



CONFORMANCE TEST REPORT FOR HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS

Report No.: SRTC2013-H024-E0011

Product Name: GSM/GPRS/EDGE/UMTS

Digital Mobile Phone with Bluetooth and WiFi

Marketing Name: ONE TOUCH 7040A

Product Model: Yaris-5

Applicant: TCT Mobile Limited

Manufacturer: TCT Mobile Limited

Specification: FCC Part 2.1093

FCC RF Exposure KDB Procedures

IEEE Std 1528-2003

IEEE Std 1528a-2005

FCC ID: RAD416

The State Radio_monitoring_center Testing Center (SRTC)

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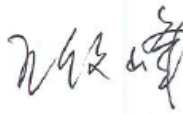

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Executive summary

Test report no.:	SRTC2013-H024-E0011
Product Model:	Yaris-5
Period of test:	2013.10.22~2013.10.28
Date of report:	2013.10.30
Laboratory:	The State Radio_monitoring_center Testing Center (SRTC)
Test has been Carried out in accordance with:	The tests documented in this report were performed in accordance with FCC 47 CFR Parts 1 & 2, IEEE Std 1528-2003, IEEE Std 1528a-2005 and following FCC RF exposure KDB procedures: <ul style="list-style-type: none"> o 447498 D01 General RF Exposure Guidance v05r01 o 648474 D04 SAR Handsets Multi Xmitter and Ant v01r01 o 941225 D01 SAR test for 3G devices v02 o 941225 D02 HSPA and 1x Advanced v02r02 o 941225 D03 SAR Test Reduction GSM GPRS EDGE v01 o 941225 D06 Hot Spot SAR v01r01 o 248227 D01 SAR Meas for 802 11abg v01r02 o 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r01 o 865664 D02 SAR Reporting v01r01
Documentation:	The documentation of the testing performed on the tested devices is archived for 5 years at SRTC

Result summary:

Mode	CH/f(MHz)	Power (dBm)	Position	SAR Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
GPRS850	128/824.2	29.21	Towards ground	1.6	1.246	PASS

This Test Report Is Issued by: Mr. Song Qizhu Director of the test lab 	Checked by: Mr. Wang Junfeng Deputy director of the test lab 
Tested by: Mr. Zhang Wentao Test engineer 	Issued date: <p style="text-align: center;">2014.01.27</p>

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1. GENERAL INFORMATION

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

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Fax: +86-21-61460602
Email: zhizhou.gong@tcl.com

1.5 Test Details

Period of test	2013.10.22~2013.10.28
Batteries	Li-Lon/BYD COMPANY LIMITED/TLi020F1
	Li-Lon/BYD COMPANY LIMITED/TLi019B1
	Li-Lon/SCUD (FUJIAN) Electronics Co., Ltd. /TLi019B2
Headsets	Shenzhen Juwei Electronics Co., Ltd /CCB3160A11C1
	Dongguan Superfine Electronic Co., Ltd /CCB3160A11C4
	Shenzhen Juwei Electronics Co., Ltd /CCB3160A15C1
	Dongguan Superfine Electronic CO., Ltd /CCB3160A15C4
State of sample	Production unit
H/W Version	PIO
S/W Version	AAE
IMEI	013826001100083
Notes	As the information described above, there are three different models of battery manufactured by two different companies and four different models of headset manufactured by two different companies. The relevant tests have been performed in order to verify in which combination case (EUT exercised by only one model of battery and one model of headset) the EUT would have the worst features. So all the tests shown in this test report are performed when the EUT exercised by the battery TLi020F1 and the headset CCB3160A11C1.

1.6 Maximum Results

The maximum reported SAR values for Head configuration and Body Worn configuration are given as follows. The device conforms to the requirements of the standard(s) when the maximum reported SAR value is less than or equal to the limit.

1.6.1 GSM

Head Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
GSM850	251/848.8	32.77	Left cheek	1.6	0.405	PASS
GSM1900	251/848.8	29.95	Right cheek	1.6	0.270	PASS

Body Worn Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
GPRS850	128/824.2	29.21	Towards ground	1.6	1.246	PASS
GPRS1900	661/1880	26.10	Towards ground	1.6	0.848	PASS

1.6.2 WCDMA

Head Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
Band2	9400/1880	23.21	Right cheek	1.6	0.306	PASS
Band5	4132/826.4	22.89	Left cheek	1.6	0.390	PASS

Body Worn Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
Band2	9538/1907.6	22.91	Towards ground	1.6	1.001	PASS
Band5	4183/836.6	22.67	Towards ground	1.6	0.799	PASS

1.6.3 Wi-Fi

Head Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
802.11b	11/2462	16.68	Left Tilt	1.6	0.293	PASS

Body Worn Configuration

Mode	CH/f(MHz)	Power (dBm)	Position	Sar Limit (1g avg) (mW/g)	Reported SAR (1g avg)(mW/g)	Result
802.11b	11/2462	16.68	Edge3	1.6	0.225	PASS

2. DESCRIPTION OF THE DEVICE UNDER TEST

Device category	production unit
Exposure environment	General population/uncontrolled
Description of the Antenna	The device has an internal antenna.

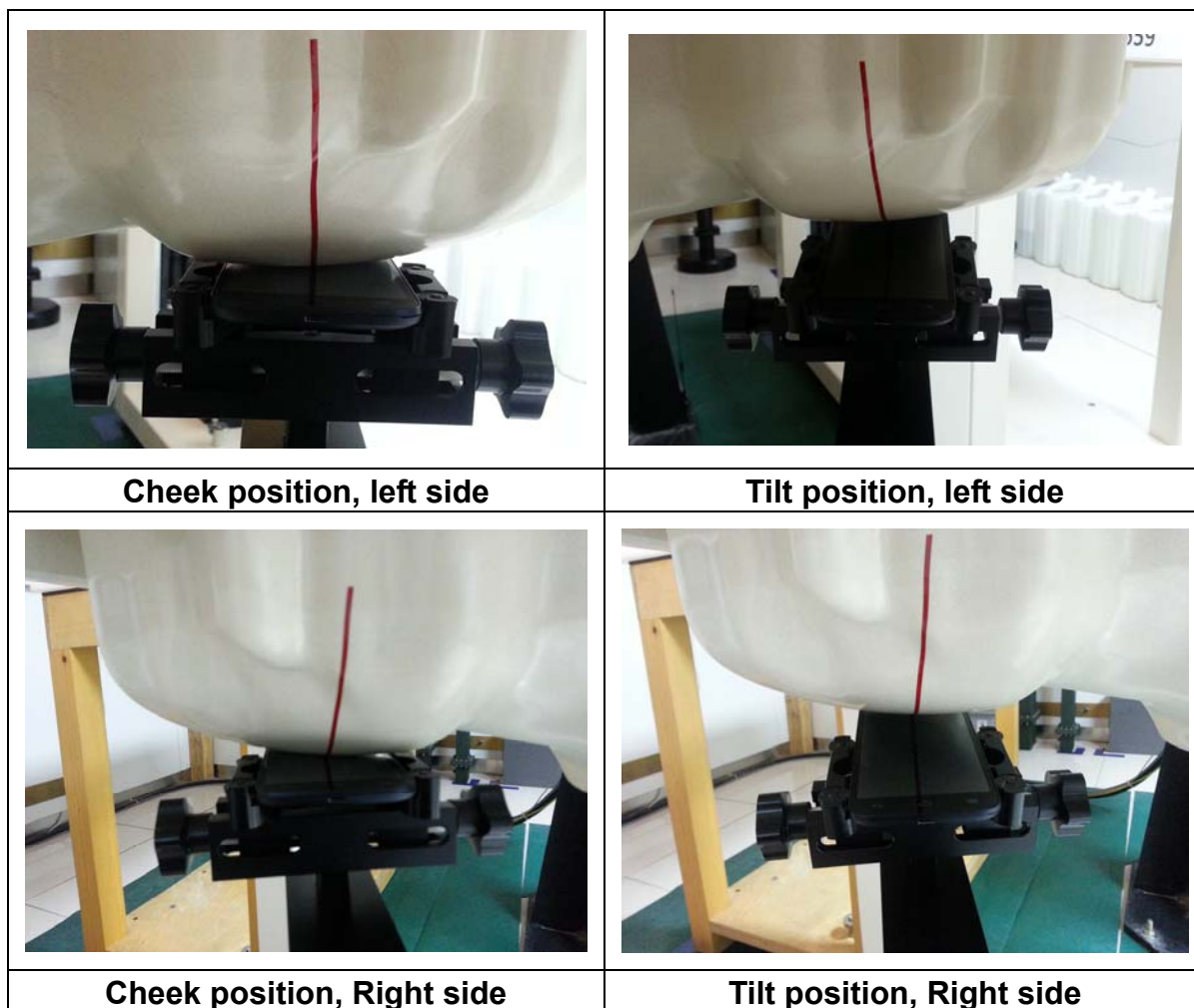
2.1 Wireless Technologies

Wireless Technology and Frequency Bands	GSM Band : GSM850/PCS1900 WCDMA Band: FDD II/FDD V WiFi Band: 2.4GHz~2.4835GHz Bluetooth Band: 2.4GHz~2.4835GHz
Mode	<p>GSM</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/>Voice (GMSK) <input checked="" type="checkbox"/>GPRS (GMSK) <input checked="" type="checkbox"/>EGPRS (8PSK) (Rx only) <p>WCDMA</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/>UMTS Rel. 99 (Voice & Data) <input checked="" type="checkbox"/>HSDPA (Rel. 5) <input checked="" type="checkbox"/>HSUPA (Rel. 6) <input type="checkbox"/>DC-HSDPA (Rel.) <input type="checkbox"/>HSPA+ (Rel.) <p>WiFi 2.4GHz (802.11b/g/n)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/>802.11b <input checked="" type="checkbox"/>802.11g <input checked="" type="checkbox"/>802.11n (20MHz) <input checked="" type="checkbox"/>802.11n (40MHz) <p>Bluetooth Ver. 4.0</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/>BR(GFSK) <input checked="" type="checkbox"/>EDR($\pi/4$ DQPSK , 8-DPSK) <input checked="" type="checkbox"/>BLE(GFSK)
Duty Cycle	<p>GSM Voice: 12.5%; GPRS: 12.5% (1 Slot), 25% (2 Slots), 37.5% (3 Slots), 50% (4 Slots) W-CDMA: 100% WiFi 802.11b/g/n: 100% Bluetooth: 32.25% (DH1), 66.68% (DH3), 77.52% (DH5)</p>
GPRS Multi-Slot Class	<ul style="list-style-type: none"> <input type="checkbox"/>Class 8 - One Up <input type="checkbox"/>Class 10 - Two Up <input checked="" type="checkbox"/>Class 12 - Four Up
Mobile Phone Capability	<ul style="list-style-type: none"> <input type="checkbox"/>Class A - Mobile phones can be connected to both GPRS and GSM services simultaneously. <input checked="" type="checkbox"/>Class B - Mobile phones can be attached to both GPRS and GSM services, using one service at a time. <input type="checkbox"/>Class C - Mobile phones are attached to either GPRS or GSM voice service. You need to switch manually between services
DTM (Dual Transfer Mode)	Not Supported

2.2 Picture of the EUT



2.3 Test Positions for the Device under test





FLAT position



10mm spacer



Edge1 position



Edge2 position



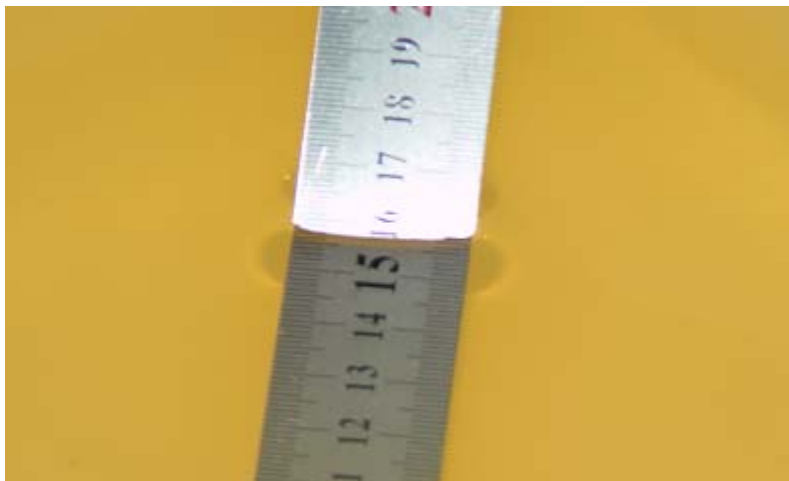
Edge3 position



Edge4 position

2.4 Picture to demonstrate the required liquid depth

the liquid depth in the used SAM phantoms



Liquid depth for SAR Measurement

3. TEST CONDITIONS

3.1 Temperature and Humidity

Ambient temperature (°C)	21.0 to 23.0
Ambient humidity (RH %)	30 to 45

3.2 Test Signal, Frequencies and Output Power

The device was put into operation by using a call tester. Communication between the device and the call tester was established by air link.

The device output power was set to maximum power level for all tests; a fully charged battery was used for every test sequence.

In all operating bands the measurements were performed on lowest, middle and highest channels.

3.3 SAR Measurement Set-up

The system is based on a high precision robot (working range greater than 0.9m), which positions the probes with a positional repeatability of better than $\pm 0.02\text{mm}$. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines (length =300mm) to the data acquisition unit. A cell controller system contains the power supply, robot controller, teaches pendant (Joystick), and remote control,

is used to drive the robot motors.

The PC consists of the Micron Pentium IV computer with Windows 2000 system and SAR Measurement Software DASY4 Professional, A/D interface card, monitor, mouse, and keyboard. The Stäubli Robot is connected to the cell controller to allow software manipulation of the robot.

A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC plug-in card. The DAE consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the PC-card is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines.

The mechanical probe mounting device includes two different sensor systems for frontal and sidewise probe contacts. They are also used for mechanical surface detection and probe collision detection

The robot uses its own controller with a built in VME-bus computer.

4. DESCRIPTION OF THE TEST EQUIPMENT

4.1 Measurement System and Components

The measurements were performed using an automated near-field scanning system, DASY4, manufactured by Schmid & Partner Engineering AG (SPEAG) in Switzerland. The SAR extrapolation algorithm used in all measurements was the 'advanced extrapolation' algorithm.

The following table lists calibration dates of SPEAG components:

Test Equipment	Serial Number	Calibration interval	Calibration expiry
DAE4	546	1 year	2014.08.13
Dosimetric E-field Probe ES3DV3	3127	1 year	2014.08.21
Dipole Validation Kit, D835V2	4d023	1 years	2014.10.22
Dipole Validation Kit, D1900V2	5d113	1 years	2014.10.16
Dipole Validation Kit, D2450V2	738	1 years	2014.10.17
DASY5 software Version	52.8.7.1137	N/A	N/A

Additional test equipment used in testing:

Test Equipment	Model	Serial Number	Calibration interval	Calibration expiry
Signal Generator	E4428C	MY45280865	1 year	2014.08.20
Amplifier	5S1G4	0323472	N/A	N/A
Power meter	E4417A	MY45101182	1 year	2014.08.20
Power Sensor	E4412A	MY41502214	1 year	2014.08.20
Power Sensor	E4412A	MY41502130	1 year	2014.08.20
Call Tester	8960	GB43194054	1 year	2014.08.20
Network Analyzer	8714ET	US40372083	1 year	2014.08.20
Dielectric Probe Kit	85070D	US33030365	N/A	N/A

Detailed information of Isotropic E-field Probe Type ES3DV3

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	Calibration certificate in Appendix C
Frequency	10 MHz to 4 GHz; Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Optical Surface Detection	± 0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm
Dynamic Range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Application	General dosimetry up to 4 GHz Dosimetry in strong gradient fields Compliance tests of mobile phones

4.2 Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin headed "SAM Phantom", manufactured by SPEAG. The phantom conforms to the requirements of IEEE 1528 - 2003.

System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.

The SPEAG device holder (see Section 5.1) was used to position the device in all tests whilst a tripod was used to position the validation dipoles against the flat section of phantom.

4.3 Tissue Simulants

Recommended values for the dielectric parameters of the tissue simulants are given in IEEE 1528 - 2003 and FCC Supplement C to OET Bulletin 65. All tests were carried out using simulants whose dielectric parameters were within $\pm 5\%$ of the recommended values. All tests were carried out within 24 hours of measuring the dielectric parameters.

The depth of the tissue simulant was 15.0 ± 0.5 cm measured from the ear reference point during system checking and device measurements.

4.3.1 Tissue Simulant Recipes

The following recipe(s) were used for Head and Body tissue stimulant(s):

835MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Water	41.45	52.50
Sugar	56.00	45.0
Nacl	1.45	1.40
Cellulose	1.0	1.0
Preventol	0.1	0.10

1900MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Water	44.45	70.17
DGBE	55.24	29.44
Nacl	0.31	0.39

2450MHz band

Ingredient	Head (% by weight)	Body (% by weight)
Water	55.00	68.64
DGBE	45.00	31.37
Nacl	0.00	0.00

4.3.2 System Checking

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyser. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system checking results (dielectric parameters and SAR values) are given in the table below.

Date Tested	System dipole	T.S. Liquid	SAR measured (normalized to 1W)		Target (Ref.Value)	Delta (%)	Tolerance (%)
			1g	9.56			
2013.10.27	D835V2	Head	1g	9.56	9.47	0.95	±10
2013.10.28	D835V2	Body	1g	9.44	9.28	1.72	±10
2013.10.24	D1900V2	Head	1g	39.76	40.40	1.58	±10
2013.10.23	D1900V2	Body	1g	40.08	40.90	2.00	±10
2013.10.22	D2450V2	Head	1g	53.40	53.20	0.38	±10
2013.10.22	D2450V2	Body	1g	50.24	49.30	1.91	±10

Plots of the system checking scans are given in Appendix A.

4.3.3 Tissue Simulants used in the Measurements

For the measurement of the following parameters the HP 85070D dielectric probe kit is used, representing the open-ended coaxial probe measurement procedure.

Date Tested	Freq.(MHz)	Liquid parameters	measured	Target	Delta(%)	Tolerance(%)
2013.10.27	Head 835	ϵ_r	42.10	41.50	1.45	±5
		σ [S/m]	0.92	0.90	2.22	±5
2013.10.28	Body 835	ϵ_r	53.80	55.20	2.54	±5
		σ [S/m]	0.98	0.97	1.03	±5
2013.10.24	Head 1900	ϵ_r	41.40	40.00	3.50	±5
		σ [S/m]	1.44	1.40	2.86	±5
2013.10.23	Body 1900	ϵ_r	52.50	53.30	1.50	±5
		σ [S/m]	1.55	1.52	1.97	±5
2013.10.22	Head 2450	ϵ_r	39.20	39.20	0.00	±5
		σ [S/m]	1.79	1.80	0.56	±5
2013.10.22	Body 2450	ϵ_r	52.00	52.70	1.33	±5
		σ [S/m]	1.97	1.95	1.03	±5

5. DESCRIPTION OF THE TEST PROCEDURE

5.1 Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the Dasy system.



Device holder supplied by SPEAG

5.2 Test positions

5.2.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2003 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

5.2.2 Body Worn Configuration

The device was placed in the SPEAG holder below the flat section of the phantom. The distance between the device and the phantom was kept at the separation distance using a separate flat spacer that was removed before the start of the measurements. And the distance is 10mm. The device was oriented with its antenna facing the phantom since this orientation gives higher results.

5.3 Scan Procedure

First, area scans were used for determination of the field distribution and the approximate location of the local peak SAR values. The SAR distribution is scanned along the inside surface, at least for an area larger than the projection of the handset and antenna. The angle between the probe axis and the surface normal line is recommended but not required to be less than 30°. The SAR distribution is first measured on a 2-D coarse grid. The scan region should cover all areas that are exposed and encompassed by the projection of the handset. It is a 15 mm × 15 mm measurement grid used when two staggered one-dimensional cubic splines are used to estimate the maximum SAR location. Next, a zoom scan, a minimum of 7 x 7x7 points covering a volume of at least 30x30x30mm, was performed around the highest E-field value to determine the averaged SAR value. Drift was determined by measuring the same point at the start of the area scan and again at the end of the zoom scan.

5.4 SAR Averaging Methods

The maximum SAR value was averaged over a cube of tissue using interpolation and extrapolation.

The interpolation, extrapolation and maximum search routines within Dasy4 are all based on the modified Quadratic Shepard's method (Robert J. Renka, "Multivariate Interpolation Of Large Sets Of Scattered Data", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988, pp. 139-148).

The interpolation scheme combines a least-square fitted function method with a weighted average method. A trivariate 3-D / bivariate 2-D quadratic function is computed for each measurement point and fitted to neighbouring points by a least-square method. For the zoom scan, inverse distance weighting is incorporated to fit distant points more accurately. The interpolating function is finally calculated as a weighted average of the quadratics.

In the zoom scan, the interpolation function is used to extrapolate the Peak SAR from the deepest measurement points to the inner surface of the phantom.

6. MEASUREMENT UNCERTAINTY

DASY5 Uncertainty Budget								
Error description	Uncertainty value	Prob. Dist.	Div.	(c_i) 1g	(c_i) 10g	Std.Unc (1g).	Std.Unc. (10g)	(vi) V_{eff}
Measurement system								
Probe calibration	±6.55%	N	1	1	1	±6.55%	±6.55%	∞
Axial isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
Modulation Response	±2.4%	R	$\sqrt{3}$	1	1	±1.4%	±1.4%	∞
System detection limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Boundary effects	±2.0%	R	$\sqrt{3}$	1	1	±0.6%	±1.2%	∞
Readout electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF ambient noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF ambient reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe positioner	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Probe positioning	±6.7%	R	$\sqrt{3}$	1	1	±3.9%	±3.9%	∞
Post-processing	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Test Sample Related								
Device holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Power Scaling	±0%	R	$\sqrt{3}$	1	1	±0%	±0%	∞
Power drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom uncertainty	±7.9%	R	$\sqrt{3}$	1	1	±4.6%	±4.6%	∞
SAR correction	±1.9%	R	$\sqrt{3}$	1	0.84	±1.1%	±0.9%	∞
Liquid conductivity(meas.)	±2.5%	N	$\sqrt{3}$	0.78	0.71	±1.1%	±1.0%	∞
Liquid Permittivity (meas.)	±2.5%	N	$\sqrt{3}$	0.26	0.26	±0.3%	±0.4%	∞
Temp. unc. - Conductivity	±3.4%	N	$\sqrt{3}$	0.78	0.71	±1.5%	±1.4%	∞
Temp. unc. - Permittivity	±0.4%	N	$\sqrt{3}$	0.23	0.26	±0.1%	±0.1%	∞
Combined std. Uncertainty						±12.5%	±12.5%	748
Expanded STD Uncertainty						±25.1%	±25.0%	

7. RF Output Power Measurement

7.1 Manufacturing Tolerance

GSM Speech

GSM 850			
Channel	Channel 251	Channel 189	Channel 128
Target (dBm)	32	32	32
Tolerance (dBm)	30~34	30~34	30~34
GSM 1900			
Channel	Channel 810	Channel 661	Channel 512
Target (dBm)	30	30	30
Tolerance (dBm)	28~31	28~31	28~31

GPRS (GMSK Modulation)

GSM 850 GPRS				
	Channel	251	189	128
1 Txslot	Target (dBm)	32.8	32.8	32.8
	Tolerance (dBm)	30.8~34.8	30.8~34.8	30.8~34.8
2 Txslots	Target (dBm)	30.8	30.8	30.8
	Tolerance (dBm)	30~33	30~33	30~33
3 Txslots	Target (dBm)	29.4	29.4	29.4
	Tolerance (dBm)	28.2~31.2	28.2~31.2	28.2~31.2
4 Txslots	Target (dBm)	27.9	27.9	27.9
	Tolerance (dBm)	27~30	27~30	27~30
GSM 850 EGPRS				
	Channel	251	189	128
1 Txslot	Target (dBm)	32.8	32.8	32.8
	Tolerance (dBm)	30.8~34.8	30.8~34.8	30.8~34.8
2 Txslots	Target (dBm)	30.8	30.8	30.8
	Tolerance (dBm)	30~33	30~33	30~33
3 Txslots	Target (dBm)	29.4	29.4	29.4
	Tolerance (dBm)	28.2~31.2	28.2~31.2	28.2~31.2
4 Txslots	Target (dBm)	27.9	27.9	27.9
	Tolerance (dBm)	27~30	27~30	27~30

GSM 1900 GPRS				
Channel		810	661	512
1 Txslot	Target (dBm)	30	30	30
	Tolerance (dBm)	28~32	28~32	28~32
2 Txslots	Target (dBm)	27.6	27.6	27.6
	Tolerance (dBm)	27~30	27~30	27~30
3Txslots	Target (dBm)	26.0	26.0	26.0
	Tolerance (dBm)	25.2~28.2	25.2~28.2	25.2~28.2
4 Txslots	Target (dBm)	24.7	24.7	24.7
	Tolerance (dBm)	24~27	24~27	24~27
GSM 1900 EGPRS				
Channel		810	661	512
1 Txslot	Target (dBm)	30.1	30.1	30.1
	Tolerance (dBm)	28.1~32.1	28.1~32.1	28.1~32.1
2 Txslots	Target (dBm)	27.6	27.6	27.6
	Tolerance (dBm)	27~30	27~30	27~30
3Txslots	Target (dBm)	26.0	26.0	26.0
	Tolerance (dBm)	25.2~28.2	25.2~28.2	25.2~28.2
4 Txslots	Target (dBm)	24.7	24.7	24.7
	Tolerance (dBm)	24~27	24~27	24~27

WCDMA Band2			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	23	23	23
Tolerance (dBm)	21~24	21~24	21~24
WCDMA Band5			
Channel	Channel 4132	Channel 4183	Channel 4233
Target (dBm)	23	23	23
Tolerance (dBm)	21~24	21~24	21~24

Wi-Fi

802.11b			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	17.5	17.5	17.5
Tolerance (dBm)	16~18.5	16~18.5	16~18.5
802.11g			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.5	14.5	14.5
Tolerance (dBm)	13~16	13~16	13~16
802.11n HT20			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.5	14.5	14.5
Tolerance (dBm)	13~16	13~16	13~16
802.11n HT40			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	11	11	11
Tolerance (dBm)	13~16	13~16	13~16

7.2 GSM Measurement result

Conducted Power

Mode	GSM850(Head) Duty cycle: 1:8(12.5%)			GSM1900(Head) Duty cycle: 1:8(12.5%)		
	128	189	251	512	661	810
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
Measured Power(dBm)	32.84	32.82	32.77	29.93	29.81	29.95

GPRS/EDGE Measured Power

Mode	GPRS850			GPRS1900		
	EDGE850			EDGE1900		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	32.82	32.80	32.76	29.70	29.80	29.82
	32.83	32.80	32.76	29.71	29.80	29.82
3Downlink2uplinkPower(dBm)	30.65	30.74	30.68	27.15	27.58	27.81
	30.65	30.68	30.68	27.15	27.59	27.81
2Downlink3uplinkPower(dBm)	29.21	29.23	29.20	25.65	26.09	26.35
	29.21	29.22	29.20	25.66	26.10	26.35
1Downlink4uplinkPower(dBm)	27.81	27.80	27.77	24.16	24.60	24.89
	27.81	27.71	27.79	24.17	24.59	24.89

GPRS/EDGE Averaged Power

Mode	GPRS850			GPRS1900		
	EDGE850			EDGE1900		
Channel	128	189	251	512	661	810
Frequency(MHz)	824.2	836.4	848.8	1850.2	1880.0	1909.8
4Downlink1uplinkPower(dBm)	23.79	23.77	23.73	20.67	20.77	20.79
	23.80	23.77	23.73	20.68	20.77	20.79
3Downlink2uplinkPower(dBm)	24.63	24.72	24.66	21.13	21.56	21.79
	24.63	24.66	24.66	21.13	21.57	21.79
2Downlink3uplinkPower(dBm)	24.95	24.97	24.94	21.39	21.83	22.09
	24.95	24.96	24.94	21.40	21.84	22.09
1Downlink4uplinkPower(dBm)	24.80	24.79	24.76	21.15	21.59	21.88
	24.80	24.70	24.78	21.16	21.58	21.88

Division Factors (for Measured Power and Averaged Power):

To average the power, the division factor is as follows:

1TX-slot (4Downlink1uplink)= 1 transmit time slot out of 8 time slots=>
conducted power divided by (8/1) => -9.03dB

2TX-slots(3Downlink2uplink) = 2 transmit time slots out of 8 time slots=>
conducted power divided by (8/2) => -6.02dB

3TX-slots (2Downlink3uplink)= 3 transmit time slots out of 8 time slots=>
conducted power divided by (8/3) => -4.26dB

4TX-slots (1Downlink4uplink)= 4 transmit time slots out of 8 time slots=>
conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 3Txslots (2Downlink3uplink) for GPRS and EGPRS.

7.3 WCDMA Measurement result

The following procedures are according to FCC KDB Publication 941225 D01 “SAR Measurement Procedures for 3G Devices” v02, October 2007.

Release 99

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	β_c/β_d	8/15

Measured Results

Mode	WCDMA Band2			WCDMA Band5		
Channel	9262	9400	9538	4132	4183	4233
Frequency(MHz)	1852.4	1880	1907.6	826.4	836.6	846.6
RB test mode1+64kRMC(dBm)	22.93	23.19	22.85	22.88	22.66	22.75
RB test mode1+12.2kRMC(dBm)	22.87	23.21	22.91	22.89	22.67	22.73
RB test mode1+144kRMC(dBm)	22.94	23.21	22.82	22.89	22.65	22.76
RB test mode1+384kRMC(dBm)	22.90	23.21	22.85	22.95	22.66	22.76
AMR Voice test mode+12.2kRMC(dBm)	22.87	23.20	22.85	22.91	22.67	22.74

HSDPA

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121.

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	$\beta_{hs}^{(2)}$	CM (dB) ⁽²⁾
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 ⁽³⁾	15/15 ⁽³⁾	64	12/15 ⁽³⁾	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: $\Delta_{ACK} \Delta_{NACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
 Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$.
 Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

Measured Results

Mode	HSDPA Band 2			HSDPA Band 5		
	Channel	9262	9400	9538	4132	4183
Frequency(MHz)	1852.4	1880	1907.6	826.4	836.6	846.6
sub-test1(dBm)	21.89	22.22	21.91	21.80	21.56	21.63
sub-test2(dBm)	21.86	22.23	21.89	21.81	21.59	21.63
sub-test3(dBm)	21.42	21.75	21.50	21.31	21.03	21.19
sub-test4(dBm)	21.34	21.69	21.51	21.31	21.06	21.15

HSPA (HSDPA & HSUPA)

The following 5 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121.

Sub test	β_c	β_d	β_a (SF)	β_c/β_d	$\beta_{hs}^{(1)}$	β_{ec}	β_{ed}	β_{sa} (SF)	β_{sa} (codes)	CM ⁽²⁾ (dB)	MPR (dB)	AG ⁽⁴⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{sa}: 47/15$ $\beta_{sd}: 47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64	15/15 ⁽⁴⁾	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: $\Delta_{ACK}, \Delta_{ACK}$ and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCCH, HS-DPCCCH, E-DPDCH and E-DPCCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$.

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.

Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Measure Results

Mode	HSUPA Band 2			HSUPA Band 5		
Channel	9262	9400	9538	4132	4183	4233
Frequency(MHz)	1852.4	1880	1907.6	826.4	836.6	846.6
sub-test1(dBm)	21.80	21.80	21.50	21.90	21.80	22.00
sub-test2(dBm)	21.80	21.80	21.50	22.00	21.80	22.00
sub-test3(dBm)	21.80	21.80	21.40	21.90	21.80	21.90
sub-test4(dBm)	21.20	21.20	20.90	21.40	21.30	21.40
sub-test5(dBm)	21.70	21.70	21.40	21.40	21.70	21.90

UMTS SAR was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v02.

HSPA SAR was not required since the average output power of the HSPA subtests was not more than 0.25 dB higher than the RMC level and SAR was less than 1.2 W/kg.

7.4 BT Measurement result

Modulation type	Test Result (mW)		
	2402MHz(Ch0)	2441MHz(Ch39)	2480MHz(Ch78)
GFSK	2.05	2.40	2.39
$\pi/4$ DQPSK	1.75	2.07	2.03
8DPSK	1.75	2.41	2.03
GFSK(BLE)	2402MHz(Ch0)	2440MHz(Ch19)	2480MHz(Ch39)
	0.54	0.58	0.57

Modulation type	Test Result (dBm)		
	2402MHz(Ch0)	2441MHz(Ch39)	2480MHz(Ch78)
GFSK	3.12	3.81	3.78
$\pi/4$ DQPSK	2.44	3.16	3.07
8DPSK	2.44	3.82	3.07
GFSK(BLE)	2402MHz(Ch0)	2440MHz(Ch19)	2480MHz(Ch39)
	-2.69	-2.33	-2.45

7.5 Wi-Fi Measurement result

Test Mode	Data Rate (Mbps)	Test Result (mW)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	1	37.50	37.50	39.08
	2	37.33	37.41	37.93
	5.5	44.77	45.39	46.56
	11	41.02	42.17	41.40
802.11g	6	19.54	24.10	19.05
	9	19.72	24.32	19.63
	12	19.01	23.88	19.77
	18	19.45	23.88	20.04
	24	19.54	24.89	19.23
	36	18.66	25.82	19.82
	48	18.88	26.24	19.91
	54	18.62	23.93	20.80
802.11n (HT20)	6.5	18.84	26.18	20.75
	13	19.05	24.66	19.77
	19.5	19.19	24.89	20.84
	26	19.50	25.29	20.04
	39	18.54	24.55	20.09
	52	19.01	24.83	20.56
	58.5	18.84	24.66	20.42
	65	19.45	25.41	20.84
Test Mode	Data Rate (Mbps)	Test Result (mW)		
		2422MHz (Ch3)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (HT40)	13.5	11.64	23.55	23.71
	27	11.67	23.93	24.10
	40.5	11.40	23.55	23.28
	54	11.99	23.93	26.49
	81	11.04	22.75	24.38
	108	10.94	23.28	22.70
	121.5	11.43	24.49	24.60
	135	11.94	25.18	24.77

Modulation type		Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462MHz (Ch11)
11b	1 Mbps	15.74	15.74	15.92
	2 Mbps	15.72	15.73	15.79
	5.5 Mbps	16.51	16.57	16.68
	11 Mbps	16.13	16.25	16.17
11g	6 Mbps	12.91	13.82	12.80
	9 Mbps	12.95	13.86	12.93
	12 Mbps	12.79	13.78	12.96
	18 Mbps	12.89	13.78	13.02
	24 Mbps	12.91	13.96	12.84
	36 Mbps	12.71	14.12	12.97
	48 Mbps	12.76	14.19	12.99
	54 Mbps	12.70	13.79	13.18
11n HT20	6.5 Mbps	12.75	14.18	13.17
	13 Mbps	12.80	13.92	12.96
	19.5 Mbps	12.83	13.96	13.19
	26 Mbps	12.90	14.03	13.02
	39 Mbps	12.68	13.90	13.03
	52 Mbps	12.79	13.95	13.13
	58.5 Mbps	12.75	13.92	13.10
	65 Mbps	12.89	14.05	13.19
Modulation type		Test Result (dBm)		
		2422MHz (Ch3)	2437MHz (Ch6)	2462MHz (Ch11)
11n HT40	13.5 Mbps	10.66	13.72	13.75
	27 Mbps	10.67	13.79	13.82
	40.5 Mbps	10.57	13.72	13.67
	54 Mbps	10.79	13.79	14.23
	81 Mbps	10.43	13.57	13.87
	108 Mbps	10.39	13.67	13.56
	121.5 Mbps	10.58	13.89	13.91
	135 Mbps	10.77	14.01	13.94

7.6 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by: $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, where $f(\text{GHz})$ is the RF channel transmit frequency in GHz. Power and distance are rounded to the nearest mW and mm before calculation. The result is rounded to one decimal place for comparison. According to the KDB447498 appendix A, the SAR test exclusion threshold for 2450MHz at 5 mm test separation distances is 10 mW.

