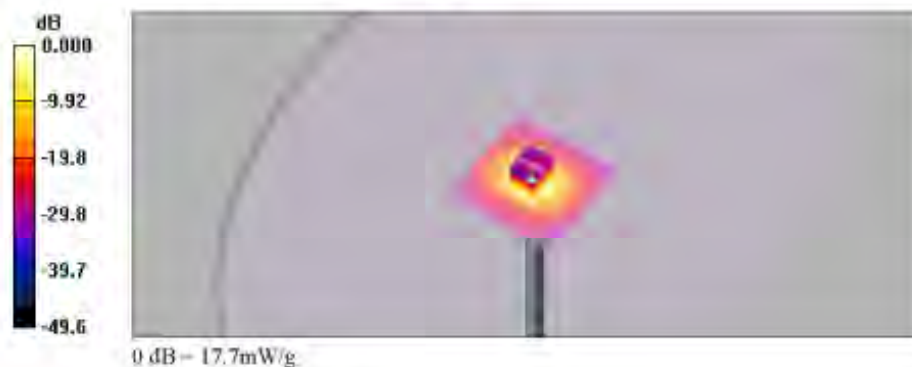
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 47.2 V/m; Power Drift = 0.138 dB

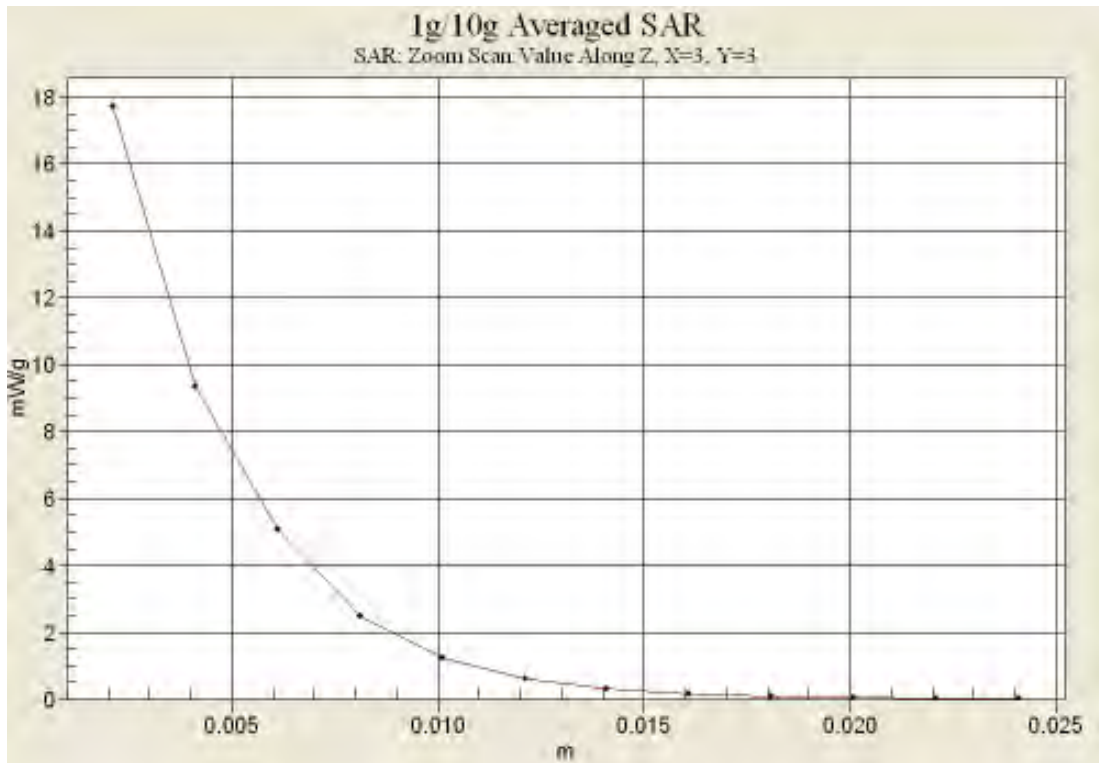
Peak SAR (extrapolated) = 36.1 W/kg

SAR(1 g) = 8.36 mW/g; SAR(10 g) = 2.33 mW/g

Maximum value of SAR (measured) = 17.7 mW/g



Z-Scan



Date: 2012-09-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 5500 MHz_Body.dut

Input Power : 100 mW

Ambient Temp : 23.1 °C Tissue Temp : 22.3 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1130
Program Name: Body Validation

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.52$ mho/m; $\epsilon_r = 47.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 17.7 mW/g

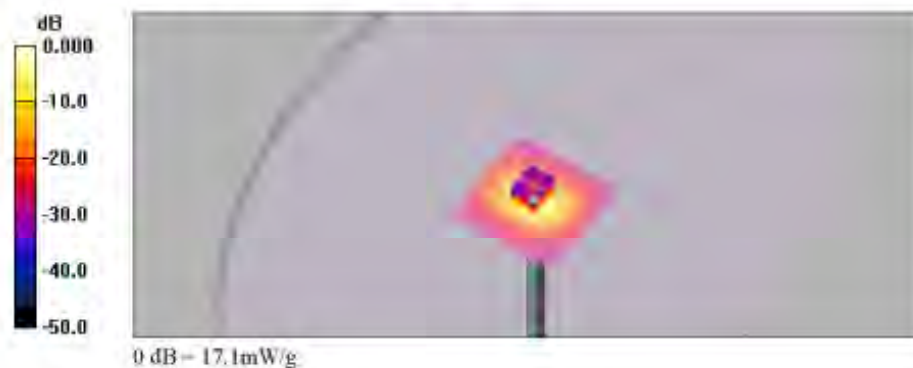
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 48.1 V/m; Power Drift = -0.133 dB

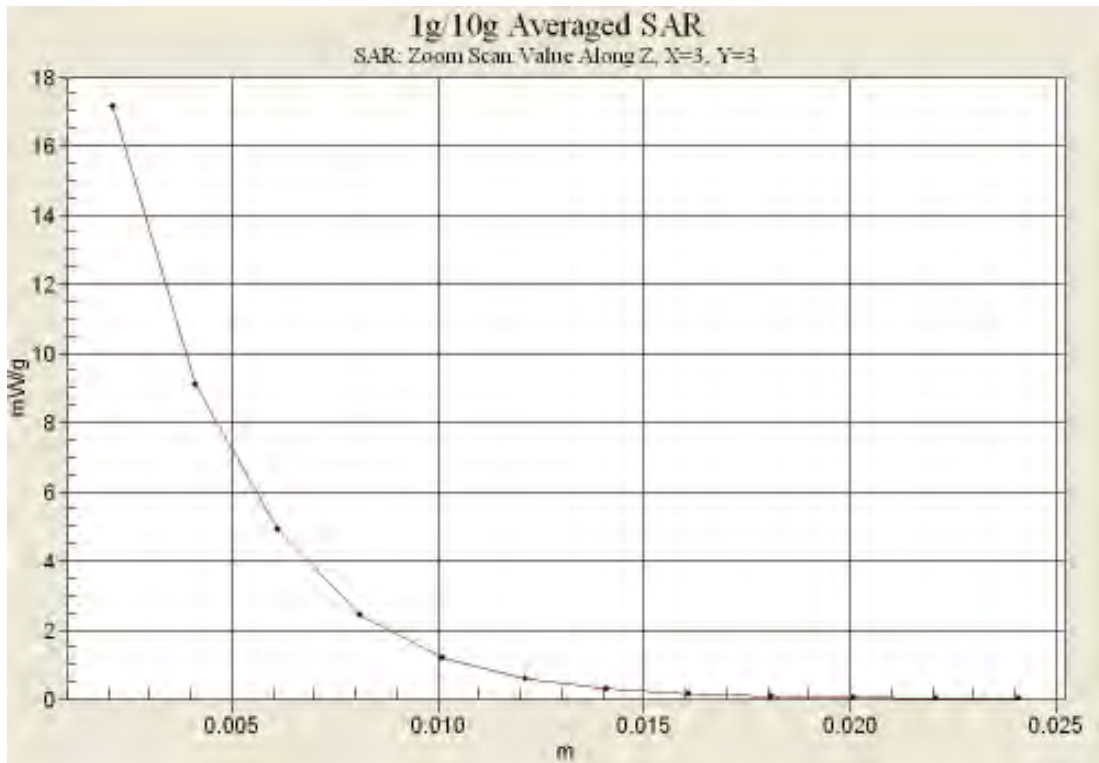
Peak SAR (extrapolated) = 34.6 W/kg

SAR(1 g) = 8.13 mW/g; SAR(10 g) = 2.27 mW/g

Maximum value of SAR (measured) = 17.1 mW/g



Z-Scan



Date: 2012-11-26

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 5500 MHz Body.d04

Input Power : 100 mW

Ambient Temp : 23.0 °C Tissue Temp : 22.3°C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: 1130
Program Name: Body Validation

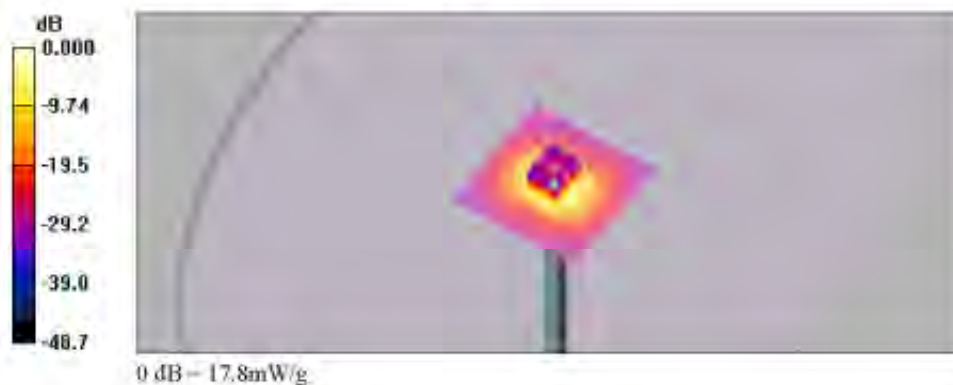
Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1
 Medium parameters used: $f = 5500$ MHz; $\sigma = 5.64$ mho/m; $\epsilon_r = 47.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 17.1 mW/g

Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
 Reference Value = 50.0 V/m; Power Drift = -0.013 dB
 Peak SAR (extrapolated) = 35.3 W/kg
SAR(1 g) = 8.25 mW/g; SAR(10 g) = 2.33 mW/g
 Maximum value of SAR (measured) = 17.8 mW/g



Z-Scan



Date: 2013-01-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation 5500 MHz_Body.dxf

Input Power: 100 mW

Ambient Temp : 22.9 °C Tissue Temp : 22.1 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1106
Program Name: Body Validation

Communication System: CW; Frequency: 5500 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5500$ MHz; $\sigma = 5.52$ mho/m; $\epsilon_r = 48.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(3.64, 3.64, 3.64); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 17.3 mW/g