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

Summary of Transmitters

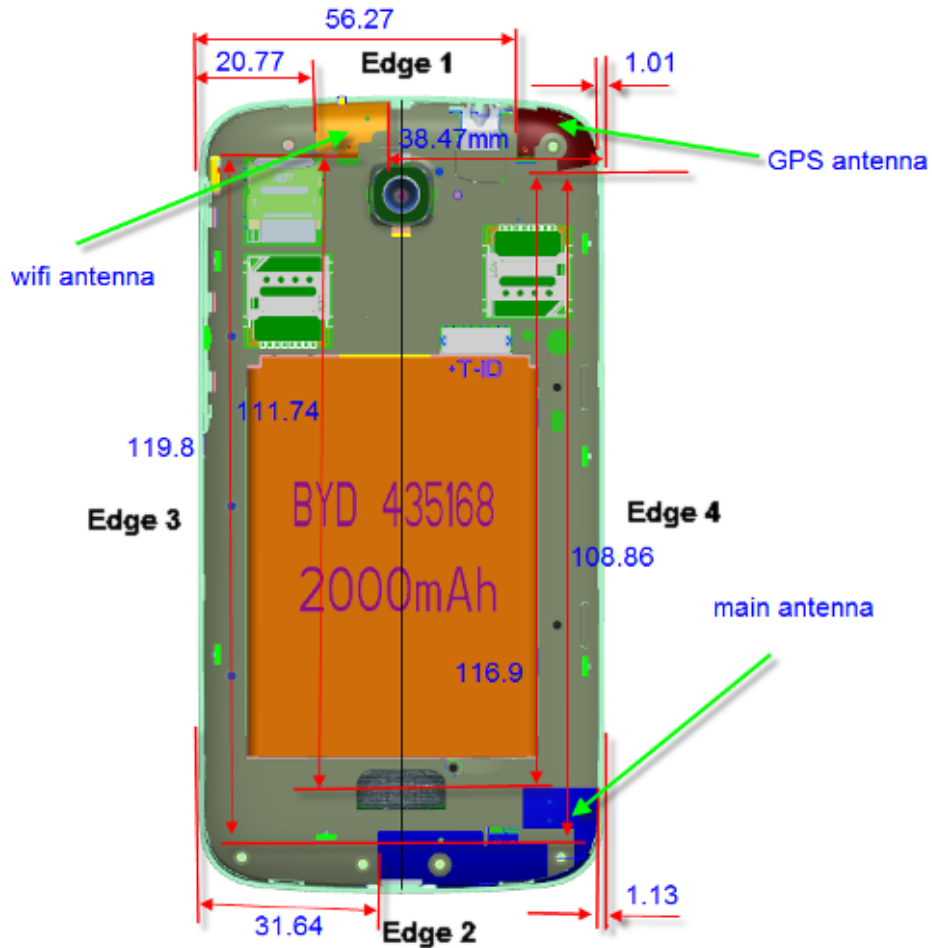
Band/Mode	F(GHz)	SAR test exclusion threshold (mW)	RF output power (mW)
Bluetooth	2.441	19	3.82
2.4GHz WLAN 802.11 b	2.462	19	46.56

According to the conducted power measurement results, we can draw the conclusion that:

stand-alone SAR for WiFi should be performed. Then, simultaneous transmission SAR for WiFi is considered with measurement results of GSM and WiFi. Stand-alone SAR and simultaneous transmission SAR for Bluetooth should not be performed.

8. RF Exposure Conditions

Refer to the follow picture“Antenna Locations & Separation Distances” for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.



8.1 Head Exposure Conditions

For WWAN, WiFi

Test Configurations	SAR Required	Note
Left Touch	yes	/
Left Tilt (15°)	yes	/
Right Touch	yes	/
Right Tilt (15°)	yes	/

8.2 Body-worn Accessory Exposure conditions

For WWAN

Test Configurations	SAR Required	Note
Rear	yes	/
Front	yes	/

For WiFi

Test Configurations	SAR Required	Note
Rear	yes	/
Front	yes	/

8.3 Hotspot Exposure Conditions

For WWAN

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	yes	/
Front	<25 mm	yes	/
Edge 1 (top)	111.74	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR v01r01
Edge 2 (Bottom)	0	yes	/
Edge 3 (Left)	31.64	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR v01r01
Edge 4 (Right)	1.13	yes	/

For WiFi

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	yes	/
Front	<25 mm	yes	/
Edge 1 (top)	0	yes	/
Edge 2 (Bottom)	111.74	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR v01r01
Edge 3 (Left)	20.77	yes	/
Edge 4 (Right)	38.47	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR v01r01

9. SAR Test result

In order to determine the largest value of the peak spatial-average SAR of a handset, all device positions, configurations, and operational modes should be tested for each frequency band according to Steps 1 to 3 below.

Step 1: The tests should be performed at the channel that is closest to the center of the transmit frequency band.

- a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom),
- b) all configurations for each device position in a), e.g., antenna extended and retracted, and
- c) All operational modes for each device position in item a) and configuration in item b) in each frequency band, e.g., analog and digital,

If more than three frequencies need to be tested (i.e., $N_c > 3$), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing the highest peak spatial-average SAR determined in Step 1 for each frequency, perform all tests at all other test frequency channels, e.g., lowest and highest frequencies. In addition, for all

other conditions (device position, configuration, and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies should be tested as well.

Step 3: Examine all data to determine the largest value of the peak.

The measured and reported Head/body SAR values for the test device are tabulated below:

Mode: GSM 850

f_L (MHz)=824.2MHz f_M (MHz)=836.4MHz f_H (MHz)= 848.8MHz

SAR Values (Head, 850MHz Band)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1g Average	1g Average
Left hand, Touch cheek, f_H	0.305	0.405
Left hand, Touch cheek, f_M	0.297	0.390
Left hand, Touch cheek, f_L	0.303	0.396
Left hand, Tilt 15 Degree, f_H	0.215	0.285
Left hand, Tilt 15 Degree, f_M	0.228	0.299
Left hand, Tilt 15 Degree, f_L	0.219	0.286
Right hand, Touch cheek, f_H	0.233	0.309
Right hand, Touch cheek, f_M	0.259	0.340
Right hand, Touch cheek, f_L	0.274	0.358
Right hand, Tilt 15 Degree, f_H	0.196	0.260
Right hand, Tilt 15 Degree, f_M	0.223	0.293
Right hand, Tilt 15 Degree, f_L	0.230	0.300

Mode: GSM850 (GSM/GPRS/EDGE)

f_L (MHz)=824.2MHz

f_M (MHz)=836.4 MHz

f_H (MHz)= 848.8MHz

SAR Values (body, 850MHz Band)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Towards ground/GSM, with headset f_H	0.368	0.488
Towards ground/GSM, with headset f_M	0.420	0.551
Towards ground/GSM, with headset f_L	0.425	0.555
Towards phantom/GSM, with headset f_H	0.28	0.372
Towards phantom/GSM, with headset f_M	0.318	0.417
Towards phantom/GSM, with headset f_L	0.332	0.434
Towards ground/GPRS, f_H	0.629	0.997
Towards ground/GPRS, f_M	0.745	1.173
Towards ground/GPRS, f_L	0.788	1.246
Towards phantom/GPRS, f_H	0.438	0.694
Towards phantom/GPRS, f_M	0.500	0.787
Towards phantom/GPRS, f_L	0.544	0.860
Towards ground/EGPRS, f_H	0.630	0.998
Towards ground/EGPRS, f_M	0.722	1.139
Towards ground/EGPRS, f_L	0.770	1.218
Towards phantom/EGPRS, f_H	0.440	0.697
Towards phantom/EGPRS, f_M	0.513	0.809
Towards phantom/EGPRS, f_L	0.537	0.849
EDGE 2/GPRS, f_L	0.703	1.112
EDGE 4/GPRS, f_L	0.257	0.406

During the body testing GPRS/EDGE work at the “2 downlink and 3 uplink”, at this Tx slot RF averaged power is larger than other Tx slots.

Note: The distance between the EUT and the phantom bottom is 10mm.

Mode: GSM1900

f_L (MHz)=1850.2MHz f_M (MHz)=1880.0MHz f_H (MHz)=1909.8MHz

SAR Values (Head, 1900MHz Band)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1g Average	1g Average
Left hand, Touch cheek, f_H	0.098	0.125
Left hand, Touch cheek, f_M	0.089	0.117
Left hand, Touch cheek, f_L	0.084	0.107
Left hand, Tilt 15 Degree, f_H	0.061	0.078
Left hand, Tilt 15 Degree, f_M	0.057	0.075
Left hand, Tilt 15 Degree, f_L	0.045	0.058
Right hand, Touch cheek, f_H	0.212	0.270
Right hand, Touch cheek, f_M	0.198	0.26
Right hand, Touch cheek, f_L	0.165	0.211
Right hand, Tilt 15 Degree, f_H	0.081	0.103
Right hand, Tilt 15 Degree, f_M	0.055	0.072
Right hand, Tilt 15 Degree, f_L	0.048	0.061

Mode: GSM1900 (GSM/GPRS/EDGE)

f_L (MHz)=1850.2MHz f_M (MHz)=1880.0MHz f_H (MHz)=1909.8MHz

SAR Values (body, 1900MHz Band)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Towards ground/GSM, with headset f_H	0.252	0.321
Towards ground/GSM, with headset f_M	0.244	0.321
Towards ground/GSM, with headset f_L	0.227	0.29
Towards phantom/GSM, with headset f_H	0.130	0.166
Towards phantom/GSM, with headset f_M	0.120	0.158
Towards phantom/GSM, with headset f_L	0.123	0.157
Towards ground/GPRS, f_H	0.359	0.550
Towards ground/GPRS, f_M	0.335	0.545
Towards ground/GPRS, f_L	0.286	0.514
Towards phantom/GPRS, f_H	0.252	0.386
Towards phantom/GPRS, f_M	0.243	0.395
Towards phantom/GPRS, f_L	0.247	0.444
Towards ground/EGPRS, f_H	0.527	0.807
Towards ground/EGPRS, f_M	0.523	0.848
Towards ground/EGPRS, f_L	0.471	0.845
Towards phantom/EGPRS, f_H	0.243	0.372
Towards phantom/EGPRS, f_M	0.244	0.396
Towards phantom/EGPRS, f_L	0.251	0.450
EDGE 2/EGPRS, f_M	0.088	0.143
EDGE 4/EGPRS, f_M	0.221	0.358

During the body testing GPRS/EDGE work at the “2 downlink and 3 uplink”, at this Tx slot RF averaged power is larger than other Tx slots.

Note: The distance between the EUT and the phantom bottom is 10mm.

Mode: WCDMA BAND2

f_L (MHz)=1852.4MHz f_M (MHz)=1880MHz f_H (MHz)= 1907.6MHz

SAR Values (Head, WCDMA BAND2)

Limit of SAR (W/kg)	1 g Average	
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Left hand, Touch cheek , f_H	0.173	0.222
Left hand, Touch cheek, f_M	0.147	0.176
Left hand, Touch cheek , f_L	0.137	0.178
Left hand, Tilt 15 Degree, f_H	0.081	0.104
Left hand, Tilt 15 Degree, f_M	0.065	0.078
Left hand, Tilt 15 Degree, f_L	0.056	0.073
Right hand, Touch cheek, f_H	0.238	0.306
Right hand, Touch cheek, f_M	0.217	0.260
Right hand, Touch cheek, f_L	0.183	0.237
Right hand, Tilt 15 Degree f_H	0.089	0.114
Right hand, Tilt 15 Degree f_M	0.093	0.112
Right hand, Tilt 15 Degree, f_L	0.053	0.069

Mode: WCDMA BAND2

f_L (MHz)=1852.4MHz f_M (MHz)=1880MHz f_H (MHz)= 1907.6MHz

SAR Values (body, WCDMA BAND2)

Limit of SAR (W/kg)	1 g Average	
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Towards ground with headset, f_H	0.779	1.001
Towards ground with headset,, f_M	0.707	0.848
Towards ground with headset,, f_L	0.720	0.934
Towards phantom with headset,, f_H	0.329	0.423
Towards phantom with headset,, f_M	0.380	0.456
Towards phantom with headset,, f_L	0.330	0.428
EDGE 2, f_H	0.128	0.165
EDGE 4, f_H	0.310	0.398

Note: The distance between the EUT and the phantom bottom is 10mm.

Mode: WCDMA BAND5

f_L (MHz)=826.4MHz f_M (MHz)=836.6MHz f_H (MHz)= 846.6MHz

SAR Values (Head, WCDMA BAND5)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Left hand, Touch cheek , f_H	0.247	0.331
Left hand, Touch cheek, f_M	0.286	0.388
Left hand, Touch cheek , f_L	0.302	0.390
Left hand, Tilt 15 Degree, f_H	0.181	0.242
Left hand, Tilt 15 Degree, f_M	0.208	0.283
Left hand, Tilt 15 Degree, f_L	0.231	0.298
Right hand, Touch cheek, f_H	0.192	0.257
Right hand, Touch cheek, f_M	0.252	0.342
Right hand, Touch cheek, f_L	0.278	0.359
Right hand, Tilt 15 Degree f_H	0.158	0.212
Right hand, Tilt 15 Degree f_M	0.207	0.281
Right hand, Tilt 15 Degree, f_L	0.229	0.296

Mode: WCDMA BAND5

f_L (MHz)=826.4MHz f_M (MHz)=836.6MHz f_H (MHz)= 846.6MHz

SAR Values (body, WCDMA BAND5)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (mW/g)	Reported Result (mW/g)
	1 g Average	1g Average
Towards ground, with headset f_H	0.483	0.647
Towards ground, with headset f_M	0.588	0.799
Towards ground, with headset f_L	0.546	0.705
Towards phantom, with headset f_H	0.358	0.480
Towards phantom, with headset f_M	0.382	0.519
Towards phantom, with headset f_L	0.432	0.558
EDGE 2, f_M	0.429	0.575
EDGE 4, f_M	0.020	0.027

Note: The distance between the EUT and the phantom bottom is 10mm.

Mode: WiFi

SAR Values (WIFI 802.11b - Head)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result(W/kg)	Reported Result (mW/g)
	1 g Average	1g Average
Left hand, Touch cheek,5.5Mbps,ch 1	0.042	0.066
Left hand, Touch cheek,5.5Mbps,ch 6	0.061	0.095
Left hand, Touch cheek,5.5Mbps,ch 11	0.094	0.143
Left hand, Tilt 15 Degree,5.5Mbps,ch 1	0.082	0.130
Left hand, Tilt 15 Degree,5.5Mbps,ch 6	0.123	0.192
Left hand, Tilt 15 Degree,5.5Mbps,ch 11	0.193	0.293
Right hand, Touch cheek,5.5Mbps,ch 1	0.044	0.070
Right hand, Touch cheek,5.5Mbps,ch 6	0.075	0.117
Right hand, Touch cheek,5.5Mbps,ch 11	0.091	0.138
Right hand, Tilt 15 Degree,5.5Mbps,ch 1	0.061	0.096
Right hand, Tilt 15 Degree,5.5Mbps,ch 6	0.093	0.145
Right hand, Tilt 15 Degree,5.5Mbps,ch 11	0.116	0.176

SAR Values (WIFI 802.11b - Body)

Limit of SAR (W/kg)	1 g Average	1 g Average
	1.6	1.6
Test Case	Measurement Result (W/kg)	Reported Result (mW/g)
	1 g Average	1g Average
Toward Ground, 5.5Mbps,ch 1	0.084	0.133
Toward Ground, 5.5Mbps,ch 6	0.091	0.142
Toward Ground, 5.5Mbps,ch 11	0.135	0.205
Toward Phantom, 5.5Mbps,ch 1	0.015	0.024
Toward Phantom, 5.5Mbps,ch 6	0.033	0.051
Toward Phantom, 5.5Mbps,ch 11	0.036	0.055
Edge 1,5.5Mbps,ch 1	0.016	0.025
Edge 1,5.5Mbps,ch 6	0.019	0.030
Edge 1,5.5Mbps,ch 11	0.027	0.041
Edge 3,5.5Mbps,ch 1	0.079	0.125
Edge 3,5.5Mbps,ch 6	0.109	0.170
Edge 3, 5.5Mbps,ch 11	0.148	0.225

Note: The distance between the EUT and the phantom bottom is 10mm.

9.1 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

9.1.1 The Highest Measured SAR configuration in Each Frequency Band

Frequency band(MHz)	Air interface	Head(w/kg)	Body(w/kg)
850	GSM 850 WCDMA Band V	<0.8 W/kg	<0.8 W/kg
1900	GSM 1900 WCDMA Band II	<0.8 W/kg	<0.8 W/kg
2400	WiFi 802.11b/g/n	<0.8 W/kg	<0.8 W/kg

9.1.2 Repeated Measurement Results

Head Exposure Condition

Not Applicable.

Body-worn Exposure Condition

Not Applicable.

9.2 Simultaneous Transmission SAR Analysis

The sum of SAR values for GSM & WiFi (Hotspot)

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
GSM	0.405	1.246
WiFi	0.143	0.205
Sum	0.548	1.451

According to the above tables, the sum of SAR values for GSM and WiFi < 1.6W/kg. So simultaneous transmission SAR are not required for WiFi transmitter.

The sum of SAR values for WCDMA & WiFi (Hotspot)

	MAXIMUM SAR VALUE FOR HEAD	MAXIMUM SAR VALUE FOR BODY
WCDMA	0.390	0.799
WiFi	0.143	0.205
Sum	0.533	1.004

According to the above tables, the sum of SAR values for GSM and WiFi < 1.6W/kg. So simultaneous transmission SAR are not required for WiFi transmitter.

APPENDIX A: SYSTEM CHECKING SCANS

SYSTEM CHECKING SCANS	835MHz Head
<p>DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d023 Procedure Name: d=15mm, Pin=250 mW, dist=2.0mm (EX-Probe) Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1 Medium parameters used (extrapolated): f = 835 MHz; $\sigma = 0.919$ S/m; $\epsilon_r = 42.100$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 2013/8/13 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>System Performance Check at Frequencies below 1 GHz 835 head/d=15mm, Pin=xx mW, dist=2.0mm (EX-Probe)/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 3.09 W/kg</p> <p>System Performance Check at Frequencies below 1 GHz 835 head/d=15mm, Pin=xx mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.192 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 3.58 W/kg SAR(1 g) = 2.39 W/kg; SAR(10 g) = 1.49 W/kg Maximum value of SAR (measured) = 3.04 W/kg</p> <div data-bbox="279 1467 1316 1848"> </div> <p>0 dB = 3.04 W/kg = 4.83 dBW/kg</p>	

SYSTEM CHECKING SCANS

835MHz Flat

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d023

Procedure Name: d=15mm, Pin=xx mW, dist=2.0mm (EX-Probe) flat

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 835 \text{ MHz}$; $\sigma = 0.978 \text{ S/m}$; $\epsilon_r = 53.801$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(5.70, 5.70, 5.70); Calibrated: 8/21/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2013/8/13
- Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

System Performance Check at Frequencies below 1 GHz 835 body/d=15mm, Pin=xx mW, dist=2.0mm (EX-Probe) flat/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.01 W/kg

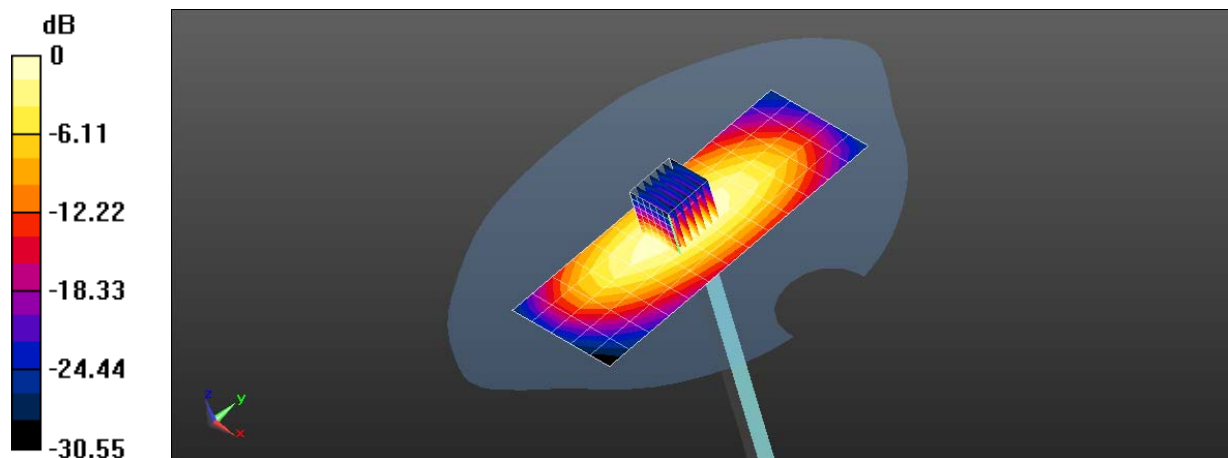
System Performance Check at Frequencies below 1 GHz 835 body/d=15mm, Pin=xx mW, dist=2.0mm (EX-Probe) flat/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 54.629 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.42 W/kg

SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.46 W/kg

Maximum value of SAR (measured) = 3.03 W/kg



0 dB = 3.03 W/kg = 4.81 dBW/kg

SYSTEM CHECKING SCANS

1900MHz Head

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d113

Procedure Name: d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.44 \text{ S/m}$; $\epsilon_r = 41.395$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2013/8/13
- Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

System Performance Check at Frequencies above 1 GHz 1900 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.2 W/kg

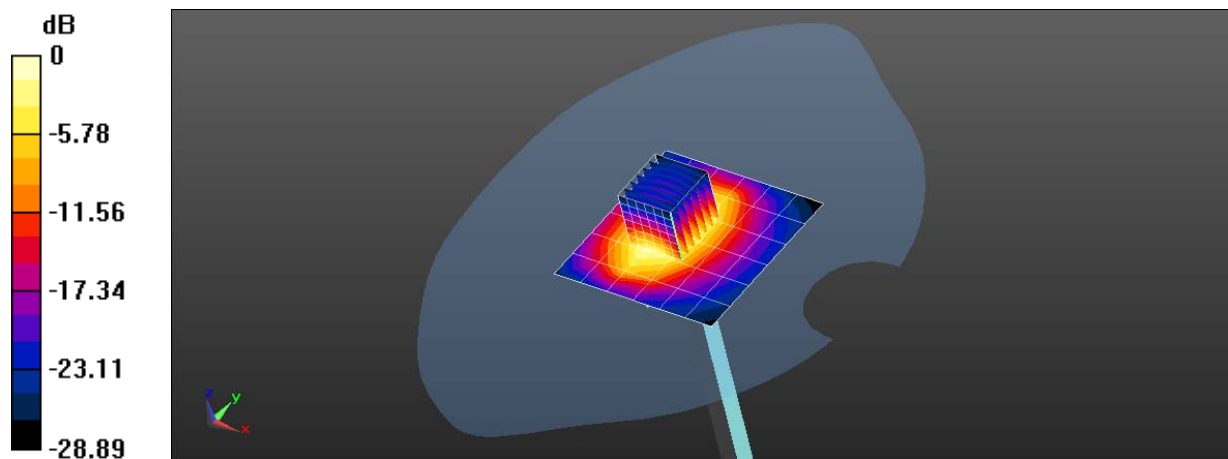
System Performance Check at Frequencies above 1 GHz 1900 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 88.031 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 18.6 W/kg

SAR(1 g) = 9.94 W/kg; SAR(10 g) = 4.31 W/kg

Maximum value of SAR (measured) = 10.7 W/kg



0 dB = 10.7 W/kg = 10.29 dBW/kg

SYSTEM CHECKING SCANS

1900MHz Flat

DUT: Dipole 1900 MHz D1900V2; Type: D1900V2; Serial: D1900V2 - SN:5d113

Procedure Name: d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.55 \text{ S/m}$; $\epsilon_r = 52.500$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2013/8/13
- Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

System Performance Check at Frequencies above 1 GHz 1900 head/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 10.0 W/kg

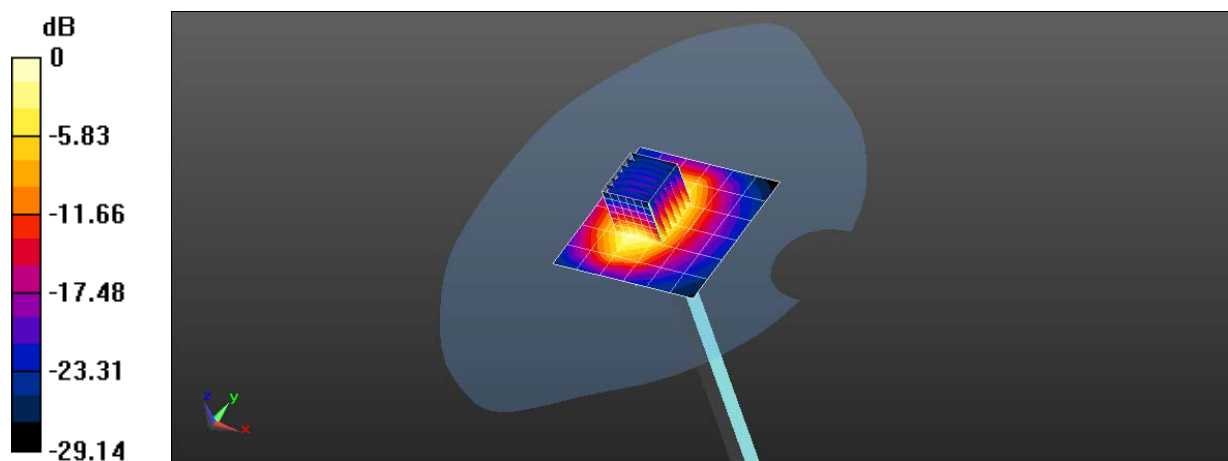
System Performance Check at Frequencies above 1 GHz 1900 head/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.500 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 18.6 W/kg

SAR(1 g) = 10.02 W/kg; SAR(10 g) = 4.64 W/kg

Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

SYSTEM CHECKING SCANS

2450MHz Head

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D1800V2 - SN:738

Procedure Name: System Performance Check at 2450 MHz

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.79 \text{ S/m}$; $\epsilon_r = 39.20$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2013/8/13
- Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

System Performance Check at Frequencies above 1 GHz 1900 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 11.2 W/kg

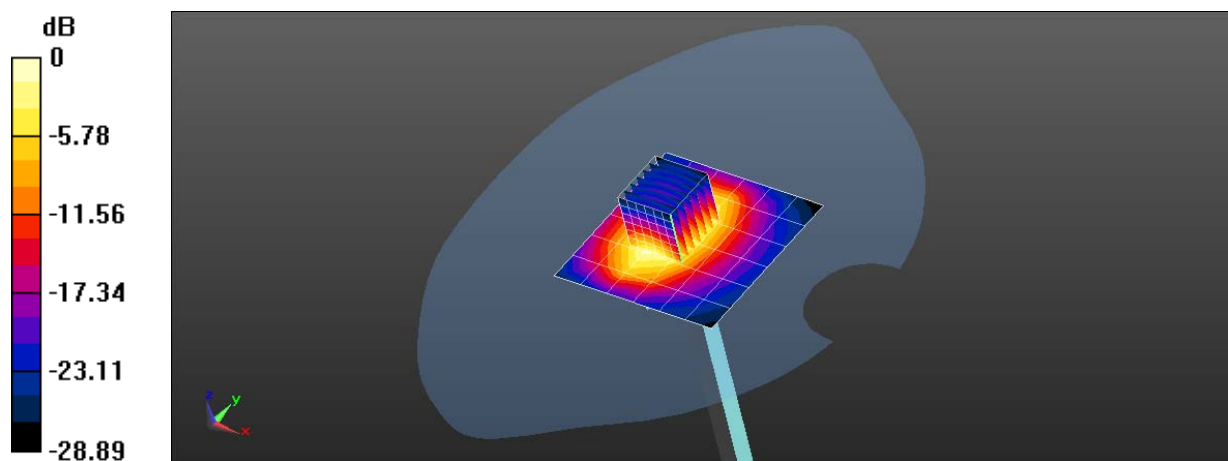
System Performance Check at Frequencies above 1 GHz 1900 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 91.031 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 18.6 W/kg

SAR(1 g) = 13.35 W/kg; SAR(10 g) = 6.51 W/kg

Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.7 W/kg = 11.67 dBW/kg

SYSTEM CHECKING SCANS

2450MHz Flat

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D1800V2 - SN:738

Procedure Name: System Performance Check at 2450 MHz

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.965$ S/m; $\epsilon_r = 52.002$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013;
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn546; Calibrated: 2013/8/13
- Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

System Performance Check at Frequencies above 1 GHz 2450 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 14.9 W/kg

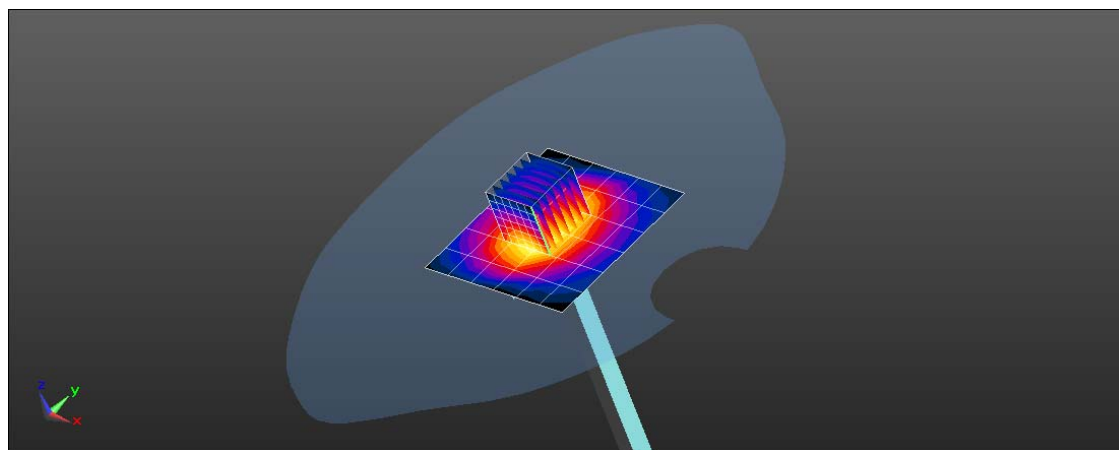
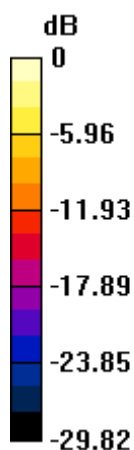
System Performance Check at Frequencies above 1 GHz 2450 body/d=10mm, Pin=250mW, dist=2.0mm (EX-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.138 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 26.0 W/kg

SAR(1 g) = 12.56 W/kg; SAR(10 g) = 5.66 W/kg

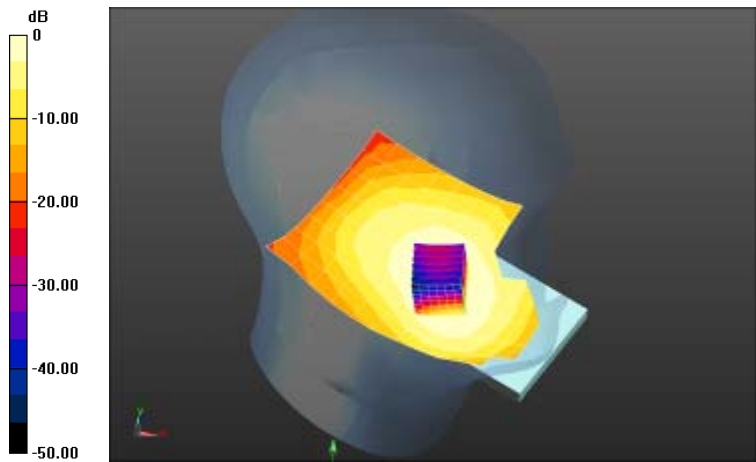
Maximum value of SAR (measured) = 18.5 W/kg



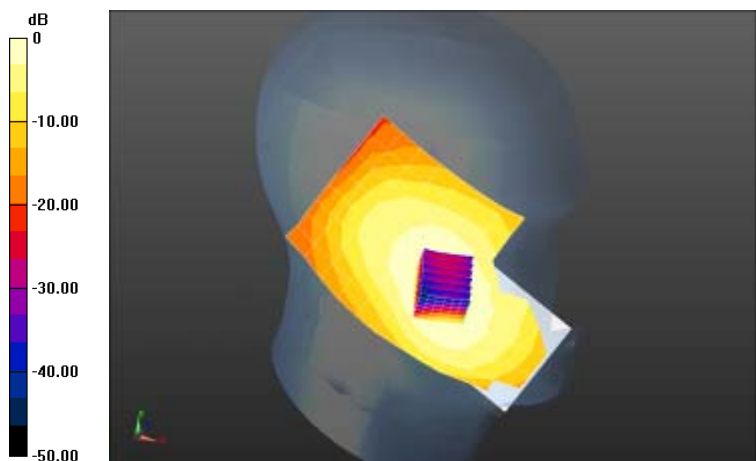
0 dB = 18.5 W/kg = 12.67 dBW/kg

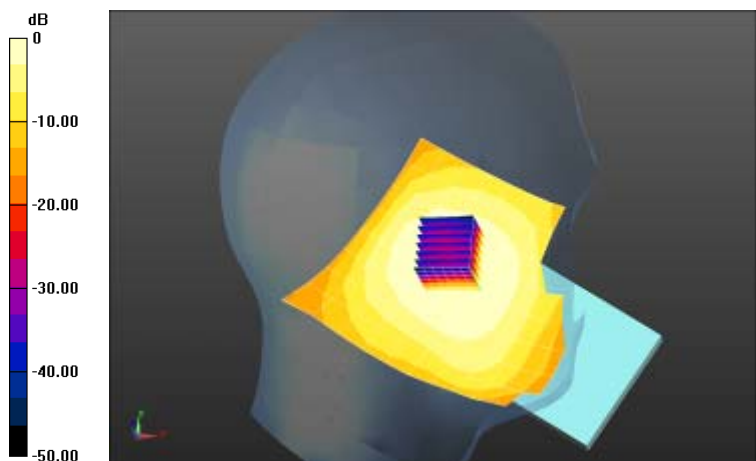
APPENDIX B: MEASUREMENT SCANS

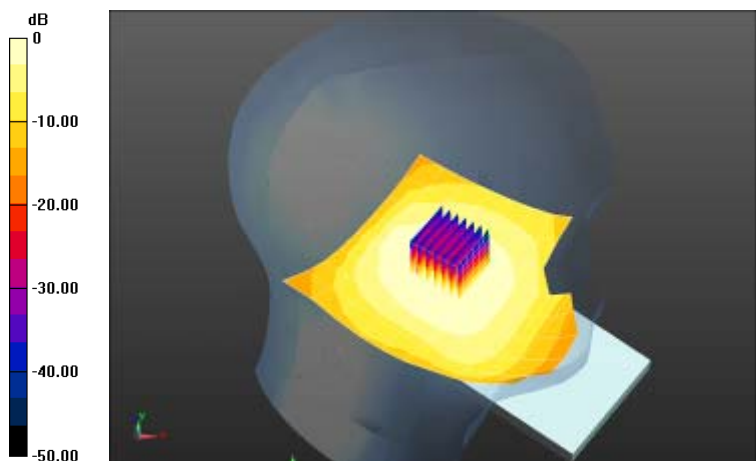
GSM (850MHz/Head)

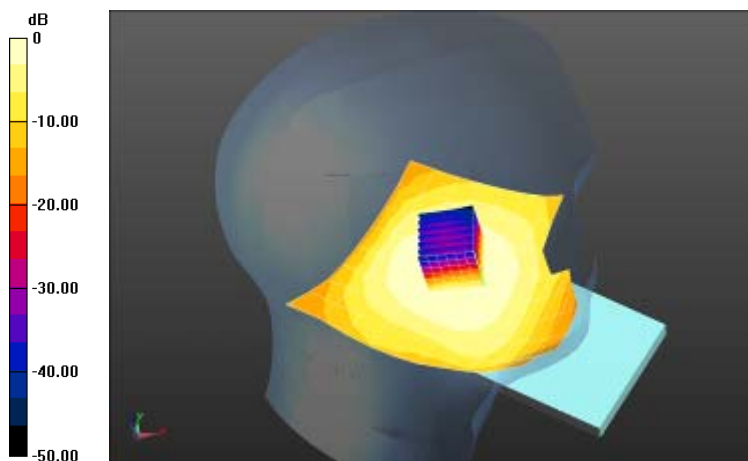
Left Side	Cheek	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2 \text{ MHz}$; $\sigma = 0.968 \text{ S/m}$; $\epsilon_r = 42.187$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl touch L/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.321 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.514 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.388 W/kg SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.223 W/kg Maximum value of SAR (measured) = 0.319 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.321 W/kg = -4.93 dBW/kg</p>		

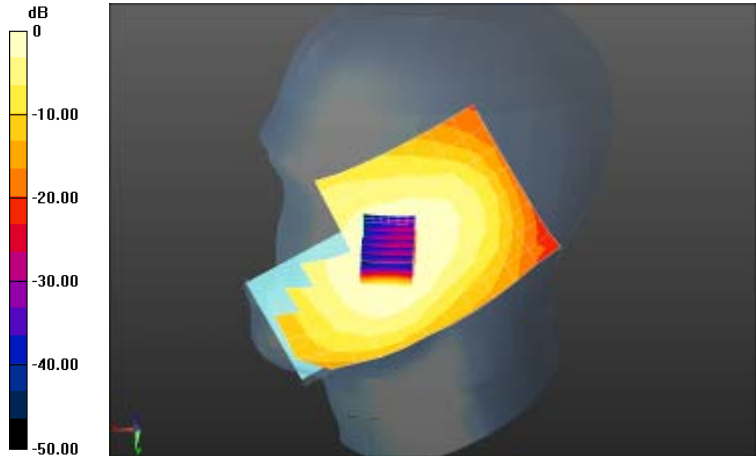
Left Side	Cheek	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ S/m}$; $\epsilon_r = 42.097$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl touch M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.322 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.244 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.382 W/kg SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.220 W/kg Maximum value of SAR (measured) = 0.314 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> <p>0 -10.00 -20.00 -30.00 -40.00 -50.00</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.322 W/kg = -4.93 dBW/kg</p>		

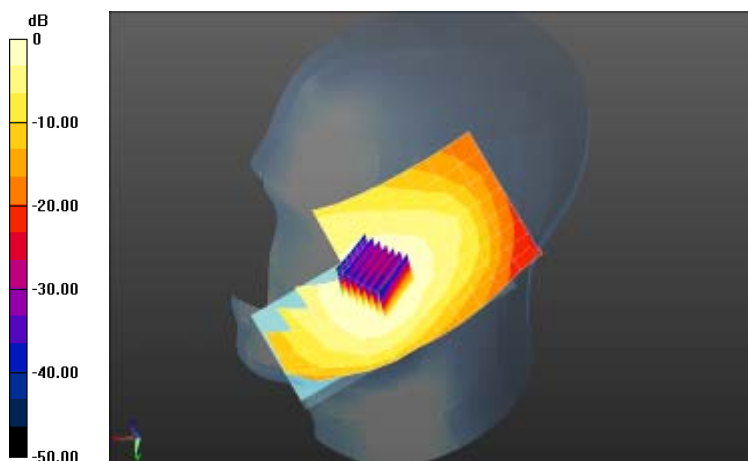
Left Side	Cheek	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.992 \text{ S/m}$; $\epsilon_r = 42.009$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl touch H/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.321 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.076 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.389 W/kg SAR(1 g) = 0.305 W/kg; SAR(10 g) = 0.224 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.321 W/kg = -4.93 dBW/kg</p>		

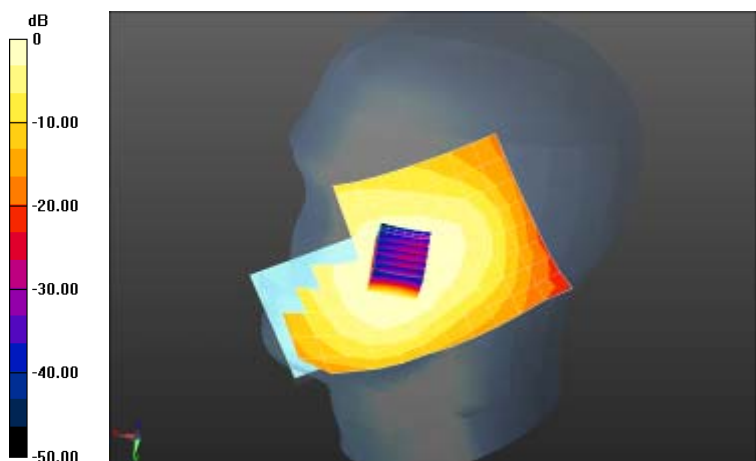
Left Side	Tilt	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2 \text{ MHz}$; $\sigma = 0.968 \text{ S/m}$; $\epsilon_r = 42.187$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl tilt L/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.226 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 13.042 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.267 W/kg SAR(1 g) = 0.219 W/kg; SAR(10 g) = 0.167 W/kg Maximum value of SAR (measured) = 0.229 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.226 W/kg = -6.46 dBW/kg</p>		

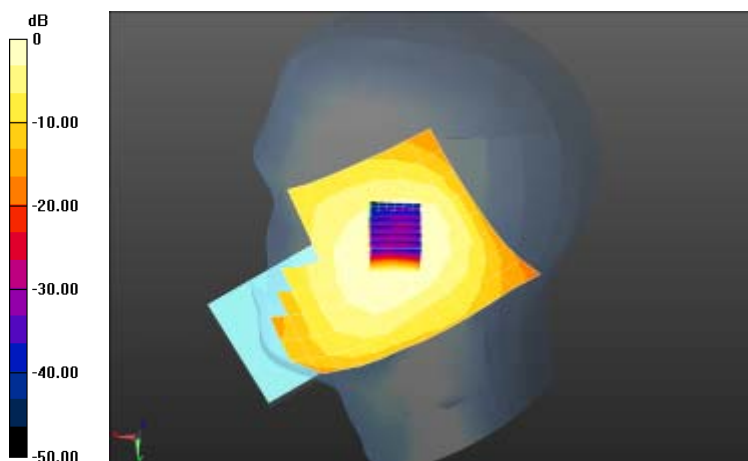
Left Side	Tilt	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz;Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 42.097$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.228 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.868 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 0.283 W/kg SAR(1 g) = 0.228 W/kg; SAR(10 g) = 0.172 W/kg. Maximum value of SAR (measured) = 0.239 W/kg</p> <div style="display: flex; align-items: center;">  </div>		

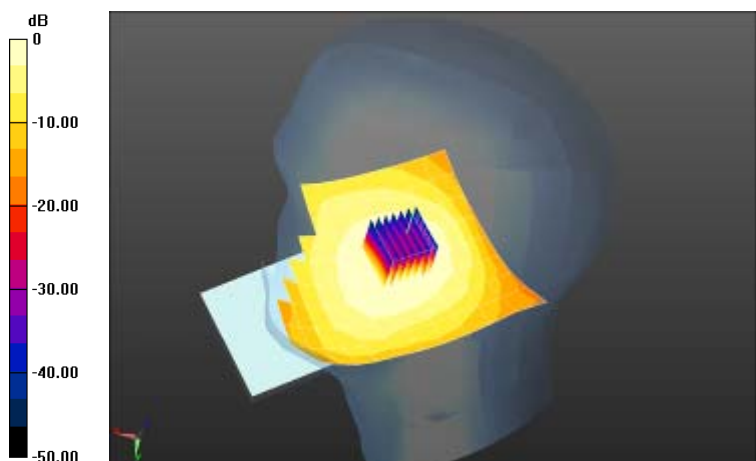
Left Side	Tilt	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.992 \text{ S/m}$; $\epsilon_r = 42.009$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 850/850GSM Hsl tilt H/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.222 W/kg</p> <p>Head-Section Left HSL 850/850GSM Hsl tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.871 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.266 W/kg SAR(1 g) = 0.215 W/kg; SAR(10 g) = 0.163 W/kg Maximum value of SAR (measured) = 0.226 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.222 W/kg = -6.53 dBW/kg</p>		

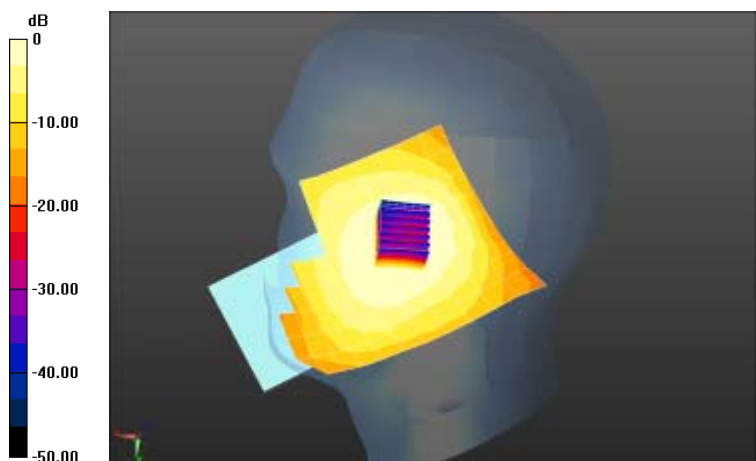
Right Side	Cheek	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 42.187$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/850GSM HSL touch L/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.283 W/kg</p> <p>Head-Section Right HSL 850/850GSM HSL touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 11.075 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.329 W/kg SAR(1 g) = 0.274 W/kg; SAR(10 g) = 0.213 W/kg Maximum value of SAR (measured) = 0.289 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.283 W/kg = -5.49 dBW/kg</p>		

Right Side	Cheek	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.98 \text{ S/m}$; $\epsilon_r = 42.097$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/850GSM HSL touch M/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.280 W/kg</p> <p>Head-Section Right HSL 850/850GSM HSL touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 8.175 V/m; Power Drift = 0.15 dB Peak SAR (extrapolated) = 0.313 W/kg SAR(1 g) = 0.259 W/kg; SAR(10 g) = 0.198 W/kg Maximum value of SAR (measured) = 0.273 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.280 W/kg = -5.53 dBW/kg</p>		

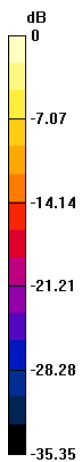
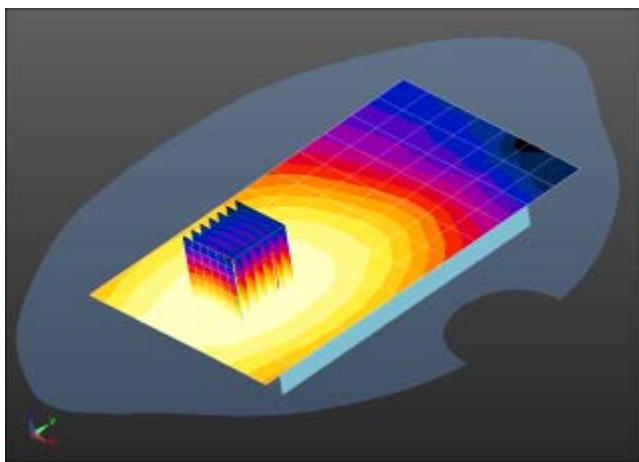
Right Side	Cheek	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.992 \text{ S/m}$; $\epsilon_r = 42.009$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/850GSM HSL touch H/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.240 W/kg</p> <p>Head-Section Right HSL 850/850GSM HSL touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 9.722 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.284 W/kg SAR(1 g) = 0.233 W/kg; SAR(10 g) = 0.179 W/kg Maximum value of SAR (measured) = 0.244 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.240 W/kg = -6.20 dBW/kg</p>		

Right Side	Tilt	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.968$ S/m; $\epsilon_r = 42.187$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/900GSM HSL tilt L/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.247 W/kg</p> <p>Head-Section Right HSL 850/900GSM HSL tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.843 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.283 W/kg SAR(1 g) = 0.230 W/kg; SAR(10 g) = 0.174 W/kg Maximum value of SAR (measured) = 0.241 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.247 W/kg = -6.07 dBW/kg</p>		

Right Side	Tilt	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 42.097$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/850GSM HSL tilt M/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.231 W/kg</p> <p>Head-Section Right HSL 850/850GSM HSL tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.401 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.279 W/kg SAR(1 g) = 0.223 W/kg; SAR(10 g) = 0.168 W/kg Maximum value of SAR (measured) = 0.234 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.231 W/kg = -6.37 dBW/kg</p>		

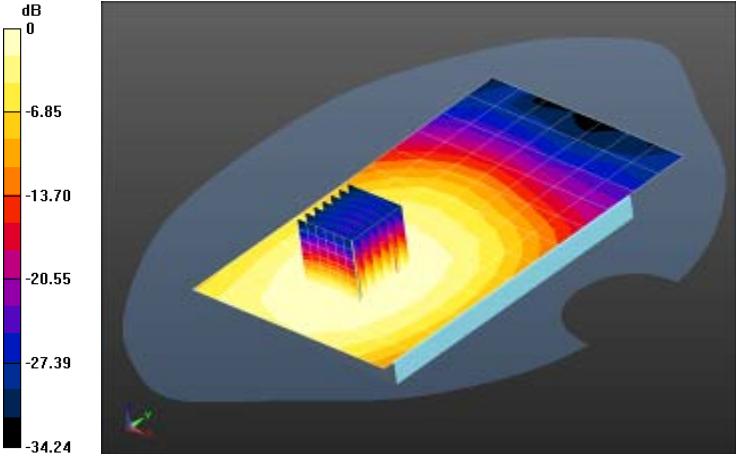
Right Side	Tilt	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.992 \text{ S/m}$; $\epsilon_r = 42.009$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 850/900GSM HSL tilt H/Area Scan (9x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.201 W/kg</p> <p>Head-Section Right HSL 850/900GSM HSL tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.547 V/m; Power Drift = 0.09 dB Peak SAR (extrapolated) = 0.243 W/kg SAR(1 g) = 0.196 W/kg; SAR(10 g) = 0.147 W/kg Maximum value of SAR (measured) = 0.207 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.201 W/kg = -6.97 dBW/kg</p>		

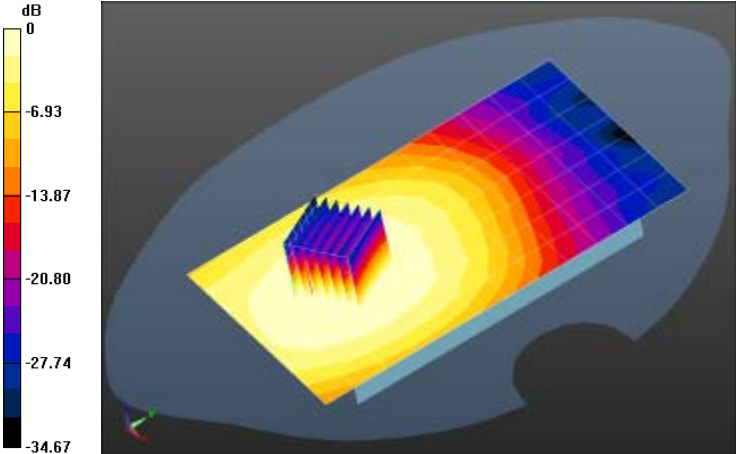
GSM with headset (850MHz/Flat)

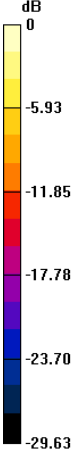
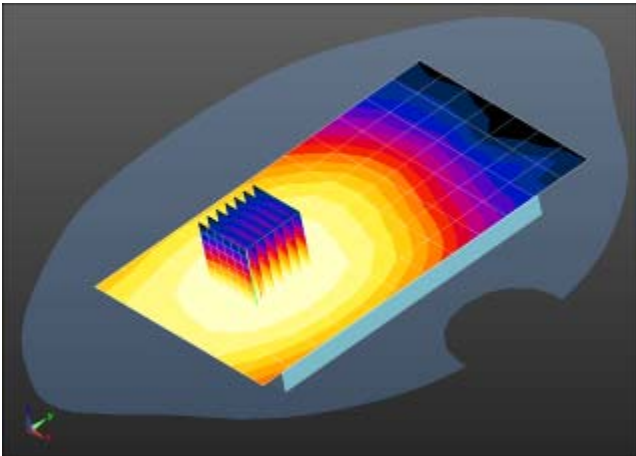
FLAT	Towards ground	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GSM TG L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.439 W/kg</p> <p>Flat-Section MSL 850 TG/850GSM TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.446 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.528 W/kg SAR(1 g) = 0.425 W/kg; SAR(10 g) = 0.326 W/kg Maximum value of SAR (measured) = 0.446 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.439 W/kg = -3.57 dBW/kg</p>		

FLAT	Towards ground	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.979 \text{ S/m}$; $\epsilon_r = 53.843$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GSM TG M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$. Maximum value of SAR (measured) = 0.433 W/kg</p> <p>Flat-Section MSL 850 TG/850GSM TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 13.320 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.521 W/kg SAR(1 g) = 0.420 W/kg; SAR(10 g) = 0.322 W/kg Maximum value of SAR (measured) = 0.439 W/kg</p> <div style="display: flex; align-items: center;"> <div data-bbox="427 1288 502 1742" style="margin-right: 10px;"> <p style="text-align: center;">dB</p> </div> <div data-bbox="525 1288 1165 1742"> </div> </div> <p style="text-align: center;">0 dB = 0.433 W/kg = -3.64 dBW/kg</p>		

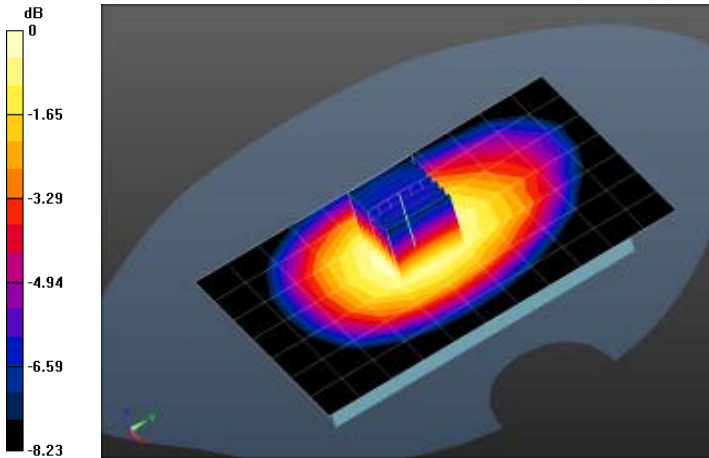
FLAT	Towards ground	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6$ MHz; $\sigma = 0.991$ S/m; $\epsilon_r = 53.817$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GSM TG H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.382 W/kg</p> <p>Flat-Section MSL 850 TG/850GSM TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.877 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.461 W/kg SAR(1 g) = 0.368 W/kg; SAR(10 g) = 0.280 W/kg Maximum value of SAR (measured) = 0.384 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.382 W/kg = -4.18 dBW/kg</p>		

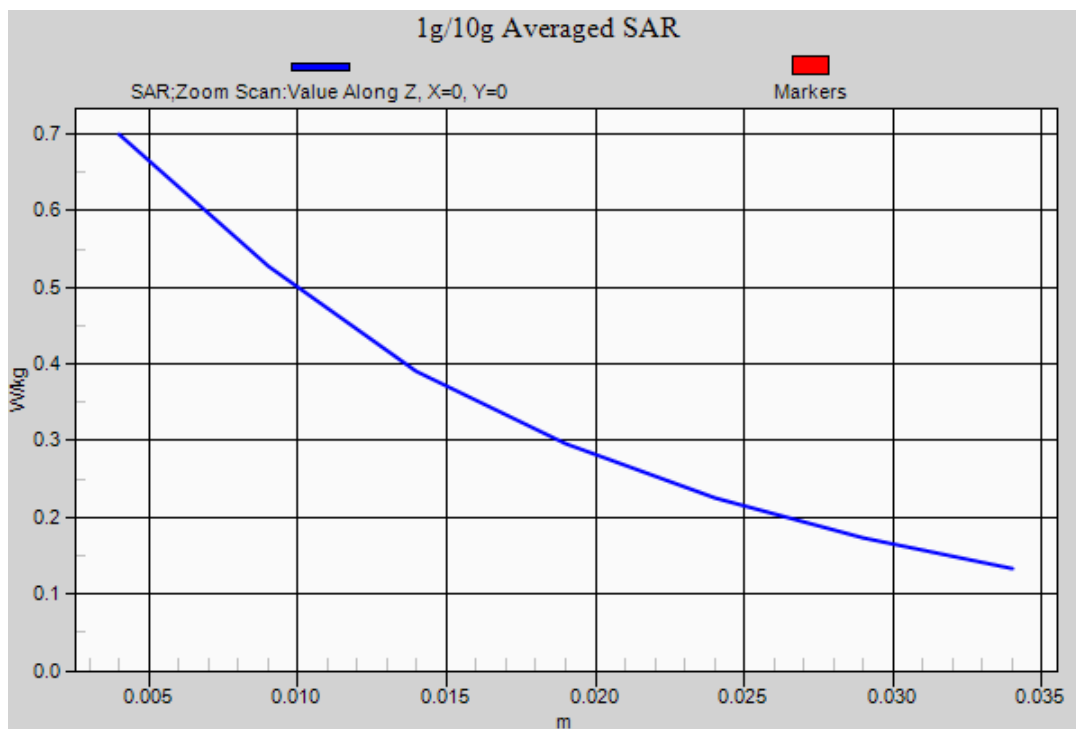
FLAT	Towards phantom	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GSM TP L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm. Maximum value of SAR (measured) = 0.346 W/kg</p> <p>Flat-Section MSL 850 TP/850GSM TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.208 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.405 W/kg SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.258 W/kg Maximum value of SAR (measured) = 0.347 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.346 W/kg = -4.61 dBW/kg</p>		

FLAT	Towards phantom	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.979 \text{ S/m}$; $\epsilon_r = 53.843$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GSM TP M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.333 W/kg</p> <p>Flat-Section MSL 850 TP/850GSM TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 13.147 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.395 W/kg SAR(1 g) = 0.318 W/kg; SAR(10 g) = 0.246 W/kg Maximum value of SAR (measured) = 0.332 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.333 W/kg = -4.78 dBW/kg</p>		

FLAT	Towards phantom	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.991 \text{ S/m}$; $\epsilon_r = 53.817$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GSM TP H/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.288 W/kg</p> <p>Flat-Section MSL 850 TP/850GSM TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 12.572 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.349 W/kg SAR(1 g) = 0.280 W/kg; SAR(10 g) = 0.216 W/kg Maximum value of SAR (measured) = 0.292 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.288 W/kg = -5.41 dBW/kg</p>		

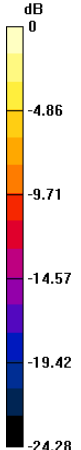
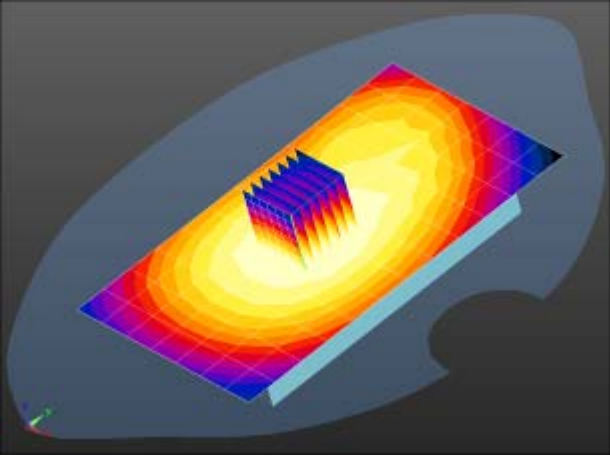
GSM (850MHz with GPRS/Flat)

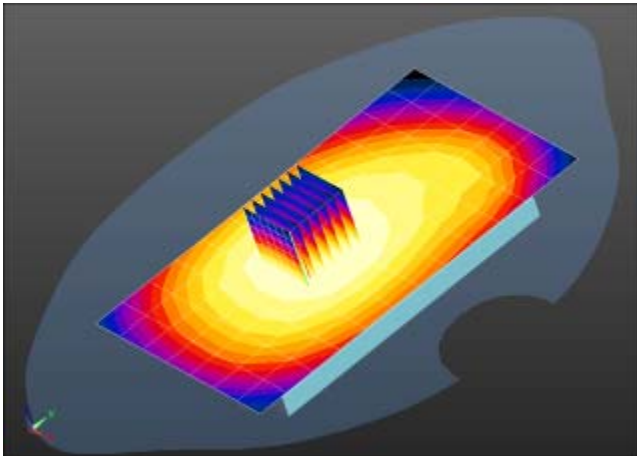
FLAT	Towards ground	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GPRS TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.836 W/kg</p> <p>Flat-Section MSL 850 TG/850GPRS TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 29.671 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.998 W/kg SAR(1 g) = 0.788 W/kg; SAR(10 g) = 0.595 W/kg Maximum value of SAR (measured) = 0.827 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.827 W/kg = -0.82 dBW/kg</p>		

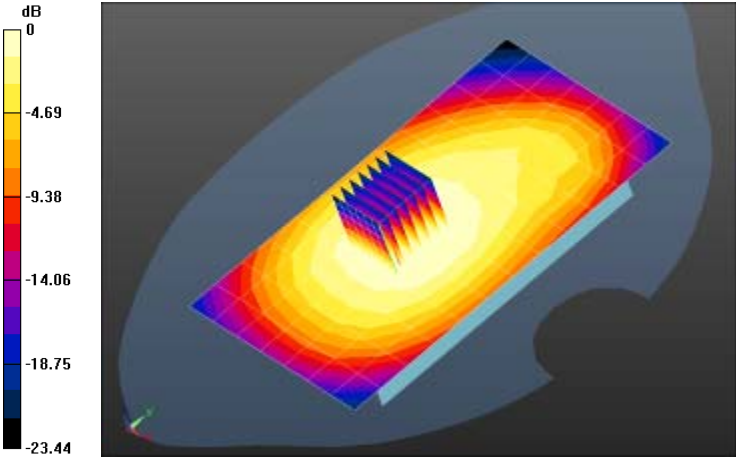


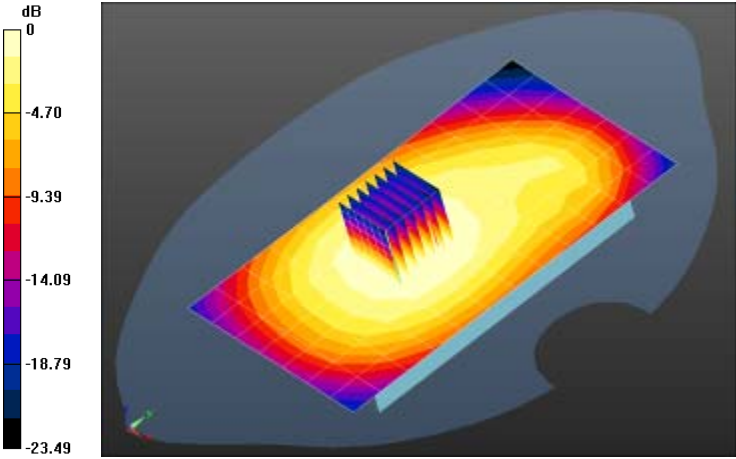
Z-Scan at power reference point (GPRS CH128)

FLAT	Towards ground	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 836.6$ MHz; $\sigma = 0.979$ S/m; $\epsilon_r = 53.843$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GPRS TG M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.788 W/kg</p> <p>Flat-Section MSL 850 TG/850GPRS TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 28.479 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.950 W/kg SAR(1 g) = 0.745 W/kg; SAR(10 g) = 0.561 W/kg Maximum value of SAR (measured) = 0.784 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.788 W/kg = -1.03 dBW/kg</p>		

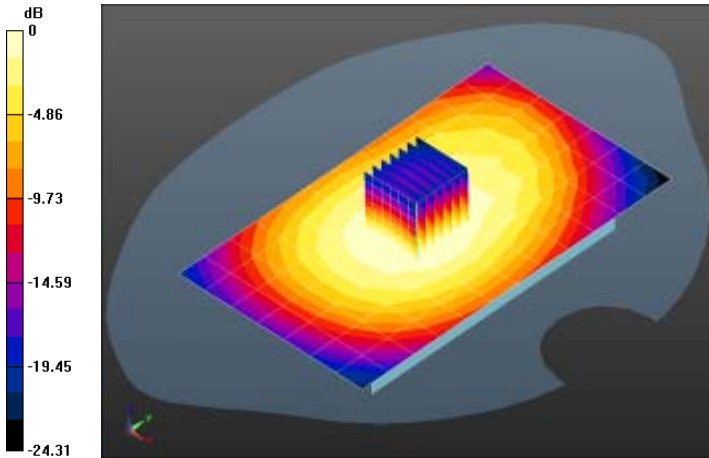
FLAT	Towards ground	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 848.6$ MHz; $\sigma = 0.991$ S/m; $\epsilon_r = 53.817$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850GPRS TG H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.647 W/kg</p> <p>Flat-Section MSL 850 TG/850GPRS TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 25.886 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.802 W/kg SAR(1 g) = 0.629 W/kg; SAR(10 g) = 0.472 W/kg Maximum value of SAR (measured) = 0.660 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.647 W/kg = -1.89 dBW/kg</p>		

FLAT	Towards phantom	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GPRS TP L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.567 W/kg</p> <p>Flat-Section MSL 850 TP/850GPRS TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 24.176 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.677 W/kg SAR(1 g) = 0.544 W/kg; SAR(10 g) = 0.418 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> <p>0</p> <p>-4.49</p> <p>-8.97</p> <p>-13.46</p> <p>-17.95</p> <p>-22.43</p> </div>  </div> <p style="text-align: center;">0 dB = 0.567 W/kg = -2.47 dBW/kg</p>		

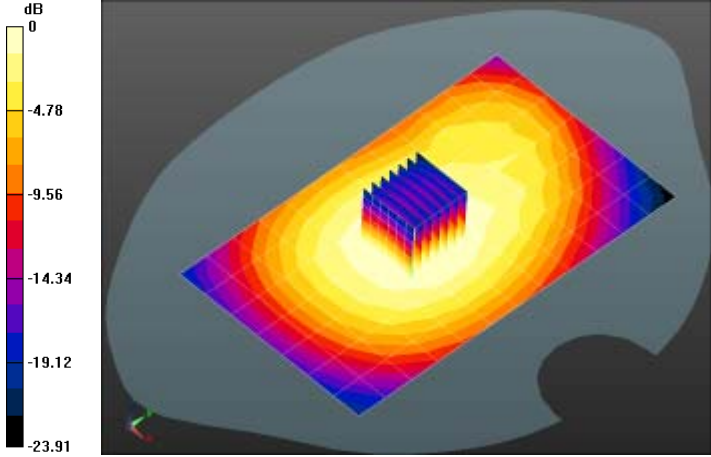
FLAT	Towards phantom	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.979 \text{ S/m}$; $\epsilon_r = 53.843$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GPRS TP M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.527 W/kg</p> <p>Flat-Section MSL 850 TP/850GPRS TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 22.889 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.628 W/kg SAR(1 g) = 0.500 W/kg; SAR(10 g) = 0.384 W/kg Maximum value of SAR (measured) = 0.524 W/kg</p> <div style="text-align: center;">  <p>0 dB = 0.527 W/kg = -2.79 dBW/kg</p> </div>		