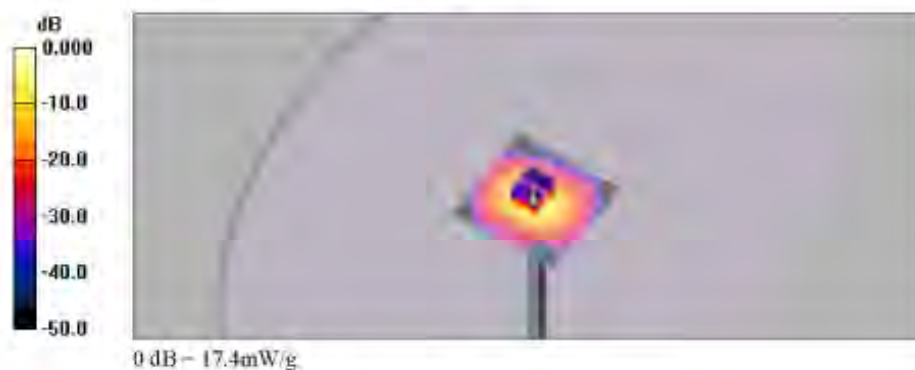
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 49.4 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 34.5 W/kg

SAR(1 g) = 8.09 mW/g; SAR(10 g) = 2.26 mW/g

Maximum value of SAR (measured) = 17.4 mW/g



Z-Scan



5800 MHz Validation Test_Body

Date: 2012-09-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation_5800_MHz_Body.d4

Input Power : 100 mW

Ambient Temp : 23.5 °C Tissue Temp : 22.8 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1130
Program Name: Body Validation

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.86$ mho/m; $\epsilon_r = 47.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3791; ConvF(3.79, 3.79, 3.79); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (interpolated) = 16.3 mW/g

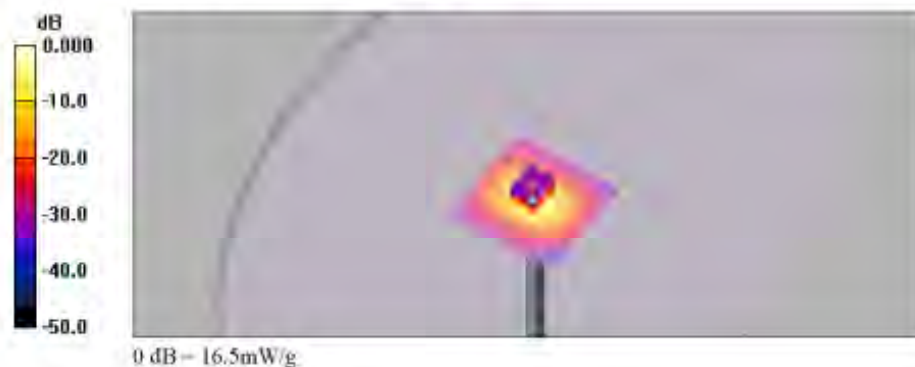
Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 45.5 V/m; Power Drift = -0.063 dB

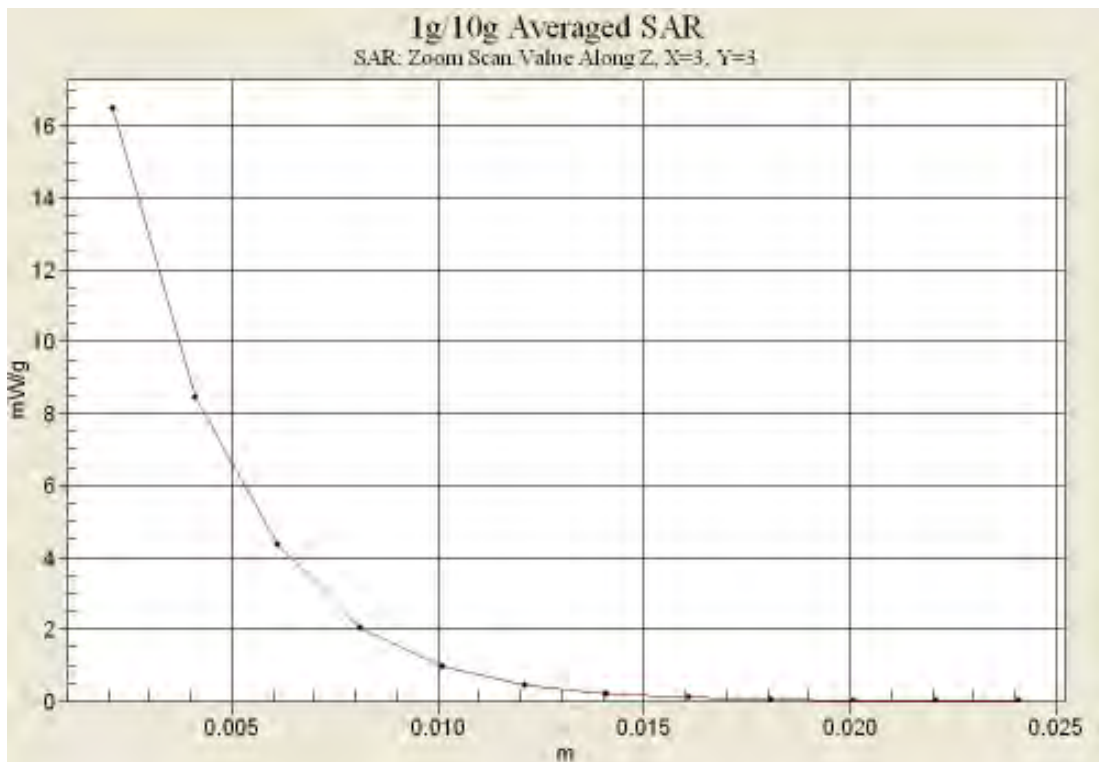
Peak SAR (extrapolated) = 33.8 W/kg

SAR(1 g) = 7.64 mW/g; SAR(10 g) = 2.13 mW/g

Maximum value of SAR (measured) = 16.5 mW/g



Z-Scan



Date: 2012-12-03

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: Validation_5800_MHz_Body.d04

Input Power : 100 mW

Ambient Temp : 23.4 °C Tissue Temp : 22.1 °C

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: 1130
Program Name: Body Validation

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5800$ MHz; $\sigma = 6.14$ mho/m; $\epsilon_r = 47$; $\rho = 1000$ kg/m³

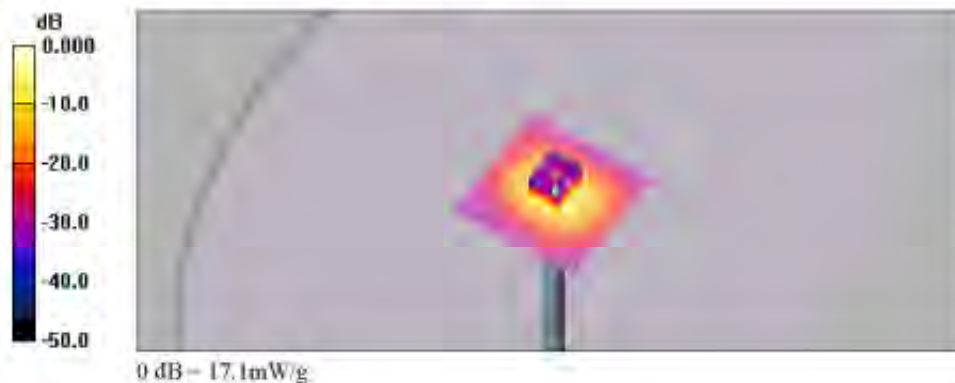
Phantom section: Flat Section

DASY4 Configuration:

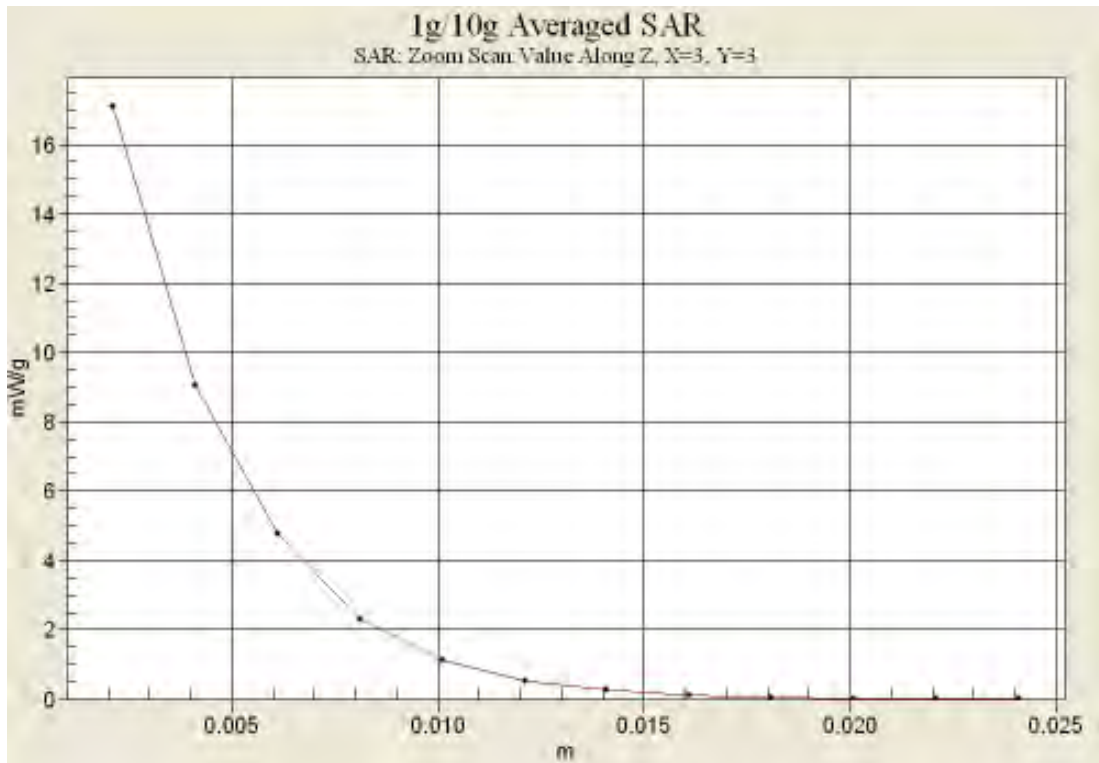
- Probe: EX3DV4 - SN3791; ConvF(3.79, 3.79, 3.79); Calibrated: 2012-05-23
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Validation/Area Scan (91x91x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (interpolated) = 16.7 mW/g

Validation/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm
 Reference Value = 46.0 V/m; Power Drift = 0.032 dB
 Peak SAR (extrapolated) = 33.7 W/kg
SAR(1 g) = 8 mW/g; SAR(10 g) = 2.27 mW/g
 Maximum value of SAR (measured) = 17.1 mW/g



Z-Scan



GSM850 Body Test

Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff).da4

Ambient Temp: 22.4 °C Tissue Temp: 21.5 °C

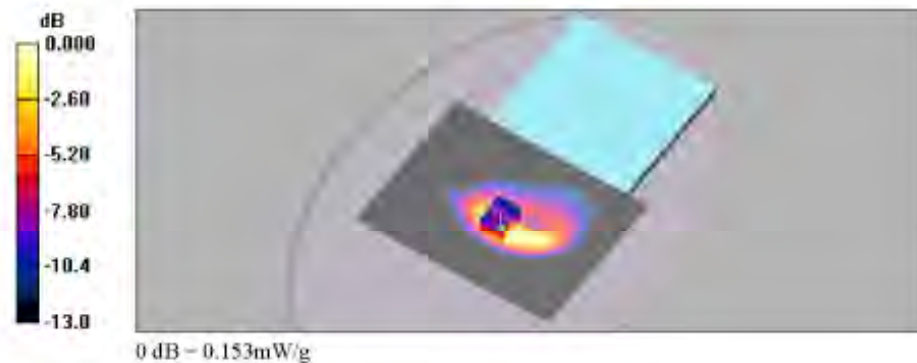
DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1.8.3
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.951 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn567; Calibrated: 2012-01-20
 - Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
 - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff)/Area Scan
(171x131x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.141 mW/g

GPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 9.72 V/m; Power Drift = 0.104 dB
 Peak SAR (extrapolated) = 0.234 W/kg
SAR(1 g) = 0.138 mW/g; SAR(10 g) = 0.083 mW/g
 Maximum value of SAR (measured) = 0.153 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff).da4

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

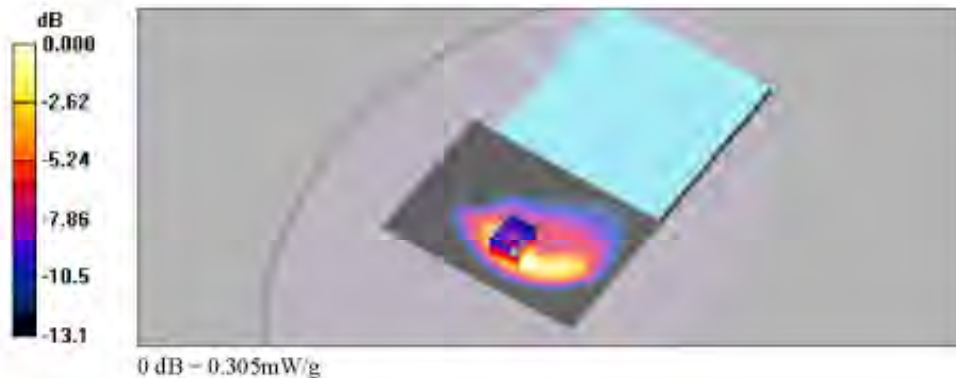
Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1 & 15
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.951 \text{ mho/m}$; $\epsilon_r = 55.2$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff)/Area Scan
(141x101x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.306 mW/g

GPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 13.1 V/m; Power Drift = -0.083 dB
 Peak SAR (extrapolated) = 0.471 W/kg
SAR(1 g) = 0.279 mW/g; SAR(10 g) = 0.167 mW/g
 Maximum value of SAR (measured) = 0.305 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/8.3
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.152 mW/g

GPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff)/Zoom

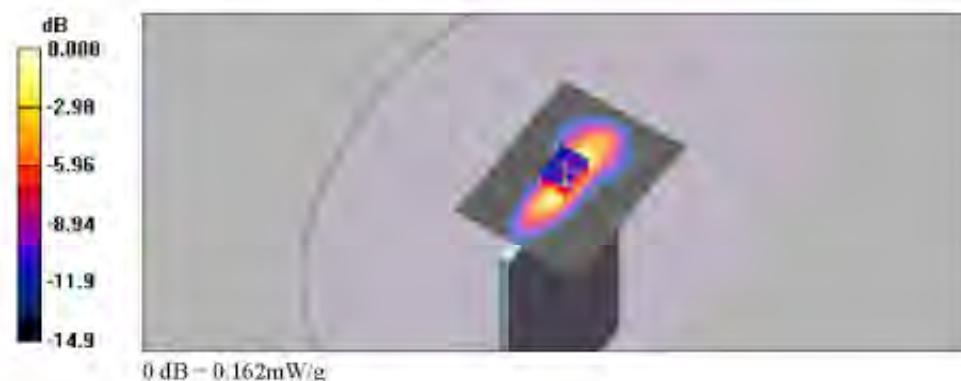
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.6 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 0.313 W/kg

SAR(1 g) = 0.141 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.162 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.295 mW/g

GPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff)/Zoom

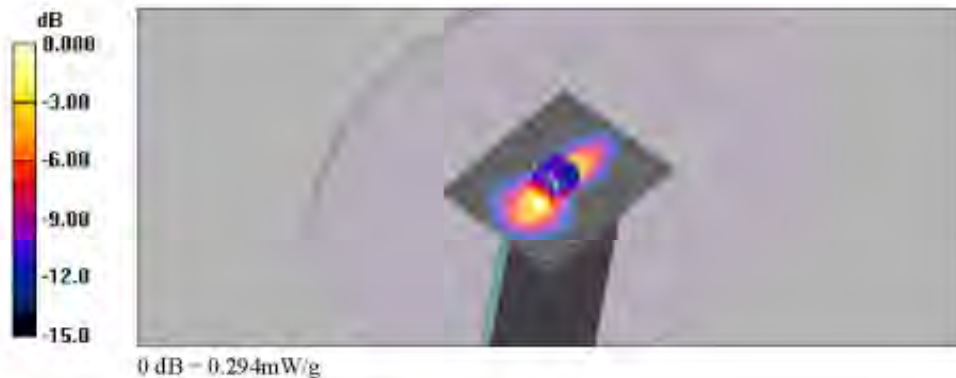
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.5 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.576 W/kg

SAR(1 g) = 0.250 mW/g; SAR(10 g) = 0.129 mW/g

Maximum value of SAR (measured) = 0.294 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff).dnt

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

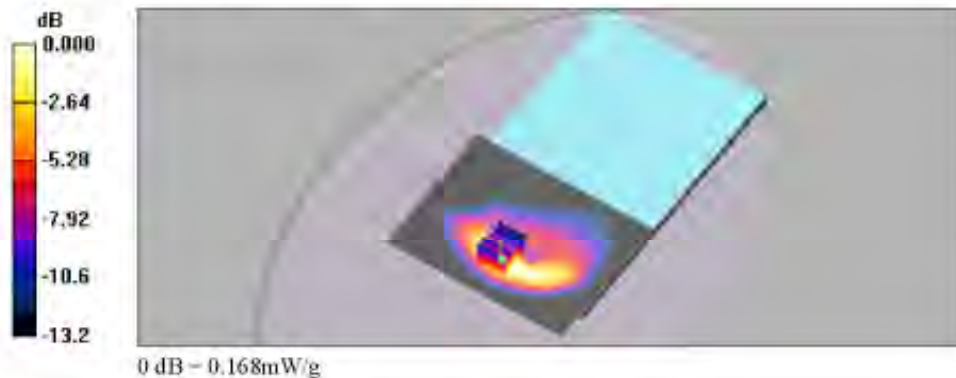
Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff)/Area Scan
(131x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.168 mW/g

EGPRS850_Rear_CH190_1TX_Proximity Sensor On(Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 8.51 V/m; Power Drift = -0.176 dB
 Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.091 mW/g
 Maximum value of SAR (measured) = 0.168 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff).dnt

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff)/Area Scan

(131x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.348 mW/g

EGPRS850_Rear_CH190_2TX_Proximity Sensor On(Power Backoff)/Zoom Scan

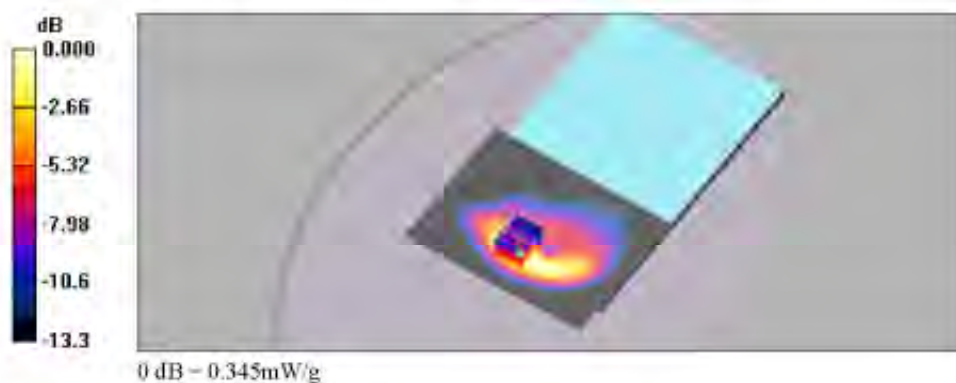
(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = -0.055 dB

Peak SAR (extrapolated) = 0.528 W/kg

SAR(1 g) = 0.312 mW/g; SAR(10 g) = 0.185 mW/g

Maximum value of SAR (measured) = 0.345 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff).da4

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.178 mW/g

EGPRS850_Right Edge_CH190_1TX_Proximity Sensor On(Power Backoff)/Zoom

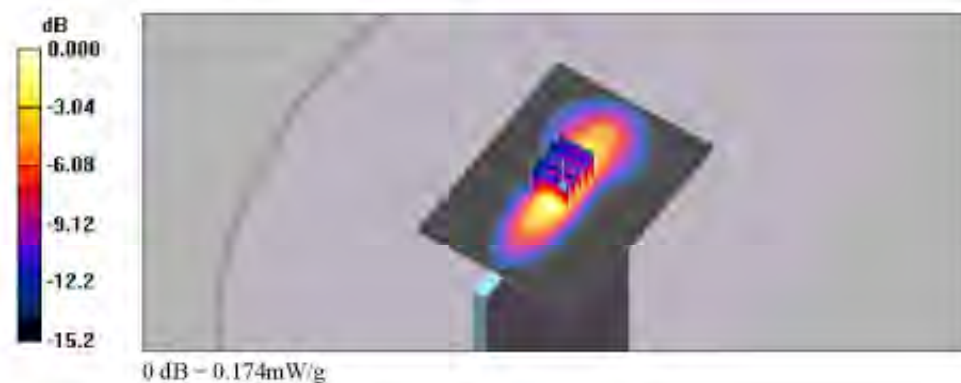
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.2 V/m; Power Drift = -0.104 dB

Peak SAR (extrapolated) = 0.341 W/kg

SAR(1 g) = 0.152 mW/g; SAR(10 g) = 0.077 mW/g

Maximum value of SAR (measured) = 0.174 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff).da4

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.354 mW/g

EGPRS850_Right Edge_CH190_2TX_Proximity Sensor On(Power Backoff)/Zoom

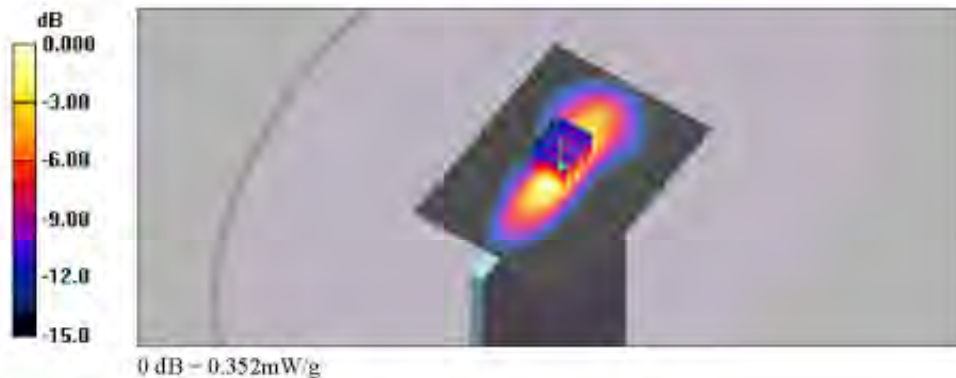
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.5 V/m; Power Drift = -0.080 dB