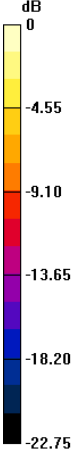
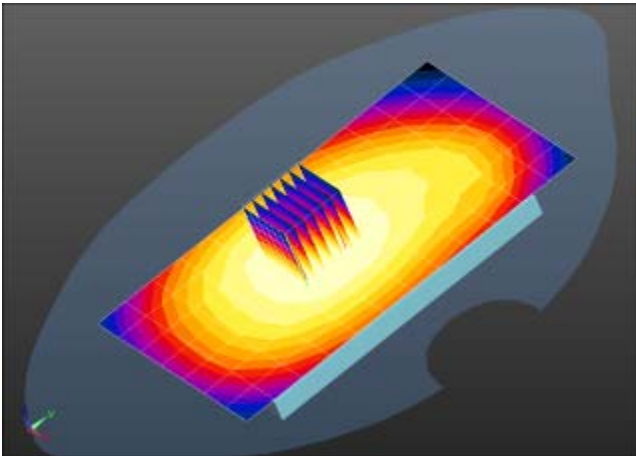
FLAT	Towards phantom	836.4 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.991 \text{ S/m}$; $\epsilon_r = 53.817$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850GPRS TP H/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.456 W/kg</p> <p>Flat-Section MSL 850 TP/850GPRS TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 21.224 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.552 W/kg SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.334 W/kg Maximum value of SAR (measured) = 0.459 W/kg</p> <div style="text-align: center;">  <p>0 dB = 0.456 W/kg = -3.41 dBW/kg</p> </div>		

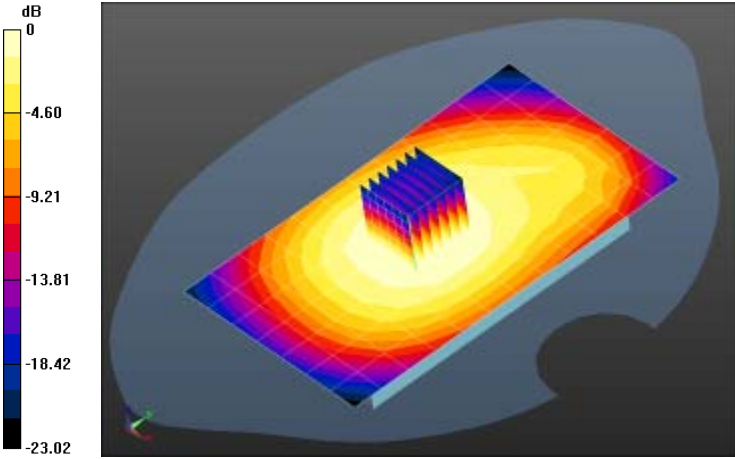
GSM (850MHz with EGPRS/Flat)

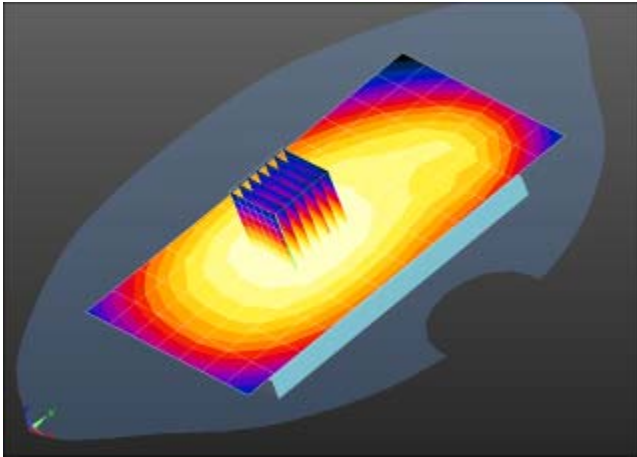
FLAT	Towards ground	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850EDGE TG L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.809 W/kg</p> <p>Flat-Section MSL 850 TG/850EDGE TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 29.216 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.970 W/kg SAR(1 g) = 0.770 W/kg; SAR(10 g) = 0.581 W/kg Maximum value of SAR (measured) = 0.811 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.809 W/kg = -0.92 dBW/kg</p>		

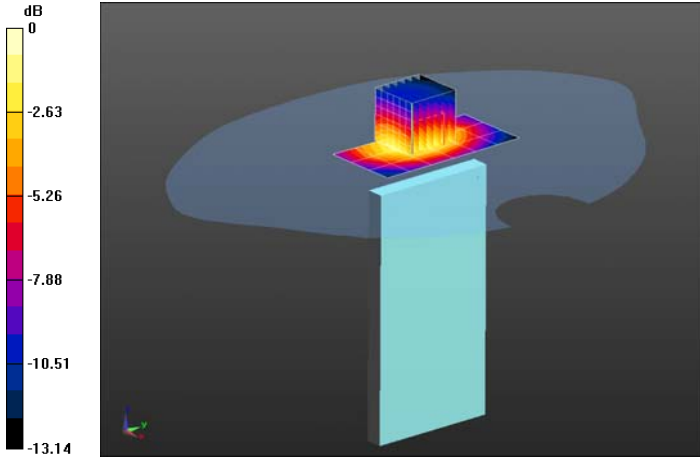
FLAT	Towards ground	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 836.6$ MHz; $\sigma = 0.979$ S/m; $\epsilon_r = 53.843$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850EDGE TG M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.758 W/kg</p> <p>Flat-Section MSL 850 TG/850EDGE TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 28.007 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.916 W/kg SAR(1 g) = 0.722 W/kg; SAR(10 g) = 0.546 W/kg Maximum value of SAR (measured) = 0.759 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.758 W/kg = -1.20 dBW/kg</p>		

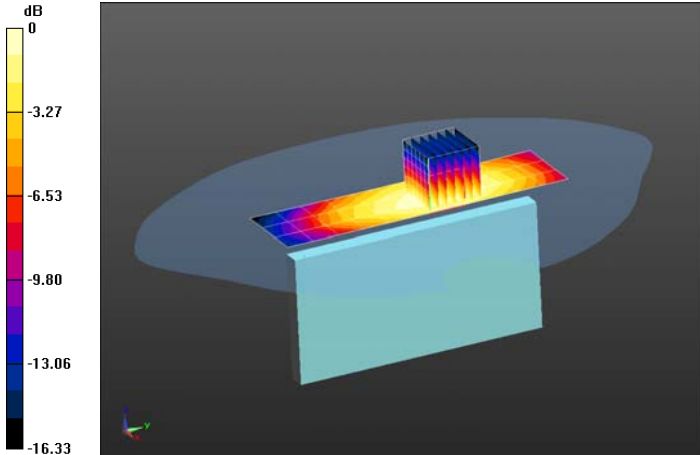
FLAT	Towards ground	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 848.6$ MHz; $\sigma = 0.991$ S/m; $\epsilon_r = 53.817$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TG/850EDGE TG H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.657 W/kg</p> <p>Flat-Section MSL 850 TG/850EDGE TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 25.855 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.804 W/kg SAR(1 g) = 0.630 W/kg; SAR(10 g) = 0.475 W/kg Maximum value of SAR (measured) = 0.662 W/kg</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>0 dB = 0.657 W/kg = -1.83 dBW/kg</p> </div> </div>		

FLAT	Towards phantom	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2 \text{ MHz}$; $\sigma = 0.967 \text{ S/m}$; $\epsilon_r = 53.87$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850EDGE TP L/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.563 W/kg</p> <p>Flat-Section MSL 850 TP/850EDGE TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 23.925 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.667 W/kg SAR(1 g) = 0.537 W/kg; SAR(10 g) = 0.413 W/kg.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.563 W/kg = -2.49 dBW/kg</p>		

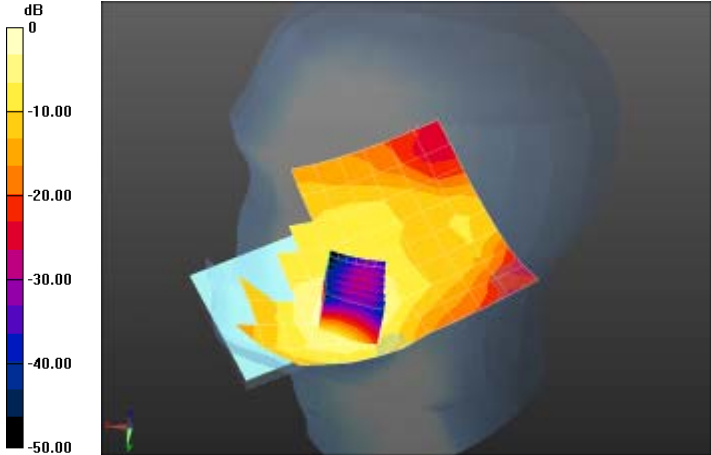
FLAT	Towards phantom	836.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 836.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 836.6 \text{ MHz}$; $\sigma = 0.979 \text{ S/m}$; $\epsilon_r = 53.843$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850EDGE TP M/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.544 W/kg</p> <p>Flat-Section MSL 850 TP/850EDGE TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 23.539 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.643 W/kg SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.393 W/kg Maximum value of SAR (measured) = 0.538 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.544 W/kg = -2.65 dBW/kg</p>		

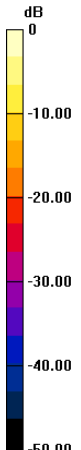
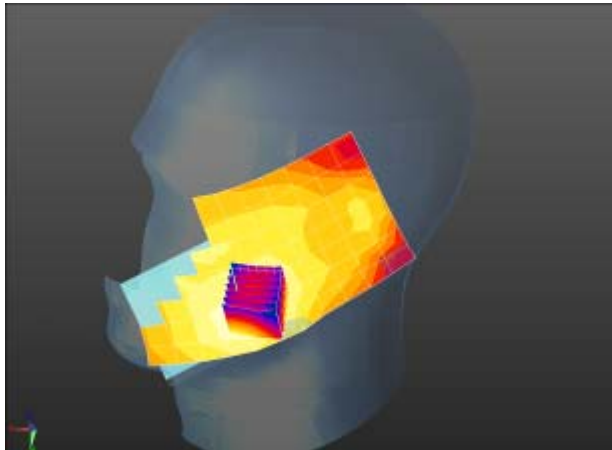
FLAT	Towards phantom	848.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 848.6 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 848.6 \text{ MHz}$; $\sigma = 0.991 \text{ S/m}$; $\epsilon_r = 53.817$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 850 TP/850EDGE TP H/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.459 W/kg</p> <p>Flat-Section MSL 850 TP/850EDGE TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 20.981 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.551 W/kg SAR(1 g) = 0.440 W/kg; SAR(10 g) = 0.336 W/kg Maximum value of SAR (measured) = 0.460 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> <p>0</p> <p>-4.72</p> <p>-9.44</p> <p>-14.16</p> <p>-18.88</p> <p>-23.60</p> </div>  </div> <p style="text-align: center;">0 dB = 0.459 W/kg = -3.38 dBW/kg</p>		

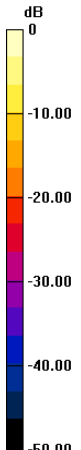
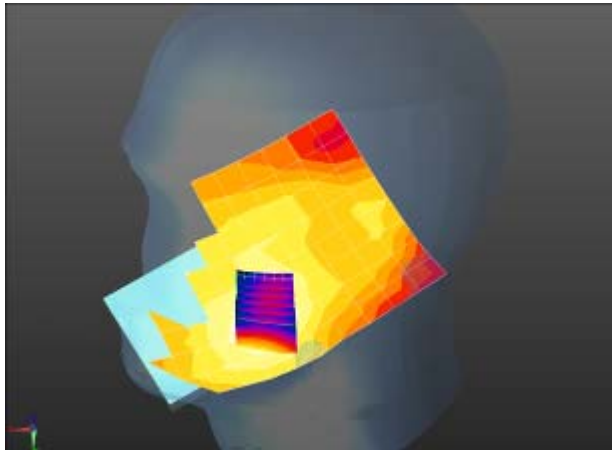
FLAT	Edge2	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz;Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>hotspot/850GPRS edge4 L 2/Area Scan (4x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.280 W/kg</p> <p>hotspot/850GPRS edge4 L 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 14.424 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.441 W/kg SAR(1 g) = 0.257 W/kg; SAR(10 g) = 0.154 W/kg Maximum value of SAR (measured) = 0.278 W/kg</p>		
<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>0 dB = 0.280 W/kg = -5.53 dBW/kg</p> </div> </div>		

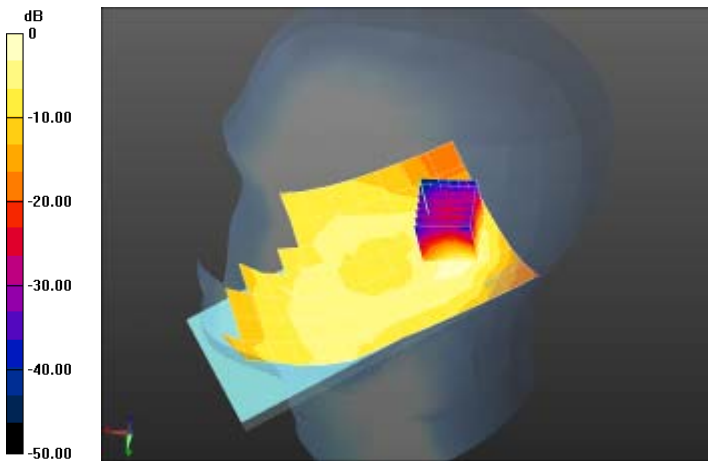
FLAT	Edge4	824.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 824.2 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 824.2$ MHz; $\sigma = 0.967$ S/m; $\epsilon_r = 53.87$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>hotspot/850GPRS edge2 L/Area Scan (4x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.705 W/kg hotspot/850GPRS edge2 L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 26.793 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 1.03 W/kg SAR(1 g) = 0.703 W/kg; SAR(10 g) = 0.477 W/kg Maximum value of SAR (measured) = 0.757 W/kg</p>		
<div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.705 W/kg = -1.52 dBW/kg</p>		

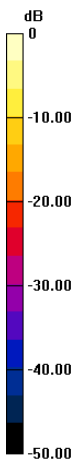
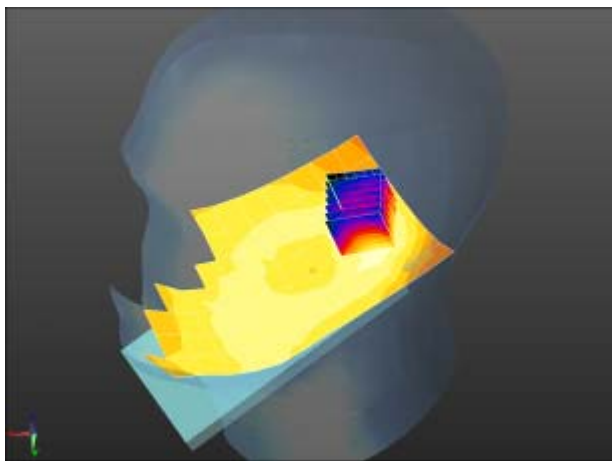
GSM (1900MHz/Head)

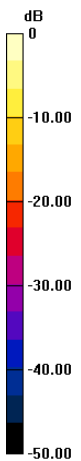
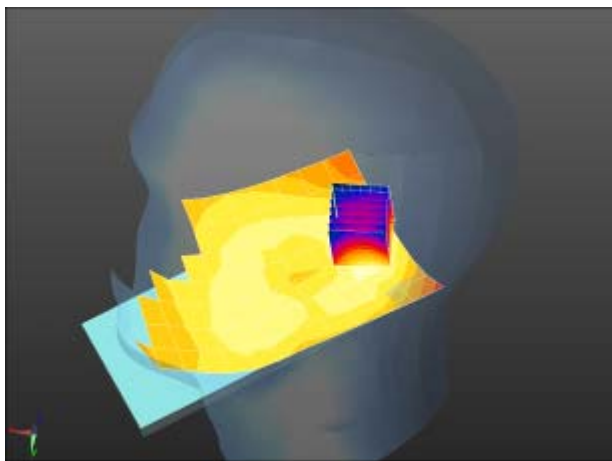
Right Side	Cheek	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.42 \text{ S/m}$; $\epsilon_r = 39.87$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL 1900/1900GSM touch L/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.183 W/kg</p> <p>Head-Section Right HSL 1900/1900GSM touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.232 V/m; Power Drift = 0.12 dB Peak SAR (extrapolated) = 0.269 W/kg SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.097 W/kg Maximum value of SAR (measured) = 0.180 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.183 W/kg = -7.38 dBW/kg</p>		

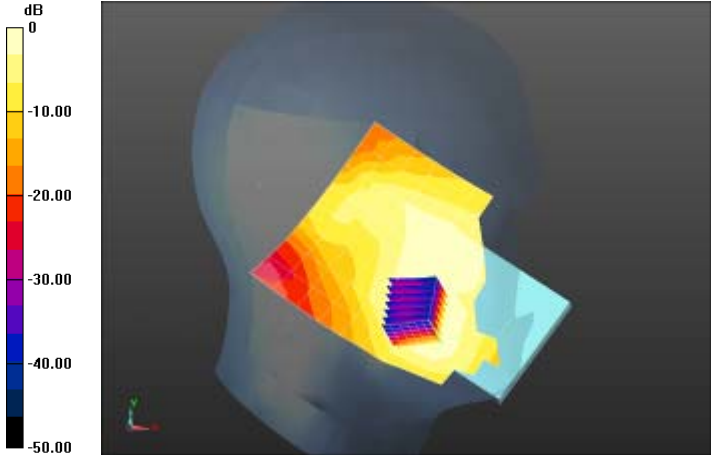
Right Side	Cheek	1880.0 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL 1900/1900GSM touch M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.185 W/kg</p>		
<p>Head-Section Right HSL 1900/1900GSM touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.260 V/m; Power Drift = -0.11 dB Peak SAR (extrapolated) = 0.318 W/kg SAR(1 g) = 0.198 W/kg; SAR(10 g) = 0.117 W/kg Maximum value of SAR (measured) = 0.215 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.185 W/kg = -7.33 dBW/kg</p>		

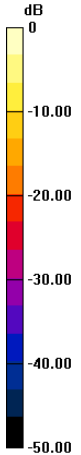
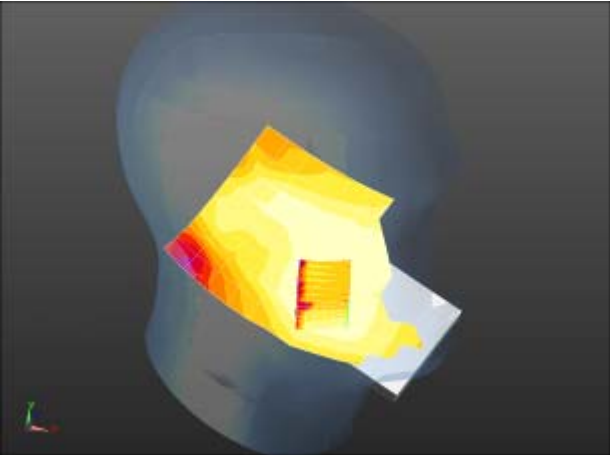
Right Side	Cheek	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.48 \text{ S/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL 1900/1900GSM touch H/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.228 W/kg</p>		
<p>Head-Section Right HSL 1900/1900GSM touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.179 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.354 W/kg SAR(1 g) = 0.212 W/kg; SAR(10 g) = 0.120 W/kg Maximum value of SAR (measured) = 0.240 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.228 W/kg = -6.42 dBW/kg</p>		

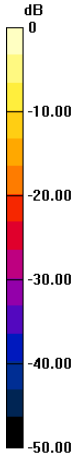
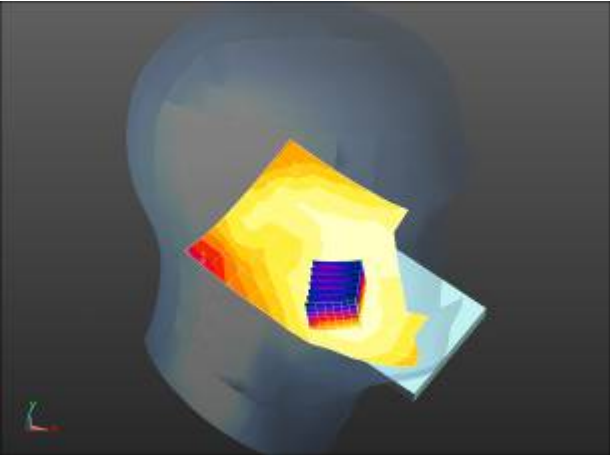
Right Side	tilt	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.42 \text{ S/m}$; $\epsilon_r = 39.87$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL 1900/1900GSM tilt L/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0469 W/kg</p>		
<p>Head-Section Right HSL 1900/1900GSM tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.346 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.0830 W/kg SAR(1 g) = 0.048 W/kg; SAR(10 g) = 0.026 W/kg Maximum value of SAR (measured) = 0.0526 W/kg</p>		
<div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0469 W/kg = -13.29 dBW/kg</p>		

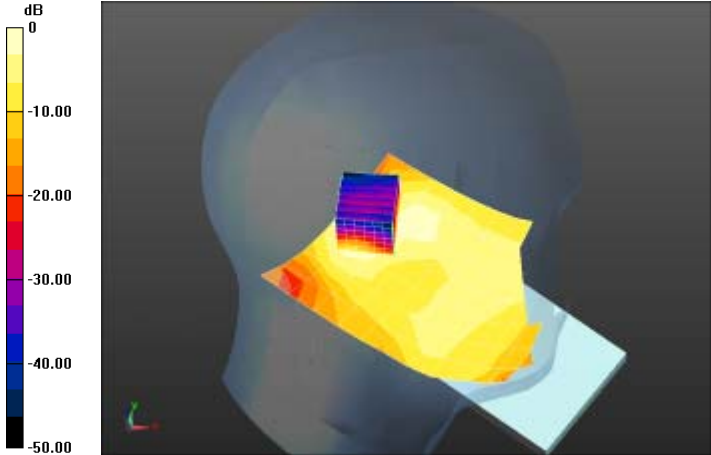
Right Side	tilt	1880.0 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8 Medium parameters used: f = 1880 MHz; $\sigma = 1.45$ S/m; $\epsilon_r = 39.74$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL 1900/1900GSM tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0507 W/kg</p>		
<p>Head-Section Right HSL 1900/1900GSM tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.488 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 0.0940 W/kg SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.029 W/kg Maximum value of SAR (measured) = 0.0597 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0507 W/kg = -12.95 dBW/kg</p>		

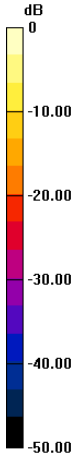
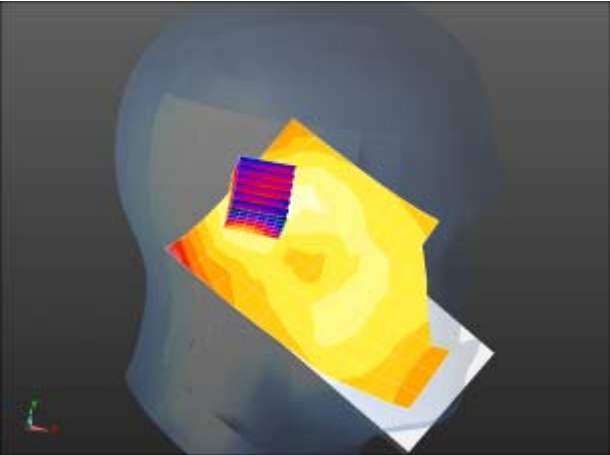
Right Side	tilt	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.48 \text{ S/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL 1900/1900GSM tilt H/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0875 W/kg</p>		
<p>Head-Section Right HSL 1900/1900GSM tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.863 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.138 W/kg SAR(1 g) = 0.080 W/kg; SAR(10 g) = 0.043 W/kg Maximum value of SAR (measured) = 0.0904 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0875 W/kg = -10.58 dBW/kg</p>		

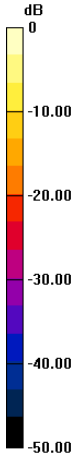
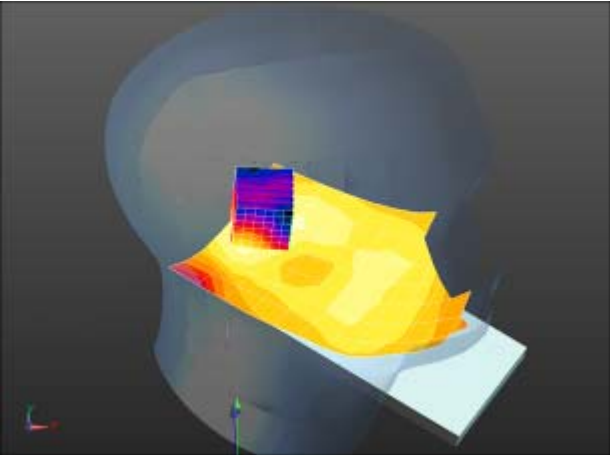
Left Side	Cheek	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.42 \text{ S/m}$; $\epsilon_r = 39.87$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 1900/1900GSM touch L/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0828 W/kg</p> <p>Head-Section Left HSL 1900/1900GSM touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.487 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.138 W/kg SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.050 W/kg Maximum value of SAR (measured) = 0.0921 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0828 W/kg = -10.82 dBW/kg</p>		

Left Side	Cheek	1880.0 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 1900/1900GSM touch M/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0748 W/kg</p> <p>Head-Section Left HSL 1900/1900GSM touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.312 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.222 W/kg SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.050 W/kg Maximum value of SAR (measured) = 0.0828 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0748 W/kg = -11.26 dBW/kg</p>		

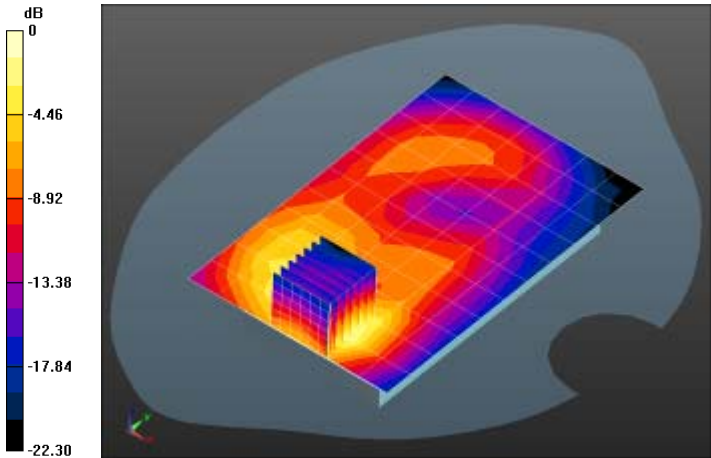
Left Side	Cheek	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.48 \text{ S/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 1900/1900GSM touch H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.104 W/kg</p> <p>Head-Section Left HSL 1900/1900GSM touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.228 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.159 W/kg SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.059 W/kg Maximum value of SAR (measured) = 0.107 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.104 W/kg = -9.83 dBW/kg</p>		

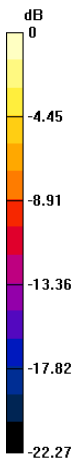
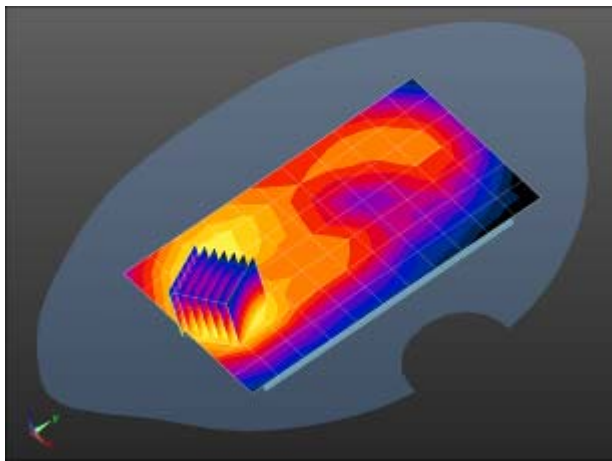
Left Side	tilt	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1850.2 \text{ MHz}$; $\sigma = 1.42 \text{ S/m}$; $\epsilon_r = 39.87$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 1900/1900GSM tilt L/Area Scan (8x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0458 W/kg</p> <p>Head-Section Left HSL 1900/1900GSM tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.882 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.0720 W/kg SAR(1 g) = 0.045 W/kg; SAR(10 g) = 0.025 W/kg Maximum value of SAR (measured) = 0.0493 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0458 W/kg = -13.39 dBW/kg</p>		

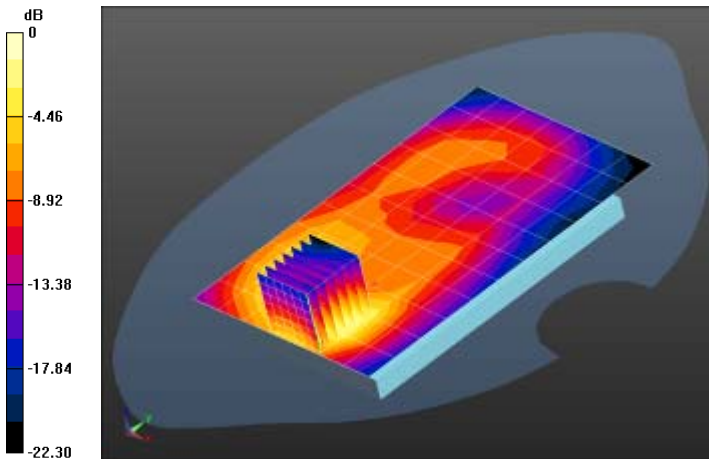
Left Side	tilt	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 1:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.45 \text{ S/m}$; $\epsilon_r = 39.74$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL 1900/1900GSM tilt M/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0607 W/kg</p> <p>Head-Section Left HSL 1900/1900GSM tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 2.829 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.0970 W/kg SAR(1 g) = 0.057 W/kg; SAR(10 g) = 0.032 W/kg Maximum value of SAR (measured) = 0.0633 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center;">0 dB = 0.0607 W/kg = -12.17 dBW/kg</p>		

Left Side	tilt	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8</p>		
<p>Medium parameters used: $f = 1909.8 \text{ MHz}$; $\sigma = 1.48 \text{ S/m}$; $\epsilon_r = 39.6$; $\rho = 1000 \text{ kg/m}^3$</p>		
<p>Phantom section: Left Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Left HSL 1900/1900GSM tilt H/Area Scan (8x13x1):</p>		
<p>Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$</p>		
<p>Maximum value of SAR (measured) = 0.0676 W/kg</p>		
<p>Head-Section Left HSL 1900/1900GSM tilt H/Zoom Scan (7x7x7)/Cube 0:</p>		
<p>Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$</p>		
<p>Reference Value = 2.478 V/m; Power Drift = 0.07 dB</p>		
<p>Peak SAR (extrapolated) = 0.106 W/kg</p>		
<p>SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.033 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center; margin-top: 10px;">0 dB = 0.0676 W/kg = -11.70 dBW/kg</p>		

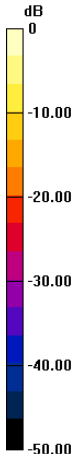
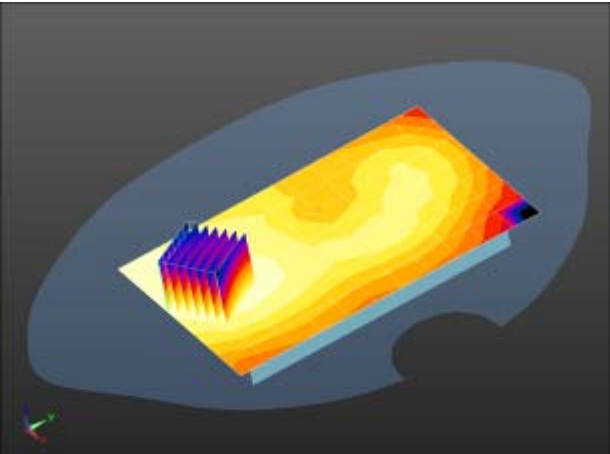
GSM with headset (1900MHz/Flat)

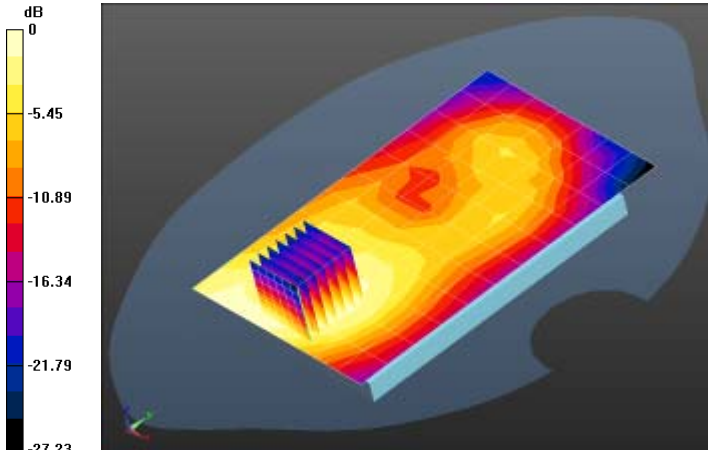
FLAT	Towards ground	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz;Duty Cycle: 1:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900GSM TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.256 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GSM TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.044 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.408 W/kg SAR(1 g) = 0.227 W/kg; SAR(10 g) = 0.117 W/kg Maximum value of SAR (measured) = 0.255 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.256 W/kg = -5.91 dBW/kg</p>		

FLAT	Towards ground	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.611 \text{ S/m}$; $\epsilon_r = 52.016$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TG/1900GSM TG M/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.249 W/kg</p>		
<p>Flat-Section MSL 1900 TG/1900GSM TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.068 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.446 W/kg SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.124 W/kg Maximum value of SAR (measured) = 0.275 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.249 W/kg = -6.05 dBW/kg</p>		

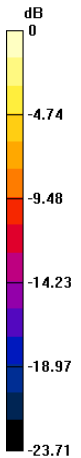
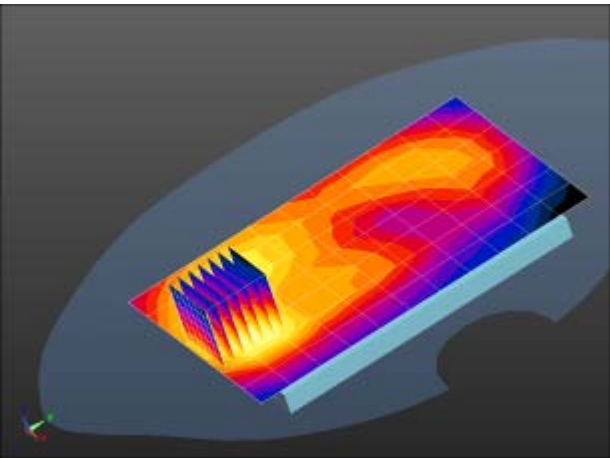
FLAT	Towards ground	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$</p> <p>Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900GSM TG H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.282 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GSM TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 4.574 V/m; Power Drift = -0.02 dB Peak SAR (extrapolated) = 0.463 W/kg SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.128 W/kg Maximum value of SAR (measured) = 0.286 W/kg</p>		
		
<p>0 dB = 0.282 W/kg = -5.49 dBW/kg</p>		

FLAT	Towards phantom	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 1:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³</p>		
<p>Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900GSM TP L/Area Scan (8x12x1):</p>		
<p>Measurement grid: dx=15mm, dy=15mm</p>		
<p>Maximum value of SAR (measured) = 0.125 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900GSM TP L/Zoom Scan (7x7x7)/Cube 0:</p>		
<p>Measurement grid: dx=5mm, dy=5mm, dz=5mm</p>		
<p>Reference Value = 3.435 V/m; Power Drift = -0.04 dB</p>		
<p>Peak SAR (extrapolated) = 0.212 W/kg</p>		
<p>SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.068 W/kg</p>		
<p>Maximum value of SAR (measured) = 0.134 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> </div> <div> </div> </div>		
<p style="text-align: center;">0 dB = 0.125 W/kg = -9.04 dBW/kg</p>		

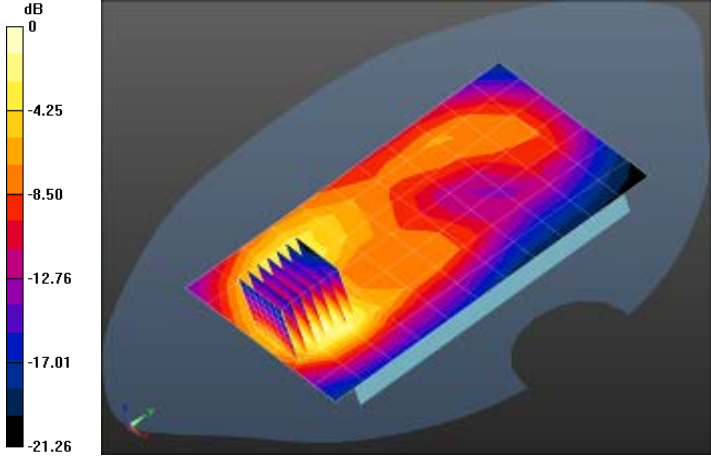
FLAT	Towards phantom	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 1:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.611 \text{ S/m}$; $\epsilon_r = 52.016$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900GSM TP M/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.129 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900GSM TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.535 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.192 W/kg SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.073 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center;">0 dB = 0.129 W/kg = -8.91 dBW/kg</p>		

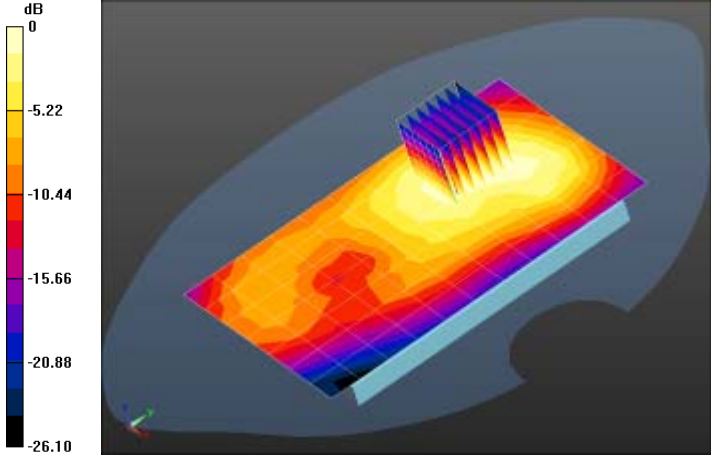
FLAT	Towards phantom	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 1:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900GSM TP H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.132 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900GSM TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.890 V/m; Power Drift = -0.14 dB Peak SAR (extrapolated) = 0.209 W/kg SAR(1 g) = 0.130 W/kg; SAR(10 g) = 0.078 W/kg Maximum value of SAR (measured) = 0.140 W/kg</p>		
		
<p>0 dB = 0.132 W/kg = -8.78 dBW/kg</p>		

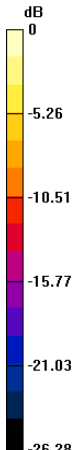
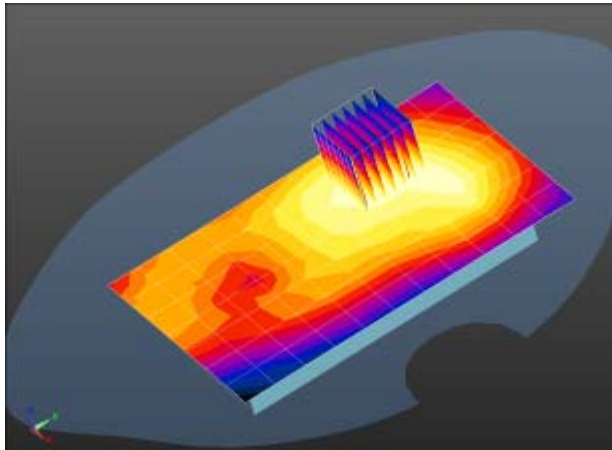
GSM (1900MHz with GPRS/Flat)

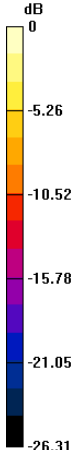
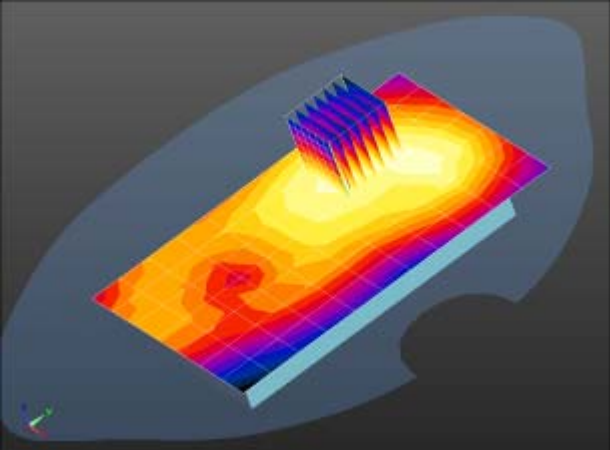
FLAT	Towards ground	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz;Duty Cycle: 3:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900GPRS TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.279 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GPRS TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.163 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 0.521 W/kg SAR(1 g) = 0.286 W/kg; SAR(10 g) = 0.147 W/kg Maximum value of SAR (measured) = 0.323 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.279 W/kg = -5.54 dBW/kg</p>		

FLAT	Towards ground	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 3:8 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900GPRS TG M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.395 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GPRS TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.755 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.617 W/kg SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.171 W/kg Maximum value of SAR (measured) = 0.371 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.395 W/kg = -4.03 dBW/kg</p>		

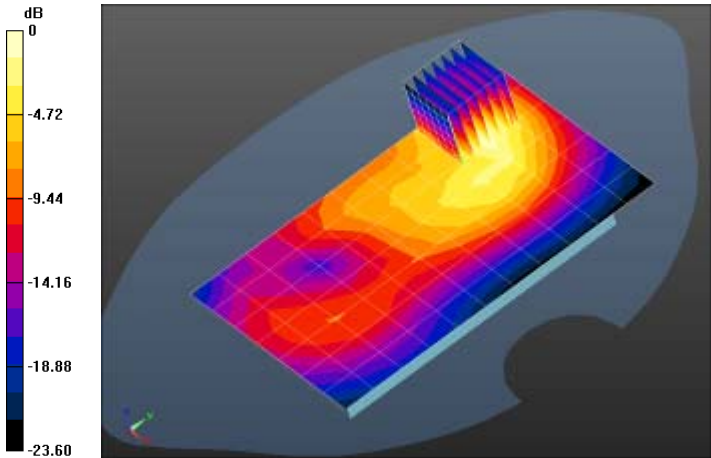
FLAT	Towards ground	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900GPRS TG H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.340 W/kg</p> <p>Flat-Section MSL 1900 TG/1900GPRS TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 5.401 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 0.670 W/kg SAR(1 g) = 0.359 W/kg; SAR(10 g) = 0.181 W/kg Maximum value of SAR (measured) = 0.408 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.340 W/kg = -4.69 dBW/kg</p>		

FLAT	Towards phantom	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 3:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TP/1900GPRS TP L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.257 W/kg</p> <p>Flat-Section MSL 1900 TP/1900GPRS TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.798 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.403 W/kg SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.148 W/kg Maximum value of SAR (measured) = 0.268 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.257 W/kg = -5.90 dBW/kg</p>		

FLAT	Towards phantom	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 3:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.611 \text{ S/m}$; $\epsilon_r = 52.016$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TP/1900GPRS TP M/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.257 W/kg</p> <p>Flat-Section MSL 1900 TP/1900GPRS TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 8.022 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.399 W/kg SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.145 W/kg Maximum value of SAR (measured) = 0.265 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.257 W/kg = -5.90 dBW/kg</p>		

FLAT	Towards phantom	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TP/1900GPRS TP H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.275 W/kg</p> <p>Flat-Section MSL 1900 TP/1900GPRS TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 7.779 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 0.406 W/kg SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.152 W/kg Maximum value of SAR (measured) = 0.271 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.275 W/kg = -5.60 dBW/kg</p>		

GSM (1900MHz with EGPRS/Flat)

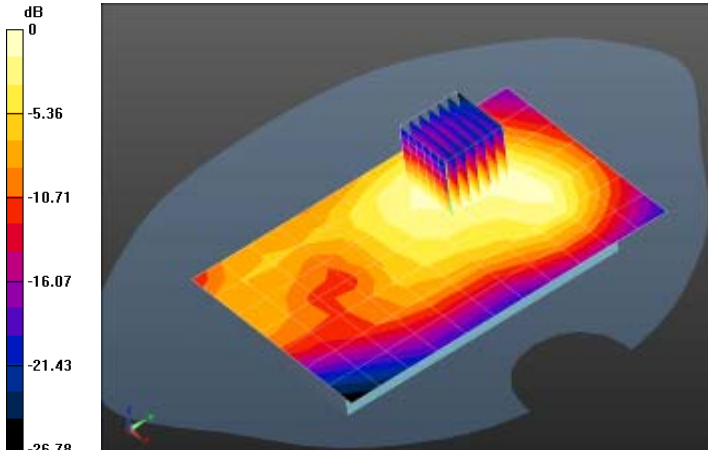
FLAT	Towards ground	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz;Duty Cycle: 3:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG/1900EDGE TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.506 W/kg</p> <p>Flat-Section MSL 1900 TG/1900EDGE TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.656 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 0.865 W/kg SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.240 W/kg Maximum value of SAR (measured) = 0.519 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.506 W/kg = -2.96 dBW/kg</p>		

FLAT	Towards ground	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 3:8 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TG/1900EDGE TG M/Area Scan (8x12x1):</p>		
<p>Measurement grid: dx=15mm, dy=15mm</p>		
<p>Maximum value of SAR (measured) = 0.529 W/kg</p>		
<p>Flat-Section MSL 1900 TG/1900EDGE TG M/Zoom Scan (7x7x7)/Cube 0:</p>		
<p>Measurement grid: dx=5mm, dy=5mm, dz=5mm</p>		
<p>Reference Value = 9.450 V/m; Power Drift = 0.07 dB</p>		
<p>Peak SAR (extrapolated) = 0.968 W/kg</p>		
<p>SAR(1 g) = 0.523 W/kg; SAR(10 g) = 0.264 W/kg</p>		
<p>Maximum value of SAR (measured) = 0.600 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> <p>0 -5.06 -10.12 -15.18 -20.25 -25.31</p> </div> <div style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.529 W/kg = -2.77 dBW/kg</p>		

FLAT	Towards ground	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$</p>		
<p>Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TG/1900EDGE TG H/Area Scan (8x12x1):</p>		
<p>Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$</p>		
<p>Maximum value of SAR (measured) = 0.469 W/kg</p>		
<p>Flat-Section MSL 1900 TG/1900EDGE TG H/Zoom Scan (7x7x7)/Cube 0:</p>		
<p>Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$</p>		
<p>Reference Value = 8.618 V/m; Power Drift = -0.13 dB</p>		
<p>Peak SAR (extrapolated) = 1.01 W/kg</p>		
<p>SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.259 W/kg</p>		
<p>Maximum value of SAR (measured) = 0.598 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> </div> <div> </div> </div>		
<p>0 dB = 0.469 W/kg = -3.29 dBW/kg</p>		

FLAT	Towards phantom	1850.2 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1850.2 MHz; Duty Cycle: 3:8 Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.566$ S/m; $\epsilon_r = 52.096$; $\rho = 1000$ kg/m³</p>		
<p>Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900EDGE TP L/Area Scan (8x12x1):</p>		
<p>Measurement grid: dx=15mm, dy=15mm</p>		
<p>Maximum value of SAR (measured) = 0.264 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900EDGE TP L/Zoom Scan (7x7x7)/Cube 0:</p>		
<p>Measurement grid: dx=5mm, dy=5mm, dz=5mm</p>		
<p>Reference Value = 7.873 V/m; Power Drift = -0.02 dB</p>		
<p>Peak SAR (extrapolated) = 0.411 W/kg</p>		
<p>SAR(1 g) = 0.251 W/kg; SAR(10 g) = 0.152 W/kg</p>		
<p>Maximum value of SAR (measured) = 0.273 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> </div> <div> </div> </div>		
<p>0 dB = 0.264 W/kg = -5.79 dBW/kg</p>		

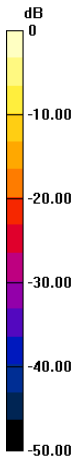
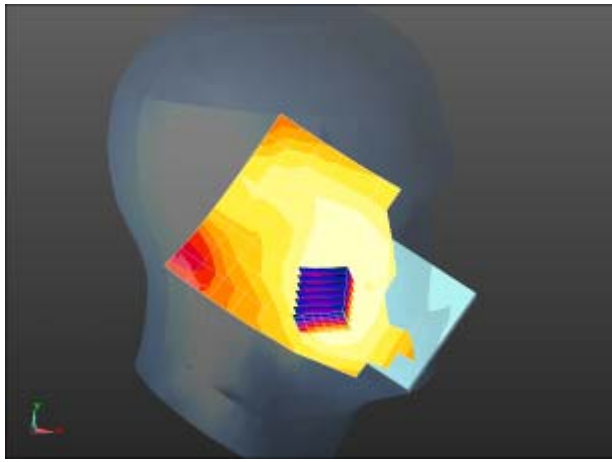
FLAT	Towards phantom	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz; Duty Cycle: 3:8 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900EDGE TP M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.256 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900EDGE TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.007 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.406 W/kg SAR(1 g) = 0.244 W/kg; SAR(10 g) = 0.146 W/kg Maximum value of SAR (measured) = 0.266 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> <p>0 -4.85 -9.69 -14.54 -19.38 -24.23</p> </div> <div style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.256 W/kg = -5.92 dBW/kg</p>		

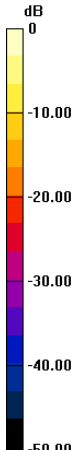
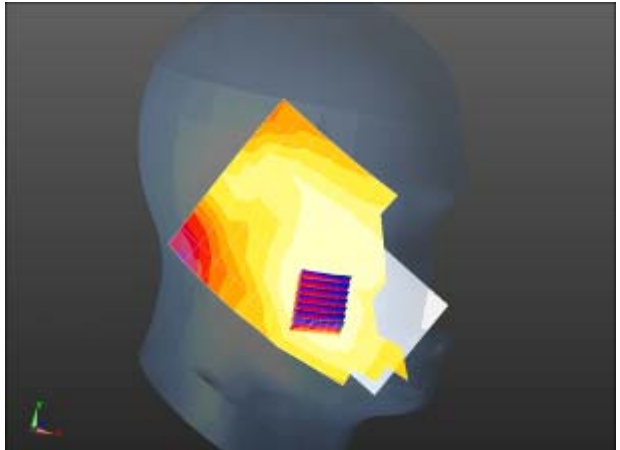
FLAT	Towards phantom	1909.8 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1909.8 MHz; Duty Cycle: 3:8 Medium parameters used (extrapolated): $f = 1909.8 \text{ MHz}$; $\sigma = 1.643 \text{ S/m}$; $\epsilon_r = 52.201$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL 1900 TP/1900EDGE TP H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.257 W/kg</p>		
<p>Flat-Section MSL 1900 TP/1900EDGE TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 8.081 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.404 W/kg SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.145 W/kg Maximum value of SAR (measured) = 0.264 W/kg</p>		
		
<p>0 dB = 0.257 W/kg = -5.89 dBW/kg</p>		

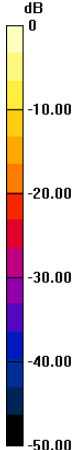
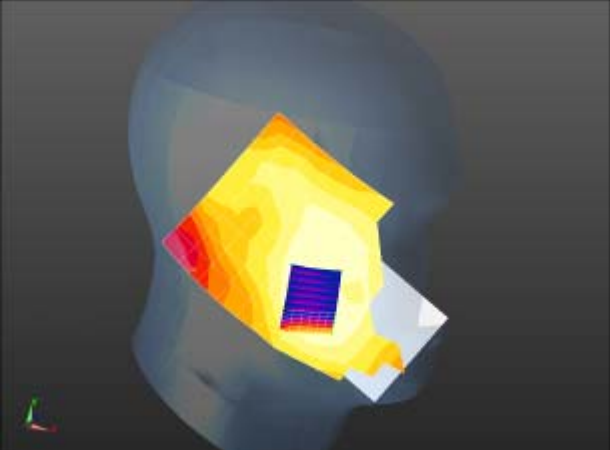
FLAT	Edge2	1880 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 3:8 Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.611 \text{ S/m}$; $\epsilon_r = 52.016$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG 2/1900EDGE edge4 M/Area Scan (4x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.238 W/kg</p> <p>Flat-Section MSL 1900 TG 2/1900EDGE edge4 M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.201 V/m; Power Drift = -0.15 dB Peak SAR (extrapolated) = 0.402 W/kg SAR(1 g) = 0.221 W/kg; SAR(10 g) = 0.120 W/kg Maximum value of SAR (measured) = 0.242 W/kg</p> <div data-bbox="316 1288 1273 1742"> </div> <p>0 dB = 0.238 W/kg = -6.24 dBW/kg</p>		

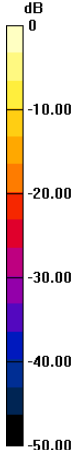
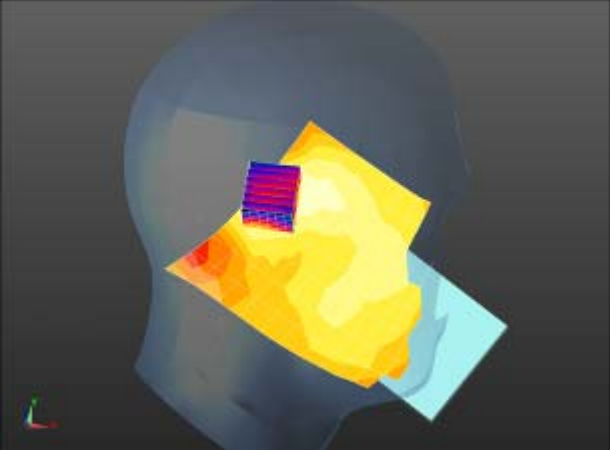
FLAT	Edge4	1907.6 MHz
<p>Communication System: UID 0, Generic GSM (0); Frequency: 1880 MHz;Duty Cycle: 3:8 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL 1900 TG 2/1900EDGE edge2 M/Area Scan (5x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0873 W/kg</p> <p>Flat-Section MSL 1900 TG 2/1900EDGE edge2 M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.714 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 0.158 W/kg SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.049 W/kg Maximum value of SAR (measured) = 0.0969 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> <p>0 -3.06 -6.11 -9.17 -12.22 -15.28</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.0873 W/kg = -10.59 dBW/kg</p>		

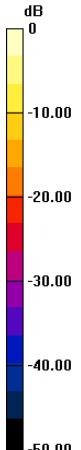
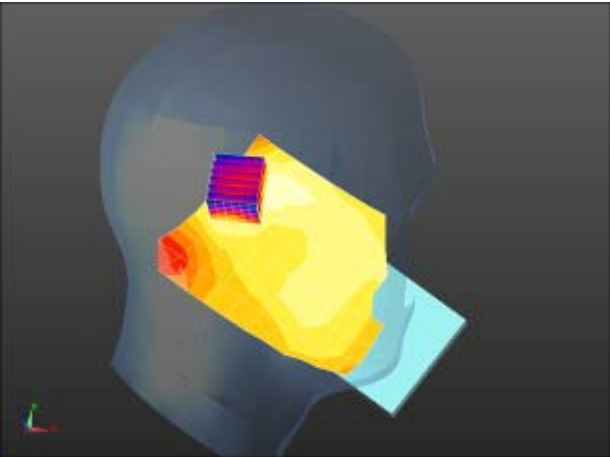
WCDMA BAND2 (Head)

Left Side	Cheek	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.283$ S/m; $\epsilon_r = 41.046$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 2/WCDMA Band2 touch L/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.125 W/kg</p> <p>Head-Section Left HSL Band 2/WCDMA Band2 touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.074 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.235 W/kg SAR(1 g) = 0.137 W/kg; SAR(10 g) = 0.078 W/kg Maximum value of SAR (measured) = 0.152 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.125 W/kg = -9.02 dBW/kg</p>		

Left Side	Cheek	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz; $\sigma = 1.313$ S/m; $\epsilon_r = 41.015$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Left HSL Band 2/WCDMA Band2 touch M/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.138 W/kg</p>		
<p>Head-Section Left HSL Band 2/WCDMA Band2 touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.507 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.241 W/kg SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.087 W/kg Maximum value of SAR (measured) = 0.160 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.138 W/kg = -8.60 dBW/kg</p>		

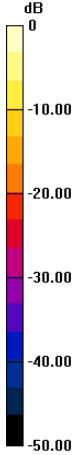
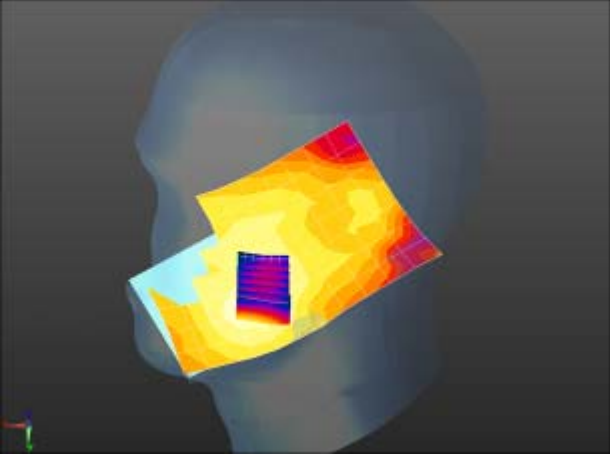
Left Side	Cheek	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.333$ S/m; $\epsilon_r = 40.901$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 2/WCDMA Band2 touch H/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.169 W/kg</p> <p>Head-Section Left HSL Band 2/WCDMA Band2 touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.662 V/m; Power Drift = 0.15 dB Peak SAR (extrapolated) = 0.302 W/kg SAR(1 g) = 0.173 W/kg; SAR(10 g) = 0.097 W/kg Maximum value of SAR (measured) = 0.191 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.169 W/kg = -7.72 dBW/kg</p>		

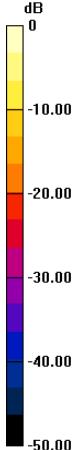
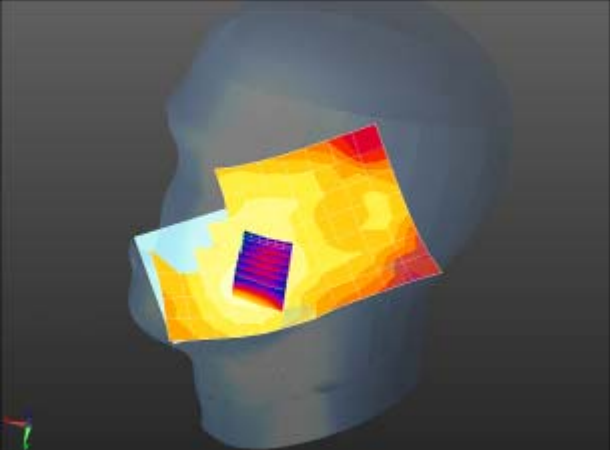
Left Side	Tilt	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4 \text{ MHz}$; $\sigma = 1.283 \text{ S/m}$; $\epsilon_r = 41.046$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 2/WCDMA Band2 tilt L/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0588 W/kg</p> <p>Head-Section Left HSL Band 2/WCDMA Band2 tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.453 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.0920 W/kg SAR(1 g) = 0.056 W/kg; SAR(10 g) = 0.031 W/kg Maximum value of SAR (measured) = 0.0621 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0588 W/kg = -12.31 dBW/kg</p>		

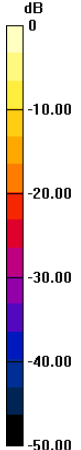
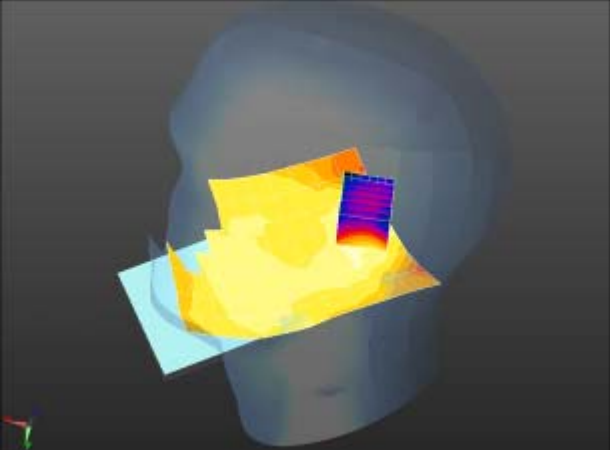
Left Side	Tilt	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.313$ S/m; $\epsilon_r = 41.015$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Left HSL Band 2/WCDMA Band2 tilt M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0706 W/kg</p>		
<p>Head-Section Left HSL Band 2/WCDMA Band2 tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.267 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.107 W/kg SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.037 W/kg Maximum value of SAR (measured) = 0.0725 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0706 W/kg = -11.51 dBW/kg</p>		

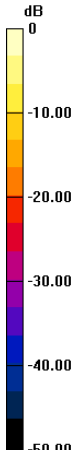
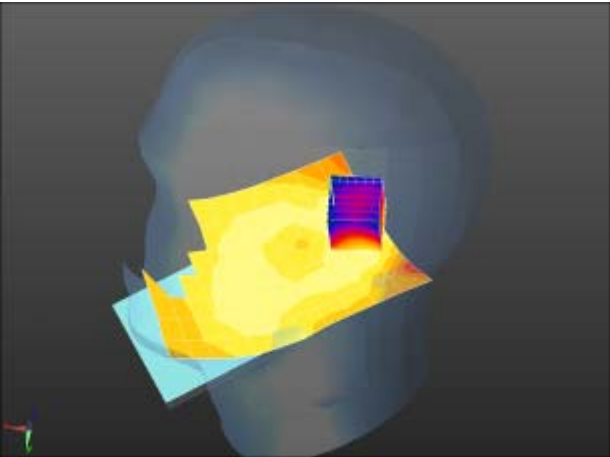
Left Side	Tilt	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.333 \text{ S/m}$; $\epsilon_r = 40.901$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 2/WCDMA Band2 tilt H/Area Scan (9x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0784 W/kg</p> <p>Head-Section Left HSL Band 2/WCDMA Band2 tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.035 V/m; Power Drift = -0.18 dB Peak SAR (extrapolated) = 0.140 W/kg SAR(1 g) = 0.081 W/kg; SAR(10 g) = 0.044 W/kg Maximum value of SAR (measured) = 0.0918 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.0784 W/kg = -11.06 dBW/kg</p>		

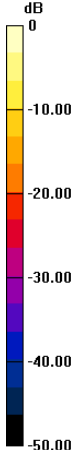
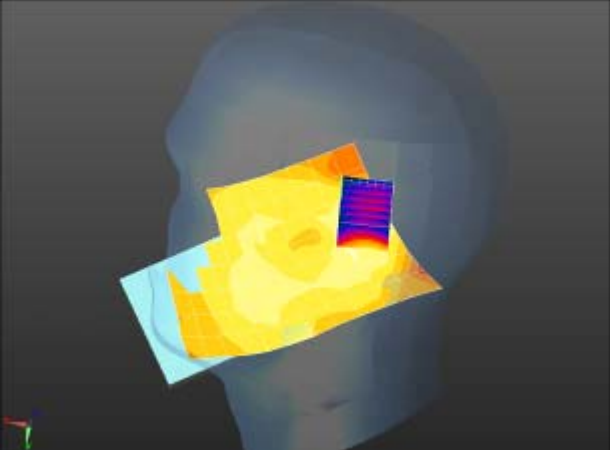
Right Side	Cheek	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4 \text{ MHz}$; $\sigma = 1.283 \text{ S/m}$; $\epsilon_r = 41.046$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 2/WCDMA Band2 touch L/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.199 W/kg</p> <p>Head-Section Right HSL Band 2/WCDMA Band2 touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.520 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.293 W/kg SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.109 W/kg Maximum value of SAR (measured) = 0.203 W/kg</p> <div style="display: flex; align-items: center;"> <div data-bbox="438 1310 518 1758" style="margin-right: 10px;"> <p>dB</p> </div> <div data-bbox="539 1310 1152 1758" style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.199 W/kg = -7.01 dBW/kg</p>		

Right Side	Cheek	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.313$ S/m; $\epsilon_r = 41.015$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL Band 2/WCDMA Band2 touch M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.238 W/kg</p>		
<p>Head-Section Right HSL Band 2/WCDMA Band2 touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.488 V/m; Power Drift = 0.15 dB Peak SAR (extrapolated) = 0.355 W/kg SAR(1 g) = 0.217 W/kg; SAR(10 g) = 0.128 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.238 W/kg = -6.24 dBW/kg</p>		

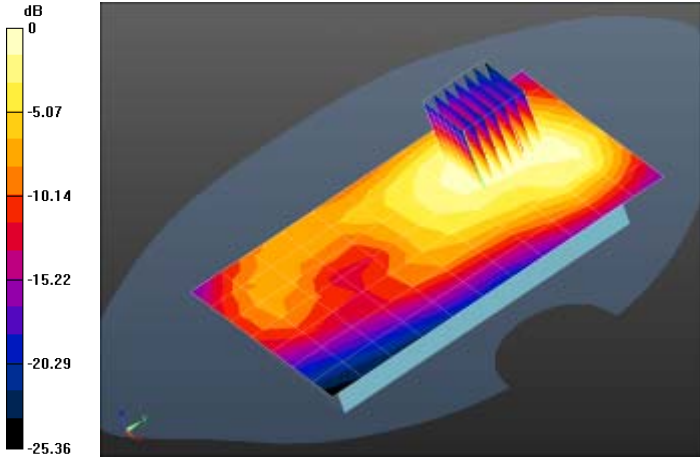
Right Side	Cheek	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.333 \text{ S/m}$; $\epsilon_r = 40.901$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 2/WCDMA Band2 touch H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.254 W/kg</p> <p>Head-Section Right HSL Band 2/WCDMA Band2 touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.287 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.392 W/kg SAR(1 g) = 0.238 W/kg; SAR(10 g) = 0.139 W/kg Maximum value of SAR (measured) = 0.264 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.254 W/kg = -5.95 dBW/kg</p>		

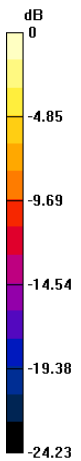
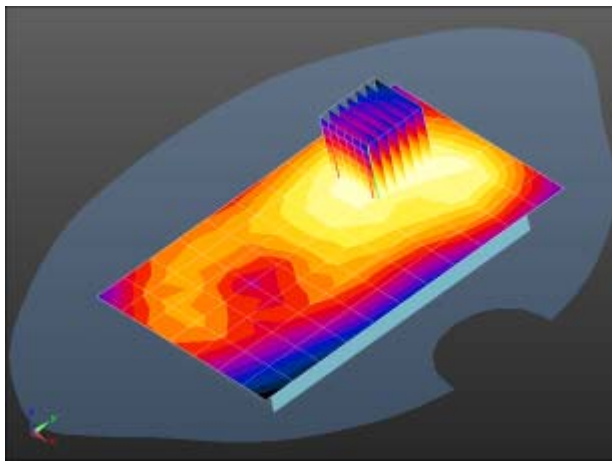
Right Side	Tile	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4 \text{ MHz}$; $\sigma = 1.283 \text{ S/m}$; $\epsilon_r = 41.046$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 2/WCDMA Band2 tilt L/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.0541 W/kg</p> <p>Head-Section Right HSL Band 2/WCDMA Band2 tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 3.035 V/m; Power Drift = 0.08 dB Peak SAR (extrapolated) = 0.0910 W/kg SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.028 W/kg Maximum value of SAR (measured) = 0.0585 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0541 W/kg = -12.67 dBW/kg</p>		

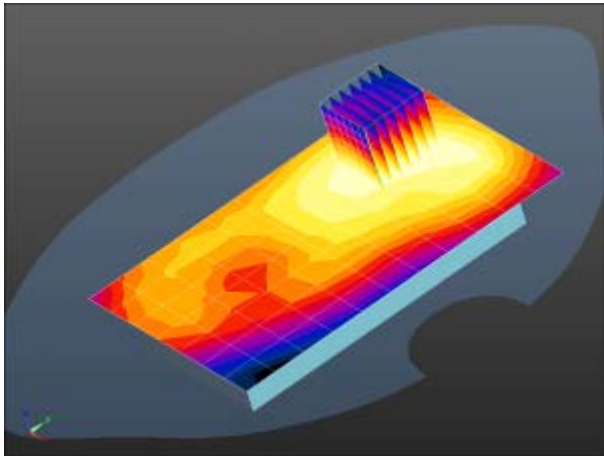
Right Side	Tile	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: $f = 1880$ MHz; $\sigma = 1.313$ S/m; $\epsilon_r = 41.015$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Head-Section Right HSL Band 2/WCDMA Band2 tilt M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0967 W/kg</p>		
<p>Head-Section Right HSL Band 2/WCDMA Band2 tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.571 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.163 W/kg SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.049 W/kg Maximum value of SAR (measured) = 0.103 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center;">0 dB = 0.0967 W/kg = -10.14 dBW/kg</p>		