Peak SAR (extrapolated) = 0.695 W/kg

SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.156 mW/g

Maximum value of SAR (measured) = 0.352 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

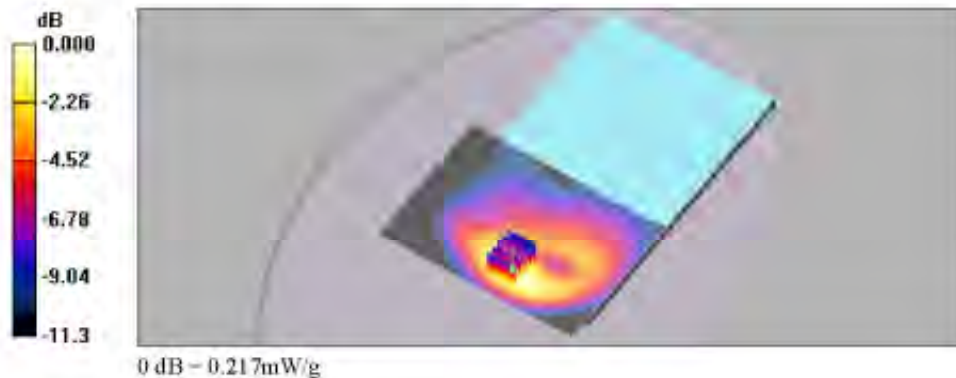
Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan
(141x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.217 mW/g

GPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 11.0 V/m; Power Drift = -0.003 dB
 Peak SAR (extrapolated) = 0.279 W/kg
SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.136 mW/g
 Maximum value of SAR (measured) = 0.217 mW/g



Date: 2012-12-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Rear Left Touch Tilt 24_CH190_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 22.5 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Rear Left Touch Tilt at 24 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (191x161x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.112 mW/g

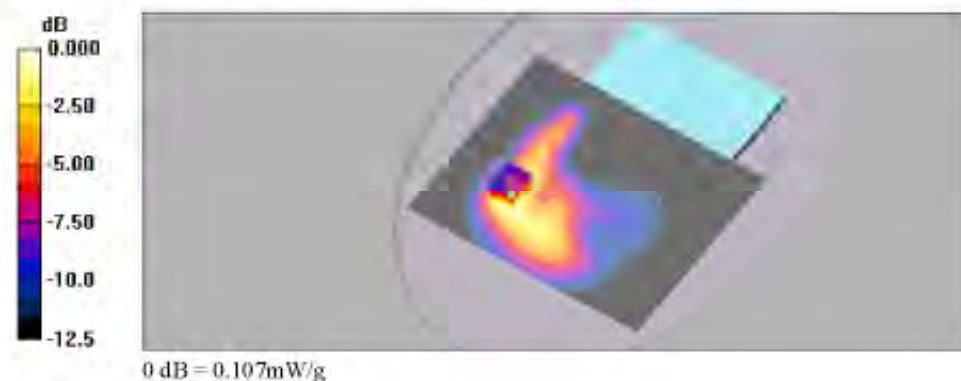
GPRS850_Rear Left Touch Tilt at 24 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.30 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.175 W/kg

SAR(1 g) = 0.101 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.107 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff).dat

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

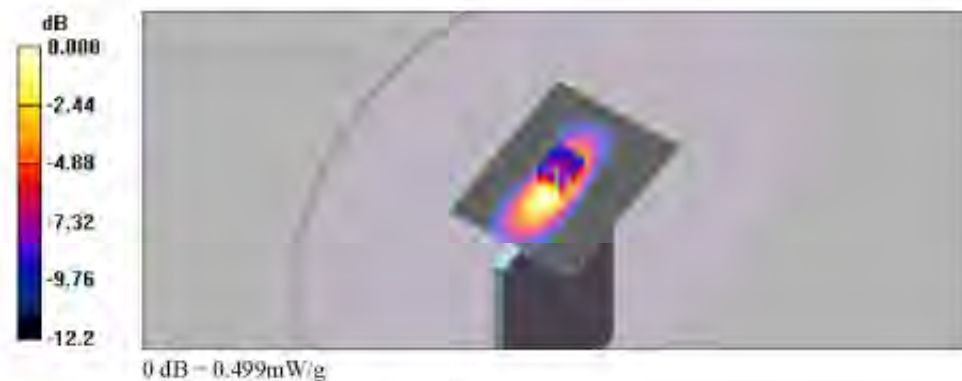
Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

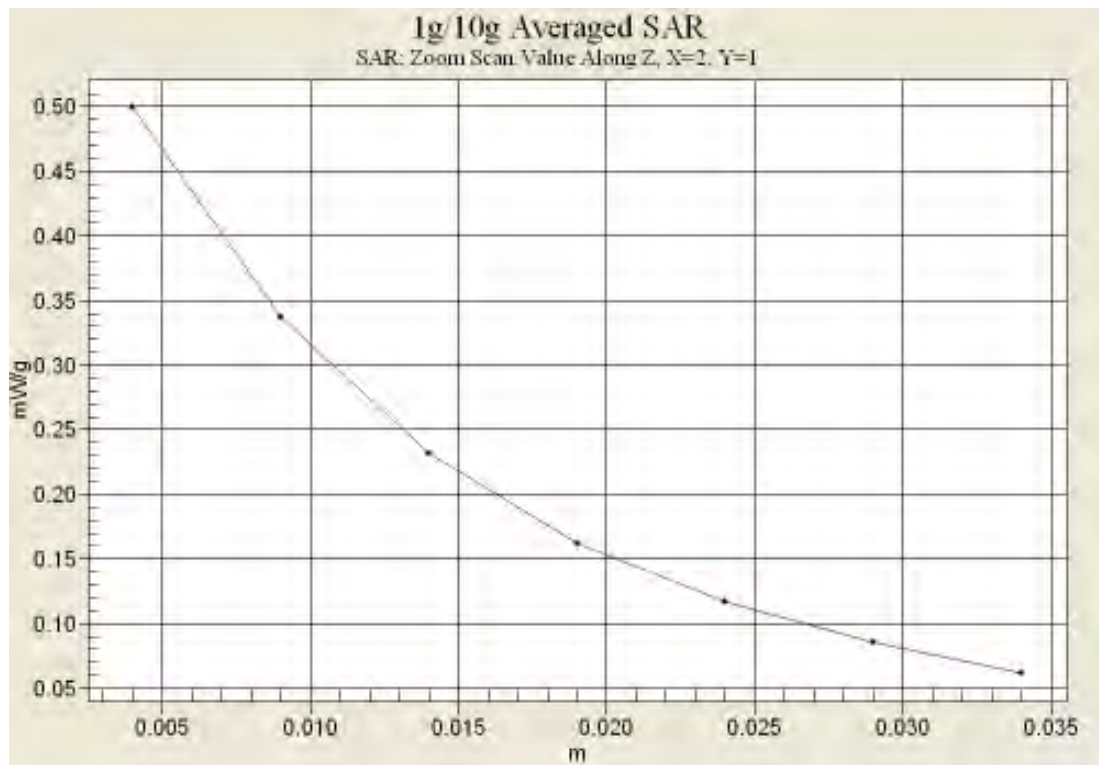
- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area
Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.524 mW/g

GPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 23.1 V/m; Power Drift = -0.050 dB
 Peak SAR (extrapolated) = 0.691 W/kg
SAR(1 g) = 0.459 mW/g; SAR(10 g) = 0.288 mW/g
 Maximum value of SAR (measured) = 0.499 mW/g



Z-Scan



Date: 2012-12-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Right Edge Left Touch Tilt 22_CH190_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 22.5 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Right Edge Left Touch Tilt at 22 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (91x181x1); Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.061 mW/g

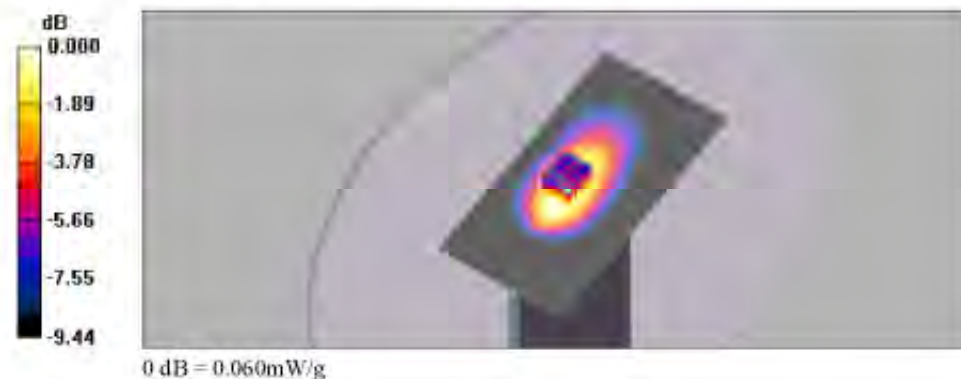
GPRS850_Right Edge Left Touch Tilt at 22 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0; Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.26 V/m; Power Drift = +0.058 dB

Peak SAR (extrapolated) = 0.075 W/kg

SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.041 mW/g

Maximum value of SAR (measured) = 0.060 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff).dal

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/8.3
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (111x171x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.129 mW/g

GPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff)/Zoom

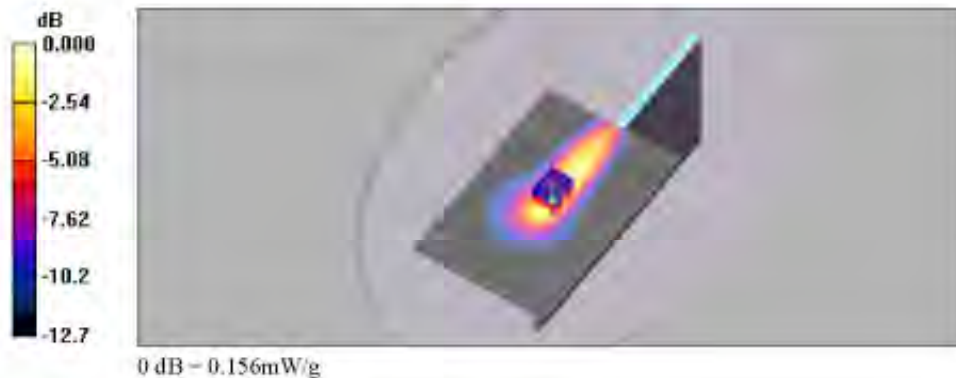
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.1 V/m; Power Drift = -0.072 dB

Peak SAR (extrapolated) = 0.253 W/kg

SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.077 mW/g

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



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff).dal

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS850_Body

Communication System: GPRS850; Frequency: 836.6 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (111x171x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.149 mW/g

GPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom

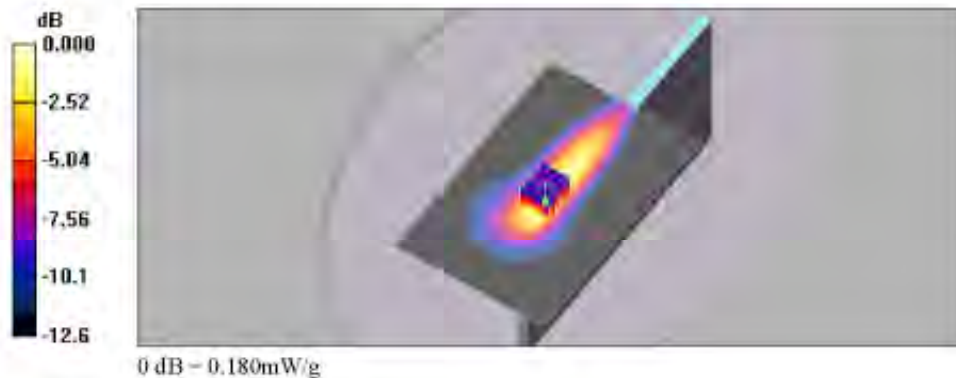
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.9 V/m; Power Drift = -0.039 dB

Peak SAR (extrapolated) = 0.295 W/kg

SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.089 mW/g

Maximum value of SAR (measured) = 0.180 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff).dat

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: EGPRS850_Body

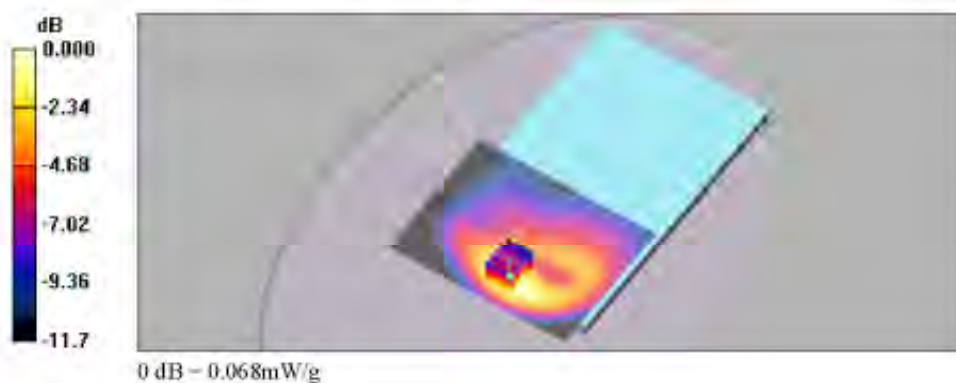
Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan
(131x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.067 mW/g

EGPRS850_Rear_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 5.96 V/m; Power Drift = 0.093 dB
 Peak SAR (extrapolated) = 0.089 W/kg
SAR(1 g) = 0.063 mW/g; SAR(10 g) = 0.042 mW/g
 Maximum value of SAR (measured) = 0.068 mW/g



Date: 2012-12-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Rear Left Touch Tilt at 24 Degree_CH190_2TX_Proximity Sensor Off
No Power Backoff).da4

Ambient Temp : 22.5 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**EGPRS850_Rear Left Touch Tilt at 24 Degree_CH190_2TX_Proximity Sensor Off
 (No Power Backoff)/Area Scan (191x161x1):** Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.026 mW/g

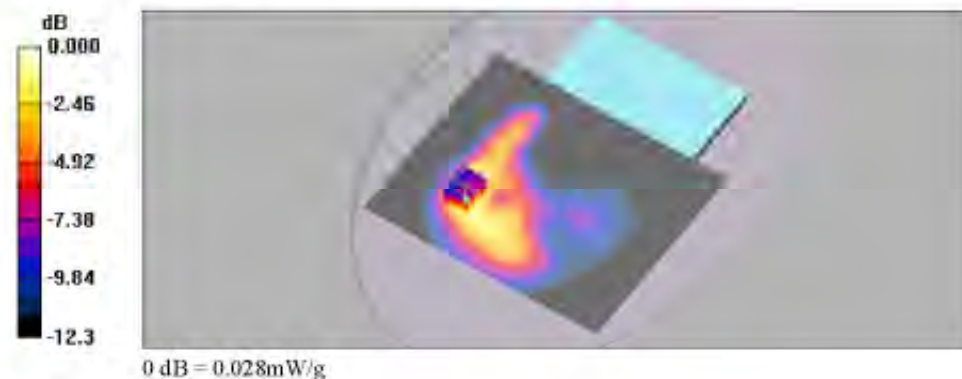
**EGPRS850_Rear Left Touch Tilt at 24 Degree_CH190_2TX_Proximity Sensor Off
 (No Power Backoff)/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$,
 $dz=5\text{mm}$

Reference Value = 1.10 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 0.046 W/kg

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.028 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)

File Name: EGPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff).dtd

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A

Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15

Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.143 mW/g

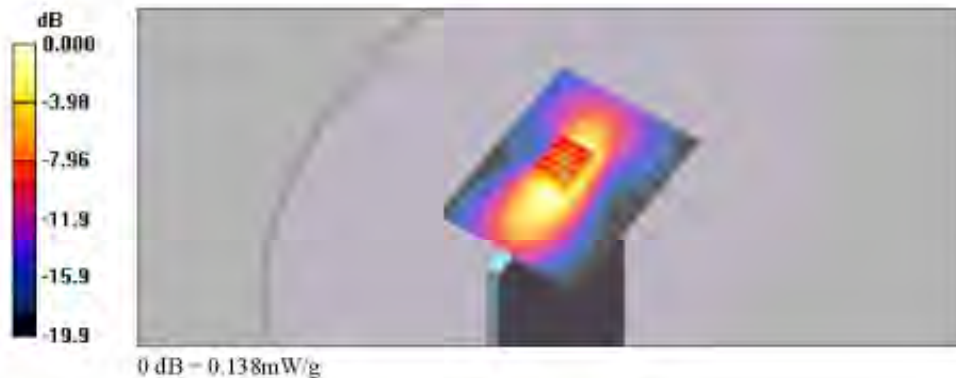
EGPRS850_Right Edge_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 0.192 W/kg

SAR(1 g) = 0.126 mW/g; SAR(10 g) = 0.079 mW/g

Maximum value of SAR (measured) = 0.138 mW/g



Date: 2012-12-07

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Right Edge Left Touch Tilt 22_CH190_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 22.5 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837 \text{ MHz}$; $\sigma = 0.938 \text{ mho/m}$; $\epsilon_r = 53.4$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Right Edge Left Touch Tilt at 22 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (81x171x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.019 mW/g

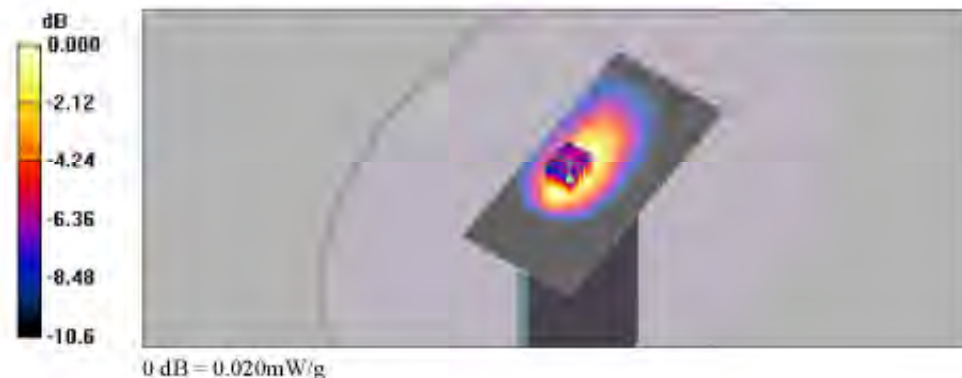
EGPRS850_Right Edge Left Touch Tilt at 22 Degree_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.88 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 0.028 W/kg

SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.020 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff).dnt

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (111x171x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.044 mW/g

EGPRS850_Bottom_CH190_1TX_Proximity Sensor Off(No Power Backoff)/Zoom

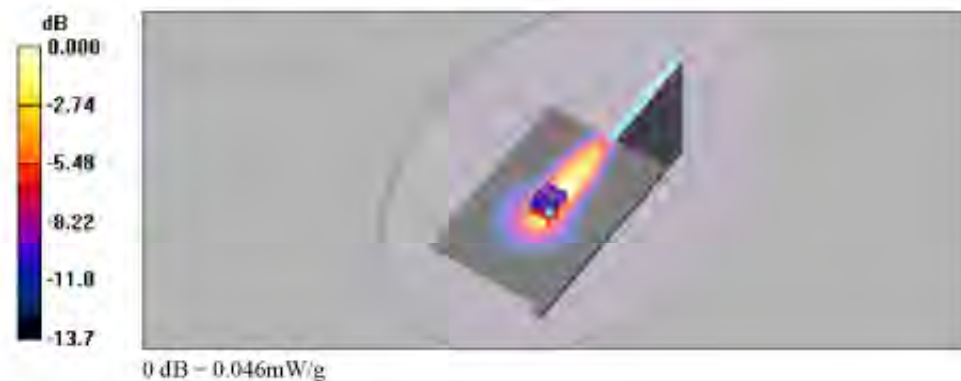
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.26 V/m; Power Drift = -0.028 dB

Peak SAR (extrapolated) = 0.076 W/kg

SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.046 mW/g



Date: 2012-11-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff).dnt

Ambient Temp : 22.4 °C Tissue Temp : 21.5 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS850_Body

Communication System: EGPRS850; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 837$ MHz; $\sigma = 0.951$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(6.22, 6.22, 6.22); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (111x171x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.051 mW/g

EGPRS850_Bottom_CH190_2TX_Proximity Sensor Off(No Power Backoff)/Zoom

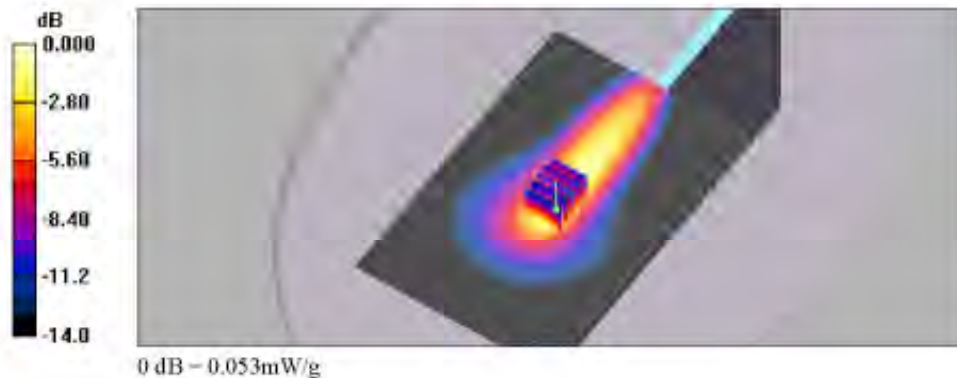
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 6.74 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 0.089 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.026 mW/g

Maximum value of SAR (measured) = 0.053 mW/g



GSM1900 Body Test

Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS1900_Body

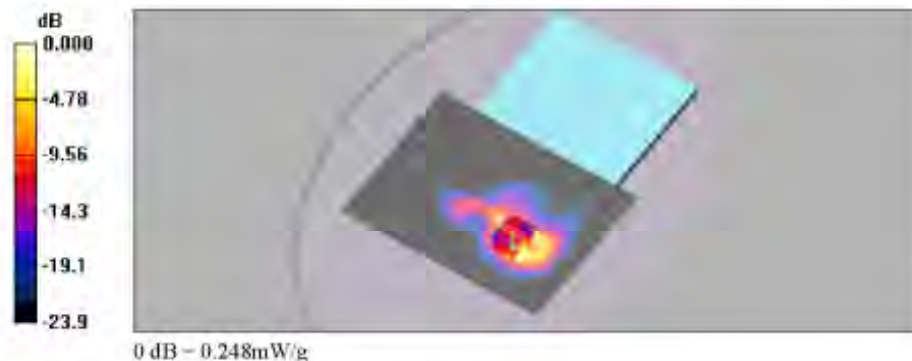
Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 53.6$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff)/Area Scan
(171x131x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.228 mW/g

GPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 1.56 V/m; Power Drift = 0.042 dB
 Peak SAR (extrapolated) = 0.409 W/kg
SAR(1 g) = 0.217 mW/g; SAR(10 g) = 0.109 mW/g
 Maximum value of SAR (measured) = 0.248 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS1900_Body

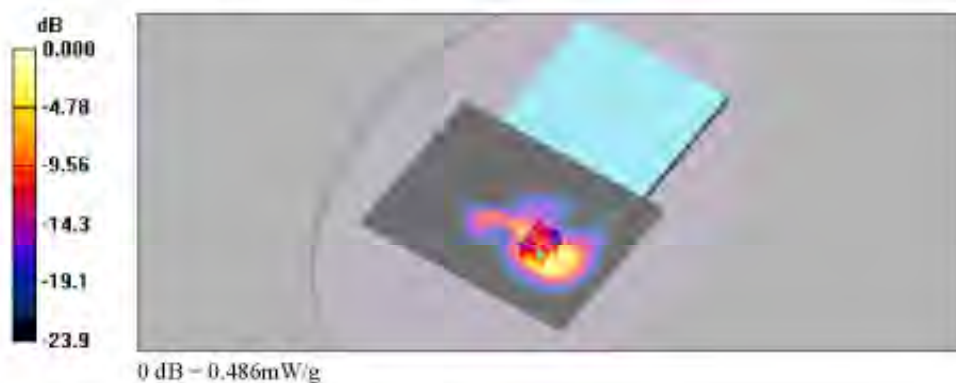
Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff)/Area Scan
(171x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.435 mW/g

GPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff)/Zoom Scan
(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 2.20 V/m; Power Drift = -0.059 dB
 Peak SAR (extrapolated) = 0.861 W/kg
SAR(1 g) = 0.450 mW/g; SAR(10 g) = 0.223 mW/g
 Maximum value of SAR (measured) = 0.486 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff).dwl

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/8.3
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.291 mW/g

GPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff)/Zoom

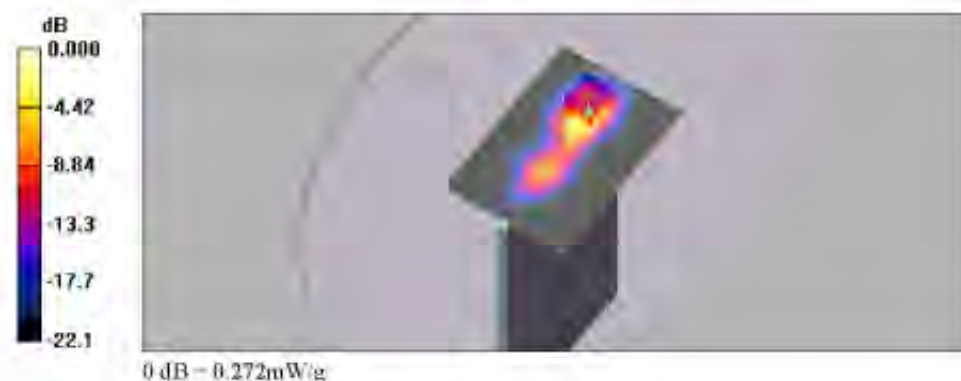
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.99 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 0.451 W/kg

SAR(1 g) = 0.241 mW/g; SAR(10 g) = 0.115 mW/g

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



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff).dai

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4, 1/5
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.591 mW/g

GPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff)/Zoom

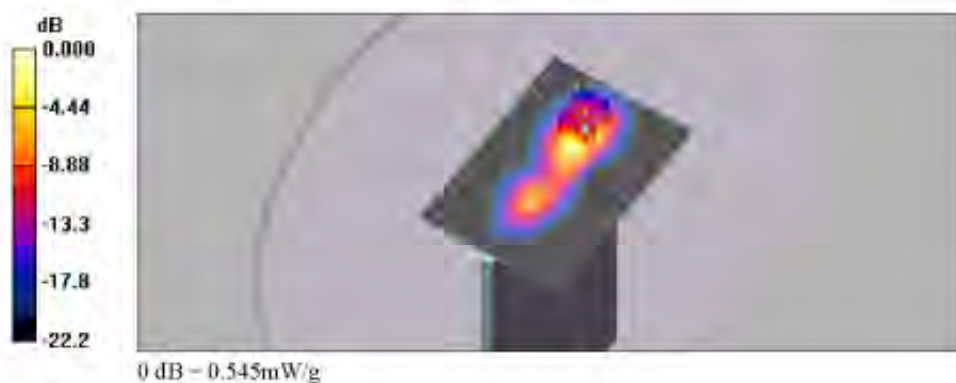
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.01 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.893 W/kg

SAR(1 g) = 0.478 mW/g; SAR(10 g) = 0.228 mW/g

Maximum value of SAR (measured) = 0.545 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff).d3d

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

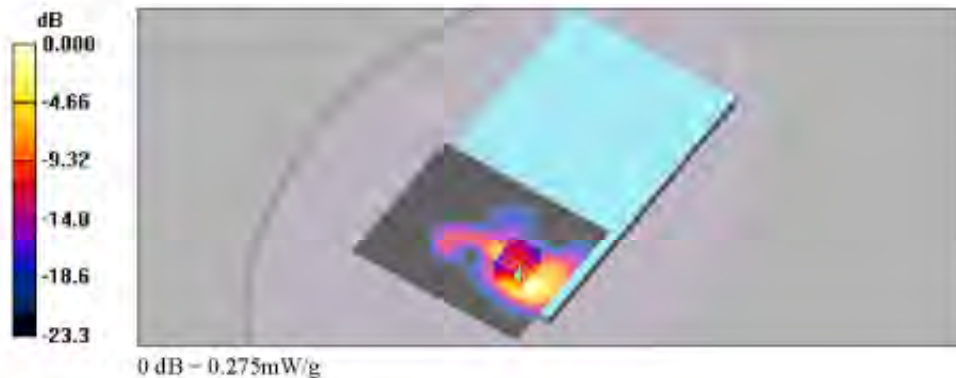
Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1.8.3
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff)/Area Scan
 (121x101x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.289 mW/g

EGPRS1900_Rear_CH661_1TX_Proximity Sensor On(Power Backoff)/Zoom Scan
 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 2.00 V/m; Power Drift = 0.151 dB
 Peak SAR (extrapolated) = 0.510 W/kg
SAR(1 g) = 0.261 mW/g; SAR(10 g) = 0.127 mW/g
 Maximum value of SAR (measured) = 0.275 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff).da4

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4/15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff)/Area Scan

(141x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.580 mW/g

EGPRS1900_Rear_CH661_2TX_Proximity Sensor On(Power Backoff)/Zoom Scan

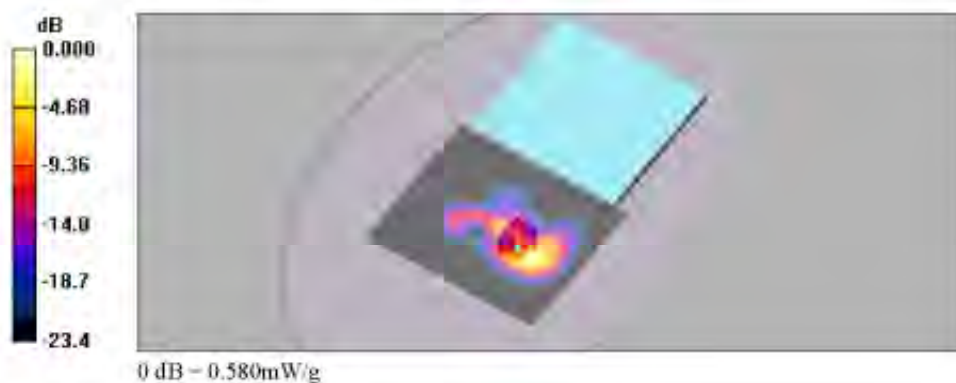
(5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.91 V/m; Power Drift = -0.059 dB

Peak SAR (extrapolated) = 1.03 W/kg

SAR(1 g) = 0.528 mW/g; SAR(10 g) = 0.256 mW/g

Maximum value of SAR (measured) = 0.580 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff)/Area

Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.312 mW/g

EGPRS1900_Right Edge_CH661_1TX_Proximity Sensor On(Power Backoff)/Zoom

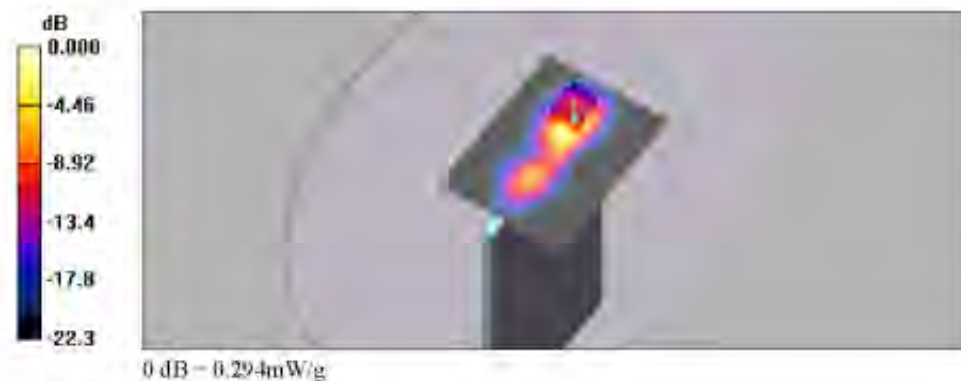
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.20 V/m; Power Drift = -0.106 dB

Peak SAR (extrapolated) = 0.481 W/kg

SAR(1 g) = 0.259 mW/g; SAR(10 g) = 0.124 mW/g

Maximum value of SAR (measured) = 0.294 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff)/Area

Scan (81x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.632 mW/g

EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor On(Power Backoff)/Zoom

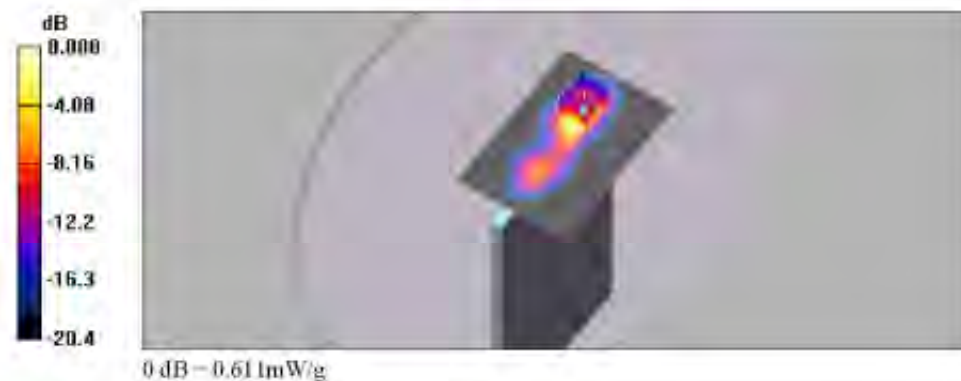
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 7.33 V/m; Power Drift = -0.022 dB