Right Side	Tile	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.333$ S/m; $\epsilon_r = 40.901$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.01, 5.01, 5.01); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 2/WCDMA Band2 tilt H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0943 W/kg</p> <p>Head-Section Right HSL Band 2/WCDMA Band2 tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.237 V/m; Power Drift = 0.20 dB Peak SAR (extrapolated) = 0.158 W/kg SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.047 W/kg Maximum value of SAR (measured) = 0.0988 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0943 W/kg = -10.26 dBW/kg</p>		

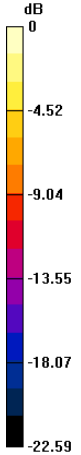
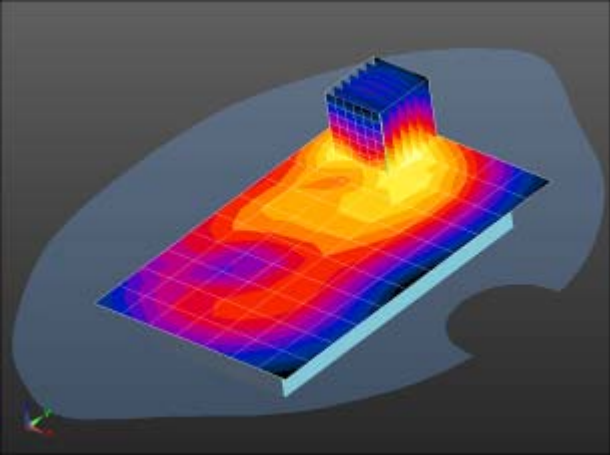
WCDMA BAND2 (Flat)

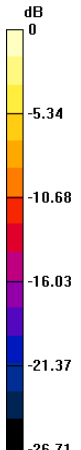
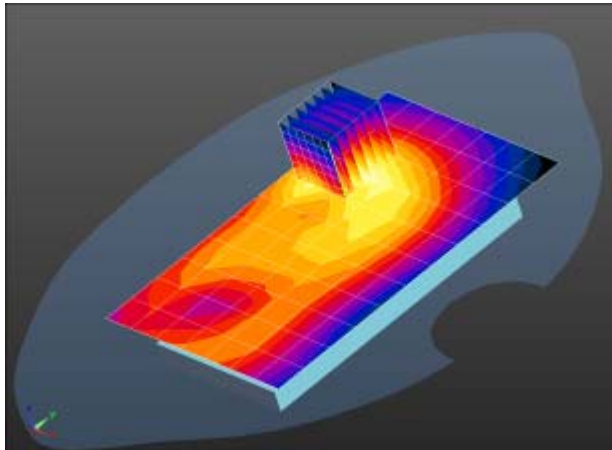
FLAT	Towards phantom	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.569$ S/m; $\epsilon_r = 52.079$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.329 W/kg</p> <p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.324 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.530 W/kg SAR(1 g) = 0.330 W/kg; SAR(10 g) = 0.201 W/kg Maximum value of SAR (measured) = 0.358 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.329 W/kg = -4.83 dBW/kg</p>		

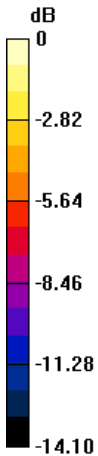
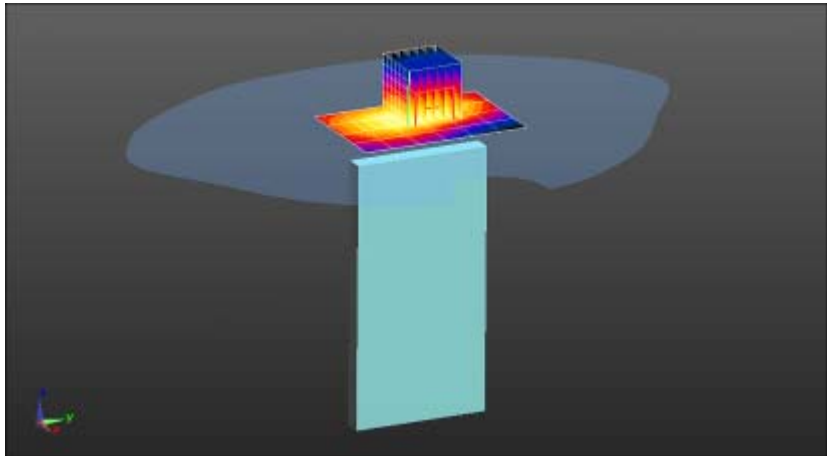
FLAT	Towards phantom	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p>		
<p>DASY5 Configuration:</p>		
<ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) 		
<p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm</p>		
<p>Maximum value of SAR (measured) = 0.383 W/kg</p>		
<p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm</p>		
<p>Reference Value = 10.084 V/m; Power Drift = 0.06 dB</p>		
<p>Peak SAR (extrapolated) = 0.614 W/kg</p>		
<p>SAR(1 g) = 0.380 W/kg; SAR(10 g) = 0.228 W/kg</p>		
<p>Maximum value of SAR (measured) = 0.411 W/kg</p>		
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.383 W/kg = -4.17 dBW/kg</p>		

FLAT	Towards phantom	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.64 \text{ S/m}$; $\epsilon_r = 52.197$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.338 W/kg</p> <p>Flat-Section MSL Band 2 TP/WCDMA Band2 TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 7.853 V/m; Power Drift = -0.11 dB Peak SAR (extrapolated) = 0.542 W/kg SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.198 W/kg Maximum value of SAR (measured) = 0.356 W/kg</p> <div style="display: flex; align-items: center;"> <div data-bbox="443 1288 518 1742" style="margin-right: 10px;"> <p>dB</p> <p>0</p> <p>-5.42</p> <p>-10.83</p> <p>-16.25</p> <p>-21.66</p> <p>-27.08</p> </div>  </div> <p style="text-align: center;">$0 \text{ dB} = 0.338 \text{ W/kg} = -4.72 \text{ dBW/kg}$</p>		

FLAT	Towards ground	1852.4 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1852.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.569$ S/m; $\epsilon_r = 52.079$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.756 W/kg</p> <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.969 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 1.31 W/kg SAR(1 g) = 0.720 W/kg; SAR(10 g) = 0.365 W/kg Maximum value of SAR (measured) = 0.830 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.756 W/kg = -1.22 dBW/kg</p>		

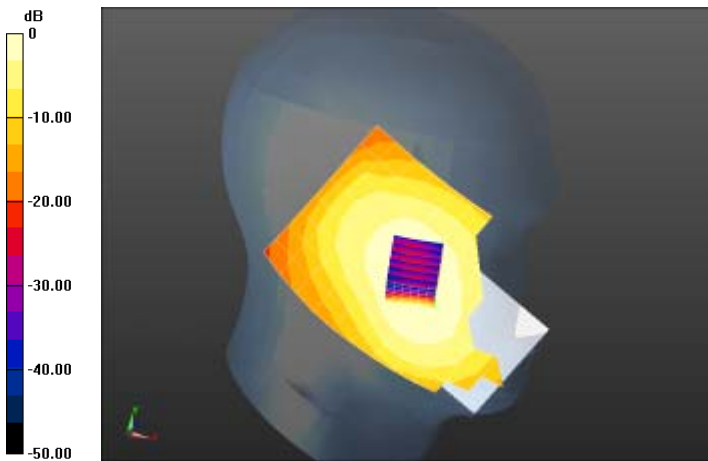
FLAT	Towards ground	1880 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1880 MHz;Duty Cycle: 1:1 Medium parameters used: f = 1880 MHz; $\sigma = 1.611$ S/m; $\epsilon_r = 52.016$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.735 W/kg</p> <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.929 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 1.29 W/kg SAR(1 g) = 0.707 W/kg; SAR(10 g) = 0.356 W/kg Maximum value of SAR (measured) = 0.809 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  <p>0 -4.52 -9.04 -13.55 -18.07 -22.59</p> </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.735 W/kg = -1.34 dBW/kg</p>		

FLAT	Towards ground	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.64 \text{ S/m}$; $\epsilon_r = 52.197$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG H/Area Scan (8x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.793 W/kg</p> <p>Flat-Section MSL Band 2 TG/WCDMA Band2 TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 11.201 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 1.47 W/kg SAR(1 g) = 0.779 W/kg; SAR(10 g) = 0.384 W/kg Maximum value of SAR (measured) = 0.889 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.793 W/kg = -1.01 dBW/kg</p>		

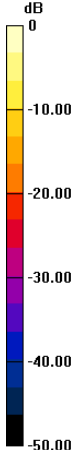
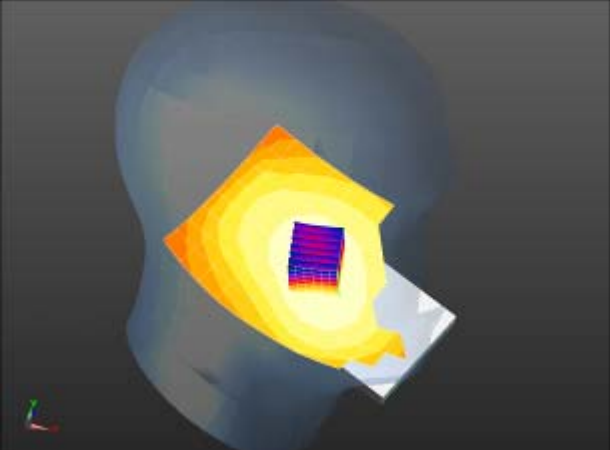
FLAT	Edge2	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.64 \text{ S/m}$; $\epsilon_r = 52.197$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TG 2/WCDMA Band 2 edge4 H 2/Area Scan (5x7x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.312 W/kg</p> <p>Flat-Section MSL Band 2 TG 2/WCDMA Band 2 edge4 H 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 13.305 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.558 W/kg SAR(1 g) = 0.310 W/kg; SAR(10 g) = 0.169 W/kg Maximum value of SAR (measured) = 0.339 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p>  <p>0 -2.82 -5.64 -8.46 -11.28 -14.10</p> </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.312 W/kg = -5.05 dBW/kg</p>		

FLAT	Edge4	1907.6 MHz
<p>Communication System: UID 0, wcdma II (0); Frequency: 1907.6 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 1907.6 \text{ MHz}$; $\sigma = 1.64 \text{ S/m}$; $\epsilon_r = 52.197$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.61, 4.61, 4.61); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1659; Type: QD000P40CD; Serial: TP:1659 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 2 TG 2/WCDMA Band 2 edge2 H/Area Scan (5x12x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$ Maximum value of SAR (measured) = 0.141 W/kg</p> <p>Flat-Section MSL Band 2 TG 2/WCDMA Band 2 edge2 H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 5.248 V/m; Power Drift = -0.06 dB Peak SAR (extrapolated) = 0.234 W/kg SAR(1 g) = 0.128 W/kg; SAR(10 g) = 0.070 W/kg</p> <div data-bbox="316 1249 1273 1702"> </div> <p>0 dB = 0.141 W/kg = -8.50 dBW/kg</p>		

WCDMA BAND5 (Head)

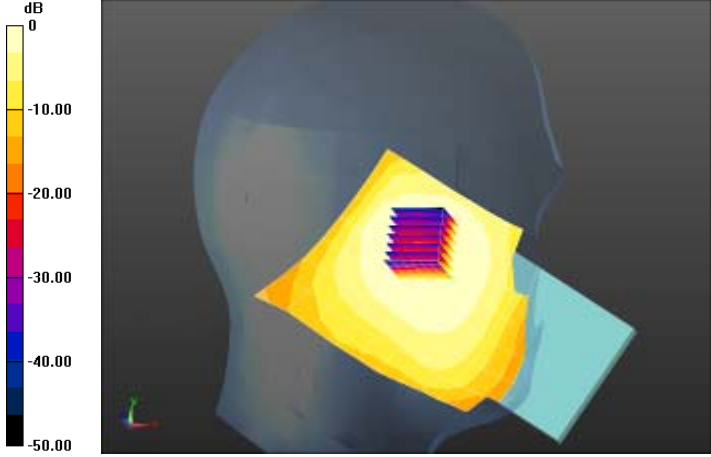
Left Side	Cheek	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 41.84$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 touch L/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.332 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.644 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.375 W/kg SAR(1 g) = 0.302 W/kg; SAR(10 g) = 0.227 W/kg Maximum value of SAR (measured) = 0.316 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.332 W/kg = -4.79 dBW/kg</p>		

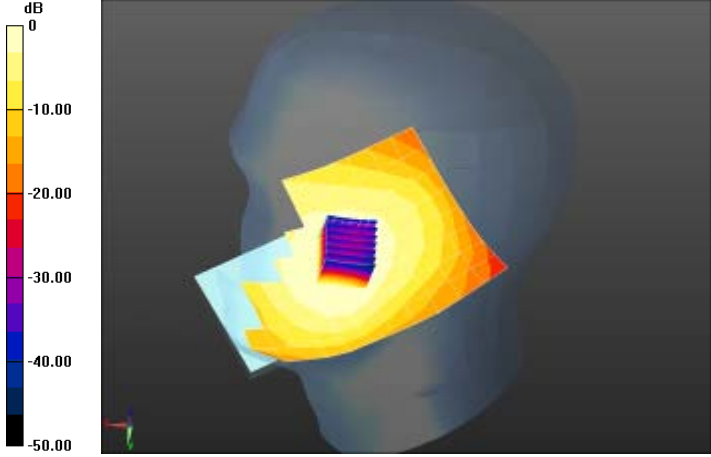
Left Side	Cheek	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 touch M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.303 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.343 V/m; Power Drift = 0.05 dB Peak SAR (extrapolated) = 0.359 W/kg SAR(1 g) = 0.286 W/kg; SAR(10 g) = 0.212 W/kg Maximum value of SAR (measured) = 0.300 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.303 W/kg = -5.18 dBW/kg</p>		

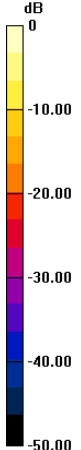
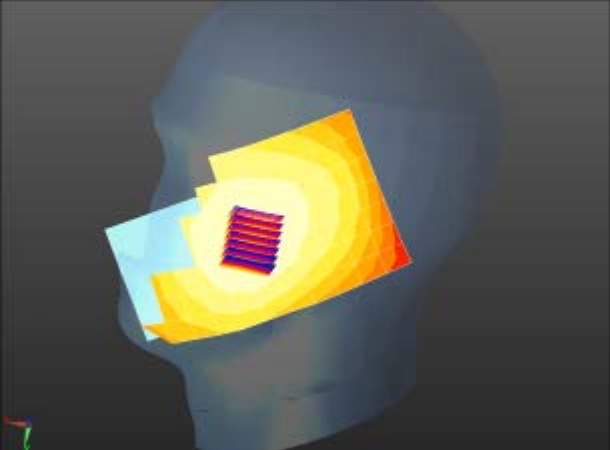
Left Side	Cheek	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 41.712$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 touch H/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.268 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.425 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.307 W/kg SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.184 W/kg Maximum value of SAR (measured) = 0.260 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.268 W/kg = -5.73 dBW/kg</p>		

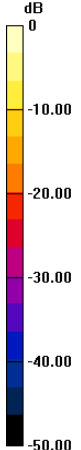
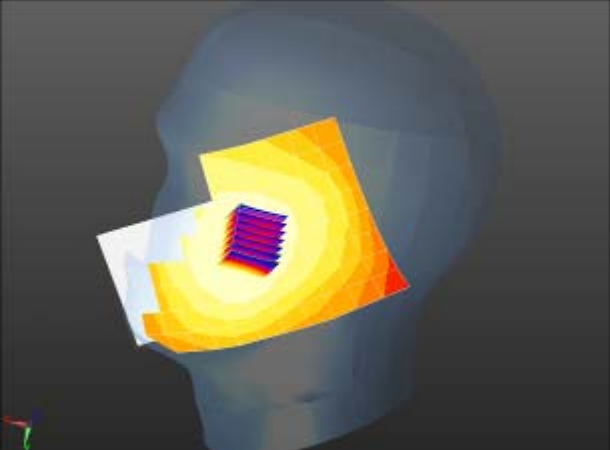
Left Side	Tilt	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 41.84$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt L/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.232 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.374 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 0.283 W/kg SAR(1 g) = 0.231 W/kg; SAR(10 g) = 0.175 W/kg Maximum value of SAR (measured) = 0.242 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div style="flex-grow: 1;"> </div> </div> <p style="text-align: center;">0 dB = 0.232 W/kg = -6.34 dBW/kg</p>		

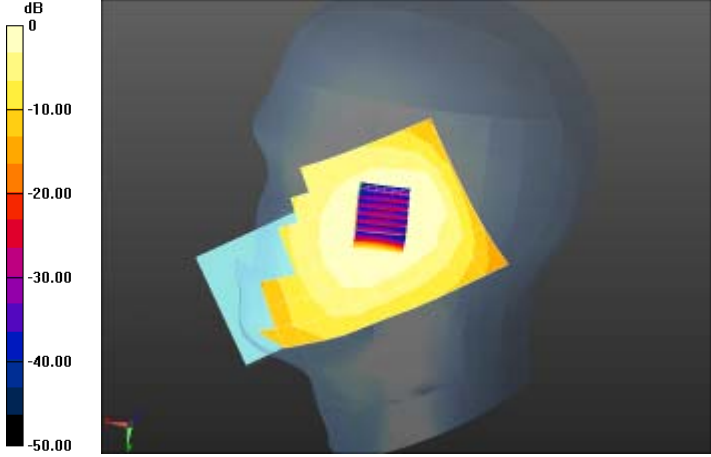
Left Side	Tilt	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt M/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.209 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.817 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 0.257 W/kg SAR(1 g) = 0.208 W/kg; SAR(10 g) = 0.158 W/kg Maximum value of SAR (measured) = 0.218 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.209 W/kg = -6.80 dBW/kg</p>		

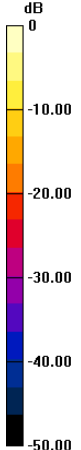
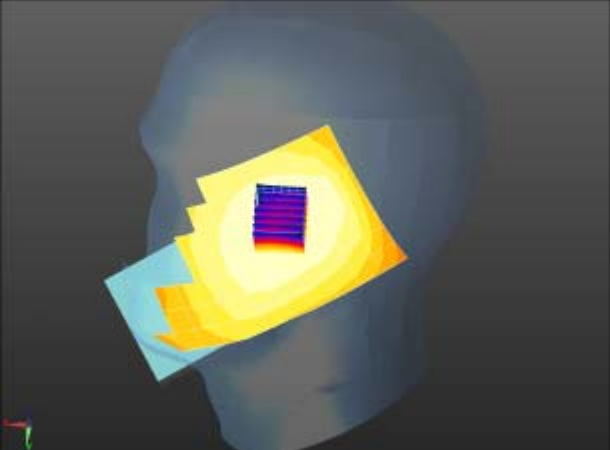
Left Side	Tilt	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 41.712$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.187 W/kg</p> <p>Head-Section Left HSL Band 5/WCDMA Band5 tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 11.760 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.224 W/kg SAR(1 g) = 0.181 W/kg; SAR(10 g) = 0.137 W/kg Maximum value of SAR (measured) = 0.189 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.187 W/kg = -7.29 dBW/kg</p>		

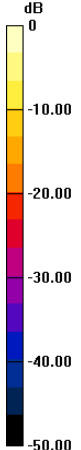
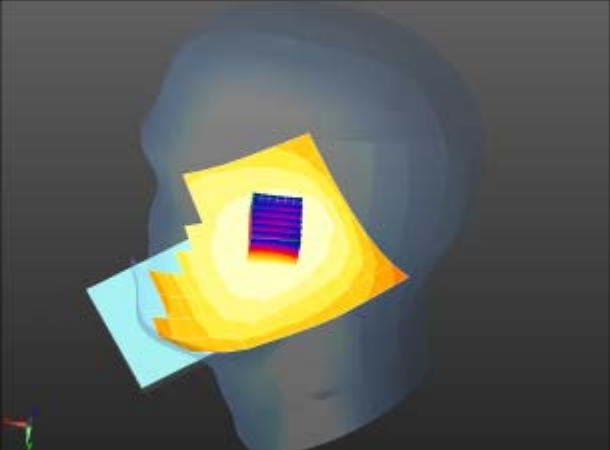
Right Side	Cheek	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.964$ S/m; $\epsilon_r = 41.84$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 touch L/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.287 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.935 V/m; Power Drift = 0.21 dB Peak SAR (extrapolated) = 0.337 W/kg SAR(1 g) = 0.278 W/kg; SAR(10 g) = 0.211 W/kg Maximum value of SAR (measured) = 0.290 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.287 W/kg = -5.42 dBW/kg</p>		

Right Side	Cheek	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 touch M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.254 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.427 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 0.313 W/kg SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.189 W/kg Maximum value of SAR (measured) = 0.265 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.254 W/kg = -5.96 dBW/kg</p>		

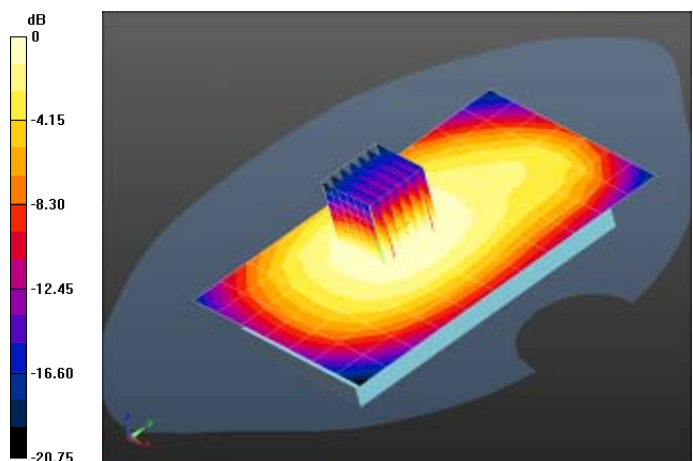
Right Side	Cheek	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 touch H/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.200 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.299 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.233 W/kg SAR(1 g) = 0.192 W/kg; SAR(10 g) = 0.145 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.200 W/kg = -6.99 dBW/kg</p>		

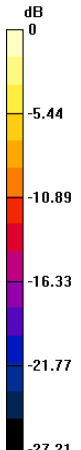
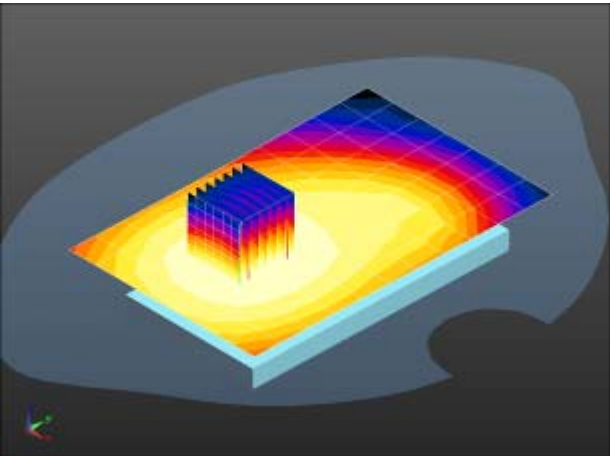
Right Side	Tile	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.230 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 13.169 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 0.284 W/kg SAR(1 g) = 0.229 W/kg; SAR(10 g) = 0.174 W/kg Maximum value of SAR (measured) = 0.241 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.230 W/kg = -6.39 dBW/kg</p>		

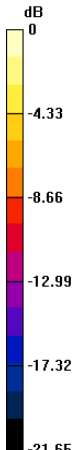
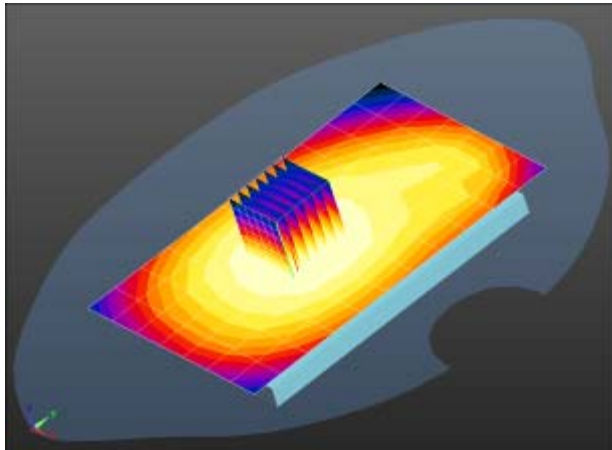
Right Side	Tile	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.975$ S/m; $\epsilon_r = 41.678$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.210 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 12.311 V/m; Power Drift = 0.04 dB Peak SAR (extrapolated) = 0.254 W/kg SAR(1 g) = 0.207 W/kg; SAR(10 g) = 0.157 W/kg Maximum value of SAR (measured) = 0.217 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.210 W/kg = -6.79 dBW/kg</p>		

Right Side	Tile	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.98$ S/m; $\epsilon_r = 41.712$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.87, 5.87, 5.87); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt H/Area Scan (9x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.159 W/kg</p> <p>Head-Section Right HSL Band 5/WCDMA Band5 tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.875 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.196 W/kg SAR(1 g) = 0.158 W/kg; SAR(10 g) = 0.120 W/kg Maximum value of SAR (measured) = 0.166 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.159 W/kg = -7.98 dBW/kg</p>		

WCDMA BAND5 (Flat)

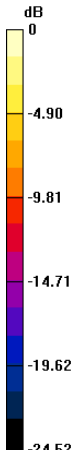
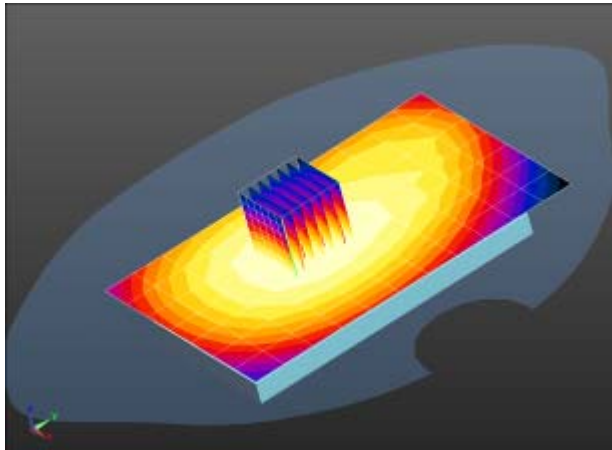
FLAT	Towards phantom	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 1.009$ S/m; $\epsilon_r = 53.897$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.444 W/kg</p> <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 21.278 V/m; Power Drift = 0.01 dB Peak SAR (extrapolated) = 0.530 W/kg SAR(1 g) = 0.432 W/kg; SAR(10 g) = 0.336 W/kg Maximum value of SAR (measured) = 0.451 W/kg</p> <div style="text-align: center;">  <p>0 dB = 0.444 W/kg = -3.53 dBW/kg</p> </div>		

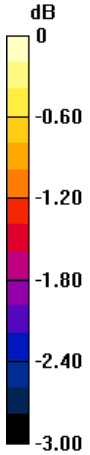
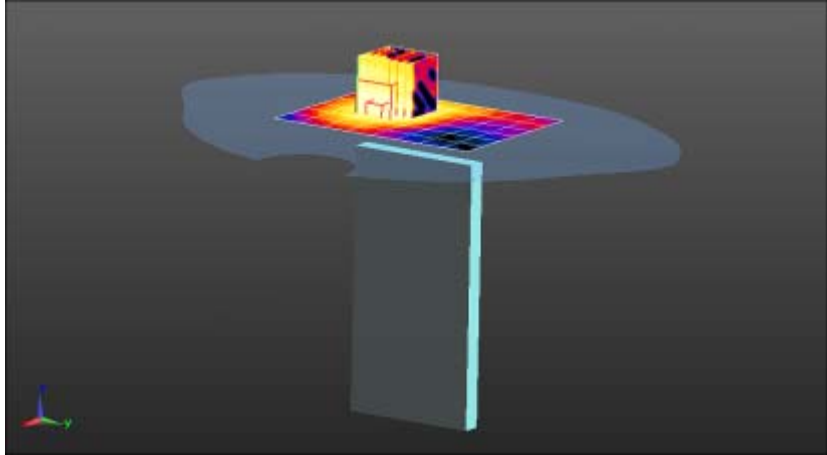
FLAT	Towards phantom	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 1.019$ S/m; $\epsilon_r = 53.908$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.393 W/kg</p> <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 17.202 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 0.467 W/kg SAR(1 g) = 0.382 W/kg; SAR(10 g) = 0.297 W/kg Maximum value of SAR (measured) = 0.398 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.393 W/kg = -4.05 dBW/kg</p>		

FLAT	Towards phantom	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 1.027$ S/m; $\epsilon_r = 53.79$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.370 W/kg</p> <p>Flat-Section MSL Band 5 TP/WCDMA Band5 TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 18.788 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.440 W/kg SAR(1 g) = 0.358 W/kg; SAR(10 g) = 0.276 W/kg Maximum value of SAR (measured) = 0.374 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.370 W/kg = -4.32 dBW/kg</p>		

FLAT	Towards ground	826.4 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 826.4 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 1.009$ S/m; $\epsilon_r = 53.897$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.567 W/kg</p> <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 23.859 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.675 W/kg SAR(1 g) = 0.546 W/kg; SAR(10 g) = 0.419 W/kg Maximum value of SAR (measured) = 0.571 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.567 W/kg = -2.46 dBW/kg</p>		

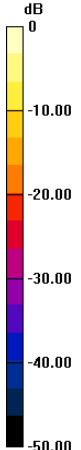
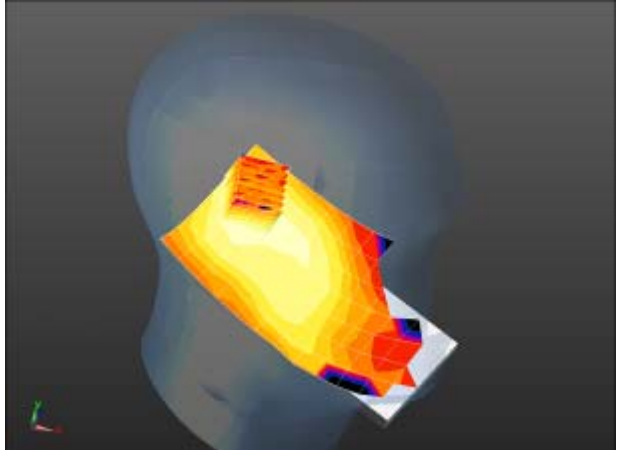
FLAT	Towards ground	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 1.019$ S/m; $\epsilon_r = 53.908$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.597 W/kg</p> <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 24.734 V/m; Power Drift = 0.00 dB Peak SAR (extrapolated) = 0.722 W/kg SAR(1 g) = 0.588 W/kg; SAR(10 g) = 0.452 W/kg Maximum value of SAR (measured) = 0.613 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.597 W/kg = -2.24 dBW/kg</p>		

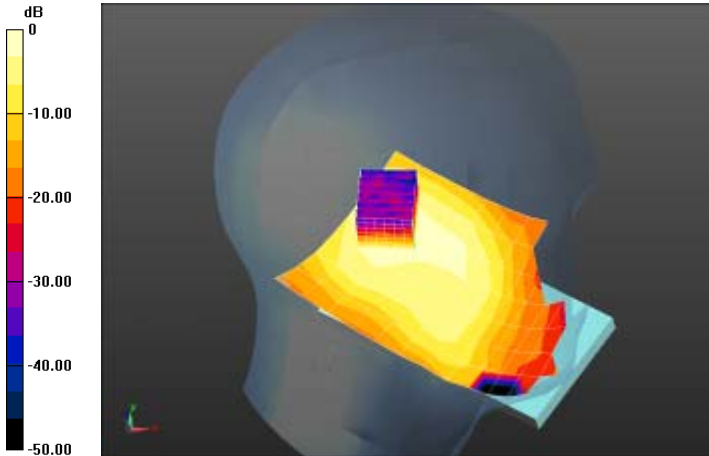
FLAT	Towards ground	846.6 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 846.6 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 1.027$ S/m; $\epsilon_r = 53.79$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.501 W/kg</p> <p>Flat-Section MSL Band 5 TG/WCDMA Band5 TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 22.298 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.600 W/kg SAR(1 g) = 0.483 W/kg; SAR(10 g) = 0.370 W/kg Maximum value of SAR (measured) = 0.504 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.501 W/kg = -3.00 dBW/kg</p>		

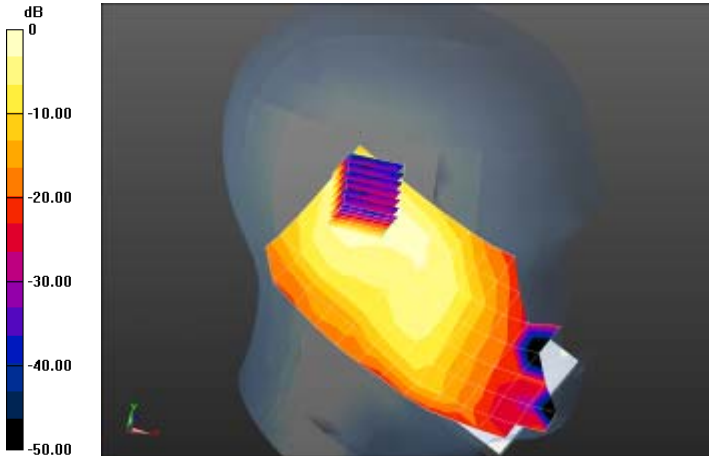
FLAT	Edge2	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 836.5$ MHz; $\sigma = 0.979$ S/m; $\epsilon_r = 53.843$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TG 2/WCDMA Band 5 edge4 M/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0170 W/kg</p> <p>Flat-Section MSL Band 5 TG 2/WCDMA Band 5 edge4 M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.967 V/m; Power Drift = -0.1 dB Peak SAR (extrapolated) = 0.0720 W/kg SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.00676 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0170 W/kg = -17.68 dBW/kg</p>		