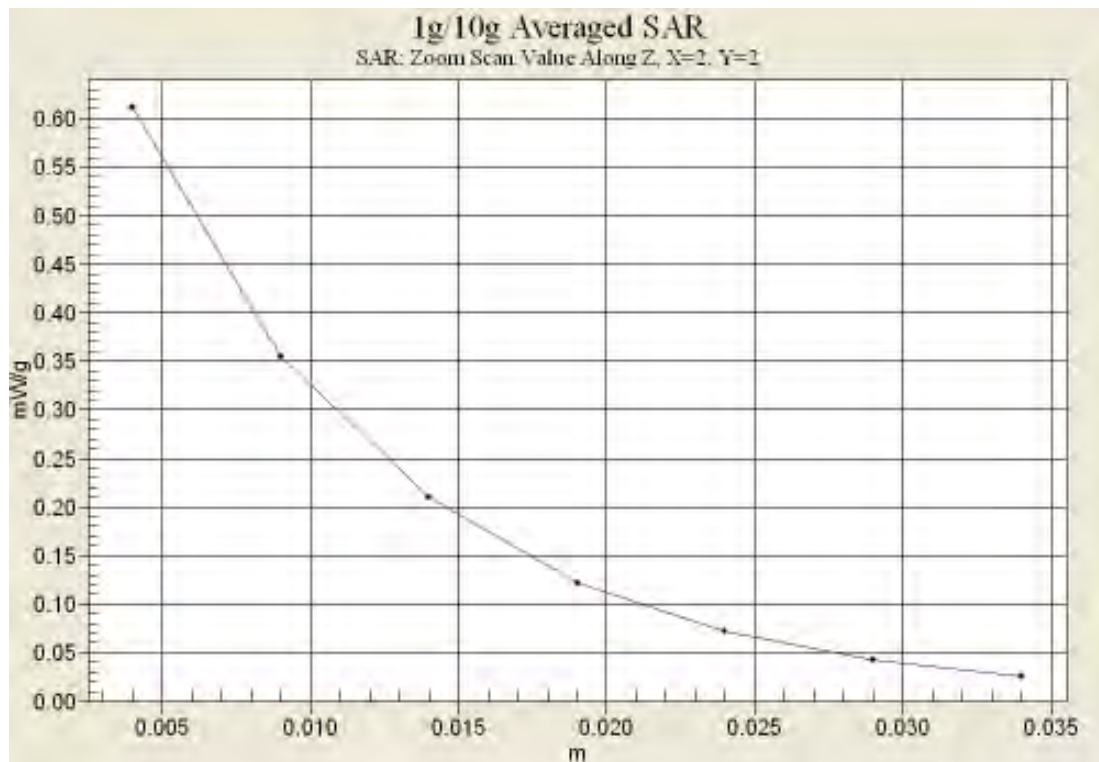
Peak SAR (extrapolated) = 0.992 W/kg

SAR(1 g) = 0.529 mW/g; SAR(10 g) = 0.252 mW/g

Maximum value of SAR (measured) = 0.611 mW/g



Z-Scan



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff).da

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

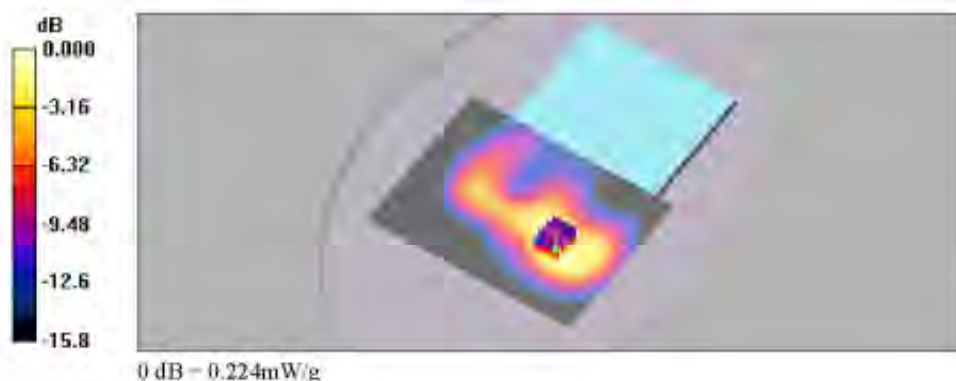
DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn567; Calibrated: 2012-01-20
 - Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
 - Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan
(171x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.220 mW/g

GPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 4.97 V/m; Power Drift = 0.008 dB
 Peak SAR (extrapolated) = 0.334 W/kg
SAR(1 g) = 0.206 mW/g; SAR(10 g) = 0.125 mW/g
 Maximum value of SAR (measured) = 0.224 mW/g



Date: 2012-12-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Rear Left Touch Tilt 24 CH661_2TX_Proximity Sensor Off/No Power Backoff).da4

Ambient Temp : 23.1 °C Tissue Temp : 22.4 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS1900_Body

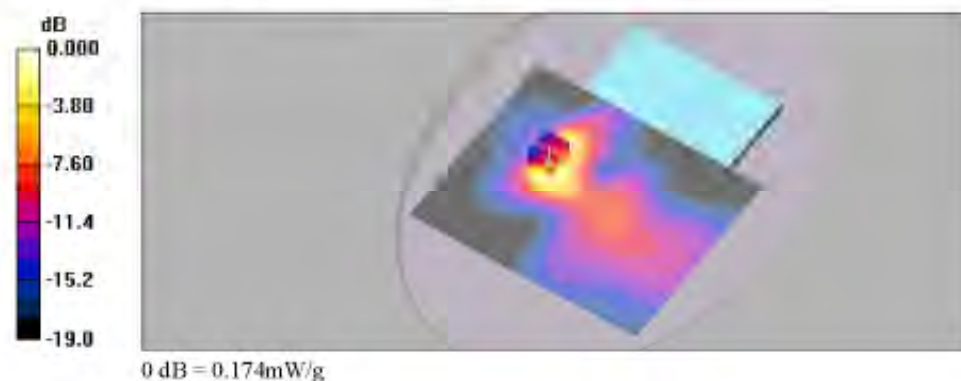
Communication System: GPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Rear Left Touch Tilt at 24 Degree_CH661_2TX_Proximity Sensor Off (No Power Backoff)/Area Scan (191x161x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.186 mW/g

GPRS1900_Rear Left Touch Tilt at 24 Degree_CH661_2TX_Proximity Sensor Off (No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 1.97 V/m; Power Drift = 0.089 dB
 Peak SAR (extrapolated) = 0.267 W/kg
SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.099 mW/g
 Maximum value of SAR (measured) = 0.174 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff).dnt

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS1900_Body

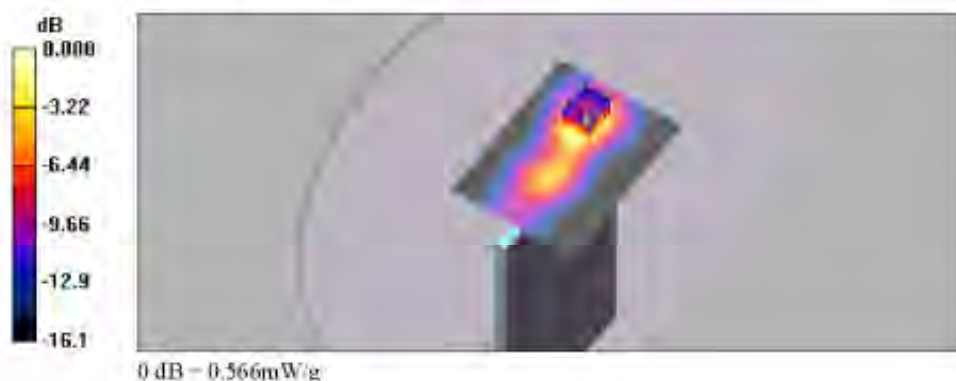
Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4, 15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.558 mW/g

GPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 12.4 V/m; Power Drift = -0.054 dB
 Peak SAR (extrapolated) = 0.826 W/kg
SAR(1 g) = 0.510 mW/g; SAR(10 g) = 0.293 mW/g
 Maximum value of SAR (measured) = 0.566 mW/g



Date: 2012-12-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Right Edge Left Touch Tilt 22_CH661_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 23.1 °C Tissue Temp : 22.4 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

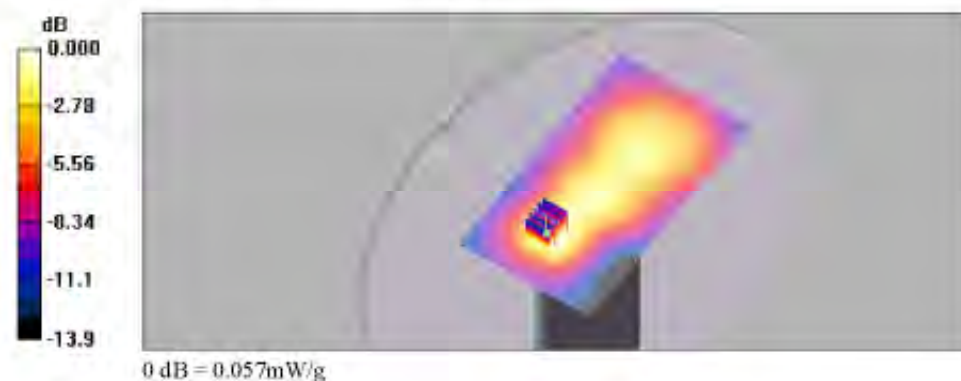
DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Right Edge Left Touch Tilt at 22 Degree_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (111x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.057 mW/g

GPRS1900_Right Edge Left Touch Tilt at 22 Degree_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 4.69 V/m; Power Drift = 0.021 dB
 Peak SAR (extrapolated) = 0.086 W/kg
SAR(1 g) = 0.053 mW/g; SAR(10 g) = 0.035 mW/g
 Maximum value of SAR (measured) = 0.057 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/8.3
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (131x201x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.358 mW/g

GPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff)/Zoom

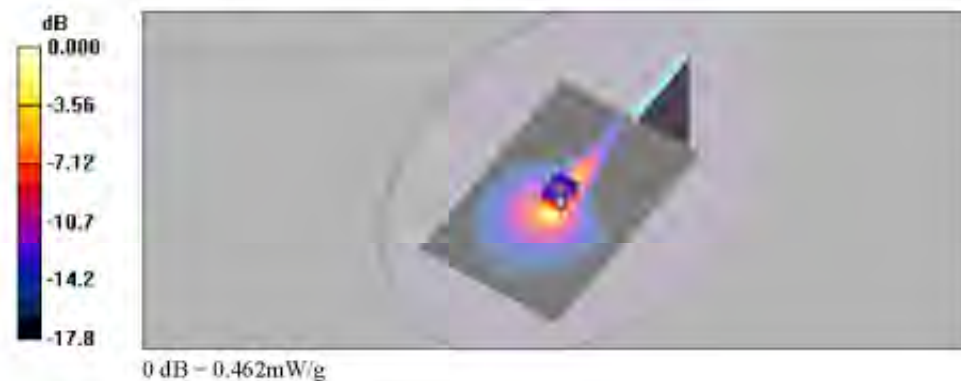
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.3 V/m; Power Drift = -0.027 dB