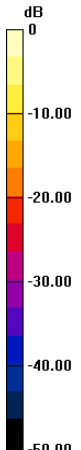
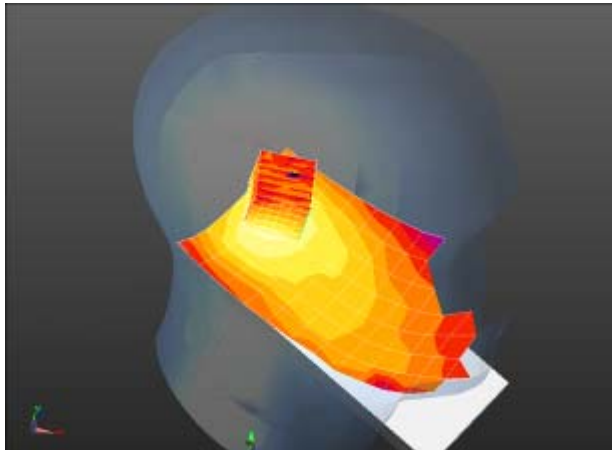
FLAT	Edge4	836.5 MHz
<p>Communication System: UID 0, UMTS 835 (0); Frequency: 836.5 MHz; Duty Cycle: 1:1 Medium parameters used (extrapolated): $f = 836.5$ MHz; $\sigma = 0.979$ S/m; $\epsilon_r = 53.843$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(5.7, 5.7, 5.7); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1660; Type: QD000P40CD; Serial: TP:1660 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL Band 5 TG 2/WCDMA Band 5 edge2 M/Area Scan (5x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.455 W/kg</p> <p>Flat-Section MSL Band 5 TG 2/WCDMA Band 5 edge2 M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.177 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.594 W/kg SAR(1 g) = 0.429 W/kg; SAR(10 g) = 0.298 W/kg Maximum value of SAR (measured) = 0.456 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>dB</p> <p>0 -3.15 -6.31 -9.46 -12.62 -15.77</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.455 W/kg = -3.42 dBW/kg</p>		

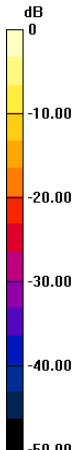
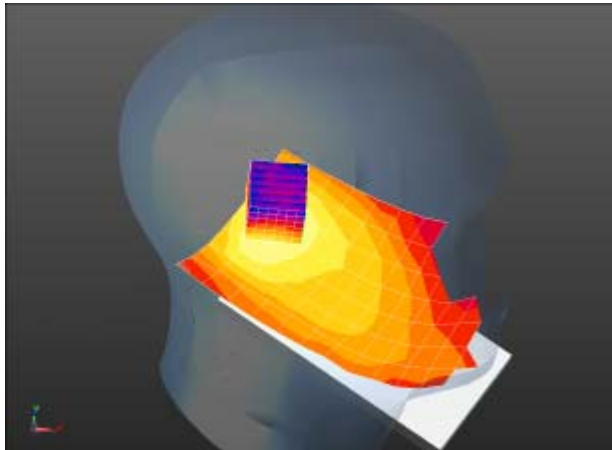
Wi-Fi (Head)

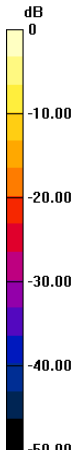
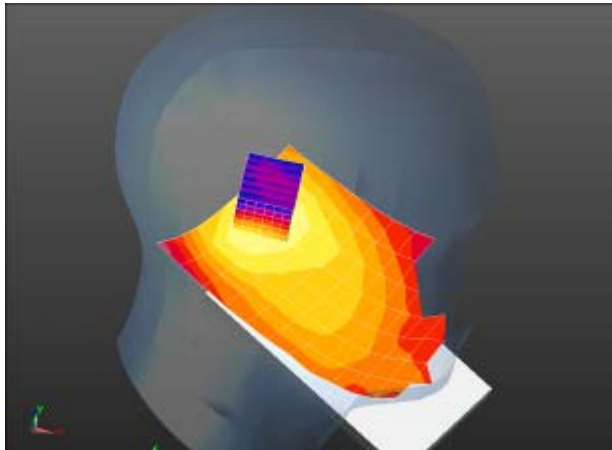
Left Side	Cheek	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.738$ S/m; $\epsilon_r = 39.289$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI touch L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0371 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.424 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.0920 W/kg SAR(1 g) = 0.042 W/kg; SAR(10 g) = 0.021 W/kg Maximum value of SAR (measured) = 0.0454 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0371 W/kg = -14.30 dBW/kg</p>		

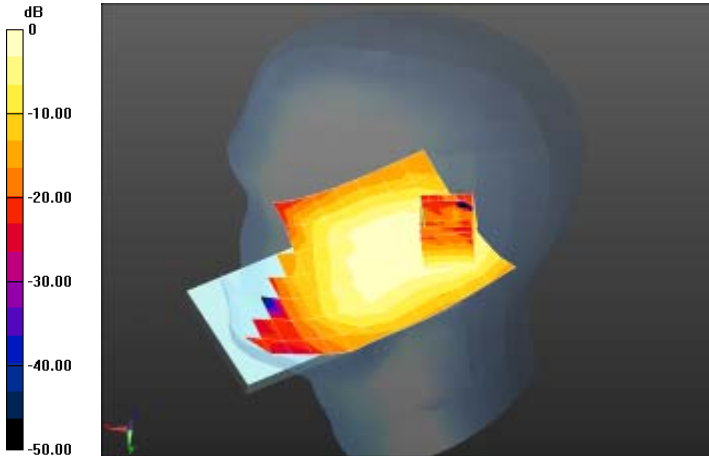
Left Side	Cheek	2437MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.782$ S/m; $\epsilon_r = 39.236$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0524 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.941 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.132 W/kg SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.030 W/kg Maximum value of SAR (measured) = 0.0668 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0524 W/kg = -12.81 dBW/kg</p>		

Left Side	Cheek	2462MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.17$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI touch H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0896 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.719 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.207 W/kg SAR(1 g) = 0.094 W/kg; SAR(10 g) = 0.046 W/kg Maximum value of SAR (measured) = 0.102 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0896 W/kg = -10.48 dBW/kg</p>		

Left Side	Tilt	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.738$ S/m; $\epsilon_r = 39.289$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI tilt L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0766 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.358 V/m; Power Drift = 0.16 dB Peak SAR (extrapolated) = 0.189 W/kg SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.037 W/kg Maximum value of SAR (measured) = 0.0890 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0766 W/kg = -11.16 dBW/kg</p>		

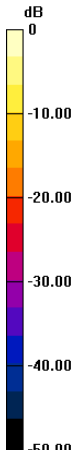
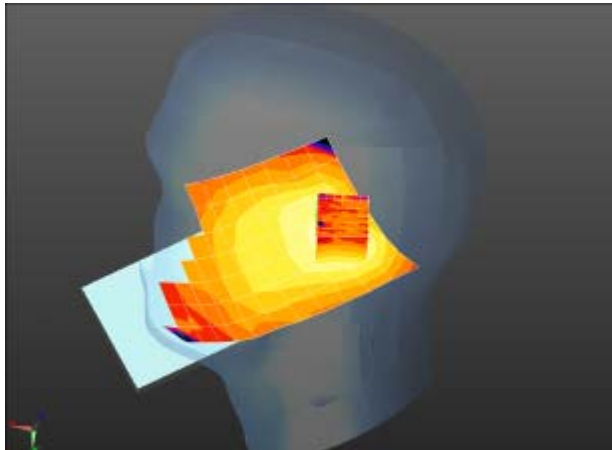
Left Side	Tilt	2437MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.782$ S/m; $\epsilon_r = 39.236$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.118 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.900 V/m; Power Drift = 0.15 dB Peak SAR (extrapolated) = 0.287 W/kg SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.055 W/kg Maximum value of SAR (measured) = 0.135 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.118 W/kg = -9.29 dBW/kg</p>		

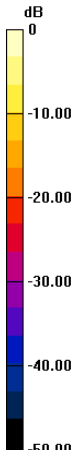
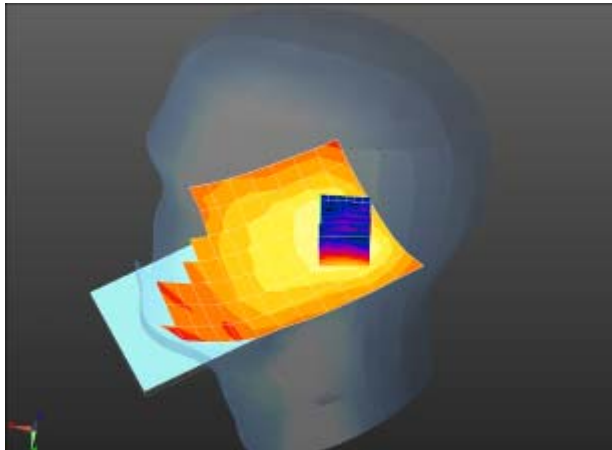
Left Side	Tilt	2462MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.17$; $\rho = 1000$ kg/m³ Phantom section: Left Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Left HSL WIFI/WIFI tilt H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.191 W/kg</p> <p>Head-Section Left HSL WIFI/WIFI tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.807 V/m; Power Drift = 0.03 dB Peak SAR (extrapolated) = 0.460 W/kg SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.086 W/kg Maximum value of SAR (measured) = 0.212 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.191 W/kg = -7.18 dBW/kg</p>		

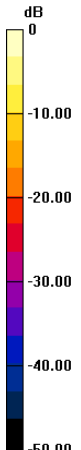
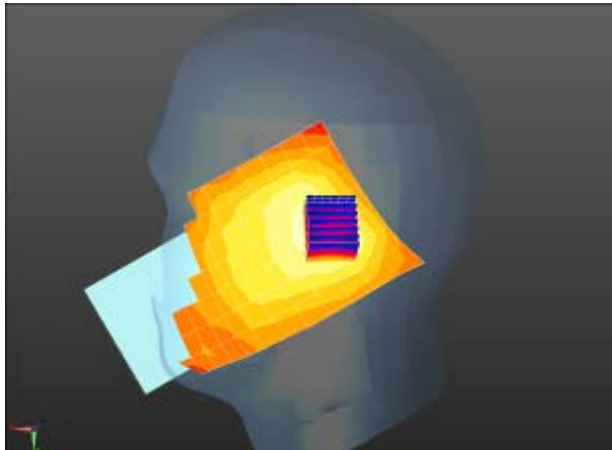
Right Side	Cheek	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.738$ S/m; $\epsilon_r = 39.289$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM00T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI touch L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0366 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI touch L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.552 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.0950 W/kg SAR(1 g) = 0.044 W/kg; SAR(10 g) = 0.021 W/kg Maximum value of SAR (measured) = 0.0484 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0366 W/kg = -14.37 dBW/kg</p>		

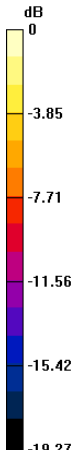
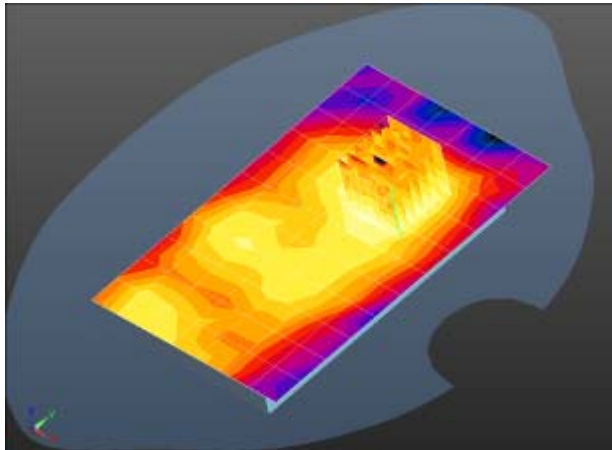
Right Side	Cheek	2437MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.782$ S/m; $\epsilon_r = 39.236$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM00T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI touch M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0593 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI touch M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.460 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 0.155 W/kg SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.036 W/kg Maximum value of SAR (measured) = 0.0822 W/kg</p> <div data-bbox="438 1288 1149 1742"> </div> <p>0 dB = 0.0593 W/kg = -12.27 dBW/kg</p>		

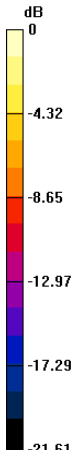
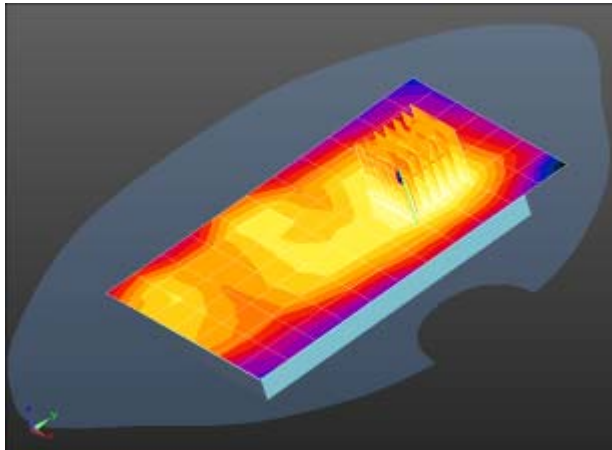
Right Side	Cheek	2462MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.17$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI touch H/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0785 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI touch H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.669 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 0.190 W/kg SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.043 W/kg Maximum value of SAR (measured) = 0.0997 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.0785 W/kg = -11.05 dBW/kg</p>		

Right Side	Tilt	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.738$ S/m; $\epsilon_r = 39.289$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI tilt L/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0525 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI tilt L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.349 V/m; Power Drift = 0.21 dB Peak SAR (extrapolated) = 0.136 W/kg SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.028 W/kg Maximum value of SAR (measured) = 0.0670 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0525 W/kg = -12.80 dBW/kg</p>		

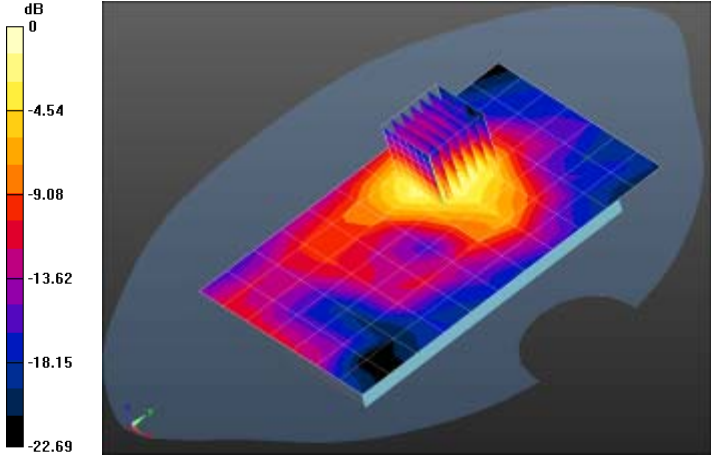
Right Side	Tilt	2437 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.782$ S/m; $\epsilon_r = 39.236$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI tilt M/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0925 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI tilt M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.732 V/m; Power Drift = -0.16 dB Peak SAR (extrapolated) = 0.194 W/kg SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.044 W/kg Maximum value of SAR (measured) = 0.102 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0925 W/kg = -10.34 dBW/kg</p>		

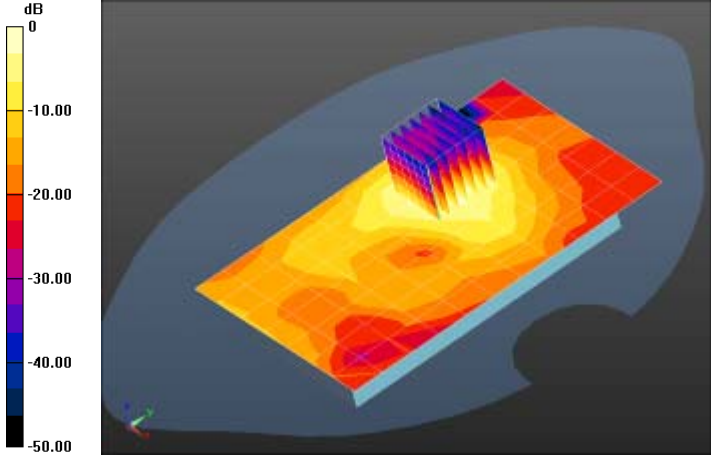
Right Side	Tilt	2462MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.791$ S/m; $\epsilon_r = 39.17$; $\rho = 1000$ kg/m³ Phantom section: Right Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.38, 4.38, 4.38); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Head-Section Right HSL WIFI/WIFI tilt H/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.109 W/kg</p> <p>Head-Section Right HSL WIFI/WIFI tilt H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.803 V/m; Power Drift = 0.11 dB Peak SAR (extrapolated) = 0.249 W/kg SAR(1 g) = 0.116 W/kg; SAR(10 g) = 0.055 W/kg Maximum value of SAR (measured) = 0.125 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.109 W/kg = -9.61 dBW/kg</p>		

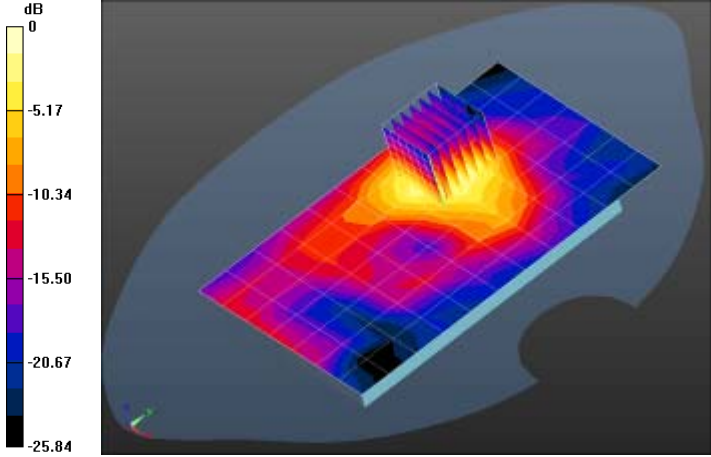
FLAT	Towards phantom	2412 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 51.714$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TP/WIFI TP L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0129 W/kg</p> <p>Flat-Section MSL WIFI TP/WIFI TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.504 V/m; Power Drift = 0.13 dB Peak SAR (extrapolated) = 0.0320 W/kg SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.00769 W/kg Maximum value of SAR (measured) = 0.0157 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0129 W/kg = -18.90 dBW/kg</p>		

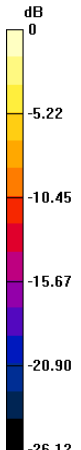
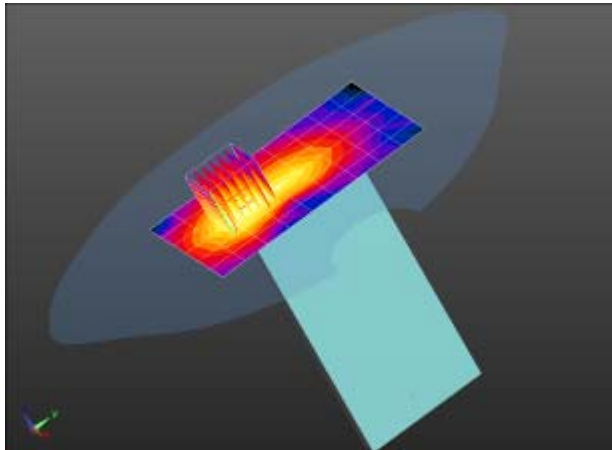
FLAT	Towards phantom	2437MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.955$ S/m; $\epsilon_r = 52.085$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TP/WIFI TP M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0341 W/kg</p> <p>Flat-Section MSL WIFI TP/WIFI TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.253 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.0650 W/kg SAR(1 g) = 0.033 W/kg; SAR(10 g) = 0.018 W/kg Maximum value of SAR (measured) = 0.0349 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0341 W/kg = -14.67 dBW/kg</p>		

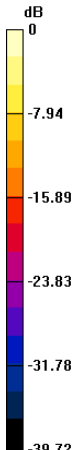
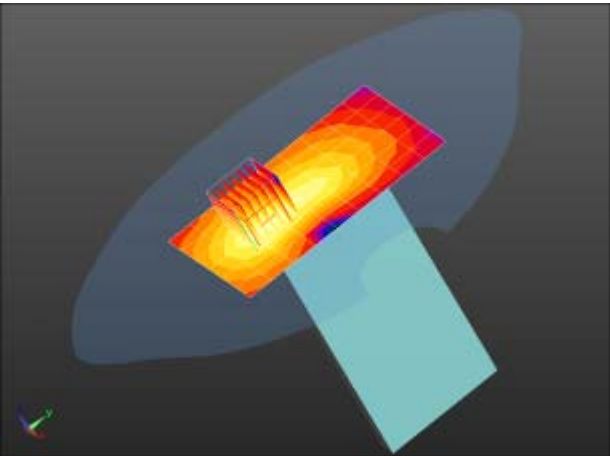
FLAT	Towards phantom	2462 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 51.852$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TP/WIFI TP H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0362 W/kg</p> <p>Flat-Section MSL WIFI TP/WIFI TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.325 V/m; Power Drift = 0.16 dB Peak SAR (extrapolated) = 0.0770 W/kg SAR(1 g) = 0.036 W/kg; SAR(10 g) = 0.019 W/kg Maximum value of SAR (measured) = 0.0382 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> <p>0 -3.95 -7.91 -11.86 -15.81 -19.77</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.0362 W/kg = -14.41 dBW/kg</p>		

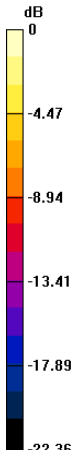
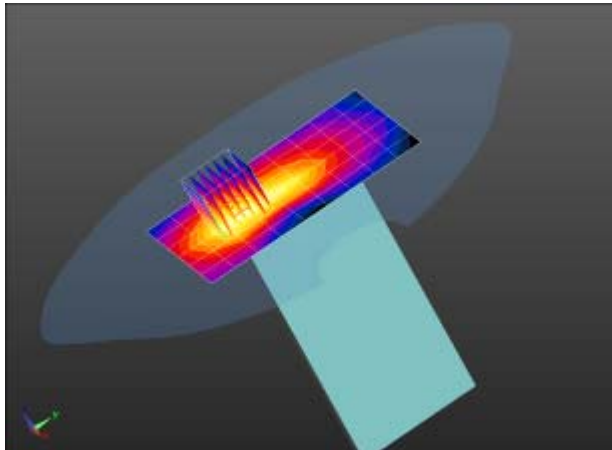
FLAT	Towards ground	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 51.714$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSLWIFI TG/WIF TG L/Area Scan (10x7x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0797 W/kg</p> <p>Flat-Section MSLWIFI TG/WIF TG L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.309 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 0.195 W/kg SAR(1 g) = 0.084 W/kg; SAR(10 g) = 0.039 W/kg Maximum value of SAR (measured) = 0.0925 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0797 W/kg = -10.99 dBW/kg</p>		

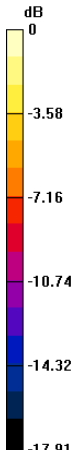
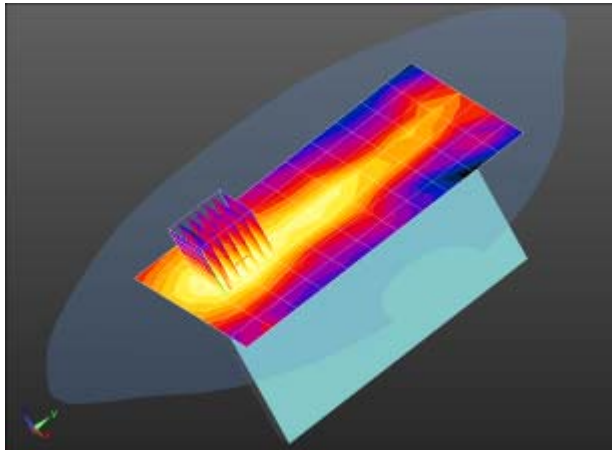
FLAT	Towards ground	2437MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz;Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.955$ S/m; $\epsilon_r = 52.085$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSLWIFI TG/WIF TG M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0942 W/kg</p> <p>Flat-Section MSLWIFI TG/WIF TG M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.467 V/m; Power Drift = 0.20 dB Peak SAR (extrapolated) = 0.220 W/kg SAR(1 g) = 0.091 W/kg; SAR(10 g) = 0.042 W/kg Maximum value of SAR (measured) = 0.0998 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.0942 W/kg = -10.26 dBW/kg</p>		

FLAT	Towards ground	2462MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 51.852$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSLWIFI TG/WIF TG H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.136 W/kg</p> <p>Flat-Section MSLWIFI TG/WIF TG H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 1.544 V/m; Power Drift = 0.17 dB Peak SAR (extrapolated) = 0.335 W/kg SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.062 W/kg Maximum value of SAR (measured) = 0.148 W/kg</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">0 dB = 0.136 W/kg = -8.68 dBW/kg</p>		

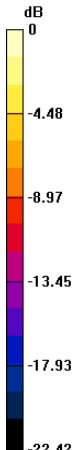
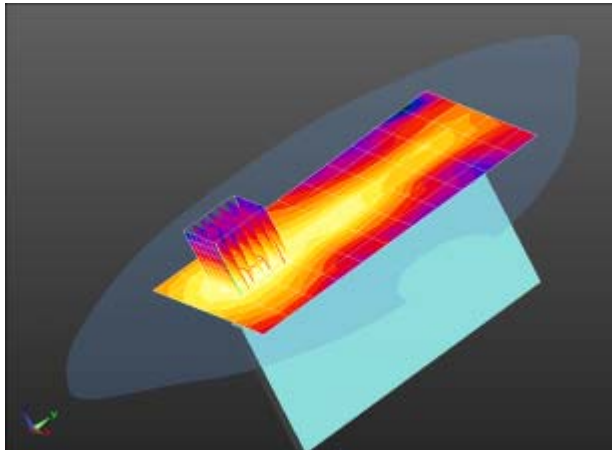
FLAT	Edge1	2412MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 51.714$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TOP/WIFI TP L/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0778 W/kg</p> <p>Flat-Section MSL WIFI TOP/WIFI TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 4.668 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.190 W/kg SAR(1 g) = 0.079 W/kg; SAR(10 g) = 0.033 W/kg Maximum value of SAR (measured) = 0.0874 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <p>dB 0 -5.22 -10.45 -15.67 -20.90 -26.12</p> </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0778 W/kg = -11.09 dBW/kg</p>		

FLAT	Edge1	2437 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.955$ S/m; $\epsilon_r = 52.085$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TOP/WIFI TP M/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.109 W/kg</p> <p>Flat-Section MSL WIFI TOP/WIFI TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 5.735 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.271 W/kg SAR(1 g) = 0.109 W/kg; SAR(10 g) = 0.046 W/kg Maximum value of SAR (measured) = 0.121 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  <p>0 -7.94 -15.89 -23.83 -31.78 -39.72</p> </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.109 W/kg = -9.64 dBW/kg</p>		

FLAT	Edge1	2462 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 51.852$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI TOP/WIFI TP H/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.148 W/kg</p> <p>Flat-Section MSL WIFI TOP/WIFI TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.082 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 0.362 W/kg SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.063 W/kg Maximum value of SAR (measured) = 0.163 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.148 W/kg = -8.30 dBW/kg</p>		

FLAT	Edge3	2412 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2412 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2412$ MHz; $\sigma = 1.919$ S/m; $\epsilon_r = 51.714$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI SIDE/WIFI TP L/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0172 W/kg</p> <p>Flat-Section MSL WIFI SIDE/WIFI TP L/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.641 V/m; Power Drift = -0.20 dB Peak SAR (extrapolated) = 0.0340 W/kg SAR(1 g) = 0.016 W/kg; SAR(10 g) = 0.00885 W/kg Maximum value of SAR (measured) = 0.0170 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p>  </div> <div>  </div> </div> <p style="text-align: center;">0 dB = 0.0172 W/kg = -17.64 dBW/kg</p>		

FLAT	Edge3	2437 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2437 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2437$ MHz; $\sigma = 1.955$ S/m; $\epsilon_r = 52.085$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; Sensor-Surface: 4mm (Mechanical Surface Detection) Electronics: DAE4 Sn546; Calibrated: 8/13/2013 Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI SIDE/WIFI TP M/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0190 W/kg</p> <p>Flat-Section MSL WIFI SIDE/WIFI TP M/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 2.693 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 0.0400 W/kg SAR(1 g) = 0.019 W/kg; SAR(10 g) = 0.010 W/kg Maximum value of SAR (measured) = 0.0201 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>dB</p> </div> <div> </div> </div> <p style="text-align: center;">0 dB = 0.0190 W/kg = -17.21 dBW/kg</p>		



FLAT	Edge3	2462 MHz
<p>Communication System: UID 0, Wifi 2450 (0); Frequency: 2462 MHz; Duty Cycle: 1:1 Medium parameters used (interpolated): $f = 2462$ MHz; $\sigma = 1.968$ S/m; $\epsilon_r = 51.852$; $\rho = 1000$ kg/m³ Phantom section: Flat Section</p> <p>DASY5 Configuration:</p> <ul style="list-style-type: none"> • Probe: ES3DV3 - SN3127; ConvF(4.07, 4.07, 4.07); Calibrated: 8/21/2013; • Sensor-Surface: 4mm (Mechanical Surface Detection) • Electronics: DAE4 Sn546; Calibrated: 8/13/2013 • Phantom: SAM 1560; Type: SM000T01CA; Serial: TP:1560 • Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164) <p>Flat-Section MSL WIFI SIDE/WIFI TP H/Area Scan (8x12x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 0.0289 W/kg</p> <p>Flat-Section MSL WIFI SIDE/WIFI TP H/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 3.248 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 0.0570 W/kg SAR(1 g) = 0.027 W/kg; SAR(10 g) = 0.015 W/kg Maximum value of SAR (measured) = 0.0300 W/kg</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="flex-grow: 1;">  </div> </div> <p style="text-align: center;">0 dB = 0.0289 W/kg = -15.39 dBW/kg</p>		

APPENDIX C: RELEVANT PAGES FROM PROBE CALIBRATION REPORT(S)

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

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

Client: **SRTC (PTT)**

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

Accreditation No.: **SCS 108**

Certificate No.: **ES3-3127_Aug13**

CALIBRATION CERTIFICATE

Object: **ES3DV3 - SN:3127**

Calibration procedure(s): **QA CAL-01.v9, QA CAL-12.v8, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes**

Calibration date: **August 21, 2013**

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



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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41293874	04-Apr-13 (No. 217-01733)	Apr-14
Power sensor E4412A	MY41498087	04-Apr-13 (No. 217-01733)	Apr-14
Reference 3 dB Attenuator	SN: S5054 (3c)	04-Apr-13 (No. 217-01737)	Apr-14
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-13 (No. 217-01735)	Apr-14
Reference 30 dB Attenuator	SN: S5129 (30b)	04-Apr-13 (No. 217-01738)	Apr-14
Reference Probe ES3CV2	SN: 3013	28-Dec-12 (No. ES3-3013_Dec12)	Dec-13
DAE4	SN: 660	31-Jan-13 (No. DAE4-660_Jan13)	Jan-14
Secondary Standards	ID	Check Date (in house)	Scheduled Check
RF generator HP 8649C	US3642U01700	4-Aug-99 (in house check Apr-13)	In house check: Apr-15
Network Analyzer HP 8753E	US37390585	16-Oct-01 (in house check Oct-12)	In house check: Oct-13

Calibrated by:

Approved by:

Name	Function	Signature
Jeton Kastrat	Laboratory Technician	
Katja Pokovic	Technical Manager	

Issued: August 21, 2013

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: ES3-3127_Aug13

Page 1 of 11

**Calibration Laboratory of
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S Servizio svizzero di taratura
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Accredited by the Swiss Accreditation Service (SAS)
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

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

Calibration is Performed According to the Following Standards:

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

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}:** Assessed for E-field polarization $\theta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}:** DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR:** PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}:** A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters:** Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy):** in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset:** The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

ES3DV3 – SN:3127

August 21, 2013

Probe ES3DV3

SN:3127

Manufactured: July 11, 2006
Calibrated: August 21, 2013

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

ES3DV3-SN:3127

August 21, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3127

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V/m})^2$) ^A	1.30	1.27	1.22	$\pm 10.1\%$
DCP (mV) ^B	100.8	99.1	100.7	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	159.5	$\pm 1.9\%$
		Y	0.0	0.0	1.0		151.6	
		Z	0.0	0.0	1.0		156.8	
10012-CAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	X	3.48	71.8	20.4	1.87	127.7	$\pm 0.7\%$
		Y	2.99	68.6	18.8		124.8	
		Z	3.48	71.7	20.3		125.6	
10032-CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	16.63	99.3	22.9	1.16	110.0	$\pm 1.7\%$
		Y	46.36	99.5	20.7		148.9	
		Z	66.77	99.8	19.8		149.9	
10100-CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	6.76	68.5	20.3	5.67	142.2	$\pm 1.2\%$
		Y	6.71	68.4	20.4		137.1	
		Z	6.76	68.5	20.3		140.0	
10108-CAB	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	6.68	68.2	20.3	5.80	140.3	$\pm 1.4\%$
		Y	6.64	68.2	20.4		136.0	
		Z	6.62	68.0	20.2		137.6	
10154-CAB	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	6.33	67.5	20.0	5.75	137.4	$\pm 1.2\%$
		Y	6.26	67.4	20.1		133.1	
		Z	6.26	67.4	19.9		133.7	
10169-CAB	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	5.13	66.8	19.8	5.73	119.7	$\pm 0.9\%$
		Y	5.09	66.7	19.9		116.9	
		Z	5.09	66.8	19.8		116.9	
10175-CAB	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	5.18	67.1	20.0	5.72	117.5	$\pm 1.2\%$
		Y	5.12	66.9	20.0		116.9	
		Z	5.05	66.7	19.7		116.9	
10297-AAA	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	6.84	68.0	20.2	5.81	138.2	$\pm 1.2\%$
		Y	6.70	68.3	20.5		136.9	
		Z	6.60	68.0	20.2		137.5	

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

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

^B Numerical linearization parameter: uncertainty not required.

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

ES3DV3- SN:3127

August 21, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3127

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^c	Relative Permittivity ^e	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
450	43.5	0.87	6.62	6.62	6.62	0.17	2.02	± 13.4 %
750	41.9	0.89	6.22	6.22	6.22	0.80	1.15	± 12.0 %
900	41.5	0.97	5.87	5.87	5.87	0.26	2.13	± 12.0 %
1810	40.0	1.40	5.01	5.01	5.01	0.69	1.29	± 12.0 %
2000	40.0	1.40	4.96	4.96	4.96	0.59	1.36	± 12.0 %
2450	39.2	1.80	4.36	4.38	4.38	0.80	1.24	± 12.0 %
2600	39.0	1.96	4.21	4.21	4.21	0.80	1.28	± 12.0 %

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

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

ES3DV3- SN:3127

August 21, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3127

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha	Depth (mm)	Unct. (k=2)
450	56.7	0.94	6.84	6.84	6.84	0.11	1.70	± 13.4 %
750	55.5	0.96	5.82	5.82	5.82	0.33	1.86	± 12.0 %
900	55.0	1.05	5.70	5.70	5.70	0.57	1.39	± 12.0 %
1810	53.3	1.52	4.61	4.61	4.61	0.39	1.81	± 12.0 %
2000	53.3	1.52	4.57	4.57	4.57	0.56	1.53	± 12.0 %
2450	52.7	1.95	4.07	4.07	4.07	0.80	1.13	± 12.0 %
2600	52.5	2.16	3.89	3.89	3.89	0.80	0.98	± 12.0 %

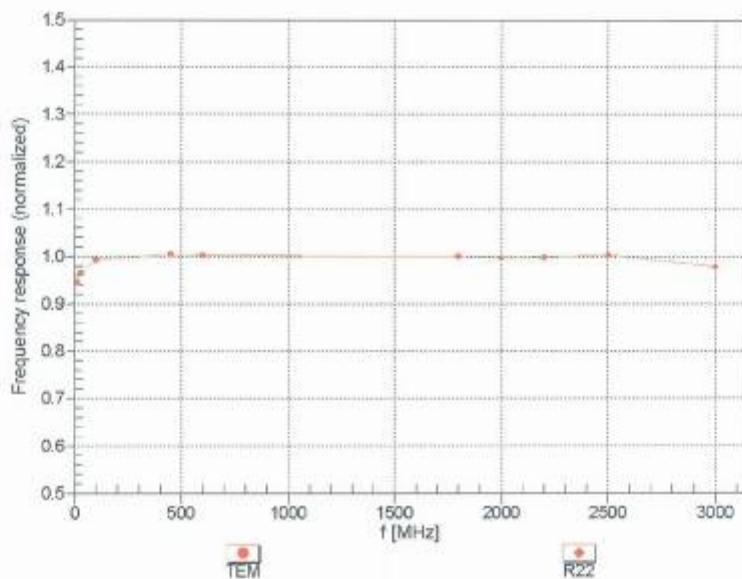
^C Frequency validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

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

ES3DV3- SN:3127

August 21, 2013

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



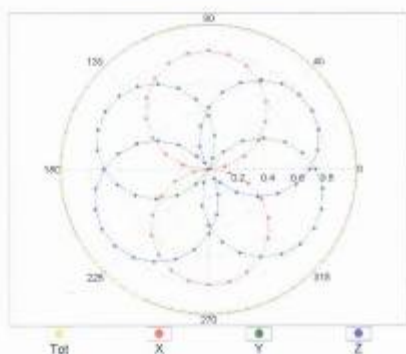
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

ES3DV3- SN:3127

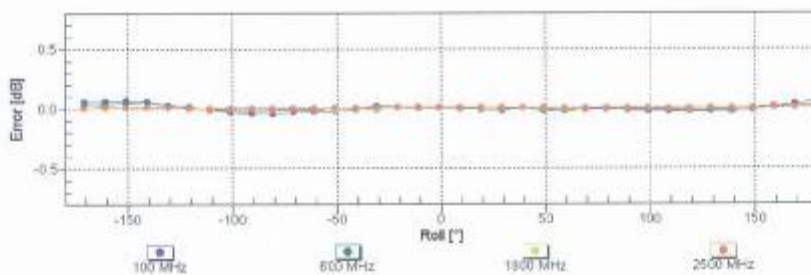
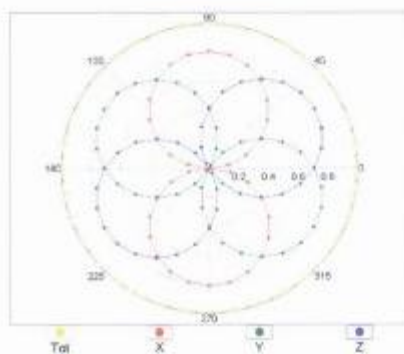
August 21, 2013

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

f=600 MHz,TEM



f=1800 MHz,R22

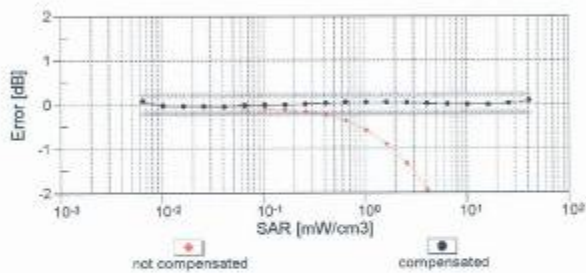
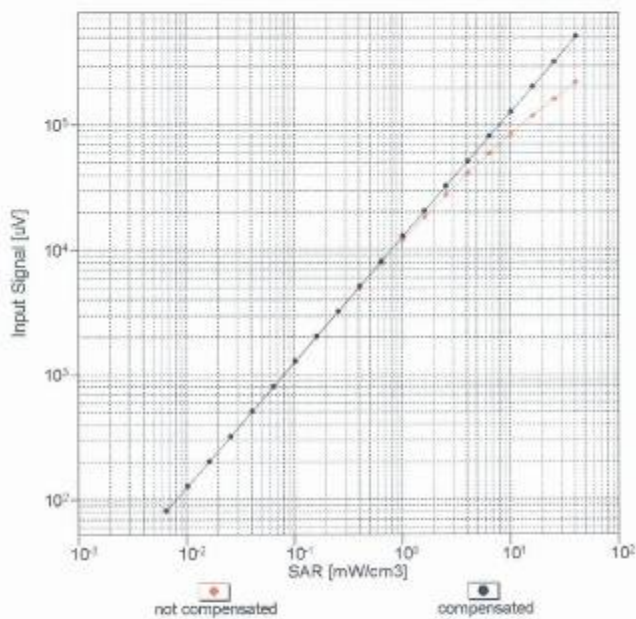


Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

ES30V3- SN:3127

August 21, 2013

Dynamic Range f(SAR_{head})
 (TEM cell , f = 900 MHz)

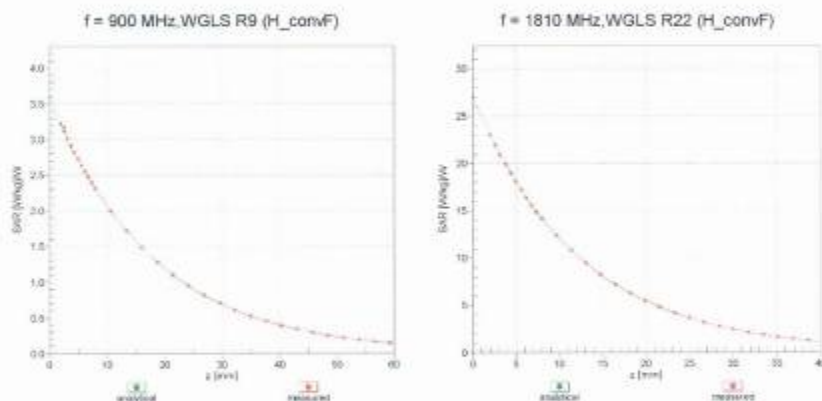


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

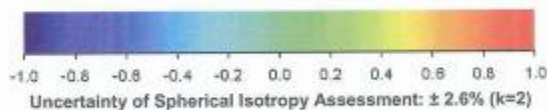
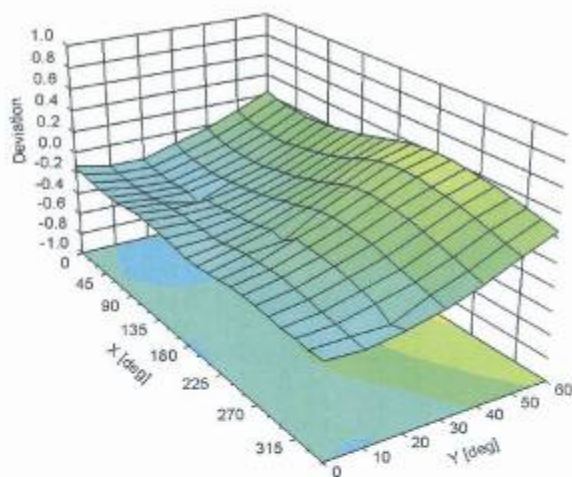
ES3DV3-SN:3127

August 21, 2013

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, θ), $f = 900$ MHz



ES3DV3- SN:3127

August 21, 2013

DASY/EASY - Parameters of Probe: ES3DV3 - SN:3127

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-20.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

APPENDIX D: RELEVANT PAGES FROM DAE REPORT(S)

Schmid & Partner Engineering AG **s p e a g**

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Phone +41 44 245 9700, Fax +41 44 245 9778
info@speg.com, http://www.speg.com

IMPORTANT NOTICE

USAGE OF THE DAE 4

The DAE unit is a delicate, high precision instrument and requires careful treatment by the user. There are no serviceable parts inside the DAE. Special attention shall be given to the following points:

Battery Exchange: The battery cover of the DAE4 unit is closed using a screw, over tightening the screw may cause the threads inside the DAE to wear out.

Shipping of the DAE: Before shipping the DAE to SPEAG for calibration, remove the batteries and pack the DAE in an antistatic bag. This antistatic bag shall then be packed into a larger box or container which protects the DAE from impacts during transportation. The package shall be marked to indicate that a fragile instrument is inside.

E-Stop Failures: Touch detection may be malfunctioning due to broken magnets in the E-stop. Rough handling of the E-stop may lead to damage of these magnets. Touch and collision errors are often caused by dust and dirt accumulated in the E-stop. To prevent E-stop failure, the customer shall always mount the probe to the DAE carefully and keep the DAE unit in a non-dusty environment if not used for measurements.

Repair: Minor repairs are performed at no extra cost during the annual calibration. However, SPEAG reserves the right to charge for any repair especially if rough unprofessional handling caused the defect.

DASY Configuration Files: Since the exact values of the DAE input resistances, as measured during the calibration procedure of a DAE unit, are not used by the DASY software, a nominal value of 200 MOhm is given in the corresponding configuration file.

Important Note:
Warranty and calibration is void if the DAE unit is disassembled partly or fully by the Customer.

Important Note:
Never attempt to grease or oil the E-stop assembly. Cleaning and readjusting of the E-stop assembly is allowed by certified SPEAG personnel only and is part of the annual calibration procedure.

Important Note:
To prevent damage of the DAE probe connector pins, use great care when installing the probe to the DAE. Carefully connect the probe with the connector notch oriented in the mating position. Avoid any rotational movement of the probe body versus the DAE while turning the locking nut of the connector. The same care shall be used when disconnecting the probe from the DAE.

Schmid & Partner Engineering
TN_BR040315AD DAE4.doc 11.12.2009

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



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client: **SRTC (PTT)**

Certificate No.: **DAE4-546_Aug13**

CALIBRATION CERTIFICATE

Object: **DAE4 - SD 000 D04 BJ - SN; 546**

Calibration procedure(s): **QA CAL-06.v26
Calibration procedure for the data acquisition electronics (DAE)**

Calibration date: **August 13, 2013**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Kethley Multimeter Type 2001	SN; 0810278	02-Oct-12 (No:12728)	Oct-13
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	07-Jan-13 (in house check)	In house check: Jan-14
Calibrator Box V2.1	SE UMS 008 AA 1002	07-Jan-13 (in house check)	In house check: Jan-14

	Name	Function	Signature
Calibrated by:	Eric Hainfeld	Technician	
Approved by:	Fin Bomholt	Deputy Technical Manager	

Issued: August 13, 2013

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Accreditation No.: **SCS 108**

Glossary

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- **DC Voltage Measurement:** Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- **Connector angle:** The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - **DC Voltage Measurement Linearity:** Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - **Common mode sensitivity:** Influence of a positive or negative common mode voltage on the differential measurement.
 - **Channel separation:** Influence of a voltage on the neighbor channels not subject to an input voltage.
 - **AD Converter Values with inputs shorted:** Values on the internal AD converter corresponding to zero input voltage
 - **Input Offset Measurement:** Output voltage and statistical results over a large number of zero voltage measurements.
 - **Input Offset Current:** Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - **Input resistance:** Typical value for information; DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - **Low Battery Alarm Voltage:** Typical value for information. Below this voltage, a battery alarm signal is generated.
 - **Power consumption:** Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal
 High Range: 1LSB = 6.1 μ V , full range = -100...+300 mV
 Low Range: 1LSB = 61nV , full range = -1.....+3mV
 DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	405.328 \pm 0.02% (k=2)	404.086 \pm 0.02% (k=2)	404.194 \pm 0.02% (k=2)
Low Range	3.98769 \pm 1.50% (k=2)	3.95711 \pm 1.50% (k=2)	3.97853 \pm 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	240.0 $^{\circ}$ \pm 1 $^{\circ}$
---	-------------------------------------

Appendix

1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	199990.29	-7.32	-0.00
Channel X + Input	19999.70	-1.11	-0.01
Channel X - Input	-19995.30	5.53	-0.03
Channel Y + Input	199995.55	-1.80	-0.00
Channel Y + Input	19998.41	-2.41	-0.01
Channel Y - Input	-20000.36	0.57	-0.00
Channel Z + Input	199994.26	-3.48	-0.00
Channel Z + Input	19997.97	-2.83	-0.01
Channel Z - Input	-20000.68	0.28	-0.00

Low Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	2000.85	-0.09	-0.00
Channel X + Input	201.93	0.64	0.32
Channel X - Input	-198.79	-0.22	0.11
Channel Y + Input	2000.76	-0.22	-0.01
Channel Y + Input	201.38	0.03	0.01
Channel Y - Input	-199.43	-0.79	0.40
Channel Z + Input	2000.70	-0.32	-0.02
Channel Z + Input	200.28	-0.98	-0.49
Channel Z - Input	-199.76	-1.10	0.55

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	1.78	-0.47
	-200	1.25	-0.47
Channel Y	200	-0.34	-0.32
	-200	-0.87	-1.34
Channel Z	200	1.69	1.71
	-200	-4.92	-4.44

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-2.82	-3.89
Channel Y	200	8.88	-	-0.80
Channel Z	200	4.65	7.29	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15841	16095
Channel Y	16161	15583
Channel Z	15907	16498

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.58	-0.74	1.64	0.39
Channel Y	-0.12	-1.00	0.71	0.38
Channel Z	-0.95	-1.81	-0.10	0.34

6. Input Offset Current

Nominal input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

APPENDIX E: RELEVANT PAGES FROM DIPOLE VALIDATION KIT REPORT(S)

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Accreditation No.: **SCS 108**

Client **SRTC (PTT)**

Certificate No: **D835V2-4d023_Oct13**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d023**

Calibration procedure(s) **QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz**

Calibration date: **October 22, 2013**

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

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

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	US37292783	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	MY41092317	09-Oct-13 (No. 217-01828)	Oct-14
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-13 (No. 217-01736)	Apr-14
Type-N mismatch combination	SN: 5047.3 / 06327	04-Apr-13 (No. 217-01739)	Apr-14
Reference Probe ES3DV3	SN: 3205	28-Dec-12 (No. ES3-3205_Dec12)	Dec-13
DAE4	SN: 601	25-Apr-13 (No. DAE4-601_Apr13)	Apr-14

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-13)	In house check: Oct-15
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-13)	In house check: Oct-14

Calibrated by:	Name Israe El-Naouq	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature

Issued: October 22, 2013

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Accreditation No.: **SCS 108**

Glossary:

TSL tissue simulating liquid
ConvF sensitivity in TSL / NORM x,y,z
N/A not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- c) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

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

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	41.2 \pm 6 %	0.93 mho/m \pm 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.43 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	9.47 W/kg \pm 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.57 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	6.15 W/kg \pm 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 \pm 0.2) °C	54.5 \pm 6 %	1.00 mho/m \pm 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.39 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	9.28 W/kg \pm 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.57 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	6.14 W/kg \pm 16.5 % (k=2)

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.8 Ω - 2.6 j Ω
Return Loss	- 28.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.5 Ω - 3.8 j Ω
Return Loss	- 27.7 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.390 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 17, 2004

DASY5 Validation Report for Head TSL

Date: 18.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d023

Communication System: UID 0 - CW; Frequency: 835 MHz

Medium parameters used: $f = 835$ MHz; $\sigma = 0.93$ S/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.05, 6.05, 6.05); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

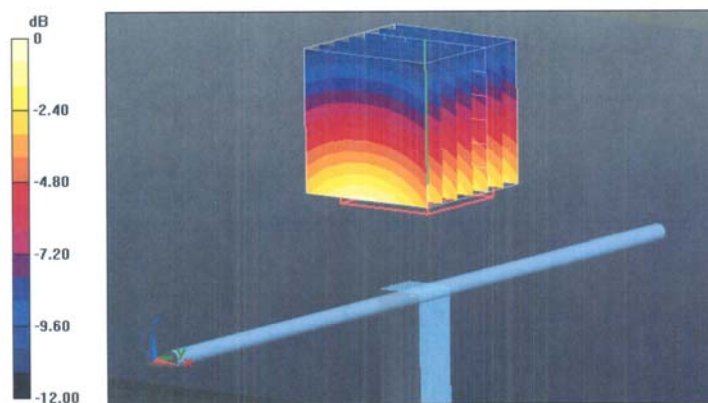
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57.083 V/m; Power Drift = 0.01 dB

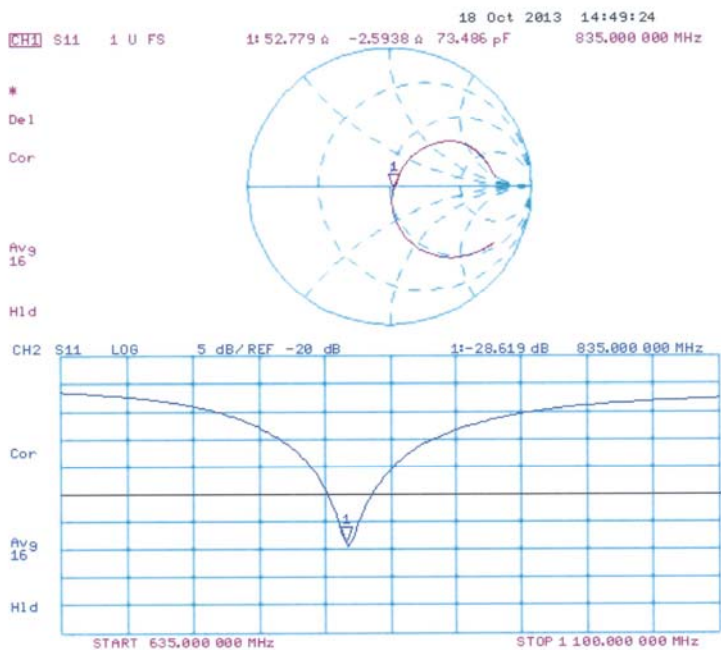
Peak SAR (extrapolated) = 3.67 W/kg

SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.57 W/kg

Maximum value of SAR (measured) = 2.84 W/kg



Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 22.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN: 4d023

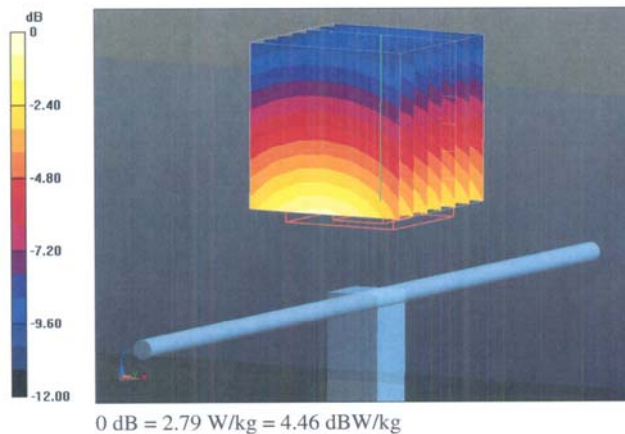
Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: $f = 835$ MHz; $\sigma = 1.005$ S/m; $\epsilon_r = 54.5$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

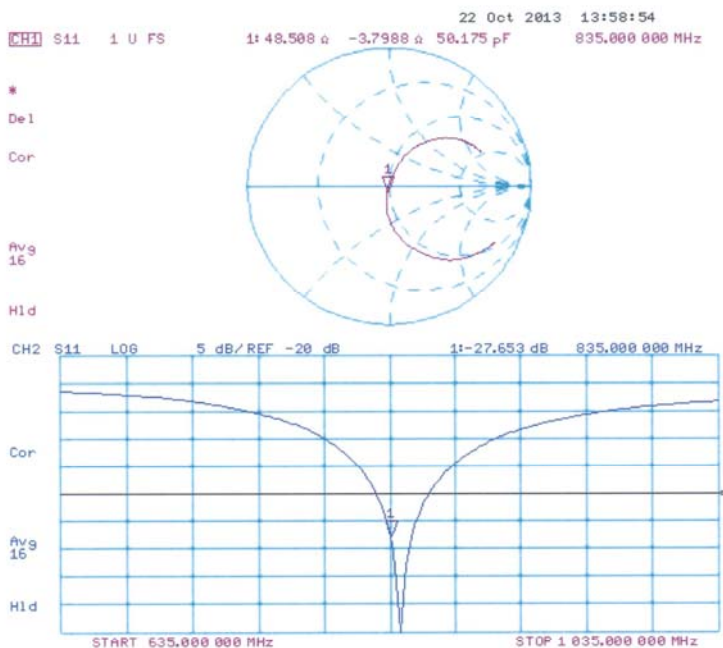
- Probe: ES3DV3 - SN3205; ConvF(6.04, 6.04, 6.04); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.083 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 3.52 W/kg
SAR(1 g) = 2.39 W/kg; SAR(10 g) = 1.57 W/kg
Maximum value of SAR (measured) = 2.79 W/kg



Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 108**

Client **SRTC (PTT)**

Certificate No: **D1900V2-5d113_Oct13**

CALIBRATION CERTIFICATE			
Object	D1900V2 - SN: 5d113		
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz		
Calibration date:	October 16, 2013		
<p>This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.</p> <p>Calibration Equipment used (M&TE critical for calibration)</p>			
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	US37292783	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	MY41092317	09-Oct-13 (No. 217-01828)	Oct-14
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-13 (No. 217-01736)	Apr-14
Type-N mismatch combination	SN: 5047.3 / 06327	04-Apr-13 (No. 217-01739)	Apr-14
Reference Probe ES3DV3	SN: 3205	28-Dec-12 (No. ES3-3205_Dec12)	Dec-13
DAE4	SN: 601	25-Apr-13 (No. DAE4-601_Apr13)	Apr-14
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-13)	In house check: Oct-15
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-13)	In house check: Oct-14
Calibrated by:	Name Claudio Leubler	Function Laboratory Technician	Signature
Approved by:	Name Katja Pokovic	Function Technical Manager	Signature
			Issued: October 16, 2013
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Certificate No: D1900V2-5d113_Oct13

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Accreditation No.: **SCS 108**

Glossary:

TSL tissue simulating liquid
ConvF sensitivity in TSL / NORM x,y,z
N/A not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.6 ± 6 %	1.37 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	40.4 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.27 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.2 W/kg ± 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.3 ± 6 %	1.49 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	10.1 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	40.9 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.37 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	21.6 W/kg ± 16.5 % (k=2)

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.8 Ω + 6.4 $j\Omega$
Return Loss	- 23.8 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.8 Ω + 6.7 $j\Omega$
Return Loss	- 22.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.199 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	July 24, 2009

DASY5 Validation Report for Head TSL

Date: 16.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d113

Communication System: UID 0 - CW ; Frequency: 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.37$ S/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.98, 4.98, 4.98); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

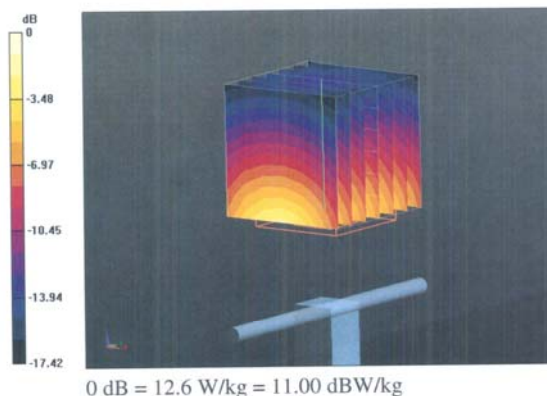
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.850 V/m; Power Drift = 0.03 dB

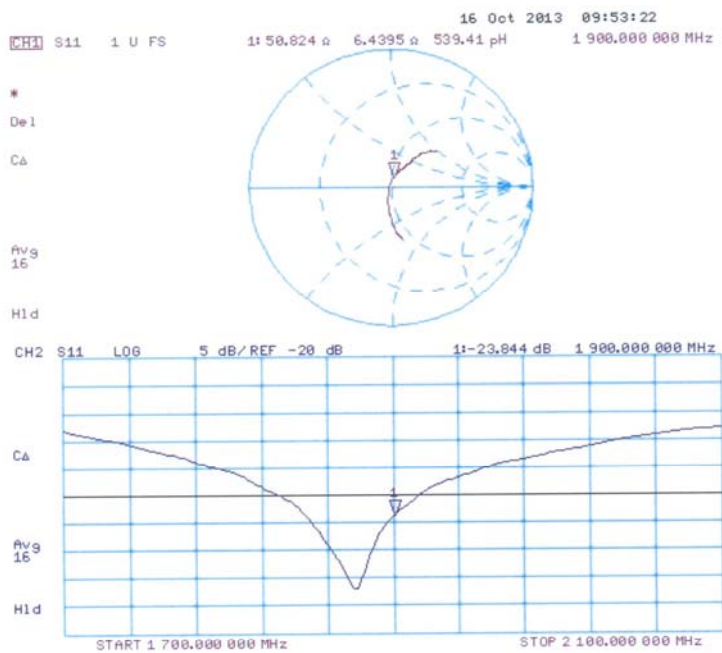
Peak SAR (extrapolated) = 18.1 W/kg

SAR(1 g) = 10 W/kg; SAR(10 g) = 5.27 W/kg

Maximum value of SAR (measured) = 12.6 W/kg



Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 16.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN: 5d113

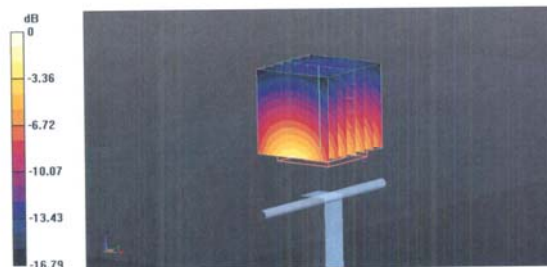
Communication System: UID 0 - CW ; Frequency: 1900 MHz
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.49$ S/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.6, 4.6, 4.6); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

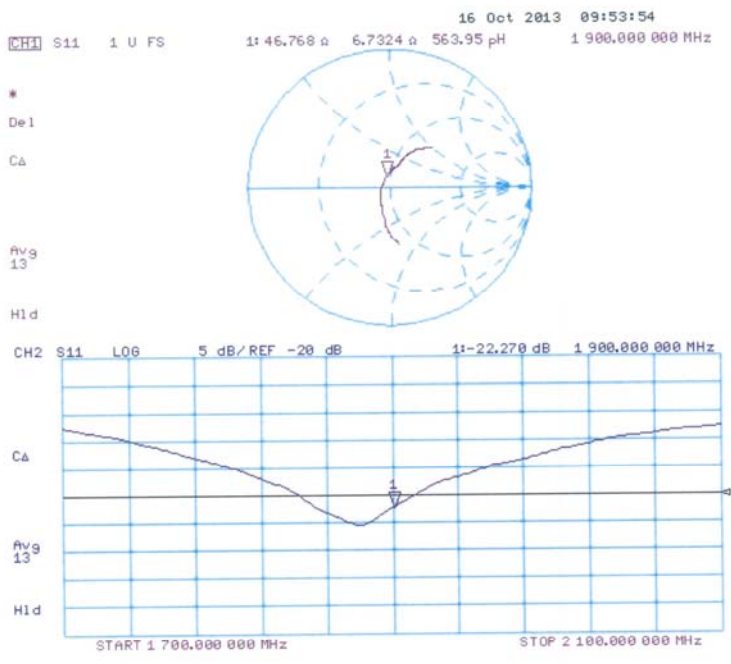
Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.823 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.37 W/kg
Maximum value of SAR (measured) = 12.8 W/kg



0 dB = 12.8 W/kg = 11.07 dBW/kg

Impedance Measurement Plot for Body TSL



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



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Client **SRTC (PTT)**

Certificate No: **D2450V2-738_Oct13**

CALIBRATION CERTIFICATE			
Object	D2450V2 - SN: 738		
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz		
Calibration date:	October 17, 2013		
<p>This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.</p> <p>All calibrations have been conducted in the closed laboratory facility; environment temperature (22 ± 3)°C and humidity < 70%.</p> <p>Calibration Equipment used (M&TE critical for calibration)</p>			
Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37490704	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	US37292783	09-Oct-13 (No. 217-01827)	Oct-14
Power sensor HP 8481A	MY41092317	09-Oct-13 (No. 217-01828)	Oct-14
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-13 (No. 217-01738)	Apr-14
Type-N mismatch combination	SN: 5047.3 / 06327	04-Apr-13 (No. 217-01739)	Apr-14
Reference Probe ESSDV3	SN: 3205	28-Dec-12 (No. ES3-3205_Dec12)	Dec-13
DAE4	SN: 601	25-Apr-13 (No. DAE4-601_Apr13)	Apr-14
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator R&S SMT-06	100006	04-Aug-09 (in house check Oct-13)	In house check: Oct-15
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-13)	In house check: Oct-14
Calibrated by:	Name Israie El-Nsouq	Function Laboratory Technician	Signature
Approved by:	Name Kalja Pokovic	Function Technical Manager	Signature
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			Issued: October 17, 2013

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



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

Accreditation No.: SCS 108

Glossary:

TSL tissue simulating liquid
ConvF sensitivity in TSL / NORM x,y,z
N/A not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:* SAR measured at the stated antenna input power.
- SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

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

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.6 ± 6 %	1.84 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.4 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	53.2 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ⁵ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.20 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.7 W/kg ± 16.5 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.1 ± 6 %	2.00 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm ³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.5 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	49.3 W/kg ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.75 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	22.8 W/kg ± 16.5 % (k=2)

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	52.9 Ω + 3.6 j Ω
Return Loss	- 27.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.8 Ω + 5.3 j Ω
Return Loss	- 25.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.155 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	August 26, 2003

DASY5 Validation Report for Head TSL

Date: 17.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 738

Communication System: UID 0 - CW; Frequency: 2450 MHz

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.84$ S/m; $\epsilon_r = 39.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.52, 4.52, 4.52); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

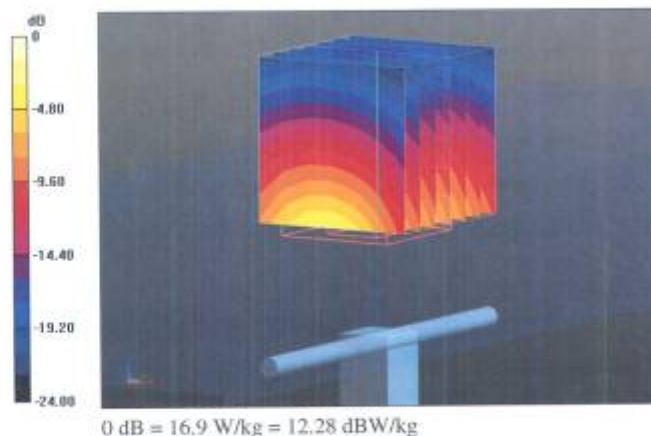
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.333 V/m; Power Drift = 0.04 dB

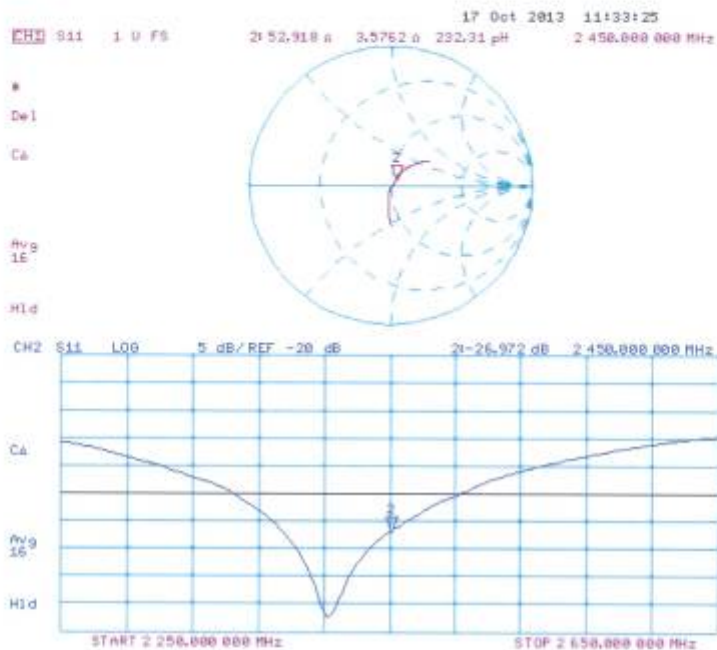
Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.2 W/kg

Maximum value of SAR (measured) = 16.9 W/kg



Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 17.10.2013

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 738

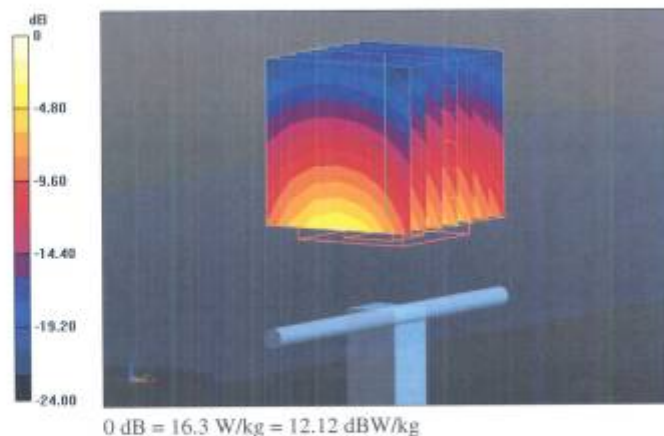
Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: $f = 2450$ MHz; $\sigma = 2$ S/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(4.42, 4.42, 4.42); Calibrated: 28.12.2012;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 25.04.2013
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.129 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 26.2 W/kg
SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.75 W/kg
Maximum value of SAR (measured) = 16.3 W/kg



Impedance Measurement Plot for Body TSL