Peak SAR (extrapolated) = 0.767 W/kg

SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.195 mW/g

Maximum value of SAR (measured) = 0.462 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: GPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: GPRS1900_Body

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1/4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

GPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (131x201x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.396 mW/g

GPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom

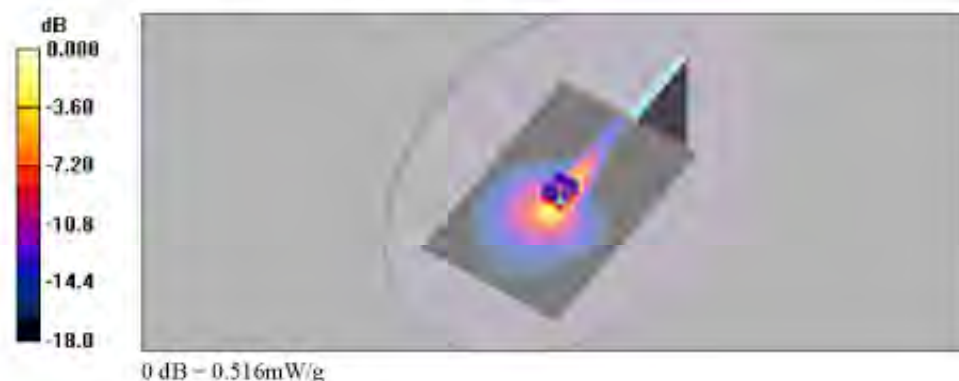
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.9 V/m; Power Drift = +0.051 dB

Peak SAR (extrapolated) = 0.855 W/kg

SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.217 mW/g

Maximum value of SAR (measured) = 0.516 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff).dad

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: EGPRS1900_Body

Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (171x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.102 mW/g

EGPRS1900_Rear_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom

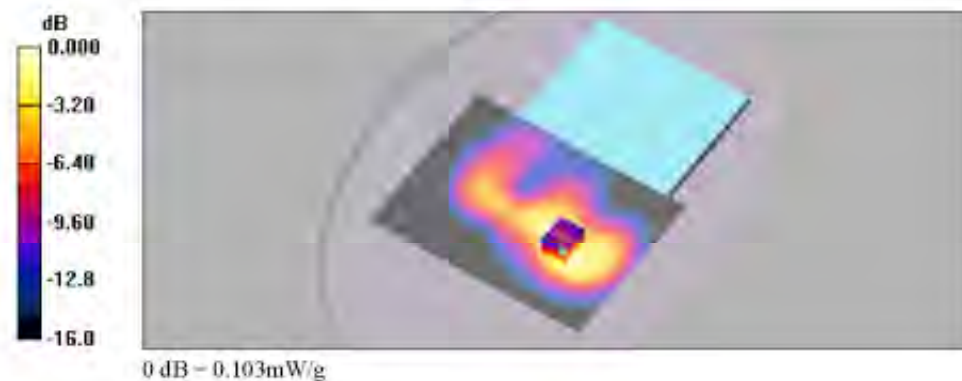
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.38 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 0.155 W/kg

SAR(1 g) = 0.096 mW/g; SAR(10 g) = 0.058 mW/g

Maximum value of SAR (measured) = 0.103 mW/g



Date: 2012-12-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Rear Left Touch Tilt 24_CH661_2TX_Proximity Sensor Off(No Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.4 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

Communication System: EGPRS1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Rear Left Touch Tilt at 24 Degree_CH661_2TX_Proximity Sensor Off (No Power Backoff)/Area Scan (191x161x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.081 mW/g

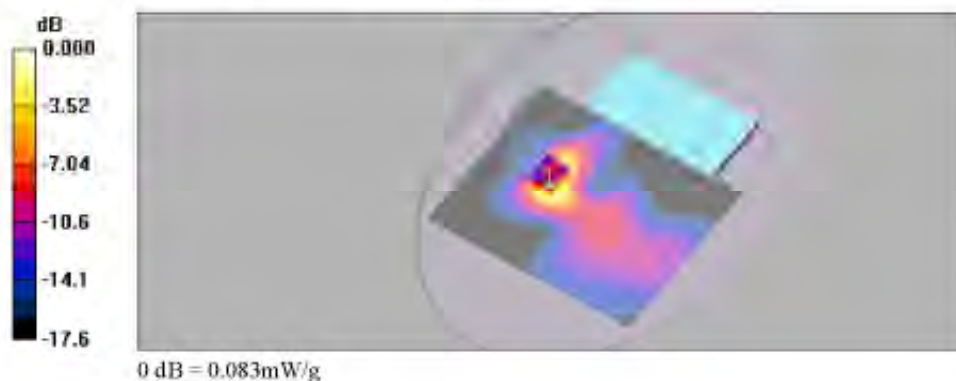
EGPRS1900_Rear Left Touch Tilt at 24 Degree_CH661_2TX_Proximity Sensor Off (No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 1.27 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.134 W/kg

SAR(1 g) = 0.078 mW/g; SAR(10 g) = 0.045 mW/g

Maximum value of SAR (measured) = 0.083 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff).dat

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

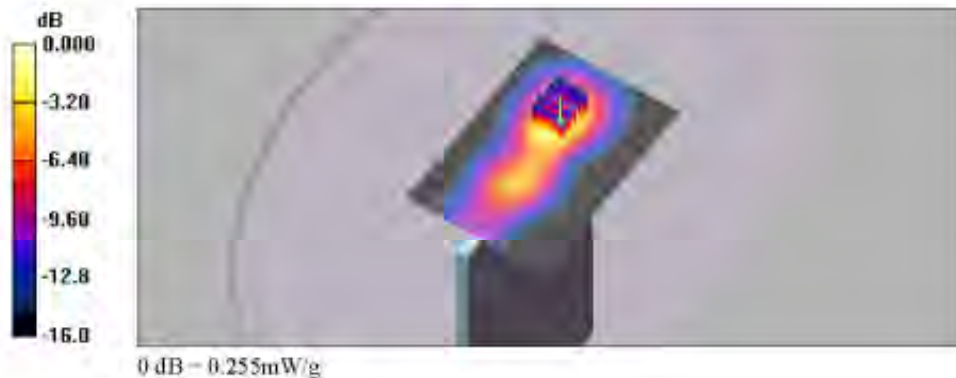
Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (91x131x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.255 mW/g

EGPRS1900_Right Edge_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
 Reference Value = 8.37 V/m; Power Drift = -0.059 dB
 Peak SAR (extrapolated) = 0.366 W/kg
SAR(1 g) = 0.229 mW/g; SAR(10 g) = 0.132 mW/g
 Maximum value of SAR (measured) = 0.255 mW/g



Date: 2012-12-06

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Right Edge Left Touch Tilt 22_CH661_2TX_Proximity Sensor Off(No Power Backoff).da4

Ambient Temp : 23.1 °C Tissue Temp : 22.4 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

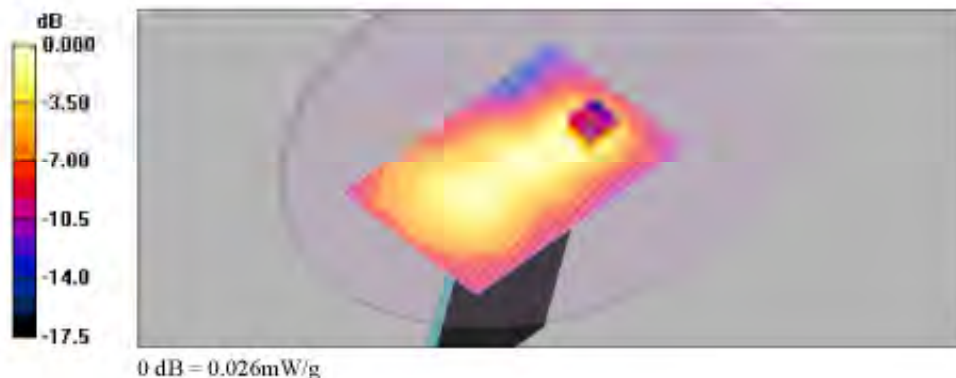
Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.51 \text{ mho/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12 05 30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Right Edge Left Touch Tilt at 22 Degree_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area Scan (111x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
 Maximum value of SAR (interpolated) = 0.027 mW/g

EGPRS1900_Right Edge Left Touch Tilt at 22 Degree_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
 Reference Value = 3.21 V/m; Power Drift = 0.134 dB
 Peak SAR (extrapolated) = 0.039 W/kg
 SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.016 mW/g
 Maximum value of SAR (measured) = 0.026 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff).dxf

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
Program Name: EGPRS1900_Body

Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0_12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (131x201x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.082 mW/g

EGPRS1900_Bottom_CH661_1TX_Proximity Sensor Off(No Power Backoff)/Zoom

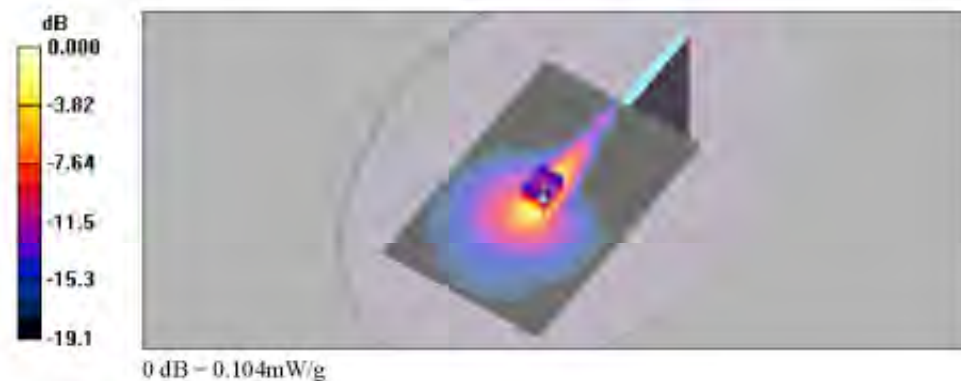
Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.89 V/m; Power Drift = 0.019 dB

Peak SAR (extrapolated) = 0.171 W/kg

SAR(1 g) = 0.088 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.104 mW/g



Date: 2012-11-19

Test Laboratory: SGS Korea (Gunpo Laboratory)
 File Name: EGPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff).dnt

Ambient Temp : 23.1 °C Tissue Temp : 22.8 °C

DUT: XE700T1C; Type: Slate Device; Serial: N/A
 Program Name: EGPRS1900_Body

Communication System: EGPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4.15
 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 53.6$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(4.59, 4.59, 4.59); Calibrated: 2012-04-27
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2012-01-20
- Phantom: ELI 4.0 12_05_30; Type: QDOVA001BA; Serial: 1169
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

EGPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Area

Scan (131x201x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 0.156 mW/g

EGPRS1900_Bottom_CH661_2TX_Proximity Sensor Off(No Power Backoff)/Zoom

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

Reference Value = 3.46 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 0.318 W/kg

SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.084 mW/g

Maximum value of SAR (measured) = 0.197 mW/g

